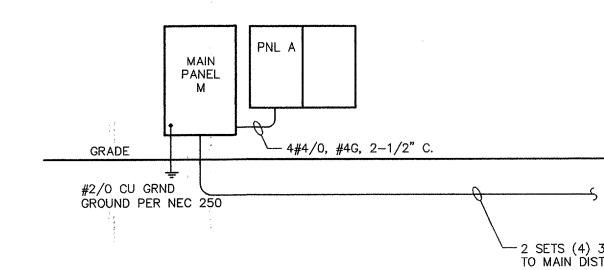
- G 1. COMPLETE SYSTEMS: PROVIDE (FURNISH AND INSTALL) ALL LABOR,
 MATERIAL, EQUIPMENT, AND TRANSPORTATION NECESSARY TO RECEIVE,
 INSTALL, ADJUST AND PUT INTO OPERATION COMPLETE SYSTEMS
 IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. PROVIDE
 PRODUCTS NOT MENTIONED BUT OBVIOUSLY NECESSARY AND INCIDENTAL TO
 THE COMPLETION OF THIS WORK.
- G 2. SCOPE: WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: MECHANICAL WORK AS REQUIRED FOR COORDINATION, ELECTRICAL WIRING, LIGHTING FIXTURE INSTALLATION, FIRE ALARM AND SIGNAL SYSTEMS, AND INSTALLATION OF RELATED MATERIALS. PROVIDE ALL CONDUIT, BACKBOARDS, AND OUTLET BOXES NEEDED FOR TELEPHONE, DATA, VIDEO, AND SECURITY SYSTEMS, UNLESS PROVIDED BY OTHERS. COORDINATE WORK WITH TELEPHONE, DATA, VIDEO, AND SECURITY SYSTEMS CONTRACTORS. PROVIDE MINIMUM 3/4 INCH CONDUIT AND PULL STRINGS FROM EACH TELEPHONE—DATA OUTLET TO APPROPRIATE TERMINAL BACKBOARD, OR TO 6 INCHES ABOVE CEILING IF USING PLENUM RATED CABLE. COORDINATE CONDUIT WORK WITH DATA—TELECOMM CONTRACTOR. COORDINATE ALL TELEPHONE AND DATA LINES, QUANTITIES, AND LOCATIONS WITH PLANS AND SITE CONDITIONS. PROVIDE ALL ELECTRICAL LABOR AND MATERIALS NOT PROVIDED BY OTHERS, BUT NECESSARY FOR THE COMPLETION OF THIS PROJECT.
- G 3. UTILITIES: COORDINATE WITH ALL UTILITY SERVICES. NOTIFY UTILITIES OF COMMENCEMENT OF WORK. MAKE ALL ARRANGEMENTS FOR TEMPORARY SERVICES. PROVIDE ALL WORK AND MATERIALS NECESSARY TO COMPLY WITH ALL UTILITY REGULATIONS AND REQUIREMENTS.
- G 4. PERMITS: OBTAIN ALL PERMITS NECESSARY TO BEGIN AND COMPLETE WORK.
- G 5. EXPERIENCE: ALL WORK DONE SHALL BE PERFORMED BY QUALIFIED PERSONNEL, UNDER THE SUPERVISION AND DIRECTION OF A SUPERINTENDENT HAVING SUCCESSFUL EXPERIENCE INSTALLING AND SUPERVISING EQUIPMENT AND SYSTEM OF SIMILAR TYPE AND SIZE AS INDICATED BY THE CONTRACT DOCUMENTS.
- G 6. REGULATIONS: PERFORM ALL WORK IN ACCORDANCE WITH CURRENT RULES, REGULATIONS, AND INDUSTRY STANDARDS OF THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY COUNCIL, ADA, UL, IPCEA, NEMA, NFPA, OSHA, ANSI, IEEE, AND ANY LOCAL CODES, LAWS, STANDARDS, AND ORDINANCES. IN THE EVENT THAT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, NOTIFY CONSULTANT IMMEDIATELY.
- G 7. CONDITIONS: EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. SURVEY THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS, SCOPE OF WORK, AND OWNER'S CRITERIA AND SPECIFICATIONS. ALL COSTS SUBMITTED SHALL BE BASED ON A THOROUGH KNOWLEDGE OF ALL WORK AND MATERIALS REQUIRED. ANY ADDITIONAL COSTS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- G 8. SPECIFICATIONS: BECOME FAMILIAR WITH ALL SPECIFICATIONS, DESIGN CRITERIA, AND EQUIPMENT REQUIREMENTS PRIOR TO ANY EQUIPMENT PURCHASE OR INSTALLATION. REFERENCE PLANS AND SPECIFICATIONS FOR DEVICES, MATERIALS, AND WORKMANSHIP REQUIREMENTS. THE DRAWINGS AND THESE NOTES PROVIDE ADDITIONAL REQUIREMENTS THAT EXTEND AND SUPPLEMENT THE SPECIFICATIONS. WHERE ANY APPEARANCE OF CONTRADICTION OCCURS BETWEEN THE PLANS AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL. THERE SHALL BE NO DEVIATIONS FROM CONTRACT DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OT THE ARCHITECT, ENGINEER, AND OTHER RELATED DESIGN PROFESSIONALSA
