



# LAWA Public Restroom Design Guidelines and Specifications



Updated Version

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and Airports & Facilities Planning Division

## TABLE OF CONTENTS

	<b>CHAPTER</b>	<b>PAGE</b>
1.	Introduction	1
2.	Planning Considerations	2
3.	Theme Design	7
4.	Signage	8
5.	Vestibule Entrances	9
6.	Floors	10
7.	Walls	12
8.	Ceilings	14
9.	Doors/Door Hardware	15
10.	Toilet Compartments And Urinal Screens	16
11.	Countertops And Fixtures	18
12.	Baby Changing Stations	19
13.	Mechanical Requirements	20
14.	Plumbing Requirements	21
15.	Lighting Requirements	22
16.	Custodial Closet Fixtures and Accessories	23
17.	Attic Stock	23
18.	Revision History Synopsis	23
19.	Typical Plans	24
20.	Source List	30
21.	Equipment list	32
22.	Catalog Sheets	39

## 1. INTRODUCTION

### Opportunity:

Los Angeles World Airports is embarking on a major public restroom renovation program. This is a milestone opportunity to provide the public with new facilities in all passenger terminals and other public areas of the airport. This opportunity will allow the creation of a unified standard so that there will be a continuity of design from terminal to terminal, consistency in conforming with ADA requirements, and the creation of more comfortable and cheerful facilities.

### Solution:

Through the joint effort of the Construction and Maintenance Division (C&M) and Airports & Facilities Planning Division (AFPD), the following Los Angeles World Airports (LAWA) Public Restroom Design Guidelines and Specifications have been developed. The following components will be adhered to for all restroom design at LAWA:

- A unified material and fixture standard to reduce the cost of repair and maintenance.
- Aesthetic criteria guidelines.
- A mandatory restroom design guideline for new, addition, remodel or upgrade to any restroom facility.
- This standard shall cover all public area restrooms.
- This standard shall be reviewed annually.

## 2. PLANNING / CONSIDERATIONS



### 2.1 Design Guidelines

- 2.1.1 LAWA is committed to being ahead of the curve when it comes to addressing the needs of people with disabilities and mobility issues. As part of its commitment to ensuring equal access to disabled travelers, LAWA proposes the following standards for all Vestibule entrances, door ways and ADA stall doors in order to provide access to public restrooms.

#### ALTERATIONS TO EXISTING PUBLIC RESTROOMS:

Where it is feasible to comply with clear opening widths to accommodate a 42" wide wheel chair without reducing fixture count or affecting minimum ADA regulations.

#### NEW CONSTRUCTION OF PUBLIC RESTROOMS:

Shall comply with clear opening width to accommodate a 42" wide wheel chair.



- 2.1.2 Toilet rooms will typically be designed as part of the core building space in new construction. The location of toilet rooms in alteration or renewal projects may be limited by building configuration or utility location, but should be located for easy access in a logical location in the facility.
- 2.1.3 Submittal of consultant's design shall be submitted through the project manager and forwarded to the appropriate LAWA divisions for approval.



- 2.1.4 LAWA approvals shall not exempt the design from complying with building, life safety, fire and ADA codes.
- 2.1.5 Consultant shall submit hard copies during the review process and submit CADD files complying with LAWA CADD standard for final design.
- 2.1.6 LAWA encourages consultants to explore new ideas, new material and techniques.
- 2.1.7 Consultant shall make presentation of the proposed, new material or construction techniques if they are not covered in the Public Restroom Design Guidelines and Specifications.
- 2.1.8 Distance and location site plan or floor plan shall be provided to show restroom service area or service radius.
- 2.1.9 Maximum room capacity of the lounge or waiting area shall be shown on the restroom floor plan.
- 2.1.10 Restroom signage, visibility, type and size shall be shown on the floor plan.
- 2.1.11 When consultants are responsible for design and drawings, they will be required to provide plan checked drawings and specifications.
- 2.1.12 In case existing restrooms need to be closed for the project, signage or escort shall be provided for directions to next closest restroom that is in service.



TODDLER SIZE TOILET OPTIONAL AS PER  
LAWA REQUIREMENT

- 2.1.13 Distance and location site plan or floor plan shall be provided to show restroom service area or service radius.
- 2.1.14 Toilet compartments shall provide enough space for hand carried luggage and must be equipped with a heavy-duty coat hook for backpacks (Please see Section 10.5 for further information).
- 2.1.15 Every public restroom shall be equipped with a baby changing station when remodeled.
- 2.1.16 When space allows, a separate single-use family restroom shall be provided. (Please see Section 2.1.1 for further information).
- 2.1.17 All material, including structure and finishes, shall be designed to resist impact, etching, graffiti, and water damage.
- 2.1.18 All fixtures and accessories shall be designed for easy maintenance. Damage due to vandalism and accidents are expected and occur more often than at other commercial facilities.
- 2.1.19 Removal of fixtures and accessories shall be fast and easy for the maintenance crew with proper tools, but shall not be easily removed by hand or with simple basic tools.
- 2.1.20 Space shall be provided under counters and in compartments to allow for ease of maintenance and cleaning equipment.

- 2.1.21 Finish materials and joints shall withstand the frequent friction or pressure from maintenance and cleaning and shall endure chemical erosion from custodial cleaning products.
- 2.1.22 Epoxy grout shall be used.
- 2.1.23 All horizontal surfaces shall slope to sink or floor drains.
- 2.1.24 The use of large size tiles is recommended to reduce area of grout joints.



## 2.2.0 Planning Maintenance and Upgrades

- 2.2.1 Survey of existing conditions shall be made before every design project remodel or rebuild. Designer or consultant shall verify dimensions on site.
- 2.2.2 The CADD files of each design project will contribute to the development of an electronic facility database. The database shall include plans, elevations, locations, and inventories of fixtures, accessories, finishing material, signage, electrical and mechanical items.
- 2.2.3 Construction cost estimates shall be provided as budgetary (class C) during design phase and as actual (class A) before construction. Estimates shall be kept in file as a reference for future projects.
- 2.2.4 Cost estimates shall be a combined effort between the architect/engineer and C&M.
- 2.2.5 Upgrading of restrooms shall be scheduled every 5 to 8 years.
- 2.2.6 Coordinating the restroom upgrades concurrently with upgrades of adjacent concessions should be considered.

### 3. THEME DESIGN



3.1 The general style should follow the theme of each terminal or location.

3.2 The upgrade/remodel does not have to follow the existing style or color of restrooms in the same terminal/facility. Each upgrade/remodel should follow current trends and styles and use current methods and materials.

3.3 The color scheme and material texture shall follow the theme of each terminal and be acceptable to LAWA. Extreme contrast color schemes are not allowed. Lively, vibrant colors are encouraged to enhance the over all aesthetic of the terminal.

3.4 Lighting should be ample but comfortable. There should be no areas that appear dark and unlit. Special lighting may be required at baby change stations, entry vestibules, and in front of mirrors.

3.5 Certain selected vestibule entrances shall be designated for site-specific public artwork in durable materials. (See Section 5.7 for further information).



EXAMPLE OF PUBLIC ART AT SAN DIEGO  
INTERNATIONAL AIRPORT RESTROOM VESTIBULE  
(ARTIST: MARY LYNN DOMINQUEZ)



## 4. SIGNAGE

- 4.1 Entranceways leading to men’s sanitary facilities shall be identified by an equilateral triangle, ¼-inch thick with edges 12 inches long and a vertex pointing upward.
- 4.2 Entrance ways leading to women’s sanitary facilities shall be identified by a circle, ¼-inch thick and 12 inches in diameter.
- 4.3 Unisex sanitary facilities shall be identified by a circle, ¼-inch thick 12 inches in diameter with a ¼-inch thick triangle superimposed on the circle and within the 12-inch diameter.
- 4.4 These geometric symbols shall be located at a height of 60 inches.
- 4.5 The symbols specified above shall consist of a white figure on a blue background. The blue shall be equal to Color No. 15090 in the Federal Standard 595B.
- 4.6 Accessible stalls shall display a rectangular decal, 9”W x 3”H, white and blue sign, specifying priority for persons with disabilities. Typical location installation as shown below.



Typical location of decal installation.

