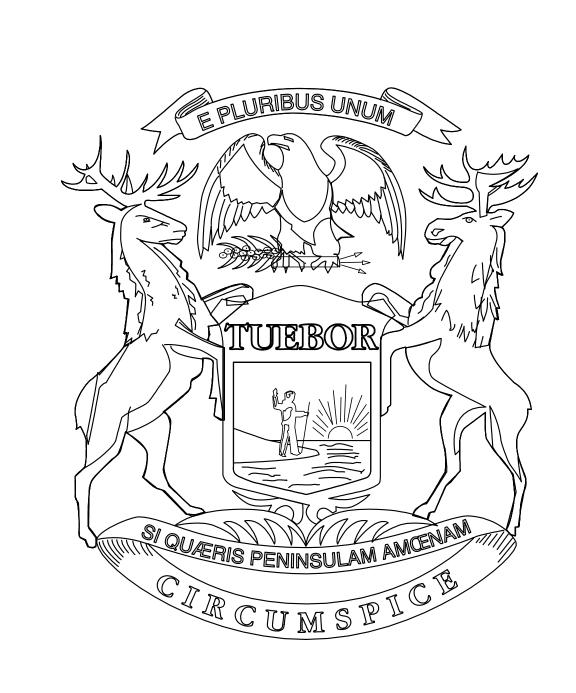
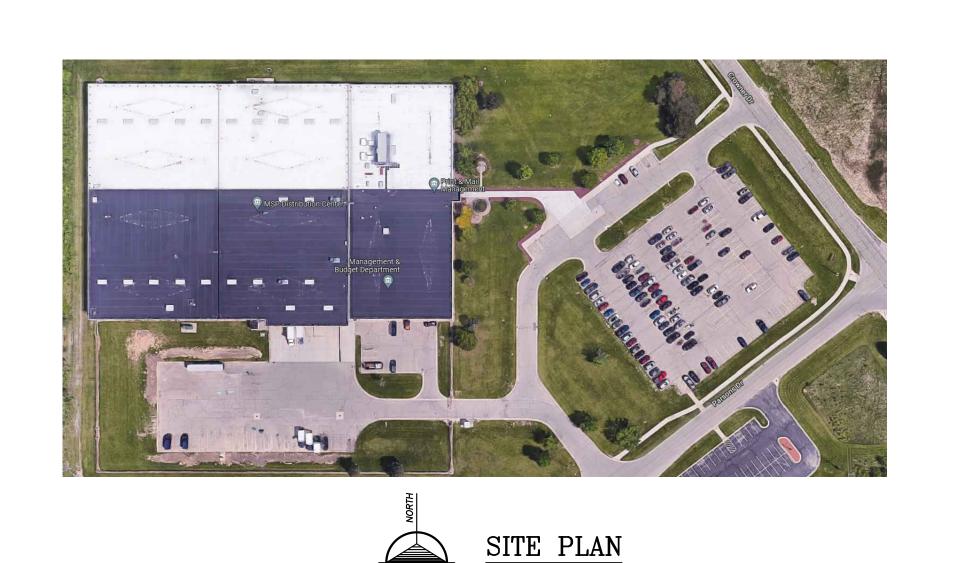
STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET GENERAL SERVICES BUILDING 7461 CROWNER DR, DIMONDALE, MI 48821

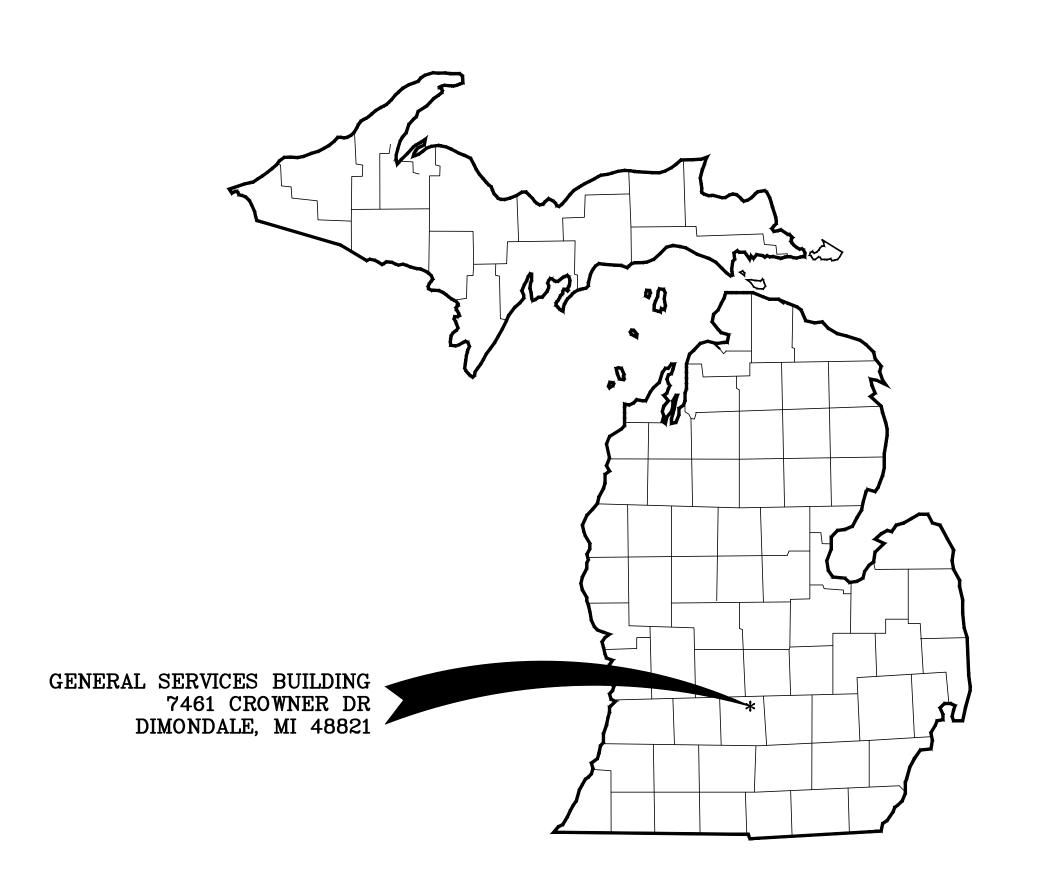
SWITCHGEAR REPLACEMENT

ISSUED FOR BIDS DECEMBER 16, 2024





SHT. NO.	DRAWING INDEX				
E0.0	ELECTRICAL LEGEND				
ED1.0A	ELECTRICAL DEMOLITION PLANS - PART A				
ED1.0B	ELECTRICAL DEMOLITION PLANS - PART B				
ED2.0	ENLARGED DEMOLITION PLANS				
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ED5.1	ELECTRICAL ONE-LINE DIAGRAM - DEMOLITION				
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E1.0A ELECTRICAL PROPOSED PLAN - PART A (FOR REFERENCE ONLY)					
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E5.1	ELECTRICAL ONE-LINE DIAGRAM - PROPOSED				
E5.2	ELECTRICAL ONE-LINE DIAGRAM - PROPOSED				
E5.2A	ELECTRICAL ONE-LINE DIAGRAM (FOR REFERENCE ONLY)				
E5.2B	ELECTRICAL ONE-LINE DIAGRAM - PROPOSED				





SINGLE LINE DIAGRAM LEGEND

AND NO. OF POLES NOTED.

AND NO. OF POLES NOTED.

30AF

FULL VOLTAGE NON-REVERSING STARTER

CIRCUIT BREAKER (C.B.), FRAME AND TRIP UNIT RATING,

FUSIBLE DISCONNECT SWITCH, SWITCH AND FUSE RATING,

POWER OR CONTROL FUSE, AMPACITY AS NOTED.

MOTOR, SINGLE PHASE, NUMBER INDICATES HP.

POWER TRANSFORMER AS REQUIRED (REFER TO SPECIFICATIONS).

REFER TO DRAWING FOR VOLTAGES, CONFIGURATION, NO. OF PHASES

△ – DELTA CONNECTION, UNGROUNDED

- WYE CONNECTION, SOLIDLY GROUNDED

- WYE CONNECTION, RESISTANCE GROUNDED

Y - WYE CONNECTION, UNGROUNDED

ELECTRONIC MONITORING UNIT - DIGITAL METER CAPABLE OF MULTI VARIABLE

MONITORING (i.e. AMPS, VOLTS, KVA, KW, KVAR, KWHR, PF, THD, ETC.)

SHUNT TRIP DEVICE FOR BREAKERS, (REFER TO SPECIFICATIONS).

POWER FACTOR CORRECTION CAPACITOR BANK, KVAR AND VOLTAGE

DRAW-OUT STABS FOR REMOVABLE EQUIPMENT IN SUBSTATIONS.

3 PHASE POWER RECEPTACLE, (REFER TO SPECIFICATIONS).

AMPACITY, VOLTAGE AND NO. OF WIRES NOTED ON DRAWING.

MOTOR, 3 PHASE, NUMBER INDICATES HP.

ELECTRICAL POWER GROUND

(1 OR 3) AND KVA RATING.

WINDING CONFIGURATIONS:

RATING AS NOTED.

LINE SURGE ARRESTOR

DISCONNECT SWITCH, AMPACITY OF SWITCH AND NO. OF POLES NOTED.

POWER LEGEND

JUNCTION BOX, FLUSH WALL MOUNTED.

JUNCTION BOX CONCEALED ABOVE ACCESSIBLE CEILING AREA.

SINGLE CONVENIENCE RECEPTACLE IN SURFACE WALL MOUNTED

DUPLEX CONVENIENCE RECEPTACLE IN SURFACE, WALL MOUNTED

COMBINATION 120V SIMPLEX RECEPTACLE WITH LOW VOLTAGE USB

FOUR-PLEX (DOUBLE DUPLEX) CONVENIENCE RECEPTACLE IN ONE

DUPLEX CONVENIENCE RECEPTACLE IN FLUSH, WALL MOUNTED OUTLET

DOUBLE DUPLEX CONVENIENCE RECEPTACLE IN FLUSH, WALL MOUNTED OUTLET

BOX, WITH INTERNAL GROUND FAULT INTERRUPTOR, 42" AFF OR 4"

BOX, WITH INTERNAL GROUND FAULT INTERRUPTOR, 42" AFF OR 4"

DUPLEX CONVENIENCE RECEPTACLE, IN FLOOR MOUNTED PEDESTAL,

TWO DUPLEX CONVENIENCE RECEPTACLES BACK TO BACK, IN FLOOR

PUSH BUTTON STATION WITH "E-STOP" OR STOP/START PUSH BUTTONS,

DUPLEX CONVENIENCE RECEPTACLE IN FLUSH, FLOOR MOUNTED

TWO POSTION SELECTOR SWITCH STATION (ON/OFF) MOUNTED

THREE POSITION SELECTOR SWITCH STATION (HAND-OFF-AUTO)

SURFACE MULTI-OUTLET RACEWAY WITH RECEPTACLES IN RACEWAY

24" ON CENTER, ON FLUSH WALL MOUNTED OUTLET BOX, 42" AFF.