- G 9. COORDINATION: COORDINATE WORK WITH ALL OTHER TRADES. GIVE SPECIAL CONSIDERATION TO COORDINATING INSTALLATION OF LIGHTING, CABLING, PIPING, AND DUCTWORK. DO NOT RUN CONDUIT, CABLING, WIRING OR OTHER MATERIALS OR DEVICES IN OR THROUGH DUCTWORK. DO NOT RUN ELECTRICAL CONDUCTORS IMMEDIATELY ADJACENT AND PARALLEL TO COPPER TELEPHONE, DATA, OR OTHER SIGNAL OR COMMUNICATION WIRING.
- G10. DEVICE COORDINATION: COORDINATE WALL OUTLET LOCATIONS AND ORIENTATIONS WITH MILLWORK. COORDINATE WALL SWITCHES WITH DOOR SWINGS. COORDINATE EXACT LOCATION, COLOR AND FINISH OF OUTLETS AND OTHER DEVICES WITH INTERIOR DESIGNER, ARCHITECT, OR DESIGNATED OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. OBTAIN APPROVAL FOR DEVICES FROM ARCHITECT OR INTERIOR DESIGNER PRIOR TO INSTALLATION. COORDINATE EXACT LOCATION OF OUTLETS AND OTHER DEVICES WITH ELECTRICAL AND ARCHITECTURAL PLANS PRIOR TO INSTALLATION. PROVIDE OUTLET BOXES, DEVICES, COVERPLATES, AND FLANGES AS REQUIRED. PLACE ALL OUTLETS AT 18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. REFERENCE ARCHITECT'S DRAWINGS FOR ALL HEIGHTS, DIMENSIONS, AND CONFIGURATIONS OF DEVICES NOT INDICATED ON THESE DRAWINGS. REFERENCE SAME DRAWINGS FOR EQUIPMENT NOT IDENTIFIED. COSTS FOR REVISIONS TO DEVICES OR DEVICE LOCATIONS DUE TO FAILURE TO COMPLY WITH THESE REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- G11. PRODUCTS: PRODUCTS OF A SIMILAR NATURE SHALL BE OF THE SAME TYPE AND MANUFACTURER. PROVIDE THE STANDARD PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SPECIFIED PRODUCTS, UNLESS OTHERWISE REQUIRED BY DRAWINGS. CONSTRUCT AND INSTALL ALL PRODUCTS IN ACCORDANCE WITH NATIONALLY RECOGNIZED AND ACCEPTED STANDARDS AND PROCEDURES.
- G12. COMPATIBILITY: ALL NEW ACTIVE ELECTRICAL EQUIPMENT SHALL BE COMPATIBLE WITH EXISTING EQUIPMENT (IF ANY), BY MANUFACTURER, TYPE, AND APPLICATION.
- G13. IDENTIFICATION: ALL ELECTRICAL DISTRIBUTION EQUIPMENT,
 TRANSFORMERS, PANELBOARDS, AND OTHER ECNCLOSED EQUIPMENT SHALL
 BE IDENTIFIED AS INDICATED IN THE CONTRACT DOCUMENTS. IDENTIFICATION
 SHALL CONSIST OF PERMANENTLY ATTACHED ENGRAVED LAMINATED PLASTIC
 NAMEPLATES. EACH BRANCH CIRCUIT OCERCURRENT PROTECTION DEVICE
 SHALL BE IDENTIFIED BY CIRCUIT NUMBER AND SCHEDULED INSIDE EACH
 PANEL DOOR. EACH BRANCH CIRCUIT SPLICE OR TERMINATION SHALL BE
 IDENTIFIED BY PANEL AND CIRCUIT DESIGNATION SHOWN ON THE JUNCTION
 OR OUTLET BOX, OR UPON INDIVIDUAL WIRES IN CASES WHERE MORE THAN
 ONE OF EACH PHASE CONDUCTOR OCCUR.
- G14. WIRING: ALL CONDUCTORS CARRYING GREATER THAN 70 VOLTS SHALL BE MINIMUM #12 AWG, SOLID, SOFT DRAWN COPPER OF 98% CONDUCTIVITY. INSULATION: PROVIDE THW, THHN, THWN, OR XHHW INSULATIONS. COORDINATE INSULATION TYPES WITH CONDITIONS, NEC REQUIREMENTS, AND CONDUIT FILL REQUIREMENTS. ALL WIRING SIZES ARE BASED ON 60 C OR 75 C INSULATION, ACCORDING TO CURRENT RATINGS, REGARDLESS OF ACTUAL INSULATION USED. TYPE 'AC' OR 'MC' CABLE IS ACCEPTABLE ONLY WITH TYPE THHN INSULATION.
- G15: HOMERUNS: PROVIDE MINIMUM #10 AWG WIRING ON ALL HOMERUNS LONGER THAN 100 FEET.

