SYMBOL & ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
–	AC–	AIR CONDITIONING UNIT
–	ACC–	AIR COOLED CONDENSING UNIT
–	AD	ACCESS DOOR
–	AFF	ABOVE FINISHED FLOOR
–	AHC	ABOVE HUNG CEILING
–	AHU–	AIR HANDLING UNIT
–	AP	ACCESS PANEL
–	BDD	BACKDRAFT DAMPER
–	BHP	BRAKE HORSEPOWER
–	BTU	BRITISH THERMAL UNIT
–	CFM	CUBIC FEET PER MINUTE
–	CH–	CABINET HEATER
–	℄	CENTERLINE
–	CP–	CONDENSATE PUMP
–	DB	DRY BULB TEMPERATURE
–	DIA. OR ⌀	DIAMETER
–	DX	DIRECT EXPANSION
–	EA	EXHAUST AIR
–	EAT	ENTERING AIR TEMPERATURE
–	EX–	EXHAUST FAN
–	EL	ELEVATION
–	ER	EXHAUST REGISTER
–	ESP	EXTERNAL STATIC PRESSURE
–	EWT	ENTERING WATER TEMPERATURE
–	FPM	FEET PER MINUTE
–	FPS	FEET PER SECOND
–	FTR	FINNED TUBE RADIATION
–	GPM	GALLONS PER MINUTE
–	HP	HORSE POWER
–	HV–	HEATING AND VENTILATING UNIT
–	KX–	KITCHEN EXHAUST
–	LAT	LEAVING AIR TEMPERATURE
–	LF	LINEAR FEET
–	LWT	LEAVING WATER TEMPERATURE
–	MBH	1000 BRITISH THERMAL UNITS PER HOUR
–	MER	MECHANICAL EQUIPMENT ROOM
–	NC	NORMALLY CLOSED
–	NIC	NOT IN CONTRACT
–	NO	NORMALLY OPEN
–	OAI	OUTSIDE AIR INTAKE
–	PSI	POUNDS PER SQUARE INCH
–	RA	RETURN AIR
–	RPM	REVOLUTIONS PER MINUTE
–	SA	SUPPLY AIR
–	SP	STATIC PRESSURE
–	TD	TRANSFER DUCT
–	TDH	TOTAL DYNAMIC HEAD
–	TSP	TOTAL STATIC PRESSURE
–	TYP.	TYPICAL
–	U.O.N.	UNLESS OTHERWISE NOTED
–	WB	WET BULB TEMPERATURE
–	WG	INCHES OF WATER GAUGE
–	WMS	WIRE MESH SCREEN
–	WB	WET BULB TEMPERATURE
–	WG	INCHES OF WATER GAUGE
–	3–WAY VALVE	
–	FLEXIBLE CONNECTION	
–	2–WAY VALVE	

SYMBOL	ABBREVIATION	DESCRIPTION
–	PLUG VALVE	
–	LOCK SHIELD VALVE	
–	GATE VALVE	
–	GLOBE VALVE	
–	TEE DOWN	
–	ELBOW DOWN	
–	TEE UP	
–	ELBOW UP	
–	CONCENTRIC REDUCER	
–	ECCENTRIC REDUCER	
–	OS&Y GATE VALVE	
–	STRAINER	
–	PRESSURE REDUCING VALVE	
–	FLOW ARROW	
–	BUTTERFLY VALVE	
–	BALANCING VALVE	
–	MANUAL AIR VENT	
–	SOLENOID VALVE	
–	MOTORIZED VALVE	
–	T&P RELIEF VALVE	
–	BALL VALVE	
–	PRESSURE GAGE	
–	TERMOMETER	
–	CHECK VALVE	
–	UNION	
EX.	EXISTING TO REMAIN	
REL.	REMOVE AND RELOCATE	
NEW	NEW WORK	
DEM.	EXISTING TO BE REMOVED	
–	CONDENSATE DRAIN	
–	HOT WATER SUPPLY	
–	HOT WATER RETURN	
–	PUMP DISCHARGE, CONDENSATE	
–	REFRIGERANT LIQUID	
–	REFRIGERANT SUCTION	
–	REFRIGERANT HOT GAS	
–	THERMOSTAT	
–	MOTORIZED DAMPER	
–	SMOKE DETECTOR	
–	DOOR UNDER CUT	
–	DOOR LOUVER	
–	AIR INTO REGISTER	
–	POINT OF CONNECTION DISCONNECTION	
UH	UNIT HEATER	
CUH	CABINET UNIT HEATER	
P–1	PUMP	
SR	SUPPLY REGISTER	
CD	1–WAY	
CD	2–WAY	
CD	2–WAY	
CD	3–WAY	
CD	4–WAY	
RR/RG	RETURN REGISTER/GRILLE	
–	SUPPLY DUCT UP	
–	SUPPLY DUCT DOWN	
–	RETURN DUCT UP	
–	RETURN DUCT DOWN	
–	TRANSITION FROM SQUARE TO ROUND DUCT	

SYMBOL	ABBREVIATION	DESCRIPTION
–	TRANSITION	
–	DUCT DROP	
–	DUCT RISE	
–	SQUARE VANED ELBOW	
–	DUCT RISE	
–	DUCT DROP	
–	DUCT TRANSITION	
–	ALUMINUM DUCT	
AL	ACOUSTIC LINING	
FD/AD	FIRE DAMPER W/ ACCESS DOOR	
SD/AD	SMOKE DAMPER W/ ACCESS DOOR	
CFSD	COMBINATION FIRE/SMOKE DAMPER W/ ACCESS DOOR	
VD	VOLUME DAMPER	
AL	ACOUSTIC LINING	
–	DUCT SIZE – 1ST FIGURE IS SIDE SHOWN	
FC	FLEXIBLE CONNECTION	
–	ALUMINUM DUCT	
–	DIFFUSER/REGISTER TAG – TYPE / CFM	
	SECTION CALLOUT	
HWUH–#	HOT WATER UNIT HEATER	
ECUH–#	ELECTRIC CABINET UNIT HEATER	
GFUH–#	GAS FIRED UNIT HEATER	
EDH–#	ELECTRIC DUCT HEATER	
VEF–#	VEHICLE EXHAUST FAN	

GENERAL NOTES

1. CONTRACT DRAWINGS, AS FAR AS THEY RELATE TO THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, SHEET METAL, AND PIPING, SHALL BE UNDERSTOOD AS DIAGRAMMATIC. ANY CHANGES TO EQUIPMENT, SHEET METAL, AND PIPING LOCATIONS NECESSARY TO AVOID INTERFERENCE WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST, AND MUST BE APPROVED BY THE ENGINEER.
2. THE MECHANICAL CONTRACTOR SHALL INSTALL FIRE DAMPERS WITH ACCESS DOORS IN ALL DUCTS PENETRATING FIRE RATED WALLS, WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT.
3. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL VOLUME DAMPERS IN DUCTWORK AS REQUIRED TO BALANCE THE AIRFLOW AT ALL REGISTERS AND DIFFUSERS TO THE CFM'S INDICATED ON PLAN, WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT.
4. PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES. FOR PIPES PENETRATING FIRE RATED PARTITIONS, THE SPACE BETWEEN THE PIPE AND THE SLEEVE SHALL BE SEALED WITH FIRE STOPPING MATERIAL. PENETRATIONS FOR PIPING SHALL BE MADE BY CORE DRILLING WHENEVER POSSIBLE.
5. ACOUSTICALLY LINE ALL TRANSFER DUCTS. ACOUSTIC LINING SHALL BE 1" THICK. PROVIDE RETURN REGISTERS AT TRANSFER DUCT INLETS & OUTLETS LOCATED BELOW THE CEILING, OR IN AREAS WITH NO CEILING.
6. DUCT–MOUNTED SMOKE DETECTORS AND SAMPLING TUBES SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL INSTALL EACH SAMPLING TUBE IN THE DUCTWORK. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE EACH SMOKE DETECTOR. THE MECHANICAL CONTRACTOR SHALL NOT BRANCH OFF ANY DUCT REQUIRING A DUCT SMOKE DETECTOR BEFORE THE DUCT SMOKE DETECTOR. LOCATE SMOKE DETECTORS IN SERVICEABLE AREAS, NOT IN SHAFTS.
7. ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR HVAC EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE MECHANICAL CONTRACTOR FOR HVAC EQUIPMENT SHALL BE HEAVY DUTY TYPE.
8. DUCT DIMENSIONS SHOWN ON MECHANICAL DRAWINGS REFER TO INSIDE CLEAR DUCT DIMENSIONS. WHERE DUCTWORK IS LINED, THE MECHANICAL CONTRACTOR SHALL INCREASE THE SIZE OF DUCT TO COMPENSATE FOR LINING.
9. LOCATE THERMOSTATS AND TEMPERATURE SENSORS 5'–0" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. COORDINATE LOCATION WITH FURNITURE, CABINETS, ETC. FURNISH LOCKING TAMPERPROOF COVER FOR ALL NEW THERMOSTATS IN PUBLIC AREAS.
10. COORDINATE DUCTWORK, GRILLE, DIFFUSER AND REGISTER LOCATIONS WITH LIGHTS, SPRINKLER HEADS, SMOKE DETECTORS, AND THE ARCHITECTURAL PLANS.
11. THE MECHANICAL CONTRACTOR SHALL NOTE THAT, IN ADDITION TO THE SPECIFICATIONS AND DETAILS GIVEN IN THESE PLANS FOR PIPE HANGERS AND SUPPORTS, ALL HANGERS AND SUPPORTS SHALL BE DESIGNED AND INSTALLED IN COMPLIANCE WITH APPLICABLE SEISMIC CODES.
12. ALL EXPOSED DUCTWORK LOCATED IN AREAS WHERE THERE IS NO CEILING SHALL BE ROUND OR OVAL SPIRAL DUCTWORK, INTERNALLY LINED, PRIMED AND FINISHED PAINTED WITH FLAT ENAMEL. COORDINATE COLOR SELECTION WITH ARCHITECTURAL PLANS.
13. THE MECHANICAL CONTRACTOR SHALL SUBMIT FOR REVIEW A COMPOSITE SHOP DRAWING, FULLY COORDINATED WITH ALL OTHER TRADES, INDICATING DUCTWORK, PLUMBING AND SPRINKLER PIPING, SMOKE DETECTORS, LIGHTS, CONDUITS, SMOKE DETECTORS, DIFFUSERS, GRILLES, ETC.
14. ALL WORK SHALL COMPLY WITH NEW YORK STATE MECHANICAL CODE, NEW YORK STATE BUILDING CODE, LOCAL BUILDING CODE, AND NEW YORK STATE ENERGY CODE REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND A GOVERNING CODE OR ORDINANCE, THE MORE STRINGENT STANDARD SHALL APPLY.
15. DURING CONSTRUCTION, ALL OPEN OR INCOMPLETE DUCTWORK SHALL BE CAPPED AIRTIGHT WITH WITH HEAVY POLYETHYLENE PLASTIC. AFTER THE INSTALLATION OF DUCTWORK, REGISTERS, GRILLES, AND DIFFUSERS, THE CONTRACTOR SHALL BLANK OFF ALL REGISTERS, GRILLES, AND DIFFUSERS WITH HEAVY POLYETHYLENE PLASTIC AND TAPE AIR TIGHT, IN AREAS THAT ARE UNDER CONSTRUCTION, UNTIL WORK IS COMPLETE IN THOSE AREAS. FLOOR REGISTERS AND GRILLES SHALL ALSO BE COVERED WITH 1/8" MASONITE.
16. WHEN GENERAL CONSTRUCTION IS COMPLETE, VACUUM CLEAN ALL DIFFUSERS, REGISTERS, GRILLES, AND HVAC EQUIPMENT IN THE PROJECT AREA OR SERVING THE PROJECT AREA. REMOVE ANY CONSTRUCTION DEBRIS. REPLACE ALL AIR FILTERS WITH NEW.
17. THE OWNER'S PERMANENT HVAC EQUIPMENT SHALL NOT BE USED BY ANY CONTRACTOR DURING CONSTRUCTION FOR TEMPORARY HEATING, COOLING, OR VENTILATION. IF TEMPORARY HEATING, COOLING, OR VENTILATION IS REQUIRED AT ANY POINT DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE TEMPORARY HEATING, COOLING, OR VENTILATION EQUIPMENT, DUCTWORK, CONTROLS, AND POWER AT HIS OWN EXPENSE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY VENTILATION AND EXHAUST AIR WHEN WELDING OR SOLDERING OPERATIONS ARE PERFORMED, AS REQUIRED BY OSHA.
19. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS AND FOR PAYING RELATED FEES.
20. ALL DUCTWORK SHALL BE PRESSURE TESTED AND INSPECTED PRIOR TO CONCEALMENT IN GENERAL CONSTRUCTION OR INSTALLATION OF HUNG CEILINGS.

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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
MECHANICAL SYMBOLS, ABBREVIATIONS, & GENERAL NOTES

Project No.	NSPC0070.00
Date	09-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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Drawing No.
M0.1

PROPANE-FIRED CONDENSING HOT WATER BOILER B-1 FOR RADIANT HEAT. DIRECT VENT AND INLET THROUGH WALL.

36x60 OUTSIDE AIR INTAKE LOUVER.

PROVIDE 3" AIR INLET AND 3" DIRECT VENT FOR DOMESTIC HOT WATER HEATER.

GS-1&2 AND EDH-1&2 WITH 30x30 HEAVY DUTY LOUVER AND FD TO SHOP 121.

HV-1, H&V UNIT TO SERVE APPARATUS BAY SUPPORT ROOMS VENTILATION/MAKEUP AIR.

EF-1 LOCATED 36"AFF WITH BACKDRAFT DAMPER AND WEATHER HOOD WITH ½"WMS. ARRANGED TO RUN WHEN ROOM TEMPERATURE EXCEEDS 90°F.

RADIANT HEAT CONTROL MANIFOLDS. REFER TO DRAWING M3.1 FOR RADIANT HEAT LAYOUT.

ACC-2 ON 6" EQUIPMENT PAD (60"x48", REFER TO CIVIL DRAWINGS FOR DETAILS) AS PART OF ADD-ALT #1.

¾"RL, ⅜RS, AND ⅝HG DOWN TO ACC-1. SEAL PENETRATION THROUGH WALL WATERTIGHT.

CONDENSING UNIT ACC-3 LOCATED OUTSIDE ON 6" CONCRETE EQUIPMENT PAD (114"x48", REFER TO CIVIL DRAWINGS FOR DETAILS).

ADD-ALTERNATE

34x34 RELIEF LOUVER WITH MOTORIZED DAMPER ARRANGED TO OPEN WHEN EF-1 RUNS.

(2) ¾"CD PIPES FROM AC-3&4 ABOVE. ROUTE TO INDIRECT DISCHARGE AT FLOOR DRAIN IN MER BELOW.

REFRIGERANT LINES FROM ACC-3 UP TO ATTIC.

OVERHEAD GARAGE DOOR AREA.

RADIANT HEAT SPACE THERMOSTAT SHALL BE LOCKING TAMPERPROOF TYPE.

GARAGE EXHAUST ZONE 1.

VEHICLE EXHAUST FAN VEF-1 HUNG FROM BUILDING STRUCTURE WITH VIBRATION ISOLATION.

8"ø VEHICLE EXHAUST DUCT UP THROUGH FLOOR ABOVE TO DISCHARGE WITH GOOSENECK ON ROOF.

14"ø APPARATUS BAY EXHAUST AIR UP, 2000 CFM. TRANSITION TO 14x14 SQUARE DUCT IN VERTICAL RISE. GX-1 ON ROOF.

CO DETECTION CONTROL PANEL.

MOTOR STARTERS FOR VX-1&2.

AC-1 HUNG FROM BUILDING STRUCTURE AS HIGH AS POSSIBLE WITH VIBRATION ISOLATION. ROUTE ¾"CD FROM UNIT TO INDIRECT DISCHARGE AT FLOOR DRAIN IN MER.

24x24 OUTSIDE AIR INTAKE LOUVER WITH 12" PLENUM AND MOTORIZED DAMPER.

ACC-1 REFRIGERANT FLOW SELECTOR BOX. REFER TO REFRIGERANT RISER DIAGRAMS FOR DISTRIBUTION PIPE SIZING.

ROUTE REFRIGERANT PIPING ABOVE CEILING TO ASSOCIATED INDOOR AC UNITS. REFER TO REFRIGERANT RISER DIAGRAM FOR PIPE SIZING.

¾"RL, ⅜RS, AND ⅝HG DOWN TO ACC-1. SEAL PENETRATION THROUGH WALL WATERTIGHT.

10x10 EA UP.

CONDENSING UNITS LOCATED OUTSIDE ON 6" CONCRETE EQUIPMENT PAD (114"x48", REFER TO CIVIL DRAWINGS FOR DETAILS).

4"DRYER VENT FROM STACKED WASHER/DRYER IN CLOSET, TERMINATE WITH DRYER VENT CAP.

ALL DUCTWORK DOWNSTREAM OF EXHAUST REGISTERS SERVING SHOWERS SHALL BE ALUMINUM. TYPICAL.

ADD-ALTERNATE

CONDENSING UNIT LOCATED OUTSIDE ON 6" CONCRETE EQUIPMENT PAD (60"x48", REFER TO CIVIL DRAWINGS FOR DETAILS).

¾"RL, ⅜RS, AND ⅝HG DOWN TO ACC-2, SEAL PENETRATIONS THROUGH WALL WATERTIGHT. ROUTE ABOVE CEILING TO PLUMBING CHASE ON FLOOR ABOVE AND RISE UP.

WALL MOUNTED VRF UNIT AC-D TYPICAL FOR (3).

ROUTE ¾" CD DISCHARGE FROM AC UNIT CONDENSATE PUMPS TO INDIRECT DISCHARGE AT WASHER/DRYER WALLBOX. TYPICAL FOR (4).

REFER TO PART PLAN ON DRAWING M7.3.

HOT WATER PUMP P-1 FOR RADIANT SYSTEM.

TOILET EXHAUST FAN TX-2. 6"ø EA DUCT OUT TO SIDEWALL DISCHARGE FROM MER 132.

HOLD DUCTWORK CROSSING CORRIDOR AS HIGH AS POSSIBLE IN BEAM BAY.

14x8 SA AND RA STACKED OVER/UNDER TIGHT TO BACK WALL. SHOWN OFFSET FOR CLARITY. TYPICAL FOR THIS SYSTEM.

FIRST FLOOR ROOMS TO BE PRESSURIZED IN ORDER TO CONTAIN CONTAMINANTS. RELATIVE PRESSURIZATION BETWEEN ROOMS INDICATED BY FLOW ARROWS. TYPICAL.

GARAGE EXHAUST ZONE 2.

CARBON MONOXIDE DETECTOR MOUNTED TO COLUMN. TYPICAL FOR (2).

FUTURE RELOCATED AIR FILTRATION SYSTEM LOCATION (AIRVAC 911, 190 LBS), HUNG TIGHT TO CEILING. PROVIDE HANGERS FOR FUTURE CONNECTION. TYPICAL FOR (3).

VEHICLE EXHAUST RAIL SYSTEM, PLYMOVENT MODEL SBTA 31 WITH 6"ø BRANCH DUCT FROM 8"ø COMMON EXHAUST DUCT DOWN TO FLEXIBLE HOSE. RAIL IS TO BE MOUNTED BELOW THE OPEN GARAGE DOOR PATH. COORDINATE EXACT LOCATION IN FIELD. TYPICAL FOR (8).

VEHICLE EXHAUST FAN VEF-2 HUNG FROM BUILDING STRUCTURE WITH VIBRATION ISOLATION.

8"ø VEHICLE EXHAUST DUCT UP THROUGH FLOOR ABOVE TO DISCHARGE WITH GOOSENECK ON ROOF.

UH-A HUNG AS HIGH AS POSSIBLE FROM BUILDING STRUCTURE WITH VIBRATION ISOLATION. ROUTE 4" AIR INTAKE TO SIDEWALL INLET WITH WEATHER HOOD AND INSECT SCREEN. ROUTE 4" VENT UP THROUGH FLOOR ABOVE TO ROOF. TYPICAL FOR (2).

14"ø APPARATUS BAY EXHAUST AIR UP, 2000 CFM. TRANSITION TO 14x14 SQUARE DUCT IN VERTICAL RISE. GX-2 ON ROOF.

24x10 EXHAUST GRILLE MOUNTED ON 14"ø ROUND SPIRAL DUCTWORK, 650 CFM. TYPICAL FOR (6).

4"DRYER VENT FROM DECON ROOM, TERMINATE WITH DRYER VENT CAP.

CEILING MOUNTED VRF CASSETTE UNIT AC-A.

ROUTE ¾" CD FROM AC-A TO INDIRECT DISCHARGE AT JANITOR'S SINK. TYPICAL FOR (2).

VRF DISPLAY CONTROLLER IN DISPATCH ROOM.

HI/LOW TEMPERATURE SENSORS IN FILE SERVER ROOM ARRANGED TO ALARM AT VRF DISPLAY CONTROLLER.

SUPPLEMENTAL SEMI-RECESSED CABINET UNIT HEATER, TYPICAL.

WALL MOUNTED VRF CONSOLE UNIT AC-D ABOVE WINDOW. TYPICAL FOR (2).

ROUTE ¾" CD DISCHARGE FROM AC UNIT CONDENSATE PUMPS TO INDIRECT DISCHARGE AT JANITOR'S SINK. TYPICAL FOR (2).

FLOOR MOUNTED VRF CONSOLE UNIT AC-C.

RECESSED SUPPLEMENTAL ELECTRIC HEATER EH-1.

NOTES:
1. ALL FIRST FLOOR VRF SPLIT SYSTEMS TO BE PROVIDED WITH CONDENSATE PUMP AND ¾"CD TO INDIRECT DISCHARGE IN JANITOR'S CLOSET.
2. REFER TO RISER DIAGRAMS ON DRAWING M6.2 FOR VRF REFRIGERANT PIPE SIZES.

1 MECHANICAL FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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Drawing Title
MECHANICAL FIRST FLOOR PLAN

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Drawing by	JRT
Checked by	JF/RS

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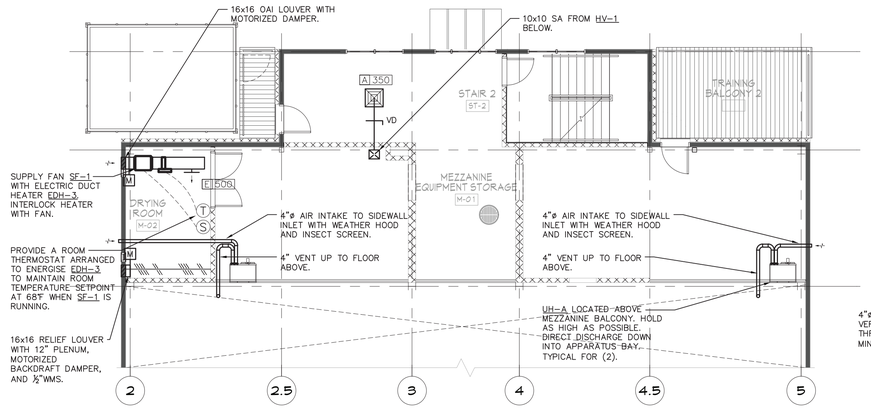
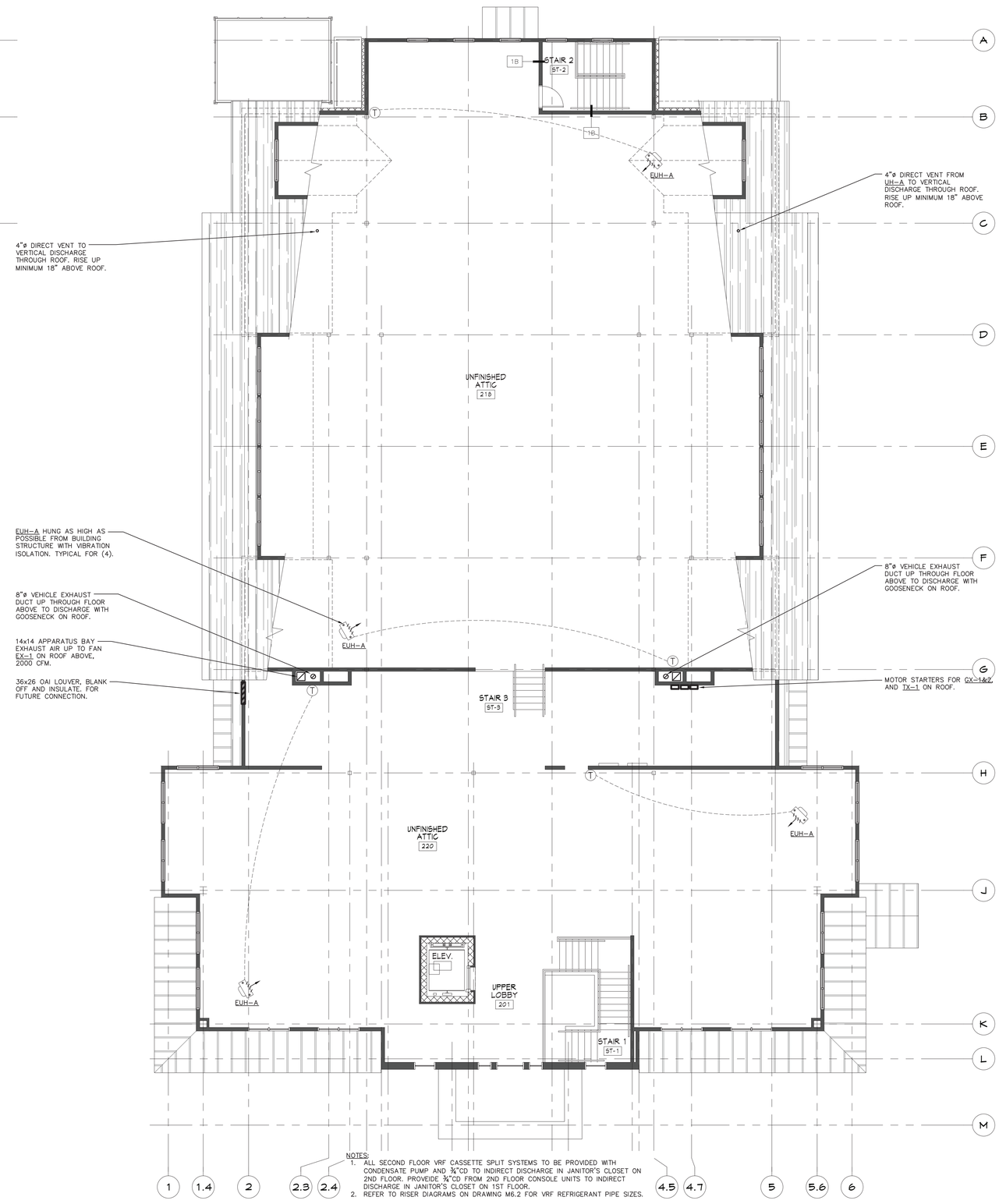
Drawing No.
M2.1



1 MECHANICAL MEZZANINE PLAN
SCALE: 1/8" = 1'-0"
NORTH



NOTES:
1. ALL SECOND FLOOR VRF CASSETTE SPLIT SYSTEMS TO BE PROVIDED WITH CONDENSATE PUMP AND ¾"CD TO INDIRECT DISCHARGE IN JANITOR'S CLOSET ON 2ND FLOOR. PROVEIDE ¾"CD FROM 2ND FLOOR CONSOLE UNITS TO INDIRECT DISCHARGE IN JANITOR'S CLOSET ON 1ST FLOOR.
2. REFER TO RISER DIAGRAMS ON DRAWING M6.2 FOR VRF REFRIGERANT PIPE SIZES.

2 MECHANICAL SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"
NORTH

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Drawing Title
MECHANICAL MEZZANINE & SECOND FLOOR PLAN

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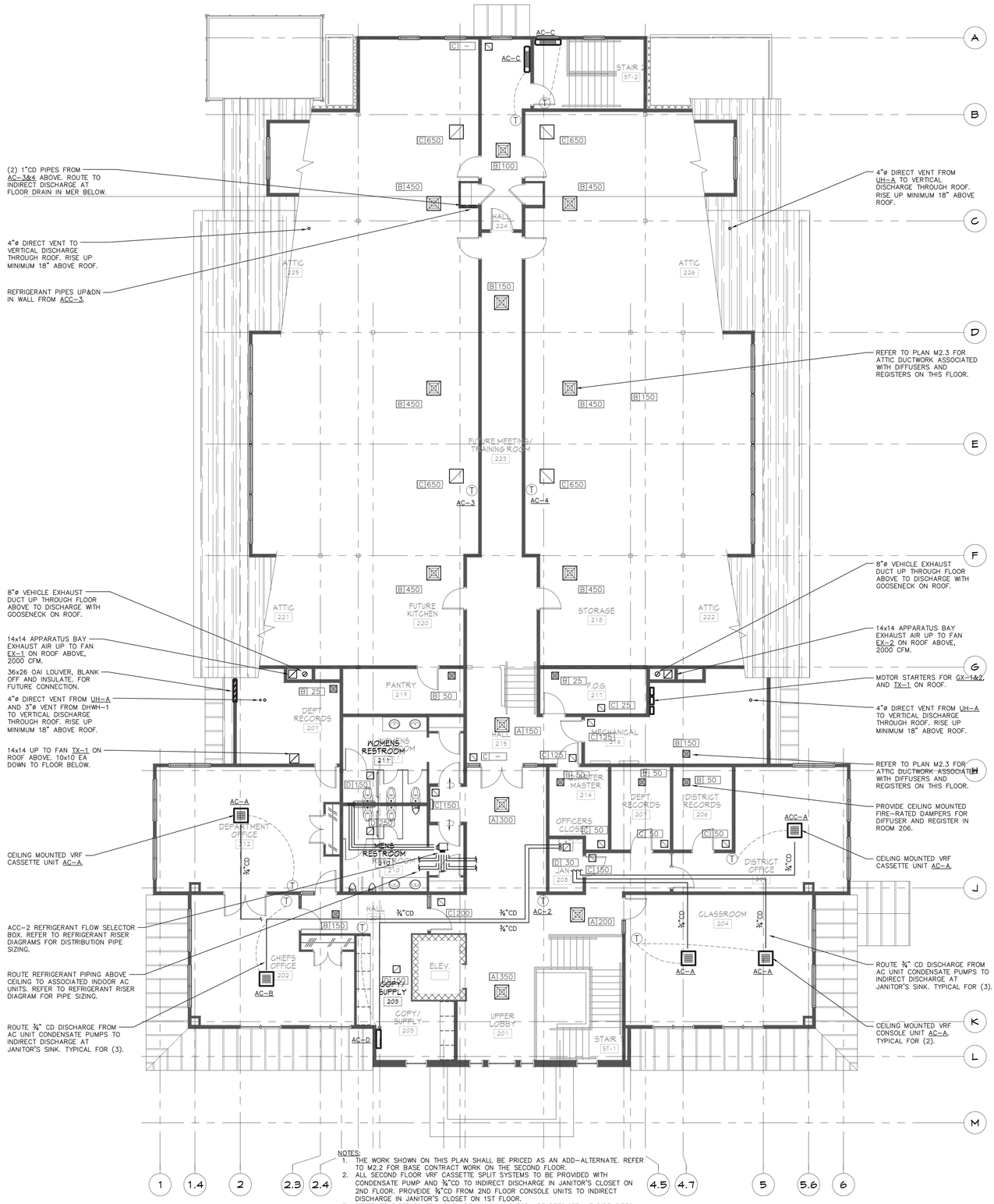
Drawing No.
M2.2



1 MECHANICAL SECOND FLOOR ALTERNATE PLAN
SCALE: 1/8" = 1'-0"

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MECHANICAL SECOND FLOOR ALTERNATE PLAN

