

ELECTRICAL ABBREVIATIONS

Table of electrical abbreviations including symbols and descriptions for various components like switches, conduits, and equipment.

GENERAL ELECTRICAL NOTES:

- List of general electrical notes (A-P) providing specific instructions for installation, labeling, and safety.

ELECTRICAL SHEET INDEX

Index table listing sheet numbers (E000-E021) and their corresponding titles, such as 'ELECTRICAL TITLE SHEET' and 'GARAGE FLOOR PLAN - WEST - LIGHTING'.

ELECTRICAL SYMBOLS

Comprehensive section for electrical symbols, organized into categories: SHEET, WIRING AND RACEWAY, MISCELLANEOUS, LIGHTING, LIGHTING CONTROL, AUTOMATIC LIGHTING CONTROL, DISTRIBUTION, ELECTRICAL DEVICE, HEATING, AUDIO/VISUAL, ACCESS, and FIRE ALARM.



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REVISION SCHEDULE table with columns for NO., DESCRIPTION, and DATE.

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
MAPLE GROVE, MN

DATE: 11/10/2017  
PHASE: PROGRESS  
SET  
PROJECT: ONE# 2016446  
SHEET: **E000**  
ELECTRICAL TITLE SHEET

6

5

4

3

2

1

D

C

B

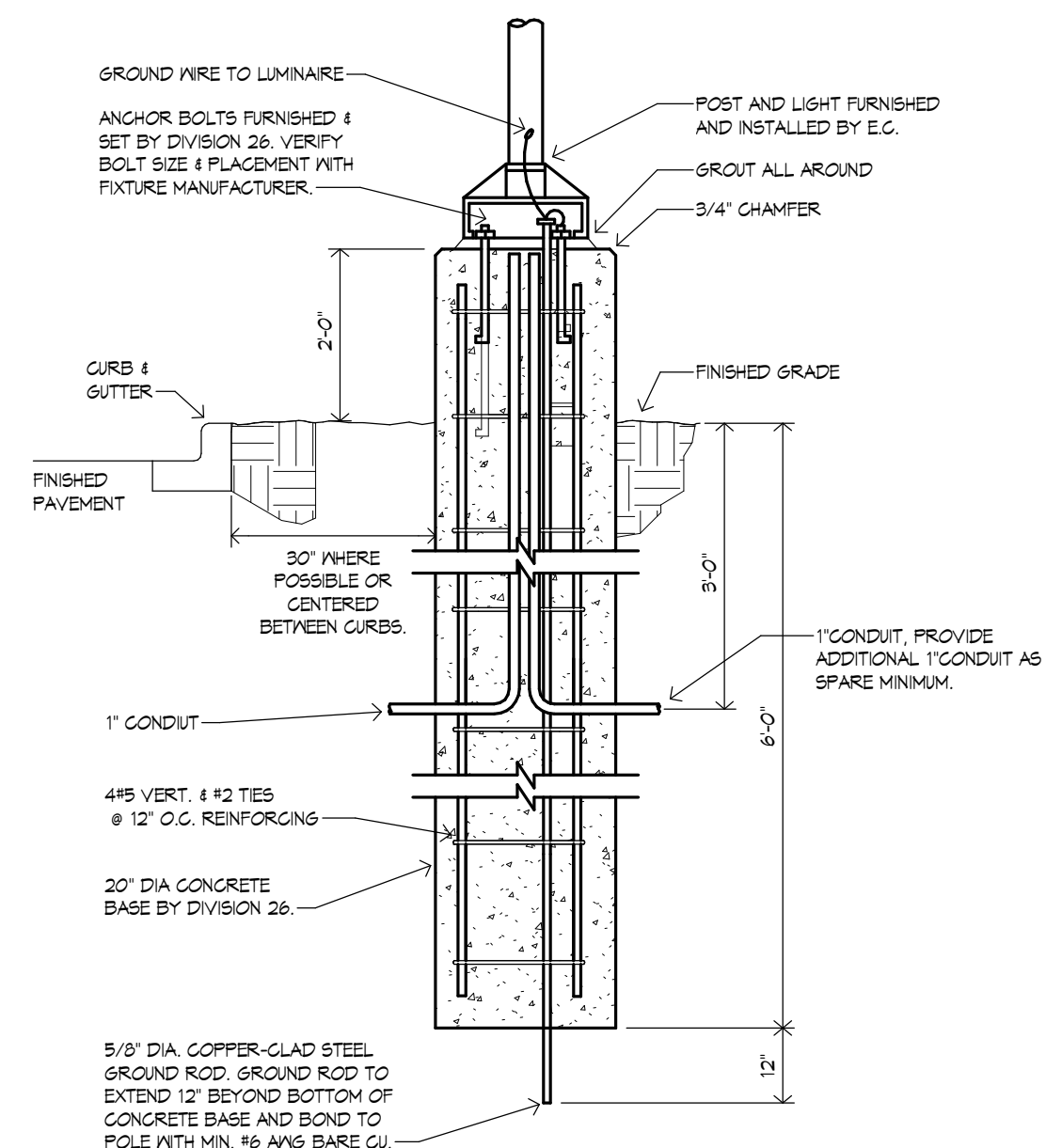
A

ELECTRICAL SITE SHEET NOTES:

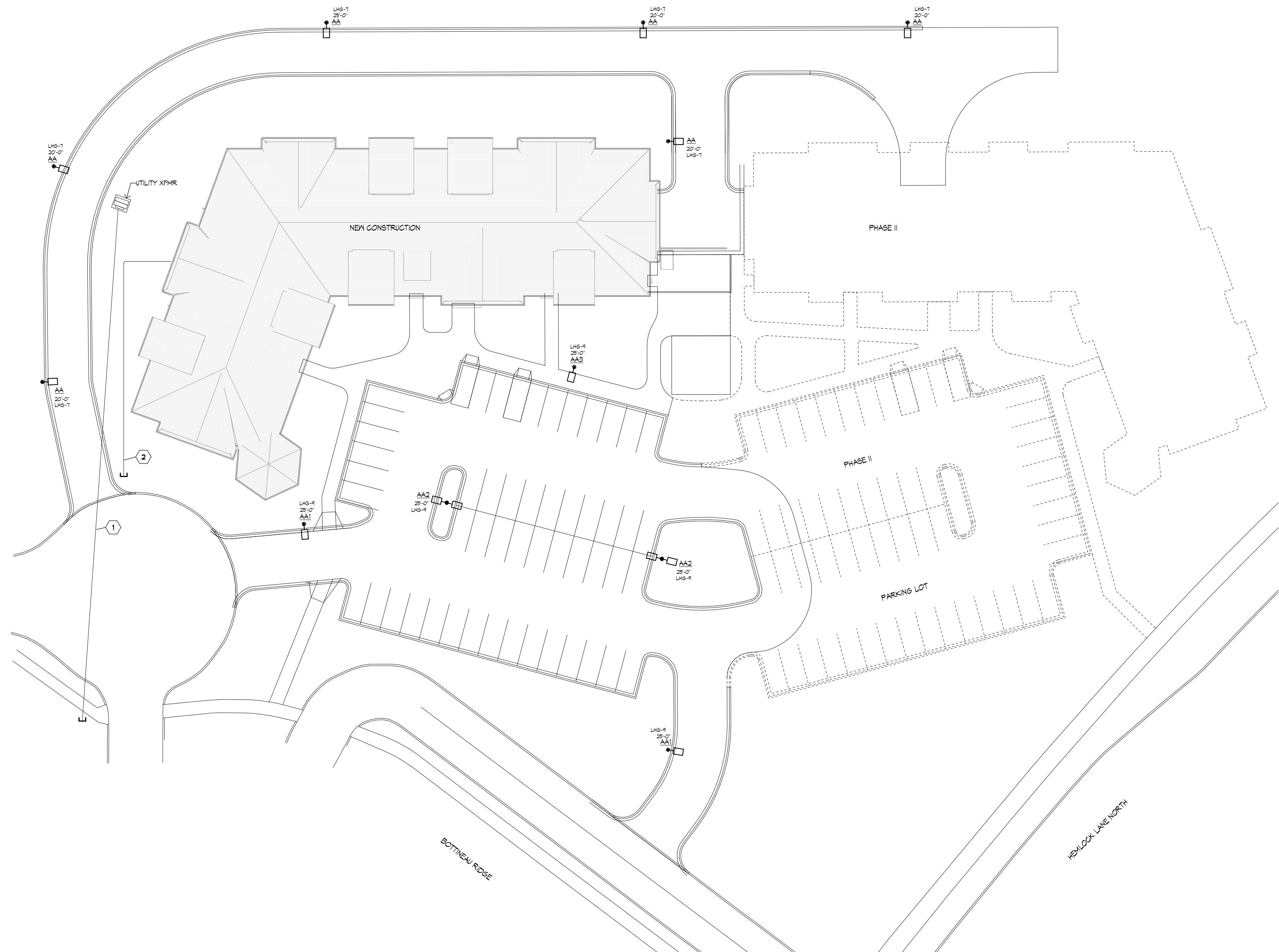
- ① APPROXIMATE ROUTING OF UTILITY PRIMARY, TO BE DETERMINED BY UTILITY. COORDINATE UTILITY TRENCHING WORK SUCH THAT UTILITY PRIMARY IS INSTALLED PRIOR TO NEW PAVING INSTALLATION. ELSE PROVIDE 4" SCHEDULE 80 PVC CONDUIT FOR UTILITY PRIMARY UNDER PAVING. COORDINATE WITH UTILITY.
- ② PROVIDE (2) 4" (PVC BELOW GRADE TRANSITION TO EMT INSIDE BUILDING) FROM FIRST FLOOR ELECTRICAL ROOM TO POINT ON SITE. COORDINATE ROUTING WITH COMCAST AND CENTURYLINK.
- ③ CIRCUIT VIA EXTERIOR LIGHTING CONTROL CONTACTOR.

LIGHT POLE BASE DETAIL NOTES:

- A. SEE SITE PLAN FOR LOCATIONS AND QUANTITY.
- B. CUT CONDUIT FLUSH WITH TOP SURFACE OF CONCRETE BASE.
- C. PROVIDE 6'-0" OF COILED WIRE AT TOP OF EACH BASE.
- D. PROVIDE SPARE 1" PVC FROM EACH LIGHT BASE.
- E. CONCRETE BASE PROVIDED BY E.G.
- F. SEE LUMINAIRES, GROUNDING AND BONDING.
- G. SPECIFICATION SECTIONS.
- H. PROVIDE VIBRATION DAMPENERS FOR ALL POLES/POSTS. ALL POLES/POSTS SHALL HAVE HANDHOLES NEAR BASE.



2 LIGHT POLE BASE DETAIL SCALE: NTS



1 SITE PLAN - ELECTRICAL SCALE: 1" = 30'-0"



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 PROGRESS  
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 PROJECT  
 ONE# 2016446

SHEET  
**E001**  
 SITE PLAN -  
 ELECTRICAL

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6

5

4

3

2

1

**OCCUPANCY SENSOR SCHEDULE**

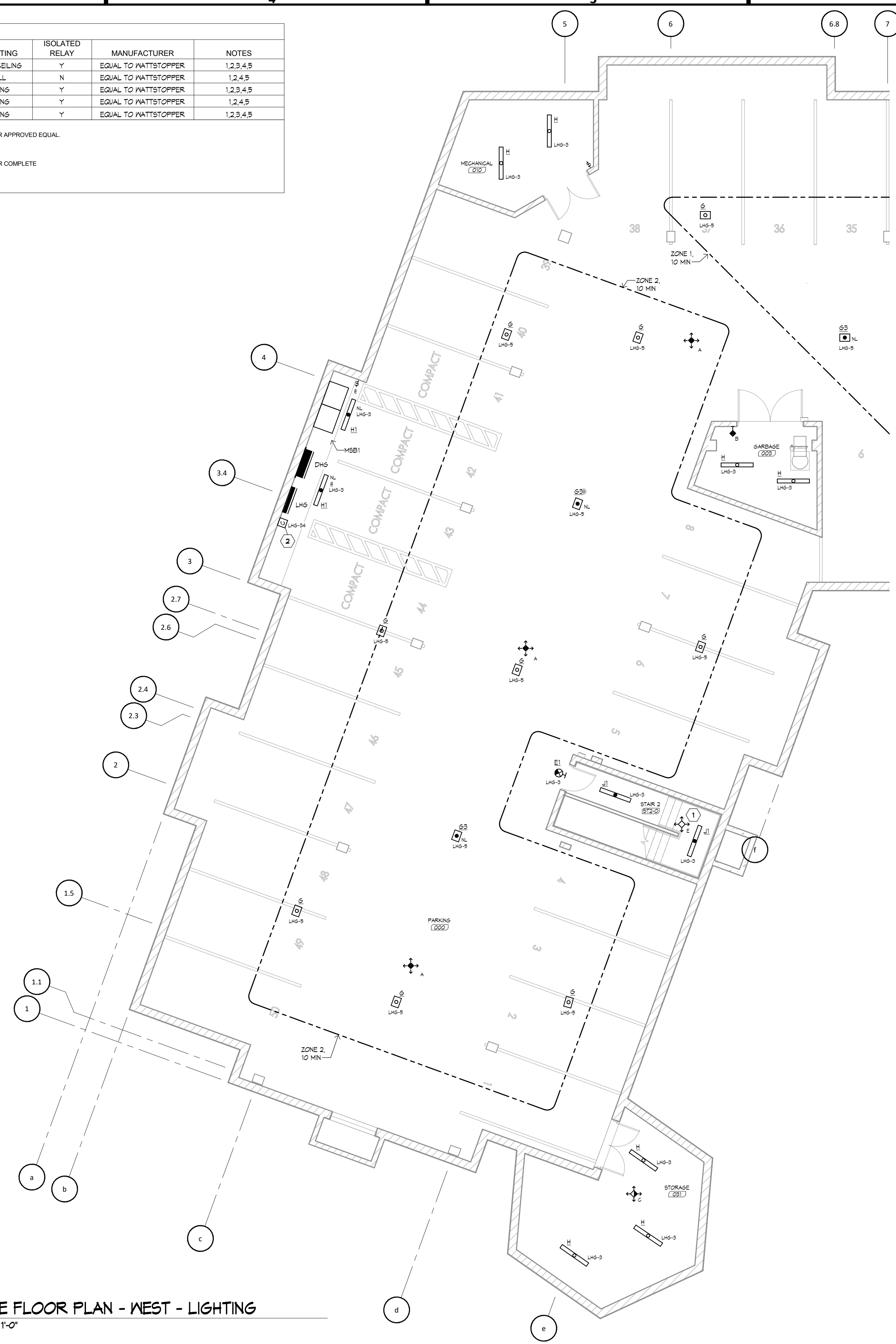
TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	CI-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
B	FX-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5

**NOTES:**

1. MANUFACTURER SHALL BE WATT STOPPER, LEVITON, SENSOR SWITCH, HUBBELL, OR PRIOR APPROVED EQUAL.
2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
3. PROVIDE POWER PACKS AS REQUIRED FOR SWITCHING / CONTROL INTENT.
4. MANUFACTURER TO PROVIDE SENSOR LAYOUT AND QUANTITY OF SENSORS REQUIRED FOR COMPLETE COVERAGE. SUBMIT LAYOUT AND WIRING DIAGRAMS FOR REVIEW.
5. VERIFY TIME OUT FOR TIME DELAYS WITH OWNER.

**LIGHTING SHEET NOTES:**

1. STAIRWELL LIGHTING SHALL BE B-LEVEL SWITCHED 50% LIGHT SHALL BE MAINTAINED AT ALL UNOCCUPIED TIMES UPON OCCUPANCY DETECTION FIXTURE SHALL SWITCH TO 100% 'ON' FOR STAIR OCCUPIED. FIXTURE SHALL FALL 'ON' TO 100% (1400LM INTEGRAL BATTERY OUTPUT) UPON LOSS OF POWER.
2. PROVIDE 4-POLE LIGHTING CONTACTOR TO CONTROL SITE AND BUILDING MOUNTED LIGHTING. PROVIDE TIME CLOCK AND PHOTOCELL FOR CONTROL AND 120V FOWER.



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



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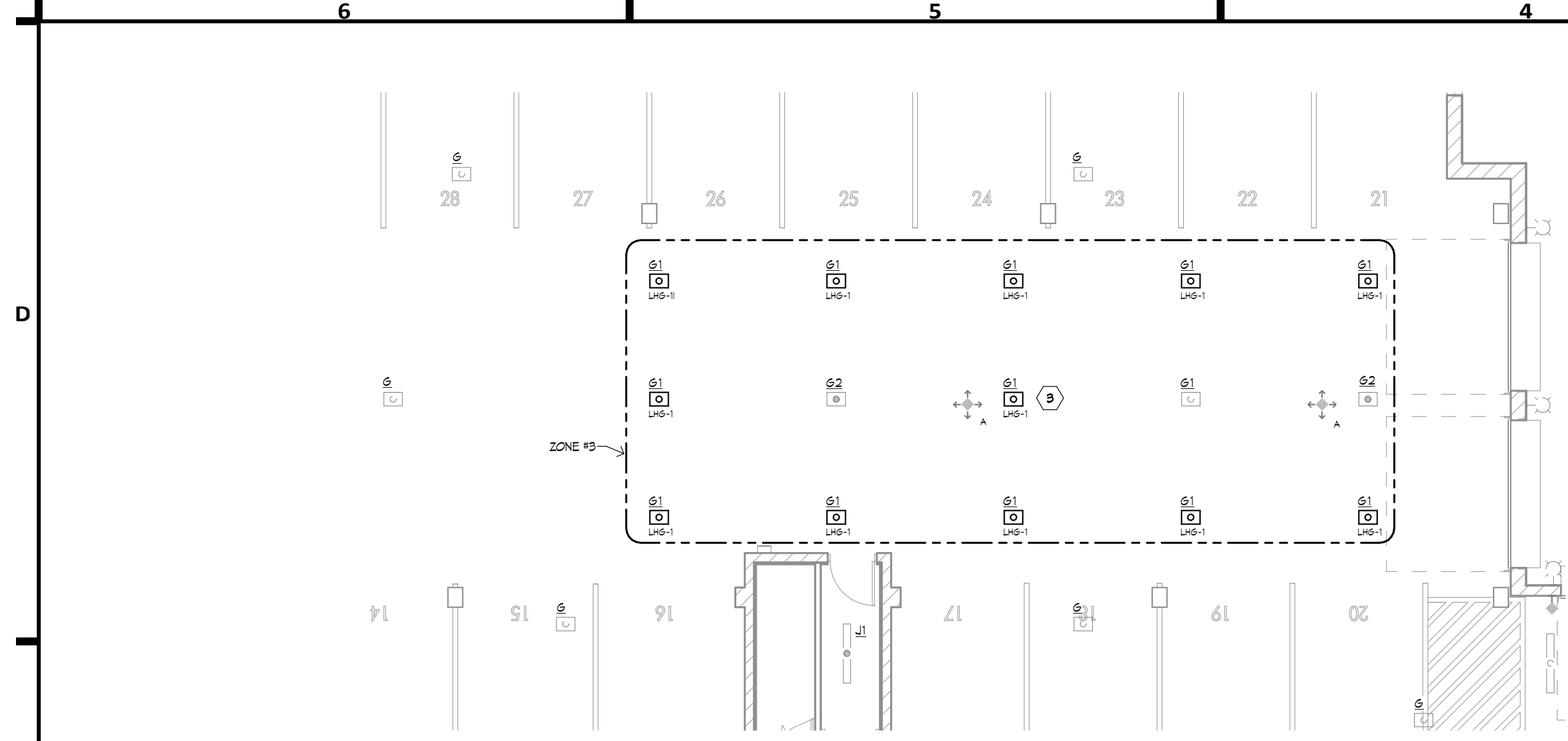
PHASE  
**PROGRESS**

SET

PROJECT  
**ONE# 2016446**

SHEET  
**E100**  
GARAGE FLOOR  
PLAN - WEST -  
LIGHTING

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**OCCUPANCY SENSOR SCHEDULE**

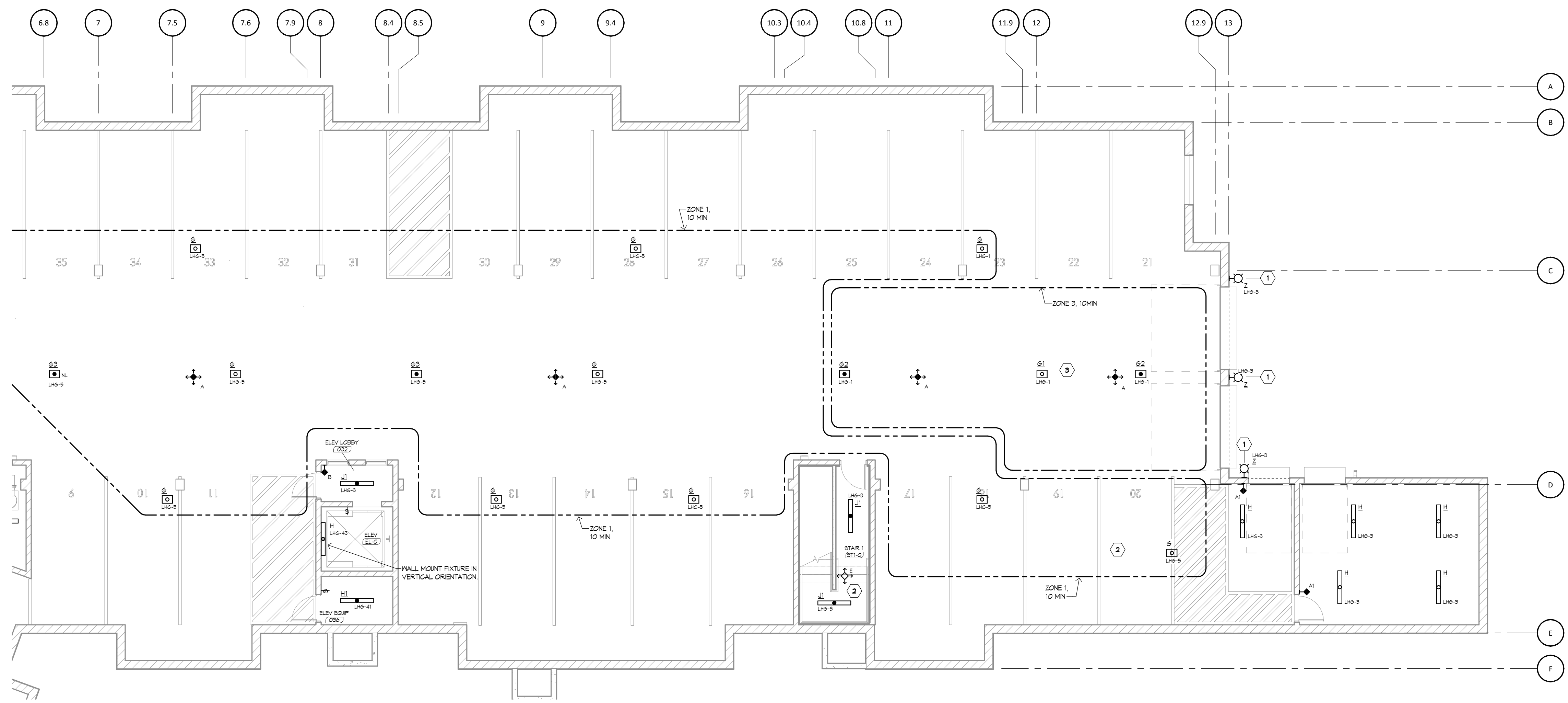
TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	CI-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
B	PIA-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5

**NOTES:**

1. MANUFACTURER SHALL BE WATT STOPPER, LEVITON, SENSOR SWITCH, HUBBELL, OR PRIOR APPROVED EQUAL.
2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
3. PROVIDE POWER PACKS AS REQUIRED FOR SWITCHING / CONTROL INTENT.
4. MANUFACTURER TO PROVIDE SENSOR LAYOUT AND QUANTITY OF SENSORS REQUIRED FOR COMPLETE COVERAGE. SUBMIT LAYOUT AND WIRING DIAGRAMS FOR REVIEW.
5. VERIFY TIME OUT FOR TIME DELAYS WITH OWNER.

- LIGHTING SHEET NOTES:**
1. INSTALL LIGHT FIXTURE SO BOTTOM OF FIXTURE IS 12" ABOVE DOOR FRAME. ROUTE CIRCUIT THRU LIGHTING CONTACTOR. SEE EXTERIOR LIGHTING CONTROL DETAIL.
  2. STARRELL LIGHTING SHALL BE BI-LEVEL SWITCHED 50% LIGHT SHALL BE MAINTAINED AT ALL UNOCCUPIED TIMES. UPON OCCUPANCY DETECTION FIXTURE SHALL SWITCH TO 100% 'ON' FOR STAIR OCCUPIED. FIXTURE SHALL FALL 'ON' TO 100% (1400LM INTEGRAL BATTERY OUTPUT) UPON LOSS OF POWER.
  3. ZONE #3 TO FUNCTION AS TRANSITION SPACE. LUMINAIRES ARE TO BE 100% DURING DAY AND 50% DURING NIGHT. PROVIDED PHOTOCELL AND CONTROLS FOR PROPER FUNCTION OF ZONE.

