

APPENDIX B – COST ANALYSIS SPREADSHEETS

	Initial Cost	
	Redesign	
	Existing System	Chiller-Heater Option
Chillers	178000	
Chiller-Heaters		298000
HVAC Boiler	21800	
HW Boiler	61000	
Supplemental Boiler		85000
Heat Exchangers	10000	
DOAS AHUs		47840
VAV AHUs	309310	
Plate-Frame HX	10000	20000
VAV Boxes w/reheat	32730	
Heat Pumps		80045
TOTAL	622840	530885

		Operating Cost Present Worth	
		Redesign	
i =	0.06	Existing System	Chiller-Heater Option
	yr 0	0	0
	yr 1	209461	169108
	yr 2	209461	169108
	yr 3	209461	169108
	yr 4	209461	169108
	yr 5	209461	169108
	yr 6	209461	169108
	yr 7	209461	169108
	yr 8	209461	169108
	yr 9	209461	169108
	yr 10	209461	169108
	yr 11	209461	169108
	yr 12	209461	169108
	yr 13	209461	169108
	yr 14	209461	169108
	yr 15	209461	169108
	yr 16	209461	169108
	yr 17	209461	169108
	yr 18	209461	169108
	yr 19	209461	169108
	yr 20	209461	169108
	NPW	\$2,266,510.54	\$1,829,863.62

Mezzanine Floor Structural Cost Analysis				
Beam	Length (ft)	Amount	\$Cost/LF	Total Cost \$
W 24x55	36	19	53	36252
	25	2	53	2650
	43	1	53	2279
W 16x26	15	1	25	375
	7	2	25	350
	25	16	25	10000
	10	4	25	1000
	12.5	1	25	312.5
W 21x44	36	10	42.5	15300
	25	1	42.5	1062.5
	37.5	2	42.5	3187.5
W 8x10	7	85	9.65	5741.75
	2	9	9.65	173.7
	4	2	9.65	77.2
	8	2	9.65	154.4
	5	6	9.65	289.5
W 12x16	23	2	14	644
	16	2	14	448
	7	1	14	98
W 14x22	25	26	23.5	15275
	12.5	2	23.5	587.5
W 27x84	50	2	81	8100
	36	1	81	2916
W 24x62	25	2	59.5	2975
W 18x40	25	1	38.5	962.5
W 21x57	25	1	56	1400
W 18x35	25	2	33.5	1675
W 14x30	25	12	29	8700
			Total Cost	122986.1

Concrete Slab Cost Analysis			
Metal Deck	SF	Cost/SF	Total Cost + Labor
	11,293	1.75	\$19,762.75
Concrete	Cubic Yard	Cost/CY	Total Cost + Labor
	139.4	84	\$11,709.6
		Total Cost	\$31,472.35
	Total Mezzanine Cost		\$154,458.4