

June 5, 2019

Addendum CC-02

Milford Public Schools
Jr-Sr High School Addn. & Renovation
301 G Street
Milford, NE 68405

CWP # 18121



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NOTICE TO BIDDERS:

- A. This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders and serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Once issued, portions of this Addendum affecting the Contract Documents shall be considered as fully incorporated into the Contract Documents unless further modified by subsequent Addenda.
- B. There are no previous Addenda issued.
- C. The Bidder shall acknowledge receipt of Addenda in the appropriate space on the Bid Form.
- D. The date for receipt of bids is changed by this Addendum.
 - 1. Bid Date: June 7th at 2pm.
- E. The Contract Documents for the above referenced project are hereby amended as follows:

ASSOCIATED CONSULTANT ADDENDA:

Item No. A1 Mechanical Work - Specification Section 237313

- A. See Morrissey Engineering Addendum 2 pages 1 to 2 attached hereto and dated 6/5/2019 for additional addendum items.

Item No. A2 Mechanical Work - Sheet M5.1 Mechanical Schedules

- A. See Morrissey Engineering Addendum 2 pages 1 to 2 attached hereto and dated 6/5/2019 for additional addendum items. This Sheet is Revised & Re-Issued per this Addendum.

Item No. A3 Electrical Work - Specification Section 268100

- A. See Morrissey Engineering Addendum 2 pages 1 to 2 attached hereto and dated 6/5/2019 for additional addendum items.

Item No. A4 Electrical Work - Sheet E2.1 Floor Plan-Power

- A. See Morrissey Engineering Addendum 2 pages 1 to 2 attached hereto and dated 6/5/2019 for additional addendum items. This Sheet is Revised & Re-Issued per this Addendum.

Item No. A5 Electrical Work - Sheet E3.1 Floor Plan-Special Systems

- A. See Morrissey Engineering Addendum 2 pages 1 to 2 attached hereto and dated 6/5/2019 for additional addendum items. This Sheet is Revised & Re-Issued per this Addendum.

Item No. A6 Electrical Work - Sheet E4.1 Floor Plan-Electrical Details

- A. See Morrissey Engineering Addendum 2 pages 1 to 2 attached hereto and dated 6/5/2019 for additional addendum items. This Sheet is Revised & Re-Issued per this Addendum.

Item No. A7 Electrical Work - Sheet E5.1 Luminaire Schedule

- A. See Morrissey Engineering Addendum 2 pages 1 to 2 attached hereto and dated 6/5/2019 for additional addendum items.

Item No. A8 Structural Work – Steel Deck Fasteners

- A. The following are other acceptable substitutions for the 5/8" Ø spot welds and #10 self-tapping screws listed in our general notes could be the following:
1. The deck fastening may be allowed to be Hilti X-HSN 24 powder actuated fasteners spaced at 12" o.c. (36/4 pattern) and the sidelap connections shall be made with four Hilti S-SLC 01 M HWH Sidelap Connectors within every joist space.
OR
 2. The deck fastening may be allowed to be Hilti X-HSN 24 powder actuated fasteners spaced at 12" o.c. (36/4 pattern) and the sidelap connections shall be made with seven Hilti #10 screws within every joist space.

Item No. A9 Structural Work – Sheet S1.1 & S4.1

- A. On Sheet S1.1, There is a bold note that the contractor shall not forget to install the L3x3x3/8 embeds for the braced foundation connections. If these are not installed, the contractor will have to demo the wall and redo it correctly at contractors expense.

DRAWINGS:

Item No. D1 Code Analysis – Sheet GC-03 Code Analysis

- A. There was a TYPO on the Applicable Codes. This Sheet has been Revised & Re-Issued to change the following:
1. Delete 2009 IMC and Replace with 2012 IMC
 2. Delete 2009 IPC and Replace with 2012 IPC
- B. Design Hazard for the Science Lab Criteria has been added to this sheet. This sheet has been Revised & Re-Issued per this addendum.

END OF ADDENDUM

addendum

addendum no. 02

date: 6/5/2019

bid date: June 7, 2019

project name: Milford Jr-SR High School Addition

project no: 19113

This addendum is hereby made a part of the contract documents to the same extent as if it were originally included therein. Contract documents shall be considered modified or revised as hereinafter described.

mechanical items

1. Specifications Section 237313 Paragraph 2.2 B, Change casing minimum insulation thickness from 1/2" to 1"
2. Sheet M5.1 – Mechanical Schedules
 - a. See attached sheet for mechanical revisions.

electrical items

Specification

1. Section 268100.1.4.A.1
 - a. Shall read: "Interface with existing fire alarm system. Existing system is **Siemens.**"
2. Sheet E2.1 – Floor Plan - Power
 - a. Revise power, data and AV rough-in locations in Classrooms 121, 180, 211, and 212.
 - b. Remove receptacles below junction box 'AV' in Classrooms 121, 180, 211, and 212.
 - c. See attached revised sheet.
3. Sheet E3.1 – Floor Plan – Special Systems
 - a. Revise data and AV locations in Classrooms 121, 180, 211, and 212.
 - b. See attached revised sheet.
4. Sheet E4.1 – Electrical Details
 - a. Revise detail 7.
 - b. See attached revised sheet.
5. Sheet E5.1 – Luminaire Schedule
 - a. The following manufacturers have been approved for the light fixture types listed below. All items are subject for review during shop drawing submittal.

<u>LIGHT FIXTURE TYPE</u>	<u>MANUFACTURER</u>	<u>SERIES</u>
2	Acolyte	CHAS1

end of addendum

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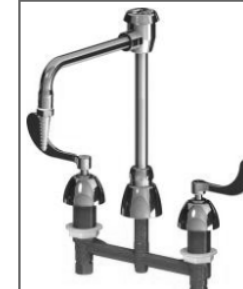
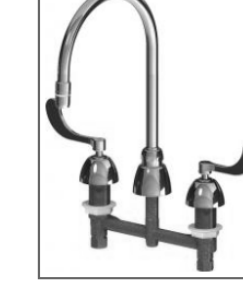
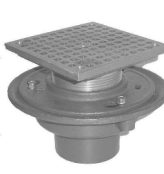
B

A

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

OUTDOOR AIR SCHEDULE						
SERVES	UNIT	TOTAL AIRFLOW (CFM)	AREA (SQ. FT.)	OCCUPANCY (# OF PEOPLE)	ASHRAE 62.1 AIRFLOW (CFM)	DESIGN OUTDOOR AIRFLOW (CFM) (3)
AG ROOM 212	RTU-2	1,000	1,457	24	414 (2)	415
SCIENCE LAB 211	RTU-1	1,000	1,788	30	621 (1)	625
CLASSROOM 178 & WORKROOM 179	RTU-3	1,400	1,152	41	548 (2)	550
CLASSROOM 180 & ROBOTICS 180A	RTU-4	1,400	921	33	440 (2)	440
JR. HIGH CLASSROOM ALT #1	RTU-5-ALT1	1,900	1,489	30	568 (1)	570
NOTES: (1) CALCULATED AT 10 CFM PER PERSON AND 0.18 CFM PER SQ. FT. PER ASHRAE 90.1 MINIMUM. (2) CALCULATED AT 10 CFM PER PERSON AND 0.12 CFM PER SQ. FT. PER ASHRAE 90.1 MINIMUM. (3) BALANCE OUTDOOR AIR TO QUANTITIES INDICATED.						

WH-1		DESCRIPTION: WALL HYDRANT WITH THE FOLLOWING FEATURES: NONFREEZE, AUTOMATIC DRAINING, ANTI-BACKFLOW TYPE, KEY OPERATIONAL 3/4" NPS THREADED OR SOLDER JOINT INLET, AND GARDEN HOSE THREADS ON OUTLET. INCLUDE OPERATING KEY FOR EACH HYDRANT. 1. TYPE: SURFACE MOUNT 2. OPERATION: BRONZE	CW 3/4"	HW -	WASTE -	VENT -
RD-1		DESCRIPTION: ROOF DRAIN WITH CAST IRON BODY, COMBINATION FLASHING COLLAR AND GRAVEL STOP, WITH THE FOLLOWING FEATURES: 1. UNDERDECK CLAMP 2. ADJUSTABLE INSULATION EXTENSION 3. SUMP RECEIVER 4. CAST IRON VANDAL PROOF DOME 5. REQUIRED GASKETS				
OD-1		DESCRIPTION: OVERFLOW ROOF DRAIN WITH CAST IRON BODY, COMBINATION FLASHING COLLAR AND GRAVEL STOP, WITH THE FOLLOWING FEATURES: 1. UNDERDECK CLAMP 2. ADJUSTABLE INSULATION EXTENSION 3. SUMP RECEIVER 4. CAST IRON VANDAL PROOF DOME 5. REQUIRED GASKETS 6. 2" OVERFLOW STANDPIPE				
DS-1		DESCRIPTION: FABRICATED TYPE 304 STAINLESS STEEL DOWNSPOUT COVER WITH HINGED PERFORATED COVER. 1. FINISH: CHROME	CW -	HW -	WASTE -	VENT -

