



KEVIN KAMENETZ
County Executive

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

August 28, 2015

RE: Contract #15025 P00
(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. 9
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.

In the Proposal

Revised and attached to be inserted: Page 1828, "Description of Work" ***changing*** the bid date ***to*** Thursday, September 17, 2015 at 2:15 p.m. EST ***from*** Thursday, September 3, 2015 at 2:15 p.m. EST mentioned in Addendum No. 6.

Karen M. Carmichael
to Vincent G. Kicas, Chief

Division of Construction Contracts Administration

VGK:KM:AEC:bjw

Attachment - 17

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 09

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, which are reissued entirely, dated 08/27/2015.

<u>Section No.</u>	<u>Title</u>	<u>Change</u>
22 30 00	Plumbing Equipment	Revised Sections 2.1 and 3.1-B.

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>
08 71 00-24	3.5	REPLACE Set #51 with the following:

SET #51 - Delayed Egress 20M

Doors: 271B

3 Hinges	CB168 4 1/2 X 4 1/2 NRP	US26D	ST
1 Power Transfer	EPT-5		PR
1 Delayed Egress Exit UL	DE FL 2101	630	PR
1 Mortise Cylinder	Medeco X4 SFIC	26	ME
1 Door Closer	QDC115	689	SH
1 Kick Plate	KO050 8" x 2" LDW CSK	630	TR
1 Wall Bumper	1270WX	626	TR
1 Gasketing	5050 T-17 17'		NA
1 Door Position Switch	MC-4		SDC
1 Power Supply	PS160-6		PR
1 Wiring Diagram	BY HARDWARE SUPPLIER		BY

NOTE: COORDINATION WITH ELECTRICAL IS REQUIRED.

OPERATION DESCRIPTION: Door normally closed, latched and secure. No access from pull side of door. 30 second delayed egress when armed while simultaneously sounding a local or remote audible alarm. Immediate free egress upon activation of Fire Alarm System.

23 07 00-6	3.3-A-1-b	REPLACE with "b. HVAC supply ductwork from fan discharge to terminal unit, including all duct
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		accessories (sound attenuators, etc.)."
23 07 00-6	3.3-A-1-d	REPLACE with "d. Medium pressure supply air ductwork. Provide double-wall internally insulated construction for exposed medium pressure supply air ductwork in sleeping rooms."
23 07 00-6	3.3-A-2-b	REPLACE with "b. Rigit Fiberglass: 2" (50 mm) thick, application limited to exposed ductwork located in mechanical rooms."
23 07 00-6	3.3-A-2-c	DELETE item "c." in entirety.
23 07 00-9	3.6-B	REPLACE with "Lined Ductwork: Except as otherwise indicated, reduce insulation on ductwork where internal insulation or sound lining has been specified by the thickness of sound lining specified."
23 64 00-2	2.1-A	ADD "5. Temptrol."
23 73 13-3	2.1-A	ADD "5. Carrier."
26 32 13-6	2.8	ADD "H. Fuel fill pipe/provision to allow fuel tank to be filled without having to open the generator enclosure."
26 36 00-4	2.3	ADD "E. Two additional sets of form C dry contacts for connection to Owner external monitoring system for monitoring ATS in normal position and ATS in generator position. Two sets per monitoring point."
27 02 00-4	2.2	ADD "C. Contractor shall paint interior walls of each and every telecom room, floor to ceiling, with fire rated 3/4" plywood and painted with 2 coats of fire retardant paint preferred black or a neutral color. Paint shall be or equal to: Flame Control Coatings, LLC. Flame Control NO. 20-20A. Fire Hazard Classification, ATSM E-84 (NFPA 255) Class "A."
27 02 00-6	2.5	ADD "D. Contractor shall provide grounding and bonding of all cable trays and racks. All telecom room ground bus bars shall be grounded to the main building ground using #2 or greater AWG copper wire. Contractor shall connect cabinets, racks, cable trays and frames to single-point

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ground which is connected to
telecommunications room grounding bar via #6
AWG green insulated copper grounding
conductor."

CHANGES TO DRAWINGS

ADD: The following revised portions of Drawings which are dated 08/27/15 and attached. Where portions of Drawings are modified or deleted by these Addenda Sketches, the unaltered portions of the respective Drawing shall remain in effect.

Drawing No.	Change or Clarification
A2.12B.1	Changes associated with relocation of Door 252.
A3.12B.1	Changes associated with relocation of Door 252.
SKS-01	Change to Typical Pier Reinforcing Detail

CHANGES TO DRAWINGS

DELETE: Existing Drawings with the respective numbers listed below.
ADD: New Drawings, which are reissued entirely, with revisions dated 08.27.2015.

Access these drawings here: <https://www.dropbox.com/l/8ZDEbc95hGLYzRcXLFdBRn>

Drawing No.

A3.20	CEILING DETAILS
A6.23	ENLARGED PLANS – LEVEL 2 AREA B.1
M1.03A	PART LEVEL 3 FLOOR PLAN 'A' – DUCTWORK
M5.04	MECHANICAL CONTROLS
M5.05	MECHANICAL AIRFLOW DIAGRAM
M7.02	MECHANICAL SCHEDULES
M7.04	MECHANICAL SCHEDULES
E0.03	SITE PLAN - ELECTRICAL
E1.02A	PART LEVEL 2 FLOOR PLAN 'A' – POWER
E1.02B	PART LEVEL 2 FLOOR PLAN 'B' – POWER
E2.01A	PART LEVEL 1 FLOOR PLAN 'A' – LIGHTING
E2.01B	PART LEVEL 1 FLOOR PLAN 'B' – LIGHTING
E2.02A	PART LEVEL 2 FLOOR PLAN 'A' – LIGHTING
E2.02B	PART LEVEL 2 FLOOR PLAN 'B' – LIGHTING

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E2.03B PART LEVEL 3 FLOOR PLAN 'B' – LIGHTING
E4.02B PART LEVEL 2 FLOOR PLAN 'B' – FIRE ALARM
E7.02 FIRE ALARM RISER DIAGRAM
TE2.11B PARTIAL FLOOR PLAN - LEVEL 1 AREA B – TELECOM

CHANGES TO DRAWINGS

ADD: Change or clarification below to existing drawing:

Drawing No.	Change or Clarification
A9.01	CHANGE Hardware set for Door 271A to "07".
A9.01	CHANGE Hardware set for Door 275 to "09".
ID0.2	CHANGE Room 160 Wall Finish to "EP-1".
M1.01A	REPLACE General Note 2 with the following: "PROVIDE INTERNALLY INSULATED DOUBLE WALL DUCT CONSTRUCTION ON ALL MEDIUM PRESSURE SUPPLY AIR DUCTWORK AND PROVIDE MINIMUM 1" ACOUSTIC SOUND LINING IN ALL RETURN AND LOW PRESSURE SUPPLY AIR DUCTWORK LOCATED IN SLEEPING ROOMS 130, 131, 133, 135, 138 AND 139."
M1.01B	REPLACE General Note 2 with the following: "PROVIDE INTERNALLY INSULATED DOUBLE WALL DUCT CONSTRUCTION ON ALL MEDIUM PRESSURE SUPPLY AIR DUCTWORK AND PROVIDE MINIMUM 1" ACOUSTIC SOUND LINING IN ALL RETURN AND LOW PRESSURE SUPPLY AIR DUCTWORK LOCATED IN SLEEPING ROOM 117."
M1.02A	REPLACE General Note 2 with the following: "PROVIDE INTERNALLY INSULATED DOUBLE WALL DUCT CONSTRUCTION ON ALL MEDIUM PRESSURE SUPPLY AIR DUCTWORK AND PROVIDE MINIMUM 1" ACOUSTIC SOUND LINING IN ALL RETURN AND LOW PRESSURE SUPPLY AIR DUCTWORK LOCATED IN MEN'S SLEEPING AREA 271."
P0.01	Replace Description of DWMV-1 with the following: "MASTER DOMESTIC HOT WATER THERMOSTIC MIXING VALVE, ASSE 1017 APPROVED WITH NICKEL PLATED ELEMENTS, RATED FOR 96 GPM MAXIMUM AND 5 GPM MINIMUM WITH A MAXIMUM PRESSURE LOSS OF 10 PSI."
P0.01	Replace Basis of Design for DWMV-1 with the following: "LAWLER MODEL No. 805 #86108-05."
TE1.02	CHANGE drawing scale to 1" = 40'.

ANSWERS TO BIDDER QUESTIONS

- Q74 On Drawing ID0.2 Finish Schedule – Part 1 Room # 160 Shelter Kitchen under Walls it calls out to receive FRP. On Drawing ID0.1 Finish Legend under Code and Material it does not have FRP listed. Could you provide a floor plan showing which walls would receive FRP if required and also provide the interior wall assemblies detail for the FRP.
- A74 FRP is not required. Per Addendum 09, change wall finish in Room 160 to EP-1.
- Q75 Fire Detection Specs. Section 28 31 11 Part 2 2.1A states that the fire alarm system be manufactured by Edwards I/O 500. Is that statement true for all components of the fire detection system? Would any substitute manufacturers be permitted that might reduce the overall costs to the owner?
- A75 The fire alarm system including all devices and components shall be manufactured by Edwards per spec section 283111, 2.1, A as long as there is an Edwards product available. If there are required devices that are not manufactured by Edwards, then this shall be identified in the fire alarm submittal.
- Q76 In specification section Wires and Cables 26 05 19-6, 3.3, A- it states MC cable is prohibited unless specifically noted otherwise. Further in the same specification section it states where it can be used and not used. Are we permitted to use MC cable on this project?
- A76 MC cable is only allowed for lighting whips per spec section 260519, 3.3, A and 3.3, F.
- Q77 These two specification paragraphs are contradictory to one another. Please clarify.
Spec. section 23 07 00, 3.3, A.
1. Application Requirements: Insulate the following cold ductwork:
d. HVAC supply and Return ductwork located in double-wall ductwork in occupied room.
Spec. section 23 07 00, 3.6, B. Lined Ductwork: Except as otherwise indicated, omit insulation on ductwork where internal insulation or sound lining has been specified.
- A77 Refer to revisions to spec section 23 07 00 provided in Addendum 09.
- Q78 Will the Smoking Shelter require PE stamped drawings?
- A78 Yes, PE stamped drawings are required.
- Q79 Can T.M.P Walk-Ins be used in lieu of items 2, 3 and 4 specified to be Bally.
- A79 Provide walk-ins as specified.
- Q80 The Code sheet is calling for a 0 Hour rating on structure, floors and roofs (Type IIB Construction) but the code analysis on A0.2 calls for a 1 Hour rating at the floors. Also the wall sections reference a F30CA which calls for a 1/2 hour assembly at the floor. To me this suggests that the steel supporting these locations would require fireproofing unless the ceiling provides a 1 hour rating. Can you please confirm if fireproofing is required?
- A80 A minimum 1/2 hour fire resistance rating is required at all sleeping areas, including walls, floors, ceiling, and supporting structure. Steel beams supporting floors and ceilings of sleeping areas require sprayed fireproofing. All steel columns supporting these beams shall be wrapped with CMU per UL Design No. X528.
- Q81 What model number is the basis of design for the smoking shelters? There seems to be several different models of this smoking shelter.

- A81 Basis of design is Austin Mohawk; Model SHE-610-C.
- Q82 The specs denote that there will be formed metal wall panels installed, but there do not appear to be any metal wall panels shown on the drawings. Please advise.
- A82 Formed metal wall panels are shown on the drawings, cladding the mechanical penthouse.
- Q83 The spec section 07 41 10 – Manufactured Linear Soffit Panels, uses exposed fastener linear soffit panels as the basis of design; is this correct? This material may not provide the aesthetic wanted. Please advise if this is the correct material.
- A83 Provide exposed fastener linear soffit panels as specified.
- Q84 REF-06 Refrigerator. Is it possible to get a description of this particular refrigerator. Size and Style? The Kenmore number specified shows up as a 17 Cubic Foot Refrigerator, not a compact Refrigerator.
- A84 The Kenmore number specified is correct. Refer to Q/A #62 in Addendum 05.
- Q85 Spec 283111 2.1 indicates Edwards equipment only - no substitutions. Baltimore County has previously expressed they were not limiting F/A manufacturers to one Manufacturer, and that other systems from FireLite & Silent Knight were acceptable. Please confirm.
- A85 Provide Edwards equipment only, no substitutions.
- Q86 Drawing A9.03 indicates all exterior windows get window shades unless otherwise noted on drawing. However, the specs are calling out two types of shades. One type would be shading with 5% openness and the other to be black out shades with surround channels. It appears that all of the windows will not be black out but which windows will be black out shades?
- A86 Refer to reflected ceiling plans for indication of window treatment types and locations.
- Q87 Drawing E0.03 -- Does the site lighting conduits have to be concrete encased?
- A87 Direct buried PVC non-concrete encased shall be permitted for exterior underground lighting circuits per drawing notes.
- Q88 Can access control conduits be taken to the cable tray system instead of individual conduit homeruns?
- A88 Yes, conduits can terminate at cable tray, cables shall be bundles by system in cable tray (i.e. separate security from telecom cabling). Refer to detail #2 on sheet TE5.02.
- Q89 Are the curtain tracks in the exam rooms on the third floor being supported by the CFMF or will they need any kind of structural steel reinforcement?
- A89 CFMF is acceptable.
- Q90 Are aluminum Feeders allowed for this project? The specs do not seem to exclude aluminum feeders.
- A91 All wiring shall be copper per specification section 260519, 2.1, A. Aluminum feeder/conductors shall not be used on this project.
- Q92 The Site print E0.03 and the Tele-Com site print TE1.02 both show the site and appear to be the exact same size. The scales for these 2 are 1" = 40' on the power drawing and 1" = 60' on the tele-com drawing. Which of these scales is correct?
- A92 On sheet TE1.02, change drawing scale to 1" = 40'.

- Q93 What is the type of Cable tray(basket or ladder), finish(aluminum or steel), width, depth, rung spacing(if applicable)?
- A93 Contractor shall provide a complete cable tray system as follows:
1. Corridor & areas outside telecom rooms cable tray shall be basket type 18" wide by 4" high, 5mm diameter welded steel wire mesh tray.
 2. Telecom Room cable tray over racks shall be basket tray 24" wide by 4" high, 5mm diameter welded steel wire mesh tray.
 3. Telecom Room cable tray around perimeter shall be basket tray 12" wide by 2" high, 5mm diameter welded steel wire mesh tray.
- Q94 Within specification sections 26 32 13 and 26 36 00, seismic certification is being requested...is this required?
- A94 This project has seismic equipment and construction requirements per specifications and per Seismic Notes on Dwg. No. E0.01. Seismic certification is required.
- Q95 Within the specifications it is noted to provide a UL 2085 sub base fuel tank. Is UL 142 Listed acceptable in lieu of the UL 2085?
- A95 Provide UL 2085 fuel tank as specified.
- Q96 Pertaining to the fuel tank within the specifications it is noted the external paint to match overall unit color. It is standard in this industry the sub base fuel tank is standard black in color. Is this acceptable?
- A96 The tank shall be the same color as the overall unit color if this is offered as a manufacturer standard color. Otherwise black is acceptable.
- Q97 Within the specifications for the automatic transfer switch requesting Kohler be an acceptable manufacturer?
- A97 Kohler is acceptable for use for ATS's for the project provided they comply with all specification requirements and comply specifically with specification section 263600, 2.3, D that requires that all ATS adjustable time delay relay settings shall be able to be set in the field without the use of test equipment. Also, County personnel will require written confirmation as part of the equipment submittal stating that all ATS settings and functions can be adjusted in the field by County personnel without requiring the use of a computer or proprietary software. These requirements shall apply to all ATS manufacturers.

SECTION 22 30 00

PLUMBING EQUIPMENT

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. Extent of plumbing equipment work is indicated on drawings and provisions of this section; including schedules and equipment lists associated with either drawings or this section.
- B. Types of plumbing equipment required for project include the following:
 - 1. Domestic Water Heaters:
 - a. Commercial gas-fired water heaters
 - 2. Domestic Water Expansion Tanks
 - 3. Interceptors:
 - a. Grease interceptors

1.2 QUALITY ASSURANCE

- A. UL and NEMA Compliance: Provide electric motors and electrical components required as part of plumbing equipment, which have been listed and labeled by Underwriters Laboratories and comply with NEMA standards.
- B. NEC Compliance: Comply with National Electrical Code (ANSI/NFPA 70) as applicable to installation and electrical connections of ancillary electrical components of plumbing equipment.
- C. ANSI Compliance: Comply with ANSI Z223.1 (NFPA 54) "National Fuel Gas Code", as applicable to installation of gas-fired water heaters.
- D. ANSI Testing Standard: Water heaters shall comply with ANSI Z21.10.3 testing standard.
- E. AGA and NSF Labels: Provide water heaters which have been listed and labeled by American Gas Association and National Sanitation Foundation.
- F. ASME Code Symbol Stamps: For the following equipment, comply with ASME Boiler and Pressure Vessel Code for construction, and stamp with ASME Code symbol:
 - 1. Commercial water heater
 - 2. Domestic water expansion tank
- G. ASME Relief Valve Stamps: Provide water heaters with safety relief valves bearing ASME valve markings.

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- H. PDI Compliance: Comply with applicable Plumbing and Drainage Institute standards pertaining to grease interceptors.
- I. Water heaters shall comply with the Energy Policy Act of 2005 (EPACT-2005) and ASHRAE Standard 90.1b regarding energy efficiency. Minimum thermal efficiency shall be 78%.
- J. Lead Free Compliance: All components associated with potable water systems (including, but not limited to, valves, end use devices/fixtures, pipe, pipe fittings, solder/flux, etc.) shall be "lead-free" in accordance with all local, state and federal codes, as well as NSF/ANSI 372 (NSF 61-G)..

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's plumbing equipment specifications, installation and start-up instructions, and capacity and ratings, with selection points clearly indicated.
- B. Shop Drawings: Submit assembly type shop drawings indicating dimensions, weights, required clearances, and methods of assembly of all components.
- C. Wiring Diagrams: Submit ladder-type wiring diagrams for all components, clearly indicating all required field electrical connections.
- D. Maintenance Data: Submit maintenance data and parts lists for each item of plumbing equipment. Include "trouble-shooting" maintenance guides. Include this data in maintenance manual.

PART 2 - PRODUCTS

2.1 DOMESTIC WATER HEATERS

- A. Commercial Gas-Fired Water Heaters:
 - 1. General: Provide commercial gas-fired water heaters of size and capacity as indicated on schedule. Comply with ANSI/ASHRAE/IES 90A for energy efficiency. Provide certification of design by AGA under Volume III tests for commercial water heaters. Provide approval by NSF.
 - 2. Heater: Working pressure of 150 psi (1020 kPa); boiler-type hand hole cleanout; magnesium anode rod; 3/4" (20 mm) tapping and tapped for relief valve; glass lining on internal surfaces exposed to water.
 - 3. Safety Controls: Equip with automatic gas shutoff device to shut off entire gas supply in event of excessive temperature in tank; and pilot safety shutoff.
 - 4. Draft Hood: Equip with AGA certified draft hood.
 - 5. Jacket: Insulate tank with vermin-proof glass fiber insulation. Provide outer steel jacket with baked enamel finish over bonderized undercoating.
 - 6. Warranty: Furnish three-~~(3)~~ **ten (10)** year limited warranty for tank leakage.
 - 7. Accessories: Provide brass drain valve; 3/4" (20mm) pressure and temperature relief valve; radian floor shield.
 - 8. Controls: Provide gas pressure regulator with atmospheric vent; pilot gas regulator; thermostat. Heater shall employ an electronic operating

control with digital temperature readout. Operator shall be capable of connecting to a building automation system through serial connection using Modbus RTU protocol. Combustion shall be controlled by an electronic flame safeguard with pre-purge and post-purge. Standard safety controls shall include a secondary operating limit, an automatic-reset high temperature limit and an ASME-rated temperature and pressure relief valve. Operating and safety controls shall meet the requirements of UL 795 and FM.

B. Manufacturers:

1. **Available Manufacturers:** Manufacturer shall be a company specializing in manufacturing the products specified in this section with minimum five years' experience. The water heaters shall be manufactured by a company that has achieved certification to the ISO 9001 Quality Management System.
2. The water heaters shall be ETL listed as a complete unit. The heater shall satisfy current Federal Energy Policy Act standards for both thermal efficiency and stand-by heat losses as established for gas fired water heaters incorporating storage tanks.
3. **Service Access:** The water heater shall be provided with access covers for easily accessing all serviceable components. All gas train components must be accessible and able to adjust without the removal of cabinet components.
4. **Manufacturers:** PVI is the basis of design. Acceptable manufacturers shall be subject to compliance with the requirements. The storage capacity of the specified product represents the quantity of water available at usable temperature. The storage tanks from alternate suppliers will be upsized as necessary to equal the amount of water available at usable temperature in the specified product.

C. Construction and Design:

1. Water heater will be a 4-pass, fire tube, storage-type design firing natural gas.
2. The storage section of the water heater shall be ASME stamped and National Board Registered for a maximum allowable working pressure of 150 psi and pressure tested to 1-1/2 times working pressure.
3. All tank connections/ fittings shall be nonferrous and non 300 series stainless steel.
4. The storage tank shall be an unlined pressure vessel constructed from phase-balanced austenitic and ferritic duplex steel with a chemical structure containing a minimum of 21% chromium to prevent corrosion and mill certified per ASTM A 923 Methods A to ensure that the product is free of detrimental chemical precipitation that affects corrosion resistance. The material selected shall be tested and certified to pass stress chloride cracking test protocols as defined in ISO 3651-2 and ASTM G123 - 00(2005) "Standard Test Method for Evaluating Stress-Corrosion Cracking of Stainless Alloys with Different Nickel Content in Boiling Acidified Sodium Chloride Solution."
5. Waterside surfaces shall be welded internally utilizing joint designs to minimize volume of weld deposit and heat input. All heat affected zones (HAZ) shall be processed after welding to ensure the HAZ

- corrosion resistance is consistent with the mill condition base metal chemical composition. Weld procedures (amperage, volts, welding speed, filler metals and shielding gases) utilized shall result in a narrow range of austenite-ferrite microstructure content consistent with phase balanced objectives for welds, HAZ and the base metal.
6. To attain the highest level of corrosion resistance to potable water and condensation, all internal and external surfaces shall undergo full immersion passivation and pickling processing to meet critical temperature, duration and chemical concentration controls required to complete corrosion resistance restoration of pressure vessel surfaces. Other passivation and pickling methods are not accepted. Immersion passivation and pickling certification documents are required and shall be provided with each product.
 7. Materials shall meet ASME Section II material requirements and be accepted by NSF 61 for municipal potable water systems. Storage tank materials shall contain more than 80% post-consumer recycled materials and be 100% recyclable.
 8. The pre-condensing heat exchanger shall be a fire tube design with the combustion chamber and all heating surfaces completely water-backed. The fireside of the combustion chamber shall be of boiler-grade steel. The waterside of the combustion chamber shall be non-ferrous. The fire tubes shall be solid copper. The heat exchanger shall be field removable from the pressure vessel, allowing 100% access to waterside surfaces.
 9. The condensing heat exchanger shall consist of a series of u-bend fire tubes that are completely submerged in the lower section of the storage tank.
 10. When heating water from 40°F to 140°F, the gas-fired water heater shall operate at a minimum 99% thermal efficiency at maximum burner firing rate.
 11. Water heaters that must reduce firing rate to achieve thermal efficiency of 99% when heating water to 140°F will not be acceptable.
 12. When tested to the ANSI Z21.10.3 efficiency standard, result shall be no less than 97% thermal efficiency at maximum burner firing rate.
 13. Water heater will vent through PVC and can connect to PVC immediately at the appliance's vent connection.

