

| REVISIONS | BY |
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**DESIGN FOR HEALTH**  
 250 Dufour Street, Santa Cruz, CA 95060  
 831.425.1869 Ph. • 831.425.3905 Fax • DesignForHealth.com

**STEVE LIM, DMD, FACCP**  
 A PROSTHODONTIC DENTAL OFFICE FOR  
 105 N. BASCOM AVE SUITE 200  
 SAN JOSE, CA 95128

DATE: 14 MAY, 13  
 SCALE: AS NOTED  
 DRAWN: MRE  
 PROJECT: 20515  
 SHEET: E1

DRAWING PRODUCED USING BRUNNEN 12 BY BRUNNEN

# ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

| ELECTRICAL LEGEND |   |
|-------------------|---|
| CP                | REMOTE CONTROL PANEL - PROVIDE 1 SET 16/3 LOW VOLTAGE WIRE EACH TO COMPRESSOR, WATER MANIFOLD, AND 2 SETS 16/3 TO THE DOUBLE CENTRAL VACUUM UNIT LOCATED IN THE MECH. RM. RECESSED PANEL TO BE SUPPLIED BY DENTAL CO.   |
| COMP              | AIR COMPRESSOR - RUN SEPARATE CIRCUIT 208-230V/16A (30A BREAKER) PROVIDE 30" FLEX CONDUIT AT 24" A.F.F. PROVIDE SERVICE DISCONNECT. (SEE MFR'S SPECIFICATIONS)  |
| CV                | CENTRAL VACUUM UNITS (STACKED) - RUN 2 SEPARATE CIRCUITS 208-240V/16A (20A BREAKER) PROVIDE SERVICE DISCONNECTS. SEE MFR'S SPECIFICATIONS.  |
| WM                | WATER MANIFOLD - WIRE SOLENOID TO REMOTE CONTROL PANEL WITH 3#18 WIRES. SEE MFR'S SPECIFICATIONS. (SUPPLIED BY DENTAL CO.). PROVIDE DUPLICATE RECEPTACLE ADJACENT TO UNIT.  |
| HW                | HOT WATER HEATER - PROVIDE 240V SEPARATE CIRCUIT WITH 30A BREAKER. (VERIFY HEIGHT) PROVIDE A SEPARATE SWITCH AT THE CONTROL PANEL TO OPERATE THE WATER HEATER.  |
| PAN               | 3-D PANORAMIC X-RAY UNIT - RUN SEPARATE CIRCUIT 120V/20A. PROVIDE 3-WIRE GROUNDED RECEPTACLE. (SEE 1-CAT MFR'S SPECIFICATIONS)  |
| XR                | X-RAY UNIT - RUN SEPARATE CIRCUIT 120V/20A. INSTALL 2x4 J-BOX AS DIRECTED BY EQUIPMENT SUPPLIER. PROVIDE 24" SLACK. (SEE MFR'S SPECS - EQUIPMENT SUPPLIED BY OTHERS)  |
| RB                | X-RAY REMOTE BUTTON - PROVIDE CONDUIT FOR CABLES (CABLES BY EQUIP. SUPPLIER) BUTTON BY EQUIP. SUPPLIER. (SEE MFR'S SPECIFICATIONS)  |
| DB-1              | DENTAL JUNCTION BOX-1 (SURFACE MOUNT ON FLOOR) - PROVIDE 120V/5A SERVICE TO D.B. WIRE TO 4-PLEX RECEPTACLE (BY EQUIPMENT SUPPLIER) IN BASE OF CABINET PROVIDED BY DENTAL EQUIPMENT SUPPLIER. TO BE LOCATED IN FIELD BY DENTAL EQUIPMENT SUPPLIER. (NOTE THAT COMPUTER 'QUICK-PORT' OUTLET IS ALSO TO BE INCLUDED) |
| DB-2              | DENTAL JUNCTION BOX-2 (IN BASE OF CABINET) - PROVIDE 120V/5A SERVICE TO D.B. WIRE TO 4-PLEX RECEPTACLE (BY EQUIPMENT SUPPLIER) IN BASE OF CABINET BEING PROVIDED BY EQUIPMENT SUPPLIER. SEE EQUIPMENT CUT-SHEETS FOR EXACT LOCATION.  |
|                   | ELECTRICAL SUB-PANEL - EXPAND CAPACITY OF EXISTING SUB-PANEL AS NECESSARY. PANEL TO REMAIN IN EXISTING LOCATION.  |
| MCS               | MASTER CONTROL SWITCH - PROVIDE SWITCH SO THAT CLIENT CAN TURN OFF ALL LIGHTING CIRCUITS FROM ONE LOCATION. REFER ALSO TO LIGHTING PLAN ON SHEET E2.  |
|                   | DUPLICATE RECEPTACLE - INSTALL AT 18" A.F.F. TO CENTER OF J-BOX UNLESS OTHERWISE NOTED ON PLAN.   |
|                   | FOUR-PLEX RECEPTACLE - INSTALL AT 18" A.F.F. TO CENTER OF J-BOX UNLESS OTHERWISE NOTED ON PLAN.   |
