iDS
INTEGRATED design SOLUTIONS
architecture engineering interiors & technology
1441 west long lake, suite 200
troy, michigan 48098
5211 cascade road SE, suite 300
grand rapids, michigan 49546
248.823.2100
www.ids-troy.com

WAYNE RESA
Leading...Learning for All

Wayne RESA

Wayne RESA Education Center Transformer Replacement

Wayne, Michigan

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List of Drawings

COVER

ELECTRICAL

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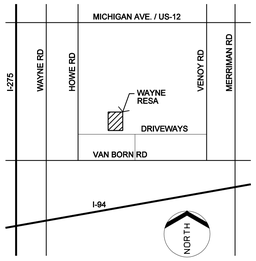
WAYNE RESA SERVER ROOM CONSTRUCTION NOTE

SERVER ROOM A158A CONTAINS CRITICAL EQUIPMENT VITAL TO SERVER ROOM OPERATIONS. THIS ROOM SHALL REMAIN ACTIVE AND OCCUPIED BY THE OWNER THROUGHOUT CONSTRUCTION. CONTRACTORS SHALL COMPLETE ALL WORK IN THIS ROOM WITH THE UTMOST CARE. AT NO TIME SHALL THE CONTRACTOR'S ACTIVITIES IMPEDE SERVER ROOM OPERATIONS. THE FOLLOWING SHALL BE OBSERVED:

- EXISTING EQUIPMENT MAY NOT BE USED TO SUPPORT CONTRACTORS, TOOLS, MATERIALS, TEMPORARY WALLS, DRAWINGS, LADDERS, ETC.
- CONTAIN ALL DUST AND DEBRIS BY ENCLOSING WORK WITH A 1-HOUR FIRE-RESISTANCE-RATED POLYETHYLENE SHEET.
- MAINTAIN AIR FLOW TO/FROM ALL EQUIPMENT.
- CLEAN ALL WORK AREAS REGULARLY TO LIMIT COLLECTION AND SPREAD OF DUST AND DEBRIS.
- WET SAWS SHALL NOT BE USED IN THE SERVER ROOM.
- GENERATING DUST IN THE SERVER ROOM IS PROHIBITED.
- COORDINATE AND SCHEDULE ALL WORK WITH OWNER.

NO SHUTDOWNS, DISCONNECTS, REMOVAL OF POWER OR ANY SIMILAR ACTIONS TOWARD AND EXISTING SERVER ROOM EQUIPMENT SHALL BE ALLOWED, BY ANY MEANS AND AT ANY TIME WITHOUT PRIOR EXPRESS CONSENT, COORDINATION AND DIRECTION BY THE OWNER.

Site Map



Code Information

APPLICABLE CONSTRUCTION CODES AND STANDARDS

BUILDING: MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS, BUREAU OF CONSTRUCTION CODES, 2015 MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS, INCORPORATING THE 2015 EDITION OF THE INTERNATIONAL EXISTING BUILDING CODE

ELECTRICAL: MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS, 2017 MICHIGAN ELECTRICAL CODE, INCORPORATING THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE

Registration Seal

Signature
Date

Signature
Date

Signature
Date

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iDS Project Number

18243-1000

ABBREVIATIONS

A

A	AMPERE / AMP
AC	ALTERNATING CIRCUIT
ACU	AIR CONDITIONING UNIT
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
ALT	ALTERNATE
AP	AMPERE PLUG
ARCH	ARCHITECT / ARCHITECTURAL
AS	AMPERE SENSOR
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO / VIDEO
AWG	AMERICAN WIRE GAUGE

B

BLDG	BUILDING
BOT	BOTTOM
BSMT	BASEMENT

C

CAB	CABINET
CB	CIRCUIT BREAKER
CC	CARD CATALOG
CCP	CLASSROOM CONTROL PANEL
CCTV	CLOSED CIRCUIT TELEVISION
CD	CANDELA
CDI	COMPACT DISC INTERACTIVE
CHBD	CHALKBOARD
CKT	CIRCUIT
CLG	CEILING
COMP	COMPUTER
CPU	CENTRAL PROCESSING UNIT
CP	CONTROL PANEL
CT	CABLE TRAY
CUH	CABINET UNIT HEATER

D

DA	DIGITALLY ADDRESSABLE
DC	DIRECT CURRENT
DEMO	DEMOLITION
DEMOD	DEMODULATOR
DEPT	DEPARTMENT
DIA	DIAMETER
DISC	DISCONNECT
DN	DOWN
DP	DISTRIBUTION PANELBOARD
DVD	DIGITAL VERSATILE DISC
DWG	DRAWING

E

EA	EACH
EC	ELECTRICAL CONTRACTOR
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
ELEC	ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMCS	ENERGY MONITORING AND CONTROL SYSTEM
EMT	ELECTRIC METALLIC TUBING
EP	ELECTRIC PNEUMATIC SWITCH
EQUIP	EQUIPMENT
ET	ETHERNET
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST	EXISTING

F

FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FLA	FULL LOAD AMPERES
FLR	FLOOR
FT	FOOT / FEET
FU	FUSE
FVNR	FULL VOLTAGE NON REVERSING

G

GA	GAGE / GAUGE
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GRD	GROUND
GYP BD	GYPSUM BOARD

H

HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HTR	HEATER
HV	HEATING AND VENTILATION UNIT
HVAC	HEATING, VENTILATION & AIR CONDITIONING

I

IAC	INTERLOCKED ARMORED CABLE
IN	INCH / INCHES
ITS	INTEGRATED TECHNOLOGY SYSTEMS

J

JB	JUNCTION BOX
JC	JANITOR CLOSET

K

KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR

L

LAN	LOCAL AREA NETWORK
LCP	LIGHTING CONTROL PANEL
LP	LIGHTING PANEL
LRA	LOCKED ROTOR AMPERES
LTG	LIGHTING

M

MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDF	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOD	MODULATOR
MTD	MOUNTED
MTG	MOUNTING

N

NC	NORMALLY CLOSED
NF	NON FUSIBLE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE

O

OC	ON CENTER
OFE	OWNER FURNISHED EQUIPMENT
OS	OCCUPANCY SENSOR

P

PA	PUBIC ADDRESS
PB	PULL BOX
PC	PHOTOCELL
PE	PNEUMATIC ELECTRIC SWITCH
PH	PHASE
PL	PILOT LIGHT
POS	POINT OF SALES
PP	POWER PANELBOARD
PT	POKE THROUGH
PTD	EMERGENCY POWER TRANSFER DEVICE
PVC	POLYVINYL CHLORIDE

R

R	RELOCATE
R-NET	RESIDENTIAL CABLE NETWORK
RAF	RETURN AIR FAN
RCP	RECEPTACLE CONTROL PANEL
REQD	REQUIRED
RF	RADIO FREQUENCY
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARE
RP	RECEPTACLE PANEL
RPSS	RECEPTACLE PANEL WITH INTEGRAL SURGE SUPPRESSION

S

SAF	SUPPLY AIR FAN
SD	SMOKE DETECTOR
SF	SQUARE FEET
SPECS	SPECIFICATIONS
SPKR	SPEAKER
SS	SURGE SUPPRESSION
STD	STANDARD
SUB	SUBSTATION
SW	SWITCH
SWGR	SWITCHGEAR

T

TC	TIME CLOCK
TEL	TELEPHONE
TELCOM	TELCOMMUNICATION
TERM	TERMINAL
TKBD	TACKBOARD
TTB	TELEPHONE TERMINAL BACKBOARD
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL

U

UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES INC.
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
UV	UNIT VENTILATOR

V

VCR	VIDEO CASSETTE RECORDER
VFC	VARIABLE FREQUENCY CONTROLLER
VIF	VERIFY IN FIELD
VP	VAPORPROOF
VTS	VIDEO TAPE STORAGE

W

WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WG	WIRE GUARD
WP	WEATHERPROOF

