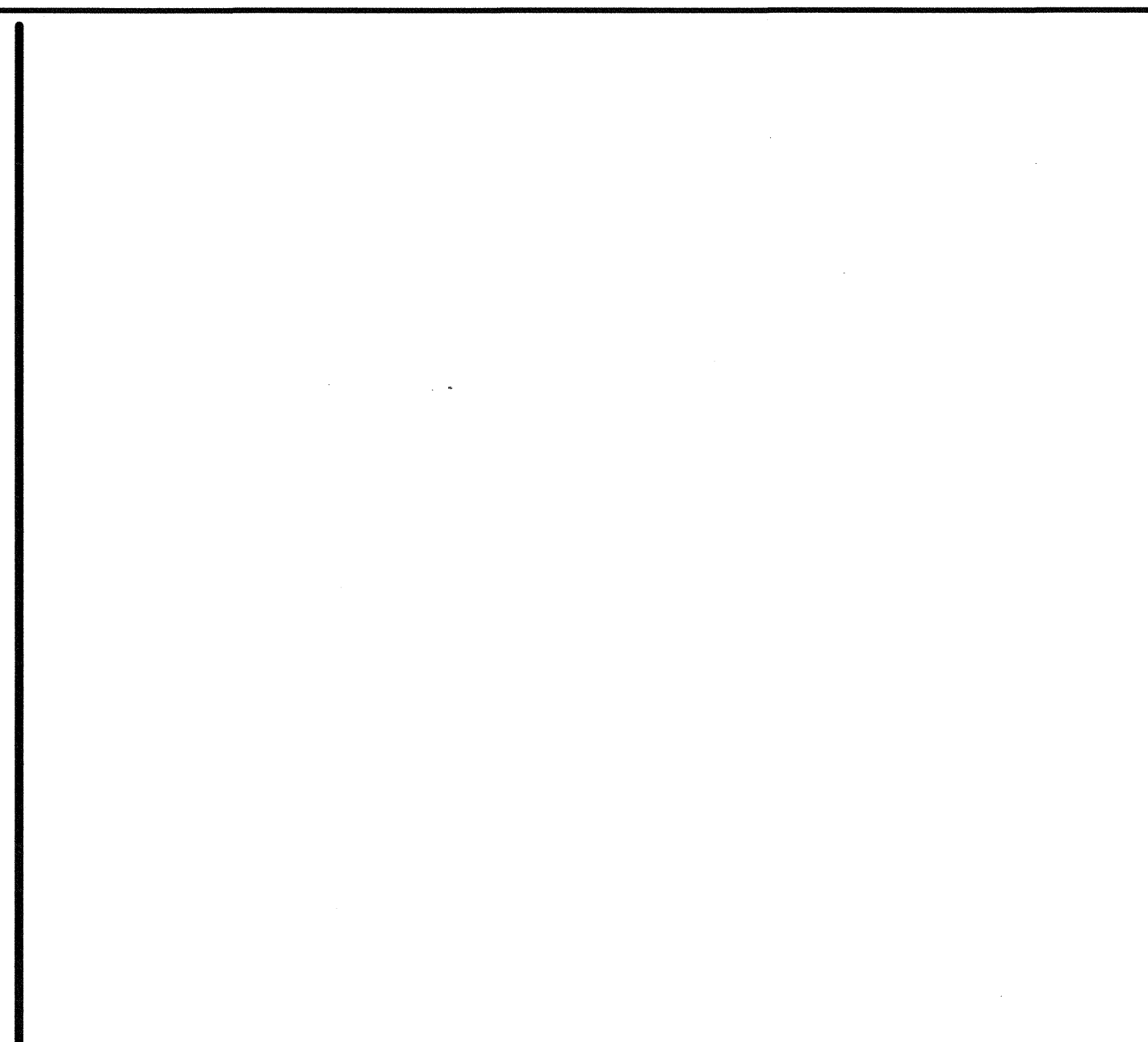
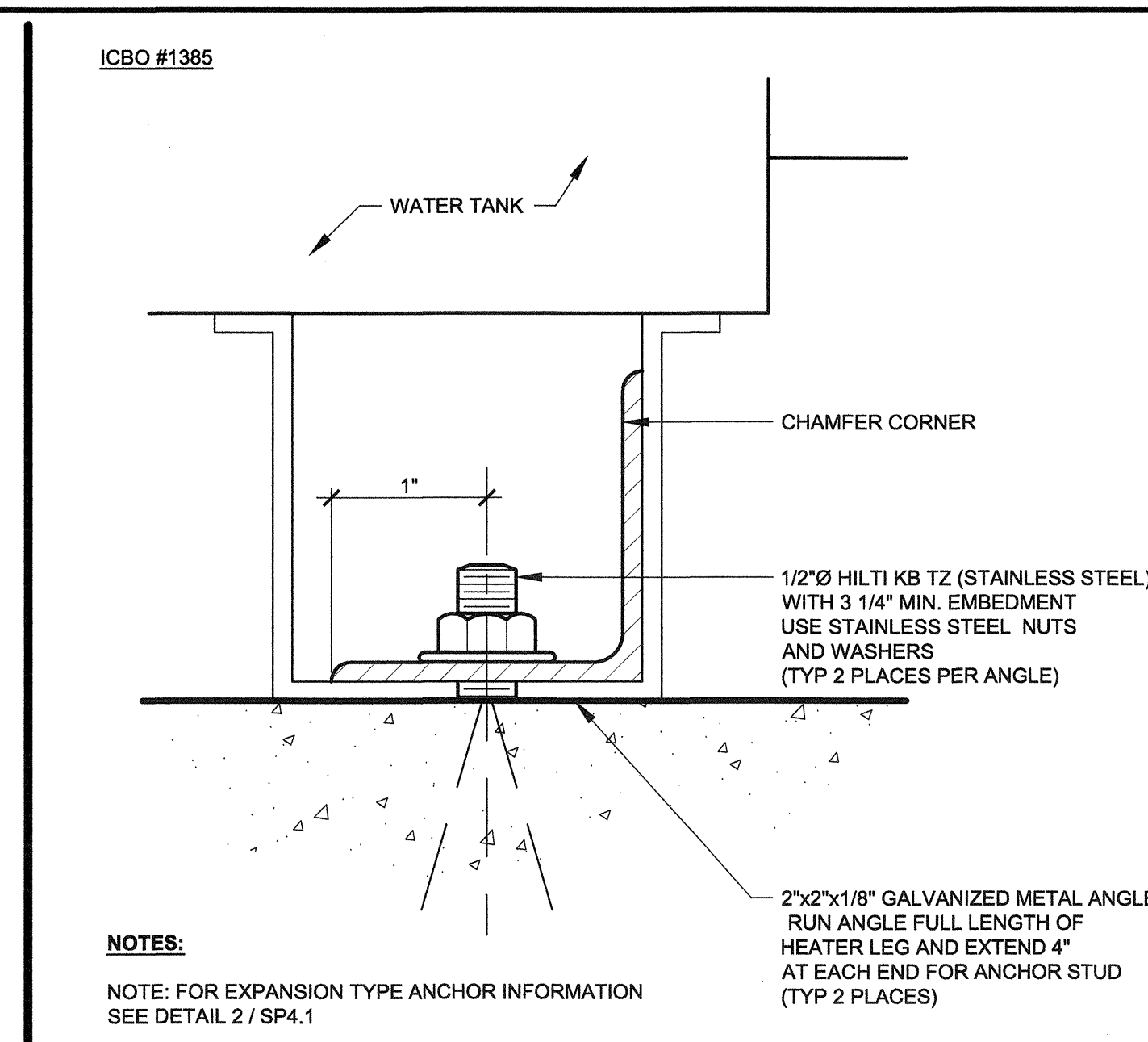


