# FARMINGTON PUBLIC SCHOOLS Structured Cabling RFP

## Appendix C

**Building Prints** 

December 2025

#### **Appendix C - Technology Design Key**

#### **Technology Design – Structured Cabling Components**



#### New Data Cable

D

(Existing location with cabling to be demolished unless otherwise noted)



**Existing Data Cable** 



Existing Category 6 Data Cable to Remain

D

(Vendor to ensure jacks are blue – existing orange jacks to be replaced)



Security Data Cable



#### Wireless Access Point

(1 cable per location unless otherwise noted)



Main Distribution Frame



Intermediate Distribution Frame

#### **Technology Design – Audio/Visual Components**



Interactive Flat Panel



Non-Interactive Display Monitor



Projector Screen



Projector



**Teacher Station Location** 

FIRST FLOOR POWER PLAN - ZONE 'A'

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

#### ELECTRICAL GENERAL NOTES:

TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES,

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY,
- 10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM, PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE—TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

## **#** CONSTRUCTION KEY NOTES:

- 1. PROVIDE NEW 200KW NATURAL GAS GENERATOR AND GENERATOR ANNUNCIATOR. CONNECT GENERATOR TO EXISTING FEEDERS AND BRANCH CIRCUITS, PROVIDE NEW CONTROL WIRING AND GENERATOR ANNUNCIATOR WIRING AS REQUIRED.
- 2. PROVIDE NEW NATIONAL TIME AND SIGNAL DLU225/DLU400 DIGITAL CLOCK SYSTEM. DLU225 SHALL BE USED IN OFFICES, CLASSROOMS, AND OTHER SMALL SPACES. DLU400 SHALL BE USED IN CORRIDORS, GYMNASIUMS, AND OTHER LARGE SPACES. EXISTING CLOCK SYSTEM WIRING TO BE REUSED.
- 3. DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD, EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4. POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT. PROVIDE NEW CIRCUITING PER NEC 680.14. COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR.
- 5. ALTERNATE 5: EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS. HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE, ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS, CONNECT TO EXISTING CIRCUITING, EXTEND CONDUIT AND WIRING AS REQUIRED, PROVIDE ALL MISCELLANEOUS MOUNTING STEEL,
- 6. ALTERNATE 5: PROVIDE RECEPTACLE AND DATA DEVICE ON FACE OF EXISTING MEZZANINE FLOOR FRAMING FOR NEW T.V. LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 7. ALTERNATE 5: PROVIDE POWER TO NEW LIFT. COORDINATE POWER REQUIREMENTS WITH LIFT MANUFACTURER. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 8, CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT, EXTEND CONDUIT AND WIRE AS REQUIRED.
- 9. PROVIDE NEW GENERATOR DOCKING STATION, REFER TO ONE LINE DIAGRAM. 10. ALTERNATE 5: NEW EXHAUST FANS, CIRCUIT NEW MECHANICAL EQUIPMENT AS
- INDICATED ON PLANS. 11, DUCT SMOKE DETECTORS, COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL, PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND

ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES,

12. DISCONNECT POWER FROM EXISTING MECHANICAL UNIT TO ALLOW MECHANICAL TRADES TO REPLACE INTERNAL COMPONENTS OF UNIT. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR NEW UNIT VENTILATOR EC MOTOR. RECONNECT POWER AT TIME AS COORDINATED WITH MECHANICAL TRADES, AFTER MECHANICAL TRADES HAS REPLACED INTERNAL COMPONENTS OF UNIT,

RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.

- 13. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR, COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR TO THE NEAREST 120 YOLT CIRCUIT (ELECTRICAL CONTRACTOR SHALL TIE INTO RECEPTACLE CIRCUIT WITH A 20A-1P SWITCH TO FEED THE DAMPER ACTUATORS). CONTROL WIRING/INTERLOCK TO AIR HANDLING EQUIPMENT IS BY THE TEMPERATURE CONTROL CONTRACTOR.
- 14. ALTERNATE 5: FUSE NEW EXHAUST FANS AT 5 AMPS, FIELD VERIFY LOCATION OF COMBINATION STARTERS.
- 15. ALTERNATE 6: CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 16. 4" SQ JBOX MOUNTED NEXT TO "CHEMICAL CONTROLLER". POOL CONTRACTOR SHALL PROVIDE CIRCUITING FROM JBOX TO CHEMICAL CONTROLLER TO POWER THE RECEPTACLES AS INDICATED, COORDINATE WORK WITH POOL CONTRACTOR,
- 17. 2#12&1#12GRD, 3/4"C FROM CHEMICAL CONTROLLER JBOX TO GFI RECEPTACLE.
- 18. GFI RECEPTACLE FOR "ACCU-TAB FEEDER".
- 19. GFI QUAD RECEPTACLE FOR "U.V. UNIT".
- 20. GFI RECEPTACLE FOR "CO2 FEEDER",
- 21. INTERCEPT EXISTING 15HP POOL PUMP CIRCUITING WITH 30A-3P, NEMA 4X (FIBERGLASS) DISCONNECT SWITCH AND FEED VFC/BYPASS THAT SERVES THE (2) NEW POOL PUMPS.
- 22. THE EXISTING #8 BARE COPPER BONDING CONDUCTOR (PER NEC 680.26) SHALL BE EXTENDED FROM THE EXISTING POOL PUMP MOTOR AND EXTENDED TO THE NEW POOL PUMP MOTORS, THIS #8 BARE COPPER CONDUCTOR SHALL ALSO BE EXTENDED TO THE NEW POOL EQUIPMENT: VFC, ACCU-TAB FEEDER AND U.Y. UNIT.
- 23. STAND-BY GENERATOR RECEPTACLE FOR IDF/MDF RACK. COORDINATE EXACT LOCATION WITH OWNER/PMC. RECEPTACLE CÓLOR SHALL BE RED.
  - 24. STAND-BY GENERATOR RECEPTACLE FOR OFFICE POWER OUTAGE. COORDINATE EXACT LOCATION WITH OWNER. ROUTE CIRCUITING IN IVORY WIREMOLD IN FINISHED AREAS, RECEPTACLE COLOR SHALL BE RED.



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FIRST FLOOR POWER PLAN ZONE 'A'

KEY PLAN NO SCALE PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION

FINAL RECORD DRAWN BY: CHECKED BY:

REVISIONS:

SHEET NO.:

CONSTRUCTION 10-01 DATE: AUGUST 19, 202



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- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
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## **EXAMPLE 2** CONSTRUCTION KEY NOTES:

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- 3. DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD. EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4. POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT. PROVIDE NEW CIRCUITING PER NEC 680.14. COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR.
- 5. ALTERNATE 5: EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS. HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE, ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS, CONNECT TO EXISTING CIRCUITING, EXTEND CONDUIT AND WIRING AS REQUIRED, PROVIDE ALL MISCELLANEOUS MOUNTING STEEL.
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- 12. DISCONNECT POWER FROM EXISTING MECHANICAL UNIT TO ALLOW MECHANICAL TRADES TO REPLACE INTERNAL COMPONENTS OF UNIT. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR NEW UNIT VENTILATOR EC MOTOR, RECONNECT POWER AT TIME AS COORDINATED WITH MECHANICAL TRADES, AFTER MECHANICAL TRADES HAS REPLACED INTERNAL COMPONENTS OF UNIT.
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NG IMPROVEMENTS TO GH SCHOOL

FIRST FLOOR POWER PLAN-ZONE 'B'

FIRST FLOOR POWER PLAN-ZONE 'B'

FIRST FLOOR POWER PLAN-ZONE 'B'

REVISIONS:

CHECKED BY:

DATE: AUGUST 19, 2021
SHEET NO.:

CONSTRUCTION 10-0°

° 201879

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UILDING IMPROVEMENTS TO HIGH SCHOOL

E - BID PACKAGE No. 3 - 2021 PROJECTS

FIRST FLOOR POWER PLAN - ZONE 'C'

FIRST FLOOR POWER PLAN - ZONE 'C'

REVISIONS:

CHECKED BY:

CONSTRUCTION 10-01-21

ADD № 02 09-16-21

DATE: AUGUST 19, 2021

SHEET NO.:

.0.10

TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES,

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD
- SCHEDULES DRAWING" UNLESS OTHERWISE NOTED. 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT
- UNLESS OTHERWISE NOTED. 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS

SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING"

- AND THE TRADES INSTALLING THE WORK. 8, COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND
- POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS,
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT, PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- 10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

## **CONSTRUCTION KEY NOTES:**

- 1, PROVIDE NEW 200KW NATURAL GAS GENERATOR AND GENERATOR ANNUNCIATOR, CONNECT GENERATOR TO EXISTING FEEDERS AND BRANCH CIRCUITS. PROVIDE NEW CONTROL WIRING AND GENERATOR ANNUNCIATOR WIRING AS REQUIRED.
- 2. PROVIDE NEW NATIONAL TIME AND SIGNAL DLU225/DLU400 DIGITAL CLOCK SYSTEM. DLU225 SHALL BE USED IN OFFICES, CLASSROOMS, AND OTHER SMALL SPACES. DLU400 SHALL BE USED IN CORRIDORS, GYMNASIUMS, AND OTHER LARGE SPACES. EXISTING CLOCK SYSTEM WIRING TO BE REUSED.
- 3. DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD. EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4. POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT. PROVIDE NEW CIRCUITING PER NEC 680.14. COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR.
- 5. ALTERNATE 5: EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS. HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE. ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS. CONNECT TO EXISTING CIRCUITING. EXTEND CONDUIT AND WIRING AS REQUIRED. PROVIDE ALL MISCELLANEOUS MOUNTING STEEL.
- 6. ALTERNATE 5: PROVIDE RECEPTACLE AND DATA DEVICE ON FACE OF EXISTING MEZZANINE FLOOR FRAMING FOR NEW T.V. LOCATION. COORDINATE EXACT LOCATION
- 7. ALTERNATE 5: PROVIDE POWER TO NEW LIFT. COORDINATE POWER REQUIREMENTS WITH LIFT MANUFACTURER. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 8. CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 9. PROVIDE NEW GENERATOR DOCKING STATION, REFER TO ONE LINE DIAGRAM.
- 10. ALTERNATE 5: NEW EXHAUST FANS, CIRCUIT NEW MECHANICAL EQUIPMENT AS INDICATED ON PLANS.
- 11. DUCT SMOKE DETECTORS. COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON DUCT WORK PENETRATIONS AND ROUTING LOCATIONS), COORDINATE INSTALLATION WITH THE MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.
- 12. DISCONNECT POWER FROM EXISTING MECHANICAL UNIT TO ALLOW MECHANICAL TRADES TO REPLACE INTERNAL COMPONENTS OF UNIT. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR NEW UNIT VENTILATOR EC MOTOR. RECONNECT POWER AT TIME AS COORDINATED WITH MECHANICAL TRADES, AFTER MECHANICAL TRADES HAS REPLACED INTERNAL COMPONENTS OF UNIT.
- 13. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR, COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR TO THE NEAREST 120 YOLT CIRCUIT (ELECTRICAL CONTRACTOR SHALL TIE INTO RECEPTACLE CIRCUIT WITH A 20A-1P SWITCH TO FEED THE DAMPER ACTUATORS). CONTROL WIRING/INTERLOCK TO AIR HANDLING EQUIPMENT IS BY THE TEMPERATURE CONTROL CONTRACTOR.
- 14. ALTERNATE 5: FUSE NEW EXHAUST FANS AT 5 AMPS, FIELD VERIFY LOCATION OF COMBINATION STARTERS.
- 15. ALTERNATE 6: CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 16. 4" SQ JBOX MOUNTED NEXT TO "CHEMICAL CONTROLLER". POOL CONTRACTOR SHALL PROVIDE CIRCUITING FROM JBOX TO CHEMICAL CONTROLLER TO POWER THE RECEPTACLES AS INDICATED. COORDINATE WORK WITH POOL CONTRACTOR.
- 17. 2#12&1#12GRD, 3/4"C FROM CHEMICAL CONTROLLER JBOX TO GFI RECEPTACLE.
- 18. GFI RECEPTACLE FOR "ACCU-TAB FEEDER".
- 19. GFI QUAD RECEPTACLE FOR "U.V. UNIT".
- 20. GFI RECEPTACLE FOR "CO2 FEEDER".
- 21. INTERCEPT EXISTING 15HP POOL PUMP CIRCUITING WITH 30A-3P, NEMA 4X (FIBERGLASS) DISCONNECT SWITCH AND FEED VFC/BYPASS THAT SERVES THE (2) NEW POOL PUMPS.
- 22. THE EXISTING #8 BARE COPPER BONDING CONDUCTOR (PER NEC 680.26) SHALL BE EXTENDED FROM THE EXISTING POOL PUMP MOTOR AND EXTENDED TO THE NEW POOL PUMP MOTORS. THIS #8 BARE COPPER CONDUCTOR SHALL ALSO BE EXTENDED TO THE NEW POOL EQUIPMENT: VFC, ACCU-TAB FEEDER AND U.V. UNIT.
- 23. STAND-BY GENERATOR RECEPTACLE FOR IDF/MDF RACK, COORDINATE EXACT LOCATION WITH OWNER/PMC, RECEPTACLE COLOR SHALL BE RED.
- 24. STAND-BY GENERATOR RECEPTACLE FOR OFFICE POWER OUTAGE. COORDINATE EXACT LOCATION WITH OWNER. ROUTE CIRCUITING IN IVORY WIREMOLD IN FINISHED AREAS. RECEPTACLE COLOR SHALL BE RED.

MAKELY ASSOCIATES, INC ARCHITECTS

30500 VAN DYKE AVENUE SUITE M-7 WARREN, MICHIGAN 48093 PH: 586.573.4100 FX: 586.573.0822 www.MakelyAlA.com



FIRST FLOOR POWER PLAN

KEY PLAN NO SCALE

PRELIMINARY

CONSTRUCTION

FINAL RECORD

DRAWN BY:

**REVISIONS:** 

CHECKED BY:

DESIGN DEVELOPMENT

CONSTRUCTION 10-0°

DATE: AUGUST 19, 202

FIRST FLOOR POWER PLAN - ZONE 'E'

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

## ELECTRICAL GENERAL NOTES:

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- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
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WAKELY ASSOCIATES, INC. ARCHITECTS

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FIRST FLOOR POWER PLAN -ZONE 'E' KEY PLAN No scale

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION FINAL RECORD

DRAWN BY: CHECKED BY: REVISIONS:

CONSTRUCTION 10-0° ADD No 02 DATE: AUGUST 19, 2021

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FIRST FLOOR POWER PLAN -ZONE 'F'

KEY PLAN NO SCALE

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION

FINAL RECORD DRAWN BY: CHECKED BY:

CONSTRUCTION 10-01

DATE: AUGUST 19, 202<sup>-</sup>

REVISIONS:

ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL
- NECESSARY COMPONENTS, FITTINGS AND OFFSETS.

  2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD
- SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.

  6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT
- UNLESS OTHERWISE NOTED.

  7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS

SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING"

- AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL
  MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL
  ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS, DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE—TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

# **#** CONSTRUCTION KEY NOTES:

- 1. PROVIDE NEW 200KW NATURAL GAS GENERATOR AND GENERATOR ANNUNCIATOR, CONNECT GENERATOR TO EXISTING FEEDERS AND BRANCH CIRCUITS, PROVIDE NEW CONTROL WIRING AND GENERATOR ANNUNCIATOR WIRING AS REQUIRED,
- 2. PROVIDE NEW NATIONAL TIME AND SIGNAL DLU225/DLU400 DIGITAL CLOCK SYSTEM. DLU225 SHALL BE USED IN OFFICES, CLASSROOMS, AND OTHER SMALL SPACES. DLU400 SHALL BE USED IN CORRIDORS, GYMNASIUMS, AND OTHER LARGE SPACES. EXISTING CLOCK SYSTEM WIRING TO BE REUSED.
- 3. DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD. EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4. POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT. PROVIDE NEW CIRCUITING PER NEC 680.14. COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR.
- 5. ALTERNATE 5: EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS. HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE. ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS. CONNECT TO EXISTING CIRCUITING. EXTEND CONDUIT AND WIRING AS REQUIRED. PROVIDE ALL MISCELLANEOUS MOUNTING STEEL.
- 6. ALTERNATE 5: PROVIDE RECEPTACLE AND DATA DEVICE ON FACE OF EXISTING MEZZANINE FLOOR FRAMING FOR NEW T.Y. LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECT.
- WITH LIFT MANUFACTURER, COORDINATE EXACT LOCATION WITH ARCHITECT.
- 8. CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 9. PROVIDE NEW GENERATOR DOCKING STATION, REFER TO ONE LINE DIAGRAM.

7. ALTERNATE 5: PROVIDE POWER TO NEW LIFT. COORDINATE POWER REQUIREMENTS

- 10. ALTERNATE 5: NEW EXHAUST FANS, CIRCUIT NEW MECHANICAL EQUIPMENT AS INDICATED ON PLANS.
- 11. DUCT SMOKE DETECTORS, COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.
- 12. DISCONNECT POWER FROM EXISTING MECHANICAL UNIT TO ALLOW MECHANICAL TRADES TO REPLACE INTERNAL COMPONENTS OF UNIT. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR NEW UNIT VENTILATOR EC MOTOR. RECONNECT POWER AT TIME AS COORDINATED WITH MECHANICAL TRADES, AFTER MECHANICAL TRADES HAS REPLACED INTERNAL COMPONENTS OF UNIT.
- 13. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR TO THE NEAREST 120 VOLT CIRCUIT (ELECTRICAL CONTRACTOR SHALL TIE INTO RECEPTACLE CIRCUIT WITH A 20A-1P SWITCH TO FEED THE DAMPER ACTUATORS), CONTROL WIRING/INTERLOCK TO AIR HANDLING EQUIPMENT IS BY THE TEMPERATURE CONTROL CONTRACTOR.
- 14. ALTERNATE 5: FUSE NEW EXHAUST FANS AT 5 AMPS, FIELD VERIFY LOCATION OF COMBINATION STARTERS.
- 15. ALTERNATE 6: CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 16. 4" SQ JBOX MOUNTED NEXT TO "CHEMICAL CONTROLLER". POOL CONTRACTOR SHALL PROVIDE CIRCUITING FROM JBOX TO CHEMICAL CONTROLLER TO POWER THE RECEPTACLES AS INDICATED. COORDINATE WORK WITH POOL CONTRACTOR.
- 17. 2#12&1#12GRD, 3/4"C FROM CHEMICAL CONTROLLER JBOX TO GFI RECEPTACLE.
- 18. GFI RECEPTACLE FOR "ACCU-TAB FEEDER".
- 19. GFI QUAD RECEPTACLE FOR "U.V. UNIT".
- 20. GFI RECEPTACLE FOR "CO2 FEEDER".
- 21. INTERCEPT EXISTING 15HP POOL PUMP CIRCUITING WITH 30A-3P, NEMA 4X (FIBERGLASS) DISCONNECT SWITCH AND FEED VFC/BYPASS THAT SERVES THE (2) NEW POOL PUMPS.
- 22. THE EXISTING #8 BARE COPPER BONDING CONDUCTOR (PER NEC 680.26) SHALL BE EXTENDED FROM THE EXISTING POOL PUMP MOTOR AND EXTENDED TO THE NEW POOL PUMP MOTORS, THIS #8 BARE COPPER CONDUCTOR SHALL ALSO BE EXTENDED TO THE NEW POOL EQUIPMENT: VFC, ACCU—TAB FEEDER AND U.V. UNIT.
- 23. STAND-BY GENERATOR RECEPTACLE FOR IDF/MDF RACK. COORDINATE EXACT LOCATION WITH OWNER/PMC. RECEPTACLE COLOR SHALL BE RED.
- 24. STAND-BY GENERATOR RECEPTACLE FOR OFFICE POWER OUTAGE. COORDINATE EXACT LOCATION WITH OWNER. ROUTE CIRCUITING IN IVORY WIREMOLD IN FINISHED AREAS, RECEPTACLE COLOR SHALL BE RED,

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TON PUBLIC SCHOOLS

ND BUILDING IMPROVEMENTS TO

NGTON HIGH SCHOOL

ID ISSUE - BID PACKAGE No. 3 - 2021 PROJECTS

FIRST FLOOR POWER PLAN - ZONE 'G'

FIRST FLOOR POWER PLAN - ZONE 'G'

FIRST FLOOR POWER PLAN - ZONE 'G'

DRAWN BY: GBS
CHECKED BY: GJZ

REVISIONS:

CONSTRUCTION 10-01-21

SHEET NO.:

DATE: AUGUST 19, 202<sup>-</sup>

FIRST FLOOR POWER PLAN - ZONE 'H'

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

#### ELECTRICAL GENERAL NOTES:

TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

  3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT,

AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS, REFER

- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD
- SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.

  6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING"
- UNLESS OTHERWISE NOTED.

