

RT&V Project at Ritz Carlton

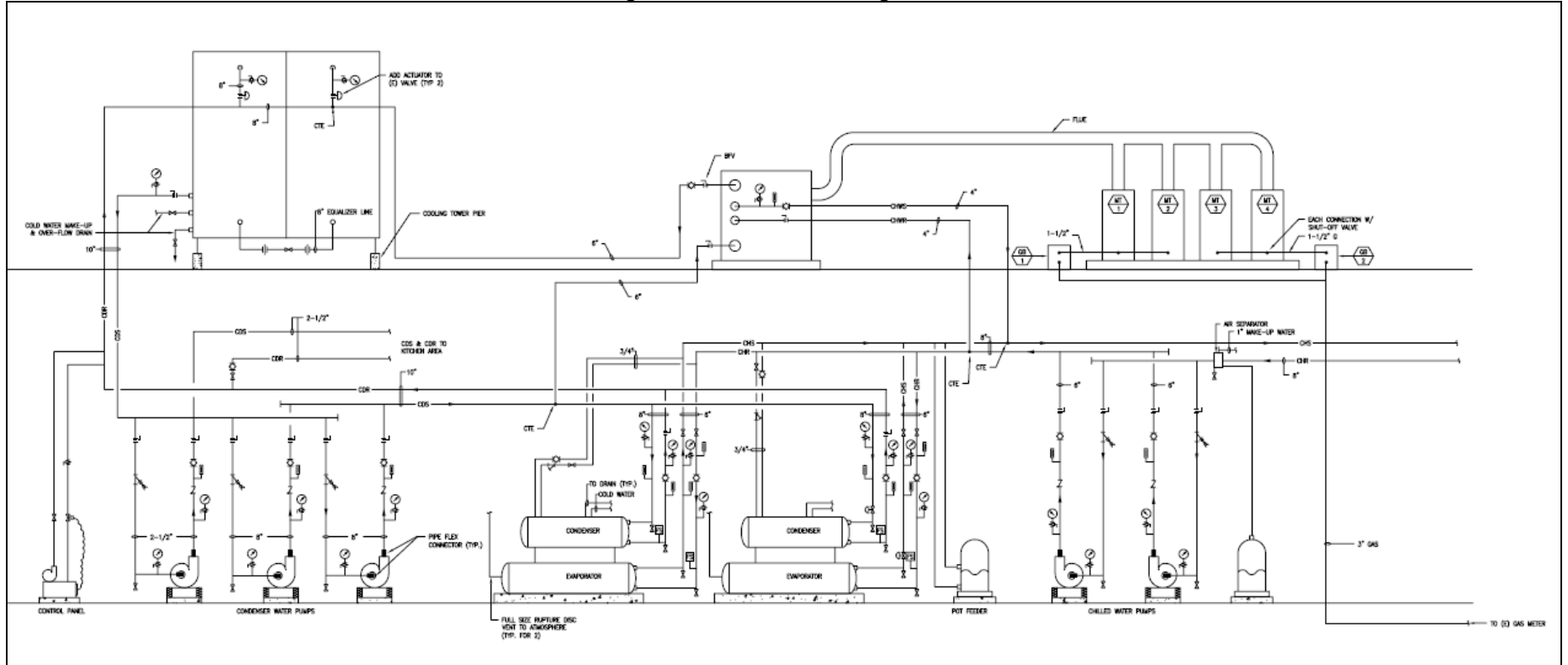
Project Objective: UTC Power has developed on-site cooling, heating and power systems that are designed and pre-engineered to operate as self-contained cogeneration systems producing both electric power and chilled or hot water for space conditioning purposes. The PC240 is one example of such products that have higher efficiency and lower operating costs than the more traditional separate power generation and HVAC systems. This project will install and monitor the performance of a PC240 system at the Ritz Carlton Hotel, San Francisco, CA.

Preliminary design: Based on historical data, the Ritz Carlton Hotel consumes, on average, 670 kW of electrical power and has an average combined heating and power consumption of 1,300 kW. Because of the high level of activity in the Hotel, these loads are relatively flat throughout the year. Consequently, after eliminating the 80 kWe required for the chilling that the exhaust-heat-driven chiller will deliver, the PC240 will supply approximately 40% of the average total electrical power consumed by the Ritz Carlton. The Hotel demands more chilling than the PC240 capacity. Hence the system will achieve a very high utilization and correspondingly, a rapid payback.