RECESSED PANELBOARD, ADJACENT LINE INDICATES FRONT OF PANEL.

DISTRIBUTION PANEL, SWITCHBOARD, OR MOTOR CONTROL CENTER

COMBINATION MOTOR STARTER, WITH 'MCP', NEMA SIZE AS NOTED.

SAFETY (DISCONNECT) SWITCH, HORSE POWER RATED, MOUNT ON WALL 48" AFF, OR ON EQUIPMENT 36" AFF. RATING AS NOTED.

CIRCUIT HOME RUN TO PANELBOARD, "LP", CIRCUIT "I" AND "3".

CEILING RECEPTACLE, FACING DOWN FLUSH WITH THE SUSPENDED CEILING TILE

CEILING DATA OUTLET, FACING DOWN FLUSH WITH THE SUSPENDED CEILING TILE

POWER/DATA POLE FOR OVERHEAD FEED TO FURNITURE SYSTEM

FLOOR BOX, SEE SPECIFICATIONS AND DETAILS.

INDICATES EXOTHERMIC WELD (U.N.O.)

COPPER GROUND BUS (SIZE AS INDICATED)

RECEPTACLE OR DATA OUTLET FOR WALL-MOUNTED TELEVISION. COORDINATE EXACT LOCATION WITH THE TV

NUMBER OF POWER CONDUCTORS, NEUTRAL, GROUND, AND CONDUIT

BLANK - NO CIRCUIT PROTECTION

MANUAL MOTOR STARTING SWITCH, MOUNTED 42" A.F.F.

FLUSH-MOUNT PANELBOARD, ADJACENT LINE INDICATES FRONT OF PANEL.

MOUNTED PEDESTAL, ON FLUSH IN FLOOR OUTLET BOX.

O.H. DOOR CONTROL STATION, MOUNTED 48"AFF.

MOTOR STARTER, NEMA SIZE AS NOTED.

FUSED SWITCH - MOUNTED ON EQUIPMENT.

MOTOR, SINGLE PHASE, NUMBER INDICATES HP.

MOTOR, 3 PHASE, NUMBER INDICATES HP.

— — CONDUIT CONCEALED IN FLOOR SLAB OR UNDERGROUND.

"C" - CIRCUIT BREAKER

CONDUIT EXPOSED ON WALL OR CEILING.

—— E—— EXISTING CONDUIT.

3#12,1#12GND-3/4"C

SIZE SHOWN.

SPECIAL CONNECTION

RECEPTACLE IN FLUSH, WALL-MOUNTED OUTLET BOX, 18" AFF.

OUTLET BOX, 42" AFF. XP - EXPLOSION PROOF RATED

INDICATES CONNECTION TO EQUIPMENT AS REQUIRED.

OUTLET BOX, 18" AFF OR AS NOTED OTHERWISE

FLUSH, WALL MOUNTED OUTLET BOX, 18" AFF.

ABOVE COUNTERTOP.

ABOVE COUNTERTOP.

OUTLET BOX.

MOUNTED 48" AFF.

ON FLUSH IN FLOOR OUTLET BOX.

SINGLE 3 PHASE RECEPTACLE, MOUNTED 42" A.F.F.

ALL SYMBOLS NOT NECESSARILY USED ON THESE PLANS, ALL SYMBOL DESCRIPTIONS ARE SUBJECT TO MODIFICATION AS NOTED ON THE DRAWINGS.

LIGHTING LEGEND

LIGHT FIXTURE, RECESS MOUNTED, WITH OUTLET BOX. SUBSCRIPT LETTER REPRESENTS FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR TYPE.

STRIP LIGHT FIXTURE, SURFACE OR PENDANT MOUNTED, WITH OUTLET BOX. SUBSCRIPT LETTER REPRESENTS FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR TYPE.

LIGHT FIXTURE, RECESS OR PENDANT MOUNTED, WITH OUTLET BOX. SUBSCRIPT LETTER REPRESENTS FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR TYPE.

LIGHT FIXTURE, RECESS OUTLET BOX, WALL MOUNTED. SUBSCRIPT LETTER REPRESENTS FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR TYPE.

> EXIT SIGN FACE. SUBSCRIPT LETTER REPRESENTS FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR TYPE. SINGLE-FACE EXIT SIGN MOUNTED ON FLUSH WALL MOUNTED

> > LIGHT FIXTURE ON AN EMERGENCY CIRCUIT OR HAS BATTERY BACK-UP BALLAST INTEGRAL WITH THE FIXTURE. FIXTURES WITH AN (NL) ARE NON-SWITCHED LIFE SAFETY LIGHTING. SUBSCRIPT LETTER REPRESENTS THE FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.

LIGHT FIXTURE ON AN EMERGENCY CIRCUIT OR HAS BATTERY BACK-UP BALLAST INTEGRAL WITH THE FIXTURE. FIXTURES WITH AN (NL) ARE NON-SWITCHED LIFE SAFETY LIGHTING. SUBSCRIPT LETTER REPRESENTS THE FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.

REPRESENTS FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR TYPE. SINGLE POLE TOGGLE SWITCH 42" AFF IN FLUSH WALL MOUNTED OUTLET BOX. INSTALL MULTIPLE SWITCHES UNDER COMMON COVER PLATE. SUBSCRIPT AT SWITCH SYMBOL INDICATES THE FOLLOWING: OC - OCCUPANCY SENSOR SWITCH

> SCSD - CREE SMART CAST SWITCH WITH DIMMING SOME LOCATIONS WILL REQUIRE RE-WORK OF 3-WAY CIRCUITS TO SINGLE CIRCUIT AND SWAP OUT OF SINGLE AND MULTIPLE TOGGLE COVERS TO DECORA STYLE COVERS PHOTOELECTRIC CONTROL CELL (PHOTOEYE), RATED FOR 1800W AT 277VAC, WITH WEATHERPROOF ENCLOSURE.

LIGHTING ROOM CONTROLLER/POWER PACK W/ 0-10V DIMMING CONTROL ADJUSTABLE TIMER SWITCH, 30 MIN. MAX.

DUAL TECHNOLOGY OCC-SENSOR, CEILING MOUNTED

(EMS SUBSCRIPT INDICATES WIRED TO EMS ONLY) ULTRASONIC OR SOUND OCC-SENSOR, CEILING MOUNTED

PHOTO CELL, CEILING MOUNTED

POWER PACK, MOUNTED ABOVE CEILING OR IN SERICULTURE

EMERGENCY TRANSFER DEVICE (ABOVE CEILING) EMERGENCY MANAGEMENT SYSTEM INTERFACE

MISCELLANEOUS ELECTRICAL LEGEND

COPPER-CLAD GROUND ROD, 3/4" DIAMETER, 10'-0" IN LENGTH

EXOTHERMIC WELD, END OF THE CABLE TO STEEL COLUMN OR GROUND GRID.

EXOTHERMIC WELD, TEE TYPE FOR CABLE TO CABLE CONNECTION.

SINGLE FACE CLOCK OUTLET, IN FLUSH WALL MOUNTED OUTLET BOX,

TELEPHONE/DATA OUTLET FLUSH WALL MOUNTED OUTLET BOX, 24" AFF. 4-SQUARE BOX WITH SINGLE-GANG MUD RING AND 1" CONDUIT TO ACCESSIBLE CEILING SPACE OR CABLE TRAY.

INTERCOM STATION OUTLET, FLUSH WALL MOUNTED OUTLET BOX 24" AFF. INTERCOM STATION DESK MOUNTED.

P.A. SPEAKER IN FLUSH CEILING MOUNTED SPEAKER HOUSING.

S-WALL MOUNT P.A. SPEAKER MOUNTED AT 12'-6" AFF OR AS NOTED ON THE PLANS VOLUME CONTROL IN FLUSH WALL MOUNTED OUTLET BOX 48" AFF.

CEILING MOUNTED CAMERA. COORDINATE EXACT LOCATION WITH

THERMOSTAT OUTLET FLUSH WALL MOUNTED, 5'-0" AFF.

WALL MOUNTED CAMERA. TYPE FS SINGLE-GANG BOX COORDINATE EXACT LOCATION AND HEIGHT WITH OWNER.

VOLTMETER, VOLTMETER SWITCH

MOTOR CIRCUIT PROTECTOR

ELAPSED TIME METER

UNLESS NOTED OTHERWISE

SURGE PROTECTIVE DEVICE

ELECTRICAL SCOPE OF WORK (DENOTED ON SHEET BY # SYMBOL):

1. ATS-11 AND ERP 6-5

2. ATS-12 AND ERP 9-5

3. RP B-4 (CONCOURSE); RP 1-4 AND RP 1-5 (DOA OFFICE 1ST FL); EAST MEZZANINE RP-1 AND RP-2

4. LDP 2-2 (2ND FL) AND EAST SHOWROOM BALCONY LDP (INTERSTITIAL/BALCONY)

STATE OF MICHIGAN STATE FACILITIES ADMINISTRATION ADAM P. LACH, RA, DIRECTOR

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGE DESIGN AND CONSTRUCTION DIVISION

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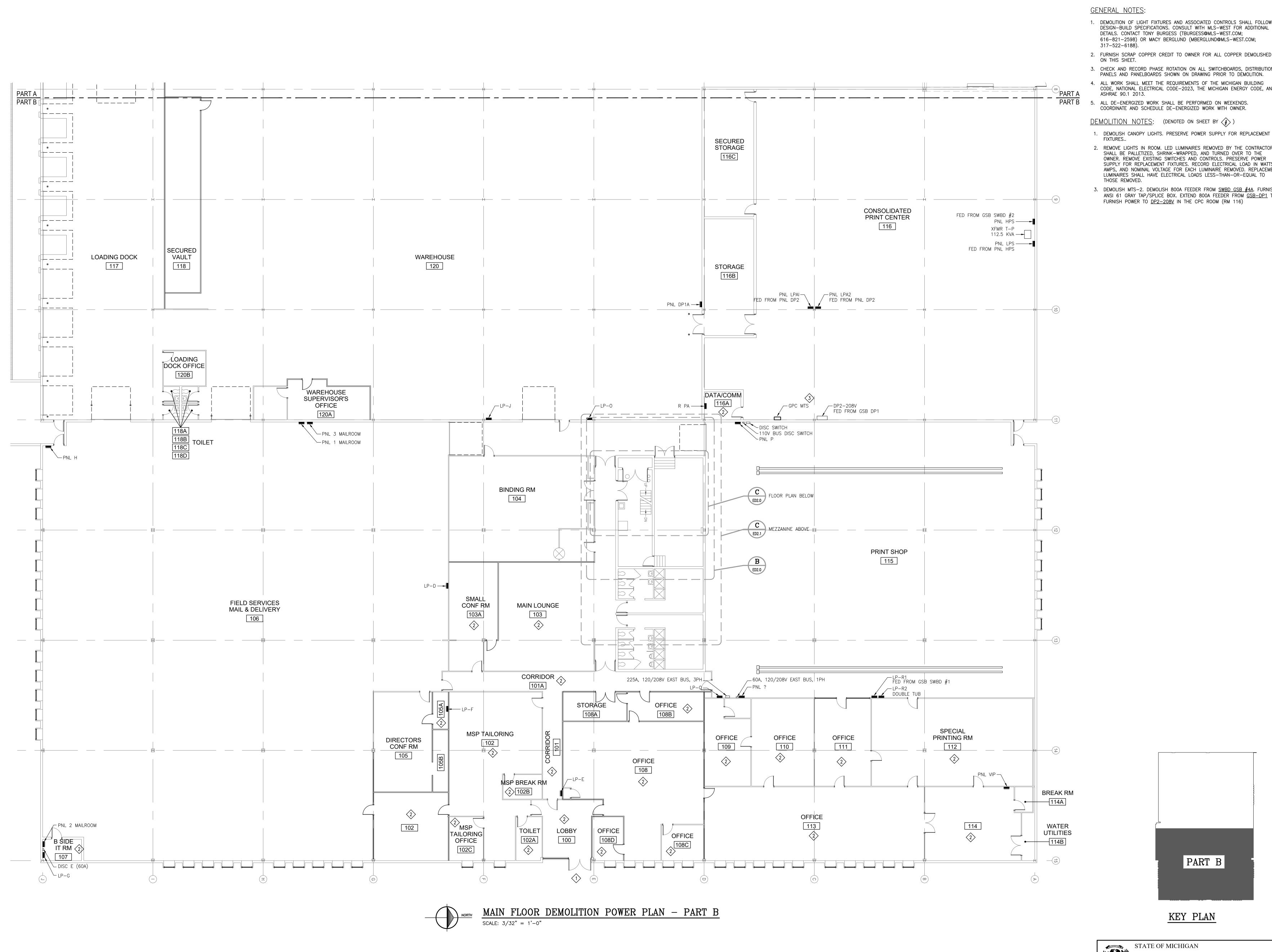
DWG. SCALE: AS NOTE

