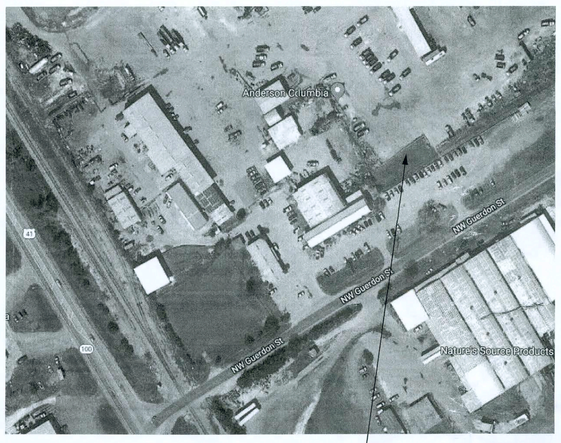
COLUMBIA COUNTY BUILDING DEPARTMENT
PLANS EXAMINER
Reviewed
For Code Compliance
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A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DA

SITE LOCATION



*PROJECT SITE:
871 NW GUERDON ST

*VERIFY LOCATION WITH SITE-CIVIL

DONAHUE ARCHITECTURE, INC
1202 SW 17th Street, Suite #201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL: # AA26000933, GA: # RA012363
FL. ENGINEERING CA: # 32147, ID: # IB26000848



GENERAL NOTES

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CONTRACTOR / OWNER SHALL INSPECT AND VERIFY THE SCOPE OF WORK AND CHECK ALL DIMENSIONS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK APPARENT DURING FIELD INSPECTION BUT NOT SPECIFICALLY NOTED ON THE DRAWINGS SHALL BE CONSIDERED AS PART OF THE SCOPE OF WORK. IF ANY DISCREPANCIES IN THE BUILDING, SITE, OR DRAWINGS ARE DETECTED, NOTIFY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.

ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

FINAL METAL FRAME ENGINEERING SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

INDEX OF DRAWINGS

ARCHITECTURAL DRAWINGS

COVER	SITE MAP & DRAWING INDEX
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A100	OVERALL FLOOR PLAN
A101	ROOF PLAN
A200	ELEVATIONS
A202	BUILDING SECTIONS
A300	ENLARGED FLOOR PLAN - WEST / MECHANICAL MEZZANINE PLAN
A301	ENLARGED FLOOR PLAN - EAST
A400	OVERALL REFLECTED CEILING PLAN
A401	ENLARGED REFLECTED CEILING PLAN - WEST
A402	ENLARGED REFLECTED CEILING PLAN - EAST
A500	WALL SECTIONS
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A600	INTERIOR, EXTERIOR DETAILS / INTERIOR ELEVATIONS
A601	INTERIOR ELEVATIONS
A700	ROOM FINISH, DOOR, AND HARDWARE SCHEDULES / DOOR AND WINDOW TYPES
LS-1	LIFE SAFETY PLAN / BUILDING DATA, OCCUPANT LOAD

STRUCTURAL DRAWINGS

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S500	STRUCTURAL NOTES
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MECHANICAL DRAWINGS

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M100	OVERALL MECHANICAL PLAN
M101	ENLARGED MECHANICAL PLAN - WEST
M102	ENLARGED MECHANICAL PLAN - EAST
M500	MECHANICAL DETAILS
M501	MECHANICAL DETAILS
M502	MECHANICAL CONTROLS

PLUMBING DRAWINGS

P100	OVERALL SANITARY PLAN / FIXTURE SCHEDULE / NOTES
P101	ENLARGED SANITARY PLAN
P102	PLUMBING DETAILS / SANITARY RISER

ELECTRICAL DRAWINGS

E000	SPECIFICATIONS / LEGENDS / NOTES
E100	OVERALL POWER PLAN
E101	ENLARGED POWER PLAN - WEST
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E103	OVERALL LIGHTING PLAN
E104	ENLARGED LIGHTING PLAN - WEST
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E106	RISER DIAGRAM / PANEL SCHEDULES
E107	GENERATOR DETAILS

...ED (subject to ...e Safety Service... ...bia County Fire Re... ...Fire Inspector) DC-21-1 Date: 4/29/19

