

LUMINAIRE SCHEDULE			
FIXTURE MARK	DESCRIPTION	MANUFACTURER(S)	LAMP DESCRIPTION
FEA	DECORATIVE TRAPEZOID WALL MOUNTED LIGHT FIXTURE WITH MEDIUM THROW DISTRIBUTION. DARK BRONZE TEXTURED FINISH. UL LISTED FOR WET LOCATIONS. PROVIDE PULSE START ELECTRONIC BALLAST, MVOLT OPERATION, <10XTHD. PROVIDE WITH COLD WEATHER BALLAST CAPABLE OF 0° STARTING TEMPERATURE.	1. LITHONIA WST SERIES 2. WIDE-LITE AWS1 SERIES 3. LUMARK IP SERIES 4. GARCOO 101 SERIES	(2) F42TRT/SP35/RS
HEAL	SHALL BE SAME AS TYPE 'HA' EXCEPT PROVIDE WITH EMERGENCY BATTERY PACK FOR EMERGENCY OPERATION.		
LEB	POLE MOUNT SITE FIXTURE WITH ALUMINUM RECTANGULAR HOUSING AND STANDARD DARK BRONZE FINISH. PROVIDE WITH TYPE IV WIDE FORWARD THROW DISTRIBUTION. PROVIDE WITH MVOLT PULSE START BALLAST. POLE SHALL BE SQUARE 22" IN LENGTH WITH 9" ARM MOUNTING. REFER TO DETAILS FOR CONCRETE POLE BASE DETAILS.	1. LITHONIA KSF2 SERIES	(1) 320W PS MH
HEB3	SHALL BE SAME AS TYPE 'HB' EXCEPT PROVIDE WITH TYPE III DISTRIBUTION.	1. LITHONIA KSF2 SERIES	(1) 320W PS MH
LEC	EXTERIOR CANOPY LUMINAIRE WITH DROP PRISMATIC LENS. DARK BRONZE TEXTURED FINISH. MVOLT OPERATION. UL LISTED FOR WET LOCATIONS. PROVIDE PULSE START ELECTRONIC BALLAST.	1. LITHONIA KACM SERIES	(1) 150W PS MH
X	EXIT LIGHT SHALL BE MOUNT AS REQUIRED TYPE WITH WHITE THERMOPLASTIC HOUSING, HIGH OUTPUT LED DIFFUSE LIGHT PANEL, SINGLE STENCIL WHITE FACE, RED LETTERS AND DIRECTIONAL CHEVRONS TO MATCH EXISTING. FIXTURE SHALL HAVE SELF-DIAGNOSTICS AND BE SUITABLE FOR DUAL VOLTAGE OPERATION. UNIT SHALL BE COMPLETELY SELF-CONTAINED WITH MAINTENANCE FREE NICAD BATTERY CAPABLE OF PROVIDING 90 MINUTE FULL LIGHT OPERATION. PROVIDE LARGER BATTERY FOR EXTERIOR EGRESS LIGHTING IN LOCATIONS AS INDICATED ON PLANS.	1. LITHONIA LOM 2. LIGHTOLIER LL SERIES 3. SURE-LITES LPX SERIES 4. MOPHILBEN VE SERIES	HIGH OUTPUT LED LIGHT PANEL
XZ	SHALL BE SAME AS TYPE 'X' EXCEPT WITH DOUBLE FACE	1. LITHONIA LOM 2. LIGHTOLIER LL SERIES 3. SURE-LITES LPX SERIES 4. MOPHILBEN VE SERIES	HIGH OUTPUT LED LIGHT PANEL
CE	REMOTE HEAD FOR EXTERIOR EGRESS LIGHTING. CONNECT TO LOCAL EXIT SIGNAGE AS INDICATED.	1. LITHONIA ELA	PAR 36
EM	REMOTE MOUNT EMERGENCY PAR36 STYLE LAMP HEAD. BATTERY SHALL BE MOUNTED WITHIN CONDITIONED SPACE ABOVE CEILING. UNIT SHALL BE CAPABLE OF FULL LUMEN OUTPUT FOR 90 MINUTES UPON LOSS OF POWER.	1. LITHONIA ELM SERIES 2. LIGHTOLIER E3 SERIES 3. SURE-LITES CCB SERIES 4. MOPHILBEN VT SERIES	12V 20W HALOGEN

LUMINAIRE SCHEDULE GENERAL NOTES

- REFER TO ELECTRICAL BOOK SPECIFICATIONS FOR MORE INFORMATION.
- ALL LIGHT FIXTURES SHALL BE UL LABELED.
- FIRST MANUFACTURER LISTED IS BASIS OF DESIGN. OTHER MANUFACTURERS LISTED ARE APPROVED MANUFACTURERS.
- ELECTRICAL TRADES SHALL PROVIDE COMPLETE SUBMITTALS (SHOP DRAWINGS) ON ALL LIGHT FIXTURES, LAMPS, CONTROLS AND ACCESSORIES, ETC. REFER TO SPECIFICATION FOR SUBMITTAL FORMAT AND PROCESS. NO EXCEPTIONS ALLOWED. NON-COMPLETE OR INCORRECT FORMAT WILL RESULT IN BACK CHARGES TO CONTRACTOR AND NOT APPROVED SUBMITTALS.
- ALL LUMINAIRES AND CONTROLS SHALL COMPLY WITH THE MICHIGAN UNIFORM ENERGY CODE AND ASHRAE 90.1. REFER TO THE BOOK SPECIFICATIONS AND DRAWINGS FOR MORE INFORMATION ON LIGHTING CONTROLS.

LIGHTING SYMBOL LIST	
SYMBOL	DESCRIPTION
	FLUORESCENT LIGHT FIXTURE
	FLUORESCENT NIGHT LIGHT FIXTURE
	FLUORESCENT EMERGENCY LIGHT FIXTURE
	WALL MOUNTED FLUORESCENT LIGHT FIXTURE
	DOWNLIGHT
	DOWNLIGHT WALL WASH FIXTURE
	WALL SCONCE LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	INTERIOR WALL MOUNTED LIGHT FIXTURE
	TRACK AND TRACK MOUNTED LIGHT FIXTURES
	CEILING MOUNTED EXIT LIGHT - ARROWS AS INDICATED ON PLAN (SHADED AREA INDICATES FACE(S) OF FIXTURE)
	WALL MOUNTED EXIT LIGHT - ARROWS AS INDICATED ON PLAN (SHADED AREA INDICATES FACE(S) OF FIXTURE)
	EMERGENCY BATTERY UNIT
	COMBINATION EMERGENCY BATTERY UNIT/EXIT SIGN
	EXTERIOR POLE MOUNTED LIGHT FIXTURE
	EXTERIOR WALL MOUNTED LIGHT FIXTURE
	EXTERIOR POST TOP LIGHT FIXTURE
	BOLLARD LIGHT FIXTURE
	SINGLE POLE SWITCH
	TWO POLE SWITCH
	THREE WAY SWITCH
	FOUR WAY SWITCH
	KEYED SWITCH
	DIMMER SWITCH
	LOW VOLTAGE SWITCH
	SWITCH WITH PILOT LIGHT
	MOTOR RATED SWITCH
	DUAL SWITCH

LIGHTING CONTROLS LEGEND	
SYMBOL	DESCRIPTION
	TS-400 TIMER SWITCH
	WA-200 WALL SENSOR SWITCH
	DT-300 DUAL TECHNOLOGY OCCUPANCY SENSOR
	DAYLIGHT SENSOR
	PHOTOCCELL

- ALL EQUIPMENT MODEL NUMBERS ARE WATT STOPPER.
- SIZE SENSORS BASED ON SQUARE FOOTAGES OF AREAS TO BE COVERED.

FIRE ALARM SYMBOL LIST	
SYMBOL	DESCRIPTION
	AUDIBLE DEVICE
	COMBINATION AUDIBLE/VISUAL DEVICE
	CEILING MOUNTED AUDIBLE/VISUAL DEVICE
	VISUAL DEVICE
	CEILING MOUNTED VISUAL DEVICE
	FIRE DEPARTMENT COMMUNICATION OUTLET
	MANUAL PULL STATION
	SMOKE DETECTOR (ZONED AS INDICATED)
	PHOTOELECTRIC SMOKE DETECTOR (ZONED AS INDICATED)
	HEAT DETECTOR (ZONED AS INDICATED)
	TAMPERS SWITCH
	FLOW SWITCH
	DUCT MOUNTED SMOKE DETECTOR
	FIRE ALARM ANNUNCIATOR PANEL
	FIRE ALARM CONTROL PANEL

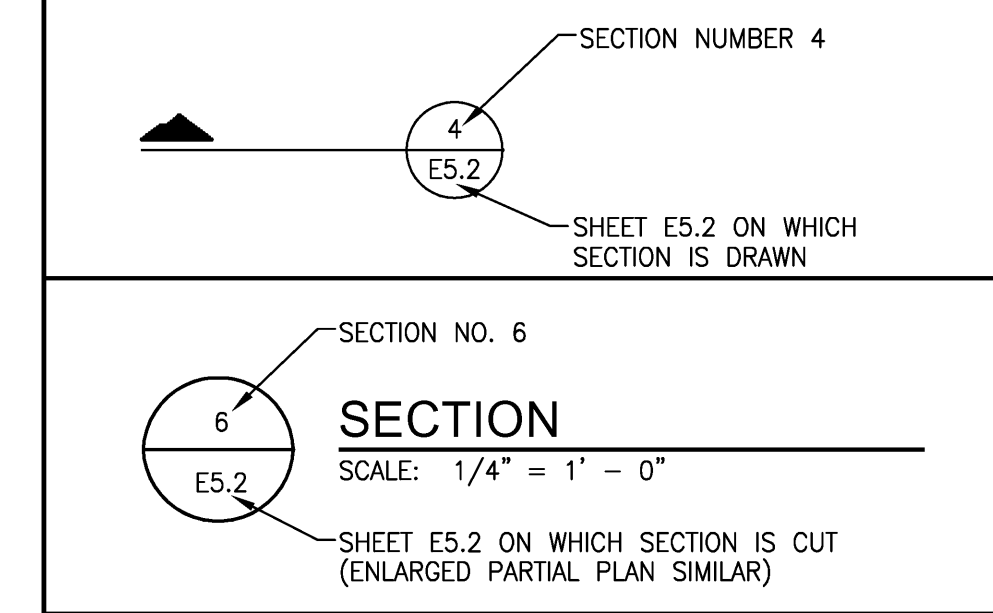
ELECTRICAL ABBREVIATIONS	
ABBREV.	DESCRIPTION
AF	AMP FUSE
AFF	ABOVE FINISHED FLOOR
AIC	AVAILABLE INTERRUPTING CURRENT (AMPS)
ATS	AUTOMATIC TRANSFER SWITCH
CB	CIRCUIT BREAKER
(E)	EXISTING ELECTRICAL EQUIPMENT OR WORK
EMT	ELECTRICAL METALLIC TUBING
EW	ELECTRIC WATER COOLER
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
G/GRD	GROUND
GFI	GROUND FAULT INTERRUPTER
HGA	HAND-OFF-AUTO
IG	ISOLATED GROUND
LP	LIGHTING PANEL
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUG ONLY
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NF	NON-FUSIBLE
NIC	NOT IN CONTRACT
P	POLE
(R)	RELOCATED EXISTING ELECTRICAL EQUIPMENT
(RR)	REMOVE AND REINSTALL
RMC	RIGID METALLIC CONDUIT
RP	RECEPTACLE PANEL
TBB	TELEPHONE BACKBOARD
TYP.	TYPICAL
WP	WEATHERPROOF

POWER SYMBOL LIST	
SYMBOL	DESCRIPTION
	TIME CLOCK
	CONTRACTOR
	HARD WIRE CONNECTION BY ELECTRICAL CONTRACTOR
	SINGLE RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET MOUNTED 6" ABOVE FINISH COUNTER
	CEILING MOUNTED DUPLEX RECEPTACLE OUTLET
	EMERGENCY DUPLEX RECEPTACLE OUTLET
	DEDICATED DUPLEX RECEPTACLE OUTLET
	QUAD RECEPTACLE OUTLET
	DEDICATED QUAD RECEPTACLE OUTLET
	FLOOR MOUNTED DUPLEX RECEPTACLE OUTLET
	NEMA RECEPTACLE OUTLET (CONFIGURATION AS NOTED)
	PLUG STRIP
	JUNCTION BOX (C=CEILING MOUNTED)
	RECEPTACLE PANEL
	LIGHTING PANEL
	DISTRIBUTION/EQUIPMENT POWER PANEL
	TRANSFORMER
	SINGLE PHASE MOTOR
	THREE PHASE MOTOR
	CONDUIT DOWN
	CONDUIT UP
	GROUNDING ROD
	GROUND
	GROUNDING BAR
	METER
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	COMBINATION MAGNETIC MOTOR STARTER

AUXILIARY SYST. SYMBOL LIST	
SYMBOL	DESCRIPTION
	TELEPHONE OUTLET
	FLOOR MOUNTED TELEPHONE OUTLET BOX (TYP.)
	TELEPHONE OUTLET MOUNTED 6" ABOVE FINISHED COUNTER
	DATA OUTLET
	COMBINATION OUTLET (VOICE, VIDEO, AND/OR DATA)
	PUSH BUTTON
	BELL
	CARD READER
	MAGNETIC DOOR HOLD
	TELEVISION OUTLET
	WALL CLOCK
	DOUBLE SIDED WALL CLOCK
	COMBINATION WALL CLOCK / SPEAKER
	SPEAKER
	CAMERA

DRAWING INDEX	
SHT NO	DESCRIPTION
EO.00	ELECTRICAL GENERAL INFORMATION
EO.01h	REDFORD UNION HS ELECTRICAL SITE PLAN
EO.02m	MacGOWAN ELEMENTARY ELECTRICAL SITE PLAN
EO.03a	STUCKEY CENTER ELECTRICAL SITE PLAN
ED1.11h	H.S. MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'A'
ED1.12h	H.S. MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'B'
ED1.13h	H.S. MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'C'
ED1.14h	H.S. MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'D'
ED1.15h	H.S. MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'E'
ED1.16h	H.S. MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'F'
ED1.21h	H.S. UPPER LEVEL ELECTRICAL DEMOLITION PLAN - AREAS 'D' AND 'E'
ED1.22h	H.S. UPPER LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'C'
ED1.23h	H.S. UPPER LEVEL ELECTRICAL DEMOLITION PLAN - AREAS 'C' AND 'F'
ED1.23h	H.S. UPPER LEVEL ELECTRICAL DEMOLITION PLAN - AREAS 'C' AND 'F'
ED2.11m	MacGOWAN ELEMENTARY ELECTRICAL DEMOLITION PLAN
ED3.11a	STUCKEY CENTER ELECTRICAL DEMOLITION PLANS - 'A' & 'B'
ED3.12a	STUCKEY CENTER ELECTRICAL DEMOLITION PLANS - 'C' & 'D'
E1.11h	H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'A'
E1.12h	H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'B'
E1.13h	H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'C'
E1.14h	H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'D'
E1.15h	H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'E'
E1.16h	H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'F'
E1.21h	H.S. UPPER LEVEL ELECTRICAL PLAN - AREAS 'D' AND 'E'
E1.22h	H.S. UPPER LEVEL ELECTRICAL PLAN - AREA 'C'
E1.23h	H.S. UPPER LEVEL ELECTRICAL PLAN - AREAS 'C' AND 'F'
E2.11m	MacGOWAN ELEMENTARY ELECTRICAL PLAN
E3.11a	STUCKEY CENTER ELECTRICAL NEW WORK PLANS - 'A' & 'B'
E3.12a	STUCKEY CENTER ELECTRICAL NEW WORK PLANS - 'C' & 'D'

DRAWING NOTATION	
SYMBOL	DESCRIPTION
	LIGHTING FIXTURE TAG
	CONSTRUCTION KEY NOTE NUMBER 1
	DEMOLITION KEY NOTE NUMBER 1
	EQUIPMENT DESIGNATION, (I.E. EXHAUST FAN NUMBER 1)
	EXISTING DEVICES OR EQUIPMENT
	NEW OR MODIFIED DEVICES OR EQUIPMENT
	NEW OR MODIFIED UNDERGROUND WIRING
	EXISTING SYSTEM COMPONENT TO BE REMOVED
	POINT OF NEW CONNECTION.
	SECTION



REDFORD UNION MECHANICAL / ELECTRICAL IMPROVEMENTS

REDFORD UNION SCHOOL DISTRICT
19990 BEECH DALY ROAD
REDFORD, MI 48240



wold
architects
engineers
www.woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067

tel 248.284.0611
fax 248.284.0615
mail@woldae.com



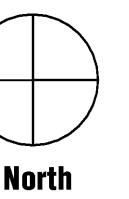
Strategic Energy Solutions
4000 W. Eleven Mile Road, Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com
SES Project # 2012.093.05

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Foras Abdallah
Registration Number 6201049879 Date 10/31/13

Revisions		
Description	Date	Num

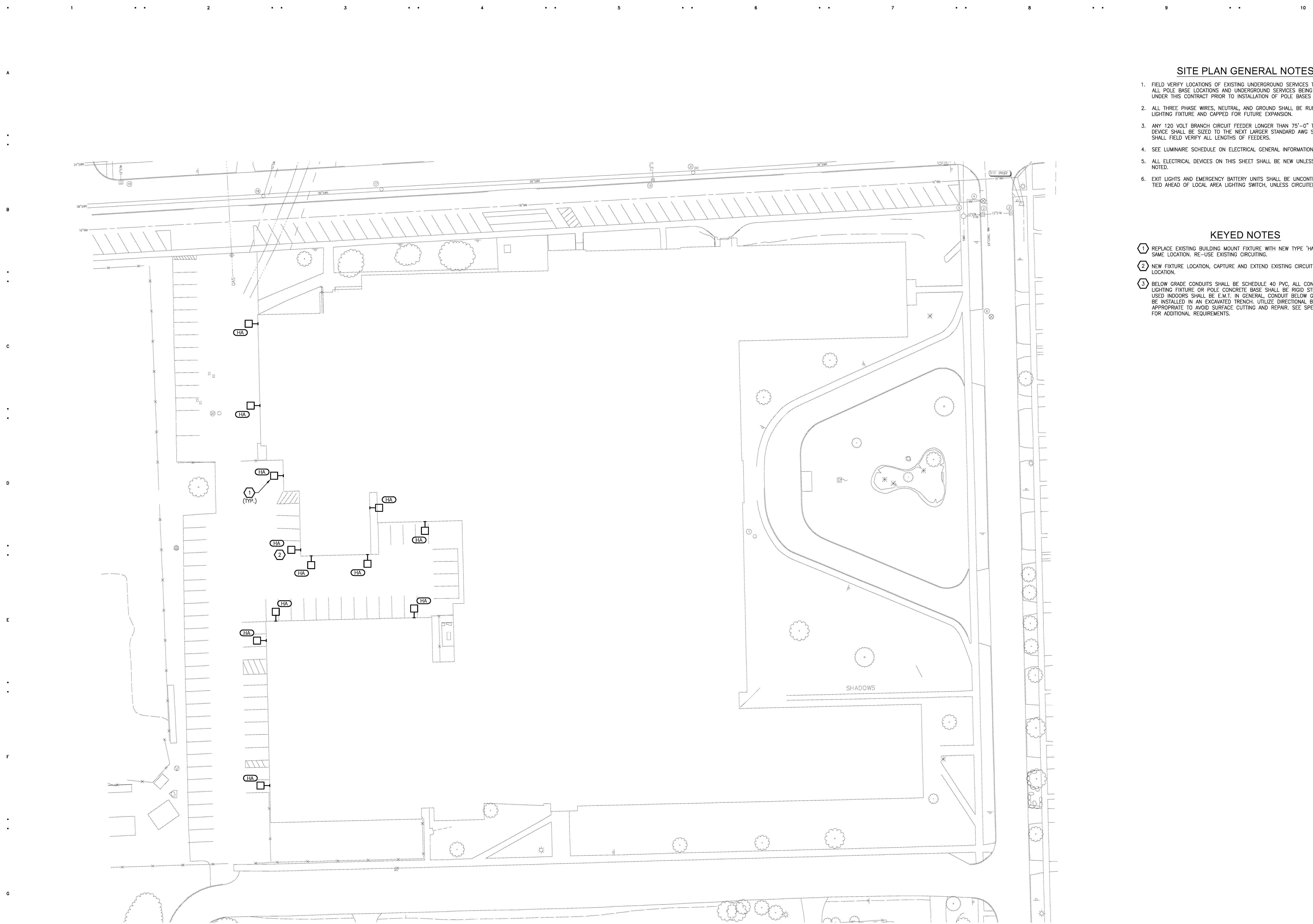
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ELECTRICAL GENERAL INFORMATION

Scale:

EO.00



SITE PLAN GENERAL NOTES

1. FIELD VERIFY LOCATIONS OF EXISTING UNDERGROUND SERVICES TO COORDINATE ALL POLE BASE LOCATIONS AND UNDERGROUND SERVICES BEING INSTALLED UNDER THIS CONTRACT PRIOR TO INSTALLATION OF POLE BASES AND CONDUIT.
2. ALL THREE PHASE WIRES, NEUTRAL, AND GROUND SHALL BE RUN TO LAST LIGHTING FIXTURE AND CAPPED FOR FUTURE EXPANSION.
3. ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
4. SEE LUMINAIRE SCHEDULE ON ELECTRICAL GENERAL INFORMATION SHEET.
5. ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
6. EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.