PROJECT NO: MIS032.10

#4/0 BARE STRANDED COPPER GROUND CABLE 5. PANEL #2 (1st FL) JANITORS' CLOSET FAN SPEED CONTROL JUNCTION OR PULL BOX 6. PANEL #1 (1ST FL) JANITORS' CLOSET DIMENSIONS NOTED ARE TO THE CENTERLINE U.N.O. 7. EAST STAIRWELL PANEL (1ST FL STAIRWELL A) INSTRUMENT OR CONTROL DEVICE IDENTIFICATION AND TAG NUMBER ENCLOSED METER 8. WEST STAIRWELL PANEL (1ST FL STAIRWELL D) LOW VOLTAGE FLUSH VALVE FOR MECHANICAL PLUMBING 9. LDP EAST 1.6 labeled as "CONTRACTOR CAGE LOCKUP AREA" (CONCOURSE BASEMENT INTERSTITIAL) EQUIPMENT. INSTALL PER MANUFACTURER'S INSTUCTIONS AND RECOMENDATIONS. 10. RP L-475 (1st FL; OLD "WASHINGTON CLOTHIERS BACKROOM PANEL) 11. VISITORS' CENTER PANEL (1ST FL NE) 12. NEW CENTER PANEL #1 (1st FL NE) 13. NEW CENTER PANEL #2 (1st FL NE)



DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR



- 1. DEMOLITION OF LIGHT FIXTURES AND ASSOCIATED CONTROLS SHALL FOLLOW DESIGN-BUILD SPECIFICATIONS. CONSULT WITH MLS-WEST FOR ADDITIONAL DETAILS. CONTACT TONY BURGESS (TBURGESS@MLS-WEST.COM; 616-821-2598) OR MACY BERGLUND (MBERGLUND@MLS-WEST.COM;
- 2. FURNISH SCRAP COPPER CREDIT TO OWNER FOR ALL COPPER DEMOLISHED
- 3. CHECK AND RECORD PHASE ROTATION ON ALL SWITCHBOARDS, DISTRIBUTION PANELS AND PANELBOARDS SHOWN ON DRAWING PRIOR TO DEMOLITION.
- 4. ALL WORK SHALL MEET THE REQUIREMENTS OF THE MICHIGAN BUILDING CODE, NATIONAL ELECTRICAL CODE-2023, THE MICHIGAN ENERGY CODE, AND
- 5. ALL DE-ENERGIZED WORK SHALL BE PERFORMED ON WEEKENDS. COORDINATE AND SCHEDULE DE-ENERGIZED WORK WITH OWNER.

<u>DEMOLITION NOTES</u>: (DENOTED ON SHEET BY (#))

- 2. REMOVE LIGHTS IN ROOM. LED LUMINAIRES REMOVED BY THE CONTRACTOR SHALL BE PALLETIZED, SHRINK-WRAPPED, AND TURNED OVER TO THE OWNER. REMOVE EXISTING SWITCHES AND CONTROLS. PRESERVE POWER SUPPLY FOR REPLACEMENT FIXTURES. RECORD ELECTRICAL LOAD IN WATTS, AMPS, AND NOMINAL VOLTAGE FOR EACH LUMINAIRE REMOVED. REPLACEMENT LUMINAIRES SHALL HAVE ELECTRICAL LOADS LESS-THAN-OR-EQUAL TO
- 3. DEMOLISH MTS-2. DEMOLISH 800A FEEDER FROM <u>SWBD GSB #4A</u>. FURNISH ANSI 61 GRAY TAP/SPLICE BOX. EXTEND 800A FEEDER FROM GSB-DP1 TO FURNISH POWER TO <u>DP2-208V</u> IN THE CPC ROOM (RM 116)

MANAGEMENT AND BUDGET F MICHIGAN DEPARTMENT OF TI DIMONDALI RAL SERVICES BUILDING FILE NO. 17

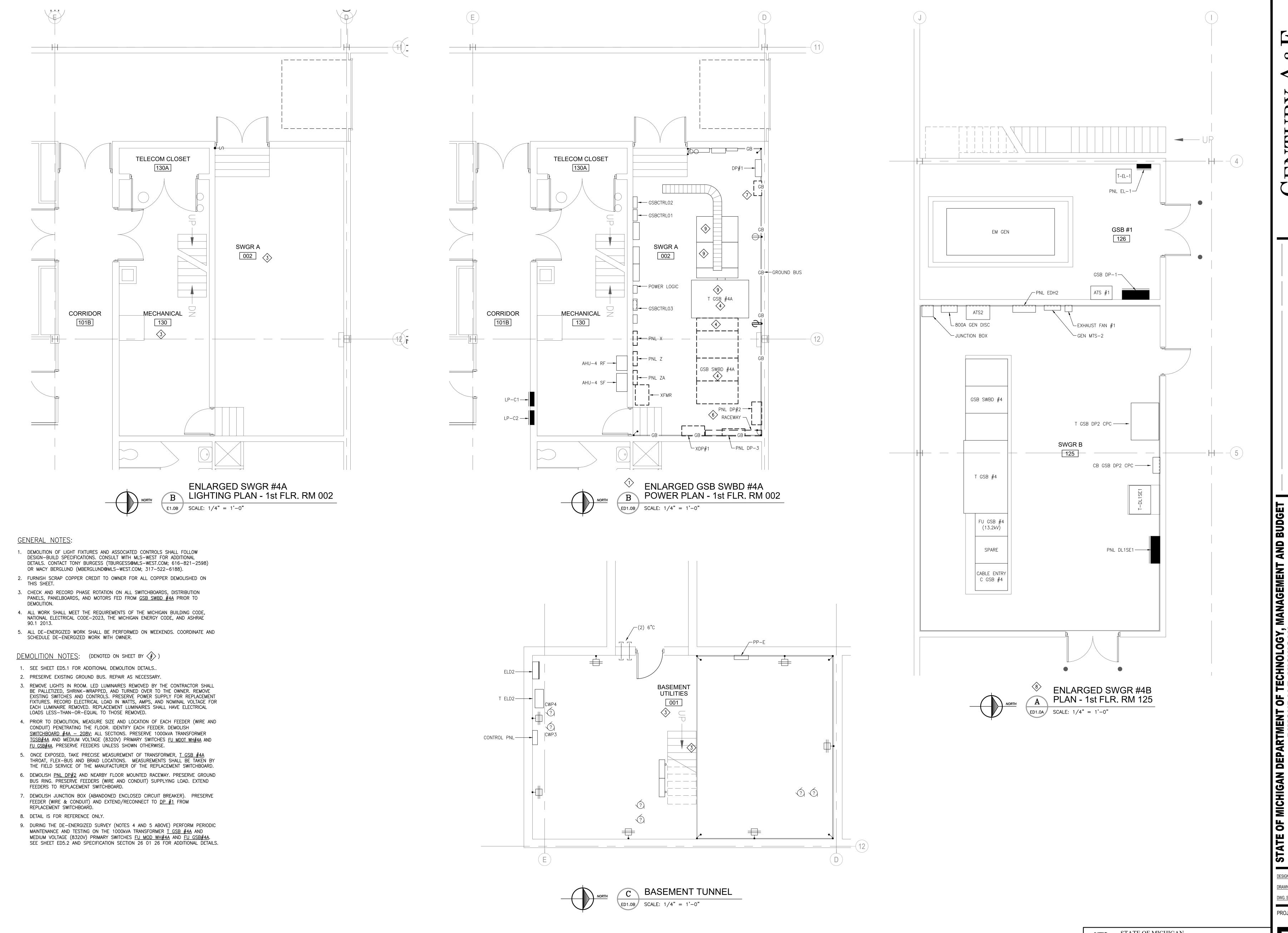
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DWG. SCALE: AS NOTE PROJECT NO: MIS032.10

SHEET NO.

