



BILL OF MATERIAL FOR ONE RAIL 40 FT (2 REQ.D)				
TREATED LUMBER				
ITEM		SIZE	LIN. FT.	
RAILS		2"x 6"	120.25	
RAIL POSTS		4"x6"	48.00	
TOP RAIL		2"x8"	40.33	
WHEEL GUARD		6"x6"	40.08	
WHEEL GUARD BLOCK		6"x6"	11.00	
RETAINING STRIP		2"x10"	40.08	
END POSTS		2"x8"	7.25	
SPACER BLOCK		6"x6"	9.00	
TOTAL			315.99 LIN. FT.	
FLASHING MEMBRANE				
ITEM		SIZE	SQ. FT.	
MEMBRANE FOR RETAINER STRIP		25 MILS	41	
HARDWARE FOR BOLT CONNECTIONS				
ITEM	NO.	SIZE	LENGTH	LBS.
TIMBER BOLTS (WHEEL GUARD)	9	5/8" Ø	18"	14
TIMBER BOLTS (SPACE BLOCK)	9	5/8" Ø	20"	14
TIMBER BOLTS (RAIL)	9	5/8" Ø	12"	10
HEAVY HEX NUTS	27	5/8" Ø		4
STANDARD WASHERS	9	5/8" Ø		1
LOCK WASHERS	9	5/8" Ø		1
OGEE WASHERS	18	5/8" Ø		12
HARDWARE FOR BOLT CONNECTIONS ____ APPROX. 56 LBS.				
HARDWARE FOR SCREW CONNECTIONS				
ITEM	NO.	SIZE	LENGTH	LBS.
FLATHEAD STR. SCREWS	460	0.160" Ø	3 1/2"	115
HARDWARE FOR SCREW CONNECTIONS __ APPROX. 115 LBS.				
ACCESSORIES				
ITEM			NO.	
4" X 34" LINEAR DELINEATOR			6	
W23-10 12 X 36 DELINEATOR SIGN			2	
U-CHANNEL SUPPORT POST			2	
PAY LENGTH = 40.5 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. DF18314.2045324

 HENDERSON COUNTY

STATION: 11+67.50 -L-

ASSEMBLED BY:	ZCS	DATE :	5/25
CHECKED BY :	MGC	DATE :	8/25
DRAWN BY :	BNB	4/24	
CHECKED BY :	JDH	10/24	

10/10/2025

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
TIMBER BRIDGE RAIL
SYSTEM

REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
201 W. MARION ST STE 200
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

TOTAL SHEETS	13
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