

January 12, 2012

All Interested Bidders:

SUBJECT: Invitation for Bid #11-3669-OV

Manatee County Judicial Center, Hensley Wing Renovations

4th and 5th Floors - 1051 Manatee Avenue West, Bradenton, FL 34206

ADDENDUM #1

Bidders are hereby notified that this Addendum shall be acknowledged on page <u>00300-1</u> of the Bid Form and made a part of the above named bidding and contract documents. Bids submitted without acknowledgement of the Addendum will be considered incomplete.

The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

The deadline for clarification of questions was <u>January 11, 2012 at 5:00 PM.</u> This deadline has been established to maintain fair treatment of all potential bidders, while maintaining the expedited nature of the Economic Stimulus that the contracting of this work may achieve. Contractors note that questions received after this date and time shall not be considered

- Attached memorandum dated January 11, 2012 from Mr. John Camden, P.E., ATP Engineering South in response to questions presented at the Pre-Bid / Information Conference held on January 5, 2012. (3 total pages)
- Information Conference Attendance Record. (3 total pages)
- Revised Bid Forms: Attached to this Addendum #1, Pages 00300-1 through 003005. These Bid Forms "A" and "B" supersede all other Bid Forms for this solicitation. These Bid Forms include revised descriptions for Bid Item Nos. 6, 7 and 8 and shall be used in submission of your bid in response to this Invitation for Bid. (5 total pages)

Bid Forms must be executed by an authorized signatory who has the legal authority to make the offer and bind the company.

Financial Management Department - Purchasing Division 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205 Phone: 941-749-3055 - Fax: 941-749-3034

www.mymanatee.org

LARRY BUSTLE * MICHAEL GALLEN * JOHN R. CHAPPIE * ROBIN DISABATINO * DONNA G. HAYES * CAROL WHITMORE * JOE McCLASH
District 1 District 2 District 3 District 4 District 5 District 6 District 7

January 12, 2012 Invitation for Bid #11-3669-OV Manatee County Judicial Center, Hensley Wing Renovations 4th and 5th Floors – 1051 Manatee Avenue West, Bradenton, FL 34206 Page 2

Engineer's Estimate dated January 11, 2012 is made a part of this Addendum No. 1. (1 total page)

It is important to note that Manatee County is currently receiving competitive bids which are up to 50% lower than the Engineer's Estimate.

Revision 3 Plans dated 1/10/2012: Plan No.: E3.2, E3.3, E3.4, E5.1, M2.1, M2.2, M2.3, M3.0 via PDF.

If you have submitted a bid prior to receiving this addendum, you may request in writing that your original, sealed bid be returned to your firm. All sealed bids received will be opened on the date stated.

END OF ADDENDUM #1

Bids will be received at the Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205 until 2:00 P.M. on January 24, 2012.

Sincerely,

Melissa Assha, CPPO Interim Purchasing Official

Purchasing Division

Ov/ Attachment (12 Total Pages) (8 PDF Plans, Revision 3 dated 1/10/2012)

Engineering South, PL.

1283 TALLEVAST ROAD. SARASOTA, FLORIDA . 34243 PHONE: (941)360-2181 . FAX: (941)360-2971

ENGR.BUSINESS #8909

"Striving to Make Your Facility Energy Efficient" atpengrsouth@verizon.net

January 11, 2012

Subject:

Invitation for Bid (IFB) #11-3669-OV

Manatee County Judicial Center, Hensley Wing Renovations 4th and 5th Floors 1051 Manatee Ave. W., Bradenton, FL

Addendum#1:

The following items represent clarifications, additions, deletions, revisions, and/or modifications to the Contract Documents for the referenced project. This Addendum shall hereinafter be considered a full part of the Contract Documents. Receipt of this document must be acknowledged as per the Bid Requirements.

Questions/Statements:

- 1. Site visit information: Darin Cushing's phone number at Manatee County: 749-3063.
- 2. Section B.03 reads: "Qualifications of Bidders: General Contractors and Subcontractors: All Certified Contractors shall be registered to work in the City of Bradenton. Proof of registration shall be submitted with your bidding documents."

As Darin reiterated in the meeting, once the project is awarded, the GC and Subcontractors will then provide Proof of registration with the City of Bradenton. Please remove the following: "Proof of registration shall be submitted with your bidding documents."

- 3. Lt. Brown had questions about the keys and door locks.
 The door locks shall be supplied by the contractor and the keying process shall be handled by the County employees as per Mr. Phil Hoffman, Building Supervisor, Property Management Group.
- 4. Simplex Fire Systems are specified on the job and shall be used to coordinate with the existing fire alarm systems. A current operational CD is being used in the facility. A new updated software CD for the controls shall be provided at the conclusion of the software/hardware additions and modifications.
- 5. Question/clarifications about the work required on the 4th Floor:

The work consists of:

- 1. Demolition of the existing halon system; which shall be part of Bid Item #7.
- 2. Removal of the raised floor tiles and tile system, which shall be included in the fire protection and smoke evacuation system bid item, Bid Item #4.

- 3. Installation of the fire alarm systems; Bid Item #7.
- 4. Installation of the smoke evacuation systems; which shall be included in the fire protection and smoke evacuation system bid item, Bid Item #4.
- 5. Demolition/Installation of the specified sprinkler system areas; which shall be included in the fire alarm system bid item, Bid Item #4.
- 6. Limited drywall work above the ceiling for the smoke testing; which should be included in the smoke evacuation bid. Drywall work will encompass: any opening not fire protected around the two stairwells, elevator lobby, the adjacent restroom walls, any floor and ceiling fire penetrations shall be fire sealed. These items shall be in the fire protection and smoke evacuation system bid item, Bid Item #4.
- 7. See plans E3.0, E5.0, FP2.0, M2.0, and S0.1 for a general scope of the 4th Floor. The entire set of plans should be reviewed to encompass all items prior to bidding the job.

For Clarification:

- 1. The 4th floor does not have any security requirements on the drawings.
- 2. The ceiling tiles on the 4th floor will be adjusted for the incorporation of sprinkler heads and not replaced at this time. Re-installation of ceiling tiles will be required in areas of partial removal and for the installation of equipment, Reference Drawing: FP2.0.

6. Holland Construction:

Clarifications of Bid Items Numbers 6 and 8:

The provision and installation of the security system will be deleted from the scope of work. The specifications sections: 16720 security locks and 16782 security cameras shall be removed from the documents.

Bid Item 6 shall read: "Provide and install conduit and junction boxes with pull strings for the Security system." Locations are identified on sheet E3.3. See Revision 3.

Bid Item 8: See the next item for clarification.

7. Holland Construction:

Statement: Please clarify if the cost to connect the fire alarm system is to be included in Bid Item 7 or 8.

Clarification:

Bid Item 7 shall read: "Provide and installation (wiring and startup, testing, etc.) of the fire alarm system." The wiring and startup/execution/testing of the system shall be part of Bid Item 7.

Bid item 8 shall read: "Provide and install conduit and junction boxes with pull strings for the Fire Alarm Systems for the 4th and 5th Floors to connect to the overall building system."

8. KI Furniture Company

Will there be a future solicitation for any furniture needs that I can highlight the rep on?

Answer: This would have to be answered by the users of the space. The answer to this question is unknown as of this time.

9. Drug Testing Facility Additional Work: Revision #3 – "Owners Revisions"

The 5th floor bathroom has drywall/framing work along with additional mechanical and electrical work. See the attached sheets for the mechanical and electrical additions. The drywall and framing work was included in the original scope. Please refer to sheets M2.1, M2.2, M2.3, M3.0, E3.2, E3.3, E3.4, and E5.1 for revision #3.The drywall work is already included in Bid Item#1. Bid Items 10 & 11 shall include the additional mechanical and electrical work.

10. Statement: Advanced Automation Systems, Inc. requesting to be added as an approved equal.

In reviewing of the existing systems and warranties; Advanced Automation Systems Inc. is not an equal due to incompatible system support, software, and additional costs for replacement parts.

11. Please see the attached plans sheets for additional information pertaining to Addendum #1 – for Revision #3.

Sincerely,

John Camden, P.E.

ATTENDANCE RECORD

NON-MANDATORY INFORMATION CONFERENCE

Title:

Manatee County Judicial Center, Hensley Wing Renovations / 4th and 5th Floors

Location:

1112 Manatee Avenue West, 4th Floor, Manatee Room

Date / Time:

January 5, 2012 at 2:45 PM

IFB #:

IFB #11-3669-OV

Name/Title	Firm	Phone #	Email Address
Olga Valcich, OV Construction Buyer	Purchasing Division	941-749- 3055	Olga.valcich@mymanatee.org
Darin Cushing, Project Manager	Property Management Dept.	941-748- 4501 / Ext. 3063	Darin.cushing@mymanatee.org
Matt Mather S Director of ReConstru	Zirkelbach	941-729- 0000 ext. 216	matt. Matheus@zconstruction.com
Matt Camber ATP Ergenen Seuth	→	941-360 2181	maanden attengris deriton ut
Jour Compares	ATTENER Soron	941-36	atpergranth evarior. Nat
CLAYTON KELLEY	GMC	284-4821	CICELEY & GMCFL. CO.
Challe Woeke	Cousmuction	941 - 131-7014	Charlie. Wester a 2 Construction. Com
BRIAN! HEWNERY	TM-TECH CONST	MI- 1727	BRIANAND TERRIE O A OL I COM
Stan Stephens II	Manasota Conneccal	795- 2732	Stan 20 Mangsata Construction com
DARIN Array Project Archites	JERRY N Zoller All Ph ARCHITECT.	748 4465	darin@ Wz architect. con;

Name/Title	Firm	Phone	Email Address
		#	
Clint Dulin, Estimator	Special Mechanical	717 - 410 - 8754	CUNT. DUIN @ SUPERIORMECHANICAL.
SIM FAILLINER ACCT. MGR.	BOYD BRATHERS SERVICE, INC RUTOMATED LOGIC	941- 467- 4156	JIMF & BOYD-HVAC, CON
Tom Werle	BAI Contractors.	239- 332- 4646	Twerte @ Bandicontractors. Hompkins@Bandirontractor
Walter WisemAN	ISOF	813 925-1007	WWISEMAKED ISDE
GARY MORAND	ISOF	815-388 3684	GANTANO CISOFIGE COM
Doug FEREgoy	Bentzez mech	727-572	DPEREGOY @ BENTLEL MECHANICAL-COM
Allen Somen	Pro Plus	407-948 9183	Allen. Suman & Proplys comm. com
Tom CLEARLY MANAUST PRECONSTRUCTION MANAUST MICHARDER	PANLI SIERRA CONSTRUMON	613-228 6661	TOLEAKWATERO SIEKRA CONSTRUCTION. CON-
UP	Flores & HARPER Const	8B 010-7342	MACK Of Locashaffel. Com
MIKE MARIN, Pros. Mgs.	UNITED MECHANICI, INC.	2392939- 4508	MAN MARROWN & UMEHUACICOM
Lt. Daryl Brown	mso		
St. Payla News	n mso		
CHICK FUNN	HOLLAND CONTRACTION	93 45D	CFUNKEHOLLANDARP, COM
thil Hoffangur	Mustice Cong Ph	X7934	

Name/Title	Firm	Phone	Email Address
		#	
LEIGH HARRIS PROJ. MGR.	JON F. SWIFT, ING	941 951-6100	Leigh@jonfswiftinc.com
Project Munager	Prand Construction Corporation	813-391- 3985	Jennings @ randec.com
Kirk Gyson Estinatur Mark Castellano	TBS of Tampa Bay, Inc.	727, 538, 2665	sail-affshore ems. com
Branch Wanager	Aur Mechanical	941 475 3715	Mcastellano@Ansco-Ac.com
Jim Roc president	Rm Williams Coust	8/3- 25/-3 _{05/}	vm williams construction, con
Colqued G	MCPM	3016	david Thompson @ my many
EricBrockmeier ElecTSys.Sales.	SIMPLEXGRIANELL	727 501	
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BID FORM – IFB #11-3669-OV <u>SECTION 00300 – ADDENDUM NO. 1 (1/11/2012)</u>

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floor 1051 Manatee Avenue West, Bradenton, FL 34206

TOTAL BID PRICE "A": \$	
Based on a Completion Time of 150 calendar days	
TOTAL BID PRICE "B": \$	
Based on a Completion Time of 180 calendar days	

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

We, the undersigned, hereby declare that we have carefully reviewed the bid documents, and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation for Bids.

