

SECTION 22 42 16

COMMERCIAL LAVATORIES AND FAUCETS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Commercial lavatories.
- B. Commercial faucets.
- C. Commercial soap dispensers.
- D. In-wall carrier supports for wall supported lavatories.

1.3 RELATED SECTIONS

- A. Division 10 Section "Toilet, Bath and Laundry Accessories" for matching design soap dispensers.
- B. Division 22 Section "Domestic Water Piping Specialties" for thermostatic mixing valves.
- C. Division 22 Section "Healthcare Plumbing Fixtures" for healthcare lavatories.
- D. Division 22 Section "Emergency Plumbing Fixtures" for emergency fixtures.
- E. Division 22 Section "Security Plumbing Fixtures" for security lavatories.
- F. Division 22 Section "Hangers and Supports for Plumbing Piping and Equipment for in-wall carrier supports for wall supported lavatories.

1.4 REFERENCES:

- A. American National Standards Institute (ANSI):
 - 1. ANSI Z 124.3 - Plastic Lavatories.
 - 2. ANSI Z 124.6 - Plastic Sinks.
- B. American Society of Mechanical Engineers (ASME):
 - 1. ASME A112.18.1 Plumbing Supply Fittings.
- C. ASTM International (ASTM):
 - 1. ASTM C 531 - Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.
 - 2. ASTM D 570 - Standard Test Method for Water Absorption of Plastics.
 - 3. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
 - 4. ASTM D 785 - Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials.
 - 5. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- D. GREENGUARD Environmental Institute (GEI):
 - 1. GREENGUARD listed and certified low emitting products.
- E. International Association of Plumbing and Mechanical Officials (IAPMO):

1. Universal Plumbing Code (cUPC both U.S. and Canada).
- F. Public Law 102-486, Energy Policy Act, requires that public lavatories manufactured after December 31, 1996, have flow rate or consumption not greater than 0.5 gpm (1.5 L/min.) or 0.25 gal. (0.95 L) per metering cycle.
- G. State of Texas:
1. Texas Accessibility Standards (TAS).
- H. US Federal Government:
1. Public Law 102-486 - Energy Policy Act. 1992.
 2. U.S. Architectural & Transportation Barriers Compliance Board. Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG).
- 1.5 ACTION SUBMITTALS
- A. Product Data: For each product:
1. Manufacturer's data sheets indicating operating characteristics, materials and finishes.
 2. Include details of electrical and mechanical operating parts.
 3. Provide mounting requirements and rough-in dimensions.
 4. Mark each sheet with product drawing designation.
- B. LEED Submittals:
1. Product Data for [Credit WE 2] and Credit WE 3]: Documentation indicating compliance with requirements.
 2. Certification: GREENGUARD GOLD listed and certified.
- 1.6 INFORMATION SUBMITTALS
- A. Sample warranty.
- B. Operation, care and cleaning instructions.
- 1.7 MAINTENANCE SUBMITTALS
- A. Furnish indicated spare parts that are packaged with identifying labels listing associated products.
- B. Operation and Maintenance data.
- 1.8 QUALITY ASSURANCE
- A. Laminar-Flow, Faucet-Spout Outlets:
1. NSF Standard: Comply with NSF 372 for faucet-spout outlet materials that will be in contact with potable water.
 2. Description: Chrome-plated-brass, faucet-spout outlet that produces non-aerating, laminar stream. Include external or internal thread that mates with faucet outlet for attachment to faucets where indicated and flow-rate range that includes flow of faucet.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with Public Law 102-486, Energy Policy Act.
- D. Comply with NSF 372, Drinking Water System Components – Health Effects.
1. Product shall meet a weighted average of not more than 0.25 percent lead as required by the U.S. Safe Drinking Water Act.
- E. Solid surface material GREENGUARD certified as low-emitting material.

1.9 WARRANTY

- A. Special Manufacturer's Warranty: Provide manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship.
1. Terreon lavatories: 10 years.
 2. Soap Dispenser: Three years.
 3. Faucets: Three years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide commercial lavatories manufactured by Bradley Corporation, Menomonee Falls, WI 53051, (800)272-3539, fax (262)251-5817; Email info@BradleyCorp.com; Website www.bradleycorp.com.
1. Submit comparable products of one of the following for approval by Architect:
 - a. **[Insert name of manufacturer of comparable product.]**
 2. Submit requests for substitution in accordance with Instructions to Bidders and Division 01 General Requirements.
 3. Provide specified designer matched soap dispenser and faucet products; Owner will not consider substitution requests for designer matched soap dispenser and faucet products.

2.2 MATERIALS

- A. Solid Surface Material: Where indicated as constructed of solid surface material, fabricate plumbing fixtures from thermoset bio-based resin certified by approved independent testing agency (IAMPO R&T) as complying with applicable national building codes, with the following minimum properties:
1. Basis of Design Product: **Bradley, [Terreon][TerreonRE]**, or a comparable product fabricated from one of the following materials:
 - a. DuPont, Corian Products.
 - b. Wilsonart International, Inc., Gibraltar Products.
 2. Thickness: **1/2 inch (13 mm)**, minimum.
 3. Liquid Absorption: 0.03 percent in 24 hours, per ASTM D 570.
 4. Tensile Strength: **5000 psi (34 MPa)**, minimum, per ASTM D 638.
 5. Thermal Expansion: 2.96, per ASTM C 531.
 6. Hardness: 3-4 Mohs Scale, per ASTM D785.
 7. Fire Resistance: Class 1, per ASTM E 84.

