

Wooden Dummy Construction and Installation Errata and Updates for the "Ken Jong"

2005-11-14: Construction and Installation Updates

- Caution: These specs are NOT drawn to scale!
- Body of dummy is of laminated hard maple (rock maple).
- Angle between upper and lower leg is approximately 120 degrees.
- For the arms, the diameter at the fattest part should be increased by about $\frac{1}{4}$ " as compared to these specifications; the slender part of the arm does not need to be changed.
- The upper arm holes in the spec are shown to be off center. The holes can be constructed on center, but the critical thing is to maintain a distance between upper arms (when spread apart) of $6 \frac{3}{8}$ " to $6 \frac{5}{8}$ " center to center.
- Our existing slats are made of ash or pecan for best combination of flexibility and strength; Ken recommended to choose a wood with just slightly less give (but not too stiff). I'll update these spec once the type of wood is identified.
- The mounting slats should ride "free" at the ends to allow flex and give, and should not be "bolted" in place. Leave at least $\frac{1}{2}$ " – 1" past the mounting bracket on each end of the slats.
- Install 4 simple wooden clamps on the slats to prevent the dummy from sliding. Leave just enough "slack" for the dummy to turn and play on the slats without unnecessarily sliding around.
- Can install 4 additional wooden clamps near inside edge of slats to prevent them from sliding out of the brackets.

2006-11-16: Views of dummy redrawn to scale

See Appendix. Thanks to Uriel Wong for this update.

2011-07-24: Updated Notes on Wood for Mounting Slats

Thanks to Mark Leong of Hawaii, and Carina Cirrincione of Little Raven Studios for this update.

"My first choice for the slats is hickory. (hickory and pecan are often sold together because they have very similar properties) Hickory is very strong, flexible and durable. White oak would be my second choice. I would avoid red oak as it is not as strong as white oak. I would not use maple for the slats. Maple is the best wood for the dummy itself, but for the narrow slats, maple is too stiff which makes it brittle when in the form of thin strips like the slats.

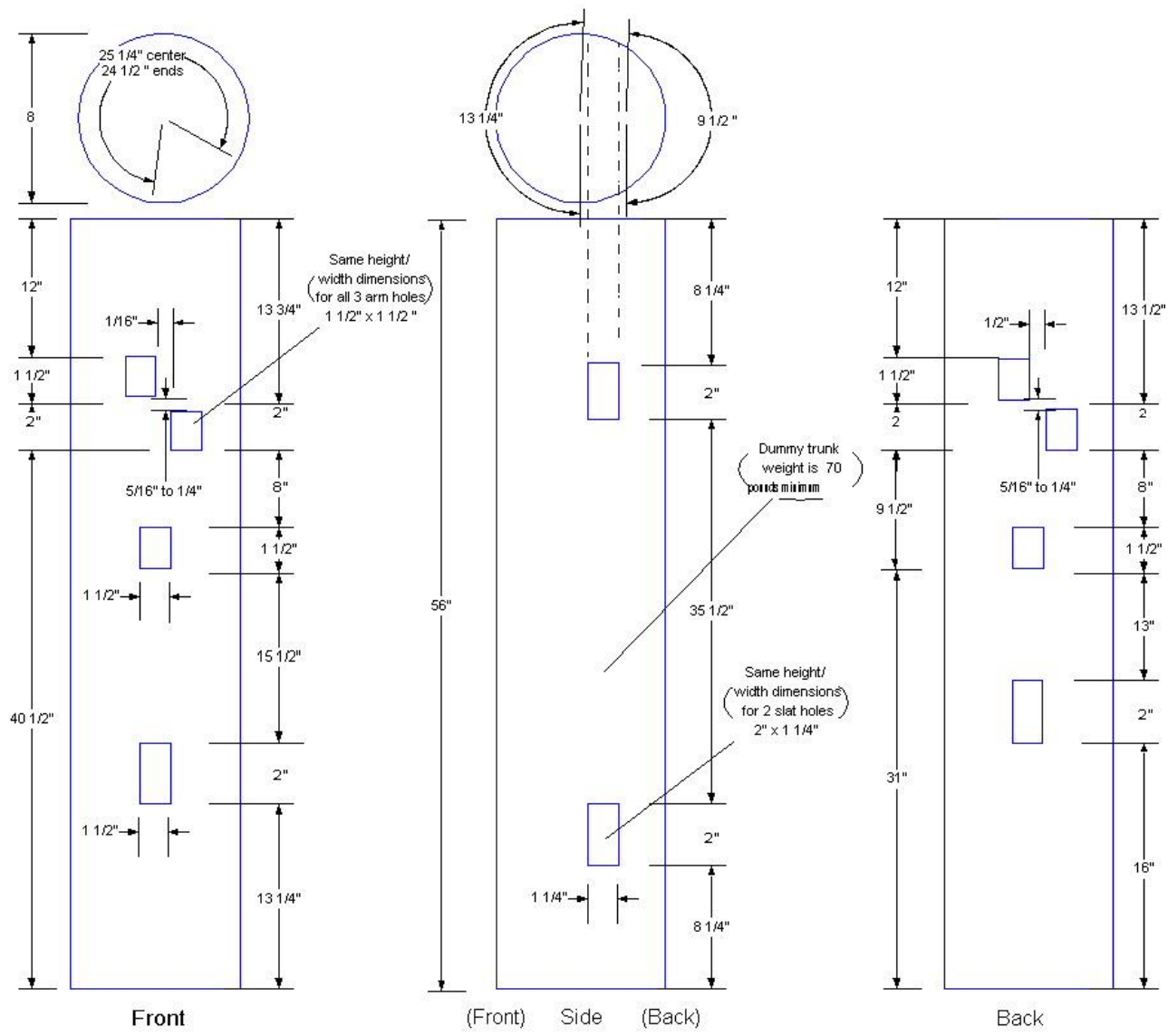
"When choosing the boards make sure you pick ones that have very straight grain. When looking at the wood, site down the length of the boards and choose the ones that have the straightest grain that runs the length of the board and does not cut across it. If the grain cuts across the board it can be weak in that area."

