



KEVIN KAMENETZ
County Executive

EDWARD C. ADAMS, JR., *Director*
Department of Public Works

July 30, 2015

RE: Contract #15025 PO0
(Silver) Leeds Certified Green Building – Eastern Family Resource Center
9150 Franklin Square Drive, Baltimore, Maryland 21237
Rosedale – District 14 c 6
Job Order No. 249-218-0100-0614

ADDENDUM NO. 3

To All Bidders

This addendum is hereby made a part of the Proposal and the Special Provisions, and is hereby incorporated into the Contract. Should this addendum conflict with any portion of the Special Provisions, the Proposal, or any prior addenda, this addendum shall supersede and control.

Please note the attached changes, corrections, and/or information in connection with the contract and submit bids and be otherwise governed accordingly.

for Karen M. Carmick

Vincent G. Kicas, Chief
Division of Construction Contracts Administration

VGK:KM:AEC:bjw

Attachments - 28

Please acknowledge this Emailed Addendum by signing below and faxing back to Tony Crews at 410-887-4505. "Failure by a Bidder to acknowledge receipt of this Addendum to the County may result in the Bidder's bid being considered non-responsive and rejected."

RECEIVED BY: _____ DATE: _____

NAME ABOVE PRINTED: _____

COMPANY NAME PRINTED: _____

ADDENDUM 03

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to acknowledge addendum may disqualify Bidder.

CHANGES TO SPECIFICATIONS

ADD: New specifications, dated 07.24.2015

Section No.	Title
08 91 19	FIXED LOUVERS

CHANGES TO SPECIFICATIONS

ADD: Change or clarification below to existing specification section:

<u>Section-Page#</u>	<u>Article / Paragraph</u>	<u>Change or Clarification</u>
04 20 00 – 6	2.5 - C - 7	Delete "2-1/4 inches high by 7-5/8 inches long"
		Add "3-5/8 inches high by 11-5/8 inches long"
11 31 00 – 3	2.5 - C	Delete "CLS-01" from project.

CHANGES TO THE DRAWINGS

ADD: New drawings, which are issued entirely, dated 07.24.2015.

Drawing No.

E5.04	LEVEL 3 DENTAL AREA PART PLAN – ELECTRICAL – POWER
Q0.1	DENTAL EQUIPMENT COVER SHEET
Q1.2	DENTAL DETAILS – OPTION "A"
Q1.3	DENTAL DETAILS – OPTION "A"
Q2.1	DENTAL PLANS, LEGENDS & NOTES – OPTION "B"
Q2.2	DENTAL DETAILS – OPTION "B"
Q2.3	DENTAL DETAILS – OPTION "B"
Q3.1	DENTAL PLANS, LEGENDS & NOTES – OPTION "C"
Q3.2	DENTAL DETAILS – OPTION "C"
Q3.3	DENTAL DETAILS – OPTION "C"

CHANGES TO DRAWINGS

DELETE: Existing Drawings with the respective numbers listed below.
ADD: New Drawings, which are reissued entirely, with revisions dated 07.24.2015.

Drawing No.

M1.03A	PART LEVEL 3 FLOOR PLAN 'A' – DUCTWORK
M1.03B	PART LEVEL 3 FLOOR PLAN 'B' – DUCTWORK
M5.05	MECHANICAL AIRFLOW DIAGRAM
M7.01	MECHANICAL SCHEDULES
M7.04	MECHANICAL SCHEDULES
P1.02B	PART LEVEL 2 FLOOR PLAN 'B' – PLUMBING
P1.03B	PART LEVEL 3 FLOOR PLAN 'B' – PLUMBING
E1.03B	PART LEVEL 3 FLOOR PLAN 'B' – POWER
E8.07	ELECTRICAL PANEL SCHEDULES
Q1.1	DENTAL PLANS, LEGENDS & NOTES – OPTION "A"

CHANGES TO DRAWINGS

ADD: Change or clarification below to existing drawing:

Drawing No.

Change or Clarification

A4.01	In "Building Elevation Legend," Key Value EL.1, change "MODULAR" to "UTILITY."
A4.01	In "Building Elevation Legend," Key Value EL.2, change "MODULAR" to "UTILITY."
A0.3	For wall type 0B6B, delete references to glazed block.
A5.25	In Recessed Walkoff Mat Detail, change "STAINLESS STEEL" TO "BLACK ANODIZED ALUMINUM."

Answers to Bidder Questions:

- Q1 Can you please clarify if doors E101, and E102 are thermal or non thermal doors? The specifications call for 2 1/4" thick doors (thermal) whereas the door schedule calls out 1 3/4" thick (non thermal).
- A1 **E101 and E102 are thermal doors. Refer to specification for required thickness.**
- Q2 Div. 12 entrance mat specs calls for a 3/4" roll up mat by Reese (basis of design) with black anodized rails & frame. The detail drawing states a Stainless Steel frame is desired. Please qualify.
- A2 **The entrance mat frame shall be black anodized aluminum.**

- Q3 Spec Section 113100- pg. 3, 2.5.C – Stacking Clothes Washer/ Dryer CLS-01. This item is not listed on the Equipment Schedule and is not shown on the floor plans. Is this item required for this project? If yes, please provide the location(s).
- A3 **Stacking clothes washer/dryer CLS-01 is not required for this project.**
- Q4 Spec Section 113100- pg. 4, 2.7.D – Exam Table EC-02. This item is not listed on the Equipment Schedule and is not shown on the floor plans. Is this item required for this project? If yes, please provide the location(s).
- A4 **EC-02 is listed on the equipment schedule for rooms 303, 306, 307, 310, 312, 326, 332, 335, and 337. Refer to A6.35 and A6.36 for additional information.**
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- A6 **Refer to specifications for required warranties, including extended warranties.**
- Q7 Spec Section 105500- pg. 2. USPS-STD-4C Front Loading Mail Receptacle. This is shown on Floor Plan A6.11, but there are no other details that show what size it is. On their website, there are many different sizes for this model. Please provide the size of the Mail Receptacle and please provide more drawing details.
- A7 **Refer to the specifications for mail receptacle compartment numbers and sizes.**
- Q8 Drawings A6.11 & A6.14 (Floor Plans) – Bed Bug Saunas are shown in Rooms 116 & 155. There is a square shown inside the rooms, but it is not marked or says what it is. What is this square supposed to be? If it is something that is contractor furnished, please provide a spec.
- A8 **This is a dry sauna heater. Refer to the mechanical drawings and specifications for requirements.**
- Q9 On Sheet 08 51 13-3 of the Spec request that we use EFCO Company, Kawneer, or YKK AP America Inc. We would like to know if we can use another manufacturer, like Peerless, US Alum., Wasa and ETC.
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END OF ADDENDUM 03

SECTION 08 91 19

FIXED LOUVERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes fixed, extruded-aluminum louvers.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. For louvers specified to bear AMCA seal, include printed catalog pages showing specified models with appropriate AMCA Certified Ratings Seals.
- B. Shop Drawings: For louvers and accessories. Include plans, elevations, sections, details, and attachments to other work. Show frame profiles and blade profiles, angles, and spacing.
 - 1. Show weep paths, gaskets, flashing, sealant, and other means of preventing water intrusion.
 - 2. Show mullion profiles and locations.
- C. Samples: For each type of metal finish required.
- D. Delegated-Design Submittal: For louvers indicated to comply with structural performance requirements, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 FIELD CONDITIONS

- A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain louvers from single source from a single manufacturer where indicated to be of same type, design, or factory-applied color finish.

2.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design louvers, including comprehensive engineering analysis by a qualified professional engineer, using structural performance requirements and design criteria indicated.
- B. Structural Performance: Louvers shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated without permanent deformation of louver components, noise or metal fatigue caused by louver-blade rattle or flutter, or permanent damage to fasteners and anchors. Wind pressures shall be considered to act normal to the face of the building.
 - 1. Wind Loads: Determine loads based on pressures as indicated on Drawings.
- C. Louver Performance Ratings: Provide louvers complying with requirements specified, as demonstrated by testing manufacturer's stock units identical to those provided, except for length and width according to AMCA 500-L.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.
- E. SMACNA Standard: Comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" for fabrication, construction details, and installation procedures.

2.3 FIXED, EXTRUDED-ALUMINUM LOUVERS

- A. Horizontal, Drainable-Blade Louver:
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Airlite Company, LLC (The); K638HP Drainable Louver or comparable product by one of the following:
 - a. All-Lite Architectural Products.
 - b. Construction Specialties, Inc.
 - c. Reliable Products, Inc.
 - d. Ruskin Company.
 - 2. Louver Depth: 4 inches.
 - 3. Frame and Blade Nominal Thickness: Not less than 0.080 inch.
 - 4. Mullion Type: Exposed.
 - 5. Louver Performance Ratings:
 - a. Free Area: Not less than 8.0 sq. ft. for 48-inch- wide by 48-inch- high louver.
 - b. Point of Beginning Water Penetration: Not less than 850 fpm.
 - c. Air Performance: Not more than 0.15-inch wg static pressure drop at 850 fpm free-area velocity.

2.4 LOUVER SCREENS

- A. General: Provide screen at each exterior louver.

1. Screen Location for Fixed Louvers: Interior face.
 2. Screening Type: Bird screening.
- B. Louver Screen Frames: Same type and form of metal as indicated for louver to which screens are attached.
- C. Louver Screening for Aluminum Louvers:
1. Bird Screening: Aluminum, 1/2-inch- square mesh, 0.063-inch wire.
 - a. Locations: Provide behind louver areas for mechanical intake or exhaust of air.
 2. Insect Screening: Aluminum, 18-by-16 mesh, 0.012-inch wire.
 - a. Locations: Provide behind other louver areas or vents not requiring bird screens.

2.5 BLANK-OFF PANELS

- A. Insulated, Blank-Off Panels: Laminated panels consisting of an insulating core surfaced on back and front with metal sheets and attached to back of louver.
1. Thickness: 1 inch.
 2. Metal Facing Sheets: Aluminum sheet, not less than 0.032-inch nominal thickness.
 3. Insulating Core: Rigid, glass-fiber-board insulation or extruded-polystyrene foam.
 4. Edge Treatment: Trim perimeter edges of blank-off panels with louver manufacturer's standard extruded-aluminum-channel frames, not less than 0.080-inch nominal thickness, with corners mitered and with same finish as panels.
 5. Seal perimeter joints between panel faces and louver frames with gaskets or sealant.
 6. Panel Finish: Same finish applied to louvers.
 7. Attach blank-off panels with clips.

2.6 MATERIALS

- A. Aluminum Extrusions: ASTM B 221, Alloy 6063-T5, T-52, or T6.
- B. Aluminum Sheet: ASTM B 209, Alloy 3003 or 5005 with temper as required for forming, or as otherwise recommended by metal producer for required finish.
- C. Fasteners: Use types and sizes to suit unit installation conditions.
1. Use Phillips flat-head screws for exposed fasteners unless otherwise indicated.
 2. For fastening aluminum, use aluminum or 300 series stainless-steel fasteners.
 3. For color-finished louvers, use fasteners with heads that match color of louvers.
- D. Postinstalled Fasteners for Concrete and Masonry: Torque-controlled expansion anchors, made from stainless-steel components, with capability to sustain, without failure, a load equal to 4 times the loads imposed, for concrete, or 6 times the load imposed for masonry, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.
- E. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

2.7 FABRICATION

- A. Factory assemble louvers to minimize field splicing and assembly. Disassemble units as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
- B. Vertical Assemblies: Where height of louver units exceeds fabrication and handling limitations, fabricate units to permit field-bolted assembly with close-fitting joints in jambs and mullions, reinforced with splice plates.
 - 1. Continuous Vertical Assemblies: Fabricate units without interrupting blade-spacing pattern unless horizontal mullions are indicated.
 - 2. Horizontal Mullions: Provide horizontal mullions at joints unless continuous vertical assemblies are indicated.
- C. Maintain equal louver blade spacing, including separation between blades and frames at head and sill, to produce uniform appearance.
- D. Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances, adjoining material tolerances, and perimeter sealant joints.
 - 1. Frame Type: Channel unless otherwise indicated.
- E. Include supports, anchorages, and accessories required for complete assembly.
- F. Provide vertical mullions of type and at spacings indicated, but not more than is recommended by manufacturer, or 72 inches o.c., whichever is less.
 - 1. Exposed Mullions: Where indicated, provide units with exposed mullions of same width and depth as louver frame. Where length of louver exceeds fabrication and handling limitations, provide interlocking split mullions designed to permit expansion and contraction.
- G. Join frame members to each other and to fixed louver blades with fillet welds, threaded fasteners, or both, as standard with louver manufacturer unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary.

2.8 ALUMINUM FINISHES

- A. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2605 and containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 1. Color and Gloss: As selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and openings, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to Project site.

3.3 INSTALLATION

- A. Locate and place louvers level, plumb, and at indicated alignment with adjacent work.
- B. Use concealed anchorages where possible. Provide brass or lead washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.
- C. Form closely fitted joints with exposed connections accurately located and secured.
- D. Provide perimeter reveals and openings of uniform width for sealants and joint fillers, as indicated.
- E. Protect unpainted galvanized and nonferrous-metal surfaces that are in contact with concrete, masonry, or dissimilar metals from corrosion and galvanic action by applying a heavy coating of bituminous paint or by separating surfaces with waterproof gaskets or nonmetallic flashing.
- F. Install concealed gaskets, flashings, joint fillers, and insulation as louver installation progresses, where weathertight louver joints are required. Comply with Section 07 92 00 "Joint Sealants" for sealants applied during louver installation.

3.4 ADJUSTING AND CLEANING

- A. Clean exposed louver surfaces that are not protected by temporary covering, to remove fingerprints and soil during construction period. Do not let soil accumulate during construction period.
- B. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Thoroughly rinse surfaces and dry.
- C. Restore louvers damaged during installation and construction so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by Architect, remove damaged units and replace with new units.
 - 1. Touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.

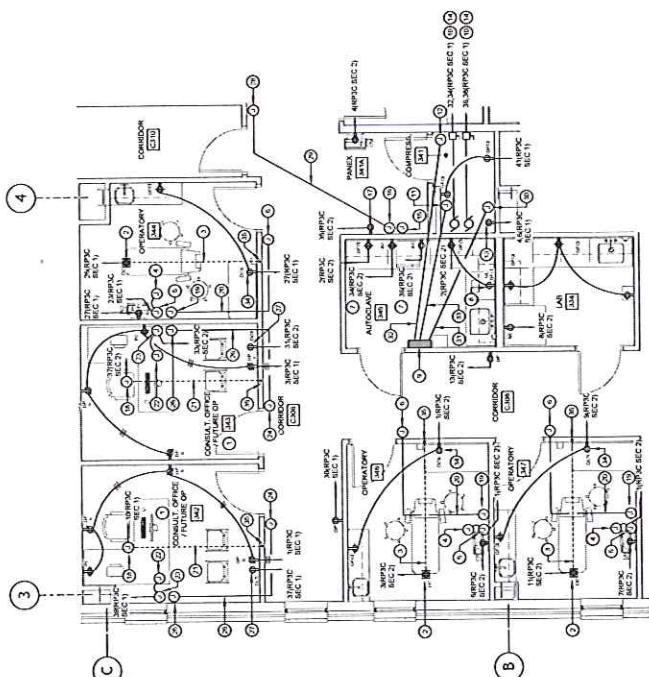
END OF SECTION 08 91 19

2. REFER TO C0.01 FOR ELECTRICAL LEGEND ABBREVIATIONS AND GENERAL NOTES.

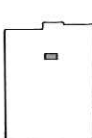
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION REQUIRED TO CONNECT INTERFACE MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS TO THE UTILITY CENTERS, AIR COMPRESSION, VACUUM PUMP, ETC., TO GET FINAL WORK DRAWINGS SUBMITTED FOR ALL DENTAL EQUIPMENT (I.E. DENTAL CHAIR, XRAY EQUIPMENT, FINAL CONNECTIONS TO DENTAL EQUIPMENT SHALL BE OF THE CONTRACTOR IN COOPERATION WITH DENTAL EQUIPMENT CONTRACTOR (DEC). PRIOR TO INSTALLING FINAL EQUIPMENT, THE CONTRACTOR SHALL CONSULT WITH THE DEC TO OBTAIN ANY NECESSARY PERMITS. THE CONTRACTOR SHALL PROVIDE ALL CONTRACT DOCUMENTS AND THE ACTUAL DENTAL EQUIPMENT CONTRACTS, WITH THE DENTAL EQUIPMENT CONTRACTOR, THROUGHOUT THE PROJECT FOR ADDITIONAL INFORMATION.

60% OF INMATE OCCUPANCIES SHALL BE AUTOMATICALLY (ON/OFF) CONTROLLED VIA THE LIGHTING CONTROL SYSTEM. PROVIDE UNMOUNTED HOT CONDUCTOR TO UNMOUNTED

- [illegible]



1 LEVEL 3 DENTAL AREA PART PLAN - ELECTRICAL - POWER
SCALE: 1/4" = 1'-0"



KEY PLAN



STATE IDENTIFICATION		STATION OFFICE NO.
E.O. 12958		1200-25940
		BOOK IDENTIFY NO.
		%AD=010=0100=0014
		SHEET OF
		(DRAWING NO)
		2015-1098
		FILE NO.

EASTERN 2 CENTRAL AREA PART PLAN - CIRCULAR - POWER
 EASTERN Family Resource Center
 BALTIMORE FOR NEW OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT

9150 Franklin Square Drive, MD 21237

SELECT DISTRICT NO 1406

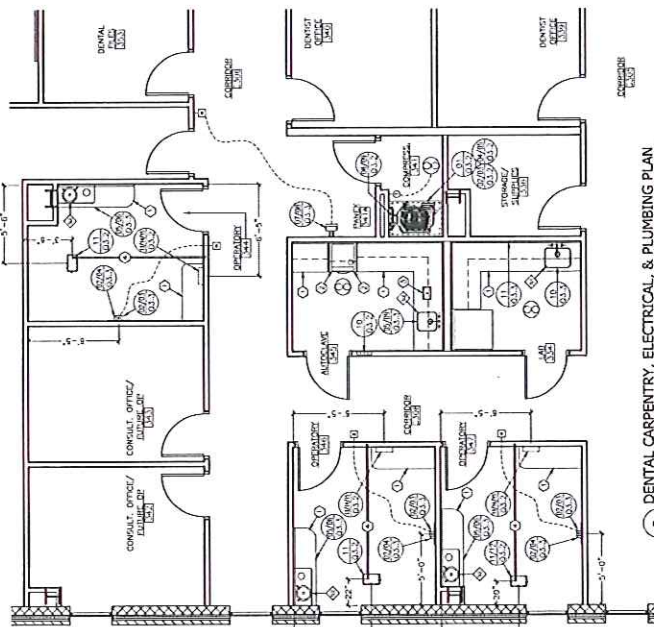
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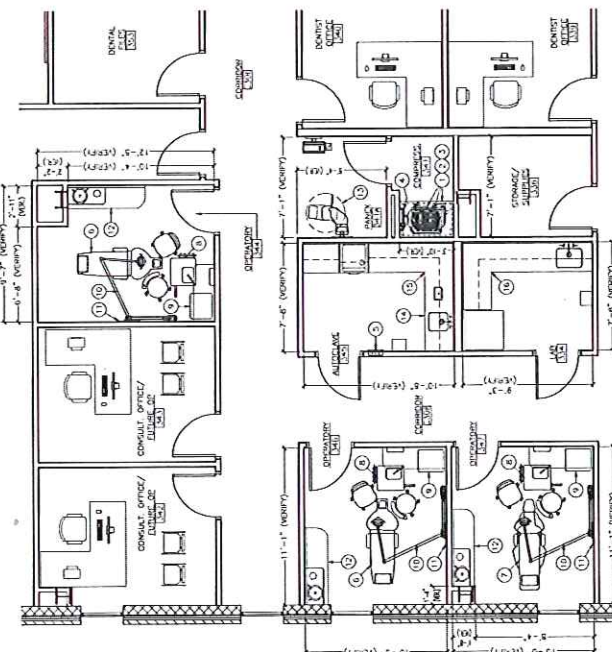
ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	EXPOSURE BUTTON
	THERMOSTATIC ON/OFF SWITCH
	WIRING, CONCEALED IN WALL OR CEILING
	CONDUIT, CONCEALED IN FLOOR
	EXHAUST FAN MOUNTED IN CEILING

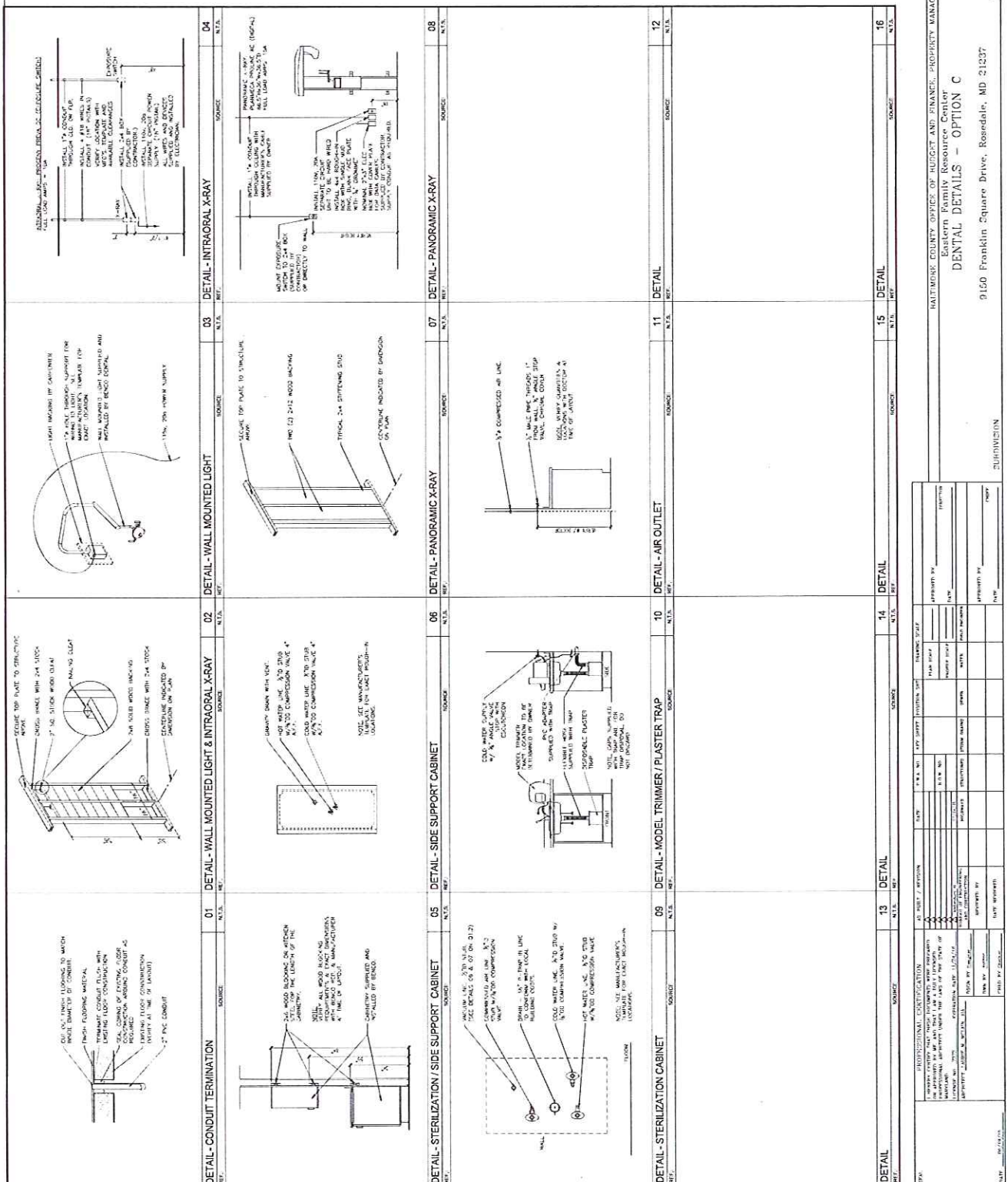
- ELECTRICAL NOTING**
1. ALL EQUIPMENT WILL BE SINGLE PHASE UNLESS OTHERWISE NOTED.
2. ALL WIRING WILL BE CONCEALED WITHIN THE WALLS AND/OR FLOOR UNLESS OTHERWISE NOTED.
3. THE ELECTRICAL WILL TIE ALL WIRTS AT TERMINATION POINTS.
4. THE FOLLOWING INITIAL EQUIPMENT SUPPLIED BY OTHERS (DOCTOR OR HINGO DENTAL EQUIPMENT) SUPPLIED BY OTHERS (DOCTOR OR HINGO DENTAL EQUIPMENT, BUT NOT LIMITED TO:
5. ALL COMPRESSION PUMPS - GARDON PUMP
6. THE ELECTRICAL WILL BE BASED ON THE DATA OF INSTALLATION TO WORK WITH THE EXISTING HYDRO-PNEUMATIC OF A 100-POUND-PSI WATER SUPPLY.
7. THE ELECTRICAL WILL COVER ALL PNEUMATICS, THROUGH THE FLOOR WITH THE EXISTING PNEUMATIC.
8. ALL 120 VOLT, 20 AMP OUTLETS INSTALLED WITHIN 6 FEET OF A SINK AND
9. ALL 120 VOLT, 20 AMP DENTAL EQUIPMENT OUTLETS INSTALLED WITHIN 6 FEET
- ELECTRICAL NOTING/END**
1. GENERAL DENTAL LOCATIONS INDICATED ABOVE 4" BELOW COUNTERTOP
2. EVERY QUANTITY & DENTAL LOCATIONS WITH DIMEN AT TIME OF LAUNCH
3. DUALY RECEPTS FOR AEROSOL (MOUNTED AT 4" AFF) - 110V, DC
4. EVERY DENTAL LOCATION WITH AEROSOL (MOUNTED AT 4" AFF) - 110V, DC
5. EVERY DENTAL LOCATION WITH AEROSOL (MOUNTED AT 4" AFF) - 110V, DC
6. EVERY DENTAL LOCATION WITH AEROSOL (MOUNTED AT 4" AFF) - 110V, DC
7. 2 COUNT REEL DENTAL 15' ON COUNT 0.12 & DENTAL 01' ON COUNT 0.12



1. THE PLUMBER WILL SUPPLY AND INSTALL A WATER DISCHARGE REGULATOR ON WORKING WATER SUPPLY LINE TO PREVENT THE REGULATOR NOT TO EXCEED 5 PSI.
2. THE PLUMBER WILL INSTALL THE WATER PIPED (AND THE WATER SOUTER) AS ENTERING THE DENTAL SUITE. THE WATER DOWN TO THE DOCTOR'S OFFICE.
3. THE PLUMBER WILL SUPPLY AND INSTALL CERAMIC MANUAL MULTI-PORT VALVE ON WORKING WATER AND/OR AIR.
4. ALL SINKS AND FAUCETS WILL BE CONNECTED TO THE PLUMBER.
5. ALL PIPES WILL BE CONCEALED WITHIN THE WALLS AND/OR FLOOR. THE PLUMBER WILL OBTAIN THE CORRESPONDING NOTED ON THE RENDU DRAWING.
6. THE PLUMBER WILL SEAL ALL PENETRATIONS THROUGH THE FLOORING WITH A FLEXION OF COMPLIMENT WATERPROOFING.
7. ALL PIPES WILL BE ALIGNED CLEAR OF ALL OBSTACLES.
8. THE PLUMBER WILL BE SPECIFIC ON THE DATES OF INSTALLATION TO WORK WITH THE DENTIST'S SCHEDULE. THE PLUMBER WILL SUPPLY AND INSTALL ALL THE MATERIALS, MANUFACTURER'S INSTRUCTIONS, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SHEETS.
9. ALL WATER SAFETY DEVICES (E.G. CHECK VALVES, BACKFLOW PREVENTORS, ETC.) IN COMPLIMENT WITH THE LOCAL CODES.
10. THE PLUMBER WILL INSTALL COMPLETE AND MAKE FINAL WORK UP TO THE FLOORING, WALLS, AND CEILING. THE PLUMBER WILL DOCTOR AND/OR DENTAL INCLUDING.

- [illegible]

[illegible][illegible]



1. REFER TO C.O.1 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.

① PROVIDE SINGLE POLE OR MULTIPOLE 250 CIRCUIT BREAKERS AS REQUIRED DEPENDING ON HOW NEUTRALS ARE SHARED TO PRE-WIRED OFFICE FURNITURE. PROVIDE MULTIPOLAR CIRCUIT BREAKERS FOR CIRCUITS THAT SHARE A COMMON NEUTRAL. COORDINATE WITH FINAL CIRCUIT AND CONNECTIVITY REQUIREMENTS WITH OFFICE EQUIPMENT INSTALLATION.

NOTE: INCREASED FUEL FROM LUGS FOR PANELS WITH (N/C) IS

A: 0.00 kVA 0.0 A
 TOTAL CONNECTED LOAD (kVA)

CONNECTED LOAD (SEC 1 & SEC 2) TOTAL CONNECTED LOAD SEC 1 & SEC 2 (N/A)

CONNECTED LOAD:
A: 13.34 KVA = 111.2 A
TOTAL CONNECTED LOAD (KVA) 34.26

CONNECTED LOAD (SEC 1 & SEC 2)

CONNECTED LOAD		WU/10-10-24-8		9-1		9-2	
P, 30	P, 75	P, 90					

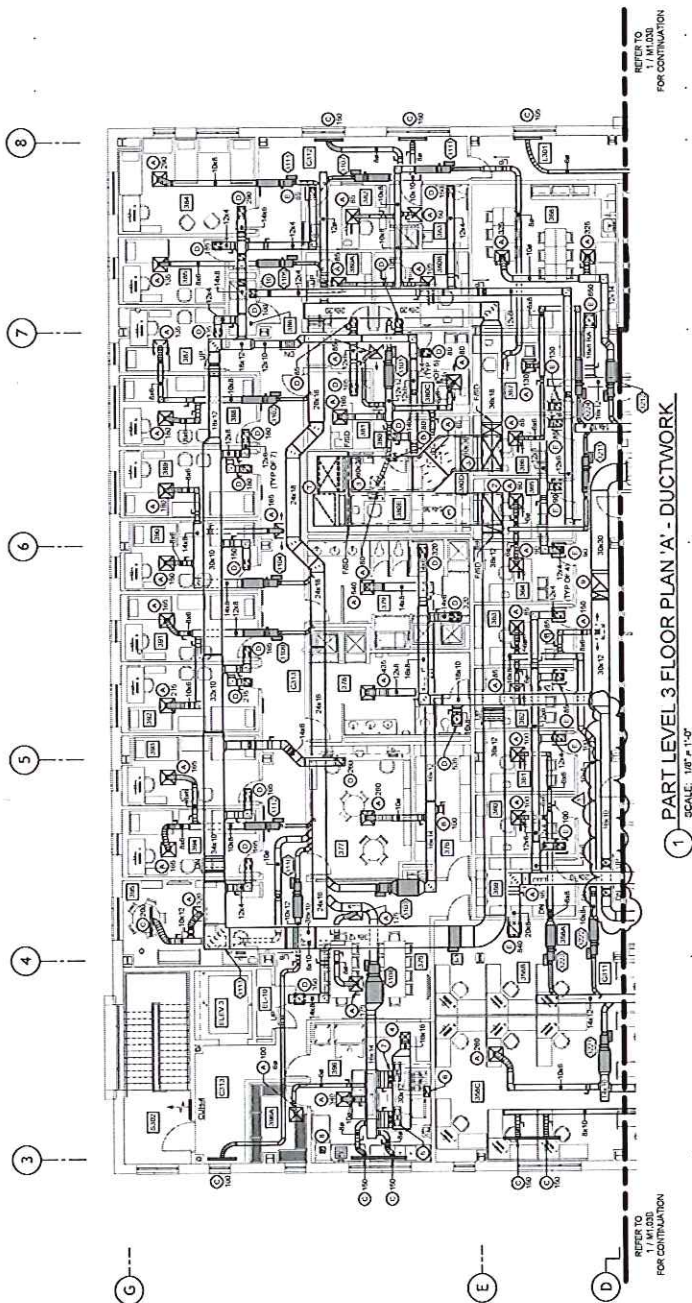
	UNIVERSITY OF TORONTO	UNIVERSITY OF TORONTO
	100 ST. GEORGE STREET	100 ST. GEORGE STREET
	TORONTO, ONTARIO M5S 1A5	TORONTO, ONTARIO M5S 1A5
	TEL: (416) 978-2000	TEL: (416) 978-2000
	FAX: (416) 978-2000	FAX: (416) 978-2000



9150 Franklin Square Drive, MD 21237
CLOUT DENTAL NO 1456

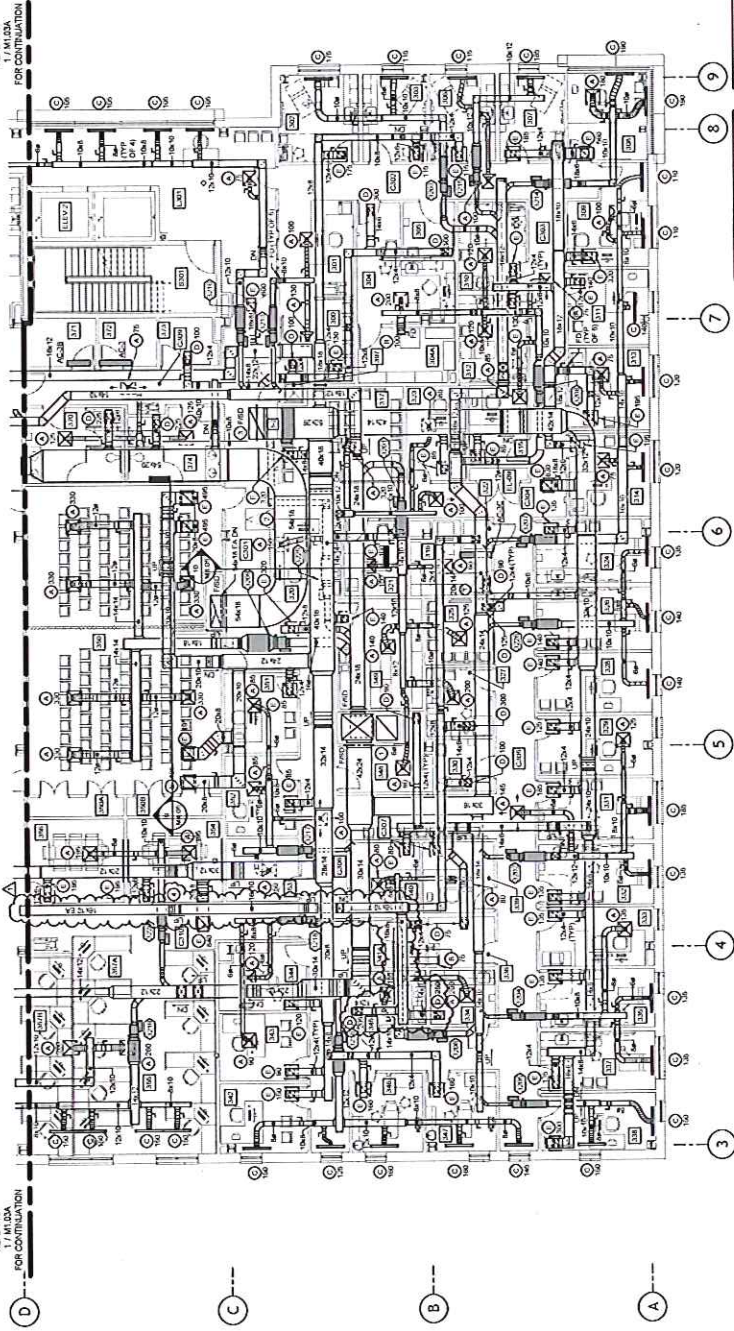
TACT DISTRICT NO. 1426

24 DIVISION

[illegible]

REFER TO
FLOOR PLAN
FOR CONTINUATION

REFER TO
FLOOR PLAN
FOR CONTINUATION



1 PART LEVEL 3 FLOOR PLAN 'B' - DUCTWORK
SCALE: 1/8" = 1'-0"

GENERAL NOTES:
1. REFER TO DRAWING MECHANICAL LEGEND
FOR ABBREVIATIONS AND GENERAL NOTES

DRAWING NOTES:
1. 4444 SUPPLY AIR UP, 3444 SUPPLY AIR DOWN AND 4242
RETURN AIR UP & DOWN (4442) IS SHOWN.
2. 4242 IS 2" OF 4" DUCTWORK IN MECHANICAL ROOM
3. 1324 RETURN AIR UP, 4442, 4242, 4242, 4242, 4242
PRESSURE DAMPER IN VERTICAL DUCTWORK AT FLOOR
4. OFFSET DUCTWORK TO AVOID STRUCTURAL ELEMENTS AND
HANGING COORDINATE WITH ALL OTHER TRADES BEFORE
INSTALLATION (TYPICAL)

LEVEL 3 'B' ROOM LIST	
100	COMBUSTIBLE STORAGE ROOM
101	MECHANICAL ROOM
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199	MECHANICAL ROOM
200	MECHANICAL ROOM



LEVEL 3 'B' ROOM LIST

LEVEL 3 'B' ROOM LIST

KEY PLAN

PROJECT NO. 15025 POO
ADDENDUM NO. 3
REVISED, JULY 30, 2015

PROJECT NO. 15025 POO
ADDENDUM NO. 3
REVISED, JULY 30, 2015

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REVISED, JULY 30, 2015

PROJECT NO. 15025 POO
ADDENDUM NO. 3
REVISED, JULY 30, 2015

AIR HANDLING UNIT SCHEDULE

[illegible]

NOTE: 1. SEE AIR SCHEDULE FOR ADDITIONAL REQUIREMENTS.
2. PROVIDE PROTECTIVE COVERING FOR THE PRESSURE DROP SCHEDULED AT DIRTY FILTER CONDITION AND MAXIMUM 600 FPM AIR VELOCITY.
3. PROVIDE PROTECTIVE COVERING FOR THE PRESSURE DROP SCHEDULED AT DIRTY FUL FILTRATION CONDITION AND MAXIMUM 400 FPM AIR VELOCITY.
4. COOLING COIL BANK CONSISTS OF TWO (2) COILS, 111" WIDE x 4" HIGH EACH.
5. PREHEAT COIL BANK CONSISTS OF THREE (3) COILS, 112" WIDE x 33" HIGH EACH.

