

POSITION DESCRIPTION

NORTHFIELD PUBLIC SCHOOLS

March 2022

SECTION I: GENERAL INFORMATION

Position Title: Master Electrician	Department: Building & Grounds
Immediate Supervisor's Position Title: Director of Buildings and Grounds	FLSA Status: Non-exempt
Band/Grade/Subgrade: D-6-1	Bargaining Unit: Grounds Coordinator, Maintenance Coordinator, Master Electrician
Job Summary: Under the direction and guidance of the Director of Buildings and Grounds, the Master Electrician plans electrical system additions or modifications for all buildings in the Northfield School District. This position installs, troubleshoots and repairs power, lighting and low voltage systems, as well as building HVAC automation within the Northfield School District and performs preventive maintenance on electrical components according to the National Electrical and Fire Codes.	

SECTION II: ESSENTIAL DUTIES AND RESPONSIBILITIES

Duty/Responsibility No:	1	Statement of duty/responsibility: Plans and responds to electrical emergencies within the Northfield School District, which includes power outages and hazardous or dangerous equipment requiring immediate attention.
Percent of Time:	10	
Tasks involved in fulfilling above duty/responsibility: <ul style="list-style-type: none"> • Troubleshoots and repairs primary distribution system malfunctions such as ground fault tracing and cable replacement. • Monitors performance of installed electrical equipment and appliances for hazards. • Makes adjustments to electrical equipment and appliances or replaces as necessary. 		
Duty/Responsibility No:	2	Statement of duty/responsibility: Plans and responds to maintenance requests within the School District.
Percent of Time:	25	
Tasks involved in fulfilling above duty/responsibility: <ul style="list-style-type: none"> • Monitors performance of installed electrical equipment and appliances. • Checks level of performance using appropriate tools and testing instruments. 		

- Troubleshoots, tests, repairs and replaces electrical circuits, equipment, and appliances.

Duty/Responsibility No:	3	Statement of duty/responsibility: Analyzes and responds to electrical projects assigned by the Director of Buildings and Grounds.
Percent of Time:	25	
Tasks involved in fulfilling above duty/responsibility:		
<ul style="list-style-type: none"> • Interprets and updates electrical panel schedules and building or system blueprints. • Plans and implements electrical primary (high voltage) system additions or modifications. • Plans and implements electrical secondary (low voltage) system additions or modifications. • Coordinates electrical projects involving outside contractors. • Inspects contracted projects to ensure that work is completed within timelines and meets National Electrical Code requirements. • Ensures that all contracted electrical work is inspected by the State Electrical Inspector and meets requirements according to the National Electrical and Fire Codes. 		

Duty/Responsibility No:	4	Statement of duty/responsibility: Plans, installs and troubleshoots low voltage systems within the Northfield School District including data, fire alarm and video systems.
Percent of Time:	15	
Tasks involved in fulfilling above duty/responsibility:		
<ul style="list-style-type: none"> • Interprets and updates electrical panel schedules and building or system blueprints. • Installs, tests and troubleshoots electrical circuits and equipment using appropriate tools and testing instruments. • Ensures that all electrical work is inspected by the state electrical inspector and meets requirements according to the National Electrical and Fire Codes. 		

Duty/Responsibility No:	5	Statement of duty/responsibility: Establishes and maintains inventory and maintenance program for electrical equipment, including schematics, diagrams, labeling and identification.
Percent of Time:	5	
Tasks involved in fulfilling above duty/responsibility:		
<ul style="list-style-type: none"> • Prepares, maintains and updates electrical schematics and drawings. • Identifies and labels electrical equipment. • Monitors performance of installed electrical equipment for hazards, adjustments, or replacement. • Adjusts equipment or replaces as necessary. • Inventories and orders spare parts from vendors. • Ensures that additional spares for parts most frequently used are available. 		

Duty/Responsibility No:	6	Statement of duty/responsibility: Assists other staff within the Northfield School District in the Building & Grounds Department.
Percent of Time:	5	
Tasks involved in fulfilling above duty/responsibility:		
<ul style="list-style-type: none"> • Locates underground utilities. • Troubleshoots and repairs irrigation system controls. • Plans layout and installs conduit for surveillance, paging, intercoms and electronic systems. 		

Duty/Responsibility No:	7	Statement of duty/responsibility: Plan, troubleshoot, and repair building HVAC automation controls within the Northfield Public School District.
Percent of Time:	10	

Tasks involved in fulfilling above duty/responsibility:

- Coordinate with building HVAC automation for repairs, troubleshooting, and construction projects.
- Troubleshoot and monitor equipment such as controllers, actuators, and control valves that are tied to the building HVAC automation system.
- Assist head custodians in making adjustments to building automation system as needed.

Duty/Responsibility No:	8	Statement of duty/responsibility: Performs other comparable duties of a like or similar nature as assigned.
Percent of Time:	5	

Tasks involved in fulfilling above duty/responsibility:

- Supervises the summer electrical apprentice (seasonal position).

