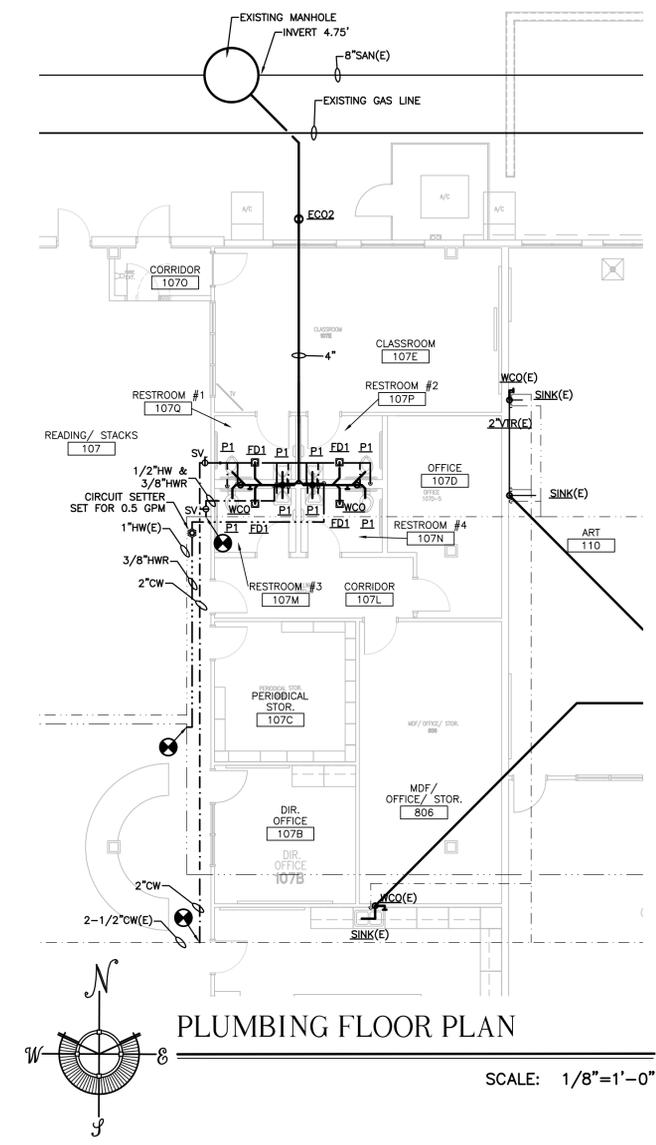


**GENERAL PLUMBING NOTES**

- ALL PLUMBING WORK SHALL MEET ALL OF THE REQUIREMENTS OF THE FOLLOWING:
  - FLORIDA BUILDING CODE (FBC) 5TH EDITION (2014). THIS CODE INCLUDES THE 2014 FBC BUILDING, MECHANICAL, PLUMBING, FUEL GAS AND ENERGY CONSERVATION VOLUMES. FURTHER, SEE "REFERENCED STANDARDS" IN THE FBC, BUILDING CHAPTER 35; FBC, PLUMBING CHAPTER 14; FBC, MECHANICAL CHAPTER 15; FBC, FUEL GAS CHAPTER 8, FBC, ENERGY CONSERVATION CHAPTER 5.) (EFFECTIVE JUNE 30, 2015)
  - 5TH EDITION OF THE FLORIDA FIRE PREVENTION CODE (FFPC); (THIS CODE ALSO INCLUDES THE FLORIDA VERSIONS OF NFPA 1 AND NFPA 101.) (EFFECTIVE DECEMBER 31, 2014)
  - 2011 NATIONAL ELECTRIC CODE
  - 2014 STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES (SREF); - (EFFECTIVE NOVEMBER 4, 2014)
- PROVIDE COMPLETE PLUMBING SYSTEMS AS DETAILED. WORK CONSISTS OF FURNISHING ALL MATERIALS, EQUIPMENT, AND SERVICES REQUIRED FOR COMPLETE SYSTEMS.
- IN GENERAL, PLANS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. ALL FLOOR DRAINS IN MECHANICAL ROOMS/CLOSETS, SHALL BE FIELD VERIFIED AND COORDINATED WITH THE HVAC EQUIPMENT/PAD LOCATIONS.
- CONDITIONS SHOWN AS EXISTING ARE BASED ON AVAILABLE DATA AND SHOULD BE INTERPRETED TO BE APPROXIMATE. VERIFY EXISTING CONDITIONS IN THE FIELD.
- COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS.
- COORDINATE LOCATIONS OF FLOOR DRAINS, CLEAN OUTS AND FLOOR HYDRANTS WITH THE ARCHITECTURAL DRAWINGS.
- UNLESS OTHERWISE NOTED, ALL PIPING SHALL BE RUN IN CONCEALED SPACES. HOWEVER, NO PIPING SHALL BE CHASED OR CUT INTO THE TENANT DEMISING WALLS.
- ALL SOIL, WASTE, AND VENT PIPING SHALL BE SCHEDULE 40 PVC DWV.
- VENT THROUGH ROOF TERMINALS SHALL BE LOCATED 10'-0" AWAY FROM ANY BUILDING INTAKE OPENINGS. COORDINATE WITH THE MECHANICAL CONTRACTOR.
- PROVIDE TRAP PRIMERS AT FLOOR DRAINS.
- ALL FIRE STOPPING SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S U.L. DETAILS OF THE PRODUCTS USED SPECIFICALLY ON THIS PROJECT. APPLICABLE U.L. DETAILS SHALL BE SUBMITTED FOR THE ENGINEER'S REVIEW AND A COPY SHALL BE AVAILABLE ON SITE FOR USE BY THE AUTHORITY HAVING JURISDICTION.
