

ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CLG	CEILING
CO	CLEAN OUT
COOP	CLEAN OUT DECK PLATE
COWP	CLEAN OUT WALL PLATE
CW	COLD WATER
(D)	DEMOLISH
DCV	DOUBLE CHECK VALVE DEVICE
DEG. F	° FAHRENHEIT
DIA	DIAMETER
DN	DOWN
(E)	EXISTING
EA	EACH
FAI	FRESH AIR INTAKE
FD	FLOOR DRAIN
G	GAS
'GC'	GENERAL CONSTRUCTION CONTRACTOR
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
'H'	HVAC CONTRACTOR
HP	HORSEPOWER
HW	HOT WATER
HWR	HOT WATER RETURN
IN.	INCHES
IN. W.C. (W.G.)	INCHES WATER COLUMN (WATER GAUGE)
KW	KILOWATTS
LBS	POUNDS
M	METER
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
OD	OUTER DIAMETER
(P)	PROPOSED
'P'	PLUMBING CONTRACTOR
PD	PRESSURE DROP
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
SAN / S	SANITARY
ST	STORM DRAIN
TEMP	TEMPERATURE
TYP	TYPICAL
TW	TEMPERED WATER (110°F)
TWR	TEMPERED WATER RETURN
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE

ENERGY NOTES

2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE NOTES: STATEMENT OF COMPLIANCE:

TO THE BEST OF MY KNOWLEDGE, AND PERSONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 NEW YORK STATE ENERGY CONSERVATION CODE (ECCONS).

1. SERVICE WATER HEATING EQUIPMENT PERFORMANCE EFFICIENCY:
 - 1.1. WATER HEATING EQUIPMENT AND HOT WATER STORAGE TANKS SHALL MEET THE REQUIREMENTS OF TABLE C404.2 IN THE 2020 ECCONS. (ECCONS C404.2)
 - 1.2. SERVICE WATER HEATING SHALL BE COMMISSIONED AND COMPLETED IN ACCORDANCE WITH SECTION C408.2 OF THE 2020 ECCONS.
2. TEMPERATURE CONTROL:
 - 2.1. SERVICE WATER HEATING EQUIPMENT SHALL BE PROVIDED WITH CONTROLS ALLOWING A SETPOINT OF 110°F AND 90 °F FOR OTHER OCCUPANCIES. PUBLIC REST ROOM LAVATORIES SHALL HAVE A MAXIMUM OUTLET TEMPERATURE OF 100°F.
 - 2.2. WHERE WATER HEATING EQUIPMENT SERVING NONCIRCULATING SYSTEMS IS NOT SUPPLIED WITH INTEGRAL HEAT TRAPS, HEAT TRAPS SHALL BE PROVIDED ON THE SUPPLY AND DISCHARGE PIPING. (ECCONS C404.3)
3. PIPE INSULATION:
 - 3.1. AUTOMATIC CIRCULATING HOT WATER SYSTEM PIPING SHALL BE INSULATED WITH 1 INCH OF INSULATION WITH A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH, OR THE INSULATION REQUIREMENTS, WHICHEVER IS GREATER. THE FIRST 8 FT OF PIPING IN NONCIRCULATING SYSTEMS WITH EQUIPMENT WITHOUT INTEGRAL HEAT TRAPS SHALL BE INSULATED WITH 0.5 INCH OF MATERIAL HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH, OR THE INSULATION REQUIREMENTS, WHICHEVER IS GREATER. (ECCONS C404.5)
 - 3.2. ALL PIPING TO BE INSULATED WITH 0.2/0.26 CONDUCTIVITY
 - 3.3. COLD WATER PIPING- ALL SIZES - 1-INCH INSULATION, A.S. JACKET.
 - 3.4. STORM DRAINAGE PIPING ALL HORIZONTAL RUNS AND DRAIN BODY - MINIMUM 1-INCH INSULATION, A.S. JACKET.
 - 3.5. HOT WATER PIPING (140°F) AND TEMPERED WATER PIPING (110°F)
 - 3.5.1. PIPE SIZE: < 1" INSULATION: 1"
 - 3.5.2. PIPE SIZE: 1" TO < 1-1/2" INSULATION: 1"
 - 3.5.3. PIPE SIZE: 1-1/2 TO < 4" INSULATION: 1.5"
 - 3.5.4. PIPE SIZE: 4" TO < 8" INSULATION: 1.5"
4. HOT WATER SYSTEM CONTROLS:
 - 4.1. CIRCULATING HOT WATER SYSTEM PUMPS OR HEAT TRACE SHALL BE ARRANGED TO BE TURNED OFF EITHER AUTOMATICALLY OR MANUALLY WHEN THERE IS LIMITED HOT WATER DEMAND. READY ACCESS SHALL BE PROVIDED TO THE OPERATING CONTROLS. (ECCONS C404.6)
5. PIPE VOLUME AND MAXIMUM LENGTHS:
 - 5.1. PER SECTION OF C404.5.1 OF THE 2020 ECCONS, ALL MAXIMUM PIPE LENGTHS FROM FIXTURES SHALL COMPLY WITH THE MAXIMUM PIPE LENGTHS ON THE CHART BELOW. CONTRACTOR TO ENSURE HOT WATER RETURN PIPING IS INSTALLED AS PER PLANS AND THAT THESE LENGTHS ARE MAINTAINED.

