LIGHTING FIXTURE NOTES:

1. WHERE INDICATED, PROVIDE FIXTURES WITH EMERGENCY BATTERY TO OPERATE LAMPS FOR 1 1/2 HOURS UPON LOSS OF NORMAL POWER. WIRE EMERGENCY BATTERY AND EXIT LIGHTS TO LINE SIDE OF AREA LIGHTING CIRCUIT TO SENSE LOSS OF NORMAL LIGHT CIRCUIT POWER AND FOR CONTINUOUS TRICKLE CHARGE.
2. SINGLE FACE, LED EXIT LIGHT. RED LETTERS ON BACKGROUND AS CALLED FOR. WIRE TO LINESIDE OF AREA LIGHT CIRCUIT FOR CONTINUOUS TRICKLE CHARGE
3. DOUBLE FACE, LED EXIT LIGHT. RED LETTERS ON BACKGROUND AS CALLED FOR. WIRE TO LINESIDE OF AREA LIGHT CIRCUIT FOR CONTINUOUS TRICKLE CHARGE. PROVIDE DIRECTIONAL CHEVRONS AS INDICATED ON PLAN.
4. DIRECTIONAL CHEVRONS SHALL CONFORM TO NFPA 5–10.4.1.2 AND SHALL BE IDENTIFIABLE AS A DIRECTIONAL INDICATOR AT A MINIMUM OF 40 FT. UNDER ALL SPACE CONDITIONS. REFER TO DETAIL.

EXIT SIGN DIRECTIONAL INDICATOR

6. ALL LAMPS TO BE COLOR TEMPERATURE 3500°K.
7. PROVIDE ERICO FASTENING PRODUCTS (CADDY) CAT. No. 515 OR 515A LIGHT FIXTURE SUPPORT CLIPS ON ALL RECESSED LIGHT FIXTURES. PROVIDE MINIMUM FOUR (4) PER FIXTURE.
8. SEISMIC RESTRAINTS:
   IN ADDITION TO THE REQUIREMENTS OF IBC 2003 SECTION 1621 AND THE NEC SECTION 410–16(c), ALL RECESSED LIGHT FIXTURES SHALL BE PROVIDED WITH SUPPORT WIRES AT A MINIMUM OF FOUR (4) PER FIXTURE AND LOCATED NOT MORE THAN SIX (6") INCHES FROM EACH CORNER, EXTENDED AND ATTACHED TO THE BUILDING STRUCTURE. HANGER WIRES SHALL BE GALVANIZED CARBON STEEL, ASTM A641, SOFT TEMPER, PRE–STRETCHED WITH A YIELD STRESS LOAD OF AT LEAST THREE (3) TIMES DESIGN LOAD BUT NOT LESS THAN 12 GAUGE (0.106"). FOR ROUND FIXTURES OR FIXTURES SMALLER THAN THE CEILING GRID, PROVIDE A MINIMUM OF FOUR (4) WIRES PER FIXTURE AND LOCATE AT EACH CORNER OF THE CEILING GRID IN WHICH THE FIXTURE IS TO BE LOCATED. ADDITIONALLY, WHERE FIXTURES OF SIZES LESS THAN THE CEILING GRID ARE INDICATED TO BE CENTERED IN THE ACOUSTICAL PANEL, SUCH FIXTURES SHALL BE SUPPORTED WITH A MINIMUM OF TWO (2) 3/4" METAL CHANNELS SPANNING AND SECURED TO THE CEILING TEES.
9. WIRE ALL EMERGENCY AND EXIT LIGHT FIXTURES TO LINE SIDE OF AREA LIGHTING CIRCUIT TO SENSE LOSS OF NORMAL LIGHT CIRCUIT POWER AND FOR CONTINUOUS TRICKLE CHARGE.

POWER NOTES:

1. RECEPTACLES LOCATED WITHIN 6' OF A WATER SOURCE, OR OUTSIDE, AND WHERE REQUIRED BY CODE SHALL BE PROVIDED WITH GFCI PROTECTION, WHETHER INDICATED OR NOT.
2. EXTERIOR RECE[TACLES SHALL BE PROVIDED WITH LOCKABLE COVERS RATED "WEATHER–PROOF WHILE IN USE". LOCKS SHALL BE KEYED ALIKE.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED SLEEVES AND SEALS FOR CONDUITS PENETRATING EXTERIOR WALLS AND FLOOR SLABS.
4. ALL WIRING SHALL BE IN CONDUIT, UNLESS OTHERWISE INDICATED.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL LOCATIONS OF MECHANICAL EQUIPMENT WITH DIV. 15 PRIOR TO ROUGHING OR INSTALLING OUTLETS.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER, ALL LOCATIONS OF EQUIPMENT BEING FURNISHED BY OWNER PRIOR TO ROUGHING OR INSTALLING OUTLETS.
7. REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATIONS OF DEVICES PRIOR TO ROUGHING OR INSTALLATION OF OUTLETS.
8. ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF DUCT SMOKE DETECTORS WITH DIV. 15. DUCT SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR, INSTALLED BY DIV. 15.
9. ALL FIRE ALARM WIRING SHALL BE IN CONDUIT.
10. REFER TO DRAWING E103 FOR ELECTRICAL DETAILS AND SCHEDULES.
11. ALL SINGLE POLE HOMERUNS SHALL BE 2#12, 1#12G., 3/4"C TO 20A–1P CIRCUIT BREAKER IN PANEL DESIGNATED UNLESS OTHERWISE NOTED.
12. ALL TWO POLE HOMERUNS SHALL BE 2#12, 1#12G., 3/4"C TO 20A–2P CIRCUIT BREAKER IN PANEL DESIGNATED UNLESS OTHERWISE NOTED.
13. ALL THREE POLE HOMERUNS SHALL BE 3#12, 1#12G., 3/4"C TO 20A–3P CIRCUIT BREAKER IN PANEL DESIGNATED UNLESS OTHERWISE NOTED.
14. ALL CONDUITS SHALL BE RUN CONCEALED IN NEW WALL CONSTRUCTION.
15. ALL RECEPTACLES, FIRE ALARM DEVICES LOCATED AT BUILDING EXTERIOR SHALL BE WEATHERPROOF RATED.
16. CONDUITS AND/OR WIRING SHALL NOT PENETRATE STAIR ENCLOSURES UNLESS SPECIFICALLY SERVING EQUIPMENT OR DEVICES LOCATED WITHIN STAIR ENCLOSURE.

ELECTRICAL ABBREVIATIONS

ABBREV	DESCRIPTION
A	AMPERE
A.F.F.	ABOVE FINISHED FLOOR
AOR	AREA OF REFUGE
AORP	AREA OF REFUGE COMMUNICATION PANEL
B	BUZZER
C/B	CIRCUIT BREAKER
CIR	CIRCUIT
CU	CONDENSING UNIT
DWCP	DOMESTIC WATER CIRCULATING PUMP
EV	EVAPORATOR UNIT
ER	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
HT	HEAT TRACE
HVAC	HEATING VENTILATING AIR CONDITIONING
I/C	INTERCOM/CAMERA COMBINATION UNIT (AIPHONE OR EQUAL)
LTG	LIGHTING
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MH	MOUNTING HEIGHT
MLO	MAIN LUG ONLY
NL	NEW LOCATION OF EXISTING
NR	NEW TO REPLACE EXISTING
P	PAGING SYSTEM
PE	PRIMARY ELECTRIC SERVICE
RE	REMOVE EXISTING
RL	RELOCATE EXISTING
RPS	REMOTE POWER SUPPLY
RR	RELOCATE EXISTING
RTU	ROOFTOP UNIT
S	SPEAKER
SE	SECONDARY ELECTRIC SERVICE
TP	TELEPHONE SERVICE
TX	TRANSFORMER
U.N.O.	UNLESS NOTED OTHERWISE
WAP	WIRELESS ACCESS POINT
WH	WATER HEATER
WP	WEATHER PROOF

GENERAL NOTES:

1. ALL CIRCUITS SHALL BE 2#12,1#12G. IN AN APPROVED RACEWAY SYSTEM. CONNECT TO 20A–1P CIRCUIT BREAKER IN PANEL UNLESS OTHERWISE INDICATED.
2. ALL BRANCH CIRCUITS EXCEEDING 150' IN LENGTH SHALL BE 2#10,1#10G. IN AN APPROVED RACEWAY SYSTEM TO 20A–1P CIRCUIT BREAKER IN PANEL UNLESS OTHERWISE INDICATED.
3. ALL BRANCH POWER CIRCUITS SHALL BE WITH SEPARATE NEUTRALS. USE OF COMMON NEUTRALS WILL NOT BE ALLOWED.
4. FURNISH AND INSTALL REMOTE POWER SOURCE TYPE EMERGENCY LIGHTING BATTERY PACKS WITH TEST SWITCHES FOR CODE REQUIRED EMERGENCY LIGHTING PROVISION TO FIXTURE TYPE "OB" COMPONENTS SHALL BE INSTALLED ABOVE ACCESSIBLE CEILING, READILY ACCESSIBLE FOR MAINTENANCE, INSPECTION AND TESTING. MINIMUM 90 MINUTE OPERATION OF FIXTURE RATED WATTS. WIRING FROM BATTERY UNITS TO EACH LIGHTING FIXTURE SHALL BE 2#10 + GRND, IN 3/4" CONDUIT. REFER TO LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
5. REFER TO PROJECT ASSOCIATED CONTRACT BID DOCUMENT DRAWINGS INCLUDING BUT NOT LIMITED TO REFLECTED CEILING PLANS, OPERATIONAL EQUIPMENT LAYOUT AND EQUIPMENT SCHEDULES FOR REQUIREMENTS AND ADDITIONAL INFORMATION.
6. FIELD VERIFY WITH MANUFACTURER'S PROVIDED EXACT ELECTRICAL CHARACTERISTICS AND CONNECTION REQUIREMENTS OF ALL OPERATIONAL EQUIPMENT PRIOR TO MAKING ELECTRICAL POWER CONNECTION. FURNISH AND INSTALL SAFETY DISCONNECT AS REQUIRED BY NEC.
7. ALL SWITCHES IN GANG BATHROOMS, CORRIDORS, SERVERY, SHALL BE KEY TYPE EQUAL TO HUBBELL HBL1221L OR EQUAL. PROVIDE (12) ADDITIONAL KEYS AND TURN OVER TO THE OWNER FOR ATTIC STOCK.
8. CLEAN AND RE–LAMP IN–KIND ALL EXISTING LIGHT FIXTURES IN THE EXISTING GYM BUILDING MAIN CORRIDOR. CARRY (12) REPLACEMENT LAMP SOCKETS AND LABOR TO INSTALL.
9. CLEAN AND RE–LAMP IN–KIND ALL EXISTING GYMNASIUM 2X4 (4) LAMP LIGHT FIXTURES. CARRY (12) REPLACEMENT LAMP SOCKETS AND (4) BALLASTS PLUS LABOR TO INSTALL.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
○	LIGHT FIXTURE – CEILING MOUNTED – SUBLETTER INDICATES TYPE
⊘	LIGHT FIXTURE – RECESSED – SUBLETTER INDICATES TYPE
▭	LIGHT FIXTURE – 2' x 4' RECESSED MOUNTED – SUBLETTER INDICATES TYPE
⊕	LIGHT FIXTURE – CEILING MOUNTED – SUB–LETTER INDICATES TYPE
⊶	LIGHT FIXTURE – REMOTE SINGLE HEAD EMERGENCY LIGHT
⊶	LIGHT FIXTURE – WALL MOUNTED 2–HEADED EMERGENCY UNIT– SUBLETTER INDICATES TYPE
⊠	LIGHT FIXTURE – SINGLE FACE EXIT SIGN WITH BATTERY – WALL/CEILING MOUNTED
⊢○	LIGHT FIXTURE – WALL MOUNTED – SUBLETTER INDICATES TYPE
⊢○B	LIGHT FIXTURE – WALL MOUNTED CALL FOR AID WITH BUZZER
OS	CEILING MOUNTED LOW VOLTAGE OCCUPANCY SENSOR
S	SINGLE POLE TOGGLE SWITCH – MOUNT AT 48" A.F.F.
S_3	THREE WAY TOGGLE SWITCH – MOUNT AT 48" A.F.F.
S_{DM}	DIMMER SWITCH – LUTRON NOVA T SERIES OR EQUAL. VERIFY COMPATIBILITY WITH RESPECTIVE LIGHT FIXTURE
S_{OC}	SINGLE POLE OCCUPANCY SWITCH – MOUNT AT 48" A.F.F.
⊜	GROUNDED DUPLEX RECEPTACLE – MOUNT AT 18" A.F.F. U.N.O.
⊜ +48"	GROUNDED DUPLEX RECEPTACLE – MOUNT AT 48" A.F.F.
⊜C	GROUNDED DUPLEX RECEPTACLE – MOUNT AT COUNTER HEIGHT
⊜GFI	GROUNDED DUPLEX RECEPTACLE – GFI TYPE – MOUNT AT 18" A.F.F. U.N.O.– SEE NOTE #1 BELOW
⊜WP	GROUNDED DUPLEX RECEPTACLE – WEATHER PROOF – MOUNT AT 18" A.F.F. U.N.O.
⊢⊙	SPECIAL PURPOSE RECEPTACLE – MATCH NEMA CONFIGURATION OF EQUIPMENT SERVED – MOUNT AT 18" A.F.F. U.N.O.
⊕	GROUNDED DOUBLE DUPLEX RECEPTACLE – MOUNT AT 18" A.F.F. U.N.O.
⊕C	GROUNDED DOUBLE DUPLEX RECEPTACLE – MOUNT AT COUNTER HEIGHT
⊖	GROUNDED DOUBLE SINGLE RECEPTACLE – MOUNT AT 18" A.F.F. U.N.O.
⊟	GROUNDED DOUBLE DUPLEX RECEPTACLE – MOUNT FLUSH WITH CONCRETE FLOOR
J	JUNCTION BOX
M	MOTOR
D	NON–FUSED DISCONNECT SWITCH
D	FUSED DISCONNECT SWITCH
D	COMBINATION FUSED DISCONNECT SWITCH/STARTER (VFD)
▬	SURFACE MOUNTED ELECTRIC PANEL
▬	RECESSED MOUNTED ELECTRIC PANEL – PROVIDE (3) EMPTY 1 1/4" CONDUITS WITH PULL STRINGS TERMINATED ABOVE AN ACCESSIBLE CEILING
TC	TIMECLOCK
◀	TELEPHONE/DATA OUTLET WITH BACKBOX, COVER PLATE AND 3/4" EMPTY CONDUIT TO CEILING SPACE – MOUNT AT 18" A.F.F. U.N.O.
▶	TELE/COMMUNICATION OUTLET – MOUNT FLUSH WITH CONCRETE FLOOR
▷ WAP	WIRELESS ACCESS POINT FURNISHED BY OWNER. PROVIDE 36" OF DATA CABLE WITH TERMINATION JACK
⊢⊙	CENTRAL WIRELESS CLOCK SYSTEM
▭◀	CLASSROOM PROJECTOR
TV	CABLE TELEVISION COAX CABLE OUTLET
▣◁	FIRE ALARM HORN STROBE
◇	FIRE ALARM STROBE
▣	FIRE ALARM REMOTE TEST SWITCH AND TROUBLE ANNUNCIATOR
⊙	FIRE ALARM DUCT SMOKE DETECTOR
○	FIRE ALARM ADDRESSABLE OUTPUT MODULE
○	FIRE ALARM ADDRESSABLE INPUT MODULE
F	FIRE ALARM MANUAL PULL STATION
⊙E	FIRE ALARM ADDRESSABLE ELEVATOR RECALL SMOKE DETECTOR
S	FIRE ALARM ADDRESSABLE SMOKE DETECTOR
H	FIRE ALARM ADDRESSABLE HEAT DETECTOR
M	FIRE ALARM HOLD OPEN MAGNETIC RELEASE DEVICE
CO	FIRE ALARM ADDRESSABLE CARBON MONOXIDE DETECTOR
EL	SECURITY SYSTEM ELECTRIC DOOR LOCK
	SECURITY SYSTEM DOOR POSITION CONTACT
	SECURITY SYSTEM MOTION SENSOR 1–WAY
MS	SECURITY SYSTEM MOTION SENSOR
KP	SECURITY SYSTEM ARM/DISARM KEYPAD
(WP)	SECURITY CCTV CAMERA ("WP" INDICATES WEATHER–PROOF)
IC	AIPHONE CAMERA/INTERCOM UNIT
REX	SECURITY SYSTEM REQUEST TO EXIT SENSOR
REX	SECURITY SYSTEM REQUEST TO EXIT PUSH BUTTON
S P	PAGING SYSTEM CEILING SPEAKER
CR	SECURITY SYSTEM PROXIMITY READER
N	CALL FOR AID PULL SWITCH
P	PAGING SYSTEM WALL SPEAKER (P=PAGING, GSS=GYM SOUND SYSTEM)
MIC	SOUND SYSTEM MICROPHONE
	BRANCH CIRCUIT POWER WIRING
	BRANCH CIRCUIT SWITCHING CONTROL WIRING
	BRANCH CIRCUIT FEEDER HOMERUN
	ELECTRICAL GROUND

ELECTRICAL LEGEND NOTES:

1. ALL SYMBOLS MAY NOT BE USED.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET SUITE 202
SIMSBURY, CT 06070
P: (860) 404-4330
F: (860) 404-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:
ELECTRICAL SYMBOLS, LEGENDS AND ABBREVIATIONS

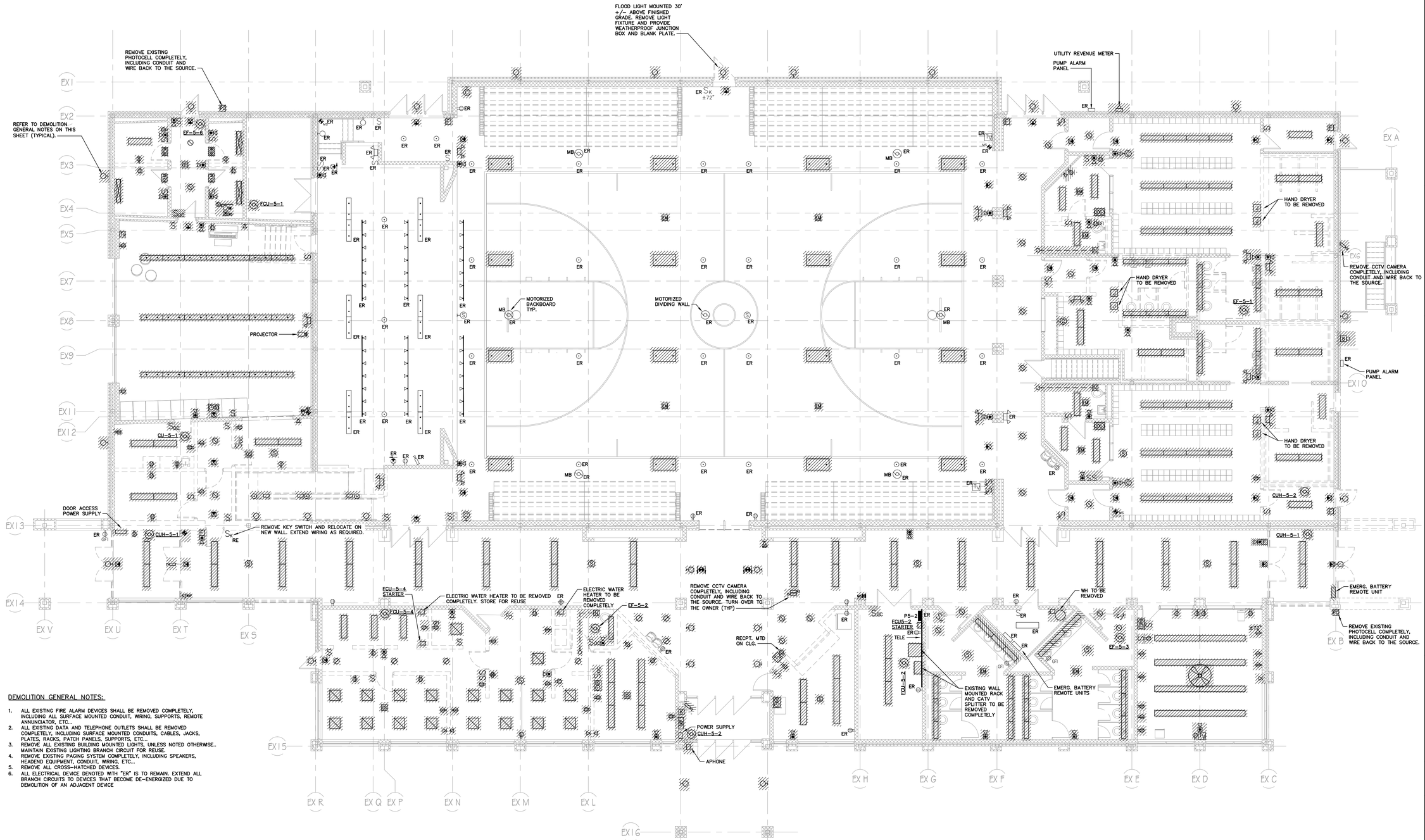
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
E0.0.1



DEMOLITION GENERAL NOTES:

1. ALL EXISTING FIRE ALARM DEVICES SHALL BE REMOVED COMPLETELY, INCLUDING ALL SURFACE MOUNTED CONDUIT, WIRING, SUPPORTS, REMOTE ANNUNCIATOR, ETC...
2. ALL EXISTING DATA AND TELEPHONE OUTLETS SHALL BE REMOVED COMPLETELY, INCLUDING SURFACE MOUNTED CONDUITS, CABLES, JACKS, PLATES, RACKS, PATCH PANELS, SUPPORTS, ETC...
3. REMOVE ALL EXISTING BUILDING MOUNTED LIGHTS, UNLESS NOTED OTHERWISE.. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR REUSE.
4. REMOVE EXISTING PAGING SYSTEM COMPLETELY, INCLUDING SPEAKERS, HEADEND EQUIPMENT, CONDUIT, WIRING, ETC...
5. REMOVE ALL CROSS-HATCHED DEVICES.
6. ALL ELECTRICAL DEVICE DENOTED WITH "ER" IS TO REMAIN. EXTEND ALL BRANCH CIRCUITS TO DEVICES THAT BECOME DE-ENERGIZED DUE TO DEMOLITION OF AN ADJACENT DEVICE

FIRST FLOOR PLAN

1/8" = 1'-0"

1

N

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 OLD MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4460
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL EXISTING BUILDING DEMOLITION PLAN

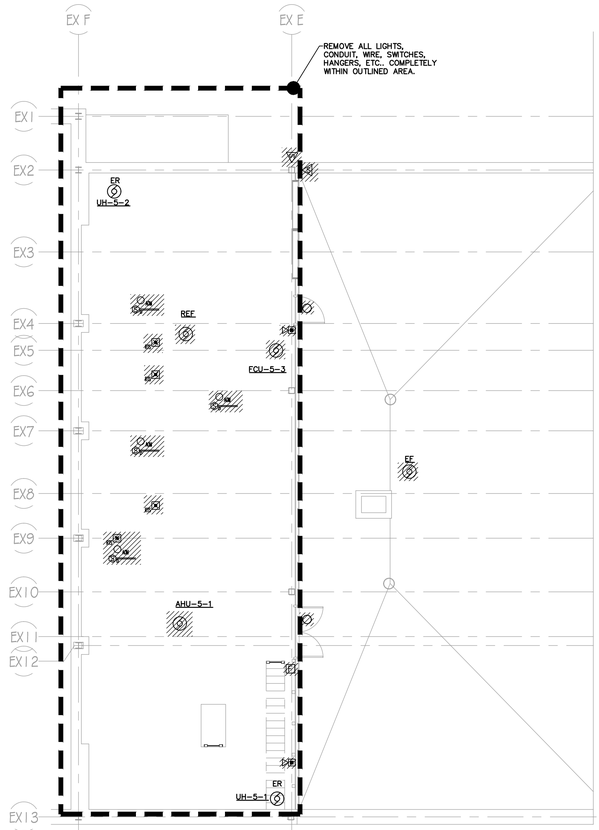
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
ED1.1



MEZZANINE FLOOR PLAN

1/8" = 1'-0"

1

N

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL MEZZANINE DEMOLITION PLAN

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:

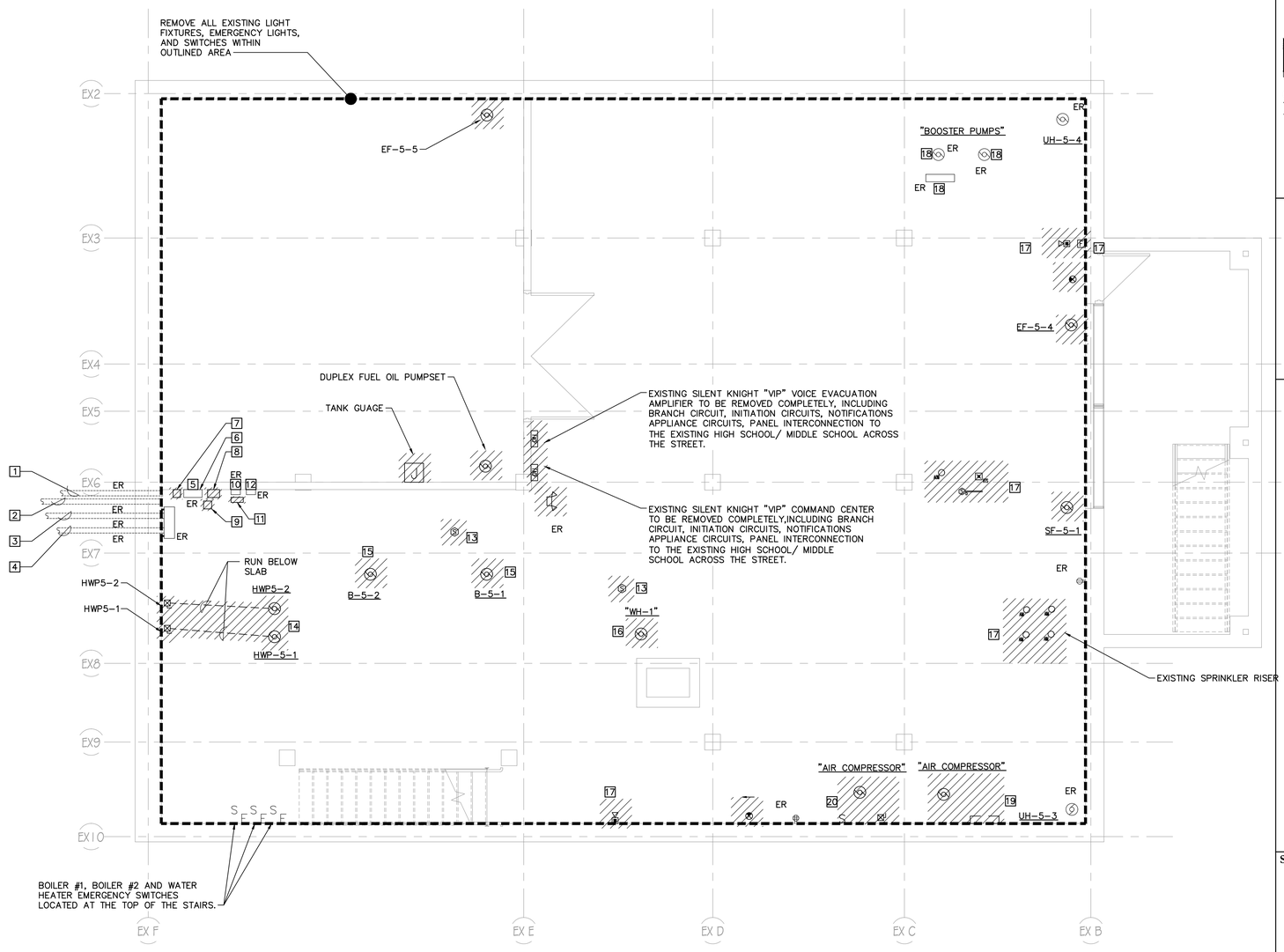
1650

Sheet #:

ED1.2

DEMOLITION ELECTRICAL PLAN KEY NOTES:

1. 4" CONDUIT RUNNING UNDERGROUND TO THE UTILITY PROVIDERS FOR CATV AND TELEPHONE. CABLE SHALL BE REUSED.
2. 4" CONDUIT RUNNING UNDERGROUND TO THE UTILITY PROVIDERS FOR FIBER OPTICS. FIBER OPTIC CABLE IS 62.5 mm/125 4F. ALL CABLES SHALL BE REUSED.
3. 4" CONDUIT RUNNING UNDERGROUND TO TUNNEL AND RUNNING SURFACE MOUNTED THROUGH THE TUNNEL TO THE EXISTING HIGH/MIDDLE SCHOOL LOCATED ACROSS THE STREET. CABLES INCLUDE CATV FROM THE CATV SPLITTER, TELEPHONE AND DATA, AND FIBER OPTIC CABLE (62.5 mm, 5M-12. ALL CABLES TO BE REUSED.
4. 4" CONDUIT RUNNING UNDERGROUND TO TUNNEL AND RUNNING SURFACE MOUNTED THROUGH THE TUNNEL TO THE EXISTING HIGH/MIDDLE SCHOOL LOCATED ACROSS THE STREET. CABLES INCLUDE TELEPHONE AND DATA, AND FIBER OPTIC CABLE BETWEEN BUILDINGS. ALL CABLES TO BE REUSED.
5. TELEPHONE CABLE SURGE PROTECTOR PANEL TO BE REUSED.
6. 110 PUNCH DOWN BLOCKS FOR THE TELEPHONE CABLES MOUNTED BELOW THE BUILDING PROTECTOR BOX TO REMAIN.
7. NORTEL NETWORK BOX TO BE REMOVED COMPLETELY.
8. NORTEL NORSTAR TELEPHONE SYSTEM TO BE REMOVED COMPLETELY.
9. NORSTAR FASTRAD BOX MOUNTED BELOW ITEM ##6 TO BE REMOVED COMPLETELY
10. FIBER OPTIC SPLICE BOX TO REMAIN.
11. TELCOR 60 AMPLIFIER TO BE REMOVED COMPLETELY
12. CABLE TELEVISION SPLITTER TO REMAIN
13. EXISTING SMOKE/HEAT DETECTOR TO BE REMOVED COMPLETELY.
14. "HWP5-1" AND "HWP5-2", TO BE REMOVED COMPLETELY, INCLUDING MOTORS, COMBINATION STARER/DISCONNECT, BRANCH CIRCUITS BACK TO THEIR SOURCE. CUT CONDUITS EXTENDING FROM SLAB FLUSH WITH THE FLOOR, AND CAP CONDUITS EXTENDING FROM THE SLAB AT THE COMBINATION STARTERS.
15. "B-1" AND "B-2" TO BE REMOVED COMPLETELY, INCLUDING MOTORS, SWITCHES, BRANCH CIRCUITS BACK TO THEIR SOURCE.
16. "WH-1" TO BE REMOVED COMPLETELY INCLUDING MOTOR, SWITCHES, BRANCH CIRCUITS BACK TO IT'S SOURCE.
17. REMOVE EXISTING FIRE ALARM DEVICE COMPLETELY, INCLUDING CONDUIT, BACKBOX, AND WIRES BACK TO THE SOURCE.
18. WATER BOOSTER PUMPS TO BE REUSED, MAINTAIN EXISTING BRANCH CIRCUIT.
19. SPRINKLER SYSTEM AIR COMPRESSOR TO BE REMOVED COMPLETELY, INCLUDING MOTOR, STARTER, CONDUIT AND WIRE BACK TO THE SOURCE.
20. BUILDING MANAGEMENT SYSTEM AIR COMPRESSOR TO BE REMOVED COMPLETELY, INCLUDING MOTOR, STARTER, CONDUIT AND WIRE BACK TO THE SOURCE.



BASEMENT FLOOR PLAN

1/4" = 1'-0"

1

N

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 OLD MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4450
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:
ELECTRICAL ENLARGED BASEMENT DEMOLITION PLAN

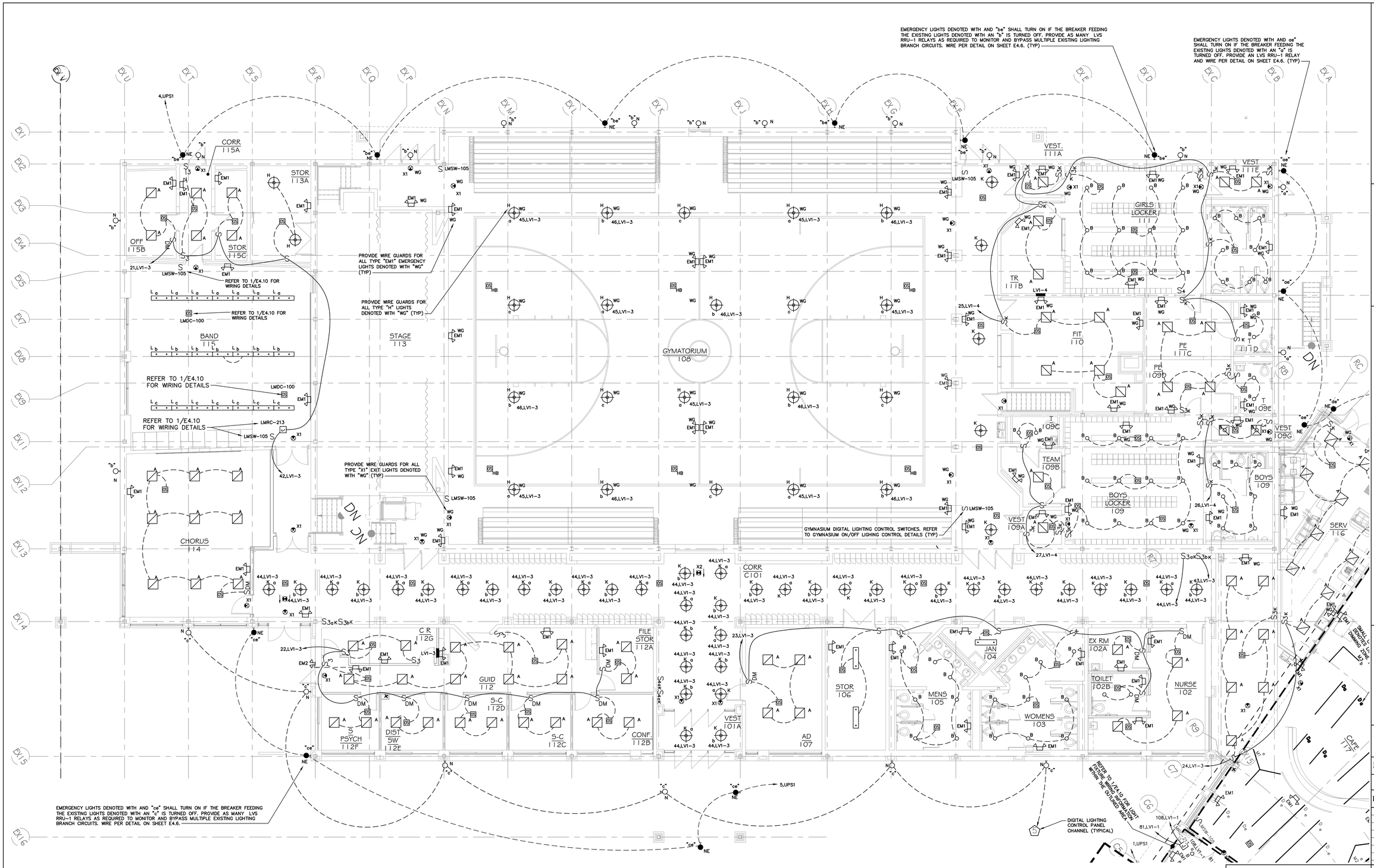
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
ED3.1



FIRST FLOOR GYMATORIUM
1/8" = 1'-0"

1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL FIRST FLOOR LIGHTING PLAN - GYMATORIUM

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Key Plan

Project #:
1650

Sheet #:
EL1.1.1

FIRST FLOOR BUILDING ENTRY
1/8" = 1'-0"

1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

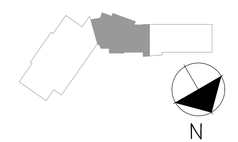
Sheet Description:
ELECTRICAL FIRST FLOOR LIGHTING PLAN - BUILDING ENTRY

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

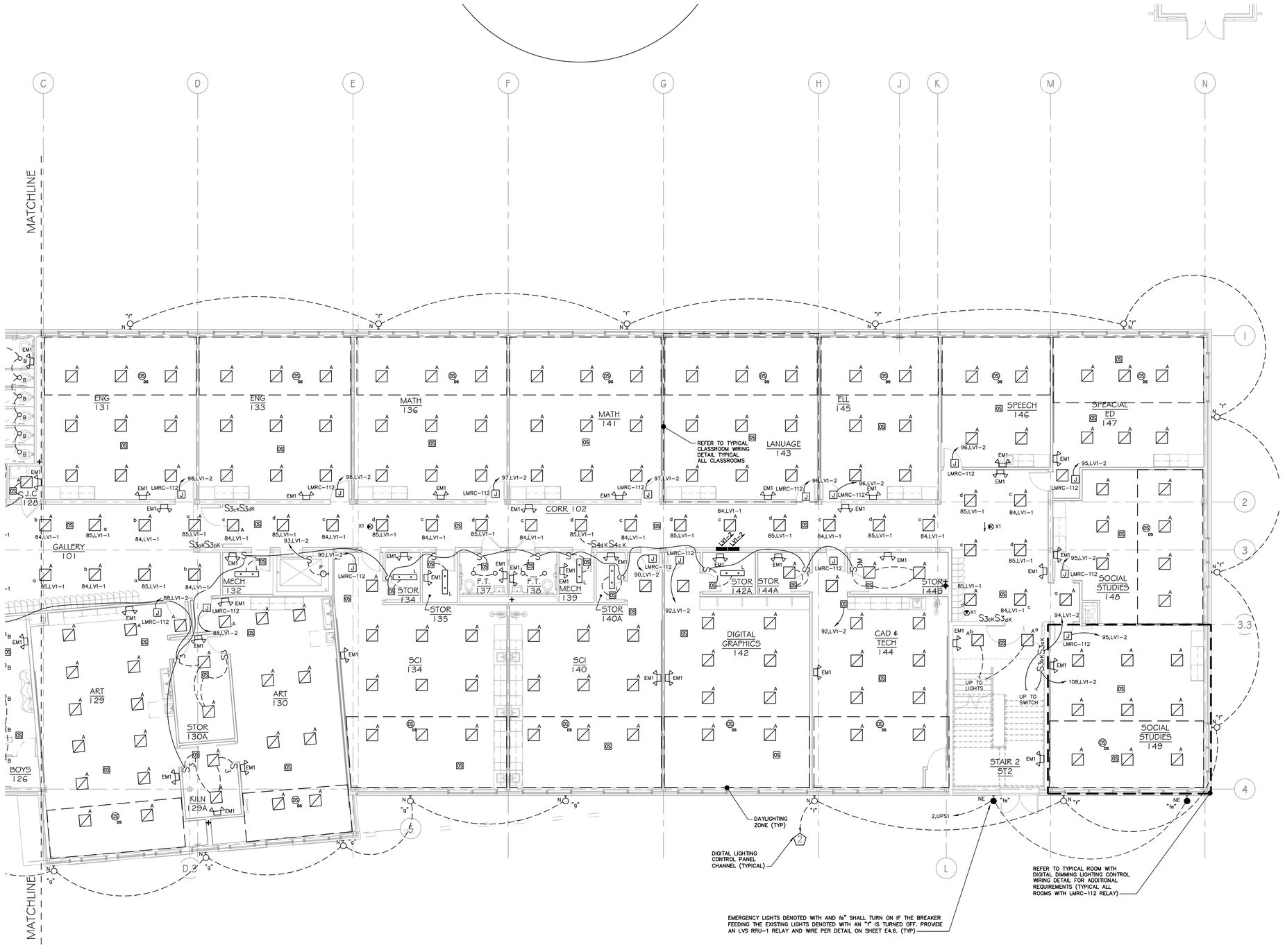
Revisions:

Key Plan



Project #:
1650

Sheet #:
EL1.1.2



FIRST FLOOR EDUCATION WING
1/8" = 1'-0"

1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HALE STREET SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4536
F: (860) 436-4538
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL FIRST FLOOR LIGHTING PLAN - EDUCATION WING

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

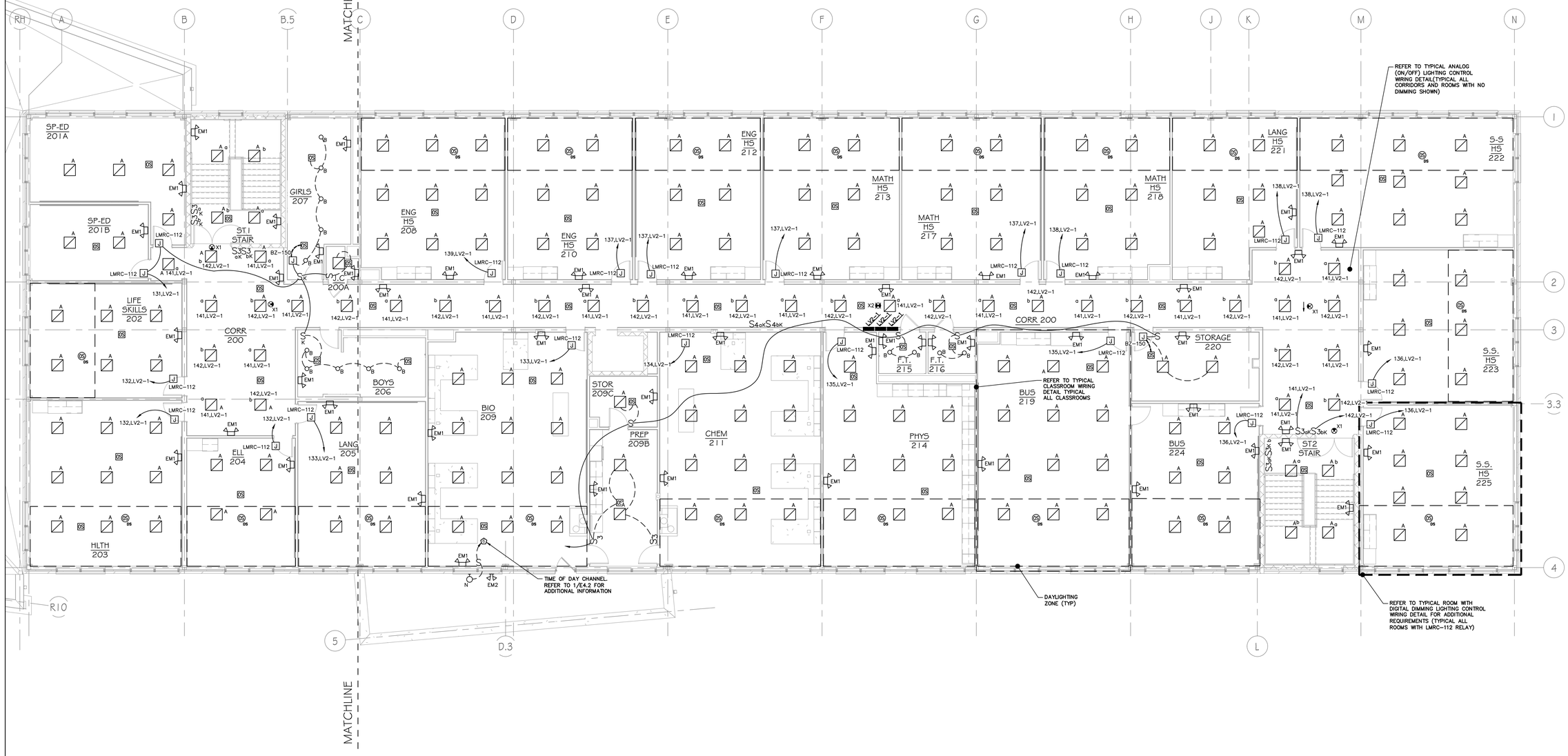
Revisions:

Key Plan

N

Project #:
1650

Sheet #:
EL1.1.3

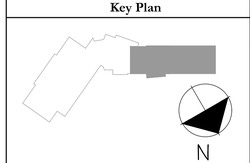


SECOND FLOOR EDUCATION WING

1/8" = 1'-0"

1

Key Plan



QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL SECOND FLOOR LIGHTING PLAN - EDUCATION WING

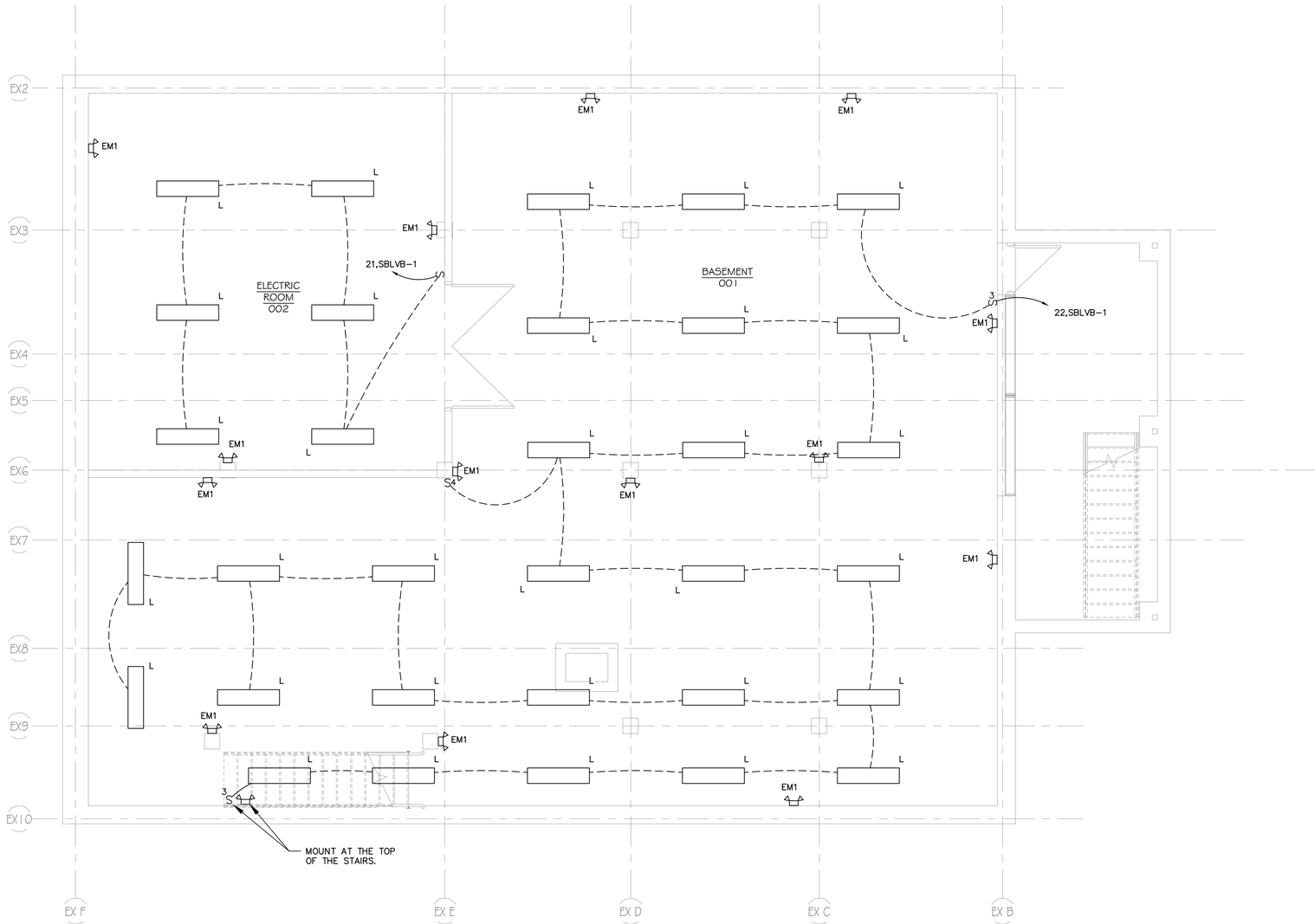
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
EL1.2.1



BASEMENT FLOOR PLAN
1/4" = 1'-0"

1

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 OLD MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4450
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd. North Stonington, CT

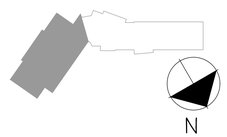
Sheet Description:
ELECTRICAL BASEMENT LIGHTING PLAN

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

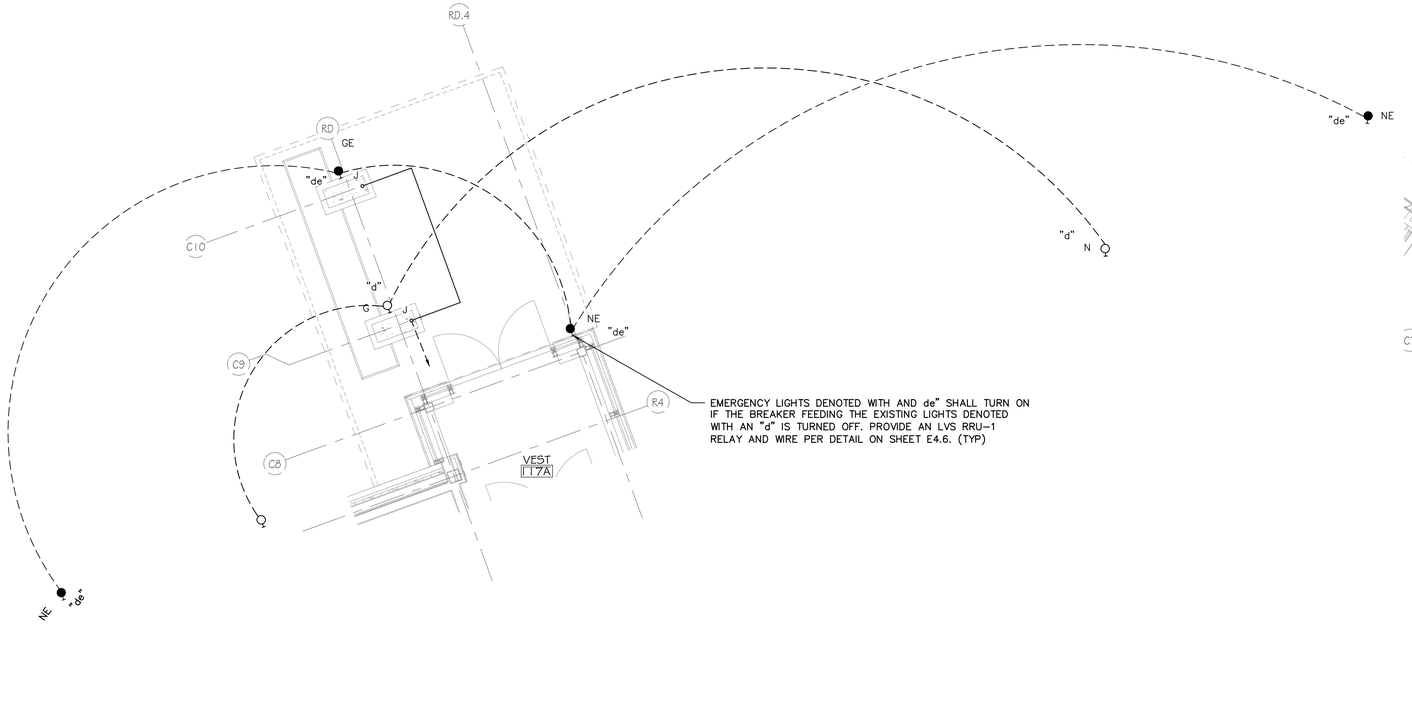
Revisions:

Key Plan



Project #:
1650

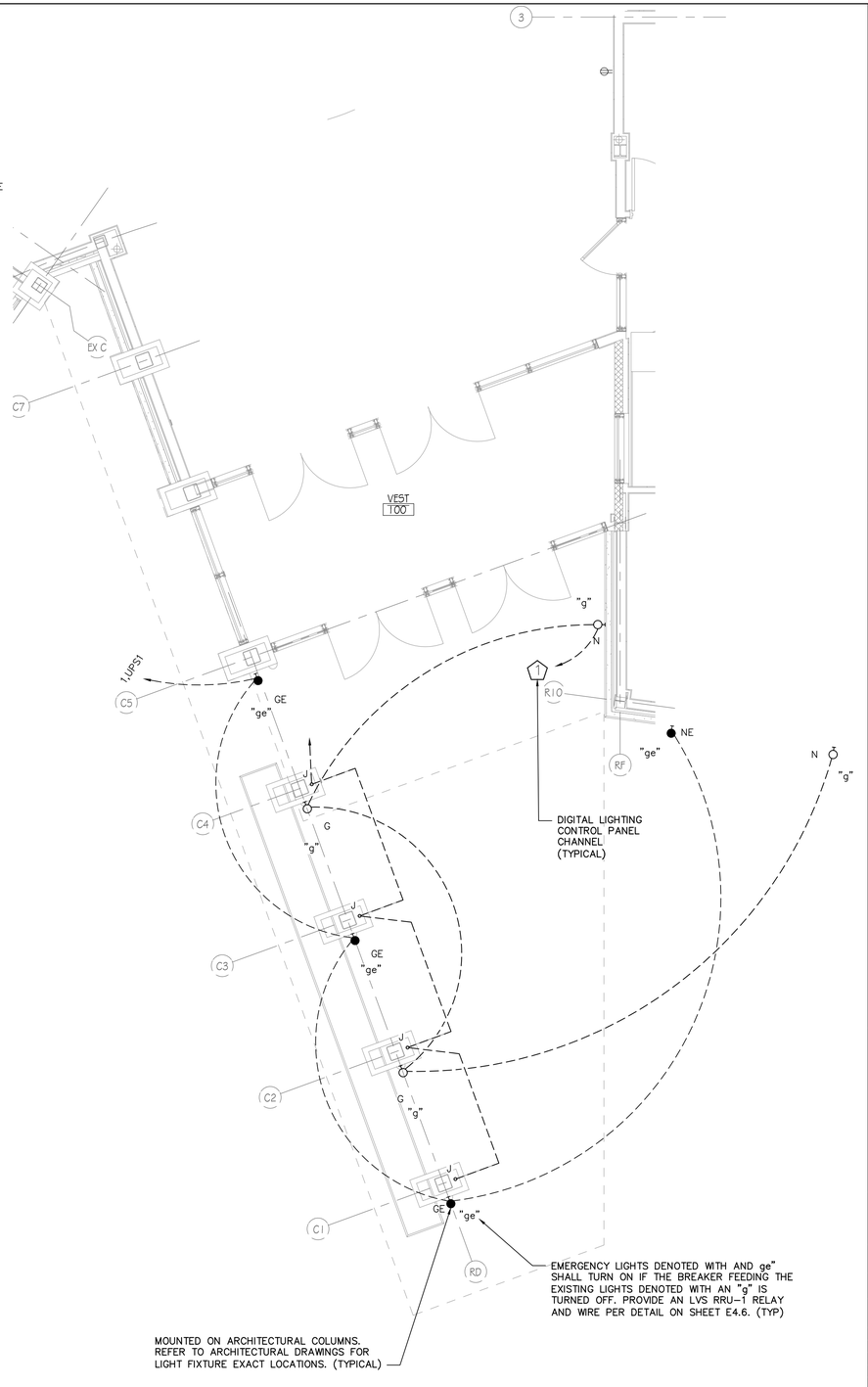
Sheet #:
EL3.1



ENLARGED REAR ENTRY CANOPY PLAN

1/4" = 1'-0"