**2 GARAGE FLOOR PLAN - LIGHTING ALTERNATE**  
 SCALE: 1/8" = 1'-0"  
 NORTH



**1 GARAGE FLOOR PLAN - EAST - LIGHTING**  
 SCALE: 1/8" = 1'-0"  
 NORTH



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 MAPLE GROVE, MN

DATE  
 11/10/2017  
 PHASE  
 PROGRESS  
 SET  
 PROJECT  
 ONE# 2016446  
 SHEET  
**E101**  
 GARAGE FLOOR  
 PLAN - EAST -  
 LIGHTING

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**OCCUPANCY SENSOR SCHEDULE**

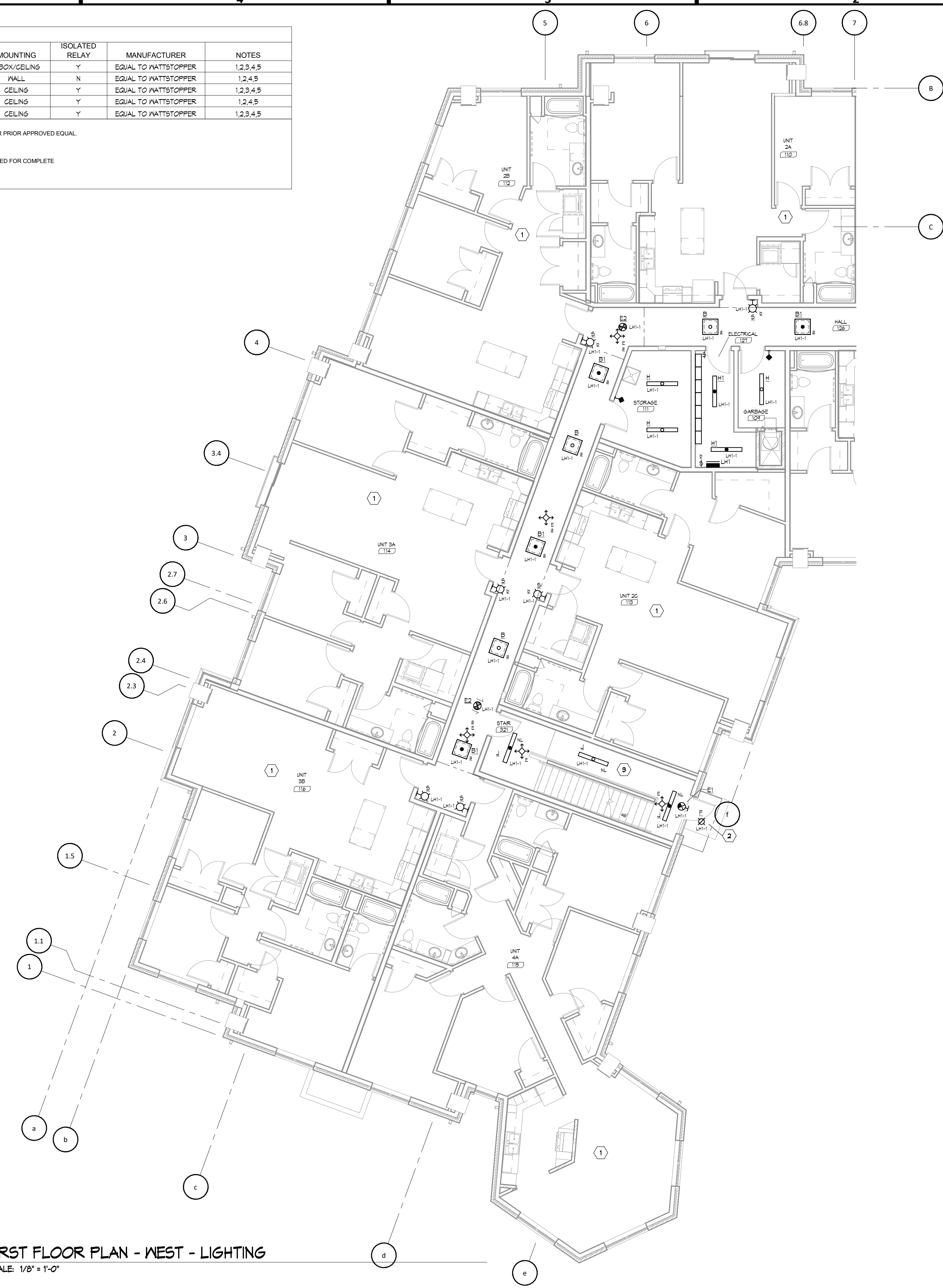
TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	C1-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
B	FW-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5

**NOTES:**

1. MANUFACTURER SHALL BE WATT STOPPER, LEVITON, SENSOR SWITCH, HUBBELL, OR PRIOR APPROVED EQUAL.
2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
3. PROVIDE POWER PACKS AS REQUIRED FOR SWITCHING / CONTROL INTENT.
4. MANUFACTURER TO PROVIDE SENSOR LAYOUT AND QUANTITY OF SENSORS REQUIRED FOR COMPLETE COVERAGE. SUBMIT LAYOUT AND WIRING DIAGRAMS FOR REVIEW.
5. VERIFY TIME OUT FOR TIME DELAYS WITH OWNER.

**GEN. LIGHTING NOTES:**

- ALIGN DEVICES VERTICALLY WHERE LIGHTING POWER AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- REFER TO THE ARCHITECTURAL ELEVATION, DETAIL, AND REFLECTED CEILING PLAN DRAWINGS FOR COORDINATION OF ELECTRICAL DEVICES.
- CUTTING, DRILLING, AND/OR BORING THROUGH STRUCTURAL MEMBERS IS NOT ACCEPTABLE.
- PROVIDE X-RAY ANALYSIS OF CONCRETE FLOORING PRIOR TO CUTTING, DRILLING, OR BORING.
- PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED 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 100' FOR 120V AND 200' FOR 277V SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
- PROVIDE DEDICATED NEUTRAL FOR EACH MULTIWIRE BRANCH CIRCUIT PHASE CONDUCTOR. PROVIDE DEDICATED NEUTRAL FOR EACH DIMMING CIRCUIT.
- DEVICES IN FINISHED AREAS ARE TO BE RECESSED WITHIN WALLS EXCEPT WHERE REQUIRED TO BE SURFACE MOUNTED. IN UNFINISHED AREAS (PLUMBING CHASES, JANITORS CLOSETS, ELECTRICAL ROOMS, AND MECHANICAL ROOMS) DEVICES AND CONDUIT MAY BE SURFACE MOUNTED.
- LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR WITHIN 12" OF DOOR/SWELSHIT FRAMES. UNLESS NOTED OTHERWISE LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SWINGS SHALL BE MOUNTED CLEAR OF DOOR SWINGS AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES.
- COORDINATE LUMINAIRE LOCATIONS WITH STRUCTURAL AND MECHANICAL TRADES PRIOR TO INSTALLATION. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF LUMINAIRES IN MECHANICAL ROOMS WITH DUCTS, PIPES, AND EQUIPMENT. MOUNT LUMINAIRES BELOW DUCTS AND PIPES AND AVOID MOUNTING LUMINAIRES OVER EQUIPMENT. SUPPORT LUMINAIRES INDEPENDENTLY OF DUCTS, PIPES, AND EQUIPMENT.
- VERIFY OCCUPANCY SENSOR DEVICE LAYOUT AND QUANTITIES FOR COMPLETE AREA/ROOM COVERAGE WITH SENSOR MANUFACTURER PRIOR TO ROUGH-IN.
- COORDINATE CEILING TYPES, RECESS CONDITIONS, AND MOUNTING HARDWARE REQUIRED PRIOR TO PURCHASE OF LUMINAIRES.
- WIRING SHALL NOT FEED THROUGH FIXTURES EXCEPT TO SERVE CONTIGUOUS ROWS OF SIMILAR TYPE OF LUMINAIRES.
- FOR EXISTING PANELS, CIRCUIT NUMBERS ARE FOR REFERENCE ONLY. COORDINATE EXISTING PANEL CONFIGURATION. UTILIZE EXISTING DEMOED CIRCUITS FEEDING THIS AREA. PROVIDE NEW UPDATED, TYPED PANEL INDEX FOR MODIFIED PANELS. UNUSED CIRCUIT BREAKERS SHALL BE LISTED AS SPARE.



**1 FIRST FLOOR PLAN - WEST - LIGHTING**  
 SCALE: 1/8" = 1'-0"



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NO.	DESCRIPTION	DATE

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 BOTTINEAU RIDGE II APARTMENTS  
 MAPLE GROVE, MN**

DATE  
**11/10/2017**  
 PHASE  
**PROGRESS**  
 SET  
 PROJECT  
**ONE# 2016446**  
 SHEET  
**E102**  
 FIRST FLOOR PLAN -  
 WEST - LIGHTING

11/20/2017 1:41:56 PM

D  
C  
B  
A

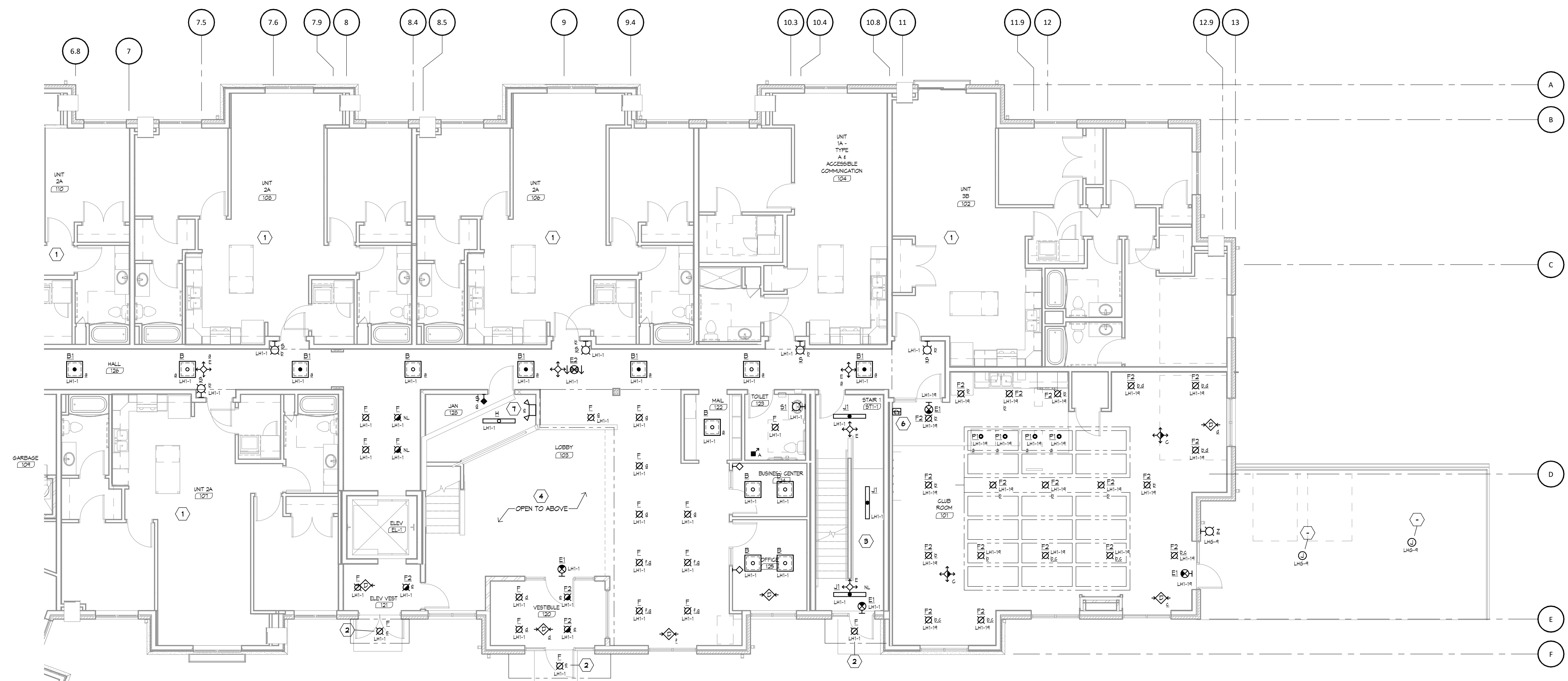
**OCCUPANCY SENSOR SCHEDULE**

TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	CI-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO MATTSTOPPER	1,2,3,4,5
B	PA-100	PIR	120	WALL	N	EQUAL TO MATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO MATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO MATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO MATTSTOPPER	1,2,3,4,5

**NOTES:**

1. MANUFACTURER SHALL BE WATT STOPPER, LEVITON, SENSOR SWITCH, HUBBELL, OR PRIOR APPROVED EQUAL.
2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
3. PROVIDE POWER PACKS AS REQUIRED FOR SWITCHING / CONTROL INTENT.
4. MANUFACTURER TO PROVIDE SENSOR LAYOUT AND QUANTITY OF SENSORS REQUIRED FOR COMPLETE COVERAGE. SUBMIT LAYOUT AND WIRING DIAGRAMS FOR REVIEW.
5. VERIFY TIME OUT FOR TIME DELAYS WITH OWNER.

- GEN. LIGHTING NOTES:**
- ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
  - REFER TO THE ARCHITECTURAL ELEVATION, DETAIL, AND REFLECTED CEILING PLAN DRAWINGS FOR COORDINATION OF ELECTRICAL DEVICES.
  - CUTTING, DRILLING, AND/OR BORING THROUGH STRUCTURAL MEMBERS IS NOT ACCEPTABLE.
  - PROVIDE X-RAY ANALYSIS OF CONCRETE FLOORING PRIOR TO CUTTING, DRILLING, OR BORING.
  - PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED 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 100' FOR 120V AND 200' FOR 277V SHALL BE 1/2" OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - PROVIDE DEDICATED NEUTRAL FOR EACH MULTIWIRE BRANCH CIRCUIT PHASE CONDUCTOR. PROVIDE DEDICATED NEUTRAL FOR EACH DIMMING CIRCUIT. DEVICES IN FINISHED AREAS ARE TO BE RECESSED WITHIN WALLS EXCEPT WHERE REQUIRED TO BE SURFACE MOUNTED IN UNFINISHED AREAS (PLUMBING CHASES, JANITORS CLOSETS, ELECTRICAL ROOMS, AND MECHANICAL ROOMS) DEVICES AND CONDUIT MAY BE SURFACE MOUNTED.
  - 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 SWINGS AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES.
  - COORDINATE LUMINAIRE LOCATIONS WITH STRUCTURAL AND MECHANICAL TRADES PRIOR TO INSTALLATION. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF LUMINAIRES IN MECHANICAL ROOMS WITH DUCTS, PIPES, AND EQUIPMENT. MOUNT LUMINAIRES BELOW DUCTS AND PIPES AND AVOID MOUNTING LUMINAIRES OVER EQUIPMENT. SUPPORT LUMINAIRES INDEPENDENTLY OF DUCTS, PIPES, AND EQUIPMENT.
  - VERIFY OCCUPANCY SENSOR DEVICE LAYOUT AND QUANTITIES FOR COMPLETE AREA ROOM COVERAGE WITH SENSOR MANUFACTURER PRIOR TO ROUGH-IN.
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  - FOR EXISTING PANELS, CIRCUIT NUMBERS ARE FOR REFERENCE ONLY. COORDINATE EXISTING PANEL CONFIGURATION. UTILIZE EXISTING DECEDED CIRCUITS FEEDING THIS AREA. PROVIDE NEW UPDATED TYPED PANEL INDEX FOR MODIFIED PANELS. UNUSED CIRCUIT BREAKERS SHALL BE LISTED AS SPARE.



- LIGHTING SHEET NOTES:**
1. SEE 1/4" APARTMENT UNIT PLANS, SHEETS E300, E301, AND E302.
  2. INSTALL FIXTURE IN SOFFIT ABOVE DOOR.
  3. STAIRWELL LIGHTING SHALL BE B-LEVEL, SWITCHED 50% LIGHT SHALL BE MAINTAINED AT ALL UNOCCUPIED TIMES. UPON OCCUPANCY DETECTION, FIXTURE SHALL SWITCH TO 100% ON FOR STAIR OCCUPIED. FIXTURE SHALL FAIL 'ON' TO 100% UPON LOSS OF BUILDING POWER.
  4. PROVIDE INDIVIDUAL ROOM CONTROLS IN THIS SPACE SYSTEM TO INCLUDE OCCUPANCY SENSORS, DAYLIGHT SENSORS (WHERE NOTED), POWER PACKS, 4-BUTTON (UP/DOWN, ON/OFF), CONTROL STATIONS, AND ASSOCIATED WIRING.
  5. MOUNT TAPE LIGHT 31'-0" ABOVE FIRST FLOOR ON SKYLIGHT WALLS.
  6. PROVIDE LV LIGHTING CONTROL.
  7. PROVIDE 120V WITH BATTERY UNIT FOR EMERGENCY POWER FOR INDICATED LIGHTS.

**1 FIRST FLOOR PLAN - EAST - LIGHTING**  
 SCALE: 1/8" = 1'-0"

11/20/2017 14:20:01 PM



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**PROGRESS**  
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 PROJECT  
**ONE# 2016446**  
 SHEET  
**E103**  
 FIRST FLOOR PLAN -  
 EAST - LIGHTING

**OCCUPANCY SENSOR SCHEDULE**

TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
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B	PM-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
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- PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED 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 100' FOR 120V AND 200' FOR 277V SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
- PROVIDE DEDICATED NEUTRAL FOR EACH MULTIWIRE BRANCH CIRCUIT PHASE CONDUCTOR. PROVIDE DEDICATED NEUTRAL FOR EACH DIMMING CIRCUIT. DEVICES IN FINISHED AREAS ARE TO BE RECESSED WITHIN WALLS EXCEPT WHERE REQUIRED TO BE SURFACE MOUNTED. IN UNFINISHED AREAS (PLUMBING CHASERS, JANITORS CLOSETS, ELECTRICAL ROOMS, AND MECHANICAL ROOMS) DEVICES AND CONDUIT MAY BE SURFACE MOUNTED.
- LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR, WITHIN 12" OF DOOR/SWELIGHT FRAMES. UNLESS NOTED OTHERWISE, LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SWINGS SHALL BE MOUNTED CLEAR OF DOOR SWINGS AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES.
- COORDINATE LUMINAIRE LOCATIONS WITH STRUCTURAL AND MECHANICAL TRADES PRIOR TO INSTALLATION. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF LUMINAIRES IN MECHANICAL ROOMS WITH DUCTS, PIPES, AND EQUIPMENT. MOUNT LUMINAIRES BELOW DUCTS AND PIPES AND AVOID MOUNTING LUMINAIRES OVER EQUIPMENT. SUPPORT LUMINAIRES INDEPENDENTLY OF DUCTS, PIPES, AND EQUIPMENT.
- VERIFY OCCUPANCY SENSOR DEVICE LAYOUT AND QUANTITIES FOR COMPLETE AREA/ROOM COVERAGE WITH SENSOR MANUFACTURER PRIOR TO ROUGH-IN.
- COORDINATE CEILING TYPES, RECESS CONDITIONS, AND MOUNTING HARDWARE REQUIRED PRIOR TO PURCHASE OF LUMINAIRES.
- WIRING SHALL NOT FEED THROUGH FIXTURES EXCEPT TO SERVE CONTINUOUS ROWS OF SIMILAR TYPE OF LUMINAIRES.
- FOR EXISTING PANELS, CIRCUIT NUMBERS ARE FOR REFERENCE ONLY. COORDINATE EXISTING PANEL CONFIGURATION. UTILIZE EXISTING DEMOED CIRCUITS FEEDING THIS AREA. PROVIDE NEW UPDATED TYPED PANEL INDEX FOR MODIFIED PANELS. UNUSED CIRCUIT BREAKERS SHALL BE LISTED AS SPARE.

**LIGHTING SHEET NOTES:**

1. SEE 1/4" APARTMENT UNIT PLANS, SHEETS E300, E301, AND E302.
2. STARVELL LIGHTING SHALL BE B1-LEVEL SWITCHED 50% LIGHT SHALL BE MAINTAINED AT ALL UNOCCUPIED TIMES. UPON OCCUPANCY DETECTION FIXTURE SHALL SWITCH TO 100% 'ON' FOR STAIR OCCUPIED. FIXTURE SHALL FALL 'ON' TO 100% (1400LM INTEGRAL BATTERY OUTPUT) UPON LOSS OF POWER.

**1 SECOND FLOOR PLAN - WEST - LIGHTING**  
 SCALE: 1/8" = 1'-0"



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**REVISION SCHEDULE**

NO.	DESCRIPTION	DATE

**JLG ARCHITECTS  
 BOTTINEAU RIDGE II APARTMENTS  
 MAPLE GROVE, MN**

DATE  
**11/10/2017**  
 PHASE  
**PROGRESS**  
 SET  
 PROJECT  
**ONE# 2016446**

SHEET  
**E104**  
 SECOND FLOOR  
 PLAN - WEST -  
 LIGHTING

11/20/2017 1:46:34 PM

**OCCUPANCY SENSOR SCHEDULE**

TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	CI-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
B	FW-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5

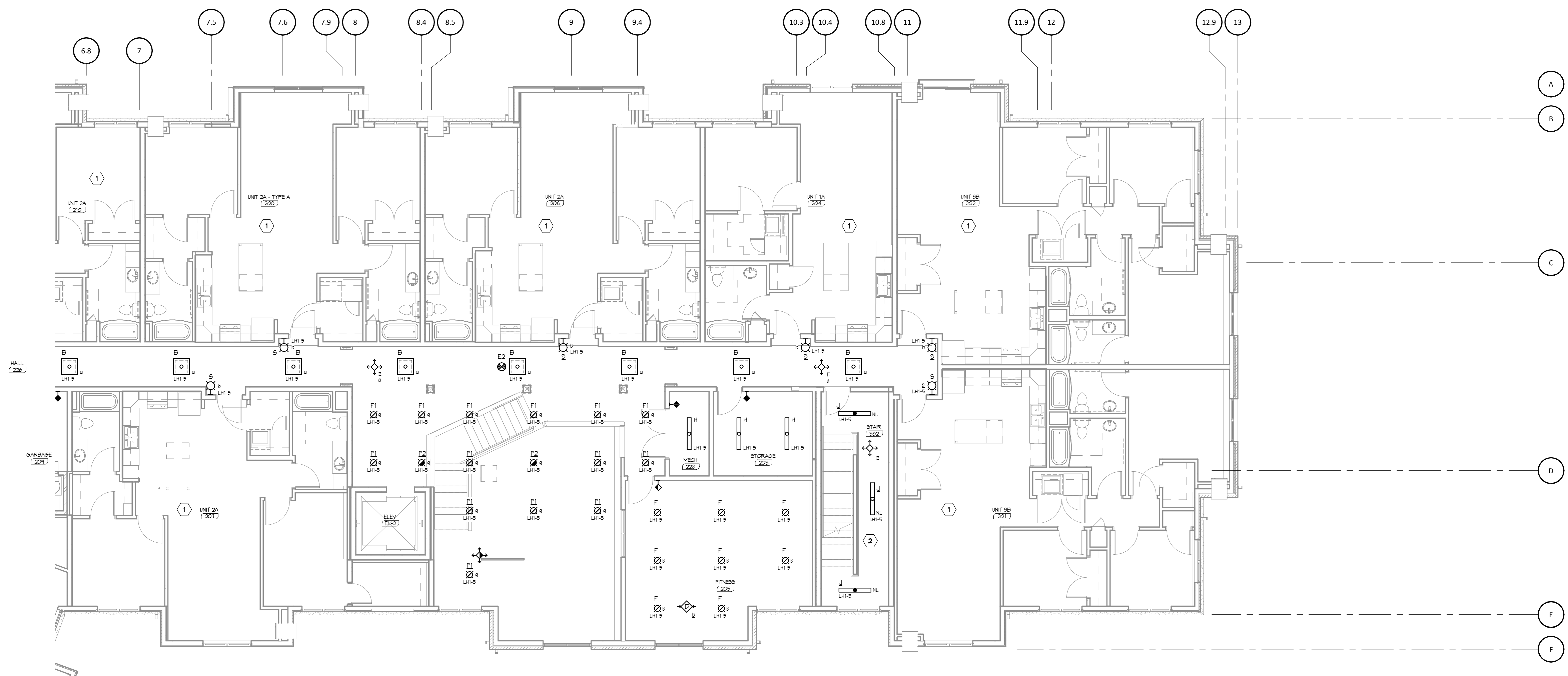
**NOTES:**

1. MANUFACTURER SHALL BE WATT STOPPER, LEVITON, SENSOR SWITCH, HUBBELL, OR PRIOR APPROVED EQUAL.
2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
3. PROVIDE POWER PACKS AS REQUIRED FOR SWITCHING / CONTROL INTENT.
4. MANUFACTURER TO PROVIDE SENSOR LAYOUT AND QUANTITY OF SENSORS REQUIRED FOR COMPLETE COVERAGE. SUBMIT LAYOUT AND WIRING DIAGRAMS FOR REVIEW.
5. VERIFY TIME OUT FOR TIME DELAYS WITH OWNER.

**GEN. LIGHTING NOTES:**

- A. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- B. REFER TO THE ARCHITECTURAL ELEVATION, DETAIL AND REFLECTED CEILING PLAN DRAWINGS FOR COORDINATION OF ELECTRICAL DEVICES.
- C. CUTTING, DRILLING, AND/OR BORING THROUGH STRUCTURAL MEMBERS IS NOT ACCEPTABLE.
- D. PROVIDE X-RAY ANALYSIS OF CONCRETE FLOORING PRIOR TO CUTTING, DRILLING, OR BORING.
- E. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
- F. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
- G. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 100' FOR 120V AND 200' FOR 277V SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
- H. PROVIDE DEDICATED NEUTRAL FOR EACH MULTIWIRE BRANCH CIRCUIT PHASE CONDUCTOR. PROVIDE DEDICATED NEUTRAL FOR EACH DIMMING CIRCUIT.
- I. DEVICES IN FINISHED AREAS ARE TO BE RECESSED WITHIN WALLS EXCEPT WHERE REQUIRED TO BE SURFACE MOUNTED. IN UNFINISHED AREAS (PLUMBING CHASES, JANITORS CLOSETS, ELECTRICAL ROOMS, AND MECHANICAL ROOMS) DEVICES AND CONDUIT MAY BE SURFACE MOUNTED.
- J. LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR WITHIN 12" OF DOOR/SWELIGHT FRAMING. UNLESS NOTED OTHERWISE LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SWINGS SHALL BE MOUNTED CLEAR OF DOOR SWINGS AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES.
- K. COORDINATE LUMINAIRE LOCATIONS WITH STRUCTURAL AND MECHANICAL TRADES PRIOR TO INSTALLATION. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF LUMINAIRES IN MECHANICAL ROOMS WITH DUCTS, PIPES, AND EQUIPMENT. MOUNT LUMINAIRES BELOW DUCTS AND PIPES AND AVOID MOUNTING LUMINAIRES OVER EQUIPMENT. SUPPORT LUMINAIRES INDEPENDENTLY OF DUCTS, PIPES, AND EQUIPMENT.
- L. VERIFY OCCUPANCY SENSOR DEVICE LAYOUT AND QUANTITIES FOR COMPLETE AREA/ROOM COVERAGE WITH SENSOR MANUFACTURER PRIOR TO ROUGH-IN.
- M. COORDINATE CEILING TYPES, RECESS CONDITIONS, AND MOUNTING HARDWARE REQUIRED PRIOR TO PURCHASE OF LUMINAIRES.
- N. WIRING SHALL NOT FEED THROUGH FIXTURES EXCEPT TO SERVE CONTINUOUS ROWS OF SIMILAR TYPE OF LUMINAIRES.
- O. FOR EXISTING PANELS, CIRCUIT NUMBERS ARE FOR REFERENCE ONLY. COORDINATE EXISTING PANEL CONFIGURATION. UTILIZE EXISTING DEMOED CIRCUITS FEEDING THIS AREA. PROVIDE IMA UPDATED TYPED PANEL INDEX FOR MODIFIED PANELS. UNUSED CIRCUIT BREAKERS SHALL BE LISTED AS SPARE.

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F



**1 SECOND FLOOR PLAN - EAST - LIGHTING**  
SCALE: 1/8" = 1'-0"

11/20/2017 1:42:11 PM



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NO.	DESCRIPTION	DATE

**JLG ARCHITECTS**  
**BOTTINEAU RIDGE II APARTMENTS**  
MAPLE GROVE, MN

DATE  
**11/10/2017**  
PHASE  
**PROGRESS**  
SET  
PROJECT  
**ONE# 2016446**

SHEET  
**E105**  
SECOND FLOOR  
PLAN - EAST -  
LIGHTING

**OCCUPANCY SENSOR SCHEDULE**

TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	GI-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
B	PV-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5

- NOTES:**
1. MANUFACTURER SHALL BE WATT STOPPER, LEVITON, SENSOR SWITCH, HUBBELL, OR PRIOR APPROVED EQUAL.
  2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
  3. PROVIDE POWER PACKS AS REQUIRED FOR SWITCHING / CONTROL INTENT.
  4. MANUFACTURER TO PROVIDE SENSOR LAYOUT AND QUANTITY OF SENSORS REQUIRED FOR COMPLETE COVERAGE. SUBMIT LAYOUT AND WIRING DIAGRAMS FOR REVIEW.
  5. VERIFY TIME OUT FOR TIME DELAYS WITH OWNER.