  7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE—THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS, WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL
  MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL
  ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM, PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE—TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

## **EXAMPLE 2** CONSTRUCTION KEY NOTES:

- 1. PROVIDE NEW 200KW NATURAL GAS GENERATOR AND GENERATOR ANNUNCIATOR. CONNECT GENERATOR TO EXISTING FEEDERS AND BRANCH CIRCUITS. PROVIDE NEW CONTROL WIRING AND GENERATOR ANNUNCIATOR WIRING AS REQUIRED.
- 2. PROVIDE NEW NATIONAL TIME AND SIGNAL DLU225/DLU400 DIGITAL CLOCK SYSTEM. DLU225 SHALL BE USED IN OFFICES, CLASSROOMS, AND OTHER SMALL SPACES. DLU400 SHALL BE USED IN CORRIDORS, GYMNASIUMS, AND OTHER LARGE SPACES. EXISTING CLOCK SYSTEM WIRING TO BE REUSED.
- 3. DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD. EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4, POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT, PROVIDE NEW CIRCUITING PER NEC 680,14, COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR,
- 5. ALTERNATE 5: EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS.
  HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE. ELECTRICAL
  CONTRACTOR TO VERIFY LOCATIONS. CONNECT TO EXISTING CIRCUITING. EXTEND
  CONDUIT AND WIRING AS REQUIRED. PROVIDE ALL MISCELLANEOUS MOUNTING STEEL.
- 6. ALTERNATE 5: PROVIDE RECEPTACLE AND DATA DEVICE ON FACE OF EXISTING MEZZANINE FLOOR FRAMING FOR NEW T.V. LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 7. ALTERNATE 5: PROVIDE POWER TO NEW LIFT. COORDINATE POWER REQUIREMENTS WITH LIFT MANUFACTURER. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 8. CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 9. PROVIDE NEW GENERATOR DOCKING STATION, REFER TO ONE LINE DIAGRAM.
- 10. ALTERNATE 5: NEW EXHAUST FANS, CIRCUIT NEW MECHANICAL EQUIPMENT AS INDICATED ON PLANS.
- 11. DUCT SMOKE DETECTORS. COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND
- 12. DISCONNECT POWER FROM EXISTING MECHANICAL UNIT TO ALLOW MECHANICAL TRADES TO REPLACE INTERNAL COMPONENTS OF UNIT. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR NEW UNIT VENTILATOR EC MOTOR. RECONNECT POWER AT TIME AS COORDINATED WITH MECHANICAL TRADES, AFTER MECHANICAL TRADES HAS REPLACED INTERNAL COMPONENTS OF UNIT.

RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.

ASSOCIATED RETURN FAN (OR EXHAUST FAN), PROVIDE ALL CONTROL MODULES,

- 13. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR, COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR TO THE NEAREST 120 VOLT CIRCUIT (ELECTRICAL CONTRACTOR SHALL TIE INTO RECEPTACLE CIRCUIT WITH A 20A-1P SWITCH TO FEED THE DAMPER ACTUATORS). CONTROL WIRING/INTERLOCK TO AIR HANDLING EQUIPMENT IS BY THE TEMPERATURE CONTROL CONTRACTOR.
- 14. ALTERNATE 5: FUSE NEW EXHAUST FANS AT 5 AMPS, FIELD VERIFY LOCATION OF COMBINATION STARTERS.
- 15. ALTERNATE 6: CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 16. 4" SQ JBOX MOUNTED NEXT TO "CHEMICAL CONTROLLER". POOL CONTRACTOR SHALL PROVIDE CIRCUITING FROM JBOX TO CHEMICAL CONTROLLER TO POWER THE RECEPTACLES AS INDICATED, COORDINATE WORK WITH POOL CONTRACTOR.
- 17. 2#12&1#12GRD, 3/4"C FROM CHEMICAL CONTROLLER JBOX TO GFI RECEPTACLE.
- 18. GFI RECEPTACLE FOR "ACCU-TAB FEEDER".
- 19. GFI QUAD RECEPTACLE FOR "U.V. UNIT".
- 20. GFI RECEPTACLE FOR "CO2 FEEDER".
- 21. INTERCEPT EXISTING 15HP POOL PUMP CIRCUITING WITH 30A-3P, NEMA 4X (FIBERGLASS) DISCONNECT SWITCH AND FEED VFC/BYPASS THAT SERVES THE (2) NEW POOL PUMPS.
- 22. THE EXISTING #8 BARE COPPER BONDING CONDUCTOR (PER NEC 680.26) SHALL BE EXTENDED FROM THE EXISTING POOL PUMP MOTOR AND EXTENDED TO THE NEW POOL PUMP MOTORS. THIS #8 BARE COPPER CONDUCTOR SHALL ALSO BE EXTENDED TO THE NEW POOL EQUIPMENT: VFC, ACCU—TAB FEEDER AND U.V. UNIT.
- 23. STAND-BY GENERATOR RECEPTACLE FOR IDF/MDF RACK. COORDINATE EXACT LOCATION WITH OWNER/PMC. RECEPTACLE COLOR SHALL BE RED.
- 24. STAND-BY GENERATOR RECEPTACLE FOR OFFICE POWER OUTAGE. COORDINATE EXACT LOCATION WITH OWNER. ROUTE CIRCUITING IN IVORY WIREMOLD IN FINISHED AREAS. RECEPTACLE COLOR SHALL BE RED.

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MPROVEMENTS TO CHOOL

FIRST FLOOR POWER PLAN-ZONE 'H'

SCALE

SCAL

PRELIMINARY

DESIGN DEVELOPMENT

CONSTRUCTION

FINAL RECORD

DRAWN BY:

GBS

REVISIONS:

CHECKED BY:

ADD No 01 09-09-21

DATE: AUGUST 19, 2021

SHEET NO.:

CONSTRUCTION 10-0°



FIRST FLOOR POWER PLAN - ZONE 'J' SCALE: 1/8" - 1' - 0"

#### **ELECTRICAL GENERAL NOTES:**

TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES,

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND
- ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS. 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH
- TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS,
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- 10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

## (#) CONSTRUCTION KEY NOTES:

- 1. PROVIDE NEW 200KW NATURAL GAS GENERATOR AND GENERATOR ANNUNCIATOR. CONNECT GENERATOR TO EXISTING FEEDERS AND BRANCH CIRCUITS, PROVIDE NEW CONTROL WIRING AND GENERATOR ANNUNCIATOR WIRING AS REQUIRED.
- 2. PROVIDE NEW NATIONAL TIME AND SIGNAL DLU225/DLU400 DIGITAL CLOCK SYSTEM. DLU225 SHALL BE USED IN OFFICES, CLASSROOMS, AND OTHER SMALL SPACES. DLU400 SHALL BE USED IN CORRIDORS, GYMNASIUMS, AND OTHER LARGE SPACES. EXISTING CLOCK SYSTEM WIRING TO BE REUSED.
- 3. DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD, EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4. POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT. PROVIDE NEW CIRCUITING PER NEC 680.14. COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR.
- 5. ALTERNATE 5: EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS. HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE, ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS, CONNECT TO EXISTING CIRCUITING, EXTEND CONDUIT AND WIRING AS REQUIRED, PROVIDE ALL MISCELLANEOUS MOUNTING STEEL.
- 6. ALTERNATE 5: PROVIDE RECEPTACLE AND DATA DEVICE ON FACE OF EXISTING MEZZANINE FLOOR FRAMING FOR NEW T.V. LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 7. ALTERNATE 5: PROVIDE POWER TO NEW LIFT. COORDINATE POWER REQUIREMENTS WITH LIFT MANUFACTURER. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 8. CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT, EXTEND CONDUIT AND WIRE AS REQUIRED.
- 9. PROVIDE NEW GENERATOR DOCKING STATION, REFER TO ONE LINE DIAGRAM.
- 10. ALTERNATE 5: NEW EXHAUST FANS, CIRCUIT NEW MECHANICAL EQUIPMENT AS INDICATED ON PLANS.
- 11, DUCT SMOKE DETECTORS, COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL, PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.
- 12. DISCONNECT POWER FROM EXISTING MECHANICAL UNIT TO ALLOW MECHANICAL TRADES TO REPLACE INTERNAL COMPONENTS OF UNIT. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR NEW UNIT VENTILATOR EC MOTOR. RECONNECT POWER AT TIME AS COORDINATED WITH MECHANICAL TRADES, AFTER MECHANICAL TRADES HAS REPLACED INTERNAL COMPONENTS OF UNIT,
- 13. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR, COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR TO THE NEAREST 120 YOLT CIRCUIT (ELECTRICAL CONTRACTOR SHALL TIE INTO RECEPTACLE CIRCUIT WITH A 20A-1P SWITCH TO FEED THE DAMPER ACTUATORS), CONTROL WIRING/INTERLOCK TO AIR HANDLING EQUIPMENT IS BY THE TEMPERATURE CONTROL CONTRACTOR.
- 14. ALTERNATE 5: FUSE NEW EXHAUST FANS AT 5 AMPS, FIELD VERIFY LOCATION OF COMBINATION STARTERS.
- 15. ALTERNATE 6: CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 16. 4" SQ JBOX MOUNTED NEXT TO "CHEMICAL CONTROLLER". POOL CONTRACTOR SHALL PROVIDE CIRCUITING FROM JBOX TO CHEMICAL CONTROLLER TO POWER THE RECEPTACLES AS INDICATED, COORDINATE WORK WITH POOL CONTRACTOR,
- 17. 2#12&1#12GRD, 3/4"C FROM CHEMICAL CONTROLLER JBOX TO GFI RECEPTACLE.
- 18. GFI RECEPTACLE FOR "ACCU-TAB FEEDER".
- 19. GFI QUAD RECEPTACLE FOR "U.V. UNIT".
- 20, GFI RECEPTACLE FOR "CO2 FEEDER",
- 21. INTERCEPT EXISTING 15HP POOL PUMP CIRCUITING WITH 30A-3P, NEMA 4X (FIBERGLASS) DISCONNECT SWITCH AND FEED VFC/BYPASS THAT SERVES THE (2) NEW POOL PUMPS.
- 22. THE EXISTING #8 BARE COPPER BONDING CONDUCTOR (PER NEC 680.26) SHALL BE EXTENDED FROM THE EXISTING POOL PUMP MOTOR AND EXTENDED TO THE NEW POOL PUMP MOTORS, THIS #8 BARE COPPER CONDUCTOR SHALL ALSO BE EXTENDED TO THE NEW POOL EQUIPMENT: VFC, ACCU-TAB FEEDER AND U.V. UNIT.
- 23. STAND-BY GENERATOR RECEPTACLE FOR IDF/MDF RACK. COORDINATE EXACT LOCATION WITH OWNER/PMC. RECEPTACLE CÓLOR SHALL BE RED.
- 24. STAND-BY GENERATOR RECEPTACLE FOR OFFICE POWER OUTAGE. COORDINATE EXACT LOCATION WITH OWNER, ROUTE CIRCUITING IN IVORY WIREMOLD IN FINISHED AREAS, RECEPTACLE COLOR SHALL BE RED.

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FIRST FLOOR POWER PLAN -ZONE 'J' KEY PLAN NO SCALE

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION FINAL RECORD

DRAWN BY: CHECKED BY: REVISIONS:

CONSTRUCTION 10-01 DATE: AUGUST 19, 202<sup>-</sup>

SHEET NO.:

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS, REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES,
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY,
- 10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

## **#** CONSTRUCTION KEY NOTES:

- 1. PROVIDE NEW 200KW NATURAL GAS GENERATOR AND GENERATOR ANNUNCIATOR. CONNECT GENERATOR TO EXISTING FEEDERS AND BRANCH CIRCUITS, PROVIDE NEW CONTROL WIRING AND GENERATOR ANNUNCIATOR WIRING AS REQUIRED.
- 2. PROVIDE NEW NATIONAL TIME AND SIGNAL DLU225/DLU400 DIGITAL CLOCK SYSTEM. DLU225 SHALL BE USED IN OFFICES, CLASSROOMS, AND OTHER SMALL SPACES. DLU400 SHALL BE USED IN CORRIDORS, GYMNASIUMS, AND OTHER LARGE SPACES. EXISTING CLOCK SYSTEM WIRING TO BE REUSED.
- 3. DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD. EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4. POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT. PROVIDE NEW CIRCUITING PER NEC 680.14. COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR.
- 5, ALTERNATE 5; EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS. HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE, ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS, CONNECT TO EXISTING CIRCUITING, EXTEND CONDUIT AND WIRING AS REQUIRED. PROVIDE ALL MISCELLANEOUS MOUNTING STEEL.
- 6. ALTERNATE 5: PROVIDE RECEPTACLE AND DATA DEVICE ON FACE OF EXISTING MEZZANINE FLOOR FRAMING FOR NEW T.V. LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 7. ALTERNATE 5: PROVIDE POWER TO NEW LIFT. COORDINATE POWER REQUIREMENTS WITH LIFT MANUFACTURER, COORDINATE EXACT LOCATION WITH ARCHITECT.
- 8. CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT, EXTEND CONDUIT AND WIRE AS REQUIRED.
- 9. PROVIDE NEW GENERATOR DOCKING STATION, REFER TO ONE LINE DIAGRAM.
- 10. ALTERNATE 5: NEW EXHAUST FANS, CIRCUIT NEW MECHANICAL EQUIPMENT AS INDICATED ON PLANS. 11. DUCT SMOKE DETECTORS. COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD
- BAST ON DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL, PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.
- 12. DISCONNECT POWER FROM EXISTING MECHANICAL UNIT TO ALLOW MECHANICAL TRADES TO REPLACE INTERNAL COMPONENTS OF UNIT. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR NEW UNIT VENTILATOR EC MOTOR, RECONNECT POWER AT TIME AS COORDINATED WITH MECHANICAL TRADES, AFTER MECHANICAL TRADES HAS REPLACED INTERNAL COMPONENTS OF UNIT.
- 13. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR TO THE NEAREST 120 YOLT CIRCUIT (ELECTRICAL CONTRACTOR SHALL TIE INTO RECEPTACLE CIRCUIT WITH A 20A-1P SWITCH TO FEED THE DAMPER ACTUATORS), CONTROL WIRING/INTERLOCK TO AIR HANDLING EQUIPMENT IS BY THE TEMPERATURE CONTROL CONTRACTOR.
- 14. ALTERNATE 5: FUSE NEW EXHAUST FANS AT 5 AMPS, FIELD VERIFY LOCATION OF COMBINATION STARTERS.
- 15. ALTERNATE 6: CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED,
- 16. 4" SQ JBOX MOUNTED NEXT TO "CHEMICAL CONTROLLER". POOL CONTRACTOR SHALL PROVIDE CIRCUITING FROM JBOX TO CHEMICAL CONTROLLER TO POWER THE RECEPTACLES AS INDICATED. COORDINATE WORK WITH POOL CONTRACTOR.
- 17. 2#12&1#12GRD, 3/4"C FROM CHEMICAL CONTROLLER JBOX TO GFI RECEPTACLE.
- 18. GFI RECEPTACLE FOR "ACCU-TAB FEEDER".
- 19. GFI QUAD RECEPTACLE FOR "U.V. UNIT".
- 20. GFI RECEPTACLE FOR "CO2 FEEDER".
- 21. INTERCEPT EXISTING 15HP POOL PUMP CIRCUITING WITH 30A-3P, NEMA 4X (FIBERGLASS) DISCONNECT SWITCH AND FEED VFC/BYPASS THAT SERVES THE (2) NEW POOL PUMPS.
- 22. THE EXISTING #8 BARE COPPER BONDING CONDUCTOR (PER NEC 680,26) SHALL BE EXTENDED FROM THE EXISTING POOL PUMP MOTOR AND EXTENDED TO THE NEW POOL PUMP MOTORS. THIS #8 BARE COPPER CONDUCTOR SHALL ALSO BE EXTENDED TO THE NEW POOL EQUIPMENT: VFC, ACCU-TAB FEEDER AND U.Y. UNIT.
- 23. STAND-BY GENERATOR RECEPTACLE FOR IDF/MDF RACK. COORDINATE EXACT LOCATION WITH OWNER/PMC. RECEPTACLE COLOR SHALL BE RED.
  - 24, STAND-BY GENERATOR RECEPTACLE FOR OFFICE POWER OUTAGE, COORDINATE EXACT LOCATION WITH OWNER, ROUTE CIRCUITING IN IVORY WIREMOLD IN FINISHED AREAS. RECEPTACLE COLOR SHALL BE RED.



WAKELY ASSOCIATES, INC. ARCHITECTS

30500 VAN DYKE AVENUE SUITE M-7 WARREN, MICHIGAN 48093 PH: 586.573.4100 FX: 586.573.0822



FIRST FLOOR POWER PLAN -ZONE 'K' KEY PLAN NO SCALE

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION FINAL RECORD

DRAWN BY: CHECKED BY: REVISIONS:

CONSTRUCTION 10-01 DATE: AUGUST 19, 202<sup>-</sup>

FIRST FLOOR POWER PLAN - ZONE 'L'
SCALE: 1/8' - 1' - 0'

# ELECTRICAL GENERAL NOTES:

TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES,

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE—THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL
  MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL
  ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE—TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

## **EXAMPLE 2** CONSTRUCTION KEY NOTES:

- PROVIDE NEW 200KW NATURAL GAS GENERATOR AND GENERATOR ANNUNCIATOR, CONNECT GENERATOR TO EXISTING FEEDERS AND BRANCH CIRCUITS, PROVIDE NEW CONTROL WIRING AND GENERATOR ANNUNCIATOR WIRING AS REQUIRED.
- 2. PROVIDE NEW NATIONAL TIME AND SIGNAL DLU225/DLU400 DIGITAL CLOCK SYSTEM.
  DLU225 SHALL BE USED IN OFFICES, CLASSROOMS, AND OTHER SMALL SPACES.
  DLU400 SHALL BE USED IN CORRIDORS, GYMNASIUMS, AND OTHER LARGE SPACES.
  EXISTING CLOCK SYSTEM WIRING TO BE REUSED.
- 3. DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD, EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4. POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT. PROVIDE NEW CIRCUITING PER NEC 680.14. COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR.
- 5. ALTERNATE 5: EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS. HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE, ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS, CONNECT TO EXISTING CIRCUITING, EXTEND CONDUIT AND WIRING AS REQUIRED, PROVIDE ALL MISCELLANEOUS MOUNTING STEEL.
- 6. ALTERNATE 5: PROVIDE RECEPTACLE AND DATA DEVICE ON FACE OF EXISTING MEZZANINE FLOOR FRAMING FOR NEW T.V. LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 7. ALTERNATE 5: PROVIDE POWER TO NEW LIFT. COORDINATE POWER REQUIREMENTS WITH LIFT MANUFACTURER. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 8. CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT, EXTEND CONDUIT AND WIRE AS REQUIRED.
- 9. PROVIDE NEW GENERATOR DOCKING STATION, REFER TO ONE LINE DIAGRAM.
- 10. ALTERNATE 5: NEW EXHAUST FANS, CIRCUIT NEW MECHANICAL EQUIPMENT AS INDICATED ON PLANS.
- 11. DUCT SMOKE DETECTORS, COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL, PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.
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  - 24. STAND-BY GENERATOR RECEPTACLE FOR OFFICE POWER OUTAGE. COORDINATE EXACT LOCATION WITH OWNER. ROUTE CIRCUITING IN IVORY WIREMOLD IN FINISHED AREAS, RECEPTACLE COLOR SHALL BE RED.



