	ELECTRICAL SYMBOL LIST
	(NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT)
SYMBOL	DESCRIPTION
Φ	20A, 125V DECORA STYLE DUPLEX RECEPTACLE - FLUSH WALL MOUNTED
	20A, 125V DECORA STYLE DUPLEX RECEPTACLE WITH DUAL USB PORTS
Φ	20A, 125V SINGLE RECEPTACLE - FLUSH WALL MOUNTED
₩	20A, 125V DECORA STYLE QUADRUPLEX RECEPTACLE - FLUSH WALL MOUNTED
P	20A, 125V DECORA STYLE GFCI TYPE DUPLEX RECEPTACLE - FLUSH WALL MOUNTED
WP	20A, 125V GFCI TYPE WEATHER RESISTANT DUPLEX RECEPTACLE IN WEATHER PROOF ENCLOSURE
M	SPECIAL PURPOSE RECEPTACLE - FLUSH WALL MOUNTED
\bigcirc	2 HOUR RATED FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
J	CEILING MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION
Ŷ	FLUSH WALL MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION
J	FLUSH FLOOR MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION
	UNFUSED DISCONNECT SWITCH
$\square \frac{100A}{60A}$	FUSED DISCONNECT SWITCH – 100 AMP SWITCH, 60 AMP FUSE, UNFUSED (EXCEPT WHERE FUSE SIZE IS INDICATED) 3-POLE (EXCEPT WHERE NOTED)
₿	COMBINATION MOTOR CONTROLLER AND DISCONNECT SWITCH FURNISHED BY MECHANICAL CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR. COOR. LOCATION W/MECH. CONT.
CB <u>100A</u> 60A	CIRCUIT BREAKER 100A FRAME/60A TRIP, 3 POLE, U.O.N. ST - SHUNT TRIP
VFD	VARIABLE FREQUENCY DRIVE (VFD), FURNISHED BY MECHANICAL CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR. COORD. LOCATION WITH MECH. CONTRACTOR
M	MOTOR
	PULLBOX, SIZED PER NEC
Т	DRY TYPE 480–208V TRANSFORMER DELTA–WYE WITH GROUNDED SECONDARY SIDE, UON.
	FLUSH MOUNTED PANELBOARD
	SURFACE MOUNTED PANELBOARD
GND	GROUND BAR
	2#12+1#12G-3/4"C FOR ONE CKT. HOMERUN, U.O.N.
	3#12+1#12G-3/4"C FOR TWO CKT. HOMERUN, U.O.N.
	4#12+1#12G-3/4"C FOR THREE CKT. HOMERUN, U.O.N.
	3#12+1#12G-3/4"C HOMERUN, U.O.N.
	CONCEALED CONDUIT
•	CONDUIT TURNING UP
	CAPPED CONDUIT
	FLEXIBLE EQUIPMENT CONNECTION
Ţ	GROUND CONNECTION
\$ _T	MANUAL STARTER – TOGGLE TYPE WITH THERMAL ELEMENT – 250V HP RATED, FURNISHED BY ELEC CONTRACTOR

	ELECTRICAL AE	BREVIATI	<u>SNS</u>
	(NOT ALL SYMBOLS SHOWN ARE NEC	ESSARILY USE	ED ON THIS PROJECT)
A	AMPERE	КСМ	THOUSAND CIRCULAR MILS
AC	ABOVE COUNTER	KV	KILOVOLT
AFF	ABOVE FINISHED FLOOR	KVA	KILOVOLT AMPERE
AHJ	AUTHORITY HAVING JURISDICTION	KW	KILOWATT
AIC	AMP INTERRUPTING CAPACITY	KWH	KILOWATT HOUR
ATS	AUTOMATIC TRANSFER SWITCH	LTG	LIGHTING
AUTO	AUTOMATIC	MAX	MAXIMUM
AWG	AMERICAN WIRE GAUGE	МСВ	MAIN CIRCUIT BREAKER
BLDG	BUILDING	МСС	MOTOR CONTROL CENTER
С	CONDUIT	MIN	MINIMUM
СВ	CIRCUIT BREAKER	MTD	MOUNTED
CCTV	CLOSED CIRCUIT TELEVISION	N	NEUTRAL
СКТ	CIRCUIT	NIC	NOT IN CONTRACT
CO	CARBON MONOXIDE	NTS	NOT TO SCALE
СОММ	COMMUNICATION	OC	ON CENTER
СТ	CURRENT TRANSFORMER	Р	POLE
CU	COPPER	ø or PH	PHASE
DEG	DEGREE	PNL	PANEL
DGP	DATA GATHERING PANEL	PWR	POWER
DISC	DISCONNECT	R	RELOCATED
DN	DOWN	RECEPT	RECEPTACLE
DWG	DRAWING	TEL	TELEPHONE
E/EX	EXISITNG TO REMAIN	TOS	TOP OF SHAFT
EC	ELECTRICAL CONTRACTOR	TV	TELEVISION
EM	EMERGENCY	TYP	TYPICAL
ER	EXISTING TO BE REMOVED	UON	UNLESS OTHERWISE NOTED
ERR	EXISTING TO BE REMOVED AND RELOCATED	V	VOLT OR VOLTAGE
FA	FIRE ALARM	VA	VOLT AMPERE
FACP	FIRE ALARM CONTROL PANEL	VIF	VERIFY IN FIELD
FL	FLOOR	W	WATT
FT	FEET OR FOOT	WP	WEATHERPROOF
GRD	GROUND	WT	WATERTIGHT
GFI	GROUND FAULT INTERRUPTER	XP	EXPLOSION PROOF
HID	HIGH INTENSITY DISCHARGE		
HP	HORSE POWER		
HZ	HERTZ		
JB	JUNCTION BOX		