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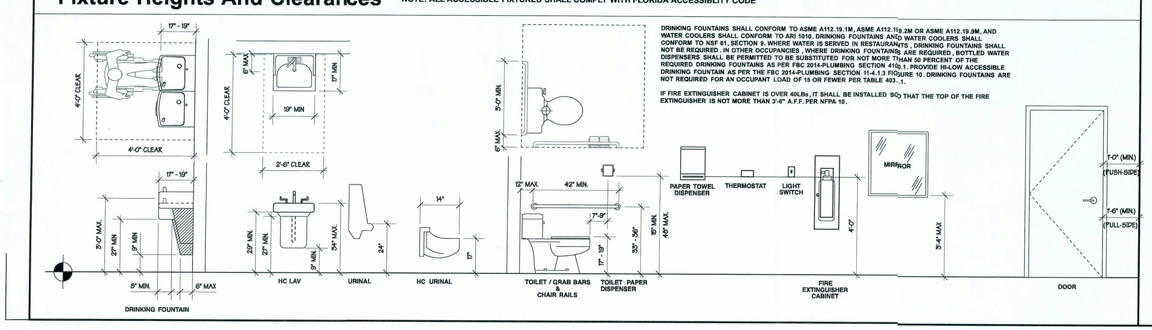
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PARTITION SCHEDULE

TYPE	PLAN SYMBOL	COMPONENTS	THICKNESS	RATING	REMARKS
M-1		TOP OF CMU / SEE ELEV. FINISH FLOOR 0'-0" 1 8" x 8" x 16" CMU TO 10'-0" A.F.F. 2 SYNTHETIC MASONRY TEXTURE OR STONE VENEER. SEE ELEVATIONS 3 3/4" FT FURRING STRIPS OR 3/4" STEEL HAT CHANNELS @ 24" O.C. VERT. 4 3/4" RIGID INSULATION 5 5/8" GYPSUM PANELS ATTACHED TO FURRING AS PER MANUFACTURERS RECOMMENDATION. EXTEND TO TOP OF CMU 6 16" BOND BEAM W/ #5 CONT. HORIZONATL REINFORCING AS INDICATED ON STRUCTURAL DRAWINGS AND NOTES 7 FILLED CELLS W/ VERTICAL REINFORCING AS INDICATED ON STRUCTURAL DRAWINGS AND NOTES	+/- 9 3/4"	UNRATED LOAD BEARING	
S-1		6" ABOVE FINISH CEILING FINISH FLOOR 0'-0" 1 3 5/8" 20 MSG (MIN) GALV. FLOOR & CLG TRACK 2 3 5/8" 20 MSG (MIN) GALV. STEEL STUDS @ 24" O.C. EXTENDED TO 6" ABOVE CLG. 3 SOUND ATTENUATION BLANKETS AT RESTROOMS AND AS DIRECTED BY OWNER 4 5/8" GYPSUM PANELS ATTACHED TO STEEL STUDS AS PER MANUFACTURER'S RECOMMENDATION. EXTENDED TO 6" ABOVE FINISH CLG. 5 HORIZONTAL BLOCKING @ 8'-0" O.C. FOR WALLS OVER 8'-0"	4 7/8" EXCEPT WHERE NOTED ON PLAN.	UNRATED	1. PLACE SOUND ATTENUATION BLANKET IN ALL RESTROOM WALLS AND ABOVE RESTROOM CEILING. 2. PROVIDE 3 5/8" 20 MSG ANGLED BRACING @ 4'-8" O.C. FROM TOP OF WALL TO STRUCTURE ABOVE
S-2		BOTTOM OF ROOF DECK FINISH FLOOR 0'-0" 1 5 5/8" 18 MSG (MIN) GALV. FLOOR & CLG TRACK 2 5 5/8" 18 MSG (MIN) GALV. STEEL STUDS @ 24" O.C. EXTENDED TO DECK ABOVE 3 SOUND ATTENUATION BLANKETS AT RESTROOMS AND AS DIRECTED BY OWNER 4 5/8" GYPSUM PANELS ATTACHED TO STEEL STUDS AS PER MANUFACTURER'S RECOMMENDATION. EXTENDED TO DECK ABOVE 5 HORIZONTAL BLOCKING @ 8'-0" O.C. FOR WALLS OVER 8'-0"	4 7/8" EXCEPT WHERE NOTED ON PLAN.	UNRATED	1. PLACE SOUND ATTENUATION BLANKET IN ALL RESTROOM WALLS AND ABOVE RESTROOM CEILING.
S-3		BEARING HEIGHT FINISH FLOOR 1 3 5/8" 18 MSG GALV. FLOOR & CLG TRACK 2 3 5/8" 18 MSG GALV. STEEL STUDS @ 12" O.C. EXTENDED TO BEARING HEIGHT 3 SOUND ATTENUATION BLANKETS (OPTIONAL) 4 5/8" GYPSUM PANELS ATTACHED TO STEEL STUDS AS PER MANUFACTURER'S RECOMENTATION. EXTENDED TO BEARING HEIGHT	4 7/8" EXCEPT WHERE NOTED ON PLAN.	UNRATED - LOAD BEARING	1. PLACE SOUND ATTENUATION BLANKET WHERE INDICATED ON PLAN
S-4		HEIGHT AS NOTED FINISH FLOOR 0'-0" 1 3 5/8" 20 MSG (MIN) GALV. FLOOR & TOP TRACK 2 3 5/8" 20 MSG (MIN) GALV. STEEL STUDS @ 24" O.C. ABOVE FINISH FLOOR OR AS NOTED 3 1X WOOD CAP (PAINT OR STAIN) 4 5/8" GYPSUM PANELS ATTACHED TO WOOD STUDS AS PER MANUFACTURERS RECOMMENDATION. EXTENDED TO TOP PLATE	4 3/4" EXCEPT WHERE NOTED ON PLAN.	UNRATED - LOW-WALL	

