| | | | <u></u> | <u> </u> | |
|-------------------------|-----------------------|-----------------------|---------------------------|----------------|----------------|
| | RE | LAY SCH | EDULE | | |
| MARK & TYPE | ITEM | CONTROLLED CIRCUIT | COIL CIRCUIT | ROOM NUMBER | SEE NOTE(S) |
| RBS-1 ASCO #5430C | BUS STORAGE LIGHTS | 1L3-1, 2 | 1L3-4 (PHOTO- CELL) | BUS STORAGE | 1,2,3,4 6,8 |

Furnish NEMA 1 enclosure unless otherwise noted. Furnish fuse protection for coil circuit.

120 volt coil. Electrically held. Mechanically held.

Contacts - normally open. Contacts - normally closed. Provide hand-off-automatic selector switch in relay enclosure.

| MOTOR STARTER SCHEDULE | | | | | | | | | |
|------------------------|---------------------------------------|-------|--------------|-----|----------------|----------|-----------------------------------|--------------|-----------------|
| MARK | ITEM | SPEED | NEMA SIZE | ΉΡ | AUXIL CONTA | ACTS | ROOM NUMBER | CON ENCL. | ITROL REMOTE |
| MSH-5 | ROOF EXHAUST FAN | 1 | 0 | 3/4 | 1 | | HIGH SCHOOL BOILER ROOM | S | S |
| MSM-1 . | TEMPERATURE CONTROL AIR COMPRESSOR | 1 | 0 | 1 | 1 | | BUS MAINTENANCE BOILER ROOM | | * |
| MSM-2 | HEATING SYSTEM PUMP | 1 | .0 | 1 | 1 | ÷ | BUS MAINTENANCE BOILER ROOM | SA | |
| M\$M-3 | HYDRAULIC LIFT | 1 | 1 | 5 | 1 | - | BUS MAINTENANCE REPAIR | s | |
| MSM-4 | HYDRAULIC LIFT (ALTERNATE BID #6) | 1 | 1 | -5 | 1 | . | BUS MAINTENANCE REPAIR | S | _ |

From Power Company 12.47KV/7.2KV Primary Line

Power Company Fused Cutouts

120V -

Neutral

Transformers -

Momentary

"Close" Switch-

 \sim Delayed)

∠120 Volt ⟨coi*j*/ Auxiliary Switches on Motorized

Oil Switches

Connect to Ground Rod at Base of Pole

PRIMARY ANTI-SINGLE PHASE PROTECTOR WIRING DIAGRAM
No Scale

Voltage

(Typical)

_(R1)

Time Delay R4

7.2KV

7.2KV

7.2KV

AØ BØ CØ

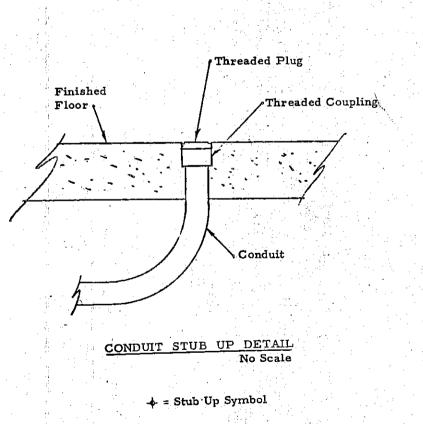
Incoming Primary Service to Transformers

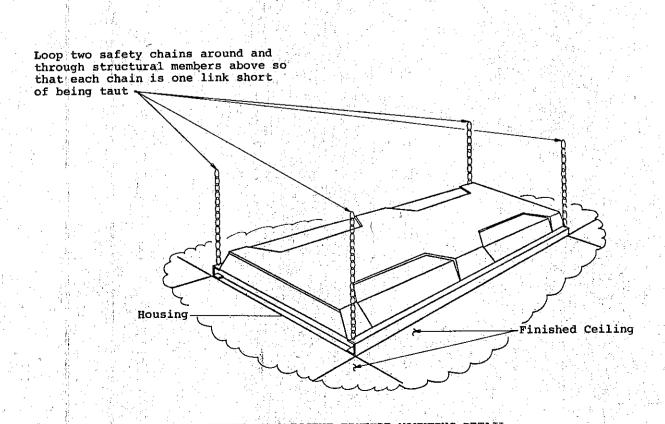
- All motor starters shall be 3-pole combination type with NEMA 1 enclosure. All motor starters shall have 208/120 volt control circuit transformer with control circuit fuses.
- All motor starters shall have 120 volt coil and 208 volt contacts.