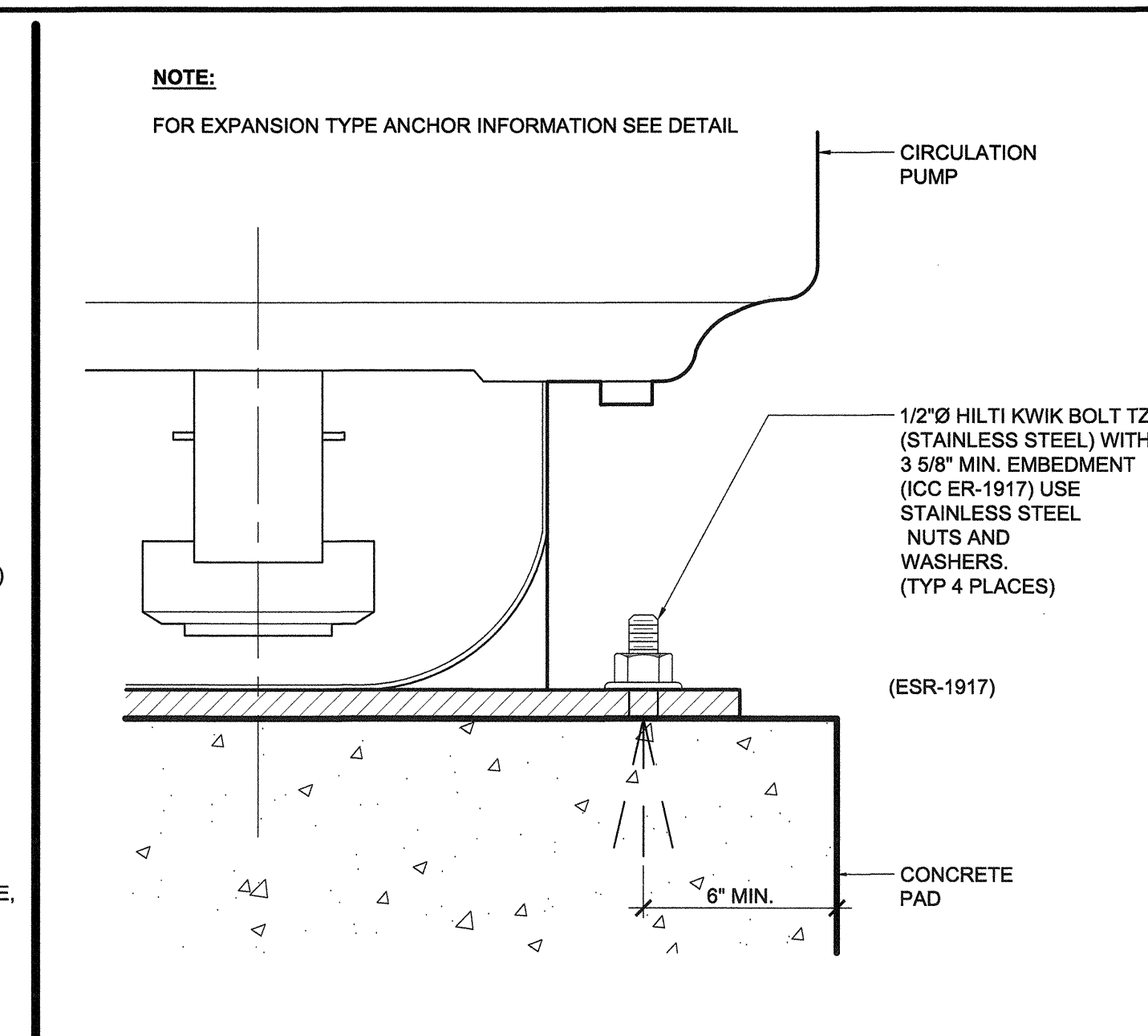
NOT USED  
SCALE: NONE



NOT USED  
SCALE: NONE



