**CMGT 235 – Electrical and Mechanical Systems**

Department of Construction Management 🏵 California State University, Chico

Bathroom Groups Example:

1. Determine the total DFU for the two-story house plan shown on the next page using (a) As individual fixtures using Table 702.1 and (b) as bathroom groups using Appendix C. List bathroom fixtures as groups.

**½ BG**

**BG #3**

**BG #2**

**Appendix C**

**3 BG = 9.0**

**½ BG = 0.5**

**1 SHW = 2.0**

**TOTAL = 11.5**

**+ 10.0**

**TOTAL DFU = 21.5**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fixture | # of Fix. | Minimum Trap Size and Trap Arm (inches) | DFU | |
| EACH | THIS JOB |
| WC | 1 |  | 3.0 | 3.0  **BG #1** |
| LAV | 2 |  | 1.0 | 2.0 |
| BT | 1 |  | 2.0 | 2.0 |
| SHW | 1 |  | 2.0 | 2.0 |
|  |  |  |  |  |
| WC | 1 |  | 3.0 | 3.0 |
| LAV | 2 |  | 1.0 | 2.0 |
| SHW | 1 |  | 2.0 | 2.0 |
|  |  |  |  |  |
| WC | 1 |  | 3.0 | 3.0 |
| LAV | 1 |  | 1.0 | 1.0 |
| SHW | 1 |  | 2.0 | 2.0 |
|  |  |  |  |  |
| WC | 1 |  | 3.0 | 3.0 |
| LAV | 1 |  | 1.0 | 1.0 |
|  |  |  |  |  |
| KS | 1 |  | 2.0 | 2.0 |
| DW | 1 |  | 2.0 | 2.0 |
| LS | 1 |  | 2.0 | 2.0 |
| CW | 1 |  | 3.0 | 3.0 |
| BS | 1 |  | 1.0 | 1.0 |
|  |  |  |  |  |
| TOTALS |  |  |  | 36.0 |

1. Size the Building Drain and Sewer

|  |  |  |
| --- | --- | --- |
| **Code** | **Size of Building Drain and Sewer** | **Slope** |
| Table 703.2 | 4ʺ | ¼ inch per foot |
| Table C 304.2 | 4ʺ | 1/8 inch per foot |
| Table C 304.2 | 4ʺ | ¼ inch per foot |

Diagram, engineering drawing

Description automatically generated