



CHILDCARE TECHNICAL GUIDELINES

REAL ESTATE, ENVIRONMENT AND FACILITIES MANAGEMENT

Facility Planning and Development

JULY 2024

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1. GENERAL

1.1 INTENT

These technical guidelines are:

- Supplementary technical requirements to the Facilities Standard Manual (FSM) and are to be read in conjunction with the FSM and other city-wide guidelines and requirements.
- To be read in conjunction with the City of Vancouver “Childcare Design Guidelines” and the B.C Ministry of Education and Child Care “ChildCareBC Design Guidelines for Child Care Centres”. For discrepancies, please bring to the attention of Staff for resolution.
- To be read in conjunction with Vancouver Coastal Health’s “Design Resource for Childcare Facilities” and “Director of Licensing Standards of Practice – Safe Play Space”.
- To be read in conjunction with the City of Vancouver “Direct Digital Control Guidelines”.
- To be applied to the design and construction or renovation of any childcare secured by the City of Vancouver as a Capital Asset.
- To clarify the minimum standard required by the City of Vancouver for materials, finishes, equipment and other items. Variations from these guidelines may be considered but are not to proceed without prior discussion and acceptance by the City of Vancouver.
- To be used as a tool for facility cost estimates early in the design process.
- To be used as a tool by consultants in developing their designs and specifications.
- To be used as a tool at facility occupancy stage to gauge whether these minimum standards have been met.

1.2 REGULATIONS AND STANDARDS

Consultants and Developers are to ensure that all applicable building codes, government acts and health regulations are met. These include, but are not limited to:

- The City of Vancouver Building Bylaw (VBBL).
- The Government of British Columbia’s Community Care and Assisted Living Act and Childcare Licensing Regulation.

- Occupational Health and Safety Regulation (Work Safe BC):
 - The Consultant is responsible for ensuring all applicable updates or revisions to the code, act or regulations are addressed and included in the work.
 - Development Permits may be required for new childcare facilities. Building and Occupancy Permits are required for all new childcare facilities. For detailed information concerning these permits and other relevant codes and requirements, contact the City of Vancouver Development Permit Group of the Planning Department and the Permits and Licenses Department.
 - A Childcare License will need to be obtained by the Childcare Operator from Community Care Facilities Licensing (CCFL). Licensing criteria for the Operator extend beyond those required for the construction of the premises. However, CCFL must provide their approval of the physical premises (i.e. “sign-off”) in order for an Occupancy Permit to be released and subsequently for an Operator to be eligible for a License in that space. For further information, contact the City of Vancouver Social Planning Department regarding the “Steps for Establishing a Childcare Centre in Vancouver in a New Building” or for “Steps for Establishing a Childcare Centre in an Existing Building”.

1.3 SUSTAINABILITY

- Refer to Facilities Standards Manual for details.
- A preliminary energy modelling exercise must be undertaken during the preliminary design stage to evaluate options for design of the building envelope, mechanical and electrical systems, and energy conservation measures (ECMs) which meet or exceed the City’s energy performance target and make the most sense for the project based on energy and GHG savings, financial impact and ease of maintenance.

1.4 UNIVERSAL DESIGN

- Refer to Facilities Standards Manual for details.
- For further guidelines, beyond that required by the Building Code, refer to:
 - Supported Childcare: Enhancing Accessibility; A Resource Manual for Communities, Childcare Settings and Childcare Providers put out jointly by the governments of British Columbia and Canada.
 - www.specialinkcanada.org, website for The National Center for Childcare Inclusion.

1.5 DEFINITIONS

For the purpose of these guidelines, the following definitions apply:

- Infant: a child under 18 months of age.
- Toddler: a child between 18 and 36 months of age.
- Preschooler: a child between 30 months of age and school age (5 years).
- School age child: a child who attends school and is under 13 years of age.
- Group: a group of children having its own room or rooms which are fully furnished and equipped. The groups are further defined as:
 - Infant Group - consists of a maximum of 12 children under 18 months of age.
 - Toddler Group – consists of a maximum of 12 children between 18 and 36 months of age.
 - Infant/Toddler Group - consists of a maximum of 12 children under 36 months of age.
 - 3 to 5 Group – consists of a maximum of 25 children at least 30 months of age at the date of entry and have not yet entered grade one.
 - School Age: consists of a maximum of 24 children if a grade one child is present or 30 if all children are grade two and older.
- Facility: a building or portion of a building which houses one or more groups.
- Group Daycare: a year-round full-day service typically opening between 7:00 and 8:00 a.m. and closing between 5:30 and 6:00 p.m.
- Preschool: a part-day service for children 3-5 years old. Children attend either morning or afternoon sessions of usually 2 to 3 hours each session, but not longer than 4 hours.
- Out-of-school care: a part day service for school-age children. Children may attend before school care (between 7:00am and 9:00am) or after school care (between 3:00pm and 6:00pm) or both. Children may also attend full days on school closure days (e.g. professional development days, spring/winter break & summer).
- Operator: the persons or entity selected by the City of Vancouver that manages and runs the Facility.
- Childcare License: refer to The Government of British Columbia’s Community Care and Assisted Living Act and Childcare Licensing Regulation.

1.6 DISCLAIMERS

- Some items that have been noted throughout this document are Operator preferences and the selection should be confirmed with the City of Vancouver regarding their appropriateness for each Facility.

- Any specific products named in this document are not to be taken as the City of Vancouver's endorsement of that product, but rather as an example of a standard of quality that has proven successful in the past. Any other products that meet this level of quality will be considered for use, but their use is not to proceed without prior discussion and acceptance by the City of Vancouver.
- To be read in conjunction with the most current version of all referenced documents.

2. PLANNING

2.1 INTENT

Below are supplementary planning guidelines to those required in the City of Vancouver Childcare Design Guidelines.

2.2 BUILDING FORM

Floor-to-floor height to be a minimum of 3.66m (12'0") to allow sufficient space for mechanical and electrical equipment and maintain minimum 2.44m (8'0") clear ceiling heights throughout the facility.

Outdoor play spaces are to be protected from the possibility of falling debris from balconies overhead. Some suggested strategies are:

- If the childcare occurs in a mixed-use building typology (including residential), design the building such that balconies do not occur immediately above the outdoor play spaces.
- If balconies are unavoidable over the outdoor play spaces, design them in such a way as to minimize hazards:
 - Railings to be designed such that loose items cannot be placed on them with any risk of them falling off.
 - Glazed railings are to meet all the requirements of the VBBL, in particular the safety glass is to be both tempered and laminated. They are to be designed such that if a pane breaks, it will be held in place and not fall onto the playground below.
 - If balconies from a neighbouring building occur over the outdoor play spaces, strategically locate the covered areas of the outdoor spaces to minimize the potential for hazards to land in the playgrounds. Note that the covered area is not to be increased beyond the requirement of the Childcare Design Guidelines at the expense of the required amount of uncovered outdoor play space.
 - Minimize the gap between the bottom of the guardrail and the top of the slab (no greater than 1") to prevent items from rolling off balconies. Separations between balconies should be angled and railings rounded so that objects cannot be set down on them.

- Glazed canopies are to be both tempered and laminated safety glass. They are to be designed such that if a pane breaks, it will be held in place and not fall onto the playground below.

2.3 PARKING

- Drop off spaces may include a maximum of one handicapped accessible space, location to suit operator and traffic requirements.
- Secure bicycle parking for staff to suit the By-law.
- Secure bicycle parking for parent drop-off within easy access of the Facility's entrance.

2.4 MISCELLANEOUS

- Mailbox accessible from interior at main entrance (confirm requirements for each Facility).
- Nap room layout, particularly for Infants, should allow for approximately 610mm (2 feet) between cribs, mats or cots.
- Design the building to prevent the entry of pests.
- End-of-trip facilities may be required. To be evaluated on a case-by-case basis.

2.5 STORAGE

- Exterior:
 - Secure storage required. While exterior storage is preferred to be contained within the building envelope, the area used is part of the exterior play area requirement and is not intended to be taken from the interior area allocated for the facility under the City of Vancouver Childcare Design Guidelines. Different layouts will provide various opportunities for storage, however as a suggested guideline:
 - For Infant and Toddler Group play areas, suggest approximately 2.8 sq. m (30 sq. feet) not including circulation space.
 - For 3-5 Group play areas, suggest approximately 4.6 sq. m (50 sq. feet) not including circulation space.
 - For Preschool play areas, suggest approximately 3.7 sq. m. (40 sq. feet) not including circulation space.
 - For Out-of-school Care play areas, suggest approximately 5.5 sq. m. (60 sq. feet) not including circulation space.

- Storage shall be provided for:
 - Small toys using adjustable shelving and bins.
 - For push toys, tricycles, balls etc.
 - For large items such as carts, wading pools, hoses, balance beams, sand box covers, etc.
- Interior – various distinct storage requirements exist, but depending on the layout it may be possible to combine some of these. Storage shall be provided for:
 - Toys, program materials, additional program supplies – to be accessed from the Activity room: a walk-in closet with adjustable shelves on either side with central circulation is preferred.
 - Seasonal & theme boxes.
 - 3-position strollers: location near infant cubbies is best. Size of strollers vary, but as a guideline use 1.9m (75”) long by .6m (24”) wide by 1m (40”) high. Confirm size and number of strollers for each Facility. Ensure circulation space from entrance to stroller storage accommodates the turning radius of the stroller.
 - Parent strollers, car seats, bicycle trailers etc. - near elevator (or near door to program).
 - Gross motor equipment, sleep mats / cots & baskets etc. to be accessed from Gross Motor/Nap rooms. Mats must be stored in such a way that they do not touch each other – see 4.0 Drawings for suggested mat storage millwork. Cots are about 1.3m (52”) long by 0.56m (22”) wide by 0.01m (4”) high and are usually stacked. Confirm nap equipment and its storage requirements for each Facility.
 - Stacking chairs and folding tables (adult size – confirm requirement with Operator).
 - Art supplies, in the art area millwork.
 - Television on moveable stand – confirm with Operator.
 - Freezer space is required if a lunch program is planned.
 - Lockers/coat storage for staff.
 - Emergency supplies including a 3-day supply of food and water. Size to be approved by CCFL as it will vary depending on the capacity of the facility.
 - Other equipment as advised by the City of Vancouver or Operator.
- Interior – children’s personal storage
 - Baskets with personal effects for each child in:
 - Washroom – size and number of baskets to be confirmed for each Facility.
 - Cubbies.
 - Nap/Gross Motor room (near mat storage is best).

2.6 NOTICE BOARDS

- Locate notice boards at the following locations (confirm types/size required for each Facility):
 - In each office.
 - In each group area.
 - By parent's sign-in desk.
 - By staff counter.
 - In each kitchen.
 - In parents' room.
 - In children's washrooms (e.g. for tracking diapering).
- Notice boards or other strategies are required for the display of children's projects in the Activity Room & Cubbies.

2.7 MILLWORK

- Specific millwork is needed for specific functions. Below is a list of the pieces usually required but require confirmation for each Facility.
- Refer to 4.0 Drawings for typical dimensions.
- The drawings in 4.0 Drawings are guidelines; confirm all required millwork pieces (some pieces may be combined) and dimensions beyond the required minimum with the City of Vancouver and the Operator. Also, alternative creative solutions to the ones proposed in 4.0 Drawings will be considered but are not to proceed without prior discussion and acceptance by the City of Vancouver.
 - Parents' sign-in desk.
 - Staff counter for phone, enterphone, record book and some associated storage.
 - Cubbies (number required equal to the licensed capacity plus an extra 20% for part-time children).
 - Hooks / space for staff coats and shoes: 4 per program Group. These need to be at or near cubbies.
 - Art counter with sink: min. 1800mm (6'0") long at Infant's & Toddler Activity Room and min. 2400mm (8'0") long in 3-5 Activity Room.
 - Kitchen
 - Children's Washrooms:
 - Vanities.
 - Toilet partitions and enclosures (if not prefabricated).

- Upper cabinets for supplies.
 - Upper open shelving for baskets of children's personal needs – diapers, cream, toothbrushes etc.
 - Change table with sink.
 - Moveable steps for larger children (1 per washroom room) - stored under counter at or near change table.
- Laundry counter (or use tops of side-by-side washer and dryer as folding counter space).
 - Counter tops in staff offices with shelving above for workstations (if not provided as furniture).
 - Countertop with cabinets in parent room with display area and shelving above for educational materials.
 - Music shelves located in gross motor / nap room, optional in quiet room.
 - Sleep mat storage.
 - Staff lockers (if not prefabricated; number required equal to the number of staff for the facility plus an extra 20%).
 - Coat closet for staff if staff lockers provided are for bags only.
- Shelving in all storage rooms (confirm requirements for each facility).

2.8 CONTROLLED ACCESS FOR CHILDREN

- Specific areas require controlled access for children, by way of a half-height gate or door. These are (confirm requirements for each Facility):
 - Infant washroom: gated.
 - Toddler washroom: gated or open.
 - 3-5 washroom: open.
 - Kitchen at Infant Group: gated.
 - Kitchen at Toddler Group: gated.
 - Kitchen at 3-5 Group: gated or open.
 - Cubbies at Infant Group: gated.
 - Cubbies at Toddler Group: gated or open.
 - Cubbies at 3-5 Group: open.

