

ADDENDUM NO. 4

**Chattanooga Public Library
HVAC and Electrical Renovations, Phase Two
City Contract No. L-19-001-201
Chattanooga, Tennessee**

Date: 30 Oct 2019

The following amendments to the specifications and/or revisions to the drawings shall be a part of the contract documents. Bidders therefore shall consider them when preparing cost estimates, and the contractors shall be bound by them.

SPECIFICATIONS

Section 02 41 00 Demolition and Protection

Re-issued as part of this addendum. The change is clouded in red.

DRAWINGS

Sheet M301 HVAC Schedules

Re-issued as part of this addendum. All revisions are clouded.

Sheet E-101 Electrical First Floor

Re-issued as part of this addendum. All revisions are clouded.

Sheet E-102 Electrical Second Floor

Re-issued as part of this addendum. All revisions are clouded.

Sheet E-103 Electrical Third Floor

Re-issued as part of this addendum. All revisions are clouded.

Sheet E-104 Electrical Fourth Floor

Re-issued as part of this addendum. All revisions are clouded.

Existing Fire Alarm Cabling Plan

Two drawings are attached that indicate the approximate location of fire alarm cabling currently installed for the Contractor's use. This is the extent of know cabling. All additional cabling shall be provided as part of this work.

SECTION 02 41 00
DEMOLITION AND PROTECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Selective demolition of building elements for alteration purposes.
- B. Description of asbestos contaminated drywall (NOT IN THIS CONTRACT - removal by separate asbestos abatement contractor)
- C. Description of asbestos containing wall panels (NOT IN THIS CONTRACT - removal by separate asbestos abatement contractor).
- D. Protection of existing roofing until work in mechanical room is complete.
- E. Protection of existing furniture, fixtures and equipment.
- F. Equipment and materials to remain in possession of the Owner

1.02 RELATED REQUIREMENTS

- A. Section 01 10 00 - Scope of Work - Summary - Sequence: Sequencing and staging requirements.
- B. Section 01 10 00 - Scope of Work - Summary - Sequence: Description of items to be salvaged or removed for re-use by Contractor.
- C. Section 01 50 00 - Temporary Facilities and Controls: Protective barriers, where required for drywall removal will be provided by the separate asbestos abatement contractor.
- D. Section 01 60 00 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- E. Section 01 70 00 - Execution and Closeout Requirements:
- F. Section 01 74 19 - Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Demolition Plan:
 - 1. Submit list of locations for removal of contaminated drywall by a separate asbestos abatement contractor as the work progresses. Contractor shall identify locations for removal of the maximum reasonable number of locations at one time to minimize mobilization by the Asbestos Abatement Contractor.
 - 2. See Part 3 for more details on removal of drywall.

PART 2 PRODUCTS

2.01 NOT USED

PART 3 EXECUTION

3.01 SCOPE

- A. Remove portions of existing building components as indicated on the drawings.
 - 1. Where a system is being removed, contractor shall remove all components where exposed unless otherwise indicated in this section..
 - 2. Remove system components behind walls or above ceilings wherre specifically noted on drawings..

- B. Removal of Drywall: The original drywall assembly has been tested. The joint compound used at seams and screw hole cover contains 2% chrysotile asbestos.
 - 1. The Contractor shall endeavor to cut holes in drywall for ductwork, piping and wiring without disturbing the joint compound.
 - 2. Where drywall must be cut through painted walls or through unfinished walls where the joint compound cannot be avoided, drywall materials will be removed by a trained asbestos abatement specialist.
 - a. The general contractor shall be responsible for identifying the location of holes to be cut.
- C. Removal of cement asbestos wall panels.
 - 1. Two full height 48" wide cement asbestos panels will be removed from the Fourth Floor North HVAC well by a trained asbestos abatement contractor NOT IN THIS CONTRACT.
- D. Remove other items indicated, for salvage, relocation, and recycling.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Provide, erect, and maintain temporary barriers and security devices.
 - 2. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 3. Do not close or obstruct roadways or sidewalks without permit.
 - 4. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.

3.03 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
- C. Services (Including but not limited to HVAC, Plumbing, and Electrical): Remove existing systems and equipment as indicated.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 - 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - 3. Verify that abandoned services serve only abandoned facilities before removal.
 - 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- D. Protect existing work to remain.
 - 1. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 2. Repair adjacent construction and finishes damaged during removal work.
 - 3. Patch as specified for patching new work.

3.04 PROTECTION OF EXISTING ROOF

- A. The Contractor shall be responsible for protecting the existing roof during demolition and installation of new materials.
- B. The drawings describe the minimum protection required during demolition and construction.

- C. Remove the roof protection system after completing construction.

3.05 PROTECTION OF EXISTING FURNITURE, FIXTURES AND EQUIPMENT

- A. Much of the furniture, fixtures and equipment (FF&E) will remain in the areas where ceilings are removed to access the construction work.
- B. The Contractor shall be responsible to move these items as needed for access, protect them and re-locate the items after completion of construction.
- C. The FF&E shall be protected from dust and debris with 6 mil polyethelene taped as necessary to prevent accidental removal. All protection material shall be removed after the area is completed.

3.06 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Remove from site all materials not to be reused on site; comply with requirements of Section 01 74 19 - Waste Management.
- C. Leave site in clean condition, ready for subsequent work.
- D. Clean up spillage and wind-blown debris from public and private lands.

3.07 EQUIPMENT AND MATERIALS TO REMAIN IN POSSESSION OF THE OWNER

- A. All items identified to remain in the Owner's possession shall be disconnected and turned over to the Owner. The Owner will be responsible for transporting to his storage location.
 - 1. Existing air compressor currently used for the pneumatic controls shall remain in place.
 - 2. Existing electrical circuit breakers as selected by the Owner from panels being removed.
 - 3. Access panel hardware and components of concealed spline ceilings.
 - 4. Any mechanical grilles or diffusers identified in advance by the Owner as re-useable.
 - 5. Any electrical light fixtures or other electrical devices identified in advance by the Owner as re-useable.

END OF SECTION

NEW AIR HANDLING UNIT SCHEDULE

MARK	MAKE	MODEL	SUPPLY FAN				CHILLED WATER COIL					HOT WATER COIL		WEIGHT (LB)	ELECTRICAL			
			CFM SA	MIN CFM OA	MOTOR HP	E.S.P. (IN. H2O)	TC (MBH)	SC (MBH)	EAT DB/WB	LAT DB/WB	GPM	MAX. W.P.D. (FT)	TH (MBH)		GPM	VOLTS /PH	MCA	MCCP
AC-1	YORK	SOLUTION--XTI--51X99	12155	465	20.0	4.20	315	251	73.4/61.1	54.6/52.0	48.1	16.3	NA	3135	460/3	31.3	50.0	
AC-5	YORK	SOLUTION--XTI--54X96	12500	430	15.0	3.00	333	264	73.3/61.2	53.3/51.5	51.1	13.9	NA	2814	460/3	23.3	40.0	
AC-6	YORK	SOLUTION--XTI--30X42	2000	NA	3.0	2.0	53	48	73.2/69.6	50.6/49.6	8.1	2.5	55	2.8	1338	460/3	4.5	8.0
AC-7	YORK	SOLUTION--XTI--45X84	9600	470	15.0	2.2	282	194	73.9/63.6	55.0/53.5	43.2	15	363	18.5	3030	460/3	23.3	40.0
AC-8	YORK	SOLUTION--XTI--45X84	9600	470	15.0	2.2	282	194	73.9/63.6	55.0/53.5	43.2	15	363	18.5	3030	460/3	23.3	40.0
AC-9	YORK	SOLUTION--XTI--45X84	9600	470	15.0	2.2	282	194	73.9/63.6	55.0/53.5	43.2	15	363	18.5	3030	460/3	23.3	40.0
AC-10	YORK	SOLUTION--XTI--39X72	6000	370	7.5	3.1	159	126	74.0/61.6	53.6/51.8	24.4	8.1	NA	1744	460/3	10.8	17.5	

- NOTES:
- PROVIDE MARINE LED LIGHT IN ALL FAN SECTIONS.
 - PROVIDE PERFORATED PANELS IN ALL FAN SECTIONS
 - PROVIDE DOORS ON BOTH SIDE OF THE UNIT, EXCEPT AC-5
 - PROVIDE STAINLESS STEEL DRAIN PANS FOR COIL SECTIONS
 - PROVIDE FACTORY FAN PEIZO RINGS. CONTROLS CONTRACTOR TO INSTALL PRESSURE TRANSDUCER
 - PROVIDE VFD FOR SUPPLY FANS AND SINGLE POINT POWER CONNECTION - VFD PROVIDED BY EITHER EQUIPMENT MANUFACTURER OR MC.
 - CONTRACTOR TO SIZE P TRAPS PER MANUFACTURES RECOMMENDATIONS
 - PROVIDE A MAGNETIC GAGE ACROSS EACH FILTER BANK
 - PROVIDE 2" SPRING ISOLATION
 - SIZE UNIT FOR COIL FACE VELOCITIES UNDER 500 FPM.
 - PROVIDE 1 YEAR PARTS AND LABOR WARRANTY BY UNIT MANUFACTURER
 - PROVIDE STARTUP OF VFDS BY UNIT MANUFACTURER
 - DUCT SMOKE DETECTORS REQUIRED IN SA/RA DUCTS FOR ALL UNITS. DETECTORS TO BE INSTALLED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR.
 - PROVIDE WITH FACTORY-MOUNTED GFCI SERVICE OUTLETS.
 - ALL SECONDARY DRAIN PANS SHALL BE OUTFITTED WITH FLOAT SWITCH THAT SHALL SEND AN ALERT TO THE BAS IF A LIQUID LEVEL IS DETECTED IN THE DRAIN PAN AND SWITCH OFF THE UNIT.
 - CONTRACTOR WILL COORDINATE COIL CONNECTION, VFD, ACCESS DOOR LOCATIONS WITH MECHANICAL SHEETS PRIOR TO PURCHASE.
 - BASIS OF SELECTION: 42/56[F] COOLING EWT/LWT, 150[F] HEATING EWT, 68/100[F] HEATING EAT/LAT.
 - PROVIDE ALL WITH MERV8 FILTERS - TOTAL OF 3 ENTIRE SETS.

REV 2 NOTE: NO EQUIPMENT CHANGE, SCHEDULE WAS CUT OFF IN PREVIOUS PDF.

HOT WATER REHEAT VARIABLE VOLUME TERMINAL UNIT SCHEDULE

TAG	AHU TAG	ROOM	SIZE UNIT	CFM		HW COIL						
				MAX	MIN	CFM	MBH	EAT/LAT	EWT	GPM	WPD	Rows
VAV-1-1	AC-1	1-58	16	2600	800	1300	56.4	55/95	150	7.1	2.82	2
VAV-1-2	AC-1	1-46	06	300	165	165	7.6	55/95	150	0.8	0.12	2
VAV-1-3	AC-1	1-45,58	10	850	550	550	23.9	55/95	150	2.7	0.5	2
VAV-1-4	AC-1	1-45	05	150	65	82	3.7	55/95	150	0.4	0.08	1
VAV-2-1	AC-5	2-28	09	700	200	350	16.2	55/95	150	1.21	0.16	2
VAV-2-2B	AC-5	2-48	14	1875	800	940	40.8	55/95	150	3.1	0.43	2
VAV-2-2C	AC-5	2-48	12	1250	688	688	29.8	55/95	150	2.6	0.52	2
VAV-2-2D	AC-5	2-48	09	875	481	481	50.9	55/95	150	2	0.3	2
VAV-2-3	AC-5	2-38	07	450	175	225	9.8	55/95	180	1.1	0.65	1
VAV-3-1	AC-5	3-24,25,26,27,34,45	10	740	360	520	22.4	55/95	180	2.3	0.37	2
VAV-3-2	AC-5	3-28	14	1250	580	688	29.9	55/95	150	1.9	0.22	2
VAV-3-3	AC-5	3-39,46	09	850	360	460	20.3	55/95	150	1.9	0.29	2
VAV-3-4	AC-5	3-57,58	14	1500	450	750	32.5	55/95	150	2.1	0.26	2
VAV-3-5	AC-5	3-67	07	450	165	225	10.8	55/95	150	0.9	0.19	2
VAV-3-6	AC-5	3-68	12	700	385	385	17.5	55/95	150	1.2	0.18	2
VAV-G-2	AC-1	B-22	12	1000	550	550	23.9	55/95	150	1.7	0.31	2
VAV-G-3	AC-1	B-23	06	175	50	80		55/95	150			1
VAV-G-4	AC-1	B-22	16	2600	1430	1430	62	55/95	150	9.4	2.68	2
VAV-G-5	AC-1	B-42	06	200	60	100	4.3	55/95	150	0.5	0.14	1
VAV-G-6	AC-1	B-55	10	550	230	275	11.9	55/95	150	1.2	0.1	2
VAV-G-7	AC-1	B-88	16	2430	730	1220	52.9	55/95	150	5.9	2.01	2
VAV-G-8	AC-1	B-64,65,75,98	10	900	495	495	21.5	55/95	150	2.1	0.3	2

- NOTES:
- MAXIMUM AIR STATIC PRESSURE DROP NOT TO EXCEED 0.75 IN. W.C.
 - LINE SIZES ARE 1/2" EXCEPT WHERE SHOWN OTHERWISE.
 - MAX. NC RATING NOT TO EXCEED NC 35.
 - PROVIDE TEMPERATURE SENSORS FOR EACH VAV.
 - PROVIDE 120/24V STEP DOWN TRANSFORMER FOR EACH BOX. COORDINATE W/ CONTROLS AND ELECTRICAL CONTRACTORS.
 - PROVIDE 2-WAY CONTROL VALVES FOR EACH VAV BOX WITH A HEATING COIL.
 - PIPE SIZES ARE AS FOLLOWS: 1/2": 0-1.25 GPM; 3/4": 1.26-3.5 GPM; 1": 3.51-7.4 GPM; 1-1/4": 7.41-13 GPM; 1-1/2": 13.1-20 GPM
 - CONTROLS SHALL BE EITHER FACTORY MOUNTED OR MOUNTED IN FIELD.
 - CONTRACTOR WILL COORDINATE COIL CONNECTION, ACCESS DOOR LOCATIONS WITH MECHANICAL SHEETS PRIOR TO PURCHASE.
 - BASIS OF DESIGN IS A TITUS DESV

ELECTRIC REHEAT VARIABLE VOLUME TERMINAL UNIT SCHEDULE

NO.	SERVED BY AHU	SPACE(S) SERVED	INLET DIA. (INCH)	CFM		HEATING CFM	kW	MCA	MCCP
				CFM MAX	CFM MIN				
VAV-G-1	AC-1	B-01	06	400	150	200	3.5	21	25
VAV-1-5	AC-10	1-40,51,61	09	900	300	450	6	36.1	40
VAV-2-2A	AC-5	2-48	12	1250	500	625	8	48.1	50
VAV-2-4	AC-10	2-31	06	250	105	110	1.5	9	15
VAV-2-5	AC-10	2-51,61,62	09	840	325	420	5	30	30
VAV-2-6	AC-10	2-71	06	250	138	150	2	12	15
VAV-2-7	AC-10	2-81,91	12	1200	330	600	4.5	48.1	50
VAV-3-7	AC-10	3-01,21	09	750	325	350	4.5	27	30
VAV-3-8	AC-10	3-31	08	600	330	330	4.5	27	30
VAV-3-9	AC-10	3-41,51	07	460	230	240	3	18	20
VAV-3-10	AC-10	3-71,81,82	07	480	150	240	3	18	20
VAV-3-11	AC-10	3-91	06	260	150	150	2	12	15

- NOTES:
- MAXIMUM AIR STATIC PRESSURE DROP NOT TO EXCEED 0.75 IN. W.C.
 - MAX. NC RATING NOT TO EXCEED NC 35.
 - PROVIDE TEMPERATURE SENSORS FOR EACH VAV.
 - PROVIDE 120/24V STEP DOWN TRANSFORMER FOR EACH BOX. COORDINATE W/ CONTROLS AND ELECTRICAL CONTRACTORS.
 - CONTROLS SHALL BE EITHER FACTORY MOUNTED OR MOUNTED IN FIELD.
 - PROVIDE SOUND ATTENUATOR FOR EACH SCR VAV
 - CONTRACTOR WILL COORDINATE ACCESS DOOR LOCATIONS WITH MECHANICAL SHEETS PRIOR TO PURCHASE.
 - ALL UNITS SHALL BE 208/1 AND BE SCR-CONTROLLED
 - BASIS OF DESIGN IS A TITUS DESV

RETROFIT AIR HANDLING UNIT SCHEDULE - EXISTING DATA

MARK	MAKE	MODEL/SN	SUPPLY FAN		CHILLED WATER COIL				HOT WATER COIL			ELECTRICAL
			CFM	MOTOR HP	EAT (DB/WB)	LAT (DB/WB)	TC (MBH)	GPM	EAT /LAT	TH (MBH)	GPM	
AC-2	TRANE	CLIMATE CGR L-6/K297001	2400	1.5	80/61	50/48	79	19.2	65/89	62	2.7	460/3
AC-3	TRANE	UNITRANE C34DL08U/S5J353105U	550	-	-	-	-	-	-	8.7	4	460/3
AC-4	TRANE	CLIMATE CHANGER M-6/K297008	2145	1.5	79.4/64.5	49.8/49.6	91	20	65/100	81	3	460/3
AC-11	TRANE	CCDB08AN9M/K90D12913	5800	5.0	-	-	-	-	-	-	-	460/3
AC-12	TRANE	CCDB08AN9M/K90D12915	5800	5.0	-	-	-	-	-	-	-	460/3

- NOTES:
- PROVIDE NEW ITEMS FOR EACH UNIT:
 - NEW COOLING COIL, HEATING COIL, CONTROL AND SHUTOFF VALVES FOR EACH.
 - NEW INVERTER-RATED FAN MOTOR AND VFD, FAN BEARINGS.
 - NEW STAINLESS STEEL DRAIN PAN AND FLOAT SWITCH.
 - BIPOLAR IONIZATION FILTER - SEE AC AIR PURIFIER SCHEDULE
 - INTEGRATE INTO NEW BUILDING AUTOMATION SYSTEM.
 - OMITTED VALUES ARE NOT AVAILABLE FROM EXISTING DOCUMENTATION. CONTRACTOR SHALL INSPECT UNIT AND PROVIDE REPLACEMENT.

AC AIR PURIFIER SCHEDULE

SERVING MARK	MANF.	MODEL	QTY	TOTAL WATTS
AC-1	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	3	30
AC-2	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	1	10
AC-3	GLOBAL PLASMA SOLNS.	GPS-FC	1	0.12
AC-4	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	1	10
AC-5	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	3	30
AC-6	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	1	10
AC-7	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	2	20
AC-8	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	2	20
AC-9	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	2	20
AC-10	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	2	20
AC-11	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	2	20
AC-12	GLOBAL PLASMA SOLNS.	GPS-DM48-AC	2	20

- NOTES:
- CONTROLS CONTRACTOR TO MOUNT UNITS WITHIN AC UNIT PER MANUFACTURER'S RECOMMENDATIONS. CONTROLS CONTRACTOR TO POWER GPS UNIT FROM RESPECTED UNITS' CONTROLS TRANSFORMER AND CONNECT TO BUILDINGS CONTROL SYSTEM SUCH THAT AN ALARM WOULD BE PROVIDED SHOULD GPS UNIT FAIL.
 - BIPOLAR IONIZATION SYSTEMS REQUIRING PERISHABLE GLASS TUBES ARE NOT ACCEPTABLE. CONTRACTOR TO ENSURE THAT ANY SUBSTITUTIONS ARE TO MEET SIZE CONSTRAINTS AND THAT THE REQUIREMENTS IF ASHRAE 62.1 TABLE 6.3 ARE MET.
 - ALL UNITS SHALL BE 24 VAC

VARIABLE REFRIGERANT VOLUME SYSTEM (OUTDOOR UNIT)

MARK	COOLING (MBH)		HEATING		SYSTEM ELECTRICAL			MANF.	MODEL NUMBER	REFR.	NOMINAL TONS
	TOTAL	E.A.D.B. (°F)	MBH	E.A.D.B. (°F)	VOLTS/PH	MCA	MCCP				
HP-G00	12	95.0	-	-	208/1	10	15	LG	LSU120HEV1	R410A	1

- NOTES:
- PROVIDE WITH BACNET INTERFACE CARD, HAIL GUARDS, LOW AMBIENT KIT.
 - PROVIDE HP-301 WITH LONG LINE KIT, WALL MOUNT HANGING BRACKET.
 - PROVIDE HP-G01 WITH SECURITY GRATE TO BE BOLTED TO NEW SERVICE PAD.

VARIABLE REFRIGERANT VOLUME SYSTEM (INDOOR UNITS)

MARK	COOLING (MBH)			HEATING		SYSTEM ELECTRICAL		MANF.	MODEL NUMBER	REFR.
	TOTAL	E.A.D.B. (°F)	AMB. (°F)	MBH	E.A.D.B. (°F)	VOLTS/PH	RATED AMPS			
MINI-G01	12.0	76	95.0	-	-	208/1	-	LG	LSN120HEV1	R410A

- NOTES:
- PROVIDE UNITS WITH BACNET INTERFACE CARD, WIRELESS REMOTE CONTROLLER FOR EACH.
 - PROVIDE EACH UNIT WITH CONDENSATE PUMP, SEE MECHANICAL PLANS FOR CONDENSATE ROUTING.

Number	Description	Date
1	Addendum 3	10/21/2019
2	Addendum 4	10/30/2019



Title:

Sheet No.



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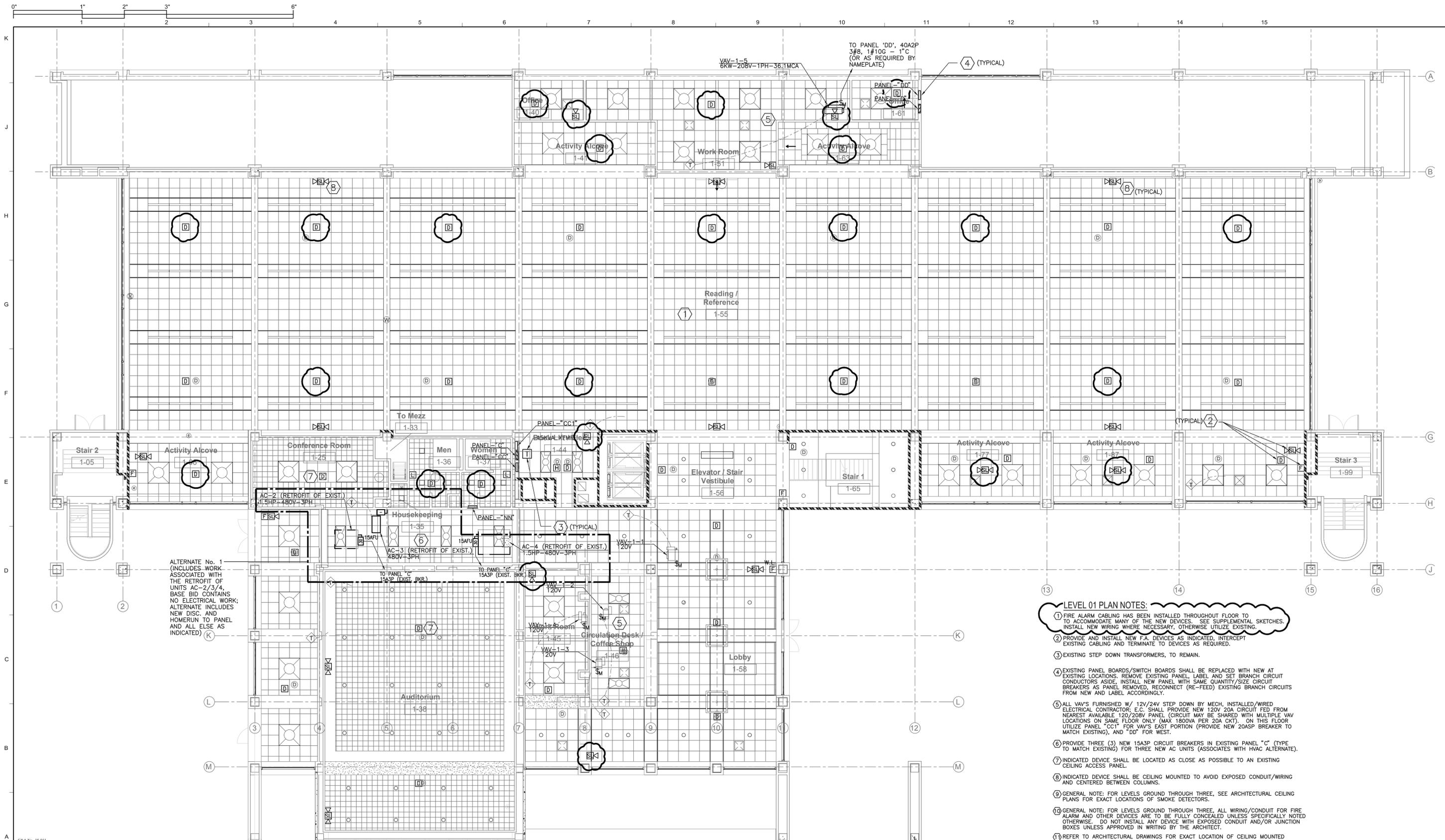
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Chattanooga Public Library
HVAC and Electrical Renovation
 File No. 2180a
 Phase Two