X

XP	EXPLOSION PROOF

Misc

3R	NEMA 3R ENCLOSURE
4X	NEMA 4X ENCLOSURE
∠	ANGLE
℄ OR CL	CENTERLINE
C	CHANNEL
°	DEGREE / DEGREES
'	FOOT / FEET
"	INCH / INCHES
#	NUMBER
C	CONDUIT
PH	PHASE
W	WIRE

ELECTRICAL DRAWING INDEX

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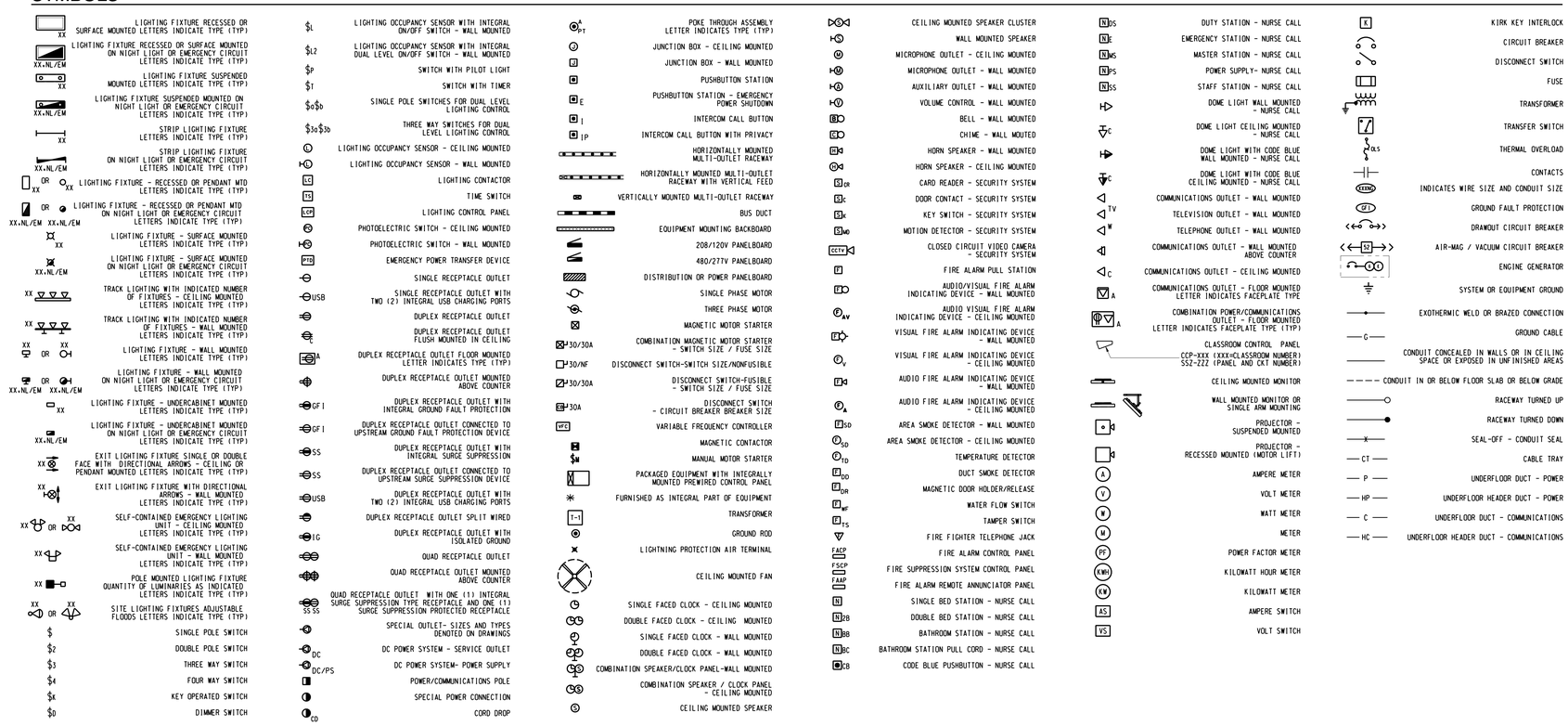
SYMBOLS



GENERAL NOTES

1. LIGHT LINE WEIGHT OR THE LETTER (E) INDICATES EXISTING EQUIPMENT. HEAVY LINE WEIGHT INDICATES NEW ELECTRICAL EQUIPMENT. THE LETTER (R) INDICATES EXISTING EQUIPMENT TO BE RELOCATED. DISCONNECT, REMOVE, AND STORE ITEMS BEING RELOCATED FOR RE-INSTALLATION IN NEW LOCATIONS AS INDICATED ON NEW WORK PLANS. SLASH MARKS INDICATE EQUIPMENT TO BE DISCONNECTED AND REMOVED.
2. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR FOR ALL FEEDERS AND BRANCH CIRCUITS. PROVIDE A SEPARATE DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT PHASE CONDUCTOR.
3. WHERE CONDUITS PENETRATE FIRE WALLS/BARRIERS. FIRE SEAL THE PENETRATION TO A FIRE RATING EQUAL OR GREATER THAN THE ORIGINAL FIRE RATING OF THE WALL/BARRIER.
4. FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND SUPERVISION REQUIRED TO COMPLETE ALL DEMOLITION OF EXISTING ELECTRICAL EQUIPMENT AS SPECIFIED OR INDICATED. DISCONNECT, REMOVE AND RELOCATE ALL ITEMS AS REQUIRED TO FACILITATE THE NEW CONSTRUCTION. COORDINATE THE DEMOLITION REQUIREMENTS WITH ALL OTHER TRADES AND THE NEW WORK PLANS.
5. CARE SHALL BE TAKEN NOT TO DISRUPT ANY ELECTRICAL SERVICE TO REMAIN DURING DEMOLITION. WHERE REMOVAL OF CONDUIT AND WIRING AFFECTS THE OPERATION OF "UPSTREAM" AND/OR "DOWNSTREAM" UTILIZATION EQUIPMENT WHICH WAS NOT INDICATED TO BE REMOVED. PROVIDE ADDITIONAL CONDUIT AND WIRING TO RESTORE THE "UPSTREAM" AND "DOWNSTREAM" UTILIZATION EQUIPMENT TO ITS NORMAL OPERATION.
6. ALL CONSTRUCTION IN THE BUILDING AND ITS ELECTRICAL SYSTEMS SHALL BE COMPLETED IN CLOSELY COORDINATED PHASES TO MINIMIZE SHUTDOWNS AND USER DISRUPTIONS.
7. ALL WORK AND EQUIPMENT SHALL CONFORM TO NEC. THE MEANS AND METHODS USED SHALL CONFORM TO NEC SECTION 110-3 (a) AND (b).
8. PROVIDE LABELING / NAMEPLATES FOR NEW EQUIPMENT / DEVICES BEING INSTALLED AS REQUIRED PER OWNER'S LABELING STANDARDS.

Project Title

WAYNE RESA
Leading...Learning for All

Wayne RESA Education Center
Transformer Replacement

Wayne, Michigan

Key Plan

THIS PROJECT MAY NOT UTILIZE ALL THE SYMBOLS, MATERIALS, ABBREVIATIONS AND STANDARD INFORMATION SHOWN ON THIS SHEET.

Project Administrator	M. Nowicki
Project Designer	E. Young
Project Architect / Engineer	E. Young
Drawn By	E. Young
Q.M. Review	M. Barden
Approved	M. Nowicki
Drawing Scale	N.T.S.

