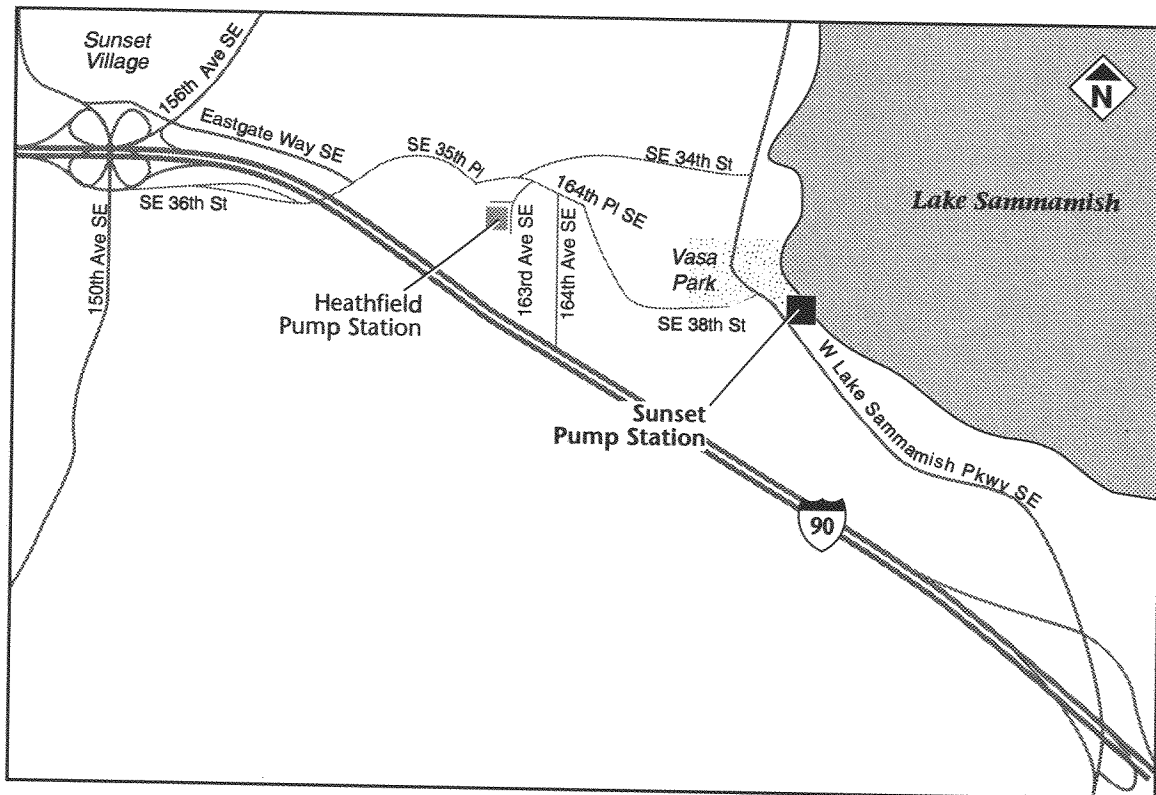


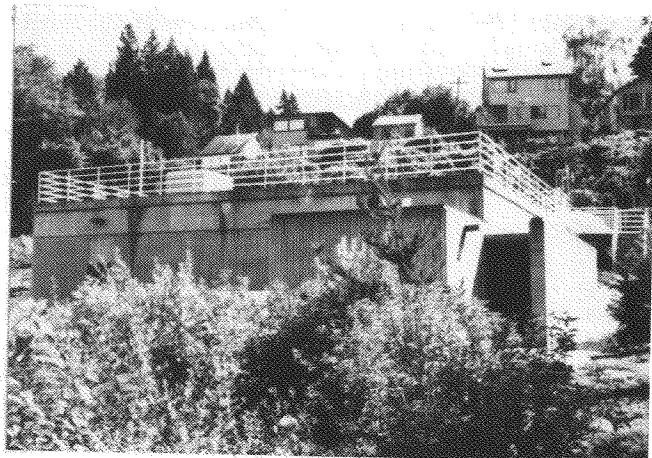
# SUNSET PUMP STATION

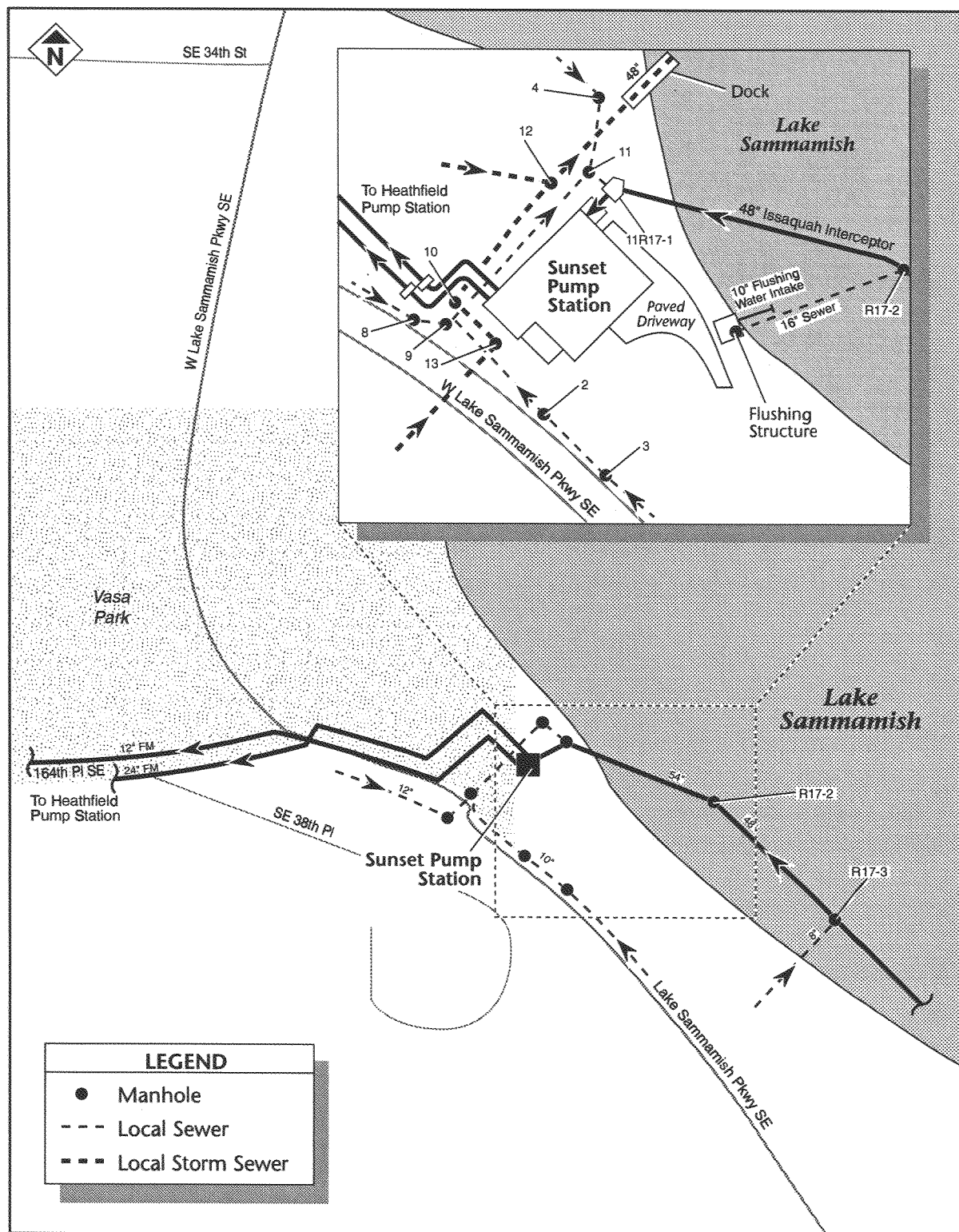
3730 West Lake Sammamish Parkway SE, Bellevue



## Directions

From I-90 East, take the 150th Avenue SE Exit, and continue past the traffic signal onto SE 36th Street. Pass through the tunnel, which passes underneath I-90, and onto SE 35th Place. Continue onto SE 34th Street, then turn right onto W Lake Sammamish Parkway SE. The station is on the left-hand side of the road.





One-Line Drawing

### System Relationship

The station receives wastewater flow from the Issaquah Interceptor and a 10- and 12-inch-diameter connection to the Eastgate Sewer District. The station pumps the wastewater flow through two force mains (12- and 24-inch-diameter) to the Heathfield Pump Station.