|                   | RECESSED FLOOR RECEPTACLE - LOCATE BRASS SINGLE RECEPTACLE AS NOTED ON PLAN.  |
|                   | COMPUTER OUTLET - (SYSTEM NIC) PROVIDE 2"x4" J-BOX WITH 1-HOLE COVER PLATE. PROVIDE 3/4" CONDUIT FROM J-BOX TO FLOOR OR CEILING PLENUM OR THRU CABINET TO J4 (SEE BELOW)  |
|                   | 'QUICK-PORT' OUTLET - (SYSTEM NIC) PROVIDE 2"x4" J-BOX WITH 6-HOLE COVER PLATE. PROVIDE 1" CONDUIT FROM J-BOX TO FLOOR OR CEILING PLENUM OR THRU CABINET TO J3 (SEE BELOW) COMPUTER, PHONE, TELEVISION, ETC. CABLES (BY OTHERS) TO BE RUN TO THESE MULTI-FUNCTION BOXES.  |
|                   | TELEPHONE JACK/DESK MOUNTED PHONE - COORDINATE SYSTEM (NIC) AS SHOWN ON PLAN WITH TELEPHONE CO. INSTALL CONDUIT FROM JACK LOCATION TO FLOOR OR CEILING PLENUM OR THRU CABINET TO J2 (SEE BELOW)   |
|                   | TELEPHONE JACK/WALL MOUNTED PHONE - COORDINATE SYSTEM (NIC) AS SHOWN ON PLAN WITH TELEPHONE CO. INSTALL CONDUIT FROM JACK LOCATION TO FLOOR OR CEILING PLENUM.  |
|                   | WALL SWITCH - ROCKER SWITCH AS SPECIFIED IN GENERAL NOTES, THIS SHEET.  |
|                   | ELECTRICAL JUNCTION BOX-1 - PROVIDE FLEXIBLE CONDUIT FROM J-BOX TO BE RUN THRU CABINET CHASE AND CONNECTED TO RECEPTABLES OR J-BOXES AS SHOWN ON PLAN.  |
|                   | TELEPHONE JUNCTION BOX-2 - PROVIDE TELEPHONE SYSTEM (NIC) JUNCTION BOX AT WALL FOR CONNECTION FROM PHONE JACKS IN CABINET UNITS. SEE NOTES AT ▼ ABOVE. INSTALL CONDUIT FROM J-BOX TO FLOOR OR CEILING PLENUM.   |
|                   | 'QUICK-PORT' JUNCTION BOX-3 - PROVIDE 'QUICK-PORT' SYSTEM (NIC) JUNCTION BOX AT WALL FOR CONNECTION FROM 'QUICK-PORT' OUTLETS IN CABINET UNITS. SEE NOTES AT ▼ ABOVE. INSTALL 1" CONDUIT FROM J-BOX TO FLOOR OR CEILING PLENUM.   |
| FM                | FM TAPE PLAYER/RECEIVER - WIRE (BY OTHERS) TO CEILING SPEAKERS AS SHOWN ON PLAN. EQUIPMENT AND CABLE SUPPLIED BY OTHERS.  |
| DVD               | DVD PLAYER - WIRE (BY OTHERS) TO TV MONITORS THROUGHOUT THE SUITE. (VERIFY LOCATIONS) EQUIPMENT AND CABLE SUPPLIED BY OTHERS.   |
| S                 | CEILING MOUNTED SPEAKERS - WIRE AND SPEAKERS (AND INSTALLATION) BY OTHERS. SEE SHEET A2 FOR EXACT LOCATION IN CEILING.  |
| V                 | VOLUME CONTROL (WALL MTD.) - CONNECTION TO FM UNIT AND SPEAKERS BY OTHERS. MOUNT CONTROL (N.I.C.) AT 48" A.F.F. WHERE INDICATED - COORDINATE HEIGHT w/ ADJACENT LIGHT SWITCHES.   |
|                   | CEILING EXHAUST FAN - PROVIDE POWER ONLY. SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR. SEE SHEET A2 FOR EXACT LOCATION.   |
| TV                | TV OUTLET - PROVIDE 2"x4" J-BOX WITH 1-HOLE COVER PLATE. PROVIDE CONDUIT FROM J-BOX TO FLOOR OR CEILING PLENUM. VERIFY HEIGHT OF J-BOX.   |
|                   | POST DENTAL LIGHT - PROVIDE POWER ONLY. SEE ALSO SHEETS A2 & E2. FIXTURE IS PROVIDED BY OTHERS.   |
| CH                | CEILING CHIME - PROVIDE CHIME (ABOVE CEILING) TO BE ACTIVATED BY MAIN ENTRY DOOR. PROVIDE POWER AS NECESSARY AT DOOR, AS WELL AS WIRING TO CHIMES.  |
| W/D               | WASHER/DRYER (STACKING COMBO) - PROVIDE 230V/30A SERVICE (VERIFY ELECTRICAL SPECIFICATIONS FOR UNIT BEING PROVIDED BY DR. LIM)  |