We understand that the bid technical specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid shall be addressed as follows:

Person's Name:			
		Phone:	
		ense#	
		Certification	
COMPANY'S NAME:			
AUTHORIZED SIGNA	TURE(S):		
₹			
TELEPHONE: ()	FAX: ()	
Email address:			701/07/11/11
Acknowledge Addend	um No Dated:	_ Acknowledge Addendum No.	Dated
SIGN AND CONFIRM D	ATE OF PROJECT VISIT:		DATE:

ADDENDUM NO. 1 (1/11/2012)

BID FORM – IFB #11-3669-OV SECTION 00300 – BID "A"- ADDENDUM NO. 1

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floors

1051 Manatee Avenue West, Bradenton, FL 34206

Bid "A" Based on 150 Calendar Day Completion- Base Bid

Bid			
Item	Bid Item Description	U/M	Extended Total
1	Completion of 5 th Floor Framing and Drywall	1LS	\$
2	Provide and Install Ceiling Grid and Lay-In Ceiling	1 LS	\$
3	Provide and Install Fire Shutter	1 LS	\$
	Provide and Install Fire Protection and Smoke Evacuation System for the 4 th and 5 th Floors and connect to		
5	the overall building system Provide and Install Temperature Controls for the 4 th and 5 th Floors and connect to the overall building system	1 LS	\$
6	Addendum #1 – Provide and Install Conduit and Junction Boxes with Pull Strings for the Security System. Locations are identified on sheet E3.3 / Revision 3.	1 LS	\$
	Addendum #1 – Demolition of the existing Halon and Specified Sprinkler System Areas. Provide and Install the Fire Alarm and Specified Sprinkler System areas including wiring, startup, execution and testing of the		
7	system(s).	1 LS	\$

ADDENDUM NO. 1 – 1/11/2012 BID FORM – IFB #11-3669-OV SECTION 00300 – BID "A" - ADDENDUM NO. 1

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floors 1051 Manatee Avenue West, Bradenton, FL 34206

<u>Bid "A" Based on 150 Calendar Day Completion</u>

8	Addendum #1 - Provide and Install Conduit and Junction Boxes with Pull Strings for the Fire Alarm System for the 4 th and 5 th Floors which are to be connected to the overall Building System	1 LS	\$	
9	Repair and Installation of Owner Provided DX Air Handler Unit	1 LS	\$	
10	Electrical Work for the 4 th and 5 th Floors	1 LS	\$	
11	Mechanical Work for the 4 th and 5 th Floors	1 LS	\$	
	DISCRETIONARY FUNDS TOTAL of the 4 th and 5 th Floors Hensley Wing Remodeling Project		\$30,000.00 \$	

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder:	Date:
Authorized Signature:	

ADDENDUM NO. 1

ADDENDUM NO. 1 – 1/11/2012

BID FORM – IFB #11-3669-OV <u>SECTION 00300 – BID "B" - ADDENDUM NO. 1</u>

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floors

1051 Manatee Avenue West, Bradenton, FL 34206

Bid "B" Based on 180 Calendar Day Completion- Base Bid

Bid		I	
ltem	Bid Item Description	U/M	Extended Total
	Completion of 5 th Floor		
1	Framing and Drywall	1LS	\$
2	Provide and Install Ceiling Grid and Lay-In Ceiling	1 LS	\$
3	Provide and Install Fire Shutter	1 LS	\$
	Provide and Install Fire Protection and Smoke Evacuation System for the 4 th and 5 th Floors and connect to		
4	the overall building system	1 LS	\$
	Provide and Install Temperature Controls for the 4 th and 5 th Floors and connect		
5	to the overall building system	1 LS	\$
6	Addendum #1 – Provide and Install Conduit and Junction Boxes with Pull Strings for the Security System. Locations are identified on sheet E3.3 / Revision 3.	1 LS	\$
<u> </u>	Addendum #1 – Demolition of	I LO	D
e di la l'accomo della composita del construita del	the existing Halon and Specified Sprinkler System		
SEE CONTRACTOR CONTRAC	Areas. Provide and Install the Fire Alarm and Specified		
	Sprinkler System areas		
licitetatitationicion	including wiring, startup, execution and testing of the		
7	system(s).	1 LS	\$

ADDENDUM NO. 1

BID FORM – IFB #11-3669-OV SECTION 00300 – BID "B"- ADDENDUM NO. 1

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floors 1051 Manatee Avenue West, Bradenton, FL 34206

Bid "B" Based on 180 Calendar Day Completion

	Addendum #1 – Provide and Install Conduit and Junction Boxes with Pull Strings for the Fire Alarm Systems for the 4 th and 5 th Floors to connect to		
8	the overall Building System.	1 LS	\$
9	Repair and Installation of Owner Provided DX Air Handler Unit	1LS	\$
10	Electrical Work for the 4 th and 5 th Floor	1 LS	\$
11	Mechanical Work for the 4 th and 5 th Floor	1 LS	\$
	DISCRETIONARY FUNDS		\$30,000.00
	TOTAL OF 5 th Floor Hensley Wing Remodeling Project		\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder:	Date:
Authorized Signature:	

ADDENDUM NO. 1

Engineering South, PL.

1283 TALLEVAST ROAD. SARASOTA, FLORIDA . 34243 PHONE: (941)360-2181 . FAX: (941)360-2971

ENGR.BUSINESS #8909
"Striving to Make Your Facility Energy Efficient"

atpengrsouth@verizon.net

January 11, 2012
Subject:
Cost Opinion for Project:
Invitation for Bid (IFB) #11-3669-OV
Manatee County Judicial Center, Hensley Wing Renovations 4th and 5th Floors
1051 Manatee Ave. W., Bradenton, FL

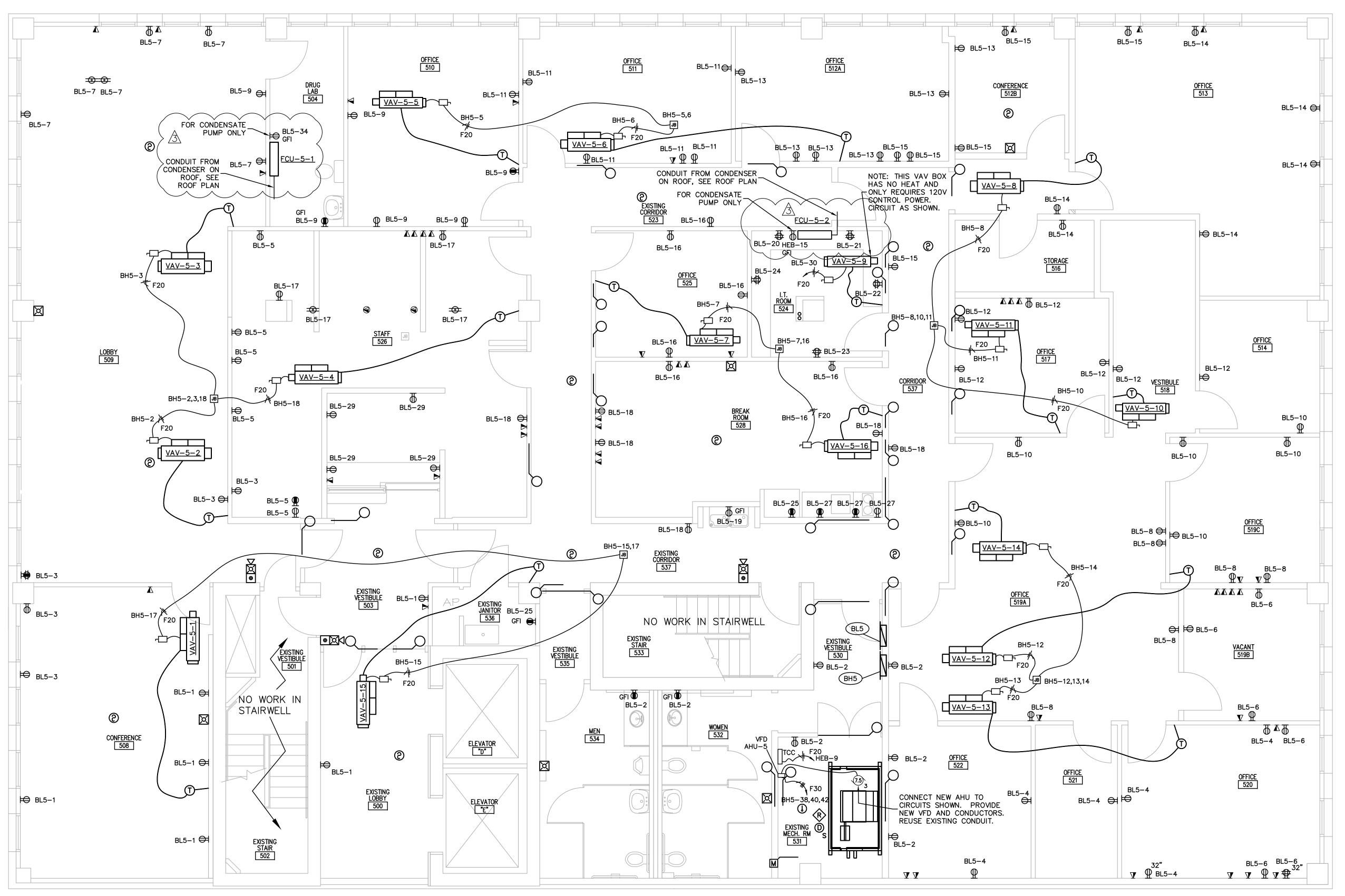
Addendum#1:

The following items represent clarifications, additions, deletions, revisions, and/or modifications to the Contract Documents for the referenced project. This Addendum shall hereinafter be considered a full part of the Contract Documents. Receipt of this document must be acknowledged as per the Bid Requirements.

The Engineer's Cost Opinion for the referenced project at the Manatee County Judicial Center Hensley Wing, 4th and 5th Floor is \$540,000.00 (five hundred and forty thousand dollars). The cost opinion includes the original Engineering drawings provided by the County for the bidding process, the new revisions items (Revision # 3), and the Addendum#1 items.

Sincerely,

John Camden, P.E.



$\underbrace{\frac{1}{E3.2}}_{1/4" = 1'-0"} \underbrace{\frac{5TH FLOOR NEW POWER AND SYSTEMS}{1/4" = 1'-0"}}_{1/4" = 1'-0"}$

SHEET LEGEND

NEW VARIABLE AIR VOLUME (VAV) BOX

SMOKE DAMPER - 24V, INTERLOCK WITH FACP

MOTORIZED DAMPER, CONNECT TO AVAILABLE
CIRCUIT ON PANEL SHOWN

TCC - TEMPERATURE CONTROL PANEL

ITEMS IN GRAYSCALE ARE EXISTING.

ITEMS BOLD ARE NEW, UNLESS OTHERWISE NOTED.

PROVIDE AND INSTALL NEW PANEL BL5, FEED FROM EXISTING SPACE IN THE 1ST FLOOR 120/208v DISTRIBUTION PANEL. REUSE EXISTING CONDUITS.

PROVIDE AND INSTALL NEW PANEL BH5, FEED FROM EXISTING SPACE IN MAIN DISTRIBUTION PANEL. REUSE EXISTING CONDUITS.

ALL TELEPHONE/DATA DISTRIBUTION FOR 5TH FLOOR TO RUN TO NEW 5TH FLOOR IT ROOM. PROVIDE AND INSTALL (1) 3" CONDUIT FROM NEW 5TH FLOOR IT ROOM TO THE 3RD FLOOR IT ROOM, AND (1) 3" CONDUIT FROM NEW 5TH FLOOR IT ROOM TO THE 4TH FLOOR IT ROOM. CABLES TO BE INSTALLED BY MANATEE COUNTY ISD.

PROVIDE AND INSTALL NEW RECEPTACLES ON CIRCUITS SHOWN.
PROVIDE NEW CONDUCTORS, REUSE EXISTING LOCATIONS. REUSE
EXISTING CONDUITS IF SERVICEABLE, REPLACE AS NECESSARY.
LOCATION OF RECEPTACLES SHOWN ARE BASED UPON EXISTING
DRAWINGS. VERIFY LOCATIONS AND QUANTITY ON SITE.

GENERAL NOTES:

CONNECT NEW VAV BOXES TO CIRCUITS SHOWN. REUSE EXISTING JUNCTION BOXES AND CONDUITS IF SERVICEABLE, REPLACE AS NECESSARY. PROVIDE AND INSTALL NEW DISCONNECT SWITCHES, CONDUITS AND CONDUCTORS.

FURNISH CONDUIT AND FLUSH MOUNTED BACKBOXES FOR THERMOSTATS AS SHOWN AT 46" A.F.F. TO TOP OF BOX. INSTALL (1) 1/2" CONDUIT W/ PULL STRING TO CORRESPONDING VAV. THERMOSTATS TO BE PROVIDED BY AND INSTALLED BY MECHANICAL CONTRACTOR.

PROVIDE INTERLOCKING RELAYS AS SHOWN FOR NEW MECHANICAL EQUIPMENT AND FIRE ALARM SYSTEM. SEE MECHANICAL SHEETS FOR SEQUENCE OF OPERATIONS. FACP LOCATED ON FIRST FLOOR.