2.2 DOMESTIC WATER EXPANSION TANK

A. Commercial Potable Water Expansion Tank:

1. General: Provide commercial potable water expansion tank suitable for use with potable water systems and with all wetted surfaces/components of the Food and Drug Administration approved materials. Comply with ASME Section VIII requirements.
2. Removable and replaceable heavy-duty butyl bladder.
3. Suitable for operating temperature up to and including 240°F (116°C).
4. Working pressure 150 PSIG (1034.4 Kpa) minimum. Shall be pre-charged to capacities as shown in schedule or shall be pre-charged to 60 PSI if no schedule is shown on the drawings.

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5. Shall have charging valve with pressure gauge, lifting ring and 1" NPT drain connection on the side and on the bottom with plugs. Shall be suitable for horizontal or vertical mounting.
6. Acceptance capacities shall be as shown on the drawings, or if not shown on the drawings, shall have not less than eleven (11) gallons of acceptance volume minimum.

2.3 INTERCEPTORS

A. Grease Interceptors:

1. General: Provide pre-cast concrete two (2) compartment grease interceptor for underground installation. Refer to Grease Interceptor Detail on Contract Drawings for size and capacity and construction details. Conform to PDI G101, and provide PDI Seal of Approval.
2. Grease interceptor submittal shall include an engineered certified drawing with a current professional engineer's stamp and signature to certify that the minimum retention time is in accordance with the requirements of the local authority having jurisdiction.

PART 3 - EXECUTION

3.1 INSTALLATION OF DOMESTIC WATER HEATERS

A. Water Heaters (General):

1. General: Install water heaters as indicated, in accordance with manufacturer's installation instructions, and in compliance with applicable codes.
2. Support: Set units on concrete pads, orient so controls and devices needing service and maintenance have adequate access. Level and plumb unit.
3. Piping: Connect hot and cold water piping to units with unions. Provide shut off valve on cold water line. Connect recirculating water line to unit with shut off valve, check valve, and union.

B. Gas-Fired Water Heaters:

1. Gas Supply: Connect to gas line with drip leg, tee, gas cock, and union; full size of unit inlet connection. Locate piping so as not to interfere with service of unit.
2. Flue: Connect flue to draft hood with gas-tight connection.
3. ~~Start-Up: Start-up, test, and adjust gas-fired water heaters in accordance with manufacturer's start-up instructions, and utility company's requirements. Check and calibrate controls, adjust burner for maximum efficiency.~~
3. Start-up on the gas fired water heaters, including flue gas analysis, will be performed by factory trained and authorized personnel. A copy of the startup report will be provided to the Owner.

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3.2 INSTALLATION OF DOMESTIC WATER EXPANSION TANK

- A. Domestic water expansion tank shall be securely suspended from the structure above or shall be pad mounted on a 4" high concrete pad.
- B. Tie piping connection into cold water feed line to domestic water heater between shut-off valve and inlet of domestic water heater, or as indicated on the drawings. Provide shut-off valve and union on connecting pipe to allow service and inspection of expansion tank.

3.3 INSTALLATION OF INTERCEPTORS

- A. General: Install interceptors as indicated, in accordance with manufacturer's installation instructions, and in compliance with applicable codes.
- B. Support: Anchor interceptors securely to substrate, locate so adequate clearance is provided to remove covers and sediment baskets. Set recessed units so top of cover is flush with finished floor.
- C. Piping: Connect inlet and outlet piping to interceptors.

END OF SECTION 22 30 00

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SECTION -V
PROPOSALDESCRIPTION OF WORK

Opening of bids Thursday, September 17, 2015 at 2:15 p.m. EST

Begin Work within Fifteen (15) Days after NOTICE TO PROCEED.

Calendar Days for Completion FIVE HUNDRED AND THIRTY (530) CALENDAR DAYS

Liquidated and Other Damages: FIFTEEN HUNDRED DOLLARS (\$1,500.00) PER CALENDAR DAY

Cost Group "H (OVER \$15,000,000)"

Work Classification: I-1

TO BALTIMORE COUNTY, MARYLAND: Construct a new homeless shelter approximately 80,000 ± for women, men and children including: Housing, activity spaces, social and community services. **Rosedale – District 14 c 6.**

The following listed Drawing Number(s) are collectively the "Drawings", and are hereby incorporated in the Contract. *The Drawing(s) are on a CD in a PDF Format.*

Job Order No.

Drawing Number's

249-218-0100-0614

2015-1639 through 1997

Note: No successful bidder may withdraw their bid within Ninety (90) days after the opening thereof.

A pre-bid meeting will be held on Tuesday, July 21, 2015 at 10:00 a.m. EST in Room 118 of the Baltimore County Historic Courthouse, 400 Washington Avenue, Towson, Maryland 21204.

The Contractor hereby declares that it has carefully examined the solicitation, plans and specifications, form of contract, Special Provisions and Drawings (*drawings may be in hard copy or CD format*) (collectively the "Contract Documents"). The Contractor also hereby declares that it has carefully examined the February 2000 "Standard Specifications for Construction and Materials" and "Standard Details for Construction," collectively the "Applicable County Law" and any and all Department of Public Works revisions thereto as of the date of advertisement. The Contract Documents, the Applicable County Law and the Department of Public Works revisions thereto are collectively the "Specifications" and are incorporated herein. Copies of any and all Department of Public Works revisions including but not limited to Addendum No. 3 and General Conditions Building Projects, are on file and available in the Division of Construction Contracts Administration, County Office Building, Towson, Maryland, and can be downloaded and printed from the internet using Acrobat Reader at:

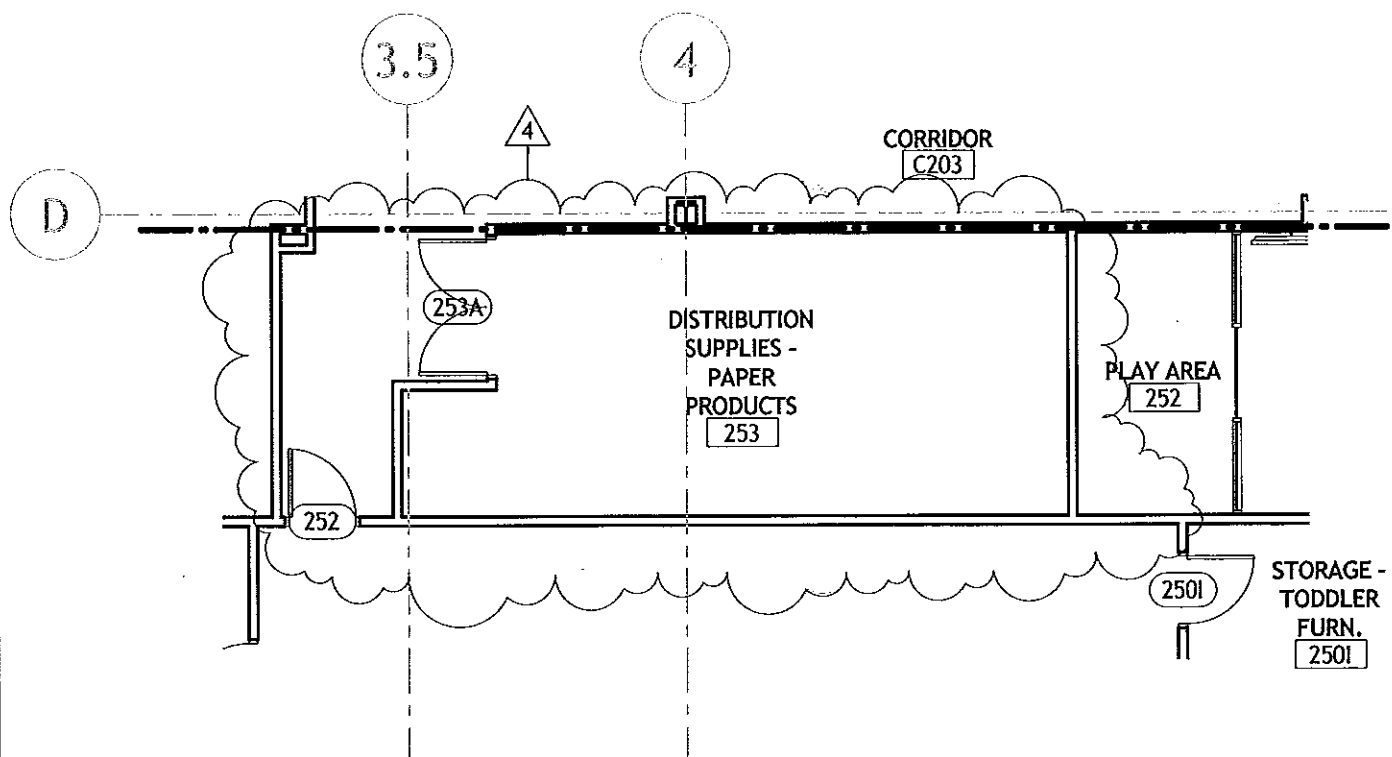
<http://www.baltimorecountymd.gov/Agencies/publicworks/standardsandspecs/specsanddetails.html>

Also, the Contractor has, to its satisfaction, examined the locality of the proposed work and agrees to furnish all labor, tools, materials, machinery, equipment, and other means of construction called for in the manner provided in the Specifications for the prices shown on the next page(s) and as evidenced by Contractor's signature on the last page thereof.

SCHEDULE OF PRICES

NOTE: The Bidder shall fill out this Proposal, write in the unit prices in clear numerals, and make the extensions.

For complete information concerning these items, see Specifications and contract forms.



Contract #15025 PO0
 Addendum No. 9
 Revised, August 28, 2015

hord | coplan | macht

HORD COPLAN MACHT, INC.
 ARCHITECTURE
 LANDSCAPE ARCHITECTURE
 PLANNING
 INTERIOR DESIGN

EASTERN FAMILY RESOURCE CENTER

9150 FRANKLIN SQUARE DRIVE,
 ROSEDALE, MD 21237

750 E. Pratt Street Suite 1100

Baltimore MD 21202

410 837 7311

410 837 6530 fax



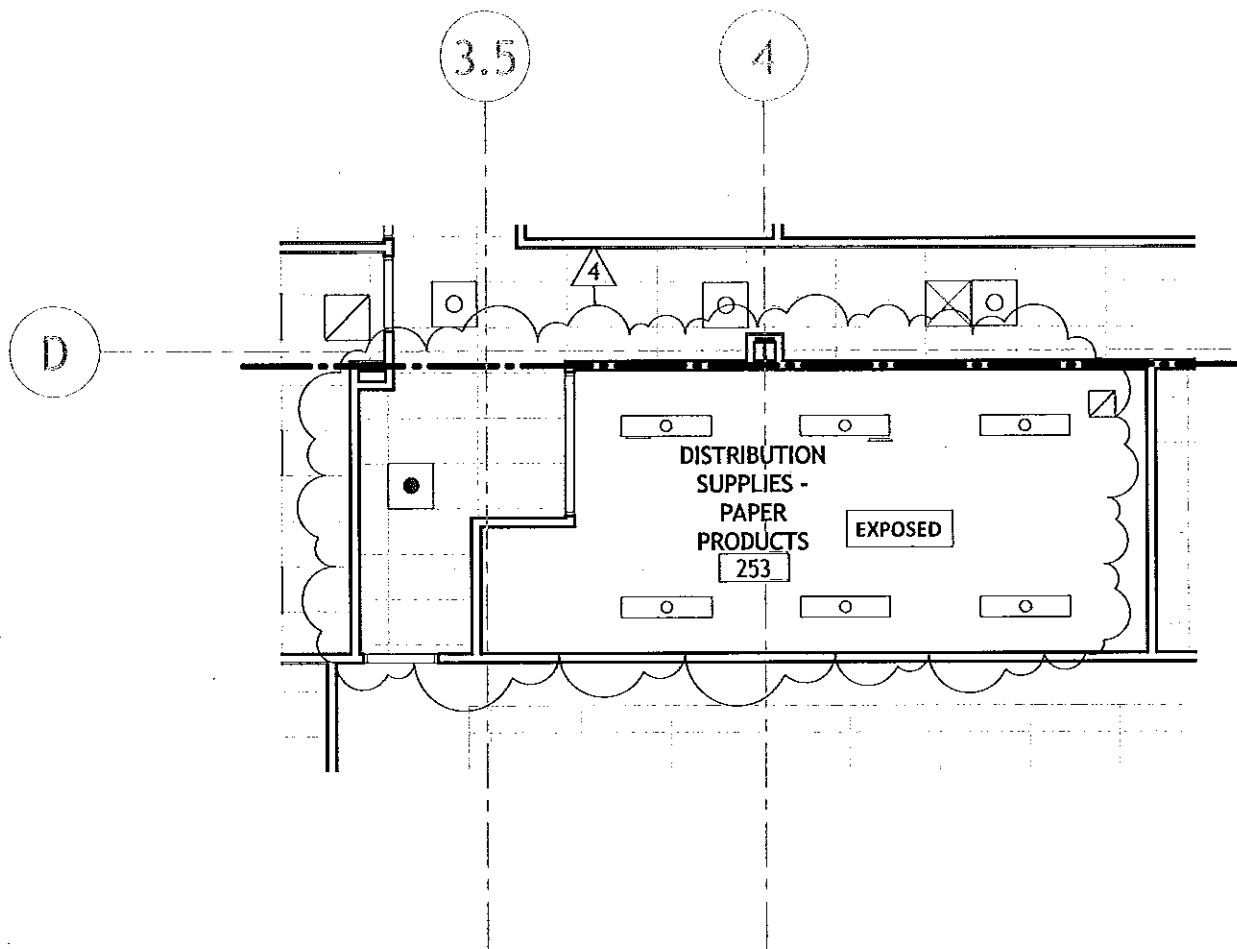
Addendum 09

A2.12B.1 PARTIAL FLOOR PLAN -
 LEVEL 2 AREA B

SCALE: 1/8" = 1'-0"

DATE: 08/27/15

PROJECT NUMBER: 213125.10



Contract #15025 PO0
 Addendum No. 9
 Revised, August 28, 2015

hord | coplan | macht

HORD COPLAN MACHT, INC.
 ARCHITECTURE
 LANDSCAPE ARCHITECTURE
 PLANNING
 INTERIOR DESIGN

EASTERN FAMILY RESOURCE CENTER

9150 FRANKLIN SQUARE DRIVE,
 ROSEDALE, MD 21237



Addendum 09

A3.12B.1 PARTIAL REFLECTED
 CEILING PLAN - LEVEL 2 AREA B

SCALE: 1/8" = 1'-0"

DATE: 08/27/15

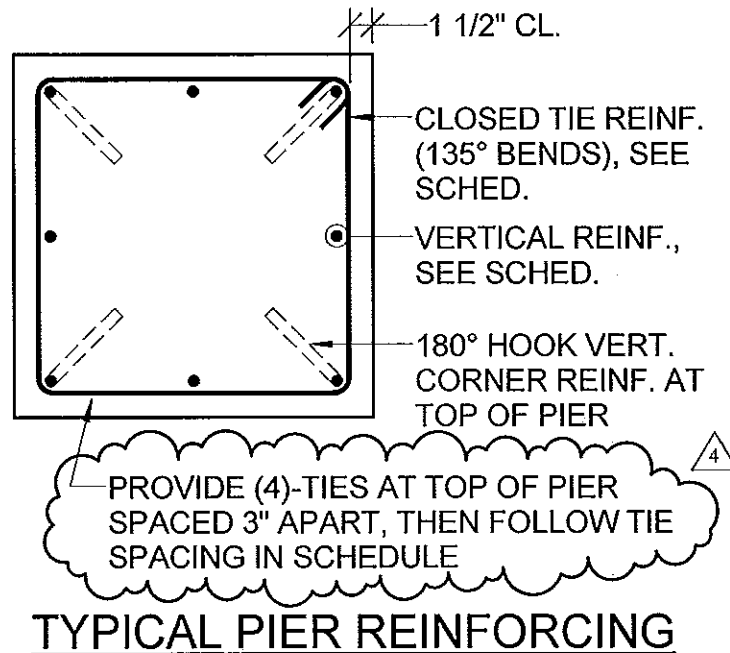
PROJECT NUMBER: 213125.10

750 E. Pratt Street Suite 1100

Baltimore MD 21202

410 837 7311

410 837 6530 fax



2

CONCRETE PIER SCHEDULE & DETAIL

3/4" = 1'-0"

Contract #15025 PO0
Addendum No. 9
Revised, August 28, 2015

hord| coplan| mach Eastern Family Resource Center

HORD COPLAN MACHT, INC.
ARCHITECTURE
LANDSCAPE ARCHITECTURE
PLANNING
INTERIOR DESIGN

Baltimore County, MD

750 E. Pratt Street Suite 1100 Baltimore MD 21202 410 837 7311 410 837 6530 fax

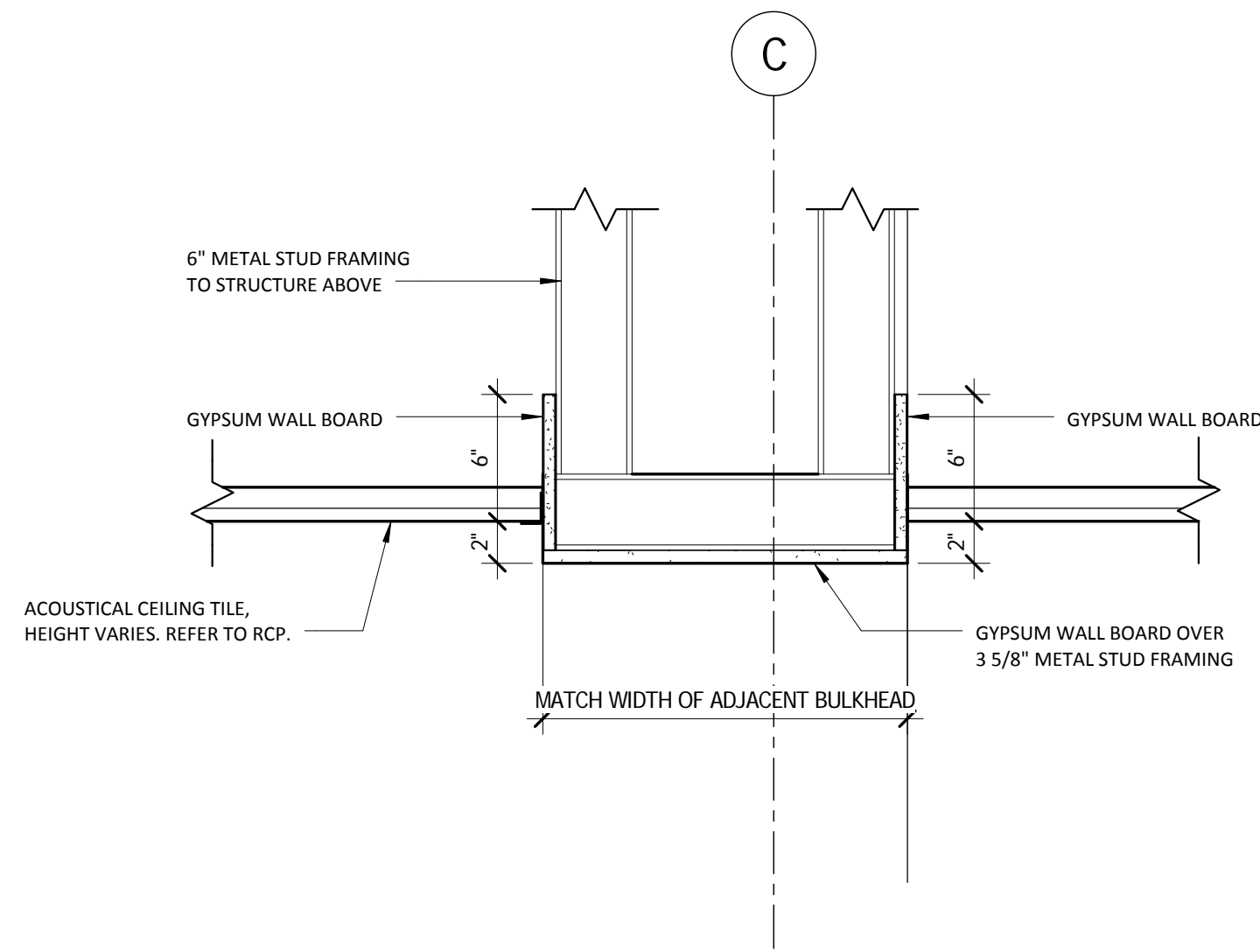
4 ADDENDUM 09

SKS-01 SHEET S6.1

SCALE: 3/4" = 1'-0"

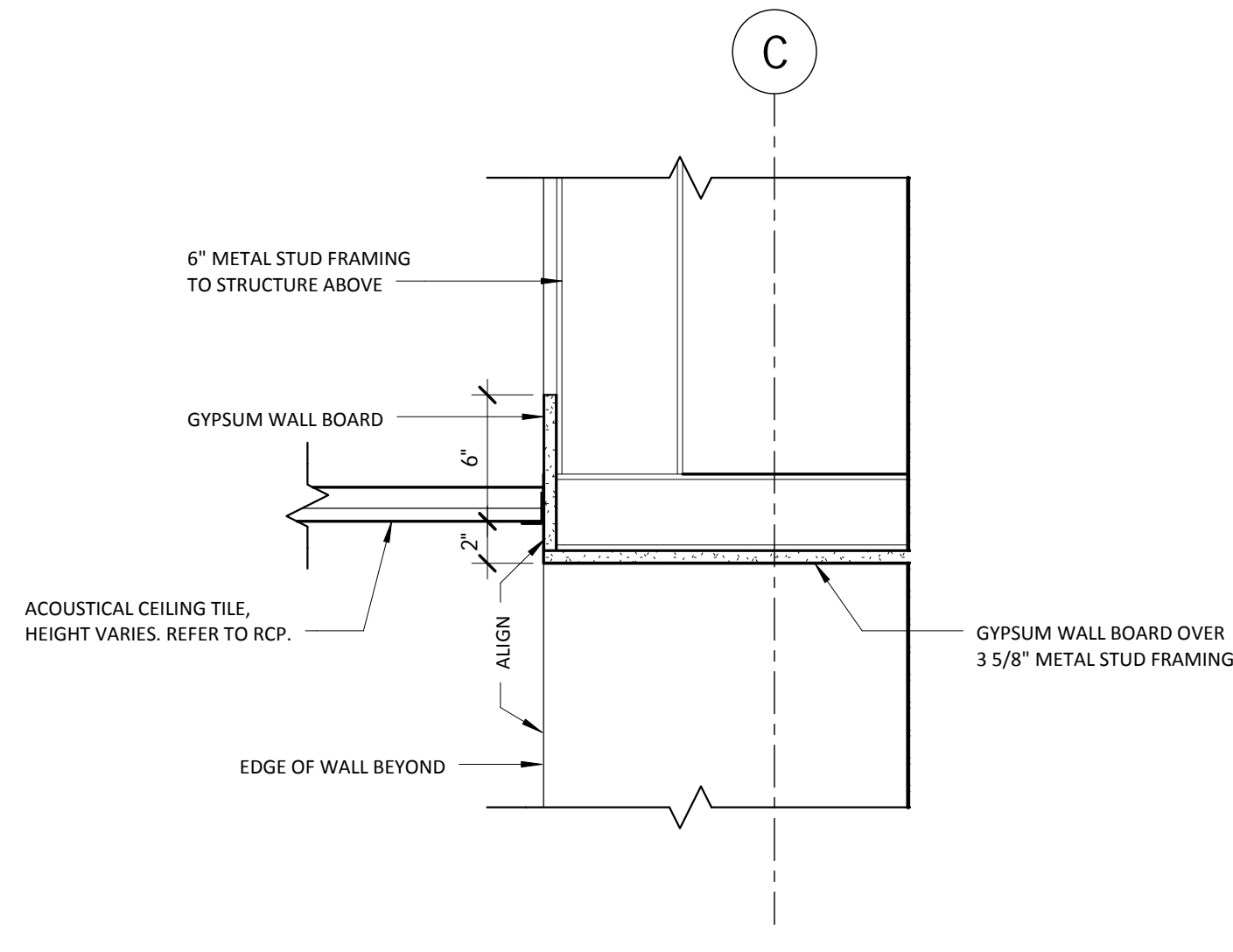
DATE: 08/27/15

PROJECT NUMBER: 213125.00



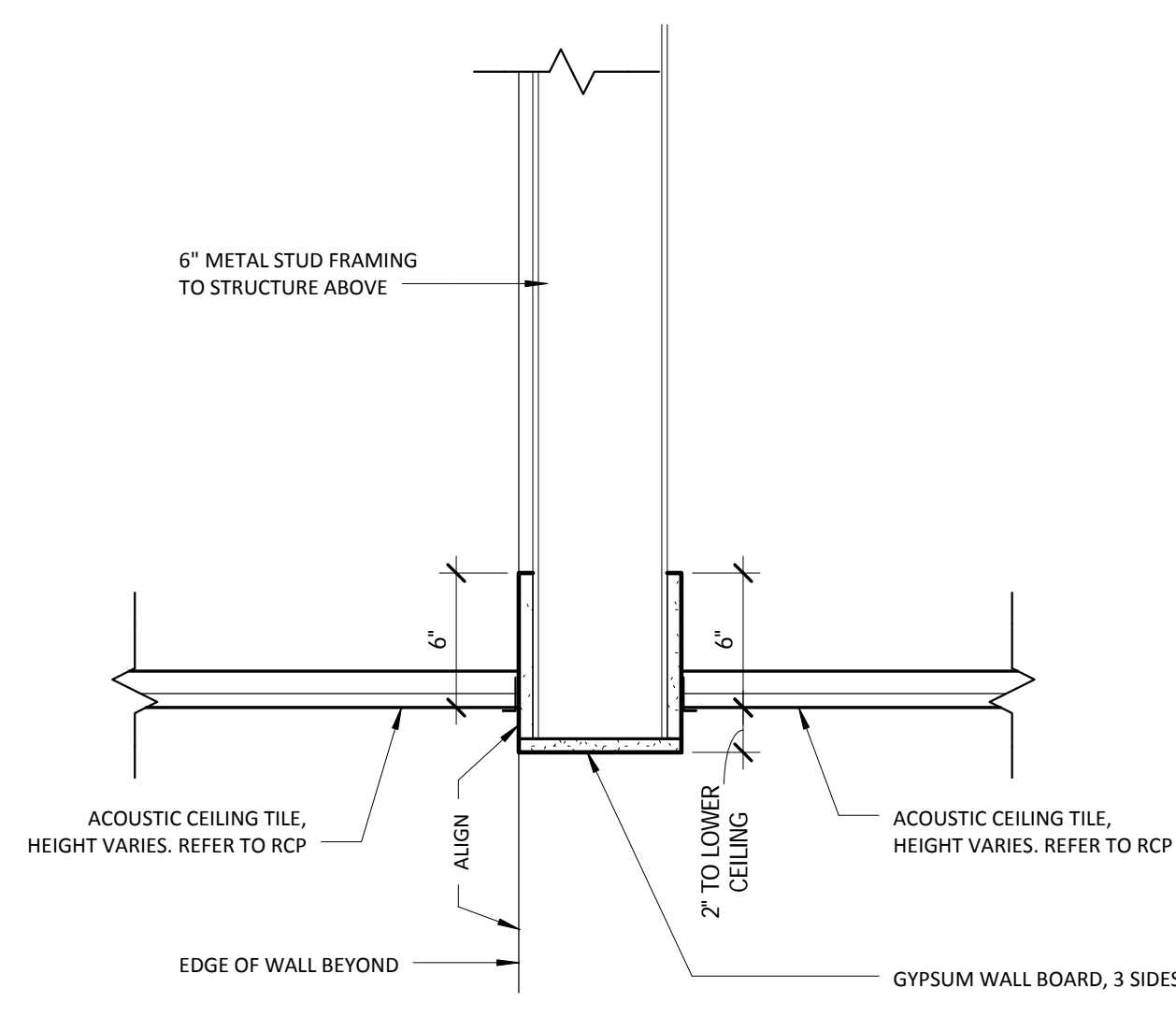
3 CORRIDOR BULKHEAD - WIDE

A3.11B A3.20 1 1/2" = 1'-0"



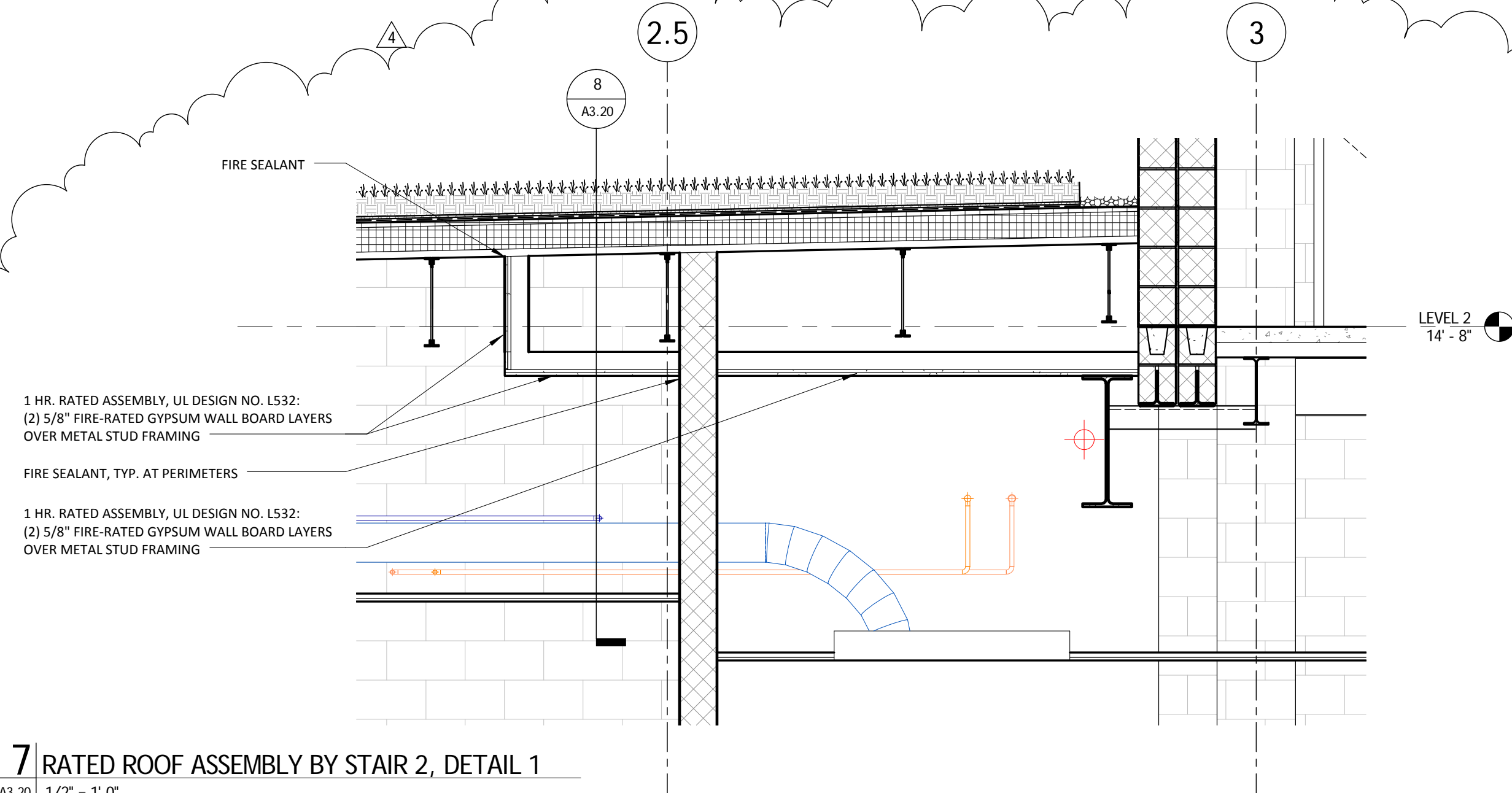
2 TYPICAL CORRIDOR RECESS BULKHEAD

A3.11B A3.20 1 1/2" = 1'-0"



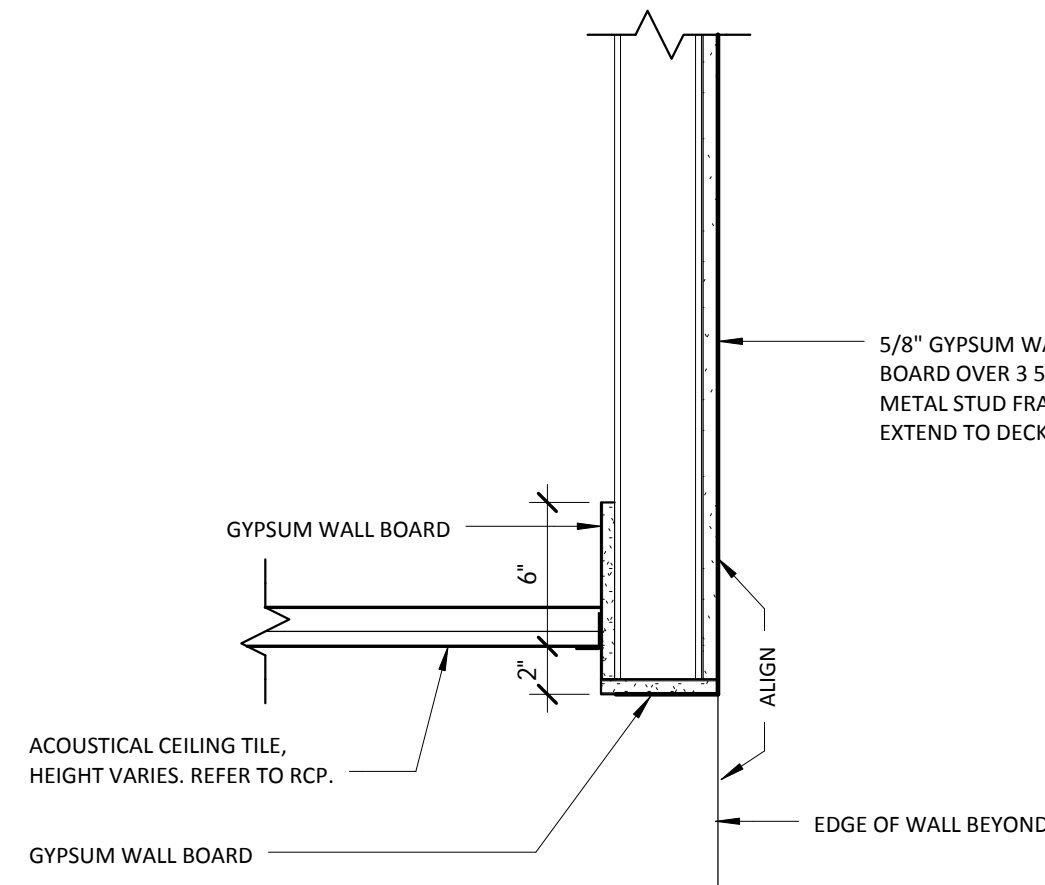
1 TYPICAL CORRIDOR BULKHEAD

A3.11A A3.20 1 1/2" = 1'-0"



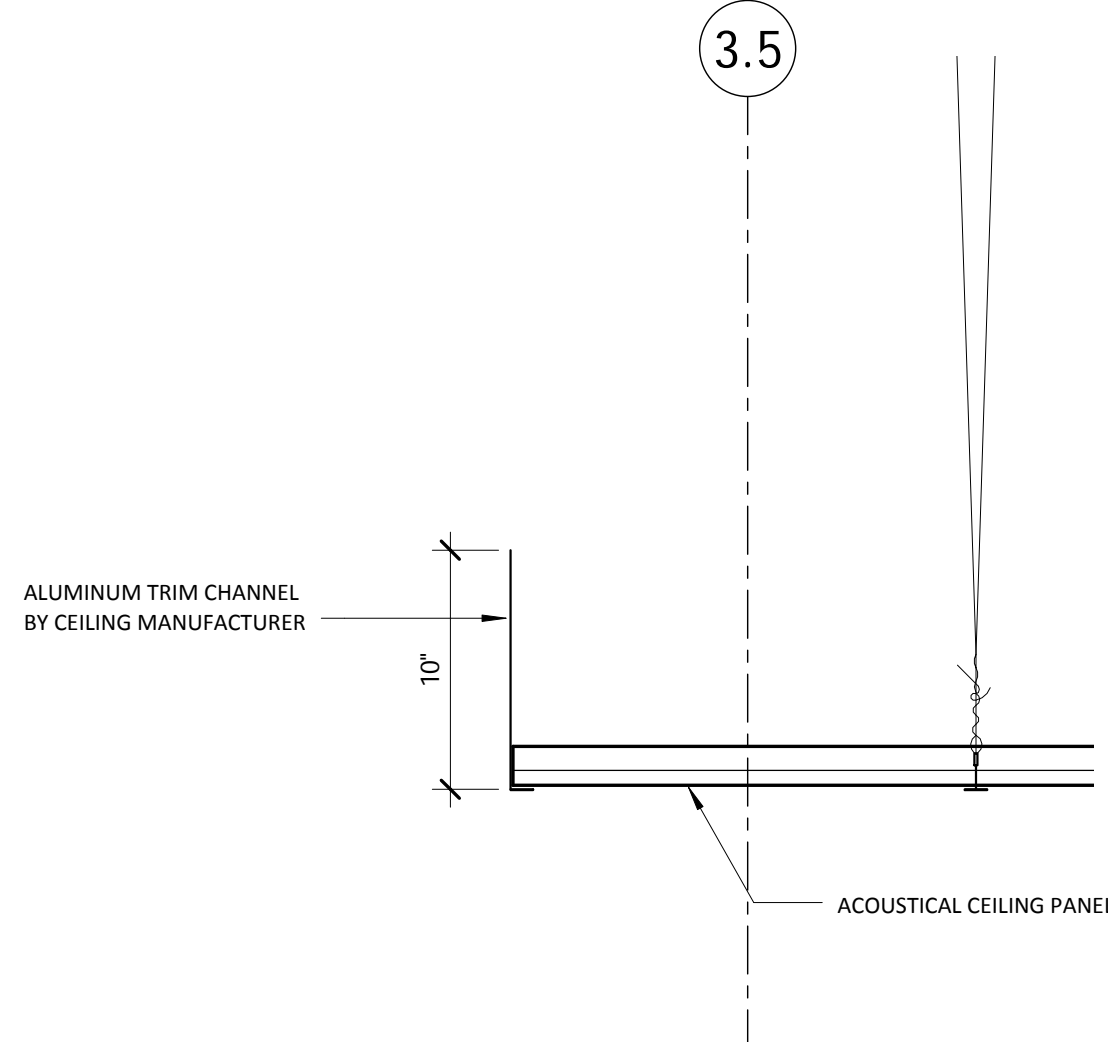
7 RATED ROOF ASSEMBLY BY STAIR 2, DETAIL 1

A2.12A A3.20 1/2" = 1'-0"



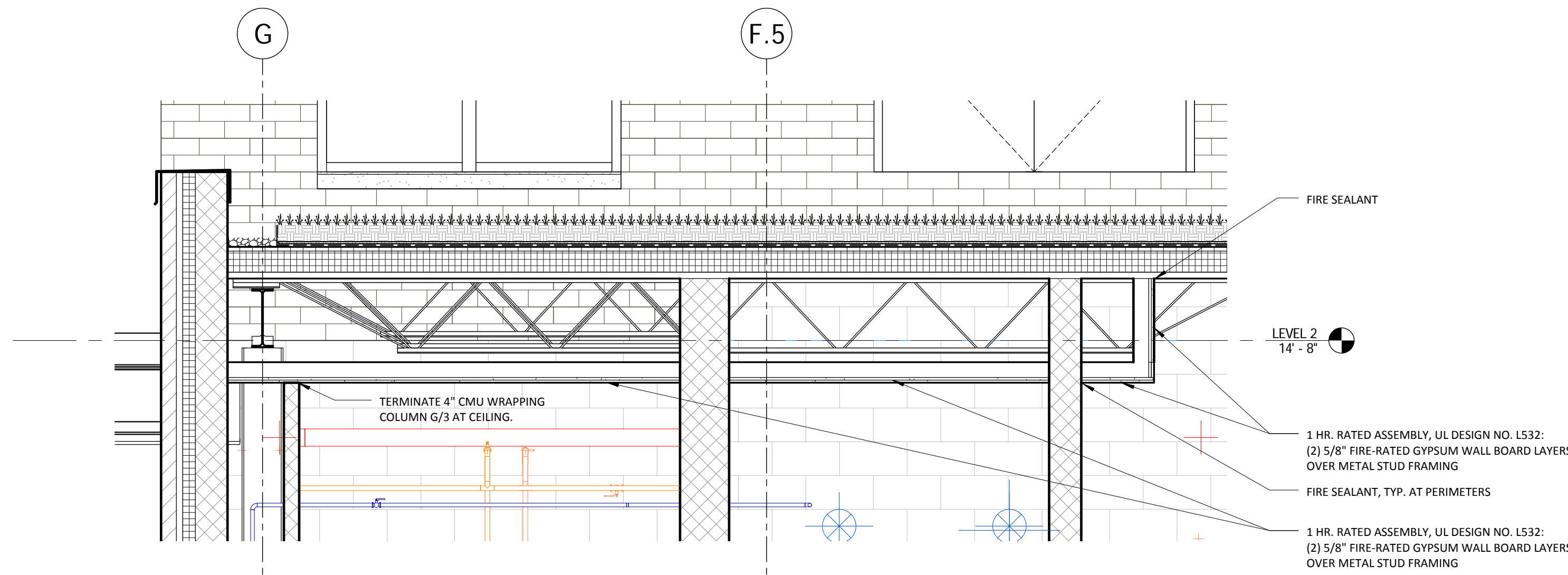
5 CEILING DETAIL AT EXPOSED CONDITION

A3.12B A3.20 1 1/2" = 1'-0"



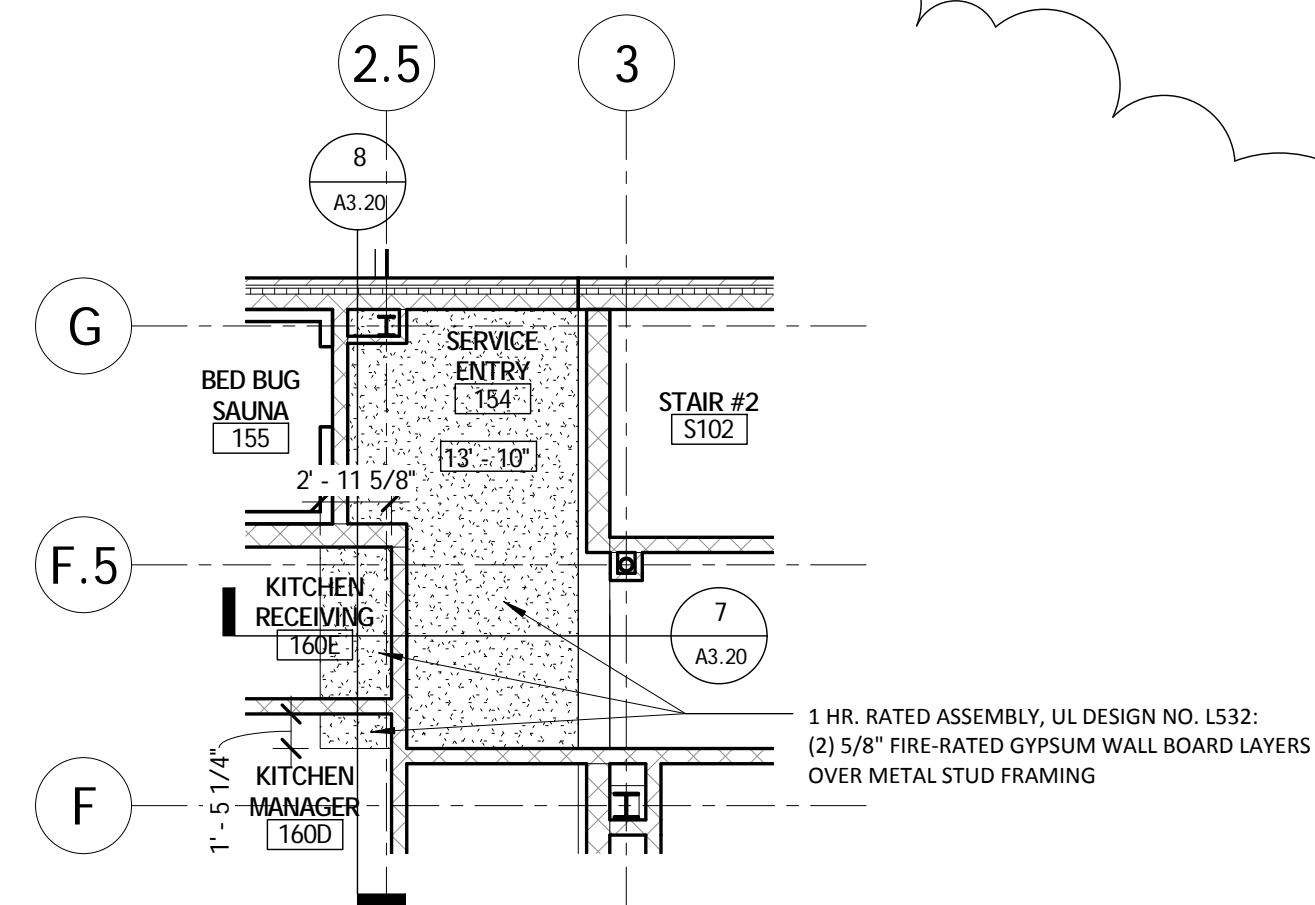
4 TYPICAL CEILING CLOUD PERIMETER DETAIL

A3.12B A3.20 1 1/2" = 1'-0"



8 RATED ROOF ASSEMBLY BY STAIR 2, DETAIL 2

A2.12A A3.20 1/2" = 1'-0"



6 PARTIAL LEVEL 1 CEILING PLAN BY STAIR 2

A0.2 A3.20 1/8" = 1'-0"

PROFESSIONAL CERTIFICATION									
SEAL	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. 7273 EXPIRATION DATE 11/24/16 ARCHITECT: LAURIE M. MCCLAIN, AIA	AS - BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		APPROVED BY: _____ DIRECTOR DATE: _____
							PLAN SCALE: As indicated		
							PROFILE SCALE: _____		
							FIELD ENGINEER		
DATE: _____	DGN BY: Designer DWN BY: Author CHKD BY: Checker	BUREAU OF ENGINEERING AND CONSTRUCTION	B/27/15	HIGHWAYS	STRUCTURES	STORM DRAINS	WATER		APPROVED BY: _____ CHIEF DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
CEILING DETAILS

9150 Franklin Square Drive, Rosedale, MD 21237

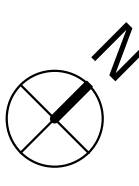
SUBDIVISION:

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
A3.20	15025P00
	JOB ORDER NO.
	249-218-0100-0614
SHEET 83 OF 359	DRAWING NO.
2015-1721	FILE NO.



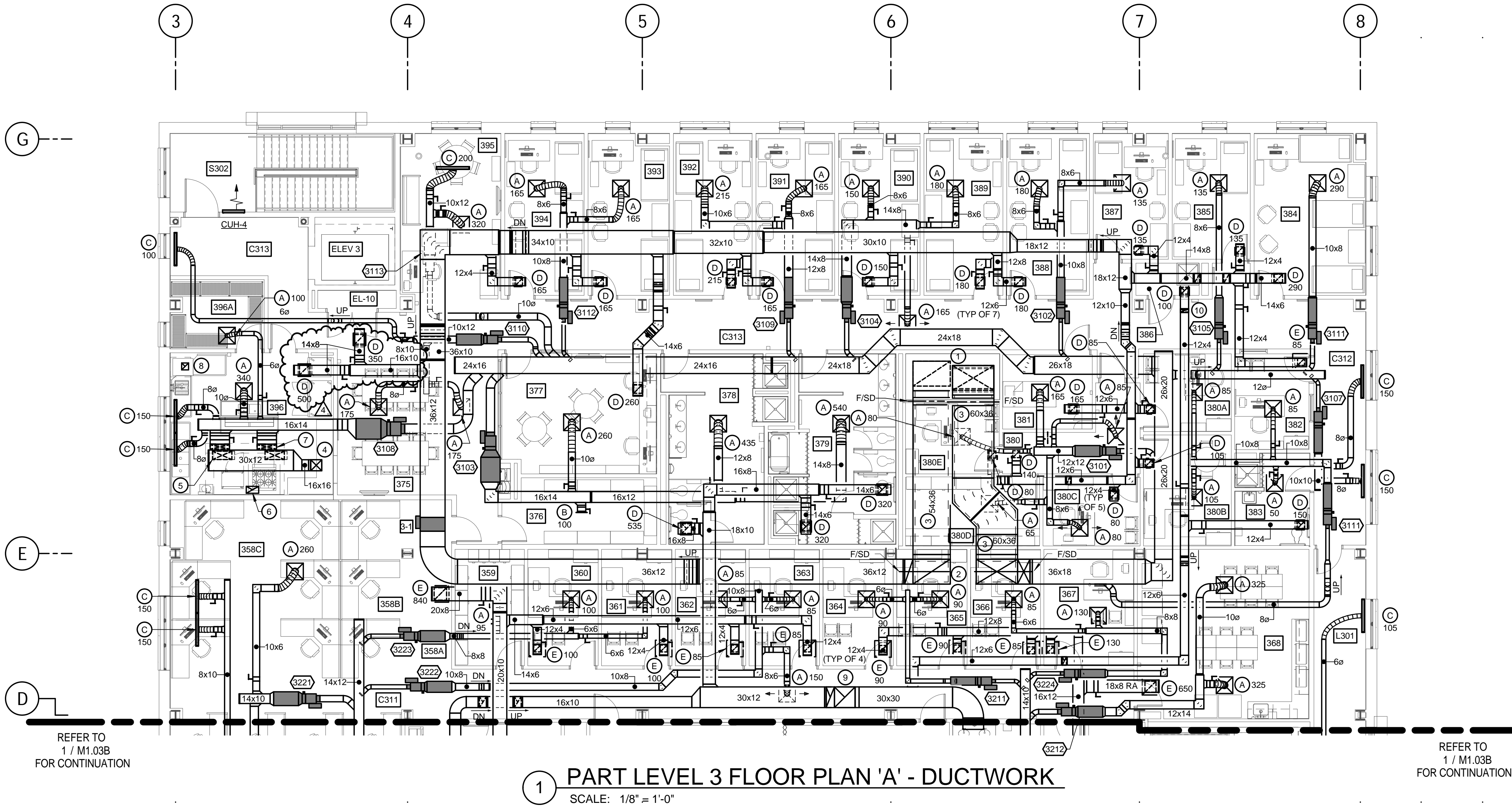
BID SET 06/16/15



A2.12B	A6.23	1/4" = 1'-0"
--------	-------	--------------

A.1	A.2
B.1	B.2
B.3	B.4

The seal of Baltimore County, Maryland, is a circular emblem. It features a shield divided into four quadrants. The top-left quadrant is black with a white diagonal stripe. The top-right quadrant is white with a black cross. The bottom-left quadrant is white with a black cross. The bottom-right quadrant is black with a white diagonal stripe. In the center of the shield are five white stars. The words "BALTIMORE COUNTY" are written in a circle around the top, and "MARYLAND" is written around the bottom.



GENERAL NOTES:

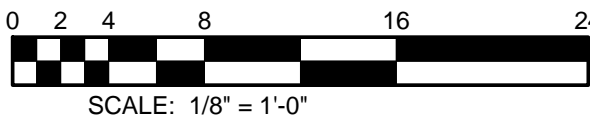
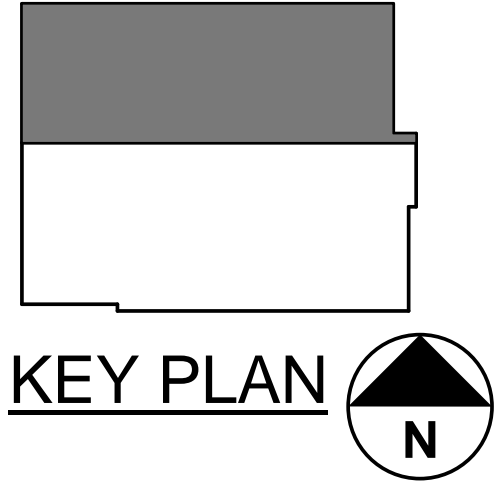
1. REFER TO DRAWING M0.01 FOR MECHANICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.

DRAWING NOTES:

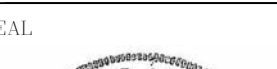
- 1 60x36 SUPPLY AIR & 54x36 RETURN AIR DOWN IN SHAFT (AHU-1).
- 2 54x36 RETURN AIR, 18x36 RETURN AIR, 60x36 SUPPLY AIR, AND 22x36 SUPPLY AIR DUCTWORK UP (AHU-1). PROVIDE COMBINATION FIRE/SMOKE DAMPER IN VERTICAL DUCTWORK AT FLOOR PENETRATION. PROVIDE MINIMUM 1" ACOUSTIC SOUND LINING IN DUCTWORK INDICATED.
- 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 300 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 (625 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 FILES & MATERIALS
359	OFFICE
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



BID SET 06/16/15

	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>		ADDENDUM 01		07/24/2015		R.O.W. NO.				PLAN SCALE: _____		APPROVED BY: _____					
			ADDENDUM 02		08/27/2015						PROFILE SCALE: _____		DATE: _____					
			ADDENDUM 03															
			BUREAU OF ENGINEERING AND CONSTRUCTION		HIGHWAYS		STRUCTURES		STORM DRAINS		SEWER		WATER		FIELD ENGINEER		PROPERTY MANAGEMENT	
	DESIGN BY: <u>BKM</u>		REVIEWED BY: _____														APPROVED BY: _____	
	DWN BY: <u>BKM</u>		DATE REVIEWED: _____														DATE: _____	
	CHKD BY: <u>BKM</u>																CHIEF	
	DATE: <u>03/27/15</u>																	

SUBDIVISION:

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

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



BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
MECHANICAL AIRFLOW DIAGRAM
9150 Franklin Square Drive, MD 21237

The seal of Baltimore County, Maryland, is a circular emblem. It features a shield divided into four quadrants. The top-left quadrant has vertical stripes, the top-right has a cross with a central circle, the bottom-left has a cross with a central circle, and the bottom-right has vertical stripes. Five stars are arranged in a horizontal row across the center of the shield. The words "BALTIMORE COUNTY" are written in an arc along the top inner edge, and "MARYLAND" is written in an arc along the bottom inner edge.

PUMP SCHEDULE												
DESIG.	SERVICE	LOCATION	GPM	HEAD (FT)	MOTOR				RPM	MIN PUMP EFFICIENCY	MANUFACTURER / MODEL	TYPE
					HP	MAX. BHP	VOLTS	PHASE				
P-CH1	CHILLED WATER	PENTHOUSE	260	40	5	3.3	460	3	1750	82.5%	B&G E-1510 3AD	BASE MOUNTED, END SUCTION
P-CH2	CHILLED WATER	PENTHOUSE	260	40	5	3.3	460	3	1750	82.5%	B&G E-1510 3AD	BASE MOUNTED, END SUCTION
P-CH3	CHILLED WATER	PENTHOUSE	260	40	5	3.3	460	3	1750	82.5%	B&G E-1510 3AD	BASE MOUNTED, END SUCTION
P-HW1	HEATING WATER	PENTHOUSE	110	50	3	2.0	460	3	1750	71.1%	B&G E-1510 2BD	BASE MOUNTED, END SUCTION
P-HW2	HEATING WATER	PENTHOUSE	110	50	3	2.0	460	3	1750	71.1%	B&G E-1510 2BD	BASE MOUNTED, END SUCTION
P-HW3	HEATING WATER	PENTHOUSE	110	50	3	2.0	460	3	1750	71.1%	B&G E-1510 2BD	BASE MOUNTED, END SUCTION
P-B1	BOILER BLEND	PENTHOUSE	110	15	3/4	0.62	460	3	1150	69.1%	B&G SERIES 80 3x3x7B	INLINE, CLOSE COUPLED
P-B2	BOILER BLEND	PENTHOUSE	110	15	3/4	0.62	460	3	1150	69.1%	B&G SERIES 80 3x3x7B	INLINE, CLOSE COUPLED
P-B3	BOILER BLEND	PENTHOUSE	110	15	3/4	0.62	460	3	1150	69.1%	B&G SERIES 80 3x3x7B	INLINE, CLOSE COUPLED
P-HC1	AHU-1 PREHEAT COIL CIRCULATOR	PENTHOUSE	12	20	1/3	0.17	120	1	1750	35.6%	B&G PL60	INLINE, CLOSE COUPLED
P-HC2	AHU-2 PREHEAT COIL CIRCULATOR	PENTHOUSE	12	20	1/3	0.17	120	1	1750	35.6%	B&G PL60	INLINE, CLOSE COUPLED

MAKE-UP AIR HANDLING UNIT SCHEDULE																
DESIG	AREA SERVED	ASSOCIATED EXHAUST FAN	SUPPLY FAN DATA						HEATING DATA			ELECTRICAL DATA		MAX OPERATING WEIGHT (LBS)	FILTER APD (IN) DIRTY	MANUFACTURER / MODEL
			MAX (CFM)	MIN (CFM)	ESP (IN)	HP	BHP	FAN RPM	TYPE	INPUT MBH	OUTPUT MBH	VOLTS	PHASE			
AHU-3	1ST FLOOR KITCHEN HOOD	EF-3	3,775	1,885	1.0	5	2.65	1043	NATURAL GAS	243.7	224.2	208	3	850	0.5	CAPTIVEAIRE HMUA, NOTE 7
AHU-4	3RD FLOOR KITCHEN HOOD	EF-2	1,600	800	0.5	1 1/2	0.52	945	NATURAL GAS	103.3	95.0	208	3	600	0.5	CAPTIVEAIRE HMUA

NOTES:

1. INSTALL UNIT WITH MANUFACTURER PROVIDED INSULATED ROOF CURB. PROVIDE TOP OF CURB PERFECTLY FLAT AND LEVEL BY UTILIZING A SLOPING OR DOUBLE SLOPE TYPE CURB AS REQUIRED.
2. AIR CAPACITIES BASED ON MAXIMUM DIRTY FILTER PRESSURE DROP OF 0.5" W.C.
3. EXHAUST FAN AND MAKE-UP AIR UNIT SHALL BE INTERLOCKED TO OPERATE TOGETHER. PROVIDE LOCAL SWITCH TO ACTIVATE SYSTEM. CONNECT BOTH UNITS TO EMCS AND PROVIDE ALARM POINTS FOR FANS, DAMPERS, & TEMPERATURE SENSORS.
4. PROVIDE MOTOR OPERATED DAMPERS FOR EXHAUST FAN AND MAKE-UP UNIT.
5. PROVIDE FULLY MODULATING BURNER FOR HEATING SECTION.
6. BURNER CAPACITY SHALL BE BASED ON 0°F ENTERING AIR TEMPERATURE AND 70°F LEAVING AIR TEMPERATURE.
7. MAKE-UP AIR UNIT WITH VARIABLE FREQUENCY DRIVE PROVIDED BY KITCHEN HOOD VENDOR.

ENERGY RECOVERY UNIT SCHEDULE																					
DESIG	OPERATING MODE	OUTSIDE AIR / SUPPLY AIR SIDE						EXHAUST AIR SIDE						ELECTRICAL		MAXIMUM DIMENSIONS			MANUFACTURER / MODEL		
		ENTERING CONDITIONS			LEAVING CONDITIONS			MAX APD (IN)	ENTERING CONDITIONS			LEAVING CONDITIONS			MAX APD (IN)	HP	VOLTS	WIDTH (IN)		HEIGHT (IN)	DEPTH (IN)
		FLOW (CFM)	DB (°F)	WB (°F)	FLOW (CFM)	DB (°F)	WB (°F)		FLOW (CFM)	DB (°F)	WB (°F)	FLOW (CFM)	DB (°F)	WB (°F)							
ERU-1	SUMMER	(1)	91.3	80.1	(1)	80.1	72.9	1.0	(1)	72.0	62.6	(1)	85.2	72.9	1.0	(1)	(1)	98	120	150	DAIKIN VISION CAH 030 GVAC
	WINTER		10.0	9.0		46.0	42.4						30.5	30.5							

NOTES:

1. REFER TO FAN SCHEDULE FOR ADDITIONAL REQUIREMENTS.
2. ENERGY RECOVERY UNIT PROVIDED WITH TWO POINT POWER CONNECTIONS.
3. FILTER AIR PRESSURE DROP SCHEDULED AT FULLY LOADED CONDITION.

DUCTLESS SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE													
AREA SERVED	DESIGNATION		CFM	UNIT TYPE	COOLING (3)		ELECTRICAL CHARACTERISTICS					MANUFACTURER / MODEL	REMARKS
	INDOOR UNIT	OUTDOOR UNIT			SENSIBLE MBH	TOTAL MBH	INDOOR		OUTDOOR				
							MIN AMPACITY	VOLTS / Ø	MIN AMPACITY	VOLTS / Ø	MFS		
1ST FLOOR ELEC ROOM	AC-1A	CU-1A	1,025	AIR-COOLED	29	42	2	208/1	26	208/1	30	MITSUBISHI / PCA-A42KA4 / PUY-A42NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
1ST FLOOR ELEC ROOM	AC-1B	CU-1B	1,025	AIR-COOLED	29	42	2	208/1	26	208/1	30	MITSUBISHI / PCA-A42KA4 / PUY-A42NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
1ST FLOOR ELEC ROOM	AC-1C	CU-1C	1,025	AIR-COOLED	29	42	2	208/1	26	208/1	30	MITSUBISHI / PCA-A42KA4 / PUY-A42NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
1ST FLOOR TELECOM ROOM	AC-1D	CU-1D	420	AIR-COOLED	9.7	12	1	208/1	13	208/1	15	MITSUBISHI / PCA-A12HA4 / PUY-A12NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
2ND FLOOR ELEC ROOM	AC-2A	CU-2A	775	AIR-COOLED	21	30	1	208/1	25	208/1	30	MITSUBISHI / PCA-A30KA4 / PUY-A30NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
2ND FLOOR TELECOM ROOM	AC-2B	CU-2B	420	AIR-COOLED	9.7	12	1	208/1	13	208/1	15	MITSUBISHI / PKA-A12HA4 / PUY-A12NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
3RD FLOOR ELEC ROOM	AC-3A	CU-3A	775	AIR-COOLED	21	30	1	208/1	25	208/1	30	MITSUBISHI / PKA-A30KA4 / PUY-A30NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
3RD FLOOR TELECOM ROOM	AC-3B	CU-3B	420	AIR-COOLED	9.7	12	1	208/1	13	208/1	15	MITSUBISHI / PKA-A12HA4 / PUY-A12NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
3RD FLOOR MED STORAGE	AC-3C	CU-3C	420	AIR-COOLED	9.7	12	1	208/1	13	208/1	15	MITSUBISHI / PKA-A12HA4 / PUY-A12NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
ELEVATOR 1 & 2 HOISTWAY	AC-E1	CU-E1	420	AIR-COOLED	9.7	12	1	208/1	13	208/1	15	MITSUBISHI / PKA-A12HA4 / PUY-A12NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT
ELEVATOR 3 HOISTWAY	AC-E2	CU-E2	420	AIR-COOLED	9.7	12	1	208/1	13	208/1	15	MITSUBISHI / PKA-A12HA4 / PUY-A12NHA4	SEPARATE POWER SOURCE FOR INDOOR AND OUTDOOR UNIT

NOTES:

1. PROVIDE DOUBLE SUCTION REFRIGERANT PIPING RISERS AND TRAPS AS RECOMMENDED BY MANUFACTURER.
2. QUANTITY AND SIZES OF REFRIGERANT PIPING SHALL BE AS RECOMMENDED BY MANUFACTURER.
3. COOLING CAPACITY BASED ON INDOOR CONDITIONS 80°F DB / 67°F WB AND OUTDOOR CONDITIONS 95°F DB / 75°F WB.

PACKAGED AIR-COOLED CHILLER SCHEDULE																
UNIT NO	NOMINAL CAPACITY (TONS)	FLOWRATE (GPM)	EWT (°F)	LWT (°F)	MAX WPD (FT)	OUTDOOR AMBIENT	FLUID TYPE	VOLT/ PHASE	MAX INPUT POWER (KW)	MAX IPLV (EER)	COMPRESSOR TYPE	REFRIGERANT	MAX DIMENSIONS L x W x H	MAX OPERATING WEIGHT (LBS)	MANUFACTURER / MODEL	
ACC-1	130	261.5	54	42	10	95	WATER	460 / 3	162.5	15.2	SCROLL	R-410A	173 x 88 x 100	7320	DAIKIN AGZ-D	
ACC-2	130	261.5	54	42	10	95	WATER	460 / 3	162.5	15.2	SCROLL	R-410A	173 x 88 x 100	7320	DAIKIN AGZ-D	
ACC-3	130	261.5	54	42	10	95	WATER	460 / 3	162.5	15.2	SCROLL	R-410A	173 x 88 x 100	7320	DAIKIN AGZ-D	

EXPANSION / SURGE TANK SCHEDULE												
DESIG	LOCATION	SYSTEM	TYPE	TANK VOL (GAL)	MIN ACCEP VOLUME (GAL)	AIR CHARGE		DIMENSIONS			MANUFACTURER / MODEL	REMARKS
						PRECHARGE PSIG	OPER PSIG	DIA	H/L	SYSTEM CONN (IN)		
ET-1	PENTHOUSE	HEATING WATER	BLADDER	196	37	14.75	21.7	30"	91"	2	BELL & GOSSETT / WTA-452	-
ET-2	PENTHOUSE	CHILLED WATER	BLADDER	35	21	14.75	17.4	24"	47"	1 1/4	BELL & GOSSETT / WTA-404	-
ST-1	PENTHOUSE	CHILLED WATER	SURGE	300	-	-	-	36"	72"	4	CEMLINE V300 CWB-F	-
ST-2	PENTHOUSE	CHILLED WATER	SURGE	300	-	-	-	36"	72"	4	CEMLINE V300 CWB-F	-

NOTES:

1. ALL EXPANSION TANKS SHALL BE FACTORY PRECHARGED TO CAPACITIES SHOWN.
2. ALL TANKS SHALL BE A.S.M.E. STAMPED.

BOILER SCHEDULE																
DESIG	LOCATION	SYSTEM	TYPE	BOILER HP	EWT (°F)	LWT (°F)	WATER FLOW (GPM)	FUEL TYPE	NET MIN OUTPUT (MBH)	MIN THERMAL EFF	FIRING RATE GAS CFH	GAS PRESS (IN WG)	ELECTRICAL		MANUFACTURER / MODEL	REMARKS
													BURNER HP	V-Ø-HZ		
B-1	PENTHOUSE	HEATING WATER	HIGH EFFICIENCY CAST-IRON	63.8	140	180	110	NATURAL GAS	2,137	83.9%	2,598	4.4	2	460/3/60	BURNHAM MPC13	SEE NOTES
B-2	PENTHOUSE	HEATING WATER	HIGH EFFICIENCY CAST-IRON	63.8	140	180	110	NATURAL GAS	2,137	83.9%	2,598	4.4	2	460/3/60	BURNHAM MPC13	SEE NOTES
B-3	PENTHOUSE	HEATING WATER	HIGH EFFICIENCY CAST-IRON	63.8	140	180	110	NATURAL GAS	2,137	83.9%	2,598	4.4	2	460/3/60	BURNHAM MPC13	SEE NOTES

NOTES:

1. BURNER SHALL BE FULLY MODULATING TYPE.
2. PROVIDE INTEGRAL CONTROL PANEL TO OPERATE BOILER, ASSOCIATED PUMPS, AND ASSOCIATED COMBUSTION AIR DAMPER.
3. PROVIDE OUTDOOR AIR SENSING ELEMENT AND CONTROLLER (HONEYWELL T7075A).
4. BOILER INSTALLATION SHALL MEET ASME CSD-1 REQUIREMENTS.

MISCELLANEOUS HEATING UNIT SCHEDULE													
DESIG	LOCATION	MIN AIRFLOW (CFM)	MIN CAPACITY (BTU / HR)	FAN MOTOR				MAX WPD (FT)	WATER FLOW (GPM)	EWT (°F)	LWT (°F)	EAT (°F)	MANUFACTURER / MODEL
				WATTS	VOLTS	PHASE	RPM						
UH-1	PENTHOUSE	500	21,470	16	120	1	1550	2.2	1.4	180	150	60	TRANE UHSB A18
UH-2	PENTHOUSE	500	21,470	16	120	1	1550	2.2	1.4	180	150	60	TRANE UHSB A18
CUH-1	LEVEL 1 MAIN ENTRY	330	21,750	58	120	1	1050	2.3	1.5	180	150	70	TRANE FFJB 040 1
CUH-2	LEVEL 1 SERVICE ENTRY	280	18,220	39	120	1	980	6.3	1.2	180	150	70	TRANE FFDB 030 1
CUH-3	LEVEL 1 STAIR #2	260	21,310	39	120	1	1080	2.6	1.4	180	150	70	TRANE FFJB 030 1
CUH-4	LEVEL 3 STAIR #2	260	21,310	39	120	1	1080	2.6	1.4	180	150	70	TRANE FFJB 030 1
CUH-5	PENTHOUSE STAIR #1	260	21,310	39	120	1	1080	2.6	1.4	180	150	70	TRANE FFJB 030 1
CUH-6	SLEEPING WOMEN AND CHILDREN 131	211	10,000	20	120	1	980	4.1	1.0	180	150	70	TRANE FFDB 020 1
CUH-7	SLEEPING WOMEN AND CHILDREN 133	211	10,000	20	120	1	980	4.1	1.0	180	150	70	TRANE FFDB 020 1
CUH-8	SLEEPING WOMEN AND CHILDREN 135	211	10,000	20	120	1	980	4.1	1.0	180	150	70	TRANE FFDB 020 1
CUH-9	SLEEPING MEN 139	211	10,000	20	120	1	980	4.1	1.0	180	150	70	TRANE FFDB 020 1
CUH-10	SLEEPING SINGLE WOMEN 117	211	10,000	20	120	1	980	4.1	1.0	180	150	70	TRANE FFDB 020 1
CUH-11	FAMILY SHELTER DINING 128	211	10,000	20	120	1	980	4.1	1.0	180	150	70	TRANE FFDB 020 1

NOTES:

1. MINIMUM AIRFLOW SCHEDULED AT UNIT HEATER FAN HIGHEST SETTING WITH STANDARD FAN MOTOR AND FREE DISCHARGE.
2. PROVIDE ALL UNIT HEATERS WITH FACTORY PROVIDED WALL BRACKET, MANUAL STARTER, AND DISCONNECT SWITCH BY UNIT MANUFACTURER.
3. PROVIDE ALL CABINET UNIT HEATERS WITH UNIT-MOUNTED DISCONNECT SWITCH AND FAN SPEED SWITCH BY UNIT MANUFACTURER.

SEAL	PROFESSIONAL CERTIFICATION
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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	REMARKS	
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"	NOTE 8 & 10	
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"	NOTE 8 & 10	
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"	NOTE 8 & 10	
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"	NOTE 8 & 10	
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"	NOTE 7 & 10	
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"	NOTE 10	
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"	NOTE 8 & 10	
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"	NOTE 8 & 10	
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"	NOTE 7	
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"	NOTE 8 & 10	
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"	NOTE 10	
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"	NOTE 10	
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"	NOTE 10	
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"	NOTE 7 & 10	
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"	NOTE 10	
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"	NOTE 8	
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"	NOTE 10	
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"	NOTE 8	
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"	NOTE 10	
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"	NOTE 10	
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"	NOTE 7	
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"	NOTE 10	
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"	NOTE 7	
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"	NOTE 8	
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"	NOTE 10	

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	1,645	48x26 TYPE R	35	2201 - 2225	1,520	-
3-1	3,630	36x12 TYPE L	35	3101 - 3117	3,560	-
3-2	12,990	52x26 TYPE R	35	3201 - 3228	1,565	-

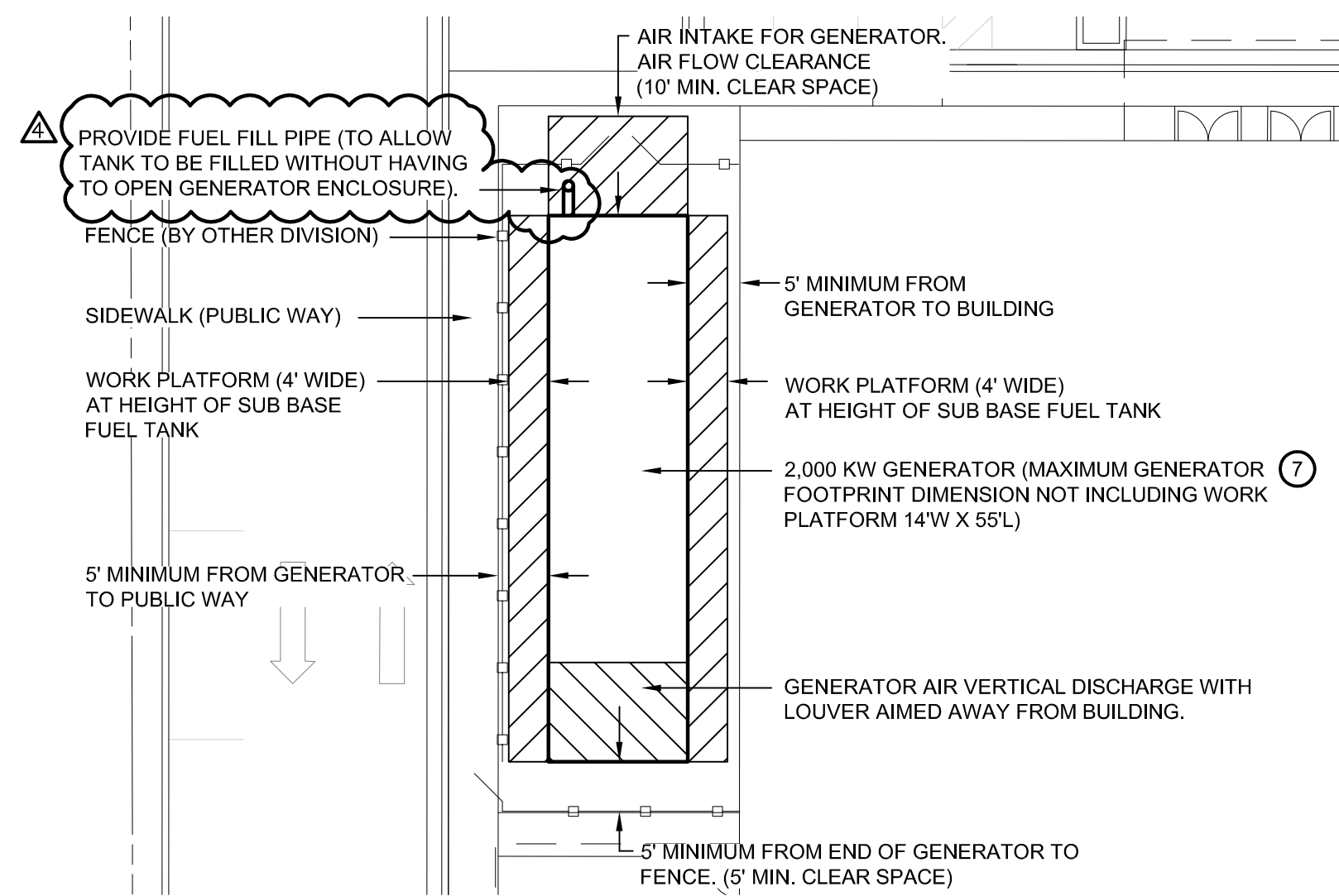
NOTES:

- 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.

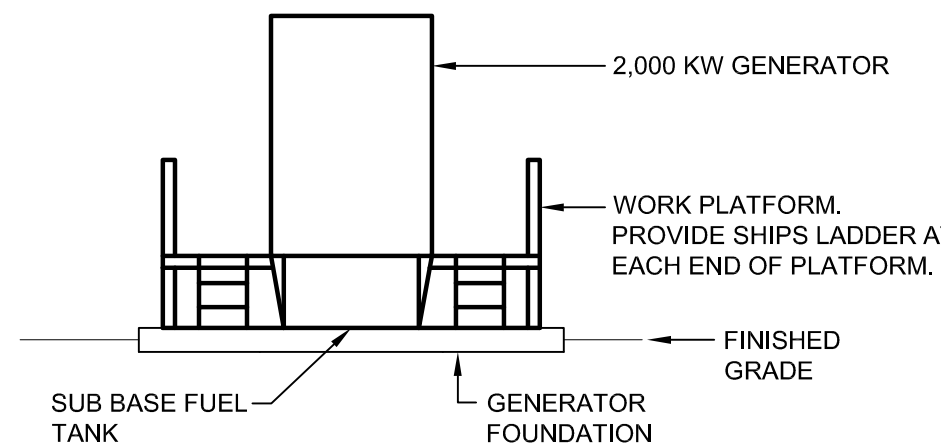
SEAL  DATE: 06/22/2015	PROFESSIONAL CERTIFICATION							
	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.							
	LICENSE NO. 17117 EXPIRATION DATE 10/25/2016							
	ENGINEER: WILLIAM J. COLLINS, JR.							
	DESIGN BY: BKM		BUREAU OF ENGINEERING AND CONSTRUCTION		HIGHWAYS		STRUCTURES	
	DWN BY: BKM		REVIEWED BY:					
	CHKD BY: BKM		DATE REVIEWED:					

AS-BUILT / REVISION	DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE	
					PLAN SCALE:	
					PROFILE SCALE:	

APPROVED BY: _____	DIRECTOR
DATE: _____	

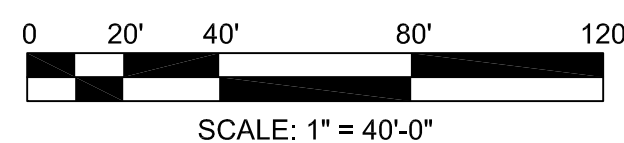
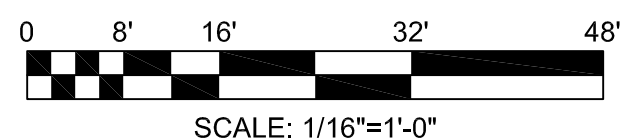



SCALE: 1/16" = 1'-0"



SCALE: NOT TO SCALE

- (1) BGE UNDERGROUND PRIMARY FEEDER TAP LOCATION. COORDINATE LOCATION WITH BGE PRIOR TO INSTALLING DUCTBANK. INSTALL DUCTBANK TO WITHIN 5' OF TAP LOCATION. PROVIDE WATERTIGHT SEAL FOR CONDUIT AND MARK LOCATION FOR BGE.
- (2) UNDERGROUND 2-WAY 4" DUCTBANK WITH BGE PRIMARY FEEDER. CONDUIT WITH PULL STRING, TRENCH, AND BACKFILL PROVIDED BY CONTRACTOR. FEEDER PROVIDED BY BGE.
- (3) CIRCUIT 8,10,12(PP1). PROVIDE (3)#10 & (1)#10 GRD IN 1" DIRECT BURIED CONDUIT FOR TRASH COMPACTOR. PROVIDE 480V, 3P, 30A FUSED DISCONNECT SWITCH IN NEMA 4X STAINLESS STEEL ENCLOSURE.COORDINATE WITH COMPACTOR EQUIPMENT INSTALLER/PROVIDER.
- (4) WORKSPACE CLEARANCE FOR BGE PAD MOUNTED TRANSFORMER. PROVIDE TRAFFIC PROTECTION GUARD PIPE ASSEMBLY ON FRONT AND SIDES OF TRANSFORMER IN ACCORDANCE WITH BGE REQUIREMENTS.
- (5) BGE PAD MOUNTED TRANSFORMER FOR BUILDING MAIN SERVICE. STUB 4" UNDERGROUND PRIMARY CONDUCTORS AND 4" UNDERGROUND 480V CONDUITS UP INTO PAD MOUNTED TRANSFORMER AIR TERMINATION CHAMBER. COORDINATE WITH BGE.
- (6) UNDERGROUND EIGHT-WAY 4" CONCRETE ENCASED DUCTBANK WITH 480V SERVICE ENTRANCE CONDUCTORS. DUCTBANK PROVIDED BY CONTRACTOR. CONDUCTORS PROVIDED BY BGE.
- (7) PROVIDE DIESEL GENERATOR.
- (8) PROVIDE UNDERGROUND 12 WAY 4" CONCRETE ENCASED DUCTBANK (3 HIGH X 4 WIDE) CONTAINING GENERATOR CONDUCTORS.
 - (10) 4" CONDUITS WITH GENERATOR MAIN POWER SUPPLY CONDUCTORS.
 - (1) 4" CONDUIT WITH SUPPLY FEEDER FOR PANELBOARD ERG
 - (1) 4" EMPTY SPARE CONDUIT.
- (9) PROVIDE UNDERGROUND 6 WAY 1" CONCRETE ENCASED DUCTBANK (2 HIGH X 3 WIDE) CONTAINING GENERATOR CONDUCTORS.
 - (1) 1" CONDUIT FOR GENERATOR EMERGENCY STARTING CIRCUIT.
 - (1) 1" CONDUIT FOR GENERATOR REMOTE STAND-BY STARTING CIRCUITS (TWO CIRCUITS).
 - (1) 1" CONDUITS WITH GENERATOR REMOTE ANNUNCIATOR AND GENERATOR REMOTE E-STOP CONDUCTORS.
 - (1) 1" CONDUIT WITH FIRE ALARM CONDUCTORS.
 - (1) 1" CONDUIT WITH BALTIMORE COUNTY SCADA SYSTEM (MISSION SYSTEM) CONDUCTORS FOR "GENERATOR FAULT", "GENERATOR RUN" AND 4-20mA FUEL TANK LEVEL GAUGE.
 - (1) 1" EMPTY SPARE CONDUIT.
- (10) STUB UP CONDUITS IN MAIN ELECTRICAL ROOM AS REQUIRED FOR SYSTEMS INSTALLATION.
- (11) COORDINATE UNDERGROUND DUCTBANK WITH OTHER UNDERGROUND UTILITIES IN THE AREA.
- (12) CIRCUIT 11(RP1A) FOR SMOKING SHELTER. PROVIDE (2)#8 & (1)#8 GRD IN 1" DIRECT BURIED CONDUIT.
- (13) CIRCUIT 13(RP1A) FOR SMOKING SHELTER. PROVIDE (2)#8 & (1)#8 GRD IN 1" DIRECT BURIED CONDUIT.
- (14) CIRCUITS 1,3(LP1C). PROVIDE (4)#8 & (1)#8 IN 1" DIRECT BURIED CONDUIT. ALTERNATE CIRCUIT SUPPLYING POLES AS SHOWN.
- (15) CIRCUITS 5,7(LP1C). PROVIDE (4)#8 & (1)#8 IN 1"DIRECT BURIED CONDUIT. ALTERNATE CIRCUIT SUPPLYING POLES AS SHOWN.
- (16) CIRCUITS 9,11(LP1C). PROVIDE (4)#8 & (1)#8 IN 1" DIRECT BURIED CONDUIT. ALTERNATE CIRCUIT SUPPLYING POLES AS SHOWN.
- (17) CIRCUITS 13,15(LP1C). PROVIDE (4)#8 & (1)#8 IN 1" DIRECT BURIED CONDUIT. ALTERNATE CIRCUIT SUPPLYING POLES AS SHOWN.
- (18) CIRCUITS 17,19(LP1C). PROVIDE (4)#8 & (1)#8 IN 1" CONDUIT. ALTERNATE CIRCUIT SUPPLYING POLES AS SHOWN.
- (19) CIRCUIT 21(LP1C). PROVIDE (2)#10 & (1)#10 IN 1" DIRECT BURIED CONDUIT. ROUTE CIRCUIT THROUGH MOTION SENSOR MOUNTED ON BUILDING LOCATED IN THE AREA. PROVIDE MOTION SENSOR.
- (20) CIRCUIT 20(ERP1A). PROVIDE (2)#8 & (1)#8 GRD IN 1" DIRECT BURIED CONDUIT FOR EMERGENCY CALL STATION. COORDINATE LOCATION WITH EQUIPMENT PROVIDER/INSTALLER.
- (21) ALTERNATE NO. 1: FLAG POLE
 - BASE BID: NO FLAG POLE LIGHTING.
 - ALTERNATE: PROVIDE FLAG POLE LIGHTING (FIXTURE TYPE GG) AND CONCRETE SUPPORT FOUNDATION.
- (22) COORDINATE POLE FOUNDATION LOCATION AND SETBACK WITH CURB/PAVEMENT CONTRACTOR.
- (23) CIRCUIT 19(ERP1A). PROVIDE (2)#8 & (1)#8 GRD IN 1" DIRECT BURIED CONDUIT FOR EMERGENCY CALL STATION. COORDINATE LOCATION WITH EQUIPMENT PROVIDER/INSTALLER.



SHEET DESIGNATION		CONTRACT NO.	
E0.03		15025P00	
		JOB ORDER NO.	
		249-218-0100-0614	
		SHEET 297 OF 359	
		DRAWING NO.	
		2015-1935	
FILE NO.		REV. 03/17	
BKM# 13063.01			

BKM# 13063.01

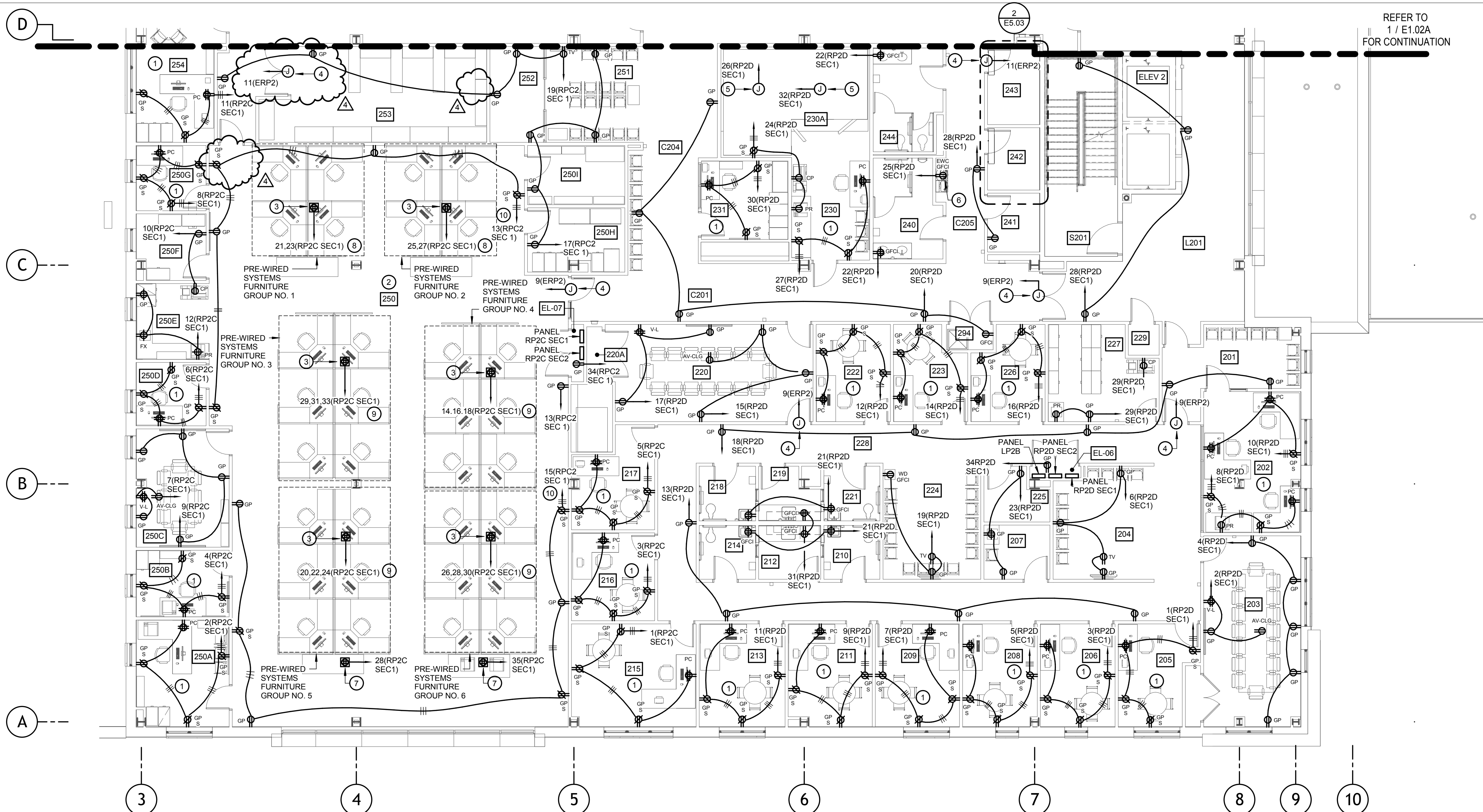


1. REFER TO E0.01 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.

- 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 DOOR ENTRY SYSTEM. PROVIDE POWER FOR DOOR ENTRY SYSTEM. COORDINATE WITH DOOR INSTALLER.
- ③ COORDINATE DEVICE HEIGHT AND CONNECTION REQUIREMENTS WITH EQUIPMENT INSTALLER PRIOR TO INSTALLATION.
- ④ ELECTRIC WATER COOLER. PROVIDE JUNCTION BOX OR RECEPTACLE AS REQUIRED FOR FINAL EQUIPMENT INSTALLED. COORDINATE WITH EQUIPMENT INSTALLER.
- ⑤ DRYER BOOSTER FAN. COORDINATE RECEPTACLE/CONNECTION TYPE, LOCATION AND HEIGHT WITH EQUIPMENT INSTALLER.
- ⑥ PROVIDE ADJACENT JUNCTION BOX WITH FACEPLATE AND CABLE GROMET WITH 1" EMPTY CONDUIT TO NEAREST CEILING SPACE FOR REFRIGERATOR/FREEZER TEMPERATURE MONITORING SYSTEM. COORDINATE WITH EQUIPMENT PROVIDER/INSTALLER.
- ⑦ RECEPTACLE FOR REFRIGERATOR/FREEZER TEMPERATURE MONITORING DEVICE. COORDINATE LOCATION WITH SYSTEM PROVIDER/INSTALLER.
- ⑧ VIDEO INTERCOM SYSTEM. PROVIDE POWER FOR VIDEO INTERCOM SYSTEM. COORDINATE WITH EQUIPMENT PROVIDER/INSTALLER.
- ⑨ ELECTRIC HAND DRYER. PROVIDE JUNCTION BOX OR RECEPTACLE AS REQUIRED FOR FINAL EQUIPMENT INSTALLED. COORDINATE WITH EQUIPMENT INSTALLER.

LEVEL 2 'A' ROOM LIST	
281	DIRECTOR'S OFFICE
282	INTERVIEW ROOM
283	FILES
284	SUPERVISOR
285	DIRECTOR'S OFFICE
286	STAFF TOILET
287	SINGLE BATHROOM
288	MEN'S BATHROOM
289	CLIENT STORAGE
290A	CLOTHING, TOILETRIES & LINEN STORAGE
291	LAUNDRY
292	HOUSE KEEPING
293	DINING - MEN
C202	CORRIDOR
C203	CORRIDOR
C206	CORRIDOR
C207	CORRIDOR
C208	CORRIDOR
C209	CORRIDOR
EL-08	ELEC. CLOSET
ELEV 3C	ELEVATOR
L201	LOBBY
S202	STAIR #2

ELECT. DISTRICT NO. 14C6BKM# 13063.01



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

GENERAL NOTES:

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

DRAWING NOTES:

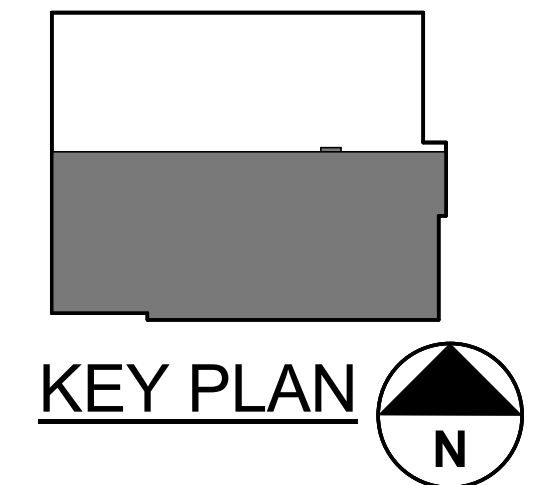
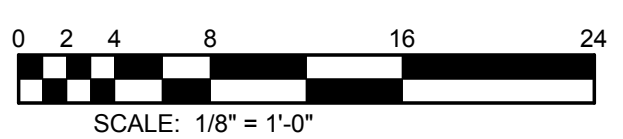
- 50% OF PRIVATE OFFICE RECEPTACLES SHALL BE AUTOMATICALLY (ON/OFF) CONTROLLED VIA THE LIGHTING CONTROL SYSTEM. PROVIDE UNSWITCHED HOT CONDUCTOR TO UNSWITCHED RECEPTACLE(S). PROVIDE SWITCHED HOT CONDUCTOR ROUTED THROUGH LIGHTING CONTROL SYSTEM POWER/RELAY PACK TO SWITCHED RECEPTACLE(S). REFER TO LIGHTING PLANS FOR ADDITIONAL INFORMATION.
- 50% OF OPEN OFFICE RECEPTACLES, INCLUDING SYSTEMS FURNITURE 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.
- PROVIDE RECESSED COMBINATION POWER/DATA FLOOR BOX WITH METALLIC COVER AND FURNITURE FEED CONNECTION FOR PRE-WIRED SYSTEMS OFFICE FURNITURE. PROVIDE FLEX CONNECTION AND FINAL CONNECTION FROM JUNCTION BOX TO FURNITURE CONNECTION LOCATION. COORDINATE CONNECTION WIRE REQUIREMENTS AND LOCATION WITH FURNITURE INSTALLER PRIOR TO INSTALLATION. 50% OF RECEPTACLES LOCATED WITHIN SYSTEMS FURNITURE SHALL BE AUTOMATICALLY SWITCHED VIA LIGHTING CONTROL SYSTEM. THE REMAINING 50% OF RECEPTACLES SHALL BE UN-SWITCHED. COORDINATE RECEPTACLE SWITCHING REQUIREMENTS WITH OFFICE FURNITURE PROVIDER/INSTALLER.
- ELECTRIC DOOR ENTRY SYSTEM. PROVIDE POWER FOR ELECTRIC DOOR ENTRY SYSTEM. COORDINATE WITH DOOR INSTALLER.
- AUDIOLOGY BOOTH. PROVIDE POWER CONNECTION TO BOOTH ROOF MOUNTED QUAD RECEPTACLE POWER CORD. COORDINATE WITH EQUIPMENT PROVIDER/INSTALLER.
- ELECTRICAL WATER COOLER. PROVIDE JUNCTION BOX OR RECEPTACLE AS REQUIRED FOR FINAL EQUIPMENT INSTALLED. COORDINATE WITH INSTALLER.
- PROVIDE COMBINATION POWER/DATA RECESSED FLOOR BOX WITH METALLIC COVER AND 2 DUPLEX RECEPTACLES FOR PRINTERS. COORDINATE LOCATION WITH FURNITURE INSTALLER PRIOR TO INSTALLATION.
- PROVIDE (7) CONDUCTORS FOR CONNECTION TO PRE-WIRED SYSTEMS OFFICE FURNITURE: (2) HOT UNSWITCHED, (2) HOT SWITCHED THROUGH LIGHTING CONTROL SYSTEM POWER/RELAY PACK (FOR AUTOMATIC SWITCHING OF RECEPTACLES IN THIS AREA), (2) OR (1) NEUTRAL (DEPENDENT ON FURNITURE CONNECTION), AND (1) COMMON GROUND. ROUTE THE 3 SWITCHED HOTS THROUGH 3 SEPARATE LIGHTING CONTROL SYSTEM POWER/RELAY PACKS. NOTE: THE EXACT FURNITURE CIRCUIT CONNECTION CONFIGURATION WILL NOT BE KNOWN UNTIL CONSTRUCTION. COORDINATE FINAL CIRCUIT AND CONNECTIVITY REQUIREMENTS WITH OFFICE FURNITURE INSTALLER PRIOR TO INSTALLATION OF CIRCUIT. REFER TO LIGHTING PLANS FOR ADDITIONAL INFORMATION.
- PROVIDE (10) CONDUCTORS FOR CONNECTION TO PRE-WIRED SYSTEMS OFFICE FURNITURE: (3) HOT UNSWITCHED, (3) HOT SWITCHED THROUGH LIGHTING CONTROL SYSTEM POWER/RELAY PACK (FOR AUTOMATIC SWITCHING OF RECEPTACLES IN THIS AREA), (3) OR (1) NEUTRAL (DEPENDENT ON FURNITURE CONNECTION), AND (1) COMMON GROUND. ROUTE THE 3 SWITCHED HOTS THROUGH 3 SEPARATE LIGHTING CONTROL SYSTEM POWER/RELAY PACKS. NOTE: THE EXACT FURNITURE CIRCUIT CONNECTION CONFIGURATION WILL NOT BE KNOWN UNTIL CONSTRUCTION. COORDINATE FINAL CIRCUIT AND CONNECTIVITY REQUIREMENTS WITH OFFICE FURNITURE INSTALLER PRIOR TO INSTALLATION OF CIRCUIT. REFER TO LIGHTING PLANS FOR ADDITIONAL INFORMATION.
- 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.



LEVEL 2 'B' ROOM LIST

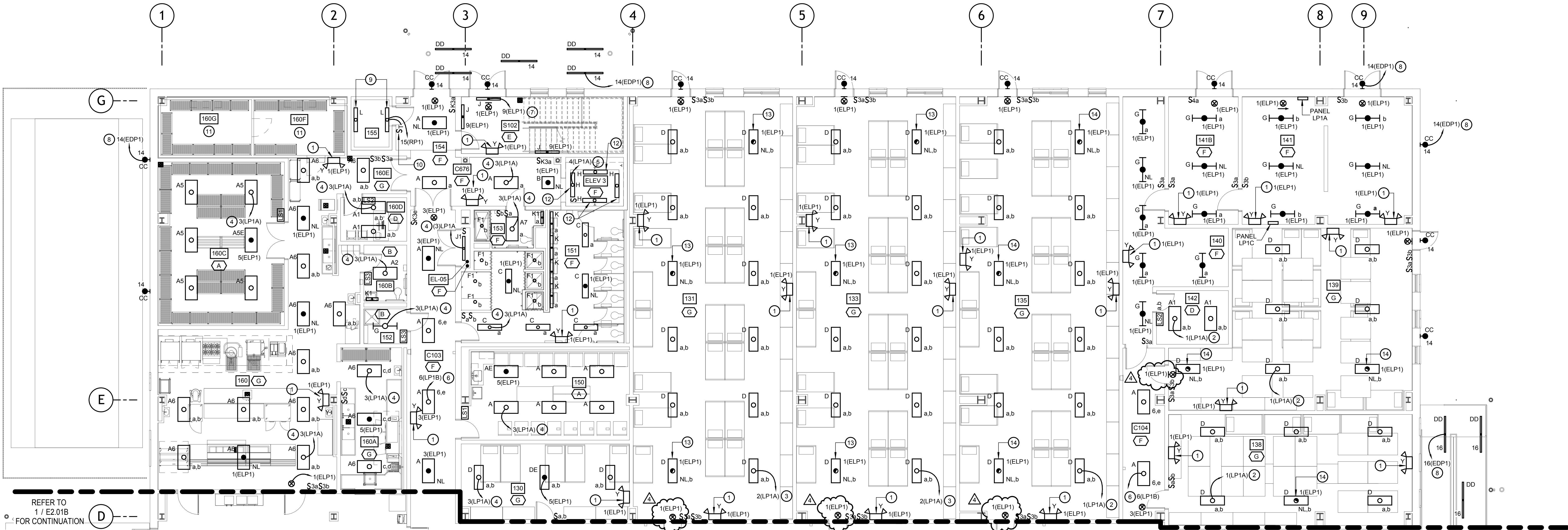
201	RECEPTION
202	OFFICE ASSISTANTS
203	ADOLESCENT GROUP ROOM
204	ADOLESCENT WAITING
205	COUNSELOR OFFICE
206	COUNSELOR OFFICE
207	INTAKE ROOM
208	COUNSELOR OFFICE
209	COUNSELOR OFFICE
210	TOILET
211	COUNSELOR OFFICE
212	ANTE RM
213	COUNSELOR OFFICE
214	TOILET
215	CLINICAL SUPERVISOR'S OFFICE
216	MANAGER'S OFFICE
217	COUNSELOR OFFICE
218	TOILET
219	ANTE RM
220	ADULT GROUP ROOM
220A	CLOSET
221	TOILET
222	COUNSELOR OFFICE
223	COUNSELOR OFFICE
224	ADULT WAITING
225	STAFF CLOSET
226	COUNSELOR OFFICE
227	FILES
228	CORRIDOR
229	BIO HAZARD
230	OFFICE
230A	AUDIOLOGY BOOTH & CONTROLS
231	ADMIN/ FILES

LEVEL 2 'B' ROOM LIST

240	MEN'S RESTROOM
241	RECYCLING
242	ELEC
243	AV/IT
244	WOMEN'S RESTROOM
250	STAFF WORK
250A	SUPERVISOR
250B	ADMIN
250C	MEETING ROOM
250D	PRIVATE CALLS
250E	PRINT/COPY
250F	FILES
250G	PRIVATE CALLS
250H	STORAGE
250I	STORAGE - TODDLER FURN.
251	WIC WAITING
252	PLAY AREA
253	DISTRIBUTION SUPPLIES - PAPER PRODUCTS
254	BUILDING MANAGER
294	H.K.
C201	CORRIDOR
C204	CORRIDOR
C205	CORRIDOR
EL-06	ELEC. CLOSET
EL-07	ELEC. CLOSET
ELEV 2	ELEVATOR
L201	LOBBY
S201	STAIR #1



SEAL  DATE: 03/27/2015	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. 30474 EXPIRATION DATE 01/23/2017 ENGINEER: DAVID M. WETZEL		AS-BUILT / REVISION REVIEWED BY: _____ DATE REVIEWED: _____	DATE: 03/27/2015	P.W.A. NO. _____ R.O.W. NO. _____	KEY SHEET POSITION SHIT	DRAWING SCALE PLAN SCALE: _____ PROFILE SCALE: _____ FIELD ENGINEER	APPROVED BY: _____ DIRECTOR DATE: _____ PROPERTY MANAGEMENT APPROVED BY: _____ CHIEF DATE: _____	BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT Eastern Family Resource Center PART LEVEL 2 FLOOR PLAN 'B' - POWER 9150 Franklin Square Drive, MD 21237 SUBDIVISION:	ELECT. DISTRICT NO. 14C6	 SHEET DESIGNATION: E1.02B CONTRACT NO.: 15025P00 JOB ORDER NO.: 249-218-0100-0614 SHEET 301 OF 359 DRAWING NO.: 2015-1939 FILE NO.: _____	
	DSGN BY: DCW DWN BY: DCW CHKD BY: DMW											



REFER TO
1 / E2.01B
FOR CONTINUATION

REFER TO
1 / E2.01B
FOR CONTINUATION

LIGHTING CONTROL SEQUENCE TAG	LIGHTING CONTROL SEQUENCE									
	LS1	LS2	LS3	S ₃ S ₂ S ₁ S _T	OS	PP1	PP2	PP3	EPP	FID
A	(1)		(1)		(1)	(1)				
B			(1)							
C	(1)				(1)	(1)				
D		(1)			(1)	(1)	(1)			
E					(1)				(1)	(1)
F				(1)						
G				(1)						

(1) PROVIDE LIGHTING CONTROL SYSTEM DEVICE(S) REQUIRED FOR LIGHTING CONTROL SEQUENCE OPERATION.

SYMBOL	LIGHTING CONTROL SYSTEM LEGEND
LS1	LOW VOLTAGE SWITCH, SINGLE LEVEL SWITCHING (nLight Model/Series No. nPODM OR APPROVED EQUAL).
LS2	LOW VOLTAGE SWITCH, DUAL LEVEL SWITCHING (nLight Model/Series No. nPODM OR APPROVED EQUAL).
LS3	WALL-MOUNTED OCCUPANCY SENSOR SWITCH WITH MANUAL ON/OFF, SINGLE LEVEL SWITCHING (nLight Model/Series No. nWSD PDT OR APPROVED EQUAL).
S ₃ S ₂ S ₁ S _T	LINE VOLTAGE MANUAL SINGLE POLE, THREE-WAY, 4-WAY, KEY OR TIMER WALL SWITCH.
OS	CEILING-MOUNTED OCCUPANCY SENSOR (nLight Model/Series No. nCM PDT9 OR nCM PDT10 OR APPROVED EQUAL).
PP1	LIGHTING POWER PACK: 120/277V, ONE-RELAY FOR SINGLE LEVEL SWITCHING (nLight Model/Series No. nPP16 OR APPROVED EQUAL).
PP2	LIGHTING POWER PACK: 120/277V, TWO POWER PACKS FOR DUAL LEVEL SWITCHING (nLight Model/Series No. nPP16 OR APPROVED EQUAL).
PP3	RECEPTACLE POWER PACK: 120/277V, ONE-RELAY FOR RECEPTACLE SWITCHING (nLight Model/Series No. nPP16 OR APPROVED EQUAL).
EPP	EMERGENCY LIGHTING POWER PACK: 120/277V, TRANSFER SWITCH FOR SWITCHED EMERGENCY LIGHTS (nLight Model/Series No. nPP16ER OR APPROVED EQUAL).
FID	INPUT/OUTPUT INTERFACE DEVICE FOR FIRE ALARM INTERFACE TO EMERGENCY LIGHTS. (nLight Model/Series No. nIO 1S OR APPROVED EQUAL).

1 PART LEVEL 1 FLOOR PLAN 'A' - LIGHTING

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- REFER TO E0.01 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- REFER TO E0.02 FOR LIGHTING FIXTURE SCHEDULE.

LIGHTING CONTROL SYSTEM NOTES:

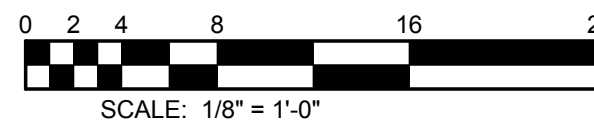
- EACH ROOM/SPACE CONTAINS A LIGHTING CONTROL SEQUENCE TAG WHICH MATCH THE CORRESPONDING TAG DESIGNATION AND SEQUENCE OF OPERATION SHOWN IN THE LIGHTING CONTROL SEQUENCE SCHEDULE SHOWN ON THIS SHEET. LIGHTING CONTROL SYSTEM SHALL PROVIDE LIGHTING CONTROL SEQUENCE OF OPERATION SHOWN IN THE LIGHTING CONTROL SEQUENCE ON THIS DRAWING FOR EACH ROOM/SPACE.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, ADDITIONAL SYSTEM DESIGN AND ALL INCIDENTALS TO PROVIDE A COMPLETE AND OPERABLE LIGHTING CONTROL SYSTEM AS SHOWN AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.
- NOTE: ONLY MAJOR LIGHTING CONTROL SYSTEM COMPONENTS AND SEQUENCES ARE SHOWN ON THIS DRAWING IN ORDER TO CONVEY SYSTEM DESIGN INTENT. CERTAIN LIGHTING CONTROL SYSTEM COMPONENTS INCLUDING, BUT NOT LIMITED TO, POWER/RELAY PACKS, OCCUPANCY SENSORS, INTERFACE DEVICES, POWER SUPPLIES, INTERFACE DEVICES AND LOW VOLTAGE INTERCONNECT CABLES (I.E. CAT5E CABLE) ARE NOT SHOWN IN THIS DRAWING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LIGHTING CONTROL SYSTEM MANUFACTURER TO DETERMINE ALL REQUIRED COMPONENTS AND TO INCLUDE ALL REQUIRED COMPONENTS AND INTERCONNECTIONS IN THE PROJECT BID PRICE.
- LIGHTING CONTROL SYSTEM BASIS OF DESIGN IS SENSOR SWITCH, INC. (nLIGHT PRODUCT LINE). REFER TO SPECIFICATION SECTION 260943 (LIGHTING CONTROL SYSTEM) FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

DRAWING NOTES:

- CONNECT TO EMERGENCY LIGHTING CIRCUIT SUPPLYING THIS AREA AHEAD OF ANY SWITCHING.
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 1(LP1A).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 2(LP1A).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 3(LP1A).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 4(LP1A).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 6(LP1B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 9(ELP1).
- RUN CIRCUIT THROUGH LIGHTING CONTACTOR #3 LOCATED IN MAIN ELECTRIC ROOM 141.
- COORDINATE LIGHT FIXTURE PLACEMENT WITH BED BUG SAUNA EQUIPMENT INSTALLER/PROVIDER.
- PROVIDE BED BUG SAUNA TIMER LIGHT SWITCH AND ALL INTERCONNECTIONS. COORDINATE WITH BED BUG SAUNA EQUIPMENT INSTALLER/PROVIDER AND WITH INSTALLATION OF RELAY CONTROL PANEL AND WALL CONTROL.
- REFER TO POWER PLANS FOR LIGHTING REQUIREMENTS IN THIS AREA.
- COORDINATE LOCATION WITH ELEVATOR INSTALLER.
- OUTER LAMPS SHALL BE SUPPLIED BY UNSWITCHED EMERGENCY CIRCUIT 1(ELP1) AS NIGHT LIGHTS. INNER LAMPS SHALL BE SUPPLIED BY NORMAL SWITCHED CIRCUIT 2(LP1A).
- OUTER LAMPS SHALL BE SUPPLIED BY UNSWITCHED EMERGENCY CIRCUIT 1(ELP1) AS NIGHT LIGHTS. INNER LAMPS SHALL BE SUPPLIED BY NORMAL SWITCHED CIRCUIT 1(LP1A).

LEVEL 1 'A' ROOM LIST

130	SLEEPING ROOM
131	SLEEPING WOMEN AND CHILDREN
133	SLEEPING WOMEN AND CHILDREN
135	SLEEPING WOMEN AND CHILDREN
138	SLEEPING MEN AND CHILDREN
139	SLEEPING MEN (FAMILY AND 16+ BOYS)
140	MECHANICAL
141	ELEC.
141B	EMERGENCY ELEC.
142	OFFICE
150	LAUNDRY
151	WOMEN AND CHILDREN BATHROOM
152	HOUSE KEEPING
153	MEN'S SINGLE BATHROOM
154	SERVICE ENTRY
155	BED BUG SAUNA
160	SHELTER KITCHEN
160A	DISHWASHING
160B	STAFF TOILET
160C	DRY STORAGE
160D	KITCHEN MANAGER
160E	KITCHEN RECEIVING
160F	COOLER
160G	FREEZER
C103	CORRIDOR
C104	CORRIDOR
C67B	SERVICE CORRIDOR
EL-05	ELEC. CLOSET
ELEV 3	ELEVATOR
S102	STAIR #2



BID SET 06/16/15

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.			R.O.W. NO.			PLAN SCALE:	DIRECTOR	
	LICENSE NO. 30474 EXPIRATION DATE 01/23/2017			STRUCTURES	STORM DRAINS	SEWER	WATER	DATE:	
	ENGINEER: DAVID M. WETZEL			HIGHWAYS				FIELD ENGINEER	PROPERTY MANAGEMENT
	DSGN BY: JCH								CHIEF
	DWN BY: JCH	REVIEWED BY:							
	CHKD BY: DMW	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT

Eastern Family Resource Center
PART LEVEL 1 FLOOR PLAN 'A' - LIGHTING

9150 Franklin Square Drive, MD 21237

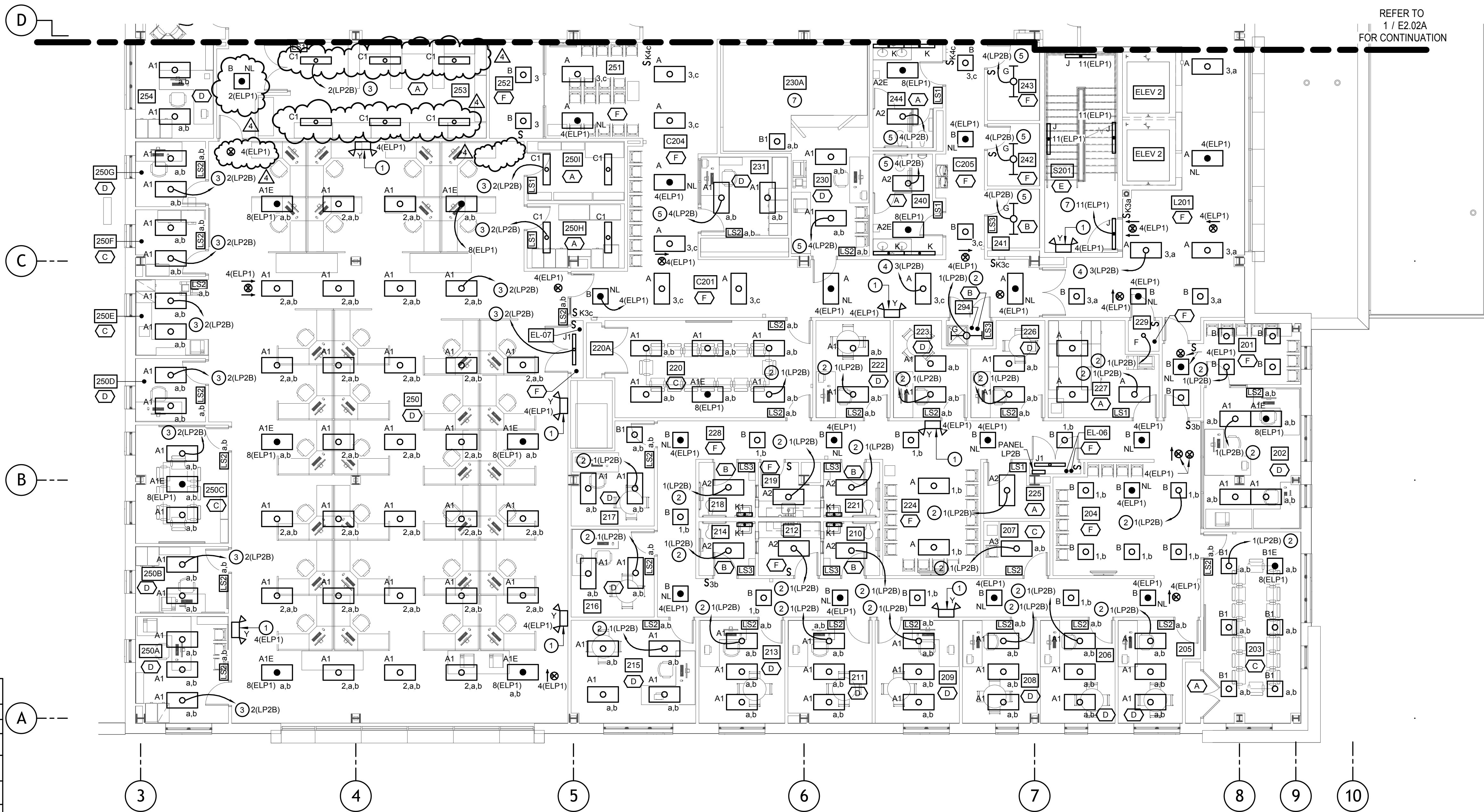
ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
E2.01A	15025P00
JOB ORDER NO.	
249-218-0100-0614	
SHEET 306 OF 359	
DRAWING NO.	
2015-1944	
FILE NO.	

BKM 13063.01

REFER TO
1 / E2.01A
FOR CONTINUATION





SYMBOL	LIGHTING CONTROL SYSTEM LEGEND
LS1	LOW VOLTAGE SWITCH, SINGLE LEVEL SWITCHING (nLight Model/Series No. nPODM OR APPROVED EQUAL).
LS2	LOW VOLTAGE SWITCH, DUAL LEVEL SWITCHING (nLight Model/Series No. nPODM OR APPROVED EQUAL).
LS3	WALL-MOUNTED OCCUPANCY SENSOR SWITCH WITH MANUAL ON/OFF, SINGLE LEVEL SWITCHING (nLight Model/Series No. nWSD PDI OR APPROVED EQUAL).
S ₃ , S ₄ , S _K , S _T	LINE VOLTAGE MANUAL SINGLE POLE, THREE-WAY, 4-WAY, KEY OR TIMER WALL SWITCH.
OS	CEILING-MOUNTED OCCUPANCY SENSOR (nLight Model/Series No. nCM PDT9 or nCM PDT10 OR APPROVED EQUAL).
PP1	LIGHTING POWER PACK: 120/277V, ONE-RELAY FOR SINGLE LEVEL SWITCHING (nLight Model/Series No. nPP16 OR APPROVED EQUAL).
PP2	LIGHTING POWER PACK: 120/277V, TWO POWER PACKS FOR DUAL LEVEL SWITCHING (nLight Model/Series No. nPP16 OR APPROVED EQUAL).
PP3	RECEPTACLE POWER PACK: 120/277V, ONE-RELAY FOR RECEPTACLE SWITCHING (nLight Model/Series No. nPP16 OR APPROVED EQUAL).
EPP	EMERGENCY LIGHTING POWER PACK: 120/277V, TRANSFER SWITCH FOR SWITCHED EMERGENCY LIGHTS (nLight Model/Series No. nPP16ER OR APPROVED EQUAL).
FID	INPUT/OUTPUT INTERFACE DEVICE FOR FIRE ALARM INTERFACE TO EMERGENCY LIGHTS. (nLight Model/Series No. NIO 1S OR APPROVED EQUAL).

LIGHTING CONTROL SEQUENCE TAG	LIGHTING CONTROL SEQUENCE	LS1	LS2	LS3	S ₃ , S ₄ , S _K , S _T	OS	PP1	PP2	PP3	EPP	FID
A	OCCUPANCY SENSOR CONTROLLED, SINGLE LEVEL SWITCHING (100%). MANUAL ON, AUTOMATIC OFF BASED ON ROOM OCCUPANCY.	(1)				(1)	(1)				
B	WALL MOUNTED OCCUPANCY SENSOR CONTROLLED, SINGLE LEVEL SWITCHING (100%). MANUAL ON, AUTOMATIC OFF BASED ON ROOM OCCUPANCY.			(1)							
C	OCCUPANCY SENSOR CONTROLLED, DUAL LEVEL SWITCHING (50% AND 100%). MANUAL ON (BOTH LEVELS), AUTOMATIC OFF BASED ON ROOM OCCUPANCY.		(1)			(1)	(1)				
D	OCCUPANCY SENSOR CONTROLLED, DUAL LEVEL SWITCHING (50% AND 100%). MANUAL ON (BOTH LEVELS), AUTOMATIC OFF BASED ON ROOM OCCUPANCY. RECEPTACLES ACTIVATED BY OCCUPANCY SENSOR AND LIGHTING CONTROL SYSTEM POWER/RELAY PACK (AUTOMATIC ON/OFF). REFER TO POWER PLANS FOR ADDITIONAL INFORMATION FOR AUTOMATICALLY SWITCHED RECEPTACLES.		(1)			(1)	(1)	(1)			
E	OCCUPANCY SENSOR CONTROLLED, DUAL LEVEL ILLUMINATION (50% AND 100%). AUTOMATIC ON TO 100% LIGHT LEVEL UPON OCCUPANCY AND AUTOMATIC REDUCTION TO 50% LIGHT LEVEL BASED ON UNOCCUPANCY. ALL STAIRWELL LIGHTS WILL AUTOMATICALLY TURN ON UPON LOSS OF BUILDING POWER OR ACTIVATION OF THE FIRE ALARM SYSTEM ALARM MODE. PROVIDE OCCUPANCY SENSOR ON EACH LANDING.					(1)				(1)	(1)
F	LIGHT(S) CONTROLLED BY MANUAL SWITCH(ES), SINGLE LEVEL SWITCHING (100%).					(1)					
G	LIGHT(S) CONTROLLED BY MANUAL SWITCH(ES), DUAL LEVEL SWITCHING (50% AND 100%).					(1)					

(1) PROVIDE LIGHTING CONTROL SYSTEM DEVICE(S) REQUIRED FOR LIGHTING CONTROL SEQUENCE OPERATION.

	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.					R.O.W. NO.			PLAN SCALE: _____	
	LICENSE NO. 30474 EXPIRATION DATE 01/23/2017								PROFILE SCALE: _____	
	ENGINEER: DAVID M. WETZEL						ADDENDUM 09 08-27-2015			
	BUREAU OF CONSTRUCTION AND CONSTRUCTION			HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	PROPERTY MANAGEMENT
	REVIEWED BY: _____									
DATE REVIEWED: _____										DATE: _____
CHKD BY: DMW										
DATE: 03/27/2015										

GENERAL NOTES:

- REFER TO E0.01 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- REFER TO E0.02 FOR LIGHTING FIXTURE SCHEDULE.

LIGHTING CONTROL SYSTEM NOTES:

- EACH ROOM/SPACE CONTAINS A LIGHTING CONTROL SEQUENCE TAG WHICH MATCH THE CORRESPONDING TAG DESIGNATION AND SEQUENCE OF OPERATION SHOWN IN THE LIGHTING CONTROL SEQUENCE SCHEDULE SHOWN ON THIS SHEET. LIGHTING CONTROL SYSTEM SHALL PROVIDE LIGHTING CONTROL SEQUENCE OF OPERATION SHOWN IN THE LIGHTING CONTROL SEQUENCE ON THIS DRAWING FOR EACH ROOM/SPACE.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, ADDITIONAL SYSTEM DESIGN AND ALL INCIDENTALS TO PROVIDE A COMPLETE AND OPERABLE LIGHTING CONTROL SYSTEM AS SHOWN AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.
- NOTE: ONLY MAJOR LIGHTING CONTROL SYSTEM COMPONENTS AND SEQUENCES ARE SHOWN ON THIS DRAWING IN ORDER TO CONVEY SYSTEM DESIGN INTENT. CERTAIN LIGHTING CONTROL SYSTEM COMPONENTS INCLUDING, BUT NOT LIMITED TO, POWER/RELAY PACKS, OCCUPANCY SENSORS, INTERFACE DEVICES, POWER SUPPLIES, INTERFACE DEVICES AND LOW-VOLTAGE INTERCONNECT CABLES (I.E. CAT5E CABLE) ARE NOT SHOWN IN THIS DRAWING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LIGHTING CONTROL SYSTEM MANUFACTURER TO DETERMINE ALL REQUIRED COMPONENTS AND TO INCLUDE ALL REQUIRED COMPONENTS AND INTERCONNECTIONS IN THE PROJECT BID PRICE.
- LIGHTING CONTROL SYSTEM BASIS OF DESIGN IS SENSOR SWITCH, INC. (NLIGHT PRODUCT LINE). REFER TO SPECIFICATION SECTION 260943 (LIGHTING CONTROL SYSTEM) FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

DRAWING NOTES:

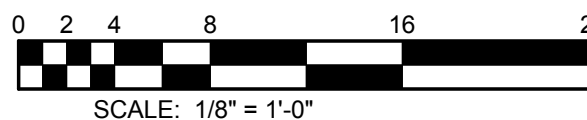
- CONNECT TO EMERGENCY LIGHTING CIRCUIT SUPPLYING THIS AREA AHEAD OF ANY SWITCHING.
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 1(LP2B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 2(LP2B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 3(LP2B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 4(LP2B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 11(ELP1).
- LIGHTING PROVIDED BY AUDIOLOGY BOOTH PROVIDER/INSTALLER.

LEVEL 2 'B' ROOM LIST

201	RECEPTION
202	OFFICE ASSISTANTS
203	ADOLESCENT GROUP ROOM
204	ADOLESCENT WAITING
205	COUNSELOR OFFICE
206	COUNSELOR OFFICE
207	INTAKE ROOM
208	COUNSELOR OFFICE
209	COUNSELOR OFFICE
210	TOILET
211	COUNSELOR OFFICE
212	ANTE RM
213	COUNSELOR OFFICE
214	TOILET
215	CLINICAL SUPERVISOR'S OFFICE
216	MANAGER'S OFFICE
217	COUNSELOR OFFICE
218	TOILET
219	ANTE RM
220	ADULT GROUP ROOM
220A	CLOSET
221	TOILET
222	COUNSELOR OFFICE
223	COUNSELOR OFFICE
224	ADULT WAITING
225	STAFF CLOSET
226	COUNSELOR OFFICE
227	FILES
228	CORRIDOR
229	BIO HAZARD
230	OFFICE
230A	AUDIOLOGY BOOTH & CONTROLS
231	ADMIN/ FILES

LEVEL 2 'B' ROOM LIST

240	MEN'S RESTROOM
241	RECYCLING
242	ELEC
243	AV/IT
244	WOMEN'S RESTROOM
250	STAFF WORK
250A	SUPERVISOR
250B	ADMIN
250C	MEETING ROOM
250D	PRIVATE CALLS
250E	PRINT/COPY
250F	FILES
250G	PRIVATE CALLS
250H	STORAGE
250I	STORAGE - TODDLER FURN.
251	WIC WAITING
252	PLAY AREA
253	DISTRIBUTION SUPPLIES - PAPER PRODUCTS
254	BUILDING MANAGER
254	H.K.
C201	CORRIDOR
C204	CORRIDOR
C205	CORRIDOR
EL-06	ELEC. CLOSET
EL-07	ELEC. CLOSET
ELEV 2	ELEVATOR
L201	LOBBY
S201	STAIR #1



BID SET 06/16/15

SHEET DESIGNATION	CONTRACT NO.
E2.02B	15025P00
JOB ORDER NO.	
249-218-0100-0614	
SHEET 309 OF 359	
DRAWING NO.	
2015-1947	
FILE NO.	

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT

Eastern Family Resource Center
PART LEVEL 2 FLOOR PLAN 'B' - LIGHTING

9150 Franklin Square Drive, MD 21237

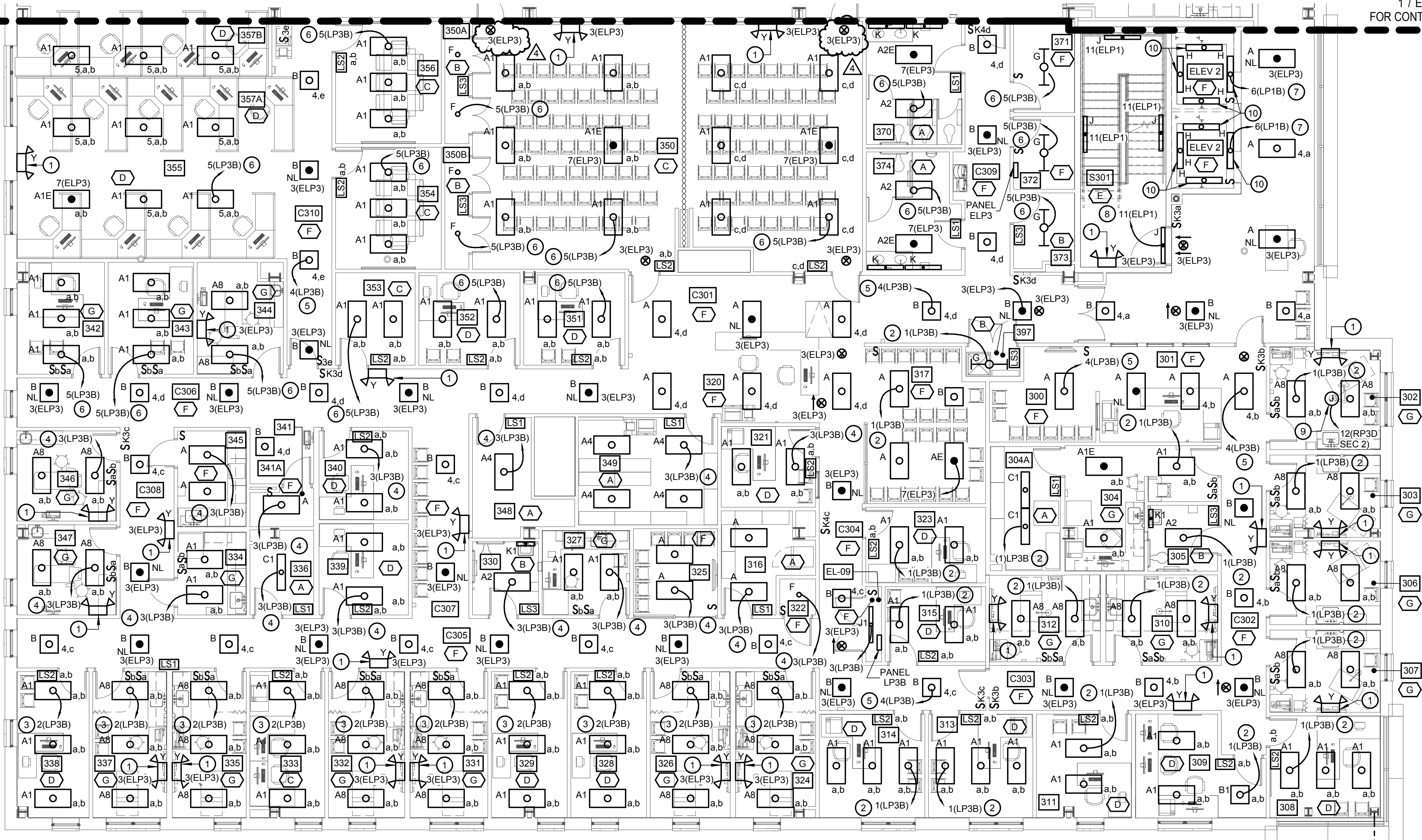
ELECT. DISTRICT NO. 14C6

SUBDIVISION:

BKM 13063.01

REFER TO
1 / E2.03A
FOR CONTINUATION

REFER TO
1 / E2.03A
FOR CONTINUATION



PART LEVEL 3 FLOOR PLAN 'B' - LIGHTING

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- REFER TO E0.01 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- REFER TO E0.02 FOR LIGHTING FIXTURE SCHEDULE.

LIGHTING CONTROL SYSTEM NOTES:

- EACH ROOMSPACE CONTAINS A LIGHTING CONTROL SEQUENCE TAG WHICH MATCH THE CORRESPONDING TAG DESIGNATION AND SEQUENCE OF OPERATION SHOWN IN THE LIGHTING CONTROL SEQUENCE SCHEDULE SHOWN ON THIS SHEET. LIGHTING CONTROL SYSTEM SHALL PROVIDE LIGHTING CONTROL SEQUENCE OF OPERATION SHOWN IN THE LIGHTING CONTROL SEQUENCE ON THIS DRAWING FOR EACH ROOMSPACE.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, ADDITIONAL SYSTEM DESIGN AND ALL INCIDENTALS TO PROVIDE A COMPLETE AND OPERABLE LIGHTING CONTROL SYSTEM AS SHOWN AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.
- NOTE: ONLY MAJOR LIGHTING CONTROL SYSTEM COMPONENTS AND SEQUENCES ARE SHOWN ON THIS DRAWING IN ORDER TO CONVEY SYSTEM DESIGN INTENT. CERTAIN LIGHTING CONTROL SYSTEM COMPONENTS INCLUDING, BUT NOT LIMITED TO, POWER/RELAY PACKS, OCCUPANCY SENSORS, INTERFACE DEVICES, POWER SUPPLIES, INTERFACE DEVICES AND LOW VOLTAGE INTERCONNECT CABLES (I.E. CAT5E CABLE) ARE NOT SHOWN IN THIS DRAWING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LIGHTING CONTROL SYSTEM MANUFACTURER TO DETERMINE ALL REQUIRED COMPONENTS AND TO INCLUDE ALL REQUIRED COMPONENTS AND INTERCONNECTIONS IN THE PROJECT BID PRICE.
- LIGHTING CONTROL SYSTEM BASIS OF DESIGN IS SENSOR SWITCH, INC. (nLIGHT PRODUCT LINE). REFER TO SPECIFICATION SECTION 260943 (LIGHTING CONTROL SYSTEM) FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

DRAWING NOTES:

- CONNECT TO EMERGENCY LIGHTING CIRCUIT SUPPLYING THIS AREA AHEAD OF ANY SWITCHING.
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 1(LP3B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 2(LP3B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 3(LP3B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 4(LP3B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 5(LP3B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 7(LP1B).
- ONE HOMERUN FOR ALL SHARED CIRCUIT NUMBERS FOR 11(ELP1).
- PROVIDE JUNCTION BOX AND 120V CIRCUIT TO PANEL INDICATED FOR CEILING MOUNTED EXAM ROOM LIGHT. REFER TO ARCHITECTURAL EQUIPMENT SCHEDULE FOR DETAILED INFORMATION.
- COORDINATE LOCATION WITH ELEVATOR INSTALLER.

LEVEL 3 'B' ROOM LIST

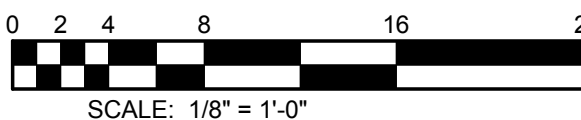
300	WAITING
301	RECEPTION
302	TRIAGE/PROCEDURE ROOM
303	EXAM ROOM
304	LAB/ STERILE
304A	STORAGE
305	CLIENT TOILET
306	EXAM ROOM
307	EXAM ROOM
308	MEDICAL DIRECTOR
309	SHARED ADMIN OFFICE
310	EXAM ROOM
311	SOCIAL WORK OFFICE
312	EXAM ROOM
313	CASE MANAGER
314	INTERVIEW ROOM
315	INTERVIEW ROOM
316	MEDS & 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	AUTOClave
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



KEY PLAN



BID SET 06/16/15

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 ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 30474 EXPIRATION DATE 01/23/2017 ENGINEER: DAVID M. WETZEL	AS-BUILT					PLAN SCALE:		
		REVISION					PROFILE SCALE:		
		REVISION					FIELD ENGINEER		
		REVISION							
		DESIGN BY: JCH	REVIEWED BY:	DATE REVIEWED:	STRUCTURES	STORM DRAINS	SEWER	WATER	PROPERTY MANAGEMENT
		DWN BY: JCH							APPROVED BY:
		CHKD BY: DMW							DATE:
DATE: 03/27/2015									CHIEF

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT

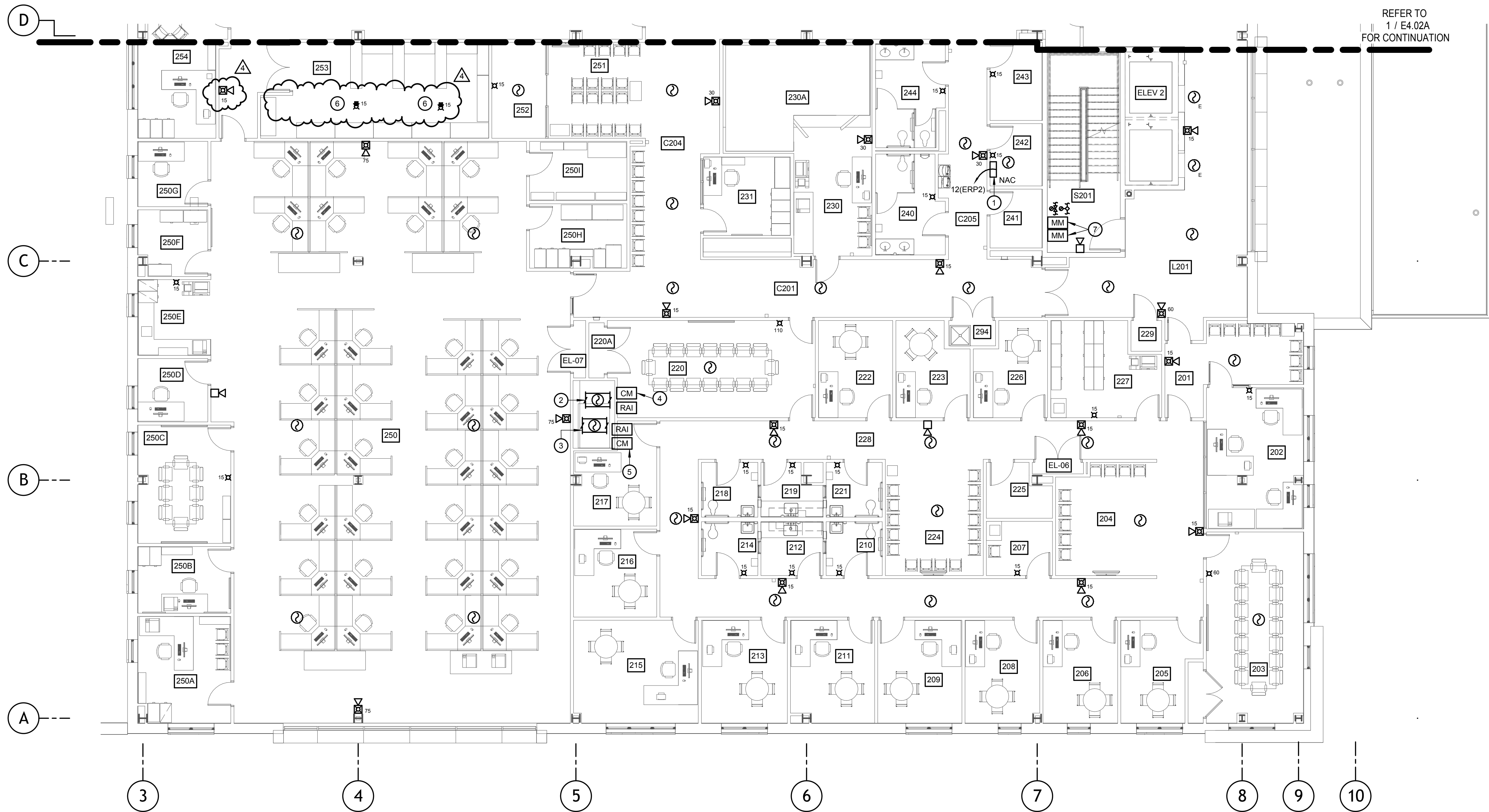
Eastern Family Resource Center
PART LEVEL 3 FLOOR PLAN 'B' - LIGHTING

9150 Franklin Square Drive, MD 21237

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
E2.03B	15025P00
JOB ORDER NO.	
249-218-0100-0614	
SHEET 311 OF 359	
DRAWING NO.	
2015-1949	
FILE NO.	