KEYED NOTES

- ① REPLACE EXISTING BUILDING MOUNT FIXTURE WITH NEW TYPE 'HA' FIXTURE IN SAME LOCATION. RE-USE EXISTING CIRCUITING.
- ② NEW FIXTURE LOCATION, CAPTURE AND EXTEND EXISTING CIRCUIT TO NEW LOCATION.
- ③ BELOW GRADE CONDUITS SHALL BE SCHEDULE 40 PVC. ALL CONDUIT IN LIGHTING FIXTURE OR POLE CONCRETE BASE SHALL BE RIGID STEEL. CONDUIT USED INDOORS SHALL BE E.M.T. IN GENERAL, CONDUIT BELOW GRADE SHALL BE INSTALLED IN AN EXCAVATED TRENCH. UTILIZE DIRECTIONAL BORE WHERE APPROPRIATE TO AVOID SURFACE CUTTING AND REPAIR. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REDFORD UNION HS ELECTRICAL SITE PLAN
SCALE: 1" = 30'

**REDFORD UNION
MECHANICAL / ELECTRICAL
IMPROVEMENTS**

REDFORD UNION HIGH SCHOOL
17711 KINLOCH
REDFORD, MI 48240

**REDFORD UNION SCHOOL
DISTRICT**
19990 BEECH DALY ROAD
REDFORD, MI 48240



woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067
tel: 248.284.0611
fax: 248.284.0615
mail@woldae.com



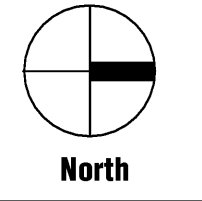
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4000 W. Eleven Mile Road Berkley, MI 48072
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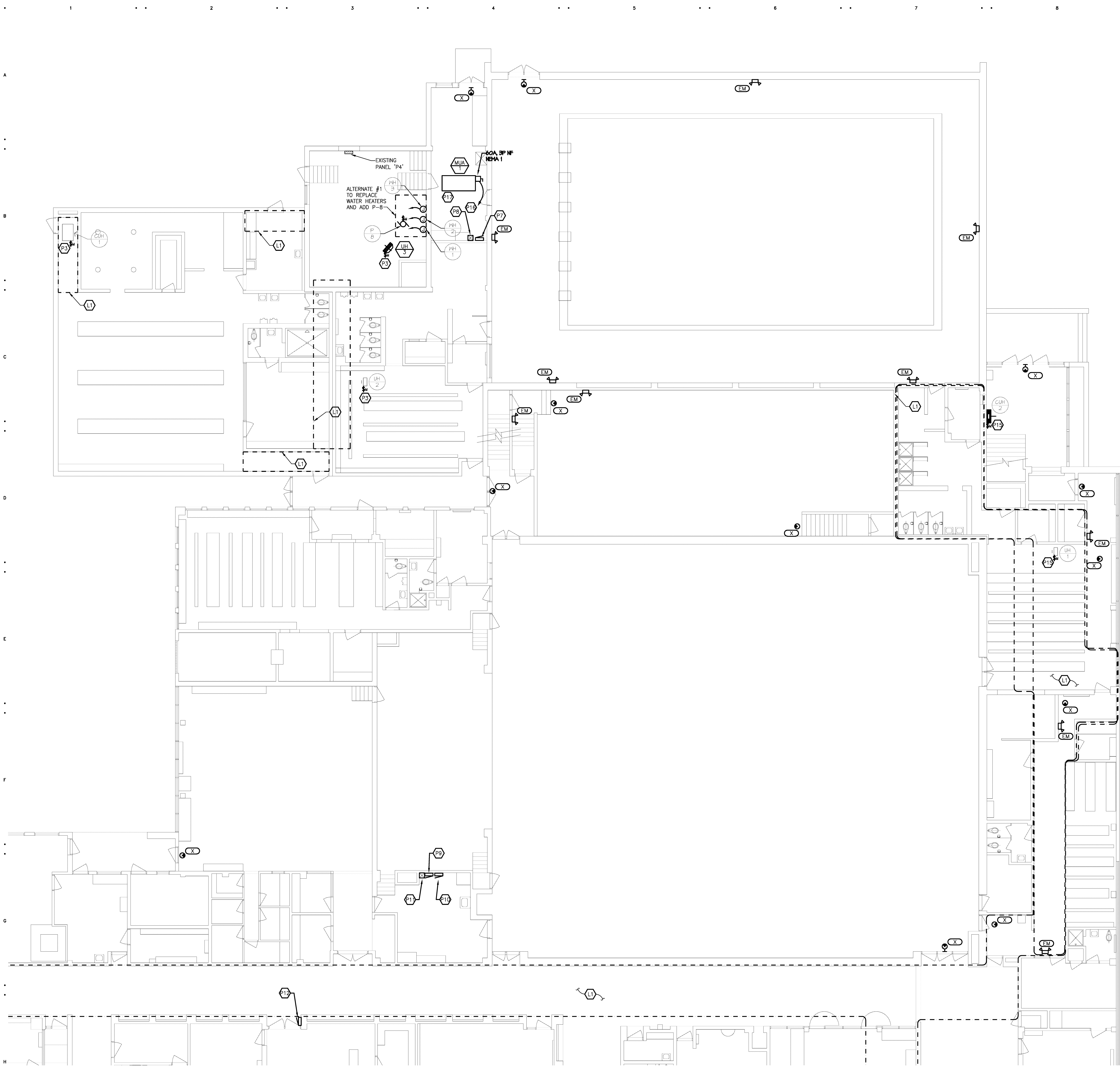
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**REDFORD UNION HS
ELECTRICAL
SITE PLAN**

Scale: 1" = 30'

E0.01h



GENERAL LIGHTING NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- SEE LUMINAIRE SCHEDULE ON SHEET ED.00
- ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
- EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
- WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.

LIGHTING KEYED NOTES

- (L1) REMOVE AND REINSTALL LIGHT FIXTURES IN THIS AREA AS NECESSARY TO PERMIT INSTALLATION OF MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.
- (L2) NEW TROUBLE LIGHT WITH RETRACTABLE CORD, EXTEND EXISTING 120V CIRCUIT FROM LOCAL LIGHTING CIRCUITING. EXACT SPECIFICATIONS BY OTHERS.
- (L3) RETROFIT EXISTING LIGHT FIXTURE WITH 1100 LUMEN EMERGENCY BATTERY PACK.

GENERAL POWER NOTES

- ALL ELECTRICAL DEVICES SHOWN ON THIS PLAN SHALL BE NEW UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- ALL RECEPTACLES SHALL BE 20A. RATED.
- ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE.
- ALL RECEPTACLES WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE GFCI TYPE RECEPTACLE.
- REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
- ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
- ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
- ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
- ALL RECEPTACLES INSTALLED IN THE ELEVATOR PIT(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI).
- A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING A ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
- ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
- ALL FIRE ALARM DEVICES SHALL BE 15 CANDELA RATED UNLESS NOTED OTHERWISE.

POWER KEYED NOTES

- (P1) CONNECT NEW BOILER TO EXISTING PANEL DP-IT1. SEE PARTIAL ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P2) CONNECT PUMP TO EXISTING PANEL DP-7. PROVIDE 20A FUSES IN EXISTING 60A, 3P SWITCH. SEE ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P3) CONNECT TO SPARE BREAKER IN EXISTING PANEL.
- (P4) PROVIDE 120V CONNECTION AND ELECTRICAL ROUGH-IN FOR CARD READER. SEE DETAIL SHEET E3.00.
- (P5) PROVIDE ROUGH-IN FOR FOR ADA PUSH PADS TO BE MOUNTED ON WALL. PROVIDE DUAL GANG JUNCTION BOXES FOR PUSHBUTTON AND 3/4" INTERCONNECTING CONDUITS. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P6) PROVIDE 120V CONNECTION TO ADA ACTUATOR. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P7) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "Y" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS PLUS ONE 20A, 1P BREAKER FOR NEW SITE LIGHTING CIRCUIT.
- (P8) PROVIDE 30A, 2P LIGHTING CONTACTOR AND ASTRONOMIC TIME CLOCK FOR CONTROL OF NEW SITE LIGHTING.
- (P9) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "GA" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P10) INSTALL NEW 100A, 120/240V, 3 PH, 3W, 30 CIRCUIT PANELBOARD "GB" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P11) PROVIDE (2) LIGHTING CONTACTORS WITH HOA CONTROL FOR GYM LIGHT CIRCUITS.
- (P12) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "D" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P13) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "A" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P14) CONNECT TO EXISTING 30A, 3P SWITCH IN PANEL "P4". SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P15) CONNECT TO EXISTING CIRCUIT AND WIRING FROM EQUIPMENT PREVIOUSLY REMOVED.
- (P16) CONNECT TO SPARE 200A, 3P SWITCH IN EXISTING DISTRIBUTION PANEL DP-4. PROVIDE NEW 60A FUSES. SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P17) PROVIDE FIRE ALARM SYSTEM CONNECTION TO FACTORY INSTALLED SMOKE DETECTOR ON MAKE-UP AIR UNIT MUA-1.
- (P18) PROVIDE POWER TO TEMPERATURE CONTROL UNIT TRANSFORMER. CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT.
- (P19) NEW FIRE ALARM DEVICE. CONNECT TO EXISTING NAC PANEL. NEW DEVICES SHALL BE COMPATIBLE WITH EXISTING SIMPLEX SYSTEM.
- (P20) DISCONNECT AND RE-CONNECT EXISTING MECHANICAL ROOFTOP UNIT. COORDINATE WITH MECHANICAL TRADES.
- (P21) INSTALL AND WIRE V.F.D. PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE FROM THE UNIT TO THE REMOTE V.F.D. AND THEN BACK TO THE UNIT.

ALL NEW 'EM' AND 'X' TYPE FIXTURES SHALL BE DIRECT REPLACEMENT OF EXISTING FIXTURE IN SIMILAR LOCATION.

REDFORD UNION MECHANICAL / ELECTRICAL IMPROVEMENTS

REDFORD UNION HIGH SCHOOL
17711 KINLOCH
REDFORD, MI 48240

REDFORD UNION SCHOOL DISTRICT
19990 BEECH DALY ROAD
REDFORD, MI 48240

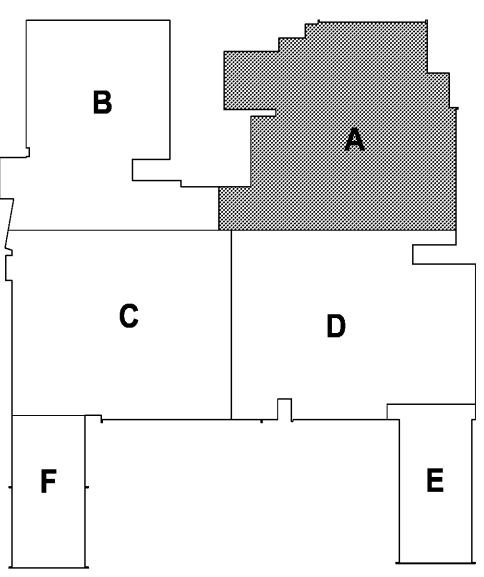


www.woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067
tel: 248.284.0611
fax: 248.284.0615
mail@woldae.com



4000 W. Eleven Mile Road
Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com
SES Project # 2012.093.05

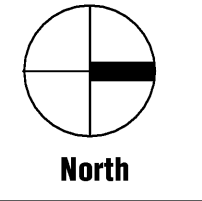


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Faris Abdallah
Registration Number 6201049879 Date 10/31/13

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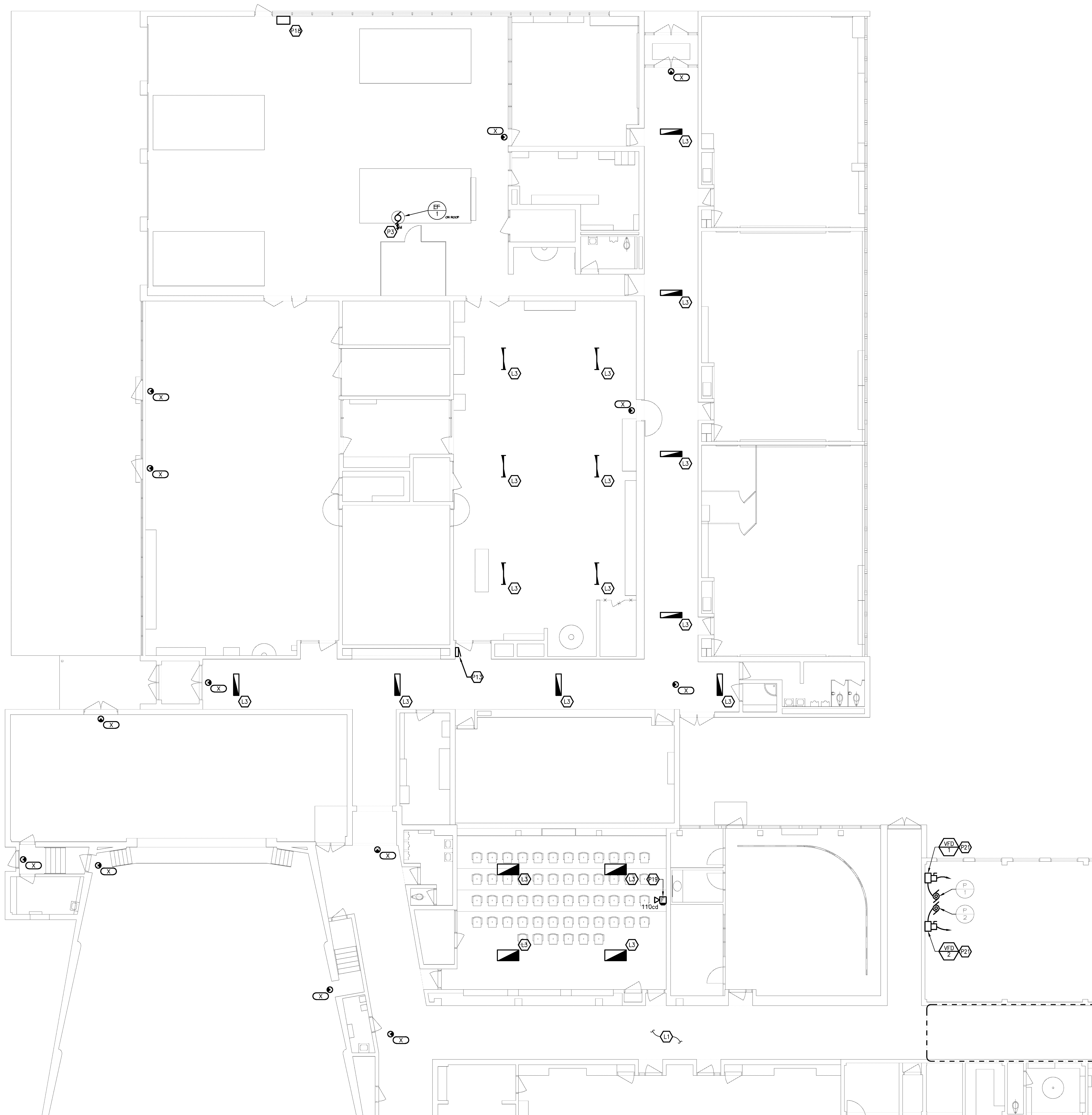
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H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'A'

Scale:
E1.11h

(A1) MAIN LEVEL ELECTRICAL PLAN - AREA 'A'
1/8" = 1'-0"



(B1) MAIN LEVEL ELECTRICAL PLAN - AREA 'B'
1/8" = 1'-0"

GENERAL LIGHTING NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- SEE LUMINAIRE SCHEDULE ON SHEET ED.00
- ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
- EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
- WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.

LIGHTING KEYED NOTES

- (L1) REMOVE AND REINSTALL LIGHT FIXTURES IN THIS AREA AS NECESSARY TO PERMIT INSTALLATION OF MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.
- (L2) NEW TROUBLE LIGHT WITH RETRACTABLE CORD, EXTEND EXISTING 120V CIRCUIT FROM LOCAL LIGHTING CIRCUITING. EXACT SPECIFICATIONS BY OTHERS.
- (L3) RETROFIT EXISTING LIGHT FIXTURE WITH 1100 LUMEN EMERGENCY BATTERY PACK.

GENERAL POWER NOTES

- ALL ELECTRICAL DEVICES SHOWN ON THIS PLAN SHALL BE NEW UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- ALL RECEPTACLES SHALL BE 20A. RATED.
- ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE.
- ALL RECEPTACLES WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE GFCI TYPE RECEPTACLE.
- REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
- ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
- ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
- ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
- ALL RECEPTACLES INSTALLED IN THE ELEVATOR PIT(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI).
- A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING A ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
- ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
- ALL FIRE ALARM DEVICES SHALL BE 15 CANDELA RATED UNLESS NOTED OTHERWISE.

POWER KEYED NOTES

- (P1) CONNECT NEW BOILER TO EXISTING PANEL DP-IT1. SEE PARTIAL ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P2) CONNECT PUMP TO EXISTING PANEL DP-7. PROVIDE 20A FUSES IN EXISTING 60A, 3P SWITCH. SEE ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P3) CONNECT TO SPARE BREAKER IN EXISTING PANEL.
- (P4) PROVIDE 120V CONNECTION AND ELECTRICAL ROUGH-IN FOR CARD READER. SEE DETAIL SHEET E3.00.
- (P5) PROVIDE ROUGH-IN FOR FOR ADA PUSH PADS TO BE MOUNTED ON WALL. PROVIDE DUAL GANG JUNCTION BOXES FOR PUSHBUTTON AND 3/4" INTERCONNECTING CONDUITS. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P6) PROVIDE 120V CONNECTION TO ADA ACTUATOR. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P7) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "Y" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS PLUS ONE 20A, 1P BREAKER FOR NEW SITE LIGHTING CIRCUIT.
- (P8) PROVIDE 30A, 2P LIGHTING CONTACTOR AND ASTRONOMIC TIME CLOCK FOR CONTROL OF NEW SITE LIGHTING.
- (P9) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "GA" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P10) INSTALL NEW 100A, 120/240V, 3 PH, 3W, 30 CIRCUIT PANELBOARD "GB" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P11) PROVIDE (2) LIGHTING CONTACTORS WITH HOA CONTROL FOR GYM LIGHT CIRCUITS.
- (P12) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "D" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P13) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "A" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P14) CONNECT TO EXISTING 30A, 3P SWITCH IN PANEL "PA". SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P15) CONNECT TO EXISTING CIRCUIT AND WIRING FROM EQUIPMENT PREVIOUSLY REMOVED.
- (P16) CONNECT TO SPARE 200A, 3P SWITCH IN EXISTING DISTRIBUTION PANEL DP-4. PROVIDE NEW 60A FUSES. SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P17) PROVIDE FIRE ALARM SYSTEM CONNECTION TO FACTORY INSTALLED SMOKE DETECTOR ON MAKE-UP AIR UNIT MUA-1.
- (P18) PROVIDE POWER TO TEMPERATURE CONTROL UNIT TRANSFORMER. CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT.
- (P19) NEW FIRE ALARM DEVICE, CONNECT TO EXISTING NAC PANEL. NEW DEVICES SHALL BE COMPATIBLE WITH EXISTING SIMPLEX SYSTEM.
- (P20) DISCONNECT AND RE-CONNECT EXISTING MECHANICAL ROOFTOP UNIT. COORDINATE WITH MECHANICAL TRADES.
- (P21) INSTALL AND WIRE V.F.D. PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE FROM THE UNIT TO THE REMOTE V.F.D. AND THEN BACK TO THE UNIT.

