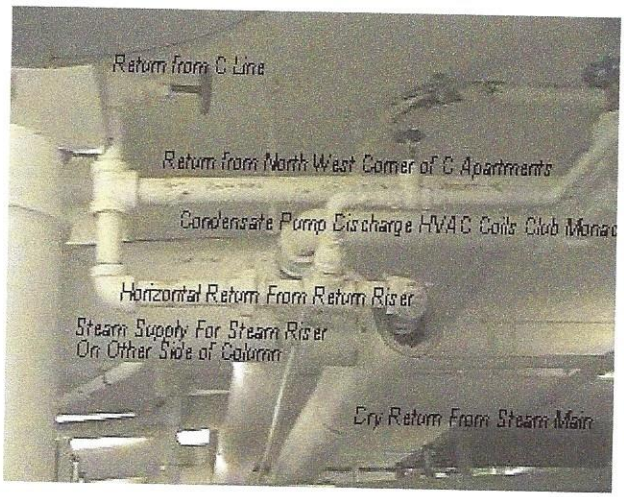
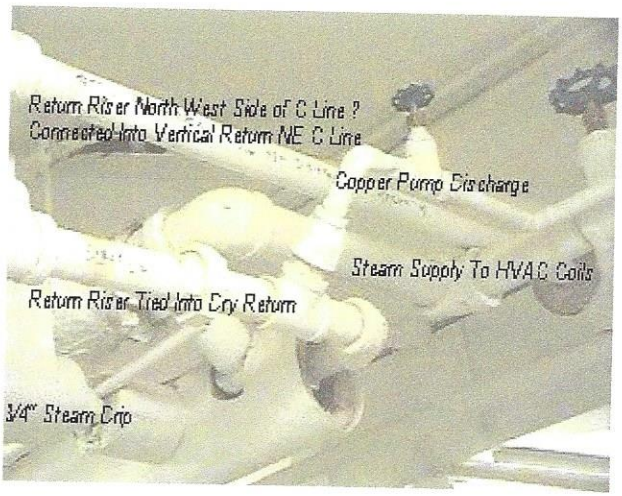
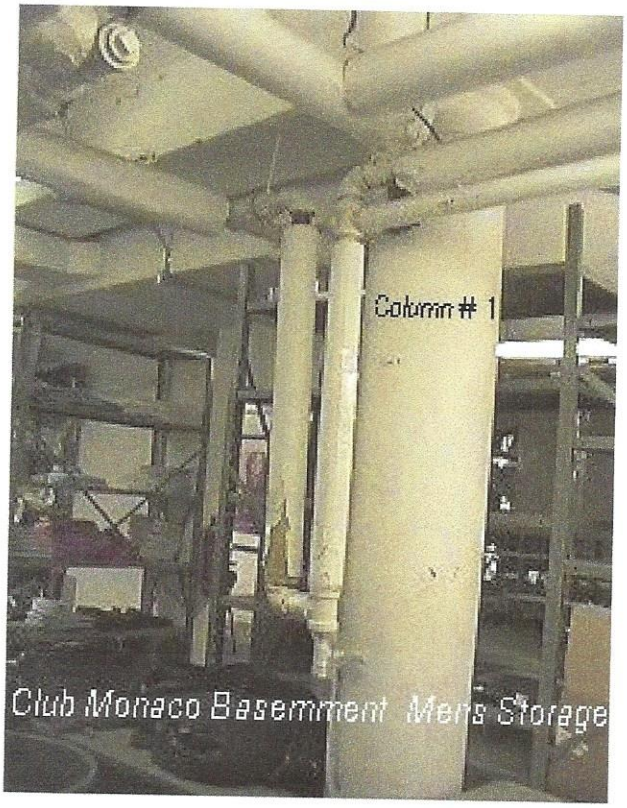
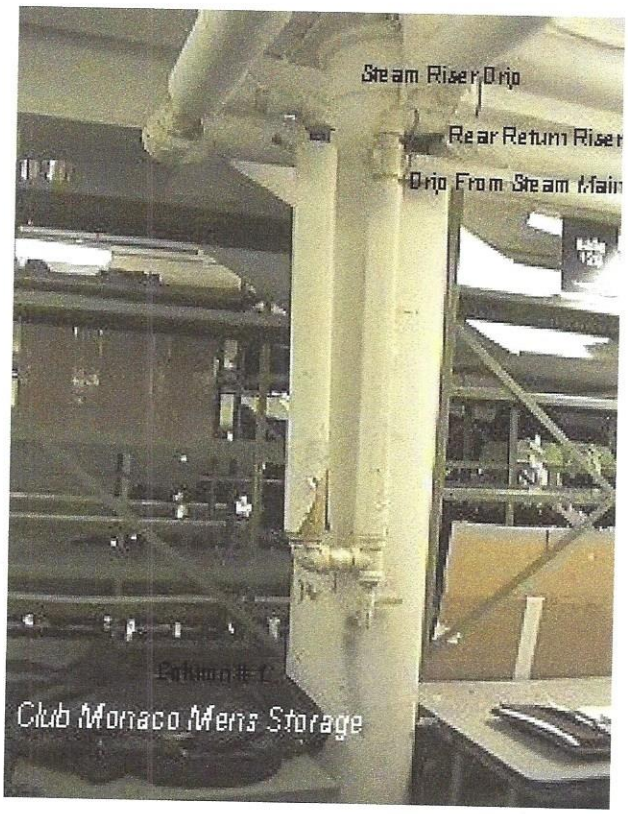
The pictures and drawings include the recommendations and final completed work that eliminated banging, poor steam circulation, and the lawsuit for negligent operation of a building brought against the condominium board.

