

## HRW-10CQ HANDRAIL

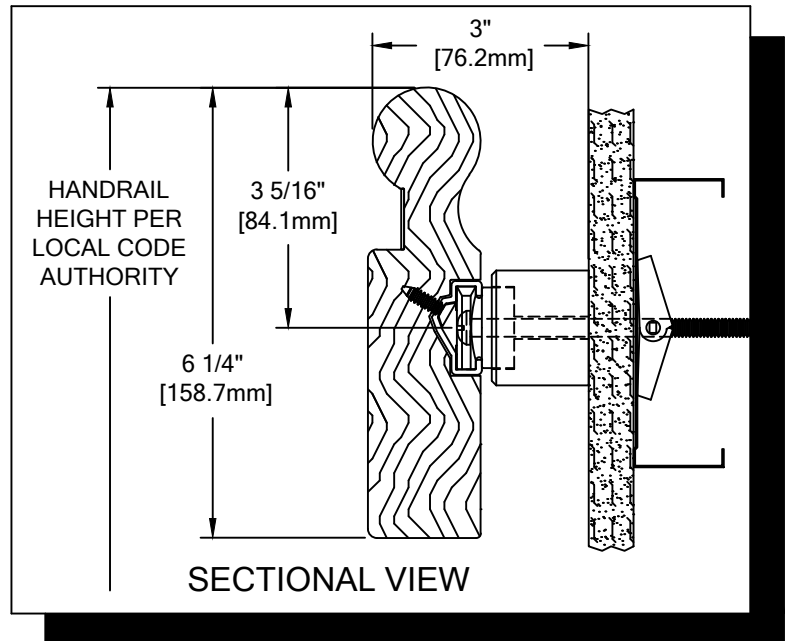
### PLEASE READ

PLEASE READ THESE INSTRUCTIONS THOROUGHLY PRIOR TO BEGINNING THE HRW-10CQ HANDRAIL INSTALLATION!

THIS INSTRUCTION SHEET IS INTENDED TO PROVIDE A SPECIFIC GUIDE TO FOLLOW FOR THE INSTALLATION OF THIS HRW-10CQ HANDRAIL. CONTAINED WITHIN IS THE TECHNICAL INFORMATION AND INSTALLATION TECHNIQUES REQUIRED TO COMPLETE AN EFFICIENT, NEAT AND LONG-LASTING INSTALLATION.

INSPECT ALL MATERIALS FOR DAMAGE OR MISSING PARTS. IF YOU DISCOVER DAMAGED OR MISSING MATERIALS, IN THE USA PLEASE NOTIFY THE FACTORY AT (800) 233-8493, AND IN CANADA (888) 895-8955 FOR CUSTOMER SERVICE.

HRW-10CQ HANDRAIL MUST BE INSTALLED IN ACCORDANCE WITH THESE INSTRUCTIONS! FAILURE TO FOLLOW THESE INSTRUCTIONS MAY VOID ANY PRODUCT WARRANTIES AND RESULT IN AN UNSUCCESSFUL INSTALLATION. FOR SPECIFIC QUESTIONS REGARDING THE INSTALLATION OF THIS HRW-10CQ HANDRAIL PLEASE CALL THE FACTORY IN THE USA AT (800) 233-8493 OR EMAIL [IWPTECHSUPPORT@C-SGROUP.COM](mailto:IWPTECHSUPPORT@C-SGROUP.COM). IN CANADA CALL (888) 895-8955.



