

MASTER SPECIFICATION – TRANSCONA CENTENNIAL POOL  
LOCATION – WINNIEG, MB  
PROJECT #35-233

**MECHANICAL SPECIFICATION**

MECHANICAL SUB-CONTRACTOR SHALL SUBMIT PRICE FOR THE COST OF SUPPLY AND INSTALLATION OF EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE AND OPERATING MECHANICAL PACKAGE. MECHANICAL PACKAGE TO CONSIST OF EQUIPMENT AND MATERIALS AS DESCRIBED IN THIS OUTLINE SPECIFICATION. REFER TO MECHANICAL PLANS FOR ACTUAL REQUIREMENTS OF EQUIPMENT.

**SECTION 15005 – MECHANICAL SCOPE OF WORK**

- INCLUDE IN MECHANICAL SECTION, PROVISION OF LABOUR, NEW MATERIALS, TOOLS, TRANSPORTATION, SERVICES AND FACILITIES FOR A COMPLETE MECHANICAL INSTALLATION. THE INSTALLATION SHALL BE LEFT COMPLETE IN ALL RESPECTS AND READY FOR OPERATION. FINAL INSTALLATION SHALL BE INSTALLED TO COMPLETE SATISFACTION OF THE CONTRACT ADMINISTRATOR.
- THE MECHANICAL SCOPE OF WORK INCLUDES, BUT IS NOT NECESSARILY LIMITED TO THE FOLLOWING PROVISION:
  - GENERAL:
    - FAMILIARIZE CREW WITH SITE IN ORDER TO DETERMINE APPROPRIATE LOCATIONS, SITE CONDITIONS, ETC. THAT MAY AFFECT WORK.
    - WORK MAY NEED TO BE PERFORMED AT NON-STANDARD HOURS. DETERMINE SCHEDULE WITH CITY OF WINNIEG.
    - OBM MANUALS AND CITY OF WINNIEG TRAINING.
    - AS-BUILT DRAWINGS.
  - PLUMBING:
    - PROVISIONS OF ALL PLUMBING EQUIPMENT, PIPING, FIXTURES, PLUMBING BRASS, PIPE FITTINGS, LABOR AND MISCELLANEOUS MATERIALS IS REQUIRED TO COMPLETE THE PROJECT.
    - PROVISIONS OF ALL GAS PIPING AND VENTING FOR SUPPLIED EQUIPMENT.
  - H.V.A.C.:
    - PROVISIONS OF ALL EXHAUST FANS, DUCTWORK, CONTROL/BALANCE FITTINGS, INSULATION, GRILLES/REGISTERS/DIFFUSERS/LOWERS, FIRE DAMPERS, LABOR AND MISCELLANEOUS MATERIALS AS REQUIRED TO COMPLETE THE PROJECT.
    - PROVISION OF TAB REPORTS INCLUDING FIRE DAMPER TESTING AND CERTIFICATION.
  - CONTROLS:
    - PROVISION OF COMPLETE ELECTRONIC CONTROLS AS DESCRIBED.

**SECTION 15101 – GENERAL CONDITIONS**

- PROVIDE ALL LABOUR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHOWN ON DRAWINGS AND AS SPECIFIED HEREIN.
- ALL NECESSARY PERMITS SHALL BE OBTAINED AND ALL FEES SHALL BE PAID TO CARRY OUT THE SPECIFIED WORK.
- ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF COMPLETED WORK ACCEPTANCE BY THE CITY OF WINNIEG. SUBMIT DOCUMENTATION IDENTIFYING ADDITIONAL EQUIPMENT WARRANTY COVERAGE AND TIME FRAMES.
- ALL WORK SHALL COMPLY IN EVERY RESPECT WITH ALL NATIONAL, PROVINCIAL AND LOCAL CODES AND BY-LAWS, WHICH SHALL BE CONSIDERED PART OF THIS SPECIFICATION. IN THE CASE OF CONFLICTING REQUIREMENTS, BE GOVERNED BY THE MOST STRINGENT REGULATIONS.
- ALL CUTTING, PATCHING, FLASHING FOR WORK AS REQUIRED HEREIN SHALL BE BY THE GENERAL CONTRACTOR.
- THE MECHANICAL SUB-CONTRACTOR SHALL INSTALL PLUMBING, HEATING, VENTILATION, AIR CONDITIONING, AND SPRINKLER SYSTEMS IN COMPLETE ACCORDANCE WITH THE RECOMMENDATIONS OF THE NATIONAL/PROVINCIAL BUILDING CODE, ASHRAE, SMACNA LATEST EDITION CODE STANDARDS, AND LOCAL PLUMBING CODES, AND N.F.P.A. REQUIREMENTS.
- COORDINATE WORK WITH WORK OF OTHER TRADES TO AVOID CONFLICT.
- ALTER THE LOCATION OF DUCTS OR PIPES AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR WITHOUT CHARGE TO THE CITY OF WINNIEG, PROVIDED THE CHANGE IS MADE BEFORE INSTALLATION AND DOES NOT NECESSITATE ADDITIONAL MATERIALS.
- QUOTATIONS SHALL BE BASED ON THE USE OF SPECIFIED MANUFACTURERS OR APPROVED EQUAL. THE USE OF AN EQUAL OR ALTERNATE MANUFACTURER SHALL IN NO WAY RELIEVE THE MECHANICAL SUB-CONTRACTOR FROM THE RESPONSIBILITY OF PROVIDING ALL WORK THAT MAY BE REQUIRED BY REASON OF DIFFERENT SPACE, WEIGHT, ELECTRICAL, OR OTHER REQUIREMENT FROM THAT OF THE SPECIFIED MANUFACTURER. ALTERNATES SHALL BE APPROVED PRIOR TO THE CLOSE OF BIDS. NO SUBMITTALS RECEIVED AFTER BID CLOSING WILL BE ACCEPTED.
- ALL WIRING, SUPPLY AND INSTALLATION OF DISCONNECT SWITCHES FOR EQUIPMENT SPECIFIED HEREIN SHALL BE PERFORMED BY THE ELECTRICAL SUB-CONTRACTOR, UNLESS OTHERWISE NOTED.
- GENERAL CONTRACTOR SHALL EXAMINE THE SITE AND CONDITIONS AFFECTING WORK, METHODS OF CONNECTION AND LOCATION OF ALL SERVICES INVOLVED UNDER THIS CONTRACT. FAILURE TO MAKE THIS VISIT IN NO WAY ALLEVIATES THE MECHANICAL SUB-CONTRACTOR FROM RESPONSIBILITY FOR COMPLETING THE MECHANICAL WORK OF THIS CONTRACT IN A WORKMANLIKE MANNER. NO ALLOWANCE WILL BE MADE AFTER CONTRACT AWARD FOR ANY EXPENSE INCURRED THROUGH A FAILURE TO MAKE THIS EXAMINATION AND INVESTIGATION.