INSTALL NEW CALL BUTTON WITH LOCKOUT FOR ELEVATOR. USE MANUFACTURE'S (SCHINDLER) RECOMMENDED RECALL AND LOCKOUT BUTTON FOR THE SYSTEM.

PROVIDE AND INSTALL VARIABLE FREQUENCY DRIVES (VFD) AS SHOWN. SEE SPECIFICATIONS.

ALL WIRING ABOVE CEILING SHALL BE IN CONDUIT OR PLENUM RATED.

AFTER ALL NEW EQUIPMENT IS INSTALL, REMOVE ANY ABOVE CEILING JUNCTION BOXES, CONDUITS AND CONDUCTORS THAT ARE NOT RE-USED.

PANEL XBH2 IS ON 3RD FLOOR IN VESTIBULE TO WOMEN'S RESTROOM WITH THE 3RD FLOOR PANELS.

MANATEE COUNTY GOVERNMENT



Property Management 1112 Manatee Avenue Wes Suite 868, P.D. Box 1000 Bradenton, Florida 3420

(941) 749-3063 FAX (941) 749-3018

REV. DATE REMARKS
3 01/10/12 OWNER REVISIONS

| Constant of the constant of th

OLD MANATEE COUNTY PUBLIC SAFETY CENSTRY STHE FLOOR INTERIOR REMODEL
MANATEE COUNTY, FLORIDA

Project Number
IFAS# W0100354; WA#32

Drawn by
CMD/MC
Checked by

DDC

Date 9-17-2010

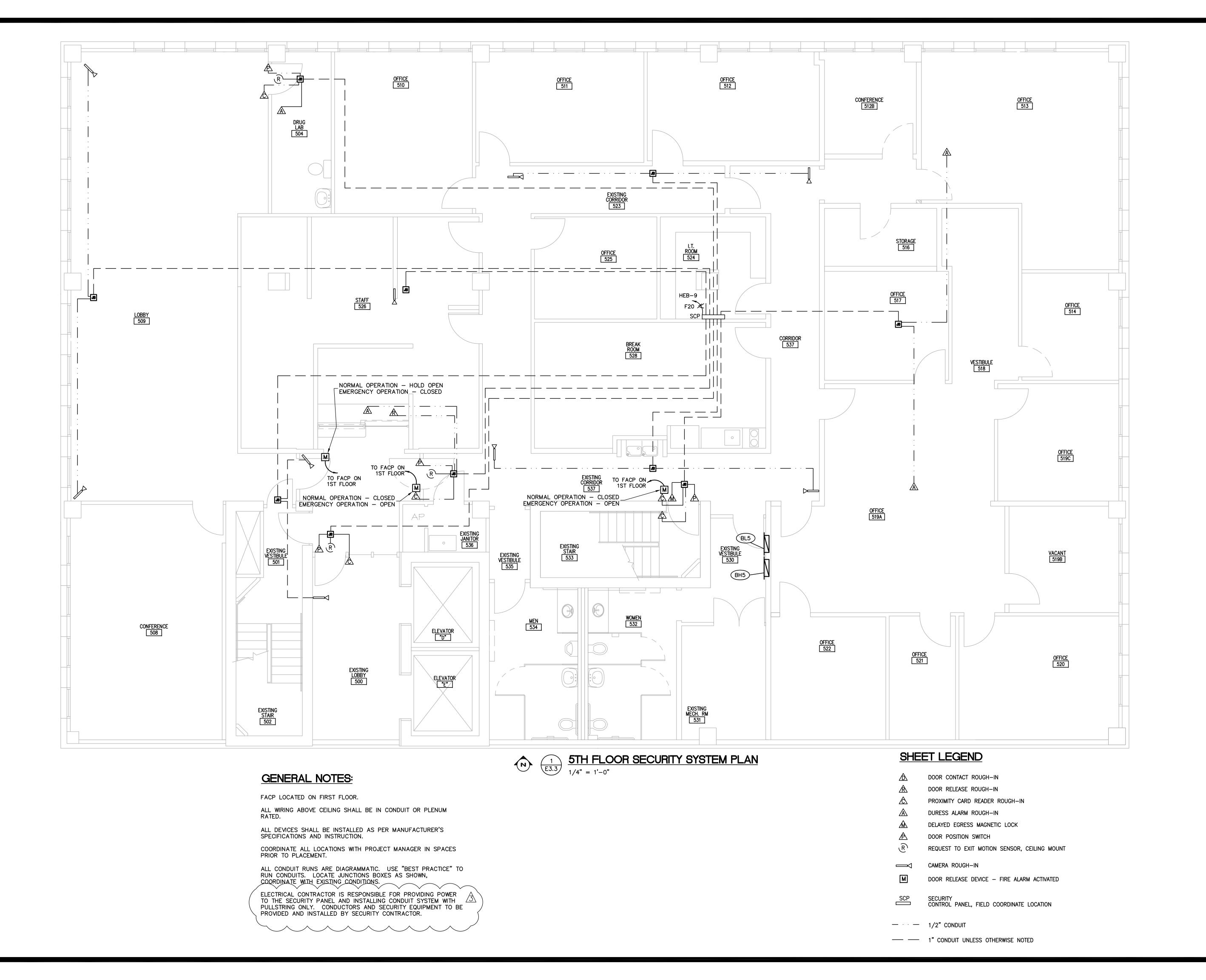
JOHN D. CAMDEN, PE

FL#53458

Scale 1/4" = 1'-0"

Drawing Number

E3.2



MANATEE COUNTY GOVERNMENT



1112 Manatee Avenue West Suite 868, P.O. Box 1000 Bradenton, Florida 34206

(941) 749-3063 FAX (941) 749-3018

IFAS# WO100354; WA#32

CMD/MC

DDC

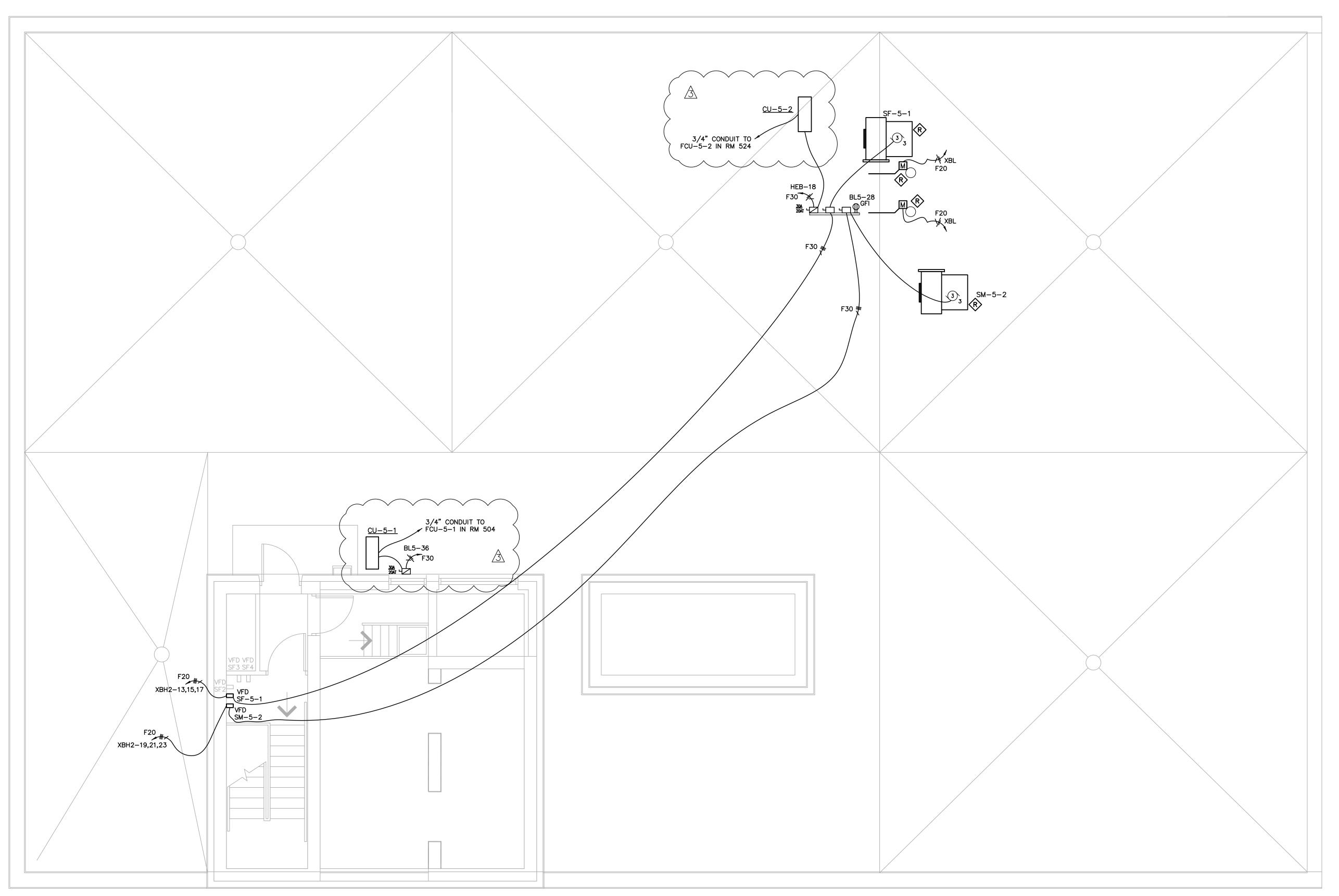
9-17-2010

JOHN D. CAMDEN, PE

FL#53458 Scale 1/16" = 1'-0"

Drawing Number

E3.3



(N) $\frac{1}{E3.4}$ ROOF PLAN 1/4" = 1'-0"

GENERAL NOTES:

PROVIDE AND INSTALL NEW VARIABLE FREQUENCY DRIVES (VFD) IN THE STAIRWAY LANDING. CONNECT TO CIRCUITS SHOWN AND TO CORRESPONDING FAN ON ROOF.

PROVIDE AND INSTALL FIRE ALARM RELAYS FOR EACH FAN. SEE MECHANICAL SHEETS FOR SEQUENCE OF OPERATION.CIRCUITS TO THE SAME PANELBOARD SPACE.

EXTEND LIGHTNING PROTECTION TO NEW EXHAUST FANS ON ROOF.

PROVIDE AND INSTALL CIRCUITS SHOWN FROM EXISTING PANEL XBL, 2ND FLOOR, FOR DAMPERS. DAMPERS PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.

CONDUITS TO RUN IN CEILING SPACE ON 5TH FLOOR. ONLY STUB UP TO DISCONNECTS AND FINAL CONNECTIONS TO BE ON ROOF TOP.

MANATEE COUNTY GOVERNMENT



Property Management

1112 Manatee Avenue West
Suite 868, P.D. Box 1000
Bradenton, Florida 34206

(941) 749-3063 FAX (941) 749-3018

REV. DATE REMARKS
3 01/10/12 OWNER REVISIONS

| Constant of the constant of th

TH FLOOR INTERIOR REMODEL

ANATEE COUNTY, FLORIDA

Project Number
IFAS# W0100354; WA#32

CMD/MC

DDC ate 9-17-2010

JOHN D. CAMDEN, PE FL#53458

Scale 1/8" = 1'

Drawing Number

E3.4

	PANELBOARD DESIGNATION:		LSDP				MAINS: 800 A MB				AMB			
	SCHEDULE	LOCATIO	N:		3RD FI J	ustice Cen	ter		BUS SIZE	i:		800	AMP	
		VOLTAGE	: :		480Y/27	77			PANEL M	OUNTING	:	SURFAC	CE	
		PHASE:			3 PHASE	, 4 WIRE			ALL BRE	AKERS:		35,000	AIC	
СКТ	LOAD	LOAD	CONN.	BRE	AKER	CON	NECTED L	OAD	BRE	AKER	CONN.	LOAD	LOAD	СКТ
NO.	DESCRIPTION	CODE	KVA	AMPS	POLE	Α	В	С	AMPS	POLE	KVA	CODE	DESCRIPTION	NO.
1	HLS1	М	12.00	125	3	30.80	><	><	150	3	18.80	Р	HLS 5	2
		М	12.00				30.80	><			18.80	Р		
		М	12.00			\times	><	30.80			18.80	Р		
3		М			3	12.00	><	><	150	3	12.00	Р	HLS 8	4
		М				$\geq \leq$	12.00	><			12.00	P		
		М				><	$\geq \leq$	12.00			12.00	P		
5	ASM	М	15.30	100	3	35.30	><	$\geq \leq$	100	3	20.00	P	HLS 3	6
		M	15.30			$\geq \leq$	35.30	><			20.00	Р		
		M	15.30			> <	$\geq \leq$	35.30			20.00	Р		
7	XAH	М	10.30	100	3	34.90	$\geq \leq$	\geq	100	3	24.60	Р	ХВН	8
		М	10.30			\sim	34.90	\geq			24.60	Р		
		М	10.30			\sim	>	34.90			24.60	Р		
9	HLSPH	P	54.26	300	3	54.26		\sim	-					10
		P	54.26			\sim	54.26		-					
44		P	54.26			200	\leq	54.26	-					
11					3	0.00	200		+					12
						$ \bigcirc $	0.00	0.00	-					_
13	TVSS			60	3	7.00	>	0.00	127	3	7.00	P	HLS 2	14
							7.00				7.00	P		+
						\sim	$\overline{}$	7.00			7.00	P		
15						0.00			800	3			MAIN	16
						> <	0.00		1					
						><	><	0.00						
						174.26	174.26	174.26	KVA					
	TOTAL CONNECTED AMPS:		629.10	AMPS		629.10	629.10	629.10	AMPS					
	TOTAL CONNECTED LOAD:		522.78	KVA										
	TOTAL DEMAND AMPS:		595.16	AMPS										