2.9 GARBAGE AND RECYCLING

- Review for each Facility acceptable garbage strategies: location, water, drainage, container size, type and schedule.
- Volume: typically, up to 4 bags per day for small (37 child) daycare.

- Bin size: minimum 2 cubic yards (1.5 cubic meters), approximately 5'9" (1.75m) long x 3'0" (0.9m) wide and 3'0" (0.9m) high.
- Recycling and composting are to be accommodated, include for both interior & exterior planning. As a guideline, the suggested interior space per LEED® under prerequisite 1, "Materials and Resources" for a commercial facility of up to 465 square meters in size is 7.6 square meters. Confirm expected recycling volume for each Facility with Operator.
- Provide an alcove off the lane for temporary bin storage for emptying if the permanent garbage and recycling room is below grade in the parkade.
- Refer to the Facilities Standards Manual for additional details.

2.10 SERVICE SPACES

- Refer to the Facilities Standards Manual for service room design requirements.
- Provide a separate lockable janitor room with floor sink, space for storing bucket, mops, brooms, vacuum, ladder, supplies for cleaning, shelves for paper products, light bulbs, etc.
- Access to all service spaces should not be through nap rooms.
- Consider layouts that reduce the potential for cross-contamination from services spaces, (e.g. janitor's mop sink must be in a separate space from laundry and cannot be accessed through clean' spaces), such as kitchen and laundry areas.

2.11 EXITING AND SECURITY

- Public exits shall be planned in such a way that the public does not have to cross through a secure childcare space for exiting.
- Install half-height handrails in exit stairs for facilities located above grade.
- Provide independently controlled access to exit stairs for access in the event that an elevator is out of service.

2.12 GENERAL HAZARDS AND ENTRAPMENT

- For prevention of entrapment, spaces (i.e. holes or openings) accessible to children must be smaller than 9cm (3.5") or larger than 23cm (9").

- Slots that vary in dimension such that either of the above conditions are encountered are not acceptable.
- Small dimension protuberances that may cause eye or puncture injuries are not acceptable.
- All edges and corners are to be rounded and eased. Sharp edges and corners are not acceptable.

2.13 BIRD FRIENDLY DESIGN GUIDELINES

- Refer to City of Vancouver Bird Friendly Design Guidelines (www.vancouver/birdstrategy.ca). This guideline is intended to support the design and implementation of bird friendly development throughout the City.

2.14 REDUCING BARRIERS FOR TRANS* AND GENDER-VARIANT COMMUNITY MEMBERS

- T2SLGBTQIA+ Advisory Committee: the 2SLGBTQIA+ Advisory Committee works to create safe, inclusive, and welcoming spaces for transgender and gender diverse, Two-Spirit, and queer individuals. It does this by working with staff to ensure that city facilities are accessible for people who identify outside the gender binary.

[2SLGBTQIA+ Advisory Committee | City of Vancouver](#)
[2SLGBTQIA+ Advisory Committee Full Terms of Reference](#)

- Refer to Vancouver Board of Parks and Recreation “Building a Path to Parks & Recreation for All: Reducing Barriers for Trans* & Gender Variant Community Members”

Note: Trans* (with an asterisk) is an inclusive umbrella term used to refer to communities and individuals with gender identities and/or expression not matching gender binary stereotypes.

https://parkboardmeetings.vancouver.ca/2014/140428/documents/SUMMARY_TGVI-Working-Group_report_Building-a-Path-or-All_2014-04-28.pdf

3. TECHNICAL

3.1 INTENT

Below are supplementary technical requirements to the Vancouver Coastal Health’s recommended guidelines as well as the City of Vancouver Childcare Design Guidelines.

3.2 GUARANTEES AND WARRANTIES

- In general, guaranties and warranties are to be provided per the industry standard.

- Extended guarantees and warranties required are noted in each section following as appropriate.
- Where extended guarantees and warranties are provided, the certificates shall be issued to the City of Vancouver.

3.3 HAZARDOUS MATERIALS

- All materials used in the constructing and finishing of the Facility are to be free of hazardous materials, including materials such as asbestos, lead and PCBs. Contact the City of Vancouver Environmental Planning Group with any questions regarding the sourcing of appropriate materials.

3.4 GENERAL FINISH REQUIREMENTS

- All surfaces, edges, corners and protrusions shall be finished to reduce or prevent hazards to children. All corners shall be rounded, edges eased, and surfaces shall be smooth. Particular attention shall be focused on concrete surfaces, windowsills, flashings, and laminate edges/corners.

3.5 LANDSCAPING

- Refer to the Facilities Standards Manual for additional details.
- Fences:
 - To be of sufficient height and material strength to prevent children from getting out of the yard and strangers from reaching in or climbing into the yard.
 - Minimum heights (all heights to be measured above any climbable permanent fixture located within 1.22m (4'0") of the fence such as planters, benches play equipment, etc.):
 - 1.22m (4'0") minimum typically, high traffic neighbourhoods may require higher fences (confirm height preference with the City of Vancouver and CCFL).
 - 1.82m (6'0") where the grade outside the fence drops by at least 0.6m (2'0") or a down slope of greater than 45°.
 - 2.44m (8'0") where the grade outside the fence drops by at least 3.05m (10'0"), for example at a roof top. 1.82m (6'0") with an extra 0.6m (2'0") sloping 45° inwards is also acceptable.
 - 1.82m (6'0") at any pool, pond or body of water.
 - All gates to be equipped with child-proof latches.
 - All gates to be self-closing.
 - Gates should be high enough and detailed so that a person cannot reach over (or through) to release gate or have deadbolt w/ key each side (review with respect to Building Code requirements).

- Landscaped areas / playgrounds (general):
 - Design consideration is required for column treatment where the columns are close to a path of travel or a play area.
 - Playground equipment, such as climbers, should be placed at the edge of the play area to maximize the available outdoor open play space.
 - Do not use dark colours for impervious and play surfaces to reduce heat island effects and protect children from hot surfaces.
 - The use of grass in areas other than infant play areas should be considered carefully; it cannot sustain the traffic in programs with older children unless the outdoor area is well over the minimum allowable area.
 - Although natural plantings are preferred, artificial turf may be considered for small areas of roof-top play areas providing that sand (rather than rubber chips) is used as the medium to hold it in place and that the turf specified is to the satisfaction of CCFL. All safety information regarding the product is to be submitted to CCFL for their review.
 - Pavers are not acceptable for outdoor surfaces (as they present tripping hazards if there is any uplift or settlement), cast-in-place concrete is preferred.
 - Provide shade sail anchors/hooks at perimeter fence posts and in appropriate locations (as determined with the City Team (REFM FP+D, ACCS Social Policy and Projects), the Childcare Operator and VCH Licensing to ensure adequate shade coverage at outdoor play spaces (i.e. play structure, sandbox, etc.). Shade anchors and hooks should accommodate a min 6kN force.

- Playground fall protection surfaces:
 - To cushion falls:
 - A 1.8m (6 feet) clearance around equipment is considered safest.
 - Depth guidelines for loose fill materials:
 - Minimum 15cm (6") for 1.5m (5 feet) high equipment
 - Minimum 30cm (12") for 2.3m (7 feet) high equipment
 - For equipment that is over 45cm (18") but is less than 1.5m (5 feet), fall protection surfacing is required.
 - To address Universal Accessibility, and accept wheelchairs / crutches / etc.
 - To drain effectively.
 - Acceptable products must meet CCFL requirements and include:
 - Engineered wood chip system complete with drainage, for example Fibar System 300.
 - Poured-in-place rubber system.

- Or other pre-approved alternate.
- Playground equipment:
 - To meet the following safety requirements:
 - Structures that incorporate stairs, landings, ladders, tunnels, bridges, etc. must have appropriate and secure safety barriers, guardrails and railings.
 - Equipment for toddlers must be no more than 900mm (3 feet) in height.
 - Equipment for preschool children must be no more than 1.5m (5 feet) in height.
 - Equipment for school-age children must be no more than 2.3m (7 feet) in height.
 - To address Universal Accessibility.
 - Playground equipment may be custom built, prefabricated, or a combination of the two.
 - For prefabricated equipment, provide a minimum two (2) year guarantee on all plastic, metal and moving parts, and a minimum ten (10) year guarantee on all wood parts.
 - The use of pressure treated wood that contains arsenic is not acceptable.
 - All wood in contact with soil or moisture is to be pressure treated; exposed wood to be handled by children is recommended to not be pressure treated.
 - Sandboxes:
 - To have liners. Liners to be water-permeable but to prevent sand leakage.
 - If at a roof-top, to have protection board between the sand and the roof assembly.
 - If at grade, or otherwise accessible to cats, to have covers that are light and easy to remove / install as well as that can be secured when installed. Netting style of cover is preferred as it discourages animals but allows the sun to assist with disinfection.
 - To be large enough for several children to play in at one time.
 - To be located away from entrance to minimize sand tracking inside the Facility.
 - Sand depth: minimum 305mm (12”) at Infant and Toddler playgrounds and 457mm (18”) at 3-5 Group playgrounds.
 - Sand specification to meet that of play sand quality.
 - If a water feature is provided as a play element:
 - The water used must be potable.
 - The drainage must be carefully designed to be easily cleaned (use of a sediment trap may be considered) – refer to the “Drainage and grading” section below.
- Drainage and grading:
 - Refer to the Facilities Standards Manual for additional information.

- All drains near engineered wood chip or sand play areas to have the capability to trap sediment with an easily removable and cleanable sediment trap.
- Drainage from above-grade play areas:
 - Drains to be bi-level, to drain both surface and roof waterproofing membrane.
 - Both surface and waterproofing membrane must be sloped to drains.
 - All roofs to have scuppers at a lower elevation than the interior floor elevation.
 - Drainage shall be designed so that if any roof drain should block the ponded water shall be able to flow to another exterior drain so that no water shall enter the interior.
 - Slope lawns from 1.5% to 6%.
- Irrigation:
 - Refer to the Facilities Standards Manual for details.

3.6 ACOUSTICS

- Exterior noise:
 - Outdoor play areas to be effectively acoustically buffered from any noise from traffic, mechanical equipment or other disruptive noises to achieve a maximum sound pressure level of 55 dB(A) 24-hour equivalent sound level.
- Exterior -to-interior noise:
 - Exterior noise, such as traffic, mechanical equipment or other disruptive noises is to be controlled by appropriate acoustical design of the exterior partitions to meet the allowable noise level for residential living, dining, and recreation rooms as defined in the local zoning by-law. Under no circumstances is the exterior noise to exceed a sound pressure level of 45 dB(A) 24-hour equivalent sound level in the interior of the Facility in all spaces occupied by children.
- Interior-to-interior noise between tenants:
 - At party walls between the Facility and any neighbours, an STC rating of 65 is to be achieved.
- Interior noise within a childcare group is to be controlled with appropriate acoustic surface treatment for interior finishes:
 - 75% of ceiling area shall be T-bar ceiling with NRC (noise reduction coefficient) = 0.70 or better, or
 - Alternately the room design shall meet an equivalent acoustical performance.

- Ceilings are not to exceed 3m (10'0"); should a deviation to this be accepted, additional acoustic treatment is required.

3.7 ARCHITECTURAL MILLWORK

■ Construction / Quality:

- Architectural woodwork shall be manufactured and/or installed to the current AWMAC's standards, Custom Grade.
 - AWMAC Guarantee to be provided.
 - Work will be subject to an inspection at the plant and/or site by an appointed AWMAC Certified Inspector. Inspection costs shall be included in the tender price for this project. (Contact your local AWMAC Chapter for details of inspection costs). Shop drawings shall be submitted to the AWMAC Chapter office for review before work commences. Work that does not meet the AWMAC's standards as specified, shall be replaced, reworked and/or refinished by the architectural woodwork manufacturer, to the approval of AWMAC, at no additional cost to the owner.
 - If the woodwork manufacturer is an AWMAC manufacturer member in good standing, a two (2) year AWMAC Guarantee Certificate will be issued. The AWMAC Guarantee shall cover replacing, reworking and/or refinishing any deficient architectural woodwork due to faulty workmanship or defective materials supplied and/or installed by the woodwork manufacturer, which may appear during a two (2) year period following the date of guarantee issuance.
 - If the woodwork manufacturer is not an AWMAC manufacturer member they shall provide the owner with a two (2) year maintenance bond, in lieu of the AWMAC Guarantee Certificate, to the full value of the architectural woodwork contract.
 - All materials to be formaldehyde free.
 - Use wood certified in accordance with the Forest Stewardship Council's Principles and Criteria if it is competitively priced with non-certified wood.
 - Use adhesives and sealants that have low VOC levels per the LEED® requirements listed under credit 4.1 "Low-Emitting Materials, Adhesives and Sealants".
- #### **■ Casework:**
- Refer to Facilities Standards Manual for additional details.
 - Art drying rack: for perforated art shelves, use egg-crate light lenses in frames (or Operator will include as free-standing equipment).
 - Doors and drawer fronts, end panels, and all exposed edges and corners: 3mm solid edges - all edges eased, and corners rounded.

