

PUMPING OPERATION RANGES WITH RISING WATER				
FUNCTION	SCADA (BUBBLER)		FLOAT	
	ELEVATION	LEVEL ABOVE WET PIT FLOOR	ELEVATION	LEVEL ABOVE WET PIT FLOOR
	(USGS)	(FT)	(USGS)	(FT)
LOW FLOW LEAD START	601.5	4.0	602.0	4.5
LOW FLOW LAG START	602.5	5.0	603.0	5.5
LEAD MAIN START AND ALL LOW FLOW STOP	604.0	6.5	604.5	7.0
LAG 1 MAIN START	604.5	7.0	605.0	7.5
LAG 2 MAIN START	605.0	7.5	605.5	8.0
LAG 3 MAIN START	605.5	8.0	606.0	8.5
LAG 4 MAIN START	606.0	8.5	606.5	9.0
LAG 5 MAIN (STANDBY 1) START	606.5	9.0	607.0	9.5
LAG 6 MAIN (STANDBY 2) START	607.0	9.5	607.5	10.0
HIGH WATER ALARM	608.0	10.5	608.0	10.5

PUMPING OPERATION RANGES WITH FALLING WATER				
FUNCTION	SCADA (BUBBLER)		FLOAT	
	ELEVATION	LEVEL ABOVE WET PIT FLOOR	ELEVATION	LEVEL ABOVE WET PIT FLOOR
	(USGS)	(FT)	(USGS)	(FT)
LEAD, AND ALL LAG MAIN PUMPS, STOP AND ALL LOW FLOW START	602.0	4.5	602.5	5.0
MAIN PUMP FAILURE TO STOP ALRM	601.0	3.5	601.5	4.0
ALL LOW FLOW STOP	600.0	2.5	600.5	3.0
LOW WATER ALARM	599.5	2.0	599.5	2.0

ITEM	DESCRIPTION	LOCATION	ELECTRICAL MOTOR CHARACTERISTICS						PUMP		REMARKS
			KW	HP	RPM	VOLTS	PHASE	HZ	CAPACITY (GPM)	HEAD (FT)	
024-MP-1	MAIN PUMP #1	WET PIT	242**	325**	710**	460	3	60	22,200	38.5	SEE NOTES 1 & 2
024-MP-2	MAIN PUMP #2	WET PIT	242**	325**	710**	460	3	60	22,200	38.5	SEE NOTES 1 & 2
024-MP-3	MAIN PUMP #3	WET PIT	242**	325**	710**	460	3	60	22,200	38.5	SEE NOTES 1 & 2
024-MP-4	MAIN PUMP #4	WET PIT	242**	325**	710**	460	3	60	22,200	38.5	SEE NOTES 1 & 2
024-MP-5	MAIN PUMP #5	WET PIT	242**	325**	710**	460	3	60	22,200	38.5	SEE NOTES 1 & 2
024-MP-6	MAIN PUMP #6	WET PIT	242**	325**	710**	460	3	60	22,200	38.5	SEE NOTES 1 & 2
024-MP-7	MAIN PUMP #7	WET PIT	242**	325**	710**	460	3	60	22,200	38.5	SEE NOTES 1 & 2
024-LFP-1	LOW FLOW PUMP #1	WET PIT	75**	100**	1,160**	460	3	60	6,000	40	SEE NOTES 1 & 2
024-LFP-2	LOW FLOW PUMP #	WET PIT	75**	100**	1,160**	460	3	60	6,000	40	SEE NOTES 1 & 2
024-G-1	DISCHARGE GATE ACTUATOR	OUTSIDE ABOVE GRADE	1.5	2		460	3	60			
024-G-2	DISCHARGE GATE ACTUATOR	OUTSIDE ABOVE GRADE	0.9	1.2		460	3	60			
024-G-3	RECIRCULATION GATE ACTUATOR	OUTSIDE ABOVE GRADE	0.82	1.1		460	3	60			

• MINIMUM
** MAXIMUM

- NOTES:
- THE DESIGN OF THE PUMP STATION HAS BEEN BASED ON A SPECIFIC PUMP. OTHER PUMPS PRODUCING THE SAME HYDRAULIC CHARACTERISTIC ARE ACCEPTABLE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ALL ADJUSTMENTS TO THE STATION DESIGN REQUIRED TO ADOPT HIS FINAL SELECTED PUMPS AT NO ADDITIONAL COST.
 - EQUIPMENT SHALL BE CLASS 1, DIV. 1 GROUP D EXPLOSION PROOF.
 - STAND-BY PUMP STARTS ONLY WHEN MOTOR OVERLOADS OR STARTING SEQUENCE FAILS FOR ANY MAIN PUMP



M17

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 24
RELOCATION

EQUIPMENT SCHEDULE AND
PUMPING OPERATING ELEVATION

SCALE: N/A
DATE: 11-22-10

DRAWN BY: HFF
CHECKED BY: KHC