APPLICABLE CODES 2018 UNIFORM PLUMBING CODE (UPC) **PLUMBING** P001 P002 P003 P004 P200 P300

PLUMBING GENERAL NOTES

CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE CODES WHETHER INDICATED HEREIN OR NOT.

- 2018 INTERNATIONAL BUILDING CODE (IBC)
- 2018 INTERNATIONAL MECHANICAL CODE (IMC)
- 2018 INTERNATIONAL PLUMBING CODE (IPC)
- 2018 INTERNATIONAL FUEL GAS CODE (IFGC)
- 2018 UNIFORM ENERGY CONSERVATION CODE (IECC) 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
- 2012 INTERNATIONAL GREEN CONSTRUCTION CODE (IGCC) OPTIONAL
- 2017 NATIONAL ELECTRICAL CODE (NEC)

ACCESSIBILITY 2010 ADA GUIDELINES & 2017 ICC/ANSI A117.1 FAIR HOUSING ACT

SHEET INDEX

SHEET NAME

PLUMBING GENERAL NOTES

PLUMBING SYMBOLS AND ABBREVIATIONS

PLUMBING SPECIFICATIONS PLUMBING SCHEDULES

PLUMBING FLOOR PLAN

PLUMBING DETAILS

- DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS IN FIELD PRIOR TO COMMENCING WORK. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT PLUMBING FIXTURE LOCATIONS, MOUNTING HEIGHTS AND PLUMBING ROUGH-IN LOCATIONS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO ALL HANDICAPPED FIXTURES. OBTAIN EXACT FLOOR DRAIN AND FLOOR
 - SINK LOCATIONS FROM FOOD SERVICE DRAWINGS. ROUGH-IN LOCATIONS FOR KITCHENS, BARS, ETC. TO BE TAKEN FROM APPROVED FOOD SERVICE SHOP DRAWINGS.
- ITEM DESIGNATIONS INDICATED ARE FOR PURPOSES OF THESE DOCUMENTS ONLY. CONTRACTOR SHALL VERIFY WITH THE OWNER ACTUAL DESIGNATION INFORMATION TO BE PROVIDED FOR EACH ITEM OF PLUMBING EQUIPMENT PRIOR TO NAMEPLATE
- THE PLUMBING DETAILS SHALL BE INCORPORATED INTO THE ASSOCIATED WORK AND PROVIDE GENERAL GUIDANCE AS TO THE INSTALLATION INTENT WHETHER REFERENCED TO OR NOT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY COMPONENTS FOR A COMPLETE INSTALLATION AND ENSURE THAT ALL INSTALLATIONS ARE IN ACCORDANCE WITH THE EQUIPMENT'S LISTING AND MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTION.
- REFER TO APPROVED FOOD SERVICE DRAWINGS AND SCHEDULES FOR KITCHEN AND BAR LAYOUTS, PLUMBING REQUIREMENTS AND DETAILS. PROVIDE PIPING, VALVES, FIXTURES, INDIRECT WASTE, PRESSURE REDUCING VALVES, ETC. (NOT PROVIDE BY KITCHEN EQUIPMENT CONTRACTOR) AS REQUIRED TO MAKE A COMPLETE AND OPERABLE SYSTEM (INCLUDING HOOD DRAIN PIPING, VENTILATOR CONTROL PANÉL PIPING, REFRIGERANT PIPING, BEER AND SYRUP LINE RACEWAYS, DRAIN PIPING FROM REFRIGERATION FAN COILS, ETC.). EXPOSED PIPING ABOVE COUNTER HEIGHT SHALL BE CHROME PLATED. PROVIDE REDUCED PRESSURE TYPE BACKFLOW AT CARBONATORS. VACUUM BREAKER AND PRESSURE REDUCING VALVES FOR HOOD HOT AND COLD WATER ARE FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR AND INSTALLED BY DIVISION 22 (PLUMBING). COORDINATE WITH KITCHEN EQUIPMENT CONTRACTOR ACCORDINGLY. PROVIDE SHUT-OFF VALVES AND CHECK VALVES ON EACH BRANCH LINE TO HOSE REELS, SOAP DISPENSERS AND EACH HOT AND COLD WATER FAUCET THAT HAS A HOSE CONNECTION. PIPE 3/4" COLD WATER TO FILTER (BY KITCHEN EQUIPMENT CONTRACTOR) WITH SHUT-OFF VALVE PIPING FROM FILTER TO EQUIPMENT ROUTED IN
- PROVIDE STAINLESS STEEL WASTE PIPE AND P-TRAP AT ALL BARS, SODA STATIONS, WAITRESS STATIONS AND BEVERAGE STATIONS ABOVE GRADE (SCHEDULE 40 PVC FOR BELOW GRADE). RUN-OUTS SHALL BE A MINIMUM OF 20'-0" OF STAINLESS STEEL DRAIN PIPE OR TO THE MAIN DRAIN OF AREA SERVED.
- PROVIDE INSULATION ON ALL WASTE PIPING AND P-TRAPS FROM FLOOR DRAINS, SINKS AND TROUGHS RECEIVING INDIRECT WASTE FROM ICE MACHINES AND ICE BINS. PIPING INSULATION SHALL BE PROVIDED FROM THE DRAIN CONNECTION FOR A MINIMUM OF 15'-0" OR UNTIL THE NEXT BRANCH CONNECTION.
- PROVIDE SHEET METAL DRAIN DRAIN PAN UNDER GRAVITY OR PUMPED DRAIN PIPING WHERE PIPING OCCURS ABOVE KITCHENS. FOOD SERVICE PREP, FUTURE TENANT KITCHENS OR FOOD SERVICE CORRIDORS. PIPE 3/4" DRAIN FROM DRAIN PAN TO OVER NEAREST FLOOR SINK.

PROVIDE SHEET METAL DRAIN PAN UNDER PIPING WHERE PIPING OCCURS, ABOVE ANY ELECTRICAL ROOMS, IT CENTER OR

- ELECTRICAL SWITCH GEAR. PIPE 3/4" DRAIN FROM DRAIN PAN TO OVER NEAREST FLOOR SINK. REFER TO APPROVED FOOD SERVICE DRAWINGS FOR HOT AND COLD WATER HOSE BIBB LOCATIONS UNDER HAND SINKS IN KITCHEN AREAS.
- SEISMIC RESTRAINTS SHALL BE PROVIDED PER THE LATEST ADOPTED STANDARD BUILDING CODE AND THE SMACNA SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE PROPOSED RESTRAINTS, STRUCTURAL ATTACHMENT METHODS AND RESTRAINT LOCATIONS TO THE ARCHITECT FOR REVIEW. THE

SUBMITTED DOCUMENTS SHALL BE PREPARED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE PROJECT STATE.

- 12. COORDINATE SPRINKLER DRAIN REQUIREMENTS AND LOCATIONS WITH THE FIRE PROTECTION DIVISION OF WORK.
- REFER TO CIVIL DRAWINGS FOR INVERT AT SITE UTILITY POINTS OF CONNECTION. PROVIDE OFFSET AND INCREASER FOR STORM DRAIN OR SEWER AS REQUIRED FOR CONNECTION TO CIVIL.
- GREASE TRAP INSTALLATION SHALL CONFORM WITH APPLICABLE CITY REQUIREMENTS. MANHOLE SPACING SHALL NOT EXCEED 10'-0" ON CENTER. PROVIDE QUANTITY AS REQUIRED TO COMPLY WITH MAXIMUM SPACING. COORDINATE WITH CIVIL DIVISION OF WORK.
- PROVIDE TRAP PRIMERS FOR AREAS OF INFREQUENT USE, INCLUDING FLOOR DRAINS IN RESTROOMS AND MECHANICAL ROOMS. EQUAL TO PRECISION PRODUCTS CO. "PRIME-RITE" WITH DISTRIBUTION UNITS FOR MULTIPLE FLOOR DRAINS AND FLOOR SINKS. TRAP PRIMER SHALL BE ACCESSIBLE AND INSTALLED PER MANUFACTURER'S REQUIREMENTS. PROVIDE LINE SIZE SHUT-OFF VALVE AHEAD OF EACH TRAP PRIMER AND PRIMER LINE SHALL BE INSTALLED ON A COLD WATER LINE LESS THAN 2" DIAMETER. ALL ELECTRONIC TYPE TRAP PRIMERS SHALL BE PPP "PRIME-TIME ELECTRONIC TRAP PRIMING MANIFOLD" WITH FOUR (4) TO 30 OUTLETS, VACUUM BREAKER, 24 HOUR CLOCK, MANUAL OVERRIDE, SOLENOID VALVE, CALIBRATED MANIFOLD WITH 1/2" OUTLET COMPRESSION FITTINGS, PROVIDE 3/4" SHUT-OFF VALVE ON INLET. (ELECTRONIC TRAP PRIMERS TO BE LOCATED IN MECHANICAL ROOMS AND CONCRETE BLOCK WALLS.)
- REFER TO BALANCING VALVE ASSEMBLY DESIGN DETAIL FOR NOMINAL GPM AT EACH HOT WATER RETURN BRANCH LINE
- HOT WATER RETURN PIPING BRANCH LINES TO DROP DOWN IN WALL AND CONNECT TO HOT WATER SUPPLY AT STOPS OR AT TEMPERING STATIONS. REFER TO DESIGN DETAILS FOR DIAGRAMS SHOWING CONNECTIONS.
- 18. ARRANGE WATER HEATERS AND PIPING TO PROVIDE EASE OF DISASSEMBLY AND MAINTENANCE.
- 19. GREASE WASTE PIPING SHALL PITCH AT 2% PER FOOT.

SYSTEMS INSTALLED.

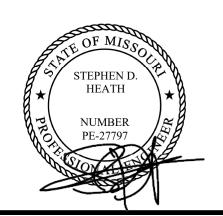
- 20. PROVIDE A 6mm POLYETHYLENE SLEEVE EQUAL TO IPS WATER-TITE FOR COPPER DOMESTIC WATER PIPE BELOW SLAB.
- 21. HOT AND COLD WATER SHUT-OFF VALVES AND HOT WATER RETURN BALANCING VALVES SHALL BE LOCATED TO BE EASILY
- 22. PROVIDE STAINLESS STEEL BASKET AT KITCHEN AND BAR FLOOR SINKS. DRAIN SPECIALITIES MODEL NUMBER DS-200.
- 23. PROVIDE WALL CLEANOUTS AT URINALS IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE ADOPTED STANDARD PLUMBING
- 24. VENTS THROUGH ROOF SHALL BE A MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKES AND BUILDING OPENINGS.
- EQUIPMENT AND PIPING LOCATIONS SHOWN FROM THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY SIZE AND LOCATIONS PRIOR TO START OF WORK. IF SYSTEMS ARE NOT AS SHOWN IN DRAWINGS, REPORT DEVIATIONS TO ARCHITECT/ENGINEER WITHIN 48 HOURS OF DISCOVERY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND PATCHING OF DAMAGED ARCHITECTURAL COMPONENTS TO
- REMAIN DURING THE REMOVAL OF DESIGNATED SYSTEMS. COORDINATE REPAIR REQUIREMENTS WITH ARCHITECT. 27. RESOLVE ALL QUESTIONS OR CONFLICTS WITH ENGINEER BEFORE ANY EQUIPMENT IS ORDERED, MATERIALS FABRICATED OR
- 28. COORDINATE THE INSTALLATION OF MECHANICAL SYSTEMS WITH OTHER TRADES.
- 29. COORDINATE ALL PENETRATIONS THROUGH STRUCTURAL MEMBERS WITH THE GENERAL CONTRACTOR.
- COORDINATE AND VERIFY THAT ALL OPENINGS IN WALLS ABOVE CEILING / DOOR LOUVERS / DOOR UNDERCUTS ARE PROVIDED AS INDICATED ON THESE DRAWINGS.
- 31. COORDINATE EXACT SIZE OF EQUIPMENT HOUSEKEEPING PAD WITH EQUIPMENT OVERALL FOOTPRINT DIMENSIONS.
- 32. LEVEL ALL EQUIPMENT CURBS / BASES PRIOR TO INSTALLATION OF ANY EQUIPMENT.
- INSTALL FULL SIZE CONDENSATE DRAIN WITH TRAP SEAL DEPTH EQUAL TO 1.5 X UNIT TOTAL STATIC PRESSURE FOR EACH COOLING COIL. DISCHARGE DRAIN TO ROOF DRAIN FOR ROOFTOP UNITS AND TO FLOOR DRAIN FOR FAN COIL UNITS AND INDOOR
- 34. SEAL ALL WALL AND ROOF PENETRATIONS WATERTIGHT WITH SILICONE CAULKING AND BACKER ROD.
- 35. PROVIDE 30X30 ACCESS PANELS IN "HARD" CEILINGS FOR ACCESS TO ALL MOTORS / CONTROLS / BALANCING DAMPERS AND FIRE
- 36. PROVIDE OFFSETS AS NECESSARY TO ACCOMMODATE STRUCTURE AND OTHER TRADES.