2

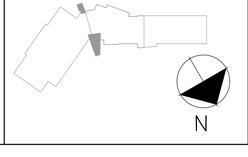


ENLARGED MAIN ENTRY CANOPY PLAN

1/4" = 1'-0"

1

Key Plan



QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4536
F: (860) 436-4545
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL ADD ALTERNATE #2 MAIN & REAR ENTRY CANOPY LIGHTING PLANS

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

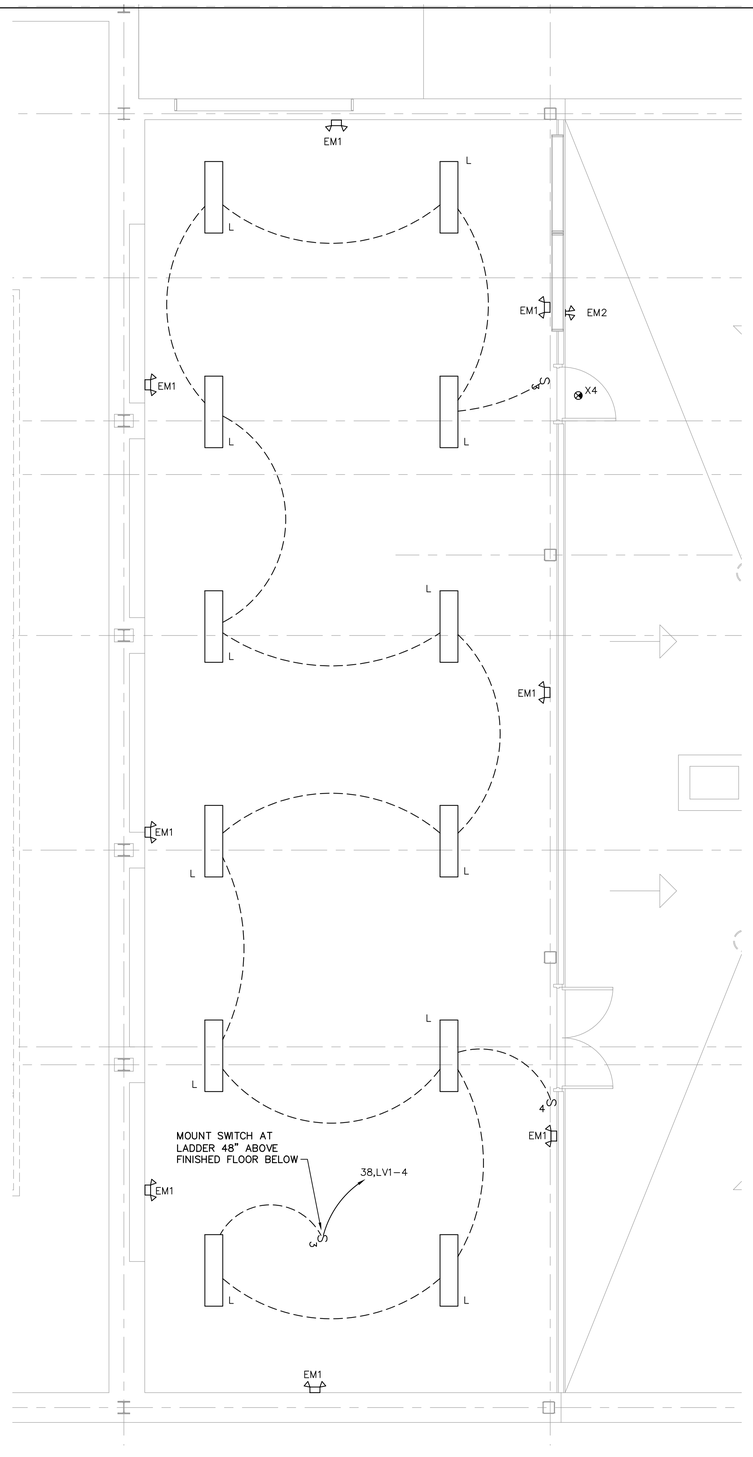
Revisions:

Project #:

1650

Sheet #:

EL3.2



GYM MEZZANINE PLAN
1/4" = 1'-0"

1

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4337
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

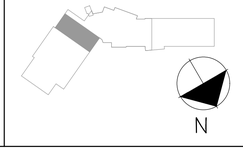
Sheet Description:
ELECTRICAL
GYM
MEZZANINE
LIGHTING
PLAN

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

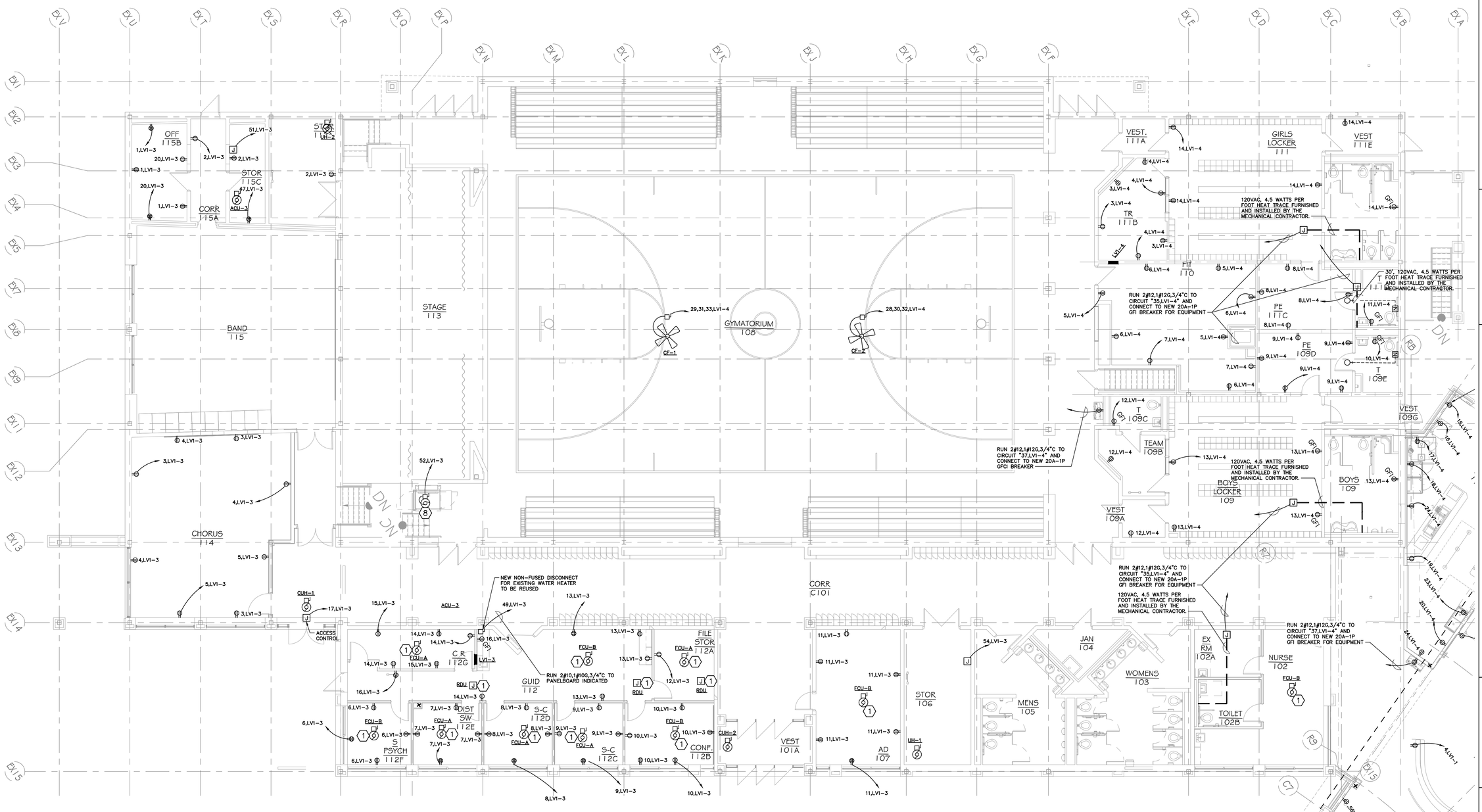
Revisions:

Key Plan



Project #:
1650

Sheet #:
EL3.3



FIRST FLOOR GYMATORIUM

1/8" = 1'-0"

1

ELECTRICAL POWER PLAN KEY NOTES:

1. REFER TO E5.2 FOR WIRING RISER DIAGRAM FOR THE VRF HVAC SYSTEM. COORDINATE EXACT REQUIREMENTS WITH THE MECHANICAL CONTRACTOR.
2. INTERCONNECT DOOR ACCESS CONTROL WITH POWER ASSIST DOOR AS REQUIRED. COORDINATE EXACT SEQUENCE OF OPERATION WITH DOOR ACCESS CONTRACTOR AND POWER ASSIST INSTALLER.
3. RUN 4#12,#12G,3/4"C TO CU-1 ON ROOF. COORDINATE EXACT REQUIREMENTS AND EQUIPMENT LOCATIONS WITH THE MECHANICAL CONTRACTOR.
4. MYERS POWER PRODUCTS EMERGENCY LIGHTING INVERTER: 3-IE-3-S-BA208-F-T-C-5YP, 208V, 1ϕ,2W PLUS GROUND INPUT, 120V, 1ϕ, 2W, PLUS GROUND OUTPUT, 8 - 20A-1P OUTPUT BREAKERS, 3KVA, 47" TALL, 827# SYSTEM WEIGHT. RUN 2#8,1#10G,1"C TO PANELBOARD "LV1-1" AND CONNECT TO A 20A-2P BREAKER.
5. 2 - WATTSTOPPER LP8 PEANUT LIGHTING CONTROL PANELS. RUN 2#12,1#12G,3/4"C TO PANEL "LV1-1" AND CONNECT TO 20A-1P BREAKER.
6. ISOMET GAS SHUT-OFF PANEL FURNISHED BY THE PLUMBING CONTRACTOR. 120VAC RATED OUTPUT CONTACT WILL BE PROVIDED FOR THE OPERATION OF THE SHUNT TRIP BREAKER. COORDINATE EXACT LOCATION AND ADDITIONAL REQUIREMENTS WITH THE PLUMBING CONTRACTOR. REFER TO 3/E4.0 FOR EXACT REQUIREMENTS
7. ADD ALTERNATE #11; SOLID VERTICAL FOLDING PARTITION POWER. RUN 3#12,1#12G,3/4"C TO THE PANEL INDICATED AND CONNECT TO A 20A-3P BREAKER. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. WHEEL CHAIR LIFT. RUN 2#10,1#10G,3/4"C TO PANEL INDICATED AND CONNECT TO 20A-1P BREAKER.
9. TRACTION ELEVATOR, RUN 3#6,1#10G,1"C TO THE PANEL INDICATED AND CONNECT TO A 70A-3P BREAKER. COORDINATE EXACT REQUIREMENTS WITH THE ELEVATOR INSTALLER PRIOR TO INSTALLING PIPE AND WIRE AND BREAKER. MOVE MOTOR AND DISCONNECT AS REQUIRED TO MEET THE ELEVATOR INSTALLATION REQUIREMENTS.
10. 3/4" FIRE RATED PLYWOOD. PAINT BOTH SIDES AND ALL ENDS WITH BLACK FIRE RATED PAINT. RUN PLYWOOD 6"

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
North Stonington, CT
297 Norwich-Westerly Rd.

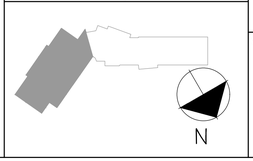
Sheet Description:
ELECTRICAL FIRST FLOOR POWER PLAN - GYMATORIUM

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET FEBRUARY 14, 2018

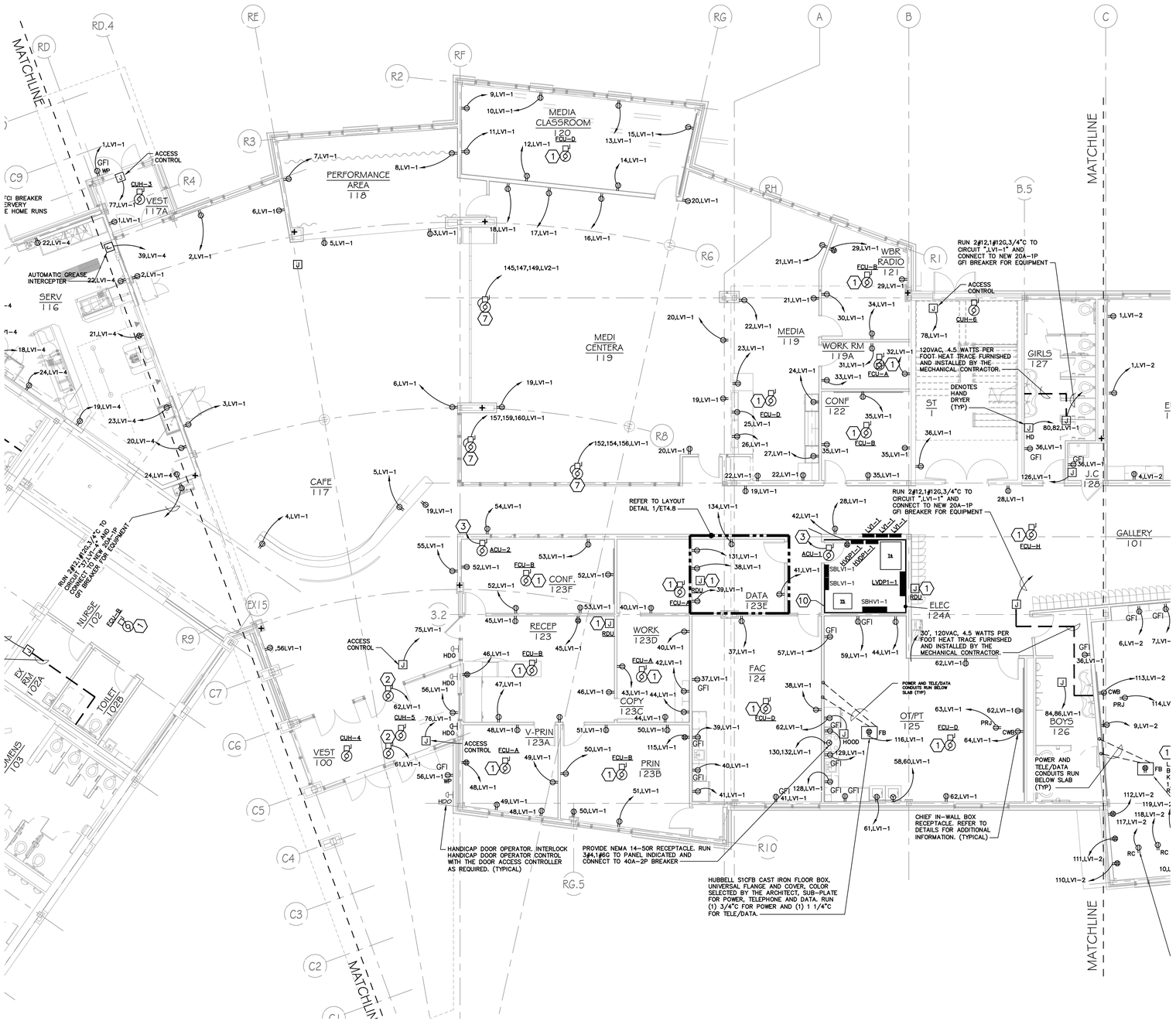
Revisions:

Key Plan



Project #:
1650

Sheet #:
EP1.1.1



FIRST FLOOR BUILDING ENTRY

1/8" = 1'-0"

1

ELECTRICAL POWER PLAN KEY NOTES:

1. REFER TO E5.2 FOR WIRING RISER DIAGRAM FOR THE VRF HVAC SYSTEM. COORDINATE EXACT REQUIREMENTS WITH THE MECHANICAL CONTRACTOR.
2. INTERCONNECT DOOR ACCESS CONTROL WITH POWER ASSIST DOOR AS REQUIRED. COORDINATE EXACT SEQUENCE OF OPERATION WITH DOOR ACCESS CONTRACTOR AND POWER ASSIST INSTALLER.
3. RUN 4#12,#12G,3/4"C TO CU-1 ON ROOF. COORDINATE EXACT REQUIREMENTS AND EQUIPMENT LOCATIONS WITH THE MECHANICAL CONTRACTOR.
4. MYERS POWER PRODUCTS EMERGENCY LIGHTING INVERTER: 3-IE-3-S-BA208-F-T-C-5YP, 208V, 1ϕ,2W PLUS GROUND INPUT, 120V, 1ϕ, 2W, PLUS GROUND OUTPUT, 8 - 20A-1P OUTPUT BREAKERS, 3KVA, 47" TALL, 827# SYSTEM WEIGHT. RUN 2#8,1#10G,1"C TO PANELBOARD "LV1-1" AND CONNECT TO A 20A-2P BREAKER.
5. 2 - WATTSTOPPER LP8 PEANUT LIGHTING CONTROL PANELS. RUN 2#12,1#12G,3/4"C TO PANEL "LV1-1" AND CONNECT TO 20A-1P BREAKER.
6. ISOMET GAS SHUT-OFF PANEL FURNISHED BY THE PLUMBING CONTRACTOR. 120VAC RATED OUTPUT CONTACT WILL BE PROVIDED FOR THE OPERATION OF THE SHUNT TRIP BREAKER. COORDINATE EXACT LOCATION AND ADDITIONAL REQUIREMENTS WITH THE PLUMBING CONTRACTOR. REFER TO 3/E4.0 FOR EXACT REQUIREMENTS
7. ADD ALTERNATE #11: SOLID VERTICAL FOLDING PARTITION POWER. RUN 3#12,1#12G,3/4"C TO THE PANEL INDICATED AND CONNECT TO A 20A-3P BREAKER. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. WHEEL CHAIR LIFT. RUN 2#10,1#10G,3/4"C TO PANEL INDICATED AND CONNECT TO 20A-1P BREAKER.
9. TRACTION ELEVATOR, RUN 3#6,1#10G,1"C TO THE PANEL INDICATED AND CONNECT TO A 70A-3P BREAKER. COORDINATE EXACT REQUIREMENTS WITH THE ELEVATOR INSTALLER PRIOR TO INSTALLING PIPE AND WIRE AND BREAKER. MOVE MOTOR AND DISCONNECT AS REQUIRED TO MEET THE ELEVATOR INSTALLATION REQUIREMENTS.
10. 3/4" FIRE RATED PLYWOOD. PAINT BOTH SIDES AND ALL ENDS WITH BLACK FIRE RATED PAINT. RUN PLYWOOD 6" ABOVE FINISHED FLOOR TO CEILING.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

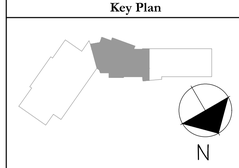
Sheet Description:
ELECTRICAL FIRST FLOOR POWER PLAN - BUILDING ENTRY

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

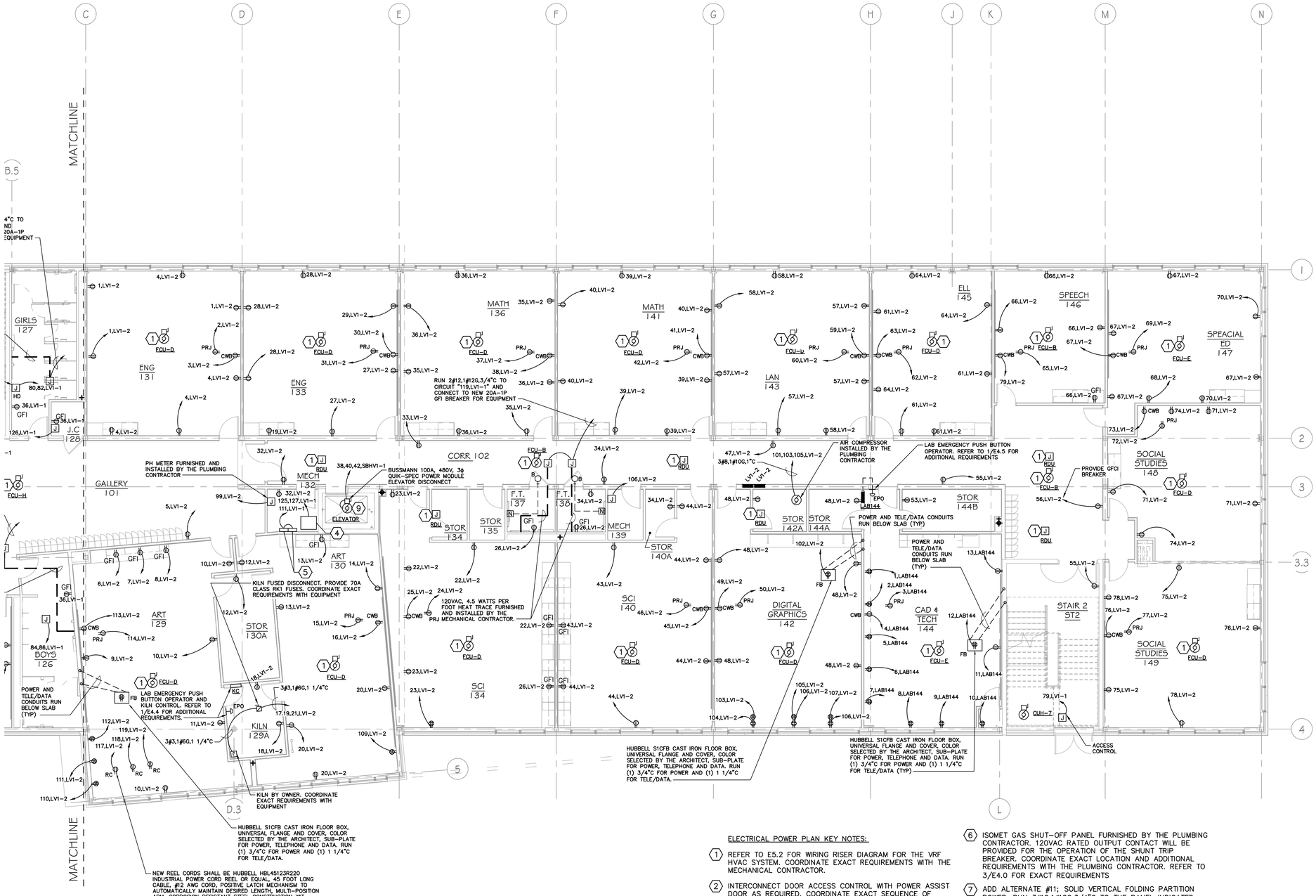
Revisions:

Key Plan



Project #:
1650

Sheet #:
EP1.1.2



FIRST FLOOR EDUCATION WING

1/8" = 1'-0"

1

ELECTRICAL POWER PLAN KEY NOTES:

1. REFER TO E5.2 FOR WIRING RISER DIAGRAM FOR THE VRF HVAC SYSTEM. COORDINATE EXACT REQUIREMENTS WITH THE MECHANICAL CONTRACTOR.
2. INTERCONNECT DOOR ACCESS CONTROL WITH POWER ASSIST DOOR AS REQUIRED. COORDINATE EXACT SEQUENCE OF OPERATION WITH DOOR ACCESS CONTRACTOR AND POWER ASSIST INSTALLER.
3. RUN 4#12,#12G,3/4"C TO CU-1 ON ROOF. COORDINATE EXACT REQUIREMENTS AND EQUIPMENT LOCATIONS WITH THE MECHANICAL CONTRACTOR.
4. MYERS POWER PRODUCTS EMERGENCY LIGHTING INVERTER: 3-IE-3-S-BA208-F-T-C-5YP, 208V, 1ϕ,2W PLUS GROUND INPUT, 120V, 1ϕ, 2W, PLUS GROUND OUTPUT, 8 - 20A-1P OUTPUT BREAKERS, 3KVA, 47" TALL, 827# SYSTEM WEIGHT. RUN 2#8,1#10G,1"C TO PANELBOARD "LV1-1" AND CONNECT TO A 20A-2P BREAKER.
5. 2 - WATTSTOPPER LP8 PEANUT LIGHTING CONTROL PANELS. RUN 2#12,1#12G,3/4"C TO PANEL "LV1-1" AND CONNECT TO 20A-1P BREAKER.
6. ISOMET GAS SHUT-OFF PANEL FURNISHED BY THE PLUMBING CONTRACTOR. 120VAC RATED OUTPUT CONTACT WILL BE PROVIDED FOR THE OPERATION OF THE SHUNT TRIP BREAKER. COORDINATE EXACT LOCATION AND ADDITIONAL REQUIREMENTS WITH THE PLUMBING CONTRACTOR. REFER TO 3/E4.0 FOR EXACT REQUIREMENTS
7. ADD ALTERNATE #11; SOLID VERTICAL FOLDING PARTITION POWER. RUN 3#12,1#12G,3/4"C TO THE PANEL INDICATED AND CONNECT TO A 20A-3P BREAKER. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. WHEEL CHAIR LIFT. RUN 2#10,1#10G,3/4"C TO PANEL INDICATED AND CONNECT TO 20A-1P BREAKER.
9. TRACTION ELEVATOR. RUN 3#6,1#10G,1"C TO THE PANEL INDICATED AND CONNECT TO A 70A-3P BREAKER. COORDINATE EXACT REQUIREMENTS WITH THE ELEVATOR INSTALLER PRIOR TO INSTALLING PIPE AND WIRE AND BREAKER. MOVE MOTOR AND DISCONNECT AS REQUIRED TO MEET THE ELEVATOR INSTALLATION REQUIREMENTS.
10. 3/4" FIRE RATED PLYWOOD. PAINT BOTH SIDES AND ALL ENDS WITH BLACK FIRE RATED PAINT. RUN PLYWOOD 6" ABOVE FINISHED FLOOR TO CEILING.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

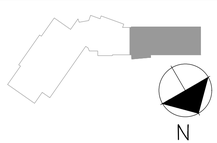
Sheet Description:
ELECTRICAL FIRST FLOOR POWER PLAN - EDUCATION WING

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

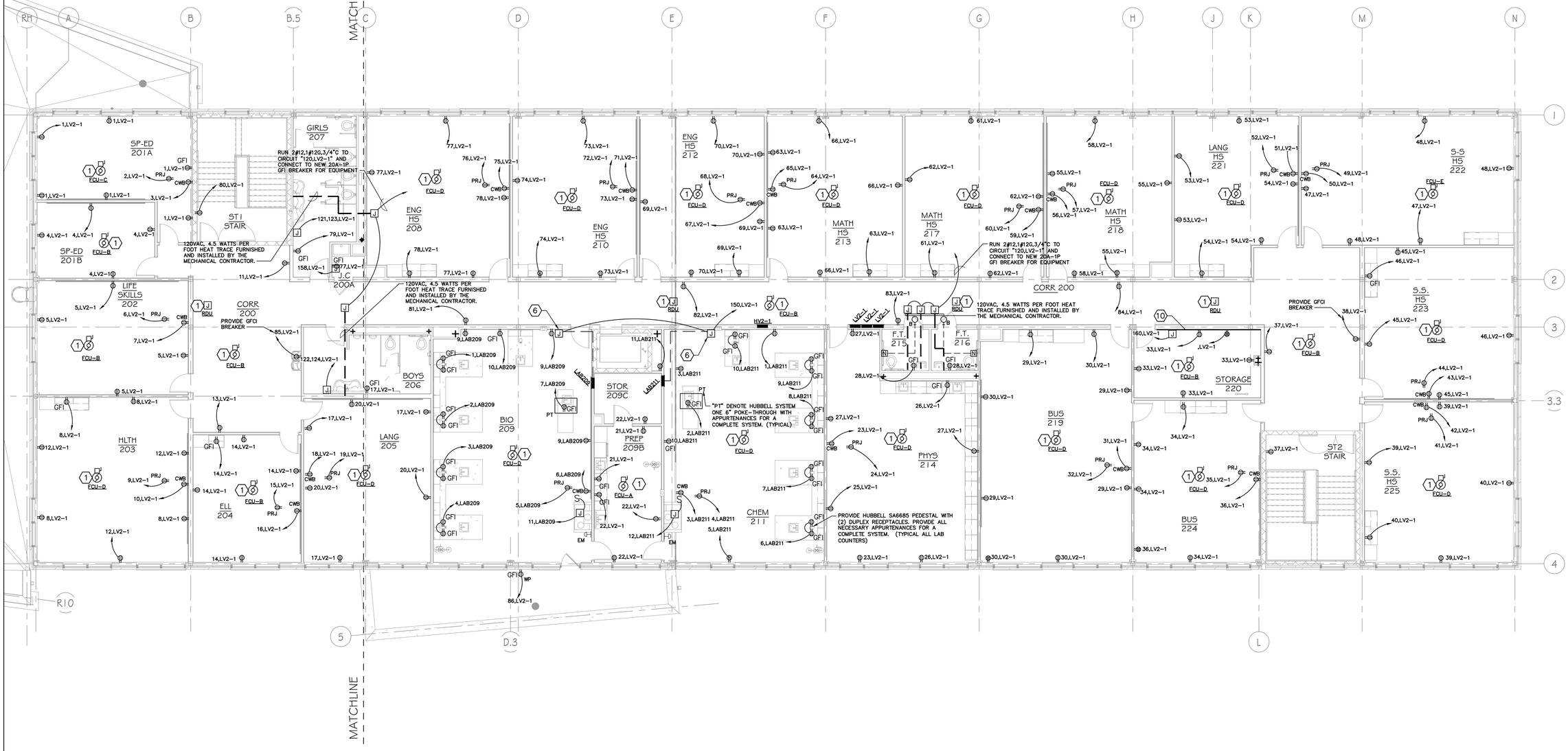
Revisions:

Key Plan



Project #:
1650

Sheet #:
EP1.1.3



SECOND FLOOR EDUCATION WING

1/8" = 1'-0"

1

ELECTRICAL POWER PLAN KEY NOTES:

1. REFER TO E5.2 FOR WIRING RISER DIAGRAM FOR THE VRF HVAC SYSTEM. COORDINATE EXACT REQUIREMENTS WITH THE MECHANICAL CONTRACTOR.
2. INTERCONNECT DOOR ACCESS CONTROL WITH POWER ASSIST DOOR AS REQUIRED. COORDINATE EXACT SEQUENCE OF OPERATION WITH DOOR ACCESS CONTRACTOR AND POWER ASSIST INSTALLER.
3. RUN 4#12,#12G,3/4"C TO CU-1 ON ROOF. COORDINATE EXACT REQUIREMENTS AND EQUIPMENT LOCATIONS WITH THE MECHANICAL CONTRACTOR.
4. MYERS POWER PRODUCTS EMERGENCY LIGHTING INVERTER: 3-IE-3-S-BA208-F-T-C-5YP, 208V, 1ϕ,2W PLUS GROUND INPUT, 120V, 1ϕ, 2W, PLUS GROUND OUTPUT, 8 - 20A-1P OUTPUT BREAKERS, 3KVA, 47" TALL, 827# SYSTEM WEIGHT. RUN 2#8,1#10G,1"C TO PANELBOARD "LV1-1" AND CONNECT TO A 20A-2P BREAKER.
5. 2 - WATTSTOPPER LP8 PEANUT LIGHTING CONTROL PANELS. RUN 2#12,1#12G,3/4"C TO PANEL "LV1-1" AND CONNECT TO 20A-1P BREAKER.
6. ISOMET GAS SHUT-OFF PANEL FURNISHED BY THE PLUMBING CONTRACTOR. 120VAC RATED OUTPUT CONTACT WILL BE PROVIDED FOR THE OPERATION OF THE SHUNT TRIP BREAKER. COORDINATE EXACT LOCATION AND ADDITIONAL REQUIREMENTS WITH THE PLUMBING CONTRACTOR. REFER TO 3/E4.0 FOR EXACT REQUIREMENTS
7. ADD ALTERNATE #11; SOLID VERTICAL FOLDING PARTITION POWER. RUN 3#12,1#12G,3/4"C TO THE PANEL INDICATED AND CONNECT TO A 20A-3P BREAKER. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. WHEEL CHAIR LIFT. RUN 2#10,1#10G,3/4"C TO PANEL INDICATED AND CONNECT TO 20A-1P BREAKER.
9. TRACTION ELEVATOR, RUN 3#6,1#10G,1"C TO THE PANEL INDICATED AND CONNECT TO A 70A-3P BREAKER. COORDINATE EXACT REQUIREMENTS WITH THE ELEVATOR INSTALLER PRIOR TO INSTALLING PIPE AND WIRE AND BREAKER. MOVE MOTOR AND DISCONNECT AS REQUIRED TO MEET THE ELEVATOR INSTALLATION REQUIREMENTS.
10. 3/4" FIRE RATED PLYWOOD. PAINT BOTH SIDES AND ALL ENDS WITH BLACK FIRE RATED PAINT. RUN PLYWOOD 6"

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:

ELECTRICAL SECOND FLOOR POWER PLAN - EDUCATION WING

State Project #:

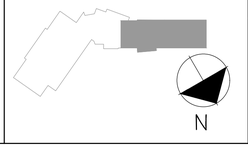
102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Key Plan

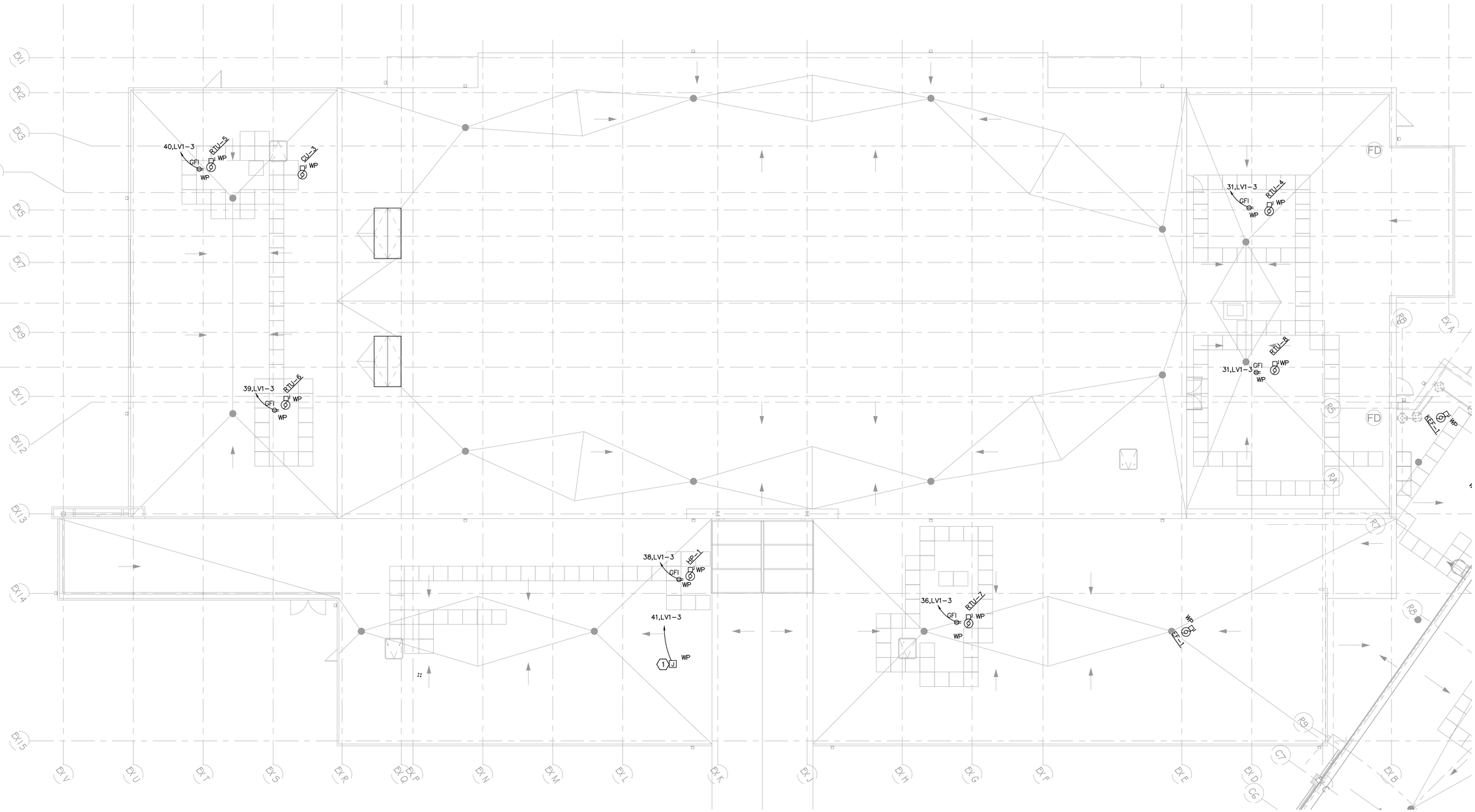


Project #:

1650

Sheet #:

EP1.2.1



ROOF GYMATORIUM

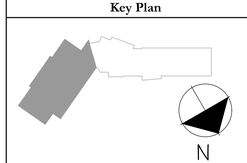
1/8" = 1'-0"

1

ELECTRICAL POWER PLAN KEY NOTES:

1. POWER FOR FUTURE RADON FANS. RUN 2#10,1#10G,3/4"C TO PANEL INDICATED. CONNECT TO 20A-1P BREAKER. PROVIDE BREAKER HANDLE LOCK AND LOCK BREAKER IN THE OFF POSITION. PROVIDE GALVANIZED RIGID CONDUIT THROUGH ROOF. SECURE CONDUIT BELOW ROOF IN TWO LOCATIONS SO CONDUIT ABOVE ROOF IS PROPERLY SECURED. PROVIDE GALVANIZED STEEL "FS" BOX WITH TWO THREADED HUBS. PROVIDE THREADED BLANK SEAL IN FUTURE HUB OPENING. MOUNT BOX 18" ABOVE ROOF. PROVIDE BLANK WEATHERPROOF COVER. ALL SCREWS SHALL BE STAINLESS STEEL.

Key Plan



QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HEBRON AVENUE
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:

ROOF POWER PLAN - OVERALL NEW BUILDING

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

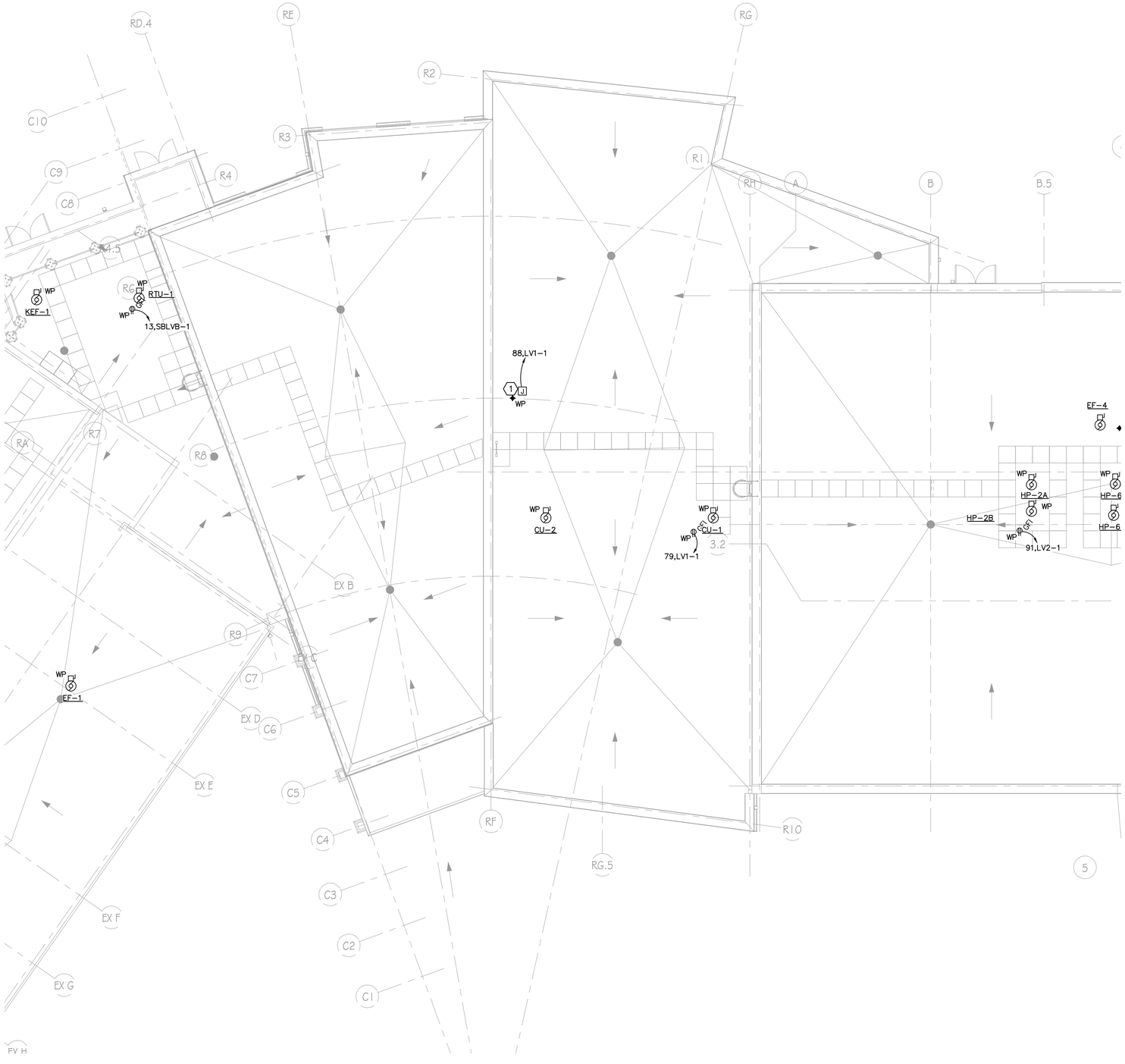
Revisions:

Project #:

1650

Sheet #:

EP1.3.1



ROOF BUILDING ENTRY

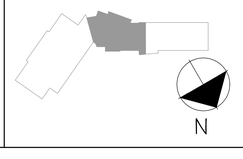
1/8" = 1'-0"

1

ELECTRICAL POWER PLAN KEY NOTES:

1 POWER FOR FUTURE RADON FANS. RUN 2#10,1#10G,3/4"C TO PANEL INDICATED. CONNECT TO 20A-1P BREAKER. PROVIDE BREAKER HANDLE LOCK AND LOCK BREAKER IN THE OFF POSITION. PROVIDE GALVANIZED RIGID CONDUIT THROUGH ROOF. SECURE CONDUIT BELOW ROOF IN TWO LOCATIONS SO CONDUIT ABOVE ROOF IS PROPERLY SECURED. PROVIDE GALVANIZED STEEL "FS" BOX WITH TWO THREADED HUBS. PROVIDE THREADED BLANK SEAL IN FUTURE HUB OPENING. MOUNT BOX 18" ABOVE ROOF. PROVIDE BLANK WEATHERPROOF COVER. ALL SCREWS SHALL BE STAINLESS STEEL.

Key Plan



QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HEBRON AVENUE
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4356
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:

ROOF POWER PLAN - OVERALL EXISTING BUILDING

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

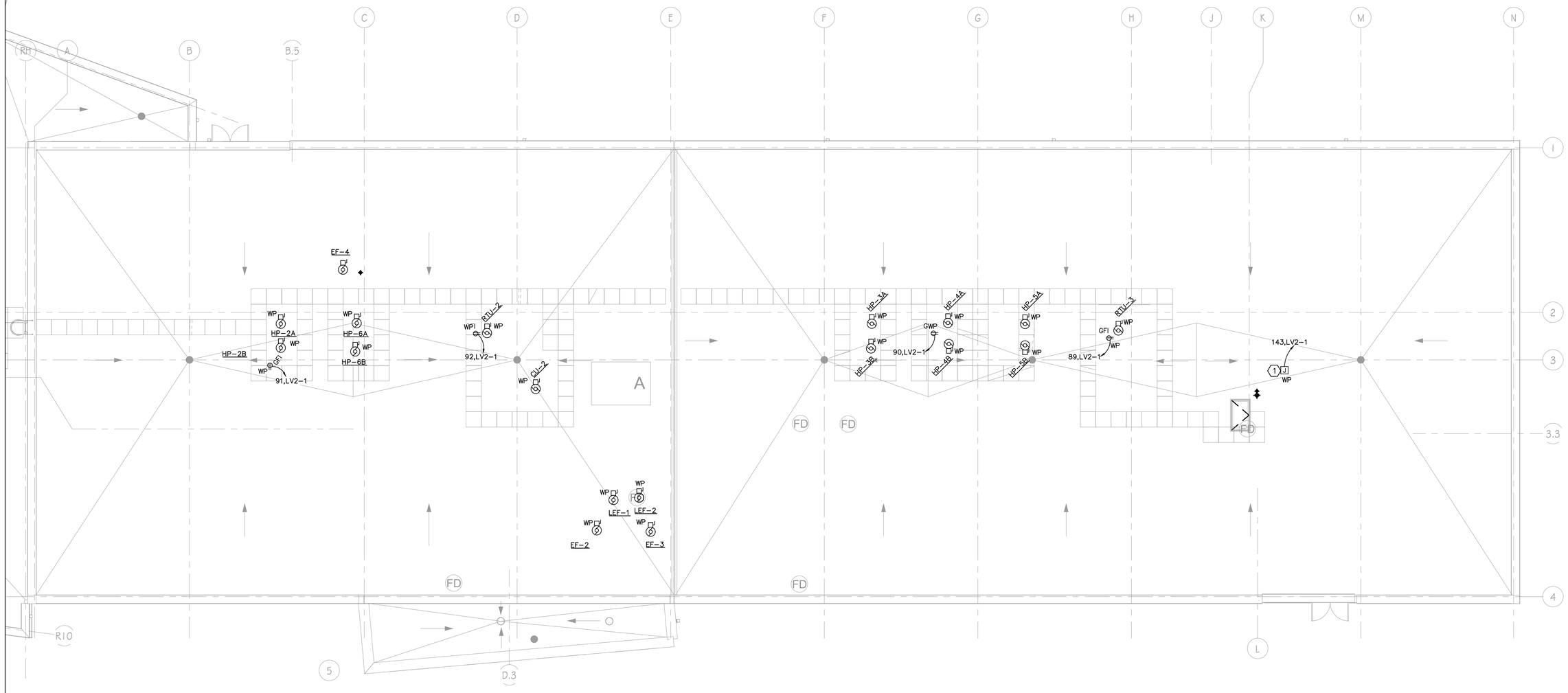
Revisions:

Project #:

1650

Sheet #:

EP1.3.2



ROOF EDUCATION WING

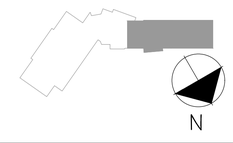
1/8" = 1'-0"

1

ELECTRICAL POWER PLAN KEY NOTES:

(1) POWER FOR FUTURE RADON FANS. RUN 2#10,1#10G,3/4"C TO PANEL INDICATED. CONNECT TO 20A-1P BREAKER. PROVIDE BREAKER HANDLE LOCK AND LOCK BREAKER IN THE OFF POSITION. PROVIDE GALVANIZED RIGID CONDUIT THROUGH ROOF. SECURE CONDUIT BELOW ROOF IN TWO LOCATIONS SO CONDUIT ABOVE ROOF IS PROPERLY SECURED. PROVIDE GALVANIZED STEEL "FS" BOX WITH TWO THREADED HUBS. PROVIDE THREADED BLANK SEAL IN FUTURE HUB OPENING. MOUNT BOX 18" ABOVE ROOF. PROVIDE BLANK WEATHERPROOF COVER. ALL SCREWS SHALL BE STAINLESS STEEL.

Key Plan



QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HEBRON STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:

ROOF POWER PLAN - OVERALL NEW BUILDING

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

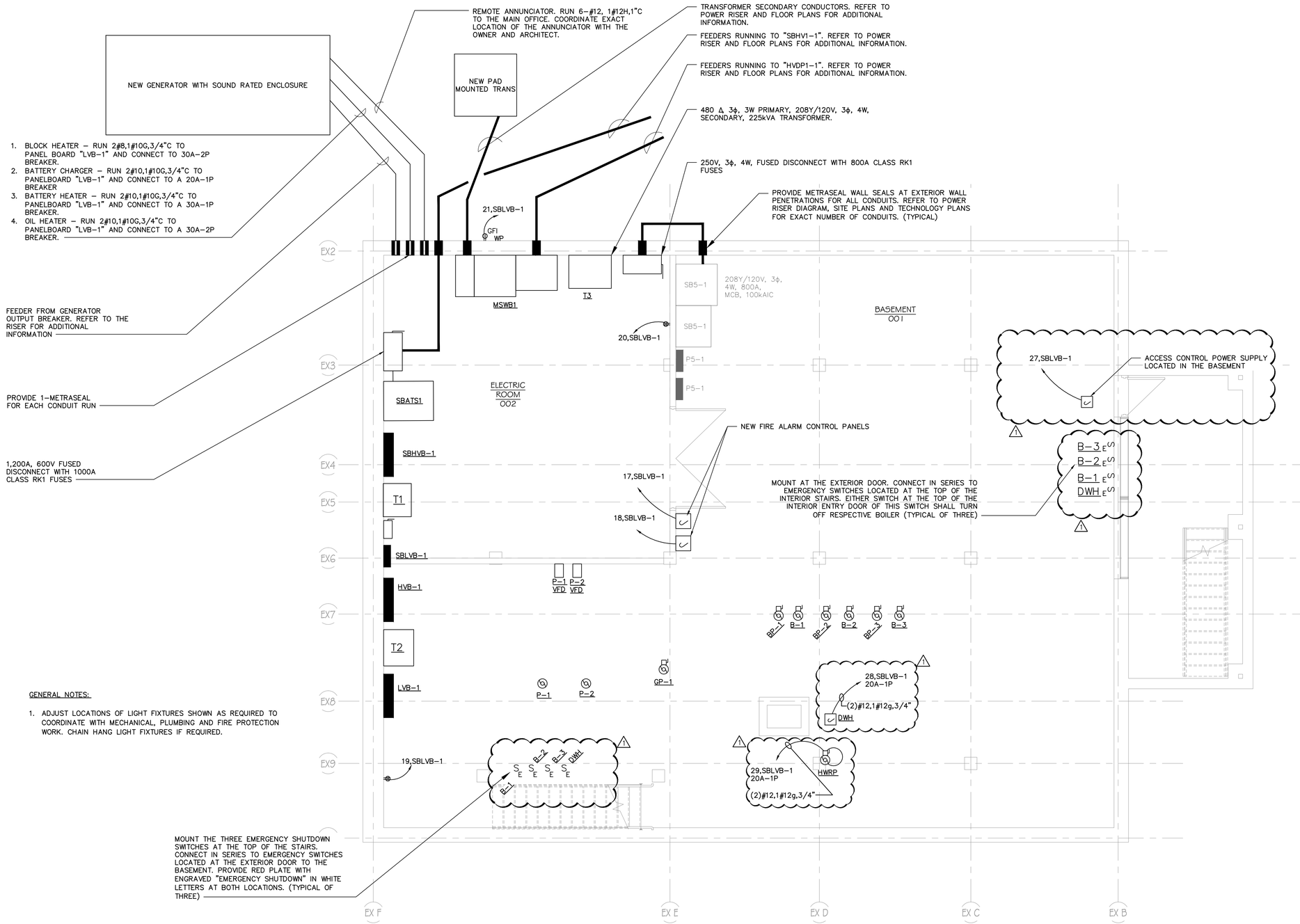
Revisions:

Project #:

1650

Sheet #:

EP1.3.3



GENERAL NOTES:

1. ADJUST LOCATIONS OF LIGHT FIXTURES SHOWN AS REQUIRED TO COORDINATE WITH MECHANICAL, PLUMBING AND FIRE PROTECTION WORK. CHAIN HANG LIGHT FIXTURES IF REQUIRED.