Fixture Heights And Clearances

NOTE: ALL ACCESSIBLE FIXTURES SHALL COMPLY WITH FLORIDA ACCESSIBLITY CODE



DRINKING FOUNTAINS SHALL CONFORM TO ASME A112.19.1M, ASME A112.19.3M OR ASME A112.19.9M, AND WATER COOLERS SHALL CONFORM TO ARI 1010. DRINKING FOUNTAINS AND WATER COOLERS SHALL CONFORM TO NSF 61, SECTION 9. WHERE WATER IS SERVED IN RESTAURANTS , DRINKING FOUNTAINS SHALL NOT BE REQUIRED . IN OTHER OCCUPANCIES , WHERE DRINKING FOUNTAINS ARE REQUIRED , BOTTLED WATER DISPENSERS SHALL BE PERMITTED TO BE SUBSTITUTED FOR NOT MORE THAN 50 PERCENT OF THE REQUIRED DRINKING FOUNTAINS AS PER FBC 2014-PLUMBING SECTION 410.1. PROVIDE HI-LOW ACCESSIBLE DRINKING FOUNTAIN AS PER THE FBC 2014-PLUMBING SECTION 11-4.1.3 FIGURE 10. DRINKING FOUNTAINS ARE NOT REQUIRED FOR AN OCCUPANT LOAD OF 15 OR FEWER PER TABLE 403 .1.

IF FIRE EXTINGUISHER CABINET IS OVER 40LBs , IT SHALL BE INSTALLED SO THAT THE TOP OF THE FIRE EXTINGUISHER IS NOT MORE THAN 3'-6" A.F.F. PER NFPA 10 .

