

## HRW-32S-INT HANDRAIL

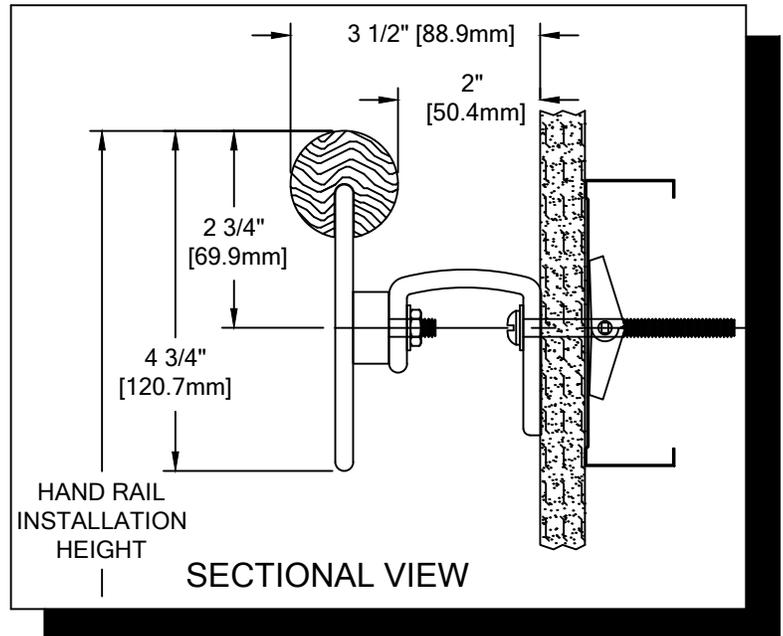
### PLEASE READ

PLEASE READ THESE INSTRUCTIONS THOROUGHLY PRIOR TO BEGINNING THE HRW-32S-INT HANDRAIL INSTALLATION!

THIS INSTRUCTION SHEET IS INTENDED TO PROVIDE A SPECIFIC GUIDE TO FOLLOW FOR THE INSTALLATION OF HRW-32S-INT 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.

HRW-32S-INT 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 HRW-32S-INT HANDRAIL PLEASE CALL THE FACTORY 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 THE NATURE OF WOOD, COMPONENT COLORS MAY VARY. SORT WOOD COMPONENTS AND MATCH PARTS BY COLOR.
2. THIS MATERIAL HAS BEEN MANUFACTURED TO CUSTOMER SPECIFIED DIMENSIONS AND CAN NOT BE CUT OR MODIFIED ON SITE. TO DO SO COULD VOID WARRANTY.
3. RADIAL MATERIAL MAY BE SUPPLIED FACTORY FORMED OR IN STRAIGHT LENGTHS FOR FIELD FORMING. CONSULT FACTORY FOR OPTIONS.
4. TANGENT POINTS ON FACTORY FORMED RADIAL MATERIAL WILL BE MARKED APPROXIMATELY AND SHOULD BE CUT TO SUIT FIELD CONDITIONS.
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. IF DURING INSTALLATION YOU ENCOUNTER SPECIAL WALL CONDITIONS THAT DO NOT ALLOW FOR DIRECT ATTACHMENT TO THE STUDS PLEASE CONSULT THE LOCAL AUTHORITY HAVING JURISDICTION.
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.
11. THIS HANDRAIL REQUIRES A MINIMUM OF 2 MOUNTING BRACKETS PER UNIT. THE MINIMUM END CAP-TO-END CAP HANDRAIL LENGTH IS 13" [330.2mm].

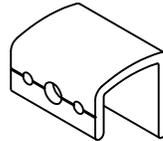
HRW-32S-INT HANDRAIL



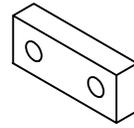
STAINLESS STEEL CRASH RAIL  
(24S057000)



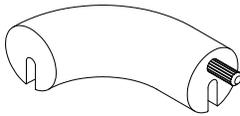
WOOD HANDRAIL  
(24W290xxx)



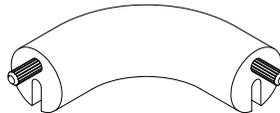
MOUNTING BRACKET  
(24F181003)



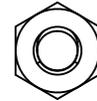
BRACKET EXTENSION  
(24F422001)



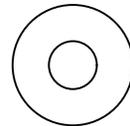
HRW-32 END CAP  
(LH-24W291xxx)  
(RH-24W292xxx)



HRW-32 OUTSIDE CORNER  
(24W293xxx)



FASTENER #1  
1/4-20 HEX NUT  
(90H010001)

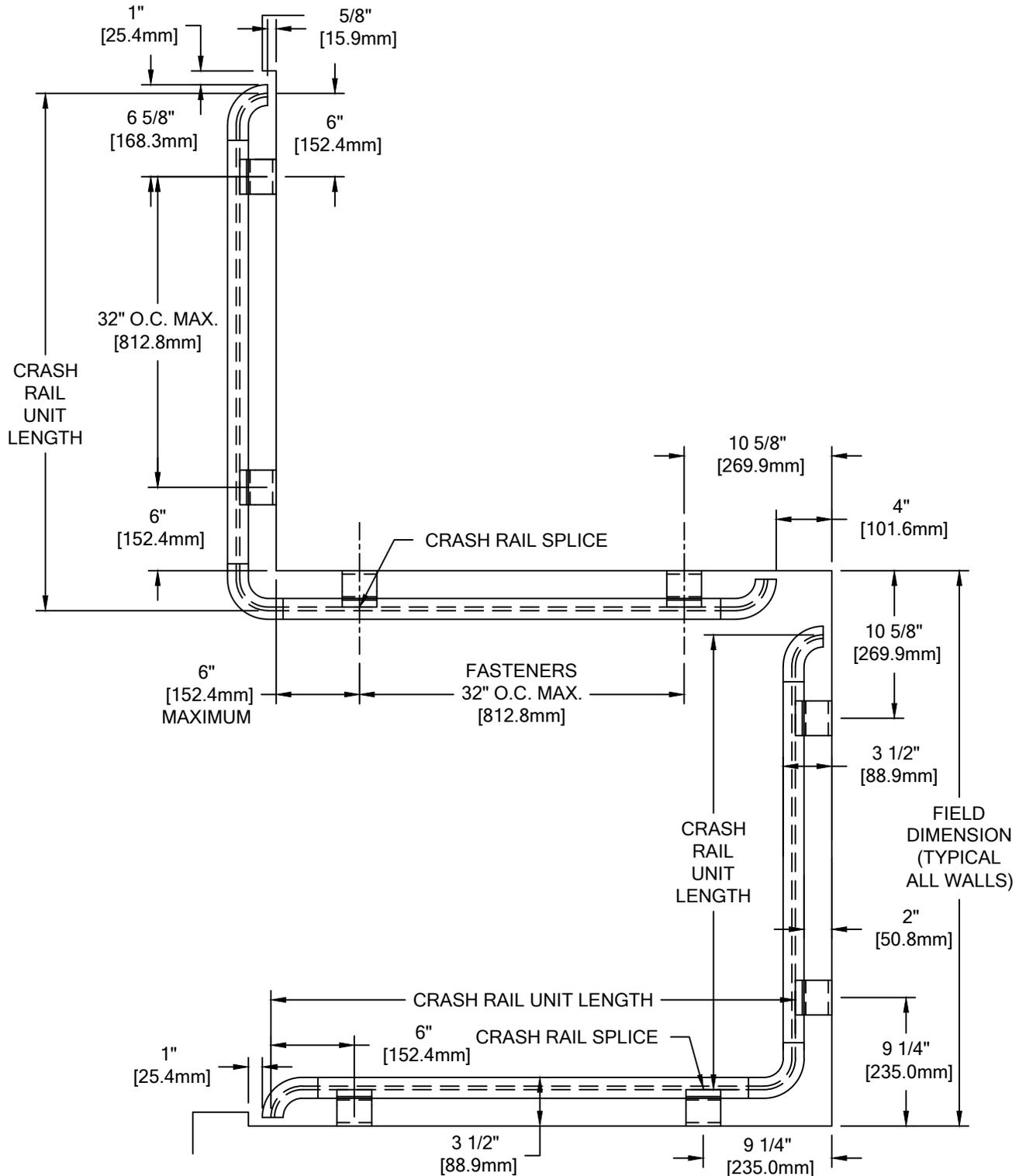


FASTENER #2  
1/4" FLAT WASHER  
(90H007003)

WALL CONDITION	SPECIFIED FASTENER	DRILL DIAMETERS		CS PART NUMBER
		WALL	RETAINER	
STEEL STUD/GYPSUM WALL	1/4-20 X 3" ROUND HEAD BOLT/TOGGLE WING	3/4"	N/A	90H045002
CONCRETE/CONCRETE BLOCK	#14 X 4" SS PHILLIPS ROUND HEAD ALL-PURPOSE SCREW	7/32"	N/A	90H225006
WOOD STUD/GYPSUM WALL	#14 X 4" SS PHILLIPS ROUND HEAD ALL-PURPOSE SCREW	7/32"	N/A	90H225006

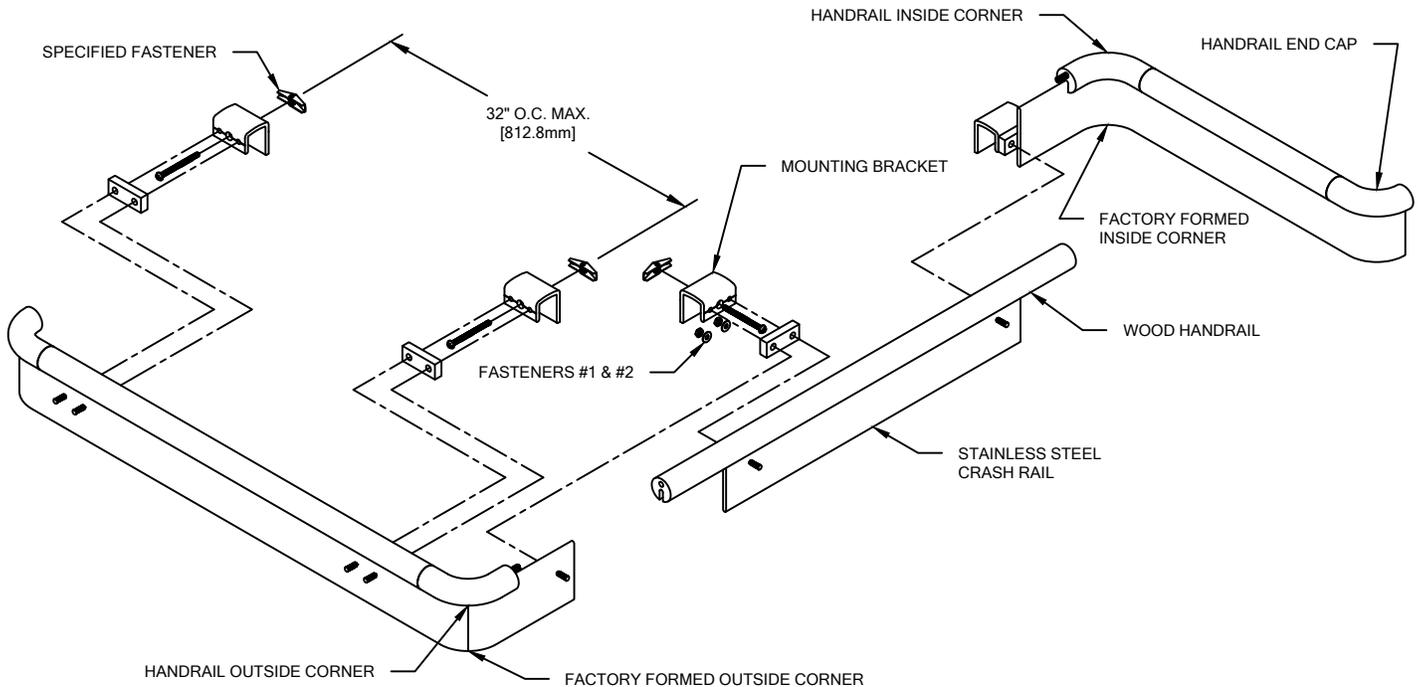
HRW-32S-INT HANDRAIL

LAYOUT VIEW



**HRW-32S-INT HANDRAIL**

TYPICAL ASSEMBLY



**NOTE:** INSTALLATION OF LINEAL OR RADIAL HRW-32S-INT CRASH RAIL SHOULD BE DONE IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS.

1. DISTRIBUTE MATERIAL. MATCH THE NUMBER ON THE BACK OF THE RAIL TO THE MARK NUMBER ON THE DRAWING. SOME LARGE RUNS REQUIRE MORE THAN ONE PIECE OF CRASH RAIL. THESE ARE NOTED WITH A MARK NUMBER AND A LETTER, I.E., 2001A 2001B.
2. ESTABLISH HAND RAIL HEIGHT ABOVE THE FINISHED FLOOR. DEDUCT 1 15/16" [49.2mm] TO LOCATE TOP EDGE OF BRACKET. SNAP A CHALK LINE AT THIS HEIGHT.
3. ATTACH BRACKETS AND BRACKET SPACERS TO RAIL WITH SUPPLIED LOCK WASHERS AND HEX NUTS.
4. MARK HOLES ON WALL SURFACE FOR MOUNTING HARDWARE, USING THE HAND RAIL WITH ATTACHED BRACKETS AS A TEMPLATE AND DRILL MOUNTING HOLES. REFERENCE CHART ON PAGE 2 FOR CORRECT DRILL DIAMETERS.
5. ONCE BRACKET LOCATIONS ARE ESTABLISHED ON THE WALL, REMOVE BRACKETS FROM THE RAIL.
6. LOOSELY ATTACH BRACKETS TO WALL WITH SPECIFIED FASTENERS.
7. APPLY WOOD GLUE INTO THE HOLES AND CUT SURFACE OF HANDRAIL (TITEBOND IS RECOMMENDED). ATTACH HANDRAIL BY SLIDING THE END CAP DOWEL INTO THE MATING WOOD HANDRAIL CLEARANCE HOLE. WIPE OFF ANY EXCESS GLUE.
8. INSTALL EACH SECTION OF CRASH RAIL, IN SUCCESSION, USING APPROPRIATE HARDWARE. USE A LEVEL TO INSURE CRASH RAIL IS LEVEL.

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

9. TIGHTEN ALL FASTENERS AND REMOVE PROTECTIVE COATING FROM RAIL TO COMPLETE INSTALLATION. FASTENERS SHOULD BE TORQUED TO A MAXIMUM OF 150 IN/LBS.