BASEMENT FLOOR PLAN

1/4" = 1'-0"

1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4343
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:
ELECTRICAL BASEMENT POWER PLAN

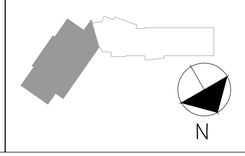
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

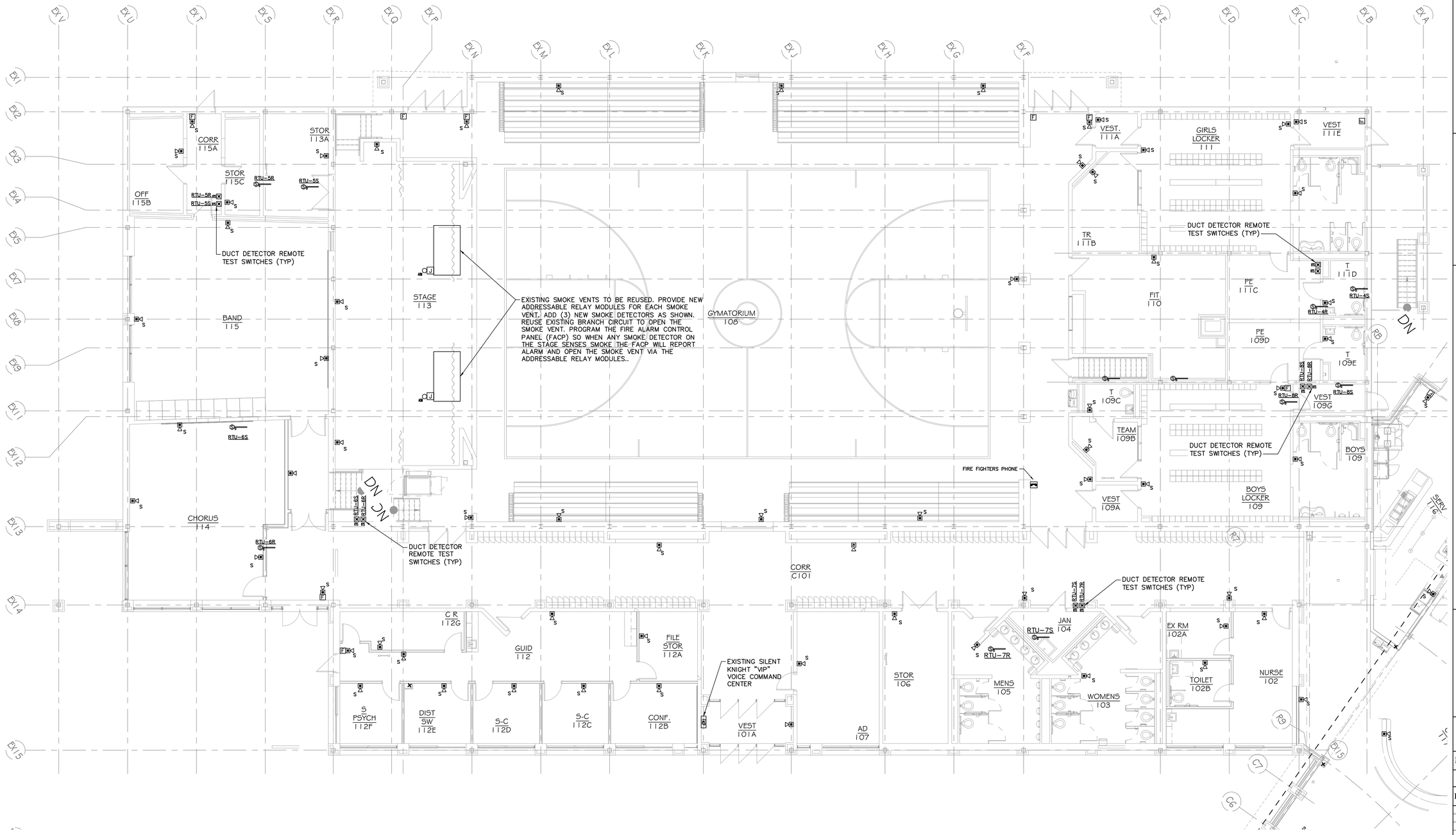
1	ADDENDUM #2

Key Plan



Project #:
1650

Sheet #:
EP3.1



FIRST FLOOR GYMATORIUM
1/8" = 1'-0"

1

Key Plan

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
SIMSBURY, CT 06070
P: (860) 404-4330
F: (860) 404-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL FIRST FLOOR FIRE ALARM PLAN - GYMATORIUM

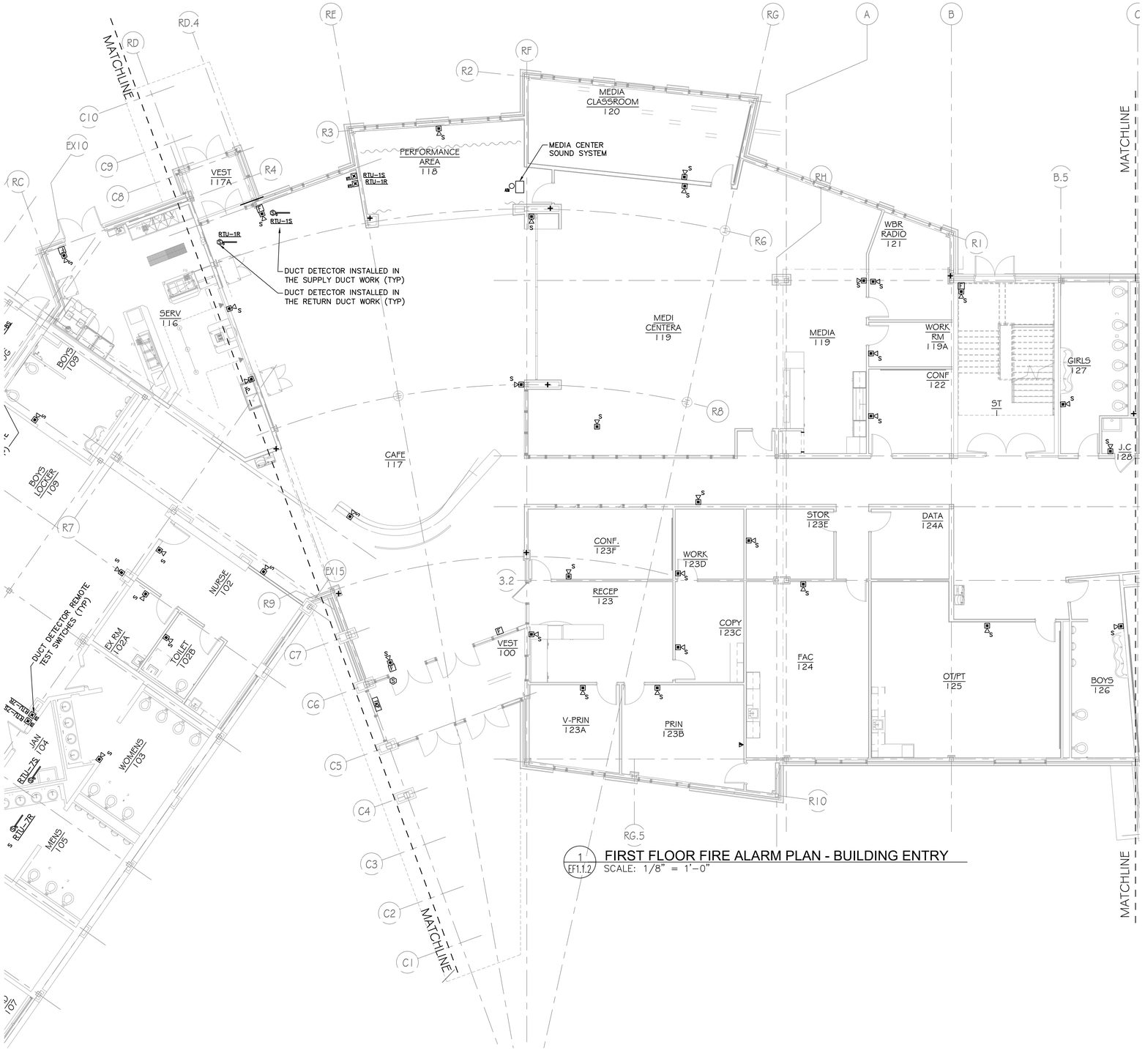
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
EF1.1.1



FIRST FLOOR BUILDING ENTRY
1/8" = 1'-0"

1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL FIRST FLOOR FIRE ALARM PLAN - BUILDING ENTRY

State Project #:
102-0024 EA/RR

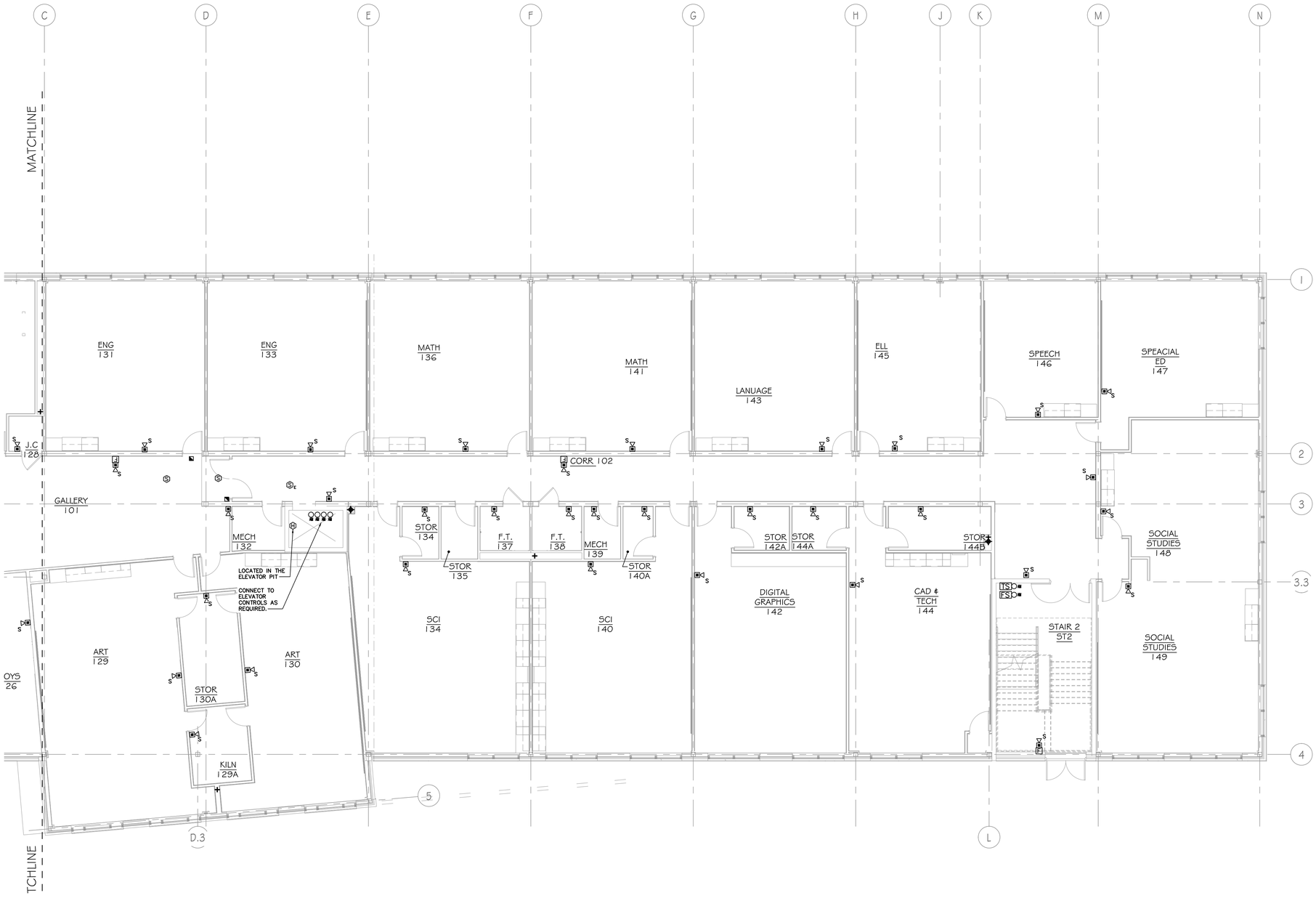
Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Key Plan

Project #:
1650

Sheet #:
EF1.1.2



FIRST FLOOR EDUCATION WING
1/8" = 1'-0" — 1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4455
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd. North Stonington, CT

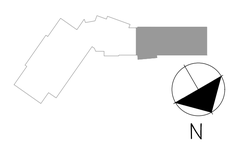
Sheet Description:
ELECTRICAL FIRST FLOOR FIRE ALARM PLAN - EDUCATION WING

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

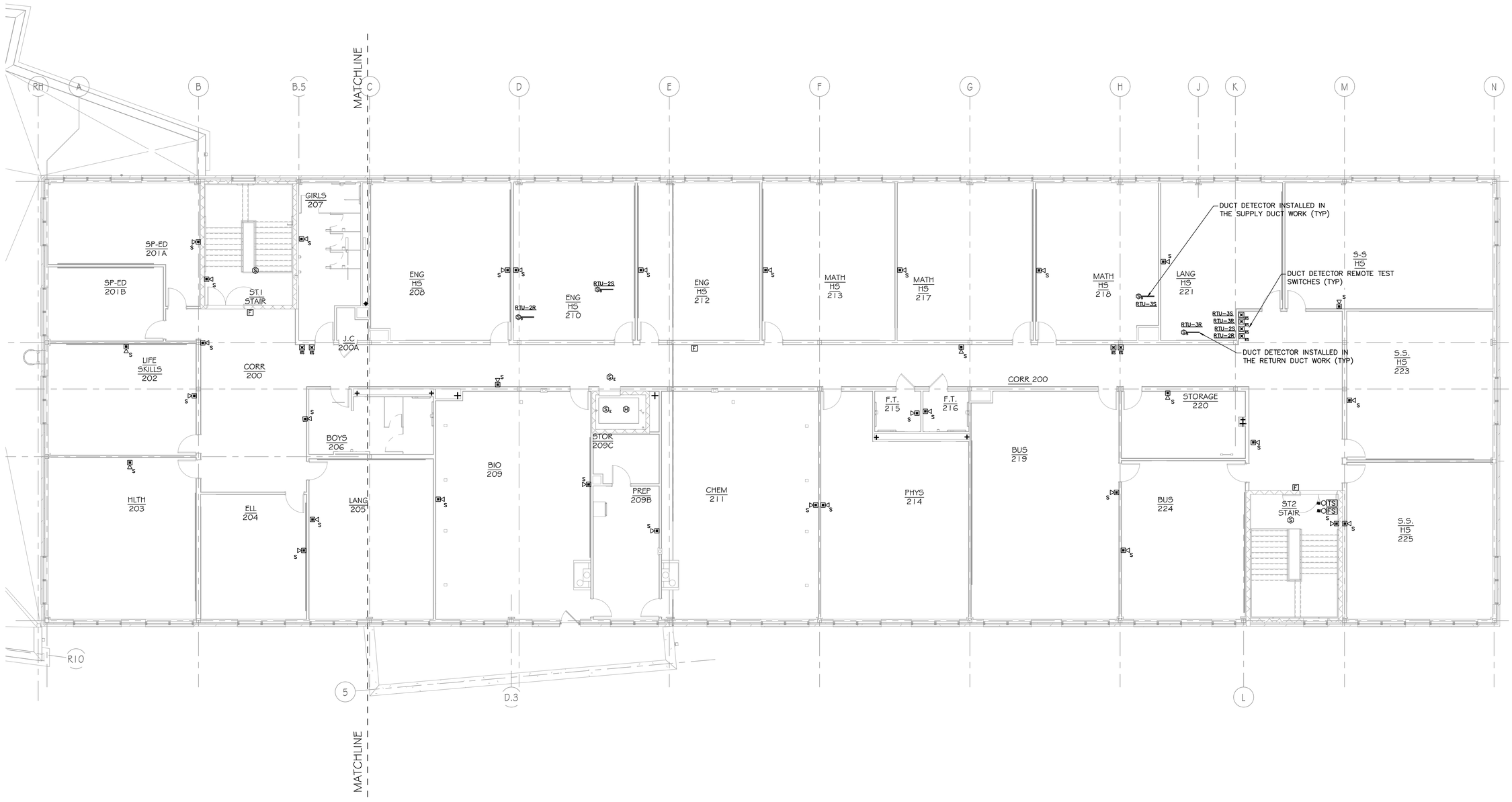
Revisions:

Key Plan



Project #:
1650

Sheet #:
EF1.1.3

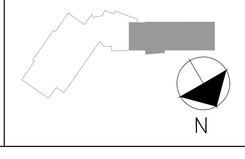


SECOND FLOOR EDUCATION WING

1/8" = 1'-0"

1

Key Plan



QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4666
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL SECOND FLOOR FIRE ALARM PLAN - EDUCATION WING

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

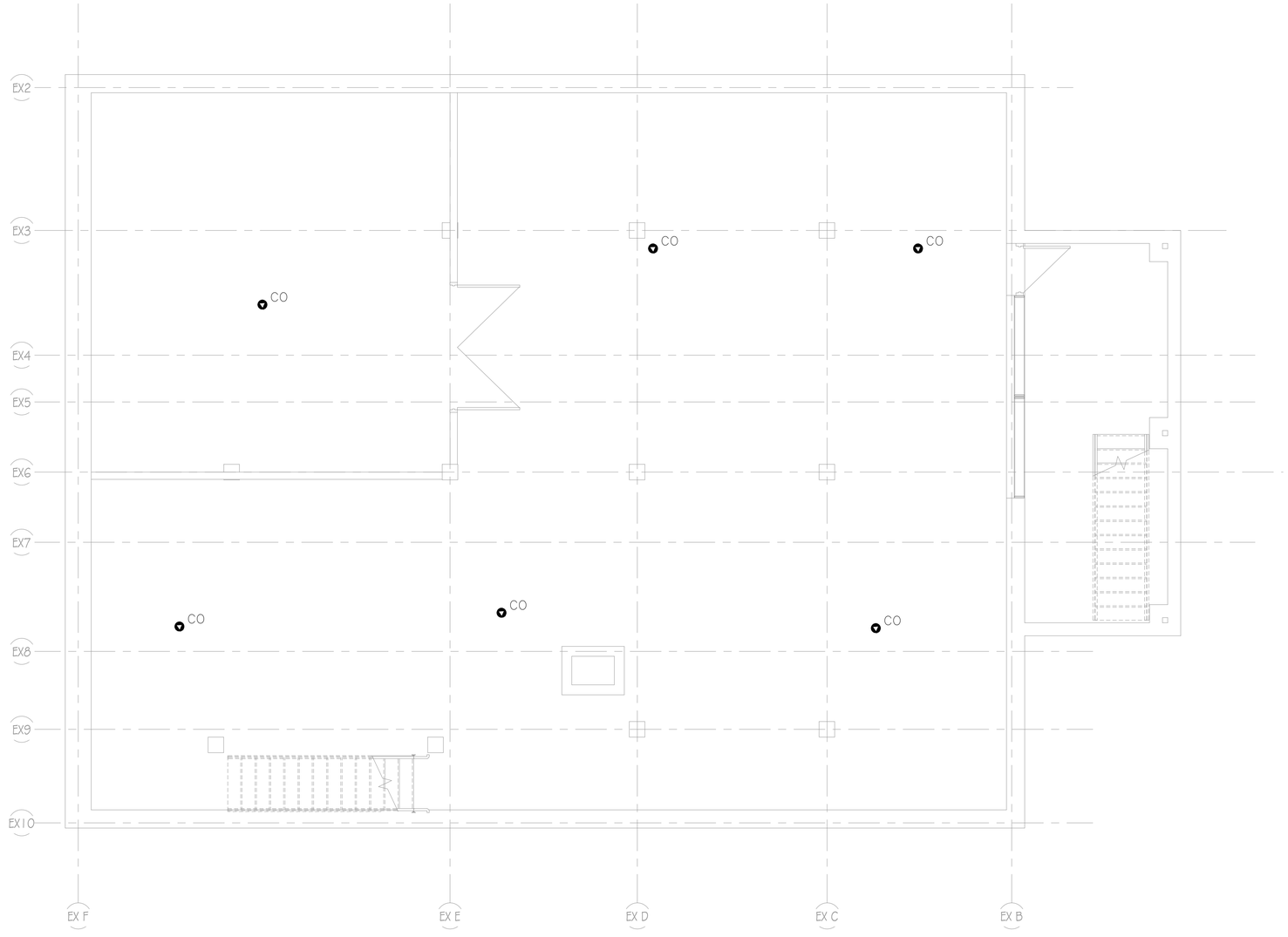
Revisions:

Project #:

1650

Sheet #:

EF1.2.1



BASEMENT EXISTING GYM BUILDING
1/4" = 1'-0"

1

N

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4456
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL BASEMENT FIRE ALARM PLAN - LOWER LEVEL

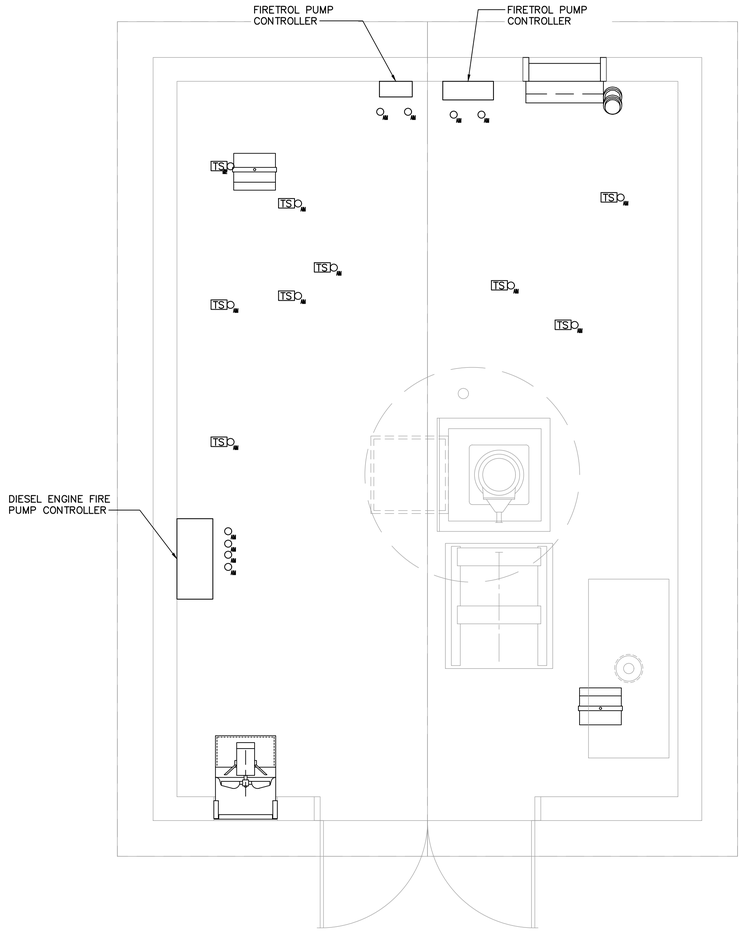
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
EF3.1



1 / EF3.1.1 FIRE ALARM PUMP BUILDING ENLARGED PLAN
SCALE: 1/2" = 1'-0"

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL FIRE ALARM PLAN - FIRE PUMP BUILDING

State Project #:
102-0024 EA/RR

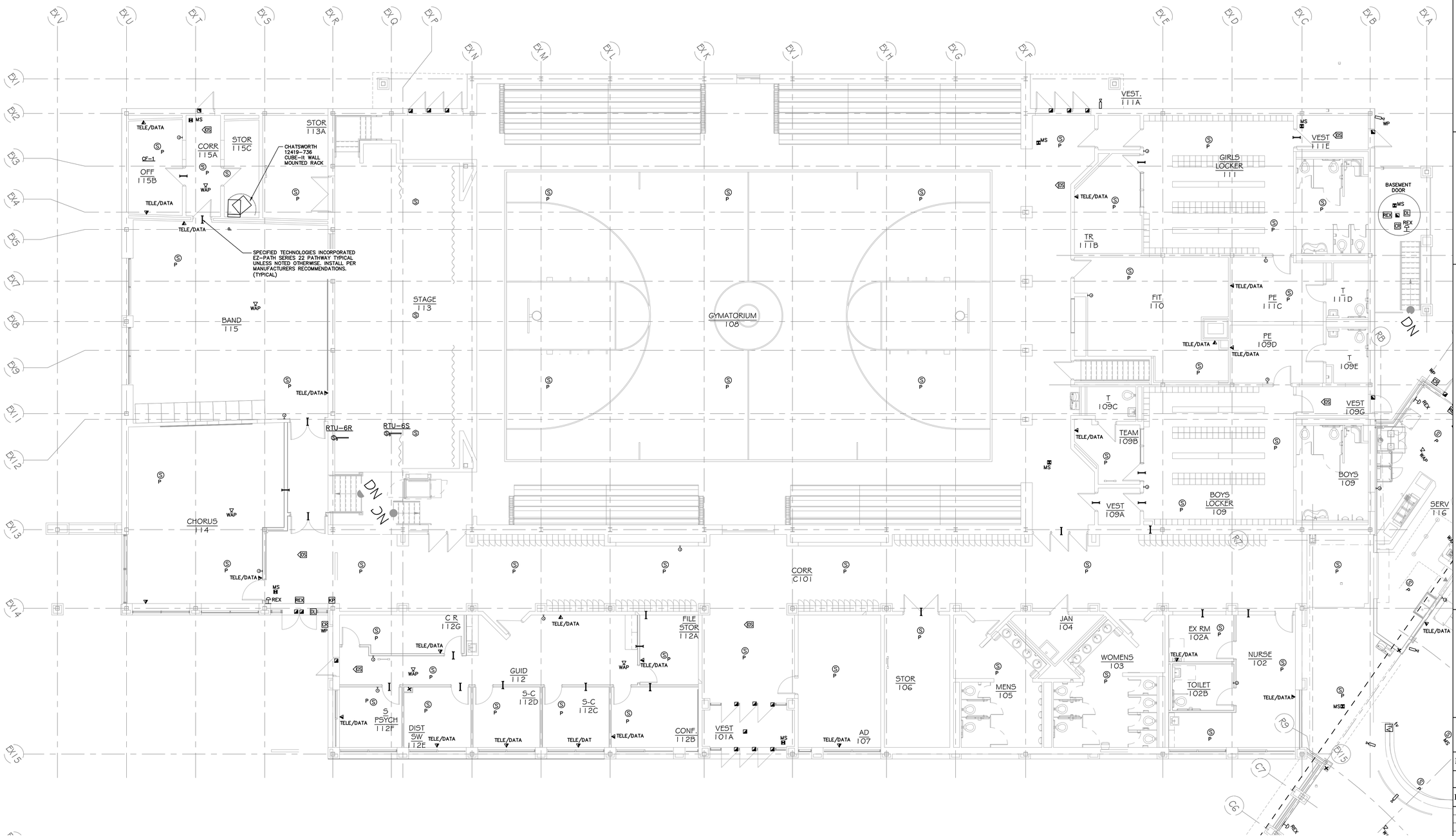
Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
EF3.1.1

N



FIRST FLOOR GYMATORIUM

1/8" = 1'-0"

1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 SOUTH MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

North Stonington, CT

297 Norwich-Westerly Rd.

Sheet Description:

ELECTRICAL FIRST FLOOR TECHNOLOGY PLAN - GYMATORIUM

State Project #:

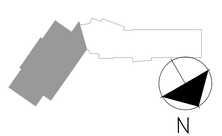
102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Key Plan

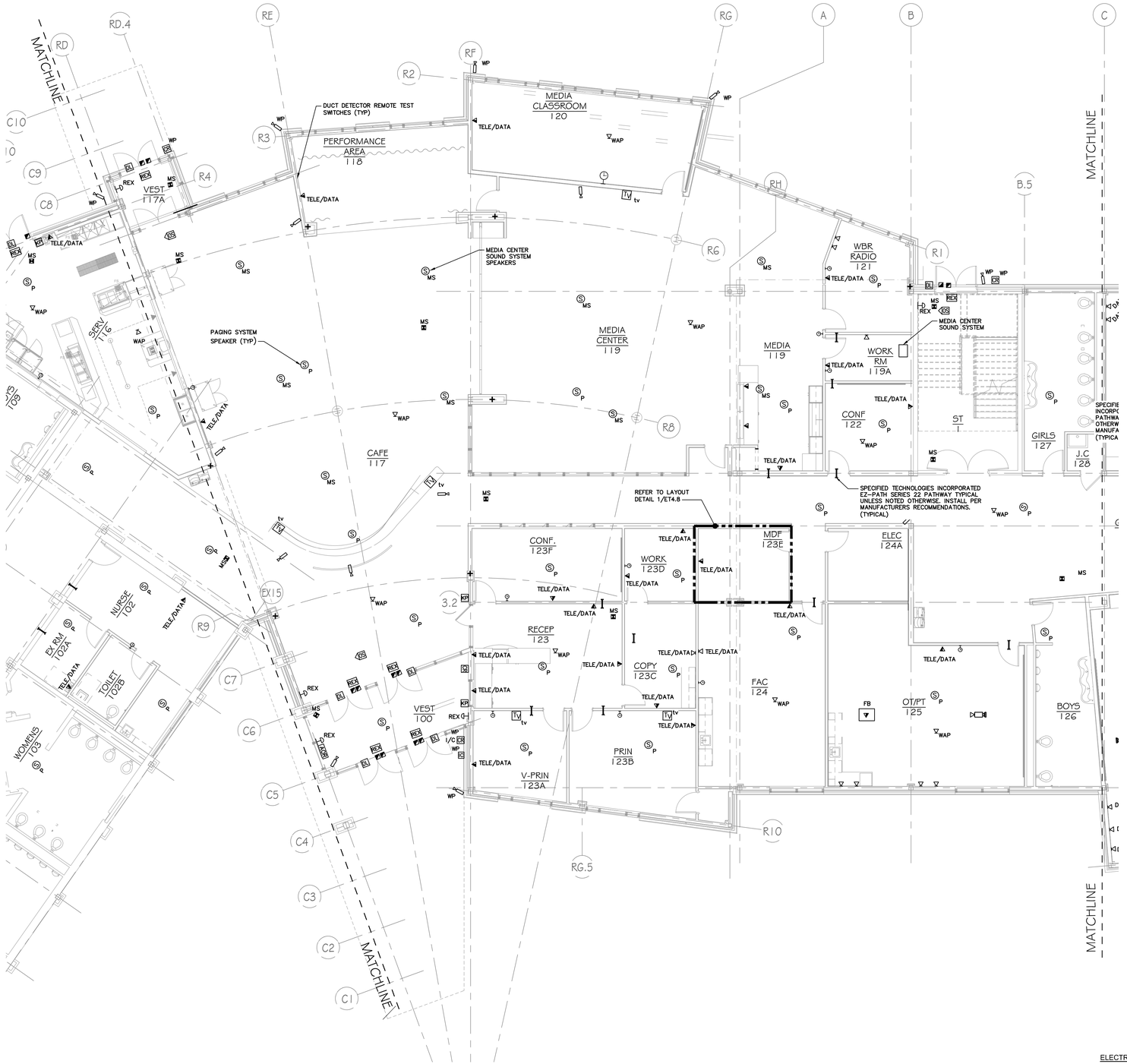


Project #:

1650

Sheet #:

ET1.1.1



FIRST FLOOR BUILDING ENTRY

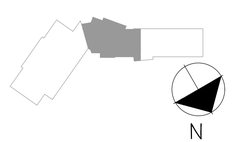
1/8" = 1'-0"

1

ELECTRICAL TECHNOLOGY PLAN KEY NOTES:

1. INTERCONNECT DOOR ACCESS CONTROL WITH POWER ASSIST DOOR AS REQUIRED. COORDINATE EXACT SEQUENCE OF OPERATION WITH DOOR ACCESS CONTRACTOR AND POWER ASSIST INSTALLER.

Key Plan



QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL FIRST FLOOR TECHNOLOGY PLAN - BUILDING ENTRY

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

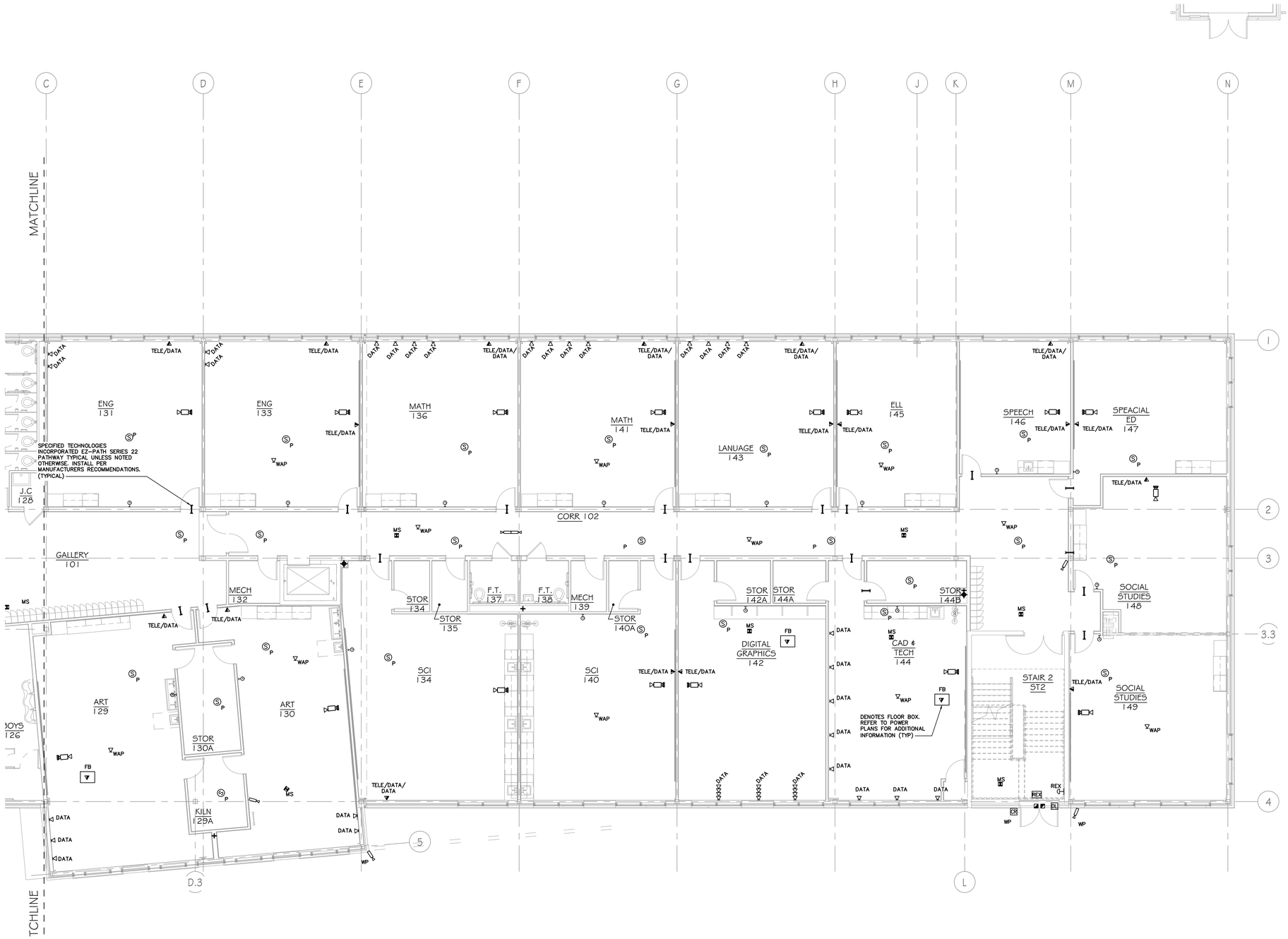
Revisions:

Project #:

1650

Sheet #:

ET1.1.2



FIRST FLOOR EDUCATION WING

1/8" = 1'-0"

1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4455
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL FIRST FLOOR TECHNOLOGY PLAN - EDUCATION WING

State Project #:

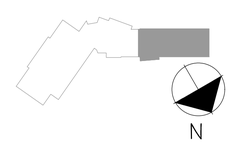
102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Key Plan

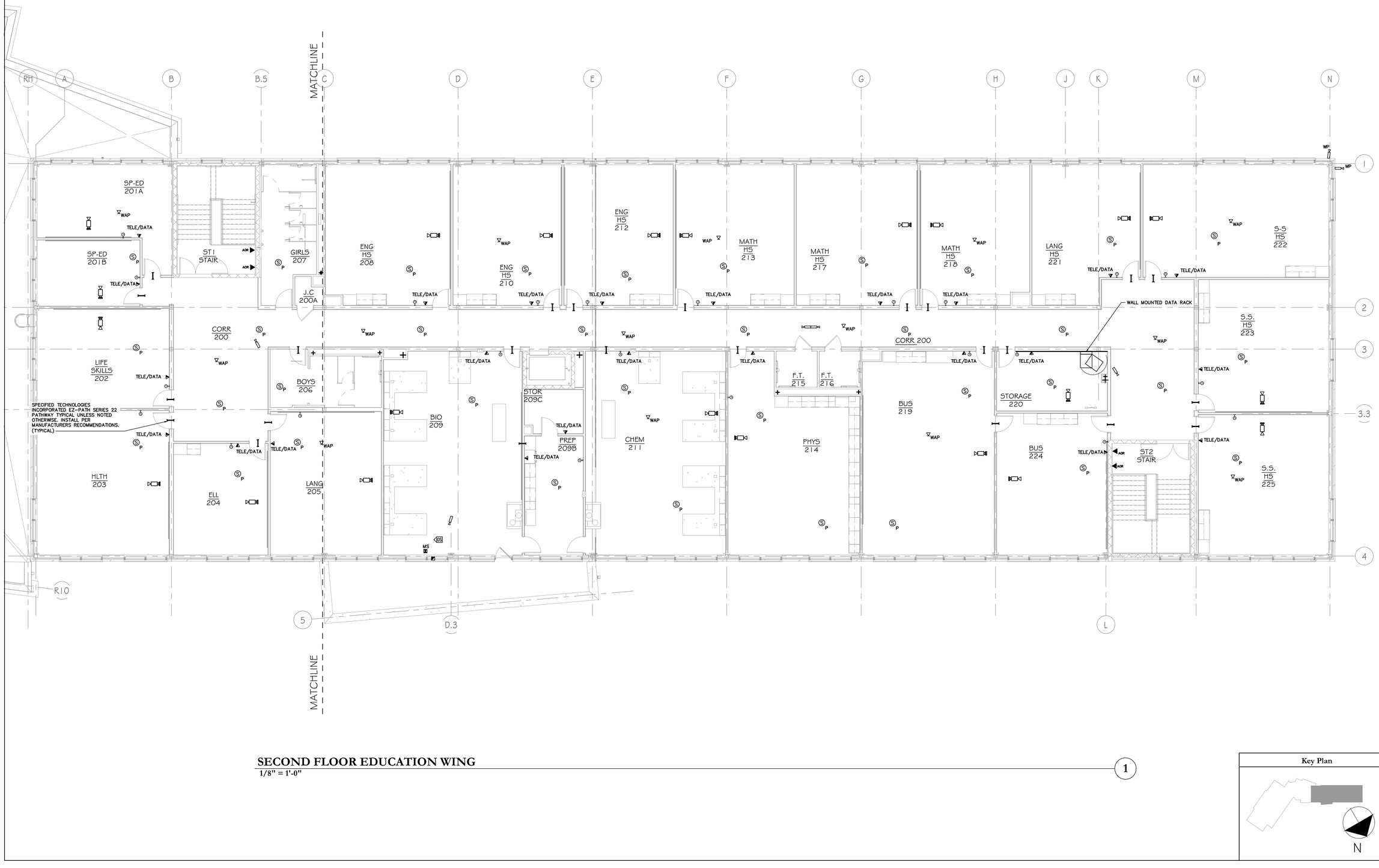


Project #:

1650

Sheet #:

ET1.1.3



SECOND FLOOR EDUCATION WING

1/8" = 1'-0"

1

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

North Stonington, CT

297 Norwich-Westerly Rd.

Sheet Description:

ELECTRICAL SECOND FLOOR TECHNOLOGY PLAN - EDUCATION WING

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

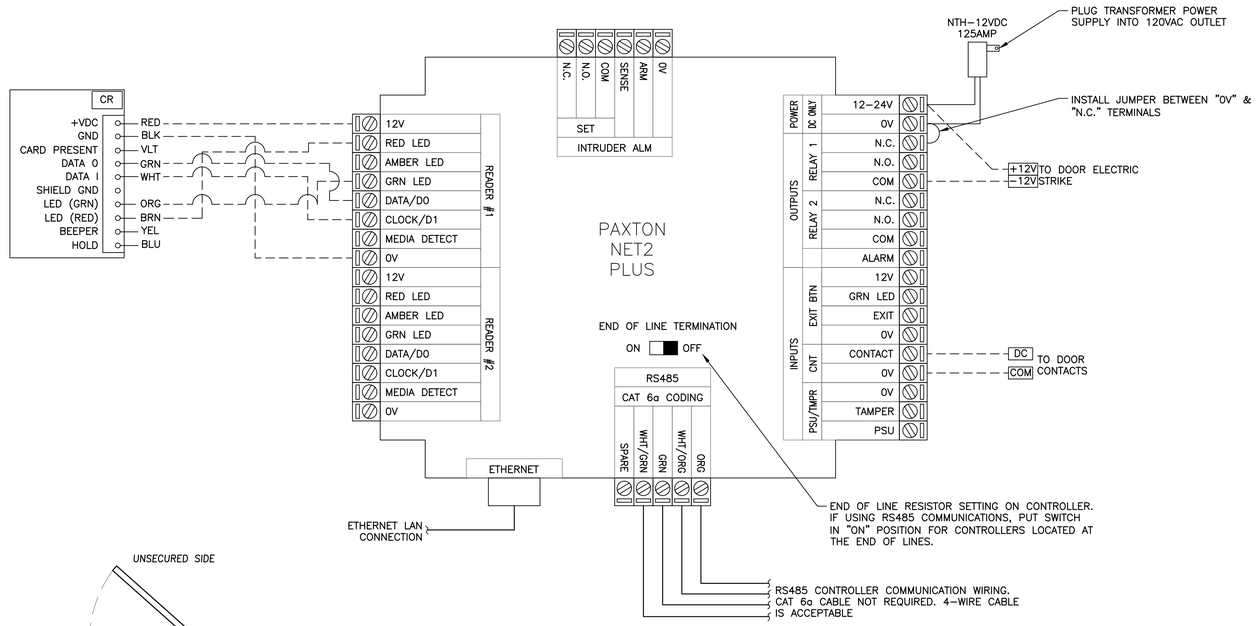
Key Plan

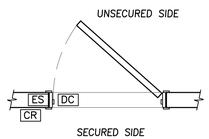
Project #:

1650

Sheet #:

ET1.2.1





TYPICAL DOOR LAYOUT

1 ET4.0 TYPICAL DOOR CONTROLLER WIRING DETAIL
SCALE: N.T.S.

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
700 EAST MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY DETAILS

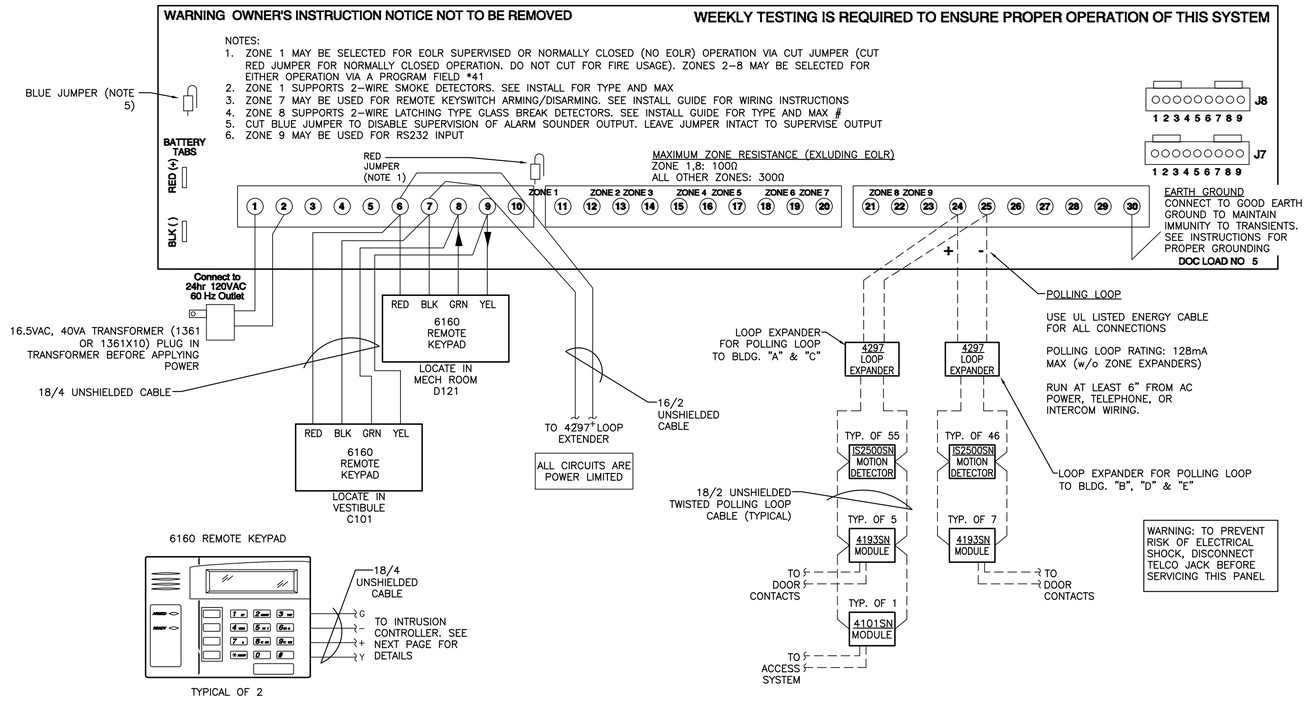
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
ET4.0



TYPICAL REMOTE KEYPAD WIRING DETAILS

BILL OF MATERIALS

DEVICE	QTY.	MFG	MODEL NO.	DESCRIPTION	RANGE
Controller	1	Honeywell	VISTA–250BPT	Honeywell Intrusion Controller	n/a
Transformer	1	Honeywell	1361	Plug–In Transformer	40 VA
Power Supply	1	x	x	TBD	x
Keypad	2	Honeywell	6160	Alpha Display Remote Keypad	n/a

1 ET4.1 VISTA INTRUSION CONTROLLER WIRING DETAILS
SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4346
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY DETAILS

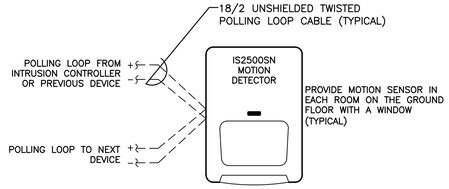
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

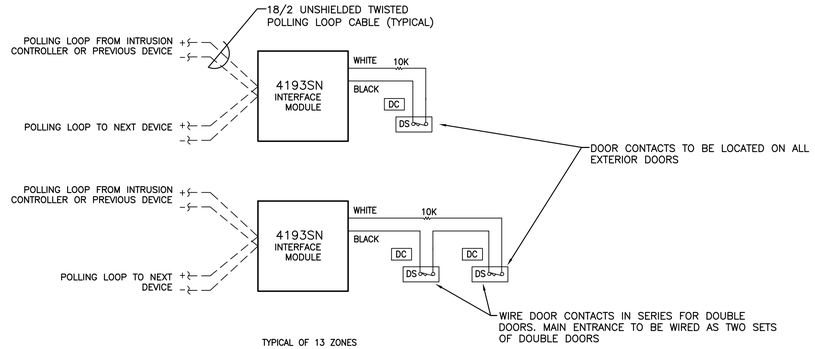
Sheet #:
ET4.1



BILL OF MATERIALS

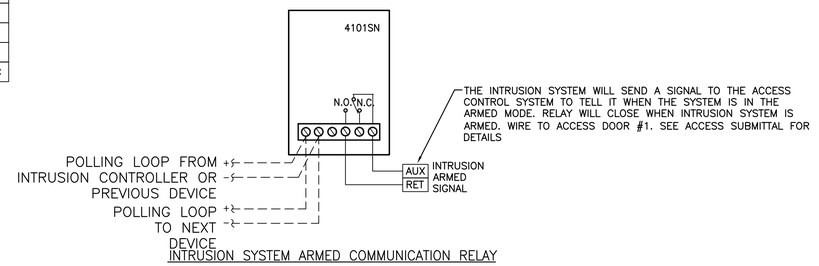
DEVICE	QTY.	MFG	MODEL NO.	DESCRIPTION	RANGE
Interface Module	16	Honeywell	4193SN	Non-Polling Loop Addressing Module	n/a
Door Contacts	27	GE	1076D	Magnetic Door Contacts	DPDT
Loop Extender	2	Honeywell	4297	Polling Loop Extender Module	n/a
Motion Detector	101	Honeywell	IS2500SN	PIR Motion Detector	n/a
Mounting Bracket	69	Honeywell	SMB10	Mounting Bracket for Motion Detector	n/a
Mounting Bracket	32	Honeywell	SMB10C	Mounting Bracket for Motion Detector	n/a
Relay Module	1	Honeywell	4101SN	Single Circuit Relay Module	2A @ 28VAC/DC

TYPICAL MOTION DETECTOR WIRING DETAILS

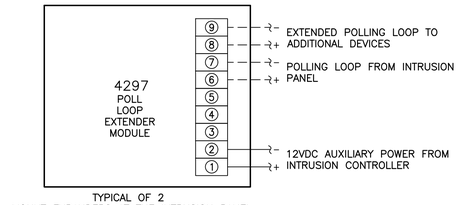


TYPICAL OF 13 ZONES

TYPICAL DOOR CONTACT WIRING DETAILS



INTRUSION SYSTEM ARMED COMMUNICATION RELAY



TYPICAL OF 2
MOUNT EXPANDERS AT THE INTRUSION PANEL
LOCATION

POLLING LOOP EXPANDER MODULE WIRING DETAILS

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4456
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL TECHNOLOGY DETAILS

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

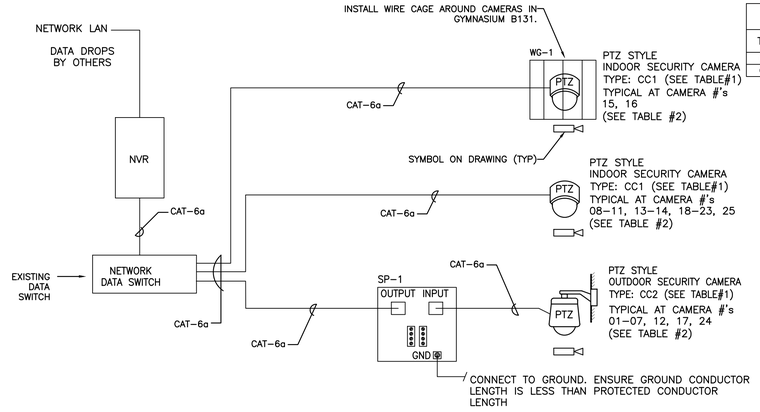
Revisions:

Project #:

1650

Sheet #:

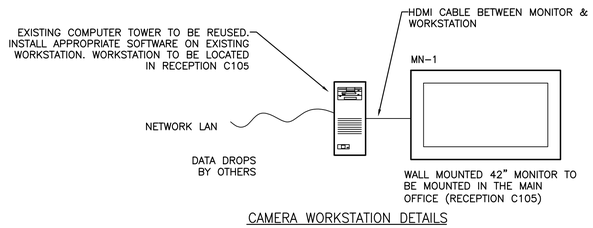
ET4.2



TYPICAL CAMERA WIRING DETAIL

TABLE #1

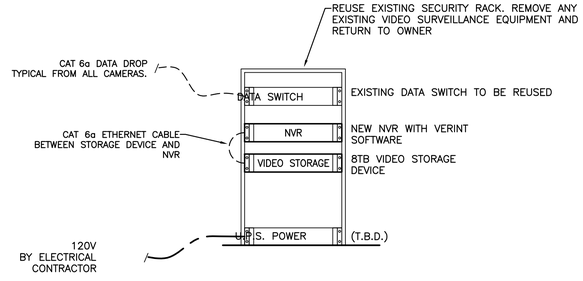
CAMERA MODEL #'S			
TYPE	MODEL #	TYPE	MANUFACTURER
CC1	SD4-W0	PTZ	PELCO
CC2	SD4N36-PG-E0	PTZ	PELCO



CAMERA WORKSTATION DETAILS

BILL OF MATERIALS

DEVICE	QTY.	MFG	MODEL NO.	DESCRIPTION	RANGE
PTZ CAMERA	15	PELCO	SD4-W0	Indoor PTZ HD Dome Camera	n/a
Mounting Bracket	15	PELCO	SPM4-W	Pendant Mounting Bracket	n/a
PTZ CAMERA	10	PELCO	SD4N36-PG-E0	Outdoor PTZ HD Dome Camera	n/a
Mounting Bracket	10	PELCO	SWM-GY	Wall/Pole Mounting Bracket	n/a
Mounting Bracket	4	PELCO	SWM-CA	Corner Mounting Bracket For Cameras	n/a
NVR	1	DELL	R620	Dell Poweredge Rack Server	n/a
VIDEO STORAGE	1	BUFFALO	3400r	Terrastation Video Storage Unit	8TB
MN-1	1	LG	42LS33A-5D	42" Direct-LED Monitor	42"
Mounting Bracket	1	peerless-AV	ST640	Wall Mounting Bracket For Monitor	n/a
SP-1	10	DITEK	PVPIP	Surge Protector For IP/PoE Cameras	24V, 5A
WG-1	2	SAE	SSU03503	Wire Cage for Horn/Strobe	n/a



CAMERA EQUIPMENT RACK DETAILS

REMOVE ANY EXISTING VIDEO SURVEILLANCE EQUIPMENT AND RETURN TO OWNER.

SECURITY CAMERA WIRING DETAILS

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 SOUTH MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY DETAILS

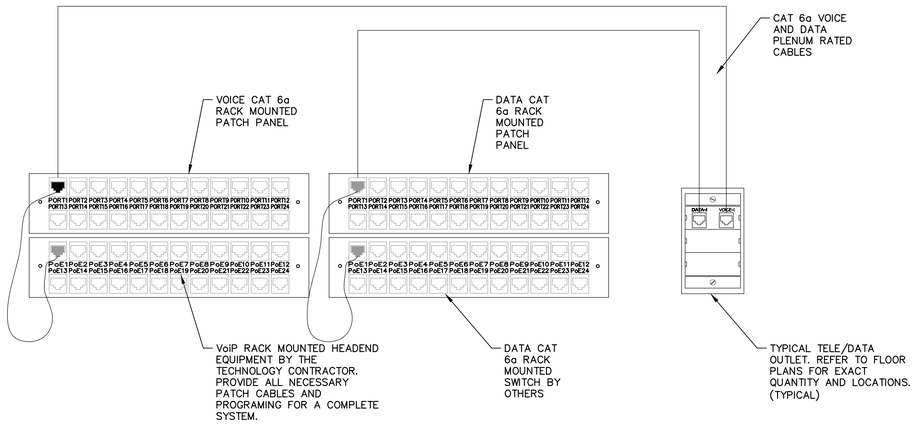
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

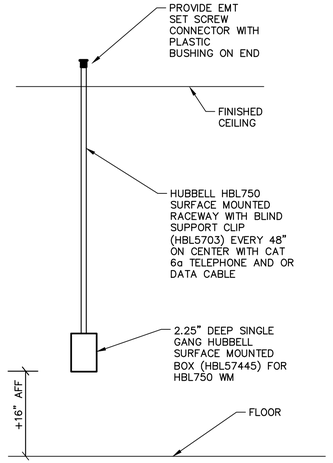
Revisions:

Project #:
1650

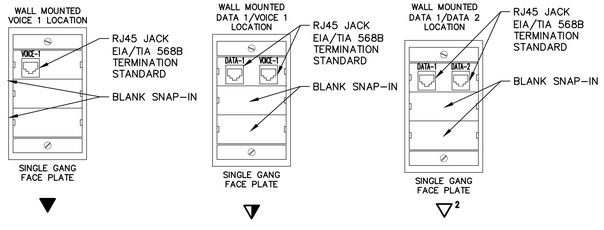
Sheet #:
ET4.3



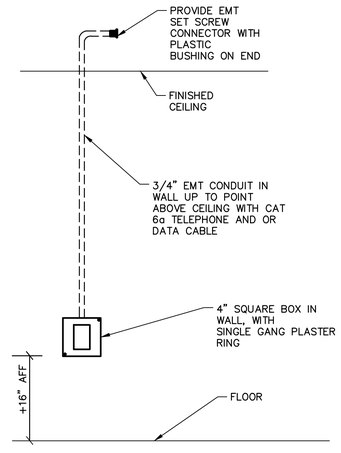
4 ET4.4 TYPICAL TELE/DATA OUTLET WIRING DETAIL
SCALE: N.T.S.