## GENERAL NOTES

- CONTRACTOR TO APPLY FOR AND OBTAIN ELECTRICAL BUILDING PERMIT. PERMIT FEES ARE NOT TO BE INCLUDED IN CONTRACT PRICE BUT REIMBURSED DIRECTLY BY THE CLIENT. NOTE THAT ANY ADDITIONAL DRAWINGS, DIAGRAMS OR OTHER INFORMATION REQUIRED FOR A PERMIT SHALL BE PROVIDED BY THE ELECTRICAL SUBCONTRACTOR AND INCLUDED IN THE BID PRICE. IF THE BUILDING DEPARTMENT REQUIRES PROFESSIONALLY ENGINEERED DRAWINGS, THE COST FOR THESE SHALL BE PAID DIRECTLY BY THE CLIENT.
- ALL WORK PER IAW, NEC, AND ALL OTHER APPLICABLE RULES, REGULATIONS AND ORDINANCES.
- USE FLEX CONDUIT AS CALLED OUT UNDER COUNTERTOPS.
- ALL CONDUIT RUNS TO BE PARALLEL TO BUILDING LINES AND AS HIGH AS POSSIBLE.
- CONCEAL ALL WORK IN WALLS, EXCEPT IN MECHANICAL ROOM.
- HEIGHTS ON PLAN ARE TO CENTER OF J-BOXES. COORDINATE LOCATION AND HEIGHT OF ALL DEVICES WITH APPROVED CABINETRY DRAWINGS PRIOR TO ROUGH-IN.
- EXACT LOCATION OF ALL DENTAL EQUIPMENT TO BE DETERMINED BY DESIGN FOR HEALTH OR EQUIPMENT REPRESENTATIVE AT THE JOB SITE.
- SEE LIGHTING PLAN, SHEET E2, FOR LIGHTING AND ADDITIONAL DETAILS/INFORMATION.
- ALL WIRE TO BE Cu, #12 MIN. (EXCEPT L.V.)
- SWITCH DEVICES & RECEPTABLES TO BE 'DECORA' TYPE AS MANUFACTURED BY LEVITON (OR APPROVED EQUAL).
- ALL DEVICE PLATES SHALL BE 'SMOOTH LINE' PLASTIC (LEVITON OR APPROVED EQUAL). GANGED PLATES SHALL BE USED AT ALL MULTIPLE DEVICE LOCATIONS. DEVICES SHALL BE 'WHITE'. COVER PLATES SHALL BE 'BRUSHED STAINLESS'.
- INSTALLATION OF TELEPHONE SYSTEM N.I.C. COORDINATE WITH PHONE COMPANY.
- CABINETMAKER WILL PROVIDE CUTOUPS (AS DIRECTED) IN ALL CASEWORK FOR NECESSARY ELECTRICAL BOXES, COMPUTER & PHONE CONNECTIONS, ETC. COORDINATE WITH CABINETMAKER REGARDING BEST METHODS AND ROUTING OF ALL CABLES.
- ELECTRICAL CONTRACTOR TO RECEIVE A SET OF CABINET DRAWINGS FROM THE GENERAL CONTRACTOR. THESE SHALL BE USED TO ACCURATELY LOCATE ELECTRICAL OUTLETS IN THE WALLS & CABINETS. A LIGHT DOTTED LINE (---) ON THIS DRAWING (E1) INDICATES THE EDGE OF A CABINET AND IS INTENDED TO BRING AN AREA OF POTENTIAL CONFLICT TO THE CONTRACTORS' ATTENTION.
- WHEN RECEPTABLES OR SWITCHES ARE INDICATED AS BEING WITHIN THE CABINETS (SEE CABINET DRAWINGS), JUNCTION BOXES ARE TO BE INSTALLED BEYOND THE FACE OF THE FINISHED WALL, SUCH THAT COVER PLATES CAN BE INSTALLED ON FACE OF THE CABINET WALLS. CONSULT w/ CABINET MAKER TO DETERMINE HOW FAR BOXES MUST EXTEND BEYOND FACE OF FINISHED WALL.
- SEE NOTE ON THE TITLE SHEET (TS) RE: PENETRATIONS & FIRE RESISTIVE 'HOODS' AT LIGHT FIXTURES.
- PROVIDE MASTER CONTROL SWITCH SO THAT CLIENT CAN TURN OFF ALL LIGHTING CIRCUITS FROM ONE LOCATION. REFER ALSO TO LIGHTING PLAN ON SHEET E2.