Pictures of "C" line steam and return risers in the basement storage area of Munaco



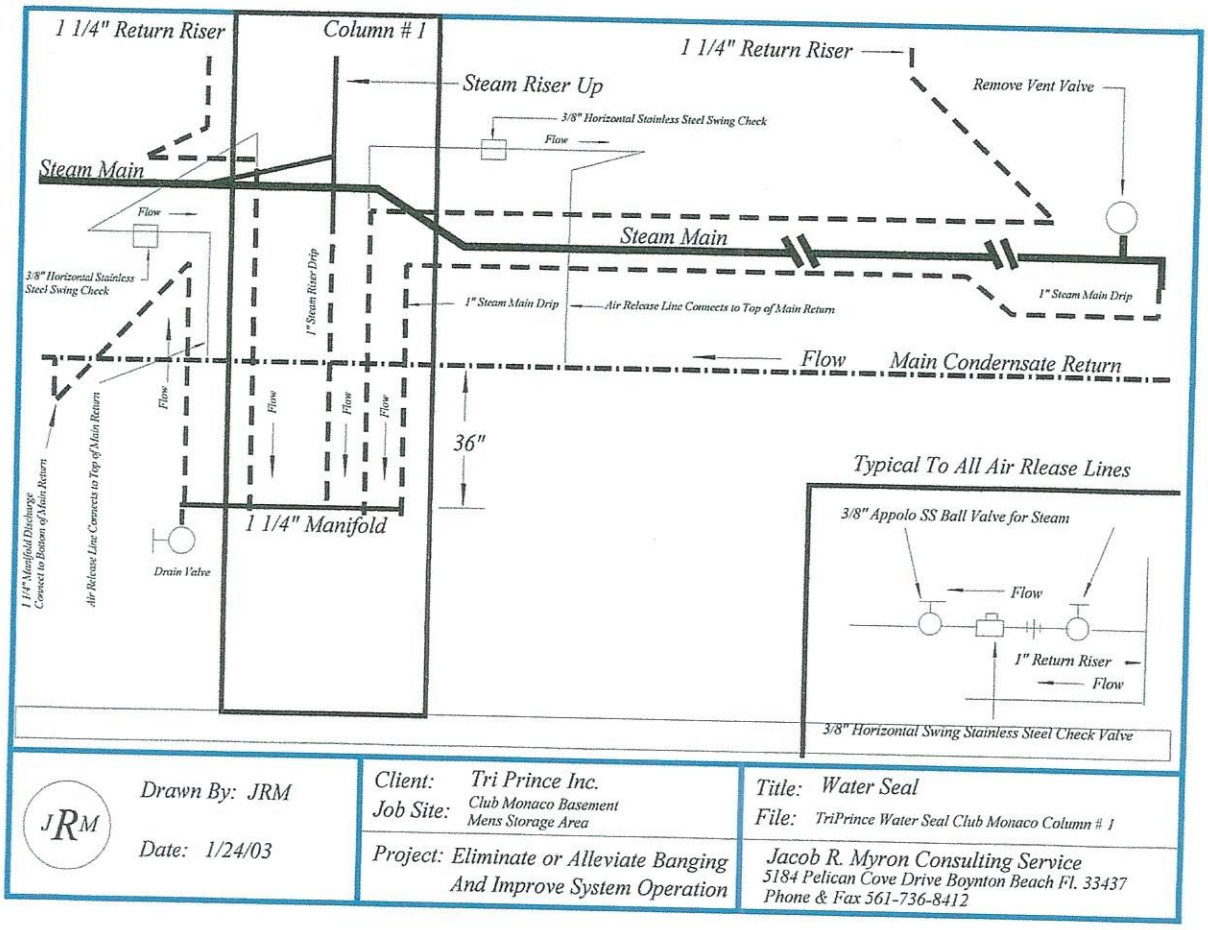




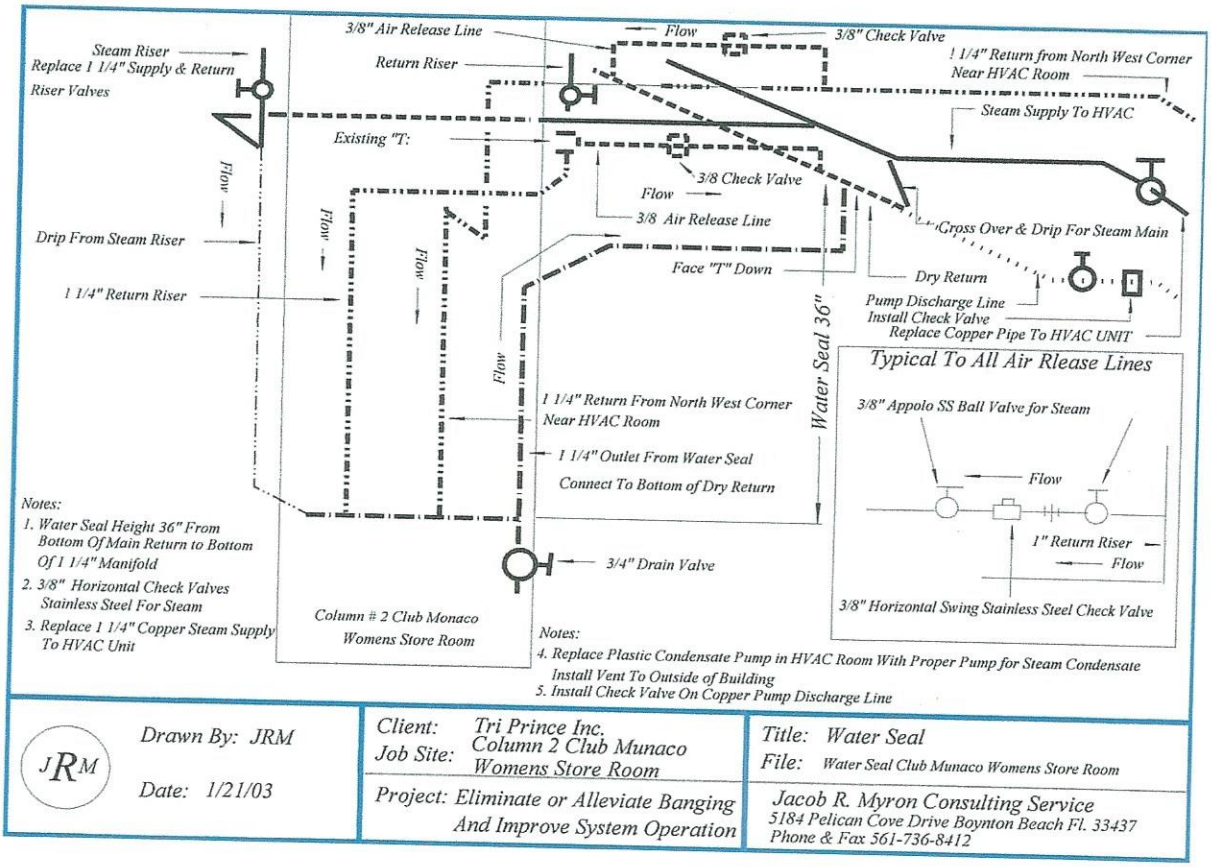


Modification of Existing Water Seals

The Modification is needed to separate the main dry return from the steam main extention return as well as separating the drip from the steam riser from the main condensate return. The water seal acts as