2.3 LAVATORIES, SINGLE STATION

- A. Single-Station One-person Lavatory Fixture **LAV# ____**: Wall-mounted lavatory constructed of **[recycled]** solid surface material with circular bowl. Unit includes waste and supply connections to wall with stop, strainer, and check valves[, concealed by high impact polymer access panel/trap cover][, concealed by stainless steel access panel/trap cover].
1. Basis of Design Manufacturer/Model: **Bradley, Express Model SS-1N.**
 2. Faucet: **[insert faucet Manufacturer/Model].**
 3. Soap Dispenser: **[insert soap dispenser Manufacturer/Model].**
 4. Spray Head: Independent water stream former with flow rate of **0.5 gpm (1.9 Lpm)** at operating range of **20 to 80 psi (138 to 552 kPa)**.
 - a. Spray Head Valve Operation: Infrared sensing module and solenoid with automatic shut-off. Flow rate **0.50 gpm (1.9 Lpm)** [with 110/24 VAC plug-in transformer.][battery operated.]
 - b. Spray Head Valve Operation: Light-touch, 10 second auto shutoff and solenoid valve. Flow rate **0.10 gpc (0.38 Lpc)**.

5. Water Supply: [Single tempered line][Thermostatic mixing valve assembly].
 6. Bowl/Deck Color: [insert Bradley Terreon color required].
- B. Single-Station One-person Lavatory Fixture **LAV#**____: Wall-mounted lavatory constructed of [recycled] solid surface material with integral bowl. Unit includes waste and supply connections to wall with stop, strainer, and check valves, concealed by high impact polymer access panel/trap cover.
1. Basis of Design Manufacturer/Model: **Bradley, Express Model GLX1-1.**
 2. Product Compliance:
 - a. ADA / ICC ANSI A117.1 and IAPMO IGC 156 and requirements of CSA B45.5/IAPMO Z124 and ASME A112.18.1/CSA B125.1.
 - b. Texas Accessibility Standards (TAS).
 3. Overall Unit Size: **26-3/8 inches (670 mm)** length, **20-5/8 inches (525 mm)** depth.
 4. Bowl/Deck Color: [insert Bradley Terreon color required].
 5. Drain Connection: [chrome-plated waste assembly][polypropylene waste assembly].
 6. Faucet: [insert faucet Manufacturer/Model].
 7. Soap Dispenser: [insert soap dispenser Manufacturer/Model].
 8. Water Supply: [Single tempered line assembly][Thermostatic mixing valve assembly].
 9. Trap enclosure Color: Coal.
- C. Single-Station One-person Lavatory Fixture **LAV#**____: Wall-mounted lavatory constructed of [recycled] solid surface material with integral bowl. Unit includes waste and supply connections to wall with stop, strainer, and check valves, concealed by high impact polymer access panel/trap cover.
1. Basis of Design Manufacturer/Model: **Bradley, Express Model TLX-1.**
 2. Product Compliance:
 - a. ADA / ICC ANSI A117.1.
 - b. IAPMO IGC 156.
 - c. CSA B45.5 / IAPMO Z124.
 - d. ASME A112.18.1/ CSA B125.1.
 - e. NSF/ANSI 372.
 - f. Texas Accessibility Standards (TAS).
 3. Overall Unit Size: **26-1/4 inches (668 mm)** length, **20-5/8 inches (525 mm)** depth.
 4. Bowl/Deck Color: [insert Bradley Terreon color required].
 5. Drain Connection: [chrome-plated waste assembly][polypropylene waste assembly].
 6. Faucet: [insert faucet Manufacturer/Model].
 7. Soap Dispenser: [insert soap dispenser Manufacturer/Model].
 8. Water Supply: [Single tempered line assembly][Thermostatic mixing valve assembly].
 9. Trap enclosure Color: Coal.
- D. ADA/ABA compliant single-Station One-person Frequency Lavatory Fixture **LAV#**____: Wall-mounted lavatory constructed of [recycled] solid surface material with circular bowl. Unit includes waste and supply connections to wall with stop, strainer, and check valves.
1. Basis of Design Manufacturer/Model: **Bradley, Frequency Model FL-1L.**
 2. Faucet: [insert faucet Manufacturer/Model].
 3. Soap Dispenser: [insert soap dispenser Manufacturer/Model].
 4. Water Supply: [Single tempered line][Thermostatic mixing valve assembly].
 5. Power Source: Battery Operated.
 6. Bowl/Deck Color: [insert Bradley Terreon color required].
- E. Single-Station One-person Frequency Lavatory Fixture **LAV#**____: Wall-mounted lavatory constructed of [recycled] solid surface material with circular bowl. Unit includes waste and supply connections to wall with stop, strainer, and check valves.
1. Basis of Design Manufacturer/Model: **Bradley, Frequency Model FL-1H.**
 2. Faucet: [insert faucet Manufacturer/Model].

3. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
 4. Water Supply: **[Single tempered line][Thermostatic mixing valve assembly]**.
 5. Power Source: Battery Operated.
 6. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
- F. ADA/ABA compliant wall-mounted, Accessible, Single-Station Lavatory Fixture **LAV#___**: Constructed of **[recycled]** solid surface material with water overflow and ledged back, drain, strainer, and tailpiece.
1. Basis of Design Manufacturer/Model: Bradley, Terreon Imperial Lavatory Model TL-18.
 2. Fixture Size: **22 by 18 inches (558 by 457 mm)**.
 3. Faucet: **[insert faucet Manufacturer/Model]**.
 4. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
 5. Water Supply: **[Single tempered line][Thermostatic mixing valve assembly]**.
 6. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
- G. ADA/ABA compliant wall-mounted, Single-Station Lavatory Fixture **LAV#___**: Constructed of **[recycled]** solid surface material with water overflow and ledged back, drain, strainer, and tailpiece.
1. Basis of Design Manufacturer/Model: **Bradley, Terreon Lavatory Model LD-3010**.
 2. Fixture Size: **22 by 18 inches (558 by 457 mm)**.
 3. Bowl Size: **13 by 16 inches (330 by 406 mm)**.
 4. Faucet: **[insert faucet Manufacturer/Model]**.
 5. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
 6. Water Supply: **[Single tempered line][Thermostatic mixing valve assembly]**.
 7. Bowl/Deck Color: **[insert Bradley Terreon color required]**.

2.4 LAVATORIES, MULTIPLE USER SYSTEMS

- A. ADA/ABA compliant, **[Wall-mounted, Floor-supported,][Wall-mounted,][2][3]** Station Lavatory **LAV#___**: Constructed of **[recycled]** solid surface material with integral semi-circular continuous bowls, deck, and ledge containing concealed, vandal-resistant spray head. Unit includes waste and supply connections to wall with stop, strainer, and check valves, and stainless steel support frame, concealed by high impact polymer pedestal enclosure. ADA/ABA, ANSI A117.1, and TAS compliant. IPC/cUPC certified by IAPMO.
1. Basis of Design Manufacturer/Model: **Bradley, Express Lavatory System, SS-series Model No. [SS-2N][SS-3N]**.
 2. Overall Unit Size: **[50 by 21-1/8 inches (1270 by 537 mm) with 2 bowls][80 by 21-1/8 inches (2032 by 537 mm) with 3 bowls]**.
 3. Bowl Size: **16 inches (406 mm) diameter**.
 4. Faucet: **[insert faucet Manufacturer/Model]**.
 5. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
 6. Spray Head: Independent water stream former with flow rate of **0.5 gpm (1.9 Lpm)** at operating range of **20 to 80 psi (138 to 552 kPa)**.
 - a. Spray Head Valve Operation: Infrared sensing module and solenoid with automatic shut-off **[with 110/24 VAC plug-in transformer][battery operated]**.
 - b. Spray Head Valve Operation: Pushbutton air valve metering with adjustable timing.
 - c. Spray Head Valve Operation: Light-touch, 10 second auto shutoff.
 7. Water Supply: **[Single tempered line][Single thermostatic mixing valve]**.
 8. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
 9. Pedestal Enclosure Color: As selected by Architect from manufacturer's full line.
 10. Accessories: Matching solid surface material: **[Extensions][Purse Shelves][Waste Receptacles][Splashes and Aprons]** as indicated.
- B. ADA/ABA compliant wall-mounted, **[2][3]** Station Lavatory **LAV#___**: Constructed of **[recycled]** solid surface material with integral wave-formed continuous bowl, contoured deck, and

ledge containing concealed, vandal-resistant spray head. Unit includes waste and supply connections to wall with stop, strainer, and check valves, and stainless steel support frame, concealed by high impact polymer pedestal enclosure. ADA/ABA, ANSI A117.1, and TAS compliant. IPC/cUPC-certified by IAPMO.