### IMPORTANT NOTES

1. DUE TO WOOD BEING A NATURAL PRODUCT, COMPONENTS MAY GROW AND SHRINK AT DIFFERENT RATES. BECAUSE OF THIS, C/S HAS DESIGNED THIS HANDRAIL TO UTILIZE A BEVEL AS SHOWN IN THESE INSTRUCTIONS (SEE FIGURE 1). THIS BEVEL MUST BE APPLIED AT ALL WOOD JOINTS AND MUST MATCH FACTORY BEVEL ON END CAPS.
2. DUE TO THE NATURE OF WOOD, COMPONENT COLORS MAY VARY, SORT WOOD COMPONENTS AND MATCH PARTS BY COLOR.
3. ALL LINEAL MATERIAL TO BE SUPPLIED IN STOCK LENGTHS. WOOD IN 7'-0" TO 12'-0" VARIABLE, AND ALUMINUM IN LENGTHS UP TO 20'-0". THIS MATERIAL IS TO BE FIELD CUT USING QUALITY EQUIPMENT TO INSURE THAT ALL CUTS ARE SQUARE. WHEN CUTTING MATERIAL SECTIONS, C/S RECOMMENDS USING AN 80-100 TOOTH CARBIDE TIPPED SAW BLADE OR EQUIVALENT, TO MINIMIZE CHIPPING AND MAINTAIN JOINT ALIGNMENT.
4. RADIAL MATERIAL MAY BE SUPPLIED FACTORY FORMED OR IN STRAIGHT LENGTHS FOR FIELD FORMING. CONSULT FACTORY FOR OPTIONS.
5. ALL DIMENSIONS ARE TYPICAL.
6. FOR DRYWALL/PLASTER WALL CONSTRUCTION, IT IS RECOMMENDED FOR FASTENERS TO BE ENGAGED INTO METAL/WOOD STUDS TO MAINTAIN MAXIMUM PULLOUT STRENGTH.
7. INSTALL OUTSIDE CORNERS FIRST.
8. INSTALL LONGEST RUN OF HANDRAIL FIRST..
9. MATERIAL MUST REACH 65°F MIN. TO 75°F MAX. 24 HOURS PRIOR TO INSTALLATION. THIS IS ESSENTIAL TO MINIMIZE EXPANSION AND CONTRACTION OF MATERIAL.
10. MAY REQUIRE USE OF FIRE PUTTY WHEN INSTALLED ON FIRE WALL WITH TOGGLE BOLTS. REFERENCE INSTRUCTIONS 24FIREPUTTY FOR FIRE PUTTY INSTALLATION.
11. THIS HANDRAIL REQUIRES A MINIMUM OF 2 MOUNTING BRACKETS PER UNIT. THE MINIMUM END CAP-TO-END CAP HANDRAIL LENGTH IS 13 3/8" [339.7mm].
12. FOR MORE INFORMATION ON HRW-10CQ HANDRAIL SEE OUR WEBSITE AT [www.c-sgroup.com](http://www.c-sgroup.com).

**HRW-10CQ HANDRAIL**

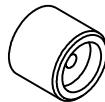
COMPONENTS & WALL FASTENERS



WOOD HANDRAIL  
(24W321xxx)



WOOD HANDRAIL  
(24W326xxx-GROOVED)



MOUNTING BRACKET  
(24W209xxx)



QUICK LOCK  
(24I821000)



FASTENER #1  
#10 X 3/4" PHILLIPS  
FLAT HEAD SCREW  
(90H507002)



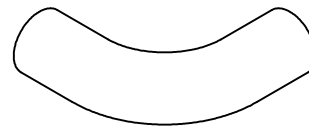
ALUMINUM RETAINER  
(24A214000)



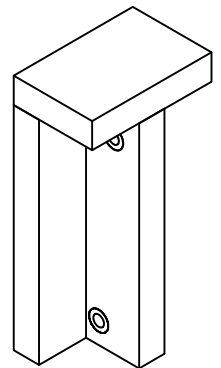
ACROVYN ACCENT REVEAL



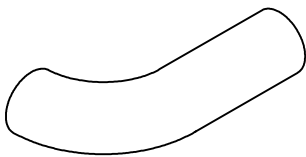
FEATURE INSERT  
(24V011xxx)