**GEN. LIGHTING NOTES:**

- ALIGN DEVICES VERTICALLY WHERE LIGHTING, Foyer, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- REFER TO THE ARCHITECTURAL ELEVATION, DETAIL, AND REFLECTED CEILING PLAN DRAWINGS FOR COORDINATION OF ELECTRICAL DEVICES.
- CUTTING, DRILLING, AND/OR BORING THROUGH STRUCTURAL MEMBERS IS NOT ACCEPTABLE.
- PROVIDE X-RAY ANALYSIS OF CONCRETE FLOORING PRIOR TO CUTTING, DRILLING, OR BORING.
- PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED 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 100' FOR 120V AND 200' FOR 277V SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
- PROVIDE DEDICATED NEUTRAL FOR EACH MULTIWIRE BRANCH CIRCUIT PHASE CONDUCTOR. PROVIDE DEDICATED NEUTRAL FOR EACH DIMMING CIRCUIT.
- DEVICES IN FINISHED AREAS ARE TO BE RECESSED WITHIN WALLS EXCEPT WHERE REQUIRED TO BE SURFACE MOUNTED. IN UNFINISHED AREAS (PLUMBING CHASES, JANITORS CLOSETS, ELECTRICAL ROOMS, AND MECHANICAL ROOMS) DEVICES AND CONDUIT MAY BE SURFACE MOUNTED.
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- WIRES SHALL NOT FEED THROUGH FIXTURES EXCEPT TO SERVE CONTINUOUS ROWS OF SIMILAR TYPE OF LUMINAIRES.
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**LIGHTING SHEET NOTES:**

1. SEE 1/4" APARTMENT UNIT PLANS, SHEETS E300, E301, AND E302.
2. STARVELL LIGHTING SHALL BE B1-LEVEL SWITCHED 50% LIGHT SHALL BE MAINTAINED AT ALL UNOCCUPIED TIMES. UPON OCCUPANCY DETECTION FIXTURE SHALL SWITCH TO 100% 'ON' FOR STAIR OCCUPIED. FIXTURE SHALL FALL 'ON' TO 100% (1400LM INTEGRAL BATTERY OUTPUT) UPON LOSS OF Foyer.

**1 THIRD FLOOR PLAN - WEST - LIGHTING**  
 SCALE: 1/8" = 1'-0"



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 MAPLE GROVE, MN**

DATE  
**11/10/2017**  
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 PROJECT  
**ONE# 2016446**

SHEET  
**E106**  
 THIRD FLOOR PLAN -  
 WEST - LIGHTING

11/20/2017 1:42:15 PM

**OCCUPANCY SENSOR SCHEDULE**

TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	Q-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
B	PV-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5

- NOTES:**
1. MANUFACTURER SHALL BE WATT STOPPER, LEVITON, SENSOR SWITCH, HUBBELL, OR PRIOR APPROVED EQUAL.
  2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
  3. PROVIDE POWER PACKS AS REQUIRED FOR SWITCHING / CONTROL INTENT.
  4. MANUFACTURER TO PROVIDE SENSOR LAYOUT AND QUANTITY OF SENSORS REQUIRED FOR COMPLETE COVERAGE. SUBMIT LAYOUT AND WIRING DIAGRAMS FOR REVIEW.
  5. VERIFY TIME OUT FOR TIME DELAYS WITH OWNER.

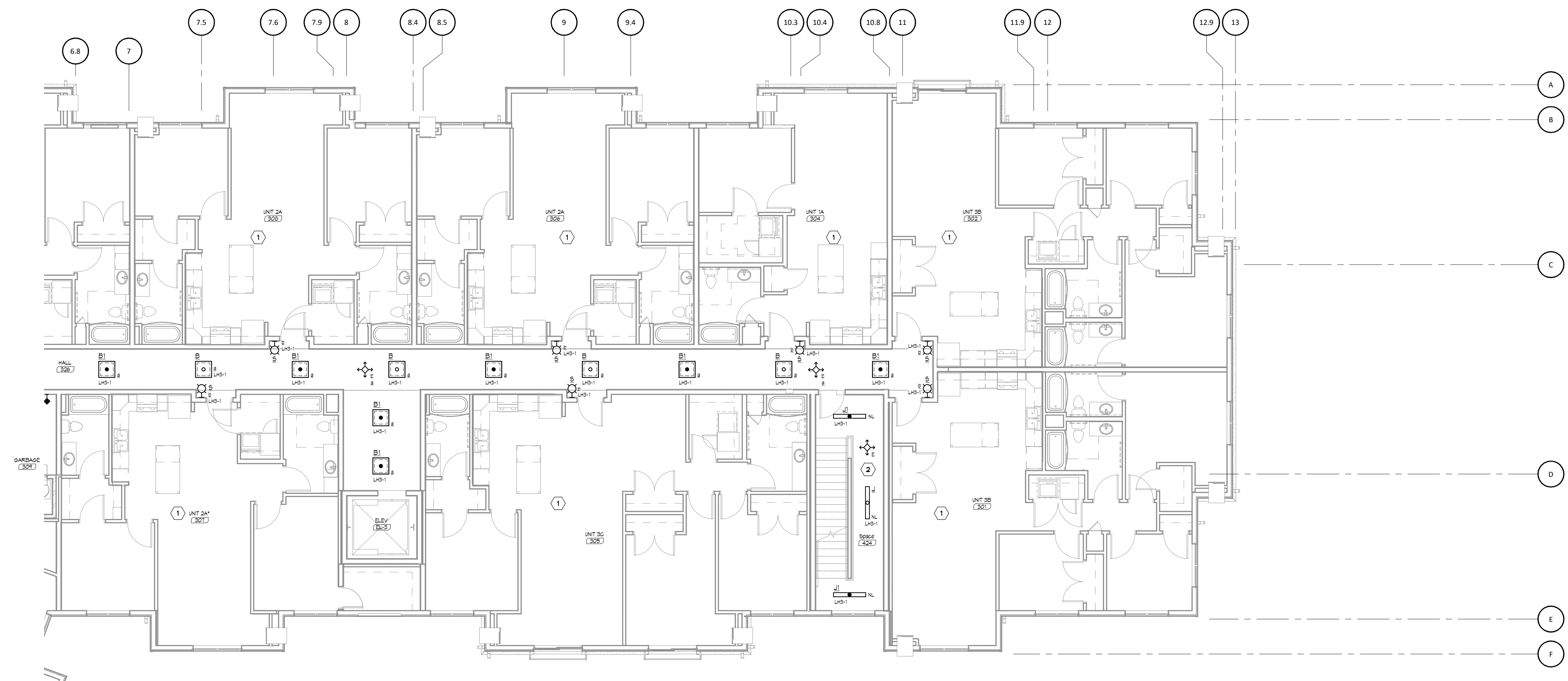
**GEN. LIGHTING NOTES:**

- ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- REFER TO THE ARCHITECTURAL ELEVATION, DETAIL, AND REFLECTED CEILING PLAN DRAWINGS FOR COORDINATION OF ELECTRICAL DEVICES.
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- PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
- PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
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- PROVIDE DEDICATED NEUTRAL FOR EACH MULTIWIRE BRANCH CIRCUIT PHASE CONDUCTOR. PROVIDE DEDICATED NEUTRAL FOR EACH DIMMING CIRCUIT. DEVICES IN FINISHED AREAS ARE TO BE RECESSED WITHIN WALLS EXCEPT WHERE REQUIRED TO BE SURFACE MOUNTED. IN UNFINISHED AREAS (PLUMBING CHANGES, JANITORS CLOSETS, ELECTRICAL ROOMS, AND MECHANICAL ROOMS) DEVICES AND CONDUIT MAY BE SURFACE MOUNTED.
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**LIGHTING SHEET NOTES:**

1. SEE 1/4' APARTMENT UNIT PLANS, SHEETS E300, E301, AND E302.
2. STAIRWELL LIGHTING SHALL BE BLEVEL SWITCHED 50% LIGHT SHALL BE MAINTAINED AT ALL UNOCCUPIED TIMES. UPON OCCUPANCY DETECTION FIXTURE SHALL SWITCH TO 100% 'ON' FOR STAIR OCCUPIED. FIXTURE SHALL FALL 'ON' TO 100% 1400LM INTEGRAL BATTERY OUTPUT) UPON LOSS OF POWER.

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**1 THIRD FLOOR PLAN - EAST - LIGHTING**  
SCALE: 1/8" = 1'-0"

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BOTTINEAU RIDGE II APARTMENTS  
MAPLE GROVE, MN**

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**SET**

PROJECT  
**ONE# 2016446**

SHEET  
**E107**

THIRD FLOOR PLAN -  
EAST - LIGHTING

**OCCUPANCY SENSOR SCHEDULE**

TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	CI-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
B	PIV-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5

**NOTES:**

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2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
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**GEN. LIGHTING NOTES:**

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**LIGHTING SHEET NOTES:**

1. SEE 1/4" APARTMENT UNIT PLANS, SHEETS E300, E301, AND E302.
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**FOURTH FLOOR PLAN - WEST - LIGHTING**  
 SCALE: 1/8" = 1'-0"  
 NORTH



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**JLG ARCHITECTS  
 BOTTINEAU RIDGE II APARTMENTS  
 MAPLE GROVE, MN**

DATE  
**11/10/2017**

PHASE  
**PROGRESS**

SET  
**SET**

PROJECT  
**ONE# 2016446**

SHEET  
**E108**  
 FOURTH FLOOR  
 PLAN - WEST -  
 LIGHTING

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**OCCUPANCY SENSOR SCHEDULE**

TYPE	SENSOR SERIES	TECHNOLOGY	VOLTAGE	MOUNTING	ISOLATED RELAY	MANUFACTURER	NOTES
A	CI-300	PIR	24	J-BOX/CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
B	PK-100	PIR	120	WALL	N	EQUAL TO WATTSTOPPER	1,2,4,5
C	DT-300	DUAL TECH	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5
D	DT-355	DUAL TECH	120	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,4,5
E	WT-2250	ULTRASONIC	24	CEILING	Y	EQUAL TO WATTSTOPPER	1,2,3,4,5

**NOTES:**

1. MANUFACTURER SHALL BE WATT STOPPER, LEVITON, SENSOR SWITCH, HUBBELL, OR PRIOR APPROVED EQUAL.
2. SEE SPECIFICATION SECTION LIGHTING CONTROL DEVICES.
3. PROVIDE POWER PACKS AS REQUIRED FOR SWITCHING / CONTROL INTENT.
4. MANUFACTURER TO PROVIDE SENSOR LAYOUT AND QUANTITY OF SENSORS REQUIRED FOR COMPLETE COVERAGE. SUBMIT LAYOUT AND WIRING DIAGRAMS FOR REVIEW.
5. VERIFY TIME OUT FOR TIME DELAYS WITH OWNER.

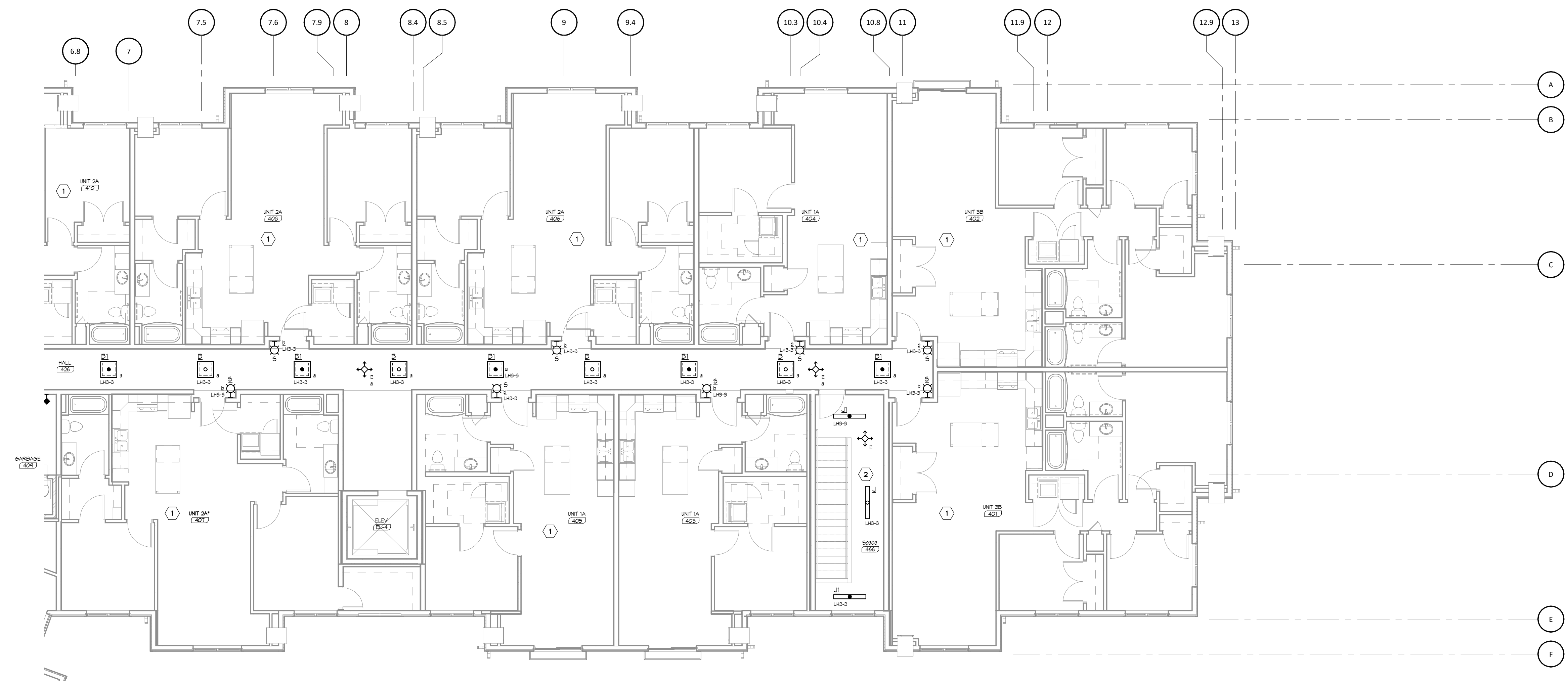
**GEN. LIGHTING NOTES:**

- A. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- B. REFER TO THE ARCHITECTURAL ELEVATION, DETAIL, AND REFLECTED CEILING PLAN DRAWINGS FOR COORDINATION OF ELECTRICAL DEVICES.
- C. CUTTING, DRILLING, AND/OR BORING THROUGH STRUCTURAL MEMBERS IS NOT ACCEPTABLE.
- D. PROVIDE X-RAY ANALYSIS OF CONCRETE FLOORING PRIOR TO CUTTING, DRILLING, OR BORING.
- E. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
- F. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
- G. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 100' FOR 120V AND 200' FOR 277V SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
- H. PROVIDE DEDICATED NEUTRAL FOR EACH MULTIWIRE BRANCH CIRCUIT PHASE CONDUCTOR. PROVIDE DEDICATED NEUTRAL FOR EACH DIMMING CIRCUIT.
- I. DEVICES IN FINISHED AREAS ARE TO BE RECESSED WITHIN WALLS EXCEPT WHERE REQUIRED TO BE SURFACE MOUNTED. IN UNFINISHED AREAS (PLUMBING CHASES, JANITORS CLOSETS, ELECTRICAL ROOMS, AND MECHANICAL ROOMS) DEVICES AND CONDUIT MAY BE SURFACE MOUNTED.
- J. LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR WITHIN 12" OF DOOR/SIDELIGHT FRAME. UNLESS NOTED OTHERWISE LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SWINGS SHALL BE MOUNTED CLEAR OF DOOR SWINGS AND WITHIN 12" OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES.
- K. COORDINATE LUMINAIRE LOCATIONS WITH STRUCTURAL AND MECHANICAL TRADES PRIOR TO INSTALLATION. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF LUMINAIRES IN MECHANICAL ROOMS WITH DUCTS, PIPES, AND EQUIPMENT. MOUNT LUMINAIRES BELOW DUCTS AND PIPES AND AVOID MOUNTING LUMINAIRES OVER EQUIPMENT. SUPPORT LUMINAIRES INDEPENDENTLY OF DUCTS, PIPES, AND EQUIPMENT.
- L. VERIFY OCCUPANCY SENSOR DEVICE LAYOUT AND QUANTITIES FOR COMPLETE AREA/ROOM COVERAGE WITH SENSOR MANUFACTURER PRIOR TO ROUGH-IN.
- M. COORDINATE CEILING TYPES, RECESS CONDITIONS, AND MOUNTING HARDWARE REQUIRED PRIOR TO PURCHASE OF LUMINAIRES.
- N. WIRES SHALL NOT FEED THROUGH FIXTURES EXCEPT TO SERVE CONTIGUOUS ROWS OF SIMILAR TYPE OF LUMINAIRES.
- O. FOR EXISTING PANELS, CIRCUIT NUMBERS ARE FOR REFERENCE ONLY. COORDINATE EXISTING PANEL CONFIGURATION. UTILIZE EXISTING DEMOED CIRCUITS FEEDING THIS AREA. PROVIDE ISEA UPDATED, TYPED PANEL INDEX FOR MODIFIED PANELS. UNUSED CIRCUIT BREAKERS SHALL BE LISTED AS SPARE.

**LIGHTING SHEET NOTES:**

1. SEE 1/4" APARTMENT UNIT PLANS, SHEETS E300, E301, AND E302.
2. STARVELL LIGHTING SHALL BE BI-LEVEL SWITCHED 50% LIGHT SHALL BE MAINTAINED AT ALL UNOCCUPIED TIMES. UPON OCCUPANCY DETECTION FIXTURE SHALL SWITCH TO 100% 'ON' FOR STAR OCCUPIED. FIXTURE SHALL FALL 'ON' TO 100% (1400LM INTEGRAL BATTERY OUTPUT) UPON LOSS OF POWER.

D  
C  
B  
A  
E  
F



**1 FOURTH FLOOR PLAN - EAST - LIGHTING**  
SCALE: 1/8" = 1'-0"

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PRELIMINARY**

**REVISION SCHEDULE**

NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
MAPLE GROVE, MN

DATE  
**11/10/2017**

PHASE  
**PROGRESS SET**

PROJECT  
**ONE# 2016446**

SHEET  
**E109**  
FOURTH FLOOR  
PLAN - EAST -  
LIGHTING



- GEN. POWER/SYSTEMS NOTES:**
- MOUNT BOTTOM OF DEVICES INDICATED WITH 'AC' (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK 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.
  - 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 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
  - PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" UP INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
  - DEVICES INSTALLED IN 2X2 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
  - INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
  - PROVIDE CIRCUIT BREAKER 'LOCK-ON' OFR FACP CIRCUIT(S).

**GARAGE FLOOR PLAN - WEST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"

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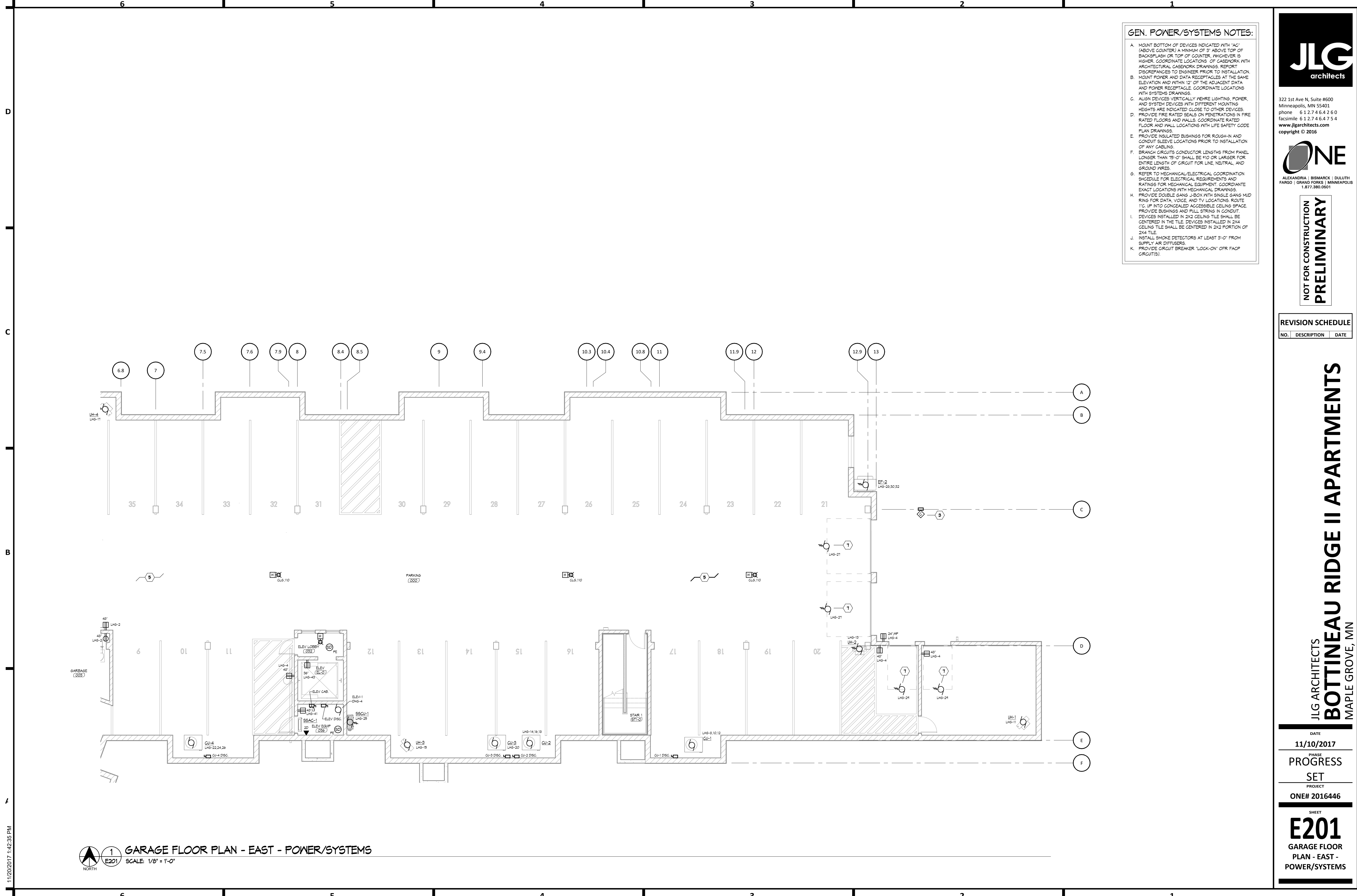
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**REVISION SCHEDULE**

NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
PROJECT	SET
PROJECT	ONE# 2016446
SHEET	<b>E200</b>
PROJECT	GARAGE FLOOR PLAN - WEST - POWER/SYSTEMS



- GEN. POWER/SYSTEMS NOTES:**
- MOUNT BOTTOM OF DEVICES INDICATED WITH "AC" (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK 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.
  - 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 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
  - PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" UP INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
  - DEVICES INSTALLED IN 2X2 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
  - INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
  - PROVIDE CIRCUIT BREAKER "LOCK-ON" OFR FACP CIRCUIT(S).



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JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE  
**11/10/2017**

PHASE  
**PROGRESS**

SET

PROJECT  
**ONE# 2016446**

SHEET  
**E201**  
 GARAGE FLOOR  
 PLAN - EAST -  
 POWER/SYSTEMS

**1 GARAGE FLOOR PLAN - EAST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"

11/20/2017 1:42:35 PM



**GEN. POWER/SYSTEMS NOTES:**

- MOUNT BOTTOM OF DEVICES INDICATED WITH 'AC' (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK 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.
- 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 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
- REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
- PROVIDE DOUBLE GANGS J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" IP INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
- DEVICES INSTALLED IN 2X2 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
- INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
- PROVIDE CIRCUIT BREAKER "LOCK-ON" OFR FACP CIRCUIT(S).

**POWER/SYSTEMS SHEET NOTES:**

- SEE ENLARGED APARTMENT UNIT PLANS, SHEETS E300, E301, AND E302.
- ROUGH-IN FOR APARTMENT ENTRY SYSTEM ROUTE CABLE BACK TO ROOM FROM BUILDING ENTRY SYSTEM. ENTRY SYSTEM BY OTHERS, COORDINATE LOCATIONS WITH OWNER.
- PROVIDE (10) SPARE 3/4" C. FROM PANEL UP INTO ACCESSIBLE CEILING SPACE OF ROOM.



