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RECORD OF REVISIONS

| Rev | Date | Description | POC | OIC |
|------------|-------------|---|--|-----------------------------------|
| 0 | 06/28/99 | Document rewritten to support LIR 220-03-01. Superseded Architectural Facilities Engineering Standards, Vol. 4, Manual Rev. 6, 2/17/98. | Miles Brittelle, <i>PM-DS</i> | Dennis McClain <i>FWO-FE</i> |
| 1 | 11/18/02 | General revision and addition of endnotes. Replaces subsections 202, 205, 208.1, and 210.1. C1010 is new. | Scott Richardson, <i>PM-1</i> | Kurt Beckman, <i>FWO-SEM</i> |
| 2 | 8/16/04 | Revised room numbering; added drop point, storage, mailroom, fixture count requirements. | Scott Richardson, <i>PM-DS</i> | Gurinder Grewal, <i>FWO-DO</i> |
| 3 | 10/27/06 | Administrative changes only. Organization and contract reference updates from LANS transition. IMP and ISD number changes based on new Conduct of Engineering IMP 341. Master Spec number/title updates. Other administrative changes. | Scott Richardson, <i>FM&E-DES</i> | Kirk Christensen, <i>CENG</i> |
| 4 | 02/07/19 | Updated office space guidance per OI-PO. General updating including all references and listed organizations. Corrected title and content of Section C1010.6.0 from "Computer/Control Rooms" to "Control Rooms/Operation Centers". Moved room numbering to Appendix A. | Scott Richardson, <i>ES-EPD</i> | Larry Goen, <i>ES-DO</i> |

CONTACT THE RESPONSIBLE ENGINEERING STANDARDS POC
for upkeep, interpretation, and variance issues

| | |
|---------------------------|--|
| Ch. 4, C-Interiors | <u>Architectural POC/Committee</u> |
|---------------------------|--|

C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

1.0 OFFICE SPACE GUIDANCE

A. Refer to the following Tables C-1, C-2 and C-3 for office space guidelines; definition of table terms follows:¹

**TABLE C-1
Single-Occupancy Space Guidelines**

| Management Category | Function | Primary Office Sq. Ft. | Private Office | Shared Office | Open Cubicle |
|---------------------|---|------------------------|----------------|---------------|--------------|
| Executive | Lab Director (DIR) | 250 – 500 | X | | |
| Senior Management | DLD/ALD Division Leader (DL) including Deputies | 90 – 250 | X | | |
| NA | Staff | 64 - 90 | if available | X | X |
| NA | Student/Post Doc | 36 - 64 | | X | X |

**TABLE C-2
Multiple-Staff-Occupancy Space Guidelines**

| Office Size (Sq. Ft.) | Minimum Number of Occupants |
|-----------------------|----------------------------------|
| 96 - 144 | 2 |
| 145 - 192 | 3 |
| >192 | 3+ (per standards from table C1) |

**TABLE C-3
Office Space Standard Target Averages**

| | |
|--|----------------------------------|
| Office Support Space | 22% of Primary Office Space (SF) |
| Average Primary Office Space/Person | 135 SF |
| New Construction or Refurbished Average Primary Office Space/Person Target | 120 SF |

¹ The office space guidelines are derived from a combination of the International Facility Management Association (IFMA) benchmarks, other NNSA Sites, and other institutional applications. The guidelines are presented in order to achieve overall utilization of primary office space objectives and supported through Space Management Program Document 902. The objective is to enable organizations to meet overall utilization standard of 135 square feet per person for primary office space. Additionally, the guidelines are intended to protect employees from occupying unsuitable space.

B. Terms used in tables above:

| |
|---|
| Average Primary Office Space per Person: The sum of all primary office space divided by the number of personnel assigned to the space. |
| Conference Room: A room typically equipped with tables and chairs normally used by an organization or office area primarily for staff meetings and group activities. |
| Office Support Space: Includes rooms that support the functions of one or more primary offices. Rooms such as shared workstations, waiting areas, file areas, office equipment areas, staff break rooms, reading rooms, and conference rooms are included. |
| Open Office Cubicle: Open plan office or workstation with either partial height panels or no panels, but with a defined area. An open office may include a door. |
| Per Person: For purposes of calculating "per person" utilization rates, the following applies: The number of persons to be housed during a single 8 hour shift, including permanent employees of the tenant organization, temporaries, part-time, seasonal contractors, budgeted vacancies, and employees of other organizations who are housed in the space assignment. |
| Primary Office Space: Includes rooms intended for primary workstation area of a staff member. Excludes work station areas not occupied full-time or shared for specific use between staff whose primary office is in another location. |
| Shared Workstation: A room in which many employees share a single workspace and work tools, either simultaneously or on a different shift/schedule. Includes alternative office strategies such as telework or telecommuting, free address, hotelling, virtual officing, etc. Also applies to shared or neighborhood areas in team environments. This does not include primary office space shared by two or more Lab employees. |
| Staff: Includes personnel such as senior professionals (e.g., Group leader, Team Leader), Technical Staff Member, administrative staff to the Director, DLD, ALD, Division Leader or Group Leader, technicians, clerical staff, consultant, and other professionals. |

- C. For additional space management criteria, contact the Space Management Team of OI-PO.
- D. See B-C-GEN Subsection E20, Furnishings.
- E. All perimeter partitions of mechanical, electrical, data/communication rooms, restrooms including locker rooms and shower rooms, and janitorial closets shall be solid on both sides and extend to the structure above.
- F. Janitorial closets shall be a minimum of 60 square feet in size.²

2.0 DESIGNATED DELIVERY DROP POINTS³

- A. Designated Delivery Drop Point (DDP) areas shall be provided and must:
1. Be in a well-lighted area
 2. Have an egress of at least 32" clear, to prevent walkway tripping hazards
 3. Be used for deliveries and returns only
 4. Not be used for routine storage

² EMRef-29 E-mails on SCC Problems from Maez and Ojeda to Oruch June-July-04.

³ EMRef-28 Designated Drop Point Memo from SUP-3, 3-16-2003. DDPs are where purchases are delivered.

5. Have the materials handling equipment required for the transport of awkward or heavy packages (rolling carts, or dollies, etc.)
6. Be located indoors or in an area that protects materials from weather damage
7. Be kept free of rodents and other pests
8. Be under visual oversight or be in a locked room and/or cage with controlled access that accommodates ASM-MM delivery access and pick-up of materials

3.0 FACILITY MAINTENANCE MATERIAL STORAGE AREA

- A. Provide for adequate, protected storage space for the extra facility materials being requested of the construction contractor – paint, ceiling panels, floor tile, carpet, hardware, etc.²

4.0 MAIL BOX AREAS AND RECYCLING AREAS

- A. New buildings and major additions shall designate mailbox areas and space for recycling containers for office type occupancies are recommended at the minimum rate of 200 GSF per 50 occupants. When actual requirements of the specific facility user may differ from this, the ESM Architectural POC may grant variance.

5.0 ROOM USE CATEGORIES

- A. *Guidance: New building projects should designate needed room sizes in programming documents following the Room Use Categories required by PD902, Space Management.*

6.0 CONTROL ROOMS / OPERATION CENTERS

- A. The following items shall be taken into consideration in the design of control rooms and operation centers:
 1. Proper space allocation for computer equipment, consoles, storage area (for manuals, documents, listings, maintenance equipment, etc.), environmental conditioning equipment (air and electrical power conditioning), fire protection equipment, and power distribution.
 2. Room accessibility for both operating and maintenance personnel. *Guidance: The addition of interior windows, where appropriate, can reduce unnecessary traffic (e.g., room security, safety of personnel, etc. can be observed without entering the room).*
 3. Space allocation for any potential expansion.
 4. Suitable access and easy loading areas for equipment.
 5. Adequate and convenient wire paths for installing signal, data, process control, and associated power wiring to and from the computer system. *Guidance: An elevated (raised) access floor, with removable panels, provides the most convenient method for the installation of computer room wiring. Unrelated services, such as power conductors, water and steam piping, etc., should not be installed in the room or its included spaces. If unrelated services must be installed, the design should incorporate appropriate measures to protect the equipment.*

6. Data handling and analysis area. This is normally a small area for a conference table and chairs where computer printouts and reports may be laid out for analysis.
7. Emergency lights, fire doors, power and air handling interlocks, etc.
8. Radio Frequency Interference (RFI) and Electromagnetic Interference (EMI) shielding, if required.
9. Fire codes and requirements.
10. Telephone and intercommunication systems.
11. Adequate and proper lighting. *Guidance: Two levels of lighting may be necessary; one for normal operation and one for maintenance. The IES Lighting Handbook includes both quantitative and qualitative design data for various lighting needs. Where monitors are in use, glare and reflection should be eliminated. Dimmer switches are sometimes used to reduce glare. Note, however, that silicone-controlled rectifier (SCR) dimmer controls can be a source of RFI and should be avoided.*