ALL NEW 'EM' AND 'X' TYPE FIXTURES SHALL BE DIRECT REPLACEMENT OF EXISTING FIXTURE IN SIMILAR LOCATION.

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REDFORD, MI 48240

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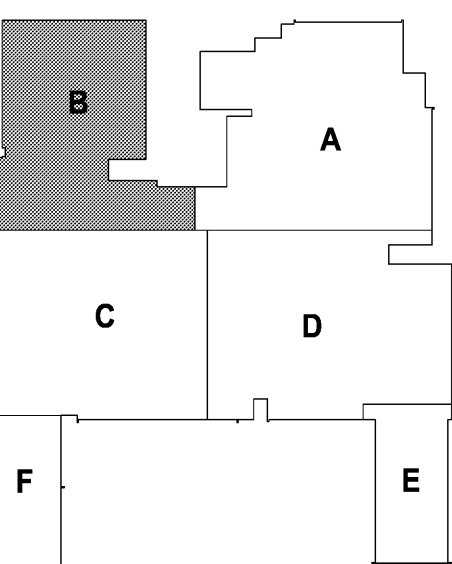


architects
engineers
www.woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067
tel: 248.284.0611
fax: 248.284.0615
mail@woldae.com



Strategic Energy Solutions
4000 W. Eleven Mile Road, Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com
SES Project # 2012.093.05



KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Foras Abdallah
Registration Number 6201049879 Date 10/31/13

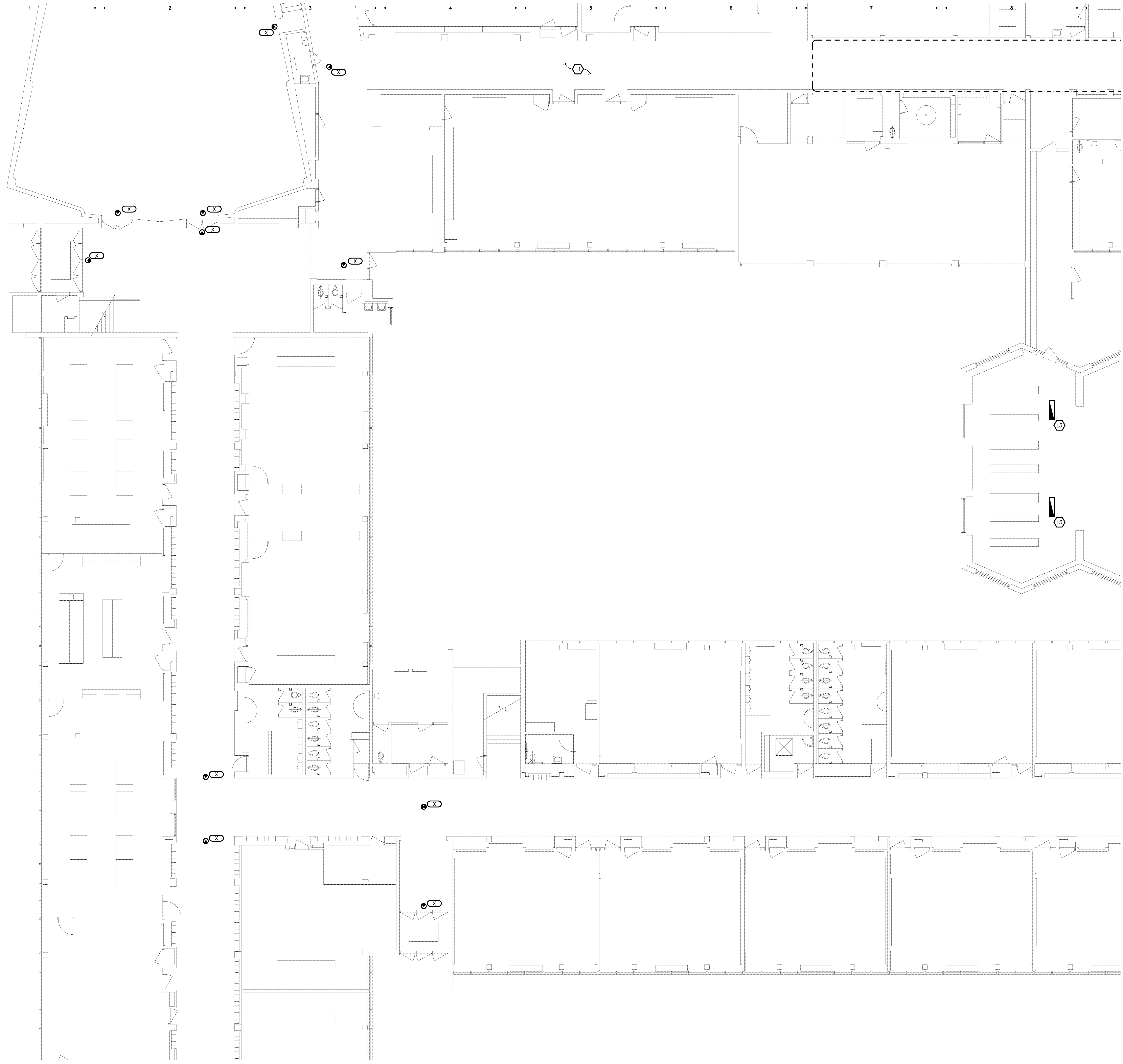
Revisions		
Description	Date	Num

Comm: 12/20/11
Date: 4/16/2013
Drawn: DAD
Check: RSA
North

H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'B'

Scale:

E1.12h



GENERAL LIGHTING NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- SEE LUMINAIRE SCHEDULE ON SHEET ED.00
- ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
- EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
- WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.

LIGHTING KEYED NOTES

- (L1) REMOVE AND REINSTALL LIGHT FIXTURES IN THIS AREA AS NECESSARY TO PERMIT INSTALLATION OF MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.
- (L2) NEW TROUBLE LIGHT WITH RETRACTABLE CORD, EXTEND EXISTING 120V CIRCUIT FROM LOCAL LIGHTING CIRCUITING. EXACT SPECIFICATIONS BY OTHERS.
- (L3) RETROFIT EXISTING LIGHT FIXTURE WITH 1100 LUMEN EMERGENCY BATTERY PACK.

GENERAL POWER NOTES

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- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- ALL RECEPTACLES SHALL BE 20A. RATED.
- ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE.
- ALL RECEPTACLES WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE GFCI TYPE RECEPTACLE.
- REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
- ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
- ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
- ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
- ALL RECEPTACLES INSTALLED IN THE ELEVATOR PIT(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI).
- A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING A ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
- ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
- ALL FIRE ALARM DEVICES SHALL BE 15 CANDELA RATED UNLESS NOTED OTHERWISE.

POWER KEYED NOTES

- (P1) CONNECT NEW BOILER TO EXISTING PANEL DP-IT1. SEE PARTIAL ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P2) CONNECT PUMP TO EXISTING PANEL DP-7. PROVIDE 20A FUSES IN EXISTING 60A, 3P SWITCH. SEE ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P3) CONNECT TO SPARE BREAKER IN EXISTING PANEL.
- (P4) PROVIDE 120V CONNECTION AND ELECTRICAL ROUGH-IN FOR CARD READER. SEE DETAIL SHEET E3.00.
- (P5) PROVIDE ROUGH-IN FOR ADA PUSH PADS TO BE MOUNTED ON WALL. PROVIDE DUAL GANG JUNCTION BOXES FOR PUSHBUTTON AND 3/4" INTERCONNECTING CONDUITS. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P6) PROVIDE 120V CONNECTION TO ADA ACTUATOR. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P7) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "Y" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS PLUS ONE 20A, 1P BREAKER FOR NEW SITE LIGHTING CIRCUIT.
- (P8) PROVIDE 30A, 2P LIGHTING CONTACTOR AND ASTRONOMIC TIME CLOCK FOR CONTROL OF NEW SITE LIGHTING.
- (P9) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "GA" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P10) INSTALL NEW 100A, 120/240V, 3 PH, 3W, 30 CIRCUIT PANELBOARD "GB" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P11) PROVIDE (2) LIGHTING CONTACTORS WITH HOA CONTROL FOR GYM LIGHT CIRCUITS.
- (P12) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "B" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P13) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "A" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P14) CONNECT TO EXISTING 30A, 3P SWITCH IN PANEL "P4". SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P15) CONNECT TO EXISTING CIRCUIT AND WIRING FROM EQUIPMENT PREVIOUSLY REMOVED.
- (P16) CONNECT TO SPARE 200A, 3P SWITCH IN EXISTING DISTRIBUTION PANEL DP-4. PROVIDE NEW 60A FUSES. SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P17) PROVIDE FIRE ALARM SYSTEM CONNECTION TO FACTORY INSTALLED SMOKE DETECTOR ON MAKE-UP AIR UNIT MUA-1.
- (P18) PROVIDE POWER TO TEMPERATURE CONTROL UNIT TRANSFORMER. CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT.
- (P19) NEW FIRE ALARM DEVICE, CONNECT TO EXISTING NAC PANEL. NEW DEVICES SHALL BE COMPATIBLE WITH EXISTING SIMPLEX SYSTEM.
- (P20) DISCONNECT AND RE-CONNECT EXISTING MECHANICAL ROOFTOP UNIT. COORDINATE WITH MECHANICAL TRADES.
- (P21) INSTALL AND WIRE V.F.D. PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE FROM THE UNIT TO THE REMOTE V.F.D. AND THEN BACK TO THE UNIT.

ALL NEW 'L' AND 'X' TYPE FIXTURES SHALL BE DIRECT REPLACEMENT OF EXISTING FIXTURE IN SIMILAR LOCATION.

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REDFORD UNION HIGH SCHOOL
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REDFORD, MI 48240

REDFORD UNION SCHOOL DISTRICT
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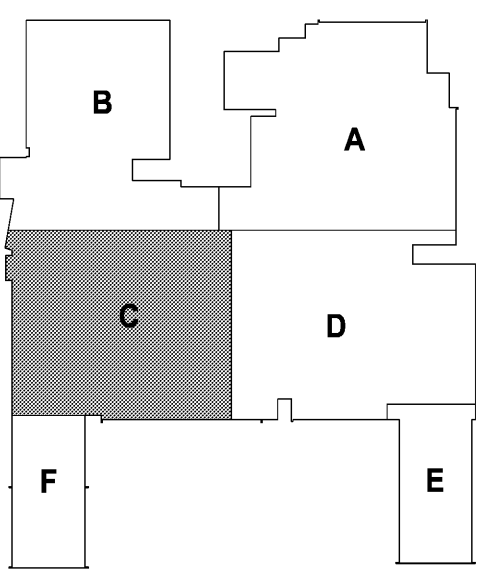


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engineers
www.woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067
tel: 248.284.0611
fax: 248.284.0615
mail@woldae.com



Strategic Energy Solutions
4000 W. Eleven Mile Road Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com
SES Project # 2012.093.05



KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

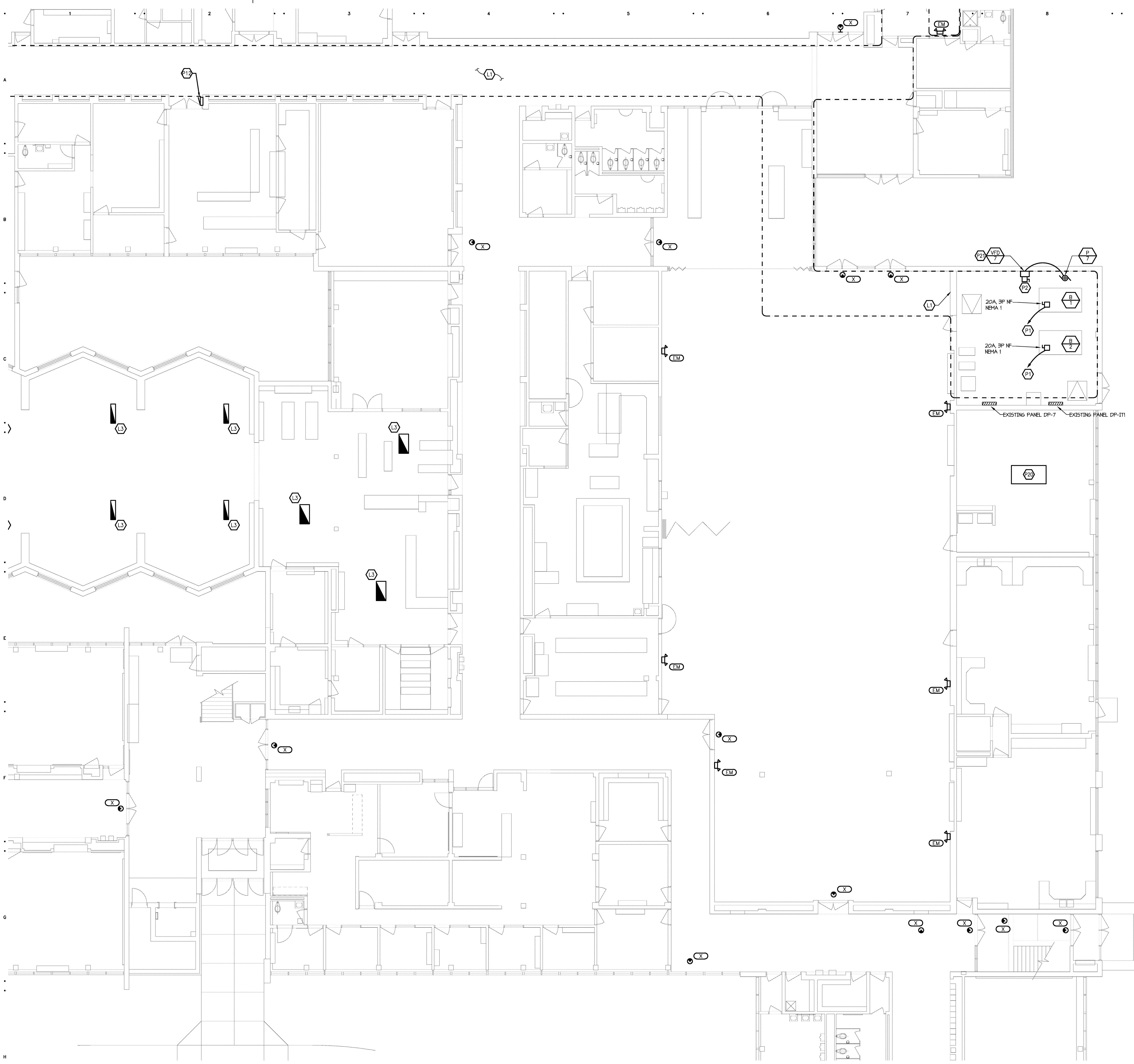
Foras Abdallah Registration Number 6201049879 Date 10/31/13		
Revisions		
Description	Date	Num

Comm: 124021
Date: 4/16/2013
Drawn: DAD
Check: RSA
North

H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'C'

Scale:

E1.13h



GENERAL LIGHTING NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- SEE LUMINAIRE SCHEDULE ON SHEET ED.00
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LIGHTING KEYED NOTES

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- (L3) RETROFIT EXISTING LIGHT FIXTURE WITH 1100 LUMEN EMERGENCY BATTERY PACK.

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- REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
- ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
- ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
- ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
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POWER KEYED NOTES

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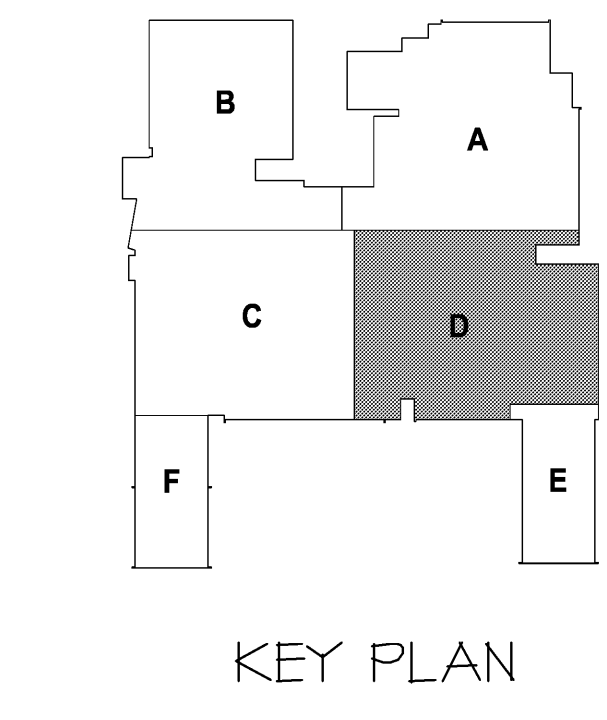


www.woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067



4000 W. Eleven Mile Road
Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
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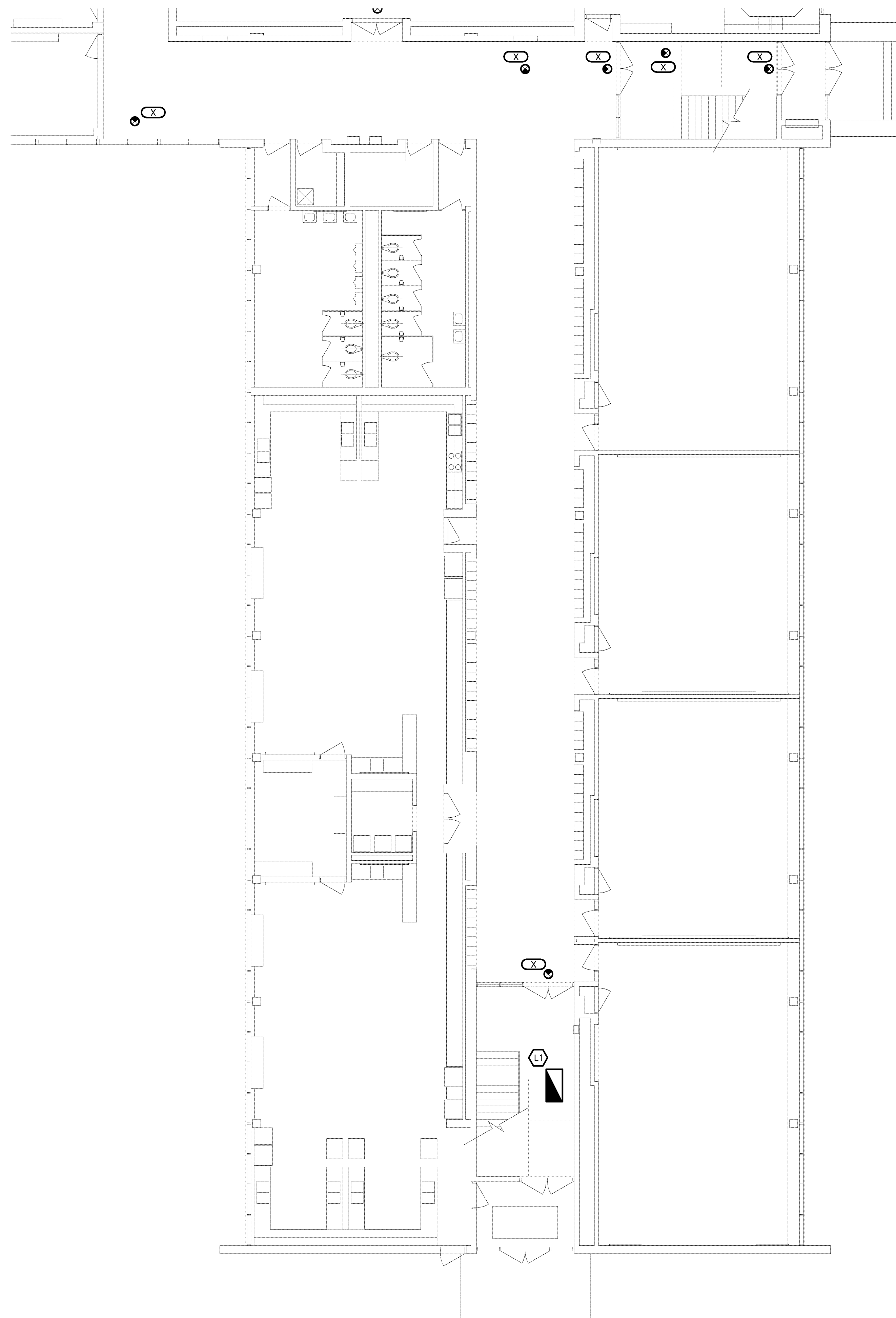
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Revisions		
Description	Date	Num

Comm: 12/20/21
Date: 4/16/2023
Drawn: DAD
Check: RSA

H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'D'

(D1) MAIN LEVEL ELECTRICAL PLAN - AREA 'D'
1/8" = 1'-0"



HI MAIN LEVEL ELECTRICAL PLAN - AREA 'E'
1/8" = 1'-0"

GENERAL LIGHTING NOTES

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- REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
- ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
- ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
- ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
- ALL RECEPTACLES INSTALLED IN THE ELEVATOR PIT(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI).
- A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING AN ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
- ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
- ALL FIRE ALARM DEVICES SHALL BE 15 CANDELA RATED UNLESS NOTED OTHERWISE.

POWER KEYED NOTES

- (P1) CONNECT NEW BOILER TO EXISTING PANEL DP-IT1. SEE PARTIAL ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P2) CONNECT PUMP TO EXISTING PANEL DP-7. PROVIDE 20A FUSES IN EXISTING 60A, 3P SWITCH. SEE ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P3) CONNECT TO SPARE BREAKER IN EXISTING PANEL.
- (P4) PROVIDE 120V CONNECTION AND ELECTRICAL ROUGH-IN FOR CARD READER. SEE DETAIL SHEET E3.00.
- (P5) PROVIDE ROUGH-IN FOR ADA PUSH PADS TO BE MOUNTED ON WALL. PROVIDE DUAL GANG JUNCTION BOXES FOR PUSHBUTTON AND 3/4" INTERCONNECTING CONDUITS. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P6) PROVIDE 120V CONNECTION TO ADA ACTUATOR. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P7) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "Y" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS PLUS ONE 20A, 1P BREAKER FOR NEW SITE LIGHTING CIRCUIT.
- (P8) PROVIDE 30A, 2P LIGHTING CONTACTOR AND ASTRONOMIC TIME CLOCK FOR CONTROL OF NEW SITE LIGHTING.
- (P9) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "GA" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P10) INSTALL NEW 100A, 120/240V, 3 PH, 3W, 30 CIRCUIT PANELBOARD "GB" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P11) PROVIDE (2) LIGHTING CONTACTORS WITH HOA CONTROL FOR GYM LIGHT CIRCUITS.
- (P12) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "D" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P13) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "A" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P14) CONNECT TO EXISTING 30A, 3P SWITCH IN PANEL "P4". SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P15) CONNECT TO EXISTING CIRCUIT AND WIRING FROM EQUIPMENT PREVIOUSLY REMOVED.
- (P16) CONNECT TO SPARE 200A, 3P SWITCH IN EXISTING DISTRIBUTION PANEL DP-4. PROVIDE NEW 60A FUSES. SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P17) PROVIDE FIRE ALARM SYSTEM CONNECTION TO FACTORY INSTALLED SMOKE DETECTOR ON MAKE-UP AIR UNIT MUA-1.
- (P18) PROVIDE POWER TO TEMPERATURE CONTROL UNIT TRANSFORMER. CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT.
- (P19) NEW FIRE ALARM DEVICE. CONNECT TO EXISTING NAC PANEL. NEW DEVICES SHALL BE COMPATIBLE WITH EXISTING SIMPLEX SYSTEM.
- (P20) DISCONNECT AND RE-CONNECT EXISTING MECHANICAL ROOFTOP UNIT. COORDINATE WITH MECHANICAL TRADES.
- (P21) INSTALL AND WIRE V.F.D. PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE FROM THE UNIT TO THE REMOTE V.F.D. AND THEN BACK TO THE UNIT.

ALL NEW 'EM' AND 'X' TYPE FIXTURES SHALL BE DIRECT REPLACEMENT OF EXISTING FIXTURE IN SIMILAR LOCATION.

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REDFORD, MI 48240

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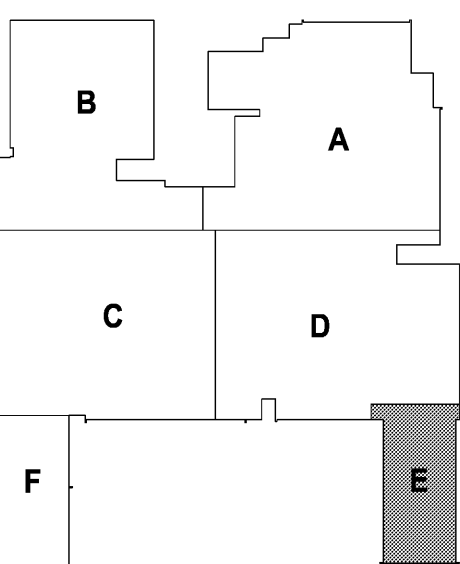
architects
engineers
www.woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067

tel 248 284 0611
fax 248 284 0615
mail@woldae.com



Strategic Energy Solutions®
4000 W. Eleven Mile Road Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com
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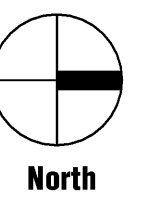
KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Foras Abdallah
Registration Number 6201049879 Date 10/31/18

Revisions		
Description	Date	Num

Comm: 12/20/21
Date: 4/16/2019
Drawn: DAD
Check: RSA



H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'E'

Scale:

E1.15h

GENERAL LIGHTING NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- SEE LUMINAIRE SCHEDULE ON SHEET ED.00
- ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
- EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
- WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.

LIGHTING KEYED NOTES

- (L1) REMOVE AND REINSTALL LIGHT FIXTURES IN THIS AREA AS NECESSARY TO PERMIT INSTALLATION OF MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.
- (L2) NEW TROUBLE LIGHT WITH RETRACTABLE CORD, EXTEND EXISTING 120V CIRCUIT FROM LOCAL LIGHTING CIRCUITING. EXACT SPECIFICATIONS BY OTHERS.
- (L3) RETROFIT EXISTING LIGHT FIXTURE WITH 1100 LUMEN EMERGENCY BATTERY PACK.

GENERAL POWER NOTES

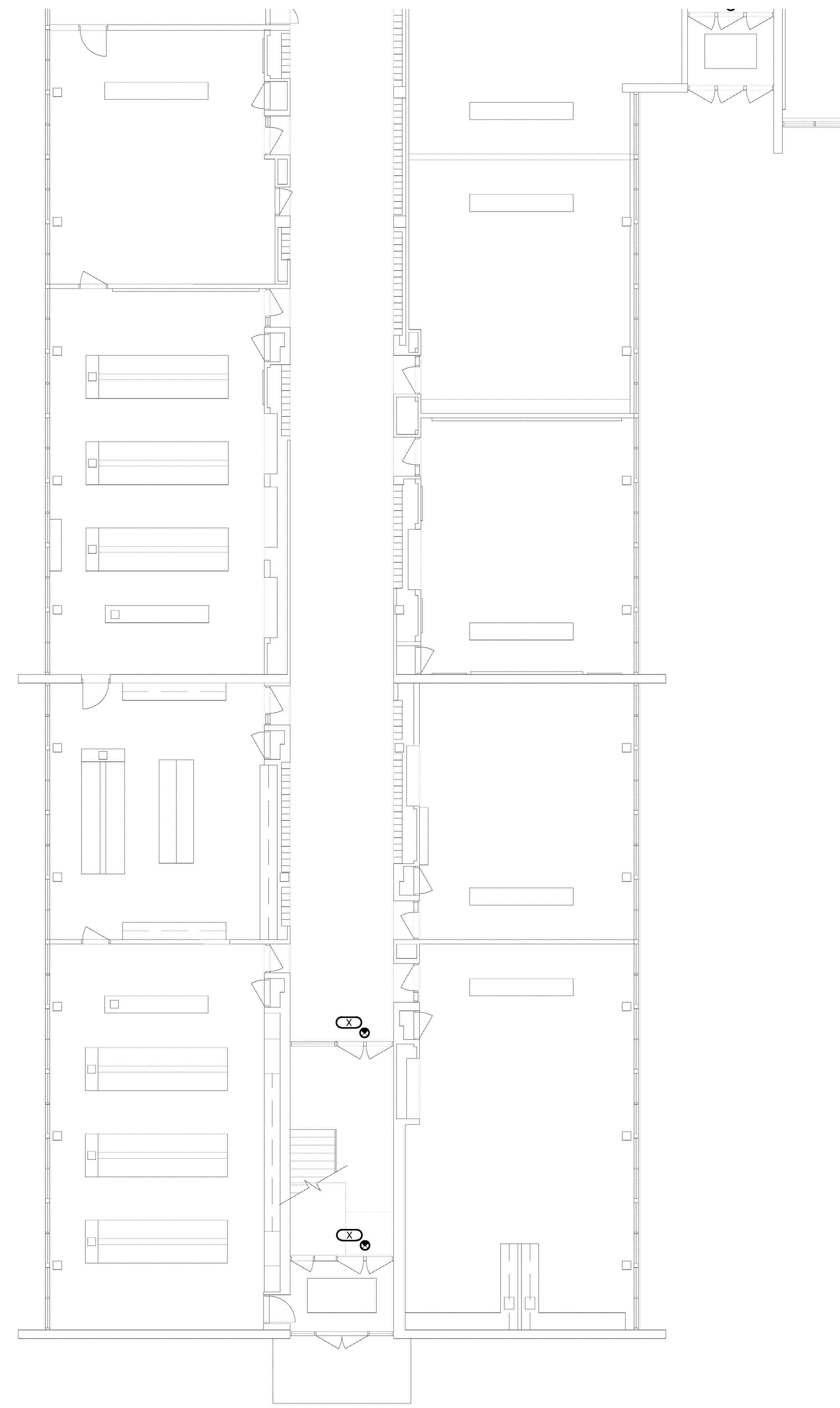
- ALL ELECTRICAL DEVICES SHOWN ON THIS PLAN SHALL BE NEW UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- ALL RECEPTACLES SHALL BE 20A. RATED.
- ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE.
- ALL RECEPTACLES WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE GFCI TYPE RECEPTACLE.
- REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
- ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
- ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
- ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
- ALL RECEPTACLES INSTALLED IN THE ELEVATOR PIT(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI).
- A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING A ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
- ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
- ALL FIRE ALARM DEVICES SHALL BE 15 CANDELA RATED UNLESS NOTED OTHERWISE.

POWER KEYED NOTES

- (P1) CONNECT NEW BOILER TO EXISTING PANEL DP-IT1. SEE PARTIAL ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P2) CONNECT PUMP TO EXISTING PANEL DP-7. PROVIDE 20A FUSES IN EXISTING 60A, 3P SWITCH. SEE ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P3) CONNECT TO SPARE BREAKER IN EXISTING PANEL.
- (P4) PROVIDE 120V CONNECTION AND ELECTRICAL ROUGH-IN FOR CARD READER. SEE DETAIL SHEET E3.00.
- (P5) PROVIDE ROUGH-IN FOR ADA PUSH PADS TO BE MOUNTED ON WALL. PROVIDE DUAL GANG JUNCTION BOXES FOR PUSHBUTTON AND 3/4" INTERCONNECTING CONDUITS. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P6) PROVIDE 120V CONNECTION TO ADA ACTUATOR. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P7) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "Y" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS PLUS ONE 20A, 1P BREAKER FOR NEW SITE LIGHTING CIRCUIT.
- (P8) PROVIDE 30A, 2P LIGHTING CONTACTOR AND ASTRONOMIC TIME CLOCK FOR CONTROL OF NEW SITE LIGHTING.
- (P9) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "GA" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P10) INSTALL NEW 100A, 120/240V, 3 PH, 3W, 30 CIRCUIT PANELBOARD "GB" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P11) PROVIDE (2) LIGHTING CONTACTORS WITH HOA CONTROL FOR GYM LIGHT CIRCUITS.
- (P12) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "D" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P13) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "A" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P14) CONNECT TO EXISTING 30A, 3P SWITCH IN PANEL "P4". SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P15) CONNECT TO EXISTING CIRCUIT AND WIRING FROM EQUIPMENT PREVIOUSLY REMOVED.
- (P16) CONNECT TO SPARE 200A, 3P SWITCH IN EXISTING DISTRIBUTION PANEL DP-4. PROVIDE NEW 60A FUSES. SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P17) PROVIDE FIRE ALARM SYSTEM CONNECTION TO FACTORY INSTALLED SMOKE DETECTOR ON MAKE-UP AIR UNIT MUA-1.
- (P18) PROVIDE POWER TO TEMPERATURE CONTROL UNIT TRANSFORMER. CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT.
- (P19) NEW FIRE ALARM DEVICE, CONNECT TO EXISTING NAC PANEL. NEW DEVICES SHALL BE COMPATIBLE WITH EXISTING SIMPLEX SYSTEM.
- (P20) DISCONNECT AND RE-CONNECT EXISTING MECHANICAL ROOFTOP UNIT. COORDINATE WITH MECHANICAL TRADES.
- (P21) INSTALL AND WIRE V.F.D. PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE FROM THE UNIT TO THE REMOTE V.F.D. AND THEN BACK TO THE UNIT.

ALL NEW 'EM' AND 'X' TYPE FIXTURES SHALL BE DIRECT REPLACEMENT OF EXISTING FIXTURE IN SIMILAR LOCATION.

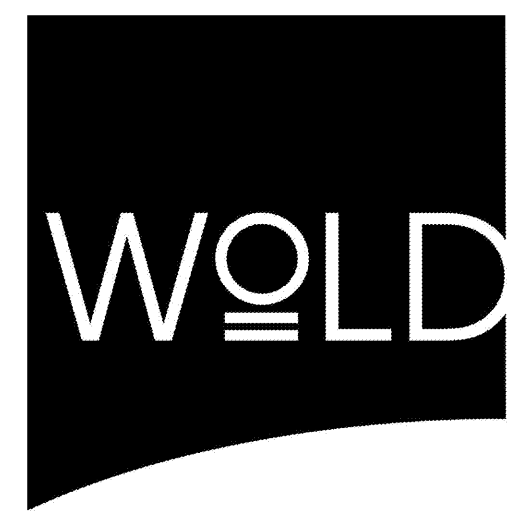
H1 MAIN LEVEL ELECTRICAL PLAN - AREA 'F'
1/8" = 1'-0"



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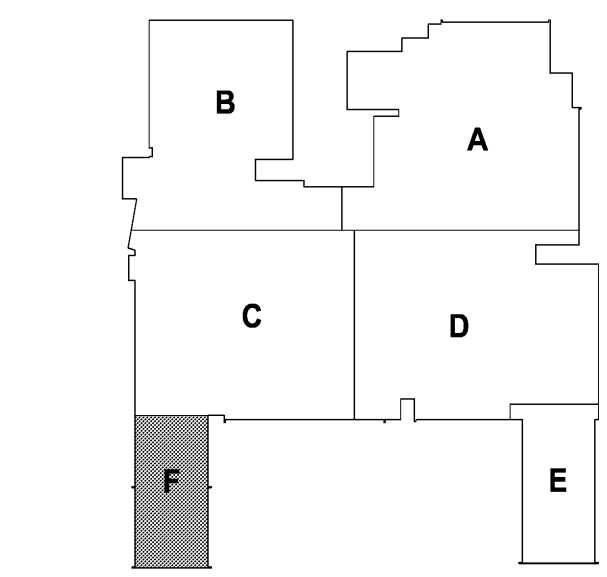


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333 West Seventh Street
Suite 320
Royal Oak, MI 48067
tel: 248.284.0611
fax: 248.284.0615
mail@woldae.com



Strategic Energy Solutions
4000 W. Eleven Mile Road Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
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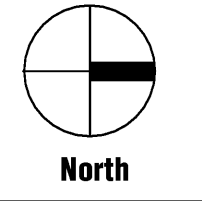
KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Faris Abdallah
Registration Number: 6201049879 Date: 10/31/13

Revisions		
Description	Date	Num

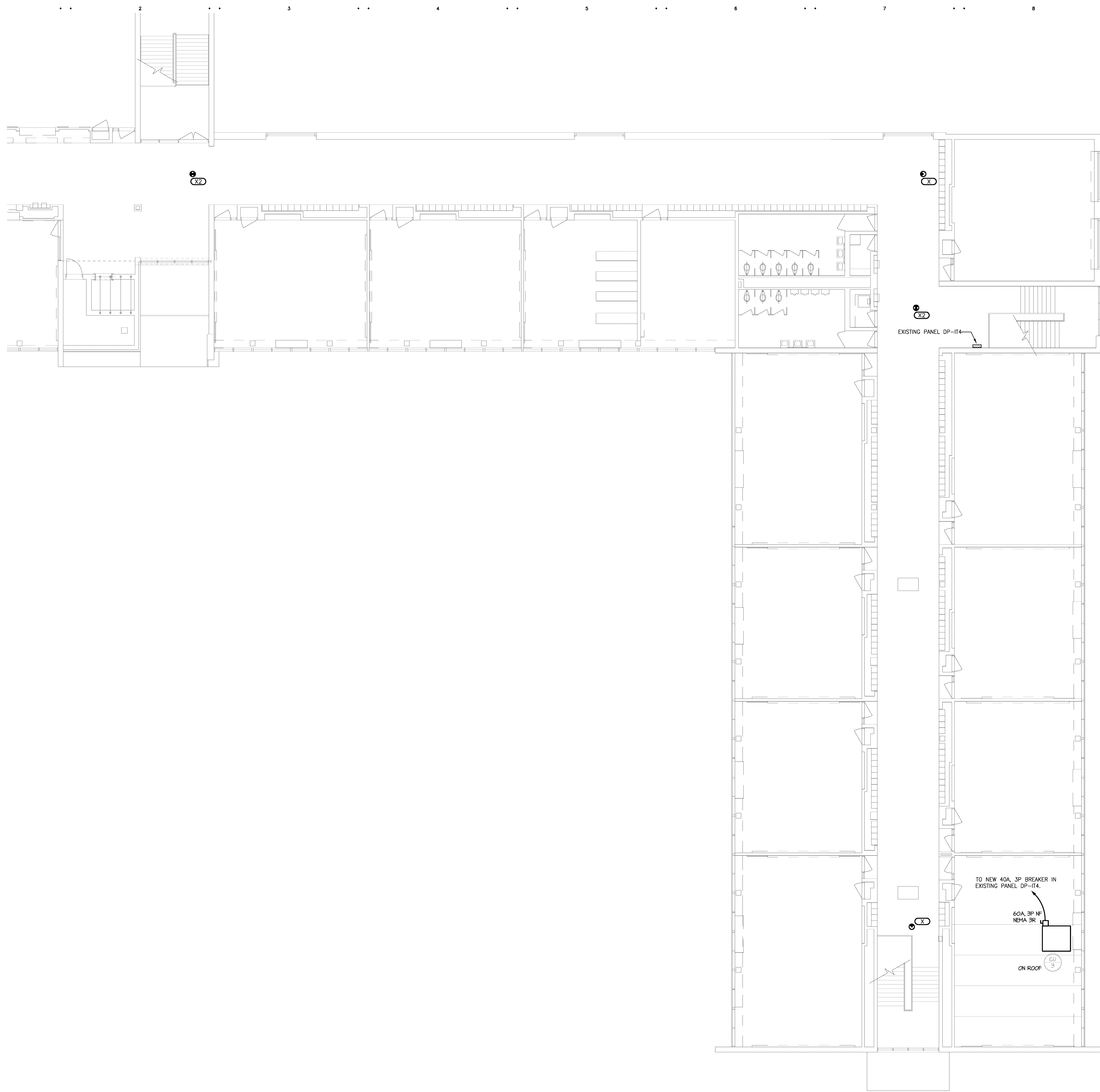
Comm: 124021
Date: 4/16/2013
Drawn: DAD
Check: RSA



H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'F'

Scale:

E1.16h



GENERAL LIGHTING NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
2. ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
3. SEE LUMINAIRE SCHEDULE ON SHEET ED.00
4. ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
5. EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
6. WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.