FAN SCHEDULE

FAN NO	LOCATION	AREA/SERVE	AMP/ED/CM/PH MAX/1/2/3/4	HP	WPM	WOLTS	PHASE	WPM FAN FAN FAN	WHEEL	CLASS	DRIVE TYPE	MANUFACTURER MODEL	REMARKS	
BP-1	AREA-1	AREA 1 SUPPLY FAN	A1000	7.2	15	13.6	480	3	3297	W-23	DIRECT	DANF CENTRIFUGAL BSM1	NOTES 4 & 6	
SP-2	AREA-2	AREA 2 SUPPLY FAN	SR333	7.5	15	16.75	480	3	2947	W-23	DIRECT	DANF CENTRIFUGAL DMO1	NOTES 4 & 9	
OW-1	PENHOUSE	AREA 1 M/FAN	151000	6.5	15	11.25	460	3	2245	W-19	DIRECT	DANF CENTRIFUGAL DMO1	NOTES 5 & 6	
OW-1	PENHOUSE	AREA 1 M/FAN	181000	3.0	20	14.7	460	3	1810	32	DIRECT	TWIN CITY TOP-3088	NOTES 5 & 6, 8	
WP-2	PENHOUSE	AREA 2	31000	2.3	20	20.3	460	3	1613	42	DIRECT	TWIN CITY TOP-425A	NOTES 5 & 6, 8	
EP-1	PENHOUSE	CONCRETE EXHAUST	101005	2.8	20	13.6	460	3	2007	18	DIRECT	DANF CENTRIFUGAL DMO1	NOTES 5 & 6, 8	
EP-2	LEVEL 2 ROOF	3RD FLOOR EXHAUST	131160	1.75	2	1.08	208	3	1297	13	W-1	CAPITANCO UGHI 180	NOTE 2 & 10	
EP-3	LEVEL 1 ROOF	1ST FLOOR EXHAUST	4111	2.048	2	6	236	208	3	1903	24	W-1	CAPITANCO UGHI 240	NOTES 2, 7 & 10
EP-4	PENHOUSE	PENHOUSE	51001	0.25	1	0.87	480	3	4602	24	W-1	TWIN CITY TOP-240A	NOTES 3	
EP-5	LEVEL 1 ROOF	1ST FLOOR	900	1.8	102	6.4	102	1	1821	12	W-1	TWIN CITY KCHUR	NOTE 2	
EP-6	LEVEL 2 ROOF	2ND FLOOR EXHAUST	510	0.75	103	0.15	550	1	1944	11	W-1	CAPITANCO UGHI 1180	NOTE 3	
EP-7	LEVEL 1 ROOF	1ST FLOOR FRIED DRYERS	1700	0.68	102	0.30	140	1	1605	0	W-1	CAPITANCO UGHI 1180	NOTE 4	
EP-8	LEVEL 1 ROOF	1ST FLOOR	1700	0.32	1	0.75	150	1	1705	0	W-1	ENVIROTEC MEE3015	NOTE 6	

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GENERAL NOTES:

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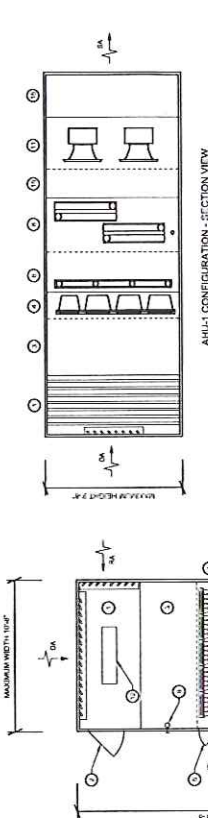
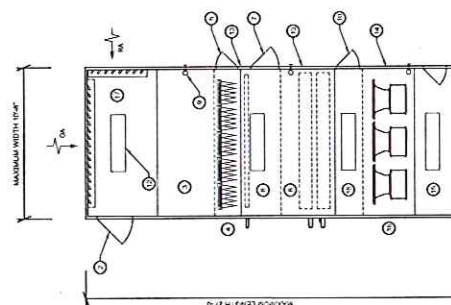
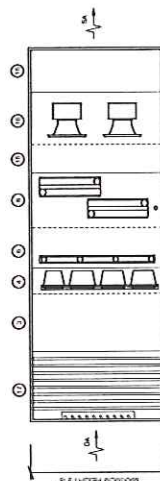


TABLE 1-1 CONFIGURATION - SECTION VIEW

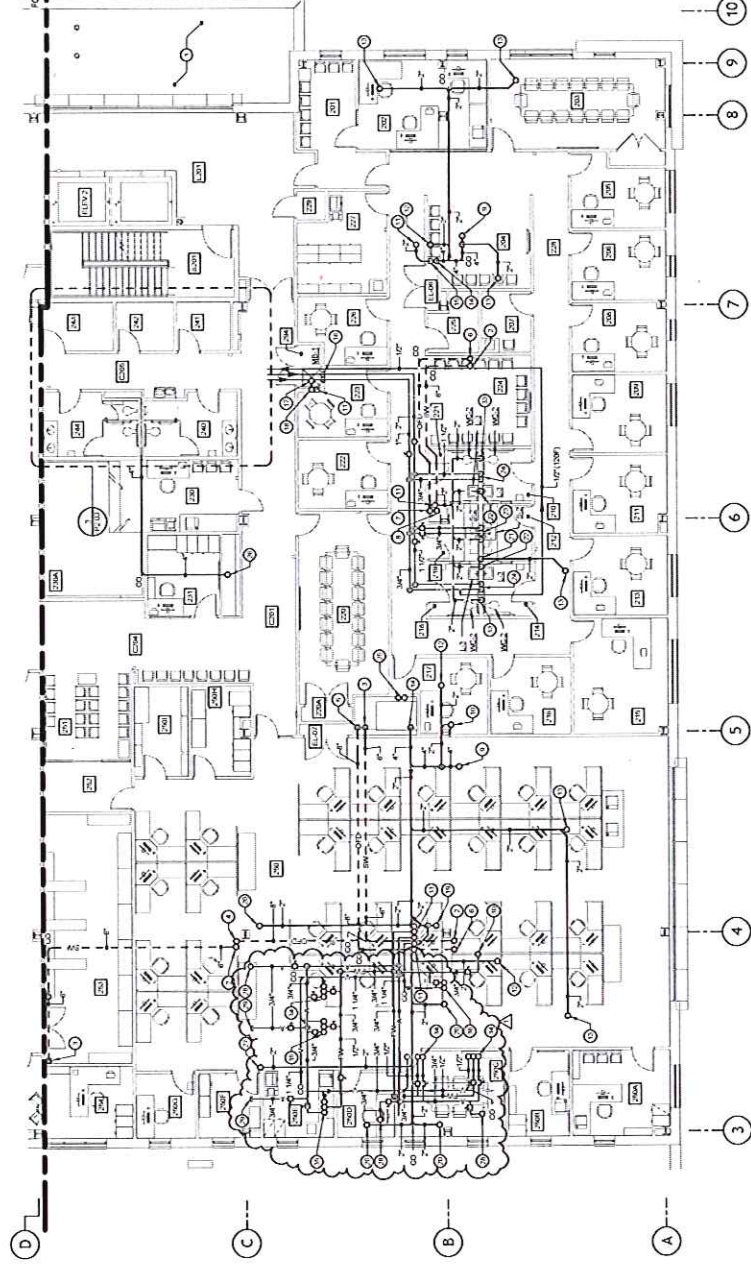


AHU-2 CONFIGURATION - PLAN VIEW



AHU-2 CONFIGURATION - SECTION VIEW

REFER TO
1. P. 2A
FOR CONTINUATION



1 PART LEVEL 2 FLOOR PLAN 'B' - PLUMBING
SCALE: 1/8" = 1'-0"

LEVEL 2 'B' ROOM LIST

LEVEL 2 'B' ROOM LIST

NO.	ROOM NAME	AREA (SQ. FT.)
101	RECEPTION	100
102	WAITING AREA	150
103	RECEPTION	100
104	WAITING AREA	150
105	RECEPTION	100
106	WAITING AREA	150
107	RECEPTION	100
108	WAITING AREA	150
109	RECEPTION	100
110	WAITING AREA	150
111	RECEPTION	100
112	WAITING AREA	150
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114	WAITING AREA	150
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116	WAITING AREA	150
117	RECEPTION	100
118	WAITING AREA	150
119	RECEPTION	100
120	WAITING AREA	150

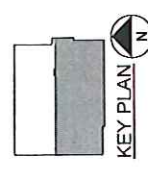
NO.	ROOM NAME	AREA (SQ. FT.)
201	RECEPTION	100
202	WAITING AREA	150
203	RECEPTION	100
204	WAITING AREA	150
205	RECEPTION	100
206	WAITING AREA	150
207	RECEPTION	100
208	WAITING AREA	150
209	RECEPTION	100
210	WAITING AREA	150
211	RECEPTION	100
212	WAITING AREA	150
213	RECEPTION	100
214	WAITING AREA	150
215	RECEPTION	100
216	WAITING AREA	150
217	RECEPTION	100
218	WAITING AREA	150
219	RECEPTION	100
220	WAITING AREA	150

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GENERAL NOTES:
1. REFER TO DRAWING SET FOR LEGEND, DIMENSIONS AND GENERAL NOTES

DRAWING NOTES:

1. LOWER ROOF FOR WORK IN THE AREA REFER TO ROOF PLAN
2. 1" STORM WATER DOWN
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PROJECT INFORMATION
PROJECT NO. 15025
SHEET NO. 20
DATE: 07/30/2015

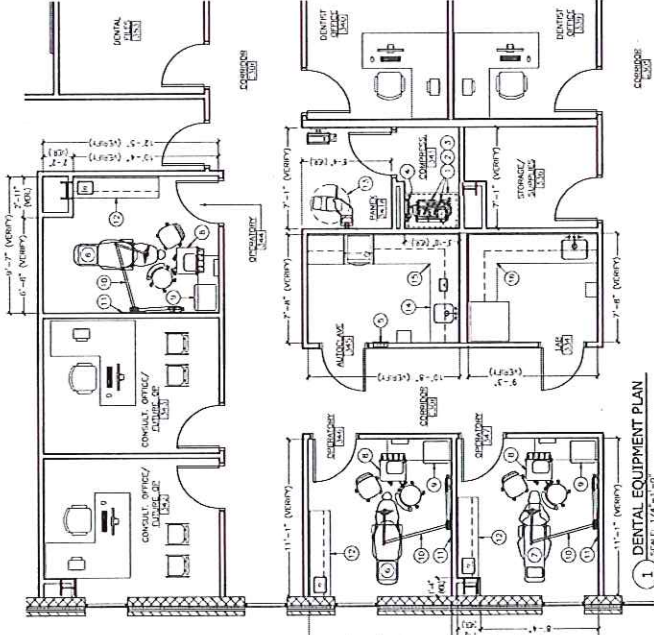
CLIENT INFORMATION
CLIENT NAME: EASTERN FAMILY RESOURCES CENTER
CLIENT ADDRESS: 9150 Franklin Square Drive, MD 21237

DESIGNER INFORMATION
DESIGNER NAME: [Blank]
DESIGNER ADDRESS: [Blank]

1. THE DENTAL EQUIPMENT PLAN IS NOT FOR CONSTRUCTION PURPOSES.
2. THIS GENERAL CONTRACTOR IS TO REFER TO FINAL STAMPED AND DRAWING SET FOR ALL CONSTRUCTION.
3. THE DENTAL EQUIPMENT PLAN IS DIMENSIONED FROM THE FACE OF A FINISH WALL TO THE FACE OF A FINISH WALL, UNLESS OTHERWISE NOTED.
4. THE ON SITE BENCHMARK IS TO VERIFY ALL OVERALL DIMENSIONS LISTED ON THE DENTAL EQUIPMENT PLAN WITH THE ACTUAL AS BUILT CONDITIONS BEFORE PROCEEDING WITH THE EQUIPMENT LAYOUT.

- ## DENTAL EQUIPMENT LEGEND

ITEM	DESCRIPTION	STATUS	LOCATION
1	EQUIPMENT PLATFORM (OT OTHERS)	NEW	COMPLETES 3A1
2	AIR TECH INSTANT 30 AIR COMPRESSION (ON PLATFORM)	NEW	COMPLETES 3A1
3	AIR TECH INSTANT 30 NET VACUUM PUMP (ON FLOOR)	NEW	COMPLETES 3A1
4	AIR TECH INSTANT WET CONTROL VALVE	NEW	COMPLETES 3A1
5	AIR TECH - INJECTION THERMIST CONTROLLER (MPV/V)	NEW	OT 3A1
6	AIR TECH - INJECTION THERMIST CONTROLLER (MPV/V)	NEW	OT 3A1
7	DENTAL X-RAY UNIT WITH C-ARM AND AESTHETIC OPTION	NEW	OT 3A7
8	MARUS MC40D DAILY MOBILE CART	NEW	ALL OTs
9	MCAD ALUMINA MOBILE CART	NEW	ALL OTs
10	MARUS 16100D WALL MOUNTED DENTAL LIGHT	NEW	ALL OTs
11	WATCH ENTRY INTERNAL X-RAY WITH HOT REACH	NEW	ALL OTs
12	BLANK MASK PROTRUDER DISINTEGRATOR - 3WAY EXTRACTING	NEW	ANCAUSE 3A1A
13	MCAD PERFECT FIT STERILIZATION CABINET	EXISTING	ANCAUSE 3A5
14	ULTRASONIC STERILIZATION EQUIPMENT MICROLOGICAL CLEANLINESS & (2) AUTOClaves	NEW/PRI.	AUTOGRAVE 3A5 (VERIFY LOCATIONS)
15	MICROLOGICAL AND EQUIPMENT DISINTEGRATION	NEW/PRI.	LBN 3A4 (VERIFY LOCATIONS)
16	HYPNOMAGNETIC LACTATE DEHYDRATE & NUMBERS 12 OTHERS	NEW/PRI.	AS SHOWN EQUIPMENT PLAN



DENTAL EQUIPMENT PLAN

1. THE PLUMBER WILL SUPPLY AND INSTALL A WATER PRESSURE REGULATOR ON INCOMING WATER SUPPLY. THE PLUMBER WILL SET THE REGULATOR NOT TO EXCEED 65 PSI.
2. THE PLUMBER WILL INSTALL THE WATER FILTER (AND THE WATER SOFTENER, AS NEEDED) ON THE COLD WATER MAIN ENTERING THE DENTAL SUITE. THE WATER FILTER WILL BE SUPPLIED BY OTHER BENDO DENTAL ON THE DOCKING.
3. THE PLUMBER WILL SUPPLY AND INSTALL SEPARATE MAGNETIC SHIELD VALVES ON EACH OF THE HOT AND COLD WATER LINES.

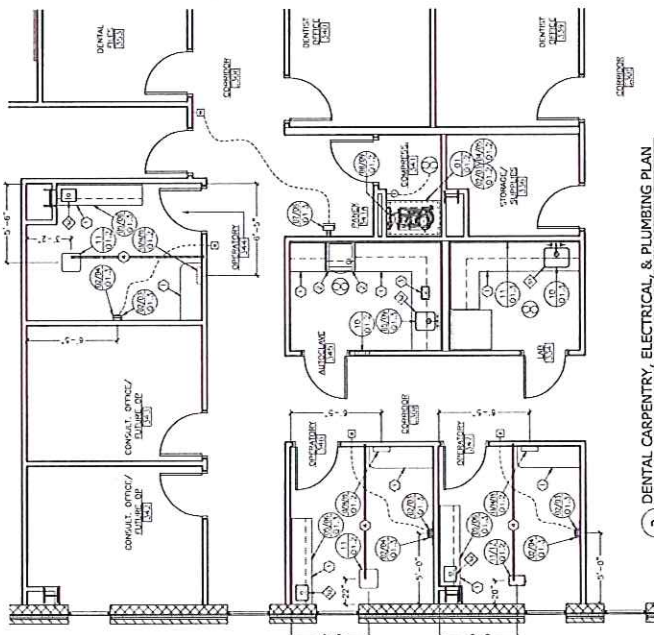
1. ALL EQUIPMENT WILL BE SINGLE PHASE, UNLESS OTHERWISE NOTED.
2. ALL WIRING WILL BE CONCEALED WITHIN THE WALLS AND/OR FLOORS UNLESS OTHERWISE NOTED.
3. THE ELECTRICAL WILL TAKE COMPLETE CARE AT TERMINATION POINTS.
4. THE ELECTRICAL WILL INSTALL COMPLETE AND MADE FINAL HOOKS FOR THE FOLLOWING DENTAL EQUIPMENT, SUPPLIED BY EITHER THE DENTIST OR BUNCO DENTAL INCLUDING, BUT NOT LIMITED TO:
 - AIR COMPRESSOR
 - X-RAY UNIT
 - VACUUM PUMP
 - CONTROL PANEL
 - WATER CONTROL VALVE
5. THE ELECTRICAL WILL BE OBTAIN THE DATES OF INSTALLATION OF THE FOLLOWING DENTAL EQUIPMENT, SUPPLIED BY EITHER THE DENTIST OR BUNCO DENTAL, AND WILL ADVISE THE ELECTRICAL WILL SUPPLY AND INSTALL ALL OF THE FOLLOWING:
 - AIR COMPRESSOR
 - X-RAY UNIT
 - VACUUM PUMP
 - CONTROL PANEL
 - WATER CONTROL VALVE

[illegible]

- THE FIRST PAGE OF THESE DOCUMENTS,
WE SHALL HAVE GPO PROTECTION.
WE SHALL HAVE GPO PROTECTION

1. ALL EQUIPMENT WILL BE SINGLE PHASE UNLESS
2. ALL WIRING WILL BE CONCEALED WITHIN THE WALL UNLESS OTHERWISE NOTED.
3. THE ELECTRICIAN WILL TAG ALL WORKS AT TURNOUT
4. THE ELECTRICIAN WILL INSTALL COMPLETE AND THE FOLLOWING GENERAL EQUIPMENT, SUPPLIED UNLESS DENTAL INCLUDING, BUT NOT LIMITED TO:
 - AIR COMPRESSOR
 - VACUUM
 - WATER CONTROL VALVE
 - CONTROL
5. THE ELECTRICIAN WILL BE ONSITE ON THE DAY

- | DESCRIPTION |
|--------------------------------------|
| POSURE BUTTON |
| CHROMATIC ON/OFF SWITCH |
| SWITCH, CONCEALED IN WALL OR CEILING |
| SWITCH, CONCEALED IN FLOOR |
| EXHAUST FAN MOUNTED IN CEILING |

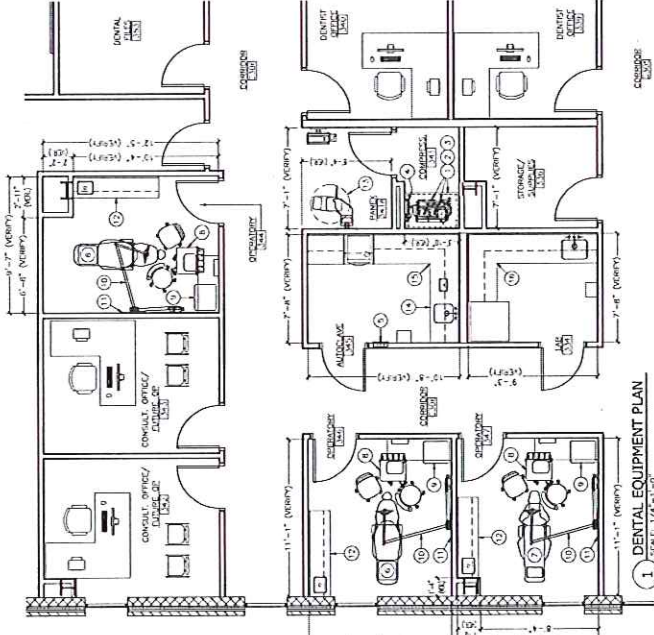


2 DENTAL CARPENTRY, ELECTRICAL, & PLUMBING PLAN
SCALE: 1/4"=1'-0"

1. THE PLUMBER WILL SUPPLY AND INSTALL A WATER PRESSURE REGULATOR ON INCOMING WATER SUPPLY. THE PLUMBER WILL SET THE REGULATOR NOT TO EXCEED 60 PSI.
2. THE PLUMBER WILL INSTALL THE WATER FILTER (AND THE WATER SOFTENER, AS NEEDED), ON THE COLD WATER MAIN ENTERING THE DENTAL SUITE. THE WATER FILTER WILL BE SUPPLIED BY EITHER BENDO DENTAL OR THE DOCTOR.
3. THE PLUMBER WILL SUPPLY AND INSTALL SEPARATE MANUAL SHUT-OFF VALVES ON ALL SINKS, DENTAL UNITS, AND OUTLETS REQUIRING WATER AND/OR AIR.

DENTAL EQUIPMENT LEGEND

ITEM	DESCRIPTION	STATUS	LOCATION
1	EQUIPMENT PLATFORM (OT OTHERS)	NEW	COMPLETES 3A1
2	AIR TECH INSTANT 30 MIN CONSTRUCTION (ON PLATFORM)	NEW	COMPLETES 3A1
3	AIR TECH INSTANT 30 MIN VACUUM PUMP (ON FLOOR)	NEW	COMPLETES 3A1
4	AIR TECH INSTANT WET WATER CONTROL VALVE	NEW	COMPLETES 3A1
5	AIR TECH -AUTOMATIC FIREWATER CONTROLLER (M/V)/V)	NEW	OT 3A1
6	DENTAL X-RAY UNIT	NEW	OT 3A1
7	DENTAL X-RAY UNIT CHAIR WITH AIRGLOID OPTION	NEW	OT 3A1
8	MARUS MC-40 DAILY MOBILE CART	NEW	ALL OPS
9	MC-20 ALUMINA MOBILE CART	NEW	ALL OPS
10	MARUS 1X100 WALL MOUNTED DENTAL LIGHT	NEW	ALL OPS
11	WATCH CENTRY INTERNAL X-RAY WITH HOT REACH	NEW	ALL OPS
12	BLANK MASK PROHIBIT TO INCREASE RAY EXPOSURE	EXISTING	ANALOG 3A1A
13	MC-20 PERFECT FIT STERILIZATION CABINET	NEW	AUTOGRAVE 3A5
14	ULTRASONIC STERILIZATION EQUIPMENT	NEW/PRIE	AUTOGRAVE 3A5
15	MICROLOGICAL CLEANLINESS (C2) AUTOCLEAN	NEW/PRIE	AUTOGRAVE 3A5 (VERIFY LOCATIONS)
16	MECHANICAL AND ELECTRICAL WORK	NEW/PRIE	LIN 3A3 (VERIFY LOCATIONS)
17	HYPNOMETER/LABORATORY EXPENSIVE & NUMEROUS OT OTHERS	NEW	AS SHOWN EQUIPMENT PLAN



DENTAL EQUIPMENT PLAN

1. ALL EQUIPMENT WILL BE SINGLE PHASE UNLESS NOTED.
2. ALL WIRING WILL BE CONCEALED WITHIN THE WALL UNLESS OTHERWISE NOTED.
3. THE ELECTRICIAN WILL TAG ALL WORKS AT TURNOUTS.
4. THE ELECTRICIAN WILL INSTALL COMPLETE AND THE FOLLOWING GENERAL EQUIPMENT, SUPPLIED BY THE CLIENT:
 - AIR COMPRESSOR
 - VACUUM
 - WATER CONTROL VALVE
 - CONTROL
5. THE ELECTRICIAN WILL BE ON SITE ON THE DAY OF THE WORK.

- | DESCRIPTION |
|--------------------------------------|
| POSURE BUTTON |
| STATISTIC ON/OFF SWITCH |
| SWITCH, CONCEALED IN WALL OR CEILING |
| INQUIRY, CONCEALED IN FLOOR |
| EXHAUST FAN MOUNTED IN CEILING |

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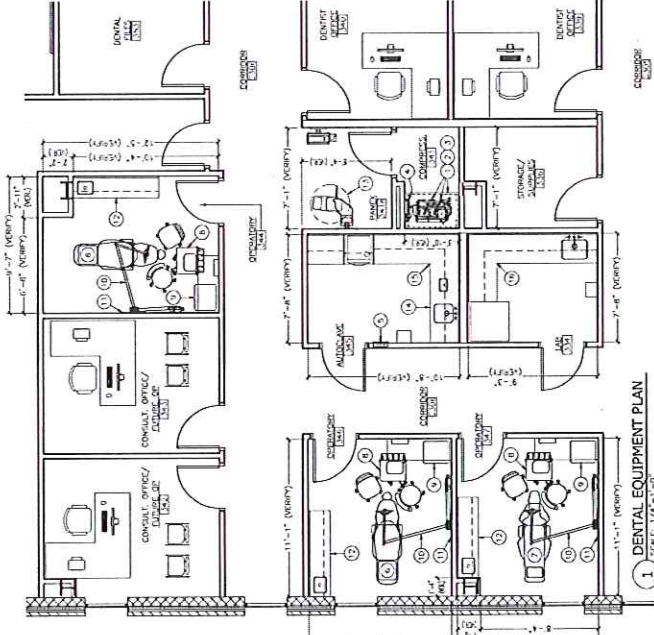
- THE FIRST PAGE OF THESE DOCUMENTS,
WE SHALL HAVE GPO PROTECTION.
WE SHALL HAVE GPO PROTECTION

1. THE DENTAL EQUIPMENT PLAN IS NOT FOR CONSTRUCTION PURPOSES.
2. THIS GENERAL CONTRACTOR IS TO REFER TO FINAL STAMPED AND DRAWING SET FOR ALL CONSTRUCTION.
3. THE DENTAL EQUIPMENT PLAN IS DIMENSIONED FROM THE FACE OF A FINISH WALL TO THE FACE OF A FINISH WALL, UNLESS OTHERWISE NOTED.
4. THE ON SITE BENCHMARK IS TO VERIFY ALL OVERALL DIMENSIONS LISTED ON THE DENTAL EQUIPMENT PLAN WITH THE ACTUAL AS BUILT CONDITIONS BEFORE PROCEEDING WITH THE EQUIPMENT LAYOUT.

1. THE DENTAL CARPENTRY, ELECTRICAL, & PLUMBING PLAN IS INDICATED FROM THE FACE OF A FINISH WALL TO THE CONTRIBUTE OF THE DENTAL EQUIPMENT, UNLESS OTHERWISE NOTED.
2. ALL FLOORING WILL BE INSTALLED FLUSH WITH THE FACE OF THE STUDS.
3. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE TO BRACE AND PROTECT ALL WORK DURING CONSTRUCTION AGAINST DAMAGE TO EXISTING WALLS, CEILING, FLOORS, AND GOOD HANDICAP.
4. THE CARPENTER WILL BE RESPONSIBLE FOR BOTH THE STRUCTURAL INTEGRITY AND THE STABILITY OF ALL FLOORING AND WALL SUPPORT.
5. THE CARPENTER WILL COMPLY WITH ALL BONDS INSPECTIONS AS NOTED IN THE GENERAL NOTES IN THE FIRST SECTION OF THESE DOCUMENTS.
6. VERY LOCAL A STATE IS MEET FOLLOWING REQUIREMENTS WITH ARTIST.

DENTAL EQUIPMENT LEGEND

ITEM	DESCRIPTION	STATUS	LOCATION
1	EQUIPMENT PLATFORM (OT OTHERS)	NEW	COMPLETES 3A1
2	AIR TECH INSTANT 30 AIR COMPRESSION (ON PLATFORM)	NEW	COMPLETES 3A1
3	AIR TECH INSTANT 30 NET VACUUM PUMP (ON FLOOR)	NEW	COMPLETES 3A1
4	AIR TECH INSTANT WET CONTROL VALVE	NEW	COMPLETES 3A1
5	AIR TECH -AUTOMATIC PRESSURE CONTROLLER (M/V)/V)	NEW	OT 3A1
6	DENTAL X-RAY UNIT	NEW	OT 3A1
7	DENTAL X-RAY UNIT CHAIR WITH AERODIC OPTION	NEW	OT 3A1
8	MARUS MC-40 DAILY MOBILE CART	NEW	ALL OTH
9	MC-20 ALUMINA MOBILE CART	NEW	ALL OTH
10	MARUS XL-100 WALL MOUNTED DENTAL LIGHT	NEW	ALL OTH
11	WATCH CENTRY INTERNAL X-RAY WITH HOT LEACH	NEW	ALL OTH
12	BLANK MASK PROHIBIT TO INCREASE R-WAY	EXISTING	PANACEA 3A1A
13	MC-20 PERFECT FIT STERILIZATION CABINET	NEW	PANACEA 3A5
14	ULTRASONIC STERILIZATION EQUIPMENT MICROLOGICAL CLEANLINESS & (2) AUTOClaves	NEW/PRIE	AUTOGRAVE 3A5
15	MICROLOGICAL AND EQUIPMENT MICROLOGICAL CLEANLINESS & (2) AUTOCaves	NEW/PRIE	AUTOGRAVE 3A5 (VERIFY LOCATIONS)
16	APPROXIMATELY 1000 LBS OF SUPPLIES & LINEN	NEW/PRIE	LINEN 3A3 (VERIFY LOCATIONS)
17	HYDRA-MATIC LAUNDRY EXTRACTOR & NUMEROUS OT OTHERS	NEW	AS SHOWN EQUIPMENT PLAN



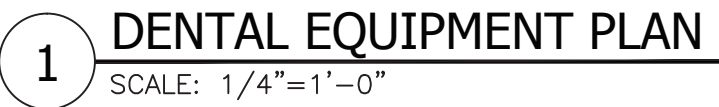
DENTAL EQUIPMENT PLAN

[illegible]

1. THE DENTAL EQUIPMENT PLAN IS NOT FOR CONSTRUCTION PURPOSES.
2. THE GENERAL CONTRACTOR IS TO REFER TO THE FINAL STAMPED A&E DRAWING SET FOR ALL NEW CONSTRUCTION.
3. THE DENTAL EQUIPMENT PLAN IS DIMENSIONED FROM THE FACE OF A FINISH WALL TO THE FACE OF A FINISH WALL, UNLESS OTHERWISE NOTED.
4. THE ON SITE BENCOP REE IS TO VERIFY ALL OVERALL DIMENSIONS LISTED ON THE DENTAL EQUIPMENT PLAN WITH THE ACTUAL AS BUILT CONDITIONS BEFORE PROCEEDING WITH THE NEW EQUIPMENT LAYOUT.

1. THE DENTAL CARPENTRY, ELECTRICAL, & PLUMBING PLAN IS DIMENSIONED FROM THE FACE OF A FINISH WALL TO THE CENTERLINE OF THE DENTAL EQUIPMENT, UNLESS OTHERWISE NOTED.
2. ALL BLOCKING WILL BE INSTALLED FLUSH WITH THE FACE OF THE STUDS.
3. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE TO BRACE AND PROTECT ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGES, COLLAPSE, DISTORTIONS, AND OFF-ALIGNMENT ACCORDING TO APPLICABLE CODES, STANDARDS, AND GOOD PRACTICE.
4. THE CARPENTER WILL BE RESPONSIBLE FOR BOTH THE STRUCTURAL INTEGRITY AND THE STABILITY OF ALL BLOCKING AND WALL SUPPORT.
5. THE CARPENTER WILL COMPLY WITH ALL BENCO INSPECTIONS, AS NOTED IN THE GENERAL NOTES IN THE FIRST SECTION OF THESE DOCUMENTS.
6. VERIFY LOCAL & STATE X-RAY SHIELDING REQUIREMENTS WITH ARCHITECT, CONTRACTOR OR CLIENT.

ITEM	DESCRIPTION	STATUS	LOCATION
1	EQUIPMENT PLATFORM (BY OTHERS)	NEW	COMPRESS. 341
2	AIR TECH AIRSTAR 30 AIR COMPRESSOR (ON PLATFORM)	NEW	COMPRESS. 341
3	AIR TECH VACSTAR 50H WET VACUUM PUMP (ON FLOOR)	NEW	COMPRESS. 341
4	AIR TECH REMOTE WATER CONTROL VALVE	NEW	COMPRESS. 341
5	AIR TECH 4-BUTTON REMOTE CONTROL PANEL (A/W/V/V)	NEW	AUTOClave 345 (VERIFY LOCATION)
6	MARUS NUSTAR SII DC1700 DENTAL CHAIR	NEW	OP 344, & OP 346
7	DENTALEZ NUSIMPLICITY DENTAL CHAIR WITH AIRGLIDE OPTION	NEW	OP 347
8	MARUS MC4040 DUAL DELIVERY MOBILE CART	NEW	ALL OPs
9	MCC ALABAMA MOBILE CART	NEW	ALL OPs
10	MARUS WL1000 WALL MOUNTED DENTAL LIGHT	NEW	ALL OPs
11	VATECH EZRAY INTRAORAL X-RAY WITH 80" REACH	NEW	ALL OPs
12	MCC SIDE SUPPORT CABINET	NEW	ALL OPs
13	PLAN MECA PROLINE XC PANORAMIC X-RAY	EXISTING	PANEX 341A
14	MCC PERFECT FIT STERILIZATION CABINET	NEW	AUTOClave 345
15	MISCELLANEOUS STERILIZATION EQUIPMENT: ULTRASONIC CLEANER, & (2) AUTOClaves	NEW/FUT.	AUTOClave 345 (VERIFY LOCATIONS)
16	MISCELLANEOUS LAB EQUIPMENT: DISPOSABLE PLASTER TRAP, MODEL TRIMMER, & LATHE	NEW/FUT.	LAB 334 (VERIFY LOCATIONS)
-	REMAINING MISCELLANEOUS CABINETS & MILLWORK BY OTHERS	NEW	AS SHOWN ON EQUIPMENT PLAN



1. THE PLUMBER WILL SUPPLY AND INSTALL A WATER PRESSURE REGULATOR ON INCOMING WATER SUPPLY. THE PLUMBER WILL SET THE REGULATOR NOT TO EXCEED 65 PSI.
2. THE PLUMBER WILL INSTALL THE WATER FILTER (AND THE WATER SOFTENER, AS NEEDED) ON THE COLD WATER MAIN ENTERING THE DENTAL SUITE. THE WATER FILTER WILL BE SUPPLIED BY EITHER BENCO DENTAL OR THE DOCTOR.
3. THE PLUMBER WILL SUPPLY AND INSTALL SEPARATE MANUAL SHUT-OFF VALVES ON ALL SINKS, DENTAL UNITS, AND OUTLETS REQUIRING WATER AND/OR AIR.
4. ALL SINKS AND FAUCETS WILL BE CONNECTED BY THE PLUMBER.
5. ALL PIPES WILL BE CONCEALED WITHIN THE WALLS AND/OR THE FLOOR, UNLESS OTHERWISE NOTED ON THE BENCO DRAWINGS.
6. THE PLUMBER WILL SEAL ALL PENETRATIONS THROUGH THE FLOOR WITH A FIRESTOP OR EQUIVALENT WATERPROOFING.
7. ALL PIPES WILL BE FLUSHED CLEAR OF ALL DEBRIS BY THE PLUMBER.
8. THE PLUMBER WILL BE ON SITE ON THE DAY(S) OF INSTALLATION TO WORK WITH THE BENCO REPRESENTATIVE ON THE FINAL HOOK-UP. THE PLUMBER WILL SUPPLY AND INSTALL ANY AND ALL MATERIALS INDICATED IN THE PLUMBING DETAILS SHOWN AND THE MANUFACTURER'S INSTALLATION INSTRUCTION SHEETS.
9. THE PLUMBER WILL PROVIDE AND INSTALL ALL WATER SAFETY DEVICES (i.e. CHECK VALVES, BACKFLOW PREVENTERS, ETC.) IN ACCORDANCE WITH LOCAL CODE.
10. THE PLUMBER WILL INSTALL COMPLETE AND MAKE FINAL HOOK-UP TO THE FOLLOWING DENTAL EQUIPMENT, SUPPLIED BY THE DOCTOR AND/OR BENCO DENTAL, INCLUDING, BUT NOT LIMITED TO:

1. AN ELECTRIC MASTER WATER SHUT-OFF VALVE IS REQUIRED FOR ANY/ALL COLD WATER LINES FEEDING ALL DENTAL EQUIPMENT. THIS WATER SHUT-OFF VALVE IS REQUIRED WHETHER SUPPLIED BY BENCO, THE DOCTOR, OR THE PLUMBER.
12. THE PLUMBER WILL COMPLY WITH ALL BENCO INSPECTIONS, AS NOTED IN THE GENERAL NOTES ON THE FIRST PAGE OF THESE DOCUMENTS.
13. GENERAL DENTAL PLUMBING LINES SHOWN ARE FOR GRAPHICALLY DISPLAYING ORIGINATION AND TERMINATION POINTS. FIELD CONDITIONS MAY ALTER PLUMBING LINE LAYOUT, PER PLUMBERS DISCRETION. THE FINAL LAYOUT OF THE PLUMBING LINES IS THE RESPONSIBILITY OF THE PLUMBER.
14. THE APPLICATION OF DENTAL COMPRESSED AIR AS NOTED ON THIS PLAN IS NOT USED FOR LIFE-SUPPORT PURPOSES SUCH AS RESPIRATORS, IPPB MACHINES, ANALGESIA, ANESTHESIA, AND SO FORTH. IT IS ONLY USED FOR INCIDENTAL AIR DISCHARGED INTO THE ORAL CAVITY AND NOT A PRIMARY SOURCE OF AIR TO SUSTAIN LIFE.

SINK - SINK, FAUCET AND STRAINER
SUPPLIED BY OTHERS. PLUMBER
SHALL INSTALL HOT AND COLD
WATER LINES, WASTE AND TRAP
ROUGH-IN PER LOCAL CODES.
PROVIDE AIR LINE WITH SHUTOFF
FOR AIR ACTUATED FAUCET CONTROL
MECHANISM (IF APPLICABLE).
PLUMBER SHALL BE RESPONSIBLE
FOR FINAL HOOKUP. SEE
MANUFACTURER'S SPECIFICATIONS
FOR EXACT LOCATION AND
REQUIREMENTS.

SINK - SINK, FAUCET AND STRAINER PROVIDED WITH CABINETY SUPPLIED BY BENCO. PLUMBER SHALL INSTALL HOT AND COLD WATER LINES, WASTE AND TRAP ROUGH-IN PER LOCAL CODES. PROVIDE AIR LINE WITH SHUTOFF FOR AIR ACTUATED FAUCET CONTROL MECHANISM. PLUMBER SHALL BE RESPONSIBLE FOR FINAL HOOKUP. SEE MANUFACTURER'S SPECIFICATIONS FOR EXACT LOCATION AND REQUIREMENTS.

1. ALL EQUIPMENT WILL BE SINGLE PHASE, UNLESS OTHERWISE NOTED.		ELECTRICAL LEGEND	
2.	ALL WIRING WILL BE CONCEALED WITHIN THE WALLS AND/OR FLOOR, UNLESS OTHERWISE NOTED.	SYMBOL	DESCRIPTION
			EXPOSURE BUTTON
3.	THE ELECTRICIAN WILL TAG ALL WIRES AT TERMINATION POINTS.		THERMOSTATIC ON/OFF SWITCH
			WIRING, CONCEALED IN WALL OR CEILING
4.	THE ELECTRICIAN WILL INSTALL COMPLETE AND MAKE FINAL HOOK-UP TO THE FOLLOWING DENTAL EQUIPMENT, SUPPLIED BY EITHER THE DOCTOR OR BENCO DENTAL, INCLUDING, BUT NOT LIMITED TO: - AIR COMPRESSOR - VACUUM PUMP - WATER CONTROL VALVE - CONTROL PANEL		CONDUIT, CONCEALED IN FLOOR
			EXHAUST FAN MOUNTED IN CEILING

- ① GENERAL DUPLEX RECEPTABLES (MOUNTED ABOVE &/OR BELOW COUNTERTOPS) 110V, 20A (VERIFY QUANTITIES & EXACT LOCATIONS WITH OWNER AT TIME OF LAYOUT)
- ② DUPLEX RECEPTACLE FOR AUTOCLAVE (MOUNTED AT 40" A.F.F.) — 110V, DEDICATED 20 AMP CIRCUIT (VERIFY EXACT LOCATION WITH BENCO REP. AT TIME OF LAYOUT)
- ③ DUPLEX RECEPTACLE FOR ULTRASONIC CLEANER (MOUNTED AT 40" A.F.F.) — 110V, 20 AMP (VERIFY EXACT LOCATION WITH BENCO REP. AT TIME OF LAYOUT)
- ④ 2" CONDUIT (SEE DETAIL 16 ON SHEET Q1.2 & DETAIL 01 ON SHEET Q1.3)