## 5. VESTIBULE ENTRANCES



EXISTING VESTIBULE CONDITION AT A LAX TERMINAL 5 RESTROOM



EXAMPLE OF GLASS ACCENT TILE BANDS AT SEA-TAC AIRPORT'S BAGGAGE CLAIM RESTROOM (TILE CREATOR: NORMANCOURTNEY)



PLAN- LAX TERMINAL 6 SOUTH-WEST WOMEN'S RESTROOM



EXAMPLE OF PUBLIC ART AT SEA-TAC AIRPORT'S MAIN TERMINAL RESTROOM VESTIBULES. (ARTIST: STEVE GARDNER)

RECESSED CEILING WALL WASHERS AT RESTROOM ENTRANCES TO HIGHLIGHT PUBLIC ART

- 5.1 Vestibules without doors shall have a clear opening of at least 48". Increase size of vestibule width in relation to size of toilet room.
- 5.2 Entrances equipped with doors at multi-fixture toilets shall have Fire Code compliant door closers or magnetic releases that are directly connected to the fire life safety system. With approval from the Fire Department, use of door closers that are equipped with local release mechanisms are acceptable. All doors shall remain opened except during maintenance operations.
- 5.3 Entrances featuring vestibules in lieu of hinged doors shall also be encouraged as this alternative will provide unobstructed access to passengers.
- 5.4 Vestibules shall provide easy passage between the corridor and restroom while maintaining a visual barrier to protect the privacy of restroom occupants.
- 5.5 Floor and wall finishes shall match or be compatible with the restroom material and finishes.
- 5.6 Bumper and wall guards shall be provided in vestibule areas to reduce the amount of luggage and carts that impact and damage the walls. ADA accessibility requirements shall be considered when installing such materials.
- 5.7 Selected vestibule entrances shall be equipped with wall washers and neutral wall finishes, for art program locations.

## 6. FLOORS



- 6.1 Finish floor assembly shall be ceramic tile, stone or concrete.
- 6.2 Floor & wall color schemes shall be coordinated. Lively, vibrant colors are encouraged to enhance the overall aesthetic of the terminal.
- 6.3 Finish floor assembly shall be set on a conventional Portland cement mortar installation with a waterproof membrane over the floor substrate. The waterproof membrane shall extend to the wall structure for at least 3 feet high behind all wall hung plumbing fixtures and 12" high for walls without plumbing fixtures.
- 6.4 When partitions or other built-in equipment penetrate waterproofing layer, the design must show the method of water seal to protect the penetration.
- 6.5 Floor finishes shall be durable and non-slippery.
- 6.6 Joints shall be less than 1/4" and sealed with an approved 100% solid epoxy grout product.
- 6.7 Floor surfaces shall slope to the floor drain.
- 6.8 Floor drains shall not be located within any compartment or under any counter and shall be located as close to the center of the restroom as possible.
- 6.9 Care must be taken in laying out floor slopes so that code-required counter heights and clearances are maintained at all locations.



- 6.10 Floor drains shall be designed to fit in the space of a single tile or center to the crossing of joints.
- 6.11 Floor drains to be bronze or stainless steel to coordinate with color of flooring.
- 6.12 The opening of floor drains shall be minimized to avoid small items from being dropped in the opening.
- 6.13 Floor drains shall be self-priming.
- 6.14 Floor drains shall be removable with special tools for maintenance and repair purposes.

## 7. WALLS



- 7.1 Walls shall be constructed of galvanized steel studs of a minimum of 18-gauge thickness.
- 7.2 Stud spacing shall be no greater than 16" o.c.
- 7.3 When feasible, metal stud walls shall be set on a 6" high concrete curb.
- 7.4 All restroom walls shall be constructed using conventional cement mortar installation from floor to ceiling.
- 7.5 Lath shall be 3.4 metal lath galvanized.
- 7.6 Lath shall be installed over a waterproof membrane, and the waterproof membrane shall be installed over ½ " water-resistant marine grade fire-resistive plywood.
- 7.7 Sound insulation is required in walls.
- 7.8 Wall finish assembly shall be ceramic tile or stone (exception may be glass mosaic tiles or other approved accent finishes).
- 7.9 Wall finish joints shall be no larger than 1/8". Only 100% solid epoxy shall be used to seal joints.
- 7.10 Wall finish shall be no less than 6" x 6" (exception may be glass mosaic tiles or other approved accent finishes).
- 7.11 Wall finish assembly shall be full height (no wainscoting).

7.12 Wall base shall be one-piece cove tile to avoid water or small debris trapped at wall-floor joint.



7.13 Wall floor assembly shall be set on a conventional Portland cement mortar installation with a waterproof membrane over the substrate.

7.14 When partitions or other built-in equipment penetrate waterproofing layer, the design must show the method of water seal to protect the penetration.

7.15 308 Stainless Steel corner guards shall be provided at all outside corners. The top of the corner guard shall be no less than 42" above finish floor (AFF). Corner guard shall be installed above the base tile.



7.16 Backing shall be provided on all walls for dispensers, receptacles, partitions, countertops, and fixtures.

## 8. CEILINGS



8.1 Ceiling assembly shall be designed as required for structural safety. Suspended ceiling systems are not acceptable.

8.2 Ceiling finishes shall be of a smooth surface. Cement plaster with a paint finish. Water-resistant drywall is acceptable. Porous material is not acceptable. Other water-resistant material is acceptable if approved by the project manager and C&M.

8.3 Ceiling heights shall be 9 feet minimum, except in stall compartment areas where the soffit shall be 8 feet. Structural beams shall be installed for anchoring of ceiling-hung partitions.

8.4 Access for water shut-off valves, temperature control valves, electrical transformers, etc. shall be located in ceiling access panels to the extent possible.



## 9 DOORS / DOOR HARDWARE



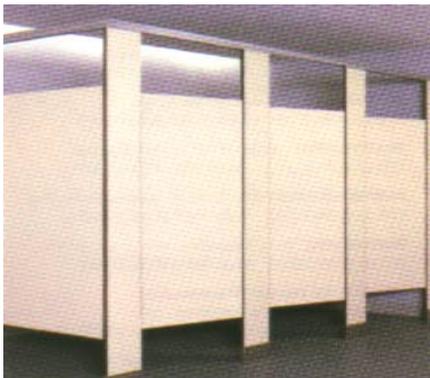
- 9.1 Door size shall provide a minimum clear width opening for a 42" wide wheelchair. (Please see section 2.1.1 for further information).
- 9.2 All door hardware and locks shall be in compliance with the door and lock specifications set forth by LAWA C&M.
- 9.3 Locks shall be provided with interchangeable core.
- 9.4 Deadbolts shall meet the requirements of all applicable fire codes.
- 9.5 No doorstops are allowed.
- 9.6 Door hardware shall be stainless steel.
- 9.7 Doors shall be equipped with push plate and pull bar with text or signs indicating direction of door swing.
- 9.8 Door jambs shall be in compliance with the door and lock specification set forth by LAWA C&M.

## 10. TOILET COMPARTMENTS AND URINAL SCREENS



10.1 Toilet compartment partitions shall be patterned Stainless Steel or solid surface Sierra Series manufactured by Bobrick or approved equal.

10.2 Toilet compartment partitions shall be ceiling-hung with a floor-supported pilaster at every third stall. Partition pilasters supporting adjacent partitions with accessible grab bars shall extend to the floor and be equipped with a stainless steel shoe. Floor-to-ceiling pilasters shall be located at all corners of toilet stall partition that are not supported by an adjacent wall.



10.3 Architect to provide toilet partitions plans that provide a solid anchorage of the partition system based on the number of stalls, ceiling heights, partition construction, material, and hardware.

10.4 Locked partition doors shall be removable by lifting the door up and off the hinges with special tools. Doors at unoccupied stalls shall be held partially open (approximately 30 degrees) in a consistent and uniform position and shall open into the stall, except at accessible stalls, where the doors shall swing out.

10.5 Coat hooks shall be installed inside of each compartment wall at centerline and 6 inches below top of door except at accessible stalls where the maximum is 48" above finished floor. Coat hooks shall bear at least 15 lbs (See Diagram A).

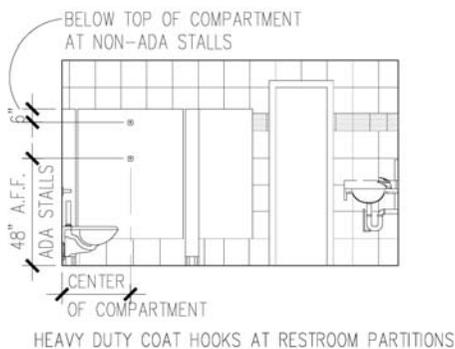


DIAGRAM "A"



- 10.6 Clearance between toilet partitions/panels and wall surfaces, panels, or pilasters shall be limited to a tolerance of  $\frac{1}{4}$ " –  $\frac{3}{4}$ ".
- 10.7 Cantilevered fin-style screens are required between urinals and shall be fabricated of the same material as the compartments. Screens shall have a radius top edge to avoid placement of items on the edge of the screen. Urinal screens should be provided to match toilet partitions.



- 10.8 Toilet partitions and urinal screens are required to be fastened to the walls and other panels using continuous brackets. The brackets must equal the height of the partitions and urinal screens.
- 10.9 ADA toilet stall doors shall provide a clear width opening for a 42" wide wheelchair. (Please see Section 2.1.1 for further information).

## 11. COUNTERTOPS AND FIXTURES



11.1 All countertops, lavatories and fixtures shall meet ADA accessibility codes.

11.2 Public restrooms shall use countertops that are self-draining, monolithic, retain water, and have a 4-inch high approved solid surfacing material back splash against adjacent walls, and a 4-inch skirt at the front. All edges and corners shall be rounded for safety. Self draining component shall be ¼" per foot.