TOTAL DEMAND LOAD: LOAD CODES:

LIGHTING

SCHEDULE

NO. I

3 VAV-5-3 5 VAV-5-5 7 VAV-5-7

9 Spare 11 VAV-5-11

13 VAV-5-13 15 VAV-5-15

17 VAV-5-1

29 LIGHTS 31 SPACE

33 SPACE 35 SPACE

37 SPACE 39 SPACE 41 SPACE

TOTAL CONNECTED AMPS:

TOTAL CONNECTED LOAD:

MECHANICAL/EQUIPMENT

TOTAL DEMAND AMPS: TOTAL DEMAND LOAD:

LOAD CODES: LIGHTING RECEPTACLES

C= COMPUTER

P= PANELBOARD

K= KITCHEN

RECEPTACLES

MECHANICAL/EQUIPMENT COMPUTER

KITCHEN

P= PANELBOARD

494.58 KVA

EXISTING PANELBOARD LSDP

BUS SIZE:

3.04 30 3 3.04 M AHU-5

3.04 3.04 M "

3.04 3.04 M "

16.29 14.68 16.14 KVA

58.81 53.00 58.28 AMPS

PANEL MOUNTING:

225 AMP

8

10 12

14 16

32

SURFACE

25,000 AIC

277/480V

 CODE
 KVA
 AMPS
 POLE
 A
 B
 C
 AMPS
 POLE
 KVA
 CODE
 DE

 20
 1
 5.00
 25
 1
 5.00
 M
 VAV-5-2

| M | Solution | Solut

LIFE SAFETY PANEL

RM 530 WOMEN'S BATH COORIDOR

480Y/277

3 PHASE, 4 WIRE

	IANEEDOAND	DESIGNA	AIION.		ADIIZ				manto.			TOOK III	.0	
	SCHEDULE	LOCATIO	N:		RM 271	3			BUS SIZE	: :		100	AMP	
		VOLTAG	E:		480Y/2	77			PANEL N	IOUNTING	ì:	SURFAC	E	
		PHASE:			3 PHASE	, 4 WIRE			ALL BRE	AKERS:		42,000	AIC	
												FED FR	OM LSDP2	
СКТ	LOAD	LOAD	CONN.	BRE	AKER	COI	NNECTED L	OAD	BRE	AKER	CONN.	LOAD	LOAD	СКТ
NO.	DESCRIPTION	CODE	KVA	AMPS	POLE	Α	В	С	AMPS	POLE	KVA	CODE	DESCRIPTION	NO.
1	3rd FL Supply Fan SF-1	М	2.10	15	3	4.20		><	15	3	2.10	М	4th FL Supply Fan	2
3	5 hp	М	2.10			><	4.20	><			2.10	М	5 hp	4
5	480V	М	2.10			><	><	4.20			2.10	М	480V	6
7	3rd FL Smoke Fan SM-1	М	2.10	15	3	4.20		>	15	3	2.10	М	4th FL Smoke Fan	8
9	5 hp	М	2.10			><	4.20				2.10	М	5 hp	10
11	480V	М	2.10			><		4.20			2.10	М	480V	12
13	5th FL Supply Fan	М	2.10	15	3	3.40		><	20	1	1.30	L	3rd FI Emergency Lights	14
15	3 hp	М	2.10			>	3.40		20	1	1.30	L	4th FI Emergency Lights	16
17	480V	М	2.10			> <	> <	3.39	20	1	1.29	L	5th FI Emergency Lights	18
19	5th FL Smoke Fan	М	2.10	15	3	2.93		>	15	3	0.83	м	Stariwell Fan SF-2	20
21	3 hp	м	2.10			$\overline{}$	2.93				0.83	м	1.5HP	22
23	480V	м	2.10					2.93			0.83	м	п	24
25	Elevator Shaft Fan SF-3	М	1.33	15	3	2.27		\sim	15	3	0.94	М	Stariwell Fan SF-4	26
27	3 НР	м	1.33			> <	2.27				0.94	м	2HP	28
29	п	м	1.33				>	2.27			0.94	м		30
31	TC-1 Control Power	Р	0.10	20	1	0.10		\sim						32
33	TC-5 Control Power	Р	0.10	20	1	\sim	0.10							34
35							\sim	0.00						36
37						0.00		\sim						38
39						> <	0.00							40
41								0.00						42
			•			17.10	17.10	16.99	KVA					
	TOTAL CONNECTED AMPS:		61.73	AMPS		61.73	61.73	61.34	AMPS					
	TOTAL CONNECTED LOAD:		51.19	KVA		•	•		•					
	TOTAL DEMAND AMPS:		47.09	AMPS										
	TOTAL DEMAND LOAD:		39.03	KVA										
	LOAD CODES:													
L-	LIGHTING						LIFE SAFE	TY						
R=	RECEPTACLES													
M=	MECHANICAL/EQUIPMENT													
c=	COMPUTER													
K=	KITCHEN													

P= PANELBOARD

MECHANICAL/EQUIPMENT

COMPUTER

P= PANELBOARD

K= KITCHEN

PANELBOARD XBH2

277/480V

LIFE SAFETY PANEL

	PANELBOARD	DESIGNA	ATION:		BL5				MAINS:			225	A MLO		
	SCHEDULE	LOCATIO	N:		RM530 W	OMEN'S BA	TH CORRID	OR	BUS SIZE	i:		225	AMP		
		VOLTAGI	E:		208Y/12	20			PANEL M	OUNTING	ì:	SURFAC	E		
		PHASE:			3 PHASE	, 4 WIRE			ALL BRE	AKERS:		25,000	AIC		
СКТ	LOAD	LOAD	CONN.	BRE	AKER	CON	INECTED L	OAD	BRE	AKER	CONN.	LOAD	LOAD	СКТ	
NO.	DESCRIPTION	CODE	KVA	AMPS	POLE	Α	В	С	AMPS	POLE	KVA	CODE	DESCRIPTION	NO.	
1	Recpts Rm 500, 503,508	R	1.08	20	1	2.16	\times	\times	20	1	1.08	R	Rcpts 519A,522,530-34	2	
3	Recpts Rm 509	R	1.08	20	1	><	2.16	\nearrow	20	1	1.08	R	Recpts Rm 520-22	4	
5	Recpts Rm 526	R	1.08	20	1	><	><	2.16	20	1	1.08	R	Recpts Rm 519B,520	6	
7	Recpts Rm 509	R	1.08	20	1	2.16	><	><	20	1	1.08	R	Recpts Rm 519A,519C	8	
9	Recpts Rm 504, 509,510	R	1.08	20	1	><	2.16	><	20	1	1.08	R	Recpts Rm 514,519A,519C	10	
11	Recpts Rm 510,511	R	1.08	20	1	\geq	><	2.16	20	1	1.08	R	Recpts Rm 514,517,518	12	
13	Recpts Rm 512A,512B	R	1.08	20	1	2.16		><	20	1	1.08	R	Recpts Rm 513,516	14	
15	Recpts Rm 512A,512B,513	R	1.08	20	1	> <	2.16	><	20	1					
17	Recpts Rm 526	R	0.72	20	1		> <	1.80	20	1					
19	Water Cooler	R	0.50	20	1	1.00		> <	20 1 0.50 R IT Room 524					20	
21	IT Room	R	0.50	20	1	> <	1.00		20	1	0.50	R	IT Room 524	22	
23	IT Room	R	0.50	20	1		> <	1.00	20	1	0.50	R	IT Room 524	24	
25	Refrigerator RM 528	К	1.00	20	1	1.00		> <	20	1			Spare	26	
27	Counter top Recps 528	R	0.54	20	1	> <	0.72	><	20	1	0.18	R	Recpts Rm 536	28	
29	Reception Desk Ropts	R	0.72	20	1			0.97	20	1	0.25	М	VAV-5-9 (control)	30	
31						0.00		\geq						32	
33						><	0.50	><	20	1	0.50	М	Condensate Pump RM504	34	
35						\geq	$\geq <$	0.90	20	1	0.90	М	CU-5-1	36	
37						0.00		><						38	
39						><	0.00	><						40	
41						\times	><	0.00						42	
		·				8.48	8.70	8.99	KVA					-	
	TOTAL CONNECTED AMPS:		74.92	AMPS		70.67	72.50	74.92	AMPS						
	TOTAL CONNECTED LOAD:		26.17	KVA		•									
	TOTAL DEMAND AMPS:		39.85	AMPS											
	TOTAL DEMAND LOAD:		13.40	KVA											
	LOAD CODES:														
L-	LIGHTING														
R=	RECEPTACLES														



58.81 AMPS 47.11 KVA

45.12 AMPS

35.93 KVA

PANELBOARD BH5
NTS 277 /

NEW PANEL TO REPLACE EXISTING PANEL. KAIC RATINGS MATCH OLD PANELBOARD. FED FROM MSB1.

(5)	<u>PANI</u>
E5.1	NTS

NELBOARD BL5

NEW PANEL TO REPLACE EXISTING PANEL.

KAIC RATINGS MATCH OLD PANELBOARD. FED FROM BLM.

SCHEDULE				HEB				MAINS:			100A M	В	
CONLEGEL	LOCATIO	N:		RM 271	3			BUS SIZE	:		100	AMP	
	VOLTAGI	E:		208Y/1	20			PANEL M	OUNTING	:	SURFAC	E	
	PHASE:				, 4 WIRE			ALL BRE	AKERS:		42,000	AIC	
											FED FRO	OM LSDP2 VIA TRANSFORM	ER
LOAD	LOAD	CONN.	BRE	AKER	CON	NECTED L	OAD	BRE	AKER	CONN.	LOAD	LOAD	СКТ
DESCRIPTION	CODE	KVA	AMPS	POLE	Α	В	С	AMPS	POLE	KVA	CODE	DESCRIPTION	NO.
ELEVATOR ROOM AHU	Р	1.80	40	2	4.00	$\overline{}$	><	20	3	2.20	М	Spare	2
SUB-PANEL	р	1.80			><	4.00	><			2.20	М		4
3rd Fl Temp.ContolCntr	Р	1.00	20	1	><	><	3.20			2.20	M	"	6
			20	1	3.20	> <	\times	45	3	3.20	М	Spare	8
5th FI Temp.ContolCntr	Р	1.00	20	1	><	4.20	\times			3.20	М	•	10
5th FIL Security Panel	Р	1.00	20	1	><	><	4.20			3.20	М	•	12
					0.00	><	\times	20	1			Spare	14
Condensate Pump RM524	М	0.50	20	1	><	0.50	\times	20	1			Spare	16
					>	><	0.90	20	1	0.90	М	CU-5-2	18
MAIN BREAKER			100	3	0.00	><	X						20
п					><	0.00	\times						22
"					><	> <	0.00						24
					0.00	><	$\bigg / \bigg /$						26
					><	0.00	\times						28
					><	><	0.00						30
					0.00	><	\times						32
					><	0.00	\times						34
					><	$\geq <$	0.00						36
					0.00	$\geq <$	\setminus						38
					><	0.00	\setminus						40
					><	$\geq <$	0.00						42
					7.20	8.70	8.30	KVA					
TOTAL CONNECTED AMPS:		72.50	AMPS		60.00	72.50	69.17	AMPS					
TOTAL CONNECTED LOAD:		24.20	KVA										
TOTAL DEMAND AMPS:		60.21	AMPS										
TOTAL DEMAND LOAD:		19.80	KVA										
LOAD CODES:													
LIGHTING						LIFE SAFE	TY						
RECEPTACLES													
	DESCRIPTION ELEVATOR ROOM AHU SUB-PANEL 3rd FI Temp.ContolCntr 5th FI Temp.ContolCntr 5th FIL Security Panel Condensate Pump RM524 MAIN BREAKER " " " TOTAL CONNECTED AMPS: TOTAL CONNECTED LOAD: TOTAL DEMAND LOAD: LOAD CODES: LIGHTING	LOAD DESCRIPTION CODE ELEVATOR ROOM AHU P SUB-PANEL 3rd FI Temp.ContolCntr P 5th FI Security Panel Condensate Pump RM524 M MAIN BREAKER " " " TOTAL CONNECTED AMPS: TOTAL CONNECTED LOAD: TOTAL DEMAND AMPS: TOTAL DEMAND LOAD: LOAD CODES: LIGHTING RECEPTACLES	LOAD DESCRIPTION CODE KVA ELEVATOR ROOM AHU P 1.80 SUB-PANEL D 1.80 3rd FI Temp.ContolCntr P 1.00 5th FI Temp.ContolCntr FI Security Panel Condensate Pump RM524 M 0.50 MAIN BREAKER " " " TOTAL CONNECTED AMPS: 72.50 TOTAL CONNECTED LOAD: 24.20 TOTAL DEMAND AMPS: 60.21 TOTAL DEMAND LOAD: 19.80 LOAD CODES: LIGHTING RECEPTACLES	LOAD	LOAD	LOAD	LOAD	LOAD	LOAD LOAD CONN. BREAKER CONNECTED LOAD BREAKER	LOAD LOAD CONN. BREAKER CONNECTED LOAD BREAKER DESCRIPTION CODE KVA AMPS POLE A B C AMPS POLE ELEVATOR ROOM AHU P 1.80 40 2 4.00 20 3 SUB-PANEL P 1.80 3.20 45 3 SUB-PANEL P 1.00 20 1 3.20 45 3 Sth Fi Temp.ContolCntr P 1.00 20 1 4.20 45 3 Sth Fi Temp.ContolCntr P 1.00 20 1 4.20 5 Sth Fi Security Panel P 1.00 20 1 0.00 20 1 Condensate Pump RM524 M 0.50 20 1 0.50 20 1 MAIN BREAKER 100 3 0.00 20 1 MAIN BREAKER 100 3 0.00 0.00 0.00 0.00 0.00 0.00 0.0	LOAD LOAD CONN. BREAKER CONNECTED LOAD BREAKER CONN.	CONNECTED LOAD LOAD LOAD CONN. BREAKER CONNECTED LOAD BREAKER CONN. LOAD CONN. LOAD CONN. LOAD CONN. CODE KVA AMPS POLE A B C AMPS POLE KVA CODE CONN. CONN. CODE CONN. CONN. CODE CONN. CONN. CODE CONN. C	LOAD LOAD CONN. BREAKER CONNECTED LOAD BREAKER CONNECTED LOAD BREAKER CONNECTED LOAD LO