- UNLESS NOTED OTHERWISE, ALL PLUMBING EQUIPMENT, MATERIALS, AND WORKMANSHIP SHALL BE GUARANTEED FOR A ONE YEAR PERIOD FROM DATE OF ACCEPTANCE.
- PROVIDE ALL CUTTING REQUIRED FOR THE INSTALLATION OF PLUMBING WORK. FINISH PATCHING SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR.
- ALL SOIL AND WASTE PIPING 2-1/2" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT. LARGER WASTE PIPING SHALL BE SLOPED AT 1/8" PER FOOT.
- ALL WATER PIPING SHALL BE SUPPORTED RIGIDLY AND IN LINE FROM THE BUILDING STRUCTURE. OFFSET PIPING TO AVOID STRUCTURAL MEMBERS, CANTS, FLASHING, MECHANICAL AND ELECTRICAL EQUIPMENT, ETC.
- PRIOR TO COMMENCING ANY PLUMBING ROUGH-IN, THE EXISTING SANITARY PIPING SHALL BE EXCAVATED, VERIFY THE EXACT SIZE, LOCATION, INVERT AND DIRECTION OF FLOW. NOTIFY THE ENGINEER IMMEDIATELY IF THE DRAIN IS SMALLER THAN INDICATED OR IF THE INVERT WILL NOT BE LOW ENOUGH FOR THE NEW PLUMBING ROUGH-IN. CONNECT NEW SANITARY LINES TO EXISTING SANITARY LINES AS INDICATED. PATCH THE FLOOR AS DIRECTED BY THE ARCHITECT.
- VERIFY ALL SITE RELATED SANITARY & WATER CONNECTIONS PRIOR TO STARTING WORK. SHOULD DEPTHS BE DIFFERENT THAN THAT SHOWN HEREIN ADVISE ENGINEER IMMEDIATELY.
- PRIOR TO SITE UTILITIES WORK, CALCULATE THE INVERTS FOR ALL SANITARY WASTE CONNECTIONS BASED ON ACTUAL CONDITIONS. COORDINATE SANITARY WASTE LOCATIONS AND INVERTS WITH SITE UTILITIES CONTRACTOR.
- ANY PLUMBING ITEMS EXPOSED TO VIEW SHALL BE PLACED PER THE ARCHITECTURAL DRAWINGS.
- PROVIDE A BLUE STICKER ON CEILING GRID BELOW ANY WATER VALVE ABOVE CEILING FOR LOCATION FACILITATION.
- ALL EXTERIOR FASTENERS, ANCHORS, SUPPORTS, AND MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
- ONE WEEK PRIOR TO SUBSTANTIAL COMPLETION, SUBMIT DATE STAMPED VIDEO DOCUMENTING CONDITION OF UNDERGROUND WASTE LINES. ANY LINES FOUND TO BE OCCLUDED SHALL BE RODDED AND FLUSHED OUT AND THEN VIDEO DOCUMENTED AGAIN.
- SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