- Countertops:
 - Refer to the Facilities Standards Manual for details.
 - Exposed 90-degree corners in child areas to be rounded, all edges shall be eased.
- Backsplashes:
 - Refer to the Facilities Standards Manual for details.
- Hardware:
 - Refer to the Facilities Standards Manual for additional details.
 - CCFL requires sharp items (for example, kitchen drawers containing knives) and any chemicals (for example, cabinets containing cleaning agents) to be locked (confirm requirements with CCFL). Two drawers in each kitchen and all under-sink cabinets shall have locks. Additional locks may be required to suit the program anticipated and the Operator's preferences:
- Locks: Corbin 0737 & 0738 with #75 Strike or pre-approved alternate:
 - Refer to the Facilities Standards Manual for additional details.
 - Locks on all lockable millwork to have a common key, except all lockable millwork to have common key, except different individual locks on staff cabinets or lockers (with a master key).
 - At minimum CCFL requires sharp items (for example, kitchen drawers containing knives) and any chemicals (for example, cabinets containing cleaning agents) to be locked (confirm requirements with CCFL). Two drawers in each kitchen and all under-sink cabinets shall have locks. Additional locks may be required to suit the program anticipated and the Operator's preference.
- Seismic:
 - Refer to the Facilities Standards Manual for details.

3.8 BUILDING ENVELOPE AND ROOFING

- Refer to the Facilities Standards Manual for details.

3.9 GLAZING

- Windows (general):
 - Refer to the Facilities Standards Manual for additional details.

- Where a sill is 457mm (18") or less above the floor, or where impact with a window may occur, or a child will come in contact with glass (such as a mirror or window at a change table) use tempered and/or laminated glass as appropriate (if CCFL Guidelines are more stringent than they will supersede this section):
 - Tempered only at interior single glazed windows.
 - Tempered only at interior where exterior grade is within 610mm (2'0") of the interior floor level.
 - Tempered at interior and laminated at exterior where the exterior grade is a significant drop below the interior floor level (i.e. a storey or more).
 - Consider the location of Low-E coating, if used, in conjunction with the location of tempered and/or laminated glass as appropriate for each Facility.
- Exterior openings:
 - Refer to the Facilities Standards Manual for additional details.
 - Exterior windows in children's areas shall generally be at a height that children can see out.
 - All opening windows to be:
 - Limited to a maximum opening of 100mm (4") where accessible by children.
 - Screened.
 - Where a window opens into a walkway or a play area, provide either a sliding window or restrict its swing so as not to create a safety hazard outside. All window mechanisms should also be located out of children's reach (5' AFF) or lockable.
- Mirrors:
 - At adult washrooms.
 - At children's washrooms (above counter mirrors).
 - At children's full-height mirrors, or at mirrors adjacent to change tables, use shatter-proof acrylic rather than glass.

3.10 DOORS AND HARDWARE

- Main facility entry doors from the street and from the parkade:
 - To be equipped with a power-assisted door operator button for accessibility.
 - Coordinate accessible operator button function with security requirements (enterphone and Keyscan) for these doors.

- Power-assisted door operator buttons on the interior side of doors leading to unsecured exterior areas (e.g. Street, parkade) to be activated by card reader.
- To be secured with an electric strike / card reader and simple one-step emergency exit hardware (e.g. paddle handle).
- Doors, general:
 - Doors into any area occupied by children to be fully glazed with tempered glass.
 - Half height doors: 25mm (1") minimum clearance under door.
- Wood doors:
 - To meet AWMAC requirements for millwork (refer to 3.4 Architectural Millwork).
 - To be solid wood core, except bi-fold and sliding doors to closets may be AWMAC hollow core doors.
- Hardware:
 - Refer to the Facilities Standards Manual for additional details.
 - Additional support for half doors when not mounted in regular door frame; use heavy-duty piano hinge for full height of door. Interior gates with piano hinge also require an accordion-style finger guard over the full length of the hinge and gate.
 - Door stops to be wall mounted where possible complete with backing provided in the wall.
 - Sliding doors to play areas to have the ability to pin in place at open position to avoid injury from unsupervised sliding.
 - Swing doors or gates within any child-occupied space as well as to outdoor play areas to have a hold open device such as a hook and eye, an “elephant’s foot” stop. or similar.
 - Kick plates are required on the push side of all doors with closers and at all storage room doors.
 - Where an emergency exit occurs directly within the Facility (such as in an Activity room or any space occupied by children), the door shall have a delay release and an alarm.
 - If the emergency exit is also actively used as an entrance/exit to the facility, then an alarm over-ride button (request to exit button) is to be provided at 1.5m (5 feet) above the finished floor for the use of staff and parents.
 - If a local alarm is provided at a door with a power-assisted door operator button, the local alarm must ring when the power-assisted door operator button is pressed.
 - Local alarm and request-to-exit override buttons to be installed at all doors leading from the main program room into lobbies, or other unsupervised spaces (confirm requirements for each Facility). Refer also to the Security section.

- Locks:
 - All locks to meet the City of Vancouver Security Standards.
 - Lock type and grade to be established for each Facility.
 - Final keys to be provided at Occupancy.
 - Interior locking strategy to be confirmed for each Facility with the following to be used as a guide:
 - All doors to have the same master key.
 - All exterior entry doors to be on the same key (see also Security).
 - Internal doors and exterior storage to be on the same key, zoned where individual programs can be isolated.
 - Service rooms to be on the same key.
 - All doors to have locks with “classroom” function except:
 - Storage rooms and Laundry rooms may have “classroom or “storeroom” function.
 - Gross motor / Nap rooms and Quiet rooms may have “classroom” or “passage” function.
 - Janitor and service rooms to have “storeroom” function.
 - Adult washrooms to have “privacy” function.
 - Deadbolt locks to be provided on both sides of low gates to exterior. Low gates between play areas, ball handsets only. Building code may require other approaches to security.
 - A system where doors default to locked from the exterior but provide free passage for exiting from the interior during a fire alarm or power failure is required.

3.11 FINISHES

- Partitions:
 - Acoustic measures:
 - Acoustical insulating tape and strips, as required by wall assembly to meet required STC ratings.
 - Acoustical sealant, non-hardening, as required by wall assembly to meet required STC ratings.
 - Acoustical insulation, as required by wall assembly to meet required STC ratings.
 - Provide adequate blocking inside walls at all millwork locations and furniture locations where furniture will be fixed to walls and at wall-mounted door stops.

- Wall finishes:
 - Paint: painting and finishing to be “Premium Grade” Master Painter and Decoration Association Recommendations and Standards; products to be MPI approved Institutional Low Odour VOC quality paint.
 - Provide a two (2) year MPI Guarantee or 100% two (2) year Maintenance bond both in accordance with MPI Painting Specification Manual requirements.
 - All painting work to be inspected by a Paint Agency Inspector acceptable to the specifying authority and the operator.
 - Provide documentation that the MPI approved Institutional Low Odour VOC quality paint is being used.
 - All surfaces, including those to be covered with wall vinyl, to have one coat of Hi- hide sealer primer to suit the surface.
 - Apply three finish coats and additional coats to cover as required.
 - Paint to be brush and roller applied, completely dried, and sanded between coats and finished to a smooth surface without streaks or marks.
 - Gloss levels:
 - Kitchens, washrooms, laundry and janitor’s room walls and ceilings to be G5 (semi-gloss).
 - Painted doors and door frames to be G5 (semi-gloss).
 - All other surfaces to be either G5 (semi-gloss), G4 (satin), or G3 (eggshell) as required for the particular Facility.
 - G1 and G2 (matte) finishes are not acceptable.
 - Wall protection to be applied in all rooms except staff offices to minimum 800mm (3’0”) above the finished floor. Top edges and corners of wall protection material to be in turn protected (details to be provided). Acceptable materials:
 - Plastic laminate.
 - Vinyl-acrylic sheet material (PVC-free) such as Acrovyn® or pre-approved alternate.
 - Sheet flooring.
 - Or pre-approved alternate.
 - Note that due to re-finishing costs, wood is not preferred.
 - Tile: quarry and ceramic tile installation is to be in accordance with the recommendations of the Terrazzo Tile and Marble Association of Canada.
- Ceiling finishes (coordinate with acoustic requirements):
 - No ceiling (this may occur in janitor, storage and utility rooms):

- Paint all exposed structure and services (refer to paint section above).
- Gypsum board:
 - Paint (refer to paint section above).
- Commercial quality suspended acoustic lay-in panel T-bar system:
 - Tiles to be minimum 16mm (5/8") thick.
 - System to have an NRC of .70 or better.
- Access to be provided to all above-ceiling services. It is preferred that there should be no above-ceiling access required in nap rooms.
- All kitchens to have ceiling finishes that are washable.
- Floor finishes:
 - Carpet, resilient flooring and vinyl plank flooring installation to be in accordance with the recommendations of the National Floor Covering Association as detailed in their "Floor Covering Specification Manual" as issued by the BC Floor covering Association.
 - Use adhesives and sealants that have low VOC levels per LEED® requirements listed under credit 4.1 "Low-Emitting Materials, Adhesives and Sealants".
 - Carpet required in all nap rooms and quiet rooms (confirm other areas with operator).
 - Carpet systems must meet or exceed the Carpet and Rug Institute's Green Label Plus testing and product requirements per LEED® requirements listed under credit 4.3 "Low-Emitting Materials, Carpet Systems".
 - Underpad required in nap areas and quiet rooms (confirm with CCFL). Acceptable product: 6mm (1/4") Duracushion, or pre-approved alternate.
 - The carpet pattern must be integrated, not applied.
 - Carpet may be broadloom or carpet tile. Carpet to be solution dyed nylon, level loop construction, pile weight 950g/m² (28 oz/yd²) minimum if broadloom, or 610g/m² (18 oz/yd²) minimum if carpet tile.
 - All edges to be sealed.
 - Provide 5% extra of carpet of the same dye lot as installed for future maintenance requirements.
 - Carpet installer to guarantee in writing the installation of the carpet for two (2) years against loose fitting, breaking of seams, breaking away from the sub-base or any other installation defect.
 - Carpet manufacturer to provide a ten (10) year guarantee that the carpet shall retain 90% or more of its pile fibre. The guarantee shall also cover against defects of zippering,

unravelling, colour fading, deterioration and delamination of backing materials, pulls, piling, matting, shedding or any other manufacturing defect.

- Resilient (smooth, non-absorbent, non-slip and washable) flooring required in kitchens, washrooms, laundry, janitorial closets, art areas, table areas and entry/cubby areas.
- Flooring to be:
 - Homogeneous sheet vinyl with heat welded seams, for example Tarkett or other pre-approved alternate (minimize VOC off-gassing).
 - Homogeneous sheet rubber with welded seams.
 - Or pre-approved alternate.
 - Linoleum is not acceptable.
 - All edges to be sealed.
- All resilient flooring to be sheet material (tiles not acceptable).
- Provide 5% extra resilient flooring material of the same production run as installed for future maintenance requirements. Provide sheet materials in full roll width by the length required.
- Resilient flooring installer to guarantee in writing the installation of the flooring material for two (2) years against loose fitting, breaking of seams, breaking away from the sub-base or any other installation defect.
- Provide a minimum of five (5) year guarantee that the resilient flooring will provide the specified level of appearance and wear, subject to proper care and maintenance.
- At high wear and tear locations in the Facility, such as the main entrance and the entrances from the playground, consider the use of a more durable flooring material such as ceramic tile. All surfaces must be non-abrasive, washable and cleanable.
- Base to be rubber, continuous throughout, and minimum 100mm (4") high.
- Where demountable partitions and other items are indicated for installation on top of flooring material, install flooring material before these items are to be installed.

3.12 SPECIALTIES

- Toilet partitions:
 - Partitions are:
 - Required at the 3-5 washroom, provide privacy for one stall (refer to 4.0 Drawings).
 - Optional at the Toddler washroom (refer to 4.0 Drawings).
 - Not desirable in the Infant washroom.
 - Plastic laminate covered high density particle board, acceptable product:

- Bobrick 1040 series
- Or pre-approved alternate.
- Metal with baked enamel finish; acceptable product:
 - Shanahan's baked enamel metal toilet partitions
 - Or pre-approved alternate.
- or Phenolic if budget allows acceptable product:
 - Bobrick 1080/1180 series FRP faced phenolic core partitions.
 - Or pre-approved alternate.
- Hardware: heavy duty stainless steel with tamper-proof screws, concealed where possible.
- Washroom accessories:
 - Paper towel dispensers to accommodate single-fold towels with no saw tooth cutting bar.
Alternate types may be considered depending on Operator preference - confirm type required for each Facility:
 - Provide 2 at child height at the 3-5 washroom (refer to 4.0 Drawings).
 - Provide 1 at child height at the Toddler washroom (refer to 4.0 Drawings).
 - Provide 1 in the vicinity of each change table sink.
 - Provide 1 in each adult washroom.
 - Provide 1 at each hand wash sink in kitchens, or at the kitchen sink if there is no hand sink.
 - Provide 1 at each art sink.
 - Provide a waste receptacle in each washroom: confirm type required for each Facility.
 - Soap dispensers: generally, provide one at each sink (confirm type and locations required for each Facility).
 - Toilet paper dispensers:
 - Provide one adjacent to each toilet in children's washrooms at child height.
 - Provide one adjacent to each toilet in adult washrooms.
 - Confirm any other requirements for each Facility.
 - For the 3-5 Group area, provide space (approximately 2'0" x 3'6") for a change mat to be placed on the floor. A change table is not required.
 - Provide a change table in the adult washroom. If this is not millwork, it may be a prefabricated item.
 - Acceptable product:

- Koala Kare surface mounted change station that supports static loads up to 200 lbs. complete with child protection straps.
- Or pre-approved alternate.
- Lockers:
 - Half-sized lockers or quarter sized lockers (to fit a backpack, if a coat closet is provided) required for staff if not provided as millwork. Provide a minimum of 6 per Group (confirm number and type required for each Facility).
- Blinds:
 - All blinds to be commercial grade; chain operated roller style preferred.
 - Blinds to be installed on all exterior windows.
 - Blinds to be installed at interior windows at nap rooms, quiet rooms and parent rooms (confirm further requirements for each Facility).
 - Ensure blinds on doors are secured on the bottom with a child safe device.
 - Ensure housing unit on the blinds will not damage adjacent walls when installed on the nap room doors or require an additional door stop up top.
 - Darkening blinds to be installed on nap room windows.
 - All cords or chains to terminate 1.5m (5'0") above the floor, be installed and secured in a taut manner or to be supported on a hook at that height. Cords must also be out of reach of cribs.
- Mailboxes:
 - One large mailbox accessible from the interior at main entrance (confirm need for this facility).
- Entrance mats:
 - At all entrances from the outdoors provide walk-off mats (minimum size should allow for an adult to take two steps before stepping onto another flooring surface). Either a child- safe recessed grille or surface walk-off mats are acceptable.
- Notice boards:
 - Tackboards:
 - Corkboards complete with trim, or pre-approved alternate.
 - White boards
 - Magnetic white boards
 - Confirm size, type and mounting locations for each Facility.