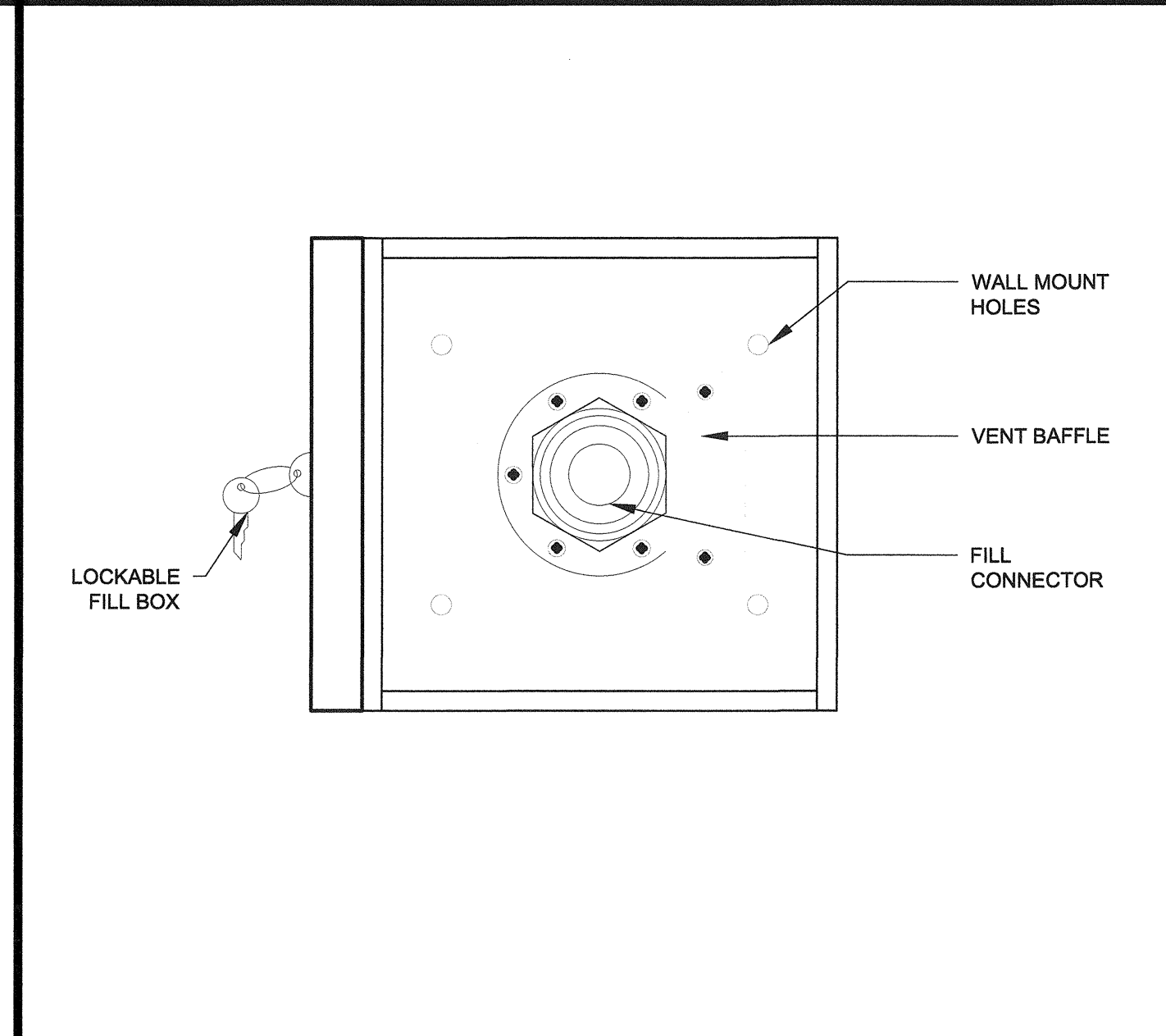
HEAT TO FLOOR ANCHOR  
SCALE: 1" = 1'-0"



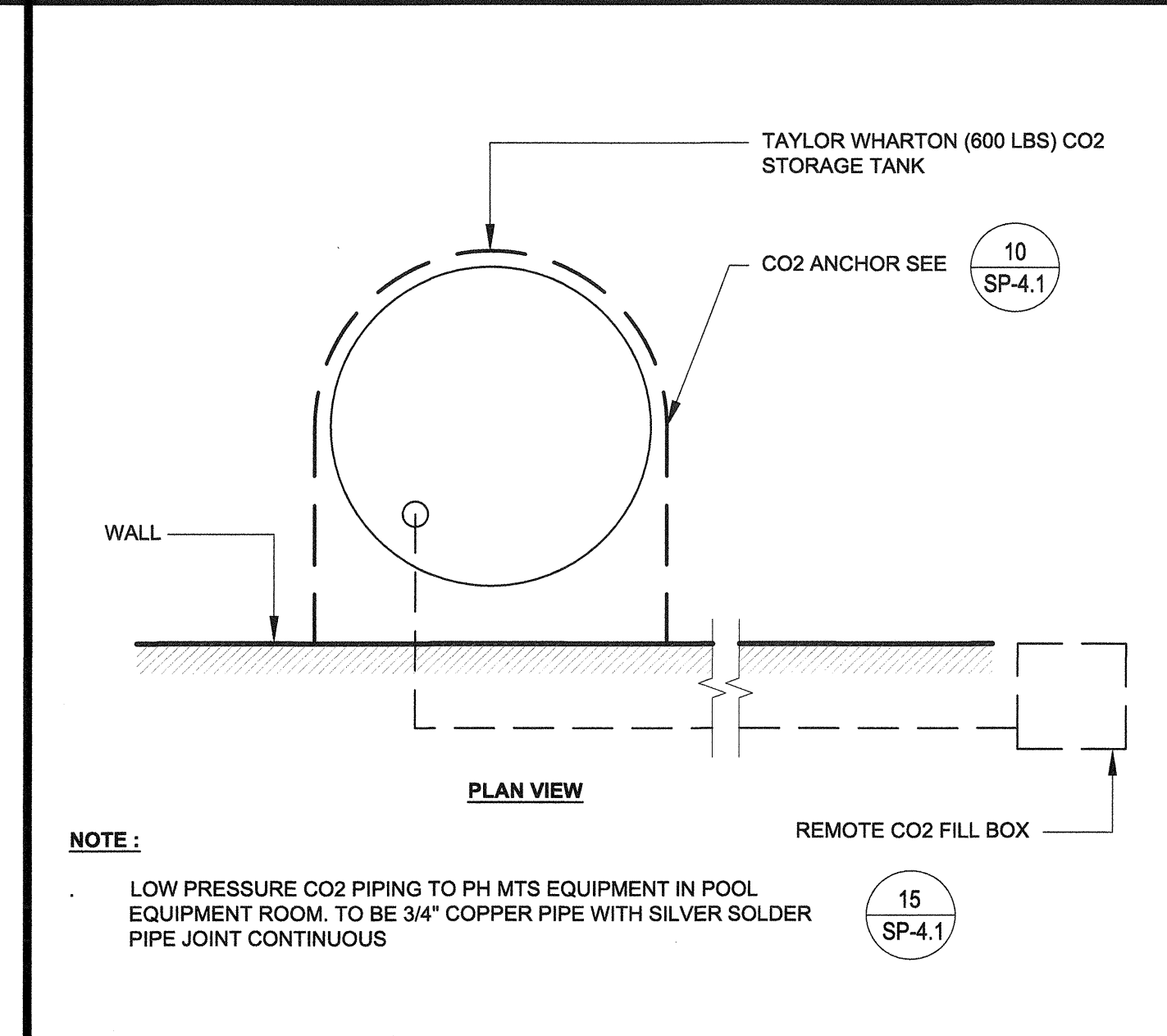
**PUMP ANCHOR**  
SCALE: 1" = 1'-0"