Kinetic Design 20381 Lake Forest Dr. Suite B16 Lake Forest, CA. 92630

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



NOT FOR CONSTRUCTION

THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. APPROVAL FROM THE ARCHITECT AND **GOVERNING JURISDICTIONS MUST BE** ATTAINED PRIOR TO THE ISSUANCE OF CONSTRUCTION DOCUMENTS. THE ARCHITECT AND HIS CONSULTANTS ASSUME NO RESPONSIBILITY FOR CONSTRUCTION BIDS OR CONSTRUCTION PERFORMED FROM THESE DRAWINGS.

AN ONLY BE USED WITH WRITTEN PERMISS	REVISIONS						
	No.	DATE	DESCRIPTION				
EN E							
<u> </u>							
≱ ⊒ -							
≽							
SED							
Щ О							
H }							
<u> </u>							
{ -							

CLIENT INFORMATION



CHECKED

R.H. DATE 07/30/21 ピ SCALE AS NOTED

PROJECT NUMBER

GENERAL ANNOTATIONS

O DETAIL No. DETAIL CALL OUT REF DWG No. A201 ● SECTION No. SECTION CALL OUT A201 REF DWG No. **GRID DESIGNATION EXISTING GRID DESIGNATION** ELEVATION No. ELEVATION REFERENCE EXTERIOR A201 REF DWG No.

ELEVATION REFERENCE INTERIOR

4 A201 > 2

- 1>

ELEVATION NEW SPOT ELEVATION **ELEVATION** EXISTING SPOT ELEVATION

MATCH LINE MATCHLINE SEE A201

→ ELEVATION No.

→ REF DWG No.

KEYNOTE

KEYNOTE

→ KEYNOTE

KEYNOTE

→ 1 HEXAGON SHEET KEYNOTE - 1 CIRCLE SHEET KEYNOTE OVAL SHEET KEYNOTE (WORK) **→** 1 1 SQUARE SHEET KEYNOTE

→ KEYNOTE DIAMOND SHEET KEYNOTE (DEMO) / REVISION **REVISION NOTE**

POINT OF CONNECTION (DATUM) POC -POD POINT OF DISCONNECT

ROOM NAME ROOM NAME AND ROOM TARGET 101 101 ROOM PARTITION TARGET

TRUE NORTH PLAN NORTH SITE NORTH

ISOMETRIC NORTH

GENERAL SYMBOLS

Ų	THERMOMETER
<u> </u>	AUTOMATIC AIR VENT
<u></u>	MANUAL AIR VENT
PG	PRESSURE GAGE OR GAGE COCK
— (M)	WATER METER
— <u>M</u>	GAS METER
СР	IN-LINE CIRCULATING PUMP
AP	ACCESS PANEL
	BACKFLOW PREVENTER (DOUBLE CHECK)
BFP	BACKFLOW FREVENTER (BOOBLE CHECK)
RPPB	REDUCED PRESSURE PRINCIPLE BACKFLOW
M	MANUAL FLOW BALANCING VALVE (CIRCUIT SETTER)
	AUTOMATIC THERMOSTATIC BALANCING VALVE
PRV/TPRV #	VACUUM RELIEF VALVE
	PRESSURE & TEMPERATURE RELIEF VALVE
UN _	UNION
	ECCENTRIC REDUCER
	CONCENTRIC REDUCER
STR	STRAINER
	SWING CHECK VALVE / BACK WATER VALVE
	SOLENOID VALVE
	THREE-WAY SOLENOID VALVE
GC ————————————————————————————————————	GAS COCK / PLUG VALVE
	GATE VALVE
SOV	BALL VALVE / SHUT OFF VALVE
SOV	RISER BALL VALVE / SHUT OFF VALVE
——————————————————————————————————————	NEEDLE VALVE / THROTTLING VALVE
$ $ Φ $ $ $-$	BUTTERFLY VALVE
TMV	GLOBE VALVE
TIVIV	THERMOSTATIC MIXING VALVE
	THREE-WAY VALVE
	ANGLE VALVE / ANGLE STOP VALVE
	MOTORIZED T.C. VALVE/2-WAY
	MOTORIZED T.C. VALVE/3-WAY
NC, NO	NORMALLY CLOSED, NORMALLY OPEN
RR	ROOF RECEPTOR
—[]—	QUICK DISCONNECT
	FLANGED CONNECTION
	FLEX CONNECTOR
——————————————————————————————————————	EXPANSION CONNECTOR 90 ELBOW - DOWN
O	90 ELBOW - DOWN 90 ELBOW - UP
	TEE - DOWN
———	TEE - UP
	FLOW INDICATOR
——]	PIPE CAP

PIPE BREAK

PLUMBING ABBREVIATIONS

PARKING

PRESSED METAL

PLATE PLAM PLASTIC LAMINATE

PANEL

PAINT(ED)

PUSH/PULL

PARTITION PAVE(D), (ING)

PAVEMENT QUARRY TILE

RUBBER BASE

ROOF DRAIN REINFORCE(D),

REFERENCE

REGISTER

REMOVE RESILIENT RETURN REVISION(S), REVISED

ROOFING

RAFTER

RAIL(ING)

RESAWN REDWOOD

SOUTH

SOLID

CORE SCHEDULE

SHEET SHTG SHEATHING

SIMILAR SKYLIGHT SPECS SPECIFICATION(S)

SPECIAL SQUARE

SEATING

SERVICE SINK

STAINGRADE STAINLESS STEEL

STANDARD

TEMPERED

AND GROOVE TELEPHONE

THICK(NESS) THRESHOLD

TRANSOM

TOP SET

TYPICAL UNDERCUT UNDERWRITER'S LABORATORIES **UNLESS NOTED** OTHERWISE

SHEATHING TOP OF SLAB

TOP OF STEEL TELEVISION TOP OF WALL

VAPOR BARRIER

VENEER VERT VERTICAL

WOMEN WAINS WAINSCOT

> WOOD WIRED GLASS WALL HUNG WIRE MESH

WINDOW

WITHOUT

WTW WALL TO WALL WWF WELDED WIRE FABRIC

WATERPROOFING WATER REPELLANT

WATER CLOSET

VEST VESTIBULE VTR VENT THRU ROOF

VINYL COMPOSITION

TOP OF CONCRETE

TOP OF PARAPET

SECTION SERVICE SQUARE FEET

SHELF, SHELVING

RISER

ROOM

ROOF HATCH

REFLECT(ED), (IVE),

ROUGH OPENING

ROUGH SAWN

RIGHT OF WAY

REFRIGERATOR

POUNDS PER

SQUARE FOOT POUNDS PER SQUARE INCH

PLAS PLASTER

PNL

PVMT

REFR

REG RE

RFT

ROS

RO

₿WD

SC

SHT

SIM SKL

SPL SQ

SSK

STG

STD

TOC

TOIL

TR TRS

TS

TST

TYP

VCT

VEN

WND

STL STEEL STOR STORAGE STR STRUCTURAL

SUSP SUSPENDED

SCH SEC SERV

PLWD PLYWOOD

AB	ANCHOR BOLT	FLA	FLASHING
ABV	ABOVE	FLR	FLOOR
AC A/C	ACOUSTICAL AIR CONDITIONING	FLUOR FND	FLUORESCENT FOUNDATION
ACON	ASPHALTIC CONCRETE	FOB	FACE OF BLOCK
ACT	ACOUSTICAL TILE	FOC	FACE OF CONCRETE
ADH	ADHESIVE	FOF	FACE OF FINISH
ADJ	ADJACENT ADJUSTABLE	FOM	FACE OF
ADJT AFF	ABOVE FINISHED FLOOR	FOS	MASONRY FACE OF STUDS
ACC	ACCRECATE	FOW	FACE OF WALL
AGG ALT	AGGREGATE ALTERNATE	FR FRT	FRAME(D), (ING) FIRE-RETARDANT
AL	ALUMINUM	FT	FOOTING
ANC	ANCHOR, ANCHORAGE	FTG FUR	FOOTING FURRED(ING)
ANOD	ANODIZED	FUT	FUTURE
AP APX	ACCESS PANEL APPROXIMATE	GA	GAGE, GAUGE
ARCH	ARCHITECT(URAL)	GALV GD	GALVANIZED GRADE, GRADING
ASPH AUTO	ASPHALT AUTOMATIC	GEN	GENERAL
BD	BOARD	GI GL	GALVANIZED IRON GLASS, GLAZING
BEL	BELOW		GLUE LAMINATED
BET BLDG	BETWEEN BUILDING	GPDW	BEAM GYPSUM DRYWALL
BLK	BLOCK	GT	GROUT
BLKG BM	BLOCKING BEAM	GYP BD	GYPSUM BOARD
BOT	BOTTOM	HB	HOSE BIBB
BRG BS	BEARING BOTH SIDES	HC HD	HOLLOW CORE HEAD
BUR	BOTH SIDES BUILT UP	HDR	HEADER
	ROOFING	HDW HM	HARDWARE HOLLOW METAL
CAB	CABINET	HORIZ	HORIZONTAL
CB CEM	CATCH BASIN CEMENT	HT	HEIGHT HESATING /VENTILATING/
CFT	CUBIC FOOT	HVAC	AIR CONDITIONING
CHAM CI	CHAMFER CAST IRON	HWD	HARDWOOD
CIPC	CAST-IN-PLACE	1-HR	ONE-HOUR FIRE
CIR	CONCRETE CIRCLE	O LID	RESISTIVE RATING
CIRC	CIRCUMFERENCE	2-HR	TWO-HOUR FIRE RESISTIVE RATING
CJT CK	CONTRACT JOINT CALK(ING)	ID	INSIDE DIAMETER
	CAULK(ING)	INCAND	INCANDESCENT
CLG CLR	CEILING CLEAR(ANCE)	INS INT	INSULATE(D), (ION) INTERIOR
CLS	CLOSURE	JAN	JANITOR
CM CMU	CENTIMETER(S) CONCRETE	JST	JOIST
CIVIO	MASONRY UNIT	KPL	KICKPLATE
COL COMB	COLUMN COMBINATION	LAM	LAMINATE(D)
COMP	COMPRESS(ED),	LAV	LAVATORY
COMPO	(ION), (IBLE)	LC	LIGHTWEIGHT CONCRETE
COMPQ	COMPOSITION (COMPOSITE)	LDR	LADDER
COMPT CONC		LGT LTWT	LIGHT LIGHTWEIGHT
CONST		LVR	LOUVER
CONT	CONTINUOUS	M	MEN
CONTR	OR CONTINUE CONTRACT(OR)	MAS MAT'L	MASONRY MATERIAL(S)
COPR	CARRET(ED)	MAXI	MAXIMUM
CPT CSK	CARPET(ED) COUNTERSINK	MB MBR	MACHINE BOLT MEMBER
CT CX	CERAMIC TILE CONNECTION	MECH	MECHANIC(AL)
CYD		MED MFR	MEDIUM MANUFACTURE(R)
CYL	CYLINDER	MIN	MINIMUM
D	DRAIN	MISC ML&PL	MISCELLANEOUS METAL LATH &
DBL DEMO	DOUBLE DEMOLISH,		PLASTER
DET	DEMOLITION	MLD'G	MOLDING, MOULDING
DET DF	DETAIL DOUGLAS FIR	MO	MASONRY
DIA	DIAMETER	MR	OPENING MIRROR
DIM DISP	DIMENSION DISPENSER	MT	MOUNT(ED), (ING)
DPR	DAMPER	MTL MUL	METAL MULLION
DR DS	DOOR DOWNSPOUT	MWK	MILLWORK
DWG	DRAWING	N	NORTH
DWR	DRAWER	NAT NIC	NATURAL NOT IN
E EF	EAST EACH FACE		CONTRACT
ELEC	ELECTRIC(AL)	NOM NTS	NOMINAL NOT TO SCALE
ELEV EMER	ELEVATOR EMERGENCY	OC	ON CENTER(S)
ENC	ENCLOSE(URE)	OD	OUTSIDE
EQ EQUIP	EQUAL EQUIPMENT	OFOI	DIAMETER OWNER
EST	ESTIMATE	01 01	FURNISHED
EWC	ELECTRIC WATER COOLER		OWNER INSTALLED
EXG	EXISTING	OFCI	OWNER
EXH EXP	EXHAUST EXPOSED/		FURNISHED
	EXPANSION		CONTRACTOR INSTALLED
EXT	EXTERIOR	CFCI	CONTRACTOR
FBO	FURNISHED BY	01 01	FURNISHED
FD	OTHERS FLOOR DRAIN		CONTRACTOR INSTALLED
FEC	FIRE	ОН	OVERHEAD
	EXTINGUISHER CABINET	OPG	OPENING
FF	FACTORY FINISH	OPP	OPPOSITE
FFE	FINISHED FLOOR ELEVATION	PAR	PARALLEL POLINDS DEP
FFL	FINISHED FLOOR	PCF	POUNDS PER CUBIC FOOT
FG	LINE FIXED GLASS	PERF	PERFORATE(ED)
FHC	FIRE HOSE	PERI PFB	PERIMETER RPEFABRICATE(D)
FIN	CABINET FINISHED(ED)	PFN PG	PREFINISH PAINT GRADE
4		ıG	I AINT GNADE

PLUMBING SYSTEMS

	CONDENSATE DRAIN
PCD	PUMPED CONDENSATE DRAIN
CW	DOMESTIC COLD WATER
	DOMESTIC HOT WATER (120° F)
— —HWR— —	DOMESTIC HOT WATER RETURN (120° F)
—— – – H W(140°F) – – ——	DOMESTIC HOT WATER (140° F)
— - H WR(140°F) —	DOMESTIC HOT WATER RETURN (140° F)
TW	TEMPERED WATER (105° F)
IEW	INDUSTRIAL COLD WATER
IRR	IRRIGATION
RCW	RAW COLD WATER
scw	SOFT COLD WATER
F	FIRE PROTECTION
W	WASTE ABOVE GROUND
	WASTE BELOW GROUND
V	SANITARY VENT
ТР	TRAP PRIMER
G ₩	GREASE WASTE
SD	STORM DRAIN
OD	STORM DRAIN OVERFLOW
SSD	SUBSURFACE DRAINAGE
FOF——	FUEL OIL FILL
FOS	FUEL OIL SUPPLY
———FOR——	FUEL OIL RETURN
AW	ACID WASTE
AV	ACID VENT
G	LOW PRESSURE NATURAL GAS (8" WC)
LPG	LIQUEFIED PETROLEUM GAS (PROPANE)
MPG	MEDIUM PRESSURE NATURAL GAS (5 PSIG
HPG	HIGH PRESSURE NATURAL GAS
A	COMPRESSED AIR
VAC	VACUUM
N	MEDICAL NITROGEN
N20	MEDICAL NITROUS OXIDE
——————————————————————————————————————	CARBON DIOXIDE
(E)	EXISTING PIPING
——————————————————————————————————————	DEMOLITION WORK
2%	SLOPE DOWN IN DIRECTION OF FLOW

PLUMBING SYMBOLS

	ROUND / SQUARE FLOOR DRAIN OR EMERGENCY FLOOR DRAIN
©RD ©OD	ROOF DRAIN/OVERFLOW DRAIN
FS	FLOOR SINK - FULL, 1/2 & 3/4 GRATE
TD	TRENCH DRAIN
2%	SLOPE
——————————————————————————————————————	HOSE BIBB, EXPOSED
——————————————————————————————————————	HOSE BIBB, RECESSED
FCO/COTG	FLOOR CLEANOUT/ CLEANOUT TO GRADE
	CLEANOUT/WALL CLEANOUT
	P-TRAP
WHA	WATER HAMMER ARRESTOR



20381 Lake Forest Dr. Suite B16 Lake Forest, CA. 92630 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



NOT FOR CONSTRUCTION

THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. APPROVAL FROM THE ARCHITECT AND **GOVERNING JURISDICTIONS MUST BE** ATTAINED PRIOR TO THE ISSUANCE OF CONSTRUCTION DOCUMENTS. THE ARCHITECT AND HIS CONSULTANTS ASSUME NO RESPONSIBILITY FOR CONSTRUCTION BIDS OR CONSTRUCTION PERFORMED FROM THESE DRAWINGS.

CAN ONLY BE USED WITH WRITTEN PERMISSIO		R	EVISIONS
띪	No.	DATE	DESCRIPTION
Ë			
E			
≥ H			
⋈			
SED			
Щ			
L Z			
S			
AN S			

CLIENT INFORMATION



SUMMIT, RETAIL SPACE AND

CHECKED DATE 07/30/21 ピ SCALE AS NOTED PROJECT NUMBER

NEKTER

- NOTE THAT THE WORK OF THIS SECTION MAY BE INDICATED ON ANY OF THE CONTRACT DRAWINGS NOTE THAT THE WORK OF THIS SECTION MAY BE INDICATED ON ANY OF THE CONTRACT DRAWINGS. ALL DOMESTIC HOT AND COLD WATER INSIDE OF BUILDING AND EXTERIOR OF BUILDING TO SITE
- CONNECTIONS. FURNISHING AND INSTALLING OF PLUMBING FIXTURES, ETC.
- ALL HOT WATER AND HOT WATER RETURN PIPING INSULATION. WORK INDICATED ON DRAWINGS BUT NOT MENTIONED IN SPECIFICATIONS, OR VISE VERSA, SHALL BE PERFORMED THE SAME AS IF SPECIFICALLY MENTIONED OR INDICATED IN BOTH LOCATIONS. ALL SUPPLEMENTARY LABOR OR MATERIALS REQUIRED FOR A COMPLETE, APPROVED, AND PROPERLY OPERATING INSTALLATIONS SHALL BE FURNISHED WHETHER OR NOT INDICATED AND SPECIFIED, AND
- WITHOUT ADDITIONAL COST TO OWNER. PERMITS AND FEES REQUIRED FOR THE INSTALLATION OF WORK OF THIS SECTION. THIS INCLUDES OBTAINING AND PAYING FOR PERMIT FOR THE INSTALLATION OF THE SEPTIC TANK, AT NO ADDITIONAL

1.02 RELATED WORK IN OTHER SECTIONS

- TEMPORARY WATER ALL LINE VOLTAGE ELECTRICAL WIRING AND CONDUIT.
- FIRE SPRINKLER SYSTEM 1.03 REFERENCED GENERAL REQUIREMENTS
- ADMINISTRATIVE REQUIREMENTS: WORK COVERED BY CONTRACT DOCUMENTS; SITE CONDITIONS;
- CUTTING AND PATCHING
- SUBMITTALS: SCHEDULING SUBMITTALS; PROJECT SCHEDULE DATA. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES: DRAWINGS; MATERIAL LIST; CATALOG CUTS;
- QUALITY CONTROL
- FIELD QUALITY CONTROL TESTS. CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS: PROTECTION OF WORK AND PROPERTY;
- CLEANUP DURING CONSTRUCTION. PRODUCT OPTIONS AND SUBSTITUTIONS: PROPRIETARY SPECIFYING; CONTRACTOR REQUESTED
- CONTRACT CLOSEOUT: FINAL CLEANUP; WARRANTIES; RECORD DOCUMENTS; OPERATION AND MAINTENANCE MANUALS.

1.05 CODE PERMITS, FEES AND ACCEPTANCES

- A. CODES.
 - DEFINED IN OTHER SECTIONS COMPLY WITH CODES.
- COMPLY FULLY WITH FIRE DEPARTMENT REQUIREMENTS.
- B. PERMITS AND FEES.
 - PROVIDE FOR THE WORK OF THIS SECTION AS REQUIRED. OBTAIN AND PAY FOR PERMITS FOR WORK OF THIS SECTION.
- C. ACCEPTANCES.
 - PRIOR TO ACCEPTANCE FURNISH OWNER WITH SUCH SETS OF OPERATION AND
 - MAINTENANCE MANUALS AS ARE REQUIRED BY OTHER SECTIONS. PROVIDE VALVE LEGEND, TABLE OF CONTENTS AND ALL WARRANTIES
- OBTAIN ARCHITECTS ACCEPTANCE OF ALL SYSTEMS AND OPERATIONS.

1.06 QUALITY ASSURANCE

- SUPERVISION: PERFORM THE WORK UNDER THE CONTINUOUS SUPERVISION OF A COMPETENT SUPERINTENDENT AND/OR FOREMAN CAPABLE OF UNDERSTANDING THE CONTRACT DOCUMENT AND IMPLEMENTING THEIR REQUIREMENTS. DO NOT CHANGE SUPERVISOR WITHOUT ACCEPTANCE OF
- SUBSTITUTION BY ARCHITECT WORKSMANSHIP: EMPLOY WORKMEN SKILLED IN THE VARIOUS TYPES OF WORK BEING PERFORMED. PERFORM WORK AS SPECIFIED
- REPLACE WORK NOT CONFORMING TO REVIEWED/ACCEPTED SHOP DRAWINGS/PRODUCT DATA. REPLACE WORK NOT CONFORMING TO CONTRACT REQUIREMENTS.

1.07 SCHEDULING

- A. AS SPECIFIED IN OTHER SECTIONS.
 - SCHEDULE SUBMITTALS. PROVIDE PROGRESS SCHEDULE DATES
 - CONTRACTOR SHALL INCLUDE ALL REQUIRED TIME TO MEET WITH OWNER'S REPRESENTATIVE IN HIS WORK TO SCHEDULE ALL CONSTRUCTION FOR THE PROJECT, AT NO ADDITIONAL COST.

1.08 SUBSTITUTION

A. PROCEDURES FOR REQUESTING SUBSTITUTION ARE SPECIFIED IN GENERAL CONDITIONS.

1.09 SUBMITTALS

- A. SHOP DRAWINGS.
 - COMPLY WITH PERTINENT PROVISIONS OF OTHER SECTIONS. DRAWINGS SHALL INDICATE FOLLOWING
- ALL INFORMATION REQUIRED TO INDICATE COMPLIANCE OF SYSTEM WITH DESIGN CRITERIA AND OTHER CONTRACT REQUIREMENTS
- COORDINATION WITH STRUCTURAL ELEMENTS, CEILING SYSTEM, LIGHTING FIXTURES, HVAC OUTLETS, DUCTWORK.
- SUBMIT DATED, CERTIFIED REPORTS REQUIRED TESTS. SUBMIT COMPLETE DRAWINGS FOR FINAL REVIEW.
- D. PRODUCT DATA.
 - FIXTURES, PIPING, VALVES, FLOOR SINK. PIPE AND FITTINGS
- MANUFACTURER/SUPPLIER PRODUCT SPECIFICATIONS AND INSTALLATIONS INSTRUCTIONS.
- MANUFACTURER/SUPPLIER CERTIFICATES ATTESTING THAT PRODUCTS FURNISHED COMPLY WITH
- STANDARDS SPECIFIED/REFERENCED HEREIN.
- 1.10 RECORD DOCUMENTS PROVIDE AS REQUIRED BY GENERAL CONDITIONS.
- PROVIDE/MAINTAIN SHOP DRAWINGS FOR WORK OF THIS SECTION. RECORD DRAWINGS SHALL BEAR STAMP IMPRINTS AND SIGNATURES INDICATING THEIR ACCEPTABILITY TO BUILDING AUTHORITIES.
- 1.11 PROTECTION OF WORK AND PROPERTY
- PROVIDE AS SPECIFIED IN OTHER SECTIONS. REPAIR AND MAKE GOOD DAMAGE RESULTING FROM THE WORK OF THIS SECTION.
- 1.12 TEMPORARY WATER
 - A. PROVIDE AS REQUIRED PER CODE.
- 1.13 INSPECTIONS REQUIRED
- A. ARRANGE FOR AND PROVIDE INSPECTIONS REQUIRED BY BUILDING AUTHORITIES.
- 1.14 CUTTING AND PATCHING
- A. PERFORM AS SPECIFIED IN OTHER SECTIONS.
- 1.15 WARRANTY
 - PROVIDE INSTALLER'S WARRANTY AS SPECIFIED IN OTHER SECTIONS.