NEW YORK STATE CODES & STANDARDS
 2020 BUILDING CODE OF NEW YORK STATE 2020 FIRE CODE OF NEW YORK STATE 2020 PLUMBING CODE OF NEW YORK STATE 2020 MECHANICAL CODE OF NEW YORK STATE 2020 FUEL GAS CODE OF NEW YORK STATE 2020 NYS UNIFORM CODE SUPPLEMENT NYS EDUCATION DEPARTMENT 1998 MANUAL OF PLANNING STANDARDS
NEW YORK STATE ENERGY CODES
 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE 2016 ASHRAE 90.1
REFERENCED STANDARDS
APPLICABLE REFERENCE STANDARDS SHALL BE AS REFERENCED BY ALL STATE CODES. TH LIST BELOW IS FOR QUICK REFERENCE AND DOES NOT INCLUDE ALL APPLICABLE REFEREN STANDARDS.
 2016 NPFA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS 2016 NFPA 14 - STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEM 2016 NFPA 20 - STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTI 2017 NFPA 70 - NATIONAL ELECTRICAL CODE 2016 NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE

	LIGHTING CONTROL SYMBOL LIST
	(NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT)
SYMBOL	DESCRIPTION
\$	SINGLE POLE LINE VOLTAGE SWITCH
\$ ³	3-WAY LINE VOLTAGE SWITCH
\$ ^K	KEY ACTIVATED LINE VOLTAGE SWITCH
Ŷ	DUAL TECHNOLOGY OCCUPANCY SENSOR, WALL MTD.
o _{OS}	DUAL TECHNOLOGY HIGH BAY OCCUPANCY SENSOR, PENDANT MTD.

FIRE ALARM SYMBOL LIST

(NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT)

DESCRIPTION

MOUNTED (WITH ADJUSTABLE CANDELA RATING)

DUCT SMOKE DETECTOR

FIRE ALARM PULL STATION

CEILING MOUNTED ADDRESSABLE SMOKE DETECTOR

COMBINATION FIRE ALARM BELL/STROBE LIGHT UNIT - FLUSH WALL

SYMBOL

 $\langle S \rangle$

 $\langle D \rangle$

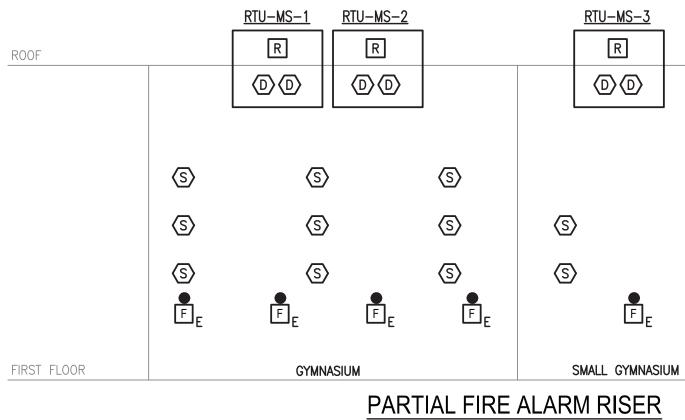
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	R FIRE ALARM RELAY			
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			LIGHTING FIXTURE SCHEE	DULE
TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	WATTAGE
F1	GYMNASIUM HIGH BAY	HOLOPHANE	PHZ 35000LM MDFR MVOLT 40K 80CRI PM DWHXD WGX	254W / 4
F2	GYMNASIUM HIGH BAY	HOLOPHANE	PHZ 35000LM MDFR MVOLT 40K 80CRI PM DWHXD WGX	254W / 4
EM1	EMERGENCY/EXIT COMBO	LITHONIA	LHQM LED R SD ELA WG3	
X1	EXIT SIGN	LITHONIA	LQM S W 3 R MVOLT EL N SD ELA WG1	

