BID DOCUMENTS FOR:

MUSKEGON AREA ISD

MASS NOTIFICATION SYSTEM

DISTRICT WIDE

CRAIG CAMPUS

WESLEY SCHOOL

LAKESHORE LEARNING CENTER

CAREER TECH CENTER

CTC MAINTENANCE FACILITY

CONSTRUCTION HANDBOOK

A/E PROJECT 1593-25

CONCEPT DESIGN STUDIO

800 EAST ELLIS ROAD, SUITE #508

NORTON SHORES, MI 49441

PHONE: (231) 799-4838

Concept Design Studio
800 East Ellis Road, Suite #508, Norton Shores, MI 49441
PH: (231) 799-4838
FAX: (231) 799-4837

TABLE OF CONTENTS

Concept Design Studio
800 East Ellis Road, Suite #508, Norton Shores, MI 49441
PH: (231) 799-4838
FAX: (231) 799-4837

SCHEMATIC DRAWINGS

Craig Campus – 1580 Park Street, Muskegon, MI 49441

Wesley School – 915 E. Wesley Ave., Muskegon, MI 49442

Career Tech Center – 200 Harvey Street, Muskegon, MI 49442

Lakeshore Learning Center – 1001 Wesley Ave., Muskegon, MI 49442

CTC Classroom and Maintenance Facility – 1795 Stebbins Road, Muskegon, MI 49442

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 00 11 13
NOTICE TO BIDDERS

1 .1 NOTICE TO BIDDERS

A. Muskegon Area Intermediate School District (MAISD), Muskegon, Michigan, will receive proposals from qualified bidders for installation of a new Mass Notification System located in Craig Campus, Wesley School, Lakeshore Learning Center Career Tech Center and the CTC Maint. Facility, Muskegon, MI 49442.

B. The Owner will enter into one contract with the successful Bidder who will be fully responsible for all trades and for coordination of all required work between trades. It is the owner's goal to complete this project by March of 2026.

C. Proposals must be mailed or delivered in person to Mr. Michael Schluentz, Associate Superintendent, MAISD Administrative Offices, 684 Harvey Street, Suite 202, Muskegon, MI 49442; Phone: 231-777-2637. All proposals must be sealed in envelopes, plainly labeled "New Mass Notification System" and must be received prior to 2:00 P.M., local time, on Thursday, September 11th, 2025. Bids will be publicly opened @ the MAISD South Admin. offices, 684 Harvey Street, Muskegon, MI 49442 @ 2:00. Evaluation of proposals and award will be at a later date; the successful contractor will receive a letter of intent prior to receipt of contract.

D. A Pre-bid meeting will be held on August 21, 2025. Meeting to start @ the CTC @ 3:00. For additional access please contact Steve Fillmore, Maintenance Supervisor, for access to the building. (231) 767-3695.

E. The Schedule of Work shall be as follows:

August 21, 2025 @ 3:00	Pre-Bid Walk-thru
September 11th, 2025 at 2:00 PM	Bids Due
September 15th, 2025	Anticipated award of contract
September 22nd, 2025	Anticipated start of construction
March 15th,, 2026	Anticipated substantial Completion

F. All bidders are required to furnish Bid Security in the amount of five (5%) percent of the Base Bid. Form of the security may be a bid bond, certified or cashiers' check made payable to MAISD. This will be a guarantee that the bidder selected by the MAISD will furnish the required PLM Bonds; failure to do so could mean forfeiture of the Bid Security.

G. All bidders must indicate, where shown on the Proposal Form, the cost of Performance and Labor and Material Payment Bonds covering 100% of the value of the Project. Do not include the cost of the Bonds in the Base Bid.

H. All bids shall be accompanied by a sworn statement disclosing any familial relationship that exists between the owner(s) or any employee of the bidder and any member of the Board of Education of the School District or the Superintendent of the School District. The Board of Education shall not accept a bid that does not include a sworn and notarized familial relationship disclosure statement.

I. All bids shall be accompanied by Affidavit of Compliance – Iran Economic Sanctions Act in compliance with "Iran linked business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012. The Board of Education shall not accept a bid that does not include the Affidavit of Compliance.

J. Applicable Michigan use and sales tax apply to this project.

K. All bidders should note that this project is being funded with local resources and does not require prevailing wages.

L. All bidders to note this project occurs in (5) separate facilities and must be issue to the State as (5) separate projects, needing (5) separate permits and inspections.

M. Availability of Documents: Complete sets of documents may be obtained at the following address:

Ajax Imaging; 777 East Sherman Boulevard, Muskegon, MI 49444.

Drawings may be viewed at the Architects office.

Contact the Architect for digital files.

N. The Owner reserves the right to accept or reject any or all bids and to waive all irregularities in Proposals. Proposals shall remain firm for thirty (30) days from date of Bid Opening.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 00 22 13
SUPPLEMENTAL / SPECIAL CONDITIONS TO THE INSTRUCTIONS TO BIDDERS

THE FOLLOWING CONDITIONS AMEND, SUBTRACT OR ADD TO THE
INSTRUCTIONS TO BIDDERS, AIA DOCUMENT A-701, 1997 EDITION

ARTICLE 2

BIDDERS REPRESENTATIONS

2.1.4 DELETE the word “Bid” and INSERT therefore the words “Base Bid”.

ARTICLE 3

BIDDING DOCUMENTS

3.3 SUBSTITUTIONS

3.3.2 In the first sentence DELETE all the wording after the word “unless” and in the second sentence DELETE the first two words “Such requests”. INSERT the word “it” after “unless” and join the first two sentences together.

ARTICLE 4

BIDDING PROCEDURES

4.1 FORM AND STYLE OF BIDS

4.1.7 DELETE the words “Copy of the” after the first word “Each”. In the third sentence DELETE the word “copy” after the word “Each” and INSERT the word “Bid”.

ARTICLE 7

PERFORMANCE BOND AND PAYMENT BOND

7.1 BOND REQUIREMENTS

7.1.1 DELETE this paragraph and INSERT the following:

If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract. The Owner, subsequent to the award of contracts, shall reimburse the cost of their Bond Premiums to the Bidder upon submission of the Bidders premium cost invoice to the Owner. Bonds may be secured through the Bidder’s usual sources.

ADD the following paragraph:

7.1.4 The Owner reserves the right to waive bonds for any Contractor. All Bidders shall anticipate the need to provide bonds; however, the cost of these bonds shall **not** be included in the Base Bid.

11.3.7 THRU 11.3.10 DELETE these sections completely.

11.4.1 MODIFY as follows:

11.4.1 Each Contractor to whom awards are made and if required shall furnish a contract Performance Bond and Labor Material Payment Bond within ten (10) days after official notice of the contract by the Owner. Said contract Performance Bond shall be in the amount at least equal to one hundred percent (100%) of the contract price as security for:

1) The faithful performance of all provisions of the contract and the satisfactory completion of work included thereunder.
2) The payment of all persons performing labor and furnishing materials in connection with the contract.
3) The covering all guarantees included herein.

11.4.3 ADD the following:
The successful bidder must furnish a Labor and Material Payment Bond for the full amount (100%) of the contract with the same conditions as stated.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 00 24 12
PROPOSAL SECTION

ATTENTION ALL BIDDERS

A. MANDATORY INTERFACES

A.1 The scope of each contractor's work is defined in these specifications. Each sub-contractor shall familiarize himself with the requirements of those trades that interface with his own. He shall consider the fact that his work will interface with the work of another sub-contractors.

B. BIDDING AND AWARDS

B.1 All Contractors must submit their proposals on the form provided. Failure to do so will jeopardize the offerers chances of receiving an award.

C. ACCEPTANCE OR REJECTION OF BIDS

C.1 The bidder acknowledges the right of the Owner to accept or reject any and all bids and to waive any informality or irregularity in any bid received.

C.2 The bidder further represents that neither his Work nor the Work of other sub-contractors will be prejudiced because of sex, race, color, creed, or labor affiliation of other contractors under Contract to the Owner on this project.

D. PROMPTNESS OF EXECUTION

D.1 It is the intention of the Owner to complete the Project by March of 2026. Whereas varying conditions inherent to construction will vary the progress of the work, it is the intent of this contract that each sub-contractor maintain the progress at the quickest possible pace.

E. PAYMENT FOR STORED MATERIALS

E.1 As a means of offsetting escalation on short-lead items of material and equipment, and in the interest of obtaining good competitive bids, the Owner will provide payment for contract items stored off as well as on the site of the work. In order to qualify for payment, the material or equipment must be safely stored, protected and insured against loss or damage, inspected and dedicated to this Project only. Any extra cost of off-site storage is to be included in the proposal.

E.2 Materials stored within contract limits shall be in an area designated by the Owner. Materials or equipment lost through theft or mishandling shall be replaced by the contractor without cost to the Owner.

F. QUALITY CONTROL BY OWNER

F.1 The quality and completeness of the work is to be maintained on a day to day basis. Inaccurate, faulty, incomplete and defective work shall be corrected by the contractor as it is brought to his attention by the Owner's Representative. Failure to cooperate in this continuous punch list effect will affect completion percentages developed for Progress Payments. When your work is complete, request inspection.

G. CONTRACTOR QUALITY CONTROL

G.1 It is the intent that each sub-contractor be responsible for the quality of his workmanship within the requirements of the contract documents and within the context of the level of workmanship inherent to the industry. Every care shall be exercised to ensure that the quality specified is the quality provided.

G.2 If at any time a contractor is of the opinion that the quality of his work is, or will be, jeopardized as a result of the schedule or coordination of the Project, or for any other reason known to him, he shall immediately stop work and just as immediately inform the Owner of his action and reasons therefore. The contractor shall document his action and his reasons in writing on the same day his action took place, and submit it to the Owner for the record, with a copy sent to the Architect. Upon immediate investigation by the Owner and the Architect, a decision shall be made on the point of jeopardy, and the problem resolved in accordance with the intent of the contract documents.

H. LAYOUT AND MEASUREMENTS

I.1 The responsibility for all layout and measurements pertaining to the work of each sub-contractor is his own. Each sub-contractor shall verify the dimensional accuracy of the work his work is reliant upon. He shall report all inaccuracies to the Architect and not proceed until corrections are made. If a Contractor inadvertently or knowingly, proceeds with his work on dimensionally inaccurate work of another, he will be liable for the cost of all corrections to his work when the error is corrected. (Ref. Article 18 Supplemental General Conditions)

I. MANDATORY ATTENDANCE AT MEETINGS

I.1 It is the responsibility of each sub-contractor, under the terms of the contract, to attend Project and Progress Meetings as determined by the Owner. (Ref. Article 17 Supplemental General Conditions)

J. FINAL PUNCH LIST PROCEDURE

J.1 When the Primary Contractor's work is ninety-five percent (95%) complete, he will be provided with a blank Certificate of Substantial Completion, which he is to file with the Owner after proper certification by the A/E. A listing of work in need of correction and a list of incomplete items shall be attached to the Certificate when it is filed by the Contractor. The A/E shall have input to each list so as to insure their completeness.

J.2 The Primary Contractor will be allowed fifteen (15) days to complete the items on both of his lists beginning from the date stipulated on the Certificate of Substantial Completion. To insure this accomplishment, the Owner shall issue a letter to the General Contractor, on the date the Owner accepts the Substantial Completion status of each sub-contractor, and in accordance with Article 3.4 of the General Conditions of Contract, AIA Document A201.