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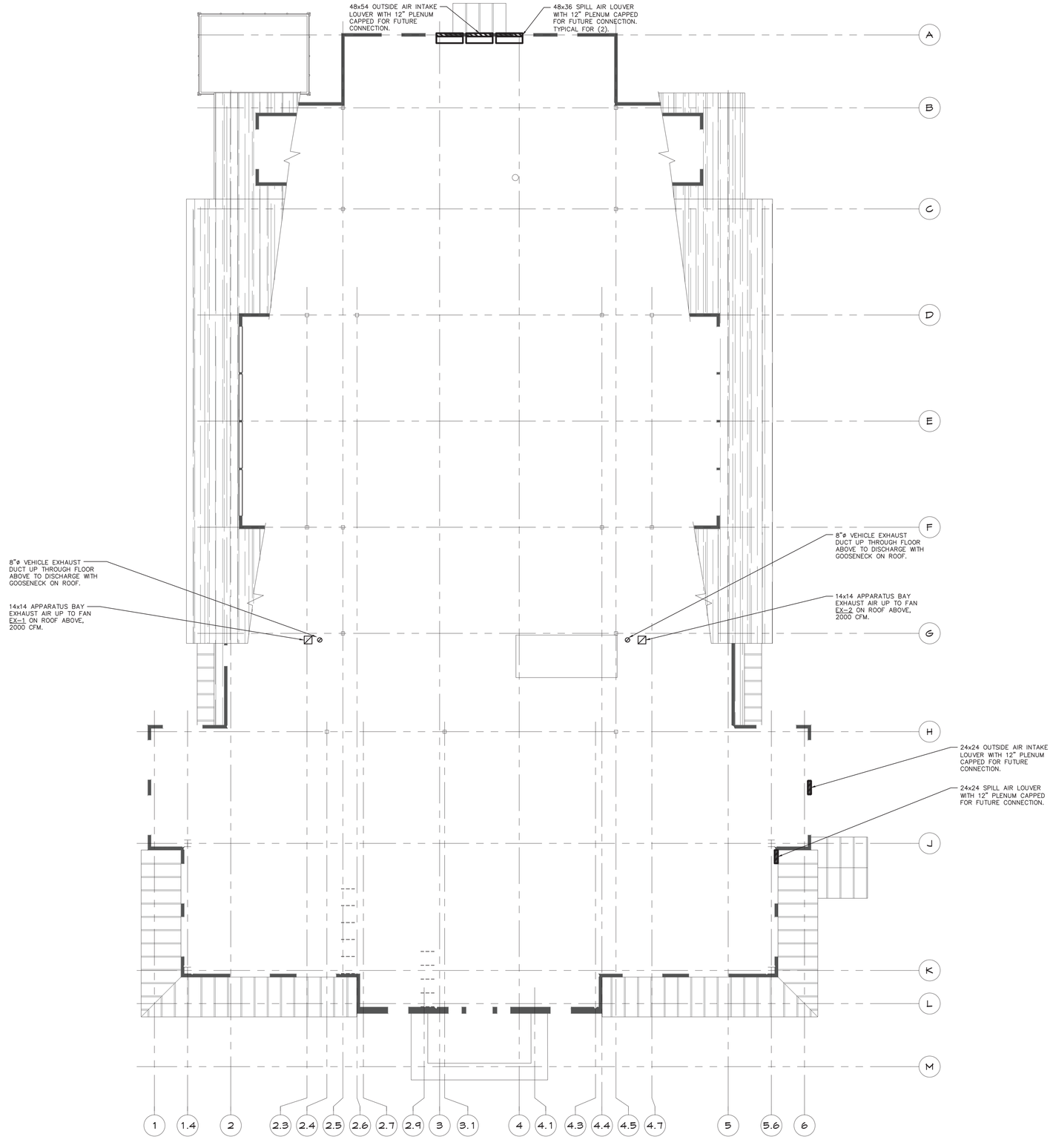
Drawing No.
M2.2A



1 MECHANICAL ATTIC PLAN
SCALE: 1/8" = 1'-0"

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Drawing Title
MECHANICAL ATTIC PLAN

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Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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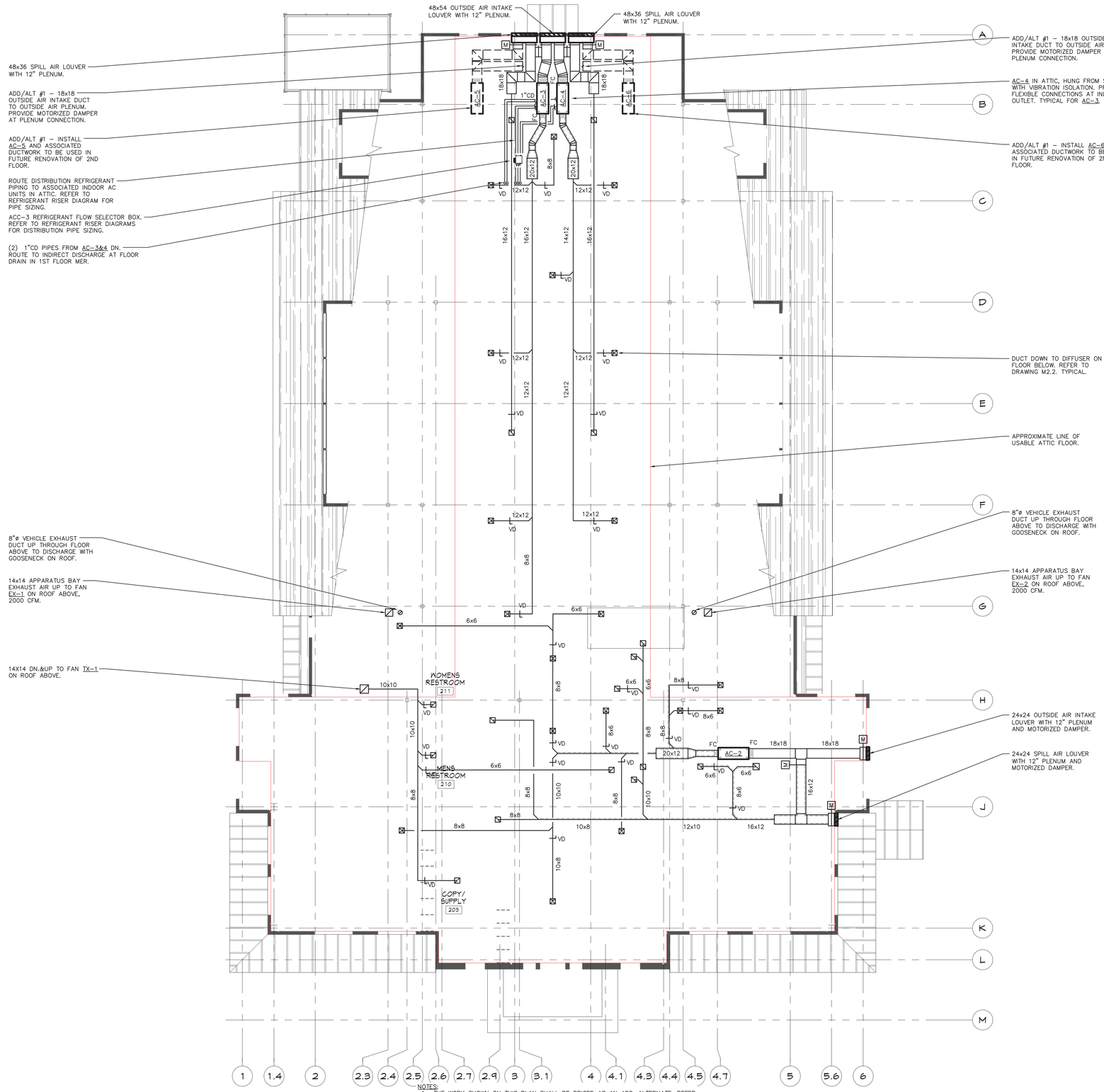
Drawing No.
M2.3



NOTES:
1. THE WORK SHOWN ON THIS PLAN SHALL BE PRICED AS AN ADD-ALTERNATE. REFER TO M2.3 FOR BASE CONTRACT WORK IN THE ATTIC.

1 MECHANICAL ALTERNATE ATTIC PLAN
SCALE: 1/8" = 1'-0"

NORTH

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
50 Broadway, Hawthorne, NY 10532
8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
MECHANICAL ATTIC ALTERNATE PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
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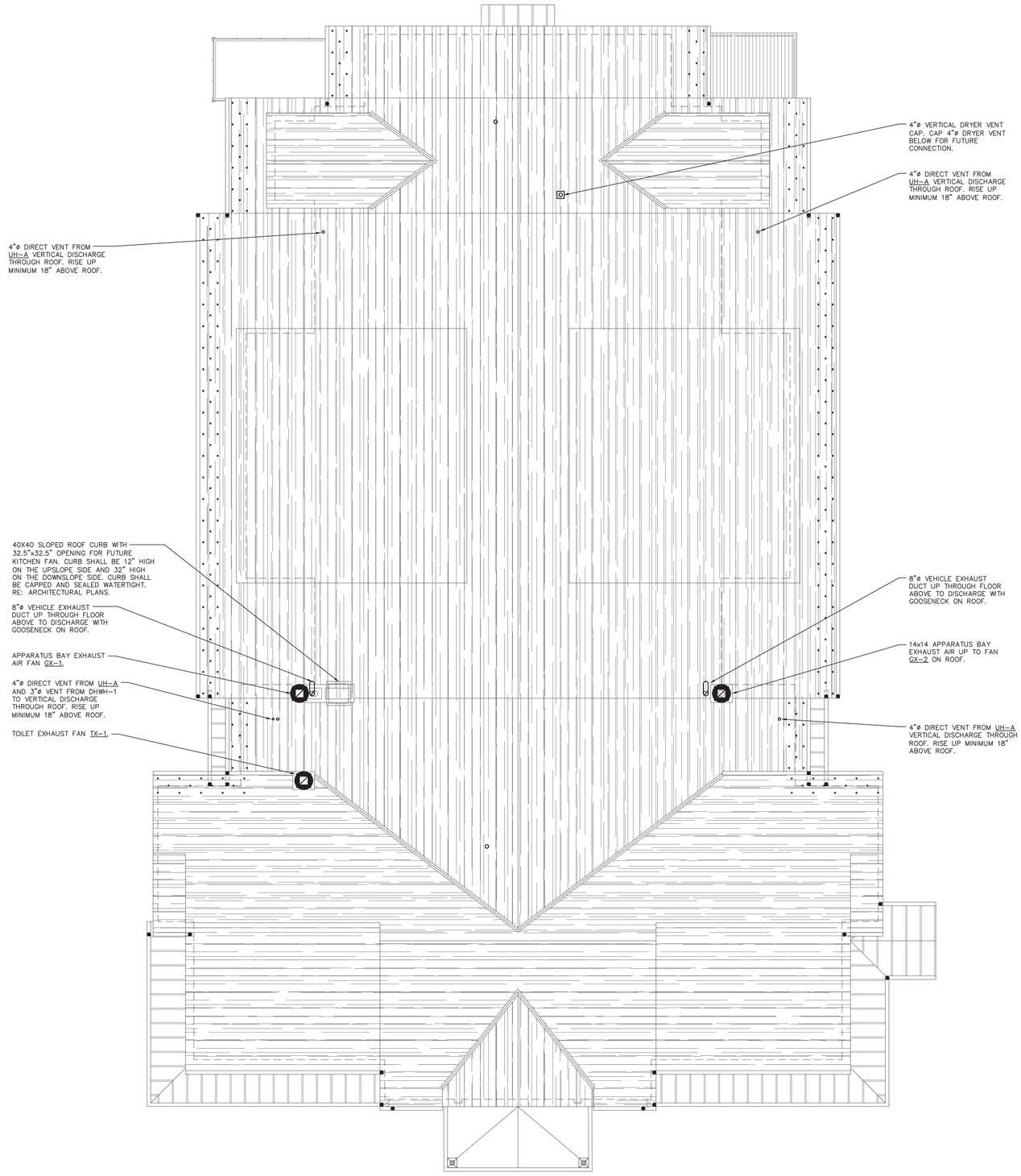
Drawing No.
M2.3A



NORTH

1 MECHANICAL ROOF PLAN
SCALE: 1/8" = 1'-0"

Sullivan Architecture, P.C.
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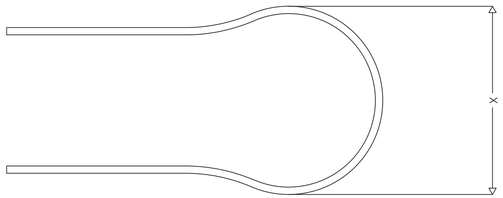
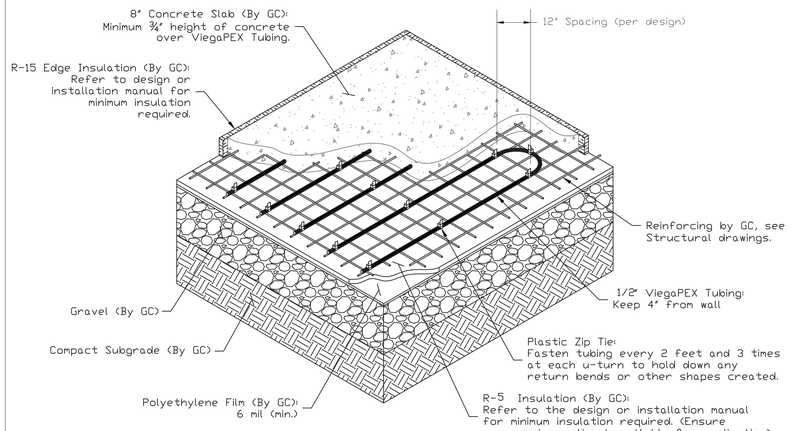
Drawing No.
M2.4



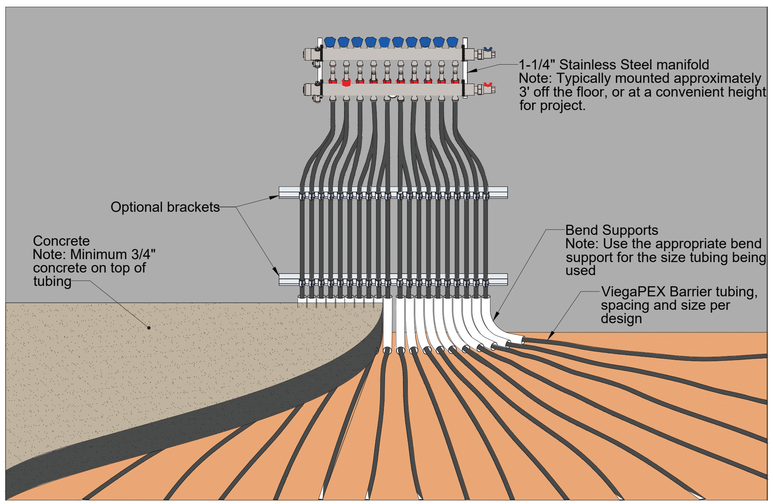
Tube Spacing
When the tube spacing is less than the minimum bending dimension, the loops ends should be swept out to at least the dimension shown.

Otherwise, IF tube spacing is equal or greater than "X", a standard loop may be used.

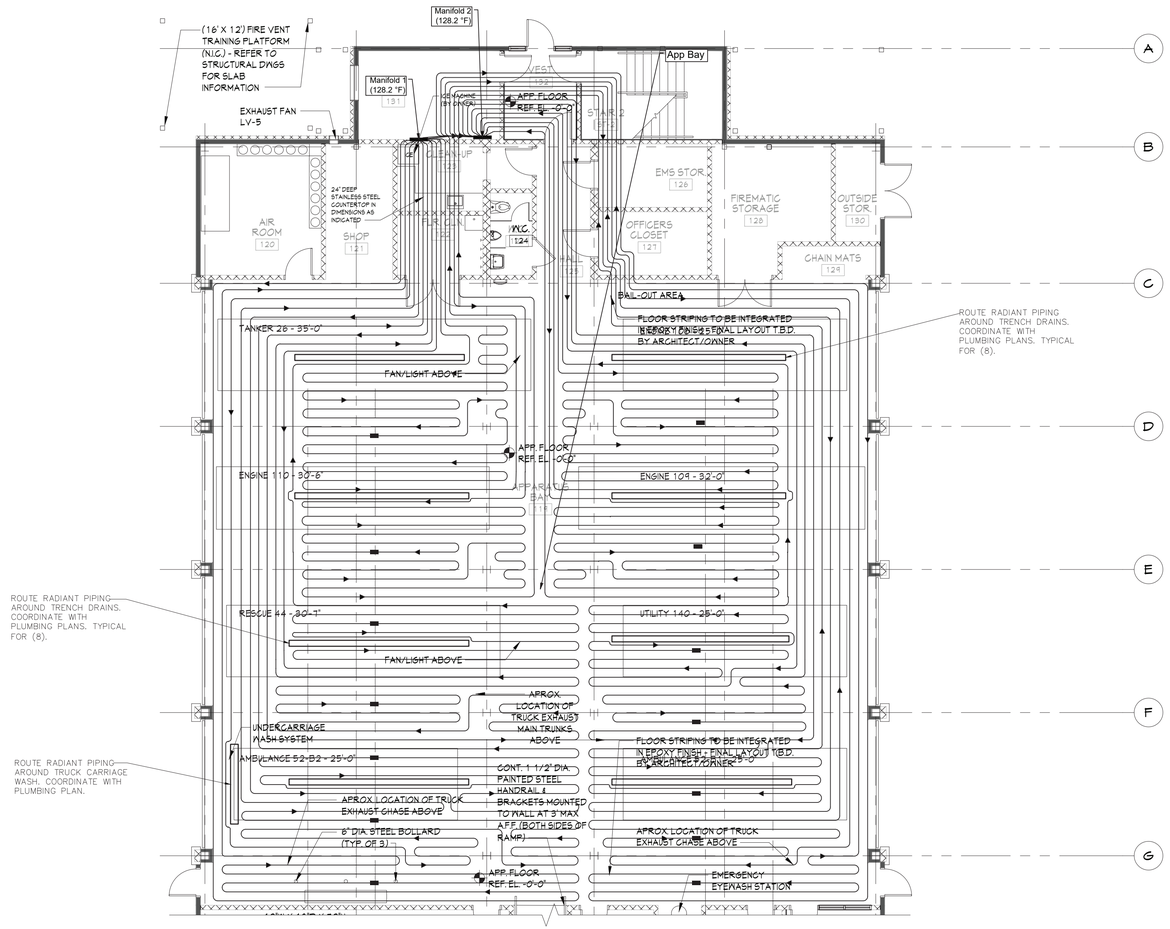
Tubing Size	With the Coil
5/16"	7"
3/8"	8"
1/2"	10"
5/8"	12"
3/4"	14"
1"	18"
1 1/4"	22"
1 1/2"	26"
2"	34"



Section Through Slab On Or Below Grade Installation Using Plastic Zip Ties



2 RADIANT HEATING DETAILS
SCALE: NONE



Manifolds

Name	ManifoldType	# Circuits	Tubing Size	Supply Temp [°F]	Total Load [Btu/hr]	TotalFlow [USGPM]	Head Loss [ft water]
Manifold 1	Stainless Steel - Shut Off/Balancing/Flow Meters, 1-1/4"	7	5/8"	128	118,128	11.85	23.8
Manifold 2	Stainless Steel - Shut Off/Balancing/Flow Meters, 1-1/4"	7	5/8"	128	105,619	10.60	20.9

Rooms

Name	Heating Zone	Area [ft²]	Heating Room Temp [°F]	Req. Surface Temp [°F]	Floor Cover R [R]	Panel Type	Heat Loss [Btu/hr]	Panel Backloss	Total Load [Btu/hr]	Supplemental
App Bay	101	5,263	65	85	0.0	Embedded Slab	210,510	20,341	230,850	6,387

Circuit Information

Number	Manifold	Rooms	Tube Size	Spacing [in]	Length [ft]	Flow [USGPM]	Head Loss [ft water]	Actuator
M1.1	Manifold 1	App Bay	5/8"	12	417	1.66	15.5	No
M1.2	Manifold 1	App Bay	5/8"	12	427	1.73	17.1	No
M1.3	Manifold 1	App Bay	5/8"	12	431	1.73	17.4	No
M1.4	Manifold 1	App Bay	5/8"	12	435	1.75	17.8	No
M1.5	Manifold 1	App Bay	5/8"	12	421	1.67	15.9	No
M1.6	Manifold 1	App Bay	5/8"	12	415	1.64	15.2	No
M1.7	Manifold 1	App Bay	5/8"	12	418	1.67	15.8	No
M2.1	Manifold 2	App Bay	5/8"	12	436	1.41	12.2	No
M2.2	Manifold 2	App Bay	5/8"	12	433	1.44	12.6	No
M2.3	Manifold 2	App Bay	5/8"	12	426	1.45	12.6	No
M2.4	Manifold 2	App Bay	5/8"	12	424	1.52	13.6	No
M2.5	Manifold 2	App Bay	5/8"	12	418	1.54	13.6	No
M2.6	Manifold 2	App Bay	5/8"	12	418	1.60	14.7	No
M2.7	Manifold 2	App Bay	5/8"	12	429	1.63	15.5	No

1 MECHANICAL FIRST FLOOR RADIANT PLAN
SCALE: 1/8" = 1'-0"
NORTH

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Drawing No.
M3.1

FAN SCHEDULE

DESIGNATION	TX-1	TX-2	GX-1&2	GS-1&2	VEF-1&2	SF-1	EF-1
LOCATION	ROOF	WC 124	ROOF	MER 131	APPARATUS BAY	DRYING ROOM	AIR ROOM
AREA SERVED	TOILET ROOMS	WC 124	APPARATUS BAY	APPARATUS BAY	VEHICLE EXHAUST	DRYING ROOM	AIR ROOM
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	PLYMOVENT	GREENHECK	GREENHECK
MODEL	GB-141HP	SP-B70	GB-141	BSQ-140	TEV-3110	SQ-90-G	SS1-16-436-A
WEIGHT (LBS)	64				40.5	49	63
FAN TYPE	GETRIFUGAL	CENTRIFUGAL	GETRIFUGAL	INLINE GETRIFUGAL	CENTRIFUGAL	INLINE CENTRIFUGAL	SIDEWALL
DRIVE TYPE	BELT	DIRECT	BELT	BELT	DIRECT	DIRECT	DIRECT
CFM	1210	50	2000	2000	2000	200	3200
BHP	.38	.01	.76	.6	2.75	.04	0.79
HP	.5	16 WATTS	1	.75	3	1/25	1
RPM	1508	675	1483	1364	3460	1300	1,750
SP (IN H_2O)	1	.25	1	.75	3.2	0.25	0.5
VOLTS/ø/Hz	208/1/60	120/1/60	208/3/60	208/1/60	208/3/60	120/1/60	208/1/60
STARTER TYPE	HOA	HOA	VFD	VFD	VFD	HOA	HOA
STARTER LOCATION	MER 216	MER 131	MER 216	STORAGE 129	MER 114	DRYING ROOM	AIR ROOM

NOTES:
1. ALL MOTORS 1 HP OR GREATER SHALL BE PREMIUM EFFICIENCY.
2. ALL MOTORS FURNISHED WITH VARIABLE FREQUENCY DRIVES SHALL BE INVERTER DUTY RATED & APPROVED FOR VARIABLE SPEED AND TORQUE APPLICATIONS.
3. FURNISH RUBBER IN SHEAR OR SPRING VIBRATION ISOLATORS AS PER THE SPECIFICATION.
4. FURNISH WALL MOUNTED SPEED CONTROLLER OR THERMOSTAT AS INDICATED ON PLAN.
5. FURNISH MOTOR AND BELT GUARDS FOR ALL EXTERNAL MOTOR DRIVES.
6. MOTOR STARTER AND DISCONNECT SWITCH FOR EACH FAN SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. EACH ROOFTOP FAN SHALL BE FURNISHED WITH WEATHERPROOF UNIT-MOUNTED LOCAL DISCONNECT SWITCH.
7. ALL TX AND EX FANS SHALL HAVE ECM MOTORS.
8. FOR EF-1 PROVIDE WALL HOUSING MOUNTING OPTION WITH BACKDRAFT DAMPER AND WEATHER HOOD WITH ½"WMS.

DIFFUSER, REGISTER, GRILLE SCHEDULE

ID	A	B	C	D	E	F
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS
DESIGNATION	CD	CD	RR	ER	SR	RR
MODEL	OMNI-AA	TDC	355FL	355FL	300FL	355FL
SIZE	24x24	12x12	24x24 OR 12x12	8x8	12x8	12x8
TYPE	CEILING SUPPLY	CEILIGN SUPPLY	CEILING RETURN	EXHAUST	SIDEWALL SUPPLY	SIDEWALL RETURN
DESCRIPTION	ALL-ALUMINUM PLAQUE FACE DIFFUSER FOR USE IN ARCHITECTURAL CEILINGS.	STEEL CONSTRUCTION, 4-WAY DIFFUSER	ALUMINUM CONSTRUCTION, WITH ½" SPACING, 35° FIXED DEFLECTION AIRFOIL BLADES.	ALUMINUM CONSTRUCTION, WITH ½" SPACING, 35° FIXED DEFLECTION AIRFOIL BLADES.	ALUMINUM CONSTRUCTION, WITH ¾" SPACING, DOUBLE DEFLECTION SUPPLY GRILLE.	ALUMINUM CONSTRUCTION, WITH ½" SPACING, 35° FIXED DEFLECTION AIRFOIL BLADES.
NOTES	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5	1,2,3,4	1,2,3,4,5	1,2,3,4,5

NOTES:
1. BAKED ENAMEL FINISH; COORDINATE COLOR WITH ARCHITECT.
2. PROVIDE OPPOSED BLADE VOLUME DAMPER IN NECK.
3. COORDINATE MOUNTING FRAME WITH CEILING/WALL CONSTRUCTION & PROVIDE SURFACE LAY-IN AS REQUIRED.
4. NOISE CRITERION SHALL BE KEPT <30 NC.
5. NECK SIZE SHALL BE ACCORDING TO NECK SCHEDULE.

NECK SCHEDULE:
6"ø | 75 – 195 CFM
8"ø | 196 – 310 CFM
10"ø | 311 – 435 CFM
12"ø | 436 – 600 CFM
14"ø | 601 – 750 CFM
15"ø | 751 – 850 CFM

EQUIPMENT NOTES

13. RECESSED ELECTRIC CABINET UNIT HEATER (ECUH-B): SHALL BE INDEECO MODEL WRI, CATALOG NUMBER 930U00750V RATED AT 563 WATTS, 208V/1PH/60HZ, 2.9 AMPS, 40 CFM. PROVIDE DISCONNECT SWITCH AND ADJUSTABLE THERMOSTAT WITH OFF POSITION. SUBMIT COLOR CHART FOR ARCHITECTURAL APPROVAL.

14. ELECTRIC DUCT HEATER EDH-1&2: SHALL BE GREENHECK MODEL IDHC, 32 KW, 208V/3ϕ/60HZ, 90 FLA, 2000 CFM, 50° AIR TEMP RISE. FURNISH THE FOLLOWING CONTROL OPTIONS: SCR CONTROL, DISCONNECT SWITCH, FAN INTERLOCK WITH GS-1, DUCT THERMOSTAT ARRANGED TO PROVIDE 60°F AIR. INTERLOCK WITH FAN GS-1 SO THAT HEATER ONLY OPERATES WHILE FAN GS-1 IS RUNNING, AS NECESSARY TO MAINTAIN AIR DISCHARGE TEMPERATURE MINIMUM OF 50°F.

15. ELECTRIC DUCT HEATER EDH-3: SHALL BE GREENHECK MODEL IDHC, 5 KW, 208V/3ϕ/60HZ, 14 FLA, 200 CFM, 80° AIR TEMP RISE. FURNISH THE FOLLOWING CONTROL OPTIONS: SCR CONTROL, DISCONNECT SWITCH, FAN INTERLOCK WITH SF-1, DUCT THERMOSTAT ARRANGED TO PROVIDE 60°F AIR. INTERLOCK WITH FAN SF-1 SO THAT HEATER ONLY OPERATES WHILE FAN SF-1 IS RUNNING, AS NECESSARY TO MAINTAIN AIR DISCHARGE TEMPERATURE MINIMUM OF 80°F.

16. HORIZONTAL DISCHARGE HOT WATER UNIT HEATER (HWUH-A): SHALL BE VULCAN MODEL HV-118A, HORIZONTAL DISCHARGE CONFIGURATION, RATED AT 9.2 MBH, 1.9 GPM, 140°F EWT, 120°F LWT, 2.2' WPD (FT H_2O), 500 CFM. MOTOR SHALL BE RATED AT 16 WATTS, 1550 RPM, 0.8 AMPS, 1.0 MCA, 15 MOCP, 115V/1ϕ/60HZ. PROVIDE WALL THERMOSTAT, FAN GUARD, AND AIR DEFLECTION LOUVER. HANG UNIT FROM BUILDING STRUCTURE WITH VIBRATION ISOLATORS. FURNISH DISCONNECT SWITCH.

17. HOT WATER EXPANSION TANK (ET-1): SHALL BE AMTROL MODEL AX-15V-DD, 12" DIAMETER, 22" HIGH, 8 GALLONS, WITH 3/4" NPT SYSTEM CONNECTION, 3/4" NPT CHARGING VALVE, 3/4" DRAIN PLUG, 240°F MAX OPERATING TEMPERATURE, 125 PSI MAX WORKING PRESSURE, FACTORY PRE-CHARGED TO 12 PSIG. UNIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ASME SECTION VIII.

18. CO & NO_2 DETECTION SYSTEM: SHALL BE SIERRA MONITOR CORPORATION. PROVIDE SENTRY 5000-IT CONTROLLERS (SEE PLANS FOR LOCATION) WITH NATIVE BACNET INPUT/OUTPUT. CONTROL PANELS SHALL BE LINKED TO BMS. ALL SPACE TRANSMITTERS SHALL BE MOUNTED 5'-0" AFF IN A PROTECTED LOCATION. PROVIDE LIGHT/HORN STROBE AS INDICATED ON PLAN TO BE ENERGIZED UPON LEVEL "HIGH HIGH" ALARM. PROVIDE SIGNAGE "CO & NO_2 DETECTION" NEAR HORN STROBE
    - CO TRANSMITTERS SHALL BE 5100-04-IT-S1-01-00-0-0-C
    - NO_2 TRANSMITTERS SHALL BE 5100-12-IT-S1-01-00-0-0-C

19. VEHICLE EXHAUST RAIL SYSTEM: SHALL BE BASED ON PLYMOVENT EXHAUST RAIL SYSTEM COMPOSED OF (8) VSRX RAILS MOUNTED BELOW THE OPEN GARAGE DOOR PATH & LENGTH NOTED ON PLAN, (8) FLEXIBLE HOSES WITH TROLLEY FOR MOUNTING TO RAIL, 6" 40' LONG HOSES CAPABLE OF 600°F CONTINUOUS & 1250°F INTERMITTENT. 400°F TEMPERATURE RESISTANCE ON ALL COMPONENTS. FANS (VX-1&2) SHALL BE TEV-3110 AS NOTED IN SCHEDULE ON THIS PLAN. PROVIDE VFD FOR FAN MOTOR. PROVIDE (2) NTX NEMA 4X WALL MOUNT TRANSMITTERS WITH 433 MHz RCRC-3R RECEIVER MOUNTED TO FAN VFD. PROVIDE ALL SUPPORTS AND HANGERS AS REQUIRED. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR DETAILS. COORDINATE WITH ALL PIPING, EQUIPMENT, GARAGE DOORS, ETC IN APPARATUS BAY.

20. HEAVY DUTY LOUVERS: SHALL BE RUSKIN MODEL L26, 6" DEEP, WITH 47% FREE AREA, OPTIONAL 16 GAGE STEEL CONSTRUCTION, CHEVRON STYLE BLADES AT 3-1/2" SPACING, 6" DEEP STEEL FRAME. REFER TO PLANS FOR SIZE. COORDINATE INSTALLATION REQUIREMENTS WITH ARCHITECTURAL PLANS. ANODIZED CUSTOM COLOR TO BE SELECTED BY ARCHITECT. COORDINATE WITH ARCHITECTURAL PLANS.

21. ELECTRIC UNIT HEATERS (EUH-A): SHALL BE MARKEL MODEL F3FUH07C03, RATED AT 575 CFM, 25.6 MBH, 7.5 kW, 208V/3ϕ/60Hz, 20.8 AMPS. PROVIDE THE FOLLOWING OPTIONS: FAN GUARD, AIR DEFLECTION LOUVER, SUMMER FAN SWITCH, HEAT PURGE FAN DELAY SWITCH, DISCONNECT SWITCH, & WALL THERMOSTAT.

22. VERTICAL DRYER VENT CAP: SHALL BE SIMILAR TO DRYERJACK MODEL 466.

EQUIPMENT NOTES

1. ELECTRIC CABINET UNIT HEATER (ECUH-A): UNIT SHALL BE BASED ON MARKEL MODEL F30522T2DWB RECESSED TYPE COMMERCIAL FAN FORCED WALL HEATER. BUILT IN TAMPERPROOF THERMOSTAT, THERMAL OVERLOAD CUTOFF, FAN DELAY SWITCH. UNIT SHALL BE RATED ACCORDING TO THE FOLLOWING SPECIFICATIONS:
    A. FAN CFM: 100
    B. ELECTRIC COIL CAPACITY: 7.7 MBH
    C. kW: 1.5
    D. VOLTS/PH/HZ: 208/1/60
    E. AMPS: 10.8
    F. FURNISH DISCONNECT SWITCH WITH EACH UNIT.

2. LOUVERS: SHALL BE RUSKIN MODEL ELF375DX, 4" DEEP, WITH 54% FREE AREA, 6063T5 EXTRUDED ALUMINUM DRAINABLE BLADES AT 37.5° AND 5-3/32" SPACING, 4" DEEP 6063T5 EXTRUDED ALUMINUM FRAME. AND 1/2" GALVANIZED STEEL BIRD SCREEN. MINIMUM LOUVER SIZE 12"x12". ANODIZED CUSTOM COLOR TO BE SELECTED BY ARCHITECT. COORDINATE WITH ARCHITECTURAL PLANS.