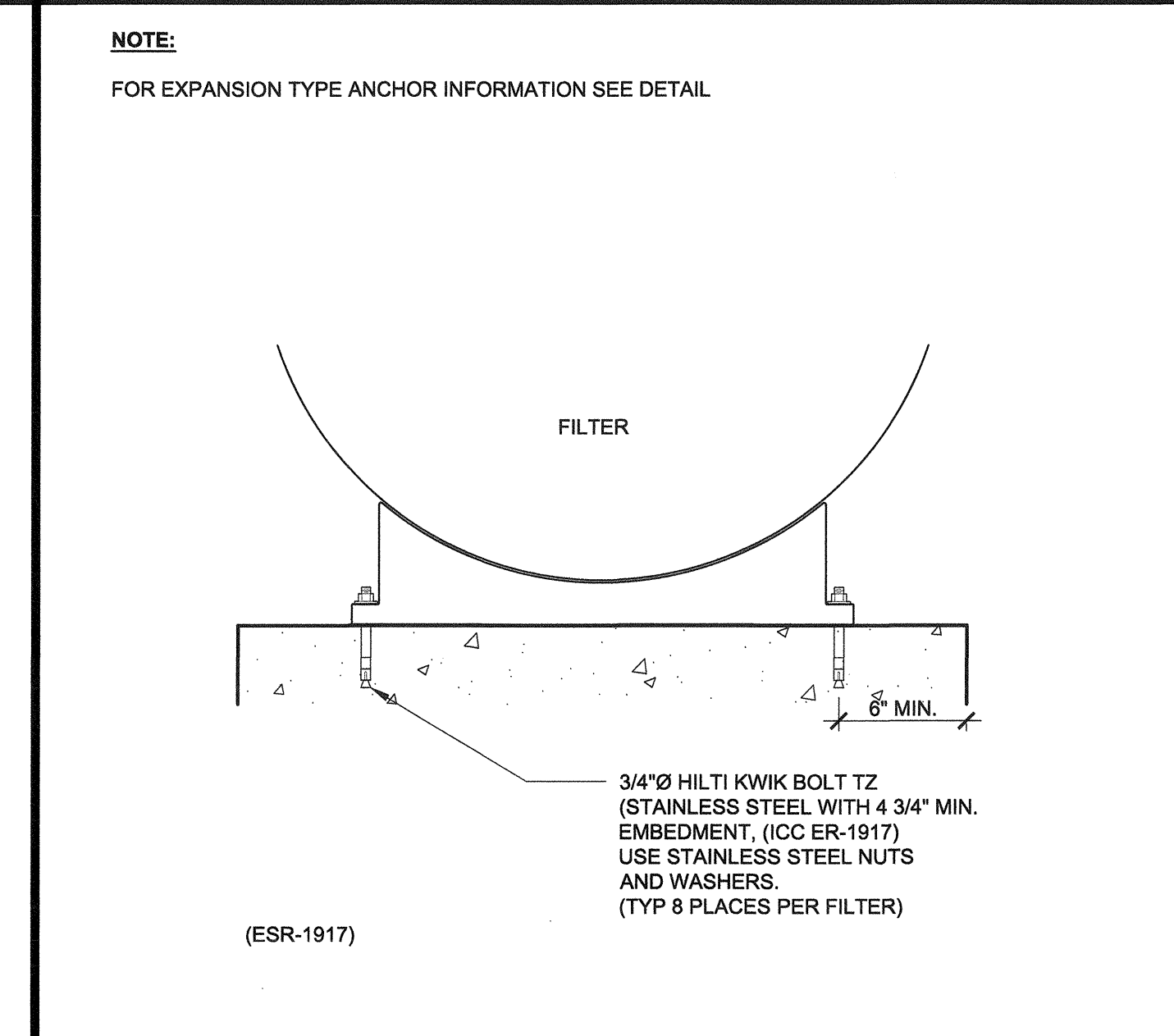
NOT USED  
SCALE: NONE



CO2 FILL BOX  
SCALE: NONE



REMOTE CRYOGENIC CO2 TANK  
SCALE: NONE



**FILTER ANCHOR**  
SCALE: NONE



**ANCHOR NOTES**  
SCALE: NONE

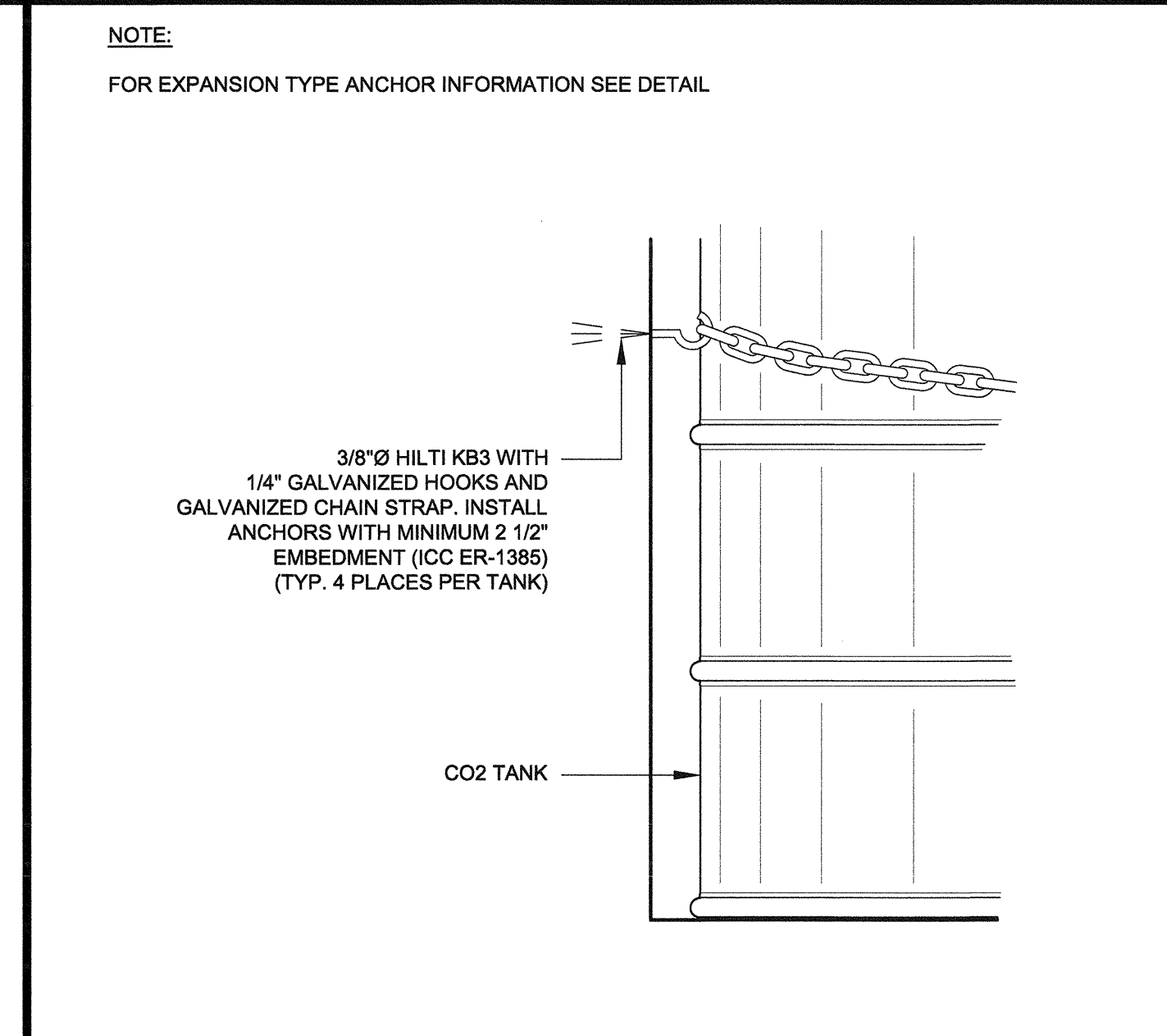
WEDGE OR EXPANSION ANCHOR EMBEDMENT DEPTH AND TEST LOAD					
ANCHOR DIAMETER	MIN EMBED	ANCHORS IN CONCRETE		ANCHORS IN MASONRY	
		TENSION LOAD (LBS)	TORQUE LOAD (FT-LBS)	TENSION LOAD (LBS)	TORQUE LOAD (FT-LBS)
1/4"	2"	800	10	300	10
3/8"	2"	1500	25	500	30
1/2"	3 1/4"	3000	40	1000	35
5/8"	4"	4900	80	1250	55
3/4"	4 3/4"	6300	110	1700	120



NOT USED  
SCALE: NONE



NOT USED  
SCALE: NONE



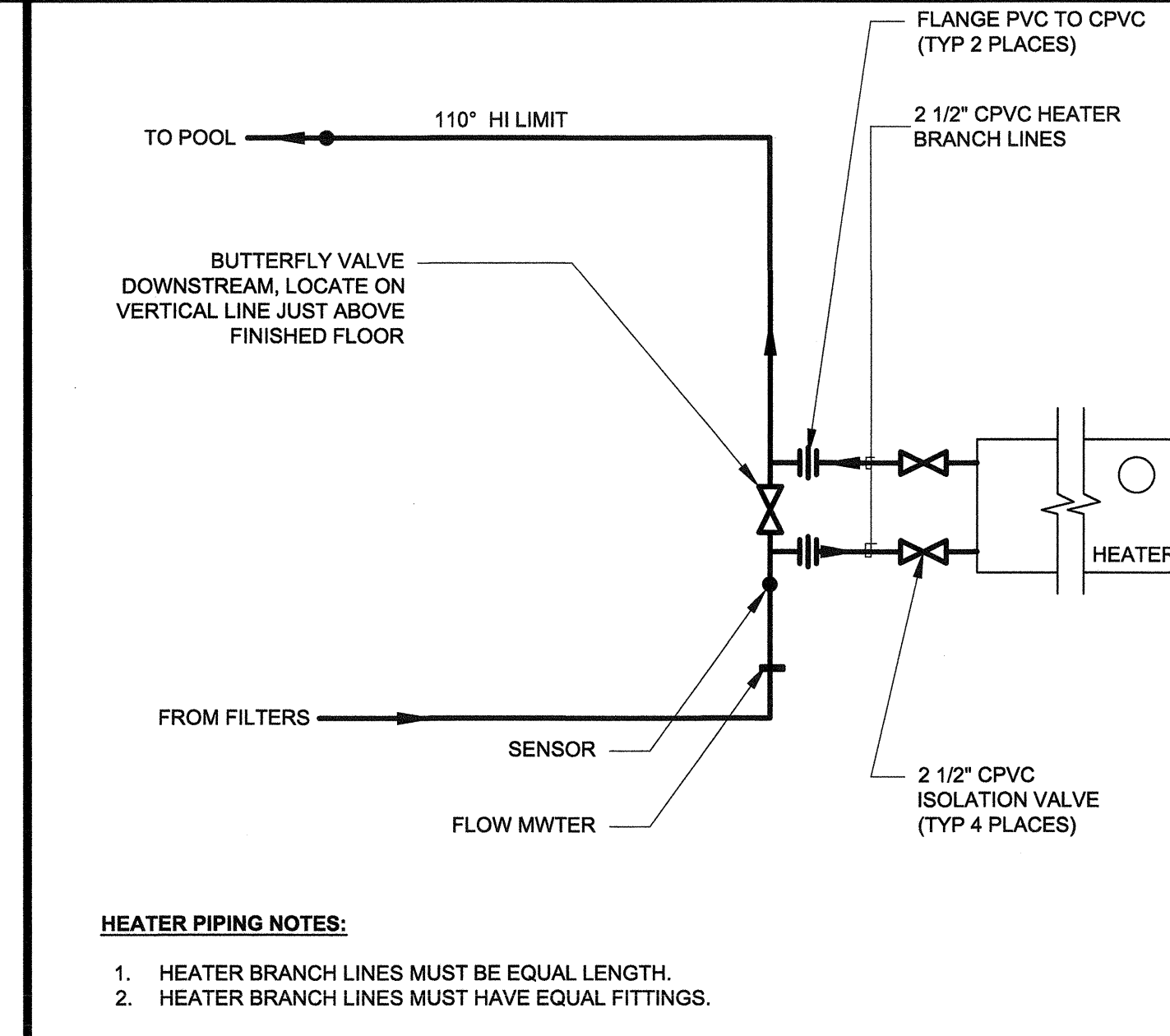
TANK ANCHOR  
SCALE: NONE



NOT USED  
SCALE: NONE



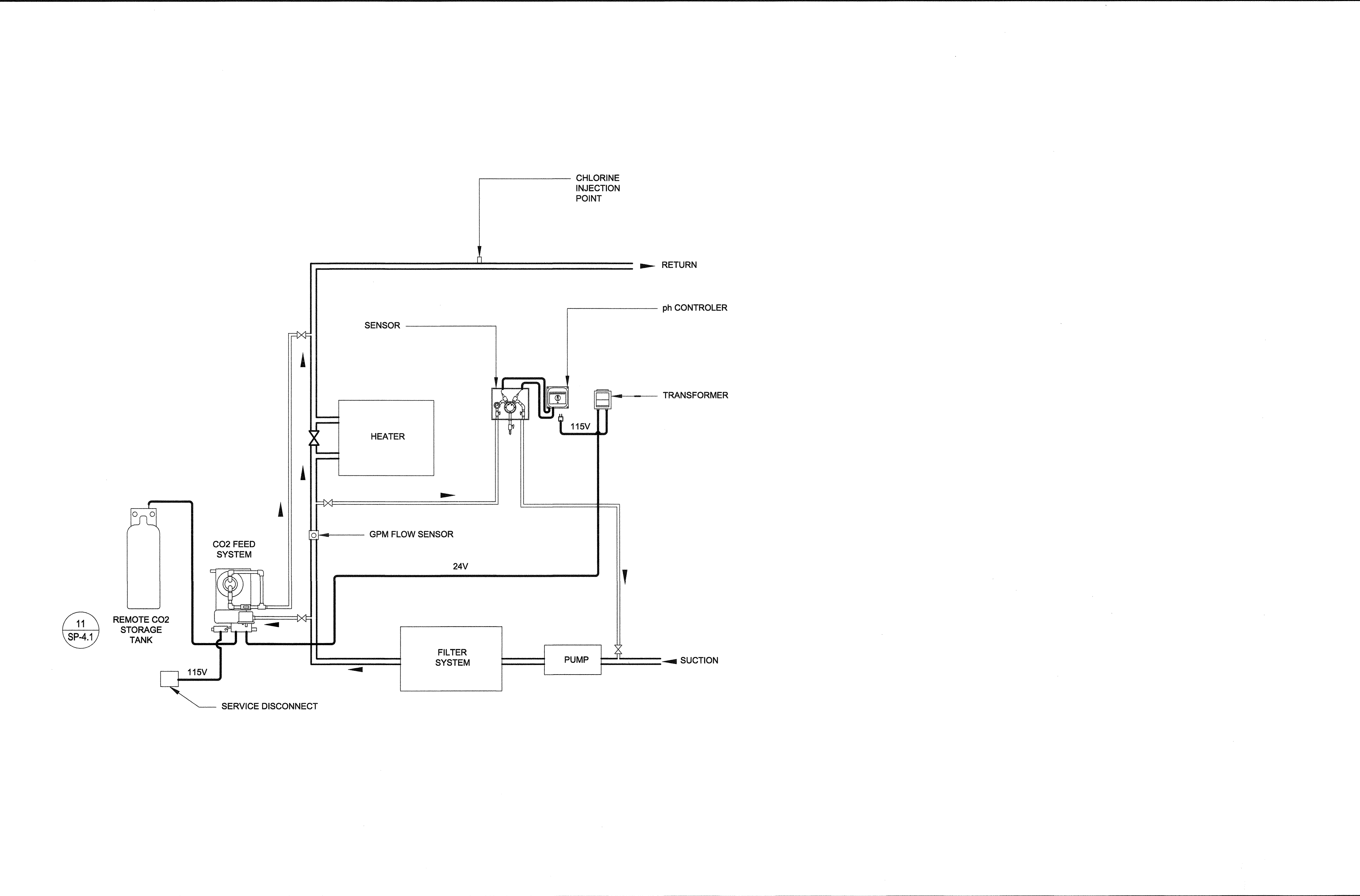
NOT USED  
SCALE: NONE



**TYP. HEATER BYPASS**  
SCALE: NONE



CO2 FEED SCHEMATIC  
SCALE: NONE



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- ## MECHANICAL ANCHORS
1. EXPANSION OR WEDGE ANCHORS INTO CONCRETE: HLIT KB 7Z (CCR-1917) OR SIMPSON STRONG BOLT (CCR-1771) TO BE INSTALLED IN ACCORDANCE WITH CCR RECOMMENDATIONS AND MANUFACTURER'S RECOMMENDATIONS.
  2. EXPANSION OR WEDGE ANCHORS INTO MASONRY: HLIT KB 3 (CCR-1385) OR SIMPSON REDDIE-ALL (CCR-1586) TO BE INSTALLED IN ACCORDANCE WITH CCR RECOMMENDATIONS AND MANUFACTURER'S RECOMMENDATIONS.
  3. UNDERCUT ANCHORS INTO CONCRETE: HLIT HDA (CCR-1546) TO BE INSTALLED IN ACCORDANCE WITH CCR RECOMMENDATIONS AND MANUFACTURER'S RECOMMENDATIONS.
  4. HEAVY DUTY SLEEVE ANCHORS INTO CONCRETE: HLIT HSA-3 (CCR-1545) TO BE INSTALLED IN ACCORDANCE WITH CCR RECOMMENDATIONS AND MANUFACTURER'S RECOMMENDATIONS.
  5. FASTENERS SHALL BE STAINLESS STEEL FOR EXTERIOR USE OR WHEN EXPOSED TO WEATHER. PROVIDE GALVANIZED CARBON STEEL ANCHORS AT OTHER LOCATIONS, UNLESS OTHERWISE NOTED.
  6. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID REINFORCEMENT. PROVIDE A MINIMUM OF 4" CLEARANCE DIAMETERS OR 1" INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOGEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINKING GROUT. IF THE DOGEL OR POWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE STRUCTURAL ENGINEER'S APPROVAL IS REQUIRED FOR NEW LOCATION.