<u>2.01</u> <u>GENERAL</u>

- A. TO THE EXTENT POSSIBLE MECHANICAL AND ELECTRICAL COMPONENTS
 - FACTORY MUTUAL APPROVED.

2.02 MATERIALS

A. ALL MATERIALS FOR THE SAME GENERAL USE SHALL BE OF THE SAME TYPE AND MANUFACTURER.

PART II - PRODUCTS

- WATER DESTRIBUTION PIPE AND FITTINGS.
 - MAIN WATER SERVICE BELOW GRADE
 - FITTINGS: WROUGHT COPPER TO MATCH PIPE MATERIAL. DOMESTIC WATER PIPING IN BUILDING:

PIPE: COPPER TYPE K MAKE JOINTS WILL SILFOSE.

PIPE: COPPER TYPE L MAKE JOINTS WITH 95-5 SILVER SOLDER OR APPROVED EQUAL. FITTINGS: TO MATCH PIPE MATERIAL.

PEX PIPING ACCEPTABLE IF ALLOWED BY AUTHORITY HAVING JURISDICTION.

- GRAVITY PIPE AND FITTINGS
- a. SOIL, WASTE AND VENT PIPING:
 - FOR SANITARY WORK BELOW FLOOR AND OUTSIDE UNDERGROUND SHALL BE SERVICE WEIGHT CAST IRON PIPE AND FITTINGS. SOIL LINES 5 FEET OR MORE FROM BUILDINGS MAY BE VITRIFIED CLAY PIPE WITH FIRST GRADE MARKINGS UNLESS NOTED

SHALL BE:

- FOR PIPING INSTALLED ABOVE GROUND, SHALL BE SERVICE WEIGHT CAST IRON PIPE AND FITTINGS. NO-HUBS WITH STAINLESS STEEL COUPLING.
- PVC AND CPVC ARE ACCEPTABLE AS ALTERNATIVE IF ALLOWED BY AUTHORITY HAVING JURISDICTION.
- C. GAS PIPE AND FITTINGS
 - NATURAL GAS PIPING: SCHEDULE 40 BLACK STEEL WITH SCREWED FITTINGS.

D. PIPE SUPPORTS

PROVIDE PIPE SUPPORT AND BRACING TO COMPLY WITH GOVERNING AUTHORITIES. MANUFACTURERS: GRINNEL, FEE AND MASON, ELCEN, MICHIGAN, SUPERSTRUT.

2.04 PIPE MATERIALS, FITTINGS AND VALVES

- CAST IRON SOIL PIPE AND FITTINGS: SERVICE WEIGHT CAST IRON, CONFORMING ASTM A-74-69 OR NO-HUB TYPE CONFORMING TO CISPI 301-72.
- LEAD: NEW PIG LEAD, CONFORMING TO ASTM B29-43. HEMP PACKING: IMPREGNATED JUTE, MANUFACTURED FOR CAULKING SOIL PIPE AND FITTINGS.
- GALVANIZED OR BLACK IRON PIPE: STANDARD WEIGHT PIPE CONFORMING TO ASTM A12-47. FITTINGS SERVICE WEIGHT CAST IRON DRAINAGE TYPE FITTINGS FOR STEEL LINES. WROUGHT
- COPPER FITTINGS FOR COPPER LINES UNIONS: FOR CONNECTIONS IN IRON PIPE LINES 2 1/2 INCHES AND SMALLER, USE GROUND JOINT
- BRASS TO IRON UNIONS. UNIONS IN COPPER LINES SHALL BE COPPER TO COPPER. VICTAULIC COUPLINGS MAY BE USED WHERE PERMITTED BY CODE.
- VALVES SHALL CONFORM TO THE FOLLOWING:
 - GATE VALVES: SOLID WEDGE DISC, RISING STEM. NON RISING STEM MAY BE USED ONLY WHERE THERE IS INSUFFICIENT CLEARANCE.
 - a. 3" AND SMALLER: CRANE #428 (RISING STEM)
 - GLOBE VALVES: REPLACEABLE COMPOSITION DISC SUITABLE FOR 200 DEGREES HOT WATER.
 - a. 2" AND SMALLER: CRANE #7, BRONZE, SCREWED.

GAS COCKS:

- a. 3" AND SMALLER: CRANE #37, BRONZE, SCREWED, SWING CHECK TYPE.
- a. 2" AND SMALLER: CRANE #250. BRONZE, SCREWED.
- STRAINERS:
- a. 3" AND LARGER: CRANE #988, SCREWED.
- PRESSURE REGULATORS: MUELLER H-9000, WILKINS SERIES 500. INSTALL WITH BRASS STRAINER UPSTREAM OF REGULATOR.
- PARTITION STOP VALVES: CHICAGO FAUCET # 1771, LOOSE KEY TYPE.

2.05 FLASHING

FLASH ALL PIPES PASSING THROUGH ROOF WITH SEMCO #1100-4 SEAMLESS FOUR POUND FLASHING WITH STEEL REINFORCED VARIPITCH BOOT AND CAST IRON COUNTERFLASHING SLEEVE.

2.06 PIPE HANGERS

- WATER PIPING: FEE AND MASON #199 ADJUSTABLE SPLIT RING HANGERS WITH SUPPORTING RODS. PROVIDE SEMCO SERIES #100 OR #500 TRISOLATORS.
- SOIL AND WASTE PIPING: FEE AND MASON #199 ADJUSTABLE SPLIT RING HANGERS WITH SUPPORTING RODS. USE FEE AND MASON #241 RISER CLAMPS AT EACH FLOOR AND AS REQUIRED.

2.07 CLEANOUTS

- EXTERIOR: SMITH #4253 WITH X.H. CAST IRON TOP IN CONCRETE AREAS. IN NONSURFACED OR
- BLACKTOP AREAS INSTALL WITH RING OF CONCRETE 6" BELOW SURFACE FLOORS: SMITH #4023 WITH ROUND NICKEL BRONZE TOP IN FINISHED ROOM FLOORS. SMITH #4223 WITH ROUND CAST IRON TOP IN UNFINISHED ROOM FLOORS. CLEANOUTS SHALL BE FLUSH WITH FLOOR TYPE WITH ADJUSTABLE WATER-TYPE COVER, HAVING INTEGRAL ANCHORING FLANGE AND
- CLAMPING COLLAR WHEN WATERPROOFING MEMBRANE IS USED. FINISHED WALLS: SMITH #4532 WITH ROUND CHROME PLATED OR STAINLESS STEEL ACCESS PATE

CLEANOUT PLUGS SHALL BE EXTRA HEAVY BRONZE PLUGS. 2.08 ACCESS BOXES

- WALLS: STAINLESS STEEL FACE IN TILE WALLS. USE BONDERIZED PRIME COATED STEEL FACE AND WITH ALLEN LOCK IN WALLS OF OTHER FINISHED ROOMS.
- CEILINGS: USE WITH BONDERIZED PRIME COATED STEEL FACE AND ALLEN LOCK IN WALLS OF OTHER
- FLOORS: SMITH #4910 WITH POLISHED ALUMINUM ALLOY OR NICKEL BRONZE NON-SKID TOP IN FINISHED ROOMS. USE SMITH #4910 WITH PLAIN ALUMINIUM OR NICKEL BRONZE NON SKID TOP IN UNFINISHED ROOMS. USE SMITH #4920 FOR FLOORS COVERED WITH TILE.

2.09 TRAPS

- FOR LAVATORIES AND SINKS, EXCEPT SERVICE SINKS, SHALL BE CHROME PLATE CAST BRASS, L.A. PATTERN WITH BRASS NUTS. PROVIDE TRAP INSULATORS AS REQUIRED BY HANDICAPPED CODE. INSULATORS SHALL BE PRE-FORMED, WRAPPING IS NOT ACCEPTABLE.
- 2.10 WATER HAMMER ARRESTORS

2.11 FIXTURES AND EQUIPMENT

A. SMITH #5000 SERIES STAINLESS STEEL.

A. REFER TO FIXTURE SCHEDULE ON PLUMBING DRAWINGS.

2.12 INSULATION HOT WATER AND HOT WATER RETURN PIPING: FURNISH AND INSTALL 1" THICK FIBERGLASS PIPE INSULATION WITH PREFORMED INSULATION FITTINGS. (NO EXCEPTION FOR PEX PIPING)

3.01 INSPECTION

- INSPECT AREA OF INSTALLATION AND STATUS OF RELATED WORK.
- MEASURE WORK IN PLACE: DIMENSIONS CRITICAL TO INSTALLATION, INCLUDING LEVEL AND PLUMB. REPORT CONDITIONS PREVENTING PROPER EXECUTION.
- DO NOT PROCEED IN AREAS ADVERSELY AFFECTED UNTIL DEFICIENCIES ARE CORRECTED.

3.02 PREPARATION, LAYOUT AND DETAILING

- VERIFY ALL SPACES, DIMENSIONS, LOCATIONS, CONDITIONS, ETC., REQUIRED FOR INSTALLATION OF ALL PLUMBING AND RELATED WORK, ASSUME FULL RESPONSIBILITY THEREOF.
- OBTAIN ALL NECESSARY ROUGH-IN DATA AND DIMENSIONS FOR ALL FIXTURES, EQUIPMENT, OWNER
- FURNISHED EQUIPMENT, AND EQUIPMENT FURNISHED UNDER OTHER SECTIONS.
- EARTH OR GRAVEL COVER OVER UNDER-FLOOR LINES SHALL BE 4" MINIMUM.
- NO EXPOSED PIPES OR CONDUIT WILL BE PERMITTED TO SHOW ON INTERIOR OF BUILDING IN ANY FINISHED ROOM. WHERE THIS WOULD OCCUR, EXPOSED PORTION SHALL BE FURRED OR CASED WHEN NOT ADJACENT TO THE WALL.
- NO UNDERGROUND LINE SHALL BE INSTALLED LESS THE TEN INCHES AWAY FROM ANY REFRIGERANT
- MAINTAIN AMPLE HEADROOM, CLEARANCES AND ACCESSIBILITY. INTERFERENCES BETWEEN WORK OF VARIOUS TRADES WILL BE RESOLVED BY THE ARCHITECT WHOSE DECISION WILL BE FINAL. RELOCATE OR OFFSET ANY WORK AS REQUIRED TO ACCOMMODATE WORK OF OTHER TRADES, ALL AT NO ADDITIONAL COST TO OWNER. MAINTAIN CEILING HEIGHTS TO AVOID EXCESSIVE FURRING
- IF NOT EXACTLY LOCATED ON DRAWINGS, OBTAIN LOCATIONS OF FIXTURES, EQUIPMENT, APPLIANCES, ETC. FROM ARCHITECT. NO TOLERANCE WILL BE ALLOWED.