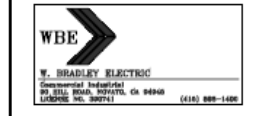
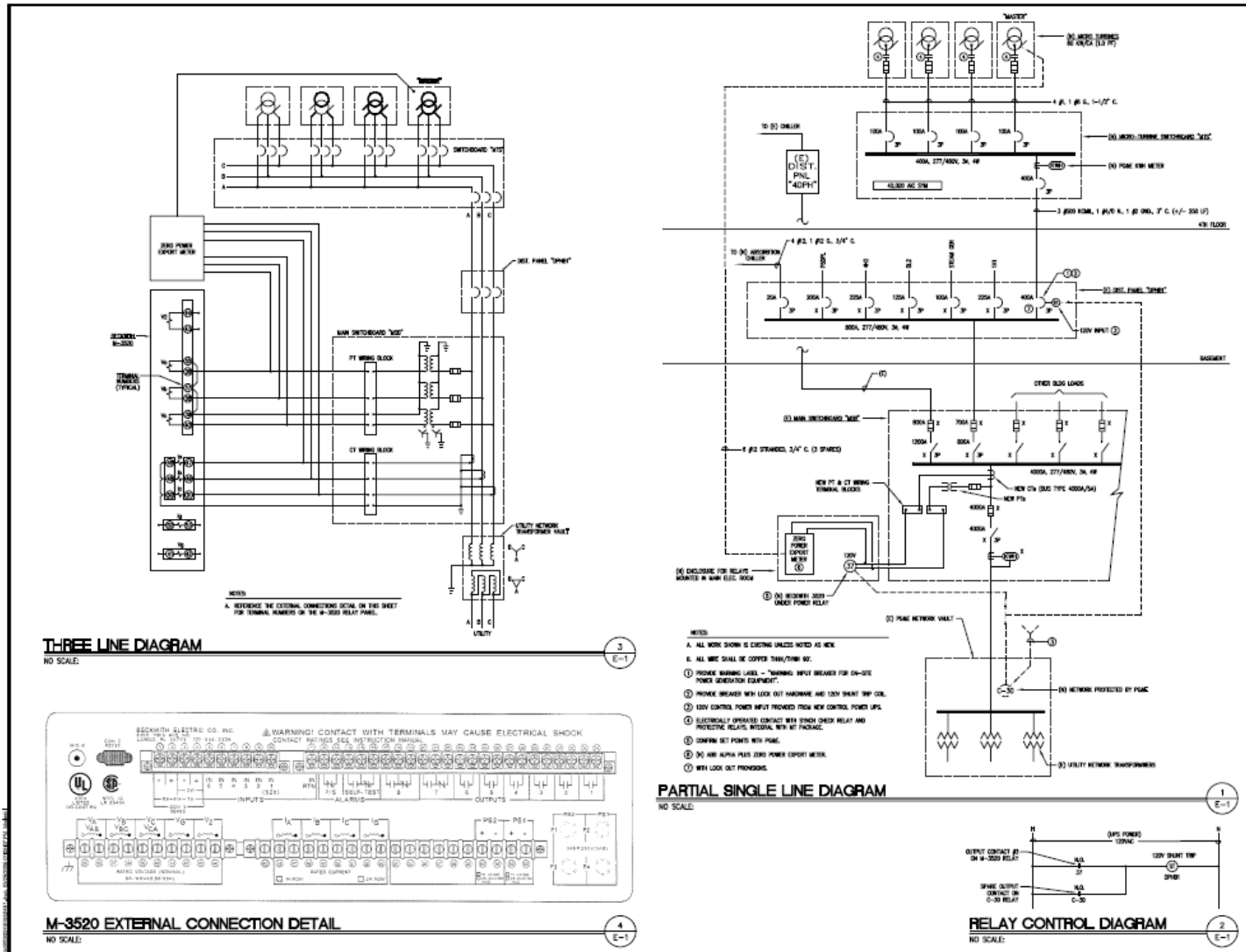
Site Description: The Ritz-Carlton, San Francisco is the only hotel in North America to capture Mobil's Five Stars and AAA's Five Diamonds for the hotel, as well as the restaurant. The 336-room Nob Hill landmark was first awarded Five Stars in 1994 and is one of only 30 exemplary Five Star hotels to earn the guide's Mobil Five Star honor for 2004. The Ritz Carlton has over 54 properties in the US. Its San Francisco property is a 336-room Nob Hill landmark was first awarded Five Stars in 1994.



Enlarge Mechanical Site Drawing



E1 – Electrical 3-line and 1-line Drawing



NO.	DESCRIPTION	DATE
1	PRELIMINARY DESIGN	3/25/05

PROJECT:
FITZ CARLTON
600 STOCKTON
SAN FRANCISCO, CA

DWG. TITLE:
MICRO-TURBINE
COGENERATION
PROJECT

JOB NO: 0700324.00 DWG. NO:
 DATE: 3/25/05
 SCALE: NO SCALE E-1