PLUMBING FIXTURE SCHEDULE (1)							
TAG	FIXTURE (2)	FAUCET/ FLUSH/VALVE/ ACCESSORY (2)	DESCRIPTION	CONNECTIONS			
S-1		MODEL: CHICAGO FAUCET LWM2-A13-F	DESCRIPTION: SINK BOWL FURNISHED WITH CASEWORK. PROVIDE FAUCET ONLY. ADA COMPLIANT: YES HANDLE: DUAL LEVER WRIST BLADE HANDLE SPOUT: RIGID (ADJUSTABLE TO SWING) SPOUT WITH ATMOSPHERIC VACUUM BREAKER, 8" REACH, AND SERRATED STRAIGHT FULL FLOW NOZZLE DRAIN: 1-1/2" GRID STRAINER ADA INSULATION KIT: PROVIDE SUPPLY AND DRAIN SOFT MOLDED INSULATION KITS FROM FIXTURE TO WALL. COVERINGS TO BE CUSHIONED JACKET PLASTIC COVERING WITH SELF STICKING FASTENING SYSTEM	CW	HW	WASTE	VENT
				1/2"	1/2"	1-1/2"	1-1/2"
S-2		MODEL: CHICAGO FAUCET LWM2-A23-B	DESCRIPTION: SINK BOWL FURNISHED WITH CASEWORK. PROVIDE FAUCET ONLY. ADA COMPLIANT: YES HANDLE: DUAL LEVER WRIST BLADE HANDLE SPOUT: SWING SPOUT WITH ATMOSPHERIC VACUUM BREAKER, 8" REACH, AND 2.2GPM FULL FLOW AERATOR NOZZLE DRAIN: 1-1/2" GRID STRAINER ADA INSULATION KIT: PROVIDE SUPPLY AND DRAIN SOFT MOLDED INSULATION KITS FROM FIXTURE TO WALL. COVERINGS TO BE CUSHIONED JACKET PLASTIC COVERING WITH SELF STICKING FASTENING SYSTEM	CW	HW	WASTE	VENT
				1/2"	1/2"	1-1/2"	1-1/2"
S-3		MODEL: CHICAGO FAUCET LWM2-A23-B	DESCRIPTION: SINK BOWL FURNISHED WITH CASEWORK. PROVIDE FAUCET ONLY. ADA COMPLIANT: YES HANDLE: DUAL LEVER WRIST BLADE HANDLE SPOUT: SWING SPOUT WITH ATMOSPHERIC VACUUM BREAKER, 8" REACH, AND 2.2GPM FULL FLOW AERATOR NOZZLE DRAIN: 1-1/2" GRID STRAINER ADA INSULATION KIT: PROVIDE SUPPLY AND DRAIN SOFT MOLDED INSULATION KITS FROM FIXTURE TO WALL. COVERINGS TO BE CUSHIONED JACKET PLASTIC COVERING WITH SELF STICKING FASTENING SYSTEM	CW	HW	WASTE	VENT
				1/2"	1/2"	1-1/2"	1-1/2"
S-4		MODEL: ELKAY LR40151740	DESCRIPTION: COUNTER MOUNTED 18 GA STAINLESS STEEL SINK WITH SWING GOOSENECK SPOUT. ADA COMPLIANT: YES FIXTURE DIMENSIONS: SINGLE BOWL 15" X 17-1/2" X 6-1/2" CONSTRUCTION: FAUCET INLET SPACING TO MATCH SINK OPENINGS. HANDLE: SINGLE LEVER TOGGLE ADA COMPLIANT SPOUT: SWING GOOSENECK DRAIN: 1-1/2" GRID STRAINER WITH 3-1/2" REMOVABLE STAINLESS STEEL CRUMB CUP ADA INSULATION KIT: PROVIDE SUPPLY AND DRAIN SOFT MOLDED INSULATION KITS FROM FIXTURE TO WALL. COVERINGS TO BE CUSHIONED JACKET PLASTIC COVERING WITH SELF STICKING FASTENING SYSTEM	CW	HW	WASTE	VENT
				1/2"	1/2"	1-1/2"	1-1/2"
ESH-1		MODEL: GUARDIAN GPF2150	DESCRIPTION: RECESSED SAFETY STATION WITH DRAIN PAN, EXPOSED SHOWER HEAD, EYEWASH, TWO FS-PLUS SPRAY HEADS MOUNTED ON SUPPLY ARMS, ADJUSTABLE FLOW CONTROL AND FILTER. SHOWER: 10" STAINLESS SHOWERHEAD, 20 GPM FLOW CONTROL, VERTICAL SUPPLY PIPE AND CEILING ESCUTCHEON, 1" STAY OPEN BALL VALVE WITH STAINLESS STEEL PANIC BAR ACTUATOR. ACCESSORIES: PROVIDE LAWLOR 911 (84708) THERMOSTATIC MIXING VALVE. VALVE TO HAVE TWO FULLY INDEPENDENT CONTROL MECHANISMS WHICH SPLIT THE FLOW IN HALF. VALVE TO HAVE TEMPERATURE GAUGES ON COLD, HOT AND TEMPERED WATER LINES. PROVIDE WITH ELECTRIC LIGHT AND ALARM HORN.	CW	HW	WASTE	VENT
				1"	1"	2"	-
CGS-1		MODEL: CHICAGO FAUCETS LGW-A110-20	DESCRIPTION: DECK MOUNTED, DUAL TURRET, CHROME PLATED GAS VALVE. VALVE SHALL BE SUITABLE FOR NATURAL GAS USE. DEVICE TO HAVE NEEDLE VALVE AND 2-1/2" VANDAL PROOF CROSS HANDLE LABELED "GAS".	CW	HW	WASTE	VENT
				-	-	-	-
WMB-1		MODEL: GRAY GUY B200 OR EQUAL METAL WASHING MACHINE BOX	DESCRIPTION: METAL WASHING MACHINE BOX CONSTRUCTION: RECESSED BOX AND FACEPLATE, 1/2" MPI/SWEAT CONNECTION VALVES AND A 2" THREADED DRAIN FITTING AND LOCKOUT.	CW	HW	WASTE	VENT
				1/2"	1/2"	2"	2"
IMB-1		MODEL: GRAY GUY BIM875 OR EQUAL METAL ICE MAKER BOX	DESCRIPTION: METAL ICE MAKER BOX CONSTRUCTION: RECESSED BOX AND FACEPLATE, 1/2" OUTLET COMPRESSION ANGLE SHUT-OFF VALVE	CW	HW	WASTE	VENT
				1/4"	-	-	-
RH-1		MODEL: WOODFORD MODEL RHY2-MS	DESCRIPTION: ROOF HYDRANT WITH THE FOLLOWING FEATURES: NONFREEZE, CAST IRON, AUTOMATIC DRAINING, VACUUM BREAKER BACKFLOW PREVENTER, 1" NPS THREADED OR SOLDER JOINT INLET, AND 3/4" GARDEN HOSE THREADS ON OUTLET. 1. TYPE: SURFACE MOUNT 2. OPERATION: MANUFACTURER'S STANDARD 3. LENGTH AS REQUIRED FOR INSTALLING VALVE MINIMUM 30" ABOVE ROOF DECK.	CW	HW	WASTE	VENT
				3/4"	-	-	-
D-1		MODEL: J. R. SMITH #3020	DESCRIPTION: ROUND FLOOR DRAIN WITH DOME STRAINER, ACID RESISTANT COATED CAST IRON BODY, FLASHING COLLAR, AND REMOVABLE 8-1/2" ROUND NICKEL BRONZE TOP.	CW	HW	WASTE	VENT
				-	-	2"	1-1/2"
D-2		MODEL: J. R. SMITH #2010	DESCRIPTION: FLOOR DRAIN WITH CAST IRON BODY, FLASHING COLLAR, 6" SQUARE ADJUSTABLE NICKEL BRONZE GRATE.	CW	HW	WASTE	VENT
				-	-	2"	1-1/2"
FS-1		MODEL: J. R. SMITH #3101	DESCRIPTION: FLOOR SINK WITH SEDIMENT BUCKET, ACID RESISTANT COATED CAST IRON BODY, FLASHING COLLAR, AND REMOVABLE 8-1/2" SQUARE NICKEL BRONZE TOP. PROVIDE THE FOLLOWING FEATURES: 1. HINGED GRATE 2. 3/4" GRATE	CW	HW	WASTE	VENT
				-	-	2"	1-1/2"
REMARKS: (1) SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS INCLUDING STOPS, FITTINGS AND ALL OTHER SPECIALTIES. (2) PICTURES OF FIXTURES DO NOT INDICATE ACTUAL FIXTURE SPECIFIED. PICTURES ARE GRAPHICAL IN NATURE. SEE DESCRIPTION FOR ACTUAL FIXTURE AND MODEL.				CW	HW	WASTE	VENT
				-	-	2"	1-1/2"
				-	-	3"	1-1/2"
				-	-	4"	2"
				REMARKS: SEE FLOOR PLANS FOR WASTE AND VENT SIZE REQUIREMENTS.			