2 ET4.4 TECHNOLOGY OUTLET ON EXISTING WALL INSTALLATION DETAIL
SCALE: N.T.S.



3 ET4.4 TECHNOLOGY FACE PLATE CONFIGURATIONS
SCALE: N.T.S.



1 ET4.4 TECHNOLOGY OUTLET ON EXISTING WALL INSTALLATION DETAIL
SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 SOUTH MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY DETAILS

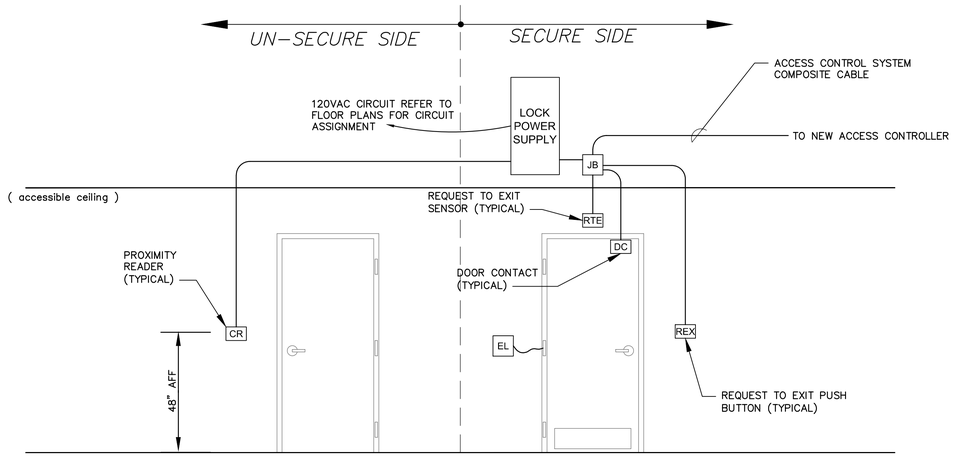
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

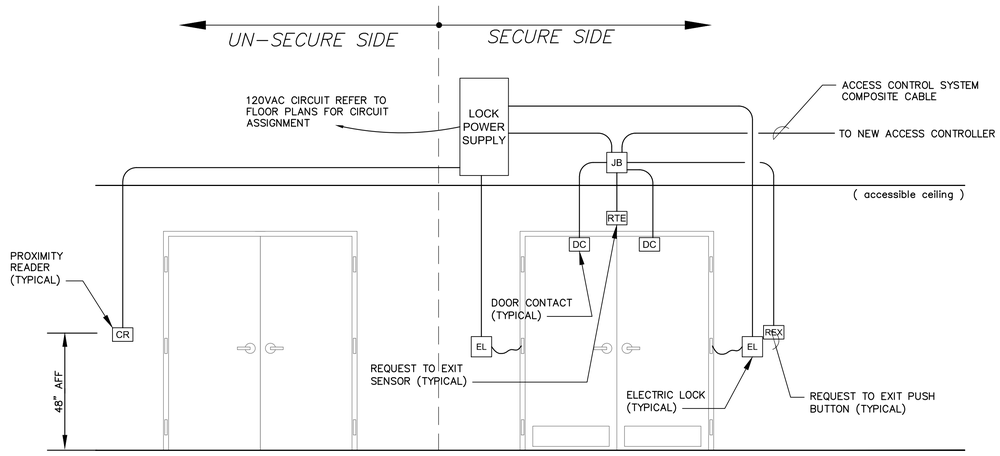
Project #:
1650

Sheet #:
ET4.4



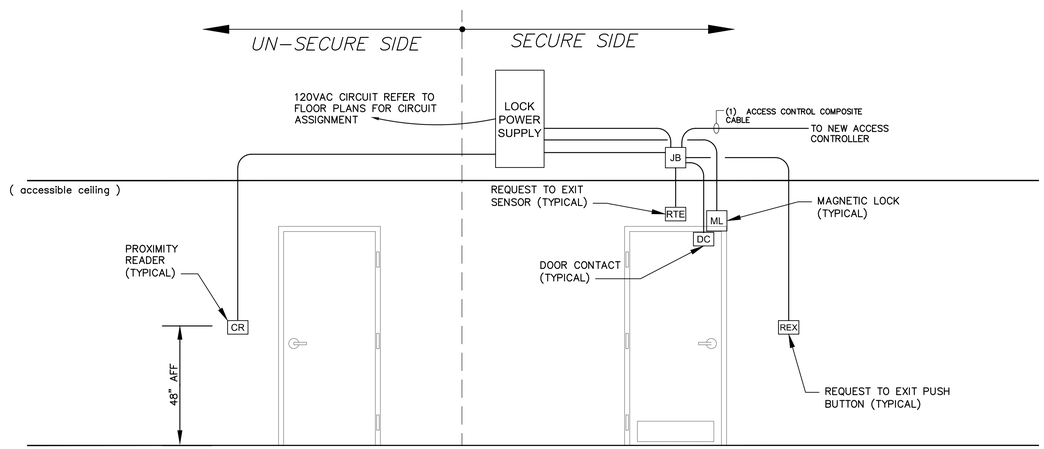
SINGLE DOOR WITH ELECTRIC LOCK

4 ET4.5 TYPICAL SECURITY DOUBLE SINGLE ACCESS CONTROL ELECTRIC LOCK DETAIL
SCALE: N.T.S.



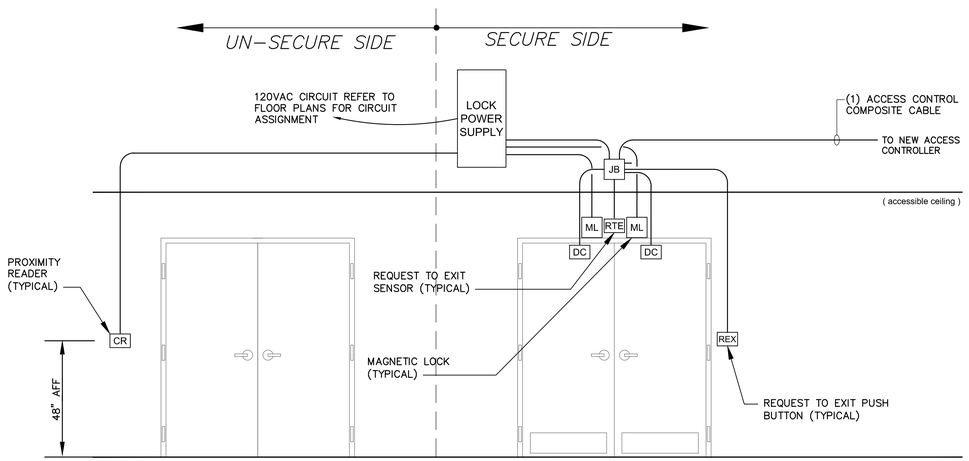
DOUBLE DOOR WITH ELECTRIC LOCK

2 ET4.5 TYPICAL SECURITY DOUBLE DOOR ACCESS CONTROL ELECTRIC LOCK DETAIL
SCALE: N.T.S.



SINGLE DOOR WITH MAGNETIC LOCK

3 ET4.5 TYPICAL SECURITY SINGLE DOOR ACCESS CONTROL MAGNETIC LOCK DETAIL
SCALE: N.T.S.



DOUBLE DOOR WITH MAGNETIC LOCK

1 ET4.5 TYPICAL SECURITY DOUBLE DOOR ACCESS CONTROL MAGNETIC LOCK DETAIL
SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 EAST MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4336
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY DETAILS

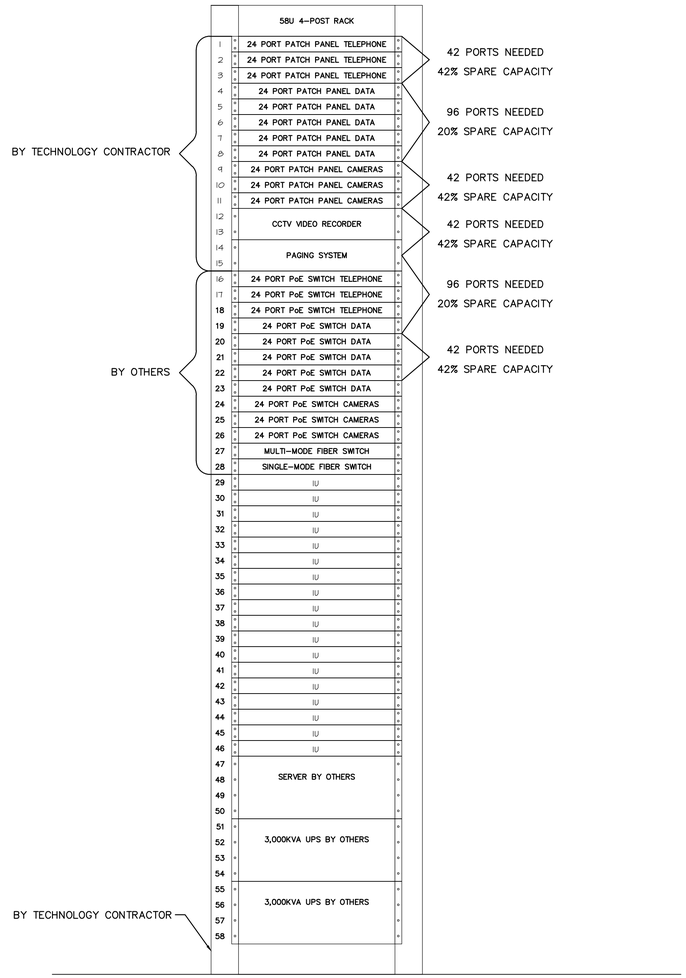
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2016

Revisions:

Project #:
1650

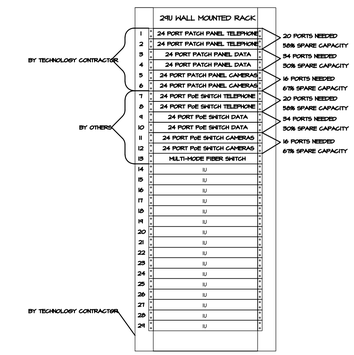
Sheet #:
ET4.5



TELEPHONE/SECURITY/DATA SYSTEMS GENERAL NOTES:

1. NEW FLOOR MOUNTED TELECOMMUNICATION RACK, CHATSWORTH QUADRARACK #50120-X08, 4-POST FRAME, 19" EIA WIDTH, ALUMINUM CONSTRUCTION, 108"H X 19"W X 29"D, 58U FURNISHED AND INSTALLED BY THE TECHNOLOGY CONTRACTOR.
2. ALL PATCH PANELS SHALL BE CAT 6a COMPATIBLE.

2 ET4.6 MDF FLOOR MOUNTED RACK ELEVATION
SCALE: N.T.S.



TELEPHONE/SECURITY/DATA SYSTEMS GENERAL NOTES:

1. NEW WALL MOUNTED RACK SHALL BE CHATSWORTH #13492-X72, CUBE-IT PLUS, 27.3"W X72"H X24"D, 29U, 247#.
2. ALL PATCH PANELS SHALL BE CAT 6a COMPATIBLE.

2 ET4.6 IDF WALL MOUNTED RACK ELEVATION
SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 SOUTH MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY DETAILS

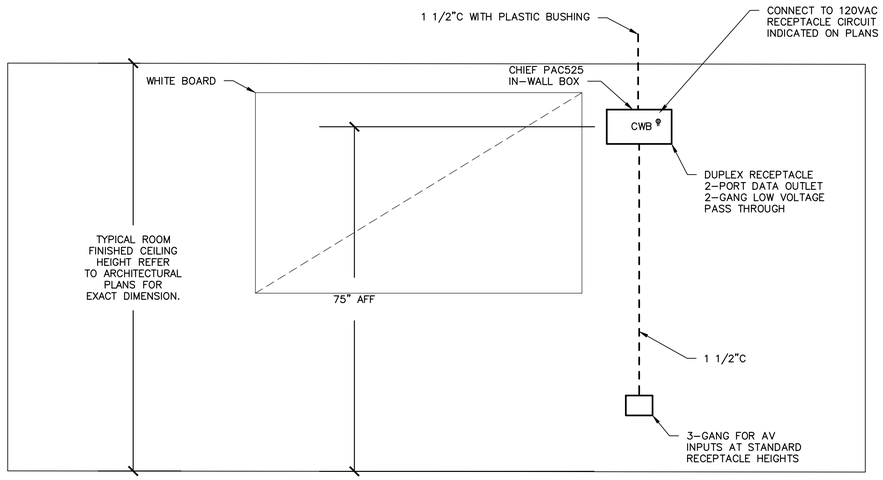
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

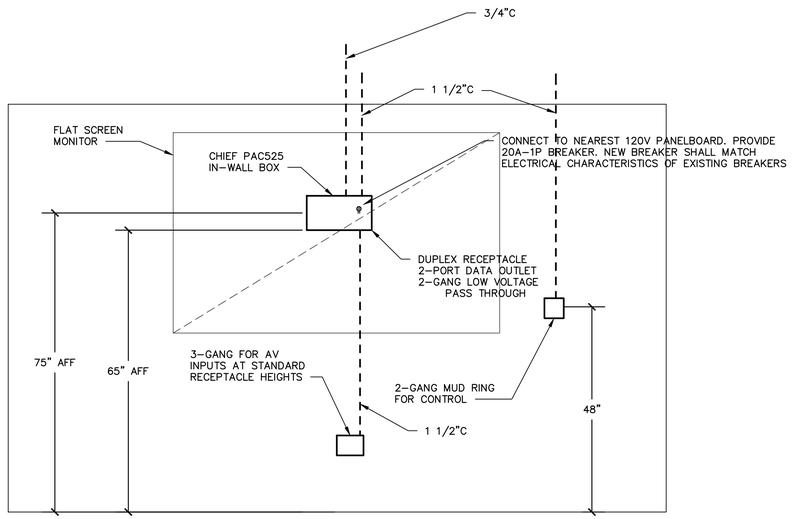
Sheet #:
ET4.6



NOTE:

1. LOW VOLTAGE BOXES SHOULD BE OPEN MUD RINGS OR DEEP BOXES
2. BOXES OPEN CONDUIT SHOULD BE TERMINATED WITH INSULATING BUSHINGS
3. ALL CONDUIT SHOULD BE INSTALLED WITH NYLON PULL STRINGS
4. INCLUDE THE FOLLOWING CABLES FROM THE PROJECTOR TO THE THREE GANG AV BOX TERMINATE ALL CABLES AS REQUIRED:
   a. HDMI
   b. RS 232
   c. AUDIO
   d. USB

2 / ET4.7 TYPICAL CLASS ROOM TEACHING WALL DETAIL
SCALE: N.T.S.



NOTE:

1. LOW VOLTAGE BOXES SHOULD BE OPEN MUD RINGS OR DEEP BOXES
2. BOXES OPEN CONDUIT SHOULD BE TERMINATED WITH INSULATING BUSHINGS
3. ALL CONDUIT SHOULD BE INSTALLED WITH NYLON PULL STRINGS
4. INCLUDE THE FOLLOWING CABLES FROM THE PROJECTOR TO THE THREE GANG AV BOX TERMINATE ALL CABLES AS REQUIRED:
   a. HDMI
   b. RS 232
   c. AUDIO
   d. USB

1 / ET4.7 TYPICAL FLAT SCREEN MONITOR DETAIL
SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 EAST MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4336
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY DETAILS

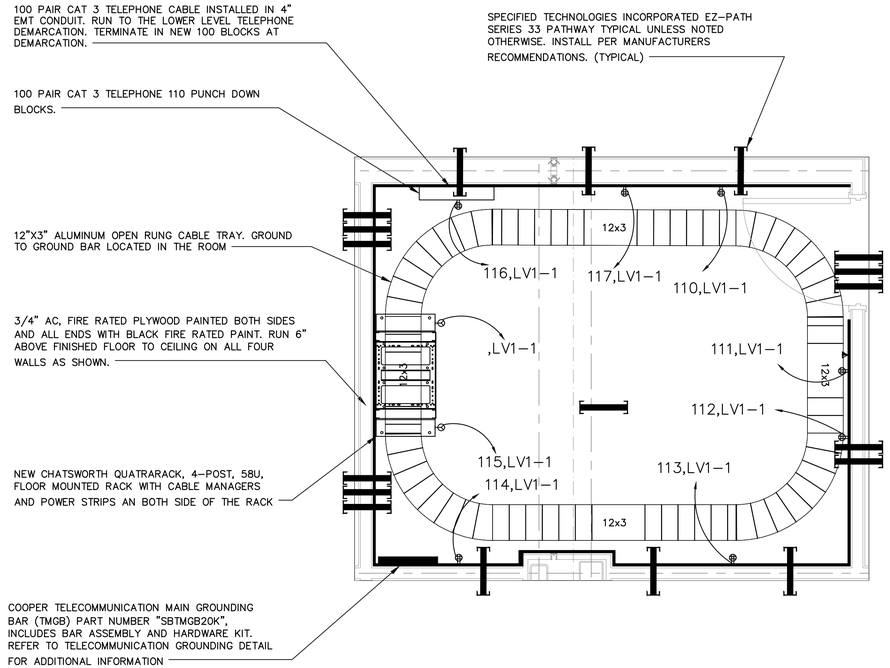
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2016

Revisions:

Project #:
1650

Sheet #:
ET4.7



1 / ET4.8 MDF 123E ROOM LAYOUT DETAIL

SCALE: 1/2"=1'-0"

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 EAST MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:

ELECTRICAL TECHNOLOGY DETAILS

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

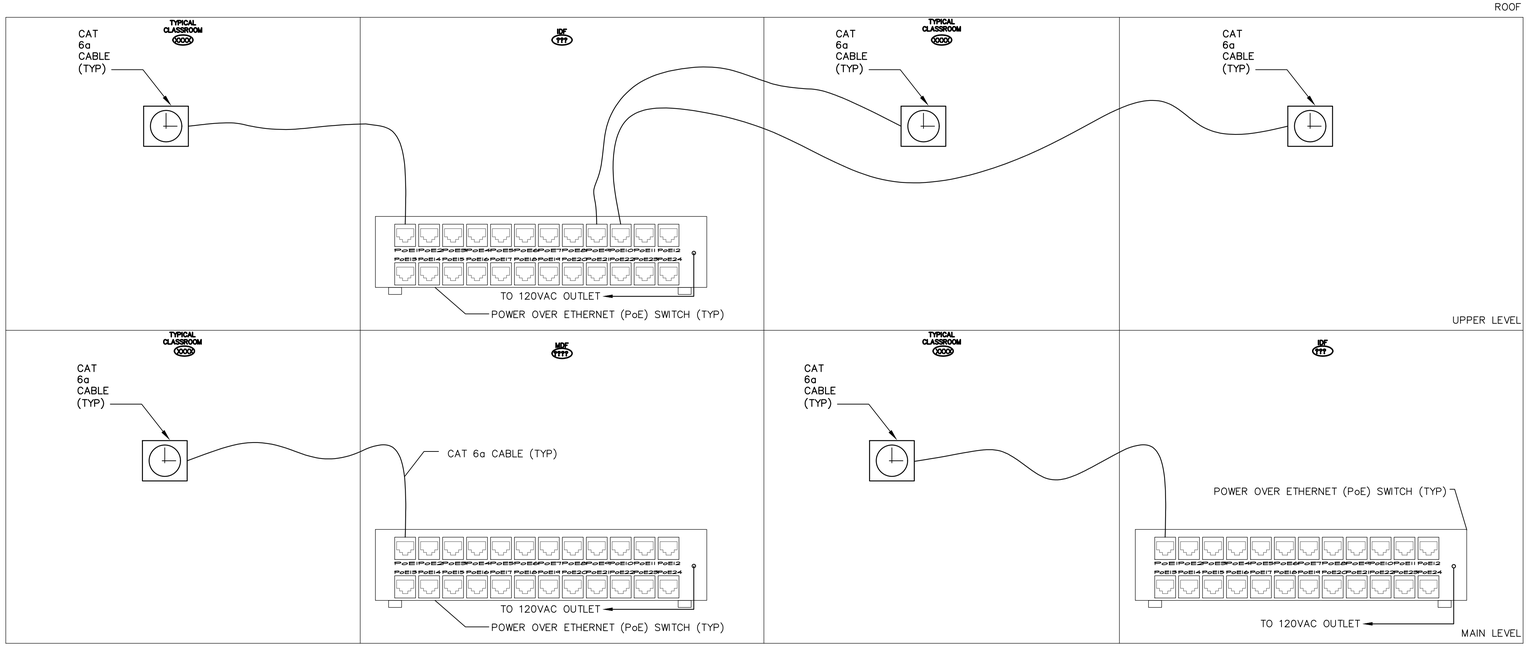
Revisions:

Project #:

1650

Sheet #:

ET4.8



NOTE:

1. PROVIDE PoE CLOCK SYSTEM AS REQUIRED:
   a. BASIS OF DESIGN IS VALCOM WITH VIP-A16A, 16" ROUND ANALOG CLOCKS, WITH MOUNTING HARDWARE, WIRE GUARDS FOR THE GYMNASIUM, ETC... FOR A COMPLETE SYSTEM.

1 / ET4.9 PoE CLOCK SYSTEM WIRING DETAIL
SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 EAST MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY DETAILS

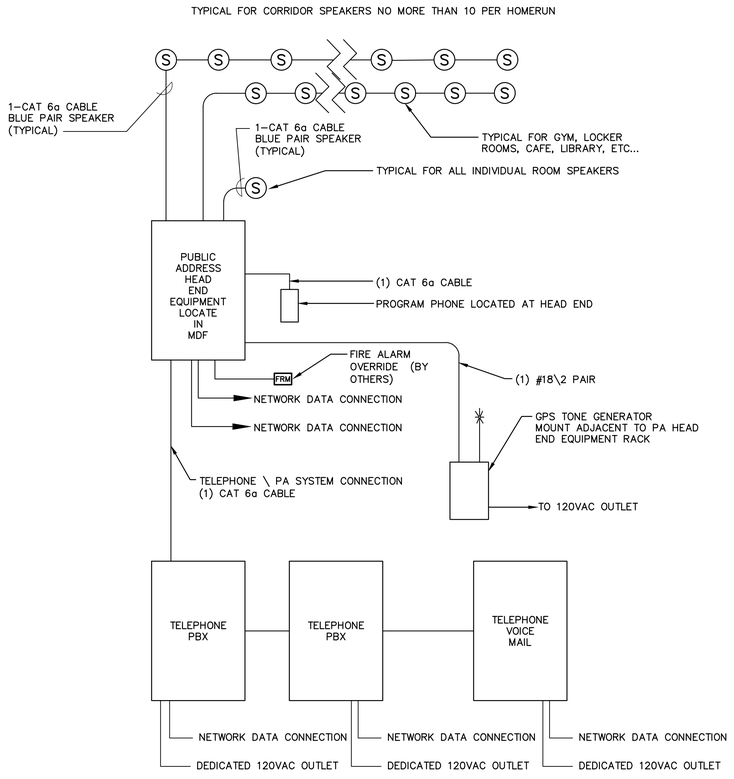
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

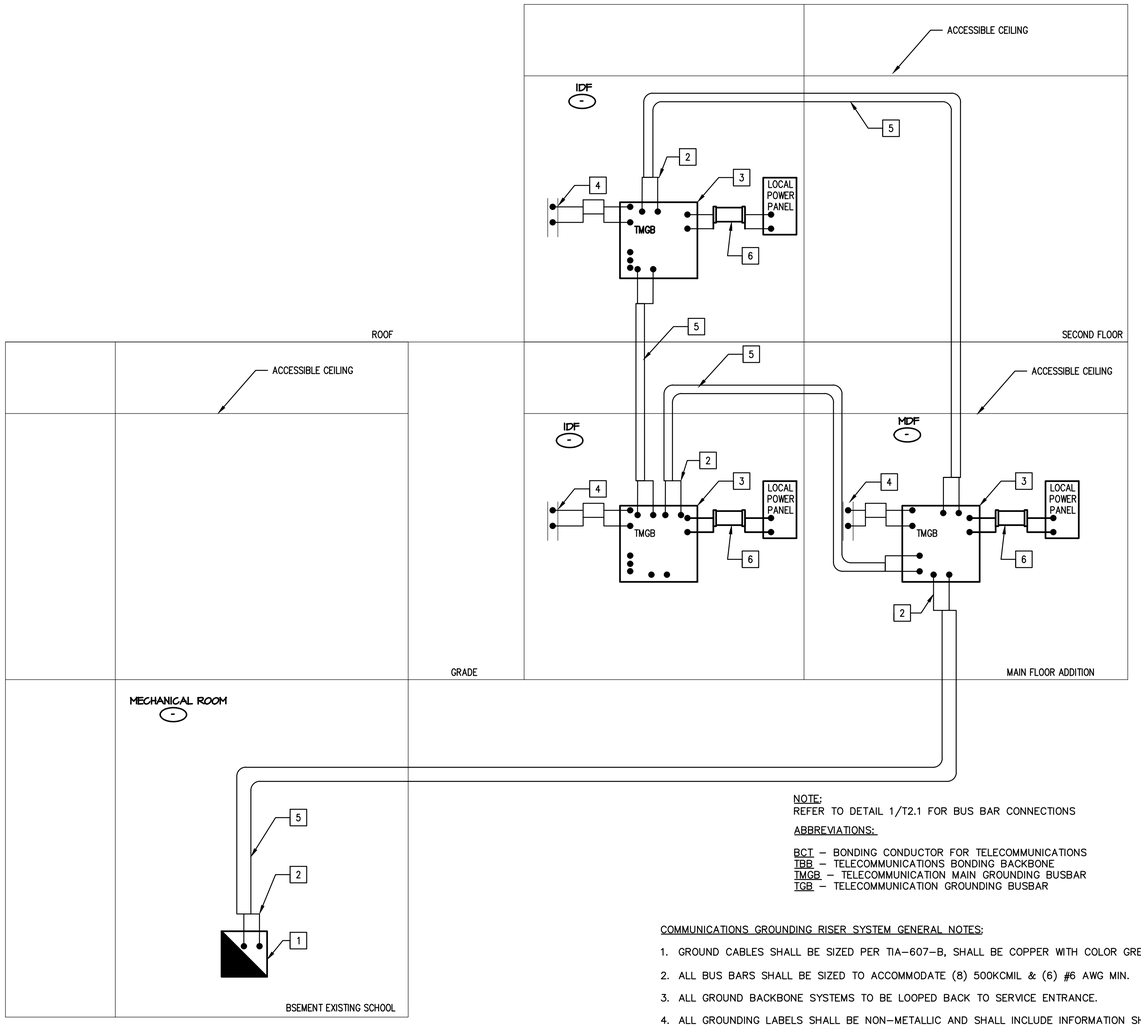
Sheet #:
ET4.9



NOTE:

1. PROVIDE A COMPLETE PAGING SYSTEM AS REQUIRED:
   a. BASIS OF DESIGN IS BOGEN PCM2000 SERIES, WITH HANDS FREE 2–WAY TALK BACK COMMUNICATION, 1 TO 99 PAGING ZONES, INTERFACE WITH VoIP TELEPHONE SYSTEM, EMERGENCY ALL–ZONE OVERRIDE PAGING INPUT, 250 WATT POWER HANDLING CAPACITY, BACKGROUND MUSIC, TRIGGERED TONES, NIGHT RING, CODE CALL AND TWO RELAY CONTACTS, SPEAKERS, VOLUME CONTROLS AND BACK BOXES AS SHOWN ION THE FLOOR PLANS AND DETAILS.

2 / ET5.0 PUBLIC ADDRESS SYSTEM WIRING DIAGRAM
SCALE: NTS



NOTE:
REFER TO DETAIL 1/T2.1 FOR BUS BAR CONNECTIONS

ABBREVIATIONS:

BCT – BONDING CONDUCTOR FOR TELECOMMUNICATIONS
TBB – TELECOMMUNICATIONS BONDING BACKBONE
TMGB – TELECOMMUNICATION MAIN GROUNDING BUSBAR
TGB – TELECOMMUNICATION GROUNDING BUSBAR

COMMUNICATIONS GROUNDING RISER SYSTEM GENERAL NOTES;

1. GROUND CABLES SHALL BE SIZED PER TIA–607–B, SHALL BE COPPER WITH COLOR GREEN.
2. ALL BUS BARS SHALL BE SIZED TO ACCOMMODATE (8) 500KCMIL & (6) #6 AWG MIN.
3. ALL GROUND BACKBONE SYSTEMS TO BE LOOPED BACK TO SERVICE ENTRANCE.
4. ALL GROUNDING LABELS SHALL BE NON–METALLIC AND SHALL INCLUDE INFORMATION SHOWN BELOW.

5. BOND TO STRUCTURAL STEEL IF BUILDING STRUCTURAL STEEL IS PART OF LIGHTNING PROTECTION SYSTEM. SEE (NEC) SECTION 800–13
6. CABLE SHALL BE MECHANICALLY PROTECTED (INSTALLED IN EMT CONDUIT) OR MC TYPE CABLE SHALL BE USED.
7. ALL PATHWAYS FOR THIS TELECOMMUNICATIONS GROUNDING NETWORK, INCLUDING BUT NOT LIMITED TO CONDUITS, SLEEVES, HANGERS, ETC. SHALL BE THE RESPONSIBILITY OF THE TELECOMMUNICATIONS CONTRACTOR.

TELECOMMUNICATION SYSTEM WIRING RISER DIAGRAM KEY NOTES:

1. MAIN ELECTRICAL SERVICE ENTRANCE GROUNDING ELECTRODE SYSTEM PER THE NATIONAL ELECTRICAL CODE. COORDINATE CONNECTION LOCATION WITH DIVISION 26.
2. CONDUIT BONDING BUSHING AND CONDUCTOR (TYPICAL)
3. TELECOMMUNICATIONS GROUNDING BUS BAR (TYPICAL)
4. BUILDING STEEL 1#6,3/4"CONDUIT WITH BONDING BUSHING (TYPICAL)
5. 4" CONDUIT W/ (1) 500KCMIL WITH BONDING BUSHING
6. 2" CONDUIT WITH BONDING BUSHINGS AND (1) #1 COPPER GROUND WIRE

1 / ET5.0 TECHNOLOGY GROUNDING SYSTEM RISER
SCALE: NTS

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 SOUTH MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY RISERS

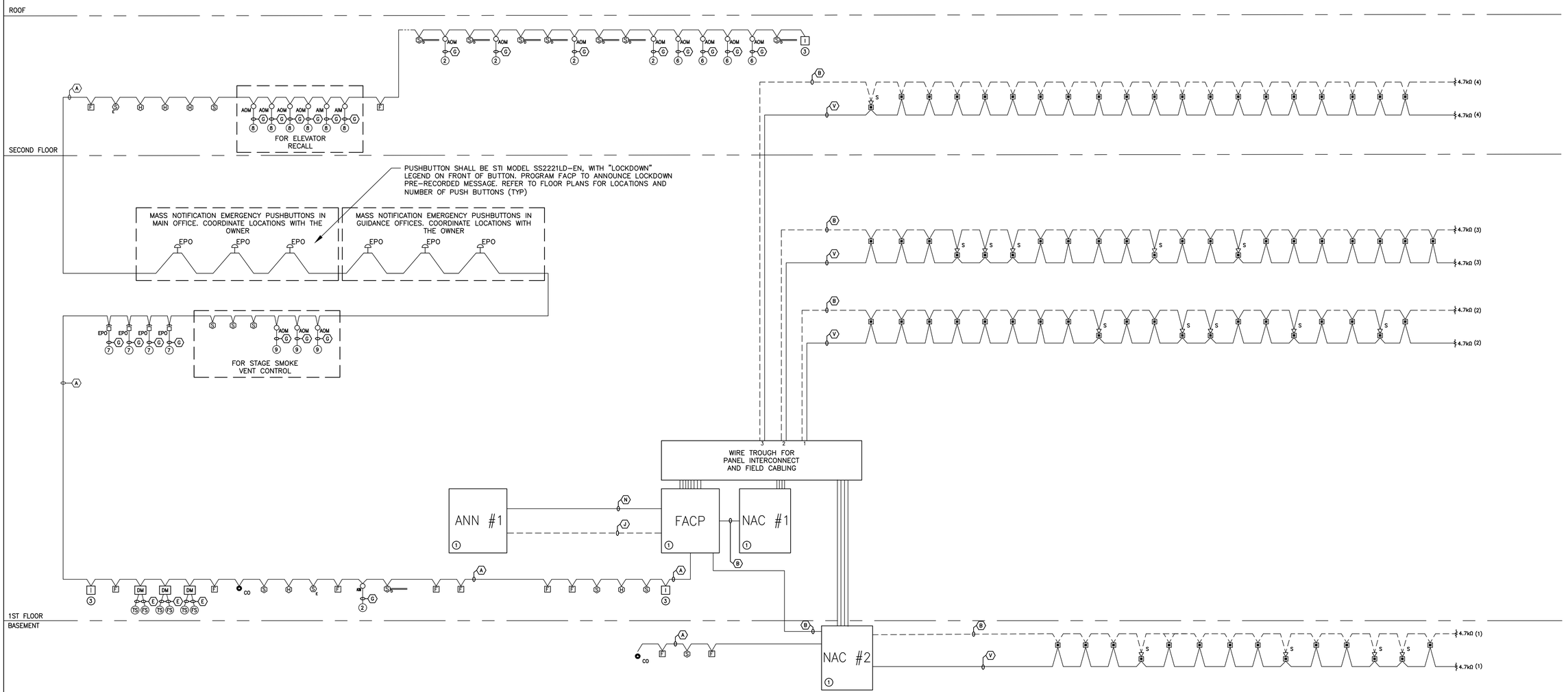
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
ET5.0



1 ET5.1 FIRE ALARM RISER DIAGRAM

SCALE: NTS

FIRE ALARM SYSTEM GENERAL NOTES:

1. FIRE ALARM DEVICES SHOWN ARE FOR REFERENCE ONLY. REFER TO FLOOR PLANS FOR EXACT QUANTITY AND LOCATIONS OF ALL FIRE ALARM DEVICES.
2. FIRE ALARM SYSTEM SHALL BE CONFIGURED FOR FIRE ALARM NOTIFICATION AND MASS NOTIFICATION/ PROVIDE TWO UNIQUE PRE-RECORED MESSAGES FOR EACH NOTIFICATION.
3. SPEAKERS AND SPEAKER/STROBES SHALL BE MARKED WITH "EMERGENCY NOTIFICATION" LEGENDS.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 SOUTH MAIN STREET SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4334
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL FIRE ALARM RISER

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2016

Revisions:

Project #:
1650

Sheet #:
ET5.1

SYSTEM NOTES:

1. SUPPLY 120 VAC DEDICATED BRANCH CIRCUIT. CIRCUIT BREAKER REQUIRES A LOCK
2. TO HVAC CONTROL CIRCUIT FOR FAN SHUTDOWN
3. FIELD VERIFY LOCATION OF ISOLATION MODULES – NO MORE THAN 25 DEVICES BETWEEN EACH ONE.
4. SPEC'S REQUIRE EVERY OTHER SPEAKER/STROBE TO BE WIRED ON A DIFFERENT CIRCUIT
5. INTERCONNECT WIRING OF DEVICES SHOWN IN THIS RISER ARE SUBJECT TO CHANGE. PLEASE FIELD VERIFY INTERCONNECT WIRING OF DEVICES.
6. SOUND SUB-SYSTEMS OVERRIDES. PROGRAM TO SHUTDOWN SUB-SYSTEMS DURING AN ALARM CONDITION.
7. LOCKDOWN PUSH BUTTONS LOCATED IN THE MAIN OFFICE. WHEN DEPRESSED A PRE-RECORDED MESSAGE ANNOUNCING THE BUILDING IS IN LOCKDOWN SHALL BE BROADCASTED.
8. TO ELEVATOR CONTROLLER FOR RECALL FUNCTIONS. COORDINATE EXACT PROGRAMMING REQUIREMENT WITH THE ELEVATOR INSTALLER.
9. TO STAGE SMOKE VENT CONTROL. INTERCEPT EXISTNG BRANCH CIRCUIT AND CONNECT TO NEW OUTPUT RELAY. PROGRAM RELAY TO TRIP SMOKE VENT WHEN ANY SMOKE DETECTOR LOCATED ON THE STAGE SENSES SMOKE.

WIRE LEGEND

DESIGNATION	CIRCUIT TYPE	WIRE TYPE	COLOR CODES
A	SIGNALING LINE CIRCUIT (SLC LOOP)	2#16 TWISTED/UNSHIELDED – FPLR	BLK(+)/WHT(–)
B	STROBE CIRCUIT	2#14 AWG – THHN	RED(+)/BLU(–)
E	INITIATING DEVICE CIRCUIT	2#16 AWG – FPLR	BLK(+)/WHT(–)
G	CONTROL CIRCUIT	2#14 AWG – FPLR	PRPL(+)/PINK(–)
J	24 VDC ANNUNCIATOR POWER	2#14 AWG – THHN	RED(+)/BLK(–)
N	NETWORK CIRCUIT	2#18 TWISTED/UNSHIELDED – FPLR	
T	REMOTE TEST STATION CONNECTIONS	4#18 AWG – THHN	BRN/GRN/GRY/GRY
V	SPEAKER CIRCUIT	2#16 TWISTED/SHIELDED – FPLR	RED(+)/BLU(–)

DEVICE LEGEND

SYMBOL	DEVICE	MANUFACTURER
FACP	FIRE ALARM TRANSPONDER PANEL	GAMEWELL/FCI
NAC	NAC BOOSTER PANEL	GAMEWELL/FCI
ANN	ANNUNCIATOR PANEL	GAMEWELL/FCI
S	SMOKE DETECTOR/BASE	GAMEWELL/FCI
S_E	SMOKE DETECTOR/BASE – ELEVATOR RECALL	GAMEWELL/FCI
H	HEAT DETECTOR/BASE	GAMEWELL/FCI
CO	COMBINATION SMOKE DETECTOR/CARBONE MONOXIDE DETECTOR WITH BASE	GAMEWELL/FCI
F	MANUAL PULL STATION	GAMEWELL/FCI
S_S	DETECTOR HOUSING/DETECTOR HEAD/SAMPLING TUBE	GAMEWELL/FCI
O_{AIM}	MONITOR MODULE	GAMEWELL/FCI
		GAMEWELL/FCI
O_{AOM}	RELAY MODULE	GAMEWELL/FCI
I	ISOLATOR MODULE	GAMEWELL/FCI
S	SPEAKER/STROBE–WALL MOUNT–WHITE (# = CANDELA)	SYSTEM SENSOR
	SPEAKER/STROBE–CEILING MOUNT–WHITE (# = CANDELA)	SYSTEM SENSOR
	STROBE–WALL MOUNT–WHITE	SYSTEM SENSOR

FIRE ALARM SYSTEM SEQUENCE OF OPERATION:

1. ACTIVATION OF ANY MANUAL PULL STATION, AREA SMOKE AND HEAT DETECTOR, KITCHEN ANSUL SYSTEM, COMBINATION SMOKE/CO DETECTOR OR FIRE SUPPRESSION SYSTEM FLOW SWITCH(S) SHALL REPORT TO THE FIRE ALARM CONTROL PANEL (FACP) AN ALARM CONDITION. ALL DOOR HOLD OPENS SHALL RELEASE, ALL FIRE ALARM CONTROL MODULES SHALL ACTIVATE SOUND SYSTEMS OVERRIDES. ACTIVATION OF THE HEAT DETECTORS LOCATED IN THE ELEVATOR PIT AND TOP OF THE SHAFT SHALL REPORT AN ALARM CONDITION TO THE FACP AND TRIP THE SHUNT TRIP DEVICE FOR THE ELEVATOR EQUIPMENT ELECTRICAL FEED. THE ELEVATOR RECALL SMOKE DETECTORS LOCATED IN THE LOBBY'S OF EACH FLOOR, THE ELEVATOR TOP OF SHAFT AND IN THE ELEVATOR EQUIPMENT AREA DENOTED WITH "E" SHALL REPORT AN ALARM CONDITION TO THE FACP AND SENT THE ELEVATOR CAR TO THE PRE-PROGRAMED FLOOR DEPENDING WHAT DETECTOR ALARMS. ANY DEVICE LISTED ABOVE SHALL CAUSE THE FIRE ALARM NOTIFICATION DEVICES TO BROADCAST THE PRE-RECORDED MESSAGE SPECIFIC TO THE FIRE ALARM CONDITION THROUGHOUT THE BUILDING TO EVACUATE THE BUILDING.
2. ACTIVATION OF ANY DUCT DETECTOR SHALL REPORT TO THE FACP A TROUBLE CONDITION TO THE FACP AND SHUTDOWN ASSOCIATED HVAC EQUIPMENT.
3. ACTIVATION OF ANY FIRE SUPPRESSION SYSTEM MONITORING MODULES LOCATED ON TAMPER SWITCHES SHALL REPORT A TROUBLE CONDITION TO THE FACP.
4. ACTIVATION OF ANY "EPO" MANUAL PUSH BUTTON SHALL REPORT BUILDING LOCKDOWN CONDITION TO THE FACP. A SPECIFIC PRE-RECORDED MESSAGE FOR LOCKDOWN CONDITION SHALL BE BROADCAST THROUGHOUT THE BUILDING.
5. ANY ALARM CONDITION OR TROUBLE CONDITION SHALL BE BROADCAST TO THE SCHOOL DISTRICT CENTRAL MONITORING ENTITY VIA A DIALER IN THE FACP. TWO TELEPHONE LINES SHALL BE PROVIDED FOR REDUNDANCY.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 SOUTH MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY FIRE ALARM NOTES & LEGENDS

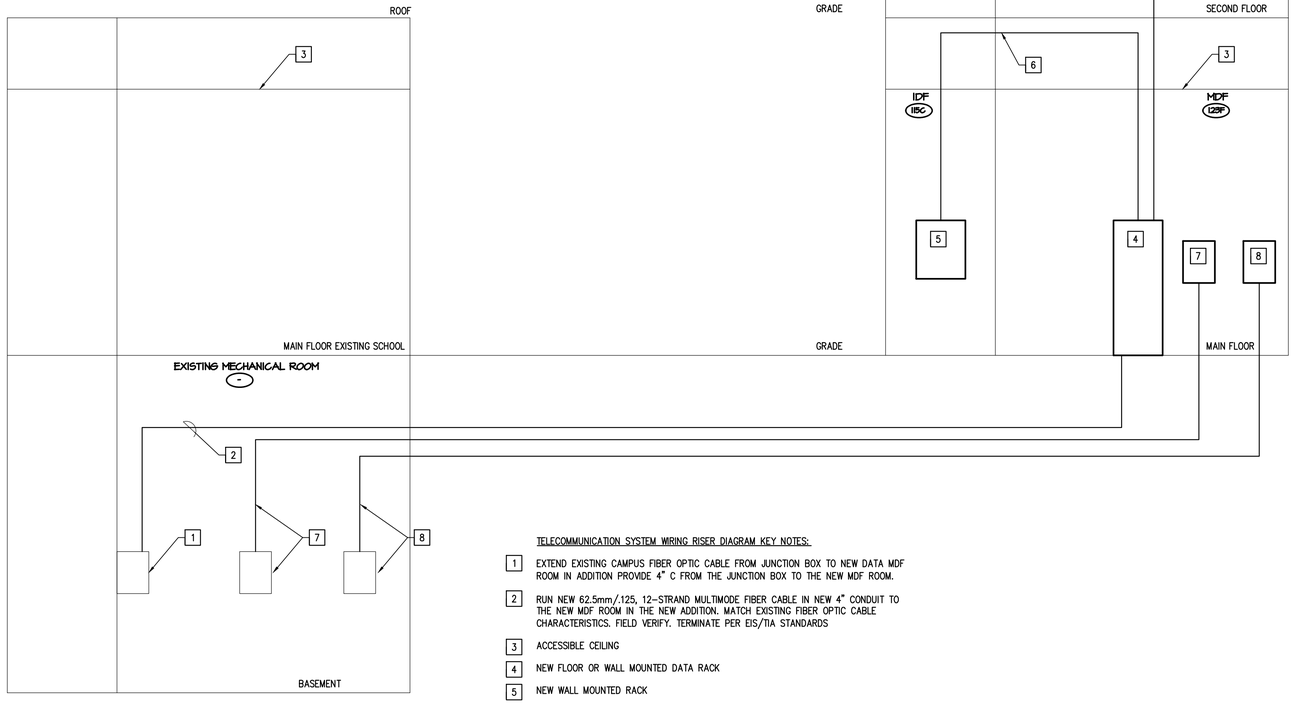
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
ET5.2



TELECOMMUNICATION SYSTEM WIRING RISER DIAGRAM KEY NOTES:

1. EXTEND EXISTING CAMPUS FIBER OPTIC CABLE FROM JUNCTION BOX TO NEW DATA MDF ROOM IN ADDITION PROVIDE 4" C FROM THE JUNCTION BOX TO THE NEW MDF ROOM.
2. RUN NEW 62.5mm/.125, 12-STRAND MULTIMODE FIBER CABLE IN NEW 4" CONDUIT TO THE NEW MDF ROOM IN THE NEW ADDITION. MATCH EXISTING FIBER OPTIC CABLE CHARACTERISTICS. FIELD VERIFY. TERMINATE PER EIS/TIA STANDARDS
3. ACCESSIBLE CEILING
4. NEW FLOOR OR WALL MOUNTED DATA RACK
5. NEW WALL MOUNTED RACK
6. NEW 62.5mm/.125, 12-STRAND STRAND MULTIMODE FIBER OPTIC CABLE INSTALLED IN 1" INNER DUCT. TERMINATE PER EIA/TIA STANDARDS.
7. EXISTING CABLE TV SPLITTER. RUN (1) RG6 COAX CABLE IN 4" CONDUIT FROM SPLITTER TO A NEW SPLITTER IN THE NEW MDF ROOM IN THE NEW ADDITION. MATCH EXISTING SPLITTER AND CABLE SPECIFICATION.
8. EXISTING TELEPHONE BUILDING PROTECTION BOX. RUN (1) 100-PAIR TELEPHONE CABLE IN 4" CONDUIT FROM 100 BLOCKS IN THE EXISTING BOILER ROOM TO NEW 110 BLOCKS IN THE MDF ROOM IN THE NEW ADDITIONS.

1 / ET5.3 TECHNOLOGY FIBER OPTIC RISER DIAGRAM

SCALE: NTS

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 EAST MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4331
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:

ELECTRICAL TECHNOLOGY RISERS

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

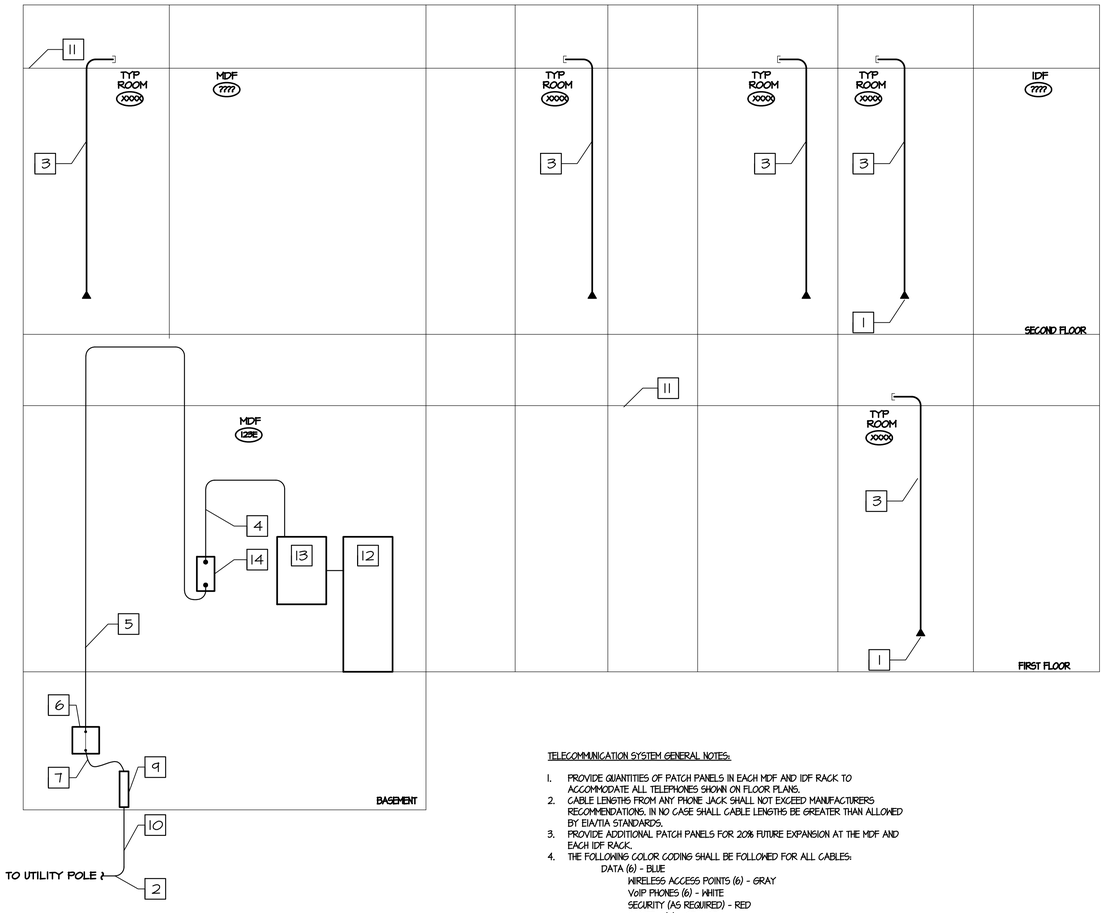
Revisions:

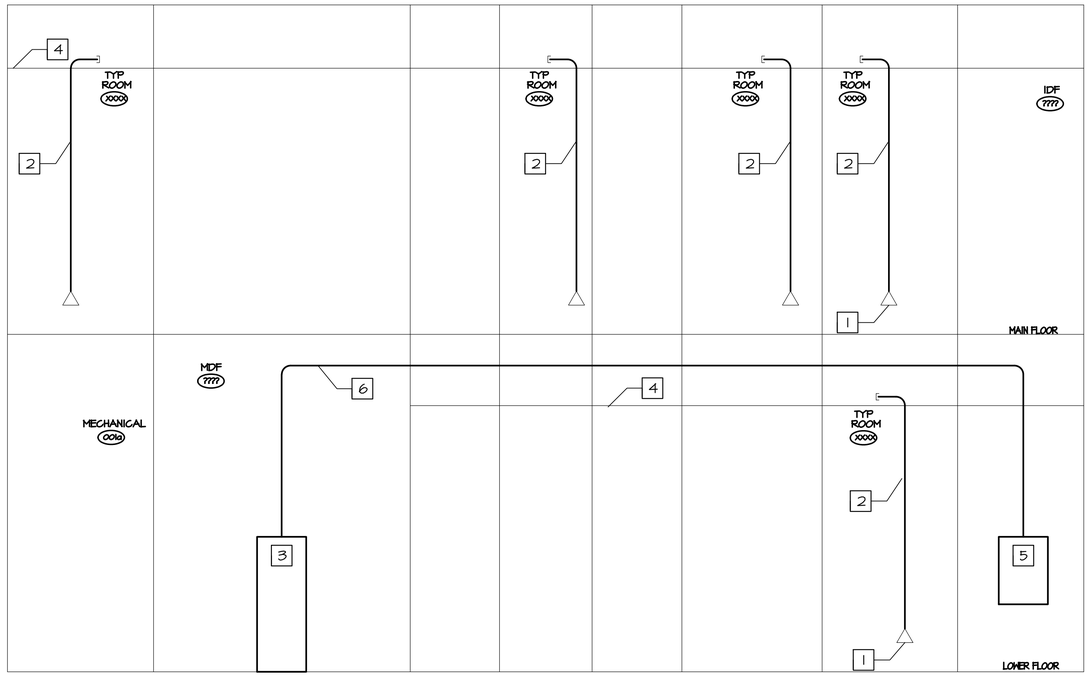
Project #:

1650

Sheet #:

ET5.3





TELECOMMUNICATION SYSTEM GENERAL NOTES:

1. PROVIDE QUANTITIES OF PATCH PANELS IN EACH MDF AND IDF RACK TO ACCOMMODATE ALL TELEPHONES SHOWN ON FLOOR PLANS.
2. CABLE LENGTHS FROM ANY PHONE JACK SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS. IN NO CASE SHALL CABLE LENGTHS BE GREATER THAN ALLOWED BY EIA/TIA STANDARDS.
3. PROVIDE ADDITIONAL PATCH PANELS FOR 20% FUTURE EXPANSION AT THE MDF AND EACH IDF RACK.
4. THE FOLLOWING COLOR CODING SHALL BE FOLLOWED FOR ALL CABLES:
   - DATA (6) - BLUE
   - WIRELESS ACCESS POINTS (6) - GRAY
   - VoIP PHONES (6) - WHITE
   - SECURITY (AS REQUIRED) - RED
   - CAMERA (6) - ORANGE

TELECOMMUNICATION SYSTEM WIRING RISER DIAGRAM KEY NOTES:

1. TELEPHONE OUTLET WALL OR DESK AS SHOWN ON FLOOR PLANS (TYPICAL)
2. EXISTING CONDUITS TO LOCAL UTILITY SERVICES
3. CAT 6a HORIZONTAL CABLE FROM TELEPHONE RACK TO WALL OR DESK TELEPHONE JACK. LENGTH OF CABLE TO BE PER EIA/TIA STANDARDS. CABLE FROM ACCESSIBLE CEILING TO TELEPHONE OUTLET SHALL BE 1" CONDUIT FOR CONCEALED WORK. EXPOSED SHALL BE WIREMOLD 150 SERIES WITH NECESSARY APPURTENANCES. PROVIDE "J" HOOKS ABOVE CEILING TO SUPPORT ALL CABLING. "J" HOOKS SHALL BE NO MORE THAN 48" CENTER TO CENTER. (TYPICAL)
4. 25 PAIR COPPER TELEPHONE CABLE RUN TO RACK MOUNTED TELEPHONE HEADEND EQUIPMENT LOCATED IN FLOOR MOUNTED RACK.
5. 100 PAIR TELEPHONE CABLE INSTALLED IN 4" EMT CONDUIT. PROVIDE PULL BOX SO THERE WILL BE NO MORE THAN 270 DEGREE BENDS BETWEEN PULL BOXES.
6. EXISTING TELEPHONE DEMARCATION. REFER TO FLOOR PLANS.
7. EXISTING TELEPHONE SERVICE ENTRANCE RELOCATED TO NEW TELEPHONE DEMARCATION. REFER TO FLOOR PLANS.
8. TELEPHONE 110 TERMINATION BLOCK, WALL MOUNTED. PROVIDE PUNCH-DOWN BLOCKS TO TERMINATE ALL TELEPHONE PAIRS
9. TELEPHONE SERVICE ENTRANCE BOOT
10. EXISTING TELEPHONE SERVICE ENTRANCE CABLE
11. ACCESSIBLE CEILING
12. NEW FLOOR MOUNTED TELECOMMUNICATION RACK BY TECHNOLOGY CONTRACTOR.
13. NEW TELEPHONE SYSTEM HEADEND EQUIPMENT MOUNTED IN RACK IN MDF ROOM FURNISHED AND INSTALLED BY THE OWNER.
14. NEW TELEPHONE PUNCHDOWN BLOCK LOCATED ON WALL IN MDF ROOM.

