ELECTRICAL SHEET INDEX

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	DATE	MAR.2013

ISSUE LOG KEY:
'✓' ISSUED AS PART OF A SET
' ' NOT PART OF SET
'*' ISSUED FOR INFORMATION ONLY

GENERAL NOTES:

1. THESE DRAWINGS ACCOMPANY THE PUBLISHED CONSTRUCTION DOCUMENT SPECIFICATION BOOK (PROJECT MANUAL).
2. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
3. VISIT SITE PRIOR TO BID AND VERIFY THAT CONDITIONS ARE AS INDICATED. CONTRACTOR SHALL INCLUDE IN HIS BID COSTS REQUIRED TO MAKE HIS WORK MEET EXISTING CONDITIONS.
4. SYSTEM OUTAGES SHALL BE PERMITTED ONLY AT TIMES APPROVED BY OWNER - IN WRITING. WORK WHICH COULD RESULT IN AN ACCIDENTAL OUTAGE (BEYOND BRANCH CIRCUITS) SHALL BE PERFORMED WITH THE OWNER'S MAINTENANCE PERSONNEL ADVISED OF SUCH WORK.
5. REVIEW ARCHITECTURAL, MECHANICAL, STRUCTRAL, AND OTHER DRAWINGS PRIOR TO BID.
6. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT.
7. WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE OF COLORADO, NATIONAL CODES AND ORDINANCES, AND POUDRE SCHOOL DISTRICT TECHNICAL STANDARDS.
8. PROVIDE PERMITS AND INSPECTIONS REQUIRED.
9. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
10. FIELD VERIFY EXISTING EQUIPMENT OR CIRCUITS THAT ARE REMAINING TO BE RECONNECTED TO NEW OR EXISTING SWITCHBOARDS/PANELBOARDS. PROVIDE SWITCHES, RECEPTACLES, CONDUIT, WIRE, ETC. AS REQUIRED TO RESTORE CONTINUITY OF CIRCUIT(S).
11. EXISTING SYSTEMS AND CONDITIONS SHOWN ON DRAWINGS FOR EXISTING BUILDINGS ARE TO BE NOTED "FOR GUIDANCE ONLY". THE ELECTRICAL CONTRACTOR TO FIELD CHECK ALL EXISTING CONDITIONS PRIOR TO BIDDING AND TO INCLUDE IN HIS BID AN ALLOWANCE FOR REMOVAL AND/OR RELOCATION OF EXISTING CONDUITS, WIRES, DEVICES, FIXTURES, OR OTHER EQUIPMENT AS INDICATED ON THE PLANS OR AS REQUIRED TO COORDINATE AND ADAPT NEW AND EXISTING ELECTRICAL SYSTEM TO ALL OTHER WORK AS REQUIRED.
12. PROVIDE ELECTRICAL DEMOLITION REQUIRED. REFER TO ARCHITECTURAL AND ELECTRICAL DEMOLITION DRAWINGS FOR LOCATION AND EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK INVOLVED. PROVIDE LABOR AND MATERIALS REQUIRED TO MAINTAIN AND/OR RESTORE CONTINUITY OF SERVICE TO EXISTING CIRCUITS.
13. PROVIDE ALL NECESSARY DEMOLITION TO REMOVE EXISTING UNUSED CONDUIT, WIRE, CABLE, J-BOXES, RECEPTACLES, SWITCHES, LIGHTS, FIRE ALARMS DEVICES, ETC. COMPLETE WITH ASSOCIATED CIRCUITING TO SOURCE. WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE, OUTLET SHALL BE ABANDONED, WIRE REMOVED, BLANK COVER PLATES PROVIDED,AND COMPONENTS IDENTIFIED PER SPECIFICATIONS.
14. ALL (E) EQUIPMENT, LAMPS, BALLASTS, ETC. BEING REMOVED SHALL BE DISCARDED IN ACCORDANCE WITH APPLICABLE EPA REQUIREMENTS.
15. EXISTING ELECTRICAL EQUIPMENT BEING REMOVED SHALL BE RETURNED TO THE OWNER, EXCEPT FOR THOSE ITEMS BEING RELOCATED.
16. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
17. IN PUBLIC AREAS WHERE NEW CONDUIT CANNOT BE CONCEALED WITHIN WALLS OR ABOVE CEILINGS, WIREMOLD SURFACE RACEWAYS SHALL BE USED. REFER TO SPECIFICATION FOR MORE INFORMATION.
18. REVIEW ARCHITECTURAL AND MECHANICAL DRAWINGS AND PROVIDE LIGHTS, SWITCHES, RECEPTACLES, TELECOMM OUTLETS, EQUIPMENT CONNECTIONS, ETC. AND ASSOCIATED CIRCUITING IN NEW AND REMODELED AREAS AS REQUIRED.
19. INSTALL ALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION PRIOR TO INSTALLATION.
20. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
22. WHERE THE RE-USE OF EXISTING CONDUITS, WIRES, DEVICES, ETC, IS PERMISSIBLE, MAKE CERTAIN THAT THE WIRING FOR SAME IS CONTINUOUS FROM OUTLET TO OUTLET AND THAT SUCH CIRCUIT OR SYSTEMS SHALL PASS THROUGH NO OUTLET OR JUNCTION BOXES WHICH MAY BE RENDERED INACCESSIBLE BY THE STRUCTURAL CHANGES TO BE MADE TO THE BUILDING.
23. ALL ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY U.L. OR OTHER RECOGNIZED TESTING FACILITY.
24. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
25. SYSTEMS SHALL BE COMPLETE, OPERABLE, AND READY FOR CONTINUOUS OPERATION. LIGHTS, SWITCHES, RECEPTACLES, MOTORS, ETC. SHALL BE CONNECTED AND OPERABLE.
26. MAINTAIN A CURRENT SET OF AS-BUILT RECORD DRAWINGS WHICH SHALL BE AVAILABLE FOR REVIEW DURING ENGINEER'S SITE OBSERVATIONS. UPON COMPLETION, PROVIDE RECORD DRAWINGS TO ARCHITECT. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS, REROUTINGS, ETC.
27. FIRE ALARM SYSTEM IS A DESIGN BUILD SYSTEM THAT SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. SHOP DRAWINGS SHALL BE PREPARED AND STAMPED BY PERSONS WITH THE FOLLOWING QUALIFICATIONS: 1) FIRE PROTECTION P.E. OR 2) FIRE ALARM CERTIFIED BY NICET MINIMUM LEVEL III.
28. RETURN ALL REMOVED NOVAR CONTROL DEVICES, CONTROL PANELS AND BOARDS TO OWNER.
29. EXISTING DUCTWORK AND AIR HANDLING EQUIPMENT INTENDED TO REMAIN SHALL BE THOROUGHLY CLEANED. REFER TO SPECIFICATIONS SECTION 230120 HVAC AIR-DISTRIBUTION CLEANING.
34. EXISTING CONDITIONS
    A. EXISTING SYSTEMS AND CONDITIONS SHOWN ON DRAWINGS FOR EXISTING BUILDINGS ARE TO BE NOTED "FOR GUIDANCE ONLY". THE CONTRACTOR SHALL FIELD CHECK ALL EXISTING CONDITIONS PRIOR TO BIDDING AND IS TO INCLUDE IN HIS BID AN ALLOWANCE FOR REMOVAL AND/OR RELOCATION OF EXISTING DUCTWORK, PIPING, FIXTURES, OR OTHER EQUIPMENT AND ADAPT NEW AND EXISTING MECHANICAL SYSTEM TO ALL OTHER WORK AS REQUIRED.
    B. EXISTING DUCTWORK, EQUIPMENT, PIPING, ETC. WHICH ARE NOT INDICATED FOR REUSE BECOME THE PROPERTY OF THE CONTRACTOR. HOWEVER, FIXTURES, PUMPS, FANS, NOVAR CONTROL COMPONENTS, ETC. SHALL BECOME THE PROPERTY OF THE OWNER UNLESS NOTED OTHERWISE.
    C. SYSTEM OUTAGES SHALL BE PERMITTED ONLY AT TIMES APPROVED BY OWNER-IN WRITING. WORK WHICH COULD RESULT IN AN ACCIDENTAL OUTAGE SHALL BE PERFORMED WITH THE OWNER'S MAINTENANCE PERSONNEL ADVISED OF SUCH WORK.
    D. SERVICE SHALL BE MAINTAINED TO EXISTING AREAS DURING CONSTRUCTION.