MAKELY ASSOCIATES, INC ARCHITECTS

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MENIS IO PROJECTS

FE AND BUILDING IMPROVEME RMINGTON HIGH SCHOOL

O BOND ISSUE - BID PACKAGE No. 3 - 2021 PF

FIRST FLOOR POWER PLAN - ZONE 'L'

PRELIMINARY

DESIGN DEVELOPMENT

CONSTRUCTION

FINAL RECORD

DRAWN BY: GBS
CHECKED BY: GJZ
REVISIONS:

DATE: AUGUST 19, 2021
SHEET NO.:

CONSTRUCTION 10-01

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PROVEMENTS TO HOOL

FIRST FLOOR POWER PLAN ZONE 'M'

PRELIMINARY

DESIGN DEVELOPMENT

CONSTRUCTION

FINAL RECORD

DRAWN BY: GE
CHECKED BY: G.
REVISIONS:

CONSTRUCTION 10-01-2

DATE: AUGUST 19, 2021

SHEET NO.:

E3.1M

FIRST FLOOR POWER PLAN - ZONE 'N'
SCALE: 1/8' - 1' - 0'

## ELECTRICAL GENERAL NOTES:

- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE—THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL
  MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL
  ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE—TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

## **\*** CONSTRUCTION KEY NOTES:

- 1. PROVIDE NEW 200KW NATURAL GAS GENERATOR AND GENERATOR ANNUNCIATOR. CONNECT GENERATOR TO EXISTING FEEDERS AND BRANCH CIRCUITS. PROVIDE NEW CONTROL WIRING AND GENERATOR ANNUNCIATOR WIRING AS REQUIRED.
- 2. PROVIDE NEW NATIONAL TIME AND SIGNAL DLU225/DLU400 DIGITAL CLOCK SYSTEM. DLU225 SHALL BE USED IN OFFICES, CLASSROOMS, AND OTHER SMALL SPACES. DLU400 SHALL BE USED IN CORRIDORS, GYMNASIUMS, AND OTHER LARGE SPACES. EXISTING CLOCK SYSTEM WIRING TO BE REUSED.
- DISCONNECT AND RECONNECT EXISTING POWER TO NEW SCOREBOARD, EXTEND CONDUIT AND WIRING AS REQUIRED.
- 4. POOL MECHANICAL ROOM IS CONSIDERED A CORROSIVE ENVIRONMENT. PROVIDE NEW CIRCUITING PER NEC 680.14. COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR.
- 5, ALTERNATE 5: EXISTING CORD DROPS TO BE REPLACED WITH NEW CORD REELS, HUBBELL MODEL HBL45123 WITH DUPLEX RECEPTACLE AND PIVOT BASE. ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS. CONNECT TO EXISTING CIRCUITING. EXTEND CONDUIT AND WIRING AS REQUIRED. PROVIDE ALL MISCELLANEOUS MOUNTING STEEL.
- 6. ALTERNATE 5: PROVIDE RECEPTACLE AND DATA DEVICE ON FACE OF EXISTING MEZZANINE FLOOR FRAMING FOR NEW T.Y. LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 7. ALTERNATE 5: PROVIDE POWER TO NEW LIFT. COORDINATE POWER REQUIREMENTS WITH LIFT MANUFACTURER. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 8. CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 9. PROVIDE NEW GENERATOR DOCKING STATION, REFER TO ONE LINE DIAGRAM.
- 10. ALTERNATE 5: NEW EXHAUST FANS, CIRCUIT NEW MECHANICAL EQUIPMENT AS INDICATED ON PLANS.
- 11. DUCT SMOKE DETECTORS. COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.
- 12. DISCONNECT POWER FROM EXISTING MECHANICAL UNIT TO ALLOW MECHANICAL TRADES TO REPLACE INTERNAL COMPONENTS OF UNIT. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR NEW UNIT VENTILATOR EC MOTOR. RECONNECT POWER AT TIME AS COORDINATED WITH MECHANICAL TRADES, AFTER MECHANICAL TRADES HAS REPLACED INTERNAL COMPONENTS OF UNIT.
- 13. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR TO THE NEAREST 120 VOLT CIRCUIT (ELECTRICAL CONTRACTOR SHALL TIE INTO RECEPTACLE CIRCUIT WITH A 20A-1P SWITCH TO FEED THE DAMPER ACTUATORS), CONTROL WIRING/INTERLOCK TO AIR HANDLING EQUIPMENT IS BY THE TEMPERATURE CONTROL CONTRACTOR.
- ALTERNATE 5: FUSE NEW EXHAUST FANS AT 5 AMPS, FIELD VERIFY LOCATION OF COMBINATION STARTERS.
- 15. ALTERNATE 6: CIRCUIT MECHANICAL EQUIPMENT TO MAINTAINED BRANCH CIRCUIT, EXTEND CONDUIT AND WIRE AS REQUIRED.
- 16. 4" SQ JBOX MOUNTED NEXT TO "CHEMICAL CONTROLLER". POOL CONTRACTOR SHALL PROVIDE CIRCUITING FROM JBOX TO CHEMICAL CONTROLLER TO POWER THE RECEPTACLES AS INDICATED. COORDINATE WORK WITH POOL CONTRACTOR.
- 17. 2#12&1#12GRD, 3/4"C FROM CHEMICAL CONTROLLER JBOX TO GFI RECEPTACLE.
- 18. GFI RECEPTACLE FOR "ACCU-TAB FEEDER".
- 19. GFI QUAD RECEPTACLE FOR "U.V. UNIT".
- 20. GFI RECEPTACLE FOR "CO2 FEEDER".
- 21. INTERCEPT EXISTING 15HP POOL PUMP CIRCUITING WITH 30A-3P, NEMA 4X (FIBERGLASS) DISCONNECT SWITCH AND FEED VFC/BYPASS THAT SERVES THE (2) NEW POOL PUMPS.
- 22. THE EXISTING #8 BARE COPPER BONDING CONDUCTOR (PER NEC 680.26) SHALL BE EXTENDED FROM THE EXISTING POOL PUMP MOTOR AND EXTENDED TO THE NEW POOL PUMP MOTORS. THIS #8 BARE COPPER CONDUCTOR SHALL ALSO BE EXTENDED TO THE NEW POOL EQUIPMENT: VFC, ACCU—TAB FEEDER AND U.V. UNIT.
- 23. STAND-BY GENERATOR RECEPTACLE FOR IDF/MDF RACK. COORDINATE EXACT LOCATION WITH OWNER/PMC, RECEPTACLE COLOR SHALL BE RED,
- 24. STAND-BY GENERATOR RECEPTACLE FOR OFFICE POWER OUTAGE, COORDINATE EXACT LOCATION WITH OWNER. ROUTE CIRCUITING IN IVORY WIREMOLD IN FINISHED AREAS. RECEPTACLE COLOR SHALL BE RED.



MAKELY ASSOCIATES, INC. ARCHITECTS

30500 VAN DYKE AVENUE SUITE M-7 WARREN, MICHIGAN 48093 PH: 586.573.4100 FX: 586.573.0822



AFROVEIMENIO IO CHOOL E No. 3 - 2021 PROJECTS

FIRST FLOOR POWER PLAN-ZONE 'N'

FIRST FLOOR POWER PLAN-ZONE 'N'

DRAWN BY:

CHECKED BY:

REVISIONS:

DATE: AUGUST 19, 2021
SHEET NO.:

o. 201879

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



SECOND FLOOR POWER PLAN - ZONE 'D'

#### ELECTRICAL GENERAL NOTES:

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, FINAL CONNECTION REQUIREMENTS AND PROVIDE EACH SYSTEM COMPLETE INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
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- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
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- 10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL EXHAUST FANS ARE LOCATED ON THE ROOF U.N.O.
- 13. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME 902 FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE—TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

# **EXECUTION KEY NOTES:**

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CONSTRUCTION 10-01-21

DATE: AUGUST 19, 202<sup>-</sup>

E3.2D

SECOND FLOOR POWER PLAN - ZONE 'N'



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- 23 STAND-RY GENERATOR RECEPTACLE FOR IDE MODE RACK COORDINATE EXACT

MAKELY ASSOCIATES, INC. ARCHITECTS

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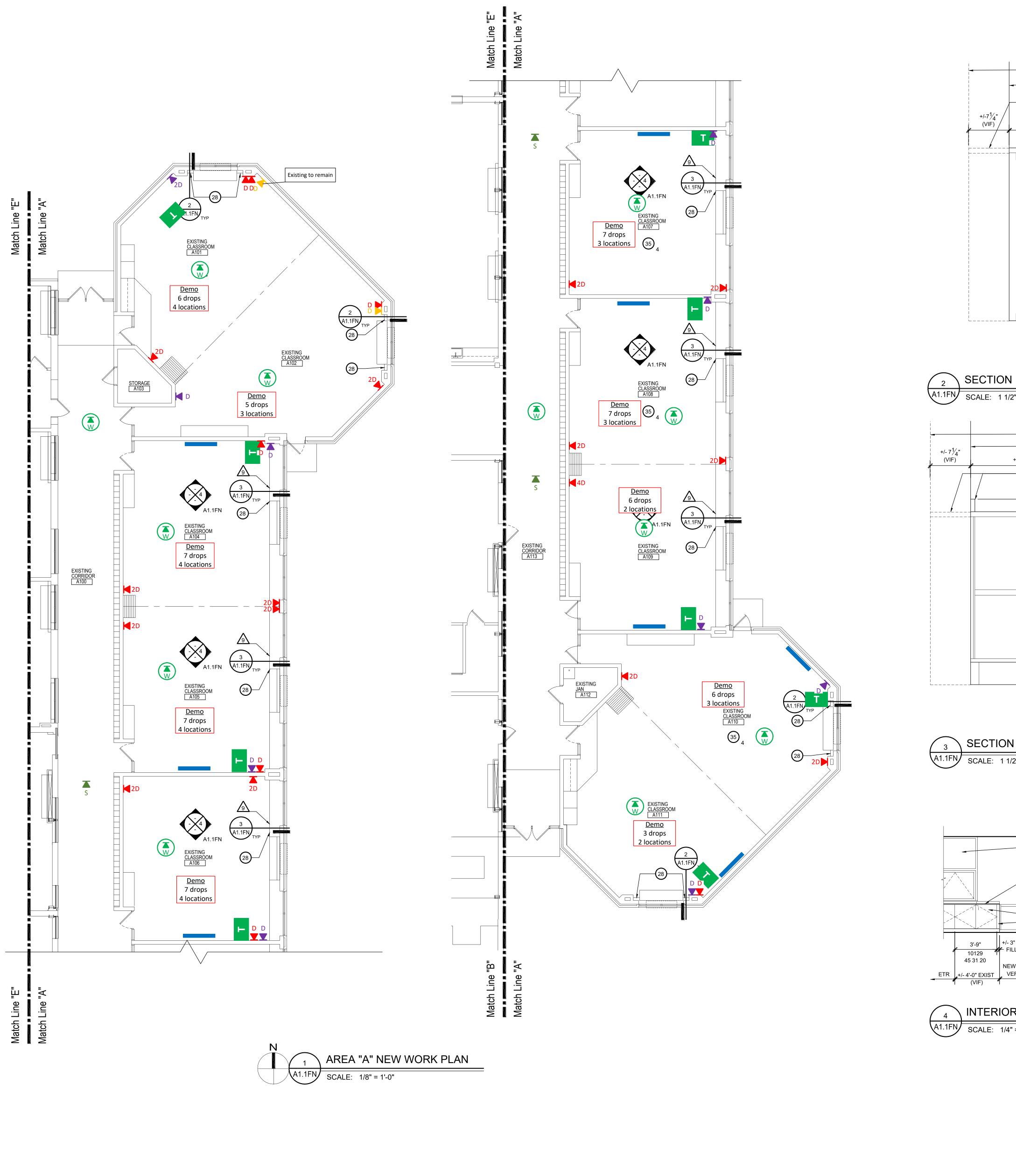
SECOND FLOOR POWER PLAN - ZONE 'N' KEY PLAN NO SCALE

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION

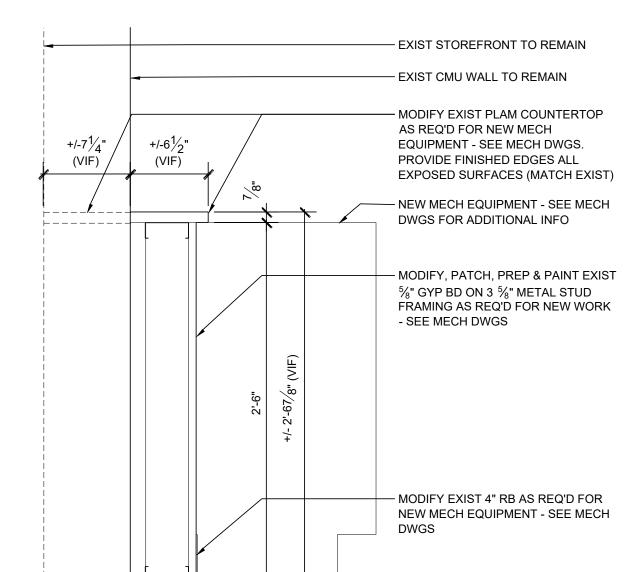
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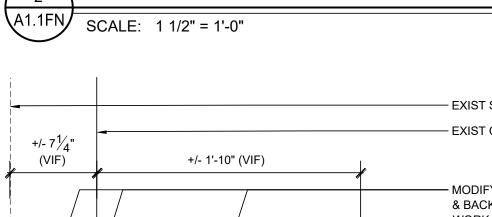
REVISIONS:

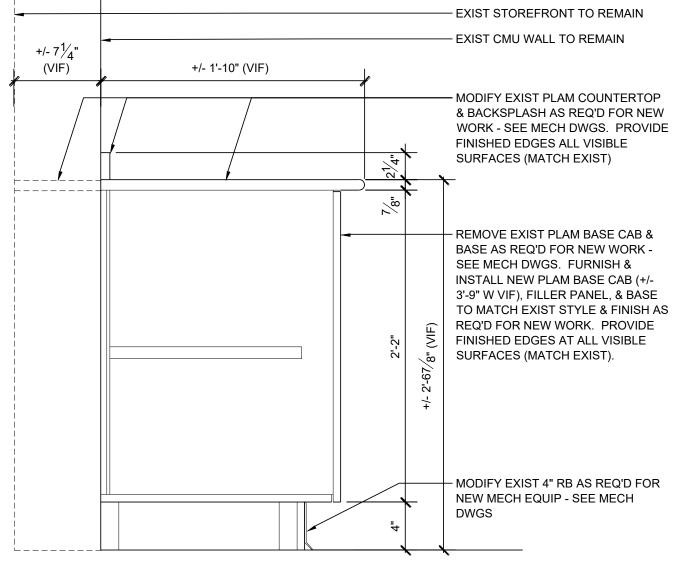
CONSTRUCTION 10-0° DATE: AUGUST 19, 202

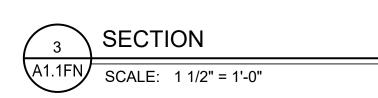


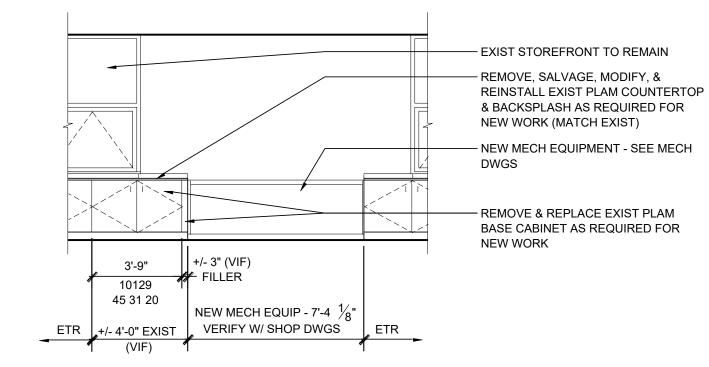
- 1. REFER TO SHEET G4.1 FOR TYPICAL NOTES, SYMBOLS, GENERAL INFORMATION, AND ABBREVIATIONS.
- 2. REFER TO SHEET G4.2 FOR REFERENCED KEYNOTES.

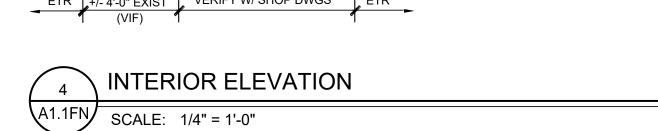


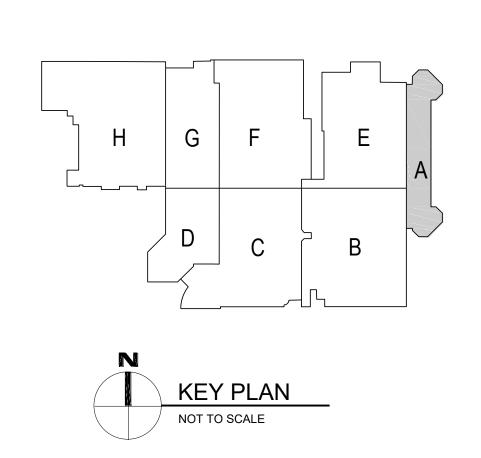












NORTH FARMINGTON HIGH SCHOOL

AREA "A" NEW WORK FLOOR PLAN

DESIGN DEVELOPMENT

REVISIONS

ADD No 02 09-28-22
CONSTRUCTION 10-31-22

DATE: AUGUST 29, 2022 SHEET NO.

A1.1FN

<sup>JOB NO.</sup> 201879

PRELIMINARY

CONSTRUCTION

FINAL RECORD

DRAWN BY JMS
CHECKED BY BJS

WAKELY ASSOCIATES, INC. ARCHITECTS

30500 VAN DYKE AVENUE SUITE M-7 WARREN, MICHIGAN 48093

PH: 586.573.4100 FX: 586.573.0822 www.WakelyAlA.com



WAKELY ASSOCIATES, INC. ARCHITECTS

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FARMINGTON NORTH HIGH SCHOOL

AREA "B" NEW WORK FLOOR PLAN

DESIGN DEVELOPMENT

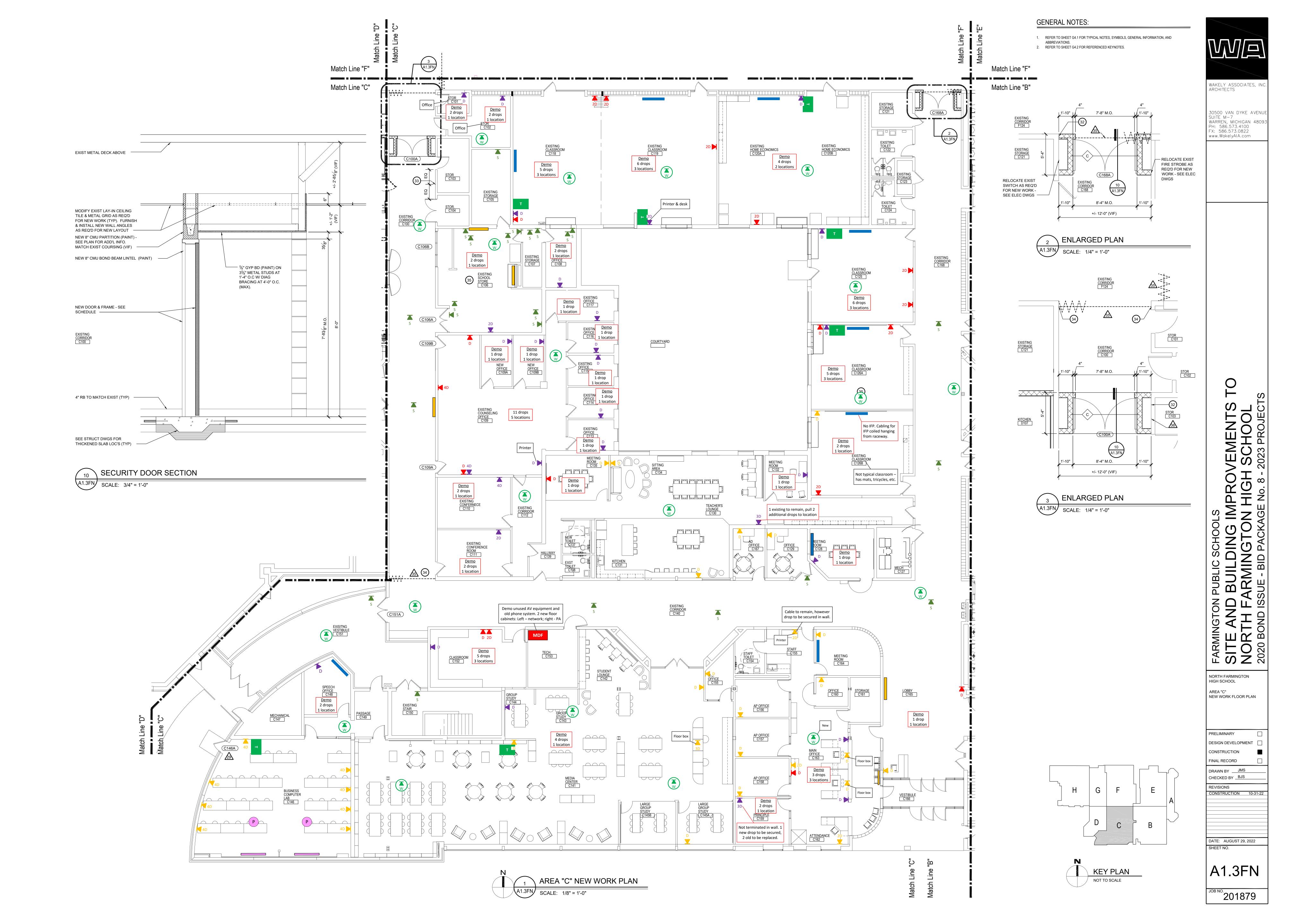
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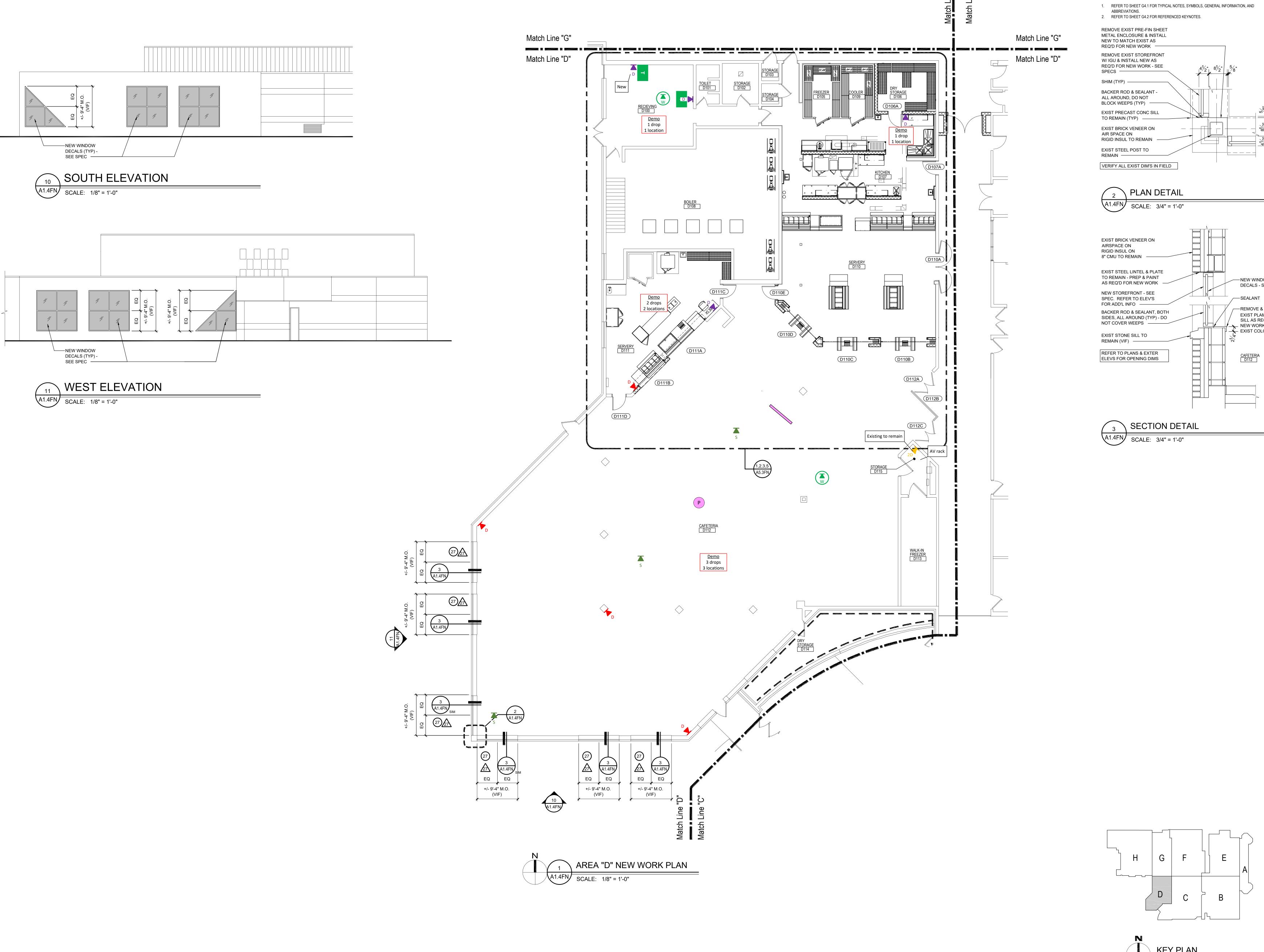
ADD No 02 09-28-22
CONSTRUCTION 10-31-22