B. *Guidance:*

1. *Every effort should be made to avoid locating a control room or operation center in an area subject to flooding. However, where flooding is possible in access (raised) floor rooms, an alarm system initiated by water detectors located under the raised floor should be installed.*
2. *Only materials that do not produce contaminants should be used in control room/operation center construction. Sprayed-on acoustical ceiling and mineral-based acoustic lay-in ceiling panels should be avoided because they tend to flake (vinyl coated panels are available for uses such as this and cleanrooms). Glass fiber panels that produce abrasive particles and floor covering that tend to crack or crumble should be avoided. Also, carpets should be of a quality that minimizes the release of fibers and particulate. All exposed concrete should be sealed.*
3. *Specially treated (impregnated) mats should be placed at each entrance to reduce the amount of dust tracked in by personnel.*
4. *The use of a control room/operation center as a gathering place should be avoided. However, the room may need to be used as a "shelter in place" location for personnel in the event of a fire, explosion, or fume release. In such cases, provisions necessary for employee protection as well as for equipment protection should be considered.*
5. *For control of static electricity, carpet is not the preferred floor covering. If carpet is used, steps should be taken to reduce static buildup. Certain carpets are given anti-static properties by the incorporation of metallic fibers during manufacture or treatment with anti-static agents. Anti-static sprays are available for use on existing carpet. Wax buildup on tile floors also increases surface resistivity and leads to static problems. The remedy is to forego waxing or to use a wax formulated for high conductivity.*
6. *Furniture in the vicinity of digital equipment should be chosen carefully. Seat covers of plastic are normally more likely to generate static charges than cloth*

covers. Wheels and casters should contain conductive material and should be lubricated with graphite or conductive grease. Rubber or plastic feet should be avoided.

7. *Storage space may be required for operating supplies and storage media, spare parts and components, and backup software. These items may need protection from static electricity buildup both in storage and when handled. The manufacturer's recommendations for both the use and storage of these items should be followed.*
 8. *Computer equipment and supportive racks need coordinating with Security when located in Vault Type Rooms (VTR) or other areas with special security requirements.*
- C. For secure computing requirements refer to ESM Security Chapter 9 and Secure Communications Chapter 18.

C1020 INTERIOR DOORS

1.0 GENERAL

- A. Use Underwriter's Laboratory (UL) or Factory Mutual (FM) approved labels on all doors, frames, and hardware required to be fire-rated. IBC labels alone are not acceptable.⁴
- B. Provide metal doorframes. Provide doors of solid core with wood veneer or of hollow metal construction. Specify insulation in frames where sound attenuation needs dictate.
- C. Pocket doors shall not be used in any application except with written approval of the Architectural POC.
- D. *Guidance: Refer to the following LANL Master Specifications:*
 1. *Section 08 1100, Metal Doors and Frames.*
 2. *Section 08 1213, Hollow Metal Frames.*
 3. *Section 08 1400, Wood Doors.*
 4. *Section 08 7100, Door Hardware.*
 5. *Section 08 8000, Glazing.*

2.0 ACCESS CONTROLLED DOORS

- A. Comply with Architectural Section B Shell (*subsection B2030, 2.0 Access Controlled Doors*).

3.0 DOOR HARDWARE

- A. Comply with Architectural Section B Shell (*subsection B2030, 3.0 Door Hardware*).

⁴ NFPA-101-2015, Section 8.3.3.

- B. Hardware locations on special doors (e.g., overhead sectional/coiling) shall be given consideration to human factors and their use—reach distances, force required to operate, etc.

C1030 FITTINGS

1.0 FIRE EXTINGUISHER CABINETS

- A. Comply with LANL Engineering Standards Manual, [Fire Protection Chapter](#), subsection D4030, Portable Fire Extinguishers.
- B. Refer to LANL Master Specification 10 4400 *Fire Protection Specialties*.

