

# MDOT Field Inspection of Load Transfer Assemblies





# U – Leg Option

DOWEL BAR SHALL BE ARC OR RESISTANCE WELDED TO BASKET AT ALTERNATE ENDS AS SPECIFIED IN PLAN VIEW ON SHEET 2

SIDE SUPPORT WIRE RADIUS =  
 $\frac{\text{DOWEL BAR D.I.A.} + \frac{1}{8}'' \text{ TO } \frac{3}{16}''}{2}$

NOM. D.I.A. 0.306" TOP LONGITUDINAL SPACER WIRE

NOM. D.I.A. 0.243" SIDE SUPPORT WIRE

NOM. D.I.A. 0.306" BOTTOM LONGITUDINAL SPACER WIRE

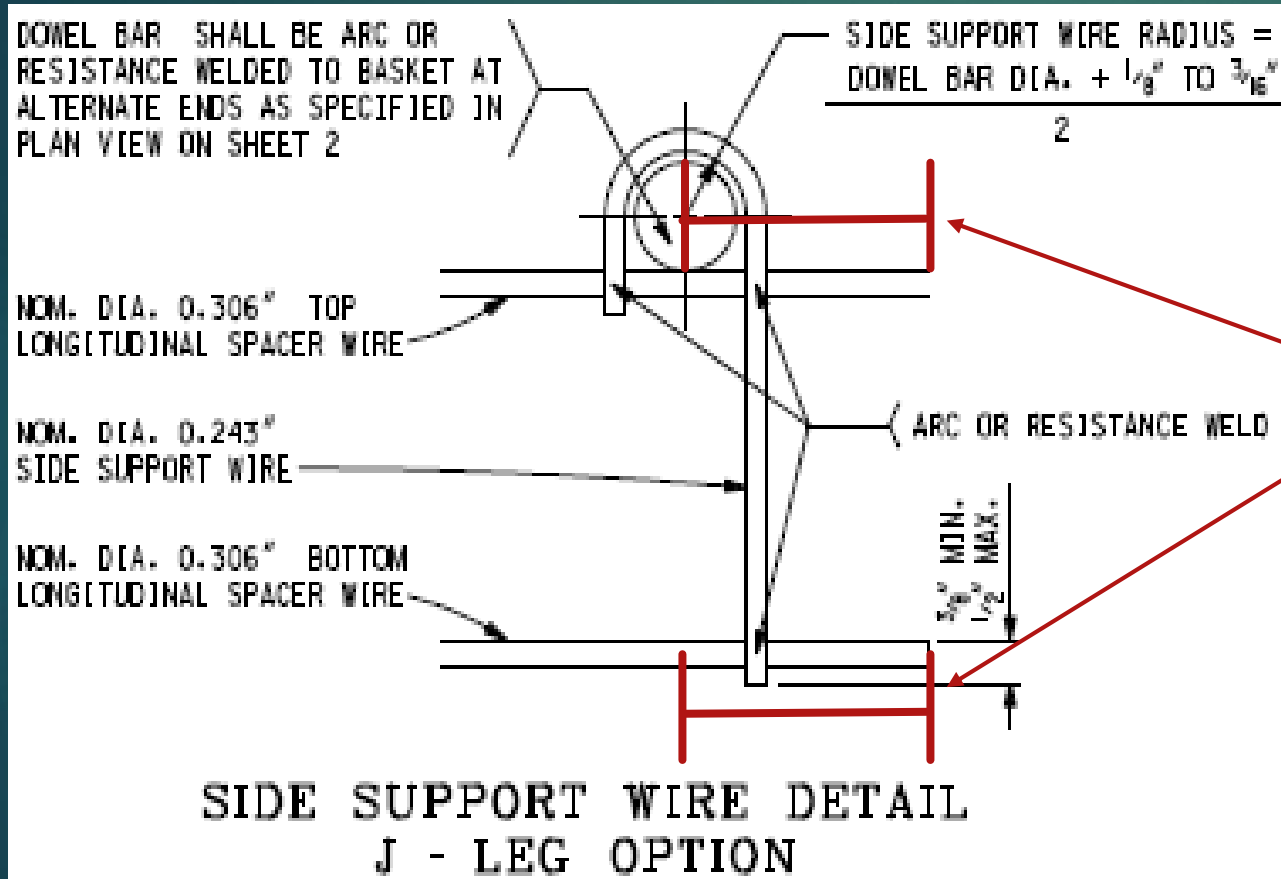
ARC OR RESISTANCE WELD

MIN.  
3/8"  
MAX.  
1/2"