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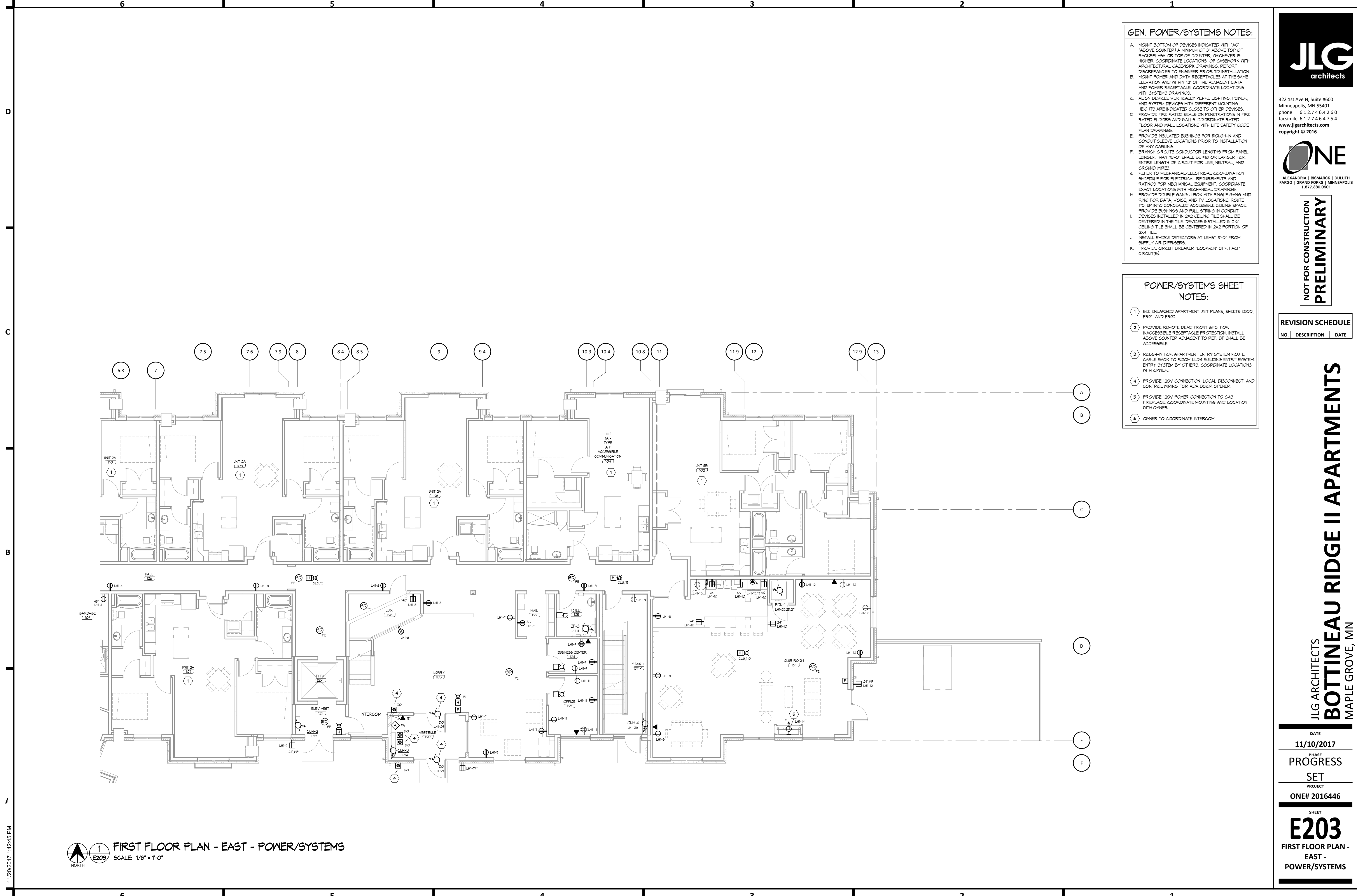
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JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
PROJECT	SET
PROJECT	ONE# 2016446
SHEET	<b>E202</b>
PROJECT	FIRST FLOOR PLAN - WEST - POWER/SYSTEMS

**FIRST FLOOR PLAN - WEST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"

11/20/2017 1:42:40 PM



**GEN. POWER/SYSTEMS NOTES:**

- A. MOUNT BOTTOM OF DEVICES INDICATED WITH 'AC' (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.
- B. MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
- C. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
- D. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
- E. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
- F. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
- G. REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
- H. PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" IP INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
- I. DEVICES INSTALLED IN 2X2 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
- J. INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
- K. PROVIDE CIRCUIT BREAKER 'LOCK-ON' OFR FACP CIRCUITS(S).

**POWER/SYSTEMS SHEET NOTES:**

- 1 SEE ENLARGED APARTMENT UNIT PLANS, SHEETS E300, E301, AND E302.
- 2 PROVIDE REMOTE DEAD FRONT GFCI FOR INACCESSIBLE RECEPTACLE PROTECTION. INSTALL ABOVE COUNTER ADJACENT TO REF. DF SHALL BE ACCESSIBLE.
- 3 ROUGH-IN FOR APARTMENT ENTRY SYSTEM ROUTE CABLE BACK TO ROOM LOGIA BUILDING ENTRY SYSTEM. ENTRY SYSTEM BY OTHERS. COORDINATE LOCATIONS WITH OWNER.
- 4 PROVIDE 120V CONNECTION, LOCAL DISCONNECT, AND CONTROL WIRING FOR ADA DOOR OPENER.
- 5 PROVIDE 120V POWER CONNECTION TO GAS FIREPLACE. COORDINATE MOUNTING AND LOCATION WITH OWNER.
- 6 OWNER TO COORDINATE INTERCOM.



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**REVISION SCHEDULE**

NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE  
**11/10/2017**  
 PHASE  
**PROGRESS**  
 SET  
 PROJECT  
**ONE# 2016446**

SHEET  
**E203**  
 FIRST FLOOR PLAN -  
 EAST -  
 POWER/SYSTEMS

11/20/2017 1:42:45 PM

**FIRST FLOOR PLAN - EAST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"



- GEN. POWER/SYSTEMS NOTES:**
- 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.
  - MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
  - 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 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
  - PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" I/P INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
  - DEVICES INSTALLED IN 2X2 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
  - INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
  - PROVIDE CIRCUIT BREAKER "LOCK-ON" FOR FACP CIRCUIT(S).



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**REVISION SCHEDULE**

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JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
PROJECT	SET
PROJECT	ONE# 2016446
SHEET	<b>E204</b>
SECOND FLOOR PLAN - WEST - POWER/SYSTEMS	

**SECOND FLOOR PLAN - WEST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"

11/20/2017 1:42:50 PM



- GEN. POWER/SYSTEMS NOTES:**
- A. MOUNT BOTTOM OF DEVICES INDICATED WITH "AC" (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.
  - B. MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
  - C. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
  - D. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
  - E. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
  - F. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - G. REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
  - H. PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" IP INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
  - I. DEVICES INSTALLED IN 2X2 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
  - J. INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
  - K. PROVIDE CIRCUIT BREAKER "LOCK-ON" OFR FACP CIRCUITS.



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REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE
11/10/2017
PHASE
PROGRESS
SET
PROJECT
ONE# 2016446

SHEET  
**E205**  
 SECOND FLOOR  
 PLAN - EAST -  
 POWER/SYSTEMS

**1 SECOND FLOOR PLAN - EAST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"

11/20/2017 1:42:55 PM



- GEN. POWER/SYSTEMS NOTES:**
- A. MOUNT BOTTOM OF DEVICES INDICATED WITH "AC" (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.
  - B. MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
  - C. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
  - D. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
  - E. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
  - F. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - G. REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
  - H. PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" UP INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRINGS IN CONDUIT.
  - I. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X4 PORTION OF 2X4 TILE.
  - J. INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
  - K. PROVIDE CIRCUIT BREAKER "LOCK-ON" OFR FACP (CIRCUITS).



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REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
PROJECT	SET
PROJECT	ONE# 2016446
SHEET	<b>E206</b>
THIRD FLOOR PLAN - WEST - POWER/SYSTEMS	

1 THIRD FLOOR PLAN - WEST - POWER/SYSTEMS  
 SCALE: 1/8" = 1'-0"

11/20/2017 1:43:00 PM



- GEN. POWER/SYSTEMS NOTES:**
- A. MOUNT BOTTOM OF DEVICES INDICATED WITH "AC" (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.
  - B. MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
  - C. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
  - D. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
  - E. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
  - F. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - G. REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
  - H. PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" IP INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
  - I. DEVICES INSTALLED IN 2X2 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
  - J. INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
  - K. PROVIDE CIRCUIT BREAKER "LOCK-ON" OFR FACP CIRCUIT(S).



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REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
SET	SET
PROJECT	ONE# 2016446
SHEET	<b>E207</b>
THIRD FLOOR PLAN - EAST - POWER/SYSTEMS	

**1 THIRD FLOOR PLAN - EAST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"

11/20/2017 1:43:04 PM



- GEN. POWER/SYSTEMS NOTES:**
- 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.
  - MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
  - 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 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
  - PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" IPN INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
  - DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
  - INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
  - PROVIDE CIRCUIT BREAKER "LOCK-ON" OFF RACP CIRCUIT(S).



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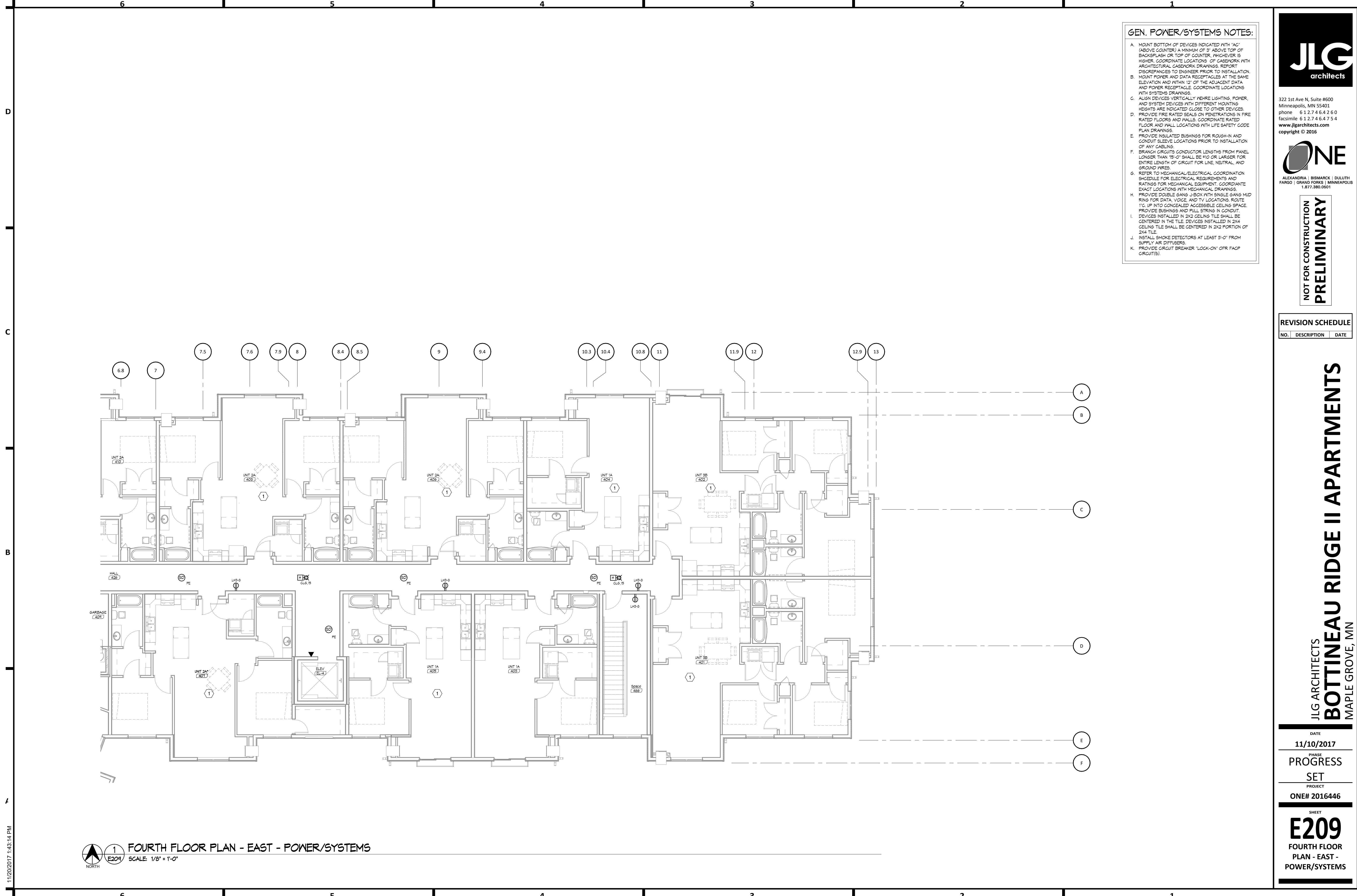
NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
PROJECT	SET
PROJECT	ONE# 2016446
SHEET	<b>E208</b>
FOURTH FLOOR PLAN - WEST - POWER/SYSTEMS	

**FOURTH FLOOR PLAN - WEST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"

11/20/2017 1:43:09 PM



- GEN. POWER/SYSTEMS NOTES:**
- A. MOUNT BOTTOM OF DEVICES INDICATED WITH "AC" (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH OR TOP OF COUNTER, WHICHEVER IS HIGHER. COORDINATE LOCATIONS OF CASEWORK WITH ARCHITECTURAL CASEWORK DRAWINGS. REPORT DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.
  - B. MOUNT POWER AND DATA RECEPTACLES AT THE SAME ELEVATION AND WITHIN 12" OF THE ADJACENT DATA AND POWER RECEPTACLE. COORDINATE LOCATIONS WITH SYSTEMS DRAWINGS.
  - C. ALIGN DEVICES VERTICALLY WHERE LIGHTING, POWER, AND SYSTEM DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE INDICATED CLOSE TO OTHER DEVICES.
  - D. PROVIDE FIRE RATED SEALS ON PENETRATIONS IN FIRE RATED FLOORS AND WALLS. COORDINATE RATED FLOOR AND WALL LOCATIONS WITH LIFE SAFETY CODE PLAN DRAWINGS.
  - E. PROVIDE INSULATED BUSHINGS FOR ROUGH-IN AND CONDUIT SLEEVE LOCATIONS PRIOR TO INSTALLATION OF ANY CABLING.
  - F. BRANCH CIRCUITS CONDUCTOR LENGTHS FROM PANEL LONGER THAN 75'-0" SHALL BE #10 OR LARGER FOR ENTIRE LENGTH OF CIRCUIT FOR LINE, NEUTRAL, AND GROUND WIRES.
  - G. REFER TO MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND RATINGS FOR MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATIONS WITH MECHANICAL DRAWINGS.
  - H. PROVIDE DOUBLE GANG J-BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, AND TV LOCATIONS. ROUTE 1/2" I/P INTO CONCEALED ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AND PULL STRING IN CONDUIT.
  - I. DEVICES INSTALLED IN 2X2 CEILING TILE SHALL BE CENTERED IN THE TILE. DEVICES INSTALLED IN 2X4 CEILING TILE SHALL BE CENTERED IN 2X2 PORTION OF 2X4 TILE.
  - J. INSTALL SMOKE DETECTORS AT LEAST 3'-0" FROM SUPPLY AIR DIFFUSERS.
  - K. PROVIDE CIRCUIT BREAKER "LOCK-ON" OPR. FACP CIRCUITS).



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JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE  
 11/10/2017

PHASE  
 PROGRESS

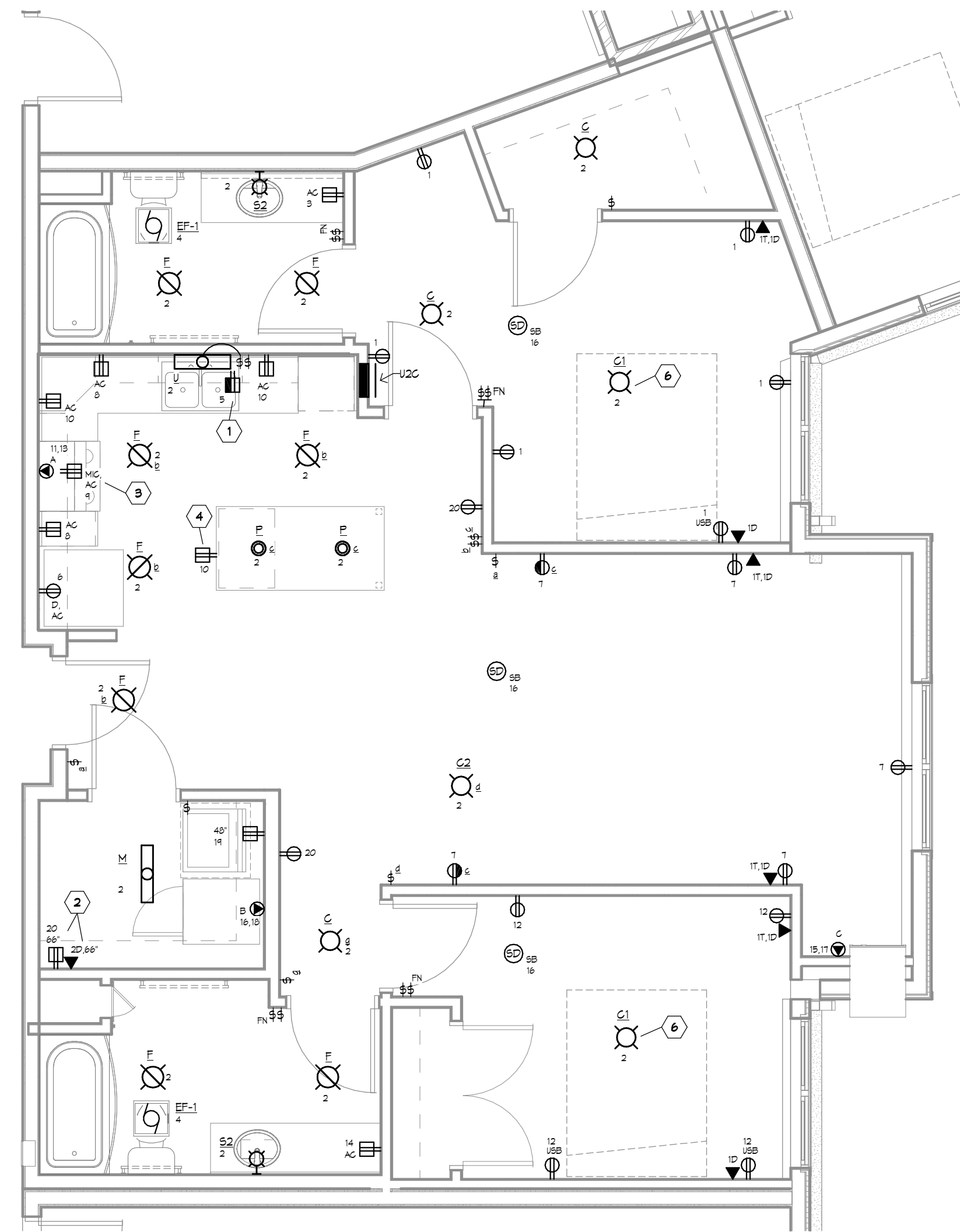
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PROJECT  
 ONE# 2016446

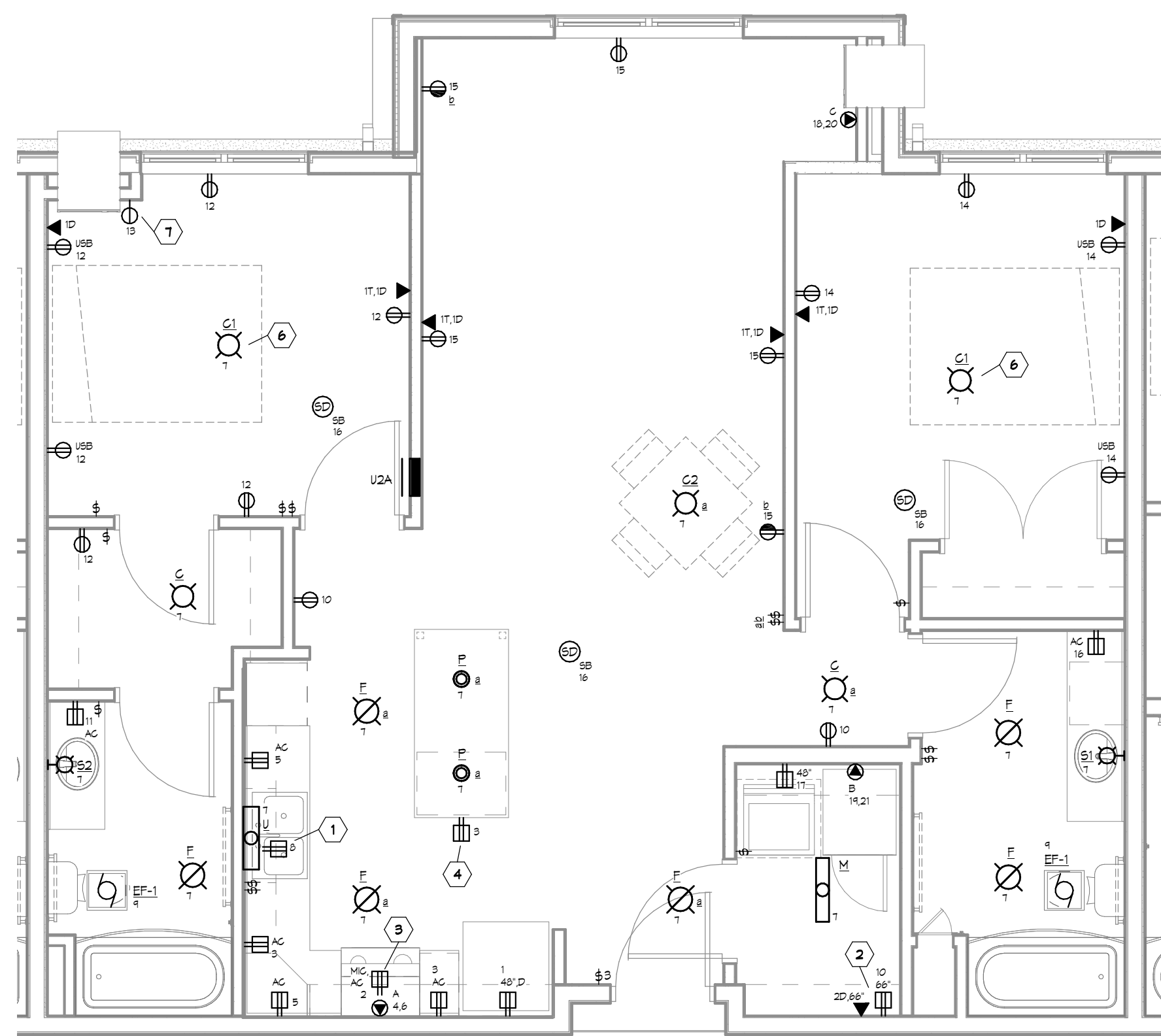
SHEET  
**E209**  
 FOURTH FLOOR  
 PLAN - EAST -  
 POWER/SYSTEMS

**1 FOURTH FLOOR PLAN - EAST - POWER/SYSTEMS**  
 SCALE: 1/8" = 1'-0"

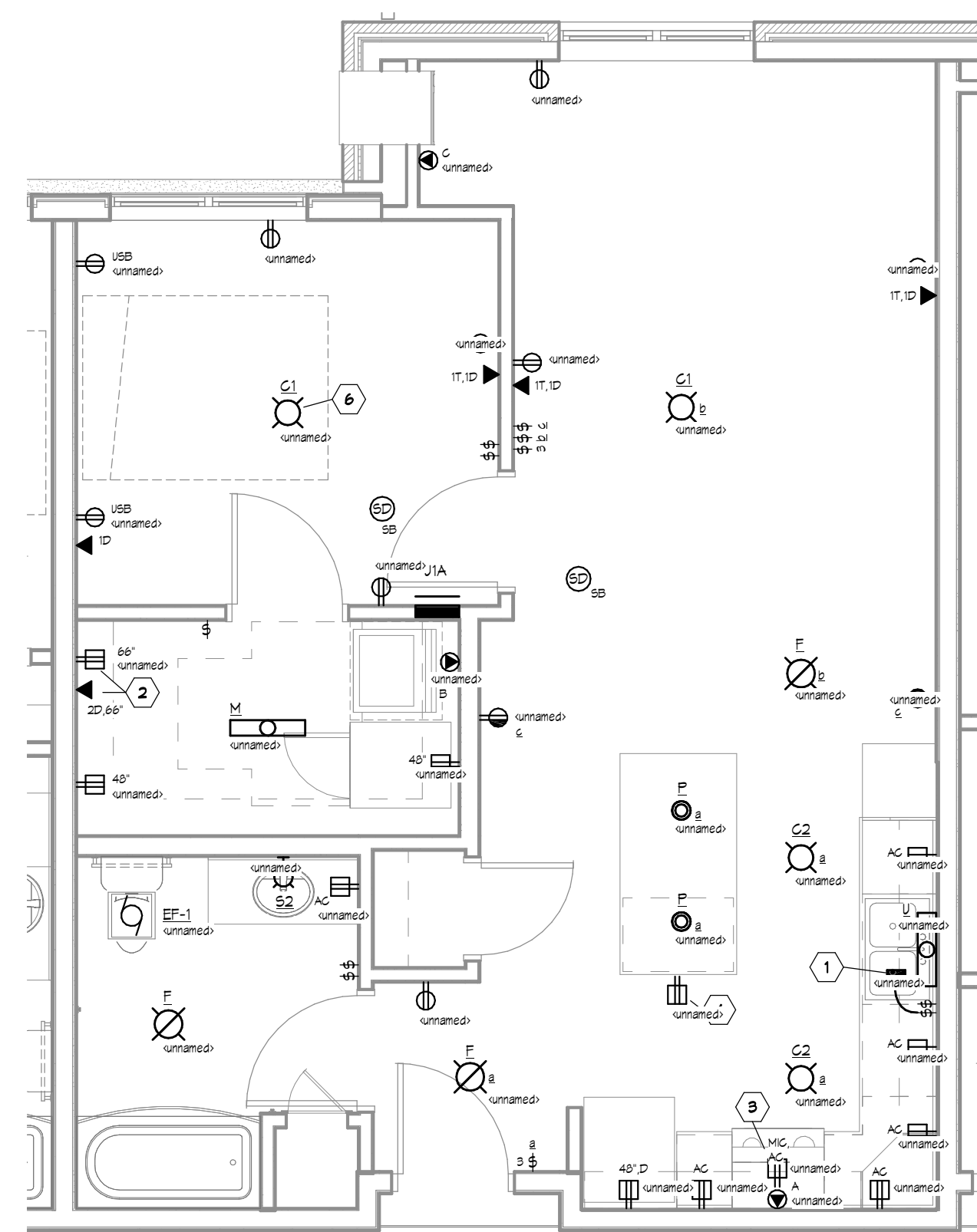
11/20/2017 1:43:14 PM



**3** 1/4" UNIT 2C - ELECTRICAL  
 E300 SCALE: 1/4" = 1'-0"



**2** 1/4" UNIT 2A - ELECTRICAL  
 E300 SCALE: 1/4" = 1'-0"



**1** 1/4" UNIT 1A - ELECTRICAL  
 E300 SCALE: 1/4" = 1'-0"

- GEN. 1/4" 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 75' 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/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 BACKSPASH 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 MID RING FOR DATA, VOICE AND TV LOCATIONS.
  - I. INSTALL SMOKE DETECTORS AT LEAST 3' FROM SUPPLY AIR DIFFUSERS.
  - J. DUPLEX RECEPTACLES IN APARTMENT UNITS SHALL BE TAMPER RESISTANT.
  - K. 15A/1P AND 20A/1P LOADS SHALL BE PROVIDED WITH A COMBINATION AFCI CIRCUIT BREAKER AT PANEL.

- 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 UPPER CASEWORK LOCATION. 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.G.
  - 6. PROVIDE 4" ROUND FAN RATED J-BOX.
  - 7. PROVIDE 120V POWER CONNECTION FOR AC UNIT. COORDINATE MOUNTING AND CONNECTION WITH AC UNIT CONTRACTOR.