steam trap and stops the steam from crossing over into the return riser.

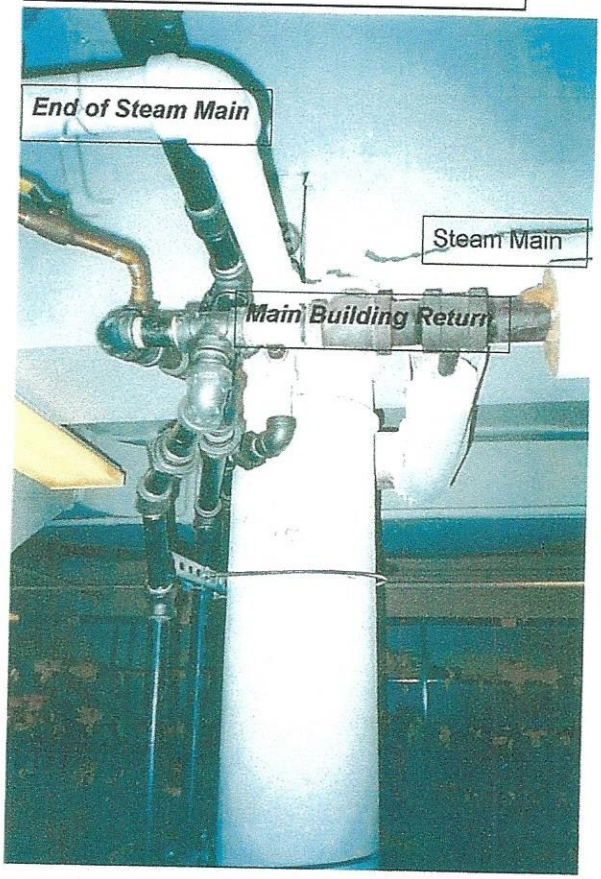


The Modifications were needed because the steam riser drip and dry return from the steam main forces steam into the rear W line return riser. The Rear W steam and return risers are piped as two pipe air vent vapor system and because steam is pressurizing the return riser very loud banging occurs.