11.3 Height of counters shall be mounted at 34-inches above finished floor. Counters are to be supported by a tiled fin wall at each end or provided with other structurally engineered solution to support the weight of the counter.



11.4 Lavatories are to be integral and placed no more than four inches from the back splash so that soap discharge will fall into the lavatory rather than onto the counter.

11.5 Soap dispensers shall be mounted at 45-degrees to the right of the bowl center line on self-draining counter tops, allowing soap drips to fall into the bowls.

11.6 On self-draining countertops, faucets shall be mounted at 45-degrees from the centerlines on the left of the soap dispenser.



11.7 Lavatory overflow drain holes shall be at the front of the bowl, out of view and must be integral to bowl.

## 12. BABY CHANGING STATIONS



12.1 All public restrooms are to be equipped with baby changing stations.

12.2 Fixed-type baby changers constructed of stainless steel or a solid surface material are preferred because they are maintenance free. This type should be used whenever there is sufficient space in the restroom.

12.3 Prefabricated baby changers which fold out of the wall, such as Koala Bear, may be used when there is not sufficient space for the type described above.

12.4 The prefabricated baby changers should be the type with stainless steel door and flange.



## 13. MECHANICAL REQUIREMENTS



- 13.1 Exhaust system shall have a minimum of 15 air changes per hour.
- 13.2 Supply air system shall have a minimum of 6 air changes per hour.
- 13.3 Supply air system remaining air shall come from transfer.
- 13.4 Exhaust fan type shall be mushroom type manufactured by Cook.
- 13.5 CFM for exhaust shall be determined by room volume x 15/60.

## 14. PLUMBING REQUIREMENTS



- 14.1 At least one floor drain shall be installed in each restroom, more if layout dictates.
- 14.2 Flush-mounted hose bibb, with stainless steel cover, should be located under sink for custodial use 18" above the finish floor – provide key stops.
- 14.3 Only approved integrated drains and tailpieces shall be used.
- 14.4 Only approved three-piece, main, branch, riser and drain valves full port with stainless steel ball and stem shall be used.
- 14.5 Toilets and urinals shall be mounted to walls and controlled with automatic flushing sensors.
- 14.6 Sinks will have automatic on/off sensors.
- 14.7 There is to be a cleanout at each urinal.

## 15. LIGHTING REQUIREMENTS



15.1 General illumination lighting in passenger terminal public restrooms may be provided by compact fluorescent downlights.

15.2 Supplemental lighting in passenger terminal public restrooms may be provided by wall washers or cove lights at the back of the toilet compartments, above the urinals, and above the wash basins. Wall washers or cove lighting provides functioning task lighting while making the walls brighter, thereby providing a more inviting environment.



15.3 The emergency fixture is to be located above the wash basins.





## 16. CUSTODIAL CLOSETS FIXTURES AND ACCESSORIES

- 16.1 Custodial closets are to have a smooth surface or concrete floors, floor drains, and floor-mounted mop service sinks.
- 16.2 Room to be for exclusive use by custodial staff. No utilities or other functions are allowed in closets.
- 16.3 Door is to swing out into hall or room.
- 16.4 Provide adequate ventilation.
- 16.5 Refer to Section 7 for wall requirements.

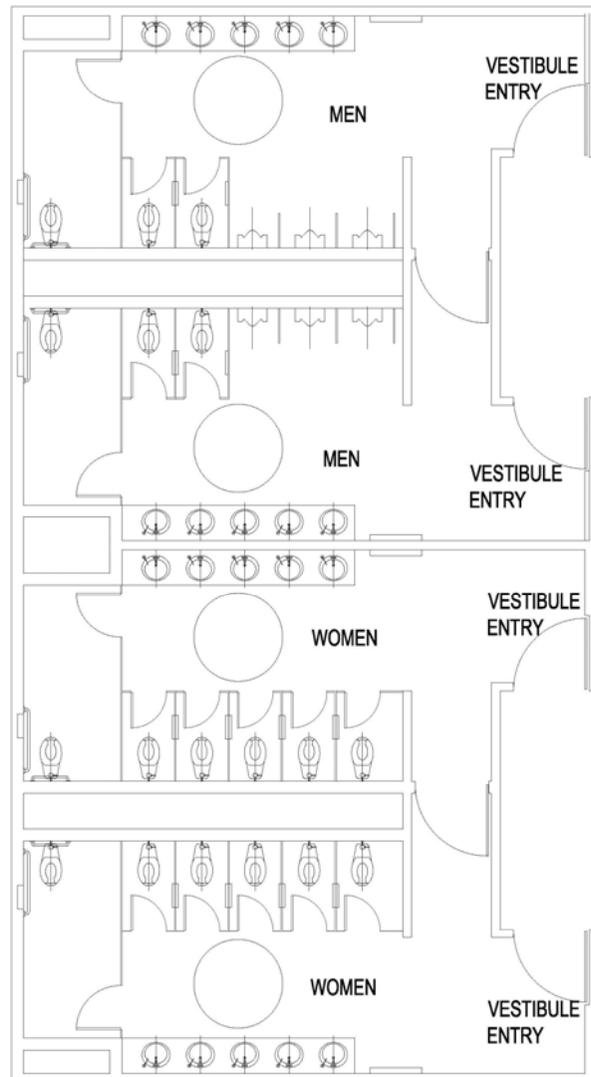
## 17. ATTIC STOCK

- 17.1 Owner is to be provided with 10% allowance for attic stock.

## 18. REVISION HISTORY SYNOPSIS

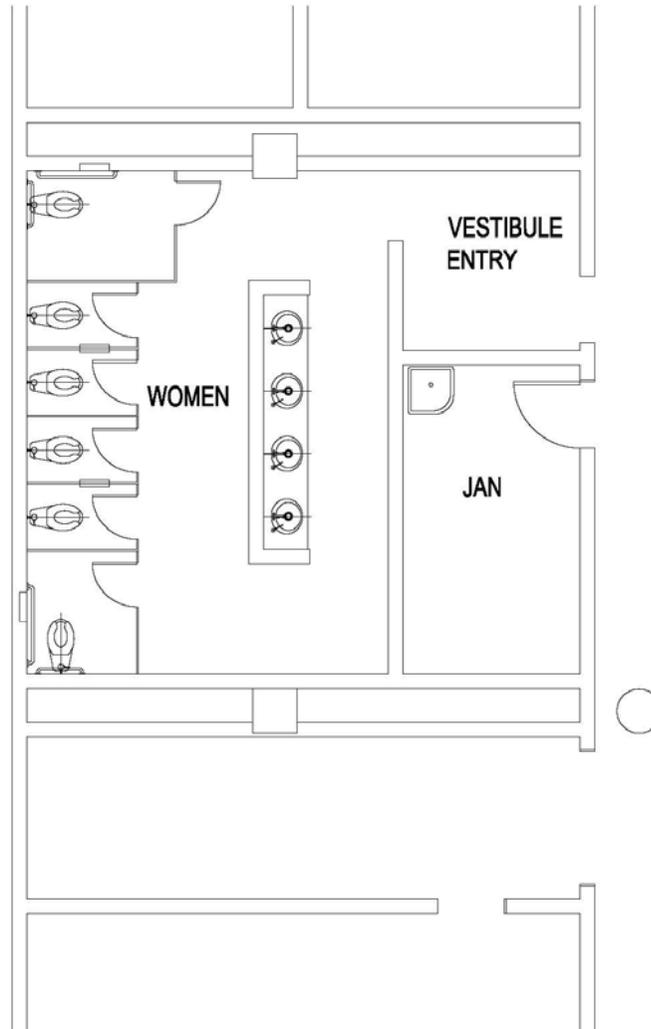
- 18.1 The revision history synopsis shall be developed as the LAWA Public Restroom Design Guidelines and Specifications program develops through the years. It will be developed to allow for accurate tracking of historical data pertaining to the development of the restroom facilities.