NOMINAL PIPE SIZE (INCHES)	VOLUME (LIQUID UNCES PER FOOT LENGTH)	MAXIMUM PIPING LENGTH (FEET)	
		PUBLIC LAVATORY FAUCETS	OTHER FIXTURES AND APPLIANCES
1/4"	0.33	6	50
5/16"	0.5	4	50
3/8"	0.75	3	50
1/2"	1.5	2	40
5/8"	2	1	32
3/4"	3	0.5	21
7/8"	4	0.5	16
1"	5	0.5	13
1-1/4"	8	0.5	8
1-1/2"	11	0.5	6
2" OR LARGER	18	0.5	4

The image contains three technical drawings illustrating different methods of installing hanger rods for pipe support.

WOOD SUPPORT

This diagram shows a hanger rod passing through a wooden beam. The components labeled are: WOOD MEMBER, WOOD SCREW, LOCKING NUT, STEEL BRACKET, WASHER, TYP, LOCKING NUT, and HANGING ROD.

CONCRETE SUPPORT

This diagram shows a hanger rod passing through a concrete structure. The components labeled are: CORE DRILL, EXPANSION/ANCHOR BOLT, CONCRETE STRUCTURE, ROD COUPLING, and HANGER ROD.

WALL

This diagram shows a hanger rod passing through a wall. The components labeled are: NO HUB GASKET FITTING, CAST WITH COVER OR EYE, STAIN COVER TO THE PLUG, COVER FINISH, WALL, 16 GAUGE ZINC COATED SHEET STEEL SADDLE AT LEAST 12" LONG, PIPE INSULATION, PIPE, INSULATION WHERE SPECIFIED SHALL LAY DIRECTLY AGAINST PIPE HANGERS SADDLE, BOLT, BOTTOM STRAP, TOP YOKE, SUPPORT NUT, LOCKING NUT, HANGER ROD, HEAVY DUTY CLEVIS HANGER, TOP BEAM CLAMP, STEEL MEMBER, LOCKING NUT, and SET SCREW.