3.03 ROUGHING-IN

PROCEED WITH ROUGH-IN AS RAPIDLY AS CONSTRUCTION WILL PERMIT. FIT ALL PIPING WITHIN AVAILABLE SPACES USING FITTINGS, OFFSETS, HANGERS, ETC. AS REQUIRED TO ACCOMPLISH THIS RESULT. NOTIFY ARCHITECT AND OWNER WHEN ROUGH-IN IS COMPLETE SO THEY MAY INSPECT AND VERIFY LOCATIONS OF ALL ROUGH-INS, STUB-UPS, ETC., PRIOR TO CLOSING IN OF WALLS OR POURING OF CONCRETE FLOORS.

3.04 PIPE INSTALLATION AND HANGERS

INACCESSIBLE LOCATIONS

- ALL PIPING SHALL BE RUN CONCEALED IN FINISHED ROOMS. IN OTHER ROOMS WHERE PIPING RUN IS EXPOSED, PLACE IN UNIMPORTANT AND OUT-OF-WAY PLACES, AND AS ACCEPTED BY ARCHITECT. ALL VERTICAL PIPES SHALL BE PLUMB, GRADE HORIZONTAL PIPES TO UNIFORM SLOPES AS REQUIRED, WHERE TWO OR MORE PIPE RUNS ARE PLACED TOGETHER, RUN PARALLEL TO EACH
- ALL PIPING SHALL BE INSTALLED EITHER PARALLEL OR AT RIGHT ANGLES TO BUILDING WALLS. REMOVE FOREIGN MATERIAL FROM ALL PIPES, VALVES, AND FITTINGS. WHENEVER PIPES ARE CUT FOR CAULKING OR SCREWED FITTINGS, CAREFULLY REAM OUT AND CLEAN OFF ALL BURRS, CHIPS
- PROVIDE SHUT-OFF VALVES AT ALL FIXTURES, WHERE INDICATED ON THE DRAWINGS, AND WHERE REQUIRED FOR PROPER CONTROL OF THE SYSTEM. PROVIDE SHUT-OFF VALVES AT THE PIPING CONNECTIONS TO ALL EQUIPMENT CONTROLS. WHERE VALVES ARE LOCATED IN CONCEALED PIPING, FURNISH AND INSTALL METAL ACCESS PANELS OF SUITABLE SIZE AND OF THE TYPE
- UNLESS FLANGES ARE INDICATED, A UNION SHALL BE INSTALLED AT BYPASSES AND EQUIPMENT CONNECTION ADJACENT TO ALL VALVES AND ELSEWHERE AS INDICATED OR REQUIRED FOR EASE OF INSTALLATION AND SERVICING. UNDER NO CIRCUMSTANCES SHALL UNIONS BE INSTALLED IN
- INSTALL APPROVED DIELECTRIC UNIONS WHEN JOINING DISSIMILAR METALS. USE OF COUPLINGS WILL NOT BE PERMITTED. MAKE SUITABLE PROVISIONS FOR MAXIMUM EXPANSION AND CONTRACTION OF ALL PIPING. PROVIDE
- SWING JOINTS FITTINGS AND ANCHORS AS REQUIRED. FURNISH AND INSTALL WATER HAMMER ARRESTORS ON BOTH THE HOT AND COLD WATER PIPE. INSTALL IN UPRIGHT POSITION AT QUICK CLOSING VALVES AND FIXTURES, ETC. AS REQUIRED. LOCATE
- BEHIND ACCESS PANEL WHEN LOCATED IN CONCEALED AREAS. PIPES PASSING THOUGH CONCRETE OR MASONRY WALLS OR PARTITION SHALL BE RUN THROUGH RUST-PROOF SLEEVES. SLEEVES THROUGH WATERPROOFED SURFACES SHALL BE CAST IRON AND CAULKED WATERTIGHT IN AN APPROVED MANNER. SPACE BETWEEN SLEEVES AND PIPES IN OTHER WALLS OR PARTITIONS SHALL BE PACKED TIGHT WITH DENSE FIBERGLASS, OR OTHER APPROVED
- PIPES PASSING THROUGH CEILINGS AND STUD WALLS SHALL BE RUN THROUGH SPERZEL CRETE EXPOSED PIPING SHALL BE EQUIPPED WITH CAST BRASS, SPLIT HINGED HROME PLATED

MATERIAL. ANY HOLES REQUIRED AFTER CONCRETE IS POURED SHALL BE CORED DRILLED.

- ESCUTCHEON PLATES, LOCKED IN PLACE WITH SET SCREWS. WHERE COVERING OCCURS, USE LONG SCREWS THROUGH COVERING JOINTS IN COPPER LINES SHALL BE THOROUGHLY CLEANED WITH SANDPAPER, FLUXED, AND LINED AS
 - 2 1/2 " AND SMALLER: USE 95-5 SILVER SOLDER WHERE PRESSURE IS LESS THAT 150 PSIG AND
- EMPERATURE IS LESS THAT 150 DEGREES F. EXPOSED PLATED. POLISHED OR ENAMELED CONNECTIONS FOR FIXTURES SHALL SHOW NO TOOL
- VALVES, TRAPS, AND OTHER APPARATUS SHALL BE INSTALLED IN EASILY ACCESSIBLE LOCATIONS. WATER LINES SHALL BE RUN FROM POINT OF CONNECTION AT MAIN TO ALL FIXTURES. EQUIPMENT AND OUTLETS AS REQUIRED FOR COMPLETE INSTALLATION. CONNECT HOT WATER LINES TO HO $^\circ$ WATER HEATERS AS SHOWN ON DRAWINGS. EXTEND HOT WATER SERVICES TO ALL FIXTURES. EQUIPMENT AND OUTLETS AS INDICATED ON DRAWINGS. HOT WATER LINES SHALL GRADE UPWARD

FROM THE SOURCE OF SUPPLY. EXERCISE CARE TO PREVENT AIR TRAPS IN THE HOT WATER

- CAST IRON PIPE JOINTS: CAULKED JOINTS SHALL BE MADE WITH HEMP PACKING AND SOFT PIG LEAD. JOINTS SHALL BE RUN FULL AT ONE POURING AND CAULKED SOLID FLUSH WITH HUB. HEMP PACKING FOR SEALED JOINTS SHALL BE OF LONG FIBERS OF BEST QUALITY JUTE, WOVEN IN TO STRANDS
- AND KEPT CLEAN ON COVERED BALES UNTIL USED.
- NO HUB JOINTS ARE PERMITTED IF APPROVED BY LOCAL AUTHORITIES. USE STAINLESS STEEL BANDS ABOVE GRADE AND TYPE MG BELOW GRADE.

SYSTEM. INSULATE AS REQUIRED BY GOVERNING CODES.

ACCESS BOXES SHALL BE PROVIDED AND INSTALLED WHERE INDICATED ON DRAWINGS AND OVER ALL CONCEALED EQUIPMENT SUCH AS VALVES, TRAP PRIMERS, WATER HAMMER ARRESTOR, ETC., OF SUITABLE SIZE FOR SERVICE INTENDED. MINIMUM 10 X 10 INSTALL CLEANOUTS AT ALL BENDS, ANGLES AND ENDS OF ALL WASTE AND SEWER PIPING AND WHERE NOTED ON DRAWINGS. ALL CLEANOUTS SHALL BE BROUGHT TO GRADE AND IN ALL CASES

VITRIFIED PIPE JOINTS SHALL BE MADE WITH WEDGELOCK FITTINGS.

ACCESSIBLE. VERIFY WHERE CLEANOUTS WILL BE CONSIDERED ACCESSIBLE. ALL CLEANOUTS THREADS SHALL BE THOROUGHLY GREASED WHEN INSTALLED. CHANGE IN LINE SIZES SHALL BE MADE WITH REDUCING FITTINGS. NO BUSHINGS SHALL BE USED. THOROUGHLY REAM OR DE-BURR ALL PIPING PRIOR TO INSTALLATION AND AFTER INSTALLATION THOROUGHLY BLOWOUT AND WASH OUT ALL PIPING. MAKE UP ALL RUNS OF PIPING WITH FULL LENGTH SECTIONS OF PIPE OR LENGTHS CUT TO FIT. USE NO COUPLINGS, EXCEPT WHERE LENGTH OF RUN REQUIRES MORE THAN ONE LENGTH OF PIPE. THE SHORT LENGTH SHALL BE USED AT ENDS AND NOT IN THE MIDDLE OF THE RUN. STREET ELBOWS, LONG THREADED PIPE, RUNNING THREAD OR

SHALL BE ACCESSIBLE. CLEANOUTS SHALL NOT BE LOCATED UNDER OR BEHIND FIXTURES, UNLESS

- BULLHEAD TEES SHALL NOT BE USED. ALL OFFSETS SHALL BE MADE WITH FITTINGS AND PIPES SHALL NOT BE BENT AT ANY TIME. CUT THREADS ON PIPE WITH CLEAR SHARP DIES, FULL THICKNESS OF DIE. MAKE JOINTS IN ALL SCREWED PIPE WITH APPROVED PIPE COMPOUND, COMPLETELY COVERING MALETHREAD.
- PIPE SUPPORTS: PROVIDE PIPE HANGERS AND HANGING RODS AS REQUIRED TO FULLY SUPPORT PIPES AND WEIGHT OF MATERIALS CARRIED. SUBMIT SCHEDULE OF RODS, PIPE SIZES, AND
- SUPPORTING BRACKETS WATER LINES: SECURELY ATTACH TO WALLS, STUDS, ETC. ISOLATE ALL SUCH PIPING FROM THE STRUCTURE BY A 1/8" THICK FELT PAD WRAPPED AROUND PIPING.

SHALL BE OF THE SAME MANUFACTURER

3.05 HOT WATER HEATERS PROVIDE SHUTOFF VALVES AND UNIONS AT BOTH INLET AND OUTLET CONNECTIONS. FOR STORAGE

METAL PAN WITH 3" LIP AND WITH SOLDERED SEAMS. RUN 3/4" DRAIN FROM PAN TO NEAREST 3.07 <u>VALVES</u> ALL VALVES SHALL BE LOCATED IN ACCESSIBLE PLACES. WHERE IT IS NECESSARY TO INSTALL VALVE BODIES IN WALLS OR FLOORS, PROVIDE ACCESS PANELS WITH VALVE WHEELS AND BONNETS IN

ACCESSIBLE LOCATION. GATE VALVES SHALL BE USED ON ALL LINES REQUIRING VALVES TO BE WIDE OPEN OR TIGHT SHUT. ALL VALVES SHALL HAVE NAME OR TRADEMARK OF MANUFACTURERS AND

GUARANTEED WORKING PRESSURE CAST OR STAMPED ON BODY. ALL VALVES OF THE SAME TYPE

TANK TYPE, INSTALL PRESSURE TEMPERATURE RELIEF VALVE WITH TEST LEVER AT EACH HEATER,

MOUNTED WITH FLEMENT INSIDE OF TANK. MOUNT HEATER INSIDE 22 GAGE GALVANIZED SHEET

3.08 PROTECTION

PART III - EXECUTION

- CLOSE ALL WASTE, VENT, WATER AND OTHER PIPE OPENINGS BY MEANS OF A TEST PLUG, SCREW CAP OR OTHER FITTING. NO PAPER, WOOD, BRICK, OR OTHER SUBSTITUTES WILL BE ALLOWED. PLUGS OR CAPS SHALL NOT BE REMOVED FROM OPENINGS EXCEPT DURING THE TIME THE OPENING IN PIPE IS BEING ACTUALLY WORKED UPON.
- ALL TRAPS IN CLOSET BOWLS, URINALS, SINKS AND LAVATORIES SHALL BE CLOSED SO THAT NO DEBRIS CAN ENTER. AREA DRAINS SHALL BE PROVIDED WITH AN INNER TOPPING AND SHALL BE PLUGGED DURING CONSTRUCTION.
- WATER CLOSETS, LAVATORIES, SINKS, AND OTHER FIXTURES SHALL BE FULLY PROTECTED DURING THE COURSE OF CONSTRUCTION. SHOULD ANY FIXTURE BECOME DAMAGED, THEN THE CONTRACTOR SHALL REPLACE WITHOUT ADDITIONAL COST TO OWNER.
- ON COMPLETION OF WORK AND IMMEDIATELY PRIOR TO FINAL TEST, REMOVE ALL PROTECTION COVERINGS, THOROUGHLY CLEAN ALL FIXTURES, AND OTHER EQUIPMENT IN CONNECTION WITH WORK, POLISH ALL BRIGHT WORK AND LEAVE WORK IN NEAT, CLEAN CONDITION READY FOR USE OPERATION AND ACCEPTABLE TO ARCHITECT.
- VALVES, METERS, REGULATORS, AND OTHER EQUIPMENT SHALL BE PROTECTED FROM DAMAGE, WHEN SO DIRECTED BY ARCHITECT, BY PROPERLY LOCATED 6" DIAMETER CONCRETE FILLED PIPE

3.09 ADJUSTING

UPON COMPLETION OF WORK AND AFTER CLEANING OF ALL SYSTEMS AND APPARATUS, AUTOMATIC PARTS OF PLUMBING SYSTEM SHALL BE CAREFULLY ADJUSTED FOR NORMAL OPERATION AND MAKE FINAL ADJUSTMENTS WHERE REQUIRED. INSPECT AND CLEAN VACUUM BREAKERS OF ANY FOREIGN MATERIALS THAT WOULD HINDER THEIR PROPER FUNCTIONING.