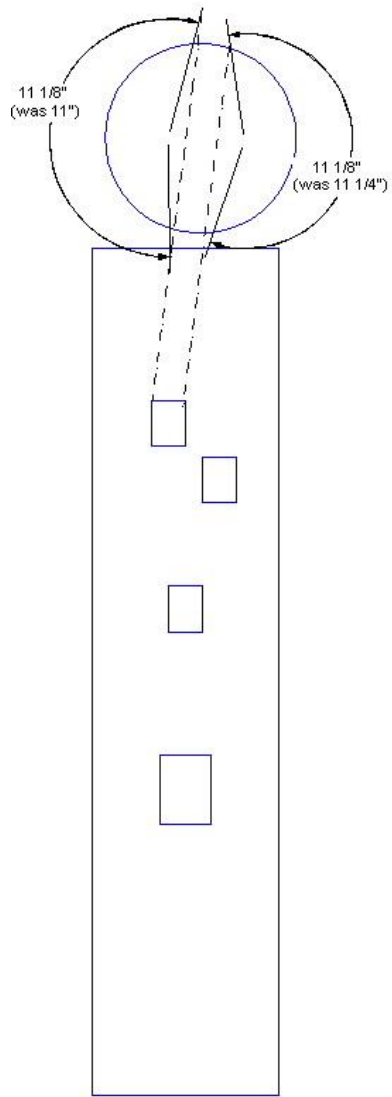
Refer to Appendix 2 for a comparative chart of wood properties.