SECTION III: WORK REQUIREMENTS AND CHARACTERISTICS

EDUCATION/KNOWLEDGE REQUIREMENT: Minimum education required to perform adequately in position could reasonably be attained only by completing the following:			
REQUIRED EDUCATION/TRAINING (choose one)		DEGREE INFORMATION: Type of degree: (B.S., M.A., etc.)	
	less than high school diploma		2 years technical school
	High school diploma or GED.		Major field of study or degree emphasis: Electrician/Electrical
	1 year college	x 2 years college	
	3 years college	4 years college	
	1st year graduate level		
	2nd year graduate level		Essential knowledge and specialized subject knowledge required to perform the essential functions of the job:
			<ul style="list-style-type: none"> • Knowledge of electrical and electronic systems and

Doctorate level	<p>components including planning additions or modifications.</p> <ul style="list-style-type: none"> • Knowledge of troubleshooting high voltage and low voltage systems. • Knowledge of schematics, drawing and blueprints. • Knowledge of hand, power, and diagnostic tools applicable to trade. • Knowledge of all safety precautions applicable to trade. • Knowledge of all safety, electrical, state, federal and local regulations, codes and laws applicable to this position.
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Required Work Experience in Addition to Formal Education/Training:
 Completion of formal apprenticeship program and at least three years on-site training and experience under the guidance of a licensed Electrician and one year experience as an Electrical Journeyman is required.

Required Supervisory Experience:

LICENSE/ CERTIFICATION	<p>Identify licenses/certification required upon hiring:</p> <ul style="list-style-type: none"> • Master Electrician License. • OSHA High Voltage Certificate or equivalent. • Valid State of Minnesota Drivers License.
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ESSENTIAL SKILLS REQUIRED TO PERFORM THE WORK	<p>Skilled in:</p> <ul style="list-style-type: none"> • Ability to read and interpret schematics, wiring diagrams and manuals . • Ability to work independently with minimal supervision. • Oral and written communication skills. • Establishing and maintaining effective working relationships with clients. • Organizing, designing, planning layouts, installing and ordering associated components for electrical systems. • Installing, maintaining and repairing electrical equipment, appliances and systems. • Ability to use hand and power tools applicable to trade. • Ability to use appropriate tools and diagnostic equipment to repair, install, replace and test electrical systems, equipment and appliances. • Ability to read, understand, follow and enforce safety procedures. • Ability to read and interpret drawings, schematics, wiring diagrams and blueprints. • Ability to isolate defects in wiring, switches, motors, and other electrical equipment. • Ability to install and maintain motors, welding equipment, lighting fixtures, generators, circuit breakers, and transformers. • Ability to constantly lift, carry, push, pull or otherwise move objects in the performance of the job.
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RESPONSIBILITY FOR DIRECT SUPERVISION OF THE FOLLOWING POSITIONS		
	Titles of Positions Directly Supervised	# of Employees
1	Summer electrician apprentice (seasonal)	1
TOTAL		1

INDIRECT SUPERVISION:	
Number of employees indirectly supervised:	Total: 0

HAZARDOUS WORKING CONDITIONS: <i>The essential duties of the work are performed under various physical hazards or environmental conditions noted.</i>	Work performed by the Master Electrician involves exposure to unusual elements, such as extreme temperatures, toxic chemicals, biohazardous materials, dirt, dust, fumes, smoke, and/or loud noises. There are risks associated with heavy physical work which can involve high, precarious positions such as in bucket trucks and on ladders. Electrical shock is always a potential risk for an Electrician. The work environment involves exposure to potentially dangerous materials and situations that requires following safety precautions and may include the use of protective equipment.
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PHYSICAL JOB REQUIREMENTS: Indicate according to essential duties/responsibilities				
<u>Employee is required to:</u>	Never	1-33% Occasionally	34-66% Frequently	66-100% Continuously
Stand			x	
Walk				x
Sit		x		
Use hands dexterously (use fingers to handle, feel)				x
Reach with hands and arms				x
Climb or balance		x		
Stoop/kneel/crouch or crawl		x		
Talk or hear				x
Taste or smell		x		
Physical (Lift & carry): up to 10 pounds			x	
up to 25 pounds			x	
up to 50 pounds		x		
up to 75 pounds		x		
up to 100 pounds		x		
more than 100 pounds	x			

PHYSICAL JOB REQUIREMENTS: Indicate according to essential duties/responsibilities

Physical requirements associated with the position can be best summarized as follows:

Medium Work:

Exerting up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to lift, carry, push, pull or otherwise move objects in the performance of the job.

SECTION IV: CLASSIFICATION HISTORY AND APPROVAL

This Position Description reflects an accurate and complete description of the duties and responsibilities assigned to the position.

Signature – Department Head

Date

Signature – Human Resources

Date

Classification History: