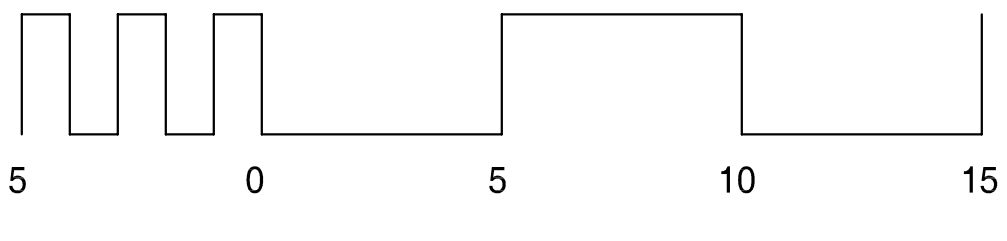
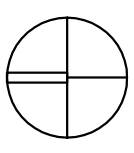


James Sterling AIA  
 Architect  
 142 High Street  
 Portland, Maine  
**SHWARTZ BUILDING  
 RENOVATIONS**



ELECTRICAL  
 THIRD FLOOR PLAN  
 scale: 1/4"=1'-0"

E-4

**LOAD CALCULATIONS, (ALL ELECTRIC UNIT)**

- LIGHTING AND POWER: 3W/1000SF = 3000W
- KITCHEN RANGE = 2000W
- ELECTRIC RANGE = 2000W
- REFRIGERATOR = 2000W
- DISPOSAL = 2000W
- COMMON = 1500W
- WATER HEATER = 5000W
- DRYER = 5000W
- INDOOR A/C = 5000W
- OUTDOOR A/C = 1000W
- MICROWAVE/HOOD = 1000W
- TOTAL = 31000W

UNIT DEMAND=(31-10KW-A/O)/X.4+10+A/C=20.2KW  
 BUILDING DEMAND=12X24.5KW=4=118KW  
 FACTOR TO BE TAKEN FROM TABLE NEC 220.84

**FOR EACH APARTMENT PROVIDE DEDICATED CIRCUITS**

- (2) 20A/1P KITCHEN COUNTER OUTLETS
- (1) 20A/1P FOR REFRIGERATOR
- (1) 20A/1P FOR DISHWASHER
- (1) 20A/1P FOR DISPOSAL
- (1) 20A/1P FOR WASH DRYER
- (1) 50A/2P FOR ELECTRIC RANGE
- (1) 20A/1P FOR FURNACE
- (1) 15A/1P FOR WASH DRYER
- (1) 50A/2P FOR CONDENSING UNIT
- (1) 20A/1P FOR EACH BATHROOM OUTLETS, ARC FAULT
- (1) 15A/1P FOR EACH BATHROOM OUTLETS, ARC FAULT
- (1) 15A/1P FOR LIVING ROOM, ARC FAULT
- (1) 15A/1P FOR EACH BEDROOM, ARC FAULT

**WIRING SCHEDULE**

ITEM	LOAD	CIRC.BRK.	WIRE (CU)
①	LIVING RM, BEDROOMS, LIGHTS	15A/1P ARC FAULT	14/2 RX
②	KITCHEN, DINING RM, WASHER	20A/1P ARC FAULT	12/2 RX
③	KITCHEN GR, TOILET GR, DRYER	20A/1P 30A/2P	12/2 RX 10/3 RX
④	COOK-TOP OVEN	40A/2P	8/3 RX
⑤	RANGE	50A/2P	6/3 RX
⑥	AC-INDOOR	15A/2P	12/2 RX
⑦	AC-OUTDOOR	50A/2P	6/2 MC

LOCATION OF ALL MECHANICAL EQUIPMENTS AND ELECTRICAL CHARACTERISTICS SHALL BE COORDINATED WITH MECHANICAL CONTRACTOR PRIOR TO ANY WORK DONE. EQUIPMENT RELIANT TO MECHANICAL CONTRACTOR SHALL BE APPROVED AFTER THE APPROVAL OF MECHANICAL EQUIPMENT SHOP DRAWINGS

WITHIN EACH RESIDENTIAL DWELLING UNIT ALL 120V RECEPTACLES SHALL BE TAMPER RESISTANT TYPE AS PER NEC 406.11.

**CONSTRUCTION NOTES**

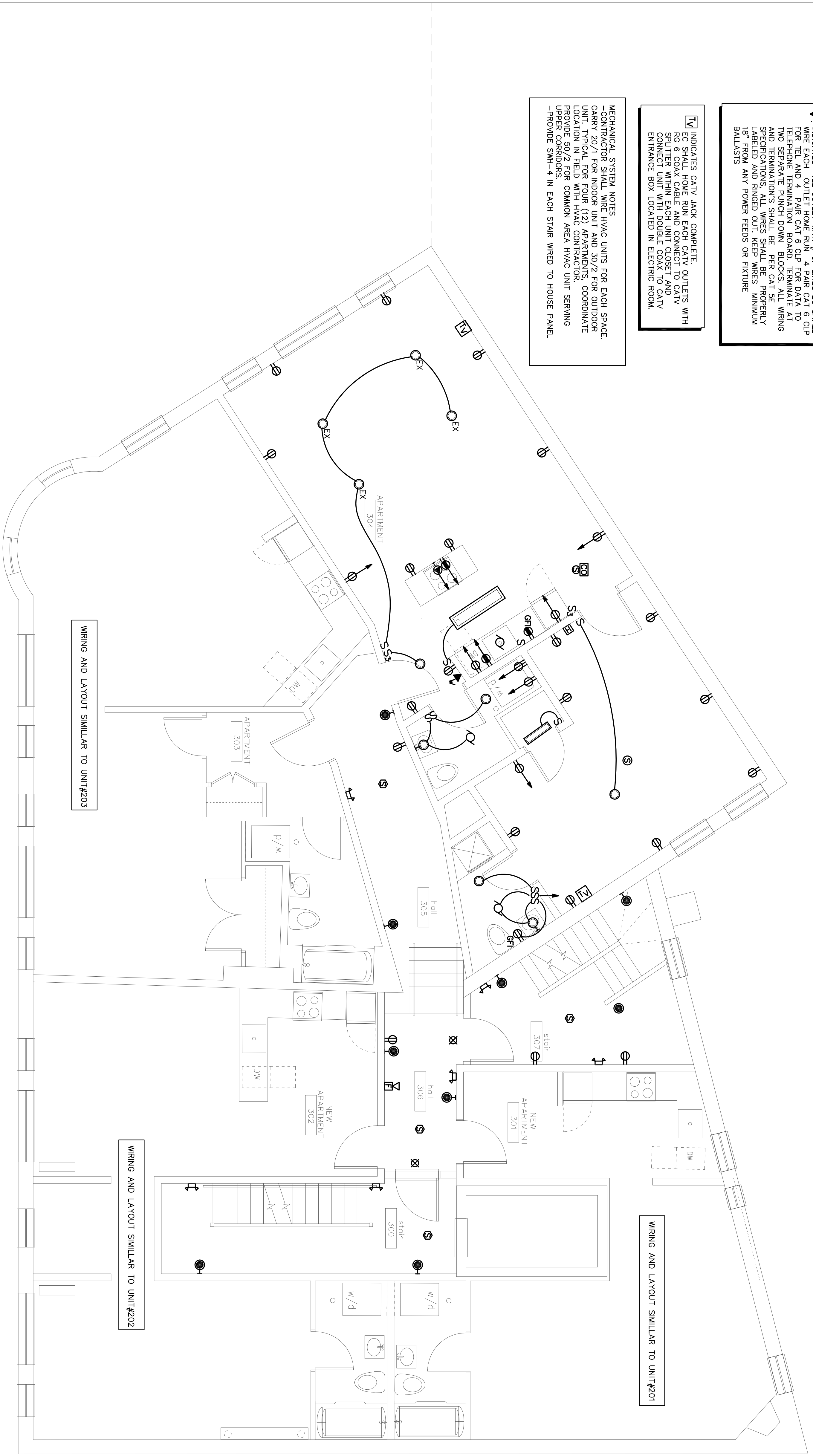
- LOCAL SMOKE DETECTORS SHALL BE WIRED FROM ARC-FAULT CIRCUITS. VERIFY WITH ELECTRICAL INSPECTOR.
- BACK TO BACK OUTLETS ON FIRE RATED WALLS SHALL BE INSTALLED TO MAINTAIN FIRE RATINGS, IF NECESSARY, USE FIRE RATED OUTLET BOXES.
- ALL FLOOR PENETRATIONS BY CABLES AND CONDUITS SHALL BE SEALED TO MAINTAIN FIRE RATINGS.
- RECESSED LIGHT FIXTURES INSTALLED ON FIRE RATED CEILING SHALL HAVE FIRE RATED HOODS ON TOP TO MAINTAIN FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED AREAS.
- ALL WIRING WITHIN UNITS SHALL BE ROMEX. WIRING OUTSIDE UNITS SHALL BE METAL CLAD.

**INDICATES: TEL. OUTLET WITH # OF LINES EC SHALL WIRE EACH. OUTLET HOME RIN. 4 PAIR CAT 5 FOR TEL. AND 4 PAIR CAT 6 CLP FOR DATA TO TELEPHONE TERMINATION BOARD. TERMINATE AT TWO SEPARATE PUNCH DOWN BLOCKS. ALL WIRING SHALL BE MAINTAINED'S SHARES BE PERFORMED PROPERLY. LABELLED AND RINGED OUT. KEEP WIRES MINIMUM 18" FROM ANY POWER FEEDS OR FIXTURE BALLASTS**

**INDICATES CATV JACK COMPLETE. OUTLETS WITH EC SHALL HOME RUN EACH CATV TO THE RACK AND FROM RACK TO EACH UNIT. CONNECT WITHIN EACH UNIT CLOSET AND ENTRANCE BOX LOCATED IN ELECTRIC ROOM.**

**MECHANICAL SYSTEM NOTES**

- CONTRACTOR SHALL WIRE HVAC UNITS FOR EACH SPACE CARRY 20/1 FOR INDOOR UNIT AND 30/2 FOR OUTDOOR UNIT. TYPICAL FOR FOUR (12) APARTMENTS, COORDINATE LOCATION IN FIELD WITH HVAC CONTRACTOR.
- PROVIDE 30/2 FOR COMMON AREA HVAC UNIT SERVING FLOOR 30/2
- PROVIDE SWH-4 IN EACH STAIR WIRE TO HOUSE PANEL.



WIRING AND LAYOUT SIMILAR TO UNIT#203

WIRING AND LAYOUT SIMILAR TO UNIT#202

WIRING AND LAYOUT SIMILAR TO UNIT#201