
Part 1 General

1.1 RELATED SECTIONS

- .1 Section 22 05 00 - Common Work Results for Plumbing.

1.2 REFERENCES

- .1 Air-Conditioning, Heating and Refrigeration Institute (AHRI).
 - .1 ANSI/AHRI 1010, Drinking Fountains and Self-Contained, Mechanically Refrigerated Drinking Water Coolers.
 - .2 ANSI/AHRI 1020, Application and Installation of Drinking Fountains and Drinking Water Coolers.
- .2 American National Standards Institute (ANSI).
 - .1 ANSI A117.1, Accessible and Usable Buildings and Facilities Standards.
- .3 American Society for Testing and Materials International (ASTM).
 - .1 ASTM C177, Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
 - .2 ASTM D635, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.
 - .3 ASTM G21, Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- .4 Canadian Standards Association (CSA International).
 - .1 CAN/CSA, série B45, Appareils sanitaires.
 - .2 CAN/CSA-B125, Robinetterie sanitaire.
 - .3 CAN/CSA-B651, Accessibilité des bâtiments et autres installations: règles de conception.

1.3 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate fixtures and trim:
 - .1 Dimensions, construction details, roughing-in dimensions
 - .2 Factory-set water consumption per flush at recommended pressure.
 - .3 For water closets, urinals: minimum pressure required for flushing.

1.4 CLOSEOUT SUBMITTALS

- .1 Provide operation and maintenance data for washroom fixtures, for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.
- .2 Include:
 - .1 Description of fixtures and trim, giving manufacturer's name, type, model, year, and capacity.
 - .2 Details of operation, servicing, and maintenance.
 - .3 List of recommended spare parts.

1.5 HEALTH AND SAFETY

- .1 Take necessary measures to ensure health and safety on construction site in accordance with Section 01 35 29.06 - Health and Safety Requirements.

1.6 WASTE MANAGEMENT AND REMOVAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal
- .2 Collect and separate for disposal paper, plastic, polystyrene, and corrugated cardboard packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.
- .3 Fold up metal and plastic banding, flatten, and place in designated area for recycling.

1.7 ACCEPTABLE PRODUCTS AND MATERIALS

- .1 Where a particular brand name is stipulated, see Instructions to Bidders for procedure for requesting approval of substitute materials and products.

Part 2 Products

2.1 SANITARY FIXTURES AND RELATED ACCESSORIES

- .1 Fixtures: manufacture in accordance with CAN/CSA-B45 Series.
- .2 Trim, Fittings: manufacture in accordance with CAN/CSA-B125.
- .3 Exposed plumbing brass to be chrome plated.
- .4 Quantity and location of fixtures and accessories according to the Departmental Representative's instructions.
- .5 Fixtures in any one location to be product of one manufacturer and of same type.

- .6 Trim in any one location to be product of one manufacturer and of same type.
- .7 Unless specified otherwise, all equipment must be white and all fittings must be chromed.

2.2 PIPING FOR EACH SANITARY FIXTURE

- .1 Hot and cold water supplies to fixtures:
 - .1 For each service: rigid pipes up to the ball valves, lever operated, reducer, flexible hose, and escutcheon.
 - .1 Acceptable products:
 - .1 Dahl, Mini-Ball lead free;
 - .2 Brasscraft, Kwik Turn;
 - .3 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Drainage:
 - .1 Removable "P-trap", with clean out, on fixtures not having integral trap.
 - .3 Chrome plated in exposed places.

2.3 CHAIR CARRIERS

- .1 Factory manufactured floor-mounted carrier systems for wall-mounted fixtures.
 - .1 Acceptable products:
 - .1 Zurn;
 - .2 Ancon;
 - .3 Smith;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.4 STRAINERS

- .1 Strainers for all fixtures who does not have integrated strainers:
 - .1 Acceptable products:
 - .1 Zurn;
 - .2 American Standard;
 - .3 McGuire;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders

2.5 MIXING VALVES

- .1 MIT: thermostatic mixing valve to supply one or more sinks, flow rate of 37.8 L/min at a pressure differential of 45 lb/in², nickel plated solid bronze body, temperature adjustable

from 35° to 46°C with a precision of 1.78°C, must function at flow rates as low as 1.9 L/min, integral check valve and strainer.

