

PLUMBING SPECIFICATIONS

PART ONE - GENERAL

- THE CONTRACTOR SHALL PROVIDE THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED FOR THEIR INDIVIDUAL SECTIONS OF WORK. THE WORD "WORK" SHALL MEAN ALL LABOR, TRANSPORTATION, MATERIAL, EQUIPMENT, TOOLS, INSTALLATION, SUPERVISION AND ANY OTHER INCIDENTAL ITEMS OR SERVICES NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE COMPLETE SYSTEMS, WHICH SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY INDICATED OR NOTED.
- ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE CONSTRUCTION SPECIFICATIONS ARE MADE PART OF THIS SPECIFICATION AND HAVE THE SAME FORCE AND EFFECT AS IF COMPLETELY REPRODUCED.
- THE WORD "PROVIDE" SHALL MEAN FURNISH AND INSTALL, MAKE ALL FINAL CONNECTIONS AND LEAVE IN AN APPROVED COMPLETE OPERATING CONDITION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE APPLICABLE INTERNATIONAL BUILDING CODE (IBC), UNIFORM MECHANICAL CODE (UMC), UNIFORM PLUMBING CODE (UPC), NATIONAL ELECTRIC CODES (NEC) AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL FEES AND OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK.
- THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL CONTRACT DOCUMENTS, THE CONTRACTOR SHALL COORDINATE THE WORK WITH ALL OTHER TRADES INCLUDING, BUT NOT LIMITED TO, THE CONTRACT DOCUMENTS, SHOP DRAWINGS, ETC. FOR ALL GENERAL CONSTRUCTION, STRUCTURAL, MECHANICAL, ELECTRICAL AND SPECIALTY CONTRACTOR WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF MATERIAL INTO THE BUILDING AS PLANNED, WITHOUT INTERFERENCE WITH OTHER WORK, AND SHALL MAKE REASONABLE MODIFICATIONS IN THE LAYOUTS NEEDED TO PREVENT CONFLICT WITH OTHER TRADES, TO PROVIDE ACCESS AND FOR THE PROPER EXECUTION OF THE WORK.
- DRAWINGS ARE DIAGNOSTIC AND SCHEMATIC IN NATURE, AND INDICATE THE TYPE, SIZE, ARRANGEMENT AND LOCATION OF MATERIALS AND EQUIPMENT. WORK INCLUDES CERTAIN COMPONENTS, APPURTENANCES AND RELATED SPECIALTIES THAT MAY NOT BE SHOWN. CONTRACTOR SHALL PROVIDE ALL NECESSARY ITEMS TO COMPLETE THE WORK ACCORDING TO INDUSTRY STANDARDS. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO CALL OUT FOR FINISHED WORK, TESTED AND READY FOR OPERATION. DO NOT SCALE DRAWINGS. ARRANGEMENT OF EQUIPMENT AND ROUTING OF PIPES AND DUCTWORK, ETC., INDICATED ON DRAWINGS SHALL BE ROUTED PLUMB AND AT RIGHT ANGLES TO BUILDING CONSTRUCTION AND MAY REQUIRE MODIFICATION DUE TO UNFORESEEN CONDITIONS AND REQUIRE ON SITE REVISIONS DURING CONSTRUCTION. (SEE ALSO "BIDDING").
- ALL WORK REQUIRED FOR IDENTICAL ITEMS SHOWN ON THE DRAWINGS SHALL BE PROVIDED, ALTHOUGH EACH SPECIFIC IDENTICAL ITEM MAY NOT BE SHOWN IN DETAIL.
- THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND TECHNICAL DATA SHEETS FOR ALL EQUIPMENT AND MATERIALS SPECIFIED HEREIN TO THE ENGINEER. THE ENGINEER SHALL REVIEW SHOP DRAWINGS AND TECHNICAL DATA SHEETS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND ISSUE A WRITTEN ASSESSMENT TO THE OWNER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENGINEERING FEES NECESSARY TO CHANGE PERMIT DOCUMENTS BASED ON ALTERNATE SUBMITTAL PACKAGES/EQUIPMENT SUBSTITUTIONS.
- ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR CONSIDERATION PRIOR TO BIDDING. THE OWNER'S REPRESENTATIVE SHALL PRE-APPROVE ANY PROPOSED SUBSTITUTION. PRIOR TO BIDDING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIREMENTS ASSOCIATED WITH SUBSTITUTED EQUIPMENT OR MATERIALS WITH OTHER BUILDING TRADES, INCLUDING ALL ELECTRICAL, STRUCTURAL, OR ARCHITECTURAL ELEMENTS. THE CONTRACTOR SHALL IDENTIFY AND ANNOTATE ALL REVISED REQUIREMENTS PER BUILDING TRADE ON THE SHOP DRAWINGS. THE CONTRACTOR SHALL ALSO IDENTIFY ALL COST DEBITS OR CREDITS IN WRITING FOR THE PROPOSED CHANGES PER BUILDING TRADE.
- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH FIVE (5) COMPLETE SETS OF AS-BUILT DOCUMENTS ACCURATELY SHOWING THE MATERIALS AND EQUIPMENT AS INSTALLED.
- ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A MINIMUM OF ONE (1) YEAR FROM DATE OF ACCEPTANCE BY OWNER. REFRIGERATION COMPRESSORS SHALL BE GUARANTEED FOR A MINIMUM OF FIVE (5) YEARS FROM DATE OF OWNER'S ACCEPTANCE. IN ADDITION, THE CONTRACTOR SHALL GUARANTEE THAT THE INSTALLATION WHEN OPERATED IN ACCORDANCE WITH THE CONTRACTOR'S INSTRUCTIONS WILL DEVELOP CAPACITY AND CHARACTERISTICS AS SPECIFIED AND WILL FULFILL EACH AND EVERY REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS. SHOULD THE INSTALLATION IN ANY WAY FAIL, TO DO SO, THE CONTRACTOR WILL, WITHOUT DELAY OR WITHOUT COST TO THE OWNER, PROVIDE WHATEVER ADDITIONAL EQUIPMENT, MATERIAL, AND LABOR REQUIRED TO CORRECT THE DEFICIENCY AND COMPLY WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
- CONTRACTOR SHALL CHECK AND VERIFY ALL SIZES, DIMENSIONS, AND CONDITIONS BEFORE STARTING ANY WORK. ANY DEVIATIONS OR PROBLEMS SHALL BE TRANSMITTED TO THE ENGINEER FOR REVIEW.
- PROVIDE BASE AND COUNTER FLASHING FOR ITEMS PENETRATING THE ROOF OR EXTERIOR WALLS.
- STARTERS AND CONTROLS FOR MOTORS, ETC., TO BE FURNISHED BY PLUMBING CONTRACTOR. ELECTRICAL CONTRACTOR TO INSTALL THE AFOREMENTIONED ITEMS, AND FURNISH ALL POWER WIRING. ALL CONTROL AND INTERLOCKING WIRING SHALL BE FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR.
- ALL WORK SHOWN IS NEW UNLESS NOTED OTHERWISE.