BKMP 13063.01



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

GENERAL NOTES:

1. SMOKE DUCT DETECTORS ARE SUPPLIED BY ELECTRICAL CONTRACTOR AND INSTALLED IN DUCT BY MECHANICAL CONTRACTOR. FINAL SYSTEM CONNECTIONS BY ELECTRICAL CONTRACTOR.

DRAWING NOTES:

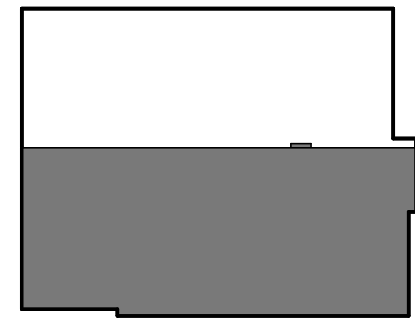
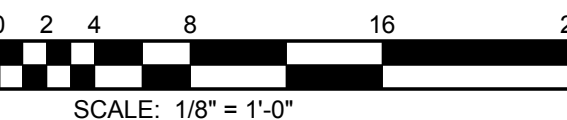
- 1 FIRE ALARM SYSTEM NAC PANEL(S).
2 DUCT SMOKE DETECTOR FOR AHU-2 SUPPLY.
3 DUCT SMOKE DETECTOR FOR AHU-2 RETURN.
4 CONTROL MODULE FOR CONTROL OF FIRE/SMOKE DAMPER. PROVIDE CONTROL WIRING TO AUTOMATICALLY CLOSE FIRE/SMOKE DAMPER SUPPLY UPON ACTIVATION OF ASSOCIATED DUCT SMOKE DETECTOR. SEE SMOKE DAMPER WIRING DETAIL ON SHEET E7.02.
5 CONTROL MODULE FOR CONTROL OF FIRE/SMOKE DAMPER. PROVIDE CONTROL WIRING TO AUTOMATICALLY CLOSE FIRE/SMOKE DAMPER RETURN UPON ACTIVATION OF ASSOCIATED DUCT SMOKE DETECTOR. SEE SMOKE DAMPER WIRING DETAIL ON SHEET E7.02.
6 CEILING MOUNTED FIRE ALARM VISUAL DEVICE.
7 PROVIDE DEVICE QUANTITIES AS REQUIRED.

LEVEL 2 'B' ROOM LIST

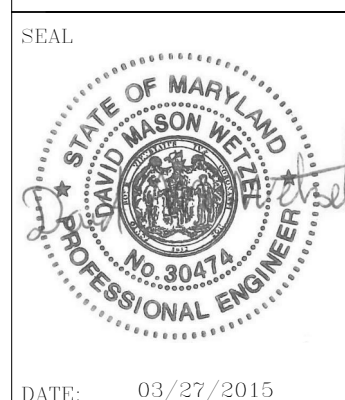
201	RECEPTION
202	OFFICE ASSISTANTS
203	ADOLESCENT GROUP ROOM
204	ADOLESCENT WAITING
205	COUNSELOR OFFICE
206	COUNSELOR OFFICE
207	INTAKE ROOM
208	COUNSELOR OFFICE
209	COUNSELOR OFFICE
210	TOILET
211	COUNSELOR OFFICE
212	ANTE RM
213	COUNSELOR OFFICE
214	TOILET
215	CLINICAL SUPERVISOR'S OFFICE
216	MANAGER'S OFFICE
217	COUNSELOR OFFICE
218	TOILET
219	ANTE RM
220	ADULT GROUP ROOM
220A	CLOSET
221	TOILET
222	COUNSELOR OFFICE
223	COUNSELOR OFFICE
224	ADULT WAITING
225	STAFF CLOSET
226	COUNSELOR OFFICE
227	FILES
228	CORRIDOR
229	BIO HAZARD
230	OFFICE
230A	AUDIOLOGY BOOTH & CONTROLS
231	ADMIN/ FILES

LEVEL 2 'B' ROOM LIST

240	MEN'S RESTROOM
241	RECYCLING
242	ELEC
243	AV/IT
244	WOMEN'S RESTROOM
250	STAFF WORK
250A	SUPERVISOR
250B	ADMIN
250C	MEETING ROOM
250D	PRIVATE CALLS
250E	PRINT/COPY
250F	FILES
250G	PRIVATE CALLS
250H	STORAGE
250I	STORAGE - TODDLER FURN.
251	WIC WAITING
252	PLAY AREA
253	DISTRIBUTION SUPPLIES - PAPER PRODUCTS
254	BUILDING MANAGER
294	H.K.
C201	CORRIDOR
C204	CORRIDOR
C205	CORRIDOR
EL-06	ELEC. CLOSET
EL-07	ELEC. CLOSET
ELEV 2	ELEVATOR
L201	LOBBY
S201	STAIR #1



BID SET 06/16/15

<div>SEAL</div> <div></div> <div>DATE: 03/27/2015</div>	PROFESSIONAL CERTIFICATION		AS - BUILT / REVISION		DATE	P.W.A. NO.	KEY SHEET	POSITION SHIT	DRAWING SCALE	APPROVED BY: _____ DIRECTOR DATE: _____ PROPERTY MANAGEMENT APPROVED BY: _____ CHIEF DATE: _____	
	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.		<div><div></div><div></div><div></div><div></div></div>			R.O.W. NO.		PLAN SCALE: _____			
	LICENSE NO. 30474 EXPIRATION DATE 01/23/2017							PROFILE SCALE: _____			
	ENGINEER: DAVID M. WETZEL		BUREAU OF ENGINEERING AND CONSTRUCTION		HIGHWAYS		STRUCTURES	STORM DRAINS	SEWER		WATER
	DSGN BY: TMS		REVIEWED BY: _____								
	DWN BY: TMS		DATE REVIEWED: _____								
	CHKD BY: DMW										

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE, PROPERTY MANAGEMENT
Eastern Family Resource Center
PART LEVEL 2 FLOOR PLAN 'B' - FIRE ALARM

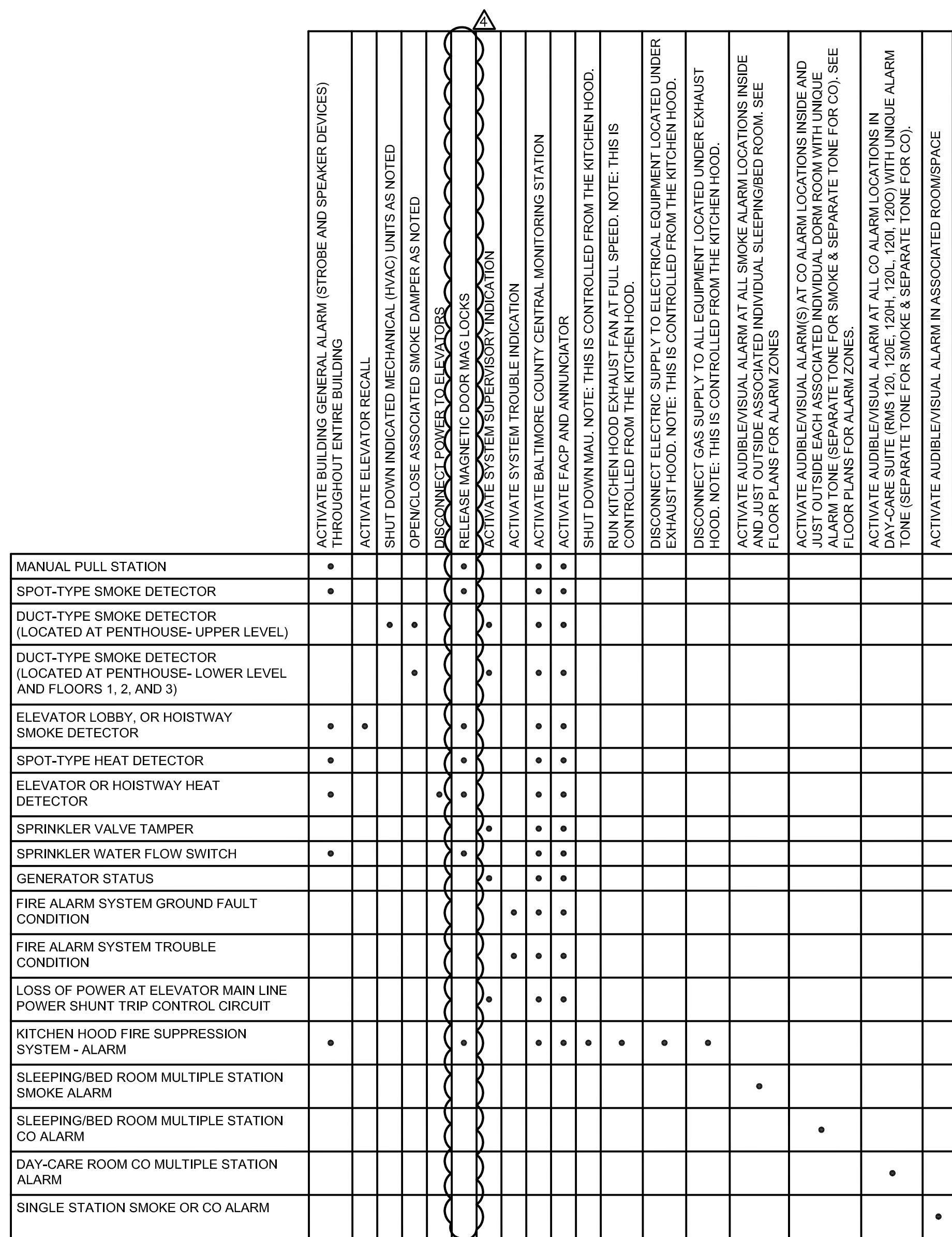
9150 Franklin Square Drive, MD 21237

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
E4.02B	15025P00
JOB ORDER NO.	249-218-0100-0614
SHEET 316 OF 359	DRAWING NO.
2015-1954	FILE NO.



BRM 13063.01

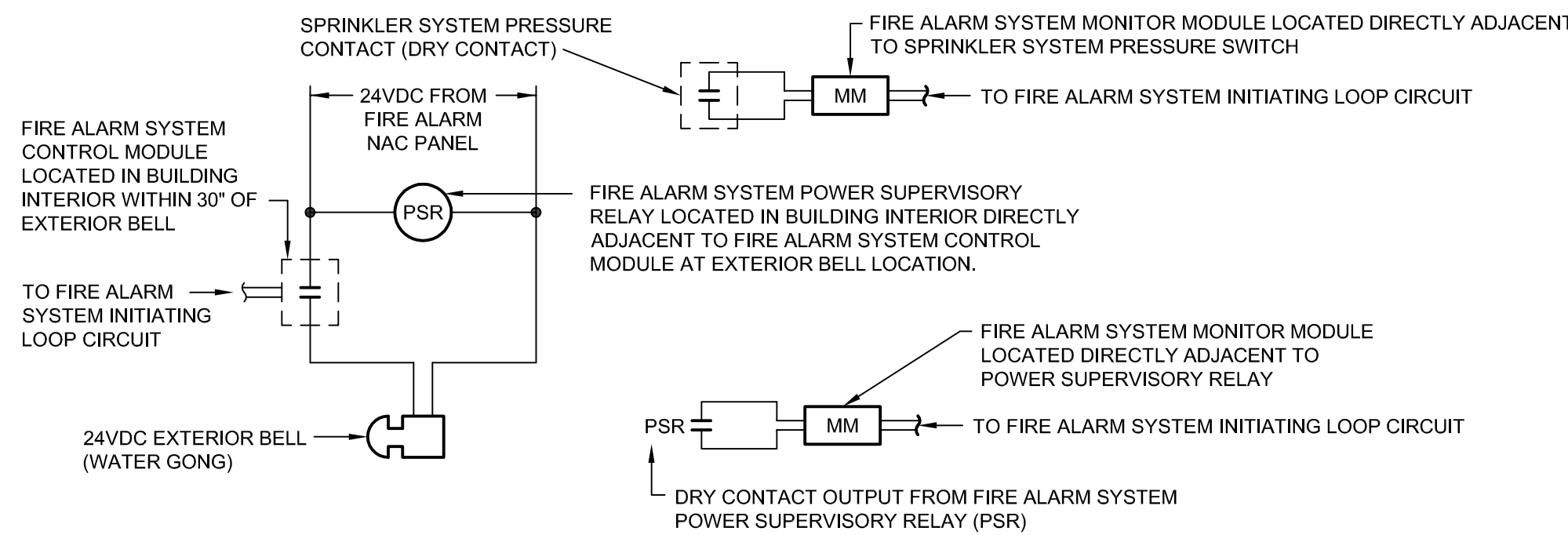


2 FIRE ALARM RISER OPERATION MATRIX

SCALE: NONE

FIRE ALARM RISER OPERATION MATRIX

- SCALE: NONE



ELECTRIC WATER GONG CONTROL WIRING DIAGRAM

SCALE: NONE

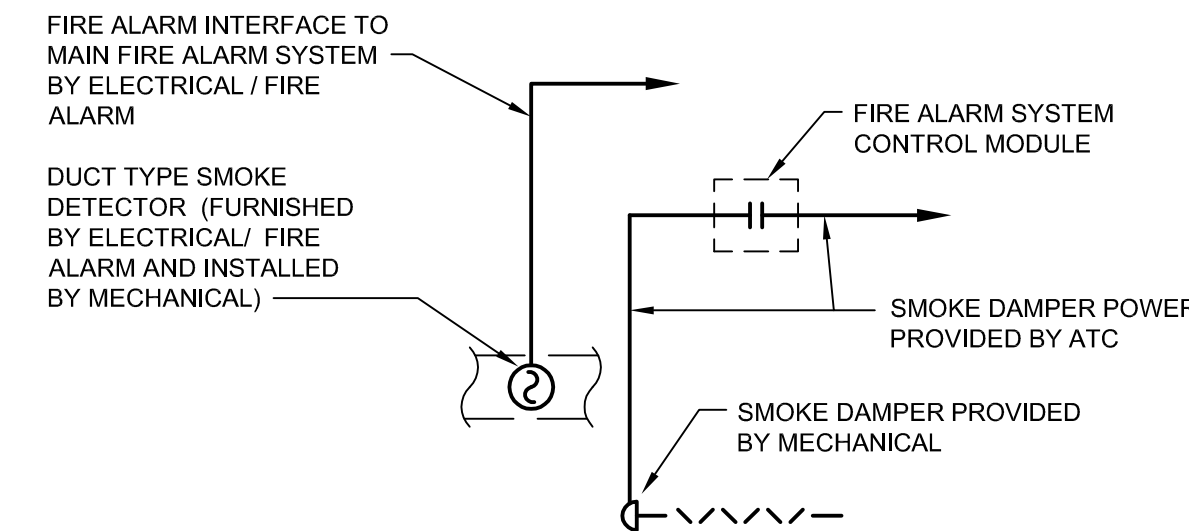
SEQUENCE OF OPERATION:

1. ACTIVATION OF SPRINKLER SYSTEM LOW PRESSURE WILL OPERATE BELL THROUGH FIRE ALARM SYSTEM.
2. BELL 24VDC POWER IS MONITORED THROUGH FIRE ALARM SYSTEM.
3. LOSS OF 24VDC POWER AT EXTERIOR BELL LOCATION WILL CAUSE THE FIRE ALARM SYSTEM POWER SUPERVISORY RELAY (PSR) TO CHANGE STATUS WHICH WILL RESULT IN A SUPERVISORY SIGNAL AT THE FIRE ALARM SYSTEM CONTROL PANEL.

NOTES: 1) SMOKE DAMPER SHALL CLOSE WHEN PRODUCTS OF COMBUSTION ARE SENSED BY SMOKE DETECTOR.


NOTES: 1) SMOKE DAMPER SHALL CLOSE WHEN PRODUCTS OF COMBUSTION ARE SENSED BY SMOKE DETECTOR.

- BID SET 06/16/15

SUBDIVISION:

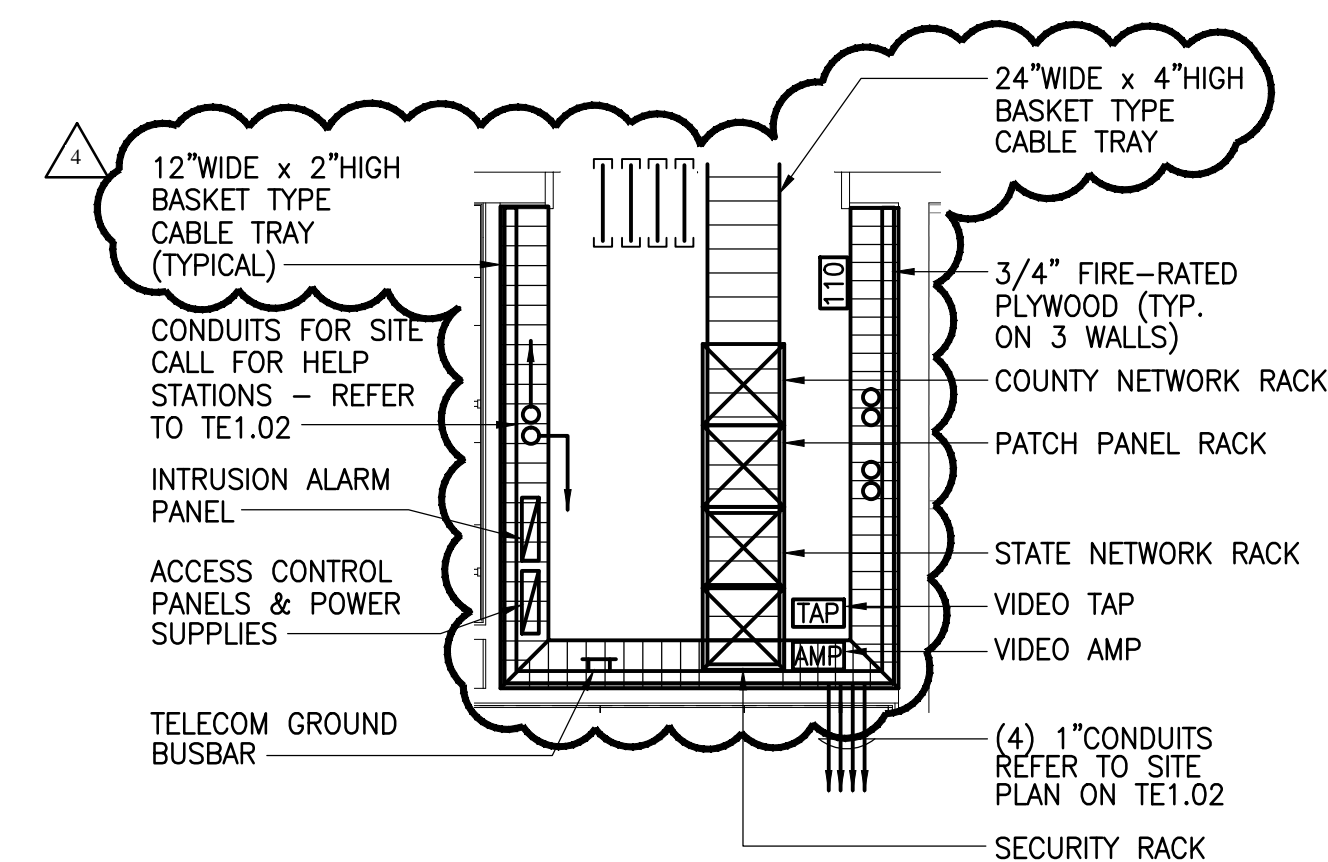
Eastern Family Resource Center
FIRE ALARM RISER DIAGRAM

ELECT. DISTRICT NO. 14C6

SHEET DESIGNATION	CONTRACT NO.
E7.02	15025P00
	JOB ORDER NO.
	249-218-0100-0614
	SHEET 327 OF 359
	DRAWING NO.
	2015-1965
	FILE NO.

- ① BALTIMORE COUNTY HAS A 300 FOOT LIMITATION ON ALL CAT 6 CABLING.
- ② CONNECT TO TEMPERATURE SENSOR.
- ③ MOUNT BEHIND SECURITY MONITOR.
- ④ MOUNT ABOVE COUNTER.
- ⑤ PROVIDE RADIUS BENDS AT CABLE TRAY INTERSECTION.

SCALE: $1/8'' = 1'-0''$

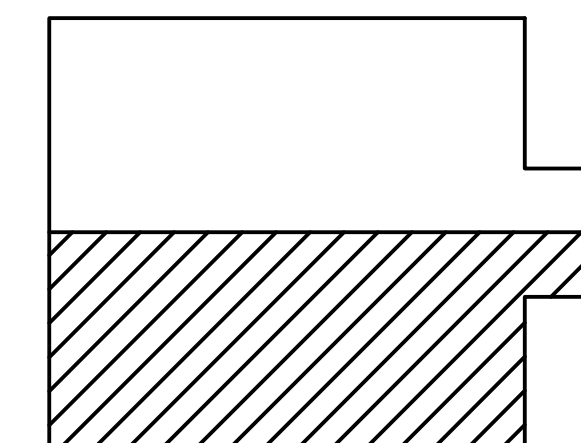


SCALE: 1/4" = 1'-0"


[illegible]

Eastern Family Resource Center
PARTIAL FLOOR PLAN – LEVEL 1 AREA B – TELECOM

ELECT. DISTRICT NO. 14C6



A number line from 0 to 10. The segment from 0 to 8 is shaded black. The segment from 8 to 10 is divided into two equal parts, each shaded white and black alternately.

SHEET DESIGNATION	CONTRACT NO.
TE2.11B	15025P00
	JOB ORDER NO.
	249-218-0100-0614
	SHEET 340 OF 359
	DRAWING NO.
	2015-1978
	FILE NO.