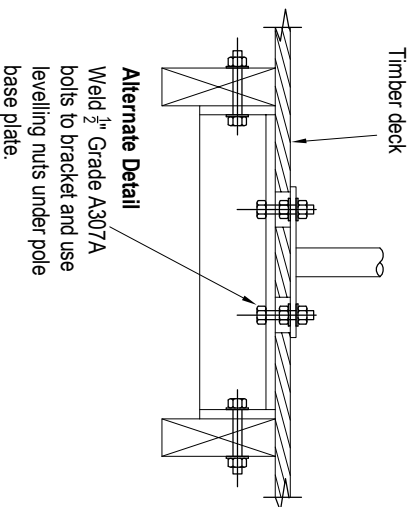
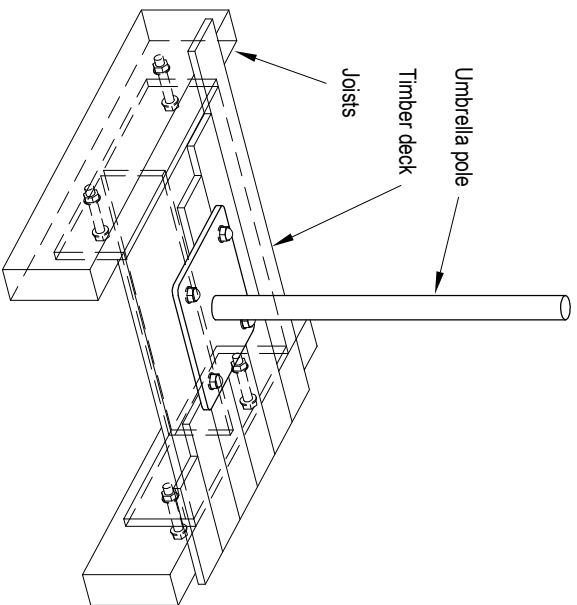


### Cross Section



### Cross Section



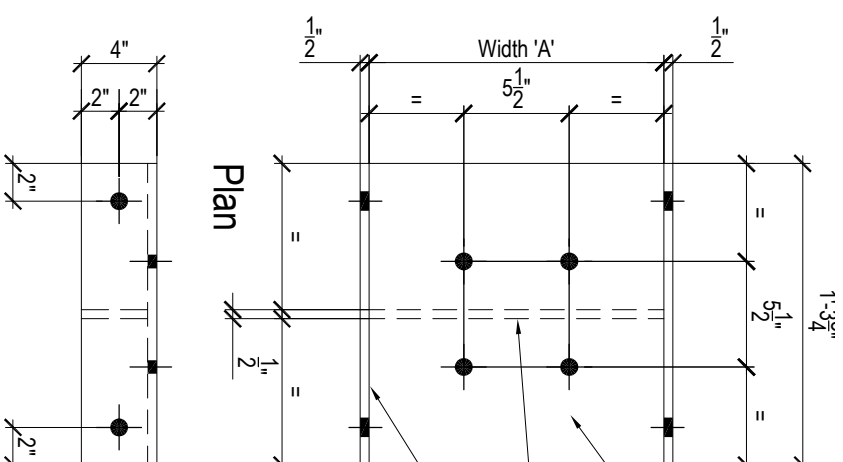
**NOTE:**  
The existing timber deck will need to be checked for adequacy by an Engineer before the umbrella is installed.

**Suitable Umbrellas for Timber Decks**  
Porta - P21, P32  
Centra - CS27, CS32, CS38, CS40  
CR45, CTS43, CO40, CO50.

Other models, for fixing to decks, will be assessed according to the site conditions.

## Timber Deck Installation

### Conceptual Detail (bracket by others)



1'-3<sup>3</sup>/<sub>4</sub> x 1/2" plate  
Width 'A' to suit joist spacing  
4-Ø 3/4" holes for 1/2" Grade A307A galvanized bolts  
3 1/2" x 1/2" plate stiffener  
Width 'A' to suit joist spacing  
4" x 1/2" plate x 1'-3 3/4" long  
2-Ø 3/8" holes for 1/2" Grade A307A galvanized bolts (2 plates required)

All joints 1/4" CFW all round.  
Tolerances:  
Less than 2" + 1/8" - 1/8"  
2" to 6'-6" + 1/32" - 1/32"  
All edges to be radiused or chamfered a minimum 1/8".  
Finish to be hot dipped galvanized.

## Bracket - Steel Details