3. GAS-FIRED UNIT HEATERS (GFUH-A): SHALL BE MODINE MODEL HDS-125, 125 MBH INPUT, 102.5 MBH OUTPUT. UNITS SHALL BE DIRECT-VENT SEPARATED COMBUSTION TYPE WITH 4"ø FLUE OUTLET, 4"ø AIR INLET, AND 1/2"ø GAS CONNECTION. FAN SHALL BE 1/8 HP, 1625 RPM. ELECTRICAL REQUIREMENTS: 120V/1ϕ/60HZ. PROVIDE PROPANE CONVERSION KIT AND LOCAL DISCONNECT SWITCH. FURNISH WITH SINGLE-STAGE, DIRECT SPARK IGNITION CONTROLS, WITH 100% SHUT-OFF AND CONTINUOUS RETRY. PROVIDE ELECTRIC WALL THERMOSTAT AND CONDENSATE NEUTRALIZING KIT.

4. GAS-FIRED HOT WATER BOILER (B-1): SHALL BE WEIL MCLAIN EVG-299, STAINLESS STEEL FIRE-TUBE CONDENSING HOT WATER BOILER, RATED AS FOLLOWS:
    - 299 MBH PROPANE GAS INPUT.
    - 280 MBH GROSS OUTPUT.
    - 140°F MAXIMUM SUPPLY WATER TEMPERATURE.
    - 160 PSI MAXIMUM OPERATING PRESSURE.
    - 208V/1Ph/60Hz
    - 10-TO-1 TURNDOWN RATIO

    FURNISH THE FOLLOWING FEATURES & OPTIONS:
    - WALL-MOUNT KIT.
    - BOILER DIGITAL CONTROL PACKAGE
    - 1-1/2"ø HOT WATER INLET & OUTLET CONNECTIONS.
    - 1" CONDENSATE DRAIN
    - 3"ø DIRECT VENT CONNECTIONS.
    - CONDENSATE NEUTRALIZER KIT
    - SIDEWALL VENT/AIR TERMINATION KIT
    - PROPANE CONVERSION KIT
    - BOILER CIRCULATOR – TACO 0014
    - DISCONNECT SWITCH

5. PRIMARY HOT WATER PUMP P-1: SHALL BE ARMSTRONG MODEL 4380 0103-000.3 CLOSE COUPLED VERTICAL IN-LINE CENTRIFUGAL PUMP RATED AT 29 GPM, 25' TDH, .333 HP, 208V/1PH/60HZ, 1675 RPM. PROVIDE DISCONNECT SWITCH.

6. CONDENSATE PUMP (CP-1): SHALL BE LITTLE GIANT MODEL VCM-20ULS, RATED AT 25 GPH @ 15' HEAD, WITH 1/2 GALLON TANK, 3/8" DISCHARGE CONNECTION, & SHUT-OFF AT 20' HEAD. MOTOR SHALL 1/30 HP, 93 WATTS, 115V/1ϕ/60Hz, 1.5 AMPS. INCLUDE THE FOLLOWING OPTIONS: SAFETY SWITCH, 6' POWER CORD, THERMAL OVERLOAD PROTECTOR, NYLON SUMP PAN, POLYPROPYLENE CONTROL FLOAT, BUILT-IN CHECK VALVE, FILTER SCREEN, STAINLESS STEEL SHAFT. PUMP SHALL BE ARRANGED TO SHUT DOWN AC UNIT IF THE SAFETY SWITCH DETECTS NO FLOW. PROVIDE DISCONNECT SWITCH.

7. OUTSIDE AIR INTAKE FOR GAS FIRED EQUIPMENT: FOR ALL GAS FIRED DIRECT VENTING CONDENSING & NON-CONDENSING APPLIANCES SHALL BE SINGLE-WALL SPIRAL GALVANIZED STEEL BY SHEET METAL CONNECTORS, INC. ALL DUCTWORK IS 4-PLY SPIRAL LOCKSEAM MEETING ASTM A-653. ALL DUCT CONNECTIONS SHALL BE MADE WITH A DOUBLE LEGGED EPDM GASKET CREATING AN AIR-TIGHT CONNECTION MEETING ASTM A-653. SINGLE-WALL DUCT GUAGE SHALL BE SELECTED FOR POSITIVE, NEUTRAL, AND NEGATIVE DRAFT UP TO 15"WC WITH A MINIMUM GAUGE OF 24. PRODUCT IS RATED FOR ZERO CLEARANCE TO COMBUSTIBLES. PROVIDE STRAIGHT SECTIONS, ELBOWS, OFFSETS, CONNECTION ADAPTERS, WALL SLEEVES, AND SCREENED TERMINATIONS.

8. LISTED SPECIAL GAS VENTING FOR GAS FIRED EQUIPMENT: SHALL BE HEATFAB "SAF-T VENT CI PLUS", DOUBLE WALL CONSTRUCTION, 1" FIBERGLASS INSULATION, AL-29-4C STAINLESS STEEL. SPECIAL VENT UL 1738 FOR POSITIVE, NEUTRAL, AND NEGATIVE DRAFT UP TO 15"WC. PRODUCT IS RATED FOR ZERO CLEARANCE TO COMBUSTIBLES. PROVIDE STRAIGHT SECTIONS, ELBOWS, OFFSETS, CONNECTION ADAPTERS, WALL SLEAVES, AND SCREENED TERMINATIONS.

9. AIR SEPARATOR: SHALL BE ARMSTRONG MODEL 1"-ASL, 350°F MAXIMUM WORKING TEMPERATURE, 125 PSIG MAXIMUM WORKING PRESSURE, 1" INLET & OUTLET CONNECTIONS, 3/4" NPT AIR OUTLET, 3/4" NPT DRAIN. UNIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ASME CODE. PROVIDE AUTOMATIC AIR ELIMINATOR, ARMSTRONG MODEL AAE-750, WITH 250°F MAXIMUM OPERATING TEMPERATURE, 2-133 PSIG AIR PRESSURE OPERATING RANGE, 100% SPRING ACTION POSITIVE SHUTOFF, 3/4" NPT SYSTEM CONNECTION.

10. RADIANT MANIFOLD #1&2: SHALL BE VIEGA STAINLESS STEEL MANIFOLD (PART #15906) INCLUDING 8 OUTLETS, 1" CONNECTIONS, SHUTOFFS, AND BALANCING VALVES.

11. RADIANT MIXING STATION #1&2: SHALL BE VIEGA HIGH HEAD MIXING STATION PART #12127, INCLUDING BALL VALVE SHUT OFF VALVES, BALANCING VALVES, 3-WAY DIVERTING OR MIXING VALVE, SENSOR WELL, STRAP ON TEMPERATURE SENSOR, TEMPERATURE AND PRESSURE GAUGE, SECONDARY 3-SPEED CIRCULATOR PUMP (HWCP-1&2) RATED AT 12 GPM @ 22' HEAD, 120V/1ø/60Hz.

12. APPARATUS BAY DUCT-MOUNTED EXHAUST GRILLE: SHALL BE TITUS MODEL US-DL SPIRAL DUCT DRUM LOUVER, ALUMINUM CONSTRUCTION, OPPOSED BLADE VOLUME DAMPER OPTION AG-15-HD, 24x10, CFM AS NOTED ON PLANS. FINISH SHALL BE BAKED ON ENAMEL. SUBMIT COLOR CHART TO ARCHITECT FOR APPROVAL. FRAME SHALL BE SUITABLE SURFACE MOUNTING ON ROUND SPIRAL DUCTWORK.

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Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
MECHANICAL SCHEDULES & EQUIPMENT NOTES

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 065467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
M6.1

Ventilation Index
First Floor

Room No.	Room Name	Area (sq.ft.)	Occupancy Type: Category	Occupancy Type: Type	Code: Pers./1000 sq.ft.	Code: No. of Occ.	Code: OA CFM / Pers.	Code: OA CFM / sq.ft.	Zone Distribution Effectivness	Design SA: CFM	Design SA: CFM / sq.ft.	EA: CFM	Design OA: % w/o Div.	Design OA: CFM	Code OA: CFM	Code OA: CFM / sq.ft.
101	Lobby	317	Public Spaces	Corridors	0	0	0	0.06	0.8	350	1.1		40%	140	24	0.08
111	Electrical Room	98	storage	warehouses	0	0	0	0.06	0.8	50	0.5		40%	20	7	0.08
112	Decon Room	102	offices	office space	5	1	5	0.06	0.8	50	0.5		40%	20	14	0.14
113	Gear Room	618	storage	warehouses	0	0	0	0.06	0.8	400	0.6		40%	160	46	0.08
119	Apparatus Bay	5,300	storage	Enclosed parking garage	0	0	0	0.75	1.0	4000	0.8	4,000.0	100%	4,000	3,975	0.75
120	Air Room	198	storage	warehouses	0	0	0	0.06	0.8	300	1.5		40%	120	15	0.08
122	Floor Cleaning	64	storage	warehouses	0	0	0	0.06	0.8	75	1.2		40%	30	5	0.08
123	Clean-Up	72	storage	warehouses	0	0	0	0.06	0.8	75	1.0		40%	30	5	0.08
126	Ems Storage	87	storage	warehouses	0	0	0	0.06	0.8	75	0.9		40%	30	7	0.08
127	Officer's Closet	87	storage	warehouses	0	0	0	0.06	0.8	75	0.9		40%	30	7	0.08
128	Firematic Storage	173	storage	warehouses	0	0	0	0.06	0.8	100	0.6		40%	40	13	0.08

Ventilation Index
Second Floor

Room No.	Room Name	Area (sq.ft.)	Occupancy Type: Category	Occupancy Type: Type	Code: Pers./1000 sq.ft.	Code: No. of Occ.	Code: OA CFM / Pers.	Code: OA CFM / sq.ft.	Zone Distribution Effectivness	Design SA: CFM	Design SA: CFM / sq.ft.	EA: CFM	Design OA: % w/o Div.	Design OA: CFM	Code OA: CFM	Code OA: CFM / sq.ft.
201	Upper Lobby	867	Public Spaces	Corridors	0	0	0	0.06	0.8	850	1.0		38%	323	65	0.08
203	Copy/Supply	278	Workrooms	Copy rooms	4	2	5	0.06	0.8	150	0.5		38%	57	33	0.12
206	District Records	99	storage	warehouses	0	0	0	0.06	0.8	50	0.5		38%	19	7	0.08
213	Officer's Closet	89	storage	warehouses	0	0	0	0.06	0.8	50	0.6		38%	19	7	0.08
214	Quarter Master	99	storage	warehouses	0	0	0	0.06	0.8	50	0.5		38%	19	7	0.08
216	Mechanical Room	274	storage	warehouses	0	0	0	0.06	0.8	150	0.5		38%	57	21	0.08
217	F.O.G.	98	storage	warehouses	0	0	0	0.06	0.8	25	0.3		38%	10	7	0.08
218	Unfinished Attic	2,667	storage	warehouses	0	0	10	0.06	0.8	1350	0.5		15%	203	200	0.08
219	Hall	497	Public Spaces	Corridors	0	0	0	0.06	0.8	300	0.6		15%	45	37	0.08
220	Unfinished Attic	2,549	storage	warehouses	0	0	0	0.06	0.8	1350	0.5		15%	203	191	0.08
222	Hall	168	Public Spaces	Corridors	0	0	0	0.06	0.8	100	0.6		38%	38	13	0.08

Natural Ventilation Index

Room No.	Room Name	Area (sq.ft.)	Natural Ventilation: Openable Area	Natural Ventilation: % floor area
205	District Office	333	45	13.5%
204	Classroom	485	60	12.4%
201	Upper Lobby	893	22.5	2.5%
203	copy/supply	279	7.5	2.7%
202	chiefs office	390	60	15.4%
212	department office	468	45	9.6%
108	dispatch/radio	400	52.5	13.1%
106	Day Room	762	75	9.8%
103	Wellness	600	75	12.5%

As per 2018 IMC section 402.2, the minumum openable area to the outdoors shall be 4% of the floor area being ventilated.

FAN COIL UNIT SCHEDULE

DESIGNATION:	HV-1	
LOCATION	MER 131	
MANUFACTURER	FIRST CO.	
MODEL	16MB	
UNIT DIMENSIONS – WIDTH x HEIGHT x DEPTH (IN)	23x42x20	
DESIGN DATA:		
SUMMER OA TEMP (°F) DB/WB	94/72	
WINTER OA TEMP (°F)	10	
FILTERS:		
TYPE	1" MERV 8	
HOT WATER COIL:		
FACE AREA (SQ. FT.)		
No. OF ROWS/FINS PER INCH	2/12	
E.W.T./L.W.T. (°F)	140/110	
E.A.T./L.A.T. (°F)	44/85	
CAPACITY (MBH)	54	
GPM	3.6	
W.P.D. (FT H_2O)	2	
SUPPLY FAN:		
CFM	1200	
OAI CFM	525	
FAN MOTOR HP	½	
ESP (IN H_2O)	0.5	
VOLTS/ø/Hz	208/1/60	
FLA/MCA/MOCP	8/-/-	

NOTES:

PROVIDE THE FOLLOWING FEATURES & OPTIONS FOR EACH UNIT:
- UNITARY CONTROLLER BY AUTOMATIC TEMPERATURE CONTROLS MANUFACTURER, COMPATIBLE WITH THE BUILDING AUTOMATION SYSTEM.
- COORDINATE RIGHT-HAND/LEFT-HAND COIL CONNECTIONS IN THE FIELD.
- KEY LOCK ACCESS DOORS.
- FURNISH 2-WAY MODULATING CONTROL VALVE FOR EACH COIL, WITH PIPING PACKAGE AS PER DETAIL ON DRAWING M7.3. 5 PSI MAX AT CONTROL VALVE.
- FOR UNITS WITH OAI INLET: FREEZE STAT ARRANGED TO OVERRIDE THE COIL CONTROL VALVE & SHUT DOWN UNIT AS PER THE SEQUENCE OF OPERATIONS.
- WALL MOUNTED THERMOSTAT.
- FACTORY FURNISHED LOCAL DISCONNECT SWITCH.
- COIL AIR VENT.
- (2) SETS OF SPARE FILTERS FOR EACH UNIT.

VRF SYSTEM - INDOOR UNIT SCHEDULE

DESIGNATION	AC-1	AC-2	AC-3&4	AC-5&6
LOCATION	MER 114	ATTIC	ATTIC	ATTIC
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	FXTQ60TAVJUD	FXTQ54TAVJUD	FXTQ60TAVJUD	FXTQ36TAVJUD
WEIGHT OF UNIT (LBS)	167	167	167	150
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
SUCTION PIPE SIZE (IN)	⅝	⅝	⅝	–
LIQUID PIPE SIZE (IN)	⅜	⅜	⅜	–
DESIGN DATA:				
SUPPLY AIR (CFM)	1500	1500	1500	–
OUTDOOR AIR (CFM)	600	575	225	–
RETURN AIR (CFM)	900	925	1275	–
SUMMER OA TEMP (°F) DB/WB	92/74	92/74	92/74	–
SUMMER RA TEMP (°F) DB/WB	78/65	78/65	78/65	–
WINTER OA TEMP (°F)	10	10	10	–
WINTER RA TEMP (°F)	70	70	70	–
EVAPORATOR COIL (COOLING):				
E.A.T. (°F) DB/WB	80/67	80/67	80/67	–
L.A.T. (°F) DB/WB	55.2/55	57/53.1	55.2/55	–
CAPACITY (MBH) SENS./TOTAL	40.4/60	37.4/51.1	40.4/60	–
EVAPORATOR COIL (HEATING):				
E.A.T. (°F) DB	68	68	68	–
L.A.T. (°F) DB				–
CAPACITY (MBH) SENS./TOTAL	70.6	63.3	70.6	–
SUPPLY FAN:				
DESIGN AIRFLOW (CFM)	1500	1350		–
HP	1	1	1	–
ESP (IN H_2O)	.75	.75	.75	–
ELECTRICAL DATA:				
VOLTS/ø/Hz	208/1/60	208/1/60	208/1/60	208/1/60
MCA/MOCP (AMPS)	8.6/15	8.6/15	8.6/15	4.9/15

ADD–ALTERNATE

NOTES:
1. FIELD SUPPLIED LOCAL DISCONNECT SWITCH AT EACH INDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. UNIT SHALL INCLUDE INTERNAL CONDENSATE PUMP.
3. REMOTE DETECTION UNIT – TO BE FIELD INSTALLED IN THE INDOOR AC UNIT CASSETTE.
4. CONNECTOR AND CONNECTOR PROTECTOR.
5. DETECTOR INSTALLATION KIT.
6. ALARM CONTACT ARRANGED TO SHUT DOWN AC UNIT UPON PUMP FAILURE.
7. (1) EXTRA SET OF FILTERS PER UNIT.
8. AC-5&6 ARE ADD/ALT #1 WORK ONLY.

VRF SYSTEM - INDOOR UNIT SCHEDULE

INDOOR UNIT DESIGNATION	AC-A	AC-B	AC-C	AC-D
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	FXZQ12TAVJU	FXZQ18TAVJU	FXLQ12MVJU9	FXAQ18PVJU
TYPE	CEILING CASSETTE	CEILING CASSETTE	FLOOR CONSOLE	WALL MOUNTED
COOLING CAPACITY (TOTAL)(MBH)	12,000	18,000	12,000	12,000
HEATING CAPACITY (MBH)	13,500	20,000	13,500	13,500
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
LIQUID LINE (INCHES)	¼	¼	¼	¼
HOT GAS LINE (INCHES)	½	½	½	½
CONDENSATE LINE (INCHES)	¾	¾	¾	¾
CFM	350	500	280	500
VOLTS/ø/Hz	208/1/60	208/1/60	208/1/60	208/1/60
MCA (AMPS)	0.4	0.6	0.5	0.4

NOTES:
1. FIELD SUPPLIED LOCAL DISCONNECT SWITCH AT EACH INDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. UNIT SHALL INCLUDE INTERNAL CONDENSATE PUMP POWERED THROUGH THE INDOOR UNIT.
3. REMOTE DETECTION UNIT – TO BE FIELD INSTALLED IN THE INDOOR AC UNIT CASSETTE.
4. CONNECTOR AND CONNECTOR PROTECTOR.
5. DETECTOR INSTALLATION KIT.
6. ALARM CONTACT ARRANGED TO SHUT DOWN AC UNIT UPON PUMP FAILURE.

VRF SYSTEM - OUTDOOR CONDENSING UNIT SCHEDULE

OUTDOOR UNIT DESIGNATION	ACC-1	ACC-2	ACC-3	ACC-4
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	RELQ144TATJU	RELQ120TATJU	RELQ192TATJU	RELQ72TATJU
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
NOMINAL COOLING / HEATING CAPACITY (MBH)	144 / 162	120 / 135	192 / 216	72 / 81
LIQUID LINE (INCHES)	½	½	⅝	⅜
HOT GAS LINE (INCHES)	1-1/8	1-1/8	1-1/8	¾
HIGH/LOW PRESSURE LINE (INCHES)	⅞	¾	1-1/8	⅝
VOLTS/ø/Hz	208/3/60	208/3/60	208/3/60	203/3/60
MCA/MOCP	60.8 + 60.8 / 70 + 70	83.4/90	76.5 + 76.5 / 80 + 80	60.8/70
EER (NON-DUCTED/DUCTED)	12.9/12.6	13.7/12.4	12.5/12.7	–
IEER (NON-DUCTED/DUCTED)	22.5/18.6	23.4/19.6	22.4/19	–
COP (NON-DUCTED/DUCTED)	3.81/3.55	3.98/3.51	3.85/3.59	–
WEIGHT (LBS.)	1,452	793	1,586	727
HEIGHT x WIDTH x LENGTH (IN)	67x98x30	67x49x30	67x98x30	67x49x30

VRF SYSTEM - UNIT COMBINATIONS

OUTDOOR UNIT DESIGNATION	ACC-1	ACC-2	ACC-3	ACC-4
INDOOR UNITS SERVED	AC-1 (MER 114)	AC-A (DEPT OFFICE)	AC-3 (ATTIC)	AC-5 (ATTIC)
	AC-D (EXERCISE)	AC-B (CHIEF'S OFFICE)	AC-4 (ATTIC)	AC-6 (ATTIC)
	AC-D (EXERCISE)	AC-D (COPY/SUPPLY)	AC-D (AIR ROOM)	
	AC-D (EXERCISE)	AC-A (CLASSROOM)	AC-C (STAIR 2)	
	AC-A (DISPATCH)	AC-A (CLASSROOM)	AC-C (HALL 224)	
	AC-A (IT/SERVER)	AC-A (DISTRICT OFFICE)		
	AC-C (DAY ROOM)	AC-2 (ATTIC)		
	AC-C (DAY ROOM)			
	AC-C (LOBBY)			

ADD–ALTERNATE

NOTES:
1. OUTDOOR CONDENSERS SERVE MULTIPLE INDOOR UNITS. REFER TO SCHEDULE FOR INDOOR/OUTDOOR UNIT CONFIGURATIONS. REFER TO RISERS AND MANUFACTURER'S INSTALLATION REQUIREMENTS FOR PIPING DETAILS.
2. PROVIDE THE FOLLOWING OPTIONS FOR EACH UNIT:
- 0° LOW AMBIENT CONTROLS.
- 7-DAY PROGRAMMABLE WIRED SYSTEM CONTROLLER WITH ALARM OUTPUT.

2. FIELD SUPPLIED WEATHERPROOF LOCAL DISCONNECT SWITCH AT EACH OUTDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
3. THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE CONTROL WIRING BETWEEN THE OUTDOOR UNIT AND INDOOR UNIT.
4. ACC-4 IS ADD-ALT #1 WORK ONLY.

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Owner: Bedford Village Fire District
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Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
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8 West 38th St. Suite 501, New York, NY
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09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title
MECHANICAL SCHEDULES

Project No.	NSPC0070.00
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Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

STATE OF NEW YORK
PATRICK F. LYNCH
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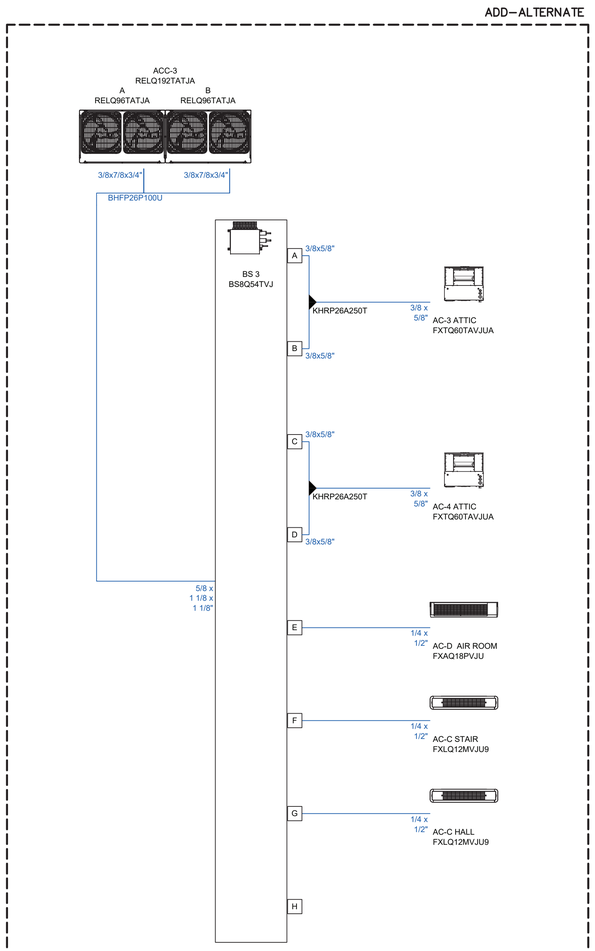
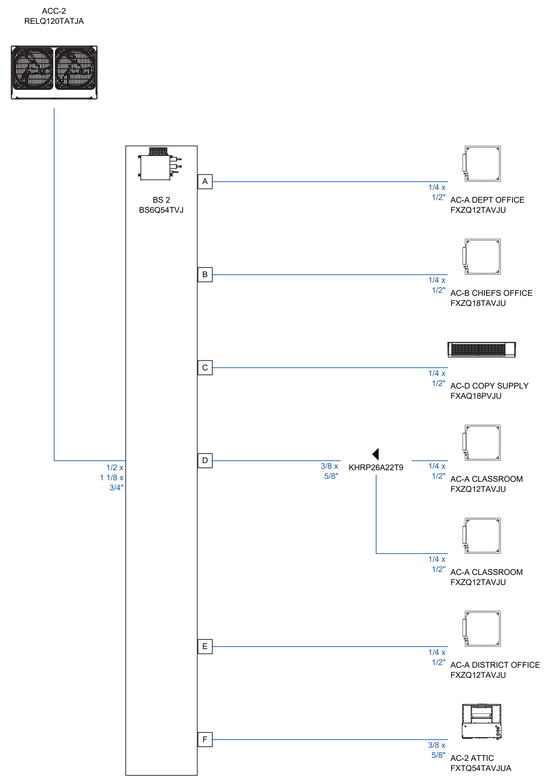
LICENSED PROFESSIONAL ENGINEER
[illegible]

Drawing No.
M6.2

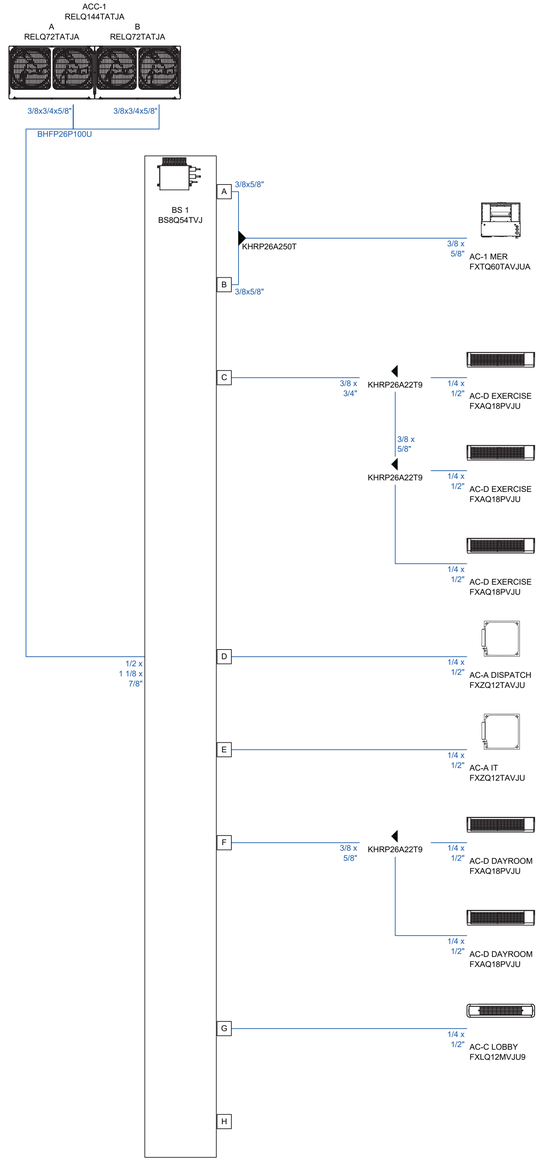
ADD–ALTERNATE



3 ACC–3 VRF PIPING DIAGRAM
SCALE: N/A



2 ACC–2 VRF PIPING DIAGRAM
SCALE: N/A



1 ACC–1 VRF PIPING DIAGRAM
SCALE: N/A

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09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
MECHANICAL RISERS

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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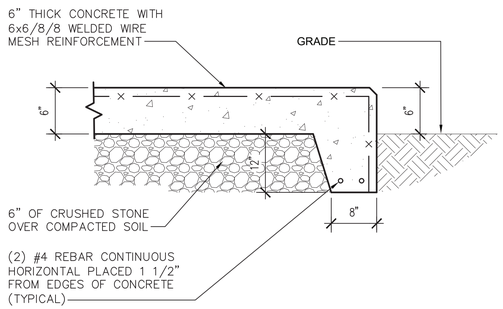
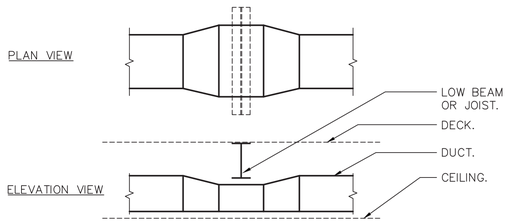
Drawing No.
M6.3

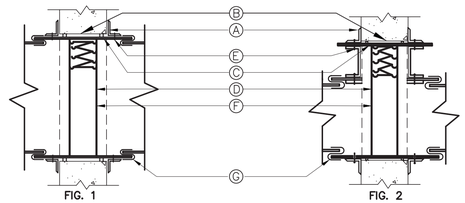


8 CONCRETE EQUIPMENT SUPPORT PAD DETAIL
SCALE: NONE



NOTES:
1.) WHERE INDICATED ON THE PLANS, OR REQUIRED DUE TO FIELD CONDITIONS, THE CONTRACTOR SHALL ROUTE DUCTWORK UNDER LOW BEAMS OR JOISTS IN THE MANNER INDICATED ABOVE.
2.) REDUCE DUCT HEIGHT AT THE CROSSING IN ORDER TO FIT UNDER THE BEAM OR JOIST.
3.) INCREASE DUCT WIDTH AT THE CROSSING IN ORDER TO MAINTAIN THE SAME CROSS SECTIONAL AREA.
4.) USE SMACNA APPROVED TRANSITIONS.

6 DUCT UNDER LOW BEAM DETAIL
SCALE: NONE

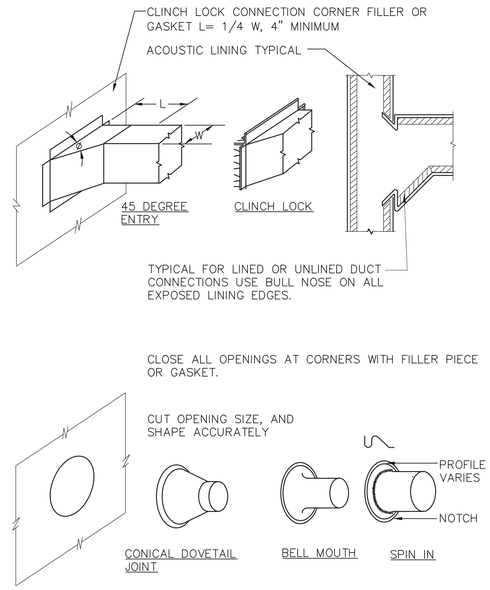


NOTES:

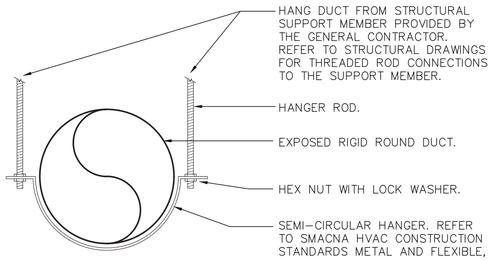
A.) RETAINING ANGLES SHALL BE A MINIMUM 1-1/2"x1-1/2"x16 GAUGE AND MUST OVERLAP THE STRUCTURAL OPENING BY A MINIMUM OF 1".
B.) CLEARENCE BETWEEN SLEEVE AND OPENING SHALL BE 1/8" PER LINEAR FOOT, AS PER SMACNA FIG. 2-1.
C.) STEEL SLEEVE SHALL BE AS PER SMACNA TABLE 2-2.
D.) U.L. APPROVED FIRE DAMPER.
E.) SECURE RETAINING ANGLES TO SLEEVE ONLY AT 8" CENTERS AS PER SMACNA FIG. 2-1.
F.) SECURE DAMPER TO SLEEVE AT 8" CENTERS AS PER SMACNA FIG. 2-1.
G.) CONNECT DUCT TO SLEEVE WITH BREAK-AWAY CONNECTION AS PER SMACNA FIG. 2-2.

1.) FIRE DAMPERS TO BE CONSTRUCTED AND INSTALLED ACCORDING TO NFPA 90A, UL LABELS AND THE LATEST ISSUE OF S.M.A.C.N.A. CHAPTER 2.
2.) CURTAIN TYPE FIRE DAMPERS SHOWN, MULTI-BLADE PIVOTED FIRE DAMPERS MEETING THE ABOVE STANDARD WILL BE ACCEPTABLE.
3.) PROVIDE ACCESS DOORS. INSTALL (1) AD FOR EACH FIRE DAMPER AS PER SMACNA FIG. 6-1.
4.) FOR DUCT 12" OR LESS IN DEPTH, FIRE DAMPER SHALL BE OUT OF THE AIR STREAM. REFER TO FIGURE 2.

