

312 Plum Street, Suite 700 Cincinnati, OH 45202 (513) 381-2112

May 3, 2024

ADDENDUM 2

TO THE DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTS FOR: (4 pages of Text = / 7 Pages of Attachments/ Drawings / 7 pages of Drawings) Total = 11 Pages

Jefferson Twp. LSD-HS Ag Ed Facility

FOR

Jefferson Township Local School District 2625 South Union Road Dayton, OH 45417

Comm. No. 2024006.01

TO ALL BIDDERS:

This Addendum supplements, amends and takes precedence over the original Drawings and Specifications, and shall be taken into account when preparing proposals, and shall become part of the Contract Documents. Receipt of this Addendum must be entered on the bidder's Bid Form. Bidder is cautioned to read the entire addendum and to check that all pages of the Addendum have been included in the Bidder's copy of the Addendum.

QUESTIONS & ANSWERS

- QUESTION 1 For the gas on C140 wanted to confirm we are to hook on to the gas meter set by Centerpoint?
 - A. Only on-site propane is used for the building.
- **QUESTION 2** Is there a spec for TV52?
 - A. TV:DELL 75 in (P7524QT) (141.09 lbs). TV Mount: SANUS Premium Universal 3-Stud Heavy Duty Tilting Wall Mount For Large TVs Fits 50"-90" (VMPL3-B1)
- **QUESTION 3** Is there a spec for the markerboards other than on page A001? On page A101 I was only able to find 1 note M, but page A001 indicates there should be two.
 - A. Refer to specification Section 10 11 00 Visual Display Units. Also, refer to the revised sheet A101 that was included with Addendum 1.

QUESTION 4 Is there asbestos in the flooring? Page AD101 note D13 says hazardous material, but there wasn't a spec on this.

A. Refer to General Note K on sheet AD101 that was included with Addendum 1.

QUESTION 5 Please confirm we are to include SE 21 & SE 22 on page A101, if so is there any spec for these.

A. Correct, the metal enclosures are contractor furnished and contractor installed. Specification section 12 57 16 Metal Welding Booth was included with Addendum 1.

QUESTION 6 For the finish of the AG Barn:

- Is chicken wire accurate for the ceiling?
 - A. Yes, attached to the underside of the trusses to prevent birds from nesting.
- What is the finish intended to be on the inside walls of the AG building?
 - A. Unpainted plywood and concrete for the walls and ceiling/roof.

QUESTION 7 Should the exterior sheathing material be ½" osb or ¼" per 1 on A520?.

B. 1/2" plywood. This will be addressed in a forthcoming Addendum.

QUESTION 8 Is there a spec for page F101?

A. Do not include the cost of the furniture shown on F101. It will be addressed after the bid date.

QUESTION 9 Is there a spec for the casework?

A. Specification sections 12 32 16 Manufactured Plastic-Laminate-Clad-Casework and 12 36 23.13 Plastic-Laminate-Clad-Countertops were included with Addendum 1.

QUESTION 10 Should we include any FE or FEC?

B. The are 2 existing FEs that will remain in the shop. One FE shall be included at the Barn and one at the Greenhouse.

GENERAL

NA:

SPECIFICATION ITEM

NA

DRAWING ITEMS

ITEM 1 - Drawing Sheet A101- FIRST FLOOR PLAN - AG ED SHOP:

- A. Revision. Delete Sheet A101 FIRST FLOOR PLAN AG ED SHOP and replace with attached Sheet A101 -FIRST FLOOR PLAN - AG ED SHOP.
 - 1. SE15, SE17 and SE18 shall be included in the project.
 - 2. Provided typical dimension for the welding booths.

SEE ATTACHED REVISED SHEET A101 - FIRST FLOOR PLAN - AG ED SHOP.

ITEM 2 - Drawing Sheet E000 - ELECTRICAL LEGENDS:

- A. Revision. Delete Sheet E000 ELECTRICAL LEGENDS and replace with attached Sheet E000 ELECTRICAL LEGENDS.
 - Revised conduit sleeve note.

SEE ATTACHED REVISED SHEET E000 - ELECTRICAL LEGENDS.

ITEM 3 - Drawing Sheet E001 - ELECTRICAL LEGENDS:

- A. Revision. Delete Sheet E001 ELECTRICAL LEGENDS and replace with attached Sheet E001 ELECTRICAL LEGENDS.
 - 1. Revised lighting fixture schedules with equals.
 - 2. Added Technology Responsibility Matrix.

SEE ATTACHED REVISED SHEET E001 - ELECTRICAL LEGENDS.

ITEM 4 - Drawing Sheet E200 - POWER PLAN - AG LAB:

- Revision. Delete Sheet E200 POWER PLAN AG LAB and replace with attached Sheet E200 POWER PLAN -AG LAB.
 - 1. Added General Technology Notes.
 - 2. Added security cameras, wall telephones, wireless access points, PA speakers, and sleeves throughout
 - 3. Added receptacles and data for the above counter printers in 1102.
 - 4. Revised data quantity for teacher's desk in 1102.
 - 5. Added receptacle for laptop cart in 1102

SEE ATTACHED REVISED SHEET E200 - POWER PLAN - AG LAB.

<u>ITEM 5 - Drawing Sheet E201 - POWER PLANS - BARN AND GREENHOUSE:</u>

- A. Revision. Delete Sheet E201 POWER PLANS BARN AND GREENHOUSE and replace with attached Sheet E201 POWER PLANS BARN AND GREENHOUSE.
 - 1. Added General Technology Notes.
 - 2. Added security cameras, wall telephones, and wireless access points to the Barn and Greenhouse.
 - 3. Added sleeve ceiling to 2002 IT/ELECT in Barn.
 - 4. Added sleeves for future use to Barn and Greenhouse.
 - 5. Added data for greenhouse controllers and work tables.
 - 6. Revised receptacle location and added data for future POS station in the greenhouse
 - 7. Added tech enclosure receptacle.

SEE ATTACHED REVISED SHEET E201 - POWER PLANS - BARN AND GREENHOUSE.

ITEM 6 - Drawing Sheet E600 - ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULES:

- A. Revision. Delete Sheet E600 ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULES and replace with attached Sheet E600 - ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULES.
 - 1. Revised panel schedule P10 with circuits for laptop cart and above counter printers.
 - 2. Revised panel schedule GH with the circuit for the tech enclosure

SEE ATTACHED REVISED SHEET E600 - ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULES.

ITEM 7 - Drawing Sheet E700 - ELECTRICAL SITE PLAN:

- A. Revision. Delete Sheet E700 ELECTRICAL SITE PLAN and replace with attached Sheet E700 ELECTRICAL SITE PLAN.
 - 1. Revised routing of tech conduit to go to new IT room, and tech enclosure in the greenhouse.
 - 2. Revised keynotes to clarify conduit routing.

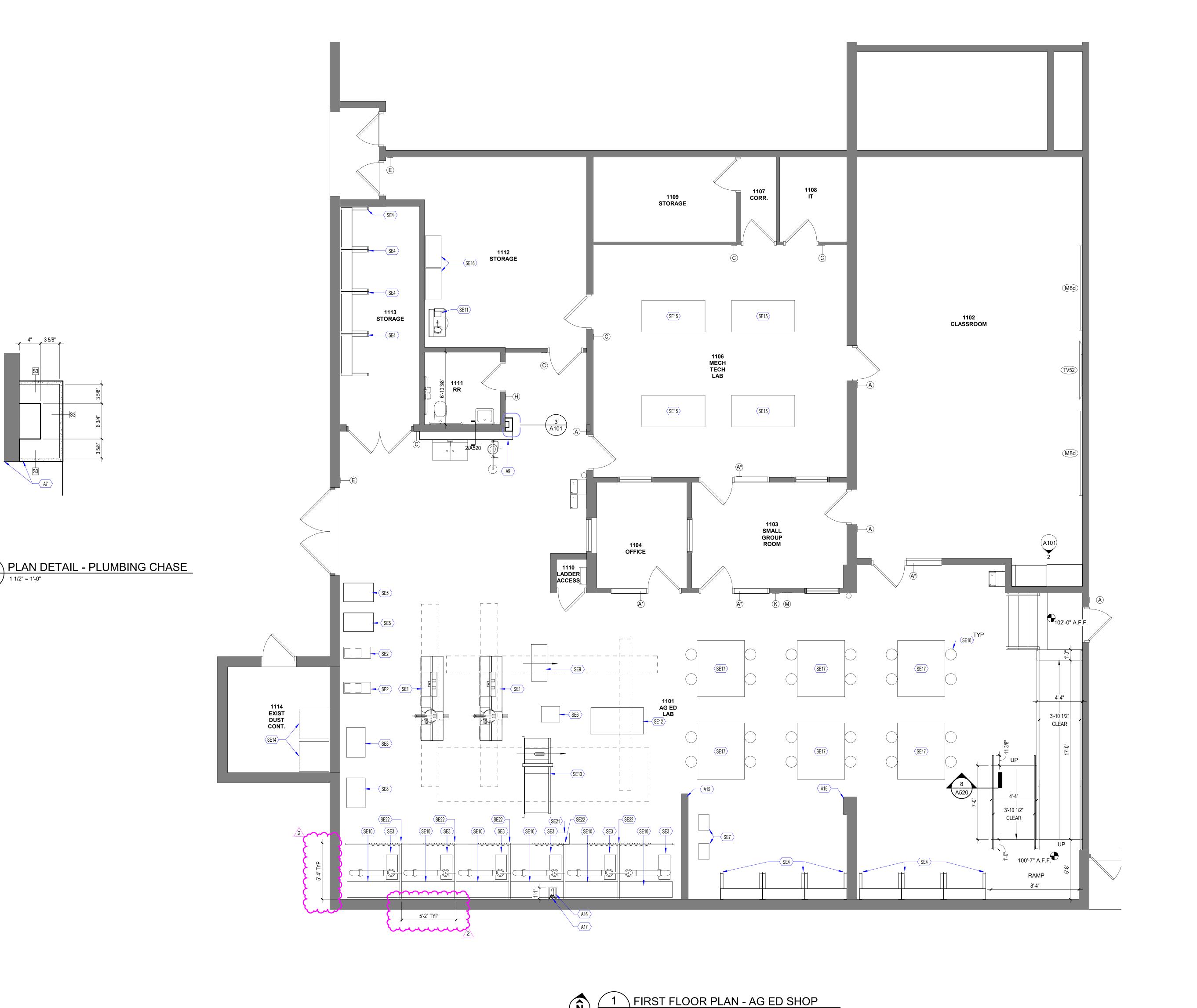
SEE ATTACHED REVISED SHEET E700 - ELECTRICAL SITE PLAN.

ATTACHMENTS

- Specifications
 - o NA
- Drawings
 - o A101 FIRST FLOOR PLAN AG ED SHOP
 - o E000 ELECTRICAL LEGENDS
 - o E001 ELECTRICAL LEGENDS
 - o E200 POWER PLAN AG LAB
 - o E201 POWER PLANS BARN AND GREENHOUSE
 - o E600 ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULES
 - o E700 ELECTRICAL SITE PLAN

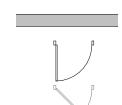
End of Addendum 2 items - See attached.





FLOOR PLAN LEGEND

NO WORK THIS AREA _____ NEW WALL/PARTITION



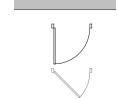
EXISTING CONSTRUCTION TO REMAIN NEW DOOR AS SCHEDULED EXISTING DOOR AND FRAME TO REMAIN STEED HAMMOND PAUL, INC ALL RIGHTS RESERVED

ATE OF

BEHNFELDT

10734

DANIEL L. BEHNFELDT, Lic# 10734 Expiration Date 12/31/2025



GENERAL NOTES - FLOOR PLAN

- SEE A001 FOR SYMBOLS LEGEND.
- ALL PARTITIONS TYPE M1 UNLESS NOTED OTHERWISE. ALL DIMENSIONS ARE TO FACE OF MASONRY, FACE OF STUD, OR FACE OF EXISTING FINISH UNLESS NOTED OTHERWISE.
- SEE PLANS FOR BOARD LOCATIONS/DIMENSIONS IF A BOARD IS NOT DIMENSIONED IT SHOULD BE CENTERED ON THE WALL.