- AS-BUILT DRAWINGS:
  - OBTAIN SETS OF WHITE PRINTS (ONE FOR EACH SYSTEM I.E. PLUMBING, HVAC, FIRE PROTECTION) AND KEEP AT JOB SITE AT ALL TIMES.
  - RECORD ALL ADDITIONS OR DEVIATIONS FROM THE CONTRACT DOCUMENTS INCLUDING ALL CHANGES INCURRED BY ADDENDA, CHANGE ORDERS, FIELD CHANGES, JOB CONDITIONS, ETC.
  - MECHANICAL SUB CONTRACTORS SHALL BE RESPONSIBLE FOR THE PRODUCTION OF AS-BUILT RECORD DRAWINGS WHICH SHALL PROVIDE A COMPLETE AND ACCURATE RECORD OF THE ACTUAL MECHANICAL INSTALLATION. ALL PRINCIPLE BELOW GRADE OR INACCESSIBLE PIPING OR DUCT SYSTEMS, ETC. SHALL BE DIMENSIONED AT EACH CHANGE IN DIRECTION. INCLUDE ALL ROUTING OF SERVICES NOT INDICATED ON ORIGINAL DRAWINGS.
  - PROJECT RECORD DRAWINGS SHALL BE TRANSFERRED BY MECHANICAL SUB-CONTRACTOR TO REPRODUCIBLE BOND DRAWINGS AND LABELED "AS-BUILT". SUBMIT REPRODUCIBLE BOND DRAWINGS TO CONTRACT ADMINISTRATOR FOR REVIEW UNDER COMPLETION IF CORRECTIVE MEASURES ARE REQUIRED AFTER THE SECOND CONTRACT ADMINISTRATORS REVIEW (DUE TO MISSING INFORMATION AND/OR IMPROPER DRAFTING STANDARDS). THE MECHANICAL SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACT ADMINISTRATOR'S TIME COSTS FOR CORRECTIVE MEASURES, COURIER AND PRINTING COSTS.
  - GENERAL CONTRACTOR SHALL EMPLOY CONTRACT ADMINISTRATOR (OR CAD DRAFTING SERVICE) TO PRODUCE ELECTRONIC COPY AS-BUILT DRAWINGS. MECHANICAL SUB-CONTRACTOR SHALL BEAR ALL COSTS OF PRODUCTION. COPY OF FINAL AS-BUILT DRAWING SHALL BE SUBMITTED TO CONTRACT ADMINISTRATOR.
  - ALL COSTS OF AS-BUILT DRAWINGS PRODUCTION SHALL BE BORNE BY MECHANICAL SUB-CONTRACTOR.
- VERIFY SIZES, INVERTS AND LOCATIONS OF ALL SERVICES PRIOR TO COMMENCEMENT OF WORK. THIS SHALL INCLUDE, BUT IS NOT BE LIMITED TO SANITARY SEWER, STORM SEWER, DOMESTIC WATER MAINS, FORCE MAINS, ETC.
- HOSTING OF ALL MECHANICAL EQUIPMENT SHALL BE BY THE MECHANICAL SUB-CONTRACTOR.
- ASSUME FULL RESPONSIBILITY FOR LAYING OUT ALL WORK AND ENSURING THAT NO

DAMAGE IS CAUSED TO THE CITY OF WINNIEG'S EQUIPMENT AND PREMISES DUE TO SERVICE, PIPE SIZE AND FLOW DIRECTION. USE CAPITAL LETTERS EITHER FIRE RESISTANT HIGH GLOSS INTERIOR ENAMEL PAINT OR WATERPROOF, HEAT RESISTANT PLASTIC MARKER TAGS (SIMILAR TO: W.H. BRADY IDENTIFICATION TAPES, BANDS, MARKERS.) IDENTIFY AT MAXIMUM OF EVERY 50 FT. AND AT LEAST ONCE IN EACH ROOM. LOCATE AND STATE LETTERING SUCH THAT IT CAN BE SEEN FROM FLOOR.