2.0 INTERIOR SIGNAGE/ROOM NUMBERING

2.1 Signs

- A. Interior signs designating spaces shall include the space name and room number(s) in accordance with 2.2 below, shall be of appropriate size, and mounted at appropriate locations in accordance with ADA requirements.
- B. Sign materials shall be durable and easy to maintain, providing reasonable ease of replacement and updating. Refer to LANL Master Specification 10 1410 for standard interior signage.
- C. See Chapter 1, Section Z10 for information on standardized signs, labels, and tags for other-than-space identification.

2.2 Room Numbering

- A. See Appendix A of this document.

3.0 PLUMBING FIXTURES

- A. MINIMUM plumbing fixture counts shall be determined in accordance with the Uniform Plumbing Code listed as “for employee use” (*ref. UPC Table 4-1*). Any and all occupancy types can involve circumstances that present justification for exceeding the minimum and the users’ input shall be obtained in determining whether the UPC minimum will be adequate.
- B. See ESM Mechanical Chapter Section D20 for additional requirements.

4.0 TOILET ACCESSORIES

- A. Refer to the following LANL Master Specifications:
 - 1. Section 10 2113.13, *Metal Toilet Compartments*
 - 2. Section 10 2800, *Toilet and Bath Accessories*

C2020 STAIR FINISHES**1.0 GENERAL**

- A. Stair handrail and guard materials shall be selected carefully for durability and suitability to the particular application. Use of wood rails in particular should be limited to applications where hard use and damaging wear will not be likely.

C3010 WALL FINISHES**1.0 GENERAL**

- A. Refer to the following LANL Master Specifications:
 - 1. Section 09 2116, *Gypsum Board Systems*
 - 2. Section 09 9100, *Painting*

C3020 FLOOR FINISHES**1.0 GENERAL**

- A. Refer to the following LANL Master Specifications:
 - 1. Section 09 6500, *Resilient Flooring*.
 - 2. Section 09 6813, *Tile Carpeting*.
 - 3. Section 09 6816, *Sheet Carpeting*.
 - 4. Section 09 6900, *Access Flooring*.
 - 5. Section 09 9100, *Painting*.
- B. Include entry mats at all major entrances to help trap particulate matter for aiding cleaning and air quality. Mats are to be of recycled materials.

C3020 CEILING FINISHES**1.0 GENERAL**

- A. Refer to the following LANL Master Specifications:
 - 1. Section 09 5100, *Acoustical Ceilings*.
 - 2. Section 09 9100, *Painting*.
- B. All restrooms, locker rooms, shower rooms, and janitorial closets shall have gypsum board ceilings.

APPENDIX A – ROOM NUMBERING

The application of this appendix in assigning room numbers will provide for a consistent, logical, and replicable numbering pattern. A standard pattern of room numbers will enable users of the building and emergency responders to find rooms with the least possible difficulty. The room number assignments for special room types are also included here.

The ESM Architectural POC has authority to resolve requests for clarification/interpretation of (and variance from) these criteria; the POC will coordinate responses with the OI-PO space management SME.

A. General

1. Number all building rooms and special room types with appropriate room numbers according to the conventions detailed herein
2. *For new buildings, the ES-EPD Group C/S/A team should ensure room number standards compliance by examining the architectural design at the 30% review, or earlier.*
3. For renovations or additions to existing buildings, the building’s existing numbering pattern may be extended but should follow the standard as closely as possible.
4. Standalone parking structures are considered buildings and will have building numbers. Each floor shall have a room number assigned to cover all usable parking space and associated ramps within the structure. This shall include the top uncovered parking level. In addition, elevators, and other room-type spaces are to have numbers.
5. Covered loading docks attached to a building shall be assigned room numbers.
6. Cubicles shall be numbered as described herein.
7. Minor insets along a corridor such as water fountains, door swings, and small kitchenette areas with millwork shall not be assigned room numbers.
8. Skip the letters “I” and “O” which may be interpreted as numbers.

B. Definitions for this Appendix

| | |
|-----------|--|
| building | An improvement with at least three sides and a roof, that is suitable for housing people, material, and/or equipment, or that provides partial protection from the weather, such as a shed. |
| catwalk | A narrow, fixed walkway providing access to an otherwise inaccessible area. |
| cage | A space set aside or enclosed by wire or bars. |
| corridor | An interior passageway providing access to several rooms or to an exit. |
| cubicle | A space set aside or enclosed by non-permanent moveable partitions. |
| floor | A division between one story and another formed by a horizontal surface. |
| lobby | A space at the entrance of a building. Includes foyer and vestibule. |
| mezzanine | An intermediate level or levels between the floor and ceiling of any story, subject to the limitations imposed by codes. ⁵ |
| penthouse | An enclosed, unoccupied rooftop structure used for sheltering mechanical and electrical equipment, tanks, elevators and related machinery, and vertical shaft openings, subject to the limitations imposed by codes. |

⁵ Mezzanine (and penthouse) definitions in IBC may differ slightly.

| | |
|---------------|--|
| pit | An excavated developed area below the floor level in a building. |
| plenum | The main supply duct for a heating, ventilation, and air conditioning (HVAC) system. |
| ramp | A sloped surface connecting two or more horizontal planes of different levels. |
| room | An interior space set aside or enclosed by permanent walls, having a minimum wall height of six feet and a minimum ceiling height of 6-feet 6 inch. |
| room number | A unique combination of number and/or letters assigned to a space within a building, with a maximum eight-character string |
| stairwell | A vertical shaft in a building for a stair. Excludes a non-enclosed stairway, ladder or steps leading from one floor to another. |
| suite | A series of connected rooms within a large main room or building. |
| utility space | Typically, vertical areas devoted to mechanical and electrical distribution support. Typically includes duct and pipe chases not associated with a room. Plenums are included since they are the areas where ducts meet. |
| wing | A subsidiary portion of a building extending out from the main portion. |

C. Designation of Room Numbers

1. The room numbering pattern shall use numbers plus applicable alphabetic prefixes and suffixes as indicated in the following room numbering-by-floor pattern. All room numbers shall include floor and zone designators as part of the room number string. The first character place in the room number string designates the floor assignment and the second designates the zone.
2. The following room numbering approach shall be used:
 - a. Sub-basements floor assignment is “S,” with zone and room numbers starting at S000 and ending at S999.
 - b. Basement floor assignment is “B,” with zone and room numbers starting at B000 and ending at B999.
 - c. First floor zone and rooms assignments are millennium numbers starting at 1000 and ending at 1999. The first floor is the uppermost floor entered at grade or one-half-flight above grade.
 - d. Second floor zone and room numbers and above are the same as first floor, except 2000-2999, 3000-3999, etc.
3. Penthouses and usable attic space shall be numbered as an extension of the story below. For example, a penthouse atop a three-floor building shall be numbered as 3000PH1. Do not use prefixes such as “R” for roof level.
4. Cages may be numbered as rooms with approval from Fire Protection.

D. Room Number Pattern

1. Room numbers shall be patterned so that even numbers are on the right side of a corridor and odd numbers are on the left as you traverse the corridor through ascending room numbers.
2. Both sides of corridors shall be assigned (but not labeled) conceptual room numbers at approximately 10-foot intervals. Room numbers not assigned in the “Room Number Progression” section below shall be held in reserve for future assignment.

3. In situations where a suite of rooms is accessed through a main corridor, the “Suite number progression” pattern discussed below shall be used for the interior rooms within the primary room.
 4. Numbering patterns on all floors shall be as similar as possible even when the floor plans are different. To the extent possible, without creating other inconsistencies, rooms with the same digits in the last position shall be located in the same position in the various floors of the building (e.g., Rooms 1001, 2001, 3001, etc. would occur in a vertical stack).
- E. Room Number Progression
1. Suite Number Progression
 - a. Rooms not accessed from a corridor, but found within a primary room, shall be numbered with the same number as the primary room followed by an alphabetical suffix (e.g., 1001A, 1001B, 1001C, etc.).
 - b. For buildings with no corridors, the room numbering shall be such that one number is used for the primary room. The interior rooms within the primary room shall use the same number as the primary room followed by an alphabetic suffix (e.g., 1001A, 1001B, 1001C, etc.).
 2. Corridor-Accessed-Room Number Progression
 - a. In buildings with only one dividing corridor, room number assignments shall flow in ascending order from the main entrance to the rear of the building.
 - b. In a building with more complex corridor systems, room number assignments shall flow in ascending order from the main entrance to the opposite end of the building along the corridors and progressing from the left side of the building to the right side, or in a clockwise progression from the principle entrance—which ever method provides for a more logical progression.
- F. Special Room Type Numbering
- The room types below shall have floor and zone designations applied consistent with other rooms on the same floor.
1. Corridors
 - a. Identify corridors (including lobbies) with the millennium number for the floor (e.g., a corridor in the basement floor is B000). Multiple corridors in the first floor would be numbered 1000, 1000A, 1000B, 1000C, etc. Where zones are designated, the numbering scheme is 1000, 1100, 1200, etc. Where doors or walls separate different areas of this space or a 90-degree change in direction occurs, each area shall receive its own unique number.
 - b. Number the first area accessed by the main entrance of a building or floor, usually a vestibule or lobby, with the millennium number for that floor. All other corridor-type space at that level of the building shall be numbered with the millennium number for that floor and with an alphabetical suffix. The corridor numbering progression shall flow from the front of the building to the rear and then continue from the left side of the building to the right side.
 2. Cubicles
 - a. Number cubicles with the same number of the room in which they are contained using two uppercase numbers starting with AA suffixed to the room number (e.g., a basement floor cubicle in room B001 is B001AA). Multiple cubicles in a first floor room shall be numbered 1001AA, 1001AB, 1001AC, etc. For numerous cubicles within a large room the progression is AA through AZ, then BA through BZ, etc.

3. Mezzanines
 - a. Number mezzanines with the same number of the room in which they are contained, using an uppercase letter "M" suffixed to the room number (e.g., a mezzanine in a basement room B001 would be B001M1). For multiple mezzanines in first floor room 1001, numbers would be 1001M1, 1001M2, 1001, M3, etc.
 4. Catwalks
 - a. Number catwalks with the same number of the room in which they are contained, using an uppercase letter "C" suffixed to the room number (e.g., a basement catwalk in room B001 would be B001C1). For multiple catwalks in a first floor room, numbers would be 1001C1, 1001C2, 1001C3, etc.
 5. Pits
 - a. Number pits with the same number of the room in which they are contained, using an uppercase letter "P" suffixed to the room number (e.g., a basement floor pit in room B001 would be B001P1). For multiple pits within a first floor room, numbers would be 1001P1, 1001P2, 1001P3, etc.
 6. Utility Space
 - a. Number enclosed vertical utility space with the millennium floor room numbering series and the uppercase letter "U" suffixed to the number (e.g., a utility space in the basement floor would be B000U1, in zone 1, it is B100U1 and etc.). For multiple utility spaces on the first floor, numbers would be 1000U1, 1000U2, 1000U3, etc. Vertical utility space located in the same vertical stack on multiple floors should be assigned the same ending number (e.g., 1000U1, 2000U1, 3000U1, etc.).
 7. Stairwells
 - a. Number stairwells with the millennium floor numbering series and the uppercase letter "S" suffixed to the number (e.g., a basement floor stairwell would be B000S; in zone 1 it would be B100S1). For multiple stairwells on the first floor, numbers would be 1000S1, 1000S2, 1000S3, etc. Stairwells located in the same vertical stack on multiple floors should be assigned the same ending number (e.g., 1000S1, 2000S1, 3000S1, etc.).
 8. Elevators
 - a. Number elevators (including dumbwaiters) with the millennium floor numbering series and an uppercase letter "E" suffixed to the number (e.g., a basement floor elevator is B000E1; in zone 1 it would be B100E1). For multiple elevators on the first floor, numbers would be 1000E1, 1000E2, 1000E3, etc. Elevators located in the same vertical stack on multiple floors shall be assigned the same ending number (e.g., 1000E1, 2000E1, 3000E1, etc.).
- G. Zones/Wings
1. All rooms shall have a zone designation. Buildings with a minimal number of rooms typically have only one zone assignment. Large buildings with greater than 99 rooms per floor, complex corridor systems, and wings may have multiple zone assignments on a floor-by-floor basis. As much as possible, zone assignments shall be done so that door openings on both sides of a corridor all fall within the same zone. The second place in the room number string designates the zone assignment, e.g., rooms B000 and B001 are basement rooms in zone 0; rooms 1101 and 1102 are first floor rooms in zone 1, etc. Zone assignments on multi-storied buildings shall follow the vertical-stacking pattern, as much as possible. The zone assignments shall take place starting at the principal entrance and progressing to the rear of the building or in a clockwise direction from the principle entrance, whichever method provides for a more logical progression.