

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	40
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
D-91-411-99				

**EQUIPMENT SCHEDULE**

ITEM	DESCRIPTION	LOCATION	ELECTRICAL MOTOR CHARACTERISTICS						PUMP		FAN			MOUNTING	REMARKS	
			KW (MIN)	HP (MIN)	RPM (MAX)	VOLTS	PHASE	HZ	CAPACITY (gpm)	HEAD (feet)	TYPE	CAPACITY (cfm)	SP (PA)			SP (IN)
MP 1	MAIN PUMP #1	WET WELL	150	200	1200	460	3	60	10,000	53					SEE NOTES 1 AND 2	
MP 2	MAIN PUMP #2	WET WELL	150	200	1200	460	3	60	10,000	53					SEE NOTES 1 AND 2	
MP 3	MAIN PUMP #3	WET WELL	150	200	1200	460	3	60	10,000	53					SEE NOTES 1 AND 2	
MP 4	MAIN PUMP #4	WET WELL	150	200	1200	460	3	60	10,000	53					SEE NOTES 1 AND 2	
MP 5	MAIN PUMP #5	WET WELL	150	200	1200	460	3	60	10,000	53					SEE NOTES 1 AND 2	
MP 6	MAIN PUMP #6	WET WELL	150	200	1200	460	3	60	10,000	53					SEE NOTES 1 AND 2	
MP 7	MAIN PUMP #7	WET WELL	150	200	1200	460	3	60	10,000	53					SEE NOTES 1 AND 2	
LFP 1	LOW FLOW PUMP #1	WET WELL	55	75	1200	460	3	60	3,200	56					SEE NOTES 1 AND 2	
SF-1	SUPPLY FAN	MCC CONTROL ROOM WALL	0.4	1/2	1725	120	1	60			PROP	1700	125	0.5	WALL	SEE NOTE 2
SF-2	SUPPLY FAN	PUMP ACCESS ROOM ROOF	3.7	5	1725	460	3	60			SWSI CENTRIF	8200	250	1.0	ROOF	SEE NOTE 4
EF-1	EXHAUST FAN	PUMP ACCESS ROOM ROOF	0.2	1/4	1725	120	1	60			ROOF CENTRIF	750	94	0.375	ROOF	SEE NOTE 4
EF-2	EXHAUST FAN	STAIRWELL ROOF	1.5	2	1725	460	3	60			ROOF CENTRIF	8200	125	0.5	ROOF	SEE NOTE 4
UH-1A	UNIT HEATER	MCC CONTROL ROOM	3			460	3	60								SEE NOTE 5
UH-1B	UNIT HEATER	MCC CONTROL ROOM	3			460	3	60								SEE NOTE 5
UH-2A	UNIT HEATER	PUMP ACCESS ROOM	5			460	3	60								SEE NOTES 2 AND 5
UH-2B	UNIT HEATER	PUMP ACCESS ROOM	5			460	3	60								SEE NOTES 2 AND 5
UH-3	UNIT HEATER	STAIRWELL	5			460	3	60								SEE NOTES 2 AND 5
G-1	GATE VALVE ACTUATOR	LOWER LEVEL	1.5	2		460	3	60								SEE NOTES 2 AND 5
G-2	SLIDE GATE ACTUATOR	DISCHARGE CHAMBER	1.5	2		460	3	60								SEE NOTE 2
HM-1	HOIST MOTOR	AT ROOF	0.4	1/2		460	3	60								SEE NOTE 2
TM-1	TROLLEY MOTOR	AT ROOF	0.4	1/2		460	3	60								SEE NOTE 2
TR-1	TRASH RAKE HYDRAULIC PWR UNIT	CONTROL ROOM	2.2	3		460	1	60								SEE NOTE 2

SYSTEM	PIPE SIZE	FITTING TYPE	QUANTITY	MATERIAL	MATERIAL SPECIFICATION
MAIN PUMP DISCHARGE	20"	SCREWED FLANGED	21	DUCTILE IRON	ANSI / AWWA C115 / A21.15
RECIRCULATION PIPING	20"	90° L.R. ELBOW	6	STAINLESS STEEL	ASTM A-403 GR. WP304 STANDARD WEIGHT ANSI B16.9
RECIRCULATION PIPING	20"	150° RAISED FACE WELD NECK FLANGE	2	STAINLESS STEEL	ASTM A-182 GR. F304 ANSI B16.5
LOW FLOW PUMP DISCHARGE	12"	90° L.R. ELBOW	6	DUCTILE IRON	ANSI / AWWA C115 / A21.15
LOW FLOW PUMP DISCHARGE	12"	SCREWED FLANGED	26	DUCTILE IRON	ANSI / AWWA C115 / A21.15

**NOTES:**

1. THE DESIGN OF THE PUMP STATION HAS BEEN BASED ON A SPECIFIC PUMP. OTHER PUMPS PRODUCING THE SAME HYDRAULIC CHARACTERISTICS WITH SIMILAR FEATURES ARE ACCEPTABLE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAKE ALL ADJUSTMENTS TO THE STATION DESIGN REQUIRED TO ADOPT HIS FINAL SELECTED PUMPS AT NO ADDITIONAL COST.
2. EQUIPMENT SHALL BE DESIGNED FOR CLASS 1, DIV. 1 GROUP D EXPLOSION PROOF.
3. REFER TO SECTION 15E FOR DAMPER SCHEDULE.
4. AMCA TYPE "B" SPARK-PROOF CONSTRUCTION. MOTOR AND DRIVE IN WEATHERPROOF VENTILATED ENCLOSURE EXTERNAL TO AIR STREAM OR NEMA 7 EXPLOSION PROOF SUITABLE FOR NEC CLASS 1, DIV 1, GROUP D ENVIRONMENT.
5. INTEGRAL THERMOSTAT. NEC OVERCURRENT AND OVERTEMP SAFETIES.

**PUMPING OPERATION RANGES WITH RISING WATER**

FUNCTION	SCADA (BUBBLER)		FLOAT	
	ELEVATION (FT)	LEVEL ABOVE WET PIT FLOOR (FT)	ELEVATION (FT)	LEVEL ABOVE WET PIT FLOOR (FT)
LOW FLOW START	-35.25	7.00	-34.75	7.50
LEAD MAIN START & LOW FLOW STOP	-33.75	8.50	-33.25	9.00
LAG 1 MAIN PUMP START	-33.00	9.25	-32.50	9.75
LAG 2 MAIN PUMP START	-32.25	10.00	-31.75	10.50
LAG 3 MAIN PUMP START	-31.50	10.75	-31.00	11.25
LAG 4 MAIN PUMP START	-30.75	11.50	-30.25	12.00
LAG 5 MAIN PUMP START	-30.00	12.25	-29.50	12.75
HIGH WATER ALARM	-26.50	15.75	-26.50	15.75

**PUMPING OPERATION RANGES WITH FALLING WATER**

FUNCTION	SCADA (BUBBLER)		FLOAT	
	ELEVATION (FT)	LEVEL ABOVE WET PIT FLOOR (FT)	ELEVATION (FT)	LEVEL ABOVE WET PIT FLOOR (FT)
ALL PUMPS STOP	-36.75	5.50	-37.5	4.75
LOW WATER ALARM MAIN PUMPS	-38.25	4.00	-38.25	4.00
LOW WATER ALARM LOW FLOW PUMP	-43.00	2.25	-43.00	2.25

PLOT DATE = 3/22/2010  
 FILE NAME = D:\60828-161-1-47.dgn  
 PLOT SCALE = 1:1  
 USER NAME = #USER#



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**EQUIPMENT SCHEDULE & PUMPING OPERATING ELEVATION**

SCALE: VERT. NO SCALE  
 HORIZ. DATE: 3/23/2010

DRAWN BY: R.D  
 CHECKED BY: A.M.