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REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

**JLG ARCHITECTS**  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
SET	SET
PROJECT	ONE# 2016446
SHEET	<b>E300</b>
1/4" UNIT PLANS - ELECTRICAL	

6

5

4

3

2

1

D

C

B

A

6

5

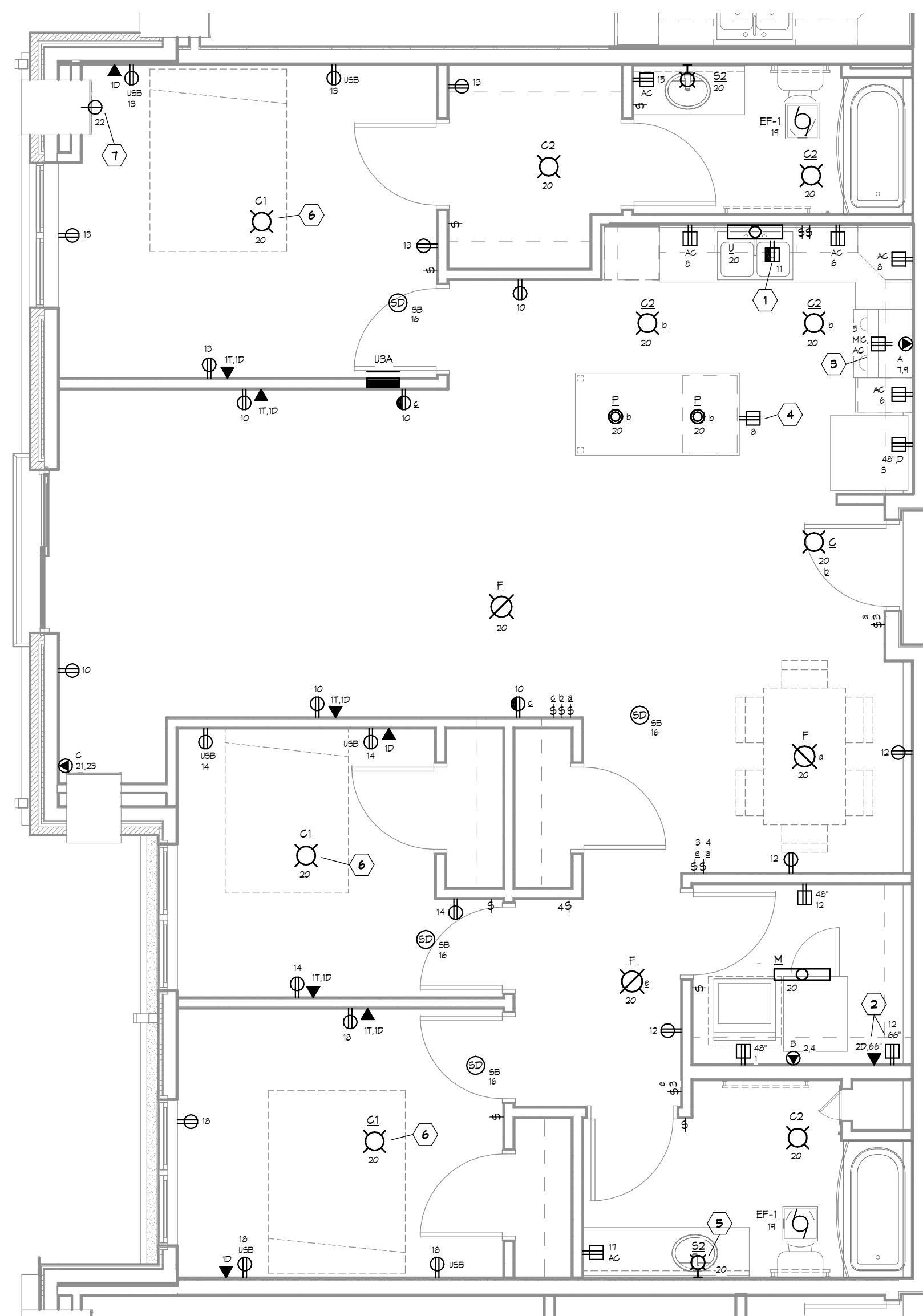
4

3

2

1

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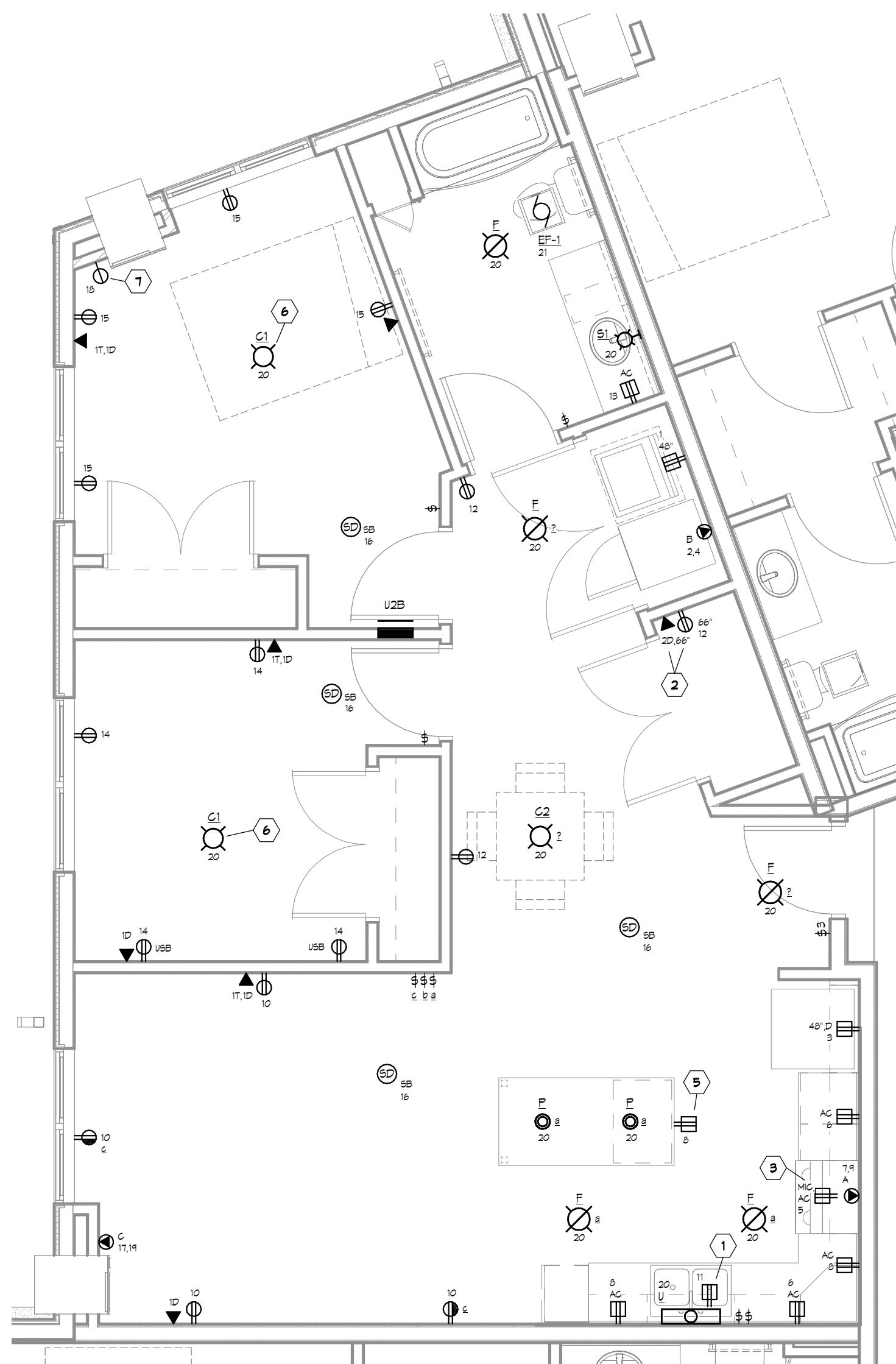
2 1/4" UNIT 3A - ELECTRICAL  
 E301 SCALE: 1/4" = 1'-0"

GEN. 1/4" 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 75' SHALL BE MID 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 SIGHT FRAMING.
- F. MOUNT BOTTOM OF DEVICES INDICATED WITH "AC" (ABOVE COUNTER) A MINIMUM OF 3" ABOVE TOP OF BACKSPASH 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. INSTALL SMOKE DETECTORS AT LEAST 3' FROM SUPPLY AIR DIFFUSERS.
- J. DUPLEX RECEPTACLES IN APARTMENT UNITS SHALL BE TAMPER RESISTANT.
- K. 15A/1P AND 20A/1P LOADS SHALL BE PROVIDED WITH A COMBINATION AFCI CIRCUIT BREAKER AT PANEL.

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 5 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 UPPER CASEWORK LOCATION. 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 PROVIDE 120V POWER CONNECTION FOR AC UNIT. COORDINATE MOUNTING AND CONNECTION WITH AC UNIT CONTRACTOR.



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



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NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
SET	SET
PROJECT	ONE# 2016446
SHEET	<b>E301</b>
1/4" UNIT PLANS - ELECTRICAL	

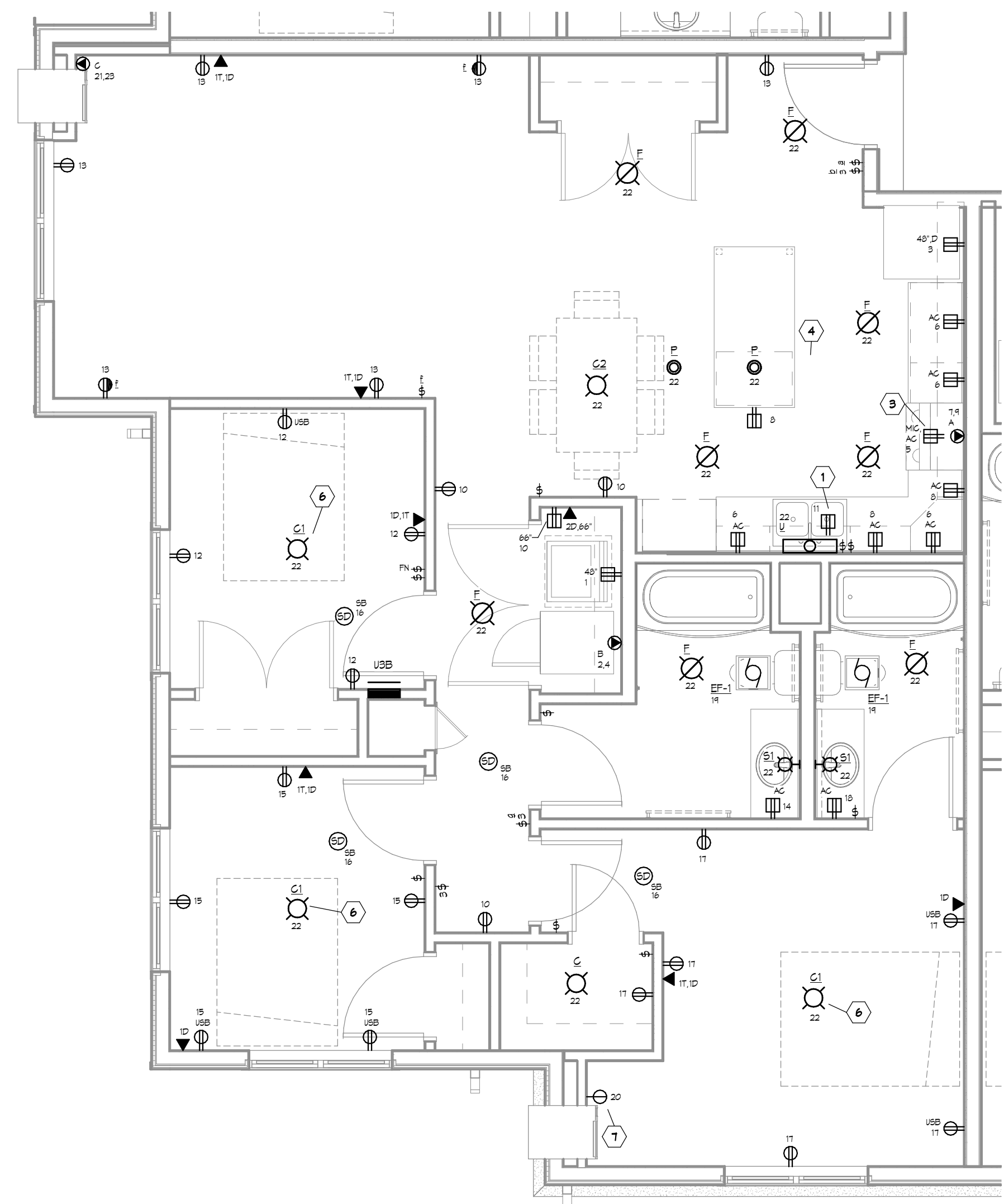
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C

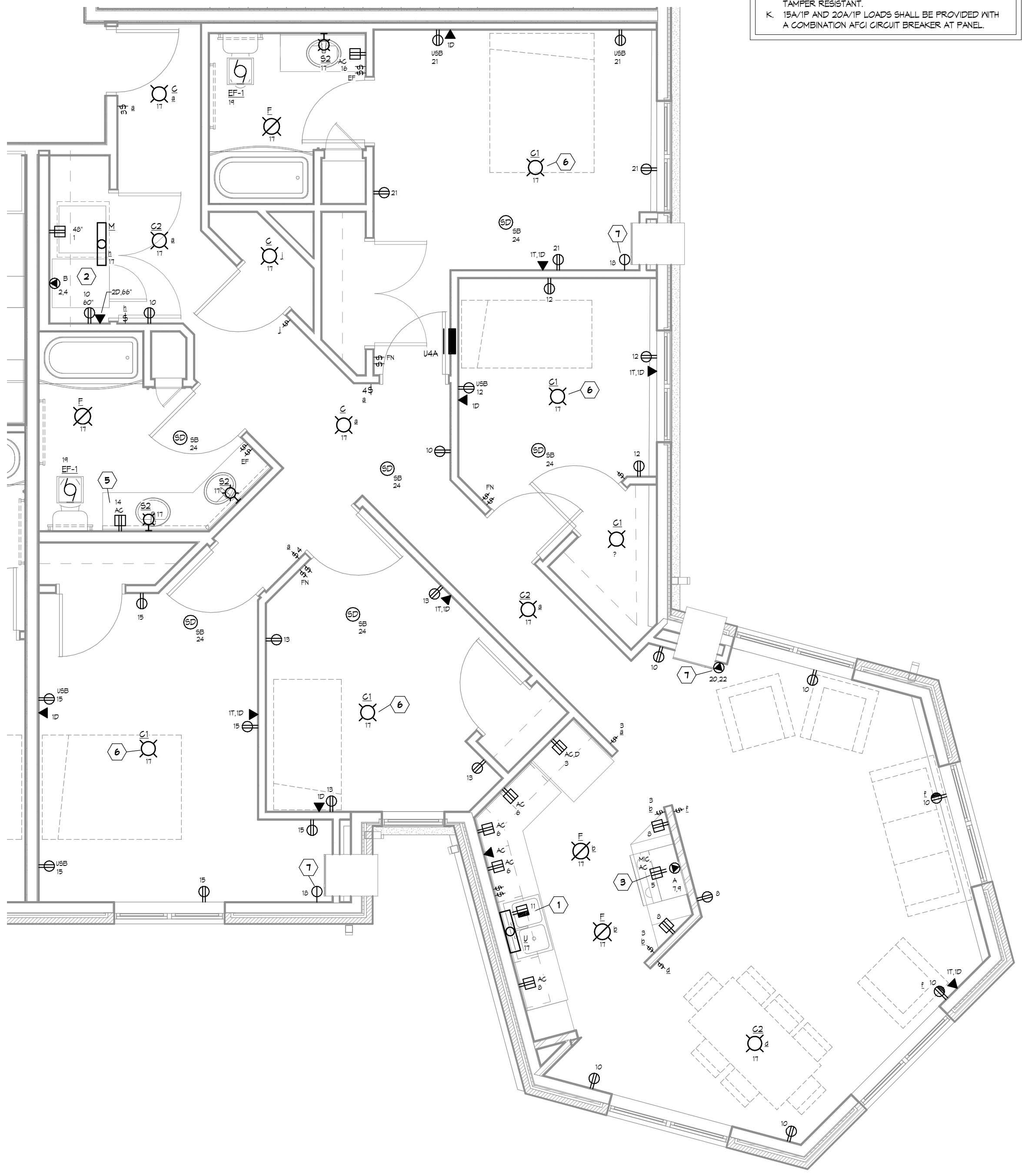
B

A

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



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

- GEN. 1/4" 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 BUSINGS 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 WIRES.
  - E. LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR, WITHIN 12" OF DOOR/SWELIGHT FRAMING, UNLESS NOTED OTHERWISE. LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SWINGS SHALL BE MOUNTED CLEAR OF DOOR SWINGS 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. INSTALL SMOKE DETECTORS AT LEAST 3' FROM SUPPLY AIR DIFFUSERS.
  - J. DUPLEX RECEPTACLES IN APARTMENT UNITS SHALL BE TAMPER RESISTANT.
  - K. 15A/1P AND 20A/1P LOADS SHALL BE PROVIDED WITH A COMBINATION AFCI CIRCUIT BREAKER AT PANEL.

- 1/4" UNIT ELEC. SHEET NOTES:**
- 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 FRONT MIDDLE 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 MICROVAVE RECEPTACLE. HEIGHT INDICATED IS APPROXIMATE. E.G. SHALL ROUGH-IN AT UPPER CASEWORK LOCATION. COORDINATE MOUNTING HEIGHT AND OPENINGS 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 PROVIDE 120V POWER CONNECTION FOR AC UNIT. COORDINATE MOUNTING AND CONNECTION WITH AC UNIT CONTRACTOR.



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**REVISION SCHEDULE**

NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
MAPLE GROVE, MN

DATE	11/10/2017
PHASE	PROGRESS
SET	SET
PROJECT	ONE# 2016446
SHEET	<b>E302</b>
1/4" UNIT PLANS - ELECTRICAL	

6

5

4

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2

1

D

C

B

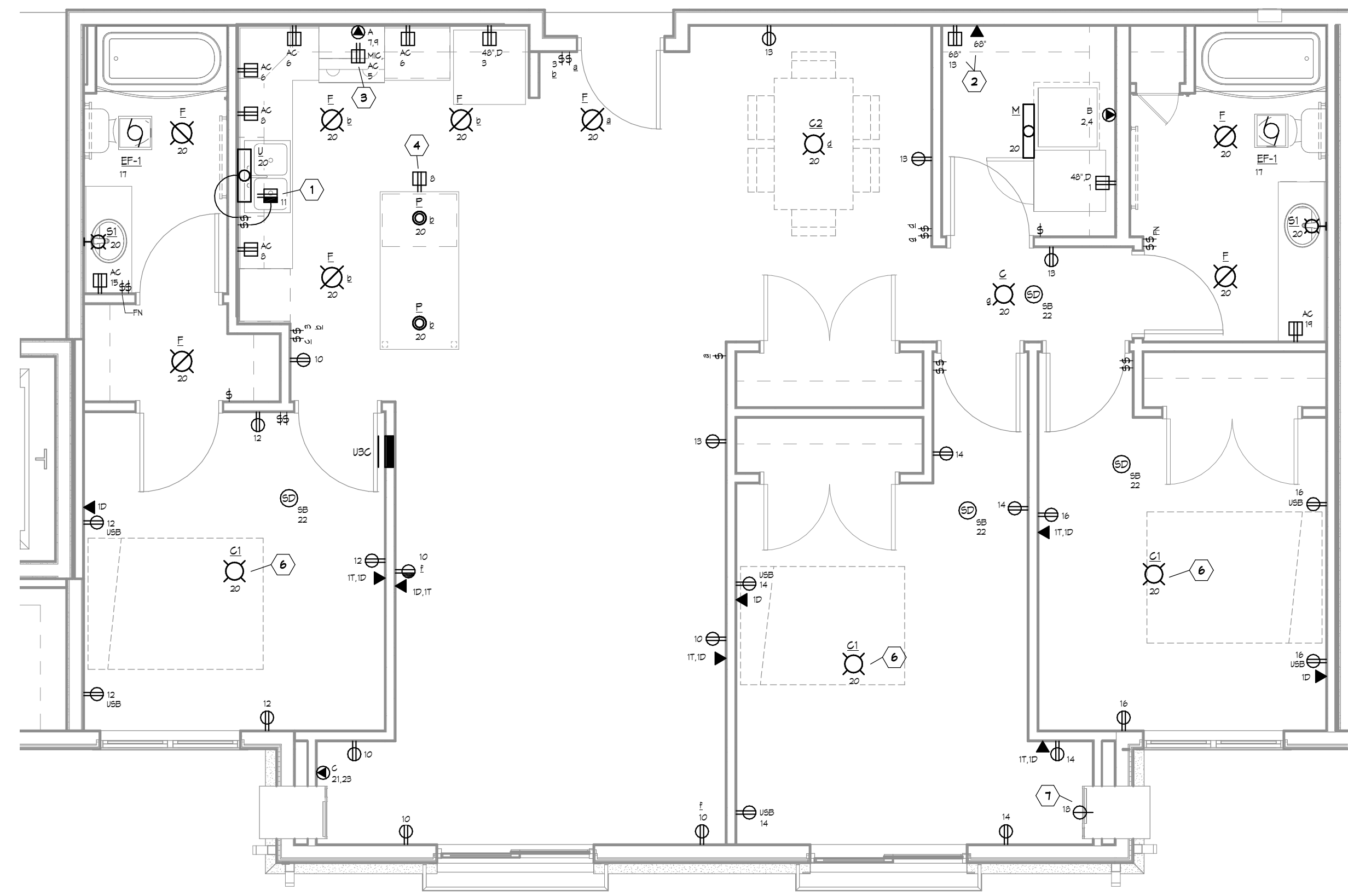
A

GEN. 1/4" 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 75 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 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 BACKSPASH 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 M/D RING FOR DATA, VOICE, AND TV LOCATIONS.
- I. INSTALL SMOKE DETECTORS AT LEAST 9" FROM SUPPLY AIR DIFFUSERS.
- J. DUPLEX RECEPTACLES IN APARTMENT UNITS SHALL BE TAMPER RESISTANT.
- K. 15A/1P AND 20A/1P LOADS SHALL BE PROVIDED WITH A COMBINATION AFCI CIRCUIT BREAKER AT PANEL.

1/4" UNIT ELEC. SHEET NOTES:

- 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. MODEM AND ROUTER PROVIDED BY OTHERS. ROUTE (1) CAT 5 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 UPPER CASEWORK LOCATION. 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 PROVIDE 120V POWER CONNECTION FOR AC UNIT. COORDINATE MOUNTING AND CONNECTION WITH AC UNIT CONTRACTOR.



1 THIRD FLOOR PLAN - POWER/SYSTEMS  
E303 SCALE: 1/4" = 1'-0"

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6

5

4

3

2

1



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REVISION SCHEDULE

NO.	DESCRIPTION	DATE

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
MAPLE GROVE, MN

DATE  
11/10/2017

PHASE  
PROGRESS

SET

PROJECT  
ONE# 2016446

SHEET  
E303

1/4" UNIT PLANS -  
ELECTRICAL

**Switchboard: MSB1**

LOCATION: PARKING 000  
 SUPPLY FROM:  
 MOUNTING: FLOOR  
 ENCLOSURE: NEMA 1

VOLTS: 208/120 V<sub>ph</sub>  
 PHASES: 3  
 WIRES: 4

A.I.C. RATING: 65KAIC  
 MAINS TYPE: MCB  
 MAINS RATING: 1600 A  
 MCB RATING: 1600 A

CKT	CIRCUIT DESCRIPTION	# OF POLES	FRAME SIZE	TRIP RATING	LOAD (VA)	REMARKS
1	DISTRIBUTION PANEL - DHS	3	600 A	600 A	129935 VA	
2	METER BANK 1 (MB1)	3	--	800 A	0 VA	
3	METER BANK 2 (MB2)	3	--	800 A	0 VA	
<b>TOTAL CONN. LOAD:</b>					129935 VA	
<b>TOTAL AMPS:</b>					361 A	