- G16. NEUTRALS: SIZE ALL NEUTRALS FULL UNLESS SPECIFICALLY REDUCED ON PLANS. PROVIDE DEDICATED NEUTRALS FOR ALL CIRCUITS. IF AND WHERE MULTIPLE BRANCH CIRCUITS DO SHARE A COMMON NEUTRAL, USE CIRCUITS IN A CONTIGUOUS MANNER, WITH EACH A, B, AND C PHASE COMING FROM ADJACENT CIRCUIT BREAKERS. DO NOT CIRCUIT NON-ADJACENT CIRCUITS TO THE SAME NEUTRAL. DO NOT CIRCUIT PHASES FROM ONE PANELBOARD WITH A NEUTRAL FROM A DIFFERENT PANELBOARD.
- G17. GROUNDING: GROUND ALL CIRCUITS WITH MINIMUM #12 AWG INSULATED GREEN COPPER GROUND WIRE. CONDUIT MAY NOT BE USED IN LIEU OF A GROUND WIRE.
- G18. CONDUIT: ALL WIRING CARRYING VOLTAGES GREATER THAN 50 VOLTS SHALL BE IN CONDUIT, MINIMUM 1/2 INCH. EMT IS ACCEPTABLE ONLY WITH COMPRESSION FITTINGS. FLEXIBLE METAL CONDUIT IS ACCEPTABLE ONLY WITH SEPARATE INSULATED GROUND WIRE, AND ONLY FOR SWITCH DROPS OR LIGHTING FIXTURE WHIPS, OR FOR CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION. ENT, ALUMINUM CONDUIT NM ("ROMEX"), NMC, AND SNM ARE NOT ACCEPTABLE AND MAY NOT BE USED.
- RIGID: USE GALVANIZED RIGID STEEL CONDUIT FOR ANY SIZE OVER 2 INCHES, OR WHERE EXPOSED TO WEATHER, OR WHERE CONDUIT IS EXPOSED TO POTENTIAL DAMAGE.
- IMC: INTERMEDIATE METALLIC CONDUIT MAY BE ACCEPTABLE WITH WRITTEN APPROVAL OF DESIGN PROFESSIONAL AFTER COORDINATION OF USE IN FIELD.
- PVC: PROVIDE MINIMUM SCHEDULE 40 ELECTRICAL GRADE CONDUIT. LIMIT USE OF PVC TO BELOW GRADE. USE PVC ONLY FOR STRAIGHT RUNS, NEVER FOR TURNS. INSTALL RIGID STEEL CONDUIT WITH WIDE RADIUS BENDS FOR ALL TURNS.
- CONDUIT ROUTING: CONDUIT AND CIRCUITING SHOWN ON PLANS IS SYMBOLIC AND DIAGRAMMATIC. INSTALL CONDUIT TO FIT ACTUAL FIELD CONDITIONS. DO NOT RUN CONDUIT IN OR THROUGH DUCTWORK.
- CONDUIT BELOW GRADE: COVER METALLIC CONDUIT BELOW GRADE WITH ASPHALTUM OR BITUMASTIC TAPE OR OTHER APPROVED PROTECTIVE MATERIAL. SEAL JOINTS AGAINST WATER.
- CONDUIT FITTINGS: ALL FITTINGS SHALL BE COMPRESSION OR THREADED. SET SCREW FITTINGS ARE NOT ACCEPTABLE AND MAY NOT BE USED.
- G19. CIRCUIT BREAKERS: ALL BRANCH CIRCUIT OVERCURRENT PROTECTION
 DEVICES SHALL BE MINIMUM 20 AMPERE INVERSE TIME TYPE CIRCUIT
 BREAKERS. 250V AND LESS DEVICES SHALL BE RATED MINIMUM 10,000 AIC.
 DEVICES HIGHER THAN 250V SHALL BE RATED MINIMUM 14,000 AIC.
 HIGHER REQUIREMENTS MAY BE NOTED ON SCHEDULES OR ON RISERS.
 MULTIPOLE BREAKERS SHALL BE INTEGRAL UNITS. HANDLE TIES MAY NOT BE USED.
- G20. FUSES: ALL FUSES 600 AMPERES OR LESS SHALL BE UL LISTED CLASS J, LOW PEAK, DUAL ELEMENT, TIME DELAY, 600 VOLTS.
 ACCEPTABLE MANUFACTURERS: BUSSMAN, GOULD—SHAWMUT, OR AS INDICATED IN PROJECT SPECIFICATIONS. USE ONLY FUSES AT ALL SERVICE ENTRANCE EQUIPMENT, SWITCHBOARDS, AND DISTRIBUTION PANELS.
- G21. PENETRATIONS: COORDINATE FLOOR PENETRATIONS WITH ARCHITECT AND STRUCTURAL ENGINEER. FIRESTOP OPENINGS AROUND PENETRATIONS THROUGH FIRE RATED WALLS, PARTITIONS, FLOORS OR CEILINGS. USE APPROVED METHODS TO MAINTAIN FIRE RESISTIVE RATINGS. WHERE CONFLICTS OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
- G22. SUBSTITUTIONS: SUBMIT TO ARCHITECT FOR APPROVAL, 10 DAYS
 PRIOR TO PRESENTATION OF BID TO OWNER, ANY REQUESTED ALTERNATES TO
 MANUFACTURERS SPECIFIED IN THE CONTRACT DOCUMENTS. ARCHITECT AND OWNER
 WILL CONSIDER REQUESTED ALTERNATES. IF ALLOWED, NOTICE WILL BE MADE PRIOR
 TO FINAL BID DATE.
- ACCEPTANCE OF SUBSTITUTIONS PRIOR TO BID DOES NOT CONFER APPROVAL OF SUBSTITUTIONS. ONLY CONDITIONAL APPROVAL IS GRANTED, SUBJECT TO FINAL DETERMINATION THAT SUBSTITUTIONS MEET OR EXCEED SPECIFIED REQUIREMENTS OR MEET OR EXCEED THE PERFORMANCE OF THE SPECIFIED PRODUCTS. SUBSTITUTIONS SUBMITTED LATER THAN 10 DAYS PRIOR WILL NOT BE CONSIDERED. THE CONTRACTOR BEARS THE BURDEN OF SHOWING PROOF THAT REQUESTED SUBSTITUTIONS PERFORM IN A MANNER EQUAL OR SUPERIOR TO THE SPECIFIED ITEM. INFORMATION SUBMITTED FOR CONSIDERATION SHOULD INCLUDE PERFORMANCE CHARACTERISTICS, ILLUSTRATIONS OF FIELD APPLICATIONS, AND COMPARISONS OF THE REQUESTED ALTERNATE ITEM(S) TO THE SPECIFIED ITEM(S) OR TO THE SPECIFIED PERFORMANCE REQUIREMENTS. THE ARCHITECT, ENGINEER, OR OTHER RELATED DESIGN PROFESSIONAL MAY REJECT SUBSTITUTIONS WHICH DO NOT MEET THE INTENDED LEVEL OF QUALITY DESIRED FOR THE PROJECT.
- SUBSTITUTION: A LUMINAIRE, FIXTURE, DEVICE, EQUIPMENT ITEM, COMPONENT, MANUFACTURER, OR OTHER MATERIAL NOT SPECIFIED IN THE CONTRACT DOCUMENTS.
- G23. SUBMITTALS: SUBMIT SHOP DRAWINGS, MANUFACTURERS' STANDARD PRODUCT INFORMATION, PERFORMANCE SPECIFICATIONS, PHYSICAL DIMENSIONS, AND OTHER INFORMATION NECESSARY FOR THE DESIGN PROFESSIONALS TO INSURE COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO ORDERING AND INSTALLING ANY EQUIPMENT. INCLUDE SHOP DRAWING PREPARATION TIME, TRANSMITTAL TIME, AND APPROVAL AND REVIEW TIME IN PROJECT SCHEDULE. REFERENCE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR BEARS FULL LIABILITY FOR PROJECT DELAYS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT.
- G24. PROJECT RECORD DOCUMENTS: UPON COMPLETION OF WORK, PREPARE PROJECT RECORD DOCUMENTS ("AS-BUILTS") ON A SUITABLE REPRODUCIBLE MEDIUM (MYLAR OR VELLUM). PRESENT COMPLETED DRAWINGS TO OWNER AND AT LEAST TWO SETS OF PRINTS TO DESIGN PROFESSIONAL. INCLUDE ALL BRANCH CIRCUITS, FEEDERS, AND EQUIPMENT LAYOUTS.
- G25. WARRANTY: WARRANT ALL NEW OR EXISTING MATERIALS, EQUIPMENT, AND INSTALLATION FOR AT LEAST ONE YEAR FROM TIME OF ACCEPTANCE BY OWNER (UNLESS MORE STRINGENT WARRANTIES ARE REQUIRED ELSEWHERE IN THE CONTRACT DOCUMENTS).