COMPUTER

PANELBOARD

KITCHEN

PANELBOARD HEB

120/208V

	PANELBOARD	DESIGNA	ATION:		LSDP2				MAINS:			1600	A MLO	
	SCHEDULE	LOCATIO	N:		3RD FI J	ustice Cen	ter		BUS SIZE	:		1600	AMP	
		VOLTAGE	:		480Y/2	77			PANEL M	OUNTING	i:	SURFAC	E	
		PHASE:			3 PHASE	, 4 WIRE			ALL BRE	AKERS:		65,000	AIC	
СКТ	LOAD	LOAD	CONN.	BREA	AKER	COL	NECTED L	OAD	BRE	AKER	CONN.	LOAD	LOAD	СКТ
NO.	DESCRIPTION	CODE	KVA	AMPS	POLE	A	В	C	AMPS	POLE	KVA	CODE	DESCRIPTION	NO.
1	DP ELEV	M	98.06	600	3	98.06	$\overline{}$	$\stackrel{\cdot}{>}$	1			1		2
		М	98.06				98.06							
		М	98.06				><	98.06						
3	DOMESTIC WATER PUMP	М	10.00	100	3	10.00	> <	>	100	3			SPARE	4
		M	10.00			$\geq \leq$	10.00	\times						
		М	10.00			><	$\geq \leq$	10.00						
5	ELEV 7	М	16.50	125	3	33.40	$\geq \leq$	$\geq \leq$	150	3	16.90	М	ELEV 12 & 14	6
		М	16.50			$\geq >$	33.40	$\geq \leq$			16.90	М		
		M	16.50		_		\sim	33.40		_	16.90	М		_
7	ELEV 10-11	M	24.50	125	3	42.20		\sim	150	3	17.70	P -	HNE 1	8
		M	24.50			$\langle \rangle$	42.20				17.70	P		
		M	24.50				\sim	42.20	1		17.70	P		
9	HNE 9	P	10.50	175	3	23.55		$\langle \rangle$	100	3	13.05	P	XBH2	*10
		P	10.50			$\langle \rangle$	23.55				13.05	P		
		P	10.50	4	_	22.52	$\langle \rangle$	23.44	4==		12.94	P		- 10
11	HNE 7	P	10.50	175	3	30.50	20.50	$\langle \rangle$	175	3	20.00	P	HNE 8	12
		P	10.50				30.50	20.50	-		20.00	P		
40		P	10.50		3	40.00	$\langle \rangle$	30.50	475		20.00	P	IINE E	44
13					3	16.80	16.80	$ \bigcirc $	175	3	16.80	P P	HNE 5	14
						\Longrightarrow	16.80	16.80			16.80 16.80	P		
15	HNE 6	P	13.80	225	3	19.65	\iff	16.80	50	3	5.85	P	НЕВ	*16
19	HNE 0	P	13.80	225	3	19.05	21.03		50	-	7.23	P	VIA 35KVA XFMR	10
		P	13.80			\Longrightarrow	21.03	20.53	-		6.73	P	II	
17	HNE 2	P	13.70	225	3	27.30	>	20.33	225	3	13.60	P	HNE 4	18
	IIIL Z	P	13.70	223		27.00	27.30	>	220		13.60	P	11NE 4	
		P	13.70			$\overline{}$	27.00	27.30			13.60	P		
19	HNE3	P	54.80	400	3	54.80						<u> </u>		20
		P	54.80	1			54.80	\sim						
		Р	54.80				\sim	54.80						
21						0.00		> <						22
						> <	0.00							
							> <	0.00						
23						0.00		> <						24
							0.00							
								0.00						
	•		-	-	-	356.26	357.63	357.02	KVA	•	•	-	•	*
	TOTAL CONNECTED AMPS:		1291.08	AMPS		1286 12	1291.08	1288 88	AMPS					



1141.30 AMPS 946.44 KVA

TOTAL DEMAND AMPS:

TOTAL DEMAND LOAD: LOAD CODES:

MECHANICAL/EQUIPMENT

LIGHTING

COMPUTER KITCHEN PANELBOARD

RECEPTACLES

EXISTING PANELBOARD LSDP2

277/480V

PROVIDE AND INSTALL NEW 100A BREAKER FOR NEW PANEL XBH2

PROVIDE AND INSTALL NEW 50A BREAKER FOR NEW PANEL HEB

LIFE SAFETY PANEL, LABEL AS PER DETAILS.

RE-LABEL PANEL AS "LSDP2"

MANATEE COUNTY GOVERNMENT



Property Management

1112 Manatee Avenue Wes Suite 868, P.D. Box 1000 Bradenton, Florida 3420

(941) 749-3063 FAX (941) 749-3018

OLD MANATEE COUNTY PUBLIC 5 TH FLOOR INTERIOR REMODEI MANATEE COUNTY, FLORIDA

IFAS# WO100354; WA#32

 $\mathsf{CMD}\mathsf{-MC}$

DDC

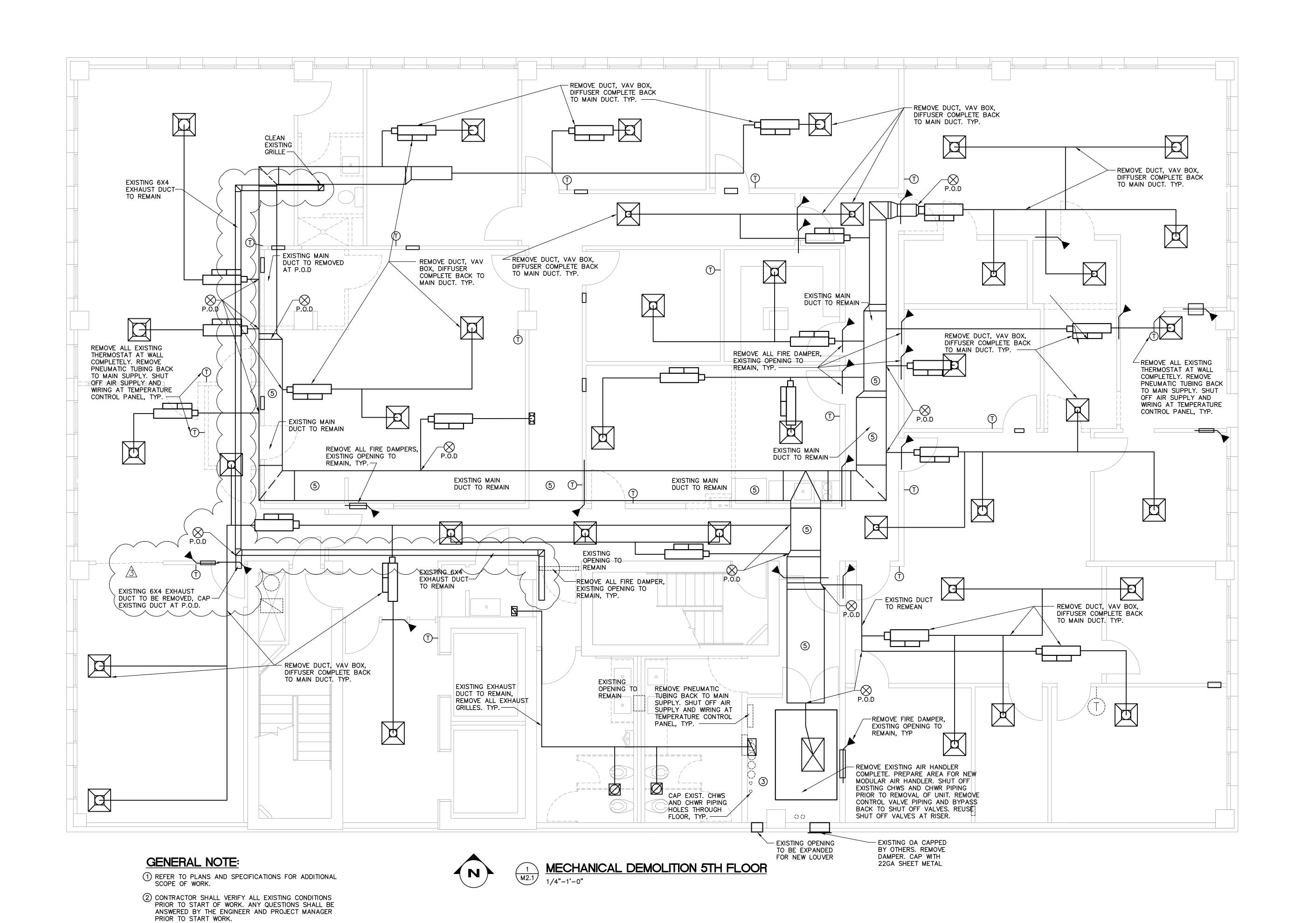
9-17-2010

JOHN D. CAMDEN, PE

FL#53458 Scale NOT TO SCALE

Drawing Number

E5.1



3 CAP AND FIRE STOP ALL UNUSED PIPING PENETRATIONS TO THE FLOOR BELOW AND FLOOR ABOVE.

(4) SHEET METAL PATCH AND DUCT SEAL ALL UNUSED DUCT TAKEOFFS AND WRAP DUCT WITH 2 INCH THICK

5 REPAIR, CLEAN, CERTIFY, AND SEAL ALL EXISTING REUSED

FIBERGLASS FOIL FACE DUCT INSULATION.

