# PART 1 - GENERAL

* 1. **SUMMARY**
1. This Section includes plumbing fixtures, trim and related components for:
	1. Water Closets.
	2. Urinals.
	3. Lavatories.
	4. Service Sinks.
	5. Drinking Fountains.
	6. Floor Sinks.
	7. Drinking Fountains

# DEFINITIONS

A. Accessible Fixture: Plumbing fixture that can be approached, entered, and used by people with disabilities.

# SUBMITTALS

1. Product Data: Include selected fixture and trim, fittings, accessories, appliances, appurtenances, equipment, and supports and indicate materials and finishes, dimensions, construction details, and flow-control rates for each type of fixture indicated.
2. Operation and maintenance data.

# QUALITY ASSURANCE

1. Regulatory Requirements: Comply with requirements CBC 1115B, about plumbing fixtures for people with disabilities.
2. Regulatory Requirements: Comply with requirements in 2001 California Plumbing Code, Chapter 4 about water flow and consumption rates for plumbing fixtures.
3. NSF Standard: Comply with NSF 61, "Drinking Water System Components--Health Effects," for fixture materials that will be in contact with potable water.
4. Comply with the following applicable standards and other requirements specified for plumbing fixtures:
5. Enameled, Cast-Iron Fixtures: ASME A112.19.1M.
6. Vitreous-China Fixtures: ASME A112.19.2M.
7. Water-Closet, Flush Valve, Tank Trim: ASME A112.19.5.
8. Backflow Protection Devices for Faucets with Hose-Thread Outlet: ASME A112.18.3M.
9. Faucets: ASME A112.18.1M.
10. Hose-Connection Vacuum Breakers: ASSE 1011.
11. Integral, Atmospheric Vacuum Breakers: ASSE 1001.
12. Manual-Operation Flushometers: ASSE 1037.
13. Tubular Brass Drainage Fittings and Piping: ASME A112.18.1M.
14. Disposers: ASSE 1008 and UL 430.
15. Floor Drains: ASME A112.21.1M.
16. Off-Floor Fixture Supports: ASME A112.6.1M.
17. Pipe Threads: ASME B1.20.1.
18. Plastic Toilet Seats: ANSI Z124.5.
19. Supply and Drain Protective Shielding Guards: ICC A117.1.

# PART 2 PRODUCTS

* 1. **MANUFACTURERS**
1. Plumbing Fixtures
	1. Kohler Co.
2. Brassware:
	1. Chicago Faucet Co.
3. Flushometers:
	1. Sloan Valve Co. (Royal).
	2. Or equal.
4. Fixture Carriers:
	1. Jay R. Smith.
	2. Zurn Industries.
	3. Josam.
	4. Mifab
5. Toilet Seats:
	1. Bemis.
	2. Church.
	3. Olsonite.
	4. Beneke.
6. Drinking Water Fountains and Coolers:
	1. Haws.
7. Stainless Steel Sinks:
	1. Elkay Mfg. Co.

# FIXTURES AND TRIM - GENERAL

1. Fixtures:
	1. Vitreous china, fixtures conforming to ANSI A112.19.2M: White vitreous, except as noted.
	2. Stainless steel fixtures conforming to ANSI A112.19.3.
	3. Acid resisting enameled cast iron, fixtures conforming to ANSI A112.19.1M.
	4. Supports conforming to ANSI A112.6.1M: Where wall-hung water closets are supported adjacent to stud walls, provide rear anchor foot assembly with bolting to slab.
	5. Disabled access requirements State of California Building Code.
	6. Americans with Disabilities Act (ADA)
2. Exposed pipe, fittings, traps, escutcheons, valves, valve handles and accessories, above and below fixtures.
	1. Chromium plated brass.
	2. Indirect waste piping from equipment in food service areas shall be chrome plated brass or have silver spray painted finish applied after installation.
3. Fixture fittings:
	1. Conforming to ANSI A112.18.1M.
	2. Renewable seats or replaceable internal units.
	3. Composition washers.
	4. All metal hot and cold indexed handles.
	5. Stops and supplies: similar to Chicago #1017.

# WATER CLOSETS

1. Water Closet (WC-1):
	1. Fixture: Floor-mounted flush valve siphon jet, elongated bowl, 1-½” top spud, vitreous china, 1.28 gal. flush, similar to Kohler “Highcliff Ultra” K-96057.
	2. Flush valve: Chromium plated 1.28 gal. flush, use Sloan #111-1.28.
	3. Seat: Open front, less cover, similar to Olsonite 95CT.
2. Water Closet (WC-2):
	1. Fixture: Floor-mounted flush valve siphon jet, elongated bowl, 1 ½” top spud, vitreous china, 1.6 gal. flush, similar to American Standard “Afwall” 3351.101.
	2. Flush valve: Chromium plated 1.28 gal. flush, use Sloan #111-1.28.
	3. Seat: Open front, less cover, similar to Olsonite 95CT.
3. Water Closet (WC-3):
	1. Fixture: Floor-mounted flush valve siphon set, round front, 1 ½” top spud, vitreous china is 1.28 gallon per flush, 10” high bowl, similar to Kohler “Primary” K-96064-0.
	2. Flush Valve: Chromium plated 1.28 gal. flush, use Sloan #111-1.28.
	3. Seat: Open front, less cover, similar to Kohler K-4686.

# URINALS

1. Urinal (UR-1):
	1. Fixture: Wall-hung vitreous china, siphon jet, ¾” top spud 1.0 GPF similar to Kohler with strainer.
	2. Carrier: Mifab MC-31.
	3. Flush Valve: Chromium plated 1.0 gal. No sensor flush. Use Sloan 186-1.
2. Urinal (UR-2):
	1. Same as UR-1 except mount for ADA compliance.

# LAVATORIES

1. Lavatory (L-1):
	1. Fixture: Vitreous china, counter-mounted, 21” x 17”, similar to Kohler “Sartorial Paisley Caxton Oval” K-14218.
	2. Faucet: Chromium plated, Chicago #802 317.
	3. Trim: Chromium plated grid drain, 1-1/4” tailpiece, chrome plated 17 ga. L.A. pattern cast brass P-trap, Chicago No. 1017 rigid supplies.
	4. Carrier: Mifab MC-41.
2. Lavatory (L-2):
	1. Fixture: Vitreous china, wall mounted, 21” x 18”, 4” centers, similar to Kohler “Geenwich” K-2031.
	2. Faucet: Chromium plated, Chicago #333-336.
	3. Trim: Chromium plated grid drain offset drain with grid strainer, 1-1/4” tailpiece, chrome plated 17 ga. L.A. pattern cast brass P-trap, Chicago No. 1017 rigid supplies trap.
	4. Carrier: Mifab MC-41.
3. Lavatory (L-3):
	1. Fixture: Kohler “Kingston” K-2005.
	2. Faucet: Chromium plated Chicago #802-317.
	3. Trim: Chromium plated grid drain offset drain with grid strainer, 1-1/4” tailpiece, chrome plated 17 ga. L.A. pattern cast brass P-trap, Chicago No. 1017 rigid supplies trap.
	4. Carrier: Mifab MC-41.

# SINKS

1. Classroom Sink (S-1)
	1. Fixture: 18 gauge, 304 stainless steel, 25” x 22” x 5-1/2” ADA compliant, similar to Elkay model DRKAD252255.
	2. Faucet: Deck mounted Chicago faucet 350 ADA Compliant, vandal resistant faucet, Haws 5054LF Bubble Faucet
	3. Trim: Chromium plated grid drain offset drain with grid strainer, 1-1/4” tailpiece, chrome plated 17 ga. L.A. pattern cast brass P-trap, Chicago No. 1017 rigid supplies trap.
2. Sink (S-2)
	1. Fixture: 18 gauge, 304 stainless steel, 19-1/2” x 22” x 5-1/2” ADA compliant, similar to Elkay model LRAD202255.
	2. Faucet: Chromium plated, Chicago #786-TWABCP.
	3. Trim: Chromium plated grid drain offset drain with grid strainer, 1-1/4” tailpiece, chrome plated 17 ga. L.A. pattern cast brass P-trap, Chicago No. 1017 rigid supplies trap.
3. Kitchen Sink (S-3)
	1. Fixture: 18 gauge, 304 stainless steel, 19” x 33” x 7 ½”, double compartment, similar to Elkay model LRAD332255, rear drain.
	2. Faucet: Chromium plated, Chicago 1100 Series.
	3. Disposal: In-Sink Erator ¾ horsepower #555ss. 5 year warranty.
	4. Trim: Chromium plated drain, 1 ½” tailpiece, chrome plated 17 ga. L.A. pattern cast brass P-trap, Chicago No. 1017 rigid supplies trap.

# DRINKING FOUNTAIN:

1. Drinking Fountain (DF-1):
	1. Fountain: Barrier free, “Hi-Lo”, wall mounted, wheelchair accessible, 14 gauge type 304 stainless, vandal-resistant all brass bubblers with pushbutton action and 1 ¼ inch P-trap, Haws model 1119.14. Provide Haws #6700.4 in wall mounting plate and Haws #6800 support carrier.

# SERVICE SINK (SS-1)

1. Fixture: Kohler “Whitby” K-6710 28” x 28”, white enameled cast iron, floor mounted, with 3” strainer and vinyl rim guard.
2. Trim: Chromium plated, wall mounted, with pail hook. Use Chicago 540 Series.

# FLOOR SINKS

1. Floor sink (FS-1)
	1. Fixture: 12x12x6 acid resistant enameled cast iron. Similar to CECO #906.

# PART 3 - EXECUTION

* 1. **FIXTURE INSTALLATION**
1. Assemble fixtures, trim, fittings, and other components according to manufacturers' written instructions.
2. For wall-hanging fixtures, install off-floor supports affixed to building substrate.
	1. Use carrier supports with waste fitting and seal for back-outlet fixtures.
3. Install back-outlet, wall-hanging fixtures onto waste fitting seals and attach to supports.
4. Install floor-mounting fixtures on closet flanges or other attachments to piping or building substrate.
5. Install fixtures level and plumb according to manufacturers' written instructions and roughing-in drawings.
6. Install water-supply piping with stop on each supply to each fixture to be connected to water distribution piping. Attach supplies to supports or substrate within pipe spaces behind fixtures. Install stops in locations where they can be easily reached for operation.
	1. Exception: Use ball, gate, or globe valve if stops are not specified with fixture. Refer to Division 22 Section 22 05 23 "Plumbing Piping and Valves" for general-duty valves.
7. Install trap and tubular waste piping on drain outlet of each fixture to be directly connected to sanitary system.
8. Install tubular waste piping on drain outlet of each fixture to be directly connected to drainage system.
9. Install flushometer valves for accessible water closets and urinals with handle mounted on wide side of compartment. Install other actuators in locations that are easy for people with disabilities to reach.
10. Install toilet seats on water closets.
11. Install faucet-spout fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.
12. Install water-supply, flow-control fittings with specified flow rates in fixture supplies at stop valves.
13. Install faucet, flow-control fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.
14. Install traps on fixture outlets.
	1. Exception: Omit trap on fixtures with integral traps.
15. Install escutcheons at piping wall, ceiling penetrations, in exposed, finished locations and within cabinets and millwork. Use deep-pattern escutcheons if required to conceal protruding fittings. Refer to Division 23 Section 23 05 13"Basic Mechanical Materials and Methods" for escutcheons.
16. For accessible fixtures, insulate hot and cold domestic water piping, waste piping and in accordance with ADA 4.19.4. Plumbing fixtures to be molded fire resistant ASTM-D-635, anti-fungal / antimicrobial, removable, 932” wall thickness, preformed cover with tamper resistant self-locking cable tie system. Covers must have IAPMO/UPC PS2001A listing. Install insulation covers to conform to ADA requirements.

# CONNECTIONS

1. Connect water supplies from water distribution piping to fixtures.
2. Connect drain piping from fixtures to drainage piping.
3. Supply and Waste Connections to Plumbing Fixtures: Connect fixtures with water supplies, stops, risers, traps, and waste piping. Use size fittings required to match fixtures. Connect to plumbing piping.
4. Supply and Waste Connections to Fixtures and Equipment Specified in Other Sections: Connect fixtures and equipment with water supplies, stops, risers, traps, and waste piping specified. Use size fittings required to match fixtures and equipment. Connect to plumbing piping.

# PROTECTION

1. Provide protective covering for installed fixtures and fittings.
2. Do not allow use of fixtures for temporary facilities unless approved in writing by Owner.

# END OF SECTION