Issued for	Issue Date
95% Owner Review	10-09-2020
Bids	10-16-2020

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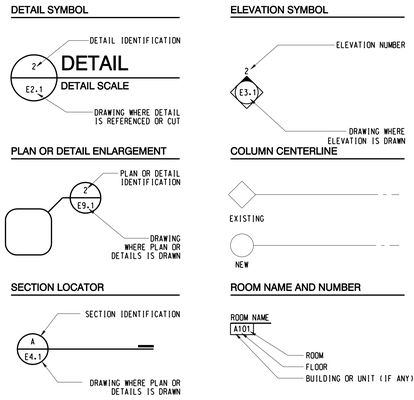
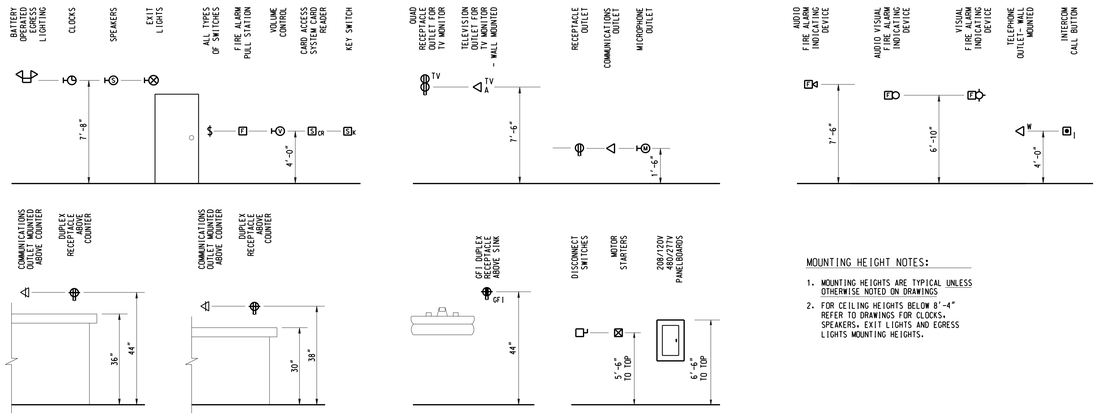
Drawing Title

Electrical Reference Information

SYMBOL LEGEND



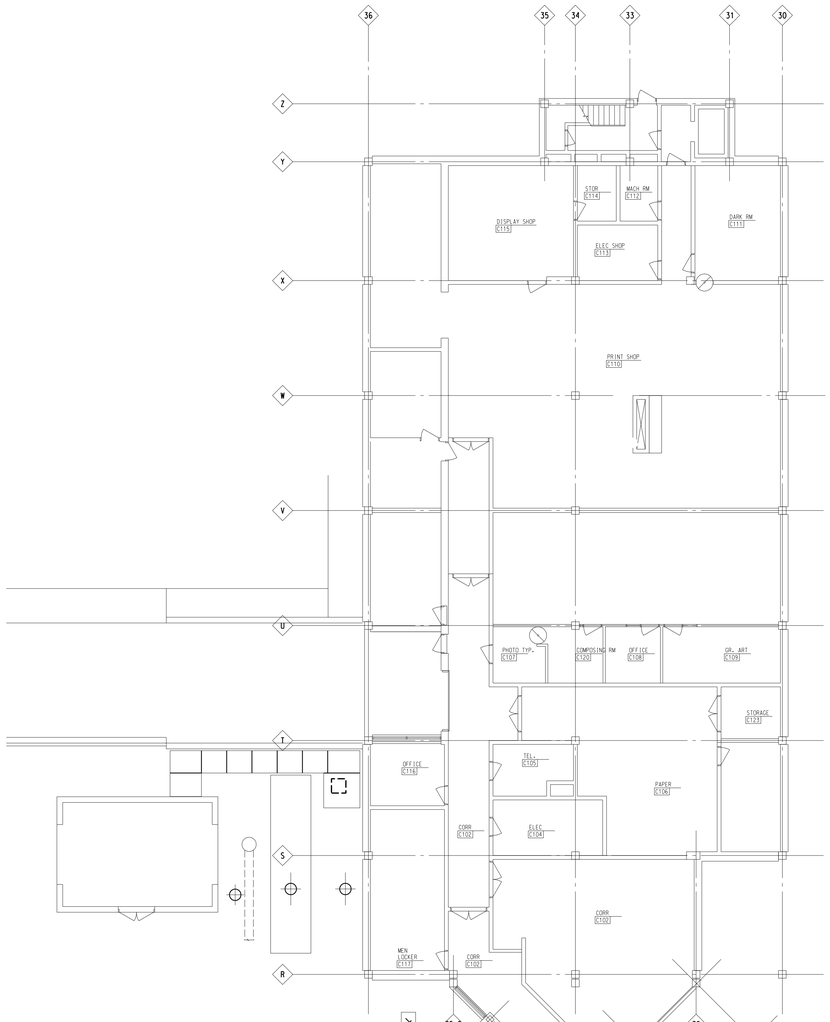
MOUNTING HEIGHTS

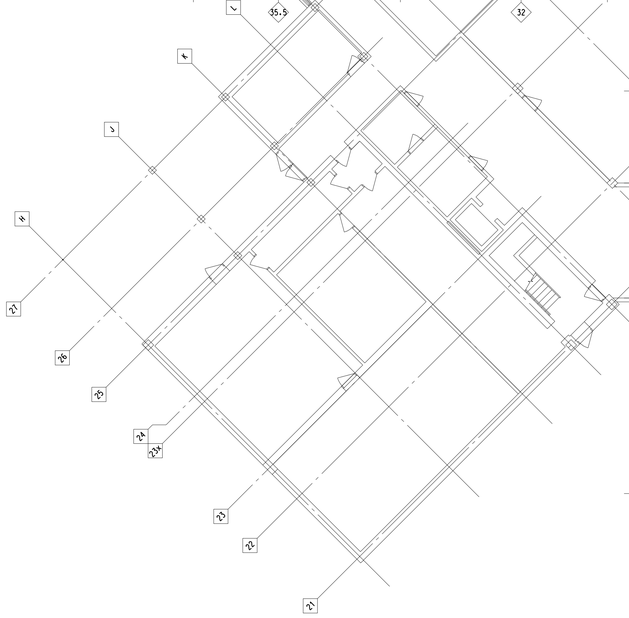


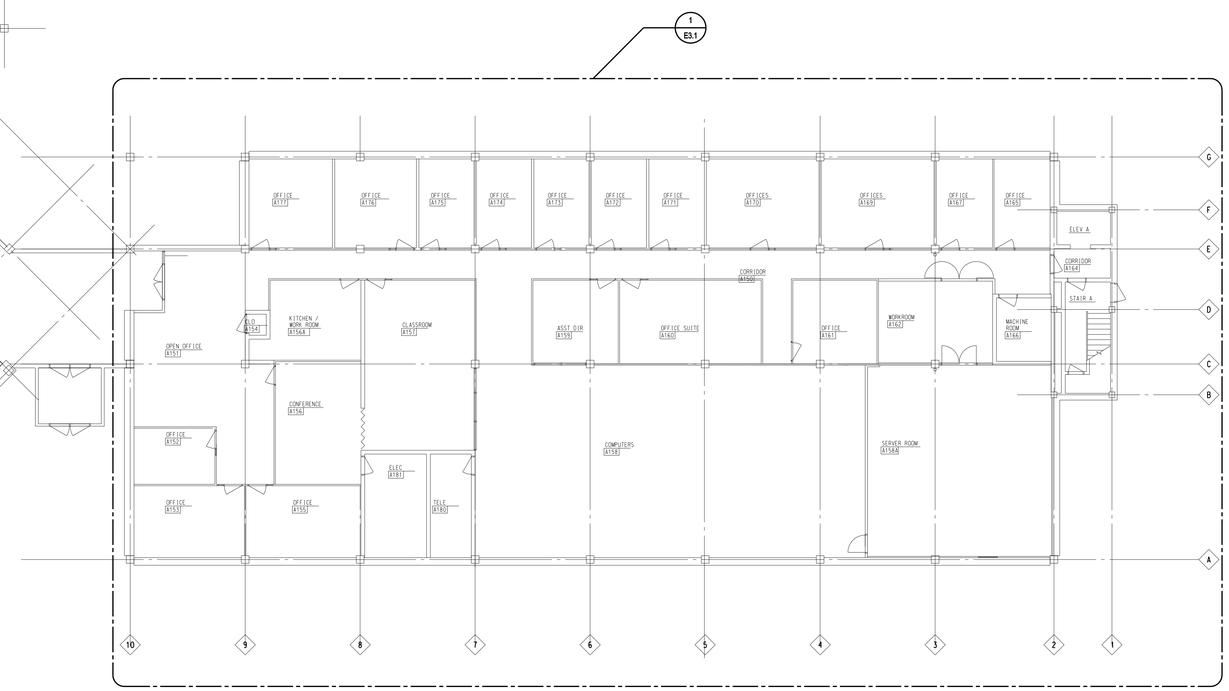
MOUNTING HEIGHT NOTES:

1. MOUNTING HEIGHTS ARE TYPICAL UNLESS OTHERWISE NOTED ON DRAWINGS
2. FOR CEILING HEIGHTS BELOW 8'-4" REFER TO DRAWINGS FOR CLOCKS, SPEAKERS, EXIT LIGHTS AND EGRESS LIGHTS MOUNTING HEIGHTS.

iDS Project Number	Drawing Number
20110-1000	E0.1







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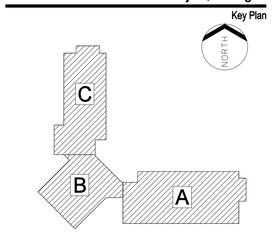

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E. Young
Project Architect / Engineer
E. Young
Drawn By
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Q.M. Review
M. Barden
Approved
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Drawing Scale
3/32" = 1'-0"

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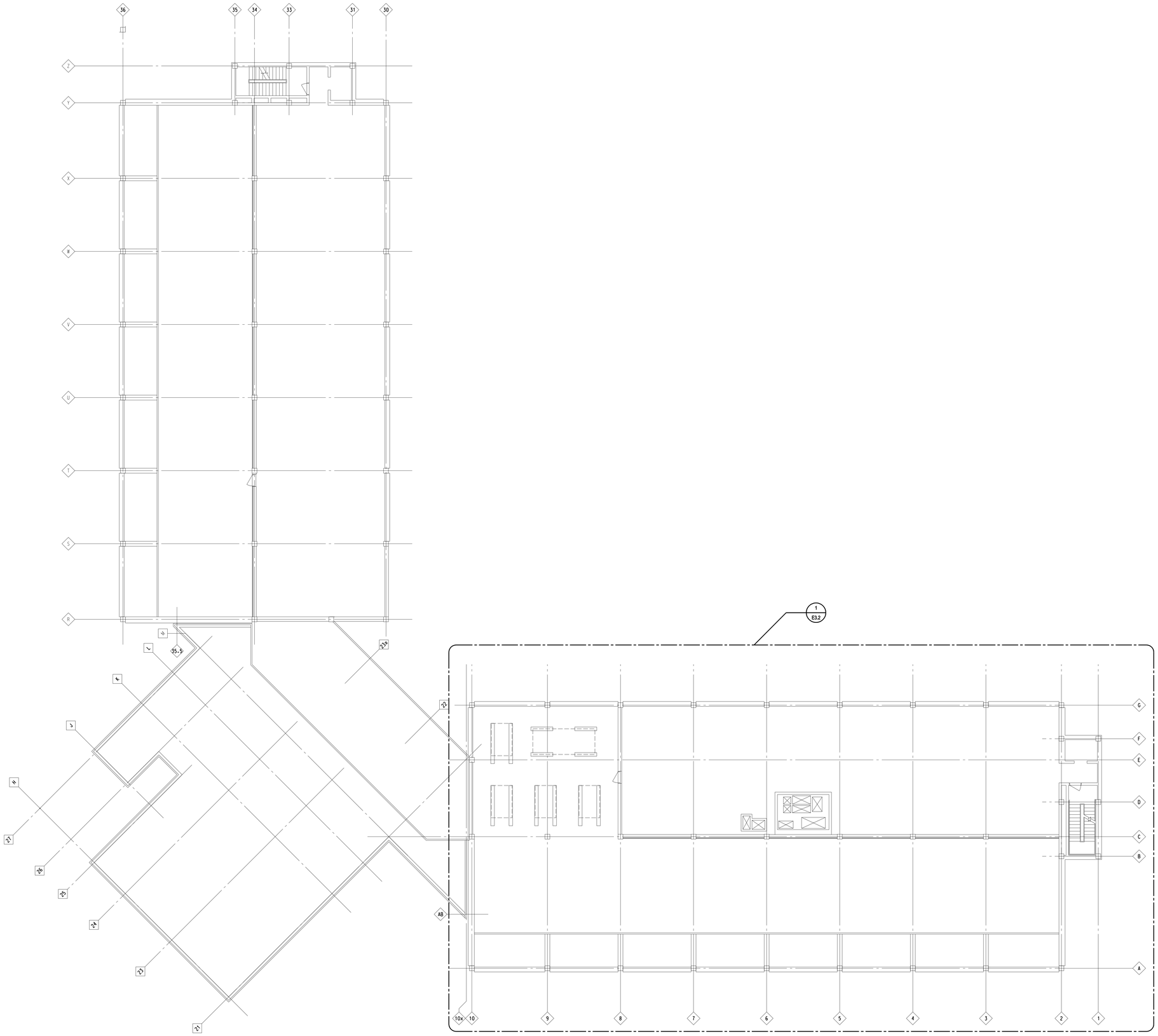
Drawing Title

First Floor Composite Plan

iDS Project Number
20110-1000

Drawing Number
E0.2



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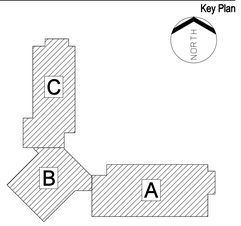

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Project Architect / Engineer
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Q.M. Review
M. Barden

Approved
M. Nowicki

Drawing Scale
$\frac{3}{32}$" = 1'-0"