STATE OF MICHIGAN ADAM P. LACH, RA, DIRECTOR



STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

STATE FACILITIES ADMINISTRATION

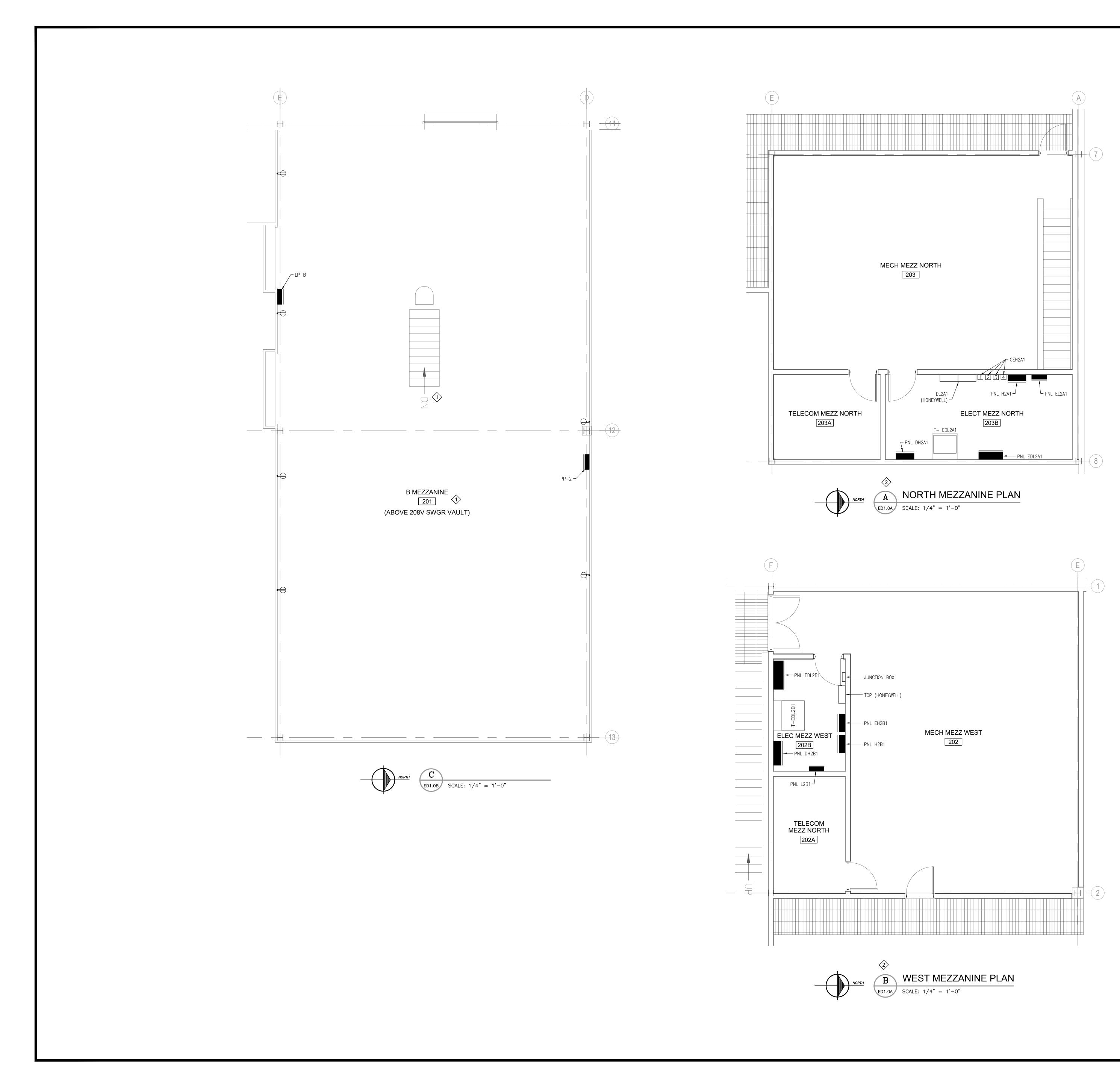
DESIGN AND CONSTRUCTION DIVISION

ADAM P. LACH, RA, DIRECTOR

PROJECT NO: MIS032.10

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VISION
SHEET NO.



GENERAL NOTES:

- 1. DEMOLITION OF LIGHT FIXTURES AND ASSOCIATED CONTROLS SHALL FOLLOW DESIGN-BUILD SPECIFICATIONS. CONSULT WITH MLS-WEST FOR ADDITIONAL DETAILS. CONTACT TONY BURGESS (TBURGESS@MLS-WEST.COM; 616-821-2598) OR MACY BERGLUND (MBERGLUND@MLS-WEST.COM; 317-522-6188).
- 2. CHECK AND RECORD PHASE ROTATION ON ALL SWITCHBOARDS, DISTRIBUTION PANELS AND PANELBOARDS SHOWN ON DRAWING PRIOR TO DEMOLITION.
- 3. ALL WORK SHALL MEET THE REQUIREMENTS OF THE MICHIGAN BUILDING CODE, NATIONAL ELECTRICAL CODE—2023, THE MICHIGAN ENERGY CODE, AND ASHRAE
- 4. ALL DE-ENERGIZED WORK SHALL BE PERFORMED ON WEEKENDS. COORDINATE AND SCHEDULE DE-ENERGIZED WORK WITH OWNER.

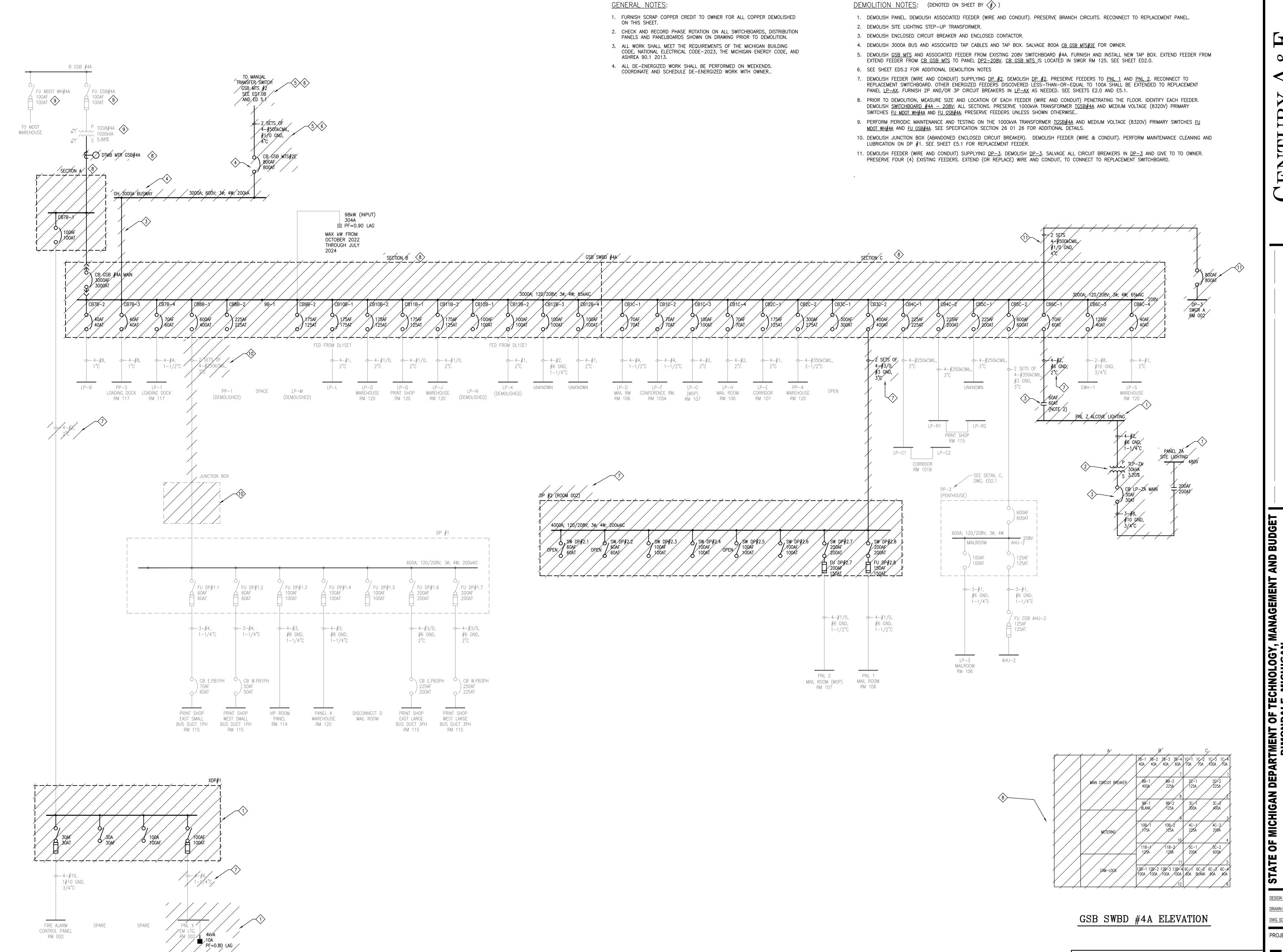
- 1. REMOVE LIGHTS IN ROOM. LED LUMINAIRES REMOVED BY THE CONTRACTOR SHALL BE PALLETIZED, SHRINK-WRAPPED, AND TURNED OVER TO THE OWNER. REMOVE EXISTING SWITCHES AND CONTROLS. PRESERVE POWER SUPPLY FOR REPLACEMENT FIXTURES. RECORD ELECTRICAL LOAD IN WATTS, AMPS, AND NOMINAL VOLTAGE FOR EACH LUMINAIRE REMOVED. REPLACEMENT LUMINAIRES SHALL HAVE ELECTRICAL LOADS LESS-THAN-OR-EQUAL TO THOSE REMOVED.
- 2. DETAIL IS FOR REFERENCE ONLY.

OLOGY, MANAGEMENT AND BUDGET | SHIGAN | WITCHGEAR REPLACEMENT | 11.5DW F MICHIGAN DEPARTMENT
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STATE OF

PROJECT NO: MIS032.10

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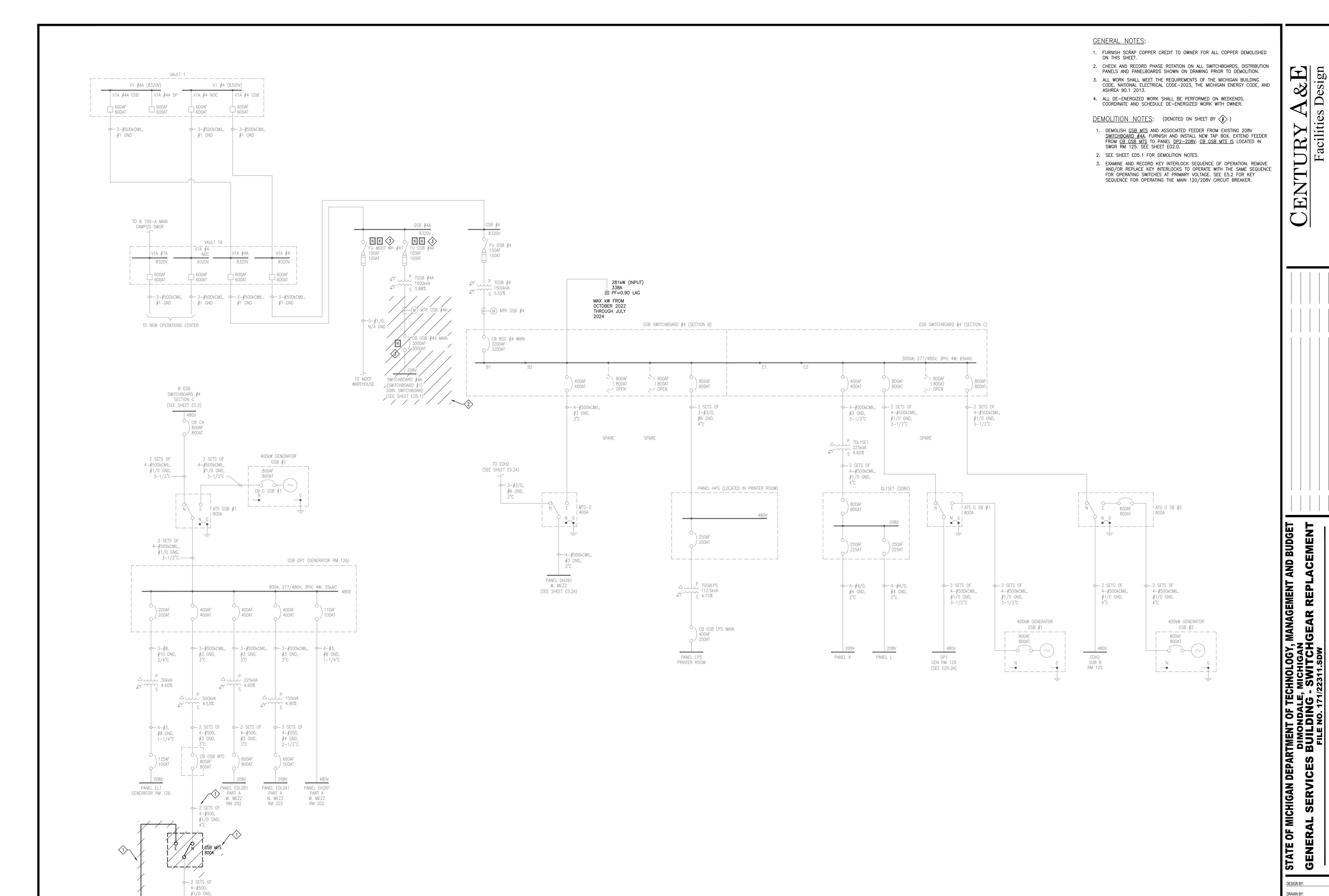
<u>DEMOLITION NOTES</u>: (denoted on sheet by $\langle \! \! \# \! \! \rangle$)