ABBREVIATIONS

A.B.	ANCHOR BOLT	LNTL.	LINTEL
A.T.	ACOUSTICAL TILE	MFR.	MANUFACTURER
ADJ.	ADJUSTIBLE	MATL.	MATERIAL
A.F.F.	ABOVE FINISH FLOOR	MAX.	MAXIMUM
A.C.	AIR CONDITIONING	MECH.	MECHANICAL
ANOD.	ANODIZED	MEMB.	MEMBRANE
ALUM/AL	ALUMINUM	MTL.	METAL
APPROX.	APPROXIMATE	MIN.	MINIMUM
ABV.	ABOVE	MISC.	MISCELLANEOUS
ADDL.	ADDITIONAL	MLDG.	MOULDING
ALT.	ALTERNATE	N.I.C.	NOT IN CONTRACT
BD.	BOARD	N.T.S.	NOT TO SCALE
BM.	BEAM	NO.	NUMBER
BLW.	BELOW	OFF.	OFFICE
BLK.	BLOCK	O.C.	ON CENTER
BLKG.	BLOCKING	OD	OUTSIDE DIAMETER
BOT.	BOTTOM	OPNG.	OPENING
BLDG	BUILDING	OPP.	OPPOSITE
B.O.	BOTTOM OF	O.A.	OVERALL
CAB.	CABINET	O.H.	OVERHEAD
CLG.	CEILING	P.G.	PAINT GRADE
CEM.	CEMENT	PR.	PAIR
C.F.	CURB FACE	PNL.	PANEL
C.O.	CLEAN OUT	PART.	PARTITION
C.T.	CERAMIC TILE	PERF.	PERFORATION
℄	CENTERLINE	PERP.	PERPENDICULAR
CANT.	CANTILEVER	PLAS.	PLASTIC
CONN.	CONNECTION	PLYWD.	PLYWOOD
CTR.	CENTER	PROP.	PROPERTY
CLR.	CLEAR	PSI	POUNDS PER SQUARE INCH
COL.	COLUMN	PSF	POUNDS PER SQUARE FOOT
CONC.	CONCRETE	P.L.	PROPERTY LINE
CMU	CONCRETE MASONRY UNIT	PVC	POLY VINYL CHLORIDE
CONST.	CONSTRUCTION	R	RISER
CONT.	CONTINUOUS	REFR.	REFRIGERATOR
C.J.	CONTROL JOINT	R.S.	REMOTE SENSOR
CONTR.	CONTRACTOR	REINF.	REINFORCING
CORR.	CORRIDOR	REQD.	REQUIRED
CTRD.	CENTERED	RTN.	RETURN
D	DEEP	R.A.	RETURN AIR
DET.	DETAIL	REV.	REVERSE
DIAG.	DIAGONAL	R.D.	ROOF DRAIN
DIA.	DIAMETER	RFG.	ROOFING
DIM.	DIMENSION	RM.	ROOM
DL	DEAD LOAD	R.O.	ROUGH OPENING
DWL.	DOWEL	SCH.	SCHEDULE
DR.	DOOR	SECT.	SECTION
DBL.	DOUBLE	SHTG.	SHEATHING
DN.	DOWN	SHT.	SHEET
DWG.	DRAWING	SIM.	SIMILAR
D.S.C.	DOWNSPOUT CONNECTION	S	SINK
EA.	EACH	S.D.	SOAP DISPENSER
E.S.	EACH SIDE	SOL.	SOLID
ELEC.	ELECTRICAL	SPECS.	SPECIFICATIONS
E.P.	ELECTRICAL PANEL	SQ.	SQUARE
EL.	ELEVATION (GRADE)	S.S.	STAINLESS STEEL
ELEV.	ELEVATION (BLDG)	STD.	STANDARD
ENCL.	ENCLOSURE	STL.	STEEL
EQ.	EQUAL	STOR.	STORAGE
EQUIP.	EQUIPMENT	ST.	STREET; STRAIN
EXH.	EXHAUST	STRUCT.	STRUCTURAL
EXIST.	EXISTING	SUSP.	SUSPEND; SUSPENDED
E.J.	EXPANSION JOINT	SW.	SHEARWALL
EXP.	EXPOSED; EXPANSION	SYS.	SYSTEM
EXT.	EXTERIOR	SYM.	SYMMETRICAL
E.W.	EACH WAY	S.J.	SAW-CUT JOINT
FIN.	FINISH	SL.	SLOPE
F.F.	FINISH FLOOR	STR.	STOREFRONT
F.E.	FIRE EXTINGUISHER	STD.	STANDARD
F.E.C.	FIRE EXTINGUISHER CABINET	TEL.	TELEPHONE
F.P.	FIRE PROOF	THERMO.	THERMOSTAT
FLASH.	FLASHING	THK.	THICK
FLR.	FLOOR	THRU.	THROUGH
F.D.	FLOOR DRAIN	TOIL.	TOILET
F.S.	FLOOR SINK	T.O.	TOP OF
FT.	FOOT	T & B	TOP AND BOTTOM
FTG.	FOOTING	T & G	TONGUE AND GROOVE
FDN.	FOUNDATION	TEMP.	TEMPORARY; TEMPERED
GA.	GAUGE	T	TREAD
G.C.	GENERAL CONTRACTOR	T.S.	TUBULAR STEEL
GEN.	GENERAL	TYP.	TYPICAL
GALV.	GALVANIZED	U.L.	UNDERWRITERS LABORATORIES
GL.	GLASS; GLAZING; GLAZED	UNFIN.	UNFINISHED
GR.	GRADE	U.O.N.	UNLESS OTHERWISE NOTED
GYP.	GYPSUM	VENT.	VENTILATE; VENTILATION
HDWE	HARDWARE	VEST.	VESTIBULE
HC	HOLLOW CORE	VERT.	VERTICAL
HT.	HEIGHT	W.C.	WATERCLOSET
HM	HOLLOW METAL	W.C.J.	WALL CONTROL JOINT
HOR.	HORIZONTAL	W.P.	WATERPROOF
INS.	INSULATE; INSULATION	W.W.M.	WELDED WIRE MESH
INT.	INTERIOR	W.	WIDE; WIDTH
I.D.	INSIDE DIAMETER	W/	WITH
JNT.	JOINT	W/O	WITHOUT
JST.	JOIST	WD.	WOOD
K	KIP	W.I.C.	WALK-IN COOLER
KO	KNOCK OUT	W.I.F.	WALK-IN FREEZER
LAM.	LAMINATE; LAMINATED		
LTG.	LIGHTING		
LG.	LONG		
LL	LIVE LOAD		