Fixture Tag	Description	Basis of Design						Minimum Connection Sizes								Specification	Remarks
		Make	Model	Trim / Faucet				Cold Water		Hot Water		Drain		Vent			
				Make	Model	Operation	Max Flow	Size	W/FU	Size	W/FU	Size	D/FU				
LAV-1	LAVATORY - WALL MOUNT - SENSOR FAUCET	SLOAN	AD-81000 RUSH STREET	SLOAN	EBF-415	SENSOR BATTERY	0.5 GPM	1/2"	0.5	1/2"	0.5	1-1/2"	1	1-1/2"	SINK: SLOANSTONE RUSH STREET, WALL MOUNTED SQUARE FRONT SINK, 30" W X 34" H, ADA COMPLIANT FAUCET: DECK MOUNTED, ADA COMPLIANT, INTEGRATED SIDE MIXER, VANDAL RESISTANT, CHROME, WITH 0.5 GPM AERATOR, COMPLIES WITH ASME A117.1 AND NSF 372. INCLUDE PK00 PAK PLUG-IN AC POWER KIT.	PROVIDE BRASS ANGLE STOP VALVES WITH FLEXIBLE STAINLESS STEEL SUPPLIES, AND 1-1/2" BRASS P-TRAP PROVIDE CARRIER SUPPORT WATTS WICA-411 OR APPROVED EQUAL. HOT WATER SHALL NOT EXCEED 105°F. INSULATE ALL EXPOSED DRAIN AND SUPPLY PIPING WITH TRUBRO L/VANGUARD. PROVIDE END-40-CP-HEPA HAND DRYER AND ESD-410-BN SOAP DISPENSER.	
LAV-2	LAVATORY - WALL MOUNT - SENSOR FAUCET	-	-	-	-	-	0.5 GPM	1/2"	0.5	1/2"	0.5	1-1/2"	1	1-1/2"	SINK: PROVIDED BY OWNER FAUCET: PROVIDED BY OWNER		
WC-1	WATER CLOSET - WALL MOUNTED - TOP SPUD	SLOAN	WETS-2450.1201	SLOAN	SOLIS 8111	SENSOR BATTERY	1.28 GPF	1"	10	---	---	3"	4	1-1/2"	TOILET: VITREOUS CHINA, ELONGATED, ADA HEIGHT, ASME A112.19.2. PROVIDE TOILET SEAT CHURCH 295CT OR APPROVED EQUAL. MINIMUM OF 25 PSI. FLUSH VALVE: CONCEALED SENSOR FLUSHOMETER VALVE, 1.28 GPF, ROUGH BRASS FINISH, FIXTURE CONNECTION REAR SPUD, SOLAR BATTERY CHARGER, TRUE MECHANICAL OVERRIDE, SMALL WALL BOX.	PROVIDE CARRIER SUPPORT WATTS ISCA SERIES OR APPROVED EQUAL. SEE PLANS FOR PIPE ROUTING AND FOR SPECIFIC CARRIER ORIENTATION. COORDINATE GRAB BAR HEIGHT WITH FLUSHVALVE.	
WC-2	WATER CLOSET - FLOOR MOUNTED - FLOOR OUTLET - ADA COMPLIANT - TOP SPUD	SLOAN	ST-2029	SLOAN	SOLIS 8111	SENSOR BATTERY	1.28 GPF	1"	10	---	---	3"	4	1-1/2"	TOILET: VITREOUS CHINA, ELONGATED, ADA HEIGHT, ASME A112.19.2. PROVIDE TOILET SEAT CHURCH 295CT OR APPROVED EQUAL. MINIMUM OF 25 PSI. FLUSH VALVE: CONCEALED SENSOR FLUSHOMETER VALVE, 1.28 GPF, ROUGH BRASS FINISH, FIXTURE CONNECTION REAR SPUD, SOLAR BATTERY CHARGER, TRUE MECHANICAL OVERRIDE, SMALL WALL BOX.	COORDINATE GRAB BAR HEIGHT WITH FLUSH VALVE.	
SK-1	ART ROOM TROUGH SINK - ADA	ELKAY	LK50-13037A	ADVANCE TABCO	ELKAY	LK940TS08T4S	1.5 GPM	3/4"	1	3/4"	1	1/2"	2	1-1/2"	SINK: 3-DRAIN THROUGH SINK ON LEGS WITH BASIN DIMENSIONS 104"W X 26.5"L X 14"D. 14 GAUGE 304 STAINLESS STEEL GRID STRAINERS. SINK TO COMPLY WITH ASME A112.19.3 FAUCET: FOUR 8" O.C. BACK MOUNTED FAUCETS WITH 8" SWING SPOUTS AND 4" WRIST BLADE HANDLES	PROVIDE BRASS ANGLE STOP VALVES WITH FLEXIBLE STAINLESS STEEL SUPPLIES. PROVIDE SOLIDS INTERCEPTOR CT-1 BELOW SINK. SEE INTERCEPTORS SCHEDULE FOR MORE INFORMATION.	
SK-2	SCIENCE ROOM - ADA	-	-	-	-	-	-	1/2"	0.5	1/2"	0.5	1-1/2"	1	1-1/2"	SINK: PROVIDED BY OWNER FAUCET: PROVIDED BY OWNER		
SK-3	SCIENCE ROOM SINK - INSTRUCTOR	-	-	-	-	-	-	1/2"	0.5	1/2"	0.5	1-1/2"	1	1-1/2"	SINK: PROVIDED BY OWNER FAUCET: PROVIDED BY OWNER		
FD-1	FLOOR DRAIN	ZURN	ZN-415-BE	-	-	-	-	-	-	-	-	-	2	2	FLOOR DRAIN: DURA-COATED CAST IRON BODY. POLISHED BRONZE TOP WITH FUNNEL DRAIN	PROVIDE TRAP SEALS: ZURN Z1072. SEE PLANS FOR SIZES.	

[illegible]





1. PROVIDE NEW LAVATORY/SINK WITH FAUCET. INSTALL 1/2-INCH COLD AND HOT WATER TO FAUCETS WITH NEW STOP VALVES AND STAINLESS STEEL FLEXIBLE HOSES. INSTALL 1-1/2-INCH SANITARY AND VENT TO SINK. ADA INSTALLATIONS SHALL INCLUDE INSULATION AROUND THE DRAIN AND SUPPLY PIPING IN EXPOSED PIPING AREAS BELOW SINK. PROVIDE TEMPERATURE LIMITING DEVICE FOR THE HOT WATER LINE TO ALL HAND SINKS AND SET AT 105°F.
2. PROVIDE NEW WATER CLOSURE. INSTALL 1/4-INCH COLD WATER, 3/8-INCH SANITARY AND 2-INCH VENT TO TOILET WITH WAX SEAL, AND GELANT FOR WALL MOUNTED FIXTURE. PROVIDE SUPPORT CARRIER AND MOUNT AS PER THE ARCHITECTURAL SPECIFICATIONS.
3. PROVIDE NEW SINK WITH FAUCET AND GAS COCK. PROVIDE NEW GAS APPLIQUE NEUTRALIZATION KIT AT MOUNTAIN BASE CABINERY. INSTALL 1/2-INCH COLD AND HOT WATER TO FAUCETS WITH NEW STOP VALVES AND STAINLESS STEEL FLEXIBLE HOSES. INSTALL 1-1/2-INCH SANITARY AND VENT TO SINK AND CONNECT NEW PIPING TO EXISTING ROUGHINGS. INSTALL 3/8" GAS TO NEW GAS COCK. MODIFY PIPING AS REQUIRED. CONTRACTOR RESPONSIBLE FOR PAIRING AND REPAIRING WALLS TO MATCH EXISTING CONDITIONS. ADA INSTALLATIONS SHALL INCLUDE INSULATION AROUND THE DRAIN AND SUPPLY PIPING IN EXPOSED PIPING APPLICATIONS BELOW SINK. PROVIDE TEMPERATURE LIMITING DEVICE FOR THE HOT WATER LINE TO ALL HAND SINKS AND SET AT 105°F.
4. PROVIDE NEW SINK WITH (3) FAUCETS. INSTALL 3/4-INCH COLD AND HOT WATER TO FAUCETS WITH NEW STOP VALVES AND STAINLESS STEEL FLEXIBLE HOSES. INSTALL 1-1/2" SANITARY AND 1-1/2" VENT TO SINK. ADA INSTALLATIONS SHALL INCLUDE INSULATION AROUND THE DRAIN AND SUPPLY PIPING IN EXPOSED PIPING AREAS BELOW SINK. PROVIDE TEMPERATURE LIMITING DEVICE FOR THE HOT WATER LINE TO ALL HAND SINKS AND SET AT 105°F.