J.3 The Primary Contractor shall begin completion and correction activities within seven (7) days of receipt of the letter and complete all activities within the fifteen (15) day period specified. Contractors failing to perform in accordance with these time parameters will be subject to the provisions of Article 3.4 and the work will be completed by others as provided.

K. PRE ON-SITE ACTIVITY MEETINGS

K.1 The Primary Contractor and sub-contractors are required to meet on the site with the Owner prior to beginning his work on site. The purpose of the meeting is to thoroughly review the intent of the contract documents. Attendance at the pre-construction meeting qualifies a Contractor for this requirement.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 00 24 13
DESCRIPTION OF WORK

1 DESCRIPTIONS

1 .1 CONTRACTOR

A. Work Included: See MAISD ENS Solution Requirements.
The contract of this work shall include all the labor, materials, and permits necessary and incidental to the complete installation, as specified herein for the New Mass Notification System located in the existing Craig Campus, Wesley School, Lakeshore Learning Center, Career Tech Center, and CTC Maintenance Facility, Muskegon, MI.

B. These facilities **will** be occupied during construction.

C. The contractor shall maintain proper barricades and other protection for the public.

D. The Contractor shall provide, a full-time field superintendent acceptable to the Owner, and coordinate the work and all other Sub-trades.

E. Building Layout: It shall be the responsibility of the Contractor to have the building laid out, establishing all lines and grades and maintaining a check on the same throughout construction. Contractors shall be responsible for maintaining all elevations in relation to existing finish floor elevations as set by this Contractor.

F. Guarantee and Waiver of Lien:

1. All work shall be guaranteed for one year from date of acceptance, unless specifically required for a longer guarantee, during which time any imperfections or failure of products, which may develop in workmanship or materials shall be made good without cost to the Owner.
2. When required for payment or closing out of contract, guarantees and waivers of liens shall be provided by contractors, sub-contractor and materials suppliers.

G. Permits:

1. The Permits required for the Proposed Project will be obtained from the State of Michigan Bureau of Fire Services and the City of Muskegon. See attached letter granting Safebuilt authority from the State of Michigan bureau of Construction codes to review MAISD projects. Each Facility will require separate permits and will be submitted as a separate project.
2. The Contractor shall be responsible for any additional permits required by the City of Muskegon or Muskegon County, Michigan.
3. The Contractor is also responsible to pay for any and all fees in connection with the required permits and permit applications.
4. Permits are required for, but not limited to, the following:
    a. Building and Electrical.

H. Bonding & Licensing: The Primary Contractor and Sub-Contractors are required to comply with the City of Muskegon requirements for Bonding, Insurance and Licensing before commencement of any and all work.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 00 41 00
PROPOSAL FORM

PROPOSAL DUE

(September 11th, 2025 at 2:00 P.M., Local Time)

The **CONTRACTOR PROPOSAL** shall include and cover ALL CONSTRUCTION TRADES, including but not limited to; Mass Notification System and Electrical trades, as well as being responsible for all coordination between trades.

_____

Please indicate Company name above.

PROJECT: "New MAISD Mass Notification System located in 'Craig Campus, Wesley School, Lakeshore Learning Center, Career Tech Center and CTC Maintenance Facility, Muskegon, MI"

TO: Muskegon Area ISD
684 Harvey Street
Suite 202
Muskegon, MI 49442

ATTN: Michael Schluentz

The undersigned represents that they have:

A. Familiarized themselves with the local conditions affecting the cost of the work and with the Contract Documents, including Instructions to Bidders; Proposal Section; General, Supplementary and Special Conditions; etc., Drawings, Specifications and any Addenda issued and on file at the office of Concept Design Studio, Inc. 800 E. Ellis Road, Suite 508, Norton Shores, MI 49441, and hereby proposes to perform everything required to provide and furnish all labor, materials, necessary tools, expendable equipment, and all utility and transportation services, etc., necessary to perform and complete in a workmanlike manner all of the Work required for the Mass Notification System located in the (5) Buildings identified above in Muskegon, MI.

B. in accordance with the Contract Documents, including Addenda No. ,_____,_____.

C. Included with this proposal a Bid Bond, Certified or Cashier's Check in the amount of five (5) percent or_____dollars ($_____).

D. Reviewed the Work fully understands the scope of the work required by interfacing Sub-Contractors as well as that required by the Contractor, all of which is covered in this Proposal.

E. Agreed that their proposal, if accepted by the Owner, will be the basis for a contract directly with the Owner and to enter into such contract in accordance with the Intent of the Contract Documents.

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

BASE BID

The work described and specified shall be performed for the following Lump Sum, such amount constituting the Base Bid:

_____dollars ($_____)
(amount of bid)

Number of days or date of Substantial Completion _____days or by _____

PLM BOND

The cost for the Performance Bond and Labor and Material Payment Bond for the Base Bid Work shall be _____dollars ($_____) in addition to the Base Bid cost.

VOLUNTARY ALTERNATES

It is understood that if the following voluntary alternates are accepted, the base bid proposal will be adjusted accordingly:

ITEM DESCRIPTION (Note Add or Deduct)

NO. 1:_____

_____

_____

NO. 2:_____

_____

_____

NO. 3:_____

_____

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

AGREEMENT

In submitting this bid, it is understood that the right is reserved by the Owner to reject any or all bids. It is agreed that this bid is binding for a period of thirty (30) - days from the opening thereof.

Date _____

COMPANY NAME _____

ADDRESS _____

_____

PHONE _____

BY _____
(Signature)

_____
(Type or Print)

TITLE _____

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

AFFIDAVIT OF BIDDER

The undersigned, the owner or authorized officer of_____ (the "Bidder"), pursuant to the familial disclosure requirement provided in the Muskegon Area ISD (the "School District") advertisement for construction bids, hereby represent and warrant, except as provided below, that no familial relationships exist between the owner(s) or any employee of_____ and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

BIDDER:

_____

By: _____

Its: _____

STATE OF MICHIGAN)
)ss.
COUNTY OF_____)

This instrument was acknowledged before me on the_____day of_____, 2025, by_____.

_____
, Notary Public

_____County, Michigan

My Commission Expires: _____

Acting in the County of: _____

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT

Michigan Public Act No. 517 of 2012

The undersigned, the owner or authorized officer of_____ (the "Bidder"), pursuant to the compliance certification requirement provided in the **Muskegon Area ISD** (the "School District") Request For Proposals For a **New Mass Notification System** hereby certifies, represents and warrants that the Bidder (including its officers, directors and employees) is not an "Iran linked business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event Bidder is awarded a contract / purchase order as a result of the aforementioned Request For Proposal, the Bidder will not become an "Iran linked business" at any time during the course of performing the Work or any services under the contract.

The Bidder further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than $250,000.00 or 2 times the amount of the contract/purchase order or proposed contract for which the false certification was made, whichever is greater, the cost of the School District's investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date it is determined that the person has submitted the false certification.

BIDDER:

_____

By: _____

Its: _____

Date: _____

STATE OF_____)
)ss.
COUNTY OF_____)

This instrument was acknowledged before me on the_____day of_____, 2025, by_____.

_____
, Notary Public

_____County, Michigan

My Commission Expires: _____

Acting in the County of: _____

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 01 33 00
SUBMITTALS AND SUBSTITUTIONS

1 GENERAL

1 .1 DESCRIPTION

A. Work Included:

1. Wherever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined by manufacturer's name and catalog number, reference to recognized industry and government standards, or description of required attributes and performance.
2. To ensure that the specified products are furnished and installed in accordance with design intent, procedures have been established for advance submittal of design data and for their review by the Architect/Engineer.
3. Make all submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

B. Related Work Described Elsewhere: Individual requirements for submittals are described in other pertinent Sections of these Specifications.

1 .2 QUALITY ASSURANCE

A. Coordination of Submittals: Prior to each submittal, carefully review and coordinate all aspects of each item being submitted and verify that each item and the submittal conforms in all respects with the requirements of the Contract Documents. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed.

B. Certificates of Compliance:

1. Certify that all materials used in the work comply with all specified provisions thereof. Certification shall not be construed as relieving the Contractor from furnishing satisfactory materials if, after tests are performed on selected samples, the material is found not to meet specified requirements.
2. Show on each certification the name and location of the work, name and address of contractor, quantity and date or dates of shipment or delivery to which the certificate applies, and name of the manufacturing or fabricating company. Certification shall be in the form of letter or company-standard forms containing all required data. Certificates shall be signed by an officer of the manufacturing or fabricating company.
3. In addition to the above information, all laboratory test reports submitted with Certificates of Compliance shall show the date or dates of testing, the specified requirements for which testing was performed, and results of the test or tests.

1 .3 SUBMITTALS

A. Certificates of Compliance: Upon completion of the work, and as a condition of its acceptance, submit to the Architect/Engineer all Certificates of Compliance.

B. Make all submittals of Shop Drawings, Samples, requests for substitution, and other items, in strict accordance with this Section.

2 PRODUCTS

2 .1 SUBMITTAL SCHEDULE

A. General: Compile a complete and comprehensive schedule of all submittals anticipated to be made during progress of the work. Include a list of each type of item for which Contractor's Drawings, Shop Drawings, Certificates of Compliance, material samples, guarantees, or other types of submittals are required. Upon approval by the Architect/Engineer this schedule will become part of the Contract and the Contractor will be required to adhere to the schedule except when specifically otherwise permitted.

B. Coordination: Coordinate the schedule with all necessary subcontractors and materials suppliers to ensure their understanding of the importance of adhering to the approved schedule and their ability to so adhere. Coordinate as required to ensure the grouping of submittals as described in Paragraph 3.2 below.

2 .2 SHOP DRAWINGS

All Shop Drawings, except color selection samples (see below), shall be submitted electronically.

A. Scale and measurements: Make all Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the work.

B. **Electronic File submittal**: Files shall meet the following guidelines:

1. Submittals made electronically will be sent back electronically to the address sent from.
2. Only .PDF's will be accepted and must be unlocked and printable.
3. E-mail file attachments shall not exceed a total of 10MB.
4. Acceptable Sizes: 8-1/2 x 11, 11 x 17, 24 x 36, or 30 x 42. All other sizes or file formats will be rejected.
5. Architect will not be responsible for e-mails that are rejected or fail to be received for any reason. File should be sent with "Return Receipt Notification".

C. Review of Shop Drawings: Distribution of processed Shop Drawings for the Architect/ Engineer's use will be by the Architect/Engineer. All processed notations of the Architect/ Engineer will be shown on the drawing(s) when it is returned to the Contractor. The Contractor shall distribute all copies required for his purposes.

2 .3 MANUFACTURER'S LITERATURE

A. General: Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly indicate which portion of the contents is being submitted for review.

B. Number of Copies Required: Submit the number of copies which are required to be returned plus two (2) copies which will be retained by the Architect/Engineer.

2 .4 SAMPLES

A. Accuracy of Samples: Samples shall be of the precise article proposed to be furnished.

B. Number of samples required: Unless otherwise specified, submit all Samples in the quantity which is required to be returned plus one which will be retained by the Architect/Engineer.

C. Samples Submission Process: All physical samples must be submitted along with a full color electronic scan of the sample for processing and recording purposes. Electronic scan shall be submitted in accordance with Paragraph 2.2/B (above).