APPENDIX 1: Original Diagrams

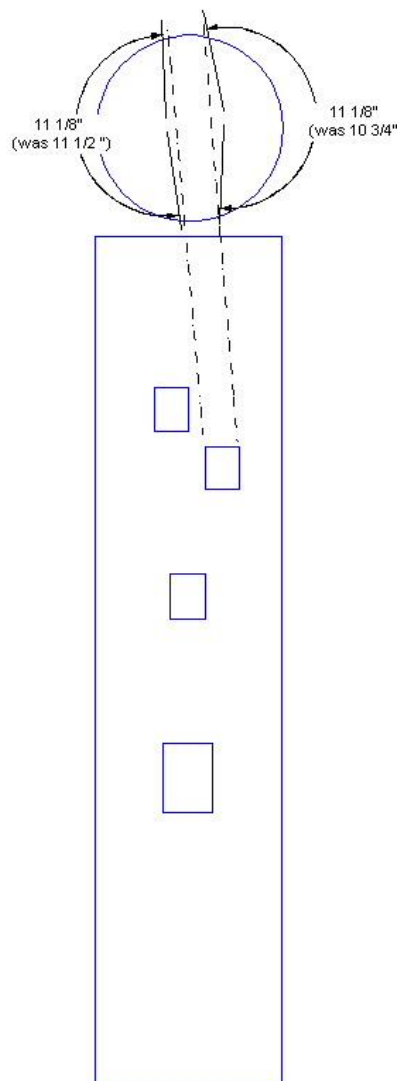


KenDummy V4
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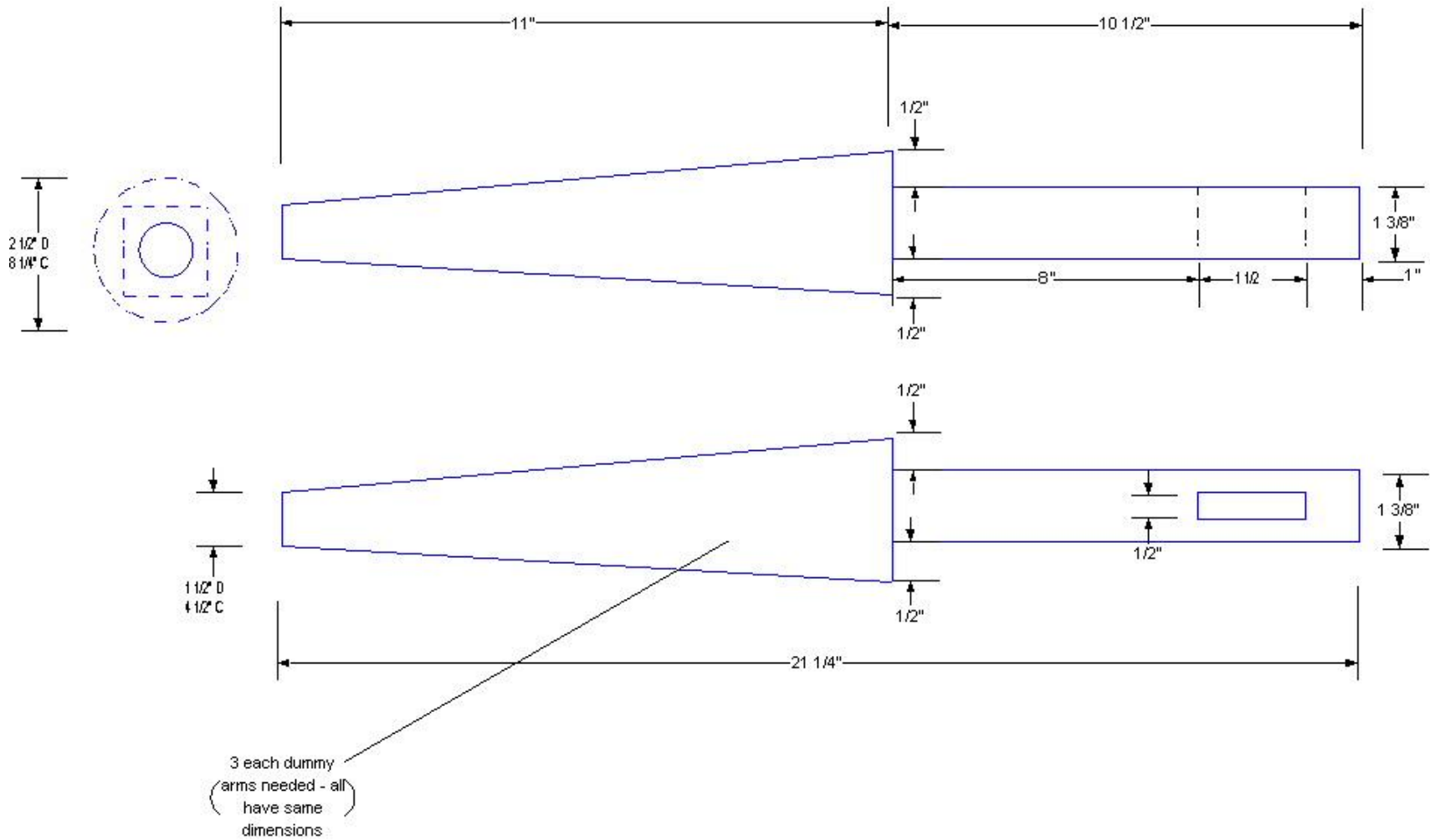


