

FIRE ALARM NOTES

- 1. PRINCIPAL OCCUPANCY CLASSIFICATION IS GROUP M.
2. SPACE IS PROVIDED WITH FULL SPRINKLER COVERAGE.
3. OCCUPANT LOAD IS GREATER THAN 500.
4. SPACE IS WITHIN A COVERED MALL COMPLYING WITH IBC 402.
5. THE LANDLORD DOES REQUIRE ALL TENANTS TO INSTALL A FIRE ALARM SYSTEM MONITORED BY THE LANDLORD SYSTEM.
6. A FIRE ALARM SYSTEM IS REQUIRED.
7. AIR HANDLING SYSTEMS WITH AN AGGREGATE CAPACITY OVER 2,000 CFM REQUIRE DUCT SMOKE DETECTORS WITH LOCAL VISIBLE AND AUDIBLE SUPERVISORY SIGNAL. DUCT SMOKE DETECTOR MONITORING SHALL BE BY OTHERS UNDER SEPARATE CONTRACT WITH THE OWNER.
8. FIRE ALARM SYSTEM INSTALLED OR MODIFIED BY THIS CONTRACTOR IS TO BE VERIFIED AND CERTIFIED BY AHJ AT THIS CONTRACTOR'S EXPENSE.

ELECTRICAL SPECIFICATIONS

DIVISION 16 - ELECTRICAL

I. GENERAL PROVISIONS

A. GENERAL CONDITIONS, CODES & STANDARDS

- 1. GENERAL CONDITIONS OF THE CONTRACT FUND IN THE ARCHITECTURAL DRAWINGS, GENERAL AND SPECIAL CONDITIONS OF THE AMERICAN INSTITUTE OF ARCHITECTS (AIA) AND ANY OF THE OWNER'S GENERAL REQUIREMENTS SHALL APPLY UNLESS NOTED OTHERWISE.
2. REFER TO THE GENERAL CONDITIONS ON THE ARCHITECTURAL DOCUMENTS AND THE GENERAL AND SPECIAL CONDITIONS OF THE AIA FOR ADDITIONAL REQUIREMENTS.
3. ALL WORK SHALL BE IN CONFORMANCE WITH ALL LOCALLY ENFORCED, FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES INCLUDING ANY SPECIAL THE OWNER REQUIREMENTS IN ADDITION TO THOSE SPECIFIED.
4. CONTRACTOR SHALL PAY FOR AND OBTAIN ALL NECESSARY LICENSES, PERMITS AND INSPECTIONS REQUIRED TO PROCEED WITH THE WORK. THIS SHALL INCLUDE ALL REQUIRED COORDINATION WITH THE LOCAL UTILITY COMPANIES AND THEIR ASSOCIATED FEES OR COSTS.

B. SCOPE OF WORK

- 1. THIS CONTRACT SHALL INCLUDE THE FURNISHING, INSTALLING, CONNECTING, AND OPERATION OF ALL EQUIPMENT WHICH IS A PART OF THE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY SIMILAR INSTALLATIONS.
2. PROJECT RECORD DOCUMENTS - MAINTAIN AT THE JOBSITE ONE COPY OF ALL CONTRACT DOCUMENTS CLEARLY MARKED AS "PROJECT RECORD COPY".
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH SHOP DRAWINGS, COMPLETE WITH EQUIPMENT CUTS AND FLOOR PLANS (WITH WIRING INDICATED), AS WELL AS BATTERY CALCULATIONS, AND VOLTAGE DROP CALCULATIONS FOR REVIEW AND APPROVAL BY THE ARCHITECT, ENGINEER, AND ALL AUTHORITIES HAVING JURISDICTION.
4. ALL EXISTING UTILITY SERVICES SHALL BE FIELD VERIFIED. CORRECTIONS TO THE DESIGN AND INSTALLATION SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
5. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL WORK.
6. TEMPORARY ELECTRICAL SERVICE, LIGHTING, AND RELATED WIRING SHALL BE PROVIDED TO OSHA REQUIREMENTS FOR THE USE OF ALL TRADES DURING CONSTRUCTION.
7. TEMPERATURE AND INTERLOCK CONTROL COMPONENTS AND ALL RELATED WIRING AND CONDUIT SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
8. COORDINATE ALL DEMOLITION WITH THE ARCHITECTURAL DOCUMENTS, THE ARCHITECT, AND THE OWNER'S GENERAL REQUIREMENTS.
9. ALL WORK INCLUDING, BUT NOT LIMITED TO PARTS, MATERIAL, EQUIPMENT AND LABOR SHALL BE GUARANTEED FOR ONE YEAR AFTER ACCEPTANCE BY THE ENGINEER AND OWNER.

