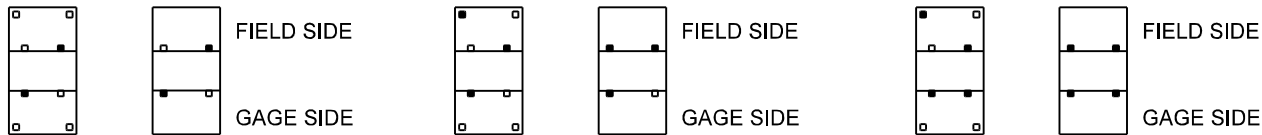


SPIKING PATTERN NO. 1

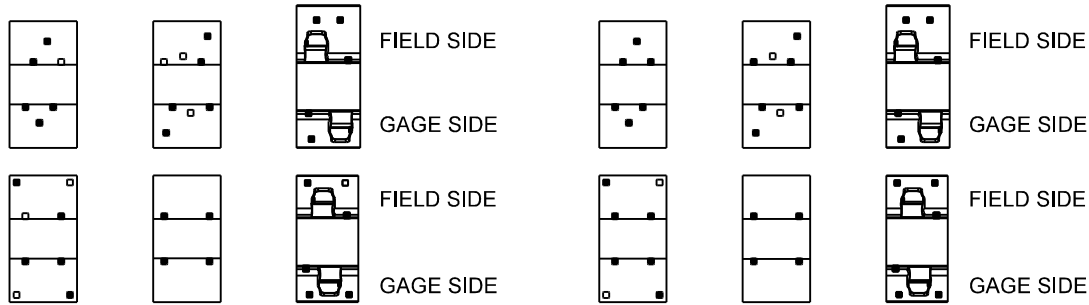
SPIKING PATTERN NO. 2

SPIKING PATTERN NO. 3



SPIKING PATTERN NO. 4

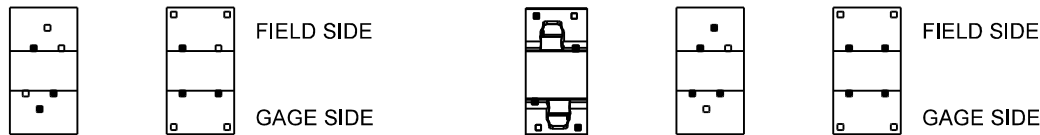
SPIKING PATTERN NO. 5



TANGENT TRACK AND CURVES UP TO 1 DEGREE,

ALL CURVES OF 1 DEGREE AND OVER,

COMPOSITE TIE SPIKING PATTERNS



■ - DENOTES SPIKE FILLED HOLE

MAIN TRACK AND CTC SIDINGS LESS THAN 40 MPH	
APPLICATION	PATTERN
TANGENTS AND CURVES LESS THAN 1° 30'	1
CURVES AT LEAST 1° 30' BUT LESS THAN 4°	3
CURVES AT LEAST 4° BUT LESS THAN 8°	4
CURVES 8° OR MORE AND TURNOUTS	5

MAIN TRACK AND CTC SIDINGS 40 MPH OR MORE	
APPLICATION	PATTERN
TANGENTS AND CURVES LESS THAN 30'	2
CURVES AT LEAST 30' BUT LESS THAN 1° 30'	3
CURVES AT LEAST 1° 30' BUT LESS THAN 4°	4
CURVES 4° OR MORE AND TURNOUTS	5

YARD AND INDUSTRY TRACKS	
APPLICATION	PATTERN
TANGENTS AND CURVES LESS THAN 4°	1
CURVES AT LEAST 4° BUT LESS THAN 8°	3
CURVES 8° OR MORE	4
TURNOUTS	5

NOTES:

1. THE SPIKE PATTERNS SHOWN ARE FOR MAIN TRACKS, BRANCH LINE TRACKS, HEAVY TONNAGE SPURS, AND C.T.C. SIDINGS WITH 13" AND LONGER PLATES.
2. ANY SPIKING PATTERN OTHER THAN WHAT IS SHOWN ON THIS DRAWING ARE TO BE APPROVED BY THE CHIEF ENGINEER.
3. WHEN SPIKING TURNOUTS, USE SPIKING PATTERN NO. 5 ON:
 - ALL SWITCH TIES
 - 24 TIES AHEAD OF SWITCH POINTS
 - 24 TIES BEHIND THE LAST LONG SWITCH TIE ON THE MAINLINE SIDE OF THE SWITCH
 - DIVERGING SIDE OF THE TURNOUT FROM THE LAST LONG SWITCH TIE THROUGH THE REVERSE CURVE AND FOR 24 TIES ONTO TANGENT TRACK FULLY SPIKE ALL SWITCH, FROG AND GUARD RAIL PLATES IN WOOD TURNOUTS.

**UNION PACIFIC RAILROAD
ENGINEERING STANDARDS**

SPIKING PATTERN



APPROVED: *Caci Robinson*
VP ENGINEERING
ADOPTED: DEC. 31, 1996
REVISED: APR. 5, 2019
FILE NO.: 0453G

STD DWG
0453G

0453G
STD DWG