

CMGT 235 – Electrical and Mechanical Systems

Department of Construction Management ☻ California State University, Chico

Homework #15– Plumbing Systems

Points: 20

Due: 10/8/2022

Name: **Solution**

Directions

Bathroom Groups:

1. Determine the total DFU for the Bathrooms for the two-story house plan used for In Class Activity #3.
 - (a) As individual fixtures using Table 702.1 and
 - (b) as bathroom groups using Appendix C.

SHOW ALL WORK FOR FULL CREDIT

Fixture	# of Fix.	DFU		
		EACH	THIS JOB	
MSTR BATH				
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	
BIDET (1 ½")	1	2.0	2.0	
B2				
WC	1	3.0	3.0	BG #2
LAV	1	1.0	1.0	
BT	1	2.0	2.0	
B3				
WC	1	3.0	3.0	BG #3
LAV	1	1.0	1.0	
BT/SHW	1	2.0	2.0	
B4				
WC	1	3.0	3.0	BG #4
LAV	1	1.0	1.0	
SHW	1	2.0	2.0	
B5				
WC	1	3.0	3.0	BG #5
LAV	1	1.0	1.0	
BT/SHW	1	2.0	2.0	
B6				
WC	1	3.0	3.0	BG #6
LAV	1	1.0	1.0	
SHW	1	2.0	2.0	
PW				
WC	1	3.0	3.0	½ BG
LAV	1	1.0	1.0	
TOTAL		48.0		

Appendix C		
BG #1	BG 1, 2, and 3	9.0
	SHW	2.0
	WC	3.0
	BIDET	2.0
BG #2		
BG #3		
BG #4	BG 4, 5, and 6	3.0
BG #5		
BG #6	½ BG	0.5
½ BG		
TOTAL DFU =		19.5

Continued on back

2. Size the Building Drain and Sewer

Code	Size of Building Drain and Sewer	Slope
Table 703.2	4"	¼ inch per foot
Table C 304.2	3"	1/8 inch per foot
Table C 304.2	4"	¼ inch per foot