D. Reuse of Samples: In situations specifically so approved by the Architect/Engineer, the Architect/Engineer's retained sample may be used in the construction as one of the installed items.

2 .5 COLORS AND PATTERNS

Unless the precise color and pattern is specifically described in the Contract Documents, and whenever a choice of color or pattern is available in a specified product, submit accurate color and pattern physical samples to the Architect/Engineer for review and selection.

2 .6 SUBSTITUTIONS

A. Approval Required:

1. The Contract is based on the standards of quality established in the Contract Documents.
2. All products proposed for use, including those specified by required attributes and performance, shall require approval by the Architect/Engineer before being incorporated into the work.
3. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved for this work by the Architect/Engineer.
4. Request for approval shall be submitted to the Architect a minimum of 10 days prior to bid date.

B. “Or Equal”:

1. Where the phrase “or equal” or “or equal as approved by the Architect/Engineer”, occurs in the Contract Documents, do not assume that materials, equipment, or methods will be approved as equal unless the item has been specifically approved for this work by the Architect/Engineer.
2. The decision of the Architect/Engineer shall be final.
3. Request for approval shall be submitted to the Architect a minimum of 10 days prior to bid date.

3 EXECUTION

3 .1 IDENTIFICATION OF SUBMITTALS

A. General: Consecutively number all submittals. Accompany each submittal with a Letter of Transmittal containing all pertinent information required for identification and checking of submittals.

B. Internal Identification: On at least the first page of each copy of each submittal, and elsewhere as required for positive identification, clearly indicate the submittal number in which the item was included.

C. Resubmittals When material is resubmitted for any reason, transmit under a new Letter of Transmittal and with a new submittal number.

D. Submittal Log: Maintain an accurate submittal log for the duration of the Contract, showing current status of all submittals at all times. Make the submittal log available for the Architect/ Engineer’s review upon request.

3 .2 COORDINATION OF SUBMITTALS

A. General: Prior to submittal for approval, use all means necessary to fully coordinate all material including, but not necessarily limited to:

1. Determine and verify all interface conditions, catalog numbers, and similar data.
2. Coordinate with other trades as required.
3. Clearly indicate all deviations from requirements of the Contract Documents.

B. Grouping of Submittals: Unless otherwise specified, make all submittals in groups containing all associated items to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying with the provisions of the Contract Documents and the Contractor shall be strictly liable for all delays so occasioned.

3 .3 TIMING OF SUBMITTALS

A. General: Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.

B. Authority to Proceed: The notations “Processed”, or “Processed with Notations”, authorize the Contractor to proceed with fabrication, purchase, or both, of the items so noted, subject to the revisions, if any, required by the Architect/Engineer’s review comments.

C. Revisions: Make all revisions required by the Architect/Engineer. If the Contractor considers any required revision to be a change, he shall so notify the Architect/Engineer as provided for under “Changes” in the General Conditions. Show each drawing revision by number, date, and subject in a revision block on the drawing. Make only those revisions directed or approved by the Architect/Engineer.

D. Revisions After Approval: When a submittal has been reviewed by the Architect/Engineer, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 01 40 00
QUALITY REQUIREMENTS

1 GENERAL

1 .1 SECTION INCLUDES

A. References and standards.

B. Quality assurance submittals.

C. Control of installation.

D. Testing and inspection services.

1 .2 REFERENCE STANDARDS

A. ASTM C 1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008.

B. ASTM C 1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation; 2008.

C. ASTM C 1093 - Standard Practice for Accreditation of Testing Agencies for Masonry; 2008.

D. ASTM D 3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2008.

E. ASTM E 329 - Standard Specification for Agencies Engaged Construction Inspection and/or Testing; 2008.

F. ASTM E 543 - Standard Specification for Agencies Performing Nondestructive Testing; 2008a.

1 .3 SUBMITTALS

A. Testing Agency Qualifications: Prior to start of Work, submit agency name, address, and telephone number, and names of full time specialist and responsible officer.

B. Test Reports: After each test/inspection, promptly submit one copy each of report directly to Architect/Engineer and directly to Contractor.

1. Include:

a. Date issued.

b. Project title and number.

c. Name of inspector.

d. Date and time of sampling or inspection.

e. Identification of product and specifications section.

f. Location in the Project.

g. Type of test/inspection.

h. Date of test/inspection.

i. Results of test/inspection.

j. Conformance with Contract Documents.

k. When requested by Architect/Engineer, provide interpretation of results.

2. Test report submittals are for Architect/Engineer's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's information.

1 .4 REFERENCES AND STANDARDS

A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Conform to current reference standard at date of issue of contract documents or date specified in the individual specification sections, except where a specific date is established by applicable code.

C. Obtain copies of standards where required by product specification sections.

D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.

E. Should specified reference standards conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.

F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect/Engineer shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1 .5 TESTING AND INSPECTION AGENCIES

A. Contractor Employed Agency:

1. Testing agency: Comply with requirements of ASTM E 329, ASTM E 543, ASTM C 1021, ASTM C 1077, and ASTM C 1093.
2. Inspection agency: Comply with requirements of ASTM D3740 and ASTM E329.
    a. Personnel performing visual weld inspection shall have certification as an ASW Certified Welding Inspectors (CWI) in accordance with the provisions of AWS QC1.
    b. Personnel performing nondestructive testing other than visual shall be qualified as NDT Level II technicians in accordance with ASNT Recommended Practice No. SNT-TC-1A. Inspection agency shall provide testing procedures used.
3. Laboratory: Authorized to operate in Michigan.
4. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.
5. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.

B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

2 EXECUTION

2 .1 CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.

D. Verify compliance with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Verify Work is being performed by persons qualified to produce required and specified quality.

F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.

2 .2 TESTING AND INSPECTION

A. See individual specification sections and Related Requirements listed above for testing and inspection required.

B. Testing Agency Duties:

1. Test samples of mixes submitted by Contractor.
2. Provide qualified personnel at site. Cooperate with Architect/Engineer and Contractor in performance of services.
3. Perform specified sampling and testing of products in accordance with specified standards.
4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
5. Promptly notify Architect/Engineer and Contractor of observed irregularities or non-conformance of Work or products.
6. Perform additional tests and inspections required by Architect/Engineer.
7. Attend preconstruction meetings.
8. Test Reports: After each test/inspection, promptly submit one copy each of report directly to Architect/Engineer and directly to Contractor.

C. Limits on Testing/Inspection Agency Authority:

1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency may not approve or accept any portion of the Work.
3. Agency may not assume any duties of Contractor.

D. Contractor Responsibilities:

1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
3. Provide incidental labor and facilities:
    a. To provide access to Work to be tested/inspected.
    b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
    c. To facilitate tests/inspections.
    d. To provide storage and curing of test samples.

4. Notify Testing Agency a minimum of 24 hours prior to expected time for operations requiring testing/inspection services
5. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect/Engineer.

F. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

G. If, after re-testing, the construction is still found to be in non-conformance, the Architect/Engineer will direct an appropriate remedy.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 01 42 19
APPLICABLE STANDARDS

1 GENERAL

1 .1 DESCRIPTION

A. Work shall include the following:

1. Throughout the Contract Documents, reference is made to codes and standards which establish qualities and type of workmanship and materials, and which establish methods for testing and reporting on the pertinent characteristics.
2. Where materials or workmanship are required by these Contract Documents to meet or exceed the specifically named code or standard, it is the Contractor's responsibility to provide materials and workmanship which meet or exceed the specifically named code or standard.
3. It is also the Contractor's responsibility, when so required by the Contract Documents or by written request from the Owner, to deliver to the Owner all required proof that the materials or workmanship, or both, meet or exceed the requirements of the specifically named code or standard. Such proof shall be in the form requested in writing by the Owner, and generally will be required to be copies of a certified report of tests conducted by a testing agency approved for that purpose by the Owner.

B. Related Work Described Elsewhere: Specific naming of codes or standards occurs on the Drawings and in other Sections of these Specifications.

1 .2 QUALITY ASSURANCE

A. Familiarity with Pertinent Codes and Standards: In procuring all items used in this Work, it is the Contractor's responsibility to verify the detailed requirements of the specifically named codes and standards and to verify that the items procured for use in this work meet or exceed the specified requirements.

B. Rejection of Non-Complying Items: The Owner reserves the right to reject items incorporated into the Work which fail to meet the specified minimum requirements. The Owner further reserves the right, and without prejudice to other recourse the Owner may take, to accept non-complying items subject to an adjustment in the Contract Amount as approved by the Owner.

C. Applicable standards listed in these Specifications include, but are not necessarily limited to, standards promulgated by the following agencies and organizations:

1. AA = Aluminum Association, 818 Connecticut Avenue, N.W., Washington, DC 20006
2. AABC = Associated Air Balance Council, 1000 Vermont Avenue, N.W., Washington, DC 20005
3. AASHTO = American Association of State Highway and Transportation Officials, 341 National Press Building, Washington, D.C. 20004.
4. ACI = American Concrete Institute, Box 9094, Farmington Hills, Michigan 48333-9094.
5. ADC = Air Diffusion Council, 230 North Michigan Avenue, Chicago, IL 60601
6. AGC = Associated General Contractors of America, 1957 E. Street, N.W., Washington, DC 20006
7. AI = Asphalt Institute, Asphalt Institute building, College Park, MD 20740

8. AIA = American Institute of Architects, 1735 New York Avenue, N.W., Washington, DC 20006
9. AISC = American Institute of Steel Construction, Inc., 1221 Avenue of the Americas, New York, New York 10020.
10. AISI = American Iron and Steel Institute, 1000 16th Street, N.W., Washington, DC 20036
11. AITC = American Institute of Timber Construction, 333 W. Hampden Avenue, Englewood, CO 80110
12. AMCA = Air Movement and Control Association, 30 West University Drive, Arlington Heights, IL 60004
13. ANSI = American National Standards Institute (successor to USASI and ASA0, 1430 Broadway, New York, New York 10018.
14. APA = American Plywood Association, Box 11700 Tacoma, WA 98411
15. ARI = Air-Conditioning and Refrigeration Institute, 1501 Wilson Boulevard, Arlington, VA 22209
16. ASHRAE = American Society of Heating, Refrigerating and Air Conditioning Engineers, 1791 Tullie Circle, N.E., Atlanta, GA 30329
17. ASME = American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017
18. ASPA = American Sod Producers Association, 4415 West Harrison Street, Hillside, IL 60162
19. ASTM = American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.
20. AWI = Architectural Woodwork Institute, 2301 South Walter Reed Drive, Arlington, VA 22206.
21. AWPA = American Wood-Preservers' Association, 7735 Old Georgetown Road, Bethesda, MD 20014
22. AWS = American Welding Society, Inc., 2501 N.W. 7th Street, Miami, Florida 33125.
23. AWWA = American Water Works Association, Inc., 6666 West Quincy Avenue, Denver, Colorado 80235.
24. BIA = Brick Institute of America, 11490 commerce Park Drive, Reston, VA 22091.
25. CDA = Copper Development Association, 57th Floor, Chrysler Building, 405 Lexington Avenue, New York, NY 10174.
26. CLFMI = Chain Link Fence Manufacturers Institute, 1101 Connecticut Avenue, N.W., Washington, DC 20036.
27. CRSI = Concrete Reinforcing Steel Institute, 228 North LaSalle Street, Chicago, Illinois 60610.
28. CS = Commercial Standard of NBS, U.S. Department of Commerce, Government Printing Office, Washington, D.C. 20402.
29. DHI = Door and Hardware Institute, 7711 Old Springhouse Road, McLean, VA 22102.

30. EJCDC = Engineers' Joint Contract Documents Committee, American Consulting Engineers Council, 1015 15th Street, N.W., Washington, DC 20005
31. EJMA = Expansion Joint Manufacturers Association, 25 North Broadway, Tarrytown, NY 10591
32. FGMA = Flat Glass Marketing Association, 3310 Harrison, Topeka, Kansas 66611.
33. FM = Factory Mutual System, 1151 Boston-Providence Turnpike, P.O. Box 688, Norwood, MA 02062.
34. FS = Federal Specification, General Services Administration, Specifications and Consumer Information.
35. WFSIS= Distribution Section (WFSIS), Washington Navy Yard, Bldg. 197, Washington, DC 20407.
36. GA = Gypsum Association, 1603 Orrington Avenue, Evanston, IL 60201.
37. ICBO = International Conference of Building Officials, 5360 W. Workman Mill Road, Whittier, CA 90601.
38. IEEE = Institute of Electrical and Electronics Engineers, 345 East 47th Street, New York, NY 10017.
39. IMIAC = International Masonry Industry All-Weather Council, International Masonry Institute, 815 15th Street, N.W., Washington, DC 20005.
40. MBC = Michigan Building Code, PO Box 30254, Lansing, MI 48909.
41. MFMA = Maple Flooring Manufacturers Association, 60 Rivere Drive, Northbrook, IL 60062.
42. MIL = Military Specification, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.
43. ML/SFA= Metal Lath/Steel Framing Association, 221 North LaSalle Street, Chicago, IL 60601.
44. NAAMM = The National Association of Architectural Metal Manufacturers, 1033 South Boulevard, Oak Park, Illinois 60302.
45. NCMA = National Concrete Masonry Association, P.O. Box 781, Herndon, VA 22070.
46. NEBB = National Environmental Balancing Bureau, 8224 Old Courthouse Road, Vienna, VA 22180.
47. NEC = National Electrical Code (see NFPA).
48. NEMA = National Electrical Manufacturers Association, 155 East 44th Street, New York, New York 10017.
49. NFPA = National Fire Protection Association, 470 Atlantic Avenue, Boston, Massachusetts 02210.
50. NFPA = National Forest Products Association, 1619 Massachusetts Avenue, N.E., Washington, DC 20036.
51. NSWMA= National Solid Wastes Management Association, 1730 Rhode Island Ave., N.E., Washington, DC 20036.

52. NTMA = National Terrazzo and Mosaic Association, 3166 Des Plains Avenue, Des Plains, IL 60018.
53. NWMA = National Woodwork Manufacturers Association, 205 W. Touhy Avenue, Park Ridge, IL 60068.
54. PCA = Portland Cement Association, 5420 Old Orchard Road, Skokie, IL 60077.
55. PCI = Prestressed Concrete Institute, 201 North Wells Street, Chicago, IL 60606.
56. PS = Product Standard, U.S. Department of Commerce, Washington, DC 20203.
57. RCSHSB = Red Cedar Shingle and Handsplit Shake Bureau, 515 116th Avenue, Bellevue, WA 98004.
58. RIS = Redwood Inspection Service, One Lombard Street, San Francisco, CA 94111.
59. SDI = Steel Deck Institute, 135 Addison Avenue, Elmhurst, Illinois 60125.
60. SDI = Steel Door Institute, 712 Lakewood Center North, 14600 Detroit Avenue, Cleveland, OH 44107.
61. SIGMA = Sealed Insulating Glass Manufacturers Association, 111 East Wacker Drive, Chicago, IL 60601.
62. SJI = Steel Joist Institute, 1205 48th Avenue North, Suite A, Myrtle Beach, SC 29577.
63. SMACNA = Sheet Metal and Air Conditioning Contractors' National Association, 8224 Old Court House Road, Vienna, VA 22180.
64. SSPC = Steel Structures Painting Council, 4400 Fifth Avenue, Pittsburgh, Pennsylvania 15213.
65. TCA = Tile Council of America, Inc., P.O. Box 326, Princeton, New Jersey 08540.
66. UL = Underwriters' Laboratories, Inc., 207 East Ohio Street, Chicago, Illinois 60611.
67. WCLIB = West Coast Lumber Inspection Bureau, 6980 S.W. Varns Road, Box 23145, Portland, OR 97223.
68. WWPA = Western Wood Products Association, 1500 Yeon Building, Portland, OR 97204.
69. Fed. Specs. and Fed. Standards: Specifications Sales (3FRI), Building 197, Washington Navy Yard, General Service Administration, Washington, D.C. 20407.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

1 GENERAL

1 .1 DESCRIPTION

A. Work Included: Temporary facilities and controls required for this work include, but are not necessarily limited to:

1. Temporary utilities shall be provided by the Contractor as part of this proposal.
2. Enclosures such as tarpaulins, barricades, and canopies.
3. Securing of the construction area.

B. Related Work described Elsewhere:

1. Except that all equipment furnished by contractors shall comply with all requirements of pertinent safety regulations, the ladders, planks, hoists, and similar items normally furnished by the individual trades in execution of their own portions of the work are not part of this section.

1 .2 PRODUCT HANDLING

Use all means necessary to maintain temporary facilities and controls in proper and safe conditions throughout progress of the work.

1 .3 JOB CONDITIONS

Make all required connections to existing utility systems with minimum disruption to services in the existing utility systems. When disruption of the existing service is required, do not proceed without the Architect/Engineer's approval and, when required, provide alternate temporary service.

2 PRODUCTS

2 .1 UTILITIES

A. General: All temporary facilities shall be subject to the Architect/Engineer's approval.

B. Temporary Office: Not required.

C. Temporary Access: Ladders, railings, barriers, scaffolds, etc., as required for the proper execution of the work shall be provided by the specific contractor and/or subcontractor requiring same.

D. Toilet Facilities: On-site facilities available.

E. Glass Replacement: The Contractor shall assume all costs of replacement of glass broken, cracked, or damaged by him. Glass scratched through improper cleaning shall be considered damaged and shall be replaced by the party that caused the damage.

F. Cleaning Up: The Contractor shall arrange for all clean-up operations. Clean-up must be timely as well as thorough in order to meet safety regulations and permit other contractors to perform without hindrance from dirt and debris.

2 .2 ENCLOSURES

Furnish, install, and maintain for the duration of construction all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of the work in compliance with all safety and other regulations.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 01 73 29
CUTTING AND PATCHING

1 GENERAL

1 .1 DESCRIPTION

A. Work Included: This Section establishes general requirements pertaining to cutting (including excavating), fitting, and patching of the work required to:

1. Make the several parts fit properly.
2. Uncover work to provide for installation, inspection, or both, of ill-timed work.
3. Remove and replace work not conforming to requirements of the Contract Documents.
4. Remove and replace defective work.

B. Related Work Described Elsewhere:

1. In addition to other requirements specified, upon the Owner's request, uncover work to provide for inspection by the Owner's Representative of covered work, and remove samples of installed materials for testing.
2. Do not cut or alter work performed under separate contract without the Owner's written permission.

1 .2 QUALITY ASSURANCE

Perform all cutting and patching in strict accordance with pertinent requirements of these Specifications and, in the event no such requirements are determined, in conformance with the Owner's written direction.

1 .3 SUBMITTALS

A. Request for The Owner's Consent:

1. Prior to cutting which affects structural safety, submit written request to the Owner for permission to proceed with cutting.
2. Should conditions of the work, or schedule, indicate a required change of materials or methods for cutting and patching, so notify the Owner and secure his written permission prior to proceeding.

2 PRODUCTS

2 .1 MATERIALS

For replacement of work removed, use materials which match as closely as possible to materials that were removed or damaged.

3 EXECUTION

3 .1 CONDITIONS

A. Inspection:

1. Inspect existing conditions, including elements subject to movement or damage during cutting and patching.
2. After uncovering the work, inspect conditions affecting installation of new work.

B. Discrepancies: If uncovered conditions are not as anticipated, immediately notify the Owner and secure needed directions.

3 .2 PREPARATION PRIOR TO CUTTING

Provide all required protection including, but not necessarily limited to, shoring, bracing, and support to maintain structural integrity of the work.

3 .3 PERFORMANCE

Perform all required excavating and backfilling as required under pertinent Sections of these Specifications. Perform cutting and removal by methods which will prevent damage to other portions of the work and will provide proper surfaces to receive installation of repair and new work.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 01 74 00
CLEANING

1 GENERAL

1 .1 DESCRIPTION

A. Work Included: Throughout the construction period, each Contractor shall maintain the site in a standard of cleanliness as described in this section.

B. Related Work Described Elsewhere: In addition to standard described in this Section, comply with all requirements for cleaning up as described in various other sections of these specifications.

1 .2 QUALITY ASSURANCE

A. Inspection: Conduct daily inspection, and more often if necessary, to verify that requirements of cleanliness are being met.

B. Codes and Standards: In addition to the standards described in this section, comply with all pertinent requirements of governmental agencies having jurisdiction.

2 PRODUCTS

2 .1 CLEANING MATERIALS AND EQUIPMENT

Provide all required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

3 EXECUTION

3 .1 PROGRESS CLEANING

A. General:

1. Retain all stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
2. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this work.

3 .2 FINAL CLEANING

Unless otherwise specifically directed, each Contractor is responsible for cleaning his own area/work.

A. Building: As necessary to his work, the Contractor shall provide services to vacuum all carpeted areas, damp mop all hard surface areas of floor, wipe with clean damp cloth all tile and hard surface areas of walls and ceiling. Vacuum all construction dust off wood trim, millwork and equipment, clean windows and window frames (including removal of stickers/tags not required by codes), remove construction dust from all light fixtures and other suspended items.

B. Cleaning Approval: Approval of final cleaning will be subject to Architect/Engineer(s) walk-through and punch list(s).

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 01 78 23
OPERATION AND MAINTENANCE DATA

1 GENERAL

1 .1 DESCRIPTION

A. Work Included: To aid in the continued instruction of operating and maintenance personnel, and to provide a positive source of information regarding the products incorporated in the work, furnish and deliver the data described in this section and in pertinent other sections of these specifications.

B. Related Work Described Elsewhere:

1. Make all submittals in strict accordance with the provisions of Section 01 33 00.
2. Required contents of submittals may also be amplified in other pertinent Sections.

1 .2 QUALITY ASSURANCE

In preparation of data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the degree needed for communicating the essential data.

1 .3 SUBMITTALS

A. Preliminary: Submit two copies of a preliminary draft of the proposed Manual or Manuals to the Architect/Engineer, for review and comments.

B. Final: Unless otherwise directed in other pertinent Sections, or in writing by the Architect/Engineer, submit three copies of the final Manual to the Architect/Engineer prior to indoctrination of operation and maintenance personnel.

2 PRODUCTS

2 .1 INSTRUCTION MANUALS

A. General: Where instruction are required to be submitted under other sections of these specifications, prepare in accordance with the following:

B. Format:

1. Size: 8-1/2” x 11”.
2. Paper: White bond, at least 20 lb. weight.
3. Text: Neatly typewritten.
4. Drawings: 11” in height preferable; bind in with text; foldout acceptable; larger drawings acceptable, but fold to fit within the Manual and provide a drawing pocket inside rear cover or bind in with text.
5. Flysheets: Separate each portion of the Manual with neatly prepared flysheets briefly describing contents of the ensuing portion; flysheets may be in color.
6. Binding: Use heavy-duty plastic or cardboard covers with binding mechanism concealed inside the Manual; 3-ring binders will be acceptable; all binding shall be subject to the Architect’s approval.
7. Measurements: Show the U.S. measurements plus the SI equivalents.

C. Covers: Provide front and back covers for each Manual, using durable material approved by the Architect/Engineer and clearly identified on or through the front cover with a least the following information:

PROJECT NAME
(general subject of this Manual)
(space for approval signature of the Architect/Engineer)
and approval date)

D. Contents: Include at least the following:

1. Neatly typewritten index near the front of the Manual, giving immediate information as to location within the Manual of all emergency data regarding the installation.
2. Complete instructions regarding operation and maintenance of all equipment involved, including lubrication, disassembly, and reassembly.
3. Complete nomenclature of all parts of all equipment.
4. Complete nomenclature and part number of all replaceable parts, name and address of nearest vendor, and all other pertinent data regarding procurement procedure.
5. Electrostatic copy of all guarantees and warranties issued.
6. Manufacturers' bulletins, cuts, and descriptive data, where pertinent, clearly indicating the precise items included in this installation and deleting, or otherwise clearly indicating, all manufacturer's data with which this installation is not concerned.
7. Such other data as required in other pertinent Sections of these specifications.

3 EXECUTION

3 .1 INSTRUCTION MANUALS

A. Preliminary: Prepare a preliminary draft of each proposed Manual. Show general arrangement, nature of contents in each portion, probable number of drawings and their size, and proposed method of binding and covering. Secure the Architect/Engineer's approval prior to proceeding with final.

B. Final: Complete the Manuals in strict accordance with the approved preliminary drafts and the Architect/Engineer's review comments.

C. Revisions: Following the indoctrination and instruction of operation and maintenance personnel, review all proposed revisions of Manuals with the Architect/Engineer. If the Contractor is required by the Architect to revise previously approved Manuals, compensation will be made as provided under "Changes" in the General Conditions.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

SECTION 01 78 39
PROJECT RECORD DOCUMENTS

1 GENERAL

1 .1 DESCRIPTION

A. Work Included:

1. Throughout progress of the work, each contractor shall maintain an accurate record of all changes in the Contract Documents, as described in Paragraph 3.1 below.
2. Upon completion of the work of this contract, transfer the recorded changes to a set of Record Documents, as described in Paragraph 3.2 below.

B. Related Work Described Elsewhere:

Section 01 33 00: Submittals and Substitutions

1 .2 QUALITY ASSURANCE

A. General: Each contractor shall delegate the responsibility for maintenance of Record Documents to one person on the contractor's staff as approved in advance by the Architect/Engineer.

B. Accuracy of Records: Thoroughly coordinate all changes within the Record Documents, making adequate and proper entries on each page of specifications and each sheet of drawings and other documents where such entry is required to properly show the change. Accuracy of records shall be such that future search for items shown in the Contract Documents may reasonably rely on information obtained from the approved Record Documents.

C. Timing of Entries: Make all entries within 24 hours after receipt of information.

1 .3 SUBMITTALS

A. General: The Architect/Engineer's approval of the current status of Record Documents will be a prerequisite of the Architect/Engineer's approval of Requests for Progress Payment and Request for Final Payment under the Contract.

B. Progress Submittals: Prior to submitting each request for progress payment, secure the Architect/Engineer's approval of the Record Documents as currently maintained.

C. Final Submittal: Prior to submitting Request for Final Payment, submit the final Record Documents of the Architect/Engineer and secure his approval.

1 .4 PRODUCT HANDLING

Use all means necessary to maintain the job set of Record Documents completely protected from deterioration and from loss and damage until completion of the work and transfer of the recorded data to the final Record Documents. In the event of loss of recorded data, use all means necessary to secure the data to the Architect/Engineer's approval; such means shall include, if necessary in the opinion of the Architect/Engineer, removal and replacement of concealing materials and, in such case, all replacements shall be to the standard originally specified in the Contract Documents.

2 PRODUCTS

2 .1 RECORD DOCUMENTS

A. Job Set: Promptly following Award of Contract, secure from the Architect/ Engineer at no charge to the Contractor, one complete set of all Documents comprising the Contract.

B. Final Record Documents: At a time near the completion of the work, secure from the Architect/Engineer at no charge to the contractor, one complete set of reproducibles of all Drawings included in the Contract.

3 EXECUTION

3 .1 MAINTENANCE OF JOB SET

A. Identification: Immediately upon receipt of the job set described in Paragraph 2.1 above, identify each of the Documents with the title “Record Documents - Job Set”.

B. Preservation:

1. Considering the contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of the Architect/ Engineer.
2. Do not use the job set for any purpose except entry of new data and for review by the Architect/Engineer, until start or transfer of data to final Record Documents.
3. Maintain the job set at the site of Work as that site is designated by the Architect/Engineer.

C. Making Entries on Drawings: Using an erasable colored pencil (not ink or indelible pencil), clearly describe the change by note and by graphic line, as required. Date all entries. Call attention to the entry by a “cloud” around the area or areas affected. In the event of overlapping changes, different colors may be used for each of the changes.

D. Making Entries on Other Documents:

1. Where changes are caused by directives issued by the Architect/Engineer, clearly indicate the change by note in ink, colored pencil, or rubber stamp.
2. Where changes are caused by contractor-originated proposal approved by the Architect/Engineer, including inadvertent errors by the Contractor which have been accepted by the Architect/Engineer, clearly indicate the change by note in erasable colored pencil.
3. Make entries in the pertinent Documents as approved by the Architect/Engineer.

E. Conversion of Schematic Layouts:

1. In most cases on the Drawings, arrangement of conduits and circuits, piping, ducts, and other similar items, is shown schematically and is not intended to portray precise physical layout. Final physical arrangement is as determined by the Contractor, subject to the Architect/Engineer’s approval. However, design of future modifications of the facility may require accurate information as to the final physical arrangement of items which are shown only schematically on the Drawings.
2. Show on the job-set of Record Drawings, by dimension accurate to within 1”, the center line of each run of items such as are described in Paragraph 3.1-E-1 above. Clearly identify the item by an accurate note such as “cast iron drain”, “galv. water”, etc. Show by symbol or note, the vertical location of the item (“under slab”, “in ceiling plenum”, “exposed”, etc.). Make all identification sufficiently descriptive that it may be related reliably to the Specifications.

3. The Architect/Engineer may waive the requirements for conversion of schematic data where, in the Architect/Engineer's judgment, such conversion serves no beneficial purpose. However, do not rely upon waivers being issued except as specifically issued in writing by the Architect/ Engineer.
4. Timing of Entries: Be alert to changes in the work from how it is shown in the Contract Documents. Promptly, and in no case later than 24 hours after the change has occurred and been made known to the Contractor, make the entry or entries required.
5. Accuracy of Entries: Use all means necessary, including the proper tools for measurement, to determine actual locations of the installed items.

3 .2 FINAL RECORD DOCUMENTS

A. General: The purpose of the final Record Documents is to provide factual information regarding all aspects of the work, both concealed and visible, to enable future modification of design to proceed with lengthy and expensive site measurement, investigations, and examination.

B. Approval of Recorded Data Prior to Transfer: Following receipt of the sepia transparencies described in Paragraph 2.1-B above, and prior to start of transfer of recorded data thereto, secure a review by the Architect of all recorded data. Make all required revisions.

C. Transfer of Data to Drawings: Carefully transfer all change data shown on the job-set of Record Drawings to the corresponding sepias, coordinating the changes as required, and clearly indicating at each affected detail and other drawing the full description of all changes made during construction and the actual location of items described in Paragraph 3.1-E above. Call attention to each entry by drawing a "cloud" around the area or areas affected. Make all change entries on the sepias neatly, consistently, and in ink or crisp black pencil.

D. Transfer of Data to Other Documents: If the Documents other than Drawings have been kept clean successfully during progress of the Work, and if entries have been sufficiently orderly thereon to the approval of the Architect/Engineer, the job-set of those Documents (other than Drawings) will be accepted by the Architect/Engineer as final Record Documents for those Documents. If any such Document is not so approved by the Architect/Engineer, secure a new copy of that Document from the Architect/Engineer at the Architect/Engineer's usual charge for reproduction; carefully transfer the change data to the new copy and to the approval of the Architect/ Engineer.

E. Review and Approval: Submit the completed total set of Record Documents to the Architect as described in Paragraph 1.3-C above. Participate in review meeting or meetings as required by the Architect/Engineer, make all required changes in the Record Documents, and promptly deliver the final Record Documents to the Architect/Engineer.

3 .3 CHANGES SUBSEQUENT TO ACCEPTANCE

The Contractor shall have no responsibility for recording changes in the work subsequent to acceptance of the work by the Owner, except for changes resulting from replacements, repairs, and alternations made by Contractor as part of his guarantee.

END OF SECTION

Concept Design Studio **PH: (231) 799-4838**
800 East Ellis Road, Suite 508, Norton Shores, MI 49441 **FX: (231) 799-4837**

MAISD ENS SOLUTION REQUIREMENTS

System Requirements:

The legacy paging and bell-ringer solutions are to be replaced with modern IP-based solutions.
New data drops to front of classroom used to provide network and POE power to proposed speakers.
137 total drops at 5 buildings

The Lakeshore location will have wire cage enclosures installed around all classroom combination units to prevent tampering and damage.

Hallways and common areas throughout both schools will require net new cabling.
35 total locations will have a new data drop run to the nearest MDF/IDF closet.

Outdoor locations will require net new cabling.
31 total outdoor locations will have two (2) network cable drops run to the nearest MDF/IDF
Three (3) outdoor locations will be strobe only
65 total drops on exterior of building

This project assumes net new access layer switching will be deployed to provide adequate network and POE capacity.
Pricing for new access layer switching battery backup UPS and all required structured cabling to support this additional network equipment should be included for Craig and CTC.

Assume Wesley and Lakeshore will have new Switching and structured cabling deployed.

Three (3) zones per building “All Page”, “Hallway Page”, “Outdoor Page”. Fifteen (15) in Total.

Separate bell-ringer schedules per school.

Up-to 500 Informacast Fusion users enabled with mobile app alerts and administration capabilities.

A single Barix Baronet 400 IP relay will be installed at each building to provide door lockdown / all clear integration to the proposed Informacast solution.

The existing MAISD Lenel door access control vendor will be responsible for integrating Barix IP to analog relay into door controller equipment.

Solution Components:
Hardware:
- Singlewire
- Informacast Fusion Server Appliance
- Advanced Network Devices
  - Indoor IP Speaker
  - Wall Mount Combination Speaker Strobe & LCD
  - Wall Mount Dual Sided Combination Speaker Strobe and LCD
  - 2x2 Celling-tile Inset IP Speakers
  - Outdoor Rated Speakers
  - Outdoor Rated IP Strobed

Barix Barionet IP to analog relay
BarioNet 400
Juniper Access Layer Switching
EX4100-48P
JPSU-920-AC-AFO
Vertiv UPS
GXT5-3000LVRT2UXL
Enclosures
AMERTIMSIGG2018 - GUARD WIRE 20" X 17" X 7"D

Software:
Singlewire Informacast Fusion Subscription – 3 Year Term

Cabling and Installation:

Installation of (137) new Ethernet cables and devices in Classrooms / Offices.

