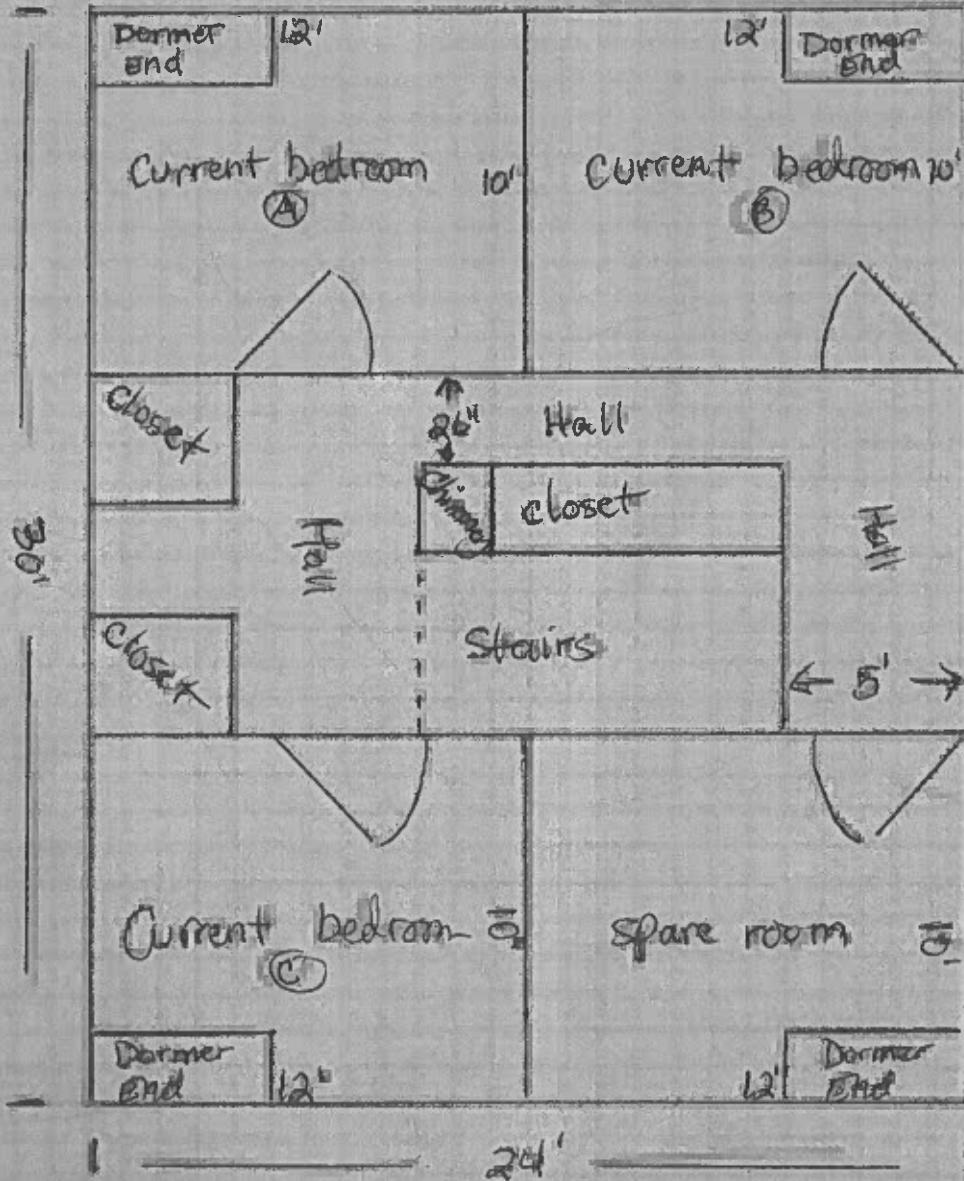


□ = roughly # 1#

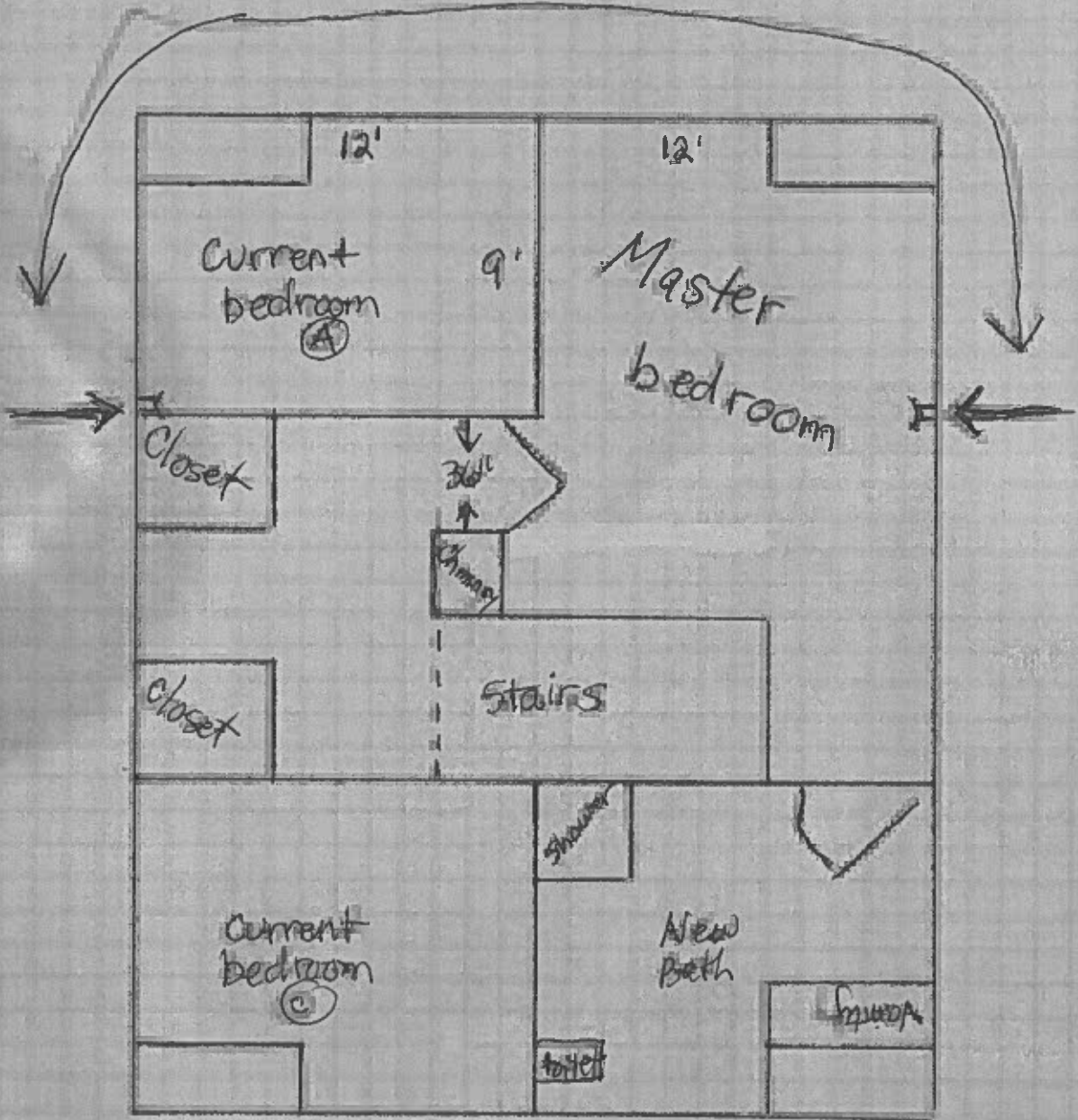
Before Renovation



Trevor Marsh
Permit # 21-02

After Renovation

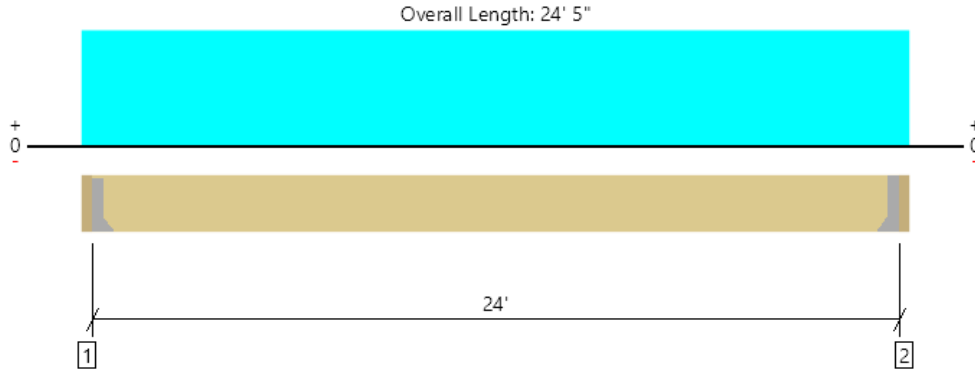
- ① Remove 12' Wall between hall and room (B)
- ② move room (A) wall 9"± to bring hallway to code
- ③ Add 3 pre-tensioned beams 24" long to support removed wall, see arrows



④ Add bathroom to master

Level, Floor: Drop Beam

3 piece(s) 1 3/4" x 11 7/8" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2258 @ 2 1/2"	5906 (1.50")	Passed (38%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	2072 @ 1' 2 3/8"	11845	Passed (17%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	13549 @ 12' 2 1/2"	26772	Passed (51%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.444 @ 12' 2 1/2"	0.800	Passed (L/648)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.984 @ 12' 2 1/2"	1.200	Passed (L/293)	--	1.0 D + 1.0 L (All Spans)

System : Floor
 Member Type : Drop Beam
 Building Use : Residential
 Building Code : IBC 2018
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 11 7/8" SPF beam	2.50"	Hanger ¹	1.50"	1256	1038	2294	See note ¹
2 - Hanger on 11 7/8" SPF beam	2.50"	Hanger ¹	1.50"	1256	1038	2294	See note ¹

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- ¹ See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	21' 5" o/c	
Bottom Edge (Lu)	24' o/c	

- Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie							
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories	
1 - Face Mount Hanger	HU610	2.50"	N/A	18-16d	8-16d		
2 - Face Mount Hanger	HU610	2.50"	N/A	18-16d	8-16d		

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Multiple Member Connections								
Type	Location	Fastener	Placement	Rows	O.C.	# of Fasteners	Details	
Uniform	2 1/2" to 24' 2 1/2"	10d Nail (0.128" x 3")	Both Sides	3	12"	--	L6	

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	2 1/2" to 24' 2 1/2"	N/A	18.2	--	
1 - Uniform (PSF)	0 to 24' 5" (Top)	8' 6"	10.0	10.0	Default Load

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 The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Tim Robinson rk Miles (802) 549-5695 robinson@rkmiles.com	