BIDDING

- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS. THE CONTRACTOR SHALL COMPARE THE WORK SPECIFIED IN THE CONTRACT DOCUMENTS WITH THE EXISTING CONDITIONS. THE CONTRACTOR SHALL IDENTIFY AND NOTIFY ALL WORK OR CONDITIONS THAT ARE DIFFERENT FROM THE CONTRACT DOCUMENTS OR THEIR INTENT. THE CONTRACTOR SHALL, UPON DISCOVERY, IMMEDIATELY NOTIFY AND REPORT, IN WRITING, ANY DISCREPANCIES TO THE ENGINEER. NO EXTRAS OR CHANGE ORDERS WILL BE ALLOWED FOR FAILURE TO PERFORM THE PRE-BID SITE VISIT.
- BASE PROPOSAL ON MANUFACTURER NAMES LISTED UNLESS "OR EQUAL" IS INDICATED. PROVIDE SUBSTITUTION REQUESTS A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO BID DATE CLOSING TO ALLOW TIME FOR DUE CONSIDERATION OF PROPOSED ALTERNATE. DETERMINATION OF SUBSTITUTION OF EQUALITY RESTS SOLELY WITH THE ENGINEER.

PART TWO - PRODUCTS

PLUMBING EQUIPMENT

- PROVIDE PLUMBING EQUIPMENT AS SPECIFIED AND/OR SCHEDULED HEREIN AND IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. EQUIPMENT SHALL OPERATE ACCORDING TO THE MANUFACTURER'S "OWNER'S OPERATING AND MAINTENANCE MANUAL," TROUBLE FREE AND CONFORMING TO THE ONE-YEAR WARRANTY.
- DOMESTIC WATER PIPING: (ABOVE GROUND) TYPE "L" COPPER ABOVE GRADE (ASTM B-88), UROUGHT FITTINGS (ASTM B16-22), JOINTS: ANS/ASTM B32, SOLDER, GRADE 90 TA, 2% MAX LEAD. (UNDER GROUND): PROTECTED FROM SOIL TYPE "K" COPPER BELOW GRADE (ASTM B-88), HARD DRAWN, UROUGHT FITTINGS (ASTM B16-22), JOINTS: AUB, A5, B, ECU, SILVER BRAZE.
- DOMESTIC WASTE & VENT PIPING MATERIALS: ABOVE GROUND SHALL BE NO-HUB CAST IRON (ASTM-A-888, C100, 300). BELOW GROUND SHALL BE NO-HUB CAST IRON (ASTM-A-888, C100, 300). PVC/ABS DOW PIPING MAY BE USED UNDERGROUND BASED ON SOIL CONDITIONS.
- PIPE INSULATION: ALL DOMESTIC COLD WATER PIPING (IN UNCONDITIONED SPACES ONLY) AND ALL DOMESTIC HOT WATER PIPING ABOVE GROUND SHALL BE INSULATED WITH 1" THICK FIBERGLASS PIPE INSULATION WITH ALL-SERVICE JACKET AND MAXIMUM K VALUE OF 0.21 AT 75°F. WHERE CLEARANCE LIMITATIONS PREVENT THE USE OF FIBERGLASS INSULATION, A MINIMUM 3/4" THICK CLOSED CELL NEOPRENE PIPE INSULATION MAY BE USED.
- PIPE HANGERS: PIPE SIZES 1/2" TO 1 1/2", MALLEABLE IRON, CARBON STEEL, ADJUSTABLE SWIVEL, SPLIT RING. PIPE SIZES 2" TO 4": CARBON STEEL, ADJUSTABLE, CLEVIS. PIPE SIZES 6" AND OVER: ADJUSTABLE STEEL YOKE, CAST IRON ROLL, DOUBLE HANGER.

NOTES:

- DIELECTRIC FITTINGS SHALL BE USED WHEREVER DISSIMILAR METALS ARE JOINED.
- ALL UNDERGROUND WATER PIPING SHALL BE UNWRAPPED WITH TAPE, ENCASED WITH A FOAM, COATED WITH A PROTECTIVE COATING, OR ROUTED THROUGH CONDUIT FOR PASSIVE CATHODIC PROTECTION. NO PIN HOLE LEAKS IN PROTECTIVE COATING OR TAPE ARE ALLOWED.
- PROVIDE ACCESS PANELS IN CEILING TO ACCESS VALVES WHERE REQUIRED.
- PLUMBING FIXTURES: PROVIDE CHROME PLATED ANGLE STOPS WITH ESCUTCHEON PLATES AT PLUMBING FIXTURES. ALL PLUMBING FIXTURES SHALL COMPLY WITH LOCAL REGULATIONS AND ADOPTED WATER CONSERVATION CODES.
- DISINFECT ALL POTABLE WATER SYSTEMS IN ACCORDANCE WITH PLUMBING CODE AND/OR AWWA STANDARD. PROVIDE WRITTEN CONFIRMATION TO OWNERS REPRESENTATIVE THAT THIS WORK HAS BEEN COMPLETED.