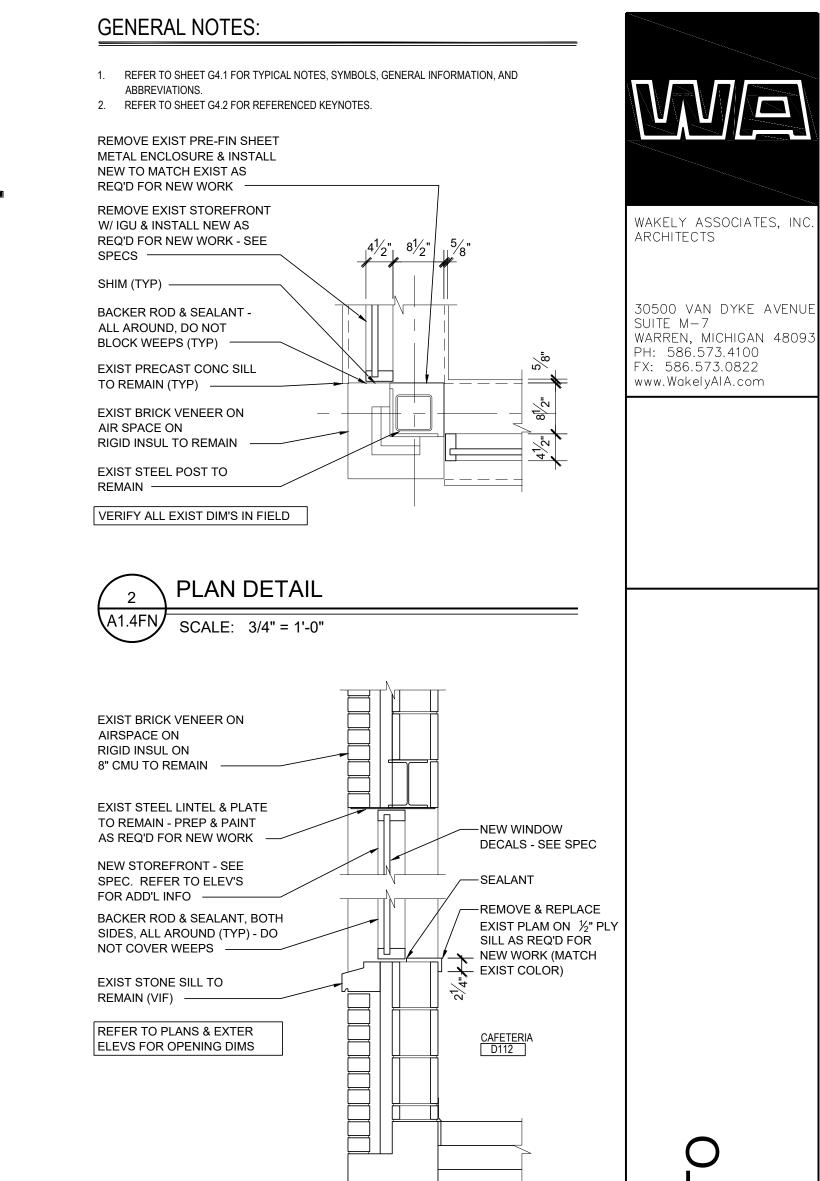
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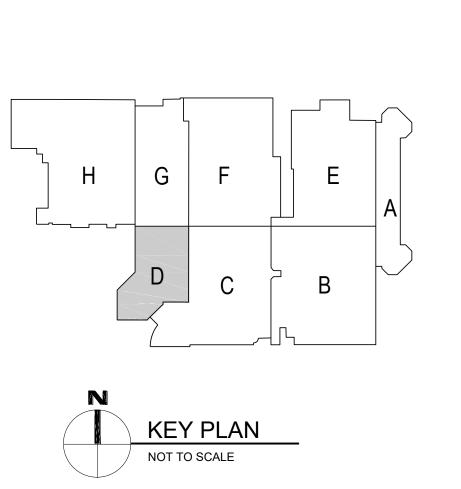
A1.2FN

<sup>JOB NO.</sup> 201879











PRELIMINARY

CONSTRUCTION

FINAL RECORD

DRAWN BY JMS
CHECKED BY BJS

DESIGN DEVELOPMENT

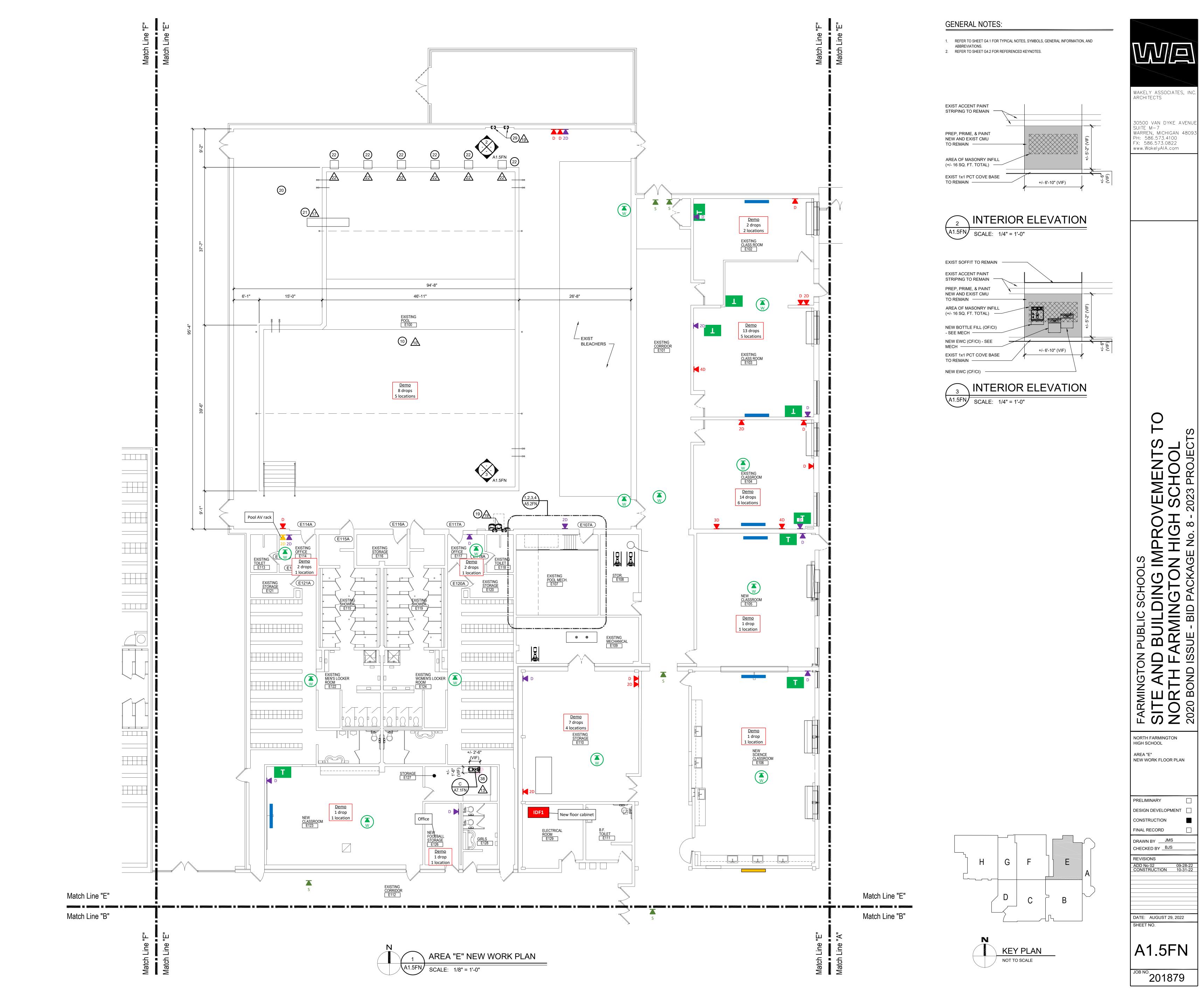
REVISIONS

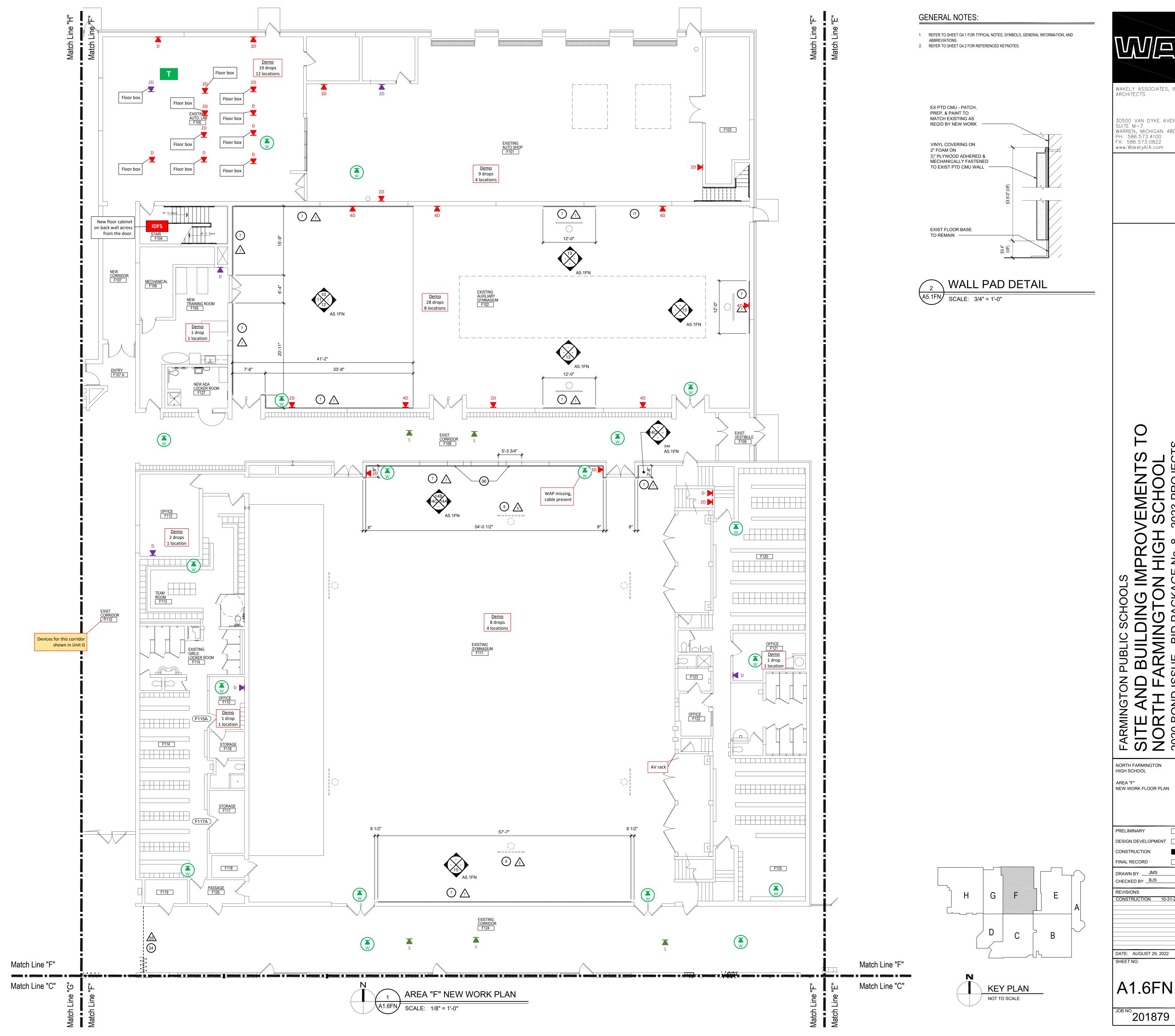
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DATE: AUGUST 29, 2022 SHEET NO.

A1.4FN

<sup>JOB NO.</sup> 201879





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NORTH FARMINGTON

HIGH SCHOOL AREA "F" NEW WORK FLOOR PLAN

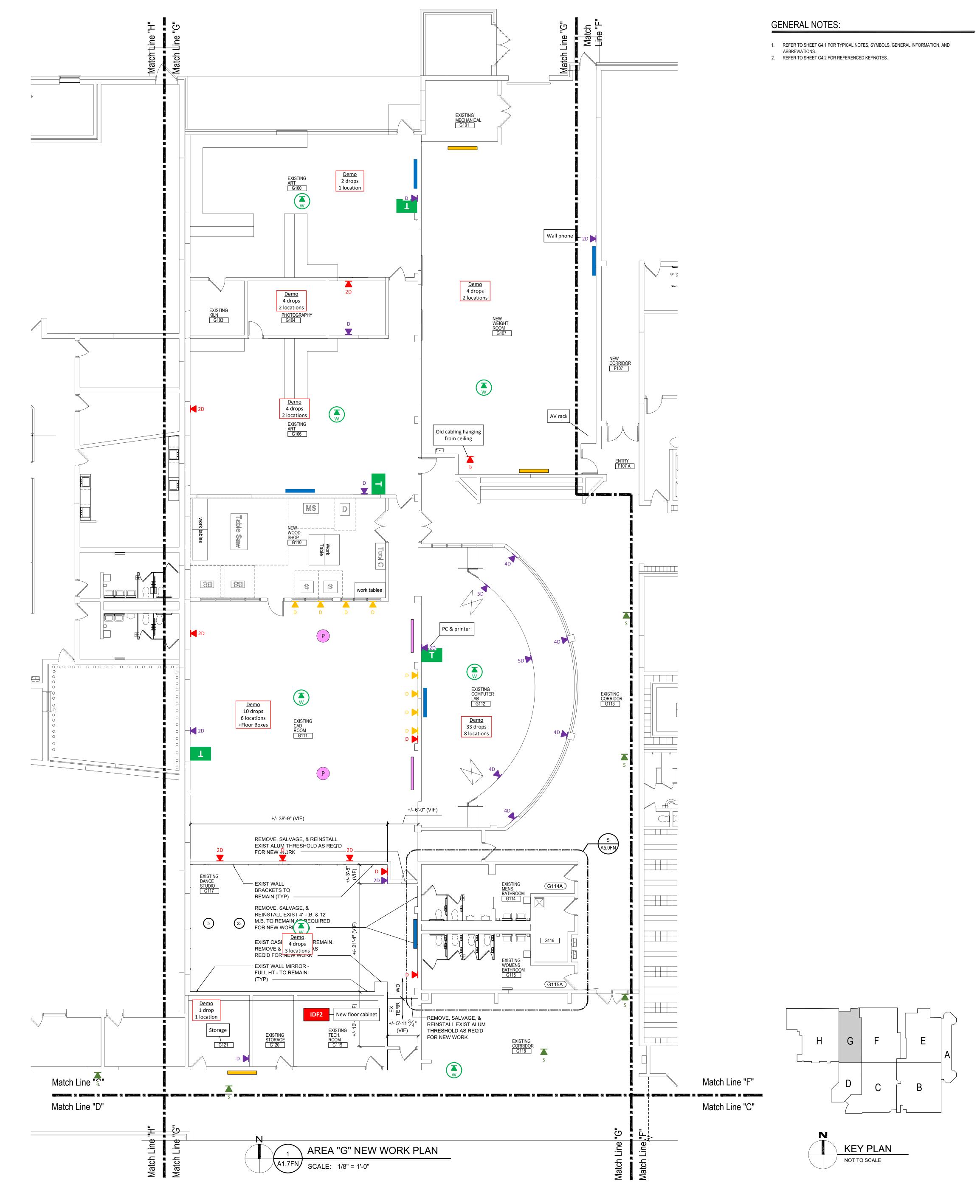
PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION FINAL RECORD

DRAWN BY JMS
CHECKED BY BJS

REVISIONS
CONSTRUCTION 10-31-22

DATE: AUGUST 29, 2022 SHEET NO.

A1.6FN





WAKELY ASSOCIATES, INC. ARCHITECTS

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NORTH FARMINGTON HIGH SCHOOL AREA "G" NEW WORK FLOOR PLAN

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION

FINAL RECORD

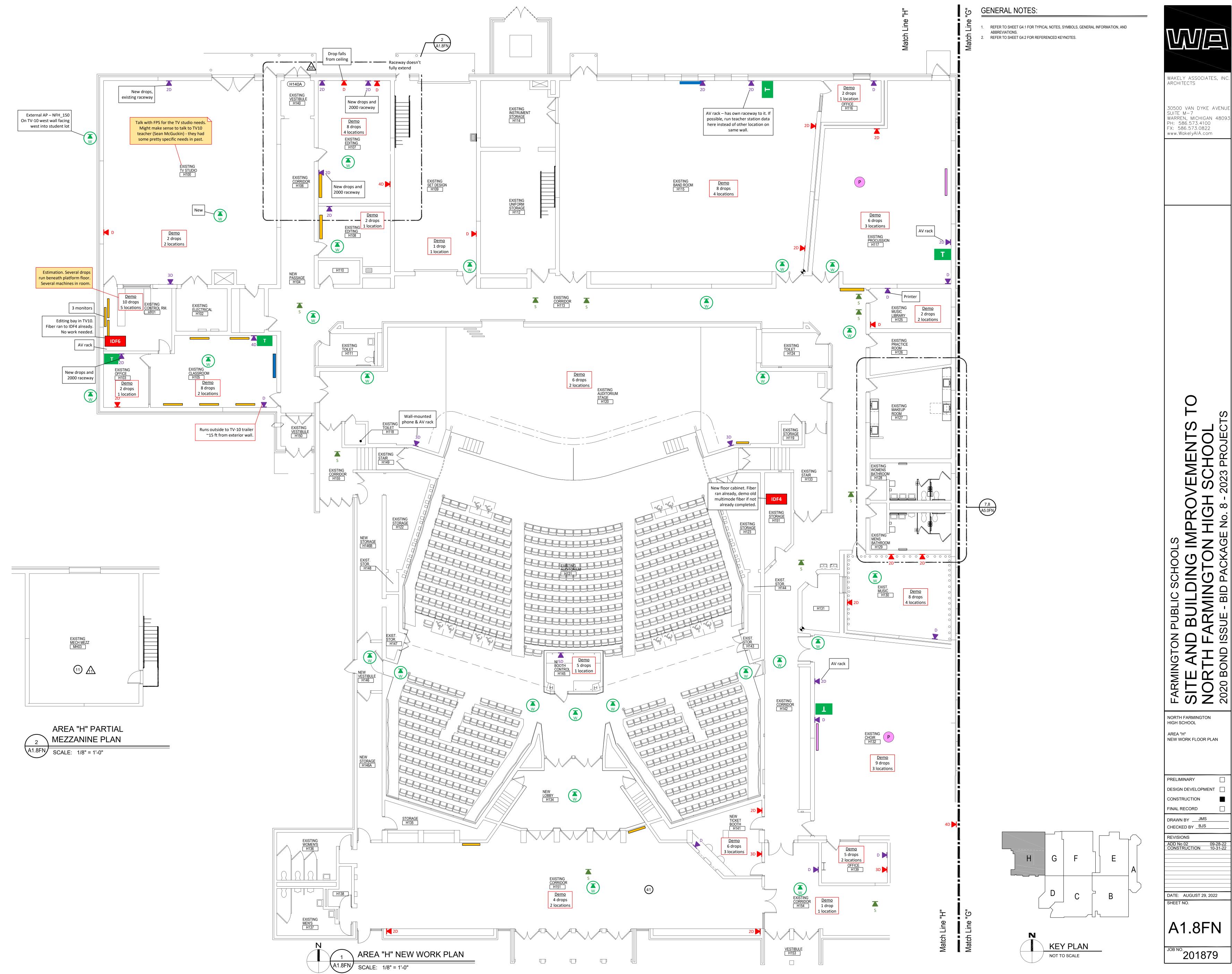
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CHECKED BY BJS

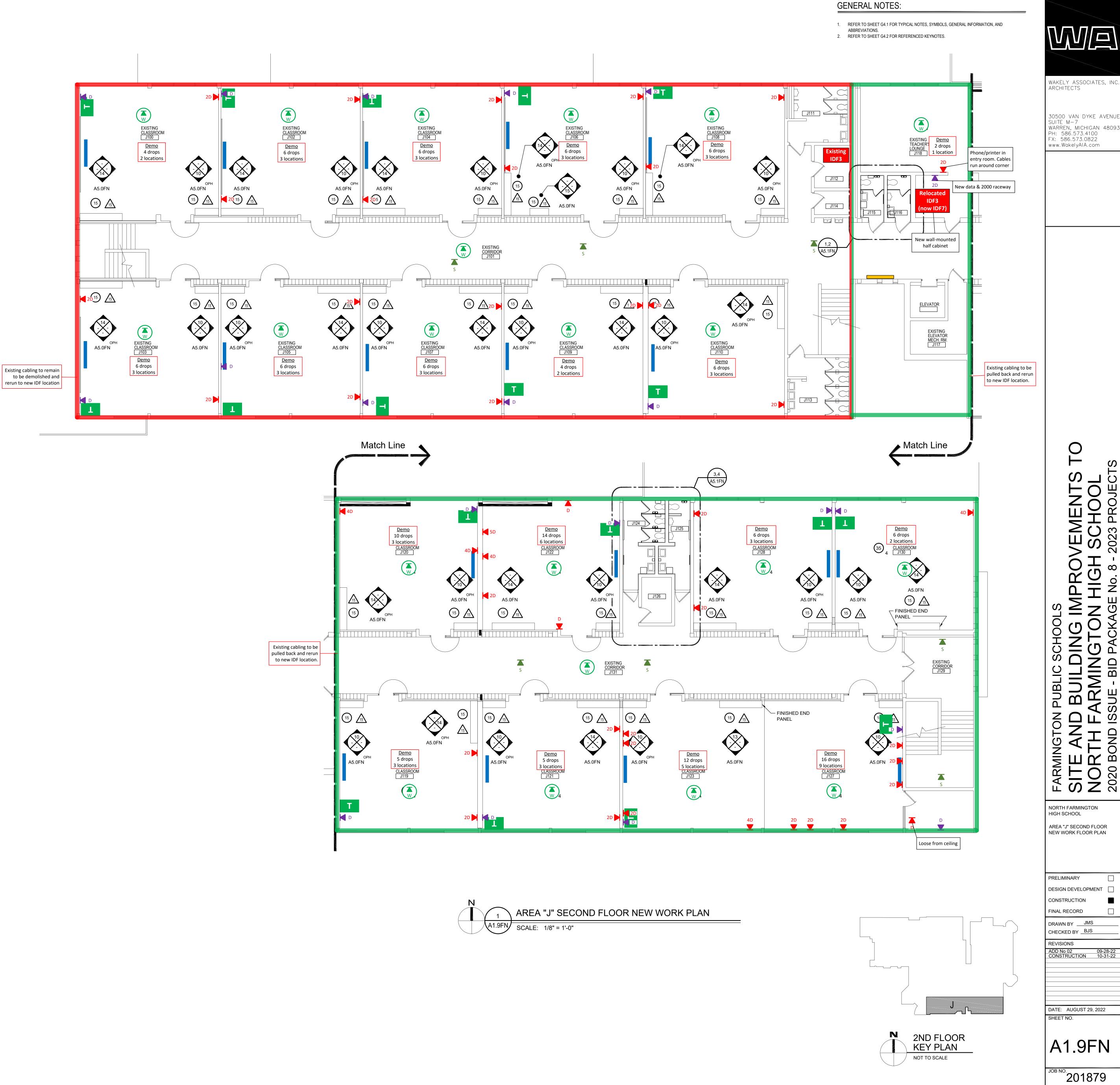
REVISIONS CONSTRUCTION 10-31-22

DATE: AUGUST 29, 2022 SHEET NO.

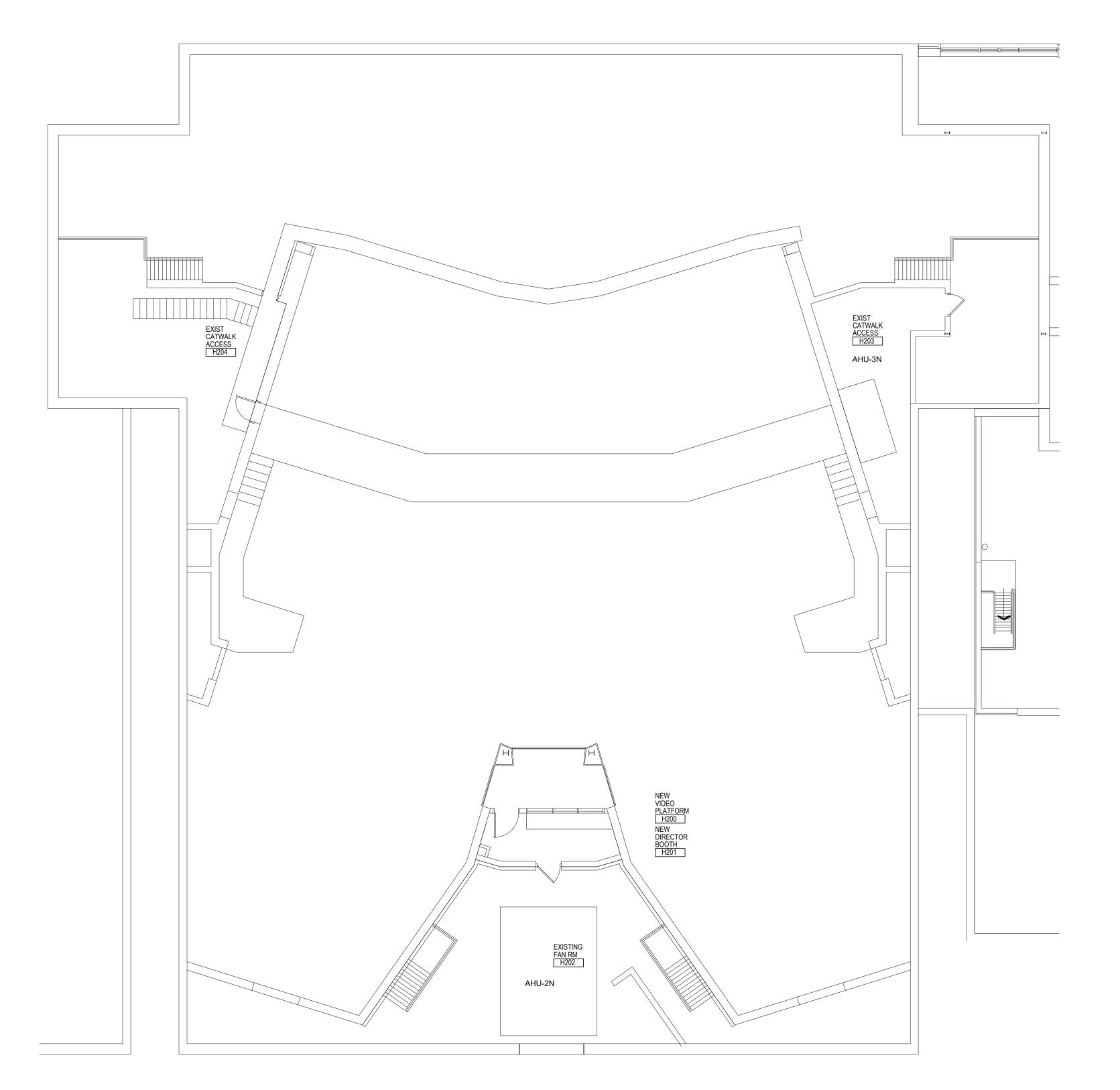
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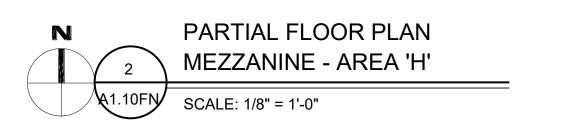
<sup>JOB NO.</sup> 201879





DESIGN DEVELOPMENT





REFER TO SHEET G4.1 FOR TYPICAL NOTES, SYMBOLS, GENERAL INFORMATION, AND ABBREVIATIONS.
 REFER TO SHEET G4.2 FOR REFERENCED KEYNOTES.



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FARMINGTON PUBLIC SCHOOLS

SITE AND BUILDING IMPROVEMENTS

NORTH FARMINGTON HIGH SCHOOL

2020 BOND ISSUE - BID PACKAGE No. 8 - 2023 PROJECT

FARMINGTON HIGH SCHOOL AREA "H" SECOND FLOOR NEW WORK FLOOR PLAN

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION FINAL RECORD

DRAWN BY JMS
CHECKED BY BJS

REVISIONS

CONSTRUCTION 10-31-22

GF

KEY PLAN

NOT TO SCALE

DATE: AUGUST 29, 2022 SHEET NO.

A1.10FN

<sup>JOB NO.</sup> 201879

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www.PeterBassoAssociates.com PBA Project No.: 2020.0269

MINGTON PUBLIC SCHOOLS

TE AND BUILDING I
ST MIDDLE SCHOOL

BOND ISSUE - BID PACKAG

FIRST FLOOR POWER AND AUXILIARY NEW WORK PLAN -

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION FINAL RECORD

DRAWN BY:

REVISIONS: CONSTRUCTION 2-3-2021

DATE: DECEMBER 3, 2020

9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE

11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY

13. UNLESS INDICATED OTHERWISE CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE VIA NEW CONTROLS AS INDICATED. PROVIDE NEW 0-10V CABLING AS REQUIRED FOR DIMMING. COORDINATE CABLING REQUIREMENTS WITH LIGHT FIXTURE AND CONTROLS MANUFACTURER.

14. INCLUDE IN BID PRICE \$20,000 ALLOWANCE TO RE-CIRCUIT FIRST FLOOR UNIT

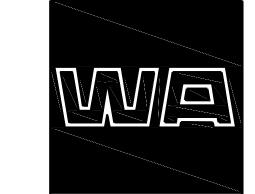
CIRCUIT OF HIGHER AMPACITY.

10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.

LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.

12. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME AND SIGNAL FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

VENTILATORS FROM OVERHEAD AS REQUIRED. RE-CIRCUITING SHALL BE APPROVED



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5145 Livernois, Suite 100 Troy, Michigan 48098-3276 Tel: 248-879-5666 Fax: 248-879-0007 ww.PeterBassoAssociates.com PBA Project No.: 2020.0269

FARMINGTON PUBLIC SCHOOLS

SITE AND BUILDING IMPROVEMENTS

EAST MIDDLE SCHOOL

2020 BOND ISSUE - BID PACKAGE No. 1 - 2021 PROJECTS

FIRST FLOOR POWER AND
AUXILIARY NEW WORK PLAN AREA 'B'

PLAN C

PRELIMINARY

DESIGN DEVELOPMENT

CONSTRUCTION

FINAL RECORD

DRAWN BY:

JRD

DRAWN BY: JRD
CHECKED BY: STP

REVISIONS:
ADDENDUM NO.2 01-07-202

DATE: DECEMBER 3,2020 SHEET NO.:

E3.1BE



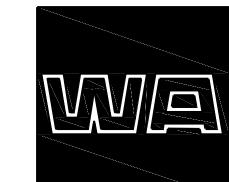
FIRST FLOOR POWER AND AUXILIARY NEW WORK PLAN - AREA 'C' SCALE: 1/8' - 1' - 0"

#### **ELECTRICAL GENERAL NOTES:**

- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
- INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- 10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME AND SIGNAL FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.
- 13. UNLESS INDICATED OTHERWISE CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE VIA NEW CONTROLS AS INDICATED. PROVIDE NEW 0-10V CABLING AS REQUIRED FOR DIMMING. COORDINATE CABLING REQUIREMENTS WITH LIGHT FIXTURE AND CONTROLS MANUFACTURER.
- 14. INCLUDE IN BID PRICE \$20,000 ALLOWANCE TO RE-CIRCUIT FIRST FLOOR UNIT VENTILATORS FROM OVERHEAD AS REQUIRED. RE-CIRCUITING SHALL BE APPROVED ON SITE BY CONSTRUCTION MANAGER PRIOR TO COMMENCEMENT OF WORK.

#### **(#)** CONSTRUCTION KEY NOTES:

- SCOREBOARD CONTROL BOX. PROVIDE 2-GANG EMPTY DATA BOX WITH 1" CONDUIT TO SCOREBOARD. PROVIDE NYLON PULLSTRING IN CONDUIT.
- 2. SCOREBOARD CONTROLLER, MICROPHONE, AND 120V DUPLEX RECEPTACLE OUTLET. PROVIDE NEW SCOREBOARD CABLING FROM WALL MOUNTED CONTROLLER TO NEW OUTLET ON FACE OF NEW BLEACHER. SAME FOR 120V OUTLET AND MICROPHONE. COORDINATE REQUIREMENTS WITH SCOREBOARD MANUFACTURER AND BLEACHER MANUFACTURER. PROVIDE BACKBOXES, OUTLETS AND NEW CABLING ROUTED THRU BRIDLE RINGS TO ALLOW BLEACHERS TO MOVE IN AND OUT. PROVIDE STRAIN RELIEF FOR ALL CABLES.
- CIRCUIT NEW SCOREBOARD TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 4. CIRCUIT NEW MECHANICAL EQUIPMENT TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED. CIRCUIT TRACE AND REPLACE EXISTING CIRCUIT BREAKER SERVING BRANCH CIRCUIT WITH NEW 15A-1P CIRCUIT BREAKER. TURN REMOVED CIRCUIT BREAKER OVER TO OWNER.
- 5. CIRCUIT RECEPTACLE(S) AT NEW DEMONSTRATION TABLE TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 6. GYM DIVIDER CURTAIN AND CONTROLS FURNISHED BY OTHERS. ELECTRICAL CONTRACTOR TO PROVIDE NEW CONTROL WIRING. CIRCUIT DIVIDER CURTAIN MOTOR TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRING AS REQUIRED. PROVIDE NEW DISCONNECT SWITCH AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH DIVIDER CURTAIN MANUFACTURER.



WAKELYASSOCIATES, INC. ARCHITECTS

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www.PeterBassoAssociates.com PBA Project No.: 2020.0269

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FIRST FLOOR POWER AND AUXILIARY NEW WORK PLAN -AREA 'C'

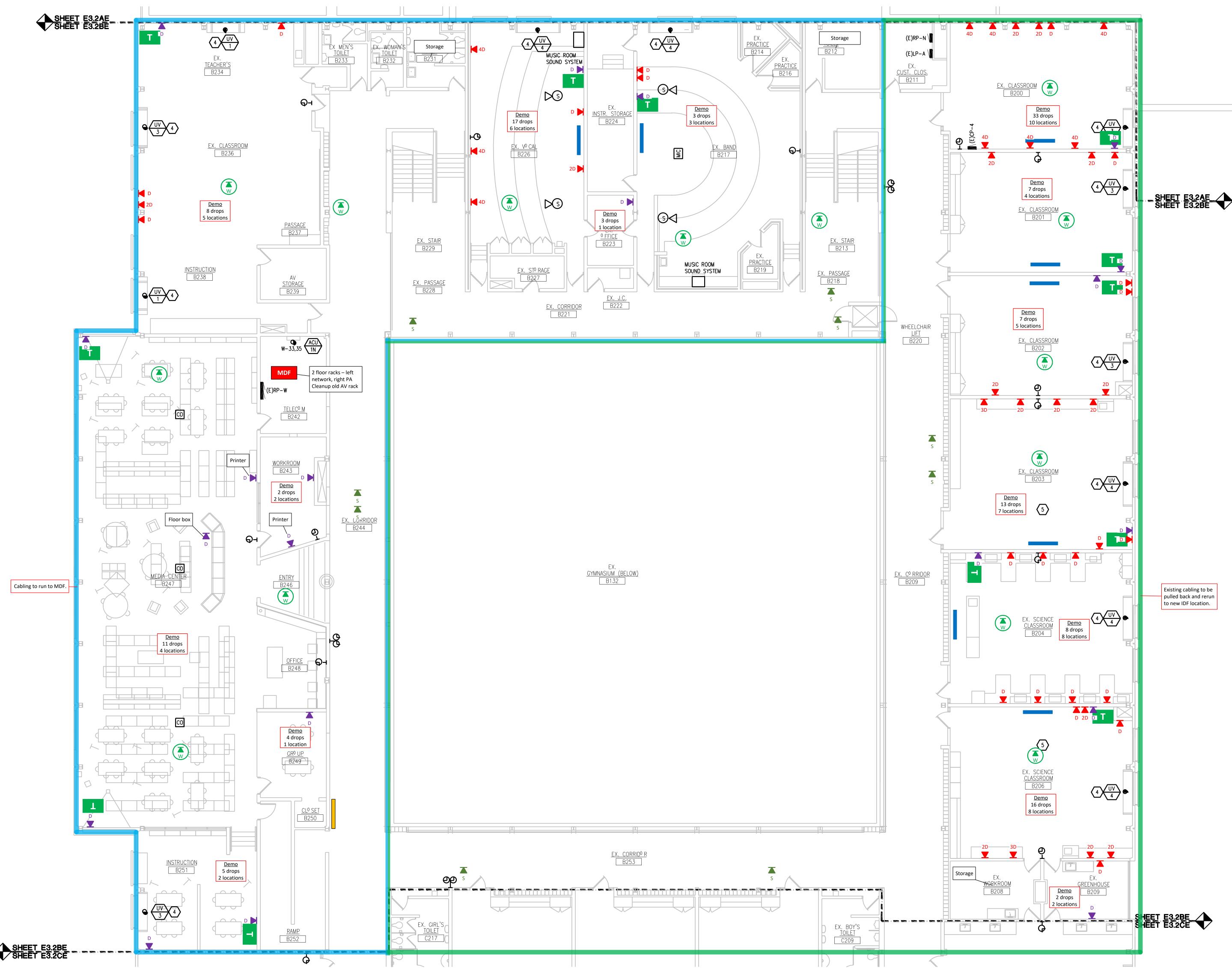
PRELIMINARY

CONSTRUCTION FINAL RECORD

DRAWN BY: CHECKED BY:

REVISIONS: CONSTRUCTION 2-3-2021

E3.1CE



SECOND FLOOR POWER AND AUXILIARY NEW WORK PLAN - AREA 'B'

LELOTHIOAL GLINETIAL NOTES

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.

2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER

TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.

4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL

5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.

6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.

7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.

8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.

9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.

10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.

11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.

12. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME AND SIGNAL FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

13. UNLESS INDICATED OTHERWISE CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE VIA NEW CONTROLS AS INDICATED. PROVIDE NEW 0-10V CABLING AS REQUIRED FOR DIMMING. COORDINATE CABLING REQUIREMENTS WITH LIGHT FIXTURE AND CONTROLS MANUFACTURER.

14. INCLUDE IN BID PRICE \$20,000 ALLOWANCE TO RE-CIRCUIT FIRST FLOOR UNIT VENTILATORS FROM OVERHEAD AS REQUIRED. RE-CIRCUITING SHALL BE APPROVED ON SITE BY CONSTRUCTION MANAGER PRIOR TO COMMENCEMENT OF WORK.

# **#** CONSTRUCTION KEY NOTES:

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WAKELYASSOCIATES, INC.

ARCHITECTS

30500 VAN DYKEAVENUE SUITE 209 WARREN, MICHIGAN 48093 PH: 586.573.4100 FX:586.573.0822 www.WakleyAlA.com



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SECOND FLOOR POWER AND AUXILIARY NEW WORK PLAN AREA 'B'

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION

FINAL RECORD

DRAWN BY: CHECKED BY:

CONSTRUCTION 2-3-2021

E3.2BE



SECOND FLOOR POWER AND AUXILIARY NEW WORK PLAN - AREA 'C' SCALE: 1/8' - 1' - 0"

Moving to C227

## **ELECTRICAL GENERAL NOTES:**

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
  - 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
  - 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
  - 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH
  - TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED. 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT
  - UNLESS OTHERWISE NOTED. 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.

SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING"

- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
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- 11. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
- 12. ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING NATIONAL TIME AND SIGNAL FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.
- 13. UNLESS INDICATED OTHERWISE CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE VIA NEW CONTROLS AS INDICATED. PROVIDE NEW 0-10V CABLING AS REQUIRED FOR DIMMING. COORDINATE CABLING REQUIREMENTS WITH LIGHT FIXTURE AND CONTROLS MANUFACTURER.
- 14. INCLUDE IN BID PRICE \$20,000 ALLOWANCE TO RE-CIRCUIT FIRST FLOOR UNIT VENTILATORS FROM OVERHEAD AS REQUIRED. RE-CIRCUITING SHALL BE APPROVED ON SITE BY CONSTRUCTION MANAGER PRIOR TO COMMENCEMENT OF WORK.

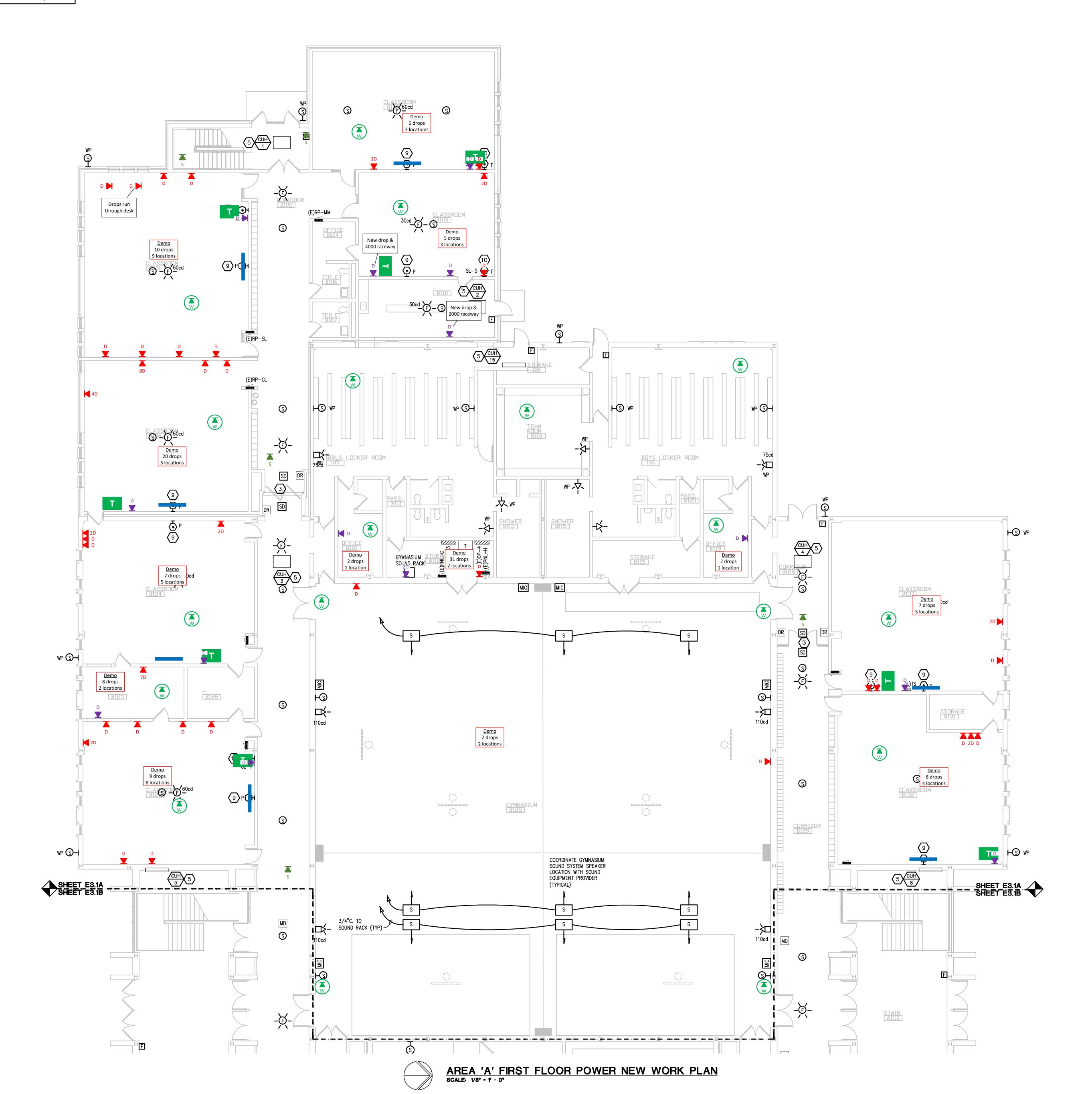
#### **#** CONSTRUCTION KEY NOTES:

- 1. SCOREBOARD CONTROL BOX. PROVIDE 2-GANG EMPTY DATA BOX WITH 1" CONDUIT TO SCOREBOARD. PROVIDE NYLON PULLSTRING IN CONDUIT.
  - 2. SCOREBOARD CONTROLLER, MICROPHONE, AND 120V DUPLEX RECEPTACLE OUTLET. PROVIDE NEW SCOREBOARD CABLING FROM WALL MOUNTED CONTROLLER TO NEW OUTLET ON FACE OF NEW BLEACHER. SAME FOR 120V OUTLET AND MICROPHONE. COORDINATE REQUIREMENTS WITH SCOREBOARD MANUFACTURER AND BLEACHER MANUFACTURER. PROVIDE BACKBOXES, OUTLETS AND NEW CABLING ROUTED THRU BRIDLE RINGS TO ALLOW BLEACHERS TO MOVE IN AND OUT. PROVIDE STRAIN RELIEF FOR ALL CABLES.
- 3. CIRCUIT NEW SCOREBOARD TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 4. CIRCUIT NEW MECHANICAL EQUIPMENT TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED. CIRCUIT TRACE AND REPLACE EXISTING CIRCUIT BREAKER SERVING BRANCH CIRCUIT WITH NEW 15A-1P CIRCUIT BREAKER. TURN REMOVED CIRCUIT BREAKER OVER TO OWNER.
- CIRCUIT RECEPTACLE(S) AT NEW DEMONSTRATION TABLE TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 6. GYM DIVIDER CURTAIN AND CONTROLS FURNISHED BY OTHERS. ELECTRICAL CONTRACTOR TO PROVIDE NEW CONTROL WIRING. CIRCUIT DIVIDER CURTAIN MOTOR TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRING AS REQUIRED. PROVIDE NEW DISCONNECT SWITCH AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH DIVIDER CURTAIN MANUFACTURER.

CONSTRUCTION FINAL RECORD DRAWN BY:

CHECKED BY: REVISIONS: ADDENDUM NO.2 01-07-2021 CONSTRUCTION 02-03-2021

E3.2CE



UNLESS OTHERWISE NOTED.

CIRCUIT OF HIGHER AMPACITY.

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.

ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD"
- SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.

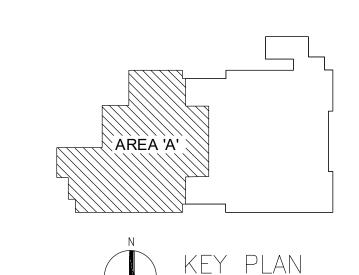
  6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING"
- 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT

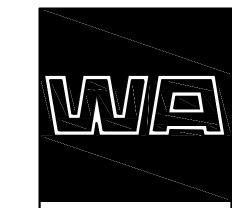
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- 10. PROVIDE THE DESIGN AND INSTALLATION FOR A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ALL APPLICABLE CODES. THE FIRE ALARM VENDOR SHALL PROVIDE LAYOUT DRAWINGS INDICATING THE REQUIRED QUANTITIES AND LOCATIONS OF MANUAL PULL STATIONS, NOTIFICATION APPLIANCES, SMOKE AND HEAT DETECTORS, CONTROL MODULES, INTERFACE MODULES, MODULES FOR SPRINKLER FLOW AND TAMPER SWITCHES, ALL CONTROL PANELS, POWER SUPPLIES, ADDITIONAL DEVICES AND EQUIPMENT REQUIRED. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL FINISHES AND REFLECTED CEILING PLANS, INCLUDING ADDITIONAL SMOKE AND HEAT DETECTORS REQUIRED FOR NON—SMOOTH CEILING APPLICATIONS. INCLUDE ALLOWANCES FOR ADJUSTMENT OF DEVICES BY THE ARCHITECT AT THE TIME OF SUBMITTAL TO COORDINATE WITH BUILDING FINISHES AND OTHER CEILING ELEMENTS. PROVIDE \$25,000 ALLOWANCE AS PART OF BID PRICE FOR DUCT SMOKE DETECTORS AT EXISTING FIRE SMOKE DAMPERS. COORDINATE LOCATION OF FIRE SMOKE DAMPERS IN
- 11. CIRCUIT EXIT LIGHT FIXTURES UN-SWITCHED TO HOT LEG OF NEAREST AVAILABLE EMERGENCY LIGHTING CIRCUIT.
- 12. EXTEND EXISTING CIRCUIT GROUNDING AS REQUIRED PER NEC.

#### **# CONSTRUCTION KEY NOTES:**

- RELOCATED MASTER CLOCK. CONNECT TO EXISTING CLOCK CIRCUITS AND BRANCH CIRCUIT THAT SERVED PREVIOUS LOCATION. EXTEND CONDUIT AND WIRES AS REQUIRED.
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- 3. PROVIDE FIRE ALARM CONTROL MODULE AND SMOKE DETECTORS FOR DOOR RELEASE. COORDINATE MOUNTING WITH EXISTING CONDITIONS. DOOR HARDWARE IS EXISTING OR BY OTHERS (IF NEW DOOR). WIRE TO FIRE ALARM PANEL SO THAT UPON DETECTION OF SMOKE AT ASSOCIATED DOOR SMOKE DETECTORS, DOOR WILL RELEASE AND FIRE ALARM SYSTEM WILL BE ACTIVATED. PROVIDE 120V POWER (FROM DEDICATED CIRCUIT) OR 24V POWER (FROM NEAREST FIRE ALARM SYSTEM)
- 4. DUCT SMOKE DETECTORS. COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH EXISTING DUCT WORK TO MEED CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON EXISTING DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE EXISTING MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.
- 5. CIRCUIT NEW MECHANICAL EQUIPMENT TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 6. CIRCUIT TO SPARE 20A-3P CIRCUIT BREAKER IN PNL-A.
- 7. PROVIDE NEW 20A-3P CIRCUIT BREAKER IN EXISTING SPACE IN (E)PNL-A AND BRANCH CIRCUIT (CONDUIT AND WIRE) FOR PUMP CP-1.
- 8. PROVIDE NEW 15A-2P CIRCUIT BREAKER IN EXISTING SPACE IN (E)RP-NN AND BRANCH CIRCUIT (CONDUIT AND WIRE) FOR SPLIT SYSTEM ACU-1.
- 9. REFER TO SHORT THROW PROJECTOR DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT NEW PROJECTOR. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. WHERE NO CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW PROJECTOR LOCATION.
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- 12. PROVIDE (10) 20A-1P CIRCUIT BREAKERS AT (E)PNL-FF FOR RECEPTACLE CIRCUITING AS INDICATED. UNUSED CIRCUIT BREAKERS SHALL REMAIN AS SPARE.





WAKELY ASSOCIATES, INC.

30500 VAN DYKE AVENUE SUITE M-7 WARREN, MICHIGAN 48093 PH: 586.573.4100 FX: 586.573.0822 WMM.MakelyAIA.com



FARMINGTON PUBLIC SCHOOLS - 2015 Be 2017 RENOVATIONS

POWER MIDDLE SCHOOL

PRELIMINARY DESIGN DEVELOPMENT

CONSTRUCTION

FINAL RECORD

DRAWN BY: JI

CHECKED BY: G

REVISIONS:
BIDS 12-23-

DATE: DECEMBER 23,2016
SHEET NO.:

E3.1AP

JOBNO. 161664C

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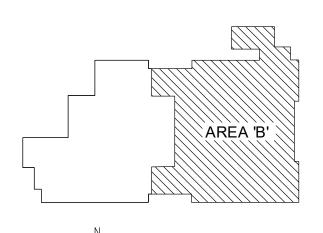
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KEY PLAN

N.T.S.

MAKELY ASSOCIATES, INC.

30500 VAN DYKE AVENUE SUITE M-7 WARREN, MICHIGAN 48093 PH: 586.573.4100 FX: 586.573.0822 www.MakelyA1A.com

Peter Basso Associates Inc CONSULTING ENGINEERS 5145 Livernois, Suite 100 Troy, Michigan 48098-3276 Tel: 248-879-5666 Fax: 248-879-0007 www.PeterBassoAssociates.com PBA Project No.: 2015.0143.05

0 RMIN

AREA'B' FIRST FLOOR POWER NEW WORKPLAN

PRELIMINARY DESIGN DEVELOPMENT

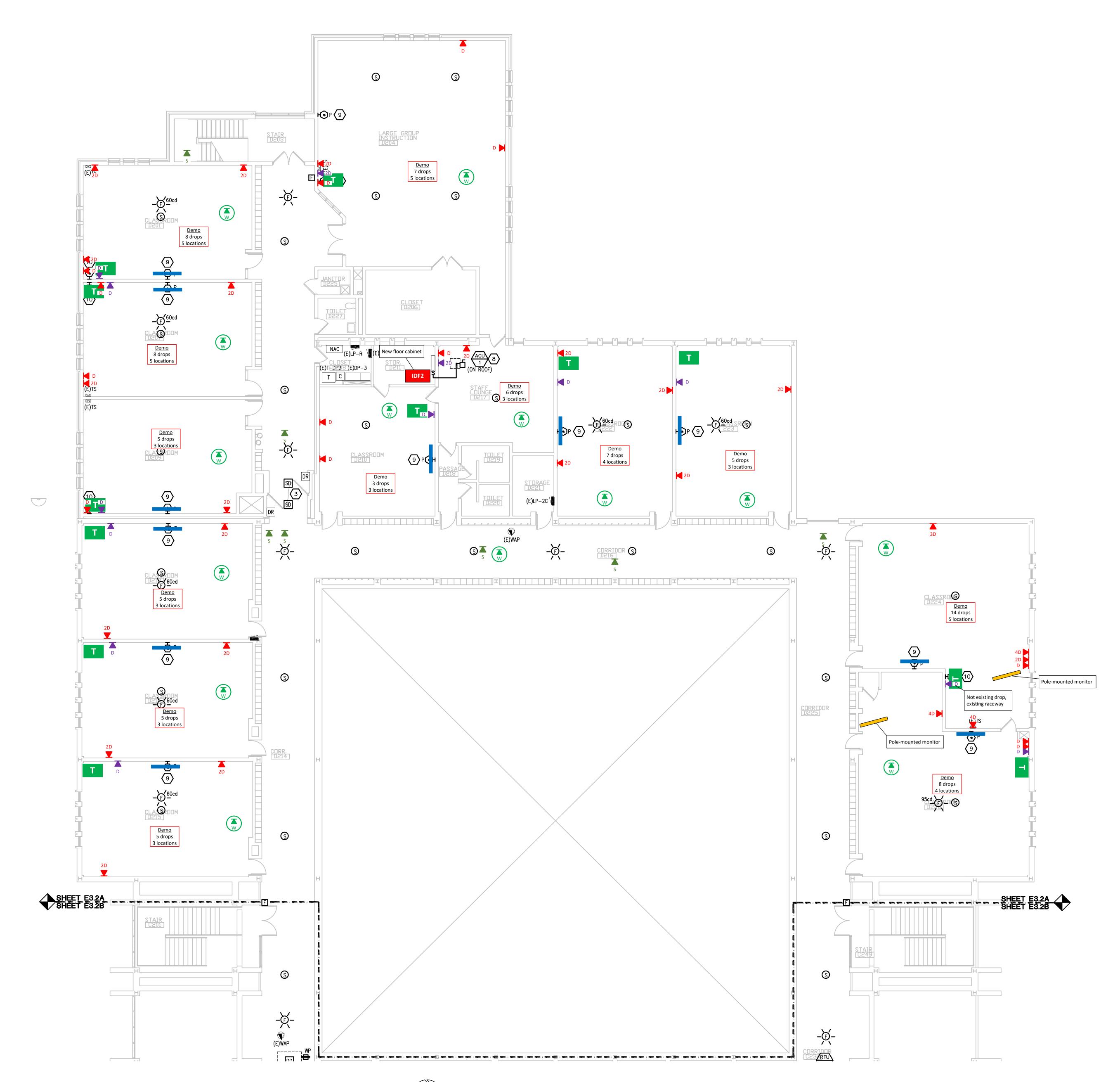
CONSTRUCTION FINAL RECORD

CHECKED BY: REVISIONS:

DATE: DECEMBER 23, 2016

E3.1BP

<sup>ЈОВ NO.</sup> 161664С



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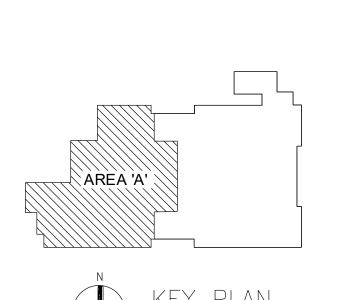
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N PUBLIC SCHOOLS - 2015 B
NOVATIONS

AREA'A' SECOND FLOOR POWER NEW WORK PLAN

RMIN

DRAWN BY: JF
CHECKED BY: GA

REVISIONS:
BIDS 12-23-2016

DATE: DECEMBER 23,2016

E3.2AP

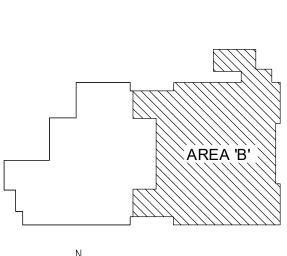
JOBNO. 161664C

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND
- ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

  3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- 5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- 7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 8. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- 10. PROVIDE THE DESIGN AND INSTALLATION FOR A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ALL APPLICABLE CODES. THE FIRE ALARM VENDOR SHALL PROVIDE LAYOUT DRAWINGS INDICATING THE REQUIRED QUANTITIES AND LOCATIONS OF MANUAL PULL STATIONS, NOTIFICATION APPLIANCES, SMOKE AND HEAT DETECTORS, CONTROL MODULES, INTERFACE MODULES, MODULES FOR SPRINKLER FLOW AND TAMPER SWITCHES, ALL CONTROL PANELS, POWER SUPPLIES, ADDITIONAL DEVICES AND EQUIPMENT REQUIRED. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL FINISHES AND REFLECTED CEILING PLANS, INCLUDING ADDITIONAL SMOKE AND HEAT DETECTORS REQUIRED FOR NON—SMOOTH CEILING APPLICATIONS. INCLUDE ALLOWANCES FOR ADJUSTMENT OF DEVICES BY THE ARCHITECT AT THE TIME OF SUBMITTAL TO COORDINATE WITH BUILDING FINISHES AND OTHER CEILING ELEMENTS. PROVIDE
  \$25,000 ALLOWANCE AS PART OF BID PRICE FOR DUCT SMOKE DETECTORS AT EXISTING FIRE SMOKE DAMPERS. COORDINATE LOCATION OF FIRE SMOKE DAMPERS IN FIELD.
- 11. CIRCUIT EXIT LIGHT FIXTURES UN—SWITCHED TO HOT LEG OF NEAREST AVAILABLE EMERGENCY LIGHTING CIRCUIT.
- 12. EXTEND EXISTING CIRCUIT GROUNDING AS REQUIRED PER NEC.

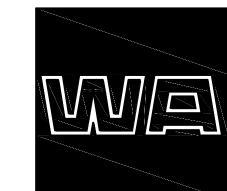
#### (#) CONSTRUCTION KEY NOTES:

- 1. RELOCATED MASTER CLOCK. CONNECT TO EXISTING CLOCK CIRCUITS AND BRANCH CIRCUIT THAT SERVED PREVIOUS LOCATION. EXTEND CONDUIT AND WIRES AS
- 2. RELOCATED CLOCK. CONNECT TO EXISTING CLOCK CIRCUIT. EXTEND CONDUIT AND WIRES AS REQUIRED.
- 3. PROVIDE FIRE ALARM CONTROL MODULE AND SMOKE DETECTORS FOR DOOR
- RELEASE. COORDINATE MOUNTING WITH EXISTING CONDITIONS. DOOR HARDWARE IS EXISTING OR BY OTHERS (IF NEW DOOR). WIRE TO FIRE ALARM PANEL SO THAT UPON DETECTION OF SMOKE AT ASSOCIATED DOOR SMOKE DETECTORS, DOOR WILL RELEASE AND FIRE ALARM SYSTEM WILL BE ACTIVATED. PROVIDE 120V POWER (FROM DEDICATED CIRCUIT) OR 24V POWER (FROM NEAREST FIRE ALARM SYSTEM) AS REQUIRED.
- 4. DUCT SMOKE DETECTORS. COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH EXISTING DUCT WORK TO MEED CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BAST ON EXISTING DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE EXISTING MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE OPERATING SYSTEM.
- 5. CIRCUIT NEW MECHANICAL EQUIPMENT TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
- 6. CIRCUIT TO SPARE 20A-3P CIRCUIT BREAKER IN PNL-A.
- PROVIDE NEW 20A-3P CIRCUIT BREAKER IN EXISTING SPACE IN (E)PNL-A AND BRANCH CIRCUIT (CONDUIT AND WIRE) FOR PUMP CP-1.
- 8. PROVIDE NEW 15A-2P CIRCUIT BREAKER IN EXISTING SPACE IN (E)RP-NN AND BRANCH CIRCUIT (CONDUIT AND WIRE) FOR SPLIT SYSTEM ACU-1.
- 9. REFER TO SHORT THROW PROJECTOR DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT NEW PROJECTOR. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. WHERE NO CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW PROJECTOR LOCATION.
- 10. REFER TO TEACHER STATION RACEWAY DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT TEACHER STATION. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. CIRCUIT RECEPTACLES AS INDICATED. WHERE NO CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT(S) THAT PREVIOUSLY SERVED OLD TEACHER STATION RACEWAY TO NEW TEACHER STATION RACEWAY LOCATION.
- 11. CONNECT FIRE ALARM DEVICES TO EXISTING ELEVATOR CONTROLLER AND NEW FIRE ALARM SYSTEM. COORDINATE WITH ELEVATOR SERVICE TECHNICIAN FOR ALL SMOKE DETECTORS AND CONTROL MODULES FOR ELEVATOR. CONTRACTOR SHALL INCLUDE COSTS FOR ELEVATOR SERVICE REPRESENTATIVES WORK IN BID PRICE.
- 12. PROVIDE (10) 20A-1P CIRCUIT BREAKERS AT (E)PNL-FF FOR RECEPTACLE CIRCUITING AS INDICATED. UNUSED CIRCUIT BREAKERS SHALL REMAIN AS SPARE.



KEY PLAN

N.T.S.



MAKELY ASSOCIATES, INC. ARCHITECTS

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PBA Project No.: 2015.0143.05

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SEMINGTON PUBLIC SCHOOLS - 317 RENOVATIONS - 300 WER MIDDLE SCHOOL

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PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION

DRAWN BY: JF
CHECKED BY: G.

HECKED BY: G.
EVISIONS:
DS 12-23-2

DATE: DECEMBER 23,2016

E3.2BP

JOBNO. 161664C

POWER PLAN - AREA 'A'

## **GENERAL NOTES:**

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER
- TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES. 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- 5. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT
- SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" unless otherwise noted.
- 6. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 7. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 8. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PRO VIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NO TIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- 9. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 10. REFER TO LIGHTING CONTROL MATRIX FOR SWITCH TYPE. DIMMING WALL BOX CONTROL TO BE COMPATIBLE WITH CONTROLS AND LIGHT FIXTURE BEING DIMMED.
- 11. ALL NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH NEW VOICE ENABLED FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. NEW VOICE SYSTEM SHALL BE CROSS TIED TO EXISTING NATIONAL TIME AND SIGNAL HORN/STROBE FIRE ALARM SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.
- 12. EXTEND EXISTING CIRCUIT GROUNDS AS REQUIRED PER NEC.
- 13. UNLESS OTHERWISE INDICATED, NEW LIGHT FIXTURES SHALL BE CIRCUITED TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE. EXTEND CONDUIT AND WIRE AND REVISE SWITCHED LEG AS REQUIRED FOR NEW SWITCHING AS INDICATED. PROVIDE NEW 0-10V CABLING AS REQUIRED. REFER TO LIGHTING CONTROL MATRIX ON EO SERIES DRAWINGS FOR DIMMING REQUIREMENTS.
- 14. CIRCUIT EXIT LIGHT FIXTURES UNSWITCHED TO HOT LEG OF EMERGENCY LIGHTING BRANCH CIRCUIT SERVING SPACE.

## **#** CONSTRUCTION KEY NOTES:

CIRCUITING AS REQUIRED. 2. RELOCATED PANEL. EXTEND EXISTING FEEDER (CONDUIT AND WIRE) AND BRANCH

1. REINSTALL EXISTING FIRE ALARM DEVICE. CONNECT TO EXISTING CIRCUITING. EXTEND

- CIRCUITS (CONDUIT AND WIRE) TO NEW LOCATION. PROVIDE NEW UPDATED PANEL SCHEDULE AS REQUIRED.
- 3. PROVIDE 120V CIRCUIT IN CEILING SPACE FOR DOOR SECURITY AND CONTROLS. REFER TO ARCHITECTURAL FLOOR PLANS, DOOR HARDWARE SCHEDULE ON ARCHITECTURAL DRAWINGS, ACCESS CONTROL SYSTEM SPECIFICATION SECTION, AND ACCESS CONTROL DOOR DIAGRAM(S) ON E7 SERIES DRAWINGS FOR RACEWAY AND BACK BOX REQUIREMENTS FOR DOOR OR BANK OF DOORS INDICATED. PROVIDE ALL RACEWAYS AND BACK BOXES REQUIRED. COORDINATE WITH DOOR HARDWARE CONTRACTOR. PROVIDE 1" CONDUIT FROM ARCHITECTURAL CASEWORK FOR DOOR RELEASE PUSH BUTTON TO ACCESSIBLE CEILING SPACE ABOVE DOORS FOR SECURITY DOOR RELEASE. COORDINATE LOCATION OF PUSH BUTTON WITH OWNER
- 4. PRO VIDE NEW SUSPENDED OUTLET FOR NEW/RELOCATED KITCHEN EQUIPMENT. REFER TO SUSPENDED OUTLET DETAIL ON E7 SERIES DRAWINGS FOR REQUIREMENTS.
- 5. NEW ANSUL SYSTEM AND ANSUL SYSTEM PULLSTATION. REFER TO DETAILS ON E7 SERIES DRAWINGS FOR REQUIREMENTS.

PRIOR TO INSTALLATION.

CIRCUIT AS INDICATED.

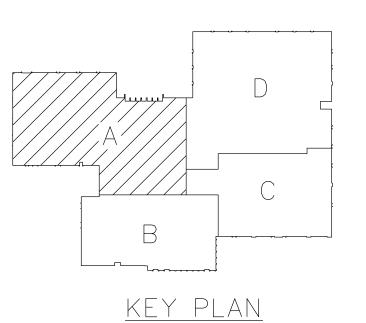
- 6. NEW KITCHEN EQUIPMENT CONTACTORS. REFER TO E7 SERIES DRAWINGS FOR
- 7. REFER TO SHORT THROW PROJECTOR DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT NEW PROJECTOR. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. WHERE NO CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW PROJECTOR LOCATION.
- 8. REFER TO TEACHER STATION RACEWAY DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT TEACHER STATION. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. CIRCUIT RECEPTACLES AS INDICATED. WHERE NO BRANCH CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW TEACHER STATION LOCATION.
- 9. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN SERVING THE SPACE WILL SHUT DOWN. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR FROM 120V CIRCUIT AS INDICATED. PROVIDE A 20A-1P SWITCH AT EACH ACTUATOR. CONTROL OF AIR HANDLING EQUIPMENT AND DAMPER ACTUATOR IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED CONTROL MODULES AND RELAYS. COORDINATE WORK WITH THE TEMPERATURE CONTROL CONTRACTOR AND FIRE ALARM VENDOR. DAMPER SHALL CLOSE UPON DETECTION OF SMOKE AND SHUT DOWN ASSOCIATED AHU. DAMPER SHALL ALSO CLOSE UPON NORMAL SHUT DOWN OF AHU. PROVIDE ALL
- CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE SYSTEM. 10. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR CARD READER. PROVIDE CONDUIT WITH NYLON PULLSTRING, PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL
- 11. PRO VIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR DOOR OPERATOR PUSHPAD. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH
- 12. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR AIPHONE. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.
- 13. RELOCATED BACKBOARD MOTOR, CIRCUIT TO EXISTING BRANCH CIRCUIT AND CONTROLS. EXTEND CONDUIT AND WIRE AS REQUIRED TO NEW LOCATION.
- 14. NEW BLEACHER MOTOR. PROVIDE 30A-3P DISCONNECT SWITCH AND BRANCH CIRCUIT AS INDICATED. COORDINATE REQUIREMENTS FOR CONTROLS WITH ARCHITECTURAL SPECIFICATIONS AND SELECTED MANUFACTURER AND PROVIDE JUNCTION BOXES, CONDUIT, AND CONTROL WIRING AS REQUIRED. COORDINATE LOCATION OF CONTROLS WITH OWNER.
- 15. ALTERNATE E2: NEW CYMNASIUM SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS FOR SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM. 16. ALTERNATE E3: NEW CAFETERIA SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES
- DRAWINGS FOR SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM.
- 17. RECEPTACLE TO BE MOUNTED ABOVE NEW ARCHITECTURAL PLATFORM. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHT. 18. NEW MUSIC ROOM SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS FOR SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED

FOR A COMPLETE SYSTEM. PROVIDE QUAD RECEPTACLE AT MUSIC CABINET

- 19. PRO VIDE #3/0 COPPER GROUND FROM NEW FOUNDATION REINFORCING STEEL TO GROUNDING ELECTRODE SYSTEM AT SERVICE ENTRANCE.
- 20. SAW CUT EXISTING CONCRETE FLOOR AS REQUIRED FOR NEW FLOOR BOXES. PATCH CONCRETE TO MATCH EXISTING ONCE INSTALLATION IS COMPLETE.
- 21. PROVIDE BRANCH CIRCUIT AS INDICATED FOR NEW WRESTLING MAT HOIST CONTROLLER, PROVIDE ADDITIONAL WIRING AS REQUIRED FROM HOIST CONTROLLER TO HOIST MOTOR AND LOW VOLTAGE CONTROL SWITCH. COORDINATE EXACT REQUIREMENTS WITH ARCHITECTURAL SPECIFICATIONS AND MAT HOIST MANUFACTURER. COORDINATE EXACT LOCATION OF CONTROL SWITCH WITH OWNER PRIOR TO INSTALLATION.
- 22. SCOREBOARD CONTROL BOX. PROVIDE 2-GANG EMPTY DATA BOX WITH 1" CONDUIT TO SCOREBOARD. PROVIDE NYLON PULLSTRING IN CONDUIT.

LOCATION. CIRCUIT RECEPTACLE AS INDICATED.

- 23. SCOREBOARD CONTROLLER, MICROPHONE, AND 120V DUPLEX RECEPTACLE OUTLET PROVIDE NEW SCOREBOARD CABLING FROM WALL MOUNTED CONTROLLER TO NEW OUTLET ON FACE OF NEW BLEACHER. SAME FOR 120V OUTLET AND MICROPHONE. COORDINATE REQUIREMENTS WITH SCOREBOARD MANUFACTURER AND BLEACHER MANUFACTURER. PROVIDE BACKBOXES, OUTLETS AND NEW CABLING ROUTED THRU BRIDLE RINGS TO ALL BLEACHERS TO MOVE IN AND OUT. PROVIDE STRAIN RELIEF FOR ALL CABLES.
- 24. EXTEND EXISTING VERTICAL SURFACE RACEWAY TO ABOVE CEILING. PROVIDE NEW SURFACE RACEWAY AND END PIECE AS REQUIRED. REWORK EXISTING CONDUITS AND BRANCH CIRCUITS TO ABOVE CEILING AS REQUIRED.
- 25. PROVIDE FLIP-UP TABLE TOP USB RECEPTACLE LEGRAND DEQUORUM MODEL# DQFP15U IN TABLE. CIRCUIT AS INDICATED, DIRECTION ARROW INDICATES DIRECTION RECEPTACLES SHALL FACE WHEN OPEN. COORDINATE EXACT LOCATIONS WITH ARCHITECTURAL ELEVATIONS.
- 26. REINSTALL EXISTING CEILING FAN. CLEAN FAN BLADES AND MOTOR HOUSING WITH DETERGENT PRIOR TO INSTALLATION. CIRCUIT TO EXISTING BRANCH CIRCUIT AND CONTROLS. EXTEND CONDUIT AND WIRE AS REQUIRED.



WAKELY ASSOCIATES, INC. ARCHITECTS & ENGINEERS

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WARNER MIDDLE SCHOOL POWER PLAN - AREA'A'

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION FINAL RECORD

DRAWN BY: CHECKED BY: REVISIONS:

ADDENDUMNO.1 08/24/18 CONSTRUCTION 09/28/18

08-08-2018 SHEET NO .:

JOBNO:: 171712B



LAYOUT DRAWINGS.

CIRCUIT OF HIGHER AMPACITY.

- 1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
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- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL

5. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT

- SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED. 6. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS
- AND THE TRADES INSTALLING THE WORK. 7. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE
- 8. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ET AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL Drawings. Where circuit sizes are shown on the electrical drawings that
- 9. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.

DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE

- 10. REFER TO LIGHTING CONTROL MATRIX FOR SWITCH TYPE. DIMMING WALL BOX CONTROL TO BE COMPATIBLE WITH CONTROLS AND LIGHT FIXTURE BEING DIMMED.
- 11. ALL NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH NEW VOICE ENABLED FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. NEW VOICE SYSTEM SHALL BE CROSS TIED TO EXISTING NATIONAL TIME AND SIGNAL HORN/STROBE FIRE ALARM SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.
- 12. EXTEND EXISTING CIRCUIT GROUNDS AS REQUIRED PER NEC.
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- 14. CIRCUIT EXIT LIGHT FIXTURES UNSWITCHED TO HOT LEG OF EMERGENCY LIGHTING BRANCH CIRCUIT SERVING SPACE.

#### **CONSTRUCTION KEY NOTES:**

- 1. REINSTALL EXISTING FIRE ALARM DEVICE. CONNECT TO EXISTING CIRCUITING. EXTEND CIRCUITING AS REQUIRED.
- RELOCATED PANEL. EXTEND EXISTING FEEDER (CONDUIT AND WIRE) AND BRANCH CIRCUITS (CONDUIT AND WIRE) TO NEW LOCATION. PROVIDE NEW UPDATED PANEL SCHEDULE AS REQUIRED.
- 3. PROVIDE 120V CIRCUIT IN CEILING SPACE FOR DOOR SECURITY AND CONTROLS. REFER TO ARCHITECTURAL FLOOR PLANS, DOOR HARDWARE SCHEDULE ON ARCHITECTURAL DRAWINGS, ACCESS CONTROL SYSTEM SPECIFICATION SECTION, AND ACCESS CONTROL DOOR DIAGRAM(S) ON E7 SERIES DRAWINGS FOR RACEWAY AND BACK BOX REQUIREMENTS FOR DOOR OR BANK OF DOORS INDICATED. PROVIDE ALL RACEWAYS AND BACK BOXES REQUIRED. COORDINATE WITH DOOR HARDWARE CONTRACTOR. PROVIDE 1" CONDUIT FROM ARCHITECTURAL CASEWORK FOR DOOR RELEASE PUSH BUTTON TO ACCESSIBLE CEILING SPACE ABOVE DOORS FOR SECURITY DOOR RELEASE. COORDINATE LOCATION OF PUSH BUTTON WITH OWNER PRIOR TO INSTALLATION.
- 4. PRO VIDE NEW SUSPENDED OUTLET FOR NEW/RELOCATED KITCHEN EQUIPMENT. REFER TO SUSPENDED OUTLET DETAIL ON E7 SERIÉS DRAWINGS FOR REQUIREMENTS. CIRCUIT AS INDICATED.
- 5. NEW ANSUL SYSTEM AND ANSUL SYSTEM PULLSTATION. REFER TO DETAILS ON E7 SERIES DRAWINGS FOR REQUIREMENTS.
- 6. NEW KITCHEN EQUIPMENT CONTACTORS. REFER TO E7 SERIES DRAWINGS FOR requirements.
- 7. REFER TO SHORT THROW PROJECTOR DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT NEW PROJECTOR, COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. WHERE NO CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW PROJECTOR LOCATION. 8. REFER TO TEACHER STATION RACEWAY DETAIL ON E7 SERIES DRAWINGS FOR POWER
- AND DATA RACEWAY REQUIREMENTS AT TEACHER STATION. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR, CIRCUIT RECEPTACLES AS INDICATED. WHERE NO BRANCH CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW TEACHER STATION LOCATION.
- 9. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR, COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN SERVING THE SPACE WILL SHUT DOWN. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR FROM 120V CIRCUIT AS INDICATED. PROVIDE A 20A-1P SWITCH AT EACH ACTUATOR. CONTROL OF AIR HANDLING EQUIPMENT AND DAMPER ACTUATOR IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED CONTROL MODULES AND RELAYS. COORDINATE WORK WITH THE TEMPERATURE CONTROL CONTRACTOR AND FIRE ALARM VENDOR. DAMPER SHALL CLOSE UPON DETECTION OF SMOKE AND SHUT DOWN ASSOCIATED AHU. DAMPER SHALL ALSO CLOSE UPON NORMAL SHUT DOWN OF AHU. PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE SYSTEM.
- 10. PRO VIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR CARD READER. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL
- 11. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR DOOR OPERATOR PUSHPAD. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.
- AIPHONE. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.

12. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR

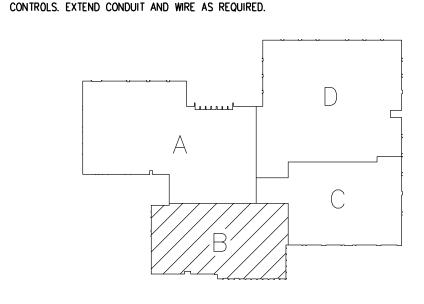
- 13. RELOCATED BACKBOARD MOTOR, CIRCUIT TO EXISTING BRANCH CIRCUIT AND CONTROLS. EXTEND CONDUIT AND WIRE AS REQUIRED TO NEW LOCATION.
- 14. NEW BLEACHER MOTOR. PROVIDE 30A-3P DISCONNECT SWITCH AND BRANCH CIRCUIT AS INDICATED. COORDINATE REQUIREMENTS FOR CONTROLS WITH ARCHITECTURAL SPECIFICATIONS AND SELECTED MANUFACTURER AND PROVIDE JUNCTION BOXES, CONDUIT, AND CONTROL WIRING AS REQUIRED. COORDINATE LOCATION OF CONTROLS WITH OWNER.
- 15. ALTERNATE E2: NEW GYMNASIUM SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS FOR SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM.
- 16. ALTERNATE E3: NEW CAFETERIA SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS FOR SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM.
- 17. RECEPTACLE TO BE MOUNTED ABOVE NEW ARCHITECTURAL PLATFORM. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHT. 18. NEW MUSIC ROOM SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS FOR
- LOCATION. CIRCUIT RECEPTACLE AS INDICATED. 19. PROVIDE #3/O COPPER GROUND FROM NEW FOUNDATION REINFORCING STEEL TO

SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM. PROVIDE QUAD RECEPTACLE AT MUSIC CABINET

- GROUNDING ELECTRODE SYSTEM AT SERVICE ENTRANCE. 20. SAW CUT EXISTING CONCRETE FLOOR AS REQUIRED FOR NEW FLOOR BOXES. PATCH
- CONCRETE TO MATCH EXISTING ONCE INSTALLATION IS COMPLETE. 21. PRO VIDE BRANCH CIRCUIT AS INDICATED FOR NEW WRESTLING MAT HOIST CONTROLLER. PROVIDE ADDITIONAL WIRING AS REQUIRED FROM HOIST CONTROLLER TO HOIST MOTOR AND LOW VOLTAGE CONTROL SWITCH. COORDINATE EXACT REQUIREMENTS WITH ARCHITECTURAL SPECIFICATIONS AND MAT HOIST MANUFACTURER. COORDINATE EXACT LOCATION OF CONTROL SWITCH WITH OWNER

PRIOR TO INSTALLATION.

- 22. SCOREBOARD CONTROL BOX. PROVIDE 2-GANG EMPTY DATA BOX WITH 1" CONDUIT TO SCOREBOARD. PROVIDE NYLON PULLSTRING IN CONDUIT.
- 23. SCOREBOARD CONTROLLER, MICROPHONE, AND 120V DUPLEX RECEPTACLE OUTLET. PROVIDE NEW SCOREBOARD CABLING FROM WALL MOUNTED CONTROLLER TO NEW OUTLET ON FACE OF NEW BLEACHER. SAME FOR 120V OUTLET AND MICROPHONE COORDINATE REQUIREMENTS WITH SCOREBOARD MANUFACTURER AND BLEACHER MANUFACTURER. PROVIDE BACKBOXES, OUTLETS AND NEW CABLING ROUTED THRU BRIDLE RINGS TO ALL BLEACHERS TO MOVE IN AND OUT. PROVIDE STRAIN RELIEF
- FOR ALL CABLES. 24. EXTEND EXISTING VERTICAL SURFACE RACEWAY TO ABOVE CEILING. PROVIDE NEW SURFACE RACEWAY AND END PIECE AS REQUIRED. REWORK EXISTING CONDUITS AND BRANCH CIRCUITS TO ABOVE CEILING AS REQUIRED.
- 25. PROVIDE FLIP-UP TABLE TOP USB RECEPTACLE LEGRAND DEQUORUM MODEL# DOFP15U IN TABLE. CIRCUIT AS INDICATED, DIRECTION ARROW INDICATES DIRECTION RECEPTACLES SHALL FACE WHEN OPEN. COORDINATE EXACT LOCATIONS WITH
- ARCHITECTURAL ELEVATIONS. 26. REINSTALL EXISTING CEILING FAN. CLEAN FAN BLADES AND MOTOR HOUSING WITH DETERGENT PRIOR TO INSTALLATION. CIRCUIT TO EXISTING BRANCH CIRCUIT AND



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PBA Project No.: 2015-0144

DESIGN DEVELOPMENT

ADDENDUMNO.1 08/24/18
CONSTRUCTION 09/28/18

08-08-2018

CONSTRUCTION

FINAL RECORD

DRAWN BY:

REVISIONS:

 THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.

ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND
- 3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT,
- AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES. 4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- 5. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING"
- UNLESS OTHERWISE NOTED.
- 6. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
- 7. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.
- 8. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 10. REFER TO LIGHTING CONTROL MATRIX FOR SWITCH TYPE. DIMMING WALL BOX CONTROL TO BE COMPATIBLE WITH CONTROLS AND LIGHT FIXTURE BEING DIMMED.
- 11. ALL NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH NEW VOICE ENABLED FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. NEW VOICE SYSTEM SHALL BE CROSS TIED TO EXISTING NATIONAL TIME AND SIGNAL HORN/STROBE FIRE ALARM SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.
- 12. EXTEND EXISTING CIRCUIT GROUNDS AS REQUIRED PER NEC.
- 13. UNLESS OTHERWISE INDICATED, NEW LIGHT FIXTURES SHALL BE CIRCUITED TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE. EXTEND CONDUIT AND WIRE AND REVISE SWITCHED LEG AS REQUIRED FOR NEW SWITCHING AS INDICATED. PROVIDE NEW 0-10V CABLING AS REQUIRED. REFER TO LIGHTING CONTROL MATRIX
- ON EO SERIES DRAWINGS FOR DIMMING REQUIREMENTS.

#### BRANCH CIRCUIT SERVING SPACE. **EXAMPLE 2** CONSTRUCTION KEY NOTES:

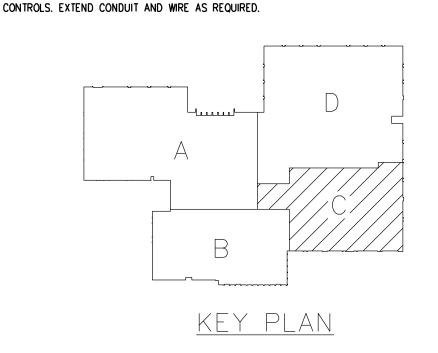
1. REINSTALL EXISTING FIRE ALARM DEVICE. CONNECT TO EXISTING CIRCUITING. EXTEND CIRCUITING AS REQUIRED. 2. RELOCATED PANEL. EXTEND EXISTING FEEDER (CONDUIT AND WIRE) AND BRANCH

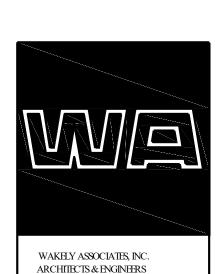
14. CIRCUIT EXIT LIGHT FIXTURES UNSWITCHED TO HOT LEG OF EMERGENCY LIGHTING

- CIRCUITS (CONDUIT AND WIRE) TO NEW LOCATION. PROVIDE NEW UPDATED PANEL SCHEDULE AS REQUIRED. 3. PROVIDE 120V CIRCUIT IN CEILING SPACE FOR DOOR SECURITY AND CONTROLS. REFER TO ARCHITECTURAL FLOOR PLANS, DOOR HARDWARE SCHEDULE ON
- ARCHITECTURAL DRAWINGS. ACCESS CONTROL SYSTEM SPECIFICATION SECTION, AND ACCESS CONTROL DOOR DIAGRAM(S) ON E7 SERIES DRAWINGS FOR RACEWAY AND BACK BOX REQUIREMENTS FOR DOOR OR BANK OF DOORS INDICATED. PROVIDE ALL RACEWAYS AND BACK BOXES REQUIRED. COORDINATE WITH DOOR HARDWARE CONTRACTOR, PROVIDE 1" CONDUIT FROM ARCHITECTURAL CASEWORK FOR DOOR RELEASE PUSH BUTTON TO ACCESSIBLE CEILING SPACE ABOVE DOORS FOR SECURITY DOOR RELEASE. COORDINATE LOCATION OF PUSH BUTTON WITH OWNER PRIOR TO INSTALLATION.
- 4. PROVIDE NEW SUSPENDED OUTLET FOR NEW/RELOCATED KITCHEN EQUIPMENT. REFER TO SUSPENDED OUTLET DETAIL ON E7 SERIÉS DRAWINGS FOR REQUIREMENTS. CIRCUIT AS INDICATED.
- 5. NEW ANSUL SYSTEM AND ANSUL SYSTEM PULLSTATION. REFER TO DETAILS ON E7 SERIES DRAWINGS FOR REQUIREMENTS.
- 6. NEW KITCHEN EQUIPMENT CONTACTORS. REFER TO E7 SERIES DRAWINGS FOR
- 7. REFER TO SHORT THROW PROJECTOR DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT NEW PROJECTOR. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. WHERE NO CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW PROJECTOR LOCATION.
- 8. REFER TO TEACHER STATION RACEWAY DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT TEACHER STATION. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. CIRCUIT RECEPTACLES AS INDICATED. WHERE NO BRANCH CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW TEACHER STATION LOCATION.
- 9. SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN SERVING THE SPACE WILL SHUT DOWN. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR FROM 120V CIRCUIT AS INDICATED. PROVIDE A 20A-1P SWITCH AT EACH ACTUATOR. CONTROL OF AIR HANDLING EQUIPMENT AND DAMPER ACTUATOR IS VIA THE FIRE ALARM CONTROL PANEL, PROVIDE ALL REQUIRED CONTROL MODULES AND RELAYS, COORDINATE WORK WITH THE TEMPERATURE CONTROL CONTRACTOR AND FIRE ALARM VENDOR, DAMPER SHALL CLOSE UPON DETECTION OF SMOKE AND SHUT DOWN ASSOCIATED AHU. DAMPER SHALL ALSO CLOSE UPON NORMAL SHUT DOWN OF AHU. PROVIDE ALL CONTROL MODULES, RELAYS, ETC. FOR A COMPLETE SYSTEM.
- 10. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR CARD READER. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL
- 11. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR DOOR OPERATOR PUSHPAD. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH
- 12. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR AIPHONE. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.
- 13. RELOCATED BACKBOARD MOTOR. CIRCUIT TO EXISTING BRANCH CIRCUIT AND CONTROLS. EXTEND CONDUIT AND WIRE AS REQUIRED TO NEW LOCATION.
- 14. NEW BLEACHER MOTOR. PROVIDE 30A-3P DISCONNECT SWITCH AND BRANCH CIRCUIT AS INDICATED. COORDINATE REQUIREMENTS FOR CONTROLS WITH ARCHITECTURAL SPECIFICATIONS AND SELECTED MANUFACTURER AND PROVIDE JUNCTION BOXES, CONDUIT, AND CONTROL WIRING AS REQUIRED. COORDINATE LOCATION OF CONTROLS WITH OWNER.
- 15. ALTERNATE E2: NEW GYMNASIUM SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS FOR SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM.
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- 17. RECEPTACLE TO BE MOUNTED ABOVE NEW ARCHITECTURAL PLATFORM, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHT.
- 18. NEW MUSIC ROOM SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS FOR SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM, PROVIDE QUAD RECEPTACLE AT MUSIC CABINET LOCATION. CIRCUIT RECEPTACLE AS INDICATED.

AS REQUIRED FOR A COMPLETE SYSTEM.

- 19. PROVIDE #3/0 COPPER GROUND FROM NEW FOUNDATION REINFORCING STEEL TO GROUNDING ELECTRODE SYSTEM AT SERVICE ENTRANCE.
- 20. SAW CUT EXISTING CONCRETE FLOOR AS REQUIRED FOR NEW FLOOR BOXES. PATCH CONCRETE TO MATCH EXISTING ONCE INSTALLATION IS COMPLETE.
- 21. PROVIDE BRANCH CIRCUIT AS INDICATED FOR NEW WRESTLING MAT HOIST CONTROLLER. PROVIDE ADDITIONAL WIRING AS REQUIRED FROM HOIST CONTROLLER TO HOIST MOTOR AND LOW VOLTAGE CONTROL SWITCH, COORDINATE EXACT REQUIREMENTS WITH ARCHITECTURAL SPECIFICATIONS AND MAT HOIST MANUFACTURER. COORDINATE EXACT LOCATION OF CONTROL SWITCH WITH OWNER PRIOR TO INSTALLATION.
- 22. SCOREBOARD CONTROL BOX. PROVIDE 2-GANG EMPTY DATA BOX WITH 1" CONDUIT TO SCOREBOARD. PROVIDE NYLON PULLSTRING IN CONDUIT.
- 23. SCOREBOARD CONTROLLER, MICROPHONE, AND 120V DUPLEX RECEPTACLE OUTLET. PROVIDE NEW SCOREBOARD CABLING FROM WALL MOUNTED CONTROLLER TO NEW OUTLET ON FACE OF NEW BLEACHER. SAME FOR 120V OUTLET AND MICROPHONE. COORDINATE REQUIREMENTS WITH SCOREBOARD MANUFACTURER AND BLEACHER MANUFACTURER. PROVIDE BACKBOXES, OUTLETS AND NEW CABLING ROUTED THRU BRIDLE RINGS TO ALL BLEACHERS TO MOVE IN AND OUT. PROVIDE STRAIN RELIEF FOR ALL CABLES.
- 24. EXTEND EXISTING VERTICAL SURFACE RACEWAY TO ABOVE CEILING. PROVIDE NEW SURFACE RACEWAY AND END PIECE AS REQUIRED. REWORK EXISTING CONDUITS AND BRANCH CIRCUITS TO ABOVE CEILING AS REQUIRED.
- 25. PROVIDE FLIP-UP TABLE TOP USB RECEPTACLE LEGRAND DEQUORUM MODEL# DQFP15U IN TABLE. CIRCUIT AS INDICATED. DIRECTION ARROW INDICATES DIRECTION RECEPTACLES SHALL FACE WHEN OPEN. COORDINATE EXACT LOCATIONS WITH ARCHITECTURAL ELEVATIONS.
- 26. REINSTALL EXISTING CEILING FAN. CLEAN FAN BLADES AND MOTOR HOUSING WITH DETERGENT PRIOR TO INSTALLATION. CIRCUIT TO EXISTING BRANCH CIRCUIT AND





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PBA Project No.: 2015-0144

WARNER MIDDLE SCHOOL POWER PLAN - AREA 'C'

PRELIMINARY DESIGN DEVELOPMENT CONSTRUCTION

FINAL RECORD DRAWN BY: CHECKED BY: REVISIONS: CONSTRUCTION 09/28/18

08-08-2018 SHEET NO.:

JOBNO.: 171712B

- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
- 2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL
- 5. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING"
- UNLESS OTHERWISE NOTED.

  6. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS
- 7. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.

AND THE TRADES INSTALLING THE WORK.

- 8. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PRO VIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- 9. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- 10. REFER TO LIGHTING CONTROL MATRIX FOR SWITCH TYPE. DIMMING WALL BOX CONTROL TO BE COMPATIBLE WITH CONTROLS AND LIGHT FIXTURE BEING DIMMED.
- 11. ALL NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH NEW VOICE ENABLED FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. NEW VOICE SYSTEM SHALL BE CROSS TIED TO EXISTING NATIONAL TIME AND SIGNAL HORN/STROBE FIRE ALARM SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.
- 12. EXTEND EXISTING CIRCUIT GROUNDS AS REQUIRED PER NEC.13. UNLESS OTHERWISE INDICATED, NEW LIGHT FIXTURES SHALL BE CIRCUITED TO
- EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE. EXTEND CONDUIT AND WRE AND REVISE SWITCHED LEG AS REQUIRED FOR NEW SWITCHING AS INDICATED. PROVIDE NEW 0-10V CABLING AS REQUIRED. REFER TO LIGHTING CONTROL MATRIX ON EO SERIES DRAWINGS FOR DIMMING REQUIREMENTS.
- 14. CIRCUIT EXIT LIGHT FIXTURES UNSWITCHED TO HOT LEG OF EMERGENCY LIGHTING BRANCH CIRCUIT SERVING SPACE.

#### **#** CONSTRUCTION KEY NOTES:

- REINSTALL EXISTING FIRE ALARM DEVICE. CONNECT TO EXISTING CIRCUITING. EXTEND CIRCUITING AS REQUIRED.
- 2. RELOCATED PANEL. EXTEND EXISTING FEEDER (CONDUIT AND WIRE) AND BRANCH CIRCUITS (CONDUIT AND WIRE) TO NEW LOCATION. PROVIDE NEW UPDATED PANEL SCHEDULE AS REQUIRED.
- 3. PROVIDE 120V CIRCUIT IN CEILING SPACE FOR DOOR SECURITY AND CONTROLS. REFER TO ARCHITECTURAL FLOOR PLANS, DOOR HARDWARE SCHEDULE ON ARCHITECTURAL DRAWINGS, ACCESS CONTROL SYSTEM SPECIFICATION SECTION, AND ACCESS CONTROL DOOR DIAGRAM(S) ON E7 SERIES DRAWINGS FOR RACEWAY AND BACK BOX REQUIREMENTS FOR DOOR OR BANK OF DOORS INDICATED. PROVIDE ALL RACEWAYS AND BACK BOXES REQUIRED. COORDINATE WITH DOOR HARDWARE CONTRACTOR. PROVIDE 1" CONDUIT FROM ARCHITECTURAL CASEWORK FOR DOOR RELEASE PUSH BUTTON TO ACCESSIBLE CEILING SPACE ABOVE DOORS FOR SECURITY DOOR RELEASE. COORDINATE LOCATION OF PUSH BUTTON WITH OWNER PRIOR TO INSTALLATION.
- 4. PROVIDE NEW SUSPENDED OUTLET FOR NEW/RELOCATED KITCHEN EQUIPMENT. REFER TO SUSPENDED OUTLET DETAIL ON E7 SERIES DRAWINGS FOR REQUIREMENTS. CIRCUIT AS INDICATED.
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- NEW KITCHEN EQUIPMENT CONTACTORS. REFER TO E7 SERIES DRAWINGS FOR
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- 7. REFER TO SHORT THROW PROJECTOR DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA RACEWAY REQUIREMENTS AT NEW PROJECTOR. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND TECHNOLOGY CONTRACTOR. WHERE NO CIRCUIT IS INDICATED, EXTEND EXISTING BRANCH CIRCUIT THAT PREVIOUSLY SERVED TELEVISION TO NEW PROJECTOR LOCATION.
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- PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C TO ABOVE ACCESSIBLE CEILING FOR CARD READER. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.
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DOOR OPERATOR PUSHPAD. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH

- AIPHONE, PROVIDE CONDUIT WITH NYLON PULLSTRING, PROVIDE BLANK COVERPLATE AT JUNCTION BOX, COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.
- 13. RELOCATED BACKBO ARD MOTOR. CIRCUIT TO EXISTING BRANCH CIRCUIT AND CONTROLS. EXTEND CONDUIT AND WIRE AS REQUIRED TO NEW LOCATION.
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- 17. RECEPTACLE TO BE MOUNTED ABOVE NEW ARCHITECTURAL PLATFORM. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHT.
- 18. NEW MUSIC ROOM SOUND SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS FOR SYSTEM REQUIREMENTS. PROVIDE NEW CABLING AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM. PR⁰ VIDE QUAD RECEPTACLE AT MUSIC CABINET LOCATION. CIRCUIT RECEPTACLE AS INDICATED.

19. PROVIDE #3/0 COPPER GROUND FROM NEW FOUNDATION REINFORCING STEEL TO

- GROUNDING ELECTRODE SYSTEM AT SERVICE ENTRANCE.

  20. SAW CUT EXISTING CONCRETE FLOOR AS REQUIRED FOR NEW FLOOR BOXES. PATCH
- CONCRETE TO MATCH EXISTING ONCE INSTALLATION IS COMPLETE.

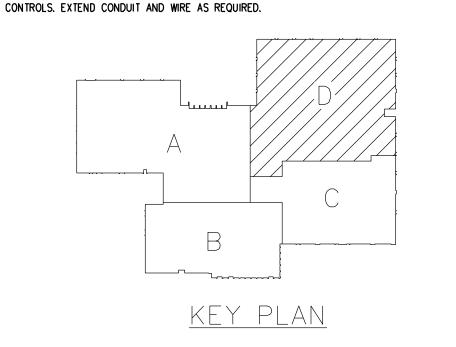
  21. PROVIDE BRANCH CIRCUIT AS INDICATED FOR NEW WRESTLING MAT HOIST CONTROLLER. PROVIDE ADDITIONAL WIRING AS REQUIRED FROM HOIST CONTROLLER TO HOIST MO TOR AND LOW VOLTAGE CONTROL SWITCH. COORDINATE EXACT REQUIREMENTS WITH ARCHITECTURAL SPECIFICATIONS AND MAT HOIST

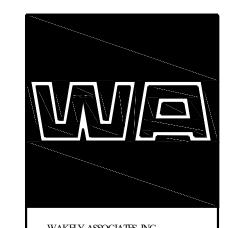
MANUFACTURER. COORDINATE EXACT LOCATION OF CONTROL SWITCH WITH OWNER

22. SCOREBOARD CONTROL BOX. PROVIDE 2-GANG EMPTY DATA BOX WITH 1" CONDUIT TO SCOREBOARD. PROVIDE NYLON PULLSTRING IN CONDUIT.

PRIOR TO INSTALLATION.

- 23. SCOREBOARD CONTROLLER, MICROPHONE, AND 120V DUPLEX RECEPTACLE OUTLET. PROVIDE NEW SCOREBOARD CABLING FROM WALL MOUNTED CONTROLLER TO NEW OUTLET ON FACE OF NEW BLEACHER. SAME FOR 120V OUTLET AND MICROPHONE. COORDINATE REQUIREMENTS WITH SCOREBO ARD MANUFACTURER AND BLEACHER MANUFACTURER. PROVIDE BACKBOXES, OUTLETS AND NEW CABLING ROUTED THRU BRIDLE RINGS TO ALL BLEACHERS TO MOVE IN AND OUT. PROVIDE STRAIN RELIEF FOR ALL CABLES.
- 24. EXTEND EXISTING VERTICAL SURFACE RACEWAY TO ABOVE CEILING. PROVIDE NEW SURFACE RACEWAY AND END PIECE AS REQUIRED. REWORK EXISTING CONDUITS AND BRANCH CIRCUITS TO ABOVE CEILING AS REQUIRED.
- 25. PROVIDE FLIP-UP TABLE TOP USB RECEPTACLE LEGRAND DEQUORUM MODEL#
  DQFP15U IN TABLE. CIRCUIT AS INDICATED. DIRECTION ARROW INDICATES DIRECTION
  RECEPTACLES SHALL FACE WHEN OPEN. COORDINATE EXACT LOCATIONS WITH
  ARCHITECTURAL ELEVATIONS.
- 26. REINSTALL EXISTING CEILING FAN. CLEAN FAN BLADES AND MOTOR HOUSING WITH DETERGENT PRIOR TO INSTALLATION. CIRCUIT TO EXISTING BRANCH CIRCUIT AND





WAKELY ASSOCIATES, INC. ARCHITECTS & ENGINEERS

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TAKIMINGTON FUBLIC SCHOOLS

2018 PROJECTS

WARNER MIDDLE SCHOOL

WARNER MIDDLE SCHOOL
POWER PLAN - AREA'D'

PRELIMINARY 

DESIGN DEVELOPMENT 

CONSTRUCTION

DRAWN BY: JR

DRAWN BY: JRD
CHECKED BY: GJZ

REVISIONS:

CONSTRUCTION 09/28/18

DATE: 08-08-2018
SHEET NO.:

JOBNO.: 171712