ADDITIONAL ELECTRICAL DATA TELECOMM AND SECURITY SYMBOLS **SYMBOLS** 20A 125V 2P 3W GROUNDING SINGLE RECEPTACLE NEMA 5-20R DISCONNECT SWITCH SINGLE POLE SWITCH 20A 120/277V, LEVITON DECORA, ALMOND $\Rightarrow \Rightarrow$ \Rightarrow 20A, 125V, 2P 3W GROUNDING DUPLEX RECEPTACLE NEI A 5-20R FUSED DISCONNECT SWITCH SWITCH 3-WAY 20A 120/277V, LEVITON DECORA, ALMOND \boxtimes \Rightarrow CEILING OUTLET WITH DUPLEX RECEPT MOTOR STARTER DIMMER SWITCH, LUTRON NOVA T-STAR, ALMOND \oplus FLOOR OUTLET WITH DUPLEX RECEPT (FLUSH) COMBINATION STARTER & DISCONNECT SWITCH $\sqrt{}$ # 20A, 125V, 2P, 3W GROUNDING QUAD RECEPTACLE NEMA 5-20R MOTOR EXIT LIGHT WITH EMERGENCY HEADS EXIT LIGHT SINGLE FACE (ARROW INDICATES DIRECTION) INSULATED ISOLATED GROUND REQUIRED HOME RUN TO PANELBOARD GROUND FAULT INTERRUPT REQUIRED CIRCUIT NUMBER EXIT LIGHT DUAL FACE GFI A-6 EQUIPMENT CONNECTION WEATHERPROOF COVER REQUIRED MOUNT EXIT LIGHTS ON WALL, CEILING, SIDE OR PENDANT, AS REQUIRED BY CEILING CONDITONS SWITCH LEG () HOT () NEUTRAL () GROUND () ABOVE SPLASH OR COUNTERTOP DUPLEX RECEPTACLE VERIFY ALL LOCATIONS IN FIELD WITH ARCHITECT. SPLIT WIRE DUPLEX RECEPTACLE CONDUIT IN CEILING OR WALL EMERGENCY TWO HEAD LIGHT FIXTURE \Rightarrow 20A ? RECEPT, NEMA 14-20R CONDUIT EXPOSED Θ SPECIAL PURPOSE OUTLET (NEMA CONFIGURATION AS NOTED) CONDUIT IN OR UNDER FLOOR DOOR CONTACTS FOR ALARM SYSTEM \odot FLUSH FLOOR SPECIAL PURPOSE OUTLET CONDUIT STUBBED DOWN ACCESS CONTROL CREDENTIAL READER $+\otimes$ WALL MOUNTED SPECIAL PURPOSE OUTLET CONDUIT STUBBED UP HK MECHANICAL CYPHER LOCK TELEPHONE RING & STRING OUTLET CONDUIT WITH BREAK SHOWN FOR GRAPHIC CLARITY FLOOR BOX FOR DURESS ALARM PUSH BUTTON lacktriangledownFLUSH FLOOR TELEPHONE OUTLET PANELBOARD 208Y/120V 3PH 4W PANELBOARD 480Y/277V 3PH 4W \triangleleft DATA OUTLET FIRE ALARM SYSTEM HEAT DETECTOR FLUSH FLOOR DATA OUTLET DRY TYPE TRANSFORMER FIRE ALARM SYSTEM SMOKE DETECTOR COMBINATION TELEPHONE/DATA RING & STRING OUTLET TELEPHONE BACKBOARD (TTB) Ю WALL MOUNTED JUNCTION BOX FIRE ALARM PULL STATION **(** CEILING MOUNTED JUNCTION BOX FIRE ALARM HORN STROBE \odot FLOOR MOUNTED JUNCTION BOX FIRE ALARM CONTROL PANEL "STACKED" DEVICES, IN LINE VERTICALLY, AT DIFFERENT HEIGHTS. REFERENCE IA DWGS. FIRE ALARM HORN STROBE COMBINATION FURNITURE SYSTEM BASE POWER IN KEYED NOTE TAG. REFERENCE KEYED NOTES ON SAME PAGE. FURNITURE SYSTEM DATA-TELECOMM CONNECTION MONITOR EQUIPMENT LABEL FLOOR MOUNTED DATA/POWER WALKER RFB4 RECESSED FLOOR BOX FOR MULTIPLE SYSTEMS TO SERVICE MODULAR FURNITURE AND MILLWORK. PROVIDE INSETS AND DEVICES AS REQUIRED. FVR. TOMBSTONE DUPLEX RECEPTACLE MOUNTED ON COUNTER TOP. REFERENCE KITCHEN EQUIPMENT WALKER 880 FLUSH FLOOR BOX WITH 827 BRASS FLANGE, DRAWINGS FOR DEVICE TYPE. COORDINATE FLOOR FINISH. 2 OR 3 GANGS AS REQUIRED. PROVIDE DEVICES INDICATED. FVR. COORDINATE WITH ARCHITECT.

