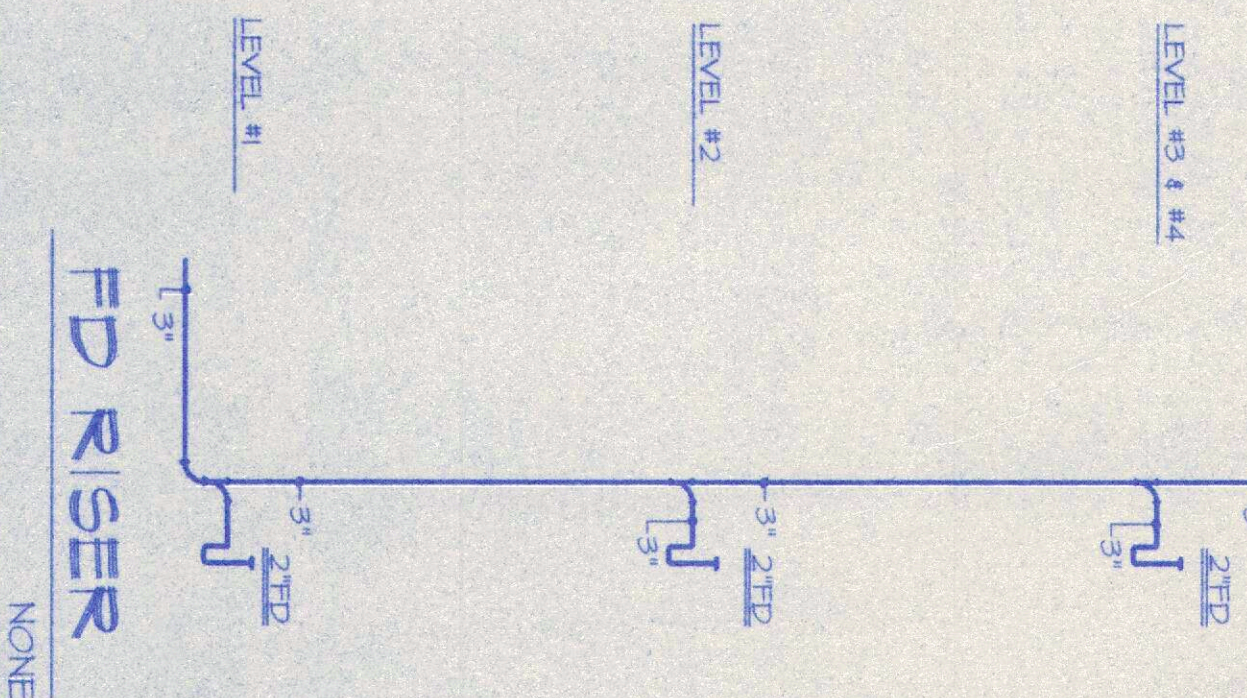
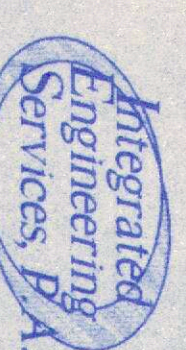
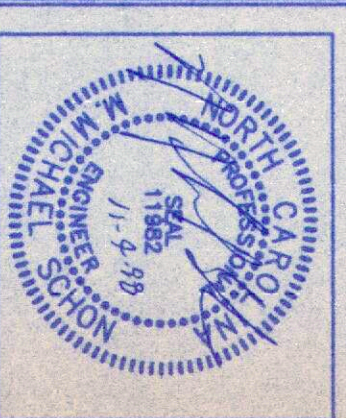
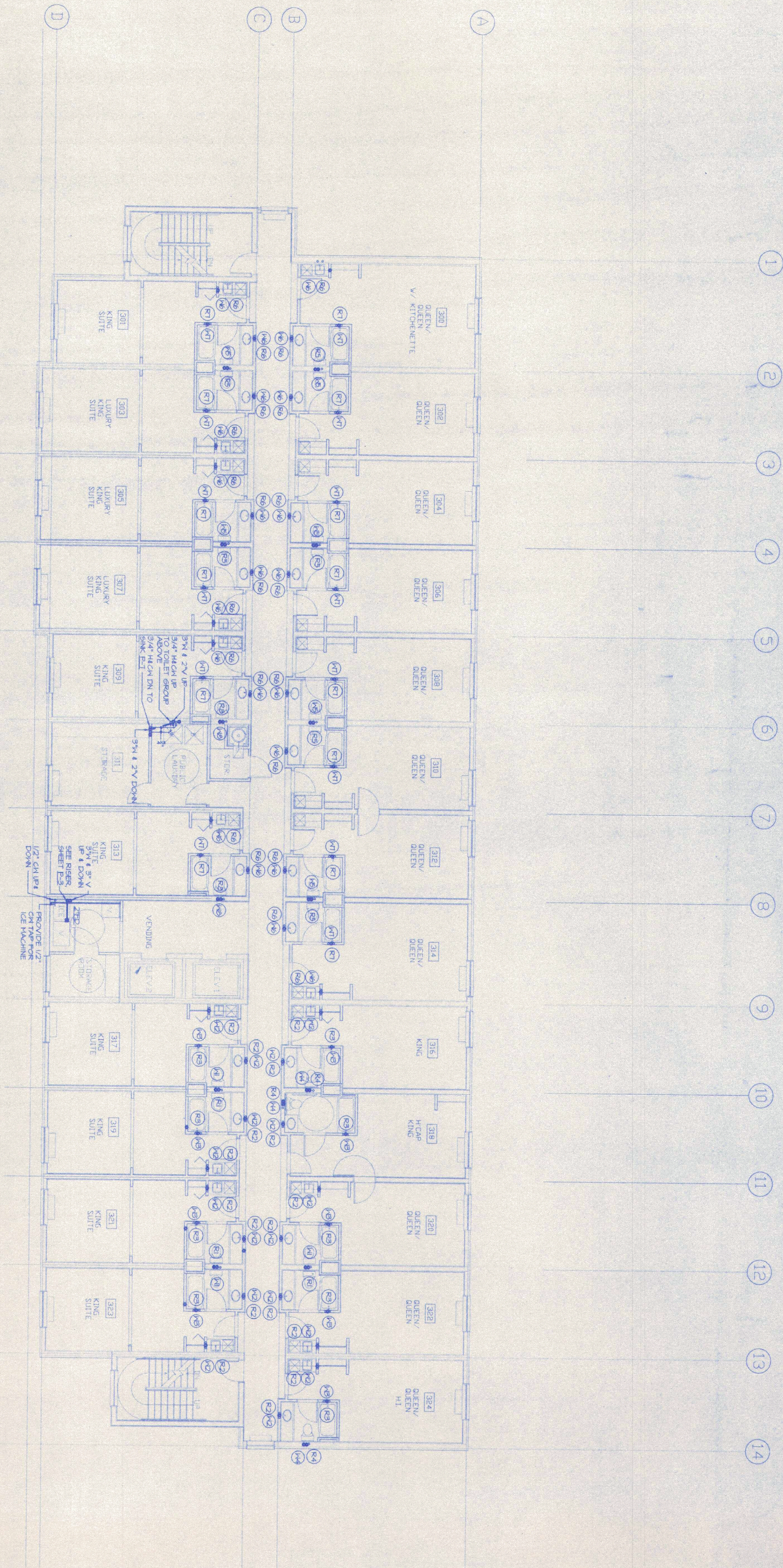