1. Basis of Design Manufacturer/Model: **Bradley, Express Lavatory System, MG series Model No. [MG-2][MG-3].**
 2. Overall Unit Size: [54 by 22 inches (1372 by 559 mm) with 2 bowls][84 by 21-1/8 inches (2134 by 537 mm) with 3 bowls].
 3. Bowl Size: 16-inches (406 mm) diameter.
 4. Faucet: [insert faucet Manufacturer/Model].
 5. Soap Dispenser: [insert soap dispenser Manufacturer/Model].
 6. Spray Head: Independent water stream former with flow rate of 0.5 gpm (1.9 Lpm) at operating range of 20 to 80 psi (138 to 552 kPa).
 - a. Spray Head Valve Operation: Infrared sensing module and solenoid with adjustable turn off delay and automatic shut-off, flow rate of 0.50 gpm (1.9 Lpm) [with 110/24 VAC plug-in transformer][battery operated].
 - b. Spray Head Valve Operation: Pushbutton air valve metering with adjustable timing.
 - c. Spray Head Valve Operation: Light-touch, 10 second auto shutoff and flow rate of 0.10 gpc (0.38 Lpc).
 7. Water Supply: [Single tempered line][Single thermostatic mixing valve].
 8. Bowl/Deck Color: [insert Bradley Terreon color required].
 9. Pedestal Enclosure Color: As selected by Architect from manufacturer's full line.
 10. Accessories: Matching solid surface material: [Extensions][Purse Shelves][Waste Receptacles][Splashes and Aprons] as indicated.
- C. ADA/ABA compliant, wall-mounted, Multi-Level Two Station Lavatory **LAV# ____**: Constructed of [recycled] solid surface material with wave-formed contoured deck, integral ergonomic multi-height bowls, and covered integral backsplash, with sensor faucets. Unit includes waste and supply connections to wall with stop, strainer, and check valves, and heavy-gage stainless steel support brackets, concealed by high impact polymer trap enclosure.
1. Basis of Design Manufacturer/Model: **Bradley, Frequency Lavatory System Model No. [FL-2H][FL-2L].**
 2. Overall Unit Size: 60 by 22 inches (1524 by 559 mm) with 2 bowls.
 3. Bowl Size: Rectangular with rounded front: 17 by 13 inches (432 by 330 mm) on 30 inches (762 mm) centers.
 4. Faucet: [insert faucet Manufacturer/Model].
 5. Soap Dispenser: [insert soap dispenser Manufacturer/Model].
 6. Water Supply: [Single tempered line][Thermostatic mixing valve assembly].
 7. Bowl/Deck Color: [insert Bradley Terreon color required].
 8. Trap Enclosure Color: As selected by Architect from manufacturer's full line.
- D. ADA/ABA compliant, wall-mounted, Multi-Level Three Station Lavatory **LAV# ____**: Constructed of [recycled] solid surface material with wave-formed contoured deck, integral ergonomic multi-height bowls, and covered integral backsplash, with sensor faucets. Unit includes waste and supply connections to wall with stop, strainer, and check valves, and heavy-gage stainless steel support brackets, concealed by high impact polymer trap enclosure.
1. Basis of Design Manufacturer/Model: **Bradley, Frequency Lavatory System Model No. [FL-3H][FL-3L].**
 2. Overall Unit Size: 90 by 22 inches (2286 by 559 mm) with 3 bowls.
 3. Bowl Size: Rectangular with rounded front: 17 by 13 inches (432 by 330 mm) on 30 inches (762 mm) centers.
 4. Faucet: [insert faucet Manufacturer/Model].
 5. Soap Dispenser: [insert soap dispenser Manufacturer/Model].
 6. Water Supply: [Single tempered line][Thermostatic mixing valve assembly].

7. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
 8. Trap Enclosure Color: As selected by Architect from manufacturer's full line.
- E. ADA/ABA compliant wall-mounted, [2][3] Station Lavatory **LAV# ___**: Constructed of [recycled] solid surface material with compact, crescent-shaped, low-profile deck and ledge containing concealed, vandal-resistant spray heads and soap dispensers. Unit includes waste and supply connections to wall with stop, strainer, and check valves[, concealed by high impact polymer access panel/trap cover].
1. Basis of Design Manufacturer/Model: **Bradley, Express Crescent Lavatory System, Model No. [CRS-2][CRS-3]**.
 2. Spray Heads: Independent water stream former with flow rate of **0.5 gpm (1.9 Lpm)** at operating range of **20 to 80 psi (138 to 552 kPa)**.
 3. Spray Head Valve Operation: Infrared sensing module and solenoid with adjustable turn off delay and automatic shut-off, [with 110/24 VAC plug-in transformer][battery operated].
 4. Water Supply: [Tempered line][Thermostatic mixing valve assembly][Manual mixing valve].
 5. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
 6. Pedestal enclosure color: As selected by Architect from manufacturer's full line.
- F. ADA/ABA compliant [Wall-mounted, Floor-supported,][Wall-mounted,][2][3] Station Lavatory **LAV# ___**: Constructed of [recycled] solid surface material with integral semi-circular continuous bowls and deck, with deck mounted faucets [and liquid soap dispensers]. Unit includes waste and supply connections to wall with stop, strainer, and check valves, and heavy-gage stainless steel support frame, concealed by high impact polymer pedestal enclosure [and scuff base].
1. Basis of Design Manufacturer/Model: **Bradley, Express Deck Lavatory System, EXD series**.
 2. Faucet: **[insert faucet Manufacturer/Model]**.
 3. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
 4. Water Supply: [Single tempered line][Thermostatic mixing valve assembly].
 5. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
 6. Pedestal Enclosure Color: As selected by Architect from manufacturer's full line.
- G. Wall-mounted [2][3] Station Lavatory **LAV# ___**: Constructed of a seamless one piece rectilinear [recycled] solid surface bowl with center contour and individual drains to create personal space, integral overflows. Unit includes supply kit – comprised of lead free supply hoses and stops. Unit includes individual or combined drain assembly – comprised of plungable 300 series stainless steel strainers, tail-piece connections and p-traps. Unit includes heavy-gage stainless steel mounting bracket, concealed by high impact polymer trap cover.
1. Basis of Design Manufacturer/Model: **Bradley, Express Deck Lavatory System, ELX-Series Model No. [ELX-2][ELX-3]**.
 2. Product Compliance:
 - a. ADA / ICC ANSI A117.1.
 - b. IAPMO IGC 156and requirements of CSA B45.5/IAPMO Z124 and ASME A112.18.1/CSA B125.1.
 - c. NSF/ANSI 372.
 3. Overall Unit Size: **[55 by 21-5/8 inches (1397 by 549 mm) with 2 bowls][85 by 21-5/8 inches (2286 by 549 mm) with 3 bowls]**.
 4. Baskplash: [integral **2-1/2 inches (63.5 mm)** covered backsplash][less backslash].
 5. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
 6. Drain Connection: [chrome-plated combined waste assembly][polypropylene combined waste assembly][chrome-plated individual waste assembly][polypropylene individual waste assembly].
 7. Faucet: **[insert faucet Manufacturer/Model]**.

8. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
 9. Water Supply: [Single tempered line assembly][Thermostatic mixing valve assembly].
 10. Trap enclosure Color: Coal.
- H. Multi-Person, Individual Station Lavatory Fixture **LAV#___**: Wall-mounted lavatory constructed of [recycled] solid surface material with individual integral bowls that provide area to place personal belongings. Unit includes waste and supply connections to wall with stop, strainer, and check valves, concealed by high impact polymer access panel/trap cover.
1. Basis of Design Manufacturer/Model: **Bradley, Express Lavatory System, GLX-Series Model No. [GLX-2][GLX-3]**.
 2. Product Compliance:
 - a. ADA / ICC ANSI A117.1.
 - b. IAPMO IGC 156 and requirements of CSA B45.5/IAPMO Z124 and ASME A112.18.1/CSA B125.1.
 - c. NSF/ANSI 372.
 - d. Texas Accessibility Standards (TAS).
 3. Overall Unit Size (GLX-2): **55-3/8 inches (1406 mm)** by **20-5/8 inches (525 mm)**.
 4. Overall Unit Size (GLX-3): **85-3/8 inches (2168 mm)** by **20-5/8 inches (525 mm)**.
 5. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
 6. Drain Connection: [chrome-plated waste assembly][polypropylene waste assembly].
 7. Faucet: **[insert faucet Manufacturer/Model]**.
 8. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
 9. Water Supply: [Single tempered line assembly][Thermostatic mixing valve assembly].
 10. Trap enclosure Color: Coal.
- I. Multi-Person Lavatory Fixture **LAV#___**: Wall-mounted lavatory constructed of [recycled] solid surface material with linear integral bowl that eliminates flat areas that puddle water. Unit includes waste and supply connections to wall with stop, strainer, and check valves, concealed by high impact polymer access panel/trap cover.
1. Basis of Design Manufacturer/Model: **Bradley, Express Lavatory System, TLX-Series Model No. [TLX-2][TLX-3][TLX-4]**.
 2. Product Compliance:
 - a. ADA / ICC ANSI A117.1.
 - b. IAPMO IGC 156 and requirements of CSA B45.5/IAPMO Z124 and ASME A112.18.1/CSA B125.1.
 - c. NSF/ANSI 372.
 - d. Texas Accessibility Standards (TAS).
 3. Overall Unit Size (TLX-2): **55-5/16 inches (1404 mm)** by **20-5/8 inches (525 mm)**.
 4. Overall Unit Size (TLX-3): **85-1/4 inches (2166 mm)** by **20-5/8 inches (525 mm)**.
 5. Overall Unit Size (TLX-4): **115-5/16 inches (2928 mm)** by **20-5/8 inches (525 mm)**.
 6. Bowl/Deck Color: **[insert Bradley Terreon color required]**.
 7. Drain Connection: [chrome-plated waste assembly][polypropylene waste assembly].
 8. Faucet: **[insert faucet Manufacturer/Model]**.
 9. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
 10. Water Supply: [Single tempered line assembly][Thermostatic mixing valve assembly].
 11. Trap enclosure Color: Coal.
- J. ADA/ABA compliant wall-mounted Lavatory Deck **LAV#___**: Constructed of [recycled] solid surface material with integral oval bowls, covered backsplash[and side splashes], with deck mounted faucets. Unit includes waste and supply connections to wall[, concealed by high impact polymer trap cover].
1. Basis of Design Manufacturer/Model: **Bradley, Terreon Lav Deck, 3010-series**.
 2. Configuration: **[1][2][3][4]** station deck[, with extended deck as indicated].
 3. Bowl Size: **16 by 13 by 5-3/4 inches (406 by 330 by 145 mm)** on **30-inches (762 mm)** centers.

4. Faucet: **[insert faucet Manufacturer/Model]**.
5. Soap Dispenser: **[insert soap dispenser Manufacturer/Model]**.
6. Water Supply: **[Single tempered line][Thermostatic mixing valve assembly]**.
7. Deck Support: **[Stainless steel mounting brackets][In-wall carriers][Wall cleats][Casework specified elsewhere]**.
8. Deck Color: **[insert Bradley Terreon color required]**.
9. Bowl Color: **[Match deck color][insert Bradley Terreon color required]**.
10. Pedestal Enclosure Color: As selected by Architect from manufacturer's full line.

2.5 IN-WALL CARRIER

- A. In-Wall Carrier Supports for Wall Supported Lavatories:
 1. Refer to Division 22 Section "Hangers and Supports for Plumbing Piping and Equipment for in-wall carrier supports for wall supported lavatories.