SIDE SUPPORT WIRE DETAIL  
U - LEG OPTION

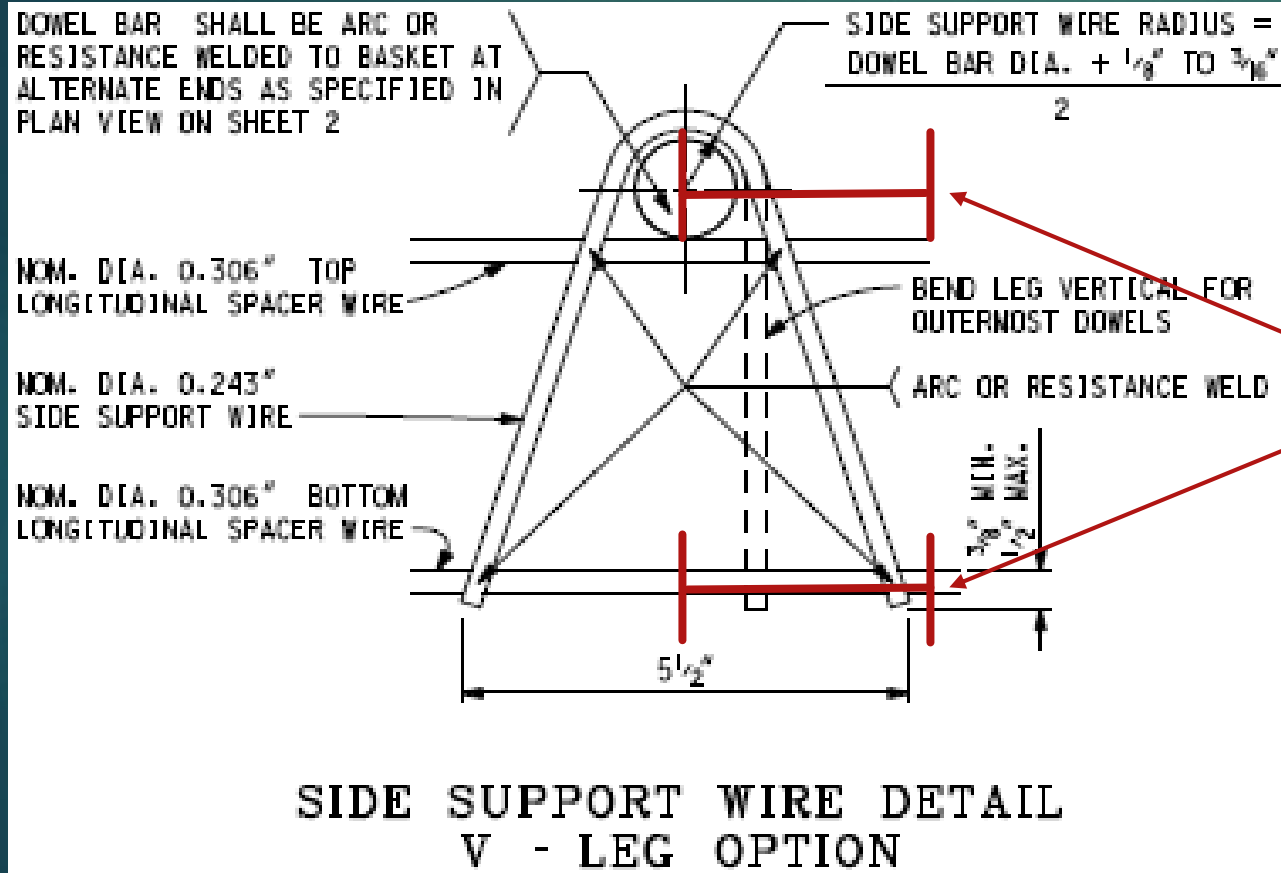
- Arc or Resistance Welded Only
- Top Spacer Wire – Dia. 0.306"
- Support Wire – Dia. 0.243"
- Bottom Spacer Wire – Dia. 0.306"
- Top & Bottom Spacer Wire allowable length of 1½" (+/- ½") from center of the dowel bar.

# J – Leg Option



- Arc or Resistance Welded Only
- Top Spacer Wire – Dia. 0.306"
- Support Wire – Dia. 0.243"
- Bottom Spacer Wire – Dia. 0.306"
- Top & Bottom Spacer Wire allowable length of  $1\frac{1}{2}''$  (+/-  $\frac{1}{2}''$ ) from center of the dowel bar.

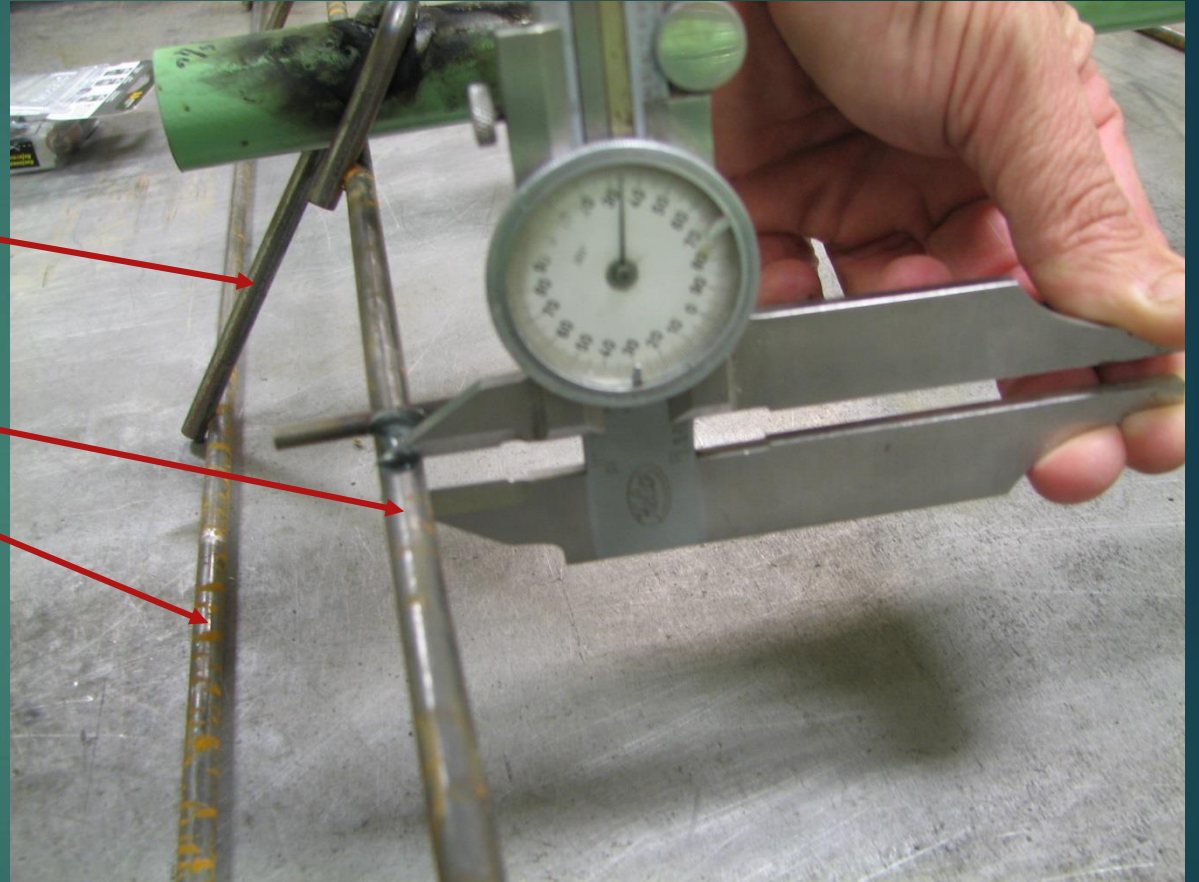
# V – Leg Option



- Arc or Resistance Welded Only
- Top Spacer Wire – Dia. 0.306"
- Support Wire – Dia. 0.243"
- Bottom Spacer Wire – Dia. 0.306"
- Top & Bottom Spacer Wire allowable length of  $1\frac{1}{2}$ " ( $\pm \frac{1}{2}$ " ) from center of the dowel bar.

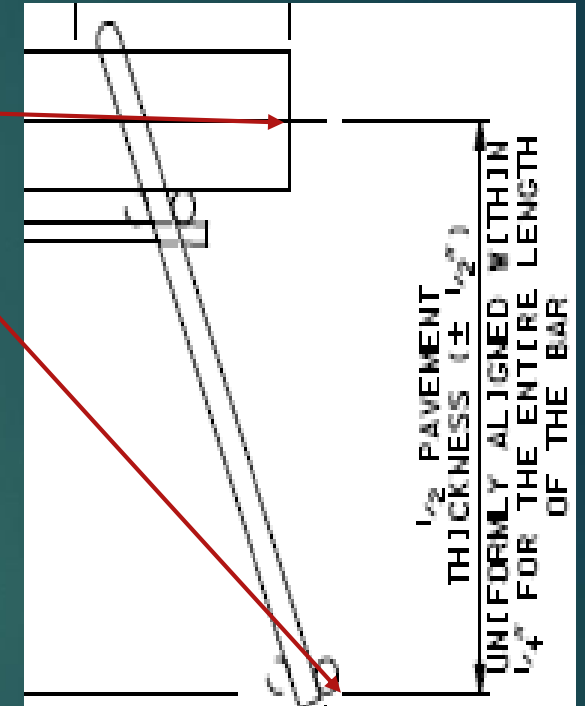
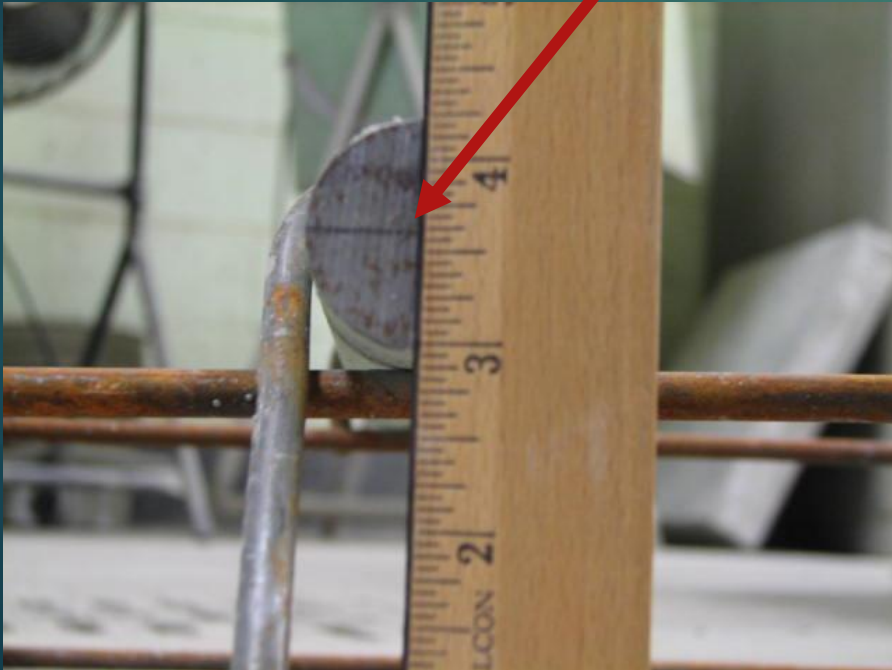
# #1 Frame Rail Wire Tolerance

- Side support Minimum diameter of 0.243"
- Top & bottom spacer wires can have a minimum diameter of 0.303"



## #2 Allowable Height of Bar

- On any leg option, measure from flat surface on ground to center of dowel to determine if dowel is **half the depth of pavement**. Within (+/- 1/2")





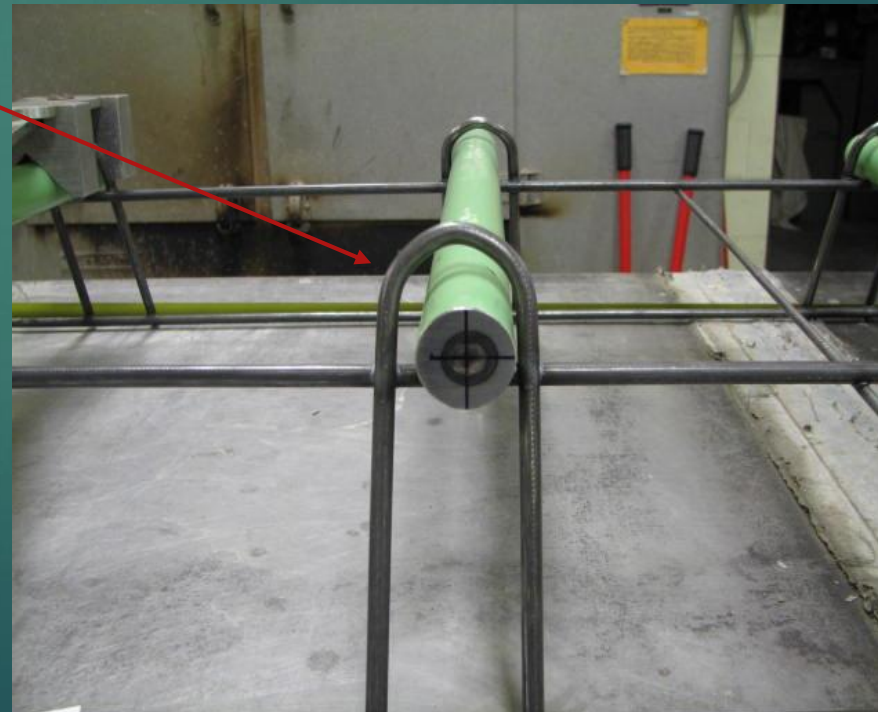
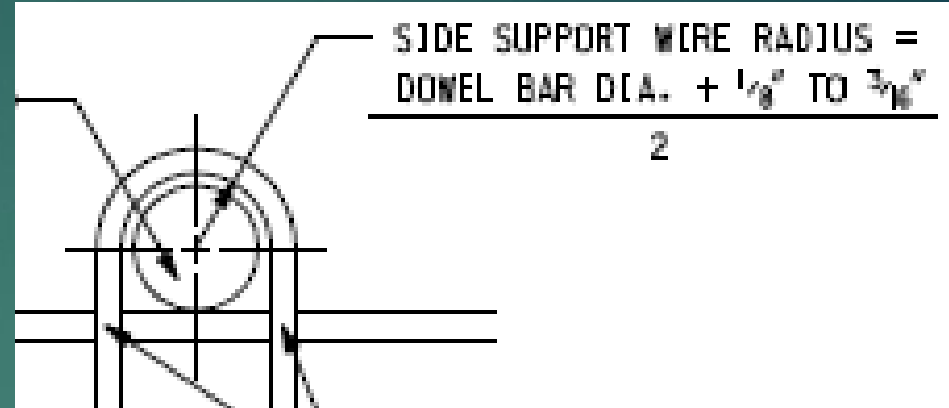
## #2 Continued...

- Dowel bars should be aligned within  $\frac{1}{4}$ " for the entire length of the bar.



# #3 Support Wire Radius

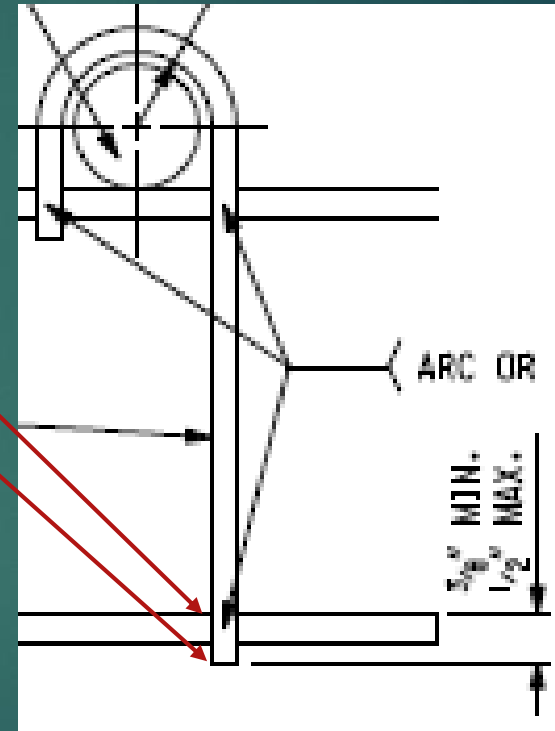
- These gaps are in excess of the **3/16" tolerance** in our Standard Plan.



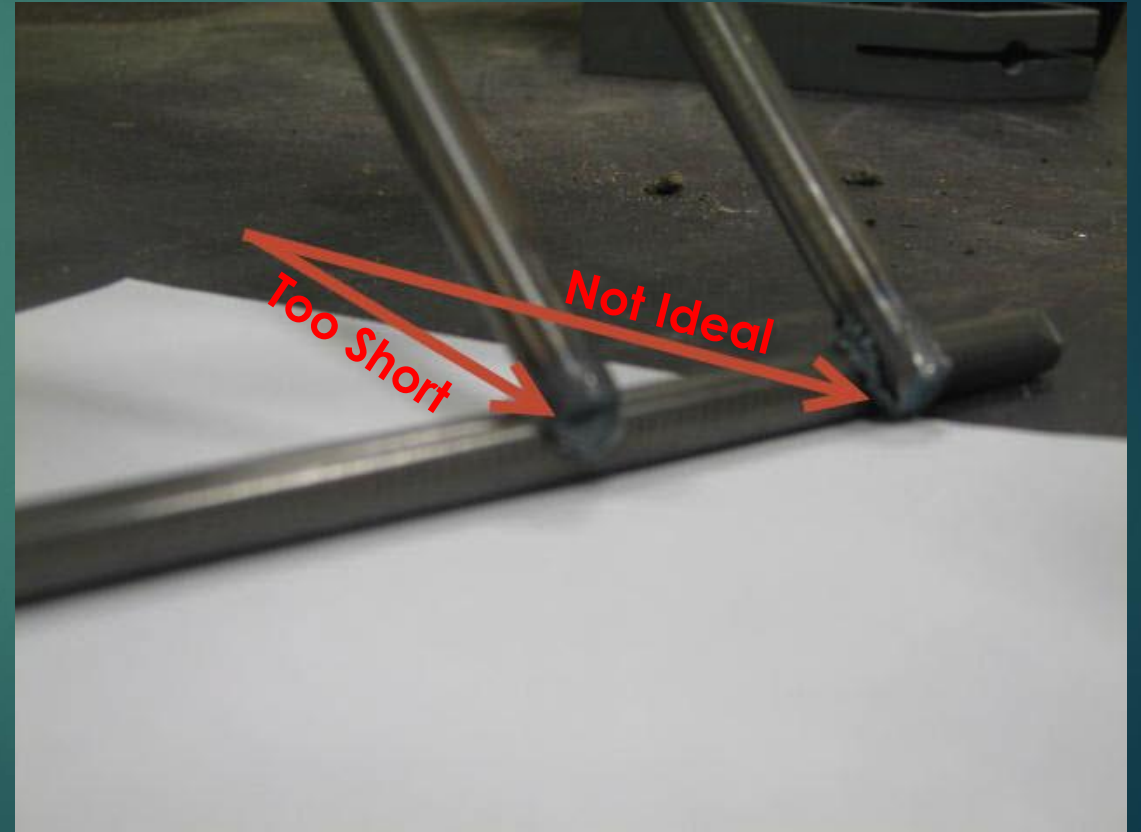
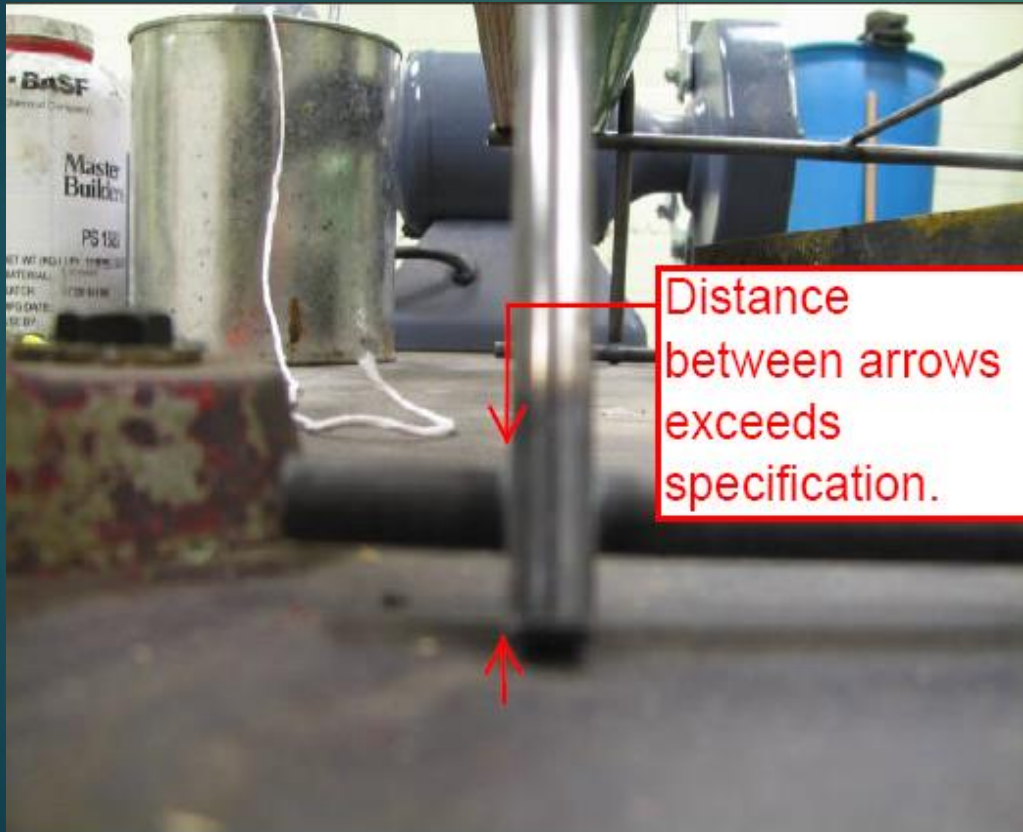


# #4 Side Support Leg Tolerance

- The top of the bottom spacer wire to the bottom of the support wire should be a **minimum of  $\frac{3}{8}$ "** and a **maximum  $\frac{1}{2}$ "**
- The side support legs can extend slightly past the bottom spacer wire but **not in excess of  $\frac{3}{16}$ "**

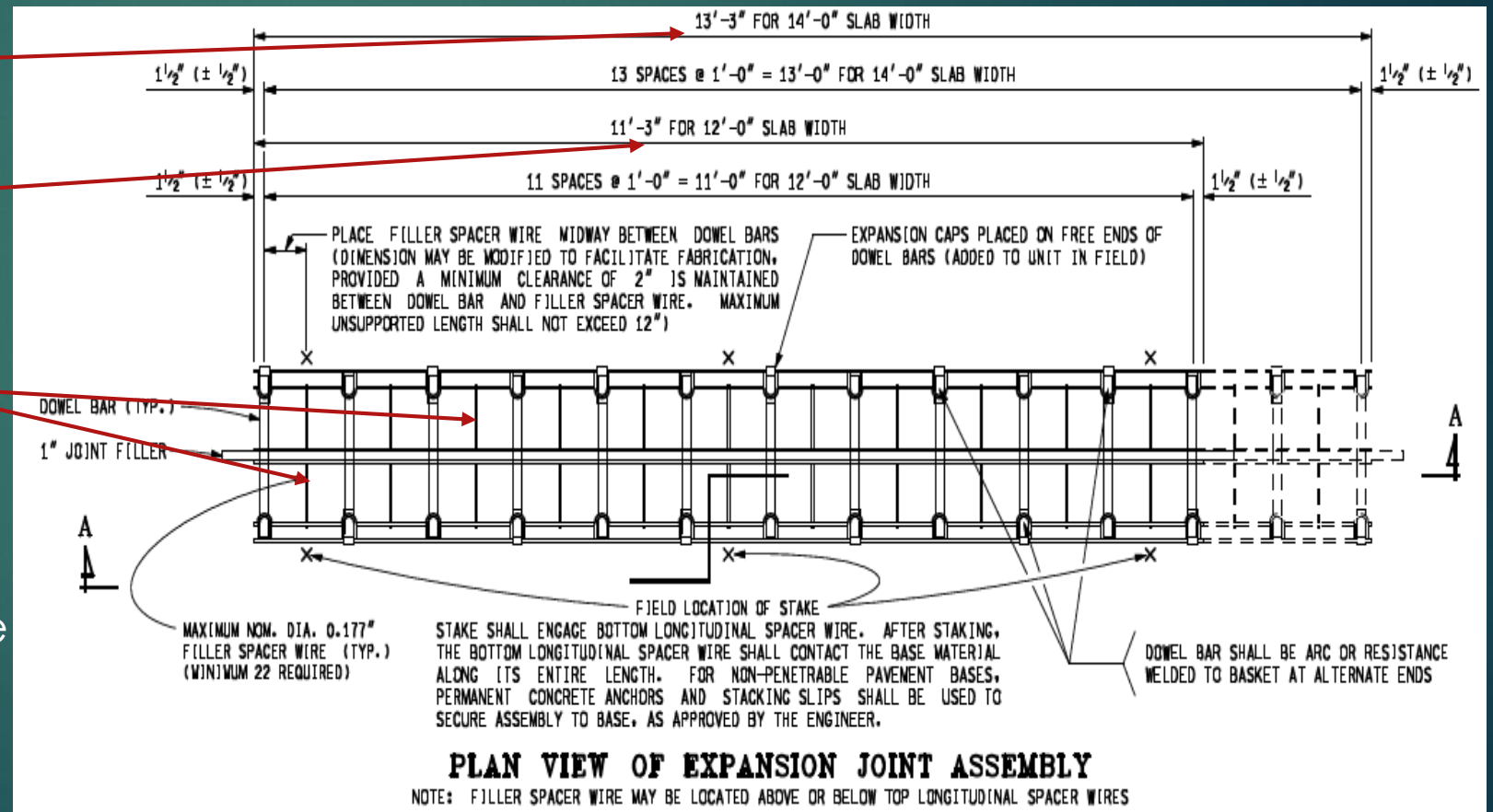


# #4 Continued... Side Support Leg Failures



# #5 Allowable Basket Length/Width and Tie Wires

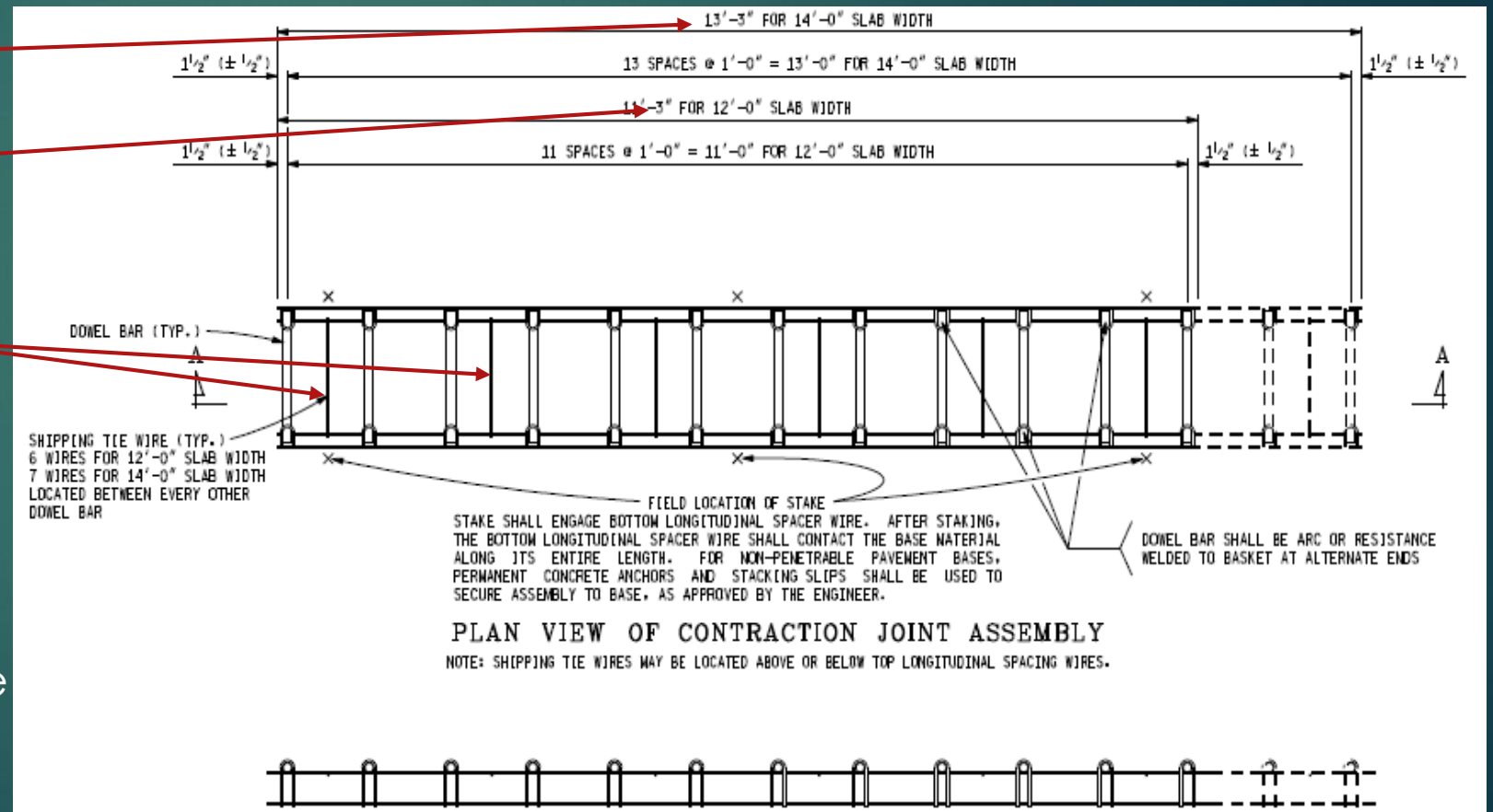
- 13'-4" max for 14'-0" slab width
- 11'-4" max for 12'-0" slab width
- 22 filler spacer wires for 12' slab
- 26 filler spacer wires for 14' slab
- Dowel bars shall be aligned parallel to each other in the assembly on 1'-0" (+/- 1/2") centers.





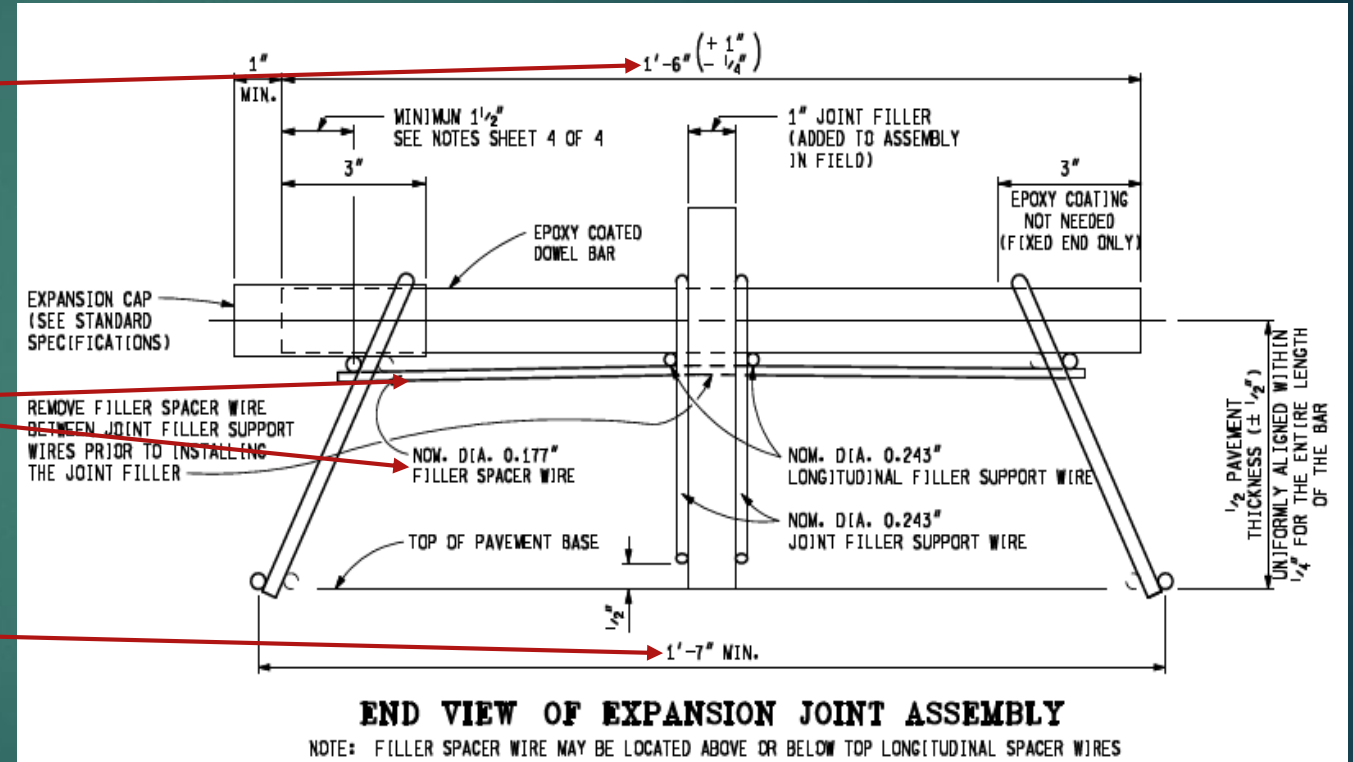
# #5 Allowable Basket Length/Width and Tie Wires (continued)

- 13'-4" max for 14'-0" slab width
- 11'-4" max for 12'-0" slab width
- 6 tie wires for 12' slab
- 7 tie wires for 14' slab
- Tie wires should be located every other dowel bar.
- Dowel bars shall be aligned parallel to each other in the assembly on 1'-0" (+/- 1/2") centers.



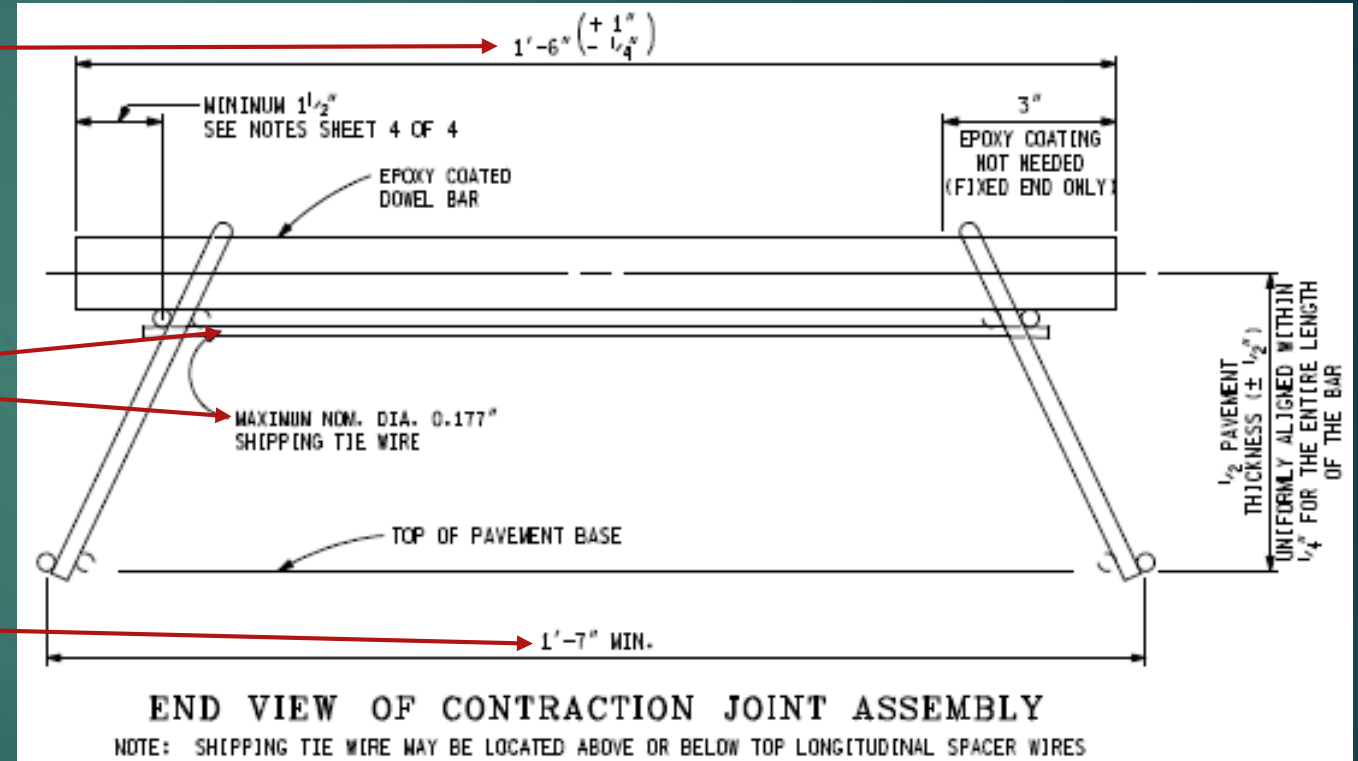
# #5 Continued...

- Dowel bar length should be between **17 $\frac{3}{4}$ "** and **19"**
- The maximum nominal diameter of the filler spacer wire is **0.177"**
- Minimum width of basket should be **1'-7" (19")**.



# #5 Continued...

- Dowel bar length should be between  $17\frac{3}{4}"$  and  $19"$
- The maximum nominal diameter of the tie wire is  $0.177"$
- Minimum width of basket should be  $1'-7"$  ( $19"$ ).

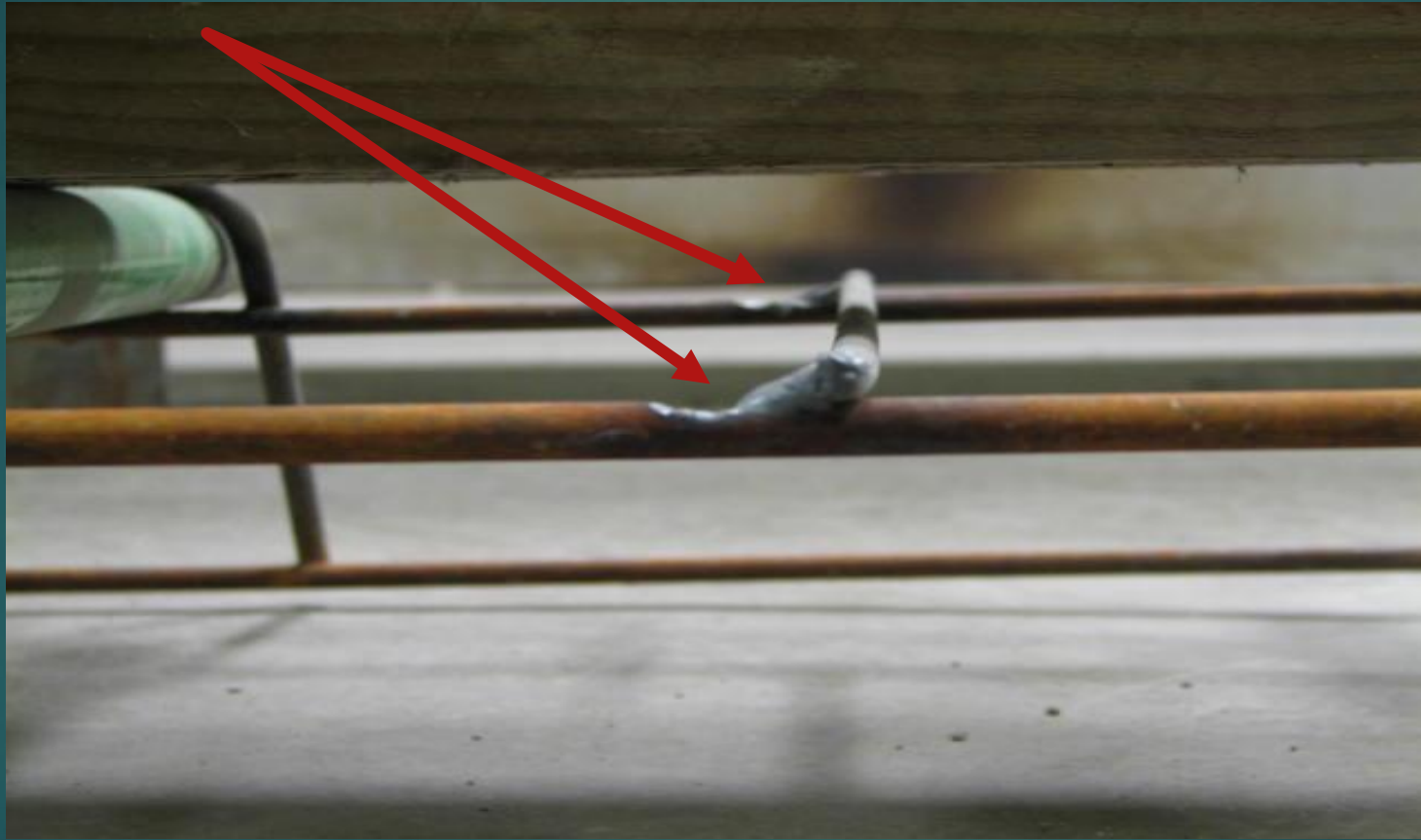




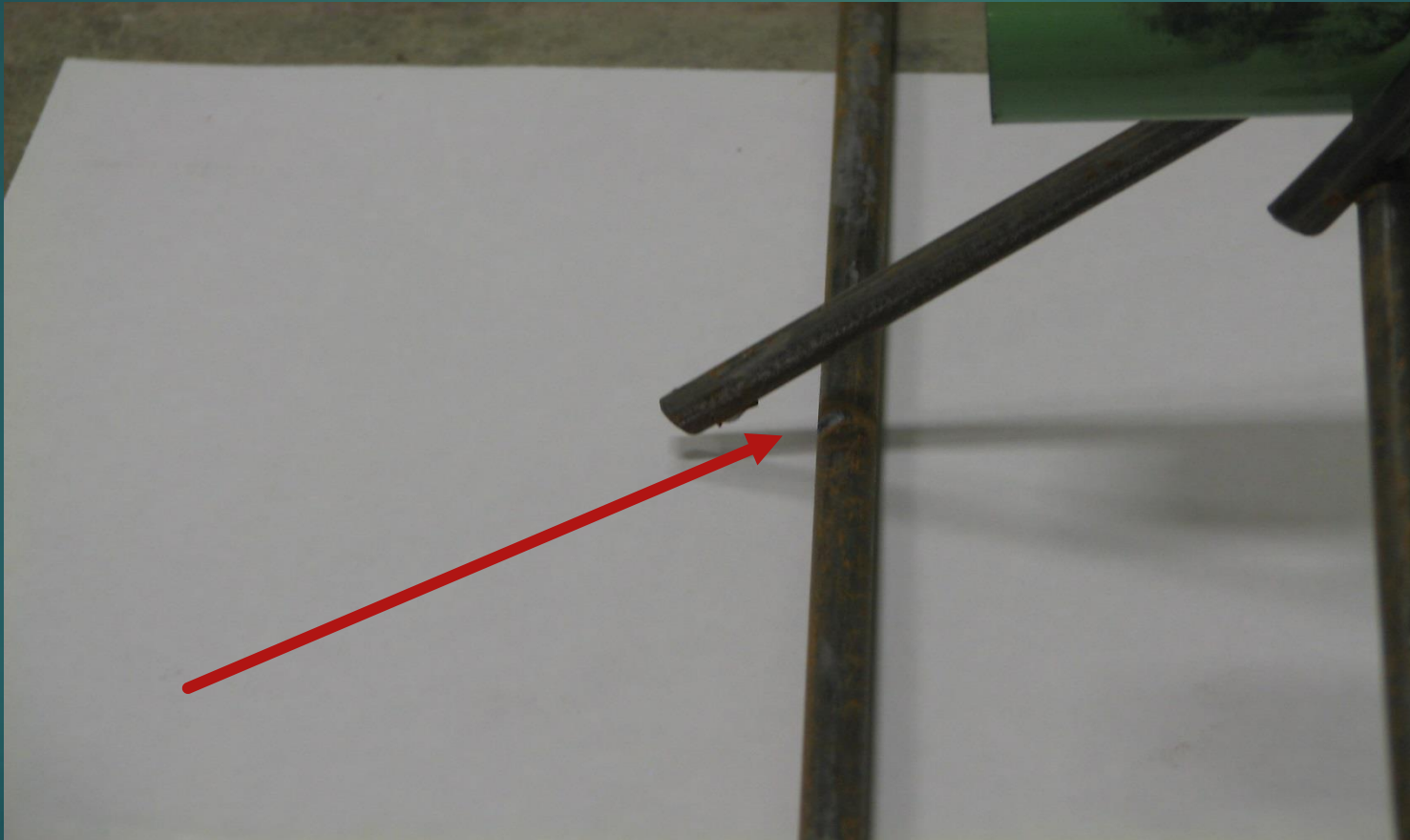
# #6 Welds

- ▶ All wire intersections are to be Arc or Resistance welded.
- ▶ Some examples of bad welds are as followed:

# Bad weld on tie bar to top spacer wire



# Bad weld on support leg to bottom spacer wire





# Bad weld on top spacer wire