VoIP TELEPHONE SYSTEM GENERAL NOTES:

1. THE TELEPHONE SYSTEM BASIS OF DESIGN IS NEC UNIVERGE SV9100 COMMUNICATIONS SERVER WITH THE FOLLOWING:
   - 1.1. SV9100E PHONE PACKAGE
   - 1.2. INSTALLATION CABLES AS REQUIRED
   - 1.3. SV9100 RESOURCE LICENSE AS REQUIRED
   - 1.4. SV9100 STANDARD USER LICENSES AS REQUIRED
   - 1.5. GCD-4COTB 4-PORT CO INTERFACE BLADE AS REQUIRED
   - 1.6. GCD-4COTB 4-PORT CO INTERFACE DAUGHTER BOARD AS REQUIRED
   - 1.7. GCD-4DIOPA OFF PREMISE EXTENSION INTERFACE AS REQUIRED
   - 1.8. GCD-PRTA PRI INTERFACE BLADE AS REQUIRED
   - 1.9. GCD-8DLCA 8 DIGITAL STATIONS AS REQUIRED
   - 1.10. GPZ-8DLCB 8 DIGITAL STATION DAUGHTER BOARDS AS REQUIRED
   - 1.11. GCD-8LCA 8-PORT ANALOG STATION BLADES AS REQUIRED
   - 1.12. GPZ-4LCA 8-PORT ANALOG DAUGHTER BOARDS AS REQUIRED
   - 1.13. CH52U JOINT BRACKET KIT AS REQUIRED
   - 1.14. WALL MOUNTED KIT FOR 2U CHASSIS AS REQUIRED
   - 1.15. CH52U INT BATTERY KIT AS REQUIRED
   - 1.16. DTL-2E 2 BUTTON NON-DISPLAY TERMINAL IN PRINCIPLE, VICE PRINCIPLE, AND GUIDANCE OFFICE.
   - 1.17. DTL-24D-1 TEL 24 BUTTON DISPLAY TERMINALS AS REQUIRED (IN ALL OFFICES)
   - 1.17. DTL-12D-1 TEL 12 BUTTON DISPLAY TERMINALS AS REQUIRED (IN ALL CLASSROOMS AND SUPPORT AREAS)
   - 1.18. AC ADAPTER FOR IP TERMINALS AS REQUIRED
   - 1.19. CD-VM00 VM CHASSIS AS REQUIRED
   - 1.20. AKS UM-8G APP CF550 HOURS RECORDING AS REQUIRED
   - 1.21. VOICEMAIL BOX LICENSES AS REQUIRED
   - 1.22. LABOR, EQUIPMENT, PROGRAMMING AND USER TRAINING AS REQUIRED.

2 ET5.4 TYPICAL TELEPHONE OUTLET RISER DIAGRAM
SCALE: NTS

TELECOMMUNICATION SYSTEM WIRING RISER DIAGRAM KEY NOTES:

1. DATA OUTLET AS SHOWN ON FLOOR PLANS (TYPICAL)
2. CAT 6a HORIZONTAL CABLE FROM DATA RACK TO WALL DATA JACK. LENGTH OF CABLE TO BE PER EIA/TIA STANDARDS. CABLE FROM ACCESSIBLE CEILING TO DATA OUTLET SHALL BE 1" CONDUIT FOR CONCEALED WORK. EXPOSED SHALL BE WIREMOLD 150 SERIES WITH NECESSARY APPURTENANCES. PROVIDE "J" HOOKS ABOVE CEILING TO SUPPORT ALL CABLING. "J" HOOKS SHALL BE NO MORE THAN 48" CENTER TO CENTER. (TYPICAL)
3. NEW FLOOR MOUNTED TELECOMMUNICATION RACK FURNISHED AND INSTALLED BY THE TECHNOLOGY CONTRACTOR.
4. ACCESSIBLE CEILING
5. NEW WALL MOUNTED RACK RACK FURNISHED AND INSTALLED BY THE TECHNOLOGY CONTRACTOR.
6. NEW 12 STRAND, MULTIMODE FIBER OPTIC CABLE INSTALLED WITHIN 1" INNER DUCT.

1 ET5.4 TYPICAL DATA OUTLET RISER DIAGRAM
SCALE: NTS

TELECOMMUNICATION SYSTEM GENERAL NOTES:

1. PROVIDE QUANTITIES OF PATCH PANELS AND PoE SWITCHES IN EACH MDF AND IDF RACK TO ACCOMMODATE ALL TELEPHONES SHOWN ON FLOOR PLANS.
2. CABLE LENGTHS FROM ANY PHONE JACK SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS. IN NO CASE SHALL CABLE LENGTHS BE GREATER THAN EIA/TIA STANDARDS.
3. PROVIDE ADDITIONAL PATCH PANELS FOR 20% FUTURE EXPANSION AT THE MDF AND EACH IDF RACK.
4. THE FOLLOWING COLOR CODING SHALL BE FOLLOWED FOR ALL CABLES:
   - DATA (6) - BLUE
   - WIRELESS ACCESS POINTS (6) - BLUE
   - VoIP PHONES (6) - WHITE
   - SECURITY - RED

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 EAST MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4333
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY RISERS

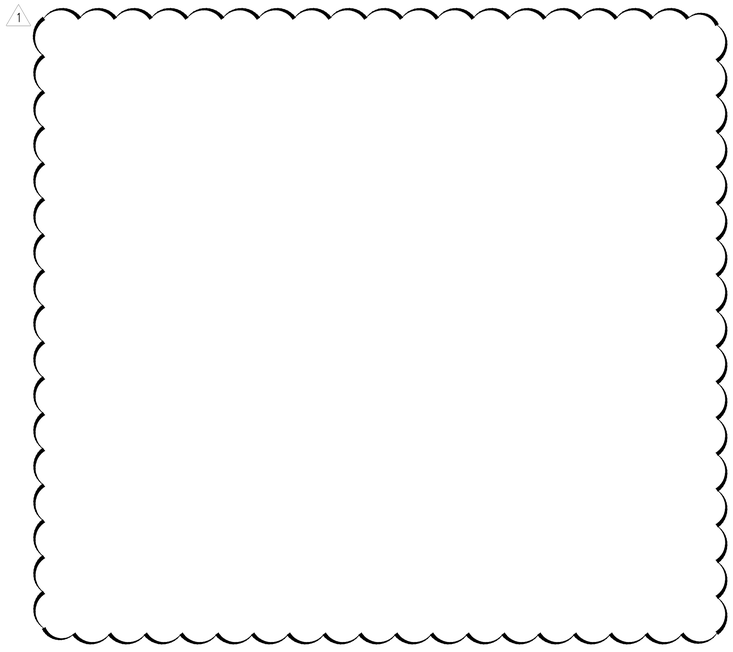
State Project #:
102-0024 EA/RR

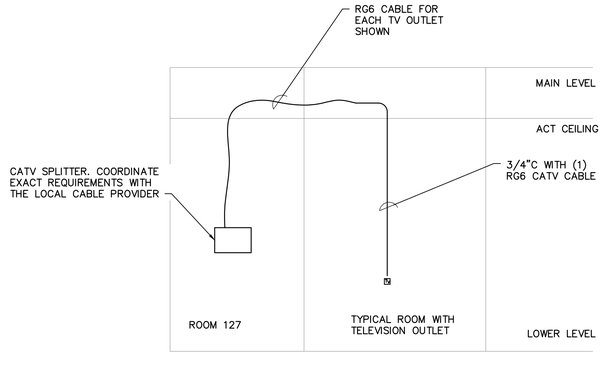
Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
ET5.4





2 / ET5.5 TYPICAL CABLE TELEVSION RISER
SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
700 EAST MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL TECHNOLOGY RISERS

State Project #:
102-0024 EA/RR

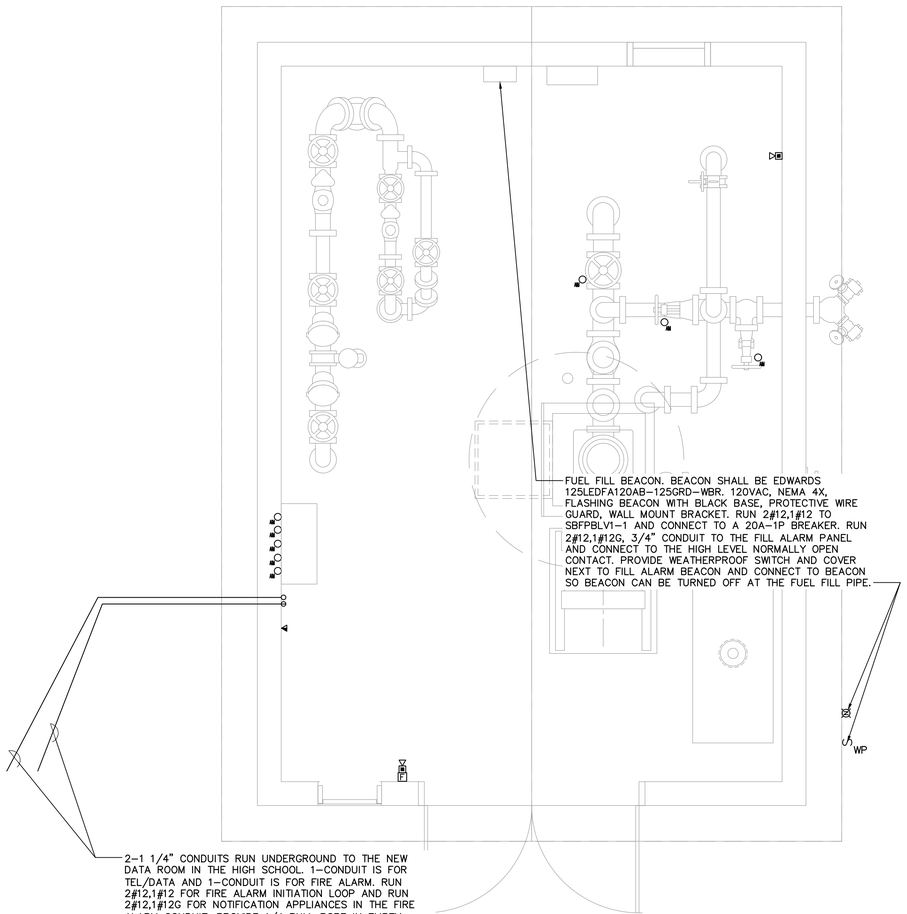
Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

1	ADDENDUM #5

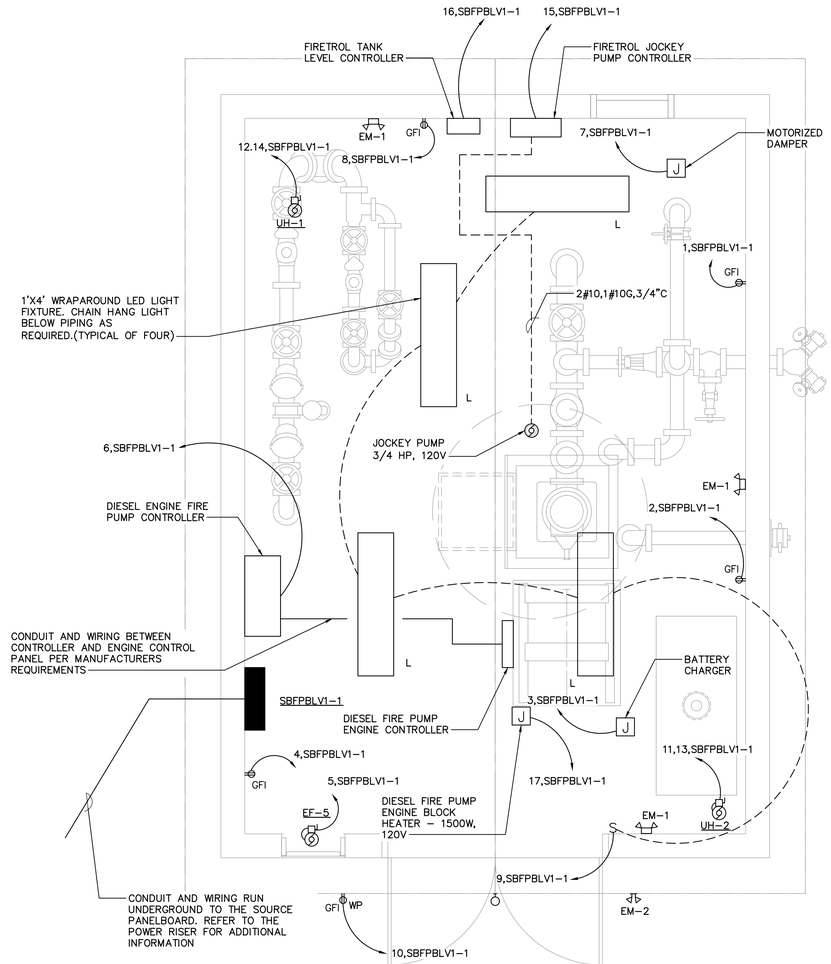
Project #:
1650

Sheet #:
ET5.5



PUMPHOUSE ELECTRIC LOW VOLTAGE FLOOR PLAN 1

1/2" = 1'-0"



PUMPHOUSE ELECTRIC POWER AND LIGHTING FLOOR PLAN 2

1/2" = 1'-0"

N

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL PLAN - FIRE PUMP BUILDING

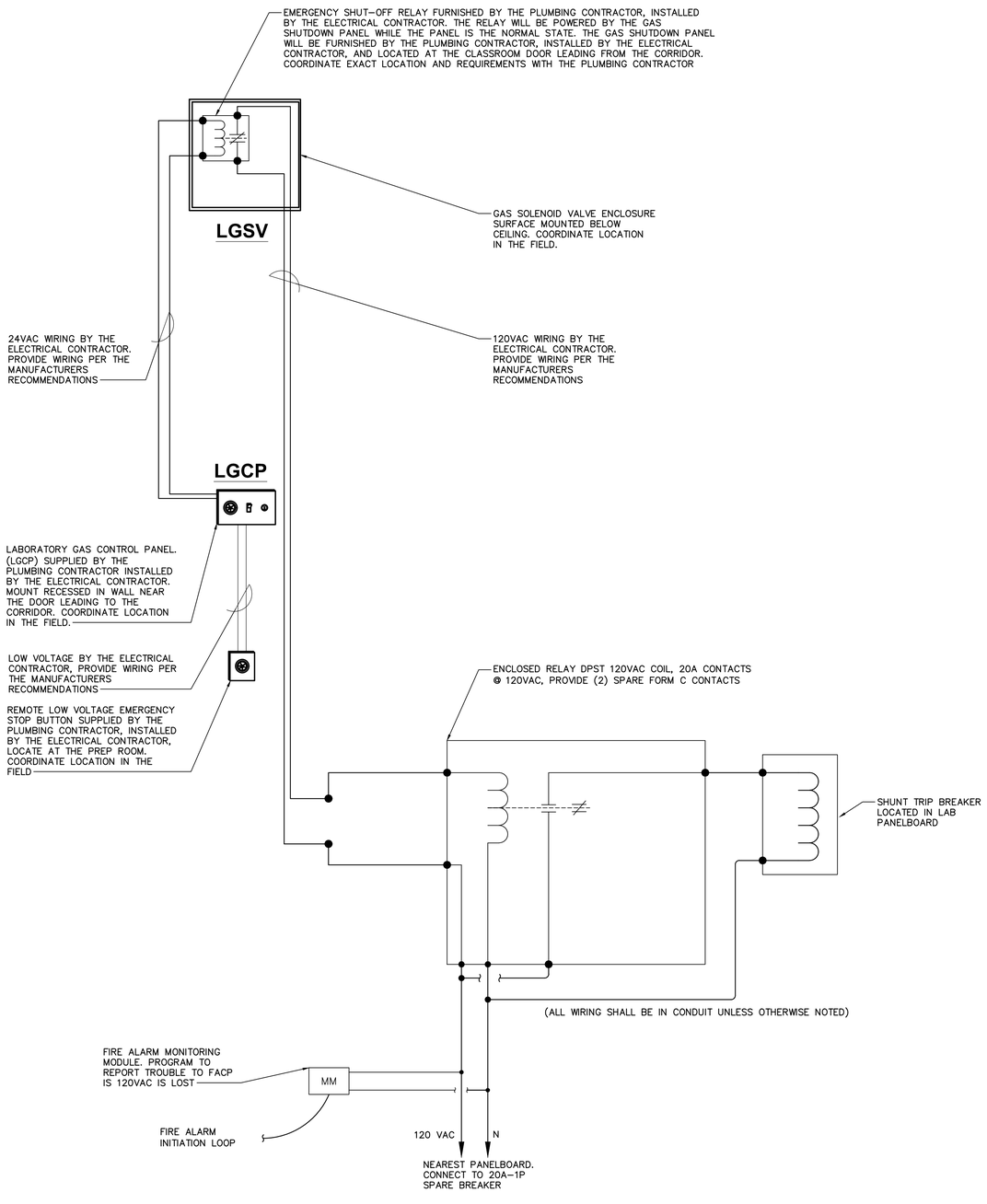
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2016

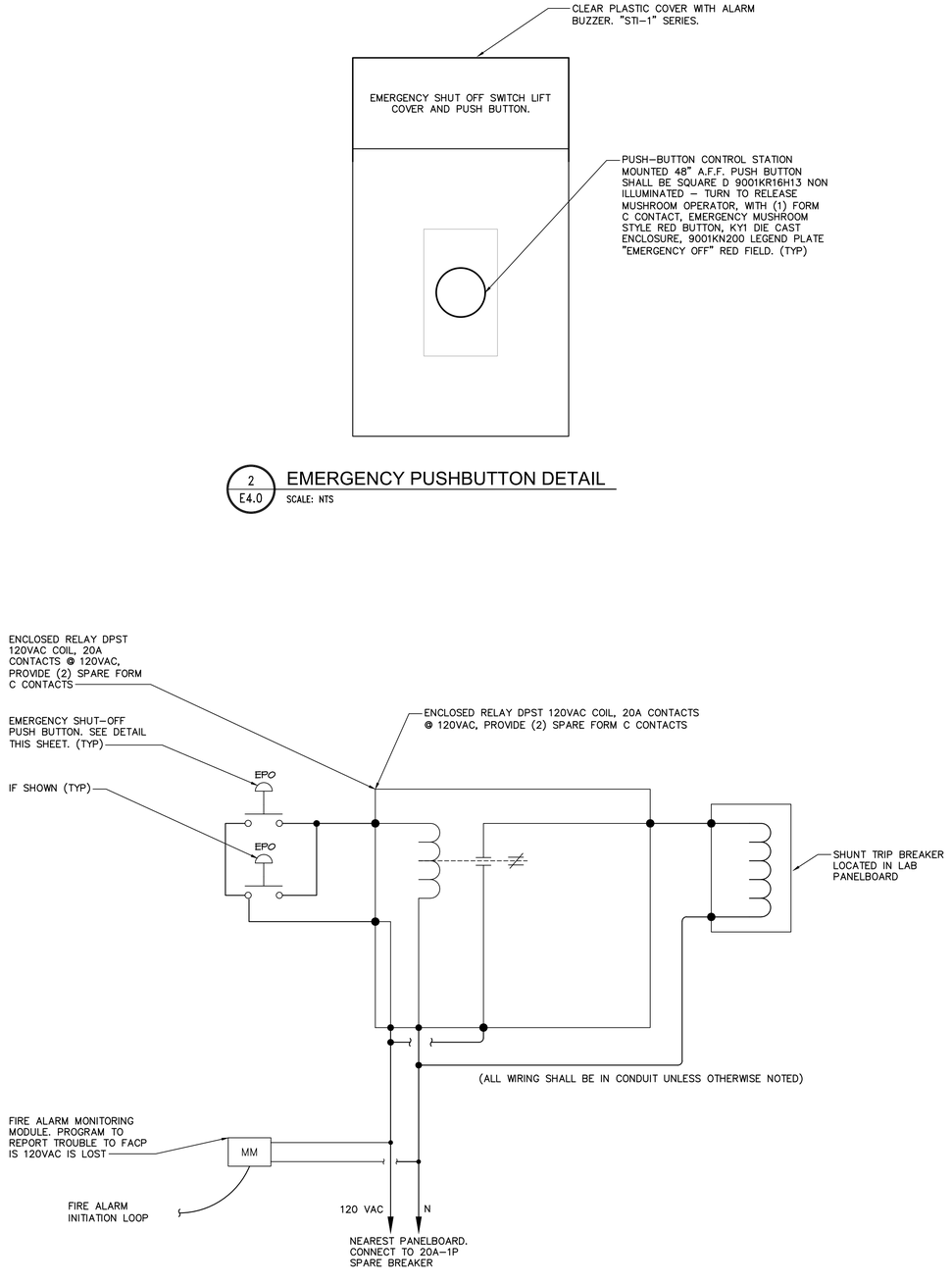
Revisions:

Project #:
1650

Sheet #:
E3.0



3 E4.0 LABORATORY 209 & 211 PANELBOARD EMERGENCY SHUTDOWN
SCALE: N.T.S.



1 E4.0 LABORATORY 144 PANELBOARD EMERGENCY SHUTDOWN
SCALE: N.T.S.

2 E4.0 EMERGENCY PUSHBUTTON DETAIL
SCALE: NTS

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4456
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

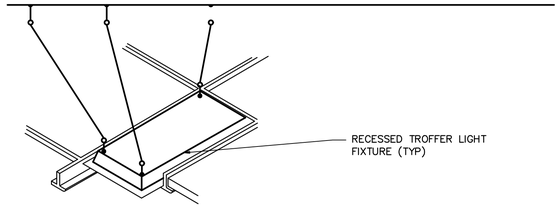
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

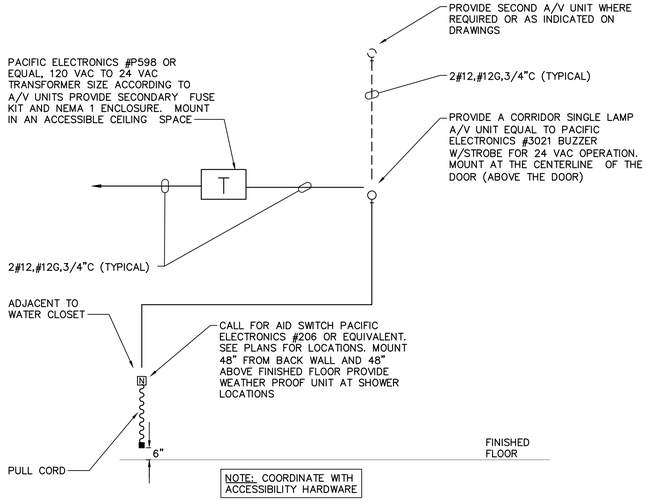
Project #:
1650

Sheet #:
E4.0



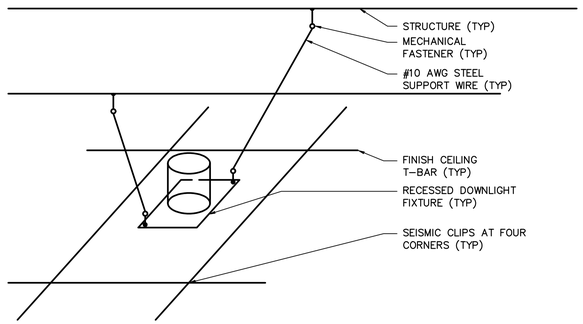
4 / E4.1 TYPICAL RECESSED TROFFER LIGHT SUPPORT DETAIL

SCALE: NTS



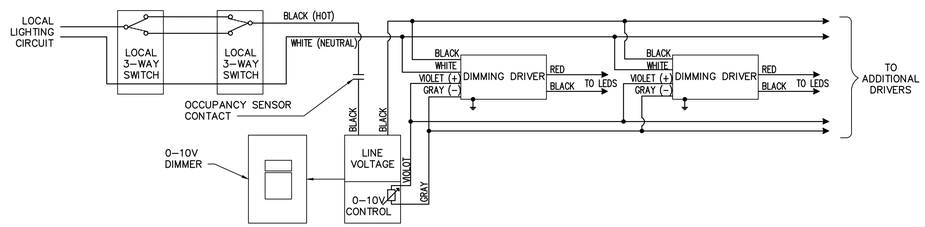
2 / E4.1 TYPICAL CALL FOR AID WIRING DETAIL

SCALE: N.T.S.



3 / E4.1 TYPICAL RECESSED DOWN LIGHT SUPPORT DETAIL

SCALE: NTS



1 / E4.1 TYPICAL 0-10V LED DIMMER DRIVER WIRING DETAIL

SCALE: NTS

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

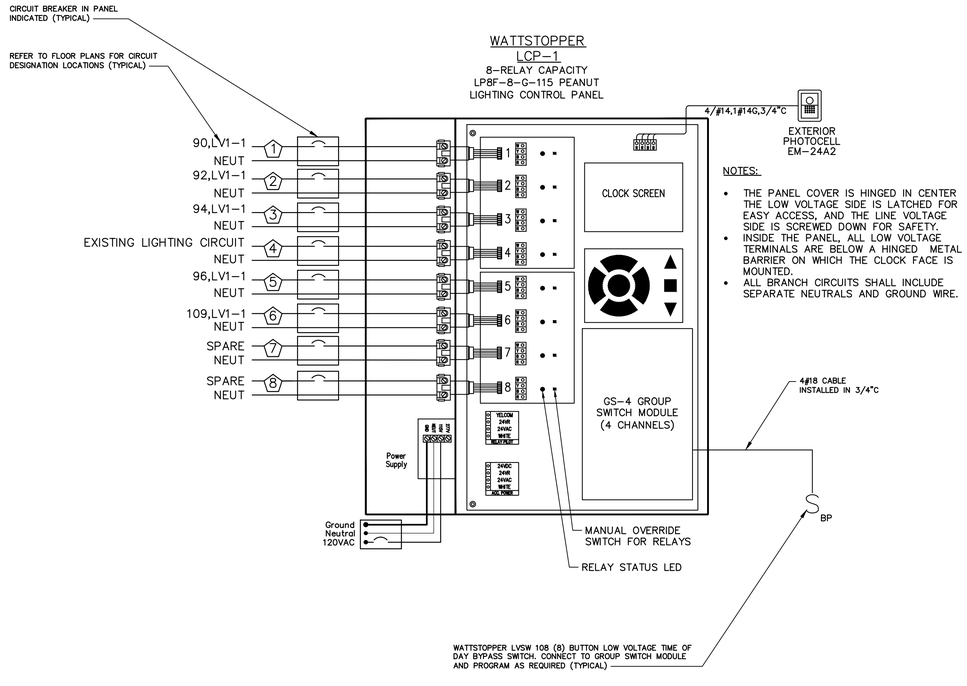
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2016

Revisions:

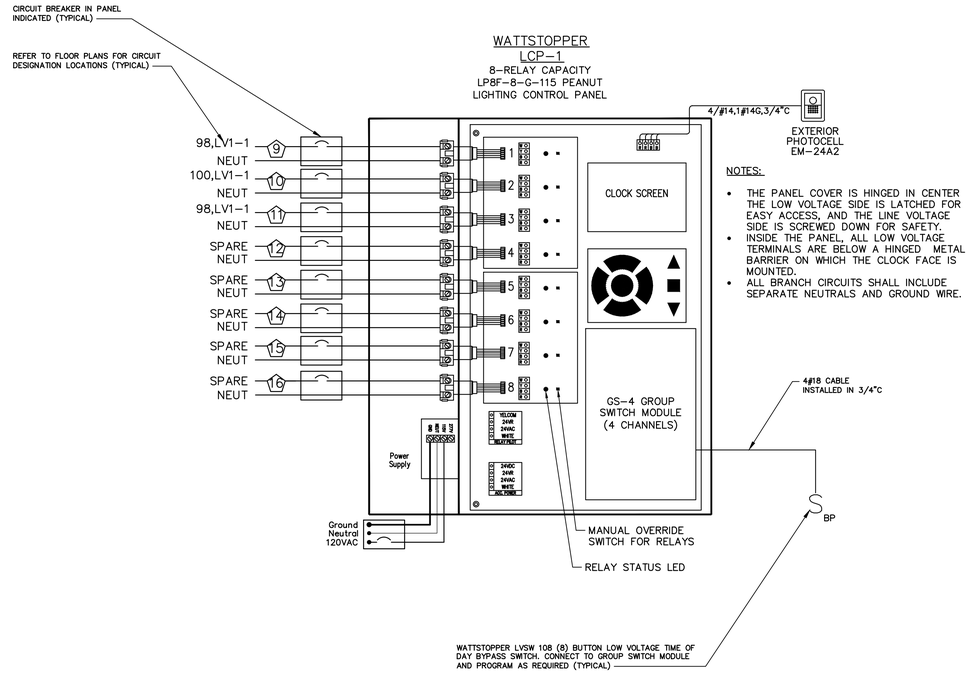
Project #:
1650

Sheet #:
E4.1



NOTES:

- THE PANEL COVER IS HINGED IN CENTER THE LOW VOLTAGE SIDE IS LATCHED FOR EASY ACCESS, AND THE LINE VOLTAGE SIDE IS SCREWED DOWN FOR SAFETY.
- INSIDE THE PANEL, ALL LOW VOLTAGE TERMINALS ARE BELOW A HINGED METAL BARRIER ON WHICH THE CLOCK FACE IS MOUNTED.
- ALL BRANCH CIRCUITS SHALL INCLUDE SEPARATE NEUTRALS AND GROUND WIRE.



NOTES:

- THE PANEL COVER IS HINGED IN CENTER THE LOW VOLTAGE SIDE IS LATCHED FOR EASY ACCESS, AND THE LINE VOLTAGE SIDE IS SCREWED DOWN FOR SAFETY.
- INSIDE THE PANEL, ALL LOW VOLTAGE TERMINALS ARE BELOW A HINGED METAL BARRIER ON WHICH THE CLOCK FACE IS MOUNTED.
- ALL BRANCH CIRCUITS SHALL INCLUDE SEPARATE NEUTRALS AND GROUND WIRE.

SPECIFICATIONS:

PROVIDE A SINGLE RELAY PANEL WITH UP TO 8 RELAYS. EACH RELAY TO BE INDIVIDUALLY SCHEDULED THROUGH AN EASY TO USE INTEGRAL CLOCK WITH A BACKLIT 8-LINE LCD DISPLAY. RELAYS ARE TO BE SPST 20 AMP RATED, MECHANICALLY HELD CONTACTORS CAPABLE OF SWITCHING EITHER 120 OR 277VAC LOADS. MOUNTED NEXT TO EACH RELAY SHOULD BE A LED TO ANNUNCIATE STATUS AND A PUSHBUTTON TO TOGGLE THE RELAY'S STATE. PANEL SHALL HAVE A MULTITAP TRANSFORMER AND ACCEPT EITHER 120V OR 277V FOR POWER.
PANEL ENCLOSURE TO BE NEMA
1, RATED FOR ENVIRONMENTS FROM 32 – 139°F, 5 – 95% RH NON-CONDENSING. PANEL TO COME WITH A SPLIT COVER HINGED IN THE CENTER SUCH THAT THE HIGH VOLTAGE SIDE MUST BE UNSCREWED TO ACCESS THE RELAYS, BUT THE LOW VOLTAGE SIDE CAN BE OPENED VIA A LOCKING LATCH. SURFACE OR FLUSH COVERS SHALL BE AVAILABLE.

EACH RELAY SHALL BE CAPABLE OF BEING OVERRIDDEN REMOTELY BY AN EXTERNAL TIMER SWITCH. SWITCHES SHALL BE 4-WIRE WATTSTOPPER TS-400-24, MOMENTARY OR MAINTAINED LOW VOLTAGE DEVICES. PANEL MUST BE ABLE TO INTERLOCK TIME BASED SCHEDULES WITH THE OVERRIDE SWITCH INPUT, SO THAT LIGHTS SCHEDULED ON DURING THE DAY ARE NOT AFFECTED BY THE OVERRIDE SWITCH, BUT AFTER HOURS THE OVERRIDE SWITCH SHALL TURN ON THE LIGHTS IN A ZONE FOR MAXIMUM OF 4-HOURS. PANEL SHALL BE CAPABLE OF BLINK WARNING BEFORE "OFF" AND TRUE AFTER HOURS TIME DELAY.

ALL PROGRAMMING TO BE ENTERED VIA A SIMPLE KEYPAD. EACH RELAY CAN BE PROGRAMMED INDEPENDENTLY, OR RELAYS CAN BE GROUPED TOGETHER IN FIRMWARE TO FOLLOW THE SAME CHANNEL SCHEDULE. ON A DAILY 7-DAY REPEATING BASIS, RELAYS CAN BE ASSIGNED TO FOLLOW ANY OF THE FOLLOWING SCENARIOS:

(1) MANUAL ON / SCHED OFF
(2) SCHEDULED ON/OFF
(3) MANUAL ON / AS SWITCH OFF (FOR USE WITH AS-100 SWITCHES)
(4) PHOTOCELL ON/OFF
(5) PHOTO & SCHED ON/OFF
(6) ASTRONOMIC ON/OFF
(7) ASTRO AND SCHED ON/OFF

THE LCD SCREEN SHOULD NORMALLY SHOW THE CURRENT TIME AND DATE, AS WELL AS SUNRISE AND SUNSET TIMES FOR THAT DAY. RELAY CHANNELS CAN ALSO BE MONITORED FROM THE DISPLAY TO SEE THEIR STATUS – EITHER ON, OFF, OR MIXED. ADDITIONALLY THE RELAY GROUPS CAN BE OVERRIDDEN FROM THE SCREEN. CONTEXT SENSITIVE HELP SHALL BE AVAILABLE FOR EACH SCREEN.

PANEL TO BE THE WATT STOPPER'S LP8 PANEL AND MUST BE UL LISTED 916, MEET LOCAL ENERGY CODES (CALIFORNIA CEC), AND HAVE A 1 YEAR WARRANTY.

PROVIDE SEPARATE TIME OF DAY PROGRAMS FOR EACH OF THE 8 CHANNELS. COORDINATE EXACT TIME OF DAY PROGRAM WITH MINILUX.

LIGHTING LOADS:

1 – BUILDING LIGHTS NORTHEAST SIDE
2 – BUILDING LIGHTS NORTHWEST SIDE
3 – BUILDING LIGHTS SOUTH SIDE
4 – NEW BUILDING LIGHTING CONNECTED TO EXISTING BUILDING LIGHTING CIRCUIT TO BE VERIFIED IN FIELD. EXTEND LIGHTING CIRCUIT TO WATTSTOPPER LP8F AS REQUIRED.
5 – BUILDING MOUNTED LIGHTS ON NORTH SIDE OF EXISTING BUILDING.
6 – TYPE "N" FIXTURE ON SECOND FLOOR OUTDOOR WALKOUT ROOF AREA
7 – SPARE
8 – SPARE

LIGHTING LOADS CONTINUED:

9 – SITE POLE LIGHTS
10 – SITE POLE LIGHTS
11 – SITE POLE LIGHTS
12 – SPARE
13 – SPARE
14 – SPARE
15 – SPARE
16 – SPARE

GENERAL NOTES:

1. REFER TO FLOOR PLAN FOR BRANCH CIRCUIT ASSIGNMENTS

1 / E4.2 DIGITAL LIGHTING CONTROL PANEL DETAIL
N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 SLATER STREET
SUITE 302
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

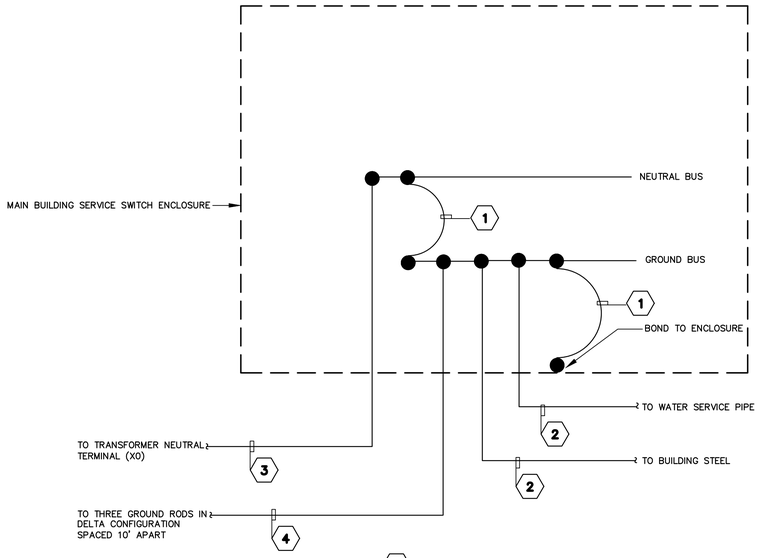
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

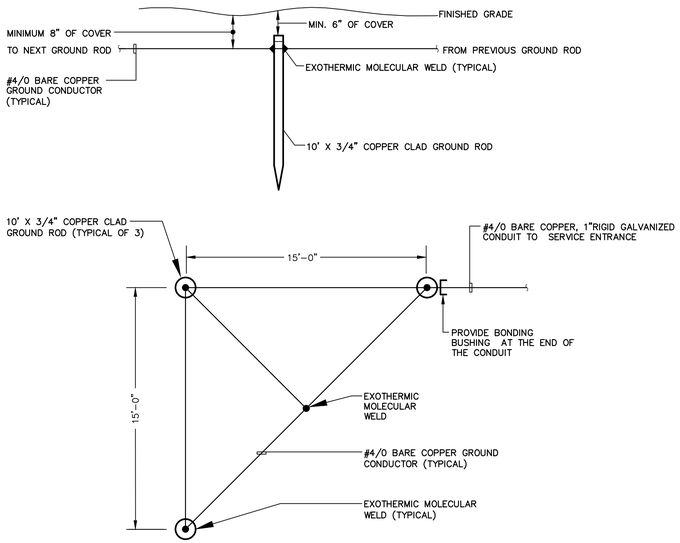
Sheet #:
E4.2



1. MAIN BONDING JUMPER: #4/0 AWG
2. GROUNDING ELECTRODE SYSTEM BONDING JUMPER CONDUCTOR: #4/0 AWG
3. GROUNDED (NEUTRAL) CONDUCTOR (REFER TO DISTRIBUTION ONE-LINE FOR SIZE).
4. SUPPLEMENTAL GROUNDING ELECTRODE BONDING JUMPER CONDUCTOR: #4/0 AWG

3 E4.3 MAIN SERVICE GROUNDING DETAIL DETAIL

N.T.S.

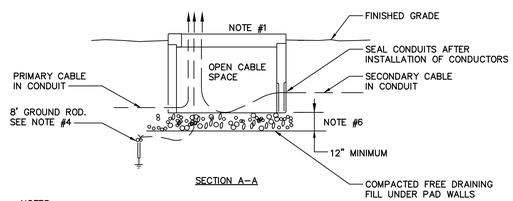


EXTERNAL GROUND GRID DETAIL GENERAL NOTES:

1. EXACT LOCATION OF GROUND GRID TO BE DETERMINED IN FIELD.

4 E4.3 EXTERNAL BUILDING GROUND GRID DETAIL

N.T.S.

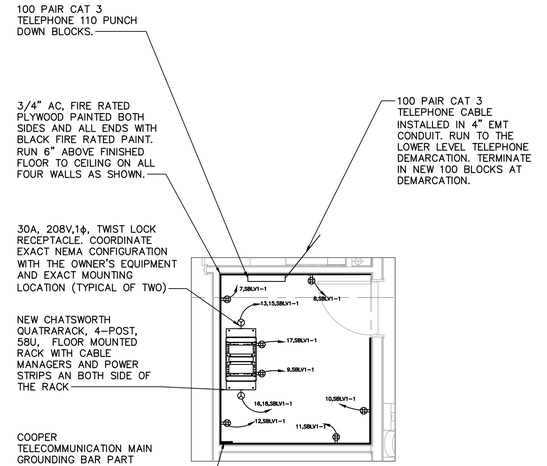


NOTES:

1. 75-300 KVA - INSTALL 76"X 54" X 36" PAD AS PER UTILITY Co. SPC P-013 AND P-014 500-2500 KVA - INSTALL 76"X 70" X 36" PAD AS PER UTILITY Co. SPC P-015 AND P-016
2. PRIMARY CABLE
   A. INSTALL DIRECT BURIED CABLES A MINIMUM OF 30" BELOW GRADE.
   B. INSTALL CABLES IN CONDUIT A MINIMUM OF 24" BELOW GRADE.
   C. LOOP CABLES IN CABLE PIT BEFORE MAKING CONNECTIONS.
3. SECONDARY CABLE - LEAVE SLACK FOR FUTURE RECONNECTING TO TRANSFORMERS WITH HIGHER SECONDARY TERMINALS.
4. 3/4" COPPER GROUND ROD - INSTALL IN TRENCH AND CONNECT A #2 COPPER CONDUCTOR FROM ROD THROUGH PAD OPENING AND EXTENDING 5' ABOVE PAD.
5. THE FOLLOWING UTILITY Co. DTR'S SHOULD ALSO BE USED:
   A. DTR 42.061 - LOCATION AND MECHANICAL PROTECTION REQUIREMENTS.
   B. DTR 56.509 - PRIMARY, SECONDARY AND TRANSFORMER GROUNDING.
   C. DTR 17.083 - THREE PHASE TRANSFORMER CONNECTIONS.
6. THE EXCAVATION FOR THE PAD SHALL BE CARRIED TO A DEPTH OF 12" BELOW THE BOTTOM OF THE PAD WALLS. THE BACKFILL UNDER THE PAD WALLS SHALL BE A CLEAN GRAVEL, FREE OF FOREIGN MATTER AND CONSTRUCTION DEBRIS, AND IN ACCORDANCE WITH CONNECTICUT DOT SPEC M.02.06 GRADING "A"; OR MASSACHUSETTS DPW SPEC M1.03.0 TYPE B. BACKFILL SHALL BE PLACED IN 6" LAYERS AND COMPACTED WITH MECHANICAL TAMPERS TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD COMPACTION TESTS, AASHTO T180 OR ASTM D698.

2 E4.3 CONCRETE TRANSFORMER PAD DETAIL

N.T.S.



1 E4.3 MDF ROOM LAYOUT DETAIL

SCALE: 1/2"=1'-0"

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
North Stonington, CT
297 Norwich-Westerly Rd.

Sheet Description:
ELECTRICAL DETAILS

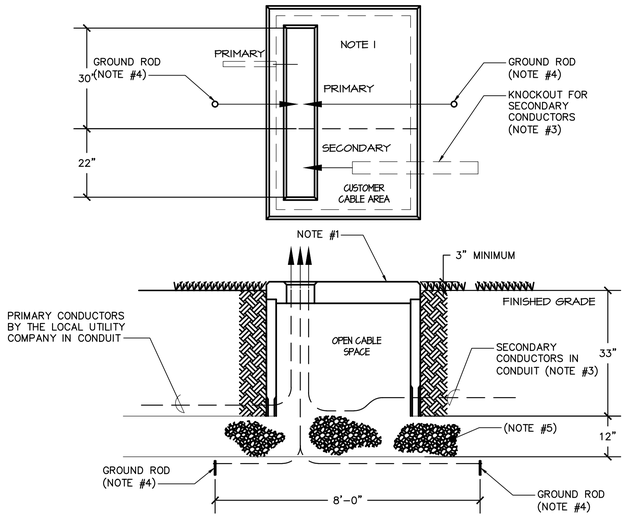
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

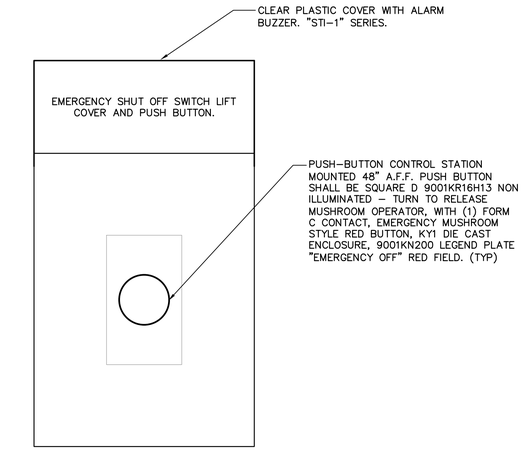
Sheet #:
E4.3



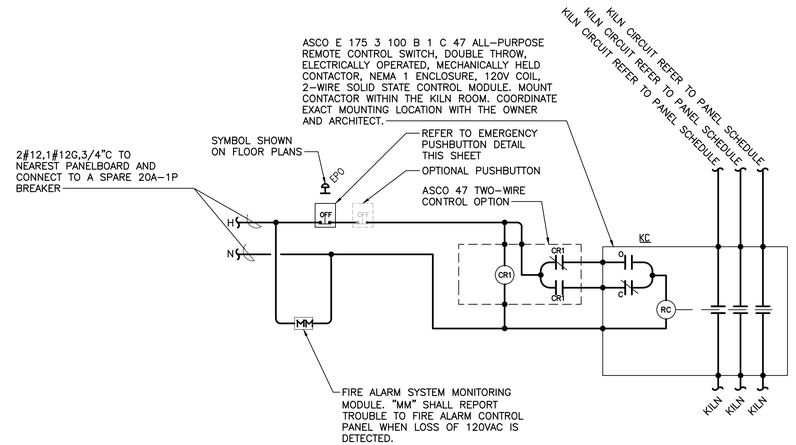
NOTES:

1. 75 – 300KVA – INSTALL 76"x54"x36" PAD AS PER SPC P–013 AND O–014. 500–2500KVA – INSTALL 76"x70"x36" PAD AS PER SPC P–01 5 AND P–016. (COORDINATE REQUIRED PAD SIZE FOR PROJECT WITH UTILITY COMPANY)
2. PRIMARY CONDUCTORS: BY UTILITY COMPANY (CONDUIT BY THIS ELECTRICAL CONTRACTOR)
3. SECONDARY CABLE: LEAVE SLACK FOR FUTURE CONNECTION TO TRANSFORMERS WITH HIGHER SECONDARY TERMINALS. CUSTOMER CABLE(S) SHALL ENTER FROM THE REAR AND SHALL BE CONFINED TO THE AREA DEFINED AS THE "CUSTOMER CONDUCTOR AREA".
4. 8' GALVANIZED GROUND RODS: INSTALL IN TRENCH AND CONNECT A #2 COPPER CONDUCTOR FROM ROD THROUGH PAD OPENING AND EXTENDING 5'–0" ABOVE PAD. GROUND RODS SHALL BE A MINIMUM OF 8' FROM EACH OTHER.
5. THE EXCAVATION FOR THE PAD SHALL BE CARRIED TO A DEPTH OF 12 INCHES BELOW THE BOTTOM OF THE PAD WALLS. THE BACKFILL UNDER THE PAD WALLS SHALL BE A CLEAN GRAVEL, FREE OF FOREIGN MATTER AND CONSTRUCTION DEBRIS, AND IN ACCORDANCE WITH CONNECTICUT DOT SPEC M.02.06 GRADING "A"; BACKFILL SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED WITH MECHANICAL TAMPERS TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD COMPACTION TESTS, AASHTO T180 OR ASTM D698.
6. ALL WORK SHALL CONFORM TO NORTHEAST UTILITIES TRANSFORMER PAD INSTALLATION REQUIREMENTS. REFER TO NORTHEAST UTILITIES CONSTRUCTION STANDARD DTR 58.301 FOR ADDITIONAL INFORMATION.

3 / E4.4 UTILITY TRANSFORMER VAULT DETAIL
SCALE: NTS



2 / E4.4 EMERGENCY PUSHBUTTON DETAIL
SCALE: NTS



ALL CONDUCTORS FOR CONTROLS SHALL BE #12 AWG MINIMUM IN 3/4" CONDUIT.

SEQUENCE OF OPERATION:

1. DEPRESSION OF THE EMERGENCY PUSHBUTTON OPERATOR(S) LABELED AS 'EPO' ON THE FLOOR PLANS AND SHOWN WITHIN THE KILN ROOM SHALL DE–ENERGIZE THE ASCO 175 CONTACTOR AND TURN OFF ELECTRICAL POWER TO THE KILN.

1 / E4.4 KILN EMERGENCY SHUTDOWN WIRING DIAGRAM
SCALE: NTS

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 HEBRON STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

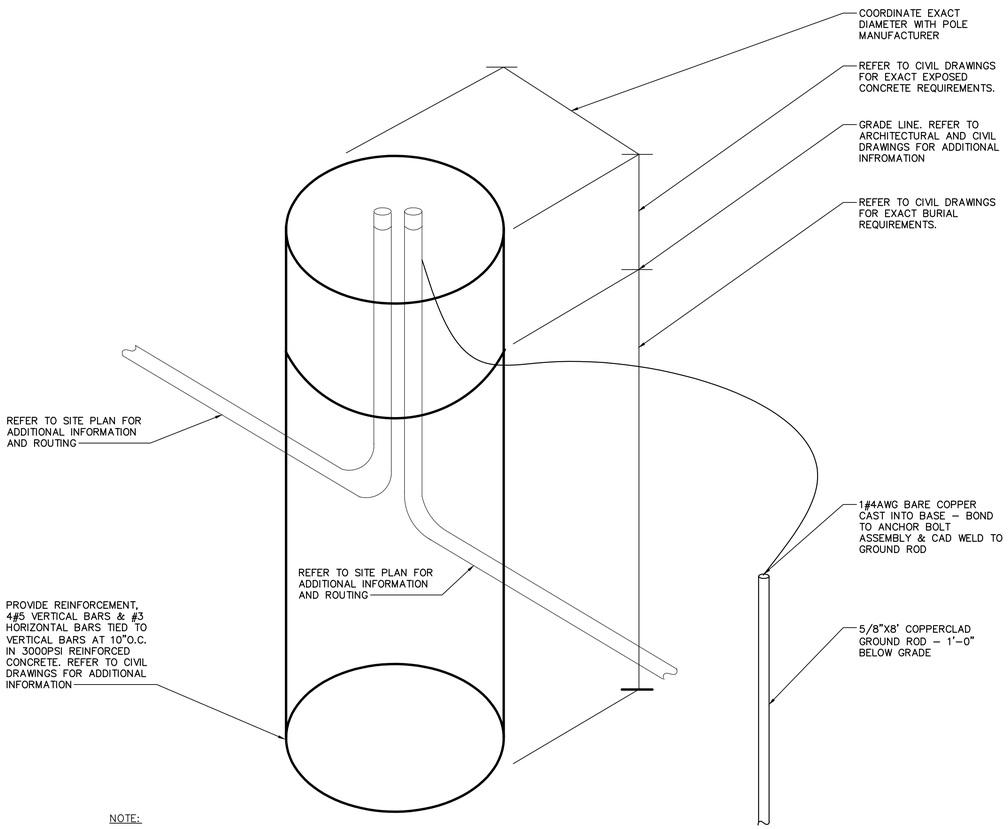
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
E4.4

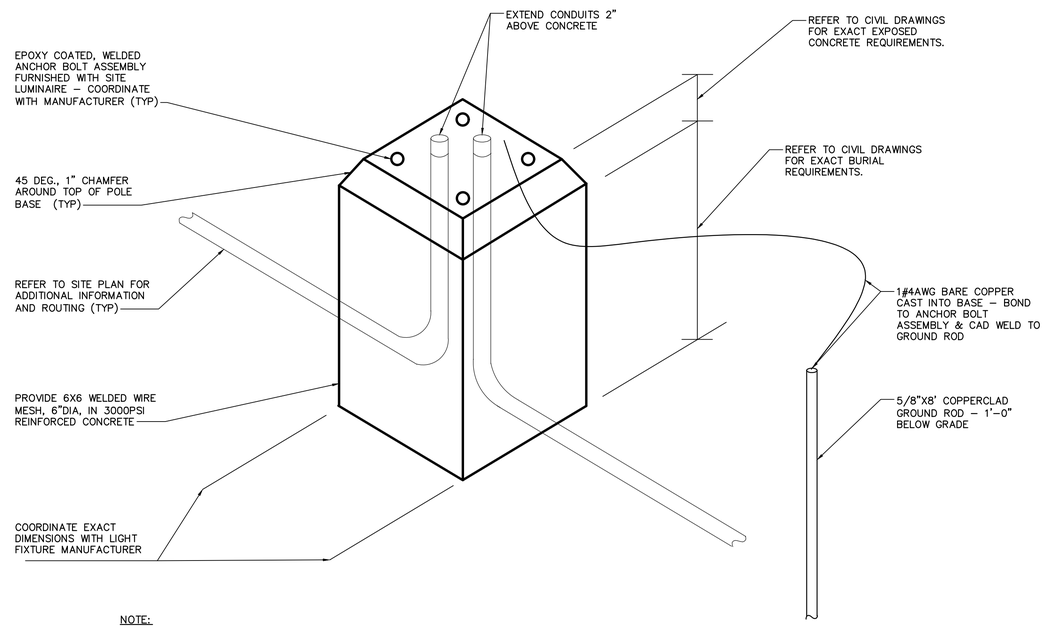


NOTE:

DIMENSIONS SHOWN MAY VARY, IN ACCORDANCE WITH SUBMITTED LUMINAIRE. CONTRACTOR SHALL VERIFY ACTUAL DIMENSIONS REQUIRED.

2 / E4.5 TYPICAL PARKING LOT LUMINARE CONCRETE BASE DETAIL

SCALE: NTS



NOTE:

DIMENSIONS SHOWN MAY VARY, IN ACCORDANCE WITH SUBMITTED LUMINAIRE. GENERAL CONTRACTOR TO VERIFY ACTUAL DIMENSIONS REQUIRED.