2.6 SENSOR-OPERATED WASHBAR

- A. Sleek single Casting WashBar with integral soap and faucet, infrared control, smart technology with adjustable LED lighting and easy to identify icons and external tempering control **FCT# _____**:
 1. Basis of Design Manufacturer/Model: **Bradley WBD1**.
 2. Function: Blue LED lights help guide the user, indicating the functions. The LED light will change from blue to green to signify that the function is in use. Each function is easily identified by the corresponding icon on the WashBar top surface. Each sensor includes a turn-off delay of 1-2 seconds to aid in a smooth, controlled hand-washing
 3. Body: Cast metal. Load tested to 500 pounds, WashBar is secured to the basin with two anti-rotational shanks.
 4. Chrome Finish: "PC" Polished Chrome.
 5. Physical Vapor Deposition (PVD) Finish: "BB" Brushed Black Stainless.
 6. Physical Vapor Deposition (PVD) Finish: "BS" Brushed Stainless.
 7. Physical Vapor Deposition (PVD) Finish: "BZ" Brushed Bronze.
 8. Physical Vapor Deposition (PVD) Finish: "BR" Brushed Brass.
 9. Physical Vapor Deposition (PVD) Finish: "BN" Brushed Nickel.
 10. Tempered Water Supply: **[Single tempered line][Single thermostatic mixing valve]**.
 11. Flow Control: **[0.35 gpm (1.3 Lpm) PCA Silicone Tip, Multiple Individual Laminar Flow Streams.][0.50 gpm (1.9 Lpm) PCA Silicone Tip, Multiple Individual Laminar Flow Streams.][None.]**
 12. Soap Type: **[Foam Soap Dispenser][Liquid Soap Dispenser]**. Soap system accommodates up to a 1 gallon container.
 13. Sensor Module: Water-conserving, durable sensor unit with adjustable timing turn-off delay and stationary object automatic timed cutoff, with diagnostic signal light.
 - a. Sensing Distance: **5 inches (127mm)**.
 14. Power Supply: 120V 2A 12V DC adapter that plugs directly into the electrical outlet.
 15. Thermostatic Mixing Valve: Thermostatic mixing valve, ASSE 1070 listed, with stop/strainer/check valves, and flexible stainless steel connectors.

2.7 MATCHED FAUCETS

- A. Deck Mounted Faucet – General:
 1. Basis of Design Manufacturer/Model: **Bradley Verge**
 2. Touch free dual sensor activation.
 3. Compliance and Certifications:
 - a. ADA ANSI/ICC A117.1, Citation 609.3.
 - b. ASME A112.18.1/CSA B125.1.
 - c. NSF/ANSI 372 – Lead Free.

- d. NSF/ANSI 61.
 - e. cUPC.
 - f. CE electrical components.
4. Vandal-resistant construction shall include concealed sensor package, durable finish, and rotation resistant gasket/washer.
 5. In-line filter supplied with either mixing assembly or tempered line assembly to trap debris.
 6. Operation: Dual sensors utilizing time of flight and diffuse reflective sensors.
 - a. Operating Water Pressure Range: 20 to 125 psi.
 - b. Faucet activates water flow only when user's hands enter the infrared detection zone.
 - c. Faucet turns off after user's hands are removed from the lavatory bowl area.
 - d. Eleven (11) second run time (with or without hands under sensor). Manually set run time using control module (4s, 11s, 15s, 30s, 60s, 180s with or without auto system rinse).
 - e. Sixty (60) second auto system rinse every 24 hours. Option for sanitary manual flush.
 7. Chrome Finish: "PC" Polished Chrome.
 8. Physical Vapor Deposition (PVD) Finish: "BB" Brushed Black Stainless.
 9. Physical Vapor Deposition (PVD) Finish: "BS" Brushed Stainless.
 10. Physical Vapor Deposition (PVD) Finish: "BZ" Brushed Bronze.
 11. Physical Vapor Deposition (PVD) Finish: "BR" Brushed Brass.
 12. Physical Vapor Deposition (PVD) Finish: "BN" Brushed Nickel.
- B. Electronic Lavatory Faucets:
1. Sensor-Operated, High-Arc Profile Metering Faucet with Infrared Control **FCT# _____**: Vandal-resistant accessible faucet meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
 - a. Basis of Design Manufacturer/Model: **Bradley Verge, Crestt Series, Model S53-3100.**
 - b. Body: Commercial solid cast brass.
 - c. Water Supply: [Tempered Line Assembly (Supply Hose and Shut-Off Included)][Navigator Thermostatic Mixing Assembly (Supply Hose and Shut-Off Included)].
 - d. Flow Type: [0.35 gpm (1.3 Lpm) Silicone Tip, multiple individual laminar flow streams][0.5 gpm (1.9 Lpm) Silicone Tip, multiple individual laminar flow streams].
 - e. Drain Strainer: Finish to match.
 - f. Sensor Module: Water-conserving, vandal-resistant dual sensors utilizing time of flight and diffuse reflective sensors with timing turn-off delay and stationary object automatic timed cutoff.
 - g. Power Supply: Battery (standard).
 - h. Power Supply: 120VAC/6VDC, 50/60Hz plug-in transformer adapter with battery back-up. 4x AA batteries (included). Low battery indicator on spout.
 - i. Power Supply: Provide power supply "splitter" for 2, 3 or 4 faucets as required. Provide **14 feet (4.3 m)** extension power cable as required.
- C. Electronic Lavatory Faucets:
1. Sensor-Operated, Tubular Design Metering Faucet with Infrared Control **FCT# _____**: Vandal-resistant accessible faucet meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
 - a. Basis of Design Manufacturer/Model: **Bradley Verge, Metro Series, Model S53-3300.**
 - b. Body: Commercial solid cast brass.