4 SHUTTER TYPE FIRE DAMPER AND SLEEVE DETAIL
SCALE: NONE

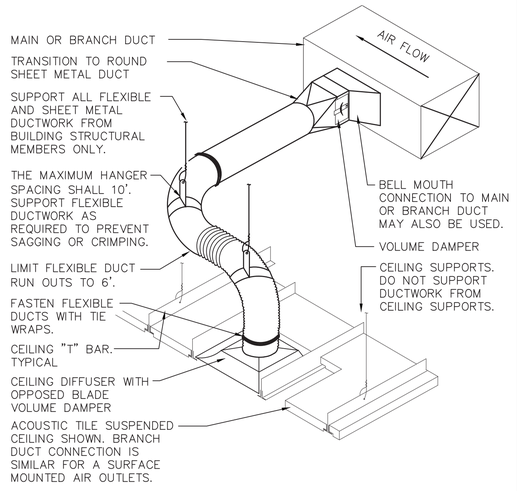


2 DUCT BRANCH CONNECTION DETAIL
SCALE: NONE



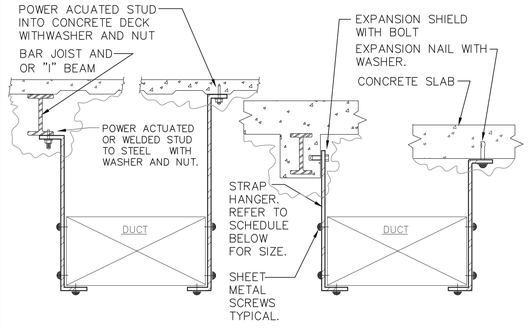
HANGER ROD SCHEDULE		
DUCT SIZE	HANGER DIA	MAXIMUM SPACING
UP TO 2 SQ. FT.	16 GAUGE – 3/8"	8'-0"
2 SQ FT TO 4 SQ FT	11 GAUGE – 1/2"	8'-0"
4 SQ FT TO 10 SQ FT	11 GAUGE – 1/2"	6'-0"
OVER 10 SQ FT.	11 GAUGE – 1/2"	4'-0"

7 HANGER DETAIL FOR EXPOSED ROUND DUCTWORK
SCALE: NONE



NOTES:
1.) THIS BRANCH DUCT ARRANGEMENT IS SIMILAR FOR PLENUM SLOT DIFFUSERS.

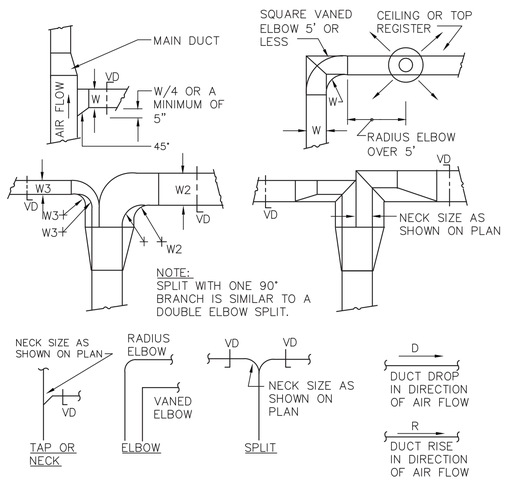
5 FLEXIBLE DUCT CONNECTION DETAIL
SCALE: NONE



NOTES:
1.) FOR DUCTS OVER 49" WIDE, THE STRAP HANGER SHALL BE TURNED UNDER THE BOTTOM OF THE DUCT.
2.) WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.
3.) HANGER INSTALLATION IN PRECAST CONCRETE PLANKS SHALL INCLUDE ANCHORS AND FIREPROOFING METHOD APPROVED BY THE PLANK MANUFACTURER.

HANGER STRAP SCHEDULE		
DUCT SIZE	HANGER SIZE	MAXIMUM SPACING
UP TO 2 SQ.FT.	1" X 1/16"	8'-0"
2 SQ.FT. TO 4 SQ.FT.	1" X 1/8"	8'-0"
4 SQ.FT. TO 10 SQ.FT.	1" X 1/8"	6'-0"
OVER 10 SQ.FT.	1" X 1/8"	4'-0"

3 DUCT HANGER DETAIL
SCALE: NONE



NOTES:
1.) SINGLE LINE REPRESENTATIONS REFER TO DOUBLE LINE DETAILS.
2.) USE RADIUS OR SQUARE VANED BENDS FOR BOTH ELBOWS AND SPLITS AS DETERMINED BY SPACE LIMITATIONS, AND THE DISTANCE FROM AIR OUTLETS.
3.) ALL SQUARE ELBOWS SHALL HAVE FACTORY TURNING VANES, AND MAINTAIN A CONSTANT WIDTH.
4.) WHERE DUCTS SPLIT, THE SOLID LINE REPRESENTATION IS PREFERRED, UNLESS PRECLUDED BY SPACE, OR OTHERWISE INDICATED.
5.) USE ELBOW SPLIT FOR BRANCH CONNECTIONS ONLY WHERE NECK SIZE IS GIVEN.

1 DUCT BRANCH TAKE-OFF DETAIL
SCALE: NONE

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Project Title
Bedford Fire Headquarters
550 Old Post Road
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Drawing Title
MECHANICAL DETAILS 1 OF 3

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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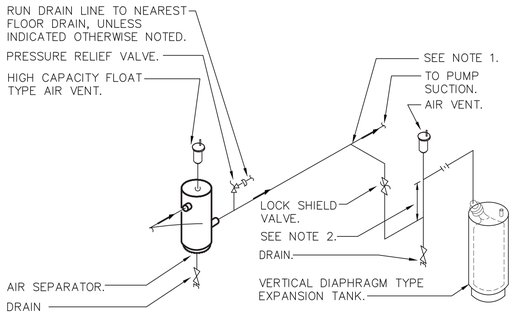
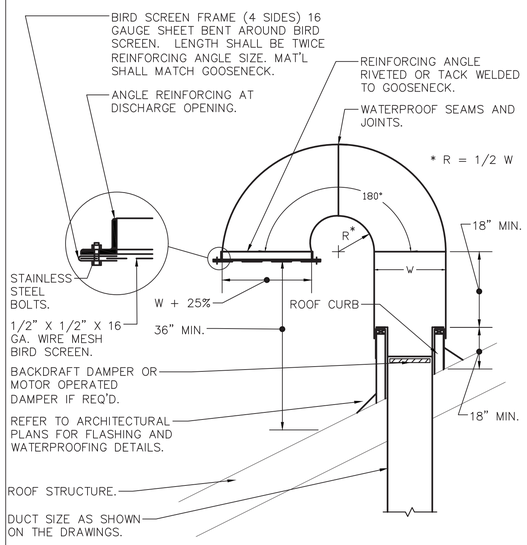
Drawing No.
M7.1



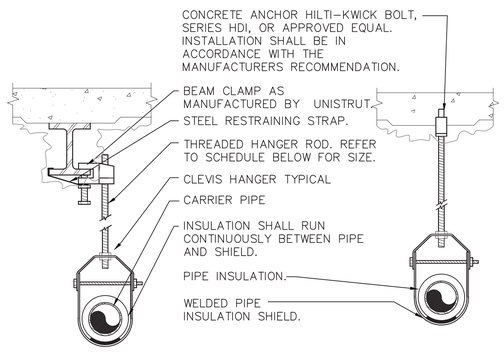
NOTES:
1.) CONNECT TO SIDE OF MAIN TO PREVENT AIR OR DEBRIS FROM ENTERING PIPE TO TANK, TOP OR BOTTOM CONNECTION NOT PERMITTED.
2.) PROVIDE 12" MINIMUM DROP ANTI-THERMOSYPHON LOOP TO PREVENT GRAVITY HEATING OF TANK.
3.) PROVIDE STRAINER IN AIR SEPARATOR WHEN INDICATED IN THE EXPANSION TANK EQUIPMENT NOTE.
4.) FOR HOT WATER SYSTEMS 2" AND SMALLER, USE AN IN-LINE AIR PURGER INSTEAD OF AN AIR SEPARATOR.
5.) SET THE PRESSURE REDUCING VALVE SO THAT THE PRESSURE AT HIGHEST POINT IN THE SYSTEM IS 4 PSIG.

8 EXPANSION TANK CONNECTION SCHEMATIC
SCALE: NONE



NOTES:
1.) GOOSENECK SHALL BE CONSTRUCTED OF THE SAME MATERIAL AND PRESSURE CLASSIFICATION AS SYSTEM DUCTWORK.

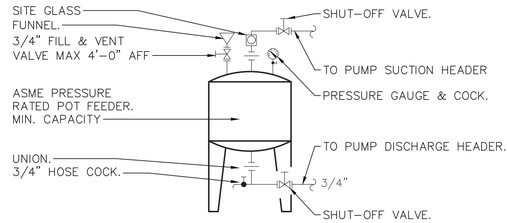
6 GOOSENECK DETAIL
SCALE: NONE



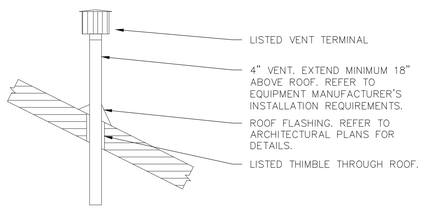
PIPE HANGER SCHEDULE						
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"	
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"	

NOTES:
1.) CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 100SH ON ALL PIPES LARGER THAN 1".
2.) FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
3.) FOR NON-INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
4.) ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
5.) FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.
6.) WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.
7.) HANGER INSTALLATION IN PRECAST CONCRETE PLANKS SHALL INCLUDE ANCHORS AND FIREPROOFING METHOD APPROVED BY THE PLANK MANUFACTURER.

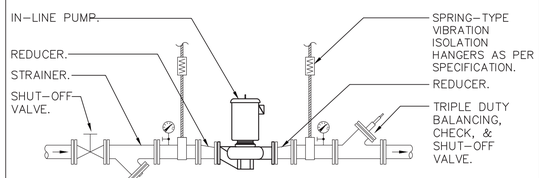
4 PIPE HANGER DETAIL
SCALE: NONE



2 CHEMICAL POT FEEDER PIPING SCHEMATIC
SCALE: NONE

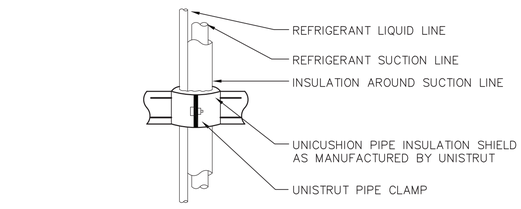


7 ROOF VENT PENETRAION DETAIL
SCALE: NONE



NOTES:
1.) HANG IN-LINE PUMP FROM BUILDING STRUCTURE WITH VIBRATION ISOLATORS.
2.) REFER TO PLANS FOR PIPE SIZES.

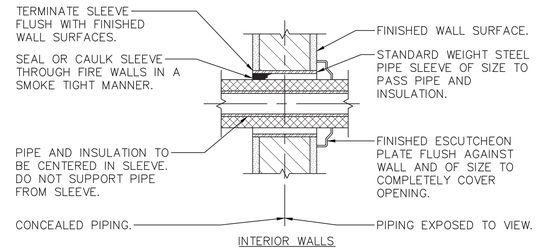
5 IN-LINE PUMP DETAIL
SCALE: NONE



NOTES:
1.) LIQUID AND SUCTION LINES MAY BE ROUTED TOGETHER FOR CONVENIENCE, BUT MUST BE COMPLETELY INSULATED FROM EACH OTHER. DO NOT SOLDER LIQUID AND SUCTION LINES TOGETHER. DO NOT ALLOW METAL TO METAL CONTACT.
2.) LINES SHOULD BE INSTALLED WITH AS FEW BENDS AS POSSIBLE, ALLOWING SERVICE ACCESS TO THE INDOOR COIL.
3.) USE LONG RADIUS ELBOWS WHEREVER POSSIBLE, EXCEPT IN OIL RETURN TRAPS, WHERE SHORT RADIUS ELBOWS SHOULD BE USED.
4.) SLOPE HORIZONTAL SUCTION LINES 1 INCH EVERY 20 FEET TOWARD THE OUTDOOR UNIT.
5.) HANGER INSTALLATION IN PRECAST CONCRETE PLANKS SHALL INCLUDE ANCHORS AND FIREPROOFING METHOD APPROVED BY THE PLANK MANUFACTURER.

3 REFRIGERANT PIPE SUPPORT DETAIL
SCALE: NONE

(NKGD0068.01)



INTERIOR WALLS

1 PIPE WALL SLEEVE DETAIL FOR INTERIOR WALLS
SCALE: NONE

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Drawing Title
MECHANICAL DETAILS 2 OF 3

Project No.	NSPC0070.00
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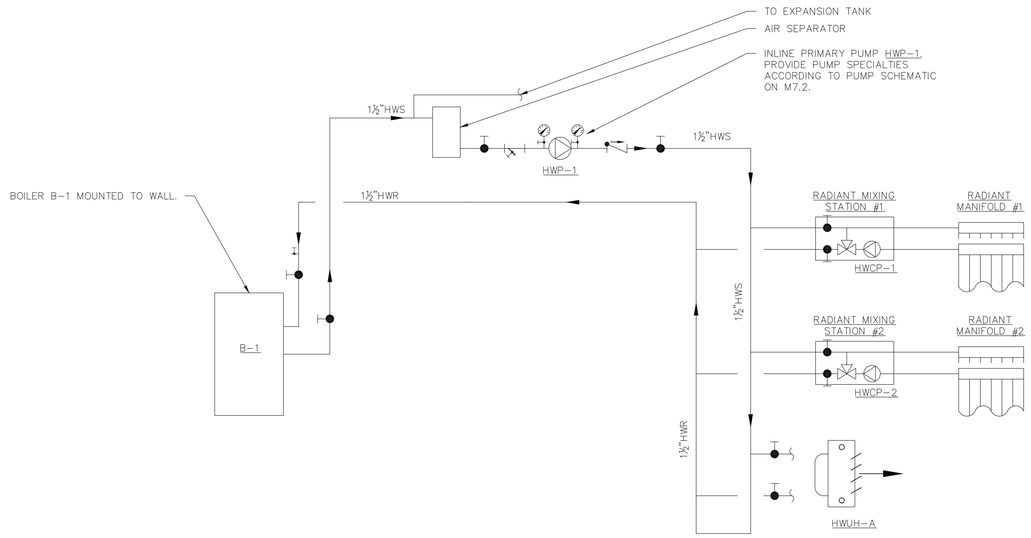
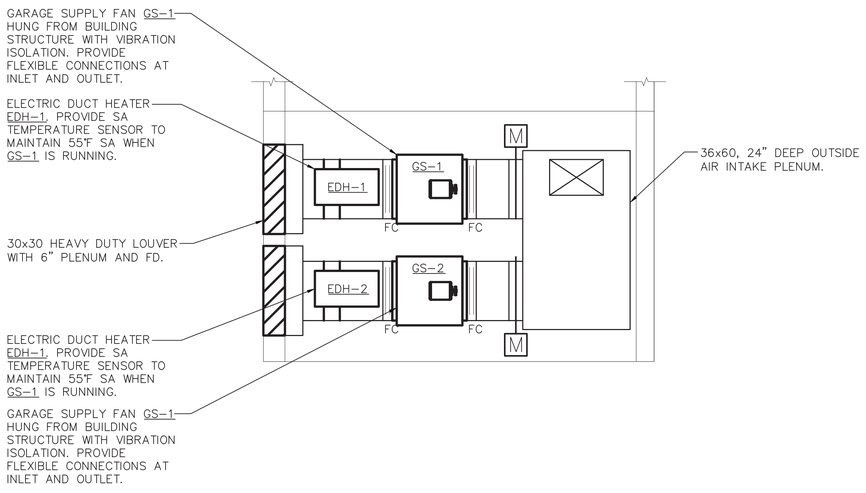
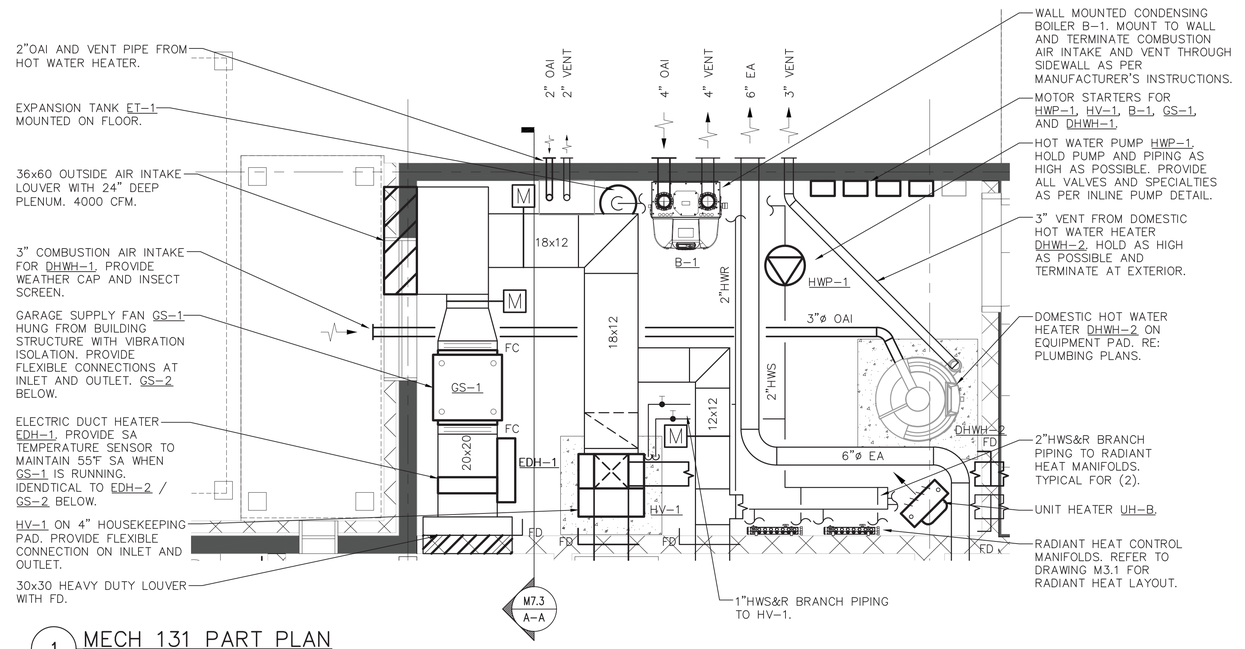
Drawing No.
M7.2



2 HOT WATER SYSTEM RISER
SCALE: NONE



3 MECH 131 SECTION A-A
SCALE: 1/2" = 1'-0"



1 MECH 131 PART PLAN
SCALE: 1/2" = 1'-0"

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Drawing No.
M7.3

SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
———	–	CONDUIT AND WIRING
– – – – –	–	CONDUIT & WIRING TO BE REMOVED UON
—UG–E—	–	BURIED POWER CONDUIT
—UG–C—	–	BURIED COMMUNICATION CONDUIT
—OH—	–	OVERHEAD CONDUCTORS
	–	HANDHOLE
	–	HOMERUN TO PANEL, ARROWS INDICATE # 1P
	–	MULTI–POLE HOMERUN
	–	ELECTRICAL EQUIPMENT AS INDICATED
	–	ELECTRICAL EQUIPMENT TO BE REMOVED UON
M	–	ELECTRIC METER
J , J	–	JUNCTION BOX
	–	FUSED DISCONNECT SWITCH
	–	UNFUSED DISCONNECT SWITCH
	–	COMBINATION MOTOR STARTER/FUSED DISC.
	–	MOTOR STARTER
25	–	MOTOR, NUMBER INDICATES HORSEPOWER (HP)
	–	BATTERY PACK EMERGENCY LIGHT FIXTURE
	–	EXIT LIGHT, FACES–SHADED, CHEVRON–ARROW
S_x	–	LOW VOLTAGE SINGLE POLE SWITCH (x – INDICATES FIXTURE BEING CONTROLLED)
S_x^3	–	LOW VOLTAGE THREE WAY SWITCH (x – INDICATES FIXTURE BEING CONTROLLED)
S_x^{DIM}	–	LOW VOLTAGE DIMMER SWITCH (x – INDICATES FIXTURE BEING CONTROLLED)
S_M	–	MOTOR RATED TOGGLE SWITCH
	–	WALL MTD OCCUPANCY/MOTION SENSOR
OC	–	CEILING MOUNTED OCCUPANCY SENSOR
U, TV	–	DUPLEX RECEPTACLE. (U – INDICATES WITH USB, TV – INDICATES FOR TV)
	–	DOUBLE DUPLEX RECEPTACLE
	–	SPECIAL RECEPTACLE
	–	TELEPHONE OUTLET
x	–	DATA OUTLET (x – INDICATES # OF JACKS, 1 JACK UON)
	–	COMBINATION TELEPHONE/DATA OUTLET
	–	COMBINATION DATA & TV OUTLET
	–	TV OUTLET
PA	–	WALL MOUNTED PUBLIC ADDRESS SPEAKER
PH	–	PUBLIC ADDRESS TELEPHONE
SP	–	CEILING MOUNTED PUBLIC ADDRESS SPEAKER
	–	REMOTE RESCUE STATION
TC	–	TIME CLOCK
CR	–	CARD READER
DA	–	DOOR ALARM
ES	–	ELECTRIC DOOR STRIKE
KP	–	KEY PAD
PTZ	–	SECURITY CAMERA PTZ – PAN, TILT, ZOOM
	–	PUSHBUTTON
HD	–	ELECTRIC HAND DRYER
EPO	EPO	EMERGENCY POWER OFF SWITCH
RASP	RASP	RESCUE ASSIST. SYSTEM MASTER STATION
	CB	CIRCUIT BREAKER
	–	ENCLOSED CIRCUIT BREAKER
200AS 150AF	–	FUSED SWITCH
G	GEN	GENERATOR

SYMBOL	ABBREVIATION	DESCRIPTION
	–	GENERATOR RECEPTACLE
OR	GND	GROUND AS PER LOCAL CODE
	–	GROUND BAR
OR	–	GROUND ROD
	–	TRANSFER SWITCH
OR T	XFMR	TRANSFORMER
	CT	CURRENT TRANSFORMER
	–	UTILITY POLE
WM	WM	WATER MAIN
B	–	BOILER BREAK GLASS STATION
	NC	NORMALLY CLOSED CONTACTS
	NO	NORMALLY OPEN CONTACTS
	CV	CONTROL VALVE
LD	–	LEAK DETECTOR
M	MD	MOTORIZED DAMPER
	SD OR CFSD	SMOKE DAMPER
UH	UH	UNIT HEATER
VAV	VAV	VARIABLE AIR VOLUME BOX
	A	AMPERE(S)
	AC	AIR CONDITIONER
	ACC	AIR CONDITIONER CONDENSER
	AFF	ABOVE FINISHED FLOOR
	AF	AMPERAGE OF FUSE
	AGL	ABOVE GRADE LEVEL
	AHU	AIR HANDLING UNIT
	AL	ALUMINIUM
	ARC	ARC FAULT INTERRUPTER
	AS	AMPERAGE OF SWITCH
	ATS	AUTOMATIC TRANSFER SWITCH
	AWG	AMERICAN WIRE GAUGE
	BCW	BARE COPPER WIRE
	BLDG	BUILDING
	BMS	BUILDING MANAGEMENT SYSTEM
	C	CONDUIT
	CD	CANDELA
	CKT	CIRCUIT
	CLG	CEILING
	COL	COLUMN
	CU	COPPER
	CUH	CABINET UNIT HEATER
	DEM.	DEMOLISH AND REMOVE
	DISC	DISCONNECT
	DIM	DIMMER
	DWG	DRAWING
	ELEV	ELEVATOR
	EMT	ELECTRICAL METALLIC TUBING
	EM	EMERGENCY
	EX.	EXISTING TO REMAIN
	FLR	FLOOR
	FBO	FURNISHED BY OTHERS
	FC	FAN COIL UNIT
	GEN	GENERATOR
	GFI	GROUND FAULT INTERRUPTER
	HP	HORSEPOWER
	HVAC	HEATING VENTILATION AIR CONDITIONING
	IG	ISOLATED GROUND
	IMC	INTERMEDIATE METAL CONDUIT
	KVA	KILO–VOLT–AMPERE

SYMBOL	ABBREVIATION	DESCRIPTION
	KW	KILO–WATT
	LTG	LIGHTING
	MAX	MAXIMUM
	MCB	MAIN CIRCUIT BREAKER
	MIN	MINIMUM
	MLO	MAIN LUG ONLY
	MTS	MANUAL TRANSFER SWITCH
	NIC	NOT IN CONTRACT
	NL	NIGHT LIGHT
	NTS	NOT TO SCALE
	OH	OVERHEAD
	P	POLE
	PBO	PROVIDED BY OTHERS
	PNL	PANEL
	PVC	POLY VINYL CHLORIDE
	RECP	RECEPTACLE
	REL.	REMOVE AND RELOCATE
	RGS	RIGID GALVANIZED STEEL
	RTU	ROOF TOP UNIT
	SCH	SCHEDULE
	SPD	SURGE PROTECTION DEVICE
	SW	SWITCH(ES)
	TELCO	TELEPHONE COMPANY
	TYP	TYPICAL
	UG	UNDERGROUND
	UON	UNLESS OTHERWISE NOTED
	USB	UNIVERSAL SERIAL BUS
	UV	UNIT VENTILATOR
	VIF	VERIFY IN FIELD
	V	VOLT(S)
	VSD	VARIABLE SPEED DRIVE
	WG	WIRE GUARD
	WH	WATER HEATER
	WP	WEATHERPROOF

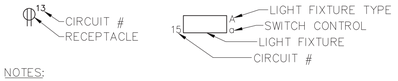
NOTES:
1. ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE APPLICABLE FOR THIS PROJECT.
2. SEE LIGHTING FIXTURE SCHEDULE FOR LIGHT FIXTURE SYMBOLS.

TYPICAL BRANCH CIRCUIT WIRING LEGEND

2–#12 & 1–#12 GND (1–1P–20A OR 1–1P–15A CB)

3–#12 & 1–#12 GND (3P–20A OR 3P–15A CB)

2–#12 & 1–#12 GND (2P–20A OR 2P–15A CB)



NOTES:
1. EACH 120V AND 277V CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR. SHARED NEUTRAL HOMERUNS ARE NOT PERMITTED.
2. CONDUCTORS SHALL BE INCREASED FOR VOLTAGE DROP AND DERATING AS PER APPLICABLE ELECTRICAL CODE. FOR CIRCUITS THAT ARE BETWEEN 100' AND 150' IN LENGTH, PHASE AND NEUTRAL CONDUCTORS SHALL BE #10 AWG. FOR CIRCUITS THAT ARE BETWEEN 150' AND 225' IN LENGTH, PHASE AND NEUTRAL CONDUCTORS SHALL BE #8 AWG. FOR LENGTHS GREATER THAN 225' IN LENGTH, VERIFY CONDUCTOR SIZES WITH ENGINEER.

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Drawing Title
ELECTRICAL SYMBOLS, ABBREVIATIONS AND NOTES

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

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Drawing No.
E0.1

GENERAL NOTES

1. ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED (UON) EXISTING TO REMAIN (EX.).

2. THE DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATIONS AND DETAILS OF THE WORK TO BE INSTALLED.

3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING ALL FEES ASSOCIATED WITH THIS WORK INCLUDING FILING WITH THE UTILITY COMPANY (AS REQUIRED), AND WITH LOCAL AUTHORITY HAVING JURISDICTION.

4. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO HIRE A THIRD PARTY ELECTRICAL INSPECTION AGENCY TO PROVIDE UL INSPECTIONS AND SUBMIT A CERTIFICATE OF INSPECTION PRIOR TO FINAL REQUEST FOR PAYMENT.

5. ALL WORK INVOLVING THE ELECTRIC SERVICE SHALL BE COORDINATED AND APPROVED BY THE UTILITY COMPANY, NYSEG.

6. ALL CONDUCTORS SHALL BE COPPER UON "ON DRAWINGS".

7. ELECTRONIC FILES OF THE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS ARE AVAILABLE TO THE CONTRACTOR. THE ENGINEER MAY GRANT THE CONTRACTOR A LIMITED LICENSE TO MAKE A DERIVATIVE WORK OF THE DATABASE FOR THE PURPOSE OF SHOP DRAWINGS, SUBMITTALS AND AS-BUILT DRAWINGS. UPON REQUEST, THE ENGINEER SHALL PROVIDE A RELEASE FORM THAT MUST BE SIGNED AND RETURNED BY THE CONTRACTOR PRIOR TO RELEASE OF THE ELECTRONIC FILES.

8. CIRCUIT NUMBERS ARE FOR INFORMATION PURPOSES ONLY. ACTUAL CIRCUIT NUMBERS SHALL BE DETERMINED IN THE FIELD.

9. CORE DRILLING OR TRENCHING THROUGH AN EXISTING FLOOR SLAB, WHEN REQUIRED, SHALL BE COORDINATED WITH THE OWNER. FLOOR SLABS SHALL BE RADAR SCANNED PRIOR TO CORE DRILLING OR TRENCHING. ALL WORK, INCLUDING CORE DRILLING, RADAR SCAN, INSTALLATION OF FIRE STOPPING, & CONDUIT/CABLE INSTALLATION SHALL BE PERFORMED DURING NON-BUSINESS HOURS AND INCLUDED IN BASE BID. USE EXTREME CAUTION DURING ANY CUTTING OPERATION TO AVOID DAMAGE TO EXISTING EQUIPMENT/SYSTEMS. ANY ITEMS DAMAGED AS A RESULT OF CORE DRILLING SHALL BE REPAIRED AT NO COST TO THE CLIENT. ALL CORES SHALL BE FIRE SEALED.

10. FOR EACH WALL MOUNTED COMMUNICATIONS OUTLET, SPEAKER, SECURITY CAMERA AND CARD READER INDICATED, PROVIDE A 1900 JUNCTION BOX WITH AN EXTENDER COLLAR AND 1 INCH CONDUIT WITH DRAGLINE 6 INCHES ABOVE ACCESSIBLE CEILING FOR INSTALLATION OF CABLE. PROVIDE CONDUIT FOR CABLING IN ALL EXPOSED AREAS.

11. COMMUNICATION WIRING SHALL BE COLOR CODED AS FOLLOWS:
    11.1. DATA: BLUE
    11.2. FIRE-ALARM: RED
    11.3. SECURITY CAMERAS: YELLOW
    11.4. DOOR ACCESS: GREEN

12. WHERE GFI RECEPTACLES ARE CIRCUITED WITH GENERAL CONVENIENCE RECEPTACLES, THE GFI RECEPTACLE SHALL BE THE LAST DEVICE ON THE CIRCUIT.

13. INSTALL CONDUIT EXPANSION FITTINGS AT ALL LOCATIONS WHERE CONDUITS CROSS BUILDING OR STRUCTURE EXPANSION JOINTS.

14. CEILING MOUNTED RECEPTACLES SHALL BE MOUNTED FLUSH TO CEILING.

15. UNLESS OTHERWISE NOTED, DISCONNECT SWITCHES, STARTERS, HOAS AND MOTOR RATED TOGGLE SWITCHES FOR MECHANICAL PUMPS, CABINET AND UNIT HEATERS, RETURN FANS, ROOF FANS, VAV BOXES, COMPRESSORS, FAN COIL UNITS, AIR HANDLERS AND CONDENSERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE ALL WORK WITH THE MECHANICAL CONTRACTOR.

16. DISCONNECT SWITCHES FOR MOTORIZED DAMPERS, CFSD/SD AND VAV BOXES SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR. SWITCHES NOT SHOWN ON PLANS.

17. INCLUDE IN BASE BID (4) 1P-20A CIRCUITS ON EACH LEVEL (150' LENGTH EACH) FOR HVAC SYSTEM CONTROL PANELS. EXACT LOCATION OF CONTROL PANELS SHALL BE COORDINATED WITH DIVISION 23 IN THE FIELD. CIRCUITS SHALL ORIGINATE FROM THE FOLLOWING PANELBOARDS:

    FIRST FLOOR – RP1B
    SECOND FLOOR – RP2B

18. ALL SMOKE, CO & COMBINATION SMOKE/CO ALARMS TO BE 120V, MULTI STATION HEADS WITH NON-REMOVABLE, NON-REPLACEABLE, 10 YEAR MINIMUM BATTERY BACKUP, U.O.N. PROVIDE WIRING AS REQUIRED BETWEEN HEADS. ALL HEADS WITHIN DWELLING UNIT SHALL BE CONNECTED TOGETHER.

19. ALL 120V, 15 AND 20 AMP CIRCUITS FEEDING LOADS IN KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY, COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER CIRCUIT BREAKERS.

20. EACH DUPLEX AND QUAD RECEPTACLE SHALL BE LABELED WITH THE CIRCUIT NUMBER WHICH IT SERVES. ALPHANUMERICS TO BE 1/8" HIGH AND BLACK ON CLEAR BACKGROUND. LABELS SHALL BE SELF ADHESIVE. IDENTIFY ASSOCIATED PANEL AND CIRCUIT NUMBER.

21. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING, PAINTING, AND FINAL RESTORATION REQUIRED TO FACILITATE THE DEMOLITION AND INSTALLATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO PANELBOARDS, CONDUITS, WIRING, DEVICES, FIXTURES, ETC. INCLUDING ABOVE CEILINGS. CONTRACTOR TO REMOVE AND REPLACE CEILINGS, AND OPEN AND PATCH WALLS, AS REQUIRED TO EXECUTE THE ELECTRICAL WORK.

22. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO HIRE AND PAY ALL FEES FOR THE UL FIELD EVALUATION SERVICE TO RE-INSPECT AND RE-CERTIFY THE SWITCHBOARD IN RELATION TO MODIFICATIONS REQUIRED WHEN TAPPING THE BUS. CONTRACTOR SHALL SCHEDULE WITH UL PRIOR TO START OF WORK. UL SHALL BE PRESENT WHILE TAPPING OF THE SWITCHBOARD IS EXECUTED. (TEL:1-877-ULHELPS)

23. ALL ELECTRICAL EQUIPMENT INCLUDING SWITCHBOARD, PANELBOARDS, DISCONNECT SWITCHES ETC. SHALL BE MANUFACTURED BY SQAURE D.