DIFFUSER REGISTER AND GRILLE SCHEDULE									
PLAN TAG	D-1	G-1	G-2						
MANUFACTURER	PRICE	PRICE	PRICE						
MODEL NUMBER	SPD	PDOR	PDOR						
FUNCTION	SUPPLY AIR	RETURN	RETURN						
DESCRIPTION	FLAT PLATE	PERF. GRILLE	PERF. GRILLE						
DEFLECTION	4-WAY	-	-						
MAX. STATIC PRESS. (IN W.G.)	0.10	0.08	0.08						
CONSTRUCTION MATERIAL	STEEL	STEEL	STEEL						
FINISH	WHITE (6)	WHITE (6)	WHITE (6)						
NECK SIZE (IN)	SEE PLANS	20x20	20x10						
FACE SIZE (IN)	24x24	24x24	24x12						
ACCESSORIES	(3) (4)	-	-						
REMARKS (1) (2)	-	(5)	(5)						
REMARKS	(1) VERIFY CEILING CONSTRUCTION PRIOR TO FURNISHING MATERIAL. (2) NOISE CRITERIA (NC) SHALL BE LESS THAN 25 ON DIFFUSERS, REGISTERS AND GRILLES IN LOCATED OCCUPIED SPACES. (3) VCR-7 RADIAL OPPOSED BLADE DAMPER. (4) PROVIDE WITH INSULATED BLANKET FOR DIFFUSER BACK PAN. (5) GRILLES INSTALLED IN LAY-IN CEILING GRID PROVIDE WITH NO SCREW HOLES. (6) VERIFY COLOR WITH ARCHITECT.								

WATER HEATER SCHEDULE				
GENERAL	PLAN TAG	EWH-1		
	MANUFACTURER	A.O. SMITH		
	MODEL NUMBER	DEN-52		
	SERVES	(1)		
	RECOVERY	24		
	TYPE	(3)		
	STORAGE (GAL)	50		
	DIMENSIONS (DIA. x H)(IN.)	21" x 55"		
	REMARKS	(4) (5)		
	VOLTAGE/PHASE	208 / 1		
	CAPACITY (KW)	6.0		
	NUMBER OF STAGES	2		
	KW PER STAGE	6.0		
	REMARKS	(2)		
TANK				
ELECTRIC				
REMARKS	(1) DOMESTIC HOT WATER. (2) NON-SIMULTANEOUS ELEMENTS. (3) INTEGRAL GLASS LINED TANK. (4) PROVIDE PRESSURE/TEMPERATURE RELIEF VALVES. (5) SET TEMPERATURE AT 110°F.			

PUMP SCHEDULE				
GENERAL	PLAN TAG	HWCP-1		
	MANUFACTURER	TACO		
	MODEL NUMBER	0013		
	SERVES	140°F HWC		
	TYPE	IN-LINE (1)		
	ACCESSORIES	-		
	FLOW (GPM)	5		
	TOTAL HEAD (FEET)	25		
	SHUT-OFF HEAD (FEET)	33		
	NPSH AVAILABLE (FEET)	-		
	MIN. EFFICIENCY	-		
	FLUID	WATER		
	SUCTION SIZE (IN)	3/4"		
	DISCHARGE SIZE (IN)	3/4"		
	MAX. IMPELLER DIA. (IN)	-		
	RPM	-		
	HP	1/8		
	VOLTS	115		
	PHASE	1		
	O.D.P.	-		
	CONTROL DEVICE	(2)		
	REMARKS	-		
MOTOR				
REMARKS	1. PUMP SHALL BE ALL BRONZE CONSTRUCTION. CERTIFIED LEAD FREE. 2. PUMPS SHALL RUN CONTINUOUS.			

