**Problem 4-1**: Based on HW #2, the maximum positive moment in the propped cantilever beam is 951 kip-ft at 15 ft from the right support and the minimum moment is -570 kip-ft over the support. If the beam is to be used in interior exposure and has #4 stirrups, design the beam using normal weight concrete with 3/4 maximum aggregate size having f'c=5000 psi and reinforcing steel with fy=60,000 psi. Use a single layer of steel to be efficient. Be sure to provide a design sketch of your final design.

**Problem 4-2**: Select the reinforcement for a 22 ft span rectangular beam with b= 14 in. and h=26 in. The beam supports its own weight plus a superimposed service uniform dead load of 1.1 kip/ft and a uniform service level live load of 2.3 kips/ft. Use normal weight concrete having f'c=4500 psi and fy=60,000 psi. The beam must use #4 stirrups and has interior exposure with 3/4 maximum aggregate size.