



POST TENDER ADDENDUM

JLG 16098 Bottineau Ridge II Apts

RE: post tender addendum 04

Issued: April 3, 2018

POST TENDER ADDENDUM #: 04

NOTICE TO CONTRACTORS

This Addendum is prepared to supplement information presented in the Drawings and Project Manual dated Month Day, Year for the above referenced project. All additions, changes, omissions and conditions listed herein shall become an integral part of the Contract Documents.

DRAWINGS

1. G107 TYPICAL ASSEMBLIES – See attachment.
 - o Assemblies General Notes, add note #1.
2. A201A GARAGE PLAN – WEST – See attachment.
 - o Drawing 1/A201A, add note "Provide 3 feet clearance for service and operation of the sprinkler riser".
3. M000 MECHANICAL TITLE SHEET – see attachment.
 - o General Mechanical Notes, add note DD.
4. E000 ELECTRICAL TITLE SHEET – see attachment.
 - o General Electrical Notes, add note DD.
5. E202 FIRST FLOOR PLAN – WEST- POWER/SYSTEMS – See attachment.
 - o Power & Systems Sheet Notes, add note 6.
6. E300 LARGE SCALE UNIT PLANS – ELECTRICAL – See attachment.
 - o 1/4" Unit Elec. Sheet notes, revise note 8."
7. E301 LARGE SCALE UNIT PLANS – ELECTRICAL – See attachment.
 - o 1/4" Unit Elec. Sheet notes, revise note 8."
8. E302 LARGE SCALE UNIT PLANS – ELECTRICAL – See attachment.
 - o 1/4" Unit Elec. Sheet notes, revise note 8."
9. E303 LARGE SCALE UNIT PLANS – ELECTRICAL – See attachment.
 - o 1/4" Unit Elec. Sheet notes, revise note 8."

END OF ADDENDUM

JLG Architects | Dave Morck

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120507_207 CHANGE RESPONSE

z:\16098 maple grove bottineau ridge apts ii\5 - bid permit & supplementary docs\5a-1 bid pack 1\post tender add #4\content\post tender addendum 04 180404 16098 bottineau ridge ii apts.docx

3/30/2018 11:57:28 AM

6 5 4 3 2 1

D C B A

6D
G107

UNIT DEMISING WALL TYP

SCALE: 1 1/2" = 1'-0"

<MET FURG-4>
<GYP BD-1>
<INSUL-80>
WD STUDS
WD6.1
WD6.2
ONLY AT DEMISING WALLS WITH WATER CLOSET PLUMBING, PROVIDE WALL TYPE ENTIRE LENGTH OF BATHROOM

WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	IINSUL THICK	RATING	UL NO.	COMMENTS
WD6.1	2x6 W.S. @ 16" O.C. MAX	0' - 7 7/8"	5/8"	FILL CAVITY	1 HR	U311	C4.1 2X6 TOP AND BOTTOM PLATES WITH 2X4 STAGGARD STUDS STC: BBN 760903, 9-17-76
WD6.2	2x6 W.S. @ 16" O.C. MAX	0' - 7 7/8"	5/8"	FILL CAVITY	1 HR	U311	C4.1 2X6 TOP AND BOTTOM PLATES WITH 2X6 STUDS STC: BBN 760903, 9-17-76, AT PLUMBING DEMISING WALLS ONLY

3D
G107

PARTITION TYPE 'S'

SCALE: 1 1/2" = 1'-0"

SEE SCHEDULE
PLAN VIEW
S4.2C
<GYP BD-20>
<MET STUD-5>
3" SAFB
<GYP BD-1>

ASSEMBLIES GENERAL NOTE:
1. EACH CONTRACTOR/SUBCONTRACTOR SHALL MAKE SUBMISSIONS ASAP, WHICH SHALL BE APPROVED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND THE CITY OF MAPLE GROVE PRIOR TO ANY WORK BEGINNING.

WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THK (EA. SIDE)	INSUL THICK.	RATING	UL NO.	COMMENTS
S4.2C	4" CH STUD @24" O.C.	5 5/8"	5/8" 1" SHAFT LINER	3" SAFB INSULATION	2HR	U415 SYSTEM 'C'	STC 52; SA-910913 FOR ACOUSTICALLY SENSITIVE APPLICATIONS - NON-LOAD-BEARING

SHEET MATERIAL ID LIST

MATERIAL ID	SPEC SECTION & DESCRIPTION
CMU-1	04 2000 - NORMAL WEIGHT CMU
FR STOP	07 8400 - THROUGH PENETRATION FIRESTOPPING
GYP BD-1	09 2116 - 5/8" FIRE-RATED TYPE 'X' GYPSUM BOARD
GYP BD-20	09 2116 - 1" FIRE-RATED TYPE 'X' GYPSUM SHAFT LINER
INSUL-80	09 2116 - ACOUSTICAL BATT INSULATION
MET FURG-4	09 2116 - RESILIENT FURRING CHANNELS
MET STUD-5	09 2116 - C-H SHAFTWALL STUDS

3C
G107

SHAFT WALL TYPE 'WS'

SCALE: 1 1/2" = 1'-0"

<INSUL-80>
<GYP BD-1>
<GYP BD-1>
WD STUDS

WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	IINSUL THICK	RATING	UL NO.	COMMENTS
WS6.2	5 1/2" W.S. @ 16" O.C.	0' - 8"	(2) 5/8"	FILL CAVITY	2HR	U301	STC - 51 (ESTIMATED)

PARTITION TYPE 'WS'

WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	IINSUL THICK	RATING	UL NO.	COMMENTS
WS6.2	5 1/2" W.S. @ 16" O.C.	0' - 8"	(2) 5/8"	FILL CAVITY	2HR	U301	STC - 51 (ESTIMATED)

3B
G107

PARTITION TYPE 'WP'

SCALE: 1 1/2" = 1'-0"

<INSUL-80>
<GYP BD-1>
WD STUDS

WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	IINSUL THICK	RATING	UL NO.	COMMENTS
WP4	3 1/2" W.S. @ 16" O.C.	0' - 4 3/4"	5/8"	--	OHR	--	PROVIDE INSUL-80 AT TOILET ROOM WALLS
WP6	5 1/2" W.S. @ 16" O.C.	0' - 6 3/4"	5/8"	FILL CAVITY	OHR	--	--

PARTITION TYPE 'WP'

WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	IINSUL THICK	RATING	UL NO.	COMMENTS
WP4	3 1/2" W.S. @ 16" O.C.	0' - 4 3/4"	5/8"	--	OHR	--	PROVIDE INSUL-80 AT TOILET ROOM WALLS
WP6	5 1/2" W.S. @ 16" O.C.	0' - 6 3/4"	5/8"	FILL CAVITY	OHR	--	--

3A
G107

WALL TYPE 'M'

SCALE: 1 1/2" = 1'-0"

LINE OF DECK OR STRUCTURE
<FR STOP> AT RATED WALLS
TOP OF WALL CONNECTION; SEE STRUCTURAL
CEILING; SEE REFLECTED CEILING PLAN
<CMU-1>
BASE FINISH; SEE FINISH SCHEDULE
LINE OF FLOOR

WALL TAG	CMU SIZE	WIDTH	RATING	UL NO.	COMMENTS
M8	8" CMU	7 5/8"	OHR	--	--
M8.2	8" CMU	7 5/8"	2HR	U907	--
M12	12" CONC	1' - 0"	OHR	--	--

WALL TYPE 'M'

WALL TAG	CMU SIZE	WIDTH	RATING	UL NO.	COMMENTS
M8	8" CMU	7 5/8"	OHR	--	--
M8.2	8" CMU	7 5/8"	2HR	U907	--
M12	12" CONC	1' - 0"	OHR	--	--

6B
G107

INTERIOR UNIT FURRING WALL TYPE

SCALE: 1 1/2" = 1'-0"

LINE OF WALL
<GYP BD-1>
WD STUDS

WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	IINSUL THICK	RATING	UL NO.	COMMENTS
WF2	3 1/2" W.S. @ 16" O.C.	0' - 2 1/8"	5/8"	N/A	OHR	--	--
WF4	3 1/2" W.S. @ 16" O.C.	0' - 4 1/8"	5/8"	N/A	OHR	--	--
WF6	5 1/2" W.S. @ 16" O.C.	0' - 6 1/8"	5/8"	N/A	OHR	--	--

6A
G107

CORRIDOR WALL TYPE

SCALE: 1 1/2" = 1'-0"

CORRIDOR
UNIT
<GYP BD-1>
<MET FURG-4>
WD STUDS

WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	IINSUL THICK	RATING	UL NO.	COMMENTS
WC6.1	2x6 W.S. @ 16" O.C.	0' - 7 1/4"	5/8"	FILL CAVITY	1 HR	U311	50 TO 54 FSCTC: BBN 760903, 9-17-76



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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

Nicklas Waabum, AIA, LEED AP

DATE: 04/02/20
REG. NO. 46546

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
5	POST TENDER ADDENDUM #4	04/02/2018

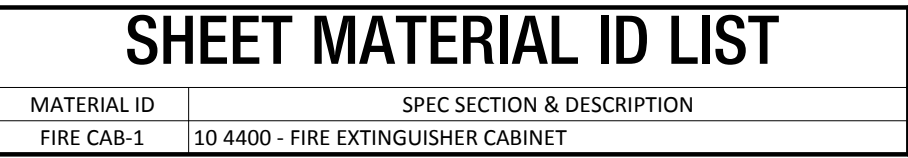
JLG ARCHITECTS
BOTTINEAU RIDGE II APARTMENTS
MAPLE GROVE, MN

DATE
12/04/2017

PHASE
100% CDs

PROJECT
16098

SHEET
G107
TYPICAL ASSEMBLIES

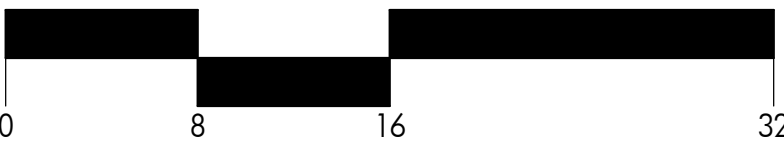


PARKING GARAGE KEYNOTES

NO.	NOTE
1	4" PARKING LOT STRIPING
2	AREA WELL
3	CHAIN LINK FENCE WITH 3' WIDE SLIDING GATE
4	STEEL BOLLARD - (MET FAB-1). EXTERIOR BOLLARDS TO HAVE CONCRETE FOUNDATION. SEE CIVIL DETAILS
5	8" HIGH CONCRETE WALKWAY WITH STRIPING, TYP
6	PAINTED STALL NUMBER, TYP
7	PAINTED ACCESSIBLE SYMBOL, TYP
8	LOADING ZONE STRIPING, TYP
9	6'-0" X 8'-0" LOUVER, SEE MECH

FLOOR PLAN GENERAL NOTES

- A. FOR TYPICAL BARRIER FREE TOILET ROOM TYPES AND ACCESSORIES REQ'TS AND LOCATIONS SEE DWG G120
- B. FOR TYPICAL HOUSEKEEPING CLOSETS ACCESSORIES REQ'TS AND MOUNTING LOCATIONS SEE DWG G30X
- C. ALL PARTITION TYPES ARE "A0" (TYPICAL) UNLESS OTHERWISE NOTED.
- D. COORDINATE PARTITION FIRE RATE REQUIREMENTS AS INDICATED ON REFLECTED CEILING PLANS - DRAWING SERIES A700
- E. TYPICALLY INSTALL SOAP DISPENSERS AND PAPER TOWEL DISPENSER AT ALL SINKS UNLESS NOTED OTHERWISE.
- F. PROVIDE WALL REINFORCEMENT PER DETAIL AT WALL-MOUNTED SHELVES AND STORAGE UNITS, MARKERBOARDS, BULLETIN BOARDS, TACK BOARDS, TELEVISIONS AND OTHER CONTRACTOR OR OWNER FURNISHED WALL-MOUNTED ITEMS (REFER TO ACCESSORIES AND EQUIPMENT SCHEDULE).
- G. FOR ALL CARPET TYPE CHANGES BETWEEN ROOMS, TRANSITION SHALL OCCUR AT CENTERLINE OF DOOR PANEL TYPICALLY - U.N.O. SEE DWG AX-XXX.
- H. COORDINATE DIMENSIONS W/ ASTERISK (IE - "X") W/ EQUIPMENT VENDOR.
- I. PROVIDE BULLDOGS TO ALL WALL OUTSIDE CORNERS - TYPICAL
- J. ALL DIMENSIONS ARE TO FACE OF GYPSUM BOARD OR MASONRY UNLESS OTHERWISE NOTED.
- K. COORDINATE ALL FLOOR OPENING DIMENSIONS AND CLEARANCES FOR DUCTWORK W/ MECHANICAL CONTRACTOR - TYPICAL.
- L. INSTALL ACUSTIC PUTTY ON ALL ELECTRICAL BOXES IN DEMISING WALLS ACCORDING TO MANUFACTURER'S INSTRUCTIONS TO MAINTAIN A MINIMUM STC-50 BETWEEN UNITS.
- M. ALL THRU-WALL A/C UNITS TO ALIGN VERTICALLY FROM FIRST TO FOURTH FLOOR.



