

## Chapter 2- I CAD LAYERING STANDARDS

### PART 1 – GENERAL

#### 1.1 SUMMARY **CAD DRAWING CONVENTIONS – ROOM IDENTIFICATION**

For any renovation, addition, or new construction, the following drawing conventions must be followed on plans submitted to the university.

1) All building spaces indicated on the floor plan(s) must contain the following information within the individual space(s):

- **Room Name**
- **Room Number**
- **FICM Code Number**
- **Net Square Footage**

The following CAD drawings layers should be included on submitted floor plans in order to convey this information to the university's Space Management System.

##### **Room Name and Number:**

Each space will be assigned a room name and number by the university. The designer shall consult the university's project manager for information regarding the naming of each room. For a room numbering scheme, the designer shall refer to the university's Room Numbering Guidelines in the Design Standards, which delineates the process for room numbering. It is the designer's responsibility to follow these guidelines

The Room Name and Number shall be placed on a separate CAD layer titled A-AREA-IDENT

##### **FICM Code Number**

The university follows the [Postsecondary Education Facilities Inventory and Classification Manual](#) (FICM) for assigning the function of its spaces. (A link to the FICM Manual may be found on the University Architect's website.) The designer shall consult with the University Architect during the design phase in assigning a FICM code number to each occupied space in a project.

The FICM Code Number shall be placed on a separate CAD layer titled A-AREA-FICM.

##### **Net Square Footage**

The designer is responsible for calculating the net square footage of individual spaces on all floor plans. In order to make the calculation, the following methodology should be applied.

On a separate CAD layers title A-AREA-POLYLINE, the designer will create individual polylines for multiple categories listed below. It is imperative that in the creation of a polyline, the segments of any one polylined object never crisscross another; otherwise, the area calculations for that particular polylined object will be erroneous.

There will be three subcategories of polyline objects. Each drawing file will contain polylined objects in all three of these categories. All can be drawing on the same CAD layer. Those categories are as follows:

- 1) **Building Gross Square Feet:** This single polylined object will essentially trace the outermost face of the exterior walls of that building on that particular floor in order to calculate the project's gross square footage. This will include any exterior spaces on that level that are covered or included within the floor or roof projection above. This CAD layer should be titled: A-AREA-POLYLINEBUILDINGGSF
- 2) **Floor Gross Square Feet:** This single polylined object will be drawn to the inside face of the exterior walls of that building on a particular floor/level. This CAD layer should be titled: A-AREA-POLYLINEFLOORGSF
- 3) **Net Square Footage:** These polylines will be drawn for each room, space or usable area other than purely structural areas – this may include both assignable and non-assignable spaces. These polylined objects will be responsive to that particular space and will be drawn to the face of the interior walls and/or finished surface for that particular room, space or area. However, there may be situations where no physical wall exist to define the boundary of a space or room, such as with a partitioned workstation, reception area, lobby, open stairway, etc. In these cases, it will be necessary to define a virtual division of space so that all areas are accounted for in the university's space system.

In addition to the polylines, the designer should indicate in text the net square footage as part of each room's information tag. This CAD layer should be titled: A-AREA-POLYLINENSF.