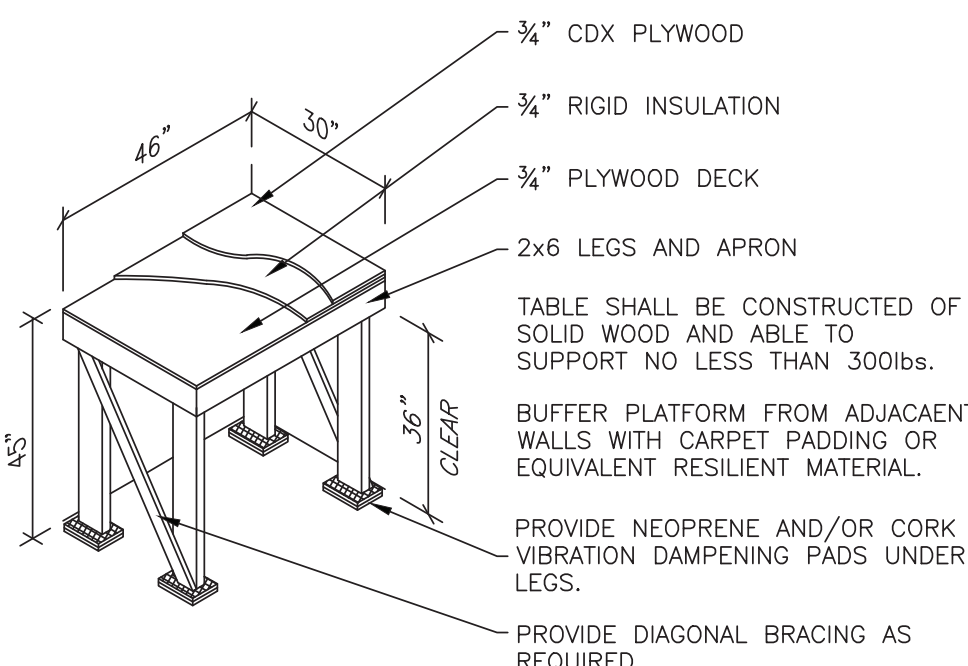
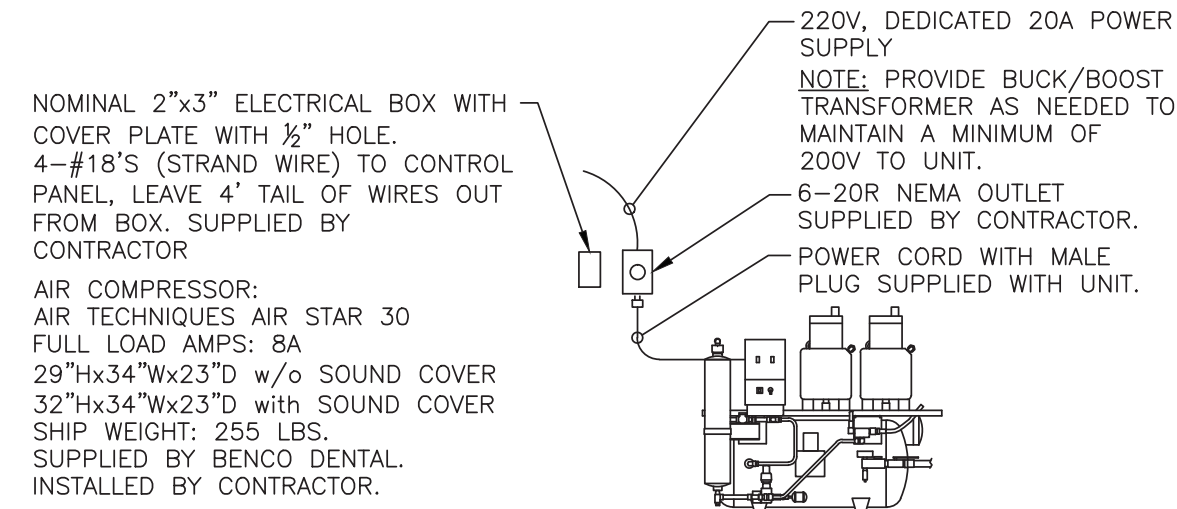
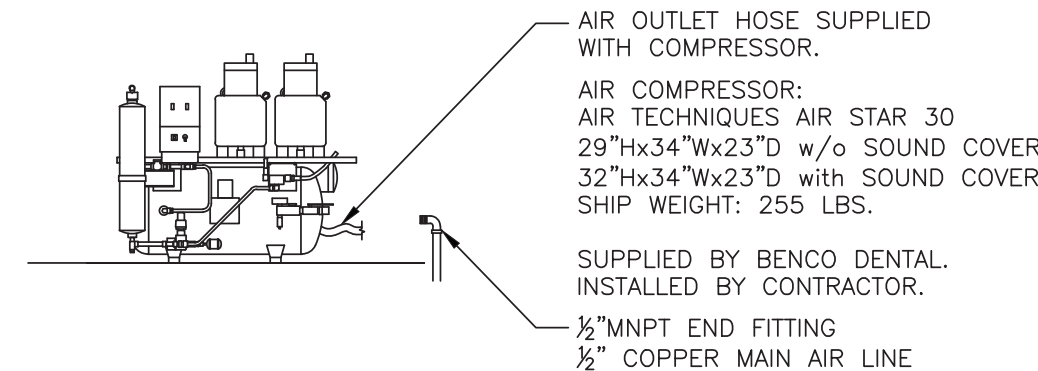
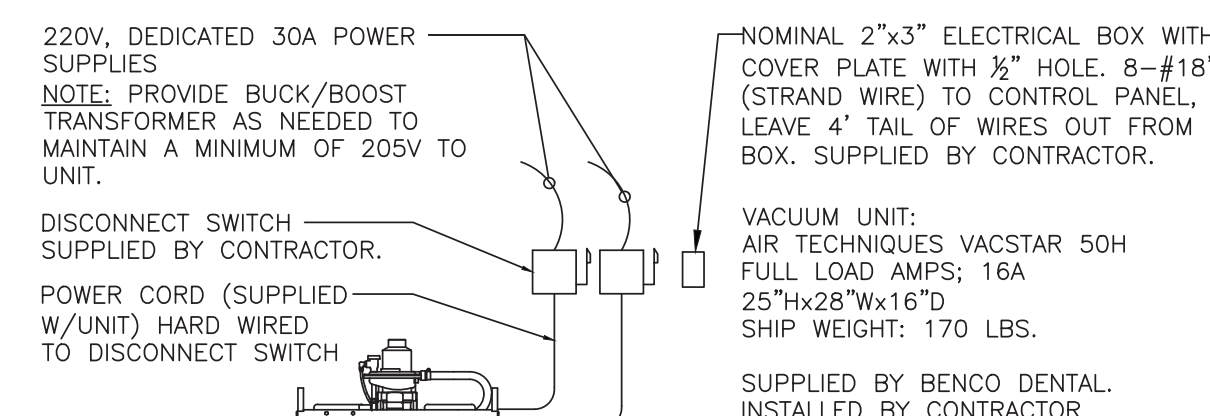
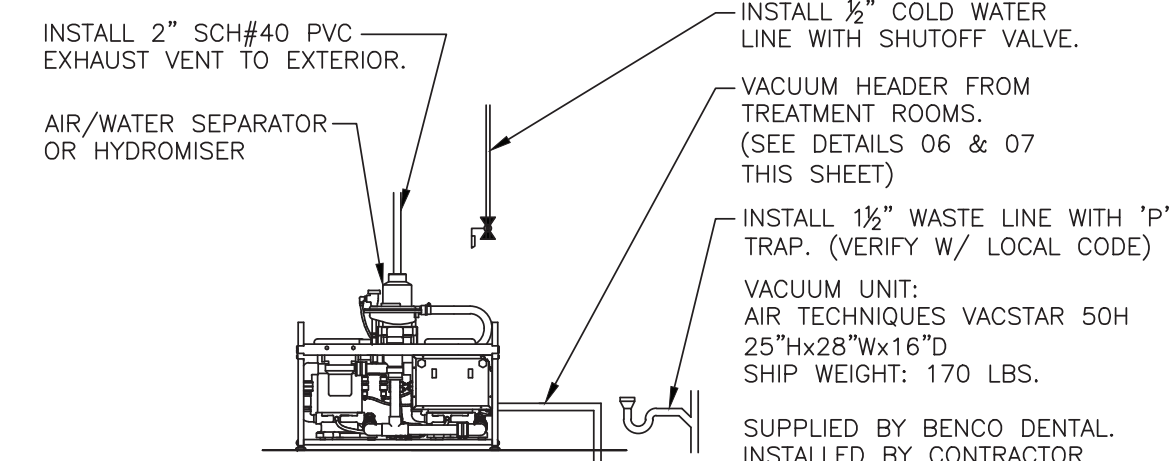
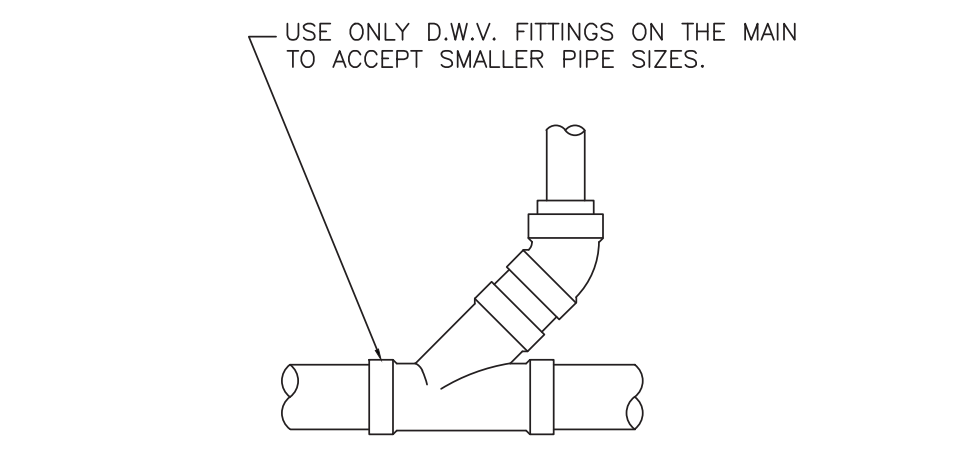
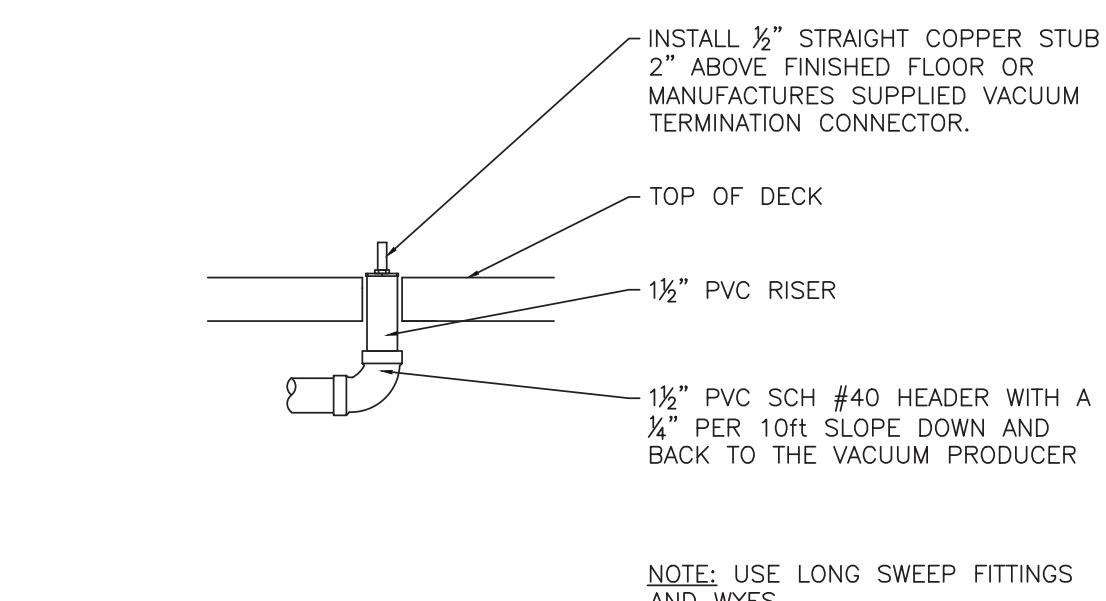
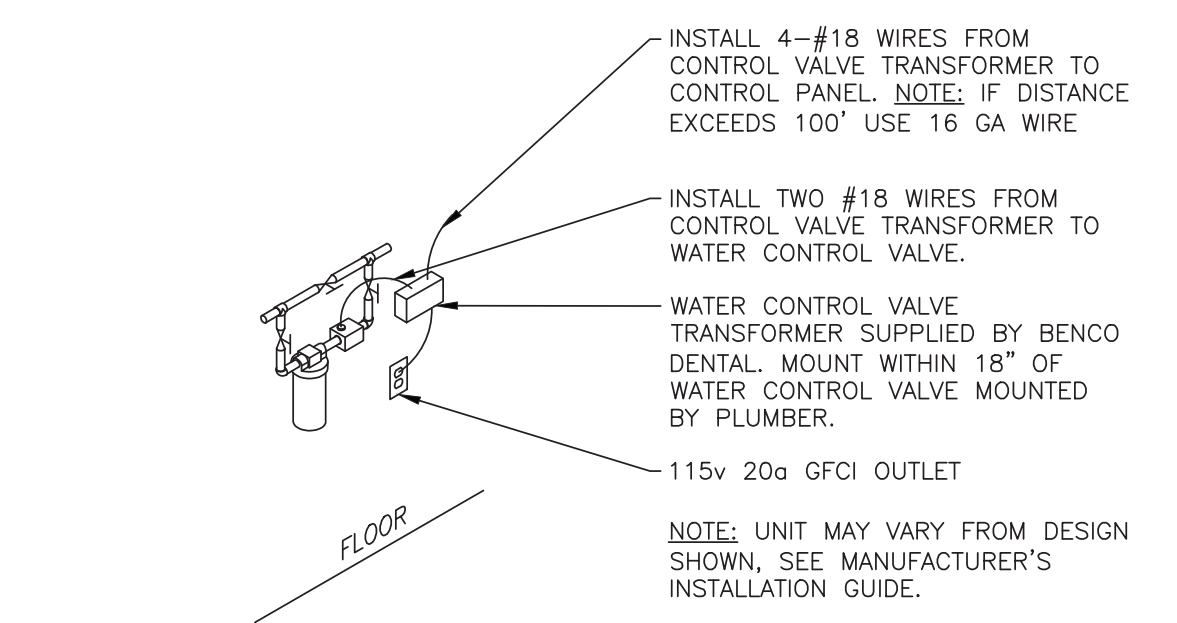
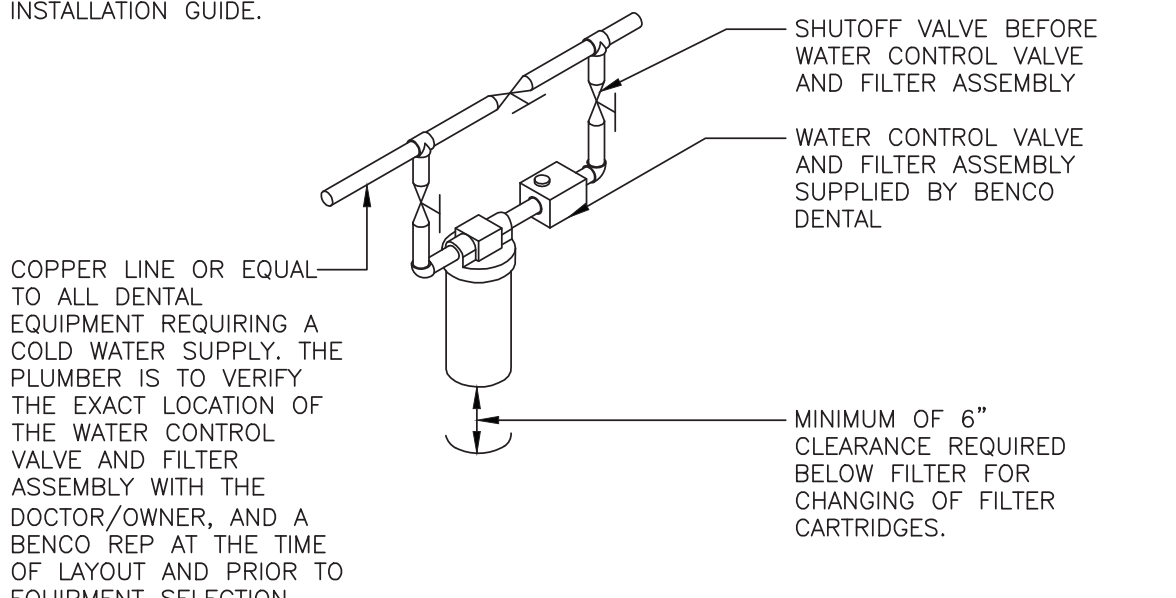
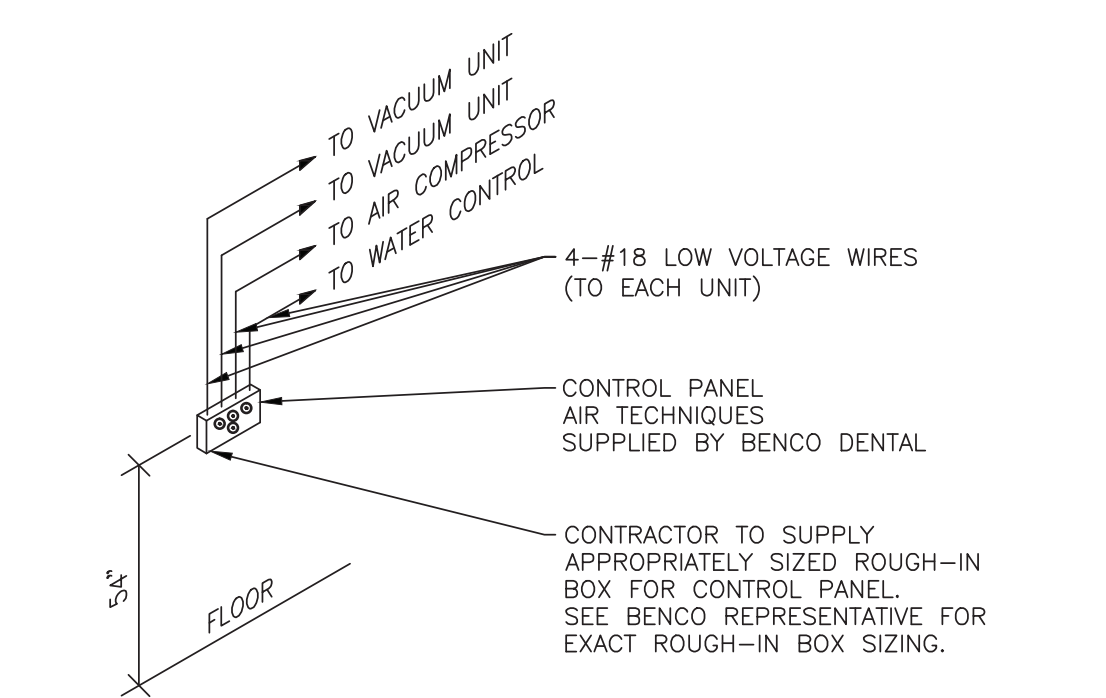
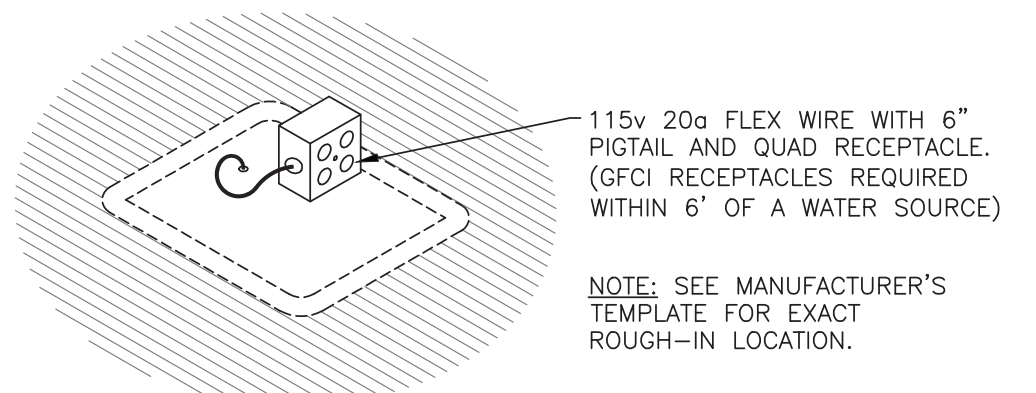
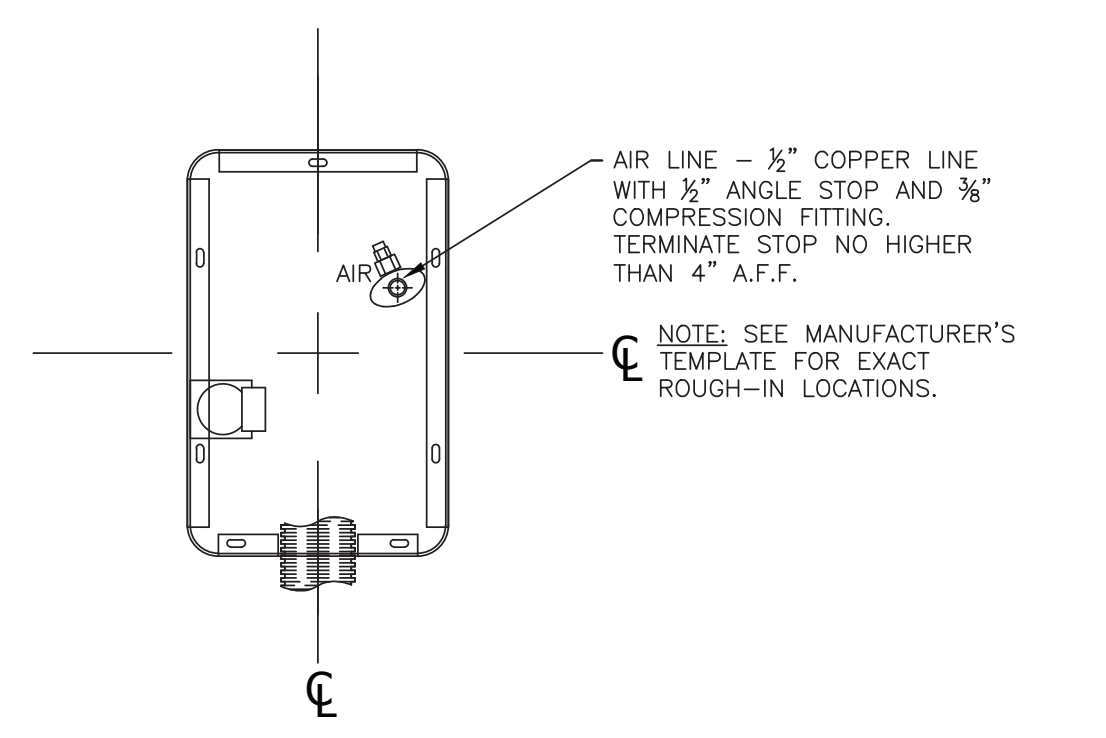
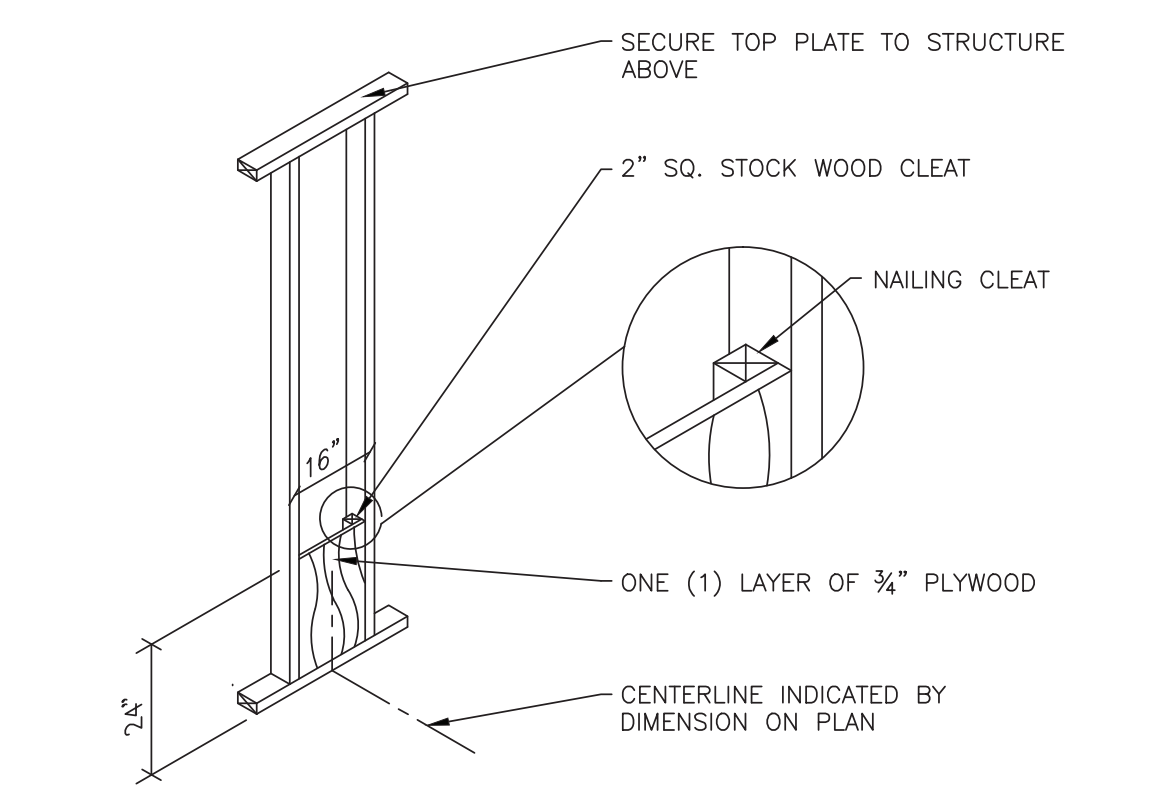
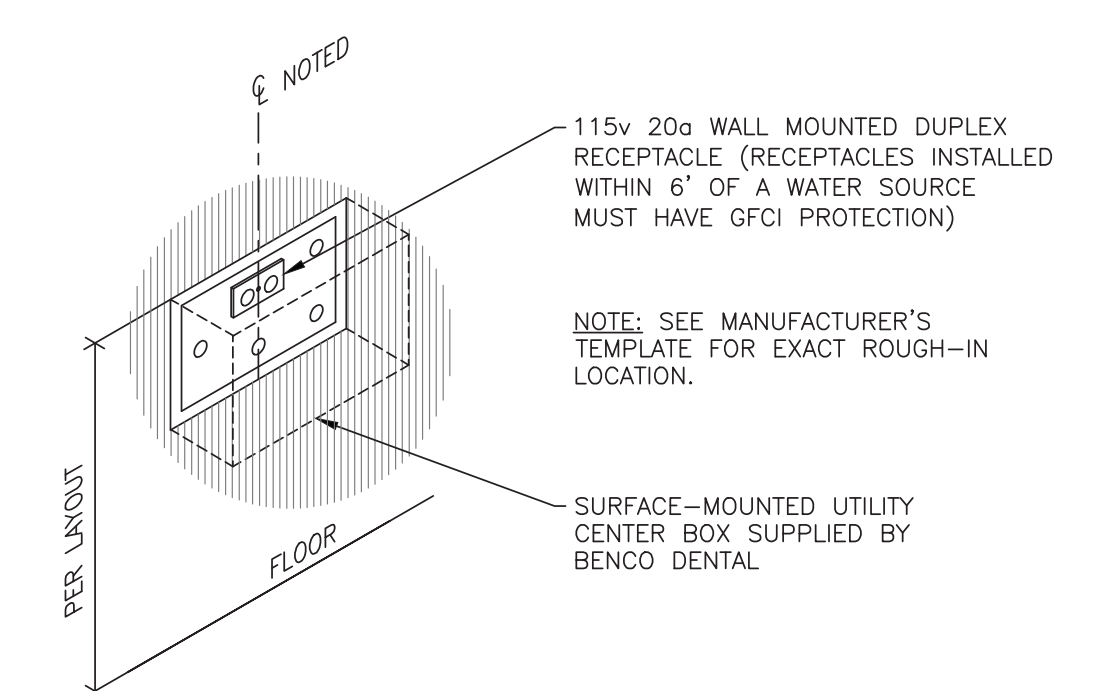
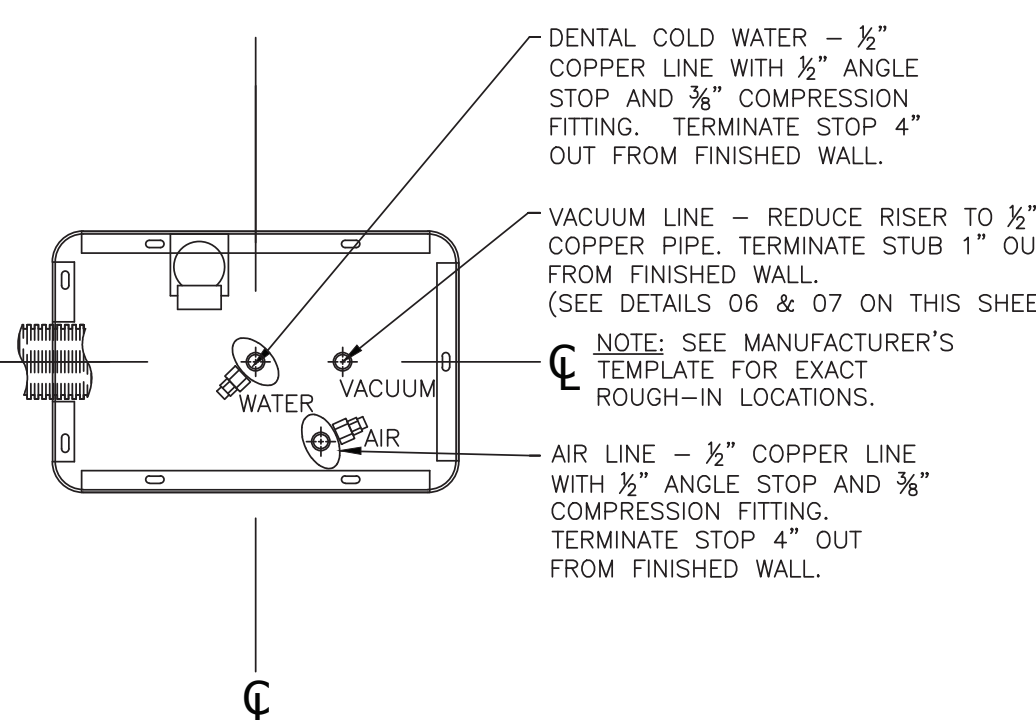
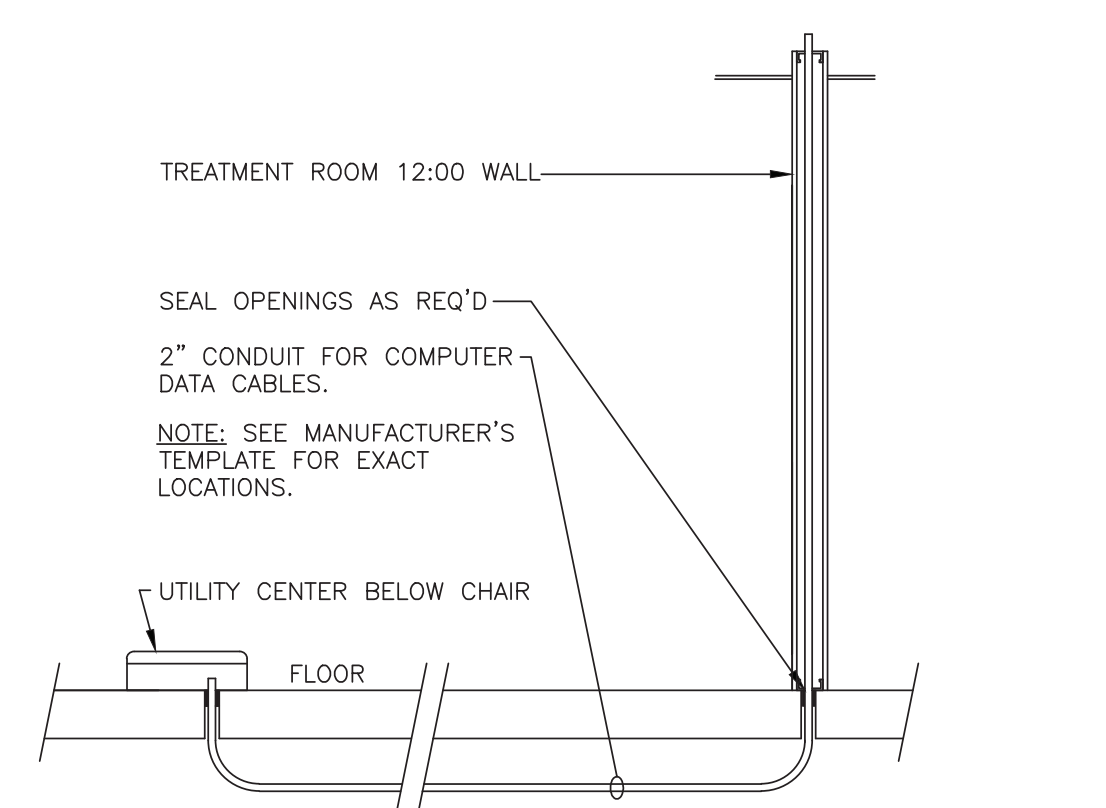
SEAL	PROFESSIONAL CERTIFICATION		AS - BUILT / REVISION		DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE		
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.		▲						PLAN SCALE:		APPROVED BY:
			▲								
			▲								
			▲								DIRECTOR
	LICENSE NO. 7373		EXPIRATION DATE 11/24/16						PROFILE SCALE:		DATE:
	ARCHITECT: LAURIE M. MCLEAN, AIA		BUREAU OF ENGINEERING AND CONSTRUCTION		HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
	DSGN BY: Designer										
	DWN BY: Author		REVIEWED BY:								APPROVED BY:
	CHKD BY: Checker		DATE REVIEWED:								DATE:
DATE: 06/19/15		CHIEF									

Eastern Family Resource Center
DENTAL EQUIPMENT PLAN – OPTION A

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
Q1.1 	15025P00
	JOB ORDER NO.
	249-218-0100-0614
	SHEET OF
	DRAWING NO.
	2015-1819
	FILE NO.
	DATE 10/11

DETAIL - CONDUIT TERMINATION	01	DETAIL - WALL MOUNTED LIGHT & INTRAORAL X-RAY	02	DETAIL - WALL MOUNTED LIGHT	03	DETAIL - INTRAORAL X-RAY	04
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.
DETAIL - STERILIZATION / SIDE SUPPORT CABINET	05	DETAIL - SIDE SUPPORT CABINET	06	DETAIL - PANORAMIC X-RAY	07	DETAIL - PANORAMIC X-RAY	08
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.
DETAIL - STERILIZATION CABINET	09	DETAIL - MODEL TRIMMER / PLASTER TRAP	10	DETAIL - AIR OUTLET	11	DETAIL	12
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.

 ¾" CDX PLYWOOD ¾" RIGID INSULATION ¾" PLYWOOD DECK 2x6 LEGS AND APRON TABLE SHALL BE CONSTRUCTED OF SOLID WOOD AND ABLE TO SUPPORT NO LESS THAN 300lbs. BUFFER PLATFORM FROM ADJACENT WALLS WITH CARPET PADDING OR EQUIVALENT RESILIENT MATERIAL. PROVIDE NEOPRENE AND/OR CORK VIBRATION DAMPENING PADS UNDER LEGS. PROVIDE DIAGONAL BRACING AS REQUIRED.		 NOMINAL 2"x3" ELECTRICAL BOX WITH COVER PLATE WITH ½" HOLE. 4-#18'S (STRAND WIRE) TO CONTROL PANEL, LEAVE 4" TAIL OF WIRES OUT FROM BOX. SUPPLIED BY CONTRACTOR AIR COMPRESSOR: AIR TECHNIQUES AIR STAR 30 FULL LOAD AMPS: 8A 29"Hx34"Wx23"D w/o SOUND COVER 32"Hx34"Wx23"D with SOUND COVER SHIP WEIGHT: 255 LBS. SUPPLIED BY BENCO DENTAL. INSTALLED BY CONTRACTOR. 220V, DEDICATED 20A POWER SUPPLY NOTE: PROVIDE BUCK/BOOST TRANSFORMER AS NEEDED TO MAINTAIN A MINIMUM OF 200V TO UNIT. 6-20R NEMA OUTLET SUPPLIED BY CONTRACTOR. POWER CORD WITH MALE PLUG SUPPLIED WITH UNIT.		 AIR OUTLET HOSE SUPPLIED WITH COMPRESSOR. AIR COMPRESSOR: AIR TECHNIQUES AIR STAR 30 29"Hx34"Wx23"D w/o SOUND COVER 32"Hx34"Wx23"D with SOUND COVER SHIP WEIGHT: 255 LBS. SUPPLIED BY BENCO DENTAL. INSTALLED BY CONTRACTOR. ½" MNPT END FITTING ½" COPPER MAIN AIR LINE		 220V, DEDICATED 30A POWER SUPPLIES NOTE: PROVIDE BUCK/BOOST TRANSFORMER AS NEEDED TO MAINTAIN A MINIMUM OF 205V TO UNIT. DISCONNECT SWITCH SUPPLIED BY CONTRACTOR. POWER CORD (SUPPLIED W/UNIT) HARD WIRED TO DISCONNECT SWITCH NOMINAL 2"x3" ELECTRICAL BOX WITH COVER PLATE WITH ½" HOLE. 8-#18'S (STRAND WIRE) TO CONTROL PANEL, LEAVE 4" TAIL OF WIRES OUT FROM BOX. SUPPLIED BY CONTRACTOR. VACUUM UNIT: AIR TECHNIQUES VACSTAR 50H FULL LOAD AMPS: 16A 25"Hx28"Wx16"D SHIP WEIGHT: 170 LBS. SUPPLIED BY BENCO DENTAL. INSTALLED BY CONTRACTOR.									
DETAIL - EQUIPMENT PLATFORM (BY OTHERS)		01	DETAIL - AIR COMPRESSOR (ON PLATFORM)		02	DETAIL - AIR COMPRESSOR (ON PLATFORM)		03	DETAIL - VACUUM PUMP (ON FLOOR)		04				
REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.				
 INSTALL 2" SCH#40 PVC EXHAUST VENT TO EXTERIOR. AIR/WATER SEPARATOR OR HYDROMISER INSTALL ½" COLD WATER LINE WITH SHUTOFF VALVE. VACUUM HEADER FROM TREATMENT ROOMS. (SEE DETAILS 06 & 07 THIS SHEET) INSTALL 1½" WASTE LINE WITH 'P' TRAP. (VERIFY W/ LOCAL CODE) VACUUM UNIT: AIR TECHNIQUES VACSTAR 50H 25"Hx28"Wx16"D SHIP WEIGHT: 170 LBS. SUPPLIED BY BENCO DENTAL. INSTALLED BY CONTRACTOR.			 USE ONLY 45° OR LONG RADIUS, DWV FITTINGS WHEREVER POSSIBLE. NO 'HEAD-ON' INTERSECTIONS (TEES OR CROSSES) OR SAGS ANYWHERE. ALL LINES FALL WITH A DROP OF ¼" IN EVERY TEN FEET OF LENGTH TOWARDS THE CENTRAL VACUUM UNIT. USE ONLY D.W.V. FITTINGS ON THE MAIN TO ACCEPT SMALLER PIPE SIZES.			 INSTALL ½" STRAIGHT COPPER STUB 2" ABOVE FINISHED FLOOR OR MANUFACTURES SUPPLIED VACUUM TERMINATION CONNECTOR. TOP OF DECK 1½" PVC RISER 1½" PVC SCH #40 HEADER WITH A ¼" PER 10ft SLOPE DOWN AND BACK TO THE VACUUM PRODUCER NOTE: USE LONG SWEEP FITTINGS AND WYES			 INSTALL 4-#18 WIRES FROM CONTROL VALVE TRANSFORMER TO CONTROL PANEL. NOTE: IF DISTANCE EXCEEDS 100' USE 16 GA WIRE INSTALL TWO #18 WIRES FROM CONTROL VALVE TRANSFORMER TO WATER CONTROL VALVE. WATER CONTROL VALVE TRANSFORMER SUPPLIED BY BENCO DENTAL. MOUNT WITHIN 18" OF WATER CONTROL VALVE MOUNTED BY PLUMBER. 115v 20a GFCI OUTLET NOTE: UNIT MAY VARY FROM DESIGN SHOWN, SEE MANUFACTURER'S INSTALLATION GUIDE.						
DETAIL - VACUUM PUMP (ON FLOOR)			05	DETAIL - VACUUM PIPING			06	DETAIL - VACUUM PIPING			07	DETAIL - REMOTE WATER CONTROL VALVE			08
REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.
THIS WORK TO BE DONE BY THE PLUMBING CONTRACTOR. NOTE: ACTUAL UNIT MAY VARY FROM DESIGN SHOWN, SEE MANUFACTURER'S INSTALLATION GUIDE.  SHUTOFF VALVE BEFORE WATER CONTROL VALVE AND FILTER ASSEMBLY WATER CONTROL VALVE AND FILTER ASSEMBLY SUPPLIED BY BENCO DENTAL COPPER LINE OR EQUAL TO ALL DENTAL EQUIPMENT REQUIRING A COLD WATER SUPPLY. THE PLUMBER IS TO VERIFY THE EXACT LOCATION OF THE WATER CONTROL VALVE AND FILTER ASSEMBLY WITH THE DOCTOR/OWNER, AND A BENCO REP AT THE TIME OF LAYOUT AND PRIOR TO EQUIPMENT SELECTION. MINIMUM OF 6" CLEARANCE REQUIRED BELOW FILTER FOR CHANGING OF FILTER CARTRIDGES.			 TO VACUUM UNIT TO VACUUM UNIT TO AIR COMPRESSOR TO WATER CONTROL 4-#18 LOW VOLTAGE WIRES (TO EACH UNIT) CONTROL PANEL AIR TECHNIQUES SUPPLIED BY BENCO DENTAL CONTRACTOR TO SUPPLY APPROPRIATELY SIZED ROUGH-IN BOX FOR CONTROL PANEL. SEE BENCO REPRESENTATIVE FOR EXACT ROUGH-IN BOX SIZING.			 115v 20a FLEX WIRE WITH 6" PIGTAIL AND QUAD RECEPTACLE. (GFCI RECEPTACLES REQUIRED WITHIN 6' OF A WATER SOURCE) NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT ROUGH-IN LOCATION.			 AIR LINE - ½" COPPER LINE WITH ½" ANGLE STOP AND ¾" COMPRESSION FITTING. TERMINATE STOP NO HIGHER THAN 4" A.F.F. NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT ROUGH-IN LOCATIONS.						
DETAIL - REMOTE WATER CONTROL VALVE			09	DETAIL - REMOTE CONTROL PANEL			10	DETAIL - DENTAL CHAIR UTILITY CENTER			11	DETAIL - DENTAL CHAIR UTILITY CENTER			12
REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.
 SECURE TOP PLATE TO STRUCTURE ABOVE 2" SQ. STOCK WOOD CLEAT NAILING CLEAT ONE (1) LAYER OF ¾" PLYWOOD CENTERLINE INDICATED BY DIMENSION ON PLAN			 115v 20a WALL MOUNTED DUPLEX RECEPTACLE (RECEPTACLES INSTALLED WITHIN 6' OF A WATER SOURCE MUST HAVE GFCI PROTECTION) NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT ROUGH-IN LOCATION. SURFACE-MOUNTED UTILITY CENTER BOX SUPPLIED BY BENCO DENTAL			 DENTAL COLD WATER - ½" COPPER LINE WITH ½" ANGLE STOP AND ¾" COMPRESSION FITTING. TERMINATE STOP 4" OUT FROM FINISHED WALL. VACUUM LINE - REDUCE RISER TO ½" COPPER PIPE. TERMINATE STUB 1" OUT FROM FINISHED WALL. (SEE DETAILS 06 & 07 ON THIS SHEET) NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT ROUGH-IN LOCATIONS. AIR LINE - ½" COPPER LINE WITH ½" ANGLE STOP AND ¾" COMPRESSION FITTING. TERMINATE STOP 4" OUT FROM FINISHED WALL.			 TREATMENT ROOM 12:00 WALL SEAL OPENINGS AS REQ'D 2" CONDUIT FOR COMPUTER DATA CABLES. NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT LOCATIONS. UTILITY CENTER BELOW CHAIR						
DETAIL - WALL MOUNTED UTILITY CENTER			13	DETAIL - WALL MOUNTED UTILITY CENTER			14	DETAIL - WALL MOUNTED UTILITY CENTER			15	DETAIL - CONDUIT			16
REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.	REF.: SOURCE:			N.T.S.

SEAL	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE	APPROVED BY: _____ DIRECTOR
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. <u>7373</u> EXPIRATION DATE <u>11/24/16</u> ARCHITECT: <u>LAURIE M. MCCLAIN, AIA</u>		Δ					PLAN SCALE: _____	
			Δ					PROFILE SCALE: _____	
			Δ						
			Δ						
		BUREAU OF ENGINEERING AND CONSTRUCTION		07/24/15					DATE: _____
		DESIGN BY: <u>Designer</u>	REVIEWED BY: _____		STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
		DWN BY: <u>Author</u>							
		CHKD BY: <u>Checker</u>							
			DATE REVIEWED: _____						APPROVED BY: _____ CHIEF
DATE: <u>06/19/15</u>									DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
DENTAL DETAILS – OPTION A

9150 Franklin Square Drive, Rosedale, MD 21237

SUBDIVISION:

ELECT. DISTRICT NO. 14C6

BID SET 06/16/15	
SHEET DESIGNATION	CONTRACT NO.
Q1.27 Δ	15025P00
JOB ORDER NO.	
249-218-0100-0614	
SHEET OF	
DRAWING NO.	
2015-2000	
FILE NO.	

EQUIPMENT NOTES

1. THE DENTAL EQUIPMENT PLAN IS NOT FOR CONSTRUCTION PURPOSES.
2. THE GENERAL CONTRACTOR IS TO REFER TO THE FINAL STAMPED A&E DRAWING SET FOR ALL NEW CONSTRUCTION.
3. THE DENTAL EQUIPMENT PLAN IS DIMENSIONED FROM THE FACE OF A FINISH WALL TO THE FACE OF A FINISH WALL, UNLESS OTHERWISE NOTED.
4. THE ON SITE BENCO REP. IS TO VERIFY ALL OVERALL DIMENSIONS LISTED ON THE DENTAL EQUIPMENT PLAN WITH THE ACTUAL AS BUILT CONDITIONS BEFORE PROCEEDING WITH THE NEW EQUIPMENT LAYOUT.

CARPENTRY NOTES

1. THE DENTAL CARPENTRY, ELECTRICAL, & PLUMBING PLAN IS DIMENSIONED FROM THE FACE OF A FINISH WALL TO THE CENTERLINE OF THE DENTAL EQUIPMENT, UNLESS OTHERWISE NOTED.
2. ALL BLOCKING WILL BE INSTALLED FLUSH WITH THE FACE OF THE STUDS.
3. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE TO BRACE AND PROTECT ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGES, COLLAPSE, DISTORTIONS, AND OFF-ALIGNMENT ACCORDING TO APPLICABLE CODES, STANDARDS, AND GOOD PRACTICE.
4. THE CARPENTER WILL BE RESPONSIBLE FOR BOTH THE STRUCTURAL INTEGRITY AND THE STABILITY OF ALL BLOCKING AND WALL SUPPORT.
5. THE CARPENTER WILL COMPLY WITH ALL BENCO INSPECTIONS, AS NOTED IN THE GENERAL NOTES IN THE FIRST SECTION OF THESE DOCUMENTS.
6. VERIFY LOCAL & STATE X-RAY SHIELDING REQUIREMENTS WITH ARCHITECT, CONTRACTOR OR CLIENT.

PLUMBING NOTES

1. THE PLUMBER WILL SUPPLY AND INSTALL A WATER PRESSURE REGULATOR ON INCOMING WATER SUPPLY. THE PLUMBER WILL SET THE REGULATOR NOT TO EXCEED 65 PSI.
2. THE PLUMBER WILL INSTALL THE WATER FILTER (AND THE WATER SOFTENER, AS NEEDED) ON THE COLD WATER MAIN ENTERING THE DENTAL SUITE. THE WATER FILTER WILL BE SUPPLIED BY EITHER BENCO DENTAL OR THE DOCTOR.
3. THE PLUMBER WILL SUPPLY AND INSTALL SEPARATE MANUAL SHUT-OFF VALVES ON ALL SINKS, DENTAL UNITS, AND OUTLETS REQUIRING WATER AND/OR AIR.
4. ALL SINKS AND FAUCETS WILL BE CONNECTED BY THE PLUMBER.
5. ALL PIPES WILL BE CONCEALED WITHIN THE WALLS AND/OR THE FLOOR, UNLESS OTHERWISE NOTED ON THE BENCO DRAWINGS.
6. THE PLUMBER WILL SEAL ALL PENETRATIONS THROUGH THE FLOOR WITH A FIRESTOP OR EQUIVALENT WATERPROOFING.
7. ALL PIPES WILL BE FLUSHED CLEAR OF ALL DEBRIS BY THE PLUMBER.
8. THE PLUMBER WILL BE ONSITE ON THE DAY(S) OF INSTALLATION TO WORK WITH THE BENCO REPRESENTATIVE ON THE FINAL HOOK-UP. THE PLUMBER WILL SUPPLY AND INSTALL ANY AND ALL MATERIALS INDICATED IN THE PLUMBING DETAILS SHOWN AND THE MANUFACTURER'S INSTALLATION INSTRUCTION SHEETS.
9. THE PLUMBER WILL PROVIDE AND INSTALL ALL WATER SAFETY DEVICES (i.e. CHECK VALVES, BACKFLOW PREVENTERS, ETC.) IN ACCORDANCE WITH LOCAL CODE.
10. THE PLUMBER WILL INSTALL COMPLETE AND MAKE FINAL HOOK-UP TO THE FOLLOWING DENTAL EQUIPMENT, SUPPLIED BY THE DOCTOR AND/OR BENCO DENTAL, INCLUDING, BUT NOT LIMITED TO:

- AIR COMPRESSOR
- VACUUM PUMP
- AIR/WATER SEPARATORS
- WATER CONTROL VALVE

11. AN ELECTRIC MASTER WATER SHUT-OFF VALVE IS REQUIRED FOR ANY/ALL COLD WATER LINES FEEDING ALL DENTAL EQUIPMENT. THIS WATER SHUT-OFF VALVE IS REQUIRED WHETHER SUPPLIED BY BENCO, THE DOCTOR, OR THE PLUMBER.
12. THE PLUMBER WILL COMPLY WITH ALL BENCO INSPECTIONS, AS NOTED IN THE GENERAL NOTES ON THE FIRST PAGE OF THESE DOCUMENTS.
13. GENERAL DENTAL PLUMBING LINES SHOWN ARE FOR GRAPHICALLY DISPLAYING ORIGATION AND TERMINATION POINTS. FIELD CONDITIONS MAY ALTER PLUMBING LINE LAYOUT, PER PLUMBERS DISCRETION. THE FINAL LAYOUT OF THE PLUMBING LINES IS THE RESPONSIBILITY OF THE PLUMBER.
14. THE APPLICATION OF DENTAL COMPRESSED AIR AS NOTED ON THIS PLAN IS NOT USED FOR LIFE-SUPPORT PURPOSES SUCH AS RESPIRATORS, IPPB MACHINES, ANALGESIA, ANESTHESIA, AND SO FORTH. IT IS ONLY USED AS INCIDENTAL AIR DISCHARGED INTO THE ORAL CAVITY AND NOT A PRIMARY SOURCE OF AIR TO SUSTAIN LIFE.

