



GRA SERVICES INTERNATIONAL

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FRS Installation Procedures For Below Ground Line Damage

Wood Poles: Circumference at Groundline – 30” to 50” Class: 2 to 6

- Step 1. Inspect the pole to determine the extent of damage.
- Step 2. Excavate around the base of the pole to a sufficient depth and width to ensure proper coverage of damaged area and for ease of placement of the FRS sleeve.
- Step 3. Measure damaged area on pole. Determine proper length of FRS sleeve. The FRS sleeve needs to be long enough to extend at least 12 to 18 inches above and below the highest and lowest points of damage.
- Step 4. For external damage, prep the pole by removing any splinters or debris that would hinder the placement of the FRS sleeve.
- Step 5. Since external damage to the pole most likely has breached the preservative layer, or if the pole is decayed internally, it is advisable to retreat the pole with some type of pole preservative.
- Step 6. Determine the placement of the FRS sleeve over the damaged area. Insure the sleeve will be centered over the damage.
- Step 7. Screw or drive in a 4.5” lag bolt without a washer above the damaged area in order to hang the FRS sleeve by using the “keyhole” hole at the top of the FRS sleeve. After hanging, drive or screw in all the lags with washers down the center rib making sure the sleeve is centered on the pole.
- Step 8. Fit and hang the 2nd half of the FRS sleeve on the opposite side of the pole. Using the opposing bevels on the sides of the FRS sleeves, ensure the FRS sleeve is fitted as snugly as possible. It is not necessary for the sides of the FRS sleeves to be touching each other. There can exist a 4 to 5 inch gap between the halves without compromising any strength of the repair.
- Step 9. Once the 2nd half of the FRS sleeve has been positioned on the pole, drive or screw in all the lags with washers down the center rib.
- Step 10. Fit and tighten the first bolt clamp and steel band around the top of the FRS sleeve just above the top lag screws. This will be approximately 4” below the top of the FRS sleeve.
- Step 11. Fit and tighten the second bolt clamp and steel band slightly below groundline.
- Step 12. Place and tighten the remaining bolt clamps and steel bands evenly spacing them between the top and bottom bands.
- Step 13. Continue to retighten all the bolt clamps until the FRS sleeve is fitted as snugly as possible on the pole. It may be necessary to tap the FRS sleeve with a hammer at various locations to help “snug up” the FRS sleeve while the bolt clamps and steel bands are being tightened.
- Step 14. Next, drive or screw in all the lags with washers down the right hand rib of both FRS sleeve halves. This is the inside cut of the FRS sleeve half.
- Step 15. Check and retighten all lags screws and bolt clamps to ensure the tightest possible fit.
- Step 16. Drive or screw in lag bolts with washers into the left side rib of both FRS sleeve halves. This is the outside cut or overlap side of the FRS sleeve half.
- Step 17. Finally, Retighten all bolt clamps and secure all lags for tightest possible fit.