24. PROVIDE SURGE PROTECTORS FOR ALL MAIN SWITCHBOARDS/PANELS AND ALL PANELS CONNECTED TO THE EMERGENCY GENERATOR SYSTEM.

DEFINITION OF TERMS

1. WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "CLIENT" IS USED, IT MUST BE UNDERSTOOD THAT "BEDFORD VILLAGE FIRE DISTRICT" IS INTENDED.

2. WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "ARCHITECT" IS USED, IT MUST BE UNDERSTOOD THAT "SULLIVAN ARCHITECTURE, P.C." IS INTENDED.

3. WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "ENGINEER" IS USED, IT MUST BE UNDERSTOOD THAT "OLA CONSULTING ENGINEERS" IS INTENDED.

4. WHEREVER IN THE CONTRACT DOCUMENTS THE WORDS "ELECTRICAL UTILITY" OR "POWER COMPANY" ARE USED, IT MUST BE UNDERSTOOD THAT "NYSEG" IS INTENDED.

5. WHEREVER IN THE CONTRACT DOCUMENTS THE WORDS "TELEPHONE UTILITY" OR "TELCO" ARE USED, IT MUST BE UNDERSTOOD THAT "VERIZON FIOS" IS INTENDED.

6. WHEREVER IN THE CONTRACT DOCUMENTS THE WORDS "FIRE ALARM SYSTEM" OR "FIRE ALARM VENDOR" ARE USED, IT MUST BE UNDERSTOOD THAT "OPEN SYSTEM" IS INTENDED.

7. "WORK" MUST BE DEEMED TO CONSIST OF ALL LABOR AND OPERATIONS, TRANSPORTATION, HOISTING, MATERIALS, TOOLS, EQUIPMENT, SERVICES, INSPECTIONS, INVESTIGATIONS, COORDINATION AND SUPERVISION REQUIRED AND / OR REASONABLY NECESSARY TO PRODUCE THE CONSTRUCTION REQUIRED BY THE CONTRACT DOCUMENTS.

8. "FURNISH" MEANS THE DESIGN, FABRICATION, PURCHASE AND DELIVERY TO THE JOB SITE.

9. "INSTALL OR INSTALLATION" MEANS THE ACT OF PHYSICALLY PLACING, APPLYING, SETTING, ERECTING, ANCHORING, SECURING, ETC., CONSTRUCTION MATERIALS, EQUIPMENT, FURNISHINGS, APPLIANCES, AND SIMILAR ITEMS SPECIFIED AND FURNISHED AT THE JOB SITE. INSTALLATION OF SPECIFIED ITEMS MUST BE COMPLETE IN ALL RESPECTS.

10. "PROVIDE" MEANS TO FURNISH AND INSTALL CONSTRUCTION MATERIAL, EQUIPMENT, ETC. AS DEFINED ABOVE.

11. THE FOLLOWING ARE DEFINITIONS OF SHOP DRAWING STAMP ACTIONS:

    A. "NO EXCEPTIONS TAKEN" MEANS THAT THE SHOP DRAWING IS CORRECT AS TO PERFORMANCE, CAPACITY, ETC. AND SUBSTANTIAL CONFORMANCE TO THE CONTRACT DRAWINGS AND SPECIFICATIONS. FABRICATION AND/OR PURCHASE MAY COMMENCE.

    B. "MAKE CORRECTIONS NOTED" MEANS THAT THE SHOP DRAWING IS CORRECT AS TO PERFORMANCE, CAPACITY, ETC. AND SUBSTANTIAL CONFORMANCE TO THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS, SUBJECT TO AND IN COMPLIANCE WITH THE ANNOTATIONS AND/OR CORRECTIONS INDICATED ON THE SHOP DRAWING. FABRICATION AND/OR PURCHASE MAY COMMENCE.

    C. "AMEND AND RESUBMIT" MEANS THAT THE COMMENTS AND/OR CORRECTION ARE SO EXTENSIVE AND IMPORTANT THAT THE REVIEWER WANTS TO SEE HOW THE COMMENTS AND/OR CORRECTIONS ARE RESOLVED PRIOR TO RELEASE FOR FABRICATION AND/OR PURCHASE. FABRICATIONS AND/OR PURCHASE MAY NOT COMMENCE.

    D. "REJECTED" MEANS THAT THE SHOP DRAWING DOES NOT COMPLY OR CONFORM TO THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS. FABRICATION AND/OR PURCHASE MAY NOT COMMENCE.

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34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
50 Broadway, Hawthorne, NY 10532
8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
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05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title

Bedford
Fire
Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

ELECTRICAL GENERAL NOTES AND DEFINITION OF TERMS

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/WRP
Checked by	JF/RS

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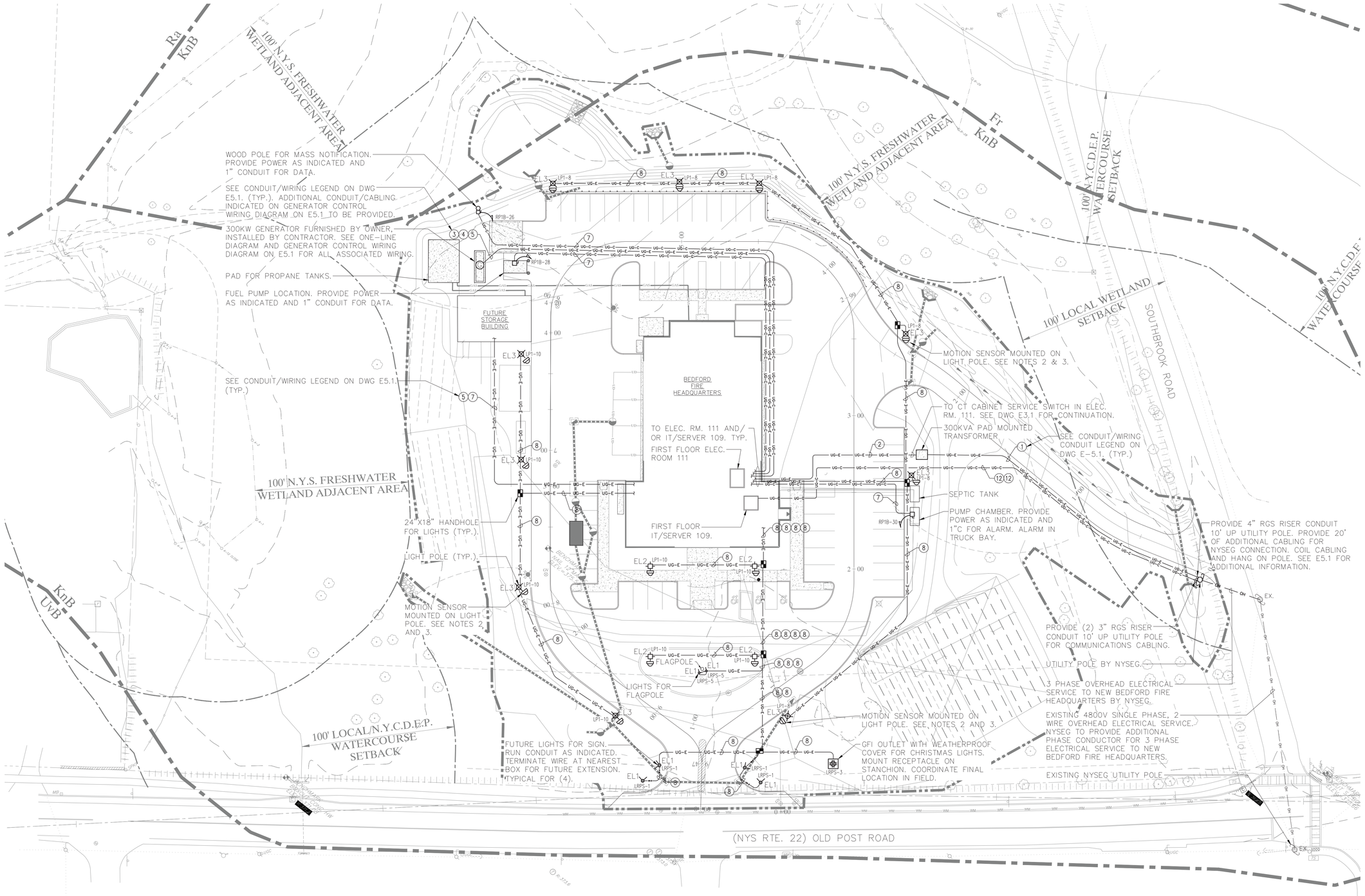
Drawing No.

E0.2



1 ELECTRICAL SITE PLAN – POWER, COMMUNICATIONS & LIGHTING

NORTH

0 15 30 60

SCALE: 1" = 30'

NOTES:

1. REFER TO DWG E6.1 FOR LIGHTING FIXTURE SCHEDULE.
2. MOTION SENSORS ON POLES SHALL BE nLIGHT TYPE RSBOR-10-BK-G2. SENSORS SHALL DIM FIXTURES DIRECTLY THROUGH DIMMING WIRES TO DRIVERS. SENSORS SHALL COMMUNICATE WIRELESSLY TO nLIGHT ECLIPSE.
3. PROVIDE nLIGHT ECLIPSE CONTROLLER nECY-MVOLT-ENC-AIR IN ELECTRICAL ROOM TO ALLOW FOR PROGRAMMING OF LIGHT POLES TO DIM AND TURN OFF AS DIRECTED BY THE FIRE DEPARTMENT. THE FIXTURE SHALL RETURN TO FULL BRIGHTNESS WITH ACTIVATION OF ANY SENSOR ON ANY POLE. AIR ANTENNAE SHALL BE MOUNTED ON EXTERIOR OF FIREHOUSE WALL IN DIRECT SIGHT OF A LIGHT POLE WITH A SENSOR.

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Project Title

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Drawing Title

ELECTRICAL SITE PLAN - POWER, COMMUNICATIONS & LIGHTING

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS SHOWN
Drawing by	JL/WRP
Checked by	JF/RS

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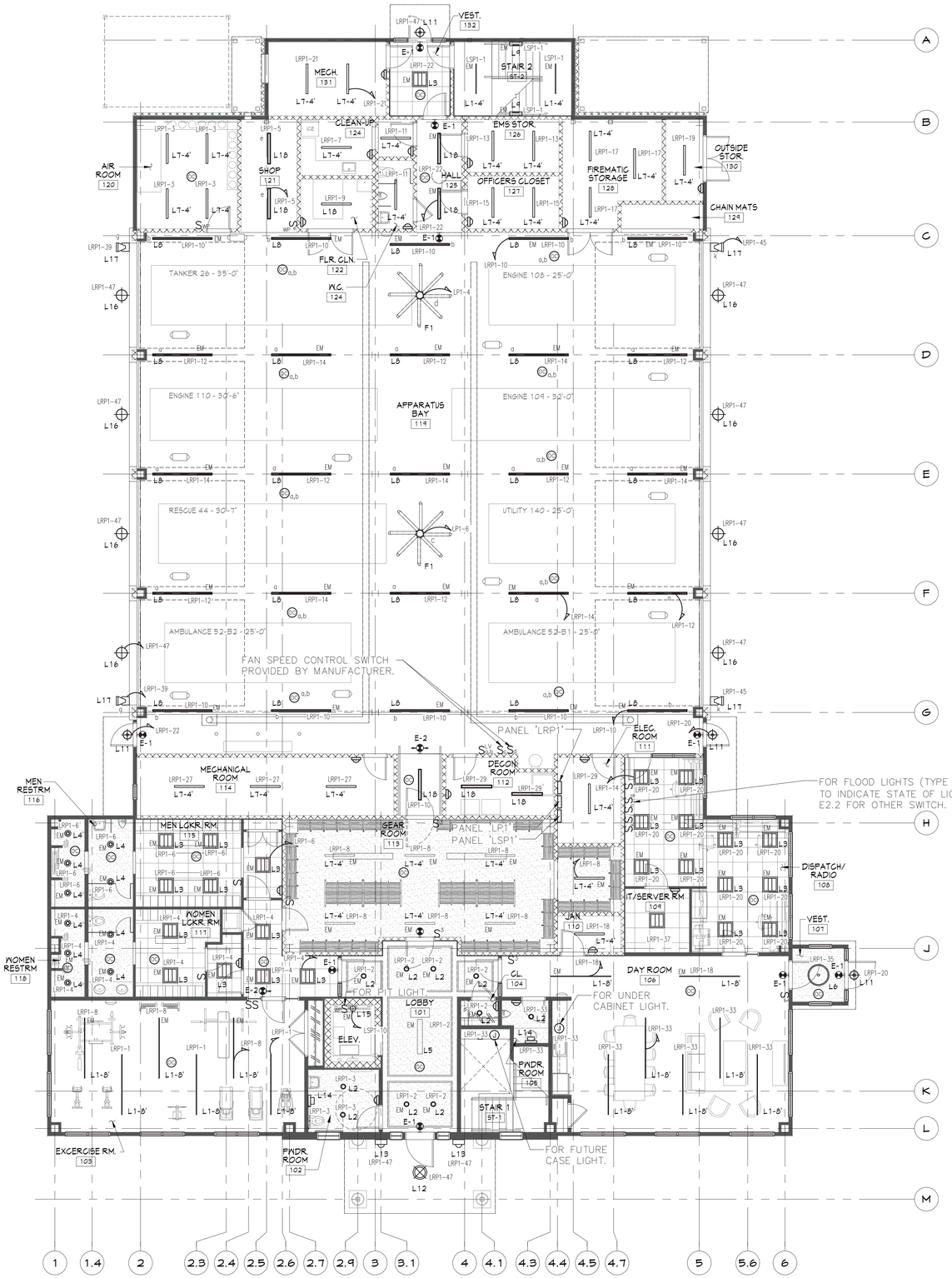
Drawing No. E1.1



1 ELECTRICAL FIRST FLOOR PLAN – LIGHTING
SCALE: 1/8" = 1'-0"

NORTH

NOTES:

1. ALL LIGHTING CIRCUITS WILL BE CONTROLLED THROUGH LIGHTING RELAY PANELS.
2. ALL ZONES/ROOMS WITH OCCUPANCY SENSORS WILL BE MANUAL ON.
3. ALL ZONES WILL BE TIME BASED AND BE PROGRAMMED TO BE IN OCCUPANCY MODE DURING TIMES DESIGNED BY FIRE DEPT CHIEF.
4. STAIR LIGHTING WILL BE ON AT ALL TIMES AND DIMMED WHEN NOT OCCUPIED.
5. PROVIDE NORMAL POWER SENSING CIRCUIT FOR ALL EMERGENCY LIGHTING CONTROL PANELS AND ALL STAIR LIGHTING FIXTURES.
6. REFER TO WIRING DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING LIGHTING CONTROLS.

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Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL FIRST FLOOR PLAN - LIGHTING

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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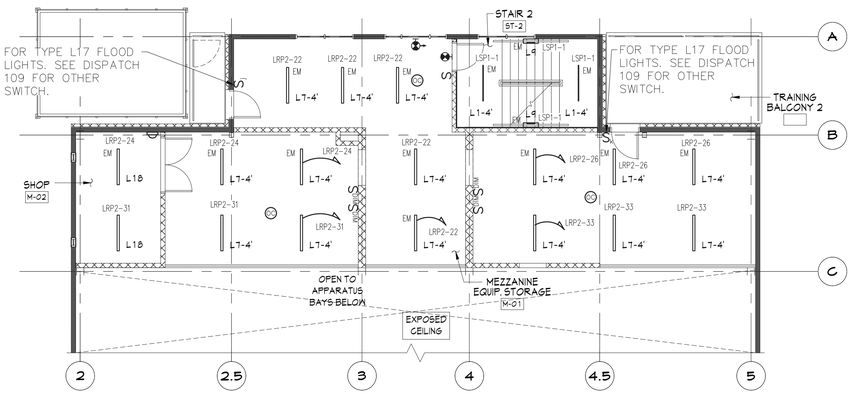
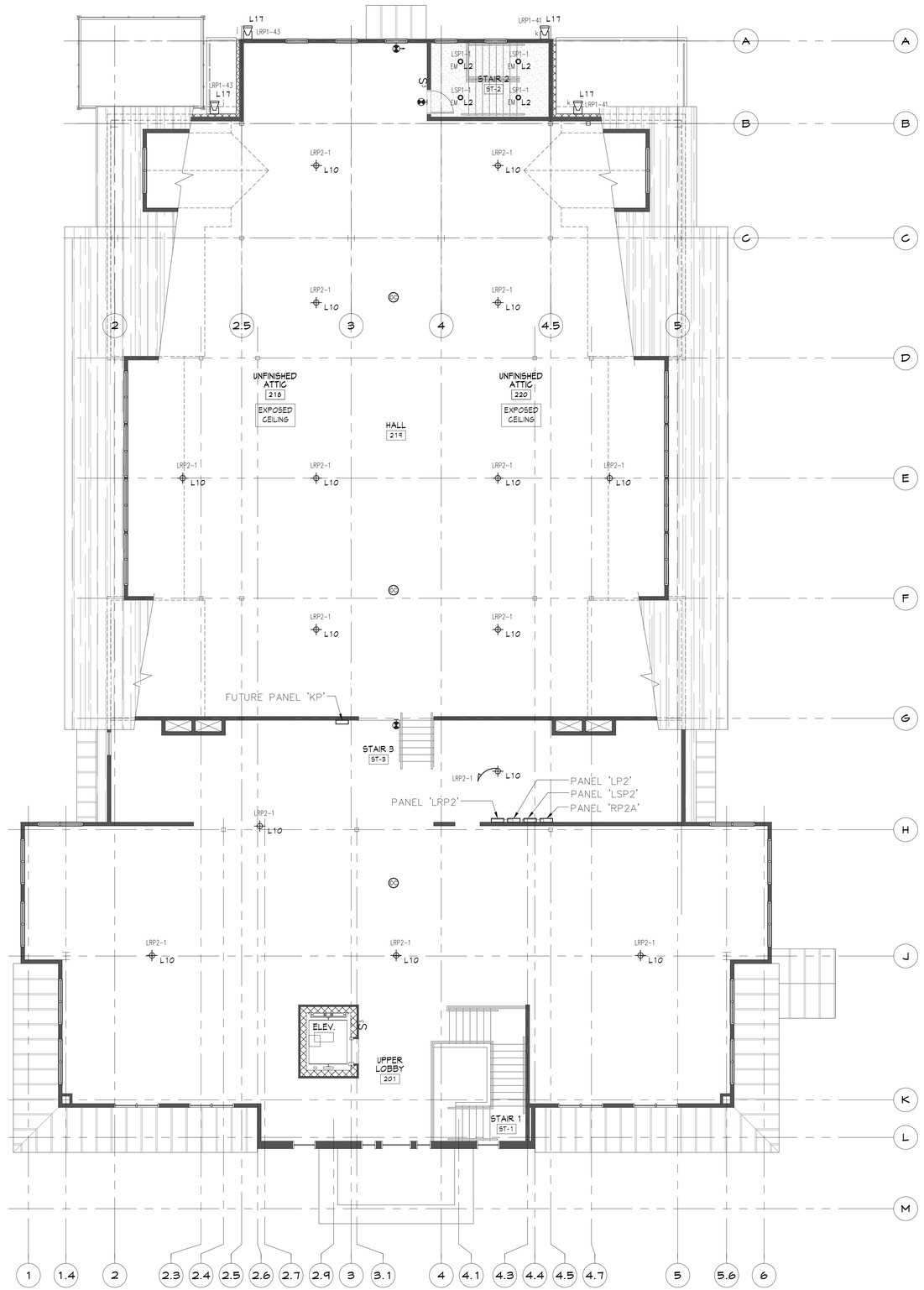
Drawing No.
E2.1



1 ELECTRICAL MEZZANINE PLAN – LIGHTING
SCALE: 1/8" = 1'-0"

NORTH



2 ELECTRICAL SECOND FLOOR PLAN – LIGHTING
SCALE: 1/8" = 1'-0"

NORTH

NOTES:

1. ALL ZONES WILL BE TIME BASED AND BE PROGRAMMED TO BE IN OCCUPANCY MODE DURING TIMES DESIGNATED BY FIRE DEPARTMENT CHIEF.
2. STAIR LIGHTING WILL BE ON AT ALL TIMES AND DIMMED WHEN NOT OCCUPIED.
3. PROVIDE NORMAL POWER SENSING CIRCUIT TO ALL EMERGENCY LIGHTING CONTROL PANELS AND ALL STAIR LIGHTING FIXTURES.
4. REFER TO WIRING DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING LIGHTING CONTROLS.

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Bedford Fire Headquarters
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Drawing Title
ELECTRICAL SECOND FLOOR PLAN - LIGHTING

Project No.	NSPC0070.00
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Scale	AS NOTED
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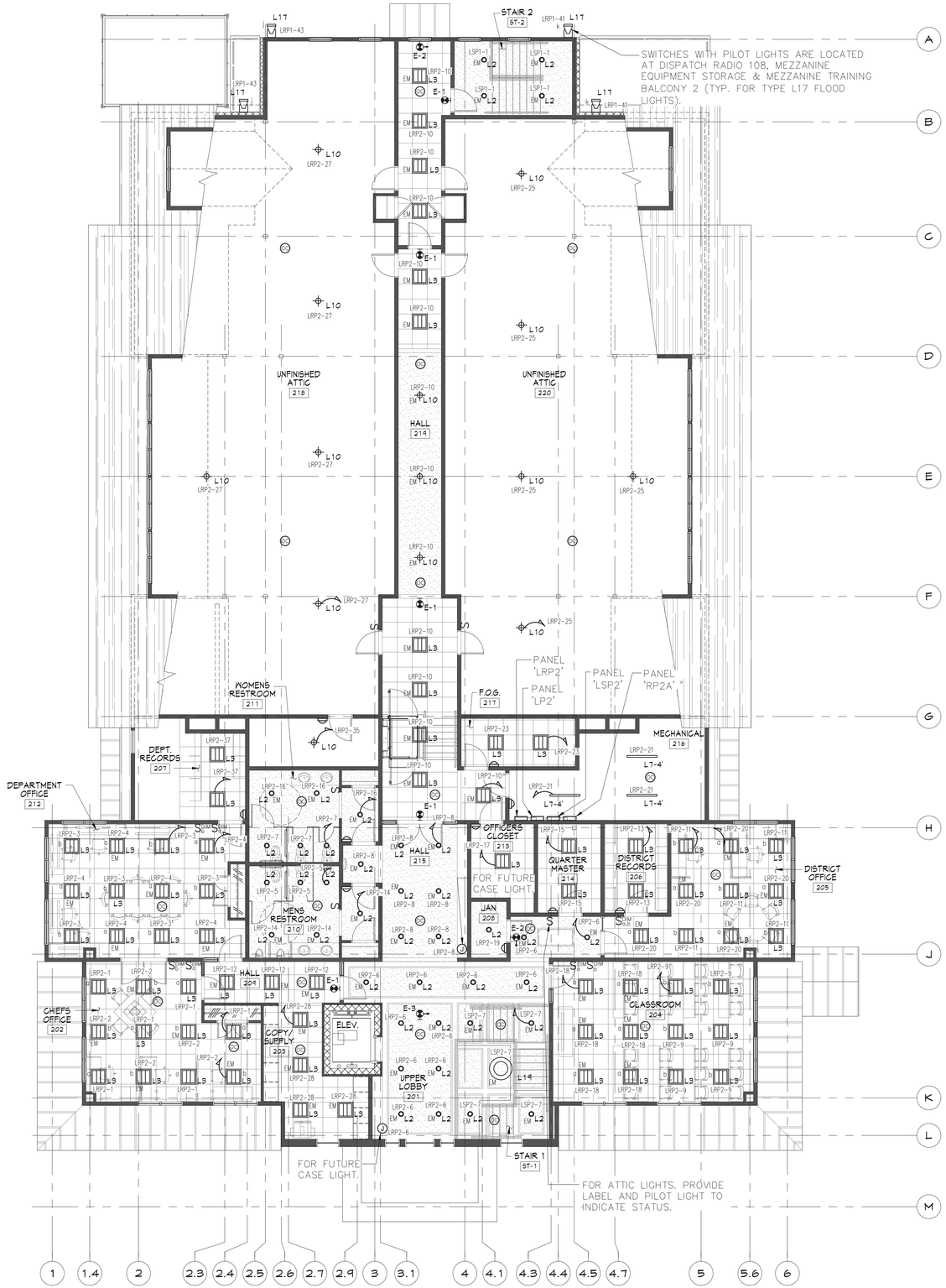
Drawing No.
E2.2



NORTH

2 ELECTRICAL SECOND FLOOR PLAN – LIGHTING (ALTERNATE))
SCALE: 1/8" = 1'-0"

NOTES:

1. ALL LIGHTING CIRCUITS WILL BE CONTROLLED THROUGH LIGHTING RELAY PANELS.
2. ALL ZONES/ROOMS WITH OCCUPANCY SENSORS WILL BE MANUAL ON.
3. ALL ZONES WILL BE TIME BASED AND BE PROGRAMMED TO BE ON OCCUPANCY MODE DURING TIMES DESIGNED BY FIRE DEPARTMENT CHIEF.
4. STAIR LIGHTING WILL BE ON AT ALL TIMES AND DIMMED WHEN NOT OCCUPIED.
5. ALL FLOOD LIGHTS TO HAVE LOCAL SWITCH & 3-WAY SWITCH IN DISPATCH ROOM 108 WITH PILOT LIGHT.
6. PROVIDE NORMAL POWER SENSING CIRCUIT FOR ALL EMERGENCY LIGHTING CONTROL PANELS AND ALL STAIR LIGHTING FIXTURES.
7. REFER TO WIRING DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING LIGHTING CONTROLS.

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Project Title
Bedford Fire Headquarters
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Drawing Title
ELCTRICAL SECOND FLOOR PLAN - LIGHTING (ALTERNATE)

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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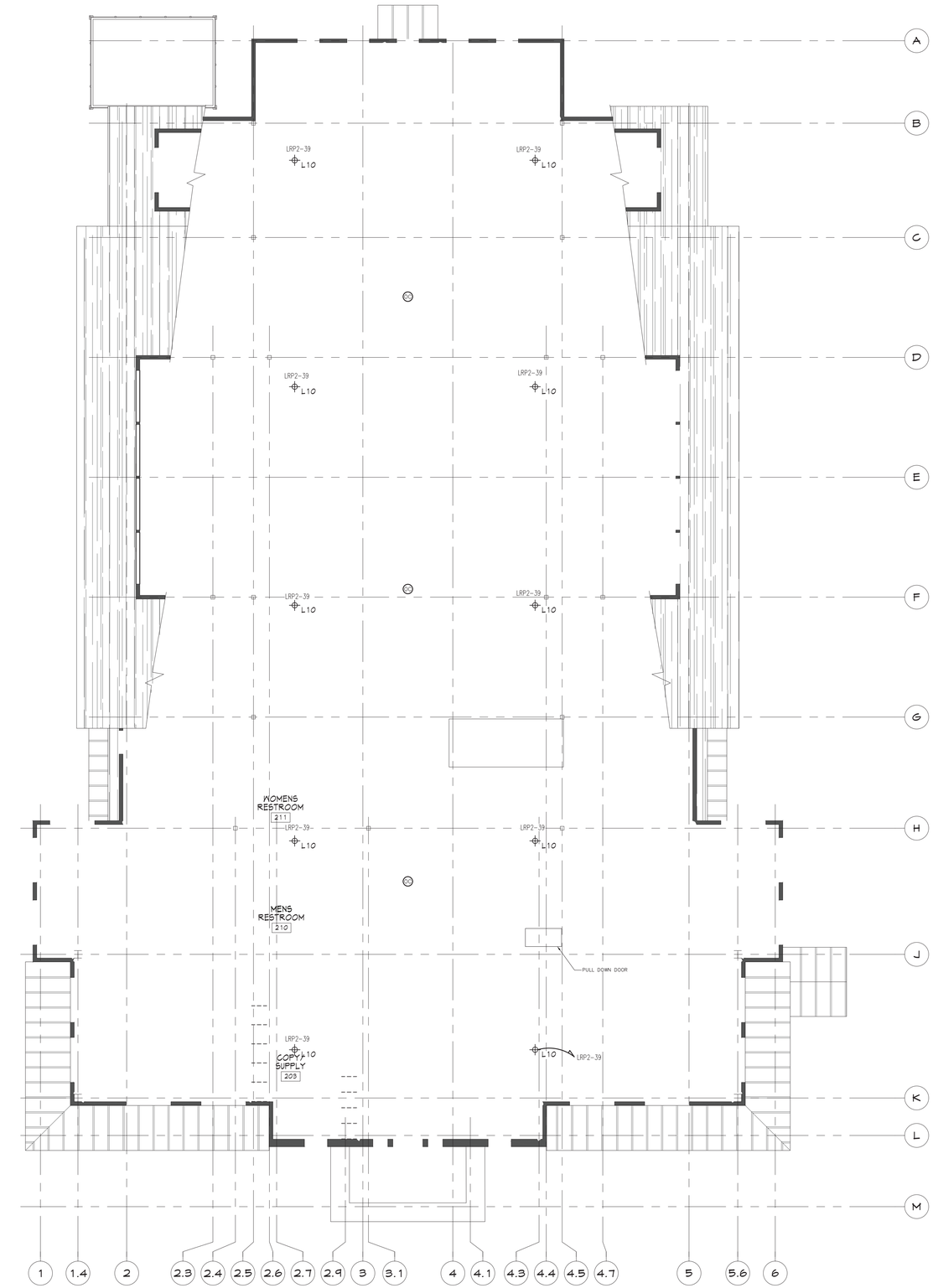
Drawing No.
E2.2A



NORTH

1 ELECTRICAL ATTIC PLAN – LIGHTING (ALTERNATE)
SCALE: 1/8" = 1'-0"

NOTES:

1. LIGHT SWITCH FOR ATTIC LIGHTS LOCATED ON 2ND FLOOR.

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Bedford Fire Headquarters
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Drawing Title
ELECTRICAL ATTIC PLAN - LIGHTING (ALTERNATE)

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
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Checked by	JF/RS

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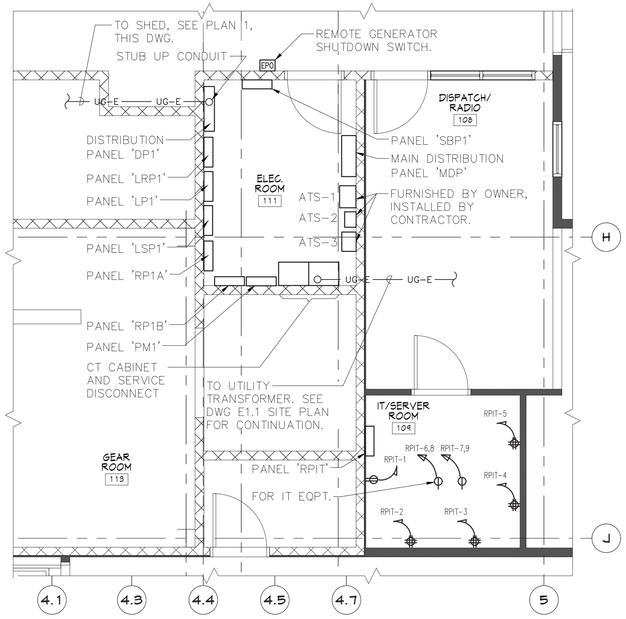
Drawing No.
E2.3A

NOTES:

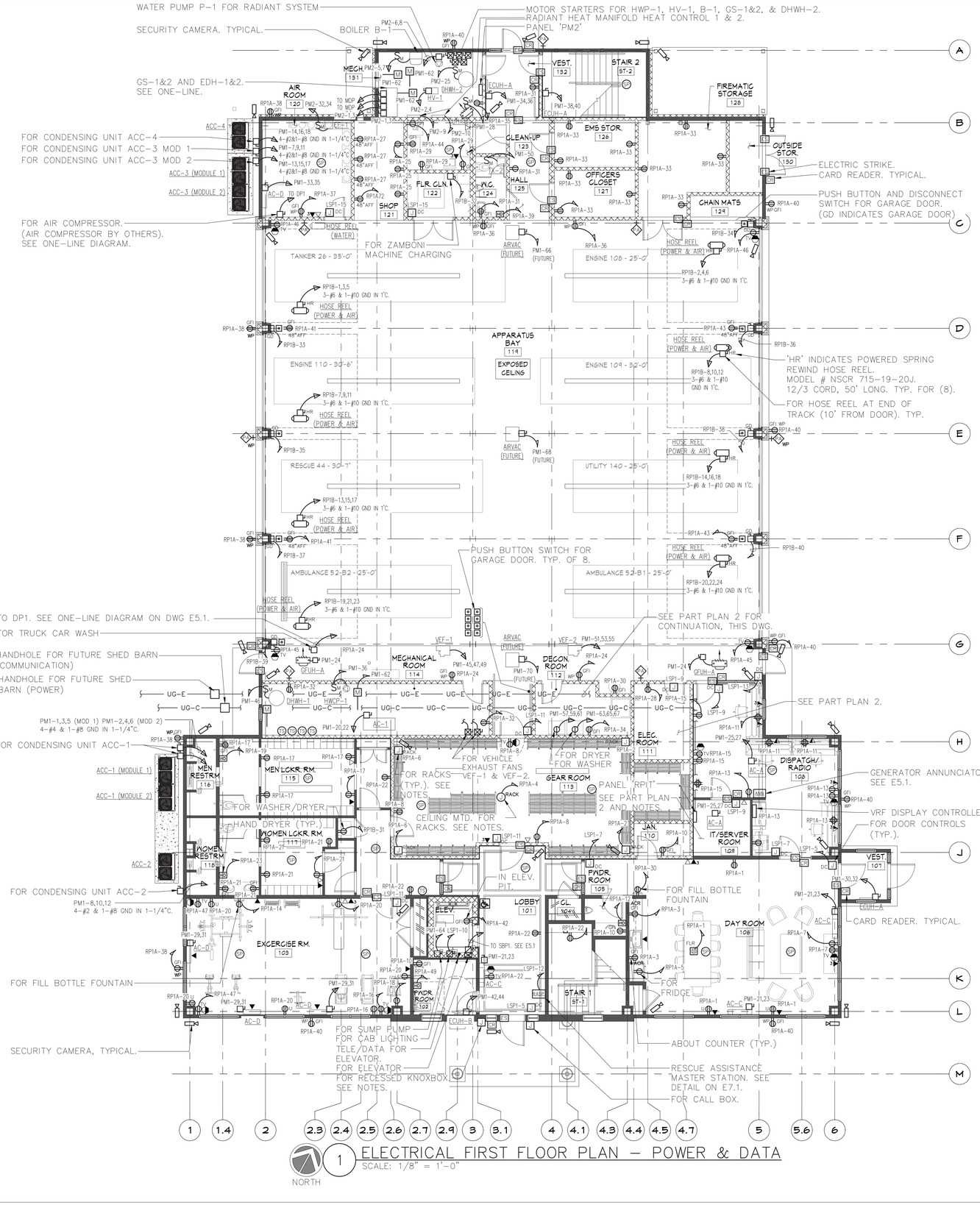
1. ALL DATA CABLING SHALL BE IN CONDUIT WHERE EXPOSED AND CABLING SHALL BE COLOR CODED FOR SPECIFIC SYSTEM.
2. PROVIDE (2) 2" SPARE CONDUITS WITH PULL STRING FROM IT ROOM UP TO ATTIC FOR FUTURE USE.
3. PROVIDE TELEPHONE AND DATA CONNECTIONS FOR ELEVATOR. COORDINATE WITH MANUFACTURER.
4. PROVIDE JUNCTION BOX AND CONDUIT FOR RECESSED KNOXBOX AND LOW VOLTAGE WIRING AT FRONT ENTRY AS NEEDED. SEE FIRE-ALARM PLANS FOR ADDITIONAL INFORMATION. COORDINATE WITH GC. SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFO.
5. PROVIDE POWER REQUIRED FOR AUTOMATIC PLUMBING FIXTURE POWER KITS. PROVIDE JUNCTION BOX AND/OR RECEPTACLE, CONDUIT AND WIRING FOR AUTOMATIC PLUMBING FIXTURES. CONNECT TO RECEPTACLE CIRCUIT SERVING RESTROOM/AREA. COORDINATE ALL LOCATIONS WITH PLUMBING DRAWINGS. COORDINATE FINAL INSTALLATION WITH PLUMBING CONTRACTOR.
6. PROVIDE WIRING, RECEPTACLE AND COVER-PLATE AT EACH LOCKER IN TURNOUT GEAR ROOM. CONNECT TO CIRCUIT AT JUNCTION BOXES NOTED. TYPICAL FOR EACH WALL MOUNTED LOCKER AND LOCKERS IN CENTER OF ROOM.