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PROJECT NO: MIS032.10

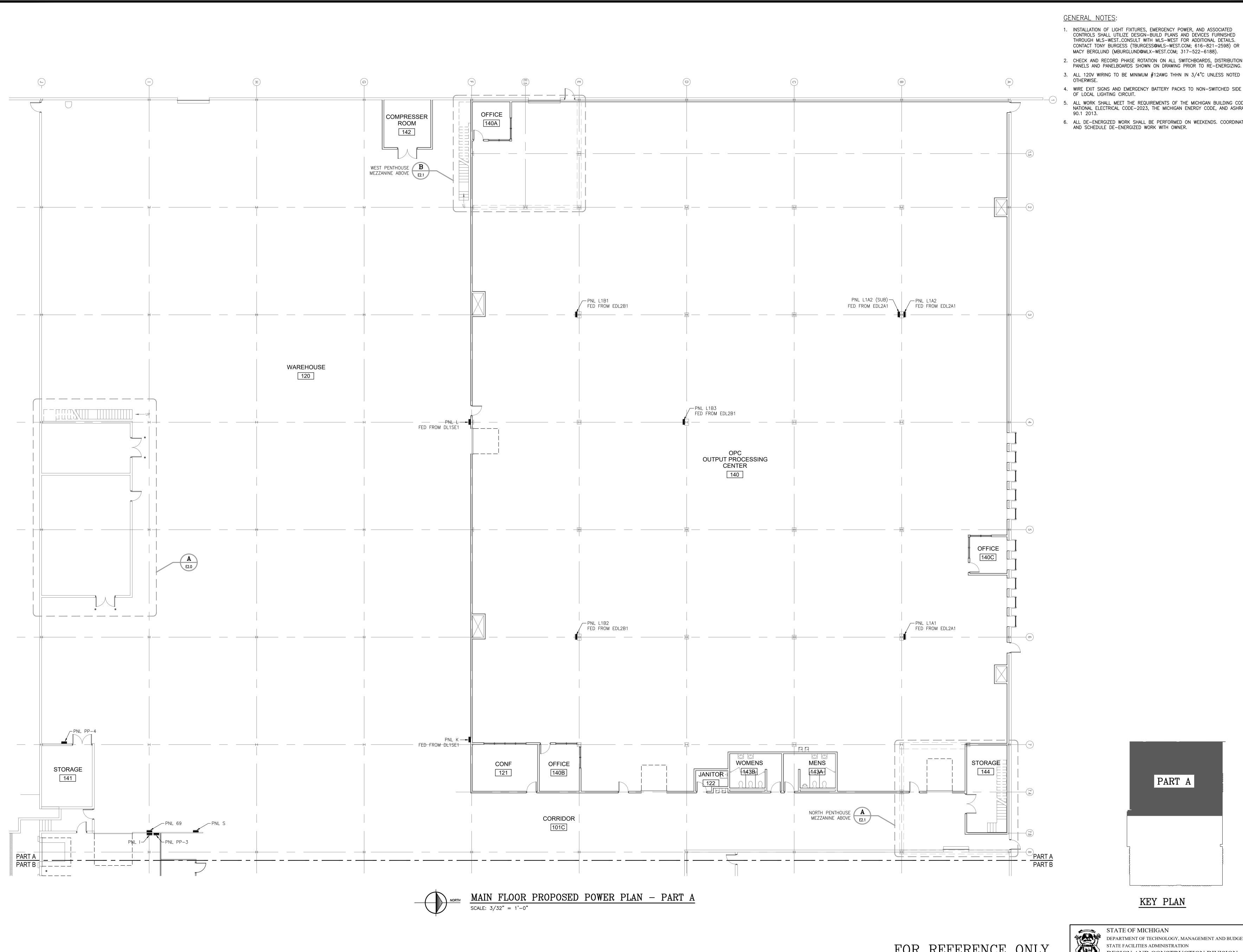
STATE OF MICHIGAN DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR



GSB 8320V DISTRIBUTION & MAIN SWITCHBOARDS - DEMOLITION

STATE OF MICHIGAN

DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR



- 1. INSTALLATION OF LIGHT FIXTURES, EMERGENCY POWER, AND ASSOCIATED CONTROLS SHALL UTILIZE DESIGN-BUILD PLANS AND DEVICES FURNISHED THROUGH MLS-WEST..CONSULT WITH MLS-WEST FOR ADDITIONAL DETAILS. CONTACT TONY BURGESS (TBURGESS@MLS-WEST.COM; 616-821-2598) OR MACY BERGLUND (MBURGLUND@MLX-WEST.COM; 317-522-6188).
- 2. CHECK AND RECORD PHASE ROTATION ON ALL SWITCHBOARDS, DISTRIBUTION
- 3. ALL 120V WIRING TO BE MINIMUM #12AWG THHN IN 3/4"C UNLESS NOTED
- 4. WIRE EXIT SIGNS AND EMERGENCY BATTERY PACKS TO NON-SWITCHED SIDE
- 5. ALL WORK SHALL MEET THE REQUIREMENTS OF THE MICHIGAN BUILDING CODE, NATIONAL ELECTRICAL CODE-2023, THE MICHIGAN ENERGY CODE, AND ASHRAE
 - 6. ALL DE-ENERGIZED WORK SHALL BE PERFORMED ON WEEKENDS. COORDINATE

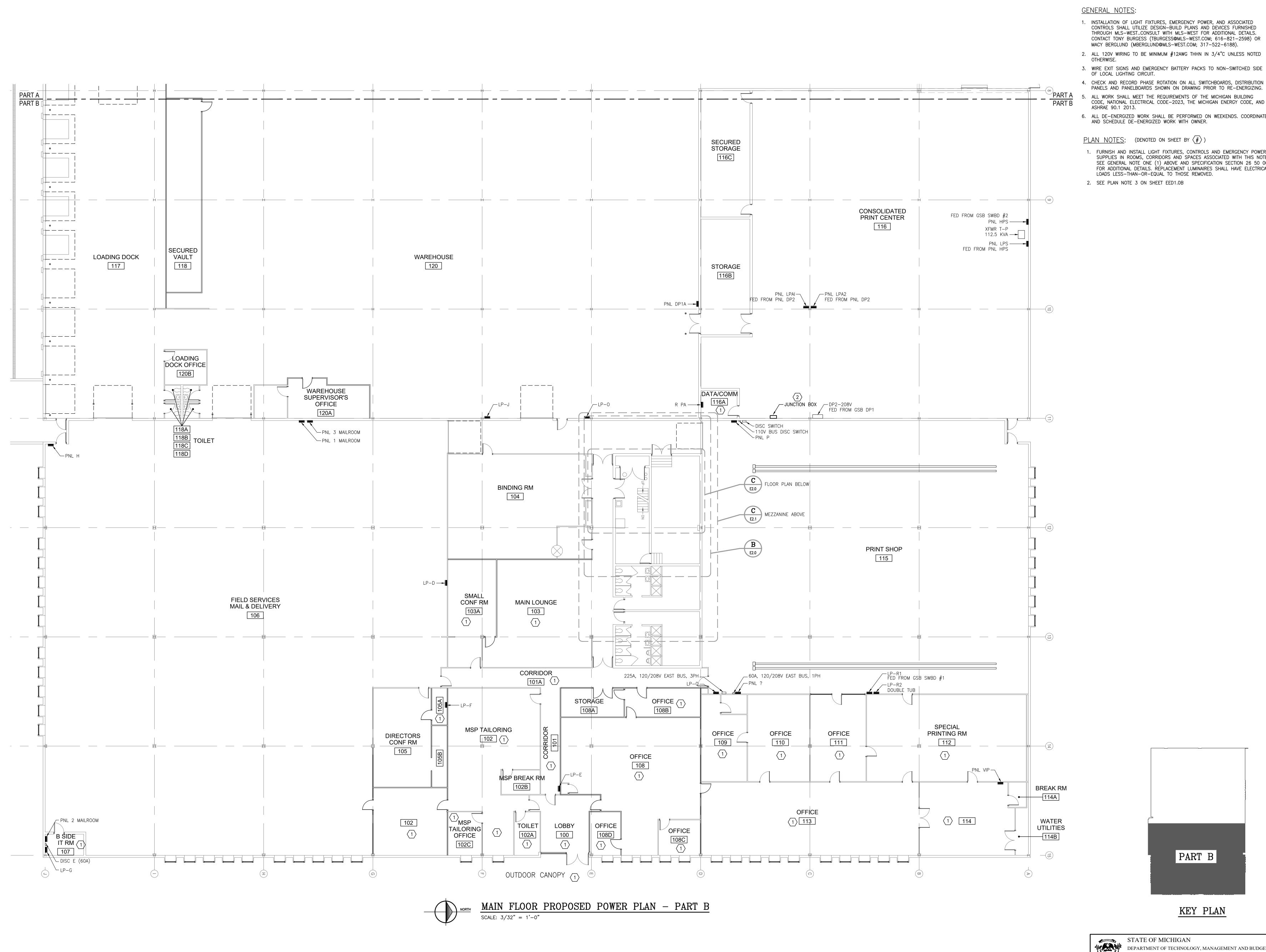
PART A KEY PLAN

STATE OF MICHIGAN DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR

PROJECT NO: MIS032.10

STATE OF

FOR REFERENCE ONLY



- 1. INSTALLATION OF LIGHT FIXTURES, EMERGENCY POWER, AND ASSOCIATED CONTROLS SHALL UTILIZE DESIGN-BUILD PLANS AND DEVICES FURNISHED THROUGH MLS-WEST..CONSULT WITH MLS-WEST FOR ADDITIONAL DETAILS. CONTACT TONY BURGESS (TBURGESS@MLS-WEST.COM; 616-821-2598) OR
- 2. ALL 120V WIRING TO BE MINIMUM #12AWG THHN IN 3/4"C UNLESS NOTED
- 3. WIRE EXIT SIGNS AND EMERGENCY BATTERY PACKS TO NON-SWITCHED SIDE
- 4. CHECK AND RECORD PHASE ROTATION ON ALL SWITCHBOARDS, DISTRIBUTION PANELS AND PANELBOARDS SHOWN ON DRAWING PRIOR TO RE-ENERGIZING.
- 6. ALL DE-ENERGIZED WORK SHALL BE PERFORMED ON WEEKENDS. COORDINATE

PLAN NOTES: (DENOTED ON SHEET BY $\langle \# \rangle$)

- 1. FURNISH AND INSTALL LIGHT FIXTURES, CONTROLS AND EMERGENCY POWER SUPPLIES IN ROOMS, CORRIDORS AND SPACES ASSOCIATED WITH THIS NOTE. SEE GENERAL NOTE ONE (1) ABOVE AND SPECIFICATION SECTION 26 50 00 FOR ADDITIONAL DETAILS. REPLACEMENT LUMINAIRES SHALL HAVE ELECTRICAL LOADS LESS-THAN-OR-EQUAL TO THOSE REMOVED.

