Appendix C - Area Calculations

Application

The area calculations outlined in this Appendix are to be used for all buildings in the project to provide a consistent format for determining the area of residential buildings and any non-residential space in mixed-use buildings.

Area calculations should be categorized for all spaces of buildings into three predefined categories; Residential Dwelling Unit Space, Residential Common Area and, when applicable, Non-Residential Space. Any spaces within buildings that are shared between residential and non-residential uses, such as a common lobby, shall be prorated by the total area affiliated with each use as a percentage of the total building area. Any alternative method to prorate the impact of each use may be acceptable if it can be justified that the alternative is a more accurate methodology. Alternate means of prorating the impact of mixed-use shared spaces shall be presented to HCR A&E for consideration. See the Sample Area Calculation Diagrams in this Appendix for further clarification.

Definitions / Method of Measurement

Residential Dwelling Unit Space is defined as all spaces that are inclusive in a dwelling unit such as living, dining, kitchen, bedroom, bath, storage/closet, and circulation spaces. This shall include any mechanical closets and chases that serve the dwelling unit. Remote bulk storage shall be included as part of the Residential Dwelling Unit Space up to the areas listed in the bulk storage table in the HCR Design Guidelines.

Residential Common Area is defined as all spaces of the building, other than those defined as Residential Dwelling Unit Space. In a residential building, all areas, other than the dwelling unit area shall be considered Residential Common Area. In a mixed-use building, areas that are provided for the exclusive use and/or benefit of the residents shall be considered Residential Common Area. This includes, but is not limited to, hallways, stairways, lobby, mechanical rooms, mailroom, manager’s office, laundry room, janitor closet, community room, etc. Chases that serve Residential Common Areas shall be considered as part of the Residential Common Area.

For new construction projects with a basement, the entire basement area shall be included. Basement space(s) may be excluded in existing buildings where the space(s) are not being renovated and are only occupied by incidental uses that are off limits to the residents, such as mechanical and trash areas.

Non-Residential Space is defined as any space that is not for the exclusive use and/or benefit of the residents. Examples of Non-Residential Space include civic space, commercial space, public
day-care centers or other Community Service Facilities, organizational offices, training rooms, counseling offices, etc.

**Interior gross area** of any space is defined as the area measured from the interior face of the interior finish of exterior walls to the centerline of common wall(s) separating adjacent common space or dwelling unit(s). Walls and partitions within these boundaries are to be included in the interior gross area.

**Gross area** of a space is defined as the area of a space including exterior walls and to the centerline of common wall(s) separating adjacent common space or dwelling unit(s). The total gross area of all spaces shall equal the total gross building area.

Balconies, decks, patios and other exterior areas (covered or non-covered) are to be excluded from building area calculations.

**Instructions**

**General:**
1. Create unique names for dwelling unit types (i.e.: A1-1 bedroom, A2-1 bedroom), and include all dwelling types in the table. If similar dwelling unit types have different interior gross areas, create unique names. Do not indicate the averages of these dwelling unit types.
2. Include the applicable tables and diagrams in the project’s drawing set.

**Area Calculation Diagram:**
1. Create a diagrammatic floor plan that clearly conveys the pre-defined space categories at each floor (Residential Dwelling Unit Space, Residential Common Area and Non-Residential Space).
2. Include tags for each type of space that includes the space or dwelling unit name, the number of bedrooms (for dwelling units), the gross interior area for that space, and any remote bulk storage that is included in the dwelling unit interior gross area.
3. Plan diagrams shall be color coded with distinct light/translucent colors to ensure legibility. Utilize the following colors for the diagram:
   - Residential Dwelling Unit Space – White/No Color
   - Residential Common Area – Yellow
   - Non-Residential Space – Muted Orange or Red
   - Shared Spaces – Blue
4. Transcribe all areas into the Area Calculations tables.

**Area Tabulations:**
1. A copy of this form is available with the application documents.
2. Fill-in the building identification on the top of Table One under the "Total Residential Area" tab. The building identification will auto-populate onto all of the other tables under the other tabs. The building identification shall match that on the plans.
3. Fill-in the tables on each tab as necessary to identify the areas of all spaces in the project. The identification of all spaces shall match that on the plans.

4. Use the blank spaces provided in the tables for adding alternate or additional room types.

5. Include one file for each building or building type in the project.

6. One file may be used for multiple identical building types. Indicate the number of identical buildings and fill-in the total number of identical room types (the total of all identical buildings) in the tables.

7. For projects with multiple buildings that are not identical, provide a separate file that includes a table to summarize the residential and non-residential spaces in a manner that is consistent with the tables on this form. This file shall indicate: the total interior gross areas; and the total gross areas that includes exterior walls as an aggregate total for all buildings in the project.

8. If the project is more complex than allowed for in these tables, provide an equivalent substitution.
SAMPLE AREA CALCULATION DIAGRAM
GROUND FLOOR INTERIOR GROSS AREA; MIXED-USE

DIAGRAMS SHOULD CONVEY THE FOLLOWING INFORMATION:
- INTERIOR GROSS AREA FOR EACH DWELLING UNIT, INCLUDING ANY REMOTE BULK STORAGE
- ALL RESIDENTIAL COMMON SPACE
- ALL NON-RESIDENTIAL SPACE
- ANY SPACES SHARED BY RESIDENTIAL AND NON-RESIDENTIAL PROGRAMS AND THE APPLICABLE AMOUNT OF AREA ATTRIBUTED TO EACH TYPE OF SPACE

NOTES:
- CALCULATIONS FOR INTERIOR GROSS AREA SHALL BE PER THE INSTRUCTIONS IN APPENDIX C OF THE HCR DESIGN GUIDELINES
- DWELLING UNIT SIZES MAY ONLY BE INCREASED TO INCLUDE REMOTE BULK STORAGE UP TO THE AREAS LISTED IN THE BULK STORAGE TABLE OF THE HCR DESIGN GUIDELINES
- THE AREA OF CHASES THAT SERVE DIRECTLY TO DWELLING UNITS SHALL BE INCLUDED IN THE DWELLING UNIT AREA. THE AREA OF CHASES THAT SERVE RESIDENTIAL COMMON SPACES SHALL BE INCLUDED IN RESIDENTIAL COMMON AREA. THE AREA OF CHASES THAT SERVE NON-RESIDENTIAL SPACES SHALL BE INCLUDED IN THE NON-RESIDENTIAL AREA.
- NAMES FOR DWELLING UNIT TYPES SHOULD BE CARRIED TO APPENDIX C TABULATIONS

NOTE: PLANS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE INTENT OF THIS DIAGRAM IS TO ILLUSTRATE AN ACCEPTABLE MEANS OF DEMONSTRATING THE INTERIOR GROSS AREA MEASUREMENTS OUTLINED IN THE HCR DESIGN GUIDELINES. IT IS IN NO WAY INTENDED TO BE A REPRESENTATION OF A RESIDENTIAL BUILDING DESIGN THAT MEETS ALL OF THE HCR DESIGN GUIDELINE REQUIREMENTS AND RECOMMENDATIONS.
SAMPLE AREA CALCULATION DIAGRAM
RESIDENTIAL FLOOR INTERIOR GROSS AREA

DIAGRAMS SHOULD CONVEY THE FOLLOWING INFORMATION:
- INTERIOR GROSS AREA FOR EACH DWELLING UNIT, INCLUDING ANY REMOTE BULK STORAGE
- ALL RESIDENTIAL COMMON SPACE
- ALL NON-RESIDENTIAL SPACE
- ANY SPACES SHARED BY RESIDENTIAL AND NON-RESIDENTIAL PROGRAMS AND THE APPLICABLE AMOUNT OF AREA ATTRIBUTED TO EACH TYPE OF SPACE

NOTES:
- CALCULATIONS FOR INTERIOR GROSS AREA SHALL BE PER THE INSTRUCTIONS IN APPENDIX C OF THE HCR DESIGN GUIDELINES
- DWELLING UNIT SIZES MAY ONLY BE INCREASED TO INCLUDE REMOTE BULK STORAGE UP TO THE AREAS LISTED IN THE BULK STORAGE TABLE OF THE HCR DESIGN GUIDELINES
- THE AREA OF CHASES THAT SERVE DIRECTLY TO DWELLING UNITS SHALL BE INCLUDED IN THE DWELLING UNIT AREA. THE AREA OF CHASES THAT SERVE RESIDENTIAL COMMON SPACES SHALL BE INCLUDED IN RESIDENTIAL COMMON AREA. THE AREA OF CHASES THAT SERVE NON-RESIDENTIAL SPACES SHALL BE INCLUDED IN THE NON-RESIDENTIAL AREA.
- NAMES FOR DWELLING UNIT TYPES SHOULD BE CARRIED TO APPENDIX C TABULATIONS

NOTE: PLANS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE INTENT OF THIS DIAGRAM IS TO ILLUSTRATE AN ACCEPTABLE MEANS OF DEMONSTRATING THE INTERIOR GROSS AREA MEASUREMENTS OUTLINED IN THE HCR DESIGN GUIDELINES. IT IS IN NO WAY INTENDED TO BE A REPRESENTATION OF A RESIDENTIAL BUILDING DESIGN THAT MEETS ALL OF THE HCR DESIGN GUIDELINE REQUIREMENTS AND RECOMMENDATIONS.
AREA CALCULATION DIAGRAM REFERENCE
MEASUREMENT DETAILS; INTERIOR GROSS AREA

DIAGRAMS SHOULD CONVEY THE FOLLOWING INFORMATION:
- INTERIOR GROSS AREA FOR EACH DWELLING UNIT, INCLUDING ANY REMOTE BULK STORAGE
- ALL RESIDENTIAL COMMON SPACE
- ALL NON-RESIDENTIAL SPACE
- ANY SPACES SHARED BY RESIDENTIAL AND NON-RESIDENTIAL PROGRAMS AND THE APPLICABLE AMOUNT OF AREA ATTRIBUTED TO EACH TYPE OF SPACE

NOTES:
- CALCULATIONS FOR INTERIOR GROSS AREA SHALL BE PER THE INSTRUCTIONS IN APPENDIX C OF THE HCR DESIGN GUIDELINES
- DWELLING UNIT SIZES MAY ONLY BE INCREASED TO INCLUDE REMOTE BULK STORAGE UP TO THE AREAS LISTED IN THE BULK STORAGE TABLE OF THE HCR DESIGN GUIDELINES
- THE AREA OF CHASES THAT SERVE DIRECTLY TO DWELLING UNITS SHALL BE INCLUDED IN THE DWELLING UNIT AREA. THE AREA OF CHASES THAT SERVE RESIDENTIAL COMMON SPACES SHALL BE INCLUDED IN RESIDENTIAL COMMON AREA. THE AREA OF CHASES THAT SERVE NON-RESIDENTIAL SPACES SHALL BE INCLUDED IN THE NON-RESIDENTIAL AREA.
- NAMES FOR DWELLING UNIT TYPES SHOULD BE CARRIED TO APPENDIX C TABULATIONS

INTERIOR GROSS AREA AT DWELLING UNITS:

- BETWEEN COMMON CORRIDOR AND DWELLING UNIT; MEASURE TO CENTERLINE OF COMMON WALL
- MECHANICAL ROOM UTILIZED FOR INDIVIDUAL DWELLING UNITS; AREA SHALL BE ATTRIBUTED TO DWELLING UNIT INTERIOR GROSS AREA
- AT DEMISING WALL BETWEEN DWELLING UNITS; MEASURE TO CENTERLINE OF COMMON WALL
- INTERIOR GROSS AREA INCLUDES ALL WALLS AND SPACES WITHIN THE EXTENTS OF THE DWELLING UNIT (I.E. CABINETS, SHOWERS/TUBS CLOSETS, APPLIANCES, ETC.)

INTERIOR GROSS AREA AT NON-RESIDENTIAL SPACE AND RESIDENTIAL COMMON SPACE:

- AT EXTERIOR WALL OF RESIDENTIAL COMMON AREA AND NON-RESIDENTIAL SPACE; MEASURE TO INTERIOR WALL FINISH
- AT DEMISING WALL BETWEEN RESIDENTIAL COMMON AREA AND NON-RESIDENTIAL SPACE; MEASURE TO CENTERLINE OF COMMON WALL
- INTERIOR GROSS AREA INCLUDES ALL WALLS AND SPACES WITHIN THE EXTENTS OF THE RESIDENTIAL COMMON SPACE OR NON-RESIDENTIAL SPACE.

REMOTE BULK STORAGE SPACE SHALL BE CALCULATED AS PART OF THE DWELLING UNIT AREA. (ACTUAL DWELLING UNIT AREA + REMOTE BULK STORAGE AREA = TOTAL DWELLING UNIT AREA)

ANY ADDITIONAL BULK STORAGE SPACE IN EXCESS OF THE AREAS LISTED IN THE BULK STORAGE TABLE OF THE DESIGN GUIDELINES SHOULD BE ATTRIBUTED TO RESIDENTIAL COMMON SPACE (I.E. IN A 30SF REMOTE BULK STORAGE UNIT, 20SF SHALL BE ATTRIBUTED TO THE AREA OF A 1-BEDROOM AND 10SF SHALL BE ATTRIBUTED TO THE RESIDENTIAL COMMON AREA)

ALL OTHER AREAS WITHIN A BULK STORAGE ROOM THAT ARE NOT ATTRIBUTED TO THE DWELLING UNIT AREA SHALL BE CONSIDERED RESIDENTIAL COMMON SPACE INCLUDING ACCESS AISLES AND ADDITIONAL STORAGE SPACE