3.10 PIPE INSULATION

- COVER ALL HOT WATER SUPPLY AND RETURN LINES. APPLY INSULATION OVER CLEAN DRY PIPES WITH ALL JOINTS BUTTED FIRMLY TOGETHER. INSULATE FITTINGS WITH SECTIONS OF PIPE INSULATION CEMENTED TO A THICKNESS EQUAL TO THE ADJOINING INSULATION. FINISH FITTINGS WITH GLAS CLOTH AND MASTIC TYPE H. INSULATION SHALL BE PROTECTED AT HANGERS, SLEEVES ETC., WITH 16 GAGE SADDLES.
- CONDENSATE DRAINS FOR AIR CONDITIONING UNITS SHALL BE INSULATED INSIDE OF BUILDING. INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED AND MAKE WEATHERPROOF BY COVERING WITH ALUMINUM JACKET. ARRANGE SEAMS TO PREVENT TRAPPING OF MOISTURE.
- INDIRECT DRAIN PIPE: PVC/CPVC PIPING IS ACCEPTABLE IF ALLOWED BY AUTHORITY HAVING JURISDICTION. OTHERWISE, TYPE 'M' COPPER WITH "NO-LEAD" SOLDER.

- ALL TESTS SHALL BE MADE IN STRICT ACCORDANCE WITH THE APPLICABLE ORDINANCES OR AS UTLINED BELOW. IF REQUIREMENTS OF ORDINANCES ARE MORE SEVERE, THEY SHALL BE
- ARCHITECT, OWNER AND LOCAL AUTHORITIES SHALL BE NOTIFIED IN ADVANCE OF TIME SCHEDULED FOR TESTS SO THAT THEY MAY HAVE A REPRESENTATIVE AT ALL TESTS.
- ALL TESTS SHALL BE MADE IN PRESENCE OF AND TO SATISFACTION OF OWNER AND LOCAL AUTHORITIES. TEST PRESSURE SHALL BE HELD FOR MINIMUM OF FOUR HOURS WITHOUT SHOWING EQUIPMENT WHICH WOULD BE SUBJECT TO DAMAGE DUE TO TEST PRESSURE SHALL BE REMOVED
- OR ISOLATED FROM SYSTEM. ALL POWER AND WATER AND ALL INSTRUMENTS REQUIRED SHALL BE FURNISHED BY CONTRACTOR AS WELL AS ALL NECESSARY LABOR.

ENTIRE SOIL, WASTE AND DRAINAGE SYSTEM SHALL BE TESTED UNDER WATER PRESSURE OF 5 PSIG ALL HOT AND COLD WATER PIPING SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE OF 175 PSIG.

3.12 CUTTING AND PATCHING

PERFORM AS SPECIFIED IN OTHER SECTIONS.

CAREFULLY WIPE OR SCRAPE OUT ALL CRACKS AND CORNERS.

ALL GAS PIPING SHALL BE TESTED UNDER AIR PRESSURE OF 50 PSIG.

PERFORM ALL CUTTING AND PATCHING AS SPECIFIED IN OTHER SECTIONS. DO ALL CUTTING AND PATCHING AND PROVIDE ALL OPENINGS TOGETHER WITH LINTELS AND SUPPORTS WHICH MAY BE REQUIRED FOR INSTALLATION OR WORK UNDER THIS SECTION OF THE SPECIFICATIONS. PATCHING SHALL BE OF SAME MATERIAL, WORKMANSHIP AND FINISH AND ACCURATELY MATCH, ALL SURROUNDING CONSTRUCTION. ALL CUTTING AND PATCHING SHALL BE DONE UNDER THE ARCHITECT'S INSTRUCTION, AND WHEN SO REQUIRED BY MECHANIC WHO DID ORIGINAL WORK. WHERE PIPES PASS THROUGH OR INTERFERE WITH ANY STRUCTURAL MEMBER, OR WHERE NOTCHING, BORING, OR CUTTING OF STRUCTURE IS NECESSARY, WORK SHALL BE DONE AS DIRECTED BY THE STRUCTURAL ENGINEER. TOP PLATES IN BEARING PARTITIONS SHALL NOT BE CUT

3.13 HASES, SHAFTS, ETC

3.14 <u>CLEAN-UP</u>

OR NOTCHED.

CONTRACTOR SHALL ASCERTAIN THAT ALL CHASES, FURRED PIPE SPACES AND OTHER SHAFTS AND PIPEWAYS REQUIRED THROUGH WALLS, FLOORS, CEILINGS, AND ROOFS AND THROUGH ANY PARTS OF THE STRUCTURE, ARE PROPERLY LOCATED. OTHERWISE HE SHALL CUT ALL NEW OPENING REQUIRED AT HIS OWN EXPENSE.

AFTER PLUMBING WORK HAS BEEN TESTED AND APPROVED, CONTRACTOR SHALL THOROUGHLY CLEAN ALL EQUIPMENT AND PIPING INSTALLATION. EXPOSED PARTS WHICH ARE TO BE PAINTED. SHALL BE THOROUGHLY CLEAN OF CEMENT, PLASTER, AND OTHER MATERIAL, ALL GREASE OR OIL SPOTS REMOVED. AND THE MATERIAL LEFT IN PROPER CONDITION TO RECEIVE PAINTER'S FINISH.

EXPOSED ROUGH METAL WORK SHALL BE CAREFULLY BRUSHED WITH STEEL BRUSHES TO REMOVE RUST AND OTHER SPOTS, AND LEFT IN PROPER CONDITION TO RECEIVE PAINTER'S FINISH.

3.15 STERILIZATION OF WATER LINES A. GENERAL

BEFORE BEING PLACED IN SERVICE ALL POTABLE WATER PIPING SHALL BE CHLORINATED AS SPECIFIED BY THE LOCAL BUILDING AND HEALTH DEPARTMENT CODES. CHLORINE MAY BE APPLIED BY THE USE OF CHLORINE GAS-WATER MIXTURE, DIRECT

CHLORINE-GAS FEED OR A MIXTURE OF CALCIUM HYPOCHLORITE AND WATER. THE POWDER

SHALL BE MIXED WITH WATER TO FORM A PASTE THINNED TO A SLURRY AND PUMPED OR INJECTED INTO THE PIPING AS HEREINAFTER SPECIFIED. IF DIRECT CHLORINE-GAS FEED IS USED IT SHALL BE FED WITH EITHER A SOLUTION FEED

CHLORINATOR OR BY A PRESSURE FEED CHLORINATOR WITH A DIFFUSER IN THE PIPE.

PROCEDURE PRIOR TO CLEANING, REMOVE ALL DIRT AND FOREIGN MATTER BY A THOROUGH FLUSHING OF THE WATER SYSTEM. THE CLEANING AGENT SHALL BE FED SLOWLY INTO THE WATER. SYSTEM AND THE CHI ORINE APPLIED IN QUANTITIES TO PRODUCE A DOSAGE OF 50 PPM OF AVAILABLE CHLORINE. RETENTION IN THE SYSTEM SHALL BE FOR A MINIMUM OF 8 HOURS.

TESTS SHALL BE CONDUCTED BY A STATE-CERTIFIED LABORATORY AND APPROVED BY THE

AFTER COMPLETION OF THE ABOVE REQUIREMENTS, THE SYSTEM SHALL BE FLUSHED UNTIL THE WATER IN THE SYSTEMS GIVES CHEMICAL AND BACTERIA TEST READINGS AS REQUIRED BY GOVERNING AUTHORITIES.

DURING THE PROCESS ALL VALVES AND ACCESSORIES SHALL BE OPERATED.

LOCAL AUTHORITIES HAVING JURISDICTION. COPIES OF THE TESTS SHALL BE SUBMITTED TO THE ARCHITECT AND ALL GOVERNING AUTHORITIES. WARNING SIGNS SHALL BE PROVIDED AT ALL OUTLETS WHILE THE CLEANING OF THE SYSTEM

IS IN PROGRESS.

- 3.16 FIXTURES AND TRIM ALL FAUCETS SHALL BE EQUIPPED WITH RENEWABLE SEATS. ALL EXPOSED METAL PARTS OF PLUMBING FIXTURES IN TOILET ROOMS AND PUBLIC AREAS SHALL BE CHROME PLATED. ALL
 - ARE APPROVED IN WRITING BY THE ARCHITECT. ALL FIXTURES SHALL BE SECURELY ATTACHED TO SUPPORTING SURFACES AS SPECIFIED AND INSTALLED PLUMB AND LEVEL. GROUT BEHIND ALL WALL HUNG PLUMBING FIXTURES WITH WHITE, DURABLE PLASTIC MATERIAL. ELIMINATING ALL CRACKS AND VOIDS.

SEPARATELY VALVE EVERY SUPPLY TO EVERY FIXTURE AND PIECE OF EQUIPMENT REQUIRING

PLUMBING FIXTURES SHALL BE THE PRODUCT OF ONE MANUFACTURER, EXCEPT WHERE CHANGES

VARIOUS SERVICES WITH LOCKSHIELD LOOSE KEY STOPS. IN GENERAL, THESE VALVES ARE SPECIFIED WITH FIXTURE, BUT WHERE NOT CALLED FOR IN FIXTURE SPECIFICATIONS, PROVIDE SUITABLE STOPS IN ADDITION TO FAUCETS. ALL CONNECTIONS TO FIXTURES SHALL BE MADE WITH DROP ELBOWS SECURED TO BUILDING STRUCTURE AND OUTLET OF ELBOW SHALL BE SCREWED. CONNECTIONS FROM ELBOW TO FIXTURE

SUPPLY PIPE SHALL BE MADE WITH 85 % BRASS CHROME PLATED NIPPLE.

3.17 ACCESSIBILITY OF EQUIPMENT

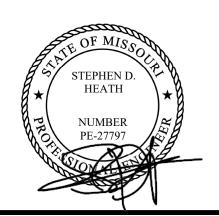
ALL VALVES, MOTORS, CONTROLS, AND OTHER DEVICES OR COMPONENTS REQUIRING SERVICE, MAINTENANCE, AND/OR ADJUSTMENT SHALL BE PLACED IN FULLY ACCESSIBLE POSITIONS AND LOCATIONS. PROVIDE ACCESS DOORS WHERE REQUIRED IN CONSTRUCTION, WHETHER SHOWN OR



Kinetic Design 20381 Lake Forest Dr. Suite B16 Lake Forest, CA. 92630

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



NOT FOR CONSTRUCTION

THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. APPROVAL FROM THE ARCHITECT AND GOVERNING JURISDICTIONS MUST BE ATTAINED PRIOR TO THE ISSUANCE OF CONSTRUCTION DOCUMENTS. THE ARCHITECT AND HIS CONSULTANTS ASSUME NO RESPONSIBILITY FOR CONSTRUCTION BIDS OR CONSTRUCTION PERFORMED FROM THESE DRAWINGS.