Discharge through Heathfield Pump Station must be limited to 15 mgd to avoid overflows in the immediate areas.

### Flow Information (mgd)

	<u>1985</u>	<u>2005</u>
Average Dry Weather:		2.3
Peak Wet Weather:		14.0
Maximum Pumping Capacity:	23.4	
Maximum Allowable Flow:	25.0	

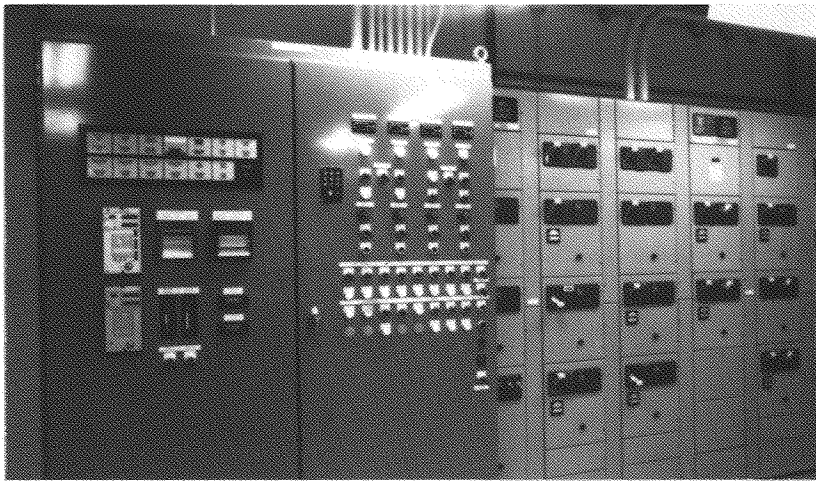
### Critical Information

Emergency Power: Dual power

#### WARNING

*Storage times represent the time allowed from shutdown to overflow under normal dry weather conditions. Storage times depend directly on weather conditions and condition of the pipes, and times must be adjusted accordingly.*

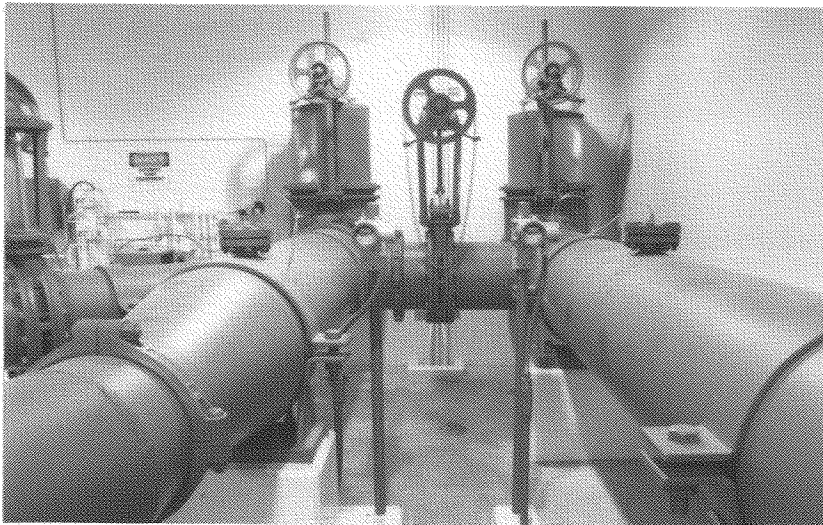
Storage Time: 24 hours  
 Overflow Elevation: 128.00 feet  
 Overflow Location: Lake Sammamish; from two overflow manholes (R17-20, R17-23) approximately 1.8 and 2.1 miles southeast of the station on the lake shore through 30-inch-diameter overflow lines on the Issaquah Interceptor



Control Room (Panels)

