NINE YARDS STUDIO

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ADDENDUM #15

Date:	May 24, 2024	
Project:	Stratford High School New School Construction	
DTI Project #:	535-18056	
Re:	Addendum #15	8 Page Addendum + 18 pages of att.

This addendum forms part of the Contract Documents and is to be read, interpreted and coordinated with all other parts. The following items and prices shall be added to the tendered price for this project.

GENERAL

A-15-1 Review addendum in its entirety.

A-15-2 Clarification: The bid documents for any particular Trade Package shall include all addendums issued during, and prior to, the tender period for that particular Trade Contractor. IE. applicable addenda shall include all addenda from Addendum 1 to the last addendum issued during the tender period.

SPECIFICATIONS

A-15-3 Ref. Specification Section 07 21 16 – Blanket Insulation:

.1 Para 2.1.1.2 – Stone Wool Acoustic Insulation: Add Thermafiber SAFB by Owens Corning as an acceptable product.

A-15-4 Ref. Specification Section 07 52 00 – Modified Bituminous Membrane Roofing:

.1 Para 1.5 Guarantee: Rename Para to Warranty.

.2 Para 1.6 Warranty: Rename Para to Submittals.

.3 Para 2.5.6.2.1 Cap Sheet: Rename Sopralene Flam 205 GR to Sopralene Flam 250 GB.

.4 Revise Para 2.9 Integrated Cover Board and Base Sheet as follows:

.1 High performance base sheet composed of SBS modified bitumen membrane with a non-woven polyester reinforcement and a surface covered with a thermofusible plastic film. This membrane is factory-laminated on a high density polyisocyanurate insulation support panel.

.1 Acceptable Products:

.1 System 1: Equivalent product by IKO.

.2 System 2: 2-1 Soprasmart ISO HD by Soprema.

A-15-5 Ref. Specification Section 07 81 00 – Applied Fireproofing:

.1 Para 2.1.4.7: Add Monokote Z-106/HY by GCP Applied Technologies as an acceptable product.

.2 Para 2.1.5.7: Add Fire Finish 120+ CFP-SP WB by Hilti as an acceptable

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product.

A-15-6 Ref. Mechanical Acceptable Products:

.1 Acceptable Products:

The following are considered as acceptable manufacturers of the items listed as specified. In each case it is the responsibility of the manufacturer's representative to select specific products that meet the specifications in all significant respects. Products offered will be subject for review and acceptance at the shop drawing stage. Contractors are to satisfy themselves that products offered meet the specifications and fit in the available space as no extra charge will be considered if they are later found to be unsuitable.

Section	Par.	Manufacturer(s)
20 00 01	1.30.3 Piping System Cleaning and water treatment Chemicals	T.Donovan & Son
22 00 40	2.9 DHW Recirc Pumps	Flofab
	2.10 Circulators	Flofab
	2.17 Elevator Sump Pump	Flofab
	2.24 Expansion Tanks	Flofab
23 00 55	2.7 Flexible connections	Hays Hebdraulique
	2.5 Balancing Valves	Hays
23 00 60	2.12 Expansion Tanks	Flofab
	2.14 Triple Duty Valves	Flofab
	2.15 Suction Diffusers	Flofab
	2.16 Hydraulic Separators	Flofab
	2.19 In Line Circulating Pumps	Flofab
	2.20 Glycol Make-Up Package	Flofab
	2.23 Buffer Tank BT-1	Flofab
23 00 80	2.7 Fire Dampers	Alumavent
	2.8 Firestop Flaps	Brisk Mfct.
	2.11 Grilles, Registers, Diffusers	Krueger
	2.12 Electric Heaters	Thermolec
	2.17 Split AC & Heat Pumps	LG
	2.31 Gravity Exhaust Ventilators	Pennbarry
	2.22 Welding Exhaust System	Levco

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2.23 Portable Welding Exhaust Units Levco
2.25 Vehicle Exhaust System Levco

A-15-7 Ref. Specification Section 23 00 55 & 23 00 60 – Geothermal System Glycol:

.1 Clarification: Ground side of geothermal system will be completed prior to building tie-in, geothermal site contractor is responsible for filling ground side portion of system with 35% propylene glycol solution prior to sealing their portion of the system. Mechanical contractor responsible for the building side of geothermal system shall connect building and ground sides of system together and fill with propylene glycol solution as required to provide a final system glycol concentration of 30%.

A-15-8 Ref. Specification Section 28 23 00 – Video Surveillance:

.1 Para 1.7: NVR to be sized to provide a minimum of two months recording time, complete with the latest version of windows professional, with a minimum of 128 channels for IP cameras.

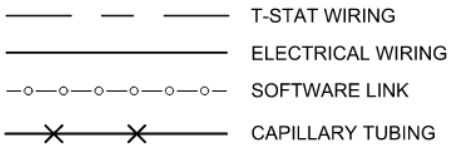
DRAWINGS

A-15-9 Reference: Drawing A280 – Roof Plan and Typical Roof Details:

.1 Detail 1 – Roof Plan: scale for this detail is denoted as NTS. A scale of 1:250 can be used for this plan.

A-15-10 Reference: Drawing M000:

.1 Add the following linetypes to legend sheet M000:



A-15-11 Reference: Drawing M200.1, M201.1 and M202.1 – Rear Canopy Storm Drainage:

.1 Revise the storm drainage routing from rear canopy roof drains as indicated on attached MSK-005

A-15-12 Reference: Drawing M221.1 – M222.3 & M702 – Hydronic Piping Branches:

.1 Clarification: Water to Air Heat Pump Branch Sizes shall be as indicated in Water to Air heat pump schedule on drawing M702. Revise the following branch sizes shown on hydronic piping layouts to match schedule values listed below:

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HP #	Branch Size
110	25
129	32
130	32
149	25
152	32
160	25
168	50
171	25
202	25
210	32
228	32
231	32
233	13
234	32
243	32
244	32
245	32

A-15-13 Reference: Drawing M231.2 – Vestibule 1148 Heating System:

.1 Delete Force Flow heater FF-3 located in vestibule 1148. Add supply fan SF-1 and electric heating coil to provide space heating as indicated on attached MSK-06.

.2 Specifications:

SF-1:
Fantech model FRD 16-8
500cfm @ 0.3" ESP
Electrical: 225W, 208V/1PH
Provide c/w speed controller for balancing.

EHC-1:
4KW electric duct heater c/w modulating SCR control.
Electrical: 208V/1PH
Provide associated airflow switch, disconnect and duct high limit temperature sensor.

Linear Slot Diffuser Type "S":
EH Price model SDS75, 3 slot
c/w 200x400x3600 fabricated plenum.

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.3 Sequence of Operation:
On a call for heat from space thermostat, SF-1 and EHC-1 shall be energized. SF-1 shall operate at constant speed as set during air balancing. EHC-1 SCR controller shall modulate coil as required to maintain space temperature setpoint.

A-15-14 Reference: Drawing M234.3, M250.0 & Section 23 00 80 Par 2.28 – Fume Hoods:

.1 Change fume hood located in Chemistry Lab A to be as specified below. Fume Hood in Chemistry Lab B to remain as previously specified.

.2 Fume Hood FH-2: (Pass through type in Chemistry Lab A)
Labconco Model: 4ft Protector Pass-Through Laboratory Hood with 2 service fixtures and 1 GFCI duplex 115V receptacle.
Provide c/w:
Model: 9570410 Spillstopper work surface.
Model: 4005200 Oval Cup Sink
Model: 9827900 Gooseneck Faucet
Model: 9901000 Standard Base Cabinet
Model: 177250100 Spectrum, coated steel, 12” external blower, 1HP, 115V/1PH/60Hz
Model 9413400 Guardian digital airflow monitor kit.

.3 Refer to MSK-02 and MSK-07 for revisions to discharge ductwork.

A-15-15 Reference: Drawing M234.3 & M250.0 – Exhaust Fan WEF-4 Stack:

.1 Provide a 250mm Dia., 2400mm tall rooftop exhaust stack for EF-4 discharge as indicated on attached MSK-03 and MSK-08.

A-15-16 Reference: Drawing M250 – Mechanical Roof Plan:

.1 Mechanical contractor shall coordinate all Sector “A” mechanical roof penetration locations with electrical solar array prior to installation.

A-15-17 Reference: Drawing M301 & M607 – Hydraulic Separator Air Vent:

.1 Hydraulic Separator HS-01 air vent discharge shall be piped to glycol make-up package GMP-01. Refer to attached MSK-04.

A-15-18 Reference: Drawing M607 – Geothermal System Schematic – Flow Meters:

.1 Clarification: Mechanical contractor shall provide flow meters on each reverse return heat pump loop. Quantity and sizes as follows:

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Size	Quantity	Location
50mm	2	Corridor C2-1, Student Services 1171
63mm	3	Corridors C1-1, C1-9, C2-2
75mm	3	Corridors C1-10, C1-12, C2-4
150mm	1	Corridor C2-3

A-15-19 Reference: Drawing M607 – Geothermal System Schematic:

.1 Clarification: Geothermal pipe tags “GWS” & “GWR” shall be revised to “HPS” & HPR”. Contractor shall provide connection adapters as required for connection to polyethylene geothermal pipe installed by geothermal sitework contractor.

A-15-20 Reference: Drawing E201 - Level 1 Power and Communications Sector A:

.1 Two additional push buttons are shown in Vestibule 1100. Remove the two push buttons on gridline 7.
.2 1.2. Interior push button missing on door 1121B.
.3 1.3. Push buttons are required on either side of door 1117A.
.4 1.4. Push buttons are required on either side of door 1114A.
.5 1.5. Provide 120V power supply to Door 1122A. Connect to the closest 120V electrical circuit.
.6 1.6. Intercom Master Station located at Reception Desk to have the ability to open Door 114B as well.
.7 1.7. Doors 1148B and 1148C require a power supply. Connect to LP6-27.
.8 1.8. Doors 1123A and 1123B require a power supply. Connect to LP5-26.
.9 1.9. Doors 1124A and 1124B require a power supply. Connect to nearest 120V, 15A circuit.
.10 1.10. Door 1110D is to get a power supply (connect to closest 120V electrical circuit) and should be designated with a Note #3.

A-15-21 Reference: Drawing E202 - Level 1 Power and Communications Sector B:

.1 Door 1110D is to get a power supply. Connect to closest 120V electrical circuit and should be designated with a Note #5.
.2 Door C1-1 requires a power supply. Connect to closest 120V electrical circuit.

A-15-22 Reference: Drawing E203 - Level 1 Power and Communications Sector C:

.1 Door 1312C is to get a power supply (connect to closest 120V electrical circuit).
.2 Door 1309F is to get a power supply (connect to closest 120V electrical circuit).
.3 Door 1304B is to get a power supply (connect to closest 120V electrical

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circuit).

.4 Door 1329 is to get a power supply (connect to closest 120V electrical circuit). and should be designated with a Note #3.

.5 In Motor Vehicle 1309 and Welding 1304 all 8 receptacles designated with a "TL" are to be LEV series IEC Pin and Sleeve Mechanical Interlock #460MI5WLEV, 600V, 3 phase, 60amp. These are to be used on both the 208V and 600V receptacles.

A-15-23 Reference: Drawing E205 - Level 2 Power and Communications Sector B:

.1 Door 2219C is to get a power supply (connect to closest 120V electrical circuit) and should be designated with a Note #1.

A-15-24 Reference: Drawing E206 - Level 2 Power and Communications Sector C:

.1 Door 2219C is to get a power supply (connect to closest 120V electrical circuit). Install all low voltage wiring to push buttons, strikes, lock buttons and etc.

A-15-25 Reference: Drawing E401 – Fire Alarm:

.1 Provide CFAR to allow for manual reset of doors C1-1. CFAR to be located in Cust/Tool Storage 1106.

.2 Provide CFAR to allow for manual reset of doors 1122A (both leafs). CFAR to be located in Cust/Tool Storage 1106. Provide fire alarm wiring to magnetic door hold opens on these doors.

.3 Provide CFAR to allow for manual reset of doors 1122B (both leafs). CFAR to be located in Cust/Tool Storage 1106. Provide fire alarm wiring to magnetic door hold opens on these doors.

.4 Doors to Cust 1201, Door 1303, Door 1319, Door 2220, Door 2302A, Door 2327 to have fire alarm connection to electric closer.

.5 Provide fire alarm connection to magnetic door hold opens on C1-9A and C2-2, 2324.

.6 Clarification: Provide all necessary relays required for elevator recall. Provide all isolation modules required when entering and exiting fire rated shafts.

.7 There are flow switches and tamper valves for the Deluse Sprinkler System located on the stage. Provide fire alarm connection.

A-15-26 Reference: Drawing E404 – Security Riser and Details:

.1 Replace the Door Hardware Schedule with the attached Door Hardware Schedule on ESK-007.

.2 Clarification: For all camera quantities refer to the floor plans exact quantities. Not all cameras are necessarily shown on the risers.

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A-15-27 Reference: Drawing E202:

.1 Clarification: EStop shown in Room 1223 is for the adult change table. EStop is provided by the table manufacturer and installed and wired by this contractor.

.2 Clarification: Refer to Equipment Schedule - Kitchen & Food Lab: The following equipment does not require GFCI protection: Items #1, 5, 9, 10, 11, 17, 70, 82, 83, 85, 88.

.3 Clarification: Reference 4/E202 Hood Fire Suppression Details: Items #2, #3, #3, #84, #84, and #85 to have their own their own contactor. Provide contactor size and wiring as indicate don the drawings. Provide single pole contractor for Item #2.
Please see below kitchen equipment conduit and wire size for the larger items only.

Item	Wiring	Conduit
2	4C#4 AWG, RW90 AL	1.5"
3	4C#2/0 AWG, RW90 AL	2"
4	4C#4/0 AWG, RW90 AL	2.5"
81	3C#6 AWG, RW90 AL	1"
83	3C#6 AWG, RW90 AL	1"
86	4C#4 AWG, RW90 AL	1.5"

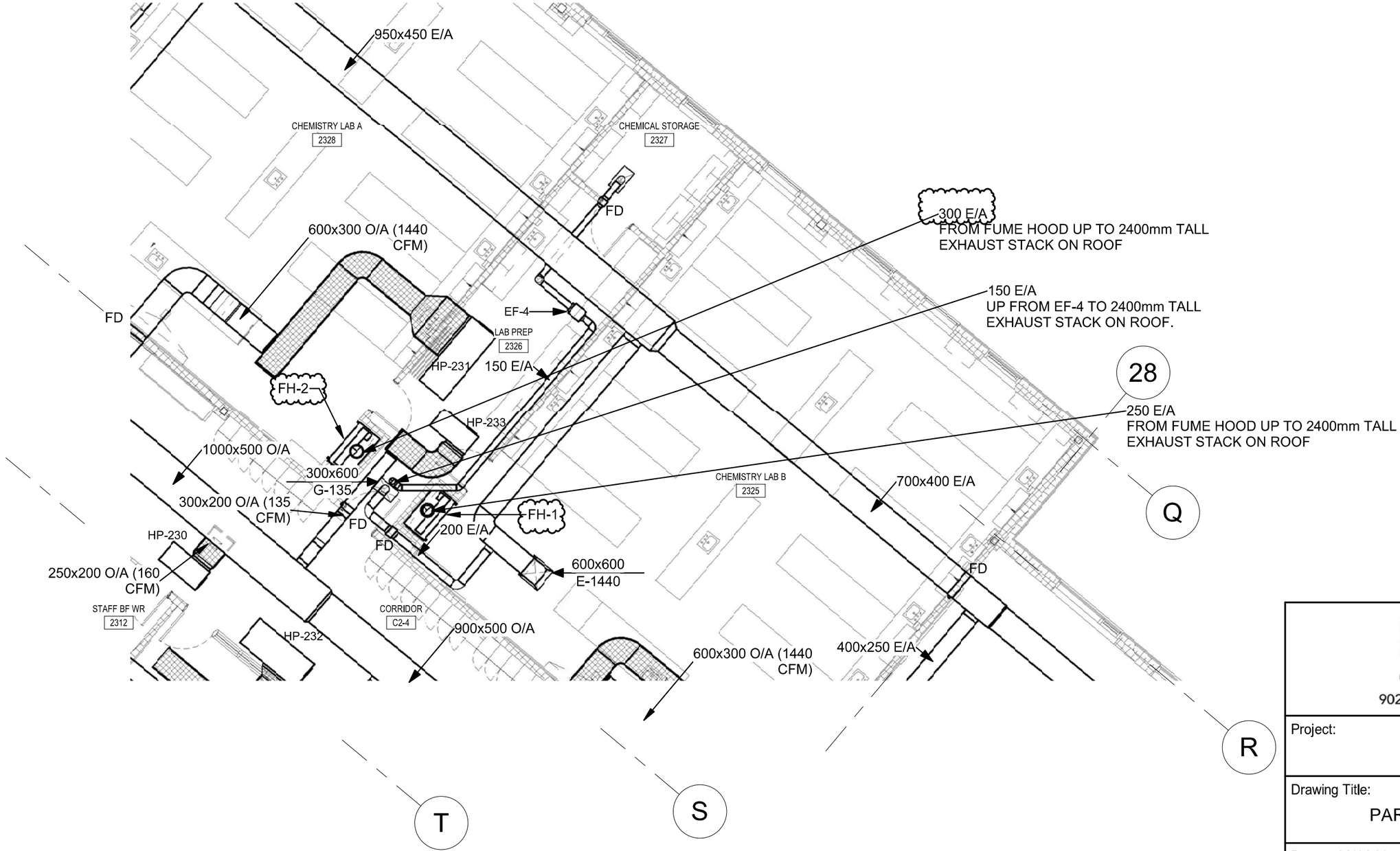
A-15-28 Reference: Drawing E209:

.1 Clarification: Panel TL to be fed with Wiring Type H.

A-15-29 Reference: AV Drawing:

.1 11.1. Replace AV Drawings with updated AV Drawings dated May 21st, 2024.

END



1 PARTIAL LEVEL 2 O/A & E/A PLAN

MSK-02 SCALE 1 : 100

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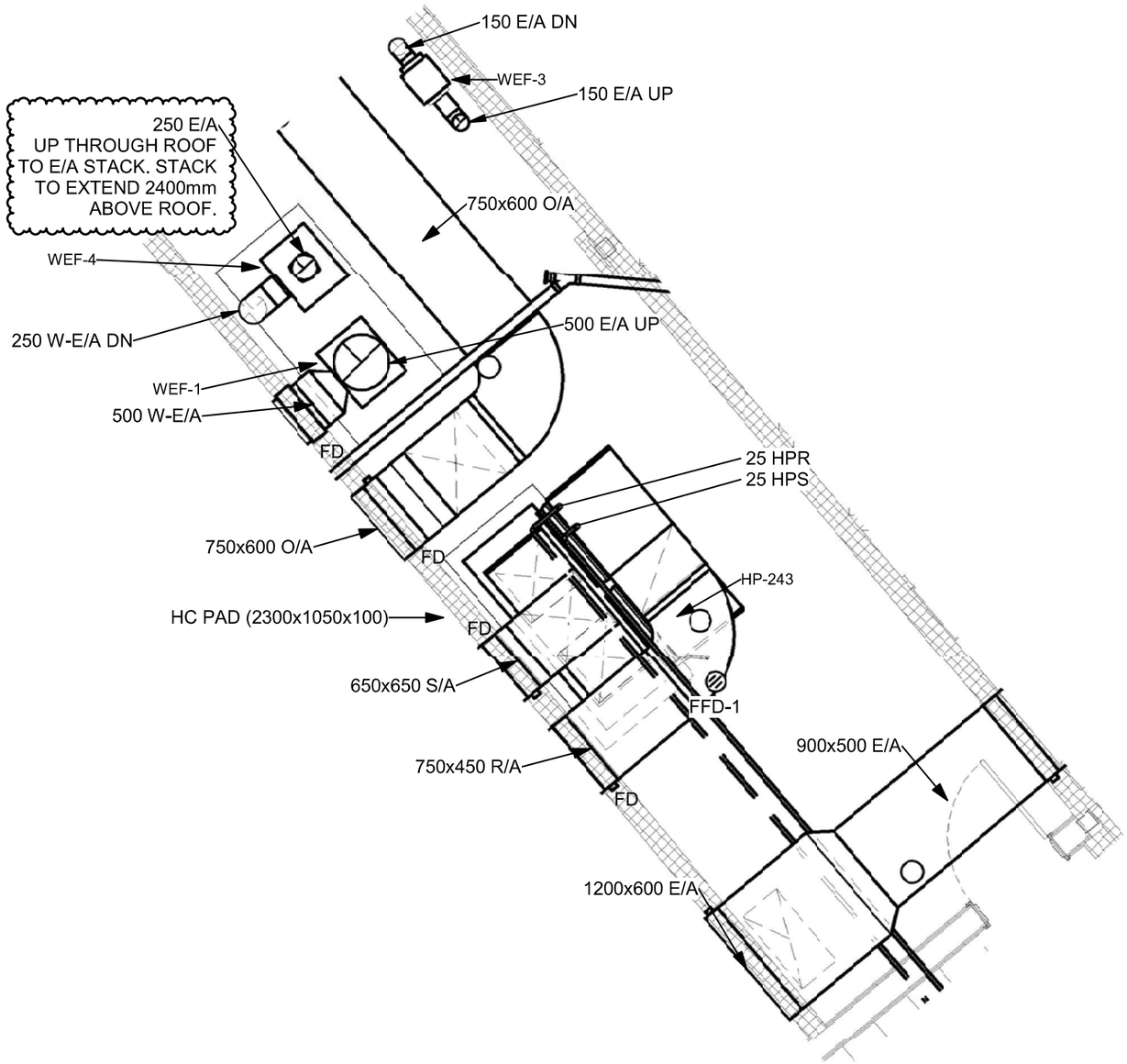
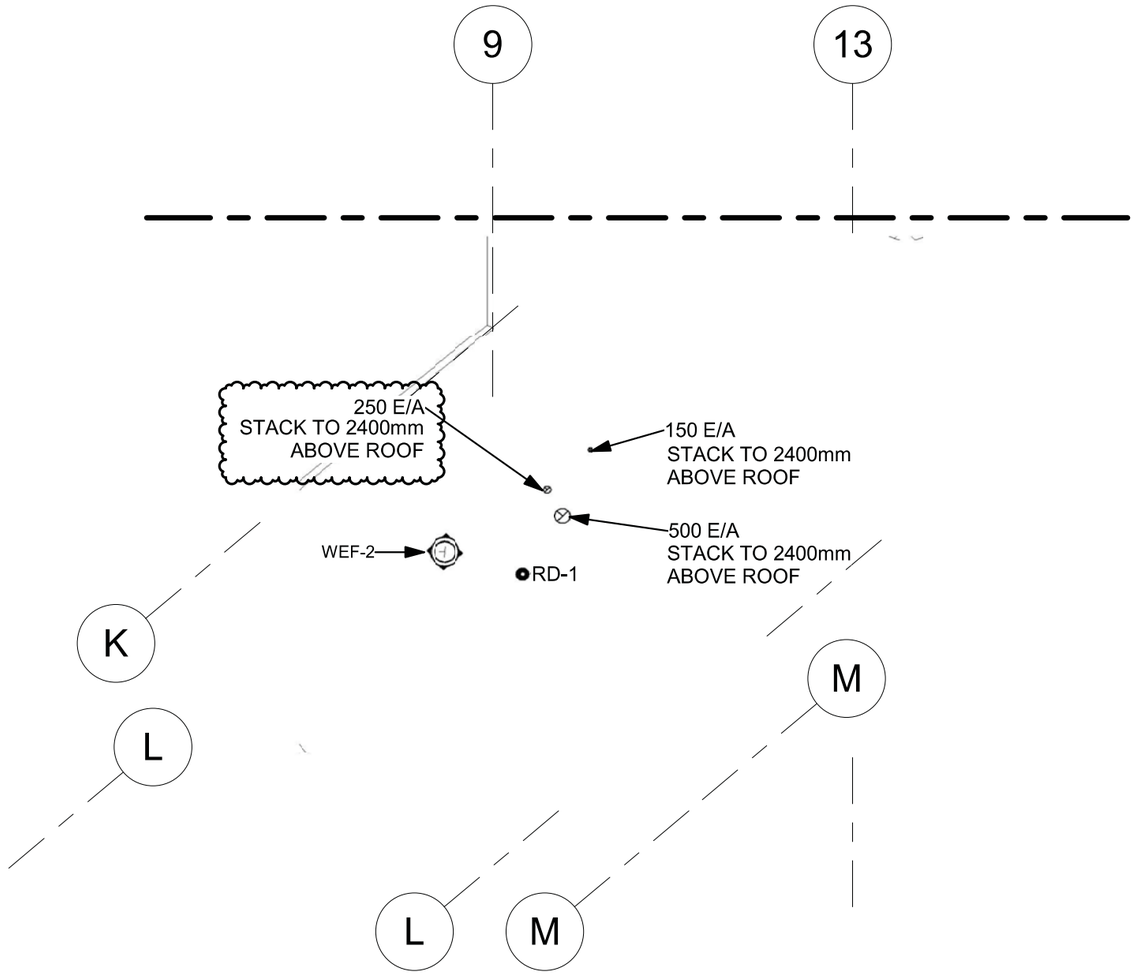
Drawing Title: PARTIAL LEVEL 2 O/A & E/A