LIGHTING KEYED NOTES

- (L1) REMOVE AND REPLACE LIGHT FIXTURES IN THIS AREA AS NECESSARY TO PERMIT INSTALLATION OF MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.
- (L2) NEW TROUBLE LIGHT WITH RETRACTABLE CORD, EXTEND EXISTING 120V CIRCUIT FROM LOCAL LIGHTING CIRCUITING. EXACT SPECIFICATIONS BY OTHERS.
- (L3) RETROFIT EXISTING LIGHT FIXTURE WITH 1100 LUMEN EMERGENCY BATTERY PACK.

GENERAL POWER NOTES

1. ALL ELECTRICAL DEVICES SHOWN ON THIS PLAN SHALL BE NEW UNLESS OTHERWISE NOTED.
2. ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
3. ALL RECEPTACLES SHALL BE 20A, RATED.
4. ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE.
5. ALL RECEPTACLES WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE GFCI TYPE RECEPTACLE.
6. REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
7. ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
8. ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
9. ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
10. ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
11. ALL RECEPTACLES INSTALLED IN THE ELEVATOR PIT(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI).
12. A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING A ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
13. ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
14. ALL FIRE ALARM DEVICES SHALL BE 15 CANDELA RATED UNLESS NOTED OTHERWISE.

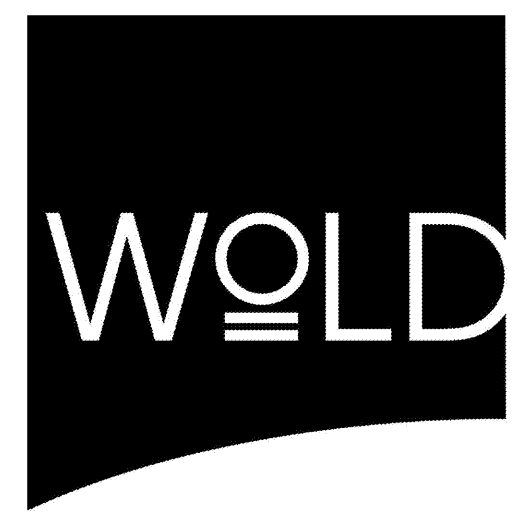
POWER KEYED NOTES

- (P1) CONNECT NEW BOILER TO EXISTING PANEL DP-IT1. SEE PARTIAL ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P2) CONNECT PUMP TO EXISTING PANEL DP-7. PROVIDE 20A FUSES IN EXISTING 60A, 3P SWITCH. SEE ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P3) CONNECT TO SPARE BREAKER IN EXISTING PANEL.
- (P4) PROVIDE 120V CONNECTION AND ELECTRICAL ROUGH-IN FOR CARD READER. SEE DETAIL SHEET E3.00.
- (P5) PROVIDE ROUGH-IN FOR ADA PUSH PADS TO BE MOUNTED ON WALL. PROVIDE DUAL GANG JUNCTION BOXES FOR PUSHBUTTON AND 3/4" INTERCONNECTING CONDUITS. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P6) PROVIDE 120V CONNECTION TO ADA ACTUATOR. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P7) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "Y" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS PLUS ONE 20A, 1P BREAKER FOR NEW SITE LIGHTING CIRCUIT.
- (P8) PROVIDE 30A, 2P LIGHTING CONTACTOR AND ASTRONOMIC TIME CLOCK FOR CONTROL OF NEW SITE LIGHTING.
- (P9) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "GA" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P10) INSTALL NEW 100A, 120/240V, 3 PH, 3W, 30 CIRCUIT PANELBOARD "GB" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P11) NOT USED.
- (P12) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "D" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P13) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "A" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P14) CONNECT TO EXISTING 30A, 3P SWITCH IN PANEL "P4". SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P15) CONNECT TO EXISTING CIRCUIT AND WIRING FROM EQUIPMENT PREVIOUSLY REMOVED.
- (P16) CONNECT TO SPARE 200A, 3P SWITCH IN EXISTING DISTRIBUTION PANEL DP-4. PROVIDE NEW 60A FUSES. SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P17) PROVIDE FIRE ALARM SYSTEM CONNECTION TO FACTORY INSTALLED SMOKE DETECTOR ON MAKE-UP AIR UNIT MUA-1.
- (P18) PROVIDE POWER TO TEMPERATURE CONTROL UNIT TRANSFORMER. CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT.

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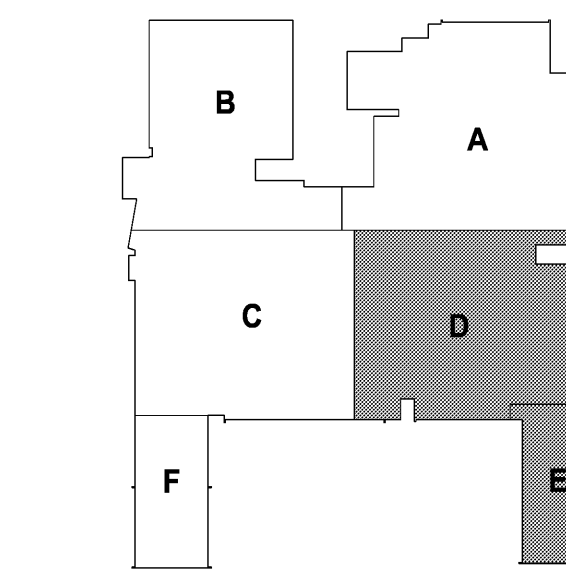


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www.woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067
tel: 248.284.0611
fax: 248.284.0615
mail@woldae.com



Strategic Energy Solutions
4000 W. Eleven Mile Road, Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
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SES Project # 2012.093.05



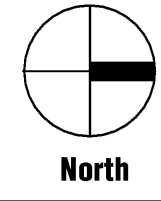
KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Foras Abdallah
Registration Number 6201048879 Date 10/31/13

Revisions		
Description	Date	Num

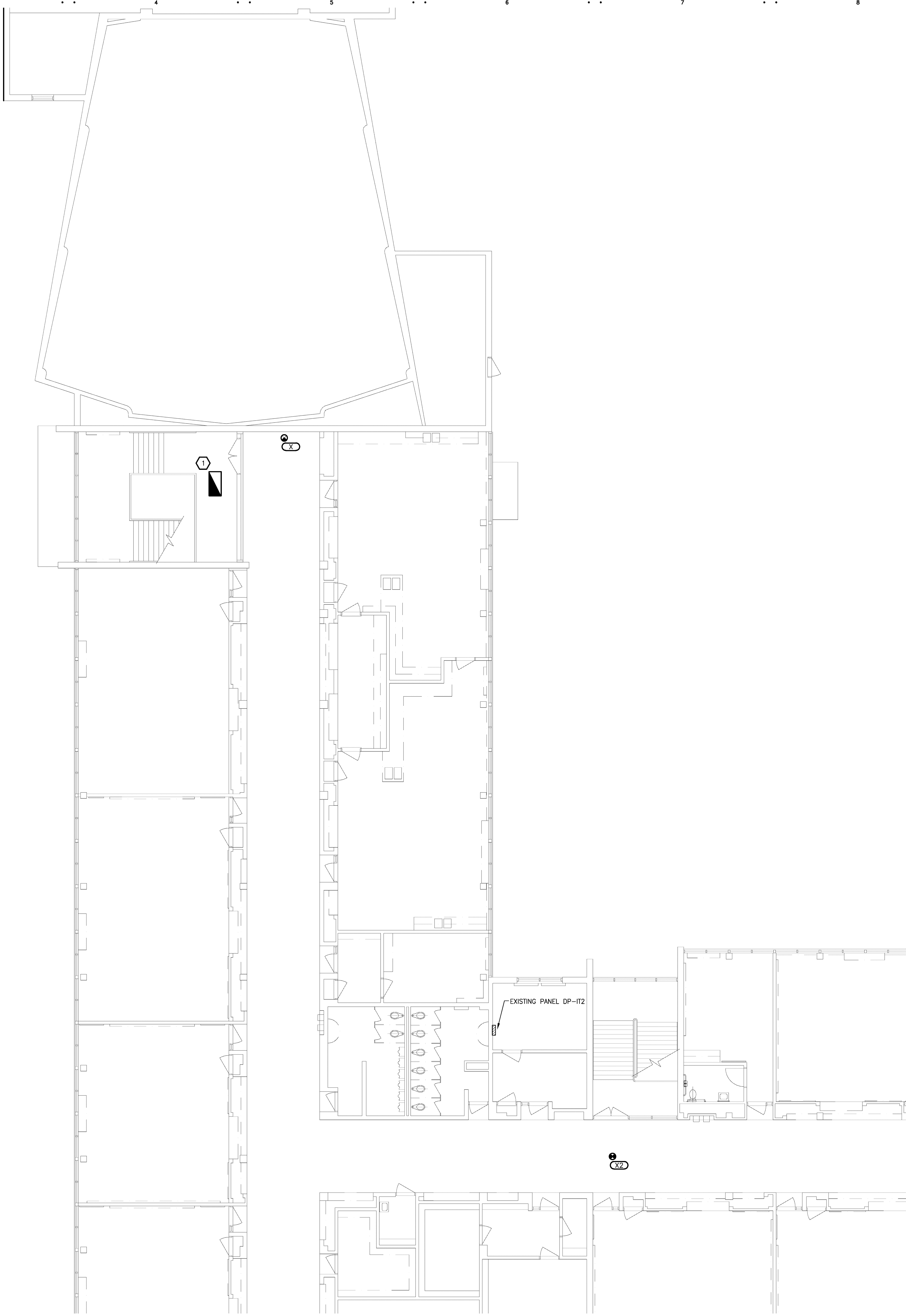
Comm: 12/02/11
Date: 4/16/2013
Drawn: DAD
Check: RSA



UPPER LEVEL LIGHTING AND POWER PLAN - AREAS 'D' AND 'E'

Scale:

E1.21h



GENERAL LIGHTING NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- SEE LUMINAIRE SCHEDULE ON SHEET E0.00
- ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
- EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
- WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.

LIGHTING KEYED NOTES

- (L1) REMOVE AND REPLACE LIGHT FIXTURES IN THIS AREA AS NECESSARY TO PERMIT INSTALLATION OF MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.
- (L2) NEW TROUBLE LIGHT WITH RETRACTABLE CORD, EXTEND EXISTING 120V CIRCUIT FROM LOCAL LIGHTING CIRCUITING. EXACT SPECIFICATIONS BY OTHERS.
- (L3) RETROFIT EXISTING LIGHT FIXTURE WITH 1100 LUMEN EMERGENCY BATTERY PACK.

GENERAL POWER NOTES

- ALL ELECTRICAL DEVICES SHOWN ON THIS PLAN SHALL BE NEW UNLESS OTHERWISE NOTED.
- ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
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- ALL RECEPTACLES WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE GFCI TYPE RECEPTACLE.
- REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
- ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
- ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
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- ALL RECEPTACLES INSTALLED IN THE ELEVATOR PIT(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI).
- A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING A ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
- ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
- ALL FIRE ALARM DEVICES SHALL BE 15 CANDELA RATED UNLESS NOTED OTHERWISE.

POWER KEYED NOTES

- (P1) CONNECT NEW BOILER TO EXISTING PANEL DP-111. SEE PARTIAL ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P2) CONNECT PUMP TO EXISTING PANEL DP-7. PROVIDE 20A FUSES IN EXISTING 60A, 3P SWITCH. SEE ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P3) CONNECT TO SPARE BREAKER IN EXISTING PANEL.
- (P4) PROVIDE 120V CONNECTION AND ELECTRICAL ROUGH-IN FOR CARD READER. SEE DETAIL SHEET E3.00.
- (P5) PROVIDE ROUGH-IN FOR ADA PUSH PADS TO BE MOUNTED ON WALL. PROVIDE DUAL GANG JUNCTION BOXES FOR PUSHBUTTON AND 3/4" INTERCONNECTING CONDUITS. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P6) PROVIDE 120V CONNECTION TO ADA ACTUATOR. COORDINATE REQUIREMENTS WITH DOOR HARDWARE CONSULTANT. ELECTRICAL CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTION.
- (P7) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "Y" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS PLUS ONE 20A, 1P BREAKER FOR NEW SITE LIGHTING CIRCUIT.
- (P8) PROVIDE 30A, 2P LIGHTING CONTACTOR AND ASTRONOMIC TIME CLOCK FOR CONTROL OF NEW SITE LIGHTING.
- (P9) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "GA" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P10) INSTALL NEW 100A, 120/240V, 3 PH, 3W, 30 CIRCUIT PANELBOARD "GB" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P11) NOT USED.
- (P12) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "D" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P13) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "A" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P14) CONNECT TO EXISTING 30A, 3P SWITCH IN PANEL "P4". SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P15) CONNECT TO EXISTING CIRCUIT AND WIRING FROM EQUIPMENT PREVIOUSLY REMOVED.
- (P16) CONNECT TO SPARE 200A, 3P SWITCH IN EXISTING DISTRIBUTION PANEL DP-4. PROVIDE NEW 60A FUSES. SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P17) PROVIDE FIRE ALARM SYSTEM CONNECTION TO FACTORY INSTALLED SMOKE DETECTOR ON MAKE-UP AIR UNIT MUA-1.
- (P18) PROVIDE POWER TO TEMPERATURE CONTROL UNIT TRANSFORMER. CONNECT TO NEAREST 120V RECEPTACLE CIRCUIT.

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REDFORD, MI 48240

REDFORD UNION SCHOOL DISTRICT
19990 BEECH DALY ROAD
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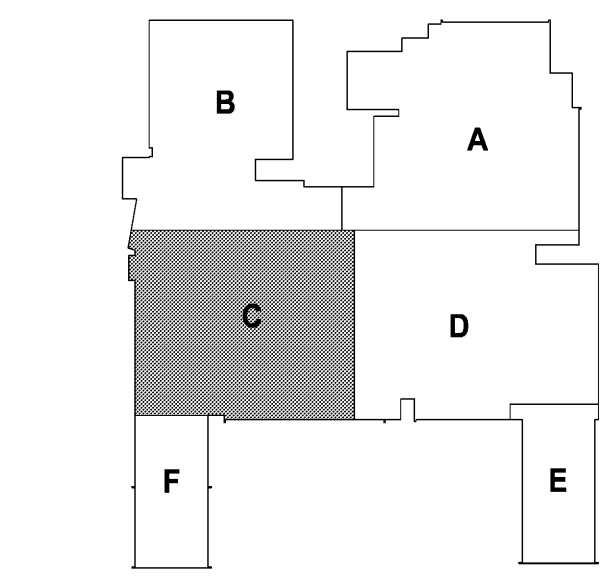


wold
architects
engineers
www.woldae.com

333 West Seventh Street Suite 320 Royal Oak, MI 48067
tel: 248.284.0611 fax: 248.284.0615 mail@woldae.com



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Strategic Energy Solutions
4000 W. Eleven Mile Road Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
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KEY PLAN

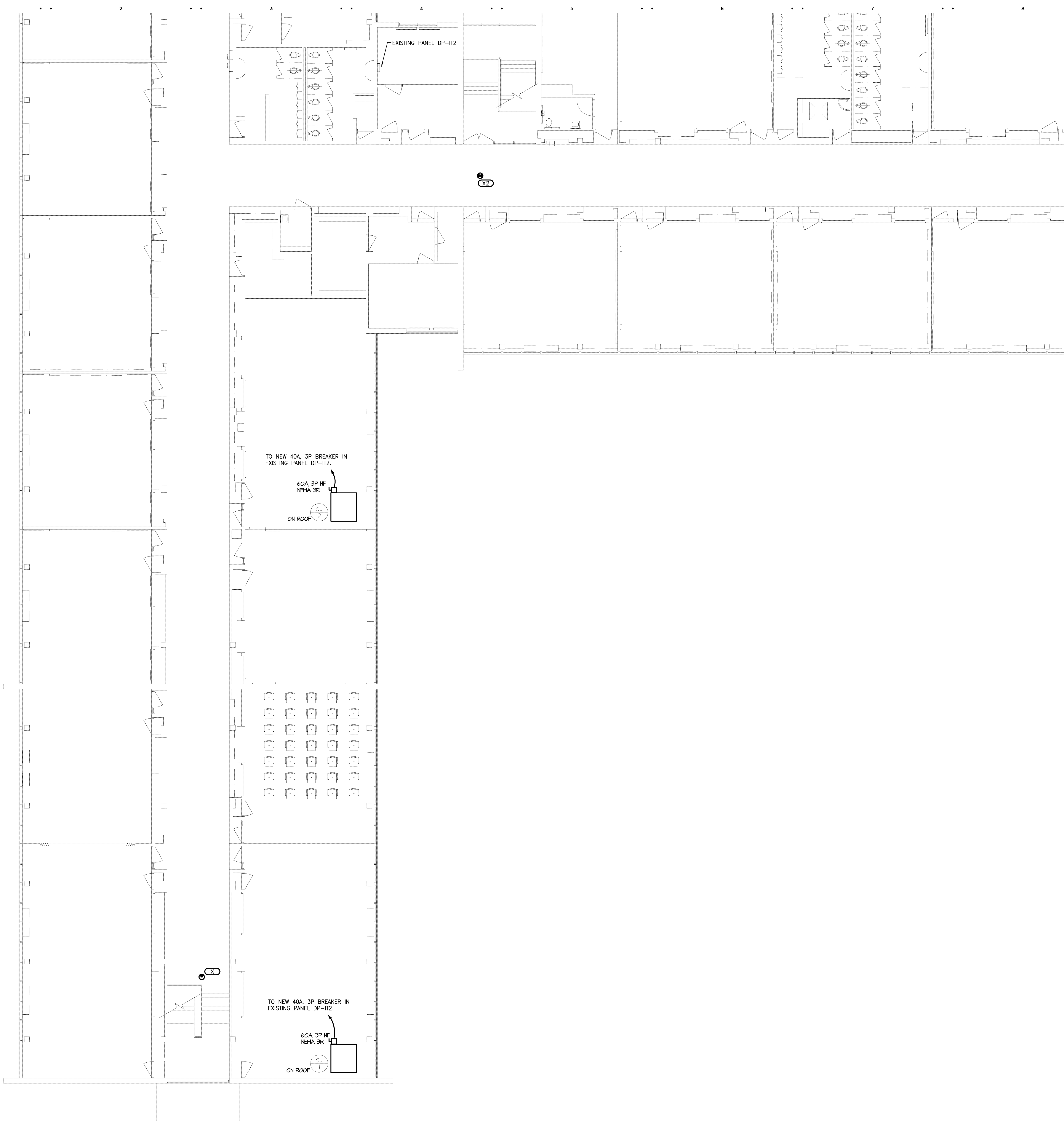
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Registration Number	Foras Abdallah	Date	10/21/13
Revisions			
Description	Date	Num	

Comm: 12/02/11
Date: 4/16/2013
Drawn: DAD
Check: RSA

UPPER LEVEL LIGHTING AND POWER PLAN - AREA 'C'

Scale:
E1.22h



GENERAL LIGHTING NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
2. ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.G. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
3. SEE LUMINAIRE SCHEDULE ON SHEET E0.00
4. ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
5. EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
6. WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.

LIGHTING KEYED NOTES

- (L1) REMOVE AND REPLACE LIGHT FIXTURES IN THIS AREA AS NECESSARY TO PERMIT INSTALLATION OF MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.
- (L2) NEW TROUBLE LIGHT WITH RETRACTABLE CORD, EXTEND EXISTING 120V CIRCUIT FROM LOCAL LIGHTING CIRCUITING. EXACT SPECIFICATIONS BY OTHERS.
- (L3) RETROFIT EXISTING LIGHT FIXTURE WITH 1100 LUMEN EMERGENCY BATTERY PACK.

GENERAL POWER NOTES

1. ALL ELECTRICAL DEVICES SHOWN ON THIS PLAN SHALL BE NEW UNLESS OTHERWISE NOTED.
2. ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.G. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
3. ALL RECEPTACLES SHALL BE 20A, RATED.
4. ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE.
5. ALL RECEPTACLES WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE GFCI TYPE RECEPTACLE.
6. REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
7. ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
8. ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
9. ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
10. ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
11. ALL RECEPTACLES INSTALLED IN THE ELEVATOR PIT(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI).
12. A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING A ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
13. ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
14. ALL FIRE ALARM DEVICES SHALL BE 15 CANDELA RATED UNLESS NOTED OTHERWISE.