MANATEE COUNTY GOVERNMENT



Property Management

1112 Manatee Avenue Wes Suite 868, P.□. Box 1000 Bradenton, Florida 34206

(941) 749-3063 FAX (941) 749-3018

REMARKS	OWNER REVISIONS				
DATE	01/10/12				
REV.	3				

MANATEE COUNTY PUBLIC FLOOR INTERIOR REMODEI ATEE COUNTY, FLORIDA OLD 5 TH MANA

IFAS# WO100354; WA#32

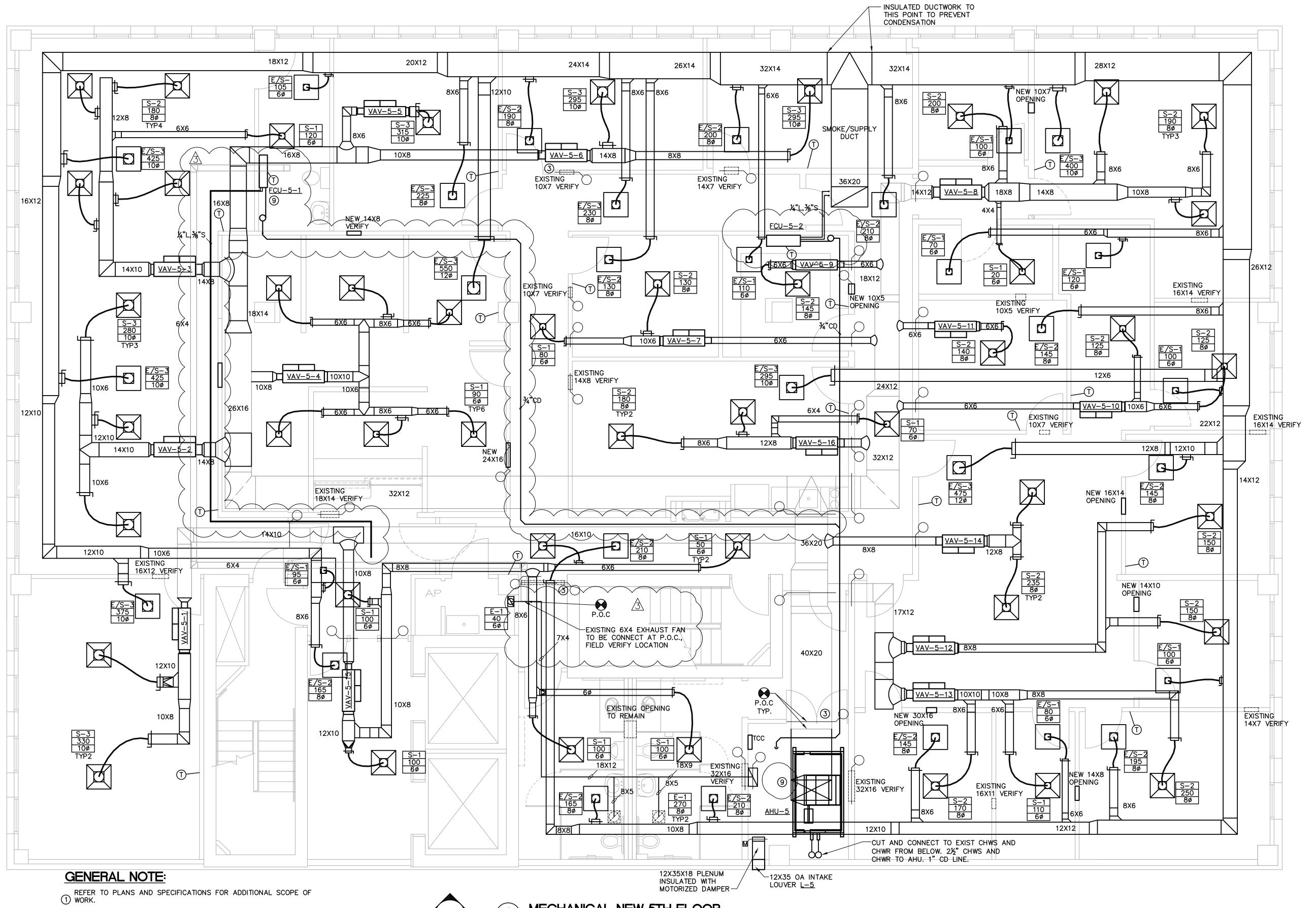
Checked by DDC

9-17-2010

JOHN D. CAMDEN, PE

FL#53458 Scale 1/4" = 1'-0"

Drawing Number



- ② CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.
- (3) VERIFY ALL REUSED WALL PENETRATIONS PRIOR TO ORDER OF FIRE/SMOKE DAMPERS. ALL SMOKE FIRE DAMPERS ARE NEW
- 4 SHEET METAL PATCH AND DUCT SEAL ALL UNUSED DUCT TAKEOFFS AND WRAP DUCT WITH 2 INCH THICK FIBERGLASS FOIL FACE DUCT INSULATION.
- (5) INSULATE SMOKE PLENUM UP TO AND INCLUDING THE DAMPERS TO REDUCE CONDENSATION.
- (6) INSULATE OUTSIDE AIR DUCT AND PLENUM COMPLETELY.
- 7 ALL LIGHTS ARE RETURN TROFFER TYPE EXCEPT AS NOTED IN ELECTRICAL PLANS
- 8 ALL OPENINGS ARE ABOVE THE CEILING FOR RETURN AIR TRANSFER.

 9 WHEN AHU-5 FAN TURNS OFF AT NIGHT THE FCU-5-1 OPERATES.
 PLACE RELAY SWITCH ON AHU-5 FOR INTERLOCK



MECHANICAL NEW 5TH FLOOR

1/4"-1'-0"

MANATEE COUNTY GOVERNMENT Property Management 1112 Manatee Avenue West Suite 868, P.D. Box 1000 Bradenton, Florida 34206 (941) 749-3063 FAX (941) 749-3018