- c. Water Supply: [Tempered Line Assembly (Supply Hose and Shut-Off Included)][Navigator Thermostatic Mixing Assembly (Supply Hose and Shut-Off Included)].
 - d. Flow Type: [0.35 gpm (1.3 Lpm) Silicone Tip, multiple individual laminar flow streams][0.5 gpm (1.9 Lpm) Silicone Tip, multiple individual laminar flow streams].
 - e. Drain Strainer: Finish to match.
 - f. Sensor Module: Water-conserving, vandal-resistant dual sensors utilizing time of flight and diffuse reflective sensors with timing turn-off delay and stationary object automatic timed cutoff.
 - g. Power Supply: Battery (standard).
 - h. Power Supply: 120VAC/6VDC, 50/60Hz plug-in transformer adapter with battery back-up. 4x AA batteries (included). Low battery indicator on spout.
 - i. Power Supply: Provide power supply "splitter" for 2, 3 or 4 faucets as required. Provide 14 feet (4.3 m) extension power cable as required.
- D. Electronic Lavatory Faucets:
1. Sensor-Operated, Tubular Design Metering Faucet with Infrared Control **FCT# _____**: Vandal- resistant accessible faucet meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
 - a. Basis of Design Manufacturer/Model: **Bradley Verge, Linea Series, Model S53-3500.**
 - b. Body: Commercial solid cast brass.
 - c. Water Supply: [Tempered Line Assembly (Supply Hose and Shut-Off Included)][Navigator Thermostatic Mixing Assembly (Supply Hose and Shut-Off Included)].
 - d. Flow Type: [0.35 gpm (1.3 Lpm) Silicone Tip, multiple individual laminar flow streams][0.5 gpm (1.9 Lpm) Silicone Tip, multiple individual laminar flow streams].
 - e. Drain Strainer: Finish to match.
 - f. Sensor Module: Water-conserving, vandal-resistant dual sensors utilizing time of flight and diffuse reflective sensors with timing turn-off delay and stationary object automatic timed cutoff.
 - g. Power Supply: Battery (standard).
 - h. Power Supply: 120VAC/6VDC, 50/60Hz plug-in transformer adapter with battery back-up. 4x AA batteries (included). Low battery indicator on spout.
 - i. Power Supply: Provide power supply "splitter" for 2, 3 or 4 faucets as required. Provide 14 feet (4.3 m) extension power cable as required.
- E. Electronic Lavatory Faucets:
1. Sensor-Operated, Tubular Design Metering Faucet with Infrared Control **FCT# _____**: Vandal- resistant accessible faucet meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
 - a. Basis of Design Manufacturer/Model: **Bradley Verge, Zen Series, Model S53-3700.**
 - b. Body: Commercial solid cast brass.
 - c. Water Supply: [Tempered Line Assembly (Supply Hose and Shut-Off Included)][Navigator Thermostatic Mixing Assembly (Supply Hose and Shut-Off Included)].
 - d. Flow Type: [0.35 gpm (1.3 Lpm) Silicone Tip, multiple individual laminar flow streams][0.5 gpm (1.9 Lpm) Silicone Tip, multiple individual laminar flow streams].
 - e. Drain Strainer: Finish to match.
 - f. Sensor Module: Water-conserving, vandal-resistant dual sensors utilizing time of flight and diffuse reflective sensors with timing turn-off delay and stationary object automatic timed cutoff.
 - g. Power Supply: Battery (standard).
 - h. Power Supply: 120VAC/6VDC, 50/60Hz plug-in transformer adapter with battery back-up. 4x AA batteries (included). Low battery indicator on spout.

- i. Power Supply: Provide power supply "splitter" for 2, 3 or 4 faucets as required. Provide 14 feet (4.3 m) extension power cable as required.

2.8 MATCHED SOAP DISPENSERS

- A. Deck Mounted Soap Dispensers – General:
 1. Touch free infrared sensor-operated.
 2. Multi-station system shall supply up to six soap dispensers.
 3. Compliance and Certifications:
 - a. ADA / ICC ANSI A117.1, Citation 609.4.
 - b. UL electrical components.
 - c. CE electrical components.
 4. Chrome Finish: "PC" Polished Chrome.
 5. Physical Vapor Deposition (PVD) Finish: "BB" Brushed Black Stainless.
 6. Physical Vapor Deposition (PVD) Finish: "BS" Brushed Stainless.
 7. Physical Vapor Deposition (PVD) Finish: "BZ" Brushed Bronze.
 8. Physical Vapor Deposition (PVD) Finish: "BR" Brushed Brass.
 9. Physical Vapor Deposition (PVD) Finish: "BN" Brushed Nickel.
- B. Sensored Soap Dispenser **SD#**___: Deck-mounted, sensor-operated, cast brass, with LED battery and soap level indicators, [with battery box and batteries. 70.5 oz (2080 mL) capacity bottle.][with single dispenser 120VAC powerpack. 70.5 oz (2080 mL) capacity bottle.][with maximum of 6 dispenser 120VAC powerpack. Multi-feed Tank: 166.5 oz (5026 ml).]
 1. Basis of Design Manufacturer/Model: **Bradley Verge Deck-Mounted Soap Dispenser, Crestt Series, Model 6-3100.**
- C. Sensored Soap Dispenser **SD#**___: Deck-mounted, sensor-operated, cast brass, with LED battery and soap level indicators, [with battery box and batteries. 70.5 oz (2080 mL) capacity bottle.][with single dispenser 120VAC powerpack. 70.5 oz (2080 mL) capacity bottle.][with maximum of 6 dispenser 120VAC powerpack. Multi-feed Tank: 166.5 oz (5026 ml).]
 1. Basis of Design Manufacturer/Model: **Bradley Verge Deck-Mounted Soap Dispenser, Metro Series, Model 6-3300.**
- D. Sensored Soap Dispenser **SD#**___: Deck-mounted, sensor-operated, cast brass, with LED battery and soap level indicators, [with battery box and batteries. 70.5 oz (2080 mL) capacity bottle.][with single dispenser 120VAC powerpack. 70.5 oz (2080 mL) capacity bottle.][with maximum of 6 dispenser 120VAC powerpack. Multi-feed Tank: 166.5 oz (5026 ml).]
 1. Basis of Design Manufacturer/Model: **Bradley Verge Deck-mounted Soap Dispenser, Linea Series, Model 6-3500.**
- E. Sensored Soap Dispenser **SD#**___: Deck-mounted, sensor-operated, cast bronze, with LED battery and soap level indicators, [with battery box and batteries. 70.5 oz (2080 mL) capacity bottle.][with single dispenser 120VAC powerpack. 70.5 oz (2080 mL) capacity bottle.][with maximum of 6 dispenser 120VAC powerpack. Multi-feed Tank: 166.5 oz (5026 ml).]
 1. Basis of Design Manufacturer/Model: **Bradley Verge Deck-Mounted Soap Dispenser, Zen Series, Model 6-3700.**

2.9 SENSORED SOAP DISPENSER

- A. Deck-mounted, sensor-operated **SD#**___: Chrome-plated plastic, with LED battery and soap level indicators, [with battery box and batteries][with single dispenser 120VAC powerpack][with 4 dispenser 120VAC powerpack], [27 oz (798 mL) capacity bottle][1000 shot soap].
 1. Basis of Design Manufacturer/Model: **Bradley, Model 6315-KT0000.**

2.10 MANUAL SOAP DISPENSER

- A. Deck-mounted **SD#__**: [16 oz. (473 mL) plastic][32 oz. (946 mL) plastic] globe, with 4 inches (102 mm) spout.
 - 1. Basis of Design Manufacturer/Model: **Bradley, Model 6324.**
- B. Deck-mounted **SD#__**: 16 oz. (473 mL) plastic globe, with 3-1/2 inches (88.90 mm) spout.
 - 1. Basis of Design Manufacturer/Model: **Bradley, Model 6334.**

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Assemble fixtures and associated fittings and trim in accordance with manufacturer's instructions.
- B. Install fixture supports attached to building structure for fixtures requiring supports.
- C. In-Wall Carrier Supports for Wall Supported Lavatories:
 - 1. Refer to Division 22 Section "Hangers and Supports for Plumbing Piping and Equipment for in-wall carrier supports for wall supported lavatories.
 - 2. Install carriers as required by manufacturer to satisfy performance and warranty requirements.
- D. Install fixtures onto waste-fitting seals or flanges and attach to supports or building structure.
- E. Install accessible wall-mounted sinks at handicapped/elderly mounting height according to ICC/ANSI A117.1.
- F. Install fixtures level, plumb, and firmly in place in accordance with manufacturer's rough-in requirements. Refer to Drawings for rim height requirements.
- G. Install water supply piping to each fixture requiring water supply connection. Provide stop on each supply in readily-serviced location. Fasten supply piping to supports or substrate.
- H. Install trap and waste piping to each fixture requiring sanitary system connection.
- I. Install escutcheons at exposed piping penetrations in finished locations and within cabinets.
- J. Seal joints between fixtures and walls, floors, and countertops with mildew-resistant silicone sealant.

3.2 CLEANING AND PROTECTION

- A. Repair or replace defective work, including damaged fixtures and components.
- B. Clean unit surfaces, test fixtures, and leave in ready-to-use condition.
- C. Install new batteries in battery-operated devices at time of Substantial Completion.
- D. Turn over keys, tools, maintenance instructions, and maintenance stock to Owner.
- E. Protect units with water-resistant temporary covering. Do not allow temporary use of plumbing fixtures unless approved in writing by Architect. Remove protection at Substantial Completion and dispose.

3.3 TESTING AND ADJUSTING

- A. Set field-adjustable temperature set points of temperature-actuated water mixing valves. Adjust set point within allowable temperature range.
- B. Test and adjust installation.

- C. Remove and replace malfunctioning thermostatic mixing valves and retest.

END OF SECTION