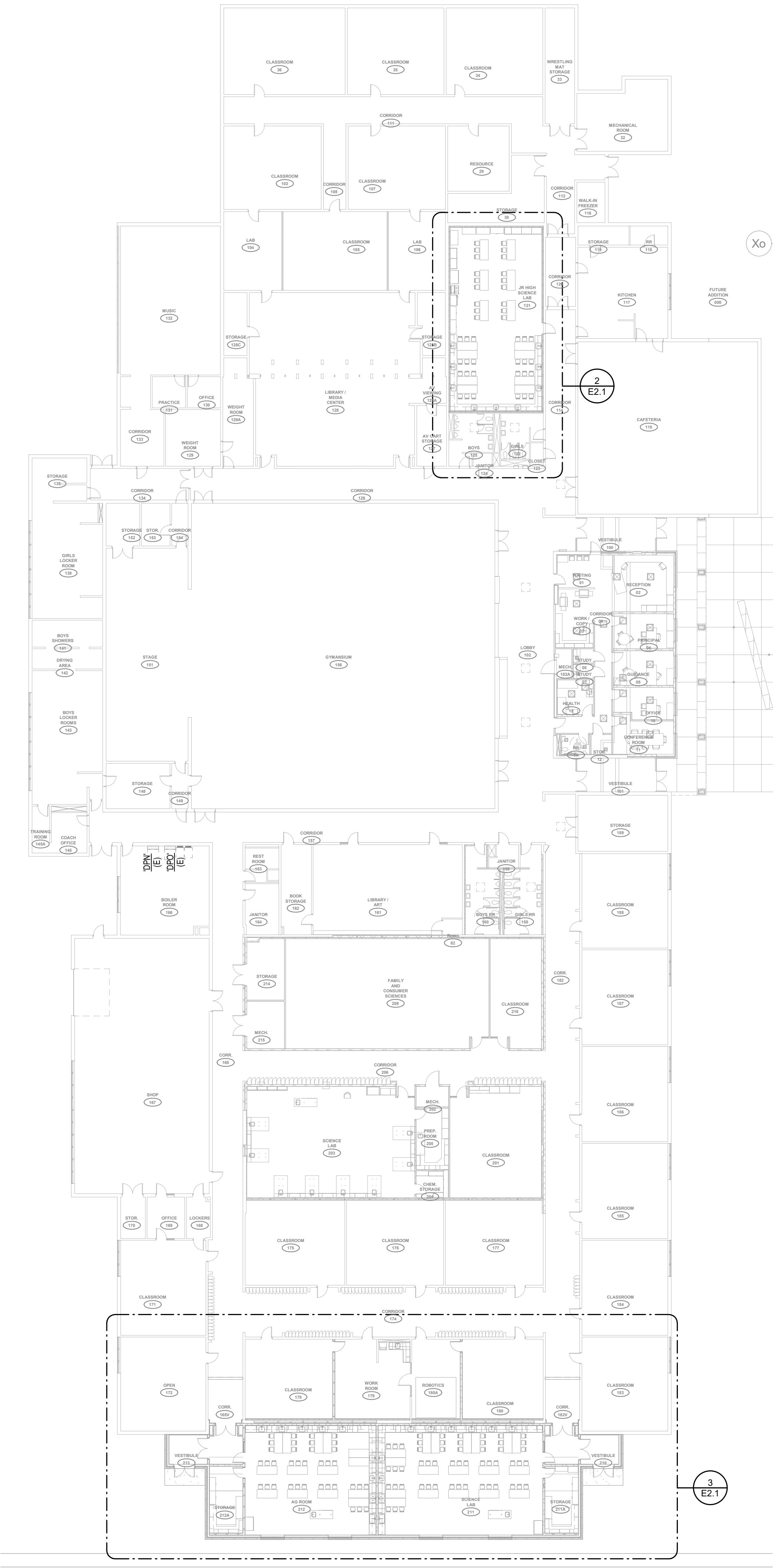
ROOFTOP UNIT SCHEDULE						
	PLAN TAG	RTU-1	RTU-2	RTU-3	RTU-4	RTU-5-ALT1
	MANUFACTURER	AAON	AAON	AAON	AAON	AAON
	MODEL NUMBER	RQ-006	RQ-006	RQ-005	RQ-005	RQ-006
	SERVES	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
GENERAL	CONFIGURATION	(10)	(10)	(10)	(10)	(10)
	MAXIMUM SIZE (LxWxH)	83" x 45" x 51" (1)	83" x 45" x 51" (1)	83" x 45" x 51" (1)	83" x 45" x 51" (1)	83" x 45" x 51" (1)
	MAXIMUM WEIGHT (LBS.)	1,400	1,400	1,200	1,200	1,400
	REMARKS	-	-	-	-	-
	TOTAL AIRFLOW (CFM)	1,900	1,900	1,400	1,400	1,900
AIRFLOW	TOTAL SP (IN. W.C.)	2.27" (3)	2.26" (3)	1.86" (3)	1.86" (3)	2.27" (3)
	EXTERNAL SP (IN. W.C.)	0.95"	0.95"	0.95"	0.95"	0.95"
	EXHAUST FAN AIRFLOW (CFM)	(11)	(11)	(11)	(11)	(11)
	MINIMUM OUTSIDE AIRFLOW (CFM)	(16)	(16)	(16)	(16)	(16)
	ECONOMIZER OUTSIDE AIRFLOW (CFM)	1,900	1,900	1,400	1,400	1,900
	REMARKS	-	-	-	-	-
ELECTRICAL	VOLTS	208	208	208	208	208
	PHASE	3	3	3	3	3
	MOCP (AMPS)	60	60	50	50	60
	MINIMUM CIRCUIT AMPACITY (MCA)	43	43	35	35	43
	REMARKS	(5)	(5)	(5)	(5)	(5)
DX COOLING	AMBIENT AIR TEMPERATURE (°F)	105	105	105	105	105
	MINIMUM NET EER (ARI)	11.8	11.6	12.4	12.4	11.8
	NOMINAL CAPACITY (TONS)	6	6	5	5	6
	MIN. NET TOTAL COOLING (MBH)	69.5	67.8	59.7	58.3	69.5
	MIN. NET SENSIBLE COOLING (MBH)	57.9	52.3	46.1	44.8	57.9
	NO. OF COMPRESSORS	1	1	1	1	1
	MINIMUM STEPS OF UNLOADING	2 (12)	2 (12)	2 (12)	2 (12)	2 (12)
	REMARKS	(6) (15) (17)	(6) (15)	(6) (15)	(6) (15)	(6) (15) (17)
CONDENSER FAN	TYPE	PROP	PROP	PROP	PROP	PROP
	QUANTITY	1	1	1	1	1
SUPPLY FAN	HP	-	-	-	-	-
	TYPE	FC CENT	FC CENT	FC CENT	FC CENT	FC CENT
	SIZE	-	-	-	-	-
	BHP / HP	1.28 / 2.0	1.28 / 2.0	0.8 / 1.0	0.8 / 1.0	1.28 / 2.0
EXHAUST FAN	TYPE	(11)	(11)	(11)	(11)	(11)
	SIZE	(11)	(11)	(11)	(11)	(11)
	BHP / HP	0.37 / 1.0	0.37 / 1.0	0.67 / 1.0	0.67 / 1.0	0.37 / 1.0
GAS FIRED HEATING	FUEL	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS
	INPUT LOW / HIGH	140	100	100	100	140
	OUTPUT LOW / HIGH	112	81	81	81	112
	EFFICIENCY	80%	80%	80%	80%	80%
	REMARKS	(8)	(8)	(8)	(8)	(8)
ACCESSORIES	ROOF CURB	(2)	(2)	(2)	(2)	(2)
	FILTERS	(13)	(13)	(13)	(13)	(13)
	ECONOMIZER	(4)	(4)	(4)	(4)	(4)
	THERMOSTAT	(9)	(9)	(9)	(9)	(9)
	CONTROLS	-	-	-	-	-
	REMARKS	(7) (14) (18)	(7) (14) (18)	(7) (14) (18)	(7) (14) (18)	(7) (14) (18)
REMARKS	(1) STANDARD UNIT DIMENSIONS. ADDITIONAL SPACE REQUIRED FOR ROOF CURB AND OTHER UNIT ACCESSORIES. (2) PROVIDE FULLY INSULATED ROOFTOP UNIT CURBS WITH VIBRATION ISOLATION RAILS. CURBS SHALL HAVE SPRING ISOLATORS ALLOWING A MAXIMUM OF 1" DEFLECTION AND INTERNAL CHANNELS TO SUPPORT TWO LAYERS OF DRYWALL FOR SOUND CONTROL. CURBS SHALL BE INSULATED MINIMUM R-8. MINIMUM CURB HEIGHT OF 16" AND MAXIMUM CURB HEIGHT OF 27". (3) VERIFY TOTAL STATIC PRESSURE WITH MANUFACTURER'S COMPONENTS. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE FILTER, COOLING COIL, AND OTHER RTU ACCESSORIES. OVERALL ROOFTOP UNIT STATIC PRESSURE RATING SHALL ACCOMMODATE PRESSURE DROP VALUES OF A WET COIL, MID-LIFE FILTER, INTERNAL UNIT PRESSURE DROP AND EXTERNAL STATIC PRESSURE INDICATED. (4) 0 TO 100% COMPARATIVE ENTHALPY OUTDOOR AIR ECONOMIZER. (5) SINGLE POINT POWER CONNECTION. PROVIDE INTEGRAL NON-FUSED DISCONNECT SWITCH. (6) PROVIDE 5 YEAR COMPRESSOR WARRANTY. (7) PROVIDE MODULATING HOT GAS REHEAT WITH CONTROLS. PROVIDE RETURN AIR HUMIDITY SENSOR. (8) MODULATING GAS HEATING WITH STAINLESS STEEL HEAT EXCHANGER. PROVIDE 10 YEAR MINIMUM WARRANTY ON HEAT EXCHANGER. (9) PROGRAMMABLE THERMOSTAT WITH 7-DAY SETBACK HEAT/COOL/AUTO FAN ON/OFF/AUTO. (10) HIGH EFFICIENCY DOWNFLOW ROOFTOP UNIT WITH CONSTANT VOLUME, ARE LOW DX COOLING, DEHUMIDIFICATION CYCLE (HOT GAS REHEAT) AND GAS FIRED HEAT. (11) PROVIDE POWERED EXHAUST FAN(S) TO MODULATE POWERED EXHAUST BASED ON SPACE PRESSURE. (12) CONSTANT VOLUME AIRFLOW WITH MODULATING DIGITAL COMPRESSORS. (13) 2" MERV 8 REPLACEABLE FILTERS. (14) PROVIDE COIL LAL GUARDS AND HINGED TOOLLESS ACCESS PANELS. (15) CAPACITY BASED ON 80°F DB / 67°F WB EAT. DISCHARGE AIR TEMPERATURE OF 55.3°F DB / 53.9°F WB. (16) SEE OUTDOOR AIR SCHEDULE ON THIS SHEET. (17) PROVIDE WITH 6 ROW COIL. (18) PROVIDE WITH CO2 SENSOR IN RETURN AIR SECTION OF DUCTWORK.					

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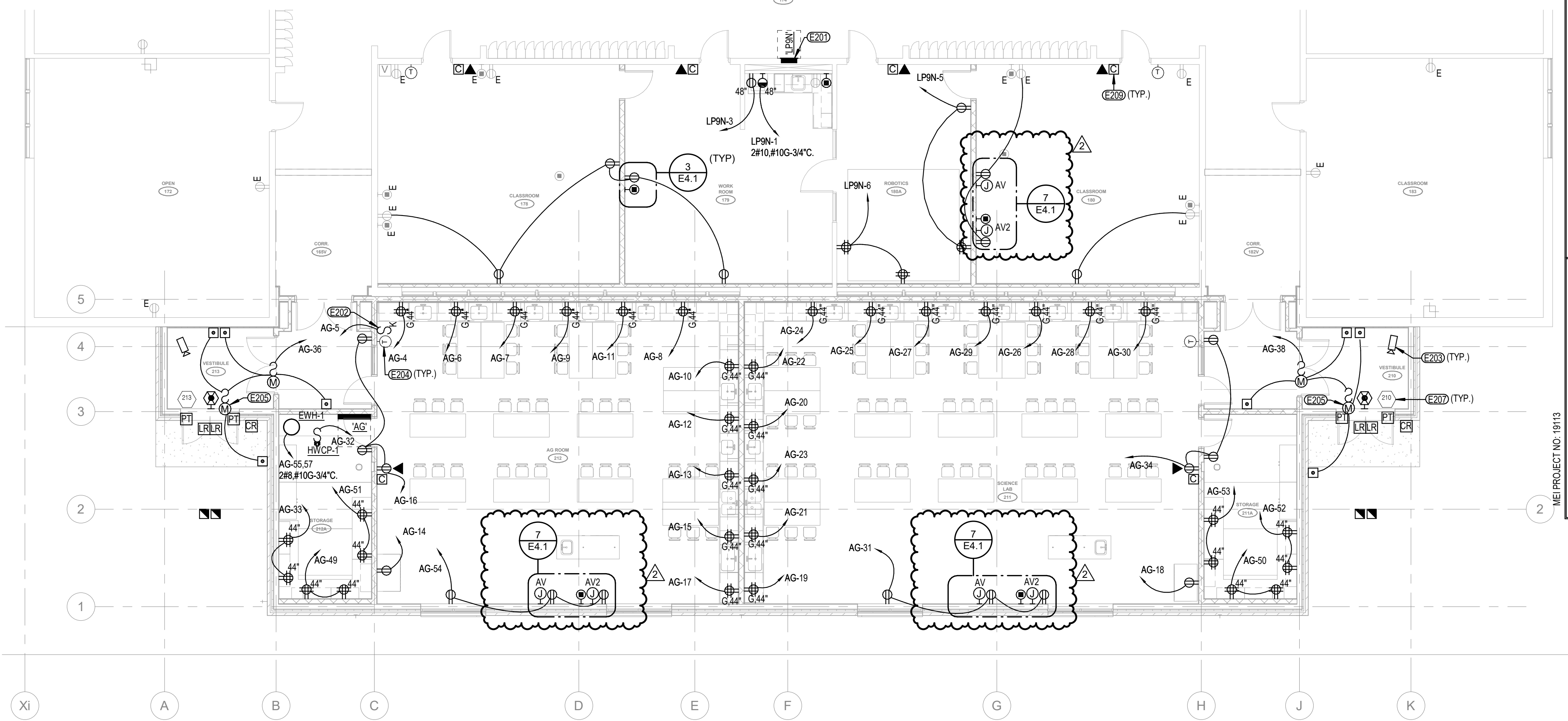
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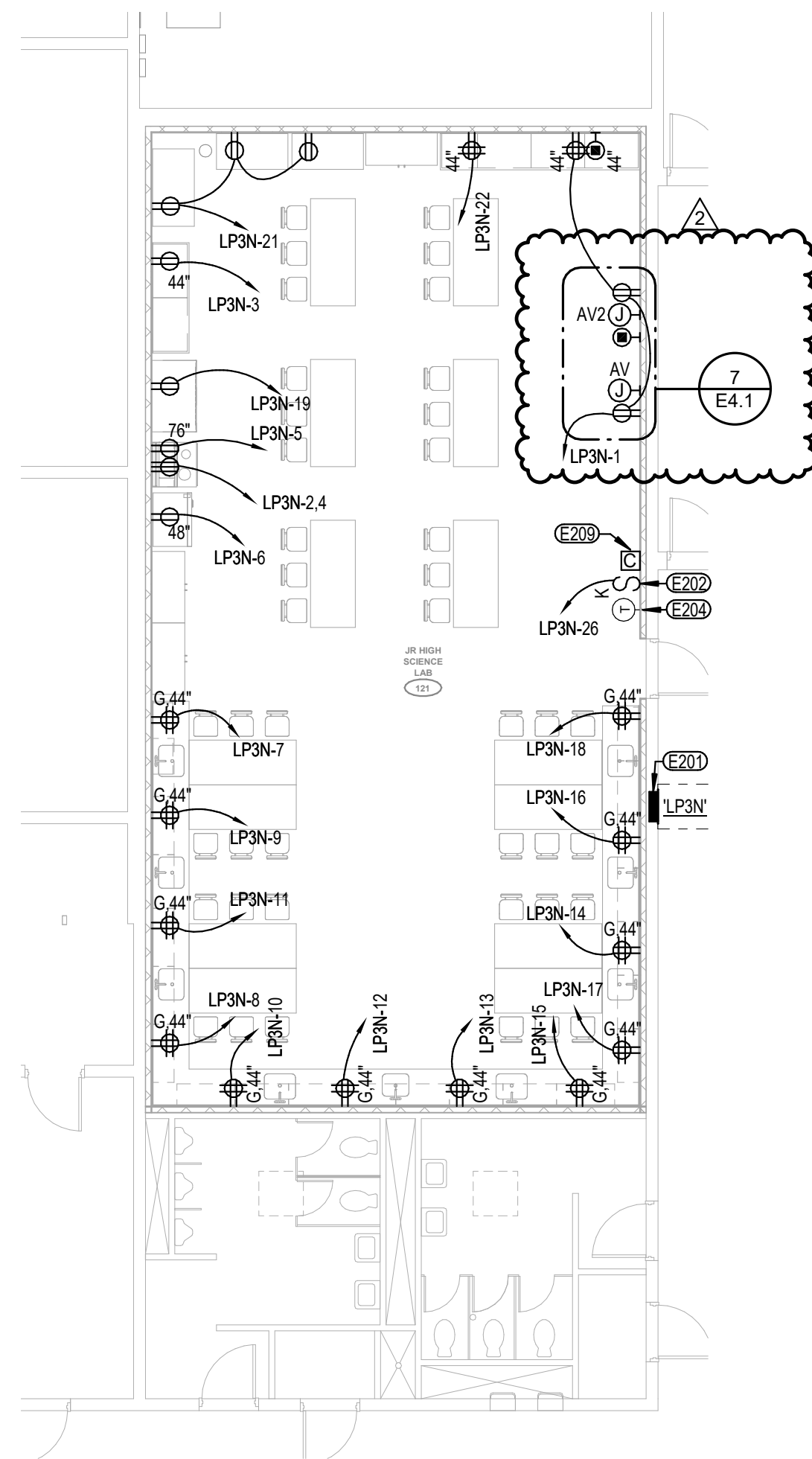
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2	Revised 2	06/04/19



1 E2.1
FIRST FLOOR PLAN - POWER
NOT TO SCALE



3 E2.1
SCIENCE LAB & AG ROOM FLOOR PLAN - POWER
1/8" = 1'-0"



2 E2.1
JR HIGH SCIENCE LAB FLOOR PLAN - POWER
1/8" = 1'-0"

GENERAL NOTES

1. MINIMUM DATA/COMMUNICATIONS CONDUIT SIZE SHALL BE 1" SEE DRAWINGS FOR AREAS WHERE LARGER CONDUITS ARE REQUIRED.
2. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT.
3. PROVIDE A GREEN INSULATED GROUND WIRE IN ALL RECEPTACLE AND EQUIPMENT BRANCH CIRCUITS.
4. ALL EXISTING WIRING DEVICES (LIGHTING, POWER AND DATA AS APPLICABLE) LOCATED WITHIN THE SCOPE OF REMODEL SHALL BE REMOVED AND REPLACE WITH NEW AS REQUIRED TO MATCH DEVICE AND FACEPLATE COLORS AND TYPES INDICATED IN ELECTRICAL SPECIFICATIONS.

KEYNOTES

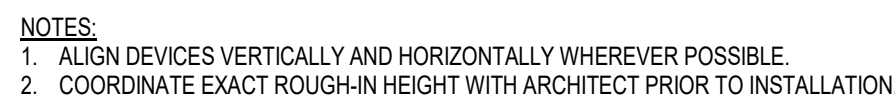
- E201 PROVIDE NEW PANEL IN EXISTING PANEL LOCATION. REUSE EXISTING FEEDER AND CONNECT TO NEW PANEL.
- E202 PROVIDE 120V ELECTRICAL CONNECTION VIA KEYED SWITCH MASTER SWITCH FOR CONTROL OF GAS SEINOLD VALVE. VERIFY REQUIREMENTS AND LOCATION WITH MECHANICAL CONTRACTOR.
- E203 ROUGH IN FOR SECURITY CAMERA. PROVIDE ONE 1" CONDUIT WITH PULL STRING TO ACCESSIBLE CEILING. TERMINATE WITH INSULATING BUSHING. COORDINATE EXACT LOCATION OF CAMERA WITH OWNER IT PERSONNEL PRIOR TO ROUGH IN.
- E204 PROVIDE SINGLE-GANG ROUGH-IN WITH 1/2" CONDUIT CONCEALED TO RESPECTIVE UNIT FOR T-STAT SENSOR CONTROL WIRING. COORDINATE REQUIREMENTS WITH MECHANICAL CONTRACTOR.
- E205 PROVIDE ELECTRICAL CONNECTION TO ADA DOORS AND CONTROLS. COORDINATE REQUIREMENTS WITH HARDWARE SUPPLIER.
- E207 ROUGH IN FOR ACCESS CONTROL. SEE ACCESS CONTROL ROUGH-IN DETAILS ON SHEET E4.1 FOR TYPICAL ROUGH-IN REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL VERIFY DOOR HARDWARE PRIOR TO ROUGH-IN.
- E209 PROVIDE ROUGH IN FOR CALL IN STATION AT 44". SEE DETAIL 3/E4.1.

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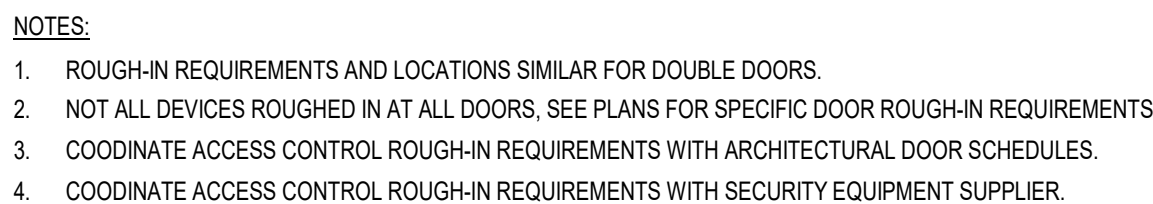
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2	Revision 2	06-04-19

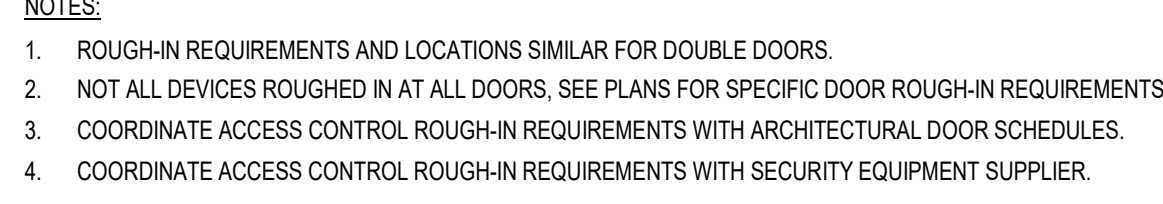
FLOOR PLAN - POWER
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E4.1 NOT TO SCALE



