

HF Water Works Water Plant Upgrade

Category	Item	Completed
Intakes	new intake pumps for Elks Run	yes
	Variable Frequency Drives to control pump speed	yes
	new pump house with electricals to raise pumps above 100-year flood plain	yes
Sedimentation System	new chemical injection and mixer vault	yes
	new flocculation chambers with flocculators to promote dispersal of coagulant to build floc	yes
	inline static mixer to promote chemical mixing	yes
	mechanical sludge collector to promote automated cleaning of sed basin	yes
	baffles to extend retention time for flocculation	no
Mechanical Filtration	micro-filtration (0.1 micron replacing 50-80 micron traditional) membrane system with redundancy and self-cleaning	yes
	SCADA control system for plant (Supervisory Control And Data Acquisition)	yes
	Associate support subsystems (twin air compressors, on-line turbidity sensors)	yes
Ultra-violet Disinfection	UV System to kill bacteria and reduce need for Chlorine	no
Chlorine Disinfection	new retention time tank (Clearwell) 6x in size eliminating need to pre-chlorinate	yes
	rebuilt chlorine gas room	yes
Finished Water Pumps	two new pumps (redundancy) with Variable Frequency Drives to balance plant flow	yes
	associated piping to match pump flow rates	yes
Transmission	new line from plant replacing exposed, cantilevered line	yes
	repaint and repair two older finished water tanks on Prospect	no
	new booster pump station on Prospect Ave to address low pressure to homes on Prospect	no
	new pressure reducing valve and vault to reduce high pressure in Lower Town service lines	no
	new radio read meters system wide to monitor flows, reduce labor costs, and identify leaks	no
	upgrade ~20,000 feet of distribution system piping	no
Availability	Diesel backup generator and automated switch-over control capable of providing power to operate plant for sustained periods	yes
	Finished Water tank level telemetry system providing input to SCADA	yes
Plant Building	new office, break/conference room, restroom	yes
	upgraded chemical feed systems	yes
	proper containment structure for chemical storage and handling	yes
	new eyewash station	yes
	new building exterior with improved thermal insulation	no
	propane space heaters to prevent cold weather freezing	yes
	circulation exhaust fans to reduce temperatures during cooling season	yes
new building roof to address leaks	yes	