SCALE 1/8" = 1'-0"



1 GARAGE FLOOR PLAN - WEST
A210A SCALE: 1/8" = 1'-0"

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	ADDENDUM #1	12/07/2017
4	POST TENDER ADDENDUM #2	03/15/2018
5	POST TENDER ADDENDUM #4	04/02/2018

MECHANICAL ABBREVIATIONS

ACCU	AT	HM	HOT WATER
AFF	AIR COOLED CONDENSING UNIT	IJS	IN JOIST SPACE
AFMD	ABOVE FINISHED FLOOR	IXS	IN WEB SPACE
AHJ	AIRFLOW MEASURING DEVICE	KW	KILOWATT
ARCH	AIR HANDLING UNIT	LAT	LEAVING AIR TEMPERATURE
ARCH	ARCHITECT, ARCHITECTURAL	LAV	LAVATORY
ATC	AUTOMATIC TEMPERATURE CONTROLS	LB/HR	POUNDS PER HOUR
BDD	BACKDRAFT DAMPER	LMT	LEAVING WATER TEMPERATURE
BLDG	BUILDING	MA	MAKEUP AIR
BTM	BRITISH THERMAL UNITS PER HOUR	MAU	MAKEUP AIR HANDLING UNIT
BVI	BALL VALVE INDICATOR	MBH	ONE THOUSAND BTU PER HOUR
CA	COMBUSTION AIR	MCA	MINIMUM CIRCUIT AMPACITY
CC	COOLING COIL	MCH	MECHANICAL
CFM	CUBIC FEET PER MINUTE	MFS	MAXIMUM FUSE SIZE
CIRC	CIRCULATING	MISC	MISCELLANEOUS
CO	FLOOR CLEANOUT	MOD	MOTOR OPERATED DAMPER
CONC	CONCRETE	N/A	NOT APPLICABLE
COND	CONDENSATE	NC	NORMALLY CLOSED
CONN	CONNECTION	NC	NOT IN CONTRACT
CUH	CABINET UNIT HEATER	NO	NORMALLY OPEN
CH	COLD WATER	NTS	NOT TO SCALE
DB	DEGBELS	OA	OUTSIDE AIR
DB	DRY BULB TEMPERATURE	ORD	OVERFLOW ROOF DRAIN
DMS	DEMOLISH, DEMOLITION	ORL	OVERFLOW RAIN LEADER
DIA	DIAMETER	PH	PHASE
DIV	DIVISION	PRV	PRESSURE REDUCING VALVE
DN	DOWN	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	PV	POWER VENTILATOR
(E)	EXISTING	RA	RETURN AIR
EA	EXHAUST AIR	RD	ROOF DRAIN
EAT	ENTERING AIR TEMPERATURE	RH	REGULATING HOT WATER
EBR	ENERGY EFFICIENCY RATIO	RHN	REGULATING HOT WATER
EF	EXHAUST FAN	RL	RAIN LEADER
ELEG	ELECTRIC, ELECTRICAL	RPM	REVOLUTIONS PER MINUTE
ESP	EXTERNAL STATIC PRESSURE	RTU	ROOFTOP AIR HANDLING UNIT
ENT	ENTERING WATER TEMPERATURE	SA	SUPPLY AIR
EXH	EXHAUST	SD	STORM DRAIN
EXIST	EXISTING	SEER	SEASONAL ENERGY EFFICIENCY RATIO
F	FAHRENHEIT	SPEC	SPECIFICATION
F/SD	COMBINATION FIRE/ SMOKE DAMPER	T	TRANSFER AIR
FD	FIRE DAMPER	TR	TEMPERATURE RISE
FD	FLOOR DRAIN	TSP	TOTAL STATIC PRESSURE
FLEX	FLEXIBLE	TYP	TYPICAL
FLA	FULL LOAD AMPERAGE	UH	UNIT HEATER
FMD	FLOW MEASURING DEVICE (LIQUID)	V	VOLUME DAMPER (MANUAL OFFSEED BLADE)
FFM	FEET PER MINUTE	(VER)	VERIFY SIZE AND LOCATION
FTR	FINED TUBE RADIATION	VAV	VARIABLE AIR VOLUME
GALV	GALVANIZED	VTR	VENT THROUGH ROOF
GGO	GRADE CLEANOUT	(V)	SANITARY WASTE
GPH	GALLONS PER HOUR	W	WITH
GPM	GALLONS PER MINUTE	WB	WET BULB TEMPERATURE
HB	HOSE BIBB	WCO	WALL CLEANOUT
HG	HEATING COIL	WH	WATER HEATER
HP	HORSE POWER	W/O	WITHOUT
HR	HOUR		
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING		

MECHANICAL SYMBOLS

•	DOMESTIC COLD WATER	UP	DN	DUCT SECTION, POSITIVE PRESSURE
••	DOMESTIC HOT WATER	UP	DN	DUCT SECTION, NEGATIVE PRESSURE
•••	DOMESTIC RECIRCULATING HOT WATER	POS	NEG	DUCT UP THROUGH FLOOR ABOVE OR ROOF
—	SANITARY VENT	20x12		RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN
—	SANITARY SEWER ABOVE GRADE	204		ROUND DUCT
—	SANITARY SEWER BELOW GRADE	20x12		ACOUSTICAL LINING
RL	RAIN LEADER			SQUARE ELBOW WITH TURNING VANES
ORL	OVERFLOW RAIN LEADER			VOLUME DAMPER
SD	STORM DRAIN BELOW GRADE	FD		FIRE DAMPER
HWR	HEATING WATER RETURN	SD		SMOKE DAMPER
HWS	HEATING WATER SUPPLY	F/SD		COMBINATION FIRE/SMOKE DAMPER
SHWR	GLYCOL HEATING RETURN			MOTORIZED DAMPER
SHWS	GLYCOL HEATING SUPPLY			RISE IN DUCT ELEVATION
CHWR	CHILLED WATER RETURN			DROP IN DUCT ELEVATION
CHWS	CHILLED WATER SUPPLY			FLEXIBLE DUCT CONNECTION
HPWR	HEAT PUMP WATER RETURN			SIDEWALL SUPPLY REGISTER
HPWS	HEAT PUMP WATER SUPPLY			SIDEWALL EXHAUST OR RETURN GRILLE
HPS	HIGH PRESSURE STEAM			ROUND NECK CEILING DIFFUSER, FLEXIBLE DUCT FROM MAIN WITH SIZE INDICATED
MPS	MEDIUM PRESSURE STEAM			SQUARE NECK CEILING DIFFUSER, FLEXIBLE DUCT FROM MAIN WITH SIZE INDICATED
LPS	LOW PRESSURE STEAM			CEILING MOUNTED GRILLE OR REGISTER, RIGID DUCT FROM MAIN WITH SIZE INDICATED
D	CONDENSATE DRAIN			EGG-CRATE GRILLE
PC	PUMPED CONDENSATE			SUPPLY AIR OUTLET
RL	REFRIGERANT LIQUID			RETURN OR EXHAUST AIR INLET
RS	REFRIGERANT SUCTON			THERMOSTAT
RD	REFRIGERANT DISCHARGE			TEMPERATURE SENSOR
HGB	HOT GAS BYPASS			HUMIDISTAT
FOR	FUEL OIL RETURN			NEW DIFFUSER, GRILLE, OR REGISTER WITH TYPE AND ARIELOW INDICATED, (TYPE S-1, 100 CFM), REFER TO SCHEDULE FOR MORE INFORMATION
FO	FUEL OIL SUPPLY			VARIABLE AIR VOLUME BOX REFERENCE SYMBOL WITH GPM SHOWN (1.5) REFER TO SCHEDULE
FOV	FUEL OIL VENT			SHEET NOTE REFERENCE
G	NATURAL GAS			DEMOLITION NOTE REFERENCE
FG	FIRM NATURAL GAS			DETAIL NOTE REFERENCE WITH DRAWING NUMBER SHOWN (1) AND SHEET NUMBER SHOWN (M-1)
IG	INTERRUPTIBLE NATURAL GAS			ELEVATION/ SECTION NOTE REFERENCE WITH DRAWING NUMBER SHOWN (1) AND SHEET NUMBER SHOWN (M-1)
P	PROPANE			ROOM NUMBER
PIPE DOWN				REVISION NOTE REFERENCE
PIPE UP				
BRANCH DOWN				
BRANCH UP				
PIPE BREAK				
PIPE CAP				
FLOW ARROW				
PIPE GUIDE				
PIPE ANCHOR				
CONCENTRIC REDUCER				
UNION				
FLEXIBLE PIPE CONNECTION				
PIPE FLANGE				
BALL VALVE				
BALANCING VALVES				
BUTTERFLY VALVE				
GATE VALVE				
GLOBE VALVE				
GLOBE ANGLE VALVE				
CHECK VALVE				
SAFETY RELIEF VALVE				
SOLENOID VALVE				
PRESSURE REGULATOR VALVE				
PRESSURE REDUCING VALVE				
2-WAY CONTROL VALVE				
3-WAY CONTROL VALVE				
BALL VALVE INDICATOR				
FLOW MEASURING DEVICE (LIQUID)				
FLOW METER				
AUTOFLOW VALVE ASSEMBLY				
BALL VALVE/ STRAINER ASSEMBLY				
STRAINER				
AUTOMATIC AIR VENT				
MANUAL AIR VENT				
FLOW SWITCH				
RPZ BACKFLOW PREVENTOR ASSEMBLY				
PRESSURE GAUGE				
SENSOR WELL				
THERMOMETER				
AQUASTAT				
STEAM TRAP				
INLINE PUMP				

* ALL SYMBOLS AND ABBREVIATIONS DO NOT NECESSARILY APPEAR ON DRAWINGS

GENERAL MECHANICAL NOTES:

