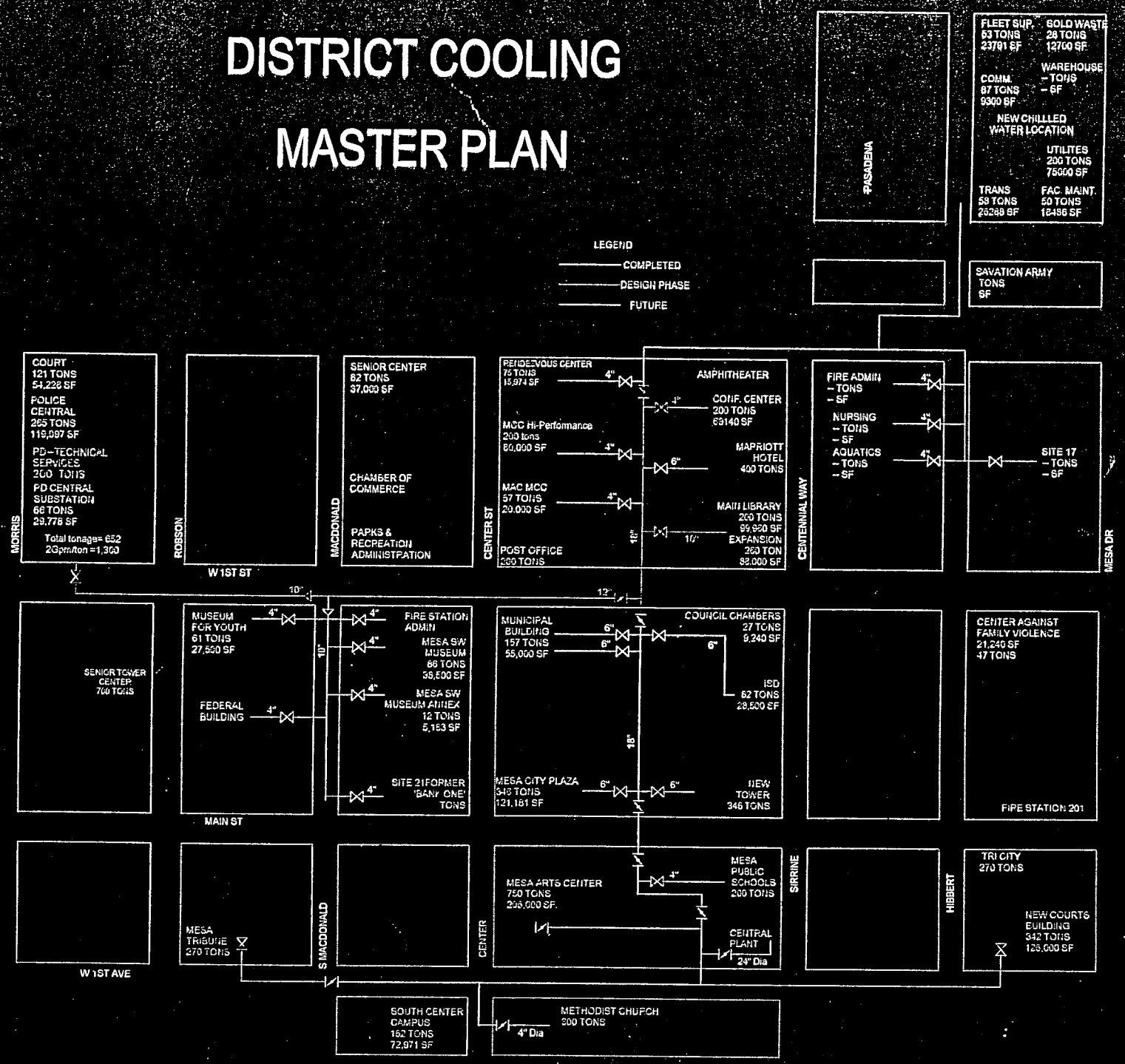
DISTRICT COOLING MASTER PLAN



Attachment 1

NOTES:
Plant Current Configuration = 1,800 Tons
Plant Configuration at Full Buildout = 4,800 Tons

DISTRICT COOLING COST ANALYSIS

1/10/2006

	Total Cooling Load (Tons)				874		
	Total Ton Hours Per Year				3,261,790		
	CATEGORIES		Unit Cost	Units	Cost/yr	Cost/ton-hr	Cumulative
EQUIPMENT O&M COSTS	Personal Services Total			$/yr	$90,672	$0.028	
	Contract Services Subtotal			$/yr	$ 24,243		
	O&M			$/yr	$ 2,424		
	Contract Services Total			$/yr	$26,668	$0.008	
	Water			$/yr	$36,611	$0.011	
	CUMULATIVE			$/yr			$153,951
	COST/TON-HOUR			$/ton-h			$0.047
CAPITAL EQUIPMENT REPLACEMENT FUND	Equipment Replacement Total			$/yr	$88,453	$0.027	
	CUMULATIVE			$/yr			$242,403
	CUMULATIVE			$/ton-h			$0.075
DISCOUNTED COOLING	Discounted Cooling From The Plate Heat Exchanger						
	Heat Exchanger Discount			$/yr	($79,980)	($0.025)	
	CUMULATIVE			$/yr			$162,423
	CUMULATIVE			$/ton-h			$0.050
CAPITAL EXPANSION FUND	Capital Expansion Fund						
	An established fund used for extending the district cooling piping to existing and future sites, and adding additional capacity for full buildout						
	Capital Expansion Total			$/yr	$61,000	$0.019	
	CUMULATIVE			$/yr			$223,423
	CUMULATIVE			$/ton-h			$ 0.069
BUILDING O&M COSTS	Capital Recovery Costs						
	The following are forecasted funds required per year to replace or rebuild the District Cooling System at the end of its life cycle.						
	District Plant Maintenance & Utilities Costs	Square Ft	Cost				
	District Plant Square Footage	9,500		sf			
	Maintenance & Utilities Costs per Square Foot		$4	$/sf			
	Building Maintenance & Utilities Total			$/yr	$38,000	$0.012	
	CUMULATIVE			$/yr			$261,423
	CUMULATIVE			$/ton-h			$ 0.081
PLANT CONSTRUCTION CAPITAL RECOVERY	District Plant Building Construction		Cost	Years			
	District Plant $		$3,151,875				
	District Plant Life Cycle			40			
	District Plant $/40 Years Total			$/yr	$78,797	$0.024	
	CUMULATIVE TOTAL			$/yr			$340,220
	CUMULATIVE TOTAL			$/ton-h			$ 0.105
	Contribution Factor			$/yr	$179,398	$0.055	
	CUMULATIVE TOTAL			$/yr			$519,618
	CUMULATIVE TOTAL			$/ton-h			$ 0.160
	Electricity Cost Pass-Through				$259,301	$0.079	
	CUMULATIVE TOTAL			$/yr			$778,920
	CUMULATIVE TOTAL			$/ton-h			$ 0.239