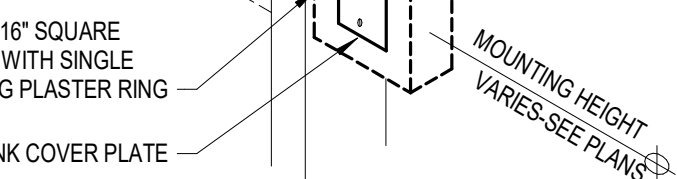
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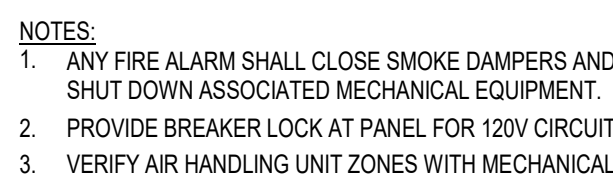
E4.1 NOT TO SCALE



E4.1 NOT TO SCALE

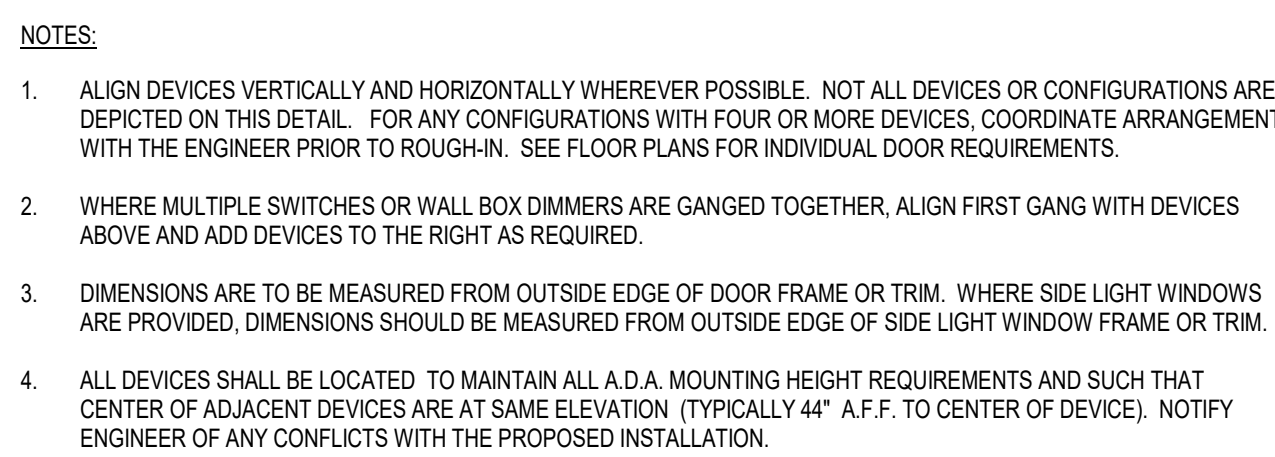
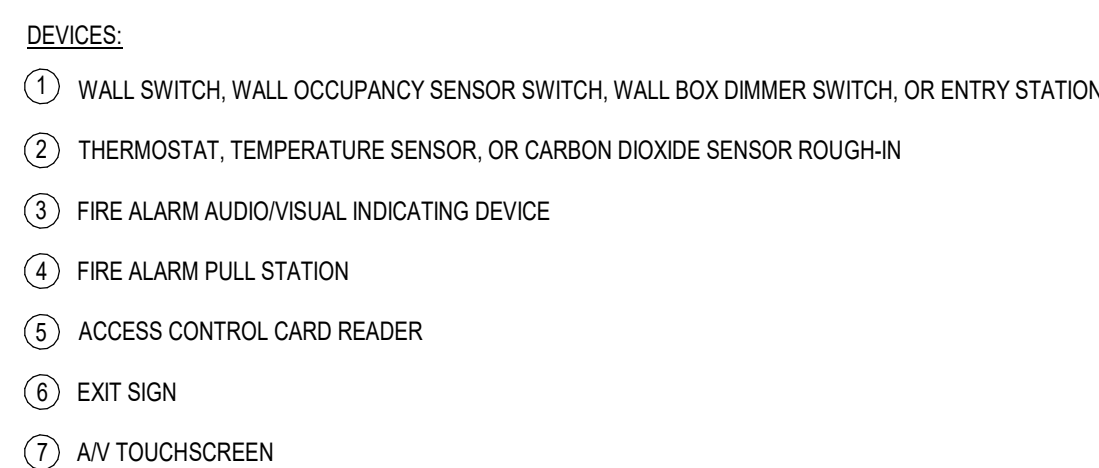


E4.1 NOT TO SCALE



E4.1 NOT TO SCALE

E4.1 NOT TO SCALE



NOTES:

1. ALIGN DEVICES VERTICALLY AND HORIZONTALLY WHEREVER POSSIBLE. NOT ALL DEVICES OR CONFIGURATIONS ARE DEPICTED ON THIS DETAIL. FOR ANY CONFIGURATIONS WITH FOUR OR MORE DEVICES, COORDINATE ARRANGEMENT WITH THE ENGINEER PRIOR TO ROUGH-IN. SEE FLOOR PLANS FOR INDIVIDUAL DOOR REQUIREMENTS.
2. WHERE MULTIPLE SWITCHES OR WALL BOX DIMMERS ARE GANGED TOGETHER, ALIGN FIRST GANG WITH DEVICES ABOVE AND ADD DEVICES TO THE RIGHT AS REQUIRED.
3. DIMENSIONS ARE TO BE MEASURED FROM OUTSIDE EDGE OF DOOR FRAME OR TRIM. WHERE SIDE LIGHT WINDOWS ARE PROVIDED, DIMENSIONS SHOULD BE MEASURED FROM OUTSIDE EDGE OF SIDE LIGHT WINDOW FRAME OR TRIM.
4. ALL DEVICES SHALL BE LOCATED TO MAINTAIN A L4, D4 MOUNTING HOLE REQUIREMENTS AND SUCH THAT THERE ARE NO INTERFERENCE WITH THE MOUNTING OF THE DEVICES. TYPICALLY 4" A.F.F. TO CENTER OF DEVICE. NOTIFY ENGINEER OF ANY CONFLICTS WITH THE PROPOSED INSTALLATION.

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PROFESSIONAL ELECTRICAL ENGINEER
GEORGE M. MORRISSEY
E-8874 *

REVISION SCHEDULE	
REV. NO.	REVISION DESCRIPTION
2	Revision 2

ELECTRICAL DETAILS
MILFORD PUBLIC SCHOOLS
JR. - SR. HIGH SCHOOL ADD
301 'G' STREET, MILFORD, NE 68405

E4.1

CODE ANALYSIS

APPLICABLE CODES

International Building Code	2012 IBC
International Energy Code	2009 IECC
Mechanical Code	2012 IMC
Plumbing Code	2012 IPC
Electrical Code	2017 NEC
Fire Code	2000 LSC
Accessibility Code	2010 ADAAG

NOTE

ITEMS NOTED IN PARENTHESIS ARE REFERENCES FROM THE 2012 INTERNATIONAL BUILDING CODE
ITEMS NOTED IN ITALIC PARENTHESIS ARE REFERENCES FROM THE 2000 NFPA 101 LIFE SAFETY CODE
IF ITEM IS IN BOLD, THE MOST STRINGENT CODE HAS BEEN APPLIED

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

BUILDING DESCRIPTION: THE PROPOSED PROJECT CONSISTS OF AN ADDITION & RENOVATION AT THE EXISTING JR-SR HIGH SCHOOL.

BUILDING ADDITION: THIS IS A SINGLE (1) STORY ADDITION (APPROX 4,100 S.F.) CLASSIFIED AS **EDUCATIONAL GROUP E**, CONSISTING OF A SCIENCE AND AG LAB AND WILL BE FULLY SPRINKLED PER NFPA 13.

BUILDING RENOVATIONS: CONSISTS OF (APPROX 4,220 S.F.) OF EXISTING CLASSROOMS TO BE RENOVATED AND UPDATED.

