

Identifying Assignable and Non-Assignable Square Footage by Building by Department

by Clara Adams

The Problem

The Life Science buildings need to identify who is responsible for what rooms in each building by floor level. Once the responsibility is determined, the departments will be able to identify what is considered assignable and non-assignable space and the appropriate square footage.

The Query in BrioQuery 6

To find the rooms within the Life Science buildings and to determine responsibility and square footage, we will begin by using the Facility Room table.

- ❖ Using the Facility Common Name, limit the field to 'Begins With' LIFE. This will capture all Life Science buildings.
- ❖ We will want to see in our report: Facility Common Name, Responsible HR Dept Code, HR Department Name, Room and Room Sqft (summed).
- ❖ To Sum the Room Sqft – while still in request mode, right click the field -> choose Data Functions -> Sum.

This table is updated daily, so if the data changes – so will your results.

Request	Facility Common Name	Responsible Hr Dept Code	Hr Department Name	Room	SUM(Room Sqft)
Limit	Facility Common Name				
Sort	Drag Request Items here to sort them				

Begins With Life

Facility Room

- Facility Code
- Room
- Room Contains Cubicals Flag
- Room Is Cubical Flag
- Room Leased Out Flag
- Facility Floor Level Code
- Facility Type Code
- Facility Type Description
- Facility Common Name
- Facility Abbreviation
- Facility Location Code
- Facility Location Description
- Room Capacity
- Room Sqft
- Room Square Foot Category Code
- Room Square Foot Category Desc
- Responsible Hr Dept Code
- Hr Department Name
- Hr Department Rollup Code
- Hr Department Rollup Code Desc
- Pefi Room Use Code
- Pefi Room Use Description

The Results:

The results below show the rooms of the Life Sciences buildings and which department has responsibility. We have sorted on HR Department Name. This is a partial snapshot of the 1310 rows.

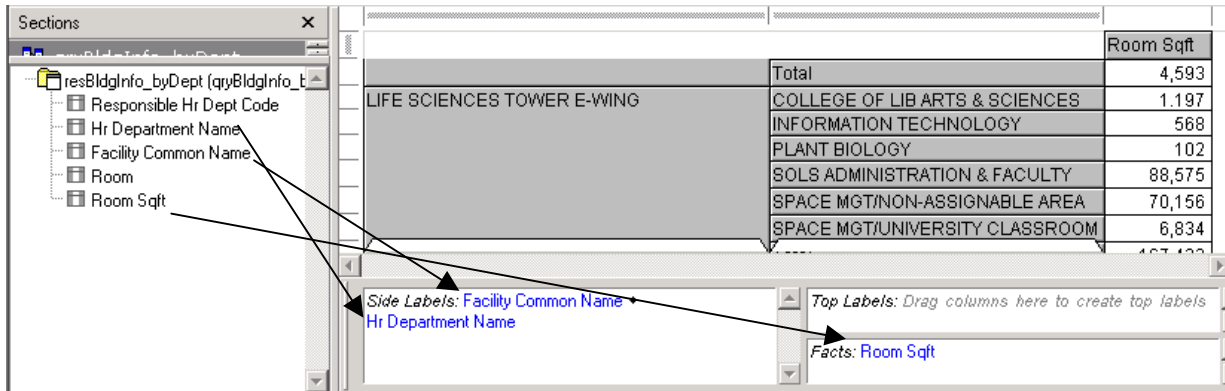
Sort		Hr Department Name ▲				
	Responsible Hr Dept Code	Hr Department Name	Facility Common Name	Facility Floor Level Code	Room	Room Sqft
1	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	P	303	400
2	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	206	163
3	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	208	155
4	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	210	150
5	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	212	150
6	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	214	149
7	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	216	150
8	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	218	150
9	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	220	140
10	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	P	301	137
11	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	205B	277
12	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER A	2	277	207
13	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	2	205A	141
14	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	1	102	53
15	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	1	116	84
16	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL CARE	1	115	109
1287	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	3	300U3	38
1288	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	2	283U2	5
1289	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	2	287M1	147
1290	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	3	300C1	1,870
1291	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	3	300E1	61
1292	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	2	283U1	5
1293	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	3	300P1	5
1294	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	3	300P2	5
1295	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES TOWER E-WING	8	909U1	109
1296	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	3	300E2	61
1297	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	3	300S2	288
1298	D0825003	SPACE MGT/NON-ASSIGNABLE AR	LIFE SCIENCES CENTER C	3	300U1	101
1299	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES CENTER A	1	119	714
1300	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES CENTER A	1	109	737
1301	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES CENTER A	1	101	980
1302	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES CENTER A	1	191	4,018
1303	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES CENTER A	L1	L1-11	433
1304	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES TOWER E-WING	2	250	1,025
1305	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES TOWER E-WING	2	204	672
1306	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES TOWER E-WING	L1	B04	1,233
1307	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES CENTER C	1	102	402
1308	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES TOWER E-WING	1	104	2,092
1309	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES CENTER A	L1	L1-94	602
1310	D0825001	SPACE MGT/UNIVERSITY CLASSR	LIFE SCIENCES TOWER E-WING	1	106	1,812