REVISIONS

	⋝			
	ΣER	No.	DATE	DESCRIPTION
	TENF			
	IN, CAN ONLY BE USED WITH WRITTEN PERM			
	WITH			
	USED			
	Y BE			
	NON			
	δ	CLIEN	T INFORM	ATION
	<u>z</u>	CLIEN	II IINFORIVI	ATION

 \bigcap S

DRAWN CHECKED R.H. 07/30/21

AS NOTED

DATE

出 SCALE

PROJECT NUMBER

PIPING INSULATION TABLE

MINIMUM PIPE INSULATION							
FLUID/OUTSIDE		PIPE D	IAMETER (INCH)			
TEMPERATURE	≤ 1"	1.25"-2"	2.5"-4"	5"-6"	≥ 8"		
306-460	2.5	2.5	3.0	3.5	3.5		
251-305	2.0	2.5	2.5	3.0	3.0		
201-250	1.5	1.5	2.0	2.0	2.0		
105-200	1.0	1.0	1.5	1.5	1.5		
61-104	1.0	1.0	1.5	1.5	1.5		
40-60	0.5	.75	1.0	1.0	1.0		
BELOW 40	1.0	1.5	1.5	1.5	1.5		
STEAM CONDENSATE	1.0	1.5	2.0	2.0	2.0		

THE THICKNESS OF INSULATION LISTED IN THIS TABLE IS BASED ON MATERIALS HAVING A THERMAL RESISTANCE IN THE RANGE OF R-4.0 TO R-4.6 PER INCH. ADJUSTMENTS ARE REQUIRED FOR INSULATION MATERIALS OUTSIDE THIS RANGE.

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE/CONNECTIONS FIXTURE ROUGH-IN

ot		T	. = 5.1110			THE TOTAL BULL OF THE BULL OF	
	MARK	FIXTURE			E ROUGH-IN		DESCRIPTION
			W	V	CW	HW	
	<u>WC-1</u>	WATER CLOSET (FLUSH TANK)	4"	2"	3/4"	-	AMERICAN STANDARD CADET FLOWIS MODEL # 2467.100 ELONGATED PRESSURE-ASSISTED TOILET WITH 1.1 GPF, VITREOUS CHINA. ADA COMPLIANT, OR EQUIVALENT.
	<u>MS-1</u>	MOP SINK	3"	2"	3/4"	3/4"	MUSTEE/T&S MODEL #63M/ B-0665-BSTR COMPOSITE SINK WITH BACK FLOW PREVENTER DEVICE WITH MOUNTING MIXING VALVE MUSTEE/ T& S 63M / B-0665-BSTR.
	<u>L-1</u>	LAVATORY	2"	2"	1/2"	1/2"	AMERICAN STANDARD LUCERNE WALL MOUNTED SINK MODEL #0355.012, COMPLETE WITH T&S BRASS MODEL # B-2711. MOUNT PER ADA/T-24 REQUIREMENTS.
	<u>MV-1</u>	MIXING VALVE	-	-	1/2"	1/2"	MIXING VALVE WATTS - MODEL #LFMMV-M1, SET OUTLET TEMPERATURE AT 105°F.
	<u>TP-1</u>	TRAP PRIMER	-	-	1/2"	-	PRECISION PLUMBING PRODUCTS TRAP PRIMER MODEL PR-500, AUTOMATIC PRESSURE DROP ACTIVATED, OR EQUIVALENT.
	<u>FS-1</u>	FLOOR SINK	2"	1-1/2"	-	-	FLOOR SINK ZURN MODEL # Z1900-25; 12X12 SQ.X6" DEEP INDIRECT SANITARY WASTE DRAIN.
	BFP-1	BACK FLOW PREVENTER	-	-	1/2"	-	ZURN, MODEL # 740 ; DOUBLE CHECK VALVE ASSEMBLY.
	<u>CP-1</u>	RE-CIRCULATION PUMP	-	-	1/2"	-	BELL & GOSSETT MODEL NO NBF-12U-LW, ALL BRONZE LEAD FREE CIRCULATOR WITH UNION CONNECTION, 115V. 55 WATT, 2800 RPM, 5 GPM FLOW RATE AT 8 FEET OF HEAD. OPERATING WEIGHT = 10 LBS.
	<u>wco</u>	WALL CLEANOUT	SEE PLANS	-	-	-	ZURN WALL CLEANOUT MODEL Z1441-VP, DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT, VANDAL PROOF SCREWS, COORDINATE FINAL LOCATIONS AND FINISH WITH ARCHITECTURAL.
	<u>FD-1</u>	FLOOR DRAIN	2"	1-1/2"	-	-	ZURN MEDIUM DUTY FLOOR DRAIN MODEL Z507, 7" TOP DRAIN, DURA-COATED CAST IRON BODY, OR EQUIVALENT. 3' / 2% SLOPE TO ALL FLOOR DRAINS. OR EQUIVALENT.
	<u>HS-1</u>	HAND SINK	2"	1-1/2"	1/2"	1/2"	KROWNE HAND SINK MODEL # HS-26L W/ SPLASH GUARDS, T&S BRASS FAUCET WITH MIXING VALVE (MV-1)
	<u>3CS-1</u>	3 -COMPARTMENT SINK	2" INDIRECT	1-1/2"	1/2"	1/2"	GSW , 3-COMPARTMENT SINK MODEL # SE18183C COMPLETE WITH PRE-RINSE AND FAUCET ASSEMBLY T & S BRASS. MUST HAVE A WASTE HANDLE BRACKET PER BOWL FOR TRAP. COMPLETE WITH WASTE VALVE T&S BRASS.
	<u>SF-1</u>	SINGLE FAUCET	-	-	1/2"	-	T&B FAUCET MODEL # B-0212 WITH WATER FILTER (WF-1) .
	<u>IM-1</u>	ICE MAKER	INDIRECT	-	1/2"	-	ICE-O-MATIC ICE MAKER WITH WATER FILTER MODEL # IFQ1.
	<u>GT-1</u>	GREASE TRAP	2"	-	-	-	ENDURA HYDRO-MECHANICAL GREASE TRAP MODEL # 3950A03, 50GPM @100 lbs CAPACITY.
	<u>WF-1</u>	WATER FILTER			1/2"		WATER FILTER MODEL # IFQ1 SINGLE FILTER FLOW RATE 1.5 GPM, 3 lbs.
	<u>WH-1</u>	ELECTRIC WATER HEATER	-	-	3/4"	3/4"	A.O SMITH ELECTRIC WATER HEATER MODEL # DEN-52 .
	<u>ET-1</u>	EXPANSION TANK			1/2"		EXPANSION TANK AMTROL THERM-X-TROL EXPANSION TANK MODEL ST-5, 2.0 GALLONS

NOTES: 1. CONTRACTOR TO VERIFY THAT ALL PLUMBING FIXTURES ARE FOR INSTALLATION ON EXPOSED SLAB.

2. SEE ARCHITECT PLANS SPECIFICATIONS FOR ADDITIONAL INFORMATION.

WATER AND DRAINAGE CALCULATION							
			Each			Total	
Fixture Type	QTY	W	CW(100%)	HW	W	CW(100%)	HW(75%)
Water Closet (FT)	1	4.0	2.5	0.000	4.0	2.5	0.000
Lavatory	1	1.0	1.0	0.750	1.0	1.0	0.750
3-Comp. Sink	1	3.0	4.0	3.000	3.0	4.0	3.000
Sink (HS-PS)	3	2.0	1.5	1.125	6.0	4.5	3.375
Mop Sink	1	3.0	3.0	2.250	3.0	3.0	2.250
Hose Bibb	1	0.0	2.5	0.000	0.0	2.5	0.000
Hose Bibb (additional)	1	0.0	1.5	0.000	0.0	1.5	0.000
Ice Maker+SF	2	0.0	1.0	0.000	0.0	2.0	0.000
Floor Sink/Drain	6	2.0	0.5	0.000	12.0	3.0	0.000
Total		0.0	1.0	0.000	0.0	0.0	0.000
		2.0	0.0	0.000	0.0	0.0	0.000
	17				29.0	24.0	9.375
						17 GPM	



Kinetic Design

20381 Lake Forest Dr. Suite B16 Lake Forest, CA. 92630 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



NOT FOR CONSTRUCTION

THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
APPROVAL FROM THE ARCHITECT AND GOVERNING JURISDICTIONS MUST BE ATTAINED PRIOR TO THE ISSUANCE OF CONSTRUCTION DOCUMENTS. THE ARCHITECT AND HIS CONSULTANTS ASSUME NO RESPONSIBILITY FOR CONSTRUCTION BIDS OR CONSTRUCTION PERFORMED FROM THESE DRAWINGS.

MISSIC	REVISIONS								
 ER	No.	DATE	DESCRIPTION						
TEN F									
H WRIT									
MI									
USED									
LY BE									
AN ONLY BE USED WITH WRITTEN PERMISSIC									