MANAGEMENT AND BUDGET

STATE OF

PART B

KEY PLAN

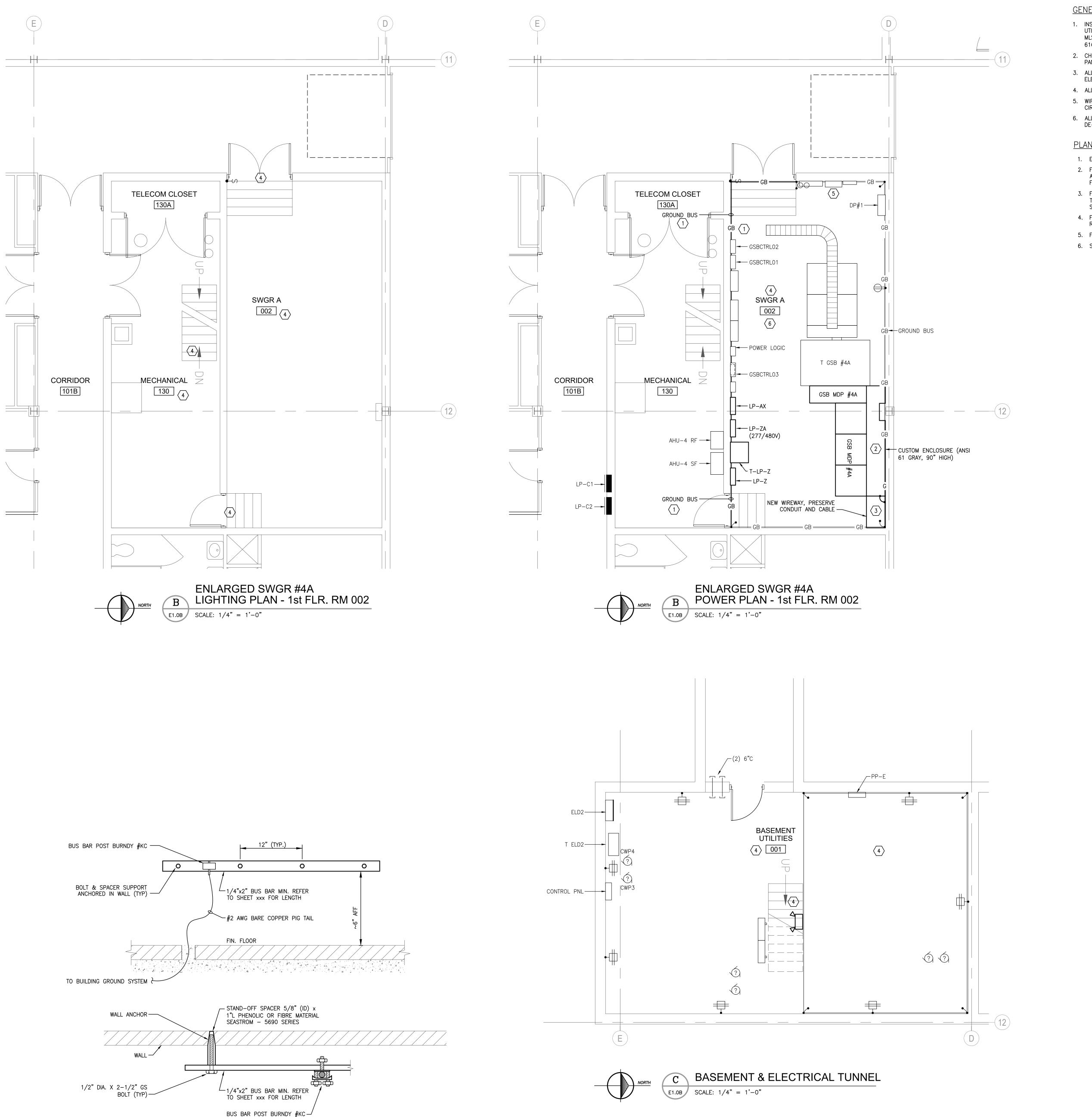
DESIGN AND CONSTRUCTION DIVISION

ADAM P. LACH, RA, DIRECTOR

DWG. SCALE: AS NOTEL

PROJECT NO: MIS032.10

SHEET NO.



GROUND BUS BAR MOUNTING DETAIL

SCALE: NO SCALE

GENERAL NOTES:

- 1. INSTALLATION OF LIGHT FIXTURES, EMERGENCY POWER, AND ASSOCIATED CONTROLS SHALL UTILIZE DESIGN-BUILD PLANS AND DEVICES FURNISHED THROUGH MLS-WEST..CONSULT WITH MLS-WEST FOR ADDITIONAL DETAILS. CONTACT TONY BURGESS (TBURGESS@MLS-WEST.COM; 616-821-2598) OR MACY BERGLUND (MBURGLUND@MLX-WEST.COM; 317-522-6188).
- 2. CHECK AND RECORD PHASE ROTATION ON ALL SWITCHBOARDS, DISTRIBUTION PANELS AND PANELBOARDS SHOWN ON DRAWING PRIOR TO RE-ENERGIZING.
- 3. ALL WORK SHALL MEET THE REQUIREMENTS OF THE MICHIGAN BUILDING CODE, NATIONAL ELECTRICAL CODE-2023, THE MICHIGAN ENERGY CODE, AND ASHRAE 90.1 2013.
- 4. ALL 120V WIRING SHALL BE MINIMUM #12AWG THWN-2 IN 3/4"C UNLESS NOTED OTHERWISE. 5. WIRE EXIT SIGNS AND EMERGENCY BATTERY PACKS TO NON-SWITCHED SIDE OF LOCAL LIGHTING
- 6. ALL DE-ENERGIZED WORK SHALL BE PERFORMED ON WEEKENDS. COORDINATE AND SCHEDULE DE-ENERGIZED WORK WITH OWNER

PLAN NOTES: (DENOTED ON SHEET BY $\langle \# \rangle$)

- 1. EXTEND GROUND BUS TO ENCIRCLE THE ENTIRE VAULT. SEE DETAILS THIS PAGE.
- 2. FURNISH AND INSTALL CUSTOM ENCLOSURE. ENCLOSURE SHALL BE 90 INCHES HIGH, BUILT TO ACCOMMODATE SUPPORT BEAM EXTRUSION AND GROUND BUS. ENCLOSURE SHALL BE ANSI 61 GREY, FREE-STANDING AND HAVE ALL SIDES SECURED BY TAMPER-PROOF SCREWS.
- 3. FURNISH AND INSTALL 90 INCH HIGH TAP/SPLICE ENCLOSURE. EXTEND FEEDERS PENETRATING THE FLOOR TO THE REPLACEMENT SWITCHBOARD. ENCLOSURE SHALL BE ANSI 61 GREY, FREE-STANDING AND HAVE ALL SIDES SECURED BY TAMPER-PROOF SCREWS.
- 4. FURNISH AND INSTALL LIGHT FIXTURES, CONTROLS AND EMERGENCY POWER SUPPLIES IN ROOMS, CORRIDORS AND SPACES ASSOCIATED WITH THIS NOTE.
- 5. FURNISH NEC/NFPA COMPLIANT BATTERY BACKUP TO FIRE ALARM CONTROL PANEL
- 6. SEE SHEET E5.1 FOR ADDITIONAL CONSTRUCTION INFORMATION..

MANAGEMENT AND BUDGET F MICHIGAN DEPARTMENT OF TECH DIMONDALE, N RAL SERVICES BUILDING --ARGED

DETAILS

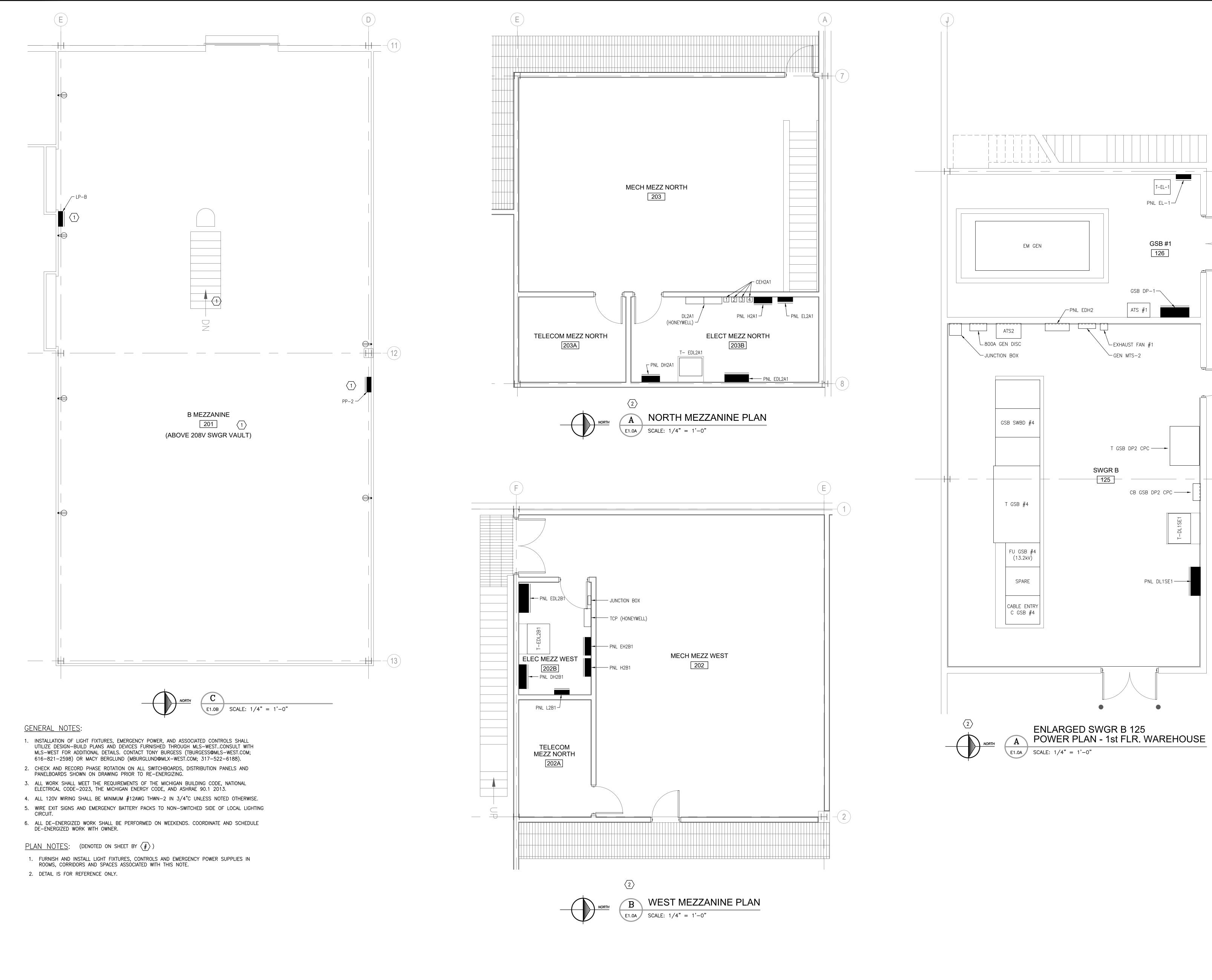
STATE OF DESIGN BY:

DWG. SCALE: AS NOTE

PROJECT NO: MIS032.10

SHEET NO.

STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGE STATE FACILITIES ADMINISTRATION DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR



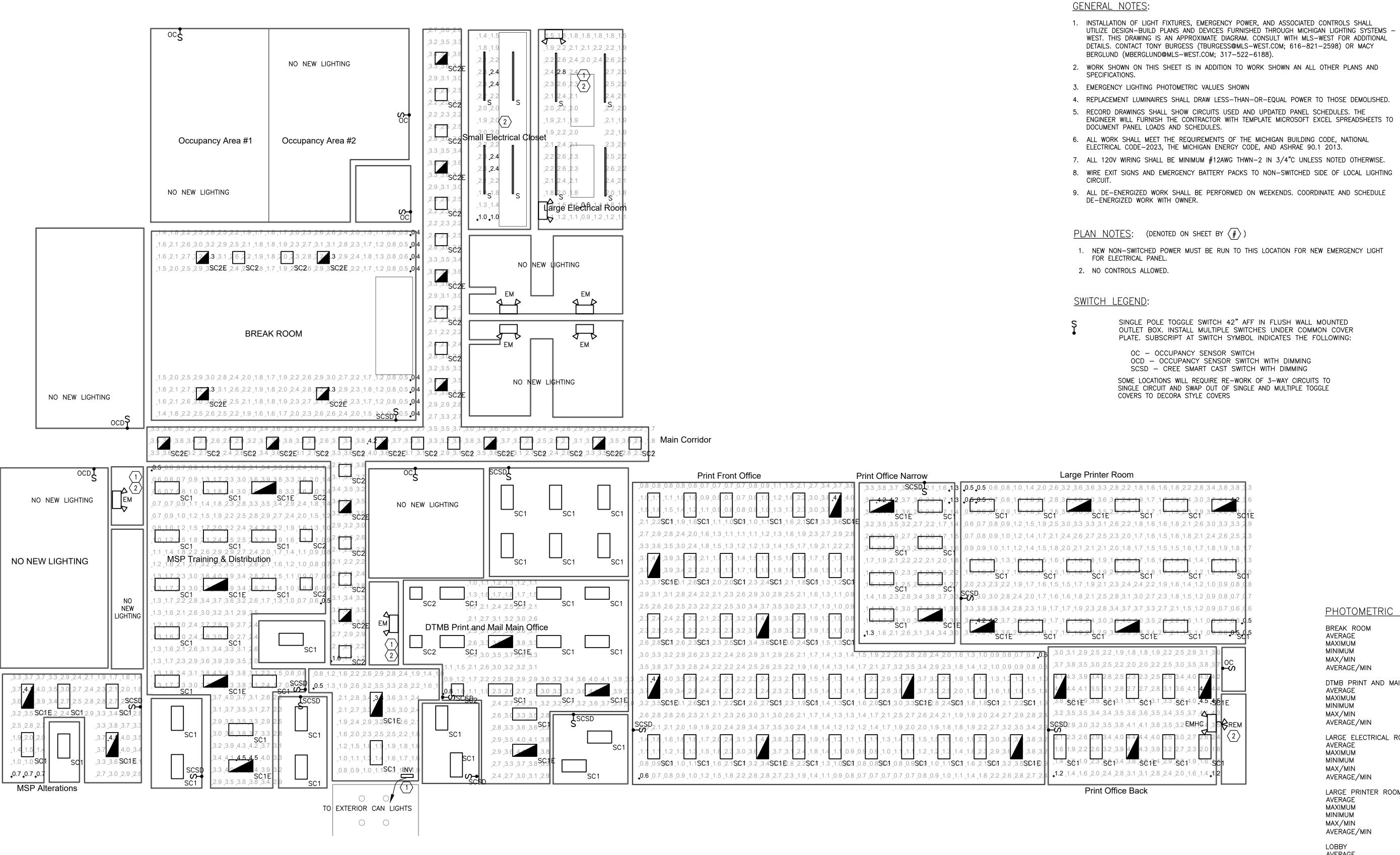
STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR

PROJECT NO: MIS032.10 SHEET NO.

MANAGEMENT AND BUDGET

F MICHIGAN DEPARTMENT OF TI DIMONDALI RAL SERVICES BUILDING FILE NO. 17

STATE OF



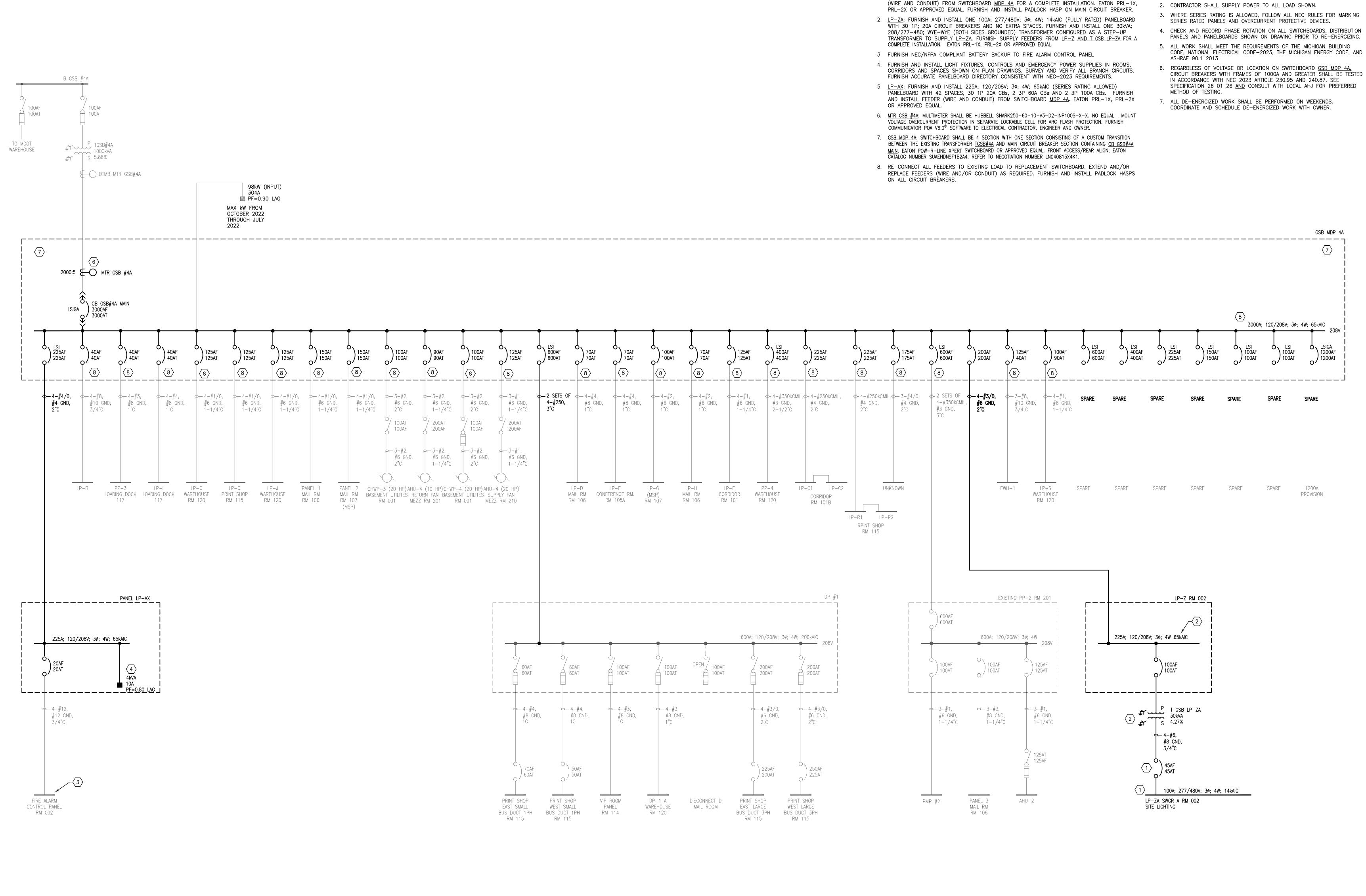
EMERGENCY LIGHTING PHOTOMETRIC PLAN

1ARK	DESCRIPTION	MANUFACTURER	MODEL NUMBER	LED / /DRIVER	COMMENTS	MARK
SC1	2X4 TROFFER	CREE, NO EQUAL	CR24-B-40L-940-UNV-SC1	4000 LUMENS 120-277V 28W 4000K LED, 90CRI	RECESS MOUNT IN LAY-IN CEILING 10'-0"	SC1
C1E	2X4 TROFFER W/ EMERGENCY BATTERY BACKUP	CREE, NO EQUAL	CR24-B-40L-940-UNV-SC1-EB	4000 LUMENS 120-277V 28W 4000K LED, 90CRI	RECESS MOUNT IN LAY-IN CEILING 10'-0"	SC1E
6C2	2X2 TROFFER W/ STEP DIMMING	CREE, NO EQUAL	CR24-B-32L-940-UNV-SC1	3200 LUMENS 120-277V 26W 4000K LED, 90CRI	RECESS MOUNT IN LAY-IN CEILING 10'-0"	SC2
C2E	2X2 TROFFER W/ EMERGENCY BATTERY BACKUP W/ STEP DIMMING	CREE, NO EQUAL	CR24-B-32L-940-UNV-SC1-EB	3200 LUMENS 120-277V 26W 4000K LED, 90CRI	RECESS MOUNT IN LAY-IN CEILING 10'-0"	SC2E
EM	HIGH LUMEN LED EMERGENCY LIGHT	COMPASS, NO EQUAL	CU2HL	550 LUMENS 120-277V 0.9W LED	CEILING MOUNT MOUNT IN LAY-IN CEILING 10'-0"	ЕМ
МНС	ARCHITECTURAL LED EMERGENCY LIGHT	DUALITE, NO EQUAL	EV4D	496 LUMENS 120-277V 2W LED	CEILING MOUNT MOUNT IN LAY-IN CEILING 10'-0"	ЕМНС
EM	LED EMERGENCY REMOTE HEAD	DUALITE, NO EQUAL	EVR2	120-277V 2W LED	CEILING MOUNT MOUNT IN LAY-IN CEILING 10'-0"	REM
S	8'-0" LED ROUND STRIP LIGHT W/ 10W EMERGENCY BATTERY BACKUP	CREE, NO EQUAL	LS8-80L-840-R-UL-10V-EB1	8000 LUMENS 120-277V, 0-10V DIM 65W 4000K LED, 80+CRI	SUSPEND 10'-0" AFF.	S
INV	125W LIGHTING INVERTER	DUALITE	LG125T	120V 125VA	RECESSED CEILING T-GRID MOUNT	INV