1 / E4.5 TYPICAL BOLLARD CONCRETE BASE DETAIL

SCALE: NTS

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HEBRON AVENUE
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL DETAILS

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

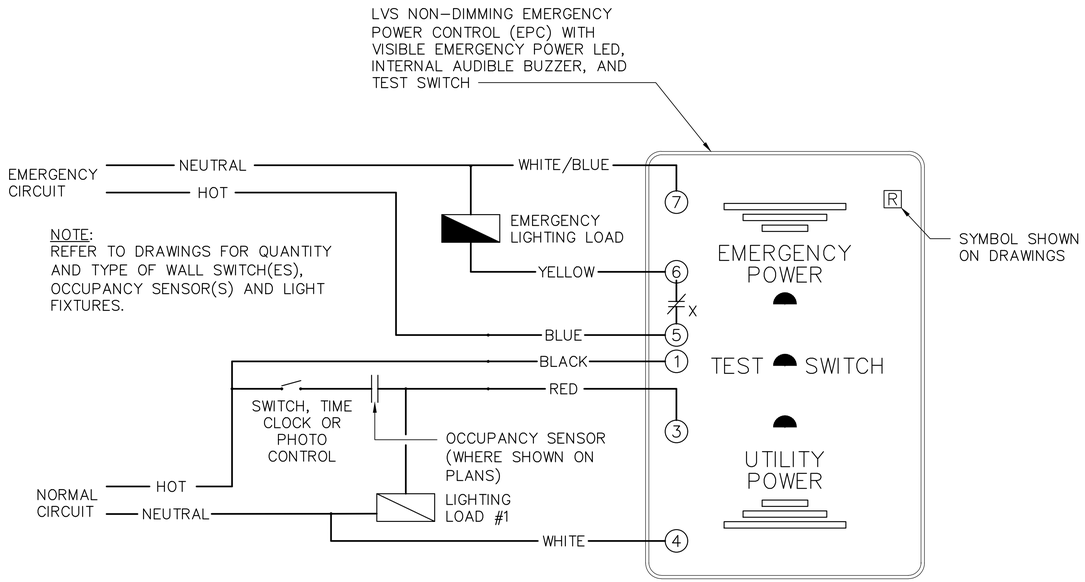
Revisions:

Project #:

1650

Sheet #:

E4.5

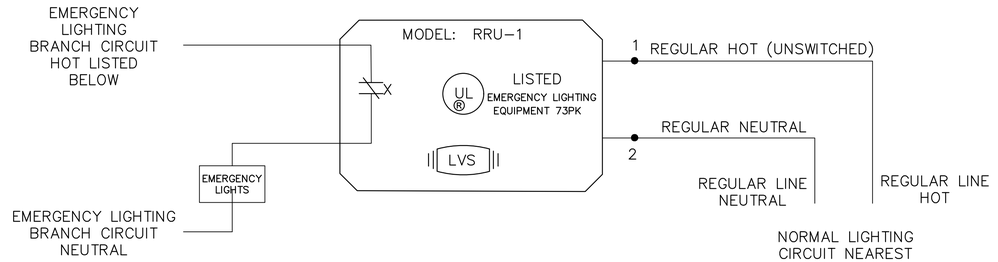


SEQUENCE OF OPERATION:

1. THE ROOM SWITCH, MOTION SENSOR, TIME CLOCK, PHOTOCELL TURNS ON BOTH REGULAR AND EMERGENCY LUMINARIES SIMULTANEOUSLY.
2. EMERGENCY POWER IS DERIVED FROM AN ON–SITE GENERATOR OR INVERTER.
3. DURING NORMAL POWER INTERRUPTION THE LPC RELAY CLOSES CONTACT "X", WHICH TURNS ON THE EMERGENCY LOADS, BYPASSING ALL LIGHTING CONTROLS.

2 E4.6 LVS MONITORING RELAY WIRING SCHEMATIC

SCALE: N.T.S.



PROVIDE (1) RRU–1 FOR "UPS" EMERGENCY LIGHTING CIRCUITS:

1. 1,UPS1 MONITORING NORMAL LIGHTING CIRCUIT 90,LV1–1
2. 2,UPS1 MONITORING NORMAL LIGHTING CIRCUIT 91,LV1–1
3. 3,UPS1 MONITORING NORMAL LIGHTING CIRCUIT 92,LV1–1 AND EXISTING LIGHTING CIRCUIT TO BE FIELD VERIFIED.
4. 4,UPS1 MONITORING EXISTING LIGHTING CIRCUIT TO BE FIELD VERIFIED.
5. 5,UPS1 MONITORING NORMAL LIGHTING CIRCUIT 94,LV1–1

TROUBLESHOOTING & MAINTENANCE OF RRU–1

IF RRU–1 DOES NOT FUNCTION PROPERLY ON STARTUP PERFORM THE FOLLOWING TESTS:

TO TEST NORMAL OPERATION, ENSURE BRANCH CIRCUIT BREAKER IS CONNECTED AND UTILITY POWER IS AVAILABLE. TOGGLE ROOM SWITCH, OR RELAY CONTACT FOR EMERGENCY LIGHT AND ENSURE THAT EMERGENCY LIGHT GOES ON AND OFF.

TO TEST E\MERGENCY OPERATION, TURN ROOM SWITCH OR RELAY CONTACT TO "OFF" POSITION. TURN REGULAR BRANCH CIRCUIT BREAKER TO "OFF" POSITION AND VERIFY THAT EMERGENCY LIGHT ILLUMINATES, WHILE REGULAR LIGHTS REMAIN OFF.

NO MAINTENANCE IS REQUIRED TO KEEP THE RRU–1 FUNCTIONAL. HOWEVER, REGULAR TESTING SHOULD BE PERFORMED WHEN LAMPS OR BALLASTS HAVE BEEN REPLACED OR WHEN FACILITY REMODELING HAS TAKEN PLACE.

SEQUENCE OF OPERATION:

1. THE BUILDING MOUNTED "NE" TYPE LIGHTS ARE DESIGNED TO BE NORMALLY OFF AS LONG AS THE NORMAL LIGHT CIRCUITS ARE AVAILABLE. THE EMERGENCY FIXTURES SHALL BE CONNECTED TO THE EMERGENCY LIGHTING INVERTER "UPS1" NORMALLY ON CIRCUIT BREAKERS AS LISTED IN THIS DETAIL AND SHOWN ON THE LIGHTING FLOOR PLANS.
2. THE DESIGNATED UPS1 CIRCUIT SHALL BE CONNECTED TO THE ON/OFF FORM "C" RELAY CONTACT IN THE RRU–1.
3. THE DESIGNATED NORMAL LIGHTING CIRCUIT LISTED IN THIS DETAIL SHALL BE CONNECTED TO THE REGULAR LINE (HOT) AND NEUTRAK AND SHALL MONITOR THE NORMAL LIGHTING CIRCUIT. IF THE NORMAL LIGHTING CIRCUIT(S) ARE AVAILABLE THE "NE" LIGHTS SHALL BE OFF. IF THE NORMAL LIGHTING CIRCUIT IS LOST THE RRU–1 CONTACTS SHALL CHANGE STATE AND TURN ON THE DESIGNATED EMERGENCY LIGHTS BEING MONITORED BY THE RESPECTIVE RRU–1.

1 E4.6 LVS RRU-1 EMERGENCY LIGHTING CONTROL RELAY WIRING SCHEMATIC

SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4346
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

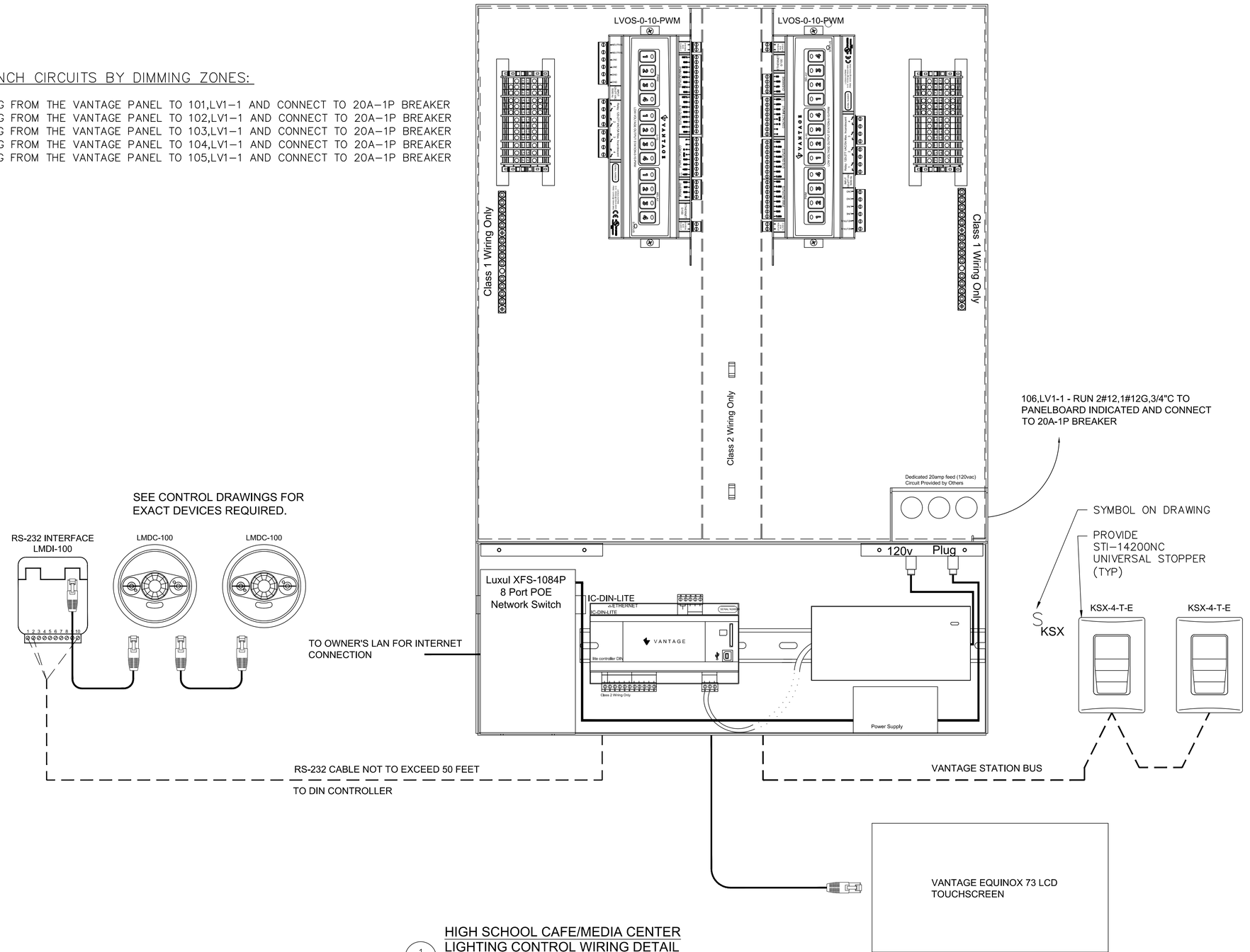
Project #:
1650

Sheet #:
E4.6

MEDIA CENTER, CAFE LIGHTING BRANCH CIRCUITS BY DIMMING ZONES:

LIGHTING DIMMING ZONE "a" = RUN 2#12,1#12G FROM THE VANTAGE PANEL TO 101,LV1–1 AND CONNECT TO 20A–1P BREAKER
LIGHTING DIMMING ZONE "b" = RUN 2#12,1#12G FROM THE VANTAGE PANEL TO 102,LV1–1 AND CONNECT TO 20A–1P BREAKER
LIGHTING DIMMING ZONE "c" = RUN 2#12,1#12G FROM THE VANTAGE PANEL TO 103,LV1–1 AND CONNECT TO 20A–1P BREAKER
LIGHTING DIMMING ZONE "d" = RUN 2#12,1#12G FROM THE VANTAGE PANEL TO 104,LV1–1 AND CONNECT TO 20A–1P BREAKER
LIGHTING DIMMING ZONE "e" = RUN 2#12,1#12G FROM THE VANTAGE PANEL TO 105,LV1–1 AND CONNECT TO 20A–1P BREAKER

VANTAGE LCAP32L WITH 1 - LCAP32L 4-LVOS-0-10-PWM (16 0-10V DIMMING ZONES) 1 - BACNET-IP-IC



1 E4.7 HIGH SCHOOL CAFE/MEDIA CENTER LIGHTING CONTROL WIRING DETAIL
SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET SUITE 202
ROCKY HILL, CT 06067
P: (860) 454-4336
F: (860) 454-4343
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

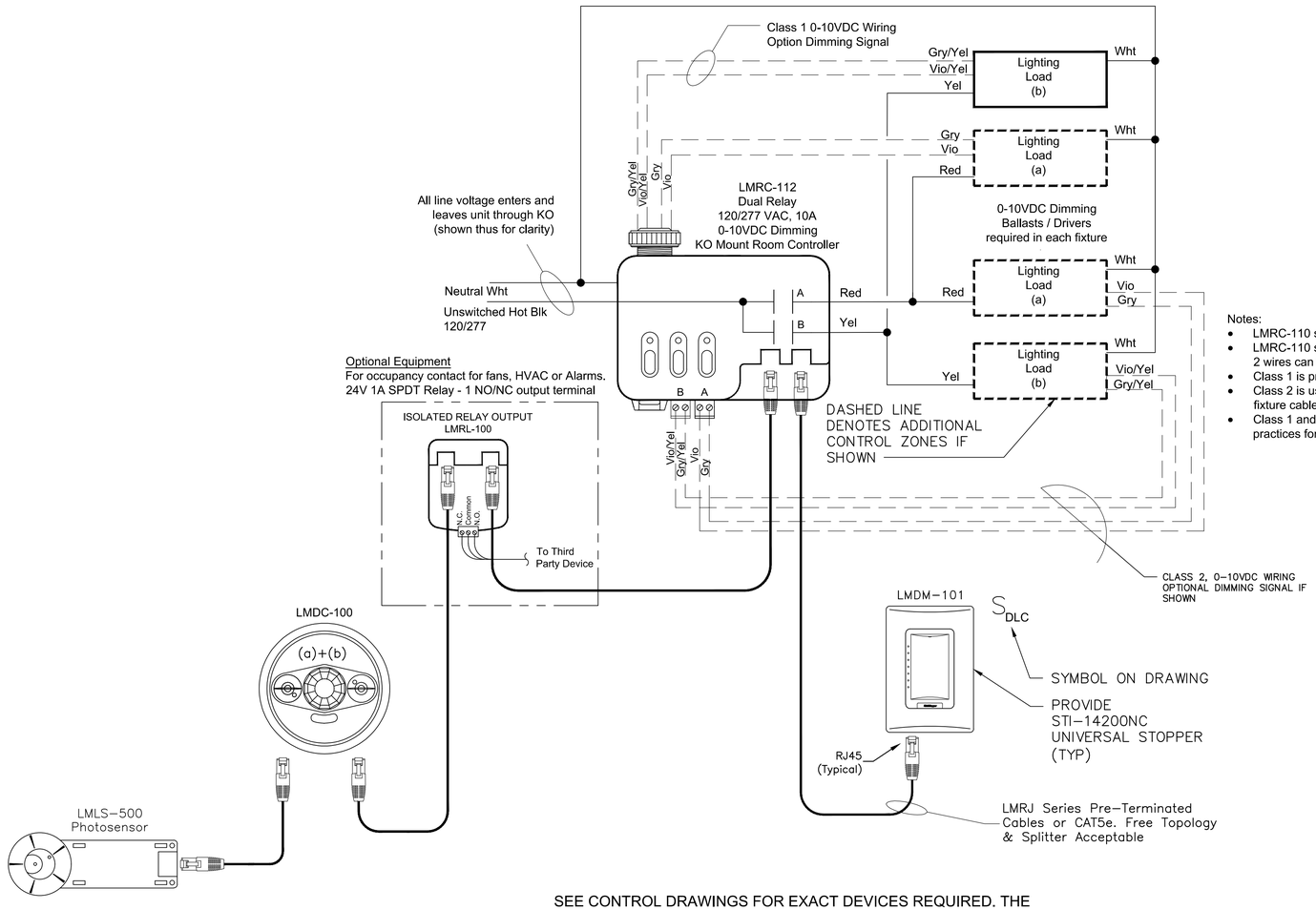
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
E4.7



Notes:

- LMRC-110 series units are rated to 10A of either 120 or 277VAC.
- LMRC-110 series units provide both a Class 1 and a Class 2 dimming signal for 0-10VDC Ballasts/Drivers.Class 1 and Class 2 wires can be used individually or together.
- Class 1 is preferred in new installations when the violet & grey dimming signal wires are included in the fixture power cable.
- Class 2 is used for new or existing installation when it's easier to run the violet & grey dimming signal wires outside the fixture cable.
- Class 1 and Class 2 wiring should be maintained throughout the installation and cannot be swapped - appropriate wiring practices for each Class must be used. Class 1 and Class 2 circuitry in the LMRC units are galvanically isolated.

SEE CONTROL DRAWINGS FOR EXACT DEVICES REQUIRED. THE FOLLOWING IS A TYPICAL DUAL CONTROL ZONES UTILIZING 10A ROOM CONTROLLERS.

SEQUENCE OF OPERATION:

1. MANUAL-ON LOAD (a)+(b).
2. MANUAL-ON/OFF/RASIE/LOWER OVERRIDE FROM LOCAL WALL CONTROL DEVICE. SIMULTANEOUS CONTROL OF LOAD (a)+(b).
3. AUTOMATIC LIGHT LEVEL DIMMING CONTROL PER ROOM PHOTOSENSOR INPUT.
4. AUTOMATIC-OFF 100% UPON SENSOR TIME DELAY. SENSOR TIME DELAY SET FOR 20 MINUTES.

1 / E4.8 TYPICAL ROOM WITH ROOM DIMMING AND DAY LIGHT HARVESTING CONTROL WIRING DETAIL

SCALE: N.T.S.

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4536
F: (860) 436-4538
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

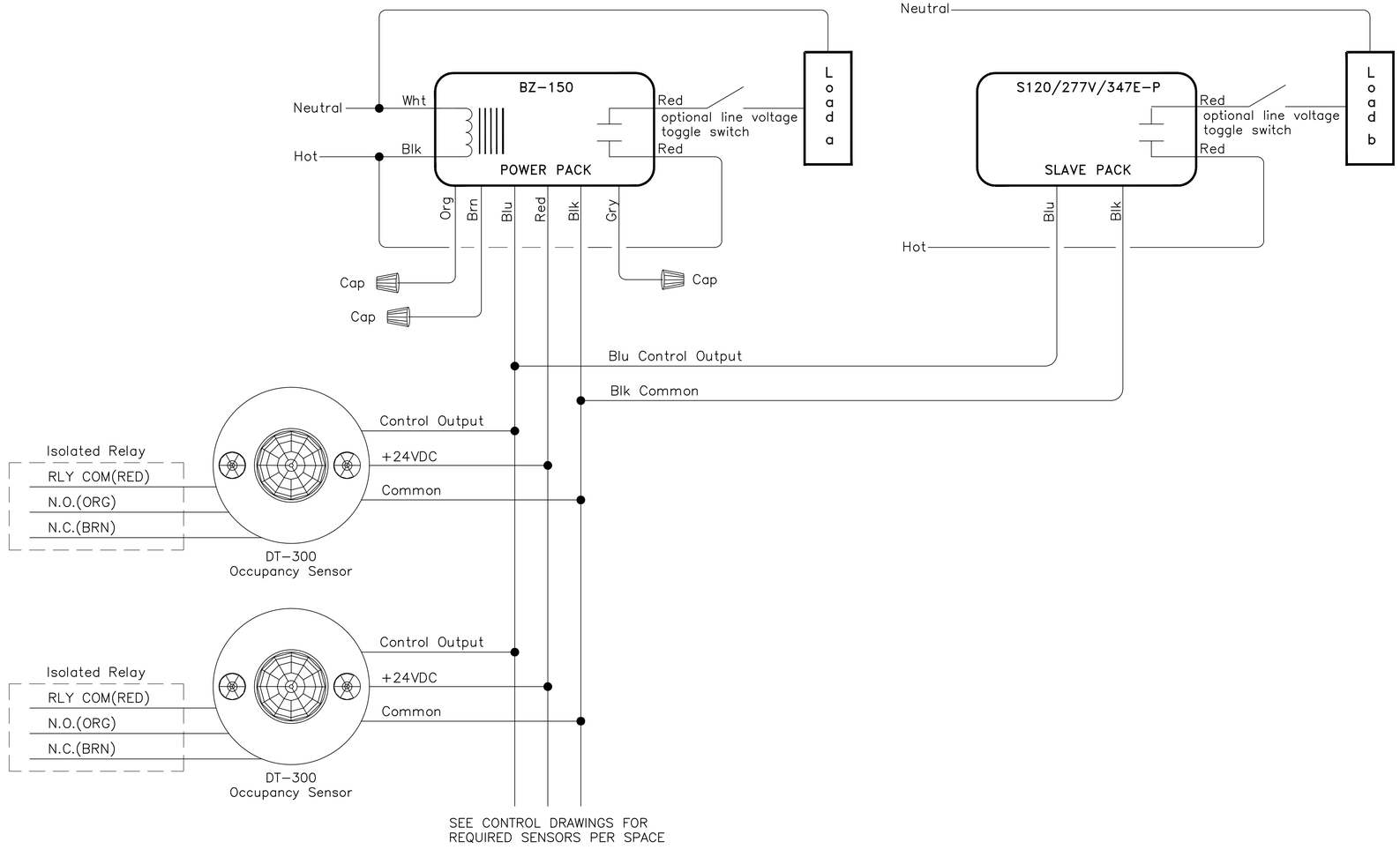
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
E4.8



1 / E4.9 TYPICAL ANALOG (ON/OFF) LIGHTING CONTROL WIRING DETAIL

SCALE: N.T.S.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL DETAILS

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

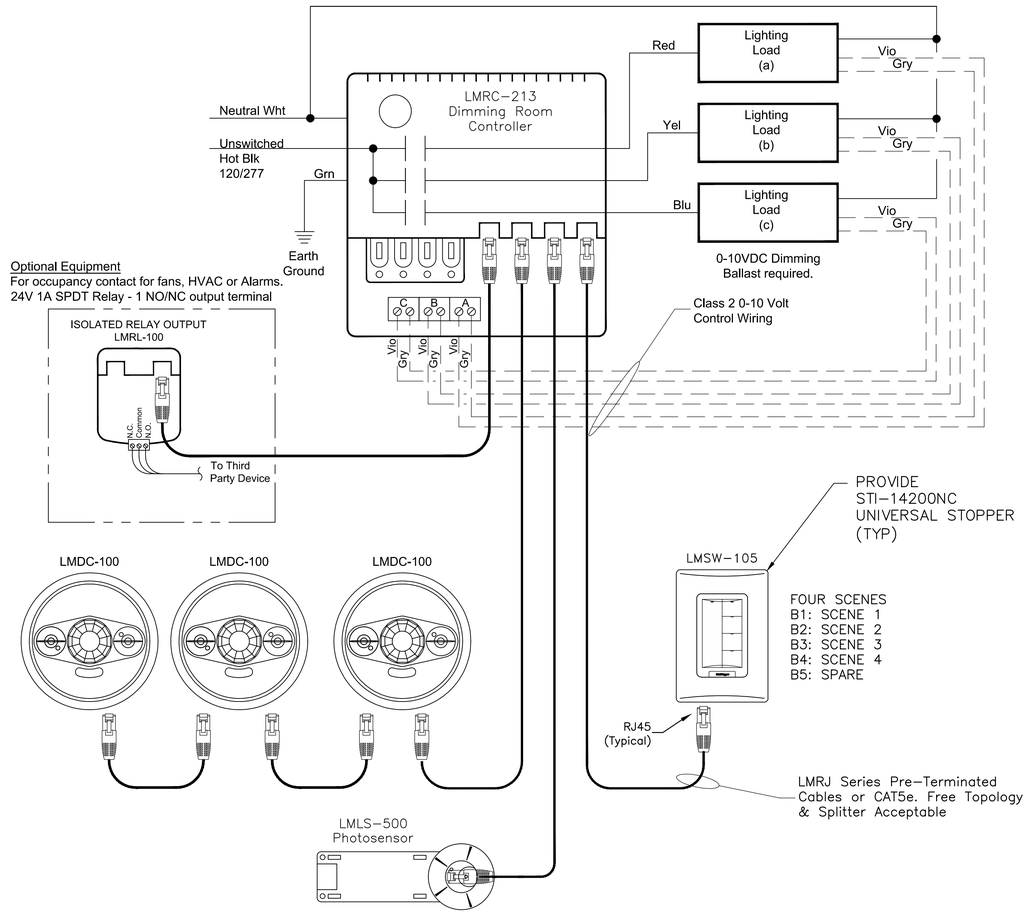
Revisions:

Project #:

1650

Sheet #:

E4.9



SEE CONTROL DRAWINGS FOR EXACT DEVICES REQUIRED. THE FOLLOWING IS A TYPICAL TRIPLE CONTROL ZONES UTILIZING 20A ROOM CONTROLLERS.

SEQUENCE OF OPERATION:

1. MANUAL-ON LOAD (a)+(b),(c).
2. MANUAL-ON/OFF/RASIE/LOWER OVERRIDE FROM LOCAL WALL CONTROL DEVICE (SCENE CONTROL).
3. AUTOMATIC LIGHT LEVEL DIMMING CONTROL PER ROOM PHOTOSENSOR INPUT.
4. AUTOMATIC-OFF 100% UPON SENSOR TIME DELAY. SENSOR TIME DELAY SET FOR 20 MINUTES.

1/E4.10 TYPICAL DIGITAL LIGHTING CONTROL FOR ROOMS/AREAS WITH MULTIPLE LIGHTING ZONES AND OCCUPANCY SENSOR(S)

SCALE: N.T.S.

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School /
Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

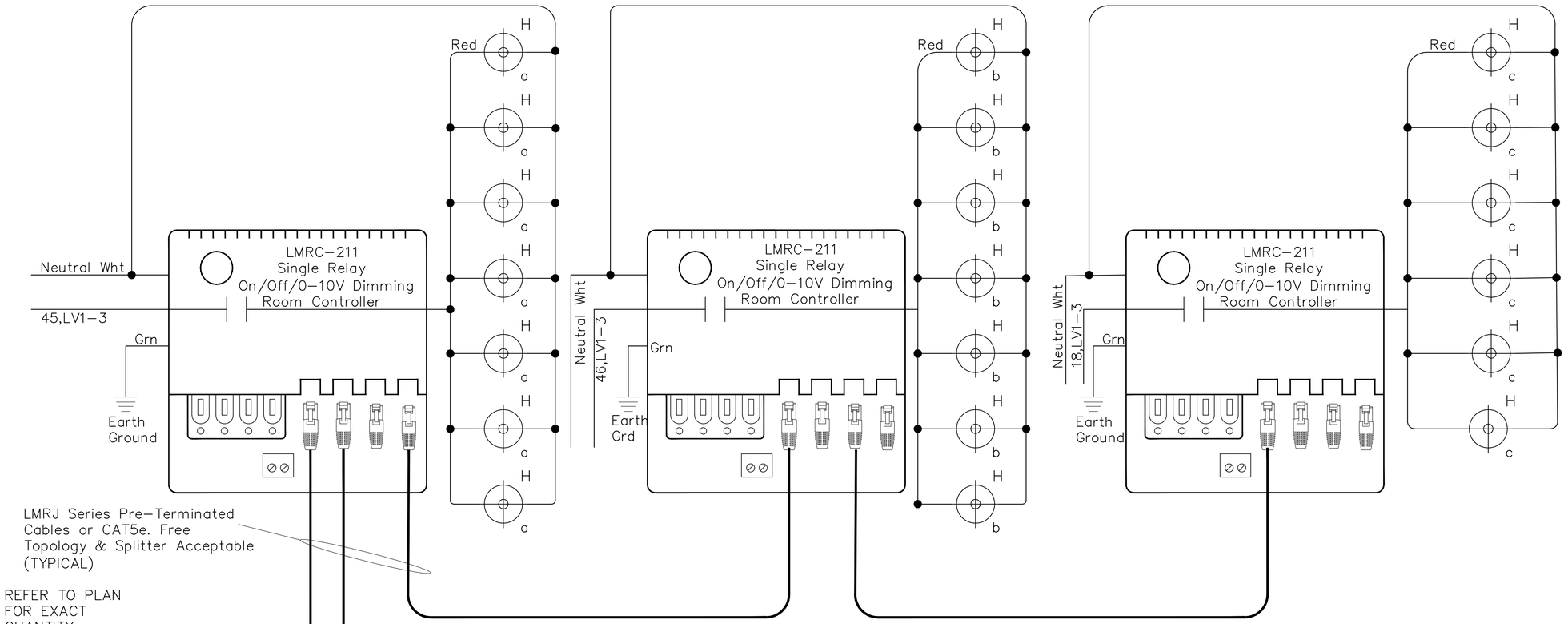
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

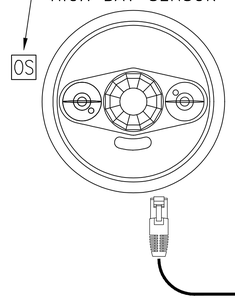
Project #:
1650

Sheet #:
E4.10



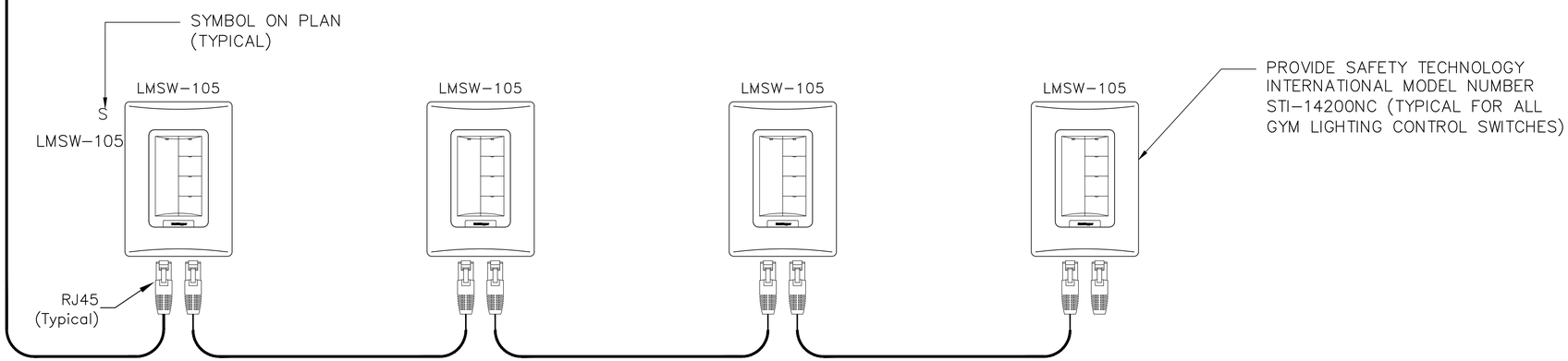
REFER TO PLAN
FOR EXACT
QUANTITY

SYMBOL
ON PLAN



LMRC–211 Multiple
Single Relay Network
Wiring Diagram

REFER TO FLOOR PLANS FOR EXACT NUMBER OF LIGHT FIXTURES REQUIRED. THE FOLLOWING IS A TYPICAL TRIPLE CONTROL ZONES UTILIZING 20A ROOM CONTROLLERS.



1 / E4.11 GYMNASIUM DIGITAL ON/OFF LIGHTING CONTROL WIRNG DETAILS
SCALE: N.T.S.

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4342
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School /
Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL DETAILS

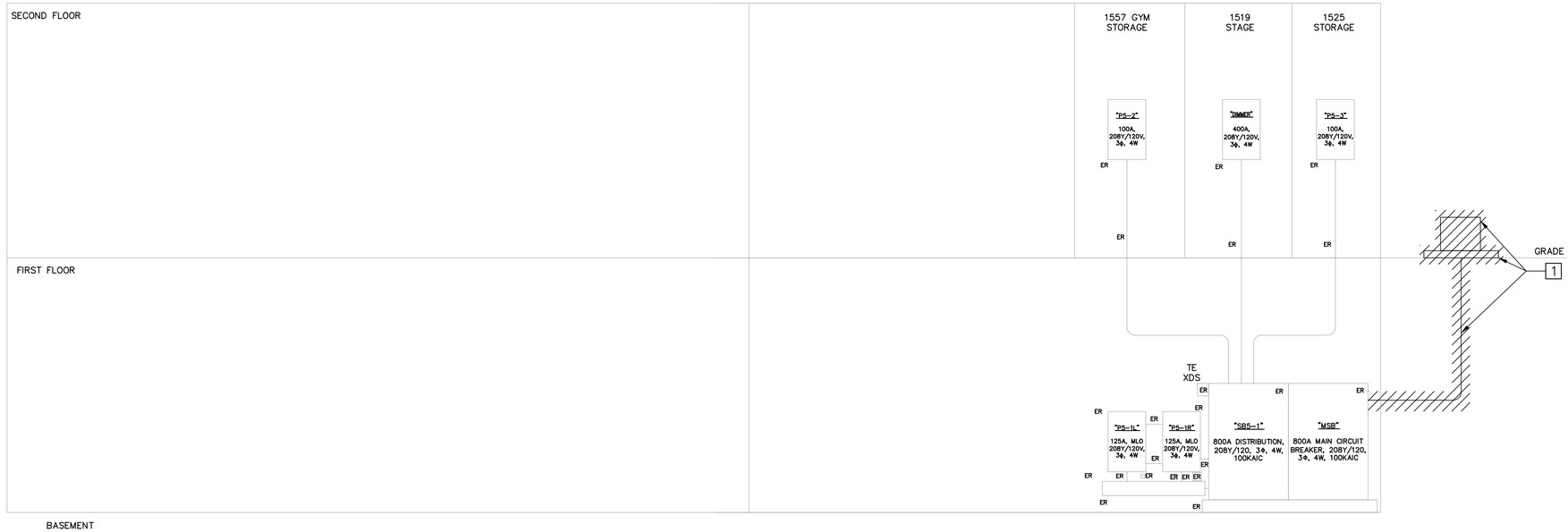
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
E4.11



EXISTING POWER RISER PLAN KEY NOTES:

1 EXISTING UTILITY OWNED PAD MOUNTED TRANSFORMER, TRANSFORMER VAULT AND (2-SETS) 4#500KCMIL,4"C TO BE REMOVED COMPLETELY.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 OLD MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4536
F: (860) 436-4460
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL POWER RISER DEMOLITION PLAN

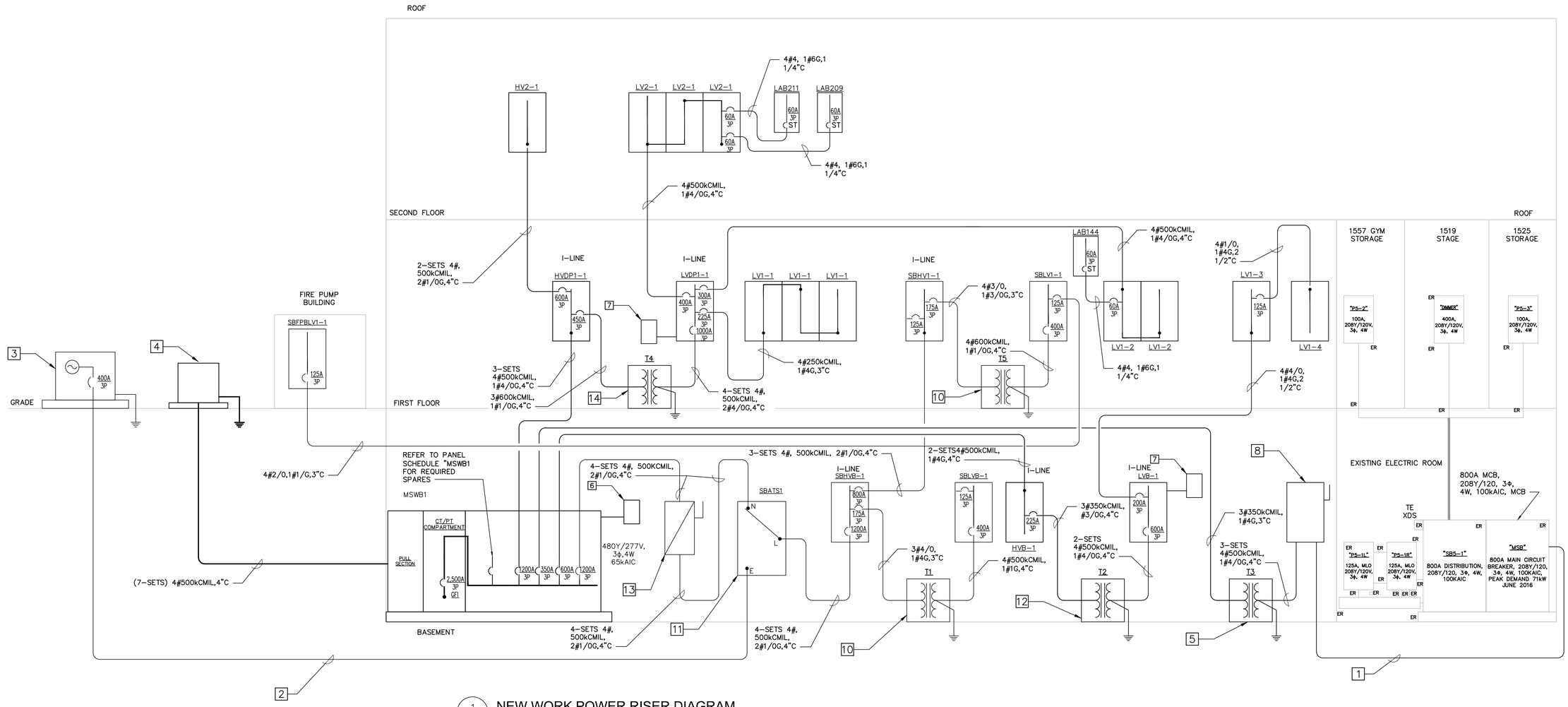
State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
E5.0



1 E5.1 NEW WORK POWER RISER DIAGRAM
SCALE: N.T.S.

NEW WORK POWER RISER PLAN KEY NOTES:

1. RUN (3-SETS) 4#500KCMIL,4"C FROM NEW SWITCHBOARD AND CONNECT TO EXISTING SWITCHBOARD MAIN CIRCUIT BREAKER. CONDUCTORS WILL PENETRATE EXTERIOR WALL, RUN BELOW GRADE OUTSIDE OF THE BUILDING TO EXISTING SWITCHGEAR LOCATION. THE CONDUCTORS WILL PENETRATE THE EXTERIOR WALL AGAIN AND TERMINATE IN EXISTING SWITCHBOARD. REFER TO FLOOR PLANS AND SITE PLANS FOR ADDITIONAL INFORMATION.
2. RUN 2-SETS 4#500KCMIL,4"C FROM THE GENERATOR BREAKER AND CONNECT TO THE AUTOMATIC TRANSFER SWITCH (ATS) "EMERGENCY" LUGS.
3. NEW 250KW, 480Y/277V, 3ϕ, 4W, STANDBY GENERATOR. PROVIDE (2) 10'X3/4" COPPER CLAD GROUND RODS DRIVEN AT OPPOSITE CORNERS OF THE GENERATOR. CAD-WELD 3/0 BARE COPPER WIRE TO EACH ROD AND CONNECT TO THE STEEL GENERATOR FRAME. REFER TO GENERATOR INSTALLATION MANUAL FOR EXACT CONNECTION LOCATION. RUN 2#6,1#8G,1"C FROM THE GENERATOR BATTERIES TO THE CHARGER MOUNTED NEAR THE ATS. RUN 2#10,1#10G,3/4"C FROM THE BATTERY CHARGER TO THE NEAREST 208Y/120 V PANEL AND CONNECT TO BREAKER. COORDINATE EXACT BREAKER TRIP AND POLE RATINGS WITH THE BATTERY CHARGER INSTALLATION MANUAL. RUN 2#6,1#6G,1"C FROM THE GENERATOR BLOCK HEATER TO THE NEAREST 208Y/120 V PANEL AND CONNECT TO BREAKER. COORDINATE EXACT BREAKER TRIP AND POLE RATINGS WITH THE GENERATOR INSTALLATION MANUAL. RUN 2#10,1#10G FROM THE ALTERNATOR WINDING HEATER TO THE NEAREST 208Y/120 V PANEL AND CONNECT TO BREAKER. COORDINATE EXACT BREAKER TRIP AND POLE RATINGS WITH THE GENERATOR INSTALLATION MANUAL. RUN 2#10,1#10G,3/4"C FROM THE GFCI RECEPTACLE LOCATED IN THE GENERATOR ENCLOSURE TO THE NEAREST 208Y/120 V PANEL AND CONNECT TO 20A-1P BREAKER. COORDINATE EXACT RECEPTACLE LOCATION WITHIN THE GENERATOR ENCLOSURE WITH THE GENERATOR INSTALLATION VENDOR. REFER TO SITE UTILITY AND CIVIL PLANS FOR GENERATOR LOCATION.

NEW WORK POWER RISER PLAN KEY NOTES:

4. NEW PAD MOUNTED TRANSFORMER. PROVIDE NEW TRANSFORMER PAD/VAULT PER THE LOCAL UTILITY COMPANIES REQUIREMENTS.
5. NEW 225kVA, 480VΔ 3W PRIMARY, 208Y/120V, 3W SECONDARY TRANSFORMER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6. NEW CURRENT TECHNOLOGY SELECT SERIES SURGE PROTECTION DEVICE. SL3-300-480-3Y-MD-B-M2-F-4 OR EQUAL. PROVIDE TAP AND CONDUCTOR SIZES PER MANUFACTURERS RECOMMENDATION.
7. NEW CURRENT TECHNOLOGY TRANGUARD SERIES SURGE PROTECTION DEVICE. TG3-100-208-3Y-MD-B-M2-F OR EQUAL. PROVIDE TAP AND CONDUCTOR SIZES PER MANUFACTURERS RECOMMENDATION.
8. NEW 800A, 208Y/120V, NEMA 1, FUSED DISCONNECT WITH 800A CLASS L FUSES
9. NEW 75KVA, 480VΔ 3W PRIMARY, 208Y/120V, 3W SECONDARY TRANSFORMER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION
10. NEW 112.5KVA, 480VΔ 3W PRIMARY, 208Y/120V, 3W SECONDARY TRANSFORMER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION
11. NEW 1200A, 480VΔ 3ϕ, 4W, 3P WITH SOLID NEUTRAL AUTOMATIC TRANSFER SWITCH. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
12. NEW 150KVA, 480VΔ 3W PRIMARY, 208Y/120V, 3W SECONDARY TRANSFORMER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13. NEW 1200A, 600V, 3ϕ, 4W, FUSED DISCONNECT WITH 1200A CLASS L FUSES.
14. NEW 300KVA, 480VΔ 3W PRIMARY, 208Y/120V, 3W SECONDARY TRANSFORMER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 307
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4340
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:
ELECTRICAL POWER RISER NEW WORK PLAN

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

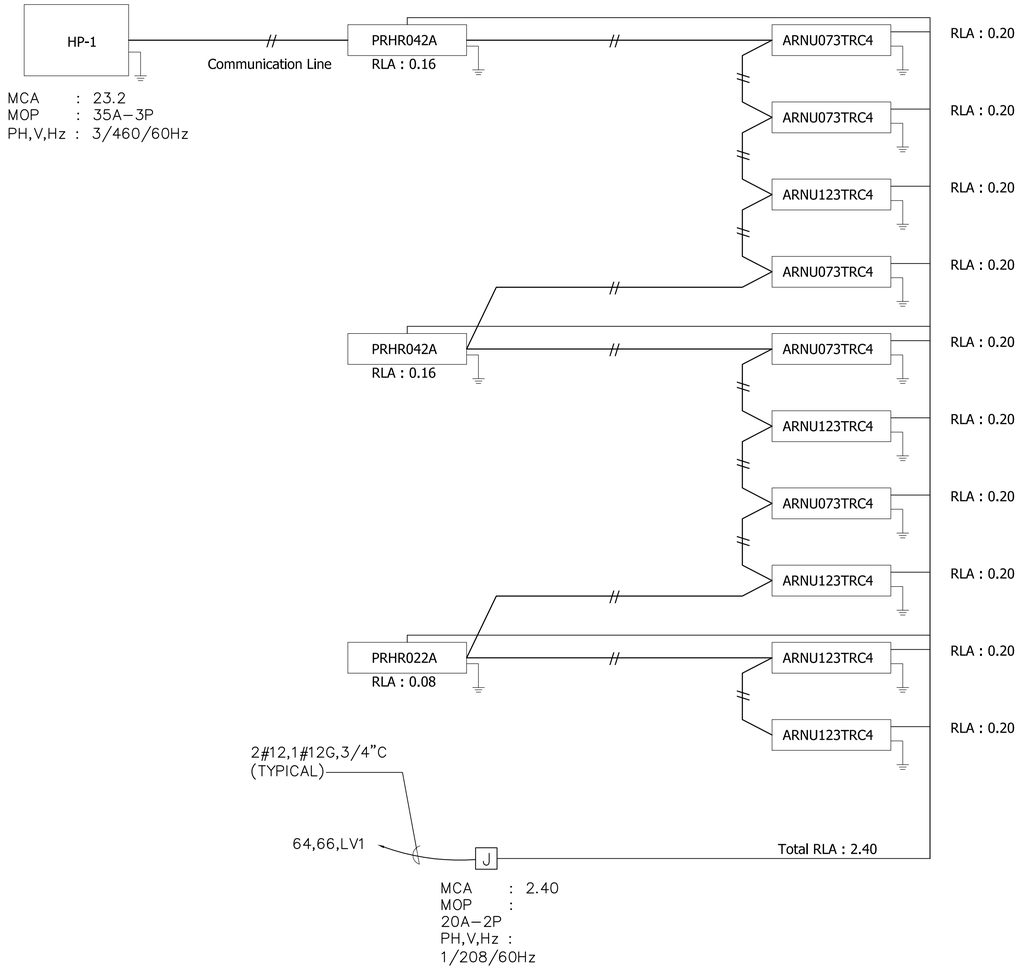
Revisions:

Project #:
1650

Sheet #:
E5.1

ARUB096DTE4 (V1)

Combi. : ARUB096DTE4

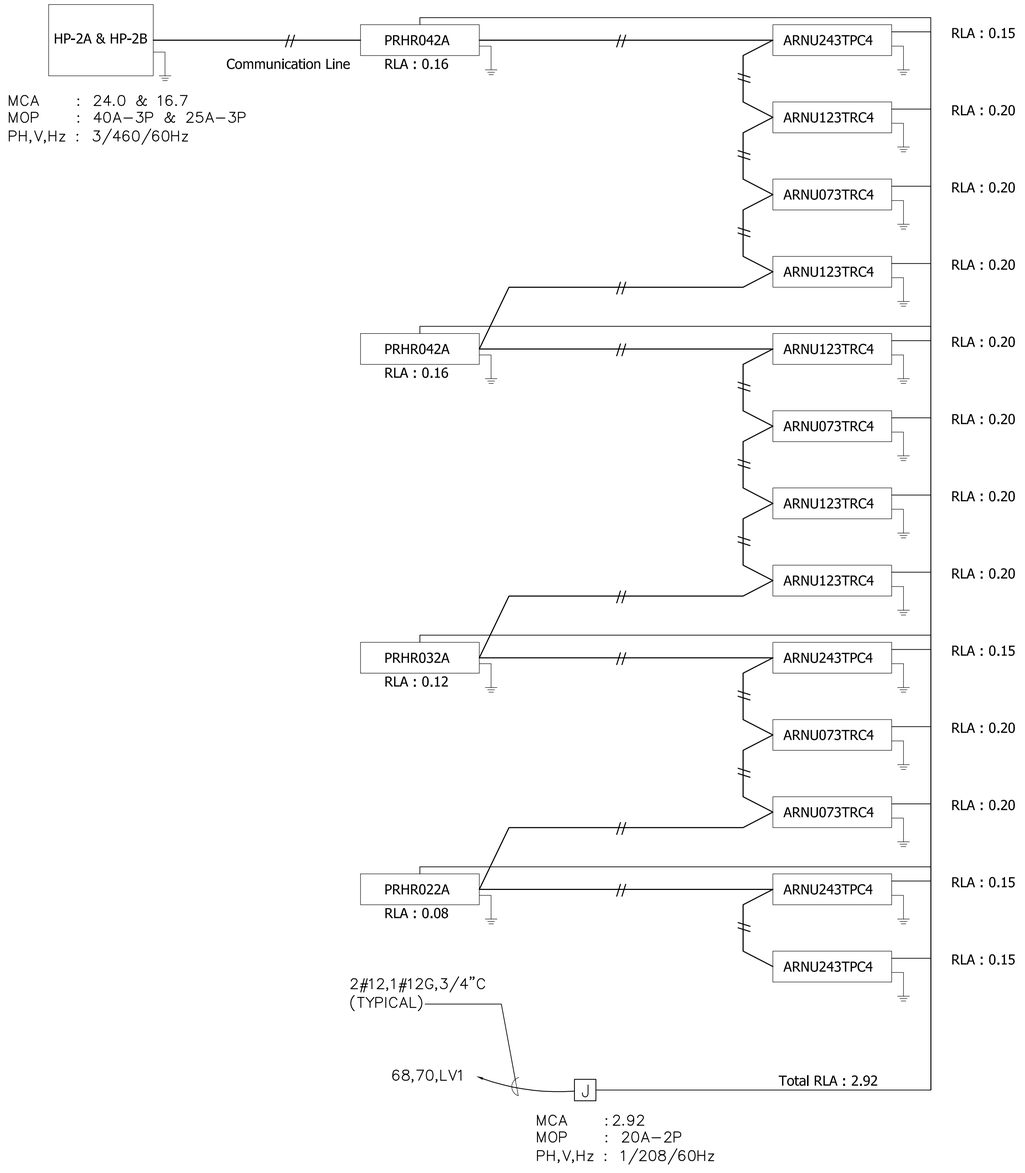


MCA : 23.2
MOP : 35A–3P
PH,V,Hz : 3/460/60Hz

MCA : 2.40
MOP :
20A–2P
PH,V,Hz :
1/208/60Hz

ARUB192DTE4 (V2)

Combi. : ARUB072DTE4,ARUB121DTE4



MCA : 24.0 & 16.7
MOP : 40A–3P & 25A–3P
PH,V,Hz : 3/460/60Hz

MCA : 2.92
MOP : 20A–2P
PH,V,Hz : 1/208/60Hz

QUISENBERRY ARCARI
ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL
ENGINEERING
750 HEBRON AVENUE
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4340
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL VRF RISER NEW WORK PLAN

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:

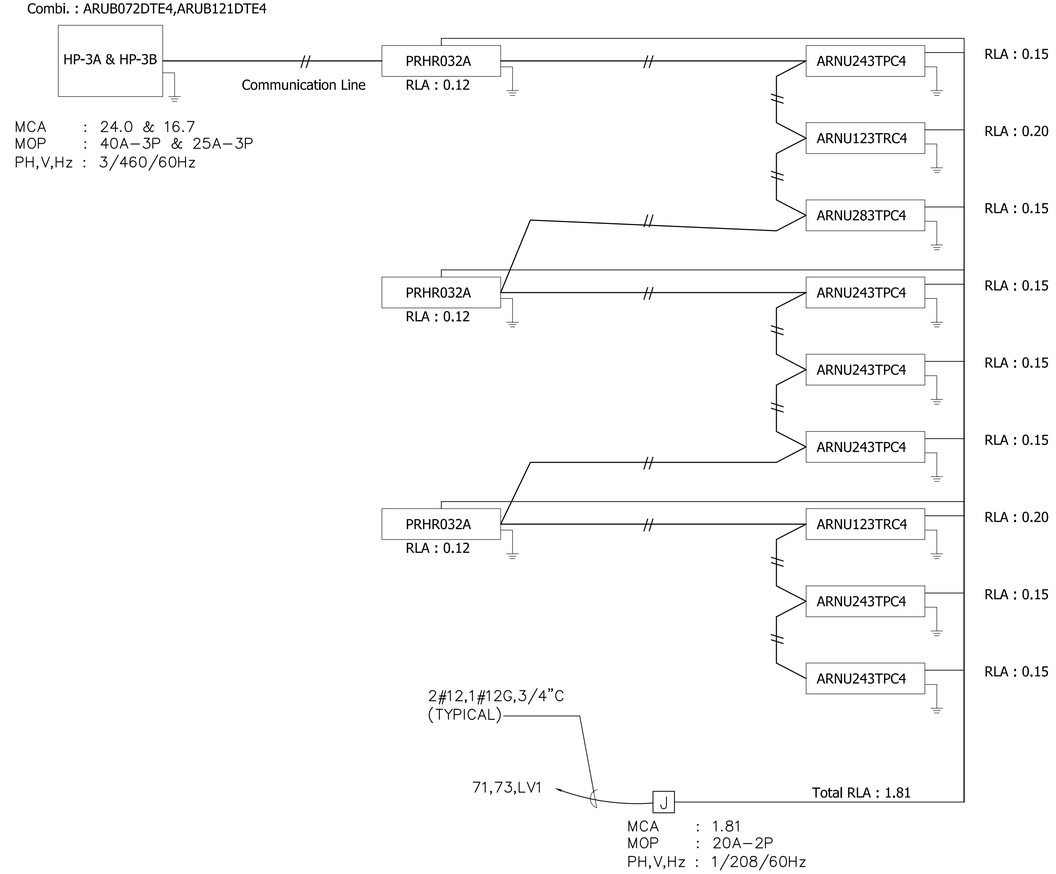
1650

Sheet #:

E5.2

ARUB192DTE4 (V3)