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ELE	CTRICAL DRAWING LIST
SHEET NUMBER	SHEET TITLE
MS E001	COVER SHEET
MS E002	GENERAL NOTES
MS E101	PART PLANS - POWER
MS E102	PART PLANS (ROOF) - POWER
MS E201	PART PLANS - LIGHTING
MS E601	PANEL SCHEDULES
MS E701	DETAILS



## FIRE ALARM GENERAL NOTES:

1. PROVIDE ALL EQUIPMENT, PROGRAMMING & WIRING REQUIRED FOR A COMPLETE CODE COMPLIANT SYSTEM.

2. PROVIDE ALL FILING, PERMIT & FIRE DEPARTMENT INSPECTION FEES.

3. ALL NOTIFICATION AND SIGNAL LINE CIRCUITS SHALL BE CLASS B WIRING WITHOUT T-TAPPING OF CIRCUITS. 4. COORDINATE WITH THE LOCAL AUTHORITY HAVING JURISDICTION FOR THE EXACT SEQUENCE OF OPERATIONS.

5. SMOKE DETECTORS SHALL BE A MINIMUM OF 3 FEET FROM ALL SUPPLY DIFFUSERS.

N.T.S.

6. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT WHEN RUN EXPOSED IN MECHANICAL ROOMS. PROVIDE CONDUIT CONCEALED IN WALLS UP TO ACCESSIBLE CEILING WITH INSULATING BUSHING FOR ALL WALL MOUNTED FIRE ALARM DEVICES. 7. ALL FIRE ALARM EQUIPMENT SHALL BE APPROVED BY LOCAL AHJ PRIOR TO ORDERING.

8. FIRE ALARM RISER IS A DIAGRAMMATIC REPRESENTATION OF THE SYSTEM. REFER TO FLOOR PLANS FOR DEVICE QUANTITY AND LOCATIONS. 9. ALL FIRE ALARM CABLING SHALL BE PLENUM RATED AND MEET PATHWAY SURVIVABILITY LEVEL 2.

10. ALL FIRE ALARM ANNUNCIATING DEVICES SHALL BE "RED".

11. PROVIDE A CONTROL MODULE AND RELAY FOR ALL FIRE SMOKE DAMPERS. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND QUANTITIES. PROVIDE DUCT SMOKE DETECTORS TO ACTIVATE FIRE SMOKE DAMPERS AS REQUIRED. 12. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS THAT INCLUDE MANUFACTURER'S CUT SHEETS WITH EQUIPMENT MODEL NUMBERS, BATTERY CALCULATIONS, CONDUCTOR TYPE AND SIZES, AND VOLTAGE DROP CALCULATIONS. 13. REMOVE EXISTING FIRE ALARM DEVICES IN SCOPE OF WORK AREA WHERE NEW DEVICES ARE INDICATED. 14. ALL NEW FIRE ALARM DEVICES SHALL BE TIED INTO EXISTING ADDRESSABLE FIRE ALARM LOOPS. PROVIDE ADDITIONAL ADDRESSABLE CARDS/AMPLIFIER/POWER SUPPLY/WIRING AND CONDUIT AS REQUIRED.

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JLE		
NATTAGE / CCT / LUMENS / CRI	VOLTS	NOTES
254W / 4000K / 28215LM / 80	UNV	MOUNT AT 21.5 FT. AFF TO BOTTOM OF LENS
254W / 4000K / 28215LM / 80	UNV	MOUNT AT 17 FT. AFF TO BOTTOM OF LENS
	UNV	MOUNT AT 9 FT. AFF
	UNV	MOUNT AT 9 FT. AFF