Date: MAY 23, 2024	Project No.: 21-336
Scale: As indicated	
Checked: RJH	DWG No.: MSK-02
File NO.:	



1 MSK-03 PARTIAL LEVEL 2 MECHANICAL PLAN
SCALE 1 : 50



2 MSK-03 PARTIAL ROOF PLAN MECHANICAL
SCALE 1 : 200

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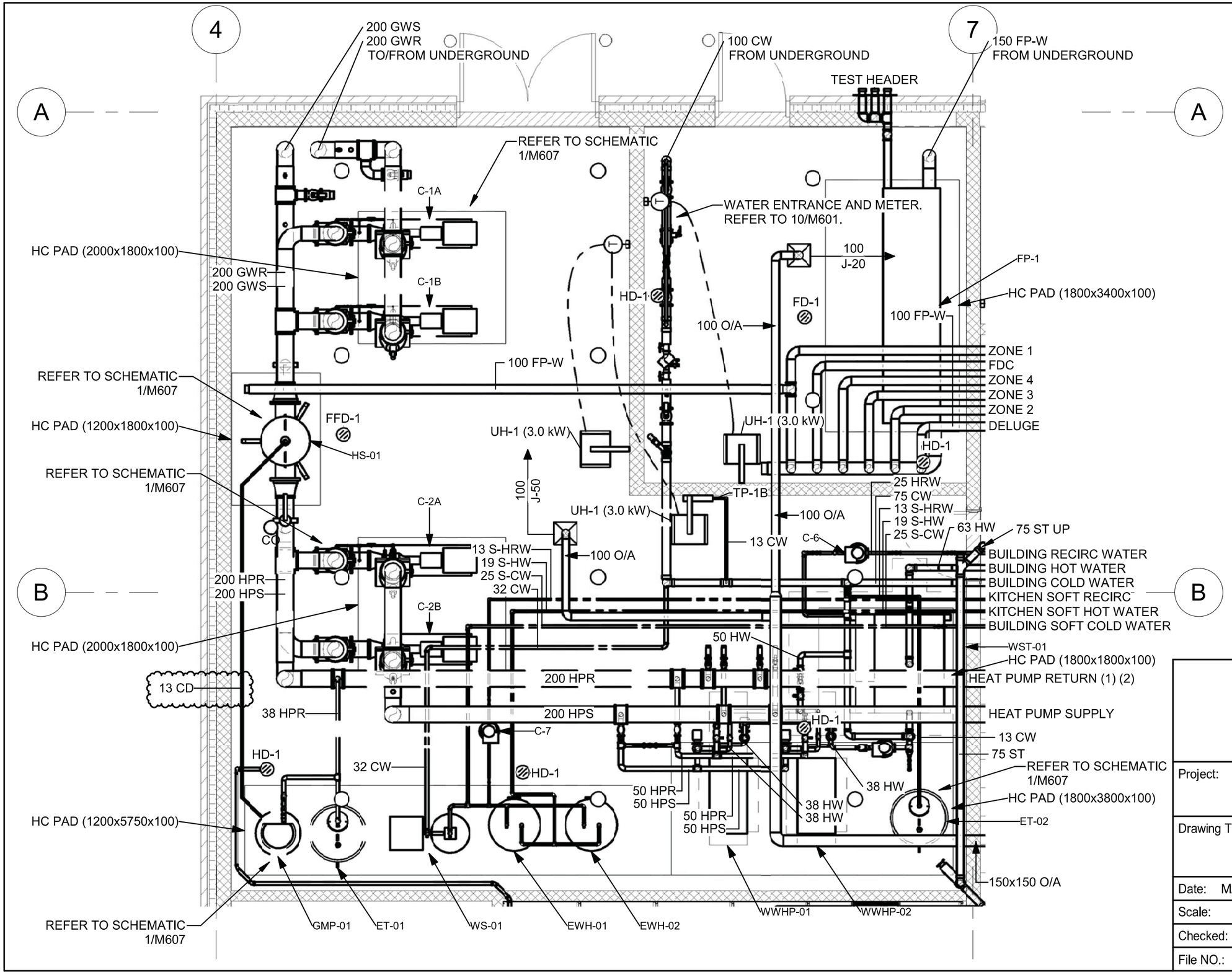
Date: MAY 23, 2024	Project No.: 21-336
Scale: As indicated	
Checked: RJH	DWG No.: MSK-03
File NO.:	



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Project:
Stratford High School

Drawing Title:
LEVEL 1 MECHANICAL ROOM

Date: MAY 23, 2024	Project No.: 21-336
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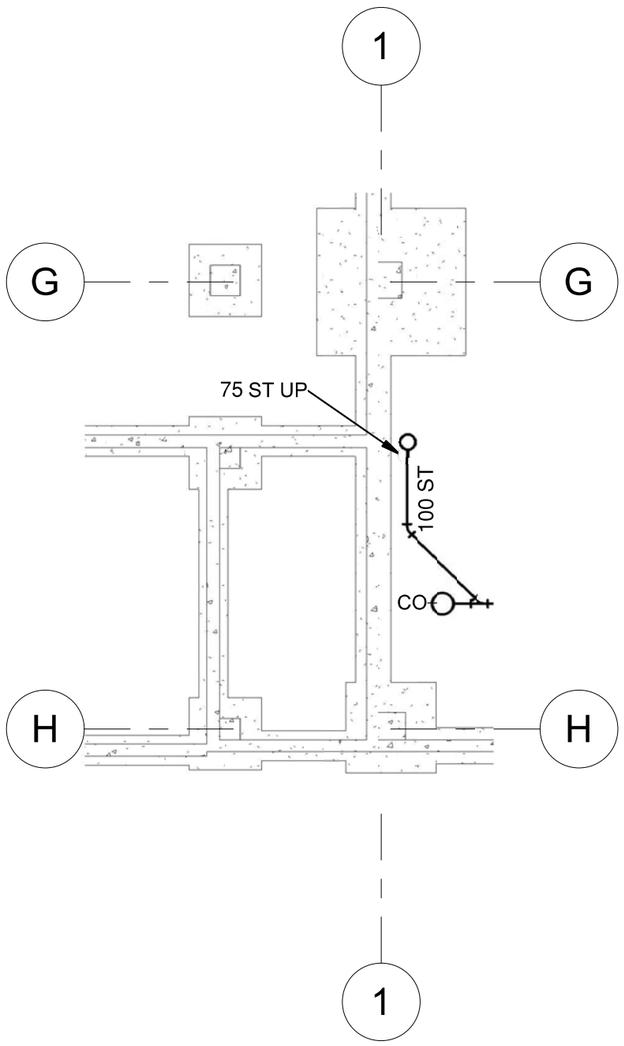
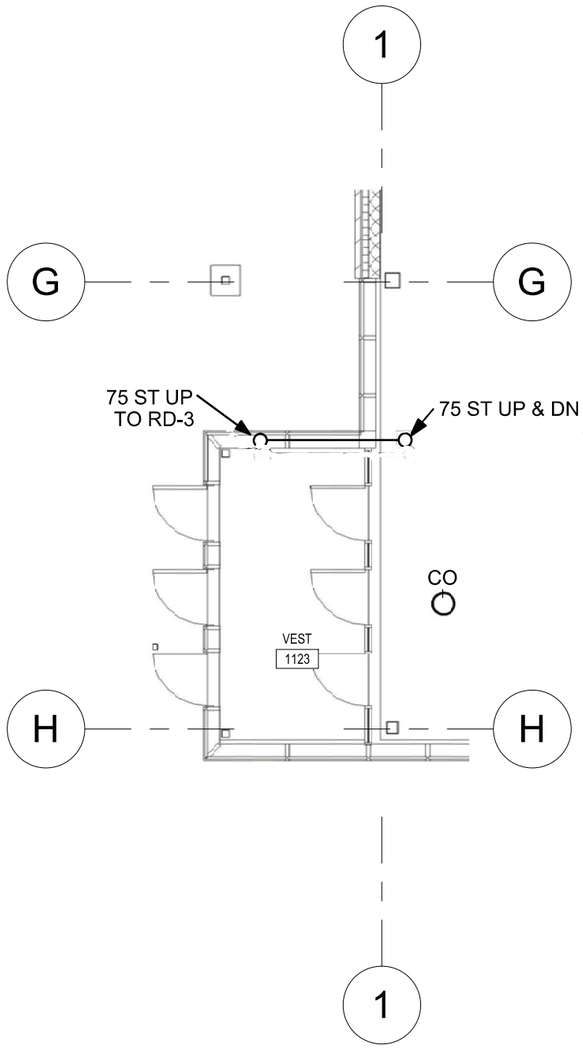
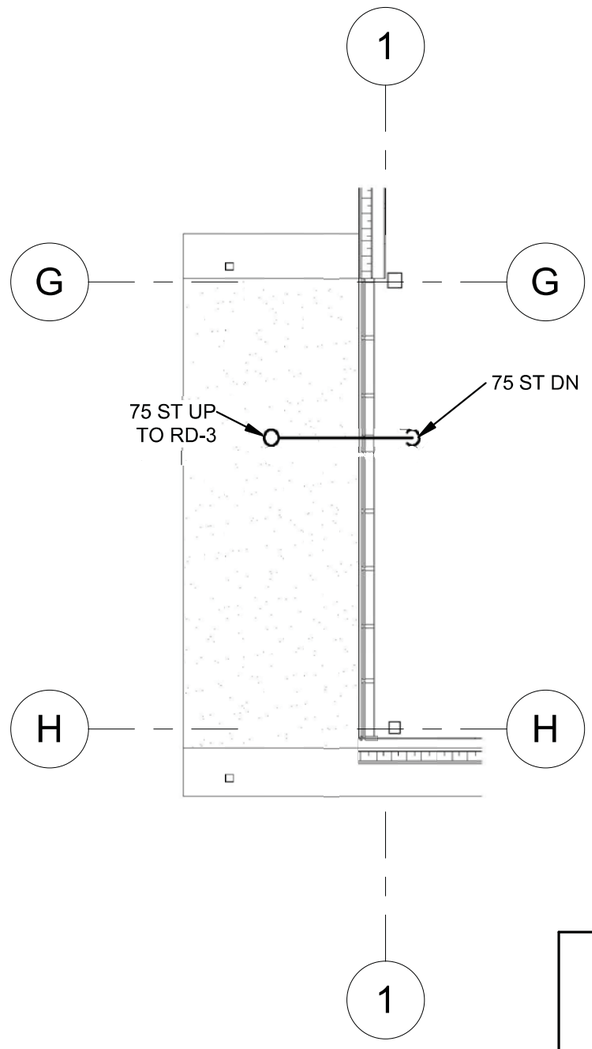
File NO.:	



1 PARTIAL LEVEL 00 - DRAINAGE
MSK-05 SCALE 1 : 100



2 LEVEL 1 SECTOR A - DRAINAGE
MSK-05 SCALE 1 : 100



3 LEVEL 2 SECTOR A - DRAINAGE
MSK-05 SCALE 1 : 100

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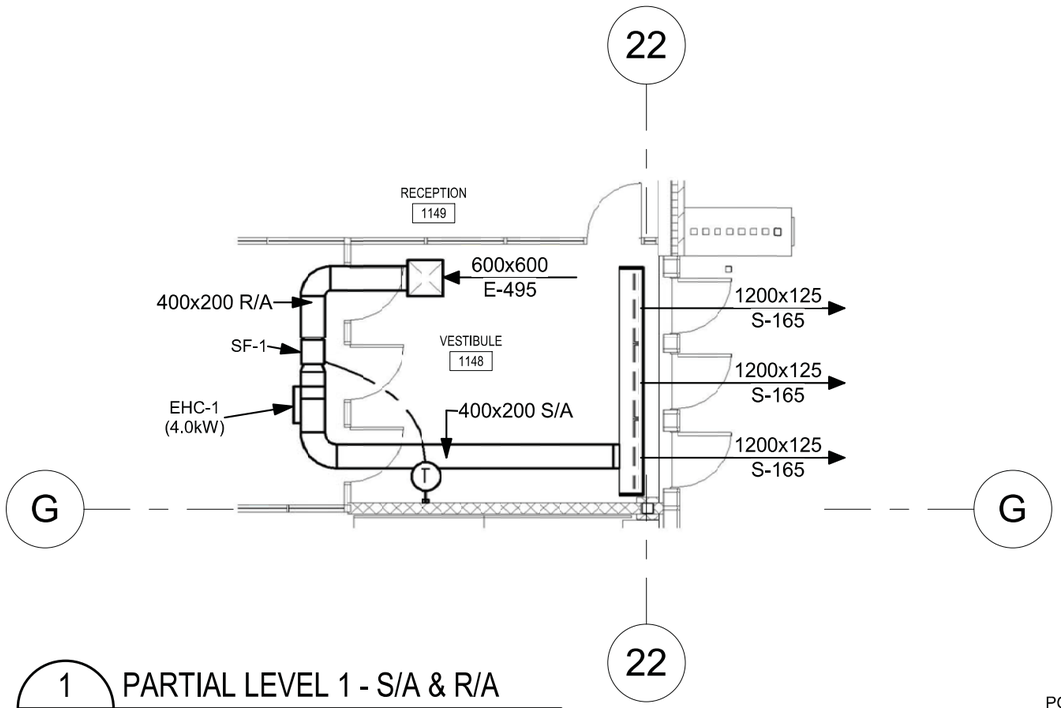
Drawing Title: REVISED CANOPY DRAINAGE

Date: MAY 23, 2024
Scale: As indicated
Checked: RJH
File NO.:

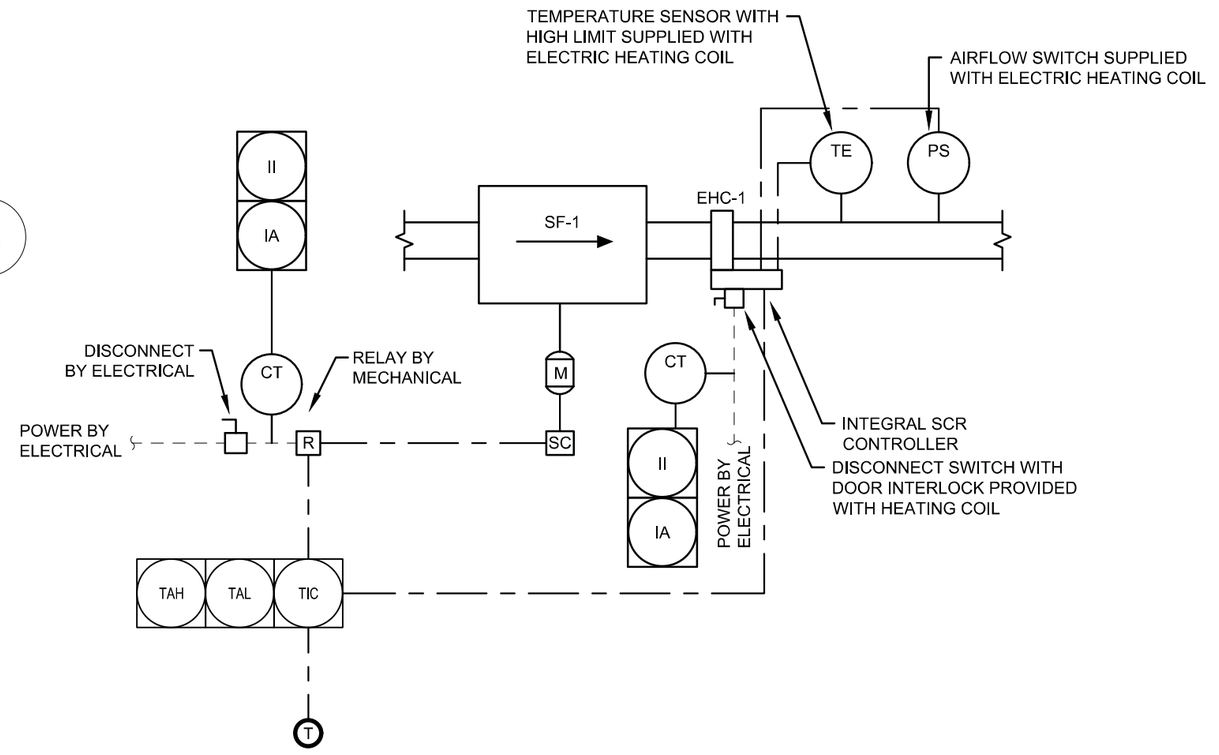
Project No.: 21-336

DWG No.: MSK-05



1 PARTIAL LEVEL 1 - S/A & R/A

MSK-06 SCALE 1 : 100



SF-1 / EHC-1 CONTROL SCHEMATIC

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Drawing Title: PARTIAL LEVEL 1 S/A & R/A AND CONTROL SCHEMATIC

Date: MAY 23, 2024	Project No.: 21-336
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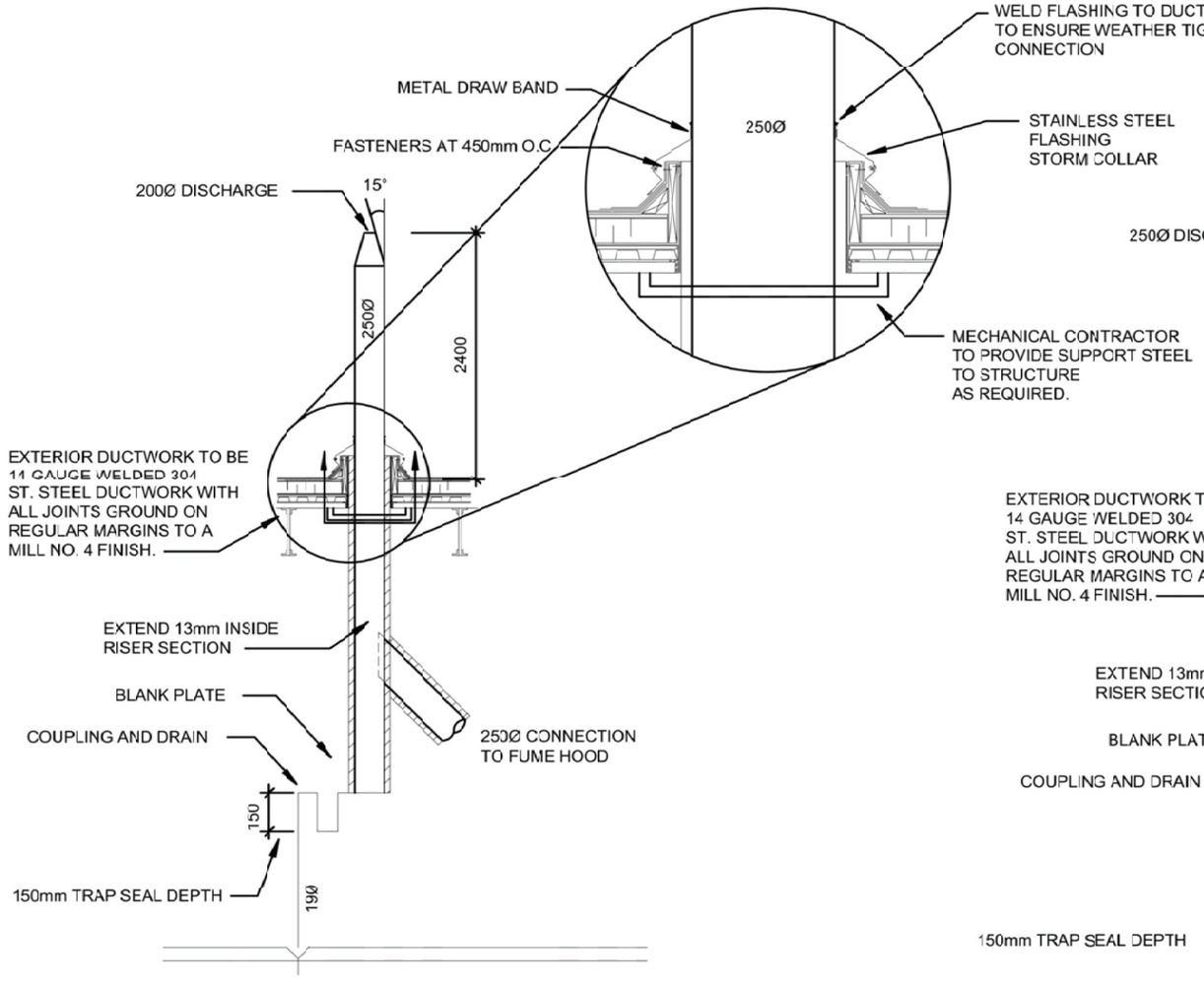
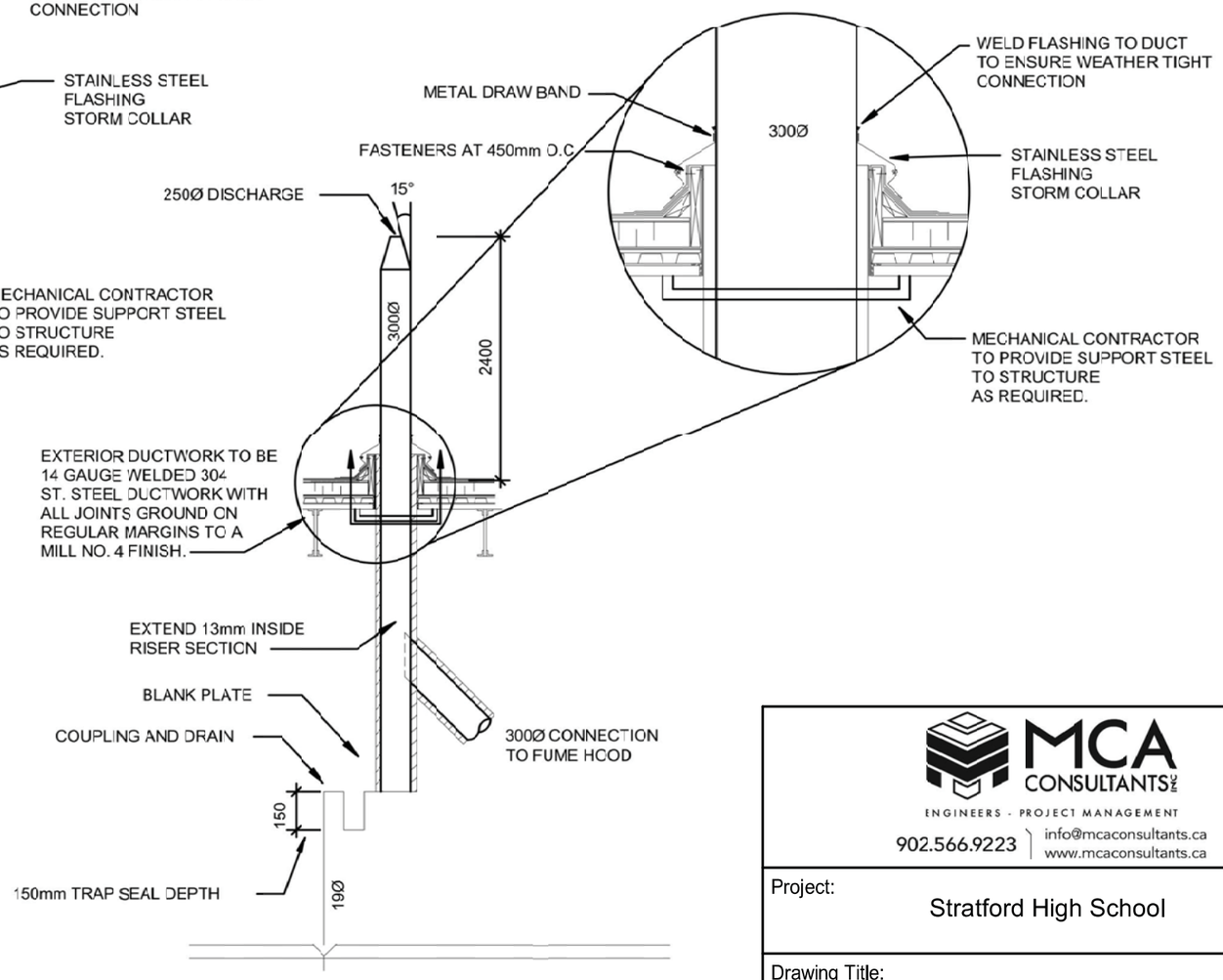
File NO.:	