Building Codes And Standards

FLORIDA BUILDING CODE 6TH EDITION (2017)

FLORIDA BUILDING CODE 6TH EDITION (2017) - ACCESSIBILITY

FLORIDA BUILDING CODE 6TH EDITION (2017) - PLUMBING

FLORIDA BUILDING CODE 6TH EDITION (2017) - MECHANICAL

FL FIRE PREVENTION CODE - 5TH EDITION

NFPA 10 - 2015 EDITION

NFPA 70 - NATIONAL ELECTRICAL CODE - 2014 EDITION

NFPA 101 - LIFE SAFETY CODE - 2015 EDITION

OSHA

LOCAL ENVIRONMENTAL REGULATIONS

FLORIDA ACCESSIBILITY CODE REQUIREMENTS & ADA

OTHER STANDARDS LISTED IN THEIR RESPECTIVE SECTIONS IN SPECIFICATIONS

THE CONTRACTOR SHALL MAKE AVAILABLE TO THE BUILDING INSPECTOR ANY DOCUMENTATION NECESSARY TO VERIFY THAT ALL COMPONENTS REQUIRING PRODUCT APPROVAL PER FS 553.842 ARE IN COMPLIANCE AS PER PRODUCT APPROVAL INSTALLATION REQUIREMENTS

Building Design Data

OCCUPANCY CLASSIFICATION - BUSINESS

CONSTRUCTION TYPE - TYPE II-B W/ AREA INCREASE MODIFICATION DUE TO FRONTAGE, UN-SPRINKLED (SEE LIFE SAFETY PLAN)

FLOORS: ONE

ROOF TYPE: METAL BUILDING

ROOF MATERIAL: METAL BUILDING

PAVEMENT: BITUMINOUS

803.1 General.
Interior wall and ceiling finish materials shall be classified for fire performance and smoke development in accordance with Section 803.1.1 or 803.1.2, except as shown in Sections 803.2 through 803.13. Materials tested in accordance with Section 803.1.2 shall not be required to be tested in accordance with Section 803.1.1.

803.1.1 Interior wall and ceiling finish materials.
Interior wall and ceiling finish materials shall be classified in accordance with ASTM E 84 or UL 723. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed indexes.

Class A: = Flame spread index 0-25; smoke-developed index 0-450.

Class B: = Flame spread index 26-75; smoke-developed index 0-450.

Class C: = Flame spread index 76-200; smoke-developed index 0-450.

Exception: Materials tested in accordance with Section 803.1.2.

803.11 Interior finish requirements based on group.
Interior wall and ceiling finish shall have a flame spread index not greater than that specified in Table 803.11 for the group and location designated. Interior wall and ceiling finish materials tested in accordance with NFPA 286 and meeting the acceptance criteria of Section 803.1.2.1, shall be permitted to be used where a Class A classification in accordance with ASTM E84or UL 723 is required.