NOTE: SYMBOLS SHOWN MAY NOT ALL BE USED IN PLANS. PRESENCE OF A SYMBOL IN THIS SCHEDULE DOES NOT INDICATED PROJECT QUANTITIES, ONLY TYPES AND CONFIGURATIONS. MODEL NUMBERS GIVEN ARE FOR INDICATION OF DESIGN INTENT. OTHER MANUFACTURERS MAY BE ACCEPTABLE. REFERENCE SPECIFICATIONS FOR APPROVED MANUFACTURERS. ALTERNATES AND SUBSTITUTIONS MUST BE APPROVED BY CONSULTANT. CONTRACTOR MUST COORDINATE ANY REQUIRED MODIFICATIONS DUE TO SUBMITTED ALTERNATES AND MAKE ALL NECESSARY ADJUSTMENTS.

SPECIAL SYSTEMS NOTES FOR ELECTRICAL WORK

- S1. TELEPHONE SYSTEM: PROVIDE BACKBOARDS, CONDUITS, AND PULL STRINGS.
 COORDINATE WORK WITH TELEPHONE COMPANY AND TELEPHONE CONTRACTOR.
 COORDINATE CONDUIT ROUTING WITH FIELD CONDITIONS. PROVIDE CONDUIT
 FOR TRUNKS. PROVIDE CONDUIT FOR RUNS EXPOSED TO WEATHER OR DAMAGE.
- S2. TELEPHONE/DATA RECEPTACLES: FURNISH AND INSTALL 3/4 CONDUIT AND PULL STRINGS FROM OUTLETS TO 6" ABOVE CEILING. VERIFY EXACT REQUIREMENTS WITH TELEPHONE EQUIPEMENT SUPPLIER AND NSTALLER. FURNISH AND INSTALL MATERIALS NOT PROVIDED BY TELEPHONE CONTRACTOR.
- S3. FIRE ALARM: VERIFY FIRE ALARM REQUIREMENTS IN FIELD WITH LOCAL AUTHORITY HAVING JURISDICTION. FURNISH AND INSTALL NEW INITIATION AND ANNUNCIATION DEVICES.