C. DOCUMENTS

- 1. THE DRAWINGS ARE DIAGRAMMATIC; ALL WORK SHALL BE PERFORMED AS INDICATED ON THE DRAWINGS UNLESS EXISTING CONDITIONS OR COORDINATION ISSUES REQUIRE CHANGES.
2. ANY INCIDENTAL ITEMS OR LABOR, ETC. NOT INCLUDED IN THE SPECIFICATIONS OR THE DRAWINGS BUT REASONABLY IMPLIED AS NECESSARY FOR THE COMPLETE INSTALLATION OF ALL APPARATUS SHALL BE INCLUDING IN BID.
3. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE FURNISHED EVEN THOUGH NOT MENTIONED IN BOTH.
4. IF ERRORS ARE FOUND IN THE DRAWINGS OR SPECIFICATIONS OR DISCREPANCIES OCCUR BETWEEN THE SAME, OR BETWEEN THE FIGURES ON THE DRAWINGS, AND THE SCALE OF SAME OR BETWEEN THE LARGER AND SMALLER DRAWINGS, OR IN THE DESCRIPTIVE MATTER ON THE DRAWINGS SHALL BE REFERRED TO THE OWNER FOR REVIEW AND FINAL DECISION PRIOR TO THE BID DATE.
5. THE BIDDING OF THIS WORK WILL CONTEMPLATE THE USE OF EQUIPMENT AND MATERIALS EXACTLY AS SPECIFIED HEREIN.
6. MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THE SYSTEMS CAN BE OF ANY REDESIGNED MANUFACTURE PROVIDED THESE ITEMS MEET MINIMUM STANDARDS AS SET IN THESE SPECIFICATIONS.

D. COORDINATION

- 1. CONTRACTOR SHALL LOCATE, IDENTIFY AND PROTECT ANY EXISTING SERVICES WHICH ARE REQUIRED TO BE MAINTAINED OPERATIONAL AND SHALL EXERCISE EXTRA CAUTION IN THE PERFORMANCE OF ALL WORK TO AVOID DISTURBING SUCH FACILITIES.
2. EACH CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO OTHER WORK CAUSED BY HIS WORK OR THROUGH THE NEGLIGENCE OF HIS, OR HIS SUB-TRADE'S PERSONNEL.
3. IT IS ESSENTIAL THAT ALL WORK AT THE PROJECT BE DONE AT SUCH TIME AND IN SUCH MANNER AS NOT TO INTERFERE WITH THE OPERATIONS OF THE SPACE, ADJACENT SPACES, OR FACILITY.

E. METHODS

- 1. EXCAVATIONS SHALL BE MADE IN OPEN TRENCHES. FLOORS SHALL BE SAW CUT. CONDUIT SHALL BE LAID ON AN APPROPRIATELY GRADED 6" BED OF CLEAN AND DRY SAND.
2. EQUIPMENT, CONDUIT, ETC. SHALL NOT BE SUPPORTED FROM ANY CEILING, OTHER PIPING, OTHER CONDUIT OR DUCTWORK, ROOF DECK, OR JOIST BRIDGING.
3. ALL ROOF PENETRATIONS, FLASHINGS AND COUNTER FLASHINGS SHALL BE PERFORMED BY THE OWNER'S ROOFING CONTRACTOR AT THE REQUESTING CONTRACTORS COST.

F. SUBMITTALS

- 1. SHOP DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT OF ALL EQUIPMENT AND ACCESSORIES PROVIDED FOR THE PROJECT WHETHER SPECIFIED HERE-IN OR ON THE DRAWINGS.
2. PROJECT RECORD DOCUMENTS - MAINTAIN AT THE JOBSITE ONE COPY OF ALL CONTRACT DOCUMENTS CLEARLY MARKED AS "PROJECT RECORD COPY".
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH SHOP DRAWINGS, COMPLETE WITH EQUIPMENT CUTS AND FLOOR PLANS (WITH WIRING INDICATED), AS WELL AS BATTERY CALCULATIONS, AND VOLTAGE DROP CALCULATIONS FOR REVIEW AND APPROVAL BY THE ARCHITECT, ENGINEER, AND ALL AUTHORITIES HAVING JURISDICTION.

II. PRODUCTS

A. CONDUIT

- 1. CONDUIT SHALL BE HEAVY WALL RIGID GALVANIZED STEEL WHERE EXPOSED AND SUBJECT TO DAMAGE.
2. INTERIOR OUTLET BOXES SHALL BE STANDARD GALVANIZED SHEET STEEL TYPE, NOT LESS THAN 14 GAUGE IN THICKNESS.
3. OUTLET BOXES SHALL BE CAST ALUMINUM TYPE WITH DEVICE COVERS TO SUIT.

B. CONDUIT FITTINGS AND BOXES

- 1. INTERIOR OUTLET BOXES SHALL BE STANDARD GALVANIZED SHEET STEEL TYPE, NOT LESS THAN 14 GAUGE IN THICKNESS.
2. OUTLET BOXES SHALL BE CAST ALUMINUM TYPE WITH DEVICE COVERS TO SUIT.

C. WIRE AND CABLE

- 1. CONDUCTORS FOR POWER AND LIGHTING SHALL BE NEW 600-VOLT, 90°C, TYPE NMW, THHN, OR THHN INSULATION, MINIMUM SIZE #12-AWG, EXCEPT FOR CONTROL WIRING WHICH MAY BE #14-AWG.
2. BRANCH CIRCUIT RUNS EXCEEDING 100 FEET IN TOTAL LENGTH FROM THE PANELBOARD TO THE LAST DEVICE, SHALL BE #10-AWG CONDUCTORS UNLESS OTHERWISE NOTED.

D. WIRING DEVICES

- 1. DUPLEX RECEPTACLES SHALL BE GROUNDING TYPE, NEMA 5-20R, RATED FOR 20 AMPS, 125 VOLTS, WITH PROVISIONS FOR BACK AND SIDE WIRING.
2. CIRCUIT BREAKERS SHALL BE BOLT ON TYPE; WITH MOLDED PLASTIC CASE; 1, 2, OR 3 POLE AS INDICATED;
3. ALL BREAKERS FEEDING HVAC EQUIPMENT SHALL BE HACR RATED, UNLESS OTHERWISE NOTED.

E. LIGHTING AND RECEPTACLE PANELBOARDS

- 1. BRANCH CIRCUIT PANELBOARDS SHALL BE DEAD FRONT TYPE, WITH MAIN LUGS OR MAIN OVERCURRENT DEVICE AS INDICATED, BRANCH OVERCURRENT DEVICES AS NOTED AND AN EQUIPMENT GROUND BAR, ALL IN A SURFACE OR FLUSH MOUNTED SHEET STEEL ENCLOSURE.
2. CIRCUIT BREAKERS SHALL BE BOLT ON TYPE; WITH MOLDED PLASTIC CASE; 1, 2, OR 3 POLE AS INDICATED;
3. ALL BREAKERS FEEDING HVAC EQUIPMENT SHALL BE HACR RATED, UNLESS OTHERWISE NOTED.

F. DISTRIBUTION TRANSFORMERS

- 1. TRANSFORMERS SHALL BE ENERGY SAVING TYPE, DRY TYPE, 115 DEGREE RISE WITH 2 TAPS ABOVE AND 4 TAPS BELOW NORMAL VOLTAGE.