FUME HOOD FH-1 EXHAUST STACK DETAIL



FUME HOOD FH-2 EXHAUST STACK DETAIL

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Drawing Title: EXHAUST STACK DETAILS

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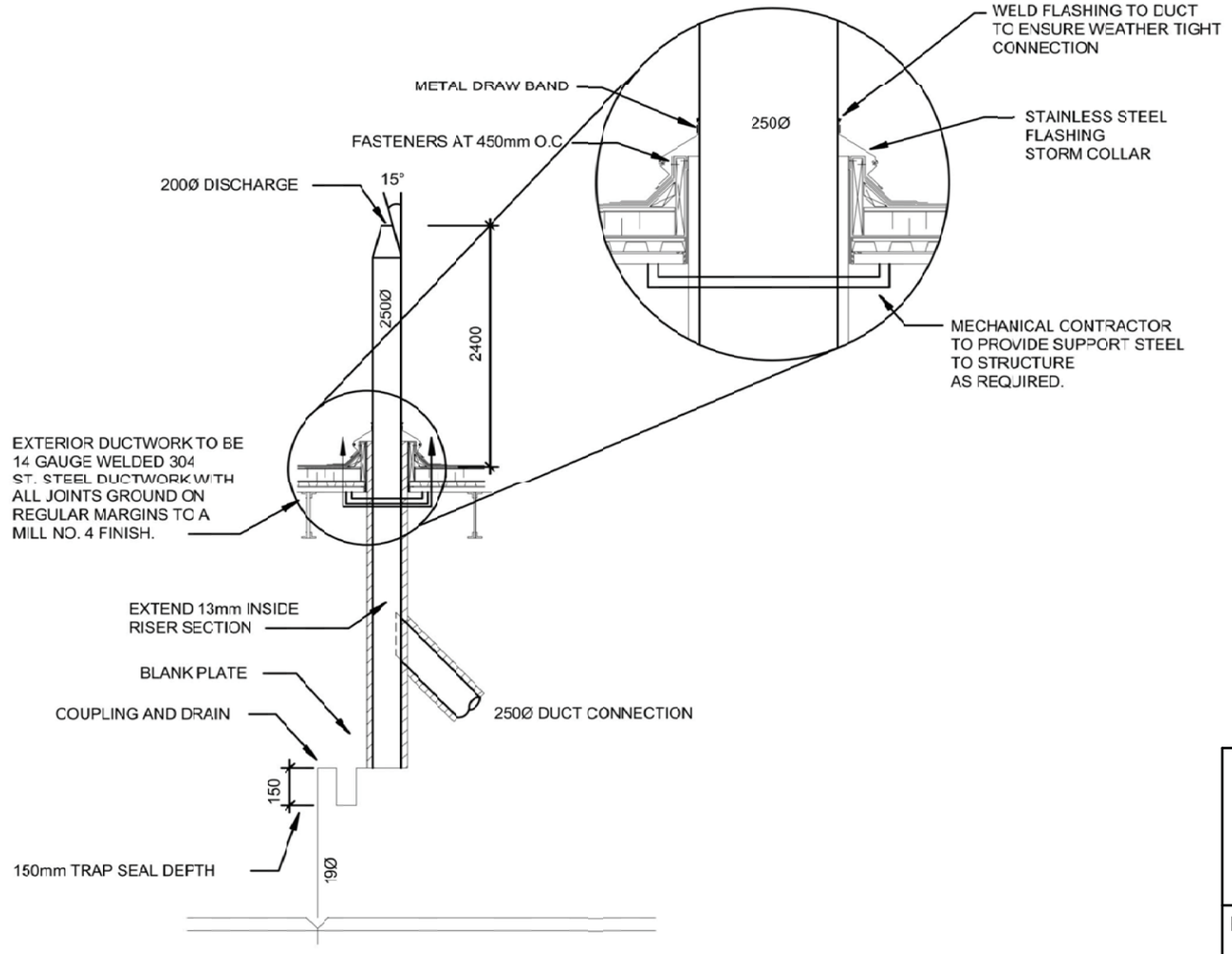
File NO.:	



WELDING SHOP WEF-4
EXHAUST STACK DETAIL

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Drawing Title: WEF-4 EXHAUST STACK DETAIL

Date: MAY 23, 2024	Project No.: 21-336
Scale: As indicated	
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File NO.:	

DOOR HARDWARE SCHEDULE

DOOR TAG	CONTROLLER	ES	ML	PROX	PROX/KEY	D	DO	PB	PS	ELR	DP	KS	FA	RE	NOTES
1100A	DCC#1	-	-	Y	-	-	Y	Y	Y	Y	Y	-	-	-	
1104	DCC#1	Y	-	Y	-	-	-	-	Y	-	Y	-	-	Y	
1114A	DCC#1	Y	-	Y	-	-	Y	Y	Y	-	Y	-	-	Y	
1117A	DCC#1	Y	-	Y	-	-	Y	Y	Y	-	Y	-	-	Y	
1121A	DCC#2	Y	-	Y	-	-	Y	Y	Y	-	Y	-	-	Y	
1121B	DCC#2	Y	-	Y	-	-	Y	Y	Y	-	Y	Y	-	Y	
1122B	DCC#2	-	Y	Y	-	Y	-	-	Y	-	Y	-	-	Y	
1123A	DCC#2	-	-	-	-	-	-	-	Y	Y	Y	-	-	-	
1123B	DCC#3	-	-	-	-	-	-	-	Y	Y	Y	-	-	-	
1123C	DCC#3	-	-	Y	-	-	Y	Y	Y	Y	Y	-	-	Y	
1124A	DCC#3	-	-	-	-	Y	-	-	Y	Y	-	-	-	-	
1124B	DCC#3	-	-	-	-	Y	-	-	Y	Y	-	-	-	-	
1138	DCC#4	Y	-	Y	-	-	-	-	-	-	Y	-	-	Y	
1140	DCC#4	Y	-	Y	-	-	-	-	-	-	Y	-	-	Y	
1147	DCC#4	Y	-	Y	-	-	-	-	Y	-	Y	-	-	Y	
1148A	DCC#4	-	-	Y	-	-	Y	Y	Y	Y	Y	-	-	Y	
1148B	DCC#5	-	-	-	-	-	-	-	Y	Y	Y	-	-	-	
1148C	DCC#5	-	-	-	-	-	-	-	Y	Y	Y	-	-	-	
1148D	DCC#5	-	-	Y	-	-	Y	Y	Y	Y	Y	-	-	Y	
1148E	DCC#5	-	-	-	-	-	-	-	Y	Y	Y	-	-	-	
1148F	DCC#6	-	-	-	-	-	-	-	Y	Y	Y	-	-	-	
1149A	DCC#6	-	-	Y	-	-	Y	Y	Y	-	Y	-	-	Y	NOTE #1
1149B	DCC#6	-	-	Y	-	-	Y	Y	Y	-	Y	-	-	Y	NOTE #1
1155	DCC#6	Y	-	Y	-	-	-	-	Y	-	Y	-	-	Y	
1200D	DCC#7	Y	-	Y	-	-	-	-	Y	Y	Y	-	-	Y	
1211B	DCC#7		-	Y	-	-	-	-	-	Y	Y	-	-	Y	
1304B	DCC#7	-	-	-	-	-	-	-	Y	Y	Y	Y	-	-	
1309F	DCC#7	-	-	-	-	-	-	-	Y	Y	Y	Y	-	-	
1312C	DCC#8	-	-	-	-	-	-	-	Y	Y	Y	Y	-	-	
1326	DCC#8	-	-	Y	-	-	-	-	Y	Y	Y	-	-	Y	
2331	DCC#8	Y	-	Y	-	-	-	-	Y	-	Y	-	-	-	
S3-1B	DCC#8	-	-	Y	-	Y	-	-	Y	Y	Y	-	-	Y	
S3-1C	DCC#9	-	-	Y	-	-	-	-	Y	Y	Y	-	-	Y	
C1-1	DCC#9	-	Y	-	-	-	-	-	Y	-	-	Y	Y	-	

NOTES:

1. DOOR TO RELEASE FROM PUSH BUTTON UNDER RECEPTION DESK

REV.	DATE	DESCRIPTION

ENGINEERING
PO Box 594 - Charlottetown - PEI - C1A-7L1
www.eaeng.ca - craig@eaeng.ca
(902) 394-0881

CLIENT:

NINE YARDS

PROJECT NAME:

STRATFORD HIGH SCHOOL

SHEET NAME:

DOOR HARDWARE SCHEDULE

DRAWN BY:	CR	SCALE:	N.T.S.
DESIGN BY:	CM	DATE:	2024-05-24
PROJECT: 22-080		SHEET:	ESK-007

Drawing List

The following drawings form part of this specification.

Drawing Number	Title
AV-01	Work
AV-02	Equipment
AV-03	Equipment
AV-04	Device Locations Plan/Elevations
AV-05	Plates and Connections
AV-06	Audio/Video System Risers
AV-07	Audio/Video Wire Guides
AV-08	Audio/Video Equipment Information
AV-09	Audio/Video Equipment Information
AV-10	Audio/Video Equipment Information

Identification

.1 The word “Contractor” as it is used in this Specification , refers to the Contractor directly responsible for providing the electronics systems described in this specification. References to other Contractors in this specification shall in no way modify the responsibility of the Systems Contractor to perform all work described in this document including but not exclusive of supplying, installing, terminating and testing.
.2 The word “Owner” as used in this Specification shall refer to Province of Prince Edward island
.3 The word “Designer” as used in this Specification shall refer to EA Engineering

Performance

.1 The Contractor is responsible for all equipment, labor and materiel as required to install, document, complete and test all systems as specified. Contractor is further responsible for the proper operation of any interfaces between existing and newly installed equipment as are outlined in this specification.
.2 All dimensions and distances shall be verified by the Contractor prior to installation of equipment. Any discrepancies discovered shall be reported to the Designer. The Contractor shall provide any and all shop drawings as required by this specification.
.3 Project shall be deemed substantially complete when the following criteria have been deemed met by the Owner and Designer.
.a All Systems Fully Functional
.b All Systems Tested and Commissioned
.c All Systems Manuals Delivered
.d All Systems ready for Operation
.e All Programming Files and Software Delivered
.4 The Contractor shall at all times work in accordance with best trade practices and shall fabricate and install all products in accordance with manufacturers recommendations and the Designers specifications as denoted herein.
.5 The Contractor will coordinate with all trades doing adjoining work in order to provide the best possible final product. Specifically contractors performing electrical work as part of this project.
.6 Coordinate connections and provide network for other systems that require connectivity such as HVAC, security, fire, fitness, Parcel Pending smart lockers, parking, elevators etc.
.7 Minimize broadcast traffic on the network for instance IP security cameras should be on their own Lan/Vlan.
.8 All equipment, material , software (with licenses) and labour as required to fulfill the requirements and intent of this Specification will be furnished whether these items have been enumerated herein or in the project drawings.
.9 All equipment provided for this project will be new.
.10 All wiring must be discrete.
.11 Contractor will have previous experience with and the installation of similar products
.12 Contractor must have on staff a technician trained or certified by the manufacturer or authorized Canadian distributor in the operation and maintenance of the systems specified.
.13 Provide all AV programming required to deliver a functional, operational and integrated AV system.

Extra Work/Equivalents

.1 The Contractor must receive permission in writing from the designer or the owner to proceed with any work outside of the fixed price contract. Should the contractor proceed without this permission, the contractor does so at its own risk.
.2 The Contractor shall notify the designer of any extra work that would be required to allow fixed price work to continue. Notification , in writing , must be given in as expedient a manner as possible so as not to delay progress.

Permits and Codes

.1 The contractor is to obtain at its expense all permits, registrations ,licenses and insurance as required to execute all work in compliance with all pertinent regulations , laws and codes.
.2 The Contractor will execute all work in compliance with all pertinent regulations , laws and codes.
.3 All wiring shall meet or exceed requirements for communications cabling as defined by the Canadian Electrical Code. Non Conduit in wall cabling shall be FT-4 minimum. All cable run in Plenum shall be FT-6

Securing AV Controls

.1 Materials:High-quality hardwood (e.g., oak, maple, walnut) or MDF (Medium Density Fiberboard) for cost-effective options.Ensure the material is durable and can withstand frequent use and potential impacts.
.2 Dimensions: Measure the dimensions of the AV wall controls accurately to ensure a snug fit. Consider leaving extra space for any cables or wiring that need to be accommodated within the millwork.
.3 Design:Design the millwork to seamlessly integrate with the surrounding wall and décor. Incorporate any specific aesthetic preferences or design elements provided by the client. Ensure the design allows easy access to the AV controls while providing security against unauthorized tampering.
.4 Security Features:Include locking mechanisms to prevent unauthorized access to the AV controls.Utilize high-quality locks or security systems to ensure reliability and durability. Consider options such as key locks, combination locks, or electronic locks depending on security needs and preferences.
.5 Finish:Choose a finish that complements the overall aesthetic of the room. Options include stain, paint, or veneer to match existing woodwork or furniture.Apply a protective coating to enhance durability and resistance to scratches or damage.
.6 Installation:Ensure the millwork is designed for easy installation and integration with the existing wall structure.Provide detailed installation instructions or hire professional installers if necessary. Consider factors such as wall mounting or recessed installation depending on space constraints and design preferences.
.7 Ventilation and Accessibility:Ensure adequate ventilation to prevent overheating of the AV equipment.Design the millwork to allow easy access for maintenance or troubleshooting of the AV controls and equipment.
.8 Customization:Offer options for customization based on client preferences or specific requirements. Client may require samples or mock-ups to demonstrate the proposed design.
.9 Quality Assurance:Conduct thorough quality control checks throughout the manufacturing process to ensure the millwork meets specifications and standards.Use high-quality materials and craftsmanship to ensure longevity and reliability of the product.

Division of Responsibility

.1 The Contractors scope of work and that of other sub trades shall be outlined in this specification and attached drawings.
.2 The term “Provide” shall be deemed in this document to mean “supply, install, terminate and test”
.3 Supply and install all network cabling, provide typical keystone Cat6 termination and wall plates/boxes.
.4 Supply and install a managed network solution
.5 Where device licensing is required select 5 year option
.6 Provide an AV Network. The AV network shall exist inside the operations IT network, behind it’s own router and with it’s own network switch(s).
.7 Verify All Device Connections and Locations and coordinate with all associated trades prior to installation.

Programming - Audio and Video Systems

.1 Playback Control:Play, pause, stop, and adjust volume levels.Control individual audio sources (e.g., microphone, music player, announcements).
.2 Source Selection:Ability to select between different audio input sources (e.g., microphone, CD player,computer, streaming service).
.3 Scheduling:Schedule announcements, music playlists, or other audio events to play at specific times.
.4 Zone Control:Control audio output in different areas or zones of the school (e.g., auditorium, classrooms, gymnasium).
.5 Recording:Record audio from various sources for later playback or archival purposes.
.6 Integration:Integration with other systems (e.g., school bell system, intercom system, security system).
.7 Remote Access:Ability to control the system remotely, possibly via a web interface or mobile application.
.8 Fault Detection and Reporting:Monitor system health and report any faults or errors.
.9 Requirement Analysis: Gather detailed requirements from stakeholders (e.g., school administrators, technical staff).
.10 User Interface Design:Design intuitive user interfaces for controlling the audio system. This could include desktop applications, web interfaces, or mobile apps.
.11 Database Design (if applicable):Design databases to store configuration settings, schedules, user profiles, Room combining and functional room assignments , etc.
.12 Implement the software according to the design specifications.Write code to handle various functionalities such as playback control, source selection, scheduling, etc.

Throughout the development process, it's essential to communicate closely with stakeholders to ensure that the software meets their needs and expectations.

Dante

.1 Creating a Dante audio network over three rooms involves several steps to ensure smooth operation and optimal performance. Dante is an audio-over-IP networking solution that allows for high-quality audio transmission over standard IP networks.
.2 Determine the audio needs for each room, including the number of audio sources, destinations, and any specific requirements like latency or audio quality.
.3 Network Configuration:
a. Subnet: Configure all Dante devices to operate within the same subnet.
b. IP Addresses: Assign static IP addresses to each Dante device to ensure stability.
c. QoS Settings: Configure Quality of Service (QoS) settings on your network switches to prioritize Dante traffic. This helps prevent audio dropouts and ensures low latency.
d. Clock Synchronization: Synchronize the clocks of all Dante devices using the Dante Controller software to ensure accurate timing across the network.
.4 Routing Audio:Open Dante Controller and discover all Dante-enabled devices on your network.Create routes between audio sources and destinations using Dante Controller's routing matrix. You can route audio between devices in different rooms seamlessly.
Configure multicast or unicast transmission as per your network requirements.

AV Over IP

.1 Install the AV over IP transmitters at the source devices and receivers at the display or playback devices.
.2 Connect the transmitters and receivers to the network switch using Ethernet cables.
.3 Configure IP addresses, subnet masks, and other network settings for each transmitter and receiver. Ensure they are on the same subnet for communication.
.4 Set up multicast addresses and channels for distributing AV streams across the network.
.5 Configure any necessary audio and video settings such as resolution, frame rate, and compression codecs.
.6 Test the system to ensure proper audio and video signal transmission between sources and destinations.
.7 Check for issues such as latency, audio/video synchronization, and image quality.
.8 Troubleshoot any problems with network connectivity, configuration errors, or compatibility issues.
.9 Optimize network settings and device configurations for better performance if necessary.
.10 Train end-users on how to operate the AV over IP system effectively.
.11 Provide documentation including user manuals, troubleshooting guides, and network diagrams for reference.
.12 Regularly maintain the AV over IP system by updating firmware, monitoring network performance, and addressing any issues that arise.
.13 Provide ongoing technical support to address user concerns and optimize system performance over time.

Materials Control Work Conduct

.1 The Contractor shall provide its own secure boxes for storage of tools ,equipment and materials.
.2 The Contractor is responsible for the loss of any and all equipment unless permanently affixed to the building or that which has been signed over to the owner.
.3 The Contractor will provide as part of the fixed cost contract any and all lifts, ladders and staging as required to complete the installation.
.4 The Contractor shall be responsible for any damages resulting from the installation process or its activities on site and shall make good on any damages.
.5 Upon completion of all scheduled work. The Contractor shall only be granted access to the site at the discretion of the owner.
.6 Contractor must coordinate with the Project Manager and the Owner any activities which would be considered sensitive. Examples of which are :
.a High Spl tests
.b Lighting Focus
.c Any Situation which may cause an unsuitable work environment for other trades or facility staff.
.d Any Situation which could cause a disruption in the Project Schedule
.7 Conduct thorough testing to ensure that software meets functional requirements and functions correctly under different scenarios.
.8 Perform unit testing, integration testing, and system testing.

System Manual

.1 Provide three (3) bound paper copies of systems manual as specified. One to the Owner , one to the Designer and one for training User / Operators.
.2 Provide three (3) electronic copies of systems manual formatted in Adobe Acrobat. These will be distributed as per .1 of this section.
.3 Contractor will provide current copies of any programming as it relates to system control. Contractor must provide any and all passwords , codes or addresses for any devices that form part of this specification. At no time is the contractor to electronically “lock” or in any way impede access by the owner and/or the designer to higher control functions of systems programming.
.4 Provide three (3) uncompiled copies of all programming files on separate USB keys to be included with system manuals.

Approval Drawings

.1 The Contractor will provide approval drawings within 4 weeks of contract award. These Drawings shall include:
.2 a)Block diagrams delineating connections to all equipment.
b) Show grounding scheme for all shielded equipment.
c) Identify all wire types , numbers and connections.
d) Identify all devices or device groups and show all wiring information for multi-pin connections.
.3 Provide detailed schematics of all custom work.
.4 Provide drawings of all panel layouts.
.5 Provide drawings of all custom metal work assemblies.
.6 Provide Rack Layouts with specifications and AC distribution for equipment in racks.
.7 Provide all detail on any custom millwork.
.8 Any other drawings as noted in this specification.
.9 All product brochures and product samples to be supplied to owner on request.
.10 All programming code , flowcharts and panel drawings.
.11 Provide shop drawings for all equipment specified by this document
.12 Provide timeline showing delivery times for specified product and where possible detailing each phase of the installation.