- A. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN, OR OMISSIONS FROM THE DRAWINGS OR DOCUMENTS. NEITHER THE OWNER NOR THE ARCHITECT WILL BE RESPONSIBLE FOR ANY ORAL INSTRUCTIONS OR MODIFICATIONS OF THE SPECIFICATIONS OR DRAWINGS. WRITTEN INTERPRETATIONS WILL BE MADE ONLY BY APPENDIX.
- B. IF DISCREPANCIES ARE NOT REPORTED, THE CONTRACTOR SHALL BID THE GREATER QUANTITY OR BETTER QUALITY (HIGHEST DOLLAR VALUE), AND APPROPRIATE ADJUSTMENT WILL BE MADE AFTER CONTRACT AWARD.
- C. DISCREPANCIES DISCOVERED DURING CONSTRUCTION SHALL IMMEDIATELY BE CALLED TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION.
- D. ALL MINOR ITEMS NECESSARY FOR THE COMPLETION AND SUCCESSFUL OPERATION OF THE SYSTEM, WHETHER OR NOT HEREIN DEFINITELY SPECIFIED OR INDICATED ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED.
- E. OMISSION OF OR EXPRESS REFERENCE TO ANY MATERIAL NECESSARY FOR OR REASONABLY INCIDENTAL TO COMPLETE INSTALLATION SHALL NOT RELEASE CONTRACTOR FROM PROVIDING SUCH MATERIAL. WHERE MATERIAL IS SHOWN ON DRAWINGS BUT IS NOT SPECIFIED OR IS SPECIFIED BUT NOT SHOWN, SUCH MATERIAL SHALL BE CONSIDERED BOTH SHOWN AND SPECIFIED.
- F. ANY WORK NOT CLEAR TO CONTRACTOR SHALL BE REFERRED TO ENGINEER FOR CLARIFICATION BEFORE BID IS SUBMITTED. IF NO QUESTION IS RAISED PRIOR TO OPENING OF BID, CONTRACTOR SHALL BE REQUIRED TO PROVIDE WORK IN QUESTION AS DIRECTED BY ENGINEER, WHOSE DESIGN IS FINAL, WITHOUT ADDITIONAL CHARGES.
- G. BY VIRTUE OF SUBMITTING A BID, CONTRACTOR AGREES THAT HE IS SKILLED AND EXPERIENCED IN USE OF AND IN INTERPRETATION OF DRAWINGS AND SPECIFICATIONS. CONTRACTOR FURTHER AGREES THAT HE HAS CAREFULLY REVIEWED ALL DRAWINGS, ALL SPECIFICATIONS AND ALL ADDENDA, WHICH CONSTITUTE BID DOCUMENTS FOR THIS CONTRACT, AND FINDS THEM FREE OF AMBIGUITIES AND GOOD AND SUFFICIENT FOR BIDDING AND CONSTRUCTION PURPOSES.
- H. THE DRAWINGS INDICATE THE EXTENT AND GENERAL LAYOUT OF THE MECHANICAL SYSTEMS INTENDED FOR THE BUILDING. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, CONNECTIONS AND ACCESSORIES WHICH MAY BE REQUIRED. FURNISH OFFSETS, FITTINGS, VALVES, AND ACCESSORIES AS MAY BE REQUIRED, TO PROVIDE A COMPLETE AND OPERATING INSTALLATION OF TYPE SHOWN AND SPECIFIED.
- I. ALL PIPING AND DUCTWORK SHALL BE ROUTED SO AS NOT TO OBSTRUCT ACCESS TO OTHER EQUIPMENT (I.E. VAV BOX CONTROLS, ELECTRICAL DEVICES, FIRE ALARM DEVICES, ETC.). MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROLS AND ACCESS PANELS FOR ACCESSIBILITY. ROUTING INDICATED ON DRAWINGS IS REPRESENTATIVE OF INTENDED LOCATION BUT SHALL BE FIELD VERIFIED. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES FOR ACCESSIBILITY.
- J. IN GENERAL, THE MECHANICAL EQUIPMENT DRAWINGS ARE DRAWN TO SCALE AS NOTED. OBTAIN DIMENSIONS AND LOCATIONS OF PARTITIONS, WALLS, ETC., FROM THE ARCHITECTURAL DRAWINGS WHEREVER POSSIBLE AND DO NOT SCALE THE MECHANICAL DRAWINGS. CONSULT THE ARCHITECTURAL DRAWINGS FOR DETAILS OF CONSTRUCTION, LOCATION OF SUSPENDED CEILINGS, CEILING HEIGHTS, AND OTHER PERTINENT INFORMATION. ARCHITECT'S DRAWINGS SHALL NOT TAKE PRECEDENCE OVER FIELD MEASUREMENTS.
- K. ALL DRAWINGS AND SPECIFICATIONS SHALL BE CONSIDERED IN BIDDING. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY, AND WHAT IS CALLED FOR IN EITHER OF THESE SHALL BE AS BINDING AS THOUGH CALLED FOR BY BOTH. SHOULD ANY CONFLICT ARISE BETWEEN DRAWINGS AND SPECIFICATIONS, SUCH CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- L. ALL APPLIANCES AND EQUIPMENT SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS UNLESS SUCH INSTRUCTIONS ARE IN CONFLICT WITH THESE SPECIFICATIONS. AUXILIARY PIPING, VALVES, ELECTRICAL CONNECTIONS, ETC., RECOMMENDED BY THE MANUFACTURER OR REQUIRED FOR PROPER OPERATION SHALL BE FURNISHED AND INSTALLED COMPLETE.
- M. ALL EQUIPMENT SHALL BE INSTALLED IN SUCH A MANNER AND LOCATION AS TO FACILITATE ACCESSIBILITY FOR MAINTENANCE AND/OR REPLACEMENT.
- N. AS A PART OF THE WORK OF THIS CONTRACT, THE MECHANICAL CONTRACTOR SHALL MAKE ANY CHANGES IN THE PULLEYS, BELTS, AND DAMPERS, AND SHALL INSTALL ADDITIONAL DAMPERS REQUIRED FOR CORRECT BALANCE AS RECOMMENDED BY AIR BALANCE AGENCY, AT NO ADDITIONAL COST TO THE OWNER.
- O. COOPERATE WITH OTHER TRADES SO AS TO AVOID INTERFERENCES. WHERE REQUIRED TO AVOID INTERFERENCES WITH OTHER WORK OR TO INCREASE THE HEADROOM. CAREFULLY CHECK ALL CONSTRUCTION DETAILS TO ASSURE THE PROPER INSTALLATION OF ALL WORK UNDER THIS SPECIFICATION. SCHEDULE THE WORK SUCH THAT IT WILL KEEP PACE WITH THE WORK OF OTHER CRAFTS AND CAUSE NO DELAY.
- P. BEFORE SUBMITTING A PROPOSAL ON THE WORK CONTEMPLATED IN THESE SPECIFICATIONS AND ACCOMPANYING DRAWINGS, EACH BIDDER SHALL EXAMINE THE SITE AND FAMILIARIZE HIMSELF WITH ALL OF THE EXISTING CONDITIONS AND LIMITATIONS. NO EXTRAS WILL BE ALLOWED BECAUSE OF CONTRACTOR'S MISUNDERSTANDING AS TO THE AMOUNT OF WORK INVOLVED OR LACK OF HIS KNOWLEDGE OF ANY CONDITION IN CONNECTION WITH THE NEW CONSTRUCTION. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.
- Q. NEATLY CUT OPENINGS AND HOLES PLUMB, SQUARE AND TRUE TO DIMENSION REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION. CUT AND DRILL FROM EXPOSED SURFACES INTO CONCEALED SURFACES TO AVOID MARKING OR SPALLING OF FINISHED SURFACES TEMPORARILY COVER OPENINGS TO REMAIN.
- R. THE CONTRACTOR SHALL OPEN ALL EXISTING WALLS, FLOORS, CEILINGS AND ROOFS FOR INSTALLATION OF NEW PIPING, DUCTWORK, EQUIPMENT, ETC. PATCH ALL OPENINGS IN FLOORS, WALLS, CEILINGS AND ROOFS CREATED FOR INSTALLATION OF MECHANICAL EQUIPMENT, ATC DEVICES, DUCTS, PIPES, ETC. UNLESS NOTED AS BEING PATCHED BY OTHERS. OPENINGS TO BE PATCHED TO MATCH EXISTING WITH SIMILAR MATERIALS AND FINISH UNLESS OTHERWISE NOTED.
- S. REFER TO AND COORDINATE WITH ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS AND ELEVATIONS FOR INSTALLATION OF NEW PIPING, DUCTWORK, EQUIPMENT, ETC.
- T. ALL SHUT-OFF VALVES, STRAINERS, CONTROL VALVES, DAMPERS, ACCESS DOORS, VAV BOXES, TERMINAL COILS, ATC DEVICES, ETC. SHALL BE INSTALLED IN ACCESSIBLE CEILINGS NOT MORE THAN 2 FEET ABOVE CEILING.
- U. FLOOR CUTTING FOR PLUMBING INSTALLATION IS DIAGRAMMATIC ONLY. CONTRACTOR TO VERIFY EXISTING INVERTS AND DEPTH OF PIPING PRIOR TO FLOOR CUTTING AND TRENCHING.
- V. PROVIDE 1/2" DRAIN VALVE AT ALL LOW POINTS OF EACH FIRE PROTECTION AND HVAC PIPING SYSTEM TO ENABLE COMPLETE DRAINAGE. PROVIDE 1/2" VENT VALVES AT ALL HIGH POINTS OF EACH HVAC PIPING SYSTEM TO ENABLE COMPLETE VENTING.
- W. ALL OPEN ENDS OF DUCTWORK SHALL BE CAPPED AT THE END OF CONSTRUCTION EACH DAY.
- X. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW PIPING, DUCTWORK, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.
- Y. THE ENTIRE INSTALLATION SHALL BE MADE IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS. IF, IN ANY INSTANCE, THE PLANS AND SPECIFICATIONS CONFLICT WITH SUCH LAWS, THE LAW SHALL TAKE PRECEDENCE. THIS, HOWEVER, SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLYING WITH ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS THAT MAY BE IN EXCESS OF THE RULES AND NOT CONTRARY TO THE SAME.
- Z. ALL WORK SHALL CONFORM TO APPLICABLE STATE AND LOCAL CODES, ORDINANCES, REGULATIONS AND/OR STANDARDS.
- AA. ALL FIRE PROTECTION WORK SHALL ADHERE TO CURRENT NFPA 13 STANDARDS. THE ENTIRE BUILDING SHALL BE SPRINKLED. VERIFY WHERE MULTIPLE FLOORS EXIST. SPRINKLER HEADS IN LAY-IN-TILE CEILING SHALL BE LOCATED IN THE CENTER OF TILE. FIRE PROTECTION PIPING AND SPRINKLER HEADS SHOWN ARE FOR REFERENCE ONLY. THE FIRE PROTECTION CONTRACTOR SHALL PREPARE COMPLETE WORKING DRAWINGS OF THE ENTIRE SPRINKLER SYSTEM.
- BB. FIRE PROTECTION PLANS ARE PERFORMANCE BASED AND WILL BE A DEFERRED SUBMITTAL ONCE THE SUCCESSFUL CONTRACTOR DEVELOPES PLANS.
- CC. ALL PIPING ON GARAGE LEVEL SHALL BE INSTALLED A MINIMUM OF 1'-0" CLEAR A.F.F.
- DD. EACH CONTRACTOR/SUB-CONTRACTOR SHALL MAKE SUBMISSIONS NEAR WHICH SHALL BE APPROVED BY THE LICENSED ENGINEER IN RESPONSIBLE CHARGE AND THE CITY OF MAPLE GROVE PRIOR TO ANY WORK BEGINNING.

MECHANICAL SHEET INDEX

M000	MECHANICAL TITLE SHEET
F100A	GARAGE FLOOR PLAN - WEST - FIRE PROTECTION
F100B	GARAGE FLOOR PLAN - EAST - FIRE PROTECTION
F101A	FIRST FLOOR PLAN - WEST - FIRE PROTECTION
F101B	FIRST FLOOR PLAN - EAST - FIRE PROTECTION
F102A	SECOND FLOOR PLAN - WEST - FIRE PROTECTION
F102B	SECOND FLOOR PLAN - EAST - FIRE PROTECTION
F103A	THIRD FLOOR PLAN - WEST - FIRE PROTECTION
F103B	THIRD FLOOR PLAN - EAST - FIRE PROTECTION
F104A	FOURTH FLOOR PLAN - WEST - FIRE PROTECTION
F104B	FOURTH FLOOR PLAN - EAST - FIRE PROTECTION
F100A	FOUNDATION PLAN - EAST - PLUMBING
F101A	GARAGE FLOOR PLAN - EAST - PLUMBING
F101B	GARAGE FLOOR PLAN - EAST - PLUMBING
F102A	FIRST FLOOR PLAN - WEST - PLUMBING
F102B	FIRST FLOOR PLAN - EAST - PLUMBING
F103A	SECOND FLOOR PLAN - WEST - PLUMBING
F103B	SECOND FLOOR PLAN - EAST - PLUMBING
F104A	THIRD FLOOR PLAN - WEST - PLUMBING
F104B	THIRD FLOOR PLAN - EAST - PLUMBING
F105A	FOURTH FLOOR PLAN - WEST - PLUMBING
F105B	FOURTH FLOOR PLAN - EAST - PLUMBING
M200	WASTE & VENT RISER DIAGRAMS
F201	WASTE & VENT RISER DIAGRAMS
F202	DOMESTIC WATER RISER DIAGRAMS
F203	DOMESTIC WATER RISER DIAGRAMS
M100A	GARAGE FLOOR PLAN - WEST - HVAC PIPING
M100B	GARAGE FLOOR PLAN - EAST - HVAC PIPING
M101A	FIRST FLOOR PLAN - WEST - HVAC PIPING
M101B	FIRST FLOOR PLAN - EAST - HVAC PIPING
M102A	SECOND FLOOR PLAN - WEST - HVAC PIPING
M102B	SECOND FLOOR PLAN - EAST - HVAC PIPING
M103A	THIRD FLOOR PLAN - WEST - HVAC PIPING
M103B	THIRD FLOOR PLAN - EAST - HVAC PIPING
M104A	FOURTH FLOOR PLAN - WEST - HVAC PIPING
M104B	FOURTH FLOOR PLAN - EAST - HVAC PIPING
M200A	GARAGE FLOOR PLAN - WEST - VENTILATION
M200B	GARAGE FLOOR PLAN - EAST - VENTILATION
M201A	FIRST FLOOR PLAN - WEST - VENTILATION
M201B	FIRST FLOOR PLAN - EAST - VENTILATION
M202A	SECOND FLOOR PLAN - WEST - VENTILATION
M202B	SECOND FLOOR PLAN - EAST - VENTILATION
M203A	THIRD FLOOR PLAN - WEST - VENTILATION
M203B	THIRD FLOOR PLAN - EAST - VENTILATION
M204A	FOURTH FLOOR PLAN - WEST - VENTILATION
M204B	FOURTH FLOOR PLAN - EAST - VENTILATION
M205	ROOF PLAN - MECHANICAL
M400	MECHANICAL DETAILS
M401	MECHANICAL DETAILS
M500	MECHANICAL SCHEDULES
M501	MECHANICAL SCHEDULES
M502	MECHANICAL SCHEDULES

NO.	DESCRIPTION	DATE
3	ADD 4	04/02/18



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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 professional engineer under the laws of the State of Minnesota.
Signature:
Reg. No. 433950
Date: 04/02/2018
Printed Name: JON D. MESSING

REVISION SCHEDULE

NO.	DESCRIPTION	DATE
3	ADD 4	04/02/18

JLG ARCHITECTS
BOTTINEAU RIDGE II APARTMENTS
MAPLE GROVE, MN

DATE
12/4/17

PHASE
CONSTRUCTION
DOCUMENTS

PROJECT
ONE# 2016446

SHEET
M000
MECHANICAL TITLE
SHEET

GENERAL ELECTRICAL NOTES:

A. LABEL ALL RECEPTACLES PLATES AS DESCRIBED IN SPEC SECTION IDENTIFICATION FOR ELECTRICAL SYSTEMS. INCLUDE LABELING ON BACK OF DEVICE PLATE IN PERMANENT INK.

B. LABEL ALL ADDRESSABLE FIRE ALARM DEVICES AS DESCRIBED IN SPEC SECTION IDENTIFICATION FOR ELECTRICAL SYSTEMS.

C. LABEL ALL PANELBOARDS AS DESCRIBED IN SPEC SECTION IDENTIFICATION FOR ELECTRICAL SYSTEMS.

D. PROVIDE AND FLASH LABELS AT AN AREA SPECIFIED FOR ELECTRICAL SYSTEMS.

E. RECEPTACLE CIRCUITS: PROVIDE A MINIMUM OF ONE 4" SQUARE 2-1/8" DEEP JUNCTION BOX AT THE ACCESSIBLE CEILING IN EACH ROOM.

F. CONDUIT FITTINGS SHALL BE STEEL WITH SET SCREWS AND INSULATED THROATS. USE WATER-TIGHT FITTINGS IN ALL LOCATIONS ONLY.

G. ALL DEVICES MOUNTED AT ACCESSIBLE CEILINGS SHALL BE MOUNTED FROM A JUNCTION BOX WITH FLEXIBLE METAL CONDUIT.

H. ALL FIRE ALARM CONDUIT SHALL BE RED. ALL CONDUIT FOR COMMUNICATIONS, CONTROL, AND OTHER SYSTEMS 50 VOLTS AND LESS SHALL BE BLUE UNLESS INSTALLED IN AN EXPOSED FINISHED AREA. THEN CONDUIT SHALL BE PAINTED TO MATCH.

I. MAKE CONNECTIONS TO VIBRATING EQUIPMENT (INCLUDING MOTORS) USING FLEXIBLE CONDUIT WITH STRANDED CONDUCTORS.

J. MULTIPLE BRANCH CIRCUITS SHALL NOT BE ACCEPTABLE. SHALL DEDICATED NEUTRAL CONDUCTOR IDENTIFIED WITH TRACER WIRE, COLOR TO MATCH PHASE CONDUCTOR.

K. NEUTRAL CONDUCTOR SIZE SHALL MATCH PHASE CONDUCTORS.

L. PROVIDE GROUND CONDUCTOR IN ALL FEEDERS AND BRANCH CIRCUITS. SEE SPEC SECTION GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS.

M. COLOR OF SWITCH LINE CONDUCTORS SHALL MATCH PHASE CONDUCTORS AND BE IDENTIFIED WITH COLOR CODE THREE AND FOUR MAY SWITCH.

N. CONDUCTOR IDENTIFICATION SHALL BE IDENTIFIED WITH COLOR CODE THREE AND FOUR MAY SWITCH.

O. CONTRACTOR/SUB-CONTRACTOR SHALL MAKE SUBMISSIONS ASAP, WHICH SHALL BE APPROVED BY THE LICENSED ENGINEER IN RESPONSIBLE CHARGE AND THE CITY OF MARLE GROVE PRIOR TO ANY WORK BEGINNING.

ELECTRICAL SHEET INDEX

E000	ELECTRICAL TITLE SHEET
E001	SITE PLAN - ELECTRICAL
E100	GARAGE FLOOR PLAN - WEST - LIGHTING
E101	GARAGE FLOOR PLAN - EAST - LIGHTING
E102	FIRST FLOOR PLAN - WEST - LIGHTING
E103	FIRST FLOOR PLAN - EAST - LIGHTING
E104	SECOND FLOOR PLAN - WEST - LIGHTING
E105	SECOND FLOOR PLAN - EAST - LIGHTING
E106	THIRD FLOOR PLAN - WEST - LIGHTING
E107	THIRD FLOOR PLAN - EAST - LIGHTING
E108	FOURTH FLOOR PLAN - WEST - LIGHTING
E109	FOURTH FLOOR PLAN - EAST - LIGHTING
E200	GARAGE FLOOR PLAN - WEST - POWER/SYSTEMS
E201	GARAGE FLOOR PLAN - EAST - POWER/SYSTEMS
E202	FIRST FLOOR PLAN - WEST - POWER/SYSTEMS
E203	FIRST FLOOR PLAN - EAST - POWER/SYSTEMS
E204	SECOND FLOOR PLAN - WEST - POWER/SYSTEMS
E205	SECOND FLOOR PLAN - EAST - POWER/SYSTEMS
E206	THIRD FLOOR PLAN - WEST - POWER/SYSTEMS
E207	THIRD FLOOR PLAN - EAST - POWER/SYSTEMS
E208	FOURTH FLOOR PLAN - WEST - POWER/SYSTEMS
E209	FOURTH FLOOR PLAN - EAST - POWER/SYSTEMS
E300	LARGE SCALE UNIT PLANS - ELECTRICAL
E301	LARGE SCALE UNIT PLANS - ELECTRICAL
E302	LARGE SCALE UNIT PLANS - ELECTRICAL
E400	ELECTRICAL RISER AND DETAILS
E401	
E402	POWER DETAILS
E500	LIGHTING SCHEDULE
E501	MOTOR AND EQUIPMENT SCHEDULE
E502	PANEL SCHEDULES
E521	PANEL SCHEDULES

ALTERNATE NO. 1
(SEE MECHANICAL DESIGN
NARRATIVE -M1) COORDINATE
OFFICIAL WORK SCOPE WITH
FINAL ALTERANTE DESIGN:

1. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR HOT WATER CABINET UNIT HEATERS IN THE VESTIBULES
2. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR UNIT HEATERS IN VESTIBULES EQUAL TO BERKO GCHS, 3000W, 200V/1PH, INTEGRAL T-STAT, SEMI-RECESS KIT, 200V/1PH, 20A/2P CIRCUT BREAKERS IN PANELS
3. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR BOLLERS B-1, B-2, B-3, B-4 AND ASSOCIATED PUMPS P-1, BP-1, BP-2, BP-3, BP-4, AND BP-4.
4. REPLACE ELECTRICAL CONNECTIONS TO FAN COIL UNITS FCU-1, FCU-2, FCU-3, AND FCU-4 WITH 120V POWER CONNECTIONS TO NEW GAS FURNACES
5. REMOVE 120V POWER CONNECTIONS TO GAS WATER HEATERS
6. REVISE 200V/1PH RECEPTACLE AND BREAKER SIZE FOR APARTMENT UNITS IN LIEU OF 200V/0PH APARTMENT UNIT LIVING ROOM AC UNITS
7. REVISE GAS PIPING, GAS VALVE, AND FEEDER SIZES TO ACCOMMODATE NEW LOADS.

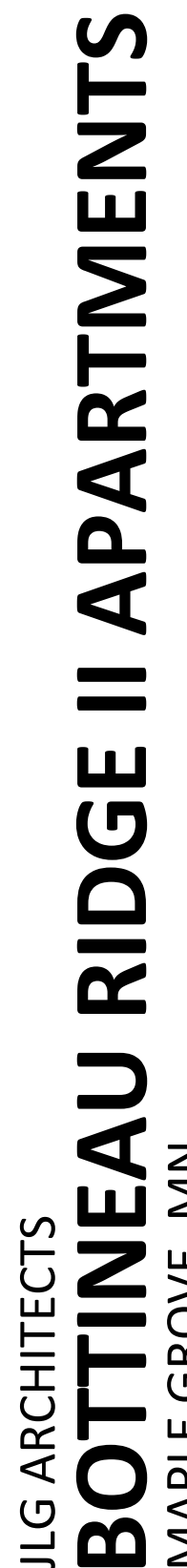
REVISION SCHEDULE

NO.	DESCRIPTION	DATE
3	ADD 4	04/02/18



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

- 1 REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR HOT WATER CABINET UNIT IN THE VESTIBULES.
- 2 REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR HOT WATER HEATERS IN VESTIBULES EQUIP TO BERKO QUINCY, 3000V/ 208V/1PH, INTEGRAL T-STAT, SEMI-RECESS KIT. PROVIDE 20A/2P CIRCUIT BREAKERS IN PANELS.
- 3 REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR BOLERS B-1, B-2, B-3, B-4 AND ASSOCIATED PUMPS P-1, BP-1, BP-2, BP-3, AND BP-4.
- 4 REPLACE ELECTRICAL CONNECTIONS TO FAN COIL UNITS FCU-1, FCU-2, FCU-3, AND FCU-4 INTO 20V POWER CONNECTIONS TO NEW GAS FURNACES.
- 5 PROVIDE 120V POWER CONNECTIONS TO GAS WATER HEATERS.
- 6 REVERSE 208V/1PH RECEPTACLE AND BREAKER SIZE FOR APARTMENT UNITS IN LIEU OF 208V/0PH APARTMENT UNIT LIVING ROOM AC UNITS.