PLUMBING LEGEND	
	VENT PIPING
	WASTE PIPING BELOW FLOOR OR GRADE (SAN)
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
	HOT WATER RETURN PIPING (HWR)
	GAS PIPING (G)
	PIPING UP
	PIPING DOWN
	HOT WATER BALANCING VALVE
	PLUMBING FIXTURE IDENTIFICATION. SEE PLUMBING FIXTURE SCHEDULE
	VENT THROUGH ROOF
	ELEVATION
	CONNECT NEW TO EXISTING. FIELD VERIFY SIZE AND LOCATION PRIOR TO EXECUTING WORK
	(E) EXISTING - EXACT SIZE AND LOCATION TO BE FIELD VERIFIED.
	(D) EXISTING ITEM TO BE DEMOLISHED
	(RL) EXISTING ITEM TO BE RELOCATED
	(R) NEW LOCATION OF EXISTING ITEM
	AFF ABOVE FINISHED FLOOR
	BFF BELOW FINISHED FLOOR
	S SANITARY SERVICE VALVE
	W WASTE
	V VENT

**PLUMBING ISOMETRIC**  
NOT TO SCALE

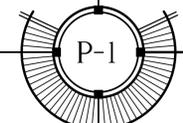


**PLUMBING FLOOR PLAN**

SCALE: 1/8"=1'-0"

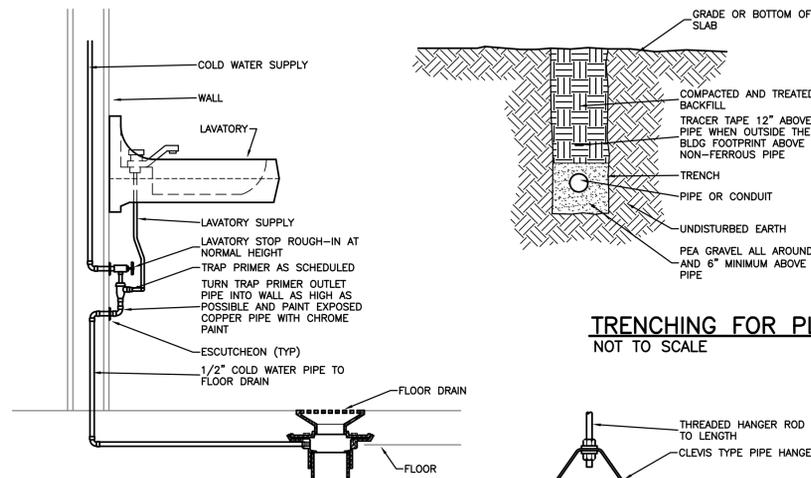
**PLUMBING DRAWING INDEX**

- P-1 PLUMBING LEGEND, GENERAL NOTES, PLAN, AND RISER
- P-2 PLUMBING SCHEDULES AND DETAILS



PLUMBING EQUIPMENT SCHEDULE									
MARK	DESCRIPTION	SELECTION	W	OR	S	TRAP	VENT	HW	CW
FD1	FLOOR DRAIN 2" FLOOR DRAIN WITH TRAP PRIMER CONNECTED TO DOMESTIC COLD WATER LINE AT LAVATORY. NICKEL BRONZE TOP, 5" SQUARE. CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE STRAINER.	SMITH 2005-B-5"	2"	2"	1-1/2"	-	-	-	-
WCO	CAST IRON TEE WALL CLEAN-OUT WITH BRONZE PLUG AND ROUND STAINLESS STEEL COVER PLATE. SIZE C.O. SAME AS LINE SIZE (2-1/2" MINIMUM). PROVIDE PVC TO NO-HUB ADAPTERS FOR PVC DWV APPLICATIONS.	SMITH 4531S-Y	2-1/2"	MIN.	-	-	-	-	-
TP	PRESSURE DROP ACTIVATED TRAP PRIMER INSTALLED UNDER LAVATORY OR SINK, EXPOSED FOR MAINTENANCE. ALL EXPOSED PIPING TO TRAP PRIMER SHALL HAVE A CHROME FINISH.	MIFAB M-500	-	-	-	-	-	-	-