Provide and install (65) Cat 6 Ethernet cables and devices to (34) outdoor locations

Provide and install (35) Cat 6 Ethernet cables and devices new indoor hallway locations

Install, terminate, label and test new Cat6 cabling for the proposed locations of Informacast devices at four buildings per blueprints

All new Cat6 cables will terminate on new Cat6 patch panels at the head ends and on new Cat6 modular jacks at the station, user or device ends.

Provide and install (1) Cat6 patch cord for each new cable installed at the head ends and (1) Cat6 patch cord for each new cable installed at the station, user or device ends for network connectivity.

Provide labor to mount provided Informacast devices and network switches if applicable.

Provide and install conduit kits where applicable to comply with standard device height, cable aesthetics, concealment and protection in locations where walls are not fishable.

All cables will be supported using some existing cable pathways, new J hooks, or equivalent where applicable.

The bidder will provide a scissor lift as necessary for Cat6 cable installation as required. The scissor lift includes fee for use, drop off, and pickup fees.

System Configuration, Testing, and Training:

Generate a Project Workbook and Project Timeline Documentation Set:

Implementation

- Staging/Install Fusion Appliance
- Configure Fusion Users
- Configure Bell Ringer Schedules Per School
- Device Registration / Validation
- Configure Device Groups / Paging (up-to four (4) per building)
- Configure Mutlicast Route Point (2 Locations)
- Configure Fusion App triggers and alerts for up-to 500 mobile users

Four major permissions groups (1 per building)

Go-Live

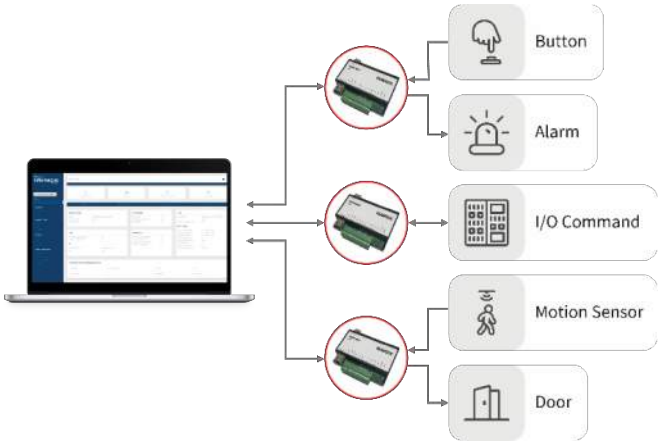
- Per Building – Train the trainer (6 Hours)
- Per Building IT Admin Training (4 Hours)
- System-wide on-demand training video recordings (8 Hours)
- Testing and acceptance tasks on speakers

END OF SECTION

Barionet 400 InformaCast

I/O device to implement into Singlewire's InformaCast notification system.

Barix Barionet 400 InformaCast is a PoE powered I/O device server which is certified for Singlewire's mass notification system InformaCast adopting the M2M capability. The device features four digital inputs and four relays. Extension of the functionality via the USB port and via a programming interface is possible as an option. The Barionet 400 devices provides a robust bridge between the InformaCast notification system and physical interfaces such as distress buttons, fire alarm panels, motion sensors, light switches, door activators and more.



Applications

Integration into Singlewire's InformaCast for:

- Control of emergency alerts with time-sensitive information
- Automated actions when an event is triggered, such as closing of doors, power of lights, screens, horns, transport options or shutting down of building infrastructure
- Access control
- Machine control

Features

- Configurable on Singlewire InformaCast Server
- One 10/100 Ethernet port
- 4 Relay Outputs
- 4 Digital Inputs
- USB Host Interface
- Embedded Linux / Lede / OpenWRT
- IPv4 / IPv6 stack
- Barionet DIN-Rail Case
- Supply Voltage 9-30 VDC
- IEEE 802.3af PoE

Technical Specifications

Operation System

- Linux / Lede / OpenWRT

Network / WiFi Interfaces

- 1 x Ethernet (RJ45) Interface
- IPv4, IPv6 capable
- 10/100 fdx/hdx, auto negotiation
- TCP/IP, RTP, UDP, ICMP, DHCP, CGI, HTTP(S), SNMP (used to “talk” to InformaCast)

I/O Interface

- 4 x Relay Outputs (30VDC, 0.5A)
- 4 x Digital Inputs (dry contacts)

USB Interface

- 1 x USB Host (Type A) Interface

CPUs / Memory

- MediaTek MT7620N, Qino Lite Module
- 64MB SDRAM
- 8MB Flash

OEM Options

- RTC Real Time Clock

User Interface

- Web interface for control / configuration
- 10 x Multicolor LED Status indicators
- Reset & Factory Defaults Button

Power Requirements

- Single 9-30V DC supply voltage, 2.5 Watt (without attached USB devices) or
- IEEE 802.3af PoE

Measurement

- 4.05” x 3.35” x 1.22” / 103mm x 85mm x 31mm

Weight

- 160g

Warranty

- Two years

Environmental

Operating Environment
0 to +50°C / 32 to 122°F
0 - 70% relative humidity, non-condensing

Storage Conditions
-20 to +70°C / -4 to 158°F
0 - 70% relative humidity, non-condensing

Certifications

CE, RoHS, FCC

Ordering Information

2018.9257P BARIONET 400 (incl. InformaCast)

For commercial related questions (distributors contacts, price list, business opportunities) please contact: sales@barix.com

For technical inquiries (problem reports, request for documentation, etc.) please contact: support@barix.com

Barix AG
Limmatstrasse 21, 8005 Zürich, Switzerland
Phone: +41 434 33 22 11
www.barix.com

Direct Link

ADVANCED NETWORK DEVICES

IPCSHD-DS-MB

Double-Sided HD IP Display

Overview

Engage and capture attention in corridors and hallways using the PoE+ Double-Sided HD IP Display with matte black finish (Universal Mount). Display countdown timers, custom graphics and announcements using the high-resolution LCD display, RGB flasher, and two 4 inch speakers that can be seen and heard from both sides of the device.

The universal mount provides the option to mount from the wall or ceiling. The IPCSHD-DS-MB easily integrates with VoIP phone systems, approved 3rd party software, and includes ClockWise Campus software with purchase.

Description

DISPLAY

1920 x 720 high resolution full-color LCD screen. Angled display to reduce glare.

MICROPHONE

Hands-free two-way intercom.

FLASHER

RGB flashing LED indicator. Customize for additional visual messaging in any color.

AUDIO

Two 4” high-efficiency speakers.
Audio coverage up to 600ft² on each side.

PERIPHERAL INTEGRATION

N/A

SOFTWARE

ClockWise Campus software included.
Compatible with approved third-party software.

SIP INTEGRATION

SIP-enabled.
Easily interfaces with VoIP / SIP phone systems.

LIGHT SENSOR

Auto-dimming display.

Solutions

- Paging
- Intercom
- Bell scheduling
- Code alerts
- Emergency notification
- Music streaming

Additional Features

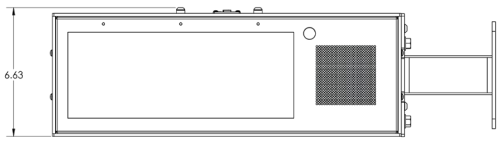
- Built-in web server
- Full multicast and broadcast support
- Requires Cat5 or Cat6 cable
- Atomic time

Compatible Peripherals

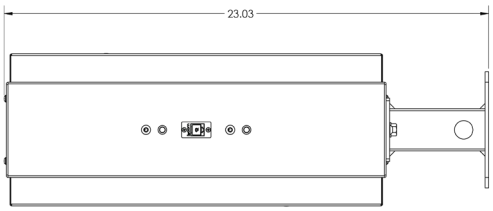
- N/A

Dimensions

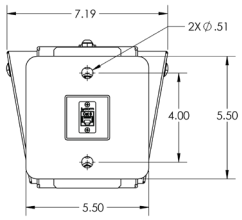
(Dimensions are subject to change)



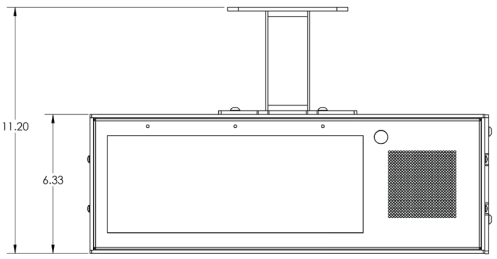
Wall Mount Front



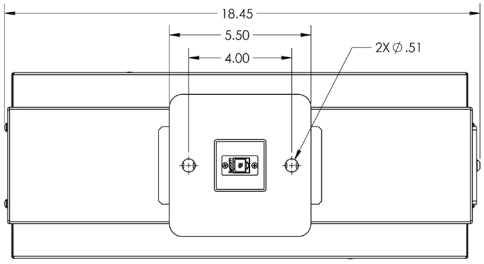
Wall Mount Top



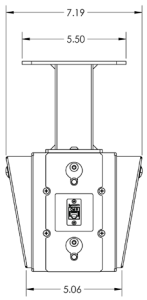
Wall Mount Side



Ceiling Mount Front



Ceiling Mount Top



Ceiling Mount Side

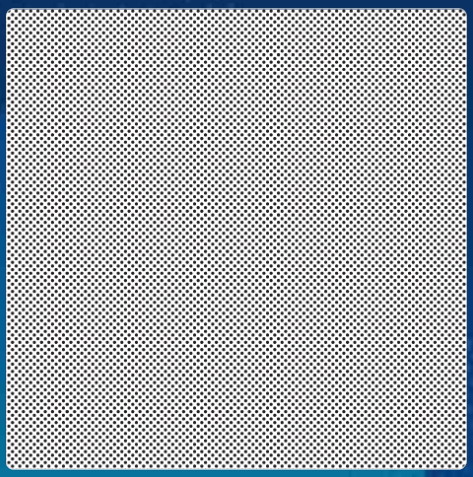
Specifications

Due to continual product development, specifications are subject to change without notice.

Power Input	PoE+ (IEEE802.3at) 30.0W
Ethernet I/F	10/100/1000 Mbps
Speaker Size	4”
Frequency Response	150 Hz - 17 kHz
Audio Payload Types	G711, A-law and μ-law
Average Sensitivity	94dB, 1W / 1 M
Supported Protocols	SIP, IPv4, IPv6, 802.1X, HTTP, SLP, TFTP, NTP, SNMPV1 & SNMPV2c, DHCP, IGMP, ICMP, TCP/IP, LLDP-MED, UDP, MDNS & MDNS-SD
General Purpose Interface	N/A
Audio Interface	N/A
Operating Temperature	14˚ TO 122˚ F (-10˚ TO 50˚ C)
Dimensions	Wall Mount: 22.03” W x 6.63” H x 7.19” D (including mount) Ceiling Mount: 18.45” W x 11.20” H x 7.19” D (including mount)
Weight	22 lbs (9.98 kg)
Warranty	2 Year Limited

Advanced Network Devices | 3820 N. Ventura Dr. Arlington Hts. IL 60004
847-463-2236 | sales@anetd.com | www.anetd.com

ADVANCED
NETWORK DEVICES



IPSCM

Square Ceiling Tile IP Speaker

Overview

Designed as a drop-in replacement for a standard 2’ x 2’ ceiling tile, the PoE Square Ceiling IP Speaker (IPSCM) easily integrates with VoIP phone systems (SIP-enabled) to broadcast announcements in offices, hallways, classrooms, or any standard-sized room with a drop ceiling.

