

EXISTING 225A PANEL 120/208 3Ø INSTALL (4) NEW 201 CIR BRKRS IN SPACES 29.01 AND 40.82.

ALTERNATE E-5
ENLARGED CLASSROOM PLAN
 CHEMISTRY AND BIOLOGY LABS SCALE: 1/4" = 1'-0"

ALL NEW WORK SHOWN THIS PLAN TO BE PART OF ADD ALT. G-6

ELECTRICAL SYMBOL SCHEDULE

---	CONDUIT RUN EXPOSED
---	CONDUIT CONCEALED IN OR ABOVE CEILING, IN WALL, OR IN OVERHEAD SLAB
---	CONDUIT CONCEALED IN OR BELOW FLOOR, BELOW GRADE, OR IN WALL
---	IF SHOWN, CROSS LINES INDICATE NUMBER OF CURRENT CARRYING CONDUCTORS. EQUIPMENT GROUNDING CONDUCTORS NOT INCLUDED. LARGE LETTERS INDICATES CURRENT
---	CONDUIT TURNING UP
---	CONDUIT TURNING DOWN
---	LIGHTING, POWER, OR DISTRIBUTION PANELBOARD
---	FLUORESCENT FIXTURE - DRAWN APPROXIMATELY TO SCALE
---	FLUORESCENT FIXTURE ON EMERGENCY CIRCUIT - SEE SCHEDULE
---	FLUORESCENT STRIP OR VALANCE FIXTURE
---	INCANDESCENT FIXTURE, OR AS NOTED - CEILING MOUNTED
---	INCANDESCENT FIXTURE, OR AS NOTED - SUSPENDED
---	INCANDESCENT FIXTURE, OR AS NOTED - RECESSED
---	INCANDESCENT FIXTURE, OR AS NOTED - WALL MOUNTED
---	EXIT LIGHT, SINGLE FACE, MOUNTED AS SHOWN
---	EXIT LIGHT, DOUBLE FACE, MOUNTED AS SHOWN
---	SINGLE PHASE MOTOR
---	THREE PHASE MOTOR, NUMBER INDICATES HORSEPOWER
---	SINGLE POLE SWITCH, MOUNTED 48" UP
---	DOUBLE POLE SWITCH, MOUNTED 48" UP
---	THREE-WAY SWITCH, MOUNTED 48" UP
---	FOUR-WAY SWITCH, MOUNTED 48" UP
---	DIMMER SWITCH AS NOTED
---	TELEPHONE OUTLET - 18" UP
---	TELEPHONE OUTLET, 48" UP
---	STANDARD RECEPTACLE 5-15R DUPLEX, SPEC. GRADE, MOUNT 18" UP.
---	STD RECP 5-15R DUPLEX, SPEC. GRADE, MOUNT 48" UP OR ABOVE BACKSPASH
---	ELET WATER COOLER RECP. 5-15R DUPLEX. COORDINATE EXACT LOCATION WITH F.P.
---	DUPLEX RECP 5-15R - GROUND FAULT INTERRUPTER TYPE OR ON FIFTE-WAY
---	WEATHERPROOF DUPLEX RECP. WITH HEAVY DUTY BRASS PLATES

---	DISCONNECT SWITCH AS NOTED
---	FUSED DISCONNECT SWITCH AS NOTED
---	MOTOR STARTER AS NOTED
---	CONTACTOR AS NOTED
---	SPEAKER
---	COMPUTER TERMINAL OUTLET
---	CIRCUIT BREAKER AS NOTED
---	SPECIAL OUTLET INDICATES EQUIPMENT CONNECTION
---	MANUAL MOTOR STARTER SNAP SWITCH
---	JUNCTION BOX
---	CLOTH HANGER RECP
---	TELEVISION OUTLET
---	FIRE ALARM PULL STATION
---	HORN AND LIGHT
---	LOOP HOLDER
---	SMOKE DETECTOR
---	HEAT DETECTOR
---	DUCT DETECTOR
---	FIRE ALARM CONTROL PANEL
---	FLOW SWITCH

GENERAL NOTES

THE WORK COVERED BY THIS CONTRACT CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT, SUPPLIES, AND MATERIALS TO INCLUDE PERFORMING ALL OPERATIONS SUCH AS TRENCHING, BACKFILLING, CUTTING, CHANNELING, CHASING AND PATCHING NECESSARY FOR THE INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM IN STRICT ACCORDANCE WITH THE PLANS AND NOTES ON THE DRAWINGS.

ALL WORK SHALL BE IN ACCORDANCE WITH THE 1990 ISSUE OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL AND STATE CODES. SERVICE CONNECTIONS AND METERING SHALL BE IN ACCORDANCE WITH THE UTILITY HAVING JURISDICTION.