- Signage:
 - To conform to the City of Vancouver Sign By-Law.
 - To conform to requirements for disabled persons.
 - Multilingual signs may be required (confirm requirements for each Facility).
 - Ensure signage is provided for the following:
 - To identify the Facility.
 - To indicate the entrance to the Facility.
 - At dedicated parking stalls.
 - For all necessary wayfinding.
 - At entries to each Group.
 - At service rooms.
 - Provide any other signage required for each Facility.
 - Ensure all signage required by the Building Code, including Fire and Life Safety Evacuation Plans, is provided.
- Fire and Life Safety Plans
 - Fire safety plans to be reviewed with the Operator and CCFL prior to submitting to the Fire Department at Occupancy.
 - Ensure a copy is provided to the City of Vancouver with the operations and Maintenance Manuals.
- Fire Extinguishers:
 - To be recessed.
 - If surface mounted, all corners and edges are to be rounded and care is to be taken that they are not located in high traffic areas for children's activities where they may create a hazard.
 - Covers and access doors to be child safe.
- Elevator:
 - Refer to the Facilities Standards Manual for additional details.
 - Cab size and layout to accommodate three-position strollers.
 - Elevators in facilities with roof-top play areas should be easily accessible from the loading area or at minimum from the back lane to facilitate delivery of items for routine maintenance such as sand and engineered wood chips.

- Elevators in facilities with roof-top play areas to be able to accommodate freight for the purposes of maintaining the play areas (for example to move heavy loads for sand replacement and top-up) – recommended minimum capacity of 4000 lbs.
- The elevator lobby should not open directly into any secure childcare space.

3.13 EQUIPMENT

- All appliances to be “Energy Star” where “Energy Star” has that appliance category.
- Provide a minimum one (1) year warranty on all appliances except provide a minimum two (2) year warranty on microwave ovens.
- Where possible, no stainless-steel finish for appliances, white preferred.
- Kitchen serving more than 35 children:
 - Commercial style dishwasher with a sani-cycle, 70°F heat booster, and back-flow preventer valve. Note that these dishwashers require deeper than standard millwork: millwork to be designed to suit.
 - Refrigerator: 21.5 cubic feet, frost free, with freezer compartment, or as required by the City of Vancouver.
 - Additional freezer may be required if the Facility plans a lunch program.
 - Stove with oven: 760mm (30”) wide, with 4 burners; placement of controls to be suitable for child safety, for example at back; self-cleaning convection oven. (separate wall oven and range top are also acceptable)
 - Range hood to mechanically exhaust stove to the outside and conform to class 3 operations; exhaust rate (CFM) to be determined by HVAC engineer.
 - Vent less recirculating range hoods are potentially acceptable if required to meet Passive House certification.
 - Microwave oven: 2.0 cubic feet, 1100-watt, minimum.
- Kitchen serving 35 children or less:
 - Same as kitchen serving more than 35 children, except.
 - Dishwasher to be high quality residential style with sani-cycle and sound reduction package.
- Infant Program – dedicated Kitchen:
 - Same as for Kitchen serving 35 children or less, except
 - No stove is required if there is a full kitchen serving other programs nearby in the facility.
- Infant Program sharing a kitchen with another program Group:

- Refrigerator: 17 cubic feet, frost free, or as required by the City of Vancouver. A freezer compartment is not required if the Group has access to a freezer elsewhere.
- Microwave oven: 2.0 cubic feet, 1100-watt, minimum.
- Laundry room serving two or more program Groups:
 - Commercial washing machine.
 - Consider specifying a front-loading machine for water conservation.
 - Commercial dryer.
 - Note that 2 of each are recommended if the capacity of the facility exceeds 37 children.
- Laundry room serving one program Group:
 - Commercial washing machines are preferred, but residential style washing machines may be considered.
 - Consider specifying a front-loading machine for water conservation.
 - Commercial dryers are preferred, but residential dryers may be considered.
 - May be stackers or side-by-side machines (confirm requirements for each Facility).
- Entrances:
 - Provide walk off mats at entrances if recessed grilles are not provided (minimum size should allow for an adult to take two steps before stepping onto another flooring surface)

3.14 FURNISHINGS

- Children's furniture:
 - Specialty equipment for childcare shall be purchased by the Operator from the start-up money allocated to the project. The legal agreements around the funding of furniture and equipment will vary from project to project and should be confirmed for each Facility.
- Adult furniture:
 - Adult-related furniture shall be purchased by the Operator from the start-up money allocated to the project. The legal agreements around the funding of furniture and equipment will vary from project to project and should be confirmed for each Facility. The list below is provided for guidance, but the final list shall be confirmed during the design phase:

- Parent's Room: sofa, chairs, tables, lamps; area carpet if room is not carpeted.
 - Infant Nap Rooms: rocking chair (gliding).
 - Office: ergonomic office chair and under-counter file for each workstation, visitor chairs, large file and miscellaneous furnishings.
 - Stacking chairs on a dolly and folding tables for evening use of space – confirm quantity at design stage.
 - Furniture to replace required millwork at the option of the project team (for example, desk in lieu of counter at staff office).
- Seismic:
 - All furnishings greater than 1.22m (4'0") high to be secured to prevent tipping.

3.15 MECHANICAL

Except for the following addition and modification, refer to the latest version of the City of Vancouver Facilities Standards Manual.

- HVAC
 - All childcare facilities should be designed with their own heating, ventilation and mechanical cooling systems which are separate from the rest of the building. Mechanical cooling of occupied childcare spaces is required.
 - HVAC system to be designed to suit spaces with operable windows. Note that the doors from activity rooms to outdoor playgrounds may be held open for extended periods.
 - All rooms to be adequately ventilated to remove odours, especially from diapering, laundry and washroom areas (to meet ASHRAE Standard 62).
 - Exhaust fans to be 1.5 sone or less.
 - If baseboard heaters or radiators are used, they are to be shielded to prevent child access to hot surfaces.
 - Do not use a natural gas system if the building is located in the service area of the City-Owned Neighborhood Energy Utility (NEU), it must be designed with low temperature hydronic heating systems and connect to the NEU.
 - Equipment to be easily accessible for maintenance. For example, filters and remote condensing units shall be accessible without the use of temporary scaffolding or Genie Lift type equipment (unless approved and signed off by REFM during design). Install permanent cat walks for access and utilize best practices for fall arrest if required for service access.
 - Units shall not be located over parking stalls.
 - Units shall not be located in nap room ceiling spaces.

- Refer to the Facilities Standard Manual for filtration system, scaffolding and lift equipment requirements.
- Controls:
 - Controls to be DDC and follow latest Version of City of Vancouver DDC Technical Guidelines.
 - Remote Operator Access shall be provided as per Guideline section 1.1.3.
 - DDC network shall be separate from other building networks such as the childcare operator's network and shall provide a single static IP network connection for remote operator access. Confirm connection type with CoV (typically Cell Modem or Fiber)
 - Each activity room, nap room, and gross motor room temperature is to be controlled individually.
 - Perimeter to be on separate zones if the layout of spaces / windows creates problem areas.
 - Install a permanent carbon dioxide (CO₂) monitoring system. Install monitoring devices at areas with the highest occupancy per the Controls Engineer's direction. At minimum, the Nap / Gross Motor room and the Activity room shall be monitored. Zone equipment shall actively respond to high CO₂ levels to maintain indoor air quality with a demand-controlled ventilation strategy.
 - Refer also to Landscape (irrigation controls), Metering and Lighting Controls sections for other items to be on DDC.
- Plumbing:
 - All drains in outdoor play areas, especially if they are also roof drains, shall have sediment traps. Type and style of trap to be confirmed with the City of Vancouver for each Facility.
 - Traps to be accessible for clean-out.
 - If there is not sufficient head room in the space below for a sediment trap, then at minimum provide a wye 45° elbow complete with clean-out access. Review with the City of Vancouver for each Facility.
 - At roof drains in play areas, use two level drains (at play surface and at roof membrane) and provide sediment traps in hard surfaces near loose fill and entrances - refer also to the "Drainage and Grading" section in 3.4 Landscaping.
 - Interior floor drains are to be provided in each washroom, kitchen and janitor room.
 - All floor drains have pre-approved trap primers.
 - Trap primers to be accessible within the same room as the floor drain behind access panels.
 - Hose bibs to be provided:

- Refer to the Facilities Standards Manual for additional locations.
- Two in each outdoor play area, one at the building, one near sand box or children's urban agriculture plots.
- Refer to the Facilities Standards Manual for additional information on hose bibs.
- Domestic hot water requirements are identified and outlines in the Facilities Standards Manual, the following are specific requirements for childcare facilities:
 - Temperature controlled water (max. 49°C or 120°F) to be provided to all children's hand basins, Art sinks, diapering sinks, and any other sinks children will be using. CSA approved mixing valves shall be provided locally as required at these locations.
 - Set the temperature at children's sinks to between 38°-40° C (100°-120°F) prior to occupancy.
 - High temperature water shall be provided to kitchen, dishwater, laundry, and janitor sink.
- Each plumbing fixture to have its own shut off valve.
- All faucets to have aerators for water conservation.
- All art sinks to be stainless steel complete with a faucet ledge.
 - 395mm (10") deep sink preferred.
 - Provide a floor mounted sediment trap at all art sinks. Approved product: Zurn Z- 1180 Solids Interceptor, or pre-approved alternate.
- At diaper change table provide a single compartment stainless steel sink complete with a faucet ledge, minimum 300mm (12") deep, with swing tap (gooseneck preferred) and hand spray attachment.
- In each kitchen:
 - Provide a two-compartment stainless steel sink complete with faucet ledge. Each bowl minimum dimension 16" long x 14" wide x 8" deep. If the Operator plans to offer a hot lunch program, confirm suitability of the sink specified with CCFL to ensure licensability for hot lunches.
 - Provide a separate single compartment stainless steel hand washing sink, complete with faucet ledge, in the largest kitchen to support a catered lunch program. If space allows, also provide this sink in other kitchens.
- All children's toilets to be tank style with round bowls and closed front toilet seats.
- Numbers of fixtures at children's washrooms to meet the CCFL regulation of one toilet and one hand basin for every ten children.
- At infant washroom provide per Group minimum:
 - One 368mm (14-½") high toilet, sealed to the floor, complete with closed front toilet seat.

- One child-accessible hand basin with lever faucets (refer to 4.0 Drawings).
- At toddler washroom provide per Group minimum:
 - Two toilets, sealed to the floor, complete with closed front toilet seat (may be 368mm (14-½”) or full size).
 - Two child-accessible hand basins with lever faucets (refer to 4.0 Drawings).
- At 3-5 washroom provide per Group minimum:
 - Three toilets, full size, sealed to the floor, complete with closed front toilet seat. Provide privacy for one toilet (refer to 4.0 Drawings).
 - Three child-accessible hand basins with lever faucets (refer to 4.0 Drawings).
- Access panels:
 - Where access panels are required, locate in areas inaccessible to children.
 - If an access panel is located in a child-accessible area, the panel must have smooth, rounded and eased edges and must be tamper-proof.
- Metering:
 - All Childcare Facilities to have dedicated BC hydro, Fortis gas, and COV water metering if possible.
 - Where a Facility occurs in a mixed-use building, it is to have separate dedicated gas, electricity and water meters and/or sub-meters located in service rooms that are easily accessible to the staff of the Facility.
 - All sub meters to be connected to DDC and trended for monitoring.

3.16 ELECTRICAL

- Power:
 - All receptacles to be childproof with shatterproof faceplates.
 - Provide receptacles mounted up high at music shelf locations.
 - Power to be provided in exterior play areas.
 - Appropriate power provisions to be made for:
 - Photocopier.
 - Stove/oven.
 - Washer/dryer.
 - Freezer.