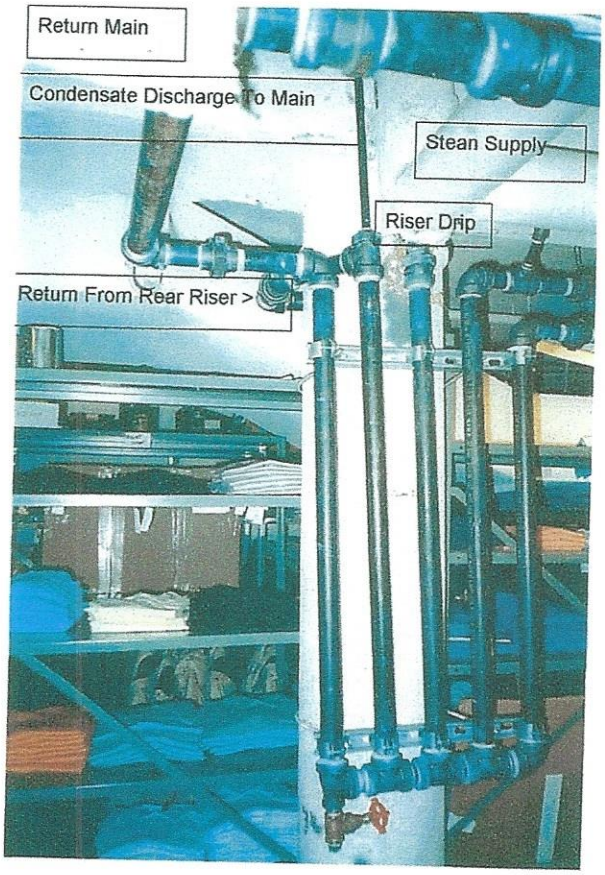


TriPrince "C" Line Steam and Return Risers Pictures of Piping Modifications, Completed February 20, 2003

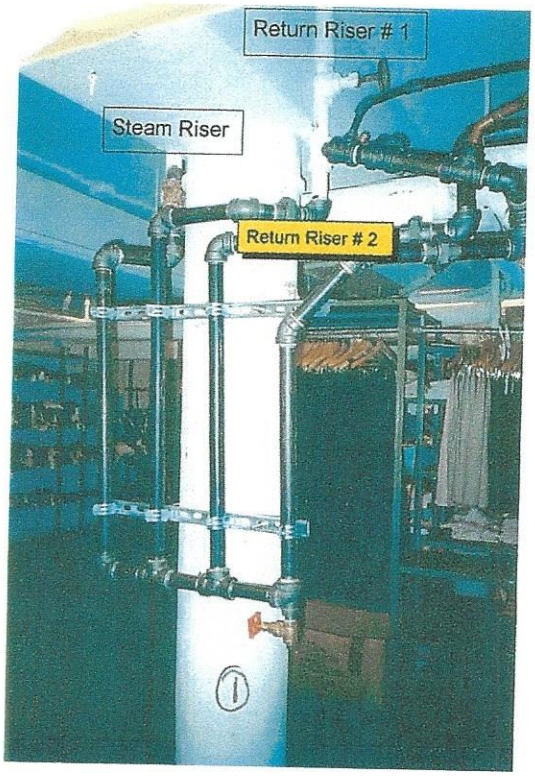
Modified water seal and new piping to correct problems in the C line steam and return riser and return from the "W" riser

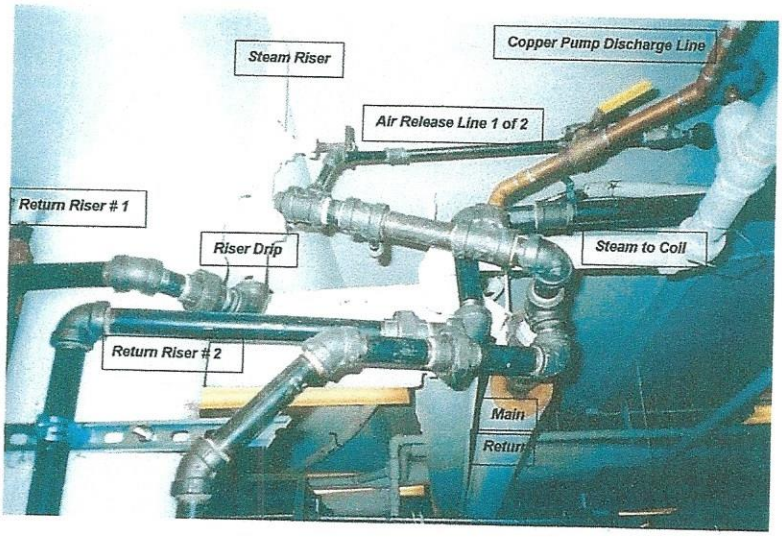


Multiple returns from 4" steam supply and 3" steam riser.