Responsible Hr Dept Code , Hr Department Name , Facility Common Name , Facility Floor Level Code , Room , Room Sqft

The Results in a Pivot

To show a more meaningful summary of the data, let's insert a Pivot table.

- ❖ Go to the Toolbar and click on Insert -> New Pivot.
- ❖ To create a Pivot Report: Click and drag the fields shown into the appropriate box of the Pivot builder fields (see Side Labels and Facts boxes below). Drag them from the list at the left to the boxes on the right.
- ❖ To add Totals. Click on the tab under the HR Department Name column -> Right Click -> Add Totals.



Looking at the Pivot, each building is broken into departmental and space management responsibility. Within the space management responsibility, it is further broken down into non-assignable and classroom usage.

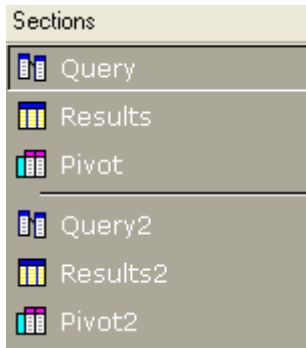
For instance, Life Sciences Center A building has a Total Room Sqft of 74,147. Four departments (3 + space management) are responsible for a portion of that total.

		Room Sqft
LIFE SCIENCES CENTER A	ANIMAL CARE AND USE	207
	INFORMATION TECHNOLOGY	66
	SOLS ADMINISTRATION & FACULTY	45,876
	SPACE MGT/NON-ASSIGNABLE AREA	20,514
	SPACE MGT/UNIVERSITY CLASSROOM	7,484
	Total	74,147
LIFE SCIENCES CENTER B-ANIMAL CARE	ANIMAL CARE AND USE	3,939
	SPACE MGT/NON-ASSIGNABLE AREA	3,379
	Total	7,318
LIFE SCIENCES CENTER C	SOLS ADMINISTRATION & FACULTY	63,312
	SPACE MGT/NON-ASSIGNABLE AREA	31,413
	SPACE MGT/UNIVERSITY CLASSROOM	402
	Total	95,127
LIFE SCIENCES CENTER D-AQUATIC TERRESTRIAL	ANIMAL CARE AND USE	1,935
	SOLS ADMINISTRATION & FACULTY	1,969
	SPACE MGT/NON-ASSIGNABLE AREA	689
	Total	4,593
LIFE SCIENCES TOWER E-WING	COLLEGE OF LIB ARTS & SCIENCES	1,197
	INFORMATION TECHNOLOGY	568
	PLANT BIOLOGY	102
	SOLS ADMINISTRATION & FACULTY	88,575
	SPACE MGT/NON-ASSIGNABLE AREA	70,156
	SPACE MGT/UNIVERSITY CLASSROOM	6,834
	Total	167,432

Don't Recreate the Wheel – Duplicate Your Query!

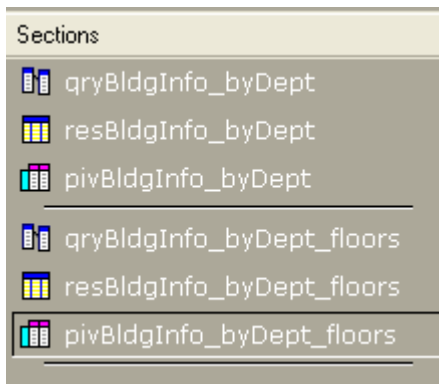
Now we want to add floor level code and descriptions to the mix. We want to keep the original query, but expand the functionality. To do this, we are going to duplicate the query.

- ❖ Select the query in the section window, Right click -> Click on Duplicate Section. It will only duplicate the query and the results.



In addition to duplicating sections – you can rename them also.

Right Click the section you want to rename -> Click on Rename Section. A box will appear to rename the section.



Adding the Floor Level Codes to the Query

Now, open the duplicated query (query2) and put the Facility Floor table to the right of the Facility Room table.

- ❖ Join by Facility Code and Facility Floor Level Code (Click hold and drag). This SHOULD uniquely and completely identify all the floors in this facility.
- ❖ As with any query, once a change is made, you need to reprocess the query.

The screenshot shows a query builder interface with the following components:

- Request:** Facility Common Name, Responsible Hr Dept Code, Hr Department Name, Facility Floor Level Code, Facility Floor Level Code2, Facility Floor Level Name, Room, SUM(Room Sqft)
- Limit:** Facility Common Name
- Sort:** Drag Request items here to sort them
- Facility Room Table:**
 - Facility Code
 - Room
 - Room Contains Cubicals Flag
 - Room Is Cubical Flag
 - Room Leased Out Flag
 - Facility Floor Level Code
 - Facility Type Code
 - Facility Type Description
 - BG Facility Common Name
 - Facility Abbreviation
 - Facility Location Code
 - Facility Location Description
 - Room Capacity
 - Room Sqft
 - Room Square Foot Category Code
 - Room Square Foot Category Desc
 - Responsible Hr Dept Code
 - Hr Department Name
 - Hr Department Rollup Code
 - Hr Department Rollup Code Desc
 - Pefi Room Use Code
 - Pefi Room Use Description
 - Pefi Room Use Rollup Code
 - Pefi Room Use Rollup Desc
 - Pefi Room Use Code Metadata
- Facility Floor Table:**
 - Facility Code
 - Facility Floor Level Code
 - Facility Floor Level Name
 - Facility Type Code
 - Facility Type Description
 - Facility Common Name
 - Facility Abbreviation
 - Facility Location Code
 - Facility Location Description
 - Facility Floor Gross Sqft
 - Facility Floor Net Assign Sqft
 - Facility Flr 711 Nt Assgn Sqft
 - Facility Floor Non Assign Sqft
 - Facility Floor Classroom Sqft
 - Facility Floor Circulatn Sqft
 - Facility Floor Service Sqft
 - Facility Floor Mechanical Sqft
 - Facility Floor Wall Sqft
 - Facility Floor Comments
 - Facility Floor Verificatn Date
 - Created By
 - Created Date
 - Updated By
 - Updated Date
 - Extract Datetime
- Join:** A relationship is shown between Facility Code in the Facility Room table and Facility Floor Level Code in the Facility Floor table, indicated by a double-headed arrow and a plus sign.