G. SAFETY SWITCHES AND MOTOR STARTERS

- 1. SAFETY SWITCHES SHALL BE FUSIBLE OR NON-FUSIBLE AS INDICATED ON THE DRAWINGS.
2. MAGNETIC MOTOR STARTERS SHALL BE COMBINATION TYPE WITH THERMAL OVERLOAD, INTEGRAL FUSED SAFETY SWITCH, H-D-A SELECTOR SWITCH, CONTROL TRANSFORMER, RUNNING PILOT LIGHT, NEMA TYPE 1 ENCLOSURE, AND (2) NORMALLY OPEN AND (2) NORMALLY CLOSED AUXILIARY CONTACTS.

H. LUMINAIRES AND LAMPS

- 1. ALL LUMINAIRES SHALL BE SPECIFIED ON THE LUMINAIRE SCHEDULE.
2. BALLASTS SHALL BE INSTANT START, ELECTRONIC TYPE, CLASS P, 'A' SOUND RATING AND MAXIMUM HARMONIC CONTENT OF 10%.
4. FLUORESCENT LAMPS SHALL BE 3000 K, INCANDESCENT LAMPS SHALL BE 130 VOLT, HIGH INTENSITY DISCHARGE LAMPS SHALL BE COATED.

I. FIRE ALARM SYSTEM

- 1. A COMPLETE EXTENSION OF THE LANDLORD'S FIRE ALARM SYSTEM SHALL BE PROVIDED AS DESCRIBED ON THE DRAWINGS.
2. THE ELECTRICAL CONTRACTOR SHALL FURNISH SHOP DRAWINGS, COMPLETE WITH EQUIPMENT CUTS AND FLOOR PLANS (WITH WIRING INDICATED), AS WELL AS BATTERY CALCULATIONS, AND VOLTAGE DROP CALCULATIONS FOR REVIEW AND APPROVAL BY THE ARCHITECT, ENGINEER, AND ALL AUTHORITIES HAVING JURISDICTION.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH FIRE ALARM DRAWINGS, CALCULATIONS, AND EQUIPMENT INFORMATION FOR ALL REQUIRED LOCAL MUNICIPALITY, OR STATE PERMITS.
4. ALL HVAC UNITS OR GROUP OF HVAC UNITS WITH A COMMON PLENUM AND A DESIGN CAPACITY GREATER THAN 2000 CFM SHALL AUTOMATICALLY SHUT DOWN ASSOCIATED HVAC UNIT OR UNITS.

III. EXECUTION

A. GENERAL MISCELLANEOUS

- 1. ALL CONDUIT RUN IN FINISHED AREAS SHALL BE CONCEALED.
2. RACKWAYS EXPOSED TO DIFFERENT TEMPERATURES SHALL BE FILLED WITH AN APPROVED MATERIAL IN ACCORDANCE WITH ARTICLE 300.7 OF THE NATIONAL ELECTRICAL CODE.
3. HANGERS, SUPPORTS, OR FASTENINGS SHALL BE PROVIDED AT EACH ELBOW, AT THE ENDS OF STRAIGHT RUNS TERMINATING AT BOXES OR CABINETS, AND AT INTERMEDIATE POINTS AS REQUIRED BY CODE.
4. FIXTURE SUPPORTS SHALL BE IN ACCORDANCE WITH ARTICLE 410-30 OF THE NATIONAL ELECTRICAL CODE, OR ANY LOCAL CODES WHICH MAY APPLY.

B. GROUNDING

- 1. GROUND ALL CONDUITS, CABINETS, MOTORS, PANELS, AND OTHER EXPOSED NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NEC ARTICLE 250.
2. BOND METAL WATER PIPING AND OTHER METAL PIPING (INCLUDING GAS PIPING) AND EXPOSED STRUCTURAL METAL IN ACCORDANCE WITH NEC ARTICLE 250.
3. GROUNDING OF THE ELECTRICAL SYSTEM SHALL BE BY MEANS OF AN INSULATED GROUNDING CONDUCTOR INSTALLED WITH ALL FEEDERS AND BRANCH CIRCUIT CONDUCTORS IN ALL CONDUITS.