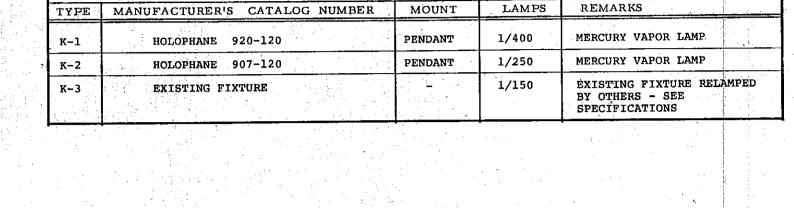
 120 volt momentary contact pushbutton:
 P = On-Off; P2 = Hi-Low; T = Test Button; T2 Hi-Low Test Button;

- PO2 Hi-Low-Off

 120 volt maintained contact selector switch:
 S = On-Off; S2 = Hi-Low; SO2 Hi-Low-Off; SA = Hand-Off-Automatic
 Pilot lights shall be furnished with all remote control units.







INCANDESCENT FIXTURE SCHEDULE

FLUORESCENT FIXTURE

RECESS

RECESS

SURFACE

SURFACE

SURFACE

PENDANT

TYPE MANUFACTURER'S CATALOG NUMBER MOUNT

WESTINGHOUSE SF2-SG-4424-6251

WESTINGHOUSE JH240SS14-6251

MILLER XS-2130-04MR UL/DL

WESTINGHOUSE J240AF-X4-68B

WESTINGHOUSE H240RV

GUTH FS1-X414F-1AGE1

SCHEDULE

1/40

2/40

2/40

2/40

2/40

LAMPS REMARKS

FLANGELESS CHASSIS

INSTALLED BY OTHERS

STAINLESS STEEL TRIM

INSTALLED BY OTHERS

INSTALLED BY OTHERS SEE SPECIFICATIONS

CHAIN PENDENT MOUNTED

SEE SPECIFICATIONS

14" WIDE FIXTURE

SEE SPECIFICATIONS

DIFFUSE LENS

FRAMED HOLOPHANE 6251B LENS

FRAMED HOLOPHANE 6251B LENS

FRAMED HOLOPHANE 6251B LENS

WITH 30° x 30° METAL LOUVERS

GENERAL RENOVATION NOTES - APPLY TO ALL SHEETS

- 1. Use of existing conduit in place is permitted where such use is within the limits of the National Electrical Code.
- 2. When reconnecting existing light fixtures or newly replaced convenience receptacles to new circuits, connect approximately 1200 watts to a lighting circuit, or up to 5 receptacles to a convenience receptacle circuit. Do not connect lights or small motors on the same circuit with convenience receptacles.
- 3. Connect motors or appliances as shown on plans. Any miscellaneous small motors or appliances not shown on the plans but existing and are to remain in service on the job site shall be reconnected to a new circuit with new wiring from the nearest available new or existing panelboard from the floor served.
- 4. Not all existing convenience receptacles, wall switches, etc., and other electrical equipment are shown on the plans. A survey of the job site must be made to determine the extent
- of existing electrical equipment. Remove all existing electrical wiring and exposed abandoned
- conduit no longer required unless otherwise noted. 6. Remove existing light fixtures in rooms where new light fixtures are shown. In all other rooms existing light fixtures are to remain. Reconnect existing light fixtures to nearest available new or existing panel from the floor
- 7. All defective existing receptacles, switches, etc., shall be replaced with new devices, in areas of the building where electrical trades are performing work.
- 8. See Architectural Plans for renovated areas.
- 9. Where all new wall finishes are to be provided, remove all existing electrical devices and cover plates, such as receptacles, switches, fire alarm horns, pull stations, clocks and bells, etc., and reinstall after new wall finish is completed.