Guarantee/Warranty and Service

.1 The Contractor shall provide a written warranty that guarantees all labor , materiel and workmanship for the term of one year from installation commissioning. Any work performed under this section will be done at no cost to the owner.
.2 All equipment supplied will be obtained from manufacturers or their duly appointed Canadian Representatives.
.3 The Contractor will provide all warranty information as provided by the manufacturers of products installed.
.4 The contractor will provide a schedule to the Owner detailing rates for on-site service as may occur outside of the guidelines outlined herein.
.5 Documentation and Maintenance: Document your Dante/Video network setup, including IP addresses, device configurations, and routing schemes, for future reference.
.6 Provide fee proposal to perform regular maintenance tasks such as firmware updates and network monitoring to keep network running smoothly.

Commissioning

.1 Deploy the software in the school's environment, ensuring compatibility with existing hardware and systems. Provide necessary training to users and administrators.
.2 Dante Testing and Optimization:Test audio transmission between rooms to ensure proper functionality. Monitor network performance using Dante Controller and troubleshoot any issues such as latency or packet loss.Optimize network settings as needed to achieve the desired audio quality and reliability.
.3 After the Designer has received the Contractors completion report on all tests as specified herein. The Contractor shall provide at its cost and at a date suitable to the Designer and representatives of the Owner, all equipment required to test the systems. A letter of acceptance from the Designer shall denote substantial performance.
.4 Should work be deemed not substantially complete at the time of first inspection the Contractor will be responsible for any additional costs for consulting and transport incurred during subsequent inspections.
.5 If the installed system does not fulfill design requirements as outlined in this specification. The contractor shall perform ,at its cost , any adjustments or changes as required to bring the installation up to conformity.
.6 Prior to final acceptance the owner may require the use of the system for testing or demonstration. The systems contractor shall not waive its responsibilities under this contract because of said use. Nor shall use be construed as evidence of the acceptance of the installation.
.7 Security:Implement network security measures such as VLANs, firewalls, and access control lists to protect AV network from unauthorized access and ensure data integrity.

ARCHITECT:
NINE YARDS
DESIGN CONSULTANT:
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ELECTRICAL CONSULTANT:
EA ENGINEERING
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(902) 394-0680

Rev	Description	Date

PROJECT:
STRATFORD HIGH SCHOOL

STRATFORD, PE

DRAWING TITLE:
WORK

DRAWN:	FILE NO:
Author	22-080

DWG: AV-1

Rack

.1 23.5" Width
.2 26" Overall Depth
.3 18 U
.4 Clear Front Door
.5 Wall Mount
.6 Easily removable laser knockouts accommodate conduit, UHF VHF antennas, Wiremold® 4000 Series raceways, Middle Atlantic Universal Connector Panels, electrical pull-box Grounding/bonding stud in top and bottom of center section and back pan facilitates proper grounding and bonding of electronic equipment, as per NEBS and NEC standards
.7 Finished in a durable black textured powder coat
.8 UL listed in the US and Canada
.9 Lockable
.10 Fan kits with two 6" exhaust fans, fan guards and vent blockers
.11 Quantity 3

Rack Drawer

.1 3U
.2 Full extension ball bearing slides extend a full 14" to reveal inside dimensions measuring 15-7/8" wide by 14-1/2" deep.
.3 Face formed drawer pull.
.4 Latch and key lock.
.5 Steel construction with black powder coat finish
.6 Drawer has fully enclosed design to keep contents secure
.7 Shipped fully assembled and ready to install
.8 Quantity 6

Rack Blank

.1 As required to fully enclose rack face once all devices have been installed. As per Rack Layouts

Rack Power Bar

.1 Industry's fastest Patented non-sacrificial surge technology protects equipment from damage without contaminating system ground
.2 100% free MOV-free design is non-sacrificial and non-degrading
.3 Connected devices are automatically disconnected (protected) from sustained over & under input voltage
.4 Automatic recovery after both over- and under-voltage events minimizes system downtime
.5 15 A at 120 volts in 19" rackmount
.6 Protection technology meets the most current and applicable highest standard for safety and reliability
.7 12 year warranty
.8 Single Service Outlet on Front and 8 Outlets on rear
.9 Bonded ground
.10 Rear Power switch only.
.11 Quantity 3

Rack UPS

.1 1U
.2 1000 VA
.3 Bank control of outlets for simple system reboot
.4 Simulated sine wave output waveform
.5 Remote monitoring and control of power with IP card (include)
.6 8ms transfer time
.7 Automatic Voltage Regulation
.8 Non-critical load shedding
.9 Surge protection and EMI filtering
.10 LED status indicators
.11 Battery pack easily replaced via front panel
.12 UL Listed in the US and Canada
.13 Quantity 3

Network Switch

.1 Ports 24x 100M/1000M/2.5G/5G/10GBase-T, 4x 1G/10G SFP+ | 4x 10G/25G SFP28
.2 PoE++ Support - Verify Switch will work with specified wall controllers and is approved for DANTE and AV/IP networks
.3 Switch Chip BCM56170
.4 Stacking Support
.5 Switching Capacity 760 Gbps
.6 ARP Table 16,000
.7 Forwarding Rate 565 Mpps
.8 Number of VLANs 4K
.9 Power Budget (Dual-power) 740W
.10 Jumbo Frame 9,216
.11 Flash Memory 1GB
.12 Total Number of IPv4/IPv6 Routes16,000
.13 Airflow Front-to-Back and Left-to-Back
.14 Management WEB, SNMPv1/v2/v3, RMON, Syslog, sFLOW, USB
.15 Dimensions (HxWxD)1.74"x17.32"x17.81" (44.1x440x452.5mm)
.16 MTBF >233,000 Hours
.17 Max. Power Consumption 120W (760W with PoE)
.18 Rackmount
.19 Quantity 3

Wireless Receiver / Handheld / Headset

.1 Transparent 24-bit digital audio
.2 Extended 20 Hz to 20 kHz frequency range (microphone dependent)
.3 120 dB dynamic range
.4 Digital predictive switching diversity
.5 64 MHz tuning bandwidth (region dependent)
.6 More than 60 available channels per frequency band (region dependent)
.7 Up to 17 compatible systems per 6MHz TV band; 22 systems per 8 MHz band
.8 Easy pairing of transmitters and receivers over IR scan and sync
.9 Automatic channel scan
.10 Ethernet networking for multiple receiver systems
.11 Network channel scanning configures open frequencies for networked receivers
.12 Compatible with Shure Wireless Workbench 6 control software
.13 Remote control from a mobile device or tablet via ShurePlus™ Channels app
.14 AES-256 encryption for secure wireless transmission
.15 Elegant and easy-to-use interface with high-contrast LCD menu
.16 Compatible with external control systems such as AMX or Crestron
.17 Professional-grade all-metal construction
.18 Dual Rack Mount
.19 Quantity 6
.20 Transmitters use 2 AA batteries or Shure rechargeable battery
.21 Handheld System with Beta 58A Capsule
.22 Quantity 6
.23 Beltpack System with MX153 Microphone - Fleshtone
.24 Quantity 6

Network Router

.1 Dimensions - Wx440mm, Dx100mm, Hx43.2mm
.2 Weight - 3.34lb (1.513kg)
.3 Hardware- Quad Core ARM A73 @ 2.2 GHz, 2GB DDR4, Flash Memory 4GB eMMC
.4 Connectivity 1 x 10G/Multi-gigabit Copper (Configurable LAN/WAN) 1 x 2.5G/1G RJ-45 (WAN) 3 x 2.5G/1G RJ-45 (LAN) 1 x 10G/1G SFP+ (LAN)
.5 Performance - LAN-WAN Throughput: 2.4Gbps for 2.5G WAN port. 9.4Gbps for 10G WAN port. WAN-LAN Throughput: 10Gbps max WAN with 17.5Gbps max LAN, when using WAN2 port. 2.5Gbps max WAN with 27.5Gbps max LAN, when using WAN1 port only
.6 LAN/VLAN Maximum Number of VLANs is 8 , DHCP Server (limit is 8) 802.1Q VLAN
.7 Security - Firewall Traffic Rules/Scheduling, Port Forwarding, Port Triggering, Stateful Packet Inspection (SPI), Port/Service Blocking, Denial-of-service (DoS) Prevention, Stealth Mode, Block TCP Flood, Block UDP Flood, Respond To Ping on Internet Port
.8 VoIP SIP ALG
.9 Networking - ISP Address Assignment DHCP, Static IP Assignment, PPPoE, NAT, Static Routing, Routing Protocol (RIPv1, RIPv2), MAC Address Cloning/spoofing, NTP Support, UPnP, Auto Uplink on Switch Ports
.10 VPN - IPSec Site-to-Site
.11 Encryption/Authentication - 3DES, AES (128, 192, 256 bit)/SHA-1, SHA-2 (256bit), MD5
.12 Key Exchange - IKEv1, IKEv2, Pre-shared Key
.13 Management Options - Insight Remote Cloud Management , Web GUI
.14 Logging - Accepted Packets, Dropped Packets Statistics, System, Source MAC filter, Session Limit, Bandwidth Limit, Ipsec VPN, Log Delivery Insight logging, Diagnostics Ping, DNS Lookup, Trace Route, Speed test, Maintenance Save/restore Configuration, Restore to Factory Defaults, Firmware Upgrades, Display and monitor Statistics
.15 Major Regulatory Compliance Environment - RoHS
.16 Safety - CE/LVD, CSA
.17 EMI - FCC Part 15 Class B, CE mark
.18 Operating Temperature - 0° to 40°C (32° to 104° F)
.19 Storage Temperature -20° to 70° C (-4° to 158° F)
.20 Humidity - Operating humidity 90% maximum relative humidity, non-condensing, Storage humidity 95% maximum relative humidity, non-condensing
.21 Power - AC 100-240V, 50/60Hz, 1.3A Electrical Specifications Power adapter input localized to regions
.22 Quantity 1

Patch Bay

.1 Port Type: RJ45 Ethernet ports
.2 Port Density: 24 ports
.3 Compatibility: Compatible with Cat5e, Cat6, Cat6a Ethernet cables
.4 Construction Material: High-quality metal or durable plastic
.5 Mounting: Designed for standard 19-inch racks or cabinets
.6 Dimensions: Fits within standard rack unit (1U) height
.7 Port Labeling: Clearly labeled or numbered ports for easy identification
.8 Color: black
.9 Grounding - Grounding provision for electrical safety and signal integrity
.10 Cable Management: Includes cable management features such as cable ties, loops, or slots for organizing patch cords
.11 Modularity -Modular design for easy replacement of individual ports or connectors if needed
.12 Compatibility - Compliant with industry standards for networking equipment and protocols
.13 Certifications: RoHS and CSA
.14 Warranty: Manufacturer warranty covering defects in materials and workmanship for 3 years
.15 Quantity 3

System DSP

.1 32×32 Processing Matrix
.2 12×12 Local Analogue I/O
.3 I/O Port for Audio Networking (Up to 128×128)
.4 Dante 96kHz Card Included (AES67 and DDM ready)
.5 SLink 128×128 Option Card for Audio Expansion
.6 32 Configurable Processing Outputs – Mono / Stereo Zones or Speaker Processing
.7 96kHz FPGA Core With Ultra-low Latency
.8 Front Panel Screen and Navigation
.9 8x SoftKeys
.10 2×2 Local GPIO Plus Networkable GPIO Interface
.11 TCP/IP Protocol for Third Party Integration
.12 Crestron, AMX and Extron Drivers
.13 Mac / Windows System Manager Software
.14 Custom Control app and Editor for BYOD
.15 16 User Profiles
.16 Integrated Stereo Playback
.17 Event Scheduler
.18 Quantity 3

Amplification

.1 Number of output channels 4
.2 Output stage Class D
.3 Internal samplerate / bit-depth 48 kHz / 32 bit
.4 Signal-to-noise ratio (22 Hz – 20 kHz, 4 Ω – analogue input) -108 dB (unweighted) SE >107 dB (A-weighted) SE
.5 Signal-to-noice ratio (22 Hz – 20 kHz, 4 Ω – digital input) >107 dB (unweighted) SE >110 dB (A-weighted) SE
.6 Frequency response (8 Ω load with CLEAR preset) 20 Hz – 20 kHz = (+0.0 dB /-1.0 dB)
.7 THD+N & IMD (4 Ω load @ 1/2 output power) 20 Hz – 20 kHz = < 0.005%
.8 Protection circuits Inrush current limiter , Thermal limiter Output DC, SMPS over-current, Output overload
.9 LED indicators Mute status ,Limit, Signal, Protection, Ethernet connected / IP address, Power on / Limiting
.10 Ethernet connection 1 x 100 Mbps RJ45 Control, 2 x 1Gbps RJ45 Dante
.11 AC mains voltage 90 V = Minimum 265 V = Maximum
.12 AC mains frequency 47 – 63 Hz
.13 Power consumption (1/4 power = 500 W @ 4 Ω to represent typical music signal) Amplifier in standby <= 15 W , Amplifier idle <= 25 W , Amplifier ¼ power = 1700 W
.14 Input sources Analog, Linet & Dante
.15 Analogue input impedance (balanced) 44 kΩ
.16 Maximum input level (analogue differential) +21 dBu / 8.7 Vrms
.17 Input connections 4x PHOENIX 3P Analog IN , 1X RJ45 LINET IN (8x CH), 1x RJ45 LINET LINK (8x CH) , 2x RJ45 Dante (optional)
.18 Supported digital input formats (internal SRC) 32 kHz / 44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz / 176.4 kHz / 192 kHz
.19 RMS output power (20 Hz – 20 kHz, THD <1%) (all channels driven) 4x 1500 W @ 2 Ω SE, 4x 800 W @ 4 Ω SE, 4x 500 W @ 8 Ω SE , 2x 3000 W @ 4 Ω BTL , 2x 1600 W @ 8 Ω BTL , 1x 3000 W @ 4 Ω BTL + 2x 1500 W @ 2 Ω SE
.20 Power output connections 2x PHOENIX 4P (Connector supplied with amplifier)
.21 Operating temperature +5°C to +55°C , 41°F to 131°F
.22 Thermal output (BTU/h) 85.3 = Idle , 700 = 20 % , 1621 = 50 % , 3156 =100 %
.23 Thermal output (kWh) 0.025 = Idle, 0.205 = 20 % , 0.475 = 50 % 0.925 = 100 %
.24 Cooling 2x thermally controlled fans , Hot air expelled at rear
.25 Physical Dimensions (WxHxD) 483 x 44 x 345 mm / 19" x 1.73" x 13.58" (1U) (size including back mounting ears)
.26 Net Weight 5.75 kg / 12.68 lbs.
.27 Quantity 6 - Rev 1

Audio Console

.1 Rack-mountable Digital Mixer for Live, Studio and Installation
.2 48 Input Channels
.3 16 Local Mic Inputs (XLR)
.4 2 ¼" Stereo Inputs (TRS)
.5 1 3.5mm Stereo Input
.6 36 Total Busses
.7 12 Stereo Mix (Aux or Group) + Main
.8 PAFL Bus
.9 14 Assignable Local Outputs (12 XLR + 2 ¼" TRS)
.10 AES Digital Output
.11 Dedicated Talkback mic input (XLR)
.12 ¼" TRS Headphone out with dedicated control
.13 DANTE I/O Card
.14 8 Mute Groups
.15 DCA Groups
.16 Stereo FX with dedicated FX Returns
.17 RackFX Effects suite
.18 7" colour touchscreen
.19 8 Assignable SoftKeys
.20 Dedicated physical controls for channel processing (Gain, HPF Frequency, Gate Threshold, Compressor Threshold, Pan, EQ Gain/Frequency/Width)
.21 16+1 Faders with 6 Layers for 96 assignable Channel Strips
.22 Motorised faders for sends on faders, GEQ fader flip and mix recall
.23 16 Backlit LCD Channel Strip displays
.24 Chromatic Channel Metering
.25 Integrated Surface Illumination
.26 Input channel pairs switchable mono/stereo
.27 Patchable Insert points
.28 Input processing – Trim, HPF, Gate, PEQ, Compressor, Delay
.30 Output processing – Graphic EQ, PEQ, Compressor, Delay
.31 2x31/61 Band Real Time Analysers
.32 Quick copy/paste/reset for parameters
.33 User Permissions to restrict operator access
.34 300 Scene memories per show
.35 Channel Safes, Global and per Scene Recall Filters
.36 FX, processing and channel Libraries
.37 SQ-Drive for stereo and multi-track recording/playback direct to USB drive
.38 USB transfer of Scenes, Libraries, Shows
.39 32x32 channel USB streaming to/from Mac/PC
.40 MIDI via USB or TCP/IP, including DAW control options
.41 Remote mixing apps for iPad, Android, Mac and PC
.42 Quantity 1
.43 Include Road case for Storage and Transport

Dante Audio , In Wall , Stage Box

.1 16 Mic/Line XLR Inputs Balanced XLR, +48V phantom power
.2 Mic/Line Preamp Fully recallable
.3 Input Sensitivity -60 to +15dBu
.4 Analogue Gain +5 to +60dB, 1dB steps
.5 Pad -20dB Active PAD
.6 Maximum Input Level +30dBu (PAD in)
.7 Input Impedance >4kΩ (Pad out), >10kΩ (Pad in)
.8 Mic EIN -127dB with 150Ω source
.9 4 Analogue XLR Outputs Balanced, Relay protected
.10 Output Impedance <75Ω
.11 Nominal Output +4dBu = 0dB meter reading
.12 Maximum Output Level +22dBu
.13 Residual Output Noise -92dBu (muted, 20-20kHz) -90dBu (muted, 20-40kHz)
.14 Dante Sample rate 48kHz or 96kHz
.15 Bit Depth 24 Bit
.16 Remote control of Gain, Pad, 48v from Console
.17 Operating Temperature Range 0°C to 40°C (32°F to 104°F)
.18 Mains Voltage Operating Range 100-240V AC, 50/60Hz
.19 Mains Power Consumption 40W max
.20 DC Input 12V DC, 3A max
.21 Dimensions and Weight Width x Depth x Height x Weight 210 x 87 x 210 mm x 3.2kg (8.25" x 3.5" x 8.25" x 7lbs)
.22 Quantity 4

Dante Audio Portable Box

.1 16 Mic/Line XLR Inputs Balanced, +48V Phantom Power
.2 Mic/Line Preamp Fully recallable
.3 Input Sensitivity -60 to +15dBu
.4 Analogue Gain +5 to +60dB, 1dB steps
.5 Pad -20dB Active PAD
.6 Maximum Input Level +30dBu (PAD in)
.7 Input Impedance >4kΩ (Pad out), >10kΩ (Pad in)
.8 Mic/Line Channel noise 22-22kHz, Direct Out @ unbalanced out
.9 Mic EIN -127dB with 150Ω source
.10 Unity gain (Pad in) -90dBu
.11 Low gain (5dB, Pad out) -96dBu
.12 Mid gain (30dB, Pad out) -90dBu
.13 Mic/Line Channel THD+N 22-22kHz, Direct Out @ unbalanced out
.14 Unity gain (Pad in) 0.003% -88dBu @ 1kHz, 0dBu output
.15 Low gain (5dB, Pad out) 0.002% -93dBu @ 1kHz, 0dBu output
.16 Mid gain (30dB, Pad out) 0.003% -88dBu @ 1kHz, 0dBu output
.17 8 Analogue XLR Outputs Balanced, Relay protected
.18 Output Impedance <75Ω
.19 Nominal Output +4dBu = 0dB meter reading
.20 Maximum Output Level +22dBu
.21 Residual Output Noise -92dBu (muted, 20-20kHz)
.22 DANTE Sample rate 48kHz or 96kHz
.23 Bit Depth 24 Bit
.24 Remote control of Gain, Pad, 48v from Console
.25 Operating Temperature 0 deg C to 40 deg C (32 deg F to 104 deg F)
.26 Mains Power 100-240V, 50/60 Hz, 40W max
.27 Dimensions and Weight Width x Depth x Height x Weight 410mm x 190mm x 185mm x 4.6kg (16.1" x 7.5" x 7.3" x 10.1lbs)
.28 Quantity 1

Portable Dante Two Channel Input

.1 Mic Inputs Balanced XLR, +48V phantom
.2 Analogue Gain 0 to +55dB
.3 Line Inputs Balanced TRS, -20dB PAD
.4 Maximum Input Level +30dBu (TRS in)
.5 Input Impedance >4kΩ (XLR), >10kΩ (TRS)
.6 Dante 48kHz/96kHz
.7 DC Input +12V DC 1.25A
.8 Power Consumption 10W max
.9 Operating Temperature Range 0°C to 40°C (32°F to 104°F)
.10 PoE Requirements 802.3af 15W
.11 Dimensions and Weight Width x Depth x Height x Weight 130 x 136 x 43 mm, 0.5kg (5.1" x 5.4" x 1.7", 1lbs)
.12 Quantity 2

Audio Patch Point

.1 Analog to Dante® Digital Audio Transmitter
.2 Music Input 3.5mm Stereo Summed Front Panel
.3 Impedance 10kΩ
.4 Input Level 1V (0dBV)
.5 Input Type Unbalanced, Qty. 1
.6 Music Input Bluetooth Stereo Front Panel
.7 Impedance 10kΩ
.8 Input Level 1V (0dBV)
.9 Input Type Balanced Mic/Line Selectable, Qty. 1
.10 Connector Type XLR Female Socket
.11 Impedance 1.2kΩ Balanced, 600Ω Unbalanced
.12 Phantom Power 24VDC Defeatable Rear panel DP SW, ON Indicator RED Front Panel
.13 Low Cut Filter 125Hz/12dB Defeatable Rear Panel DP SW
.14 Line Input Level 500mV (-6dBV) Balanced
.15 Output Connector Type RJ45
.16 Frequency Response 20Hz -20KHz +/- 1dB
.17 THD .06% & 1KHz
.18 Water Resistant Stainless Steel Locking Cover
.19 Height 4.37" (111mm) Width 4.34" (110mm) Depth 2.5" (62.6mm)
.20 Weight 0.53 lbs (.24kg)
.21 Quantity 7

Audio Control Non Standard

.1 8 Motorised faders
.2 6 x Layers
.3 PoE+ or external 12V PSU (supplied)
.4 Interface with System DSP
.5 Network with other controllers, computers and third party devices
.6 Network Fast Ethernet 100MBps
.7 Ext DC In +12V, 2.1A
.8 PoE 802.3at (25.5W at source)
.9 Max power consumption 25W
.10 Operating Temperature Range 0 deg C to 35 deg C (32 deg F to 95 deg F)
.11 Width x Depth x Height 291 x 205 x 61 mm
.12 Weight 2.5kg (5.5lbs)
.13 Quantity 3

Audio Control Standard

.1 Auto Matching Firmware Updates
.2 Push 'n turn
.3 Elegant colour LCD display
.4 Preset recall
.5 Source selection
.6 PoE powered
.7 Ethernet compatible
.8 2 Body colours available (black or white)
.9 Decora / MK elements compatible
.10 Quantity 4