PART THREE - IDENTIFICATION

- THE CONTRACTOR SHALL PROVIDE ALL SLEEVES, OPENINGS, CUTTING AND PATCHING NECESSARY FOR THE INSTALLATION OF THE WORK. CUTTING AND PATCHING SHALL BE DONE BY WORKMEN SKILLED IN THE TRADES REQUIRED AND PAID BY THE CONTRACTOR REQUIRING THE WORK COMPLETED.
- THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HANDLING OF MATERIALS AND EQUIPMENT, AND THE NECESSARY PROTECTION FOR MATERIALS AND EQUIPMENT.
- THE CONTRACTOR SHALL PROTECT THE WORK AND MATERIAL AGAINST DIRT, THEFT, INJURY OR DAMAGE UNTIL ACCEPTED BY OWNER. ALL WORK SHALL BE TURNED OVER TO OWNER CLEAN AND IN NEW CONDITION.
- PIPES AND/OR CONDUITS PASSING THROUGH WALL, FLOORS AND PARTITIONS SHALL BE PROVIDED WITH SLEEVES, SLEEVES PASSING THROUGH WATER PROOFING OR DAMP PROOFING SHALL BE WATER TIGHT. SLEEVES PASSING THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE PROOFED WITH MATERIAL APPROVED FOR THE FIRE RATING OF THE SEPARATION AREA AND ALL LISTED.
- EACH CONTRACTOR SHALL PROVIDE FOUNDATIONS, HANGERS, AND SUPPORTS FOR ALL EQUIPMENT SUPPLIED AND/OR INSTALLED UNDER THEIR WORK. ANY EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH VIBRATION ISOLATION AND FLEXIBLE CONNECTIONS TO PIPING IF APPLICABLE.
- WHERE PIPES OR CONDUITS PASS THROUGH WALLS, FLOORS, OR CEILINGS IN FINISHED AREAS, THEY SHALL BE FURNISHED WITH ESCUTCHEON PLATES (COLOR PER ARCHITECT AND/OR INTERIOR DESIGNER).
- AT THE CONCLUSION OF THE JOB, EACH PIECE OF EQUIPMENT, VALVE, SWITCH, STARTER, PANEL, PIPE LINE, CONDUIT, ETC., SHALL BE CLEARLY IDENTIFIED WHETHER EXPOSED OR CONCEALED, COVERED OR UNCOVERED, IN ACCORDANCE WITH OSHA AND ANSI REGULATIONS. IDENTIFY PIPES NEAR EACH VALVE WITH "BRANDY-TERM CODE FIRE TAPE" OR T & B WRESTLINE "TEL-A-PIPE" INDICATING DIRECTION OF FLOW, SERVICE, ZONE, AND SIZE. TAPE SHALL BE APPLIED TO PIPE, CONDUIT, OR COVERING. VALVES AND CONTROLS SHALL BE IDENTIFIED BY 3-INCH LACQUERED BRASS TAGS WITH STAMPED LETTERS FASTENED WITH "B" HOOKS OR CHAINS. EQUIPMENT IS TO BE IDENTIFIED AS TO FUNCTION AND PURPOSE BY MEANS OF PERMANENTLY ATTACHED LAMINATED ENGRAVED PHENOLIC NAMEPLATES WITH BEVELED EDGES, AND WHITE LETTERS ON BLACK BACKGROUND. (NO ADHESIVE LABELS ALLOWED).
- AT THE CONCLUSION OF THE WORK, ALL EQUIPMENT AND SYSTEMS SHALL BE BALANCED, ADJUSTED, AND TESTED TO PROVIDE A QUIET-OPERATING, STABLE, AND SAFELY OPERATING SYSTEM(S). DEMONSTRATE OPERATION OF ALL SYSTEMS TO THE OWNER'S DESIGNATED REPRESENTATIVE. THE TEST AND BALANCE WORK SHALL BE PERFORMED IN ACCORDANCE WITH NEBS OR AABC STANDARDS, BY INDEPENDENT, APPROVED, AND CERTIFIED TEST AND BALANCE PERSONNEL.
- THE CONTRACTOR SHALL SUBMIT SEISMIC RESTRAINT DOCUMENTS BY A PROFESSIONAL, STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT CERTIFYING AND INDICATING THAT ALL THE ASSOCIATED SYSTEMS MEET THE SEISMIC REQUIREMENTS SET FORTH IN ALL THE APPLICABLE CODES ASSOCIATED WITH THE PROJECT.
- PIPE HANGERS: PIPE SIZES 1/2" TO 1 1/2" - 6'-0" MAX SPACING, 3/8" ROD DIAMETER; PIPE SIZES 2" TO 3" - 10'-0" MAX SPACING, 1/2" ROD DIAMETER; PIPE SIZES 4" TO 6'-10'-0" MAX SPACING, 5/8" ROD DIAMETER, DAMPERS.
- WATER PROOFING AND FLASHING OF PIPE PENETRATIONS THROUGH EXTERIOR WALL, AND ROOF SHALL BE BY THIS CONTRACTOR. PLUMBING CONTRACTOR SHALL COORDINATE LOCATIONS AND METHODS WITH GENERAL CONTRACTOR PRIOR TO CONSTRUCTION OF ROOF DECK.
- CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT THE EXACT LOCATION OF EQUIPMENT, PLUMBING FIXTURES, FLOOR DRAINS AND ANY OTHER APPARATUS SPECIFIED IN THESE DRAWINGS.
- PROVIDE CLEAN OUTS IN SANITARY, WASTE AND DRAIN LINES AS SHOWN AND AS REQUIRED BY LOCAL CODE. ALL CLEANOUTS SHALL BE READILY ACCESSIBLE.