2 NORTH

ELECTRICAL AND IT ROOM FIRST FLOOR PART PLAN

SCALE: 1/4" = 1'-0"



1 NORTH

ELECTRICAL FIRST FLOOR PLAN - POWER & DATA

SCALE: 1/8" = 1'-0"

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550 Old Post Road
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Drawing Title
ELECTRICAL FIRST FLOOR PLAN - POWER & DATA

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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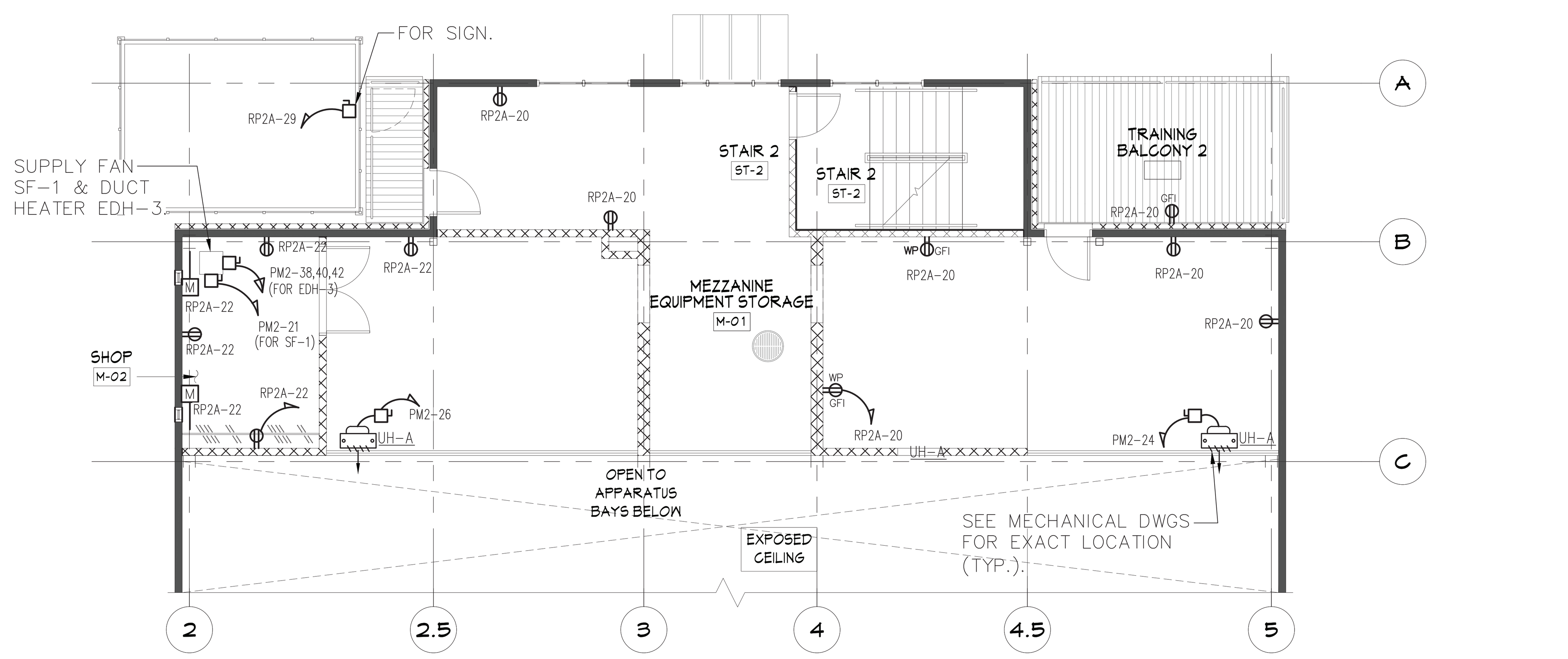
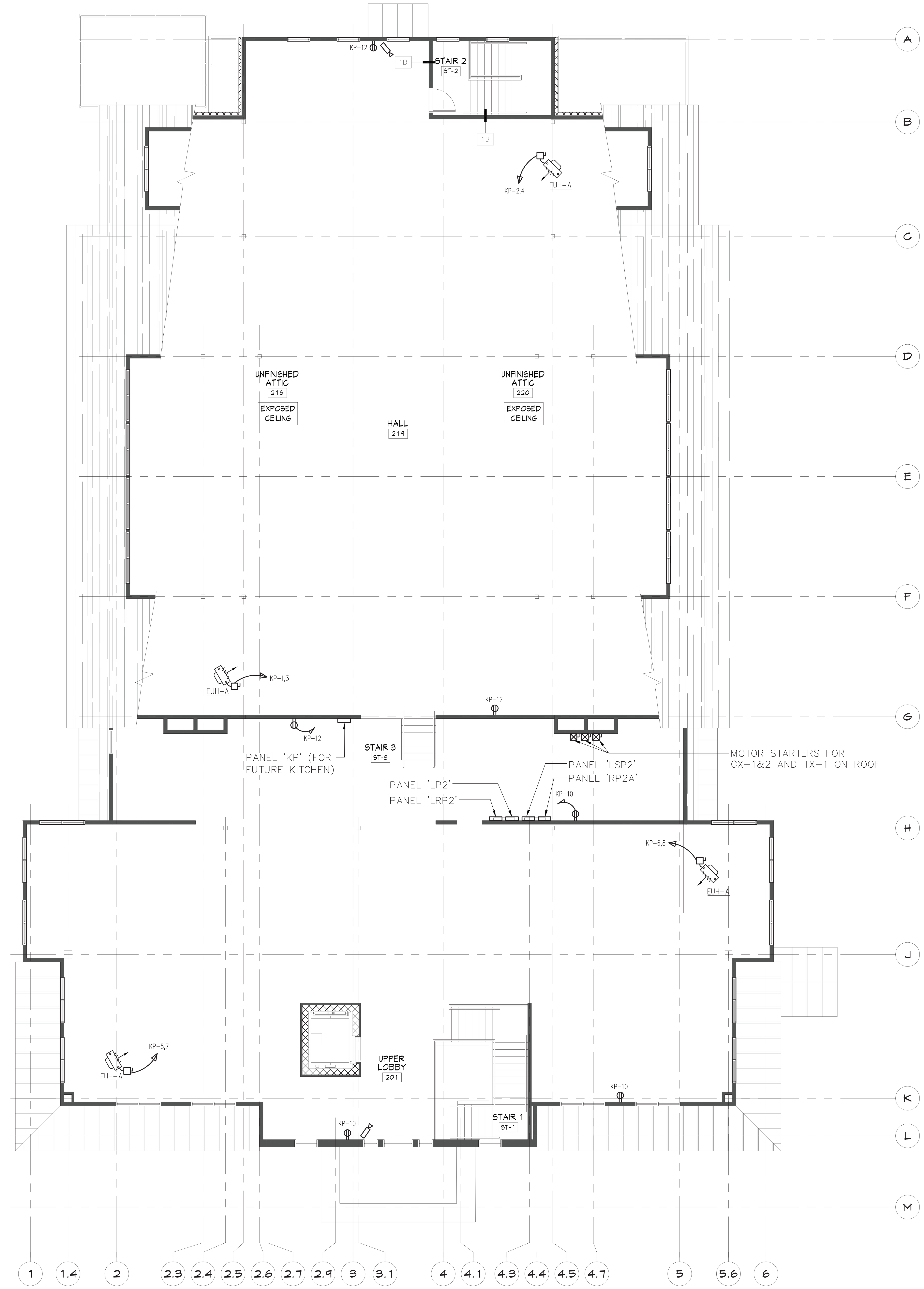
Drawing No.
E3.1



1 ELECTRICAL MEZZANINE PLAN – POWER & DATA
SCALE: 1/8" = 1'-0"
NORTH



2 ELECTRICAL SECOND FLOOR PLAN – POWER & DATA
SCALE: 1/8" = 1'-0"
NORTH

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ELECTRICAL SECOND FLOOR PLAN - POWER & DATA

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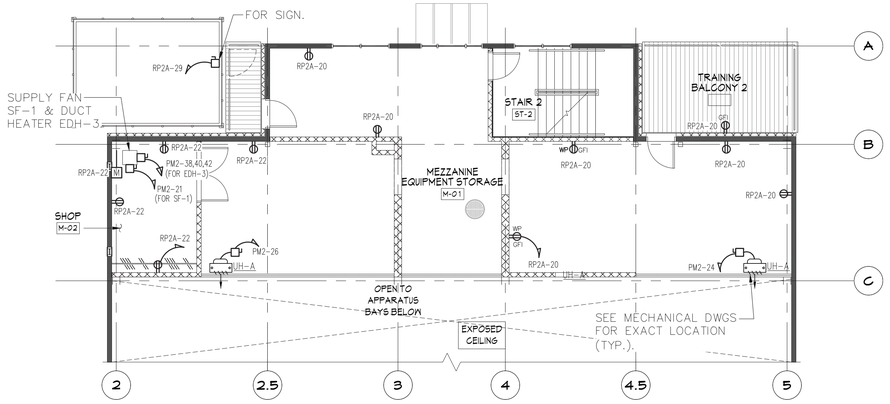
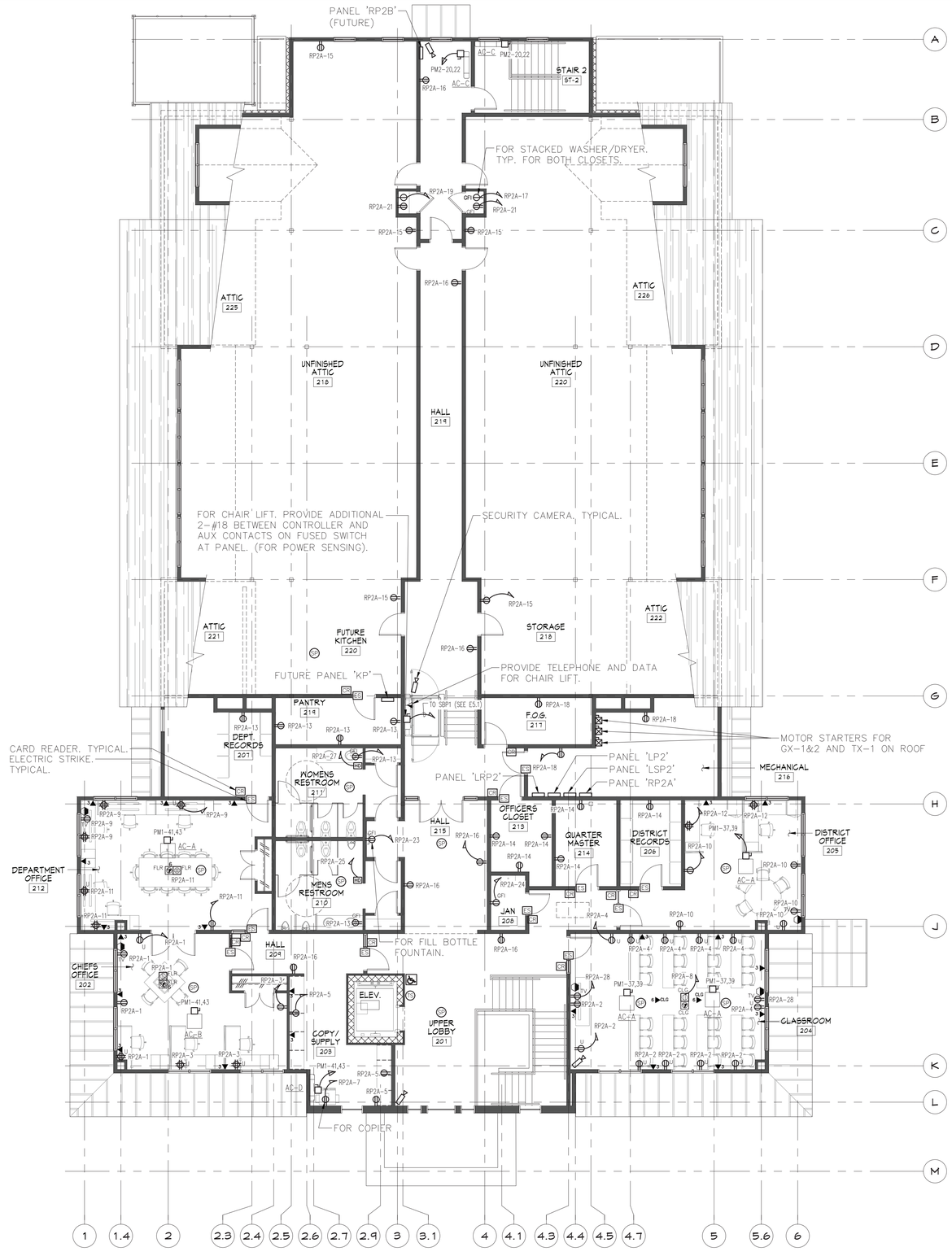
Drawing No. E3.2



1 ELECTRICAL MEZZANINE PLAN – POWER & DATA
SCALE: 1/8" = 1'-0"

NORTH



2 ELECTRICAL SECOND FLOOR PLAN – POWER & DATA (ALTERNATE)
SCALE: 1/8" = 1'-0"

NORTH

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Drawing Title

ELECTRICAL SECOND FLR PLAN - POWER & DATA (ALTERNATE)

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Drawing by	JL/MRP
Checked by	JF/RS

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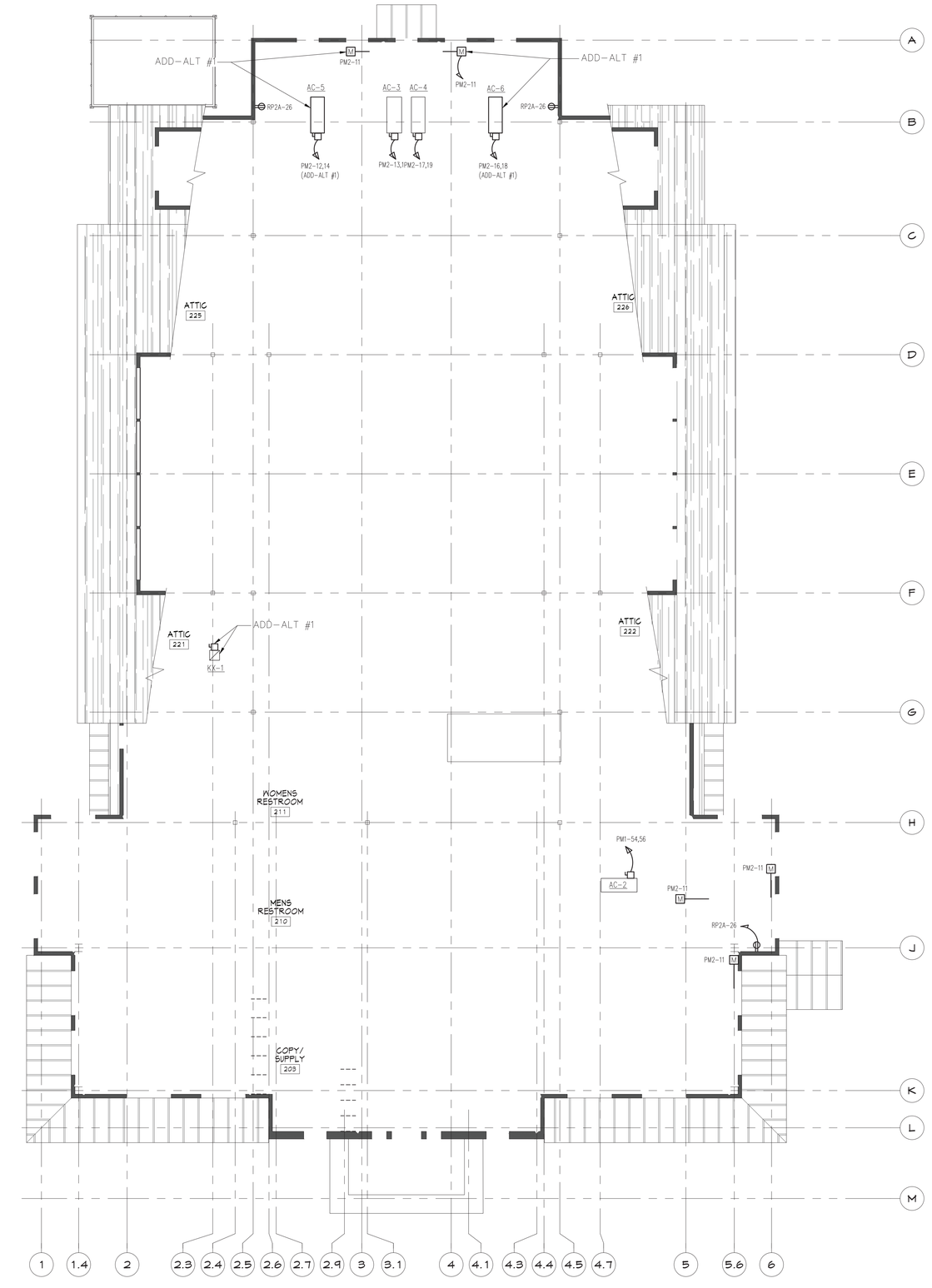
Drawing No.

E3.2A



1 ELECTRICAL ATTIC PLAN (ALTERNATE)
SCALE: 1/8" = 1'–0"

NORTH

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
50 Broadway, Hawthorne, NY 10532
8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford
Fire
Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL ATTIC PLAN - POWER (ALTERNATE)

Project No.	NSFC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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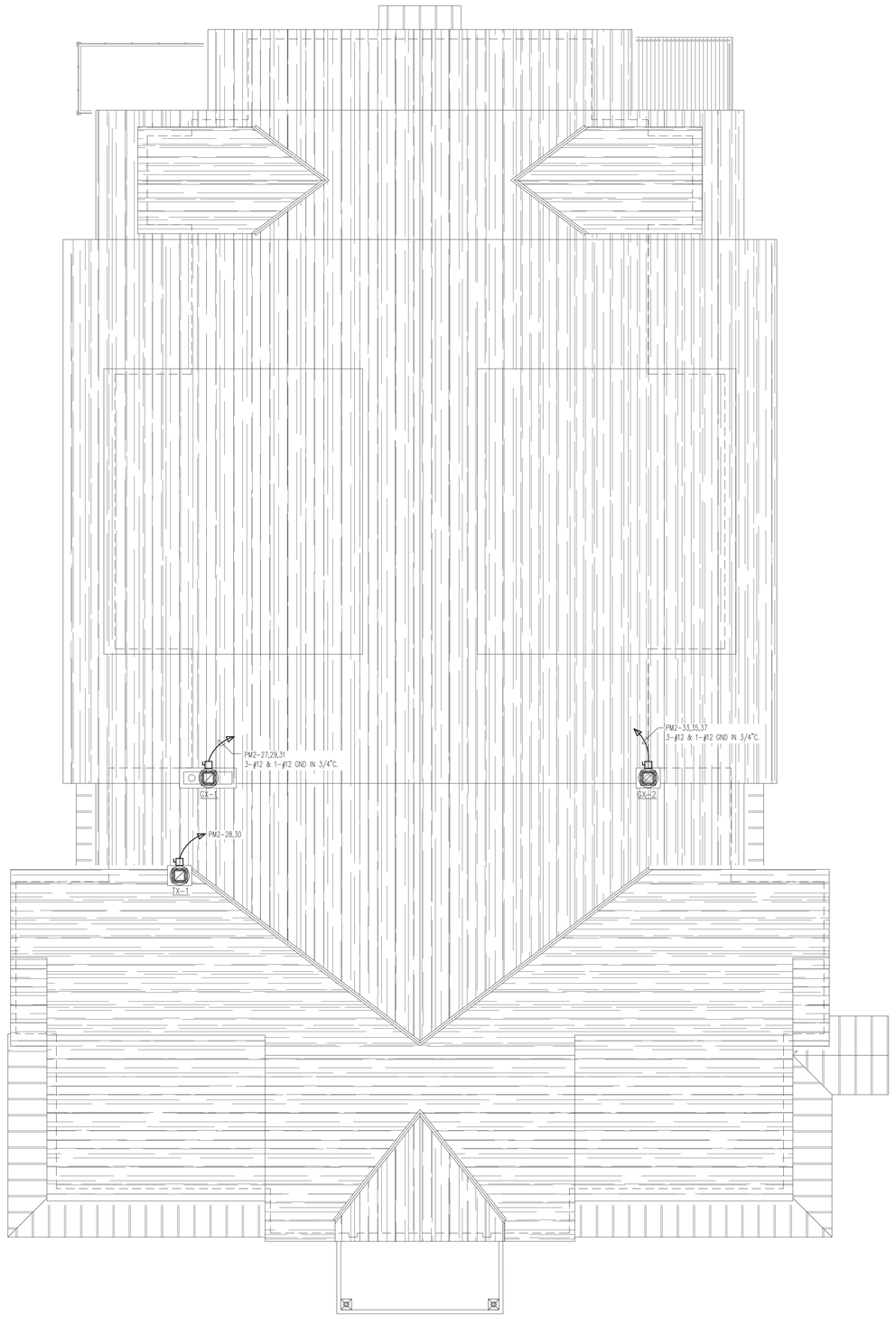
Drawing No.
E3.3A



1 ELECTRICAL ROOF PLAN – POWER
SCALE: 1/8" = 1'-0"

NORTH

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01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL ROOF PLAN - POWER

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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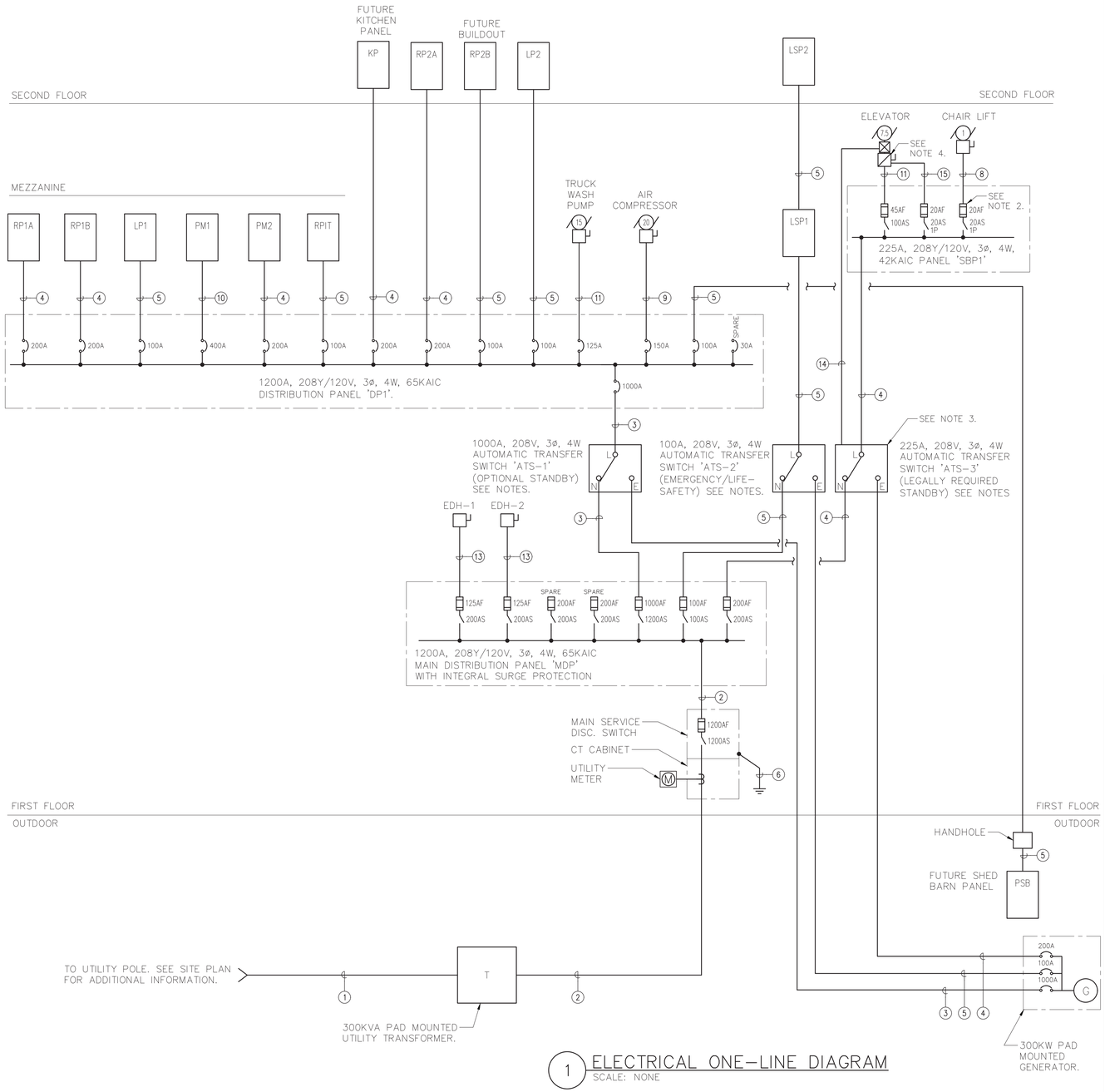
Drawing No.
E3.4



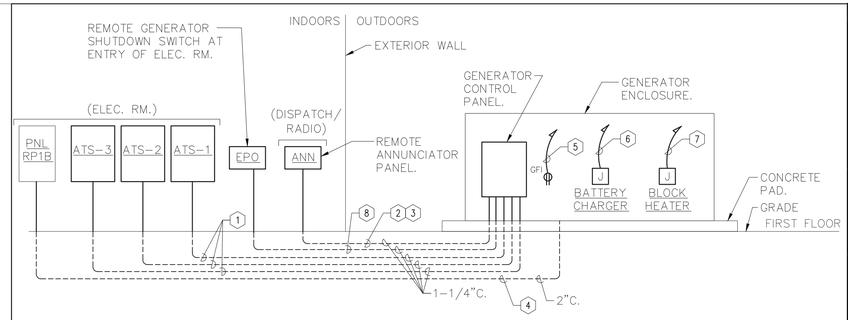
1 ELECTRICAL ONE-LINE DIAGRAM
SCALE: NONE

WIRING/CONDUIT LEGEND:

1. 3-#2 AL IN 4"C, MEDIUM VOLTAGE PRIMARY CABLING PER NYSEG SPECIFICATIONS.
2. 3 SETS OF 4-#600MCM & 1-#3/0 GND IN (3) 3-1/2"C. PROVIDE (1) 3-1/2"C SPARE.
3. 3 SETS OF 4-#500MCM & 1-#2/0 GND IN (3) 3-1/2"C.
4. 4-#4/0 & 1-#4 GND IN 2-1/2"C.
5. 4-#1 & 1-#6 GND IN 1-1/2"C.
6. #3/0 GND BARE COPPER WIRE
7. 1" EMPTY CONDUIT WITH PULL CORD.
8. 2-#8 & 1-#10 GND IN 1"C.
9. 3-#2 & 1-#6 GND IN 1-1/2"C
10. 4-#500MCM & 1-#3 GND IN 3-1/2"C
11. 3-#4 & 1-#6 GND IN 1"C.
12. 3" EMPTY CONDUIT WITH PULL CORD FOR COMMUNICATIONS.
13. 4-#1/0 & 1-#6 GND IN 1-1/2"C.
14. 4-#12 IN 3/4"C
15. 2-#12 & 1-#12 GND IN 3/4"C.

NOTES:

1. SURGE PROTECTIVE DEVICE (SPD) SHALL BE INSTALLED IN ALL EMERGENCY SYSTEMS SWITCHBOARDS AND PANEL BOARDS.
2. PROVIDE AUXILIARY CONTACTS FOR FUSED SWITCH SERVING CHAIR LIFT FOR POWER SENSING.
3. ATS-3 SHALL BE PROVIDED WITH NORMALLY OPEN AND NORMALLY CLOSED CONTACTS. PROVIDE WIRING AS INDICATED BETWEEN ELEVATOR CONTROLLER AND ATS FOR SIGNALING.
4. ELEVATOR DISCONNECT SWITCH SHALL HAVE SHUNT TRIP CAPABILITY FOR FIRE-ALARM SHUT DOWN. SHUNT TRIP COIL SHALL BE CIRCUITED TO PANEL SBP1 AS INDICATED. COORDINATE WITH FIRE-ALARM VENDOR.
5. GENERATOR AND ATS'S SHALL BE FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.



2 GENERATOR CONTROL WIRING DIAGRAM
SCALE: NONE

LEGEND:

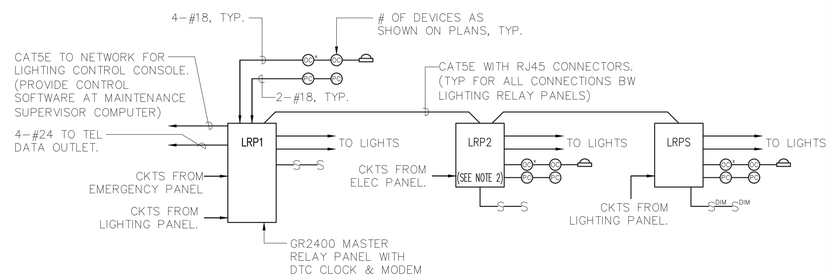
1. 4-#12 AWG. START CIRCUIT FROM AUTOMATIC TRANSFER SWITCH TO GENERATOR CONTROL PANEL.
2. TWISTED SHIELDED PAIR - BELDEN #9841. COMMUNICATIONS CIRCUIT FROM GENERATOR CONTROL PANEL TO REMOTE ANNUNCIATOR.
3. 2-#12 AWG. POWER FROM GENERATOR SET BATTERY TO REMOTE ANNUNCIATOR.
4. POWER CONDUIT FOR BRANCH CIRCUITS TO GENERATOR SET. SEE CIRCUIT INFORMATION FOR ITEMS 5, 6 & 7 BELOW.
5. 2-#12 & 1-#12 GROUND. CIRCUIT RP1B-25 FOR RECEPTACLE.
6. 2-#12 & 1-#12 GROUND. CIRCUIT RP1B-27 FOR BATTERY CHARGER.
7. 2-#12 & 1-#12 GROUND. CIRCUIT RP1B-29. FOR BLOCK HEATER.
8. 4-#12 AWG. EMERGENCY STOP CIRCUIT FROM EPO SWITCH TO GENERATOR CONTROL PANEL.