CLIENT INFORMATION



- LEE'S SUMMII, MO 10r road, retail space 5, 1t, missouri 64081

CHECKED SHET NAME O7/30

DATE

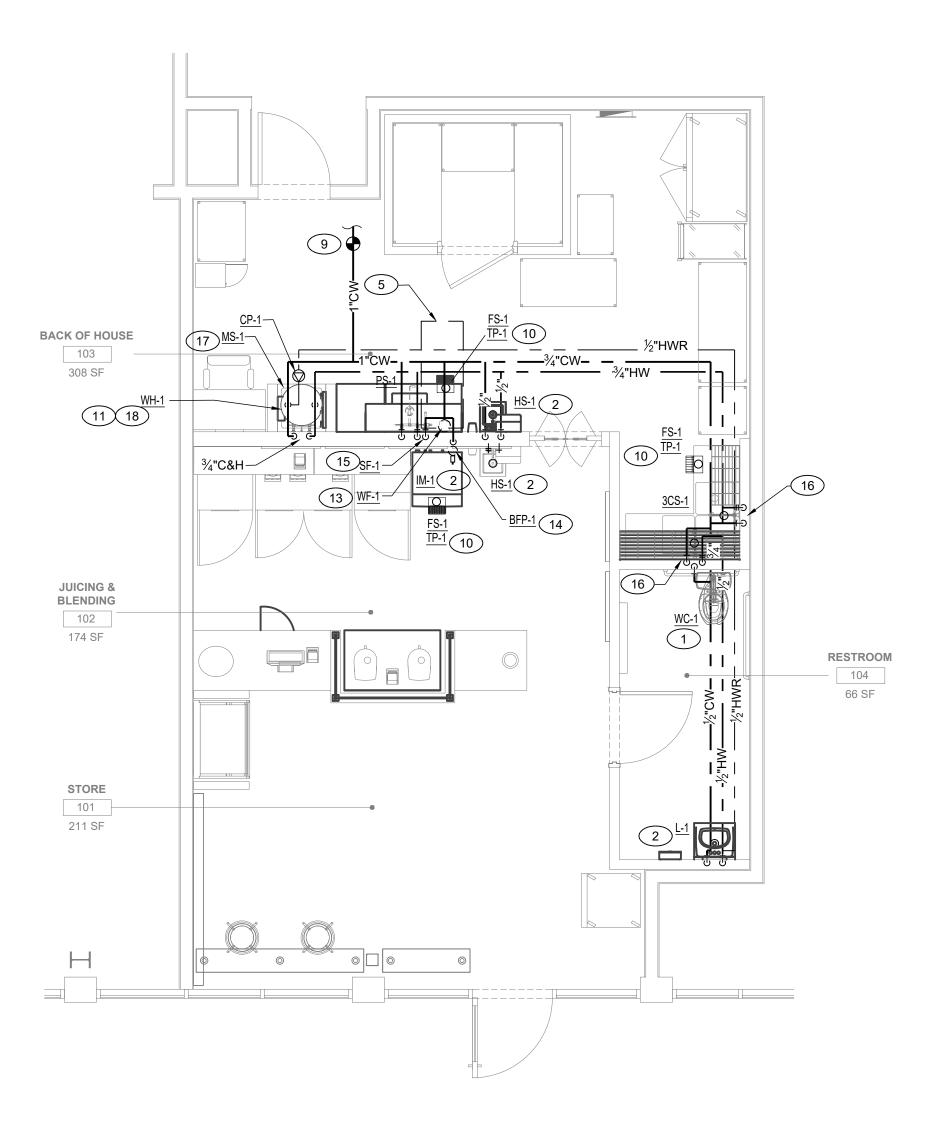
O7/30/21

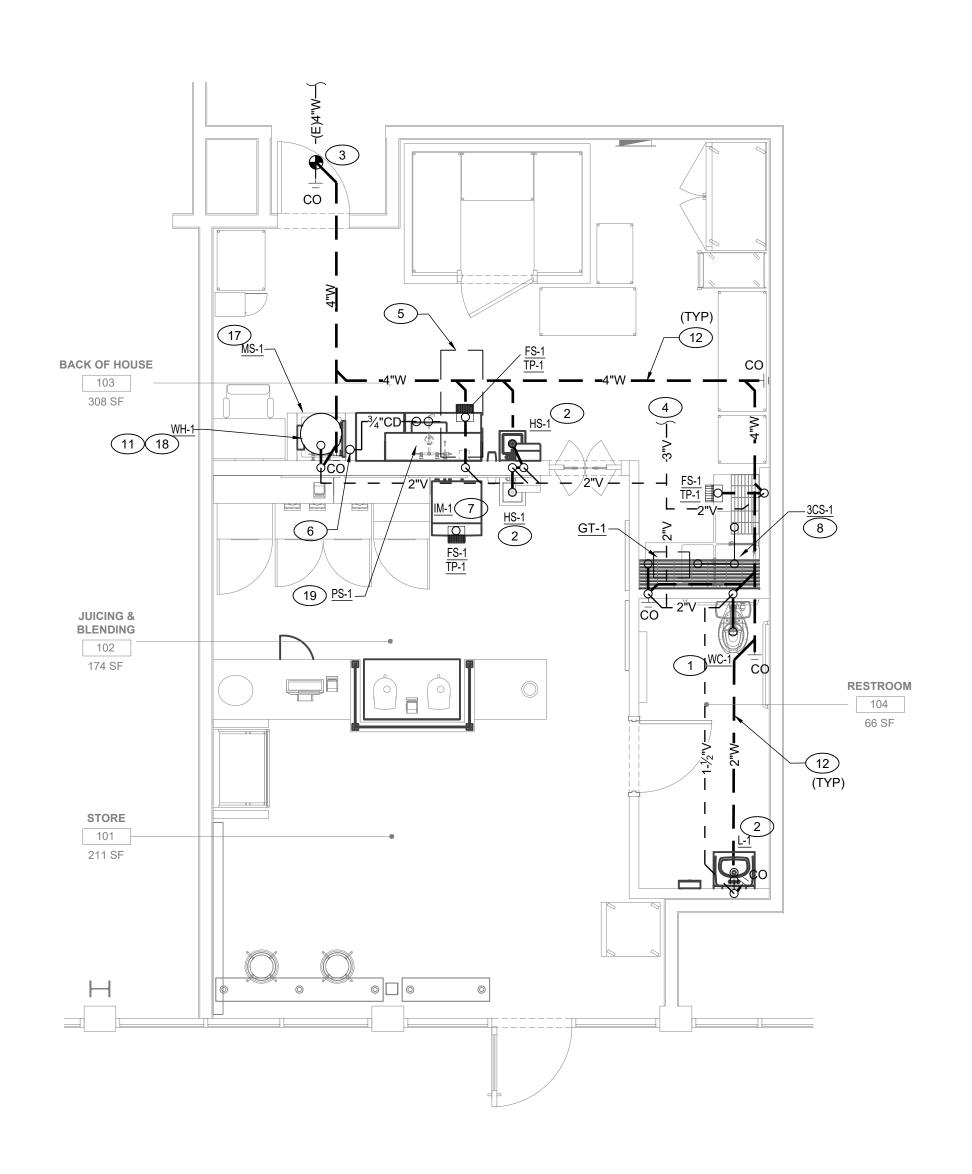
SCALE

PROJECT NUMBER

DRAWN

P004





DOMESTIC WATER

WASTE AND VENT





- A PRIOR TO DETAILING & INSTALLING PLUMBING AND FIRE PROTECTION PIPING COORDINATE EXACT ROUTING AND ELEVATIONS WITH MECHANICAL, ELECTRICAL AND FIRE SPRINKLER CONTRACTORS. PROVIDE WRITTEN CONFIRMATION THAT THIS COORDINATION HAS BEEN IMPLEMENTED PRIOR TO PROCEEDING WITH INSTALLATION OF PIPING.
- B PRIOR TO INSTALLATION OF SEWER AND WATER PIPING BELOW GRADE COORDINATE EXACT LOCATIONS AND DEPTHS OF BURIAL WITH CIVIL AND FOUNDATION DRAWINGS AND CORRESPONDING ENGINEERS.
- C ALL PLUMBING FIXTURES SHALL BE WATER CONSERVATION TYPE AS MANDATED BY LOCAL BUILDING DEPARTMENT.
- D ALL PLUMBING FIXTURES SHALL HAVE AN ANGLED SHUT OFF VALVE.
- E ALL PLUMBING FIXTURES SHALL HAVE A TRAP INSTALLED AND SHALL BE
- PROPERLY VENTED IN ORDER TO MAINTAIN THE TRAP SEAL.

F ALL PLUMBING FLOOR SINKS, FLOOR DRAINS, MOP SINKS, AND HUB

- DRAINS SHALL HAVE A TRAP PRIMER INSTALLED AND SHALL BE PROPERLY VENTED IN ORDER TO MAINTAIN THE TRAP SEAL.

 G FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE
- WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL NOT BE GREATER THAN 5 LB-FT.

 H HOT WATER AND DRAIN PIPES EXPOSED UNDER SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED SO AS TO PROTECT AGAINST
- CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER SINKS.

 I ALL WATER CLOSETS DESIGNATED AS HANDICAP SHALL BE INSTALLED SUCH THAT THE ACTUATOR IS OPERABLE FROM THE WIDE SIDE OF THE
- J NOT ALL PIPING, DUCTWORK, OR DEVICES HAVE BEEN SHOWN FOR CLARITY. CONTRACTOR IS RESPONSIBLE FOR ALL WORK IN AND AROUND SYSTEMS NOT SHOWN HEREIN.
- K THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
- L PRIOR TO STARTING CONSTRUCTION, DETERMINE EXACT INVERT ELEVATION, SIZE, DEPTH, DIRECTION OF FLOW AND LOCATION OF EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR. NOTIFY ARCHITECT OR ENGINEER FOR DISCREPANCY BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS. WORK BACK TOWARD BUILDING FROM UTILITY CONNECTION FOR ALL PIPING SYSTEMS.
- M CONTRACTOR TO REMOVE ALL EXISTING PIPING THAT WILL NOT BE REUSED. ABANDONED PIPES ARE NOT ACCEPTABLE.
- N CONTRACTOR SHALL PROVIDE AND INSTALL ANY INCIDENTAL WORK OR ITEMS NOT SHOWN OR SPECIFIED WHICH ARE NECESSARY TO PROVIDE A COMPLETE AND WORKABLE SYSTEM.

SHEET NOTES:

WATER CLOSET.

- 1 3/4" CW WATER 4" WASTE AND 2" VENT CONNECT TO WATER CLOSET.
- 2 1/2"CW, 1/2"HW, 2" WASTE AND 1-½" VENT CONNECT TO LAVATORY /SINK. PROVIDE MIXING VALVE.
- POINT OF CONNECTION TO EXISTING WASTE LINE. CONTRACTOR TO VERIFY IN THE FIELD EXACT LOCATION OF THE EXISTING WASTE LINE PRIOR TO START OF WORK.
- 4 3" VENT PIPE TO POINT OF CONNECTION OF EXISTING VENT PIPE IN CEILING. CONTRACTOR TO VERIFY IN THE FIELD EXACT LOCATION AND SIZE OF THE EXISTING VENT LINE PRIOR TO START OF WORK.
- 5 EXISTING MECHANICAL UNIT ON CEILING SPACE.
- 6 PROVIDE 3/4"CD LINE FROM FAN COIL DOWN IN WALL, AND TERMINATE TO MOP SINK.
- 7 EXTEND INDIRECT DRAIN PIPING FROM ICE MAKER TO FLOOR SINK.
- 8 EXTEND INDIRECT DRAIN PIPING FROM 3-COMP. SINK TO FLOOR SINK.
- 9 POINT OF CONNECTION OF EXISTING COLD WATER ON CEILING. EXISTING SUB-METER AND SPACE SHUT-OFF VALVE TO REMAIN. CONTRACTOR TO VERIFY IN THE FIELD, EXACT LOCATION PRIOR TO START OF WORK.
- 10 1/2"COLD WATER DOWN TO TRAP PRIMER FOR FLOOR DRAIN. PROVIDE 10"X10" ACCESS PANEL FOR TRAP-PRIMING DEVICE. INSTALL TP VALVE AT LEAST 12" ABOVE FINISHED FLOOR WITH BALL VALVE.
- 11 INSTALL ELECTRIC WATER HEATER HANGING ON WALL ABOVE MOP SINK. SEE SHEET P004 FOR MORE INFORMATION..
- WASTE LINE ON THE BASEMENT CEILING SPACE. CONTRACTOR VERIFY IN THE FIELD, FOR EXACT LOCATION OF NEW WASTE LINE.
- (13) WATER FILTER LOCATION FOR ICE MAKER AND SINGLE FAUCET.
- 14) PROVIDE BFP FOR FILTERED WATER TO ICE MACHINE.
- 15) 1/2" COLD FILTERED WATER CONNECT TO SINGLE FAUCET.
- 16 1/2"CW AND 1/2"HW CONNECT TO 3-COMP. SINK.
- 17) 3/4"CW, 3/4"HW, 3" WASTE AND 2" VENT CONNECT TO MOP SINK.
- 18 1"CW AND 1"HW CONNECT TO WATER HEATER, 3/4" DRAIN LINE DOWN TO MOP SINK. TERMINATE W/2" AIR GAP.
- 19 EXTEND INDIRECT DRAIN PIPING FROM PRE. SINK TO FLOOR SINK.

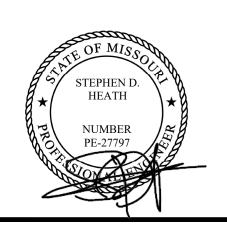


Kinetic Design
20381 Lake Forest Dr. Suite B16

Lake Forest, CA. 92630

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



NOT FOR CONSTRUCTION

THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. APPROVAL FROM THE ARCHITECT AND GOVERNING JURISDICTIONS MUST BE ATTAINED PRIOR TO THE ISSUANCE OF CONSTRUCTION DOCUMENTS. THE ARCHITECT AND HIS CONSULTANTS ASSUME NO RESPONSIBILITY FOR CONSTRUCTION BIDS OR CONSTRUCTION PERFORMED FROM THESE DRAWINGS.

MISSI	REVISIONS								
집:	No.	DATE	DESCRIPTION						
HEN HEN									
WRII.									
HIM.									
CAN ONLY BE USED WITH WRITTEN PERMISSI									
LY BE									
NO N									
S :		I							

CLIENT INFORMATION



EK - LEE'S SUMMII, MO PRYOR ROAD, RETAIL SPACE 5, IMMIT, MISSOURI 64081

DRAWN CHECKED

DATE

SCALE

O7/30/21

PROJECT NUMBER

P200

AS NOTED