Combi. : ARUB072DTE4,ARUB121DTE4

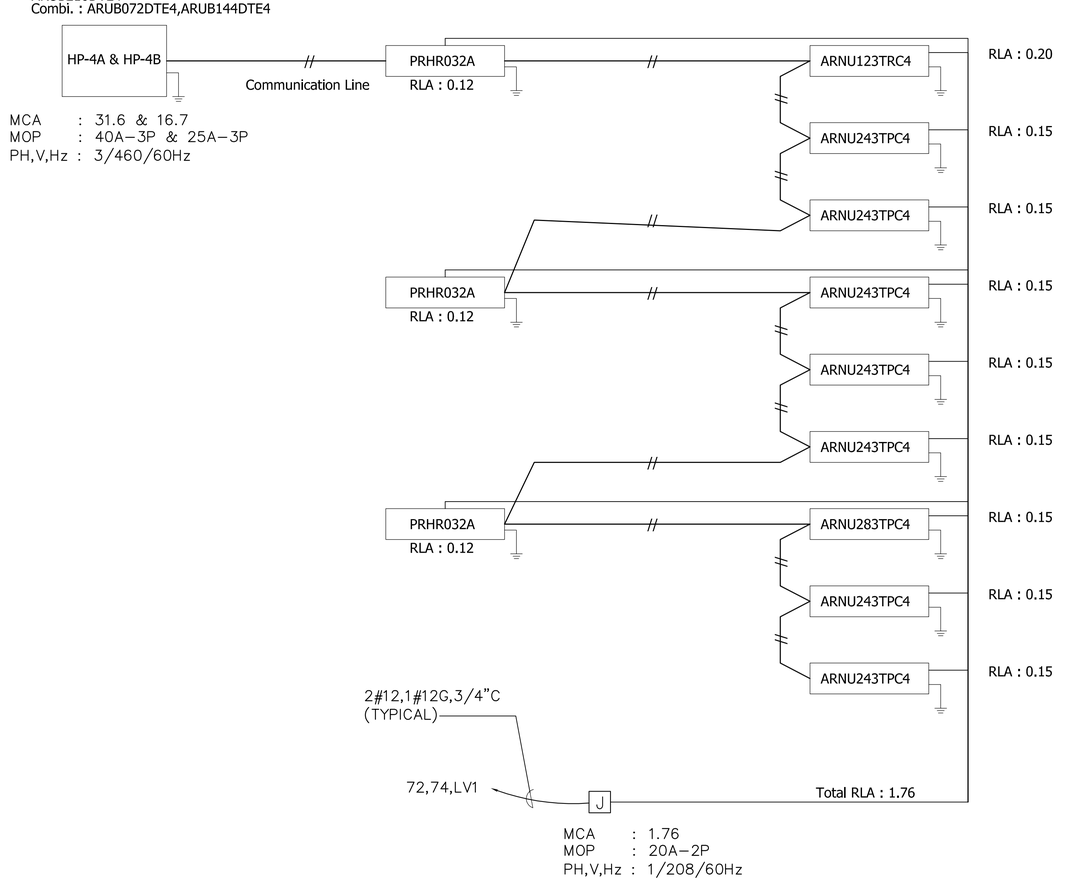


MCA : 24.0 & 16.7
MOP : 40A–3P & 25A–3P
PH,V,Hz : 3/460/60Hz

MCA : 1.81
MOP : 20A–2P
PH,V,Hz : 1/208/60Hz

ARUB216DTE4 (V4)

Combi. : ARUB072DTE4,ARUB144DTE4



MCA : 31.6 & 16.7
MOP : 40A–3P & 25A–3P
PH,V,Hz : 3/460/60Hz

MCA : 1.76
MOP : 20A–2P
PH,V,Hz : 1/208/60Hz

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:

ELECTRICAL VRF RISER NEW WORK PLAN

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:

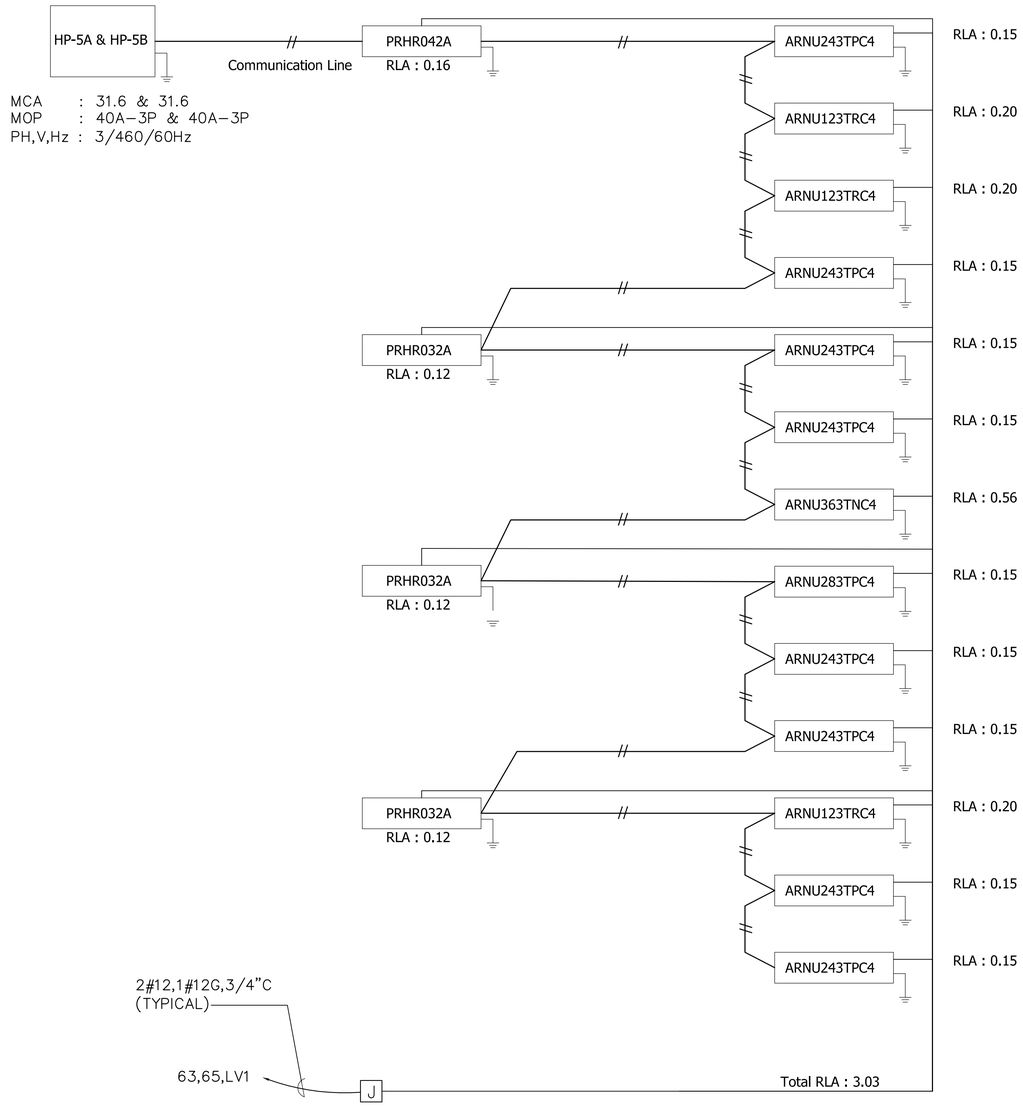
1650

Sheet #:

E5.3

ARUB288DTE4 (V5)

Combi. : ARUB144DTE4,ARUB144DTE4

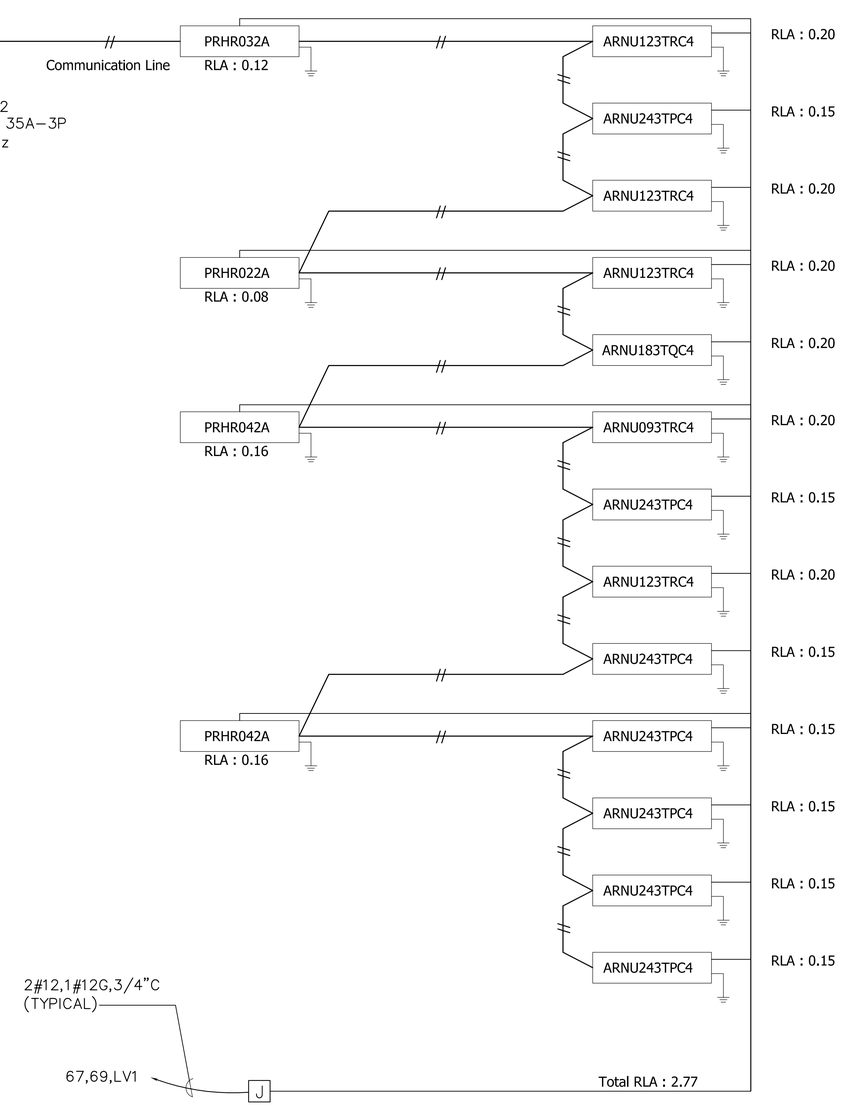


MCA : 3.03
MOP : 20A–2P
PH,V,Hz : 1/208/60Hz

MCA : 31.6 & 31.6
MOP : 40A–3P & 40A–3P
PH,V,Hz : 3/460/60Hz

ARUB240DTE4 (V6)

Combi. : ARUB096DTE4,ARUB144DTE4



MCA : 2.77
MOP : 20A–2P
PH,V,Hz : 1/208/60Hz

MCA : 31.6 & 23.2
MOP : 40A–3P & 35A–3P
PH,V,Hz : 3/460/60Hz

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HEBRON AVENUE
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4330
F: (860) 436-4331
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL VRF RISER NEW WORK PLAN

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:

1650

Sheet #:

E5.4

NORTH STONINGTON HIGH SCHOOL MOTOR CIRCUIT SCHEDULE

UNIT	VOLTAGE	Ø	HP	KW	FLA	MCA	MOCP	BRANCH CIRCUIT CONDUCTORS	CFM	DISCONNECT AT UNIT	DISCONNECT FUSES (CLASS RK1)	MOTOR CONTROLLER	STARTER SIZE	STARTER DISCONNECT FUSES (CLASS RK1)	CIRCUIT NUMBER	CONNECTION NOTES
ACU-1	208	1	N/A	N/A	N/A	N/A	N/A	4#12,1#12G,3/4"C	N/A	20A-2P	N/A	N/A	N/A	N/A	N/A	5, 6
ACU-2	208	1	N/A	N/A	N/A	N/A	N/A	4#12,1#12G,3/4"C	N/A	20A-2P	N/A	N/A	N/A	N/A	N/A	5, 6
ACU-3	208	1	N/A	N/A	N/A	N/A	N/A	4#12,1#12G,3/4"C	N/A	20A-2P	N/A	N/A	N/A	N/A	N/A	5, 6
B1	120	1	N/A	N/A	11.9	15.8	20A-1P	2#12,1#12G,3/4"C	N/A	30A=1P	N/A	PACKAGE	N/A	N/A	14,SBLVB-1	5, 8 (NEW)
B2	120	1	N/A	N/A	11.9	15.8	20A-1P	2#12,1#12G,3/4"C	N/A	30A=1P	N/A	PACKAGE	N/A	N/A	15,SBLVB-1	5, 8 (RELOCATED)
B3	120	1	N/A	N/A	11.9	15.8	20A-1P	2#12,1#12G,3/4"C	N/A	30A=1P	N/A	PACKAGE	N/A	N/A	16,SBLVB-1	5, 8 (RELOCATED)
BP-1	120	1	0.3	N/A	7.2	9.1	15A-1P	2#12,1#12G,3/4"C	N/A	20A=1P	N/A	N/A	N/A	N/A	24,SBLVB-1	5
BP-1	120	1	0.3	N/A	7.2	9.1	15A-1P	2#12,1#12G,3/4"C	N/A	20A=1P	N/A	N/A	N/A	N/A	25,SBLVB-1	5
BP-1	120	1	0.3	N/A	7.2	9.1	15A-1P	2#12,1#12G,3/4"C	N/A	20A=1P	N/A	N/A	N/A	N/A	26,SBLVB-1	5
CU-1	208	1	N/A	N/A	7.5	10.0	15A-3P	2#10,1#10G,3/4"C	N/A	30A-2P (WP)	N/A	PACKAGE	N/A	N/A	127,129,LV2-1	4, 5, 6
CU-2	208	1	N/A	N/A	7.5	10.0	15A-3P	2#10,1#10G,3/4"C	N/A	30A-2P (WP)	N/A	PACKAGE	N/A	N/A	128,130,LV2-1	4, 5, 6
CU-3	208	1	N/A	N/A	7.5	10.0	15A-3P	2#10,1#10G,3/4"C	N/A	30A-2P (WP)	N/A	PACKAGE	N/A	N/A	48,50,LV1-3	4, 5, 6
CF-1	120	1	1.5	N/A	20.0	25.0	40A-1P	2#10,1#10G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	38,LV1-4	5
CF-2	120	1	1.5	N/A	20.0	25.0	40A-1P	2#10,1#10G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	39,LV1-4	5
CUH-1	120	1	0.1	N/A	3.0	3.8	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	2,SBLVB-1	5
CUH-2	120	1	0.1	N/A	3.0	3.8	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	4,SBLVB-1	5
CUH-3	120	1	0.1	N/A	3.0	3.8	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	6,SBLVB-1	5
CUH-4	120	1	0.1	N/A	3.0	3.8	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	8,SBLVB-1	5
CUH-5	120	1	0.1	N/A	3.0	3.8	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	10,SBLVB-1	5
CUH-6	120	1	0.1	N/A	3.0	3.8	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	7,SBLVB-1	5
CUH-7	120	1	0.1	N/A	3.0	3.8	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	9,SBLVB-1	5
EF-1	120	1	0.5	N/A	9.8	12.3	20A-1P	2#10,1#10G,3/4"C	1,500	N/A	N/A	MANUAL	N/A	N/A	36,LV1-4	5, 7
EF-2	120	1	0.3	N/A	5.8	7.2	15A-1P	2#12,1#12G,3/4"C	400	N/A	N/A	MANUAL	N/A	N/A	88,LV2-1	5, 7
EF-3	120	1	0.3	N/A	5.8	7.2	15A-1P	2#12,1#12G,3/4"C	400	N/A	N/A	MANUAL	N/A	N/A	87,LV2-1	5, 7
EF-4	120	1	0.3	N/A	5.8	7.2	15A-1P	2#12,1#12G,3/4"C	400	N/A	N/A	MANUAL	N/A	N/A	140,LV2-1	5, 7
EF-5	120	1	0.3	N/A	5.8	7.2	15A-1P	2#12,1#12G,3/4"C	400	N/A	N/A	MANUAL	N/A	N/A	5,FPBSBLLV-1	5, 7
KEF-1	120	1	0.5	N/A	9.8	12.3	20A-1P	2#10,1#10G,3/4"C	900	N/A	N/A	MANUAL	N/A	N/A	34,LV1-4	5, 7
HP-1	480	3	N/A	N/A	19.1	23.2	35A-3P	3#6,1#8G,1"C	N/A	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	1,3,5,HV2-1	4, 5
HP-2A	480	3	N/A	N/A	13.8	16.7	25A-3P	3#8,1#10G,1"C	N/A	30A-3P (WP)	N/A	PACKAGE	N/A	N/A	2,4,6,HV2-1	4, 5
HP-2B	480	3	N/A	N/A	19.7	24.0	40A-3P	3#6,1#8G,1"C	N/A	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	7,9,11,HV2-1	4, 5
HP-3A	480	3	N/A	N/A	13.8	16.7	25A-3P	3#8,1#10G,1"C	N/A	30A-3P (WP)	N/A	PACKAGE	N/A	N/A	8,10,12,HV2-1	4, 5
HP-3B	480	3	N/A	N/A	19.7	24.0	40A-3P	3#6,1#8G,1"C	N/A	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	13,15,17,HV2-1	4, 5
HP-4A	480	3	N/A	N/A	13.8	16.7	25A-3P	3#8,1#10G,1"C	N/A	30A-3P (WP)	N/A	PACKAGE	N/A	N/A	14,16,18,HV2-1	4, 5
HP-4B	480	3	N/A	N/A	28.4	31.6	40A-3P	3#6,1#6G,1 1/4"C	N/A	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	19,21,23,HV2-1	4, 5
HP-5A	480	3	N/A	N/A	28.4	31.6	40A-3P	3#6,1#8G,1"C	N/A	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	20,22,24,HV2-1	4, 5
HP-5B	480	3	N/A	N/A	28.4	31.6	40A-3P	3#6,1#8G,1"C	N/A	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	25,27,29,HV2-1	4, 5
HP-6A	480	3	N/A	N/A	19.1	23.2	35A-3P	3#8,1#10G,1"C	N/A	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	26,28,30,HV2-1	4, 5
HP-6B	480	3	N/A	N/A	28.4	31.6	40A-3P	3#6,1#8G,1"C	N/A	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	31,33,35,HV2-1	4, 5
LEF-1	120	1	1.0	N/A	2.1	2.7	15A-1P	2#12,1#12G,3/4"C	800	30A-3P (WP)	N/A	COMBO	0	4A	125,LV2-1	1,2,4,5
LEF-2	120	1	1.0	N/A	2.1	2.7	15A-1P	2#12,1#12G,3/4"C	800	30A-3P (WP)	N/A	COMBO	0	4A	126,LV2-1	1,2,4,5
P1	480	3	10.0	N/A	14.0	17.5	25A-3P	3#10,1#10G,3/4"C	N/A	VFD	N/A	VFD	N/A	N/A	2,4,6,SBHVB-1	3, 5
P2	480	3	10.0	N/A	14.0	17.5	25A-3P	2#10,1#10G,3/4"C	N/A	VFD	N/A	VFD	N/A	N/A	8,10,12,SBHVB-1	3, 5
REF-1	120	1	0.1	N/A	4.4	5.5	15A-1P	2#10,1#10G,3/4"C	N/A	30A-1P (WP)	N/A	MANUAL	N/A	N/A	2,SBLV1-1	4,5
REF-2	120	1	0.1	N/A	4.4	5.5	15A-1P	3#10,1#10G,3/4"C	N/A	30A-1P (WP)	N/A	MANUAL	N/A	N/A	2,SBLV1-1	4,5
RTU-1	480	3	N/A	N/A	89.0	94.0	110A-3P	3#1,1#4G,2"C	10,000	200A-3P (WP)	N/A	PACKAGE	N/A	N/A	2,4,6,SBHV1-1	4,5
RTU-2	480	3	N/A	N/A	86.0	91.0	110A-3P	3#1,1#4G,2"C	7,695	200A-3P (WP)	N/A	PACKAGE	N/A	N/A	32,34,36,HV2-1	4,5
RTU-3	480	3	N/A	N/A	86.0	91.0	110A-3P	3#1,1#4G,2"C	7,365	200A-3P (WP)	N/A	PACKAGE	N/A	N/A	37,39,41,HV2-1	4,5
RTU-4	480	3	N/A	N/A	31.0	33.0	40A-3P	3#6,1#8G,1"C	3,000	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	14,16,18,SBHV1-1	4,5
RTU-5	480	3	N/A	N/A	15.0	17.0	20A-3P	3#6,1#8G,1"C	1,750	30A-3P (WP)	N/A	PACKAGE	N/A	N/A	38,40,42,HV2-1	4,5
RTU-6	480	3	N/A	N/A	15.0	17.0	20A-3P	3#6,1#8G,1"C	1,000	60A-3P (WP)	N/A	PACKAGE	N/A	N/A	43,45,47,HV2-1	4,5
RTU-7	480	3	N/A	N/A	31.0	33.0	40A-3P	3#6,1#8G,1"C	3,600	30A-3P (WP)	N/A	PACKAGE	N/A	N/A	44,46,48,HV2-1	4,5
RTU-8	480	3	N/A	N/A	159.0	165.0	175A-3P	3#4/0,1#4G,2 1/2"C	20,000	200A-3P (WP)	N/A	PACKAGE	N/A	N/A	26,28,30,SBHV1-1	4,5
UH-1	120	1	0.0	N/A	2.9	3.6	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	11,SBLVB-1	5, 7
UH-2	120	1	0.0	N/A	2.9	3.6	15A-1P	2#12,1#12G,3/4"C	N/A	N/A	N/A	MANUAL	N/A	N/A	23,SBLVB-1	5, 7

GENERAL NOTES:
1. VERIFY EXACT OVERCURRENT PROTECTION REQUIREMENTS WITH EQUIPMENT MANUFACTURERS NAMEPLATE UPON RECEIPT AT JOB SITE. CONTACT ENGINEER WITH ANY DISCREPANCIES, ELECTRICAL CONTRACTOR SHALL MAKE ALL RNAL CONNECTIONS TO EQUIPMENT.

CONNECTION NOTES:
1. PROVIDE NEW FUSED DISCONNECT WITH CLASS RK1 FUSES SIZED FOR THE LOAD.
2. PROVIDE NEW COMBINATION STARTER/FUSED DISCONNECT WITH CLASS RK1 FUSES SIZED FOR THE LOAD. STARTER SHALL INCLUDE 120 SECONDARY CONTROL TRANSFORMER WITH PRIMARY AND SECONDARY FUSE PROTECTION, (2) SETS FORM C" AUXILLARY CONTACTS, HAND/OFF/AUTO IN COVER, AND PROPERLY SIZED OVERLOADS.
3. VFD/FUSED DISCONNECT FURNISHED BY THE HVAC CONTRACTOR, INSTALLED, WIRED AND TESTED BY THE ELECTRICAL CONTRACTOR. COORDINATE MOUNTING LOCATION WITH THE HVAC CONTRACTOR.
4. PROVIDE WEATHERPROOF DISCONNECT.
5. PROVIDE FLEXIBLE METAL CONDUIT FOR INDOOR CONNECTIONS AND LFMC FOR EXTERIOR CONNECTIONS AT EQUIPMENT SO AS TO MINMUMIZE NOISE TRANSFER TO BUILDING STRUCTURE.
6. RUN 4#12,1#12G,3/4"C FROM OUTDOOR UNIT TO RESPECTIVE INDOOR UNIT. CONNECT PER MANUFACTURERS RECOMMENDATIONS. PROVIDE LOCAL DISCONNECT AT THE AC UNIT.
7. PROVIDE WEATHERPROOF MANUAL MOTOR STARTER FOR EXTERIOR INSTALLATIONS AND NEMA 1 MANUAL MOTOR STARTERS FOR INDOOR INSTALLATIONS, PROVIDE PROPERLY SIXED OVERLOADS, MANUAL STARTERS SHALL BE SCHNEIDER ELECTRIC CLASS 2510 OR EQUAL.
8. PROVIDE UNISTRUT MOUNTING RACK SUPPORTED TO FLOOR AND BUILDING STRUCTURE ABOVE. COORDINATE MOUNTING LOCATIONS WITH MECHANICAL CONTRACTOR.

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL SCHEDULES

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
E6.0

NORTH STONINGTON HIGH/MIDDLE SCHOOL LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMP TYPE	VOLTS	LOAD (WATTS)	MOUNTING	REMARKS
A	TCP	LUXTERIOR SERIES TCPFP2UZD3635K	LED	UNV	36	RECESSED CEILING	2X2 TCP FLAT PANEL LED LIGHT FIXTURE
B	PRESCOLITE	LC6SLDM6LCSL14L35K8WHWT	LED	UNV	17.9	RECESSED CEILING	LITEFRAME 6" LED LIGHT FIXTURE.
C	LITON	LRLD2521CW-L09B25-T35-DUN	LED	UNV	15	RECESSED CEILING	2.5" ROUND RECESSED DOWN LIGHT
D	AXIS	SCR50080350.5MWUNVD1	LED	UNV	5.6W/LF	RECESSED CEILING	GEOMETRIC RECESSED LIGHT FIXTURE. REFER TO ARCHITECTURAL RCP FOR FORMS
EM1	DUAL LITE	LZ3003L	LED	UNV	14	SURFACE/WALL	2-HEADED, WALL MOUNTED EMERGENCY LIGHT, SELF DIAGONOSTIC
EM2	DUAL LITE	LZR	LED	6VDC	14	SURFACE/WALL	2-HEADED, WALL MOUNTED REMOTE EMERGENCY LIGHT
F	BARICAN	JUT BOX 20-02-24W-24L-2H-PS#-B0026-HTO	N/A	N/A	N/A	N/A	LIGHT FIXTURE MATERIAL
G	MODERN FORMS	WS-W11722	LED	UNV	19	SURFACE WALL	EXTERIOR WALL MOUNTED SCONCE.
H	COLUMBIA	LLHP2-40L-M-EU-W6	LED	UNV	142	SURFACE CEILING	LED HIGH BAY LIGHT FIXTURE
J	MP LIGHTING	L01-2-W30S-N--C-LM-0-A-S-0-MA	LED	12VDC	2.5	RECESSED	LOW VOLTAGE FIXTURE WITH REMOTE DRIVER
K	BETACALCO	XACARA CL 50-1020-30A-XW	LED	UNV	15	SURFACE CEILING	DIE CAST ALUMINUM, POWDER COATED, ALUMINUM SPECULAR FINISH REFLECTOR, CLEAR GLASS LENS
KE	BETACALCO	XACARA CL 50-1022-30A-xw	LED	UNV	15	SURFACE CEILING	DIE CAST ALUMINUM, POWDER COATED, ALUMINUM SPECULAR FINISH REFLECTOR, CLEAR GLASS LENS. CONNECTED TO THE UPS.
L	COLUMBIA	LAW4-35LW-EU	LED	UNV	23	SURFACE CEILING	LED WRAPAROUND LIGHT FIXTURE, 100% ACRYLIC LENS
M	AXIS	STP040 SERIES STENCIL	LED	UNV	4.1W/LF	SURFACE PENDANT	OPEN PATTERN PENDANT MOUNTED LINEAR FORM LIGH FIXTURE. REFER TO ARCHITECTURAL RCP FOR SHAP OF FORMS
N	SPAULDING	LMC-30LU-4K-2	LED	UNV	70	EXTERIOR WALL	WALL MOUNTED LED LIGHT FIXTURE, DIE-CAST ALUMINUM HOUSING, TYPE II DISTRIBUTION, FULL CUTOFF, UNIVERSAL VOLTAGE INPUT
NE	SPAULDING	LMC-30LU-4K-2	LED	UNV	70	EXTERIOR WALL	WALL MOUNTED LED LIGHT FIXTURE, DIE-CAST ALUMINUM HOUSING, TYPE II DISTRIBUTION, FULL CUTOFF, UNIVERSAL VOLTAGE INPUT. CONNECTED TO THE UPS.
P	HUBBELL LIGHTING	VWGL-1	LED	UNV	11	SURFACE WALL	WALL MOUNTED LED LIGHT FIXTURE, GLASS LENS AND WIREGARD.
X	DUAL LITE	LECSRNEI	LED	UNV	4.5	SURFACE CEILING	SINGLE FACE, MOUNTING AS REQUIRED, ARROWS AS REQUIRED, 120/208 VAC, SPECTRON SELF-DIAGNOSTICS, EXIT LIGHT
X2	DUAL LITE	LECDRNEI	LED	UNV	4.5	SURFACE CEILING	DOUBLE FACE, MOUNTING AS REQUIRED, ARROWS AS REQUIRED, 120/208 VAC, SPECTRON SELF-DIAGNOSTICS, EXIT LIGHT
X4	DUAL LITE	SEWL S R W E HTR 4X	LED	UNV	5.5	SURFACE WALL	SINGLE FACE, MOUNTING AS REQUIRED, ARROWS AS REQUIRED, 120/208 VAC, SPECTRON SELF-DIAGNOSTICS, EXIT LIGHT, INTERNAL HEATERM NEMA 4X HOUSING
AA	HUBBELL LIGHTING	VPS/36NB-80/4K/T2/UNV	LED	UNV	80	POLE MOUNTED	LED POLE MOUNTED LIGHT FIXTURE WITH AN 18 FOOT SQUARE STRAIGHT STEEL POLE WITH BLACK POWDER COAT FINISH, TYPE II DISTRUBUTION.
BB	HUBBELL LIGHTING	VPS/36NB-80/4K/T4/UNV	LED	UNV	80	POLE MOUNTED	LED POLE MOUNTED LIGHT FIXTURE WITH AN 18 FOOT SQUARE STRAIGHT STEEL POLE WITH BLACK POWDER COAT FINISH, TYPE IV DISTRUBUTION.
CC	ARCHITECTURAL AREA LIGHTING	K51-T2-9030-120-277-12-BL	LED	UNV	87	POLE MOUNTED	LED POLE MOUNTED LIGHT FIXTURE WITH AN 12 FOOT INTEGRAL KICK POLE

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HEBRON AVENUE
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4340
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL SCHEDULES

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2016

Revisions:

Project #:
1650

Sheet #:
E6.1

1

Panel: MSWB1 | **Location: BASEMENT**
Amperage / Mains: 2500 A MCB | **Mounting:**
Voltage, Phase, Wire: 480/277V 3Ø; 4W; G. | **Comments: FLOOR MOUNTED 80" TALL**
AIC: 65k | **MAIN BREAKER SHALL HAVE ELECTRONC**

CKT #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT #
1				158.3			158.3									2
3	1200	3	SBHVB-1 ELECTRONIC TRIP	158.3				158.3								4
5				158.3					158.3							6
7				178.3			178.3									8
9	1200	3	HVDP1-1 ELECTRONIC TRIP	178.3				178.3					SPARE	100	3	10
11				178.3					178.3							12
13				50.0			50.0									14
15	600	3	HVB-1	50.0				50.0					SPARE	250	3	16
17				50.0					50.0							18
19						75.0	75.0									20
21	350	3	MSB 225kVA TRANSFORMER			75.0		75.0					SPARE	175	3	22
23						75.0			75.0							24
25							0.0									26
27	200	3	SPARE					0.0					SPARE	75	3	28
29									0.0							30
31							0.0									32
33	225	3	SPARE					0.0					SPACE			34
35									0.0							36
37							0.0									38
39	150	3	SPARE					0.0					SPACE			40
41									0.0							42
			Connected (kVA):	**1159.8**	**0.0**	**225.0**	**461.6**	**461.6**	**461.6**	**0.0**	**0.0**	**0.0**				
			Demand * (kVA):	**1159.8**	**0.0**	**180.0**										

Total Connected Load (kVA):	**1,384.8**	**Total Connected Load (A):**	**1,665.7**
Total Demand Load * (kVA):	**1,339.8**	**Total Demand * Load (A):**	**1,611.6**
connected load per Ø = (total load/3):	461.6	**125% of Total Demand (A):**	**2,014.4**
demand load per Ø = (total load/3):	446.6		

* Demand Factor:	
Lighting loads:	100%
Receptacle loads, 10kVA or less:	100%
Receptacle loads, over 10kVA:	50%
Miscellaneous loads:	80%

Panel: HVB-1 | **Location: BASEMENT**
Amperage / Mains: 600 A MLO | **Mounting: Surface**
Voltage, Phase, Wire: 480/277V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 42k | **I-LINE STYLE**

CKT #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT #
1				50.0			50.0									2
3	225	3	LVB-1 TRANSFORMERS	50.0				50.0					SPARE	125	3	4
5				50.0					50.0							6
7							0.0									8
9	150	3	SPARE					0.0					SPARE	175	3	10
11									0.0							12
13	20	1	SPARE				0.0									14
15	20	1	SPARE					0.0					SPARE	200	3	16
17	20	1	SPARE						0.0							18
19	20	1	SPARE				0.0						SPARE	20	1	20
21	20	1	SPARE					0.0					SPARE	20	1	22
23	20	1	SPARE						0.0				SPARE	20	1	24
25	20	1	SPARE				0.0						SPARE	75	1	26
27	20	1	SPARE					0.0					SPARE	20	1	28
29	20	1	SPARE						0.0				SPARE	20	1	30
31	20	1	SPARE				0.0						SPARE	20	1	32
33	20	1	SPARE					0.0					SPARE	20	1	34
35	20	1	SPARE						0.0				SPARE	20	1	36
37	20	1	SPARE				0.0						SPARE	20	1	38
39	20	1	SPARE					0.0					SPARE	20	1	40
41	20	1	SPARE						0.0				SPARE	20	1	42
			Connected (kVA):	**150.0**	**0.0**	**0.0**	**50.0**	**50.0**	**50.0**	**0.0**	**0.0**	**0.0**				
			Demand * (kVA):	**150.0**	**0.0**	**0.0**										

Total Connected Load (kVA):	**150.0**	**Total Connected Load (A):**	**180.4**
Total Demand Load * (kVA):	**150.0**	**Total Demand * Load (A):**	**180.4**
connected load per Ø = (total load/3):	50.0	**125% of Total Demand (A):**	**225.5**
demand load per Ø = (total load/3):	50.0		

* Demand Factor:	
Lighting loads:	100%
Receptacle loads, 10kVA or less:	100%
Receptacle loads, over 10kVA:	50%
Miscellaneous loads:	80%

Panel: LVB-1 | **Location: BASEMENT**
Amperage / Mains: 600 A MCB | **Mounting: Surface**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k | **I-LINE STYLE**

CKT #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT #
1				18.6			20.1			1.5						2
3	200	3	LV1-3	18.6				20.1		1.5			GEN BLOCK HEATER	30	2	4
5				18.6					19.4	0.8			GEN BATTERY CHANGER	20	1	6
7				8.2			9.1			0.9			GEN BATTERY HEATER	30	1	8
9	125	3	LV1-4	8.2				9.7		1.5			GEN OIL HEATER	30	2	10
11				8.2					9.7	1.5						12
13	20	1	SPARE				0.0						SPARE	20	1	14
15	20	1	SPARE					0.0					SPARE	20	1	16
17	20	1	SPARE						0.0				SPARE	20	1	18
19	20	1	SPARE				0.0						SPARE	20	1	20
21	20	1	SPARE					0.0					SPARE	20	1	22
23	20	1	SPARE						0.0				SPARE	20	1	24
25	20	1	SPARE				0.0						SPARE	75	1	26
27	20	1	SPARE					0.0					SPARE	20	1	28
29	20	1	SPARE						0.0				SPARE	20	1	30
			Connected (kVA):	**80.3**	**0.0**	**0.0**	**29.2**	**29.8**	**29.1**	**7.7**	**0.0**	**0.0**				
			Demand * (kVA):	**80.3**	**0.0**	**6.2**										

Total Connected Load (kVA):	**88.0**	**Total Connected Load (A):**	**244.4**
Total Demand Load * (kVA):	**86.5**	**Total Demand * Load (A):**	**240.1**
connected load per Ø = (total load/3):	29.3	**125% of Total Demand (A):**	**300.1**
demand load per Ø = (total load/3):	28.8		

* Demand Factor:	
Lighting loads:	100%
Receptacle loads, 10kVA or less:	100%
Receptacle loads, over 10kVA:	50%
Miscellaneous loads:	80%

Panel: HVDP1-1 | **Location: ADDITION**
Amperage / Mains: 1200 A MCB | **Mounting: Surface**
Voltage, Phase, Wire: 480/277V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 22k | **PROVIDE ELECTRONIC TRIP ON MAIN BREAKER**

CKT #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT #
1				105.0			105.0									2
3	600	3	HV2-1 ELECTRONIC TRIP	105.0				105.0					SPARE	200	3	4
5				105.0					105.0							6
7				73.3			73.3									8
9	350	3	LVDP1-1 TRANSFORMER ELECTRONIC TRIP	73.3				73.3					SPARE	150	3	10
11				73.3					73.3							12
13							0.0									14
15	125	3	SPARE					0.0					SPARE	175	3	16
17									0.0							18
19	20	1	SPARE				0.0						SPARE	20	1	20
21	20	1	SPARE					0.0					SPARE	20	1	22
23	20	1	SPARE						0.0				SPARE	20	1	24
25	20	1	SPARE				0.0						SPARE	75	1	26
27	20	1	SPARE					0.0					SPARE	20	1	28
29	20	1	SPARE						0.0				SPARE	20	1	30
31	20	1	SPARE				0.0						SPARE	20	1	32
33	20	1	SPARE					0.0					SPARE	20	1	34
35	20	1	SPARE						0.0				SPARE	20	1	36
37	20	1	SPARE				0.0						SPARE	20	1	38
39	20	1	SPARE					0.0					SPARE	20	1	40
41	20	1	SPARE						0.0				SPARE	20	1	42
			Connected (kVA):	**535.0**	**0.0**	**0.0**	**178.3**	**178.3**	**178.3**	**0.0**	**0.0**	**0.0**				
			Demand * (kVA):	**535.0**	**0.0**	**0.0**										

Total Connected Load (kVA):	**535.0**	**Total Connected Load (A):**	**643.6**
Total Demand Load * (kVA):	**535.0**	**Total Demand * Load (A):**	**643.6**
connected load per Ø = (total load/3):	178.3	**125% of Total Demand (A):**	**804.4**
demand load per Ø = (total load/3):	178.3		

* Demand Factor:	
Lighting loads:	100%
Receptacle loads, 10kVA or less:	100%
Receptacle loads, over 10kVA:	50%
Miscellaneous loads:	80%

Panel: HV2-1 | **Location: ADDITION**
Amperage / Mains: 600 A MLO | **Mounting: Surface**
Voltage, Phase, Wire: 480/277V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT #
1						5.2	9.1			3.9						2
3	35	3	HP-1			5.2		9.1		3.9			HP-2A	25	3	4
5						5.2			9.1	3.9						6
7						5.5	9.4			3.9						8
9	40	3	HP-2B			5.5		9.4		3.9			HP-3A	25	3	10
11						5.5			9.4	3.9						12
13						5.5	9.4			3.9						14
15	40	3	HP-3B			5.5		9.4		3.9			HP-4A	25	3	16
17						5.5			9.4	3.9						18
19						7.9	15.8			7.9						20
21	40	3	HP-4B			7.9		15.8		7.9			HP-5A	40	3	22
23						7.9			15.8	7.9						24
25						7.9	13.2			5.3						26
27	40	3	HP-5B			7.9		13.2		5.3			HP-6A	75	3	28
29						7.9			13.2	5.3						30
31							28.7			28.7						32
33	40	3	SPARE					28.7		28.7			RTU-2	110	3	34
35									28.7	28.7						36
37						28.7	32.9			4.2						38
39	110	3	RTU-3			28.7		32.9		4.2			RTU-5	20	3	40
41						28.7			32.9	4.2						42
43						4.2	12.8			8.6						44
45	20	3	RTU-6			4.2		12.8		8.6			RTU-7	40	3	46
47						4.2			12.8	8.6						48
49							0.0									50
51	20	3	SPARE					0.0					SPARE	100	3	52
53									0.0							54
55	20	1	SPARE				0.0									56
57	20	1	SPARE					0.0					SPARE	20	1	58
59	20	1	SPARE						0.0				SPARE	20	1	60
			Connected (kVA):	**0.0**	**0.0**	**194.7**	**131.3**	**131.3**	**131.3**	**199.2**	**0.0**	**0.0**				
			Demand * (kVA):	**0.0**	**0.0**	**315.1**										

Total Connected Load (kVA):	**393.9**	**Total Connected Load (A):**	**473.8**
Total Demand Load * (kVA):	**315.1**	**Total Demand * Load (A):**	**379.0**
connected load per Ø = (total load/3):	131.3	**125% of Total Demand (A):**	**473.8**
demand load per Ø = (total load/3):	105.0		

* Demand Factor:	
Lighting loads:	100%
Receptacle loads, 10kVA or less:	100%
Receptacle loads, over 10kVA:	50%
Miscellaneous loads:	80%

Panel: LVDP1-1 | **Location: ADDITION**
Amperage / Mains: 800 A MCB | **Mounting: Surface**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k | **I-LINE STYLE**

CKT #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT #
1				21.2			21.2			3.9						2
3	225	3	LV1-1	21.2				21.2					SPARE	150	3	4
5				21.2					21.2							6
7				25.1			25.1									8
9	300	3	LV1-2	25.1				25.1					SPARE	175	3	10
11				25.1					25.1							12
13				27.0			27.0									14
15	400	3	LV2-1 PROVIDE ELECTRONIC TRIP UNITS	27.0				27.0					SPARE	100	3	16
17				27.0					27.0							18
19	20	1	SPARE				0.0						SPARE	20	1	20
21	20	1	SPARE					0.0					SPARE	20	1	22
23	20	1	SPARE						0.0				SPARE	20	1	24
25	20	1	SPARE				0.0						SPARE	75	1	26
27	20	1	SPARE					0.0					SPARE	20	1	28
29	20	1	SPARE						0.0				SPARE	20	1	30
31	20	1	SPARE				0.0						SPARE	20	1	32
33	20	1	SPARE					0.0					SPARE	20	1	34
35	20	1	SPARE						0.0				SPARE	20	1	36
37	20	1	SPARE				0.0						SPARE	20	1	38
39	20	1	SPARE					0.0					SPARE	20	1	40
41	20	1	SPARE						0.0				SPARE	20	1	42
			Connected (kVA):	**219.9**	**0.0**	**0.0**	**73.3**	**73.3**	**73.3**	**0.0**	**0.0**	**0.0**				
			Demand * (kVA):	**219.9**	**0.0**	**0.0**										

Total Connected Load (kVA):	**219.9**	**Total Connected Load (A):**	**610.5**
Total Demand Load * (kVA):	**219.9**	**Total Demand * Load (A):**	**610.5**
connected load per Ø = (total load/3):	73.3	**125% of Total Demand (A):**	**763.1**
demand load per Ø = (total load/3):	73.3		

* Demand Factor:	
Lighting loads:	100%
Receptacle loads, 10kVA or less:	100%
Receptacle loads, over 10kVA:	50%
Miscellaneous loads:	80%

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 SOUTH MAIN STREET SUITE 302
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

ELECTRICAL PANEL SCHEDULES

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

⚠	ADDENDUM #5

Project #:

1650

Sheet #:

E6.2

Panel: LV1-1 — **Location:** ADDITION
Amperage / Mains: 225 A MLO — **Mounting:** Surface
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. — **Comments:** PROVIDE SUB-FEED LUGS
AIC: 10k

CKT. #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	B	C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT. #
1	20	1	RECEPTACLES WP		0.4		0.7				0.4		RECEPTACLES 117	20	1	2
3	20	1	RECEPTACLES 117		0.4			0.5			0.2		RECEPTACLES 117	20	1	4
5	20	1	RECEPTACLES 117		0.4				0.7		0.4		RECEPTACLES 117	20	1	6
7	20	1	RECEPTACLES 117		0.2		0.4				0.2		RECEPTACLES 117	20	1	8
9	20	1	RECEPTACLES 120A		0.2			0.4			0.2		RECEPTACLES 120A	20	1	10
11	20	1	RECEPTACLES 120A		0.2				0.4		0.2		RECEPTACLES 120A	20	1	12
13	20	1	RECEPTACLES 120A		0.2		0.4				0.2		RECEPTACLES 120A	20	1	14
15	20	1	RECEPTACLES 120A		0.2			0.4			0.2		RECEPTACLES 119	20	1	16
17	20	1	RECEPTACLES 119		0.2				0.4		0.2		RECEPTACLES 119	20	1	18
19	20	1	RECEPTACLES 119		0.5		1.1				0.5		RECEPTACLES 119	20	1	20
21	20	1	RECEPTACLES 120		0.4			0.9			0.5		RECEPTACLES 119	20	1	22
23	20	1	RECEPTACLES 119		0.2				0.4		0.2		RECEPTACLES 119	20	1	24
25	20	1	RECEPTACLES 119		0.2		0.4				0.2		RECEPTACLES	75	1	26
27	20	1	RECEPTACLES 119		0.2			0.5			0.4		RECEPTACLES CORRIDOR	20	1	28
29	20	1	RECEPTACLES 121		0.4				0.5		0.2		RECEPTACLES 121	20	1	30
31	20	1	RECEPTACLES 119A		0.2		0.4				0.2		RECEPTACLES119A	20	1	32
33	20	1	RECEPTACLES 119A		0.2			0.4			0.2		RECEPTACLES 121	20	1	34
35	20	1	RECEPTACLES 122		0.7				1.3		0.5		RECEPTACLES ST1, 127	20	1	36
37	20	1	RECEPTACLES 123D		0.2		0.4				0.2		RECEPTACLES 123D	20	1	38
39	20	1	RECEPTACLES 123D		0.4			0.5			0.2		RECEPTACLES 123D	20	1	40
41	20	1	RECEPTACLES 123D		0.2				0.4		0.2		RECEPTACLES 123C	20	1	42
43	20	1	RECEPTACLES 123C		0.2		1.7			1.5			RECEPTACLES 123C	20	1	44
45	20	1	RECEPTACLES 123		0.4			0.7			0.4		RECEPTACLES 123	20	1	46
47	20	1	RECEPTACLES 123		0.2				0.7		0.5		RECEPTACLES 123A	20	1	48
49	20	1	RECEPTACLES 123		0.4		0.9				0.5		RECEPTACLES 123B	20	1	50
51	20	1	RECEPTACLES 123B		0.5			1.1			0.5		RECEPTACLES 124	20	1	52
53	20	1	RECEPTACLES 124		0.5				0.7		0.2		RECEPTACLES 101	20	1	54
55	20	1	RECEPTACLES LOBBY		0.2		0.9				0.7		RECEPTACLES LOBBY	20	1	56
57	20	1	RECEPTACLES 125		0.2			2.2		2.0			RECEPTACLES 125 DRYER	30	2	58
59	20	1	RECEPTACLES 125		0.2				2.2	2.0						60
			Connected (kVA):	0.0	8.5	0.0	7.1	7.6	7.6	5.5	8.3	0.0	DRYER			
			Demand * (kVA):	0.0	13.4	4.4										

Total Connected Load (kVA):	22.2	Total Connected Load (A):	61.7	* Demand Factor:	
Total Demand Load * (kVA):	63.7	Total Demand * Load (A):	176.7	Lighting loads:	100%
connected load per Ø = (total load/3):	7.4	125% of Total Demand (A):	220.9	Receptacle loads, 10kVA or less:	100%
demand load per Ø = (total load/3):	21.2			Receptacle loads, over 10kVA:	50%
				Miscellaneous loads:	80%

Panel: LV1-1 — **Location:** ADDITION
Amperage / Mains: 225 A MLO — **Mounting:** Surface
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. — **Comments:** PROVIDE SUB-FEED LUGS
AIC: 10k

CKT. #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	B	C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT. #
61	20	1	POWER ASSIST DOOR			1.0	2.0			1.0			POWER ASSIST DOOR	20	1	62
63	20	2	EDU & FCU-?			0.4		1.0		0.6			EDU & FCU-?	20	2	64
65						0.4			1.0	0.6						66
67	20	2	EDU & FCU-?			0.3	0.8			0.5			EDU & FCU-?	20	2	68
69						0.3		0.8		0.5						70
71	20	2	EDU & FCU-?			0.2			0.4	0.2			EDU & FCU-?	20	2	72
73						0.2	0.4			0.2						74
75	20	1	ACCESS CONTROL			1.0		2.0		1.0			ACCESS CONTROL	20	1	76
77	20	1	ACCESS CONTROL			1.0			2.0	1.0			ACCESS CONTROL	20	1	78
79	20	1	RECEPTACLES ROOF		0.2		1.3					1.1	LIGHTING	20	1	80
81	20	1	LIGHTING	0.2				0.4				0.2	LIGHTING	20	1	82
83	20	1	LIGHTING	1.2					2.4			1.2	LIGHTING	20	1	84
85	20	1	LIGHTING	1.2			1.8					0.6	LIGHTING	75	1	86
87	20	1	LIGHTING	0.3				1.1		0.8			FUTURE RADON FAN	20	1	88
89	20	1	LIGHTING	0.2					1.1			0.9	BUILDING LIGHTS	20	1	90
91	20	1	BUILDING LIGHTS	0.8			1.4					0.6	BUILDING LIGHTS	20	1	92
93	20	1	BUILDING LIGHTS	0.8				1.2				0.4	BUILDING LIGHTS	20	1	94
95	20	2	UPS1			1.5			2.0			0.5	BUILDING LIGHTS	20	1	96
97						1.5	2.5					1.0	SITE LIGHTS	20	1	98
99	20	1	SITE LIGHTS	0.9				1.6				0.7	SITE LIGHTS	20	1	100
101	20	1	MEDIA/CAFÉ LIGHTING	1.0					1.4			0.4	MEDIA/CAFÉ LIGHTING	20	1	102
103	20	1	MEDIA/CAFÉ LIGHTING	0.8			0.9					0.1	MEDIA/CAFÉ LIGHTING	20	1	104
105	20	1	MEDIA/CAFÉ LIGHTING	0.4				1.4				1.0	VANTAGE LCAP32L PNL	20	1	106
107	20	1	LIGHTING	0.5					1.0			0.5	LIGHTING	20	1	108
109	20	1	LIGHTING	0.1			0.3				0.2		RECEPTACLE 123E	20	1	110
111	20	1	PEANUT PANELS			1.0		1.2			0.2		RECEPTACLE 123E	20	1	112
113	20	1	RECEPTACLE 123E		0.2				0.4		0.2		RECEPTACLE 123E	20	1	114
115	20	1	RECEPTACLE 123E		0.2		0.4				0.2		RECEPTACLE 123E	20	1	116
117	20	1	RECEPTACLE 123E		0.2			0.2					SPARE	20	1	118
119	20	1	HEATER TRACE EQUIP GFI			0.5			0.5				SPARE	20	1	120
			Connected (kVA):	8.4	0.7	9.3	11.7	10.9	12.1	6.4	0.7	9.2				
			Demand * (kVA):	17.6	1.4	12.6										

Total Connected Load (kVA):	34.7	Total Connected Load (A):	96.3	* Demand Factor:	
Total Demand Load * (kVA):	31.6	Total Demand * Load (A):	87.6	Lighting loads:	100%
connected load per Ø = (total load/3):	11.6	125% of Total Demand (A):	109.5	Receptacle loads, 10kVA or less:	100%
demand load per Ø = (total load/3):	10.5			Receptacle loads, over 10kVA:	50%
				Miscellaneous loads:	80%

Panel: LV1-1 — **Location:** ADDITION
Amperage / Mains: 225 A MLO — **Mounting:** Surface
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. — **Comments:** PROVIDE SUB-FEED LUGS
AIC: 10k

CKT. #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	B	C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT. #
121	30	2	UPS			1.5	3.0			1.5			UPS	30	2	122
123						1.5		3.0		1.5						124
125	20	2	LIGHTING INVERTER			1.5			2.5	1.0			DDC 128	20	1	126
127						1.5	1.7				0.2		RECEPTACLES 125	20	1	128
129	20	1	RECEPTACLES 125		0.4			3.9		3.5			ELECTRIC RANGE	40	2	130
131	20	1	RECEPTACLES 123E						3.5	3.5						132
133	20	1	SPARE				0.2				0.2		RECEPTACLES 123E	20	1	134
135	20	1	SPARE					0.0					SPARE	20	1	136
137	20	1	SPARE						0.0				SPARE	20	1	138
139	20	1	SPARE				0.0						SPARE	20	1	140
141	20	1	SPARE					0.0					SPARE	20	1	142
143	20	1	SPARE						0.0				SPARE	20	1	144
145	20	1	SPARE				0.0						SPARE	75	1	146
147	20	1	SPARE					0.0					SPARE	20	1	148
149	20	1	SPARE						0.0				SPARE	20	1	150
151	20	1	SPARE				0.0						SPARE	20	1	152
153	20	1	SPARE					0.0					SPARE	20	1	154
155	20	1	SPARE						0.0				SPARE	20	1	156
157	20	1	SPARE				0.0						SPARE	20	1	158
159	20	1	SPARE					0.0					SPARE	20	1	160
161	20	1	SPARE						0.0				SPARE	20	1	162
163	20	1	SPARE				0.0						SPARE	20	1	164
165	20	1	SPARE					0.0					SPARE	20	1	166
167	20	1	SPARE						0.0				SPARE	20	1	168
169	20	1	SPARE				0.0						SPARE	20	1	170
171	20	1	SPARE					0.0					SPARE	20	1	172
173	20	1	SPARE						0.0				SPARE	20	1	174
175	20	1	SPARE				0.0						SPARE	20	1	176
177	20	1	SPARE					0.0					SPARE	20	1	178
179	20	1	SPARE						0.0				SPARE	20	1	180
			Connected (kVA):	0.0	0.4	6.0	4.9	6.9	6.0	11.0	0.4	0.0				
			Demand * (kVA):	0.0	0.7	13.6										

Total Connected Load (kVA):	17.7	Total Connected Load (A):	49.2	* Demand Factor:	
Total Demand Load * (kVA):	14.3	Total Demand * Load (A):	39.7	Lighting loads:	100%
connected load per Ø = (total load/3):	5.9	125% of Total Demand (A):	49.7	Receptacle loads, 10kVA or less:	100%
demand load per Ø = (total load/3):	4.8			Receptacle loads, over 10kVA:	50%
				Miscellaneous loads:	80%

Panel: LV1-2 — **Location:** ADDITION
Amperage / Mains: 300 A MLO — **Mounting:** Surface
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. — **Comments:** PROVIDE SUB-FEED LUGS
AIC: 10k

