JOINT U15

SCALE: 1/2" = 1'-0"

**THE FIELD MEASURED VALUE OF THIS ANGLE IS 146°; HOWEVER TO OBTAIN A CLOSED SHAPE FROM THE FIELD MEASUREMENTS, THE ANGLE SHOWN IS REQUIRED.**

1. BOLT GROUPS SHOWN ARE FROM THE AS-BUILT PLAN DRAWINGS. BOLT GROUPS FROM FIELD SURVEY ARE NOT SHOWN FOR CLARITY.

2. THE PERCENTAGE DIFFERENCES SHOWN ARE FROM THE FIELD MEASURED DIMENSIONS IN COMPARISON TO THE AS-BUILT PLAN DRAWINGS.

THE FIELD MEASURED VALUE OF THE PLATE EDGE IS 7'-11".
Basic Equation of Rating Factor for the LRFR Method

\[ RF = \frac{C - \gamma_{DC} DC - \gamma_{DW} DW \pm \gamma_p P}{\gamma_L LL(1 + IM)} \]

- \( C \) is the structural capacity (= \( \phi_c \phi_s \phi_R \); \( c \): condition, \( s \): system)
- \( DC \) is the dead-load effect of structural components and attachments
- \( DW \) is the dead-load effect of wearing surfaces and utilities
- \( P \) is the permanent loading other than dead loads
- \( LL \) is the live-load effect
- \( IM \) is the dynamic load allowance
- \( \gamma_{DC} \) is the load factor for structural components and attachments
- \( \gamma_{DW} \) is the LRFD load factor for wearing surfaces and utilities
- \( \gamma_p \) is the load factor for permanent loads other than dead loads
- \( \gamma_L \) is the evaluation live-load factor