S S



2021-2022 MIDDLE SCHOOL GYMNASIUMS RENOVATIONS AND MIDDLE SCHOOL ROOF REPLACEMENT PROJECT

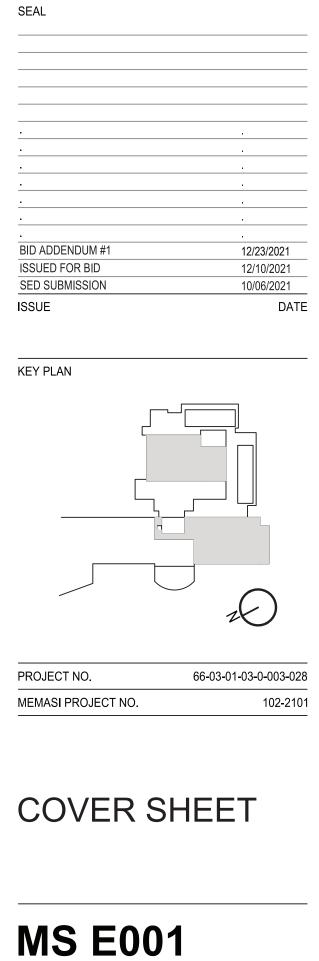


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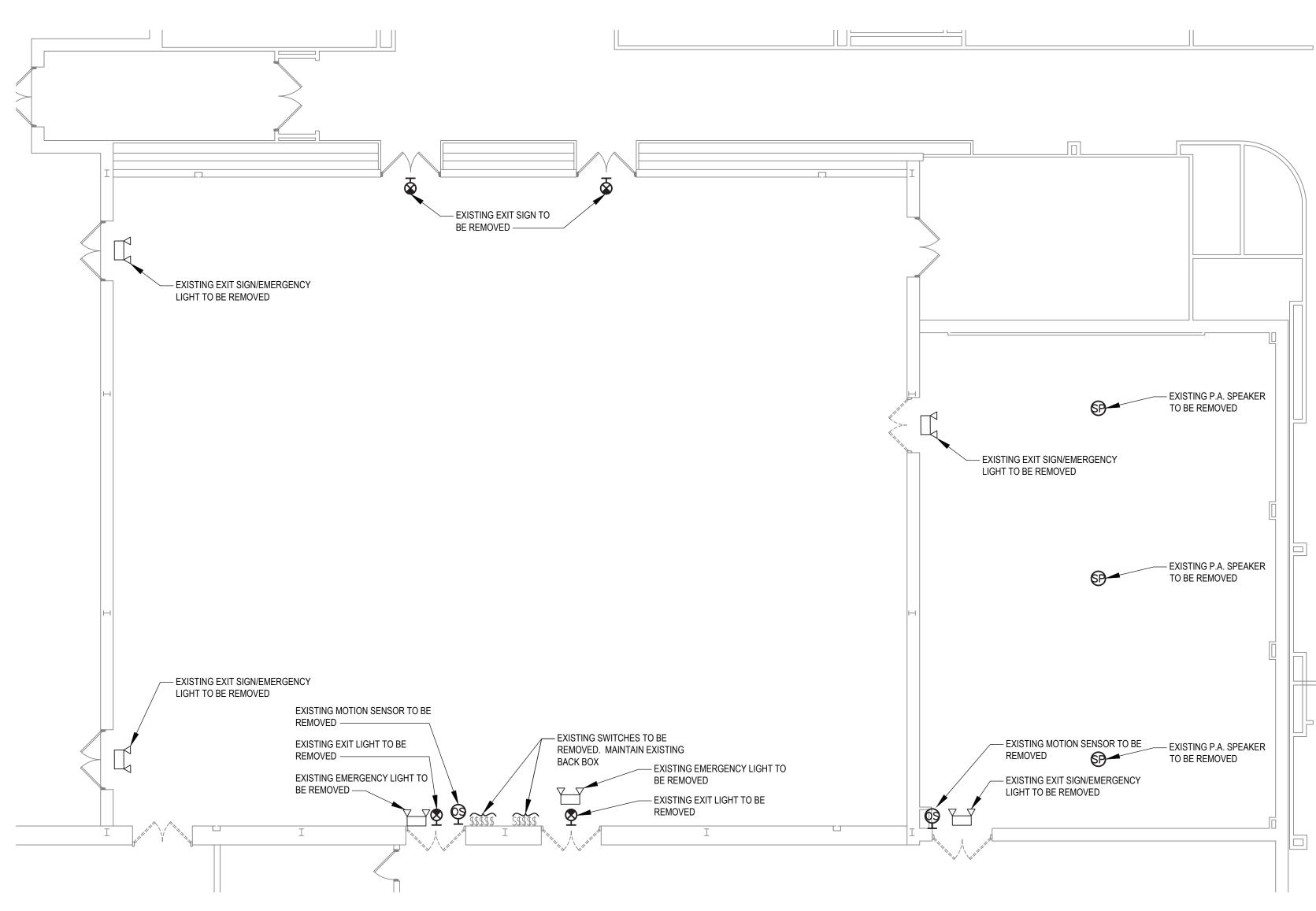
STRUCTURAL CONSULTANT **REILLY TARANTINO ENGINEERING** 1000 PARK BOULEVARD, #209 MASSAPEQUA PARK, NY 11762 631.724.7888