**FIRST FLOOR PLAN -
WEST -
POWER/SYSTEMS**

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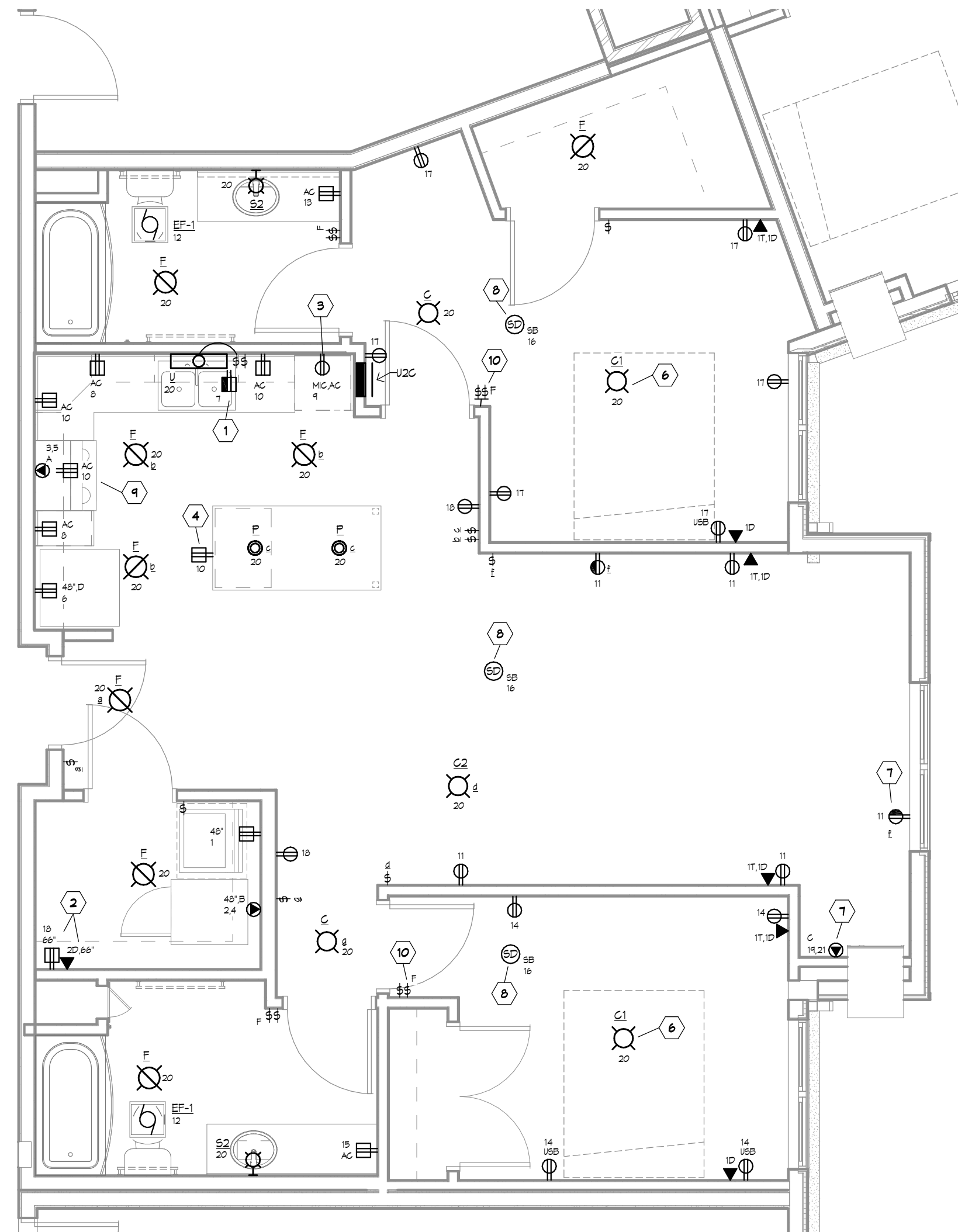
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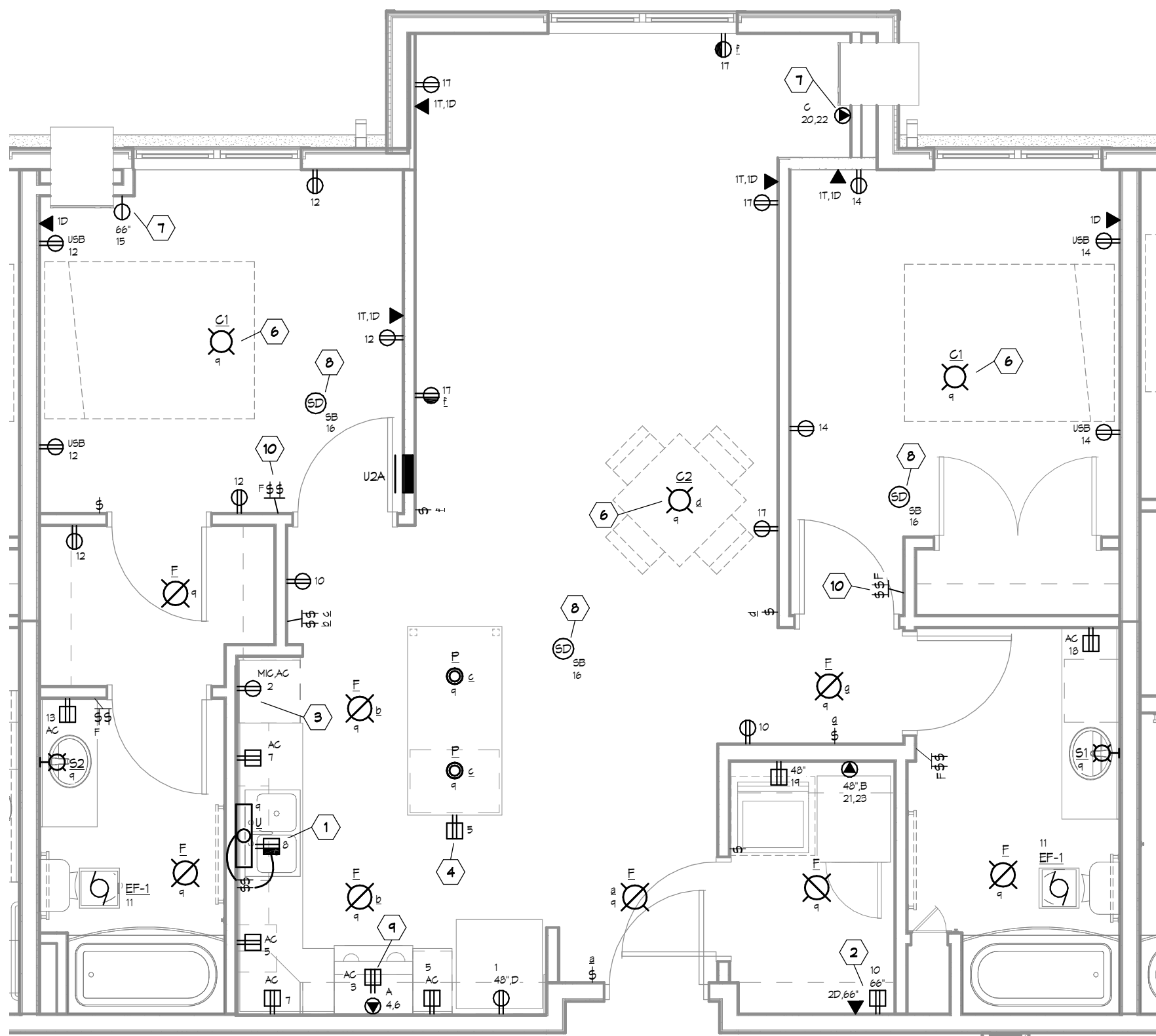
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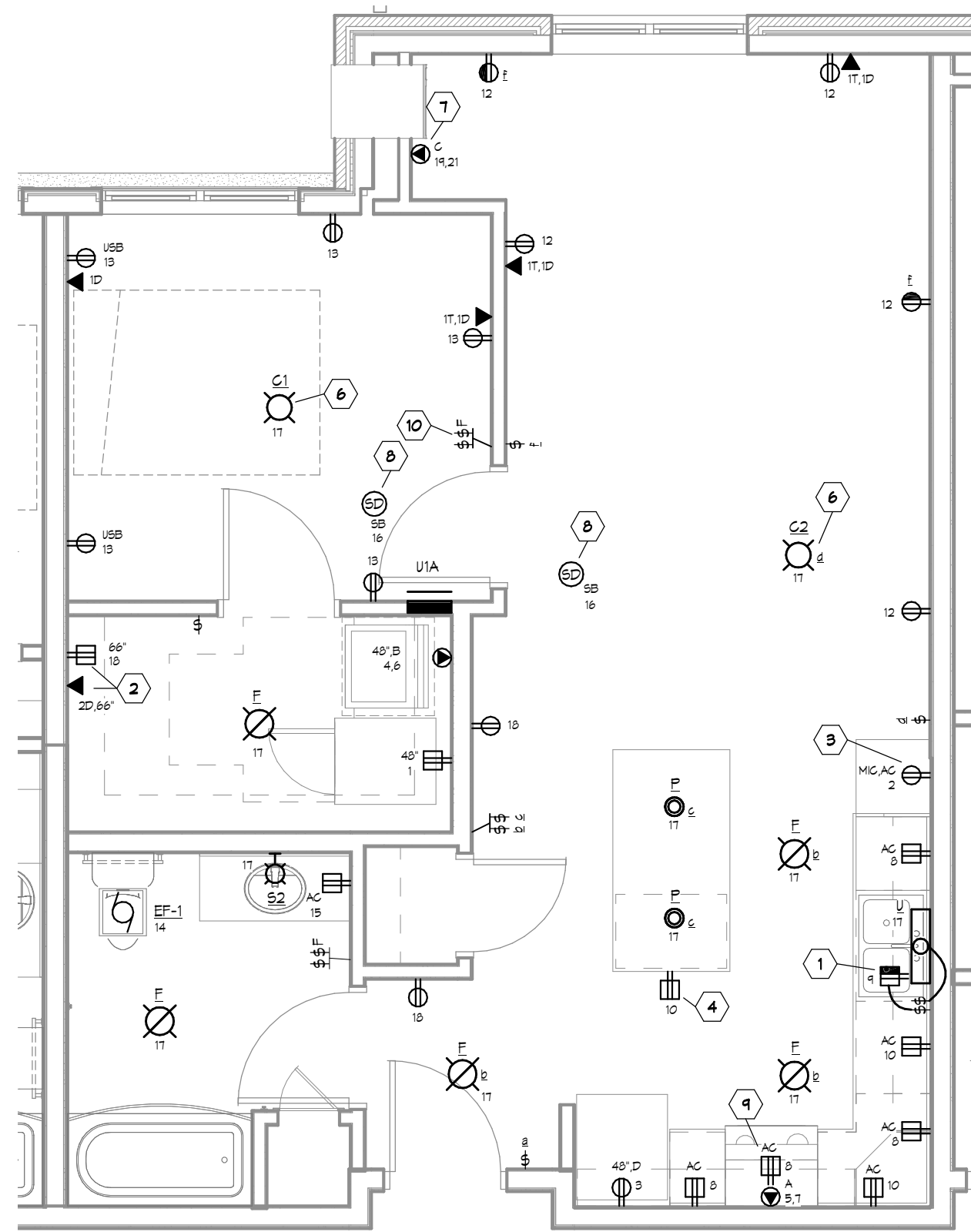
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3 LARGE SCALE UNIT 2C - ELECTRICAL
SCALE: 1/4" = 1'-0"