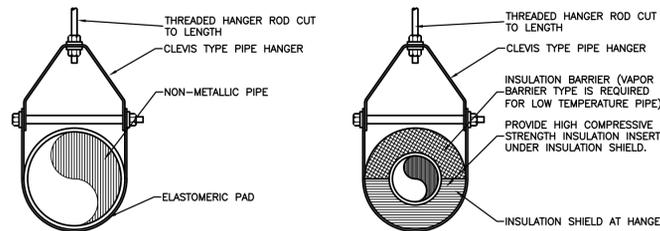
PLUMBING FIXTURE SCHEDULE									
MARK	DESCRIPTION	SELECTION	W	OR	S	TRAP	VENT	HW	CW
P1	WATER CLOSET NON-HANDICAPPED - K THROUGH ADULT HANDICAPPED ** - K BOWL: WHITE FLOOR MOUNTED WITH BOTTOM OUTLET, VITREOUS CHINA, SIPHON-JET, ELONGATED BOWL, 15" AFF TO SEAT, BOLT CAPS WITH CAULK, LOW CONSUMPTION FLUSH (1.28 GPF). BOWL AND SEAT DIMENSIONS MUST MATCH WITHIN 1/4". SEAT: WHITE SOLID PLASTIC, HEAVY DUTY, ELONGATED, OPEN FRONT (WITHOUT COVER), STAINLESS STEEL SELF-SUSTAINING CHECK HINGES, INTEGRAL MOLDED BUMPERS. FLUSH VALVE ASSEMBLY: 11-1/2" HIGH ABOVE RIM, PISTON TYPE (1.28 GALLON FLUSH), CHROME FINISH, ADA COMPLIANT BATTERY POWERED SENSOR OPERATED VALVE, 1" INLET, 1-1/2" OUTLET, INTEGRAL SCREWDRIWER ADJUSTABLE ANGLE STOP AND CHECK VALVE WITH COVER, VACUUM BREAKER, WALL AND SPUD FLANGES, SWEAT SOLDER ADAPTER KIT, SOLID RING PIPE SUPPORT, ROUGH-IN DIMENSION MUST ALLOW FOR FLUSH VALVE CLEARANCE OF HANDICAPPED GRAB BAR WHERE APPLICABLE, OR OFFSET FITTING MAY BE REQUIRED	KOHLER K-96053-0 ZURN BRIGGS AMERICAN STANDARD KOHLER K-4731-C  ZURN ZTS6200EV-LL-YK DELTA HYDROTEK AMERICAN STANDARD	4"	INT.	2"	-	-	-	1"
P2	HANDICAPPED ** 6TH GRADE THROUGH ADULT BOWL: WHITE FLOOR MOUNTED WITH BOTTOM OUTLET, VITREOUS CHINA, SIPHON-JET, ELONGATED BOWL, 18" AFF TO SEAT, BOLT CAPS WITH CAULK, LOW CONSUMPTION FLUSH (1.28 GPF). BOWL AND SEAT DIMENSIONS MUST MATCH WITHIN 1/4". SEAT: WHITE SOLID PLASTIC, HEAVY DUTY, ELONGATED, OPEN FRONT (WITHOUT COVER), STAINLESS STEEL SELF-SUSTAINING CHECK HINGES, INTEGRAL MOLDED BUMPERS. FLUSH VALVE ASSEMBLY: 11-1/2" HIGH ABOVE RIM, PISTON TYPE (1.28 GALLON FLUSH), CHROME FINISH, ADA COMPLIANT BATTERY POWERED SENSOR OPERATED VALVE, 1" INLET, 1-1/2" OUTLET, INTEGRAL SCREWDRIWER ADJUSTABLE ANGLE STOP AND CHECK VALVE WITH COVER, VACUUM BREAKER, WALL AND SPUD FLANGES, SWEAT SOLDER ADAPTER KIT, SOLID RING PIPE SUPPORT, ROUGH-IN DIMENSION MUST ALLOW FOR FLUSH VALVE CLEARANCE OF HANDICAPPED GRAB BAR WHERE APPLICABLE, OR OFFSET FITTING MAY BE REQUIRED	KOHLER K-4405 ZURN BRIGGS AMERICAN STANDARD BEMIS 1955C  ZURN ZTS6200EV-LL-YK DELTA HYDROTEK AMERICAN STANDARD	4"	INT.	2"	-	-	-	1"
P3	LAVATORY HANDICAPPED ** COLD WATER ONLY - K THROUGH ADULT BOWL: WHITE, WALL MOUNTED, VITREOUS CHINA, 20"x18", HOLES AT 4" CENTERS, PROVIDE FLOOR MOUNTED WALL CARRIER WITH CONCEALED WALL PLATE. MOUNT AS FOLLOWS: RIM(MAX) APRON(MIN) APPLICATION K 7TH GRADE 26" 31" 8TH GRADE - ADULT 29" 34" FAUCET: CHROME FINISHED SELF-CLOSING MIXING FAUCET, METERING TYPE WITH ADJUSTABLE TIME CYCLE (0.35 GPM/10 SECONDS MINIMUM), ADA COMPLIANT PUSH HANDLES, VANDAL RESISTANT AERATOR. DRAIN: FLAT GRID, CHROME FINISH, 1-1/4" OUTLET WITH ADA COMPLIANT OFFSET TAILPIECE. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA. P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/4" INLET AND 1-1/2" OUTLET, WITHOUT CLEANOUT, WALL ESCUTCHEON, WASTE LINE INSULATION. SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVE, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET AND OUTLET CONNECTIONS. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA**. MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 80°F. RUN 3/8"TW TO FAUCET.	ZURN AMERICAN STANDARD 0356.421 SMITH 700 WATTS CA-401/CA-401-D  DELTA PROXIMITY 601T050  DELTA 337290  MCGUIRE 2165CCLK MCGUIRE 8902CNC PLUMBEX "PRO-2000"  SYMMONS 7-210-CK	2"	1-1/4"	1-1/4"	3/8"(1) -	1/2"(1) -	3/8"TW 3/8"	3/8" 3/8"TW OUT
<p>FIXTURE AND ALL ATTACHMENTS SHALL COMPLY WITH THE FLORIDA BUILDING CODE AND THE AMERICANS WITH DISABILITIES ACT. ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES; CHILDREN'S FACILITIES. FIXTURE TO BE MOUNTED PER THIS SCHEDULE UNLESS NOTED OTHERWISE IN PLAN. FLUSH VALVE SHALL BE ON THE SIDE TOWARDS TOWARDS THE ASSOCIATED LAVATORY WHERE APPLICABLE.</p> <p>*** CONNECT COLD WATER SUPPLY LINE TO HOT AND COLD WATER FIXTURE CONNECTIONS. PROVIDE TWO COLD WATER INDEXES WHERE POSSIBLE.</p> <p>**** INDICATES THAT THE ITEM IS TO BE PROVIDED UNDER A DIFFERENT DIVISION AND TO BE INSTALLED BY THE PLUMBING CONTRACTOR. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL REQUIRED CONNECTIONS, WASTE ARMS, STOPS, END ESCUTCHEONS TO RENDER THE INSTALLATION COMPLETE.</p> <p>(1) BRANCH RUNOUT TO FIXTURE LINE SIZE. PROVIDE TEE IN CW LINE AFTER STOP TO RUN TO MIXING VALVE AND FAUCET. RUN HW TO MIXING VALVE.</p> <p>(2) PROVIDE KNOCKOUT(S) ON BOTTOM OF WATER COOLER FOR CHORD(S) AND PLUG(S) TO RECEPTACLE. RECEPTACLE SHALL BE ACCESSIBLE AND NOT LOCATED BEHIND THE SHROUD (PER DISTRICT STANDARDS).</p>									