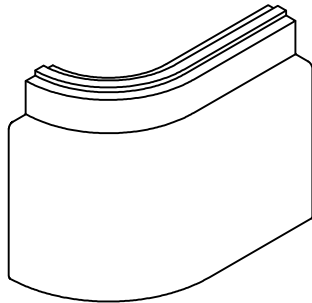
WOOD HANDRAIL  
OUTSIDE CORNER  
(24W334xxx)



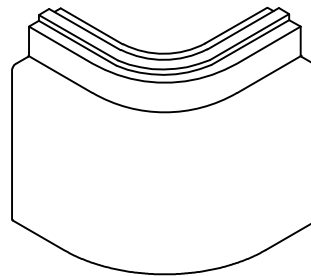
DOWEL PIN  
DRILLING JIG  
(90H031010)



WOOD HANDRAIL END CAP  
(24W322xxx, LH SHOWN)  
(24W323xxx, RH)



WOOD CRASH RAIL END CAP  
(24W324xxx-LH PLAIN, SHOWN)  
(24W327xxx-LH GROOVED)  
(24W325xxx-RH PLAIN)  
(24W328xxx-RH GROOVED)

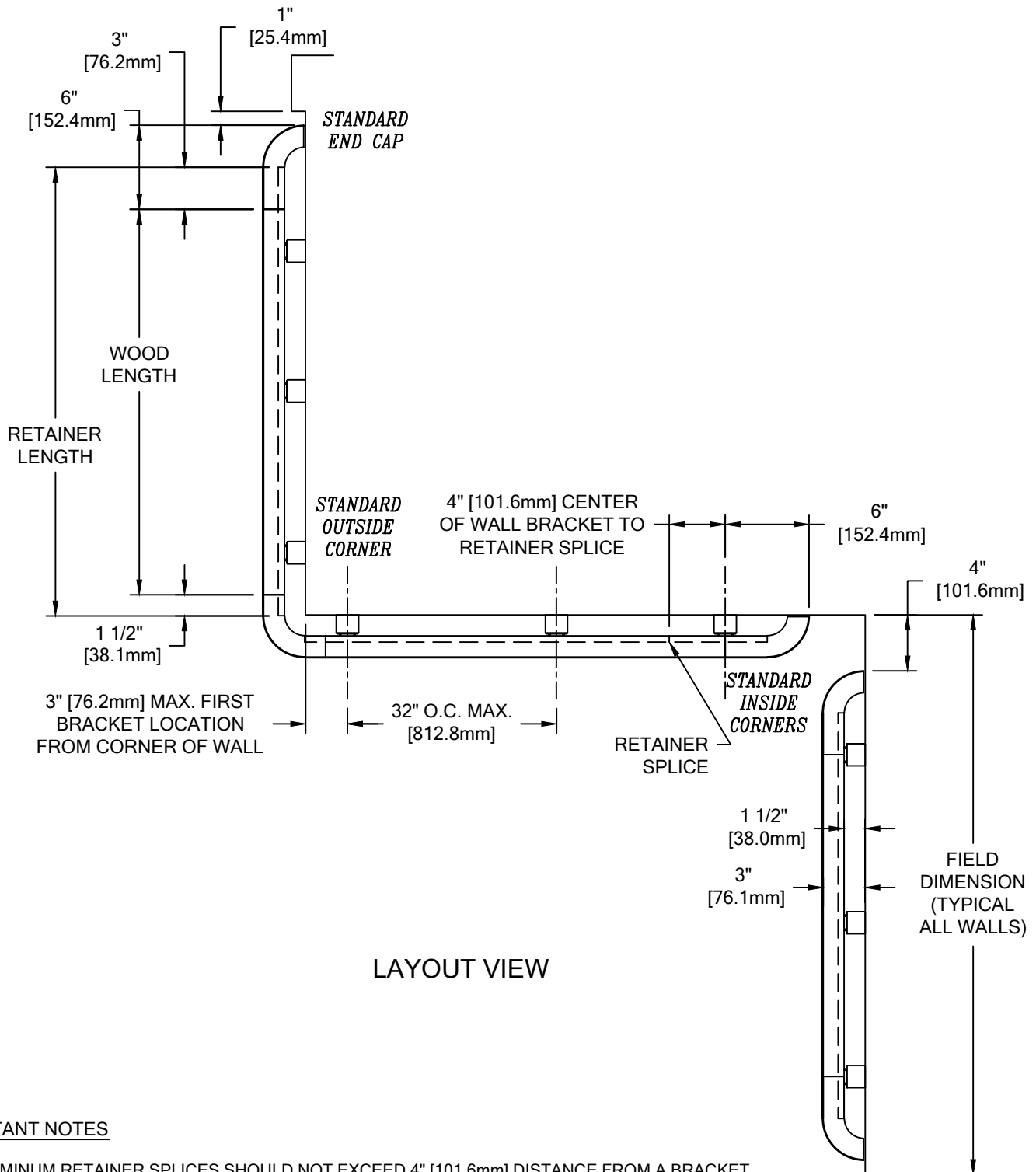


WOOD CRASH RAIL  
OUTSIDE CORNER  
(24W335xxx-PLAIN)  
(24W337xxx-GROOVED)

| WALL CONDITION          | SPECIFIED FASTENER  | DRILL DIAMETERS |          | C/S PART NUMBER        |
|-------------------------|---|-----------------|----------|------------------------|
|                         |   | WALL            | RETAINER |                        |