ELECTRICAL LEGEND

NOTE: ALL SYMBOLS SHOWN ON LEGEND ARE NOT NECESSARILY USED.

POWER SYMBOLS

- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE MOUNTED ABOVE CONTER
- DOUBLE DUPLEX RECEPTACLE
- GFCI DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE; HALF SWITCHED
- ISOLATED GROUND DUPLEX RECEPTACLE
- MULTI-OUTLET PLUG STRIP
- FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
- FLUSH FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE
- FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE; HALF SWITCHED
- FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE AND TELECOM
- WALL MOUNTED SPECIAL OUTLET AS NOTED
- SPECIAL OUTLET AS NOTED
- J — JUNCTION BOX
- J — WALL MOUNTED JUNCTION BOX
- J — FLOOR MOUNTED JUCTION BOX
- DIVISION 15 EQUIPMENT POWER CONNECTION
- TS — TIMER SWITCH
- FUSED DISCONNECT
- N — NON FUSED DISCONNECT
- MOTOR STARTER
- CB — ENCLOSED CIRCUIT BREAKER
- PB — PULL BOX
- PUSH BOTTON
- TC — TIME CLOCK
- PC — PHOTO-CELL
- T — TRANSFORMER
- PANELBOARD OR LOADCENTER
- C — CONTACTOR
- ELECTRIC MOTOR
- METER
- T — THERMOSTAT
- ATS — AUTOMATIC TRANSFER SWITCH
- CIRCUIT HOMERUN
- CONDUIT RUN
- CONDUIT RUN BELOW GRADE
- CONDUIT UP
- CONDUIT DOWN
- S — SWITCH
- S^3 — THREE-WAY SWITCH
- S^4 — FOUR-WAY SWITCH
- S^J — DOOR JAMB SWITCH
- S^K — KEY SWITCH
- S^V — VARIABLE SPEED SWITCH
- S^T — THERMAL OVERLOAD SWITCH
- D — DIMMER
- D^3 — THREE-WAY DIMMER
- LV — LOW VOLTAGE SWITCH
- S^O — WALL OCCUPANCY SENSOR/SWITCH
- OC — SMALL ROOM OCCUPANCY SENSOR
- OC — LARGE ROOM OCCUPANCY SENSOR
- OC — CORRIDOR OCCUPANCY SENSOR
- DL — DAYLIGHT PHOTO SENSOR

ABBREVIATIONS

- AVC - ABOVE FINISHED CEILING
- AFF - ABOVE FINISHED FLOOR
- AFG - ABOVE FINISHED GRADE
- AL - ALUMINUM
- BFG - BELOW FINISH GRADE
- C - CONDUIT
- CKT - CIRCUIT
- CT - CURRENT TRANSFORMER
- DISP - GARBAGE DISPOSAL
- DW - DISHWASHER
- EM - EMERGENCY
- EWC - ELECTRIC WATER COOLER
- (E) - EXISTING
- FBO - FURNISHED BY OWNER
- GRD - GROUND
- GFI - GROUND FAULT CIRCUIT INTERRUPTER
- IAW - IN ACCORDANCE WITH
- IG - ISOLATED GROUND
- NIC - NOT IN CONTRACT
- NL - NIGHT LIGHT
- NTS - NOT TO SCALE
- REF - REFRIGERATOR
- TVSS - TRANSIENT VOLTAGE SURGE SUPPRESSOR
- UG - UNDERGROUND
- UNO - UNLESS NOTED OTHERWISE
- WP - WEATHER PROOF
- XP - EXPLOSION PROOF
- +18" - MOUNTING HEIGHT TO CENTERLINE OF DEVICE ABOVE FINISH FLOOR

ONE-LINE DIAGRAM SYMBOLS

- DISCONNECT SWITCH
- FUSE
- CIRCUIT BREAKER
- CURRENT TRANSFORMER
- POTENTIAL TRANSFORMER
- M — METER
- V — VOLT-METER
- A — AMP-METER
- SS — SURGE SUPPRESSION DEVICE
- SELECTOR SWITCH
- GF — GROUND FAULT PROTECTION
- ST — SHUNT TRIP
- NORMALLY OPEN CONTACT
- NORMALLY CLOSED CONTACT
- GROUND
- COLD WATER GROUND CONNECTION
- BUILDING STEEL GROUND CONNECTION

LIGHTING SYMBOLS

- RECESSED LIGHTING FIXTURE
- DIRECTIONAL/ADJUSTABLE RECESSED LIGHTING FIXTURE
- SURFACE MOUNTED LIGHT
- PENDANT MOUNTED LIGHT
- WALL MOUNTED LIGHT
- WALL MOUNTED UP-LIGHT
- MONO-POINT LIGHTING FIXTURE
- RECESSED STEP LIGHT
- FLUORESCENT STRIP LIGHT
- WALL MOUNTED LINEAR FLUORESCENT LIGHT
- RECESSED OR SURFACE MOUNTED FLUORESCENT TROFFER
- FIXTURE WITH EMERGENCY BACKUP OR ON EM CIRCUIT
- CEILING MOUNTED EXIT SIGN W/ FACES & ARROWS AS SHOWN
- WALL MOUNTED EXIT SIGN W/ FACES & ARROWS AS SHOWN
- EMERGENCY LIGHTS

FIRE ALARM SYMBOLS

- FACP — FIRE ALARM CONTROL PANEL
- ANN — REMOTE ANNUNCIATOR PANEL
- SD — SMOKE DETECTOR
- HD — HEAT DETECTOR
- SH — COMBO SMOKE/HEAT DETECTOR
- DD — DUCT SMOKE DETECTOR
- F — FIRE ALARM PULL STATION
- H — FIRE ALARM HORN
- FIRE ALARM STROBE
- H — FIRE ALARM COMBO HORN/STROBE
- F — FIRE ALARM SPEAKER
- F — FIRE ALARM COMBO SPEAKER/STROBE
- F — FIREMAN'S PHONE JACK
- FF — SPRINKLER SYSTEM FLOW SWITCH
- FT — SPRINKLER SYSTEM TAMPER SWITCH
- FSD — FIRE/SMOKE DAMPER

TELECOMMUNICATION SYMBOLS

- PHONE OUTLET
- PHONE FLOOR OUTLET
- DATA OUTLET
- DATA FLOOR OUTLET
- COMBO PHONE/DATA OUTLET
- COMBO PHONE/DATA FLOOR OUTLET
- TV — WALL MOUNTED TELEVISION OUTLET
- TV — FLOOR MOUNTED TELEVISION OUTLET
- C — CLOCK OUTLET
- S — CEILING MOUNTED SPEAKER
- S — WALL MOUNTED SPEAKER
- V — VOLUME CONTROL
- M — FLOOR MOUNTED MICROPHONE OUTLET
- M — WALL MOUNTED MICROPHONE OUTLET
- IC — INTERCOM STATION
- CH — CHIME

NOTE: LIGHT LINEWEIGHT INDICATES EXISTING. ////// INDICATES DEMOLITION.

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SHEET CONTENTS
ELECTRICAL COVER SHEET

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