2 1/4" UNIT 2A - ELECTRICAL
SCALE: 1/4" = 1'-0"



1 1/4" UNIT 1A - ELECTRICAL
SCALE: 1/4" = 1'-0"

ALTERNATE NO. 1
(SEE MECHANICAL DESIGN
NARRATIVE -M1) COORDINATE
OFFICIAL WORK SCOPE WITH
FINAL ALTERANTE DESIGN:

1. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR HOT WATER CABINET UNIT HEATERS IN THE VESTIBULES.
2. PROVIDE ELECTRIC CABINET UNIT HEATERS IN VESTIBULES EQUAL TO BERKO CUH2B, 3000W, 208V/1PH, INTEGRAL T-STAT, SEMI-RECESS KIT. PROVIDE 20A/2P CIRCUIT BREAKERS IN PANELS.
3. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR BOILERS B-1, B-2, B-3, B-4 AND ASSOCIATED PUMPS PP-1, BP-1, BP-2, BP-3, AND BP-4.
4. REPLACE ELECTRICAL CONNECTIONS TO FAN COIL UNITS FGU-1, FGU-2, FGU-3, AND FGU-4 WITH 120V POWER CONNECTIONS TO NEW GAS FURNACES.
5. PROVIDE 120V POWER CONNECTIONS TO GAS WATER HEATERS.
6. REVISE 208V/1PH RECEPTACLE AND BREAKER SIZE FOR APARTMENT UNITS IN LBU OF 208V/0PH APARTMENT UNIT LIVING ROOM AC UNITS.
7. REVISE PANEL, CIRCUIT BREAKER, AND FEEDER SIZES TO ACCOMMODATE NEW LOADS.

GEN. LARGE SCALE
UNIT ELEC. NOTES:

A. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.

B. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.

C. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.

D. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 18' SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.

E. LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR, WITHIN 12" OF DOOR/SLIGHT FRAMING. UNLESS NOTED OTHERWISE, LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SINGS SHALL BE MOUNTED CLEAR OF DOOR SINGS AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES.

F. MOUNT BOTTOM OF DEVICES INDICATED WITH "AC" (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPLASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.

G. MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.

H. PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS.

I. DUPLEX RECEPTACLES IN APARTMENT UNITS SHALL BE TAMPER RESISTANT.

J. 15A/1P AND 20A/1P LOADS SHALL BE PROVIDED WITH A COMBINATION AFCI CIRCUIT BREAKER AT PANEL.

K. LOCATIONS IN APARTMENT UNIT WHERE RECEPTACLES ARE A IN SAME LOCATION AS MECHANICAL FITTING. INSTALL RECEPTACLE SO BOTTOM OF RECEPTACLE IS 3" ABOVE TOP OF FN TUBE. COORDINATE WITH M.C.

1/4" UNIT ELEC. SHEET NOTES:

1. PROVIDE SPUT-WIRED RECEPTACLE BELOW SINK FOR DISHWASHER AND DISPOSAL. PROVIDE SWITCH ABOVE COUNTER NEXT TO SINK TO CONTROL DISPOSAL.
2. VOICE, DATA, AND CABLE HEAD END LOCATION FOR UNITS COMMUNICATION CABLING. ROUTE UNITS COMMUNICATION CABLING FROM EACH LOCATION TO THIS POINT. MODEM AND ROUTER PROVIDED BY OTHERS. ROUTE (1) CAT 6 AND (1) COAX CABLE FROM THIS LOCATION TO DATA AND CABLE TERMINAL BOARDS IN MAIN ELECTRICAL ROOM IN THE GARAGE LEVEL.
3. MICROWAVE RECEPTACLE HEIGHT INDICATED IS APPROXIMATE. E.G. SHALL ROUGH-IN AT KNOCK IN CASEWORK. COORDINATE MOUNTING HEIGHT AND OPENING IN CASEWORK WITH CASEWORK INSTALLER.
4. RECEPTACLE SHALL BE INSTALLED 2" BELOW BOTTOM OF COUNTER TOP. COORDINATE ROUGH-IN OPENING WITH CASEWORK INSTALLER.
5. COORDINATE RECEPTACLE ROUGH-IN WITH MIRROR LOCATION PRIOR TO ROUGH-IN. VERIFY WITH ARCHITECT / S.G.
6. PROVIDE 4" ROUND FAN RATED J-BOX.
7. INSTALL RECEPTACLE ON CORD SIDE OF AC UNIT. BOTTOM OF RECEPTACLE TO BE 8" ABOVE BOTTOM OF AC UNIT. COORDINATE MOUNTING AND CONNECTION WITH AC UNIT APPROVED SHOP DRAWING.
8. SMOKE DETECTORS IN FIRST FLOOR APARTMENT UNITS SHALL BE TYPE 1 MONOXIDE/SMOKE DETECTION TYPE. UNDER ALTERNATE 1 MECHANICAL DESIGN, ALL UNITS TO BE COMBINATION CARBON MONOXIDE/SMOKE DETECTION TYPE.
9. PROVIDE 120V CONNECTION TO RANGE HOOD.
10. 2-GANG BOX FOR ROOM SWITCH AND PROVISIONS FOR FUTURE FAN CONTROL. PLATE TO BE 1 TOGGLE AND BLANK.



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1.877.380.0501

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 Professional Engineer under the laws of the State of Minnesota.

Reg. No. 44225 Signature: [Signature]
Date: 04/03/2018 Title: Project Engineer

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
3	ADD 4	04/02/18

JLG ARCHITECTS
BOTTINEAU RIDGE II APARTMENTS
MAPLE GROVE, MN

DATE
12/11/2017
PHASE
CONSTRUCTION
DOCUMENTS
PROJECT
ONE# 2016446
SHEET
E300
LARGE SCALE UNIT
PLANS - ELECTRICAL

D

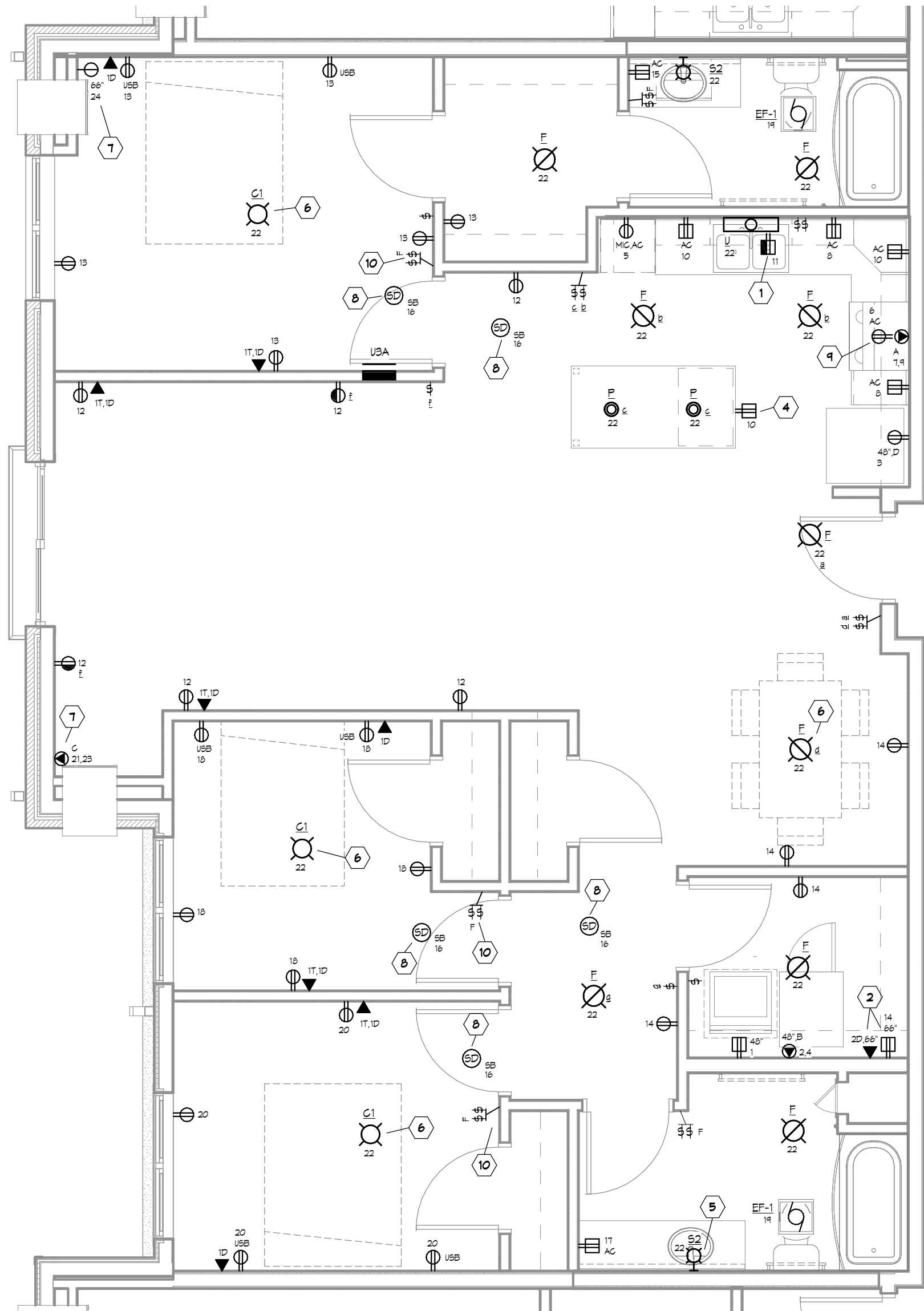
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2 1/4" UNIT 3A - ELECTRICAL
E301 SCALE: 1/4" = 1'-0"



GEN. LARGE SCALE
UNIT ELEC. NOTES:

- ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
- PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
- BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 15' SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
- LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR, WITHIN 12" OF DOOR/SIDE LIGHT FRAMES, UNLESS NOTED OTHERWISE. LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SWINGS SHALL BE MOUNTED CLEAR OF DOOR SWING AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES.
- MOUNT BOTTOM OF DEVICES INDICATED WITH 'AC' (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPLASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CABENKOR WITH ARCHITECTURAL CABENKOR DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.
- MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
- PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS.
- DUPLEX RECEPTACLES IN APARTMENT UNITS SHALL BE TAMPER RESISTANT.
- 15A/1P AND 20A/1P LOADS SHALL BE PROVIDED WITH A COMBINATION AFCI CIRCUIT BREAKER AT PANEL.
- LOCATIONS IN APARTMENT UNIT WHERE RECEPTACLES ARE A IN SAME LOCATION AS MECHANICAL FIN TUBE. INSTALL RECEPTACLE 50 BOTTOM OF RECEPTACLE IS 3" ABOVE TOP OF FIN TUBE. COORDINATE WITH M.C.