Issued for	Issue Date
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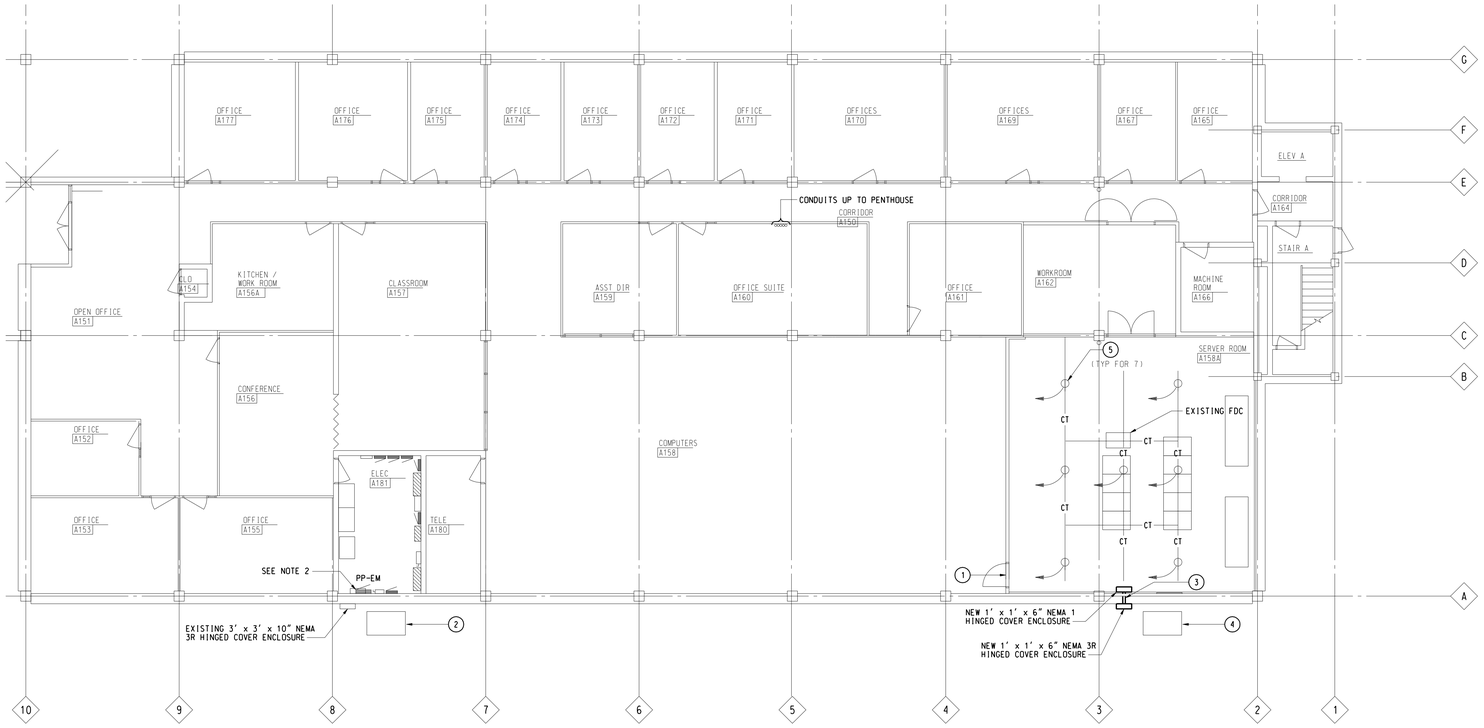
Drawing Title

Penthouse Composite Plan

iDS Project Number
20110-1000

Drawing Number
E0.3



1 / E0.2 FIRST FLOOR POWER PLAN - AREA A

1/8" = 1'-0"

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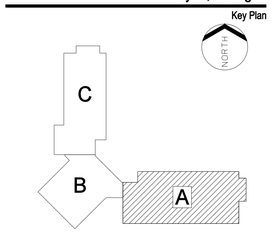

MOBILE AIR, INC
Corporate Office
800 E. Mandoline Ave.
Madison Heights, MI 48071

RT-PAC6034

Specifications

- 60,050 Btu/h
- 480 volt, 3 phase
- 12.4 amp power consumption
- 30 amp recommended fuse size
- 7765-C Non-NEMA plug type (Hubble-HBL7765C)
- Electronic thermostat
- Evaporator CFM 1950
- Evaporator maximum external static pressure 0.50" WC
- Condenser CFM 2900
- Condenser static pressure 0.50" WC
- Power cord 6 AWG 4 ft.
- Auto condensate pump
- Operating range 65-95 degrees F
- Dimensions: 28 1/4"W x 46"D x 52 1/2"H
- Net weight 460lbs / shipping weight 500lbs
- Sound level 78dB

With Local Offices to Serve you in: Indiana - Illinois - Kentucky - Michigan - Ohio - Pennsylvania - Wisconsin - Missouri

800-596-0800

GENERAL NOTES

1. CONTRACTORS SHALL PUT THE SERVER ROOM FIRE PROTECTION SYSTEM (HALON) IN BY-PASS MODE PRIOR TO ANY WORK IN THE SERVER ROOM. RESTORE THE FIRE PROTECTION SYSTEM BACK TO NORMAL MODE AFTER THE COMPLETION OF THE WORK. COORDINATE WITH OWNER REPRESENTATIVE ON THE LOCATION OF THE FIRE PROTECTION SYSTEM.
2. THERE SHALL NOT BE A COMPLETE SHUT DOWN OF THE DATA CENTER AT NO TIME DURING CONSTRUCTION.
3. EXISTING PANEL PP-EM WILL PROVIDE POWER TO THE TEMPORARY COOLING UNITS VIA A TEMPORARY PORTABLE GENERATOR (SEE KEYNOTE 2). CAM-LOCK CABLES WILL BE PROVIDED FOR THE GENERATOR CONNECTION.
4. CONTRACTOR SHALL PROVIDE DUST AND DEBRIS PROTECTION IN THE DATA CENTER DURING CONSTRUCTION IN THE DATA CENTER.
5. CONTRACTOR SHALL COMPLETE AS MUCH WORK AS POSSIBLE BEFORE SWITCHING THE POWER TO GENERATOR POWER TO MINIZE THE SHUTDOWN TIME OF THE UPS AND THE RUN TIME ON THE GENERATORS.
6. CONTRACTOR SHALL REPAIR OR REPLACE LANDSCAPE DAMAGE DURING CONSTRUCTION.
6. ALL CONSTRUCTION PREP WORK SHALL BE DONE THE FRIDAY BEFORE THE TRANSFORMER REPLACEMENT AND POWER SHUT DOWN. TRANSFORMER REPLACEMENT SHALL BE COMPLETED THE FOLLOWING SATURDAY. COORDINATE SHUT DOWN WITH OWNER REPRESENTATIVE AND WAYNE RESA IT DEPARTMENT MANAGER.

KEYNOTES

1. CONTRACTOR SHALL PROVIDE A SHEET OF PLYWOOD TO TEMPORARY COVER THE WEST DOOR OPENING TO SERVER ROOM A158A. THE PLYWOOD SHALL BE SEALED TO PREVENT COOLING LOOSE. THE PLYWOOD SHALL HAVE (7) HOLES FOR THE EXHAUST DUCTS FROM THE TEMPORARY COOLING UNITS. COORDINATE THE SIZE OF THE OPENING WITH THE TEMPORARY COOLING UNIT SUPPLIER.
2. CONTRACTOR SHALL PROVIDE A TEMPORARY PORTABLE GENERATOR FOR TEMPORARY POWER TO TEMPORARY PORTABLE COOLING UNITS.
3. PROVIDE 4" CONDUIT SLEEVE IN DATA CENTER WALL FOR TEMPORARY CABLES TO THE FDC AND PORTABLE GENERATOR. PROVIDE HINGED BOXES ON THE INTERIOR AND EXTERIOR WALL OF THE DATA CENTER.
4. CONTRACTOR SHALL PROVIDE A SECOND TEMPORARY GENERATOR FOR POWER TO THE FDC "A" SIDE OF THE PANEL. CONTRACTOR TO PROVIDE ALL CABLES (50FT) AND CONNECTORS REQUIRED TO CONNECT THE GENERATOR TO THE EXISTING FDC.
5. EXISTING SIMPLEX RECEPTACLES MOUNTED TO THE BOTTOM OF THE EXISTING CABLE TRAY FOR TEMPORARY COOLING UNITS. RECEPTACELS ARE FEED FROM EXISTING PP-EM.