| STEEL STUD/GYPSUM WALL  | 1/4-20 X 5" ROUND HEAD BOLT WITH TOGGLE<br>1/4" LOCK WASHER | 3/4"            | N/A      | 90H049002<br>90H006003 |
| CONCRETE/CONCRETE BLOCK | #14 X 5" PHILLIPS RD HD ALL-PURPOSE SCREW                   | 3/16"           | N/A      | 90H287002              |
| WOOD STUD/GYPSUM WALL   | #14 X 5" PHILLIPS RD HD ALL-PURPOSE SCREW                   | 1/8"            | N/A      | 90H287002              |

HRW-10CQ HANDRAIL

LAYOUT VIEW



LAYOUT VIEW

IMPORTANT NOTES

1. ALUMINUM RETAINER SPLICES SHOULD NOT EXCEED 4" [101.6mm] DISTANCE FROM A BRACKET.
2. THE DISTANCE BETWEEN A WOOD SPLICE JOINT AND AN ALUMINUM RETAINER SPLICE JOINT SHOULD BE STAGGERED 12" [304.8mm].
3. TANGENT POINTS ON FACTORY FORMED RADIAL MATERIAL WILL BE MARKED APPROXIMATELY AND SHOULD BE CUT TO SUIT FIELD CONDITIONS.

**HRW-10CQ HANDRAIL**

ASSEMBLY VIEW

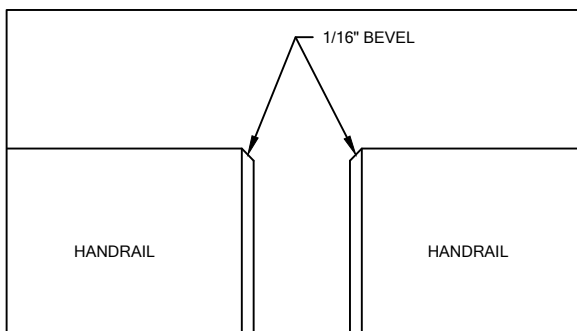
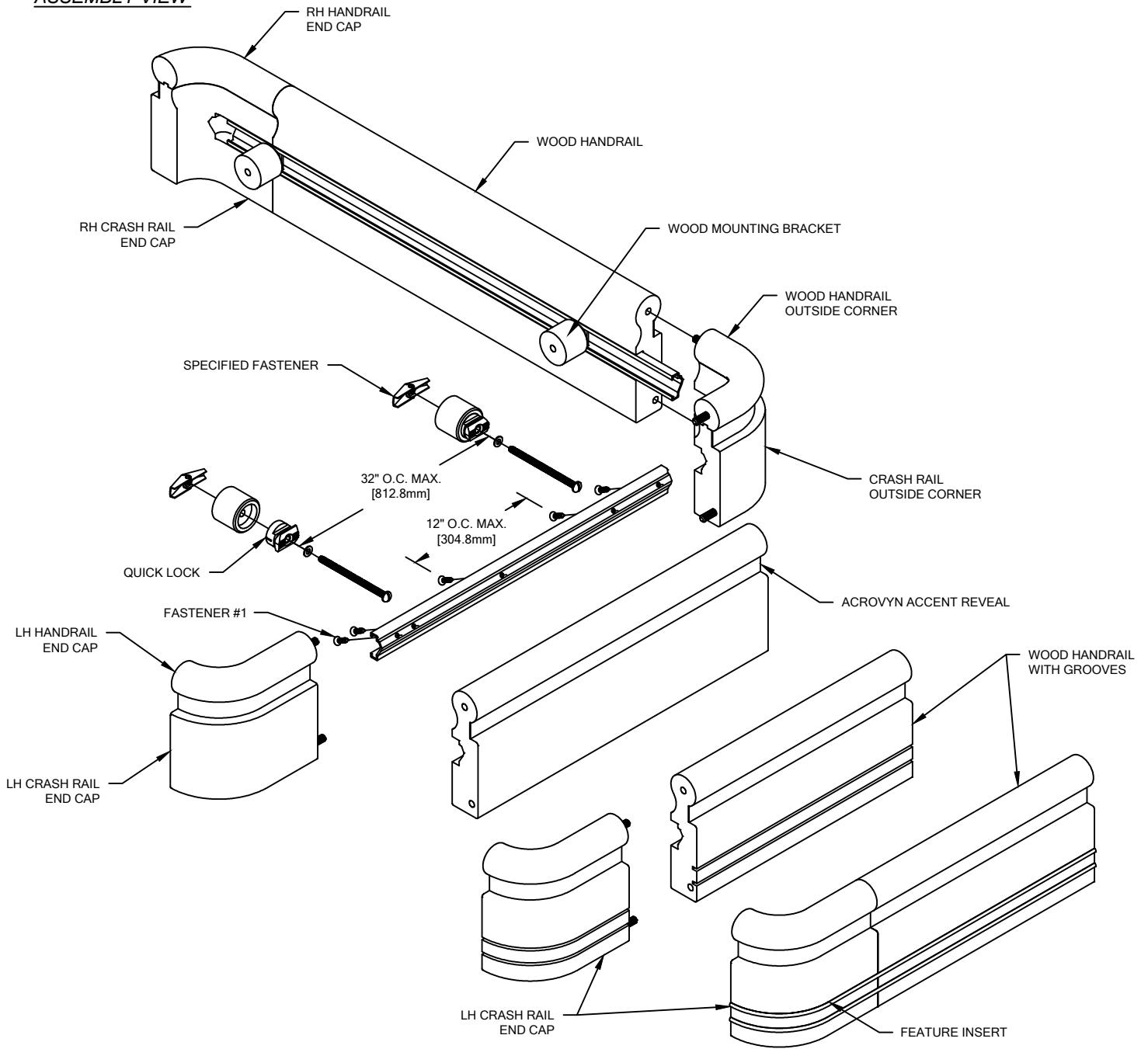


FIGURE 1.

## HRW-10CQ HANDRAIL

### TYPICAL ASSEMBLY

**NOTE:** INSTALLATION OF LINEAL OR RADIAL HRW-10CQ HANDRAIL SHOULD BE DONE IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS.