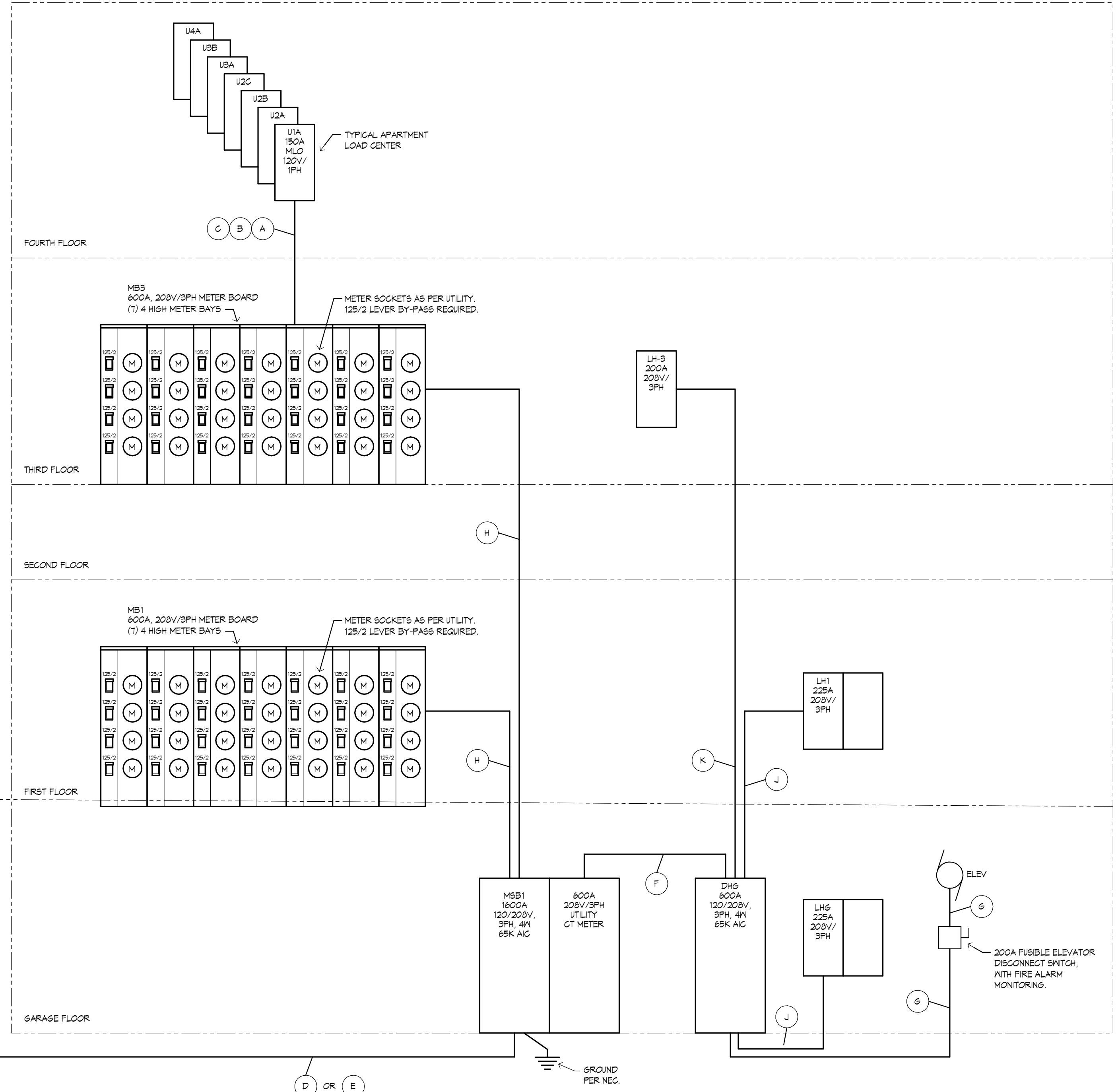
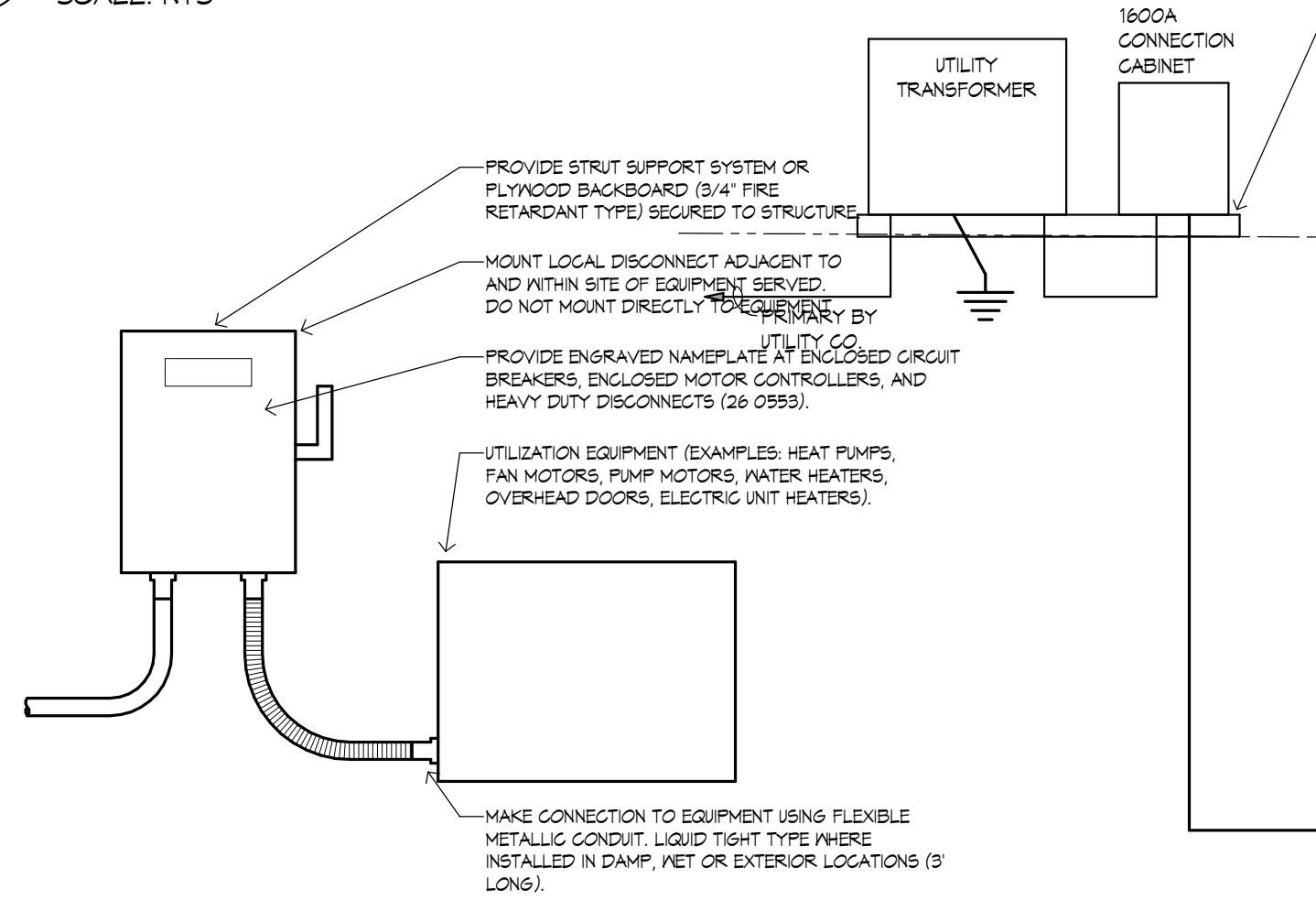
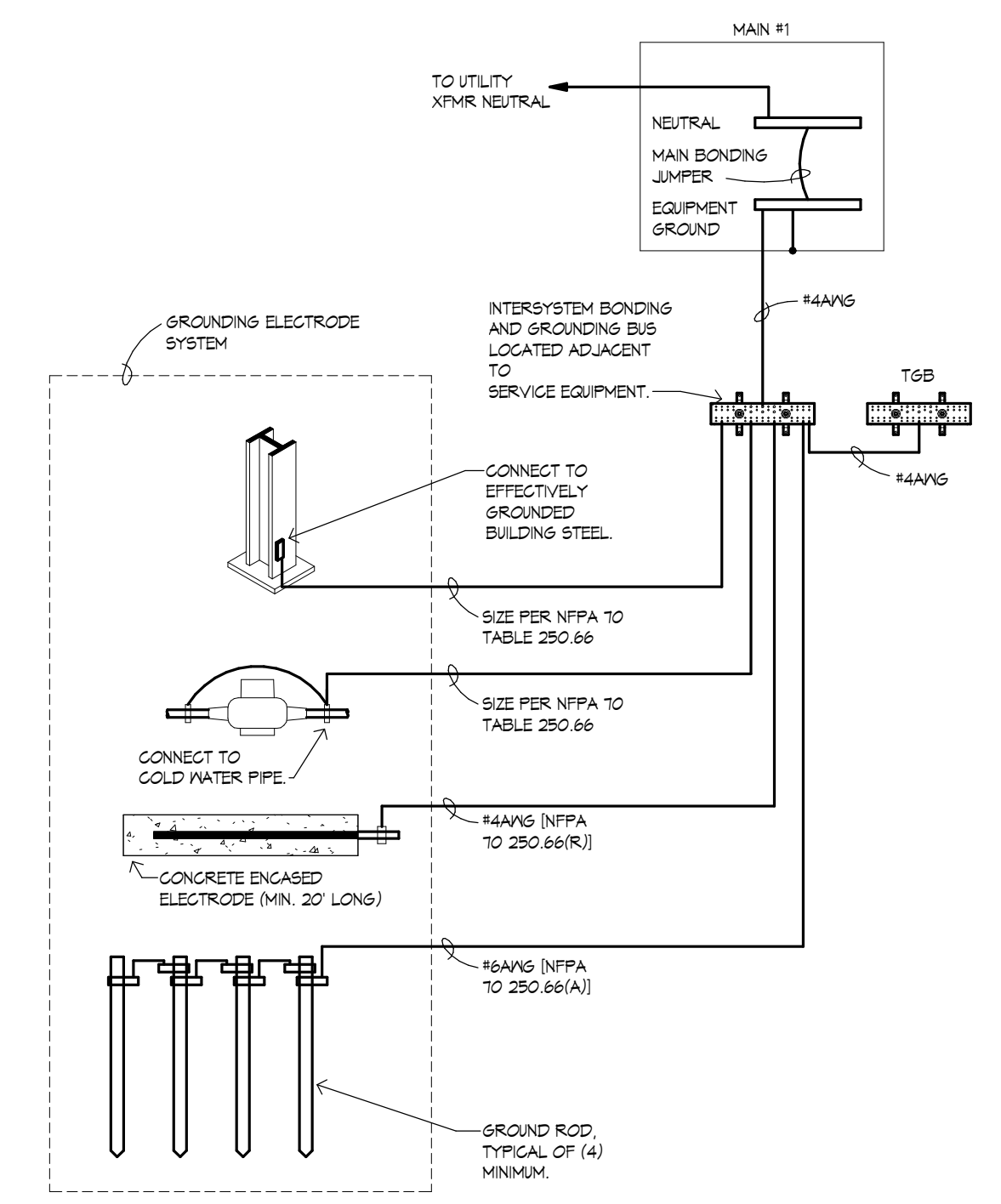
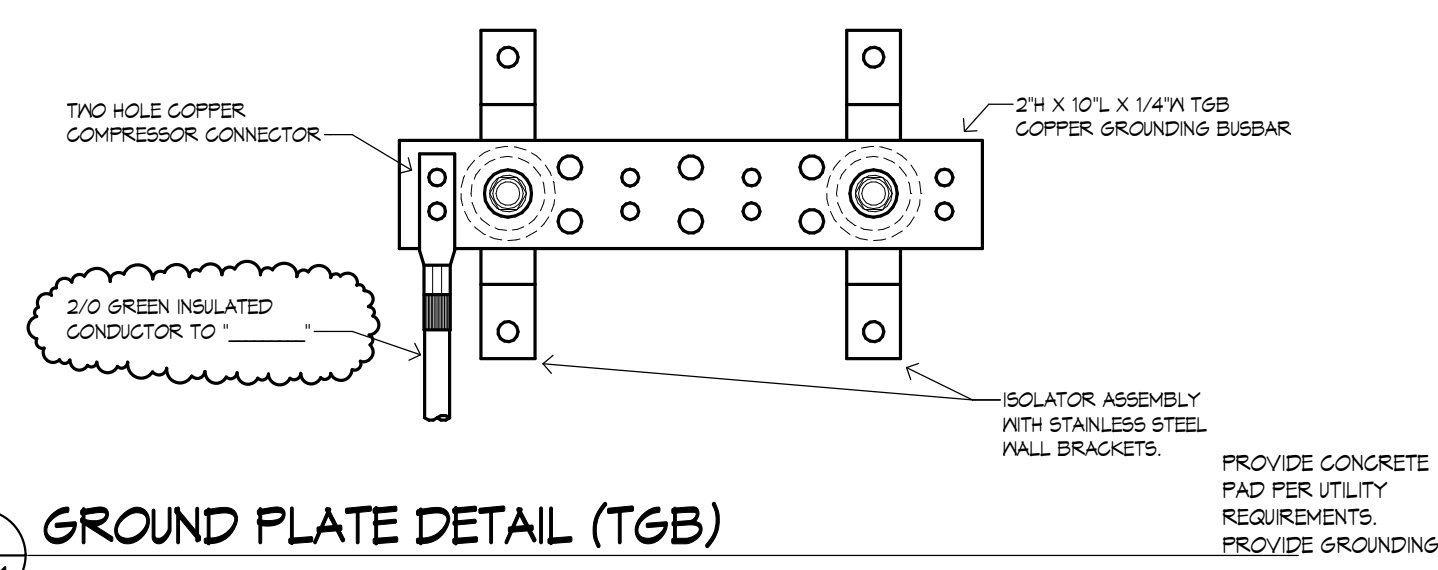
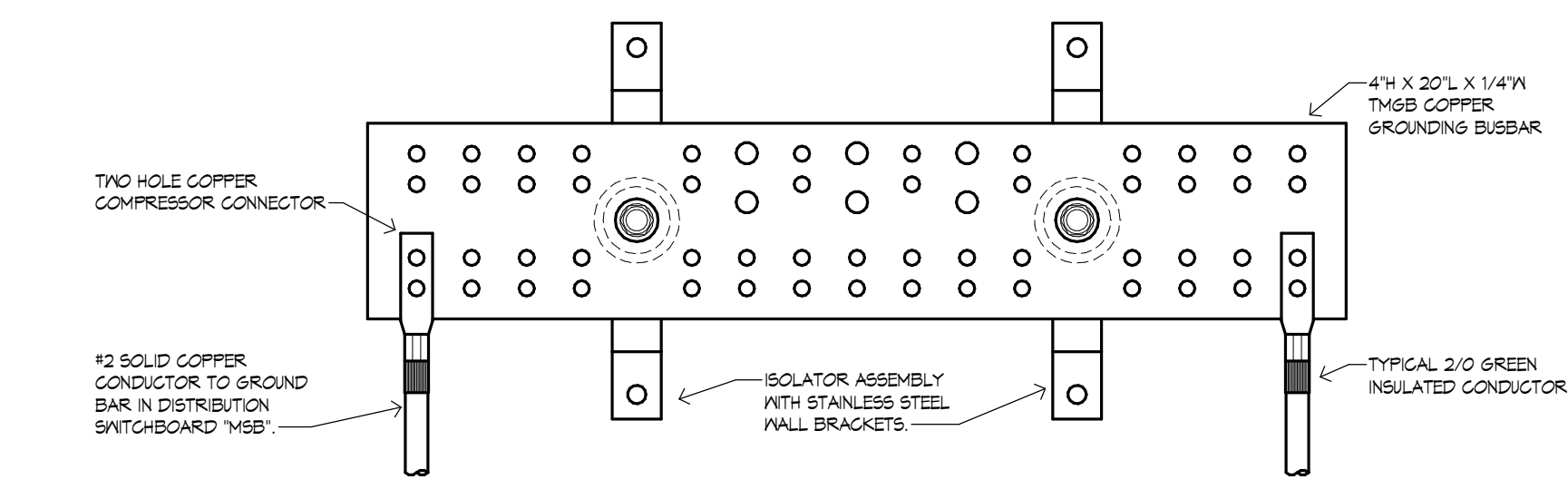
NOTES:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
HVAC	12514 VA	100.00%	12514 VA	
Electric Range/Oven - Dwelling Unit	8320 VA	100.00%	8320 VA	<b>TOTAL CONN. LOAD:</b> 129935 VA
Motor	74819 VA	100.00%	74819 VA	<b>TOTAL EST. DEMAND:</b> 129446 VA
Receptacle	7480 VA	100.00%	7480 VA	<b>TOTAL CONN.:</b> 361 A
Lighting	11340 VA	100.00%	11340 VA	<b>TOTAL EST. DEMAND:</b> 354 A
Receptacle, Convenience	10980 VA	95.54%	10490 VA	
Receptacle Non-Convenience/Power	180 VA	100.00%	180 VA	

**FEEDER SCHEDULE**

FEEDER NUMBER	CONDUIT NO.	CONDUIT SIZE	CONDUCTORS PER CONDUIT			NOTES	
			PHASE	NEUTRAL	GROUND		
A	SER	--	2	#1/0	#1/0	#6	1,2,3
B	SER	--	2	#2/0	#2/0	#6	1,2,3
C	SER	--	2	#3/0	#3/0	#6	1,2,3
D	5	4"	3	#4/0	#4/0		
E	4	4"	3	#6/0	#6/0		
F	2	3"	3	#3/0	#3/0	#2/0	
G	1	1-1/2"	3	#1	#1	#6	
H	3	3"	4	#4/0	#3/0	#4	
J	1	1-1/2"	3	#1	#1	#6	
K	1	1-1/2"	4	#2	#2	#6	

NOTES:  
 1. SER TYPE CABLE MAY BE USED AS DWELLING UNIT FEEDER.  
 2. PROVIDE FIRE RATED CAULKING AT ALL CABLE PENETRATIONS THAT PASS THROUGH RATED WALLS/FLOORS.  
 3. PROVIDE FEEDER #A TO UNIT PANELS 70'-0" OR LESS, FEEDER #B TO PANELS UP TO 140'-0", AND FEEDER #C FOR ALL PANELS THAT ARE GREATER THAN 140'-0".



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**REVISION SCHEDULE**

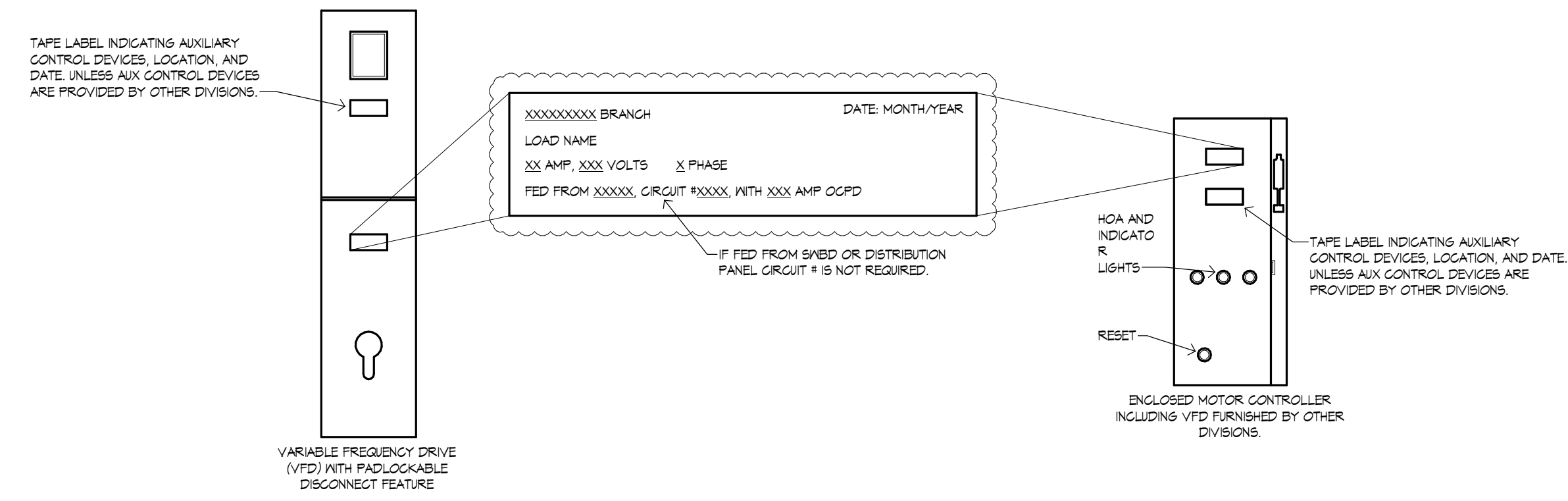
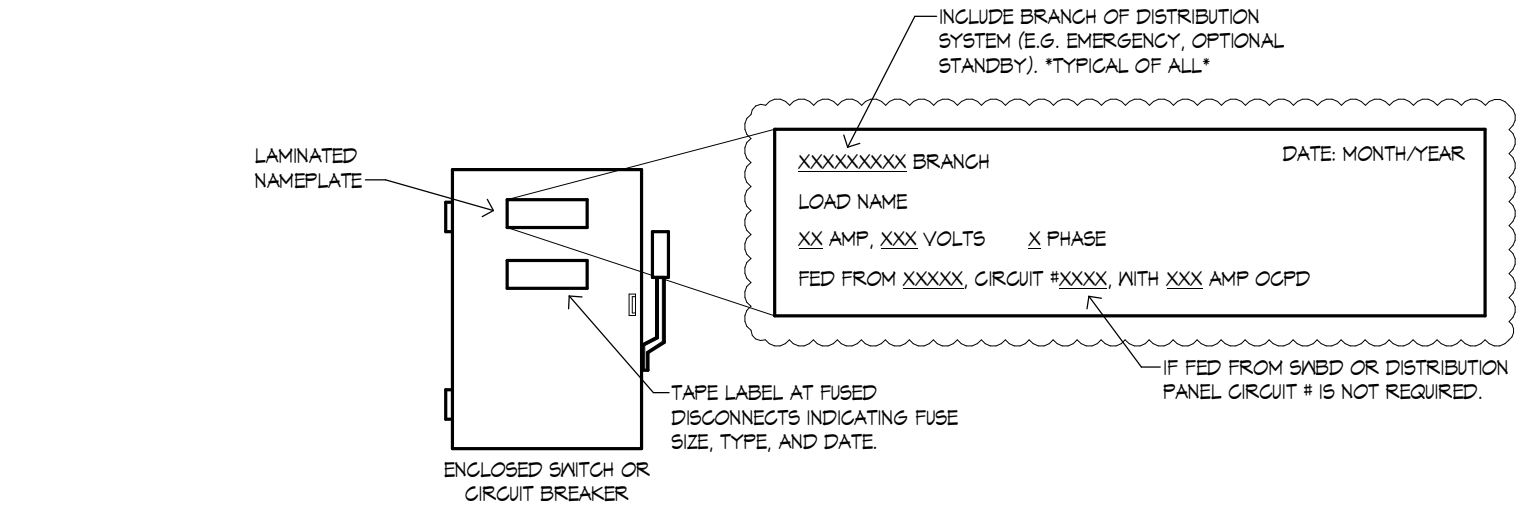
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1	Revision 1	Date 1

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
 MAPLE GROVE, MN

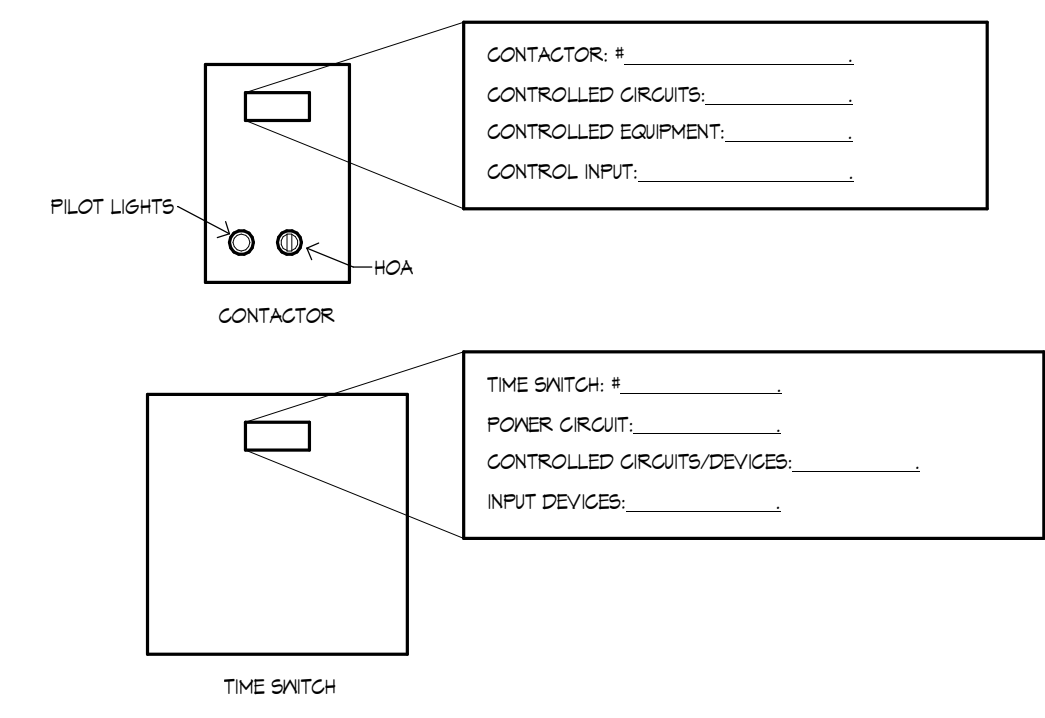
DATE: 11/10/2017  
 PHASE: PROGRESS  
 SET  
 PROJECT: ONE# 2016446  
 SHEET: **E401**  
 ELECTRICAL RISER AND DETAILS

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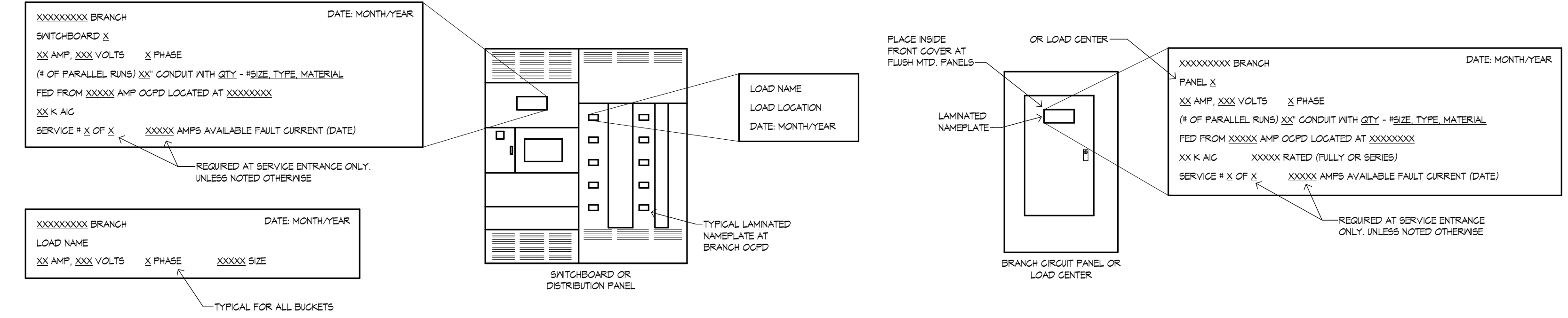


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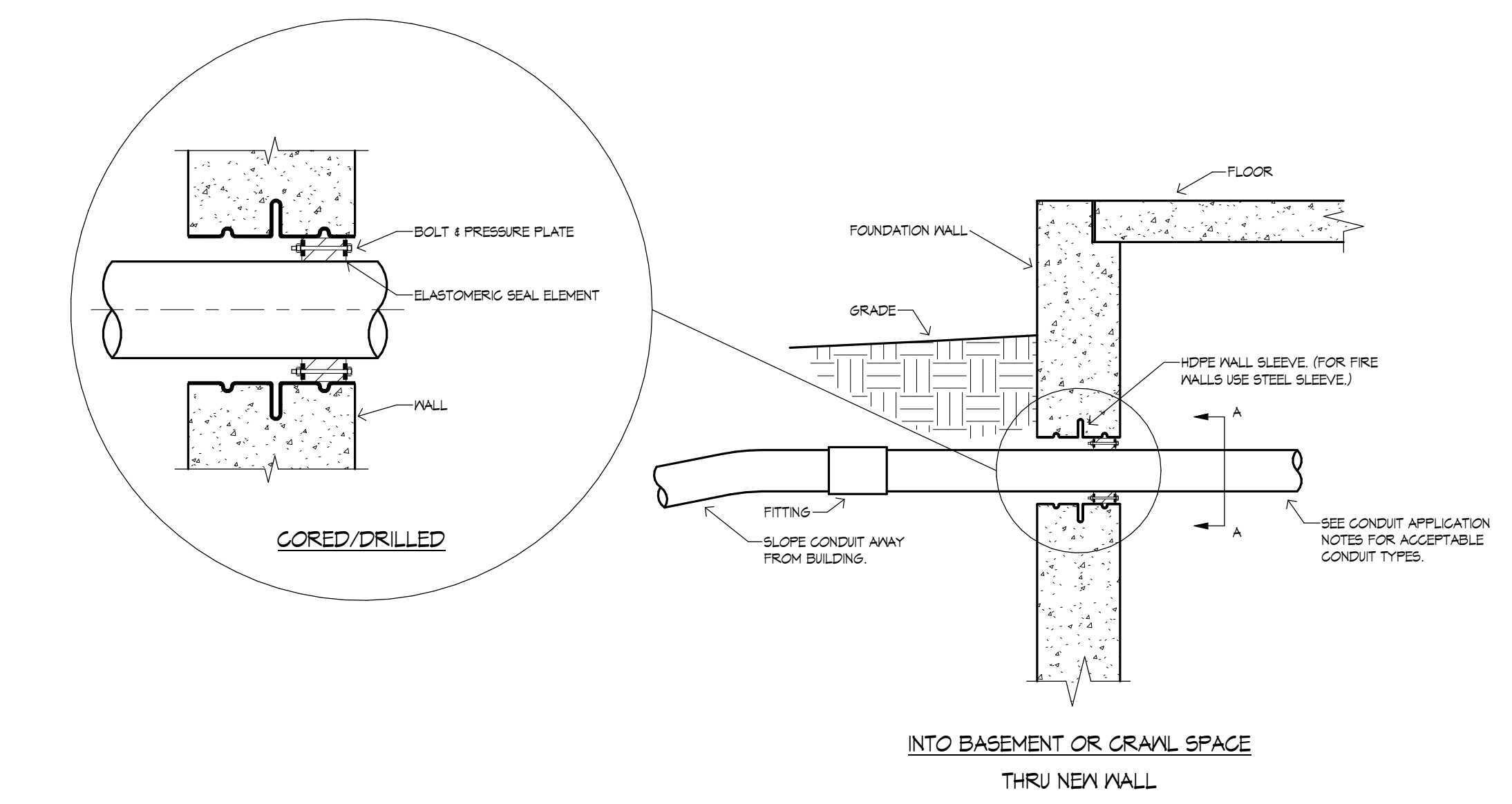


B

**2** EQUIPMENT NAMEPLATE DETAIL  
E402 SCALE: NTS



A



**1** UNDERGROUND CONDUIT WALL PENETRATION DETAIL - THRU NEW WALL  
E402 SCALE: NTS

- EQUIP. NAMEPLATE NOTES:**
- SEE SPEC SECTION "IDENTIFICATION FOR ELECTRICAL SYSTEMS" FOR LABELING INFORMATION.
  - SECURE NAMEPLATE WITH SCREWS OR RIVETS PER SPEC SECTION "IDENTIFICATION FOR ELECTRICAL SYSTEMS". UTILIZE STAINLESS STEEL SCREWS AT EXTERIOR LOCATIONS.
  - UTILIZE STEEL LETTERS ON WHITE BACKGROUND UNLESS NOTED OTHERWISE.
  - UTILIZE WHITE LETTERS ON RED BACKGROUND FOR EMERGENCY BRANCHES.
  - UTILIZE RED LETTERS ON WHITE BACKGROUND FOR OPTIONAL STAND-BY BRANCH.
  - UTILIZE GREEN LETTERS ON WHITE BACKGROUND FOR BRANCHES, LEGALLY REQUIRED.
  - DATE INDICATED SHALL BE DATE OF INSTALL/ OR SUBSTANTIAL COMPLETION, UNLESS NOTED OTHERWISE.
  - UTILIZE BLACK LETTERS ON ORANGE BACKGROUND FOR HIGH LEG SYSTEMS.



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NO.	DESCRIPTION	DATE

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**BOTTINEAU RIDGE II APARTMENTS**  
MAPLE GROVE, MN

DATE  
11/10/2017  
PHASE  
PROGRESS  
SET  
PROJECT  
ONE# 2016446  
SHEET  
**E402**  
POWER DETAILS

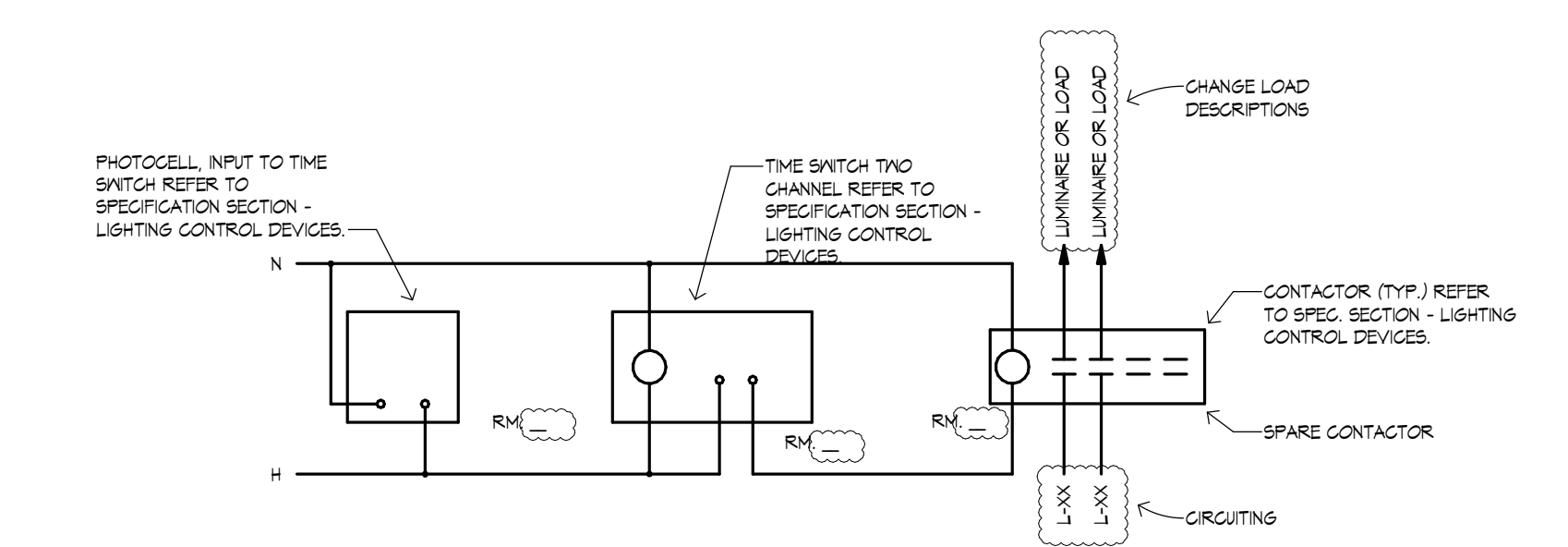
TYPE	MANUFACTURER	SERIES	VOLT	LIGHT SOURCE				BALLAST / POWER SUPPLY / TRANSFORMER				DIMENSIONS	FINISH	MOUNTING	DESCRIPTION		
				WATTS/TYPE	LAMP QTY.	CCT KELVIN	CRI	NOTES/ LUMENS	RATED LIFE HRS	LAMP QTY.	BF					SYSTEM WATTS	STARTING/ NOTES
B	ELITE LITHONIA COLUMBIA METALUX	OVHP-LED 2BLT LCAT 22G2	120	30 WATT LED	1	3500	85	(MIN)MM 3340 (MIN)MM 30,000							2 X 2 5" MAX H	WHITE	RECESSED LED TROFFER, SMOOTH OPAL ACRYLIC LENS WITH CURVED DROP DOWN CENTER LENS. LOW PROFILE HOUSING CONSTRUCTED OF DIE-FORMED GOLD ROLLED STEEL. LENS IS SECURED VIA INJECTION MOLDED INSERTS FOR EASY ACCESS. LIGHT LEVEL 3 OUTPUT OPTION.
B1	ELITE LITHONIA COLUMBIA METALUX	OVHP-LED 2BLT LCAT 22G2	120	30 WATT LED	1	3500	85	(MIN)MM 3340 (MIN)MM 30,000							2 X 2 5" MAX H	WHITE	RECESSED T-GRID SAME AS TYPE 'B' EXCEPT WITH 14W INTEGRAL BATTERY PACK.
B2	ELITE LITHONIA COLUMBIA METALUX	OVHP-LED 2BLT LCAT 22G2	120	40 WATT LED	1	3500	85	(MIN)MM 4420 (MIN)MM 30,000							2 X 2 5" MAX H	WHITE	RECESSED T-GRID SAME AS TYPE 'B' EXCEPT LED INFORMATION.
C	APPROVED EQUAL TO:			25 WATT LED	1	3000	80								19" DIA. 4.5" MAX H	DARK BRONZE	SEM FLUSH CEILING GLOSS TO CEILING SEM FLUSH 2 MODULE LED. FROSTED FLUTED GLASS BOWL, SHALLOW STEEL CYLINDER CANOPY.
G	NIVO LIGHTING	62-908	120	20 WATT LED	1	3000	80								19" DIA. 7" MAX H	DARK BRONZE	GLOSS TO CEILING FLUSH, SINGLE LED MODULE. FROSTED FLUTED GLASS BOWL, STEEL CANOPY AND FINAL. SAME FIXTURE FAMILY AS TYPE 'G'.
G1	APPROVED EQUAL TO:			20 WATT LED	1	3000	80								19" DIA. 7" MAX H	DARK BRONZE	GLOSS TO CEILING FLUSH, SINGLE LED MODULE. FROSTED FLUTED GLASS BOWL, STEEL CANOPY AND FINAL. SAME FIXTURE FAMILY AS TYPE 'G'.
G2	APPROVED EQUAL TO:			26 WATT LED	1	3000	80								24" DIA. 23" MAX H	DARK BRONZE	DECORATIVE 3-LED MODULE CHAIN HUNG PENDANT. FROSTED FLUTED GLASS BOWL, SHALLOW STEEL CANOPY. SHADE AROUND GLASS SHADES. 45" CHAIN. SAME FIXTURE FAMILY AS TYPE 'G'.
E	LIGHTALARMS DUAL LITE LITHONIA SURE-LITE	OLN500 LX LHM LFX	120	25 WATT LED	1	MS	MS								STANDARD	WHITE	UNIVERSAL SINGLE FACE THERMOPLASTIC / POLYCARBONATE EXT LIGHT. STENCIL FACE W/ RED OPTICAL DIFFUSER. INTEGRAL BATTERY W/ SELF DIAGNOSTICS.
E1	LIGHTALARMS DUAL LITE LITHONIA SURE-LITE	OLN500 LX LHM LFX	120	25 WATT LED	1	MS	MS								STANDARD	WHITE	UNIVERSAL SAME AS TYPE 'E' EXCEPT DOUBLE FACED.
F	JING CONT'CH HALO PRESOLITE	6RL5 04R3 SLDB 1200 LBLBDA10L	120	14 WATT LED	1	3000-3500	80	1000	50,000						DM. 0-10V	WHITE TRM	SEM-RECESSED CEILING BACKBOX. SEM-RECESSED DOWNLIGHT. LED MODULE MOUNTS TO RECESSED DOUBLE GANG BOX. NET LOCATION.
F1	EQUAL TO:			26 WATT LED	1	3500	85	2000	60,000						NOTE X 10% DM 0-10V	GLASS REFLECTOR SMOOTH WHITE TRM RING	RECESSED CEILING RECESSED LED OPEN DOWN LIGHT. DRIVER & LIGHT ENGINE ACCESSIBLE FROM ABOVE OR BELOW CEILING. STEEL MOUNTING FRAME. SELF-FLANGED SEMI-SPHERICAL, WHITE APERTURE & TRM. DIMMABLE TO 10% MEDIUM BEAM.
F2	EQUAL TO:			11 WATT LED	1	3500	85	2000	60,000						NOTE X 10% DM 0-10V	GLASS REFLECTOR SMOOTH WHITE TRM RING	RECESSED CEILING SAME AS TYPE 'F1' EXCEPT LED INFORMATION AND WIDE BEAM.
G	EQUAL TO: CREE BEACON LITHONIA MCGRAW EDISON	PK6 EDR D8VP6 VPL	120	75.2 WATT LED	1	4000	70	9,191	L75 60,000						15" X 11" 4" DEPTH	WHITE	SURFACE RUGGED AND LOW-PROFILE LED PARKING GARAGE FIXTURE. DIE-CAST ALUMINUM HOUSING WITH STAINLESS STEEL FASTENERS. NET LOCATION LISTED. TYPE V SQUARE DISTRIBUTION.
G1	EQUAL TO: CREE BEACON LITHONIA MCGRAW EDISON	PK6 EDR D8VP6 VPL	120	91.2 WATT LED	1	4000	70	10,774	L75 60,000						15" X 11" 4" DEPTH	WHITE	SURFACE SAME AS 'G' EXCEPT LED INFORMATION AND 30 DEGREE FORWARD THROU PERIMETER LIGHT DISTRIBUTION.
G2	EQUAL TO: CREE BEACON LITHONIA MCGRAW EDISON	PK6 EDR D8VP6 VPL	120	91.2 WATT LED	1	4000	70	11,928	L75 60,000						15" X 11" 4" DEPTH	WHITE	SURFACE SAME AS 'G' EXCEPT LED INFORMATION AND TYPE IV WITH GLARE CONTROL DISTRIBUTION.
G3	EQUAL TO: CREE BEACON LITHONIA MCGRAW EDISON	PK6 EDR D8VP6 VPL	120	75.2 WATT LED	1	4000	70	9,191	L75 60,000						15" X 11" 4" DEPTH	WHITE	SURFACE SAME AS 'G' EXCEPT WITH BATTERY BACKUP.
J	APPROVED EQUAL TO: LITHONIA	FL4	120	30 WATT LED	1	3500	82	3100	50,000						NOTE - 50% 0-10V DM. 4" D 4.3/4" W 4" O-L	WHITE	SURFACE WALL MOUNTED LINEAR LED FIXTURE W/ EFFICIENT CURVED ACRYLIC LENS. INTEGRAL OCCUPANCY SENSOR & BI-LEVEL LIGHT CONTROL TO DIM TO 50% LIGHT OUTPUT WHEN UN-OCCUPIED. THERMALLY PROTECTED, AUTO-RESETTING HPF BALLAST.
J1	APPROVED EQUAL TO: LITHONIA	FL4	120	30 WATT LED	1	3500	82	3100	50,000						NOTE - 50% 0-10V DM. 4" D 4.3/4" W 4" O-L	WHITE	SURFACE SAME AS TYPE 'J' EXCEPT WITH INTEGRAL BATTERY (1400LM OUTPUT AT LOSS OF POWER).
H	EQUAL TO: ELITE COLUMBIA LITHONIA METALUX	OC1 LCL 2L2 SNLED	120	50 WATT LED	1	3500	85	4600	50,000						3" W X 4" H 4" O-L	WHITE	SURFACE INDUSTRIAL LED STRIPLIGHT, DIE FORMED GOLD ROLLED STEEL CHANNEL. RUST RESISTANT FINISH. NO DIMMING. EXTRUDED CURVED FROSTED LENS. WIDE BEAM DISTRIBUTION.
H1	EQUAL TO: ELITE COLUMBIA LITHONIA METALUX	OC1 LCL 2L2 SNLED	120	50 WATT LED	1	3500	85	4600	50,000						3" W X 4" H 4" O-L	WHITE	SURFACE SAME AS TYPE 'H' EXCEPT INTEGRAL BATTERY.

TYPE	MANUFACTURER	SERIES	VOLT	LIGHT SOURCE				BALLAST / POWER SUPPLY / TRANSFORMER				DIMENSIONS	FINISH	MOUNTING	DESCRIPTION				
				WATTS/TYPE	LAMP QTY.	CCT KELVIN	CRI	NOTES/ LUMENS	RATED LIFE HRS	LAMP QTY.	BF					SYSTEM WATTS	STARTING/ NOTES		
M	EQUAL TO: METALUX	WFLD	120	25 WATT LED	1	3500	80	2000	50,000						5" W 2" H 24" L	WHITE	SURFACE LED W/ RAMP. CRESNET SMOOTH WHITE LENS. GOLD ROLLED STEEL HOUSING. FORMED HIGH IMPACT END CAPS. PA6 5YR WARRANTY.		
P	APPROVED EQUAL TO: NIVO LIGHTING	62-908	120	10 WATT LED	1	3000	80	970	50,000						NOTE 1 STD DIM	TDIA CANOPY 45" DIA	(FOREST) DARK BRONZE	STEM SINGLE SHADE MINI PENDANT LED. ROUND METAL CANOPY. FROSTED FLUTED GLASS SHADE. SAME FIXTURE FAMILY AS TYPE 'G' FIXTURE SERIES.	
P1	APPROVED EQUAL TO: NIVO LIGHTING		120	20 WATT LED	1	3000	80								NOTE 1 STD DIM		DARK BRONZE	STEM SINGLE LED PENDANT WITH GLASS SHADE AT COMMONS. FIXTURE TBD.	
S	APPROVED EQUAL TO: NIVO LIGHTING		120	10 WATT LED	1	3000	80								STD	4" D	(ASED) DARK BRONZE	MALL TWO SHADE DECORATIVE LED BATHROOM VANTY. FROSTED FLUTED GLASS SHADES. CURVED SHADE SUPPORTS. SIMILAR FIXTURE FAMILY AS TYPE 'G' FIXTURE SERIES. ADA COMPLIANT.	
S1	APPROVED EQUAL TO: NIVO LIGHTING	62-902	120	24 WATT LED	2	3000	80	1940							NOTE 1 STD DIM	16" W 10" H 8-3/4" D	(FOREST) DARK BRONZE	MALL TWO SHADE DECORATIVE LED BATHROOM VANTY. FROSTED FLUTED GLASS SHADES. CURVED SHADE SUPPORTS. SAME FIXTURE FAMILY AS TYPE 'G' FIXTURE SERIES.	
S2	APPROVED EQUAL TO: NIVO LIGHTING	62-903	120	36 WATT LED	3	3000	80	2910							NOTE 1 STD DIM	25.5" W 10" H 8-3/4" D	(FOREST) DARK BRONZE	MALL THREE SHADE DECORATIVE LED BATHROOM VANTY. FROSTED FLUTED GLASS SHADES. CURVED SHADE SUPPORTS. SAME FIXTURE FAMILY AS TYPE 'G' FIXTURE SERIES.	
U	ELITE NEW STAR LITHONIA HALO	EL-LED WJ2 IGLD24 HJ10MB	120	10 WATT LED	1	3500	80	100	50,000						STD	3.25" W 1" H 24" L	WHITE	SURFACE LOW PROFILE UNDER CABINET LED. HEAVY GAUGE ALUMINUM HOUSING WITH COLOR MATCH END CAPS/ACCESSORIES. FLICKER AND NOISE FREE OPERATION.	
V	ELITE COLUMBIA LITHONIA METALUX	OC1 LCL 2L2 SNLED	120	50 WATT LED	1	3500	85	4600	50,000						STD	3" W X 4" H 4" O-L	WHITE	MALL INDUSTRIAL LED STRIPLIGHT, DIE FORMED GOLD ROLLED STEEL CHANNEL. RUST RESISTANT FINISH. NO DIMMING. EXTRUDED CURVED FROSTED LENS. WIDE BEAM DISTRIBUTION.	
X	LIGHTALARMS COMPASS EVELITE SURE-LITE	LCA-2LED C/2 TGL-LED APFL	120	1 WATT LED	2	MS	MS										MS	SURFACE HEAD-CONTAINED EMERGENCY LIGHTING UNIT, 2-FULLY ADJUSTABLE HEADS. (REMOTE CAPACITY NOTE RATED FOR 15 HOURS) LEAD CALCIUM BATTERY 5 YEAR WARRANTY.	
Z	WILLIAMS HUBBELL LITHONIA MCGRAW EDISON	WFTZ TRP WFT LED ST	120	54 WATT LED	1	4000	70	3440	50,000								54	EXTERIOR DECORATIVE TRAPEZOID EXTERIOR WALL MOUNT. HEAVY DIE-CAST ALUM. HOUSING & REMOVABLE HINGED DOOR FRAME. INJECTION-MOLDED & FULLY SEALED LENS. GASKETED & ZINC PLATED STEEL MOUNTING. NET LOCATION LISTED. TYPE II DISTRIBUTION W/ BACK LIGHT CONTROL. POLE MOUNTED SITE FIXTURE. LOW-PROFILE SQUARE DESIGN HEAD W/ CURVED TOP. EXTRUDED ALUMINUM DRIVER & HEAVY-WALL DIE-CAST ALUMINUM END CAPS. INCLOSE HOUSING. T ARM. NET LOCATION LISTED. SINGLE HEAD WITH TYPE II MEDIUM DIST. WITH BACK LIGHT CONTROL. INTEGRAL MOTION SENSOR.	
AA	CREE ARE-ED6-2MB		120	70 WATT LED	1	4000	70	7500	50,000						NOTE 1, 5 20% 0-10V DIM.	21-5/8" L 21-3/4" W 4" H	DARK BRONZE	NOTE 2 20" POLE 20" BASE	POLE MOUNTED SITE FIXTURE. LOW-PROFILE SQUARE DESIGN HEAD W/ CURVED TOP. EXTRUDED ALUMINUM DRIVER & HEAVY-WALL DIE-CAST ALUMINUM END CAPS. INCLOSE HOUSING. T ARM. NET LOCATION LISTED. SINGLE HEAD WITH TYPE II MEDIUM DIST. WITH BACK LIGHT CONTROL. INTEGRAL MOTION SENSOR.
AA1	CREE ARE-ED6-2MB		120	70 WATT LED	1	4000	70	7500	50,000						NOTE 1, 5 20% 0-10V DIM.	21-5/8" L 21-3/4" W 4" H	DARK BRONZE	NOTE 3 25" POLE 20" BASE	SAME AS TYPE 'AA' EXCEPT POLE HEIGHT.
AA2	CREE ARE-ED6-4M		120	(2) 70 WATT LED	1	4000	70	7500	50,000						NOTE 1, 5 20% 0-10V DIM.	21-5/8" L 21-3/4" W 4" H	DARK BRONZE	NOTE 3 25" POLE 20" BASE	SAME AS TYPE 'AA' EXCEPT TYPE IV MEDIUM DISTRIBUTION AND THIN HEAD AT 180°.
AA3	CREE ARE-ED6-4MB		120	70 WATT LED	1	4000	70	7500	50,000						NOTE 1, 5 20% 0-10V DIM.	21-5/8" L 21-3/4" W 4" H	DARK BRONZE	NOTE 3 25" POLE 20" BASE	SAME AS TYPE 'AA' EXCEPT TYPE IV MEDIUM DISTRIBUTION WITH BACK LIGHT CONTROL.
BB	CREE ARE-EDR-5M		120	45 WATT LED	1	4000	70	5000	50,000						NOTE 1, 5 20% 0-10V DIM.	23" DIA. 4" H 17.5" DIA	DARK BRONZE	NOTE 4 10" POLE 20" BASE	ROUND LED SPIDER MOUNT POST TOP. SLIM LOW PROFILE CAST ALUMINUM HOUSING WEATHER TIGHT DRIVER COMPARTMENT. NET LOCATION LISTED. TYPE V MEDIUM DISTRIBUTION. 10 YEAR WARRANTY INTEGRAL MOTION SENSOR.

GENERAL NOTES:  
A. SUBMITTALS WILL NOT BE ACCEPTED WITHOUT BALLAST AND LAMP DATA.  
B. SEE SPEC SECTION 26 0000 AND 26 5100 FOR ADDITIONAL REQUIREMENTS.  
C. EQUAL TO AND OR EQUAL: WHERE MATERIALS ARE SPECIFICALLY IDENTIFIED WITH EQUAL TO / OR EQUAL. SUBSTITUTE MANUFACTURERS COMPLYING WITH THE REQUIREMENTS OF THESE SPECIFICATIONS BUT NOT LISTED MAY BE INCORPORATED IN THE WORK. SUCH MATERIALS MUST BE EQUAL TO OR SUPERIOR, IN ENGINEER'S OPINION, TO THAT SPECIFIED IN CONSTRUCTION, EFFICIENCY, APPEARANCE, AND UTILITY.  
D. ALL DIMENSIONS ARE NOMINAL UNLESS NOTED OTHERWISE.  
E. RATED LIFE OF LED LUMINAIRE IS TO 70% UNLESS NOTED OTHERWISE.  
F. COLOR TEMPERATURE OF LED LUMINAIRE IS NOMINAL UNLESS NOTED OTHERWISE.  
H. FOR FLUORESCENT LAMPS LIFE IS RATED AT 3HRS PER START AND PROGRAMMED START BALLAST UNLESS NOTED OTHERWISE.

ABBREVIATIONS:  
BF BALLAST FACTOR  
CCT CORRELATED COLOR TEMPERATURE  
CD CANDIEA  
CRI COLOR RENDERING INDEX  
HAL HALOGEN  
NB NORMAL BALLAST FACTOR  
IS INSTANT START  
ING INDEPENDENT  
LED LIGHT EMITTING DIODE  
MH METAL HALIDE  
MS MANUFACTURER'S STANDARD  
NA NOT APPLICABLE  
NB NORMAL BALLAST FACTOR  
GM OVERALL HEIGHT  
PS PROGRAMMED START  
RS RAPID START

- NOTES:  
1. ENSURE THAT DIMMING COMPONENTS ARE COMPATIBLE WITH DIMMING SYSTEM PROVIDED UNDER 26 0900.  
2. PROVIDE 20FT SQUARE, STEEL POLE WITH HANDHOLE, ANCHOR BOLTS, BOLT TEMPLATE, VIBRATION DAMPER, AND BASE COVER. POLE AND BASE COVER SHALL BE FACTORY FINISHED TO MATCH LUMINAIRE. 100MPH WIND RATED POLE ALLOW FOR 1.3 GUST FACTOR.  
3. PROVIDE 25FT SQUARE, STEEL POLE WITH HANDHOLE, ANCHOR BOLTS, BOLT TEMPLATE, VIBRATION DAMPER, AND BASE COVER. POLE AND BASE COVER SHALL BE FACTORY FINISHED TO MATCH LUMINAIRE. 100MPH WIND RATED POLE ALLOW FOR 1.3 GUST FACTOR.  
4. PROVIDE 10FT TAPERED ROUND STEEL POLE WITH HANDHOLE, ANCHOR BOLTS, BOLT TEMPLATE, VIBRATION DAMPER, AND BASE COVER. POLE AND BASE COVER SHALL BE FACTORY FINISHED TO MATCH LUMINAIRE. 100MPH WIND RATED POLE ALLOW FOR 1.3 GUST FACTOR.  
5. PROVIDE LOCAL BI-LEVEL MOTION SENSOR. POWER SUPPLY TO BE 0-10V DIMMING TO DIM WATTAGE DOWN IN 1% INCREMENTS TO REDUCE LIGHT LEVEL WHEN AREA IS UNOCCUPIED.