**TRENCHING FOR PLUMBING LINES:**  
**OVEREXCAVATION:** WHERE TRENCHES ARE EXCAVATED BELOW THE INSTALLATION LEVEL OF THE PIPE SUCH THAT THE BOTTOM OF THE TRENCH DOES NOT FORM THE BED FOR THE PIPE, THE TRENCH SHALL BE BACKFILLED TO THE INSTALLATION LEVEL OF THE BOTTOM OF THE PIPE WITH SAND OR FINE GRAVEL PLACED IN LAYERS NOT GREATER THAN 6" IN DEPTH AND SUCH BACKFILL SHALL BE COMPACTED AFTER EACH PLACEMENT.  
**BACKFILLING:** BACKFILL SHALL BE FREE FROM DISCARDED CONSTRUCTION MATERIAL AND DEBRIS. LOOSE EARTH FREE FROM ROCKS, BROKEN CONCRETE AND FROZEN CHUNKS SHALL BE PLACED IN THE TRENCH IN 6" LAYERS AND TAMPED IN PLACE UNTIL THE CROWN OF THE PIPE IS COVERED BY 12" OF TAMPED EARTH. THE BACKFILL UNDER AND BESIDE THE PIPE SHALL BE COMPACTED FOR PIPE SUPPORT. BACKFILL SHALL BE BROUGHT UP EVENLY ON BOTH SIDES OF THE PIPE SO THAT THE PIPE REMAINS ALIGNED. IN INSTANCES WHERE THE MANUFACTURER'S INSTRUCTIONS FOR MATERIALS ARE MORE RESTRICTIVE THAN THOSE PRESCRIBED BY THE CODE, THE MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MORE RESTRICTIVE REQUIREMENT.