1. USE LOCAL CODE REQUIREMENTS AND ESTABLISH HANDRAIL HEIGHT ABOVE FINISH FLOOR. DEDUCT 3 5/16" [84.1mm] AND SNAP A CHALK LINE AT THAT HEIGHT. THIS MARKS THE LOCATION OF THE MOUNTING BRACKET FASTENERS.
2. DETERMINE WALL FASTENER LOCATIONS BY USING THE REQUIRED DEDUCTIONS (SEE LAYOUT VIEW) AND DRILL HOLE DIAMETER FOR SPECIFIED WALL FASTENERS. REFERENCE CHART ON PAGE 2 FOR CORRECT DRILL DIAMETERS.
3. INSERT A BRACKET LOCK INTO EACH WOOD MOUNTING BRACKET. USING THE APPROPRIATE FASTENERS, ATTACH THE BRACKET ASSEMBLIES TO THE WALL AT THE PRE-DRILLED LOCATIONS.

**NOTE:** IF YOUR ORDER IS A CUT-TO-SIZE JOB, GO TO STEP 9.

**NOTE:** IF YOUR ORDER IS A PRE-ASSEMBLED JOB, GO TO STEP 11.

4. CUT WOOD HANDRAIL TO LENGTH NOTING REQUIRED DEDUCTIONS (SEE LAYOUT VIEW). BEVEL THE CUT EDGES ON HANDRAIL END SLIGHTLY WITH 150 GRIT SANDPAPER TO MATCH BEVEL ON WOOD END CAPS (SEE FIGURE 1). TOUCH UP SANDED EDGES WITH STAIN MARKER.

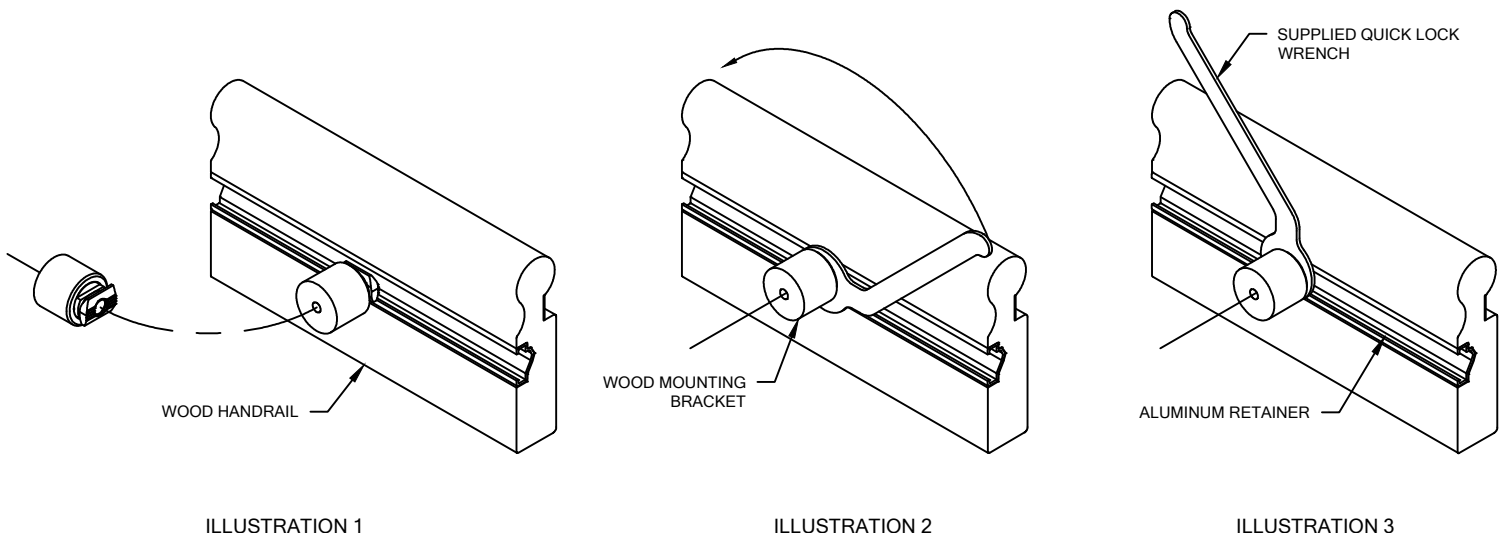
**NOTE:** IT IS RECOMMENDED THAT WOOD HANDRAIL AND ALUMINUM RETAINER BE CUT WITH AN 80-100 TOOTH CARBIDE TIPPED SAW BLADE OR EQUIVALENT.