## 19. TYPICAL PLANS



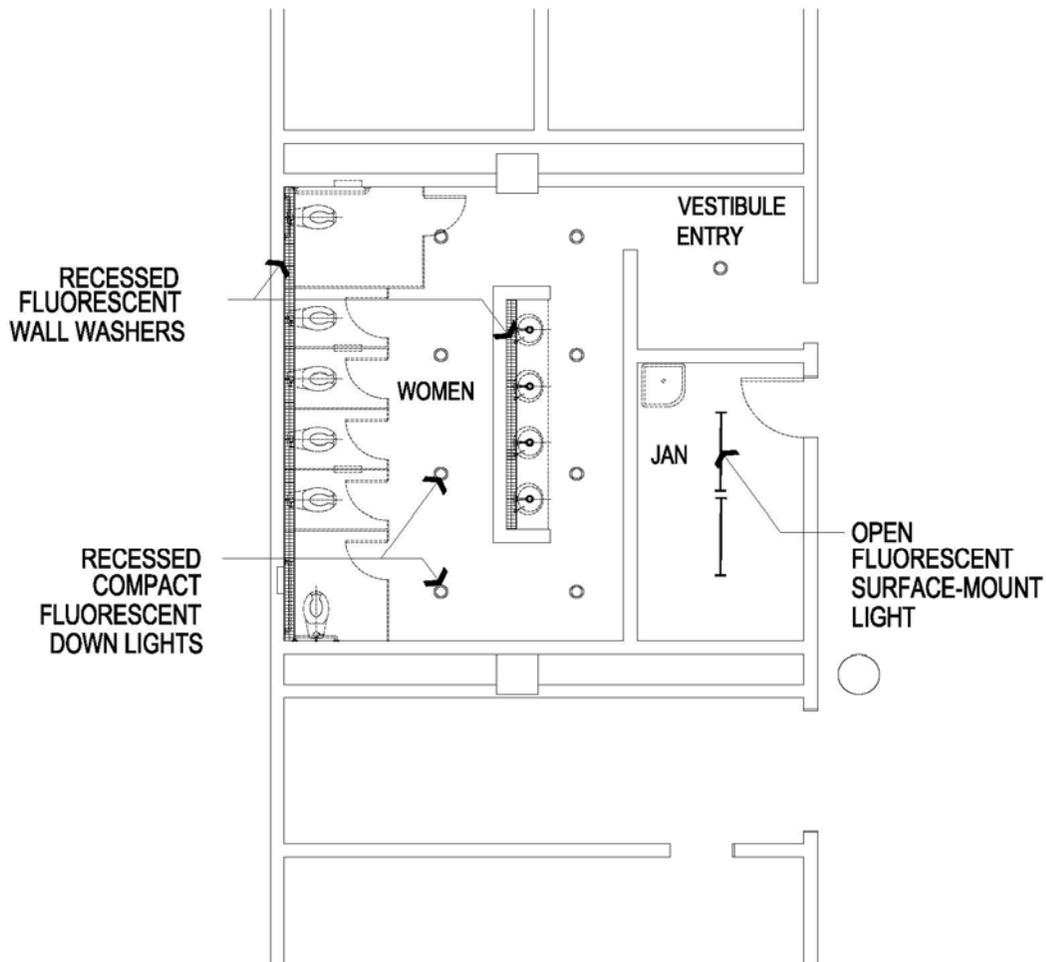
### FLOOR PLAN

This “Optimal” floor plan allows the closure of portions of the restroom for custodial as well as long term maintenance purposes while leaving the other portion of the restroom fully operational. Portions of this “Optimal” restroom will always be open, thereby providing a higher level of service for LAX passengers. Such restrooms may be implemented on a space-available basis.



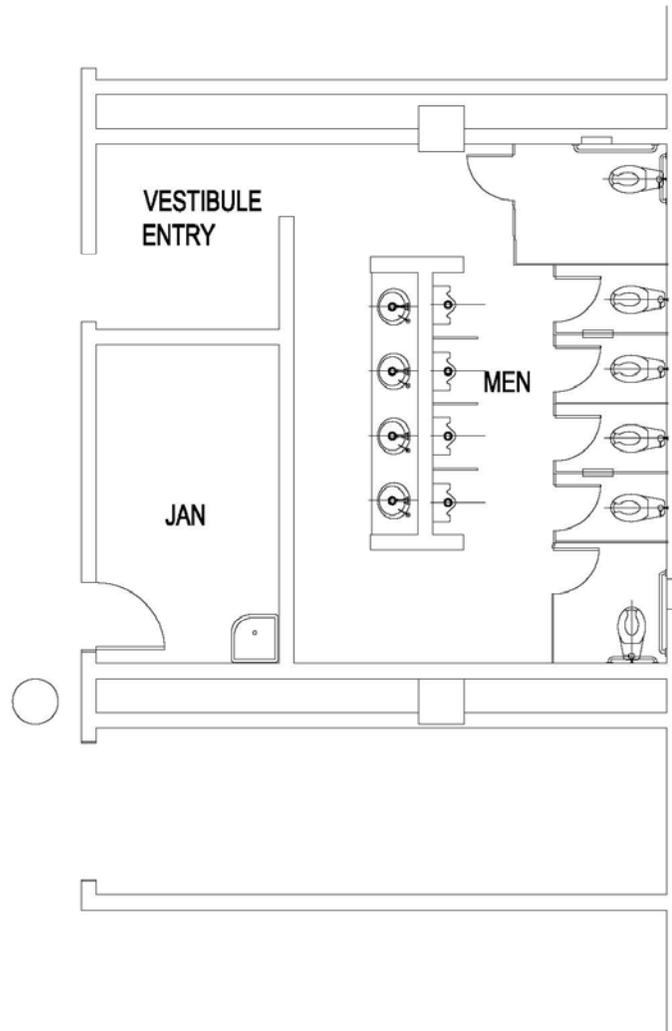
## FLOOR PLAN

Various floor plans have been developed to illustrate potential design solutions for restrooms of various configurations.



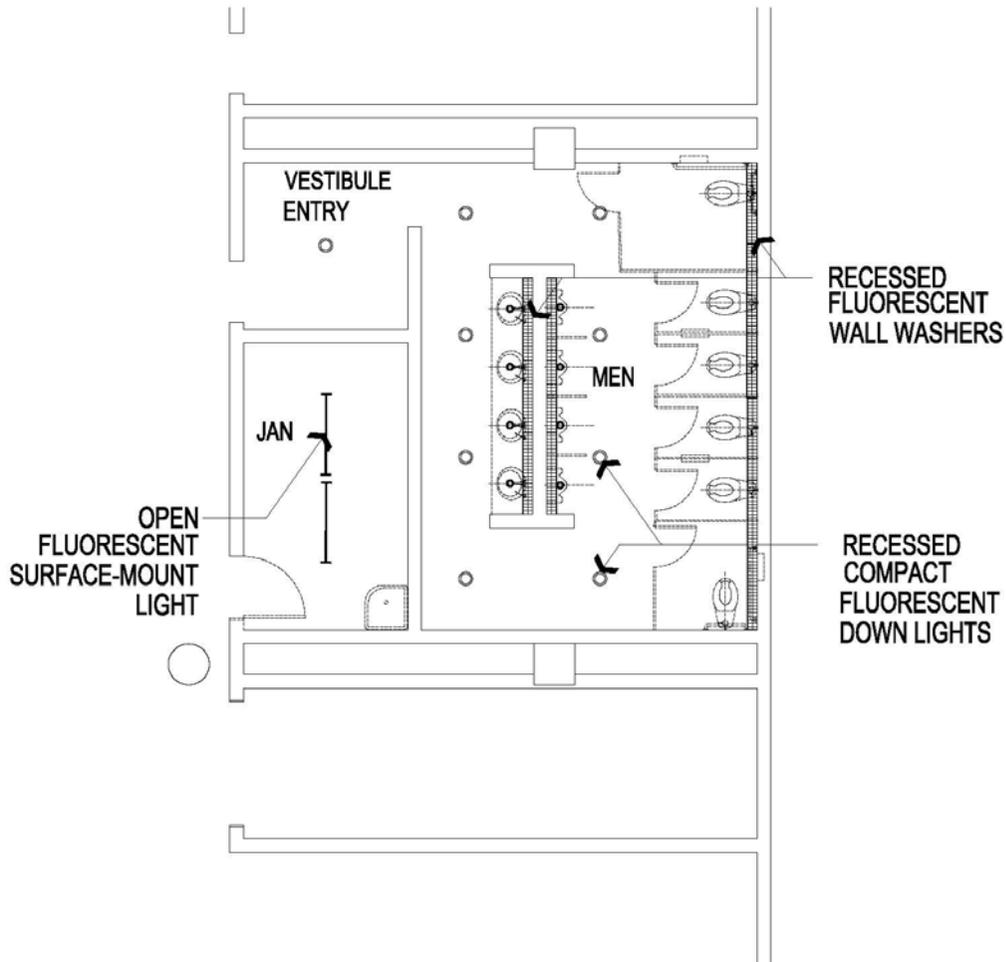
## REFLECTED CEILING PLAN

This reflected ceiling plan shows the use of fluorescent wall washer lighting fixtures on the ceiling above the wash basins and behind the toilets, and energy saving compact fluorescent downlights in the center of the room. All lighting fixtures shall be recessed. They may be surface mounted if existing conditions dictate.



## FLOOR PLAN

Various floor plans have been developed to illustrate potential design solutions for restrooms of various configurations.



## REFLECTED CEILING PLAN

This "Optimal" reflected ceiling plan shows the use of fluorescent wall washer lighting fixtures on the ceiling above the wash basins and behind the toilets, and energy saving compact fluorescent downlights in the center of the room. All lighting fixtures shall be recessed. They may be surface mounted if existing conditions dictate.

## 20. SOURCE LIST

<b>BOBRICK – accessories, partitions and urinal screens.</b>	<b>Thomas Partitions &amp; Specs</b> 4031 Verdugo Rd, Los Angeles, CA 323-256-8666
<b>ELECTRICAL FIXTURES</b>	<b>One Source Distributors</b> <b>Outside Sales-Holly Feinstein</b> 11899 S. Woodruff Ave. Downey , CA 90241 Main (562) 803-1883 Fax (562) 803-0422 <a href="http://www.1sourcedist.com">www.1sourcedist.com</a>
	<b>Associated of Los Angeles</b> <b>Outside Sales-Victor Chiovare</b> 2585 E. Olympic Blvd. P.O. Box 23950 Los Angeles, CA 90023 Main: (323) 268-8411 Fax: (323) 264-2244
<b>HVAC</b>	<b>Johnstone Supply</b> 11725 Inglewood Ave. Hawthorne, CA 90250 (310) 644-7711
	<b>Toro Aire</b> 1708 Mahalo Place Dominguez Hills, CA 90270 (310) 632-6000
<b>PLUMBING FIXTURES</b>	<b>Ferguson Enterprises</b> 2218 Broadway Santa Monica, CA 90404 (310) 829-3371
	<b>Ferguson's</b> 8532 Melrose Ave West Hollywood p: 310 657 1750 f: 310 657 1386
	<b>Plumbing and Industrial Fixture Supply</b> 12224 East Philadelphia Whittier, CA 90601 (562) 698-7749
	<b>Smardan Supply</b> 14009 Halldale Ave. Gardena, CA 90249 (310) 532-5260

## SOURCE LIST

<b>CERAMIC TILE</b>	<b>Longust</b> 1180 N Anaheim Blvd Anaheim, CA 92801 Toll-Free: 800-352-0521 ext.348 Fax: (714) 491-4679 <a href="http://www.longust.com">www.longust.com</a>
<b>SELF DRAINING COUNTERTOPS and BABY CHANGING STATION (Solid Surface)</b>	<b>GW Surfaces</b> 2432 Palma Drive Ventura, Ca 93003 805-642-5004 805-639-4012 (fax)
<b>STAINLESS STEEL BABY CHANGING STATION</b>	<b>Aul Pipe &amp; Tubing Incorporated</b> 2701 S Bonnie Beach Pl, Los Angeles <b>(323) 526-4960</b>

## 21. EQUIPMENT LIST

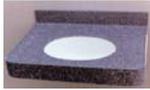
<b>RESTROOM ACCESSORIES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Recessed Waste Receptacle	Bobrick	B-3644 	Classic Series Recessed Waste Receptacle (No Paper Towel Dispenser)	None
Semi Recessed Waste Receptacle	Bradley	334-10 	300 Series Semi Recessed Waste Receptacle (No Paper Towel Dispenser)	LAWA Approved Restroom Receptacle
Waste Receptacle Large Capacity (Stand Alone)	Bobrick	B-2280 	Floor-Standing Open Top Waste Receptacle	LAWA Approved Restroom Receptacle
Sanitary Napkin Receptacle	Bobrick	B-270 	Contura Series Waste Receptacle Surface Mounted	None
Hands Free Paper Towel Dispenser	Georgia Pacific	59466 	enMotion Hands Free Stainless Steel	None
Hand Dryer	Dyson	A02 	Dyson Airblade A02	None
Seat Cover Dispenser	Bobrick	B-4221 	Contura Series Seat-Cover Dispenser Surface Mounted	Bobrick - B-221 

<b>RESTROOM ACCESSORIES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Soap Dispenser	Bobrick	B-830 	Sureflo Soap Dispensing System	None
Toilet Tissue Dispenser	Bobrick	B-2892 	Stainless Steel Twin-Jumbo Roll Toilet Tissue Dispenser	None
Sanitary Napkin Vendor	Bobrick	B-352 25 	Classic Series Recessed Sanitary Napkin/Tampon Vendor	Bobrick TrimLine B-3500 25 
Grab Bar (straight)	Bobrick	B-6806 x 36 	Straight Bar	None
Grab Bar (corner)	Bobrick	B-68137 	Corner 36" x 54"	None
Baby Changing Station (stand alone)	Aul-Tube & Steel See Resource List	LAWAABCS	Stainless Steel Custom Baby Changing Station	Substitute Material Corian
Baby Changing Station (Recessed Mounted)	Koala Bear Kare	KB110SSRE 	Baby Changing Station Stainless Steel Recessed-Mounted	None

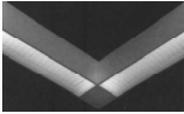
<b>RESTROOM/PLUMBING ACCESSORIES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Mirrors	Bobrick	B-290 	Glass Mirror With Stainless Steel Angle Frame	LAWA Substitute
Floor Drains	JR Smith	2005Y (B) 	Floor Drain Square Top	As needed.
Floor/Wall Clean Out			Clean-out plugs to be of ABS material	As needed
Hose Bibb	JR Smith	5509QT 		As needed
Trap Primer	Precision Plumbing Products	As needed 		As needed
Water Shock Arresters	Precision Plumbing Products	SC-500A-SC-2000F 		As needed
Mixing Valves	Symmons	5-200 		As needed
Angle Stops	Brass Craft	Iron Pipe		As needed
Lavatory Sink Supply Risers			Stainless Steel	As needed

<b>PLUMBING FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Service Sink Faucet	Chicago	305-VB-R 		As needed
Strainer	Chicago	327ACP 		As needed
Auto Faucet (Lavatory)	Chicago Hytronic Traditional	116.101.21.1 		None.
Auto Flusher (Toilet and Urinals)	Sloan – 111ESS (Toilet) 186-1ESS (Urinal)	111ESS (Toilet) 186-1ESS (Urinal)  		None.
Toilet	American Standard	2257.132 	Afwall White Wall Hung	None.
Water Closet Seat	Olsonite	95C 	Elongated, Open Front, White	As needed

<b>PLUMBING FIXTURES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Service Sink	Commercial Enameling	871 		As needed
Urinal	American Standard	6541.132 	Allbrook White	None.

<b>COMPARTMENTS/COUNTERS</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Toilet Compartments	Bobrick	1090 Series 	Sierra Series Water & Fire Resistant Solid Color Reinforced Composite Toilet Partitions & Urinal Screens	Solid Phenolic Partition (Bobrick).
				
Urinal Screen	Bobrick	1090 Series 	Sierra Series Water & Fire Resistant Solid Color Reinforced Composite Toilet Partitions & Urinal Screens  Stainless steel partitions with diamond pattern.	Solid Phenolic Partition (Bobrick).
Self Draining Counter Tops	Corian	Self-Draining   Sahara (f)	Self-Draining Counter Top with integral sink. 4" back splash 4" no drip front skirt	None.
<b>CERAMIC TILE</b>				
Toilet wall tile	Crossville (or approved equal)		12" x12" Polished	LAWA approved alternate.
Toilet Floor tile	Crossville (or approved equal)		12" x 12 Unpolished	LAWA approved alternate.
<b>MISCELLANEOUS</b>				
Automatic Air Freshner	Technical Concepts	Model#401375 	Automatic Air Freshner	None.

## LIGHTING/ELECTRICAL

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Compact Fluorescent Frame-In-Kit	Lightolier	1002F1 	Lytecaster Recessed Downlighting	LAWA approved alternate.
Recessed Down Light Reflector Trim	Lightolier	1045 	Lytecaster Recessed Downlighting Reflector Trim	LAWA approved alternate.
6" Compact Fluorescent Downlight	LSI Lightron, Inc.	Series 206CFLH 	Recessed downlighting.	LAWA approved alternate.
Linear Wall Mounted 6"x6" Fluorescent	LSI Lightron, Inc.	Series 99W 	Continuous wall mounted lighting fluorescent fixture.	LAWA approved alternate.
Fluorescent Perimeter Lighting	LSI Lightron, Inc.	Series 900 	Continuous ceiling mounted fluorescent lighting fixture.	LAWA approved alternate.
Fluorescent Perimeter Lighting	Prudential Lighting	P-60-2T8-04-NS-TMW-D2 	Continuous surface fluorescent lighting fixture.	LAWA approved alternate.
Fluorescent Perimeter Lighting	Prudential Lighting	IT8-04'(08')-BLA-SC-X4B-B 	Continuous recessed ceiling mounted fluorescent lighting fixture (also for wall washer application).	LAWA approved alternate.

## 22. CATALOG SHEETS

<b>RESTROOM ACCESSORIES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Recessed Waste Receptacle	Bobrick	B-3644	Classic Series Recessed Waste Receptacle (No Paper Towel dispenser)	None



**BOBRICK B-3644**

<b>RESTROOM ACCESSORIES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Semi Recessed Waste Receptacle	Bradley	334-10	300 Series Semi Recessed Waste Receptacle	LAWA Approved Restroom Receptacle



**BRADLEY 334-10**

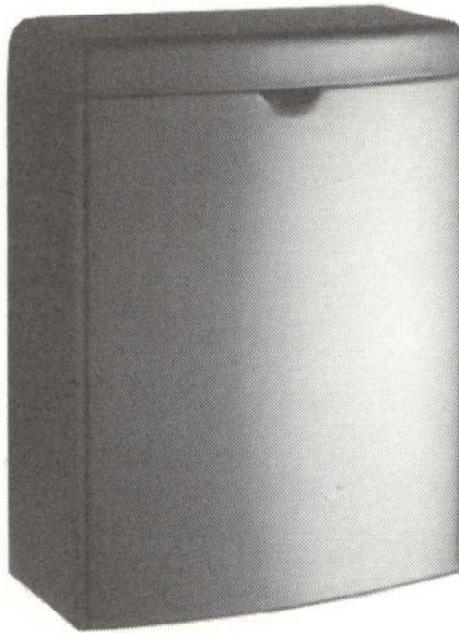
<b>RESTROOM ACCESSORIES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Waste Receptacle Large Capacity (stand alone)	Bobrick	B-2280	Floor-Standing Open-Top Waste Receptacle	LAWA Approved Restroom Receptacle



**BOBRICK B-2280**

**RESTROOM ACCESSORIES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Sanitary Napkin Receptacle	Bobrick	B-270	Contura Series Waste Receptacle Surface Mounted	None



Patented

**BOBRICK B-270**

<b>RESTROOM ACCESSORIES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Hands Free Towel Dispenser	Georgia Pacific	59466	enMotion Hands Free Stainless Steel	None



**GEORGIA PACIFIC 59466**

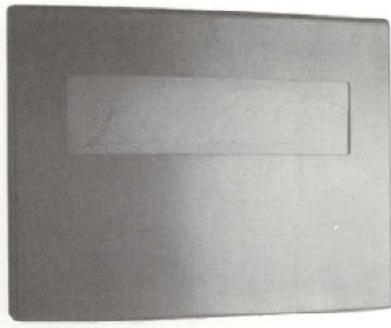
<b>RESTROOM ACCESSORIES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Hand Dryer	Dyson	A02	Dyson Airblade A02	None



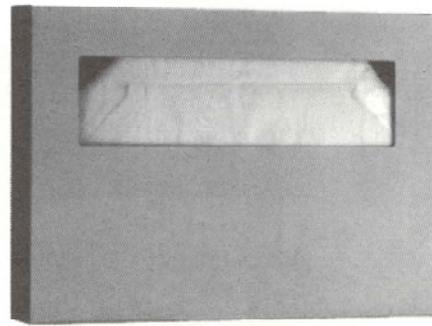
**Dyson A02**

**RESTROOM ACCESSORIES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Seat Cover Dispenser	Bobrick	B-4221	Contura Series Seat-Cover Dispenser Surface Mounted	Bobrick - B-221



**BOBRICK B-4221**



**BOBRICK B-221**

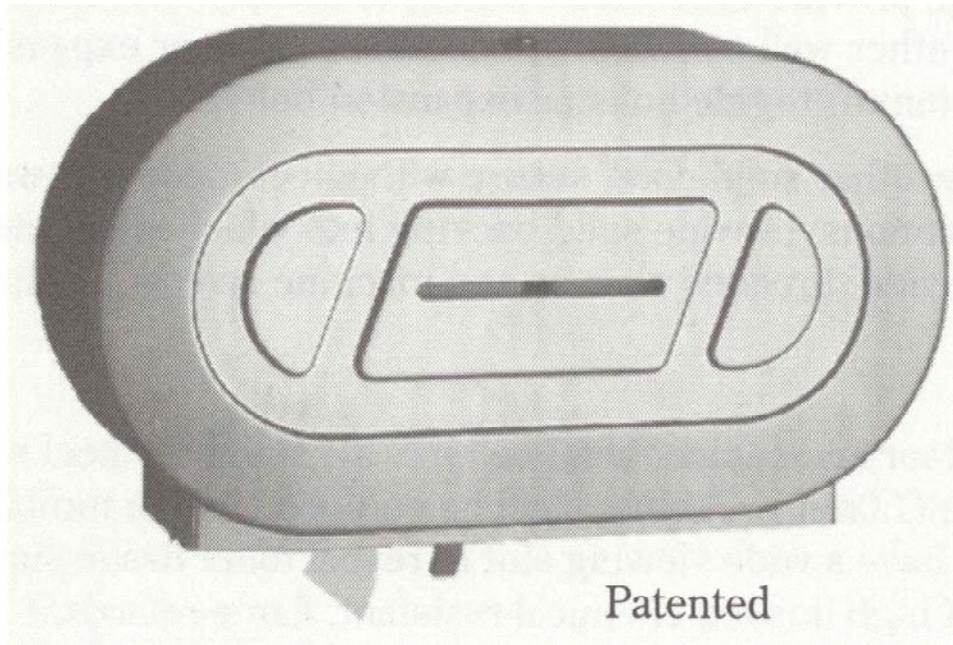
**RESTROOM ACCESSORIES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Soap Dispenser	Bobrick	B-830	Sureflo Soap Dispensing System	None



**BOBRICK B-830**

<b>RESTROOM ACCESSORIES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Toilet Tissue Dispenser	Bobrick	B-2892	Stainless Steel Twin-Jumbo Roll Toilet Tissue Dispenser	None



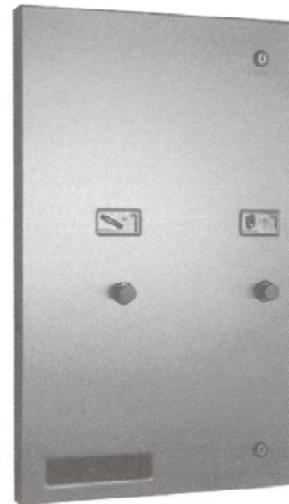
**BOBRICK B-2892**

**RESTROOM ACCESSORIES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Sanitary Napkin Vendor	Bobrick	B-352 25	Classic Series Sanitary Napkin/Tampon Vendor	TrimLine B-3500



**BOBRICK B-352 25**



Patented

**BOBRICK B-3500 25  
(ALTERNATE)**

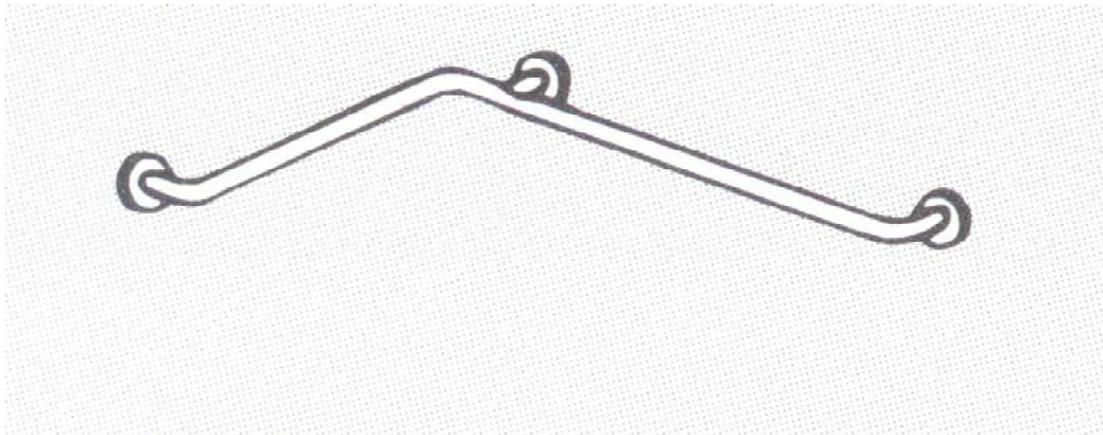
**RESTROOM ACCESSORIES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Grab Bar (straight)	Bobrick	B-6806 x 36	Straight Bar	None



**BOBRICK B-6806x36 (6806x42)**

<b>RESTROOM ACCESSORIES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Grab Bar (corner)	Bobrick	B-68137	Corner 36" x 54"	None



**BOBRICK B-68137**

**RESTROOM ACCESSORIES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Baby Changing Station (recessed mounted)	Koala Bear Kare	KB110SSRE	Stainless Steel Baby Changing Station Recessed Mounted	None



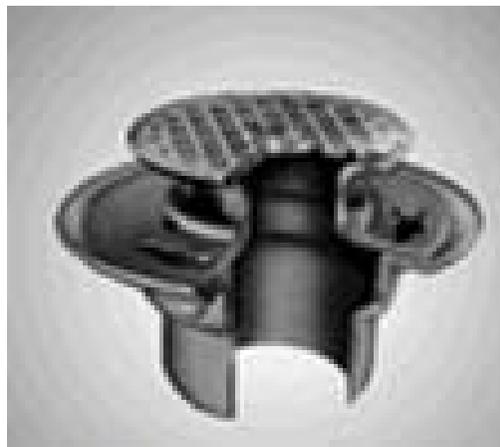
**KOALA BEAR KARE KB110SSRE (GREY)**

<b>RESTROOM ACCESSORIES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Mirrors	Bobrick	B-290	Glass Mirror With Stainless Steel Angle Frame	LAWA Substitute



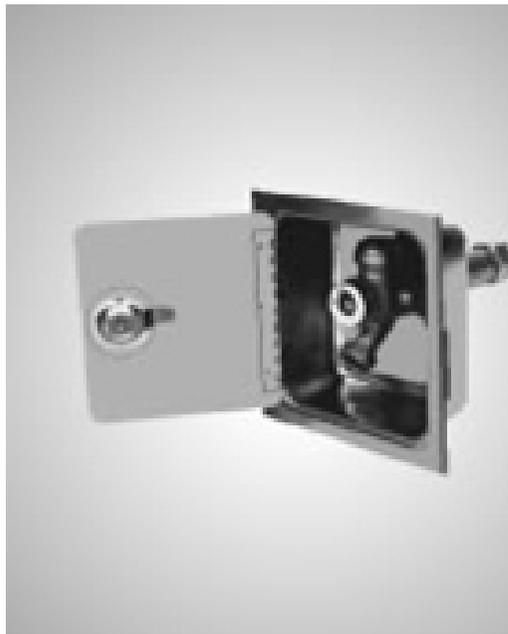
**BOBRICK B-290 (OR LAW A SUBSTITUTE)**

<b>PLUMBING FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Floor Drains	JR Smith	2005Y (B)	Floor Drain Square Top	As needed.