TRENCHING FOR PLUMBING PIPING  
NOT TO SCALE

TRAP PRIMER DETAIL  
NOT TO SCALE



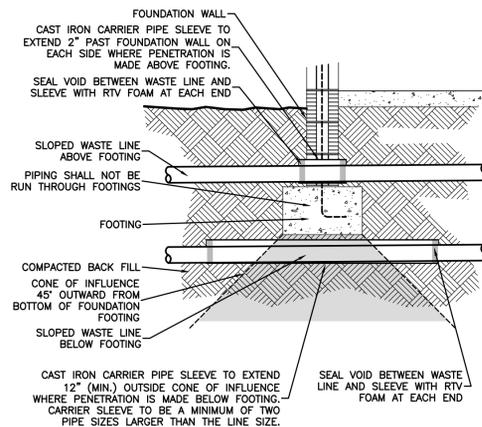
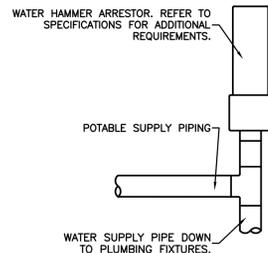
NON-INSULATED  
PIPE HANGER SUPPORT  
NOT TO SCALE

INSULATED  
PIPE HANGER SUPPORT  
NOT TO SCALE

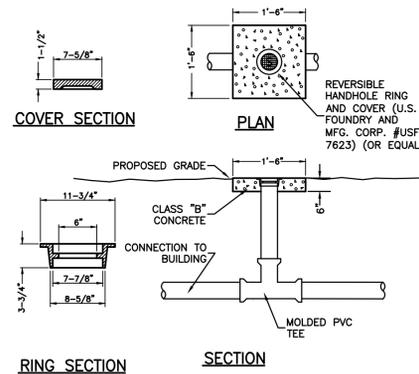
SIZE	FIXTURE UNITS	CROSS REF. PDI
1/2"	1-11	A
3/4"	12-32	B
1"	33-60	C
1 1/4"	61-113	D
1 1/2"	114-154	E
2"	155-330	F

SIZING BASED ON PRECISION PLUMBING PRODUCTS "SWEAT IT ON" MODEL

WATER HAMMER ARRESTOR DETAIL  
NOT TO SCALE



FOUNDATION PIPE SLEEVE DETAIL  
NOT TO SCALE



EXTERIOR CLEAN-OUT DETAIL (ECO2)  
NOT TO SCALE