Video Patch Point Wall Mount

.1 4K60 4:4:4 UHD 120m over 1G CAT 5e
.2 Zero Frame Latency (1.78ms)
.3 HDR10, HDR10+, Dolby Vision
.4 LPCM up to 12-channels, Dolby Digital Plus, Dolby TrueHD DTS HD Master Audio, Dolby ATMOS
.5 12 bits color depth processing, 16bits OSD
.6 Enterprise Security (AES 256, 802.1x, HTTPS, & SSH)
.7 Seamless Switching, Video Wall and Image Rotation
.8 EPG & Channel Mapping
.9 MJPEG Preview up to 720p30
.10 1 HDMI Inputs, 1 USB-C Video/Data
.11 USB 2.0 Type A
.12 Line In/Out on Rear for Add-on Audio Wall Plates
.13 1G LAN PoE
.14 RS-232 Serial Port
.15 Integrated Web Server for Configuration
.16 Dante® 2/8 Ch Audio License Options & Dante Controller
.17 Low Power at 8 Watts
.18 2 Gang Mounting Available in White and Black
.19 Compression Mimix™ 13:1
.20 Latency 0 Frames (1.78ms)
.21 Video Inputs 1 HDMI 2.0b, 1 USB-C
.22 Encryption HDCP 2.3 & AES 256
.23 Audio Analog Stereo Line In/Out (3.5mm TRS)
.24 1G Ethernet RJ-45 and SFP
.25 LAN RJ-45 10/100/1000M PoE
.26 Video Bandwidth 600MHz
.27 Video Support Up to 4K2K 4:4:4 @ 60Hz
.28 Audio Support Up to 12 Channels
.29 Video Stream Bandwidth
.30 93Mbps – 850Mbps (4K60 4:4:4) Packet Size Under 1600 1Gbps with USB and Audio
.31 USB Bandwidth 200Mbps (Camera)170Mbps (HID/Mass Storage Devices)
.32 RS-232 Up to 115k Baud (3.5mm TRS)
.33 IR Bi-Directional (3.5mm TRS)
.34 USB Connector 1 USB 2.0 Type A & 1 USB 2.0 Type-C
.35 Dante® 2Ch/8Ch
.36 Interface IR or Keyboard via OSD, Web Server
.37 Housing Aluminum Enclosure
.38 Dimensions (L x W x H) 3.728" x 2.83" (4.331" with tabs) x 1.404"
.39 Weight 2.5lbs (1.13g)
.40 Mounting 2 Gang Decora Style
.41 Power Supply 48v DC (2 Pin Euro) or PoE (LAN)
.42 Power Consumption 6.4 Watts, up to 12.9 Watts with USB
.43 Operation Temperature 0~40o C [32~104o F]
.44 Storage Temperature -20~60o C [-4~140o F]
.45 Relative Humidity 20~90% RH [No Condensation]
.46 Quantity 5

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Rev	Description	Date
1	Add Amplification	May 21 2024

PROJECT:
STRATFORD HIGH SCHOOL

STRATFORD, PE

DRAWING TITLE:
EQUIPMENT

DRAWN:	FILE NO:
Author	22-080

DWG: AV-2

Video Patch Point Surface Mount

.1 Configure as Encoder or Decoder
.2 4K60 4:4:4 UHD 120m over 1G CAT 5e
.3 HDMI 2.0b, HDCP 2.2
.4 HDR10, HDR10+, Dolby Vision
.5 LPCM up to 12-channels, Dolby Digital Plus, Dolby TrueHD DTS HD Master Audio & ATMOS
.6 12 bits color depth processing, 16bits OSD
.7 Enterprise Security (AES 256, 802.1x, HTTPS, & SSH)
.8 One Frame Latency (16.6ms)
.9 Low Power Fanless Design
.10 Seamless Switching
.11 MJPEG Preview at up to 30 frames
.12 Video Wall with Image Rotation
.131G LAN PoE and SFP for Fiber or 2nd RJ-45
.14 HDMI Inputs, 1 HDMI Output
.15 Line In/Out Stereo
.16 RS-232 Serial Port and IR (In/Out)
.17 Channel Mapping with On-Screen Preview & EPG
.18 Integrated Web Server for Configuration
.19 2 USB 2.0 for Cameras
.20 3 USB 2.0 for HID Devices, Mass Storage, etc.
.21 Dante® 2/8 Ch Audio License & Dante Controller
.22 Rack and Under Table Mounting
.23 Compression Mimix™ 14:1
.24 Latency 1 Frames (16.6ms)
.25 HDMI Inputs 2 (HDMI 2.0b, HDCP 2.2)
.26 HDMI Outputs 1 (HDMI 2.0b, HDCP 2.2)
.27 Encryption AES 256
.28 Audio Analog Stereo Line In/Out (3.5mm TRS)
.29 1G Ethernet RJ-45 and SFP
.30 LAN RJ-45 10/100/1000M PoE
.31 Video Bandwidth 600MHz
.32 Video Support Up to 4K2K 4:4:4 @ 60Hz
.33 Audio Support Up to 12 Channels
.34 Video Stream Bandwidth
.35 93Mbps – 850Mbps (4K60 4:4:4) Packet Size Under 1600 1Gbps with USB and Audio
.36 USB Bandwidth 200Mbps (Camera) 170Mbps (HID/Mass StorageDevices)
.37 RS-232 Up to 115k Baud (3.5mm TRS)
.38 IR Bi-Directional (3.5mm TRS)
.39 USB Connector 1 USB 2.0 Type C (Host for Camera) 1 USB 2.0 Type C (Host for HID/Mass Storage) 1 USB 2.0 Type A (Camera) 2 USB 2.0 Type A (HID/Mass Storage Devices)
.40 Expansion Port Dante® 2Ch/8Ch and System Control
.41 Interface IR or Keyboard via OSD, Web Server
.42 Housing Black Aluminum Enclosure
.43 Dimensions (L x W x H) 177.04 x 150.7 x 26.42mm [6.97”x 5.93 x 1.04”]
.44 Weight .453kg [1lbs]
.45 Power Supply 48v DC (2 Pin Euro) or PoE+ (LAN)
.46 Power Consumption 8 Watts and up to 12 Watts additional for USB with PoE+
.47 Operation Temperature 0~40o C [32~104o F]
.48 Storage Temperature -20~60o C [-4~140o F]
.49 Relative Humidity 20~90% RH [No Condensation]
.50 Quantity 4

Video Control Point

.1 Screen type TFT Active matrix color LCD
.2 Size 5" (12.7 cm), measured diagonally
.3 Resolution 800x480 (WVGA)
.4 Aspect ratio 5:3
.5 Color depth 24 bit, 16.7 million colors
.6 Contrast 700:1
.7 Storage SDRAM 2 GB , Flash 4 GB
.8 Ethernet Data rate 10/100/1000Base-T, half/full duplex with autodetect
.9 Protocols DHCP, DNS, HTTP, HTTPS, ICMP, SFTP, SSH, TCP/IP, UDP/IP
.10 Configuration software - Global Configurator Plus and Professional, GUI Designer
.11 Programming software - Global Scripter
.12 Control apps Extron Control, iGVE
.13 Resource management software - GlobalViewer Enterprise, iGVE
.14 Utilities Toolbelt, Embedded web page
.15 USB Quantity/type 1 high-speed USB 2.0
.16 Standards USB 2.0, USB 1.1, USB 1.0 compatible
.17 Digital input - 1 digital input (configurable)
.18 Audio Playback format(s) -Container format WAV (Microsoft RIFF) Encoding LPCM (uncompressed) Audio channels Mono or stereo
.19 Power input requirements Power over Ethernet (PoE 802.3af, class 3)
.20 Auxiliary power output USB 5 VDC, 275 mA
.21 Mounting Wall, furniture, glass, or rack
.22 Enclosure dim. HxWxD 4.03"x 6.08" x1.22" (102mm x154 mm x31 mm)
.23 Touchpanel projects 0.97" (25 mm) from the mounting surface
.24 Regulatory compliance CE, C-tick, c-UL,FCC Class B, ICES, RoHS, UL,VCCI, WEEE
.25 Perpetual License
.26 Quantity 5

Loudspeaker 3 Way Passive

.1 Frequency response: 60 Hz – 23 kHz (-6 dB)
.2 Power handling AES / peak (passive): 1000 W / 4000 W
.3 Mid / High AES / peak: 150 W / 1300 W
.4 Sensitivity: 98 dB
.5 Max. SPL peak*: 143 dB
.6 Dispersion: 90° horizontal / 60° vertical
.7 Components: Low frequency: 12" neodymium woofer, 4" (101.6 mm) voice coil, 1000 W (AES) High frequency: 1.4" neodymium coaxial driver, 3.5" (90 mm) + 1.75" (44.4 mm) voice coil, 150 W + 80 W (AES)
.8 Crossover: 750 Hz, 6.3 kHz passsive
.9 Nominal impedance: 8 Ω (1+/1-)
.10 Input connectors: 2x Neutrik™ NL4MP
.11 Suspension: M6 and M8 threaded points for use with U-bracket
.12 Enclosure material: Birch plywood
.13 Finish: Polyurea coating
.14 IP rating (IEC 60529) IP54
.15 Dimensions (WxHxD): 348 x 630 x 320 mm (13.7 x 24.8 x 12.6")
.16 Net weight: 21.5 kg / 47.4 lbs
.17 Quantity 5

Loudspeaker Single 18" Bass Cabinet

.1 Frequency response (-6 dB): 28 Hz – 150 Hz
.2 Power handling AES / peak (passive): 1250 W / 5000 W
.3 Sensitivity 1W / 1m:* 98 dB
.4 Maximum output peak:** 138 dB
.5 Components: 18" ultra low distortion woofer, 4" (101.6 mm) VC, 1300 W (AES)
.6 Nominal impedance: 8 Ω (1+/1-)
.7 Input connectors: 2x Neutrik™ NL4MP
.8 Suspension: Integrated
.9 Enclosure material: Baltic birch
.10 Finish: Polyurea coating
.11 IP rating (IEC 60529) IP54
.12 Dimensions (WxHxD): 674 x 570 x 596 mm / 26.54 x 22.44 x 23.46"
.13 Net weight: 45 kg / 99.21 lbs
.14 Quantity 2 (Includes all Necessary Hardware to fly)

Loudspeaker 2 Way Passive

.1 Frequency response: 60 Hz – 21 kHz (-6 dB)
.2 Power handling AES: 600 W
.3 Peak power: 2400 W
.4 Sensitivity: 98 dB
.5 Max. SPL peak*: 132 dB
.6 Dispersion: 90° horizontal / 60° vertical
.7 Components: Low frequency: 12" neodymium woofer, 3" (77 mm) voice coil, 600W (AES) High frequency: 1" neodymium compression driver, 1.75" (44.4 mm) voice coil, 80 W (AES)
.8 Crossover: 1300 Hz passsive
.9 Nominal impedance: 8 Ω (1+/1-)
.10 Input connectors: 2x Neutrik™ NL4MP
.11 Suspension: M6 and M8 threaded points for use with U-bracket
.12 Enclosure material: Birch plywood
.13 Finish: Polyurea coating
.14 IP rating (IEC 60529) IP54
.15 Dimensions (WxHxD): 348 x 630 x 320 mm (13.7 x 24.8 x 12.6")
.16 Net weight: 16 kg / 35.27 lbs
.17 Quantity 14

Laser Projector Cafetorium (Type A)

.1 Projector type Single chip DLP laser phosphor projector
.2 Resolution 1,920 x 1,200 (WUXGA)
.3 Brightness 10,000 ANSI lumens
.4 10,600 center lumens
.5 11,000 ISO lumens
.6 Brightness uniformity 90%
.7 Contrast ratio 1,200:1 sequential; 6,000:1 dynamic; Extreme black: 750,000:1
.8 Light source Laser phosphor
.9 Light source lifetime Up to 20,000hrs
.10 Aspect ratio 16:10
.11 Orientation 360° rotation, no restrictions
.12 Sealed DLP™ core Yes
.13 Color correction Yes
.14 CLO (constant light output) Yes
.15 Image processing Embedded warp & blend possible via Ptoolset
.16 3D Active stereoscopic 3D
.17 Lens Appropriate for distance and Screen size as shown.
.18 Optical lens shift Vertical up to 100%, depending on lens
.19 Horizontal up to 30%, depending on lens
.20 Motorized zoom and focus
.21 Motorized lens shift
.22 Inputs 2x HDMI In (version 2.0) (with locking screw) / 1x DVI-D (only support digital signal) / 1x HDBaseT / 1x 3D SYNC In / 1x3G-SDI
.23 Input resolutions Up to 4K UHD @60Hz
.24 Refresh rates: 24Hz to 60Hz for WUXGA and 4KUHD (4096 x 2160 / 3840 x 2160)
.25 4K input signals will be scaled to the projector’s output resolution
.26 Software tools for projector and content management
.27 Control IR, RS232, RJ45, 3.5mm phone jack for wired remote
.28 Network connection 10/100 Ethernet, RJ45
.29 Power requirements 100-240V / 50-60Hz
.30 Power consumption 810W nominal, 970W maximum
.31 Standby power less than 0.5W
.32 BTU per hour 2,747 BTU/h nominal; 2883 BTU/h maximum
.33 Noise level (typical at 25°C/77°F) 35dB(A) -39dB(A) depending on the used mode
.34 Operating temperature 0 ~ 40 °C (sea level)
.35 Operating humidity 10 -85% RH, non-condensing
.36 Storage temperature -10 ~ 60 °C
.37 Storage humidity 5 -90% RH, non-condensing
.38 Dimensions (WxLxH) without feet: 484 x 529 x 195 mm / 19.1 x 20.8 x 7.7 in
.39 Weight without lens: 22.7 kg / 50.1 lbs
.40 Standard accessories Power cord, wireless remote control
.41 Include all necessary hardware to suspend unit
.42 Certifications CE, FCC Class A, cTUVUS, CCC, EAC, KCC, RCM, BIS, BSMI
.43 Warranty Limited 3 years parts and labor
.44 Quantity 1

Laser Projector Music Room and Theatre Arts (Type B)

.1 Projector type Single chip DLP laser phosphor projector
.2 Technology Single chip DLP laser phosphor projector
.3 Resolution 1,920 x 1,200 (WUXGA)
.4 Brightness 5,400 ANSI lumens
.5 6,000 center lumens
.6 6,400 ISO lumens
.7 Brightness uniformity 90%
.8 Contrast ratio 1,200:1 sequential;
.9 6,000:1 dynamic;
.10 Extreme black: 750,000:1
.11 Light source Laser phosphor
.12 Light source lifetime Up to 20,000hrs
.13 Aspect ratio 16:10
.14 Orientation 360° rotation, no restrictions
.15 Sealed DLP™ core Yes
.16 Color correction Yes
.17 CLO (constant light output) Yes
.18 Keystone correction Yes
.19 Image processing Embedded warp & blend possible via Software
.20 3D Active stereoscopic 3D
.21 Lens appropriate for projector location and screen size
.22 Optical lens shift Vertical up to 100%, depending on lens
.23 Horizontal up to 30%, depending on lens
.24 Motorized zoom and focus
.25 Motorized lens shift
.26 Inputs 2 x HDMI In (Compliant with HDMI 2.0b, HDCP2.2) / 1 x Display Port (1.2a) / 1 x HDBaseT(HDCP1.4) / 1 x 3D SYNC In
.27 Output 1 x HDMI Out (Loop through HDMI1/HDMI2/HDBaseT/DP) 1 x 3D SYNC Out 1 x DC 12V Out 1 x Audio out, 3.5mm phone jack
.28 Input resolutions Up to 4K UHD @60Hz Refresh rates: 24Hz to 60Hz for WUXGA and 4KUHD (4096 x 2160 / 3840 x 2160) 4K input signals will be scaled to the projector's output resolution
.29 Control 1 x RS232 (D-sub 9 pin) (PC Control)1 x Wired In (3.5mm phone jack) (Remote In)1 x RJ45 (LAN)
.30 Network connection 10/100 Ethernet, RJ45
.31 Speakers 10W / 6 Ohm *2
.32 Power requirements 100-240V / 50-60Hz
.33 Power consumption 300W @110V 290W @220V
.34 Standby power less than 0.5W
.35 BTU per hour 1024 @110V 990 @220V
.36 Noise level (typical at 25°C/77°F) 32dB(A) -36dB(A) depending on the used mode
.37 Operating temperature 0 ~ 40 °C (sea level)
.38 Operating humidity 10 -85% RH, non-condensing
.39 Storage temperature -10 ~ 60 °C
.40 Storage humidity 5 -90% RH, non-condensing
.41 Dimensions (WxLxH) without feet: 486 x 376 x 181.2mm
.42 Weight without lens: 11 kg / 24.25 lbs
.43 Standard accessories Power cord, wireless remote control
.44 Include all necessary hardware to suspend unit
.45 Certifications CE, FCC Class A, cTUVUS, CCC, EAC, KCC, RCM, BIS, BSMI
.46 Warranty Limited 3 years parts and labor
.47 Quantity 3

Projection Screen Cafetorium (Type A)

.1 16:9 HDTV Format
.2 Viewing Area (HxW)146" x 260" 372cm x 660cm
.3 Nominal Diagonal 298" 757cm
.4 Overall Case Length 288¾" 733cm
.5 Slim-Tab, a lower profile and stronger tab design to keep screen perfectly taut
.6 Smooth Roll Technology to keep your screen perfectly flat
.7 Tensioning Cable System to prevent warping and ensure even lateral tension
.8 Three-position, Decora-style switch
.9 Standard black backing retains projected brightness on front projection surfaces
.10 Black painted case
.11 Seamless surface
.12 Single Motor Low Voltage Control System
.13 Radio Frequency Wireless Remote
.14 Single Motor LVC
.15 Infrared Wireless Remote
.16 Video Projector Interface
.17 High Contrast Screen Material
.18 Quantity 1

Projection Screen Music Room and Theatre Arts (Type B)

.1 16:9 HDTV Format
.2 Viewing Area (HxW) 92" x 164" 234cm x 417cm
.3 Nominal Diagonal 188" 478cm
.4 Single-piece steel case – with integrated mounting holes in the end caps on sizes up to 12' wide
.5 Two-piece aluminum case – with adjustable mounting brackets for wall or ceiling mount installation on sizes over 12' wide
.6 Decora-style, three-position wall switch
.7 Built-in low voltage control, Video Projector Interface (screen trigger)
.8 Black Case
.9 Standard black backing retains projected brightness on front projection surfaces
.10 High Contrast Seamless surface
.11 Quantity 3

Rigging / Suspension Hardware

.1 As required ,using manufacturers recommended hardware and industry best practices , to implement design as shown in drawings.

Vocal Microphone

.1 Type Dynamic (moving coil)
.2 Frequency Response 50 to 16,000 Hz
.3 Polar Pattern Supercardioid, rotationally symmetrical about microphone axis, uniform with frequency.
.4 Output Level (at 1,000 Hz)
.5 Open Circuit Voltage: -51.5 dBV/Pa (2.6 mV)1 Pa = 94 dB SPL
.6 Impedance Rated impedance is 150 ohms (290 ohms actual) for connection to microphone inputs rated low Z Phasing.
.7 Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3.
.8 Case - Silver blue enamel-painted die cast metal with hardened, matte-finished, spherical steel mesh grille.
.9 Adjustable, Stand Adapter
.10 Slip-in microphone mounting, unbreakable, adjustable through 180 degrees with standard 5/8"-27 thread, black finish.
.11 Net Weight 278 grams (9.92 oz)
.12 Quantity 6

Drum Microphone (Kit)

Bass Drum Microphone
.1 Rugged, lightweight aluminium body for stable positioning on long microphone boom arms
.2 Lightweight high-performance voice coil construction
.3 Fast transient response
.4 Low frequency extension
.5 Ideal for direct use on the most problematic bass signal
.6 Frequency-independent directivity provides isolation from other on-stage signals
.7 Humbucking coil
.8 Integral stand mount
.9 Transducer Principle Dynamic
.10 Warranty 10 Years
.11 Frequency Response 20-16000 Hz
.12 Nominal Impedance 350 Ohms
.13 Minimum Terminating Impedance 1000 Ohms
.14 Dimensions 60mm x153mm
.15 Quantity 1
Snare/Tom Microphone
.1 Rugged reinforced glass-fibre body
.2 Low sensitivity to impact and handling noise
.3 Very high sound pressure handling capability
.4 Low distortion microphone
.5 Hum compensating coil
.6 Easy to position due to compact design
.7 Integral stand mount
.8 Polar Pattern Cardioid
.9 Transducer Principle Dynamic
.10 Warranty 10 Years
.11 Nominal Impedance 350 ohms
.12 Minimum Terminating Impedance 1000 Ohms
.13 Dimensions 33mm x 59mm
.14 Quantity 4
Overhead Microphone
.1 Frequency Response 40 Hz to 20 kHz
.2 Phantom Power 12-52 V / 3mA
.3 Polar Pattern Super Cardioid
.4 Transducer Principle Pre-Polarised Condenser Microphone
.5 Warranty 10 Years
.6 Nominal Impedance 50 ohms
.7 Minimum Terminating Impedance 1000 Ohms
.8 Dimensions 20mm x 100 mm Long
.9 Quantity 2

Instrument/Choir Microphone

.1 20 Hz to 20 kHz frequency response
.2 Flat response curve for accurate reproduction of sound sources
.3 Low noise and high output clipping level
.4 Low distortion over a wide range of load impedances
.5 Cardioid polar pattern, uniform with frequency and symmetric about axis, providing maximum rejection and minimum coloration of off-axis sounds
.6 Low RF susceptibility
.7 Selectable low-frequency response: flat, 6 or 18 dB/octave rolloff
.8 0 dB/10 dB lockable attenuator switch
.9 Phantom powering (DIN 45 596 voltages of 12 to 48 Vdc)
.10 Rugged steel construction for durability
.11 Field-usable over wide range of temperature and humidity conditions
.12 Quantity 4

Microphone Stands - Tall

.1 Konig and Meyer 210/2
.2 Quantity 10

Microphone Stands - Short

.1 Konig and Meyer 259
.2 Quantity 6

Microphone Cable

.1 Digiflex NK2/6 10' in Length
.2 Neutrik NC3FXX / NC3MXX Connectors
.3 Quantity 10

.4 Digiflex NK2/6 25' in Length
.5 Neutrik NC3FXX / NC3MXX Connectors
.6 Quantity 20

.7 Digiflex NK2/6 50' in Length
.8 Neutrik NC3FXX / NC3MXX Connectors
.9 Quantity 10

Communications Headset Single Ear

.1 High-quality dynamic cardioid microphone
.2 20Hz - 20KHz frequency response
.3 Choice of earpads: leatherette or soft foam
.4 Flexible gooseneck microphone positioning
.5 Boom rotation ON/OFF switch for quick microphone muting
.6 Interchangeable cabling for easy connector changing and repair
.7 Fully serviceable headset
.8 Storage bag included
.9 4-Pin XLR Female Connector
.10 Quantity 3

Communications Headset Double Ear

.1 High-quality dynamic cardioid microphone
.2 20Hz - 20KHz frequency response
.3 Choice of earpads: leatherette or soft foam
.4 Flexible gooseneck microphone positioning
.5 Boom rotation ON/OFF switch for quick microphone muting
.6 Interchangeable cabling for easy connector changing and repair
.7 Fully serviceable headset
.8 Storage bag included
.9 4-Pin XLR Female Connector
.10 Quantity 1

Communications Belt Pack

.1 Visual LED indicators on top of keypad
.2 Tactile buttons for Call and Talk
.3 Recessed rotary controls for Volume with end stops
.4 Concealed, programmable DIP switches for Latch Talk, Talk with Call, LEDs Off, Mic Gain, Mic Type and HP Level Off
.5 Fully compatible with current and previous models of analog partyline systems
.6 Low operating current for more beltpack daisy-chaining
.7 Rugged and strong construction
.8 Operating Range 32°F - 158°F (0°C - 70°C)
.9 Dimensions 3.4 x 4.5 x 1.7in (HxWxD) (86 x 114 x 43mm)
.10 Weight 10.5oz (0.30kg)
.11 Quantity 4

Communications Base Station

.1 Supports up to 55 beltpacks or 7 speaker stations on 2 channels
.2 Automatic short-circuit protection and reset with LED indicators
.3 Dual-action electronic momentary/ latching Talk buttons
.4 Mic- or line-level program with selectable Program Interrupt
.5 Remote Mic Kill
.6 Stage announce with relay
.7 Individual volume controls for each channel
.8 Front panel headphone connector
.9 Channel A & B Link switch to operate as a one-channel system
.10 Front panel speaker output
.11 LED buttons for Talk, Call, Announce, Link, All Talk, or Mic On
.12 Environmental 32° - 122°F (0° - 50°C)
.13 Dimensions 3 x 8.5 x 10in (HxWxD) (76 x 216 x 254mm)
.14 Weight 5.0lbs (2.3kg)
.15 Quantity 4

Direct Box

.1 Rugged Metal Case
.2 Frequency response: 20Hz to 20kHz +/- 2.5dB
.3 Total harmonic distortion: 0.01 % from 20Hz to 20kHz
.4 Input impedance: 140K ohms (with 1kHz input)
.5 Balanced outputs: 50 ohms, -60dB mic level, pin-2 hot
.6 PAD: -15dB
.7 Quantity 6

ARCHITECT:
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DESIGN CONSULTANT:
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(902) 394-0680

Rev	Description	Date
1	Add 2 Way Passive Loudspeakers	May 21 2024

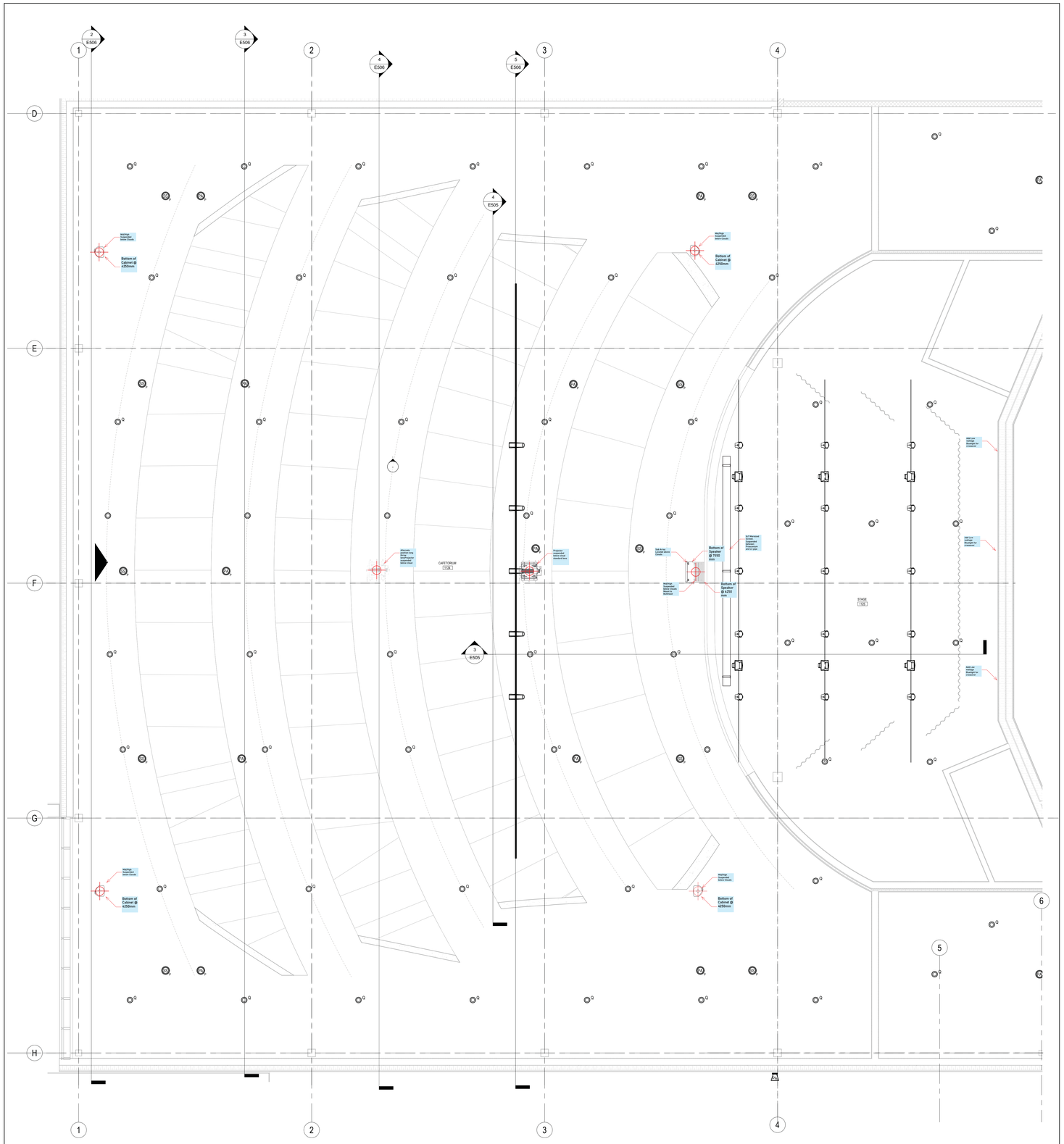
PROJECT:
STRATFORD HIGH SCHOOL

STRATFORD, PE

DRAWING TITLE:
EQUIPMENT

DRAWN: Author
FILE NO: 22-080

DWG: AV-3



SK-01
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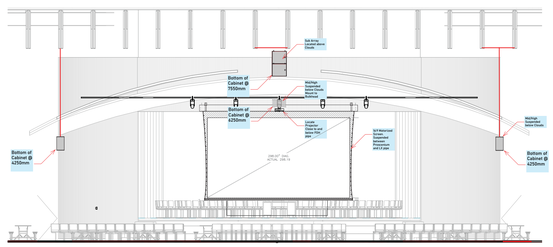

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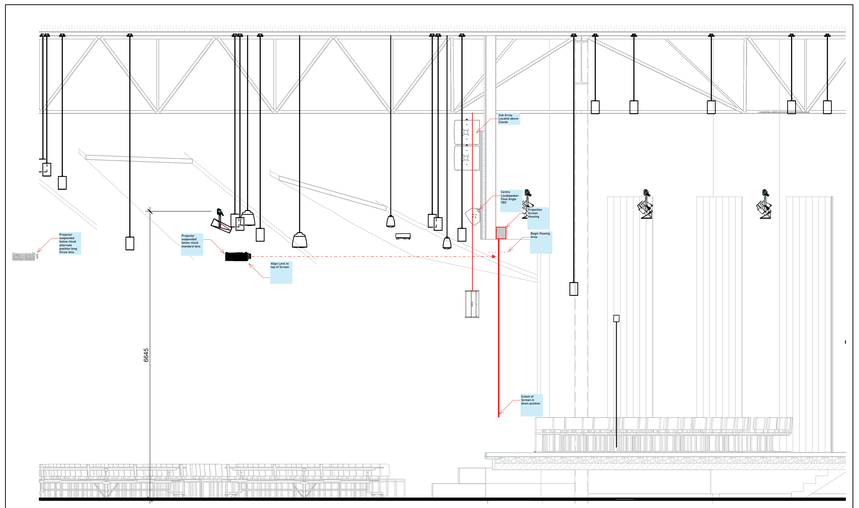

SK-03
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ARCHITECT:
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Rev	Description	Date

PROJECT:
STRATFORD HIGH SCHOOL

STRATFORD, PE

DRAWING TITLE:
DEVICE LOCATIONS PLAN/ELEVATIONS

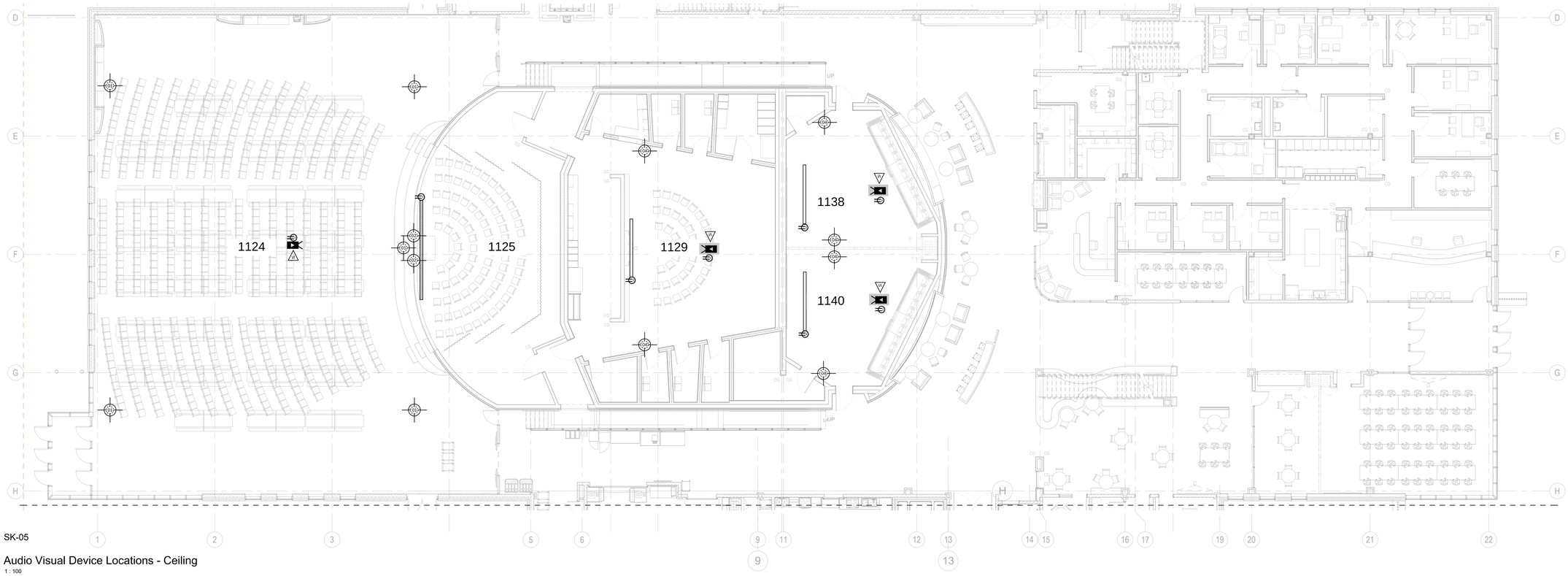
DRAWN:	FILE NO:
Author	22-080

DWG: AV-4

SK-04

Audio Visual Device Locations - Floor

1 : 100



SK-05

Audio Visual Device Locations - Ceiling

1 : 100

MAIN THEATRE SPEAKERS

MAIN THEATRE SUB WOOFERS

MAIN THEATRE PORTABLE STAGE MONITORS

MUSIC ROOM / THEATRE ARTS SPEAKERS

110V/15A CIRCUIT

R — EQUIPMENT RACK

PROJECTOR TYPE A

PROJECTOR TYPE B

SCREEN TYPE A

SCREEN TYPE B

AC — AUDIO CONTROL POINT NON STANDARD BOX SINGLE CAT6

A — AUDIO CONTROL POINT SINGLE GANG BOX SINGLE CAT6

AP — PATCH POINT DOUBLE GANG BOX SINGLE CAT6

AC — COMM POINT DOUBLE GANG BOX

DANTE IN WALL STAGE BOX 1 X CAT6 (110V)

AP — DANTE POINT DOUBLE GANG BOX 3X CAT6

AV — VIDEO POINT DOUBLE GANG BOX CAT6

AVC — VIDEO CONTROL POINT DOUBLE GANG BOX CAT6 + SERIAL

MS — MONITOR SPEAKER PLATE

ARCHITECT:

NINE YARDS

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Rev	Description	Date
1	Add Monitor Patch Plate	May 21 2024

PROJECT:

STRATFORD HIGH SCHOOL

STRATFORD, PE

DRAWING TITLE:

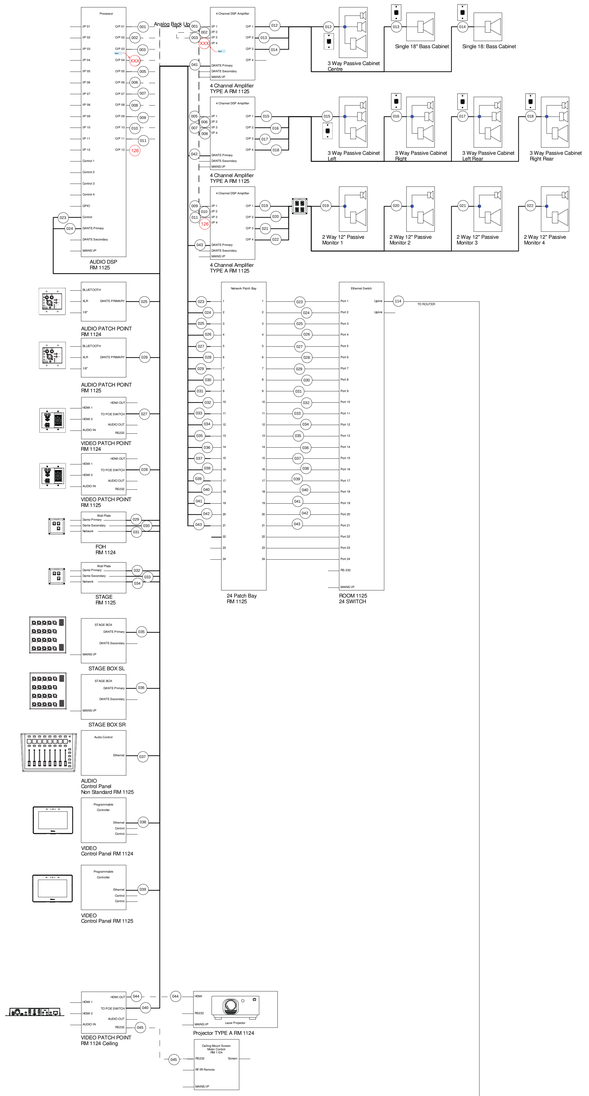
PLATES AND CONNECTIONS

DRAWN:	FILE NO:
Author	22-080

DWG: AV-5

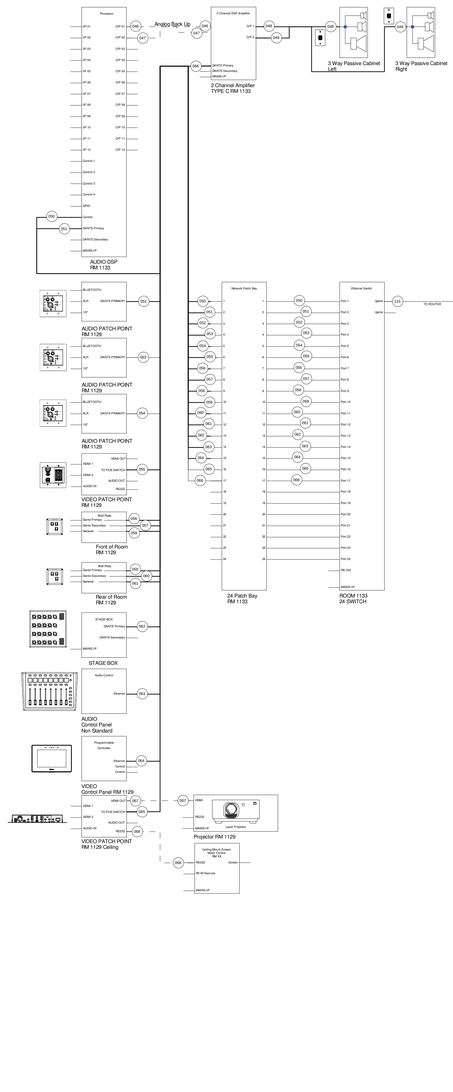
SK-06

CAFETORIUM



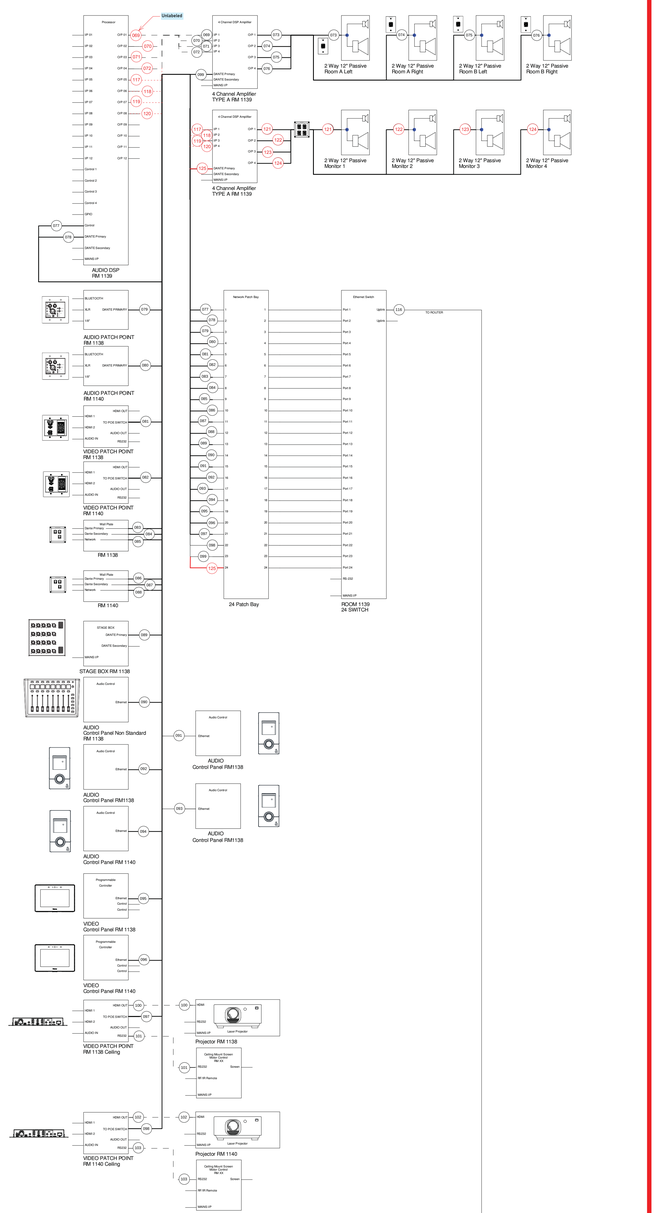
SK-07

MUSIC



SK-08

THEATRE ARTS



ARCHITECT:

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Rev	Description	Date
1	Amended River Theatre Arts	May 21 2024

PROJECT:

STRATFORD HIGH SCHOOL

STRATFORD, PE

DRAWING TITLE:

AUDIO/VIDEO SYSTEM RISERS

DRAWN:	FILE NO:
Author	22-080

DWG: AV-6

SK-09 WIRE GUIDE CAFETORIUM

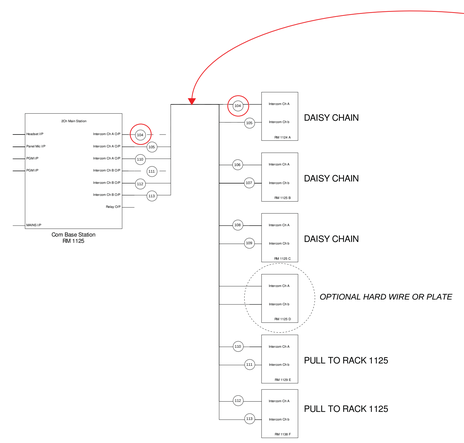
Riser Circiut #	Name/Number	Description	Point From	Point To	Wire Type	Start Label	End Label	Reference Drawing/Notes
001	***Amplifier 1 Input 1 Speaker 1 (Centre)***	***Analog Back Up Centre Speaker***	***Cafeteria Audio DSP Output 1***	***Amplifier 1 Input 1***	***A - Belden 9451***	***DSP Out 1***	***A1 I1SP1***	***Wiring Within Rack***
002	***Amplifier 1 Input 2 Speaker 2 (Sub 1)***	***Analog Back Up Sub Woofer One***	***Cafeteria Audio DSP Output 2***	***Amplifier 1 Input 2***	***A - Belden 9451***	***DSP Out 2***	***A1 I2SP2***	
003	***Amplifier 1 Input 3 Speaker 3 (Sub 2)***	***Analog Back Up Sub Woofer Two***	***Cafeteria Audio DSP Output 3***	***Amplifier 1 Input 3***	***A - Belden 9451***	***DSP Out 3***	***A1 I3SP3***	
004								***DELETE***
005	***Amplifier 2 Input 1 Speaker 4 (Left)***	***Analog Back Up Left Speaker***	***Cafeteria Audio DSP Output 4***	***Amplifier 2 Input 1***	***A - Belden 9451***	***DSP Out 4***	***A2 I1SP4***	
006	***Amplifier 2 Input 2 Speaker 5 (Right)***	***Analog Back Up Right Speaker***	***Cafeteria Audio DSP Output 5***	***Amplifier 2 Input 2***	***A - Belden 9451***	***DSP Out 5***	***A2 I2SP5***	
007	***Amplifier 2 Input 3 Speaker 6 (Rear Left)***	***Analog Back Up Rear Left Speaker***	***Cafeteria Audio DSP Output 6***	***Amplifier 2 Input 3***	***A - Belden 9451***	***DSP Out 6***	***A2 I3SP6***	
008	***Amplifier 2 Input 4 Speaker 7 (Rear Right)***	***Analog Back Up Rear Right Speaker***	***Cafeteria Audio DSP Output 7***	***Amplifier 2 Input 4***	***A - Belden 9451***	***DSP Out 7***	***A2 I4SP7***	
009	***Amplifier 3 Input 1 Speaker 8 (Monitor 1)***	***Analog Back Up Monitor 1***	***Cafeteria Audio DSP Output 8***	***Amplifier 3 Input 1***	***A - Belden 9451***	***DSP Out 8***	***A3 I1SP8***	
010	***Amplifier 3 Input 2 Speaker 9 (Monitor 2)***	***Analog Back Up Monitor 2***	***Cafeteria Audio DSP Output 9***	***Amplifier 3 Input 2***	***A - Belden 9451***	***DSP Out 9***	***A3 I2SP9***	
011	***Amplifier 3 Input 3 Speaker 10 (Monitor 3)***	***Analog Back Up Monitor 3***	***Cafeteria Audio DSP Output 10***	***Amplifier 3 Input 3***	***A - Belden 9451***	***DSP Out 10***	***A3 I3SP10***	
126	***Amplifier 3 Input 4 Speaker 11 (Monitor 4)***	***Analog Bac k Up Monitor 4***	***Cafeteria Audio DSP Output 11***	***Amplifier 3 Input 4***	***A - Belden 9451***	***DSP Out 11***	***A3 I4SP11***	
012	Amplifier 1 Output 1 Speaker 1	Centre Speaker Out	Rack Room 1125	Speaker Room 1124	B - Belden 5100UE	A1 OP1	SP C	
013	Amplifier 1 Output 2 Speaker 2	Sub Woofer Left Out	Rack Room 1125	Speaker Room 1124	B - Belden 5100UE	A1 OP2	SW L	
014	Amplifier 1 Output 3 Speaker 3	Sub Woofer Right Out	Rack Room 1125	Speaker Room 1124	B - Belden 5100UE	A1 OP3	SW R	
015	Amplifier 2 Output 1 Speaker 4	Speaker Left Out	Rack Room 1125	Speaker Room 1124	B - Belden 5100UE	A2 OP1	SP L	
016	Amplifier 2 Output 2 Speaker 5	Speaker Right Out	Rack Room 1125	Speaker Room 1124	B - Belden 5100UE	A2 OP2	SP R	
017	Amplifier 2 Output 3 Speaker 6	Speaker Rear Left Out	Rack Room 1125	Speaker Room 1124	B - Belden 5100UE	A2 OP3	SP RL	
018	Amplifier 2 Output 4 Speaker 7	Speaker Rear Right Out	Rack Room 1125	Speaker Room 1124	B - Belden 5100UE	A2 OP4	SP RR	
019	Amplifier 3 Output 1 Speaker 8	Monitor 1 Out	Rack Room 1125	Speaker Plate Room 1124	B - Belden 5100UE	A3 OP1	M1	
020	Amplifier 3 Output 2 Speaker 9	Monitor 2 Out	Rack Room 1125	Speaker Plate Room 1124	B - Belden 5100UE	A3 OP2	M2	
021	Amplifier 3 Output 3 Speaker 10	Monitor 3 Out	Rack Room 1125	Speaker Plate Room 1124	B - Belden 5100UE	A3 OP3	M3	
022	Amplifier 3 Output 4 Speaker 11	Monitor 4 Out	Rack Room 1125	Speaker Plate Room 1124	B - Belden 5100UE	A3 OP4	M4	
023	***DSP Control***	***Network Control Line***	***Audio DSP Rack Room 1125***	***Network Switch Room 1125***	***C - Belden 2412***	***DSP NW1***	***SWP 1***	***Wiring Within Rack***
024	***DSP Dante Primary***	***Dante Network***	***Audio DSP Rack Room 1125***	***Network Switch Room 1125***	***C - Belden 2412***	***DSP DA1***	***SWP 2***	
025	Audio Patch Point RM1124	Dante Network	Audio Patch Point Room 1124	Network Switch Room 1125	C - Belden 2412	PP 1	SWP 3	
026	Audio Patch Point RM1125	Dante Network	Audio Patch Point Room 1125	Network Switch Room 1125	C - Belden 2412	PP 2	SWP 4	
027	Video Patch Point RM1124	Audio Visual IP	Video Patch Point Room 1124	Network Switch Room 1125	C - Belden 2412	VP 1	SWP 5	
028	Video Patch Point RM1125	Audio Visual IP	Video Patch Point Room 1125	Network Switch Room 1125	C - Belden 2412	VP 2	SWP 6	
029	Dante Primary	Dante Network	Wall Plate Room 1124	Network Switch Room 1125	C - Belden 2412	DA 2	SWP 7	
030	Dante Secondary	Dante Network	Wall Plate Room 1124	Network Switch Room 1125	C - Belden 2412	DA 3	SWP 8	
031	Network Patch	Network Control Line	Wall Plate Room 1124	Network Switch Room 1125	C - Belden 2412	NW 2	SWP 9	
032	Dante Primary	Dante Network	Wall Plate Room 1125	Network Switch Room 1125	C - Belden 2412	DA 4	SWP 10	
033	Dante Secondary	Dante Network	Wall Plate Room 1125	Network Switch Room 1125	C - Belden 2412	DA 5	SWP 11	
034	Network Patch	Network Control Line	Wall Plate Room 1125	Network Switch Room 1125	C - Belden 2412	NW 3	SWP 12	
035	Stage Box Stage Right	Dante Network	Stage Box Room 1125 Stage Right	Network Switch Room 1125	C - Belden 2412	DA 6	SWP 13	**REQUIRES 110 V**
036	Stage Box Stage Left	Dante Network	Stage Box Room 1125 Stage Left	Network Switch Room 1125	C - Belden 2412	DA 7	SWP 14	**REQUIRES 110 V**
037	Audio Control RM 1125	Network Control Line	Room 1124	Network Switch Room 1125	C - Belden 2412	NW 3	SWP 15	**POE+**
038	Video Control RM 1124	Network Control Line	Room 1124	Network Switch Room 1125	C - Belden 2412	NW 5	SWP 16	**POE+**
039	Video Control RM 1125	Network Control Line	Room 1125	Network Switch Room 1125	C - Belden 2412	NW 6	SWP 17	**POE+**
040	Video Patch Point at Projector RM1124	Audio Visual IP	Room 1124 Ceiling	Network Switch Room 1125	C - Belden 2412	VP 3	SWP 18	**POE+**
041	***Dante Primary***	***Dante Network***	***Amplifier Dante Primary***	***Network Switch Room 1125***	***C - Belden 2412***	***DA 8***	***SWP 19***	***Wiring Within Rack***
042	***Dante Primary***	***Dante Network***	***Amplifier Dante Primary***	***Network Switch Room 1125***	***C - Belden 2412***	***DA 9***	***SWP 20***	
043	***Dante Primary***	***Dante Network***	***Amplifier Dante Primary***	***Network Switch Room 1125***	***C - Belden 2412***	***DA 10***	***SWP 21***	
044	Video	HDMI Video	Video Patch Point Ceiling RM1124	Projector Room 1124	D - Premade HDMI	HD 1 Out	HD 1 In	
045	Serial Control	Serial Control Cable	Video Patch Point Ceiling RM1124	Projector Room 1124	C - Belden 2412	SE 1 Out	SE 1 In	

SK-10 WIRE GUIDE MUSIC

Riser Circiut #	Name/Number	Description	Point From	Point To	Wire Type	Start Label	End Label	Reference Drawing/Notes
046	***Amplifier 4 Input 1 Speaker 1 (Left)***	***Analog Back Up Left Speaker***	***Music Room Audio DSP Output 1***	***Amplifier 4 Input 1***	***A - Belden 9451***	***DSP Out 1***	***A4IP1SP1***	***Wiring Within Rack***
047	***Amplifier 4 Input 2 Speaker 2 (Right)***	***Analog Back Up Right Speaker***	***Music Room Audio DSP Output 2***	***Amplifier 4 Input 2***	***A - Belden 9451***	***DSP Out 2***	***A4IP2SP2***	
048	Amplifier 4 Output 1 Speaker 1 (Left)	Centre Speaker Out	Rack Room 1133	Speaker Room 1129	B - Belden 5100UE	A4 OP1	SP L	
049	Amplifier 4 Output 2 Speaker 2 (Right)	Centre Speaker Out	Rack Room 1133	Speaker Room 1129	B - Belden 5100UE	A4 OP2	SP R	
050	*DSP Control*	*Network Control Line*	*Audio DSP Rack Room 1133*	*Network Switch Room 1133*	*C - Belden 2412*	*DSP NW2*	*SWP 1*	
051	*DSP Dante Primary*	*Dante Network*	*Audio DSP Rack Room 1133*	*Network Switch Room 1133*	*C - Belden 2412*	*DSP DA2*	*SWP 2*	
052	Audio Patch Point RM1129	Dante Network	Audio Patch Point Room 1129	Network Switch Room 1133	C - Belden 2412	PP 4	SWP 3	
053	Audio Patch Point RM1129	Dante Network	Audio Patch Point Room 1129	Network Switch Room 1133	C - Belden 2412	PP 5	SWP 4	
054	Audio Patch Point RM1129	Dante Network	Audio Patch Point Room 1129	Network Switch Room 1133	C - Belden 2412	PP 6	SWP 5	
055	Video Patch Point RM1129	Audio Visual IP	Video Patch Point Room 1124	Network Switch Room 1133	C - Belden 2412	VP 4	SWP 6	
056	Dante Primary	Dante Network	Wall Plate Room 1129	Network Switch Room 1133	C - Belden 2412	DA 11	SWP 7	
057	Dante Secondary	Dante Network	Wall Plate Room 1129	Network Switch Room 1133	C - Belden 2412	DA 12	SWP 8	
058	Network Patch	Network Control Line	Wall Plate Room 1129	Network Switch Room 1133	C - Belden 2412	DA 13	SWP 9	
059	Dante Primary	Dante Network	Wall Plate Room 1129	Network Switch Room 1133	C - Belden 2412	DA 14	SWP 10	
060	Dante Secondary	Dante Network	Wall Plate Room 1129	Network Switch Room 1133	C - Belden 2412	DA 15	SWP 11	
061	Network Patch	Network Control Line	Wall Plate Room 1129	Network Switch Room 1133	C - Belden 2412	DA 16	SWP 12	
062	Stage Box	Dante Network	Stage Box Room 1129	Network Switch Room 1133	C - Belden 2412	DA 17	SWP 13	**REQUIRES 110 V**
063	Audio Control RM 1129	Network Control Line	Room 1129	Network Switch Room 1133	C - Belden 2412	NW 7	SWP 14	**POE+**
064	Video Control RM 1129	Network Control Line	Room 1129	Network Switch Room 1133	C - Belden 2412	NW 8	SWP 15	**POE+**
065	Video Patch Point at Projector RM1129	Audio Visual IP	Room 1129 Ceiling	Network Switch Room 1133	C - Belden 2412	VP 5	SWP 16	**POE+**
066	*Dante Primary*	*Dante Network*	*Amplifier Dante Primary*	*Network Switch Room 1133*	*C - Belden 2412*	*DA 18*	*SWP 17*	*Wiring Within Rack*
067	Video	HDMI Video	Video Patch Point Ceiling RM1129	Projector Room 1129	D - Premade HDMI	HD 2 Out	HD 2 In	
068	Serial Control	Serial Control Cable	Video Patch Point Ceiling RM1129	Projector Room 1129	C - Belden 2412	SE 2 Out	SE 2 In	

SK-12 WIRE

COMMUNICATIONS



SK-11 WIRE GUIDE THEATRE ARTS

Riser Circiut #	Name/Number	Description	Point From	Point To	Wire Type	Start Label	End Label	Reference Drawing/Notes
069	***Amplifier 5 Input 1 Speaker 1***	***Analog Back Up Speaker Left RM 1138***	***Theatre Arts Audio DSP Output 1***	***Amplifier 5 Input 1***	***A - Belden 9451***	***DSP Out 1***	***A5 I1SP1***	***Wiring Within Rack***
070	***Amplifier 5 Input 2 Speaker 2***	***Analog Back Up Speaker Right RM 1138***	***Theatre Arts Audio DSP Output 2***	***Amplifier 5 Input 2***	***A - Belden 9451***	***DSP Out 2***	***A5 I2SP2***	
071	*Amplifier 5 Input 3 Speaker 3*	*Analog Back Up Speaker Left RM 1140*	*Theatre Arts Audio DSP Output 3*	*Amplifier 5 Input 3*	*A - Belden 9451*	*DSP Out 3*	*A5 I3SP3*	
072	*Amplifier 5 Input 4 Speaker 4*	*Analog Back Up Speaker Right RM 1140*	*Theatre Arts Audio DSP Output 4*	*Amplifier 5 Input 4*	*A - Belden 9451*	*DSP Out 4*	*A5 I1SP4*	
073	Amplifier 5 Output 1 Speaker 1	Left Speaker Out RM 1138	Rack Room 1139	Speaker Left Room 1138	B - Belden 5100UE	A5 OP1	SP L	
074	Amplifier 5 Output 2 Speaker 2	Right Speaker Out RM 1138	Rack Room 1139	Speaker Right Room 1138	B - Belden 5100UE	A5 OP2	SP R	
075	Amplifier 5 Output 3 Speaker 3	Left Speaker Out RM 1140	Rack Room 1139	Speaker Left Room 1140	B - Belden 5100UE	A5 OP3	SP L	
076	Amplifier 5 Output 1 Speaker 4	Right Speaker Out RM 1140	Rack Room 1139	Speaker Right Room 1140	B - Belden 5100UE	A5 OP1	SP R	
077	***DSP Control***	***Network Control Line***	***Audio DSP Rack Room 1139***	***Network Switch Room 1139***	***C - Belden 2412***	***DSP NW3***	***SWP 1***	***Wiring Within Rack***
078	***DSP Dante Primary***	***Dante Network***	***Audio DSP Rack Room 1139***	***Network Switch Room 1139***	***C - Belden 2412***	***DSP DA3***	***SWP 2***	
079	Audio Patch Point RM1138	Dante Network	Audio Patch Point Room 1138	Network Switch Room 1139	C - Belden 2412	PP 7	SWP 3	
080	Audio Patch Point RM1140	Dante Network	Audio Patch Point Room 1140	Network Switch Room 1139	C - Belden 2412	PP 8	SWP 4	
081	Video Patch Point RM1138	Audio Visual IP	Video Patch Point Room 1138	Network Switch Room 1139	C - Belden 2412	VP 6	SWP 5	
082	Video Patch Point RM1140	Audio Visual IP	Video Patch Point Room 1140	Network Switch Room 1139	C - Belden 2412	VP 7	SWP 6	
083	Dante Primary	Dante Network	Wall Plate Room 1138	Network Switch Room 1139	C - Belden 2412	DA 19	SWP 7	
084	Dante Secondary	Dante Network	Wall Plate Room 1138	Network Switch Room 1139	C - Belden 2412	DA 20	SWP 8	
085	Network Patch	Network Control Line	Wall Plate Room 1138	Network Switch Room 1139	C - Belden 2412	DA 21	SWP 9	
086	Dante Primary	Dante Network	Wall Plate Room 1140	Network Switch Room 1139	C - Belden 2412	DA 22	SWP 10	
087	Dante Secondary	Dante Network	Wall Plate Room 1140	Network Switch Room 1139	C - Belden 2412	DA 23	SWP 11	
088	Network Patch	Network Control Line	Wall Plate Room 1140	Network Switch Room 1139	C - Belden 2412	DA 24	SWP 12	
089	Stage Box	Dante Network	Stage Box Room 1138	Network Switch Room 1139	C - Belden 2412	DA 17	SWP 13	**REQUIRES 110 V**
090	Audio Control (Non Standard) RM 1138	Network Control Line	Room 1138	Network Switch Room 1139	C - Belden 2412	NW 9	SWP 14	**POE+**
091	Audio Control RM 1138	Network Control Line	Room 1138	Network Switch Room 1139	C - Belden 2412	NW 10	SWP 15	**POE+**
092	Audio Control RM 1138	Network Control Line	Room 1138	Network Switch Room 1139	C - Belden 2412	NW 11	SWP 16	**POE+**
093	Audio Control RM 1138	Network Control Line	Room 1138	Network Switch Room 1139	C - Belden 2412	NW 12	SWP 17	**POE+**
094	Audio Control RM 1140	Network Control Line	Room 1140	Network Switch Room 1139	C - Belden 2412	NW 13	SWP 18	**POE+**
095	Video Control RM 1138	Network Control Line	Room 1138	Network Switch Room 1139	C - Belden 2412	NW 14	SWP 19	**POE+**
096	Video Control RM 1140	Network Control Line	Room 1140	Network Switch Room 1139	C - Belden 2412	NW 15	SWP 20	**POE+**
097	Video Patch Point at Projector RM1138	Audio Visual IP	Room 1138 Ceiling	Network Switch Room 1133	C - Belden 2412	VP 6	SWP 21	**POE+**
098	Video Patch Point at Projector RM1140	Audio Visual IP	Room 1140 Ceiling	Network Switch Room 1133	C - Belden 2412	VP 6	SWP 22	**POE+**
099	***Dante Primary***	***Dante Network***	***Amplifier Dante Primary***	***Network Switch Room 1125***	***C - Belden 2412***	***DA 8***	***SWP 23***	***Wiring Within Rack***
100	Video	HDMI Video	Video Patch Point Ceiling RM1138	Projector Room 1138	D - Premade HDMI	HD 3 Out	HD 3 In	
101	Serial Control	Serial Control Cable	Video Patch Point Ceiling RM1138	Projector Room 1138	C - Belden 2412	SE 3 Out	SE 3 In	
102	Video	HDMI Video	Video Patch Point Ceiling RM1140	Projector Room 1140	D - Premade HDMI	HD 4 Out	HD 3 In	
103	Serial Control	Serial Control Cable	Video Patch Point Ceiling RM1140	Projector Room 1140	C - Belden 2412	SE 4 Out	SE 3 In	
104	Primary Communications A	Comms	Comm Station Rack Room 1125	Wall Plate Room 1124	A - Belden 9451	Comm A	Comm A	
105	Primary Communications B	Comms	Comm Station Rack Room 1125		A - Belden 9451	Comm B	Comm B	
106	Primary Communications A	Comms	Loop From Wall Plate 1124	Wall Plate Room 1125 Stage Right	A - Belden 9451	Comm A	Comm A	
107	Primary Communications B	Comms	Loop From Wall Plate 1124	Wall Plate Room 1125 Stage Right	A - Belden 9451	Comm B	Comm B	
108	Primary Communications A	Comms	Loop From Wall Plate 1125 Stage Right	Wall Plate Room 1125 Stage Left	A - Belden 9451	Comm A	Comm A	
109	Primary Communications B	Comms	Loop From Wall Plate 1125 Stage Right	Wall Plate Room 1125 Stage Left	A - Belden 9451	Comm B	Comm B	
110	Secondary Communications A	Comms	Comm Station Rack Room 1125	Wall Plate Room 1129	A - Belden 9451	Comm A	Comm A	
111	Secondary Communications B	Comms	Comm Station Rack Room 1125	Wall Plate Room 1129	A - Belden 9451	Comm B	Comm B	
112	Secondary Communications A	Comms	Comm Station Rack Room 1125	Wall Plate Room 1138	A - Belden 9451	Comm A	Comm A	
113	Secondary Communications B	Comms	Comm Station Rack Room 1125	Wall Plate Room 1138	A - Belden 9451	Comm B	Comm B	
114	ROUTER	Uplink to Router	Switch Room 1125	Router RM 1133	C - Belden 2412	R1	R1 RM1125	
115	ROUTER	Uplink to Router	Switch Room 1133	Router RM 1133	C - Belden 2412	R2	R2 RM1133	
116	ROUTER	Uplink to Router	Switch Room 1139	Router RM 1133	C - Belden 2412	R3	R3 RM1139	
117	***Amplifier 6 Input 1 Speaker 5 (Monitor 1)***	***Analog Back Up Monitor 1***	***Cafeteria Audio DSP Output 5***	***Amplifier 6 Input 1***	***A - Belden 9451***	***DSP Out 8***	***A6 I1SP5***	
118	***Amplifier 6 Input 2 Speaker 6 (Monitor 2)***	***Analog Back Up Monitor 2***	***Cafeteria Audio DSP Output 6***	***Amplifier 6 Input 2***	***A - Belden 9451***	***DSP Out 9***	***A6 I2SP6***	
119	***Amplifier 6 Input 3 Speaker 7 (Monitor 3)***	***Analog Back Up Monitor 3***	***Cafeteria Audio DSP Output 7***	***Amplifier 6 Input 3***	***A - Belden 9451***	***DSP Out 10***	***A6 I3SP7***	
120	***Amplifier 6 Input 4 Speaker 8 (Monitor 4)***	***Analog Bac k Up Monitor 4***	***Cafeteria Audio DSP Output 8***	***Amplifier 6 Input 4***	***A - Belden 9451***	***DSP Out 11***	***A6 I4SP8***	
121	Amplifier 6 Output 1 Speaker 5	Monitor 1 Out	Rack Room 1139	Speaker Plate Room 1138	B - Belden 5100UE	A6 OP1	M1	
122	Amplifier 6 Output 2 Speaker 6	Monitor 2 Out	Rack Room 1139	Speaker Plate Room 1138	B - Belden 5100UE	A6 OP2	M2	
123	Amplifier 6 Output 3 Speaker 7	Monitor 3 Out	Rack Room 1139	Speaker Plate Room 1138	B - Belden 5100UE	A6 OP3	M3	
124	Amplifier 6 Output 4 Speaker 8	Monitor 4 Out	Rack Room 1139	Speaker Plate Room 1138	B - Belden 5100UE	A6 OP4	M4	
125	***Dante Primary***	***Dante Network***	***Amplifier Dante Primary***	***Network Switch Room 1139***	***C - Belden 2412***	***DA 9***	***SWP 24***	***Wiring Within Rack***

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Rev	Description	Date
1	Amended Wiring Guide	May 21 2024

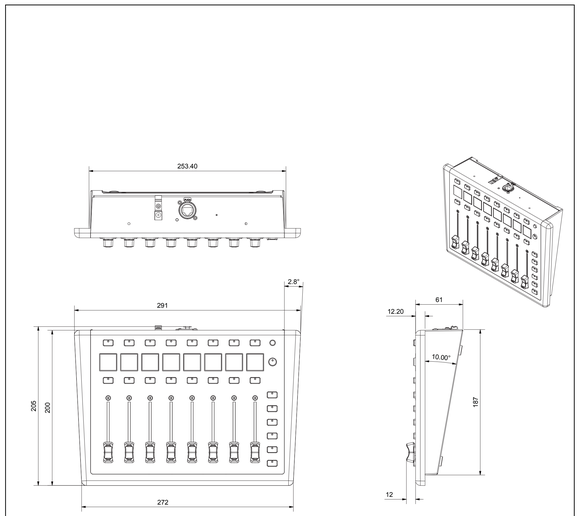
PROJECT:
STRATFORD HIGH SCHOOL

STRATFORD, PE

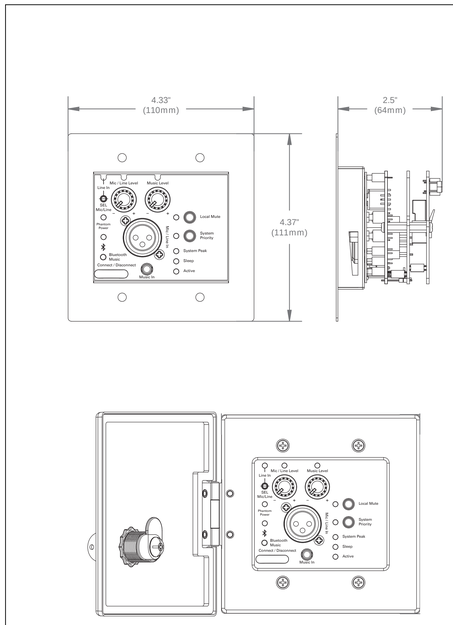
DRAWING TITLE:
AUDIO/VIDEO WIRE GUIDES

DRAWN: Author
FILE NO: 22-080

DWG: AV-7



AUDIO CONTROL POINT NON STANDARD BOX CAT6



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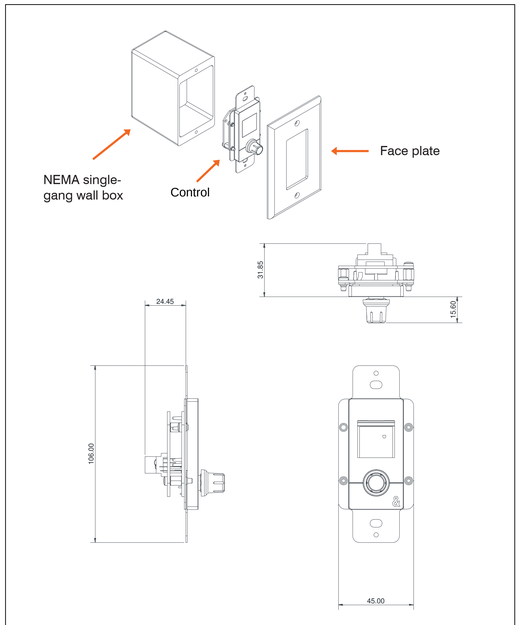


