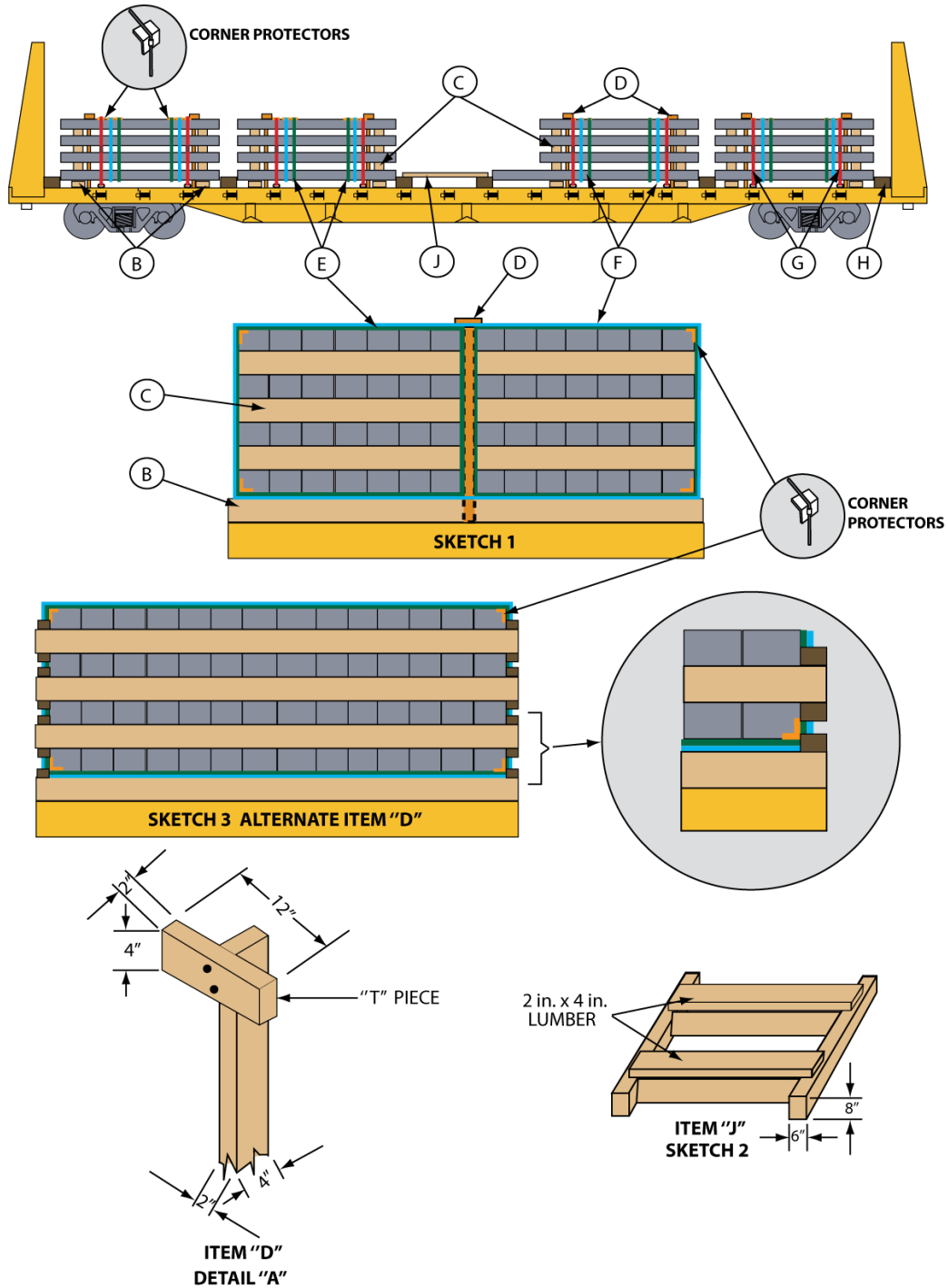


TIES, CONCRETE, SWITCH-AND CROSSTIES—BULKHEAD FLATCARS, WITH
CUSHIONING DEVICES

RAC 13140A

Revised April 2024



TIES, CONCRETE, SWITCH-AND CROSSTIES—BULKHEAD FLATCARS, WITH
CUSHIONING DEVICES

RAC 13140A (Continued)

Revised April 2024

Item	No. of Pcs.	Description
A		Vacant
B	2 per pile	Bearing pieces: hardwood, 4 in. × 6 in., length equal to width of load. Locate approximately 12 in. from solid end of pile. An additional bearing piece is to be added under end of bottom layer that extends more than 4 ft beyond solid end of pile.
C	2 per layer.	Separators: hardwood, 4 in. × 4 in., length equal to width of load. Locate in line with Items B when possible.
D	2 per pile	Vertical stabilizers: lumber, 2 in. × 4 in., length to equal height of pile plus 4 in. Locate approximately one-fourth length in from solid ends of pile. T piece, 2 in. × 4 in. × 12 in., must be secured to top of vertical stabilizer with two 16-D nails. See DETAIL A AND SKETCH 1 .
Alt. D	2 per bearing pieces, 4 per separators	Side blocks: lumber, 2 in. x 4 in. x 6 in. Locate against ties on the top and bottom of each Item C separator and top of each Item B, and secure each with four (4) I6-D nails. Side blocks to be used as alternate to Item D Vertical Stabilizers. See SKETCH 3 .
E	2 per unit 12 ft long or less, 4 (2 pairs) per unit over 12 ft in length.	Unit bands: 1 5/8 in. Type IA, Grade 7 strap. Encircle unit and locate approximately one fourth length in from solid ends of unit. (Each pile consists of two side-by-side units separated by Item D.) See SKETCH 1 .
F	2 per pile 12 ft long or less, 4 (2 pairs) per pile over 12 ft long.	Encircling bands: Type IA, Grade 7 strap. Encircle pile and locate approximately one fourth length in from solid ends of pile. See SKETCH 1 .
G	2 per pile 12 ft long or less, 4 per pile over 12 ft long.	Tie-down bands: Type IA, Grade 7 strap. Locate no closer or less than 8 in. from solid ends of pile. To be used in conjunction with dynamic load buckles as per manufacturer's specification and instruction only.

TIES, CONCRETE, SWITCH-AND CROSSTIES—BULKHEAD FLATCARS, WITH
CUSHIONING DEVICES

RAC 13140A (Concluded)

Revised April 2024

Item	No. of Pcs.	Description
H	As required	Load blocking: hardwood, minimum 6 in. × 8 in., length equal to width of load. Locate laterally to fill void between piles, between end piles and steel bulkheads. Secure to prevent displacement.
J	As required	Pack-out filler: hardwood, minimum 6 in. × 8 in., length to suit. Use to fill void between piles where needed. Joints must be spliced with 2 in. × 4 in. lumber, length to suit, using 16-D nails. Assembly must be secured to prevent displacement. See SKETCH 2 .

Notes and Additional Requirements:

1. Piles 12 ft long and less may contain up to four cross ties over 12 ft long.
2. It is the intent that all longitudinal void space in bottom layer be filled.
3. Corner protectors must be used under Items E, F, and G.
4. Reclaimed timbers may be used for Items H and J provided their condition is such that the structural integrity of the timber does not compromise its effectiveness.
5. Inspect stake pockets for cracks in welds and or deformity prior to attaching securement.

For further details see General Rules.