- IDENTIFY ALL NEW PIPING WITHIN BUILDING INSTALLED IN THIS CONTRACT SHOWING SERVICE, PIPE SIZE AND FLOW DIRECTION. USE CAPITAL LETTERS EITHER FIRE RESISTANT HIGH GLOSS INTERIOR ENAMEL PAINT OR WATERPROOF, HEAT RESISTANT PLASTIC MARKER TAGS (SIMILAR TO: W.H. BRADY IDENTIFICATION TAPES, BANDS, MARKERS.) IDENTIFY AT MAXIMUM OF EVERY 50 FT. AND AT LEAST ONCE IN EACH ROOM. LOCATE AND STATE LETTERING SUCH THAT IT CAN BE SEEN FROM FLOOR.
- IN THE CASE OF DISCREPANCY BETWEEN ARCHITECTURAL AND MECHANICAL DRAWINGS TO NUMBER, TYPE, OR LOCATION OF HVAC EQUIPMENT AND SYSTEMS COMPONENTS, OBTAIN WRITTEN RULING.
- ALL TIME/DATE SENSITIVE ELECTRONIC EQUIPMENT AND SOFTWARE PROVIDED IN THIS PROJECT SHALL BE 4 DIGIT YEAR INPUT COMPATIBLE AND SHALL BE BASED ON THE USE OF FULL, UNABBREVIATED, UNAMBIGUOUS DISCRETE TIME AND DATE CODES.
- MECHANICAL SUB-CONTRACTOR SHALL COORDINATE PROVISION OF POWER TO BUILDING CONTROL TRANSFORMERS WITH DIVISION 16 AND CARRY ALL INCREMENTAL COSTS.
- COORDINATE THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH DIVISION 16. DIVISION 16 SHALL PROVIDE THE FOLLOWING:
  - ALL POWER WIRING TO EQUIPMENT.
  - ONE 15 AMP 120V/1PH/60HZ FUSED POWER SUPPLY TO EACH MECHANICAL EQUIPMENT AND/OR JANITOR ROOM.
- PROVIDE FIRE STOPPING AT ALL PIPING, CONDUIT (CONTROLS) AND DUCTWORK PENETRATIONS OF ALL REQUIRED FIRE SEPARATIONS WITH APPROVED MATERIAL SYSTEMS. ACCEPTABLE MATERIALS: 3M, DOW, CORNING, AFS.
- MECHANICAL SUB-CONTRACT DOCUMENTS ARE DIAGRAMMATIC AND APPROXIMATE TO SCALE; REFER TO ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS, AND SITE VERIFY ALL CRITICAL DIMENSIONS, THE DRAWINGS AND SPECIFICATIONS ESTABLISH SCOPE FOR MATERIAL AND INSTALLATION QUALITY AND ARE NOT DETAILED INSTALLATION INSTRUCTIONS. ANY DISCREPANCIES MUST BE BROUGHT TO THE CONTRACT ADMINISTRATOR'S ATTENTION IN WRITING PRIOR TO THE CLOSE OF BIDS.
- SHOULD ANY DISCREPANCY APPEAR BETWEEN THE DRAWINGS AND SPECIFICATIONS, WHICH LEAVE THE GENERAL CONTRACTOR IN DOUBT AS TO THE TRUE INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS, THE GENERAL CONTRACTOR SHALL OBTAIN A WRITTEN RULING FROM THE CONTRACT ADMINISTRATOR PRIOR TO BID SUBMISSION. IF WRITTEN APPROVAL IS NOT PROVIDED, THE MOST EXPENSIVE ALTERNATIVE SHALL BE INCLUDED IN THE BID PRICE.
- FIELD VERIFY ALL BUILDING AND SITE DIMENSIONS AND REVIEW MECHANICAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY FABRICATION OR INSTALLATION OF EQUIPMENT OR MATERIALS. DO NOT ATTEMPT ANY FABRICATION OR INSTALLATION UNTIL SUCH CLARIFICATION IS PROVIDED. NO CONTRACT REVISIONS WILL BE CONSIDERED FOR FAILURE TO VERIFY THESE DIMENSIONS ON SITE.
- DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY EACH TO THE OTHER, WHAT IS CALLED FOR BY ONE SHALL BE BINDING AS CALLED FOR BY BOTH.

**SECTION 15180 – INSULATION**

ALL INSULATING MATERIALS, METHODS, SIZES AND TYPES OF INSULATION FOR ALL PIPING AND DUCT WORK SHALL BE INSTALLED TO THE REQUIREMENTS OF THE ASHRAE STANDARDS 90.1-2010 ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS; NATIONAL ENERGY CODE OF CANADA FOR BUILDING 2011 AND THERMAL INSULATION ASSOCIATION OF CANADA (TIAC) STANDARDS.

- PROVIDE 1" (25 MM) ON PIPING LESS THAN 2" (50 MM) OR 1 1/2" (38 MM) ON PIPING 2 1/4" (64 MM) OR GREATER THICK RIGID PIPE INSULATION ON ALL DOMESTIC WATER PIPES. INSULATION C/W VAPOUR BARRIER.
- PROVIDE 1" (25 MM) THICK PIPE INSULATION ON ALL PLUMBING VENTS PASSING THROUGH ROOF FOR A DISTANCE OF 10'-0" (3 M) INSIDE FROM POINT OF COLD TO WARM SURFACE PENETRATION. INSULATION C/W VAPOUR BARRIER.
- PROVIDE 1 1/2" (38 MM) THICK KNAUF DUCTWRAP, 1.0 PCF DENSITY R6.0 (RSI 1.06) 25% COMPRESSED FLEXIBLE DUCT INSULATION C/W RFRFR FACING ON EXHAUST DUCTWORK & ALL SUPPLY DUCTWORK FROM ALL AIR HANDLING EQUIPMENT. EXHAUST DUCTWORK SHALL BE INSULATED FOR A MINIMUM DISTANCE OF 10'-0" (3 M) FROM PENETRATION OF BUILDING THERMAL ENVELOPE. REFER TO DRAWINGS FOR ADDITIONAL INSULATION REQUIREMENTS. ALL SUPPLY AIR DUCTWORK CONVEYING AIR-CONDITIONED AIR SHALL BE INSULATED.
- PROVIDE 2" (50 MM) THICK KNAUF DUCTWRAP, 1.6 PCF DENSITY, R8.3 (RSI 1.5) 25% COMPRESSED THERMAL FACED INSULATION ON ALL DUCTWORK CONVEYING OUTSIDE AIR COMPLETE WITH REFR. FACING FACING. DUCTWORK SHALL BE INSULATED OVER ENTIRE RUN FROM PENETRATION OF BUILDING THERMAL ENVELOPE TO UNIT CONNECTION.
- ACOUSTICALLY INSULATE DUCTWORK WITH 1" (25 MM) FLEXIBLE DUCT INSULATION WITH FLAME – ATTENUATED FIBRES BONDED WITH THERMOSETTING RESIN; BLACK PLASTIC-COATED MAT FINISH. PROVIDE WHERE NOTED ON DRAWINGS OR AS SHOWN AS HATCHED DUCTWORK OR ALLOW FOR UP TO 1/2" (3 M) FROM SUPPLY AND RETURN AIR OPENINGS OF ROOF MOUNTED EQUIPMENT. ACCEPTABLE PRODUCT: KNAUF AIR DUCT BOARD.
- DO NOT EXTERNALLY INSULATE ANY DUCTWORK WHICH IS SPECIFIED OR SHOWN TO BE INTERNALLY INSULATED UNLESS NOTED OTHERWISE.
- INSULATION COVERINGS:
  - MASTIC FINISH OVER INSULATION SHALL BE VI-CRYL CP-101 WHITE WEATHER BARRIER COATING AS MANUFACTURED BY CHILDERS PRODUCTS COMPANY. IT SHALL BE APPLIED IN TWO COATS. THE FIRST COAT BEING A TACK COAT APPLIED AT A RATE OF TWO GALLONS PER 100 SQ. FT. (.81 L/SQ.M), AND WHILE STILL WET A LAYER OF CHIL-GLAS #5 OPEN WEAVE GLASS CLOTH MEMBRANE SHALL BE EMBEDDED WITH ALL FABRIC COAT AT A COVERAGE OF FOUR GALLONS PER 100 SQ. FT. (1.6 L/SQ.M) SHALL BE APPLIED, FULLY COVERING THE CLOTH MEMBRANE, SO THAT THE MINIMUM DRY FILM THICKNESS IS 1/16" (0.63") (1.6 MM). THERE SHALL BE NO Voids OR HOLLOWs AND THE MASTIC SHALL BE TOWELED, SPRAYED OR MET-BRUSHED TO A SMOOTH EVEN FINISH. PROVIDE ALUMINUM JACKET THREE(3) SIDES. FINISH AS PER CONTRACT ADMINISTRATOR BY GENERAL CONTRACTOR.
- ALL ADJOINING UNINSULATED SURFACES MUST BE COMPLETELY WATER-PROOFED AND FLASHED EITHER BY EXTENDING THE VI-CRYL CP-101/11 WEATHER BARRIER COATING AND FABRIC MEMBRANE A MINIMUM OF 4" (102 MM) ONTO THE ADJOINING SURFACE, OR BY THE USE OF A SURGE WELD ATAIN APPROPRIATE IN EXCESS OF 180 DEGREES F (82 DEGREES C), USE CHIL-JOINT CP-70 SEALANT AS THE FLASHING COMPOUND.
- ALL INSULATION IN EXPOSED LOCATIONS, AND ALL DUCTWORK IN FAN ROOMS, SERVICE ROOMS, GARAGES, ETC., SHALL BE COVERED WITH CANVAS W/WR INSULATION EXPOSED TO THE MOISTURE SHALL BE COMPLETE WITH COVER PER 7.1/2 ABOVE.