KEY NOTES - FLOOR PLAN

- ALIGN FINISH FACE PROVIDE WALL PROTECTION (WP-1) AT ENTIRE LENGTH OF THIS
- TOOTH IN NEW CMU FULL HEIGHT OF WALL WHERE EXISTING CMU WALL IS DEMOLISHED 18 GA. STAINLESS STEEL SHEET METAL SHROUD TO PROTECT EXISTING PLUMBING SUPPLY LINE. EXTEND HORIZONTALLY AS INDICATED. EXTEND VERTICALLY TO 5'-0" ABOVE THE FLOOR

(BELOW VALVE). ATTACH TO FLOOR AND WALL WITH TAPCONS 16"

EXISTING PLUMBING SUPPLY LINE TO REMAIN

KEY NOTES - SHOP EQUIPMENT

- MITER SAW WITH ROLLING MITER STAND (NIC)
- SE2 DRILL PRESS (NIC) SE3 LINCOLN POWER MIG (NIC) SE4 CANTILEVER RACK SINGLE SIDED - 48"W X 33"D X 6'H, (NIC)
- SE5 DUST COLLECTOR (NIC)
- SE6 BAND SAW (NIC) SE7 GRINDER (NIC)
- SE8 SANDER (NIC) SE9 PLANER (NIC)
- SE10 PRO WELDING BENCH - 36" X 24" (NIC) SE11 AIR COMPRESSOR (NIC)
- SE12 METAL BAND SAW (NIC) SE13 TABLE SAW (NIC)
- STORAGE CABINET 36" X 24" 1/4" X 71 3/4" (NIC) WORK BENCH. BASIS OF DESIGN: GLOBAL WG183410 INDUSTRIAL WORK BENCH - 72"WX36"DX34:H GLOBAL FLAMMABLE CABINET - 34"W X 34"D X 65"H (NIC)
- WORK BENCH. BASIS OF DESIGN: GLOBAL WGB336118 FOUR STATION WORK BENCH ROUND STOOL. BASIS OF DESIGN: ZORO.COM G4759921 - HEIGHT RANGE 25" TO 33" QUENCH TANK
- WELDING BOOTH WITH CURTAIN ROD AND CURTAIN

KEY TO CASEWORK NUMBERS

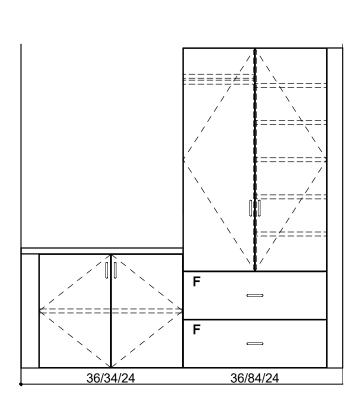
LETTER INDICATES -CASEWORK TYPE. (L= LABORATORY, M=MUSIC NO DESIGNATION INDICATES STANDARD EDUCATIONAL CASEWORK)

INDICATES ADA -ACCESSIBLE CABINET

GENERAL NOTES - CASEWORK

- ALL PLASTIC LAMINATE CASEWORK TO BE PLAM-1 UNLESS NOTED OTHERWISE. ALL PLASTIC LAMINATE COUNTERTOPS TO BE PLAM-2. UNLESS NOTED OTHERWISE, ALL SHELVES ARE TO BE ADJUSTABLE UNLESS A FIXED SHELF IS REQUIRED FOR CABINET STABILITY.
- DRAWERS WITH AN "F" ON THEM ARE TO BE FILE DRAWERS. SIZE DRAWER AND PROVIDE HARDWARE FOR FRONT-TO-BACK LETTER-SIZE FILING. **FINISH LISTING - LAMINATES**

WILSONART, FOSSIL SHALE D504-60 PLAM-2 WILSONART, PEARL SOAPSTONE 4886-60



2 1102 CLASSROOM A101 1/2" = 1'-0"

ISSUANCES 03-01-24 DESIGN DEVELOPMENT
04-08-24 90% CD
A 04-18-24 BID/PERMIT SET
1 05-02-24 ADDENDUM 1 2 05-03-24 ADDENDUM 2

AGRICULTURE EDUCATION
2701 SOUTH UNION ROAD, DAYTON OH

FIRST FLOOR PLAN - AG ED SHOP

COMM NO. 2024006.01

A101

WIRING DEVICE LEGEND

JX INDICATES DEVICE DESIGNATION (IF USED) CF CEILING FAN (BY OTHERS) JUNCTION

SX INDICATES DEVICE DESIGNATION (IF USED) ES EMERGENCY POWER OFF BUTTON, WITH CLEAR ACRYLIC CONTROL COVER DEVICE M MOTOR RATED TOGGLE SWITCH

POWER SUPPLY FOR ELECTRIFIED HARDWARE
PROVIDE ELECTRICAL CONNECTION FOR POWER SUPPLY. COORDINATE LOCATION AND REQUIREMENTS WITH HARDWARE PROVIDER. **GROUND FAULT** GROUND FAULT SPECIALTY PROTECTED, ABOVE ABOVE COUNTER PROTECTED RECEPTACLE COUNTER PROJECTOR CORD REEL RECEPTACLE RECEPTACLE

(CLG MOUNTED)

(CLG MOUNTED)

FIRE ALARM LEGEND FIRE ALARM DRAWINGS INDICATE A BASIS OF DESIGN FOR LOCATIONS AND QUANTITIES

WG WIRE GUARD

WP WEATHERPROOF

NOTIFICATION

APPLIANCES

CANDELA

RATING (75 IF NOT

NOTED)

INITIATING **DEVICES**

OF DEVICES, APPLIANCES, CONTROL PANELS, ETC, FIRE ALARM SYSTEM DESIGNER SHALL REVISE THE PLANS AS REQUIRED TO MEET ALL CODE AND PROJECT REQUIREMENTS. FIRE ALARM SYSTEM SHALL BE DESIGNED BY A LICENSED FIRE ALARM SYSTEM DESIGNER. REFER TO SPECIFICATIONS FOR ALL DEVICE MOUNTING HEIGHTS. F INDICATES DEVICE DESIGNATION XX/44" ▼ DATA DROP EG ELECTRIC GONG HORN ONLY (►) WITH DEVICE STROBE ONLY (►) HS HORN/STROBE COMBO DATA DROP (NO DEVICE) XX INDICATES SPECIAL FEATURES

WT (1) DATA OUTLET WITH (2) STUDS TO SUPPORT AN IP

PS PRESSURE SWITCH K KEY BOX X INDICATES DETECTOR TYPE CO CARBON MONOXIDE DETECTOR H HEAT DETECTOR S SMOKE DETECTOR DUCT SMOKE DETECTOR(S) SHALL BE INSTALLED IN EACH RETURN —AIR DUCT(S) PER MANUFÀCTURER'S WRITTEN INSTRUCTIONS. PROVIDE RELAY TO SHUTDOWN HVAC EQUIPMENT. Y INDICATES DAMPER TYPE FIRE DAMPER

FS FIRE AND SMOKE DAMPER

S SMOKE DAMPER

XX INDICATES DEVICE TYPE

MANUAL PULL STATION RTS REMOTE TEST SWITCH

MOUNTED

MOUNTED

75 D(F)

TECHNOLOGY SYMBOL LEGEND

MOUNTING HEIGHT OF BACKBOX, RELATIVE TO BOTTOM OF BOX. IF OMITTED. DEFAULT MOUNTING HEIGHT IS 16" XX INDICATES TYPE OF TECHNOLOGY OUTLET TECHNOLOGY OUTLET TYPES 1D (1) DATA OUTLET (2) DATA OUTLETS 4D (4) DATA OUTLETS AUDIO/VISUAL OUTLET TECHNOLOGY RACK TV TELEVISION WAP WIRELESS ACCESS POINT

SYMBOL DESCRIPTION MOUNTING HEIGHT	•
2X ANALOG CLOCK WALL MOUNTED 2X INDICATES DOUBLE-FACED REFER TO DETAIL 1/E500)
2X DIGITAL CLOCK WALL MOUNTED 2X INDICATES DOUBLE-FACED REFER TO DETAIL 1/E500)
PAN / TILT / ZOOM SECURITY CAMERA WALL MOUNT MOUNT AS SHOWN BELOW UNLESS OTHERWISE NOTE INTERIOR - CEILING OR 9'-0" AF EXTERIOR - 12'-0" AFF	ED
TV-XX TELEVISION REFER TO ARCHITECTURAL XX INDICATES SCREEN SIZE ELEVATIONS	ΑL
Cable Tray 12"x4"Ø SEE PLANS FOR SIZE CEILING SUSPENDED	
CONDUIT SLEEVE X" INDICATES SIZE REFER TO PLANS FOR QUANTITY CONDUIT SLEEVE LOCATE ABOVE FINISHED CEILING.	<u>}</u>

COMMUNICATION SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
PA	PUBLIC ADDRESS SPEAKER	CEILING MOUNTED
(PA)	PUBLIC ADDRESS SPEAKER	WALL MOUNTED 10'-0" AFF UNO
(SV)	PUBLIC ADDRESS SPEAKER WITH VOLUME CONTROL	CEILING MOUNTED

MANHOLE AND PULLBOX LEGEND

GROUND RECESSED PULLBOX TYPES E1 ELECTRICAL PULLBOX, 24" x 24" T1 TECHNOLOGY PULLBOX, 24" x 24" 1) REFER TO E700 SERIES SHEETS FOR SITE PLANS

AND CIVIL PLANS

CONDUCTOR AND CONDUIT COLOR CODING

COLOR

BLACK

RED

BLUE

GREEN

RED

WHITE

YELLOW

APPLICATION

PHASE A CONDUCTOR

PHASE B CONDUCTOR

PHASE C CONDUCTOR

NEUTRAL CONDUCTOR

GROUND CONDUCTOR

CONTROL CONDUCTOR, 120\

CONTROL CONDUCTOR, NEU

CONTROL CONDUCTOR, 24V

CONTROL CONDUCTOR,

EXTERNAL SOURCE

ABBREVIATIONS:
CA CAST ALUMINUM

GALVANIZED

SHEET METAL

ZINC PLATED

METAL CLAD CABLE

RIGID STEEL CONDUIT

PVC 40 POLYVINYL CHLORIDE, SCHEDULE 40

ELECTRICAL METALLIC TUBING

FLEXIBLE METALLIC CONDUIT

GALVANIZED MALLEABLE IRON

INTERMEDIATE METAL CONDUIT

RIGID NONMETALLIC CONDUIT

LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT

2) COORDINATE EXACT ENCLOSURE LOCATIONS WITH OTHER UNDERGROUND UTILITIES

ACCESS CONTROL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT			
CR	CREDENTIAL READER	WALL MOUNTED REFER TO DETAIL 2/E500			
DHO	MAGNETIC DOOR HOLD OPEN REFE				
DPS	DOOR POSITION SWITCH	DOOR FRAME			
DR	DOOR RELEASE BUTTON	CASEWORK MOUNTED REFER TO F-SERIES SHEETS			
EL	ELECTRONIC LATCH	DOOR FRAME			
FHO	FIRE ALARM SYSTEM MAGNETIC DOOR HOLD OPEN	WALL MOUNTED REFER TO DETAIL 2/E500			
HA	HANDICAP ACTUATOR	DOOR FRAME			
HC	HANDICAP OPERATOR	WALL MOUNTED REFER TO DETAIL 2/E500			
LD	EMERGENCY LOCKDOWN BUTTON	CASEWORK MOUNTED REFER TO F-SERIES SHEETS			
RX	REQUEST TO EXIT	DOOR FRAME			

DRAFTING SYMBOL LEGEND

STEED HAMMOND PAUL, INC ALL RIGHTS RESERVED

SAMUEL H.