1 SECOND FLOOR PLAN
 SCALE 1/8" = 1'-0"



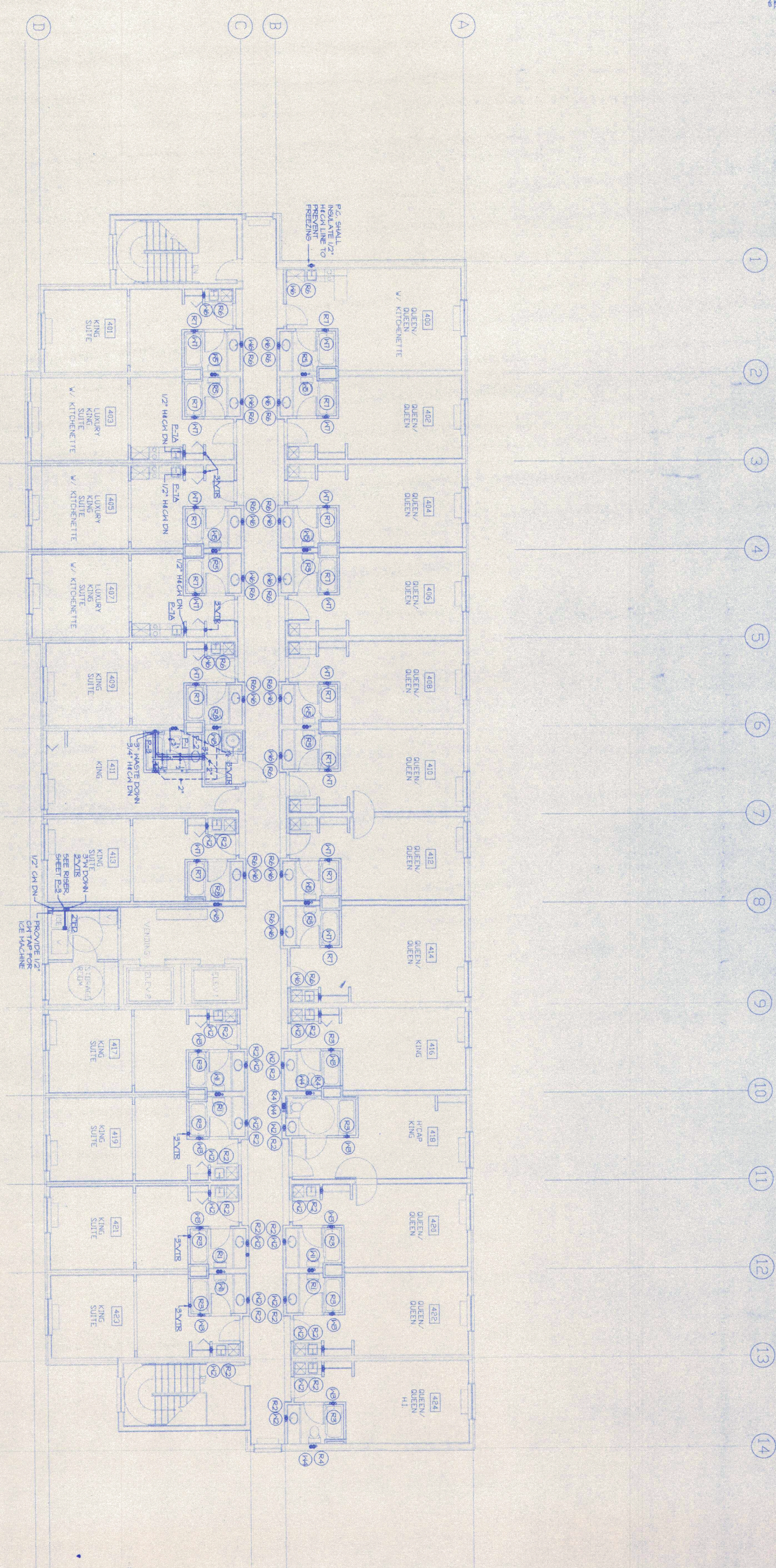
FD RISER
 NONE



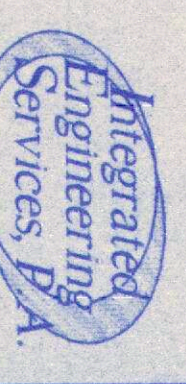


1 THIRD FLOOR PLAN
 SCALE 1/8" = 1'-0"





1 FOURTH FLOOR PLAN - EXECUTIVE FLOOR (ELEVATOR KEYED)
 SCALE 1/8" = 1'-0"



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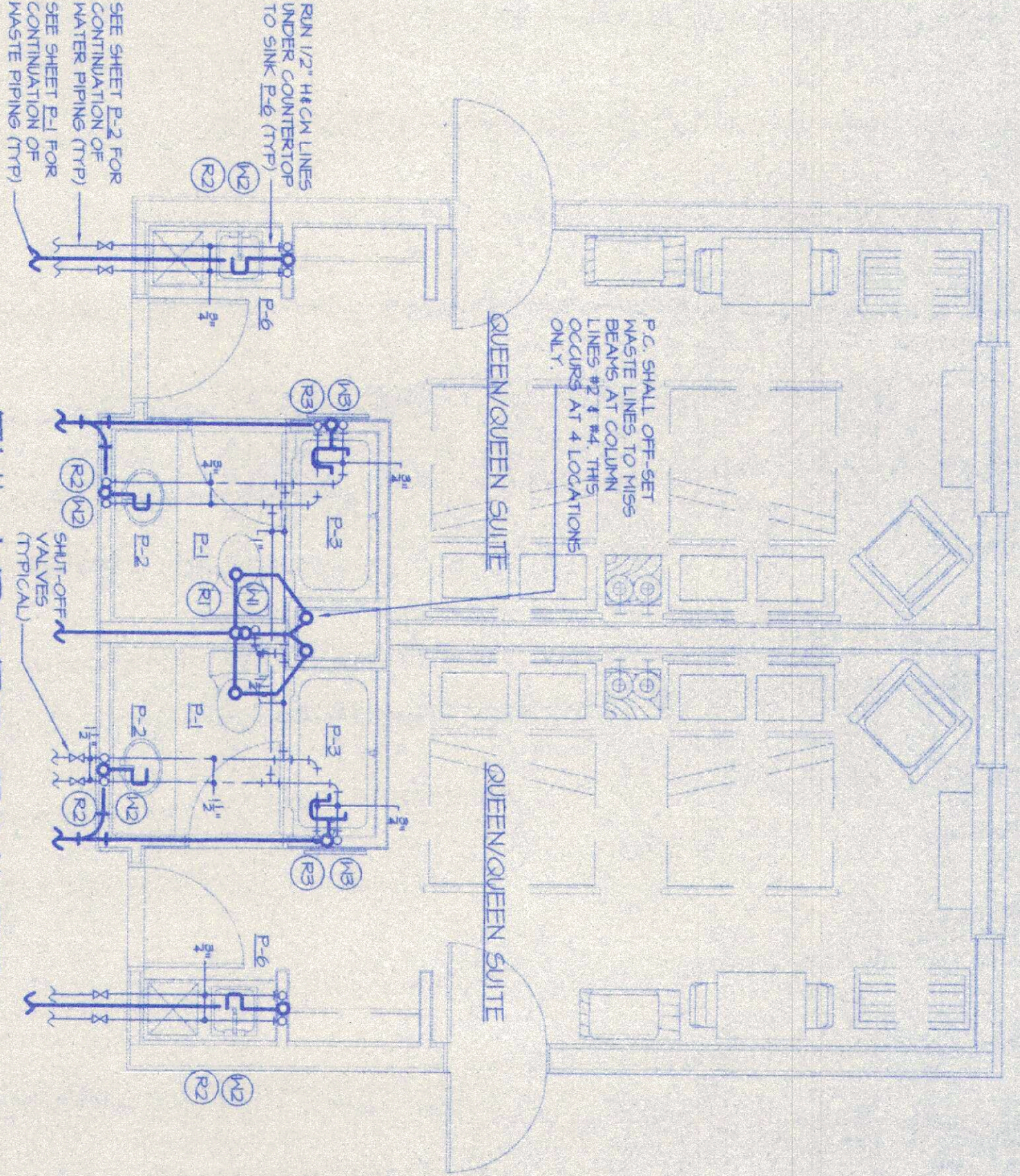
King's Grant