AUDIO CONTROL POINT SINGLE GANG BOX SINGLE CAT6

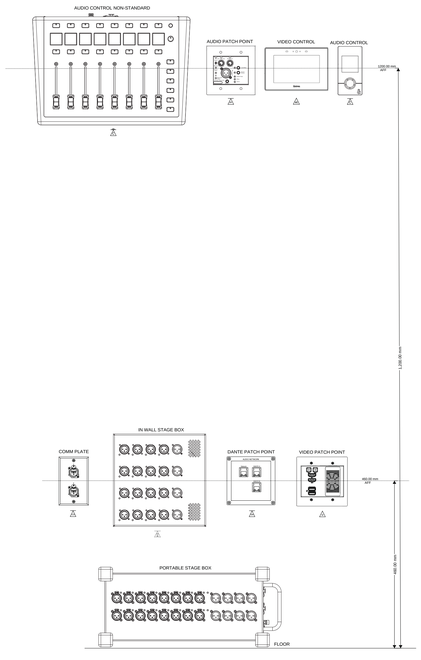
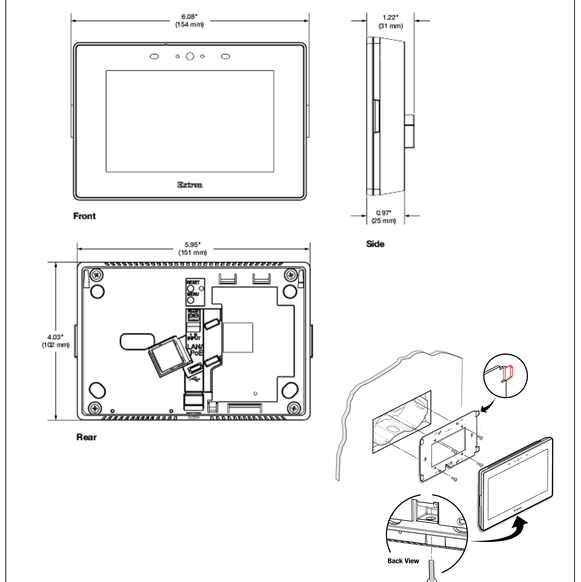


PLATE ELEVATIONS - TYPICAL



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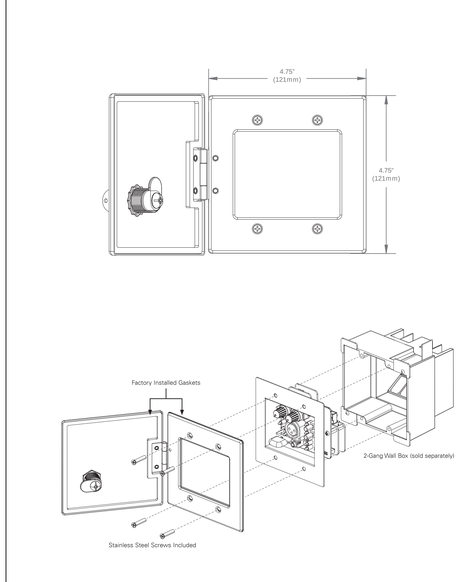
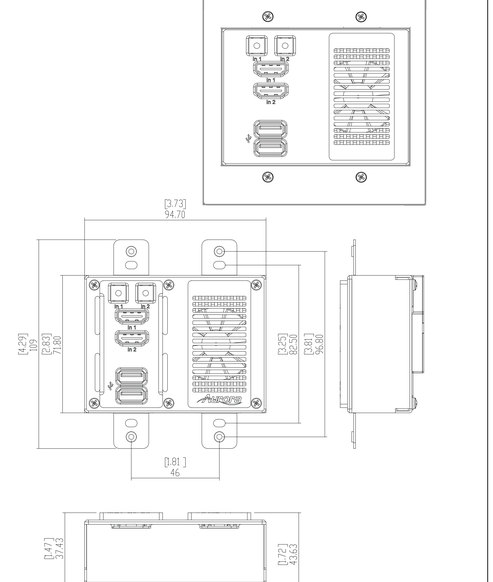
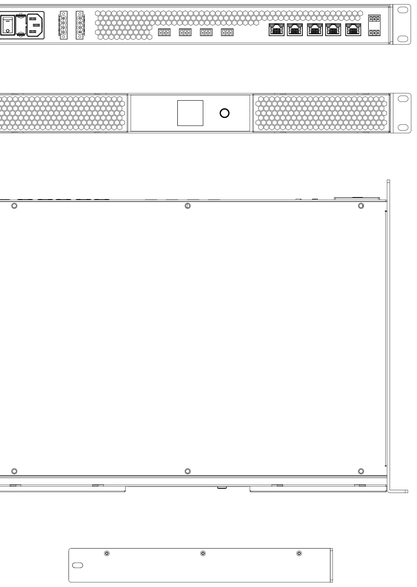


AUDIO PATCH POINT SECURITY COVER



VIDEO PATCH POINT DOUBLE GANG BOX SINGLE CAT6



AMPLIFIER

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Rev	Description	Date
1	Amended Box and Control Elevations	May 21 2024

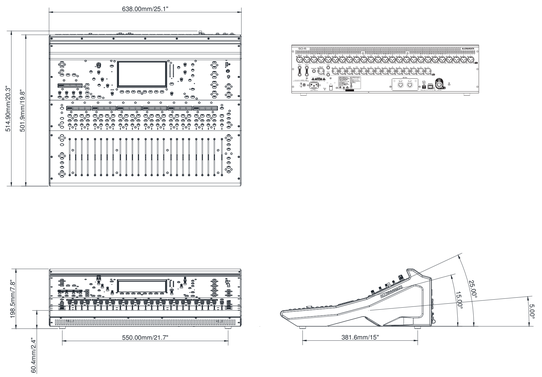
PROJECT:
STRATFORD HIGH SCHOOL

STRATFORD, PE

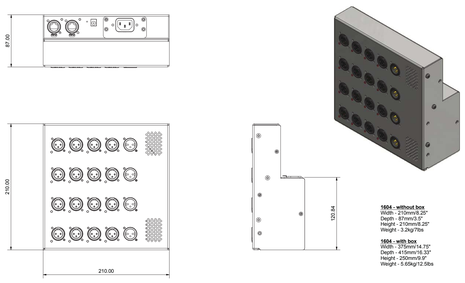
DRAWING TITLE:
AUDIO/VIDEO EQUIPMENT INFORMATION

DRAWN:	FILE NO:
Author	22-080

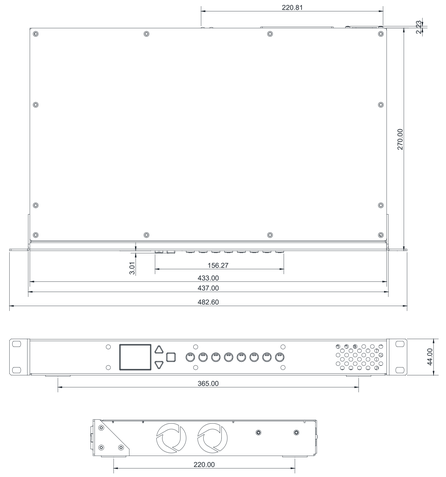
DWG: AV-8



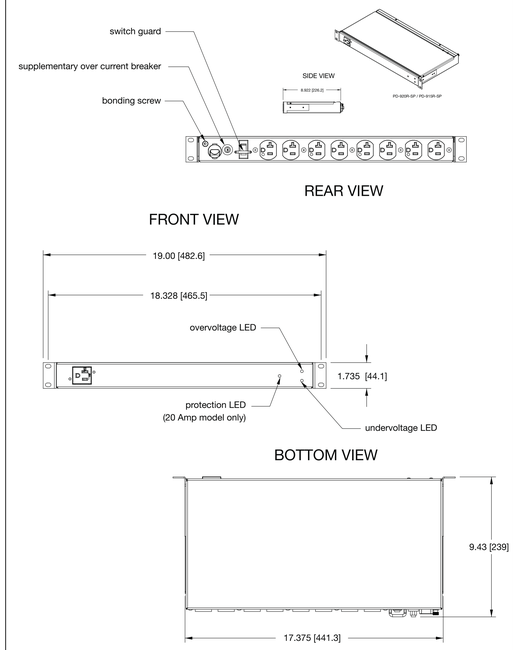
PORTABLE SOUND CONSOLE



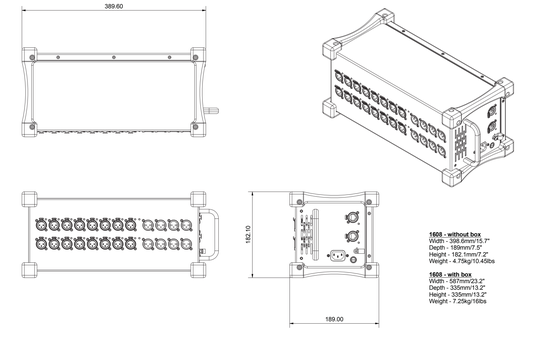
IN WALL STAGE BOX POINT NON STANDARD BOX SINGLE CAT6



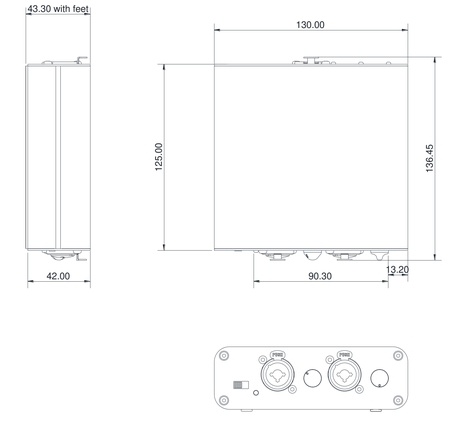
SYSTEM AUDIO DSP



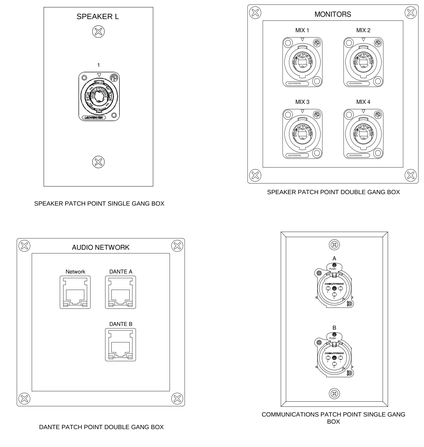
RACK MOUNT POWER BAR



PORTABLE STAGE BOX



PORTABLE DANTE PATCH POINT



SPEAKER PATCH POINT SINGLE GANG BOX

SPEAKER PATCH POINT DOUBLE GANG BOX

DANTE PATCH POINT DOUBLE GANG BOX

COMMUNICATIONS PATCH POINT SINGLE GANG BOX

AUDIO Connector Plates Typical

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Rev	Description	Date

PROJECT:

STRATFORD HIGH SCHOOL

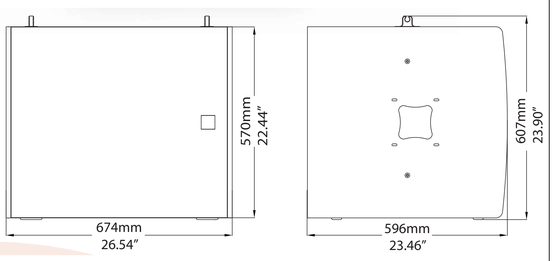
STRATFORD, PE

DRAWING TITLE:

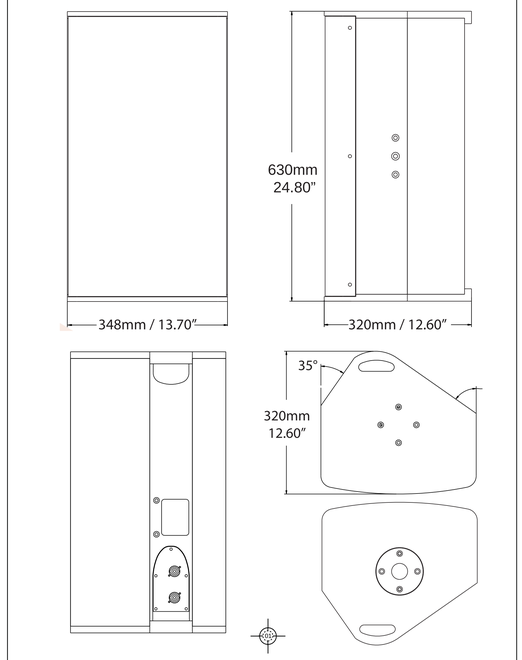
AUDIO/VIDEO EQUIPMENT INFORMATION

DRAWN:	FILE NO:
Author	22-080

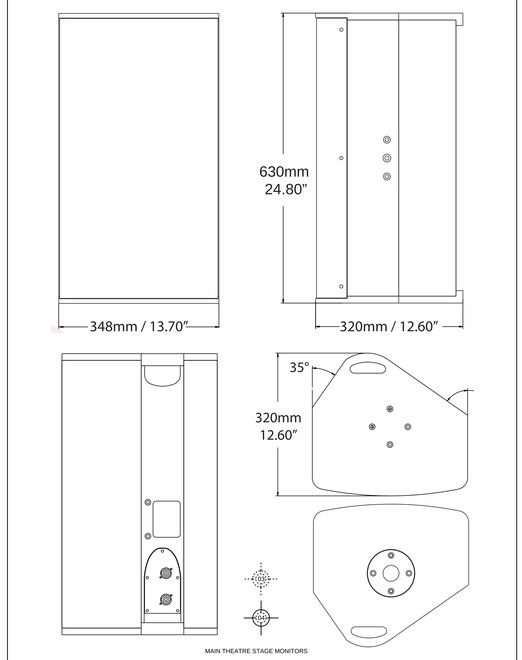
DWG: AV-9



MAIN THEATRE SUB WOOFERS



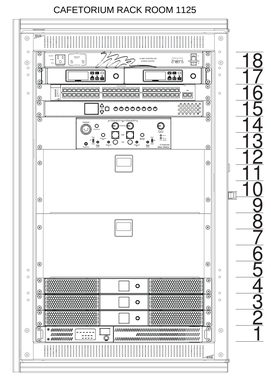
MAIN THEATRE SPEAKERS



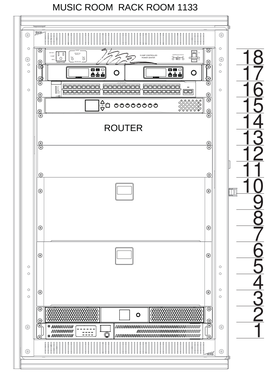
MAIN THEATRE STAGE MONITORS

MUSIC ROOM / THEATRE ARTS SPEAKERS

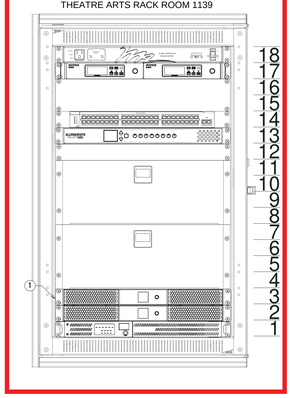
CAFETORIUM RACK ROOM 1125



MUSIC ROOM RACK ROOM 1133



THEATRE ARTS RACK ROOM 1139



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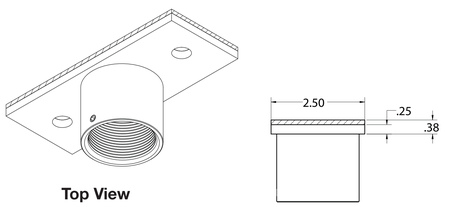
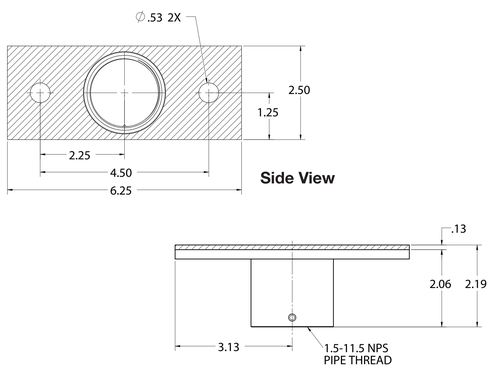
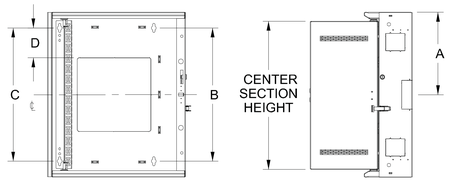




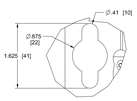
MOUNTING DETAIL SPEAKER BRACKET (SUSPENDED)



FRONT VIEW

SIDE VIEW

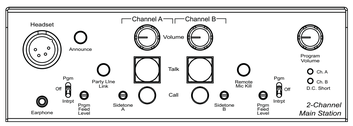
BACKPAN:
DWR-10-XX
DWR-12-XX
DWR-16-XX
DWR-18-XX

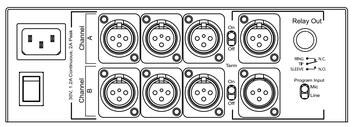


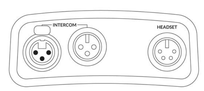
DETAIL C
SCALE 1/1

	OVERALL HEIGHT IN [MM]	CENTER SECTION HEIGHT IN [MM]	RACKING HEIGHT IN [MM]	RACK SPACES	WEIGHT CAPACITY	2" EIKO BACK PAN	1.5" EIKO BACK PAN	WIREMOLD 4000 SERIES	"A" WIREMOLD 4000 SERIES SPACING	"B" MOUNTING HOLE SPACING	"C" MOUNTING HOLE SPACING HINGE SIDE	"D" KNOCKOUT TOP TO MOUNTING HOLE SPACING	QUANTITY MOUNTING HOLES
DWR-10-17	24.50 [622]	21.63 [549]	17.50 [445]	10 SP	200 lbs	-	-	1	12.25 [311]	19.13[486]	19.13[486]	3.31[84]	4
DWR-10-22	24.50 [622]	21.63 [549]	17.50 [445]	10 SP	200 lbs	-	-	1	12.25 [311]	19.13[486]	19.13[486]	3.31[84]	4
DWR-12-17	28.00 [711]	25.13 [638]	21.00 [533]	12 SP	200 lbs	-	-	1	14.00 [356]	22.63[575]	22.63[575]	5.06[129]	4
DWR-12-22	28.00 [711]	25.13 [638]	21.00 [533]	12 SP	200 lbs	-	-	1	14.00 [356]	22.63[575]	22.63[575]	5.06[129]	4
DWR-12-26	28.00 [711]	25.13 [638]	21.00 [533]	12 SP	200 lbs	-	-	1	14.00 [356]	22.63[575]	22.63[575]	5.06[129]	4
DWR-12-32	28.00 [711]	25.13 [638]	21.00 [533]	12 SP	200 lbs	-	-	1	14.00 [356]	22.63[575]	22.63[575]	5.06[129]	4
DWR-16-17	35.00 [889]	32.13 [816]	28.00 [711]	16 SP	200 lbs	-	-	1	17.50 [445]	29.63[753]	29.63[753]	6.56[167]	4
DWR-16-22	35.00 [889]	32.13 [816]	28.00 [711]	16 SP	200 lbs	-	-	1	17.50 [445]	29.63[753]	29.63[753]	6.56[167]	4
DWR-16-26	38.50 [978]	35.63 [905]	31.50 [800]	18 SP	250 lbs	-	-	1	19.25 [489]	33.13[841]	33.13[841]	10.31[262]	4
DWR-16-32	38.50 [978]	35.63 [905]	31.50 [800]	18 SP	250 lbs	-	-	1	19.25 [489]	33.13[841]	33.13[841]	10.31[262]	4
DWR-16-26	38.50 [978]	35.63 [905]	31.50 [800]	18 SP	250 lbs	-	-	1	19.25 [489]	33.13[841]	33.13[841]	10.31[262]	4
DWR-16-32	38.50 [978]	35.63 [905]	31.50 [800]	18 SP	250 lbs	-	-	1	19.25 [489]	33.13[841]	33.13[841]	10.31[262]	4
DWR-21-17	43.75 [1111]	40.88 [1038]	36.75 [933]	21 SP	250 lbs	2	2	2	10.56 [268]	38.38[975]	19.19[487]	12.94[329]	5
DWR-21-22	43.75 [1111]	40.88 [1038]	36.75 [933]	21 SP	250 lbs	2	2	2	10.56 [268]	38.38[975]	19.19[487]	12.94[329]	5
DWR-24-17	49.00 [1245]	46.13 [1172]	42.00 [1067]	24 SP	300 lbs	2	2	2	10.56 [268]	43.63[1108]	21.81[554]	15.56[395]	5
DWR-24-22	49.00 [1245]	46.13 [1172]	42.00 [1067]	24 SP	300 lbs	2	2	2	10.56 [268]	43.63[1108]	21.81[554]	15.56[395]	5
DWR-24-26	49.00 [1245]	46.13 [1172]	42.00 [1067]	24 SP	300 lbs	2	2	2	10.56 [268]	43.63[1108]	21.81[554]	15.56[395]	5
DWR-24-32	49.00 [1245]	46.13 [1172]	42.00 [1067]	24 SP	300 lbs	2	2	2	10.56 [268]	43.63[1108]	21.81[554]	15.56[395]	5
DWR-28-17	68.25 [1734]	65.38 [1661]	61.25 [1556]	35 SP	300 lbs	2	2	2	10.56 [268]	62.88[1597]	21.00[533]	25.19[640]	6
DWR-28-22	68.25 [1734]	65.38 [1661]	61.25 [1556]	35 SP	300 lbs	2	2	2	10.56 [268]	62.88[1597]	21.00[533]	25.19[640]	6
DWR-28-26	68.25 [1734]	65.38 [1661]	61.25 [1556]	35 SP	300 lbs	2	2	2	10.56 [268]	62.88[1597]	21.00[533]	25.19[640]	6

RACK DETAIL







COMMUNICATIONS

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NINE YARDS

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Rev	Description	Date
1	Amended Theatre Arts Rack	May 21 2024

PROJECT:
STRATFORD HIGH SCHOOL

STRATFORD, PE

DRAWING TITLE:
AUDIO/VIDEO EQUIPMENT INFORMATION

DRAWN:	FILE NO:
Author	22-080

DWG: AV-10