CKT. #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	B	C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT. #
1	20	1	RECEPTACLES 131		0.5		1.7			1.2			RECEPTACLES 131	20	1	2
3	20	1	RECEPTACLES 131		0.2			0.9			0.7		RECEPTACLES 131	20	1	4
5	20	1	RECEPTACLES CORRIDOR		0.2				0.4		0.2		RECEPTACLES 129	20	1	6
7	20	1	RECEPTACLES 129		0.2		0.4				0.2		RECEPTACLES 129	20	1	8
9	20	1	RECEPTACLES 129		0.2			0.5			0.4		RECEPTACLES 129	20	1	10
11	20	1	RECEPTACLES 129		0.4				0.7		0.4		RECEPTACLES 130A, 130	20	1	12
13	20	1	RECEPTACLES 130		0.2		0.4				0.2		RECEPTACLES 130	20	1	14
15	20	1	RECEPTACLES 130			1.5		1.7			0.2		RECEPTACLES 130	20	1	16
17	70	3	KILN 129A			4.0			4.4		0.4		RECEPTACLES 129A	20	1	18
19						4.0	4.5				0.5		RECEPTACLES 130	20	1	20
21						4.0		4.4			0.4		RECEPTACLES 134	20	1	22
23	20	1	RECEPTACLES 134		0.5				2.0	1.5			RECEPTACLES 134	20	1	24
25	20	1	RECEPTACLES 134		0.2		0.5				0.4		RECEPTACLES 137, 138	75	1	26
27	20	1	RECEPTACLES 133		0.5			1.1			0.5		RECEPTACLES 133	20	1	28
29	20	1	RECEPTACLES 133		0.2				0.4		0.2		RECEPTACLES 133	20	1	30
31	20	1	RECEPTACLES 133			1.5	1.9				0.4		RECEPTACLES 101, 132	20	1	32
33	20	1	RECEPTACLES 101		0.2			0.4			0.2		RECEPTACLES 101	20	1	34
35	20	1	RECEPTACLES 135		0.5				1.3		0.7		RECEPTACLES ST1, 127	20	1	36
37	20	1	RECEPTACLES 135			1.5	1.7				0.2		RECEPTACLES 135	20	1	38
39	20	1	RECEPTACLES 141		0.7			1.3			0.5		RECEPTACLES 141	20	1	40
41	20	1	RECEPTACLES 141		0.2				1.7	1.5			RECEPTACLES 141	20	1	42
43	20	1	RECEPTACLES 140		0.4		1.1				0.7		RECEPTACLES 140	20	1	44
45	20	1	RECEPTACLES 140		0.2			1.7		1.5			RECEPTACLES 140	20	1	46
47	20	1	RECEPTACLES 101		0.2				1.4		1.3		RECEPTACLES 142	20	1	48
49	20	1	RECEPTACLES 142		0.2		1.7			1.5			RECEPTACLES 142	20	1	50
51	20	1	RECEPTACLES 144		0.2			1.7		1.5			RECEPTACLES 144	20	1	52
53	20	1	RECEPTACLES 144		0.5				1.1		0.5		RECEPTACLES 144	20	1	54
55	20	1	RECEPTACLES ST2		0.2		0.7			0.5			RECEPTACLES 100 (GFCI)	20	1	56
57	20	1	RECEPTACLES 143		0.7			1.3			0.5		RECEPTACLES 143	20	1	58
59	20	1	RECEPTACLES 143		0.2				1.7	1.5			RECEPTACLES 143	20	1	60
			Connected (kVA):	0.0	7.6	16.5	14.5	14.8	15.0	10.7	9.5	0.0				
			Demand * (kVA):	0.0	13.6	21.8										

Total Connected Load (kVA):	44.3	Total Connected Load (A):	123.0	* Demand Factor:	
Total Demand Load * (kVA):	75.2	Total Demand * Load (A):	208.7	Lighting loads:	100%
connected load per Ø = (total load/3):	14.8	125% of Total Demand (A):	260.8	Receptacle loads, 10kVA or less:	100%
demand load per Ø = (total load/3):	25.1			Receptacle loads, over 10kVA:	50%
				Miscellaneous loads:	80%

Panel: LV1-2 — **Location:** ADDITION
Amperage / Mains: 225 A MLO — **Mounting:** Surface
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. — **Comments:** PROVIDE SUB-FEED LUGS
AIC: 10k

CKT. #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	B	C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT. #
61	20	1	RECEPTACLES 145		0.7		2.2			1.5			RECEPTACLES 145	20	1	62
63	20	1	RECEPTACLES 145		0.2			0.7			0.5		RECEPTACLES 145	20	1	64
65	20	1	RECEPTACLES 146			1.5			2.0		0.5		RECEPTACLES 146	20	1	66
67	20	1	RECEPTACLES 147		0.9		1.1				0.2		RECEPTACLES 147	20	1	68
69	20	1	RECEPTACLES 147			1.5		1.9			0.4		RECEPTACLES 147	20	1	70
71	20	1	RECEPTACLES 148		0.5				2.0	1.5			RECEPTACLES 148	20	1	72
73	20	1	RECEPTACLES 148		0.2		0.5				0.4		RECEPTACLES 148	20	1	74
75	20	1	RECEPTACLES 149		0.4			0.5			0.2		RECEPTACLES 149	20	1	76
77	20	1	RECEPTACLES 149			1.5			1.9		0.4		RECEPTACLES 149	20	1	78
79	20	1	RECEPTACLES 146		0.2		1.4			1.2			HAND DRYER 127	20	2	80
81	60	3	LAB144	1.9				3.1		1.2						82
83				1.9					3.1	1.2			HAND DRYER 127	20	2	84
85				1.9			3.1			1.2						86
87	60	3	SPARE					1.0				1.0	LIGHTING	20	1	88
89									1.0			1.0	LIGHTING	20	1	90
91							0.9					0.9	LIGHTING	20	1	92
93	20	1	LIGHTING	0.2				0.5				0.3	LIGHTING	20	1	94
95	20	1	LIGHTING	1.1					2.0			0.9	LIGHTING	20	1	96
97	20	1	LIGHTING	0.9			1.8					0.9	LIGHTING	20	1	98
99	20	1	PH METER			0.8		0.8					SPARE	50	3	100
101	60	3	AIR COMPRESSOR			4.2			4.2							102
103						4.2	4.2									104
105						4.2		5.2		1.0			DDC 139	20	1	106
107	35	3	SPARE						0.0				SPARE	20	1	108
109							0.0						SPARE	20	1	110
111								0.0					SPARE	20	1	112
113	20	1	SPARE						0.0				SPARE	20	1	114
115	20	1	SPARE				0.0						SPARE	20	1	116
117	20	1	SPARE					0.0					SPARE	20	1	118
119	20	1	SPARE						0.0				SPARE	20	1	120
			Connected (kVA):	8.0	3.1	17.9	15.2	13.7	16.3	8.8	2.5	5.0				
			Demand * (kVA):	12.9	5.6	21.4										

Total Connected Load (kVA):	45.2	Total Connected Load (A):	125.5	* Demand Factor:	
Total Demand Load * (kVA):	39.9	Total Demand * Load (A):	110.7	Lighting loads:	100%
connected load per Ø = (total load/3):	15.1	125% of Total Demand (A):	138.3	Receptacle loads, 10kVA or less:	100%
demand load per Ø = (total load/3):	13.3			Receptacle loads, over 10kVA:	50%
				Miscellaneous loads:	80%

Panel: LV2-1 — **Location:** ADDITION
Amperage/Mains: 400 A MLO — **Mounting:** Surface
Voltage,Phase,Wire: 208/120V 3Ø;4W;G. — **Comments:** PROVIDE SUB-FEED LUGS
AIC: 10k

CKT. #	CIRCUIT BREAKER AMP	POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	B	C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	POLES	CKT. #
1	20	1	RECEPTACLES 201A		1.1		2.6			1.5			RECEPTACLES 201A	20	1	2
3	20	1	RECEPTACLES 201A		0.2			0.9			0.7		RECEPTACLES 201B	20	1	4
5	20	1	RECEPTACLES ??		0.7				2.2	1.5			RECEPTACLES ??	20	1	6
7	20	1	RECEPTACLES ??		0.2		0.9				0.7		RECEPTACLES 203	20	1	8
9	20	1	RECEPTACLES 203			1.5		1.7			0.2		RECEPTACLES 203	20	1	10
11	20	1	RECEPTACLES 200		0.2				0.5		0.4		RECEPTACLES 203	20	1	12
13	20	1	RECEPTACLES 200		0.2		1.1				0.9		RECEPTACLES 204	20	1	14
15	20	1	RECEPTACLES 204			1.5		1.7			0.2		RECEPTACLES 204	20	1	16
17	20	1	RECEPTACLES 205		0.9				2.4	1.5			RECEPTACLES 205	20	1	18
19	20	1	RECEPTACLES 205		0.2		0.4				0.2		RECEPTACLES 205	20	1	20
21	20	1	RECEPTACLES 209B		0.4			1.1			0.7		RECEPTACLES 209B, 209C	20	1	22
23	20	1	RECEPTACLES 214		0.5				2.0	1.5			RECEPTACLES 214	20	1	24
25	20	1	RECEPTACLES 214		0.2		0.5				0.4		RECEPTACLES 214	75	1	26
27	20	1	RECEPTACLES 214		0.4			0.7			0.4		RECEPTACLES 215, 216	20	1	28
29	20	1	RECEPTACLES 219		0.7				1.3		0.5		RECEPTACLES 219	20	1	30
31	20	1	RECEPTACLES 219		0.2		1.7			1.5			RECEPTACLES 219	20	1	32
33	20	1	RECEPTACLES 220		0.7			1.4			0.7		RECEPTACLES 224	20	1	34
35	20	1	RECEPTACLES 224			1.5			1.7		0.2		RECEPTACLES 224	20	1	36
37	20	1	RECEPTACLES 200, ST2		0.4		0.5				0.2		RECEPTACLES 200 (GFCI BRK)	20	1	38
39	20	1	RECEPTACLES 225		0.5			0.9			0.4		RECEPTACLES 225	20	1	40
41	20	1	RECEPTACLES 225			1.5			1.7		0.2		RECEPTACLES 225	20	1	42
43	20	1	RECEPTACLES 223		0.2		1.7			1.5			RECEPTACLES 223	20	1	44
45	20	1	RECEPTACLES 223		0.5			0.9			0.4		RECEPTACLES 223	20	1	46
47	20	1	RECEPTACLES 222		0.4				0.9		0.5		RECEPTACLES 222	20	1	48
49	20	1	RECEPTACLES 222			1.5	1.7				0.2		RECEPTACLES 222	20	1	50
51	20	1	RECEPTACLES 221		0.2			1.7		1.5			RECEPTACLES 221	20	1	52
53	20	1	RECEPTACLES 221		0.5				1.1		0.5		RECEPTACLES 221	20	1	54
55	20	1	RECEPTACLES 218		0.5		0.7				0.2		RECEPTACLES 218	20	1	56
57	20	1	RECEPTACLES 218			1.5		1.9			0.4		RECEPTACLES 218	20	1	58
59	20	1	RECEPTACLES 217		0.2				1.7	1.5			RECEPTACLES 217	20	1	60
			Connected (kVA):	0.0	10.1	9.0	11.8	12.8	15.5	12.0	9.0	0.0				
			Demand* (kVA):	0.0	14.5	16.8										
											XR					

Total Connected Load (kVA):	40.1	Total Connected Load (A):	111.3	*Demand Factor:	
Total Demand Load* (kVA):	81.1	Total Demand*Load (A):	225.1	Lighting loads:	100%
connected load per Ø = (totalload/3):	13.4	125% of Total Demand (A):	281.4	Receptacle loads, 10kVA or less:	100%
demand load per Ø = (total load/3):	27.0			Receptacle loads over 10kVA:	50%
				Miscellaneous loads:	80%

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 OLD MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4450
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:
ELECTRICAL PANEL SCHEDULES

State Project #: 102-0024 EA/RR

Issue Dates: CONFORMANCE SET FEBRUARY 14, 2018

Revisions:

Project #: 1650

Sheet #: **E6.3**

Panel: LV2-1 | **Location: ADDITION**
Amperage / Mains: 400 A MLO | **Mounting: Surface**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT #	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	CKT #
61	20	1	RECEPTACLES 217		0.4		0.9				0.5		RECEPTACLES 217	20	1	62
63	20	1	RECEPTACLES 213		0.5			2.0		1.5			RECEPTACLES 213	20	1	64
65	20	1	RECEPTACLES 213		0.2				0.7		0.5		RECEPTACLES 213	20	1	66
67	20	1	RECEPTACLES 212		0.2		1.7			1.5			RECEPTACLES 212	20	1	68
69	20	1	RECEPTACLES 212		0.4			0.9			0.5		RECEPTACLES 212	20	1	70
71	20	1	RECEPTACLES 210		0.2				1.7	1.5			RECEPTACLES 210	20	1	72
73	20	1	RECEPTACLES 210		0.5		0.9				0.4		RECEPTACLES 210	20	1	74
75	20	1	RECEPTACLES 208		0.2			1.7		1.5			RECEPTACLES 208	20	1	76
77	20	1	RECEPTACLES 208		0.5				0.9		0.4		RECEPTACLES 208	20	1	78
79	20	1	RECEPTACLES 207		0.2		0.4				0.2		RECEPTACLES ST1	20	1	80
81	20	1	RECEPTACLES 200		0.2			0.4			0.2		RECEPTACLES 200	20	1	82
83	20	1	RECEPTACLES 200		0.2				0.4		0.2		RECEPTACLES 200	20	1	84
85	20	1	RECEPTACLES (GFCI BRK)		0.2		0.4				0.2		RECEPTACLES BALCONY	75	1	86
87	20	1	EF-3			0.7		1.4		0.7			EF-2	20	1	88
89	20	1	RECEPTACLES ROOF		0.2				0.4		0.2		RECEPTACLES ROOF	20	1	90
91	20	1	RECEPTACLES ROOF		0.2		0.4				0.2		RECEPTACLES ROOF	20	1	92
93	20	1	RECEPTACLES 144 FB		0.4			0.7			0.4		RECEPTACLES 144	20	1	94
95	20	1	RECEPTACLES 144		0.4				0.7		0.4		RECEPTACLES 144	20	1	96
97	20	1	RECEPTACLES 144		0.4		0.7				0.4		RECEPTACLES 144	20	1	98
99	20	1	RECEPTACLES 144		0.4			0.7			0.4		RECEPTACLES 144	20	1	100
101	20	1	RECEPTACLES 144		0.4				0.7		0.4		RECEPTACLES 144	20	1	102
103	20	1	RECEPTACLES 142		0.4		0.7				0.4		RECEPTACLES 142	20	1	104
105	20	1	RECEPTACLES 142		0.4			0.7			0.4		RECEPTACLES 142	20	1	106
107	20	1	RECEPTACLES 142		0.4				0.7		0.4		RECEPTACLES 142	20	1	108
109	20	1	RECEPTACLES 130		0.4		0.7				0.4		RECEPTACLES 129	20	1	110
111	20	1	RECEPTACLES 129		0.4			0.7			0.4		RECEPTACLES 129	20	1	112
113	20	1	RECEPTACLES 129		0.2				1.7	1.5			RECEPTACLES 129	20	1	114
115	20	1	RECEPTACLES 123B		0.4		0.7				0.4		RECEPTACLES 125	20	1	116
117	20	1	RECEPTACLES 129		0.4			0.7			0.4		RECEPTACLES 129	20	1	118
119	20	1	RECEPTACLES 129		0.4				0.4				HEAT TRACE EQUIP GR	20	1	120
			Connected (kVA):	**0.0**	**9.0**	**0.7**	**7.4**	**10.0**	**8.2**	**8.2**	**7.7**	**0.0**				
			Demand * (kVA):	**0.0**	**13.4**	**7.1**										

Total Connected Load (kVA):	**25.6**
Total Demand Load * (kVA):	**49.8**
connected load per Ø = (total load/3):	8.5
demand load per Ø = (total load/3):	16.6

Total Connected Load (A):	**71.2**
Total Demand * Load (A):	**138.1**
125% of Total Demand (A):	**172.6**

*** Demand Factor:**

Lighting loads:	**100%**
Receptacle loads, 10kVA or less:	**100%**
Receptacle loads, over 10kVA:	**50%**
Miscellaneous loads:	**80%**

Panel: LV2-1 | **Location: ADDITION**
Amperage / Mains: 400 A MLO | **Mounting: Surface**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT #	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	CKT #
121	20	2	HAND DRYER			1.2	2.4			1.2			HAND DRYER	20	2	122
123						1.2		2.4		1.2						124
125	15	1	LEF-1			0.3			0.6	0.3			LEF-2	15	1	126
127	15	2	CU-1			0.8	1.6			0.8			CU-2	15	2	128
129						0.8		1.6		0.8						130
131	20	1	LIGHTING	0.5				1.5				1.0	LIGHTING	20	1	132
133	20	1	LIGHTING	0.9			1.3					0.4	LIGHTING	20	1	134
135	20	1	LIGHTING	1.1				2.1				1.0	LIGHTING	20	1	136
137	20	1	LIGHTING	1.1					2.2			1.1	LIGHTING	20	1	138
139	20	1	LIGHTING	0.5			1.2					0.7	EF-4	15	1	140
141	20	1	LIGHTING	1.1				2.2				1.1	LIGHTING	20	1	142
143	20	1	FUTURE RADON FAN			0.8			1.7			0.9				144
145				0.9			1.9					0.9	LAB209	60	3	146
147	60	3	LAB211	0.9				1.9				0.9				148
149				0.9					1.5	0.6			ISOMET GAS SHUT-OFF	20	1	150
151						0.5	1.0			0.5						152
153	20	3	PARTION WALL IN CAFÉ			0.5		1.0		0.5			PARTION WALL IN CAFÉ	20	3	154
155						0.5			1.0	0.5						156
157						0.5	1.5			1.0			DDC 200A	20	1	158
159	20	3	PARTION WALL IN CAFÉ			0.5		1.5		1.0			DDC 220	20	1	160
161						0.5			0.5				SPARE	20	1	162
163	20	1	SPARE				0.0						SPARE	20	1	164
165	20	1	SPARE					0.0					SPARE	20	1	166
167	20	1	SPARE						0.0				SPARE	20	1	168
169	20	1	SPARE				0.0						SPARE	20	1	170
171	20	1	SPARE					0.0					SPARE	20	1	172
173	20	1	SPARE						0.0				SPARE	20	1	174
175	20	1	SPARE				0.0						SPARE	20	1	176
177	20	1	SPARE					0.0					SPARE	20	1	178
179	20	1	SPARE						0.0				SPARE	20	1	180
			Connected (kVA):	**8.0**	**0.0**	**8.1**	**10.9**	**12.7**	**9.1**	**8.4**	**0.0**	**8.1**				
			Demand * (kVA):	**16.1**	**0.0**	**13.2**										

Total Connected Load (kVA):	**32.6**
Total Demand Load * (kVA):	**29.3**
connected load per Ø = (total load/3):	10.9
demand load per Ø = (total load/3):	9.8

Total Connected Load (A):	**90.4**
Total Demand * Load (A):	**81.2**
125% of Total Demand (A):	**101.5**

*** Demand Factor:**

Lighting loads:	**100%**
Receptacle loads, 10kVA or less:	**100%**
Receptacle loads, over 10kVA:	**50%**
Miscellaneous loads:	**80%**

Panel: LV1-3 | **Location: EXISTING BUILDING 1ST FLOOR**
Amperage / Mains: 200 A MLO | **Mounting: Flush**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT #	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	CKT #
1	20	1	RECEPTACLES 115B		0.7		1.3				0.5		RECEPTACLES 115A,113A	20	1	2
3	20	1	RECEPTACLES 114		0.5			1.1			0.5		RECEPTACLES 114	20	1	4
5	20	1	RECEPTACLES 114		0.5				1.3		0.7		RECEPTACLES 112F	20	1	6
7	20	1	RECEPTACLES 112E		0.7		1.4				0.7		RECEPTACLES 112D	20	1	8
9	20	1	RECEPTACLES 112C		0.7			1.6			0.9		RECEPTACLES 112B	20	1	10
11	20	1	RECEPTACLES 107		1.1				1.3		0.2		RECEPTACLES 112A	20	1	12
13	20	1	RECEPTACLES 112		0.7		1.3				0.5		RECEPTACLES 112G	20	1	14
15	20	1	RECEPTACLES 112G		0.4			0.7			0.4		RECEPTACLES 112	20	1	16
17	20	1	DOOR ACCESS PS			1.0			1.9			0.9	LIGHTS	20	1	18
19	15	1	UH-1			0.4	0.8				0.4		RECEPTACLE 115B	20	1	20
21	20	1	LIGHTING	1.7				2.8				1.1	LIGHTING	20	1	22
23	20	1	LIGHTING	1.0					1.9			0.9	LIGHTING	20	1	24
25	20	1	SPARE					0.0					SPARE	75	1	26
27	20	1	SPARE						0.0				SPARE	20	1	28
29	20	1	SPARE							0.0			SPARE	20	1	30
31	20	1	RECEPTACLE ROOF		0.2		0.2						SPARE	20	1	32
33				8.2				8.2					SPARE	20	1	34
35	125	3	LV1-4	8.2					8.4		0.2		RECEPTACLE ROOF	20	1	36
37				8.2				8.4			0.2		RECEPTACLE ROOF	20	1	38
39	20	1	RECEPTACLE ROOF		0.2			0.4			0.2		RECEPTACLE ROOF	20	1	40
41	20	1	FUTURE RADON FAN			0.8			1.8			1.0	LIGHTS	20	1	42
43	20	1	LIGHTS	1.0				1.8				0.8	LIGHTS	20	1	44
45	20	1	LIGHTS	1.0					2.6			1.6	LIGHTS	20	1	46
47	20	1	DATA RACK			1.0			3.1	2.1			CU-3	20	2	48
49	20	1	EXISTING WATER HTR			1.4	3.5			2.1						50
51	20	1	DDC 115C			1.0		2.2		1.2			WHEEL CHAIR LIFT	20	1	52
53	20	1	SPARE						1.0	1.0			DDC106	20	1	54
55	20	1	SPARE				0.0						SPARE	20	1	56
57	20	1	SPARE					0.0					SPARE	20	1	58
59	20	1	SPARE						0.0				SPARE	20	1	60
			Connected (kVA):	**29.2**	**5.8**	**5.6**	**18.6**	**19.6**	**20.5**	**6.4**	**5.4**	**6.3**				
			Demand * (kVA):	**35.5**	**10.6**	**9.6**										

Total Connected Load (kVA):	**58.7**
Total Demand Load * (kVA):	**55.8**
connected load per Ø = (total load/3):	19.6
demand load per Ø = (total load/3):	18.6

Total Connected Load (A):	**163.0**
Total Demand * Load (A):	**154.7**
125% of Total Demand (A):	**193.4**

*** Demand Factor:**

Lighting loads:	**100%**
Receptacle loads, 10kVA or less:	**100%**
Receptacle loads, over 10kVA:	**50%**
Miscellaneous loads:	**80%**

Panel: LV1-4 | **Location: EXISTING BUILDING 1ST FLOOR**
Amperage / Mains: 125 A MLO | **Mounting: Flush**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT #	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	CKT #
1	20	1	SPARE				0.0						SPARE	20	1	2
3	20	1	RECEPTACLE 111B		0.5			1.1			0.5		RECEPTACLE 111B	20	1	4
5	20	1	RECEPTACLE 110		0.5				1.3		0.7		RECEPTACLE 110	20	1	6
7	20	1	RECEPTACLE 110		0.4		1.3				0.9		RECEPTACLE 111C	20	1	8
9	20	1	RECEPTACLE 109D		0.9			1.1			0.2		RECEPTACLE 109E	20	1	10
11	20	1	RECEPTACLE 111D		0.2				0.5		0.4		RECEPTACLE 109C	20	1	12
13	20	1	RECEPTACLE 109D		0.9		1.8				0.9		RECEPTACLE 111	20	1	14
15	20	1	SERVERY EQUIP (GFCI BRK)			1.8		3.6		1.8			SERVERY EQUIP (GFCI BRK)	20	1	16
17	20	1	SERVERY EQUIP (GFCI BRK)			1.8			3.6	1.8			SERVERY EQUIP (GFCI BRK)	20	1	18
19	20	1	RECEPTACLE 116 (GFCI BRK)		0.4		0.7				0.4		RECEPTACLE 116 (GFCI BRK)	20	1	20
21	20	1	RECEPTACLE 116 (GFCI BRK)			1.0		1.4			0.4		RECEPTACLE 116 (GFCI BRK)	20	1	22
23	20	1	RECEPTACLE 116 (GFCI BRK)		0.4				0.7		0.4		RECEPTACLE 116 (GFCI BRK)	20	1	24
25	20	1	LIGHTING	0.9			1.4					0.5	LIGHTING	75	1	26
27	20	1	LIGHTING	0.2				0.8		0.6			CF-2	15	3	28
29	15	3	CF-1			0.6			1.2	0.6						30
31						0.6	1.2			0.6						32
33						0.6		1.8		1.2			KEF-1	20	1	34
35	20	1	HEAT TRACE EQUIP GFI	1.0					1.9	0.9			EF-1	20	1	36
37	20	1	WATER COOLER PERSONAL GFI			0.8	1.6					0.8	MEZZ LIGHTS	20	1	38
39	20	1	AUTOMATIC GREASE RECEPTER			0.8		0.8					SPARE	20	1	40
41	20	1	SPARE						0.0				SPARE	20	1	42
43	20	1	SPARE				0.0						SPARE	20	1	44
			Connected (kVA):	**2.1**	**4.1**	**8.0**	**8.0**	**10.5**	**9.2**	**7.5**	**4.7**	**1.3**				
			Demand * (kVA):	**3.4**	**8.8**	**12.4**										

Total Connected Load (kVA):	**27.7**
Total Demand Load * (kVA):	**24.6**
connected load per Ø = (total load/3):	9.2
demand load per Ø = (total load/3):	8.2

Total Connected Load (A):	**76.8**
Total Demand * Load (A):	**68.2**
125% of Total Demand (A):	**85.3**

*** Demand Factor:**

Lighting loads:	**100%**
Receptacle loads, 10kVA or less:	**100%**
Receptacle loads, over 10kVA:	**50%**
Miscellaneous loads:	**80%**

Panel: LAB144 | **Location: CAD TECH 144**
Amperage / Mains: 60 A MCB | **Mounting: Flush**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT #	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	CKT #
1	20	1	RECEPTACLES 144		0.4		0.7				0.4		RECEPTACLES 144	20	1	2
3	20	1	RECEPTACLES 144			1.5		1.7			0.2		RECEPTACLES 144	20	1	4
5	20	1	RECEPTACLES 144		0.4				0.7		0.4		RECEPTACLES 144	20	1	6
7	20	1	RECEPTACLES 144		0.4		0.7				0.4		RECEPTACLES 144	20	1	8
9	20	1	RECEPTACLES 144		0.4			0.7			0.4		RECEPTACLES 144	20	1	10
11	20	1	LAB HOOD			1.0			1.4		0.4		RECEPTACLES 144	20	1	12
13	20	1	RECEPTACLES 144		0.4		0.4						SPARE	20	1	14
15	20	1	SPARE					0.0					SPARE	20	1	16
17	20	1	SPARE						0.0				SPARE	20	1	18
19	20	1	SPARE				0.0						SPARE	20	1	20
			Connected (kVA):	**0.0**	**1.8**	**2.5**	**1.8**	**2.4**	**2.1**	**0.0**	**2.0**	**0.0**				
			Demand * (kVA):	**0.0**	**3.8**	**2.0**										

Total Connected Load (kVA):	**6.3**
Total Demand Load * (kVA):	**5.8**
connected load per Ø = (total load/3):	2.1
demand load per Ø = (total load/3):	1.9

Total Connected Load (A):	**17.4**
Total Demand * Load (A):	**16.0**
125% of Total Demand (A):	**20.1**

*** Demand Factor:**

Lighting loads:	**100%**
Receptacle loads, 10kVA or less:	**100%**
Receptacle loads, over 10kVA:	**50%**
Miscellaneous loads:	**80%**

Panel: LAB209 | **Location: ST 209C**
Amperage / Mains: 60 A MCB | **Mounting: Flush**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT #	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	CKT #
1	20	1	RECEPTACLES 209		0.2		0.4				0.2		RECEPTACLES 209	20	1	2
3	20	1	RECEPTACLES 209		0.2			0.4			0.2		RECEPTACLES 209	20	1	4
5	20	1	RECEPTACLES 209		0.2				0.4		0.2		RECEPTACLES 209	20	1	6
7	20	1	RECEPTACLES 209		0.2		0.4				0.2		RECEPTACLES 209	20	1	8
9	20	1	RECEPTACLES 209		0.2			0.5			0.4		RECEPTACLES 209	20	1	10
11	20	1	LAB HOOD			1.0			1.0				SPARE	20	1	12
13	20	1	SPARE				0.0						SPARE	20	1	14
15	20	1	SPARE					0.0					SPARE	20	1	16
17	20	1	SPARE						0.0				SPARE	20	1	18
19	20	1	SPARE				0.0						SPARE	20	1	20
			Connected (kVA):	**0.0**	**0.9**	**1.0**	**0.7**	**0.9**	**1.4**	**0.0**	**1.1**	**0.0**				
			Demand * (kVA):	**0.0**	**2.0**	**0.8**										

Total Connected Load (kVA):	**3.0**
Total Demand Load * (kVA):	**2.8**
connected load per Ø = (total load/3):	1.0
demand load per Ø = (total load/3):	0.9

Total Connected Load (A):	**8.3**
Total Demand * Load (A):	**7.7**
125% of Total Demand (A):	**9.6**

*** Demand Factor:**

75.0 loads:	**100%**
Receptacle loads, 10kVA or less:	**100%**
Receptacle loads, over 10kVA:	**50%**
Miscellaneous loads:	**80%**

Panel: LAB211 | **Location: ST 209C**
Amperage / Mains: 60 A MCB | **Mounting: Flush**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT #	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	LOAD DESCRIPTION	LTG kVA	REC kVA	MISC kVA	PHASE A	PHASE B	PHASE C	MISC kVA	REC kVA	LTG kVA	LOAD DESCRIPTION	CIRCUIT BREAKER AMP	CIRCUIT BREAKER POLES	CKT #
1	20	1	RECEPTACLES 211		0.2		0.4				0.2		RECEPTACLES 211	20	1	2
3	20	1	RECEPTACLES 211		0.2			0.4			0.2		RECEPTACLES 211	20	1	4
5	20	1	RECEPTACLES 211		0.2				0.4		0.2		RECEPTACLES 211	20	1	6
7	20	1	RECEPTACLES 211		0.2		0.4				0.2		RECEPTACLES 211	20	1	8
9	20	1	RECEPTACLES 211		0.2			0.4			0.2		RECEPTACLES 211	20	1	10
11	20	1	RECEPTACLES 211		0.2				1.2	1.0			LAB HOOD	20	1	12
13	20	1	SPARE				0.0						SPARE	20	1	14
15	20	1	SPARE					0.0					SPARE	20	1	16
17	20	1	SPARE						0.0				SPARE	20	1	18
19	20	1	SPARE				0.0						SPARE	20	1	20
			Connected (kVA):	**0.0**	**1.1**	**0.0**	**0.7**	**0.7**	**1.5**	**1.0**	**0.9**	**0.0**				
			Demand * (kVA):	**0.0**	**2.0**	**0.8**										

Total Connected Load (kVA):	**3.0**
Total Demand Load * (kVA):	**2.8**
connected load per Ø = (total load/3):	1.0
demand load per Ø = (total load/3):	0.9

Total Connected Load (A):	**8.3**
Total Demand * Load (A):	**7.7**
125% of Total Demand (A):	**9.6**

*** Demand Factor:**

75.0 loads:	**100%**
Receptacle loads, 10kVA or less:	**100%**
Receptacle loads, over 10kVA:	**50%**
Miscellaneous loads:	**80%**

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4339
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
ELECTRICAL PANEL SCHEDULES

State Project #:
102-0024 EA/RR

Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

Project #:
1650

Sheet #:
E6.4

Panel: SBHVB-1 | **Location: BASEMENT**
Amperage / Mains: 1200 A MLO | **Mounting: Surface**
Voltage, Phase, Wire: 480/277V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 42k | **I-LINE STYLE**

CKT.	CIRCUIT BREAKER			LTG	REC	MISC	PHASE			MISC	REC	LTG		CIRCUIT BREAKER		CKT.
#	AMP	POLES	LOAD DESCRIPTION	kVA	kVA	kVA	A	B	C	kVA	kVA	kVA	LOAD DESCRIPTION	AMP	POLES	#
1				33.0			36.9			3.9						2
3	175	3	SBLVB-1 TRANSFORMER	33.0				36.9		3.9			P-1	25	3	4
5				33.0					36.9	3.9						6
7				119.0			122.9			3.9						8
9	800	3	SBHV1-1	119.0				122.9		3.9			P-2	25	3	10
11				119.0					122.9	3.9						12
13							0.0									14
15	20	3	SPARE					0.0					SPARE	30	3	16
17									0.0							18
19	20	1	SPARE				0.0						SPARE	20	1	20
21	20	1	SPARE					0.0					SPARE	20	1	22
23	20	1	SPARE						0.0				SPARE	20	1	24
25	20	1	SPARE				0.0						SPARE	75	1	26
27	20	1	SPARE					0.0					SPARE	20	1	28
29	20	1	SPARE						0.0				SPARE	20	1	30
			Connected (kVA):	**456.1**	**0.0**	**0.0**	**159.8**	**159.8**	**159.8**	**23.4**	**0.0**	**0.0**				
			Demand * (kVA):	**456.1**	**0.0**	**18.7**										

*** Demand Factor:**
Lighting loads: 100%
Receptacle loads, 10kVA or less: 100%
Receptacle loads, over 10kVA: 50%
Miscellaneous loads: 80%

Total Connected Load (kVA):	**479.5**	**Total Connected Load (A):**	**576.7**
Total Demand Load * (kVA):	**474.8**	**Total Demand * Load (A):**	**571.1**
connected load per Ø = (total load/3):	159.8	**125% of Total Demand (A):**	**713.8**
demand load per Ø = (total load/3):	158.3		

Panel: SBLVB-1 | **Location: BASEMENT**
Amperage / Mains: 400 A MCB | **Mounting: Surface**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 22k

CKT.	CIRCUIT BREAKER			LTG	REC	MISC	PHASE			MISC	REC	LTG		CIRCUIT BREAKER		CKT.
#	AMP	POLES	LOAD DESCRIPTION	kVA	kVA	kVA	A	B	C	kVA	kVA	kVA	LOAD DESCRIPTION	AMP	POLES	#
1							0.4			0.4			CUH-1	20	1	2
3	125	3	SPARE					0.4		0.4			CUH-2	20	1	4
5									0.4	0.4			CUH-3	20	1	6
7	20	1	CUH-6			0.4	0.7			0.4			CUH-4	20	1	8
9	20	1	CUH-7			0.4		0.7		0.4			CUH-5	20	1	10
11	20	1	UH-1			0.4			0.5		0.2		RECEPTACLE ROOF	20	1	12
13	20	1	RECEPTACLE ROOF		0.2		1.4			1.2			B1	20	1	14
15	20	1	B2			1.2		2.4		1.2			B3	20	1	16
17	20	1	FACP			1.5			3.0	1.5			FACP	20	1	18
19	20	1	RECEPTACLES BASEMENT		0.4		0.7				0.4		RECEPTACLES BASEMENT	20	1	20
21	20	1	LIGHTING	0.4				1.4				1.0	LIGHTING	20	1	22
23	20	1	UH-2		0.5				1.4	0.9			BP-1	20	1	24
25	20	1	BP-2			0.9	1.8			0.9			BP-3	75	1	26
27	20	1	ACCESS CONTROL			1.0		2.0		1.0			DWH	20	1	28
29	20	1	HVRP			0.5			0.5				SPARE	20	1	30
31	20	1	SPARE				0.0						SPARE	20	1	32
33	20	1	SPARE					0.0					SPARE	20	1	34
35	20	1	SPARE						0.0				SPARE	20	1	36
37	20	1	SPARE				0.0						SPARE	20	1	38
39	20	1	SPARE					0.0					SPARE	20	1	40
41	20	1	SPARE						0.0				SPARE	20	1	42
			Connected (kVA):	**0.4**	**1.0**	**6.2**	**5.0**	**6.9**	**5.8**	**8.5**	**0.5**	**1.0**				
			Demand * (kVA):	**1.4**	**1.6**	**11.7**										

*** Dem and Factor:**
Lighting loads: 100%
Receptacle loads, 10kVA or less: 100%
Receptacle loads, over 10kVA: 50%
Miscellaneous loads: 80%

Total Connected Load (kVA):	**17.7**	**Total Connected Load (A):**	**49.0**
Total Demand Load * (kVA):	**14.7**	**Total Demand * Load (A):**	**40.9**
connected load per Ø = (total load/3):	5.9	**125% of Total Demand (A):**	**51.1**
demand load per Ø = (total load/3):	4.9		

1

Panel: SBHV1-1 | **Location: ADDITION FIRST FLOOR**
Amperage / Mains: 800 A MCB | **Mounting: Surface**
Voltage, Phase, Wire: 480/277V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 22k | **I-LINE STYLE**

CKT.	CIRCUIT BREAKER			LTG	REC	MISC	PHASE			MISC	REC	LTG		CIRCUIT BREAKER		CKT.
#	AMP	POLES	LOAD DESCRIPTION	kVA	kVA	kVA	A	B	C	kVA	kVA	kVA	LOAD DESCRIPTION	AMP	POLES	#
1				37.5			62.2			24.7						2
3	175	3	SBLV1-1 TRANSFORMER	37.5				62.2		24.7			RTU-1	110	3	4
5				37.5					62.2	24.7						6
7							0.0									8
9								0.0					SPARE	110	3	10
11									0.0							12
13							8.6			8.6						14
15	110	3	SPARE					8.6		8.6			RTU-4	40	3	16
17									8.6	8.6						18
19							0.0									20
21	20	3	SPARE					0.0					SPARE	20	3	22
23									0.0							24
25							44.1			44.1						26
27	40	3	SPARE					44.1		44.1			RTU-8	75	3	28
29									44.1	44.1						30
31						7.5	15.0			7.5						32
33	60	3	SEP-1			7.5		15.0		7.5			SEP-2	60	3	34
35						7.5			15.0	7.5						36
37							9.5			9.5						38
39	50	3	SPARE					9.5		9.5			ELEVATOR	70	3	40
41									9.5	9.5						42
			Connected (kVA):	**112.5**	**0.0**	**22.5**	**139.4**	**139.4**	**139.4**	**283.2**	**0.0**	**0.0**				
			Demand * (kVA):	**112.5**	**0.0**	**244.6**										

*** Demand Factor:**
Lighting loads: 100%
Receptacle loads, 10kVA or less: 100%
Receptacle loads, over 10kVA: 50%
Miscellaneous loads: 80%

Total Connected Load (kVA):	**418.2**	**Total Connected Load (A):**	**503.0**
Total Demand Load * (kVA):	**357.1**	**Total Demand * Load (A):**	**429.5**
connected load per Ø = (total load/3):	139.4	**125% of Total Demand (A):**	**536.8**
demand load per Ø = (total load/3):	119.0		

Panel: SBLV1-1 | **Location: ADDITION**
Amperage / Mains: 400 A MCB | **Mounting: Surface**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC: 10k

CKT.	CIRCUIT BREAKER			LTG	REC	MISC	PHASE			MISC	REC	LTG		CIRCUIT BREAKER		CKT.
#	AMP	POLES	LOAD DESCRIPTION	kVA	kVA	kVA	A	B	C	kVA	kVA	kVA	LOAD DESCRIPTION	AMP	POLES	#
1				4.1			4.8			0.7			REF-1	15	1	2
3	125	3	FPBSBLV1-1	4.1				4.8		0.7			REF-2	15	1	4
5				4.1					4.1				SPARE	20	1	6
7				4.1			5.6			1.5			FACP	20	1	8
9	125	3	SBFPBLV1-1	4.1				4.1					SPARE	20	1	10
11				4.1					4.1				SPARE	20	1	12
13	20	1	SPARE				0.0						SPARE	20	1	14
15	20	1	SPARE					0.0					SPARE	20	1	16
17	20	1	SPARE						0.0				SPARE	20	1	18
19	20	1	SPARE				0.0						SPARE	20	1	20
21	20	1	SPARE					0.0					SPARE	20	1	22
23	20	1	SPARE						0.0				SPARE	20	1	24
25	20	1	SPARE				0.0						SPARE	75	1	26
27	20	1	SPARE					0.0					SPARE	20	1	28
29	20	1	SPARE						0.0				SPARE	20	1	30
			Connected (kVA):	**24.4**	**0.0**	**0.0**	**10.3**	**8.8**	**8.1**	**2.9**	**0.0**	**0.0**				
			Demand * (kVA):	**24.4**	**0.0**	**2.3**										

*** Dem and Factor:**
Lighting loads: 100%
Receptacle loads, 10kVA or less: 100%
Receptacle loads, over 10kVA: 50%
Miscellaneous loads: 80%

Total Connected Load (kVA):	**27.3**	**Total Connected Load (A):**	**75.9**
Total Demand Load * (kVA):	**26.8**	**Total Demand * Load (A):**	**74.3**
connected load per Ø = (total load/3):	9.1	**125% of Total Demand (A):**	**92.8**
demand load per Ø = (total load/3):	8.9		

Panel: FPBSBLV1-1 | **Location: PUMP HOUSE**
Amperage / Mains: 125 A MCB | **Mounting: Surface**
Voltage, Phase, Wire: 208/120V 3Ø; 4W; G. | **Comments: PROVIDE SUB-FEED LUGS**
AIC:

CKT.	CIRCUIT BREAKER			LTG	REC	MISC	PHASE			MISC	REC	LTG		CIRCUIT BREAKER		CKT.
#	AMP	POLES	LOAD DESCRIPTION	kVA	kVA	kVA	A	B	C	kVA	kVA	kVA	LOAD DESCRIPTION	AMP	POLES	#
1	20	1	RECEPTACLES		0.2		0.4				0.2		RECEPTACLES	20	1	2
3	20	1	BATTERY CHARGER			1.5		1.7			0.2		RECEPTACLES	20	1	4
5	15	1	EF-5			0.7			1.5	0.8			FIRE PUMP CONTROLLER	20	1	6
7	20	1	MOTORIZED DAMPERS			0.9	1.1				0.2		RECEPTACLES	20	1	8
9	20	1	LIGHTING	0.2				0.4			0.2		RECEPTACLES WP	20	1	10
11	20	1	SPARE						0.0				SPARE	20	1	12
13	20	1	SPARE				0.0						SPARE	20	1	14
15	20	1	JOCKEY PUMP CONTROL			1.5		2.0		0.5			TANK LEVEL CONTROL	20	1	16
17	20	1	BLOCK HEATER			1.5			2.5	1.0						18
19	20	3	EUH-1			1.0	2.0			1.0			EUH-2	20	3	20
21						1.0		2.0		1.0						22
23						1.0			1.0				SPARE	20	1	24
25	20	1	FUEL FILL BEACON			0.5	0.5						SPARE	75	1	26
27	20	1	SPARE					0.0					SPARE	20	1	28
29	20	1	SPARE						0.0				SPARE	20	1	30
			Connected (kVA):	**0.2**	**0.2**	**9.6**	**3.9**	**6.1**	**5.0**	**4.3**	**0.7**	**0.0**				
			Demand * (kVA):	**0.2**	**0.9**	**11.1**										

*** Dem and Factor:**
Lighting loads: 100%
Receptacle loads, 10kVA or less: 100%
Receptacle loads, over 10kVA: 50%
Miscellaneous loads: 80%

Total Connected Load (kVA):	**15.0**	**Total Connected Load (A):**	**41.6**
Total Demand Load * (kVA):	**12.2**	**Total Demand * Load (A):**	**33.9**
connected load per Ø = (total load/3):	5.0	**125% of Total Demand (A):**	**42.4**
demand load per Ø = (total load/3):	4.1		

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 HOPMEADOW STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4338
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

North Stonington, CT

297 Norwich-Westerly Rd.

Sheet Description:

ELECTRICAL PANEL SCHEDULES

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

⚠	ADDENDUM #2

Project #:

1650

Sheet #:

E6.5

ELECTRICAL SITE PLANS SE1.1 AND SE1.2 KEY NOTES:

1. SITE LIGHT INCLUDED WITH OUTLINED AREA ARE INCLUDED IN ALTERNATE #4. REFER TO ARCHITECTURAL AND LANDSCAPING PLANS FOR ADDITIONAL INFORMATION. RE-CIRCUIT REMAIN LIGHTS AS REQUIRED SO REMAINING POLE LIGHTS ARE OPERABLE.

2. NEW 30"X60" PG STYLE POLYMER CONCRETE STACKABLE QUAZITE IN-GROUND JUNCTION BOX, WITH OPEN BOTTOM. BOX AND COVER ASSEMBLY SHALL BE TIER 22 RATED. PROVIDE COVER WITH "COMMUNICATION" LOGO, AND PENTA-HEAD STAINLESS STEEL BOLTS AND (6) PENTA-HEAD SOCKETS. FIELD VERIFY EXACT DEPTH OF EXISTING CONDUIT AND PROVIDE BASE AND EXTENSIONS AS REQUIRED TO MAKE COVER FLUSH WITH FINISHED GRADE.

3. (1) 4" CONDUIT FOR FIBER OPTIC CABLE, (1) 4" CONDUIT FOR THE TELEPHONE CABLE. RUN TO UNDERGROUND AND EXTEND TO MDF IN THE HIGH SCHOOL AND MDF IN THE ELEMENTARY SCHOOL.

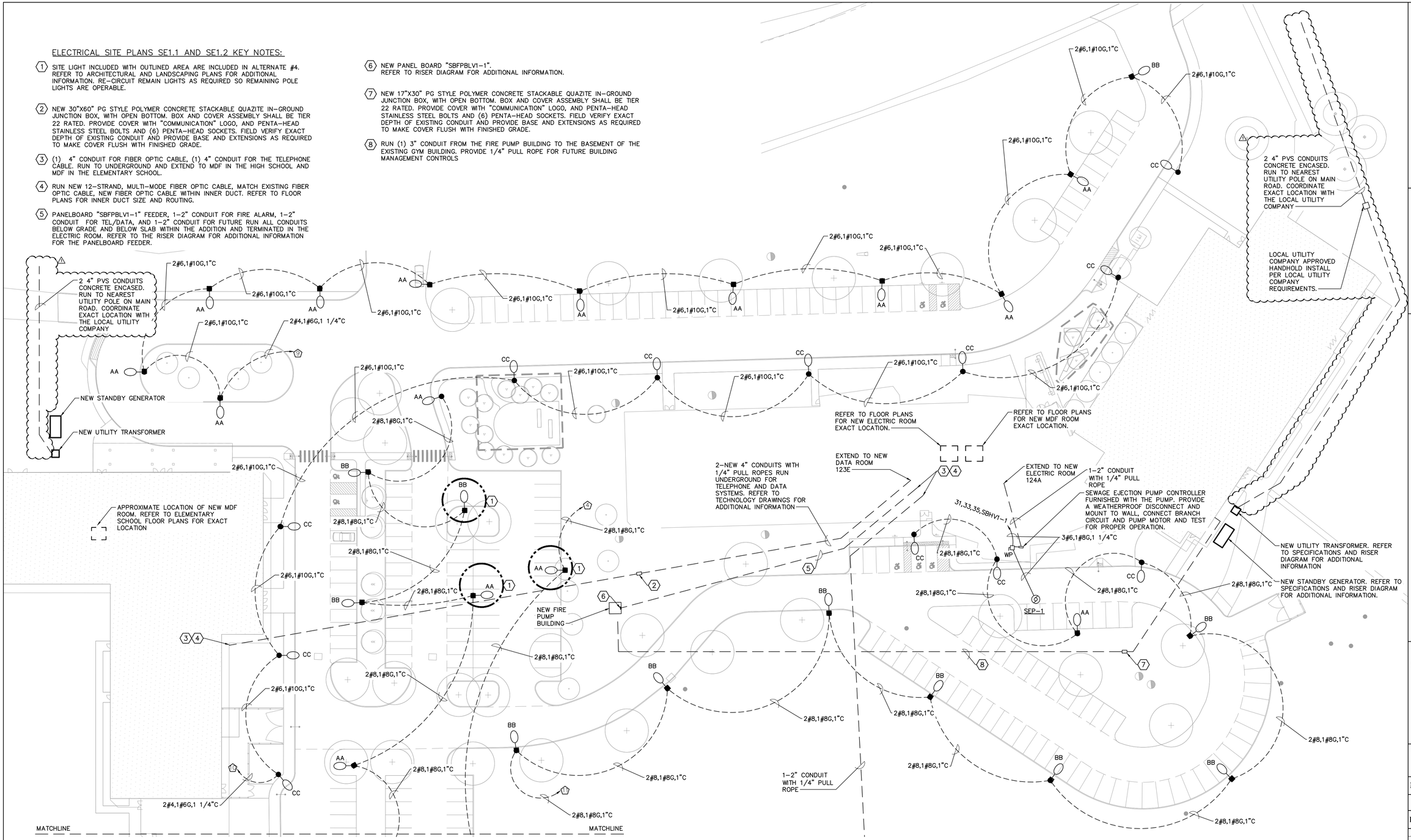
4. RUN NEW 12-STRAND, MULTI-MODE FIBER OPTIC CABLE, MATCH EXISTING FIBER OPTIC CABLE, NEW FIBER OPTIC CABLE WITHIN INNER DUCT. REFER TO FLOOR PLANS FOR INNER DUCT SIZE AND ROUTING.

5. PANELBOARD "SBFPBLV1-1" FEEDER, 1-2" CONDUIT FOR FIRE ALARM, 1-2" CONDUIT FOR TEL/DATA, AND 1-2" CONDUIT FOR FUTURE RUN ALL CONDUITS BELOW GRADE AND BELOW SLAB WITHIN THE ADDITION AND TERMINATED IN THE ELECTRIC ROOM. REFER TO THE RISER DIAGRAM FOR ADDITIONAL INFORMATION FOR THE PANELBOARD FEEDER.

6. NEW PANEL BOARD "SBFPBLV1-1". REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.

7. NEW 17"X30" PG STYLE POLYMER CONCRETE STACKABLE QUAZITE IN-GROUND JUNCTION BOX, WITH OPEN BOTTOM. BOX AND COVER ASSEMBLY SHALL BE TIER 22 RATED. PROVIDE COVER WITH "COMMUNICATION" LOGO, AND PENTA-HEAD STAINLESS STEEL BOLTS AND (6) PENTA-HEAD SOCKETS. FIELD VERIFY EXACT DEPTH OF EXISTING CONDUIT AND PROVIDE BASE AND EXTENSIONS AS REQUIRED TO MAKE COVER FLUSH WITH FINISHED GRADE.

8. RUN (1) 3" CONDUIT FROM THE FIRE PUMP BUILDING TO THE BASEMENT OF THE EXISTING GYM BUILDING. PROVIDE 1/4" PULL ROPE FOR FUTURE BUILDING MANAGEMENT CONTROLS



SITE ELECTRIC PLAN
1" =40'-0"

1

N

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4335
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
SITE ELECTRICAL PLAN

State Project #:
102-0024 EA/RR

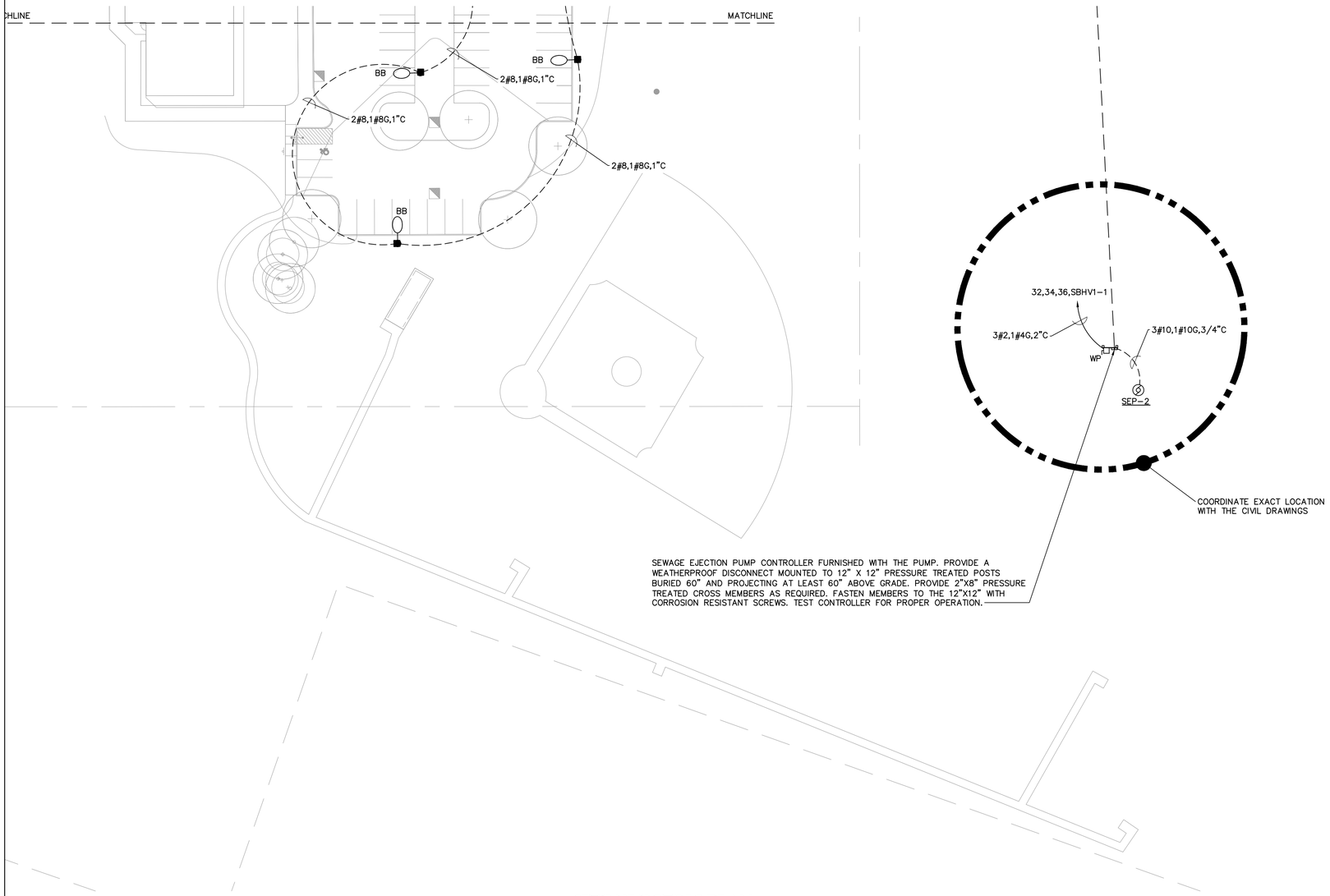
Issue Dates:
CONFORMANCE SET
FEBRUARY 14, 2018

Revisions:

1	ADDENDUM #5

Project #:
1650

Sheet #:
SE1.1



SITE ELECTRIC PLAN

1" =40'-0"

1

N

QUISENBERRY ARCARI ARCHITECTS, LLC
www.qa-architects.com
T (860) 677-4594
F (860) 677-8534
318 Main Street
Farmington, CT 06032

RZ Design Associates, Inc.
MECHANICAL AND ELECTRICAL ENGINEERING
750 MAIN STREET
SUITE 202
ROCKY HILL, CT 06067
P: (860) 436-4336
F: (860) 436-4456
www.rzdesignassociates.com

ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd.

North Stonington, CT

Sheet Description:

SITE ELECTRICAL PLAN

State Project #:

102-0024 EA/RR

Issue Dates:

CONFORMANCE SET
FEBRUARY 14, 2016

Revisions:

Project #:

1650

Sheet #:

SE1.2