PLUMBING SINK LEGEND

SINK - SINK, FAUCET AND STRAINER SUPPLIED BY OTHERS. PLUMBER SHALL INSTALL HOT AND COLD WATER LINES, WASTE AND TRAP ROUGH-IN PER LOCAL CODES. PROVIDE AIR LINE WITH SHUTOFF FOR AIR ACTUATED FAUCET CONTROL MECHANISM (IF APPLICABLE). PLUMBER SHALL BE RESPONSIBLE FOR FINAL HOOKUP. SEE MANUFACTURER'S SPECIFICATIONS FOR EXACT LOCATION AND REQUIREMENTS.

SINK - SINK, FAUCET AND STRAINER PROVIDED WITH CABINETY SUPPLIED BY BENCO. PLUMBER SHALL INSTALL HOT AND COLD WATER LINES, WASTE AND TRAP ROUGH-IN PER LOCAL CODES. PROVIDE AIR LINE WITH SHUTOFF FOR AIR ACTUATED FAUCET CONTROL MECHANISM. PLUMBER SHALL BE RESPONSIBLE FOR FINAL HOOKUP. SEE MANUFACTURER'S SPECIFICATIONS FOR EXACT LOCATION AND REQUIREMENTS.

ELECTRICAL NOTES

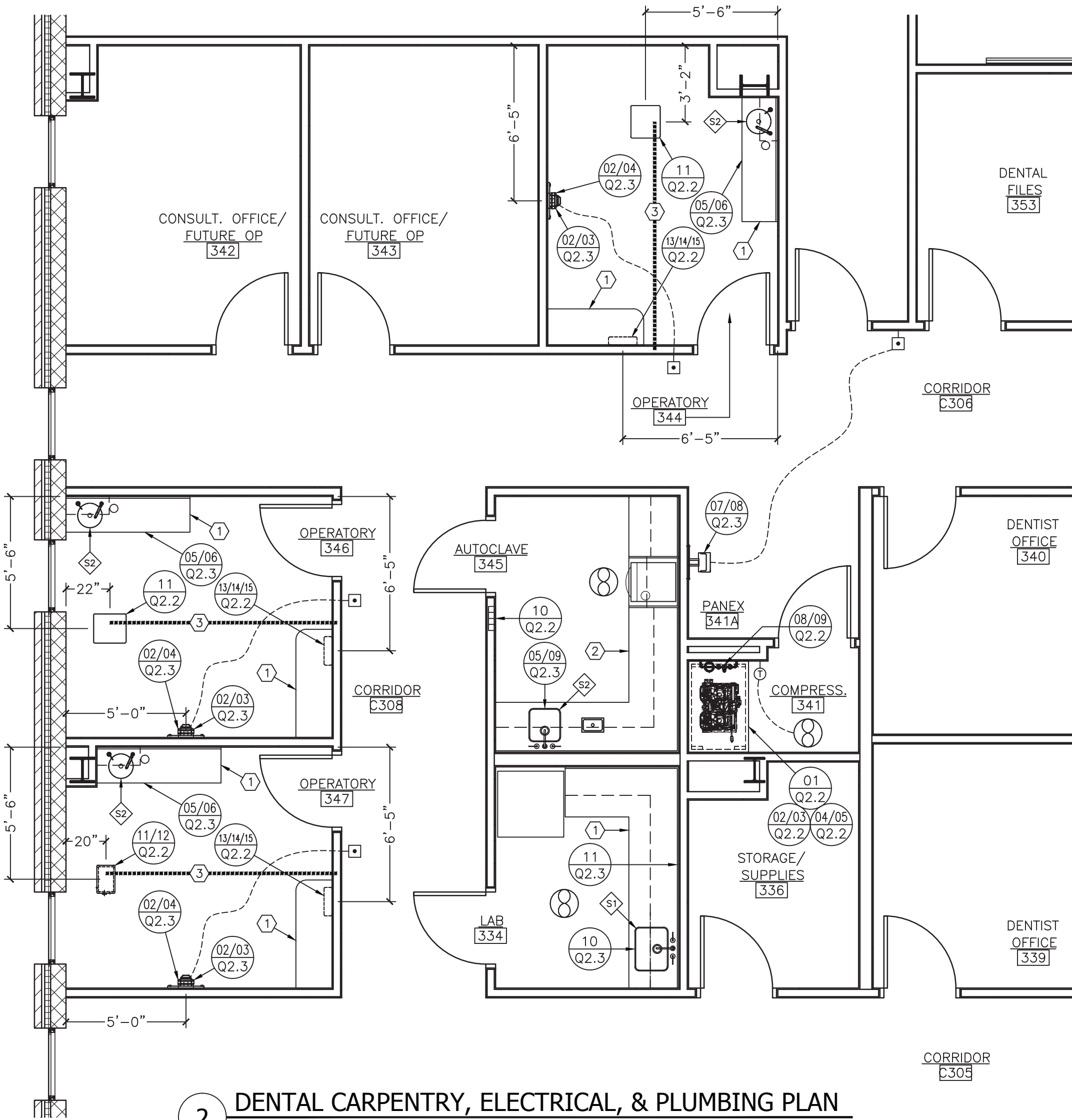
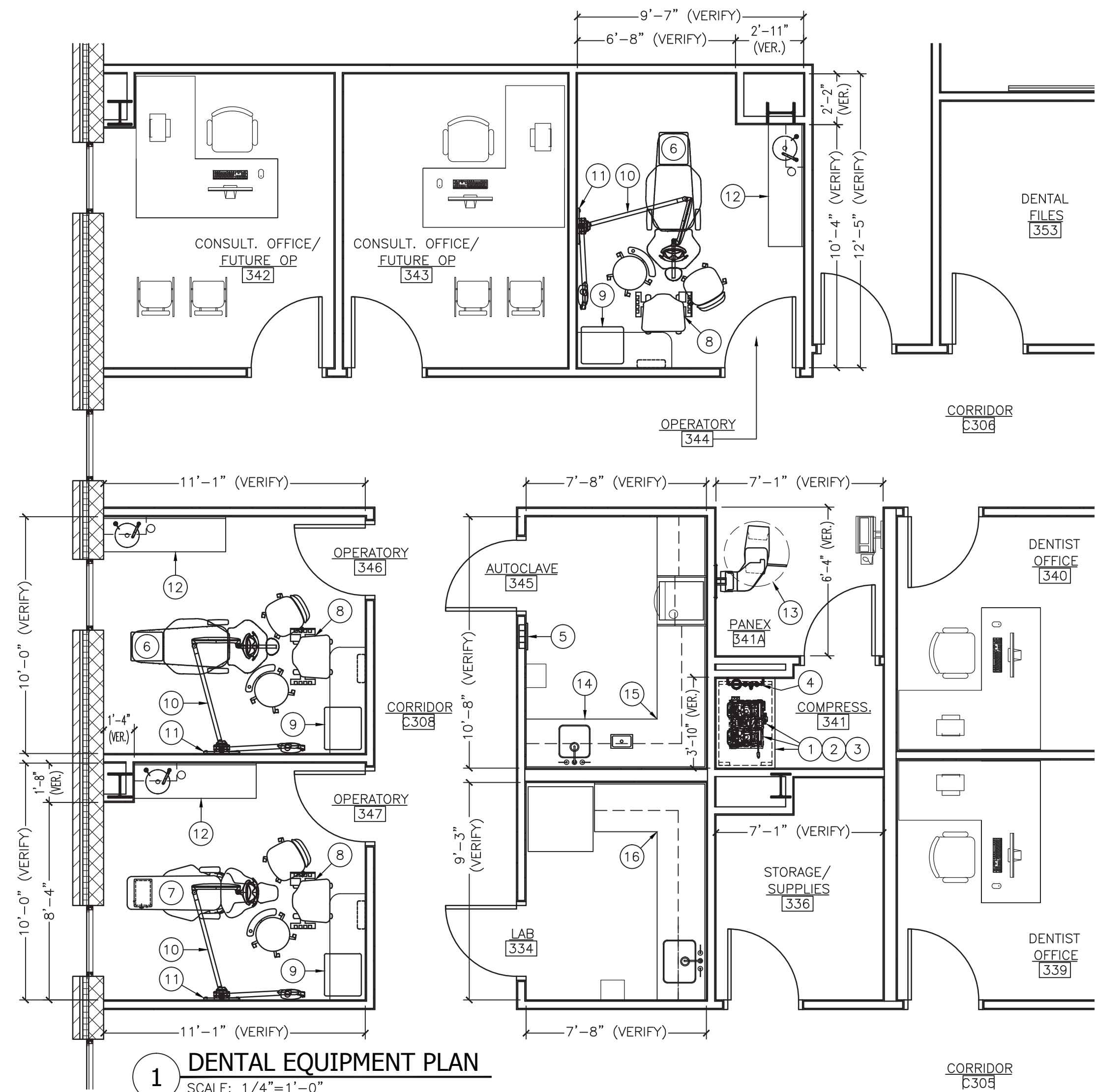
1. ALL EQUIPMENT WILL BE SINGLE PHASE, UNLESS OTHERWISE NOTED.
2. ALL WIRING WILL BE CONCEALED WITHIN THE WALLS AND/OR FLOOR, UNLESS OTHERWISE NOTED.
3. THE ELECTRICIAN WILL TAG ALL WIRES AT TERMINATION POINTS.
4. THE ELECTRICIAN WILL INSTALL COMPLETE AND MAKE FINAL HOOK-UP TO THE FOLLOWING DENTAL EQUIPMENT, SUPPLIED BY EITHER THE DOCTOR OR BENCO DENTAL, INCLUDING, BUT NOT LIMITED TO:
- AIR COMPRESSOR
 - VACUUM PUMP
 - WATER CONTROL VALVE
 - CONTROL PANEL
5. THE ELECTRICIAN WILL BE ONSITE ON THE DAY(S) OF INSTALLATION TO WORK WITH THE BENCO REPRESENTATIVE ON FINAL HOOK-UP. THE ELECTRICIAN WILL SUPPLY AND INSTALL ANY AND ALL MATERIALS INDICATED IN THE ELECTRICAL DETAILS SHOWN AND MANUFACTURER'S INSTALLATION INSTRUCTION SHEETS.
6. THE ELECTRICIAN WILL SEAL ALL PENETRATIONS THROUGH THE FLOOR WITH A FIRESTOP OR EQUIVALENT WATERPROOFING.
7. THE ELECTRICIAN WILL COMPLY WITH ALL BENCO INSPECTIONS, AS NOTED IN THE GENERAL NOTES ON THE FIRST PAGE OF THESE DOCUMENTS.
8. ALL 120 VOLT, 20 AMP OUTLETS INSTALLED WITHIN 6 FEET OF A SINK AND THOSE LOCATED OUTDOORS SHALL HAVE GFCI PROTECTION.
9. ALL 120 VOLT, 20 AMP DENTAL EQUIPMENT OUTLETS INSTALLED WITHIN 6 FEET OF A WATER SOURCE SHALL HAVE GFCI PROTECTION.

ELECTRICAL NOTES LEGEND

- ① GENERAL DUPLEX RECEPTACLES (MOUNTED ABOVE &/OR BELOW COUNTERTOPS) - 110V, 20A (VERIFY QUANTITIES & EXACT LOCATIONS WITH OWNER AT TIME OF LAYOUT)
- ② STERILE CABINET POWER - (3) 110V, DEDICATED 20 AMP CIRCUITS WITH JUNCTION BOXES (2) 110V, DEDICATED 20 AMP CIRCUITS WITH JUNCTION BOX FOR AUTOCLAVE (VERIFY EXACT LOCATIONS WITH BENCO REP. AT TIME OF LAYOUT)
- ③ 2" CONDUIT (SEE DETAIL 16 ON SHEET Q1.2 & DETAIL 01 ON SHEET Q2.3)

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	EXPOSURE BUTTON
	THERMOSTATIC ON/OFF SWITCH
	WIRING, CONCEALED IN WALL OR CEILING
	CONDUIT, CONCEALED IN FLOOR
	EXHAUST FAN MOUNTED IN CEILING

DENTAL EQUIPMENT LEGEND			
ITEM	DESCRIPTION	STATUS	LOCATION
1	EQUIPMENT PLATFORM (BY OTHERS)	NEW	COMPRESS. 341
2	RAMVAC OSPREY OSP23 AIR COMPRESSOR (ON PLATFORM)	NEW	COMPRESS. 341
3	DENTALEZ MC201FSW DUAL WET VACUUM PUMP (ON FLOOR)	NEW	COMPRESS. 341
4	DENTALEZ WC-210 REMOTE WATER CONTROL VALVE	NEW	COMPRESS. 341
5	RAMVAC 4-BUTTON REMOTE CONTROL PANEL (A/W/V/V)	NEW	AUTOCLAVE 345 (VERIFY LOCATION)
6	P&C SPIRIT 1702 DENTAL CHAIR	NEW	OP 344, & OP 346
7	DENTALEZ NUSIMPLICITY DENTAL CHAIR WITH AIRGLIDE OPTION	NEW	OP 347
8	P&C SPIRIT 2802 DUAL DELIVERY MOBILE CART	NEW	ALL OPs
9	MCC ALABAMA MOBILE CART	NEW	ALL OPs
10	P&C HELIOS 1800 WALL MOUNTED DENTAL LIGHT	NEW	ALL OPs
11	GENDEX EXPERT DC75 INTRAORAL X-RAY WITH 75" REACH	NEW	ALL OPs
12	P&C CSS62-9 SIDE SUPPORT CABINET WITH UPPER DISPENSER	NEW	ALL OPs
13	PLAN MECA PROLINE XC PANORAMIC X-RAY	EXISTING	PANEX 341A
14	P&C SOLARIS STERILIZATION CABINET	NEW	AUTOCLAVE 345
15	MISCELLANEOUS STERILIZATION EQUIPMENT: ULTRASONIC CLEANER, & (2) AUTOCLAVES	NEW/FUT.	AUTOCLAVE 345 (VERIFY LOCATIONS)
16	MISCELLANEOUS LAB EQUIPMENT: DISPOSABLE PLASTER TRAP, MODEL TRIMMER, & LATHE	NEW/FUT.	LAB 334 (VERIFY LOCATIONS)
-	REMAINING MISCELLANEOUS CABINETY & MILLWORK BY OTHERS	NEW	AS SHOWN ON EQUIPMENT PLAN



SEAL	PROFESSIONAL CERTIFICATION			AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE			
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 2373 EXPIRATION DATE 11/24/16 ARCHITECT: LAURIE M. MCCLAIN, AIA								PLAN SCALE:		APPROVED BY: _____ DIRECTOR	
												
												
												
						R.O.W. NO.			PROFILE SCALE:		DATE: _____	
				 Addendum 03	07/24/15							
				BUREAU OF ENGINEERING AND CONSTRUCTION	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER		
				DESIGN BY: <u>Designer</u>								
				DWN BY: <u>Author</u>	REVIEWED BY: _____						APPROVED BY: _____ CHIEF	
			CHKD BY: <u>Checker</u>	DATE REVIEWED: _____						DATE: _____		
DATE: <u>06/19/15</u>												

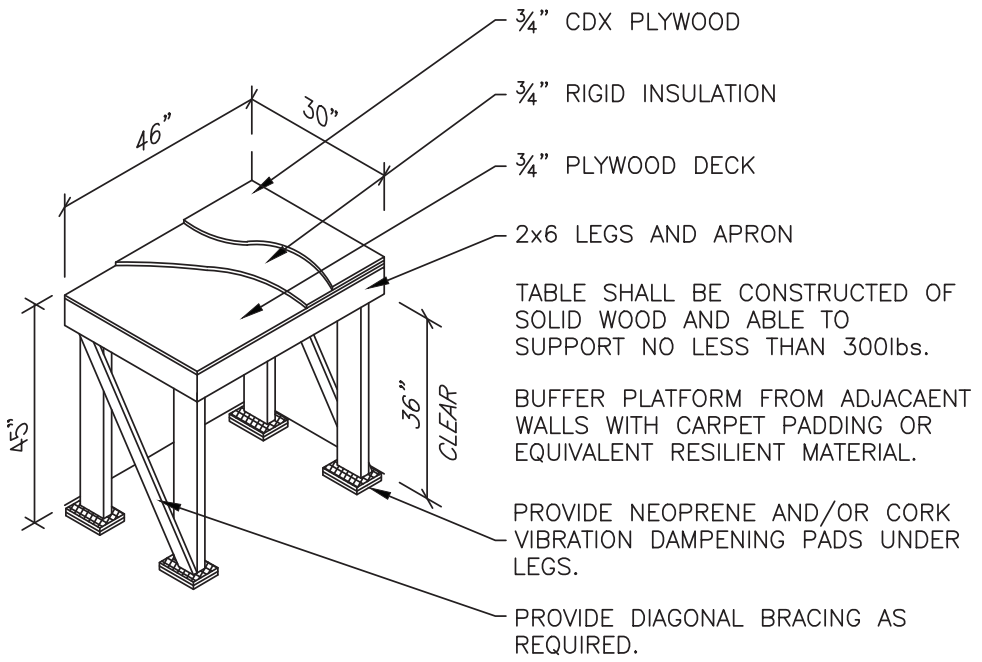
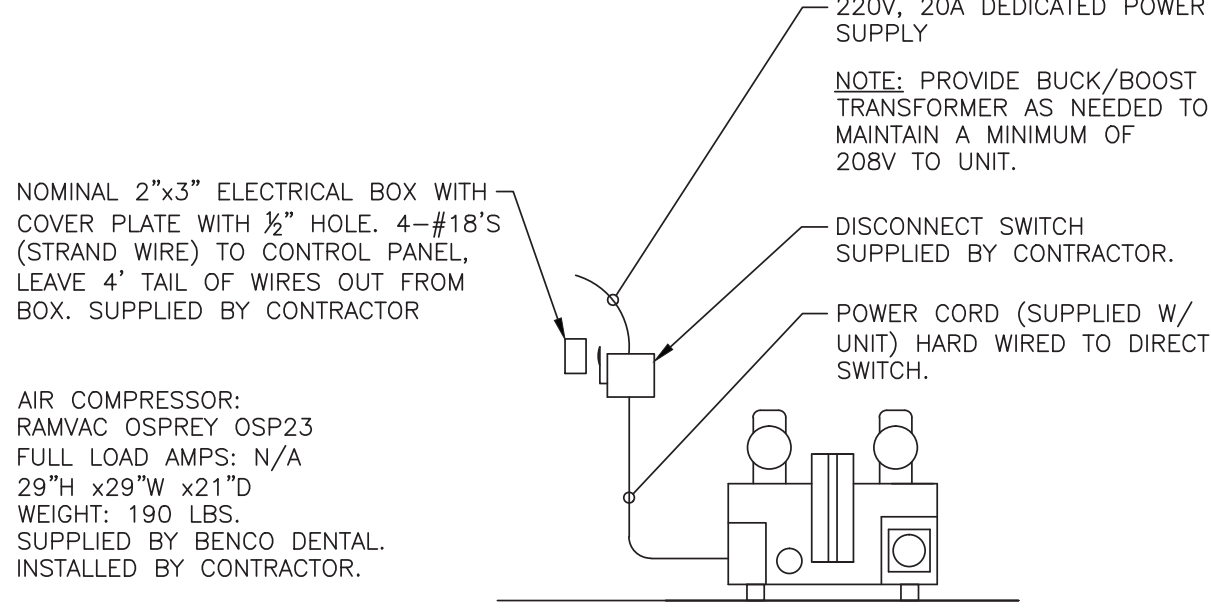
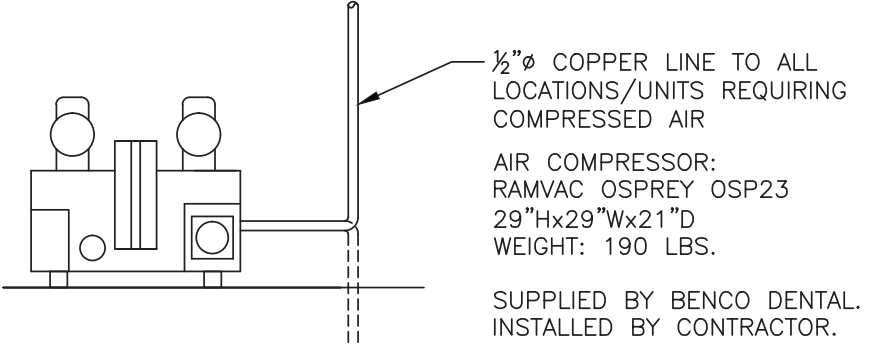
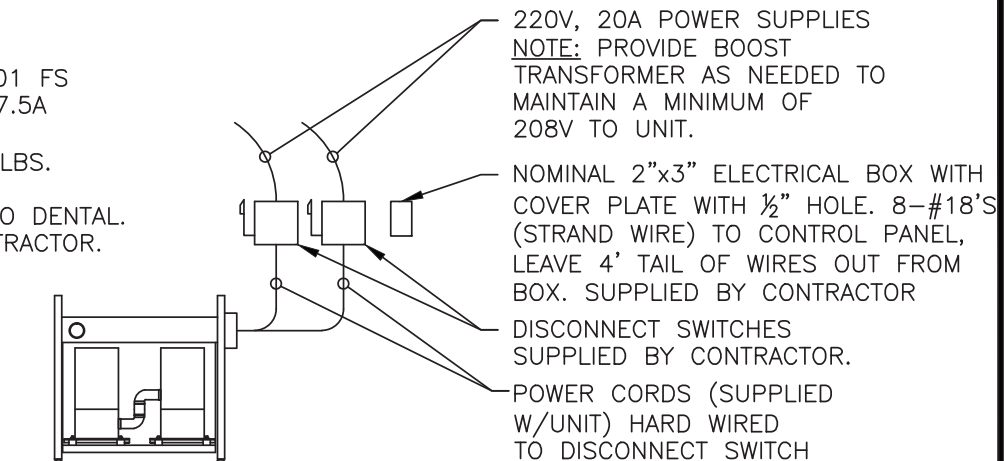
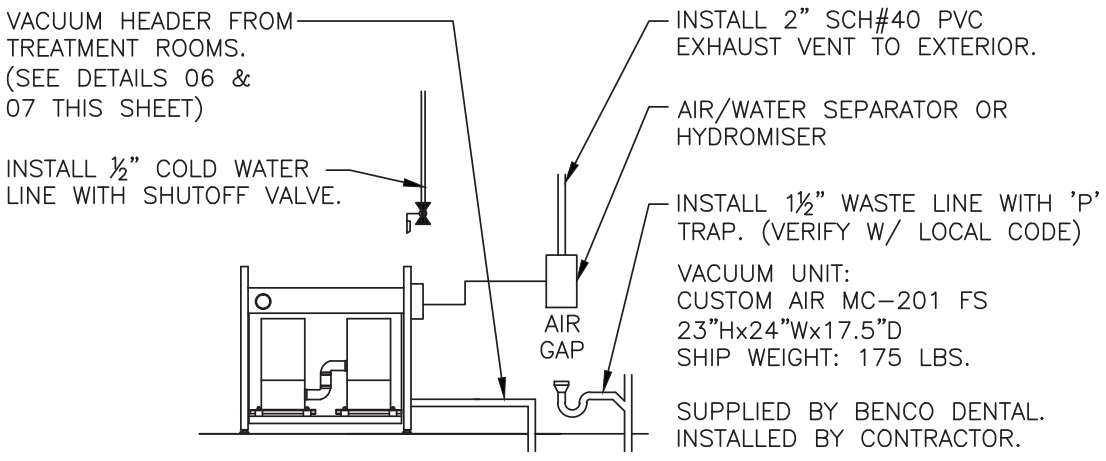
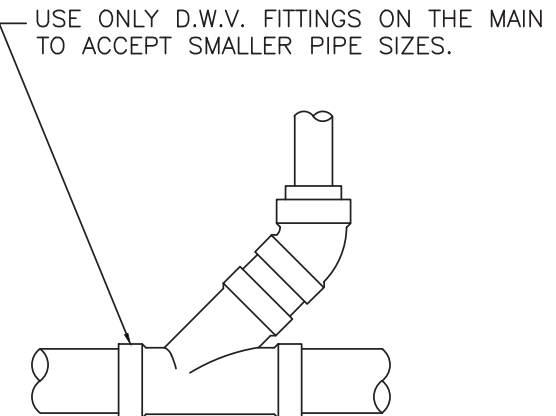
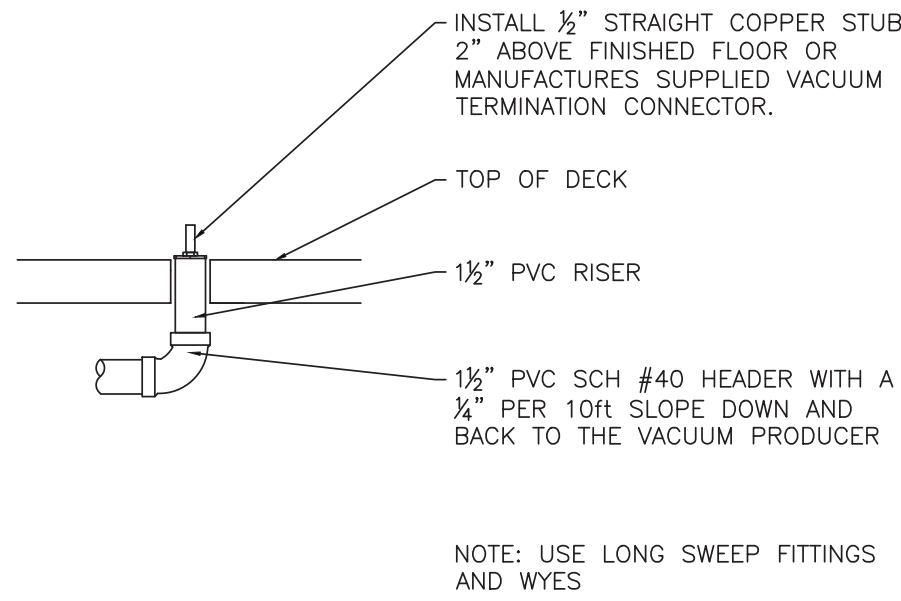
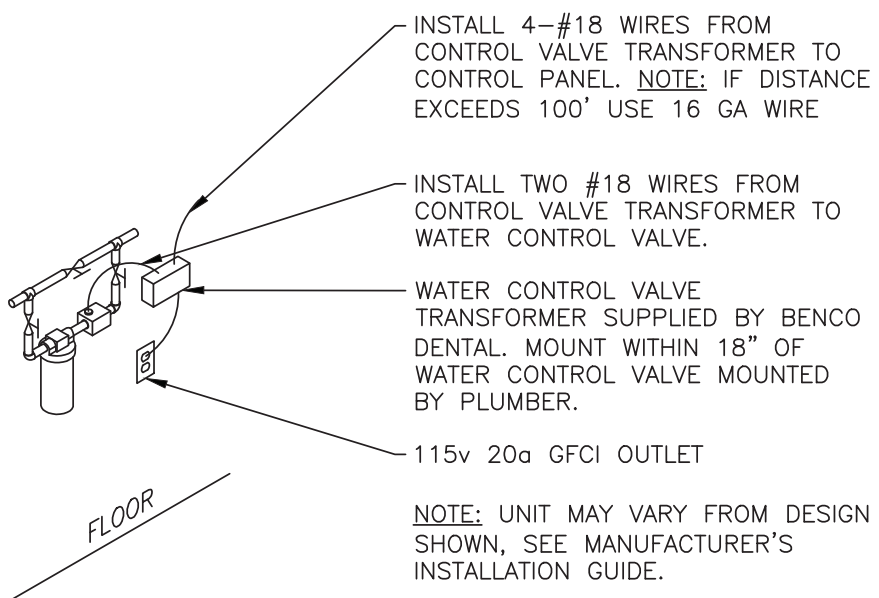
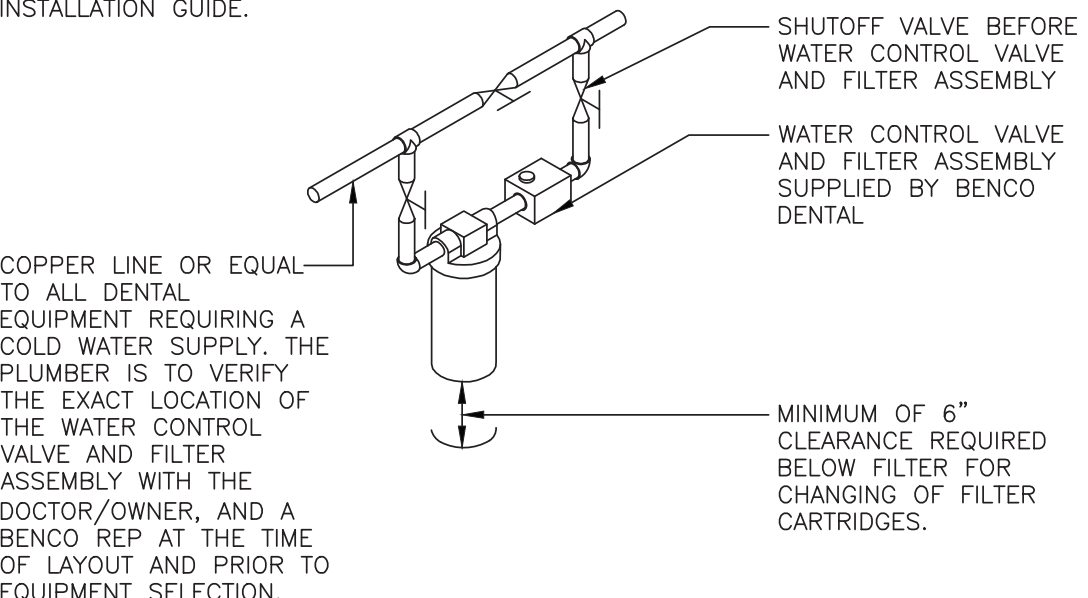
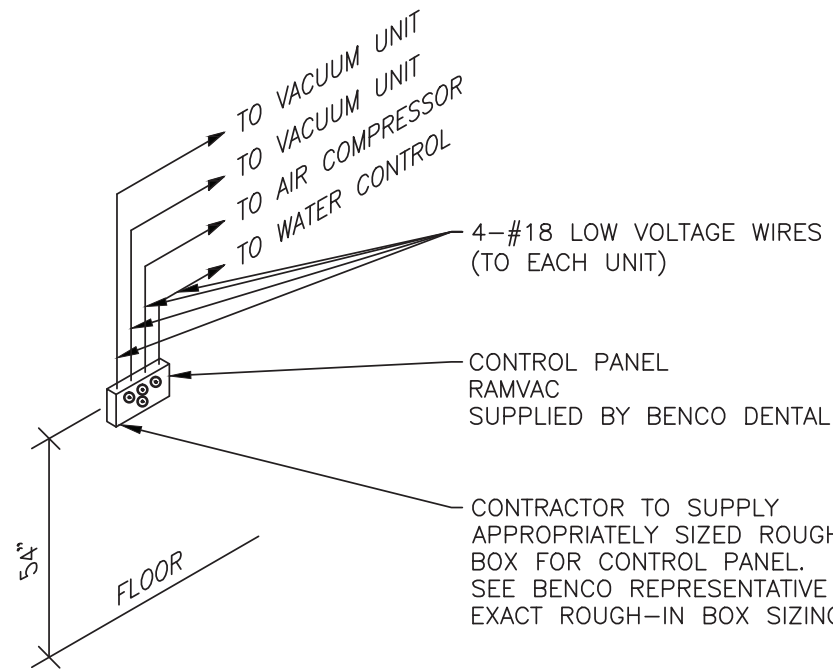
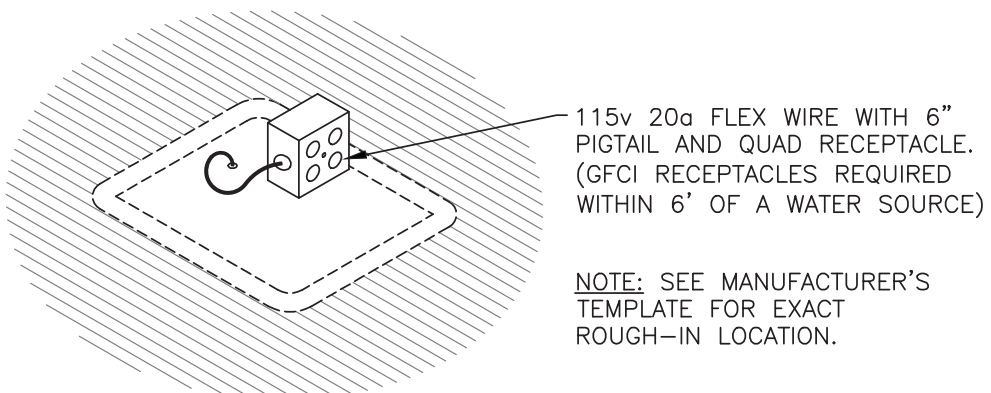
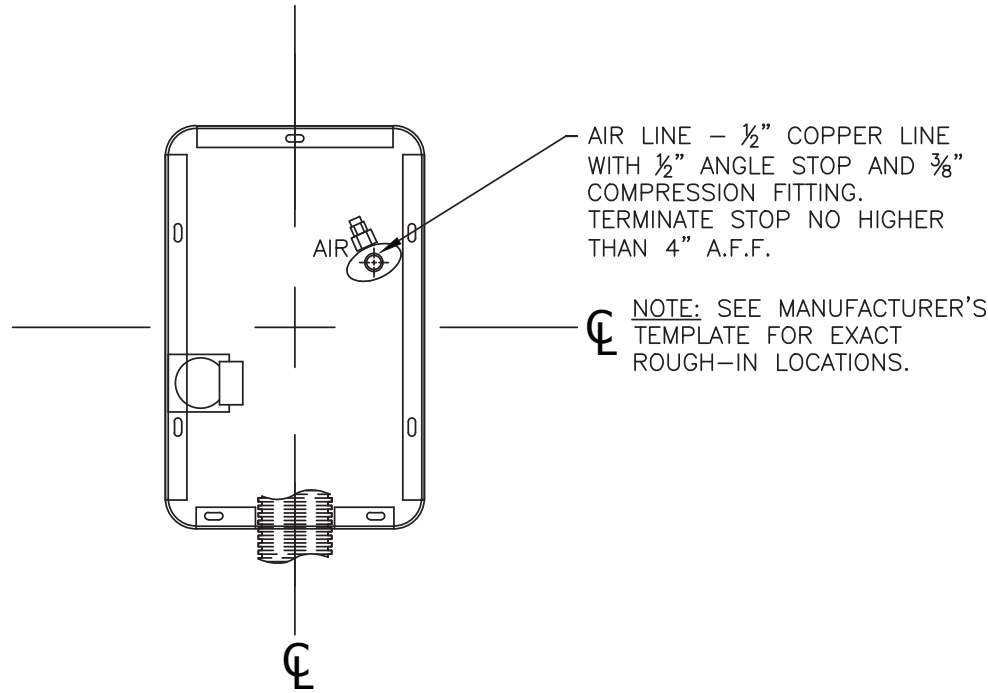
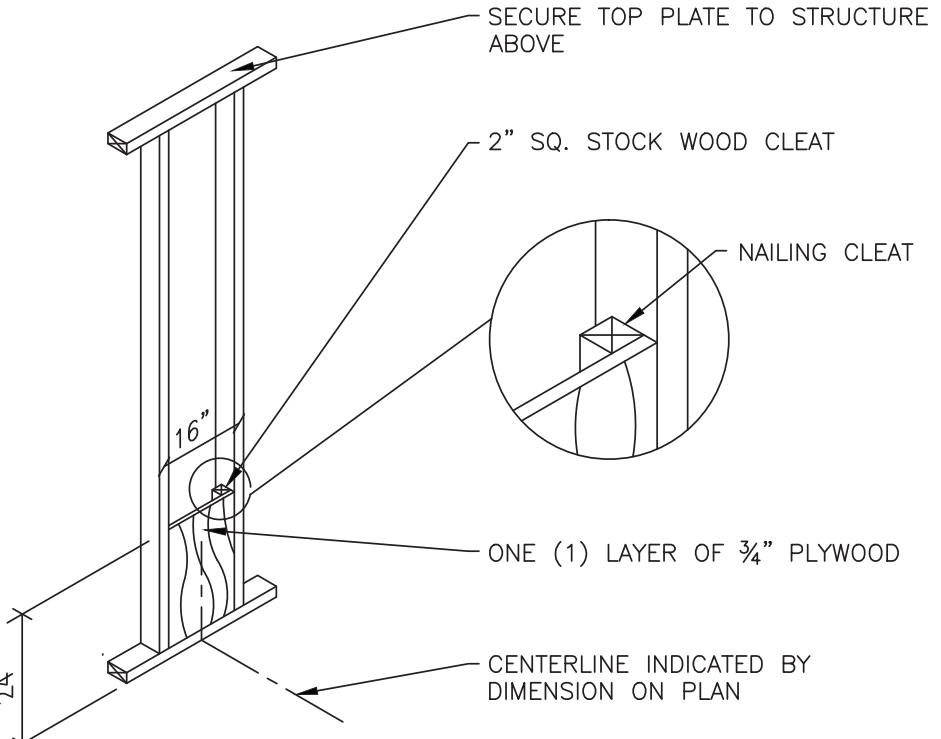
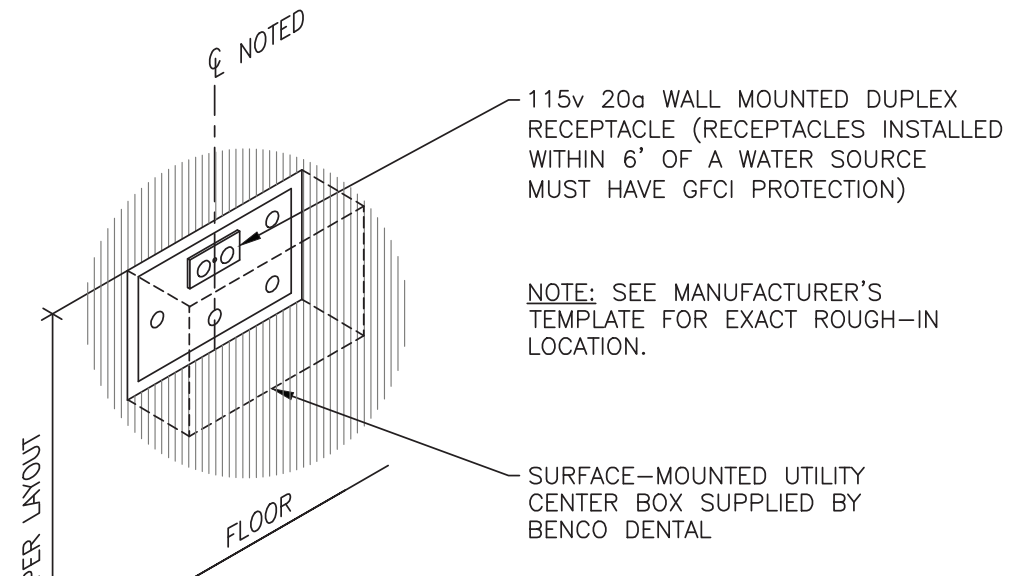
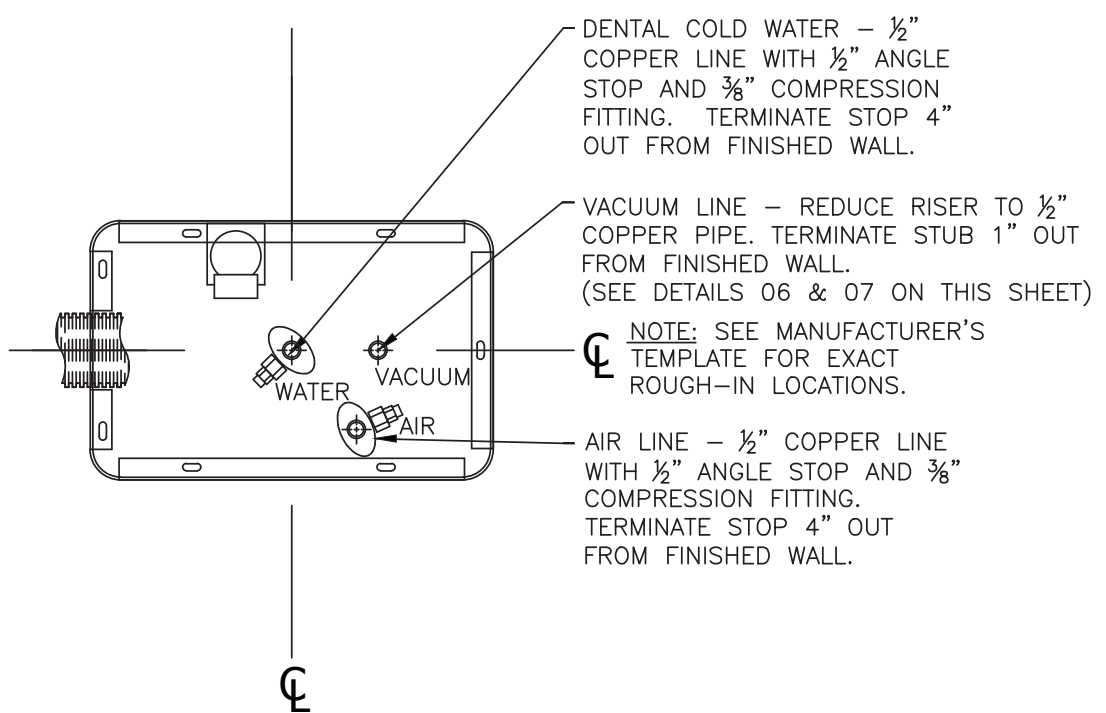
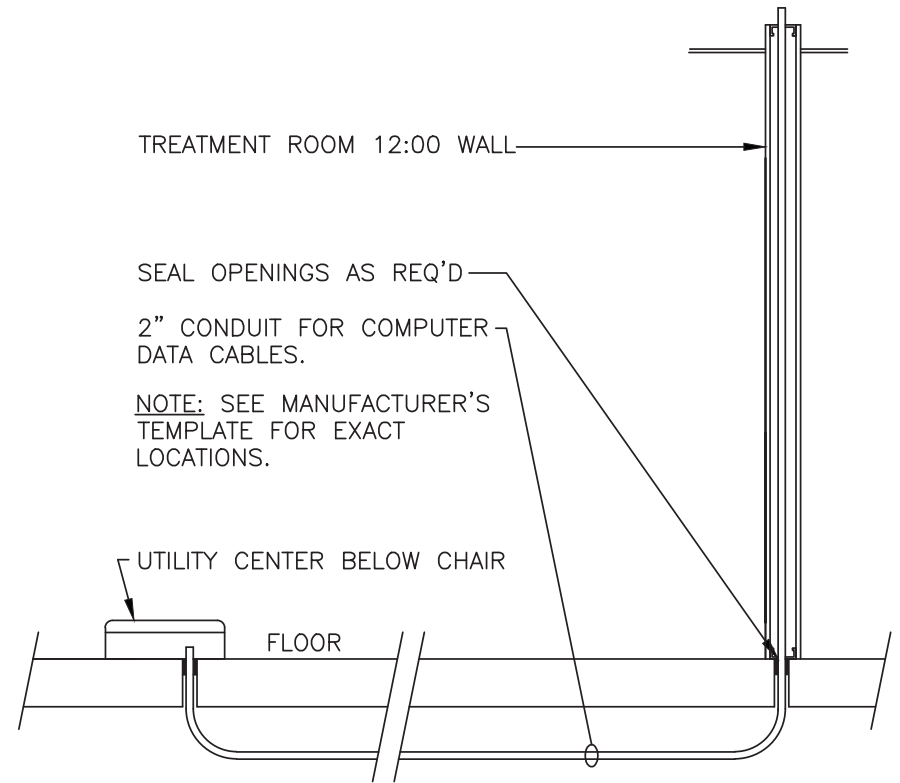
SUBDIVISION:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
DENTAL EQUIPMENT PLAN - OPTION B

9150 Franklin Square Drive, Rosedale, MD 21237

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
Q2.1 A	15025P00
	JOB ORDER NO.
	249-218-0100-0614
SHEET OF	DRAWING NO.
	2015-2002
FILE NO.	