The IPCSM also integrates with approved 3rd party software and includes ClockWise Campus software with purchase.

AUDIO

8” high-efficiency speaker.
Audible up to 10ft radius (standard 10ft ceiling).

MICROPHONE

Hands-free two-way intercom.

PERIPHERAL INTEGRATION

Connect a call button.

SOFTWARE

ClockWise Campus software included.
Compatible with approved third-party software.

SIP INTEGRATION

SIP-enabled.
Easily interfaces with VoIP / SIP phone systems.

Solutions

- Paging
- Intercom
- Bell scheduling
- Code alerts
- Emergency notification
- Sound Masking
- Music streaming

Additional Features

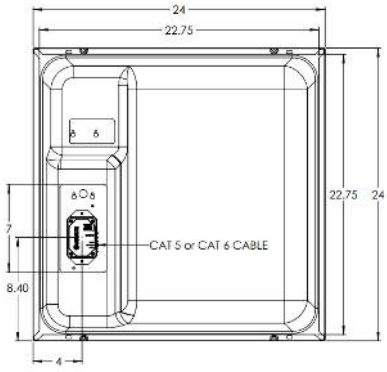
- Built-in web server
- Full multicast and broadcast support

Compatible Peripherals

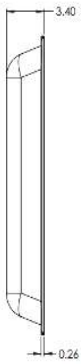
- Call Button Kit with Mic
  BTN-KIT-MIC-ND

Dimensions

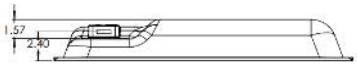
(Dimensions are subject to change)



Back



Side



Bottom

Specifications

Due to continual product development, specifications are subject to change without notice.

Power Input	PoE (IEEE802.3af) 15.4 W or PoE+ (IEEE802.3at) 30.0 W
Ethernet I/F	10/100 Mbps
Audio Power	8 W / 16 W
Frequency Response	60 Hz - 17 kHz
Audio Payload Types	G711, A-law and μ-law
Average Sensitivity	95dB, 1W / 1 M
Supported Protocols	SIP, IPv4, IPv6, 802.1X, HTTP, SLP, TFTP, NTP, SNMPV1 & SNMPV2c, DHCP, IGMP, ICMP, TCP/IP, LLDP-MED, UDP, MDNS & MDNS-SD
Input	1 Input via RJ-12 cable, typically used with the BTN-KIT-MIC-ND (button kit). Note this accessory moves device microphone operation to the button kit.
Operating Temperature	14˚ TO 122˚ F (-10˚ TO 50˚ C)
Dimensions	24” W x 24” H x 3.4” D
Weight	6.5 lbs (2.95 kg)
Warranty	2 Year Limited
Cabling	Requires Cat5 or better cable

Advanced Network Devices | 3820 N. Ventura Dr. Arlington Hts. IL 60004
847-463-2236 | sales@anetd.com | www.anetd.com

ADVANCED NETWORK DEVICES

IPSTROBE-O

Outdoor IP Strobe

Overview

Provide an additional mode of emergency notification or alert messaging on the perimeter of your facility with the PoE Outdoor IP Strobe (IPSTROBE-O).

The IPSTROBE-O easily integrates with VoIP phone systems, approved 3rd party software, and includes ClockWise Campus™ software with purchase.

SOFTWARE

ClockWise Campus™ software included. Compatible with approved third-party software.

SIP INTEGRATION

SIP-enabled. Easily interfaces with VoIP / SIP phone systems.

OUTDOOR APPLICATIONS

Outdoor rated IP strobe. Weather resistant enclosure.

Solutions

- Code alerts
- Emergency notification
- Security monitoring

Additional Features

- Built-in web server
- Full multicast and broadcast support
- Requires exterior-grade water-proof CAT5/CAT6 network cable
- Weather resistant enclosure included

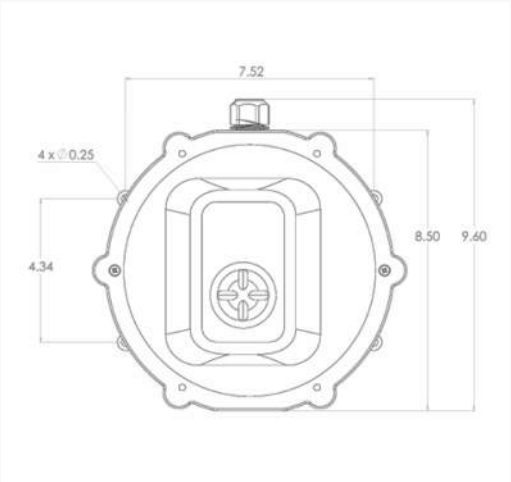
Compatible Accessories

Color Lenses from System Sensor:

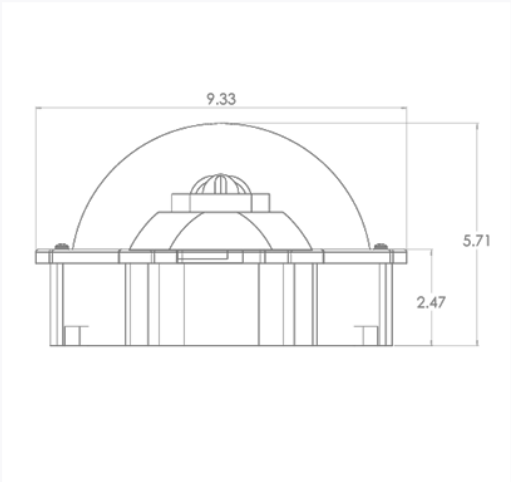
- LENS-A3 Lens LED Amber Wall/Ceiling
- LENS-B3 Lens LED Blue Wall/Ceiling
- LENS-G3 Lens LED Green Wall/Ceiling
- LENS-R3 Lens LED Red Wall/Ceiling

Dimensions

(Dimensions are subject to change)



Front



Side

Specifications

Due to continual product development, specifications are subject to change without notice.

Power Input	PoE (IEEE802.3af) 15.4 W
Ethernet I/F	10/100 Mbps
Flash Rate	1 Flash per second
Luminous Intensity	15, 30, 75, 95, 110, 135, or 185 candela
Supported Protocols	SIP, IPv4, IPv6, 802.1X, HTTP, SLP, TFTP, NTP, SNMPV1 & SNMPV2c, DHCP, IGMP, ICMP, TCP/IP, LLDP-MED, UDP, MDNS & MDNS-SD
Operating Temperature	14˚ TO 122˚ F (-10˚ TO 50˚ C)
Dimensions	9.3” W x 9.6” H x 5.7” D
Weight	3 lbs (1.36 kg)
Warranty	2 Year Limited

Advanced Network Devices | 3820 N. Ventura Dr. Arlington Hts. IL 60004
847-463-2236 | sales@anetd.com | www.anetd.com

ADVANCED NETWORK DEVICES

IPSWDHD-MW

IP Speaker with HD Display

OVERVIEW

The PoE+ IP Speaker with HD Display works well for offices, classrooms, and any average-sized room.

AUDIO

8" high-efficiency speaker
Audio coverage up to 600 ft²
NEW digitally enhanced bass

MICROPHONE

Hands-free talk back
Monitoring

FLASHER BAR

RGB flashing LED bar.
Customize for additional visual messaging in any color.

DISPLAY

1920 x 720 high resolution
Full-color HD screen
Viewable at 50ft
Angled display to reduce glare

PERIPHERAL INTEGRATION

Connect strobes, motion sensors, electronic locks, call buttons, etc.

SOFTWARE

Diagnostic software included
Compatible with third-party software, including InformaCast, Revolution, and Cisco CallManager

SIP INTEGRATION

SIP-enabled
Easily interfaces with VoIP/SIP phone systems

LIGHT SENSOR

Auto-dimming display

SOLUTIONS

- Paging
- Intercom
- Bell scheduling
- Code alerts
- Emergency notification
- Access control
- Security monitoring
- Music streaming

ADDITIONAL FEATURES

- Built-in web server
- Full multicast and broadcast support
- Requires Cat5 or Cat6 cable
- Back enclosure is included
- Atomic time
- 2 general purpose inputs
- 1 general purpose output relay

COMPATIBLE PERIPHERALS

Strobe Kit
AND-STROBE-KIT-1

Call Button Kit
BTN-KIT-MIC-ND
AND-BTN-KIT-1

SOFTWARE

The IPSWDHD-MW integrates easily with third-party mass notification software, as well as SIP and VoIP phone systems, enabling a facility to take advantage of all the device capabilities. The device also comes with diagnostic software (compatible to run alongside third-party software), and an on-board web server interface, both which provide the ability to monitor and troubleshoot the ANetD devices on the network.

Third-Party Software

- InformaCast (Singlewire)
- Intrado Revolution (Syn-Apps)
- IPSession (IPCelerate)
- MessageNet Systems
- BellComander (Acro Vista)

And more!

VoIP Phone Systems

- Cisco CallManager
- Mitel
- Avaya
- 3CX
- Polycom

And more!

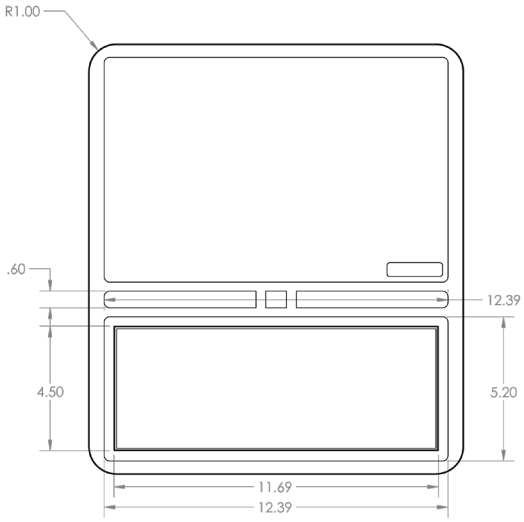
IPClockWise

- Diagnostic tool included with device purchase
- Complements investment in third-party software
- Developed and supported by Advanced Network Devices