- .1 Acceptable products:
 - .1 Zurn ZW-1070;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.6 EC: FIXTURES SUPPLIED BY THE OWNER OR KITCHEN SPECIALIST

- .1 Plumbing fixtures connected to hot and cold domestic water, drainage, and vent. Allow for hot and cold water with isolation valves, flexible pipes, "P-traps", and waste.

2.7 WATER CLOSETS

- .1 CA-1: Floor mounted water closet with support, visible electronic flush valve with top spud.
 - .1 Bowl: Vitreous china, high efficiency, siphon jet flush, elongated bowl, closed bolts with a 4.84 L flush. 356 mm between the floor and the top of the bowl.
 - .1 Acceptable products:
 - .1 Zurn Z-5655;
 - .2 American Standard;
 - .3 Toto;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Seat: open, molded plastic toilet seat for elongated bowl, no cover, equipped with stainless steel friction hinges and a solid brass attachment rod.
 - .1 Acceptable products:
 - .1 Zurn Z-5955SS-EL;
 - .2 Centoco 1500STSCC;
 - .3 Toto SC534;
 - .4 Olsonite;
 - .5 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Battery operated, visible, electronic flush valve; polished chrome finish, infra-red presence detector, with membrane, with replaceable seat, escutcheons at the wall and fixture, vandal-proof cover screws, vacuum breaker, pipe hider with hidden screw; pre-adjusted at 4.84 L per flush.
 - .1 Presence detector: Water proof, with plastic reflector, shock resistant and with a non-scratch coating; detection range adjustable between 610 mm and 1,067 mm.
 - .2 Manual flush button.

- .3 Acceptable products:
 - .1 Zurn ZER-6000AV-HET-CPM;
 - .2 Delta;
 - .3 Toto;
 - .4 Sloan;
 - .5 Powers;
 - .6 Replacement materials or products: approved by addendum according to Instructions to bidders.
- .2 CA-2: floor mounted water closet with support, for use by handicapped persons, visible electronic flush valve with top spud.
 - .1 Bowl: Vitreous china, high efficiency, siphon jet flush, elongated bowl, closed bolts with a 4.84 L flush. 432 mm between the floor and the top of the bowl.
 - .1 Acceptable products:
 - .1 Zurn Z-5665;
 - .2 American Standard;
 - .3 Toto;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Seat: open, molded plastic toilet seat for elongated bowl, no cover, equipped with stainless steel friction hinges and a solid brass attachment rod.
 - .1 Acceptable products:
 - .1 Zurn Z-5956SS-EL;
 - .2 Centoco 1500STSCC;
 - .3 Toto SC534;
 - .4 Olsonite;
 - .5 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Back rest: made with 32 mm stainless steel tubes, satin finished, hidden attachments, with antique white laminated plastic support plate.
 - .4 Battery operated, visible, electronic flush valve: polished chrome finish, infra-red presence detector, with membrane, with replaceable seat, escutcheons at the wall and fixture, vandal-proof cover screws, vacuum breaker, pipe hider with hidden screw; pre-adjusted at 4.84 L per flush.
 - .1 Presence detector: Water proof, with plastic reflector, shock resistant and with a non-scratch coating; detection range adjustable between 610 mm and 1,067 mm.
 - .2 Manual flush button.
 - .3 Acceptable products:
 - .1 Zurn ZER-6000AV-HET-CPM-1;
 - .2 Delta;

- .3 Toto;
 - .4 Sloan;
 - .5 Powers;
 - .6 Replacement materials or products: approved by addendum according to Instructions to bidders.
- .3 CA-3: wall mounted water closet with support, visible electronic flush valve with top spud.
- .1 Bowl: vitreous china, siphon jet flush, elongated bowl, closed bolts with a 4.84 L flush. 381 mm between the floor and the top of the bowl.
 - .1 Acceptable products:
 - .1 Zurn Z-5615;
 - .2 American Standard;
 - .3 Toto;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Seat: open, molded plastic toilet seat for elongated bowl, no cover, equipped with stainless steel friction hinges and a solid brass attachment rod.
 - .1 Acceptable products:
 - .1 Zurn Z-5955SS-EL;
 - .2 Centoco 1500STSCC;
 - .3 Toto SC534;
 - .4 Olsonite;
 - .5 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Battery operated, visible, electronic flush valve: polished chrome finish, infra-red presence detector, with membrane, with replaceable seat, escutcheons at the wall and fixture, vandal-proof cover screws, vacuum breaker, pipe hider with hidden screw; pre-adjusted at 4.84 L per flush.
 - .1 Presence detector: waterproof, with plastic reflector, shock resistant and with a non-scratch coating; detection range adjustable between 610 mm and 1,067 mm.
 - .2 Manual flush button.
 - .3 Acceptable products:
 - .1 Zurn ZER-6000AV-HET-CPM;
 - .2 Delta;
 - .3 Toto;
 - .4 Sloan;
 - .5 Powers;
 - .6 Replacement materials or products: approved by addendum according to Instructions to bidders.

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- .4 Hidden supports/connections: for wall mounted water closets with siphon jet flush, horizontal or vertical, single or back to back, adjustable height with integral test plug, model to be determined according to installation.
 - .1 Acceptable products:
 - .1 Zurn Z1203 ou Z1204;
 - .2 Ancon;
 - .3 Replacement materials or products: approved by addendum according to Instructions to bidders.

 - .4 CA-4: wall mounted water closet with support, for use by handicapped persons, visible electronic flush valve with top spud.
 - .1 Bowl: vitreous china, siphon jet flush, elongated bowl, closed bolts with a 4.84 L flush. 432 mm between the floor and the top of the bowl.
 - .1 Acceptable products:
 - .1 Zurn Z-5615;
 - .2 American Standard;
 - .3 Toto;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Seat: open, molded plastic toilet seat for elongated bowl, no cover, equipped with stainless steel friction hinges and a solid brass attachment rod.
 - .1 Acceptable products:
 - .1 Zurn Z-5956SS-EL;
 - .2 Centoco 1500STSCC;
 - .3 Toto SC534;
 - .4 Olsonite;
 - .5 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Back rest: made with 32 mm stainless steel tubes, satin finished, hidden attachments, with antique white laminated plastic support plate.
 - .4 Battery operated, visible, electronic flush valve: polished chrome finish, infra-red presence detector, with membrane, with replaceable seat, escutcheons at the wall and fixture, vandalproof cover screws, vacuum breaker, pipe hider with hidden screw; pre-adjusted at 4.84 L per flush.
 - .1 Presence detector: waterproof, with plastic reflector, shock resistant and with a non-scratch coating; detection range adjustable between 610 mm and 1,067 mm.
 - .2 Manual flush button.

- .3 Acceptable products:
 - .1 Zurn ZER-6000AV-HET-CPM;
 - .2 Delta;
 - .3 Toto;
 - .4 Sloan;
 - .5 Powers;
 - .6 Replacement materials or products: approved by addendum according to Instructions to bidders.
- .5 Hidden supports/connections: for wall mounted water closets with siphon jet flush, horizontal or vertical, single or back to back, adjustable height with integral test plug, model to be determined according to installation
 - .1 Acceptable products:
 - .1 Zurn Z1203 ou Z1204;
 - .2 Ancon;
 - .3 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.8 LAVATORIES

- .1 RM: Wall Mounted Electronic Faucet.
 - .1 Wall mounted electronic faucet with infra-red sensor, spout and sensor in bronze with a polished chrome finish, and a 1.9 L/min aerator.
 - .1 Acceptable products:
 - .1 Kohler, K-T11837;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.
- .2 LC: under-mounted lavatory with electronic faucet.
 - .1 Under-mounted, oval, in vitreous porcelain, frontal overflow opening with waterproof covering.
 - .1 Dimensions: 483 mm wide x 406 mm deep x 191 mm high.
 - .2 Acceptable products:
 - .1 Zurn Z5220;
 - .2 American Standard;
 - .3 Toto;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders.