 3/4" CDX PLYWOOD 3/4" RIGID INSULATION 3/4" PLYWOOD DECK 2x6 LEGS AND APRON TABLE SHALL BE CONSTRUCTED OF SOLID WOOD AND ABLE TO SUPPORT NO LESS THAN 500lbs. BUFFER PLATFORM FROM ADJACENT WALLS WITH CARPET PADDING OR EQUIVALENT RESILIENT MATERIAL. PROVIDE NEOPRENE AND/OR CORK VIBRATION DAMPENING PADS UNDER LEGS. PROVIDE DIAGONAL BRACING AS REQUIRED.		 NOMINAL 2"x3" ELECTRICAL BOX WITH COVER PLATE WITH 1/2" HOLE. 4-#18'S (STRAND WIRE) TO CONTROL PANEL, LEAVE 4" TAIL OF WIRES OUT FROM BOX. SUPPLIED BY CONTRACTOR AIR COMPRESSOR: RAMVAC OSPREY OSP23 FULL LOAD AMPS: N/A 29"H x29"W x21"D WEIGHT: 190 LBS. SUPPLIED BY BENCO DENTAL. INSTALLED BY CONTRACTOR. 220V, 20A DEDICATED POWER SUPPLY NOTE: PROVIDE BUCK/BOOST TRANSFORMER AS NEEDED TO MAINTAIN A MINIMUM OF 208V TO UNIT. DISCONNECT SWITCH SUPPLIED BY CONTRACTOR. POWER CORD (SUPPLIED W/ UNIT) HARD WIRED TO DIRECT SWITCH.		 1/2" COPPER LINE TO ALL LOCATIONS/UNITS REQUIRING COMPRESSED AIR AIR COMPRESSOR: RAMVAC OSPREY OSP23 29"Hx29"Wx21"D WEIGHT: 190 LBS. SUPPLIED BY BENCO DENTAL. INSTALLED BY CONTRACTOR.		 VACUUM UNIT: CUSTOM AIR MC-201 FS FULL LOAD AMPS: 7.5A 23"Hx24"Wx17.5"D SHIP WEIGHT: 175 LBS. SUPPLIED BY BENCO DENTAL. INSTALLED BY CONTRACTOR. 220V, 20A POWER SUPPLIES NOTE: PROVIDE BOOST TRANSFORMER AS NEEDED TO MAINTAIN A MINIMUM OF 208V TO UNIT. NOMINAL 2"x3" ELECTRICAL BOX WITH COVER PLATE WITH 1/2" HOLE. 8-#18'S (STRAND WIRE) TO CONTROL PANEL, LEAVE 4" TAIL OF WIRES OUT FROM BOX. SUPPLIED BY CONTRACTOR DISCONNECT SWITCHES SUPPLIED BY CONTRACTOR. POWER CORDS (SUPPLIED W/UNIT) HARD WIRED TO DISCONNECT SWITCH	
DETAIL - EQUIPMENT PLATFORM (BY OTHERS)	01	DETAIL - AIR COMPRESSOR (ON PLATFORM)	02	DETAIL - AIR COMPRESSOR (ON PLATFORM)	03	DETAIL - VACUUM PUMP (ON FLOOR)	04
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.
 VACUUM HEADER FROM TREATMENT ROOMS. (SEE DETAILS 06 & 07 THIS SHEET) INSTALL 1/2" COLD WATER LINE WITH SHUTOFF VALVE. INSTALL 2" SCH#40 PVC EXHAUST VENT TO EXTERIOR. AIR/WATER SEPARATOR OR HYDROMISER INSTALL 1 1/2" WASTE LINE WITH 'P' TRAP. (VERIFY W/ LOCAL CODE) VACUUM UNIT: CUSTOM AIR MC-201 FS 23"Hx24"Wx17.5"D SHIP WEIGHT: 175 LBS. SUPPLIED BY BENCO DENTAL. INSTALLED BY CONTRACTOR.		 USE ONLY 45' OR LONG RADIUS, DWV FITTINGS WHEREVER POSSIBLE. NO 'HEAD-ON' INTERSECTIONS (TEES OR CROSSES) OR SAGS ANYWHERE. ALL LINES FALL WITH A DROP OF 1/4" IN EVERY TEN FEET OF LENGTH TOWARDS THE CENTRAL VACUUM UNIT. USE ONLY D.W.V. FITTINGS ON THE MAIN TO ACCEPT SMALLER PIPE SIZES.		 INSTALL 1/2" STRAIGHT COPPER STUB 2" ABOVE FINISHED FLOOR OR MANUFACTURER'S SUPPLIED VACUUM TERMINATION CONNECTOR. TOP OF DECK 1 1/2" PVC RISER 1 1/2" PVC SCH #40 HEADER WITH A 1/4" PER 10ft SLOPE DOWN AND BACK TO THE VACUUM PRODUCER NOTE: USE LONG SWEEP FITTINGS AND WYES		 INSTALL 4-#18 WIRES FROM CONTROL VALVE TRANSFORMER TO CONTROL PANEL. NOTE: IF DISTANCE EXCEEDS 100' USE 16 GA WIRE INSTALL TWO #18 WIRES FROM CONTROL VALVE TRANSFORMER TO WATER CONTROL VALVE. WATER CONTROL VALVE TRANSFORMER SUPPLIED BY BENCO DENTAL. MOUNT WITHIN 18" OF WATER CONTROL VALVE MOUNTED BY PLUMBER. 115v 20a GFCI OUTLET NOTE: UNIT MAY VARY FROM DESIGN SHOWN, SEE MANUFACTURER'S INSTALLATION GUIDE.	
DETAIL - VACUUM PUMP (ON FLOOR)	05	DETAIL - VACUUM PIPING	06	DETAIL - VACUUM PIPING	07	DETAIL - REMOTE WATER CONTROL VALVE	08
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.
THIS WORK TO BE DONE BY THE PLUMBING CONTRACTOR. NOTE: ACTUAL UNIT MAY VARY FROM DESIGN SHOWN, SEE MANUFACTURER'S INSTALLATION GUIDE.  SHUTOFF VALVE BEFORE WATER CONTROL VALVE AND FILTER ASSEMBLY WATER CONTROL VALVE AND FILTER ASSEMBLY SUPPLIED BY BENCO DENTAL MINIMUM OF 6" CLEARANCE REQUIRED BELOW FILTER FOR CHANGING OF FILTER CARTRIDGES. COPPER LINE OR EQUAL TO ALL DENTAL EQUIPMENT REQUIRING A COLD WATER SUPPLY. THE PLUMBER IS TO VERIFY THE EXACT LOCATION OF THE WATER CONTROL VALVE AND FILTER ASSEMBLY WITH THE DOCTOR/OWNER, AND A BENCO REP AT THE TIME OF LAYOUT AND PRIOR TO EQUIPMENT SELECTION.		 TO VACUUM UNIT TO VACUUM UNIT TO AIR COMPRESSOR TO WATER CONTROL 4-#18 LOW VOLTAGE WIRES (TO EACH UNIT) CONTROL PANEL RAMVAC SUPPLIED BY BENCO DENTAL CONTRACTOR TO SUPPLY APPROPRIATELY SIZED ROUGH-IN BOX FOR CONTROL PANEL. SEE BENCO REPRESENTATIVE FOR EXACT ROUGH-IN BOX SIZING.		 115v 20a FLEX WIRE WITH 6" PIGTAIL AND QUAD RECEPTACLE. (GFCI RECEPTACLES REQUIRED WITHIN 6' OF A WATER SOURCE) NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT ROUGH-IN LOCATION.		 AIR LINE - 1/2" COPPER LINE WITH 1/2" ANGLE STOP AND 3/8" COMPRESSION FITTING. TERMINATE STOP NO HIGHER THAN 4" A.F.F. NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT ROUGH-IN LOCATIONS.	
DETAIL - REMOTE WATER CONTROL VALVE	09	DETAIL - REMOTE CONTROL PANEL	10	DETAIL - DENTAL CHAIR UTILITY CENTER	11	DETAIL - DENTAL CHAIR UTILITY CENTER	12
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.
 SECURE TOP PLATE TO STRUCTURE ABOVE 2" SQ. STOCK WOOD CLEAT NAILING CLEAT ONE (1) LAYER OF 3/4" PLYWOOD CENTERLINE INDICATED BY DIMENSION ON PLAN		 115v 20a WALL MOUNTED DUPLEX RECEPTACLE (RECEPTACLES INSTALLED WITHIN 6' OF A WATER SOURCE MUST HAVE GFCI PROTECTION) NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT ROUGH-IN LOCATION. SURFACE-MOUNTED UTILITY CENTER BOX SUPPLIED BY BENCO DENTAL		 DENTAL COLD WATER - 1/2" COPPER LINE WITH 1/2" ANGLE STOP AND 3/8" COMPRESSION FITTING. TERMINATE STOP 4" OUT FROM FINISHED WALL. VACUUM LINE - REDUCE RISER TO 1/2" COPPER PIPE, TERMINATE STUB 1" OUT FROM FINISHED WALL. (SEE DETAILS 06 & 07 ON THIS SHEET) NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT ROUGH-IN LOCATIONS. AIR LINE - 1/2" COPPER LINE WITH 1/2" ANGLE STOP AND 3/8" COMPRESSION FITTING. TERMINATE STOP 4" OUT FROM FINISHED WALL.		 TREATMENT ROOM 12:00 WALL SEAL OPENINGS AS REQ'D 2" CONDUIT FOR COMPUTER DATA CABLES. NOTE: SEE MANUFACTURER'S TEMPLATE FOR EXACT LOCATIONS. UTILITY CENTER BELOW CHAIR FLOOR	
DETAIL - WALL MOUNTED UTILITY CENTER	13	DETAIL - WALL MOUNTED UTILITY CENTER	14	DETAIL - WALL MOUNTED UTILITY CENTER	15	DETAIL - CONDUIT	16
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.

SEAL	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE	APPROVED BY: _____ DIRECTOR DATE: _____
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.							PLAN SCALE: _____	
	LICENSE NO. 2373 EXPIRATION DATE 11/24/16				R.O.W. NO.			PROFILE SCALE: _____	
	ARCHITECT: LAURIE M. MCCLAIN, AIA		BUREAU OF ENGINEERING AND CONSTRUCTION	07/24/15				FIELD ENGINEER	
	DSGN BY: Designer		REVIEWED BY:						
DWN BY: Author		DATE REVIEWED:							APPROVED BY: _____ CHIEF DATE: _____
CHKD BY: Checker									
DATE: 06/19/15									

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
DENTAIL DETAILS – OPTION B

9150 Franklin Square Drive, Rosedale, MD 21237

SUBDIVISION:

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
Q2.2	15025P00
JOB ORDER NO.	249-218-0100-0614
SHEET OF	DRAWING NO.
	2015-2003
FILE NO.	

DETAIL - CONDUIT TERMINATION		01	DETAIL - WALL MOUNTED LIGHT & INTRAORAL X-RAY		02	DETAIL - WALL MOUNTED LIGHT		03	DETAIL - INTRAORAL X-RAY		04
REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.
DETAIL - STERILIZATION / SIDE SUPPORT CABINET		05	DETAIL - SIDE SUPPORT CABINET		06	DETAIL - PANORAMIC X-RAY		07	DETAIL - PANORAMIC X-RAY		08
REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.
DETAIL - STERILIZATION CABINET		09	DETAIL - MODEL TRIMMER / PLASTER TRAP		10	DETAIL - AIR OUTLET		11	DETAIL		12
REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.	REF.: SOURCE:		N.T.S.

EQUIPMENT NOTES

1. THE DENTAL EQUIPMENT PLAN IS NOT FOR CONSTRUCTION PURPOSES.
2. THE GENERAL CONTRACTOR IS TO REFER TO THE FINAL STAMPED A&E DRAWING SET FOR ALL NEW CONSTRUCTION.
3. THE DENTAL EQUIPMENT PLAN IS DIMENSIONED FROM THE FACE OF A FINISH WALL TO THE FACE OF A FINISH WALL, UNLESS OTHERWISE NOTED.
4. THE ON SITE BENCO REP. IS TO VERIFY ALL OVERALL DIMENSIONS LISTED ON THE DENTAL EQUIPMENT PLAN WITH THE ACTUAL AS BUILT CONDITIONS BEFORE PROCEEDING WITH THE NEW EQUIPMENT LAYOUT.

CARPENTRY NOTES

1. THE DENTAL CARPENTRY, ELECTRICAL, & PLUMBING PLAN IS DIMENSIONED FROM THE FACE OF A FINISH WALL TO THE CENTERLINE OF THE DENTAL EQUIPMENT, UNLESS OTHERWISE NOTED.
2. ALL BLOCKING WILL BE INSTALLED FLUSH WITH THE FACE OF THE STUDS.
3. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE TO BRACE AND PROTECT ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGES, COLLAPSE, DISTORTIONS, AND OFF-ALIGNMENT ACCORDING TO APPLICABLE CODES, STANDARDS, AND GOOD PRACTICE.
4. THE CARPENTER WILL BE RESPONSIBLE FOR BOTH THE STRUCTURAL INTEGRITY AND THE STABILITY OF ALL BLOCKING AND WALL SUPPORT.
5. THE CARPENTER WILL COMPLY WITH ALL BENCO INSPECTIONS, AS NOTED IN THE GENERAL NOTES IN THE FIRST SECTION OF THESE DOCUMENTS.
6. VERIFY LOCAL & STATE X-RAY SHIELDING REQUIREMENTS WITH ARCHITECT, CONTRACTOR OR CLIENT.

PLUMBING NOTES

1. THE PLUMBER WILL SUPPLY AND INSTALL A WATER PRESSURE REGULATOR ON INCOMING WATER SUPPLY. THE PLUMBER WILL SET THE REGULATOR NOT TO EXCEED 65 PSI.
2. THE PLUMBER WILL INSTALL THE WATER FILTER (AND THE WATER SOFTENER, AS NEEDED) ON THE COLD WATER MAIN ENTERING THE DENTAL SUITE. THE WATER FILTER WILL BE SUPPLIED BY EITHER BENCO DENTAL OR THE DOCTOR.
3. THE PLUMBER WILL SUPPLY AND INSTALL SEPARATE MANUAL SHUT-OFF VALVES ON ALL SINKS, DENTAL UNITS, AND OUTLETS REQUIRING WATER AND/OR AIR.
4. ALL SINKS AND FAUCETS WILL BE CONNECTED BY THE PLUMBER.
5. ALL PIPES WILL BE CONCEALED WITHIN THE WALLS AND/OR THE FLOOR, UNLESS OTHERWISE NOTED ON THE BENCO DRAWINGS.
6. THE PLUMBER WILL SEAL ALL PENETRATIONS THROUGH THE FLOOR WITH A FIRESTOP OR EQUIVALENT WATERPROOFING.
7. ALL PIPES WILL BE FLUSHED CLEAR OF ALL DEBRIS BY THE PLUMBER.
8. THE PLUMBER WILL BE ONSITE ON THE DAY(S) OF INSTALLATION TO WORK WITH THE BENCO REPRESENTATIVE ON THE FINAL HOOK-UP. THE PLUMBER WILL SUPPLY AND INSTALL ANY AND ALL MATERIALS INDICATED IN THE PLUMBING DETAILS SHOWN AND THE MANUFACTURER'S INSTALLATION INSTRUCTION SHEETS.
9. THE PLUMBER WILL PROVIDE AND INSTALL ALL WATER SAFETY DEVICES (I.E. CHECK VALVES, BACKFLOW PREVENTERS, ETC.) IN ACCORDANCE WITH LOCAL CODE.
10. THE PLUMBER WILL INSTALL COMPLETE AND MAKE FINAL HOOK-UP TO THE FOLLOWING DENTAL EQUIPMENT, SUPPLIED BY THE DOCTOR AND/OR BENCO DENTAL, INCLUDING, BUT NOT LIMITED TO:

- AIR COMPRESSOR
- VACUUM PUMP
- AIR/WATER SEPARATORS
- WATER CONTROL VALVE

11. AN ELECTRIC MASTER WATER SHUT-OFF VALVE IS REQUIRED FOR ANY/ALL COLD WATER LINES FEEDING ALL DENTAL EQUIPMENT. THIS WATER SHUT-OFF VALVE IS REQUIRED WHETHER SUPPLIED BY BENCO, THE DOCTOR, OR THE PLUMBER.
12. THE PLUMBER WILL COMPLY WITH ALL BENCO INSPECTIONS, AS NOTED IN THE GENERAL NOTES ON THE FIRST PAGE OF THESE DOCUMENTS.
13. GENERAL DENTAL PLUMBING LINES SHOWN ARE FOR GRAPHICALLY DISPLAYING ORIGINATION AND TERMINATION POINTS. FIELD CONDITIONS MAY ALTER PLUMBING LINE LAYOUT, PER PLUMBERS DISCRETION. THE FINAL LAYOUT OF THE PLUMBING LINES IS THE RESPONSIBILITY OF THE PLUMBER.
14. THE APPLICATION OF DENTAL COMPRESSED AIR AS NOTED ON THIS PLAN IS NOT USED FOR LIFE-SUPPORT PURPOSES SUCH AS RESPIRATORS, IPPB MACHINES, ANALGESIA, ANESTHESIA, AND SO FORTH. IT IS ONLY USED AS INCIDENTAL AIR DISCHARGED INTO THE ORAL CAVITY AND NOT A PRIMARY SOURCE OF AIR TO SUSTAIN LIFE.

PLUMBING SINK LEGEND

SINK - SINK, FAUCET AND STRAINER SUPPLIED BY OTHERS. PLUMBER SHALL INSTALL HOT AND COLD WATER LINES, WASTE AND TRAP ROUGH-IN PER LOCAL CODES. PROVIDE AIR LINE WITH SHUTOFF FOR AIR ACTUATED FAUCET CONTROL MECHANISM (IF APPLICABLE). PLUMBER SHALL BE RESPONSIBLE FOR FINAL HOOKUP. SEE MANUFACTURER'S SPECIFICATIONS FOR EXACT LOCATION AND REQUIREMENTS.

SINK - SINK, FAUCET AND STRAINER PROVIDED WITH CABINETY SUPPLIED BY BENCO. PLUMBER SHALL INSTALL HOT AND COLD WATER LINES, WASTE AND TRAP ROUGH-IN PER LOCAL CODES. PROVIDE AIR LINE WITH SHUTOFF FOR AIR ACTUATED FAUCET CONTROL MECHANISM. PLUMBER SHALL BE RESPONSIBLE FOR FINAL HOOKUP. SEE MANUFACTURER'S SPECIFICATIONS FOR EXACT LOCATION AND REQUIREMENTS.

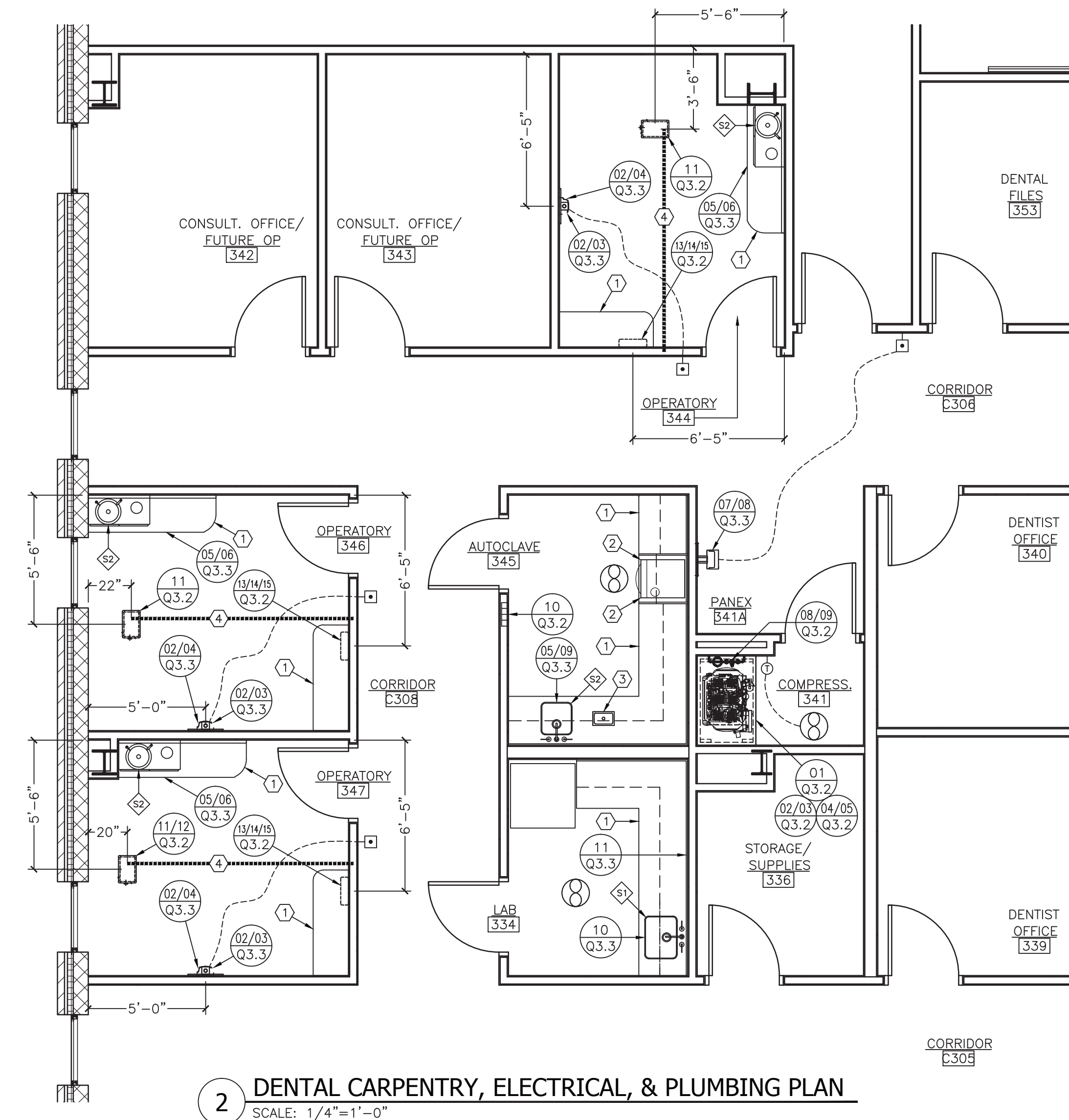
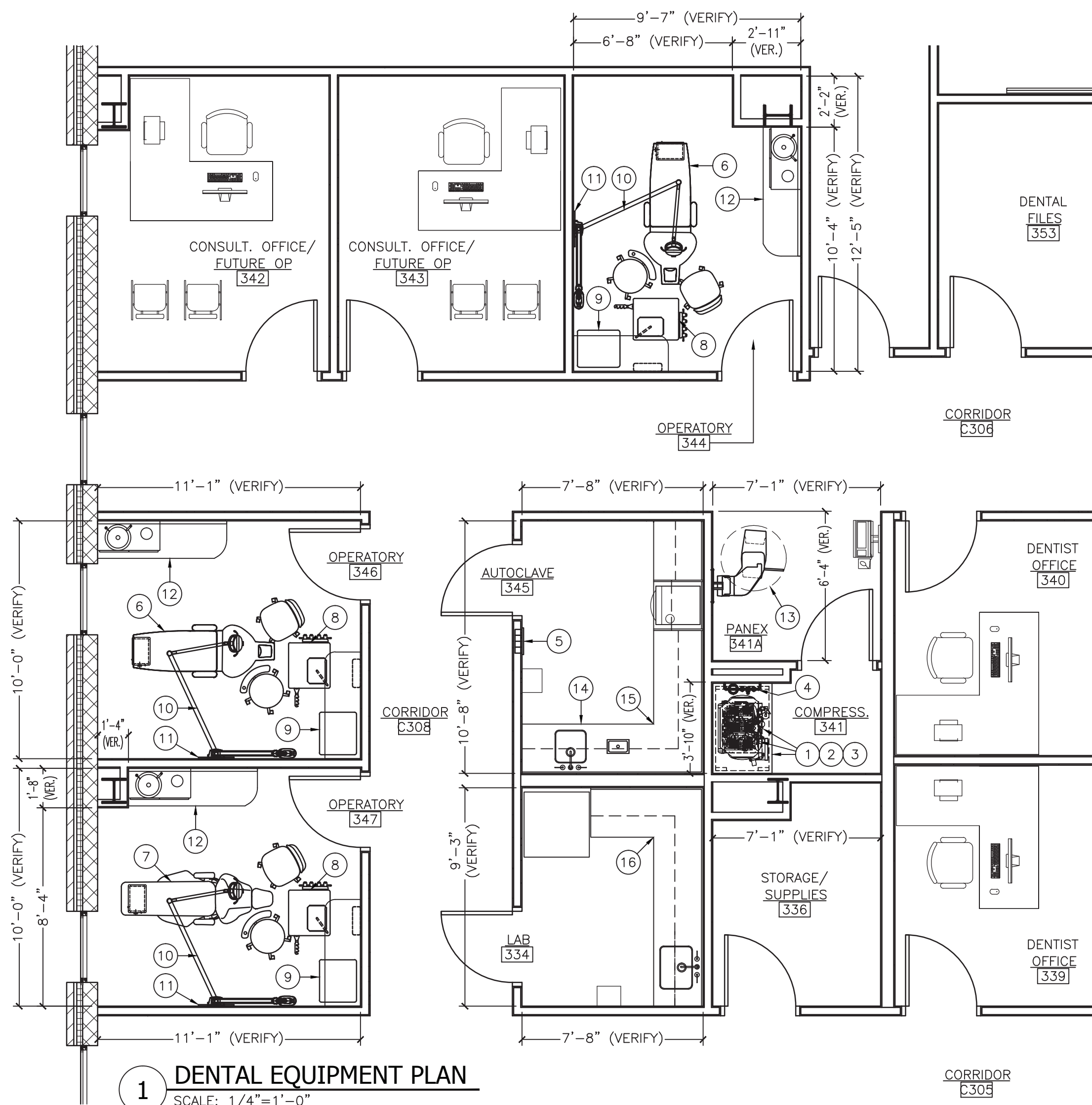
ELECTRICAL NOTES

1. ALL EQUIPMENT WILL BE SINGLE PHASE, UNLESS OTHERWISE NOTED.
2. ALL WIRING WILL BE CONCEALED WITHIN THE WALLS AND/OR FLOOR, UNLESS OTHERWISE NOTED.
3. THE ELECTRICIAN WILL TAG ALL WIRES AT TERMINATION POINTS.
4. THE ELECTRICIAN WILL INSTALL COMPLETE AND MAKE FINAL HOOK-UP TO THE FOLLOWING DENTAL EQUIPMENT, SUPPLIED BY EITHER THE DOCTOR OR BENCO DENTAL, INCLUDING, BUT NOT LIMITED TO:
- AIR COMPRESSOR
 - WATER CONTROL VALVE
 - VACUUM PUMP
 - CONTROL PANEL
5. THE ELECTRICIAN WILL BE ONSITE ON THE DAY(S) OF INSTALLATION TO WORK WITH THE BENCO REPRESENTATIVE ON FINAL HOOK-UP. THE ELECTRICIAN WILL SUPPLY AND INSTALL ANY AND ALL MATERIALS INDICATED IN THE ELECTRICAL DETAILS SHOWN AND MANUFACTURER'S INSTALLATION INSTRUCTION SHEETS.
6. THE ELECTRICIAN WILL SEAL ALL PENETRATIONS THROUGH THE FLOOR WITH A FIRESTOP OR EQUIVALENT WATERPROOFING.
7. THE ELECTRICIAN WILL COMPLY WITH ALL BENCO INSPECTIONS, AS NOTED IN THE GENERAL NOTES ON THE FIRST PAGE OF THESE DOCUMENTS.
8. ALL 120 VOLT, 20 AMP OUTLETS INSTALLED WITHIN 6 FEET OF A SINK AND THOSE LOCATED OUTDOORS SHALL HAVE GFCI PROTECTION.
9. ALL 120 VOLT, 20 AMP DENTAL EQUIPMENT OUTLETS INSTALLED WITHIN 6 FEET OF A WATER SOURCE SHALL HAVE GFCI PROTECTION.