HVAC SCHEDULES

M301



ALTERNATE No. 1
(INCLUDES WORK ASSOCIATED WITH THE RETROFIT OF UNITS AC-2/3/4. BASE BID CONTAINS NO ELECTRICAL WORK; ALTERNATE INCLUDES NEW DISC. AND HOMERUN TO PANEL AND ALL ELSE AS INDICATED)

- LEVEL 01 PLAN NOTES:**
- FIRE ALARM CABLING HAS BEEN INSTALLED THROUGHOUT FLOOR TO ACCOMMODATE MANY OF THE NEW DEVICES. SEE SUPPLEMENTAL SKETCHES. INSTALL NEW WIRING WHERE NECESSARY, OTHERWISE UTILIZE EXISTING.
 - PROVIDE AND INSTALL NEW F.A. DEVICES AS INDICATED, INTERCEPT EXISTING CABLING AND TERMINATE TO DEVICES AS REQUIRED.
 - EXISTING STEP DOWN TRANSFORMERS, TO REMAIN.
 - EXISTING PANEL BOARDS/SWITCH BOARDS SHALL BE REPLACED WITH NEW AT EXISTING LOCATIONS. REMOVE EXISTING PANEL LABEL AND SET BRANCH CIRCUIT CONDUCTORS ASIDE, INSTALL NEW PANEL WITH SAME QUANTITY/SIZE CIRCUIT BREAKERS AS PANEL REMOVED, RECONNECT (RE-FEED) EXISTING BRANCH CIRCUITS FROM NEW AND LABEL ACCORDINGLY.
 - ALL VAV'S FURNISHED W/ 12V/24V STEP DOWN BY MECH, INSTALLED/WIRED ELECTRICAL CONTRACTOR; E.C. SHALL PROVIDE NEW 120V 20A CIRCUIT FED FROM NEAREST AVAILABLE 120/208V PANEL (CIRCUIT MAY BE SHARED WITH MULTIPLE VAV LOCATIONS ON SAME FLOOR ONLY (MAX 1800VA PER 20A CKT). ON THIS FLOOR UTILIZE PANEL "CCI" FOR VAV'S EAST PORTION (PROVIDE NEW 20ASP BREAKER TO MATCH EXISTING), AND "DD" FOR WEST.
 - PROVIDE THREE (3) NEW 15A3P CIRCUIT BREAKERS IN EXISTING PANEL "C" (TYPE TO MATCH EXISTING) FOR THREE NEW AC UNITS (ASSOCIATES WITH HVAC ALTERNATE).
 - INDICATED DEVICE SHALL BE LOCATED AS CLOSE AS POSSIBLE TO AN EXISTING CEILING ACCESS PANEL.
 - INDICATED DEVICE SHALL BE CEILING MOUNTED TO AVOID EXPOSED CONDUIT/WIRING AND CENTERED BETWEEN COLUMNS.
 - GENERAL NOTE: FOR LEVELS GROUND THROUGH THREE, SEE ARCHITECTURAL CEILING PLANS FOR EXACT LOCATIONS OF SMOKE DETECTORS.
 - GENERAL NOTE: FOR LEVELS GROUND THROUGH THREE, ALL WIRING/CONDUIT FOR FIRE ALARM AND OTHER DEVICES ARE TO BE FULLY CONCEALED UNLESS SPECIFICALLY NOTED OTHERWISE. DO NOT INSTALL ANY DEVICE WITH EXPOSED CONDUIT AND/OR JUNCTION BOXES UNLESS APPROVED IN WRITING BY THE ARCHITECT.
 - REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF CEILING MOUNTED DEVICE.
 - UTILIZE EXISTING PULL STATION LOCATIONS, WHERE PULL STATIONS ARE SHOWN AND NO PREVIOUS DEVICE EXISTS; PULL STATIONS SHALL BE WIRELESS AND SHALL COMMUNICATE WITH BUILDING FA SYSTEM.

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ELECTRICAL - 1ST FLOOR
1/8" = 1'-0"

Revisions		
Number	Description	Date
1	Addendum 3	10/21/2019
2	Addendum 4	10/30/2019



Title:

ELECTRICAL - 1ST FLOOR

Sheet No.

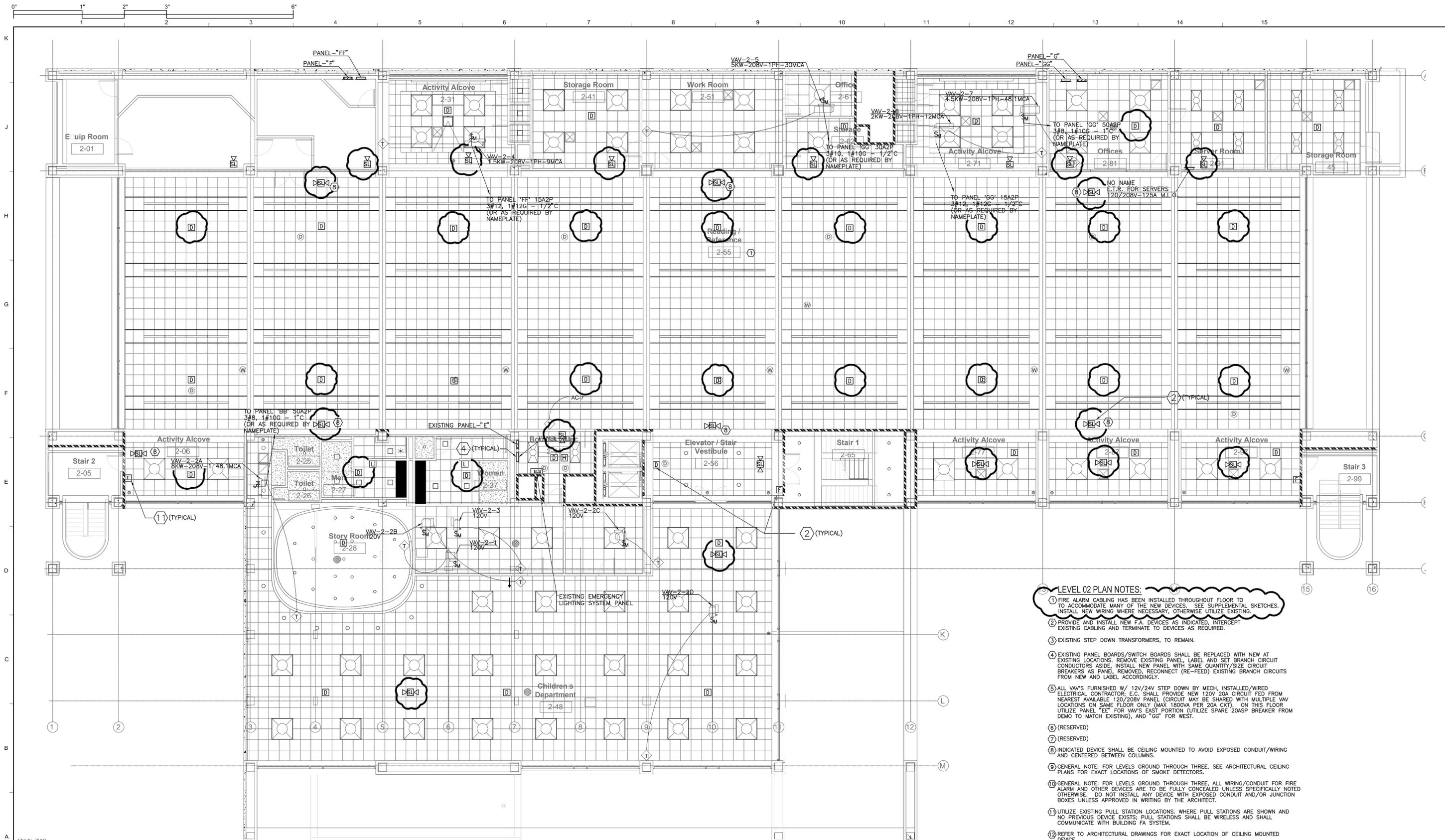
E-101



Derthick Henley & Wilkerson Architects
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**Chattanooga Public Library
HVAC and Electrical Renovation
File No. 2180a
Phase Two**



- LEVEL 02 PLAN NOTES:**
- ① FIRE ALARM CABLING HAS BEEN INSTALLED THROUGHOUT FLOOR TO ACCOMMODATE MANY OF THE NEW DEVICES. SEE SUPPLEMENTAL SKETCHES. INSTALL NEW WIRING WHERE NECESSARY, OTHERWISE UTILIZE EXISTING.
 - ② PROVIDE AND INSTALL NEW F.A. DEVICES AS INDICATED, INTERCEPT EXISTING CABLING AND TERMINATE TO DEVICES AS REQUIRED.
 - ③ EXISTING STEP DOWN TRANSFORMERS, TO REMAIN.
 - ④ EXISTING PANEL BOARDS/SWITCH BOARDS SHALL BE REPLACED WITH NEW AT EXISTING LOCATIONS. REMOVE EXISTING PANEL, LABEL AND SET BRANCH CIRCUIT CONDUCTORS ASIDE, INSTALL NEW PANEL WITH SAME QUANTITY/SIZE CIRCUIT BREAKERS AS PANEL REMOVED, RECONNECT (RE-FEED) EXISTING BRANCH CIRCUITS FROM NEW AND LABEL ACCORDINGLY.
 - ⑤ ALL VAV'S FURNISHED W/ 12V/24V STEP DOWN BY MECH, INSTALLED/WIRED ELECTRICAL CONTRACTOR, E.C. SHALL PROVIDE NEW 120V 20A CIRCUIT FED FROM NEAREST AVAILABLE 120/208V PANEL (CIRCUIT MAY BE SHARED WITH MULTIPLE VAV LOCATIONS ON SAME FLOOR ONLY (MAX 1800VA PER 20A CKT), ON THIS FLOOR UTILIZE PANEL "EE" FOR VAV'S EAST PORTION (UTILIZE SPARE 20ASP BREAKER FROM DEMO TO MATCH EXISTING), AND "GG" FOR WEST.
 - ⑥ (RESERVED)
 - ⑦ (RESERVED)
 - ⑧ INDICATED DEVICE SHALL BE CEILING MOUNTED TO AVOID EXPOSED CONDUIT/WIRING AND CENTERED BETWEEN COLUMNS.
 - ⑨ GENERAL NOTE: FOR LEVELS GROUND THROUGH THREE, SEE ARCHITECTURAL CEILING PLANS FOR EXACT LOCATIONS OF SMOKE DETECTORS.
 - ⑩ GENERAL NOTE: FOR LEVELS GROUND THROUGH THREE, ALL WIRING/CONDUIT FOR FIRE ALARM AND OTHER DEVICES ARE TO BE FULLY CONCEALED UNLESS SPECIFICALLY NOTED OTHERWISE. DO NOT INSTALL ANY DEVICE WITH EXPOSED CONDUIT AND/OR JUNCTION BOXES UNLESS APPROVED IN WRITING BY THE ARCHITECT.
 - ⑪ UTILIZE EXISTING PULL STATION LOCATIONS, WHERE PULL STATIONS ARE SHOWN AND NO PREVIOUS DEVICE EXISTS; PULL STATIONS SHALL BE WIRELESS AND SHALL COMMUNICATE WITH BUILDING FA SYSTEM.
 - ⑫ REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF CEILING MOUNTED DEVICE.

C&A No. 18-011
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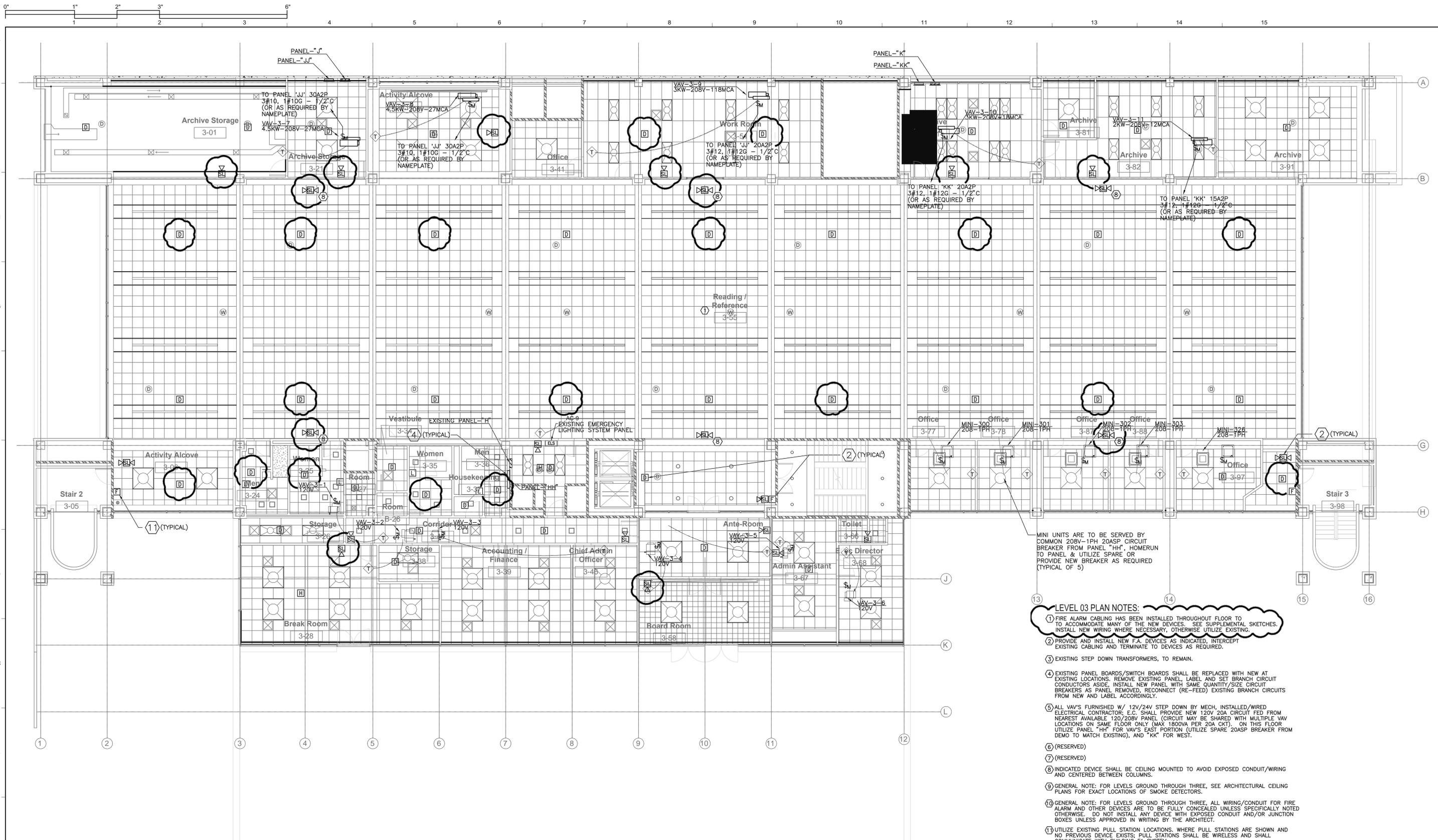
**Chattanooga Public Library
 HVAC and Electrical Renovation
 File No. 2180a
 Phase Two**

Revisions		
Number	Description	Date
1	Addendum 3	10/21/2019
2	Addendum 4	10/30/2019



Title: **ELECTRICAL - 2ND FLOOR**

Sheet No. **E-102**



MINI UNITS ARE TO BE SERVED BY COMMON 208V-1PH 20ASP CIRCUIT BREAKER FROM PANEL "HH", HOMERUN TO PANEL & UTILIZE SPARE OR PROVIDE NEW BREAKER AS REQUIRED (TYPICAL OF 5)