| | ELECTRICAL SYMBOL SCHEDULE | | | | | | |
|------------------------|--|--|--|--|--|--|--|
| SYMBOL | DESCRIPTION | | | | | | |
| F-3 | FLUORESCENT LIGHT FIXTURE F-3 INDICATES FIXTURE TYPE | | | | | | |
| 75.53Z | FLUORESCENT LIGHT FIXTURE (EMERGENCY/WALK THRU/SECURITY) F-3 INDICATES FIXTURE TYPE | | | | | | |
| Ок-3 | INCANDESCENT/MERCURY VAPOR LIGHT FIXTURE K-3 INDICATES FIXTURE TYPE | | | | | | |
| ⊘к- 3 | INCANDESCENT/MERCURY VAPOR LIGHT FIXTURE (EMERGENCY/WALK THRU/SECURITY) K-3 INDICATES FIXTURE TYPE | | | | | | |
| ⊗1 | EXIT LIGHT FIXTURE - CEILING MOUNTED - BAR INDICATES FACE | | | | | | |
| ⊗t | EXIT LIGHT FIXTURE - CEILING MOUNTED - ARROW INDICATES FACE WITH DIRECTIONAL ARROW | | | | | | |
| ⊗l | EXIT LIGHT FIXTURE - WALL MOUNTED - BAR INDICATES FACE | | | | | | |
| ⊗ | EXIT LIGHT FIXTURE - WALL MOUNTED - ARROW INDICATES FACE WITH DIRECTIONAL ARROW | | | | | | |
| \$ | 20 AMPERE RATED 120/277 VOLT SINGLE POLE SWITCH | | | | | | |
| \$ ² | 20 AMPERE RATED 120/277 VOLT TWO POLE SWITCH | | | | | | |
| \$3 | 20 AMPERE RATED 120/277 VOLT THREE WAY SWITCH | | | | | | |
| ş ⁴ | 20 AMPERE RATED 120/277 VOLT FOUR WAY SWITCH | | | | | | |
| \$ T | MANUAL MOTOR STARTER WITH THERMAL OVERLOADS AND PILOT LIGHT | | | | | | |
| 좌 | COMBINATION MOTOR STARTER | | | | | | |
| ⊴ | MAGNETIC MOTOR STARTER | | | | | | |
| R | NONFUSED SAFETY SWITCH R - INDICATES AMPERE RATING | | | | | | |
| 00)P | ON-OFF PUSH-BUTTON OR SELECTOR SWITCH P - INDICATES PILOT LIGHT | | | | | | |
| ∞ P | HIGH-LOW-OFF PUSH-BUTTON OR SELECTOR SWITCH P - INDICATES PILOT LIGHT | | | | | | |
| H | JUNCTION BOX - WALL MOUNTED - ALLOW 4'-0" OF WIRE FOR CONNECTION | | | | | | |
| <u>, (J)</u> | JUNCTION BOX - CEILING MOUNTED - ALLOW 4'-0" OF WIRE FOR CONNECTION CONDUIT STUB UP-COUPLING FLUSH WITH FINISHED FLOOR - SEE DETAIL | | | | | | |
| ◆ | | | | | | | |
| ⊙ T | FLOOR BOX T - INDICATES TYPE SEE FLOOR BOX SCHEDULE 15 AMPERE RATED 3 WIRE 120 VOLT DUPLEX RECEPTACLE WITH GROUND | | | | | | |
| | 15 AMPERE RATED 3 WIRE 120 VOLT DUPLEX RECEPTACLE WITH GROUND - HORIZONTAL MOUNTED | | | | | | |
| | 15 AMPERE RATED 3 WIRE 120 VOLT DUPLEX RECEPTACLE WITH GROUND FURNISHED BY OTHERS, | | | | | | |
| ₩ | INSTALLED AND WIRE COMPLETE BY ELECTRICAL CONTRACTOR. | | | | | | |
| ₩C | 15 AMPERE RATED 3 WIRE 120 VOLT DUPLEX RECEPTACLE CONCEALED BEHIND WATER COOLER - VERIFY EXACT HEIGHT AND LOCATION. | | | | | | |
| | 20 AMPERE RATED 3 WIRE 120 VOLT DUPLEX RECEPTACLE WITH GROUND | | | | | | |
| • | 15 AMPERE RATED 5 WIRE SPLIT WIRED 120 VOLT DUPLEX RECEPTACLE WITH GROUND (CONSTANT AND CONTROLLED) | | | | | | |
| $\mapsto_{\mathbb{R}}$ | 120/250 VOLT RATED 3 WIRE RECEPTACLE R - INDICATES AMPERE RATING | | | | | | |
| ⊨®= _R | 250 VOLT RATED RECEPTACLE N - INDICATES NUMBER OF WIRES R - INDICATES AMPERE RATING | | | | | | |
| <u> </u> | TELEPHONE RECEPTACLE | | | | | | |
| | ELECTRICAL PANELBOARD | | | | | | |
| <u> </u> | MOTOR | | | | | | |
| H© | CLOCK - SINGLE FACE - SEE SPECIFICATIONS | | | | | | |
| <u>©@</u> | CLOCK - DOUBLE FACE - SEE SPECIFICATIONS BELL - CLASSROOM/CORRIDOR UNLESS OTHERWISE NOTED | | | | | | |
| <u></u> | | | | | | | |
| <u> </u> | SPEAKER-CEILING MOUNTED-RECESSED LOUD SPEAKER - WALL MOUNTED | | | | | | |
| § . | HORN OR PROJECTOR SPEAKER | | | | | | |
| <u>श</u> :Mæ | CABINET HEATER/CLASSROOM UNIT VENTILATOR/FAN COIL/UNIT HEATER FURNISHED AND INSTALLED | | | | | | |
| | BY OTHERS; WIRED COMPLETE BY ELECTRICAL CONTRACTOR. | | | | | | |
| C.H. | CABINET HEATER | | | | | | |
| C.U.V. | CLASSROOM UNIT VENTILATOR | | | | | | |
| r.C. | FAN COIL | | | | | | |
| J.H. | UNIT HEATER | | | | | | |
| R.E.F. | ROOF EXHAUST FAN | | | | | | |
| U.E.F. | UTILITY EXHAUST FAN | | | | | | |
| A.H.U. | AIR HANDLING UNIT | | | | | | |
| W.P. | WEATHERPROOF - SEE SPECIFICATIONS | | | | | | |
| E.P. | EXPLOSION PROOF - SEE SPECIFICATIONS | | | | | | |

NOTES: 1. NOT ALL SYMBOLS SCHEDULED ARE USED ON THIS PROJECT.

GENERAL NOTES - APPLY TO ALL SHEETS

- Verify all dimensions from Architectural Plans.
- Dimensions shown on outlet boxes shall be to the top

above - See detail this sheet.

- Conduit to lights is shown to indicate switching and does not indicate quantity or exact location.
- 4. Fluorescent fixtures shall be supported from structure
- Fluorescent fixtures installed in acoustical tile shall be on one foot modules.
- 6. All fluorescent fixtures mounted independently shall be furnished with two end plates. Fluorescent fixtures mounted in a continuous row shall be furnished with the proper number of connectors and end plates shall be furnished at the ends of the row only.
- 7. Plaster frames and/or rings shall be provided where required by ceiling construction.
- Verify location of lights in rooms containing exposed ductwork and piping by other trades and relocate, if necessary, as directed by the Architect.
- Verify height and location of outlets behind water coolers with other trades, so that outlets are concealed.
- 10. See Mechanical Plans for exhaust fan schedule and power
- 11. All free standing items of electrical equipment shall be installed on four inch (4") concrete pads by Electrical Contractor unless noted to be furnished by other
- 12. Verify exact location of all outlets in laboratory equipment and built-in furniture with equipment suppliers' rough-in drawings before roughing in.