**JR SMITH FLOOR DRAIN 2005Y (B)  
OVERFLOW FLOOR SIMILAR**

<b>PLUMBING FIXTURES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Hose Bibb	JR Smith	5509QT	Hose Bibb	As needed.



**JR SMITH 5509 QT**

<b>PLUMBING FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Trap Primer	Precision Plumbing Products	As needed		As needed



**PRECISION PLUMBING PRODUCTS**

**RESTROOM FIXTURES**

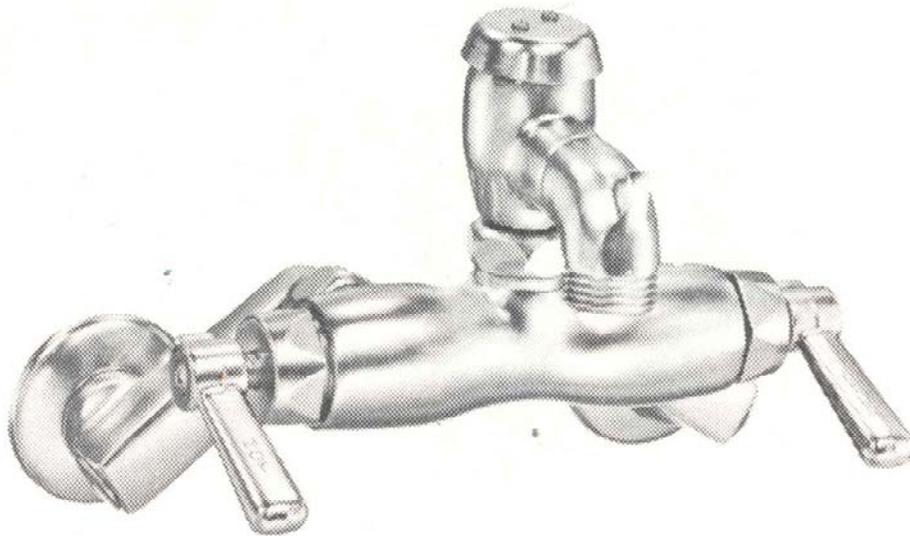
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Urinal	American Standard	6541.132	Allbrook White	None.



**AMERICAN STANDARD 6541-132**

**RESTROOM FIXTURES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Service Sink Faucet	Chicago	305-VB-R		As needed.



**CHICAGO 305-VB-R**

<b>RESTROOM FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Toilet	American Standard	2257.132	Afwall White Wall Hung	None.



**AMERICAN STANDARD 2257.132**

<b>RESTROOM FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Strainer	Chicago	327ACP		As needed.



**CHICAGO STRAINER 327ACP**

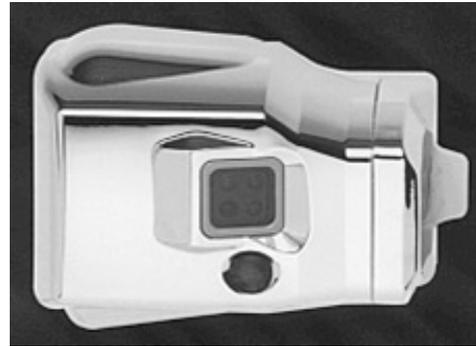
**RESTROOM FIXTURES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Auto Faucet (Lavatory)	Chicago Hytronic Traditional	116.101.21.1		None.



**CHICAGO HYTRONIC TRADITIONAL 116.101.21.1**

<b>RESTROOM FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Auto Flusher (Toilet)	Sloan	111ESS 186-1ESS	Toilet Urinal	None.



**SLOAN 111ESS AND 186-1ESS**

**RESTROOM/JANITORIAL FIXTURES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Service Sink	Commercial Enameling	871		As needed.



**CECO SINKS 871**

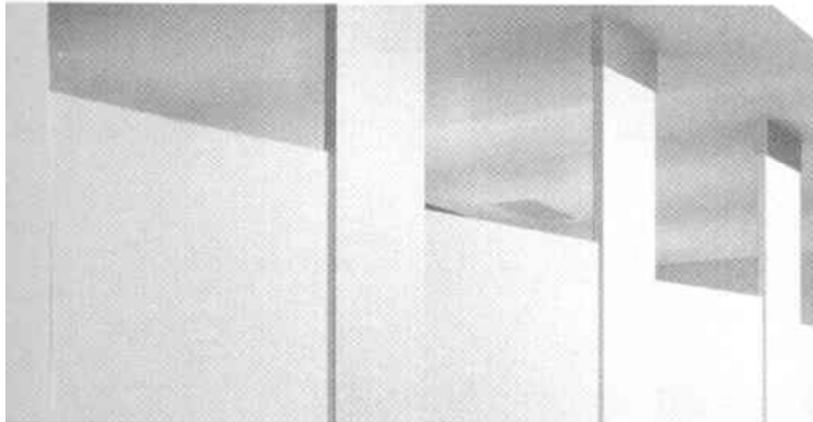
**RESTROOM FIXTURES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Water Closet Seat	Olsonite	95C	Elongated, Open Front, White	As needed.



**OLSONITE MODEL 95C**

<b>RESTROOM FIXTURES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Toilet Compartments & Urinal Screens	Bobrick	1090 Series	Sierra Series Water & Fire Resistant Solid Color Reinforced Composite Toilet Partitions & Urinal Screens	Bobrick Sierra Series Solid Phenolic w/ heavy duty hardware, continuous brackets



**BOBRICK 1090 SERIES**

<b>RESTROOM FIXTURES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Toilet Compartments & Urinal Screens	Bobrick	1090 Series	Sierra Series Water & Fire Resistant Solid Color Reinforced Composite Toilet Partitions & Urinal Screens	Bobrick Sierra Series Solid Phenolic w/heavy duty hardware, continuous brackets



**BOBRICK 1090 SERIES**

<b>RESTROOM FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Self-Draining Counter Top	Corian	Vanity Tops		None.



**CORIAN VANITY SERIES**

## ***Shower Shapes*<sup>®</sup> Self-Draining Solid Surface Countertop Specifications**

### I. GENERAL

#### 1.01 DESCRIPTION

- A. Work described in this section:
  - 1. Custom manufactured self-draining countertops.
- B. Related work specified elsewhere:
  - 1. Tile Work.
  - 2. Wall coverings.
  - 3. Plumbing.

#### 1.02 REFERENCES

- A. Applicable standards: Standards of the following, as referenced herein:
  - 1. American National Standards Institute (ANSI)
  - 2. American Society for Testing Materials (ASTM)
  - 3. National Electrical Manufacturers Association (NEMA)
  - 4. Federal Specifications (FS)

#### 1.03 SUBMITTALS

- A. Shop Drawings: Indicate dimensions component sizes, fabrication details, attachment provisions and coordination requirements with adjacent work.
- B. Samples: Submit minimum 2"x2" (50mm x 50mm) samples. Indicate full range of color and pattern variation. Approved samples will be retained as standards for work.
- C. Product data: Indicate product description, fabrication information and compliance with specified performance requirements.
- D. Maintenance data: Submit manufacturer's care and maintenance data, including repair and cleaning instructions. Include in project close-out documents.

#### 1.04 QUALITY ASSURANCE

- A. Allowable tolerances:
  - 1. Variation in component size + 1/8" (3mm).
  - 2. Location of accessory openings + 1/8" (3mm) from indicated location.

#### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Package materials to prevent damage to components during shipment.
- B. Deliver no components to project site until areas are ready for installation. Store components indoors prior to installation. Handle to prevent damage to finished surfaces.

## 1.06 WARRANTY

- A. Provide manufacturer's 3 year warranty against defects in fabricated products. Warranty shall provide replacement only. Labor to replace defective products is not included. Damage caused by physical or chemical abuse will not be warranted.