5. ATTACH END CAPS AND OUTSIDE CORNERS TO THE HANDRAIL USING THE DRILL JIG TO PRE-DRILL CLEARANCE HOLES 7/8" DEEP INTO HANDRAIL USING A 5/16" DRILL BIT.

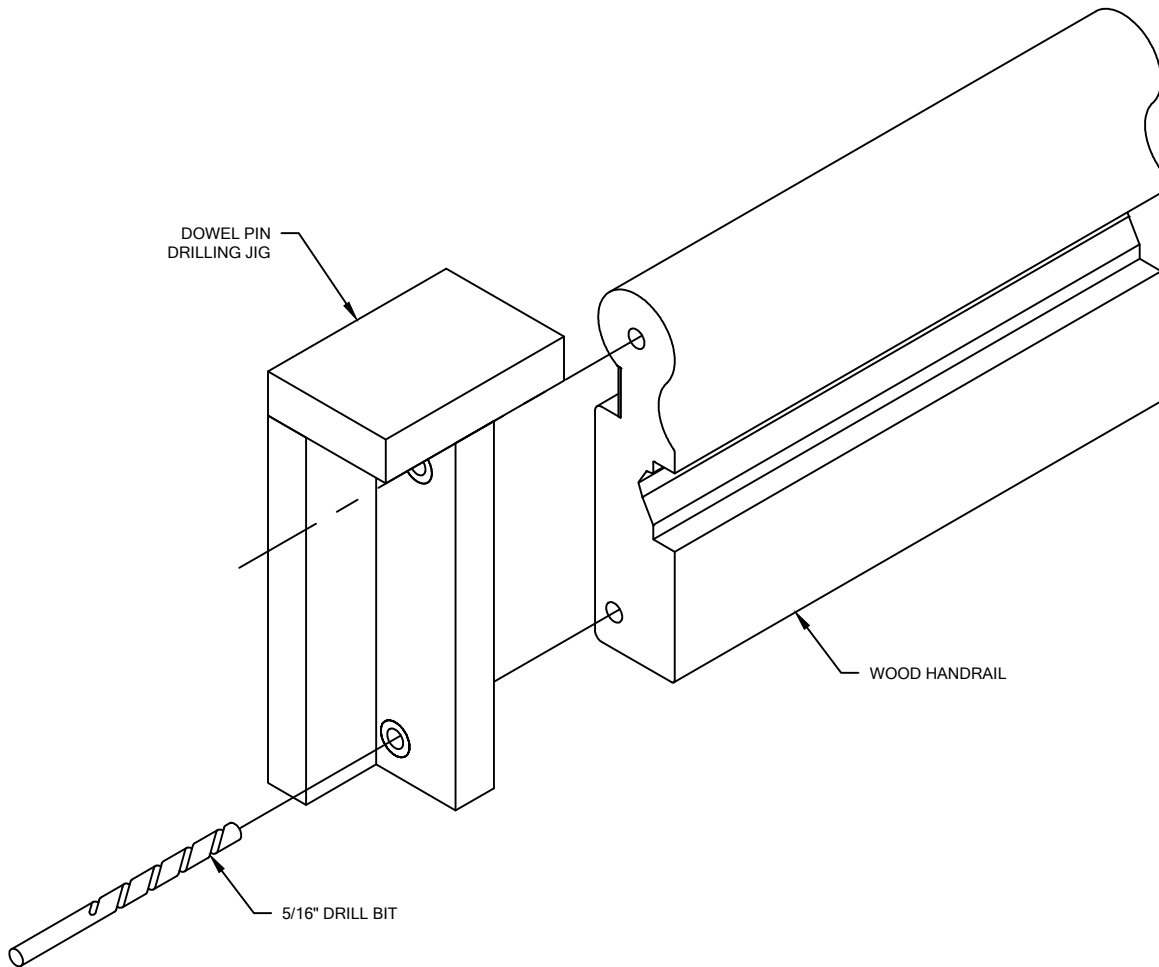
**NOTE:** CONTINUALLY CLEAN OUT WOOD CHIPS AS THE PILOT HOLE IS BEING DRILLED.

6. APPLY WOOD GLUE INTO THE HOLES AND CUT SURFACE OF HANDRAIL (TITEBOND IS RECOMMENDED). INSERT DOWELS INTO THE PRE-DRILLED CLEARANCE HOLES.
7. ALIGN DOWELS WITH MATING HANDRAIL CLEARANCE HOLES. CHECK SEAM FOR TIGHT FIT BETWEEN HANDRAIL AND END CAP/OUTSIDE CORNER. WIPE OFF ANY EXCESS GLUE.
8. CUT THE CONTINUOUS ALUMINUM RETAINER TO LENGTH USING THE REQUIRED DEDUCTIONS AS SHOWN ON LAYOUT VIEW.
9. FASTENERS START 2" [50.8mm] FROM THE ENDS OF RETAINER AND ARE 12" [305mm] ON CENTER. DRILL 7/32" [5.6mm] DIAMETER PILOT HOLE IN RETAINER.
10. ATTACH ALUMINUM RETAINER TO WOOD HANDRAIL. USING HOLES IN ALUMINUM RETAINER AS A TEMPLATE, DRILL 1/8" [3.2mm] DIAMETER PILOT HOLES INTO THE HANDRAIL 3/4" [19.0mm] DEEP. DO NOT DRILL THE PILOT HOLES WITHOUT A DRILL STOP.
11. REST THE RETAINER ON THE BRACKET ASSEMBLIES. USING THE WRENCH PROVIDED, TWIST EACH LOCK 90° TO SECURE THE WOOD WALL BRACKET INTO PLACE. SEE ILLUSTRATIONS 1 THROUGH 3.

**NOTE:** WHEN FIELD FORMING RADIUS HANDRAIL, BE SURE TO APPLY NEEDED PRESSURE FROM BRACKET TO BRACKET.



HRW-10CQ HANDRAIL



HANDRAIL SPLICE & END CAP DRILLING JIG

1. CUT HANDRAIL TO LENGTH. ALL SPLICE ENDS ARE TO BE CUT SQUARE. EASE FIELD CUT EDGES OF ALL WOOD COMPONENTS AND TOUCH UP USING ENCLOSED TOUCHUP KIT.
2. USE DRILL JIG TO PRE-DRILL CLEARANCE HOLES 7/8" DEEP INTO HANDRAIL USING A 5/16" DRILL BIT (90M039000).

**NOTE:** CONTINUALLY CLEAN OUT WOOD CHIPS AS THE PILOT HOLE IS BEING DRILLED.

3. APPLY WOOD GLUE INTO THE HOLES AND CUT SURFACE OF HANDRAIL (TITEBOND IS RECOMMENDED).
4. INSERT DOWELS INTO THE PRE-DRILLED CLEARANCE HOLES.
5. ALIGN DOWELS WITH MATING HANDRAIL CLEARANCE HOLES.
6. CHECK SEAM FOR TIGHT FIT BETWEEN SECTIONS OF HANDRAIL.