ALL ABOVE CEILING WIRING SHALL BE IN RIGID STEEL CONDUIT OR INTERMEDIATE METAL CONDUIT (IMC) EXCEPT THAT ELECTRICAL METAL TUBING (EMT) MAY BE USED IN CONCEALED WORK OTHER THAN IN EARTH, STONE OR CONCRETE. EMT MAY ALSO BE USED IN EXPOSED WORK OVER EIGHT FEET ABOVE THE FLOOR. RIGID STEEL OR POLYVINYL CHLORIDE (PVC) ELECTRICAL CONDUIT MAY BE USED FOR OUTSIDE LIGHTING CIRCUITS AND IN OR BELOW FLOOR SLABS.

THE GROUND AND THE NEUTRAL CONDUCTORS OF THE WIRING SYSTEMS AND ALL ELECTRICAL EQUIPMENT SHALL BE GROUNDED. THE GROUNDING SLOT IN ALL RECEPTACLES AND MOTOR FRAMES SHALL BE GROUNDED BY CONNECTION THROUGH A BONDING JUMPER TO THE OUTLET BOX OR CONDUIT.

ALL CONDUCTORS, UNLESS OTHERWISE NOTED, SHALL BE 600 VOLT RATED, TYPE THW UNDESIGNED WITH OR WITHOUT GROUND, COPPER AND RUN IN CONDUIT. ALL CONDUCTORS #8 AND LARGER SHALL BE STRANDED. CONDUCTORS #12 AND #10 AWG SHALL BE SOLID UNLESS OTHERWISE NOTED. CONDUCTORS IN FIXTURE CHANNELS SHALL BE TYPE THHN RATED AT 90°C.

ALL EQUIPMENT EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, SHALL BE FURNISHED WITH FACTORY APPLIED FINISHED COAT OF PAINT. EQUIPMENT SHALL BE REPAINTED WHERE SCRATCHED OR DAMAGED. ALL PRIME COATED EQUIPMENT SHALL BE REPRIMED BEFORE ANY REPAINTING. EQUIPMENT WITH ONLY A PRIME COAT WILL ALSO BE REPRIMED WHERE SCRATCHED OR DAMAGED, THOROUGHLY CLEANED, READY FOR PAINTING.

THE ELECTRICAL CONTRACTOR SHALL CONNECT ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTION UNLESS OTHERWISE SPECIFICALLY NOTED. LOW VOLTAGE WIRING FOR MECHANICAL EQUIPMENT IS INCLUDED IN THE MECHANICAL WORK. THE EXACT LOCATION OF STEEL TRAP AND POINTS OF CONNECTION TO EQUIPMENT FURNISHED BY OTHER TRADES SHALL BE COORDINATED WITH THE TRADE FURNISHING THE EQUIPMENT BEFORE ANY CONDUIT IS INSTALLED.

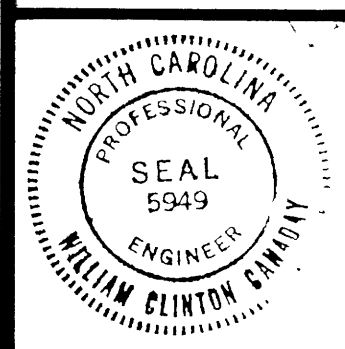
ALL LIGHTING FIXTURES AND LAMPS SHALL BE UL LISTED AND SUPPORTED IN ACCORDANCE WITH OPTICAL 410 OF IES. BALLAST FOR FLUORESCENT FIXTURES SHALL BE SELF-PROTECTED TYPE TP, HIGH POWER FACTOR, 60 HERTZ BALLAST FOR 120 VOLTS. BALLAST SHALL BE UL LISTED AND CERTIFIED BY ETL AS CONFORMING TO C.B.M.

CBSA
ARCHITECTS

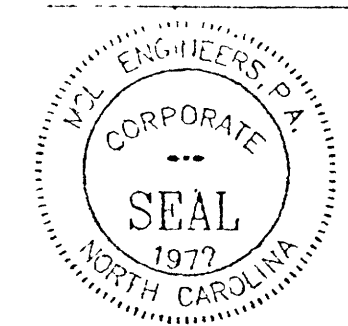
CLEMMER
 BUSH
 SILLS
 ABERNETHY

226 SECOND STREET, NW
 MAIL ADDRESS P.O. BOX 1239
 HICKORY, NORTH CAROLINA 28603
 TELEPHONE (704) 322-3403

RENOVATIONS TO:
ANDREWS ELEMENTARY, JR. HIGH, & HIGH SCHOOL
 CHEROKEE COUNTY BOARD OF EDUCATION
 ANDREWS, NORTH CAROLINA



PROJECT NO.	91-11
DATE	31 DEC. 1991
CHECKED BY	[Signature]
DRAWN BY	[Signature]
REVISIONS	
SET NO.	
SHEET NO.	E-4
OF 5	



M. J. ENGINEERS
 P.O. BOX 2648
 HICKORY, NORTH CAROLINA
 PHONE: 704/328-5245
 FAX: 704/328-9457
 JOB NUMBER: 91-765