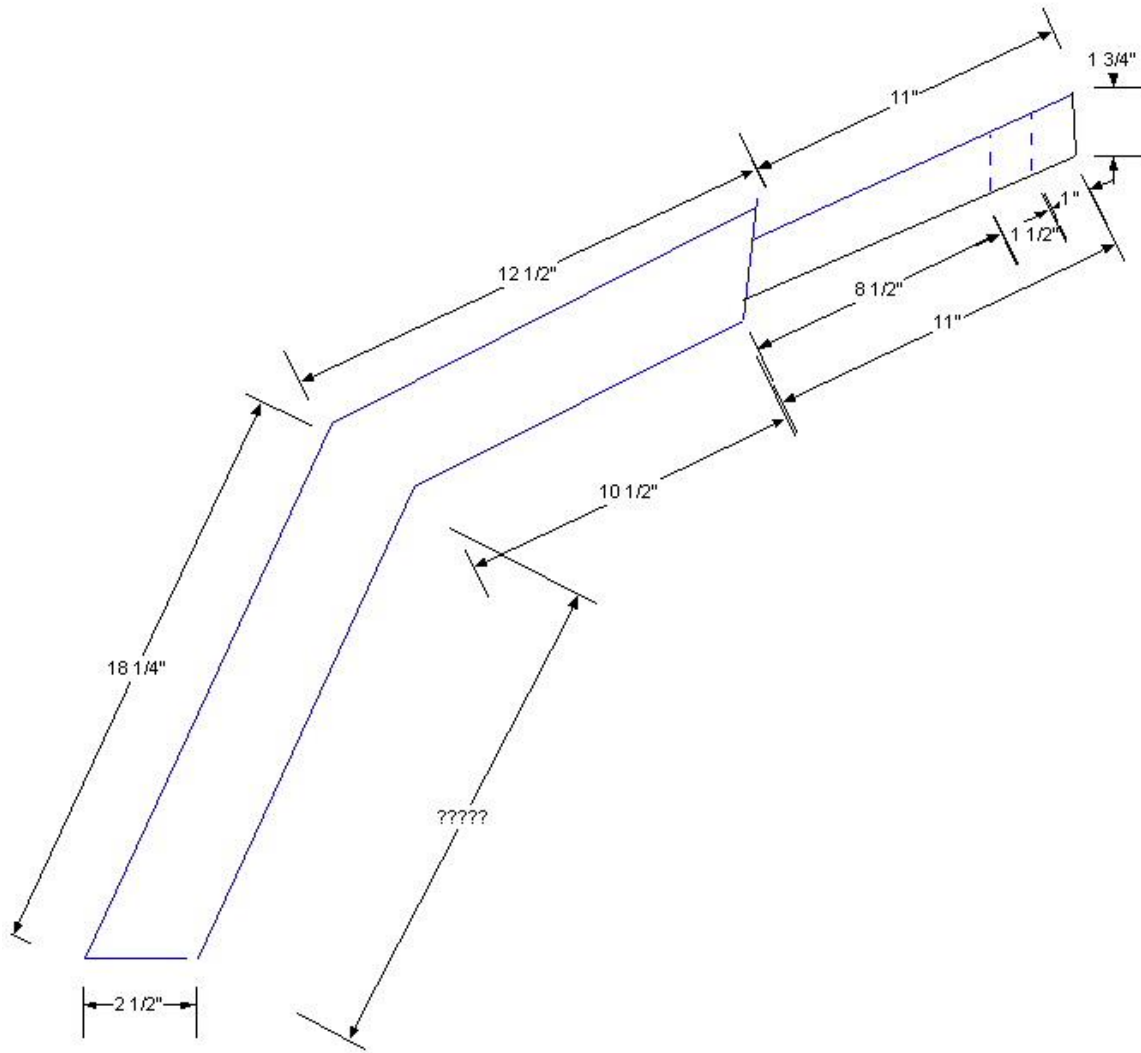


Front

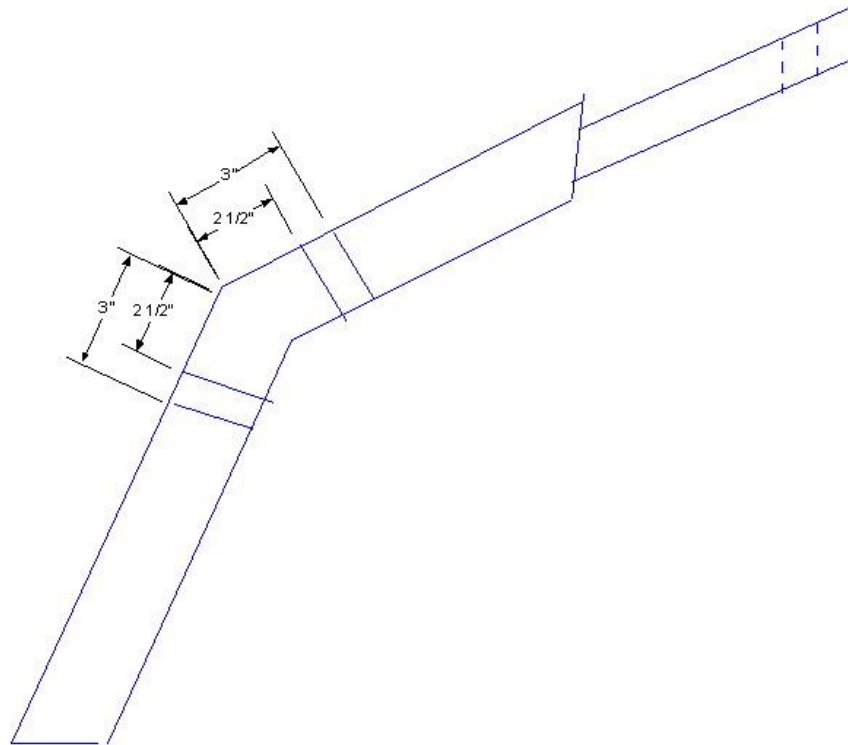
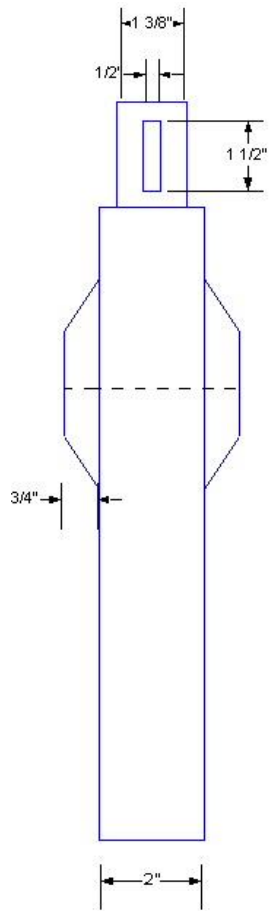


Back

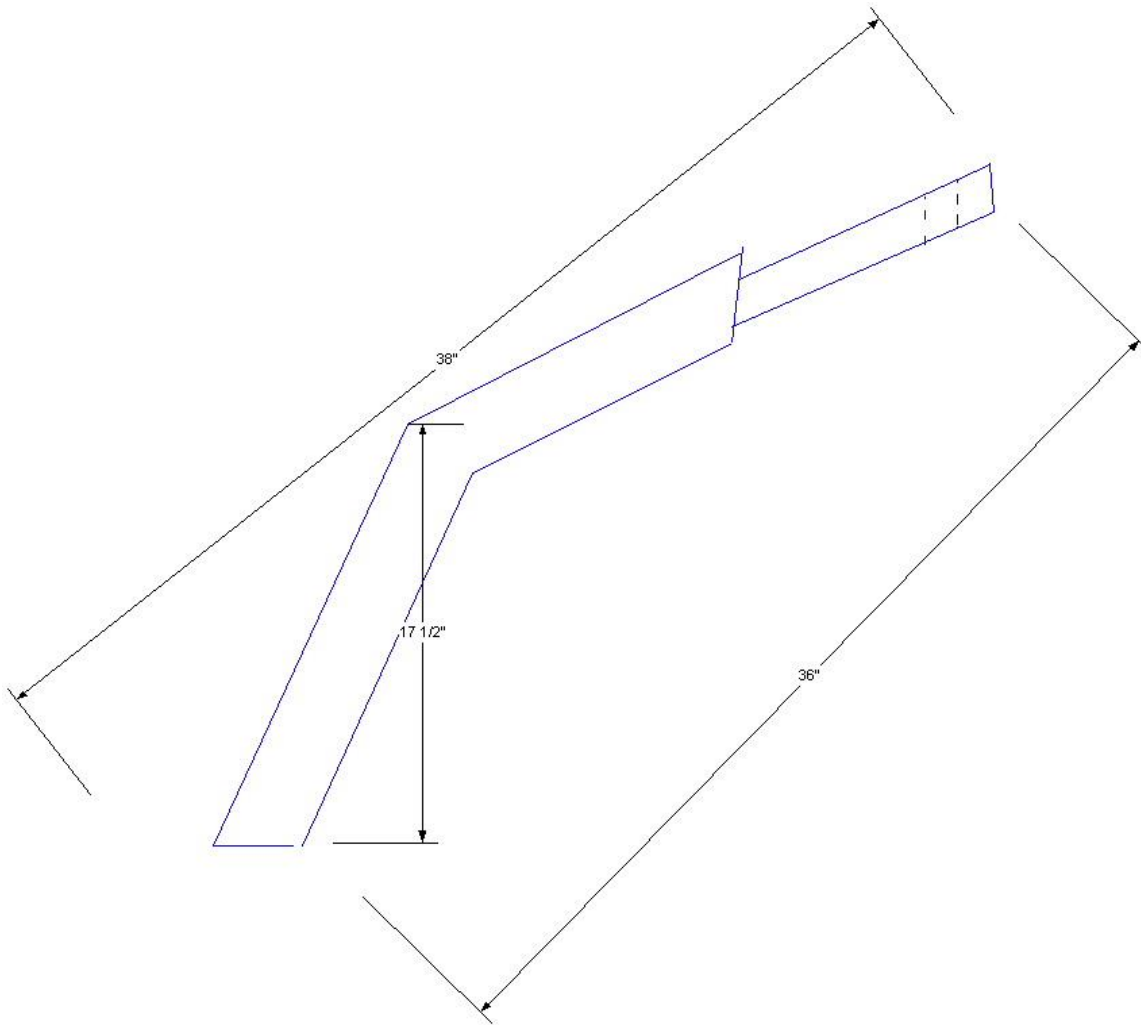




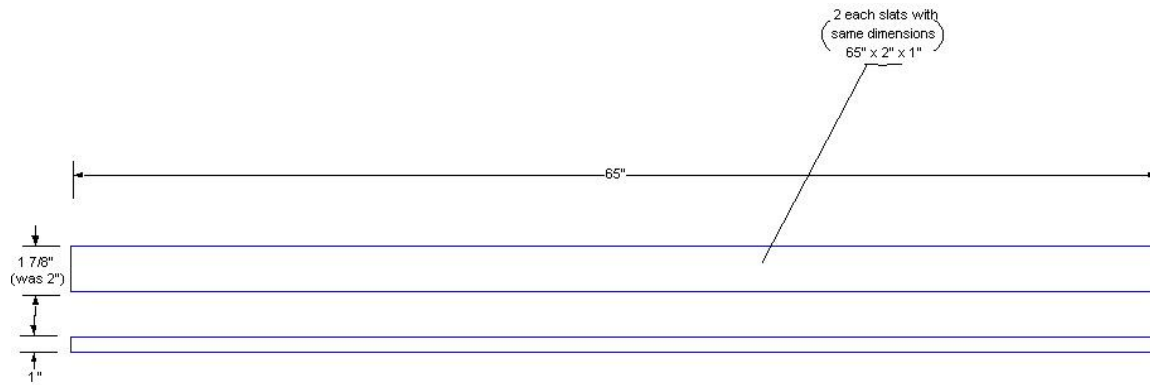
For Bay Area Wing Chun Student's Association & Affiliates
Kathy Jo B. Connors
Revised 2017-06-04



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APPENDIX 2: Diagrams redrawn to scale



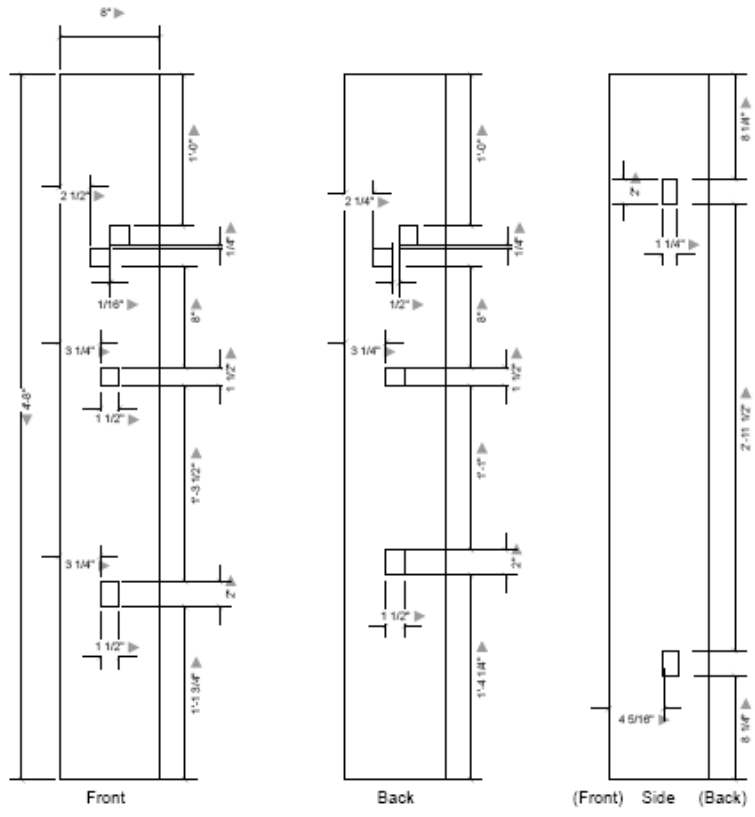
Wooden Dummy
Specs - Trunk to Scal



dummytopview - to
scale.pdf

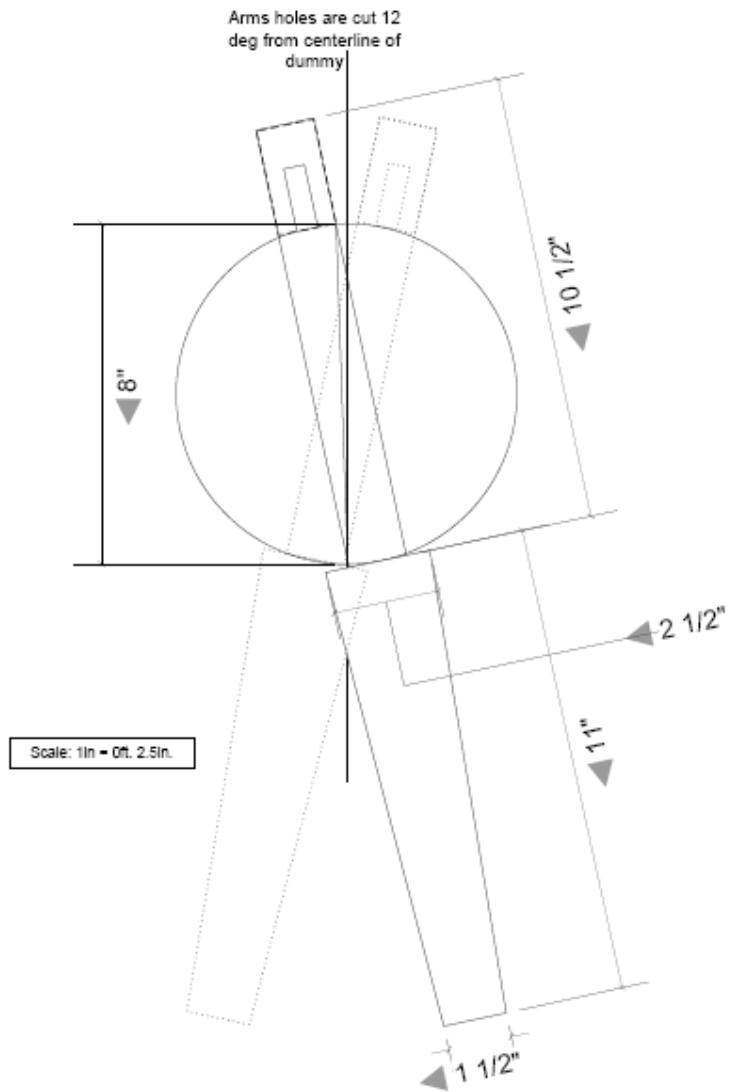


