SYMBOLS GENERAL NOTES GENERAL 1. REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, AFF ARCHITECTURAL BACKGROUND BALL VALVE LANDSCAPE, OR KITCHEN), OR ITEM BASED ON A SPECIFIC MANUFACTURER'S DIMENSIONS (VERIFY). (THIN LINE) GLOBE VALVE BFP 2. ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL DRAWINGS FOR **BOH** NEW PIPING (HEAVY LINE) CHECK VALVE ELECTRICAL CHARACTERISTICS (VOLTAGES, ETC. OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED. BALANCING OR PLUG VALVE EXISTING PIPING (THIN LINE) BTU CODES: COMPLETE INSTALLATION OF THE PLUMBING SYSTEM SHALL BE PER THE APPLICABLE BUILDING, MECHANICAL, ENERGY, PLUMBING, FIRE, BUTTERFLY VALVE EXISTING WORK TO BE REMOVED AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL CAP -FLEXIBLE CONNECTION IN PIPING MATCHLINE OR PROPERTY LINE CB 4. PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED ON FINAL CD STRUCTURAL SHOP DRAWINGS FOR LOCATING AND ROUTING ALL CFF EQUIPMENT, PIPING, ETC. CONNECTION TO EXISTING CFM PRESSURE REDUCING VALVE (PRV) A. COORDINATE FLOOR AND BEAM PENETRATIONS WITH STRUCTURAL. B. COORDINATE FINAL LOCATION AND ROUTING WITH CEILING, LIGHTS, CLG SECTION IDENTIFICATION WALLS, FIRE SPRINKLER PIPING, AND OTHER TRADES WORK. CLW AUTOMATIC CONTROL VALVE, 2-WAY C. INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING, EQUIVALENT DUCT CO SIZING EXCHANGE, RELOCATING, ETC. AS REQUIRED FOR A COM INDICATES DIRECTION OF CUTTING COMPLETE OPERATING MECHANICAL SYSTEM. CON AUTOMATIC CONTROL VALVE, 3-WAY D. PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO THE OWNER. CON COT LETTER INDICATES SECTION 5. PLUMBING CONTRACTOR SHALL LOCATE AND COORDINATE EXACT CP RELIEF VALVE LOCATION OF ALL PLUMBING EQUIPMENT WITHIN THE STRUCTURE. (NO. INDICATES DETAIL) ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE ALL SHEET NUMBER WHERE SECTION IS BALANCING/METERING VALVE ACCESS DOORS ON SHOP DRAWINGS PRIOR TO BEGINNING OF DRAWN CONSTRUCTION. ACCESS DOORS IN FIRE RATED STRUCTURE SHALL BE SHEET NUMBER WHERE SECTION IS FIRE RATED. VERIFY ACCESS DOOR LOCATIONS WITH GENERAL REDUCER DFU CONTRACTOR PRIOR TO BIDDING. TAKEN DIRECTION OF FLOW DIM ROOF PENETRATIONS: SEE ARCHITECTURAL DRAWINGS FOR ROOF CAP, ROOF CURB, ROOF DRAIN, OVERFLOW DRAINS AND VTR DETAILS. PIPE ANCHOR DETAIL IDENTIFICATION DWG EXPOSED PIPING: PROVIDE CHROME PLATING FOR EXPOSED PIPING IN DETAIL NUMBER PIPE ALIGNMENT GUIDE FINISHED ROOMS. DRAWING/SHEET NUMBER ELEC PIPE SUPPORT PENETRATIONS: PROVIDE ESCUTCHEON PLATES FOR EXPOSED PIPING EQU PENETRATIONS AND SHEET METAL FLASHING FOR EXPOSED DUCTWORK EWC VALVE STATION OR ASSEMBLY PENETRATIONS. EWH <u>EQUIPMENT</u> EXT 10. SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS TO AIR SHAFTS INDIRECT DRAIN, PIPE TO DRAIN AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR FCO TYPICAL EQUIPMENT DESIGNATION PLENUMS. FDC <u>HWCP-1</u> POINT OF CONNECTION 11. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT. PIPING ROOF DRAIN, OVERFLOW DRAIN RD 12. CABLE TRAYS: PIPING INSTALLED ADJACENT TO ELECTRICAL CABLE WASTE BELOW GRADE TRAYS SHALL ALLOW MINIMUM ACCESS OF 6" ABOVE AND TO THE SIDE FLOOR DRAIN WASTE ABOVE GRADE OF CABLE TRAYS. PUMPED WASTE 13. MOTORS: COMPLY WITH ENERGY CODE ENFORCED BY AHJ FOR MINIMUM HOSE BIBB EFFICIENCIES UNDER FULL LOAD. INDIRECT WASTE SANITARY SEWER BELOW GRADE BREAK IN PIPING OR DUCTWORK 14. ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS SANITARY SEWER ABOVE GRADE CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL GAS METER WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES PUMPED SANITARY SEWER FOR SERVICE AND MAINTENANCE. INLINE WATER METER — — V — — COORDINATION REQUIREMENTS STORM DRAIN OVERFLOW STORM DRAIN _____OD____ IRRIGATION SYSTEM: COORDINATE IRRIGATION WATER DEMAND, MINIMUM PUMPED STORM DRAIN WATER PRESSURE REQUIREMENTS & CONTROL CABINET LOCATIONS WITH PRESSURE GAUGE IRRIGATION CONTRACTOR. CONDENSATE DRAIN THERMOMETER PUMPED CONDENSATE DRAIN GAS: CONTRACTOR/GAS COMPANY SHALL FINALIZE GAS METER AND GAS SERVICE LOCATIONS. INSTALL SEISMIC GAS SHUT OFF VALVE PER COLD WATER (CW) **+**P/T PRESSURE/TEMPERATURE GAS COMPANY REGULATIONS. TEST PORT HOT WATER (HW), POTABLE, 120°F UTILITIES: COORDINATE WITH SITE UTILITY CONTRACTOR AND CIVIL REDUCED PRESSURE BACKFLOW DRAWINGS FOR UTILITY CONNECTIONS AND EXTENSIONS. HOT WATER, POTABLE, GENERAL CONTRACTOR **PREVENTER** TEMPERATURE OTHER THAN 120°F 4. ROOF DRAINAGE: COORDINATE WITH GENERAL CONTRACTOR FOR ROOF DRAIN AND OVERFLOWS, SCUPPER DRAINS, AND CONDENSATE DRAINS. HOT WATER CIRCULATING (HWC), DOUBLE CHECK VALVE ASSEMBLY POTABLE, 120°F DCVA 5. PLUMBING FIXTURES & EQUIPMENT: COORDINATE EXACT LOCATION OF ALL PLUMBING FIXTURES & EQUIPMENT WITH ARCHITECTURAL AND HOT WATER CIRCULATING, POTABLE, — --- — 140 —— CATCH BASIN - SAND/OIL INTERCEPTOR OTHER TRADES DOCUMENTS. TEMPERATURE OTHER THAN 120°F PIPING: COORDINATE EXACT LOCATION OF ALL STRUCTURAL FRAMING & FUEL OIL FILL ——— FOF ——— TRENCH DRAIN FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH FUEL OIL SUPPLY STRUCTURAL ENGINEER AT THE SITE PRIOR TO AND DURING THE EMERGENCY GAS SHUT-OFF VALVE CONSTRUCTION. COORDINATE UNDER GRADE PIPING & FOUNDATION DRAINAGE PIPING WITH CIVIL ENGINEER. FUEL OIL RETURN SEISMIC GAS SHUT-OFF VALVE — FOV — — FUEL OIL VENT ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS GAS BURNERS, IGNITION DEVICES, DRIVES, ETC. SHALL BE ADJUSTED AND BALANCED TO — — RV— — WASHER BOX OPERATE AT SPECIFIED RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL. LOW PRESSURE NATURAL GAS GREASE INTERCEPTOR APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL BE MEDIUM PRESSURE NATURAL GAS APPROVED FOR INSTALLATION IN THE PROJECT LOCATION AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO MEET ALL ENERGY, IRRIGATION (NON POTABLE) POLLUTION, ENVIRONMENTAL, SEISMIC, APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR SHALL COORDINATE WITH FIRE MAIN MANUFACTURE SUPPLIERS AND SHALL INCLUDE ALL COSTS REQUIRED TO MEET THE BID DOCUMENTS. PIPE SYMBOLS FIRE PROTECTION: CONTRACTOR SHALL PROVIDE A FULLY DESIGNED FIRE PROTECTION SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA AND LOCAL CODES. PROVIDE DESIGN, PERMITS, MATERIALS, INSTALLATION, TOP PIPE CONNECTION NOTE TO CONTRACTOR TESTING AND ALL OTHER FOR A FULLY OPERATIONAL SYSTEM. LOCATION OF ALL PIPING TO BE COORDINATED WITH OTHER TRADES. BOTTOM PIPE CONNECTION 10. PRIOR TO PIPING INSTALLATION: PLUMBING CONTRACTOR TO PIPE TURNING UP COORDINATE PIPING LAYOUT WITH ALL OTHER TRADES. DRAWINGS ARE DIAGRAMMATIC. SHOWING THE GENERAL PIPE TURNING DOWN/DROP LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. 11. ACCESS: COORDINATE ALL ACCESS LOCATIONS WITH GENERAL THE DRAWINGS SHALL NOT BE SCALED FOR EXACT CONTRACTOR AND ARCHITECT TO ENSURE ALL REQUIRED ACCESS PIPE CAP MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS HATCHES, ACCESS PANELS & ACCESS COVERS ARE PROVIDED. FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT 12. PROVIDE WATER TIGHT SEALS FOR ANY PIPING PENETRATING THE CONNECTIONS AND INSTALLATION REQUIREMENTS. EXTERIOR FOUNDATION WALLS OR SLABS. UNION PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE 13. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ARCHITECT FLANGE WYE STRAINER

14. PROVIDE FIRE PROOFING FOR ALL PIPING PENETRATING FIRE BARRIER

WALLS OR FLOOR SLABS.

ABBREVIATIONS

| 3V | ABOVE | FLR | FLOOR | OPD | OVER PRESSURE DEVICE |
|----------|---|-------|--|----------|------------------------------|
|) | AREA DRAIN | FPM | FEET PER MINUTE | OPNG | OPENING |
| F | ABOVE FINISHED FLOOR | FPS | FEET PER SECOND | Ρ | PUMP |
| IJ | AUTHORITY HAVING JURISDICTION | FS | FLOOR SINK | PD | PRESSURE DROP, PLANTER DRAIN |
| F | BELOW FINISHED FLOOR | FT | FEET | POC | POINT OF CONNECTION |
| Р | BACKFLOW PREVENTER | FU | FIXTURE UNITS | PRV | PRESSURE REDUCING VALVE |
|)Н | BACK OF HOUSE | G | | 1 1 1 4 | PRESSURE RELIEF VALVE |
|) | BOOSTER PUMP | | GAS (LOW PRESSURE) | PS | PUMPED STORM DRAINAGE |
| • | | GAL | GALLONS | | |
| 1 11 1 | BATHTUB | GD | GARAGE DRAIN | PSIG | POUNDS PER SQUARE INCH |
| UH | BRITISH THERMAL UNIT PER | GM | GAS METER | 505 | GAUGE |
| | HOUR | GPG | GRAINS PER GALLON | PSD | PUMPED STORM DRAINAGE |
| / | BALANCING VALVE | GPM | | PSS | PUMPED SANITARY SEWER |
| | COMMON | GV | GATE VALVE | PSW | PUMPED SANITARY WASTE |
| ۱P | CAPACITY | GWB | GATE VALVE GYPSUM WALLBOARD | PW | PUMPED WASTE |
| } | CATCH BASIN | GWH | GAS WATER HEATER | RD | ROOF DRAIN |
|) | CONDENSATE DRAIN | HB | HOSE BIBB | REF | REFERENCE |
| F | CAPPED FOR FUTURE | HD | HEAD | RPBP | REDUCED PRESSURE BACKFLOW |
| M | CUBIC FEET PER MINUTE | HDR | LILID DDAIN | | PREVENTER |
| | CAST IRON | HEDV | HOSE END DRAIN VALVE | RPM | REVOLUTIONS PER MINUTE |
| .G | CEILING, COOLING | HORIZ | HORIZONTAL | S | SINK |
| .W | CLOTHES WASHER | HP | HORSEPOWER | SCH | SCHEDULE |
|) | CLEANOUTS | HPCW | HIGH PRESSURE COLD WATER | SCW | SOFTENED COLD WATER |
|)MB | COMBUSTION | HW | HOT WATER | SD | STORM DRAIN |
| NT | CONTINUE, CONTROL | HWC | HOT WATER RE-CIRCULATION | SEP | SEWAGE EJECTOR PUMP |
| NTR | CONTRACTOR | HWCP | | | SQUARE FOOT |
| TG | CLEANOUTS TO GRADE | | HOT WATER CIRCULATION PUMP | SGSV | SEISMIC GAS SHUT-OFF VALVE |
|) | CIRCULATING PUMP | HWR | HOT WATER STORAGE TANK | | SHOWER |
| , | | HWST | HOT WATER STORAGE TANK HEAT EXCHANGER | 211 | |
| ., | CHECK VALVE | HX | HEAT EXCHANGER | SO | STORM OVERFLOW |
| V | COLD WATER DIAMETER DRY BULB, DECIBEL DRINKING FOUNTAIN | ICW | INDUSTRIAL COLD WATER | SP | STATIC PRESSURE/SUMP PUMP |
| , | DIAMETER | ID | INDIRECT DRAIN, INSIDE DIAMETER | SR | SUDS RELIEF |
| S | DRY BULB, DECIBEL | ΙE | INVERT ELEVATION | SS | STAINLESS STEEL/SANITARY |
| | DRINKING FOUNTAIN | IHW | INDUSTRIAL HOT WATER | SSS | SEWER |
| ·U | DRAIN FIXTURE UNITS | IIN | INCH | SSS | SIDE SANITARY SEWER |
| | DUCTILE IRON | KS | KITCHEN SINK | STD | STANDARD |
| M | DIMENSION | KW | KILOWATT | SQ | SQUARE |
| l | DOWN | L | LONG, LENGTH | TD | TRENCH DRAIN |
| S | DOWN SPOUT | LAV | LAVATORY | TMV | THERMOSTATIC MIXING VALVE |
| ٧G | DRAWING | LB | POUND | TP | TRAP PRIMER |
|) | EXISTING | М | WATER METER | TYP | TYPICAL |
| , F | EFFICIENCY | MBH | THOUSAND BTU PER HOUR | ÜH | UNIT HEATER |
| EC | ELECTRIC | MECH | MECHANICAL | UON | UNLESS OTHERWISE NOTED |
| UIV | EQUIVALENT | MCA | MIN. CIRCUIT AMPACITY | UR | URINAL |
| /C | ELECTRIC WATER COOLER | MOCP | MAX. OVER CURRENT PROTECTION | V | VENT |
| /H | ELECTRIC WATER HEATER | MPG | MEDIUM PRESSURE GAS | V VTR | VENT THRU ROOF |
| T | EXTERIOR, EXTERNAL | MTD | MOUNTED | W | WASTE, WATT, WIDE |
| . ! | FAHRENHEIT | | NEW | WC | |
| :0 | FLOOR CLEANOUTS | (N) | | | WATER CLOSET |
| .0 | FLOOR DRAIN | NC | NORMALLY CLOSED | WCO | WALL HYDRANT |
| | | NO | NORMALLY OPEN | WHD | WALL HYDRANT |
| С | FIRE DEPARTMENT CONNECTION | OD | OUTSIDE DIMENSION/DIAMETER | WM | WASHING MACHINE |
| | FINISHED FLOOR | | OVERFLOW DRAIN/DECK DRAIN | WSFU | WATER SUPPLY FIXTURE UNITS |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

PRE-CONSTRUCTION MEETING NOTES

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS, AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS.