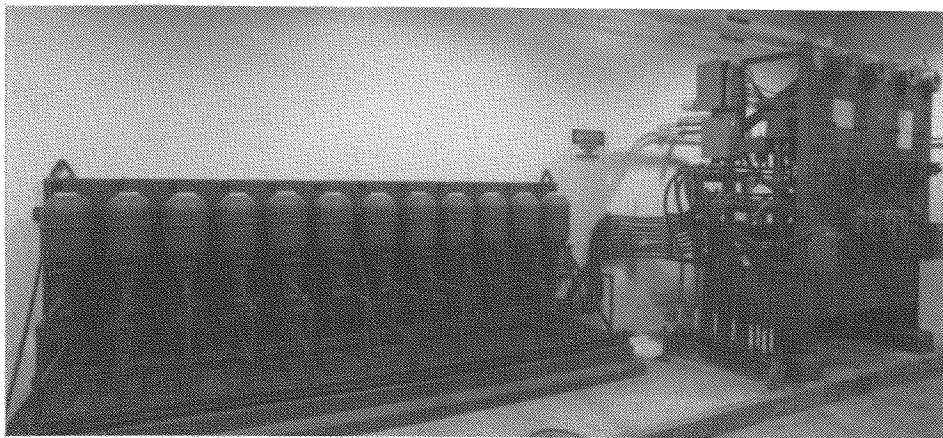


Motor Room

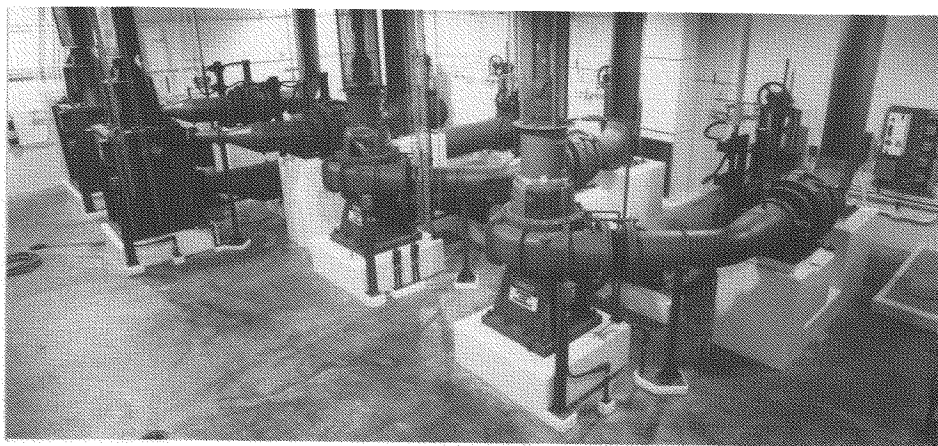


Motor Room (Force Main Discharge)





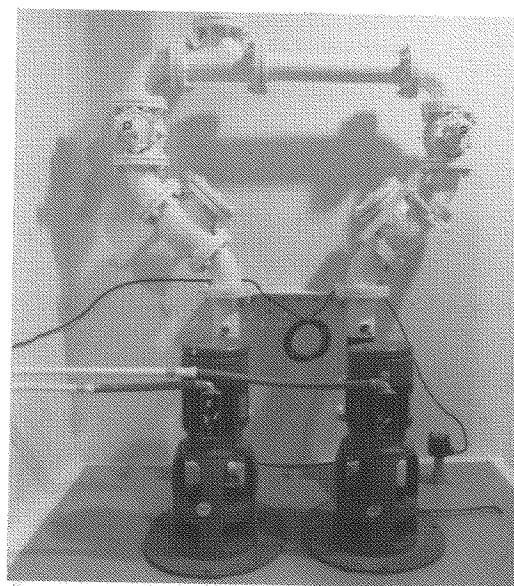
Motor Room (Fluid Power System for the Ball Valves)