**SECTION 15400 – PLUMBING**

- PROVIDE COMPLETE FUNCTIONAL PLUMBING SYSTEM COMPRISED OF DOMESTIC WATER PIPING, VENTS, SANITARY AND DRAINAGE PIPING, ETC.
- ALL WATER PIPING ABOVE GROUND INSIDE BUILDING SHALL BE TYPE L HARD COPPER; 3RD PARTY CERTIFIED. ALL PIPING BELOW GROUND SHALL BE TYPE K SOFT COPPER; 3RD PARTY CERTIFIED.
- DRAINS AND VENT PIPING UNDERGROUND INSIDE BUILDING SHALL BE CAST IRON CLASS 4000, OR PVC PLASTIC. FITTINGS SHALL BE MECHANICAL JOINT FOR CAST IRON OR SOLVENT CEMENT FOR PVC.

- SANITARY WASTE STACKS, HORIZONTAL WASTE, VENT, ABOVE GROUND INSIDE BUILDING, SHALL BE CAST IRON P.V.C CLASS 4000. VENT PIPING AND FIXTURE RUN-OUTS MAY ALSO BE DWV COPPER OR PVC PLASTIC. FITTINGS SHALL BE MECHANICAL JOINT FOR CAST IRON, SOLDER FOR DWV COPPER AND SOLVENT CEMENT FOR PVC.
- ALL PVC PLASTIC PIPING USED FOR HIGH-RISE BUILDINGS SHALL HAVE A FLAME SPREAD RATING OF 0, AND A SMOKE DEVELOPED RATING OF 35. PIPING AND FITTINGS SHALL BE OF ONE MANUFACTURER: IPEX SYSTEM 15XR.
- MECHANICAL SUB-CONTRACTOR SHALL VERIFY ON SITE ALL CONNECTION POINTS TO EXISTING BUILDING SERVICES. COORDINATE ALL NEW PIPING RUNS WITH CONTRACT ADMINISTRATOR.
- USE 95/5 TIN-ANTIMONY BRASS SOLDER ON ALL HOT AND COLD WATER PIPING. USE NON-CORROSIVE NON-LEADED FLUX.
- ALL VALVES TO BE BY ONE MANUFACTURER. STANDARD OF ACCEPTANCE: JENKINS BROS. LTD.
- MANUFACTURED SHOCK ABSORBERS, AUTOMATIC AIR VENTS, AND PARTITION STOPS SHALL BE INSTALLED AT THE TOP OF ALL RISERS, AND ON ALL FIXTURES OR BATTERY OF FIXTURES.
- MECHANICAL SUB-CONTRACTOR SHALL ALLOW FOR IN BIDS ANY ADDITIONAL LABOUR, MATERIALS, ETC. DEEMED NECESSARY DUE TO EXACT SITE CONDITIONS WHICH HAVE NOT BEEN REFLECTED IN MECHANICAL DRAWING OR IN MECHANICAL SPECIFICATION. NOTIFY CONSULTANT OF ALL DISCREPANCIES PRIOR TO BID CLOSE.
- ON COMPLETION, ALL PIPING SYSTEMS SHALL BE CLEANED & FLUSHED OUT TO REMOVE ANY FOREIGN MATERIAL IN THE PIPING.

- GAS PIPING SHALL BE BLACK STEEL PIPE, EQUAL TO ASTM A-53 SCH. 40 WITH 150 LBS. STANDARD BLACK MALLEABLE IRON SCREWED FITTINGS. ALL WORK SHALL COMPLY WITH C.G.A. #149-1-00 NATURAL GAS AND PROPANE INSTALLATION CODE. COMPLETE WITH DEPARTMENT OF LABOUR GAS NOTICES, AND SHALL BE PERFORMED BY FULLY QUALIFIED GAS FITTERS AND/OR WELDERS LICENSED TO PRACTICE IN THE PROVINCE OF MANITOBA.
- VALVES IN GAS PIPING SHALL BE GRINNELL FIG. C.G.A. OR EQUAL.
- RUN GAS PIPING TO SERVE CITY OF WINNIEG'S EQUIPMENT. TAKE-OUT PERMITS AND CONTROL EQUIPMENT READY FOR USE. PROVIDE GAS REGULATORS TO SERVE NEW GAS FILING EQUIPMENT. GAS REGULATORS SHALL BE C.G.A. APPROVED AS MANUFACTURED BY FISHER, OR EQUAL. PROVIDE GAS COOK DIRT LEG AND FLEXIBLE CONNECTIONS AT EACH PIECE OF EQUIPMENT.
- GENERAL CONTRACTOR SHALL COORDINATE SERVICE INSTALLATIONS AND/OR MODIFICATIONS WITH LOCAL UTILITY PRIOR TO COMMENCEMENT OF WORK. PAY ALL COSTS AND/OR FEES.
- ROOF MOUNTED PIPING SHALL BE SUPPORTED WITH C-P ORT UP RESISTANT RUBBER MOUNTS OF SUITABLE WEIGHT TO ACCOMMODATE INSTALLATION REQUIREMENTS, AS MANUFACTURED BY CLEARLINE TECHNOLOGIES OR APPROVED EQUAL. INSTALLATIONS TO CAN/CSA – B149.1-05.
- GENERAL CONTRACTOR SHALL PROVIDE PRE-ASSEMBLED AND PRE-TESTED OVER-PRESSURE RELIEF REGULATORS AND VENT ASSEMBLIES ON ALL PROPANE AND NATURAL GAS PIPING SYSTEMS GREATER THAN 7" W.C., INSTALLED AT EACH APPLIANCE AND/OR EQUIPMENT. INSTALLATION AND REQUIREMENTS TO MEET THE CAN/CSA-B149.1-05 AND TSSA/MB. DEPT. OF LABOUR REQUIREMENTS.
- PROVIDE DIELECTRIC COUPLINGS WHEREVER PIPES OF DISSIMILAR METALS ARE JOINED.
- USE THE FOLLOWING ROD DIAMETER AND SPACING SCHEDULE TO ESTABLISH MINIMUM HANGING STANDARDS FOR HORIZONTAL PIPING:

| PIPE SIZE    | ROD DIA | STEEL | COPPER |
|--------------|---------|-------|--------|
| UP TO 3/4"   | 3/8"    | 6     | 6'     |
| 1" TO 1 1/4" | 3/8"    | 8     | 6"     |
| 1 1/2" & 2"  | 3/8"    | 10    | 8'     |

- PIPE HANGERS WHERE REQUIRED SHALL BE GRINNELL FIG.65 FOR STEEL PIPE AND FIG.117 EXPANSION CASE SET IN HOLES DRILLED IN CONCRETE OR ATTACHED TO FIG.225 OR 227 CLAMP ATTACHED TO FLOOR JOIST AND ROOF JOIST. FOR INSULATED PIPING, PROVIDE PROTECTION FIG.167 SADDLES SIZE HANGER TO ACCOMMODATE INSULATION WHERE APPLIED.

**PLUMBING FIXTURES AND EQUIPMENT:**

\*24 VOLT TRANSFORMER – SLOAN #EL-154, BOX MOUNT HARD WIRE TRANSFORMER, 120 VAC/ 24 VAC, 50 VA. WILL OPERATE UP TO 10 'OPTIMA' FLUSH WALL UNITS. ONE TRANSFORMER TO BE PROVIDED FOR EACH WASHROOM GROUP. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS. REFER TO ELECTRICAL DRAWINGS FOR COORDINATION.

- WC-1: WALL HUNG TOILET – VITREOUS CHINA – FOR FLUSHOMETER – EXPOSED – NO TOUCH – HARDWIRED

AMERICAN STANDARD AFWALL MILLENNIUM FLOWISE ELONGATED #3351.01.020 HET TOILET, W/ET VITREOUS CHINA WITH EVERCLEAN ANTIMICROBIAL SURFACE WHICH INHIBITS THE GROWTH OF STAIN AND ODOR CAUSING BACTERIA MOLD AND MILDEW, WALL HUNG, SIPHON JET FLUSH ACTION, OPERATES IN THE RANGE OF 4.2 L TO 6 L (1.1 US GAL TO 1.6 US GAL) PER FLUSH, CONDENSATE CHANNEL, 305 MM X 254 MM (12" X 10") WATER SURFACE, ELONGATED BOWL, 54 MM (2-1/8") FULLY GLAZED INTERNAL TRAPWAY, 38 MM (1-1/2") DIA. TOP SPUD.  
MOUNT FIXTURE 16"(406MM) ABOVE FINISHED FLOOR TO RIM OF TOILET (OR AS REQUIRED TO MEET LOCAL CODES). CENTRO #800ST5CC001 TOILET SEAT, HEAVY DUTY, FOR ELONGATED BOWL, OPEN FRONT, WHITE SOLID PLASTIC, LESS COVER, STAINLESS STEEL CHECK HINGES, METAL FLAT WASHERS STAINLESS STEEL POSTS AND NUTS, SLOAN ROYAL OPTIMA #111-128 ES-S-CP, EXPOSED FLUSHOMETER FOR TOP SPUD TOILET, CHROME PLATED, 4.8 L (1.28 US GAL) FACTORY SET FLOW, QUIET ACTION 'PERMEX' DIAPHRAGM TYPE WITH DUAL FILTER BY-PASS, INFRARED SENSOR LOCATED ON A 125 MM X 125 MM (4-15/16" X 4-15/16") STAINLESS STEEL PLATE, COURTESY FLUSH OVER-RODE BUTTION, V.P. SMOOTH DESIGN STOP CAP ON BAK-CHEK ANGLE STOP (SCREWDRIVER OPERATED), FLUSH TUBE FOR 292 MM (11-1/2") ROUGH-IN, HIGH PRESSURE VACUUM BREAKER, SENSOR LOCATED ABOVE THE TOILET, 5 VA POWER REQUIRED PER UNIT. PROVIDE 4" (102 MM) SQUARE ELECTRICAL BOX FOR MOUNTING SENSOR PLATE. FRANKE COMMERCIAL MIDLAND #CM1604, TOILET BACK REST, SATIN FINISH TYPE 304 18 GA. (1.2 MM) STAINLESS STEEL BAR 32 MM (1-1/4") TUBING DIAMETER, ANTIQUE WHITE SOLID CORE PLASTIC LAMINATE PANEL, WATTS #SCA-101-D-XH-M11, DOUBLE HORIZONTAL, ADJUSTABLE TOILET CARRIER, MOUNTED ON CONCRETE FLOOR, ALL EPOXY COATED CAST IRON FITTING, ADJUSTABLE ABS SLIDE NIBBLE WITH INTEGRAL TEST CAP AND NEOPRENE BOWL GASKET, WASTED PLATED HARDWARE, CHROME CAP NUTS, TUNG FRAE, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT, 226.8 KG (500 LBS) STATIC LOAD. 406 MM (16") FINISHED METAL STUD WALL TO FINISHED METAL STUD WALL.

