

## 4. SPACE NEEDS

---

### INTRODUCTION

This section of the Needs Assessment defines space needs in a spreadsheet format. The spaces addressed in this section account for all of the spaces within the building, including individual rooms, equipment space needs within a room, circulation space, utility spaces and space occupied by the structure and walls of the building.

The spreadsheet defines space requirements for two separate buildings, which have been identified as the Fire Department Building and the Public Safety Building.

Fire Department Building. This building consists of the following components:

- The Lincoln Hose Company
- Engine Company No. 1
- Hook and Ladder Company
- Rescue Squad
- Maintenance
- Building Support Spaces

Public Safety Building. This building consists of the following components:

- Police Department
- Municipal Court
- Violations Department
- Building Support Spaces

### SPREADSHEET FORMAT

Building Summary. The first page of the spreadsheet is the Building Summary. This summary indicates the building gross area needs for both of the buildings comprise this project. The first and second columns identify the building and its gross area, respectively. The third column indicates which pages within this spreadsheet provide the back-up data that justifies the gross area for each building. The sum of the gross areas for both buildings is indicated at the bottom of the Building Summary page.

Fire Department Building Area Summary. The next page of the spreadsheet provides a summary of the spaces within the Fire Department Building. Similar to the Building Summary page, this Area Summary identifies each building component and its respective net area in the first two columns. The third column indicates which pages within this spreadsheet provide the back-up data that justifies the net area for each building component. At the bottom of the Area Summary page the sum of the net areas of each component is provided and net-to-gross areas factors are calculated to arrive at the total gross area for the Fire Department Building.

Individual Building Components - Fire Department Building. Pages 5 through 12 of the spreadsheet are devoted to defining the spaces for each individual component within the Fire Department Building. The building component is identified at the top of the page (e.g., Lincoln Hose Company). The first column identifies the spaces within that component ("Space/Equipment"), and the second column quantifies the number of spaces of that type ("Quantity"). The third column provides the required area for that particular type of space ("Unit Area"), and the fourth

column provides the total space needs for that type of space ("Space Total"), which is the product of the Unit Area and the Quan Space. Finally, the last column on these pages ("Remarks") provides any additional information that might be useful in understanding that particular space in terms of function or cost. The bottom of these pages provide an area subtotal, circulation factor, and the net area for that particular building component.

Public Safety Building Area Summary. The format for this Area Summary on page 13 is nearly identical to the format for the Fire Department Building Area Summary on page 4. The only difference is that the Public Safety Building Area Summary includes an additional column to identify the net area for each bureau within the Police Department.

Individual Building Components - Public Safety Building. The remainder of the spreadsheet is devoted to defining the spaces for each individual component within the Public Safety Building in the same manner as pages 5 through 12 define the spaces for each individual component within the Fire Department Building.

Circulation Factors. It should be noted that this Space Needs spreadsheet includes two different types of circulation factors. On the Area Summaries for each building (pages 4 and 13) a net-to-gross area factor of 6 percent is included for General Circulation. This accounts for circulation outside of each component of the building, such as main corridors, stairways, and elevators. An additional circulation factor is included for each individual component of each building, as shown on pages 5 through 12 and pages 14 through 25. This accounts for circulation within each building component, such as circulation for an office to a lounge, or a lounge to a storage room. These internal circulation factors range from 10 to 20 percent, depending on the type of building component.

## SPREADSHEETS

The remainder of this section of this Needs Assessment consists of the Space Needs spreadsheet pages as described above.