PANELBOARD SCHEDULE PP-EM (Existing)

250 AMPS MLO

CKT.	LOAD	CB	A	B	C	CB	LOAD	CKT.
1	Spare	100	3436			30	Server Room A158A Overhead Receptacle for Portable Cooling Unit	2
3				3436				4
5					3436			6
7	Server Room A158A Overhead Receptacle for Portable Cooling Unit	30	3436	3436		30	Server Room A158A Overhead Receptacle for Portable Cooling Unit	8
9				3436	3436			10
11					3436	3436		12
13	Server Room A158A Overhead Receptacle for Portable Cooling Unit	30	3436	3436		30	Server Room A158A Overhead Receptacle for Portable Cooling Unit	14
15				3436	3436			16
17						3436	3436	18
19	Server Room A158A Overhead Receptacle for Portable Cooling Unit	30	3436			30	Server Room A158A Overhead Receptacle for Portable Cooling Unit	20
21				3436				22
23					3436			24
25	Space						Space	26
27	Space						Space	28
29	Space						Space	30

Panel Information	
Volts:	480/277 Wye
Mounting:	Flush
A.I.C. (RMS Symmetrical):	22000
Phase:	3
Wire:	4
Hertz:	60

Symbols

Note: All Symbols May Not Be Used

- * PROVIDE LOCK ON ATTACHMENT
- # PROVIDE SWD RATED BREAKER
- @ PROVIDE GFCI TYPE BREAKER
- \+ PROVIDE AFCI TYPE BREAKER

Load Classification	Total Connected Load
Receptacle	0 VA
Equipment	61848 VA
Lighting	0 VA
Kitchen	0 VA

PHASE A CONNECTED LOAD:	20,616 VA
PHASE B CONNECTED LOAD:	20,616 VA
PHASE C CONNECTED LOAD:	20,616 VA
TOTAL CONNECTED LOAD:	**61,848 VA**
TOTAL ESTIMATED DEMAND LOAD:	**61,848 VA**
TOTAL ESTIMATED DEMAND AMPS:	**74.4 A**

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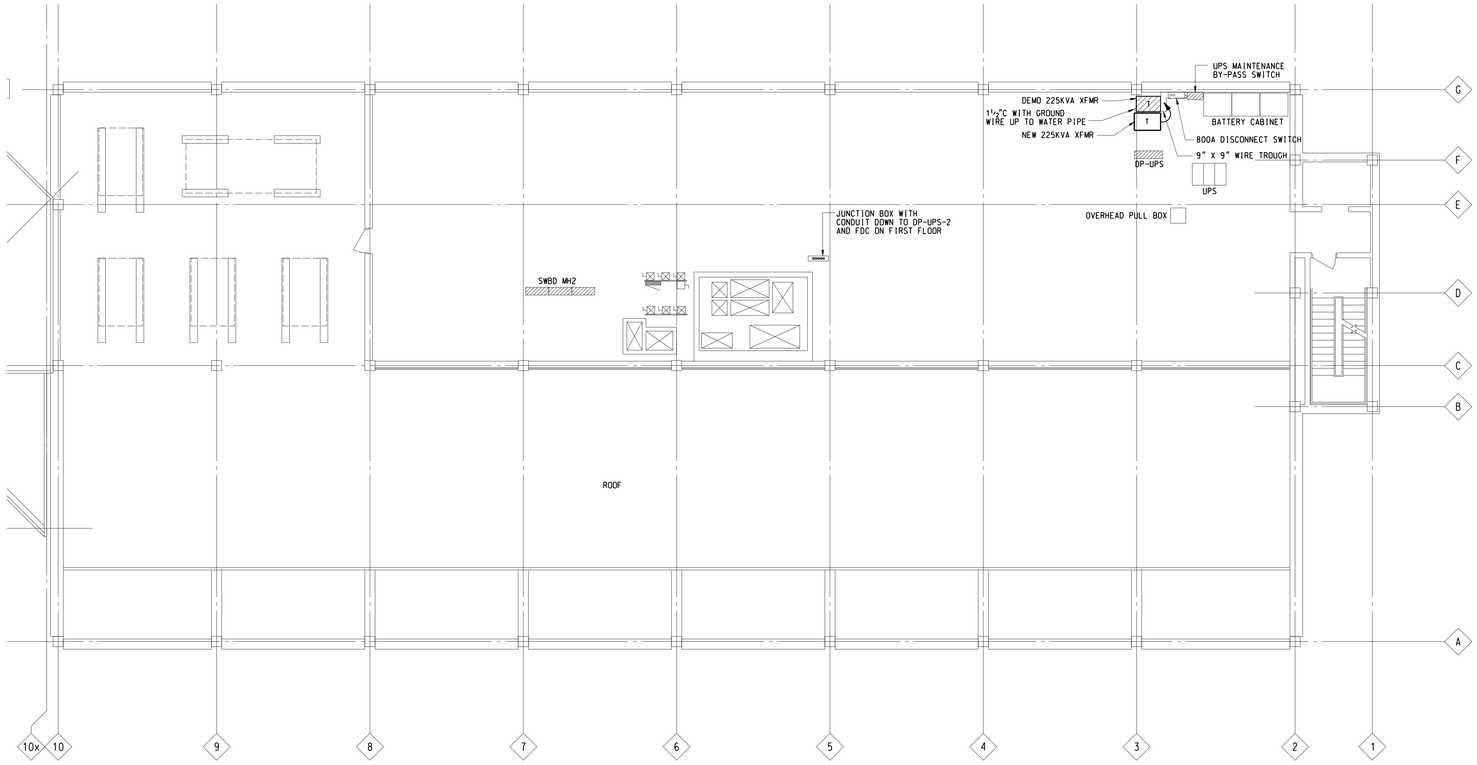
First Floor Power Plan - Unit A

iDS Project Number
20110-1000

Drawing Number
E3.1



1 / E0.3 PENTHOUSE POWER PLAN - AREA A

1/8" = 1'-0"

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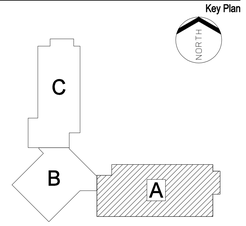
Project Title

WAYNE RESA
Leading...Learning for All

Wayne RESA Education Center
Transformer Replacement

Wayne, Michigan

Key Plan



Project Administrator	M. Nowicki
Project Designer	E. Young
Project Architect / Engineer	E. Young
Drawn By	E. Young
Q.M. Review	M. Barden
Approved	M. Nowicki
Drawing Scale	1/8" = 1'-0"

Issued for	Issue Date
95% Owner Review	10-09-2020
Bids	10-16-2020

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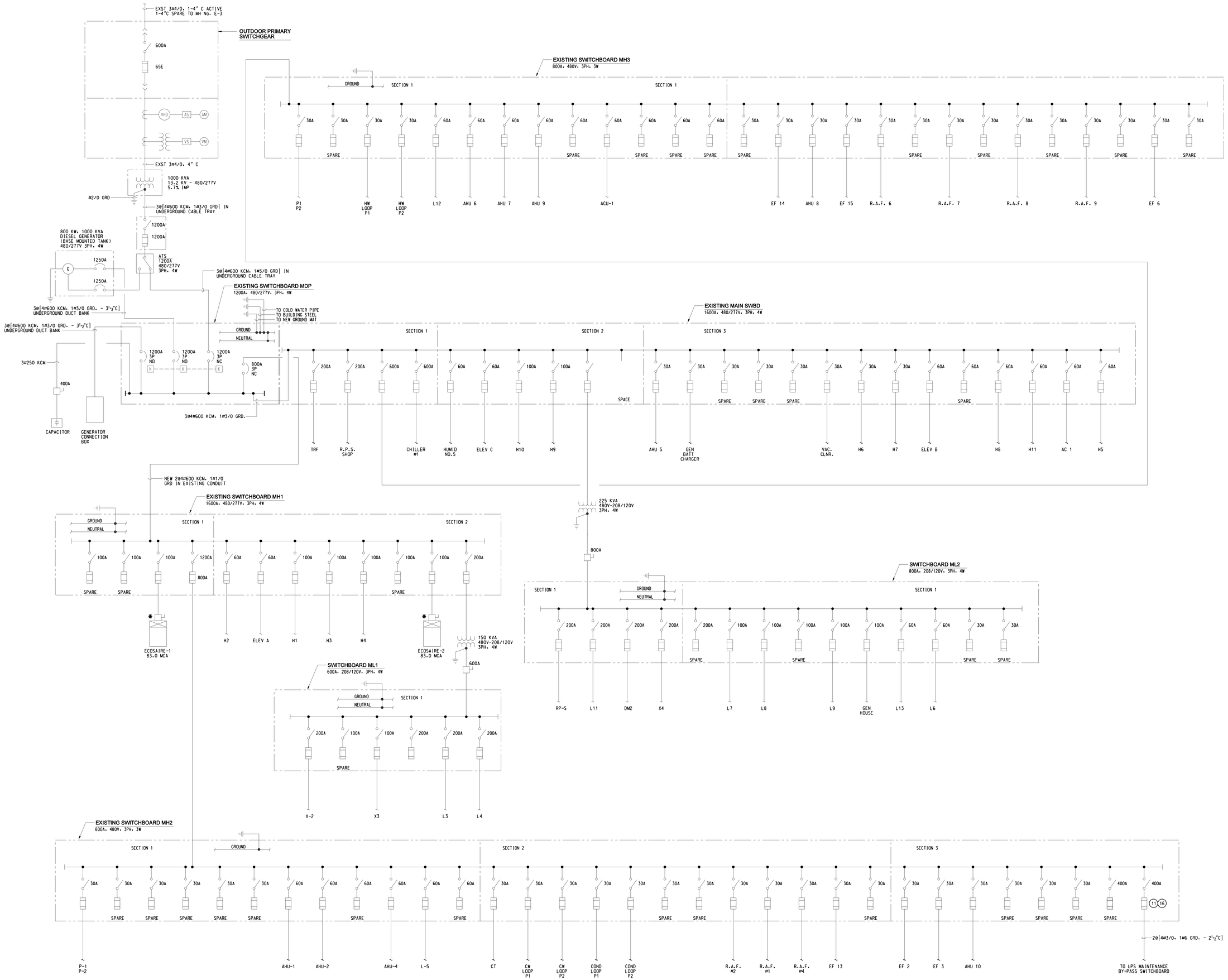
Drawing Title