dummyleg-1- to
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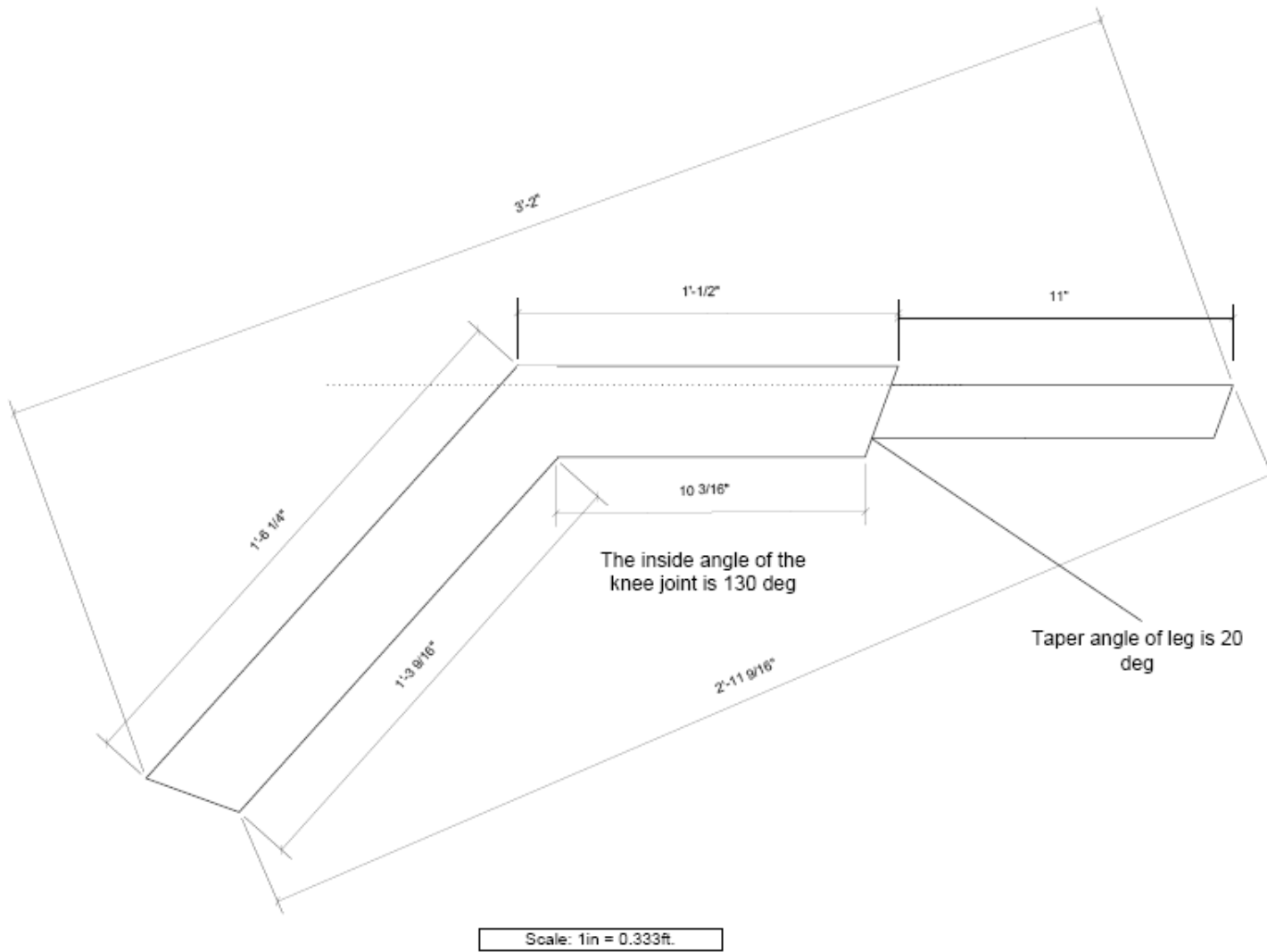


Scale: 1 1/2" = 1'-0"

Based on measurements posted by Kathy Jo to the LSLA group



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APPENDIX 3: Comparative Physical Properties of Popular Wood Species

Comparative Physical Properties of Popular Wood Species

Species	Specific Gravity [†]	Weight [‡]	Strength	Stiffness	Hardness	Shock Resisting Ability	Bending Strength	Shrinkage
ALDER, RED	0.37	28	82	139	48	71	76	123
ASH, WHITE	0.54	41	106	161	108	139	110	126
ASPEN	0.35	27	58	107	31	67	63	111
AVODIRE		36	97	125	93	81	96	105
BASSWOOD	0.32	26	62	126	31	54	61	158
BEECH	0.56	45	94	169	96	135	102	162
BIRCH, SWEET	0.6	46	105	207	104	159	117	154
BIRCH, YELLOW	0.55	43	98	174	86	171	106	166
BUBINGA		55			157			148
BUTTERNUT	0.36	27	68	115	40	80	64	100
CATALPA, NORTHERN	0.38	29	59	110	43	95	63	73
CATIVO	0.4	29	60	101	50	60	68	85
CHERRY, BLACK	0.47	35	100	150	72	112	93	113
CHESTNUT	0.4	30	70	112	50	69	68	111
COTTONWOOD, EASTERN	0.37	28	64	123	36	73	62	138
CUCUMBER TREE, YELLOW	0.44	34	88	175	57	103	90	137
CYPRESS, BALD	0.42	32	92	136	52	76	79	104

DOGWOOD	0.64	51	101	124	154	192	100	194
EBONY		63	174	230	258	255	196	
ELM, AMERICAN	0.46	36	74	130	66	123	85	145
HACKENBERRY	0.49	37	72	108	74	145	76	138
HICKORIES, TRUE	0.65	51	123	188	142	292	138	182
HOLLY	0.5	40	71	102	86	124	76	155
LIMBA	0.45	34	73	101	70		28	140
LOCUST, BLACK	0.66	48	168	220	161	170	157	103
MAHOGANY, AFRICAN	0.43	31	91	104	68	80	87	92
MAHOGANY, CENTRAL AMERICA	0.45	32	111	145	76	83	98	79
MAHOGANY, CUBAN	0.57	41	95	123	114	71	88	60
MAKORE		40						124
MAPLE, RED	0.49	38	87	158	79	110	93	128
MAPLE, SILVER	0.44	33	71	106	65	93	69	114
MAPLE, SUGAR	0.57	44	106	178	115	138	114	147
MERANTI, RED (LAUAN)	0.4	36	86	138	55	110	82	117
Species	Specific Gravity†	Weight‡	Strength	Stiffness	Hardness	Shock Resisting Ability	Bending Strength	Shrinkage
MERANTI, WHITE (LAUAN)		36	75	138	53	114	74	103
MYRTLE	0.51	39	76	89	106	144	72	116
NARRA	0.52	42	148	159	124	149	136	69
OAKS, COMMERCIAL RED	0.56	44	92	168	103	139	101	143
OAKS, COMMERCIAL WHITE	0.59	47	93	149	109	125	99	155
ORIENTALWOOD		44	122	150	117		105	

OSAGE-ORANGE	0.76		147	153	246	397		157	89
PADAUK (AFRICAN)		43			137				82
PADAUK (ANDAMAN)	0.62	45	152	165	130	101		130	78
PADAUK (BURMA)	0.75	54	187	196	198	159		176	
PALDAO	0.54	44			94				127
PEARWOOD (EUROPEAN)		43			94				195
PECAN	0.6	47	104	162	142	156		110	137
PRIMAVERA	0.4	30	102	123	74	94		106	91
ROSEWOOD (BRAZIL)		50			153				119
SAPELE	0.54	40	137	126	123	94		96	138
SATINWOOD	0.83	67	166	181	209	132		141	147
SONORA (MANNGGASINORO)	0.42	31	62	116	50	88		61	
SWEETGUM	0.44	34	77	134	60	99		86	150
SYCAMORE	0.46	35	76	129	64	78		74	136
TANGUILE	0.53	39	91	154	64	87		87	103
TEAK	0.6	43	136	173	99	107		124	162
TIGERWOOD	0.45	34	101	123	78	93		90	138
TULIPWOOD, AMERICAN	0.38	28	68	135	40	58		71	119
TUPELO, WATER	0.46	35	87	127	78	81		82	122
WALNUT, BLACK (AMERICAN)	0.51	39	113	167	88	124		111	116
WILLOW, BLACK	0.34	26	41	70	35	91		45	126
ZEBRAWOOD	0.62	48			125				156

Source: Fine Hardwoods Selectorama © 1987 Fine Woods Association.

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† Based on green volume and oven dry weight

‡ Compressive strength (endwise)