POWER KEYED NOTES

- (P1) CONNECT NEW BOILER TO EXISTING PANEL DP-111. SEE PARTIAL ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P2) CONNECT PUMP TO EXISTING PANEL DP-7, PROVIDE 20A FUSES IN EXISTING 60A, 3P SWITCH. SEE ELECTRICAL ONE LINE DIAGRAM SHEET E3.00.
- (P3) CONNECT TO SPARE BREAKER IN EXISTING PANEL.
- (P4) PROVIDE 120V CONNECTION AND ELECTRICAL ROUGH-IN FOR CARD READER. SEE DETAIL SHEET E3.00.
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- (P9) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 42 CIRCUIT PANELBOARD "GA" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P10) INSTALL NEW 100A, 120/240V, 3 PH, 3W, 30 CIRCUIT PANELBOARD "GB" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P11) NOT USED.
- (P12) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "D" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P13) INSTALL NEW 200A, 120/240V, 1 PH, 3W, 30 CIRCUIT PANELBOARD "A" IN EXISTING LOCATION. PROVIDE BREAKERS AS NECESSARY TO RE-CONNECT EXISTING LOADS.
- (P14) CONNECT TO EXISTING 30A, 3P SWITCH IN PANEL "P4". SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
- (P15) CONNECT TO EXISTING CIRCUIT AND WIRING FROM EQUIPMENT PREVIOUSLY REMOVED.
- (P16) CONNECT TO SPARE 200A, 3P SWITCH IN EXISTING DISTRIBUTION PANEL DP-4. PROVIDE NEW 60A FUSES. SEE ELECTRICAL ONE-LINE DIAGRAM SHEET E3.00 FOR MORE INFORMATION.
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REDFORD, MI 48240

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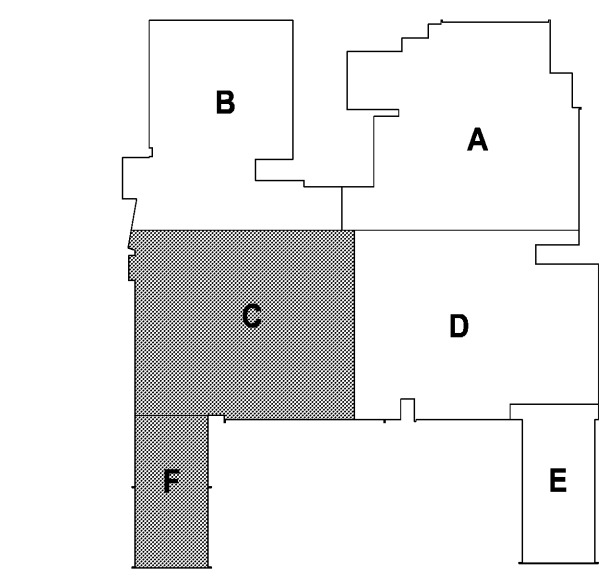
woldae.com

333 West Seventh Street
Suite 320
Royal Oak, MI 48067

tel: 248.284.0611
fax: 248.284.0615
mail@woldae.com



Strategic Energy Solutions
4000 W. Eleven Mile Road Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com
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KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Foras Abdallah
Registration Number 6201049879 Date 10/31/13

Description	Date	Num

Comm: 12/02/13
Date: 4/16/2019
Drawn: DAD
Check: RSA

UPPER LEVEL LIGHTING AND POWER PLAN - AREAS 'C' AND 'F'

Scale:

E1.23h

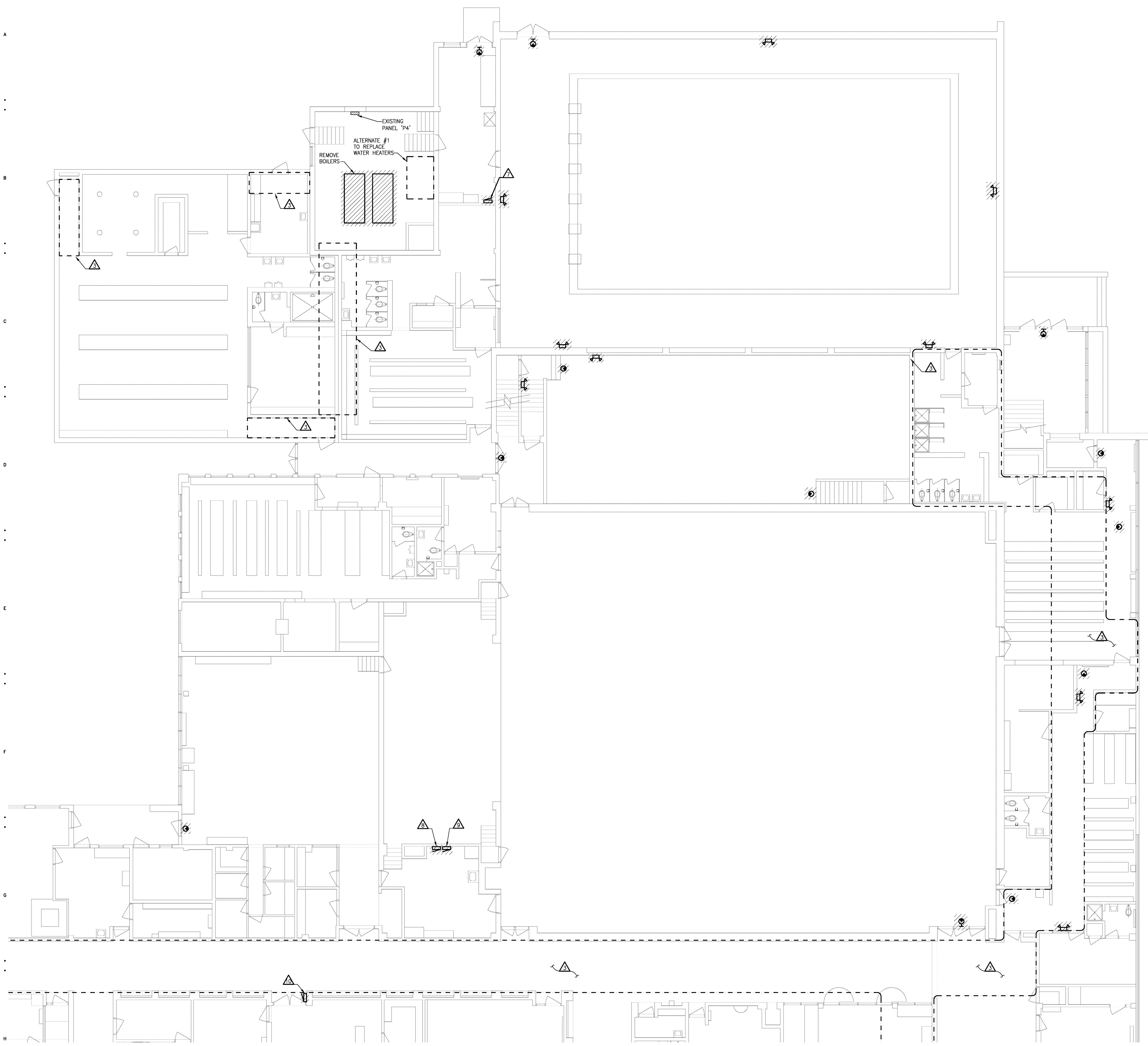
H1 UPPERLEVEL LIGHTING AND POWER PLAN - AREAS 'C' AND 'F'
1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES, BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES, PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION OF DEVICES AND EQUIPMENT REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES.
3. REMOVE LIGHTING FIXTURES AND ELECTRICAL DEVICES AS INDICATED ON PLAN. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO THOSE DEVICES SHOWN.
4. COORDINATE WITH NEW WORK PLANS, ONE LINE AND RISER DIAGRAMS FOR EXTENT OF DEMOLITION WORK.
5. COORDINATE ANY SHUTDOWN OF EXISTING SERVICES AND EQUIPMENT REMAINING IN USE WITH OWNERS' REPRESENTATIVE, WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COST TO PERFORM THIS WORK DURING EVENINGS AND WEEKENDS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUTDOWNS OCCUR FOR PERIODS LONGER THAN THE ABOVE STATED HOURS.
6. COORDINATE THE SHUT DOWN OF ELECTRICAL EQUIPMENT WITH THE OWNERS' REPRESENTATIVE A MINIMUM OF 72 HOURS PRIOR TO SHUT DOWN.
7. REMOVE ALL CONDUIT AND WIRE BACK TO NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
8. WHERE DEMOLITION WORK AFFECTS ELECTRICAL SERVICE TO DOWNSTREAM DEVICES TO REMAIN; EXTEND CONDUIT AND WIRE AS REQUIRED TO MAINTAIN ELECTRICAL SERVICE.
9. DISPOSE OF ALL MATERIALS OFF SITE AND INCLUDE ALL COSTS FOR DISPOSAL IN BID. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, INCLUDING TCLP TESTING, PRIOR TO DISPOSAL AND/OR RECYCLING OF FLUORESCENT LAMPS.
10. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED, AND WALL REMAINS INTACT. MARK ALL UNUSED CIRCUIT BREAKERS AS "SPARE".
11. CONTRACTOR TO TAG ALL CIRCUITS AT BOTH ENDS AFFECTED BY THIS ALTERATION.
12. CONTRACTOR SHALL PROVIDE UPDATED, TYPED-IN DIRECTORIES FOR ALL PANELS AFFECTED BY THIS ALTERATION.
13. CONTRACTOR SHALL VERIFY ALL UNDERGROUND AND IN-SLAB UTILITIES LOCATIONS PRIOR TO SAW CUTTING OR PENETRATING ANY FLOOR SLABS.
14. REFER TO NEW WORK SHEETS FOR LIGHTING AND POWER CIRCUIT DESIGNATIONS.
15. EXTEND EXISTING CONDUIT AND WIRE AS REQUIRED FOR ALL RELOCATED DEVICES.
16. REPLACE EXIT SIGNS AND EMERGENCY BATTERY UNITS THAT ARE SHOWN HATCHED, REFER TO NEW WORK PLANS AND SCHEDULES FOR INFORMATION.

DEMOLITION KEYED NOTES

- △ REMOVE EXISTING EXIT SIGN OR EMERGENCY LIGHT, REPLACE WITH NEW PER NEW WORK PLANS.
- △ DISCONNECT AND REMOVE EXISTING BUILDING MOUNTED EXTERIOR LIGHTING. PROTECT EXISTING CIRCUITING FOR INSTALLATION OF NEW FIXTURES AT SAME LOCATION. SEE NEW WORK PLANS FOR ADDITIONAL INFORMATION.
- △ REMOVE AND REINSTALL LIGHT FIXTURES IN THIS AREA AS NECESSARY TO PERMIT INSTALLATION OF MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.
- △ DISCONNECT EXISTING BOILER AND REMOVE DISCONNECT, CONDUIT AND WIRE COMPLETE BACK TO SOURCE.
- △ DISCONNECT EXISTING CIRC. PUMPS AND REMOVE DISCONNECT, CONDUIT AND WIRE COMPLETE BACK TO THE SOURCE.
- △ DISCONNECT AND RECONNECT MECHANICAL ROOFTOP UNIT, COORDINATE WITH MECHANICAL TRADES.
- △ REPLACE PANELBOARD "Y" IN EXISTING LOCATION. REFER TO NEW WORK PLANS FOR DETAILS.
- △ REPLACE PANELBOARD "GA" IN EXISTING LOCATION. REFER TO NEW WORK PLANS FOR DETAILS.
- △ REPLACE PANELBOARD "GB" IN EXISTING LOCATION. REFER TO NEW WORK PLANS FOR DETAILS.
- △ REPLACE PANELBOARD "D" IN EXISTING LOCATION. REFER TO NEW WORK PLANS FOR DETAILS.
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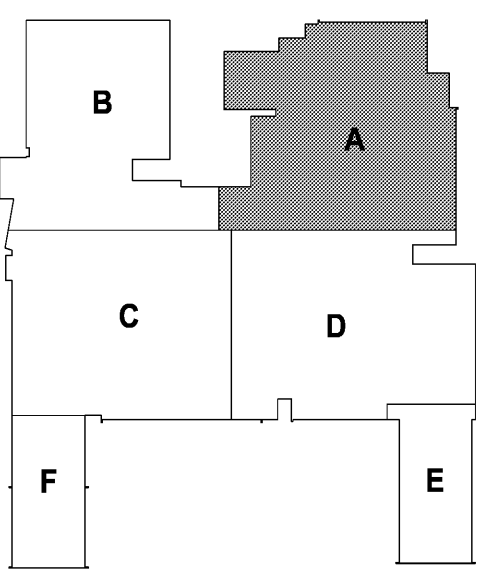


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333 West Seventh Street
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Royal Oak, MI 48067
tel: 248.284.0611
fax: 248.284.0615
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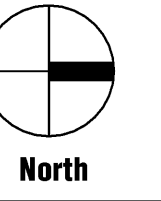
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Foras Abdallah
Registration Number 6201049879 Date 10/31/13

Revisions		
Description	Date	Num

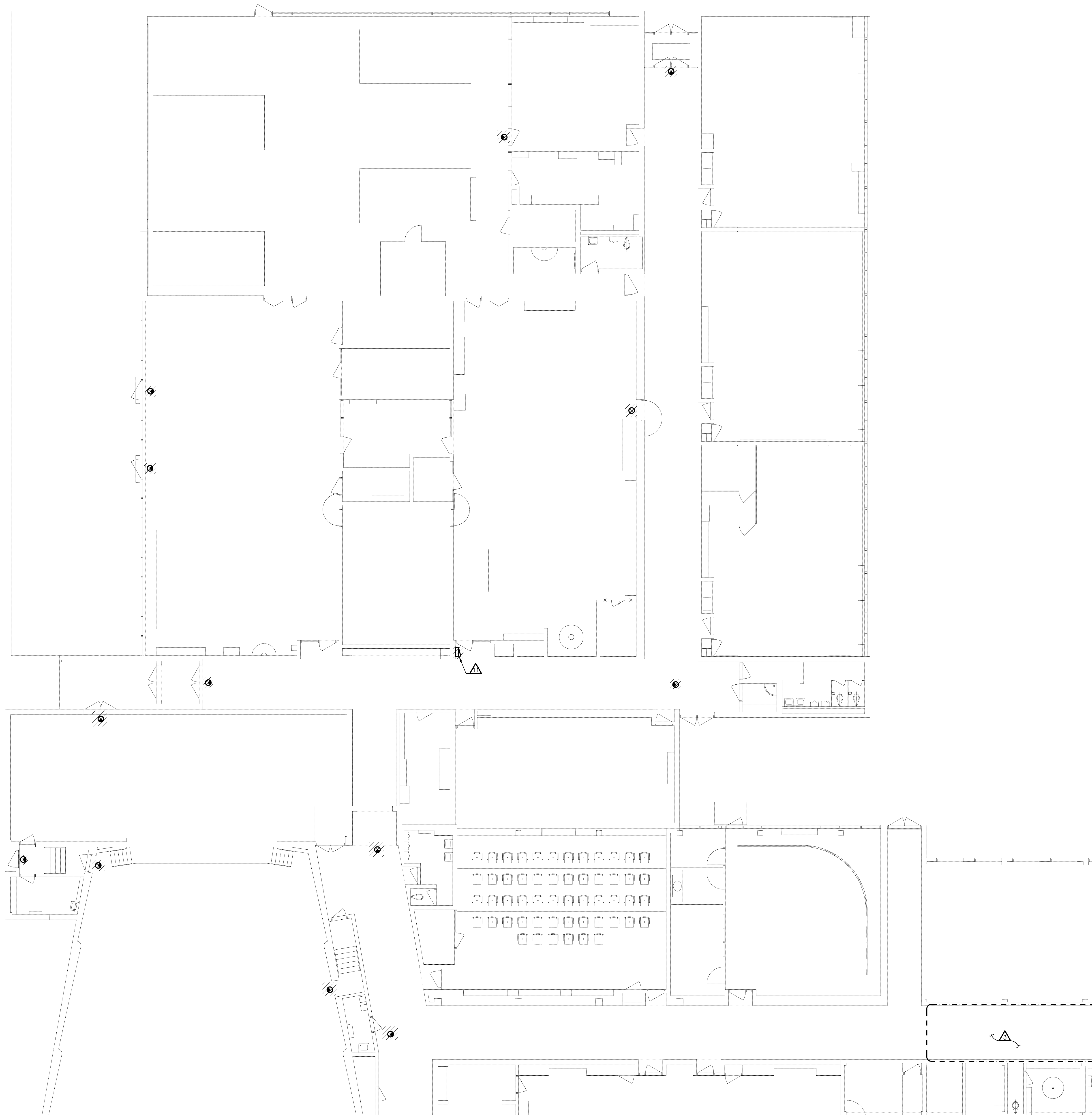
Comm: 124021
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Drawn: DAD
Check: RSA



H.S. MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'A'

Scale:
ED1.11h

(A1) MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'A'
1/8" = 1'-0"



(B) MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'B'
1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES, BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES, PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION OF DEVICES AND EQUIPMENT REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES.
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7. REMOVE ALL CONDUIT AND WIRE BACK TO NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
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10. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED, AND WALL REMAINS INTACT. MARK ALL UNUSED CIRCUIT BREAKERS AS "SPARE".
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DEMOLITION KEYED NOTES

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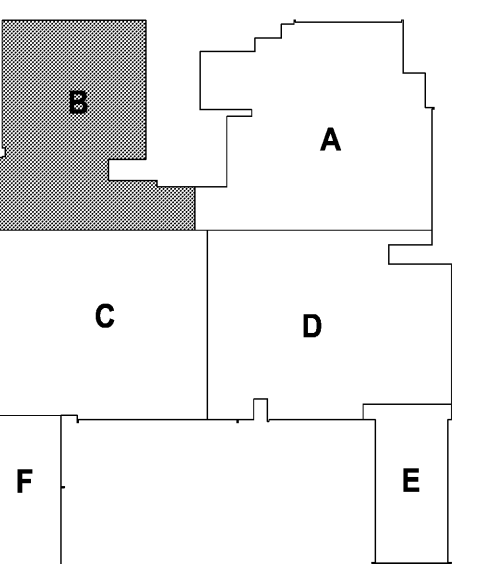
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333 West Seventh Street
Suite 320
Royal Oak, MI 48067

tel: 248.284.0611
fax: 248.284.0615
mail@woldae.com



Strategic Energy Solutions
4000 W. Eleven Mile Road, Berkley, MI 48072
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KEY PLAN

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Foras Abdallah
Registration Number 6201049879 Date 10/31/13

Revisions		
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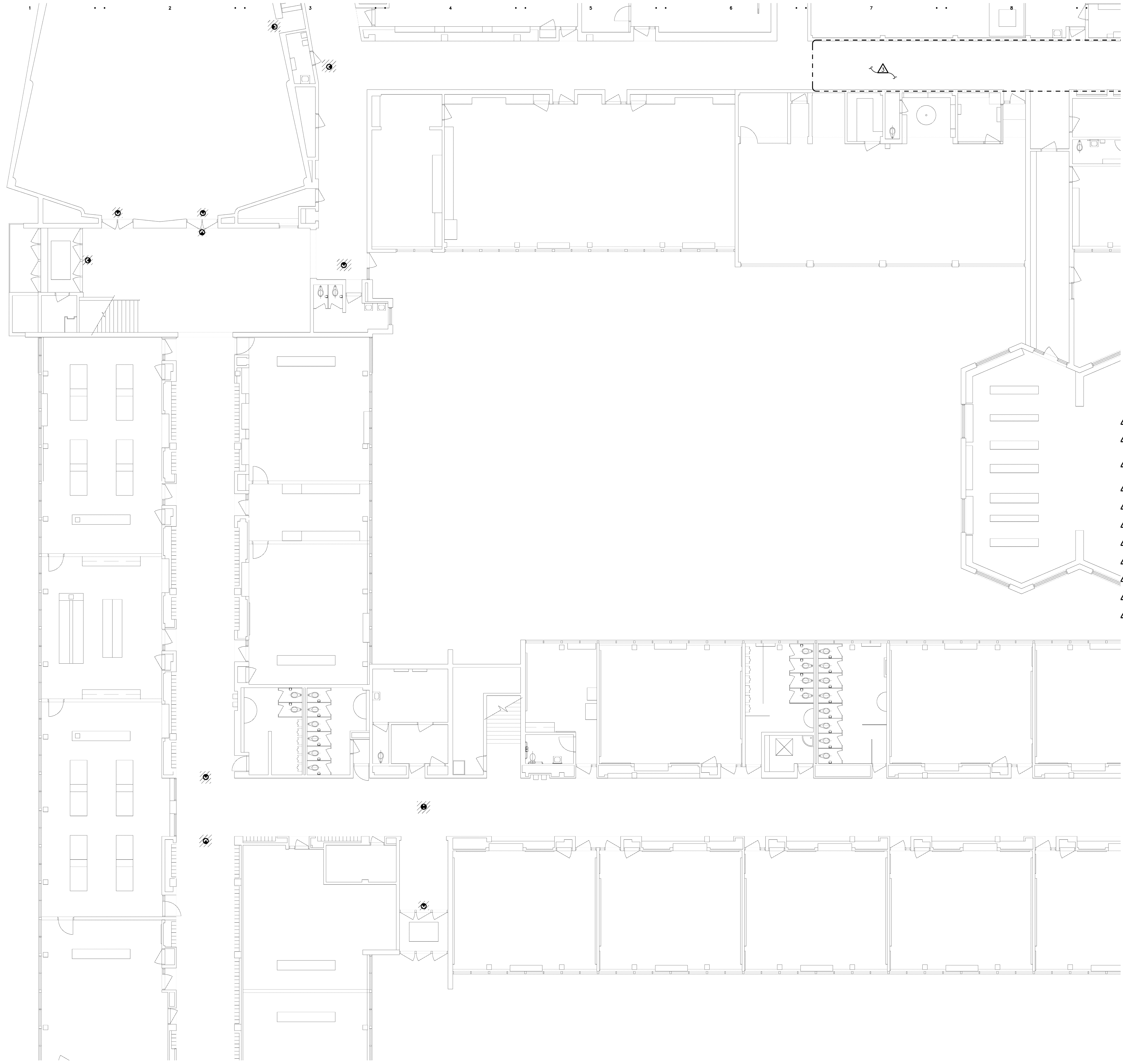
Comm: 12/02/11
Date: 4/16/2013
Drawn: DAD
Check: RSA



**H.S. MAIN LEVEL
ELECTRICAL PLAN -
AREA 'B'**

Scale:

ED1.12h



GENERAL DEMOLITION NOTES

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14. REFER TO NEW WORK SHEETS FOR LIGHTING AND POWER CIRCUIT DESIGNATIONS.
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16. REPLACE EXIT SIGNS AND EMERGENCY BATTERY UNITS THAT ARE SHOWN HATCHED, REFER TO NEW WORK PLANS AND SCHEDULES FOR INFORMATION.

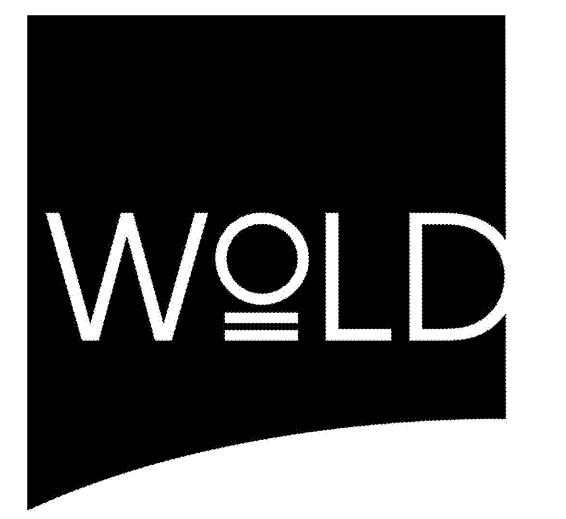
DEMOLITION KEYED NOTES

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- △ DISCONNECT AND REMOVE EXISTING BUILDING MOUNTED EXTERIOR LIGHTING. PROTECT EXISTING CIRCUITING FOR INSTALLATION OF NEW FIXTURES AT SAME LOCATION. SEE NEW WORK PLANS FOR ADDITIONAL INFORMATION.
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REDFORD UNION MECHANICAL / ELECTRICAL IMPROVEMENTS

REDFORD UNION HIGH SCHOOL
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REDFORD, MI 48240

REDFORD UNION SCHOOL DISTRICT
19990 BEECH DALY ROAD
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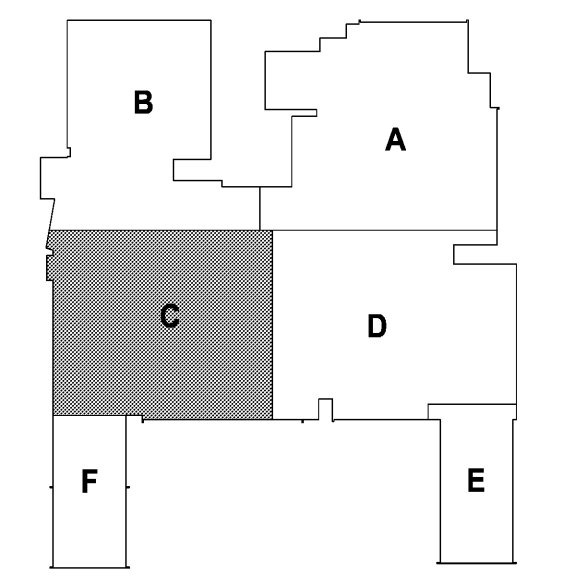
333 West Seventh Street
Suite 320
Royal Oak, MI 48067

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fax: 248.284.0615
mail: woldae.com



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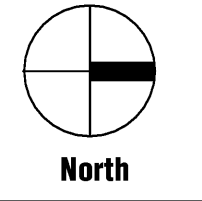
KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Forces Abdallah
Registration Number 6201049879 Date 10/31/13

Revisions		
Description	Date	Num

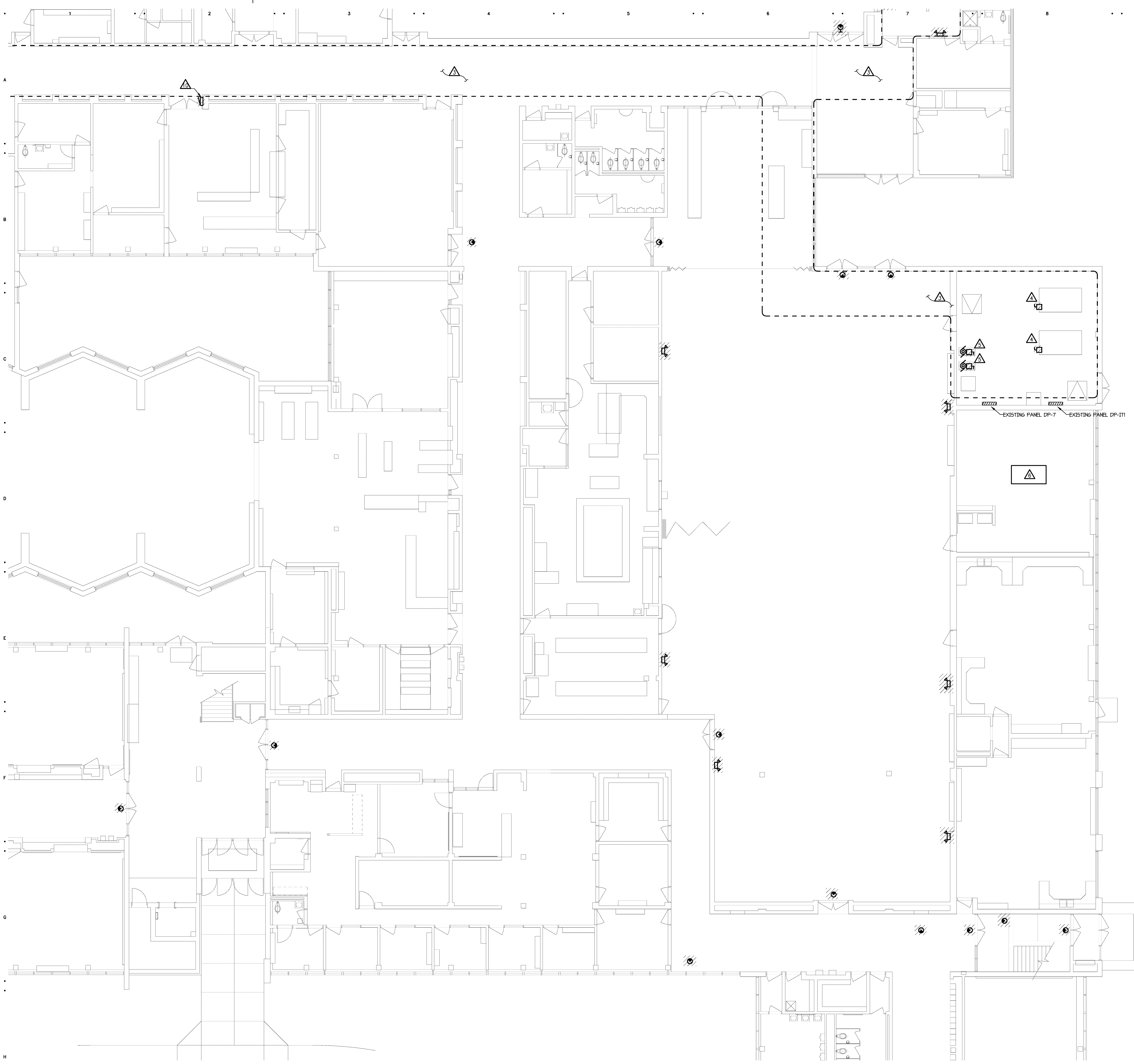
Comm: 12/02/11
Date: 4/16/2013
Drawn: DAD
Check: RSA



H.S. MAIN LEVEL ELECTRICAL PLAN - AREA 'C'

Scale:

ED1.13h



GENERAL DEMOLITION NOTES

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
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6. COORDINATE THE SHUT DOWN OF ELECTRICAL EQUIPMENT WITH THE OWNERS' REPRESENTATIVE A MINIMUM OF 72 HOURS PRIOR TO SHUT DOWN.
7. REMOVE ALL CONDUIT AND WIRE BACK TO NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
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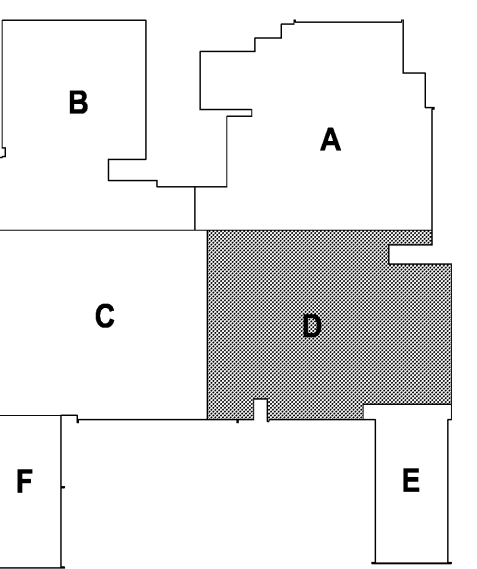
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333 West Seventh Street
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Strategic Energy Solutions
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KEY PLAN

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Fares Abdallah
Registration Number 6201049879 Date 10/31/13

Revisions		
Description	Date	Num

Comm: 12/02/21
Date: 4/16/2019
Drawn: DAD
Check: RSA



H.S. MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'D'

Scale:

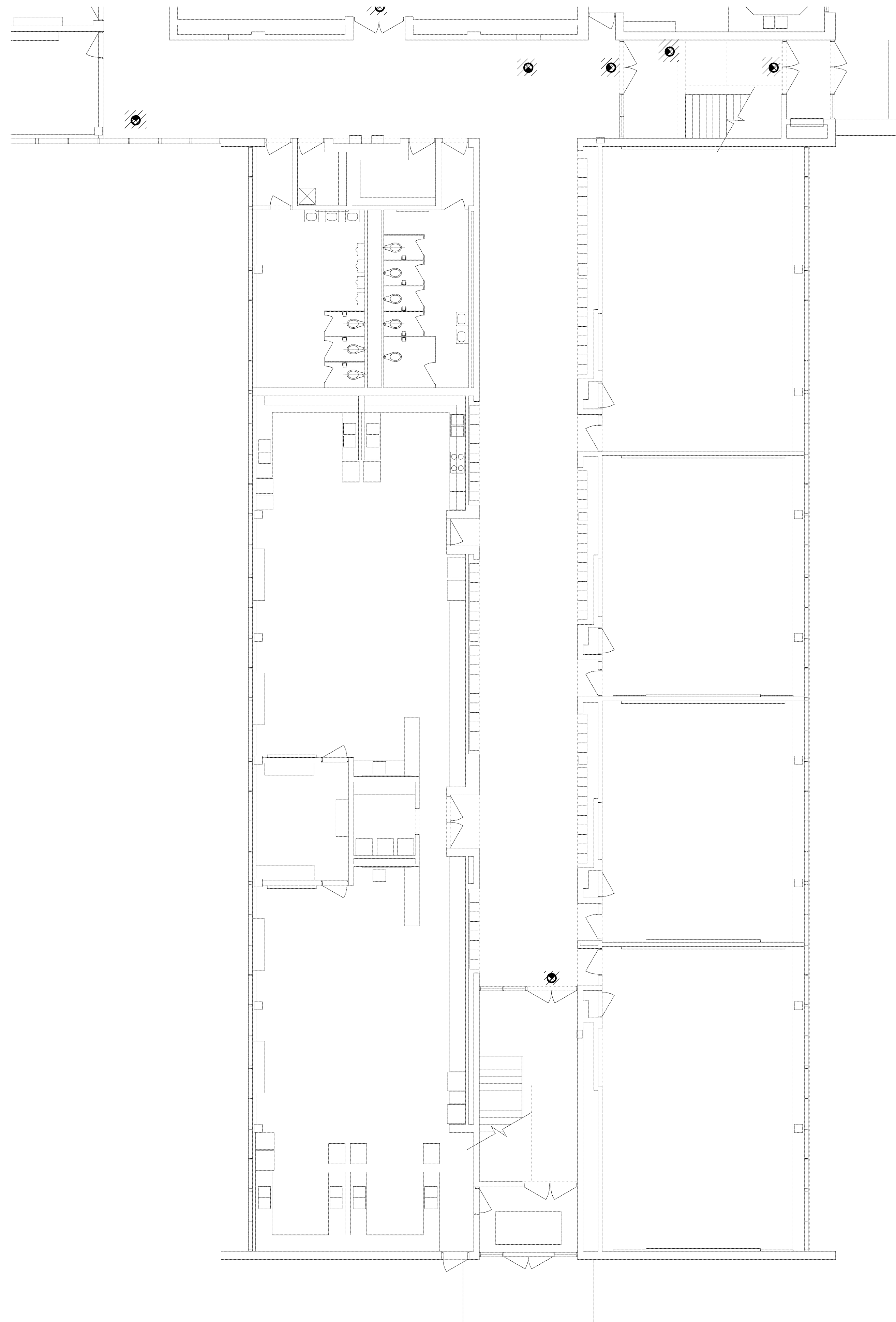
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HI MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'E'
1/8" = 1'-0"

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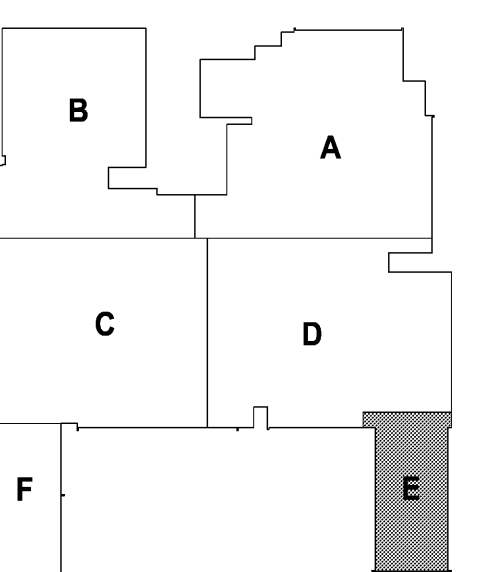


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Suite 320
Royal Oak, MI 48067
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SES Project # 2012.093.05



KEY PLAN

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Forces Abdolkhan
Registration Number 6201049879 Date 10/31/13

Revisions		
Description	Date	Num

Comm: 12/02/1
Date: 4/16/2013
Drawn: DAD
Check: RSA
North

H.S. MAIN LEVEL
ELECTRICAL
DEMOLITION PLAN -
AREA 'E'

Scale:

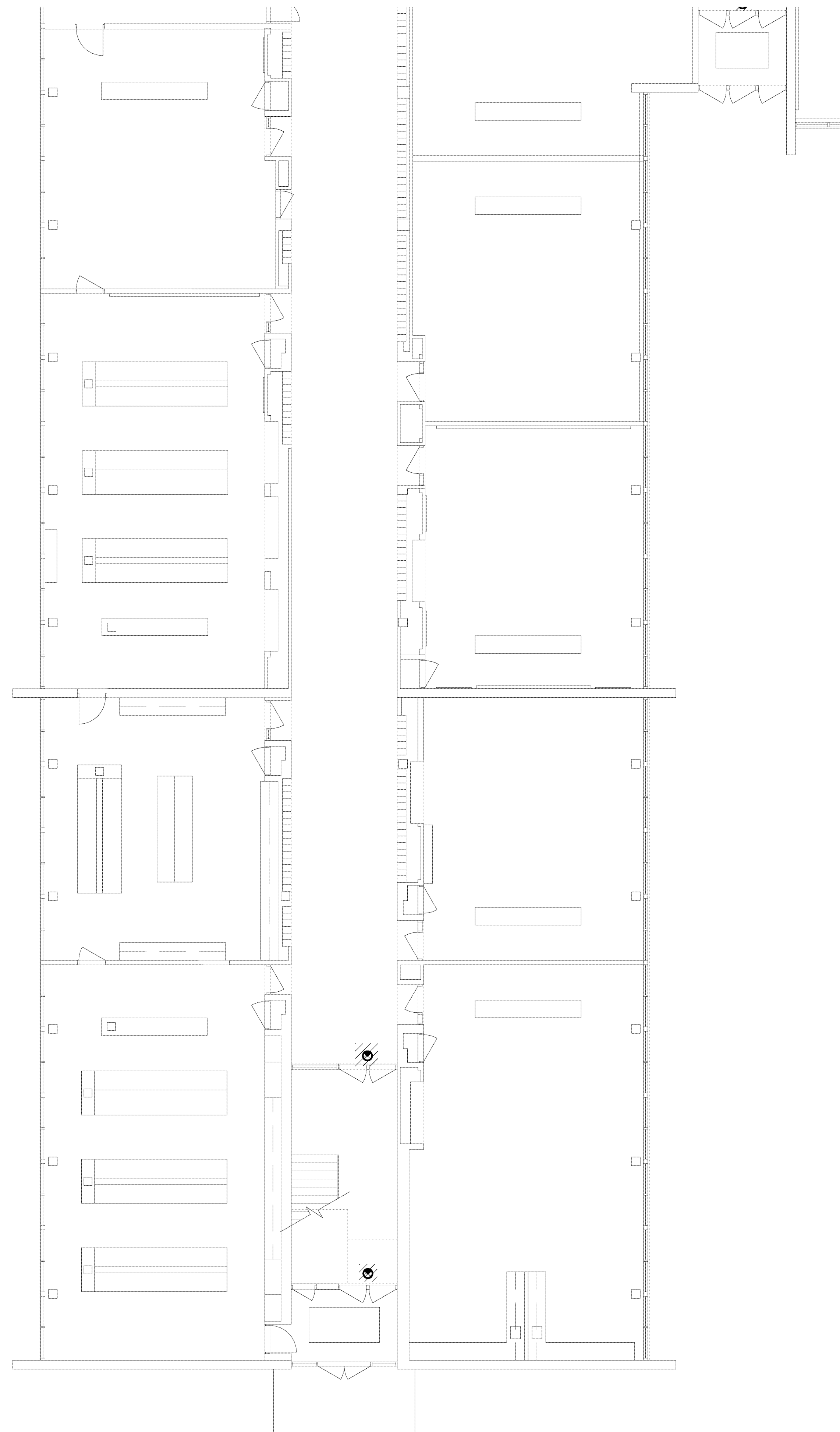
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(H) MAIN LEVEL ELECTRICAL DEMOLITION PLAN - AREA 'F'
1/8" = 1'-0"

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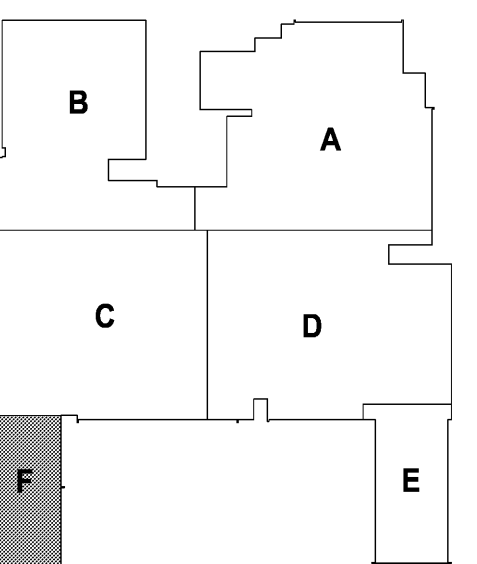


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Description	Date	Num

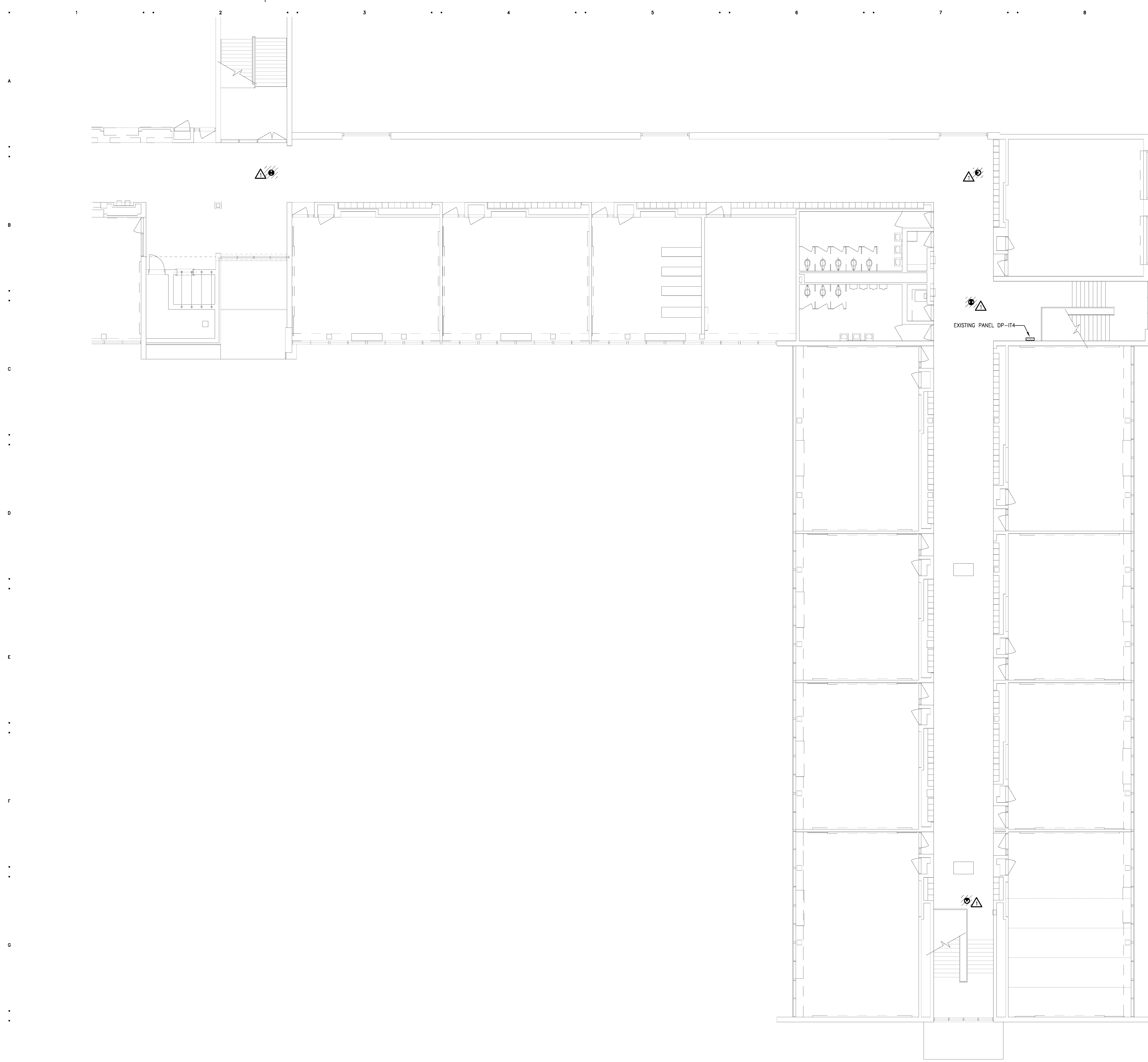
Comm: 12/02/1
Date: 4/16/2013
Drawn: DAD
Check: RSA



H.S. MAIN LEVEL
ELECTRICAL
DEMOLITION PLAN -
AREA 'F'

Scale:

ED1.16h



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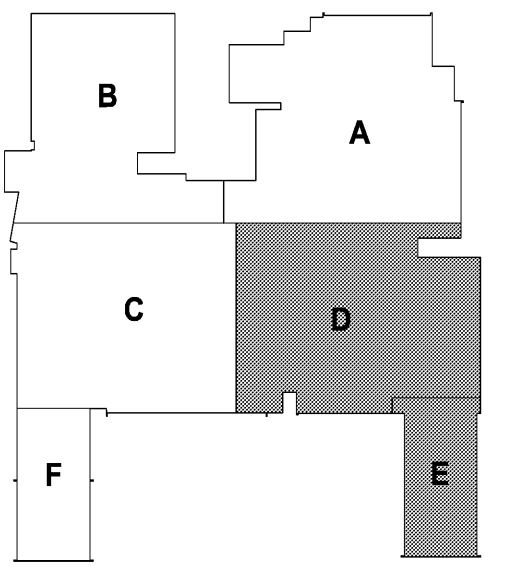


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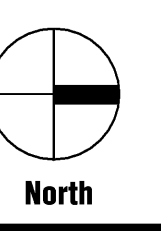
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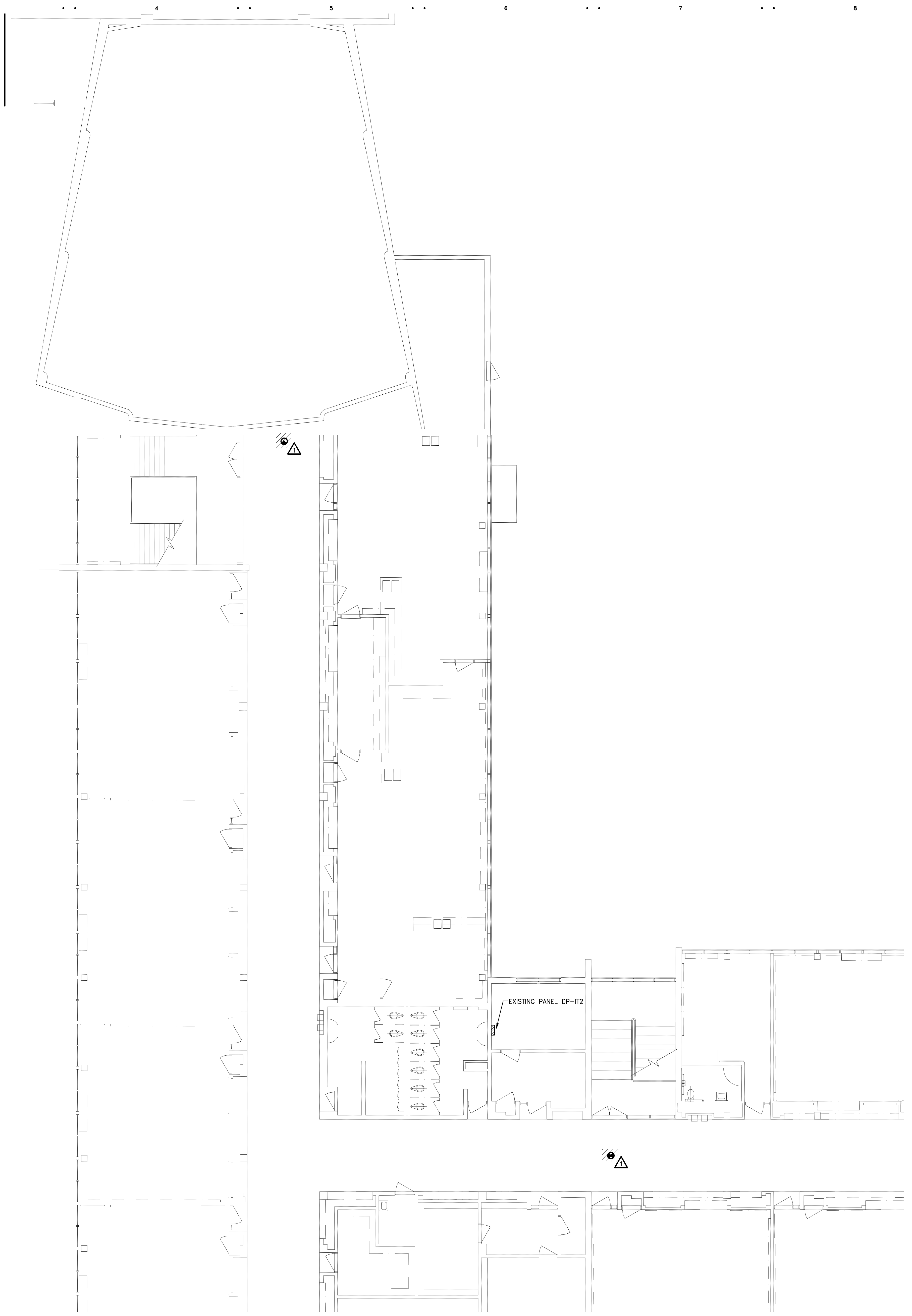
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Date: 4/16/2013
Drawn: DAD
Check: RSA



UPPER LEVEL ELECTRICAL DEMOLITION PLAN - AREAS 'D' AND 'E'

Scale:

ED1.21h



GENERAL DEMOLITION NOTES

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES. BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES. PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION OF DEVICES AND EQUIPMENT REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES.
3. REMOVE LIGHTING FIXTURES AND ELECTRICAL DEVICES AS INDICATED ON PLAN. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO THOSE DEVICES SHOWN.
4. COORDINATE WITH NEW WORK PLANS, ONE LINE AND RISER DIAGRAMS FOR EXTENT OF DEMOLITION WORK.
5. COORDINATE ANY SHUTDOWN OF EXISTING SERVICES AND EQUIPMENT REMAINING IN USE WITH OWNERS' REPRESENTATIVE. WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COST TO PERFORM THIS WORK DURING EVENINGS AND WEEKENDS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUTDOWNS OCCUR FOR PERIODS LONGER THAN THE ABOVE STATED HOURS.
6. COORDINATE THE SHUT DOWN OF ELECTRICAL EQUIPMENT WITH THE OWNERS' REPRESENTATIVE A MINIMUM OF 72 HOURS PRIOR TO SHUT DOWN.
7. REMOVE ALL CONDUIT AND WIRE BACK TO NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
8. WHERE DEMOLITION WORK AFFECTS ELECTRICAL SERVICE TO DOWNSTREAM DEVICES TO REMAIN; EXTEND CONDUIT AND WIRE AS REQUIRED TO MAINTAIN ELECTRICAL SERVICE.
9. DISPOSE OF ALL MATERIALS OFF-SITE AND INCLUDE ALL COSTS FOR DISPOSAL IN BID. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, INCLUDING TCLP TESTING, PRIOR TO DISPOSAL AND/OR RECYCLING OF FLUORESCENT LAMPS.
10. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED AND WALL REMAINS INTACT. MARK ALL UNUSED CIRCUIT BREAKERS AS "SPARE".
11. CONTRACTOR TO TAG ALL CIRCUITS AT BOTH ENDS AFFECTED BY THIS ALTERATION.
12. CONTRACTOR SHALL PROVIDE UPDATED, TYPED-IN DIRECTORIES FOR ALL PANELS AFFECTED BY THIS ALTERATION.
13. CONTRACTOR SHALL VERIFY ALL UNDERGROUND AND IN-SLAB UTILITIES LOCATIONS PRIOR TO SAW CUTTING OR PENETRATING ANY FLOOR SLABS.
14. REFER TO NEW WORK SHEETS FOR LIGHTING AND POWER CIRCUIT DESIGNATIONS.
15. EXTEND EXISTING CONDUIT AND WIRE AS REQUIRED FOR ALL RELOCATED DEVICES.
16. REPLACE EXIT SIGNS AND EMERGENCY BATTERY UNITS THAT ARE SHOWN HATCHED, REFER TO NEW WORK PLANS AND SCHEDULES FOR INFORMATION.

DEMOLITION KEYED NOTES

REMOVE EXISTING EXIT SIGN OR EMERGENCY LIGHT, REPLACE WITH NEW PER NEW WORK PLANS.

REDFORD UNION MECHANICAL / ELECTRICAL IMPROVEMENTS

REDFORD UNION HIGH SCHOOL
17711 KINLOCH
REDFORD, MI 48240

REDFORD UNION SCHOOL DISTRICT
19990 BEECH DALY ROAD
REDFORD, MI 48240

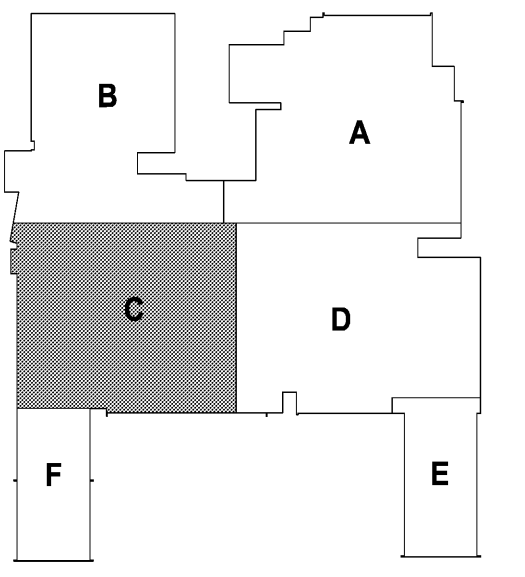


architects engineers
www.woldae.com

333 West Seventh Street Suite 320 Royal Oak, MI 48067
tel 248 284 0611 fax 248 284 0615 mail@woldae.com



Strategic Energy Solutions
4000 W. Eleven Mile Road Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com
SES Project # 2012 093 05



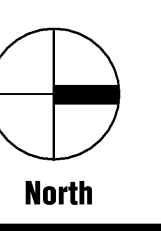
KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Foras Abdallah
Registration Number 622042879 Date 10/31/13

Revisions		
Description	Date	Num

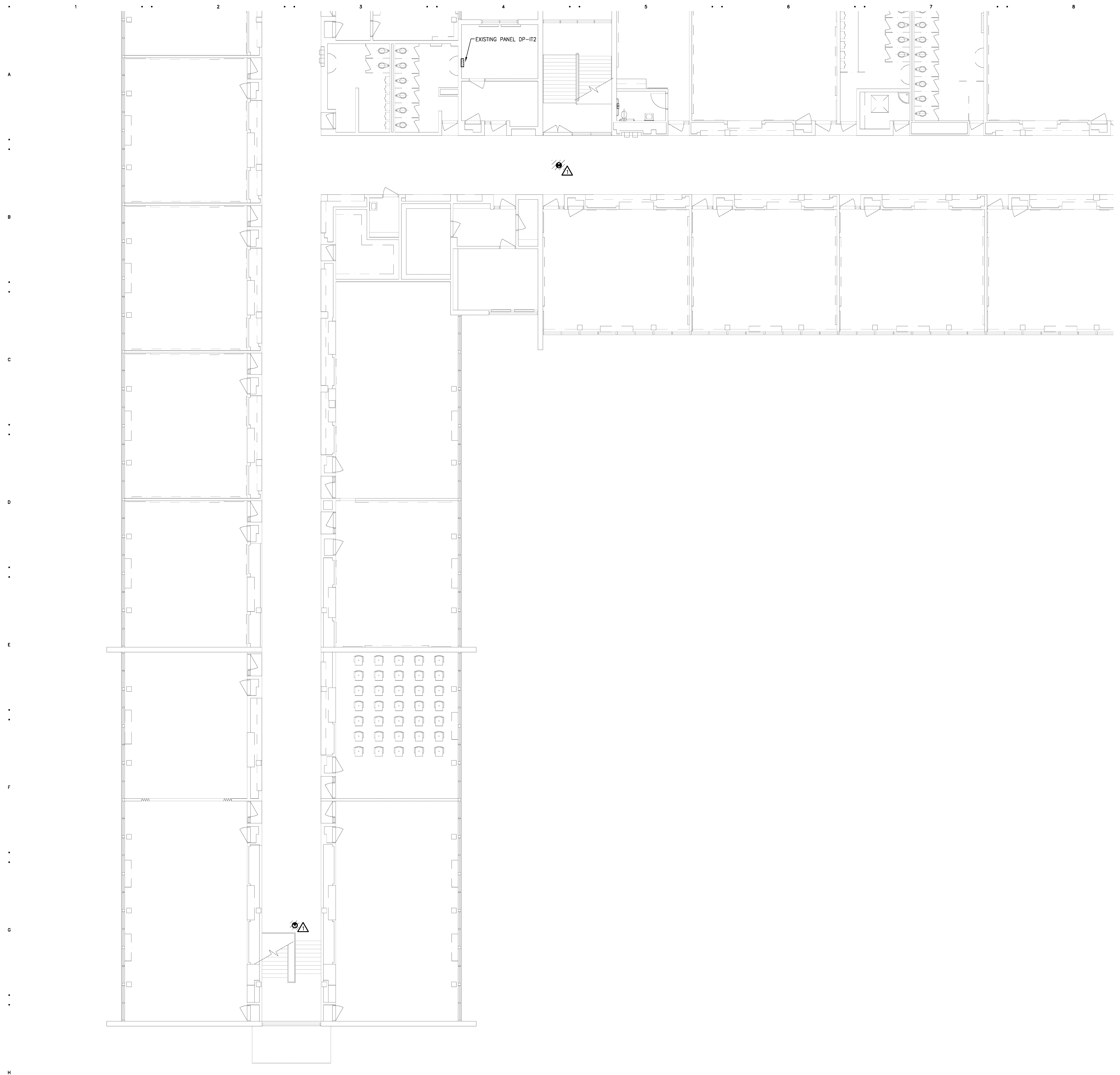
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Date: 4/16/2013
Drawn: DAD
Check: RSA



UPPER LEVEL ELECTRICAL DEMOLITION PLAN- AREA 'C'

Scale:

ED1.22h



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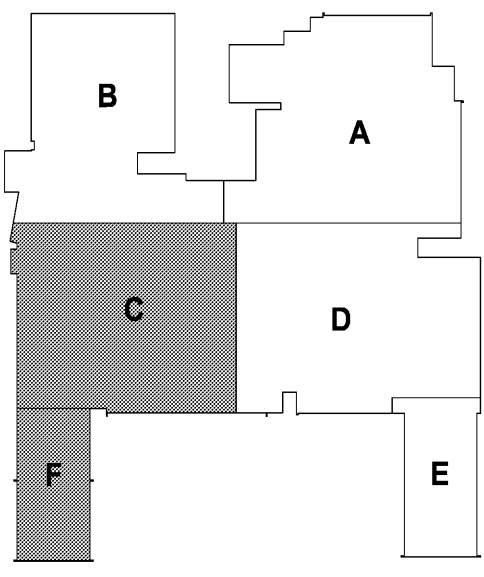
333 West Seventh Street
Suite 320
Royal Oak, MI 48067

tel 248 284 0611
fax 248 284 0615
mail@woldae.com



Strategic Energy Solutions
4000 W. Eleven Mile Road - Berkley, MI 48072
Phone 248.399.1900 - Fax 248.399.1901
www.sesnet.com

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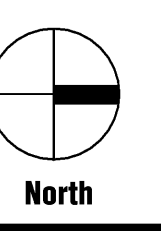
KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Fores Abdolgh
Registration Number 622049879 Date 10/31/13

Revisions		
Description	Date	Num

Comm: 124021
Date: 4/16/2013
Drawn: DAD
Check: RSA



UPPER LEVEL ELECTRICAL DEMOLITION PLAN - AREAS 'C' AND 'F'

Scale:

ED1.23h

H1 UPPERLEVEL ELECTRICAL DEMOLITION PLAN - AREAS 'C' AND 'F'
1/8" = 1'-0"