SECURITY SYSTEM BASIC ELECTRICAL MATER ALS

System Description:

PROVIDE POWER AND CONDUIT FOR SECURITY SYSTEMS, INCLUDING ALL EQUIPMENT, POWER AND WIRING, CONDUIT AND CIRCUITING, BOXES, AND OTHER MATERIAL NECESSARY FOR COMPLETE SYSTEMS. COORDINATE CILING, FLOOR, AND WALL RECEPTACLE QUANTITIES AND LOCATIONS WITH ARCHITECTURAL CONDITIONS. COORDINATE WORK WITH SECURITY SYSTEMS INSTALLERS. PROVIDE ROUGH—INS AND OTHER GENERAL MATERIALS AS NECESSARY TO ALLOW SECURITY CONTRACTORS TO COMPLETE SYSTEMS INSTALLATIONS.

System will be designed for three separate systems through one panel—the kitchen, daily restrooms and larger restrooms. $\ensuremath{^{\circ}}$

Control panel and three keypads will be mounted in the storage room. Control panel will be approximately 12.5" H X 14" W. Keypads will be standard size and will require a single gang box for each. A duplex outlet will be required for the control panel power. Telephone line connection will use existing telephone line, it will not require a dedicated phone line.

Two motion detectors will be installed in the kitchen area. One at the northeast corner and one at the southeast corner. Each will require a single gang box mounted 7.5 ' to 8.0' above the finished floor. A 3/4" conduit with a pull string will provide a wiring route back to the control panel.

Door contacts will be installed at all doors except #7 (Kitchen Pantry). A 3/4" conduit and pull string to a single gang box (with cover plate) above the contact point will provide access for installing door contacts and splicing wire. The box should be centered over pairs of doors (1/2, 8 & 9) and near the jamb over the open side of single doors (3, 4, 5 & 6).

When frames are set and before they are trimmed out, Security Contractor will access the area above the door frame to install and vire contacts back to the control panel.

FIECTRICAL ARREVIATIONS

ELECTRICAL ABBREVIATIONS			
AHU	AIR HANDING UNIT	мсм	THOUSAND CIRCULAR MILS
A	AMPERES	N.I.C.	NOT IN CONTRACT
AFF or A.F.F.	INDICATES ABOVE FINISHED FLOOR HEIGHT NOTED	NEC	NATIONAL ELECTRICAL CODE
ACT	ABOVE COUNTER TOP	NF	NOT FUSED
BKR	BREAKER	PNL	PANEL
C. or COND.	CONDUIT	PDU	POWER DISTRIBUTION UNIT
СВ	CIRCUIT BREAKER	PH	PHASE
СКТ	CIRCUIT	Р	POLE
co	CONVENIENCE OUTLET	PVC	POLYVINYL CHLORIDE
DISC. SW.	DISCONNECT SWITCH	PWR	POWER
DWG	DRAWING		
EC	EMPTY CONDUIT		
EF	EXHAUST FAN	P.F.	POWER FACTOR
F/A FA	FIRE ALARM	RECPT	RECEPTACLE
FACP	FIRE ALARM CONTROL PANEL		
FVR	FIELD VERIFY REQUIREMENTS	SPEC	SPECIFICATION
GND	GROUND	S/N	SOLID NEUTRAL
HVAC	HEATING VENTILATION AND AIR CONDITIONING	SW	switch
HZ	HERTZ	THHW	MOISTURE AND HEAT RESISTANT THERMOPLASTIC INSULATED WIRE
IG	ISOLATED GROUND	THHN/THWN	MOISTURE AND HEAT RESISTANT THERMOPLASTIC INSULATED NYLON-JACKETED WIRE
КСМ	THOUSAND CIRCULAR MILS	TEL	TELEPHONE
KVA	KILOVOLT AMPERES (1000 VOLT-AMPERES)	TTB	TELEPHONE TERMINAL BOARD
KV	KILOVOLTS (1000 VOLTS)	TVSS	TRANSIENT VOLTAGE SURGE PROTECTION
kw	KILOWATTS (1000 WATTS)		
MLO	MAIN LUGS ONLY	U.O.N.	UNLESS OTHERWISE NOTED
	ļ.	WP.	WEATHERPROOF
MH	MANHOLE	XFMR	TRANSFORMER

date
08/26/02
10/31/02
01/23/03

3.0

▲ ELECTRICAL RISER DIAGRAM

2 SETS (4) 350 MCM, 3" C.
TO MAIN DISTRIBUTION
SPARE. COORDINATE WITH

SITE ELECTRICAL SERVICE.