Scope of Work Tasks for Temporary Pier Shoring

1. Provide connector plates, tie-rods, helical piers, and all associated hardware for shoring system as identified on the attached drawings and associated “Tie-Rod To Pier Connection Detail”.
2. Adhesive anchors shall meet the following requirements:
    a. All anchors shall be SS316.
    b. Adhesive system shall be limited to either Hilti HIT-RE 500-SD or Simpson SET-XP Anchoring Adhesive
    c. Installation of the anchors shall meet the manufacturer’s most stringent installation requirements and the additional requirements noted in this document.
    d. All holes shall be roughened, brushed and blown out with compressed air.
    e. Adhesive shall not be placed with substrate or ambient temperatures below manufacturer’s recommendations.
3. Tie Rods shall meet ASTM A36.
4. Steel plates shall meet ASTM A36.
5. All rod, connector plate, and associated steel shall be prime coated with a zinc rich paint on all surfaces. Touch up any coating damage or galvanizing damage with zinc rich paint following welding. Prepare surfaces as required by the coating manufacturer. (Red is acceptable)
6. Helical piers shall meet the following requirements:
    a. All piers shall be round corner, square shaft, 1 ¼” minimum with 10” minimum diameter helix with an appropriate connector cap plate with connection to tie rod.
    b. All pier related materials are to be hot dipped galvanized per ASTM A123 or ASTM A153.
    c. Installed service tension load capacity shall be 10 kips (use a factor of safety of 3 when compared to the ultimate load capacity)
    d. Installation records for all piers shall be kept and provided to WLSSD upon completion for approval. Records shall include pier construction and connection information, location, lengths, and torque readings for the last 3 feet of installation.
    e. Piers shall be located as noted on the attached plans. The piers will ideally be located within 10 feet of the pipe centerline, but can be spread out as far as 15 feet if required. If this is not achievable, contact the Engineer or WLSSD to discuss.
    f. Piers are to be installed to allow the rods to be no more than 20 degrees off horizontal.
7. All 6 rod assemblies can be field welded, but should include an intermediate turnbuckle to tighten or adjust as necessary. Provide a nut on each side of the turnbuckle for use of locking turnbuckle from loosening.
8. Connection between the rod and the top of helical piers is to be determined by the contractor. All connections must have a capacity of 10 kips minimum in tension.
9. Rods shall be tightened, but do not move piers or overtighten. Limit tightening to taking out slack, support rods level and tighten with turnbuckles, locking with nuts.