OLD MANATEE COUNTY PUBLIC SAFETY STH FLOOR INTERIOR REMODEL MANATEE COUNTY, FLORIDA MECHANICAL 5TH FLOOR NEW PLAN

Project Number IFAS# W0100354; WA#32 Drawn by

Checked by DDC

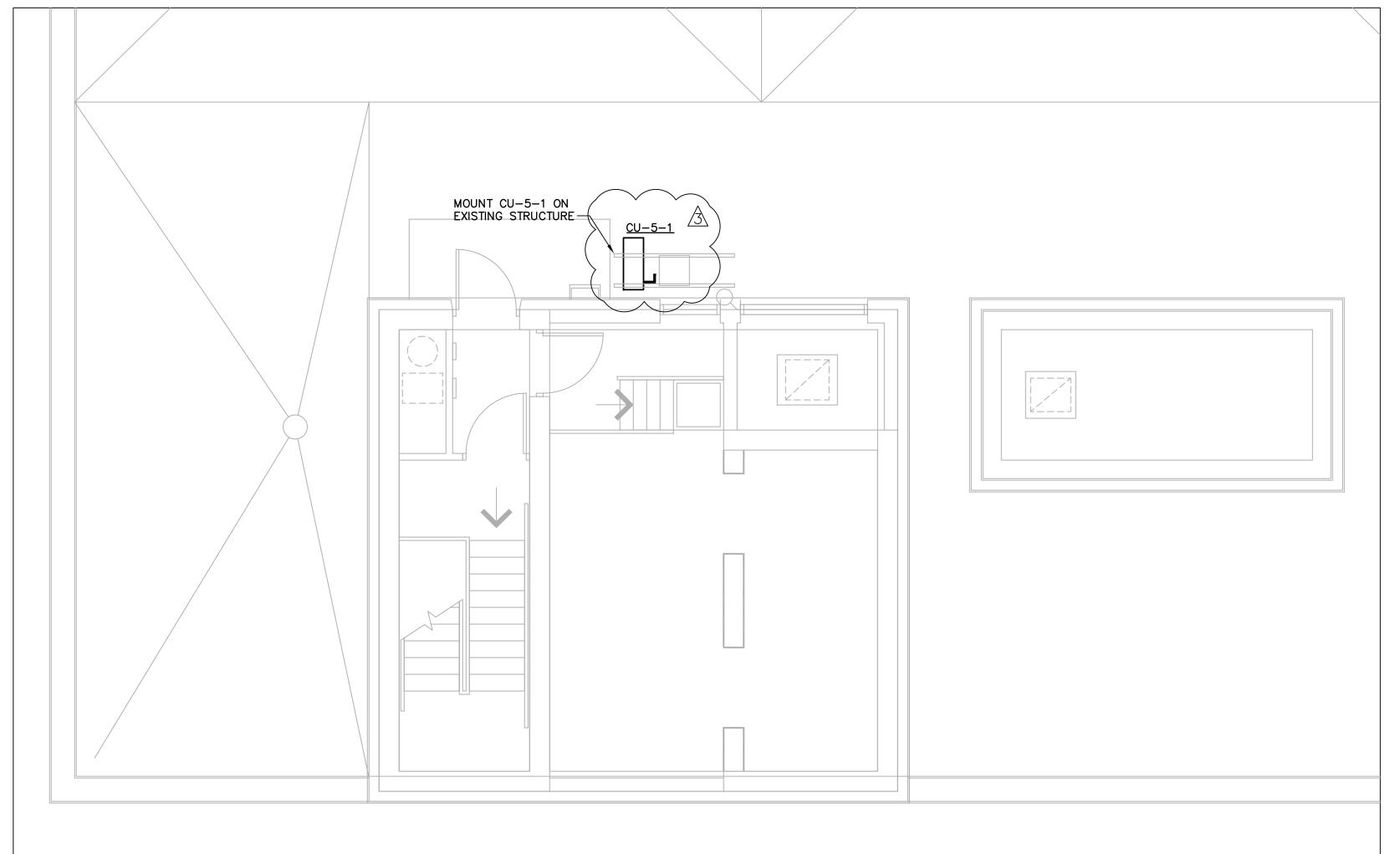
Date 9-17-2010

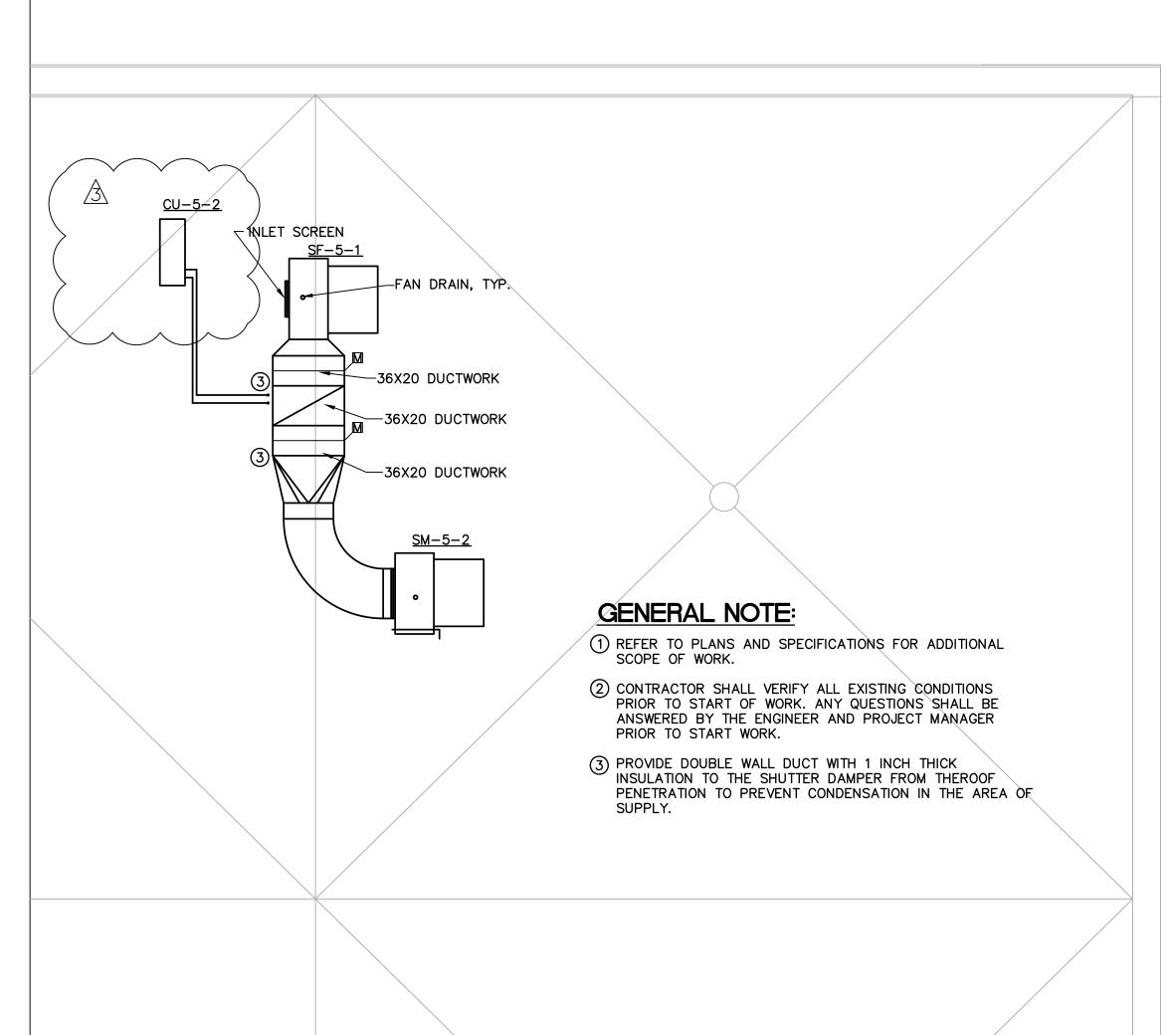
JOHN D. CAMDEN, PE FL#53458

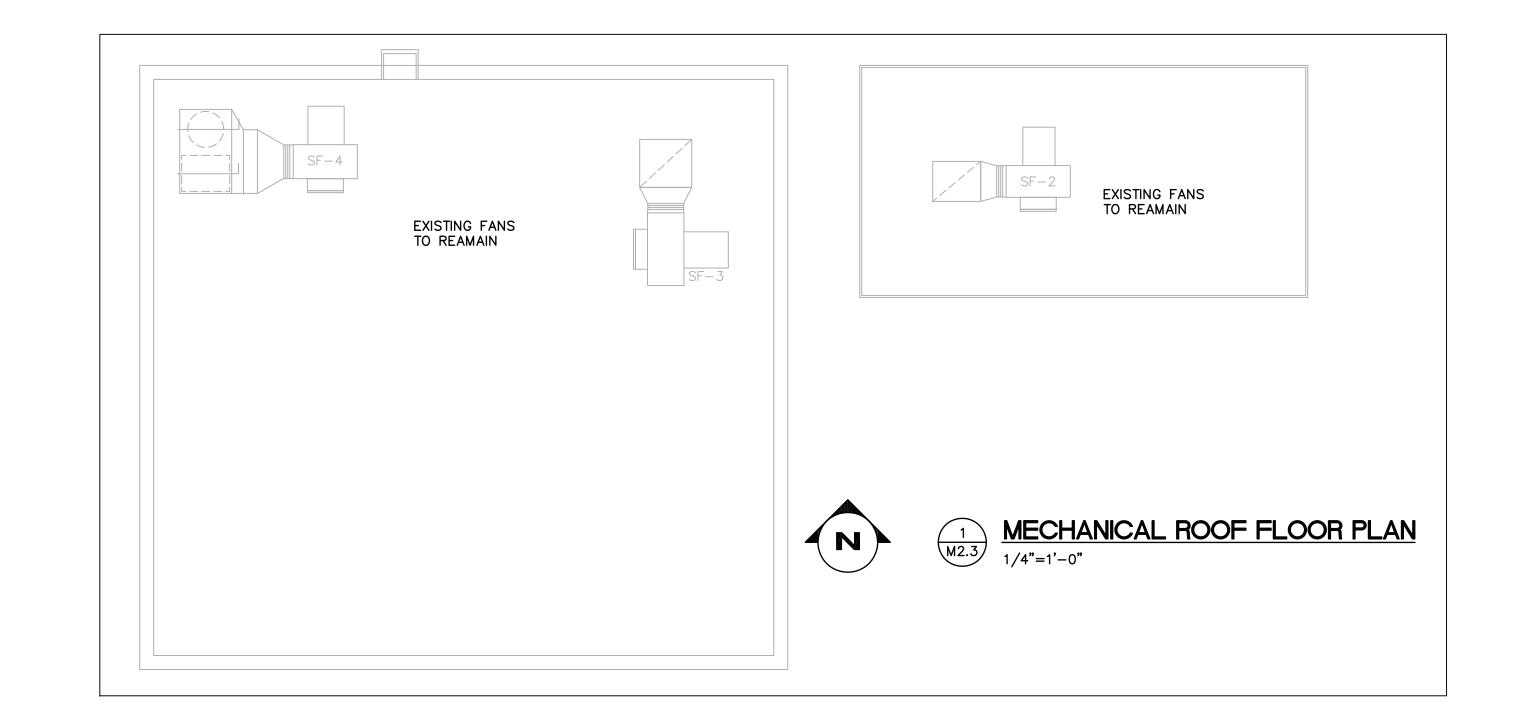
Scale 1/4" = 1'-0"

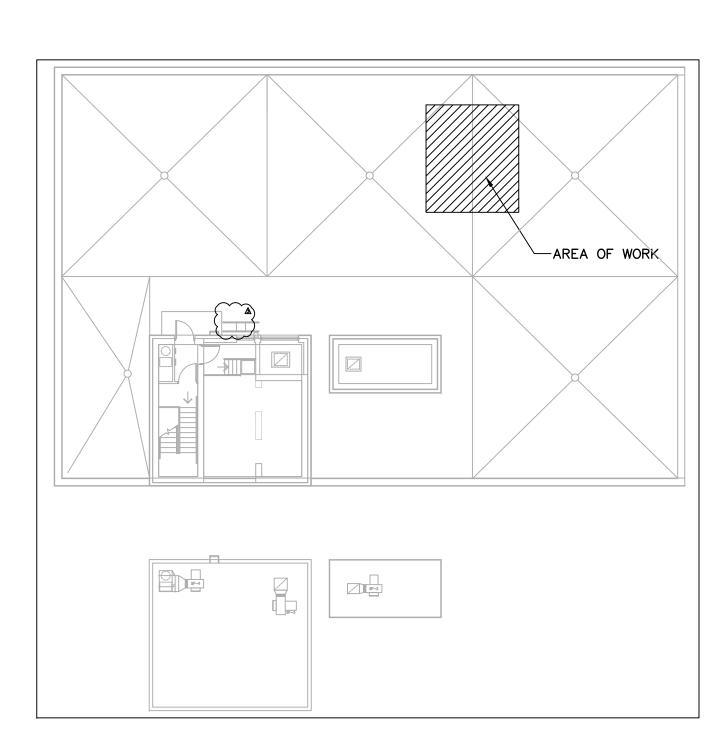
Drawing Number

M2.2











MANATEE COUNTY GOVERNMENT



1112 Manatee Avenue West Suite 868, P.D. Box 1000 Bradenton, Florida 34206

(941) 749-3063 FAX (941) 749-3018

REMARKS	OWNER REVISIONS				
DATE	01/10/12				
REV.	3				

MECHANICAL ROOF PLAN Project Number IFAS# W0100354; WA#32

JDC

9-17-2010

JOHN D. CAMDEN, PE FL#53458 Scale 1/8" = 1'-0"

Drawing Number

M2.3

SRE	GRILLE, REGISTER AND DIFFUSER SCHEDULE														
TAG NO.	PATTERN	NECK SIZE	MODULE SIZE	FRAME STYLE	MATERIAL	FINISH	CFM RANGE	ACCESSORIES	MANUFACTURER	MODEL NO.	REMARKS				
S-1	4 WAY	6"ø	24X24	TBAR	ALUM	WHITE	0-120	1	TITUS	PAS-AA	2				
S-2	4 WAY	8 " ø	24X24	TBAR	ALUM	WHITE	105-230	1	TITUS	PAS-AA	2				
S-3	4 WAY	10"ø	24X24	TBAR	ALUM	WHITE	165-415	1	TITUS	PAS-AA	2				
S-4	4 WAY	12 " ø	24X24	TBAR	ALUM	WHITE	240-525	1	TITUS	PAS-AA	2				
S-5	4 WAY	14"ø	24X24	TBAR	ALUM	WHITE	320-700	1	TITUS	PAS-AA	2				
S-6	DBL DFL	10X12	12X14	SURF	ALUM	WHITE	216-504	1	TITUS	300FL	2,7				
S-7	DBL DFL	12X12	14X14	SURF	ALUM	WHITE	264–616	1	TITUS	300FL	2,7				
E-1	35	12X8	13 X9	SURF	ALUM	WHITE	0-400	1	TITUS	350FL	2,3				
E/S-1	EGG/TBAR	6X6	24X24	SURF	ALUM	WHITE	0-120	1	TITUS	50FNT	2,4				
E/S-2	EGG/TBAR	14X6	24X24	SURF	ALUM	WHITE	105-230	1	TITUS	50FNT	2,5				
E/S-3	EGG/TBAR	12X12	24X24	SURF	ALUM	WHITE	240-525	1	TITUS	50FNT	2,6				
E/S-4	EGG/SURF.	6X6	8X8	SURF	ALUM	WHITE	0-152	1	TITUS	50F	2,4				

FAN SCHEDULE							
ITEM NO.		EF-17- EXIST.	SF-4-1	SM-4-2	SF-5-1	SM-5-2	
SERVICE		TOILET	4TH FLOOR SUPPLY	4TH FLOOR	5TH FLOOR	5TH FLOOR	
AIR QUANTITY	CFM	2650	6470	6470	6420	6420	
EXT. STATIC PRESSURE	IN. WTR.	EXIST.	1.30	1.30	1.3	1.33	
FAN TYPE		ROOF CENTRIF.	BARREL	BARREL	CENTRIF UTILITY	CENTRIF UTILITY	
DRIVE		BELT	DIRECT/ VS	DIRECT/ VS	DIRECT/ VS	DIRECT/ VS	
LWA		EXIST.	74	74	79	79	
MOTOR	HP	EXIST.	5.0/3.15	5.0/3.15	3/2.16	3/2.16	
FAN SPEED	RPM	EXIST.	2163	2319	969	969	
ELECTRICAL	V/PH./HZ.	EXIST.	460/3/60	460/3/60	460/3/60	460/3/60	
CONTROLS		TIMER/TCC	SMOKE/ TCC	SMOKE/ TCC	SMOKE/ TCC	SMOKE/ TCC	
LOCATION/ WEIGHT		ROOF/ EXIST	CEILING/ 220#	CEILING/220 #	ROOF/569#	ROOF/569#	
MANUFACTURER		GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	
MODEL NO.		SB-400HP-7-X	QEI-16-1	QEI-16-1	SWB-224-30	SWB-224-30	

- SF-4-1, SM-4-2 MOTORS ARE SMOKE RATED, WHILE ALL OTHER MOTORS ON THE ROOF ARE TEFC. ALL FANS ARE CLASS 1 FANS, DIRECT DRVIEN. WITH VFD MOTORS, MG 1.0 RATED.SERVICE FACTOR =1.5
- 2. SF-4-1, SM -4-2 UNITS ARE PROVIDED WITH STEEL INLET AND OUTLET FLANGE, CEILING VIBRATION ISOLATION HANGERS, HEAT SHIELD, MOTOR TUNNEL, UL181 LISTED, AND 120 VOLT DAMPER GREENHECK LOW LEAKAGE DISCHARGE DAMPER. UNITS PROVIDED WITH PIGTAIL AND LUBRICATION LINE EXTENSIONS. DISCONNECT BY EC.
- SF-5-1 AND SM-5-2 FANS HAVE STEEL DRAIN, INLET COWL, WITH INLET ELBOW, FAN BIRD SCREEN, STEEL INLET AND OUTLET FLANGES, HEAT SHIELD, STEEL 120 VOLT OUTLET DAMPER GREENHECK MOTORIZED LOW LEAKAGE DAMPER, ISOLATION ROOF BASE, UL181 LISTED, OSHA COVER, SPRING ISOLATION, AND ROOF CURB. UNITS PROVIDED WITH PIGTAIL AND LUBRICATION LINE EXTENSIONS. DISOCNNECT BY EC. REFER TO PLANS FOR DISCHARGE CONFIGURATION.
- REFER TO ROOF PLAN FOR SF-5-1, SM-5-2 LOCATION PROVIDE AND INSTALL DOUBLE WALL DUCTWORK PENETRATING THE ROOF TO THE FIRST TEE IN CEILING. INSULATE ALL DUCT WORK, PLENUM, AND LOUVER CONNECTION IN ROOM OFF OF FAN INLET/ DISCHARGE

- 1. COORDINATE CEILING FRAMES WITH CEILING TYPE ON ARCHITECTURAL PLANS. E/S GRILLES ARE USED IN SMOKE SYSTEM USE.
- OPPOSED BLADE DAMPER, ADJUSTABLE FROM UNIT FRONT
- CEILING MOUNT GRILLE, PROVIDE RECTANGULAR BOX WITH ROUND TRANSITION. MIN. 8 INCH ROUND.
- CEILING MOUNT GRILLE, PROVIDE RECTANGULAR BOX WITH ROUND TRANSITION. MIN. 6 INCH ROUND. CEILING MOUNT GRILLE, PROVIDE RECTANGULAR BOX WITH ROUND TRANSITION. MIN. 8 INCH ROUND.
- CEILING MOUNT GRILLE, PROVIDE RECTANGULAR BOX WITH ROUND TRANSITION. MIN. 10 INCH ROUND. FIELD MEASURE AND ADAPT EXISTING DUCTWORK FOR REPLACEMENT SMOKE SUPPLY GRILLES

VARIABLE AIR VOLUME BOX SCHEDULE (VAY)

ITEM NO.		VAV-5-1	VAV-5-2	VAV-5-3	VAV-5-4	VAV-5-5	VAV-5-6	VAV-5-7	VAV-5-8	VAV-5-9	VAV-5-10
BOX CAPACITY	CFM	660	840	840	540	315	590	210	790	145	250
CONTROL CFM VOLUME	MAX./MIN.	960/195	960/360	960/360	960/195	550/170	960/195	350/115	960/225	350/115	350/115
MAX. STATIC PRESS. DROP	IN. WTR.	.035	.025	.025	.035	0.06	0.04	0.03	0.04	0.03	0.03
ELECTRIC HEATER SIZE	(KW)/STEPS	2.0	5.0	5.0	2.0	1.75	2.0	1.25	3.0		1.25
ELECTRICAL	V/PH/HZ	277/1/60	277/1/60	277/1/60	277/1/60	277/1/60	277/1/60	277/1/60	277/1/60	120/1/60	277/1/60
MANUFACTURER		ENVIRO-TEC									
MODEL NO.		SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-10	SDR-5	SDR-EH-5

