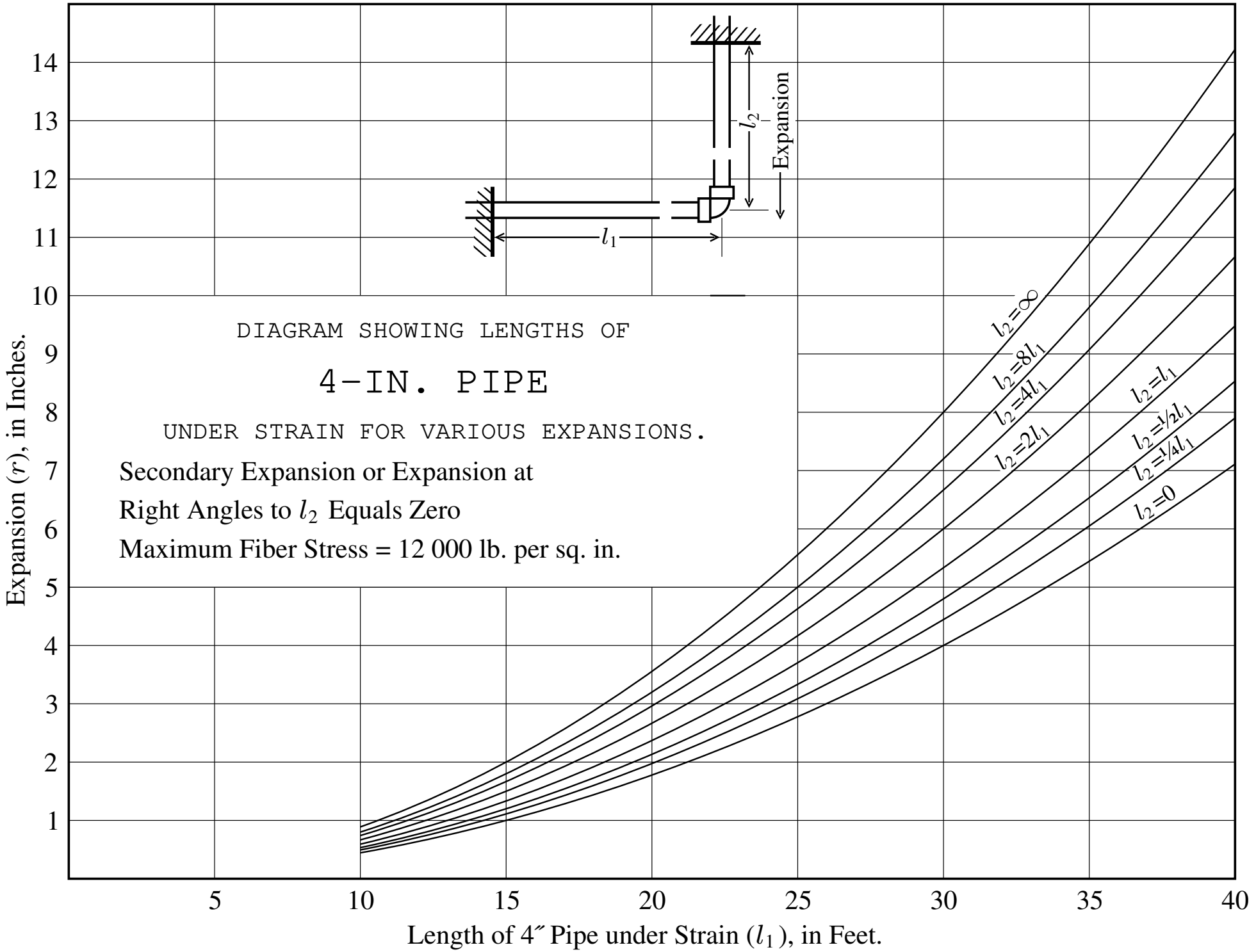
DIAGRAM SHOWING LENGTHS OF
4-IN. PIPE
UNDER STRAIN FOR VARIOUS EXPANSIONS.
Secondary Expansion or Expansion at
Right Angles to l_2 Equals Zero
Maximum Fiber Stress = 12 000 lb. per sq. in.
l_1
l_2
Expansion
$l_2=\infty$
$l_2=8l_1$
$l_2=4l_1$
$l_2=2l_1$
$l_2=l_1$
$l_2=\frac{1}{2}l_1$
$l_2=\frac{1}{4}l_1$
$l_2=0$
Expansion (r), in Inches.
Length of 4″ Pipe under Strain (l_1), in Feet.
1
2
3
4
5
6
7
8
9
10
11
12
13
14
5
10
15
20
25
30
35
40