DESIGN STANDARDS FOR: RESTROOMS FOR THE ZOO

NOTE TO THE CONSULTANT:

See Standard No. 33 34 00 for Storm Sewer Utilities
See Standard No. 33 30 00 for Sanitary Sewerage Utilities

See Standard No. 26 00 00 for Electrical System Design
See Standard No. 22 30 00 for Plumbing Fixtures for Buildings

PART 1 - GENERAL

1.01 General

A. Design: The design should be responsive to the best ideals of Zoo environment and coordinated with other Zoo Standards. Consideration should be given to locating a public-pay phone at this facility.

B. Building Lifespan: The design must consider choice of materials, methods of installation, finish, maintenance and operating costs of a life cycle of 40 years minimum.

C. Barrier Free Regulations: Comply with current applicable Seattle Building Code. For renovation of existing facilities, try to meet the intent of these regulations whenever feasible and review such situations with appropriate Agencies.

D. Vandal Resistance: Consideration must be given to reducing the type of material or usage of materials that may encourage vandals to pry, deface, or damage the building.

E. Maintenance: All material must be easily maintainable, including cleaning, repairing, etc.,

F. Surfaces/Finishes: All interior walls (unpainted) must be waterproofed and ceiling water resistant. Use of a ceramic tile on wall is acceptable. All exterior wall surfaces that are to be left in a natural appearance (unpainted) shall receive a clear finish of waterproofing sealer.

G. Floors: Floors shall have a durable non-slip texture such as concrete light broom finish or non-slip tile. No exposed aggregate will be permitted. All concrete floors shall have a penetrating film forming concrete sealer. Floors shall slope 1/4 " per foot (minimum) to

drains in each room. Contractor shall demonstrate adequate drainage to floor drain prior to final close-out.

H. Codes: Design must comply with all applicable and current codes including the code for the accessibility (ADA).

I. Location on Site and Site Considerations: Location must be appropriate for the Zoo zone. Locate building close to high pedestrian traffic routes and concentration of activities on site. Site the building so that people cannot get up onto roof. Orient building so that entrance openings are sheltered from the prevailing winds. Women's entrance shall not be obscured and shall face pedestrian walk. Grounds and walks shall slope away from building.

J. Changes: This standard is intended to be updated as new ideas, methods, and materials become available. Please send suggestions to the Seattle Parks and Recreation, Planning & Development, 800 Maynard Avenue South, 3rd Floor, Seattle, WA 98134.

K. Access Road: Access road shall conform to the Zoo's "Circulation Roads and Pathways" Standards.

1.02 Functional Requirements

A. Rooms: There is to be a men's and women's restroom plus a pipe alley/storage room.

B. Men's: At least one water closet, one urinal and one lavatory shall be accessible to the handicapped. Provide diaper changing table or shelf.

C. Women's: At least one water closet and one lavatory shall be accessible to the handicapped. Provide diaper changing table or shelf.

D. Pipe Alley/Storage: Room shall provide access to all water and sewer piping including all traps for urinals and lavatories and the clean-outs. All controls, fluid tanks, valves, "P" traps, etc., to be located in this room. Miscellaneous storage provided for maintenance of building only. Width of alley shall be 4'-0" minimum. Pipes in the pipe alley must be installed as close to the wall as possible to allow clear workspace (2'-0" - 3'-0") in the pipe alley. Provide a floor drain in the pipe alley. Make provision for some ventilation and heating.

1.03 Additional Requirements

A. Roofs:

1. Overhang: Provide overhangs for protection from water infiltration and weathering.
2. Flat Roof: If flat roof is used, it shall have 1" in 12" slope to drain. It shall be modified bitumen multiply system, such as "Siplast". Roofing system shall have a minimum 10-year labor and material warranty, non-prorated. Roof shall not be accessible to the public.

3. Pitched Roof: If used, shall have standing seam metal. Metal shall be anodized aluminum, enamelized steel or other metals such as Monel, etc. Metal roofing shall carry a minimum 20-year warranty against failure of protective coating.
4. Gutters and Downspouts: Use 3" diameter PVC pipe for downspouts. Use two holed straps for downspouts. Gutters shall be heavy gauge galvanized iron. Downspouts shall lead to footing drains (verify local codes).

B. Walls: Can be of a heavy wood, masonry, or approved equal. Consideration should be given to the use of structural glazed facing tile. If of hollow core masonry, grout all cells solid and provide knock-outs for fixture supports. See Section 1.01F for Surfaces/Finishes.

C. Heating and Ventilation: Provide gas radiant heat in the restrooms. Ventilation shall be 100% outside air. Ventilation shall be either one of the following:

1. Natural ventilation shall be designed integrally with the building. Ventilation openings shall be sized and located to provide adequate cross ventilation. Provide insect screens.
2. Mechanical ventilation shall be designed to provide minimum of four (4) air changes per hour (verify with current applicable Mechanical Code).

1.04 Signage

A. General: Provide signs with International "Men", "Women", and "Handicapped" symbols as required.

B. Code: Accessible signs to meet requirements of current applicable codes.

C. Zoo Graphic Standards: Signing should be consistent with the Zoo Graphic Standards.

PART 2 - PRODUCTS

2.01 Plumbing Fixtures

A. General: All fixtures to be vandal resistant and require very little maintenance to maintain operation.

B. Mounting Heights: All mounting heights are from the finished floor:

1. Water Closet - 15-1/2" to the top of seat.
   Water Closet (for handicapped) - 17" to the top of seat.
2. Urinal - 24" (verify) to the rim.
   Urinal (for handicapped) - 17" to the rim.
3. Lavatory - 34" to the top of rim.
   Lavatory (for handicapped) - 34" to the top of rim (knee clearance not less than 29"). Lavatory (for children) - 26" to the top of rim.
4. Grab Bars - 34" to top.

5. Mirror - 42" to bottom. Mirror (for handicapped) - 42" to bottom (if tilted mirror used), and 40" to bottom (if flat mirror used). Mirror (for children) - 34" to bottom.
6. Baby Changing Station:
   a. Custom made - 34" to top of shelf
   b. Manufactured product - per manufacturer's instructions

C. Water Closet

1. American Standard: Afwall #2257.103 (top spud) OR water closets made by Kohler, Crane OR other approved.
2. Fittings: to be Wade soil pipe fittings with a steel or brass connector or approved equal. Plastic connectors are NOT acceptable.
3. Toilet seats: provide solid plastic seat with open front.

D. Urinal: American Standard Trimbrook #6561.017 (top spud) and Washbrook #6501.010 (top spud) OR approved.

E. Lavatory:

1. American Standard Lucerne #0356 OR approved (hot and cold water supply).
2. Provide Chicago "Tip-Tap" faucets #797A-335 OR approved.

2.02 Toilet Partitions

A. Surfaces: Materials can be concrete, masonry (if hollow masonry units grout all cells solid), solid plastic (as manufactured by Santana), or solid phenolic (as manufactured by Bobrick).

B. Hanging Method: Partitions (other than concrete or masonry) shall be floor mounted with ceiling/overhead brace. Partitions shall be constructed to withstand heavy abuse such as kicking and swinging (provide solid backing behind all attachments). Reduce water flow/waste restrictions around base to a minimum.

C. All surfaces shall be smooth and highly resistant to corrosion. Latches on partition stalls shall be of the sliding type only. Hardware must be heavy duty and shall be stainless steel (do not use cast iron metal), and as vandal resistant as possible and shall be through-bolted. Wood screw connections not permitted. No plastic anchors will be permitted. Use stainless steel expansion shields.

D. Doors: Provide doors on all stalls (use same material as for toilet partitions).

2.03 Accessories: Provide the following:

A. Toilet Paper Dispenser: Bobrick Model #B-274 OR approved.

B. Feminine Napkin Disposal: Bobrick Model #B-354, B-3544 OR approved.

C. Grab Bars: Stainless steel grab bars.

D. Soap Dispenser: Bobrick Model #B-4112, liquid soap dispenser OR approved.

E. Mirror: Standard plate glass mirror with stainless steel frame. Mirror for handicapped - Bradley "Tilt Mirror", Model #740 OR approved.

F. Roll Towel Dispenser: Roll towel dispenser shall be crank type Crown Model #922 - White.

G. Trash Receptacle: Provide 32 gallon trash receptacle.

H. Service Sink: American Standard "Florwell Service Sink" #7741.000 OR approved.

2.04 Baby Changing Station

A. If custom made, it shall comply with the following:

1. Finish shall be plastic laminate over marine grade plywood
2. Provide 4" backsplash on three sides and 4" lip (downward) in front
3. Provide 1-1/2" diameter chrome pipe with threaded insert across the front

B. If manufactured product, it shall be a "Koala Bear" OR other approved.

2.05 Lighting: Interior lighting shall be 24 foot candles minimum. All wiring shall be concealed. Light fixtures shall be vandal resistant with polycarbonate covers and installed according to manufacturer's specifications. Light source shall be energy efficient. Availability of replacement parts must be considered.

2.06 Floor Drain: Shall be a standard, lockable accessible type with easy cleaning, non-clogging features. Use "Zurn Z-720V" OR approved. Positively slope to drain. Locate one drain (minimum) in each restroom and one in pipe alley.

2.07 Doors: All restrooms shall have entrance doors. Outward swings are preferred, but they should be protected from weather in fully open position. Pipe alley shall have a similar door. Doors shall be 1-3/4" thick solid wood stave core doors. Bottom and top of the door shall have water-resistant treatment. Provide same finish on the door edges as that of the front. Door frames shall be 16 gauge galvanized steel and solid grouted.

2.08 Door Hardware

A. Locks:

1. Provide "Best" (67T series) tubular deadlocks with "S" function (classroom function) for egress control OR approved equal lock. Finish shall be stainless steel satin finish.
2. All lock cores shall be "Best" figure 8 cores.
3. Keying shall be per SPR standard "Best" Lock Company System.

B. Closer: Provide "LCN 4041" OR approved equal.

C. Push Plates/Pull Plates/Kick Plates: Stainless steel preferred.

D. Hinges: "Stanley" FBB 199 with non-removable pins (NRP) OR approved equal.

2.09 Water Service: to be 2" minimum diameter, I.D. Install sub-meter near the building.

2.10 Hose Bib: Locate one 3/4" hose bib in each restroom and one outside. Must be lockable and resist freezing. Install outside hose bib ahead of the sub-meter to avoid sewer charges.

2.11 Drinking Fountain/Catch Basin: Provide one Parks' standard accessible drinking fountain/catch basin outside and near main entrance. Set catch basin at the lowest point of contour to accommodate surface drainage. See SPR Standard Details #31 21 53-59 (coordinate with current Zoo Standards).

2.12 Manhole: Locate manhole 8'-0" from building for ease of maintenance to sewer. See SPR Design Standards on "Sanitary Sewers" and "Storm Sewers".

2.13 Roof Vents: Vents to have "Wade" vandal resistant vent caps.

PART 3 - EXECUTION

3.01 Testing:

A. At a time just prior to the "setting" of the plumbing fixtures, the contractor shall be required to demonstrate to the SPR Inspector and Maintenance Shops Plumber Crew Chief (or his/her representative) free flow through all drain lines.

B. The method used shall be to pass a ball of one size less than line size through the lines checked. The ball shall be placed in the line at the beginning of the line and flushed through to the manhole outside the building where it can be retrieved.

C. Notify SPR Inspector and Plumbing Crew Chief at least 48 hours in advance prior to the test.

END OF SECTION