MEP CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905 203.352.1717 PROJECT NUMBER: 223030768

HAZARDOUS MATERIALS CONSULTANT WSP 96 MORTON STREET, 8TH FLOOR NEW YORK, NY 10014 212.612.7924



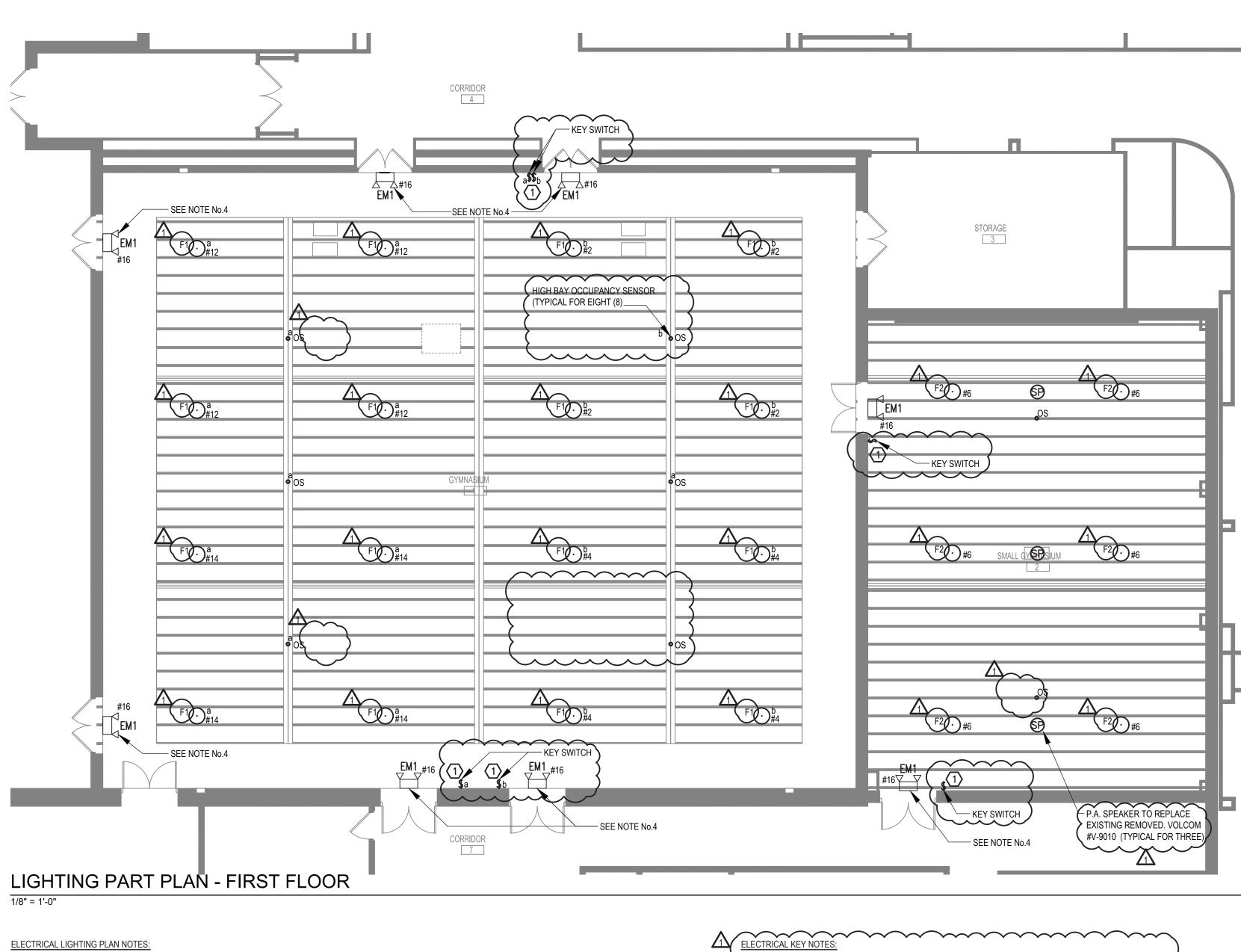
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ELECTRICAL DEMOLITION PLAN NOTES:

- 1. DISCONNECT AND REMOVE ALL EXISTING LIGHT FIXTURES AND ASSOCIATED SWITCHES, LIGHTING CONTROL DEVICES, CONDUIT, AND WIRING BACK TO THE SOURCE.
- 2. DISCONNECT AND REMOVE ALL EXISTING EMERGENCY LIGHT FIXTURES AND EXIT SIGNS AND ASSOCIATED CONDUIT, AND WIRING BACK TO THE SOURCE.
- 3. ELECTRICAL CONTRACTOR SHALL REMOVE ALL ABANDONED AND UNUSED CONDUIT, JUNCTION BOXES, WIRING, ETC. THROUGHOUT ENTIRE CEILING, STRUCTURE AND WALLS IN BOTH
- GYMNASIUMS. 4. REFER TO ARCHITECTURAL ELEVATIONS FOR ELECTRICAL DEMOLITION SCOPE. AND EQUIPMENT
- LOCATIONS.
- 5. DISCONNECT EXISTING P.A. SPEAKERS AND TIE BACK AND MAINTAIN EXISTING WIRING TO RECONNECT TO REPLACEMENT SPEAKERS.



1. REFER TO DRAWING E-001 FOR LIGHTING FIXTURE SCHEDULE.

2. ALL LIGHTING FIXTURES SHALL CIRCUIT TO PANEL LP-G'. CIRCUITS ARE SHOWN WITH "#" ADJACENT TO LIGHTING FIXTURE AND ARE FOR REFERENCE ONLY AND SHALL BE COORDINATED IN THE FIELD.

- 3. ALL LIGHTING CONTROLS SHALL BE ACHIEVED BY AN NLIGHT WIRELESS CONTROLLER WITH ASSOCIATED RELAYS AND KEYPADS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR SYSTEM CONTROL DETAILS.
- 4. EXISTING EXIT SIGN TO BE REPLACED WITH A COMBINATION EXIT/EMERGENCY LIGHT UNIT.
- 5. ALL DEVICE PLATES SHALL BE STAINLESS STEEL .
- 6. ALL EXPOSED WIRING (REGARDLESS OF VOLTAGE) SHALL BE IN CONDUIT.

7. OCCUPANCY SENSORS SHALL BE PROGRAMMED TO AN AUTO ON OFF OUTSIDE OF SCHEDULED OCCUPIED HOURS.

8. EXTEND/MODIFY EXISTING P.A. SPEAKER WIRING TO REPLACEMENT SPEAKERS IN CONDUIT. FIXTURES DESIGNATED AS EMERGENCY (EM) SHALL ILLUMINATE FOR MINIMUM 90 MINUTES UPON LOSS OF UTILITY POWER. LOCATE TEST SWITCH ADJACENT TO FIXTURE, IF NOT INTEGRAL. 10. CIRCUIT EMERGENCY LIGHTS AND EXIT SIGNS TO NEAREST LIGHTING CIRCUIT AHEAD OF SWITCHING.

11. IN EACH GYMNASIUM, OCCUPANCY SENSOR AUTO ON/OFF OUTSIDE OF SCHEDULED OCCUPIED HOURS. SENSORS INDICATED ARE HIGH-BAY SENSORS MOUNTED TO BOTTOM OF BEAM.

nLIGHT nPOD DIGITAL KEY SWITCH OR EQUAL. RETURN TO CENTER MOMENTARY KEY SWITCH WITH DIM UP / DIM DOWN FUNCTIONALITY. nPOD KEY STS. COORDINATE EXACT LOCATIONS WITH OWNER.

EASTCHESTER **UNION FREE** SCHOOL DISTRICT

2021-2022 MIDDLE SCHOOL GYMNASIUMS RENOVATIONS AND MIDDLE SCHOOL ROOF REPLACEMENT PROJECT



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ISSUED FOR BID 1	2/23/2021
BID ADDENDUM #1 1. ISSUED FOR BID 1 SED SUBMISSION 1 ISSUE	2/23/2021
BID ADDENDUM #1 1. ISSUED FOR BID 1 SED SUBMISSION 1 ISSUE	2/23/2021
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PROJECT NO. 66-03-01-0	3-0-003-0
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	3-0-003

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