Penthouse Power Plan - Unit A

iDS Project Number: 20110-1000

Drawing Number: E3.3



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Key Plan

Project Administrator	Mike Nowicki
Project Designer	E. Young
Project Architect / Engineer	E. Young
Drawn By	E. Young
Q.M. Review	M. Barden
Approved	Mike Nowicki
Drawing Scale	N.T.S.

Issued for	Issue Date
95% Owner Review	10-09-2020
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Drawing Title

One Line Diagram - (Existing)

iDS Project Number	Drawing Number
20110-1000	E5.1

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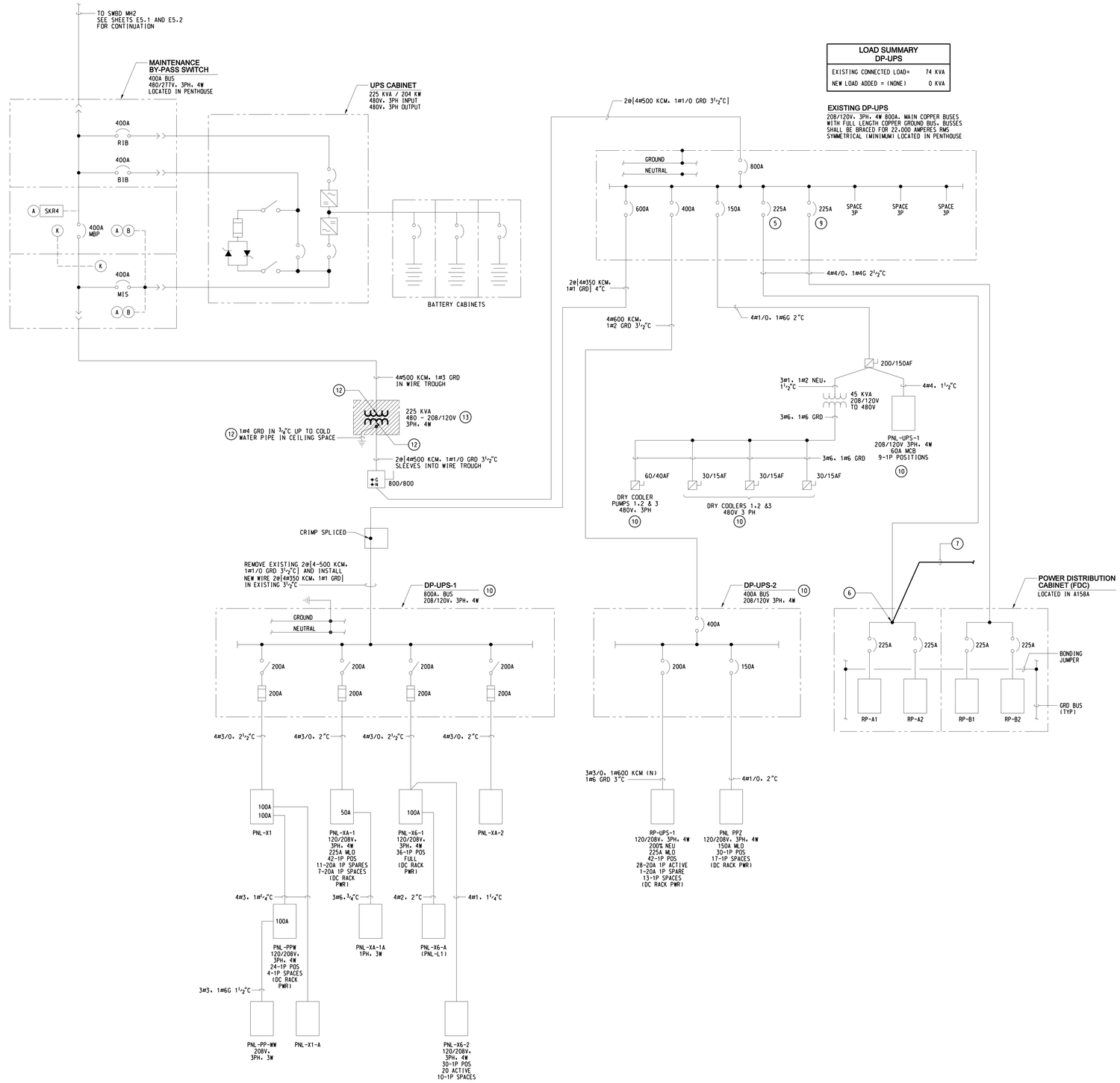

GENERAL NOTES

1. PROVIDE ALLOWANCE TO REPLACE THE EXISTING WIRE TROUGH AND FEEDER CABLES TO THE DISCONNECT SWITCH AND MAINTENANCE BY-PASS SWITCHBOARD IF THE NEW TRANSFORMER IS DEEPER THEN THE EXISTING TRANSFORMER.

SEQUENCE OF OPERATION

1. CONNECT TEMPORARY FEEDER CABLES TO EXISTING PANEL PP-EM TO THE TEMPORARY GENERATOR FOR POWER TO THE TEMPORARY COOLING UNITS IN THE DATA CENTER.
2. INSTALL TEMPORARY COOLING UNITS IN THE DATA CENTER AND CONNECT THEM TO THE EXISTING RECEPTACLES MOUNTED TO THE BOTTOM OF THE EXISTING CABLE TRAY IN THE DATA CENTER.
3. START THE GENERATOR FOR THE TEMPORARY COOLING UNITS AND TURN ON THE COOLING UNITS.
4. TURN OFF ONE OF THE DATA CENTER COOLING UNITS MAKE SURE TEMPORARY COOLING UNITS ARE HOLDING THE DATA CENTER TEMPERATURE. IF TEMPORARY CODOLING UNITS ARE MAINTANING THE TEMPERATURE THEN TURN OFF THE SECOND DATA CENTER COOLING UNIT.
5. TURN OFF THE CIRCUIT BREAKER IN EXISTING DP-UPS FOR THE "A" SIDE OF THE FDC.
6. DISCONNECT THE CABLES TO THE "A" SIDE OF THE FDC AND COIL INSIDE THE FDC FOR RECONNECTION.
7. CONNECT THE TEMPORARY CABLES AND ASSOCIATED CONNECTORS FROM THE GENERATOR TO THE "A" SIDE LUGS INSIDE THE FDC.
8. START THE GENERATOR FOR THE TEMPORARY POWER TO THE FDC.
9. ONCE GENERATOR IS RUNNING, TURN OFF THE CIRCUIT BREAKER TO THE "B" SIDE OF THE FDC IN DP-UPS.
10. COORDINATE WITH THE OWNER REPRESENTATIVE ON THE SHUT DOWN OF THE DATA CENTER DRY COOLERS, PUMPS, PNL-UPS-1, DP-UPS-1, DP-UPS-2 BEFORE SHUTING DOWN THE UPS AND TRANSFORMER.
11. TURN OFF THE FUSIBLE SWITCH IN SWITCHBOARD MH2 TO THE UPS MAINTENANCE BY-PASS SWITCHBOARD.
12. DISCONNECT THE EXISTING FEEDER WIRES FROM THE TRANSFORMER AND THE TRANSFORMER GROUND WIRES. EXISTING FEEDER AND GROUND WIRES SHALL REMAIN AND BE RECONNECTED TO THE NEW TRANSFORMER.
13. REMOVE THE EXISTING TRANSFORMER AND INSTALL THE NEW TRANSFORMER IN THE EXACT SAME LOCATION.
14. RECONNECT THE EXISTING FEEDER AND GROUND WIRES TO THE NEW TRANFORMER.
15. CONTRACTOR SHALL DO ANY FIELD TESTING AS REQUIRED PER SPECIFICATIONS.
16. CONTRACTOR SHALL TURN ON THE FUSIBLE SWITCH IN SWITCHBOARD MH2 TO RE-ENERGIZE THE UPS AND TRANSFORMER.
17. CONTRACTOR SHALL COORDINATE WITH OWNER REPRESENTATIVE TO RESTART THE DATA CENTER COOLING UNITS, DRY COOLERS, PUMPS, PNL-UPS-1, DP-UPS-1, DP-UPS-2.
18. CONTRACTOR SHALL TURN ON THE CIRCUIT BREAKER TO THE "B" SIDE OF THE FDC IN DP-UPS.
19. CONTRACTOR SHALL DISCONNECT AND REMOVE THE TEMPORARY FEEDER CABLES TO THE "A" SIDE OF THE FDC AND RECONNECT THE FEEDER CABLES TO THE "A" SIDE OF THE FDC.
20. CONTRACTOR SHALL TURN ON THE CIRCUIT BREAKER TO THE "A" SIDE OF THE FDC IN DP-UPS.
21. CONTRACTOR SHALL REMOVE THE TEMPORARY COOLING UNITS ONCE THE DATA CENTER COOLING UNITS ARE RUNNING AND DATA CENTER IS MAINTAINING IT DESIRE TEMPERATURE.
22. CONTRACTOR SHALL REMOVE ALL TEMPORARY CABLES. REMOVE GENERATORS AND CLEAN UP OF CONSTRUCTION AREAS.

Project Title

WAYNE RESA
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Wayne RESA Education Center
Transformer Replacement

Wayne, Michigan

Key Plan

Project Administrator	Mike Nowicki
Project Designer	E. Young
Project Architect / Engineer	E. Young
Drawn By	E. Young
Q.M. Review	M. Barden
Approved	Mike Nowicki
Drawing Scale	N.T.S.

Issued for	Issue Date
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Drawing Title

One Line Diagram -
(Demolition Work)

IDS Project Number: 20110-1000

Drawing Number: E5.2

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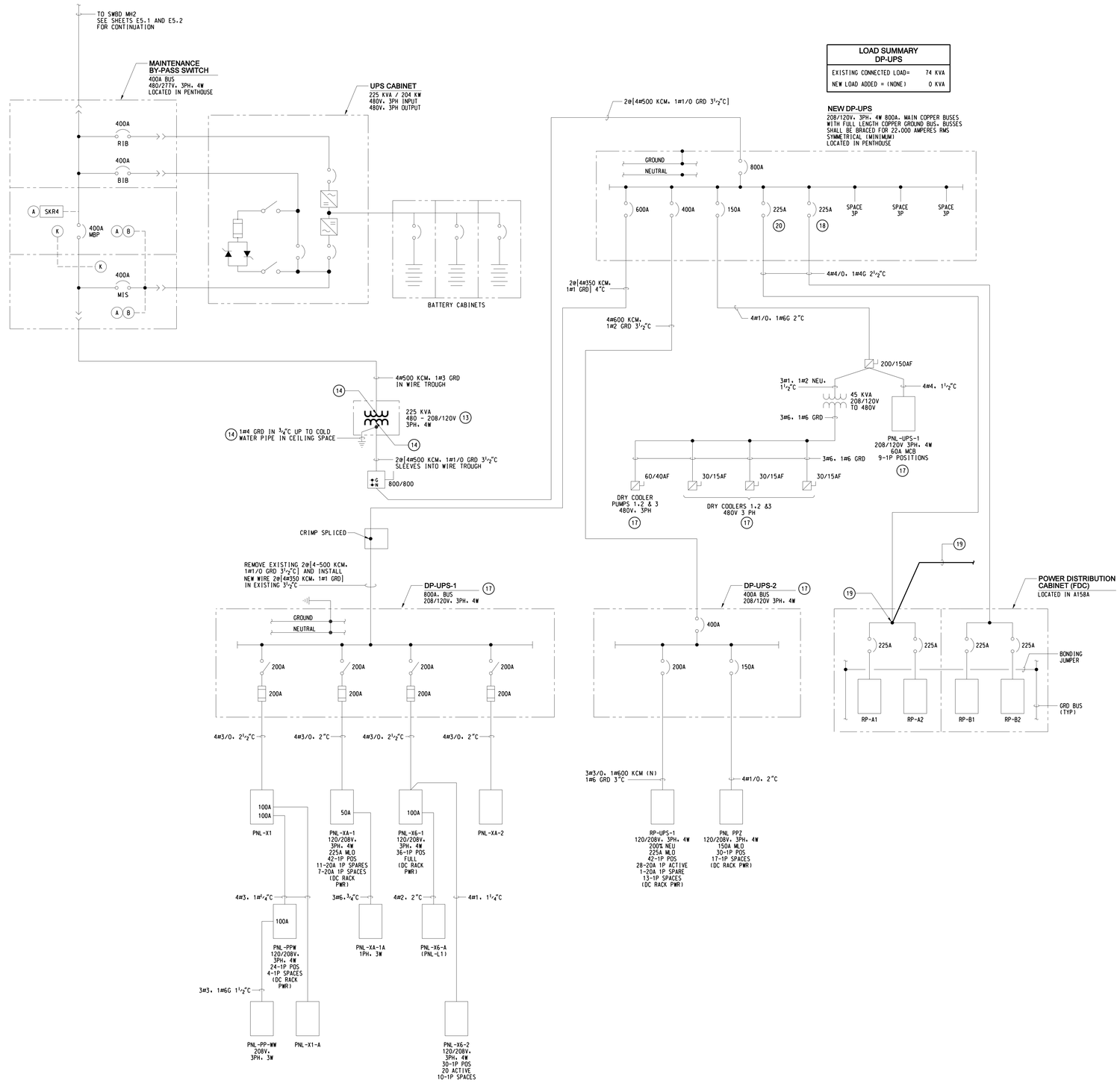

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Drawing Title

One Line Diagram -
(New Work)

IDS Project Number: 20110-1000

Drawing Number: E5.3