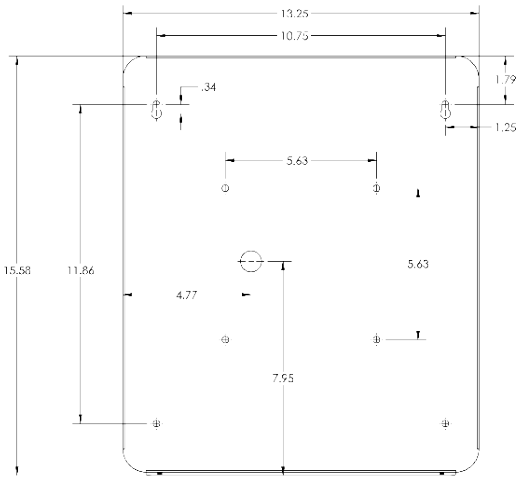
DIMENSIONS

Dimensions Subject to Change

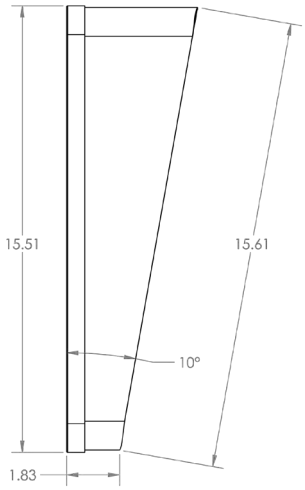
Front



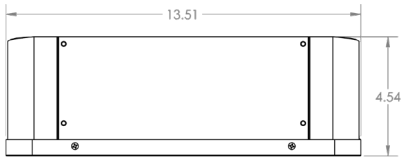
Back



Side



Top



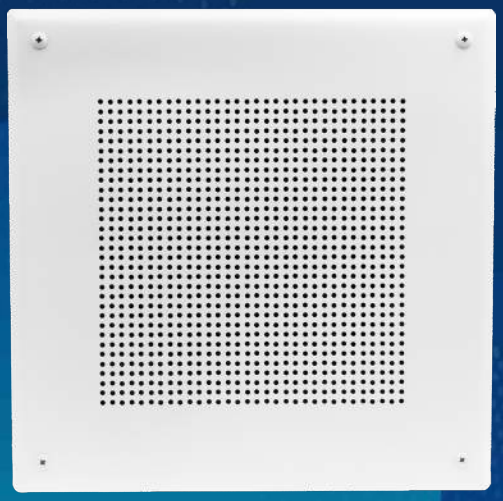
SPECIFICATIONS	IPSWDHD-MW
ETHERNET I/F	10/100/1000 Mbps
SPEAKER SIZE	8"
AVERAGE SENSITIVITY	95dB, 1W /1 M
FREQUENCY RESPONSE	60 Hz - 17 kHz
AUDIO PAYLOAD TYPES	G711, A-law and μ-law
POWER INPUT	PoE+ (IEEE802.3at) 30.0W
SUPPORTED PROTOCOLS	SIP, IPv4, IPv6, 802.1X, HTTP, SLP, TFTP, NTP, SNMPV1 & SNMPV2c, DHCP, IGMP, ICMP, TCP/IP, LLDP-MED, UDP, MDNS & MDNS-SD
OPERATING TEMPERATURE	14˚ TO 122˚ F (-10˚ TO 50˚ C)
DIMENSIONS	13.25" W x 15.58" H x - 4.54" D - Subject to Change
WEIGHT	10.5 lbs (4.7 kg)
WARRANTY	2 Year Limited

Due to continual product development, specifications are subject to change without notice.

Advanced Network Devices | 3820 N. Ventura Dr. Arlington Hts. IL 60004
847-463-2236 | sales@anetd.com | www.anetd.com

UL Certification in Process

ADVANCED NETWORK DEVICES



IPSWS-SM

Surface-Mount IP Speaker

Overview

Broadcast announcements in auditoriums and large spaces with the PoE Surface-Mount IP Speaker.

The IPSWS-SM easily integrates with VoIP phone systems, approved 3rd party software, and includes ClockWise Campus software with purchase.

Description

AUDIO

8” high-efficiency speaker. Audio coverage up to 600ft².

MICROPHONE

Hands-free two-way intercom.

PERIPHERAL INTEGRATION

Connect a call button.

SOFTWARE

ClockWise Campus software included. Compatible with approved third-party software.

SIP INTEGRATION

SIP-enabled. Easily interfaces with VoIP / SIP phone systems.

Solutions

- Paging
- Intercom
- Bell scheduling
- Code alerts
- Emergency notification
- Music streaming

Additional Features

- Built-in web server
- Full multicast and broadcast support
- Requires Cat5 or Cat6 cable
- Back enclosure is included

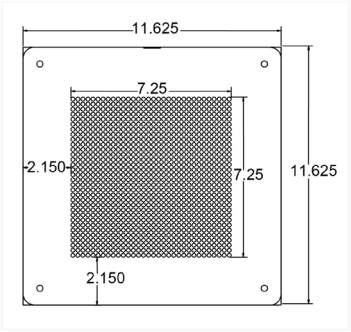
Compatible Peripherals

Call Button Kit with Mic

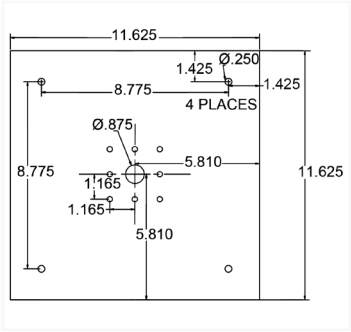
- BTN-KIT-MIC-ND

Dimensions

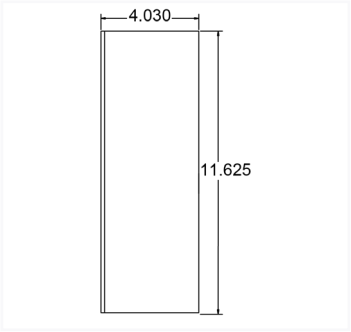
(Dimensions are subject to change)



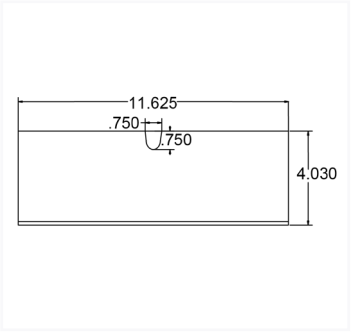
Front



Back



Side



Top

Specifications

Due to continual product development, specifications are subject to change without notice.

Power Input	PoE (IEEE802.3af) 15.4 W or PoE+ (IEEE802.3at) 30.0 W
Ethernet I/F	10/100 Mbps
Speaker Size	8”
Audio Power	8 W / 16 W
Frequency Response	60 Hz - 17 kHz
Audio Payload Types	G711, A-law and μ-law
Average Sensitivity	95dB, 1W / 1 M
Supported Protocols	SIP, IPv4, IPv6, 802.1X, HTTP, SLP, TFTP, NTP, SNMPV1 & SNMPV2c, DHCP, IGMP, ICMP, TCP/IP, LLDP-MED, UDP, MDNS & MDNS-SD
General Purpose Interface	2 GPI: 1 via RJ-11, 1 via Cable Harness
Material	Wiremold combination 5700 knockout for 500 and 700 series raceways
Operating Temperature	14˚ TO 122˚ F (-10˚ TO 50˚ C)
Dimensions	11.63” W x 11.63” H x 4.16” D
Weight	9 lbs (4.1 kg)
Warranty	2 Year Limited

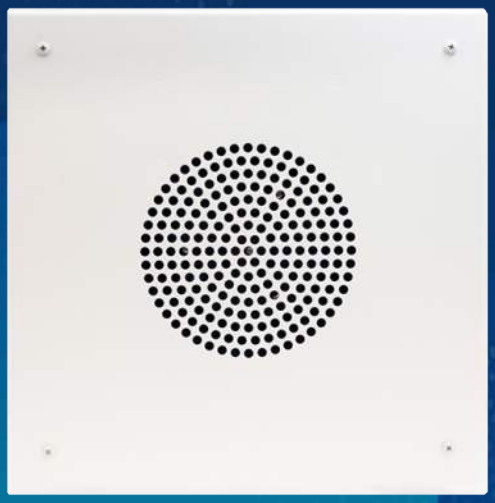
Advanced Network Devices | 3820 N. Ventura Dr. Arlington Hts. IL 60004
847-463-2236 | sales@anetd.com | www.anetd.com

Model: IPSWS
Advanced Network Devices
www.anetd.com

Conforms to UL STD 60950-1
Cert. to CAN/CSA STD C22.2 #60950-1
42.5V-57.0V DC, 25.5 W Max
802.3at PoE+

Intertek
4009547

ADVANCED NETWORK DEVICES



IPSWS-SM-O

Outdoor IP Compressed Horn

Overview

Broadcast announcements outdoors or in a large room with the PoE Outdoor IP Compressed Horn. It functions as a durable, weather-resistant, surface-mount horn that extends the reach of audio communications to outdoor environments.

The IPSWS-SM-O easily integrates with VoIP phone systems, approved 3rd party software, and includes ClockWise Campus software with purchase.

Description

AUDIO

High-efficiency compression horn. Audio coverage up to 4,000ft^2.

OUTDOOR APPLICATIONS

Ingress protection marking IP54 (IEC standard 60529). Solid particle protection and liquid ingress protection.

SOFTWARE

ClockWise Campus software included. Compatible with approved third-party software.

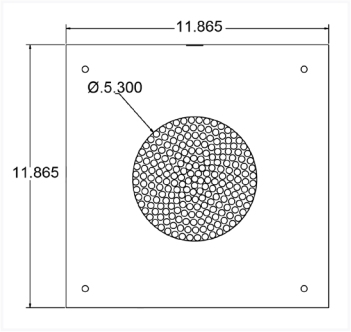
SIP INTEGRATION

SIP-enabled. Easily interfaces with VoIP / SIP phone systems.

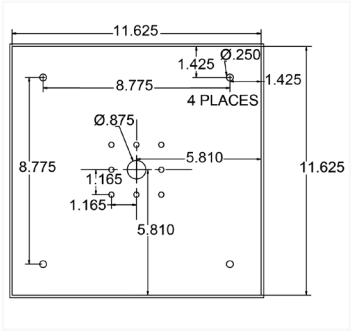
Solutions	Additional Features	Compatible Peripherals
• Paging • Bell scheduling • Code alerts • Emergency notification • Music streaming	• Built-in web server • Full multicast and broadcast support • Requires Cat5 or Cat6 cable • Back enclosure is included	• N/A

Dimensions

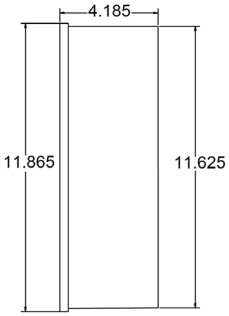
(Dimensions are subject to change)



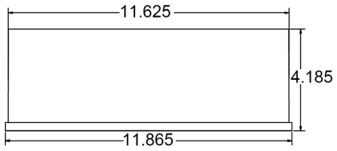
Front



Back



Side



Top

Specifications

Due to continual product development, specifications are subject to change without notice.

Power Input	PoE (IEEE802.3af) 15.4 W or PoE+ (IEEE802.3at) 30.0 W
Ethernet I/F	10/100 Mbps
Audio Power	8 W / 16 W
Frequency Response	600 Hz - 14 kHz
Audio Payload Types	G711, A-law and μ-law
Average Sensitivity	104dB, 1W / 1 M
Supported Protocols	SIP, IPv4, IPv6, 802.1X, HTTP, SLP, TFTP, NTP, SNMPV1 & SNMPV2c, DHCP, IGMP, ICMP, TCP/IP, LLDP-MED, UDP, MDNS & MDNS-SD
Operating Temperature	14˚ TO 122˚ F (-10˚ TO 50˚ C)
Dimensions	11.87” W x 11.87” H x 4.19” D
Weight	10 lbs (4.54 kg)
Warranty	2 Year Limited

Advanced Network Devices | 3820 N. Ventura Dr. Arlington Hts. IL 60004
847-463-2236 | sales@anetd.com | www.anetd.com

Model: IPSWS-SM-O
Advanced Network Devices
www.anetd.com
Conforms to UL STD: 60950-1, 60950-22
Cert. to CAN/CSA STD C22.2: 60950-1, 60950-22
42.5V-57.0V DC, 25.5 W Max
802.3at PoE+