- LEVEL 03 PLAN NOTES:**
- ① FIRE ALARM CABLING HAS BEEN INSTALLED THROUGHOUT FLOOR TO ACCOMMODATE MANY OF THE NEW DEVICES. SEE SUPPLEMENTAL SKETCHES. INSTALL NEW WIRING WHERE NECESSARY, OTHERWISE UTILIZE EXISTING.
 - ② PROVIDE AND INSTALL NEW FA DEVICES AS INDICATED. INTERCEPT EXISTING CABLING AND TERMINATE TO DEVICES AS REQUIRED.
 - ③ EXISTING STEP DOWN TRANSFORMERS, TO REMAIN.
 - ④ EXISTING PANEL BOARDS/SWITCH BOARDS SHALL BE REPLACED WITH NEW AT EXISTING LOCATIONS. REMOVE EXISTING PANEL, LABEL AND SET BRANCH CIRCUIT CONDUCTORS ASIDE. INSTALL NEW PANEL WITH SAME QUANTITY/SIZE CIRCUIT BREAKERS AS PANEL REMOVED, RECONNECT (RE-FEED) EXISTING BRANCH CIRCUITS FROM NEW AND LABEL ACCORDINGLY.
 - ⑤ ALL VAV'S FURNISHED W/ 12V/24V STEP DOWN BY MECH, INSTALLED/WIRED ELECTRICAL CONTRACTOR. E.C. SHALL PROVIDE NEW 120V/20A CIRCUIT FED FROM NEAREST AVAILABLE 120/208V PANEL. CIRCUIT MAY BE SHARED WITH MULTIPLE VAV LOCATIONS ON SAME FLOOR ONLY (MAX 1800VA PER 20A CKT). ON THIS FLOOR UTILIZE PANEL "HH" FOR VAV'S EAST PORTION (UTILIZE SPARE 20ASP BREAKER FROM DEMO TO MATCH EXISTING), AND "KK" FOR WEST.
 - ⑥ (RESERVED)
 - ⑦ (RESERVED)
 - ⑧ INDICATED DEVICE SHALL BE CEILING MOUNTED TO AVOID EXPOSED CONDUIT/WIRING AND CENTERED BETWEEN COLUMNS.
 - ⑨ GENERAL NOTE: FOR LEVELS GROUND THROUGH THREE, SEE ARCHITECTURAL CEILING PLANS FOR EXACT LOCATIONS OF SMOKE DETECTORS.
 - ⑩ GENERAL NOTE: FOR LEVELS GROUND THROUGH THREE, ALL WIRING/CONDUIT FOR FIRE ALARM AND OTHER DEVICES ARE TO BE FULLY CONCEALED UNLESS SPECIFICALLY NOTED OTHERWISE. DO NOT INSTALL ANY DEVICE WITH EXPOSED CONDUIT AND/OR JUNCTION BOXES UNLESS APPROVED IN WRITING BY THE ARCHITECT.
 - ⑪ UTILIZE EXISTING PULL STATION LOCATIONS, WHERE PULL STATIONS ARE SHOWN AND NO PREVIOUS DEVICE EXISTS; PULL STATIONS SHALL BE WIRELESS AND SHALL COMMUNICATE WITH BUILDING FA SYSTEM.
 - ⑫ REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF CEILING MOUNTED DEVICE.

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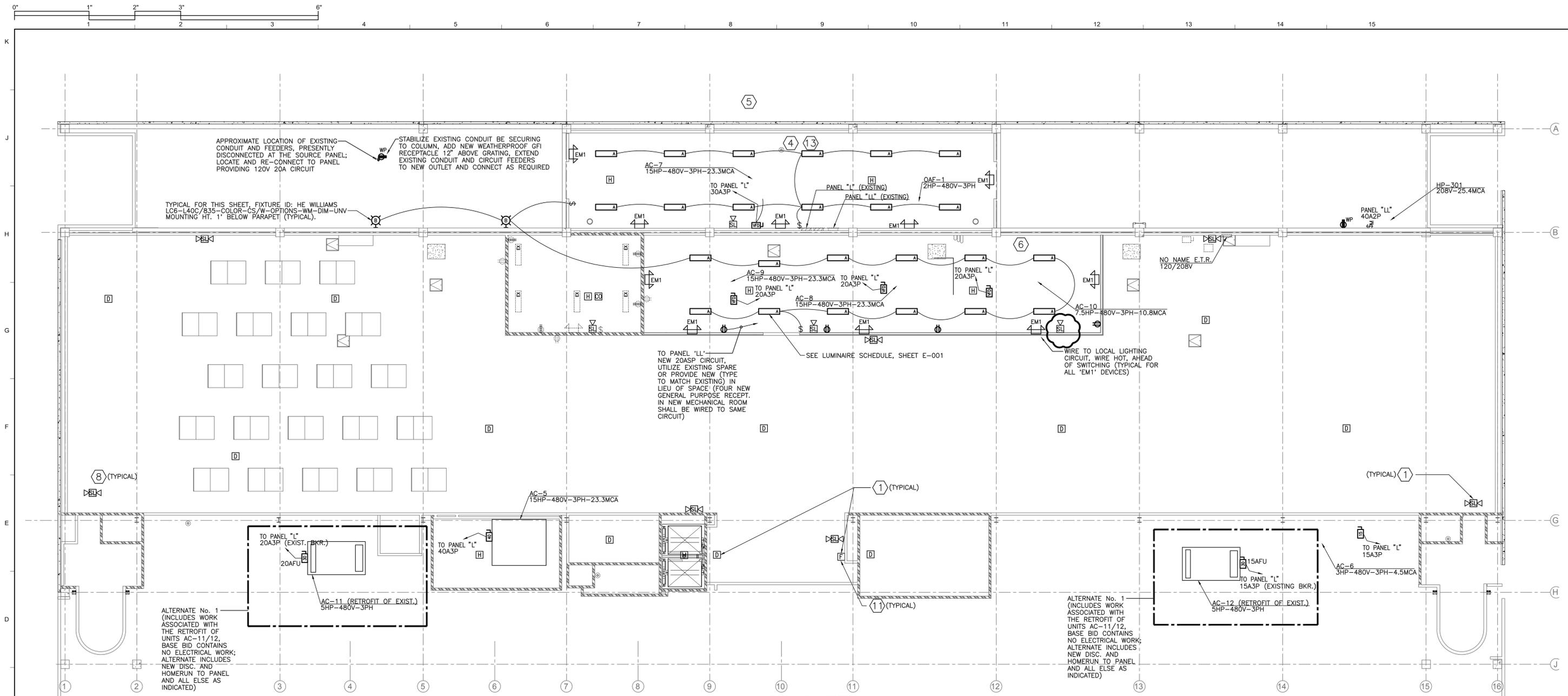
Chattanooga Public Library
HVAC and Electrical Renovation
 File No. 2180a
 Phase Two

Revisions		
Number	Description	Date
1	Addendum 3	10/21/2019
2	Addendum 4	10/30/2019



Title: **ELECTRICAL - 3RD FLOOR**

Sheet No. **E-103**



ELECTRICAL - 4TH FLOOR
1/8" = 1'-0"

LEVEL 04 PLAN NOTES:

- ① NEW FIRE ALARM DEVICES SHALL BE INSTALLED AS PER PLANS AND SPECIFICATIONS. PROVIDE INSTALLED DEVICE AND CABLING AS REQUIRED. HOMERUN TO NEW FACP. CABLING SHALL BE IN CONDUIT IN EXPOSED LOCATIONS (REFER TO SPECIFICATIONS).
- ② EXISTING STEP DOWN TRANSFORMERS, TO REMAIN.
- ③ EXISTING PANEL BOARDS/SWITCH BOARDS SHALL BE REPLACED WITH NEW AT EXISTING LOCATIONS. REMOVE EXISTING PANEL, LABEL AND SET BRANCH CIRCUIT CONDUCTORS ASIDE. INSTALL NEW PANEL WITH SAME QUANTITY/SIZE CIRCUIT BREAKERS AS PANEL REMOVED, RECONNECT (RE-FEED) EXISTING BRANCH CIRCUITS FROM NEW AND LABEL ACCORDINGLY.
- ④ DEMO ALL FEEDERS TO HVAC EQUIPMENT SCHEDULE FOR REMOVAL, PROVIDE NEW FEEDERS TO ALL NEW EQUIPMENT AS REQUIRED.
- ⑤ FOR EXISTING 4TH FLOOR MECHANICAL ROOM AND ROOF WELLS: ALL INTERIOR LIGHTING FIXTURES SHALL BE DEMOLISHED. INSTALL NEW LIGHTING IN THE INDOOR AND OUTDOOR AREAS AS INDICATED, UTILIZE EXISTING CIRCUITING; EXTEND, REWORK, ETC. AS REQUIRED TO ACCOMMODATE NEW LIGHT FIXTURES AND LOCATIONS, PROVIDE NEW SWITCHES AS INDICATED. COORDINATE INTERIOR LIGHT FIXTURE LOCATIONS WITH MECHANICAL EQUIPMENT. SUSPEND SUCH THAT INTERIOR FIXTURES IS APPROX 7'-8" A.F.F. AND AS CLOSE TO EVEN WITH THE BOTTOM OF THE HIGH ELEVATION DUCT AS POSSIBLE.
- ⑥ FOR NEW 4TH FLOOR MECHANICAL ROOM, AND AFFECTED SPACE FORMERLY GENERAL PURPOSE ROOM: RELOCATE EXISTING FIXTURES SO AS TO REMAIN IN GENERAL PURPOSE SPACE, COORDINATE EXACT LOCATIONS WITH OWNER. UTILIZE EXISTING CIRCUITING; EXTEND, REWORK, ETC. AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION OF MECHANICAL SPACE. FIXTURES WITHIN NEW MECH. RM ARE NEW. COORDINATE INTERIOR LIGHT FIXTURE LOCATIONS WITH MECHANICAL EQUIPMENT. SUSPEND SUCH THAT INTERIOR FIXTURES ARE AT HEIGHT A.F.F. AS PER ARCHITECT, AND AS CLOSE TO EVEN WITH THE BOTTOM OF THE HIGH ELEVATION DUCT AS POSSIBLE, FEED FROM NEW 20ASP CIRCUIT IN PANEL 'L'. NEW LIGHTING AT EXTERIOR (TYPE 'C') SHALL BE FED FROM SAME CIRCUIT.
- ⑦ (RESERVED)
- ⑧ EXPOSED CONDUIT FOR SPEAKER/STROBES ON THIS FLOOR SHALL BE ACCEPTABLE.
- ⑨ (RESERVED)
- ⑩ GENERAL NOTE: ALL WIRING/CONDUIT FOR FIRE ALARM AND OTHER DEVICES ARE TO BE FULLY CONCEALED IN GENERAL PURPOSE ROOM UNLESS SPECIFICALLY NOTED OTHERWISE. DO NOT INSTALL ANY DEVICE WITH EXPOSED CONDUIT AND/OR JUNCTION BOXES UNLESS APPROVED IN WRITING BY THE ARCHITECT.
- ⑪ UTILIZE EXISTING PULL STATION LOCATIONS, WHERE PULL STATIONS ARE SHOWN AND NO PREVIOUS DEVICE EXISTS; PULL STATIONS SHALL BE WIRELESS AND SHALL COMMUNICATE WITH BUILDING FA SYSTEM.
- ⑫ REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF CEILING MOUNTED DEVICE.
- ⑬ (DELETED)

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Chattanooga Public Library
HVAC and Electrical Renovation
 File No. 2180a
 Phase Two

Revisions		
Number	Description	Date
1	Addendum 3	10/21/2019
2	Addendum 4	10/30/2019



Title:

ELECTRICAL - 4TH FLOOR

Sheet No.

E-104



City of Chattanooga
Public Library
Lighting
Renovation

1001 Broad Street
Chattanooga, TN 37402

Construction
Document Set

Date: November 8, 2016
Drawn: Author
File: 2150

TN FM #:

Revisions:

- 1 Addendum 2 17 Nov 2016
- 2 Change Order 1 13 Jan 2017
- 4 IT Clarification 2 25 Jan 2017

- = Smokes
- = Strobes
- ⌚ = Loop
- x = Junction
- ⌘ = End of wire

Key Plan



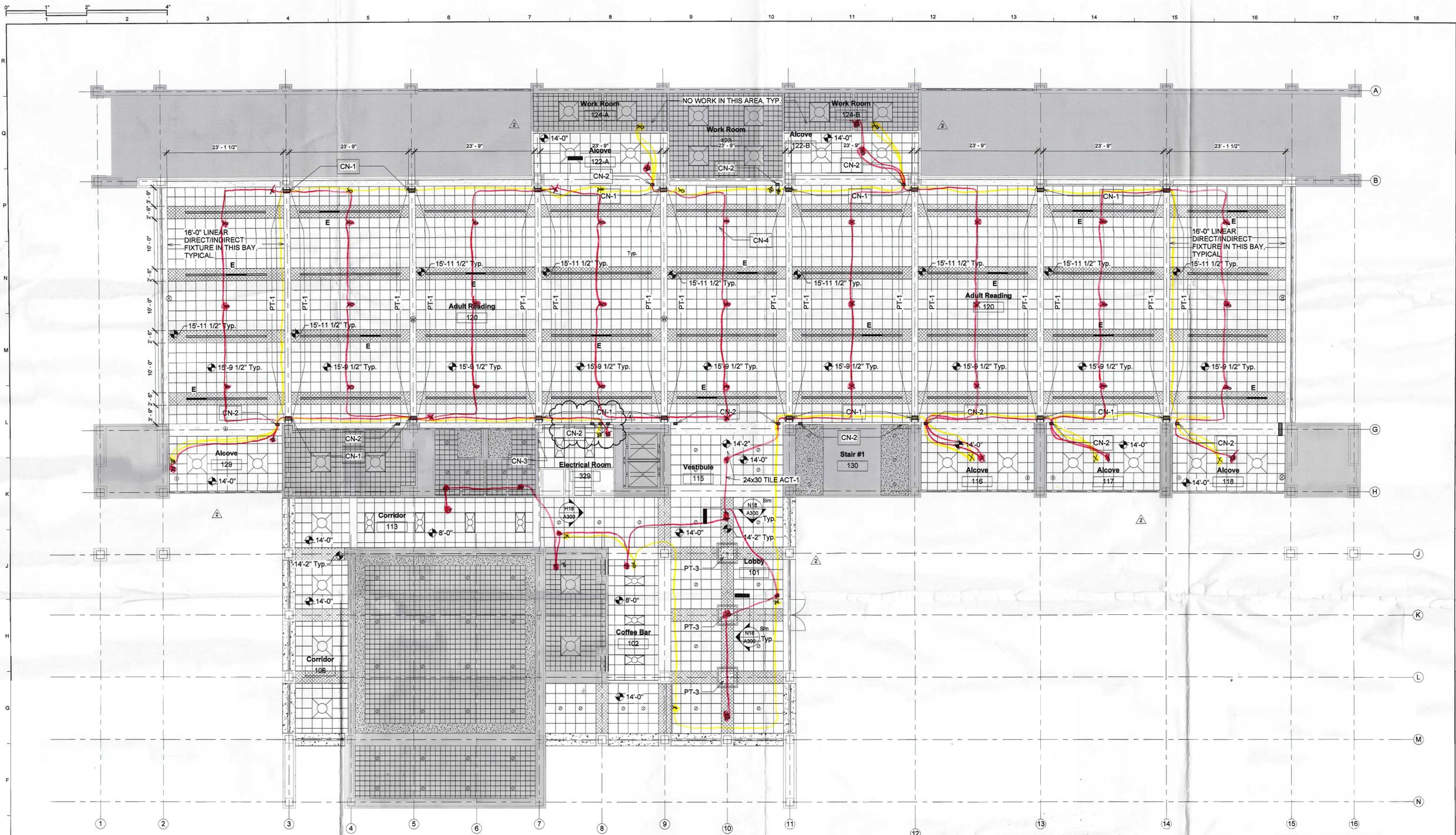
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Title:
Lay-In Reflected
Ceiling Plan Floors
1

Sheet No.

A202



GENERAL CONSTRUCTION NOTES

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND LOCATIONS OF INSTALLATION OF NEW WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES FROM DIMENSIONS SHOWN, NOTED OR REQUIRED. ADJUST DIMENSIONS OF NEW CONSTRUCTION AT DIRECTION OF ARCHITECT TO ALLOW FOR ACTUAL FIELD CONDITIONS.

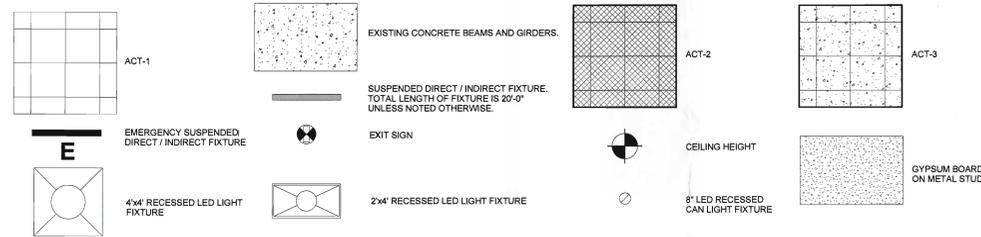
WHERE A DETAIL IS SHOWN OR NOTE IS DESCRIBED FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS EVEN THOUGH NOT SPECIFICALLY NOTED ON THE DRAWINGS.