NOTES:

1.) WIRING ON THIS DETAIL SHOWN FOR INFORMATIONAL PURPOSES ONLY. COORDINATE EXACT SIZE, QUANTITY AND TYPE OF WIRING WITH MANUFACTURER'S SUGGESTION FOR EQUIPMENT PURCHASED.

2.) CONDUITS SHALL BE 1" U.O.N.

3.) SEE ONE-LINE DIAGRAM FOR POWER OUTPUT FEEDERS INFORMATION.



3 LIGHTING CONTROL WIRING DIAGRAM
SCALE: NONE

WIRING DIAGRAM NOTES:

1.) THIS IS NOT A POINT-TO-POINT WIRING DIAGRAM. PROVIDE NUMBER OF DEVICES AS SHOWN ON PLANS.

2.) REFER TO PANEL SCHEDULE FOR NUMBER OF RELAY CIRCUITS TO BE CONTROLLED.

3.) POWER WIRING SHALL BE AS INDICATED ON PLAN.

4.) PROVIDE 1P-20A AND 2-#12 & 1-#12 GND IN 3/4"C TO EACH RELAY PANEL FOR POWER. UTILIZE LOCAL LIGHTING PANEL.

5.) ALL DIGITAL SWITCHES SHALL BE CUSTOM FACTORY ENGRAVED WITH LABELS TO BE DETERMINED BY THE CLIENT.

6.) PANEL 'LRP1' SHALL BE A MASTER PANEL.

7.) ALL PANELS SHALL HAVE NETWORKING CAPABILITY.

8.) SEE SPECIFICATIONS FOR MORE INFORMATION.

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Project Title
Bedford Fire Headquarters
550 Old Post Road
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Drawing Title
ELECTRICAL ONE-LINE DIAGRAM

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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Drawing No.
E5.1

LIGHTING FIXTURE SCHEDULE

FIXTURE DESIGNATION	MANUFACTURER	CATALOG NUMBER	LAMPS	VOLTS	INPUT WATTS (W)	MOUNTING	REMARKS
F1	BIG ASS FANS	8 FT – 158 RPM	–	120	1,200	SURFACE	ESSENCE 8FT FAN KIT
L1–8'	SAYLITE	LLLSA–97L–46W1500L–30K–SA–HC601WH–MTIM40L24DC	LED	120	46	SURFACE	LINEAR LIGHTING CHANNEL
L1–4'	SAYLITE	LLLSA–48L–23W1500L–30K–SA–HC601WH–MTIM40L24DC	LED	120	23	SURFACE	LINEAR LIGHTING CHANNEL
L2	LIGHTOLIER	6RN–C6L30830ME1–C6RDLWH	LED	120	30	RECESSED	CALCULATED LED 6" GEN 3 ROUND DOWNLIGHT
L3	DAY–BRITE	2EVG30L835–2–D–UNV–DIM	LED	120	25	RECESSED	2'x2' LIGHTING FIXTURE
L4	LIGHTOLIER	6RN–C6L30830ME1–C6RSLWH	LED	120	30	RECESSED	CALCULATED LED 6" GEN 3 ROUND DOWNLIGHT
L5	MODERN FORMS	MFMP206783	LED	120	80	SURFACE	LED LINEAR PENDANT
L6	SHAPER	122–36–S–L9/830–UNV–MW DRUM: 122–36–VLM	LED	UNV	72	SURFACE	LED DECORATIVE ROUND LIGHTING FIXTURE.
L7	DAY–BRITE	5FL455L840–PPS–UNV–DIM	LED	120	37	SURFACE	6"x4' INDUSTRIAL LED LIGHTING FIXTURE.
L8	DAY–BRITE	DWAE70L840–8–UNV–WHP	LED	UNV	130	SURFACE	7"x8' SEALED INDUSTRIAL LED LIGHTING FIXTURE'
L9	EATON (CORELITE)	JS–L–L–2–L35–1D–UNV–SU–WA–STD–W	LED 3500K	UNV	18	SURFACE	WALL MOUNT SCONCE LED LIGHTING FIXTURE.
L10	LEVITON	000–09850–LED	LED 3000K	120	10	SURFACE	LED CEILING LAMPHOLDER.
L11	MAXIM LIGHTING	SHORELINE 10104BK	(1) 60W E26 MEDUIM	120	60	SURFACE	WALL MOUNT DECORATIVE OUTDOOR LIGHTING FIXTURE.

FIXTURE DESIGNATION	MANUFACTURER	CATALOG NUMBER	LAMPS	VOLTS	INPUT WATTS (W)	MOUNTING	REMARKS
L12	HINKLEY	HKYP297130–(12VLED OPTION)	LED	120	16	SURFACE	ALFORD PLACE OUTDOOR PENDANT.
L13	MAXIM LIGHTING	LIGHTHOUSE 5866CLFTAR	(1) 60W E26 MEDUIM	120	60	SURFACE	CONTRACTOR TO PROVIDE RED BULBS.
L14	MAXIM LIGHTING	VANITY 52000–POLISHED CHROME	LED	120	12	SURFACE	VANITY LIGHTING FIXTURE.
L15	LITHONIA LIGHTING	VW150SL M6	HIGH PRESSURE SODIUM (HPS)	120	150	SURFACE	UTILITY VAPOR TIGHT LIGHTING FIXTURE.
L16	BARN LIGHT U.S.A.	CHEROKEE UPLIGHT SERIES G–ULC18–100–G26–CLR–NA–LED16.8–3000K	LED	120	16.8	SURFACE	BARN TYPE LIGHTING FIXTURE.
L17	EATON	FSL2850LW	LED	UNV	28.23	SURFACE	SINGLE HEAD LED FLOOD LIGHTING FIXTURE.
L18	DAY–BRITE	V2WAE51L840–4–UNV–MD360W	LED	UNV	46	SURFACE	SEALED WET LOCATION INDUSTRIAL FIXTURE.
L19	ALORA LIGHTING	ALRP267758–(LARGE OPTION FIXTURE)	LED	UNV	60	PENDANT	DUO LED PENDANT. LARGE OPTION FIXTURE – 31.5" DIAMETER
E–1	COOPER	SURE–LITES LPX SERIES LPX 6 (WALL MOUNT)	LED	120	0.98	SURFACE	EXIT LIGHT. REFER TO ARCHITECTURAL DWGS FOR DIRECTION CHEVRONS.
E–2	COOPER	SURE–LITES LPX SERIES LPX 6 (WALL MOUNT)	LED	120	0.98	SURFACE	EXIT LIGHT. REFER TO ARCHITECTURAL DWGS FOR DIRECTION CHEVRONS.
E–3	COOPER	SURE–LITES LPX SERIES LPX 6 (CEILING)	LED	120	0.98	SURFACE	EXIT LIGHT. REFER TO ARCHITECTURAL DWGS FOR DIRECTION CHEVRONS.
EL–1	PHOENIX FLOOR	MODEL MLF–MF–120–WW–CD	LED 3000K	120	78	FLOOR MOUNTED	UPLIGHT FOR FLAGPOLE
EL–2	SPRING CITY ELECTRICAL MFG. CO.	JEF–LE060–2G2–30–FM3–YPLO	LED 3000K	120	60	POLE	PROVIDED BY OWNER
EL–3	LEOTEK	AR13–48N–MV–WW–2–XX–100–S	LED 3000K	120	72	POLE	TYPE 2 DISTRIBUTION POLE MOUNTED LIGHTING FIXTURE. PROVIDE DIMMING DRIVER PND1. INTEGRATE WITH LIGHTING CONTROLS.

NOTES:

1. VERIFY ALL FIXTURE CATALOG NUMBERS FOR INTENDED APPLICATIONS WITH REQUIRED ACCESSORIES.
2. ALL BALLASTS IN FIXTURES LOCATED OUTDOORS SHALL BE ZERO DEGREE RATED STARTING TEMPERATURE. REFER TO DRAWINGS FOR LOCATION OF FIXTURES.
3. ALL LIGHT FIXTURES TAGGED AS "EM" SHALL BE FED FROM EMERGENCY POWER PANELS. THESE FIXTURES SHALL BE SWITCHED AS INDICATED. UPON LOSS OF NORMAL POWER, EMERGENCY LIGHT FIXTURES SHALL BE AUTOMATICALLY SHUNTED TO FULL BRIGHT REGARDLESS OF STATE OF CONTROLLING SWITCH. SEE DETAIL FOR ADDITIONAL INFORMATION.
4. IN THE EVENT THE CONTRACTOR CHOOSES TO SUBSTITUTE LIGHT FIXTURES FOR THOSE THAT ARE SPECIFIED ON THE LIGHT FIXTURE SCHEDULE, THE CONTRACTOR SHALL SUBMIT POINT–TO–POINT PHOTOMETRIC CALCULATIONS FOR ALL AREAS WHERE THE SUBSTITUTED FIXTURES ARE INDICATED TO BE INSTALLED ON THE DRAWINGS. THESE CALCULATIONS SHALL BE SUBMITTED ALONG WITH THE LIGHT FIXTURE SHOP DRAWINGS.

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Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

ELECTRICAL LIGHTING FIXTURE SCHEDULE

Project No.	N5PC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 069467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.

E6.1

LRP1 SCHEDULE (LIGHTING RELAY PANEL)

RELAY NO.	DESCRIPTION	CIRCUIT BREAKER SERVING RELAY	CIRCUIT BREAKER SERVING RELAY	DESCRIPTION	RELAY NO.
1	LTG – 1ST FLR RM 103	LP1–1	LSP1–2	LTG – 1ST FLR RM 101	2
3	LTG – 1ST FLR RM 120	LP1–1	LSP1–2	LTG – 1ST FLR RM 117	4
5	LTG – 1ST FLR RM 121	LP1–1	LSP1–2	LTG – 1ST FLR RM 115	6
7	LTG – 1ST FLR RM 124	LP1–3	LSP1–4	LTG – 1ST FLR RM 113	8
9	LTG – 1ST FLR RM 122	LP1–3	LSP1–4	LTG – 1ST FLR RM 119	10
11	LTG – 1ST FLR RM 124	LP1–3	LSP1–6	LTG – 1ST FLR RM 119	12
13	LTG – 1ST FLR RM 126	LP1–3	LSP1–6	LTG – 1ST FLR RM 119	14
15	LTG – 1ST FLR RM 127	LP1–3	LSP1–8	LTG – 1ST FLR RM 103	16
17	LTG – 1ST FLR RM 128	LP1–5	LSP1–8	LTG – 1ST FLR RM 106	18
19	LTG – 1ST FLR RM 130	LP1–5	LSP1–8	LTG – 1ST FLR RM 108	20
21	LTG – 1ST FLR RM 131	LP1–5	LSP1–8	LTG – 1ST FLR RM 125, 132	22
23	LTG – 1ST FLR RM 125	LP1–5			24
25	LTG – 1ST FLR RM 132	LP1–5			26
27	LTG – 1ST FLR RM 114	LP1–7			28
29	LTG – 1ST FLR RM 112	LP1–7			30
31	LTG – 1ST FLR RM 111	LP1–7			32
33	LTG – 1ST FLR RM 106	LP1–7			34
35	LTG – 1ST FLR RM 107	LP1–7			36
37	LTG – 1ST FLR RM 110	LP1–7			38
39	LTG – OUTDOOR (TYPE L17 WEST)	LP1–12			40
41	LTG – OUTDOOR (TYPE L17 TRAINING BALCONY 2)	LP1–12			42
43	LTG – OUTDOOR (TYPE L17 TRAINING BALCONY 1)	LP1–12			44
45	LTG – OUTDOOR (TYPE L17 EAST)	LP1–12			46
47	LTG – OUTDOOR	LP1–2			48

NOTES:

1. PANEL SHALL BE GR2400 MASTER RELAY PANEL WITH 48 RELAYS. PROVIDE INTEGRAL DIGITAL TIME CLOCK WITH MODEM.
2. CONTRACTOR SHALL COORDINATE TIME CLOCK REQUIREMENTS WITH THE OWNER AND PROGRAM TO SUIT THE OWNERS NEEDS.
3. BARRIER SHALL BE PROVIDED BETWEEN NORMAL AND EMERGENCY SIDE OF PANEL.

LRPS SCHEDULE (SITE LIGHTING RELAY PANEL)

RELAY NO.	DESCRIPTION	CIRCUIT BREAKER SERVING RELAY	CIRCUIT BREAKER SERVING RELAY	DESCRIPTION	RELAY NO.
1	LTG – SIGNS AT STREET	LP1–9		SPARE	2
3	RECP – CHRISTMAS TREE AT STREET	LP1–9		SPARE	4
5	LTG – FLAGPOLE	LP1–9		SPARE	6
7					8
9					10
11					12

NOTES:

1. PANEL SHALL BE GR2400 MASTER RELAY PANEL WITH 12 RELAYS. PROVIDE INTEGRAL DIGITAL TIME CLOCK WITH MODEM.
2. CONTRACTOR SHALL COORDINATE TIME CLOCK REQUIREMENTS WITH THE OWNER AND PROGRAM TO SUIT THE OWNERS NEEDS.

LSP1 PANEL SCHEDULE (FUSED LIFE–SAFETY PANEL)

MAIN RATING: 100A MAIN: MLO KAIC RATING: 42KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: RECESSED

CIRC. NO.	LOAD DESCRIPTION	FUSE AMPS	NO. OF POLES	NO. OF POLES	FUSE AMPS	LOAD DESCRIPTION	CIRC. NO.
1	LTG – ST–2	20	1	1	20	LRP1–2,4,6	2
3	FACP	20LK	1	1	20	LRP1–8,10	4
5	DOOR CONTROLS	20	1	1	20	LRP1–12	6
7	DOOR CONTROLS	20	1	1	20	LRP1–14,16,18,20,22	8
9	DOOR CONTROLS	20	1	1	20	ELEV LIGHT & ELEV. PIT LIGHT	10
11	DOOR CONTROLS	20	1	1	20	RESCUE ASSISTANCE MASTER	12
13	DOOR CONTROLS	20	1				14
15	DOOR CONTROLS	20	1				16
17	DOOR CONTROLS	20	1				18
19	DOOR CONTROLS	20	1				20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK – PROVIDE LOCKING TABS

NOTES: PROVIDE INTEGRAL SURGE PROTECTOR WITH VISIBLE STATUS INDICATION AND SURGE COUNTER.

LP1 PANEL SCHEDULE

MAIN RATING: 100A M.L.O. KAIC RATING: 42KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: RECESSED

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	LRP1–1,3,5	20	1	1	20	LRP1–47	2
3	LRP1–7,9,11,13,15,	20	1	1	15	CEILING FAN – 1ST FLR 119	4
5	LRP1–17,19,21,23,25	20	1	1	15	CEILING FAN – 1ST FLR 119	6
7	LRP1–27,29,31,33,35,37	20	1	1	20	SITE LIGHTS	8
9	LRPS–1,3,5	20	1	1	20	SITE LIGHTS	10
11	SPARE	20	1	1	20	LRP1–39 THRU 45	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17	SPARE	20	1	1	20	SPARE	18
19	SPARE	20	1	1	20	SPARE	20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B.

NOTES:

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Project Title
Bedford Fire Headquarters
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Drawing Title
ELECTRICAL PANEL SCHEDULES

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

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Drawing No.
E6.2

PM1 PANEL SCHEDULE

MAIN RATING: 400A MAIN C.B.: 400A KAIC RATING: 65KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1							2
3	ACC-1 (MOD 1)	70	3	3	70	ACC-1 (MOD 2)	4
5							6
7							8
9	ACC-3 (MOD 1)	80	3	3	90	ACC-2	10
11							12
13							14
15	ACC-3 (MOD 2)	80	3	3	70	ACC-4	16
17							18
19	SPARE	20	1	2	15	AC-1 - 1ST FLR MECH RM 114	20
21	AC-C - 1ST FLR DAY RM 106 & LOBBY 101	20	2				22
23				1	20	GFUH-A - APPARATUS BAY	24
25	AC-A - 1ST FLR DISPATCH RM 108 & IT RM 109	20	2	1	20	SPARE	26
27				1	15	UH-B - 1ST FLR 131	28
29	AC-D - 1ST FLR EXERCISE 103	20	2	2	20	ECUH-A - 1ST FLR VEST 107	30
31							32
33	AC-D - 1ST FLR AIR RM 120	20	2	2	20	ECUH-A - 1ST FLR VEST 132	34
35							36
37	AC-D - 2ND FLR CLASSROOM 204 & OFFICE 205	20	2	2	20	ECUH-A - 1ST FLR STAIR ST2	38
39							40
41	AC-A,B,D-2ND FLR COPY 203 CHIEF OFF. 202, DEP OFF. 212	20	2	2	20	ECUH-B - 1ST FLR PWDR 102	42
43							44
45				1	15	DHWH-1 - 1ST FLR 114	46
47	VEF-1 - APPARATUS BAY	30	3	1	20	SPARE	48
49				1	15	TX-2 - IST FLR 124	50
51				1	20	SPARE	52
53	VEF-2 - APPARATUS BAY	30	3	2	15	AC-2 - ATTIC	54
55							56
57				1	20	SPARE	58
59	WASHER - DECON ROOM	20	3	1	20	SPARE	60
61				1	20	MOTORIZED DAMPERS	62
63				1	25	SUMP PUMP SP-1	64
65	DRYER - DECON ROOM 4-#8 & 1-#10 GND, 3/4"C	40	3	1	35	AIRVAC (FUTURE)	66
67				1	35	AIRVAC (FUTURE)	68
69	SPARE	20	1	1	35	AIRVAC (FUTURE)	70
71	SPARE	20	1	1	20	SPARE	72

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

RPIT PANEL SCHEDULE

MAIN RATING: 100A MAIN C.B.: 100A KAIC RATING: 42KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	RECP - DEDICATED	20	1	1	20	RECP - DEDICATED	2
3	RECP - DEDICATED	20	1	1	20	RECP - DEDICATED	4
5	RECP - DEDICATED	20	1	2	20	RECP - DEDICATED 208V	6
7	RECP - DEDICATED - 208V	20	2				8
9				1	20	SPARE	10
11	SPARE	20	1	1	20	SPARE	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17	SPARE	20	1	1	20	SPARE	18
19	SPARE	20	1	1	20	SPARE	20
21	SPARE	20	1	1	20	SPARE	22
23	SPARE	20	1	1	20	SPARE	24
25	SPARE	20	1	1	20	SPARE	26
27	SPARE	20	1	1	20	SPARE	28
29	SPARE	20	1	1	20	SPARE	30
31	SPARE	20	1	1	20	SPARE	32
33	SPARE	20	1	1	20	SPARE	34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

RP1B PANEL SCHEDULE

MAIN RATING: 200A MAIN C.B.: 200A KAIC RATING: 42KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1							2
3	HOSE REEL - 1ST FLR 119	45	3	3	45	HOSE REEL - 1ST FLR 119	4
5							6
7							8
9	HOSE REEL - 1ST FLR 119	45	3	3	45	HOSE REEL - 1ST FLR 119	10
11							12
13							14
15	HOSE REEL - 1ST FLR 119	45	3	3	45	HOSE REEL - 1ST FLR 119	16
17							18
19							20
21	HOSE REEL - 1ST FLR 119	45	3	3	45	HOSE REEL - 1ST FLR 119	22
23							24
25	GENERATOR RECEPTACLE	20	1	1	20	MASS NOTIFICATION POLE	26
27	GENERATOR BATTERY CHARGER	20	1	1	20	SITE FUEL PUMP	28
29	GENERATOR BLOCK HEATER	20	1	1	20	PUMP CHAMBER	30
31	STACKABLE WASHER/DRYER	20	1	1	20	ZAMBONI CHARGER	32
33	GRAGE DOOR MOTOR	20	1	1	20	GRAGE DOOR MOTOR	34
35	GRAGE DOOR MOTOR	20	1	1	20	GRAGE DOOR MOTOR	36
37	GRAGE DOOR MOTOR	20	1	1	20	GRAGE DOOR MOTOR	38
39	GRAGE DOOR MOTOR	20	1	1	20	GRAGE DOOR MOTOR	40
41	SPARE	20	1	1	20	SPARE	42
43	SPARE	20	1	1	20	SPARE	44
45	SPARE	20	1	1	20	SPARE	46
47	SPARE	20	1	1	20	SPARE	48
49	SPARE	20	1	1	20	SPARE	50
51	SPARE	20	1	1	20	SPARE	52
53	SPARE	20	1	1	20	SPARE	54

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

PM2 PANEL SCHEDULE

MAIN RATING: 200A MAIN C.B.: 200A KAIC RATING: 42KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	GS-1&2 - 1ST FLR MECH 131	20	2	2	15	HV-1 - 1ST FLR 131	2
3							4
5	B-1 - 1ST FLR 131	20	2	2	15	P-1 - 1ST FLR 131	6
7							8
9	RADIANT HEAT MANIFOLD 131	20	1	1	20	RADIANT HEAT MANIFOLD 131	10
11	MOTORIZED DAMPERS - ATTIC	20	1	2	15	SPARE FOR AC-5 - ATTIC (ADD-ALT #1)	12
13	AC-3 - ATTIC	15	2				14
15				2	15	SPARE FOR AC-6 - ATTIC (ADD-ALT #1)	16
17	AC-4 - ATTIC	15	2				18
19				2	15	AC-C - 2ND FLR	20
21	SF-1	20	1				22
23	SPARE	20	1	1	25	UH-A - MEZZZNINE	24
25	DHWH-2	15	1	1	25	UH-A - MEZZNINE	26
27				2	15	TX-1 - ROOF	28
29	GX-1 - ROOF	15	3				30
31				2	25	EF-1 - AIR ROOM 120	32
33							34
35	GX-2 - ROOF	15	3	1	15	HWCP-1 1ST FLR	36
37				3	20	DUCT HEATER EDH-3	38
39	SPARE	20	1				40
41	SPARE	20	1				42
43	SPARE	20	1	1	20	SPARE	44
45	SPARE	20	1	1	20	SPARE	46
47	SPARE	20	1	1	20	SPARE	48
49	SPARE	20	1	1	20	SPARE	50
51	SPARE	20	1	1	20	SPARE	52
53	SPARE	20	1	1	20	SPARE	54

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

RP1A PANEL SCHEDULE

MAIN RATING: 200A M.L.O. KAIC RATING: 42KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	RECP - 1ST FLR 106	20	1	1	20	RACK - 1ST FLR 113	2
3	RECP - 1ST FLR 106	20	1	1	20	RACK - 1ST FLR 113	4
5	RECP - 1ST FLR REF. 106	20	1	1	20	RACK - 1ST FLR 113	6
7	RECP - 1ST FLR 106	20	1	1	20	RECP - 1ST FLR 113	8
9	SPARE	20	1	1	20	RECP - 1ST FLR 102,105,110	10
11	RECP - 1ST FLR 108	20	1	1	20	HAND DRYER 1ST FLR 105	12
13	RECP - 1ST FLR 108	20	1	1	20	RECP - 1ST FLR 103	14
15	RECP - 1ST FLR 108	20	1	1	20	RECP - 1ST FLR 103	16
17	RECP - 1ST FLR 115	20	1	1	20	RECP - 1ST FLR 103	18
19	HAND DRYER 1ST FLR 115	20	1	1	20	RECP - 1ST FLR 103	20
21	RECP - 1ST FLR 117	20	1	1	20	RECP - 1ST FLR CORR. & LOBBY	22
23	HAND DRYER - 1ST FLR 117	20	1	1	20	RECP - 1ST FLR 119	24
25	RECP - 1ST FLR 121	20	1	1	20	RECP - 1ST FLR 119	26
27	RECP - 1ST FLR 121	20	1	1	20	RECP - 1ST FLR 111	28
29	RECP - 1ST FLR 123	20	1	1	20	RECP - 1ST FLR WATER FOUNTAINS	30
31	RECP - 1ST FLR 124,125,132	20	1	1	20	RECP - 1ST FLR MECH RM 114	32
33	RECP - 1ST FLR 126,127,128	20	1	1	20	RECP - 1ST FLR 112	34
35	RECP - 1ST FLR 131	20	1	1	20	RECP - 1ST FLR 119	36
37	RECP - 1ST FLR 120	20	1	1	20	RECP - OUTDOOR	38
39	HAND DRYER - 1ST FLR 124	20	1	1	20	RECP - OUTDOOR	40
41	RECP - 1ST FLR 119	20	1	1	20	RECP - ELEVATOR PIT	42
43	RECP - 1ST FLR 119	20	1	1	20	RECP - ICE MACHINE RM 123	44
45	RECP - TV'S 1ST FLR 119	20	1	1	20	RECP - TV'S 1ST FLR 119	46
47	RECP - TV'S 1ST FLR 103	20	1	1	20	SPARE	48
49	HAND DRYER 1ST FLR 105	20	1	1	20	SPARE	50
51	SPARE	20	1	1	20	SPARE	52
53	SPARE	20	1	1	20	SPARE	54

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
50 Broadway, Hawthorne, NY 10532
8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL PANEL SCHEDULES

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

STATE OF NEW YORK * PATRICK F. LYNCH * 069467 * LICENSED PROFESSIONAL ENGINEER

Drawing No.
E6.3

KP PANEL SCHEDULE

MAIN RATING: 200A M.L.O. KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	EUH-A	15	2	2	15	EUH-A	2
3							4
5	EUH-A	15	2	2	15	EUH-A	6
7							8
9	SPARE	20	1	1	20	RECP 2ND FLOOR	10
11	SPARE	20	1	1	20	RECP 2ND FLOOR	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35							36
37							38
39							40
41							42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B.

NOTES:

LSP2 PANEL SCHEDULE (FUSED LIFE-SAFETY PANEL)

MAIN RATING: 100A MAIN: M.L.O. KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	FUSE AMPS	NO. OF POLES	NO. OF POLES	FUSE AMPS	LOAD DESCRIPTION	CIRC. NO.
1	LRP2-2,4	20	1	1	20	LRP2-2,4	2
3	SPARE	20	1	1	20	LRP2-6,8	4
5	SPARE	20	1	1	20	LRP2-10	6
7	LTG – 2ND FLR ST-1	20	1	1	20	LRP2-12,14,16	8
9	SPARE	20	1	1	20	LRP2-18,20,22,24,26,28	10
11	SPARE	20	1	1	20	SPARE	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35							36
37							38
39							40
41							42

LK – PROVIDE LOCKING TABS

NOTES: PROVIDE INTEGRAL SURGE PROTECTOR WITH VISIBLE STATUS INDICATION AND SURGE COUNTER.

RP2B PANEL SCHEDULE

MAIN RATING: 200A MAIN C.B.: 200A KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
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	–	–	–	–	–	–	26
27	–	–	–	–	–	–	28
29	–	–	–	–	–	–	30
31	–	–	–	–	–	–	32
33	–	–	–	–	–	–	34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B.

NOTES:

RP2A PANEL SCHEDULE

MAIN RATING: 200A MAIN C.B.: 200A KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	RECP – 2ND FLR 202	20	1	1	20	RECP – 2ND FLR 204	2
3	RECP – 2ND FLR 202	20	1	1	20	RECP – 2ND FLR 204	4
5	RECP – 2ND FLR 203	20	1	1	20	RECP – 2ND FLR 204	6
7	RECP – 2ND FLR 203 (COPIER)	20	1	1	20	RECP – 2ND FLR 204	8
9	RECP – 2ND FLR 212	20	1	1	20	RECP – 2ND FLR 205	10
11	RECP – 2ND FLR 212	20	1	1	20	RECP – 2ND FLR 205	12
13	RECP – 2ND FLR 207, 210, 211	20	1	1	20	RECP – 2ND FLR 206, 213, 214	14
15	RECP – 2ND FLR 218, 220	20	1	1	20	RECP – 2ND FLR 209, 208, 215	16
17	RECP – 2ND FLR HALL CLOSET	20	1	1	20	RECP – 2ND FLR 216, 217	18
19	RECP – 2ND FLR HALL CLOSET	20	1	1	20	RECP – 2ND FLR M-01	20
21	RECP – 2ND FLR HALL CLOSET	20	1	1	20	RECP – 2ND FLR M-02	22
23	RECP – 2ND FLR WATER BOTTLE FILL	20	1	1	20	RECP – 2ND FLR 206	24
25	HAND DRYER 2ND FLR 210	20	1	1	20	RECP – ATTIC	26
27	HAND DRYER 2ND FLR 211	20	1	1	20	RECP – TV 2ND FLR 204	28
29	OUTDOOR SIGN	20	1	1	20	SPARE	30
31	SPARE	20	1	1	20	SPARE	32
33	SPARE	20	1	1	20	SPARE	34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B; AX – AUXILIARY CONTACTS.

NOTES:

LRP2 SCHEDULE (LIGHTING RELAY PANEL)

RELAY NO.	DESCRIPTION	CIRCUIT BREAKER SERVING RELAY	CIRCUIT BREAKER SERVING RELAY	DESCRIPTION	RELAY NO.
1	LTG – 2ND FLR RM 202	LP2-1	LSP2-2	LTG – 2ND FLR RM 202	2
3	LTG – 2ND FLR RM 212	LP2-1	LSP2-2	LTG – 2ND FLR RM 212	4
5	LTG – 2ND FLR RM 210	LP2-1	LSP2-4	LTG – 2ND FLR RM 201	6
7	LTG – 2ND FLR RM 211	LP2-1	LSP2-4	LTG – 2ND FLR RM 215	8
9	LTG – 2ND FLR RM 204	LP2-3	LSP2-6	LTG – 2ND FLR RM 219	10
11	LTG – 2ND FLR RM 205	LP2-3	LSP2-8	LTG – 2ND FLR RM 209	12
13	LTG – 2ND FLR RM 206	LP2-3	LSP2-8	LTG – 2ND FLR RM 210	14
15	LTG – 2ND FLR RM 214	LP2-3	LSP2-8	LTG – 2ND FLR RM 211	16
17	LTG – 2ND FLR RM 213	LP2-3	LSP2-10	LTG – 2ND FLR RM 204	18
19	LTG – 2ND FLR RM 208	LP2-3	LSP2-10	LTG – 2ND FLR RM 205	20
21	LTG – 2ND FLR RM 216	LP2-5	LSP2-10	LTG – MEZZANINE M-01	22
23	LTG – 2ND FLR RM 217	LP2-5	LSP2-10	LTG – MEZZANINE M-02	24
25	LTG – 2ND FLR RM 220	LP2-5	LSP2-10	LTG – MEZZANINE STORAGE	26
27	LTG – 2ND FLR RM 218	LP2-5	LSP2-10	LTG – 2ND FLR RM 203	28
29	OUTDOOR	LP2-5			30
31	LTG – MEZZANINE M-02	LP2-7			32
33	LTG – MEZZANINE STORAGE	LP2-7			34
35	LTG – 2ND FLR RM UNNAMED	LP2-5			36
37	LTG – 2ND FLR RM 207	LP2-5			38
39	LTG – ATTIC	LP2-7			40
41					42
43					44
45					46
47					48

NOTES:

1. PANEL SHALL BE GR2400 RELAY PANEL WITH 48 RELAYS. PROVIDE INTEGRAL DIGITAL TIME CLOCK WITH MODEM.
2. CONTRACTOR SHALL COORDINATE TIME CLOCK REQUIREMENTS WITH THE OWNER AND PROGRAM TO SUIT THE OWNERS NEEDS.

LP2 PANEL SCHEDULE

MAIN RATING: 100A MAIN C.B.: MLO KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	LRP2-1,3,5,7	20	1	1	20	SPARE	2
3	LRP2-9,11,13,15,17,19	20	1	1	20	SPARE	4
5	LRP2-21,23,25,27,35,37	20	1	1	20	SPARE	6
7	LRP2-31,33,39	20	1	1	20	SPARE	8
9							10
11							12
13							14
15							16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35							36
37							38
39							40
41							42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B.