PLUMBING SYMBOL LIST

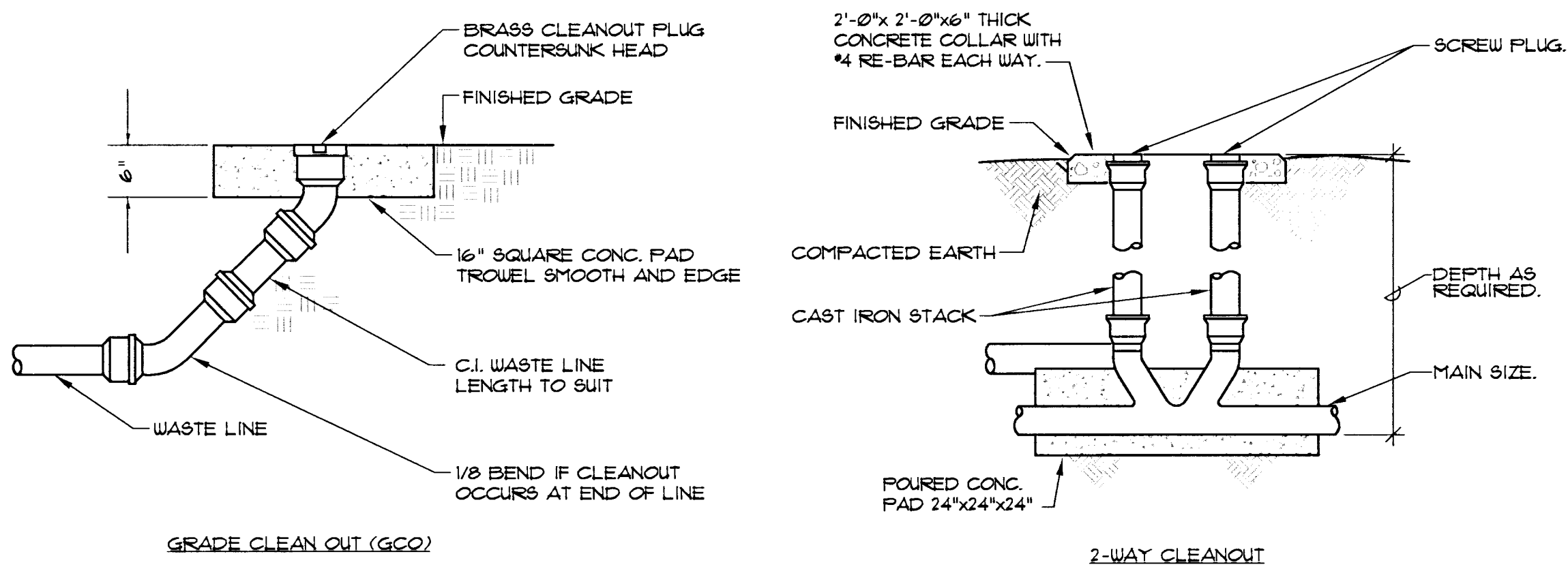
NOTE: THIS IS A MASTER SCHEDULE. NOT ALL SYMBOLS CONTAINED HEREIN MAY APPEAR ON THE DRAWINGS.

◇	SHEET NOTE	— —	UNION (U)
△	REVISION NUMBER	— —	BALANCING VALVE
△	EQUIPMENT MARK	— —	BALL VALVE
⊖	FLOOR DRAIN (FD)	— —	CHECK VALVE
⊖	FLOOR CLEAN OUT (FCO)	— —	FLEXIBLE CONNECTOR
⊖	WALL CLEAN OUT (WCO)	— —	GATE VALVE
⊖	GRADE CLEAN OUT (GCO)	— —	HOSE END DRAIN VALVE
⊖	FLOOR SINK (FS)	— —	PRESSURE GAUGE WITH GAUGE COCK
⊖	FLOOR SINK W/GRATE (FS)	— —	PRESSURE REDUCING VALVE
— —	ACID WASTE (AW)	— —	GAS COCK
— —	ACID VENT	— —	MEDIUM PRESSURE GAS REGULATOR
— —	COLD WATER (CW)	— —	MANUAL AIR VENT (MAV)
— —	DRAIN (D)	— —	ROOF DRAIN/ OVERFLOW DRAIN (RD/ORD)
— —	DRAIN (D)	— —	GAS METER
— —	HOT WATER (HW)	— —	WATER METER
— —	HOT WATER RETURN (HWR)	— —	VENT THRU ROOF (VTR)
— —	PURIFIED CONDENSATE	— —	PIPE DOWN
— —	TEMPERED WATER (TW)	— —	PIPE UP
— —	GREASE WASTE LINE (GW)	— —	PIPE TEE UP
— —	GREASE WASTE LINE W/HEAT TRACE (GW)	— —	PIPE TEE DOWN
— —	GAS SUPPLY (G)	— —	POINT OF CONNECTION (P.O.C.)
— —	MEDICAL OXYGEN (OX)	— —	POINT OF DISCONNECTION (P.O.D.)
— —	MEDICAL AIR (A)	— —	MOTOR-OPERATED VALVE
— —	MEDICAL VACUUM (V)	— —	PIPE ANCHOR
— —	MEDIUM PRESSURE GAS SUPPLY (MPG)	— —	SOLENOID VALVE
— —	WASTE PIPING (W)	— —	Y-STRAINER WITH BLOWDOWN
— —	WASTE PIPING UNDERGROUND (W)	— —	TEMPERATURE PRESSURE RELIEF VALVE
— —	VENT PIPING AND VENT THRU ROOF (V)	— —	WATER HAMMER ARRESTOR (WHA)
— —	EXISTING PIPING TO BE REMOVED (X)	— —	HOSE BIBB (HB)
— —		— —	PIPE CAP/STUB-OUT