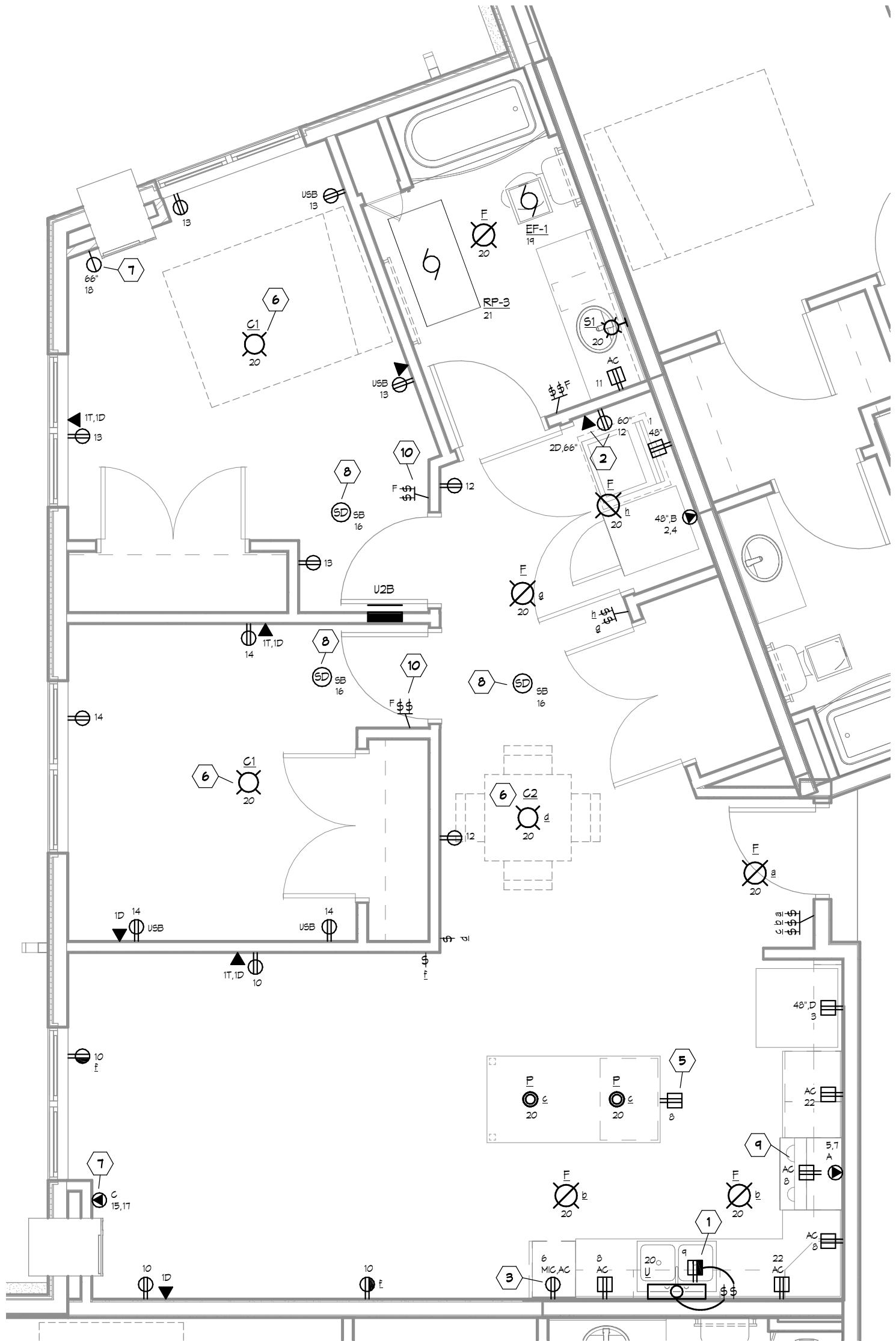
1/4" UNIT ELEC. SHEET NOTES:

- PROVIDE SPLIT-WIRED RECEPTACLE BELOW SINK FOR DISHWASHER AND DISPOSAL. PROVIDE SWITCH ABOVE COUNTER NEXT TO SINK TO CONTROL DISPOSAL.
- VOICE, DATA, AND CABLE HEAD END LOCATION FOR UNITS COMMUNICATION CABLING. ROUTE UNITS COMMUNICATION CABLING FROM EACH LOCATION TO THIS POINT. MODEM AND ROUTER PROVIDED BY OTHERS. ROUTE (1) CAT 6 AND (1) COAX CABLE FROM THIS LOCATION TO DATA AND CABLE TERMINAL BOARDS IN MAIN ELECTRICAL ROOM IN THE GARAGE LEVEL.
- MICROWAVE RECEPTACLE, HEIGHT INDICATED IS APPROXIMATE. E.G. SHALL ROUGH-IN AT KNOCK IN CABENKOR. COORDINATE MOUNTING HEIGHT AND OPENING IN CABENKOR WITH CABENKOR INSTALLER.
- RECEPTACLE SHALL BE INSTALLED 2" BELOW BOTTOM OF COUNTER TOP. COORDINATE ROUGH-IN OPENING WITH CABENKOR INSTALLER.
- COORDINATE RECEPTACLE ROUGH-IN WITH MIRROR LOCATION PRIOR TO ROUGH-IN. VERIFY WITH ARCHITECT / S.C.
- PROVIDE 4" ROUND FAN RATED J-BOX.
- INSTALL RECEPTACLE ON CORD SIDE OF AC UNIT. BOTTOM OF RECEPTACLE TO BE 6" ABOVE BOTTOM OF AC UNIT. COORDINATE MOUNTING AND CONNECTION WITH AC UNIT APPROVED SHOP DRAWING.
- SMOKE DETECTORS IN FIRST FLOOR APARTMENT UNITS MONOXIDE/SMOKE DETECTION TYPE. UNDER ALTERNATE 1 MECHANICAL DESIGN. ALL UNITS TO BE COMBINATION CARBON MONOXIDE/SMOKE DETECTION TYPE.
- PROVIDE 120V CONNECTION TO RANGE HOOD.
- 2-GANG BOX FOR ROOM SWITCH AND PROVISIONS FOR FUTURE FAN CONTROL. PLATE TO BE 1 TOGGLE AND BLANK.

ALTERNATE NO. 1
(SEE MECHANICAL DESIGN
NARRATIVE -M1) COORDINATE
OFFICIAL WORK SCOPE WITH
FINAL ALTERANTE DESIGN:

- REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR HOT WATER CABINET UNIT HEATERS IN THE VESTIBULES.
- PROVIDE ELECTRIC CABINET UNIT HEATERS IN VESTIBULES EQUAL TO BERKO CUHRS, 3000W, 200V/1PH, INTEGRAL T-STAT, 50A-RECESS KIT. PROVIDE 20A/2P CIRCUIT BREAKERS IN PANELS.
- REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR BOILERS B-1, B-2, B-3, B-4 AND ASSOCIATED PUMPS PP-1, BP-1, BP-2, BP-3, AND BP-4.
- REPLACE ELECTRICAL CONNECTIONS TO FAN COIL UNITS FCU-1, FCU-2, FCU-3, AND FCU-4 WITH 120V POWER CONNECTIONS TO NEW GAS FURNACES.
- PROVIDE 120V POWER CONNECTIONS TO GAS WATER HEATERS.
- REVISE 200V/1PH RECEPTACLE AND BREAKER SIZE FOR APARTMENT UNITS IN LIEU OF 200V/1PH APARTMENT UNIT LIVING ROOM AC UNITS.
- REVISE PANEL, CIRCUIT BREAKER, AND FEEDER SIZES TO ACCOMMODATE NEW LOADS.

1 1/4" UNIT 2B - ELECTRICAL
E301 SCALE: 1/4" = 1'-0"



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 Professional Engineer under the laws of the State of Minnesota.

Reg. No. 44225 Date 04/03/2018

Signature: JEFF N. BRESSEL

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
2	ADD 2	12/11/17
3	ADD 4	04/02/18

JLG ARCHITECTS
BOTTINEAU RIDGE II APARTMENTS
MAPLE GROVE, MN

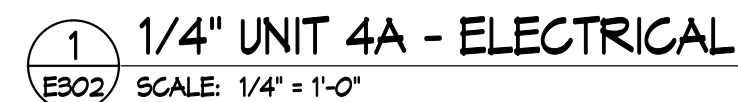
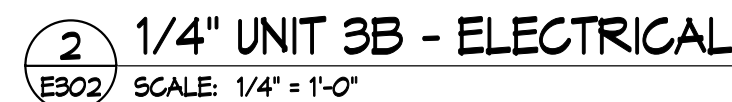
DATE
12/11/2017

PHASE
CONSTRUCTION

DOCUMENTS

PROJECT
ONE# 2016446

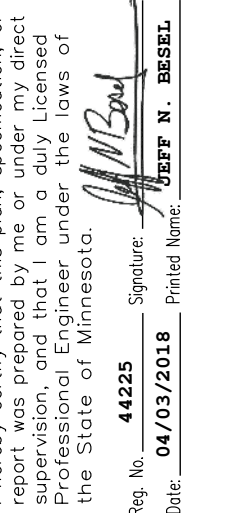
SHEET
E301
LARGE SCALE UNIT
PLANS - ELECTRICAL



- A. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- B. PROVIDE FIRE RATED RACKS FOR ALL FIRE RATED FLOOR AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODES FOR EGRESS.
- C. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLEING.
- D. BRIDGE CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 18" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND.
- E. LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR. WITHIN 12" OF DOOR/SLIGHT/FRAMING, UNLESS NOTED OTHERWISE. LIGHT SWITCHES INSTALLED AT END OF DOOR SHALL BE WITHIN 12" OF DOOR, CLEAR OF DOOR SWING AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER PANEL DEVICES.
- F. MOUNT ALL DEVICES INDICATED WITH "AO" (ABOVE/COUNTER) A MINIMUM OF 3' ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, (INCH/EVER IS HIGH) TO BE COORDINATED WITH ALL WORK WITH ARCHITECTURAL CASEWORK DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION. MOUNT POWER AND DATA RECEPTACLES AT THE SAME LEVEL.
- G. PROVIDE ALL DATA, VOICE AND TV LOCATIONS AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
- H. PROVIDE DOUBLE GANG, 2-BOX WITH SINGLE GANS MID-BOX, 2-BOX, 3-BOX, AND TV LOCATIONS.
- I. DUPLEX RECEPTACLES IN APARTMENT UNITS SHALL BE TAMPER RESISTANT.
- J. ALL 100A-150A LOADS SHALL BE PROVIDED WITH A COMBINATION AFCI CIRCUIT BREAKER AT PANEL.
- K. LOCATIONS IN APARTMENT UNIT WHERE RECEPTACLES ARE IN A SAME LOCATION AS MECHANICAL, FINITE, BUILT IN RECEPTACLE SHALL BE 3' ABOVE TOP OF FIN. TUBE. COORDINATE WITH M.C.

- 1 PROVIDE SPLIT-WIRE RECEPTACLE BELOW SINK FOR DISHWASHER AND DISPOSAL. PROVIDE SWITCH ABOVE COUNTER NEXT TO SINK TO CONTROL DISPOSAL.
- 2 VOICE, DATA, AND CABLE HEAD END LOCATION FOR UNITS COMMUNICATION CABLING. ROUTE UNITS COMMUNICATION CABLING FROM EACH LOCATION TO THIS POINT. MODERN AND ROUTER PROVIDED BY OTHER. ROUTE (1) CAT 6 AND (1) COAX CABLE FROM THE LOCATION TO DATA AND CABLE TERMINAL BOARDS IN MAIN ELECTRICAL ROOM IN THE GARAGE LEVEL.
- 3 MICROVANE RECEPTACLE, HEIGHT INDICATED IS APPROXIMATE. E.G. SHALL ROUGH-IN AT KNOCK IN CASEWORK. COORDINATE MOUNTING HEIGHT AND OPENING IN CASEWORK WITH CASEWORK INSTALLER.
- 4 RECEPTACLE SHALL BE INSTALLED 2' BELOW BOTTOM OF COUNTER TOP. COORDINATE ROUGH-IN OPENING WITH CASEWORK INSTALLER.
- 5 COORDINATE RECEPTACLE ROUGH-IN WITH MIRROR LOCATION PRIOR TO ROUGH-IN. VERIFY WITH ARCHITECT / S.G.
- 6 PROVIDE 4" ROUND FAN RATED J-BOX.
- 7 INSTALL RECEPTACLE ON CORD SIDE OF AC UNIT. BOTTOM OF RECEPTACLE TO BE 6" ABOVE BOTTOM OF AC UNIT. COORDINATE MOUNTING AND CONNECTION WITH AC UNIT APPROVED SHOP DRAWING.
- 8 SMOKE DETECTORS IN FIRST FLOOR APARTMENT UNITS SHALL BE TYPE 100% MONOXIDE DETECTION TYPE. MONOXIDE/SMOKE DETECTION TYPE UNDER ALTERNATE 1 MECHANICAL DESIGN. ALL UNITS TO BE COMBINATION CARBON MONOXIDE/SMOKE DETECTION TYPE.
- 9 PROVIDE 120V CONNECTION TO RANGE HOOD.
- 10 2-GANG BOX FOR ROOM SWITCH AND PROVISIONS FOR FUTURE FAN CONTROL. PLATE TO BE 1 TOGGLE AND BLANK.

1. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR HOT WATER CABINET UNIT HEATERS IN THE VESTIBULES.
2. PROVIDE ELECTRICAL CONNECTIONS IN VESTIBULE EQUAL TO: 200V/1PH, 3000VA, 200V/1PH, INTEGRAL T-STAT, SEMI-RECESS KIT, PROVIDE 20A/2P CIRCUIT BREAKERS IN PANELS.
3. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR: BP-1, BP-2, BP-3, BP-4 AND ASSOCIATED PUMPS PP-1, BP-1, BP-2, BP-3, AND BP-4.
4. MAKE ELECTRICAL CONNECTIONS TO PAN COIL UNITS: FCU-1, FCU-2, FCU-3, AND FCU-4 INTX 120V POWER CONNECTIONS TO NEX GAS FURNACES.
5. PROVIDE 120V POWER CONNECTIONS TO GAS WATER HEATERS.
6. REVISE 200V/1PH RECEPTACLE AND BREAKER SIZE FOR APARTMENT UNITS IN LEO OF 200V/1PH, APARTMENT UNIT LIVING ROOM AC UNITS.
7. REVISE PANEL, CIRCUIT BREAKER, AND FEEDER SIZES TO ACCOMMODATE NEW LOADS.



REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
4	ADD 4	04/02/18

BOTTINEAU RIDGE II APARTMENTS
MAPLE GROVE, MN

JULG ARCHITECTS
DOTT

E302
LARGE SCALE UNIT
PLANS - ELECTRICAL

D

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4/2/2018 3:53:01 PM

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ALTERNATE NO. 1
(SEE MECHANICAL DESIGN
NARRATIVE -M1) COORDINATE
OFFICIAL WORK SCOPE WITH
FINAL ALTERANTE DESIGN:

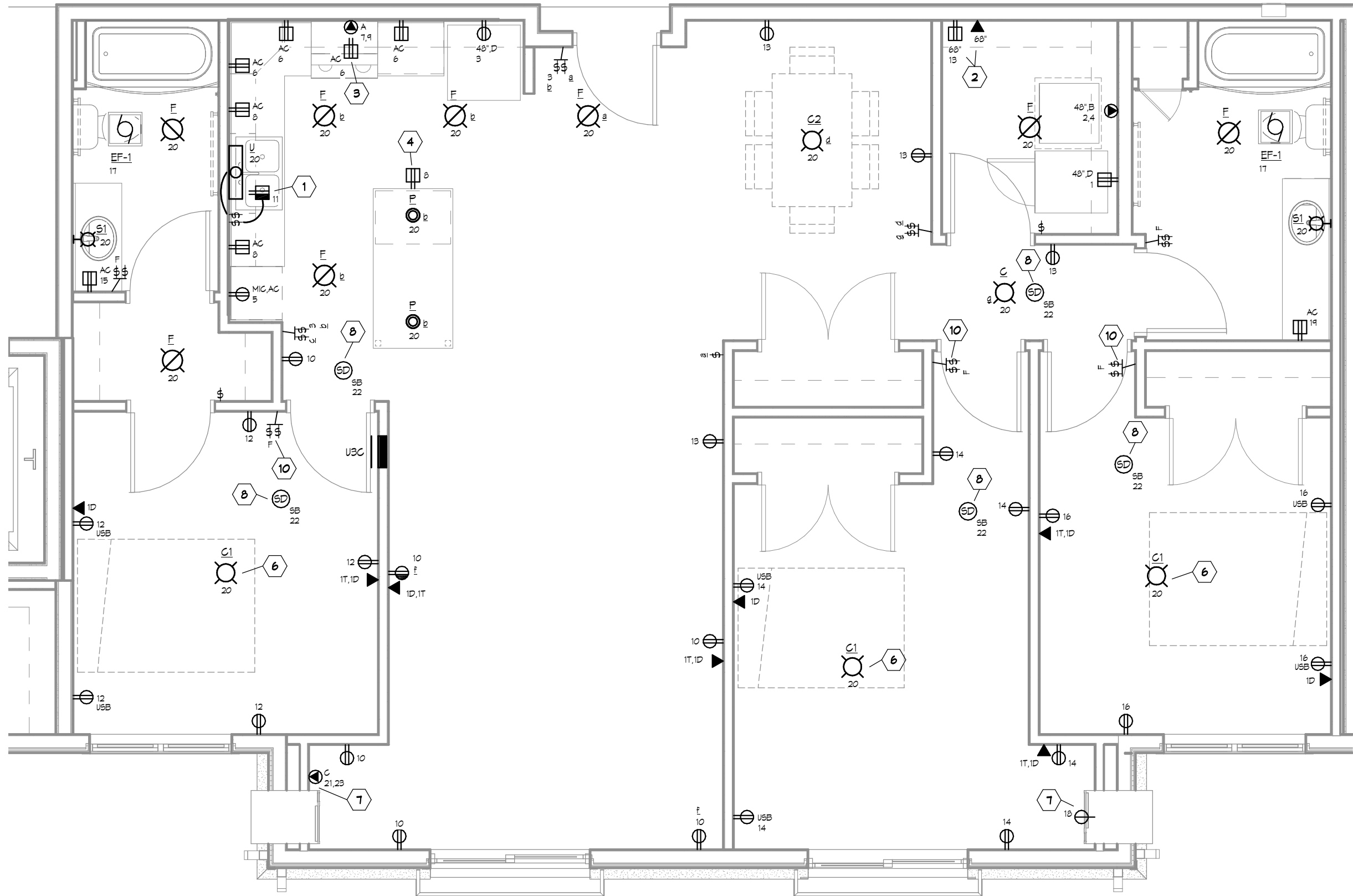
1. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR HOT WATER CABINET UNIT HEATERS IN THE VESTIBULES.
2. PROVIDE ELECTRIC CABINET UNIT HEATERS IN VESTIBULES EQUAL TO BERKO CUH35, 3000W, 208V/1PH, INTEGRAL T-STAT, SEMI-RECESS KIT. PROVIDE 20A/2P CIRCUIT BREAKERS IN PANELS.
3. REMOVE POWER CONNECTIONS AND ASSOCIATED ELECTRICAL ITEMS FOR BOILERS B-1, B-2, B-3, B-4 AND ASSOCIATED PUMPS PF-1, BF-1, BF-2, BF-3, AND BF-4.
4. REPLACE ELECTRICAL CONNECTIONS TO FAN COIL UNITS FCU-1, FCU-2, FCU-3, AND FCU-4 WITH 120V POWER CONNECTIONS TO NEW GAS FURNACES.
5. PROVIDE 120V POWER CONNECTIONS TO GAS WATER HEATERS.
6. REVISE 208V/1PH RECEPTACLE AND BREAKER SIZE FOR APARTMENT UNITS IN LEI OF 208V/3PH APARTMENT UNIT LIVING ROOM AC UNITS.
7. REVISE PANEL, CIRCUIT BREAKER, AND FEEDER SIZES TO ACCOMMODATE NEW LOADS.

GEN. LARGE SCALE
UNIT ELEC. NOTES:

- A. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- B. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
- C. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
- D. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 15' SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRING.
- E. LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR, WITHIN 12" OF DOOR/SIDELIGHT FRAMING, UNLESS NOTED OTHERWISE. LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SWINGS SHALL BE MOUNTED CLEAR OF DOOR SWING AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES.
- F. MOUNT BOTTOM OF DEVICES INDICATED WITH "AC" (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPLASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.
- G. MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
- H. PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS.
- I. DUPLEX RECEPTACLES IN APARTMENT UNITS SHALL BE TAMPER RESISTANT.
- J. 15A/1P AND 20A/1P LOADS SHALL BE PROVIDED WITH A COMBINATION AFCI CIRCUIT BREAKER AT PANEL.
- K. LOCATIONS IN APARTMENT UNIT WHERE RECEPTACLES ARE A IN SAME LOCATION AS MECHANICAL FIN/TUBE. INSTALL RECEPTACLE SO BOTTOM OF RECEPTACLE IS 3" ABOVE TOP OF FIN/TUBE. COORDINATE WITH M.C.

1/4" UNIT ELEC. SHEET NOTES:

1. PROVIDE SPLIT-WIRED RECEPTACLE BELOW SINK FOR DISHWASHER AND DISPOSAL. PROVIDE SWITCH ABOVE COUNTER NEXT TO SINK TO CONTROL DISPOSAL.
2. VOICE, DATA, AND CABLE HEAD END LOCATION FOR UNITS COMMUNICATION CABLING. ROUTE UNITS COMMUNICATION CABLING FROM EACH LOCATION TO THIS POINT. MODEM AND ROUTER PROVIDED BY OTHERS. ROUTE (1) CAT 6 AND (1) COAX CABLE FROM THIS LOCATION TO DATA AND CABLE TERMINAL BOARDS IN MAIN ELECTRICAL ROOM IN THE GARAGE LEVEL.
3. MICROWAVE RECEPTACLE, HEIGHT INDICATED IS APPROXIMATE. E.G. SHALL ROUGH-IN AT KNOCK IN CASEWORK. COORDINATE MOUNTING HEIGHT AND OPENING IN CASEWORK WITH CASEWORK INSTALLER.
4. RECEPTACLE SHALL BE INSTALLED 2" BELOW BOTTOM OF COUNTER TOP. COORDINATE ROUGH-IN OPENING WITH CASEWORK INSTALLER.
5. COORDINATE RECEPTACLE ROUGH-IN WITH MIRROR LOCATION PRIOR TO ROUGH-IN. VERIFY WITH ARCHITECT / G.C.
6. PROVIDE 4" ROUND FAN RATED J-BOX.
7. INSTALL RECEPTACLE ON CORD SIDE OF AC UNIT. BOTTOM OF RECEPTACLE TO BE 6" ABOVE BOTTOM OF AC UNIT. COORDINATE MOUNTING AND CONNECTION WITH AC UNIT APPROVED SHOP DRAWINGS.
8. SMOKE DETECTORS IN FIRST FLOOR APARTMENT UNITS MONOXIDE/SMOKE DETECTION TYPE UNDER ALTERNATE 1 MECHANICAL DESIGN. ALL UNITS TO BE COMBINATION CARBON MONOXIDE/SMOKE DETECTION TYPE.
9. PROVIDE 120V CONNECTION TO RANGE HOOD.
10. 2-GANG BOX FOR ROOM SWITCH AND PROVISIONS FOR FUTURE FAN CONTROL. PLATE TO BE 1 TOGGLE AND BLANK.



1 THIRD FLOOR PLAN - POWER/SYSTEMS
SCALE: 1/4" = 1'-0"

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 Professional Engineer under the laws of the State of Minnesota.

Reg. No. 44225 Signature: [Signature] Date: 04/03/2018

Printed Name: JEFF N. BRESSEL

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
3	ADD 4	04/02/18

JLG ARCHITECTS
BOTTINEAU RIDGE II APARTMENTS
MAPLE GROVE, MN

DATE
12/11/2017

PHASE
CONSTRUCTION

DOCUMENTS

PROJECT
ONE# 2016446

SHEET
E303
LARGE SCALE UNIT
PLANS - ELECTRICAL