BREAK ROOM		
AVERAGE	2.0	EC
MAXIMUM	2.0 3.3	FC FC
MINIMUM	0.4	FC
MAX/MIN	8.3:1	
AVERAGE/MIN	5.0:1	
DTMB PRINT AND MAIL MA	IN OFFI	CE
AVERAGE	2.8	FC
MAXIMUM	4.2	
MINIMUM	0.8	
MAX/MIN AVERAGE/MIN	5.3:1 3.5:1	
AVERAGE/ MIIN	5.5.1	
LARGE ELECTRICAL ROOM		
AVERAGE MAXIMUM	2.0	
MINIMUM	2.8 0.6	
	4.7:1	
AVERAGE/MIN	3.3:1	
LABOE BRINTER BOOM		
LARGE PRINTER ROOM AVERAGE	2.1	FC
MAXIMUM	4.2	FC
MINIMUM	0.5	FC
MAX/MIN	8.4:1	
AVERAGE/MIN	4.2:1	
LOBBY		
AVERAGE	2.1	FC
MAXIMUM	3.8	
MINIMUM	0.5	FC
MAX/MIN	7.6:1	
AVERAGE/MIN	4.2:1	
MAIN CORRIDOR		
AVERAGE	3.0	FC
MAXIMUM	4.2	FC
MINIMUM	1.6	
MAX/MIN	2.6:1	
AVERAGE/MIN	1.9:1	
MSP ALTERATIONS		
AVERAGE	2.8	
MAXIMUM	4.1	
MINIMUM MAX/MIN	0.7 5.9:1	
	4.0:1	
·		
MSP TRAINING & DISTRIBU	TION	
AVERAGE MAXIMUM	2.3 4.5 0.5	FC.
MINIMUM	0.5	FC
MAX/MIN	9.0:1	
AVERAGE/MIN	4.6:1	
PRINT FRONT OFFICE		
AVERAGE	2.1	FC
MAXIMUM	4.2	
MINIMUM	0.6	FC
	7.0:1	
AVERAGE/MIN	3.5:1	
PRINT OFFICE BACK		
AVERAGE	3.0	FC
MAXIMUM	4.5	FC
MINIMUM	1.2	FC
MAX/MIN	3.8:1	
AVERAGE/MIN	2.5:1	
PRINT OFFICE NARROW		
AVERAGE	2.6	FC
MAXIMUM	4.2	FC
	1.3	
MINIMUM	3.2:1	
MAX/MIN	2.0:1	
MAX/MIN	Ī	
MAX/MIN AVERAGE/MIN SMALL ELECTRICAL CLOSET AVERAGE	2.0	FC
MAX/MIN AVERAGE/MIN SMALL ELECTRICAL CLOSET AVERAGE MAXIMUM	2.0 2.4	FC
MAX/MIN AVERAGE/MIN SMALL ELECTRICAL CLOSET AVERAGE MAXIMUM MINIMUM	2.0 2.4 1.0	
MAX/MIN AVERAGE/MIN SMALL ELECTRICAL CLOSET AVERAGE MAXIMUM MINIMUM MAX/MIN	2.0 2.4 1.0 2.4:1	FC
MAX/MIN AVERAGE/MIN SMALL ELECTRICAL CLOSET AVERAGE MAXIMUM MINIMUM	2.0 2.4 1.0	FC

PHOTOMETRIC STATISTICS

DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR



GSB MDP 4A AND ADDITIONAL PANELS - ONE-LINE DIAGRAM

STATE OF MICHIGAN

DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR

1. ALL 120V WIRING TO BE MINIMUM #12AWG THHN IN 3/4"C UNLESS NOTED OTHERWISE.

GENERAL NOTES:

PLAN NOTES: (DENOTED ON SHEET BY $\langle \# \rangle$)

1. LP-Z: FURNISH AND INSTALL ONE 225A; 120/208V; 3ø; 4W; 65kAIC (SERIES RATING ALLOWED)

PANELBOARD WITH 30 1P; 20A CIRCUIT BREAKERS AND NO EXTRA SPACES.. FURNISH NEW FEEDER

CODE, NATIONAL ELECTRICAL CODE-2023, THE MICHIGAN ENERGY CODE, AND

CIRCUIT BREAKERS WITH FRAMES OF 1000A AND GREATER SHALL BE TESTED

PROJECT NO: MIS032.10

SHEET NO.

1. ALL 120V WIRING TO BE MINIMUM #12AWG THHN IN 3/4"C UNLESS NOTED

5. ALL WORK SHALL MEET THE REQUIREMENTS OF THE MICHIGAN BUILDING CODE, NATIONAL ELECTRICAL CODE-2023, THE MICHIGAN ENERGY CODE, AND

1. FURNISH AND INSTALL NEW JUNCTION/SPLICE BOX. BOX SHALL BE ANSI 61

2. FURNISH NEW OR MODIFIED KEY INTERLOCKS. MAIN CIRCUIT BREAKER (CB GSB #4A MAIN) SHALL BE KEYED SO THAT THE UPSTREAM PRIMARY SWITCH

 $\frac{JRY}{acilities}$

STATE OF

PROJECT NO: MIS032.10

STATE OF MICHIGAN

DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR

DP2 - 208V CPC RM 116

← 2 SETS OF W. MEZZ

4-#500, RM 202 #1/0 GND,

GSB #1 RM 126

PART A

N. MEZZ

RM 203

PART A

W. MEZZ

RM 202

DH2B1 W. MEZZANINE RM 202B

STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGES

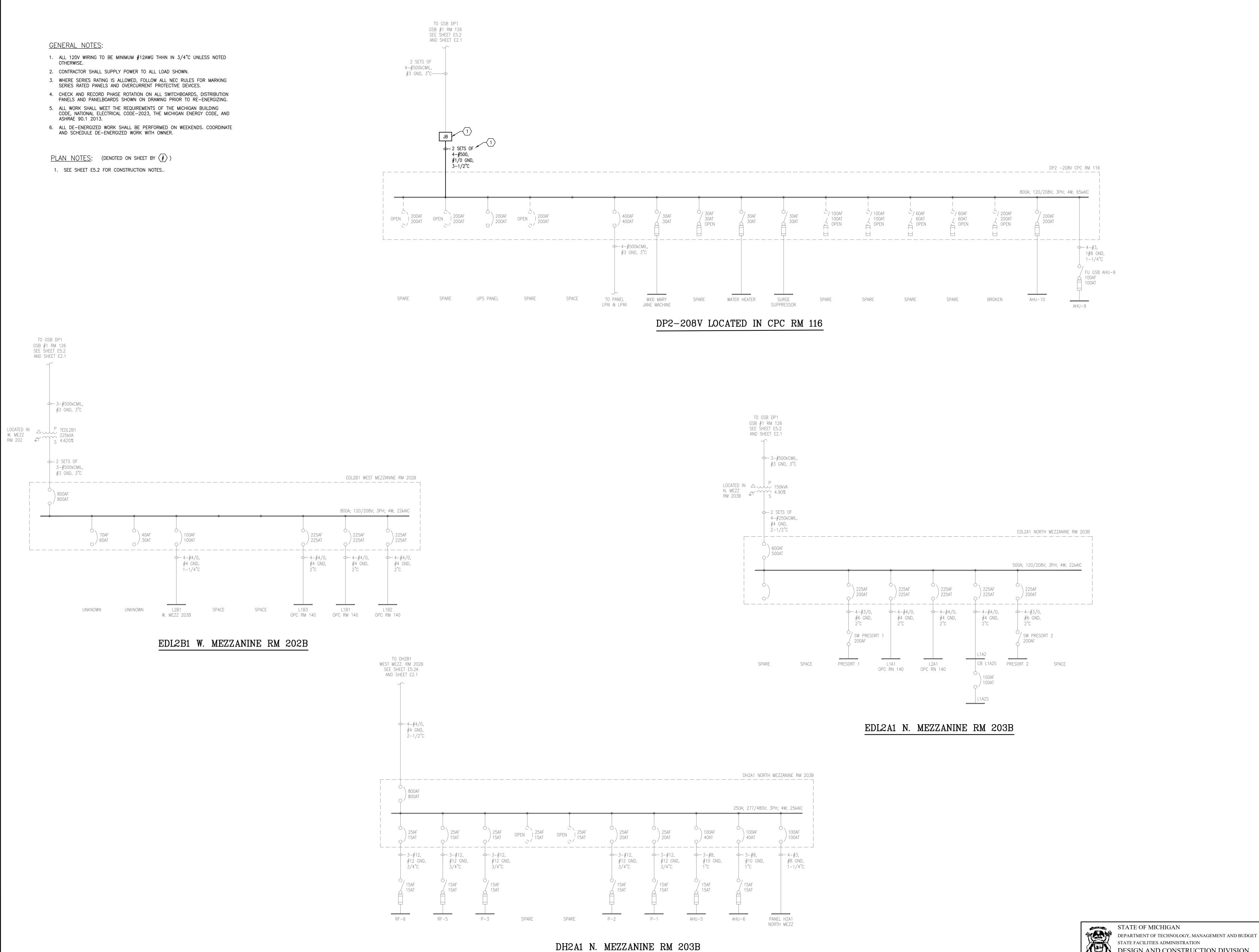
STATE FACILITIES ADMINISTRATION

DESIGN AND CONSTRUCTION DIVISION

ADAM P. LACH, RA, DIRECTOR FOR REFERENCE ONLY

STATE OF

PROJECT NO: MIS032.10



DESIGN AND CONSTRUCTION DIVISION ADAM P. LACH, RA, DIRECTOR

PROJECT NO: MIS032.10 SHEET NO.

STATE OF