AF	ABOVE FINISHED FLOOR	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
AP	ACCESS PANEL	MBH	ONE THOUSAND BTU PER HOUR
AABC	AMERICAN AIR BALANCE COUNCIL	OFPI	OWNER FURNISHED CONTRACTOR INSTALLED
BFD	BACKFLOW PREVENTION DEVICE	%	PERCENT
BTU	BRITISH THERMAL UNIT	PD	PRESSURE DROP
CUV	COMBINATION WASTE & VENT	PRV	PRESSURE REDUCING VALVE
CFM	CUBIC FEET PER MINUTE	LB	POUNDS
CO	CLEANOUT	PSI/PSI	POUNDS PER SQUARE INCH/GAUGE
EFF.	EFFICIENCY	(R)	RELOCATE
(E)	EXISTING	RRM	REVOLUTIONS PER MINUTE
ET	EXPANSION TANK	SM	SHEET METAL
OF	FAHRENHEIT	SF	SQUARE FEET
FFM	FEET PER MINUTE	SS	STAINLESS STEEL
GFM	GALLONS PER MINUTE	TEMP.	TEMPERATURE
GA	GAGE OR GAUGE	TAB	TEST AND BALANCE WORK AND REPORT
HEV	HOSE END DRAIN VALVE	UMC	UNIFORM MECHANICAL CODE
HP	HORSEPOWER	UPC	UNIFORM PLUMBING CODE
IBC	INTERNATIONAL BUILDING CODE	U	URNAL
IE	INVERT ELEVATION	V	VENT
LAVL	LAVATORY	VTR	VENT THROUGH ROOF
MAX	MAXIMUM	WC	WATER CLOSET
MIN	MINIMUM	WH	WATER HEATER
MCA	MINIMUM CIRCUIT AMPS	WHA	WATER HAMMER ARRESTOR
NEC	NATIONAL ELECTRIC CODE	(X)	REMOVE
NEBB	NATIONAL ENVIRONMENTAL BALANCING BUREAU		

DRAWING INDEX

SHEET NUMBER	SHEET TITLE	ORIGINAL DATE	DATE	BY	CHKD	APPD
P00	SPECIFICATIONS, SYMBOL LIST, DETAILS AND DRAWING INDEX	0032001				
P01	PLUMBING PLAN					
	TOTAL	2				



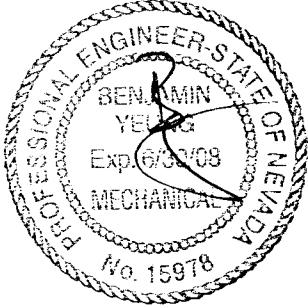
CLEANOUT DETAILS
NTS

RECEIVED
OCT - 8 2007
CITY OF LAS VEGAS
PERMITS

PLANS APPROVED
PLUMBING/MECHANICAL
Building & Safety Dept.
City of Las Vegas, Nevada

MC OCT 15 2007

Does Not Include Architectural, Electrical, Structural or GR-Seg Improvements. Make No Change Without Approval. Plan is Not a Permit to Violate Any Regulations.



OCT 03 2007

PROJECT:

SHEET TITLE:
SPECIFICATIONS,
SYMBOL LIST, DETAILS
AND DRAWING INDEX

DRAWN
MSA
CHECKED
BY
DATE
10/03/2007
SCALE
NOTED
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