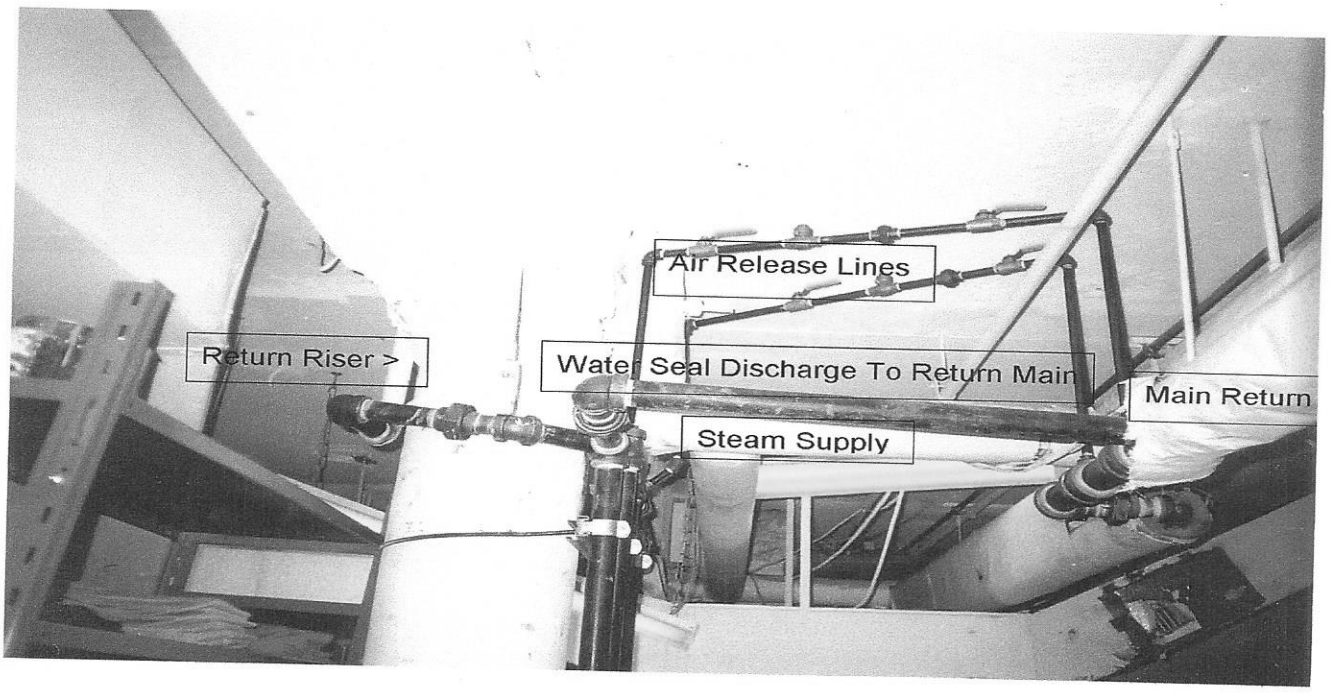


Pictures of New Water Seals at Columns 1 and 2, Munaco Basement Storeroom





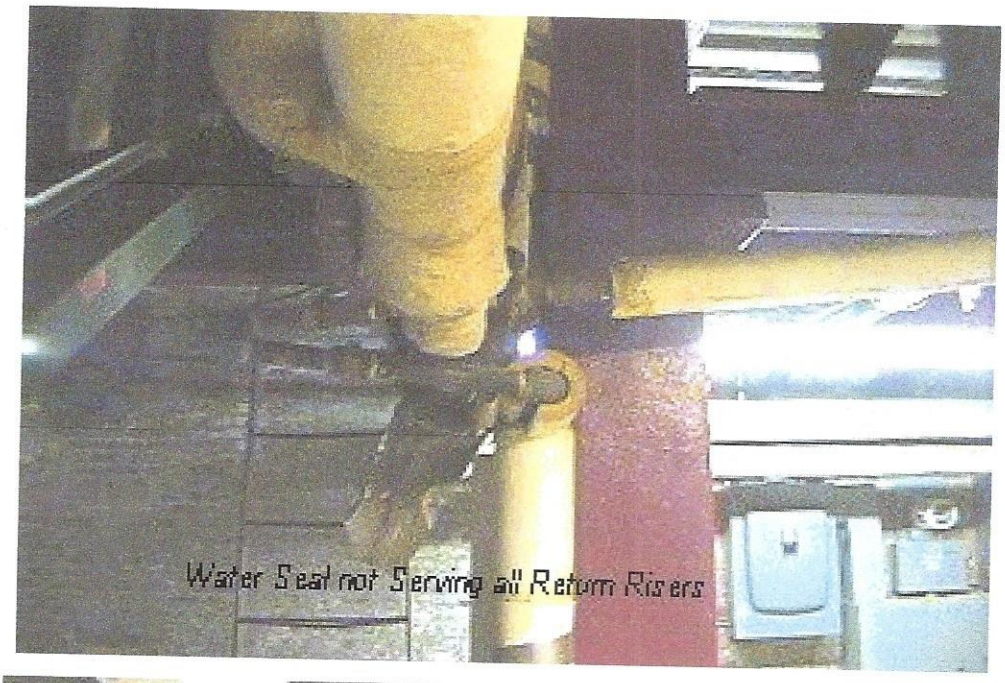
In the pictures below, note the two 1-inch sets of pipe with ball valves and check valves. Both check valves are used to prevent steam from entering the return side of the risers. Because the steam system in the building has both one- and two-pipe steam systems, the main return will see some steam pressure. The check valves will prevent steam from entering the return side of the system when steam pressure exceeds the pressure of the leaving air. The conflagration of piping is used to vent system air from the return riser. Note that the return riser drops into a water seal. That water seal prevents the system air from passing to the main building return. The main building return goes to the boiler room where master main vent valves release the system air.

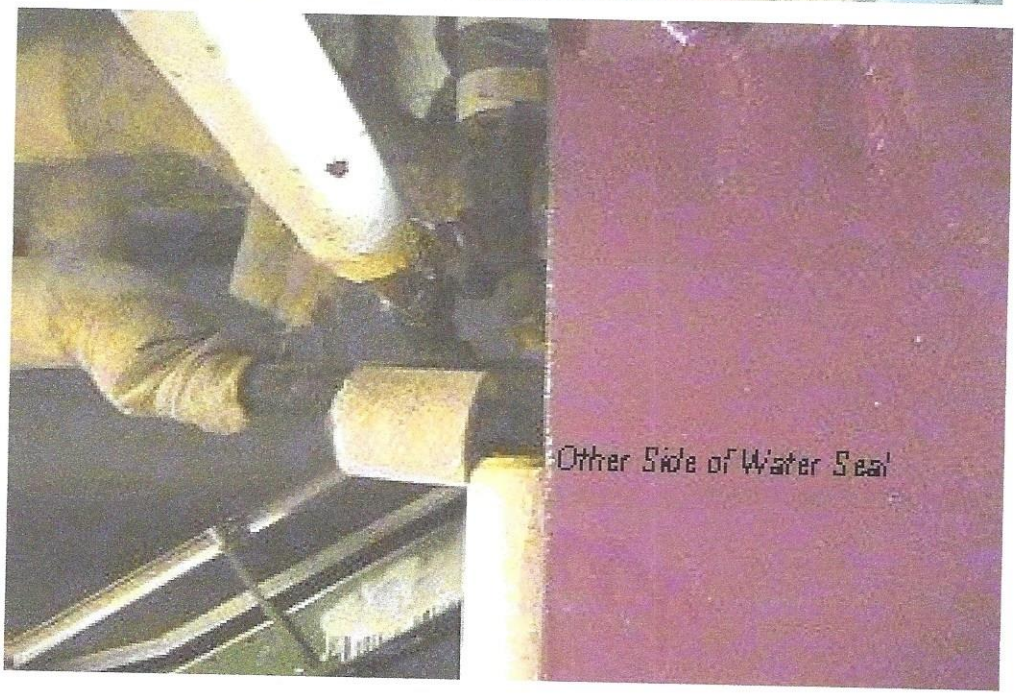


121 Side of Building Just Outside of the Boiler Room Vault Area

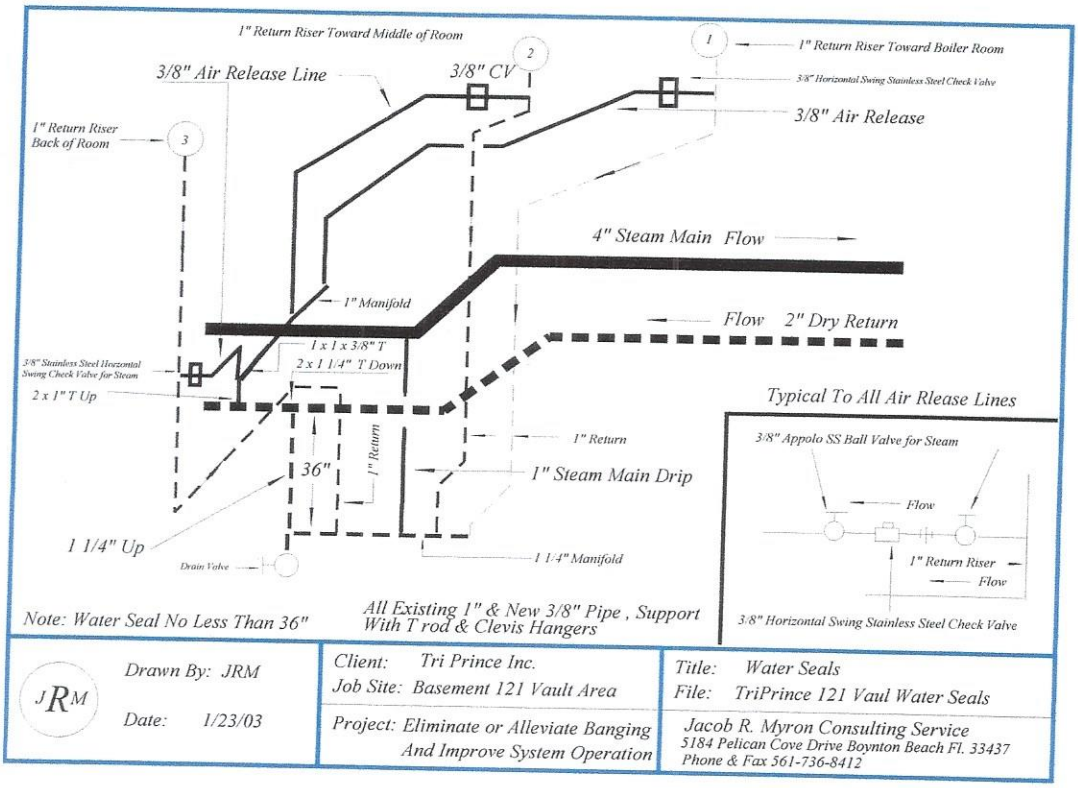

Base of 3 Riser 1" Riser Connections
Steam Cross Over Point


Three 1" Return Risers connected Bottom of Steam Main

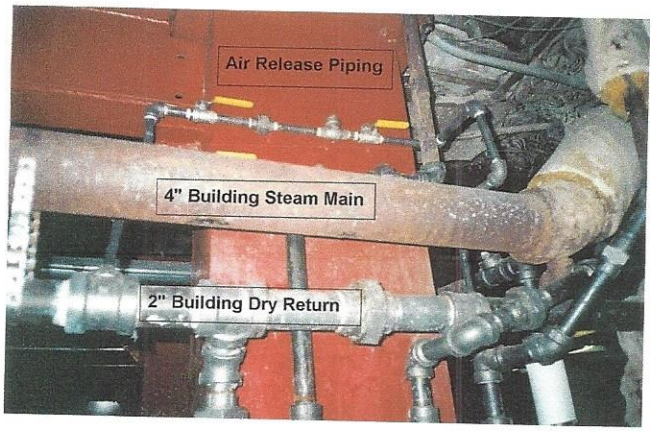

Water Seal not Serving all Return Risers

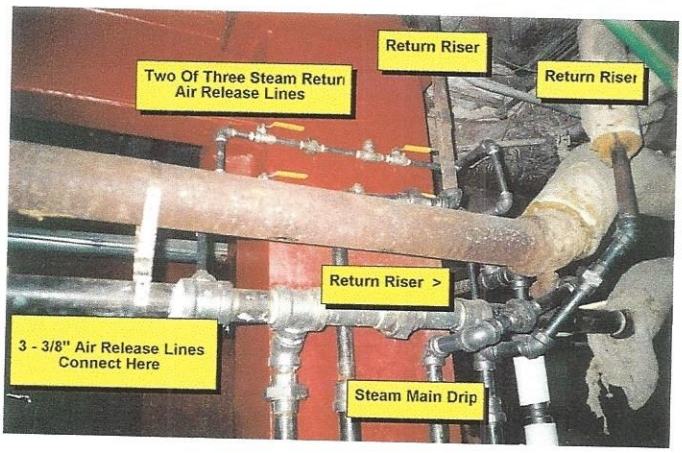

Other Side of Water Seal

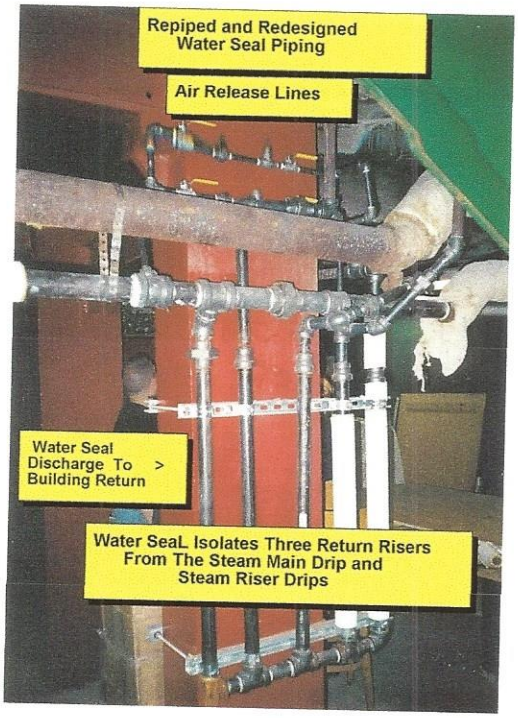
Modification for Water Seal 121 Vault Area



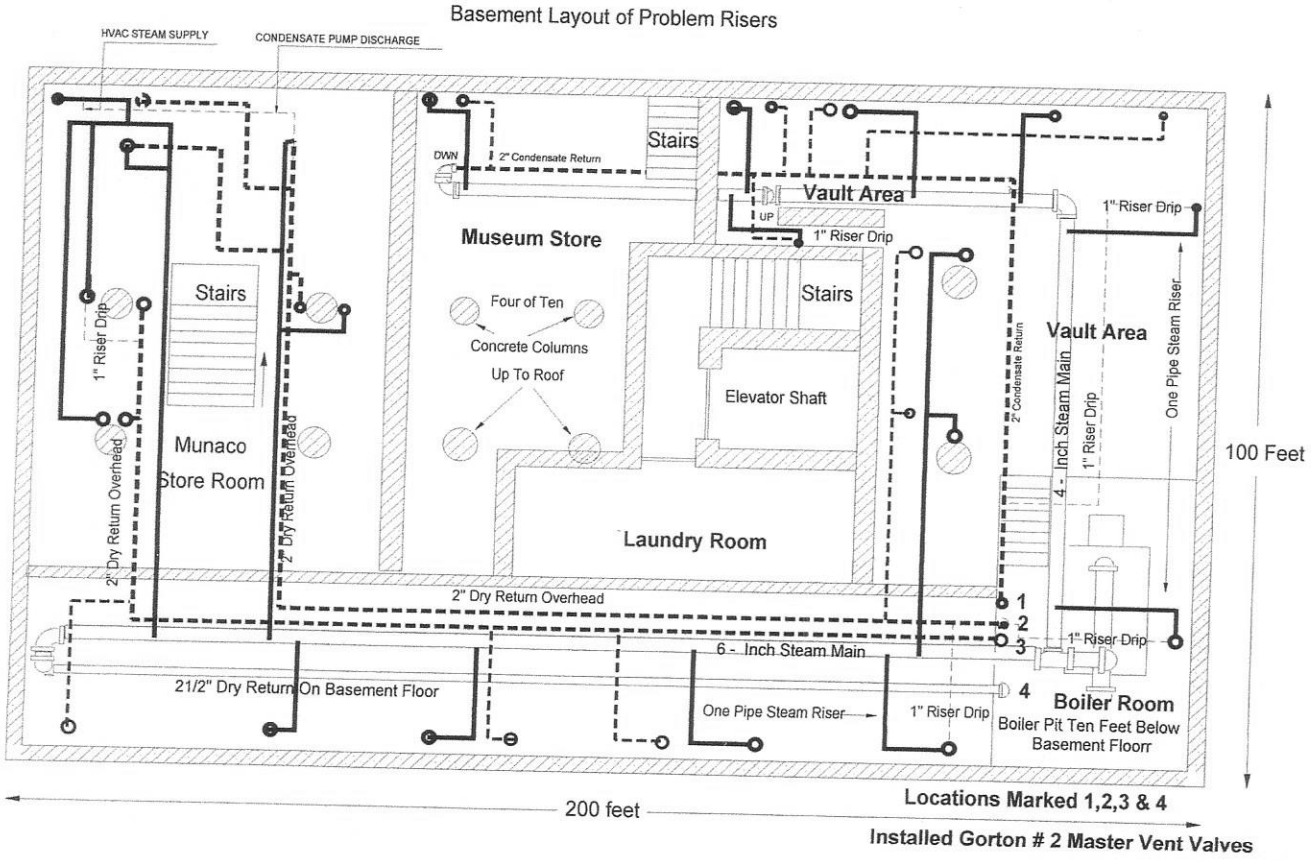
TriPrince, Part "E" Line Steam and Return Risers
Pictures of Piping Modifications
Completed, February 27, 2003







Five Floor Loft Building Modified Into A Sixteen Unit Condominium (Not To Scale)
Shown Are 14 of 26 Risers



Shown above is the basement layout of the building. Found in the apartments were one-pipe steam, two-pipe vapor vent radiators, and two-pipe steam with steam traps. Heating elements at the front wall of the building were mixed with 2-inch steel fin tube, cast-iron radiators, and cast-iron baseboard convectors.

The center of the building had modern cast-iron radiators and old cast-iron radiators that wrapped around the concrete columns. The back of the building had some copper-finned convectors, steelfinned convectors, low profile cast-iron radiators, and some original free-standing radiators.

(See page 297)

AA Griffing Iron Patent, September 22, 1874 Radiator