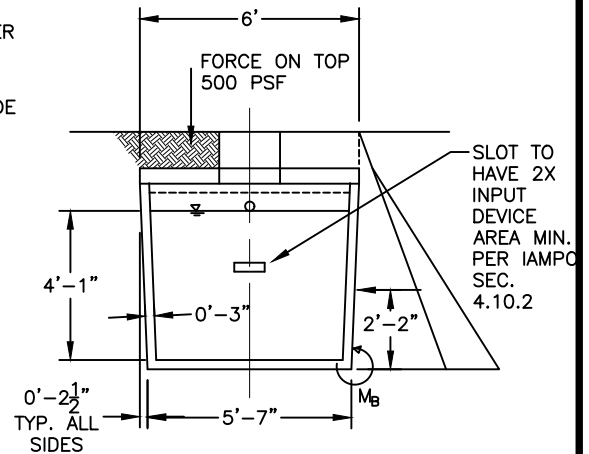
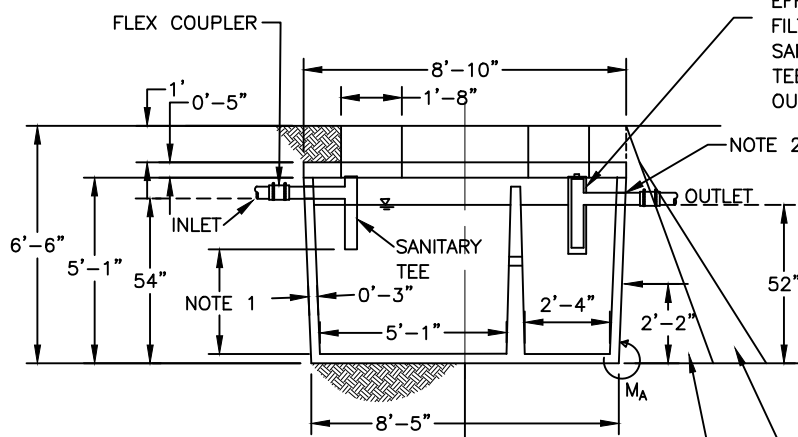
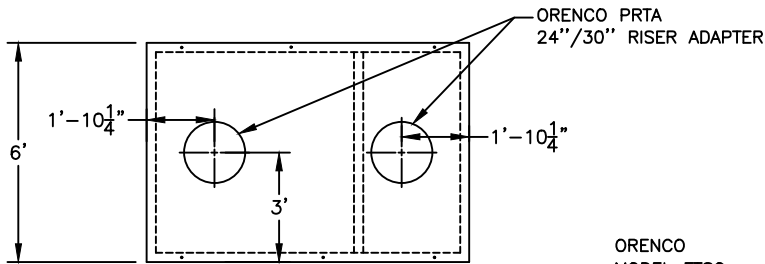
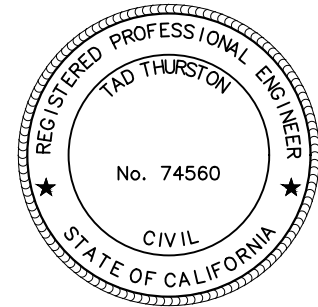


# POPE ENGINEERING

CIVIL ENGINEERING - LAND SURVEYING

R.C.E. 65228 - P.L.S. 8903

## 1200 GAL. SEPTIC TANK SKETCH



EMPTY WEIGHT OF TANK = 11,682.4 LB  
FULL WEIGHT OF TANK = 22,008.9 LB

BUOYANCY FORCE = 14,903.1 LB  
(ASSUMES WATER TABLE AT TOP OF TANK)

### NOTES

1. INLET TO INLET AND OUTLET TEE TO BE 24.5" TO 36.75" FROM TANK BOTTOM
2. PRESS-SEAL 4" CAST-A-SEAL COUPLER. ALL SEALS BETWEEN PIPE AND TANK MUST MEET ASTM C1644

### MOMENT FORCE ON TOP

1991.0 LB-FT/FT AS DETERMINED BY AUTODESK ROBOT STRUCTURAL ANALYSIS PROGRAM

### OUTER FORCE ON WALL FROM SOIL LOAD IS:

$M_A$  (END WALL) = 879.8 LB-FT/FT AS DETERMINED BY AUTODESK ROBOT STRUCTURAL ANALYSIS PROGRAM

$M_B$  (SHORT TANK COMPARTMENT) = 361.5 LB-FT/FT AS DETERMINED BY AUTODESK ROBOT STRUCTURAL ANALYSIS PROGRAM

$M_B$  (LONG TANK COMPARTMENT) IS SAME AS  $M_A$  BECAUSE OF SIMILAR DIMENSIONS

### INNER FORCE ON WALL FROM SEWAGE LOAD IS:

END WALLS =  $1/2 * (4.083 \text{ FT})^2 * 62.4 \text{ PCF} * 5.28 \text{ FT} = 2746.3 \text{ LB}$   
MOMENT = 272.1 LB-FT/FT

SIDE WALL LARGE COMPARTMENT =  $1/2 * (4.083 \text{ FT})^2 * 62.4 \text{ PCF} * 5.26 \text{ FT} = 2735.9 \text{ LB}$   
MOMENT = 272.1 LB-FT/FT

SIDE WALL SMALL COMPARTMENT =  $1/2 * (4.083 \text{ FT})^2 * 62.4 \text{ PCF} * 2.49 \text{ FT} = 1295.1 \text{ LB}$   
MOMENT = 80.4 LB-FT/FT

TANK AIR SPACE = 22.2 CF

WORKING LIQUID VOLUME = 1200 GAL. = 160.4 CF