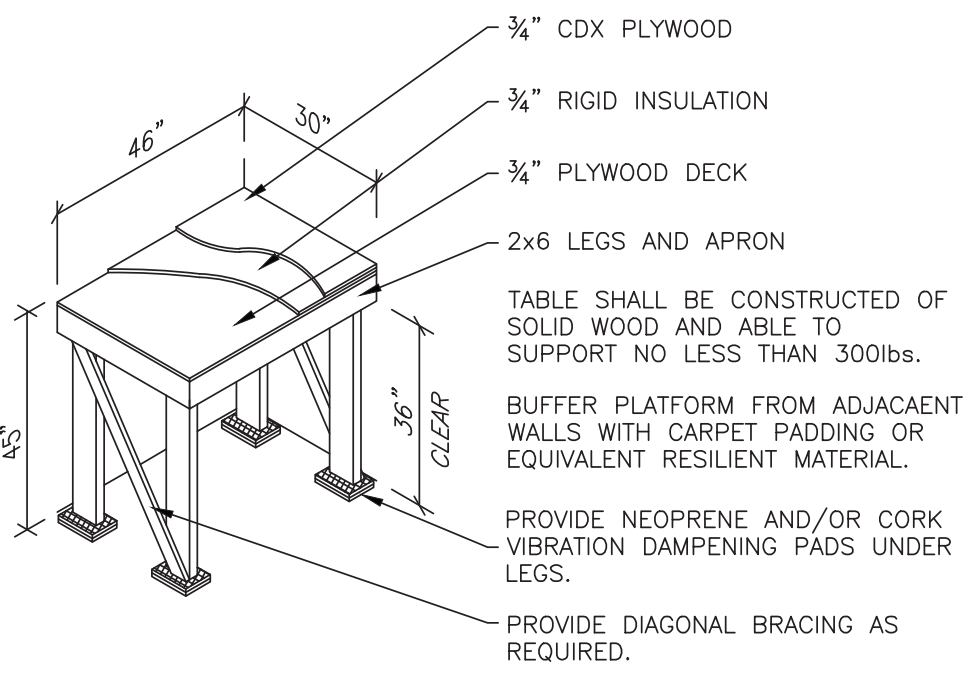
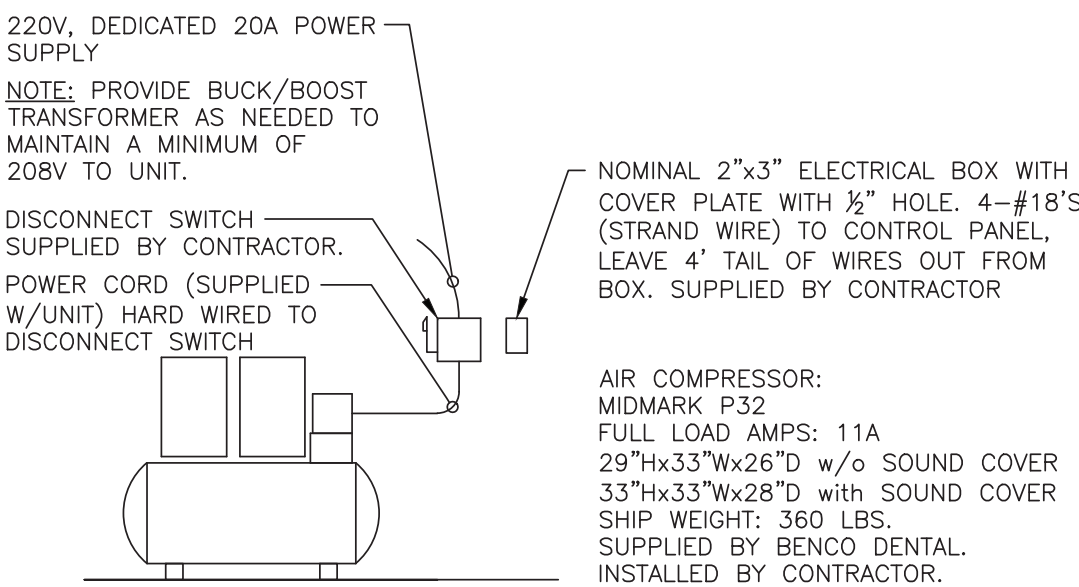
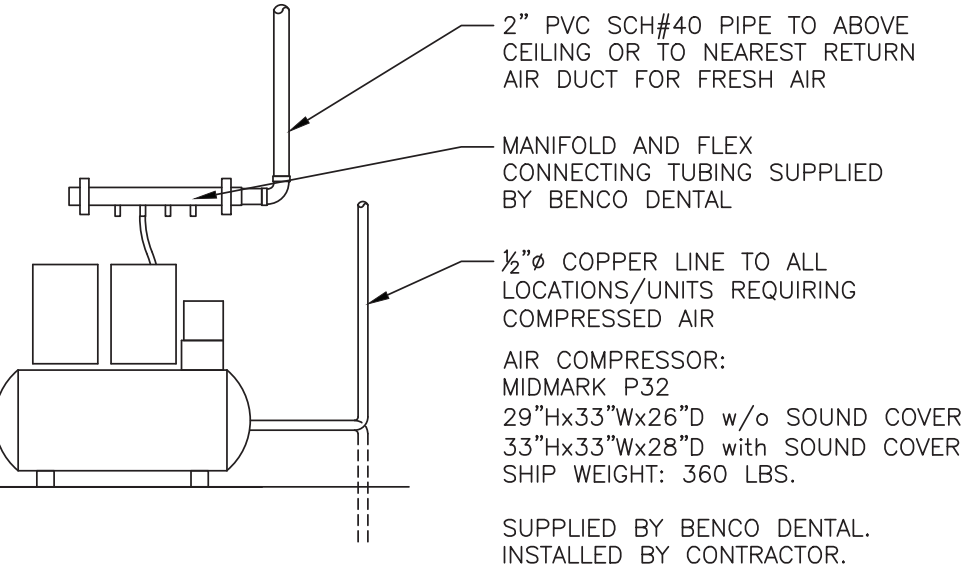
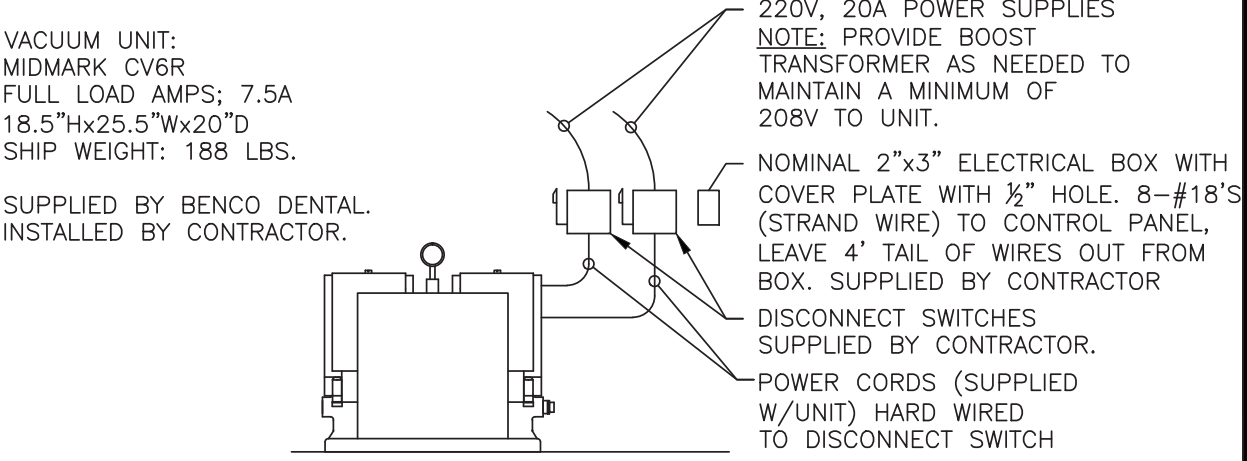
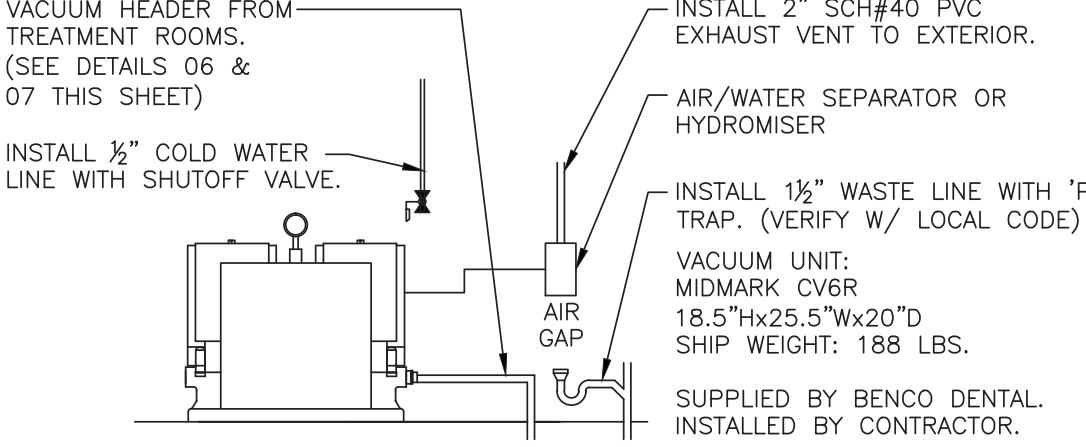
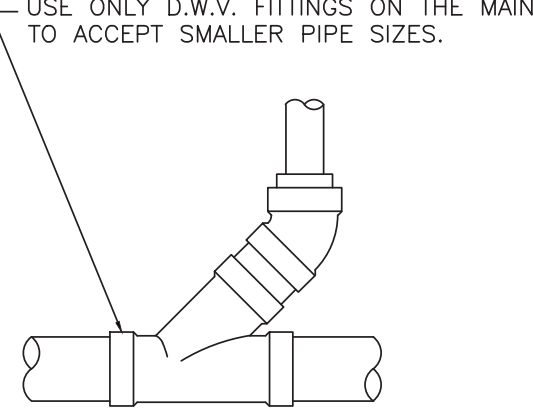
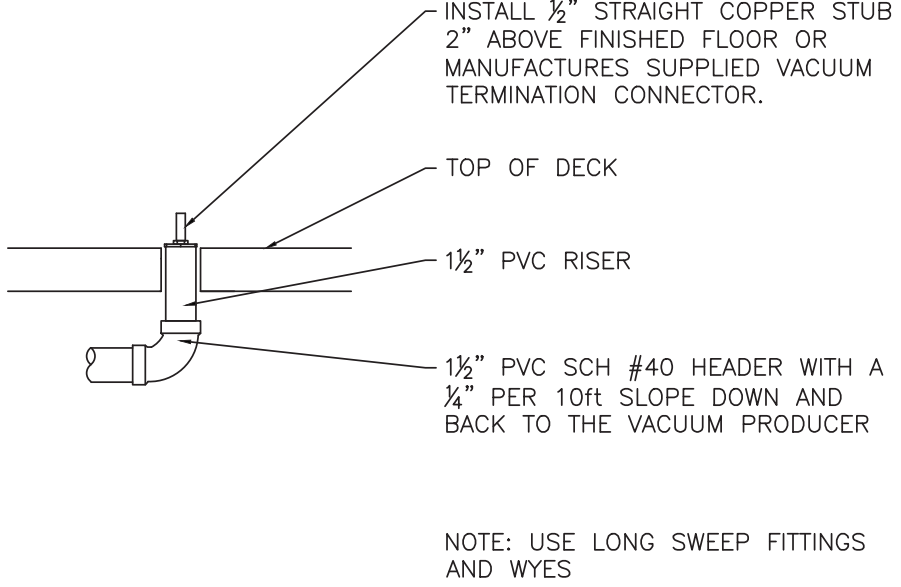
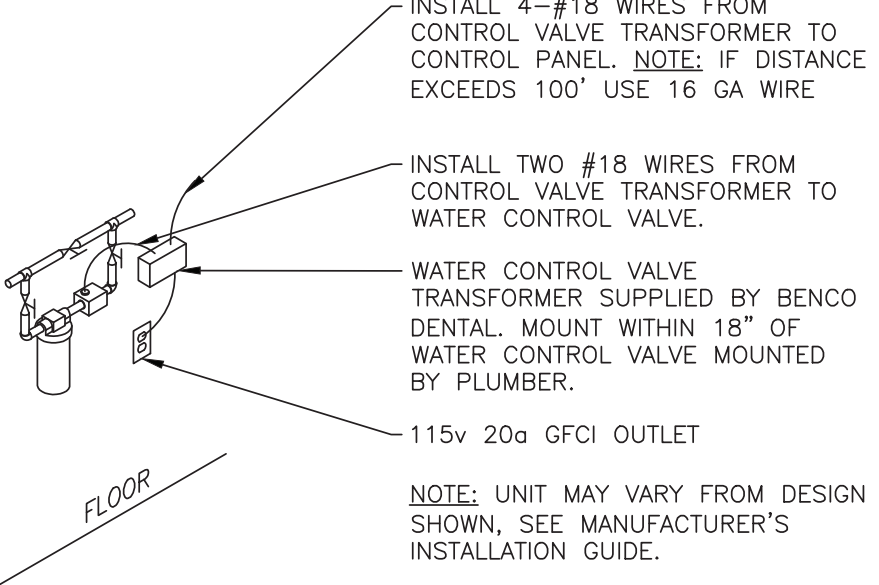
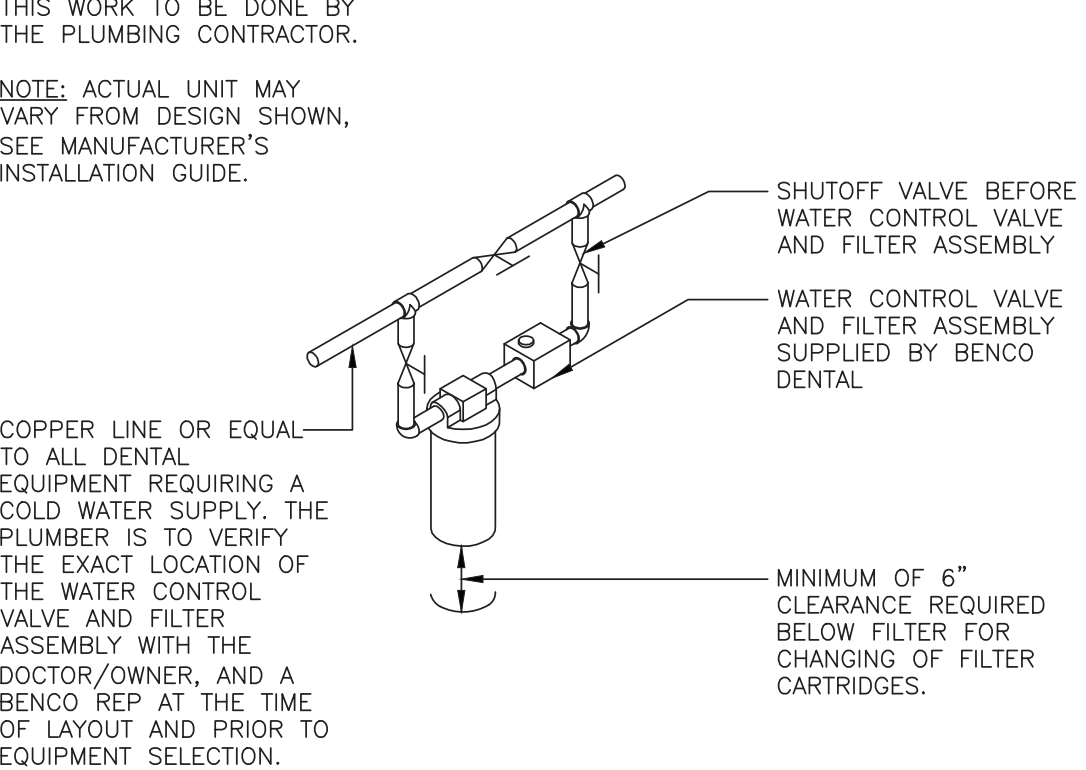
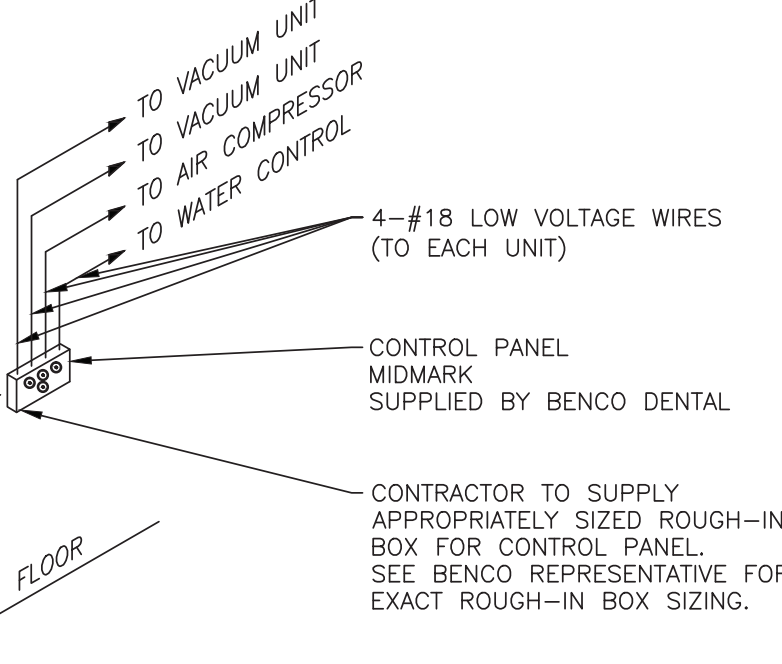
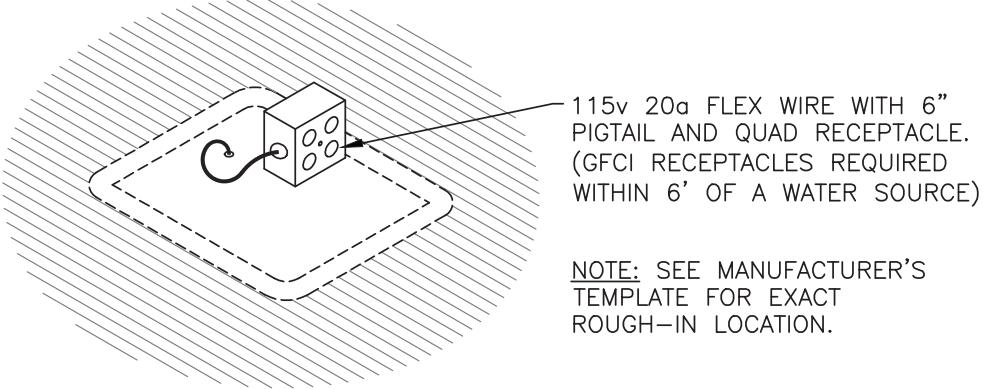
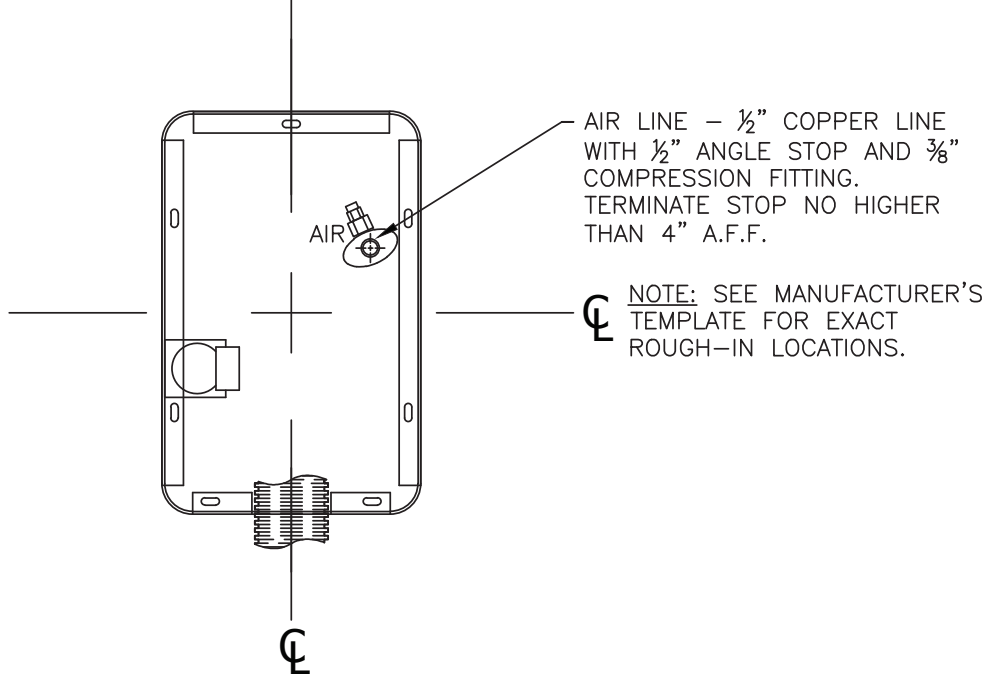
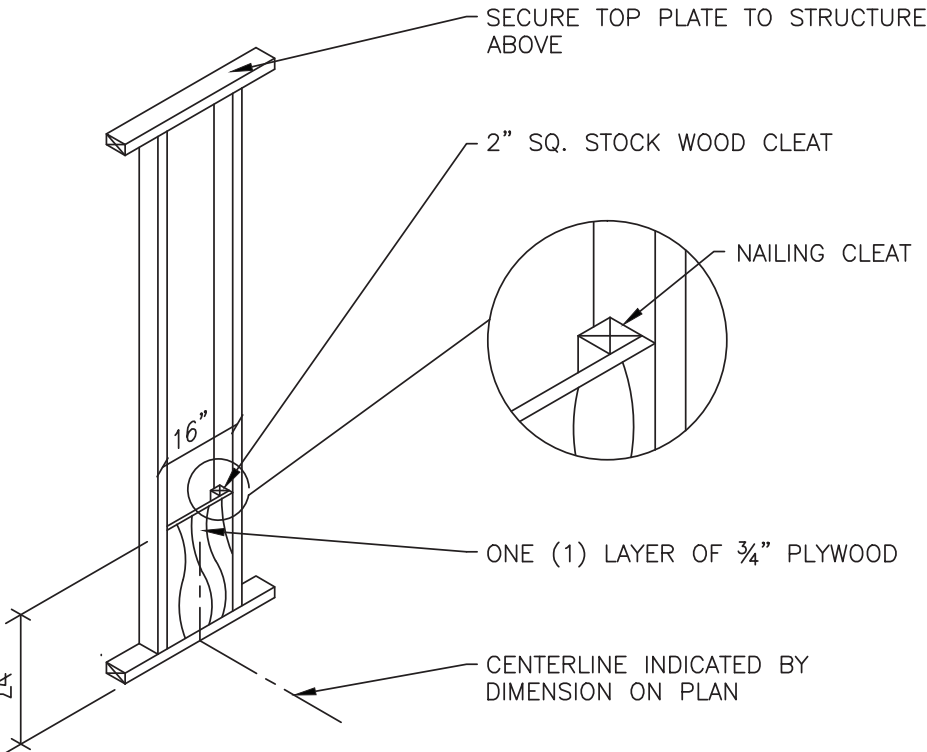
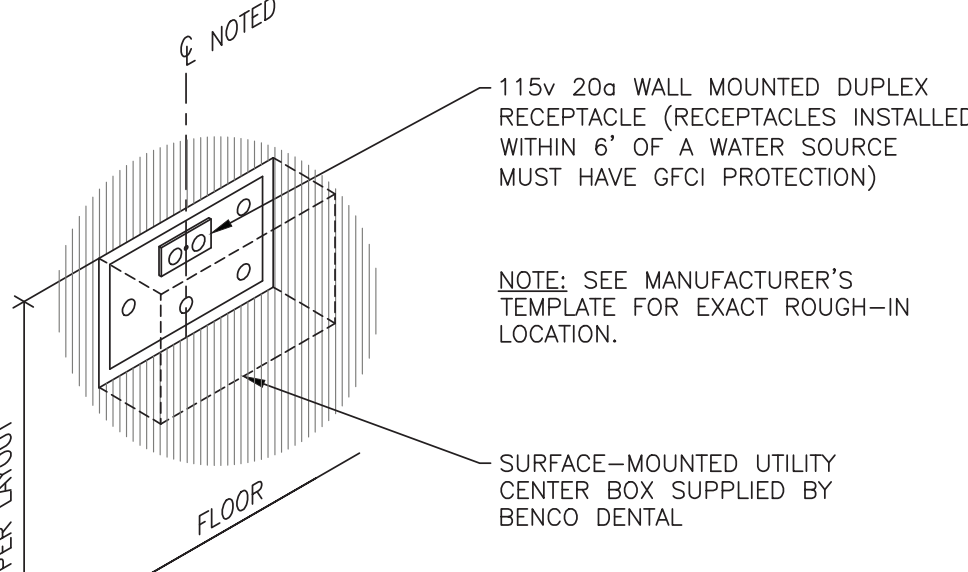
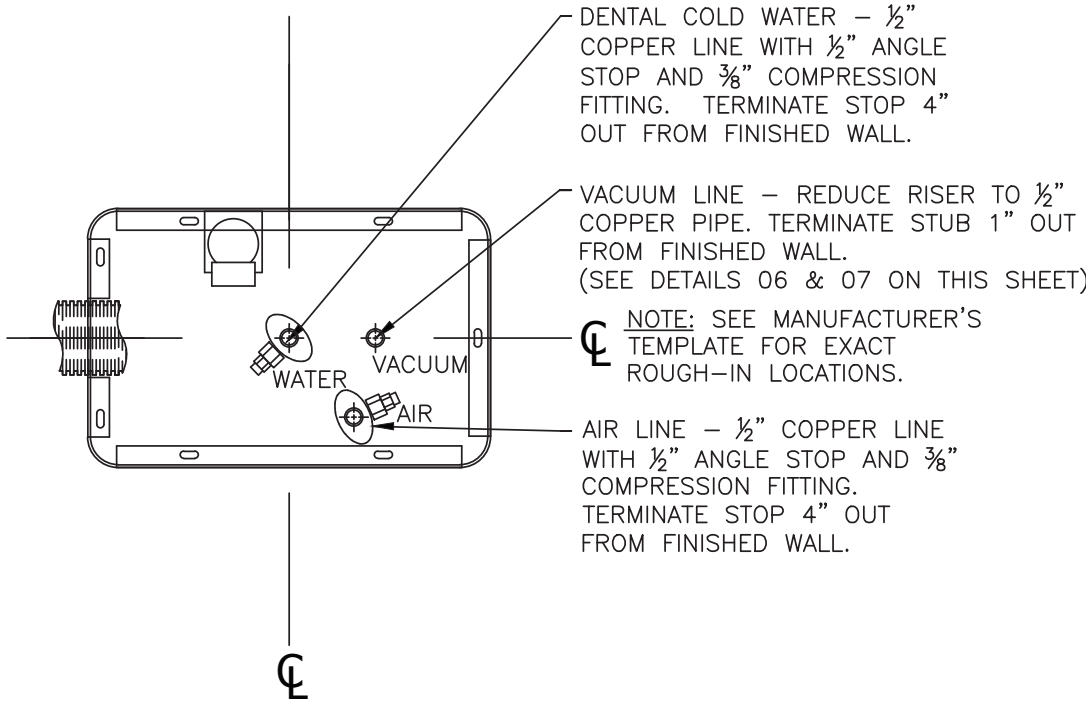
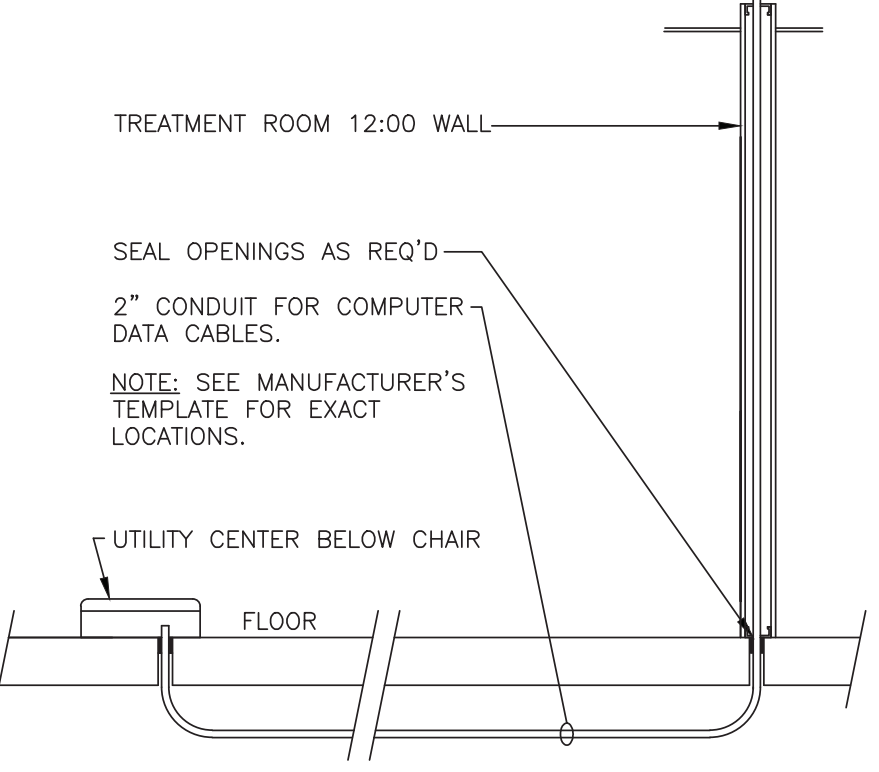
ELECTRICAL NOTES LEGEND

- ① GENERAL DUPLEX RECEPTACLES (MOUNTED ABOVE &/OR BELOW COUNTERTOPS) - 110V, 20A (VERIFY QUANTITIES & EXACT LOCATIONS WITH OWNER AT TIME OF LAYOUT)
- ② DUPLEX RECEPTACLE FOR AUTOCLAVE (MOUNTED AT 40" A.F.F.) - 110V, DEDICATED 20 AMP CIRCUIT (VERIFY EXACT LOCATION WITH BENCO REP. AT TIME OF LAYOUT)
- ③ DUPLEX RECEPTACLE FOR ULTRASONIC CLEANER (MOUNTED AT 40" A.F.F.) - 110V, 20 AMP (VERIFY EXACT LOCATION WITH BENCO REP. AT TIME OF LAYOUT)
- ④ 2" CONDUIT (SEE DETAIL 16 ON SHEET Q1.2 & DETAIL 01 ON SHEET Q3.3)

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	EXPOSURE BUTTON
	THERMOSTATIC ON/OFF SWITCH
	WIRING, CONCEALED IN WALL OR CEILING
	CONDUIT, CONCEALED IN FLOOR
	EXHAUST FAN MOUNTED IN CEILING



SEAL	PROFESSIONAL CERTIFICATION				AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE		
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 7373 EXPIRATION DATE: 11/24/16 ARCHITECT: LAURIE M. MCCLAIN, AIA									PLAN SCALE: _____	APPROVED BY: _____ DIRECTOR	
												
												
												
												
							R.O.W. NO.			PROFILE SCALE: _____	DATE: _____	
					Address: 03		07/24/15					
					BUREAU OF ENGINEERING AND CONSTRUCTION	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
					DSGN BY: Designer							
				REVIEWED BY:							APPROVED BY: _____	
				DWN BY: Author								
				DATE REVIEWED:							CHIEF	
				CHKD BY: Checker								
DATE: 06/19/15												

							
DETAIL - EQUIPMENT PLATFORM (BY OTHERS)	01	DETAIL - AIR COMPRESSOR (ON PLATFORM)	02	DETAIL - AIR COMPRESSOR (ON PLATFORM)	03	DETAIL - VACUUM PUMP (ON FLOOR)	04
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.
							
DETAIL - VACUUM PUMP (ON FLOOR)	05	DETAIL - VACUUM PIPING	06	DETAIL - VACUUM PIPING	07	DETAIL - REMOTE WATER CONTROL VALVE	08
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.
							
DETAIL - REMOTE WATER CONTROL VALVE	09	DETAIL - REMOTE CONTROL PANEL	10	DETAIL - DENTAL CHAIR UTILITY CENTER	11	DETAIL - DENTAL CHAIR UTILITY CENTER	12
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.
							
DETAIL - WALL MOUNTED UTILITY CENTER	13	DETAIL - WALL MOUNTED UTILITY CENTER	14	DETAIL - WALL MOUNTED UTILITY CENTER	15	DETAIL - CONDUIT	16
REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.	REF.: SOURCE:	N.T.S.

SEAL	PROFESSIONAL CERTIFICATION							AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE	APPROVED BY: _____ DATE: _____			
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 2373 EXPIRATION DATE 11/24/16 ARCHITECT: LAURIE M. MCCLAIN, AIA							BUREAU OF ENGINEERING AND CONSTRUCTION	07/24/15	STRUCTURES	STORM DRAINS	SEWER	WATER		FIELD ENGINEER		
																DESIGN BY: Designer	REVIEWED BY:
																DWN BY: Author	
																CHKD BY: Checker	

DATE: 06/19/15

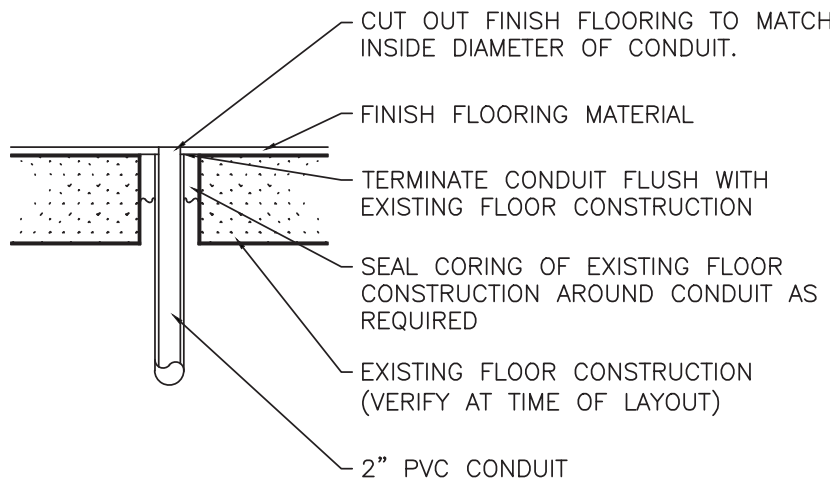
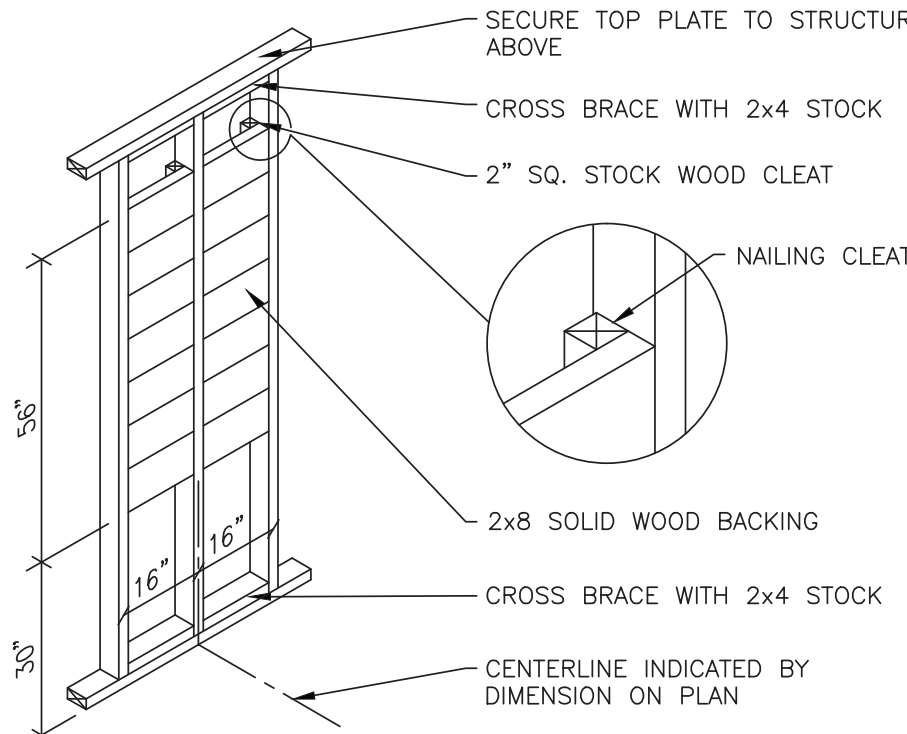
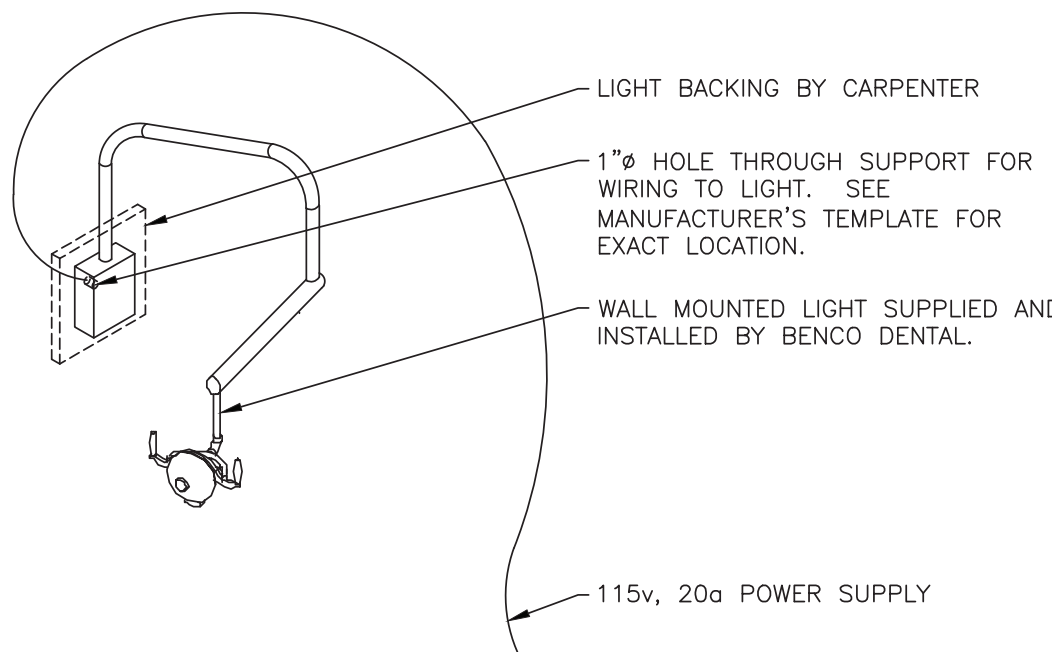
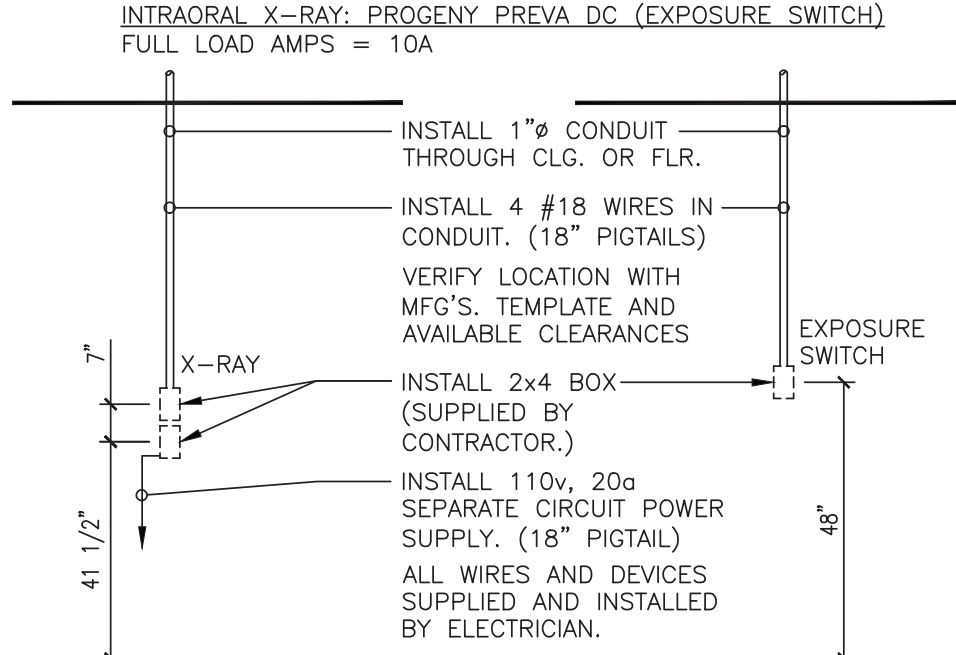
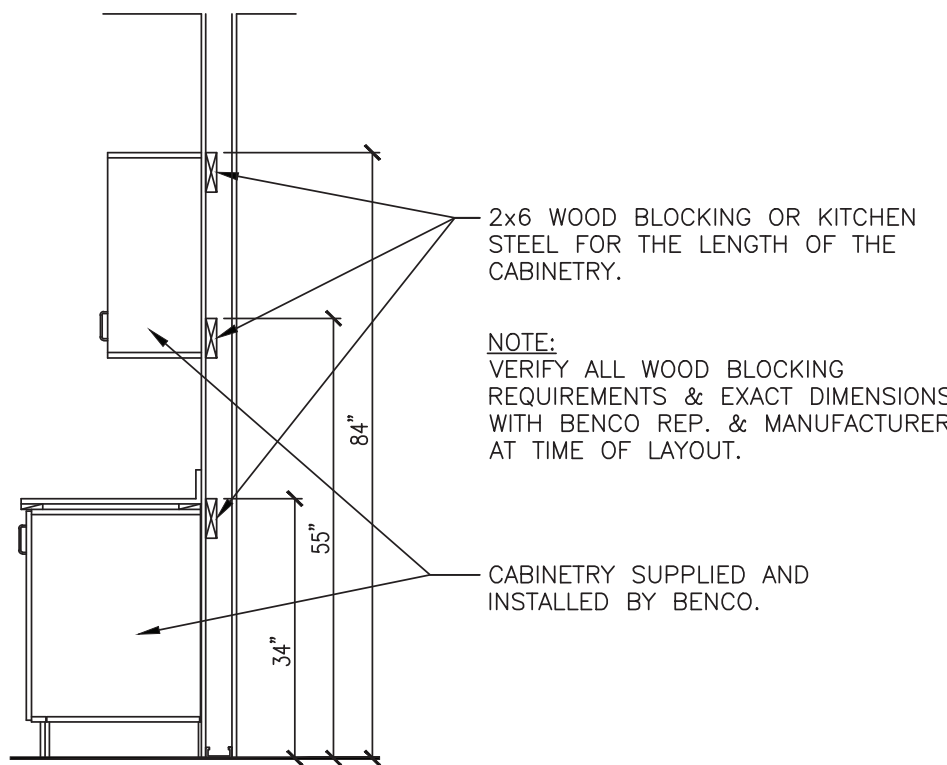
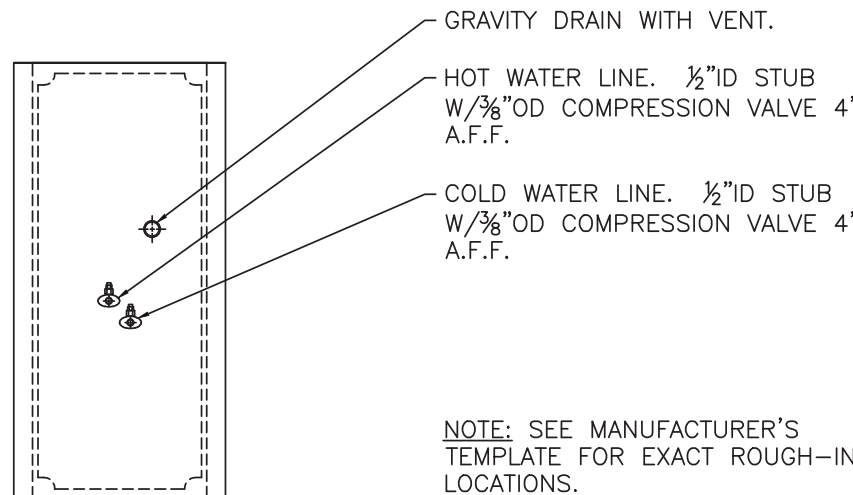
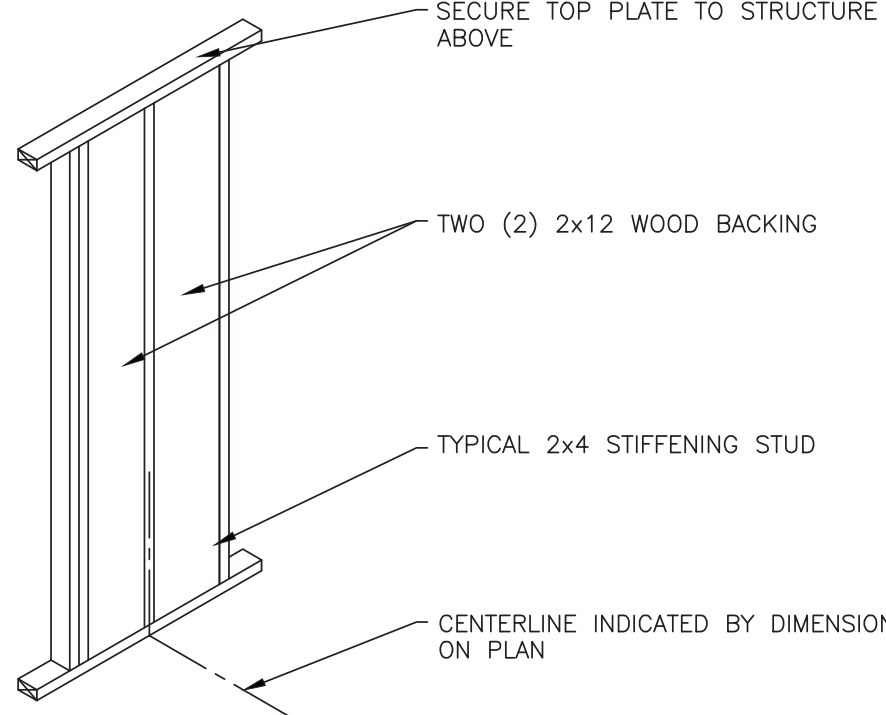
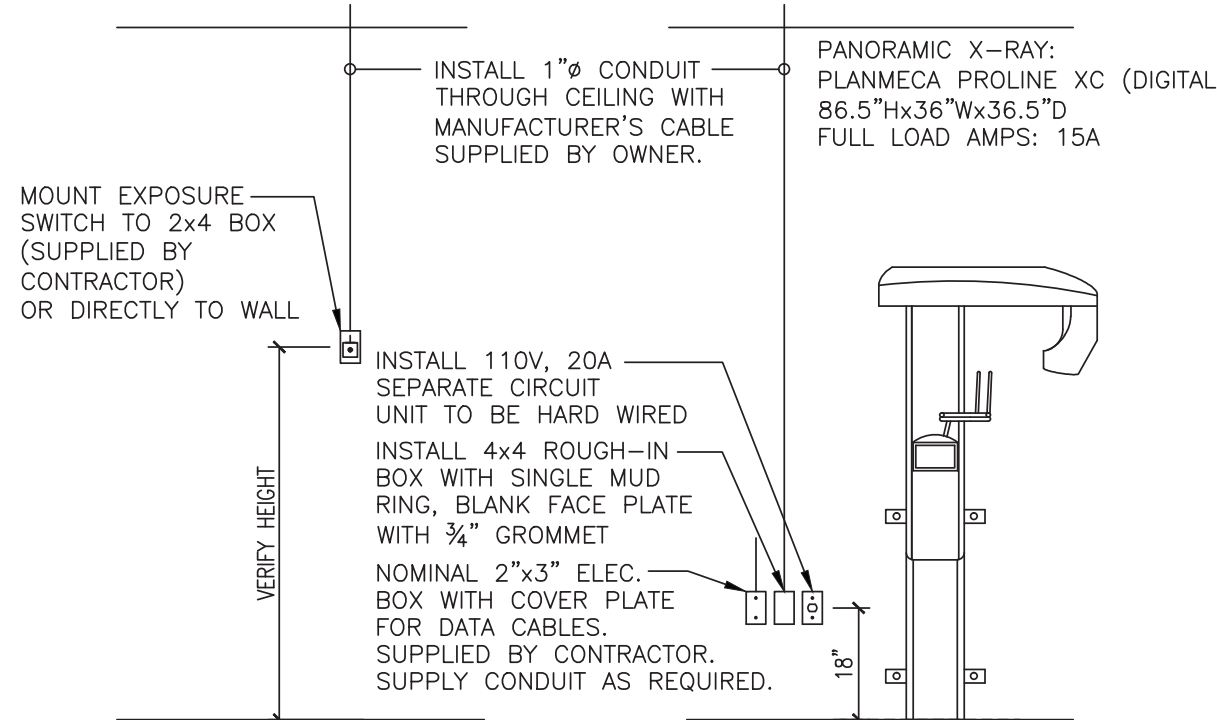
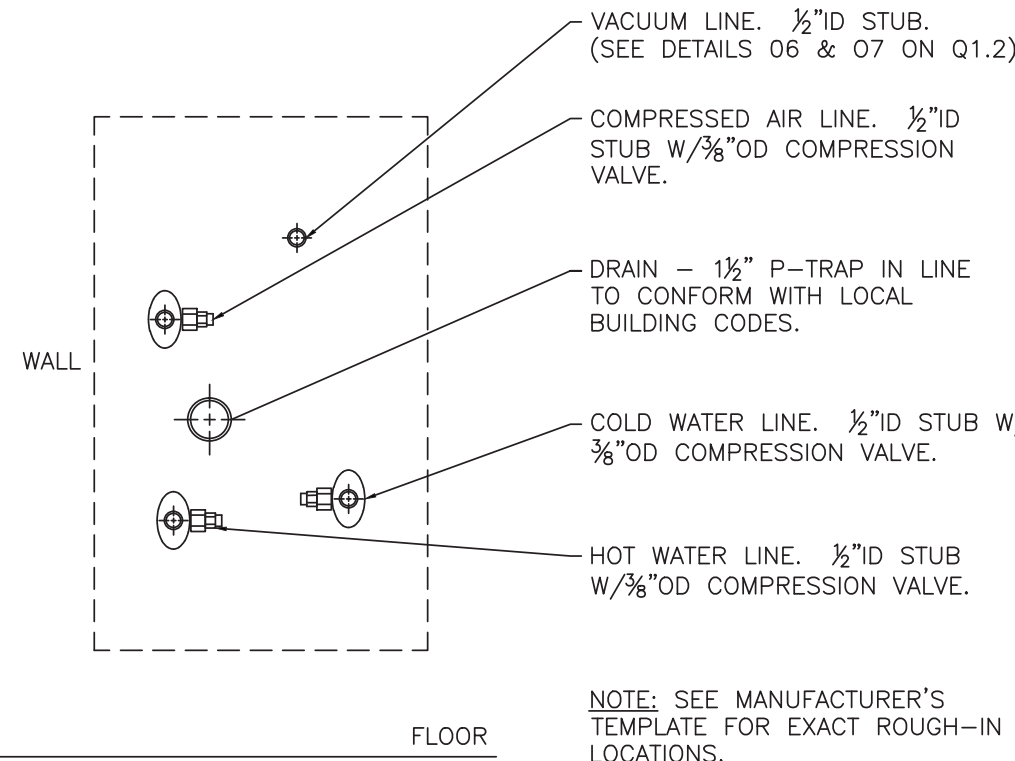
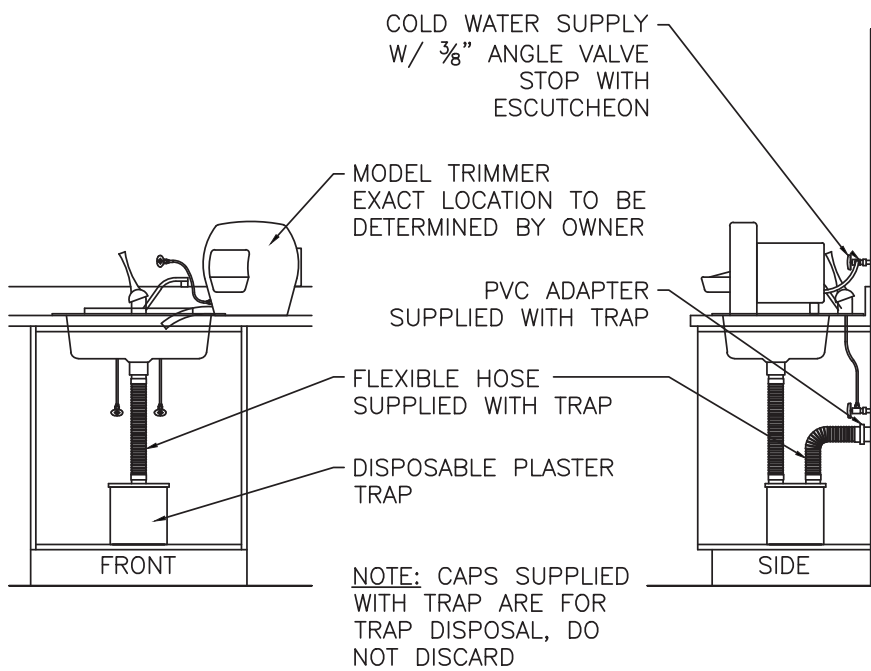
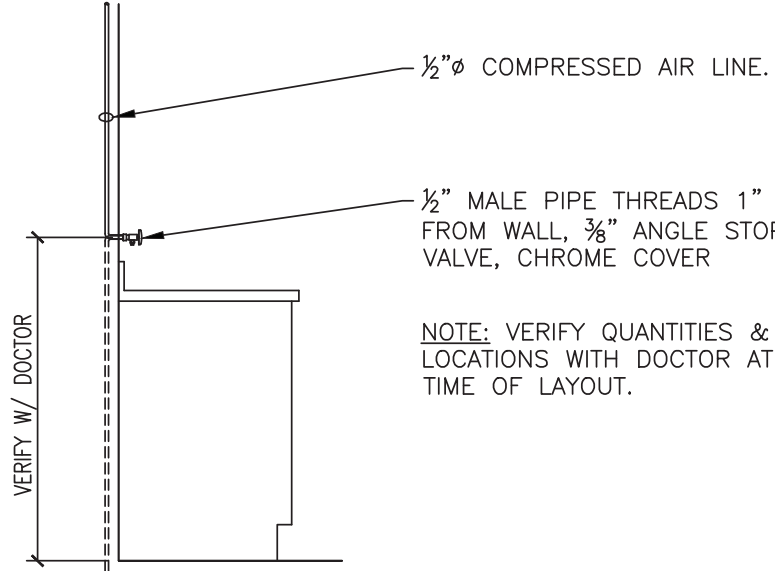
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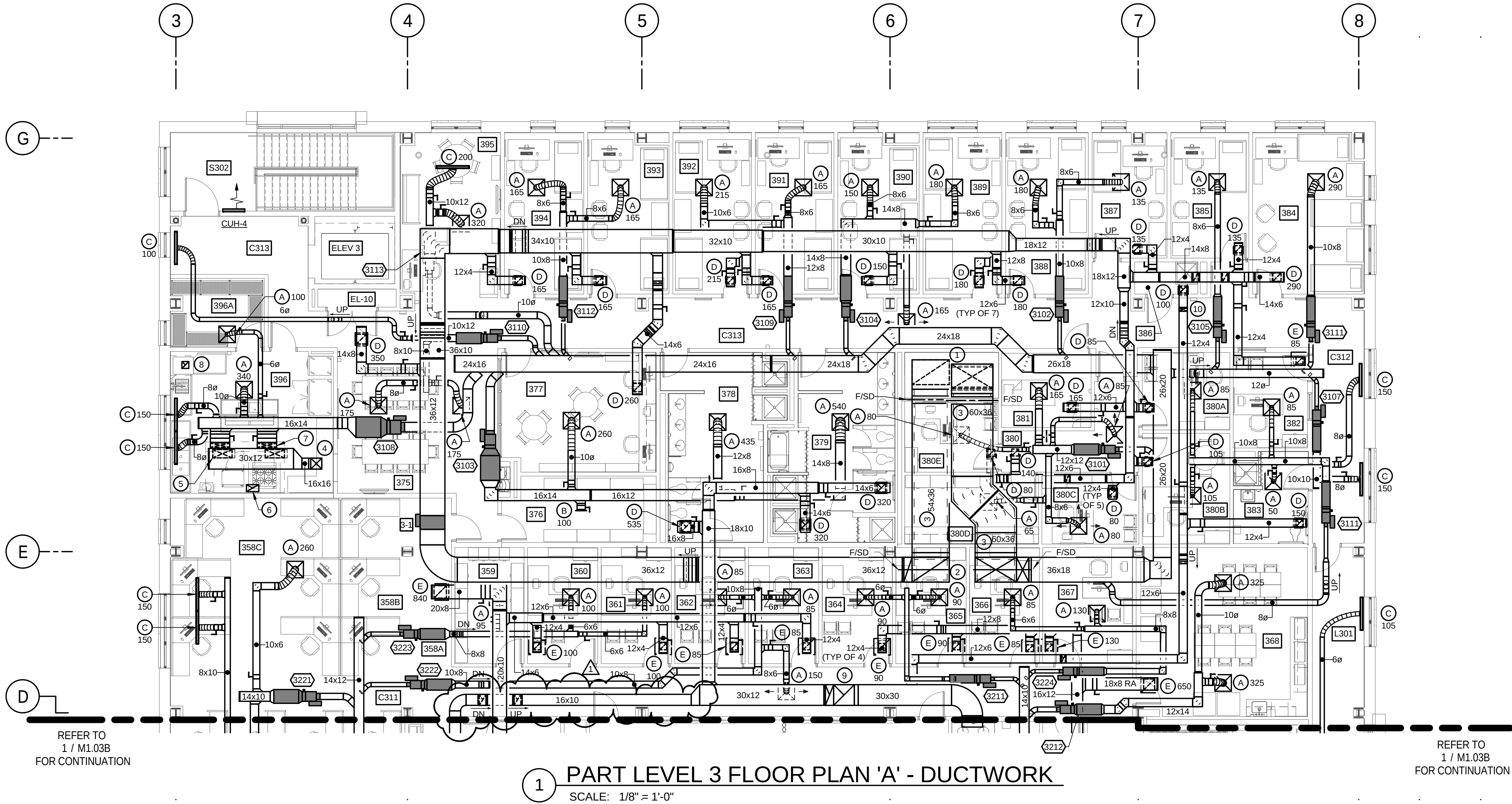
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
DENTAL DETAILS – OPTION C

9150 Franklin Square Drive, Rosedale, MD 21237

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
Q3.2	15025P00
JOB ORDER NO.	249-218-0100-0614
SHEET OF	DRAWING NO.
	2015-2005
FILE NO.	