PENETRATIONS THROUGH FLOOR SLABS AND WALLS SHALL BE CAREFULLY CUT WITH SAWS OR DRILLS AND PATCHED WITH SAME MATERIALS AND THICKNESSES AS EXISTING.

ALL PENETRATIONS OF FIRE RATED FLOOR/CEILING ASSEMBLIES BY ELECTRICAL CABLES AND ELECTRICAL CONDUIT SHALL BE PROTECTED BY THROUGH-PENETRATION FIRESTOP SYSTEMS AS TESTED BY RECOGNIZED TESTING LABORATORIES IN ACCORDANCE WITH (ASTM E814) UL 1479 "FIRE TESTS OF THROUGH-PENETRATION FIRESTOPPS." COPIES OF THE TEST OF EACH TYPE PENETRATION USED SHALL BE SUBMITTED FOR APPROVAL BY THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL PRIOR TO ANY INSTALLATION. COPIES OF THE APPROVED SUBMITTAL SHALL BE MAINTAINED AT THE JOBSITE FOR INSPECTION AT ALL TIMES.

PROVIDE CONTINUOUS SEPARATION BETWEEN DISSIMILAR MATERIALS AS REQUIRED TO PREVENT GALVANIC EROSION. LIGHT FIXTURES, CONTROLS, AND EMERGENCY INVERTERS WILL BE FURNISHED BY OWNER AND CONTRACTOR INSTALLED.

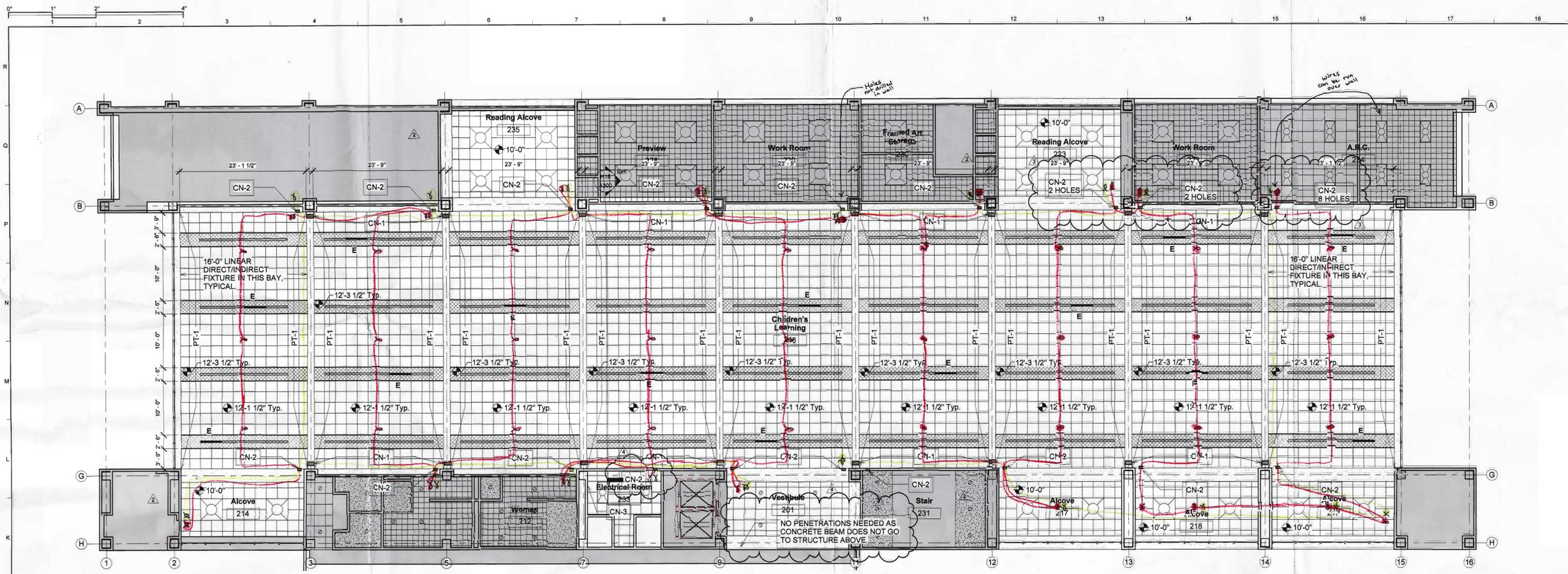
REFLECTED CEILING SYMBOL LEGEND



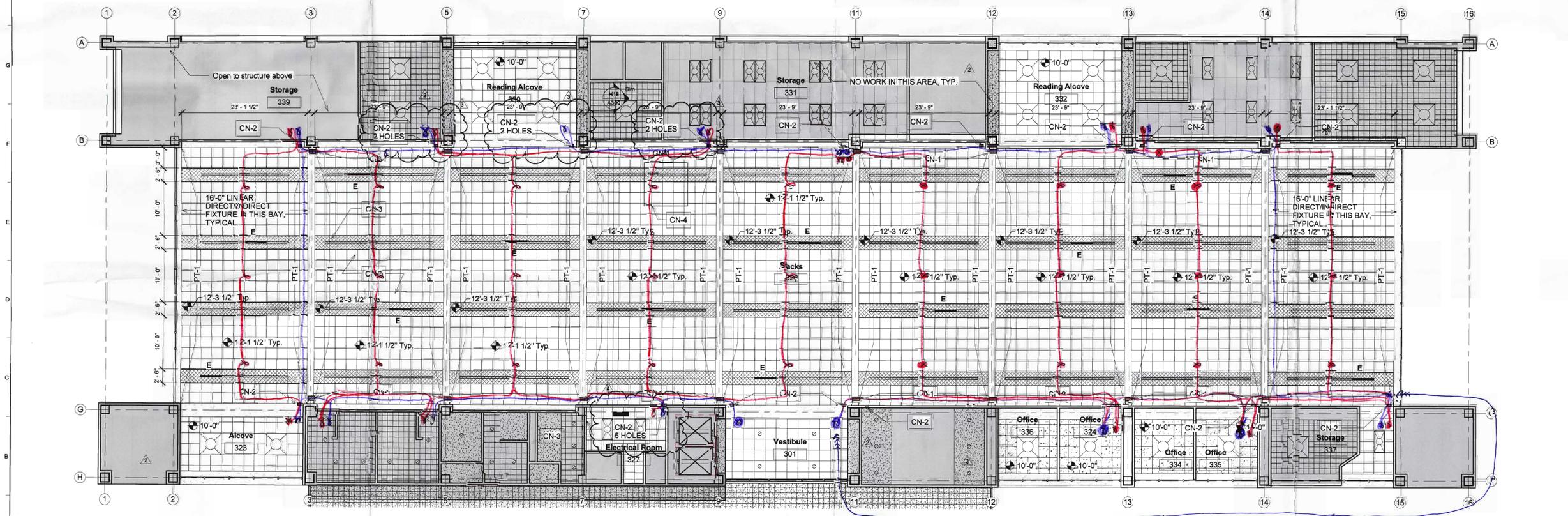
REFLECTED CEILING PLAN NOTES

- CN-1 Four 1 1/4" holes drilled thru conc girder.
- CN-2 Four 1 1/4" holes drilled thru pre-cast concrete spandrel panel.
- CN-3 Patch and repair gypsum board wall at location of electrical cabinet demolition.
- CN-4 Existing ceiling mounted signage to remain.

C18 First Floor RCP
A202 A102 1/8" = 1'-0"



H18 Second Floor RCP
 A203 A300 1/8" = 1'-0"



A18 Third Floor RCP
 A203 A300 1/8" = 1'-0"

Strobe wire from point to point (**) has red wire with blue tape indicated on end of wire, loops, and junctions



Date: November 8, 2016
 Drawn: Author
 File: 2150
 TN FM #:
 Revisions:
 2 Change Order 1 13 Jan 2017
 3 IT Clarification 20 Jan 2017
 4 IT Clarification 2 25 Jan 2017

2nd floor
 = smokes
 = strobes
 3rd floor
 = smokes
 = strobes
 γ = Loop
 X = Junction
 γ = End of wire