- .2 Faucet and accessories, electronically operated: battery operated faucet for lavatories, curved spout, cast brass body, polished chrome finish, single hole installation, integral infra-red detector and a 1.9 L/min vandalproof aerator, power supply by 9 V battery housed in the body of the faucet. Stainless steel, braided, supply hose. Thermostatic mixer for one or more lavatories.
 - .1 Acceptable products:
 - .1 Zurn Z6918 valve et Zurn ZW1070 faucet;
 - .2 American Standard;
 - .3 Chicago Faucets;
 - .4 Hansa;
 - .5 Toto;
 - .6 Delta;
 - .7 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Recessed box to house the thermostatic mixer: recessed box made of PVC, 305 x 305 x 102 mm, complete with stainless steel access door, 330 x 330 mm, installation accessories and vandalproof screws with a braided stainless steel hose 508 mm long.
 - .1 Acceptable products:
 - .1 Can-Aqua CA-BX12124-VP;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .4 Supply and "P-trap": refer to article "Piping for each sanitary fixture".
- .3 LM: lavatory, mounted on counter.
 - .1 Counter mounted, vitreous porcelain lavatory, central single hole with back mounted overflow opening.
 - .1 Dimensions: 597 mm wide x 464 mm deep x 130 mm high.
 - .2 Acceptable products:
 - .1 Duravit #045460;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Faucet and accessories: faucet with single control lever, ceramic disc cartridges and high temperature limiter.
 - .1 Acceptable products:
 - .1 American Standard, Serin, 2064.101 without pop-up drain;
 - .2 Zurn;
 - .3 Chicago Faucets;
 - .4 Hansa;
 - .5 Toto;
 - .6 Delta;

- .7 Replacement materials or products: approved by addendum according to Instructions to bidders.
- .3 Supply and "P-trap": refer to article "Piping for each sanitary fixture".
- .4 LH: wall mounted lavatory for handicapped usage, with electronic faucet.
 - .1 Vitreous porcelain lavatory, with integral backsplash and splash guard, central supply and frontal overflow opening.
 - .1 Dimensions: 1,514 mm wide x 584 mm deep x 210 mm high.
 - .2 Acceptable products:
 - .1 Zurn Z-5321;
 - .2 American Standard;
 - .3 Toto;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Faucet and accessories, electronically operated: battery operated faucet for lavatories, curved spout, cast brass body, polished chrome finish, single hole installation, integral infra-red detector and a 1.9 L/min vandalproof aerator, power supply by 9 V battery housed in the body of the faucet. Stainless steel, braided, supply hose. Thermostatic mixer for one or more lavatories.
 - .4 Acceptable products:
 - .1 Robinet Zurn Z6918 and Zurn ZW1070 mixer;
 - .2 American Standard;
 - .3 Chicago Faucets;
 - .4 Hansa;
 - .5 Toto;
 - .6 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Recessed box to house the thermostatic mixer: recessed box made of PVC, 305 x 305 x 102 mm, complete with stainless steel access door, 330 x 330 mm, installation accessories and anti-vandal screws with a braided stainless steel hose 508 mm long.
 - .1 Acceptable products:
 - .1 Can-Aqua CA-BX12124-VP;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Domestic hot and cold water pipe coverings, in white PVC, in accordance with norms ASTM D-635, ASTM C-177 and ASTM G-21 Standards.
 - .1 Acceptable products:
 - .1 Zurn Z-8946-1;
 - .2 Truebro, Lav Guard;
 - .3 McGuire PW2000;

- .4 Replacement materials or products: approved by addendum according to Instructions to bidders.
- .4 Wall support for lavatories: concealed arms with heavy gauge steel uprights with integral welded feet and heavy duty plates.
 - .1 Acceptable products:
 - .1 Zurn, Z-1231;
 - .2 Ancon;
 - .3 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .5 Supply and "P-trap": refer to article "Piping for each sanitary fixture".

2.9 URINALS

- .1 U: wall mounted urinal with support, with battery operated, hidden, electronic flush valve, and top spud.
 - .1 Urinal: vitreous porcelain, with high efficiency siphon jet flush and integral P-trap:
 - .1 Acceptable products:
 - .1 Zurn Z-5798;
 - .2 American Standard;
 - .3 Toto;
 - .4 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Battery operated, hidden, electronic flush valve for urinals: operated by an infra-red convergence type sensor pre-adjusted to 0.5 L per flush, with escutcheons, the whole assembly finished in polished chrome.
 - .1 Integral flow regulator;
 - .2 Stop valve and check valve with vandalproof caps.
 - .1 Acceptable products:
 - .1 Zurn, ZEG6003EV;
 - .2 Sloan.
 - .3 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Wall support for urinal: hidden, made with heavy gauge steel, welded feet, heavy duty plates, top and middle supports.
 - .1 Acceptable products:
 - .1 Zurn, Z-1222;
 - .2 Ancon;
 - .3 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.10 SHOWERS

- .1 D-1: shower in niche.
 - .1 One piece fiber glass shower without ceiling, with shelves and soap holder.
 - .1 Outside dimensions: 908 mm x 940 mm x 1,930 mm.
 - .2 Acceptable products:
 - .1 Mirolin, Aquaglass 36 one piece without roof;
 - .2 MAAX;
 - .3 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Shower door in granite glass.
 - .1 Acceptable products:
 - .1 Mirolin, S32 silvery;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .3 Single control shower faucet, pressure-balancing, ceramic disc cartridge, temperature control only, high temperature limiter, combined stop and check valves, standard shower head, flow rate of 9.5 L/Min.
 - .1 Acceptable products:
 - .1 Zurn Z-7301-SSC-MT;
 - .2 Delta T17230;
 - .3 American Standard;
 - .4 Chicago Faucets;
 - .5 Hansa;
 - .6 Toto;
 - .7 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .4 Brass drain connection with removable stainless steel grille, NPS 2, with compressible gasket.
 - .1 Acceptable products:
 - .1 Zurn FD-2275-BR2;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.11 SHOWER FAUCET

- .1 ROBD: ceramic shower faucet for use by handicapped people.
 - .1 Single control shower faucet, pressure-balancing, ceramic disc cartridge, temperature control only, high temperature limiter, combined stop and check valves

- .2 Hand shower on a 610mm long wall mounted support rod. Flow rate fixed at 9.5 L/Min, pivoting connection, wall mounted supply elbow, chromed metallic hose 1,524 mm long.
- .3 Inverting spout.
 - .1 Acceptable products:
 - .1 Zurn Z-7301-SSC-MT-HW-T2;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.12 MOP SINKS

- .1 CP: Floor Mounted Mop Sink:
 - .1 Mop sink, high density composite material - 914 mm wide x 610 mm deep x 254 mm high, with 44 mm x 16 mm rim, PVC drainage connection with stainless steel domed strainer and lint basket, compressible rubber gasket for 75 mm hose. Wall mounted, stainless steel mop support, 16 mm x 762 mm long reinforced hose for heavy duty usage, stainless steel wall panel assembly, 20 gauge, 300 mm high on 2 sides, 610 mm x 914 mm with a corner.
 - .1 Acceptable products:
 - .1 Zurn, Z1996-36-BS-HH-MH-SDL-WG36;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Two control, superior quality wall faucet, cast brass body, off center pivoting connection, screwdriver operated integral stops. Ceramic disc cartridge, polished chrome finish, color coded control handles at 64 mm, vandalproof, fixed spout with vacuum breaker, wall support, hook for mop bucket, discharge axis at 232 mm from wall.
 - .1 Acceptable products:
 - .1 Zurn, Z843M1;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.13 MOP SINK

- .1 C-1: Leg Mounted Mop Sink:
 - .1 Mop sink made of a structural polyethylene composite, enameled steel legs with adjustable feet, faucet deck with water retaining rim, soap holder and drainage assembly with plug.
 - .1 Acceptable products:
 - .1 Zurn, MS2620-F;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.
 - .2 Two control wall faucet, cast brass body, off center pivoting connection, screwdriver operated integral stops. Ceramic disc cartridge, polished chrome

finish, color coded control handles at 64 mm, vandalproof, adjustable 152 mm spout with NPS ¾ hose connection and integral vacuum breaker.

- .1 Acceptable products:
 - .1 Zurn, Z812F1-10F and BFP-9CH;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.14 SINK

.1 E-1: Single Sink.

.1 Recessed, single sink with pierced rear deck, 3 holes, 203 mm center to center, stainless steel, grade 302, 20 gauge, satin finished, with pre-installed sealing ring, installation necessities and drainage assembly with integrated 89 mm strainer. Overall dimensions: 508 x 521 x 203 mm.

- .1 Acceptable products:
 - .1 AMI Novanni, 1017I-38;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

.2 Faucet: single control sink faucet, 203 mm center to center, ceramic disc cartridge, waterways in brass and copper, lustered chrome trim, lever type handle, adjustable spout with 8.3 L/min aerator. Integral 10 mm flexible supply pipes.

- .1 Acceptable products:
 - .1 Zurn, Z828300-CP8-18M;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.15 WATER FOUNTAIN

.1 F-1: Drinking Fountain.

.1 Wall mounted, heavy-duty, double drinking fountain, for universal access with rear panel, made of gauge 14 stainless steel, grade 304, satin finish, chromed brass spout, chromed push button operation, P-trap integrated into the body of the fountain and vandalproof access plates. In line filter to eliminate lead residue.

- .1 Acceptable products:
 - .1 Haws, 1117L-6426;
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

.2 Wall support for double fountain: hidden, made with heavy gauge steel, welded feet, heavy duty plates, top and middle supports.

- .3 Acceptable products:
 - .1 Zurn, Z-1225BL;
 - .2 Ancon;

- .3 Replacement materials or products: approved by addendum according to Instructions to bidders.

Part 3 Execution

3.1 INSTALLATION OF SANITARY FIXTURES

- .1 Install sanitary fixtures level, in a well-supported manner, connect services and supply and drainage accessories, as well as their "P-traps". Hot water faucets must be placed on the left. Ensure wall mounted fixtures are well attached.
- .2 Mounting Heights:
 - .1 Standard: to comply with manufacturer's recommendations, unless otherwise indicated.
 - .2 Wall-hung fixtures: as indicated, measured from finished floor.
 - .3 Physically handicapped: to comply with most stringent in NBCC and CAN/CSA B651 Standards.

3.2 ACCESSORIES

- .1 Provide isolation valves or stops for every fixture or appliance connection.
- .2 Provide water hammer arrestors for flush valves and solenoid controlled appliances.

3.3 ADJUSTING

- .1 Conform to water conservation requirements specified this section.
- .2 Adjustments:
 - .1 Adjust water flow rate to design flow rates.
 - .2 Adjust pressure to fixtures to ensure no splashing at maximum pressures.
 - .3 In the case of flush valves, perform adjustments according to the existing conditions on site, particularly where it concerns the flow rate foreseen for the water closets and urinals.
 - .4 Adjust shower mixing valves to 40°C.
- .3 Performance Verification:
 - .1 Verify flush valves.
 - .2 Aerators: operation and cleanliness.
 - .3 Vacuum breakers, backflow preventers: operation under all conditions.
- .4 Verification of Thermostatic Mixing Valves:
 - .1 Thermostatic controls: verify temperature settings, operation of control, limit, and safety controls.

- .5 Clean strainers and aerator screens.

3.4 PRODUCTS INSTALLED BY THE OTHER SECTIONS

- .1 Install the services required by equipment installed by other sections, this includes hot and cold water supply, stop valves, as well as drainage and vent connections.
- .2 Material installed by other sections:
 - .1 Perform connections with unions.
- .3 Equipment not installed:
 - .1 Services to be blocked, but ready to be connected at a later date by the terms of another section.
- .4 The connection of 24 V low tension lines for electronic faucets must be according to the terms of the present Section

END OF SECTION