- WC-2: WALL HUNG TOILET – VITREOUS CHINA – FOR FLUSHOMETER – EXPOSED – NO TOUCH – HARDWIRED

AMERICAN STANDARD AFWALL MILLENNIUM FLOWISE ELONGATED #3351.01.020 HET TOILET, W/ET VITREOUS CHINA WITH EVERCLEAN ANTIMICROBIAL SURFACE WHICH INHIBITS THE GROWTH OF STAIN AND ODOR CAUSING BACTERIA MOLD AND MILDEW, WALL HUNG, SIPHON JET FLUSH ACTION, OPERATES IN THE RANGE OF 4.2 L TO 6 L (1.1 US GAL TO 1.6 US GAL) PER FLUSH, CONDENSATE CHANNEL, 305 MM X 254 MM (12" X 10") WATER SURFACE, ELONGATED BOWL, 54 MM (2-1/8") FULLY GLAZED INTERNAL TRAPWAY, 38 MM (1-1/2") DIA. TOP SPUD.  
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CARRIER, MOUNTED ON CONCRETE FLOOR, ALL EPOXY COATED CAST IRON FITTING, ADJUSTABLE ABS SLIDE NIBBLE WITH INTEGRAL TEST CAP AND NEOPRENE BOWL GASKET, WASTED PLATED HARDWARE, CHROME CAP NUTS, TUNG FRAE, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT, 226.8 KG (500 LBS) STATIC LOAD. 305 MM (12") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE.  
L-1: COUNTER MOUNTED SELF-RIMMING / DROP-IN BASIN ELECTRONIC FAUCET

FRANKE COMMERCIAL V17 SERIES #0V17/5 BASIN, NO FAUCET HOLE DRILLING, X X 127 MM (X X 5") HIGH, ROUND SHAPE, GRADE 16-10 18 GA. (1.2 MM) TYPE 304 STAINLESS STEEL MIRROR FINISH RIM WITH FINISHED BOWL, SEAMLESS / DROP-IN, REAR OVERFLOW UNDERCOUNTER TO REDUCE CONDENSATION AND RESONANCE, POSITIVE HOLD DOWN CLAMPING. PROVIDE BASIN RIM SEALANT. SLOAN OPTIMA #ET-80-4-LT-VPB-SL-BDT-LF-ET-1027-A ELECTRONIC FAUCET, CENTER HOLE ONLY, CAST BRASS, WITH VANDAL RESISTANT 5.7 LPM (1.5 GPM), NON-AERATING MULTI-LAMINAR FLOW SPRAY OUTLET, INFRARED SENSOR WITH SCREW ADJUSTABLE RANGE, UNDER COUNTER FILTERED SOLENOID VALVE WITH SERVICEABLE STRAINER FILTER, MODULE CONTROL ASSEMBLY HOUSED IN SPLASH PROOF JUNCTION BOX, 24VAC 50/60HZ, VANDAL PROOF BOX, 12" (305 MM) SQ. RECESSED METAL BOX WITH 13"(330 MM) SQ. V.P. S.S. FACE. LOCATED IN WALL UNDER BASIN. FLEXIBLE COPPER SUPPLY, LEAD FREE, BELOW DECK 570 THERMOSTATIC MIXING VALVE, NICKEL PLATED BRONZE BODY, TEMPERATURE ADJUSTING SPINDLE, 10 MM (3/8") INLET AND OUTLET FNPT CONNECTION, INTEGRAL CHECKS, OFFER TEMPERATURE RANGE BETWEEN 95 C (203 F) AND 46 C (114.8 F). SET VALVE TEMPERATURE AT 46 C (114.8 F). MCGUIRE #155W3CCO OFFSET OPEN GRID DRAIN, CAST BRASS ONE PIECE TOP, 17 GA. (1.5 MM) MM TUBULAR 32 MM (1-1/4") TAILPIECE. PROVIDE P-TRAP, CHROME PLATED, ADJUSTABLE ALL METAL CONSTRUCTION, 32 MM (1-1/4") SIZE, AND ESCUTCHEON. MCGUIRE PROWRAP #PW2000WC SANITARY COVERING VANDAL-RESISTANT, FLEXIBLE SEAMLESS MOULDED CLOSED-CELL PVC RESIN, FORMULATED WITH ANTI-MICROBIAL ADDITIVE TO LIMIT THE GROWTH OF FUNGUS AND BACTERIA, TO EXPOSED PIPING (TO PROTECT AGAINST HEAT/CONTUSIONS) AS PER LOCAL CODES.

- L-2: WALL HUNG BASIN ELECTRONIC FAUCET – BARRIER FREE

FRANKE COMMERCIAL UT SERIES #W1600C-B/3 BASIN, 3 HOLES, 4" (102 MM) CENTER, 600 MM X 479 MM X 143 MM (23-5/8" X 18-7/8" X 5-5/8") HIGH, GRADE 16-10 18 GA. (1.2 MM) TYPE 304 STAINLESS STEEL, BRUSHED FINISH EXPOSED SURFACE, FOR CARRIER WITH STEEL PLATE, REAR OVERFLOW, FAUCET LEDGE. SLOAN OPTIMA #ET-80-4-LT-VPB-SL-BDT-LF-ET-1027-A ELECTRONIC FAUCET, CHROME PLATED WITH BLACK THROAT, 4" (102 MM) CENTER/ST, CAST BRASS, 130 MM (5-1/8") PROJECTION REACH, WITH VANDAL RESISTANT 5.7 LPM (1.5 GPM), NON-AERATING MULTI-LAMINAR FLOW SPRAY OUTLET, INFRARED SENSOR WITH SCREW ADJUSTABLE RANGE, UNDER COUNTER FILTERED SOLENOID VALVE WITH SERVICEABLE STRAINER FILTER, MODULE CONTROL ASSEMBLY HOUSED IN SPLASH PROOF JUNCTION BOX, 24VAC 50/60HZ, VANDAL PROOF BOX, 12" (305 MM) SQ. RECESSED METAL BOX WITH 13"(330 MM) SQ. V.P. S.S. FACE. LOCATED IN WALL UNDER BASIN. FLEXIBLE COPPER SUPPLY, LEAD FREE, BELOW DECK 570 THERMOSTATIC MIXING VALVE, NICKEL PLATED BRONZE BODY, TEMPERATURE ADJUSTING SPINDLE, 10 MM (3/8") INLET AND OUTLET FNPT CONNECTION, INTEGRAL CHECKS, OFFER TEMPERATURE RANGE BETWEEN 95 C (203 F) AND 46 C (114.8 F). SET VALVE TEMPERATURE AT 46 C (114.8 F). MCGUIRE #155W3CCO OFFSET OPEN GRID DRAIN, CAST BRASS ONE PIECE TOP, 17 GA. (1.5 MM) MM TUBULAR 32 MM (1-1/4") TAILPIECE. PROVIDE P-TRAP, CHROME PLATED, ADJUSTABLE ALL METAL CONSTRUCTION, 32 MM (1-1/4") SIZE, AND ESCUTCHEON. MCGUIRE PROWRAP #PW2000WC SANITARY COVERING VANDAL-RESISTANT, FLEXIBLE SEAMLESS MOULDED CLOSED-CELL PVC RESIN, FORMULATED WITH ANTI-MICROBIAL ADDITIVE TO LIMIT THE GROWTH OF FUNGUS AND BACTERIA, TO EXPOSED PIPING (TO PROTECT AGAINST HEAT/CONTUSIONS) AS PER LOCAL CODES. WATTS #CA-311, FIXTURE CARRIER, MOUNTED ON CONCRETE FLOOR, UNIVERSAL, STEEL HANGAR SUPPORT PLATES WITH INTEGRAL MOUNTING BRACKETS, HEAVY GAUGE EPOXY COATED STEEL UPRIGHTS WITH WELDED FEET SUPPORTS. FOR ONE UNIT: 102 MM (4") FOR TWO TO SIX UNITS IN A ROW: 152 MM (6") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE.

- U-1: WALL HUNG URINAL – FOR FLUSHOMETER – EXPOSED – NO TOUCH – HARDWIRED

AMERICAN STANDARD WASHBROOK FLOWISE #P590.001/7301242-100 URINAL, VITREOUS CHINA, OPERATES IN THE RANGE OF 0.5 L TO 3.8 L (0.125 US GAL TO 1.0 US GAL) PER FLUSH, WALL HUNG, EXTENDED SIDES FOR PRIVACY, WASHDOWN ACTION, FLUSHING RIM, 19 MM (3/4") DIA. TOP SPUD, ELONGATED RIM, INTEGRAL P-TRAP, OUTLET CONNECTION 51 MM (2"), 2 WALL HANGERS, #7301242-100 CHROME PLATED, NON-METALLIC STRAINER. MOUNT FIXTURE BETWEEN 19-1/4" AND 20-1/8" (488MM AND 512MM) ABOVE FINISH FLOOR TO FRONT RIM OF URINAL (OR AS REQUIRED TO MEET LOCAL CODES).SLOAN ROYAL OPTIMA #R8-1 ES-S-CP, EXPOSED FLUSHOMETER FOR TOP SPUD URINAL, CHROME PLATED, 3.8 L (1.0 US GAL) FACTORY SET FLOW, QUIET ACTION 'PERMEX' DIAPHRAGM TYPE WITH DUAL FILTER BY-PASS, INFRARED SENSOR, V.P. SMOOTH DESIGN STOP CAP ON BAK-CHEK ANGLE STOP (SCREWDRIVER OPERATED), FLUSH TUBE FOR 292 MM (11-1/2") ROUGH-IN, HIGH PRESSURE VACUUM BREAKER, LOCATED ABOVE THE URINAL, 5 VA POWER REQUIRED PER UNIT. PROVIDE 4" (102 MM) SQUARE ELECTRICAL BOX FOR MOUNTING SENSOR PLATE. #CA-321, FIXTURE CARRIER, MOUNTED ON CONCRETE FLOOR, EPOXY COATED TOP AND BOTTOM UNIVERSAL STEEL HANGAR PLATES, HEAVY GAUGE EPOXY COATED STEEL OFFSET UPRIGHTS WITH WELDED FEET SUPPORTS. FOR ONE UNIT: 102 MM (4") FOR TWO TO SIX UNITS IN A ROW: 152 MM (6") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE. WATTS #WUO URINAL WALL ACCESS CLEANOUT, TWO (2) PIECE EXPANDABLE PLUG WITH 102 MM (4") DIAMETER STAINLESS STEEL ACCESS COVER, SECURED WITH VANDAL PROOF STAINLESS STEEL SCREW.

- WF-1: WATER COOLER

ELKAY EZH20 BOTTLE FILLING STATION VERSATILE 32-LEVEL FILTERED LZ COOLER #LZST18WSP WALL HUNG WATER COOLER, SENSOR, TOUCHLESS ACTIVATION WITH AUTO 20-SECOND SHUT OFF (BOTTLE FILLER), 8 GPH F 50 OF DRINKING WATER AT 90 F AMBIENT AND 90 F INLET WATER, STAINLESS STEEL COOLER CABINET, GALVANIZED STRUCTURAL STEEL CABINET CHASSIS TRUCK MOUNTED INTEGRITY, LAMINAR FLOW PROVIDES MINIMUM BACK SPLASH, LEAD-FREE DESIGN, EASY-TOUCH FRONT AND PUSH-BAR CONTROLS (COOLER), FLEXI-QUARD SAFETY BUBBLER UTILIZES AN INFUSED ANTI-MICROBIAL PLIABLE POLYESTER ELASTOMER TO PREVENT MOUTH INJURIES, REAL DRAIN SYSTEM ELIMINATES STANDING WATER, STAINLESS STEEL BOTTLE FILLER WRAPPER WITH ABS PLASTIC ALCOVE, QUIX FLIT RATE OF 1.1 GPM, INNOVATIVE GREEN TRICKER COUNTS DOWN TO 0, 10 SECONDS, 100% WATER REDUCING, RECOMPRESSING TYPE, SINGLE PHASE, SEALED-IN LIFE TIME LUBRICATION, CONDENSER: FAN COOLED, COPPER TUBE WITH ALUMINUM FINS, FAN MOTOR IS PERMANENTLY LUBRICATED, COOLING UNIT: COMBINATION TUBE-TANK TYPE, FULLY CLEANING, CONTINUOUS COPPER TUBING WITH STAINLESS STEEL TANK, FULLY INSULATED WITH EPS FOAM WHICH MEETS UL REQUIREMENTS FOR SELF-EXTINGUISHING MATERIAL, CHILLING CAPACITY OF 80PH. VOLTAGE REQUIREMENT: 115V AT 60 HZ, CURRENT OF 5.0 AMP, POWER CONSUMPTION: 370W, REFRIGERANT: REFRIGERANT R134A IS CONTROLLED BY ACCURATELY CALIBRATED CAPILLARY TUBE, TEMPERATURE CONTROL: EASILY ACCESSIBLE ENCLOSED ADJUSTABLE THERMOSTAT IS FACTORY PRESET, WATERSENTRY PLUS 3000-GALLON CAPACITY FILTRATION SYSTEM, NSF/ANSI 42 & 53 CERTIFIED, LED VISUAL FILTER MONITOR SHALL AUTOMATICALLY DETECT W/ET FILTER AND INDUSTRY FILTER MONITOR W/ET DIAGNOSING SYSTEM ISSUES AND RELAY RELATED MESSAGE. GREEN SPEC LISTED, INTEGRATED SILVER ION ANTI-MICROBIAL PROTECTION IN KEY AREAS. PROVIDE ELECTRICAL DUPLEX BOX WITH GF.SUPPLY DRINKING FOUNTAIN SUPPLIES, CHROME PLATED ALL METAL CONSTRUCTION, STRAIGHT STOPS, LOW FLOW. PROVIDE P-TRAP, CHROME PLATED, ADJUSTABLE ALL METAL CONSTRUCTION, 32 MM (1-1/4") SIZE, AND ESCUTCHEON. WATTS #CA-431-1-0, DOUBLE CARRIER, MOUNTED ON CONCRETE FLOOR, UNIVERSAL STEEL HANGAR SUPPORT PLATES WITH INTEGRAL MOUNTING BRACKETS, HEAVY GAUGE STEEL UPRIGHTS WITH INTEGRAL WELDED FEET SUPPORTS. FOR ONE UNIT: 114 MM (4-1/2") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE.