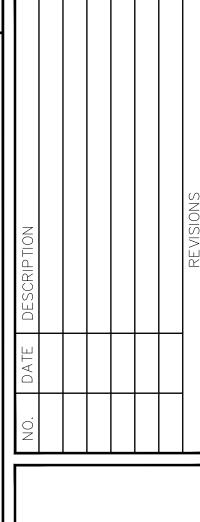
THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE

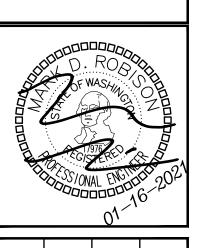
ALL SESSIONS

MINIMUM TIME INDICATED: MECHANICAL SHEET METAL 4 HOURS PLUMBING/PIPING 4 HOURS ELECTRICAL 4 HOURS SPRINKLER 2 HOURS

Reviewed for Code Compliance Kitsap County Building/ Fire Marshals 02/12/20211:11:27 PM kwlodarchak

DRAWING INDEX INCLUDED IN SET DWG DESCRIPTION **Subject to Field Inspection** POCO LEGEND, GENERAL NOTES, AND DRAWING INDEX POC1 PLUMBING NOTES, TABLES AND CODES POC2 PLUMBING FIXTURE UNIT COUNTS AND FIXTURE/DRAIN SCHEDULES Х POC3 PLUMBING EQUIPMENT SCHEDULES AND PIPE SIZING TABLES Χ POC4 PLUMBING EQUIPMENT SCHEDULES AND SUPPLY PRESSURE CALCULATIONS P2CO PLUMBING UNDERSLAB PLAN - NORTH P2C1 | PLUMBING UNDERSLAB PLAN - SOUTH Χ P2C2 PLUMBING FIRST FLOOR PLAN - NORTH Χ P2C3 PLUMBING FIRST FLOOR PLAN - SOUTH P2C4 PLUMBING SECOND FLOOR PLAN - NORTH Χ P2C5 | PLUMBING SECOND FLOOR PLAN - SOUTH P2C6 | PLUMBING THIRD FLOOR PLAN - NORTH Χ P2C7 | PLUMBING THIRD FLOOR PLAN - SOUTH Χ P2C8 | PLUMBING ROOF PLAN - NORTH P2C9 PLUMBING ROOF PLAN - SOUTH Χ P4CO | DETAILS P4C1 DETAILS





AT KINGST LINDVOG ROAD I A 08846 SIDIS-202-0 SE. 2476

DATE: 01/16/2021

SHEET TITLE: LEGENDS, GENERAL NOTES, & DRAWING INDEX

WYE STRAINER WITH CAPPED HOSE

END BLOWDOWN VALVE

BALL VALVE

| SERVICE | OPTION | 1 | OPT | TION 2 | VAPOR RETARDER | NOTES |
|---|--|---|----------|---|----------------|--------|
| SLIVVICE | MATERIAL | THICKNESS | MATERIAL | THICKNESS | REQUIRED | NOTES |
| DOMESTIC COLD WATER, IRRIGATION WATER, CONDENSATE DRAINS, STORM DRAIN (IN CONDITIONED SPACE) | MINERAL-FIBER WITH JACKET | ALL SIZES: ½" | PVC/NBR | ALL SIZES: ¾" | YES | 12,13 |
| DOMESTIC COLD WATER, IRRIGATION WATER, CONDENSATE DRAINS, WASTE (OUTSIDE THE CONDITIONED SPACE) | MINERAL-FIBER WITH JACKET | (R-3) ½" PIPE: ½" ALL OTHER SIZES: 1" | PVC/NBR | (R-3) ½" PIPE: ½" ALL OTHER SIZES: ¾" | YES | 7,8,10 |
| ROOF DRAIN BODIES | MINERAL-FIBER OR CELLULAR GLASS WITH JACKET | 1" | PVC/NBR | 1" | YES | 12 |
| DOMESTIC HOT WATER AND RECIRCULATED HOT WATER (RESIDENTIAL) | MINERAL-FIBER WITH JACKET | (R-3) ½" PIPE: ½" ALL OTHER SIZES: 1" | PVC/NBR | (R-3) ½" PIPE: ½" ALL OTHER SIZES: ¾" | NO | 2,10 |
| DOMESTIC HOT WATER AND RECIRCULATED HOT WATER (NONRESIDENTIAL) | MINERAL-FIBER WITH JACKET | ½"-1¼" PIPE: 1" 1½"-4" PIPE:1.5" | PVC/NBR | ½"-1¼" PIPE: 1" 1½"-4" PIPE:1.5" | NO | 3,9 |
| EXPOSED SANITARY DRAINS AND DOMESTIC WATER SUPPLIES AND STOPS FOR ADA FIXTURES. | TRUEBRO LAV-GUARD | N/A | N/A | N/A | NO | 11 |

- PIPING INSULATION EXPOSED TO THE WEATHER SHALL BE PROTECTED FROM DAMAGE. CONTRACTOR SHALL PROVIDE SHIELDING FROM SOLAR RADIATION THAT CAN CAUSE DEGRADATION OF THE MATERIAL. ADHESIVE TAPE SHALL NOT BE PERMITTED.
- PER 2015 WSEC SECTION R403.5.3 (RESIDENTIAL) INSULATION FOR HOT WATER PIPE SHALL HAVE A MINIMUM R-VALUE OF R-3.
- PIPING FROM WATER HEATER TO THE TERMINATION OF HEATED WATER SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.2.9.
- ON BOTH THE INLET AND OUTLET PIPING OF A STORAGE HOT WATER HEATER, THE FIRST 8 FEET OF PIPING OR PIPING FROM WATER HEATER TO HEAT TRAP SHALL BE INSULATED.
- HEAT TRACED PIPING SHALL BE INSULATED IN THE SAME MANNER AS NON HEAT TRACED PIPING OR PER THE HEAT TRACE MANUFACTURER'S INSTRUCTIONS.
- TUBULAR PIPING INSULATION SHALL NOT BE REQUIRED FOR THE FOLLOWING:
- THE TUBING FROM THE CONNECTION AT THE TERMINATION OF THE FIXTURE SUPPLY PIPING TO A PLUMBING FIXTURE OR PLUMBING APPLIANCE.
- VALVES, PUMPS, STRAINERS, AND THREADED UNIONS IN PIPING THAT IS 1 INCH OR LESS IN NOMINAL DIAMETER
- PIPING FROM USER-CONTROLLED SHOWER AND BATH MIXING VALVES TO THE WATER OUTLETS.
- COLD WATER PIPING OF A DEMAND RECIRCULATION WATER SYSTEM
- TUBING FROM A HOT DRINKING-WATER HEATING UNIT TO THE WATER OUTLET.
- PIPING AT LOCATIONS WHERE A VERTICAL SUPPORT OF THE PIPING IS INSTALLED.
- PIPING SURROUNDED BY BUILDING INSULATION WITH A THERMAL RESISTANCE (R-VALUE) OF NOT LESS THAN R-3.
- HOT WATER PIPING THAT IS PART OF THE FINAL PIPE RUN TO THE PLUMBING FIXTURE AND IS NOT PART OF THE HEATED—WATER CIRCULATION SYSTEM CIRCULATION PATH IS NOT REQUIRED TO MEET THE MINIMUM INSULATION REQUIREMENTS OF C404.6.
- 7. PER 2015 UPC SECTION 312.6 NO WATER, SOIL, OR WASTE PIPE SHALL BE INSTALLED OR PERMITTED OUTSIDE OF A BUILDING, IN ATTICS OR CRAWL SPACES, OR IN AN EXTERIOR WALL UNLESS, WHERE NECESSARY, ADEQUATE PROVISION IS MADE TO PROTECT SUCH PIPE FROM FREEZING. ALL HOT AND COLD WATER PIPES OUTSIDE THE CONDITIONED SPACE SHALL BE PROVIDED WITH INSULATION WITH A MINIMUM R-VALUE OF
- HEAT TRACING SHALL BE PROVIDED FOR COLD WATER AND IRRIGATION WATER IN UNCONDITIONED SPACES. CONTACT ENGINEERING IF NECESSARY. PER 2015 WSEC SECTION C403.12.3 FREEZE PROTECTION SYSTEMS, SUCH AS HEAT TRACING OF OUTDOOR PIPING. SHALL INCLUDE AUTOMATIC CONTROLS CONFIGURED TO SHUT OFF THE SYSTEMS WHEN OUTDOOR AIR TEMPERATURES ARE ABOVE 40°F.
- 9. PER 2015 WSEC TABLE C403.2.9 INSULATION FOR HOT WATER AND HOT WATER RECIRCULATION SHALL HAVE A THERMAL CONDUCTIVITY OF 0.21—0.28 (BTU.IN/H.FT².℉) AT OPERATING TEMPERATURE.
- 10. INSULATION R-VALUE SHALL MEET THE MINIMUM REQUIREMENT. THICKNESS IS BASED ON GRAINGER SAMPLE DATA FOR K-FLEX(PVC/NBR) AND OWENS CORNING(FIBER GLASS).
- 11. ALL ADA P-TRAPS, HOT WATER SUPPLY TUBING, AND SHUT-OFF COCKS SHALL BE PROTECTED WITH APPROVED COVERS TO PREVENT SCALDING.
- 12. REQUIRED BY ENGINEERING BASED ON BEST PRACTICE.
- 13. INSULATION IS NOT REQUIRED ON PLASTIC COLD WATER PIPING.

WASHINGTON STATE-COMMERCIAL ENERGY CODE FFFICIENT HEATED WATER SUPPLY PIPING

| L1 | I ICILINI III | LAILD | WAILN SUPP | -LI FIFI | NG | |
|------------------------------|--------------------------------------|-------------------|-------------------|------------------------------|-------------------------|-----|
| | METHOD #1 - P | | METHOD #2 | NOTES | | |
| NOMINAL PIPE SIZE (IN) | MAXIMUM ALLOWABLE PIPING LENGTH (FT) | | PIPE VOLUME | | MAXIMUM A PIPING LEI | |
| | PUBLIC LAVATORY FAUCET | OTHER FIXTURES | (FLUID OZ / FEET) | PUBLIC LAVATORY FAUCET | OTHER FIXTURES | |
| 3/8 | 3 | 50 | 0.75 | 2.67 | 85 | |
| 1/2 | 2 | 43 | 1.5 | 1.33 | 43 | |
| 5/8 | 1 | 32 | 2 | 1.00 | 32 | |
| 3/4 | 0.5 | 21 | 3 | 0.67 | 21 | |
| 7/8 | 0.5 | 16 | 4 | 0.50 | 16 | 1–8 |
| 1 | 0.5 | 13 | 5 | 0.40 | 13 | |
| 1-1/4 | 0.5 | 8 | 8 | 0.25 | 8 | |
| 1-1/2 | 0.5 | 6 | 11 | 0.18 | 6 | |
| 2 OR LARGER | 0.5 | 4 | 18 | 0.11 | 4 | |

- 1. CONTRACTOR MAY USE METHOD 1 OR 2 TO DETERMINE MAXIMUM ALLOWABLE PIPING LENGTH FROM SOURCE OF HEATED
- 2. PER 2015 WSEC SECTION C404.3 WATER HEATER, CIRCULATING WATER SYSTEM & HEAT TRACE TEMPERATURE MAINTENANCE SHALL BE CONSIDERED SOURCE OF HEATED WATER.
- 3. THIS TABLE IS BASED ON MINIMUM CODE REQUIREMENTS. CONTRACTOR SHALL FOLLOW OWNERSHIP/DEVELOPER REQUIREMENT AND/OR BRAND STANDARD REGARDING MAXIMUM WAITING TIME FOR HOT WATER DELIVERY [OR ALLOWABLE NON-CIRCULATING HOT WATER PIPING LENGTH] AS LONG AS IT IS STRICTER THAN CODE MINIMUM. CONTACT ENGINEERING AS NECESSARY.
- 4. PIPE LENGTH METHOD ONLY: WHERE THE PIPING CONTAINS MORE THAN ONE SIZE OF PIPE, THE LARGEST SIZE OF PIPE SHALL BE USED FOR DETERMINING THE MAXIMUM ALLOWABLE LENGTH OF PIPING.
- 5. PIPE LENGTH METHOD ONLY: PER WSEC TABLE C404.3.1
- 6. PIPE VOLUME METHOD ONLY: PER WSEC SECTION C404.3.2 THE VOLUME FROM HEATED WATER TO THE TERMINATION OF FIXTURE SUPPLY PIPE SHALL NOT EXCEED 2 FLUID OUNCES FOR PUBLIC LAVATORIES AND 0.5 GALLON (64 FLUID OUNCES) FOR OTHER FIXTURES.
- 7. PIPE VOLUME METHOD ONLY: PER C404.3.2.1 WATER VOLUME SHALL BE THE SUM OF INTERNAL VOLUMES OF PIPE. VALVES. METERS AND MANIFOLD BETWEEN THE NEAREST SOURCE OF HEATED WATER AND TERMINATION OF THE FIXTURE SUPPLY PIPE. PROVIDED CALCULATION DOES NOT INCLUDE VALVES, METERS, MANIFOLDS.
- 8. REFER TO MANUFACTURER RECOMMENDATIONS AND PLUMBING FIXTURE SCHEDULE IN COMPLIANCE WITH 2015 UPC SECTION A106 AND TABLES 610.3 & A103.1 FOR MINIMUM BRANCH PIPE SIZES.

PIPING SUPPORTS (SUPPLY)

| ALL SUSPENDED WATER SUPPLY PIPE SHALL BE | | | | | | | | | | |
|--|--|--------------------------|--|--|--|--|--|--|--|--|
| SUPPORTED AS FOLLOW | SUPPORTED AS FOLLOWS PER 2015 UPC TABLE 313.3: | | | | | | | | | |
| | MAX. HORIZONTAL SPACING | MAX. VERTICAL SPACING | | | | | | | | |
| COPPER PIPE ≤1½" | 6 FT. | 10 FT. | | | | | | | | |
| COPPER PIPE >2" | 10 FT. | 10 FT. | | | | | | | | |
| COPPER TUBING ≤1½" | 6 FT. | 10 FT. | | | | | | | | |
| COPPER TUBING >2" | 10 FT. | 10 FT. | | | | | | | | |
| CPVC <u>≤</u> 1" | 3 FT. | 10 FT. | | | | | | | | |
| $CPVC > 1\overline{4}$ " | 4 FT. | 10 FT. | | | | | | | | |

PIPING SUPPORTS (WASTE)

| | - (| ·, | | | | | | |
|--|------------------------|-----------------------|--|--|--|--|--|--|
| SUPPORTED AS FOLLOWS PER 2015 UPC TABLE 313.3: | | | | | | | | |
| | MAX. HORIZ. SPACING | MAX. VERT. SPACING | | | | | | |
| ABS | 4 FT. | 10 FT. | | | | | | |
| PVC (TYPE DWV) | 4 FT. | 10 FT. | | | | | | |
| CAST-IRON (<10 FT PIPE SECTIONS) | 5 FT. | 15 FT. | | | | | | |
| CAST-IRON (10 FT PIPE SECTIONS) | 10 FT. | 15 FT. | | | | | | |

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PLUMBING NOTES

- WASTE, VENT, COLD WATER, AND HOT WATER SYSTEM IN ACCORDANCE WITH DRAWINGS, MANUFACTURER'S RECOMMENDATIONS, AND LOCAL CODES. CONNECT TO EACH FIXTURE, EQUIPMENT, ETC. WITH ALL ACCESSORIES, VALVES, VACUUM BREAKERS, REGULATORS, UNIONS, ETC. AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURERS. REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON PLANS.
- HOT AND COLD: WATER PIPING CONNECTION TO EACH FIXTURE SHALL BE COLD WATER ON THE RIGHT HAND SIDE AND HOT WATER ON THE 27. LEFT HAND SIDE.
- 3. HOT WATER: NON-CIRCULATING HOT WATER PIPE SHALL NOT EXCEED 10' UNLESS OTHERWISE SHOWN ON DRAWINGS.
- VENT STACKS: COORDINATE VENT STACK WITH HVAC EQUIPMENT TO MAINTAIN MINIMUM 10' CLEARANCE FROM OUTSIDE AIR INTAKES.
- CLEANOUTS: PROVIDE CLEANOUTS PER CURRENT UPC AND AS IN WALLS/FLOORS WHERE THEY ARE NOT HIGHLY VISIBLE. FLOOR CLEANOUTS IN CARPETED AREAS TO BE FITTED WITH CARPET INSERTS. LOCATIONS SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL. NOTE: NOT ALL CLEANOUTS ARE SHOWN ON THE PLUMBING DRAWINGS.
- 6. SUDS RELIEF: PROVIDE SUDS RELIEF IN ACCORDANCE WITH 2015 UPC SECTION 711.0, STATE AND LOCAL CODES.
- 7. SHUT-OFFS: PROVIDE 1/4 TURN BALL VALVE ANGLE STOP SHUT-OFF VALVES AND BRAIDED STAINLESS STEEL FLEX CONNECTORS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE. EXCEPTION: PROVIDE SCREWDRIVER STOPS AT BATH/SHOWERS.
- TUB SPOUTS SHALL BE THREADED (NO PUSH-ON FITTINGS).
- TRAP ARMS: PROVIDE TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED CODE REQUIREMENTS.
- 10. ADA INSULATION: AT PLUMBING PIPING EXPOSED UNDER LAVATORIES, INSULATE THE EXPOSED PIPING AND TRAPS WITH PRODUCT SPECIFICALLY DESIGNED FOR THIS APPLICATION MEETING ADA P-TRAPS TO CLEAR WHEELCHAIR ACCESS.
- 11. GAS EQUIPMENT: GAS EQUIPMENT SHALL BE INSTALLED PER EQUIPMENT LISTINGS, APPLICABLE IFGC, UPC, LOCAL CODES & NFPA STANDARDS.
- 12. GAS CONNECTIONS: INSTALL FLEXIBLE QUICK DISCONNECT ASSEMBLIES FOR ALL GAS FIRED KITCHEN EQUIPMENT PER APPLICABLE IFGC, UPC, LOCAL CODES & NFPA STANDARDS. PROVIDE LOCKABLE GAS SHUT-OFF VALVES FOR FIREPLACES & BBQS IN UNATTENDED PUBLIC LOCATIONS IN THE BUILDING.
- 13. WATER HAMMER ARRESTORS: PROVIDE AT THE END OF HOT AND COLD WATER LINES SERVING TWO OR MORE FIXTURES; SIZE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE (PDI) REQUIREMENTS. WATER HAMMER ARRESTORS ARE REQUIRED FOR QUICK CLOSING VALVES,
- 14. TRAP PRIMERS AS SPECIFIED: PROVIDE TRAP PRIMERS AND PIPING FOR FLOOR DRAINS, FLOOR SINKS, AREA DRAINS & HUB DRAINS. ARRANGE PIPING TO ACHIEVE EQUAL FLOW TO EACH DRAIN AND FLOOR SINK FOR TRAP PRIMERS SERVING MULTIPLE DRAINS AND FLOOR SINKS. COORDINATE EXACT LOCATIONS WITH ARCHITECT & ELECTRICAL ENGINEER.
- 15. P-TRAPS: ALL EXPOSED P-TRAPS SHALL BE CHROME-PLATED BRASS. 45. CONTRACTOR SHALL PROVIDE FIRESTOPPING AT PENETRATIONS AS
- 16. THROUGHOUT THE PROJECT PROVIDE BALL VALVES. GATE VALVES SHALL NOT BE USED. NO EXCEPTIONS.
- 17. HOT WATER RECIRCULATING BALANCING VALVES SHOULD BE BELL & GOSSETT CIRCUIT SETTER (WATTS OR EQUAL) WITH INTEGRAL READOUT PORTS, ADJUSTMENT KNOB, DRAIN CONNECTION, AND POSITIVE
- 18. DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS, CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.
- 19. REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.
- 20. VALVE TAGS: PROVIDE VALVE TAGS PER SPECIFICATIONS TO IDENTIFY VALVE AND THE AREA IT SERVES.
- 21. OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.
- 22. ALL TEMPERATURE MIXING VALVES SHALL COMPLY WITH ASSE-1070 SAFETY STANDARDS.
- 23. PROVIDE PIPE MARKER WITH DIRECTION OF FLOW. LABEL "NON-POTABLE WATER DO NOT DRINK" CLEARLY ON NON-POTABLE

- CONNECTIONS: PROVIDE PLUMBING FIXTURE CONNECTIONS TO BUILDING 24. PROVIDE EXPANSION LOOPS/EXPANSION JOINTS IN PIPING PER 2015 UPC TABLE 313.3 AND MANUFACTURER INSTALLATION INSTRUCTIONS.
 - 25. PROVIDE APPROVED PIPE HANGERS & PIPE SUPPORTS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND 2015 UPC TABLES 313.3 & 313.6. SUBMIT FOR APPROVAL.
 - DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.
 - REFRIGERANT PIPING: PROVIDE SIZING & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING. CONDENSATE DRAINS SHALL BE DISCHARGED TO AN INDIRECT WASTE OR OUTSIDE.
 - 29. PROVIDE VIBRATION, SEISMIC ISOLATIONS & CONTROLS IN ACCORDANCE WITH SPEC SECTION 230548.
- REQUIRED BY LOCAL JURISDICTIONS. CLEANOUTS SHALL BE LOCATED 30. PIPING & EQUIPMENT SUPPORTS/HANGERS & SEISMIC RESTRAINTS TO BE DESIGNED BY DESIGN BUILT CONTRACTOR.
 - 31. IF NEEDED, PROVIDE VACUUM BREAKERS AT ALL HOSE BIBBS.
 - 32. FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS IN ACCORDANCE WITH 2015 UPC 1007.0.
 - 33. INSULATION MATERIAL SHALL MEET CITY OF BELLEVUE QUALITY STANDARDS.
 - 34. ALL PIPING AND DUCTWORK SHALL BE INSULATED CONSISTENT WITH THE 2015 WASHINGTON STATE ENERGY CODE.
 - 35. BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH 2015 UPC 701.0 AND 903.0.
 - ALL SANITARY SYSTEM MATERIAL SHALL BE LISTED BY AN APPROVED
- REQUIREMENTS. PROVIDE HANDI-LAV GUARD OR EQUIVALENT. OFFSET 37. ALL STORAGE WATER HEATING EQUIPMENT SHALL BE PROVIDED WITH AN APPROVED, LISTED EXPANSION TANK OR OTHER DEVICE DESIGNED FOR INTERMITTENT OPERATION FOR THERMAL EXPANSION CONTROL PER 2015 UPC 608.3.
 - WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENTS DUE TO SEISMIC MOTION PER 2015 UPC
 - MATERIAL EXPOSED WITHIN A DUCT OR PLENUM SHALL COMPLY WITH 2015 IMC 602.2.1.
 - 40. HVAC EQUIPMENT AND WATER HEATERS SHALL COMPLY WITH 2015 IMC
 - BOILERS SHALL COMPLY WITH ALL THE REQUIREMENTS OF 2015 IMC
- SUCH AS LAUNDRY WASHERS, FLUSH VALVES (PUBLIC TOILETS), ETC. 42. PROVIDE EXPANSION TANKS FOR BOILERS PER 2015 IMC SECTION
 - 43. SHOWERS AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER 2015 UPC 408.0.
 - PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH CITY OF BELLEVUE WATER CONSERVATION STANDARDS.
 - NECESSARY TO RETAIN THE FIRE RATING OF ALL ASSEMBLIES. ALL WORK SHALL BE IN COMPLIANCE WITH CODE REQUIREMENTS FOR THE BUILDING CONSTRUCTION TYPE.
 - 46. ALL GARAGE DRAINS, TRASH ROOMS DRAINS & GARAGE TRENCH DRAINS SHALL BE TAKEN TO SAND/OIL INTERCEPTOR(S) BEFORE CONNECTING TO THE SANITARY SEWER SYSTEM.
 - PLUMBING CONTRACTOR SHALL PROVIDE REDUCED PRESSURE BACKFLOW PREVENTERS OR OTHER APPROVED BACKFLOW PREVENTION DEVICE WHERE REQUIRED BY HEALTH AUTHORITIES, FOOD SERVICE DRAWINGS. APPLIANCE MANUFACTURER INSTRUCTIONS AND BY CODE.

PROVIDE REQUIRED & PROPER BACK FLOW PREVENTERS AS SPECIFIED FOR THE APPLIANCES INCLUDING. BUT NOT LIMITED TO THE FOLLOWING:

- a. ICE MACHINES AND ICE MAKERS CARBONATED BEVERAGE DISPENSING SYSTEMS
- COFFEE BREWERS
- ESPRESSO MACHINES WATER FILTERS
- STEAM OR HOT WATER BOILERS IRRIGATION SYSTEM FIRE PROTECTION SYSTEM
- CHEMICAL TREATMENT SYSTEM
- SOAP/CHEMICAL DISPENSER SYSTEM COMMERCIAL WASHER

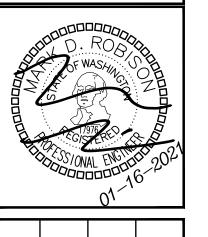
APPLICABLE CODES

THE FOLLOWING PROJECT DESIGN IS BASED ON THE FOLLOWING CODES:

- -2015 INTERNATIONAL BUILDING CODE (IBC) & WASHINGTON STATE AMENDMENTS
- -2015 INTERNATIONAL MECHANICAL CODE (IMC) & WASHINGTON STATE AMENDMENTS
- -2015 UNIFORM PLUMBING CODE (UPC) & WASHINGTON STATE AMENDMENTS
- -2018 WASHINGTON STATE ENERGY CONSERVATION CODE (WSEC)

CONTRACTOR SUBSTITUTIONS & REVISIONS

PLEASE SUBMIT PROPOSALS FOR SUBSTITUTIONS OR REVISIONS FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL OR DOING WORK. FOR EQUIPMENT THAT IS SCHEDULED BY MANUFACTURER'S NAME AND CATALOG DESIGNATIONS, THE MANUFACTURER'S PUBLISHED DATA AND/OR SPECIFICATION FOR THAT ITEM ARE CONSIDERED PART OF SPECIFICATION. ENGINEERING COSTS FOR REVISING MEP PLANS SHALL BE ADDRESSED IN THE COST ANALYSIS OF THE SUBSTITUTION PROPOSAL. CONTRACTOR TO COORDINATE WITH ENGINEER AND DETERMINE ASSOCIATED DESIGN AND PERMITTING COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OTHER COSTS ASSOCIATED WITH UNFORESEEN ISSUES RESULTING FROM SUBSTITUTIONS OR REVISIONS.



AT KINGSTO LINDVOG ROAD IVA 98846

SIDI -262(

DATE: 01/16/2021

HEET TITLE: PLUMBING NOTES. TABLES AND CODES

PLUMBING FIXTURE UNIT COUNTS AND FIXTURE / DRAIN SCHEDULES

| | | | | | | FIXTURE S | CHEDULE | . | | | |
|-----------|---------------|-----------------------|-----|-------|-------|------------------------------------|---------------------------|-----------------|---------------------|------------|---------|
| PLAN MARK | FIXTURE TYPE | SERVICE SIZE - INCHES | | | S | LOCATION | FINISH | MANUFACTURER | BASIS OF DESIGN | FLOW RATE, | NOTES |
| PLAN WARK | FIXTURE TIPE | CW | HW | W | V | LOCATION | FINISH | MANUFACTURER | MODEL | GPM | NOTES |
| | BATH-TUB | | | | | | WHITE | KOHLER | K-20201-0 | | |
| BT-1 | IN-WALL VALVE | 3/4 | 3/4 | 2 | 1-1/2 | TYPICAL APARTMENT | BRONZE | KOHLER | K-14426-BV | 2.5 GPM | 1-5,7 |
| | TRIM KIT | | | | | | BRONZE | KOHLER | K-T14501-4 | | |
| | SHOWER PAN | | | | | | WHITE | ROYAL | RECTANGULAR 36"X36" | 2.5 GPM | 1-5,7 |
| SH-1 | SHOWER DRAIN | 1/2 | 1/2 | 2 | 1-1/2 | TPYE A & C APARTMENT (FIRST FLOOR) | BRONZE | KOHLER | K-9132 | | |
| | TRIM KIT | | | | | | BRONZE | KOHLER | K-TS-14422-4-BV | | |
| | SHOWER PAN | | | | | | WHITE | ROYAL | CORNER 38"X38" | | 1-5,7 |
| SH-2 | SHOWER DRAIN | 1/2 | 1/2 | 2 | 1-1/2 | TPYE B APARTMENT (FIRST FLOOR) | BRONZE | KOHLER | K-9132 | 2.5 GPM | |
| | TRIM KIT | | | | | (| BRONZE | KOHLER | K-TS-14422-4-BV | | |
| | SHOWER PAN | | | | | | WHITE | ROYAL | RECTANGULAR 48"X36" | | 1-5,7 |
| 011.0 | SHOWER DRAIN | 4/0 | 4/0 | | 4.4/0 | TYPICAL APARTMENT (THIRD FLOOR) | BRONZE | KOHLER | K-9132 | 2.5 GPM | |
| SH-3 | HAND-SHOWER | 1/2 | 1/2 | 2 | 1-1/2 | | BRONZE | KOHLER | K-9059-BV | | |
| | VALVE TRIM | | | | | | CHROME | TBD | TBD | | |
| 11/14 | LAVATORY | 1/0 | 1/0 | | 1.1/0 | TVDICAL ADADTMENT | WHITE | CASCADIAN | L1560 | 4.2.CDM | 4.5 |
| LV-1 | FAUCET | 1/2 | 1/2 | 1-1/2 | 1-1/2 | TYPICAL APARTMENT | CHROME | PFISTER | LG1420600C | 1.2 GPM | 1-5 |
| VO 4 | KITCHEN SINK | 4/0 | 4/0 | | 4.4/0 | TVDICAL ADADTMENT | STAINLESS | MOEN | G20193 | 0.0.0014 | 4.5 |
| KS-1 | FAUCET | 1/2 | 1/2 | 2 | 1-1/2 | TYPICAL APARTMENT | CHROME PEERLESS P188152LF | P188152LF | 2.2 GPM | 1-5 | |
| WC 4 | WATER CLOSET | 1/0 | | | 2 | TVDICAL ADADTMENT | WHITE | WESTERN POTTERY | B832 ,-T8ULF -HP | 4 20 CDE | 1.0 |
| WC-1 | SEAT | 1/2 | | 3 | 2 | TYPICAL APARTMENT | WHITE | COMFORT SEATS | C014WD | 1.28 GPF | 1-6 |
| WB-1 | WASHER BOX | 3/4 | 3/4 | 2 | 1-1/2 | TYPICAL APARTMENT | WHITE | SIOUX CHIEF | 696-2313 | N/A | 1-5 |
| HB-1 | WALL HYDRANT | 3/4 | | | | PER DWGS. | N/A | WOODFORD | B65 | N/A | 1-3,5,8 |

NOTES

- . REFER TO ARCH PLANS FOR MOUNTING HEIGHT.
- 2. CONTRACTOR SHALL CONFIRM MAKE, MODEL, AND FINISH OF ALL FIXTURES WITH OWNER, ARCHITECT, AND INTERIOR DESIGNER PRIOR TO ORDERING.
- 3. PROVIDE RED/HOT AND BLUE/COLD WATER INDICATORS TO ALL FIXTURES.
- 4. ALL FIXTURE P-TRAPS SHALL BE CHROME-PLATED BRASS.
- 5. PROVIDE DAHL 1/4-TURN BALL VALVE ANGLE STOPS WITH BRAIDED STAINLESS STEEL FLEX CONNECTORS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE EXCEPT SHOWERS AND BATHS. PROVIDE SCREWDRIVER STOPS AT SHOWERS AND BATHS.
- 6. FLUSH TRIGGER SHALL BE ON WIDE SIDE OF ROOM.
- 7. SHOWERS AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER UPC SECTION 408.3.
- 8. PROVIDE LOCKABLE BOX.

| DRAINS & CLEANOUTS SCHEDULE | | | | | | | | | | | | |
|-----------------------------|-----------|--|--|---|--|--|---|--|--|--|--|--|
| PLAN MARK FIXTURE TYPE | | SERVICE SIZE - INCHES | | EINICH | MANUEACTURER | BASIS OF DESIGN | NOTES | | | | | |
| FIXTURE TIPE | W | V | LOCATION | LINISH | WANUFACTURER | MODEL | NOTES | | | | | |
| FLOOR CLEANOUT | PER PLANS | N/A | PER DWGS. | CAST IRON | WADE | 6000 | 1 | | | | | |
| WALL CLEANOUT | PER PLANS | N/A | PER DWGS. | CAST IRON | WADE | 8560 | 1 | | | | | |
| | | FIXTURE TYPE W FLOOR CLEANOUT PER PLANS | SERVICE SIZE - INCHES W V FLOOR CLEANOUT PER PLANS N/A | FIXTURE TYPE SERVICE SIZE - INCHES W V FLOOR CLEANOUT PER PLANS N/A PER DWGS. | FIXTURE TYPE SERVICE SIZE - INCHES LOCATION FINISH W V PER DWGS. CAST IRON | FIXTURE TYPE SERVICE SIZE - INCHES W V LOCATION FINISH MANUFACTURER FLOOR CLEANOUT PER PLANS N/A PER DWGS. CAST IRON WADE | FIXTURE TYPE SERVICE SIZE - INCHES W V LOCATION FINISH MANUFACTURER BASIS OF DESIGN MODEL MODEL CAST IRON WADE 6000 | | | | | |

NOTES

1. CONTRACTOR SHALL CONFIRM MAKE, MODEL, AND FINISH OF ALL FIXTURES WITH OWNER, ARCHITECT, AND INTERIOR DESIGNER PRIOR TO ORDERING.

| PLUMBING FIXTURE FLOW RATES PER 2015 UPC CH. 4 | | | | | | | | | |
|--|-------------------|-------|--|--|--|--|--|--|--|
| FIXTURE TYPE | FLOW RATE | NOTES | | | | | | | |
| SHOWERHEADS | 2.5 GPM @ 80 PSI | | | | | | | | |
| LAVATORY FAUCETS, RESIDENTIAL | 2.2 GPM @ 60 PSI | 1 | | | | | | | |
| LAVATORY FAUCETS, NON-RESIDENTIAL | 0.5 GPM @ 60 PSI | 2 | | | | | | | |
| KITCHEN FAUCETS | 2.2 GPM @ 60 PSI | 3 | | | | | | | |
| GRAVITY TANK-TYPE WATER CLOSETS | 1.6 GALLONS/FLUSH | 4 | | | | | | | |
| FLUSHOMETER TANK WATER CLOSETS | 1.6 GALLONS/FLUSH | 4 | | | | | | | |
| FLUSHOMETER VALVE WATER CLOSETS | 1.6 GALLONS/FLUSH | 4 | | | | | | | |
| ELECTROMECHANICAL HYDRAULIC WATER CLOSETS | 1.6 GALLONS/FLUSH | 4 | | | | | | | |
| URINALS | 1.0 GALLONS/FLUSH | | | | | | | | |

NOTES:

- LAVATORY FAUCETS SHALL NOT HAVE A FLOW RATE LESS THAN 0.8 GPM AT 20 PSI.
- 2. WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS RATED AT 0.35 GPM OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION
- 3. KITCHEN FAUCETS MAY TEMPORARILY INCREASE FLOW ABOVE THE MAXIMUM RATE, BUT NOT ABOVE 2.2 GPM @ 60 PSI AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GPM @ 60 PSI.
- 4. INCLUDES SINGLE AND DUAL FLUSH WATER CLOSETS WITH AN EFFECTIVE FLUSH OF 1.6 GALLONS OR LESS. SINGLE FLUSH TOILETS THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.6 GALLONS. THE EFFECTIVE FLUSH VOLUME IS THE AVERAGE FLUSH VOLUME WHEN TESTED IN ACCORDANCE WITH ASME A112.19.2 DUAL FLUSH TOILETS THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.6 GALLONS. THE EFFECTIVE FLUSH VOLUME IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. FLUSH VOLUMES WILL BE TESTED IN ACCORDANCE WITH ASME A112.19.2 AND ASME A112.19.14.

Reviewed for Code Compliance Kitsap County Building/ Fire Marshals 02/12/20211:11:45 PM kwlodarchak

| | | CAI | LCULATIO | NS BASED | ON 2018 | 5 UPC TA | BLES A10 |)3.1 ANL | 702.1. | | | | |
|-----------------------------|---------------|-------|----------|----------|---------|----------|----------|----------|-------------|---------------------|---------|---------|----------|
| ER UNIT | | | | | | | | | | | | | |
| FIXTURE | FIXTURE UNITS | | | | | FLC | OOR | | TOTAL QTY | TOTAL FIXTURE UNITS | | | |
| FIXTURE | TOTAL | CW | HW | W/V | 1 | 2 | 3 | R | OF FIXTURES | SERVICE | CW ONLY | HW ONLY | W/V ONLY |
| VATORY (PRIVATE) | 1 | 0.75 | 0.75 | 1 | 1 | | 3 | | 4 | 4 | 3 | 3 | 4 |
| ATER CLOSET (PRIVATE, TANK) | 2.5 | 2.5 | 0 | 3 | 1 | | 2 | | 3 | 7.5 | 7.5 | 0 | 9 |
| HOWER (PRIVATE) | 2 | 1.5 | 1.5 | 2 | 1 | | 1 | | 2 | 4 | 3 | 3 | 4 |
| ATH-TUB (PRIVATE) | 4 | 3 | 3 | 2 | | | 1 | | 1 | 4 | 3 | 3 | 2 |
| TCHEN SINK (PRIVATE) | 1.5 | 1.125 | 1.125 | 2 | | 1 | | | 1 | 1.5 | 1.125 | 1.125 | 2 |
| SHWASHER (PRIVATE) | 1.5 | 0 | 1.5 | 0 | | 1 | | | 1 | 1.5 | 0 | 1.5 | 0 |
| LOTHES WASHER | 4 | 3 | 3 | 3 | | | 1 | | 1 | 4 | 3 | 3 | 3 |
| OSE BIB / ROOF HYDRANT | 2.5/1 | 2.5/1 | 0 | 0 | 1 | | | | 1 | 2.5 | 2.5 | 0 | 0 |

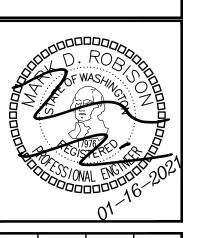
 REQUIRED SERVICE SIZES IN BUILDING:
 DOMESTIC WATER
 SEWER SIZE

 SERVICE SIZE:
 1-1/4"
 4"

 METER SIZE:
 5/8"
 1/4" PER FT

DOEMSTIC WATER PEAK FLOW: 19.5 GPM

NO. DATE DESCRIPTION



| MLT | MLT | JMR | JMR |
|-----|-----------|----------|-----------|
| : Z | DESIGNED: | CHECKED: | APPROVED: |
| | | | |
| | | | |

19401 40TH AVE W. SUITE 302 LYNNWOOD, WA 98036

DATE: 01/16/2021

SHEET TITLE:

PLUMBING FIXTURE UNIT

COUNTS AND FIXTURE/DRAIN

SCHEDULE



WATER SUPPLY PRESSURE CALCULATIONS

| DOMESTIC WATER PRESSURE CALCULA BASED ON 2015 UPC APPENDIX A | AHONS | PRESSURE CHANGE (PSI) | RESIDUAL PRESSURI (PSI) |
|--|------------|--------------------------|----------------------------|
| (PE) WATER ENTRY LOSS | ES | | |
| STREET PRESSURE, PSI, | | | 65 |
| PER DISTRICT WATER PRESSURE TEST, STATIC PRESSURE IS 65 PSI | | | |
| HIGH-FLOW PRESSURE LOSS ALLOWANCE | | -5 | 60 |
| EQUIPMENT LOSSES, PSI | | | |
| WATER METER - 5/8" METER @ 20 GPM | | -6 | 54 |
| SITE SERVICE LINE FRICTION LOSSES (ESTIMATE) | | -2 | 52.0 |
| STATIC HEAD, PSI | | | |
| TOTAL ELEVATION GAIN, FEET | 5 | -2.165 | 49.8 |
| FROM STREET SERVICE TO INDIVIDUAL UNIT WATER ENTRY | | | |
| MIN. PRESSURE AT INDIVIDUAL UNIT WATER ENTRY | | | 49.8 |
| (PEX) ABOVE GROUND SUPPLY DIS | STRIBUTION | 1 | |
| STATIC HEAD, PSI | | | |
| TOTAL ELEVATION GAIN,FT | 25 | -10.825 | 39.0 |
| FROM WATER ENTRY TO FURTHEST FIXTURE OUTLET | | | |
| PIPING FRICTION LOSSES | | | |
| PIPING SYSTEM LENGTH, FEET | 75 | | |
| FITTING ALLOWANCE, FEET | 30 | | |
| AVERAGE FRICTION LOSS FACTOR, PSI/100' | 13.0 | | |
| PIPING FRICTION LOSS | | -13.65 | 25.4 |
| MINIMUM PRESSURE AT FURTHEST FIXTURE OUTLET, PSI | | | 25.4 |

SUPPLY PIPE SIZING TABLES

| | | | | | | | | FRICTIO | N LOSS FACTOR: | 13.00 | PSI/100 FT |
|-----------|------------------|--------------|------------------|------------------|-------------------------|------------------|------------------|--------------|------------------|----------------------------|------------------|
| DIDE OIZE | COLD | WATER, FLU | SH TANK | COLD | COLD WATER, FLUSH VALVE | | HOT WATER | | | HOT WATER RECIRCULATION | |
| PIPE SIZE | FIXTURE UNITS | FLOW, GPM | VELOCITY, FPS | FIXTURE UNITS | FLOW, GPM | VELOCITY, FPS | FIXTURE UNITS | FLOW, GPM | VELOCITY, FPS | FLOW, GPM | VELOCITY, FPS |
| 1/2" | 2.0 | 2.93 | 5.3 | | | | 3.0 | 3.20 | 5.8 | 1.10 | 2.00 |
| 3/4" | 8.0 | 7.50 | 6.8 | 1 | 7.50 | 6.9 | 10.0 | 8.16 | 7.4 | 2.20 | 2.00 |
| 1" | 20.0 | 14.74 | 8.1 | 2.0 | 14.74 | 8.1 | 20.0 | 14.55 | 8.0 | 3.64 | 2.00 |
| 1-1/4" | 42.0 | 25.02 | 9.2 | 8.0 | 25.02 | 9.2 | 33.0 | 21.76 | 8.0 | 5.44 | 2.00 |
| 1-1/2" | 77.0 | 37.89 | 10.0 | 24.0 | 37.89 | 10.0 | 54.0 | 30.31 | 8.0 | 7.58 | 2.00 |
| 2" | 199.0 | 64.97 | 10.0 | 91.0 | 64.97 | 10.0 | 134.0 | 51.97 | 8.0 | 12.99 | 2.00 |
| 2-1/2" | 375.0 | 99.01 | 10.0 | 239.0 | 99.00 | 10.0 | 270.0 | 79.21 | 8.0 | 19.80 | 2.00 |
| 3" | 589.0 | 140.79 | 10.0 | 494.0 | 141.00 | 10.0 | 443.0 | 112.60 | 8.0 | 28.16 | 2.00 |

PLUMBING EQUIPMENT SCHEDULES

| | PIPE MATERIALS | | |
|---|----------------------------|---------------------|-------|
| PIPE TYPE | MATERIAL | JOINT | NOTES |
| UNDERGROUND WATER SERVICE ENTRANCE PIPING | PE (POLYTEHYLENE) | MECHANICAL FITTINGS | |
| WATER DISTRIBUTION PIPING — ABOVE GROUND | PEX | EXPANSION FITTINGS | 2 |
| WASTE & VENT PIPING | SCHEDULE 40 SOLID CORE PVC | SOLVENT CEMENT | |
| STORM PIPING | SCHEDULE 40 SOLID CORE PVC | SOLVENT CEMENT | |

- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- PROVIDE THERMAL EXPANSION LOOPS FOR ALL CPVC PIPING PER MANUFACTURER REQUIREMENTS.

| | | | DOMESTI | C WATER HI | EATER S | CHED | ULE - E | LECTRIC | ; | | |
|------------|-----------------------|--|----------------------------|--------------------------|-------------------------|---------------|------------------------------|------------|----------------------|------------------------|-------|
| EQUIP. TAG | LOCATION | SERVICE | GPH RECOVERY AT 90°F TR | STORAGE CAPACITY, GAL | INLET/OUTLET CONNECTION | HEATER, KW | OPERATING WEIGHT (LBS) | ELECTRICAL | BOD ENERGY FACTOR | BASIS OF DESIGN | NOTES |
| WH-1 | GARAGE (EACH UNIT) | DOMESTIC RESIDENTIAL HOT WATER (EACH UNIT) | 21 | 79 | 3/4" | 4.5 | 860 | 208V/1P | 0.92 | BRADFORD WHITE RE380T6 | 1-4 |

- WATER HEATER RECOVERY AND POWER REQUIREMENT ARE BASED ON NON-SIMULTANEOUS OPERATION.
- FOR WATER HEATER PIPING, SEE PIPING DIAGRAM DETAIL 1 ON P4CO.
- PROVIDE DRAIN PAN FOR WATER HEATER.
- PROVIDE ADJACENT 3" MIN. BOLLARD IN GARAGE, PER ARCH PLANS.

| | | | | E | (PANSIO | N TANK | | | | |
|------------|-----------------------------|---|---------------|------------|---------|----------|------------|-------------------|--------------|---|
| 50.UD 74.0 | | | CAPACITY | PRE-CHARGE | TANK | SIZE, IN | CONNECTION | OPERATING WEIGHT, | 2100 27 2700 | |
| EQUIP. TAG | EQUIP. TAG LOCATION SERVICE | GAL. | PRESSURE, PSI | DIAMETER | HEIGHT | SIZE, IN | LBS | BASIS OF DESIGN | NOTES | |
| ET-1 | GARAGE (EACH UNIT) | DOMESTIC RESIDENTIAL HOT WATER (EACH UNIT) | 4.4 | 49.8 | 11 | 15 | 3/4 | 35 | AMTROL ST-12 | 1 |

INSTALL ACCORDING TO MANUFACTURER REQUIREMENTS.

| | | | BACKWATER VAI | LVE SCHEDULE | | |
|-----------|------------------|----------|---------------|-------------------|-----------------|-------|
| EQUIP NO. | LOCATION | SERVICE | PIPE MATERIAL | INLET/OUTLET SIZE | BASIS OF DESIGN | NOTES |
| BWV-1 | GARAGE(AS SHOWN) | AS SHOWN | PVC | 4" | IPEX 223288W | 1,2 |

- VALVE OPERATES IN THE NORMALLY CLOSED POSITION.
- INSTALL PER MANUFACTURER REQUIREMENTS.

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see water heater information below as selected to comply with energy code requirements. KW 2/12/2021

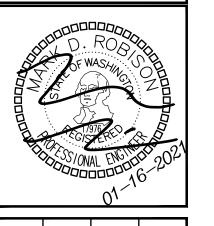
EFFICIENT WATER HEATING 5c:

Water heating system shall include one of the following:

[unspecified alternates omitted for clarity]
Electric heat pump water heater with a minimum EF of 2.0 and meeting the standards of NEEA's Northern Climate Specifications for Heat Pump Water Heaters.
To qualify to claim this credit, the building permit drawings shall specify the option

being selected and shall specify the water heater equipment type and the minimum equipment efficiency.

| | NO. DATE DESCRIPTION | | | | REVISIONS |
|---|----------------------|--|--|--|-----------|
| | DATE | | | | |
| | NO. | | | | |
| ľ | | | | | |

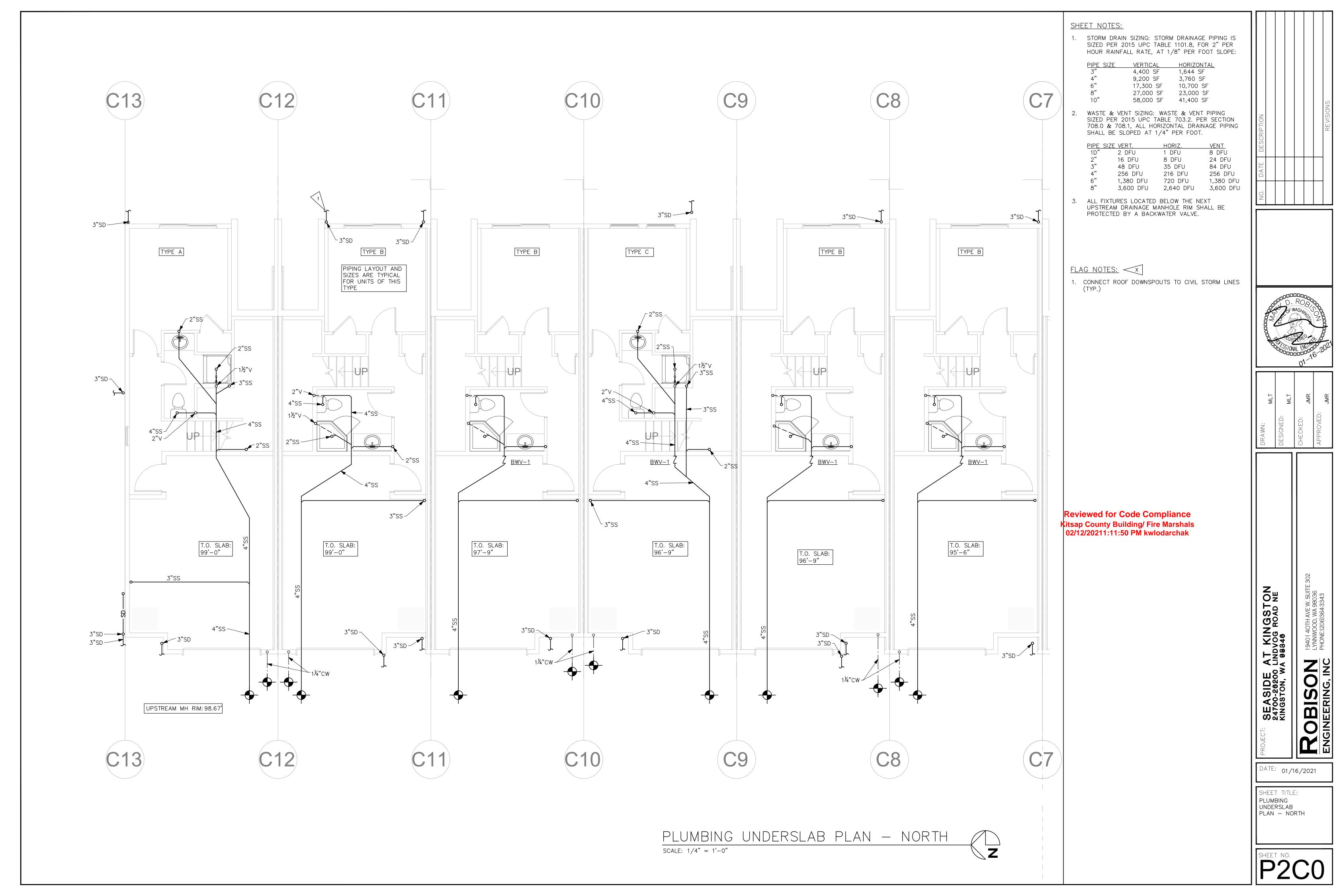


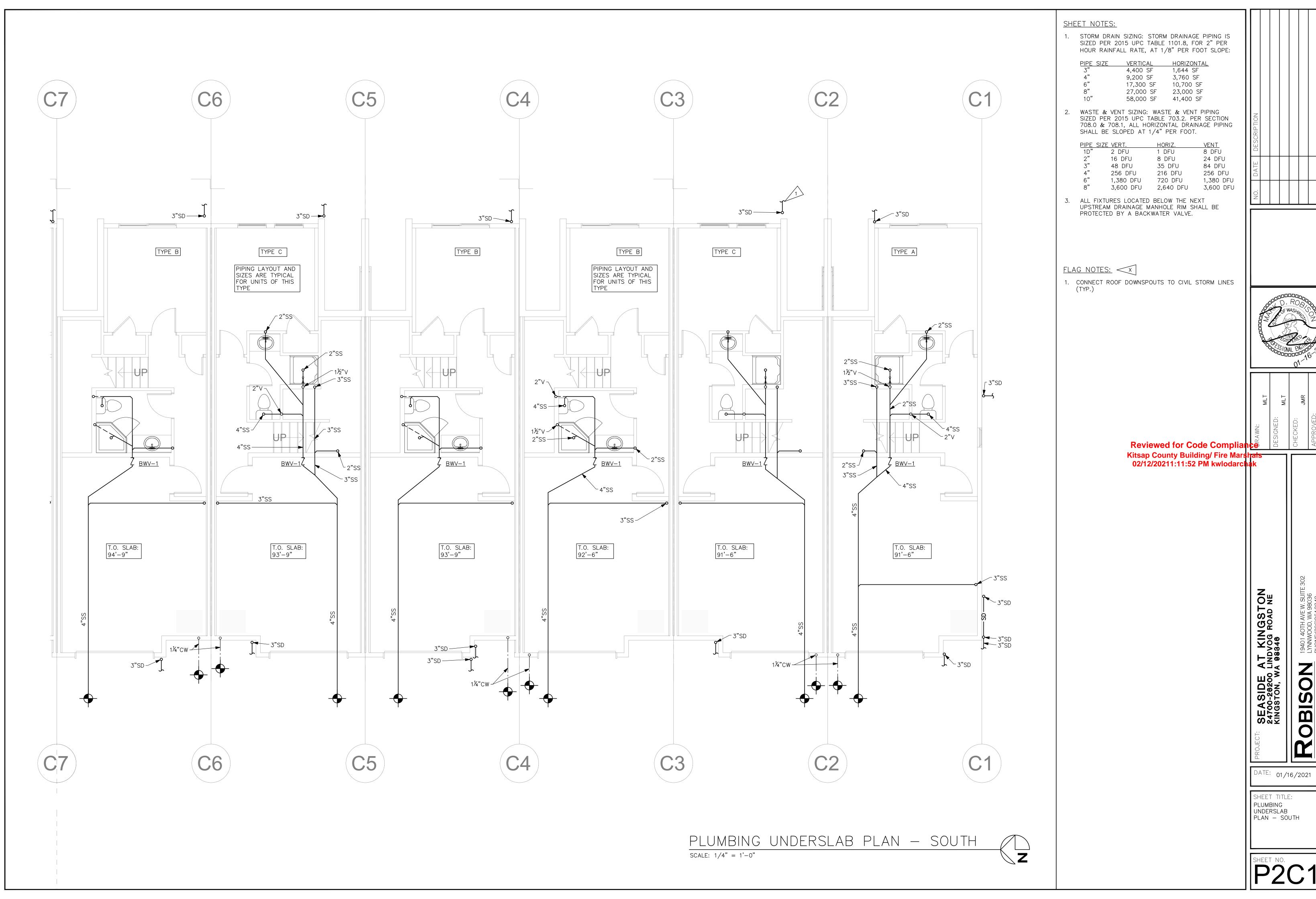
| DESIGNED: | CHECKED: | APPROVED: |
|-----------|----------|-----------|

DATE: 01/16/2021

PLUMBING EQUIPMENT SCHEDULES AND PIPE SIZING

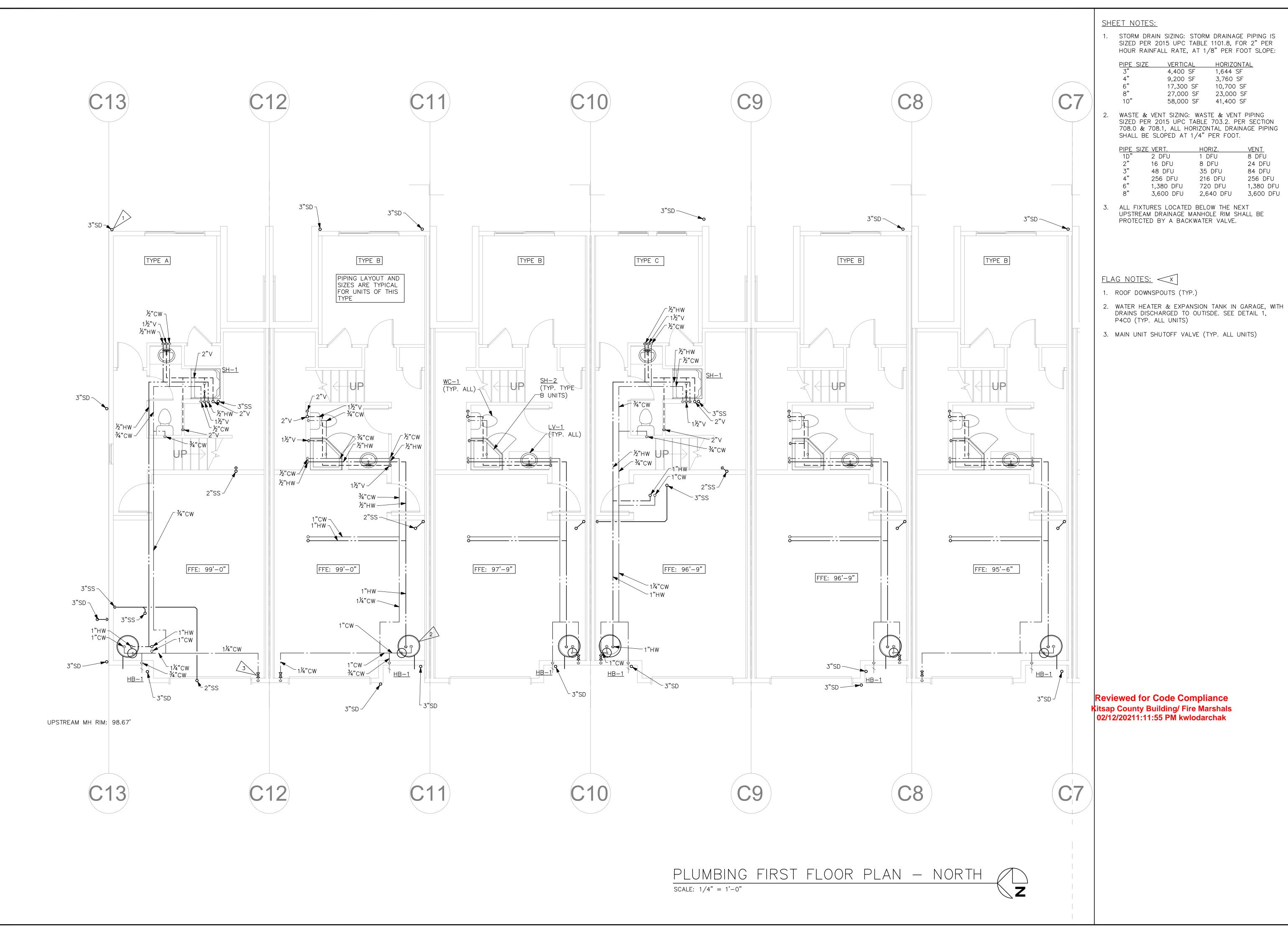






Permit Number: 21-00517

OBISON GINEERING, INC



D: MLT MLT CED: UMR

DESIGNED: ML
CHECKED: JMI
APPROVED: JMI

340 3401 40TH AVE W. SUITE 302 YNNWOOD, WA 98036 HONE:(206)364-3343

SEASIDE AT KINGSTON 24700-26200 LINDVOG ROAD NE KINGSTON, WA 98846

ROBISON ENGINEERING, INC

DATE: 01/16/2021

SHEET TITLE:
PLUMBING
FIRST FLOOR
PLAN — NORTH

P2C2



STORM DRAIN SIZING: STORM DRAINAGE PIPING IS SIZED PER 2015 UPC TABLE 1101.8, FOR 2" PER HOUR RAINFALL RATE, AT 1/8" PER FOOT SLOPE:

| PIPE SIZE | VERTICAL | HORIZON' |
|------------|-----------|----------|
| 3" | 4,400 SF | 1,644 SF |
| 4" | 9,200 SF | 3,760 SF |
| 6 " | 17,300 SF | 10,700 S |
| 8" | 27,000 SF | 23,000 S |
| 10" | 58,000 SF | 41,400 S |
| | | |

WASTE & VENT SIZING: WASTE & VENT PIPING SIZED PER 2015 UPC TABLE 703.2. PER SECTION 708.0 & 708.1, ALL HORIZONTAL DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT.

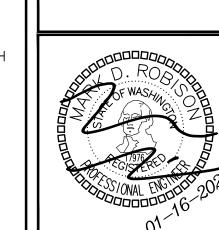
| PIPE S | IZE VERT. | HORIZ. | VENT |
|--------|-----------|-----------|-----------|
| 1D" | 2 DFU | 1 DFU | 8 DFU |
| 2" | 16 DFU | 8 DFU | 24 DFU |
| 3" | 48 DFU | 35 DFU | 84 DFU |
| 4" | 256 DFU | 216 DFU | 256 DFU |
| 6" | 1,380 DFU | 720 DFU | 1,380 DFU |
| 8" | 3,600 DFU | 2,640 DFU | 3,600 DFU |

3. ALL FIXTURES LOCATED BELOW THE NEXT UPSTREAM DRAINAGE MANHOLE RIM SHALL BE PROTECTED BY A BACKWATER VALVE.

FLAG NOTES: X

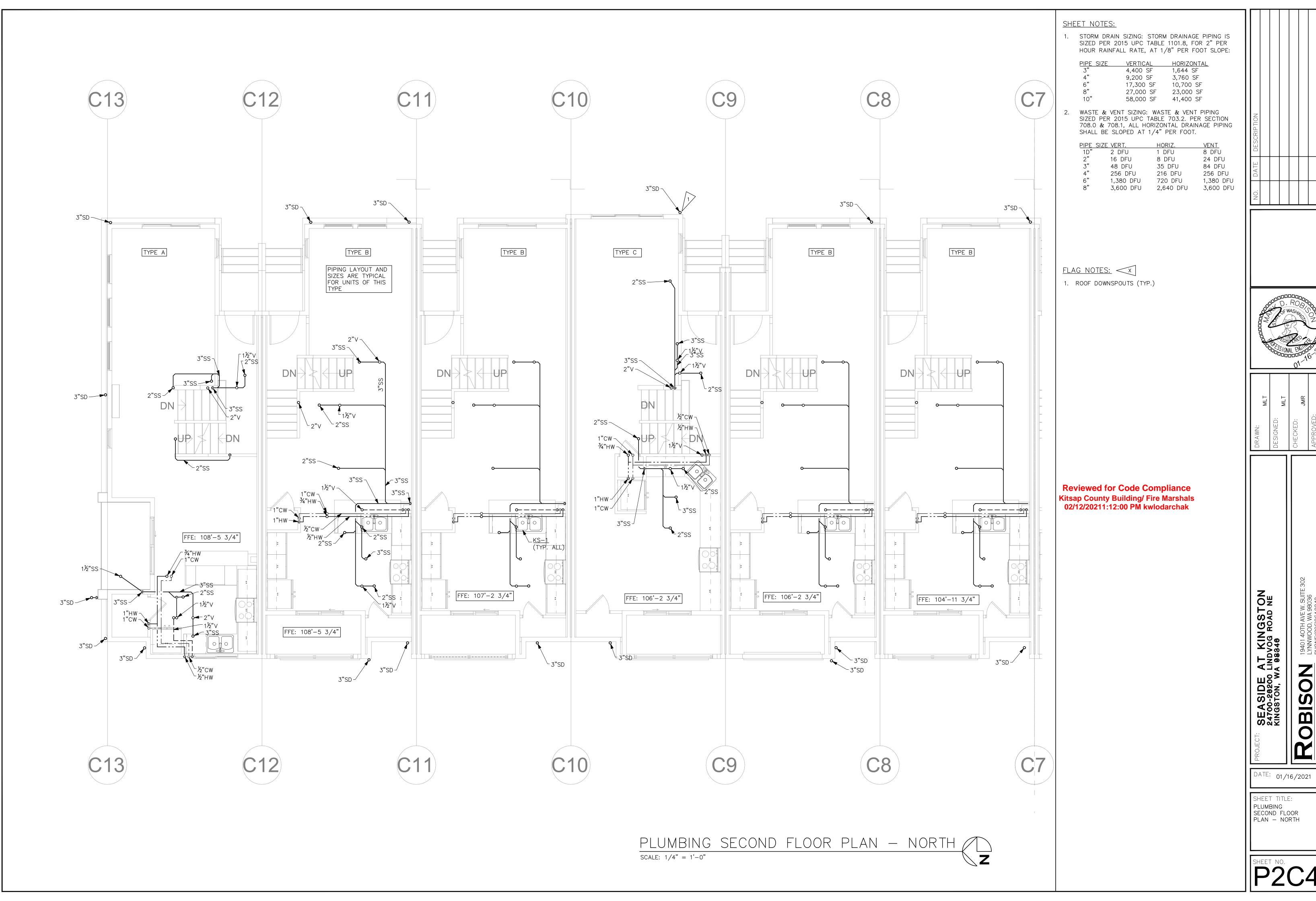
- 1. ROOF DOWNSPOUTS (TYP.)
- WATER HEATER & EXPANSION TANK IN GARAGE, WITH DRAINS DISCHARGED TO OUTISDE. SEE DETAIL 1, P4CO (TYP. ALL UNITS)
- 3. MAIN UNIT SHUTOFF VALVE (TYP. ALL UNITS)

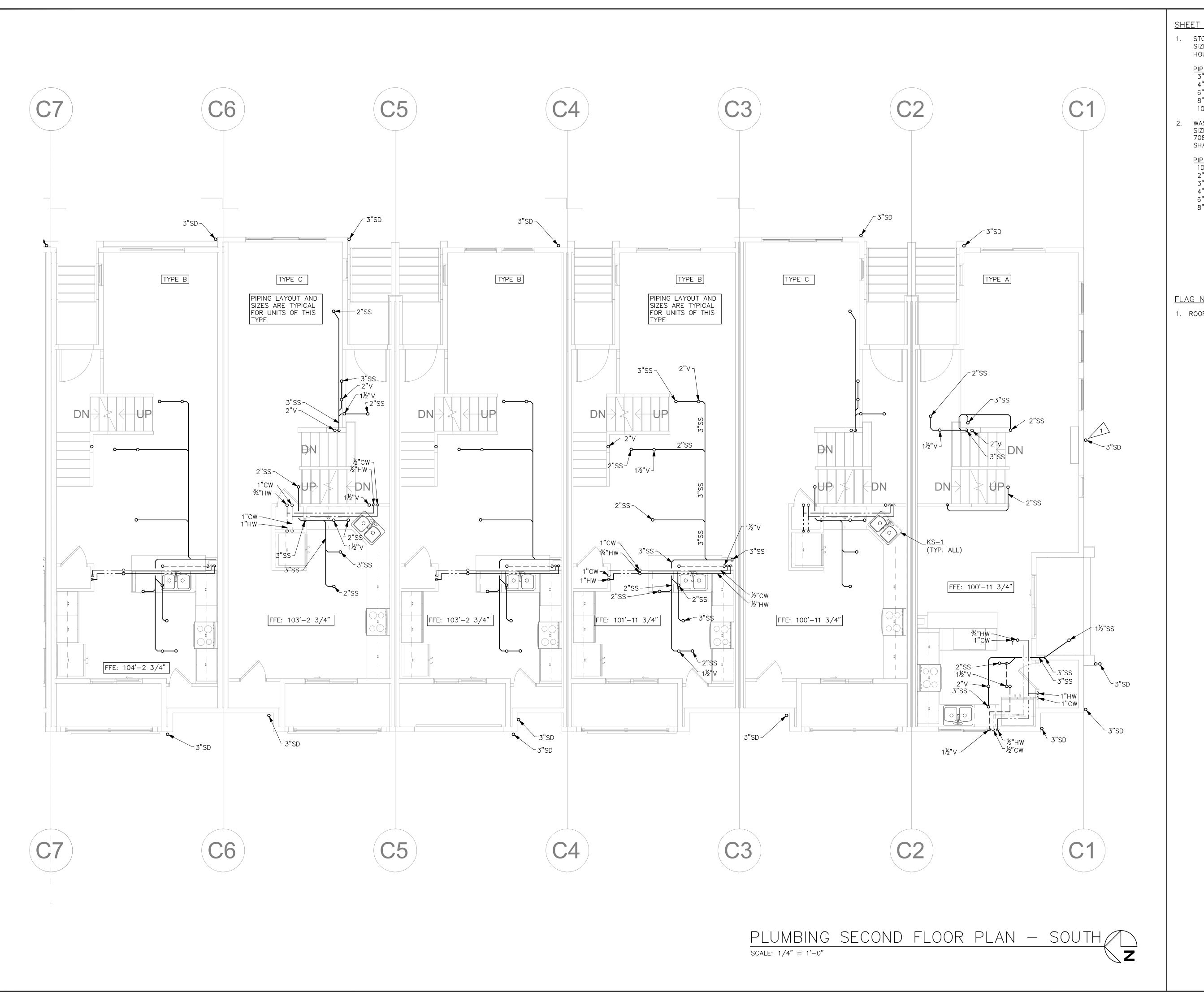
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DATE: 01/16/2021

SHEET TITLE:
PLUMBING
FIRST FLOOR
PLAN — SOUTH





SHEET NOTES:

1. STORM DRAIN SIZING: STORM DRAINAGE PIPING IS SIZED PER 2015 UPC TABLE 1101.8, FOR 2" PER HOUR RAINFALL RATE, AT 1/8" PER FOOT SLOPE:

| PIPE SIZE | VERTICAL | HORIZONTA |
|------------|-----------|-----------|
| 3" | 4,400 SF | 1,644 SF |
| 4" | 9,200 SF | 3,760 SF |
| 6 " | 17,300 SF | 10,700 SF |
| 8" | 27,000 SF | 23,000 SF |
| 10" | 58,000 SF | 41,400 SF |
| | | |

WASTE & VENT SIZING: WASTE & VENT PIPING SIZED PER 2015 UPC TABLE 703.2. PER SECTION 708.0 & 708.1, ALL HORIZONTAL DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT.

| PIPE SI | ZE VERT. | HORIZ. | VENT_ |
|------------|-----------|-----------|-----------|
| 1D" | 2 DFU | 1 DFU | 8 DFU |
| 2" | 16 DFU | 8 DFU | 24 DFU |
| 3 " | 48 DFU | 35 DFU | 84 DFU |
| 4" | 256 DFU | 216 DFU | 256 DFU |
| 6 " | 1,380 DFU | 720 DFU | 1,380 DFU |
| 8" | 3,600 DFU | 2,640 DFU | 3,600 DFU |

FLAG NOTES: X

1. ROOF DOWNSPOUTS (TYP.)

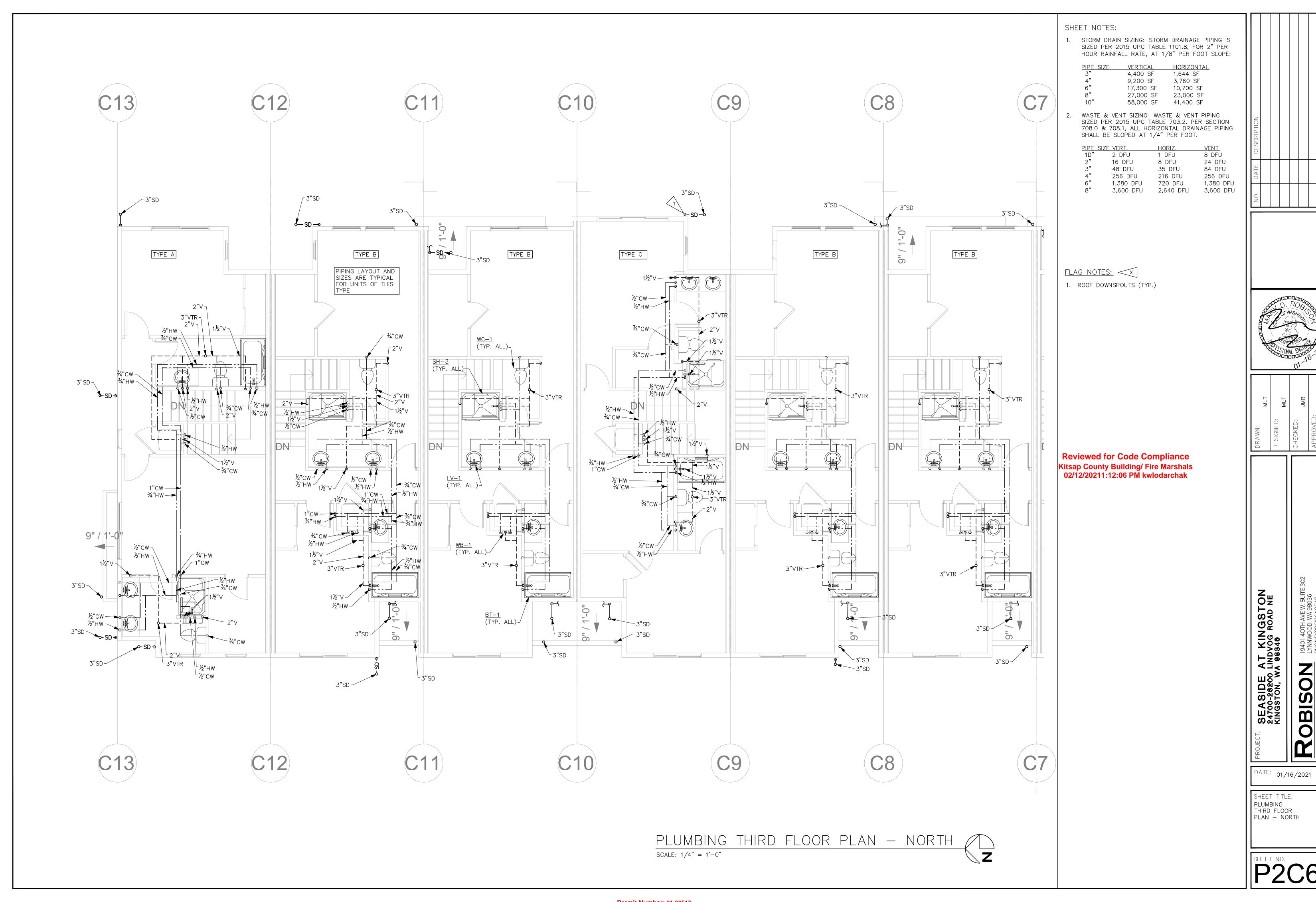
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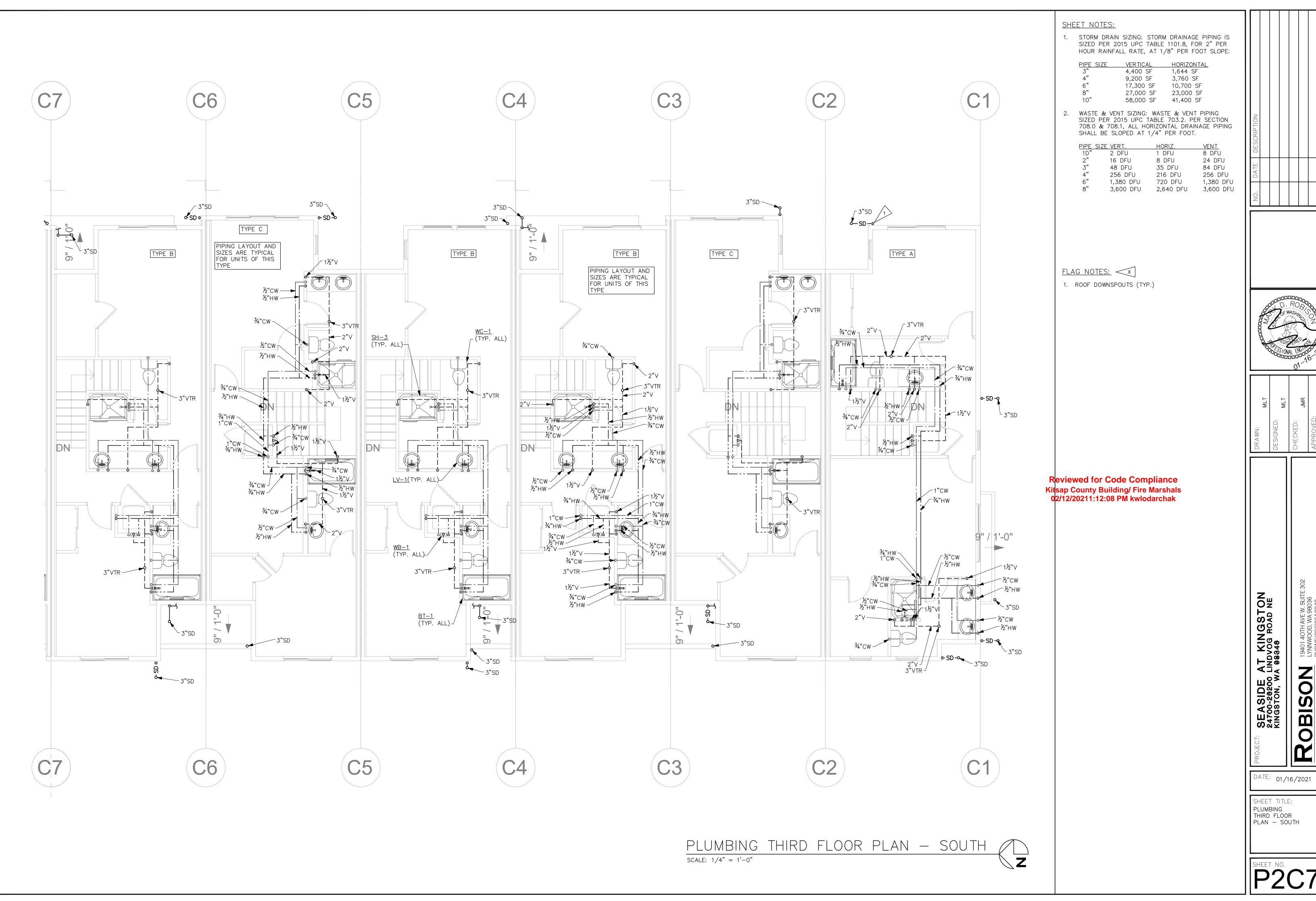
| | | Orr. | EGIS ::E | 76 ERE | | | 7 021 |
|----------|-------|---------|-------------|-----------|---|---------|----------|
| | TO VI | THE RES | D. SFW | RC | 000000000000000000000000000000000000000 | AHION N | יקסטיי |
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| | | | | | | | |
| NO. | | | | | | | |
| NO. DATE | | | | | | | |

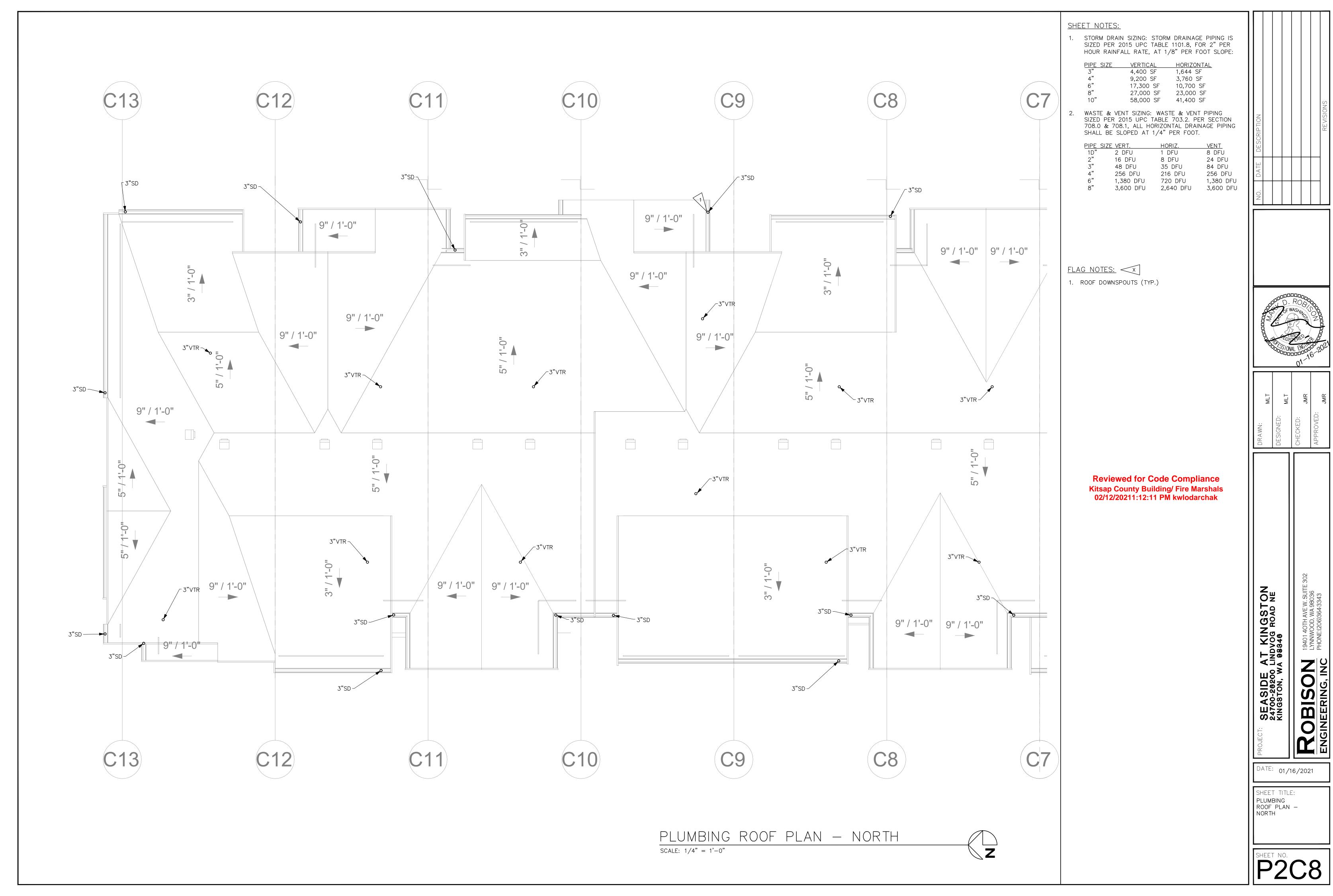
SEASIDE AT KINGSTON 24700-26200 LINDVOG ROAD NE KINGSTON, WA 98846

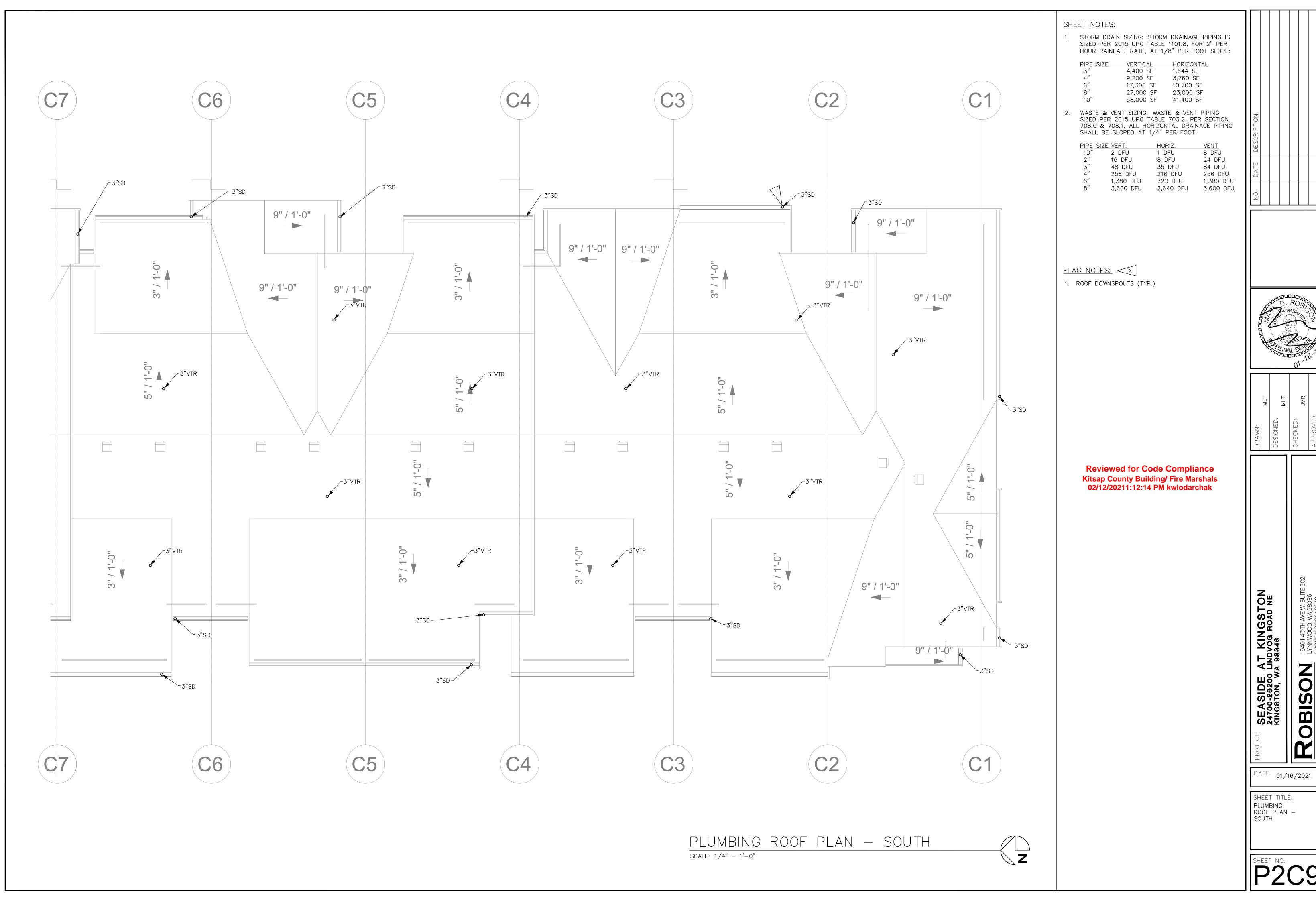
DATE: 01/16/2021

SHEET TITLE:
PLUMBING
SECOND FLOOR
PLAN — SOUTH

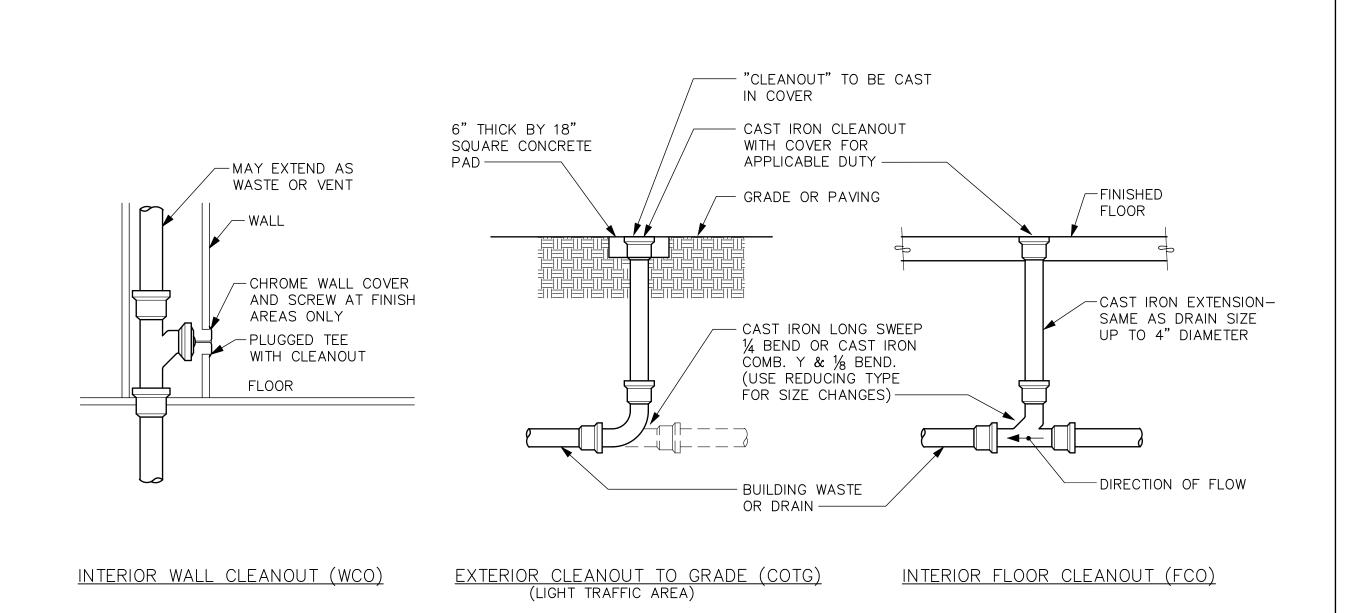




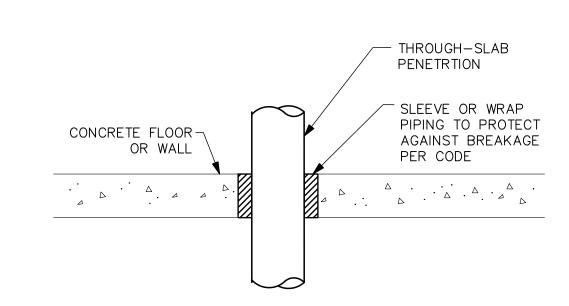




ROBISON ENGINEERING, INC



Reviewed for Code Compliance
Kitsap County Building/ Fire Marshals
02/12/20211:12:17 PM kwlodarchak



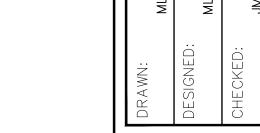
PIPE INSULATION -INSULATION JACKET U.L. LISTED & APPROVED PIPE CLAMP -- FIRE SEALANT 0,00 – FLOOR - PIPE SLEEVE-1"(MIN.) LARGER THAN CAULKING -PENETRATING PIPE **ELEVATION** PIPE INSULATION — PIPE SLEEVE -INSULATION JACKET-PIPE CLAMP -DETAIL "A" FIRE PROOFING SEAL CUT JACKET & INSULATION TO ALLOW FOR PIPE CLAMP ARM EXTENSION & FILL-IN VOID W/ INSULATING CEMENT

RISER PIPE SUPPORT

DETAIL

SCALE: NONE

P4C0



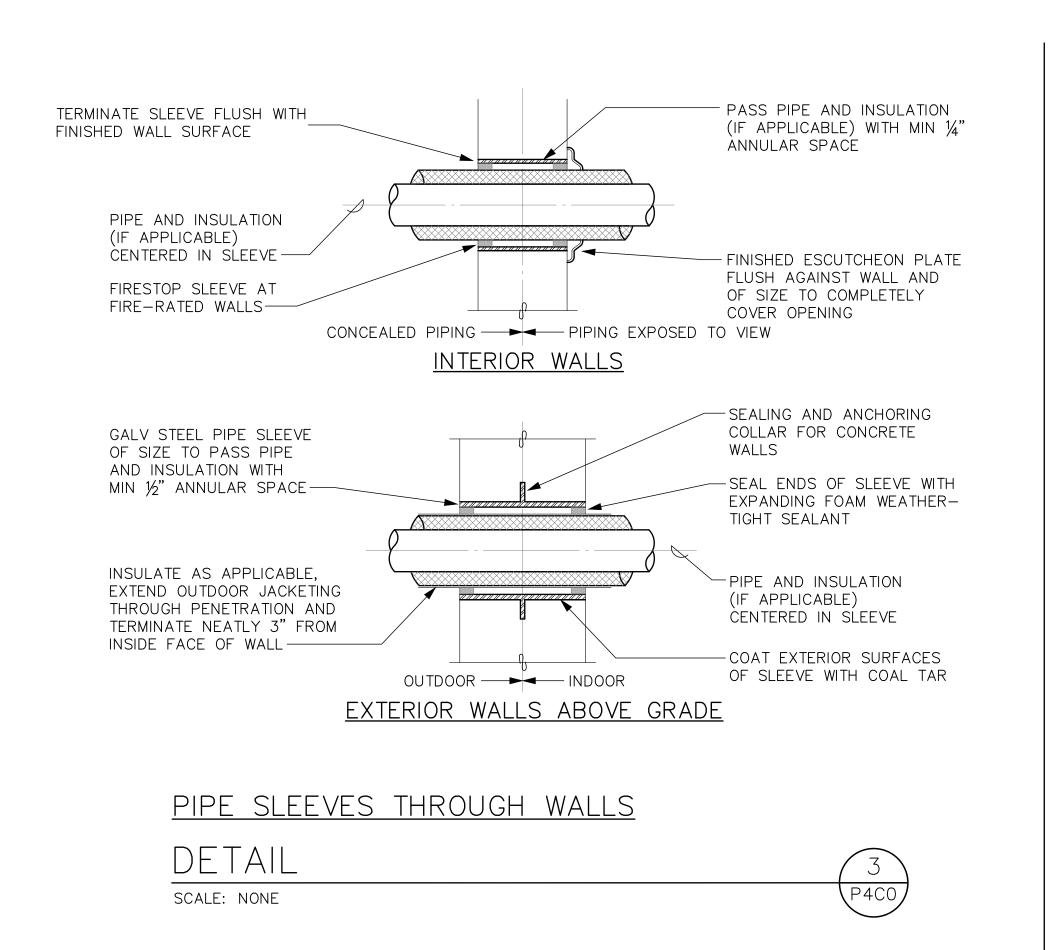
AT KINGSTON LINDVOG ROAD NE VA 08846

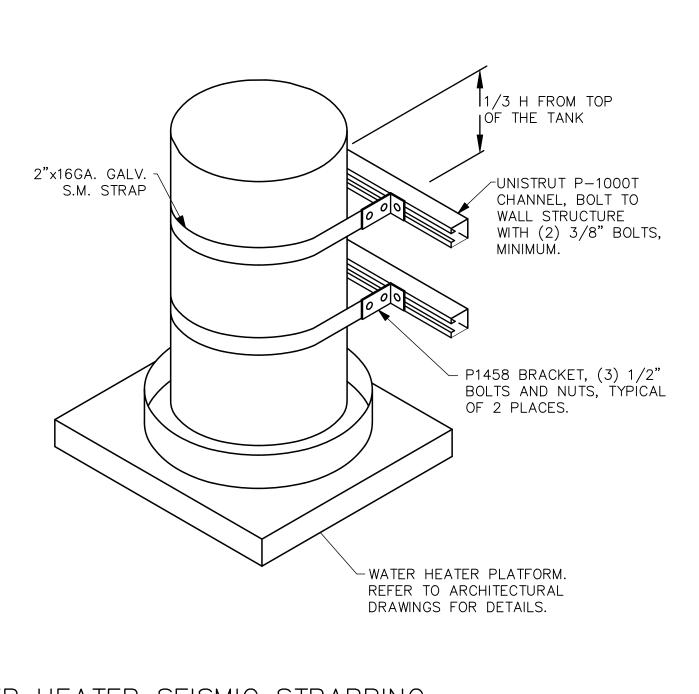
SEASIDE 24700-26200 KINGSTON, WA

P4C0

<u>CLEANOUTS</u> DETAIL

SCALE: NONE





PIPE SLAB PENETRATION

DETAIL

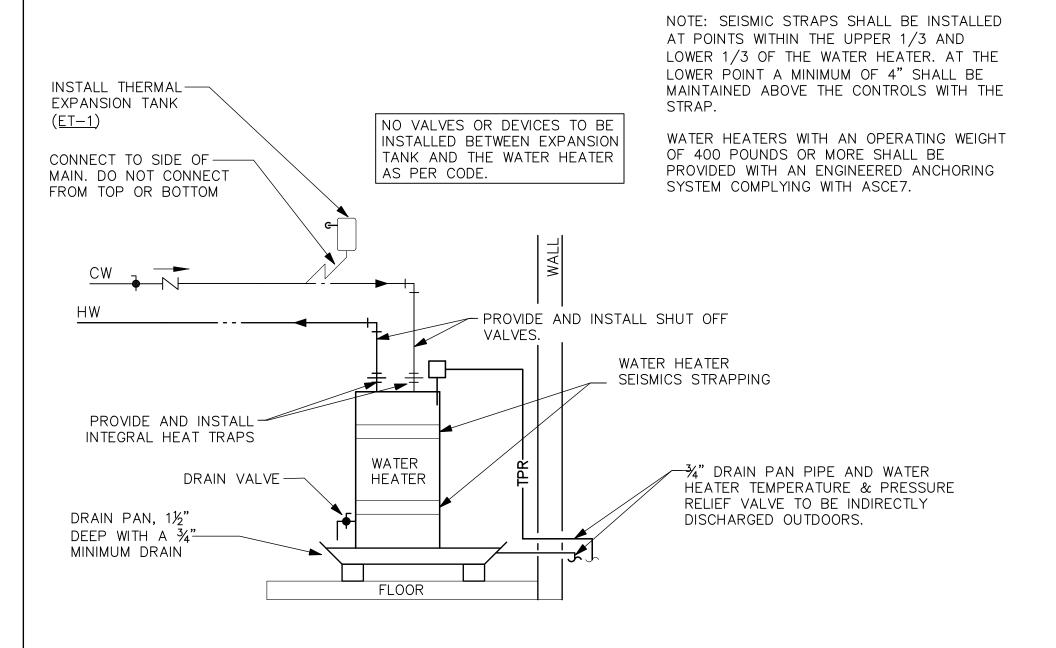
SCALE: NONE

P4C0

WATER HEATER SEISMIC STRAPPING

DETAIL

SCALE: NONE



TYPICAL UNIT WATER HEATER

DETAIL

scale: None

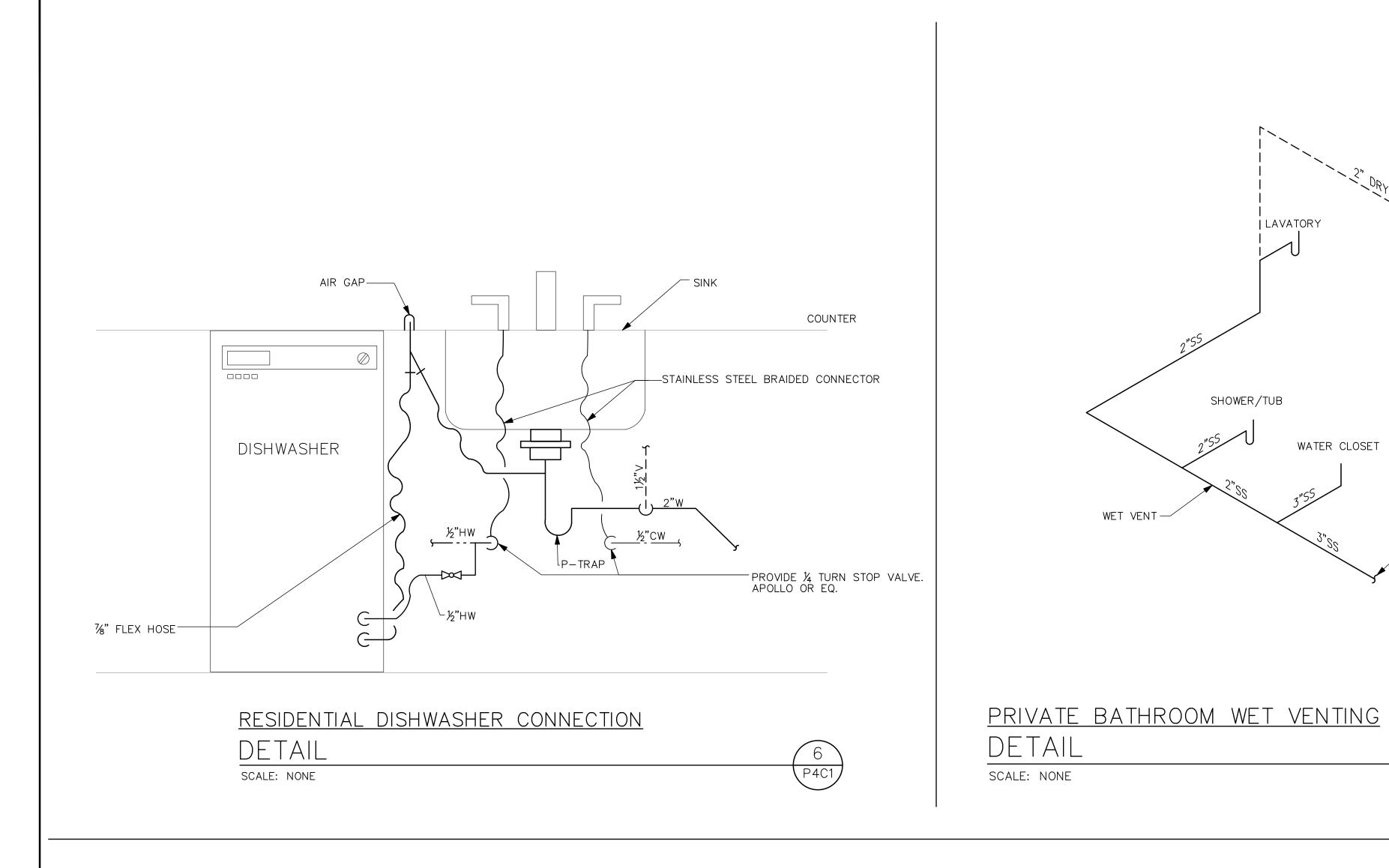
1
P4C0

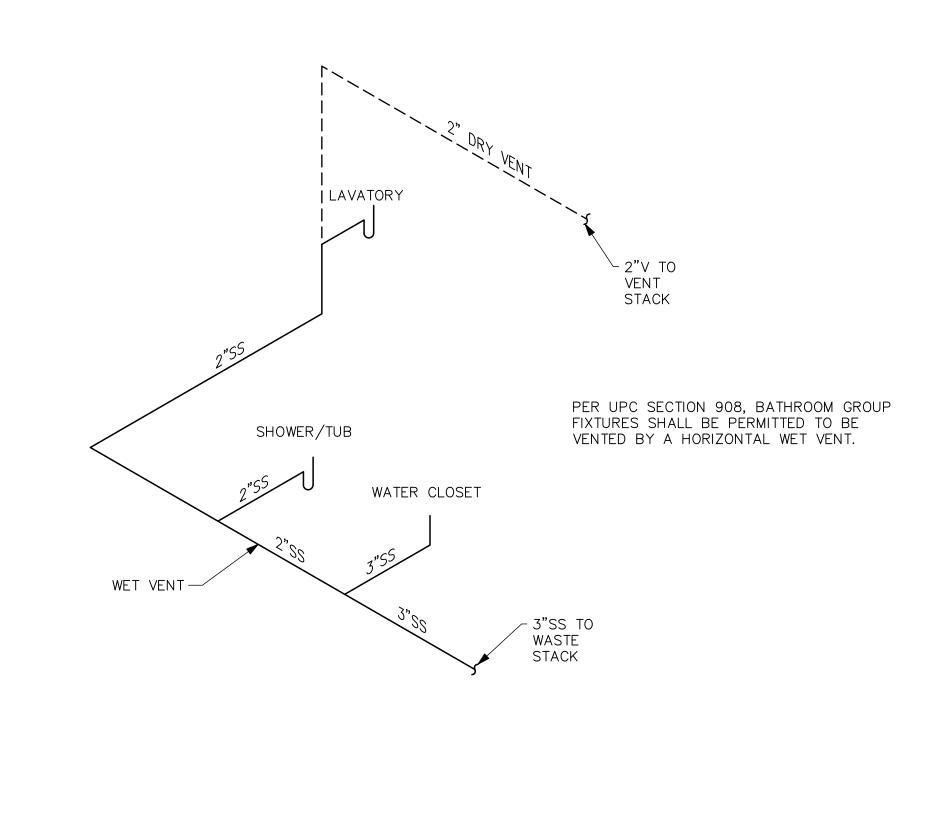
P4C0

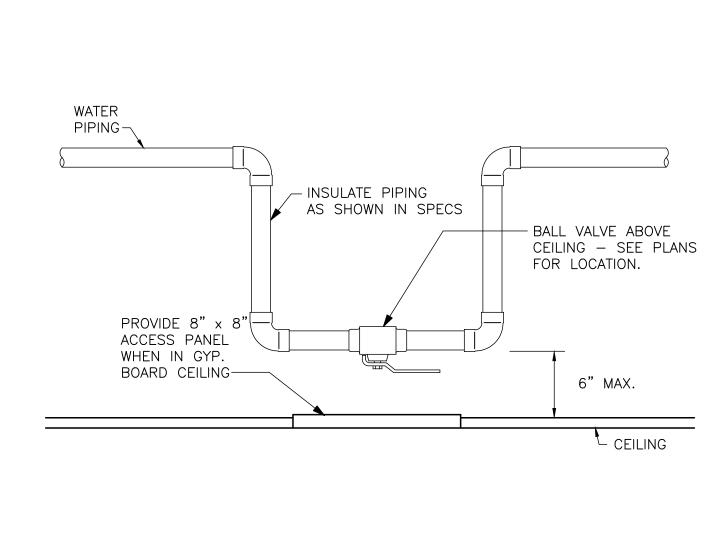
DATE: 01/16/2021

SHEET TITLE:

DETAILS







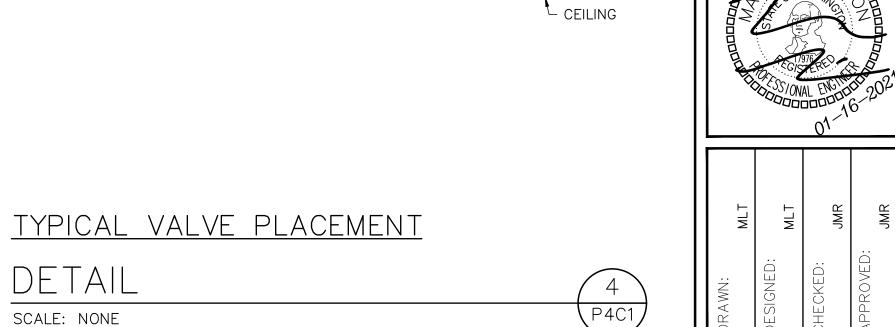
Reviewed for Code Compliance

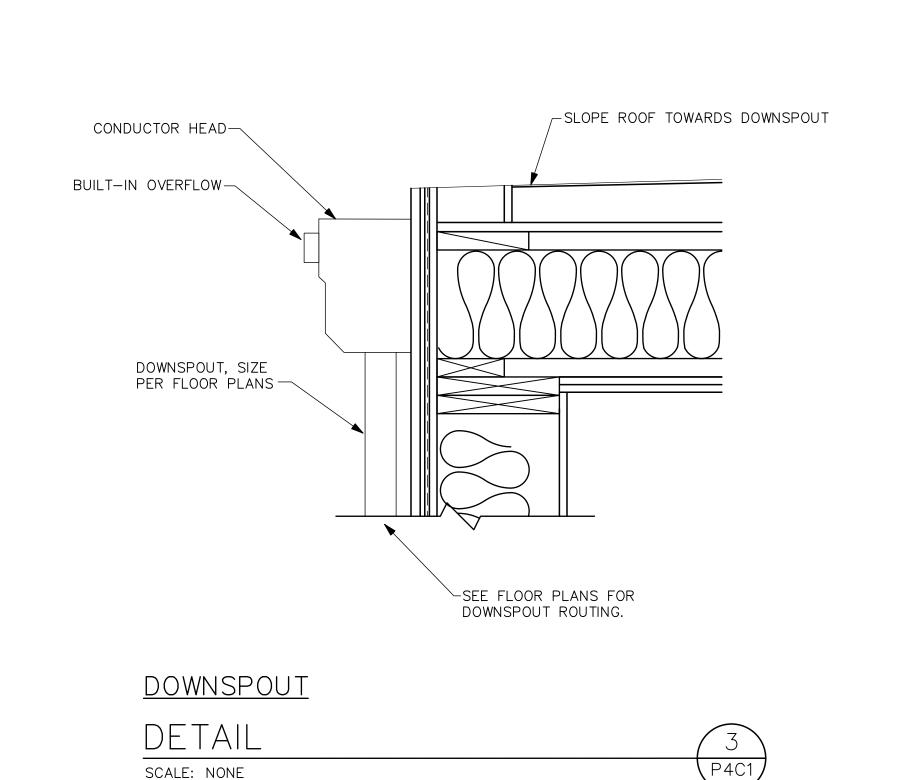
Kitsap County Building/ Fire Marshals 02/12/20211:12:20 PM kwlodarchak

DETAIL

SCALE: NONE

P4C1





SCALE: NONE