- Fridge.
- Microwave.
- Portable phones and answering machines.
- Provide power in kitchen as per the electrical code requirements for residential occupancies coordinate if additional receptacles are required for each facility.
- Provide power in kitchen as per the electrical code requirements for residential occupancies coordinate if additional receptacles are required for each facility.
- Electrical panels to be bolted on manufactured by Square D or Eaton.
- Wiring:
 - Branch circuit conductors shall not be smaller than No. 12 AWG.
 - All cables must be made of copper conductors.
- Lighting:
 - Light source to be LED with a color temperature of 4,000K.
 - Provide a minimum lighting level as per CCFL Guideline, while complying with VBBL energy requirements for the following spaces:
 - 30 ft. candles (320 lux) in nap rooms, quiet rooms, and infant activity room
 - 40 ft. candles (420 lux) in the 3-5, toddler, and school age activity rooms
 - 50 ft. candles (540 lux) in the kitchen and washrooms
 - For other applications follow IES recommended practices.
 - Diaper changing areas must have glare shielding for overhead fixtures.
 - All fixtures to be properly shielded or use shatterproof lamps.
 - Use multifunctional types of luminaires and minimize the number of the types installed within the facility to no more than four (4) types for indoor use, and no more than three (3) types for exterior application where possible.
 - Provide complete photometric report for review: The study shall include at the minimum the following criteria and results:
 - Room / Space reflectance (floor, wall, and ceiling).
 - Luminaire schedule - symbol, quantities, label, arrangement, description. LLF, lumens, watts.
 - Luminaire type and mounting height.
 - Work plane surface - name, height.
 - Calculation points and values.
 - Horizontal illuminance - average, minimum, and maximum.
 - Uniformity ratio average to minimum.

- Power density - total power, area, and power density values.
- No halogen lamps permitted.
- Exterior lighting is required in play areas, to illuminate entries, exits, high activity areas such as play structures and sandboxes, and as required for security.
- Outside Lighting to have HOA (Hand/Off/Auto switch) controls for servicing.
- Where the building has an emergency generator, the emergency lighting system shall be powered by the generator and not be powered by separate battery packs.
- **Lighting Controls:**
 - Provide Local Lighting switches for each area of the following areas: activity room, gross motor/nap room and quiet room.
 - Provide dimmers in quiet rooms, parent rooms, and gross motor/nap rooms for one or two light fixtures.
 - Quiet rooms and gross motor/nap rooms to have their switches located outside the room.
 - Occupancy sensors may be provided throughout as an option to automatically turn off lighting when not in use.
 - Lighting controlled on time schedule to be programmed in the DDC system as follow:
 - Lighting is turned off 30 minutes after the scheduled end of day.
 - Sweeps are to be programmed to turn lights off every hour until 30 minutes before opening. Provide 2-minute flicker warning.
 - Outdoor lighting to be separately programmable from indoor lighting such that they can be controlled for ambient light levels and schedule.
 - Wall switches to over-ride DDC controls at all times.
- **Metering:**
 - All childcare facilities to have a separate BC Hydro meter, and separate BC Hydro meters for each operator if the facility contains different spaces run by different operators.
- **Fire Alarm:**
 - Install sounding devices at all outdoor play areas. This is of particular concern at roof top outdoor play areas.
 - Coordinate set-up of fire alarm monitoring with the monitoring company of the City's choice – to be confirmed for each Facility.
 - Provide clear tamperproof cover for pull station. Outdoor pull station cover shall be complete with closed cell gaskets.
 - Coordinate with Smudging requirements outlined in the Facilities Standards Manual.

- Cable:
 - Provide home runs to Electrical room from all offices and meeting/staff rooms (confirm cable requirements for each Facility).
 - Provide cable outlet in activity room, parents' room, and as required by the Operator.
- Telephone:
 - Provide a minimum of one jack at:
 - each parent room.
 - each staff office.
 - each staff counter.
 - Each parent sign-in counter. Provision for wall mounted cordless phones (power and phone outlets) to be made in each program unit.
 - Provide fixed phones in offices, parent room and in each group unit.
 - Provide fax outlet in main office.
 - Alarm, fire, intruder, and emergency elevator phone can capture regular lines when needed.
- Data:
 - Minimum data outlets required:
 - Two (2) in each office.
 - Two (2) in the staff room.
 - Two (2) in the activity room.
 - One (1) in the parents' room at 42".
 - One (1) with fixed IP address for DDC controls.
 - Patch panel to be supplied and installed with sufficient space for all telephone, internet and Keyscan lines.
 - All telephone, internet and Keyscan lines to be terminated at the patch panel and labelled accordingly.
 - Provide adjacent to patch panel:
 - Electrical outlets.
 - Network router.
 - Internet modem.

- Provide one computer or laptop.
- Refer to the Facilities Standards Manual for additional details and requirements.

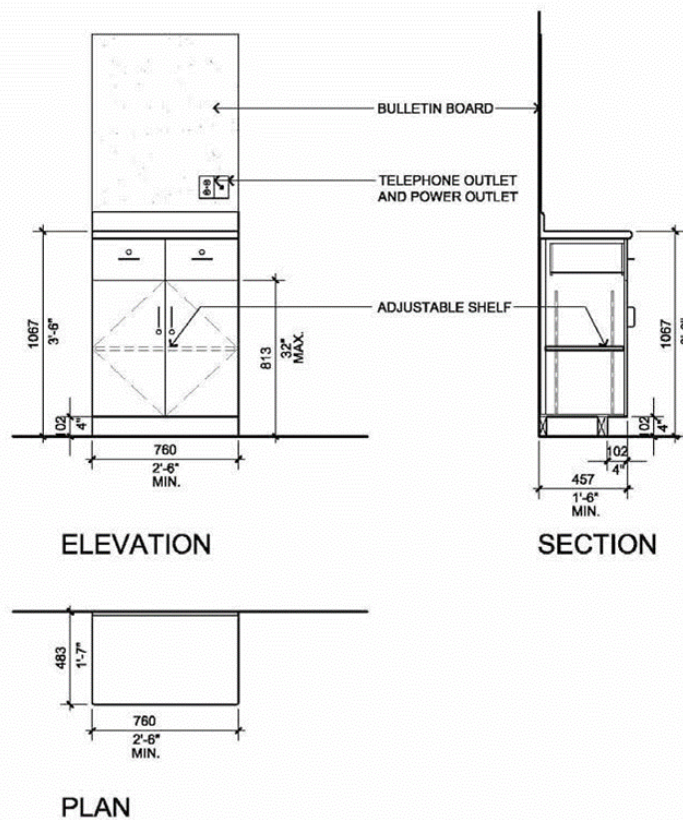
3.17 SECURITY

- Refer to the City of Vancouver Electronic Security Systems specifications, and the Facilities Standards Manual for additional details.
- Secure access system planning:
 - To ensure a proper security solution for each Facility (particularly if the Facility is located in a multi-use building), it is required that meetings occur with the Security Consultant, the City of Vancouver, the Operator and any other interested parties at appropriate points in the design and construction phases.
 - Utilize an appropriate entry security system e.g. bell, buzzer, intercom, etc. which will operate during program hours (confirm type required for this Facility).
 - If the entrance is remote from the Facility a video enterphone system shall be provided linking the entrance, and elevator (if applicable), to each Group separately within the Facility.
 - Each Group shall have interior and exterior video/audio answer stations.
 - Exterior answer stations to have weather-proof, keyed lock box.
 - System to be programmed to suit the Operator's requirements.
 - Access control to be provided at entry to each care Group.
 - Local alarm and request-to-exit override buttons to be installed at all doors leading from the main program room into lobbies, or other unsupervised spaces (confirm requirements for each Facility).
 - Secure access to and from the parking to be addressed to suit the proposed plan for each Facility.
 - If the Facility is accessed by elevator, secure access to the elevator and secure control of the elevator shall be addressed.
 - Doors operated by power-assisted door operator buttons shall be controlled by secure access (card reader) if the door leads to an unsecured area such as the street or parkade.
- Access equipment:
 - Access equipment must be compatible with the City of Vancouver standards. Acceptable product:

- Keyscan System Vantage:
 - Card readers to be HID proximity.
 - Network jack and patch cord to be installed at Keyscan network adapter location.
 - All card readers to be programmed, including elevator, handicapped operator button, and enterphone interface (if applicable).
 - Connect to off-site centralized system if applicable.
 - Pass cards / fobs or keypad controlled from Facility:
 - If swipe cards or fobs provided, provide 15 cards or fobs per program Group plus cards or fobs for 3 times the number of children registered at the Facility.
- Security systems:
 - Security systems to conform to the City of Vancouver Security Standards (confirm for each Facility the security systems required).
 - For intruder alarm type systems, an acceptable product is the Ademco Vista, or pre-approved alternate.
 - Keypads to be provided at all lobby entries and all program entries.
 - Program all zones per Operator's requirements.
 - Connect to Operator's monitoring company.
 - For surveillance type systems, refer to the City of Vancouver Security Standards for acceptable products. Note that these systems are generally not required for childcare and will only be used in certain unique conditions.
 - Entrance and exit doors may require chimes, local alarm and request-to-exit over-ride buttons or other door monitoring system (confirm requirements for each Facility).

4. DRAWINGS

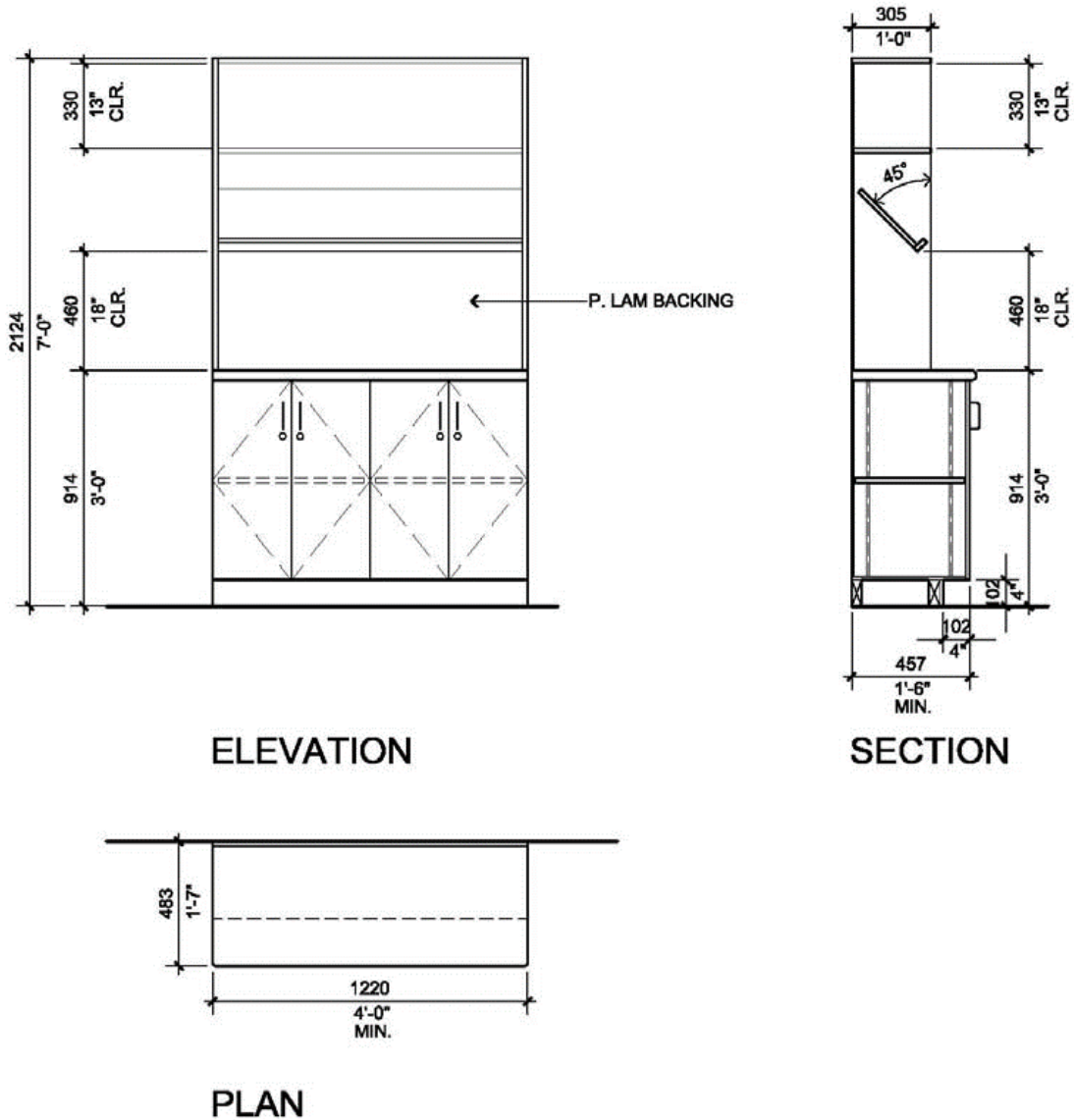
4.1 PARENTS' SIGN-IN DESK



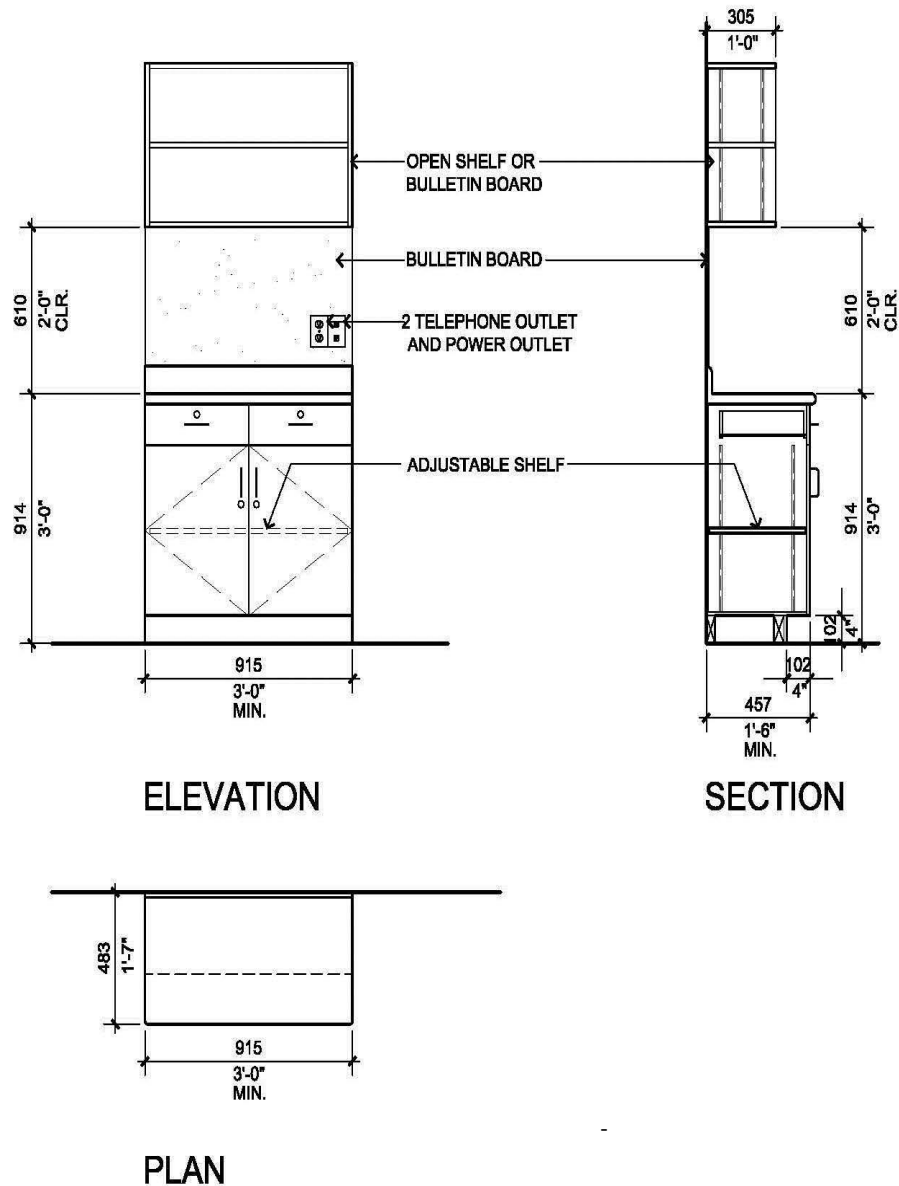
NOTE:

- PULL-OUT SHELF TO BE PROVIDED FOR HANDICAPPED ACCESSIBILITY.
- REVIEW REQUIREMENTS FOR EACH FACILITY; SOME OPERATORS MAY PREFER A 915mm (3'0") HIGH COUNTERTOP.

4.2 PARENT ROOM DISPLAY



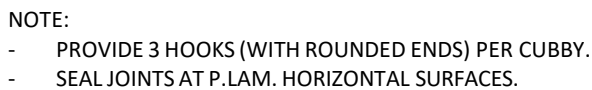
4.3 STAFF COUNTER



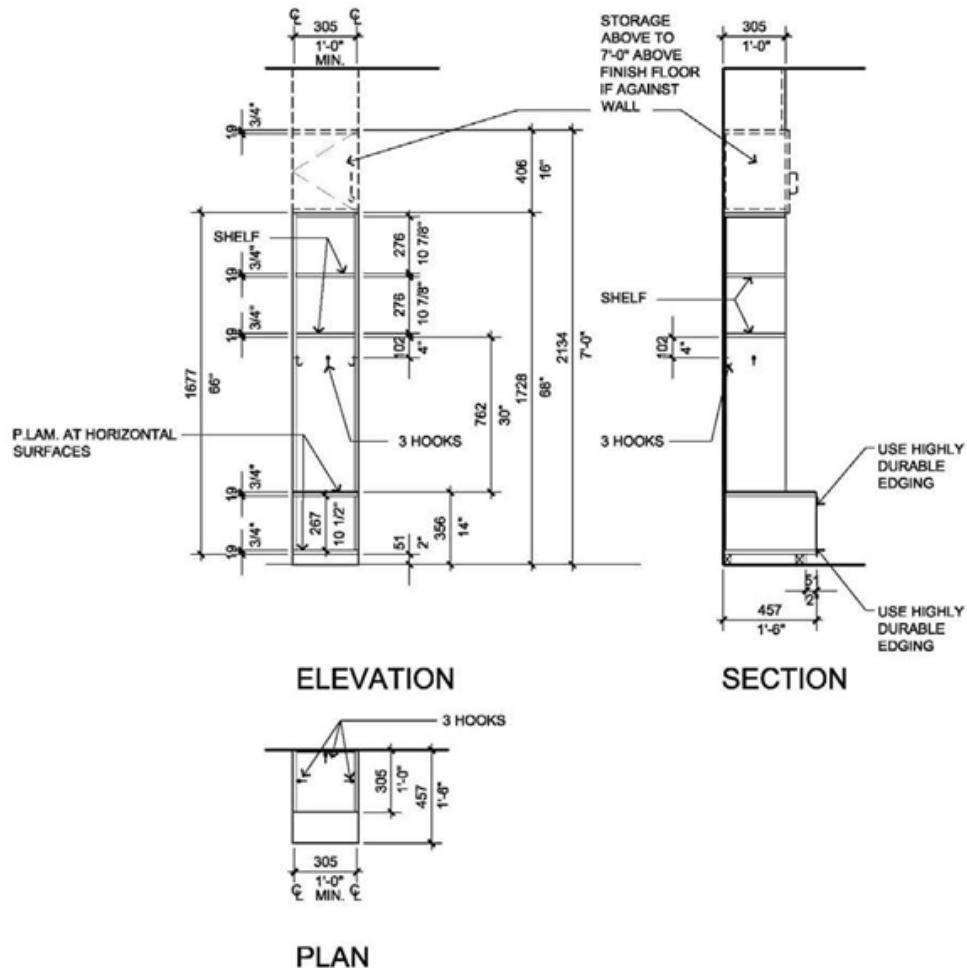
NOTE:

- OPEN SHELF AND/OR BULLETIN BOARD ABOVE, CONFIRM REQUIREMENTS FOR EACH FACILITY.
- PROVIDE 2 TELEPHONE OUTLETS.

END OF REPORT



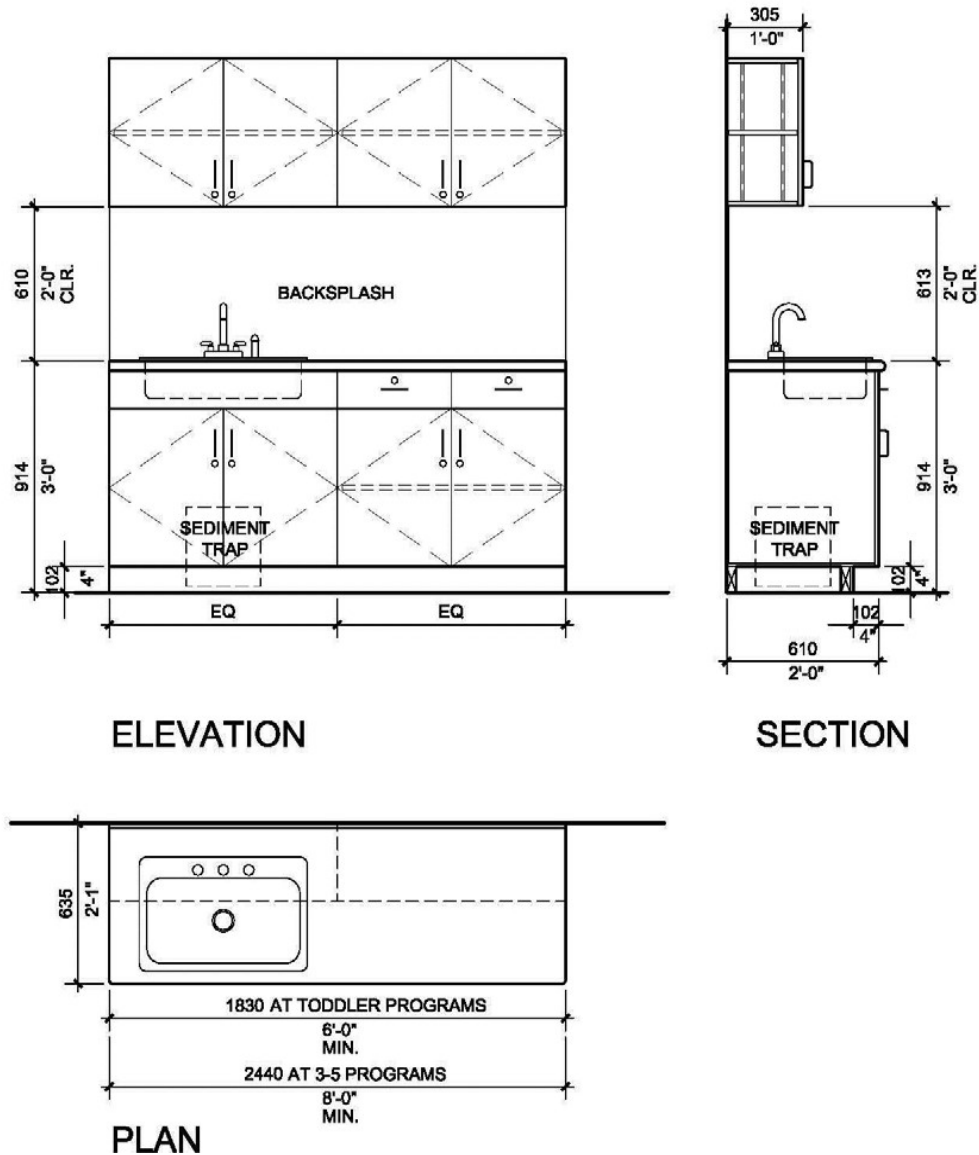
4.5 CUBBIES AT 3-5 GROUP



NOTE:

- PROVIDE 3 HOOKS (WITH ROUNDED ENDS) PER CUBBY.
- SEAL JOINTS AT P.LAM. HORIZONTAL SURFACES.

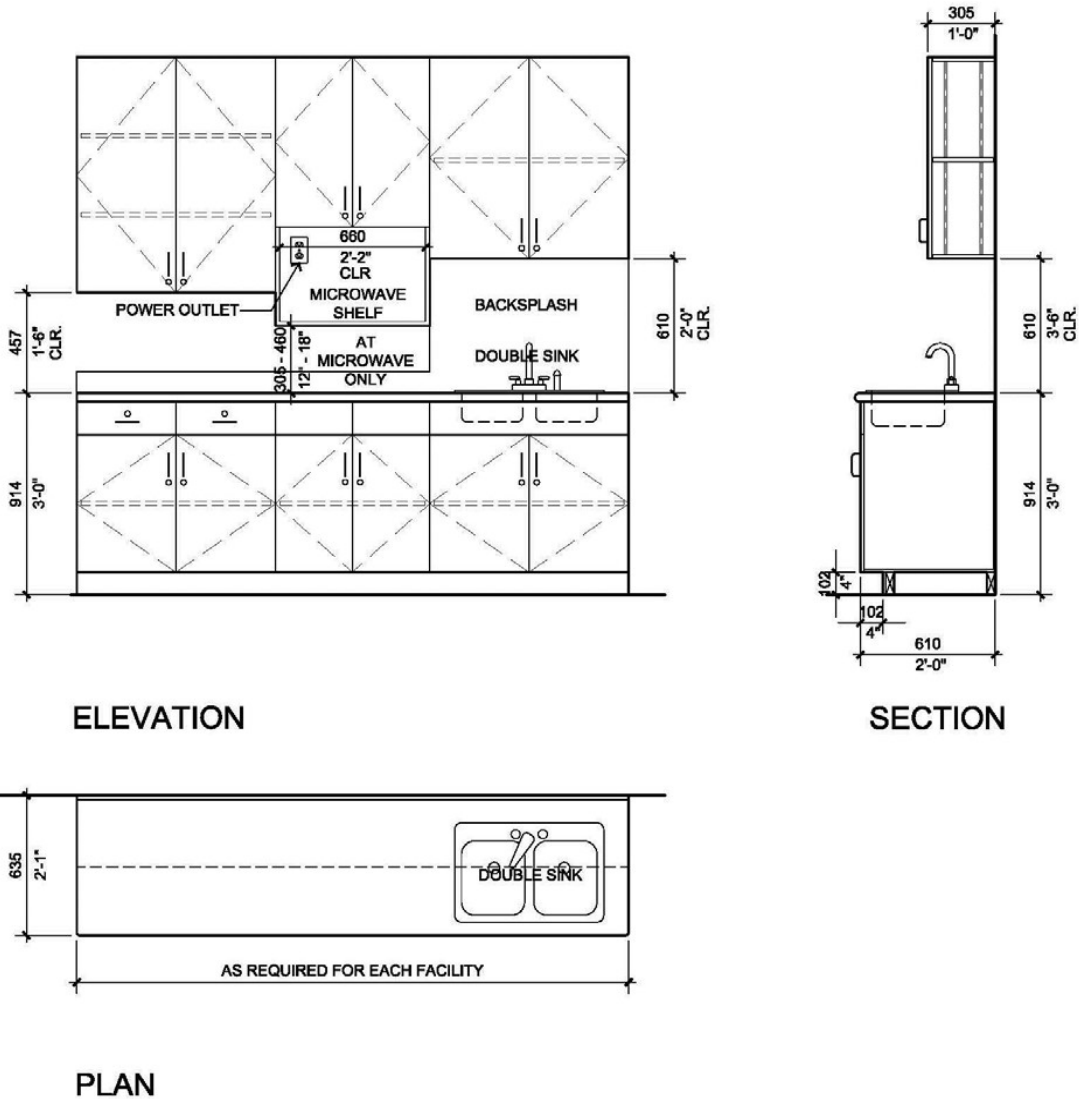
4.6 ART COUNTER



NOTE:

- BACKSPLASH TO BE CONTINUOUS TO UNDERSIDE OF CABINETS.
- UPPER CABINETS MAY BE OPEN.
- SHELVING, CONFIRM REQUIREMENTS FOR EACH FACILITY.
- ART DRYING RACK MAYBE INCORPORATED OR BE EXTRA TO WHAT IS SHOWN.
- CONSIDER THE USE OF DEEP DRAWERS.

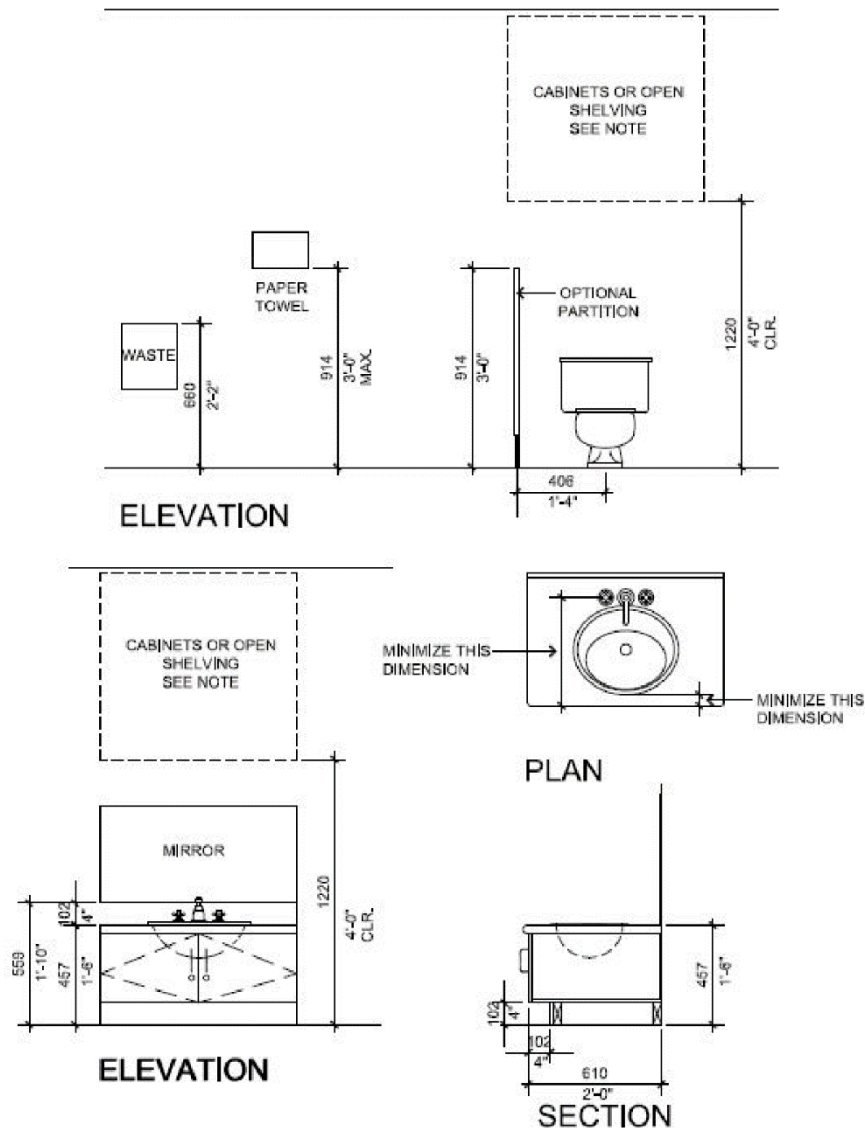
4.7 KITCHEN



NOTE:

- KITCHEN MAY INCLUDE A SEPARATE HAND SINK. DO NOT LOCATE ADJACENT TO DOUBLE SINK.
- UPPER CABINETS TO BE 610 CLR ABOVE ALL SINKS; SUGGEST A FULL HEIGHT BACKSPLASH TO UNDERSIDE OF CABINETS ABOVE AT DOUBLE SINK MINIMUM.
- PLACE POWER OUTLET @ MW SO THE PLUG DOES NOT PUSH THE MW FORWARD.
- CONSIDER THE USE OF DEEP DRAWERS.
- CONFIRM KITCHEN REQUIREMENTS FOR EACH FACILITY.

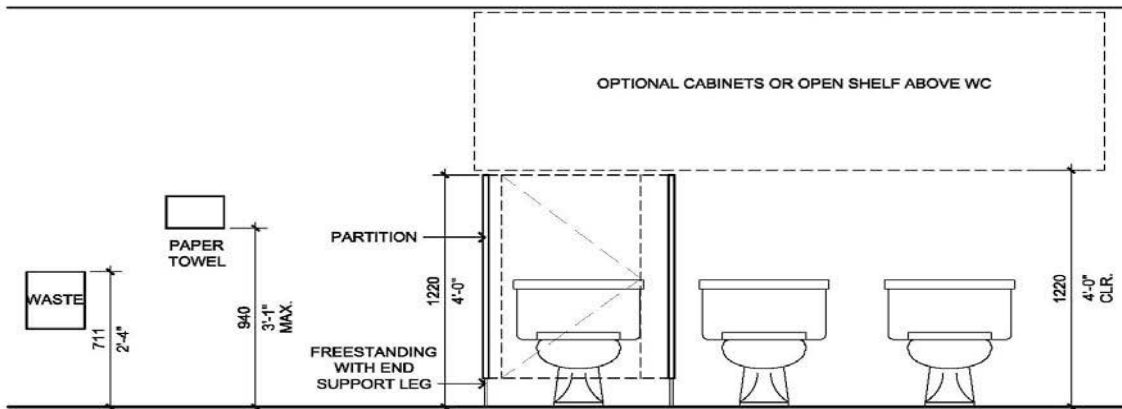
4.8 WASHROOMS FOR INFANT / TODDLER GROUPS



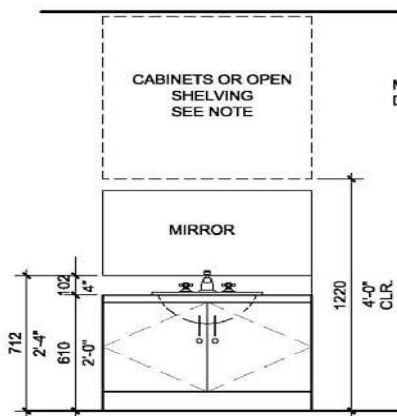
NOTE:

- CONFIRM REQUIREMENTS FOR CABINETS OR OPEN SHELVEING ABOVE SINKS AND/OR TOILETS AT EACH FACILITY.

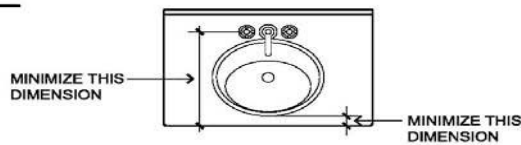
4.9 WASHROOMS FOR 3-5 GROUP



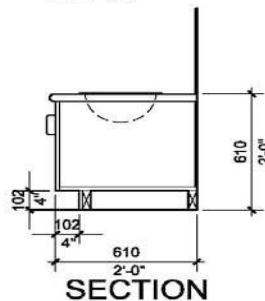
ELEVATION



ELEVATION



PLAN

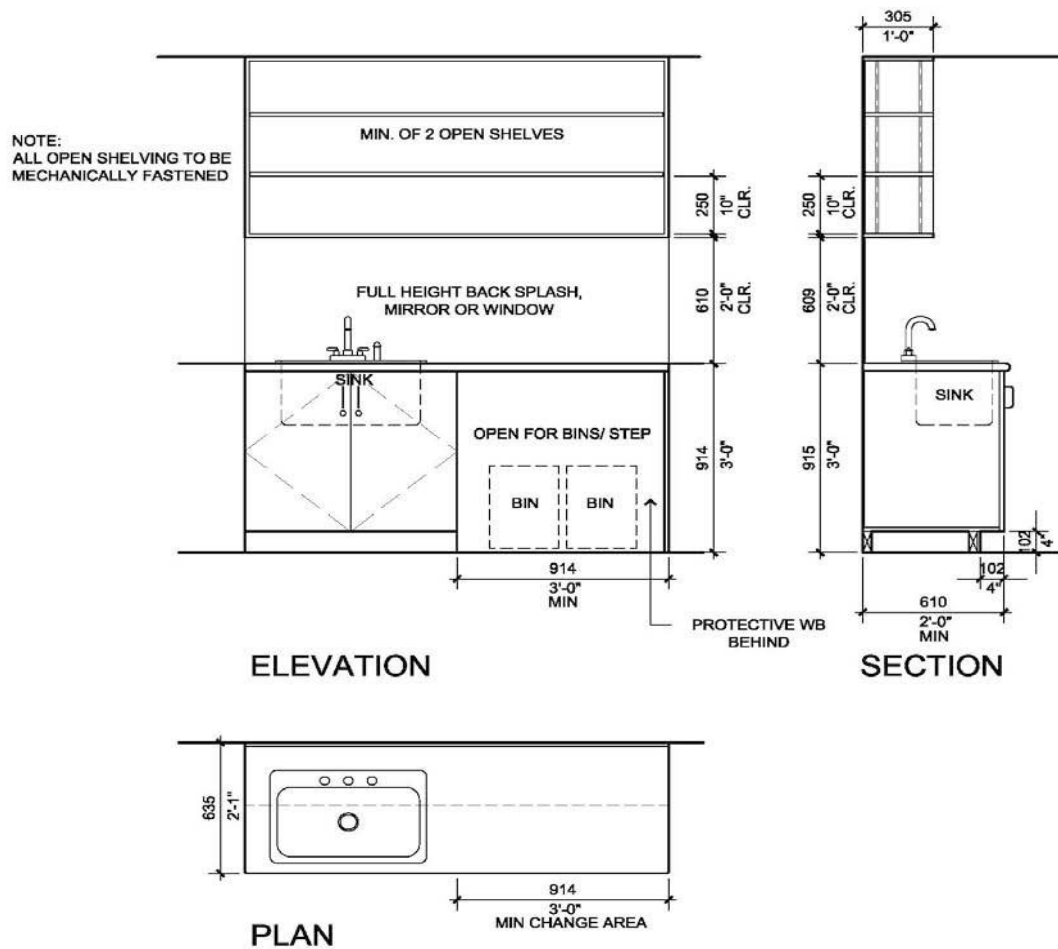


SECTION

NOTE:

- CONFIRM REQUIREMENTS FOR CABINETS OR OPEN SHELVING ABOVE SINKS AND/OR TOILETS AT EACH FACILITY.
- 1 TOILET TO BE ENCLOSED.
- SCREEN PLUMBING BELOW SINKS TO PREVENT CHILDREN'S ACCESS BUT PROVIDES EASY ACCESS FOR MAINTENANCE.

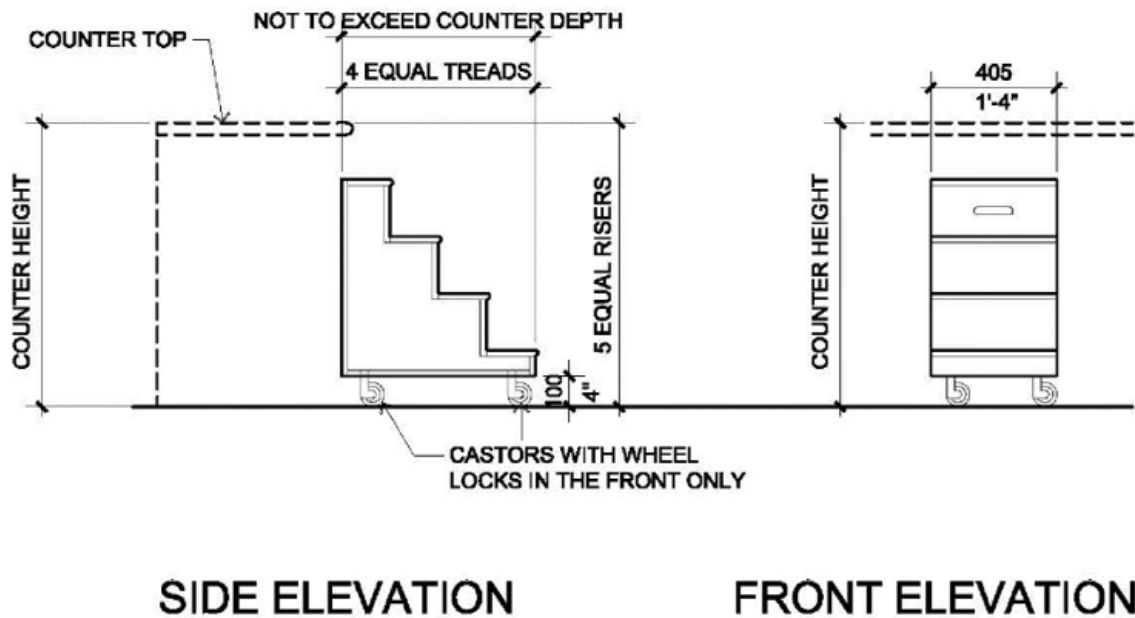
4.10 CHANGE TABLE



NOTE:

- SINK TO BE 300mm (12") DEEP.
- HAND-HELD SPRAY ATTACHMENT TO BE PROVIDED AT SINK.

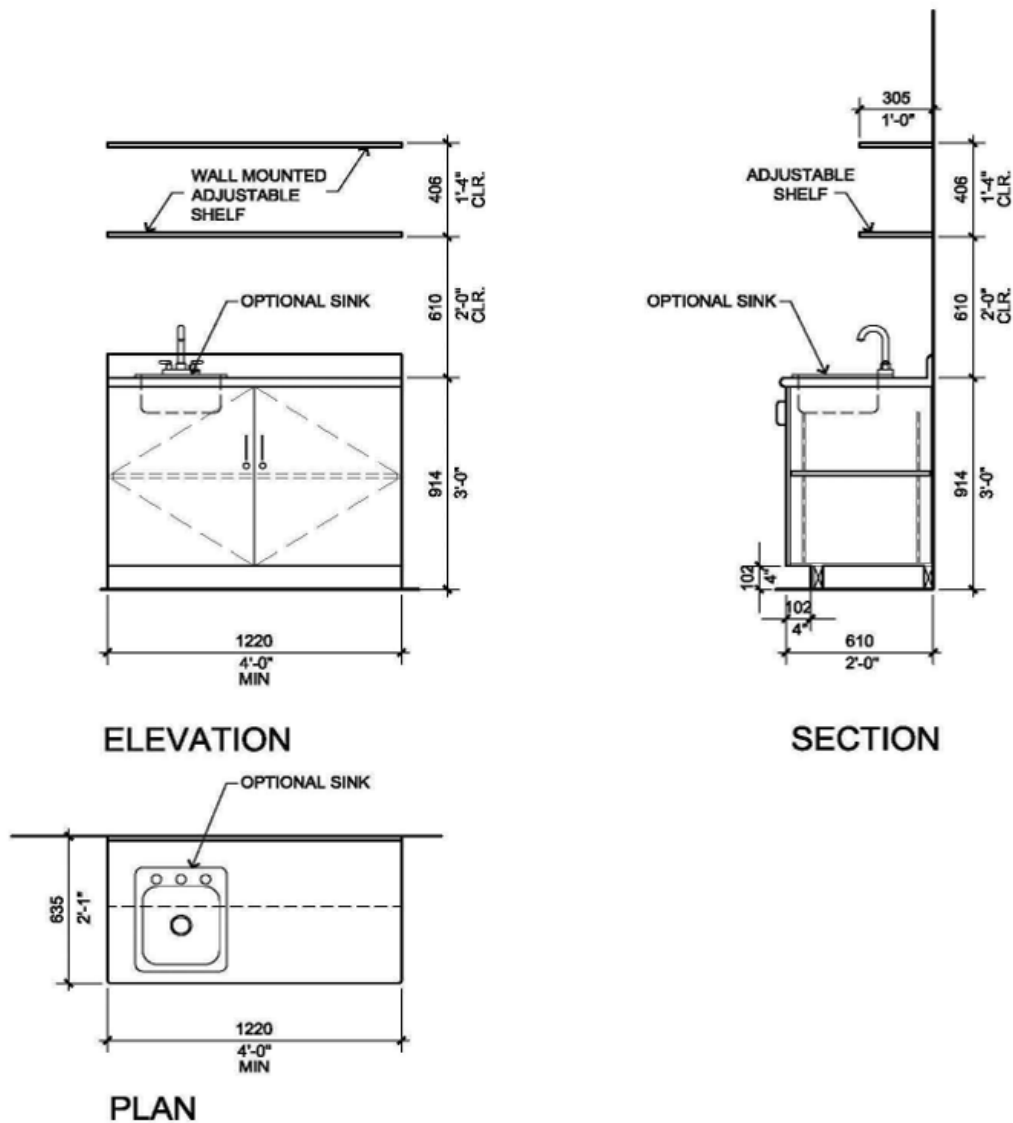
4.11 STEPS AT CHANGE TABLE



NOTE:

- STEPS MAY BE ON GLIDES, CASTORS, OR ANOTHER OPTION TO THE CITY OF VANCOUVER SATISFACTION.
- LOCKING MECHANISM REQUIRED TO ENSURE STEPS ARE IMMOBILIZED WHEN IN USE.
- ALTERNATES TO AWMAC REQUIREMENTS, SUCH AS 12mm PLYWOOD AT THE SIDES, MAY BE CONSIDERED IN ORDER TO REDUCE THE WEIGHT OF THE STEPS.
- PROVIDE HAND GRIP FOR EASE OF PULLING STEPS OUT FROM UNDER THE COUNTER.

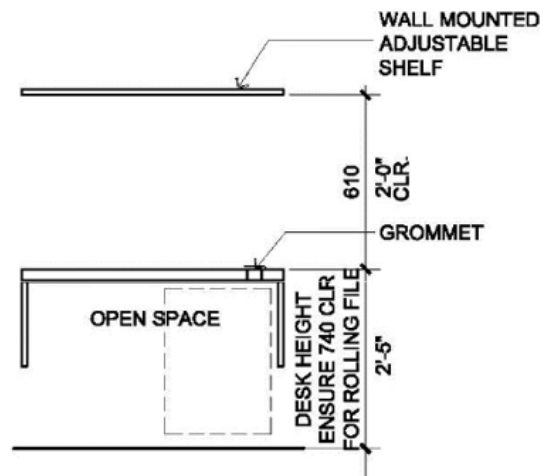
4.12 LAUNDRY COUNTER



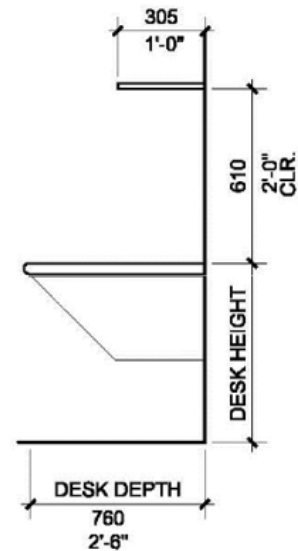
NOTE:

- CONFIRM IF SINK REQUIRED FOR EACH FACILITY.
- CONFIRM IF CABINET OR OPEN SPACE FOR LAUNDRY BINS UNDER COUNTER IS PREFERRED FOR EACH FACILITY.

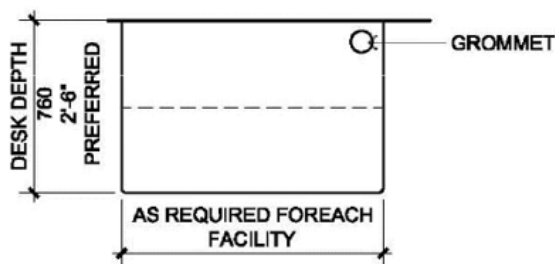
4.13 STAFF OFFICE



ELEVATION



SECTION

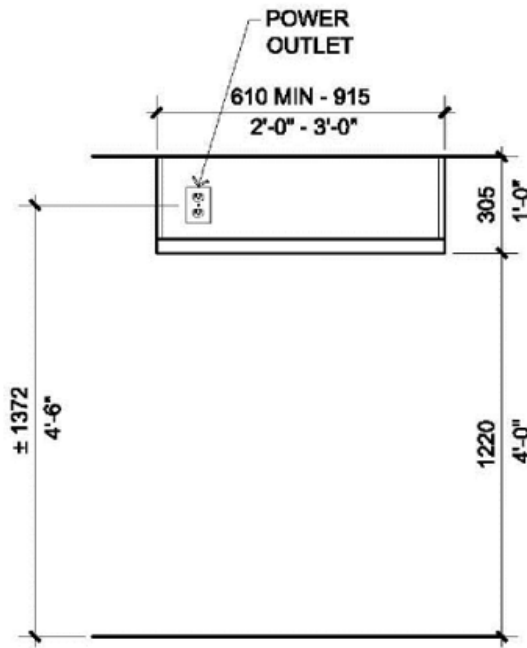


PLAN

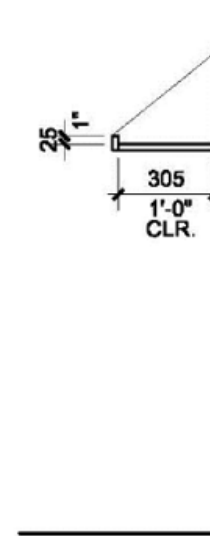
NOTE:

- CONFIRM NUMBER OF GROMMETS AS REQUIRED FOR EACH FACILITY.

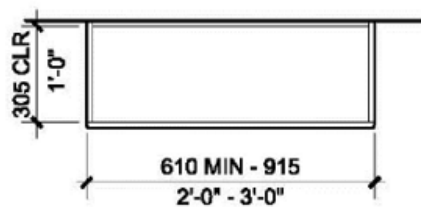
4.14 MUSIC SHELF



ELEVATION



SECTION

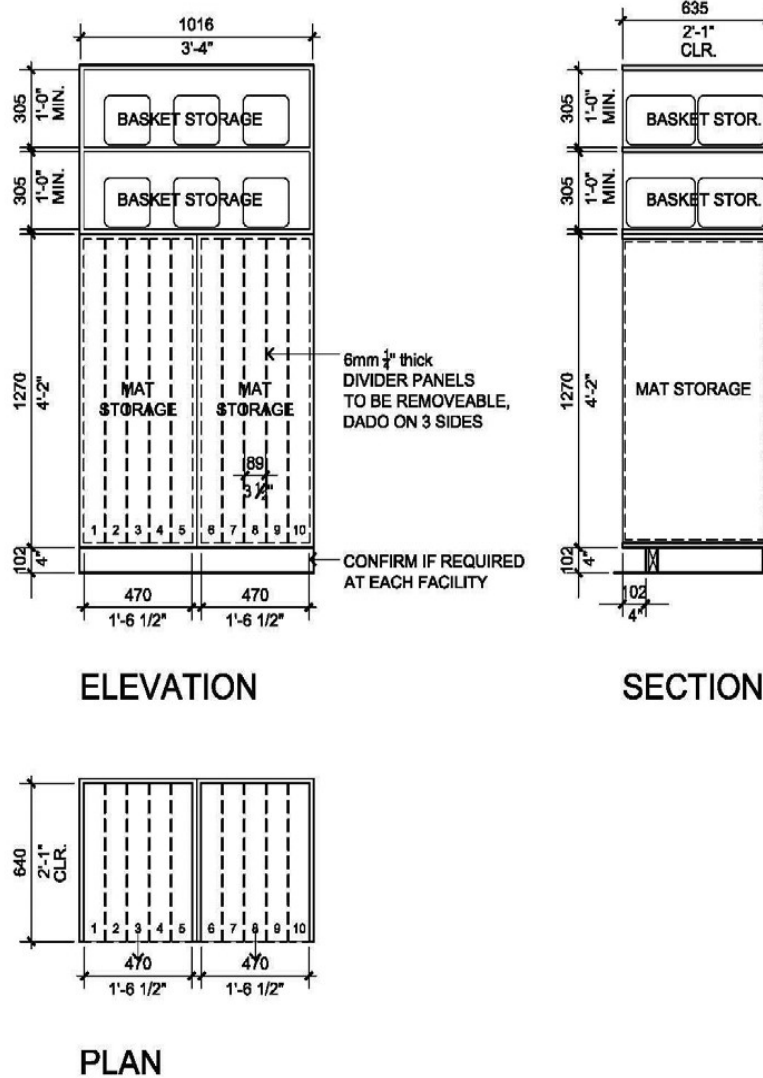


PLAN

NOTE:

- RADIUS CORNERS WHEN CORNERS NOT AGAINST A WALL.

4.15 SLEEP MAT STORAGE



NOTE:

- THIS IS A SUGGESTED WAY TO PROVIDE MAT STORAGE, OTHER SOLUTIONS WILL BE CONSIDERED.
- INDIVIDUAL BASKET SIZE TO BE CONFIRMED FOR EACH FACILITY.
- DIVIDER PANELS TO BE REMOVABLE FOR CLEANING.
- INDIVIDUAL MAT SIZE 75W x 610D x 1220H (3"W x 24"D x 48"H).
- NUMBER OF MATS = NUMBER OF REQUIRED BASKET STORAGE.