1 EXTERIOR LIGHTING CONTROL DETAIL  
SCALE: NTS

11/20/2017 1:43:33 PM



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PRELIMINARY

NO.	DESCRIPTION	DATE

REVISION SCHEDULE

JLG ARCHITECTS  
BOTTINEAU RIDGE II APARTMENTS  
MAPLE GROVE, MN

DATE  
11/10/2017  
PHASE  
PROGRESS  
SET  
PROJECT  
ONE# 2016446  
SHEET  
E510  
LIGHTING SCHEDULE

**Distribution Panel: DHG**

LOCATION: PARKING 000  
 SUPPLY FROM: MSB1  
 MOUNTING: SURFACE OR FLOOR  
 ENCLOSURE: NEMA 1

VOLTS: 208/120 V<sub>φ</sub>  
 PHASES: 3  
 WIRES: 4

A.I.C. RATING: 65kAIC  
 MAINS TYPE: MLO  
 MAINS RATING: 600 A  
 MCB RATING:

CKT	CIRCUIT DESCRIPTION	# OF POLES	FRAME SIZE	TRIP RATING	LOAD (VA)	REMARKS
1	LHG	3	225 A	225 A	50926	
2	LH1	3	110 A	100 A	27549	
3	LH3	3	110 A	100 A	8308	
4	ELEV-1, ELEV EQUIP 036	3	250 A	175 A	43181	
5	SPARE (200A FRAME SIZE)	3	--	200 A	0	
6	SPARE (200A FRAME SIZE)	3	--	200 A	0	
7	SPARE (200A FRAME SIZE)	1	--	200 A	0	
8						
9						
10						
<b>TOTAL CONN. LOAD:</b>					129935 VA	
<b>TOTAL AMPS:</b>					361 A	

**NOTES:**

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
HVAC	12514 VA	100.00%	12514 VA	
Electric Range/Oven - Dwelling Unit	8320 VA	100.00%	8320 VA	<b>TOTAL CONN. LOAD:</b> 129935 VA
Motor	79519 VA	100.00%	79519 VA	<b>TOTAL EST. DEMAND:</b> 123446 VA
Receptacle	7460 VA	100.00%	7460 VA	<b>TOTAL CONN.:</b> 361 A
Lighting	11340 VA	100.00%	11340 VA	<b>TOTAL EST. DEMAND:</b> 359 A
Receptacle, Convenience	10980 VA	95.54%	10490 VA	
Receptacle, Non-Convenience/Power	180 VA	100.00%	180 VA	

**TYPICAL LOADCENTER: LHG**

LOCATION: PARKING 000  
 SUPPLY FROM: DHG  
 MOUNTING: SURFACE  
 ENCLOSURE: TYPE 1

VOLTS: 208/120 V<sub>φ</sub>  
 PHASES: 3  
 WIRES: 4

A.I.C. RATING: MLO  
 MAINS TYPE: MLO  
 MAINS RATING: 225 A  
 MCB RATING:

**Notes:**

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)	B (VA)	C (VA)	POLE	TRIP	CIRCUIT DESCRIPTION	CKT	
1	LIGHTING - PARKING TRANSITION	20 A	1	1533	900		1	20 A	POWER - GARAGE ROOMS 003, AND 010	2	
3	LIGHTING - PARKING STORAGE	20 A	1		1107	720	1	20 A	RECEPTACLES - GARAGE	4	
5	LIGHTING - PARKING	20 A	1				1	20 A	PH-1	6	
7	SITE LIGHTING - NORTH DRIVE	20 A	1	346	2582		3	20 A	CU-1	8	
9	SITE LIGHTING - PARKING	20 A	1		716	2582	--	--	--	10	
11	UH-1	20 A	1				--	--	--	12	
13	UH-2	20 A	1	720	2149		3	20 A	CU-2	14	
15	UH-3	20 A	1		720	2149	--	--	--	16	
17	UH-4	20 A	1				--	--	--	18	
19	UH-5	20 A	1	720	3660		1	20 A	CU-3	20	
21	UH-6	20 A	1		720	1441	3	20 A	CU-4	22	
23	UH-8	20 A	1				--	--	--	24	
25	SSGU-1	20 A	1	2496	1441		--	--	--	26	
27	OVERHEAD ENTRANCE	20 A	1		720	1167	3	20 A	EP-2	28	
29	OVERHEAD STORAGE	20 A	1				--	--	--	30	
31	BP-1	20 A	1	375	1167		--	--	--	32	
33	BP-2	20 A	1		375	180	1	20 A	120V CONNECTION TO LIGHTING CONTRACTOR PARKING 000	34	
35	BP-3	20 A	1				1	20 A	RECEPTACLES MECHANICAL 010	36	
37	BP-4	20 A	1	375	180		1	20 A	B-1	38	
39	PP-1	20 A	1		125	180	1	20 A	B-2	40	
41	ELEV EQUIP LIGHTING/POWER	20 A	1				1	20 A	B-3	42	
43	ELEVATOR POWER/LIGHTING	20 A	1	228	180		1	20 A	B-4	44	
45	ELEV CAB.	20 A	1		745		3	20 A	P-1	46	
47							--	--	--	48	
49				745			--	--	--	50	
51					745		3	20 A	P-2	52	
53							--	--	--	54	
55				745			--	--	--	56	
57							--	--	--	58	
59							--	--	--	60	
61							--	--	--	62	
63							--	--	--	64	
65							--	--	--	66	
67							--	--	--	68	
69							--	--	--	70	
71							--	--	--	72	
73							--	--	--	74	
75							--	--	--	76	
77							--	--	--	78	
79							--	--	--	80	
81							--	--	--	82	
83							--	--	--	84	
<b>TOTAL LOAD (VA):</b>				20521 VA	15075 VA	15981 VA					
<b>TOTAL AMPS:</b>				171 A	126 A	128 A					

LOAD CLASSIFICATION	CONNECTED...	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
HVAC	11036 VA	100.00%	11036 VA	
Motor	31151 VA	100.00%	31151 VA	<b>TOTAL CONN. LOAD...</b> 50926 VA
Receptacle	3260 VA	100.00%	3260 VA	<b>TOTAL EST. DEMAND...</b> 50926 VA
Lighting	5270 VA	100.00%	5270 VA	<b>TOTAL CONNECTED:</b> 141 A
Receptacle, Convenience	180 VA	100.00%	180 VA	<b>TOTAL EST. DEMAND:</b> 141 A
Receptacle, Non-Convenience/Power	180 VA	100.00%	180 VA	

**SPECIAL PURPOSE OUTLET SCHEDULE**

DESIGNATION	NEMA TYPE	AMP RATING	VOLTAGE	POLES	CONDUCTORS	CONDUIT	REMARKS
A	14-30R	30 A	208 V	2	3#6 + #106	1"	
B	14-30R	30 A	208 V	2	3#10 + #106	3/4"	
C	6-20R	20 A	208 V	2	2#12 + #106	3/4"	

**MOTOR & EQUIPMENT SCHEDULE**

ID	QTY	DESCRIPTION	PHYSICAL LOCATION	LOAD INFORMATION				FED FROM	CONDUIT & WIRE			LOCAL DISCONNECT			CONTROLLER			AUX CONTROL (SEE NOTE BELOW)				NOTES				
				HP	KW	(MCA)	(MFS)		VOLTAGE/PHASE	CONDUIT #	WIRE SIZE	GROUND/CONDUIT	FURNISH BY	SIZE	FUSE	REMARKS	FURNISH BY	TYPE	SIZE	REMARKS	INTERLOCK		PLSPST	DSD	FAR	EPO
SSGU-1	1	AIR COOLED COND. UNIT	000	--	--	(12)	15	208/1	SEE DWS	1	3/4"	2#12	#12	EG	30A	NF	NOTE 1, WP	MC	--	--	NOTE 5	--	--	--	--	
CU-1	1	AIR COOLED COND. UNIT	000	--	--	(21.5)	35	208/3	SEE DWS	1	1"	3#8	#10	EG	60A	NF	NOTE 1, WP	MC	--	--	NOTE 5	--	--	--	--	
CU-2	1	AIR COOLED COND. UNIT	000	--	--	(17.4)	30	208/3	SEE DWS	1	3/4"	3#10	#10	EG	30A	NF	NOTE 1, WP	MC	--	--	NOTE 5	--	--	--	--	
CU-3	1	AIR COOLED COND. UNIT	000	--	--	(17.6)	30	208/1	SEE DWS	1	3/4"	2#10	#10	EG	30A	NF	NOTE 1, WP	MC	--	--	NOTE 5	--	--	--	--	
CU-4	1	AIR COOLED COND. UNIT	000	--	--	(12)	30	208/3	SEE DWS	1	3/4"	3#10	#10	EG	30A	NF	NOTE 1, WP	MC	--	--	NOTE 5	--	--	--	--	
SSAC-1	1	SPLIT SYSTEM AC UNIT	036	--	--	(7)	(15)	208/1	SSGU-1	1	3/4"	2#12	#12	EG	30A	15A	NOTE 1, WP	MC	--	--	NOTE 5	--	--	--	--	
B-1	1	GAS BOILER	010	--	--	8	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	CP	--	NOTE 5	7	--	--	--	
B-2	1	GAS BOILER	010	--	--	8	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	CP	--	NOTE 5	7	--	--	--	
B-3	1	GAS BOILER	010	--	--	8	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	CP	--	NOTE 5	7	--	--	--	
B-4	1	GAS BOILER	010	--	--	8	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	CP	--	NOTE 5	7	--	--	--	
BP-1	1	BOILER PUMP	010	1/2	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
BP-2	1	BOILER PUMP	010	1/2	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
BP-3	1	BOILER PUMP	010	1/2	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
BP-4	1	BOILER PUMP	010	1/2	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
CUH-1	1	CABINET UNIT HEATER	321	1/7	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
CUH-2	1	CABINET UNIT HEATER	121	1/7	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
CUH-3	1	CABINET UNIT HEATER	120	1/7	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
CUH-4	1	CABINET UNIT HEATER	571-1	1/7	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	EG	SPST	--	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
FCU-1	1	FAN COIL UNIT	101	1.5	--	--	--	208/3	SEE DWS	1	3/4"	3#12	#12	EG	30A	NF	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
FCU-2	1	FAN COIL UNIT	228	1	--	--	--	208/3	SEE DWS	1	3/4"	3#12	#12	EG	30A	NF	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
FCU-3	1	FAN COIL UNIT	228	0.5	--	--	--	208/3	SEE DWS	1	3/4"	3#12	#12	EG	30A	NF	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
FCU-4	1	FAN COIL UNIT	411	1	--	--	--	208/3	SEE DWS	1	3/4"	3#12	#12	EG	30A	NF	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
FCU-5	1	FAN COIL UNIT	411	2	--	--	--	208/3	SEE DWS	1	3/4"	3#12	#12	EG	30A	NF	NOTE 1	MC	--	--	NOTE 5	--	--	--	--	
EF-1	VFY	EXHAUST FAN	VARIOUS	24.3W	--	--	--	120/1	SEE DWS	1	3/4"	2#12	#12	MC	--	--	NOTE 3	MC	--	--	NOTE 5	--	--	--	--	
EF-2	1	EXHAUST FAN	000	3	--	--	--	208/3	SEE DWS	1	3/4"															

**TYPICAL LOADCENTER: U1A**  
 LOCATION: UNIT 1A 204  
 SUPPLY FROM:  
 MOUNTING: FLUSH  
 ENCLOSURE: TYPE 1

VOLTS: 120/208 Single  
 PHASES: 1  
 WIRES: 3

A.I.C. RATING: 65KAIC/SERIES RATED ALLOWED  
 MAINS TYPE: MCB  
 MAINS RATING: 150 A  
 MCB RATING: 150 A

Notes:  
 1. 20A/1P AND 15A/1P BREAKERS SHALL BE COMBINATION AFCI TYPE.  
 2. PROVIDE DUAL FUNCTION SF/GI / COMBINATION AFCI BREAKER.

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)	B (VA)	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1									2
3									4
5									6
7									8
9									10
11									12
13									14
15									16
17									18
19									20
21									22
23									24
TOTAL LOAD (VA):				0 VA	0 VA				
TOTAL AMPS:				0 A	0 A				

LOAD CLASSIFICATION	CONNECTED...	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Clothes Dryer Dwelling Unit	4992 VA	100.00%	4992 VA	TOTAL CONN. LOAD... 0 VA
HVAC	2836 VA	100.00%	2836 VA	TOTAL EST. DEMAND... 0 VA
Electric Range/Oven - Dwelling Unit	8320 VA	100.00%	8320 VA	TOTAL EST. DEMAND... 0 A
Lighting - Dwelling Unit	360 VA	100.00%	360 VA	TOTAL EST. DEMAND... 0 A
Receptacle - Dwelling Unit	8460 VA	100.00%	8460 VA	
Receptacle, Convenience	360 VA	100.00%	360 VA	

**TYPICAL LOADCENTER: U2A**  
 LOCATION: UNIT 2A 206  
 SUPPLY FROM:  
 MOUNTING: FLUSH  
 ENCLOSURE: TYPE 1

VOLTS: 120/208 Single  
 PHASES: 1  
 WIRES: 3

A.I.C. RATING: 65KAIC/SERIES RATED ALLOWED  
 MAINS TYPE: MCB  
 MAINS RATING: 150 A  
 MCB RATING: 150 A

Notes:  
 1. 20A/1P AND 15A/1P BREAKERS SHALL BE COMBINATION AFCI TYPE.  
 2. PROVIDE DUAL FUNCTION SF/GI / COMBINATION AFCI BREAKER.

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)	B (VA)	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	REFRIGERATOR RECEPTACLE (NOTE 2)	20 A	1	1500	1500		1	MICROWAVE RECEPTACLE (NOTE 2)	2
3	KITCHEN RECEPTACLES	20 A	1		540	4160	2	OVEN / RANGE RECEPTACLE	4
5	KITCHEN RECEPTACLES	20 A	1	360	4160				6
7	LIGHTING	20 A	1		343	180	1	DISHWASHER / GARBAGE DISPOSAL RECEPTACLE (NOTE 2)	8
9	BATHROOM EXHAUST FANS, EF-1	20 A	1	360	540		1	LIVING ROOM RECEPTACLES	10
11	BATHROOM RECEPTACLES	20 A	1		180	1080	1	BEDROOM RECEPTACLES	12
13	AG UNIT RECEPTACLE	20 A	1	750	720		1	BEDROOM RECEPTACLE	14
15	LIVING ROOM RECEPTACLES	20 A	1		900	180	1	BATHROOM RECEPTACLE	16
17	WASHER RECEPTACLE	20 A	1	1500	863		2	LIVING ROOM AC RECEPTACLE	18
19	DRYER RECEPTACLE	30 A	2		2496	863			20
21									22
23									24
TOTAL LOAD (VA):				14744 VA	10420 VA				
TOTAL AMPS:				137 A	105 A				

LOAD CLASSIFICATION	CONNECTED...	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Clothes Dryer Dwelling Unit	4992 VA	100.00%	4992 VA	TOTAL CONN. LOAD... 25670 VA
HVAC	2836 VA	100.00%	2836 VA	TOTAL EST. DEMAND... 25670 VA
Electric Range/Oven - Dwelling Unit	8320 VA	100.00%	8320 VA	TOTAL EST. DEMAND... 123 A
Lighting - Dwelling Unit	343 VA	100.00%	343 VA	
Receptacle	360 VA	100.00%	360 VA	
Receptacle - Dwelling Unit	8460 VA	100.00%	8460 VA	
Receptacle, Convenience	360 VA	100.00%	360 VA	

**TYPICAL LOADCENTER: U2B**  
 LOCATION: UNIT 2B 312  
 SUPPLY FROM:  
 MOUNTING: FLUSH  
 ENCLOSURE: TYPE 1

VOLTS: 120/208 Single  
 PHASES: 1  
 WIRES: 3

A.I.C. RATING: 65KAIC/SERIES RATED ALLOWED  
 MAINS TYPE: MCB  
 MAINS RATING: 150 A  
 MCB RATING: 150 A

Notes:  
 1. 20A/1P AND 15A/1P BREAKERS SHALL BE COMBINATION AFCI TYPE.  
 2. PROVIDE DUAL FUNCTION SF/GI / COMBINATION AFCI BREAKER.

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)	B (VA)	POLE	TRIP	CIRCUIT DESCRIPTION	CKT	
1	WASHER RECEPTACLE	20 A	1	1500	2496		2	DRYER RECEPTACLE	2	
3	REFRIGERATOR RECEPTACLE (NOTE 2)	20 A	1		1500	2496			4	
5	MICROWAVE RECEPTACLE (NOTE 2)	20 A	1	180	1680		1	KITCHEN RECEPTACLES	6	
7	RANGE / OVEN RECEPTACLE	50 A	2		4160	540	1	KITCHEN RECEPTACLES	8	
9				4160	720		1	LIVING ROOM RECEPTACLES	10	
11	DISHWASHER / GARBAGE DISPOSAL (NOTE 2)	20 A	1		180	540	1	CORRIDOR RECEPTACLES	12	
13	BATHROOM RECEPTACLE	20 A	1	180	720		1	BEDROOM RECEPTACLES	14	
15	BEDROOM RECEPTACLES	20 A	1		720	180	1	120V SMOKE DETECTORS	16	
17	LIVING ROOM AC RECEPTACLE	20 A	2	863	750		1	AG UNIT RECEPTACLE	18	
19						863	326	1	LIGHTING	20
21	BATHROOM EXHAUST FAN, EF-1	20 A	1	180					22	
23									24	
TOTAL LOAD (VA):				13429 VA	11503 VA					
TOTAL AMPS:				127 A	111 A					

LOAD CLASSIFICATION	CONNECTED...	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Clothes Dryer Dwelling Unit	4992 VA	100.00%	4992 VA	TOTAL CONN. LOAD... 24932 VA
HVAC	1906 VA	100.00%	1906 VA	TOTAL EST. DEMAND... 24932 VA
Electric Range/Oven - Dwelling Unit	8320 VA	100.00%	8320 VA	TOTAL EST. DEMAND... 120 A
Lighting - Dwelling Unit	75 VA	100.00%	75 VA	
Receptacle	5440 VA	100.00%	5440 VA	
Lighting	253 VA	100.00%	253 VA	
Receptacle, Convenience	3450 VA	100.00%	3450 VA	

**TYPICAL LOADCENTER: U2C**  
 LOCATION: UNIT 2C 213  
 SUPPLY FROM:  
 MOUNTING: FLUSH  
 ENCLOSURE: TYPE 1

VOLTS: 120/208 Single  
 PHASES: 1  
 WIRES: 3

A.I.C. RATING: 65KAIC/SERIES RATED ALLOWED  
 MAINS TYPE: MCB  
 MAINS RATING: 150 A  
 MCB RATING: 150 A

Notes:  
 1. 20A/1P AND 15A/1P BREAKERS SHALL BE COMBINATION AFCI TYPE.  
 2. PROVIDE DUAL FUNCTION SF/GI / COMBINATION AFCI BREAKER.

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)	B (VA)	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	BEDROOM RECEPTACLES	20 A	1	1080	360		1	LIGHTING	2
3	BATHROOM RECEPTACLE	20 A	1		180	360	1	BATHROOM EXHAUST FANS, EF-1	4
5	DISHWASHER / GARBAGE DISPOSAL RECEPTACLE (NOTE 2)	20 A	1	180	180		1	REFRIGERATOR RECEPTACLE (NOTE 2)	6
7	LIVING ROOM RECEPTACLES	20 A	1		900	1680	1	KITCHEN RECEPTACLES	8
9	MICROWAVE RECEPTACLE (NOTE 2)	20 A	1	1500	540		1	KITCHEN RECEPTACLES	10
11	RANGE / OVEN RECEPTACLE	50 A	2		4160	720	1	BEDROOM RECEPTACLES	12
13				4160	180		1	BATHROOM RECEPTACLES	14
15	LIVING ROOM AC UNIT 2C 213	20 A	2		863	2496	2	DRYER RECEPTACLE	16
17									18
19	WASHER RECEPTACLE	20 A	1		1000	540	1	CORRIDOR RECEPTACLES	20
21									22
23									24
TOTAL LOAD (VA):				11557 VA	12894 VA				
TOTAL AMPS:				111 A	122 A				

LOAD CLASSIFICATION	CONNECTED...	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Clothes Dryer Dwelling Unit	4992 VA	100.00%	4992 VA	TOTAL CONN. LOAD... 24456 VA
HVAC	2036 VA	100.00%	2036 VA	TOTAL EST. DEMAND... 24456 VA
Electric Range/Oven - Dwelling Unit	8320 VA	100.00%	8320 VA	TOTAL EST. DEMAND... 118 A
Lighting - Dwelling Unit	360 VA	100.00%	360 VA	
Receptacle	180 VA	100.00%	180 VA	
Receptacle - Dwelling Unit	8500 VA	100.00%	8500 VA	

**TYPICAL LOADCENTER: U3A**  
 LOCATION: UNIT 3A 214  
 SUPPLY FROM:  
 MOUNTING: FLUSH  
 ENCLOSURE: TYPE 1

VOLTS: 120/208 Single  
 PHASES: 1  
 WIRES: 3

A.I.C. RATING: 65KAIC/SERIES RATED ALLOWED  
 MAINS TYPE: MCB  
 MAINS RATING: 150 A  
 MCB RATING: 150 A

Notes:  
 1. 20A/1P AND 15A/1P BREAKERS SHALL BE COMBINATION AFCI TYPE.  
 2. PROVIDE DUAL FUNCTION SF/GI / COMBINATION AFCI BREAKER.

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)	B (VA)	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	WASHER RECEPTACLE	20 A	1	1000	2496		2	DRYER RECEPTACLE	2
3	REFRIGERATOR RECEPTACLE (NOTE 2)	20 A	1		1500	2496			4
5	MICROWAVE RECEPTACLE (NOTE 2)	20 A	1	1500	360		1	KITCHEN RECEPTACLES	6
7	RANGE / OVEN RECEPTACLE	50 A	2		4160	540	1	KITCHEN RECEPTACLES	8
9				4160	1080		1	LIVING ROOM RECEPTACLES	10
11	DISHWASHER / GARBAGE DISPOSAL RECEPTACLE (NOTE 2)	20 A	1		180	900	1	HALL RECEPTACLES	12
13	BEDROOM RECEPTACLES	20 A	1	1080	720		1	BEDROOM RECEPTACLES	14
15	BATHROOM RECEPTACLES	20 A	1		180	180	1	120V SMOKE DETECTORS	16
17	BATHROOM RECEPTACLES	20 A	1	180	720		1	BEDROOM RECEPTACLES	18
19	BATHROOM EXHAUST FANS, EF-1	20 A	1		360	426	1	LIGHTING	20
21	LIVING ROOM AC RECEPTACLE	20 A	2	863	750		1	BEDROOM AC UNIT RECEPTACLE	22
23						863	0	SPARE	24
TOTAL LOAD (VA):				14904 VA	11784 VA				
TOTAL AMPS:				134 A	113 A				

LOAD CLASSIFICATION	CONNECTED...	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Clothes Dryer Dwelling Unit	4992 VA	100.00%	4992 VA	TOTAL CONN. LOAD... 26644 VA
HVAC	2836 VA	100.00%	2836 VA	TOTAL EST. DEMAND... 26644 VA
Electric Range/Oven - Dwelling Unit	8320 VA	100.00%	8320 VA	TOTAL EST. DEMAND... 128 A
Lighting - Dwelling Unit	426 VA	100.00%	426 VA	
Receptacle	180 VA	100.00%	180 VA	
Receptacle - Dwelling Unit	9940 VA	100.00%	9940 VA	

**TYPICAL LOADCENTER: U3B**  
 LOCATION: UNIT 3B 316  
 SUPPLY FROM:  
 MOUNTING: FLUSH  
 ENCLOSURE: TYPE 1

VOLTS: 120/208 Single  
 PHASES: 1  
 WIRES: 3

A.I.C. RATING: 65KAIC/SERIES RATED ALLOWED  
 MAINS TYPE: MCB  
 MAINS RATING: 150 A  
 MCB RATING: 150 A

Notes:  
 1. 20A/1P AND 15A/1P BREAKERS SHALL BE COMBINATION AFCI TYPE.  
 2. PROVIDE DUAL FUNCTION SF/GI / COMBINATION AFCI BREAKER.

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)	B (VA)	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	WASHER RECEPTACLE	20 A	1	1000	2496		2	DRYER RECEPTACLE	2
3	REFRIGERATOR RECEPTACLE (NOTE 2)	20 A	1		1500	2496			4
5	MICROWAVE RECEPTACLE (NOTE 2)	20 A	1	180	720		1	KITCHEN RECEPTACLES	6
7	RANGE / OVEN RECEPTACLE	50 A	2		4160	540	1	KITCHEN RECEPTACLES	8
9				4160	720		1	LIVING ROOM RECEPTACLES	10
11	DISHWASHER / GARBAGE DISPOSAL RECEPTACLE (NOTE 2)	20 A	1		180	720	1	CORRIDOR RECEPTACLES	12
13	LIVING ROOM RECEPTACLES	20 A	1	1080	180		1	BEDROOM RECEPTACLES	14
15	BEDROOM RECEPTACLES	20 A	1		900	180	1	120V SMOKE DETECTORS	16
17	BATHROOM RECEPTACLES	20 A	1	1080	180		1	BATHROOM RECEPTACLE	18
19	BATHROOM EXHAUST FANS, EF-1	20 A	1		360	840	1	AG UNIT RECEPTACLE	20
21	LIVING ROOM AC RECEPTACLE	20 A	2	863	516		1	LIGHTING	22
23						863	0	SPARE	24
TOTAL LOAD (VA):				13178 VA	12794 VA				
TOTAL AMPS:				126 A	122 A				

LOAD CLASSIFICATION	CONNECTED...	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Clothes Dryer Dwelling Unit	4992 VA	100.00%	4992 VA	TOTAL CONN. LOAD... 25912 VA
HVAC	2926 VA	100.00%	2926 VA	TOTAL EST. DEMAND... 25912 VA
Electric Range/Oven - Dwelling Unit	8320 VA	100.00%	8320 VA	TOTAL EST. DEMAND... 125 A
Lighting - Dwelling Unit	101 VA	100.00%	101 VA	
Receptacle	4840 VA	100.00%	4840 VA	
Lighting	416 VA	100.00%	416 VA	
Receptacle, Convenience	4320 VA	100.00%	4320 VA	

**TYPICAL LOADCENTER: U3C**  
 LOCATION: UNIT 3C 305  
 SUPPLY FROM:  
 MOUNTING: FLUSH  
 ENCLOSURE: TYPE 1

VOLTS: 120/208 Single  
 PHASES: 1  
 WIRES: 3

A.I.C. RATING: 65KAIC/SERIES RATED ALLOWED  
 MAINS TYPE: MCB  
 MAINS RATING: 150 A  
 MCB RATING: 150 A

Notes:  
 1. ALL 20A/1P AND 15A/1P BREAKERS SHALL BE COMBINATION AFCI TYPE.  
 2. PROVIDE DUAL FUNCTION SF/GI / COMBINATION AFCI BREAKER.

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)	B (VA)	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	WASHER RECEPTACLE	20 A	1	1000	2496		2	DRYER RECEPTACLE	2
3	REFRIGERATOR RECEPTACLE (NOTE 2)	20 A	1		1500	2496			4
5	MICROWAVE RECEPTACLE (NOTE 2)	20 A	1	180	540		1	KITCHEN RECEPTACLES	6
7	OVEN / RANGE RECEPTACLE	50 A	2		4160	540	1	KITCHEN RECEPTACLES	8
9				4160	1080		1	LIVING ROOM RECEPTACLES	10
11	DISHWASHER / GARBAGE DISPOSAL RECEPTACLE (NOTE 2)	20 A	1		180	900	1	BEDROOM RECEPTACLES	12
13	CORRIDOR RECEPTACLES	20 A	1	900	1080		1	BEDROOM RECEPTACLES	14
15	BATHROOM RECEPTACLE	20 A	1		180	720	1	BEDROOM RECEPTACLES	16
17	BATHROOM EXHAUST FANS, EF-1	20 A	1	360	750		1	AG UNIT RECEPTACLE	18
19	BATHROOM RECEPTACLE	20 A	1		180	539	1	LIGHTING	20
21	LIVING ROOM AC UNIT RECEPTACLE	20 A	2	863	180		1	120V SMOKE DETECTORS	22
23						863	0	SPARE	24
TOTAL LOAD (VA):				19584 VA	12255 VA				
TOTAL AMPS:				129 A	118 A				