The Results

1263	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	1	1	First Floor	191	4,018
1264	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	1	1	First Floor	119	714
1265	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	L1	L1	Lower Level	L1-11	433
1266	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER C	1	1	First Floor	102	402
1267	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	L1	L1	Lower Level	B04	1,233
1268	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	2	2	Second Floor	204	672
1269	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	1	1	First Floor	106	1,812
1270	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	1	1	First Floor	104	2,092
1271	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	L1	L1	Lower Level	L1-94	602
1272	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	2	2	Second Floor	250	1,025

The results were only 1272 rows whereas we had 1310 rows before with just the Facility Room table. We must conclude that there are some records missing from the Facility Floor table. So we don't lose these records we will change our join type.

Change the Query - Use Left Joins

Double click on the join lines between the two tables. Select the Left Join radio button. This will keep all the records from the left table no matter whether there is a matching record in the right table or not. Since we have the Facility Floor Level Code from BOTH tables on the Request Line, we will be able to see missing floor data as blanks in the Floor Level Code2 field that comes from the Facility Floor table.

The results below show the rooms of the Life Sciences buildings and who has responsibility. We have sorted on HR Department Name. This is a partial snapshot of the 1310 rows.

	Responsible Hr Dept Code	Hr Department Name	Facility Common Name	Facility Floor Level Code	Facility Floor Level Code2	Facility Floor Level Name	Room	Room Sqft
1	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	P			303	400
2	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	206	163
3	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	208	155
4	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	210	150
5	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	212	150
6	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	214	149
7	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	216	150
8	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	218	150
9	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	220	140
10	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	P			301	137
11	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	205B	277
12	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER A	2	2	Second Floor	277	207
13	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	2	2	Second Floor	205A	141
14	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	1	1	First Floor	102	53
15	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	1	1	First Floor	116	84
16	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	1	1	First Floor	115	109
17	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	1	1	First Floor	114	85
18	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	1	1	First Floor	113	110
19	E1001	ANIMAL CARE AND USE	LIFE SCIENCES CENTER B-ANIMAL C	1	1	First Floor	112	108
1287	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	3	3	Third Floor	300U3	38
1288	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	2	2	Second Floor	283U2	5
1289	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	2	2	Second Floor	287M1	147
1290	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	3	3	Third Floor	300C1	1,870
1291	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	3	3	Third Floor	300E1	61
1292	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	2	2	Second Floor	283U1	5
1293	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	3	3	Third Floor	300P1	5
1294	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	3	3	Third Floor	300P2	5
1295	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES TOWER E-WING	3			909U1	109
1296	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	3	3	Third Floor	300E2	61
1297	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	3	3	Third Floor	300S2	288
1298	D0825003	SPACE MGT/NON-ASSIGI	LIFE SCIENCES CENTER C	3	3	Third Floor	300U1	101
1299	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	1	1	First Floor	119	714
1300	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	1	1	First Floor	109	737
1301	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	1	1	First Floor	101	980
1302	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	1	1	First Floor	191	4,018
1303	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	L1	L1	Lower Level	L1-11	433
1304	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	2	2	Second Floor	250	1,025
1305	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	2	2	Second Floor	204	672
1306	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	L1	L1	Lower Level	B04	1,233
1307	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER C	1	1	First Floor	102	402
1308	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	1	1	First Floor	104	2,092
1309	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES CENTER A	L1	L1	Lower Level	L1-94	602
1310	D0825001	SPACE MGT/UNIVERSITY	LIFE SCIENCES TOWER E-WING	1	1	First Floor	106	1,812

Notice the blanks.

The Results in a Pivot

We are going to create another Pivot to summarize the data.

- ❖ Go to the Toolbar and click on Insert -> New Pivot.
- ❖ To create the Pivot Report: Click and drag the fields shown into the appropriate box of the Pivot builder fields (see Side Labels, Top Labels and Facts boxes below). Drag them from the list at the left to the boxes on the right.
- ❖ To add Totals. Click on the tab under the HR Department Name column -> Right Click -> Add Totals.

Looking at the Pivot, Life Sciences Center A building still has a Total Room Sqft of 74,147.

Now, notice the Facility Floor Level Codes. The P code does not have a name attached. As with any new data store, there are some data anomalies found.

			ANIMAL C/	COLLEGE	INFORMA	PLANT BIK	SOLES ADM	SPACE MC	SPACE MC	Total
			Room Sqf	Room Sqf	Room Sqf	Room Sqf	Room Sqf	Room Sqf	Room Sqf	Room Sqf
LIFE SCIENCES CENTER A	1	First Floor			66		8,805	5,203	6,449	20,523
	2	Second Floor	207				11,176	4,125		15,508
	3	Third Floor					11,613	3,886		15,499
	L1	Lower Level					13,432	6,916	1,035	21,383
	P						850	384		1,234
	Total		207		66		45,876	20,514	7,484	74,147
LIFE SCIENCES CENTER B-ANIMAL CARE	1	First Floor	1,721					643		2,364
	2	Second Floor	1,681					2,130		3,811
	P		537					606		1,143
	Total		3,939					3,379		7,318
LIFE SCIENCES CENTER C	1	First Floor					4,727	4,456	402	9,585
	2	Second Floor					8,871	4,068		12,939
	3	Third Floor					10,206	3,271		13,477
	4	Fourth Floor					9,988	3,419		13,407
	5	Fifth Floor					9,786	3,700		13,486
	L1	Lower Level					10,072	4,311		14,383
	L2	Sub-Lower L					9,662	2,530		12,192
	P							5,658		5,658
	Total						63,312	31,413	402	95,127
LIFE SCIENCES	1	First Floor	1,935					377		2,312
LIFE SCIENCES	2	Second Floor					1,969	312		2,281

In this case, if you run a separate query limiting to P floor types out of the Facility Room table, you will see that most of these are Circulation Areas or Mechanical Areas, but some seem to be assignable space. These types of discrepancies can be brought to the attention of your Space Survey Coordinator and/or the Warehouse support folks at ware-q@asu.edu

	Facility Code	Room	Facility Common Name	Room Sqft	Room Square Foot Category Code	Room Square Foot Category Desc
55	056A	488U1	LIFE SCIENCES CENTER A	76	MCH	MECHANICAL SPACE
56	056A	405	LIFE SCIENCES CENTER A	96	ASF	ASSIGNABLE SQUARE FEET
57	056A	487	LIFE SCIENCES CENTER A	308	CRC	CIRCULATION SPACE
58	056B	303	LIFE SCIENCES CENTER B-ANIMAL CARE	400	ASF	ASSIGNABLE SQUARE FEET
59	056B	306A	LIFE SCIENCES CENTER B-ANIMAL CARE	160	MCH	MECHANICAL SPACE
60	056B	300E1	LIFE SCIENCES CENTER B-ANIMAL CARE	51	CRC	CIRCULATION SPACE
61	056B	301	LIFE SCIENCES CENTER B-ANIMAL CARE	137	ASF	ASSIGNABLE SQUARE FEET
62	056B	300S1	LIFE SCIENCES CENTER B-ANIMAL CARE	112	CRC	CIRCULATION SPACE
63	056B	302	LIFE SCIENCES CENTER B-ANIMAL CARE	38	CRC	CIRCULATION SPACE
64	056B	306	LIFE SCIENCES CENTER B-ANIMAL CARE	245	MCH	MECHANICAL SPACE
65	056C	600U3	LIFE SCIENCES CENTER C	38	MCH	MECHANICAL SPACE
66	056C	602	LIFE SCIENCES CENTER C	198	MCH	MECHANICAL SPACE
67	056C	600C1	LIFE SCIENCES CENTER C	108	CRC	CIRCULATION SPACE
68	056C	600U4	LIFE SCIENCES CENTER C	446	MCH	MECHANICAL SPACE