NOTES:

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MEP Engineer: OLA Consulting Engineers
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Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
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09.01.20	CONSTRUCTION PROGRESS
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01.15.21	ISSUED FOR BID

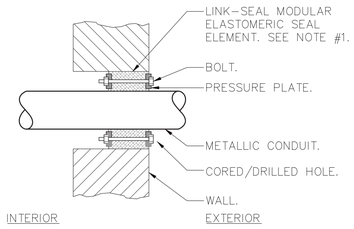
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL PANEL SCHEDULES

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

STATE OF NEW YORK PATRICK F. LYNCH 069467 LICENSED PROFESSIONAL ENGINEER

Drawing No.
E6.4

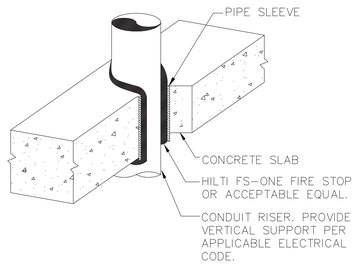


NOTES:

1. SEAL ASSEMBLY BASED ON MODEL "C" LINK-SEAL MODULAR SEAL, WITH EPDM SEAL ELEMENT, REINFORCED NYLON POLYMER PRESSURE PLATES, STEEL WITH 2-PART ZINC DICHROMATE & CORROSION INHIBITING COATING NUTS AND BOLTS AND WITH A OPERATING TEMPERATURE RANGE OF -40°F TO +250°F.
2. PROVIDE AND INSTALL TWO SEALS WHEN PENETRATED WALL THICKNESS IS GREATER THAN 12".
3. PROVIDE SCHEDULE 80 WALL SLEEVE FOR NEW WALL CONSTRUCTION PER MANUFACTURER'S REQUIREMENTS.

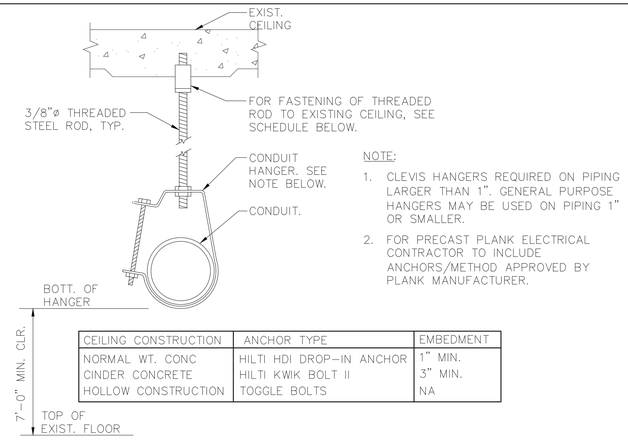
9 TYPICAL EXTERIOR MASONRY WALL BELOW GRADE CONDUIT PENETRATION DETAIL

SCALE: NONE



6 TYPICAL VERTICAL CONDUIT PENETRATION DETAIL

SCALE: NONE



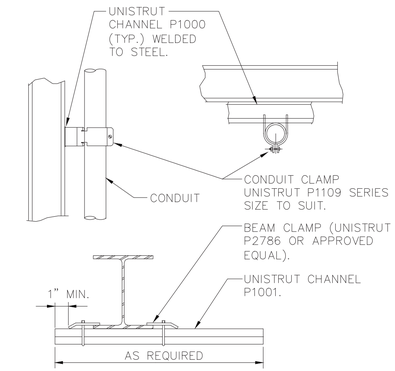
NOTE:

1. CLEVIS HANGERS REQUIRED ON PIPING LARGER THAN 1". GENERAL PURPOSE HANGERS MAY BE USED ON PIPING 1" OR SMALLER.
2. FOR PRECAST PLANK ELECTRICAL CONTRACTOR TO INCLUDE ANCHORS/METHOD APPROVED BY PLANK MANUFACTURER.

CEILING CONSTRUCTION	ANCHOR TYPE	EMBEDMENT
NORMAL WT. CONC	HILTI HDI DROP-IN ANCHOR	1" MIN.
CINDER CONCRETE	HILTI KWIK BOLT II	3" MIN.
HOLLOW CONSTRUCTION	TOGGLE BOLTS	NA

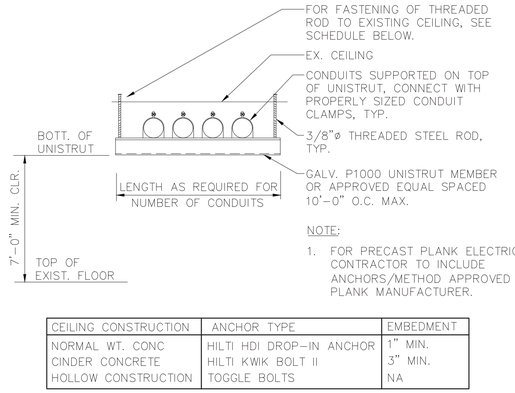
8 SINGLE CONDUIT HANGER DETAIL

SCALE: NONE



7 CONDUIT SUPPORTED FROM STRUCTURAL STEEL

SCALE: NONE



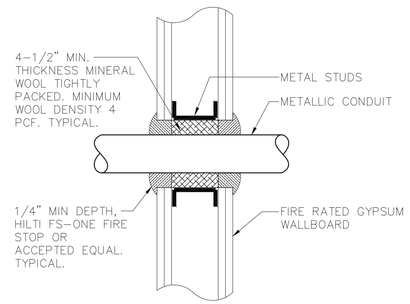
NOTE:

1. FOR PRECAST PLANK ELECTRICAL CONTRACTOR TO INCLUDE ANCHORS/METHOD APPROVED BY PLANK MANUFACTURER.

CEILING CONSTRUCTION	ANCHOR TYPE	EMBEDMENT
NORMAL WT. CONC	HILTI HDI DROP-IN ANCHOR	1" MIN.
CINDER CONCRETE	HILTI KWIK BOLT II	3" MIN.
HOLLOW CONSTRUCTION	TOGGLE BOLTS	NA

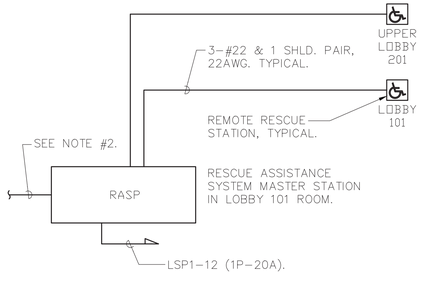
5 TRAPEZE SUPPORT DETAIL

SCALE: NONE



4 TYPICAL FIRE RATED GYPSUM WALL CONDUIT PENETRATION DETAIL

SCALE: NONE



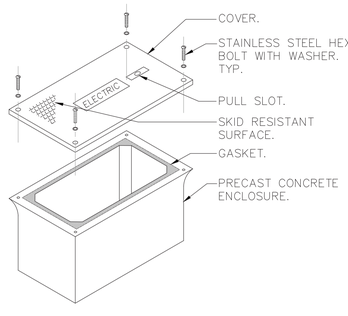
NOTES:

1.) PROVIDE ALL NECESSARY WIRING, MODULES, COMPONENTS, EXTENDER CABINET, AND PROGRAMMING REQUIRED.

2.) PROVIDE A PHONE LINE PLUS A DIALER FOR RESCUE ASSISTANCE SYSTEM MASTER STATION MONITORING.

3 RESCUE ASSISTANCE SYSTEM RISER DIAGRAM

SCALE: NONE

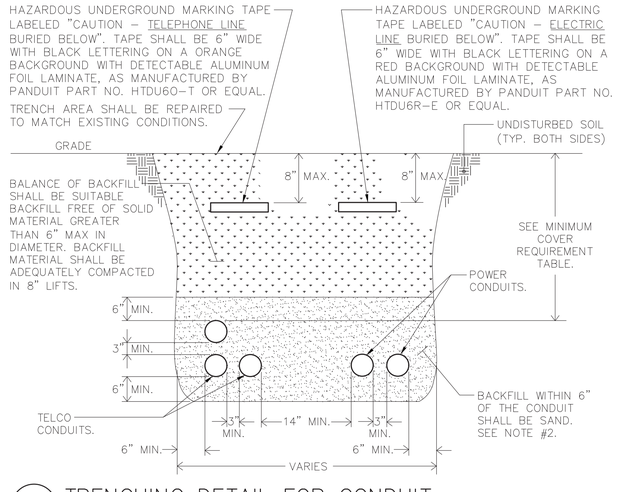


NOTES:

1. HAND HOLE SHALL BE 18"L x 11"W x 18"H WITH OPEN BOTTOM AND RATED FOR VEHICULAR TRAFFIC AS MANUFACTURED BY QUAZITE, MODEL #PC1118BA OR EQUAL. BOX SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. PROVIDE 6" OF GRAVEL BELOW BOX.
3. COVER SHALL BE IMPRINTED WITH THE APPROPRIATE DESCRIPTION OF BOX CONTENTS (I.E. ELECTRIC, TELEPHONE, DATA, CABLE TV, ETC.).

2 HAND HOLE DETAIL

SCALE: NONE



MINIMUM COVER REQUIREMENT TABLE	
LOCATION	NONMETALLIC RACEWAYS LISTED FOR DIRECT BURIAL WITHOUT CONCRETE ENCASEMENT OR OTHER APPROVED RACEWAYS
ALL LOCATION NOT SPECIFIED BELOW.	18"
IN TRENCH BELOW 2-IN. THICK CONCRETE OR EQUIVALENT.	12"
UNDER MINIMUM OF 4-IN. THICK CONCRETE EXTERIOR SLAB WITH NO VEHICULAR TRAFFIC AND THE SLAB EXTENDING NOT LESS THAN 6 IN. BEYOND THE UNDERGROUND INSTALLATION.	4" SEE NOTE #2.
UNDER STREETS, HIGHWAYS, ROADS, ALLEYS, DRIVEWAYS, AND PARKING LOTS.	24"

NOTES:

1. DETAIL SHOWN FOR INFORMATION PURPOSES. SAME CONCEPT SHALL ALSO APPLY FOR SINGLE CONDUITS.
2. SAND MAY BE OMITTED FOR INSTALLATIONS WHERE COVER REQUIREMENTS ARE 6" OR LESS.

1 TRENCHING DETAIL FOR CONDUIT

SCALE: NONE

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MEP Engineer: OLA Consulting Engineers
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Tel: 914-747-2800

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03.10.20	MEETING
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09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

ELECTRICAL DETAILS

Project No.	NBFC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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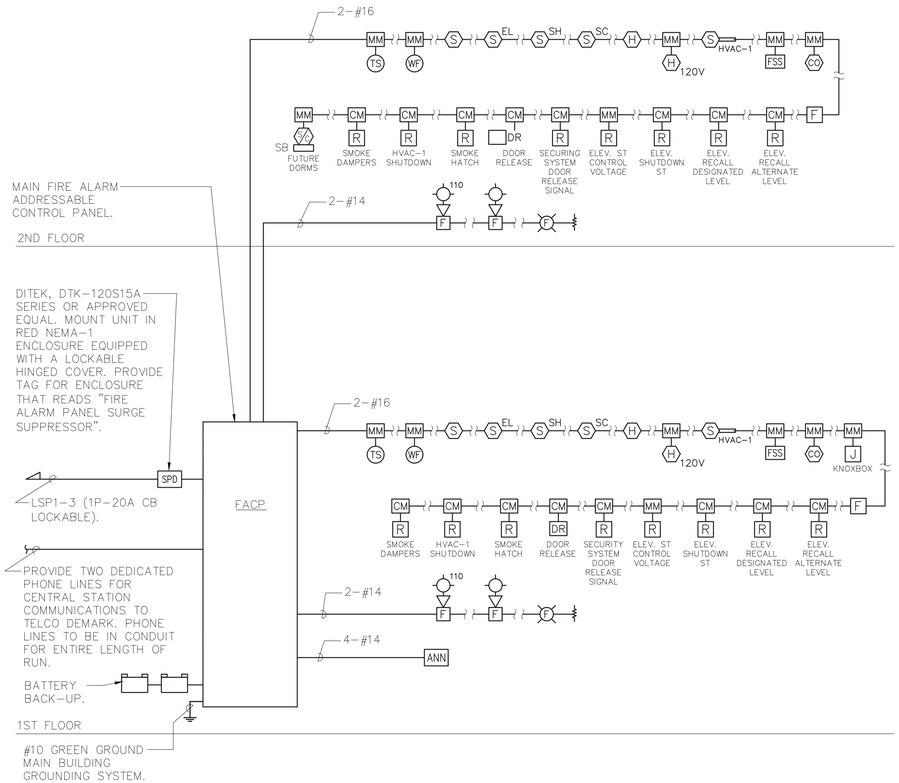
Drawing No.

E7.1



1 FIRE ALARM RISER DIAGRAM
SCALE: NONE

RISER NOTES:

1. THIS IS NOT A POINT-TO-POINT WIRING DIAGRAM. PRIOR TO STARTING ANY WORK, A WORKING POINT-TO-POINT WIRING DIAGRAM SHALL BE OBTAINED FROM FIRE ALARM SYSTEM VENDOR AND PERFORM ALL WORK IN ACCORDANCE WITH THAT DIAGRAM.
2. ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BASE BID ALL 120V CIRCUITS THAT ARE REQUIRED TO SUPPORT THE OPERATION OF THE FIRE ALARM SYSTEM. COORDINATE REQUIREMENTS WITH THE FIRE ALARM VENDOR.
3. QUANTITY OF STROBE BOOSTER POWER SUPPLY PANELS AND ASSOCIATED 120V CIRCUITS SHALL BE COORDINATED WITH SELECTED FIRE ALARM SYSTEM MANUFACTURER AND/OR FIRE ALARM VENDOR.
4. PROVIDE ALL NECESSARY WIRING, MODULES, COMPONENTS, EXTENDER CABINET, AND PROGRAMMING REQUIRED TO CONNECT NEW DEVICES.
5. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING TO PROVIDE THE CLIENT WITH 20% SPARE CAPACITY ON ALL INITIATING AND INDICATING CIRCUITS.
6. PROVIDE AS PART OF THE BASE CONTRACT ALL LABOR AND MATERIALS TO INSTALL FIFTEEN (15) ADDITIONAL FIRE ALARM DEVICES DURING CONSTRUCTION. THE FIFTEEN (15) FIRE ALARM DEVICES CAN BE BUT NOT LIMITED TO SMOKE DETECTOR, HEAT DETECTOR, DOOR HOLDER, DUCT DETECTOR, FAN SHUTDOWN, TAMPER SWITCHES, FLOW SWITCHES, ETC. INCLUDE ALL LABOR AND MATERIALS INCLUDING WIRE, BOXES, CONDUIT, TERMINATIONS, HARDWARE, SOFTWARE, PROGRAMMING AND TESTING.
7. HEAT DETECTORS IN ELEVATOR MACHINE ROOM AND/OR SHAFT SHALL HAVE A LOWER TEMPERATURE RATING THAN THE NEARBY SPRINKLER HEAD(S). HEAT DETECTORS SHALL BE INSTALLED 2'-0" MAXIMUM AWAY FROM EACH SPRINKLER HEAD IN THE ELEVATOR MACHINE ROOM AND EACH HEAD LOCATED GREATER THAN 2'-0" ABOVE THE FLOOR OF THE ELEVATOR SHAFT. UPON ACTIVATION OF A HEAT DETECTOR USED FOR ELEVATOR POWER SHUTDOWN, THERE SHALL BE A DELAY IN THE ACTIVATION OF THE POWER SHUNT TRIP. THIS DELAY SHALL BE THE TIME THAT IT TAKES THE ELEVATOR CAB TO TRAVEL FROM THE TOP OF THE HOISTWAY TO THE LOWEST RECALL LEVEL. COORDINATE WITH ELEVATOR CONTRACTOR.
8. DUCT SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR AND INSTALLED IN DUCT WORK BY MECHANICAL CONTRACTOR.
9. CARBON MONOXIDE AND NATURAL GAS DETECTORS SHALL BE SUPERVISED BY FIRE ALARM SYSTEM BUT SHALL NOT SEND AN ALARM SIGNAL TO THE SYSTEM. THESE DETECTORS SHALL CONTAIN INTERNAL HORNS TO PROVIDE LOCAL ALARM ONLY.
10. ALL VISUAL ALARM DEVICES SHALL BE ADA COMPLIANT.
11. MAKE CONNECTIONS TO SIDES OR BOTTOM OF FACP ONLY.
12. ELECTRICAL CONTRACTOR TO PROVIDE A RELAY FOR EACH SMOKE DAMPER/COMBINATION FIRE SMOKE DAMPER. RELAYS ARE NOT SHOWN ON PLANS FOR CLARITY.
13. DOOR HOLDERS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.
14. MAINTAIN A 19" TO 24" CLEARANCE AROUND THE CENTERLINE OF THE BEAM OF BEAM TYPE SMOKE DETECTORS.
15. PROVIDE REMOTE LED INDICATORS FOR ALL CONCEALED FIRE ALARM DEVICES SUCH AS DUCT SMOKE DETECTORS, ABOVE CEILING SMOKE DETECTORS, ELEVATOR SHAFT DETECTORS, MONITORING AND CONTROL MODULES, ETC. LED INDICATORS FOR DEVICES MOUNTED ABOVE DROP CEILINGS SHALL BE MOUNTED BELOW ASSOCIATED DEVICES. LABEL INDICATORS TO INDICATE DEVICE SERVED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE ENGINEER WITH AN ACCURATE AS-BUILT FIRE ALARM DRAWING, SHOWING INSTALLED DEVICE LOCATIONS AND A COMPLETE INTERCONNECTION WIRING DIAGRAM OF THE SYSTEM. THE DRAWINGS SHALL BE PROVIDED IN AUTOCAD FORMAT AND HARD COPIES. AS-BUILT DRAWINGS MUST BE PROVIDED TO THE ENGINEER BEFORE PROJECT CAN BE CLOSEOUT.
17. CONTRACTOR TO PROVIDE SMOKE DETECTOR(S) IN ALL LOCATIONS CONTAINING FIRE ALARM CONTROL PANELS, DATA GATHERING PANELS, BOOSTER POWER SUPPLIES, OR ANY OTHER FIRE ALARM SYSTEM PANEL, WHETHER SHOWN ON PLANS OR NOT.

FIRE ALARM SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
F	–	FIRE ALARM MANUAL PULL STATION
F	–	FIRE ALARM COMBINATION AUDIO/VISUAL DEVICE (15/75 CD – STROBE)
F 110	–	FIRE ALARM COMBINATION AUDIO/VISUAL DEVICE (110 CD – STROBE)
F	–	FIRE ALARM STROBE 15/75 CD
F 110	–	FIRE ALARM STROBE 110 CD
S EL; SH; SC	–	SMOKE DETECTOR. EL – ELEVATOR LOBBY; SH – SMOKE HATCH; SC – PLENUM RATED ABOVE CEILING
SB	SB	FIRE ALARM DEVICE. SB – SOUNDER BASE FOR SMOKE OR CARBON MONOXIDE DETECTOR
CO	–	CARBON MONOXIDE DEVICE (15/75 CD – STROBE)
S AC-	–	DUCT MOUNTED SMOKE DETECTOR
H	–	HEAT DETECTOR
CO	–	CARBON MONOXIDE DETECTOR
NG	–	NATURAL GAS DETECTOR
F	–	FIRE ALARM BELL
TS	–	FIRE ALARM TAMPER SWITCH
WF	–	FIRE ALARM WATER FLOW SWITCH
WS	–	FIRE ALARM WARDEN STATION
DR	–	FIRE ALARM DOOR RELEASE
ANN	–	FIRE ALARM ANNUNCIATOR PANEL
CM	CM	FIRE ALARM CONTROL MODULE
MM	MM	FIRE ALARM MONITORING MODULE
FACP	FACP	FIRE ALARM CONTROL PANEL
BPS	BPS	BOOSTER POWER SUPPLY
DGP	DGP	DATA GATHERING PANEL
FCS	FCS	FIRE COMMAND STATION
FSS	FSS	FIRE SUPPRESSION SYSTEM PANEL
R	–	FIRE ALARM RELAY
-WW-	EOL	END OF LINE RESISTOR
– – –	SD OR CFSD	SMOKE DAMPER
	ST	SHUNT TRIP

NOTES:
1. ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE APPLICABLE FOR THIS PROJECT.

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01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
FIRE ALARM SYMBOLS, ABBREVIATIONS, NOTES AND RISER DIAGRAM

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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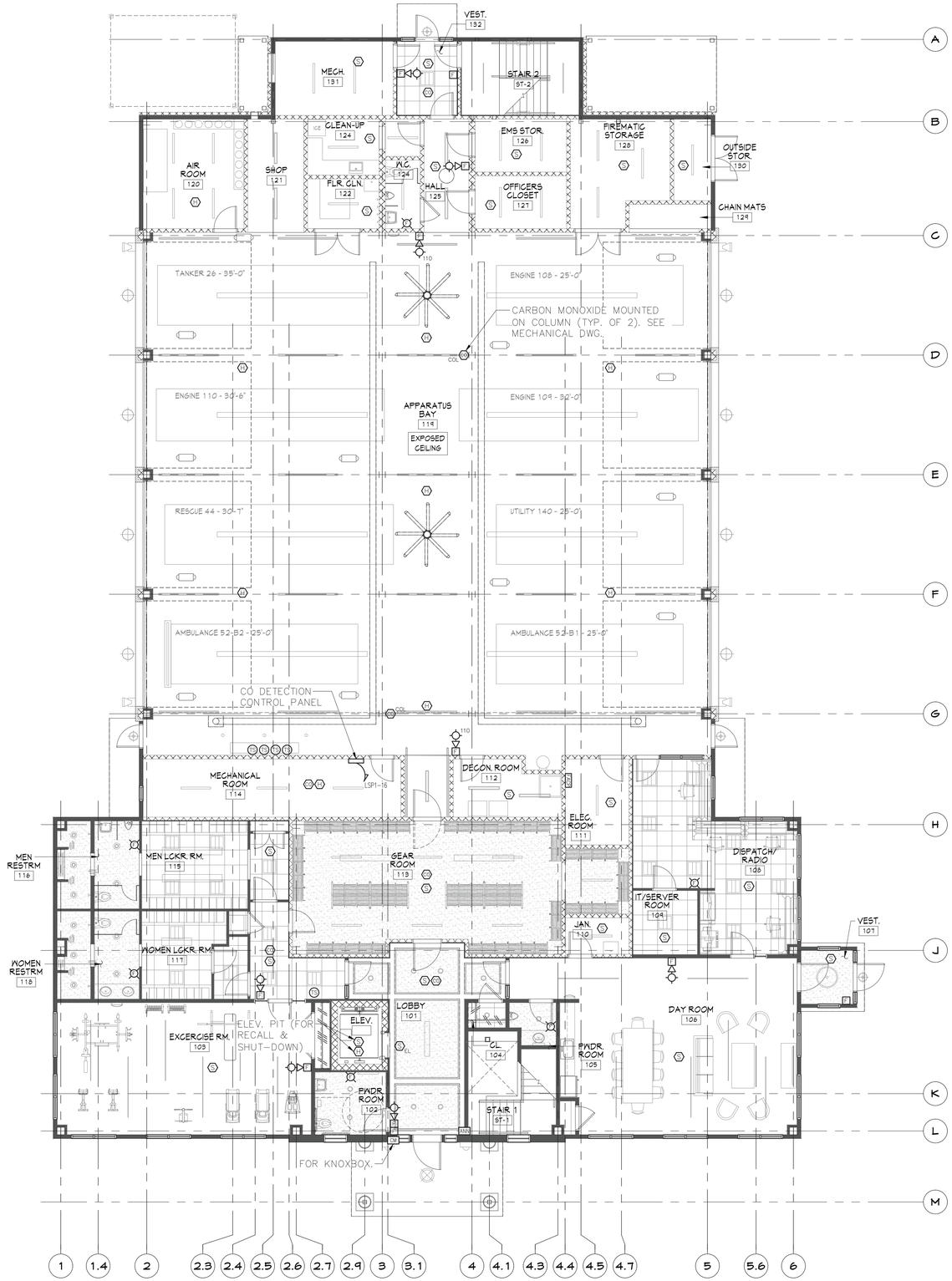
Drawing No.
FA0.1



1 FIRE ALARM FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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01.15.21	ISSUED FOR BID

Project Title
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550 Old Post Road
Bedford, NY 10506

Drawing Title
FIRE ALARM FIRST FLOOR PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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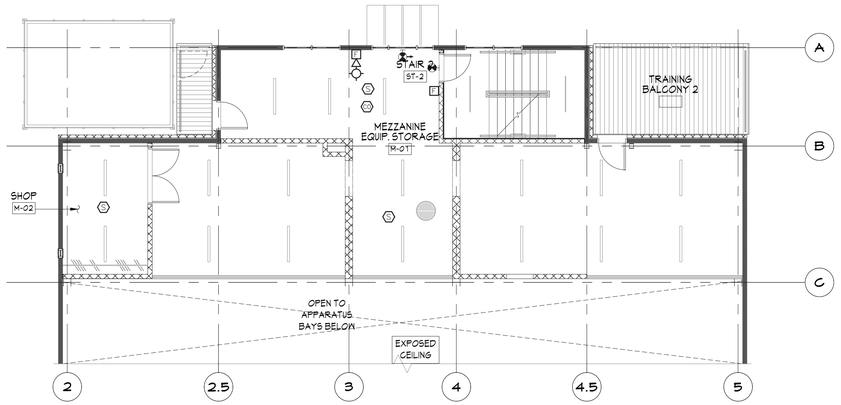
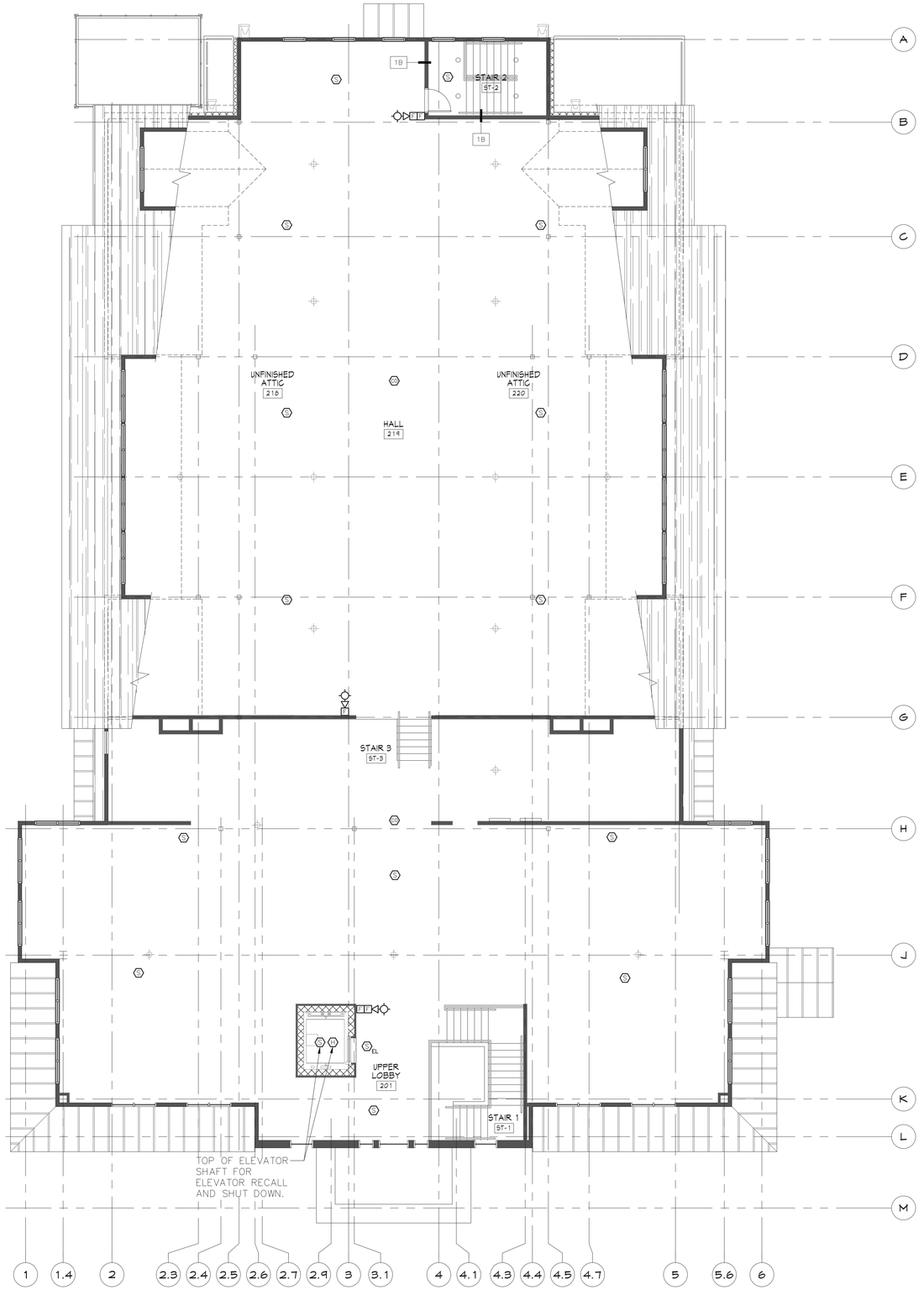
Drawing No.
FA2.1



NORTH

1 FIRE ALARM MEZZANINE PLAN
SCALE: 1/8" = 1'-0"



NORTH

2 FIRE ALARM SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

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06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
FIRE ALARM MEZZANINE & SECOND FLOOR PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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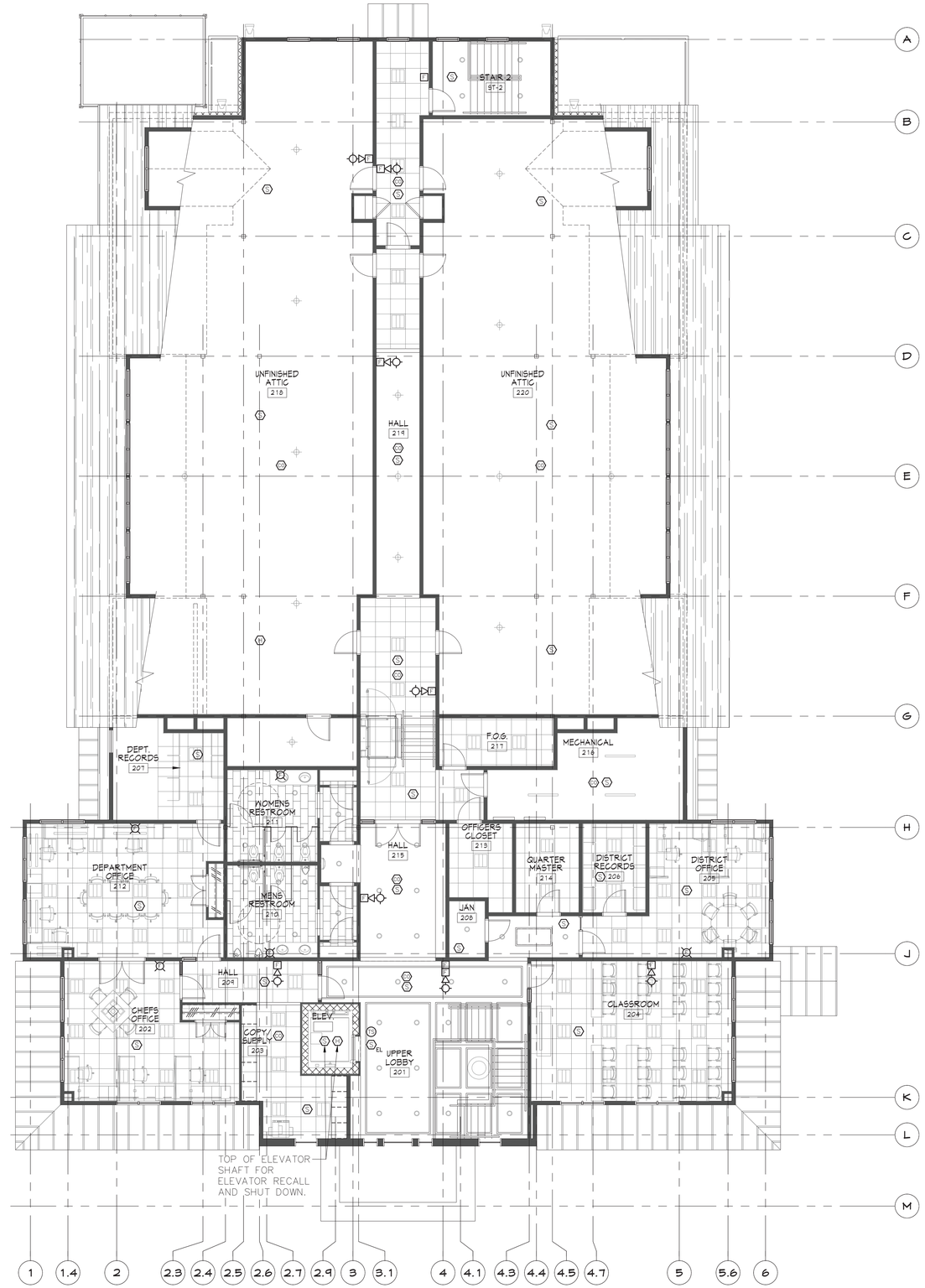
Drawing No.
FA2.2



NORTH

2 FIRE ALARM SECOND FLOOR PLAN (ALTERNATE)
SCALE: 1/8" = 1'-0"

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09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
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Bedford, NY 10506

Drawing Title
FIRE ALARM SECOND FLOOR PLAN (ALTERNATE)

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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Drawing No.
FA2.2A