- SH-1: SHOWER ASSEMBLY – BUILT-IN SHOWER

ACORN SHOWER-WARE 530ADA-EVST-L-F1-44-00-PSD -L08-FZS ZENITH BUILT-IN SHOWERS – ADA COMPLIANT, LEFT SIDE VALVE, TOP OR BOTTOM SUPPLY, LESS PADDED FOLDING SEAT, SOLID BRASS, TRIPLE CHROME-PLATED WITH ADJUSTABLE SPRAY PATTERN FROM A COARSE STREAM TO A FINE MIST, SINGLE TEMPERATURE ELECTRONIC VALVE SYSTEM, 1.4 GPM (5.3 LPM), 2.5 GPM (9.5 LPM) FLOW RESTRICTOR, HAND SHOWER WITH ON /OFF PUSH BUTTON, VACUUM BREAKER AND FLOW CONTROL ON A 60° HOSE, DIVERTER VALVE WITH A PATENTED LIGATURE RESISTANT ADA COMPLIANT TR-LR-LEVER HANDLE, LESS GRAB BAR, POSITIVE SHUT-OFF FOR QUICK DISCONNECT, VALVE SUPPLY INLETS AND SHOWER HEADS INCLUDE 1/2" NCT SOCKET CONNECTIONS, AIR CONTROL VALVES AND SHOWER HEAD COMBINATIONS INCLUDE PUSH-IN TYPE RISER TUBE CONNECTIONS AND 1/2" NPS HOSE END SUPPLY CONNECTION, CHROME PLATED BRASS TRIMS. ALL OPTIONS TO BE COORDINATED WITH GENERAL CONTRACTOR.

- MS-1: JANITOR MOP SINK – FLOOR MOUNTED

STERN WILLIAMS #MTB.2424 MOP SINK, 24" X 24" X 10" (610MM X 610MM X 254MM) DEEP, FLOOR MOUNTED, PRECAST TERRAZZO, INTEGRAL DRAIN WITH STRAINER AND 'BP' S.S. BACK SPLASH PANELS. #T-10-VB FAUCET, C.P. 8" (203MM) C.C., WALL MOUNTED, SOLID

CAST BRASS BODY, WITH CAST METAL HANDLES, VACUUM BREAKER, INTEGRAL STOPS, #T-35 S.S. BRACKET 36" (915MM) HOSE WITH COUPLING, #T-40 S.S. MOP (TRIPLE) HANGER. "P" TRAP, 3" (75MM).

- ES-1: EMERGENCY COMBINATION EYE WASH/SHOWER

GUARDIAN MODEL G1902 (OR EQUIVALENT) COMBINATION EYE WASH/SHOWER SAFETY STATION WITH ABS PLASTIC SHOWER HEAD, STAINLESS STEEL BOWL, POWDER COATED CAST ALUMINUM FLASK HANDLE AND FLOOR FLANGE, 114" IPS SCHEDULE 40 GALVANIZED PIPE AND FITTINGS, 1" IPS AND 1/2" IPS U.S. MADE CHROME PLATED BRASS STAY OPEN BALL VALVES, AND POLISHED STAINLESS STEEL PULL ROD. UNIT SHALL HAVE (2) POLYPROPYLENE 'GS PLUS' SPRAY HEADS WITH INTEGRAL 'FLIP-TOP' DUST COVERS, FILTERS, AND 1.8-GPM FLOW CONTROL ORIFICES MOUNTED ON A CHROME PLATED BRASS EYEWASH ASSEMBLY. UNIT SHALL INCLUDE ANSI COMPLIANT SIGN.  
\*UNIT SHALL MEET OR EXCEED ANSI Z358.1 – 2009, AND COME WITH A FULL 2-YEAR WARRANTY.

THERMOSTATIC MIXING VALVE: GUARDIAN MODEL G3800LF (OR EQUIVALENT) (FACTORY SET TO 85 DEGREES) FOR SINGLE EMERGENCY COMBINATION EYE WASH/SHOWER. UNIT SHALL INCLUDE A BUILT-IN COLD WATER BY-PASS, ROUGH BRONZE FINISH, SOLID BIMETAL THERMOSTAT, LOCKING TEMPERATURE REGULATOR WITH LIMIT STOP FACTORY SET FOR 90 DEGREES, INTEGRAL CHECK STOPS, AND DIAL THERMOMETER. UNIT SHALL HAVE A FLOW RANGE OF 3-GPM TO 44-GPM TO 44-GPM TO 44-GPM WITH A MAXIMUM PRESSURE LOSS OF 20 PSI AND COME WITH A FULL 1-YEAR WARRANTY. UNIT SHALL BE CERTIFIED TO ASSE 1071. UNIT SHALL BE CERTIFIED TO MEET LOW LEAD REQUIREMENTS OF WETTED SURFACE AREA CONTAINING LESS THAN 0.25% LEAD BY WEIGHT.

- FD-1: FLOOR DRAINS – FIN. AREAS – SHOWER (MED. DUTY STRAINER)

SMITH SERIES 2005A FLOOR DRAIN, ALL DUCO COATED CAST IRON BODY, REVERSIBLE FLASHING CLAMP WITH SEEPAGE OPENINGS AND ADJUSTABLE 5" (127MM) DIAMETER NICKEL BRONZE