5. ONE BOX SERVES IT ROOM REQUIRES NO HEAT. INTEGRAL FUSING REQUIRED.

- VAV BOX MANUFACTURER TO FACTORY MOUNT CONTROLLER WHICH IS TO BE FURNISHED BY THE CONTROLS CONTRACTOR. ALL ELECTRICAL HEAT SHALL BE 277V-1 PHASE, SINGLE STAGE, 30 DEGREE RISE AT LOW FLOW.
- FACTORY MOUNTED DISCONNECT SWITCH WITH INTEGRAL FUSING FOR THE ELECTRIC HEATER AND CONTROLS. DISCHARGE NC LEVELS FOR BOX 5=20 BOXES 7,9,10,11=21, BOXES 1,4,6,8 = 24, BOXES 2,3 = 26

(CU-)					AIR C	001	_ED (NDENS	ER S	3CH	IED	UL	E -	EX	ISTIN	IG REUS	SED + NE	W IT UN	NIT
Tag No.	Equipment Location	Area Served	Capacity MBH	Refrigerant Type	Operating Charge LBS	E.E.R.	Expansion Type		sors P/KW Unload Each Steps	No. of Fans	Motor HP/KW Each	RPM	Volts		cal Dat Hertz	Min. fan Speed	Manufacturer	Model No.	Weight	Remarks
CU-5-1	ROOF	NOTE 3 LAB	9	R410A	11.8	13	STD	1	ONE	1	23W	900	120	1	60		PAYNE	PW13AAM09000AA	70	1,2,3,4
CU-5-2	ROOF	NOTE 3 IT	12	R410A	25	20	STD	1	ONE	1	23W	900	120	1	60		FREDERICH	M12CH	90	1,2,3

- 1. MCA 12 A CU 5-1, 15 A CU 5-2 (120/1PH), MOCP 20 A, ONE CONNECTION, DISCONNECT BY EC. DC WIRING REQUIRED TO EVAP UNIT BY EC, AND MC FINAL CONNECTION.
- 2. COORDINATE LOCATION WITH PROJECT MANAGER, PROVIDE AND INSTALL ROOF SUPPORT FOR NEW UNIT, INSTALL EXIST. CU5-1 ON EXIST. COND. SUPPORT AND TIE DOWN, ROOF PIPE PENETRATION, NEW VIBRATION ISOLATORS.
- 3. UNITS ARE MATCHED TO FANCOIL IN SPACE. TIE TO UNITS AS INSTRUCTED BY MANUFACTURER TO PROVIDE FINAL PIPING ARRANGEMENT AND SIZING. 4. REPAIR EXISTING UNIT TO OPERATIONAL USE, AND INSTALL THE CONDENSER ON THE ROOF.

VARIABLE AIR VOLUME BOX SCHEDULE (VAY)

ITEM NO.		VAV-5-11	VAV-5-12	VAV-5-13	VAV-5-14	VAV-5-15	VAV-3-16
BOX CAPACITY	CFM	140	300	530	470	650	430
CONTROL CFM VOLUME	MAX./MIN.	200/95	315/170	960/195	960/195	960/195	960/195
MAX. STATIC PRESS. DROP	IN. WTR.	0.01	0.06	0.035	0.035	.035	0.035
ELECTRIC HEATER SIZE	(KW)/STEPS	1.0	1.75	2.0	2.0	2.0	2.0
ELECTRICAL	V/PH/HZ	277/1/60	277/1/60	277/1/60	277/1/60	277/1/60	277/1/60
MANUFACTURER		ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC
MODEL NO.		SDR-EH-5	SDR-EH-6	SDR-EH-8	SDR-EH-8	SDR-EH-8	SDR-EH-8
			•	-	•	•	•

- VAV BOX MANUFACTURER TO FACTORY MOUNT CONTROLLER WHICH IS TO BE FURNISHED BY THE CONTROLS CONTRACTOR.
- ALL ELECTRICAL HEAT SHALL BE 277V-1 PHASE, SINGLE STAGE, 30 DEGREE RISE AT LOW FLOW. 3. FACTORY MOUNTED DISCONNECT SWITCH WITH INTEGRAL FUSING FOR THE ELECTRIC HEATER AND CONTROLS.
- 4. DISCHARGE NC LEVELS FOR BOXE 12=20 BOXES 13,14,15,16=24.

	LOUVER SCHEDULE									
TAG	LOCATION	MAX CFM	S.P.	INTAKE RELIEF EXHAUST	OPENING		NO. OF	MANUFACTURER	MODEL	REMARKS
NO.	EGOATION				WIDTH IN.	HEIGHT IN.	PANELS	WANTONATONEN	NO.	T.E.W. W. W.
L-4	4TH FLOOR	6470	.1	I/E	45	45	1	GREENHECK	ESD635	1,2
L-5	5TH FLOOR	1270	.1	I	12	35	1	GREENHECK	ESD635	1,2,3

- (1) VERIFY COLOR WITH PROJECT MANAGER PRIOR TO ORDER. BIRD SCREEN, AND INSECT SCREEN.
- (2) COORDINATE INSTALLATION FRAME WITH PROJECT MANAGER. UNIT SHALL BE A FLORIDA APPROVED PRODUCT WITHIN DRAINABLE BLADE.
- (3)UNIT RPOVIDED WITH NEW MOTORZIED DAMPER AND 12 INCH DEEP INSULATED INTAKE PLENUM.

OUTDOOR AIR LOAD CALCULATIONS

(FMC TABLE 403.3 AND ASHRAE STD 62 2010

50 CFM/ WC RESTROOMS OFFICE 5154.2 SF 5 / 1000SF X 17= 438 CFM CORRIDOR AND STORAGE 1109.3 SF $1109.3 \times 0.06 \text{ CFM/SF} = 6.558$ CONFERENCE

TOTAL REQUIRED OA =445 CFM

920 CFM SCHEDULED 2 RESTROOMS, 1 UR, 4WC. = 250 CFM TOTAL EXHAUST

375 CFM SCHEDULED ALL SMOKE EVACUATION CALCULATIONS WERE MADE BASED UPON ASHRAE APPLICATIONS 2003 HANDBOOK CHAPTER 52 AND NFPA 92A. STATIC PRESSURE MAXIMUM IS .14 FOR STAIRS AND ELEVATORS SMOKE EVACUATION SYSTEMS ARE OPERATONAL FOR 4TH & 5TH FLOORS AND ALL EXIST. STAIRS AND ELEVATORS. SYSTEMS ARE TIED TO THE EXISTING JUDICIAL CENTER SMOKE CONTROL. ALL VOLUMES AS CROSS-CHECKED EXCEED 6 AIR CHANGES FOR THE STAIRS, ELEVATOR AREAS. DOOR PULLS WERE VERIFIED IN ACCORDANCE WITH TABLE A.5.2.2 OF NFPA 92A

HVAC LOAD	CALCULATIONS						
SUMMARY							
	AHU 5						
SIZING METHOD	CARRIER E-20ii						
AREA (SQ. FEET)	6919						
TOTAL COOLING REQUIRED W/ OUTSIDE AIR (MBH)	265.5						
OUTDOOR DRY BULB USED	93						
OUTDOOR WET BULB USED	79						
RELATIVE HUMIDITY %	44%						
INDOOR DRY BULB	78						
TOTAL HEATING REQUIRED W/ OUTSIDE AIR (MBH)	VAV RH						
TOTAL SENSIBLE GAIN (MBH)	176.2						
TOTAL LATENT GAIN (MBH)	89.3						
LB. / LB. SPECIFIC HUMIDITY ACROSS COIL	.00218						

REFERENCE: 13-407.1.ABC.1 SIZING, 2007/9 FLORIDA BUILDING CODE

FAN COIL UNIT SCHED		$\bigcirc \bigcirc$			
ITEM		FCU-5-1	\rangle	FCU-5-2	
TOTAL SUPPLY AIR	CFM	327		300	
STATIC PRES. EXT.	IN. WTR.		\geq		
MOTOR, UNIT MCA- NO ELECT HT.	DC	13VDC		13VDC	
ELECTRICAL	V/PH/HZ		\geq		
COOLING COIL-HEAT PUMP					
TOTAL COOLING CAPACITY	МВН	9.21	$\overline{}$	12.00	
TOTAL HEATING CAPACITY	MBH				
MANUFACTURER		PAYNE (1-6)	\rangle	FREDERICH (1-4, 6)	
MODEL NO.		PW13HAM009000	AA .	M12CH	
_			$\overline{}$	·	

- UNIT SUPPLIED WITH VIBRATION ISOLATION, STANDARD FILTER, FAN COIL DRAIN PAN, THERMOSTAT, EXPANSIION VALVE, REFRIGERANT LINE SET CONNECTIONS, AND DISCONNECT. WALL FRAME UNIT 6 FT ABOVE FLOOR ON DRYWALL.
- COOLING CAPACITY RATED AT COIL ENTERING 80°F DB/67°F FWB, REFRIGERANT R410A. UNIT SHALL BE HAVE FILTER ACCESS, AND CONDENSATE RETURN. CONDENSATE PUMPS SHALL BE
- PROVIDE DRAIN PAN CUT OUT SWITCH WIRED IN SERIES WITH INLINE FLOAT SWITCH AT FCU PRIOR TO CONDENSATE LINE TRAP REPAIR AND RECONDITION EXISTING UNIT FOR REMOUNT IN NEW LOCATION.UNIT AND CONDENSER
- SUPPLIED BY OWNER. 1" L 3" S. PROVIDE LITTLE GIANT VCMA-20ULS CONDENSATE UNIT WITH SAFETY SWITCH, ALARM, AND 6 FT _120 VOLT CORD, 120V/1/60, 1.5A, ¾ INCH PVC LINE TERMINATED IN FLOOR DRAIN IN MECH
- 7. WEIGHT 25#, ¼"L,%"S

AIR HANDLING UNIT SCHEDULE							
ITEM NO.		AHU-5					
LOCATION		MECH EQUIP. RM					
TOTAL SUPPLY AIR	CFM	7700					
RETURN AIR	CFM	6430					
OUTSIDE AIR	CFM	1270					
STATIC PRESS. EXT./TOTAL	IN. WTR.	2.00/3.24					
MAX. FAN SPEED/TYPE/SIZE	RPM//IN.	1875/AIRFOIL/18.00					
MOTOR	BHP/HP	6.17/7.5					
ELECTRICAL	V/PH/HZ	480/3/60					
COOLING COIL	ROWS/FINS	6/9					
TOTAL COOLING CAPACITY	BTUH	272463					
SENSIBLE COOLING CAPACITY	BTUH	195629					
CHILLED WATER FLOW	GPM	53.4					
COIL WATER P.D. (MAX)	FT	6.9					
CHILLED WATER TEMP. (ENT/LVG)	°F/ °F	45/55					
ENTERING AIR (DB/WB)	°F/° F	78/65.7					
LEAVING AIR (DB/WB)	F/ F	55/53					
FACE VELOCITY	FPM	460					
AIR PRESSURE DROP	IN.	.61					
FILTERS		6 MERV 7					
WEIGHT	LBS	2186					
MANUFACTURER		MCQUAY					
MODEL NO.		CAH017GDAC					
NOTES:							

. PROVIDE NEW MODULAR DOUBLE WALL AIR HANDLER WITH FLANGED SECTIONS FOR INSTALLATION IN AN EXISTING ROOM FROM AN EXISTING ELEVATOR.

- PROVIDE UNIT WITH FILTER FRAME, OUTLET FLANGE, VFD DRIVEN FAN MOTOR L SHAPED FILTER SECTION, WITH VIBRATION ISOLATED FRAME, COOLING COIL SECTION WITH DRAIN PAN AND CHWS/ CHWR PIPE CONNECTIONS, AND SMOKE DETECTION, FAN
- SECTION WITH FLEX CONNECTION OUTLET. DISCONNECT BY EC.
 - PROVIDE & INSTALL 2 WAY CHW CONTROL VALVE WTH MANUAL BYPASS WITH BELIMO ACTUATOR, PROVIDE NEW OA DAMPER AND ACTUATOR ON EXISTING LOUVER. REFER TO DETAILS FOR PIPING FIT UP.

MANATEE COUNTY GOVERNMENT



Property Management 1112 Manatee Avenue Wes Suite 868, P.D. Box 1000

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REMARKS	OWNER REVISIONS				
DATE	01/10/12				
REV.	3				

IFAS# WO100354; WA#32

JDC 9-17-2010

JOHN D. CAMDEN, PE

FL#53458 $\sqrt{\text{Scale}} 1/4" = 1'-0"$

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