  7. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS.
  8. ANCHORS SHALL BE PROOF-TESTED BY OWNERS TESTING AND INSPECTION AGENCY.
- ## TEST ANCHORS
1. TEST ANCHORS NO SOONER THAN 24 HOURS AFTER INSTALLATION.
  2. APPLY TEST LOAD BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TENSION AND SHEAR CAPACITY OF THE ANCHOR. HYDRAULIC JACK, TORQUE WRENCH, OR CALIBRATED SPRING LOADING DEVICES, ETC.
  3. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED. PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY A BASE PLATE OR OTHER FIXTURE. IF RESTRAINT IS FOUND, LOOSEN AND SHIM OR REMOVE FIXTURE PRIOR TO TESTING.
  4. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM EMBEDMENT OF ANCHORS AS SHOWN TABLES BELOW.
  5. TEST 50% OF ANCHORS PER ONE OF THE FOLLOWING METHODS AND IN ACCORDANCE WITH THE VALUES SHOWN IN THE TABLE:
- |    |  |
|----|--|
| A. | HYDRAULIC RAM METHOD: APPLY PROOF TEST LOAD WITHOUT REMOVING THE NUT. IF IT IS NOT POSSIBLE TO TEST WITH THE NUT IN PLACE, REPLACE THE NUT WITH A TORQUE COUPLER TO THE SAME TORQUE SPECIFIED WITH A TORQUE WRENCH, AND THEN APPLY THE TEST LOAD. ANCHOR IS DEEMED TO PASS IF NO UNIT DIVERGENCE AT THE TEST LOAD. MOVEMENT MAY BE DETERMINED WHEN THE WASHER UNDER THE NUT BECOMES LOOSE. |
| B. | TORQUE WRENCH METHOD: TEST ANCHORS TO THE TORQUE LOAD INDICATED IN THE TABLE WITH ONE-HALF TURN OF THE NUT.  |
6. IF ANY ANCHOR FAILS TESTING, REPLACE ANCHOR AND TEST ADDITIONAL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED. NO UNIT DIVERGENCE IN CONSECUTIVE TESTS PASS, THEN RESUME INITIAL TESTING PROGRAM.