CHAPTER 5: GENERAL BUILDING HEIGHTS AND BUILDING AREAS

ALLOWABLE HEIGHT

MOST RESTRICTIVE:	ALLOWABLE (Table 504.3) (Table 504.4)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS
Type of Construction	Type (II-B)	N/A	Type (II-B)
Building Height in Feet	Feet (55)	Feet = H + 20' = 75	Feet 16 ±
Building Height in Stories	Stories (2)	Stories + 1 = 3	Stories 1

Construction Type:	☐ I-A	☐ II-A	☐ III-A	☐ IV	☐ V-A
PER IBC	☐ I-B	☒ II-B	☐ III-B		☐ V-B
Construction Type:	☐ I (442)	☐ II (222)	☐ III (211)	☐ IV (2HH)	☐ V (111)
PER NFPA 220	☐ I (332)	☐ II (111)	☐ III (200)		☐ V (000)
		☒ II (000)			
Mixed Construction:	☒ No	☐ Yes	Types:		
Sprinklers:	☐ No	☐ Partial	☒ Yes	☐ NFPA 13	☐ NFPA 13R
Standpipes:	☐ No	☐ Yes	Class	☐ I	☐ II
Flood Hazard Areas:	☒ No	☐ Yes		☐ III	☐ Manual Wet
					☐ Dry
Building Height:	Feet 16 ±		Number of Stories	1	

Gross Building Area:	Existing	Addition	Allowable
Floor			
1st Floor	71,925 SF	4,100 SF	68,875 SF
MEZZANINE	6,991 SF	N/A SF	N/A SF
Total	71,925 SF	4,100 SF	68,875 SF

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	☐ No	☒ Yes
Exit Signs:	☐ No	☒ Yes
Fire Alarm:	☐ No	☒ Yes
Smoke Detection Systems:	☐ No	☒ Yes
Panic Hardware:	☐ No	☒ Yes

ALLOWABLE AREA

Primary Occupancy:	Assembly	☐ A-1	☐ A-2	☐ A-3	☐ A-4	☐ A-5
	Business	☐ F-1 Moderate	☐ F-2 Low			
	Educational	☐ H-1 Detonate	☐ H-2 Deflagrate	☐ H-3 Combust	☐ H-4 Health	☐ H-5 HPM
	Mercantile	☐ I-1	☐ I-2	☐ I-3	☐ I-4	
	Utility and Miscellaneous	I-3 Condition	☐ 1	☐ 2	☐ 3	☐ 4
		Residential	☐ R-1	☐ R-2	☐ R-3	☐ R-4
		Storage	☐ S-1 Moderate	☐ S-2 Low	☐ High-Piled	
		Parking Garage	☐ Open	☐ Enclosed	☐ Repair Garage	

Secondary Occupancy: N/A

Mixed Occupancy: ☐ Yes ☒ No Separation: N/A Hr. Exception:

Incidental Use (508.2)

Incidental use areas shall be separated or protected, or both, in accordance with Table 508.2

Accessory Occupancies (508.3.1)

Aggregate accessory occupancies shall not occupy more than 10 percent of the area of the story in which they are located and shall not exceed the tabular values in table 503 without height and area increases.

Non-Separated Use (508.3.2)

The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Separated Use (508.3.3) - See below for area calculations

For each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A	+	Actual Area of Occupancy B	≤	1
Allowable Area of Occupancy A	+	Allowable Area of Occupancy B	≤	1.00

STORY NO.	OCCUPANCY	BLDG AREA PER STORY (ACTUAL)	TABLE 503 AREA	AREA FOR FRONTAGE INCREASE 1	AREA FOR SPRINKLER INCREASE 2	ALLOWABLE AREA OR UNLIMITED AREA 4	MAXIMUM BUILDING AREA 4
1	E	71,925	14,500	10,875	43,500	(68,875)	(68,875)
MEZ	E	6,991	----	----	----	----	----

1. Frontage area increases from Section 506.2 are computed thus:

- Perimeter which fronts a public way or open space having 20 feet minimum width= 1,385' (F)
- Total Building Perimeter = 1,385' (P)
- Ratio (F/P)= 1.0 (F/P)
- W=Minimum width of public way = 30' (W)
- Percent of frontage increase $I_p = 100 (F/P - 0.25) \times W/30 = 75 (\%)$

2. The sprinkler increase per Section 506.3 is as follows:

- Multi-story building $I_s = 200$ percent
- Single story building $I_s = 300$ percent

3. Unlimited area applicable under conditions of Sections Group B, F, M, S, A-4 (507);

4. Maximum Building Area = (Allowable Area: First Story) x (total number of stories above grade plane).

For buildings with 3 or more stories above grade plane, multiply by 3. (506.4).

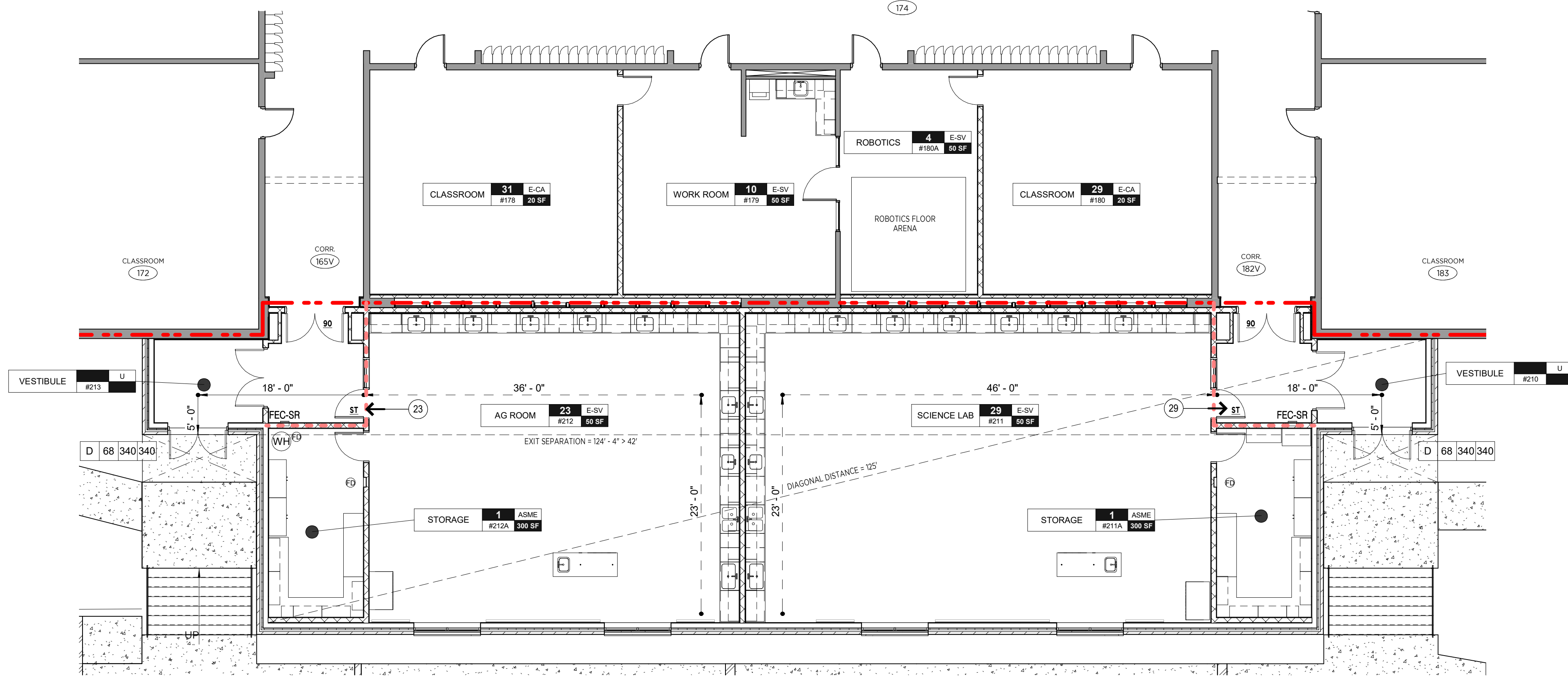
EXIT REQUIREMENTS

NUMBER AND ARRANGEMENTS OF EXITS:

SEE THIS SHEET

FLOOR	GROUP	MINIMUM NUMBER OF EXITS ²		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS ³ (1015.2.1) (7.5.1.4)	
		REQ'D	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1016.2) (14.2.6)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS
FIRST LEVEL	E	2	2	200'	SEE PLANS	SEE PLANS	SEE PLANS

- Corridor dead ends (1018.4 EX. 2) = MAX 50 FT
- Single exits (Table 1019.2) (7.5.1.2)
- Common Path of Travel (1014.3) (14.2.5.3) = MAX 75 FT



SCIENCE LAB - AG ROOM CODE PLAN
1/8" = 1'-0"

FUNCTION OF SPACE	CWPA FUNCTION ABBREVIATION	Occupancy Calc Gross or Net
Accessory Storage Areas, Mechanical, Equipment Room	ASME	300
Agricultural Building	AB	300
Aircraft Hangars	AH	500
Airport Terminal - Baggage Claim	AT-BC	20
Airport Terminal - Baggage Handling	AT-BH	300
Airport Terminal - Concourse	AT-C	100
Airport Terminal - Waiting Areas	AT-WA	15
Assembly - Fixed Seating	A-FS	7
Assembly - Gaming Floors	A-GF	11
Assembly - Without Fixed Seats - Concentrated (chairs only-not fixed)	A-CS	7
Assembly - Without Fixed Seats - Standing Space	A-SS	5
Assembly - Without Fixed Seats - Unconcentrated (Tables and Chairs)	A-U	10
Boating Centers	BC	7
Business Areas	B	100
Courtyards - Other than fixed seating areas	C	40
Day Care	DC	35
Dormitories	DO	50
Educational - Classroom area	E-CA	20
Educational - Shops and vocational room areas	E-SV	50
Exercise Rooms	ER	50
Food Fabrication and Manufacturing Areas	HS	200
Industrial Areas	IND	100
Institutional - Inpatient Treatment Areas	IT	240
Institutional - Outpatient Areas	I-OT	100
Institutional - Sleeping Areas	I-SA	100
Kitchens, Commercial	K	200
Library - Reading Rooms	LR	50
Library - Stack Area	LSA	100
Locker Rooms	LR	50
Mercantile - Areas on other floors	MA	60
Mercantile - Basement and grade floor areas	MB	30
Mercantile - Storage, Stock, Shipping Areas	MS	300
Parking Garages	PG	200
Residential	R	200
Recreation, Swimming Pools - Decks	SRSP-D	15
Recreation, Swimming Pools - Rins and Pools	SRSP-P	50
Stages and Platforms	SP	15
Unoccupied - Corridors, Hallways, Restrooms	U	15
Warehouses	W	500

ROOM NAME	#	Class	Net Area	Area/Occupant	Occupant Load
JR HIGH SCIENCE LAB	10	E-SV	132 SF	50 SF	27
CORR.	10	U			
CORR.	10	U			
CLASSROOM	178	E-CA	635 SF	20 SF	31
WORK ROOM	179	E-SV	493 SF	50 SF	10
CLASSROOM	180	E-CA	566 SF	20 SF	29
ROBOTICS	180A	E-SV	195 SF	50 SF	4
CORR.	182	U			
CORR.	182V	U			
VESTIBULE	210	U			
SCIENCE LAB	211	E-SV	1421 SF	50 SF	29
STORAGE	211A	ASME	198 SF	300 SF	1
AG ROOM	220	E-SV	1101 SF	50 SF	28
STORAGE	212A	ASME	198 SF	300 SF	1
VESTIBULE	213	U			

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING	CODE REF.
Structural Frame, Including columns, girders, trusses		0 HR	TABLE 601
Bearing walls		0 HR	TABLE 601
Exterior		0 HR	TABLE 601
Interior		0 HR	TABLE 601
Nonbearing Walls and Partitions		0 HR	TABLE 601
Exterior	x > 30 feet	0 HR	TABLE 601 & 602
Interior walls and partitions		0 HR	TABLE 601
Floor Construction Including supporting beams and joists		0 HR	TABLE 601
Roof Construction Including supporting beams and joists		0 HR	TABLE 601
Shafts Enclosures - Exits (< 4 story)		1 HR	1022.2
Shafts Enclosures - Exits (4 story or more)		N/A	1022.2
Shafts Enclosures - Other (< 4 story)		1 HR	713.4
Shafts Enclosures - Other (4 story or more)		N/A	713.4
Corridor Separation		0 HR	TABLE 1018.1
Occupancy Separation		N/A	508.4
Party/Fire Wall Separation		N/A	706.4
Smoke Barrier Separation		1 HR	709.3
Incidental Use Separation		N/A	508.2

CODE PLAN NOTES:

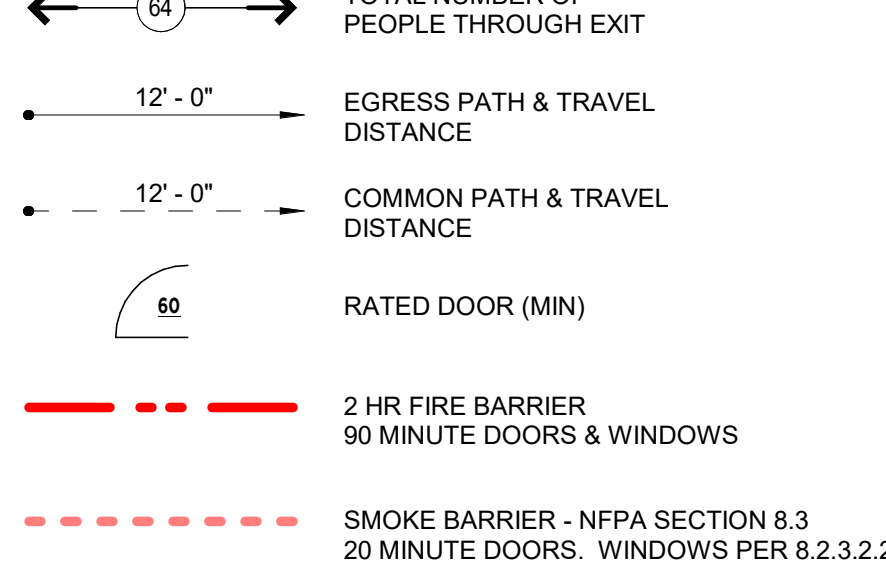
- AREAS UNDER CONSTRUCTION SHALL BE SEPARATED FROM THE EXISTING BUILDING BY ONE-HOUR FIRE RATED CONSTRUCTION PER NFPA 441 18.2.
- GENERAL CONTRACTOR SHALL MAINTAIN A ROUTE OF EGRESS FROM THE EXISTING BUILDING DURING BOTH THE DEMOLITION AND CONSTRUCTION PHASES PER I.S.C. 4.6.10
- PROVIDE FIRESTOPPING AT ALL PENETRATIONS THROUGH ALL FIRE & SMOKE RATED WALLS SHOWN ON THE CODE PLAN
- CONTRACTOR IS RESPONSIBLE FOR FIRESTOPPING ALL PENETRATIONS THROUGH ALL EXISTING FIRE & SMOKE RATED WALLS THAT MAY NOT BE SHOWN ON THESE PLANS TO ACHIEVE THE REQUIRED RATING OF WALL
- FIRE EXTINGUISHER CABINETS SHALL BE LOCATED SO THAT THE MAXIMUM TRAVEL DISTANCE DOES NOT EXCEED 75'-0"
- ALL FIRE RATED & SMOKE BARRIER ASSEMBLIES SHALL BE STENCILED w/ THE RELEVANT RATED DESIGNATION w/ 3 INCH TALL LETTERS IN RED INK OR PAINT. THESE DESIGNATIONS SHALL BE APPLIED AT ALL CONCEALED LOCATIONS (IE ABOVE CEILING) @ 8'-0" O.C.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS TO UNDERSTAND THE SCOPE OF WORK PRIOR TO BID.
- THE FIRE SPRINKLER CONTRACTOR SHALL SUBMIT SETS OF ENGINEERED SPRINKLER DRAWINGS TO THE CITY AND STATE FIRE MARSHAL OFFICE AND OBTAIN APPROVAL FROM THE FIRE MARSHAL OFFICE PRIOR TO STARTING ANY WORK PER TITLE 153 CH. 21.00301
- THE FIRE ALARM CONTRACTOR SHALL SUBMIT SETS OF ENGINEERED ALARM DRAWINGS TO THE CITY AND STATE FIRE MARSHAL OFFICE AND OBTAIN APPROVAL FROM THE FIRE MARSHAL OFFICE PRIOR TO STARTING ANY WORK PER TITLE 153 CH. 21.00301

SCHOOL SCIENCE ROOMS & LABS:

IN ACCORDANCE TO NFPA 1 CHAPTER 60, A SCHOOL LABORATORY AND ASSOCIATED STORAGE ROOM WILL NOT BE CONSIDERED A HIGH HAZARD AND WILL ONLY BE REQUIRED TO MEET NORMAL HAZARDOUS AREA REQUIREMENTS (I.E. SEPARATION OR FIRE SPRINKLER PROTECTION) WHEN THE FOLLOWING ARE MET:

- FLAMMABLE LIQUID STORAGE AND USE IS LIMITED TO NOT MORE THAN 30 GALLONS TOTAL PER TABLE 60.2.2.1A.
- FLAMMABLE GAS USE IS LIMITED TO NOT MORE THAN 1000 CUBIC FEET OF GAS TOTAL PER TABLE 60.2.2.1A.
- MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL HAZARDOUS MATERIALS SHALL BE READILY AVAILABLE AT THE PREMISES PER 60.1.8.3.
- A HAZARDOUS MATERIALS MANAGEMENT PLAN AND HAZARDOUS MATERIALS INVENTORY STATEMENT SHALL BE GENERATED. THEY SHALL CONSIST OF THE FOLLOWING:
 - AN EMERGENCY RESPONSE TRAINING PLAN AND A FACILITY SITE PLAN DESIGNATING THE FOLLOWING:
 - STORAGE AND USE AREAS.
 - MAXIMUM AMOUNT OF EACH MATERIAL STORED OR USED IN EACH AREA.
 - RANGE OF CONTAINER SIZES.
 - PRODUCT CONVEYING PIPING CONTAINING LIQUIDS OR GASES, OTHER THAN UTILITY OWNED FUEL GAS LINES AND LOW PRESSURE GAS LINES.
 - LOCATIONS OF EMERGENCY ISOLATION AND MITIGATION VALVES AND DEVICES PER 60.1.8.1 & 60.1.8.2.

IF A THERE ARE ANY ADDITIONAL HAZARDS SUCH AS FLAMMABLE SOLIDS, ORGANIC PEROXIDES AND OXIDIZERS, ADDITIONAL REQUIREMENTS AS LISTED IN NFPA 1 CHAPTER 60 AND ANY ADDITIONAL SPECIFIC NFPA CODES WILL APPLY.



CARLSON
WEST
POVONDRA
ARCHITECTS



REV. NO.	REVISION DESCRIPTION	REV. DATE
1	REVISION DESCRIBED PER ADDENDUM #2	05/20/19

CODE ANALYSIS
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JR. - SR. HIGH SCHOOL ADDN. & RENOVATION
301 G' STREET, MILFORD, NE 68405

MAY 17, 2019

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