## II. PRODUCTS

### 2.01 SELF-DRAINING COUNTERTOP FABRICATIONS

- A. Specified product: Self-Draining Countertop from ShowerShapes®
- B. Material: Homogeneous filled acrylic; not coated, laminated or of composite construction; meeting ANSI Z124.3 & 6, Type Six, and Fed. Spec. WW-P-541E/GEN.
  - 1. Material shall have minimum physical and performance properties specified in the chart following Section D.
  - 2. Superficial damage to a depth of 0.010" (.25mm); shall be repairable by sanding.
- C. Self-draining countertop components of 1/2" (13mm) thick Hi-Macs from LG Chemical. ShowerShapes self-draining countertops have a built-in drainage slope, coved backsplash, no-drip edge and accept, single or multiple LG Hi-Macs bowls for installation on, cabinets or ShowerShapes structural steel frames.
- D. Location of sinks to be specified by Architect.
- E. Performance requirements: (SEE Performance Requirements Page)

### 2.02 ACCESSORY PRODUCTS

- A. Joint Adhesive: Manufacturer's standard two-part adhesive kit to create inconspicuous, nonporous joints, with a chemical bond. (ref: Technical Bulletin: CTDC 102)
- B. Wall hung unit includes ShowerShapes structural steel bracket ready for installation.

### 2.03 FABRICATION

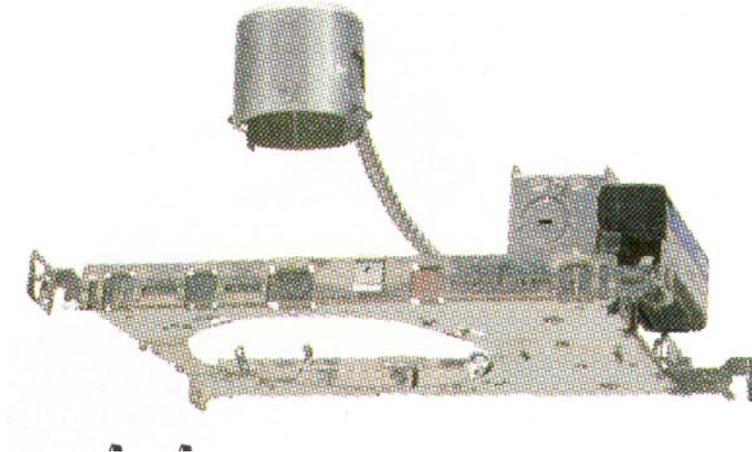
- A. All pre-fabricated Self-Draining Countertop components to be supplied by manufacturer.
- B. Components to be fabricated by ShowerShapes® to greatest extent practical to sizes and shapes indicated, in accordance with approved shop drawings and manufacturer's requirements.
- C. Joints between components shall be formed using manufacturer's standard joint adhesive. Joints shall be inconspicuous in appearance and without voids.
- D. Component edges shall have a smooth, uniform finish. Defective or inaccurate work shall be repaired or replaced.
- E. Finish: All surfaces shall have a uniform matte finish.

### III. EXECUTION

#### 3.01 INSTALLATION

- A. After accepting components, installer assumes responsibility for damage occurring during installation. Installer shall install floor plumb and level, in accordance with approved shop drawings and product installation instructions.
- B. Components shall be clean and defect free on Date of Substantial Completion.
- C. Components damaged after Completion/Acceptance can be repaired or replaced if repair cannot be made to architect's satisfaction. Repair cost will be borne by the Party causing the damage. Architect to approve cost estimate before repairs or replacements are made.
- D. Care and maintenance video and product warranty information can be provided by ShowerShapes® to the Project manager for review with the head of maintenance upon completion of project.

<b>RESTROOM FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Compact Fluorescent	Lightolier	1002F1		LAWA approved alternate.



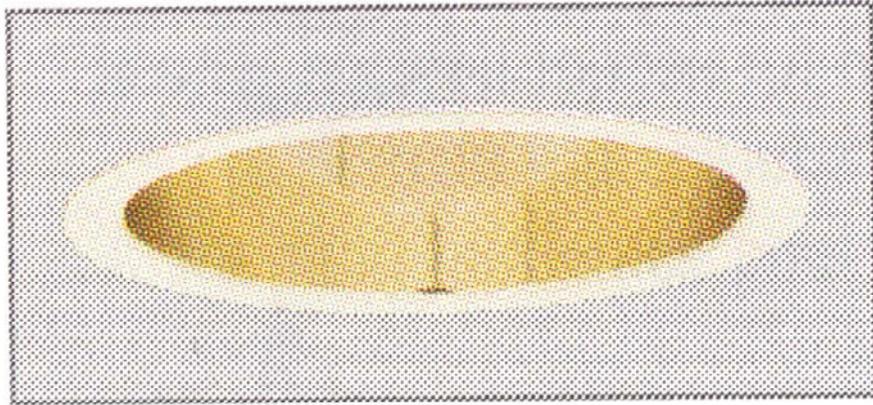
**LIGHTOLIER 1002F1 COMPACT FLUORESCENT**

<b>RESTROOM FIXTURES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Automatic Air Freshner	Technical Concepts	Model#401375	Automatic Air Freshner	None.



**TECNICAL CONCEPTS AIR FRESNNER MODEL#401375**

<b>RESTROOM FIXTURES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Recessed Down Light	Lightolier	1045	Lytecaster Recessed Downlighting Trim	LAWA approved alternate.



**LIGHTOLIER DOWNLIGHT 1045**

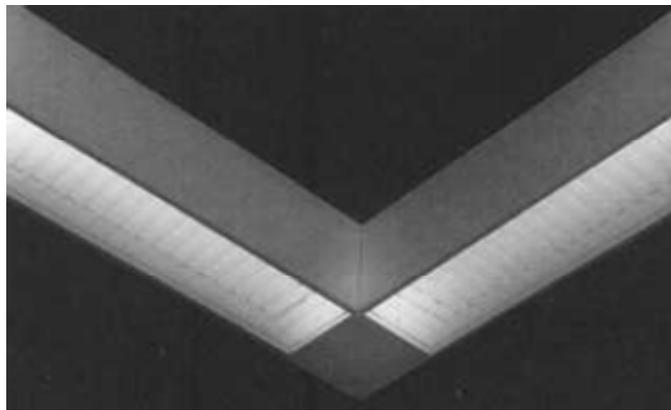
<b>RESTROOM FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
6" Compact Fluorescent Downlight	LSI Lightron Inc.	Series 206CFLH	Recessed downlighting.	LAWA approved alternate.



**LSI LIGHTRON INC SERIES 206CFLH**

**RESTROOM FIXTURES**

COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Linear Wall Mounted 6"X6" Fluorescent	LSI Lightron Inc.	Series99W	Perimeter lighting.	LAWA approved alternate.



**LSI LIGHTRON INC SERIES 99W**

<b>RESTROOM FIXTURES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Fluorescent Perimeter Lighting	LSI Lightron Inc.	Series900	Perimeter lighting.	LAWA approved alternate.



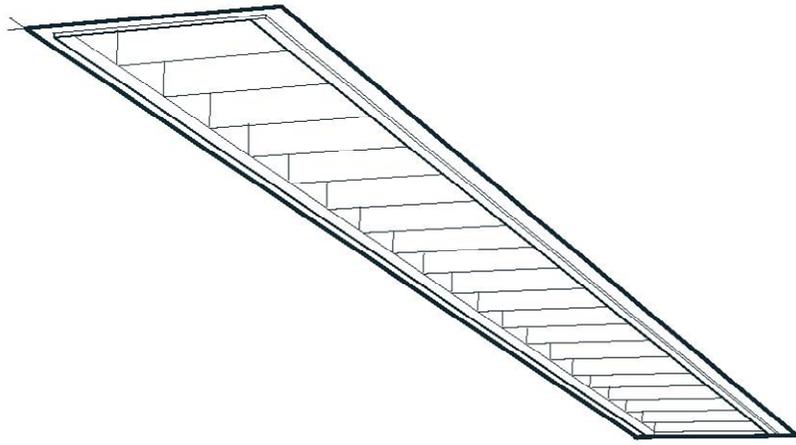
**LSI LIGHTRON INC SERIES 900**

<b>RESTROOM FIXTURES</b>				
<b>COMPONENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>ALTERNATE</b>
Fluorescent Perimeter Lighting	Prudential Lighting	P-60-2T8-04-NS-TMW-D2	Perimeter lighting.	LAWA approved alternate.



**PRUDENTIAL LIGHTING SURFACE MOUNTED FLUORESCENT**

<b>RESTROOM FIXTURES</b>				
COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	ALTERNATE
Fluorescent Perimeter Lighting	Prudential Lighting	IT8-04'(08')-BLA-SC-X4B-B	Perimeter lighting.	LAWA approved alternate.



**PRUDENTIAL LIGHTING RECESSED MOUNTED FLUORESCENT**