88475

TRICT

DIS **AC**

P LOCAL SCHOOL [

SHIP AG ED F/

J ROAD, DAYTON, OH 45417

JEFFERS(

ISSUANCES

A 04-18-24 BID/PERMIT SET

C 05-03-24 ADDENDUM 2

03-01-24 DESIGN DEVELOPMENT

DESCRIPTION DRAWING KEY NOTE
ONLY NOTES THAT APPLY APPEAR ON EACH SHEET. KEY NOTE NUMBERS ARE CONSISTENT FROM SHEET TO SHEET, AND THEREFORE MAY NOT APPEAR IN NUMERICAL ORDER. DETAIL CALLOUT REFER TO DETAIL 2 ON SHEET E501 E501/

	26-ELECTRICAL SHEET LIST
SHEET NUMBER	SHEET NAME
E000	ELECTRICAL LEGENDS
E001	ELECTRICAL LEGENDS
E010	ELECTRICAL DEMOLITION PLAN
E100	LIGHTING PLAN - AG LAB
E101	LIGHTING PLANS - BARN AND GREENHOUSE
E200	POWER PLAN - AG LAB
E201	POWER PLANS - BARN AND GREENHOUSE
E300	FIRE ALARM PLAN
E500	ELECTRICAL DETAILS
E550	ELECTRICAL ALTERNATES
E600	ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULES
E700	ELECTRICAL SITE PLAN

ABBREVIATION LEGEND

	ADDITE VIA HON LEGEND
COMMON ELE	ECTRICAL ABBREVIATIONS AND NOTATIONS
AFF AHJ AIC AL ALT	ABOVE FINISHED FLOOR AUTHORITY HAVING JURISDICTION AMPERE INTERRUPTING CAPACITY ALUMINUM ALTERNATE
BAS BM C CB CD	BUILDING AUTOMATION SYSTEM BRANCH METER CONDUIT CIRCUIT BREAKER CANDELA
CM CU DS EC	CANDELA CONSTRUCTION MANAGER COPPER DISCONNECT SWITCH ELECTRICAL CONTRACTOR
ED EGC EM EPO	EXISTING TO BE DEMOLISHED EQUIPMENT GROUNDING CONDUCTOR EMERGENCY EMERGENCY POWER OFF
ER ERL EV EVSE	EXISTING TO REMAIN EXISTING TO BE RELOCATED ELECTRIC VEHICLE ELECTRIC VEHICLE SUPPLY EQUIPMENT
FC GC GEC GFCI	FOOTCANDLE GENERAL CONTRACTOR GROUNDING ELECTRODE CONDUCTOR GROUND-FAULT CIRCUIT INTERRUPTER
GND GP HP HTP KAIC	GROUND GENERATOR PANEL HORSEPOWER HEAT TRACE PANEL KILOAMPERE INTERRUPTING CAPACITY
LOD LPF LTS LV	LOCK OUT DEVICE CAPABLE LUMENS PER FOOT LIGHTS LOW VOLTAGE
MCB MCCB MLO MM	MAIN LUGS ONLY MAINS METER
MRTS OC OCPD OM SE	MOTOR RATED TOGGLE SWITCH ON CENTER OVERCURRENT PROTECTIVE DEVICE OWNER'S METER SERVICE ENTRANCE
SPD SUSE TGB TR TVSS	SURGE PROTECTIVE DEVICE SUITABLE FOR USE AS SERVICE ENTRANCE TECHNOLOGY GROUND BAR TECHNOLOGY RACK TRANSIENT VOLTAGE SURGE SUPPRESSOR
TVSS TYP UNO UM UT	TYPICAL UNLESS NOTED OTHERWISE UTILITY METER UTILITY TRANSFORMER
VA VFD WG WP XFMR	VOLT-AMPERE VARIABLE FREQUENCY DRIVE WIREGUARD WEATHERPROOF TRANSFORMER
AN INII A	TO A TOTAL OT CHIEFE

GENERAL NOTES: - APPLIES TO ALL ELECTRICAL DRAWINGS

- EC SHALL BE RESPONSIBLE TO INSTALL A SWITCH BOX AND 3/4" CONDUIT TO ABOVE THE CEILING IN EACH ROOM FOR TEMPERATURE CONTROL THERMOSTAT. REFER TO THE MECHANICAL DRAWINGS FOR LOCATIONS OF THESE DEVICES.
- EC MAY COMBINE MULTIPLE CIRCUITS INTO HOME RUNS. NO MORE THAN 3 CIRCUITS SHALL BE IN EACH HOME RUN CONDUIT, AND THE WIRE MUST BE DERATED IN ACCORDANCE WITH NEC. THESE CIRCUITS
- EC SHALL UPSIZE WIRE IN LONG RUNS ACCORDING TO THE WIRE SIZING TABLE SHOWN BELOW:

WIRE SIZING CHART									
RUN L	ENGTH	CIRC	CUIT BREA	KER					
120V	277V	20A	30A	40A					
000-100'	000-200'	12	10	8					
101-150'	201-300'	10	8	6					
151-200'	301-450'	8	6	4					

- WHERE ELECTRICAL LOAD ON A CIRCUIT IS OVER 20 AMPERES, EACH CIRCUIT SHALL BE RUN IN A
- SEPARATE CONDUIT TO THE PANELBOARD. ALL VAV BOXES, EXHAUST FANS, MOTORS, MISC. HVAC EQUIPMENT, APPLIANCES, ETC. INDICATED ON THESE DRAWINGS SHALL HAVE A MOTOR RATED SWITCH LOCATED NEAR THE MOTOR FOR SERVICING. PROVIDE DISCONNECTING MEANS AS REQUIRED BY THE NEC.
- DEEP BOX MINIMUM FOR ALL DATA OUTLETS. HEIGHT DIMENSIONS SHOWN ON THIS PLAN ARE MEASURED FROM THE BOTTOM OF THE DEVICE.

ALL DATA OUTLETS REQUIRE A MINIMUM OF 1" CONDUIT STUB TO ABOVE CEILING. PROVIDE A 3-1/2"

- WHICH THE DIMENSION PERTAINS TO. GROUPINGS OF DEVICES LOCATED ON THE SAME WALL AT THE SAME ELEVATION SHALL BE PLACED SO
- FOR LIGHT FIXTURE MOUNTING DETAILS, SEE LIGHTING FIXTURE SCHEDULE, ON SHEET E001. CONTRACTOR SHALL REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK OF

WIRING METHODS SCHEDULE

APPLICATION

CONCEALED

EXPOSED

LOCATION

METAL STUD PARTITIONS

FINAL CONNECTION TO

BRANCH CIRCUITS

BRANCH CIRCUITS

MOTORIZED EQUIPMENT

ALL OTHER LOCATIONS

GREENHOUSE | BRANCH CIRCUITS

ABOVE GRADE | FINAL CONNECTION TO

BELOW GRADE | FEEDERS

MOTORIZED EQUIPMENT

FINAL CONNECTION TO DEVICES

AND MOTORIZED EQUIPMENT

CONCEALED WITHIN WALLS

AND MOTORIZED EQUIPMENT

ABOVE ACCESSIBLE CEILINGS CONNECTIONS BETWEEN LIGHT

FIXTURES ABOVE ACCESSIBLE

FINISHED SPACES (SEE NOTE A) SURFACE RACEWAY

UNFINISHED SPACES (SEE NOTE A) EMT

FINAL CONNECTION TO DEVICES | LFMC

CMU WALLS

A) UNFINISHED SPACES INCLUDE DEDICATED MECHANICAL, ELECTRICAL, TECHNOLOGY ROOMS ONLY. UNLESS OTHERWISE INDICATED ON DRAWINGS, TREAT ALL OTHER SPACES AS FINISHED SPACES.

GALVANIZED

MALLEABLE

OUTLET

BOXES

STEEL METAL CAST

STEEL METAL CAST

CONDUIT

BODIES

ALUMINUM

ALUMINUM

NEMA 1

NEMA 1

NEMA 3R

GALVANIZED NEMA 3R

MALLEABLE

IRON

| ENCLOSURE | FASTENERS/ | CONDUIT AND

GALVANIZED

SUPPORTS | RACEWAY NOTES:

ZINC PLATED -MINIMUM SIZE 3/4"C

ZINC PLATED | -MINIMUM SIZE 3/4"C

ARTICLE 547

ARTICLE 547

GALVANIZED -CONDUIT SHALL ENTER FROM SIDE OR

CONNECTION.

BOTTOM WHERE PRACTICAL.

PLANS.

-WIRING METHODS SHALL COMPLY WITH NEC

-WIRING METHODS SHALL COMPLY WITH NEC

-DO NOT ROUTE BRANCH CIRCUITS UNDER

SLAB UNLESS OTHERWISE NOTED ON THE

-PROVIDE WATERTIGHT HUBS FOR CONDUIT

B) CONDUITS FOR FEEDERS WHICH ARE SCHEDULED FOR UNDER SLAB INSTALLATION SHALL BE LOCATED A MINIMUM OF 2' BELOW FINISHED FLOOR. COORDINATE WITH ALL OTHER DISCIPLINES.

ALLOWABLE CONDUIT

AND RACEWAY TYPE

EMT AND MC CABLE

MC CABLE

IMC AND RSC

C) CONDUITS FOR BRANCH CIRCUITS NOT PERMITTED UNDER SLAB, UNLESS OTHERWISE INDICATED ON DRAWINGS.

SHALL BE REQUIRED TO BE ON SEPARATE PHASES (A,B,C).

- ALL PANELBOARDS SHALL BE INSTALLED 72" AFF TO THE TOP OF THE PANEL. PROVIDE 10% SPARE CONDUITS (MINIMUM OF 4) TO ABOVE THE CEILING FOR FUTURE.
- HORIZONTAL DIMENSIONS ARE MEASURED TO THE CENTER OF THE DEVICE OR GROUP OF DEVICES
- THAT THE HORIZONTAL DISTANCE BETWEEN DEVICES IS NO GREATER THAN 4". PROVIDE ADDITIONAL SUPPORTS AS REQUIRED.
- THE CONTRACT AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO PRICE AND SCHEDULE AFFECTING ANY TRADE RESULTING FROM

USE OF NON-BASIS OF DESIGN EQUIPMENT.

ELECTRICAL LEGENDS

COMM NO. 2024006.01

ROOM LAYOUTS.

LIGHTING FIXTURE TAGS

LIGHTING FIXTURE LEGEND

- SMALL LETTER DENOTES SWITCH LEG/RELAY NUMBER - REFER TO E100 SERIES DRAWINGS FOR TYPICAL

- CAPITAL LETTER WITH NUMBER DENOTES FIXTURE TYPE - REFER TO YY-Z LIGHT FIXTURE SCHEDULE BELOW.

EXTERIOR LIGHTING FIXTURE TAGS PXX — LIGHT FIXTURE TYPE (REFER TO EXTERIOR FIXTURE SCHEDULE) —CONCRETE BASE TYPE —POLE LENGTH (FT)

25-B ON A 3FT CONCRETE BASE

CONCRETE BASE TYPE LEGEND: "A" = 1'-4" CONCRETE BASE (REFER TO 4/E701) "B" = 3'-0" CONCRETE BASE (REFER TO 4/E701) "F" = FLUSH CONCRETE BASE (REFER TO 5/E701) EXAMPLE TAG: P20 | P20 LIGHT FIXTURE W/ A 25FT POLE

EMERGENCY LIGHTING FIXTURES STANDARD LIGHTING FIXTURE SYMBOLS A10 2'x4' RECESSED TROFFER RECESSED DOWNLIGHT

TRACK HEAD

2'x2' RECESSED TROFFER

1'x4' RECESSED TROFFER

LINEAR PENDANT

- GRAY FILLED IN AREA DENOTES EMERGENCY FIXTURE. - CONNECT TO EMERGENCY POWER CIRCUIT AHEAD OF SWITCHING. CYLINDRICAL PENDANT - NL DENOTES NIGHT LIGHT.