Concord, NC

PROJECT NO. 39140
 DATE 11-02-98
 DRAWN BY J.J.H.
 CHECKED BY M.M.S.
 REVISIONS

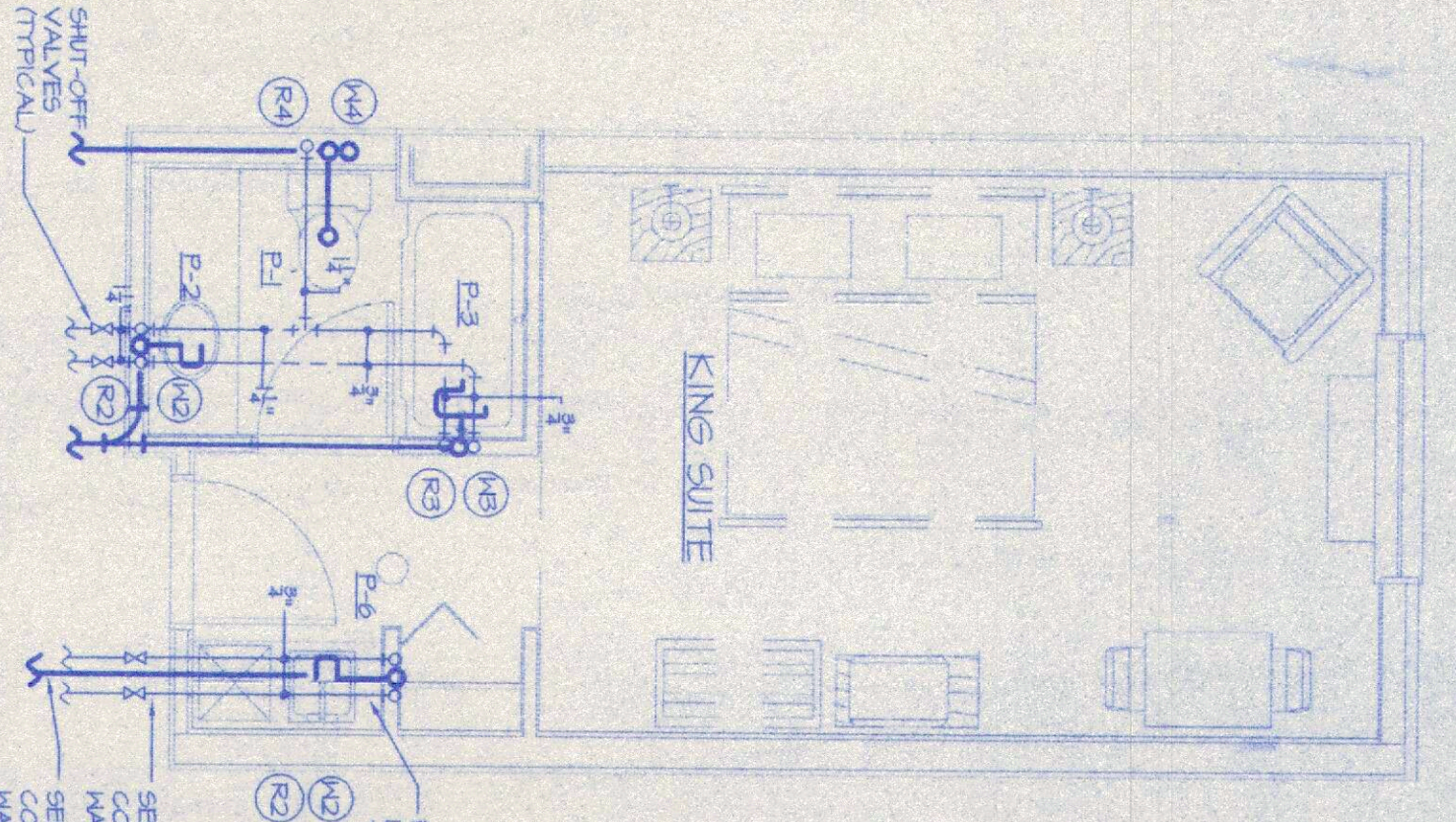


FOURTH FLOOR
 PLAN
 PLUMBING



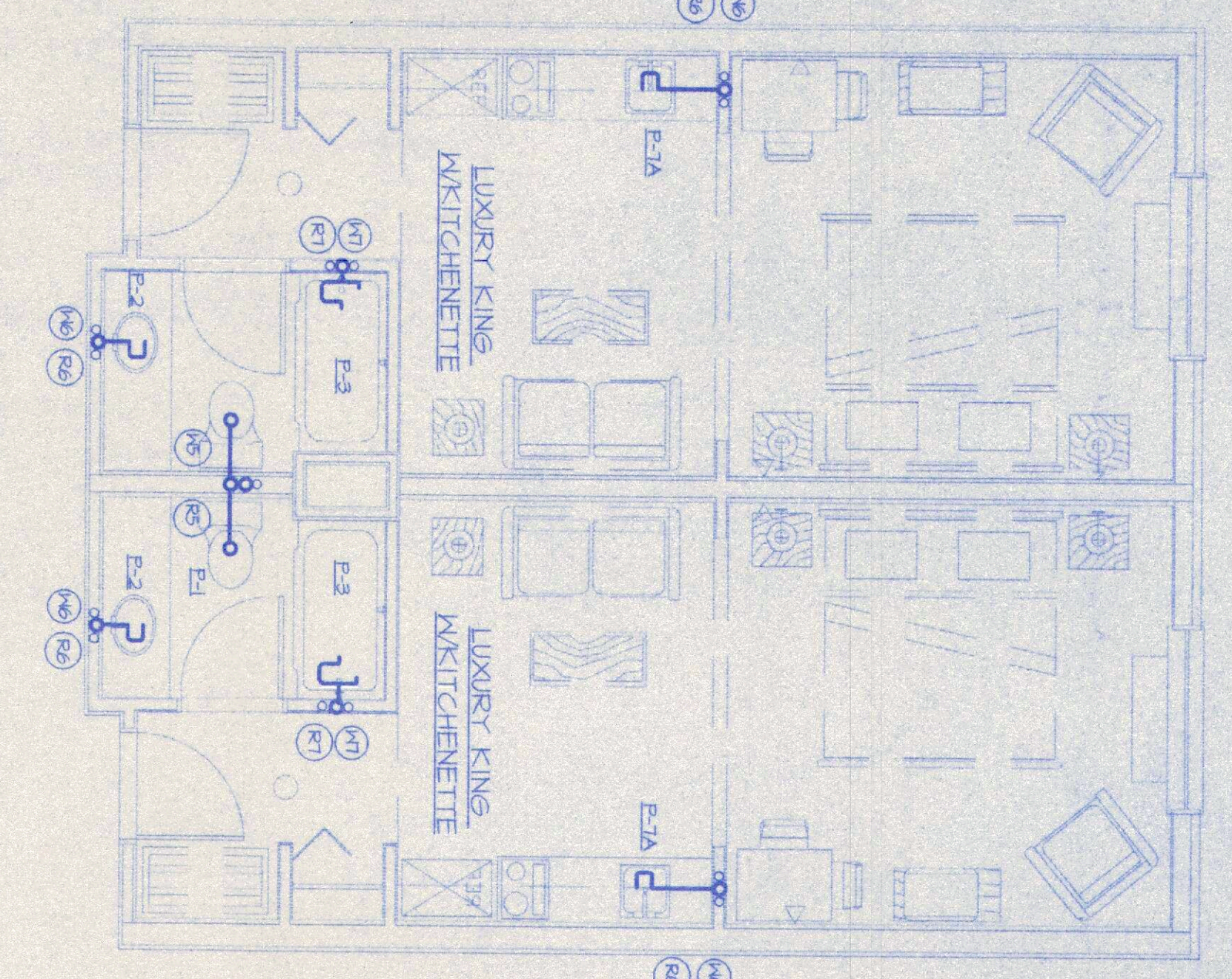
ENLARGED TOILET UNIT PLAN "A"

SCALE 1/4"=1'-0"
 THIS LAYOUT IS TYPICAL FOR THE FOLLOWING UNIT TYPES:
 BACK TO BACK QUEEN/QUEEN UNIT PLANS
 BACK TO BACK KING SUITE UNIT PLANS
 BACK TO BACK KING SUITE UNIT PLANS
 BACK TO BACK LUXURY KING SUITE UNIT PLANS



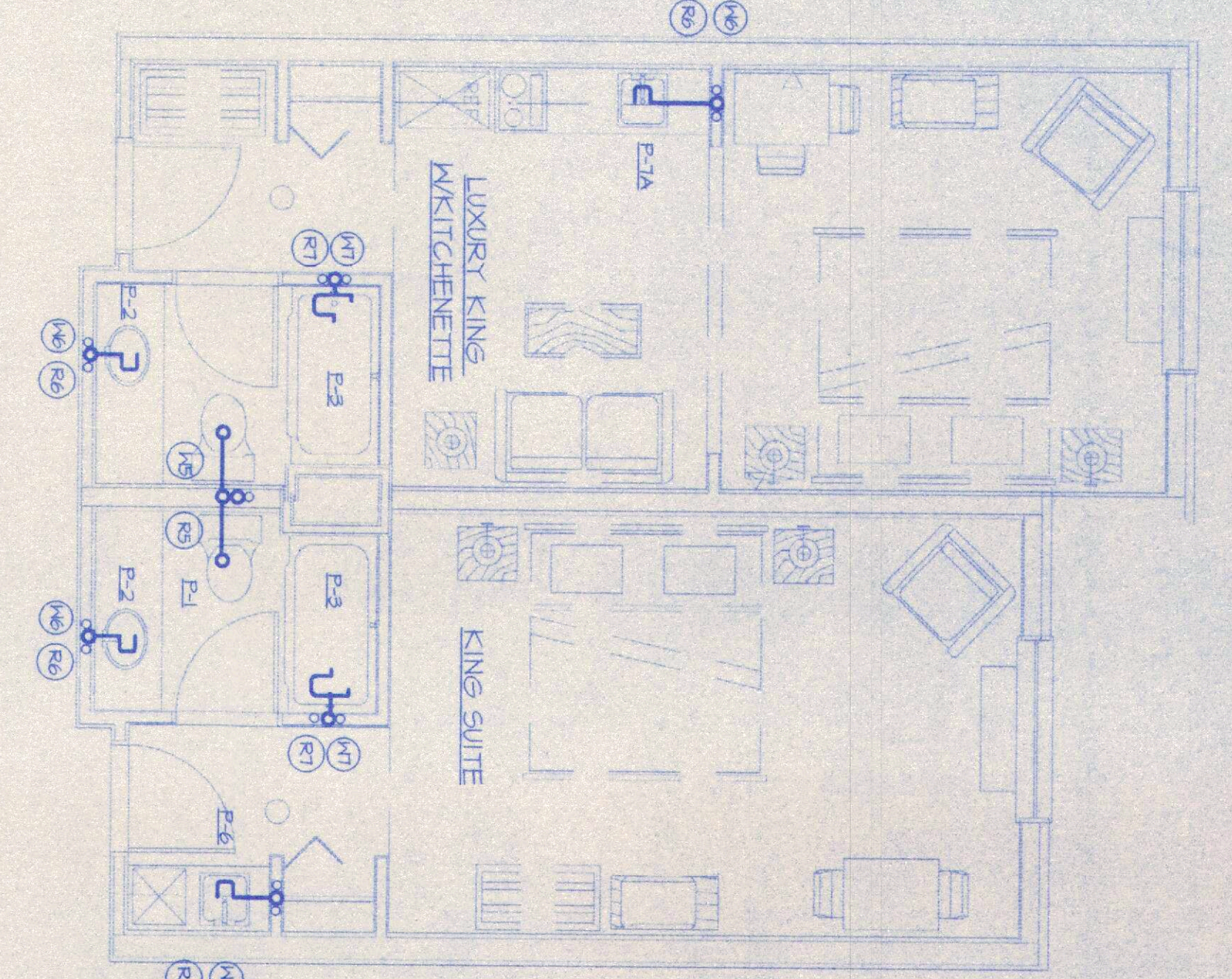
ENLARGED TOILET UNIT PLAN "B"

SCALE 1/4"=1'-0"
 THIS LAYOUT IS TYPICAL FOR THE FOLLOWING UNIT TYPES:
 SINGLE KING SUITE UNIT PLAN
 SINGLE QUEEN/QUEEN SUITE UNIT PLAN



ENLARGED TOILET UNIT PLAN "C"

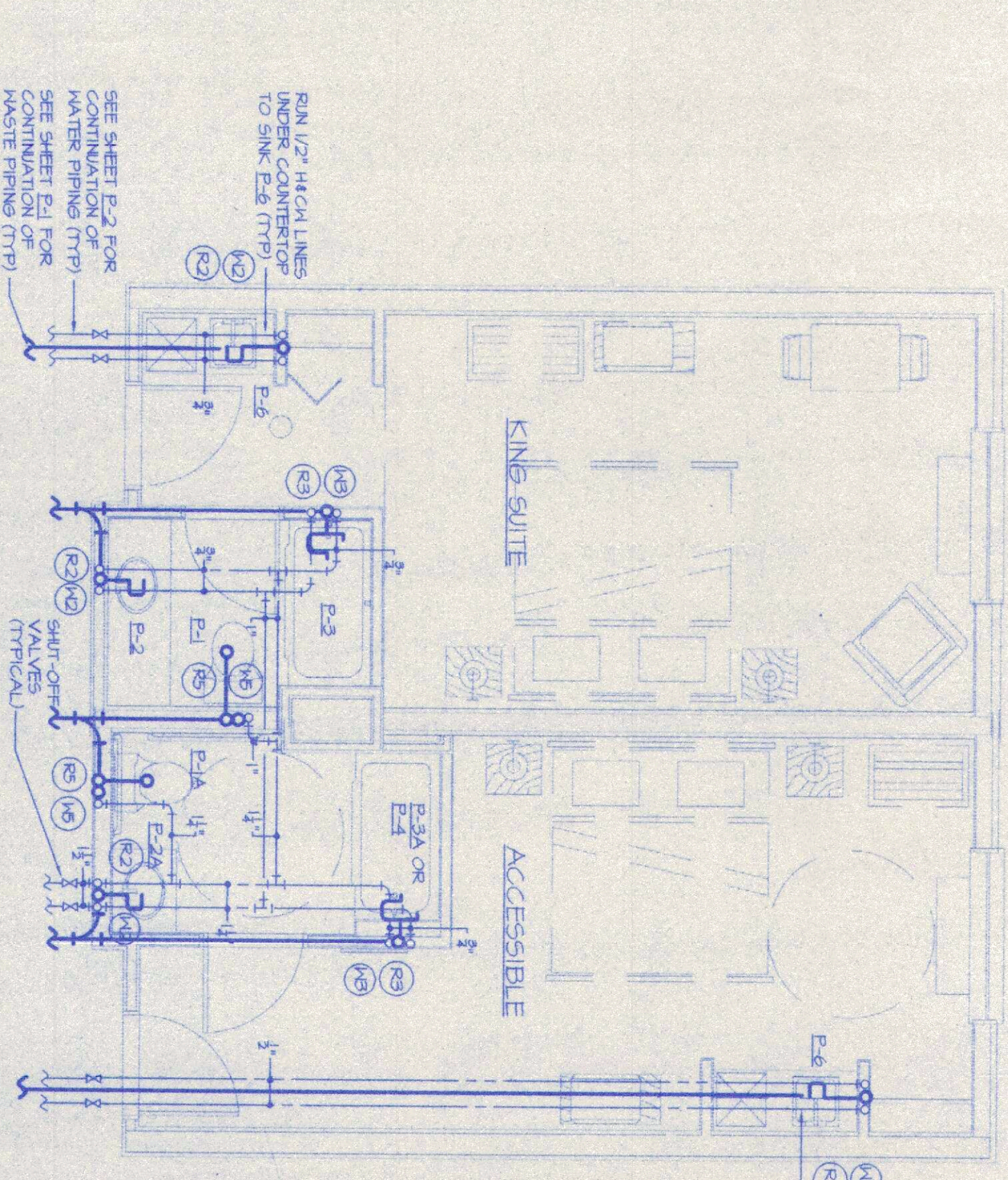
SCALE 1/4"=1'-0"
 THIS LAYOUT IS TYPICAL FOR THE FOLLOWING UNIT TYPES:
 BACK TO BACK LUXURY KING W/ KITCHENETTE UNIT PLANS (FOURTH FLOOR ONLY)



ENLARGED TOILET UNIT PLAN "D"

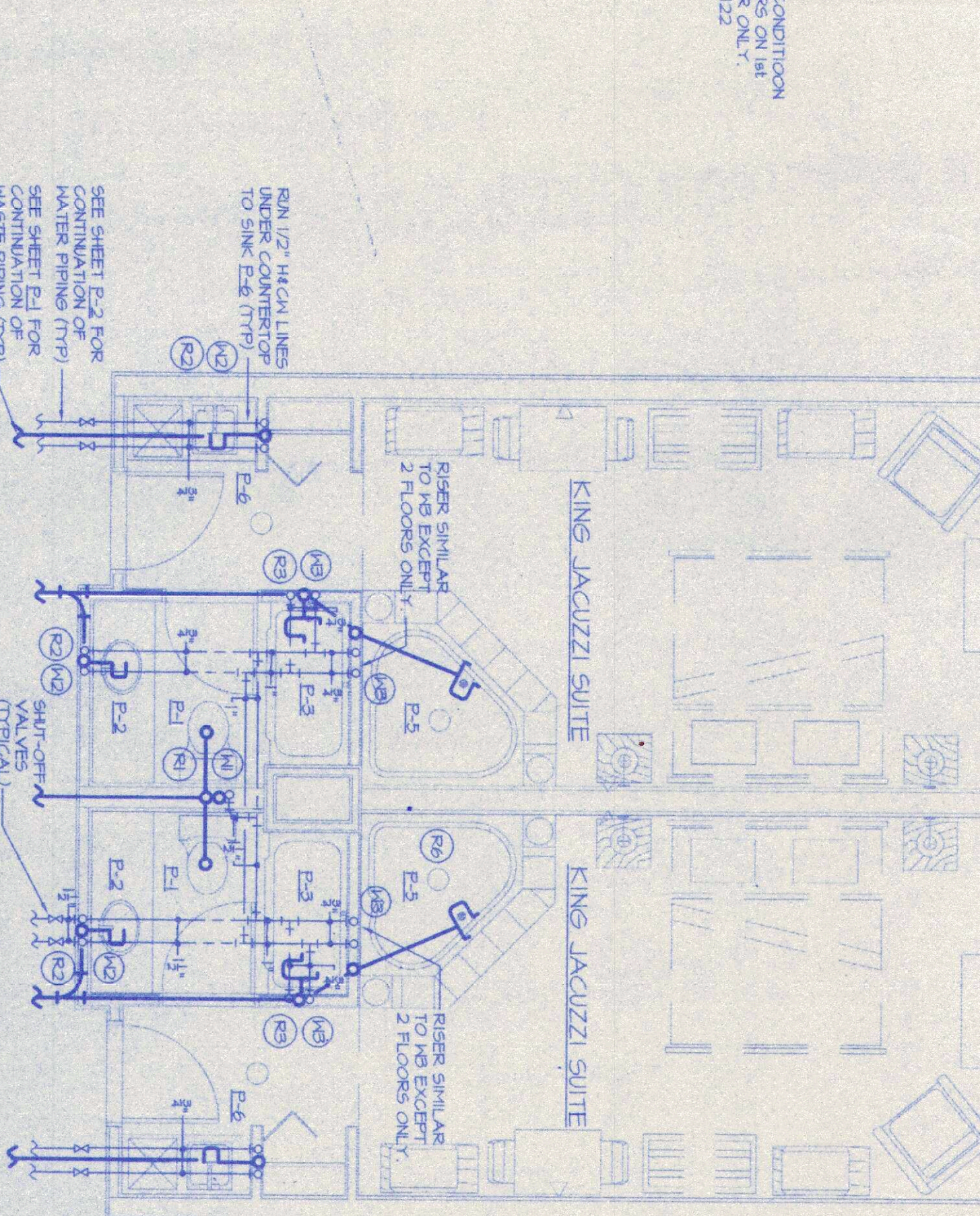
SCALE 1/4"=1'-0"
 THIS LAYOUT IS TYPICAL FOR THE FOLLOWING UNIT TYPES:
 BACK TO BACK LUXURY KING W/ KITCHENETTE SUITE UNIT PLANS (FOURTH FLOOR ONLY)

- NOTES:**
- 1) ALL WATER LINES ARE RUN IN CEILING SPACE OF FIRST FLOOR, UNLESS NOTED OTHERWISE.
 - 2) SEE (R#) SHEET P-2 FOR WASTE RISER SIZES.
 - 3) SEE (W#) SHEET P-2 FOR WATER RISER SIZES.



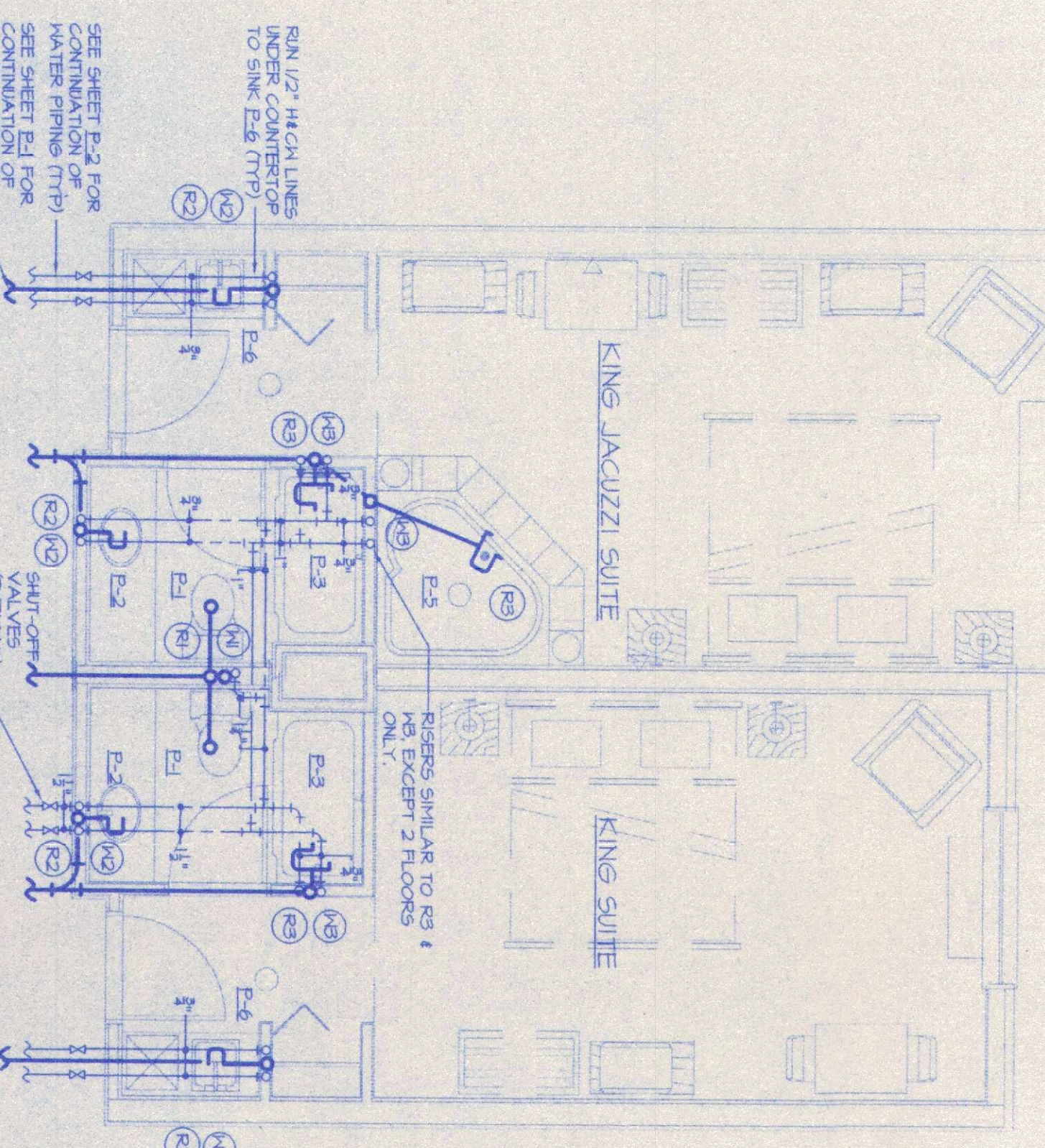
ENLARGED TOILET UNIT PLAN "E"

SCALE 1/4"=1'-0"
 THIS LAYOUT IS TYPICAL FOR THE FOLLOWING UNIT TYPES:
 BACK TO BACK ACCESSIBLE UNIT PLANS



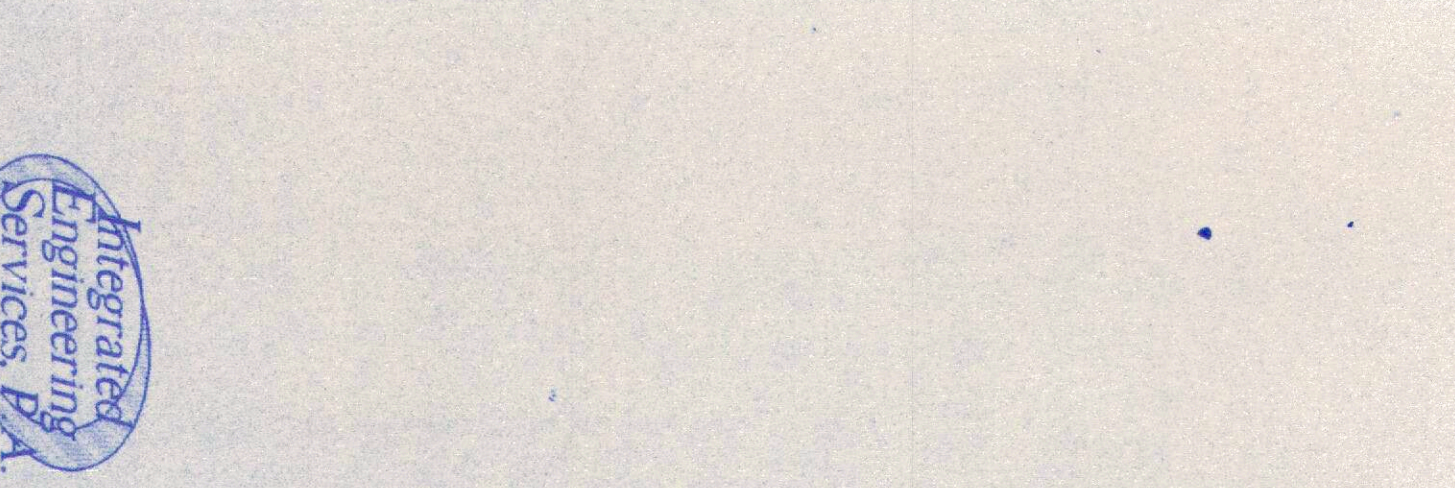
ENLARGED TOILET UNIT PLAN "F"

SCALE 1/4"=1'-0"
 THIS LAYOUT IS TYPICAL FOR THE FOLLOWING UNIT TYPES:
 BACK TO BACK KING JACUZZI SUITE UNIT PLAN



ENLARGED TOILET UNIT PLAN "G"

SCALE 1/4"=1'-0"
 THIS LAYOUT IS TYPICAL FOR THE FOLLOWING UNIT TYPES:
 BACK TO BACK KING SUITE SUITE UNIT PLAN

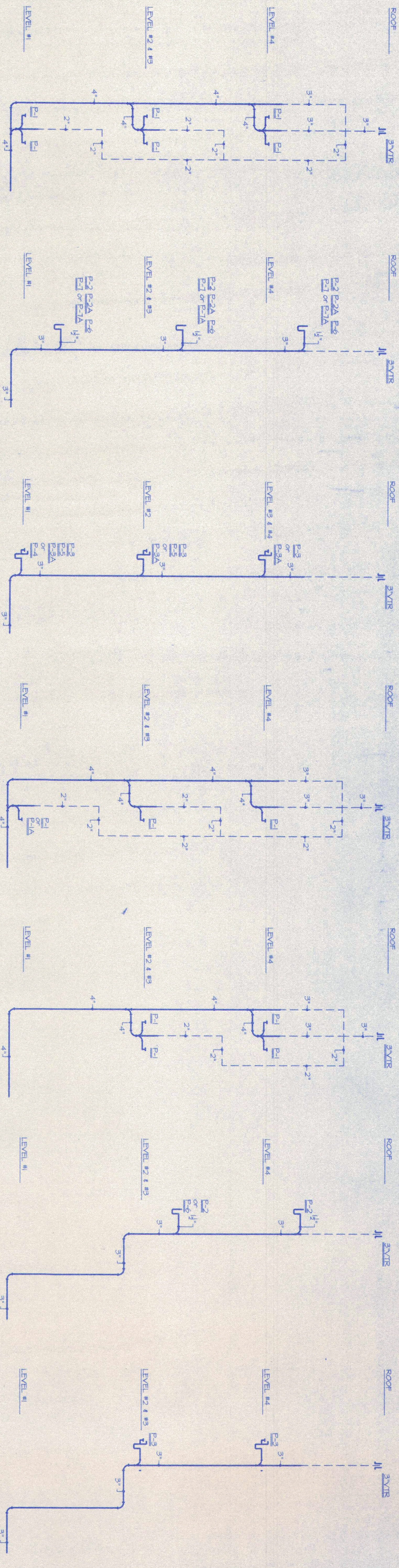


ENLARGED TOILET UNIT PLAN "H"

SCALE 1/4"=1'-0"
 THIS LAYOUT IS TYPICAL FOR THE FOLLOWING UNIT TYPES:
 BACK TO BACK KING SUITE SUITE UNIT PLAN



PLASTER INCORPORATION ONLY
 FIELD VERIFY REQUIRED LEVELS
 NONE



1 TOILET RISER
 NONE
 Risers are 1, 2, 3 & 4 Levels
 Field Verify Required Levels

2 LAV RISER
 NONE
 Risers are 1, 2, 3 & 4 Levels
 Field Verify Required Levels

3 TUB RISER
 NONE
 Risers are 1, 2, 3 & 4 Levels
 Field Verify Required Levels

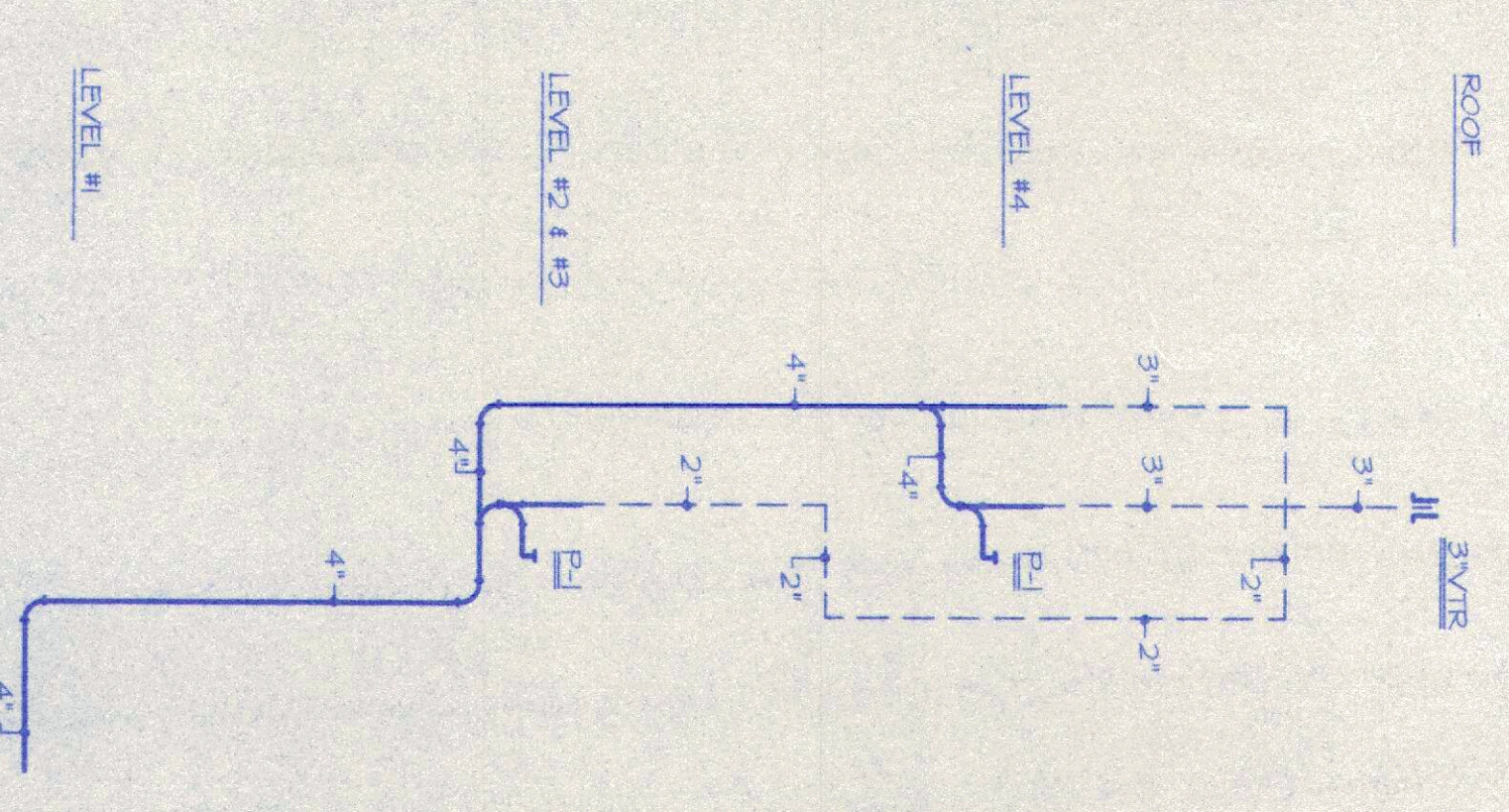
4 TOILET RISER
 NONE
 Risers are 1, 2, 3 & 4 Levels
 Field Verify Required Levels

5 TOILET RISER
 NONE
 Risers are 1, 2, 3 & 4 Levels
 Field Verify Required Levels

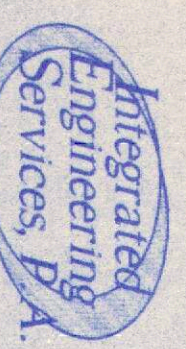
6 LAV RISER
 NONE
 Risers are 1, 2, 3 & 4 Levels
 Field Verify Required Levels

7 TUB RISER
 NONE
 Risers are 1, 2, 3 & 4 Levels
 Field Verify Required Levels

P.C. SHALL PROVIDE WALL CLEAN-OUTS AT THE BASE OF ALL RISERS.
 P.C. SHALL THE ALL LAV & TUB RISERS LOCATED IN TYPICAL UNIT BATHS INTO 3" VENT THRU ROOF AT TOILET RISER. ONLY INDIVIDUAL VENT EACH RISER WHERE REQUIRED.



8 TOILET RISER
 NONE
 Risers are 1, 2, & 3 Levels
 Field Verify Required Levels



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**Mechanical
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PLUMBING FIXTURE SCHEDULE

- E-1 - WATER CLOSET - KOHLER "WELLKORTH" MODEL K-9422, FLOOR OUTLET/FLOOR MOUNT. PROVIDE "LUSTRA" MODEL #K-4652 ENLARGED WHITE OPEN FRONT SEAT W/ILD (1/2" C.M., 4" WASTE, 2" VENT)
- E-1A - HANDICAP WATER CLOSET - KOHLER "WELLKORTH HIGHLINE" MODEL K-9247 FLOOR OUTLET/FLOOR MOUNT. PROVIDE "LUSTRA" MODEL #4652 ENLARGED WHITE OPEN FRONT SEAT W/ILD (1/2" C.M., 4" WASTE, 2" VENT)
- E-2 - LAVATORY - PROVIDE DELTA MODEL #520-HDF FAUCET W/POP-UP DRAIN (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT)
- E-2A - LAVATORY - KOHLER "GREENMICH" MODEL K-2092, WALL MOUNT. PROVIDE DELTA MODEL #520-HDF SINGLE LEVER FAUCET W/POP-UP DRAIN (1/2" CM, 1/2" HM, 2" WASTE, 1 1/2" VENT)
- E-3 - BATH TUB - KOHLER "HENDOTA" MODEL K-505, CAST IRON, RIGHT OR LEFT HAND SEE DRAWINGS. PROVIDE DELTA MODEL #1345-HSHOF BATH/SHOWER COMBINATION (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT)
- E-3A - HANDICAP BATH TUB - KOHLER "GREENHILL" MODEL K-1245 (RIGHT), OR K-1246 (LEFT) SEAT. ACRYLIC, SEE DRAWINGS. PROVIDE DELTA MODEL #1305-HSHOF MIXING VALVE W/ DELTA RPN111HDF HANDICAP HAND HELD SHOWER HEAD ON SLIDING BAR AND DELTA DIVERTER SPOUT. (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT). GRAB BARS PROVIDED @ FACTORY PER ADA REQUIREMENTS.
- E-4 - HANDICAP SHOWER - AQUA-GLASS MODEL SC6541, 64" X36" 1/2" FIBERGLASS, RIGHT OR LEFT HAND SEE DRAWINGS. PROVIDE DELTA MODEL #1305-HSHOF MIXING VALVE GROHE 24 SHOWER BAR INCLUDED IN SHOWER UNIT. (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT). GRAB BARS PROVIDED @ FACTORY PER ADA REQUIREMENTS.
- E-5 - HATHUBOOL - JACUZZI "TARA" MODEL ACRYLIC, RIGHT OR LEFT HAND SEE DRAWINGS. PROVIDE DELTA MODEL #2110 ROMAN TUB VALVE. (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT)
- E-6 - BAR SINK - KOEN MODEL Z2114, SINGLE BOWL SINK, TWO HOLE DRILLINGS, WITH DELTA MODEL Z2114-HDF FAUCET AND STRAINERS (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT)
- E-7 - KITCHEN SINK - KOEN MODEL Z2114, DOUBLE BOWL SINK, THREE HOLE DRILLINGS, WITH DELTA MODEL #2100-HDF FAUCET AND STRAINERS (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT)
- E-7A - KITCHEN SINK - KOEN MODEL Z2117, SINGLE BOWL SINK, THREE HOLE DRILLINGS, WITH DELTA MODEL #2100-HDF FAUCET AND STRAINERS (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT)
- E-8 - LAUNDRY SINK - FLAT MODEL FL-1, SINGLE TUB SINK W/LESS, THREE HOLE DRILLINGS, WITH FLAT MODEL NO. A-1 FAUCET. (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT)
- E-9 - WASHING MACHINE BOX - 60" GREY OR EQUAL (1/2" C.M., 1/2" H.M., 2" WASTE, 1 1/2" VENT)
- E-10 - WATER COOLER - OASIS MODEL #869PM, B1-H-1-B-VL, BARRIER-FREE, @ 6PM (2" H.M., 2" WASTE, 1/2" VENT)
- E-11 - POOL SHOWER - CARTRIDGE BRASS MODEL #1115-163, PRESSURE BALANCING, SHOWER ASSEMBLY W/VARIABLE RESISTANT SHOWERHEAD. (1/2" HM, CM, 3" N, 2" V)
- LT-1 - LINT TRAP - ZURN MODEL Z-1185, TO 6PM, 3" INLET/OUTLET.
- F.D. - FLOOR DRAIN - ZURN MODEL Z-415-5.
- F.O. - FLOOR CLEANOUT - ZURN MODEL Z-1400
- W.C. - WALL CLEANOUT - ZURN MODEL Z-1446
- Y.C. - YARD CLEANOUT - ZURN MODEL Z-1400
- PPH - FROST PROOF HYDRANT, WOODFORD MODEL #865EP
- H.B. - HOSE BIBB, WOODFORD MODEL #24

NOTES:

- 1) P.C. SHALL PROVIDE WITH RISERS, CARRIERS, ETC. REQUIRED TO HAVE A COMPLETE INSTALLATION ON ALL FIXTURES.
- 2) AVER STANDING, HANGING AND ELER SHALL BE CONSIDERED EQUALS FOR FIXTURES.
- 3) KOEN, KOHLER AND ELER SHALL BE CONSIDERED EQUALS FOR FAUCETS.

WATER HEATER SCHEDULE

- WH-1 - GAS WATER HEATER SYSTEM - THREE A.O. SMITH CYCLONE MODEL #BTH-144 HEATERS, 144,000 B.T.U./HR., INPUT, 180 G.P.H. RECOVERY @ 100° DEGREE RISE EACH, 100 GAL STORAGE TANK. PROVIDE MIN. 1/2" GAS CONN. @ EACH UNIT, 3" PVC GAS FLE BY PLUMBING CONTRACTOR.

NOTES:

- 1) PROVIDE WITH CODE APPROVED VACUUM BREAKER, TEMPERATURE AND PRESSURE RELIEF VALVE.
- 2) SEE PIPING LAYOUT IN ENLARGED MECHANICAL ROOM SHEET E-1.
- 3) PROVIDE THERMAL EXPANSION TANK ON COLD WATER MAKE-UP LINE. SIZE PER MANUFACTURERS REQUIREMENTS.
- 4) MANUFACTURER'S DATA MUST BE SUBMITTED TO THE BUILDING DEPARTMENT OUTLINING SIDE VENTING REQUIREMENTS FOR BUILDING DEPARTMENT APPROVAL.

PLUMBING NOTES

1. ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NORTH CAROLINA STATE PLUMBING CODE AND THE NATIONAL FIRE CODES WHICH APPLY.
2. ALL PLUMBING PIPING SHALL BE CLOSELY COORDINATED WITH STRUCTURAL SYSTEM, MECHANICAL SYSTEM AND ELECTRICAL SYSTEM TO INSURE PROPER COMPLIANCE WITH CODES AND INSURE THAT ALL TRADES WILL NOT CONFLICT WITH EACH OTHER.
3. ALL SANITARY SENER PIPING RUN BELOW GROUND OR FIRST FLOOR SLAB SHALL BE RUN AT 1/8" FT PITCH UNLESS OTHERWISE REQUIRED BY CODE OR NOTED.
4. ALL WATER PIPING SHALL BE PITCHED FOR DRAINAGE WITH DRAIN VALVES INSTALLED AT LOW POINTS AND MANUAL AIR VALVES INSTALLED AT HIGH POINTS WHERE REQUIRED.
5. PROVIDE ACCESS PANELS AS REQUIRED AT VALVE LOCATIONS TO PROVIDE ACCESS TO CONTROL VALVES. COORDINATE TYPE AND LOCATION WITH GENERAL CONTRACTOR.
6. IF ANY EQUIPMENT IS SUBMITTED AND APPROVED WITH UTILITY CONNECTIONS OTHER THAN THAT SHOWN ON THE DRAWINGS AND SCHEDULES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE PROPER UTILITY CONNECTIONS TO THIS EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
7. ALL CLEANOUTS SHALL HAVE TOPS ESPECIALLY DESIGNED FOR CLEANOUT FINISHES SUCH AS CARPET, TILE, ETC. UNLESS OTHERWISE SPECIFIED.
8. DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DOORS, WINDOWS, WALLS, FIXTURES, ETC.
9. EXCEPT WHERE PIPE SPACE IS PROVIDED OR UNLESS OTHERWISE NOTED, ALL SUPPLY, WASTE AND VENT RISERS SHALL BE RUN IN WALLS AND PARTITIONS.
10. VENTS WILL BE COLLECTED ABOVE THE CEILING AND EXTENDED THROUGH THE ROOF AS A SINGLE VENT AT THE POINTS INDICATED.
11. GAS PIPING SHALL BE INSTALLED AND TESTED PER AIA PARALLEL STANDARD #54. INSTALLATION OF GAS APPLIANCES AND GAS PIPING AND NFPA STANDARD #54. ANY OTHER TESTS REQUIRED BY LOCAL CODES OR GAS COMPANY SHALL BE PERFORMED ALSO.
12. FINAL CONNECTIONS TO ALL GAS EQUIPMENT AND KITCHEN EQUIPMENT SHALL BE MADE BY PLUMBING CONTRACTOR.
13. P.C. SHALL PROVIDE A PRESSURE REDUCING VALVE WHERE WATER MAIN ENTERS BUILDING IF PRESSURE EXCEEDS 80 PSI.

HOT WATER RECIRC PUMP SCHEDULE

- RGF-1 - BUILDING LOOP - GRANDFOS MODEL JF25-649F, IN-LINE PUMP, 12 GPM @ 14' HEAD, 1/2 HP, 180 WATTS, 155 AMP5, 2750 RPM, 120/1/60.

NOTES:

- 1) SEE PIPING LAYOUT IN ENLARGED MECHANICAL ROOM SHEET E-1

THERMOSTATIC VALVE SCHEDULE

- TMV-1 - THERMOSTATIC MIXING VALVE - LAHLER MODEL #805, 193 MAX, 7 MIN, 6PM, @ 20 PSI PRESSURE DROP, PROVIDE W/ THERMOSTAT.

NOTES:

- 1) SEE PIPING LAYOUT IN ENLARGED MECHANICAL ROOM SHEET E-1

THERMAL EXPANSION TANK SCHEDULE

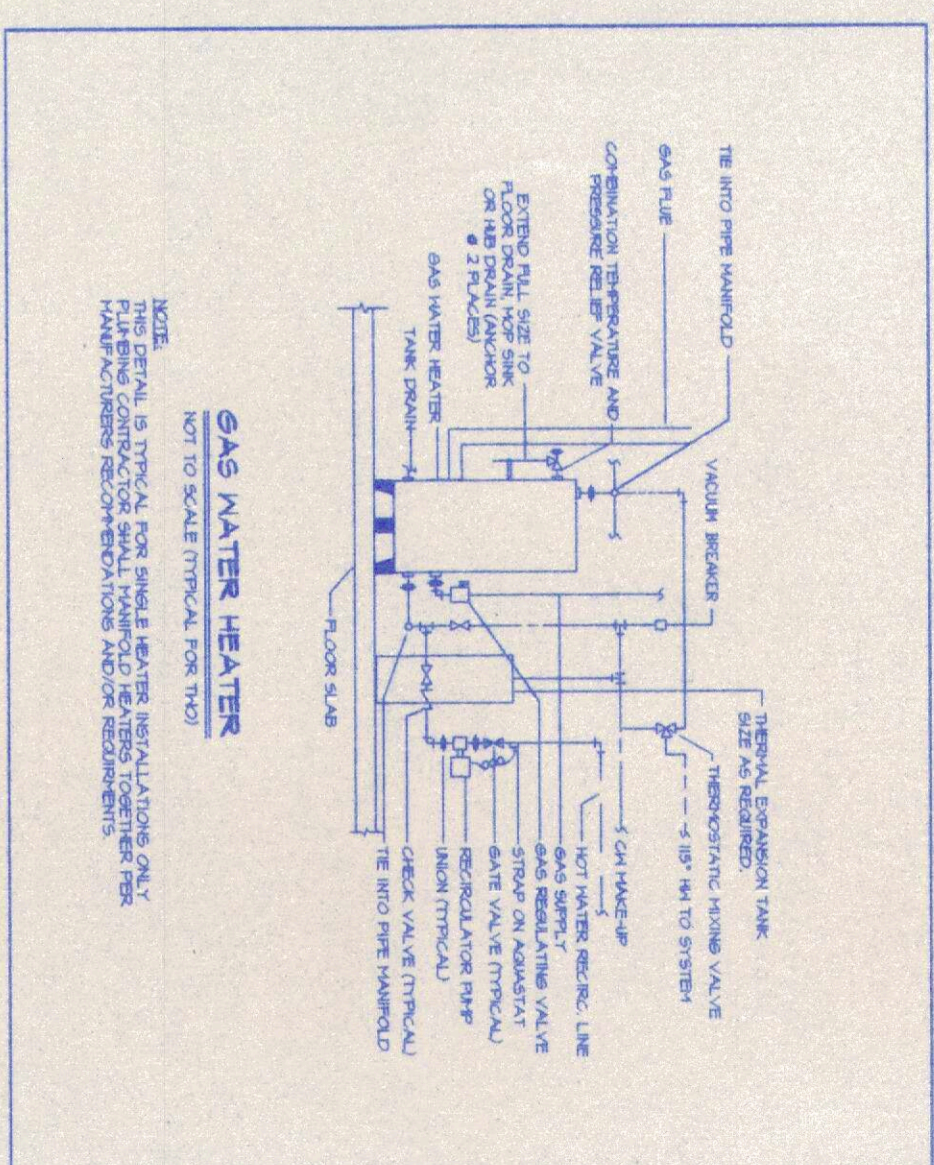
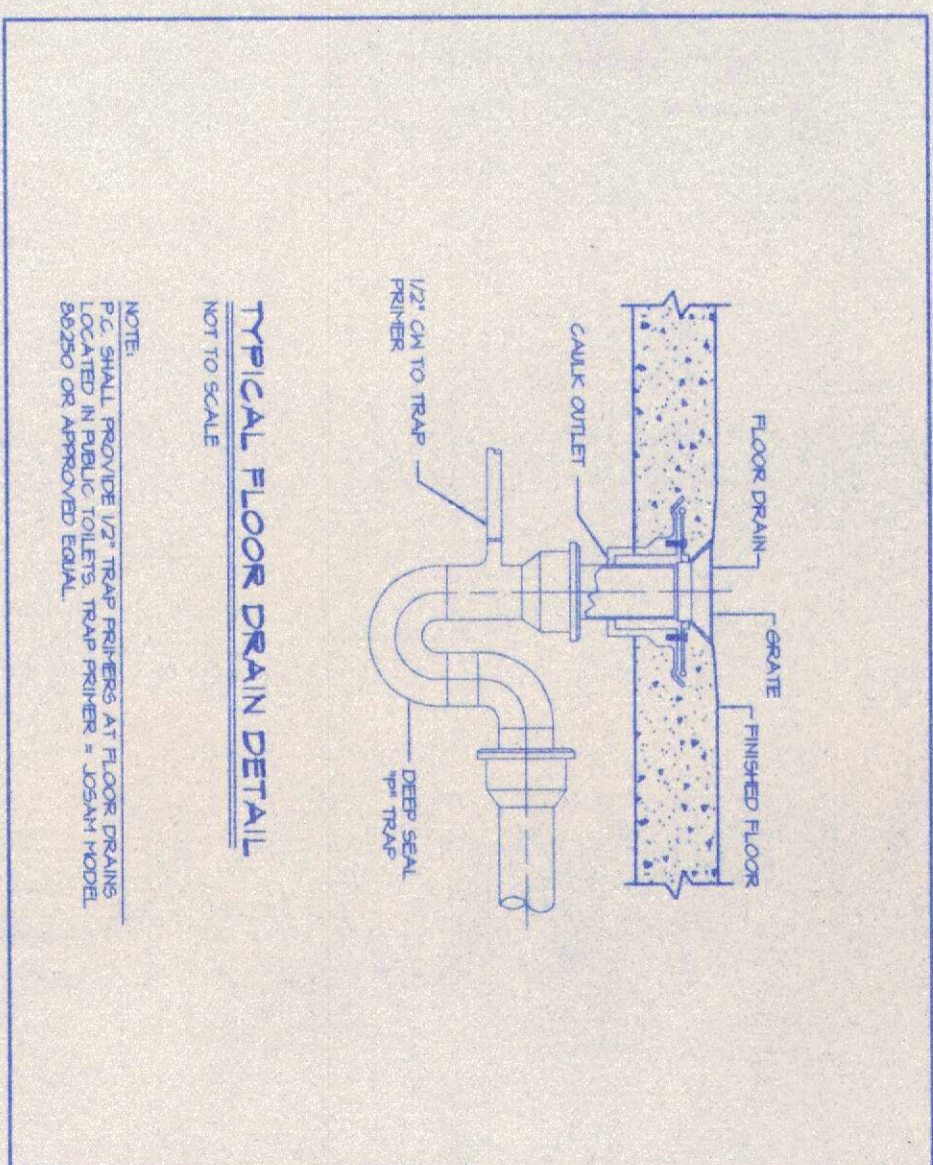
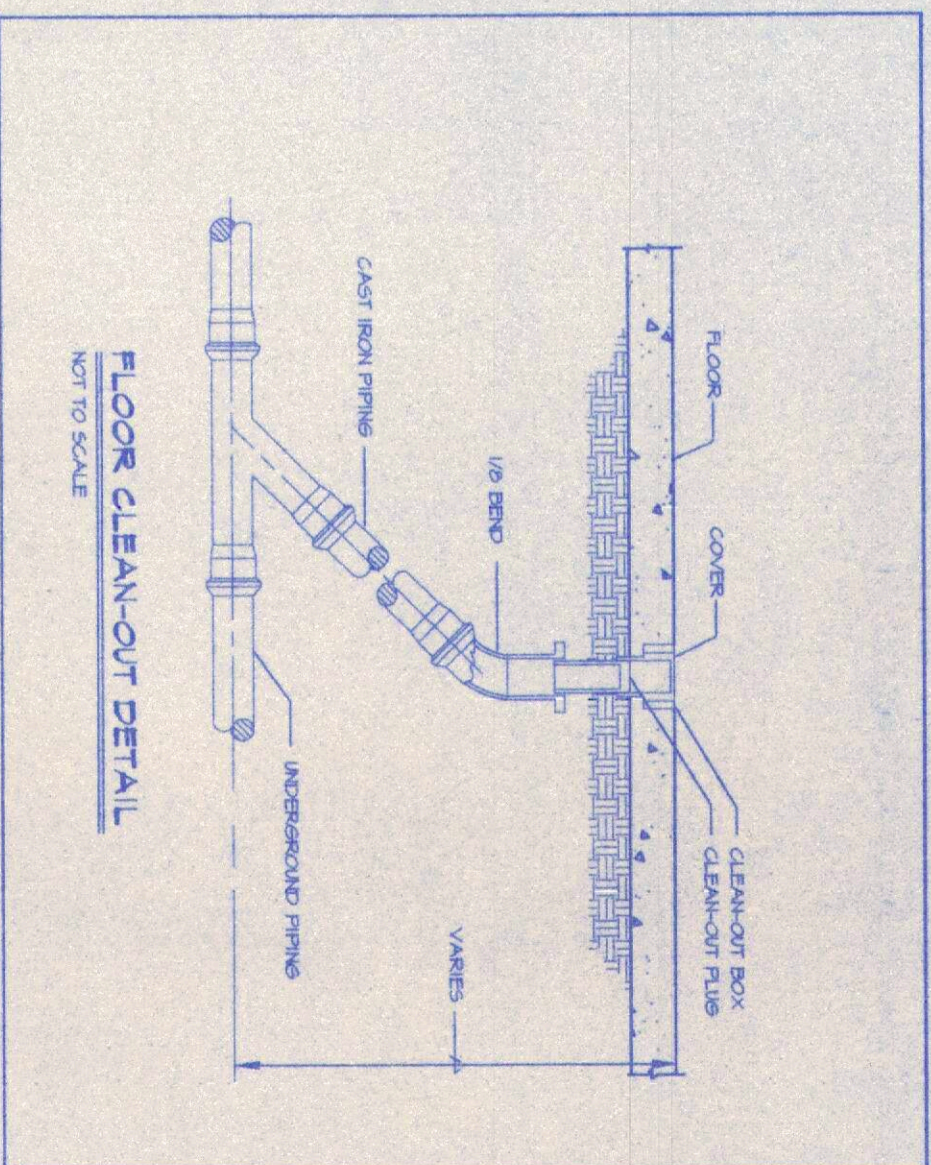
- ET-1 - THERMAL EXPANSION TANK - ANTRON MODEL ST-30V-C, THER-X-TROL ST-C-SERIES, 12.5 GALLON, 150 MAX PSI, 16 1/4" DIA., 3/4" INLET.

NOTES:

- 1) INSTALL EXPANSION TANK PER MANUFACTURERS REQUIREMENTS.

SUMP PUMP SCHEDULE

- SE-1 - SUMP PUMP - GRANDFOS MODEL KP-200, 10 GPM @ 15 FT/HD, 1/3 HP, 120/1/60, PROVIDE 18" X18" X18" SUMP PIT AND CHECK VALVE IN 2" DISCHARGE LINE.



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Mechanical Plumbing Fire Protection Design Services



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 CHECKED BY M.M.S.
 REVISIONS

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 King of Grant
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