											
DETAIL - CONDUIT TERMINATION		01	DETAIL - WALL MOUNTED LIGHT & INTRAORAL X-RAY		02	DETAIL - WALL MOUNTED LIGHT		03	DETAIL - INTRAORAL X-RAY		04
REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.
											
DETAIL - STERILIZATION / SIDE SUPPORT CABINET		05	DETAIL - SIDE SUPPORT CABINET		06	DETAIL - PANORAMIC X-RAY		07	DETAIL - PANORAMIC X-RAY		08
REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.
											
DETAIL - STERILIZATION CABINET		09	DETAIL - MODEL TRIMMER / PLASTER TRAP		10	DETAIL - AIR OUTLET		11	DETAIL		12
REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.	REF.:	SOURCE:	N.T.S.



GENERAL NOTES:

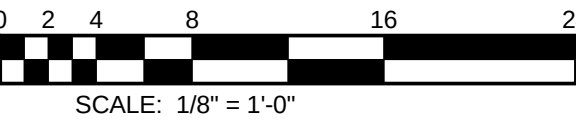
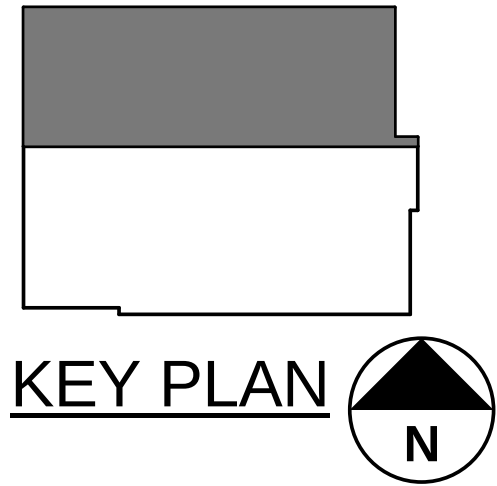
1. REFER TO DRAWING M0.01 FOR MECHANICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.

DRAWING NOTES:

- 1 60x36 SUPPLY AIR & 54x36 RETURN AIR DOWN IN SHAFT (AHU-1).
- 2 54x36 RETURN AIR, 18x36 RETURN AIR, 60x36 SUPPLY AIR, AND 22x36 SUPPLY AIR DUCTWORK UP (AHU-1). PROVIDE COMBINATION FIRE/SMOKE DAMPER IN VERTICAL DUCTWORK AT FLOOR PENETRATION. PROVIDE MINIMUM 1" ACOUSTIC SOUND LINING IN DUCTWORK INDICATED.
- 3 PROVIDE MINIMUM 1" ACOUSTIC SOUND LINING IN DUCTWORK INDICATED.
- 4 16x16 MAKE-UP AIR UP TO AHU-4. TRANSITION DUCTWORK IN VERTICAL TO MAKE-UP AIR HANDLING UNIT CONNECTION.
- 5 28x12 MAKE-UP AIR DOWN TO KITCHEN EXHAUST HOOD. BALANCE TO 600 CFM. TYPICAL OF 2.
- 6 18x10 EXHAUST AIR DOWN TO KITCHEN EXHAUST HOOD AND UP TO EXHAUST FAN EF-2. TRANSITION DUCTWORK IN VERTICAL TO EXHAUST FAN CONNECTION. BALANCE TO 1915 CFM.
- 7 28x6 SUPPLY AIR DOWN TO KITCHEN EXHAUST HOOD. BALANCE TO 300 CFM. TYPICAL OF 2.
- 8 10x10 EXHAUST AIR DUCTWORK DOWN TO DISHWASHER AND UP TO EXHAUST FAN EF-6 (725 CFM). TRANSITION TO FAN INLET IN VERTICAL DUCTWORK.
- 9 TRANSITION 30x12 AND 30x30 EXHAUST AIR DUCTWORK TO 42x30 EXHAUST AIR DUCTWORK IN VERTICAL UP TO PENTHOUSE (EF-1).
- 10 OFFSET DUCTWORK TO AVOID STRUCTURAL ELEMENTS AND PIPING. COORDINATE WITH ALL OTHER TRADES BEFORE INSTALLATION (TYPICAL).

LEVEL 3 'A' ROOM LIST	
358A	FAMILY PLANNING
358B	HEALTHCARE ACCESS
358C	PRENATAL & EARLY CHILDHOOD
359	FILES & MATERIALS
360	OFFICE
361	FUTURE OFFICE
362	OFFICE
363	OFFICE
364	OFFICE
365	OFFICE
366	OFFICE
367	SECURITY OFFICE
368	STAFF LOUNGE/ KITCHENETTE
375	DINING AREA
376	STORAGE
377	PLAY ROOM
378	MEN'S RESTROOM
379	WOMEN'S RESTROOM
380	OFFICE SUITE
380A	ASSISTANT DIRECTOR'S OFFICE
380B	DIRECTOR'S OFFICE
380C	CASE MANAGER
380D	FILE/WORK ROOM
380E	CASE MANAGER

LEVEL 3 'A' ROOM LIST	
381	STAFF LOUNGE
382	ADMIN/ SECRETARY
383	STAFF & GUEST BATHROOM
384	6 BED ROOM
385	2 BED ROOM
386	HOUSE KEEPING
387	2 BED ROOM
388	4 BED ROOM
389	4 BED ROOM
390	4 BED ROOM
391	4 BED ROOM
392	4 BED ROOM
393	4 BED ROOM
394	4 BED ROOM
395	COMMON LIVING ROOM
396	KITCHEN
396A	KITCHEN STORAGE
C311	CORRIDOR
C312	CORRIDOR
C313	CORRIDOR
EL-10	ELEC. CLOSET
ELEV 3	ELEVATOR
L301	LOBBY
S302	STAIR #2



SEAL	PROFESSIONAL CERTIFICATION							
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.							
	LICENSE NO. 17117 EXPIRATION DATE 10/25/2018							
	ENGINEER: WILLIAM J. COLLINS, JR.							
	DATE: 03/27/15							
	AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE		
	REVIEWED BY:		R.O.W. NO.			PLAN SCALE:		APPROVED BY: DIRECTOR
	CHD BY: BKM					PROFILE SCALE:		DATE: PROPERTY MANAGEMENT
	CHD BY: BKM							APPROVED BY: CHIEF
	CHD BY: BKM							DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
PART LEVEL 3 FLOOR PLAN 'A' - DUCTWORK

9150 Franklin Square Drive, MD 21237

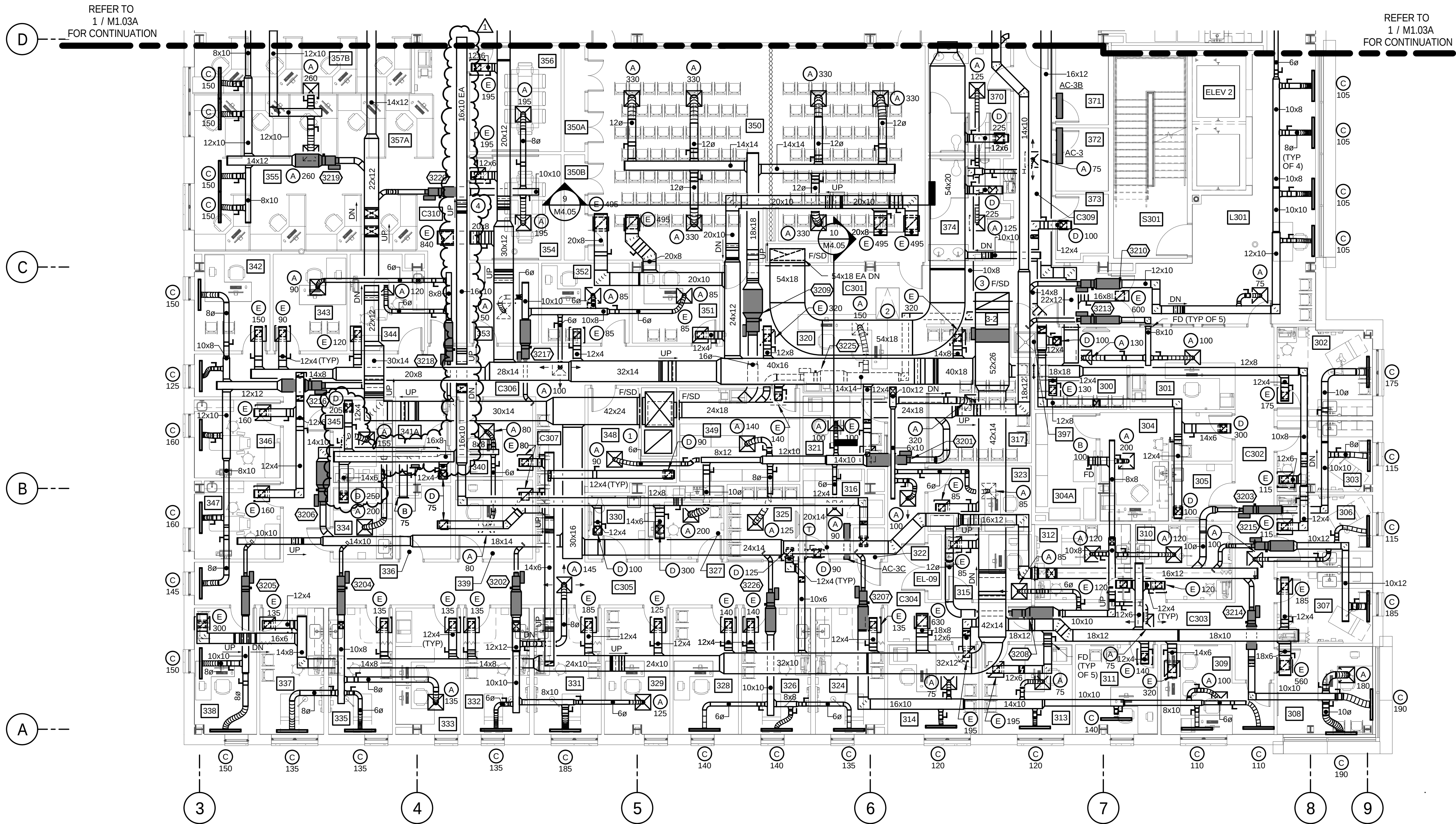
SUBDIVISION:

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
M1.03A	15025P00
JOB ORDER NO.	249-218-0100-0614
SHEET 231 OF 359	DRAWING NO.
2015-1869	FILE NO.



BKM 13063.01



1 PART LEVEL 3 FLOOR PLAN 'B' - DUCTWORK
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

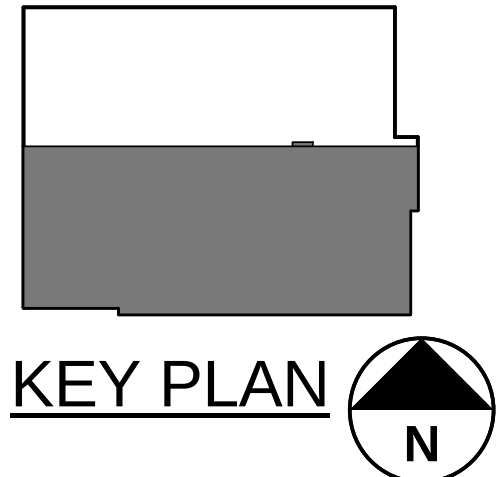
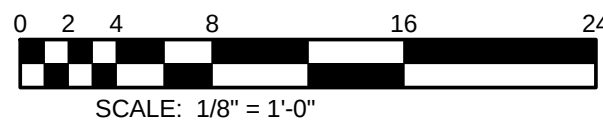
1. REFER TO DRAWING M0.01 FOR MECHANICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.

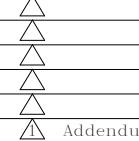
DRAWING NOTES:

- 1 44x54 SUPPLY AIR UP, 36x36 SUPPLY AIR DOWN, AND 42x36 RETURN AIR UP & DOWN (AHU-2) IN SHAFT.
- 2 4'-0" X 3'-0" MECHANICAL PENTHOUSE EQUIPMENT FLOOR ACCESS HATCH, PROVIDED UNDER ARCHITECTURAL DIVISION.
- 3 52x26 RETURN AIR UP (AHU-2), PROVIDE COMBINATION FIRESMOKE DAMPER IN VERTICAL DUCTWORK AT FLOOR PENETRATION.
- 4 OFFSET DUCTWORK TO AVOID STRUCTURAL ELEMENTS AND PIPING. COORDINATE WITH ALL OTHER TRADES BEFORE INSTALLATION (TYPICAL).

LEVEL 3 'B' ROOM LIST	
300	WAITING
301	RECEPTION
302	TRIAGE/PROCEDURE ROOM
303	EXAM ROOM
304	LAB/ STERILE
304A	STORAGE
305	CLIENT TOILET
306	EXAM ROOM
307	EXAM ROOM
308	MEDICAL DIRECTOR
309	SHARED ADMIN OFFICE
310	EXAM ROOM
311	SOCIAL WORK OFFICE
312	EXAM ROOM
313	CASE MANAGER
314	INTERVIEW ROOM
315	INTERVIEW ROOM
316	MEDS & VACCINE STORAGE
317	SHARED WAITING
320	RECEPTION
321	FEE CLERK
322	BIO HAZARD
323	INTERVIEW ROOM
324	EXAM ROOM
325	INTERNAL WAITING
326	EXAM ROOM
327	LAB
328	INTERVIEW ROOM
329	INTERVIEW ROOM
330	CLIENT TOILET
331	EXAM ROOM
332	EXAM ROOM
333	CHARTING
334	LAB
335	EXAM ROOM
336	STORAGE/ SUPPLIES
337	EXAM ROOM
338	INTERVIEW ROOM
341A	PANEX
342	CONSULT. OFFICE / FUTURE OP

LEVEL 3 'B' ROOM LIST	
343	CONSULT. OFFICE / FUTURE OP
344	OPERATORY
345	AUTOCCLAVE
346	OPERATORY
347	OPERATORY
348	BULK STORAGE
349	FILES & PAPER STOR.
350	PUBLIC CONFERENCE ROOM
350B	STO.
351	NURSE PRACTITIONER OFFICE
352	NURSING SUPERVISOR OFFICE
353	DENTAL FILES
354	INTERVIEW CONFERENCE ROOM
355	FAMILY PLANNING
356	INTERVIEW CONFERENCE ROOM
357A	DENTAL
357B	HOME HEALTH
370	WOMEN'S RESTROOM
371	AV/IT
372	ELEC
373	RECYCLING
374	MEN'S RESTROOM
397	H.K.
C301	CORRIDOR
C302	CORRIDOR
C303	CORRIDOR
C304	CORRIDOR
C305	CORRIDOR
C306	CORRIDOR
C307	CORRIDOR
C310	CORRIDOR
EL-09	ELEC. CLOSET
ELEV 2	ELEVATOR
L301	LOBBY
S301	STAIR #1



	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE			
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 17147 EXPIRATION DATE 10/25/2016 ENGINEER: WILLIAM J. COLLINS, JR.		R.O.W. NO.					PLAN SCALE: _____	APPROVED BY: _____	DIRECTOR	
								PROFILE SCALE: _____	DATE: _____		
	BUREAU OF ENGINEERING AND CONSTRUCTION		HIGHWAYS		STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	PROPERTY MANAGEMENT	
	DSGN BY: BKM		REVIEWED BY: _____							APPROVED BY: _____	
	DWN BY: BKM									DATE: _____	
	CHKD BY: BKM		DATE REVIEWED: _____							CHIEF	

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
PART LEVEL 3 FLOOR PLAN 'B' - DUCTWORK

9150 Franklin Square Drive, MD 21237

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
M1.03B	15025P00
	JOB ORDER NO.
	249-218-0100-0614
SHEET 232 OF 359	DRAWING NO.
2015-1870	
FILE NO.	



BKM 13063.01

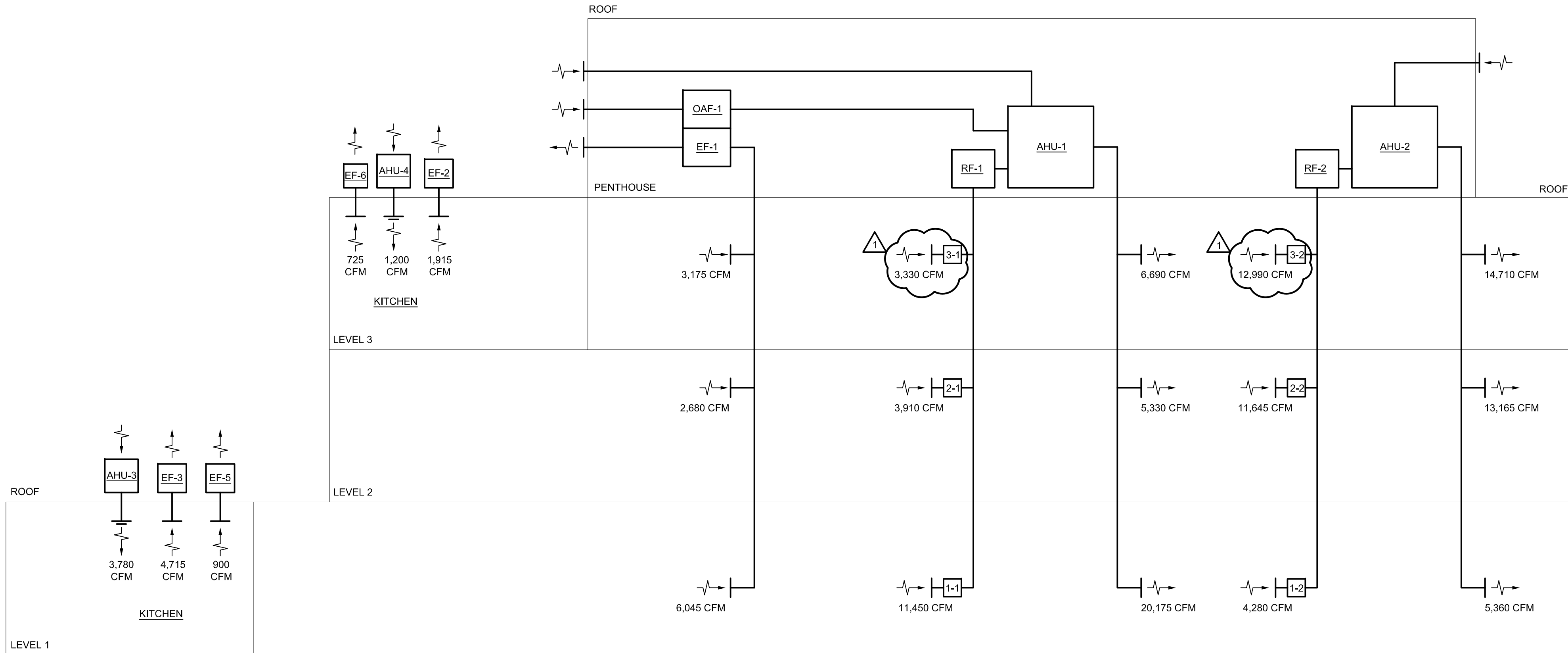
GU:\0001-5552-M056-AIRFLOW DIAGRAM\DWG_0022145_1113_18EF_11260.01.TB.DWG - J.ME

SEAL



DATE: 06/23/2015

PROFESSIONAL CERTIFICATION				AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE		APPROVED BY: _____ DIRECTOR
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 17117 EXPIRATION DATE 10/25/2016 ENGINEER: <u>WILLIAM J. COLLINS, JR.</u>									PLAN SCALE: _____		
									R.O.W. NO.	PROFILE SCALE: _____	
									ADDENDUM # <u>03</u>	07/24/2015	
				BUREAU OF ENGINEERING AND CONSTRUCTION	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	PROPERTY MANAGEMENT
				DESIGN BY: <u>BKM</u>							APPROVED BY: _____ CHIEF
				REVIEWED BY:							
				DATE REVIEWED:							
				CHKD BY: <u>BKM</u>							DATE: _____



1 **MECHANICAL AIRFLOW DIAGRAM**
NOT TO SCALE

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
MECHANICAL AIRFLOW DIAGRAM

9150 Franklin Square Drive, MD 21237

SUBDIVISION:

ELECT. DISTRICT NO. 14C6

BID SET 06/16/15

SHEET DESIGNATION	CONTRACT NO.
M5.05	15025POO
JOB ORDER NO.	
249-218-0100-0614	
SHEET 251 OF 359	
DRAWING NO.	
2015-1889	
FILE NO.	
BKM# 13063.01	

AIR HANDLING UNIT SCHEDULE

AHU NO	AREA SERVED	LOCATION	NOMINAL AIRFLOW (CFM)	MIN O A CFM	TSP (IN)	ESP (IN)	SUPPLY FAN (NOTE 1)	COOLING COIL DATA (NOTE 4)										HEATING COIL DATA (NOTE 5)										MAX FILTER APD (IN)		BASIS OF DESIGN							
								TYPE	FLUID	MBH TOTAL	MBH SENS	EAT DB/WB (°F)	LAT DB/WB (°F)	EWI (°F)	LWT (°F)	GPM (COIL / TOTAL)	MAX WPD (FT)	MAX APD (IN)	MAX FV (FPM)	MIN ROWS	MAX FPI	TYPE	FLUID	MIN CAPACITY (MBH)	EAT (°F)	LAT (°F)	EWI (°F)	LWT (°F)	GPM (COIL / TOTAL)		MAX WPD (FT)	MAX APD (IN)	MAX FV (FPM)	MIN ROWS	MAX FPI	MERV 8 (NOTE 2)	MERV 13 (NOTE 3)
AHU-1	RESIDENT AREAS	PENTHOUSE	32,000	12,800	7.2	4.5	SF-1 (TYP OF 4)	HYDRONIC	WATER	1798.7	1197.9	85.0 / 69.0	50.8 / 50.6	42	54	151.0 / 302.0	10.9	0.63	450	8	10	HYDRONIC	WATER	518.4	40	55	180	140	11.3 / 34.0	10.0	0.15	500	1	6	1.0	1.5	DAIKIN CAH 086 GDGM
AHU-2	STAFF AREAS	PENTHOUSE	35,000	12,250	7.9	4.5	SF-2 (TYP OF 6)	HYDRONIC	WATER	2215.9	1155.8	80.5 / 70.5	50.3 / 50.1	42	54	182.5 / 365.0	15.6	1.36	450	8	10	HYDRONIC	WATER	567.0	40	55	180	140	12.4 / 37.2	10.0	0.17	500	1	6	1.0	1.5	DAIKIN CAH 086 GDGM

- NOTES:
- SEE FAN SCHEDULE FOR ADDITIONAL REQUIREMENTS.
 - PROVIDE 2" THICK PLEATED MEDIA PRE-FILTER. AIR PRESSURE DROP SCHEDULED AT DIRTY FILTER CONDITION AND MAXIMUM 400 FPM AIR VELOCITY.
 - PROVIDE 12" THICK VERTICAL CARTRIDGE FILTER. AIR PRESSURE DROP SCHEDULED AT DIRTY FILTER CONDITION AND MAXIMUM 400 FPM AIR VELOCITY.
 - COOLING COIL BANK CONSISTS OF TWO (2) COILS. 115" WIDE x 54" HIGH EACH.
 - PREHEAT COIL BANK CONSISTS OF THREE (3) COILS. 112" WIDE x 33" HIGH EACH.

FAN SCHEDULE

FAN NO	LOCATION	AREA SERVED	AIRFLOW (CFM)		SP (IN)	MOTOR				FAN RPM	MIN FAN DIA	WHEEL TYPE	CLASS	DRIVE TYPE	MANUFACTURER / MODEL	REMARKS
			MAX	MIN		HP	MAX BHP	VOLTS	PHASE							
SF-1	AHU-1	AHU-1 SUPPLY AIR	8,000	-	7.2	15	13.6	460	3	3207	18.25	AF	II	DIRECT	DAIKIN CENTRIFUGAL SWSI	NOTES 6 & 8
SF-2	AHU-2	AHU-2 SUPPLY AIR	5,833	-	7.9	15	10.76	460	3	2897	18.25	AF	II	DIRECT	DAIKIN CENTRIFUGAL DWDI	NOTES 6 & 9
OAF-1	PENTHOUSE	AHU-1 MIN OA	12,800	-	0.5	15	11.33	460	3	2251	19	AF	II	DIRECT	DAIKIN CENTRIFUGAL DWDI	NOTES 4, 5 & 6
RF-1	PENTHOUSE	AHU-1	18,000	-	3.0	20	14.7	460	3	1810	32	AF	II	DIRECT	TWIN CITY TCVX 32B6	NOTES 1, 5 & 6
RF-2	PENTHOUSE	AHU-2	31,000	-	2.5	25	20.3	460	3	1403	42	AF	II	DIRECT	TWIN CITY TCVX 42D5	NOTES 1, 5 & 6
EF-1	PENTHOUSE	GENERAL EXHAUST	12,055	-	2.0	20	13.9	460	3	2392	19	AF	II	DIRECT	DAIKIN CENTRIFUGAL DWDI	NOTES 4, 5 & 6
EF-2	LEVEL 3 ROOF	3RD FLOOR KITCHEN HOOD	1,915	960	1.75	2	1.09	208	3	1927	13	BI	I	BELT	CAPTIVEAIRE USBI 13BD	NOTE 2 & 10
EF-3	LEVEL 1 ROOF	1ST FLOOR KITCHEN HOOD	4,715	2,360	2	5	3.38	208	3	1063	24	BI	I	BELT	CAPTIVEAIRE USBI 24BD	NOTES 2, 7 & 10
EF-4	PENTHOUSE	PENTHOUSE	5,000	-	0.25	1	0.57	460	3	892	24	PROP	I	DIRECT	TWIN CITY TCPE 242A	NOTE 3
EF-5	LEVEL 1 ROOF	1ST FLOOR DISHWASHER	900	-	1.5	1/2	0.4	120	1	1821	12	BI	I	BELT	TWIN CITY BCRUR	NOTE 2
EF-6	LEVEL 3 ROOF	3RD FLR KITCHEN DISHWASHER	525	-	0.75	1/3	0.16	120	1	1241	11	BI	I	BELT	CAPTIVEAIRE USBI 11BD	NOTE 3
EF-7	LEVEL 3 ROOF	1ST FLR GAS FIRED DRYERS	1760	-	0.60	1/2	0.30	120	1	1600	-	-	I	BELT	ENERVEX MBESV315	NOTE 6
MA-1	LEVEL 1 ROOF	1ST FLR GAS FIRED DRYERS	1760	-	0.32	1	0.75	120	1	1720	-	-	I	BELT	ENERVEX BESB315	NOTE 6

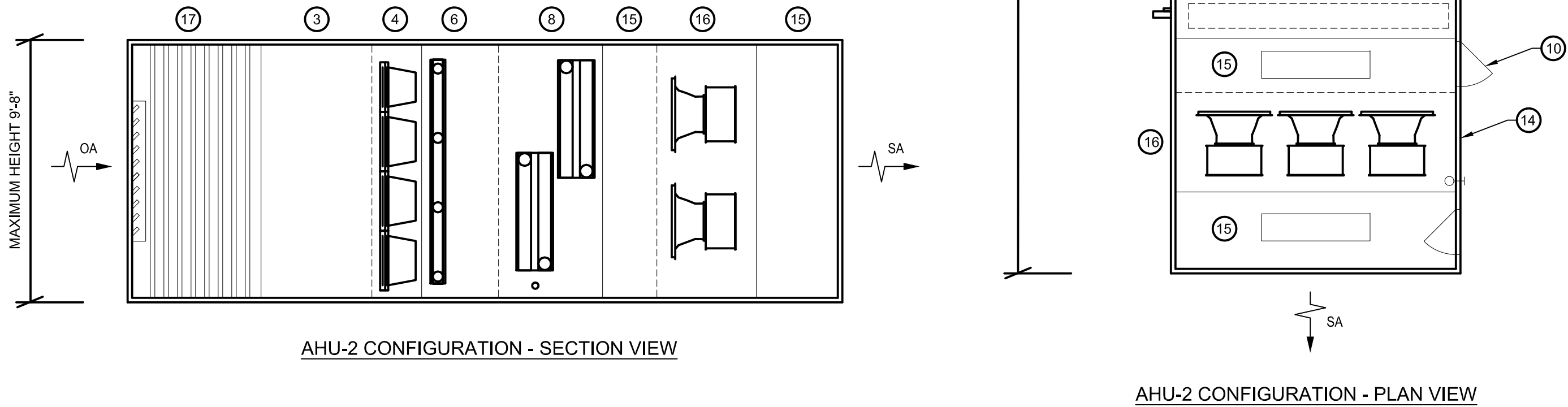
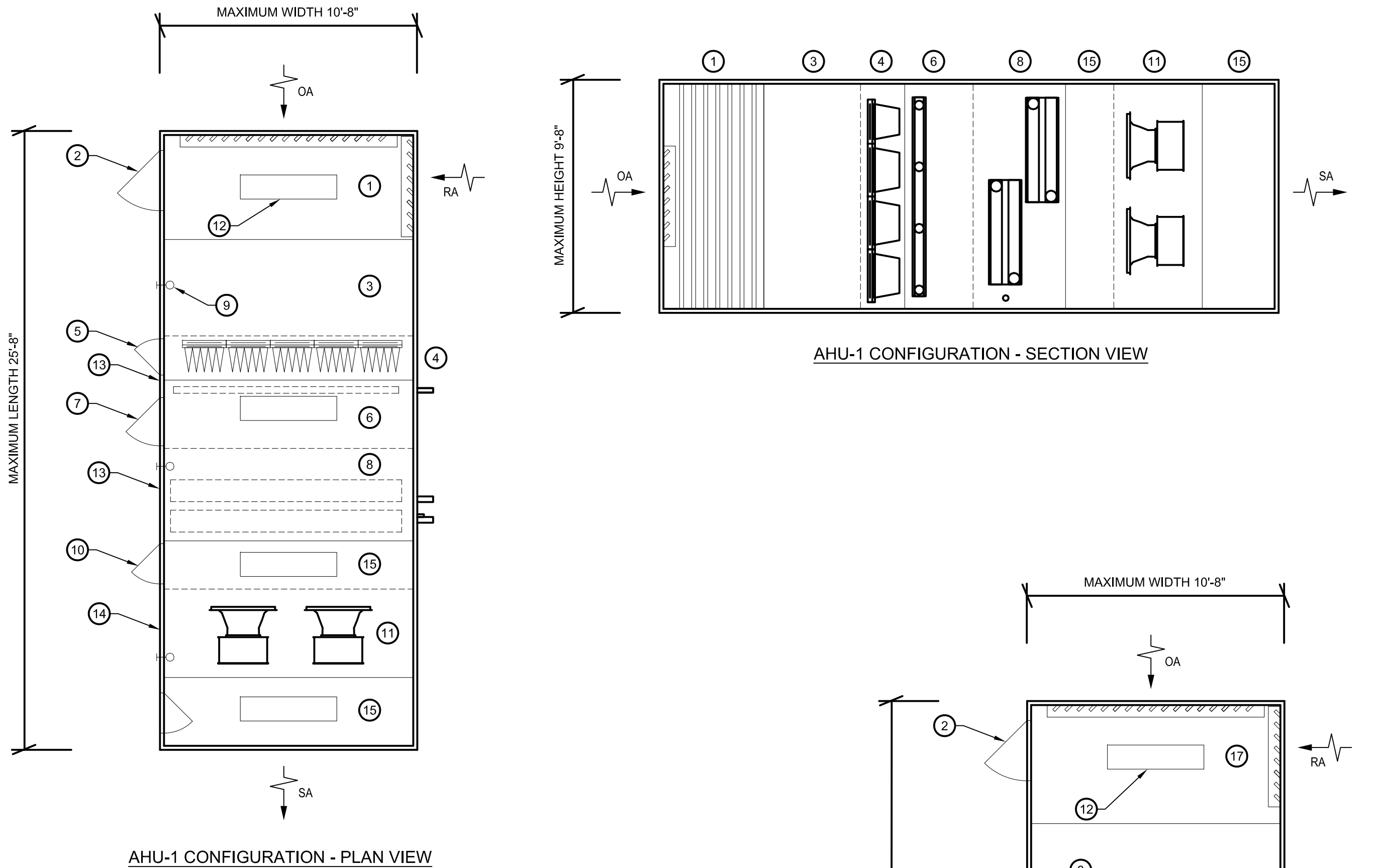
- NOTES:
- INLINE, VANE AXIAL FAN.
 - UPBLAST CENTRIFUGAL FAN. PROVIDE WITH INTEGRAL DISCONNECT.
 - SIDEWALL PROPELLER FAN. PROVIDE WITH INTEGRAL DISCONNECT.
 - FAN LOCATED WITHIN ENERGY RECOVERY UNIT ERU-1 HOUSING.
 - PROVIDE WITH INVERTER DUTY MOTOR.
 - FAN PROVIDED WITH VARIABLE FREQUENCY DRIVE PROVIDED BY ELECTRICAL DIVISION.
 - FAN PROVIDED WITH VARIABLE FREQUENCY DRIVE PROVIDED BY KITCHEN VENDOR.
 - FAN LOCATED WITHIN AIR HANDLING UNIT AHU-1 FAN ARRAY HOUSING. TYPICAL OF 4. VARIABLE FREQUENCY DRIVES SHALL BE PROVIDED BY AIR HANDLING UNIT MANUFACTURER AND SHALL CONTROL ALL SUPPLY FANS IN ARRAY.
 - FAN LOCATED WITHIN AIR HANDLING UNIT AHU-2 FAN ARRAY HOUSING. TYPICAL OF 6. VARIABLE FREQUENCY DRIVES SHALL BE PROVIDED BY AIR HANDLING UNIT MANUFACTURER AND SHALL CONTROL ALL SUPPLY FANS IN ARRAY.
 - EXHAUST FAN OPERATION INTERLOCKED WITH KITCHEN MAKE-UP AIR HANDLING UNIT.

GENERAL NOTES:

- ALL COILS SHALL BE PROVIDED WITH FLANGED CONNECTIONS. STEEL PIPING SHALL BE SCHEDULE 40 AND COPPER PIPING SHALL BE TYPE L. COIL PIPING SHALL BE INSTALLED IN A MANNER THAT WILL ENABLE 2" OF FIBERGLASS INSULATION TO BE INSTALLED IN THE FIELD BY THE INSTALLING CONTRACTOR.
- ALL DUCTWORK CONNECTIONS SHALL BE CONSTRUCTED WITH FLANGES.
- THE ASSEMBLED UNIT SHALL BE UL LISTED, ETI LISTED OR INSPECTED, TESTED, AND CERTIFIED IN THE FIELD BY AN APPROVED TESTING AGENCY. COST OF FIELD CONSTRUCTION SHALL BE INCLUDED.
- THE ASSEMBLED UNIT SHALL BE PREASSEMBLED AT THE FACTORY AT THE TIME OF UNIT INSPECTION.
- UNIT MANUFACTURER SHALL DETERMINE SECTION SPLIT QUANTITY AND LOCATIONS.

DRAWING NOTES:

- MIXING BOX SECTION WITH FLANGED 108x52 OUTSIDE AIR CONNECTION AND FLANGED 50x112 RETURN AIR CONNECTION.
- 30"x72" ACCESS DOOR WITH DOOR SWING INDICATED. PROVIDE 3-POINT CLOSURE AND ROUND GLASS OBSERVATION WINDOW.
- STATIC AIR BLENDER SECTION.
- SIDE ACCESS COMBINATION FILTER SECTION WITH FILTER RACK AND BANK. MAXIMUM 450 FPM.
- 18"x72" ACCESS DOOR WITH DOOR SWING INDICATED. PROVIDE 3-POINT CLOSURE AND ROUND GLASS OBSERVATION WINDOW.
- HOT WATER PREHEAT COIL SECTION WITH PREHEAT COILS THREE HIGH. EXTEND AND SEAL 1 1/2" BRANCH PIPING THROUGH UNIT CASING WITH FLANGED CONNECTION. PROVIDE MANUAL AIR VENT AT EACH COIL HIGH POINT AND COIL DRAIN CONNECTION.
- 24" ACCESS DOOR WITH DOOR SWING INDICATED. PROVIDE 3-POINT CLOSURE AND ROUND GLASS OBSERVATION WINDOW.
- CHILLED WATER COOLING COIL SECTION WITH COOLING COILS TWO HIGH. PROVIDE COOLING COIL BAFFLE PAN FOR BOTH UPPER AND LOWER COILS. EXTEND AND SEAL 3" BRANCH PIPING THROUGH UNIT CASING WITH FLANGED CONNECTION. PROVIDE MANUAL AIR VENT AT EACH COIL HIGH POINT AND COIL DRAIN CONNECTION. PROVIDE DEPRESSED DRAIN PAN IN SECTION FLOOR. INSTALL COOLING COIL IN DRAIN PAN.
- PROVIDE 2" SECTION DRAIN IN FLOOR TO DRAIN. PROVIDE SCREW CAP CONNECTION THROUGH BASE CHANNEL AND DRAIN COVER TO AIR HANDLING UNIT FLOOR (TYPICAL).
- 20" ACCESS DOOR WITH DOOR SWING INDICATED. PROVIDE 3-POINT CLOSURE AND ROUND GLASS OBSERVATION WINDOW.
- SUPPLY FAN SECTION WITH SUPPLY FANS IN 2x2 FAN WALL CONFIGURATION. PROVIDE OPEN END DUCT AT SUPPLY FAN DISCHARGE WITH WIRE MESH SCREEN. PROVIDE FAN SUPPORT BASE ON VIBRATION ISOLATORS.
- WEATHERPROOF FLOURESCENT LIGHT FIXTURE WITH LOW TEMPERATURE BALLAST (TYPICAL).
- REMOVABLE PANEL SECTION FOR COIL ACCESS.
- 48" WIDE x 72" HIGH REMOVABLE PANEL FOR FAN / MOTOR ACCESS.
- ACCESS SECTION.
- SUPPLY FAN SECTION WITH SUPPLY FANS IN 3x2 FAN WALL CONFIGURATION. PROVIDE OPEN END DUCT AT SUPPLY FAN DISCHARGE WITH WIRE MESH SCREEN. PROVIDE FAN SUPPORT BASE ON VIBRATION ISOLATORS.
- MIXING BOX SECTION WITH FLANGED 108x64 OUTSIDE AIR CONNECTION AND FLANGED 64x112 RETURN AIR CONNECTION.