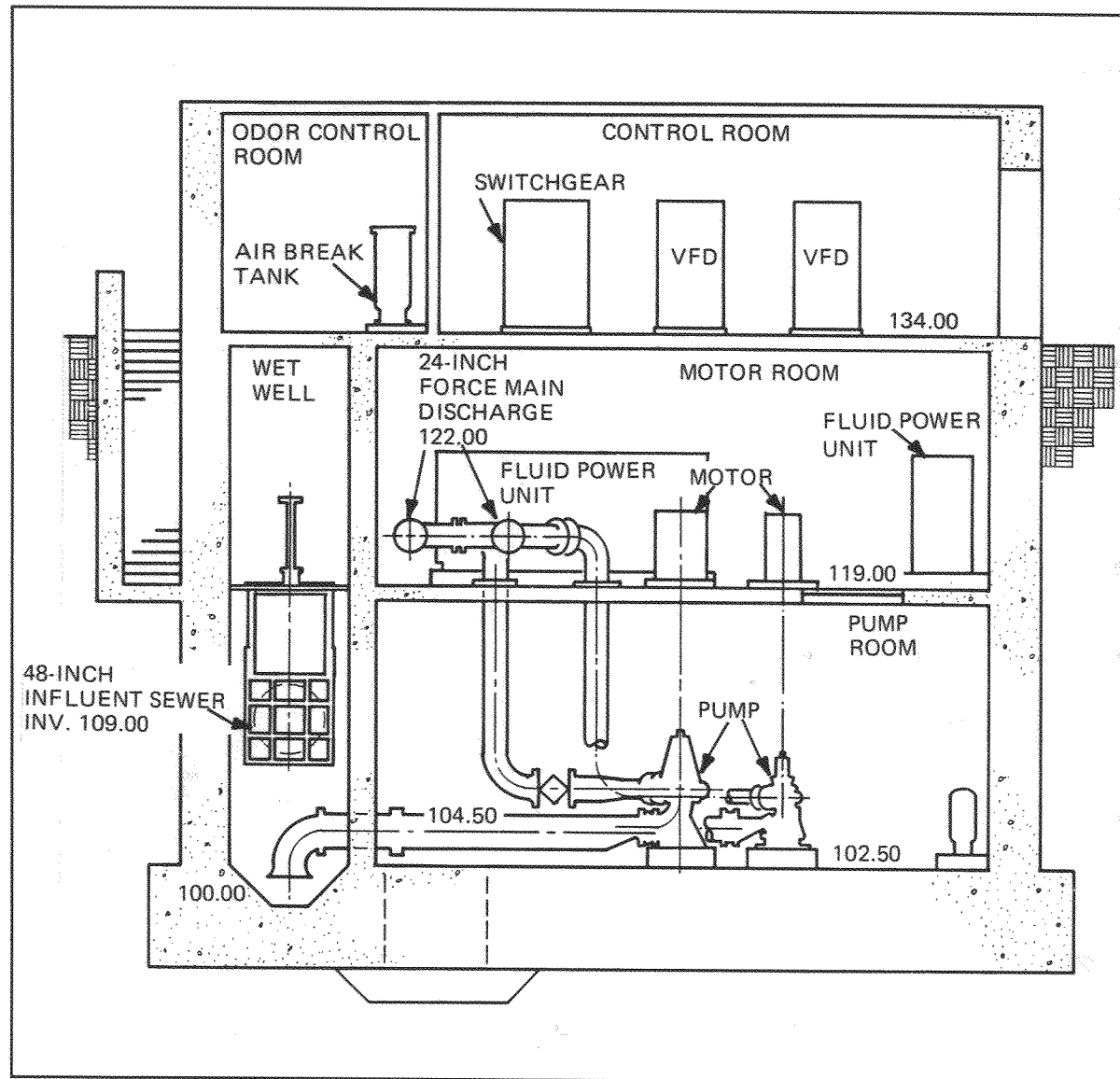
Pump Room



Carbon Odor Control Scrubber



Pump Room (Sump Pumps)



Station Cross Section

Construction Information		
Contract	Date Complete	Cost
65-2: Built new Sunset and Heathfield Pump Stations; started 3/65; Mottner & McCutchen	12/65	\$326,640
W/M8-82: Installed 24-inch force main between Sunset and Heathfield Pump Stations; Universal Utility	5/83	\$590,100
W/M47-84: Replaced Sunset and Heathfield Pump Stations; started 9/85; Venture Construction	9/87	\$6,267,718
W/M24-88: Made improvements to landscaping, sumps, sewer, and ventilation at Heathfield and Sunset Pump Stations; Harbor Pacific Contractor, Inc.	6/89	\$313,029

Equipment Information	
Components	Characteristics
<b>Gate System</b>	
<b>Influent Gate</b>	Olympic Foundry; 42 in x 42 in; hydraulically operated
Operator (Fluid Power System)	_____; reservoir capacity: 60 gallons
Power Unit (Discharge Ball Valve Control)	Western Fluid Power; reservoir capacity: 109 gallons
<b>Raw Sewage Pump System (4 Units)</b>	
<b>Pumping Unit 1</b>	
Pump	Wemco-Hidrostal, screw centrifugal pump, model I6K-S-I7S; vertical arrangement A; capacity: 3.8 mgd against 166 ft TDH at 1,200 rpm; s/n 8510365-1
Motor	Westinghouse, frame 449 HP 16; rating: 200 hp, 1,200 rpm, 460 V, 3-phase, 60 Hz
Variable Frequency Controller	Westinghouse, adjustable frequency AC controller, Accutrol 300; rating: 200 hp

Equipment Information (continued)	
Components	Characteristics
<b>Raw Sewage Pump System (4 Units) (continued)</b>	
<b>Pumping Unit 2</b>	
Pump	Same as No. 1, except s/n 8510365-2
Motor	Same as No. 1, except s/n 8603-01-002
Variable Frequency Controller	Same as No. 1
<b>Pumping Unit 3</b>	
Pump	Worthington Pump Div., Dresser Industries, Inc.; vertical nonclog centrifugal pump, size 12MNV-24; capacity: 10.8 mgd against 172 ft TDH; s/n 862US-8369-1
Motor	Westinghouse AC motor; rating: 450 hp
Variable Frequency Controller	Same as No. 1, except rating of 500 hp
<b>Pumping Unit 4</b>	
Pump	Same as No. 3, except s/n 862US-8369-2
Motor	Same as No. 3, except s/n 3-17S5603
Variable Frequency Controller	Same as No. 1, except rating of 500 hp
<b>Electrical Systems</b>	
<b>Utility Power</b>	Puget Power (Dual Power Source)
<b>UPS</b>	Custom Power Inc.
<b>Water Systems</b>	
<b>C1 Water</b>	
Water Service	2-in-diameter incoming service; meter located _____
Backflow Preventer	Hersey-Beeco, model 6C; 1 in; s/n 2908
<b>C2 Water</b>	
Pumps (2)	Aurora Pump, turbine pumps, model 114-115-116 single-stage; capacity: 2 gpm against 254 ft TDH; motor rating: 1.5 hp
Bladder Tank	Capacity: 34 gallons; operating pressure: 110 psig
<b>Washdown Water</b>	
Pump	Aurora Pump, end suction centrifugal pump, model 321 (GAHA); capacity: 30 gpm against 92 ft TDH; motor rating: 2 hp



Equipment Information (continued)	
Components	Characteristics
<b>Compressed Air System</b>	
<b>Instrument Air</b>	
Compressors (2)	Pneumotive Air Power Products, two-stage, 175 lb GH compressor, model SYCGH16-1; discharge: 125 psig; capacity: 1.6 scfm; motor rating: 0.5 hp
Receiver	Capacity: 30 gallons
Air Dryer	Wilkerson Corp. (Refrigerated Dryer); model A00-AH-P00; rated capacity: 39°F (4°C) PDP @ 5 scfm, 50°F (10°C) PDP @ 7 scfm; 115 Vac, 60 Hz, single-phase; s/n 03-13-87-2018
<b>Heating and Ventilation System</b>	
<b>Return Air Fan</b>	Greenheck; capacity: 12,350 scfm; fan speed: 900 rpm
Motor	Marathon Electric, standard induction motor; rating: 7.5 hp, 460 V
<b>Supply Air Fan</b>	Kees Fans, Inc.; capacity: 13,200 scfm; fan speed: 1,000 rpm
Motor	Rating: 5 hp, 460 V
<b>Wet Well Transfer Fan</b>	Greenheck; capacity: 1,700/850 scfm; fan speed: 1,600 rpm
Motor	Rating: 0.5 hp, 460 V
<b>Washroom Exhaust Fan</b>	Greenheck; capacity: 200 scfm; fan speed: 1,050 rpm; motor rating: 0.025 hp, 115 V
<b>Drainage System</b>	
<b>Sump Pump (2)</b>	Aurora Pumps, wet pit nonclog, model 631-632 (KSB); capacity: 280 gpm against 35 ft TDH
Motors (2)	Leroy-Somer, Inc., Powerbloc; rating: 5 hp, 1,750 rpm, 460 V, 3-phase, 60 Hz
<b>Odor Control System</b>	
<b>Carbon Scrubber Filter Unit</b>	Westates Carbon Co., type UOC-H activated carbon
Carbon Filter Fan	New York Blower; capacity: 1,000 scfm; fan speed: 3,280 rpm; motor rating: 3 hp, 460 V
<b>Control and Monitoring System</b>	
PLC	_____
Bubblers (2)	_____
Metrotel II	_____

Equipment Information (continued)	
Components	Characteristics
Miscellaneous	
Hoists (5)	ACCO, trolley-suspended, series 15; capacity: 3 tons; vertical lift: 4 at 16 ft, 1 at 30 ft