DUAL HEAD EMERGENCY FIXTURE - SHADED AREA DENOTES FACE

- ARROW DENOTES ARROW DIRECTION ABOVE TOP OF NEAREST DOORWAY 2'x4' RECESSED TROFFER - NIGHT LIGHT

GENERAL NOTES - LIGHTING FIXTURES

A. ALL FIXTURES MARKED 'ED' ARE EXISTING TO BE DEMOLISHED. VERIFY SERVING PANEL AND CIRCUIT NUMBER PRIOR TO DISCONNECTION. REMOVE LIGHTING BRANCH CIRCUITING ABOVE FINISHED CEILING. MAINTAIN HOME RUN CONDUIT FOR CONNECTION TO NEW FIXTURES. B. ALL FIXTURES MARKED 'ER' WITHIN AREA OF WORK ARE EXISTING TO REMAIN.

24.0 A 30.0 A P10

C. Contractor shall terminate rough-in conduits at cabinets and on backboards as required.

- WHEN ON WALL, MOUNT NO HIGHER THAN 6" C. ALL FIXTURES MARKED 'ERL' WITHIN AREA OF WORK ARE EXISTING TO BE RELOCATED. FIXTURES SHALL BE CLEANED AND RELAMPED.

D. REFER TO LIGHTING CONTROL SCHEMATICS AND LIGHTING CIRCUIT SCHEDULES ON E500 SERIES DRAWINGS.

LIGHT FIXTURE SCHEDULE - INTERIOR														
KTURE TYPE	FIXTURE BASIS OF DESIGN	ALTERNATE MANUFACTURERS	FIXTURE DESCRIPTION	LAMP	LIGHT DISTRIBUTION	MIN LUME	N COLOR TEMPERATUR	MIN RE CRI	DRIVER	VOLTAG	MAX GE WATTAG	E MOUNTING METHOD	REG OCCUPIED SPACE	TYPE COMMENTS
)	LITHONIA CPANL	COLUMBIA CFP, LSI SFP, PHILIPS FXP, RAB EZPAN, METALUX FP	RECESSED TROFFER, FLAT PANEL, EDGE-LIT, STEEL CONSTRUCTION, DLC RATED, 2' x 4' x 2-1/4"	LED	STANDARD	3000 lm	4000 K	80	LED DRIVER WITH 0-10V DIMMING	120 V	29 VA	CEILING GRID		
32	LITHONIA CPANL	COLUMBIA CFP, LSI SFP, PHILIPS FXP, RAB EZPAN, METALUX FP	RECESSED TROFFER, FLAT PANEL, EDGE-LIT, STEEL CONSTRUCTION, DLC RATED, 2' x 4' x 2-1/4"	LED	STANDARD	4800 lm	4000 K	80	LED DRIVER WITH 0-10V DIMMING	120 V	45 VA	CEILING GRID		
33	LITHONIA CPANL	COLUMBIA CFP, LSI SFP, PHILIPS FXP, RAB EZPAN, METALUX FP	RECESSED TROFFER, FLAT PANEL, EDGE-LIT, STEEL CONSTRUCTION, DLC RATED, 2' x 4' x 2-1/4"	LED	STANDARD	6000 lm	4000 K	80	LED DRIVER WITH 0-10V DIMMING	120 V	50 VA	CEILING GRID		
31	COOPER SKYBAR	LUMINATION ELEMENTAIRE, LUX BASELINE LSI CLARITY, APPROVED EQUALS	LINEAR PENDANT, COLOR TO BE SELECTED BY ARCHITECT, 4" WIDE x 8' LONG	LED	WIDE	6000 lm	4000 K	80	LED DRIVER WITH 0-10V DIMMING	120 V	52 VA	CABLE MOUNTED		MOUNT AT HEIGHT SHOWN ON PLANS.
0	COLUMBIA LIGHTING VTH	ENVOY EMAR, LIGHTLOGIX EXO, APPROVED EQUALS	CEILING MOUNTED VAPORTITE, CLASS 1 DIV. 2 RATED	LED	STANDARD	3000 lm	4000 K	70	LED DRIVER	120 V	25 VA	CEILING SURFACE		
0	DUAL-LITE LZ2	BARRON LED-60, LSI EAS, LITHONIA ELM2, SURE-LITES SEL25	EMERGENCY LIGHT, DUAL HEAD, THERMOPLASTIC, WHITE FINISH, INTEGRAL BATTERY PACK	LED	N/A				N/A	120 V	6 VA	CEILING / WALL MOUNTED		
0	LITHONIA WL4	COLUMBIA MPS4, LSI SDL, METALUX 4SNLED, PHILIPS FSSEZ	INDUSTRIAL LINEAR STRIP, STEEL HOUSING, 4' LONG	LED	STANDARD	4000 lm	4000 K	80	LED DRIVER	120 V	40 VA	CEILING MOUNTED		
20	LITHONIA DMW2	METALUX VT4, DAY-BRITE DW, LSI EG3	INDUSTRIAL VAPOR TIGHT LINEAR, WET LOCATION, HIGH IMPACT DIFFUSER, SST LATCHES, 4' LONG	LED	STANDARD	5000 lm	4000 K	80	LED DRIVER	120 V	50 VA	WALL MOUNTED		MOUNT AT HEIGHT SHOWN ON PLANS.
10	LITHONIA TWR C	EXO WGH, GE EWLS, HALO WXPS APPROVED EQUALS	EXTERIOR WALL PACK, SINGLE PIECE ALUMINUM HOUSING, WEATHERPROOF, VANDAL RESISTANT, INTEGRAL PHOTOCELL, FINISH SELECTED BY ARCHITECT	LED	MEDIUM	1500 lm	3000 K	70	LED DRIVER	120 V	12 VA	WALL MOUNTED		MOUNT AT HEIGHT SHOWN ON PLANS.
23	DUAL-LITE EVE	LITHONIA LOM EXITRONIX VLED-EL90, SURE-LITE LPXC, APPROVED EQUALS	EXIT SIGN, SINGLE FACE, RED LETTERS, THERMOPLASTIC, DIRECTIONAL ARROWS AS SHOWN ON PLANS, WHITE HOUSING, EMERGENCY BATTERY BACKUP, DUAL LIGHT HEADS	N LED	N/A				N/A	120 V	10 VA	CEILING/WALL MOUNTED		WIRED TO UNSWITCHED CIRCUIT

POWERED EQUIPMENT LEGEND

A. COORDINATE ALL ELECTRICAL REQUIREMENTS, INCLUDING ROUGH-IN LOCATION, CONNECTION TYPE, AND POWER REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.

B. WIRING TERMINATIONS TO EQUIPMENT SHALL BE DONE PER MANUFACTURER'S WRITTEN INSTRUCTIONS. C. LOCATIONS OF DEVICES SHOWN ON DRAWINGS ARE SCHEMATIC IN NATURE. COORDINATE LOCATIONS

WITH EQUIPMENT INSTALLER. D. BRANCH WIRING TO EQUIPMENT SHALL BE COPPER.

E. CONNECTIONS, LOCAL DISCONNECTS, STARTERS, AND VFDS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC

CONTROL SYMBOLS

CONTROL PANEL DIV. 23 DIV. 23 INTEGRAL TO UNIT DISCONNECT SWITCH DIV. 26 DIV. 26 NEAR UNIT

HVAC CONTROL DEVICES ARE SHOWN FOR COORDINATION PURPOSES. REFER TO POWER PLANS FOR ANY

ADDITIONAL RESPONSIBILITIES THE EC MAY HAVE FOR THESE DEVICES.

→ THERMOSTAT > VOC SENSOR

O CARBON DIOXIDE SENSOR ED COMBINATION THERMOSTAT / HUMIDITY SENSOR

HUMIDITY SENSOR © CARBON MONOXIDE SENSOR

								26-POWERE	ED EQUIPMENT	SCHEDULE							
				START	ING MEANS			DISCON	NECTING MEAN	NS			ELE	CTRICAL			
MARK	DESCRIPTION	SPECIFICATION SECTION	TYPE	PROVIDED B	INSTALLED Y BY	LOCATION	TYPE	PROVIDED BY	INSTALLED BY	LOCATION	VOLTS	POLES	AMPS	OCPD	PANEL	CIRCUIT	WIRING NOTES
C-1	AIR COMPRESSOR	22	CONTROL PANEL	DIV. 22	DIV. 22	INTEGRAL TO UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	3	17.5 A	35.0 A	P10	44.46.48	
<u>- · · · · · · · · · · · · · · · · · · ·</u>	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	3	
=	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	3	
=	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	3	
=	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	3	
=	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	5	
=	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	5	
F	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	5	
F	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	5	
F	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	5	
F	CEILING FAN	23	N/A	N/A	N/A	N/A	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	0.4 A	15.0 A	BR	3	
J-1	DUCTLESS MINI SPLIT (OUTDOOR)	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	11.0 A	25.0 A	BR	13,15	EXTEND POWER AND CONTROL WIRING TO ASSOCIATED INDOOR UNI
U-2	DUCTLESS MINI SPLIT (OUTDOOR)	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	19.0 A	25.0 A	P10	19,21	EXTEND POWER AND CONTROL WIRING TO ASSOCIATED INDOOR UNI
S-1	DUCTLESS MINI SPLIT (INDOOR)	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	1.0 A	25.0 A	BR	13,15	EXTEND POWER AND CONTROL WIRING FROM ASSOCIATED OUTDOOF UNIT.
S-2	DUCTLESS MINI SPLIT (INDOOR)	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	1.0 A	25.0 A	P10	19,21	EXTEND POWER AND CONTROL WIRING FROM ASSOCIATED OUTDOOL UNIT.
F-1	EXHAUST FAN	23	STARTER	DIV. 26	DIV. 26	NEAR UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	9.8 A	20.0 A	P10	8	
RV-1	AIR HANDLER ENERGY RECOVERY UNIT	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	20.0 A	40.0 A	P10	18	
C-1	VRF CASSETTE	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	2.0 A	15.0 A	P10	13,15	
C-2	VRF CASSETTE	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	2.0 A	15.0 A	P10	13,15	
C-3	DUCTLESS MINI SPLIT (INDOOR)	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	1.0 A	25.0 A	P10	14,16	EXTEND POWER AND CONTROL WIRING FROM ASSOCIATED OUTDOOF UNIT.
E-1A	WELDING BOOTH EXHUAST	23	STARTER	DIV. 23	DIV. 26	NEAR UNIT	STARTER	DIV. 23	DIV. 26	NEAR UNIT	120 V	1	16.0 A	30.0 A	P10	35	
E-1B	WELDING BOOTH EXHUAST	23	STARTER	DIV. 23	DIV. 26	NEAR UNIT	STARTER	DIV. 23	DIV. 26	NEAR UNIT	120 V	1	16.0 A	30.0 A	P10	37	
E-2A	WELDING BOOTH EXHUAST	23	STARTER	DIV. 23	DIV. 26	NEAR UNIT	STARTER	DIV. 23	DIV. 26	NEAR UNIT	120 V	1	16.0 A	30.0 A	P10	39	
E-2B	WELDING BOOTH EXHUAST	23	STARTER	DIV. 23	DIV. 26	NEAR UNIT	STARTER	DIV. 23	DIV. 26	NEAR UNIT	120 V	1	16.0 A	30.0 A	P10	41	
E-3A	WELDING BOOTH EXHUAST	23	STARTER	DIV. 23	DIV. 26	NEAR UNIT	STARTER	DIV. 23	DIV. 26	NEAR UNIT	120 V	1	16.0 A	30.0 A	P10	43	
E-3B	WELDING BOOTH EXHUAST	23	STARTER	DIV. 23	DIV. 26	NEAR UNIT	STARTER	DIV. 23	DIV. 26	NEAR UNIT	120 V	1	16.0 A	30.0 A	P10	45	
DU-1	DUCTLESS MINI SPLIT (OUTDOOR)	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	11.0 A	25.0 A	P10	14,16	EXTEND POWER AND CONTROL WIRING TO ASSOCIATED INDOOR UNI
ΓU-2	AIR HANDLER	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	3	32.0 A	45.0 A	P10	2,4,6	
H-1	ELECTRIC HEATER	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	24.0 A	30.0 A	P10	32,34	
H-2	ELECTRIC HEATER	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	2	24.0 A	30.0 A	P10	36,38	
	T	1	1		1			1	1	<u> </u>	1	1_	1	1	1	1	

SKILLED TRADES LAB EQUIPMENT LEGEND

ELECTRIC HEATER

A. COORDINATE ALL ELECTRICAL REQUIREMENTS, INCLUDING ROUGH-IN LOCATION, CONNECTION TYPE, AND E. REFER TO PLANS FOR DETAILS OF ALTERNATE 3.

POWER REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. B. WIRING TERMINATIONS TO EQUIPMENT SHALL BE DONE PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

C. LOCATIONS OF DEVICES SHOWN ON DRAWINGS ARE SCHEMATIC IN NATURE. COORDINATE LOCATIONS WITH EQUIPMENT INSTALLER.

D. COORDINATE FINAL LOCATION OF CORD AND PENDANT DROPS IN FIELD TO ALIGN WITH DEVICE

ELECTRICAL CONNECTION.

26-SKILLED TRADES LAB EQUIPMENT									
RECEPTACLE					ELEC1	RICAL			
TYPE	DEVICE TYPE	DESCRIPTION	VOLTS	POLES	AMPS	PANEL	CIRCUIT	WIRING NOTES	
BS	NEMA 5-20R	BAND SAW	120 V	1	16.0 A	P11	19	PROVIDE CORD REEL.	
DC	NEMA 5-20R	DUST COLLECTOR	120 V	1	16.0 A	P11	16		
DC	NEMA 5-20R	DUST COLLECTOR	120 V	1	16.0 A	P11	17		
DP	NEMA 5-20R	DRILL PRESS	120 V	1	8.0 A	P11	8		
DP	NEMA 5-20R	DRILL PRESS	120 V	1	8.0 A	P11	8		
GR	NEMA 5-20R	GRINDER	120 V	1	1.5 A	P11	1		
GR	NEMA 5-20R	GRINDER	120 V	1	1.5 A	P11	3		
JT	NEMA 5-20R	JOINTER	208 V	2	18.7 A	P11	11,13	PROVIDE PENDANT CORD DROP.	
MS	NEMA 5-20R	MITTER SAW TABLE	120 V	1	13.3 A	P11	2	PROVIDE PENDANT CORD DROP.	
MS	NEMA 5-20R	MITTER SAW TABLE	120 V	1	13.3 A	P11	9	PROVIDE PENDANT CORD DROP.	
PL	NEMA 5-20R	PLANER	208 V	2	44.0 A	P11	10,12	PROVIDE PENDANT CORD DROP.	
SN	NEMA 5-20R	SANDER	120 V	1	12.0 A	P11	4		
SN	NEMA 5-20R	SANDER	120 V	1	12.0 A	P11	5		
TS	NEMA 5-20R	TABLE SAW	120 V	1	15.0 A	P11	7	PROVIDE CORD REEL.	
WD	NEMA 6-50R	WELDER	208 V	2	14.7 A	P11	21,23		
WD	NEMA 6-50R	WELDER	208 V	2	14.7 A	P11	18,20		
WD	NEMA 6-50R	WELDER	208 V	2	14.7 A	P11	22,24		
WD	NEMA 6-50R	WELDER	208 V	2	14.7 A	P11	29,31		
WD	NEMA 6-50R	WELDER	208 V	2	14.7 A	P11	25,27		
WD	NEMA 6-50R	WELDER	208 V	2	14.7 A	P11	26,28		

PATHWAYS	PROVIDED BY								
PATHWAYS		SYSTEM/DEVICE DESIGNED AND PROVIDED BY INS							
	CABLING	DEVICE	PATHWAYS	CABLING	DEVICE	NOTES			
Div. 26	BBS	BBS	Div. 26	BBS	BBS				
Div. 26	BBS	BBS	Div. 26	BBS	BBS	Div. 26 to provide dedicated circuits for power.			
Div. 26	BBS	BBS	Div. 26	BBS	BBS	2 sets of 16 pair twisted cable to each outbuilding.			
Div. 26	BBS	BBS	Div. 26	BBS	BBS				
Div. 26	BBS	BBS	Div. 26	BBS	BBS				
Div. 26	BBS	BBS	Div. 26	BBS	BBS				
Div. 26	BBS	BBS	Div. 26	BBS	BBS				
Div. 26	BBS	BBS	Div. 26	BBS	BBS				
Div. 26	BBS	BBS	Div. 26	BBS	BBS				
Div. 26	BBS	BBS	Div. 26	BBS	BBS				
N/A	N/A	N/A	N/A	N/A	N/A	Not in project scope.			
N/A	N/A	N/A	N/A	N/A	N/A	Not in project scope.			
	Div. 26	Div. 26 BBS N/A N/A	Div. 26 BBS BBS N/A N/A N/A	Div. 26 BBS BBS Div. 26 N/A N/A N/A N/A	Div. 26 BBS BBS Div. 26 BBS N/A N/A N/A N/A N/A	Div. 26 BBS BBS Div. 26 BBS BBS Div. 26 BBS BBS BBS BBS BBS Div. 26 BBS BBS BBS BBS BBS Div. 26 BBS BBS BBS BBS BBS BBS Div. 26 BBS BBS Div. 26 BBS BBS BBS Div. 26 BBS BBS Div. 26 BBS BBS Div. 26 BBS BBS Div. 26 BBS BBS Div. 26 BBS BBS Div. 26 BBS BBS Div. 26 BBS BBS BBS BBS BBS N/A N/A N/A N/A N/A N/A N/A N/A			

LIGHTING CONTROL SYMBOL LEGEND

SX INDICATES CONTROL STATION TYPE OR SPECIAL NOTE. IF OMITTED, CONTROL STATION

CS1 CONTROL STATION - ON/OFF/DIM

OSD OCCUPANCY SENSOR - DIMMING

OS1 OCCUPANCY SENSOR

a/b/c INDICATES ZONE OF CONTROL. REFER TO DRAWINGS.

OCCUPANCY/VACANCY SENSOR

OCCUPANCY/VACANCY SENSOR.

STEM INDICATES

WALL MOUNTED AT

10'-0" AFF UNO

WALL CONTROL STATION

IS SINGLE POLE SWITCH.

LIGHTING

INDICATES NUMBER OF **SWITCHES**

SWITCH

X INDICATES SENSOR TYPE OR SPECIAL NOTE. IF OMITTED, SENSOR IS DUAL FUNCTION SENSOR TYPES HB HIGH BAY

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DISTRICT JEFFERSON TOWNSHIP
JEFFERSON TOWNSHIP
2701 SOUTH UNION R

ISSUANCES 03-01-24 DESIGN DEVELOPMENT 04-08-24 90% CD A 04-18-24 BID/PERMIT SET B 04-30-24 ADDENDUM 1 C 05-03-24 ADDENDUM 2

ELECTRICAL LEGENDS

COMM NO. 2024006.01

THERMOSTAT LOCATIONS.

B. REFER TO E000 SERIES SHEETS FOR STARTER AND DISCONNECT TYPES AND CONTRACTOR RESPONSIBILITIES. STARTER AND DISCONNECT LOCATIONS TO BE NEAR EQUIPMENT WITH PROPER CLEARANCE AND WORKING SPACE PER NEC. COORDINATE MOUNTING WITH OTHER DISCIPLINES.

C. EC SHALL BE RESPONSIBLE TO INSTALL A SWITCH BOX AND 3/4" CONDUIT TO ABOVE THE ACCESSIBLE CEILING IN EACH ROOM FOR TEMPERATURE CONTROL THERMOSTAT. DEVICES SHOWN ON ELECTRICAL DRAWINGS ARE FOR REFERENCE ONLY. REFER TO THE M SERIES DRAWINGS FOR

D. EC SHALL BE RESPONSIBLE FOR TECHNOLOGY ROUGH-IN LOCATIONS. REFER TO SPECIFICATIONS FOR REQUIREMENTS.

E. ALL 15A AND 20A, 125V AND 250V, NON-LOCKING TYPE RECEPTACLES IN LOCATIONS AS REQUIRED BY NEC 406.12 SHALL BE TAMPER-RESISTANT RECEPTACLES.

F. COORDINATE ALL ELECTRICAL REQUIREMENTS, INCLUDING ROUGH-IN LOCATION, CONNECTION TYPE, AND POWER REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.

G. PRIOR TO DEVICE ROUGH-IN, REFER TO E000 SERIES SHEETS FOR DEVICE LEGENDS AND SPECIALTY INFORMATION.

H. PRIOR TO DEVICE ROUGH-IN, REFER TO E500 SERIES SHEETS FOR SPECIALTY MOUNTING DETAILS.

GENERAL TECHNOLOGY NOTES:

A. REFER TO E000 SERIES SHEETS FOR TECHNOLOGY RESPONSIBILITY MATRIX.

B. COORDINATE FINAL LOCATION OF TECHNOLOGY DEVICES WITH DIV 27. PRIOR TO INSTALLATION.

www.ww.ww.www.ww

KEYNOTES

3/4" FIRE RETARDANT PLYWOOD

STORAGE

1106 MECH TECH LAB

1101 AG ED LAB

SMALL GROUP ROOM

P10-17

STORAGE

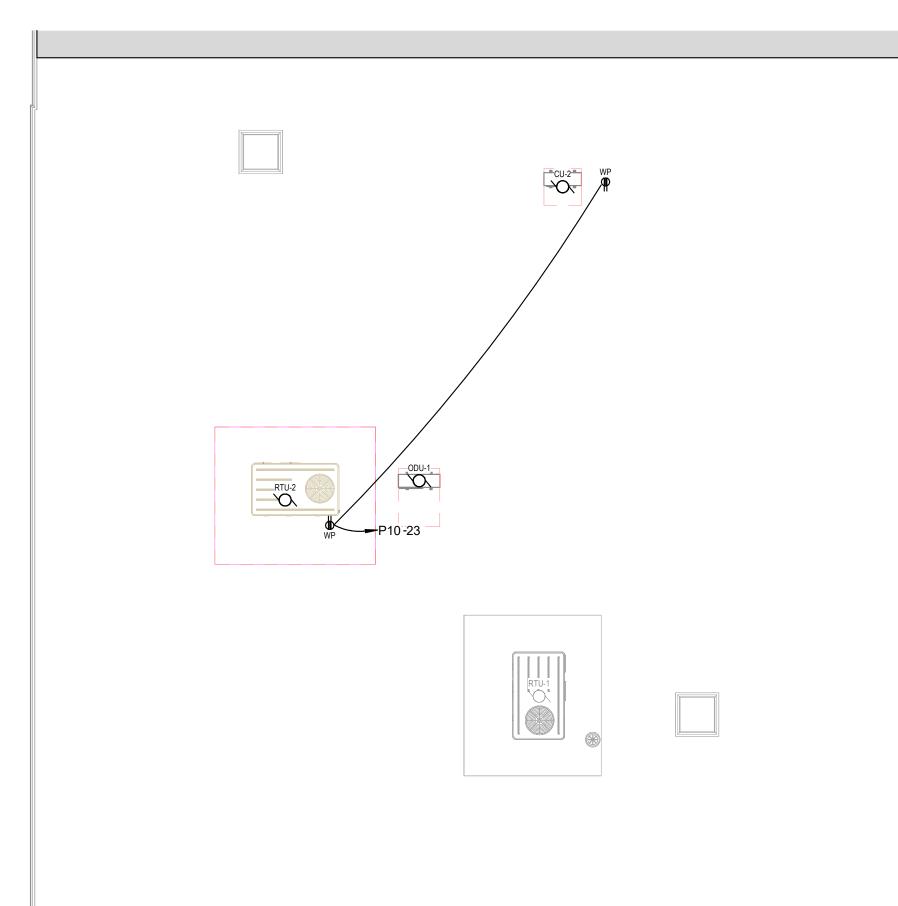
WD FE-1A FE-1B WD WD FE-2A FE-2B WD WD FE-3A FE-3B WD

1113 STORAGE P11-14

—6

EP2 CONNECT TO CIRCUIT MADE AVAILABLE THROUGH DEMOLITION. REFER TO E010 SERIES SHEETS.

EP3 PROVIDE EMERGENCY STOP SWITCH FOR SHUNT TRIP IN P11. COORDINATE EXACT LOCATION IN FIELD.







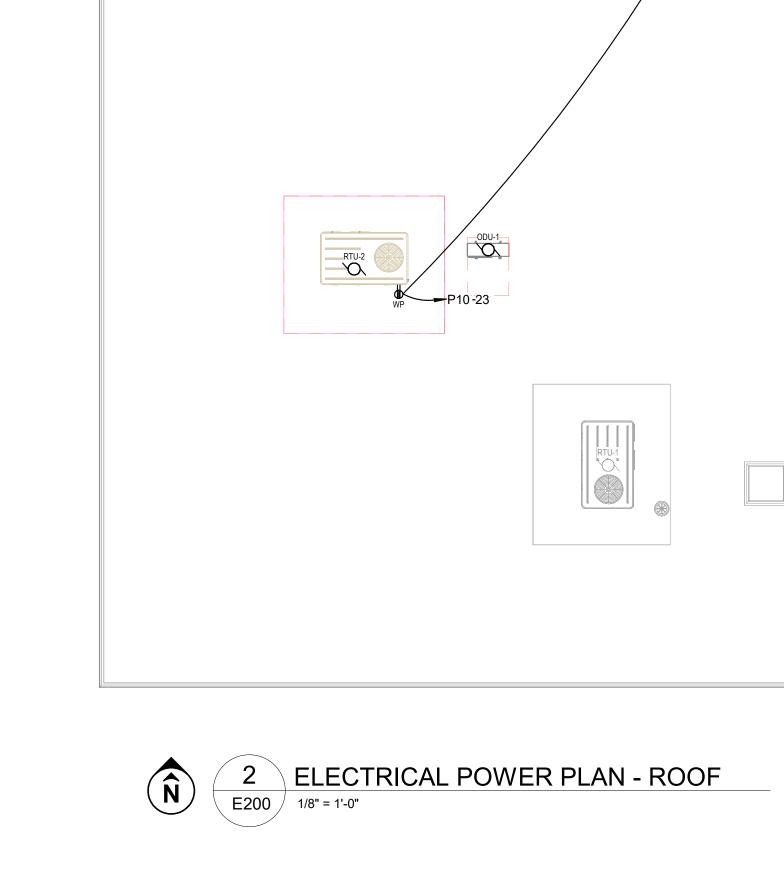
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DISTRICT ACILITY JEFFERSON TOWNSHIP LOCAL SCHOOL
JEFFERSON TOWNSHIP AG ED F
2701 SOUTH UNION ROAD, DAYTON, OH 45417 JEFFERSON TOWNSHIP LOCAL SCHO

ISSUANCES 03-01-24 DESIGN DEVELOPMENT
04-08-24 90% CD
A 04-18-24 BID/PERMIT SET
B 04-30-24 ADDENDUM 1
C 05-03-24 ADDENDUM 2

POWER PLAN -AG LAB

COMM NO. 2024006.01



	26-GREENHOUSE EQUIPMENT SCHEDULE											
			DISCONNECTING	MEANS				ELE	CTRICAL			
MARK	DESCRIPTION	TYPE	PROVIDED BY	INSTALLED BY	LOCATION	VOLTS	POLES	AMPS	МОСР	PANEL	CIRCUIT	WIRING NOTES
AV	ATRIUM VENT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	3	7.8 A	15.0 A	GH	8,10,12	
EF	EXHAUST FAN	NF DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	3	11.0 A	20.0 A	GH	20,22,24	
EF	EXHAUST FAN	NF DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	3	11.0 A	20.0 A	GH	15,17,19	
HF	HAF FANS	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	1.0 A	15.0 A	GH	2	
HF	HAF FANS	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	1.0 A	15.0 A	GH	2	
SM	SHADE MOTOR	NF DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	120 V	1	7.8 A	15.0 A	GH	9	
SV	SIDE VENT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT	208 V	3	7.8 A	15.0 A	GH	14,16,18	
UH	UNIT HEATER	MRTS	DIV. 23	DIV. 23	INTEGRAL TO UNIT	120 V	1	1.0 A	15.0 A	GH	3	
UH	UNIT HEATER	MRTS	DIV. 23	DIV. 23	INTEGRAL TO UNIT	120 V	1	1.0 A	15.0 A	GH	3	

-3/4" FIRE RETARDANT PLYWOOD 3" SLEEVE THROUGH CEILING

- PROVIDE CEILING FAN BOXES, AND CONDUIT WITH PULLSTRING TO CONTROL STATION FOR FUTURE INSTALLATION OF CEILING FANS. PROVIDE WIRING AND FULL INSTALLATION OF CEILING FANS AS PART OF ALTERNATE 5.
- PROVIDE WEATHERPROOF BOX AND MULTI-USE COVERS FOR CEILING FAN CONTROLLERS.
- COORDINATE FINAL LOCATION OF MOTOR AND DISCONNECT WITH GREENHOUSE MANUFACTURER PROVIDED DRAWINGS.
- COORDINATE FINAL LOCATION OF HEATER WITH GREENHOUSE MANUFACTURER PROVIDED DRAWINGS.
- EP9 COORDINATE FINAL LOCATION OF GREENHOUSE CONTROLLERS AND CONTACTOR PANELS WITH GREENHOUSE INSTALLER PRIOR TO INSTALLATION. PROVIDE CONTROL AND POWER WIRING TO ACCESSORIES, MOTORS, EQUIPMENT, AND DEVICES PER MANUFACTURER'S INSTRUCTIONS.
- PROVIDE WEATHERPROOF BOX WITH MULTI-USE COVER FOR MOTOR RATED TOGGLE SWITCH.

LOCATE RECEPTACLE BELOW TECHNOLOGY ENCLOSURE IN WEATHERPROOF BOX. COORDINATE EXACT LOCATION AND ELEVATION OF WALL MOUNTED TECHNOLOGY ENCLOSURE PRIOR TO INSTALLATION WITH GREENHOUSE PROVIDED DRAWINGS AND OWNER.

ET1 PROVIDE RECESSED WEATHERPROOF BOX FOR FUTURE ACCESS

ET2 PROVIDE SLEEVE FOR FUTURE USE WITHIN MASONRY BASE OF STRUCTURE. CAP BOTH ENDS OF SLEEVE.

PROVIDE WEATHERPROOF ENCLOSURE FOR WALL TELEPHONE.

ET3 COORDINATE LOCATION OF DATA DROPS WITH GREENHOUSE MANUFACTOR PROVIDED DRAWINGS PRIOR TO INSTALLATION.

MOUNT ON METAL GREENHOUSE STRUCTURE. COORDINATE FINAL LOCATION OF WALL TELEPHONE WITH GREENHOUSE MANUFACTOR PROVIDED DRAWINGS.

F ET5 PROVIDE NECCESARY WEATHERPROOF BOXES AND FITTINGS FOR

DATA DEVICES WITHIN GREENHOUSE.

GENERAL POWER NOTES:

- A. REFER TO E000 SERIES SHEETS FOR PANEL AND CIRCUIT NUMBERS FOR MECHANICAL AND PLUMBING EQUIPMENT.
- REFER TO E000 SERIES SHEETS FOR STARTER AND DISCONNECT TYPES AND CONTRACTOR RESPONSIBILITIES. STARTER AND DISCONNECT LOCATIONS TO BE NEAR EQUIPMENT WITH PROPER CLEARANCE AND WORKING SPACE PER NEC. COORDINATE MOUNTING WITH OTHER DISCIPLINES.
- C. EC SHALL BE RESPONSIBLE TO INSTALL A SWITCH BOX AND 3/4" CONDUIT TO ABOVE THE ACCESSIBLE CEILING IN EACH ROOM FOR TEMPERATURE CONTROL THERMOSTAT. DEVICES SHOWN ON ELECTRICAL DRAWINGS ARE
- D. EC SHALL BE RESPONSIBLE FOR TECHNOLOGY ROUGH-IN LOCATIONS. REFER TO SPECIFICATIONS FOR REQUIREMENTS.

FOR REFERENCE ONLY. REFER TO THE M SERIES DRAWINGS FOR

- E. ALL 15A AND 20A, 125V AND 250V, NON-LOCKING TYPE RECEPTACLES IN LOCATIONS AS REQUIRED BY NEC 406.12 SHALL BE TAMPER-RESISTANT RECEPTACLES.
- F. COORDINATE ALL ELECTRICAL REQUIREMENTS, INCLUDING ROUGH-IN LOCATION, CONNECTION TYPE, AND POWER REQUIREMENTS WITH
- EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. G. PRIOR TO DEVICE ROUGH-IN, REFER TO E000 SERIES SHEETS FOR DEVICE
- PRIOR TO DEVICE ROUGH-IN, REFER TO E500 SERIES SHEETS FOR SPECIALTY MOUNTING DETAILS.

GENERAL TECHNOLOGY NOTES:

LEGENDS AND SPECIALTY INFORMATION.

THERMOSTAT LOCATIONS.

A. REFER TO E000 SERIES SHEETS FOR TECHNOLOGY RESPONSIBILITY MATRIX. B. COORDINATE FINAL LOCATION OF TECHNOLOGY DEVICES WITH DIV 27. PRIOR TO INSTALLATION.

C

2 POWER PLAN - GREENHOUSE
E201 1/4" = 1'-0"

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DISTRICT JEFFERSON TOWNSHIP LOCA

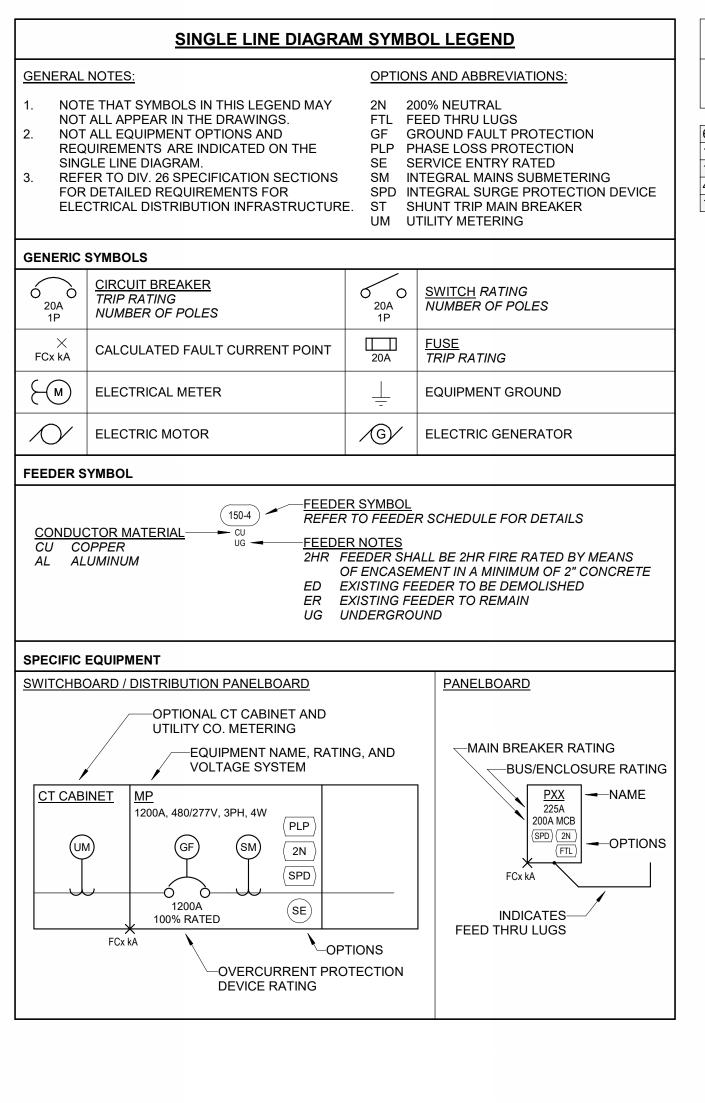
ISSUANCES

A 04-18-24 BID/PERMIT SET B 04-30-24 ADDENDUM 1 C 05-03-24 ADDENDUM 2

POWER PLANS
- BARN AND
GREENHOUSE

COMM NO. 2024006.01

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FEEDER CONDUCTOR PARALLEL CONDUCTORS FGC CONDUIT	
FEEDER CONDUCTOR PARALLEL CONDUCTORS EGC CONDUIT TAG MATERIAL SETS QTY SIZE SIZE	
THE THE SELECTION OF STATE OF	
60-4A CU 1 4 #1/0 #8 2"	
100-4 CU 1 4 #1 #8 1 1/2"	
100-4A CU 1 4 #2/0 #8 2"	
400-4 CU 1 4 600 KCMIL #3 3 1/2"	
1600-4S CU 4 4 600 KCMIL N/A 3 1/2"	
ELECTRICAL SERVICE CALCULATIONS MODIFICATIONS TO AN EXISTING SERVICE EXISTING BUILDING LOADS PEAK 12-MONTH DEMAND 112.5 kW ADD 25% (PER NEC 220.87) 28.1 kW TOTAL EXISTING DEMAND LOAD: 140.63 kW ADDED LOADS UTILITY POWER 51.7 kW LIGHTING 3.6 kW MECHANICAL 80.6 kW TOTAL NEW CALCULATED LOAD: 135.9 kW	
TOTAL CALCULATED LOAD: 276.5 kW	
768.4A @ 208V / 3PH EXISTING 1600A SERVICE IS SUFFICIENT	NEW ALTERNATE 3.
UT 750 KVA CT (SPD)	BUSWAY REFER TO E550 GREENHOUSE GOA GO
208/120V, 3PH, 4W (1600-4S) 1600A SE X 34 kA	
UM	
M# 400 328 739	

FEEDER SCHEDULE

SINGLE LINE DIAGRAM

5 R - 110 7 R - 110 9 L - 110 11 R - 110 13 M - 110 15 17 R - 110 19 M - CU- 21 23 R - ROO 25 R - 110 27 R - 110 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 45 M - FE- 47 L - 110 49 L - 110 51 R - 110	01, 1106 01 - GFI 02 02, 1103, 1104, 1106 01 03, 1104 - FC-1, FC-2 09 J-3 DOFTOP 01 12 01 03 E-1A E-1B	Device Notes	Trip 20 20 20 20 20 20 20 20 20 20 20 20 25 20 20 20 20 20 30	Poles 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	50 540 416 2080 360	A 3843 1176 1248 360 720	126 724 416 2080 360	3843 728 1248 360	180 720 900 360	3843 900 2400 360	Poles 31 1 1 2 1 1 1 1 1 1 1 1 1	Trip 60 20 20 20 20 40 20 20 20 20	Device Notes Circ M - RTU-2 M - 2001 - EF- L - 1101 R - 1101 M - CU-2 M - ERV-1 R - 1106 R - 1112 R - 1106 R - 1108	cuit Description	CF 2 4 6 8 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2
1 L - 1114 3 L - 1107 5 R - 1107 7 R - 1107 9 L - 1107 11 R - 1107 13 M - 1107 15 17 R - 1107 19 M - CU- 21 23 R - ROO 25 R - 1107 27 R - 1107 29 R - 1117 31 R - 1107 33 R - 1107 33 R - 1107 34 M - FE- 45 M - FE- 47 L - 1107 49 L - 1107 51 R - 1107	14 01, 1106 01 - GFI 02 02, 1103, 1104, 1106 01 03, 1104 - FC-1, FC-2 09 J-3 DOFTOP 01 01 12 01 03 E-1A E-1B		20 20 20 20 20 20 20 20 20 25 20 20 20 20 20 20 30	1 1 1 1 1 1 2 1 2 1 1 1 1 1	50 540 416 2080	3843 1176 1248 360 720	126 724 416 2080	3843 728 1248 360	180 720 900 360	3843 900 2400	3 1 1 1 2 1 1 1	60 20 20 20 20 40 20 20 20	M - RTU-2 M - 2001 - EF L - 1101 R - 1101 M - CU-2 M - ERV-1 R - 1106 R - 1112 R - 1106	·	2 4 6 8 1 1 1 1 1 2 2
3 L - 1101 5 R - 1102 7 R - 1102 9 L - 1102 11 R - 1103 13 M - 110 15 17 R - 1103 19 M - CU- 21 23 R - ROC 25 R - 1102 27 R - 1102 27 R - 1103 31 R - 1103 33 R - 1103 35 M - FE- 37 M - FE- 41 M - FE- 43 M - FE- 44 M - FE- 45 M - FE- 47 L - 1107 51 R - 1107 51 R - 1107	01, 1106 01 - GFI 02 02, 1103, 1104, 1106 01 03, 1104 - FC-1, FC-2 09 J-3 DOFTOP 01 12 01 03 E-1A E-1B		20 20 20 20 20 20 20 25 20 20 20 20 20 20 30	1 1 1 1 1 2 1 2 1 1 1 1 1	540 416 2080 360	1176 1248 360 720	724 416 2080	728 1248 360	720 900 360	900	 1 1 1 2 1 1 1	 20 20 20 20 20 40 20 20 20	M - 2001 - EF L - 1101 R - 1101 M - CU-2 M - ERV-1 R - 1106 R - 1112 R - 1106	1	1 1 1 1 2 2 2 2 2 2 2 2 3 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
5 R - 110 7 R - 110 9 L - 110 11 R - 110 13 M - 110 15 17 R - 110 19 M - CU- 21 23 R - ROO 25 R - 110 27 R - 110 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 45 M - FE- 47 L - 110 49 L - 110 51 R - 110	01 - GFI 02 02, 1103, 1104, 1106 01 03, 1104 - FC-1, FC-2 09 J-3 00FTOP 01 01 12 01 03 E-1A		20 20 20 20 20 20 25 20 20 20 20 20 20 30	1 1 1 2 1 2 1 1 1 1 1	416 2080 360	1248 360 720	724 416 2080	728 1248 360	720 900 360	900	1 1 2 1 1 1	20 20 20 20 40 20 20 20	M - 2001 - EF-7 L - 1101 R - 1101 M - CU-2 M - ERV-1 R - 1106 R - 1112 R - 1106	1	1 1 1 1 2 2 2 2 2 2 2 3 1 1 1 1 1 1 1 1
7 R - 1102 9 L - 1102 11 R - 1102 13 M - 1102 15 17 R - 1102 19 M - CU- 21 23 R - RO0 25 R - 1102 27 R - 1102 31 R - 1102 33 R - 1102 33 R - 1102 34 M - FE- 44 M - FE- 45 M - FE- 47 L - 1107 51 R - 1102 51 R - 1102	02 02, 1103, 1104, 1106 01 03, 1104 - FC-1, FC-2 09 J-3 00FTOP 01 01 12 01 03 E-1A E-1B		20 20 20 20 20 20 25 20 20 20 20 20 20 30	1 1 2 1 2 1 1 1 1 1	416 2080 360	1248 360 720	416 2080 360	360	720 900 360	900	1 1 2 1 1 1 1 1 1	20 20 20 40 20 20	L - 1101 R - 1101 M - CU-2 M - ERV-1 R - 1106 R - 1112 R - 1106	1	1 1 1 1 1 2 2
9 L - 1102 11 R - 1102 13 M - 110 15 17 R - 1102 19 M - CU- 21 23 R - RO0 25 R - 110 27 R - 110 31 R - 110 33 R - 110 35 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 44 M - FE- 45 M - FE- 47 L - 110 51 R - 110 51 R - 110	02, 1103, 1104, 1106 01 03, 1104 - FC-1, FC-2 09 J-3 DOFTOP 01 01 12 01 03 E-1A E-1B		20 20 20 20 25 20 20 20 20 20 20 30	1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1	416 2080 360	1248 360 720	416 2080 360	360	900	2400	1 1 2 1 1 1 1 1 1	20 20 20 40 20 20	L - 1101 R - 1101 M - CU-2 M - ERV-1 R - 1106 R - 1112 R - 1106		1 1 1 1 1 2 2 2
11 R - 110 13 M - 110 15 17 R - 110 19 M - CU- 21 23 R - RO0 25 R - 110 27 R - 110 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 110 51 R - 110 51 R - 110	01 03, 1104 - FC-1, FC-2 09 J-3 DOFTOP 01 01 12 01 03 E-1A E-1B		20 20 20 25 20 20 20 20 20 20 30	1 2 1 2 1 1 1 1 1 1 1 1 1 1	2080	360 720	416 2080 360	360	900	2400	1 2 1 1 1 1 1 1	20 20 40 20 20 20	R - 1101 M - CU-2 M - ERV-1 R - 1106 R - 1112 R - 1106		1 1 1 1 2 2 2
13 M - 110 15 17 R - 110 19 M - CU- 21 23 R - RO 25 R - 110 27 R - 110 31 R - 110 33 R - 110 33 R - 110 35 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 44 M - FE- 45 M - FE- 47 L - 110 51 R - 110 51 R - 110	03, 1104 - FC-1, FC-2 09 J-3 DOFTOP 01 12 01 03 E-1A E-1B		20 20 25 20 20 20 20 20 20 20 30	2 1 2 1 1 1 1 1	2080	360 720	2080	360	900	2400	2 1 1 1	20 40 20 20 20	M - CU-2 M - ERV-1 R - 1106 R - 1112 R - 1106		1 1 2 2 2 2
15 17 R - 1100 19 M - CU- 21 23 R - ROO 25 R - 110 27 R - 110 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 110 51 R - 110 51 R - 110	09 J-3 DOFTOP 01 01 12 01 03 E-1A E-1B		 20 25 20 20 20 20 20 20 20 30	 1 2 1 1 1 1 1	2080	360 720	2080	360	360		 1 1 1	 40 20 20 20	M - ERV-1 R - 1106 R - 1112 R - 1106		1 1 2 2 2
17 R - 1109 19 M - CU- 21 23 R - RO0 25 R - 1100 27 R - 1100 29 R - 1110 31 R - 1100 33 R - 1100 35 M - FE- 37 M - FE- 41 M - FE- 43 M - FE- 44 M - FE- 45 M - FE- 47 L - 1100 51 R - 1100	J-3 DOFTOP 01 01 12 01 03 E-1A		20 25 20 20 20 20 20 20 20 30	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	360	720	2080	360	360		1 1 1	40 20 20 20	M - ERV-1 R - 1106 R - 1112 R - 1106		2
19 M - CU- 21 23 R - RO0 25 R - 110 27 R - 110 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 44 M - FE- 45 M - FE- 47 L - 110 51 R - 110	J-3 DOFTOP 01 01 12 01 03 E-1A		25 20 20 20 20 20 20 20 30	2 1 1 1 1 1 1	360	720	360		360		1 1 1	20 20 20	R - 1106 R - 1112 R - 1106		2
21 23 R - ROO 25 R - 110 27 R - 110 29 R - 111 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 110 51 R - 110 51 R - 110	DOFTOP 01 01 12 01 03 E-1A		20 20 20 20 20 20 20 20 30	 1 1 1 1 1	360	720	360			360	1	20 20	R - 1112 R - 1106		2
23 R - ROO 25 R - 110 27 R - 110 29 R - 111 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 110 51 R - 110 51 R - 110	01 01 12 01 03 E-1A E-1B		20 20 20 20 20 20 20 30	1 1 1 1 1			360			360	1	20	R - 1106		2
25 R - 110 27 R - 110 29 R - 1112 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 110 49 L - 110 51 R - 110	01 01 12 01 03 E-1A E-1B		20 20 20 20 20 20 30	1 1 1 1				720		300					
27 R - 110 29 R - 1112 31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 110 49 L - 110 51 R - 110	01 12 01 03 E-1A E-1B		20 20 20 20 20 30	1 1 1				720	720		1	20	K - 1108		
29 R - 1112 31 R - 1102 33 R - 1103 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 1107 51 R - 1107	12 01 03 E-1A E-1B		20 20 20 30	1 1 1	720	2500		720	720		4	00	D 4400		
31 R - 110 33 R - 110 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 110 49 L - 110 51 R - 110	01 03 E-1A E-1B		20 20 30	1	720	2500	720		/20	700	1	20	R - 1108		2
33 R - 1103 35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 1101 49 L - 1107 51 R - 1107	03 E-1A E-1B		20 30	1	720	2500	720			720	1	20	R - 1104		3
35 M - FE- 37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 1101 49 L - 1107 51 R - 1107	E-1A E-1B		30	_			72 ∩	0-0-			2	35	M - UH-1		;
37 M - FE- 39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 1101 49 L - 1107 51 R - 1107	E-1B			1 1			120	2500							
39 M - FE- 41 M - FE- 43 M - FE- 45 M - FE- 47 L - 1101 49 L - 1107 51 R - 1107									1920	2500	2	35	M - UH-2		
41 M - FE- 43 M - FE- 45 M - FE- 47 L - 1101 49 L - 1107 51 R - 1107	E-2A	+	30	1	1920	2500									
43 M - FE- 45 M - FE- 47 L - 1101 49 L - 1107 51 R - 1107			30	1			1920	2500			2	35	M - UH-3		4
45 M - FE- 47 L - 1101 49 L - 1102 51 R - 1102			30	1					1920	2500					4
47 L - 1101 49 L - 1107 51 R - 1102			30	1	1920	2102					3	25	P - AC-1		
49 L - 1107 51 R - 1102			30	1			1920	2102							
51 R - 110	01 - WELDING BOOTHS		20	1					240	2102					4
	07, 1108, 1109, 1111, 111227	. ^	20	1	396	360					1	20	R - 1101		
=0 ND 440	02 - LAPTOP CART	<u>} </u>	20	1			360								
53 R - 110	02 - ABOVE COUNTER PRINTER	<u>} </u>	20	1					360						
55 Spare	UZ - ABOVE COUNTER PRINTER		20	1	0	0					1	20	Spare		
57 Spare			20	1			0	0			1	20	Spare		
59 Spare			20	1					0	0	1	20	Spare		(
				tal Load: al Amps:		11 VA 3.4 A	2262 188	7 VA .6 A		5 VA .7 A					
= LIGHTS													Pane	el Totals	
= RECEPTAC															
	CAL EQUIPMENT												Total Conn. Load		
= PLUMBING	PLUMBING EQUIPMENT												Total Est. Demand		
												-	Total Conn. Curren		
												I O	tal Est. Demand Curren	IT: 189.0 A	
otes:															

Panelboard: P11 Location: AG ED LAB 1101 Supply From: MDP Mounting: Wall Mounted Enclosure: NEMA 1						,	Volts: Phases: Wires:		0V		A.I.C. Rating: 18,000 Mains Type: MCB Panel & MCB Rating 400.0 A					
СКТ	Circuit Description	Device Notes	Trip	Poles	,	4	ı	3	(C	Poles	Trip	Device Notes	Circuit Description	скт	
1	R - 1101 - GRINDER		20	1	180	1600					1	20		R - 1101 - MITTER SAW	2	
3	R - 1101 - GRINDER		20	1			180	1440			1	20		R - 1101 - SANDER	4	
5	R - 1101 - SANDER		20	1					1440	360	1	20		R - 1113	6	
7	R - 1101 - TABLE SAW		20	1	1800	1920					1	20		R - 1101	8	
9	R - 1101 - MITTER SAW		20	1			1600	4576			2	60		R - 1101 - PLANAR	10	
11	R - 1101 - JOINTER		30	2					1945	4576					12	
13					1945	360					1	20		R - 1113	14	
15	R - 1113		20	1			360	1920			1	20		R - 1101 - DUST COLLECTOR	16	
17	R - 1101 - DUST COLLECTOR		20	1					1920	1529	2	40		R - 1101 - WELDER	18	
19	R - 1101 - BAND SAW		20	1	1920	1529									20	
21	R - 1101 - WELDER		40	2			1529	1529			2	40		R - 1101 - WELDER	22	
23									1529	1529					24	
25	R - 1101 - WELDER		40	2	1529	1529					2	40		R - 1101 - WELDER	26	
27							1529	1529							28	
29	R - 1101 - WELDER		40	2					1529						30	
31					1529										32	
33															34	
35															36	
37	Spare		20	1	0	0					1	20		Spare	38	
39	Spare		20	1			0	0			1	20		Spare	40	
41	Spare		20	1					0	0	1	20		Spare	42	
			Tot	al Load:	1584	0 VA	1619	1 VA	1635	6 VA						
			Tota	al Amps:	132	.0 A	135	.4 A	136	.8 A						
. = LIG														Panel Totals		
	CEPTACLES													110		
	CHANICAL EQUIPMENT													otal Conn. Load: 48386 VA		
' = PL(JMBING EQUIPMENT													tal Est. Demand: 39086 VA		
												To		Il Conn. Current: 134.3 A Demand Current: 108.5 A		
												10	ıaı EƏl. L	Demand Current. 100.5 A		
lotes:																

INSTALL NEW CIRCUIT BREAKERS IN EXISTING SPACES. PANEL SCHEDULE NOTES:

GFI PROVIDE GFI BREAKER. IF GFI BREAKER IS UNAVAILABLE, PANEL MANUFACTURER SHOULD SUBSTITUTE GFI PROTECTION VIA GFI RELAY MODULE LOD PROVIDE LOCK ON/OFF DEVICE

SPD PROVIDE SURGE PROTECTION DEVICE

EX EXISTING CIRCUIT EB EXISTING CIRCUIT BREAKER

Panelboard: GH Location: GREENHOUSE 3001 Supply From: MDP Mounting: Wall Mounted Enclosure: NEMA 3R						Volts: 208Y/120V Phases: 3 Wires: 4							A.I.C. Rating: 10,000 Mains Type: MCB Panel & MCB Rating 100.0 A				
СКТ	Circuit Description	Device Notes	Trip	Poles		A		В		C	Poles	Trip	Device Notes	Circuit Description	СК		
1	R - 3001		20	1	192	240					1	20		M - 3001 - HF, HF	2		
3	M - 3001 - UH-X, UH-X		20	1			240	720			1	20		R - 3001, EXTERIOR	4		
5	L - 3001		20	1					450	540	1	20		R - 3001, EXTERIOR	6		
7	R - 3001		20	1	540	937					3	20		M - 3001 - AV	8		
9	M - SHADE MOTOR		20	1			936	937				-			10		
11	R-3001-TECH ENCLOSURE		20	1					360	937		-			12		
13	c					937					3	20		M - 3001 - SV	14		
15	M - 3001 - EF-X		20	3			1321	937				1			16		
17									1321	937					18		
19					1321	1321					3	20		M - 3001 - EF-X	20		
21								1321				-			22		
23										1321		-			24		
25	Spare		20	1	0	0					1	20		Spare	26		
27	Spare		20	1			0	0			1	20		Spare	28		
29	Spare		20	1					0	0	1	20		Spare	30		
				al Load: al Amps:		7 VA .7 A		1 VA 9 A		5 VA 4 A					- 1		
L = LIC	SHTS													Panel Totals			
	CEPTACLES																
	ECHANICAL EQUIPMENT													otal Conn. Load: 17764 VA			
ን = PL	UMBING EQUIPMENT													tal Est. Demand: 17764 VA			
													Tota	I Conn. Current: 49.3 A			

Total Est. Demand Current: 49.3 A

	Panelboard: BF Location: IT/EL Supply From: MDP Mounting: Wall Enclosure: NEM			Volts: Phases: Wires:		20V			Pan	Mair	Rating: 10,000 ns Type: MCB B Rating 60.0 A				
СКТ	Circuit Description	Device Notes	Trip	Poles		4		В		C	Poles	Trip	Device Notes	Circuit Description	СКТ
1	L - EXTERIOR		20	1	24	306					1	20		L - 2002, 2003, 2004, 2005, 20062007	2
3	M - 2001		20	1			228	300			1	20		L - 2001	4
5	M - 2003, 2004, 2005, 2006, 2007		20	1					228	540	1	20		R - 2002, EXTERIOR	6
7	R - 2001, EXTERIOR		20	1	360	540					1	20		R - 2001, EXTERIOR	8
9	R - 2001, EXTERIOR		20	1			720	1080			1	20		R - 2002	10
11	L - 2001		20	1					600						12
13	M - CU-1, DS-1		25	2	1248										14
15							1248								16
17															18
19															20
21															22
23															24
25	Spare		20	1	0	0					1	20		Spare	26
27	Spare		20	1			0	0			1	20		Spare	28
29	Spare		20	1					0	0	1	20		Spare	30
			Tot	al Load:	247	8 VA	3570	6 VA	136	8 VA		1	1		1

L = LIGHTS		Panel Totals
R = RECEPTACLES		
M = MECHANICAL EQUIPMENT	Total Cor	n. Load : 7422 VA
P = PLUMBING EQUIPMENT	Total Est.	Demand: 7422 VA
	Total Conn.	Current: 20.6 A
	Total Est. Demand	Current: 20.6 A

Total Amps: 22.1 A 31.2 A 11.4 A

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DISTRICT ACILITY TRICT JEFFERSON TOWNSHIP LOCAL SCHOOL
JEFFERSON TOWNSHIP LOCAL SCHOOL
2701 SOUTH UNION ROAD, DAYTON, OH 45417
JEFFERSON TOWNSHIP LOCAL SCHOOL
2625 South Union Road, Dayton, OH 45417

ISSUANCES 03-01-24 DESIGN DEVELOPMENT
04-08-24 90% CD
A 04-18-24 BID/PERMIT SET
B 04-30-24 ADDENDUM 1 C 05-03-24 ADDENDUM 2

ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULES

COMM NO. 2024006.01

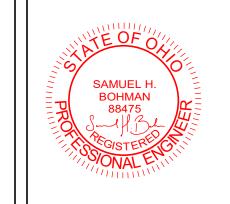
GENERAL NOTES - SITE PLAN

- A. COORDINATE SCHEDULE OF WORK WITH CONSTRUCTION MANAGER.
- B. PERFORM ALL EXCAVATION, TRENCHING AND BACKFILL REQUIRED FOR THE INSTALLATION OF THIS WORK. ALL BACKFILL SHALL BE BROUGHT TO FINISHED GRADE AND MATCH SURROUNDING CONDITIONS. RESTORE ALL DISTURBED PAVING AND LANDSCAPING TO ORIGINAL CONDITIONS. PULL BOXES SHALL BE PROVIDED OF THE TYPE MEETING THE REQUIREMENTS AND CONDITIONS FOR THE USE INTENDED. PROVIDE QUANTITY AND TYPE OF PULL BOXES TO MEET INSTALLATION REQUIREMENTS.
- C. COORDINATE DEPTH AND ROUTING OF UNDERGROUND WORK WITH OTHER SITE UTILITIES.
- D. COORDINATE ALL SITE CONDUIT ROUTING WITH OTHER DISCIPLINES. ROUTING SHOWN ON DRAWINGS IS FOR REFERENCE ONLY AND MAY BE MODIFIED TO ACCOMMODATE FOR SITE CONDITIONS.

KEYNOTES

ES1 ROUTE FROM UNDERGROUND, UP BUILDING EXTERIOR WALL TO CEILING LEVEL. PROVIDE PROTECTIVE COVER FOR CONDUIT ON EXTERIOR WALL. COORDINATE PROTECTIVE COVER WITH ARCHITECT. ROUTE TECHNOLOGY CONDUIT TO IT ROOM. COORDINATE EXACT ROUTING WITH OWNER. Contraction of the contraction o

ES2 VERIFY EXACT ROUTING OF CONDUIT IN FIELD PRIOR TO INSTALLATION. ES3 ROUTE FROM UNDERGROUND, UP BUILDING EXTERIOR WALL TO CEILING LEVEL, AND INTO BUILDING. PROVIDE PROTECTIVE COVER ALONG EXTERIOR WALL. COORDINATE PROTECTIVE COVER WITH ARCHITECT. Communitation in the community of the co



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ISSUANCES

03-01-24 DESIGN DEVELOPMENT
04-08-24 90% CD
A 04-18-24 BID/PERMIT SET
C 05-03-24 ADDENDUM 2

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