LUMINAIRE SCHEDULE table with columns: TYPE, WATTAGE, LAMP TYPE, LAMP SPEC, DESCRIPTION, FIXTURE MANUFACTURER/MODEL #, VOLTAGE. Includes rows for recessed delux, low voltage recess, LED downlight, etc.

LIGHTING FIXTURE NOTES:

- A. ALL LIGHT FIXTURES AND EXIT SIGNS SUPPLIED BY FOREVER 21 AND INSTALLED BY GC.
B. COORDINATE EXACT FIXTURE LOCATIONS WITH ARCHITECTURAL CEILING PLAN.
C. AFTER MERCHANDISE FIXTURES ARE IN PLACE, CLEAN AND AIM ALL LIGHT FIXTURES AS DIRECTED BY TENANT.
D. COORDINATE PROPER DELIVERY OF ALL TENANT SUPPLIED LIGHTING ITEMS.
E. TRACK LIGHT FIXTURES WILL BE FURNISHED WITH 2-FOOT, 4-FOOT, 6-FOOT, AND/OR 8-FOOT LENGTHS, OUTLET BOX FEEDS, 'L'/STRAIGHT FEED CONNECTORS, AND FLEXIBLE FEED CONNECTORS.
F. ALL LIGHT FIXTURES TO BE UL AND NEC APPROVED.
G. CURRENT LIMITING PANELS (WHEN REQUIRED) SHALL BE PROVIDED BY THE LIGHTING SUPPLIER, PER F21 CONSTRUCTION DEPARTMENT REQUEST.
H. ALL EMERGENCY BALLASTS FOR TYPE AOE FIXTURES ARE TO PROVIDE A MINIMUM 900 LUMEN OUTPUT.
SUPPLIER: REGENCY LIGHTING - CONTACTS: FANCHETTE LOPEZ (800-284-2024 x3375) AND HAVLEY BELOZ (800-284-2024 x3351).

FOREVER 21, INC.

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NOTES: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHICS AND MODELS THEREOF, ARE PROPRIETARY AND CANNOT BE COPIED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, WITHOUT EXPRESS WRITTEN PERMISSION OF THE FOREVER 21. THESE ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS, CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS AND OTHER PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

START DATE: DECEMBER, 2014
F21 JOB NO: 3K-083
STORE NO: 0618
DRAWN: SJD

CHECKED: MAR

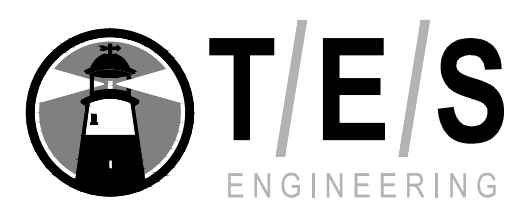


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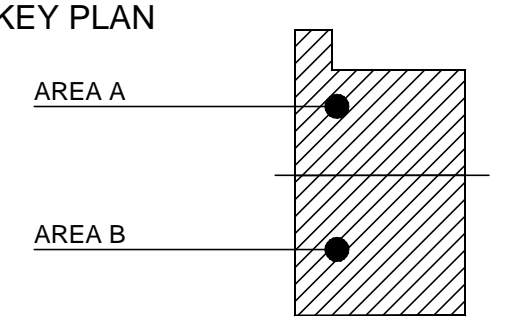
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SUBMITTALS:
01.20.2015
LANDLORD PRELIM SUBMITTAL
03.05.2015
BID SET

REVISIONS

Table with columns: NO, DATE, DESCRIPTION. Contains one entry for revision 1.



SHEET NAME
ELECTRICAL
SPECIFICATIONS
& LUMINAIRE
SCHEDULE

SHEET NUMBER
E9.0.0

SCALE: NONE