SEAL	PROFESSIONAL CERTIFICATION	AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE	APPROVED BY: _____	
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.						PLAN SCALE: _____	DIRECTOR	
	LICENSE NO. 17117 EXPIRATION DATE 10/25/2016						PROFILE SCALE: _____	DATE: _____	
	ENGINEER: WILLIAM J. COLLINS, JR.	BUREAU OF ENGINEERING AND CONSTRUCTION	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	PROPERTY MANAGEMENT
	USGN BY: BKM	REVIEWED BY: _____							CHIEF
	DWN BY: BKM	DATE REVIEWED: _____						DATE: _____	
	CHKD BY: BKM								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT

Eastern Family Resource Center

MECHANICAL SCHEDULES

9150 Franklin Square Drive, MD 21237

SUBDIVISION:

BID SET 06/16/15	
SHEET DESIGNATION	CONTRACT NO.
M7.01	15025P00
JOB ORDER NO.	
249-218-0100-0614	
SHEET 259 OF 359	DRAWING NO.
2015-1897	
FILE NO.	
BKM# 13063.01	

CU30001-055-MDS-SCHEDULE.DWG 12/27/15 12:07 AM EE: 11300.01 TL.DWG -- JNE

THIRD FLOOR SUPPLY AIR VOLUME TERMINAL WITH HOT WATER REHEAT SCHEDULE																	
DESIG	MAXIMUM CFM	MINIMUM CFM	HEATING CFM	MINIMUM INLET SIZE (IN) (2)	OUTLET SIZE (3) (IN x IN)	MAXIMUM APD (IN) (4)	MAXIMUM NC (5)	INLET SP (IN)	MINIMUM SOUND ATTENUATOR SIZE (IN x IN x IN) (6)	HEATING CAPACITY							
										CFM	EAT (°F)	LAT (°F)	BTUH	EWI (°F)	LWT (°F) (9)	GPM	PIPE SIZE
3101	475	110	145	7"Ø	12 x 10	0.6	35	1.50	16 x 10 x 36	145	55	95	6300	180	140	0.4	3/4"
3102	315	130	315	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	315	55	95	13600	180	140	0.7	3/4"
3103	1335	325	325	12"Ø	16 x 15	0.6	35	1.50	28 x 16 x 36	325	55	95	14100	180	140	1.0	3/4"
3104	495	170	495	7"Ø	12 x 10	0.6	35	1.50	16 x 10 x 36	495	55	95	214000	180	140	1.4	3/4"
3105	135	65	135	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	135	55	95	6000	180	140	0.6	3/4"
3106	290	90	290	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	290	55	95	12600	180	140	0.6	3/4"
3107	300	90	300	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	300	55	95	13100	180	140	0.7	3/4"
3108	1340	385	1340	14"Ø	20 x 18	0.6	35	1.50	30 x 18 x 36	1340	55	95	58200	180	135	2.7	1"
3109	380	130	380	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	380	55	95	16400	180	140	1.2	3/4"
3110	450	270	450	7"Ø	12 x 10	0.6	35	1.50	16 x 10 x 36	450	55	95	19600	180	140	1.0	3/4"
3111	325	90	140	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	140	55	95	6100	180	140	0.6	3/4"
3112	330	130	330	6"Ø	-	0.6	35	1.50	16 x 8 x 36	330	55	95	14300	180	140	1.2	3/4"
3113	520	145	520	7"Ø	12 x 10	0.6	35	1.50	16 x 10 x 36	520	55	95	22600	180	140	1.4	3/4"
3201	745	275	275	9"Ø	14 x 13	0.6	35	1.50	20 x 14 x 36	275	55	95	11900	180	140	1.2	3/4"
3202	590	360	590	7"Ø	12 x 10	0.6	35	1.50	16 x 10 x 36	590	55	95	25500	180	140	1.4	3/4"
3203	290	290	290	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	290	55	95	12600	180	140	0.6	3/4"
3204	405	360	405	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	405	55	95	17500	180	140	0.9	3/4"
3205	300	90	300	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	300	55	95	13000	180	140	0.7	3/4"
3206	665	355	355	9"Ø	14 x 13	0.6	35	1.50	20 x 14 x 36	355	55	95	15400	180	140	3.2	1"
3207	850	260	850	9"Ø	14 x 13	0.6	35	1.50	20 x 14 x 36	850	55	95	39700	180	140	2.3	1"
3208	700	380	420	8"Ø	12 x 10	0.6	35	1.50	20 x 10 x 36	420	55	95	18200	180	140	0.9	3/4"
3209	1980	850	1425	14"Ø	20 x 18	0.6	35	1.50	30 x 18 x 36	1425	55	95	62100	180	140	3.1	1"
3210	600	160	600	7"Ø	12 x 10	0.6	35	1.50	16 x 10 x 36	600	55	95	26000	180	140	1.9	3/4"
3211	180	65	85	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	85	55	95	3700	180	140	0.2	3/4"
3212	650	195	195	7"Ø	12 x 10	0.6	35	1.50	16 x 10 x 36	195	55	95	8500	180	140	0.8	3/4"
3213	230	65	85	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	85	55	95	3700	180	140	0.2	3/4"
3214	560	170	560	7"Ø	12 x 10	0.6	35	1.50	16 x 10 x 36	560	55	95	24300	180	140	1.6	3/4"
3215	400	325	325	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	325	55	95	14100	180	140	0.8	3/4"
3216	740	450	740	9"Ø	14 x 13	0.6	35	1.50	20 x 14 x 36	740	55	95	32100	180	140	1.9	3/4"
3217	320	70	85	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	85	55	95	3700	180	140	0.2	3/4"
3218	210	150	150	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	150	55	95	6400	180	140	0.7	3/4"
3219	900	205	900	9"Ø	14 x 13	0.6	35	1.50	20 x 14 x 36	900	55	95	38900	180	140	3.0	1"
3220	390	125	140	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	140	55	95	6100	180	140	0.6	3/4"
3221	780	265	265	9"Ø	14 x 13	0.6	35	1.50	20 x 14 x 36	265	55	95	11500	180	140	1.1	3/4"
3222	320	105	105	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	105	55	95	4600	180	140	0.3	3/4"
3223	295	90	105	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	105	55	95	4600	180	140	0.3	3/4"
3224	215	60	85	5"Ø	12 x 8	0.6	35	1.50	12 x 8 x 36	85	55	95	3700	180	140	0.2	3/4"
3225	980	320	320	9"Ø	14 x 13	0.6	35	1.50	20 x 14 x 36	320	55	95	13900	180	140	2.0	3/4"
3226	415	330	415	6"Ø	12 x 8	0.6	35	1.50	16 x 8 x 36	415	55	95	18000	180	140	1.4	3/4"

NOTES:

- AIR VOLUME TERMINALS SHALL BE PRESSURE INDEPENDENT TYPE.
- PROVIDE MINIMUM OF THREE (3) DUCT DIAMETERS OR TWO (2) FEET (WHICHEVER IS GREATER) OF STRAIGHT SHEET METAL DUCT AT TERMINAL UNIT INLET. MEDIUM PRESSURE FLEXIBLE DUCTWORK WILL NOT BE PERMITTED.
- WHERE OUTLET SIZE IS INDICATED OTHERWISE ON HVAC PLANS, PROVIDE DUCT TRANSITION AS REQUIRED. WHERE SOUND ATTENUATORS ARE REQUIRED, PROVIDE TRANSITION FROM TERMINAL OUTLET TO SOUND ATTENUATOR AND FROM SOUND ATTENUATOR TO DUCT SIZE INDICATED ON PLANS.
- MAXIMUM AIR PRESSURE DROP SHALL BE FOR AIR VOLUME TERMINAL INCLUDING HEATING COIL AND SOUND ATTENUATOR.
- MAXIMUM NOISE CRITERIA (NC) LEVELS FOR DISCHARGE AND RADIATED SOUND SHALL NOT BE EXCEEDED IN ANY OF THE 2ND THROUGH 7TH OCTAVE BANDS AT THE SCHEDULED INLET STATIC PRESSURE. STANDARD CATALOGUED ATTENUATION CREDITS SHALL NOT BE USED. SEE SPECIFICATIONS FOR ALLOWABLE SOUND ADJUSTMENT FACTORS. PROVIDE SOUND ATTENUATORS AS REQUIRED TO MEET NC VALUES INDICATED.
- PROVIDE WHERE REQUIRED TO MEET NC VALUES SCHEDULED. SOUND ATTENUATOR PRESSURE DROP SHALL NOT EXCEED 0.15 IN WC.
- PROVIDE AIR TERMINAL UNIT REHEAT COIL WITH 3-WAY MODULATING CONTROL VALVE IN LIEU OF 2-WAY MODULATING CONTROL VALVE.
- AIR TERMINAL UNIT SERVING SPACE WITH CO2 SENSOR. REFER TO AUTOMATIC TEMPERATURE CONTROLS FOR ADDITIONAL REQUIREMENTS.
- PROVIDE AIR TERMINAL UNIT REHEAT COIL WITH MAXIMUM HEATING WATER ΔT OF APPROXIMATELY 40°.
- PROVIDE AIR TERMINAL UNIT WITH 2-ROW COIL.

AIR DEVICE SCHEDULE

DESIG	DUTY	SIZE (IN)	CFM RANGE	INLET/ NECK SIZE (IN)	MAX SP	MAX NC	DESCRIPTION	MANUFACTURER / MODEL
A	SUPPLY	24 x 24 MODULE	0 - 120	6"Ø	0.10"	20	(18 x 18 NECK W/ FACTORY MOUNTED SQUARE - ROUND TRANSITION)	TITUS TDC - AA
A	SUPPLY	24 x 24 MODULE	121 - 210	8"Ø	0.10"	20	(18 x 18 NECK W/ FACTORY MOUNTED SQUARE - ROUND TRANSITION)	TITUS TDC - AA
A	SUPPLY	24 x 24 MODULE	211 - 325	10"Ø	0.10"	25	(18 x 18 NECK W/ FACTORY MOUNTED SQUARE - ROUND TRANSITION)	TITUS TDC - AA
A	SUPPLY	24 x 24 MODULE	326 - 470	12"Ø	0.10"	25	(18 x 18 NECK W/ FACTORY MOUNTED SQUARE - ROUND TRANSITION)	TITUS TDC - AA
A	SUPPLY	24 x 24 MODULE	471 - 640	14"Ø	0.10"	25	(18 x 18 NECK W/ FACTORY MOUNTED SQUARE - ROUND TRANSITION)	TITUS TDC - AA
A	SUPPLY	24 x 24 MODULE	641 - 830	16"Ø	0.10"	25	(18 x 18 NECK W/ FACTORY MOUNTED SQUARE - ROUND TRANSITION)	TITUS TDC - AA
B	SUPPLY	6 x 6	0 - 114	6 x 6	0.10"	20	DOUBLE DEFLECTED DIFFUSER 3/4" SPACING	TITUS 300 FL
B	SUPPLY	8 x 6	115 - 156	8 x 6	0.10"	20	DOUBLE DEFLECTED DIFFUSER 3/4" SPACING	TITUS 300 FL
B	SUPPLY	10 x 6	157 - 204	10 x 6	0.10"	20	DOUBLE DEFLECTED DIFFUSER 3/4" SPACING	TITUS 300 FL
B	SUPPLY	12 x 6	205 - 246	12 x 6	0.10"	20	DOUBLE DEFLECTED DIFFUSER 3/4" SPACING	TITUS 300 FL
B	SUPPLY	14 x 6	247 - 288	14 x 6	0.10"	20	DOUBLE DEFLECTED DIFFUSER 3/4" SPACING	TITUS 300 FL
B	SUPPLY	18 x 10	500 - 610	18 x 10	0.10"	20	DOUBLE DEFLECTED DIFFUSER 3/4" SPACING	TITUS 300 FL
C	SUPPLY	4 FT. LONG	0 - 140	6"Ø	0.10"	30	LINEAR SLOT, 3/4" SLOT (2 SLOTS)	TITUS ML-38 W/ MPI-38 INSULATED PLENUM
C	SUPPLY	4 FT. LONG	141 - 165	8"Ø	0.10"	30	LINEAR SLOT, 3/4" SLOT (2 SLOTS)	TITUS ML-38 W/ MPI-38 INSULATED PLENUM
C	SUPPLY	4 FT. LONG	166 - 190	10"Ø	0.10"	30	LINEAR SLOT, 3/4" SLOT (2 SLOTS)	TITUS ML-38 W/ MPI-38 INSULATED PLENUM
D	RETURN / EXHAUST	10 x 10	0 - 295	10 x 10	0.06"	20	FIXED LOUVER. 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
D	RETURN / EXHAUST	12 x 12	296 - 440	12 x 12	0.06"	20	FIXED LOUVER. 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
D	RETURN / EXHAUST	14 x 14	441 - 610	14 x 14	0.06"	20	FIXED LOUVER. 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
D	RETURN / EXHAUST	16 x 16	611 - 800	16 x 16	0.06"	20	FIXED LOUVER. 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
D	RETURN / EXHAUST	18 x 18	801 - 1030	18 x 18	0.06"	20	FIXED LOUVER. 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
D	RETURN / EXHAUST	24 x 24	1031 - 1875	24 x 24	0.06"	20	FIXED LOUVER. 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
E	RETURN	24 x 24 MODULE	0 - 100	6"Ø	0.10"	20	PERFORATED FACE - REGISTER (FLUSH)	TITUS PAR
E	RETURN	24 x 24 MODULE	101 - 175	8"Ø	0.10"	20	PERFORATED FACE - REGISTER (FLUSH)	TITUS PAR
E	RETURN	24 x 24 MODULE	176 - 275	10"Ø	0.10"	20	PERFORATED FACE - REGISTER (FLUSH)	TITUS PAR
E	RETURN	24 x 24 MODULE	276 - 400	12"Ø	0.10"	20	PERFORATED FACE - REGISTER (FLUSH)	TITUS PAR
E	RETURN	24 x 24 MODULE	401 - 530	14"Ø	0.10"	25	PERFORATED FACE - REGISTER (FLUSH)	TITUS PAR
E	RETURN	24 x 24 MODULE	531 - 700	16"Ø	0.10"	25	PERFORATED FACE - REGISTER (FLUSH)	TITUS PAR

NOTE: MANUFACTURERS SHALL PROVIDE ALUMINUM AIR DEVICES UNLESS OTHERWISE INDICATED.

RETURN AIR VOLUME TERMINAL SCHEDULE

DESIG	AIRFLOW (CFM)	MINIMUM INLET SIZE (IN)	MAXIMUM NC (2)	INTERFACED SUPPLY AIR TERMINAL UNITS (3)	DIFFERENTIAL CFM	REMARKS
1-1	11,450	48x26 TYPE R	35	1101 - 1124	8,725	-
1-2	4,280	30x18 TYPE M	35	1201 - 1208	1,080	-
2-1	3,910	36x18 TYPE M	35	2101 - 2110	1,420	-
2-2	11,645	48x26 TYPE R	35	2201 - 2225	1,520	-
3-1	3,130	36x12 TYPE L	35	3101 - 3117	3,560	-
3-2	12,990	52x26 TYPE R	35	3201 - 3228	1,565	-

NOTES:

- AIR VOLUME TERMINALS SHALL BE PRESSURE INDEPENDENT TYPE.
- PROVIDE SOUND ATTENUATOR WHERE REQUIRED TO MEET NC VALUES SCHEDULED.
- RETURN AIR TERMINAL UNIT SHALL MAINTAIN A FIXED DIFFERENTIAL BASED ON ITS SCHEDULED MAXIMUM AIRFLOW AND THE SUM OF THE INTERFACED SUPPLY AIR TERMINAL UNITS MAXIMUM AIRFLOWS.

	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE		APPROVED BY: _____ DIRECTOR
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. <u>17117</u> EXPIRATION DATE <u>10/25/2016</u> ENGINEER: <u>WILLIAM J. COLLINS, JR.</u>		REVIEWED BY: _____		DATE REVIEWED: _____	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
			DESIGN BY: <u>BJM</u>		HIGHWAYS						
			DWN BY: <u>BJM</u>								
			CHKD BY: <u>BJM</u>								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
MECHANICAL SCHEDULES

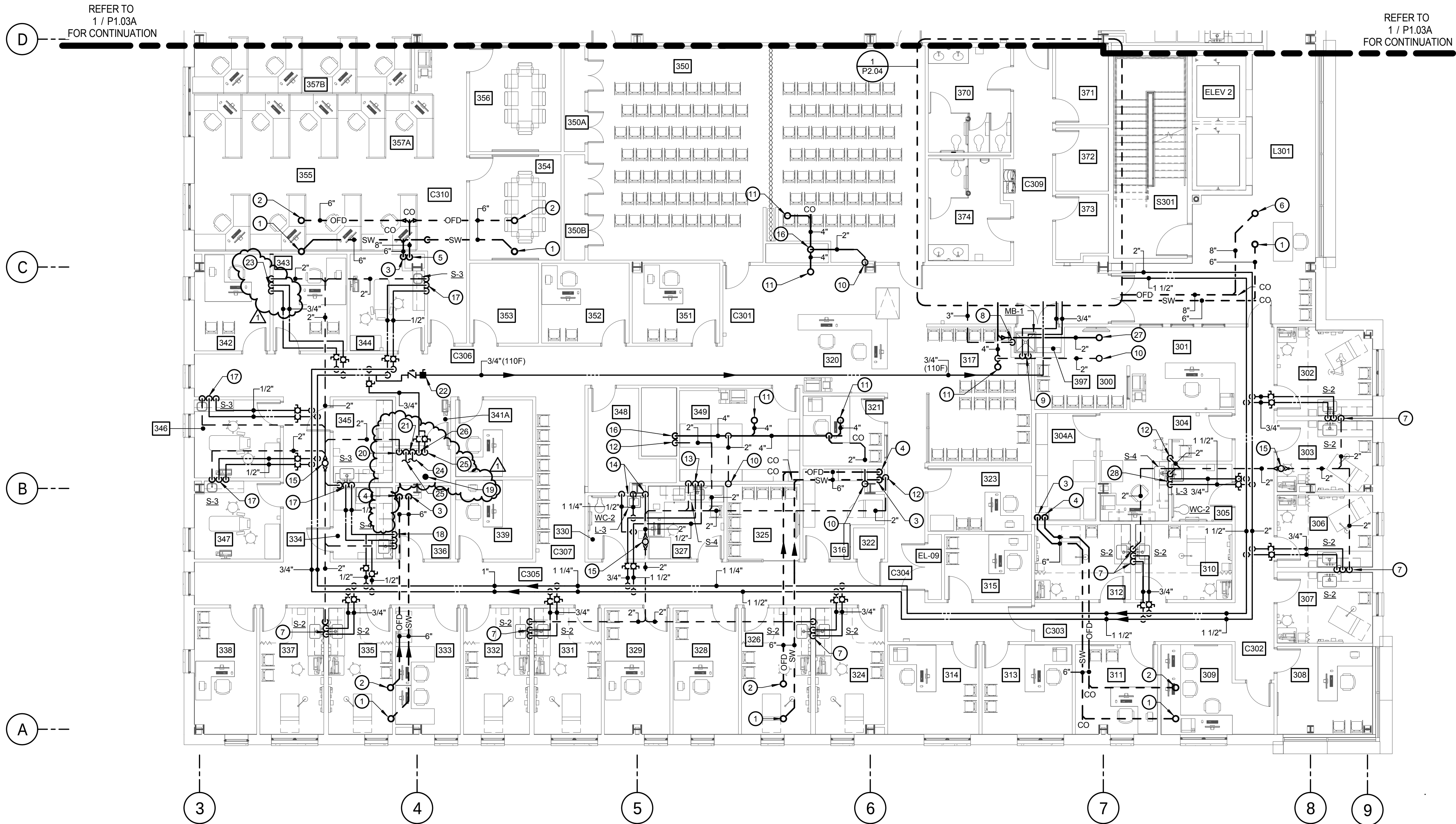
9150 Franklin Square Drive, MD 21237

SUBDIVISION:

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
M7.04	15025POO
JOB ORDER NO.	
249-218-0100-0614	
SHEET 232 OF 359	
DRAWING NO.	
2015-1900	
FILE NO.	

BKM# 13063.01



1 PART LEVEL 3 FLOOR PLAN 'B' - PLUMBING
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO DRAWING P0.01 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.

DRAWING NOTES:

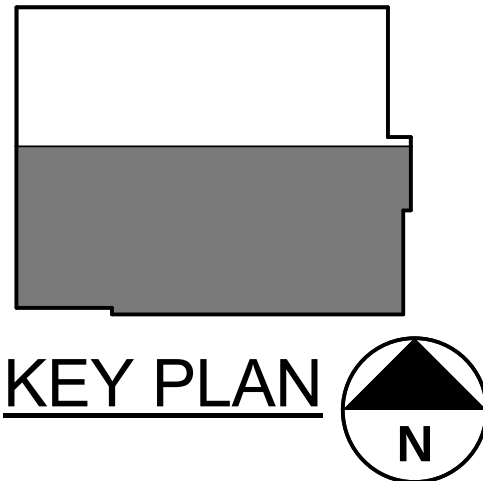
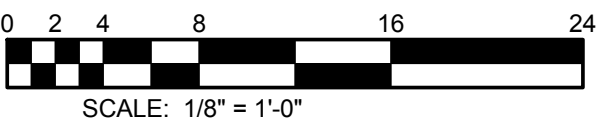
- 1 6" STORM WATER UP TO ROOF DRAIN.
2 6" STORM WATER (OVERFLOW DRAIN) UP TO ROOF DRAIN.
3 6" STORM WATER DOWN.
4 6" STORM WATER (OVERFLOW DRAIN) DOWN.
5 8" STORM WATER (OVERFLOW DRAIN) DOWN.
6 8" STORM WATER (OVERFLOW DRAIN) UP TO ROOF DRAIN.
7 3/4" HW, 2" VENT & 3/4" CW DOWN TO (2) S-2 & 2" SANITARY.
8 3" VENT DOWN TO 3" SANITARY.
9 3/4" HW & 3/4" CW DOWN TO MB-1.
10 2" VENT UP.
11 4" SANITARY UP TO 4" FLOOR DRAIN WITH 1/2" TRAP PRIMING LINE.
12 2" VENT DOWN.
13 1/2" HW, 2" VENT & 1/2" CW DOWN TO S-4 & 2" SANITARY.
14 1/2" HW, 2" VENT & 1 1/2" CW DOWN TO (1) L-3, (1) WC-2 & 2" SANITARY.
15 4" VENT UP TO 4" VENT THROUGH ROOF.

- 16 4" SANITARY DOWN.
17 1/2" HW, 2" VENT & 1/2" CW DOWN TO S-3 & 2" SANITARY.
18 1/2" HW, 2" VENT & 1/2" CW DOWN TO S-4 AND TRIMMER & 2" SANITARY. EXTEND 1/2" CW TO TRIMMER COLD WATER OUTLET. CONTRACTOR SHALL INSTALL PASTER TRAP, TRIMMER AND PLASTER TRAP UNDER ANOTHER DIVISION. UNDER THIS DIVISION PROVIDE ROUGH IN AND FINAL CONNECTION. REFER TO DENTAL SUITE DRAWINGS BY BENCO DENTAL FOR TRIMMER & PLASTER TRAP DETAILS.
19 2" FUNNEL FLOOR DRAIN WITH 1/2" TRAP PRIMING LINE.
20 2" VENT DOWN TO 2" SANITARY.
21 3/4" DENTAL AIR, 3/4" FILTERED DENTAL COLD WATER & 1 1/4" DENTAL VACUUM DOWN.
22 BALANCE FITTING (SET @ 1.5 GPM), REFER TO DETAIL.
23 3/4" HW, 2" VENT & 3/4" CW DOWN TO (2) CAPPED 1 1/2" SANITARY ROUGH-INS FOR FUTURE CONNECTION. (S-3) & 2" SANITARY.
24 3/4" DENTAL AIR, EXTEND TO DENTAL AIR COMPRESSOR, DENTAL AIR COMPRESSOR UNDER ANOTHER DIVISION. UNDER THIS DIVISION PROVIDE SHUT-OFF BALL VALVE, ROUGH-INS AND FINAL CONNECTIONS. REFER TO DENTAL SUITE DRAWINGS BY BENCO DENTAL FOR DENTAL AIR COMPRESSOR SYSTEM DETAILS.
25 1 1/2" DENTAL VACUUM & 1/2" CW, EXTEND TO DENTAL VACUUM PUMP, DENTAL VACUUM PUMP UNDER ANOTHER DIVISION. UNDER THIS DIVISION PROVIDE SHUT-OFF BALL VALVE, BACKFLOW PREVENTER, ROUGH-INS AND FINAL CONNECTIONS. REFER TO DENTAL SUITE DRAWINGS BY BENCO DENTAL FOR DENTAL VACUUM PUMP SYSTEM DETAILS.

- 26 3/4" CW, EXTEND TO REMOTE WATER CONTROL VALVE AND WATER FILTER ASSEMBLY. REMOTE WATER CONTROL VALVE AND WATER FILTER ASSEMBLY UNDER ANOTHER DIVISION. UNDER THIS DIVISION PROVIDE SHUT-OFF BALL VALVES, BACKFLOW PREVENTER, PRESSURE REGULATOR, ROUGH-INS AND FINAL CONNECTIONS. REFER TO DENTAL SUITE DRAWINGS BY BENCO DENTAL FOR DENTAL REMOTE WATER CONTROL VALVE AND WATER FILTER ASSEMBLY DETAILS.
27 2" SANITARY UP TO S-1 WITH EW-1.
28 3/4" HW, 2" VENT & 1 1/2" CW DOWN TO (1) S-4, (1) WC-2, (1) L-3 & 2" SANITARY.

LEVEL 3 'B' ROOM LIST	
300	WAITING
301	RECEPTION
302	TRIAGE/PROCEDURE ROOM
303	EXAM ROOM
304	LAB/ STERILE
304A	STORAGE
305	CLIENT TOILET
306	EXAM ROOM
307	EXAM ROOM
308	MEDICAL DIRECTOR
309	SHARED ADMIN OFFICE
310	EXAM ROOM
311	SOCIAL WORK OFFICE
312	EXAM ROOM
313	CASE MANAGER
314	INTERVIEW ROOM
315	INTERVIEW ROOM
316	MEDS & VACCINE STORAGE
317	SHARED WAITING
320	RECEPTION
321	FEE CLERK
322	BIO HAZARD
323	INTERVIEW ROOM
324	EXAM ROOM
325	INTERNAL WAITING
326	EXAM ROOM
327	LAB
328	INTERVIEW ROOM
329	INTERVIEW ROOM
330	CLIENT TOILET
331	EXAM ROOM
332	EXAM ROOM
333	CHARTING
334	LAB
335	EXAM ROOM
336	STORAGE/SUPPLIES
337	EXAM ROOM
338	INTERVIEW ROOM
341A	PANEX
342	CONSULT. OFFICE / FUTURE OP

LEVEL 3 'B' ROOM LIST	
343	CONSULT. OFFICE / FUTURE OP
344	OPERATORY
345	AUTOCCLAVE
346	OPERATORY
347	OPERATORY
348	BULK STORAGE
349	FILES & PAPER STOR.
350	PUBLIC CONFERENCE ROOM
350B	STO.
351	NURSE PRACTITIONER OFFICE
352	NURSING SUPERVISOR OFFICE
353	DENTAL FILES
354	INTERVIEW CONFERENCE ROOM
355	FAMILY PLANNING
356	INTERVIEW CONFERENCE ROOM
357A	DENTAL
357B	HOME HEALTH
370	WOMEN'S RESTROOM
371	AVIT
372	ELEC
373	RECYCLING
374	MEN'S RESTROOM
397	H.K.
C301	CORRIDOR
C302	CORRIDOR
C303	CORRIDOR
C304	CORRIDOR
C305	CORRIDOR
C306	CORRIDOR
C307	CORRIDOR
C310	CORRIDOR
EL-09	ELEC. CLOSET
ELEV 2	ELEVATOR
L301	LOBBY
S301	STAIR #1



SEAL 	PROFESSIONAL CERTIFICATION						
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.						
	LICENSE NO. 17117 EXPIRATION DATE 10/25/2018						
	ENGINEER: WILLIAM J. COLLINS, JR.						
DESIGN BY: BKM		REVIEWED BY:		DATE REVIEWED:		DATE:	
DWN BY: BKM						APPROVED BY: _____	
CHKD BY: BKM						DATE: _____	
						CHIEF	

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
PART LEVEL 3 FLOOR PLAN 'B' - PLUMBING

9150 Franklin Square Drive, MD 21237

SUBDIVISION:

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
P1.03B	15025P00
JOB ORDER NO.	249-218-0100-0614
SHEET 272 OF 359	DRAWING NO.
2015-1910	FILE NO.

BID SET 06/16/15



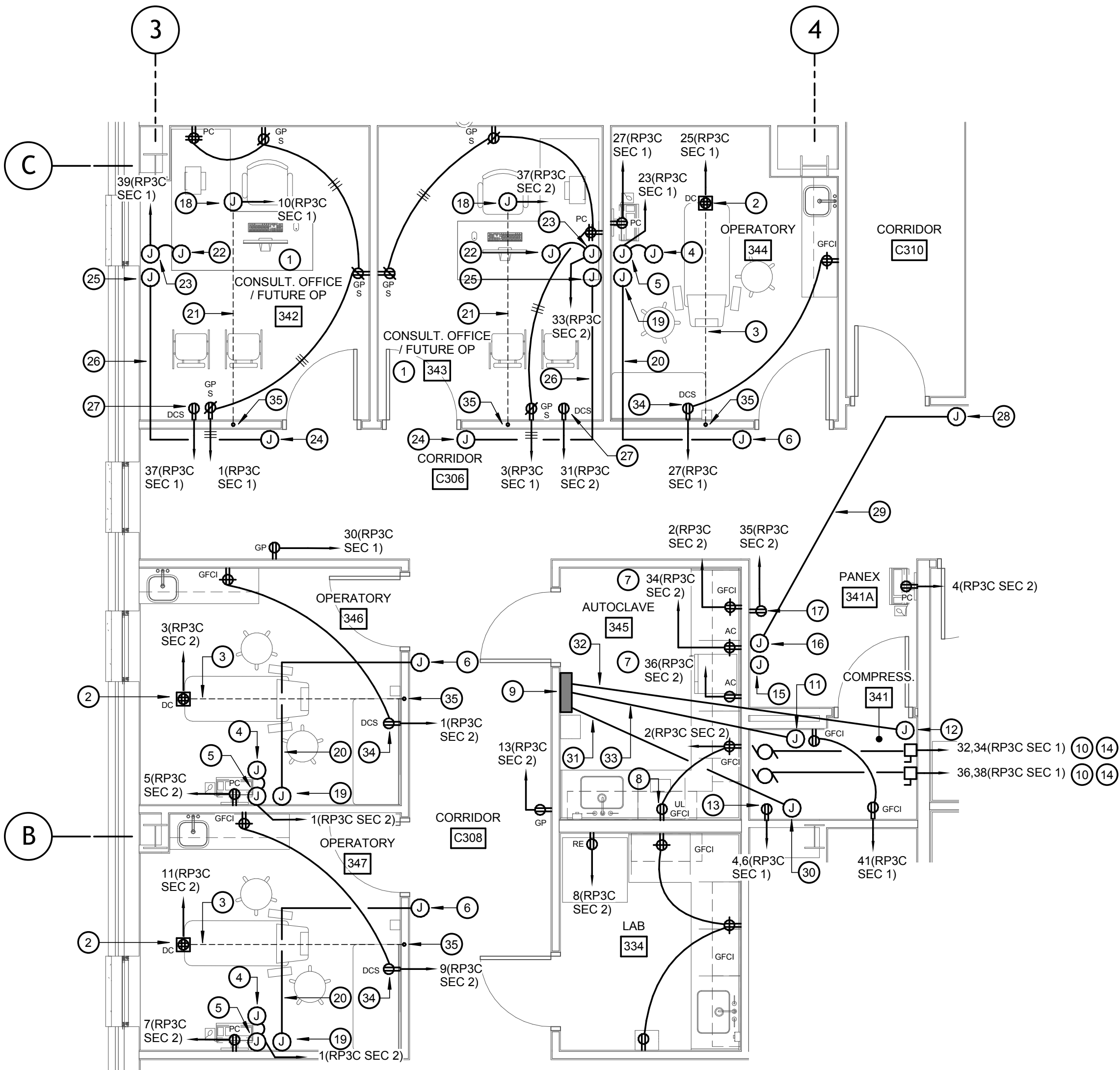
BKM 13063.01

GENERAL NOTES:

1. REFER TO E0.01 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION REQUIRED TO CONNECT AND INTERFACE MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS TO THE DENTAL EQUIPMENT BEING FURNISHED. THE CONTRACTOR SHALL OBTAIN SHOP DRAWING SUBMITTALS FOR ALL DENTAL EQUIPMENT, I.E. DENTAL CHAIR, X-RAY EQUIPMENT, UTILITY CENTER, AIR COMPRESSOR, VACUUM PUMP, ETC., TO DETERMINE ACTUAL LOAD AND CONNECTION REQUIREMENTS TO PROVIDE ROUGH-IN UTILITY CONNECTIONS. FINAL CONNECTIONS TO DENTAL EQUIPMENT SHALL BE BY CONTRACTOR IN COOPERATION WITH DENTAL EQUIPMENT CONTRACTOR (DEC). PRIOR TO INSTALLING FINAL ROUGH-IN REQUIREMENTS, AS INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL CONFIRM THE ACTUAL UTILITY LOCATIONS FOR THE PURCHASED EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR ALL FIELD MODIFICATIONS REQUIRED DUE TO CHANGES BETWEEN CONTRACT DOCUMENTS AND THE ACTUAL DENTAL EQUIPMENT PURCHASED. REFER TO DENTAL EQUIPMENT CONTRACTOR DRAWINGS FOR ADDITIONAL INFORMATION.

DRAWING NOTES:

- 1 50% OF PRIVATE OFFICE RECEPTACLES SHALL BE AUTOMATICALLY (ON/OFF) CONTROLLED VIA THE LIGHTING CONTROL SYSTEM. PROVIDE UNSWITCHED HOT CONDUCTOR TO UNSWITCHED RECEPTACLE(S). PROVIDE SWITCHED HOT CONDUCTOR ROUTED THROUGH LIGHTING CONTROL SYSTEM POWER/RELAY PACK TO SWITCHED RECEPTACLE(S). REFER TO LIGHTING PLANS FOR ADDITIONAL INFORMATION.
- 2 POWER CONNECTION FOR DENTAL CHAIR. PROVIDE QUAD RECEPTACLE LOCATED WITHIN DENTAL CHAIR UTILITY CENTER ON 3rd FLOOR. ROUTE CIRCUIT FROM 2nd FLOOR ACCESSIBLE CEILING SPACE UP INTO DENTAL CHAIR UTILITY CENTER. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 3 DATA CONNECTION FOR DENTAL CHAIR. PROVIDE 2" EMPTY CONDUIT FROM 3rd FLOOR ACCESSIBLE CEILING SPACE DOWN TO 2nd FLOOR ACCESSIBLE CEILING SPACE. STUB UP INTO DENTAL CHAIR UTILITY CENTER ON 3rd FLOOR. COORDINATE WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 4 POWER CONNECTION FOR DENTAL WALL MOUNTED LIGHT. PROVIDE JUNCTION BOX OR RECEPTACLE AS REQUIRED FOR FINAL EQUIPMENT INSTALLED. COORDINATED FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 5 POWER CONNECTION FOR INTRAORAL X-RAY. PROVIDE JUNCTION BOX OR RECEPTACLE AS REQUIRED FOR FINAL EQUIPMENT INSTALLED. COORDINATED FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 6 INTRAORAL X-RAY EXPOSURE BUTTON. PROVIDE EMPTY JUNCTION BOX FOR INTRAORAL X-RAY EXPOSURE BUTTON. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 7 PROVIDE DUPLEX RECEPTACLE FOR AUTOCLAVE. COORDINATE MOUNTING HEIGHT AND LOCATION WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 8 PROVIDE DUPLEX RECEPTACLE FOR ULTRASONIC. COORDINATE MOUNTING HEIGHT AND LOCATION WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 9 REMOTE CONTROL PANEL. PROVIDE JUNCTION BOX FOR CONTROL PANEL. COORDINATE SIZE OF JUNCTION BOX WITH DENTAL EQUIPMENT PROVIDER/INSTALLER. PROVIDE ALL CONDUIT AND LOW VOLTAGE WIRING FOR CONNECTIONS TO VACUUM UNIT, AIR COMPRESSOR AND WATER CONTROL VALVE. CONTRACTOR TO PROVIDE CONDUIT AND WIRE. DENTAL EQUIPMENT PROVIDER/INSTALLER TO MAKE FINAL CONNECTIONS.
- 10 POWER CONNECTION FOR VACUUM PUMP (208V, 1P, 16A FLA). PROVIDE 208V, 1P, 30A DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 11 WATER CONTROL VALVE TRANSFORMER SUPPLIED BY DENTAL EQUIPMENT PROVIDER/INSTALLER. PROVIDE (2)#18 CONTROL WIRE IN 1" CONDUIT FROM CONTROL VALVE TRANSFORMER TO WATER CONTROL VALVE. COORDINATE WITH DENTAL EQUIPMENT PROVIDER/INSTALLER. DENTAL PROVIDER/INSTALLER RO MAKE FINAL CONNECTIONS.
- 12 CONNECTION POINT FOR VACUUM PUMP CONTROL WIRING FROM REMOTE CONTROL PANEL. PROVIDE EMPTY JUNCTION BOX WITH COVER PLATE. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 13 AIR COMPRESSOR POWER CONNECTION. PROVIDE NEMA 6-20R RECEPTACLE FOR AIR COMPRESSOR. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 14 PROVIDE (2)#10 & (1)#10 GRD IN 3/4" CONDUIT.
- 15 CONNECTION FOR PANORAMIC DATA CABLES. PROVIDE JUNCTION BOX WITH COVER PLATE. PROVIDE 1" EMPTY CONDUIT TO ACCESSIBLE CEILING SPACE. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 16 PANORAMIC EXPOSURE BUTTON CONNECTION POINT. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 17 POWER CONNECTION FOR PANORAMIC X-RAY. PROVIDE JUNCTION BOX OR RECEPTACLE AS REQUIRED FOR FINAL EQUIPMENT INSTALLED. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 18 FUTURE POWER CONNECTION FOR DENTAL CHAIR. ROUTE TO JUNCTION BOX IN 2nd FLOOR CEILING SPACE BENEATH ROOM. CAP FOR FUTURE USE. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 19 INTRAORAL X-RAY EXPOSURE BUTTON CONNECTION POINT FOR CONTROL WIRING. PROVIDE EMPTY JUNCTION BOX FOR CONTROL WIRING. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 20 PROVIDE 1" EMPTY CONDUIT FOR CONTROL WIRING FROM EXPOSURE BUTTON TO INTRAORAL X-RAY. CONTROL WIRING SUPPLIED BY DENTAL EQUIPMENT CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 21 FUTURE DATA CONNECTION FOR DENTAL CHAIR. PROVIDE 2" EMPTY CONDUIT FROM 3rd FLOOR ACCESSIBLE CEILING SPACE DOWN TO 2nd FLOOR ACCESSIBLE CEILING SPACE. ROUTE TO JUNCTION BOX IN 2nd FLOOR CEILING SPACE BENEATH ROOM. CAP FOR FUTURE USE. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 22 FUTURE POWER CONNECTION FOR DENTAL WALL MOUNTED LIGHT. PROVIDE BLANK COVER PLATE(S). COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 23 FUTURE POWER CONNECTION FOR INTRAORAL X-RAY. PROVIDE BLANK COVER PLATE(S). COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 24 FUTURE INTRAORAL X-RAY EXPOSURE BUTTON. PROVIDE JUNCTION BOX AND COVER PLATE(S). COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 25 FUTURE INTRAORAL X-RAY EXPOSURE BUTTON CONNECTION POINT FOR CONTROL WIRING. PROVIDE JUNCTION BOX AND COVER PLATE(S) FOR CONTROL WIRING. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 26 FUTURE INTRAORAL X-RAY EXPOSURE BUTTON CONTROL WIRING. PROVIDE 1" EMPTY CONDUIT. ROUTE TO JUNCTION BOX AND CAP FOR FUTURE USE. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 27 FUTURE POWER CONNECTION FOR WALL MOUNTED UTILITY CENTER. MOUNT IN SIMILAR LOCATION AS COORDINATED FOR ROOMS 344, 346 AND 347 FOR FUTURE USE. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 28 PANORAMIC X-RAY EXPOSURE BUTTON. PROVIDE EMPTY JUNCTION BOX FOR PANORAMIC X-RAY EXPOSURE BUTTON. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 29 PROVIDE 1" EMPTY CONDUIT FOR CONTROL WIRING FROM EXPOSURE BUTTON TO PANORAMIC X-RAY. CONTROL WIRING SUPPLIED BY DENTAL EQUIPMENT CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 30 CONNECTION POINT FOR AIR COMPRESSOR CONTROL WIRING FROM REMOTE CONTROL PANEL. PROVIDE EMPTY JUNCTION BOX WITH COVER PLATE. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 31 PROVIDE (4)#18 CONTROL WIRES IN 1" CONDUIT FROM REMOTE CONTROL PANEL TO AIR COMPRESSOR. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 32 PROVIDE (8)#18 CONTROL WIRES IN 1" CONDUIT FROM REMOTE CONTROL PANEL TO VACUUM PUMP. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 33 PROVIDE (4)#18 CONTROL WIRES IN 1" CONDUIT FROM REMOTE CONTROL PANEL TO CONTROL VALVE TRANSFORMER. COORDINATE FINAL REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 34 RECEPTACLE FOR WALL MOUNTED UTILITY CENTER. COORDINATE FINAL WITH REQUIREMENTS WITH DENTAL EQUIPMENT PROVIDER/INSTALLER.
- 35 2" CONDUIT UP TO 3rd FLOOR CEILING SPACE.



1 LEVEL 3 DENTAL AREA PART PLAN - ELECTRICAL - POWER

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

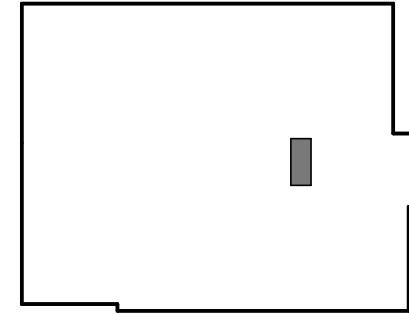
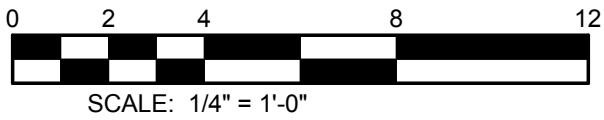
SEAL	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE		APPROVED BY: _____ DATE: _____ DIRECTOR
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.							PLAN SCALE: _____	APPROVED BY: _____ DATE: _____ CHIEF	
	LICENSE NO. 30474 EXPIRATION DATE 01/23/2017						PROFILE SCALE: _____			
	ENGINEER: DAVID M. WETZEL						FIELD ENGINEER			
DATE: 07/20/15		DSGN BY: DCW	BUREAU OF ENGINEERING AND CONSTRUCTION	07/24/2015	STRUCTURES	STORM DRAINS	SEWER	WATER		
		DWN BY: Author	REVIEWED BY:							
		CHKD BY: DMW	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
LEVEL 3 DENTAL AREA PART PLAN – ELECTRICAL – POWER

9150 Franklin Square Drive, MD 21237

ELECT. DISTRICT NO. 14C6

SUBDIVISION:



KEY PLAN
N

BID SET 07/24/2015	
SHEET DESIGNATION	CONTRACT NO.
E5.04	15025P00
JOB ORDER NO.	
249-218-0100-0614	
SHEET OF	
DRAWING NO.	
2015-1998	
FILE NO.	

BRM 13063.01

1. REFER TO E0.01 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES

1 PROVIDE SINGLE POLE OR MULTI-POLE 20A CIRCUIT BREAKERS AS REQUIRED DEPENDING ON HOW NEUTRALS ARE SHARED TO PRE-WIRED OFFICE FURNITURE. PROVIDE MULTI-POLE CIRCUIT BREAKER FOR CIRCUITS THAT SHARE A COMMON NEUTRAL. COORDINATE WITH FINAL CIRCUIT AND CONNECTIVITY REQUIREMENTS WITH OFFICE FURNITURE INSTALLER PRIOR TO INSTALLATION.

CONNECTED LOAD (SEC 1 & SEC 2):		
A:	13.46 KVA	= 112.2 A
B:	13.54 KVA	= 112.8 A
C:	12.98 KVA	= 108.2 A
TOTAL CONNECTED LOAD (SEC 1 & SEC 2) (KVA)		39.98

CONNECTED LOAD:

A:	0.00 KVA	=	0.0 A	0.00 TOTAL CONNECTED LOAD (KVA)
B:	0.00 KVA	=	0.0 A	
C:	0.00 KVA	=	0.0 A	

NOTE:

CONNECTED LOAD (SEC 1 & SEC 2):

A:	11.39 KVA	=	94.9 A
B:	12.75 KVA	=	106.3 A
C:	11.90 KVA	=	99.2 A

48.66 TOTAL CONNECTED LOAD (SEC 1 & SEC 2) (KVA)

NOTE:
(1) PROVIDE FEED THRU LUGS FOR PANEL RP3B (SEC 2).

CONNECTED LOAD:

A:	4.29 KVA	=	35.8 A
B:	3.95 KVA	=	32.9 A
C:	4.38 KVA	=	36.5 A

12.62

TOTAL CONNECTED LOAD (KVA)

NOTE:

CONNECTED LOAD (SEC 1 & SEC 2):

A:	26.96 KVA	=	224.7 A	118.21 TOTAL CONNECTED LOAD (SEC 1 & SEC 2) (KVA)
B:	26.05 KVA	=	217.4 A	
C:	25.89 KVA	=	215.8 A	

NOTE:
(1) PROVIDE FEED THRU LUGS FOR PANEL RP3C (SEC 2).

CONNECTED LOAD:

A:	13.34 KVA	=	111.2 A	39.28 TOTAL CONNECTED LOAD (KVA)
B:	13.18 KVA	=	109.9 A	
C:	12.74 KVA	=	106.2 A	

NOTE: