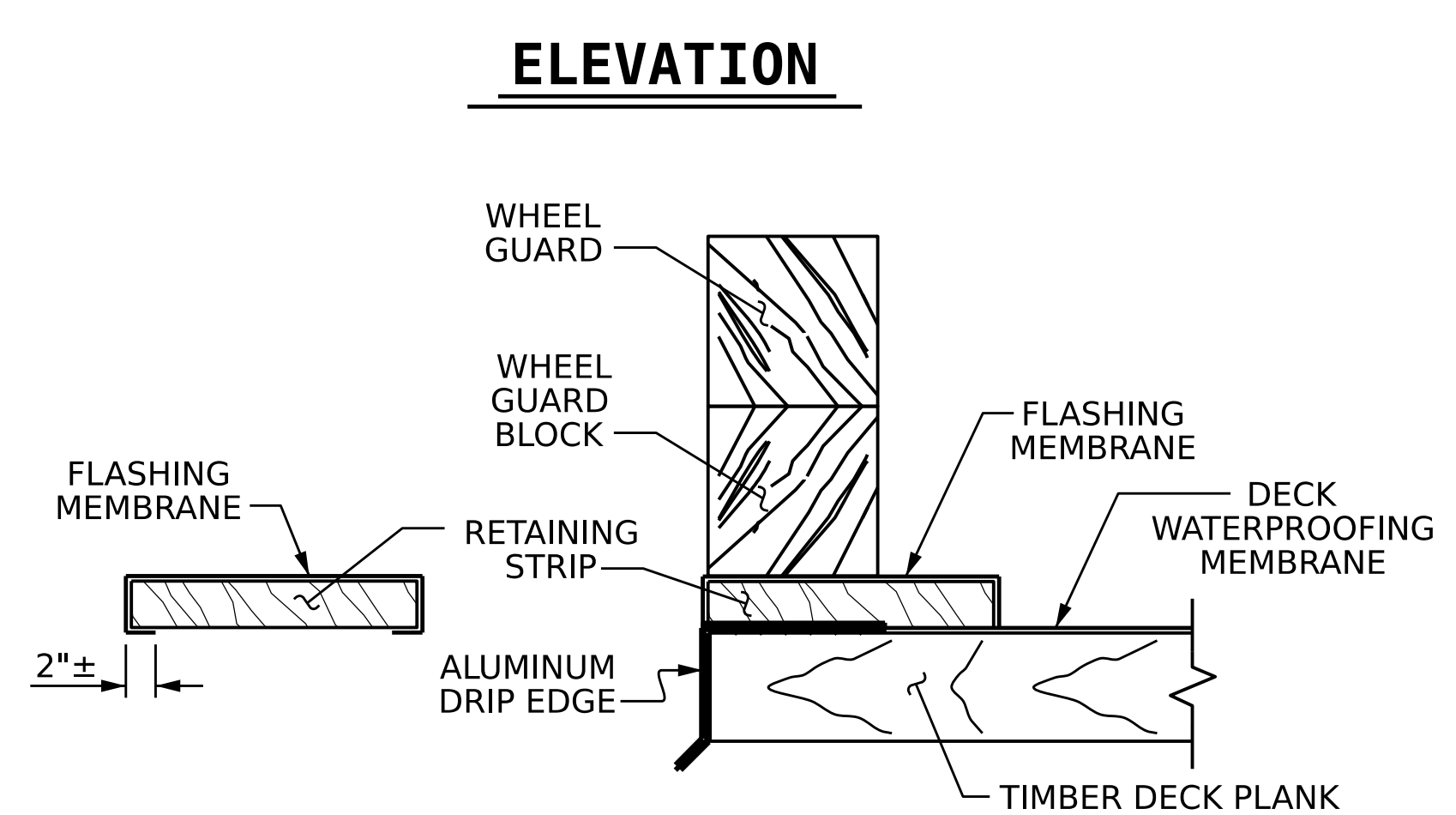
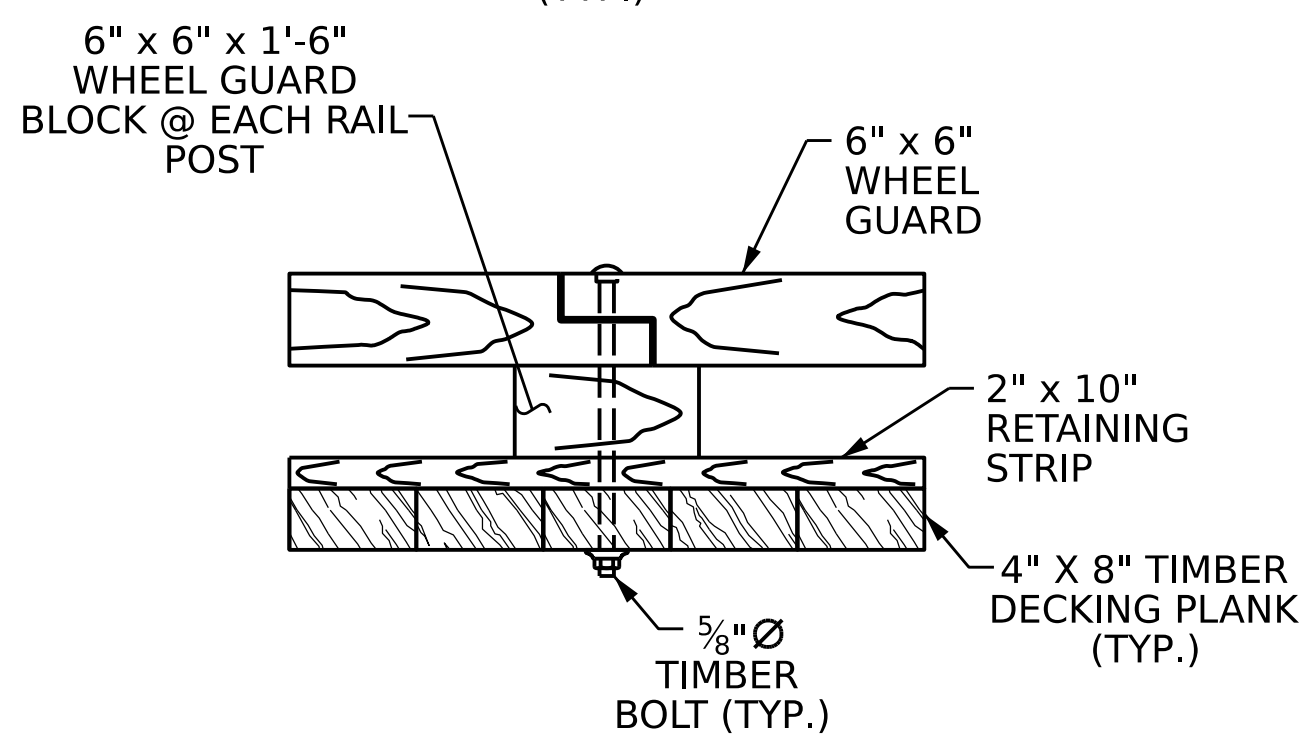


ELEVATION

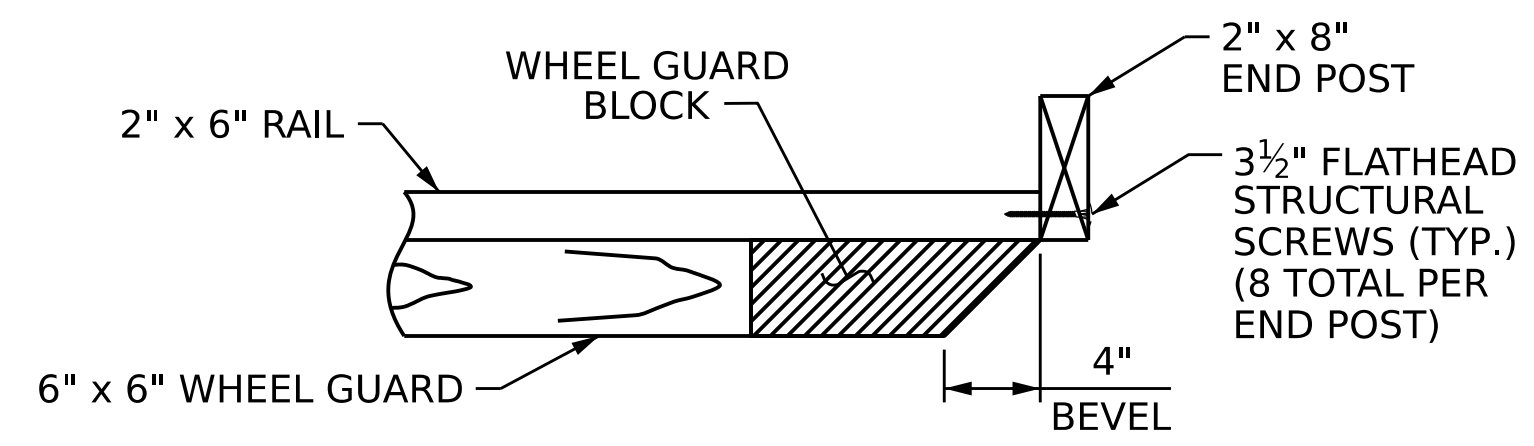


RETAINING STRIP DETAILS

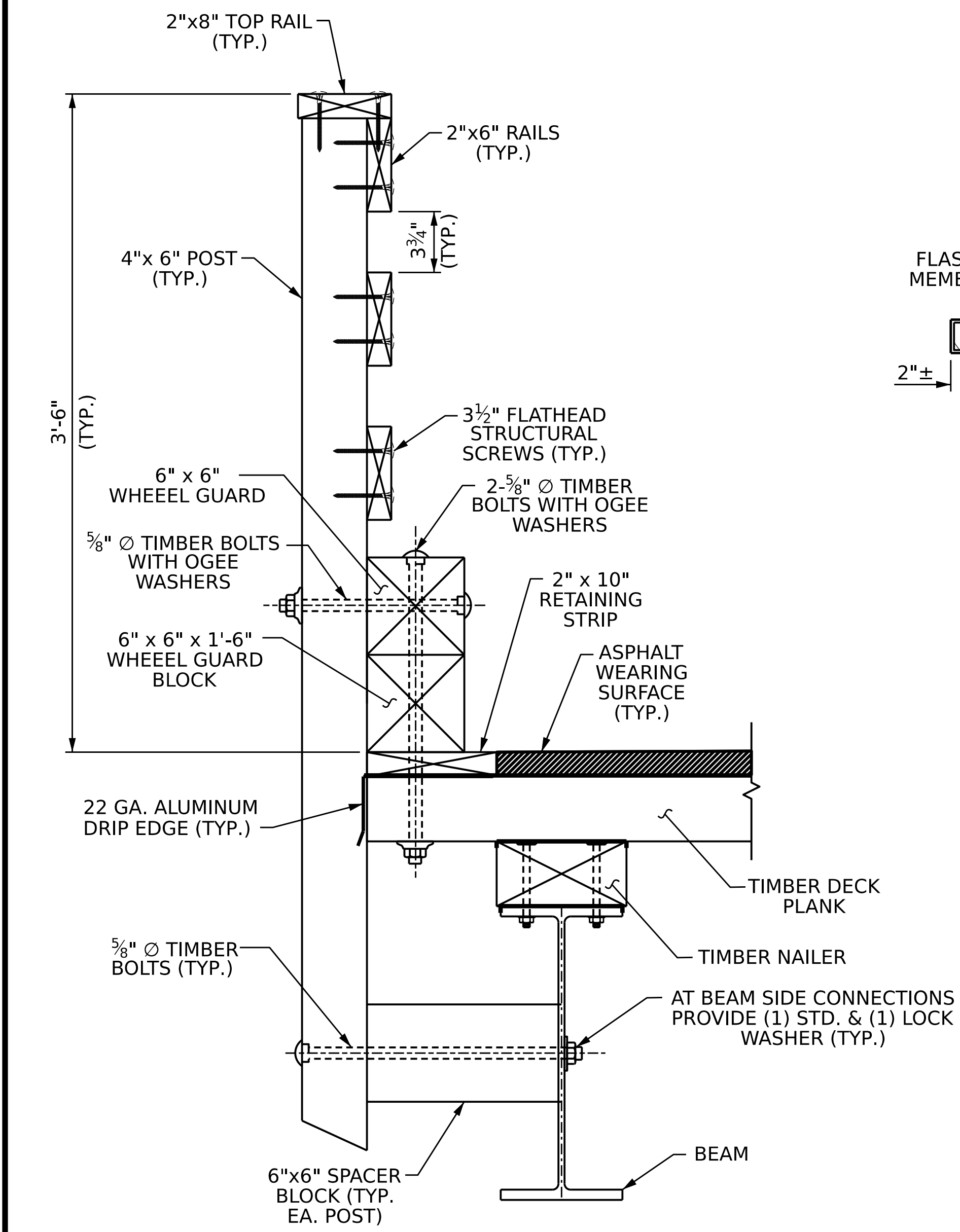
POST AND BOLTS NOT SHOWN FOR CLARITY



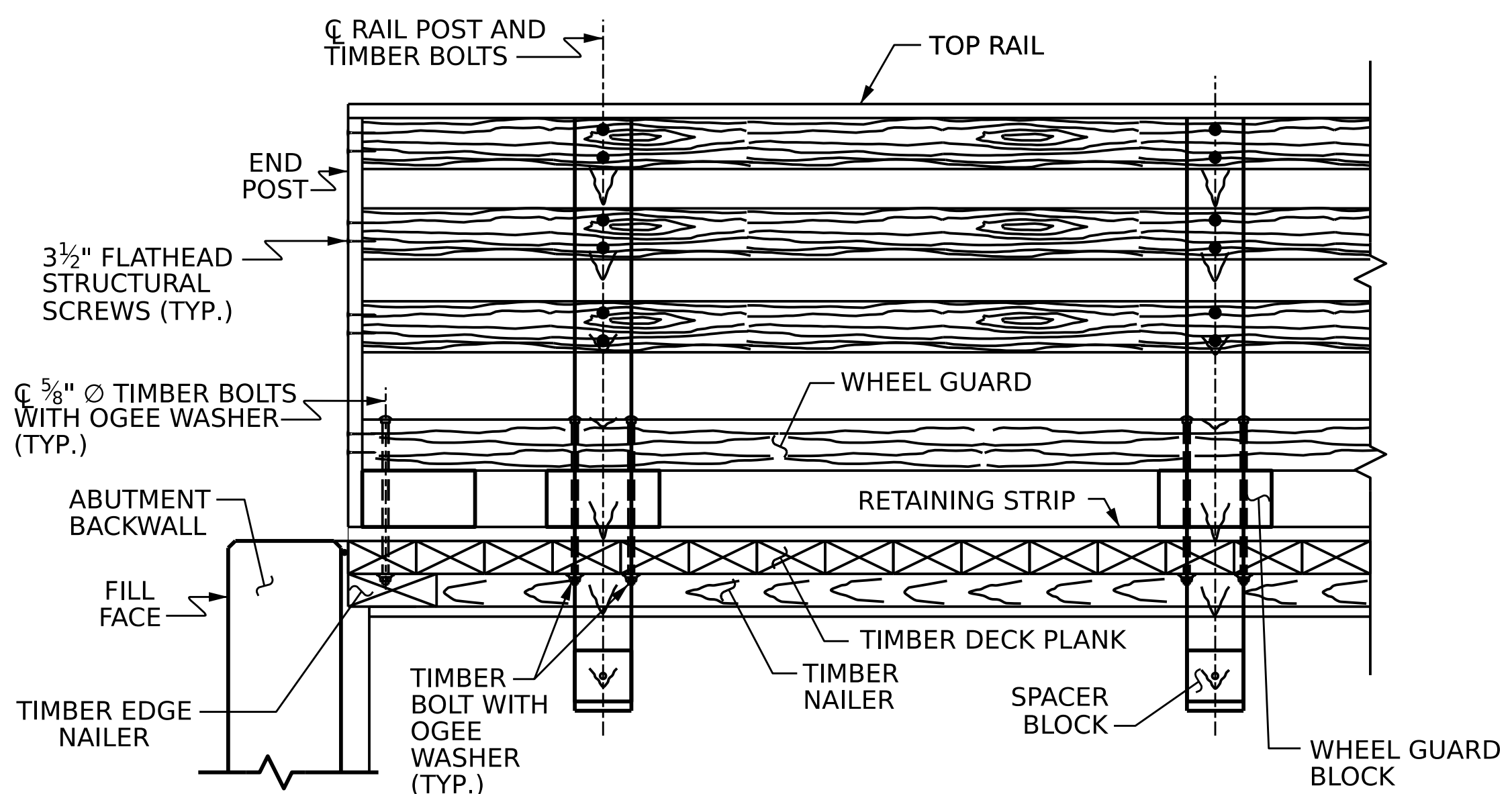
WHEEL GUARD SPLICE DETAIL



VIEW B-B



SECTION A-A



RAIL DETAIL AT ABUTMENTS

BILL OF MATERIAL  
TIMBER BRIDGE RAIL SYSTEM

TREATED LUMBER

ITEM	SIZE	LIN. FT.
RAILS	2"x 6"	346.0
RAIL POSTS	4"x6"	148.0
TOP RAIL	2"x8"	116.0
WHEEL GUARD	6"x6"	116.0
WHEEL GUARD BLOCK	6"x6"	48.0
RETAINER STRIP	2"x10"	116.0
END POSTS	2"x8"	13.5
SPACER BLOCK	6"x6"	33.0

FLASHING MEMBRANE

ITEM	SIZE	LIN. FT.
MEMBRANE FOR RETAINER STRIP	1'-6"	116.0

HARDWARE

ITEM	Nos.	SIZE	LBS.
TIMBER BOLTS (WHEEL GUARD)	60	5/8" Ø	62.0
TIMBER BOLTS (SPACER BLOCK)	28	5/8" Ø	42.8
TIMBER BOLTS (RAIL)	28	5/8" Ø	48.7
HEAVY HEX NUTS	116	5/8" Ø	13.8
FLATHEAD STR. SCREWS	256	3 1/2"	10.0
STANDARD WASHER	28	5/8" Ø	9.0
LOCK WASHER	28	5/8" Ø	1.0
OGEE WASHERS	88	5/8" Ø	54.6

HARDWARE FOR CONNECTIONS APPROX. 241.9 LBS.

ACCESSORIES

ITEM	Nos.
4 X 34 LINEAR DELINEATOR	12
W23-10 12x36 DELINEATOR	4
U-CHANNEL SUPPORT POST	4

PAY LENGTH = 115.26 LIN. FT.

NOTES

THE TIMBER BRIDGE RAIL SYSTEM SHALL NOT BE ATTACHED TO THE TIMBER BRIDGE DECK SYSTEM PRIOR TO THE TIMBER DECK WATERPROOFING MEMBRANE BEING INSTALLED.

BRIDGE RAILS SHALL BE CONTINUOUS FROM END POST TO END POST WITH NO GAPS. RAIL LUMBER LENGTHS SHALL BE ATTACHED TO A MINIMUM OF THREE POSTS.

TREAT ALL DRILLED OR NEWLY EXPOSED HOLES IN TIMBER MEMBERS BY PUMPING WITH BITUMINOUS ASPHALT-BASED ROOFING CEMENT, OR APPROVED PRESERVATIVE SYSTEM BEFORE INSTALLING HARDWARE.

SEE PLAN OF SPAN SHEET FOR NUMBER OF POSTS AND POST SPACING.

PROJECT NO.: 18314.1044073

HAYWOOD COUNTY

STATION: 12+13.00 -L-

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

STANDARD  
TIMBER BRIDGE RAIL  
SYSTEM

REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	
1			3	TOTAL SHEETS
2			4	21

DRAWN BY :	B. H. GONFA	DATE :	JUL 2025
CHECKED BY :	B. D. KLAPPENBACH	DATE :	JUL 2025
DESIGN ENGINEER OF RECORD:	B. D. KLAPPENBACH	DATE :	JUL 2025

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STATE OF NORTH CAROLINA  
Professional Engineer  
19118A2585  
15825  
BRUCE D. KLAPPENBACH  
12/15/2025

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UNLESS ALL SIGNATURES COMPLETED