INTERIOR WALL AND CEILING FINISH REQ. BY OCCUPANCY
WITHOUT SPRINKLER SYSTEM

GROUP	VERTICAL EXITS AND EXIT PASSAGEWAYS	EXIT ACCESS CORRIDORS AND OTHER EXITS	ROOMS AND ENCLOSED SPACES
BUSINESS	A	B	C

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26008635, CA # EC13012923
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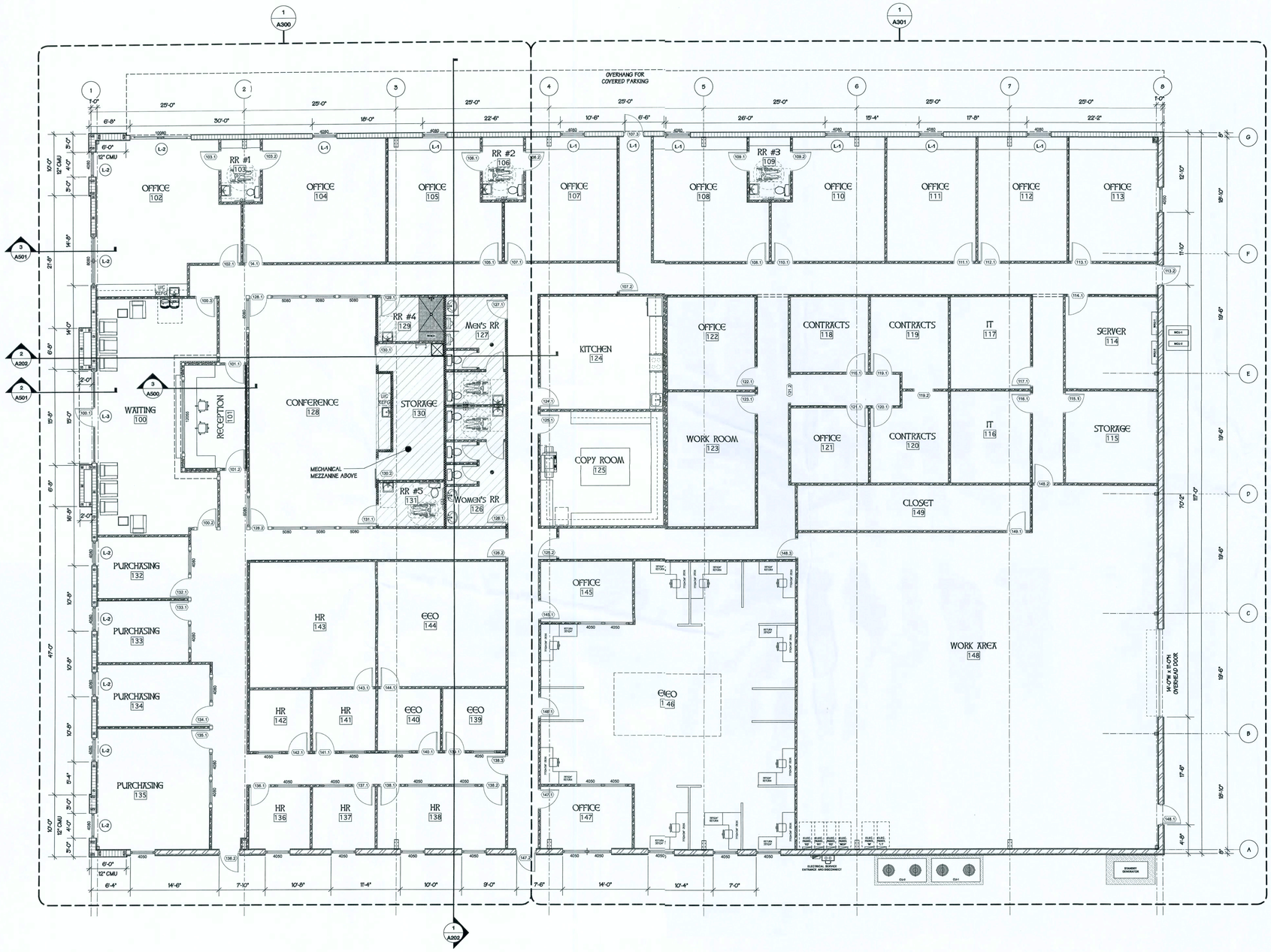
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WALL TYPES / CODES

WALL TYPES, ADA FIXTURE HEIGHTS, CODES, BUILDING DATA

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Lake City, FL 32055

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JOB D_17061	
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A000	OF 39
Permit Set	



1 A100 FLOOR PLAN
Scale: 1/8" = 1'-0"

GENERAL NOTES:

CONTRACTOR / OWNER SHALL INSPECT AND VERIFY THE SCOPE OF WORK AND CHECK ALL DIMENSIONS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK APPARENT DURING FIELD INSPECTION BUT NOT SPECIFICALLY NOTED ON THE DRAWINGS SHALL BE CONSIDERED AS PART OF THE SCOPE OF WORK.

ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 5TH EDITION (2014) AND AS PER MANUFACTURER'S INSTRUCTIONS.

IF ANY DISCREPANCIES IN THE BUILDING, SITE, OR DRAWINGS ARE DETECTED, NOTIFY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.

CONSTRUCTION NOTES:

KEYED TO FLOOR PLAN - ☐

1. FINISHED FLOOR REFERENCE ELEVATION = 0' - 0" .
2. ALL DIMENSIONS TO FACE OF STUD OR FACE OF CMU UNLESS NOTED OTHERWISE.
3. ALL WORK SHALL COMPLY WITH CURRENT LOCAL AND STATE CODES AND WITH THE CURRENT EDITION OF THE STATE OF FLORIDA HANDICAP STATUTES AND THE AMERICANS WITH DISABILITIES ACT. (ADA).
4. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.
5. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO START OF CONSTRUCTION.
6. **DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. CONTACT ARCHITECT IF DISCREPANCIES ARISE.**

GROSS AREA TABULATION

AREA	SQUARE FOOTAGE
GROSS AREA	20,475.00 SQ. FT
TOTAL SQ. FT.	20,475

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000833, GA. # RA012363
FL Engineering CA # 32147, NCR # 1656000848

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FLOOR PLANS

FLOOR PLAN / CONSTRUCTION NOTES

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1 A101 ROOF PLAN
Scale: 1/8" = 1'-0"

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Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000833 GA. # RA012383
FL Engineering CA # 29147 NCI # 8256002648

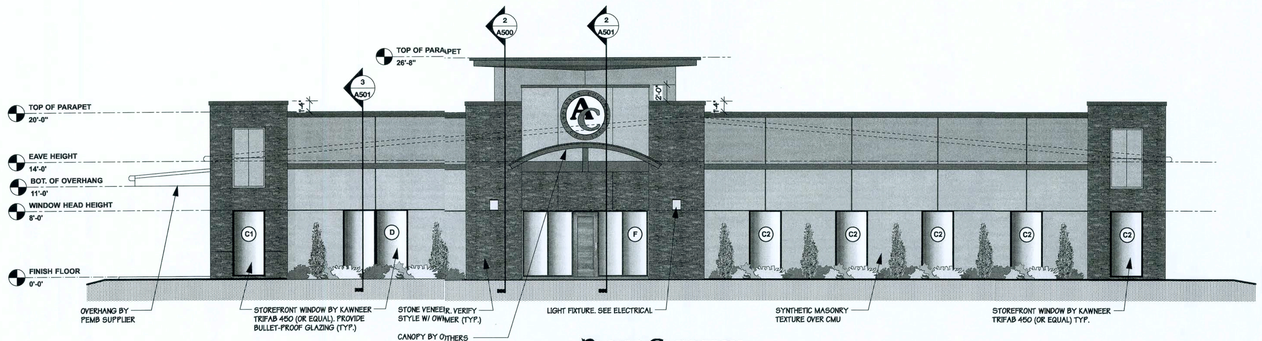
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FLOOR PLANS

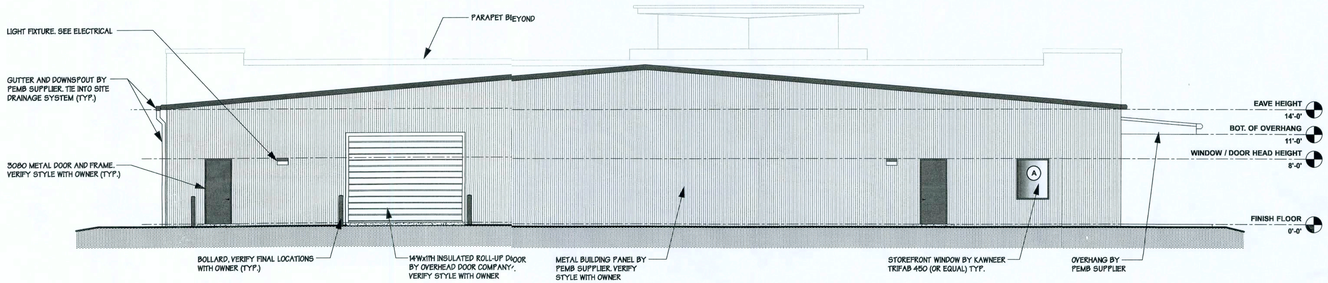
ROOF PLAN

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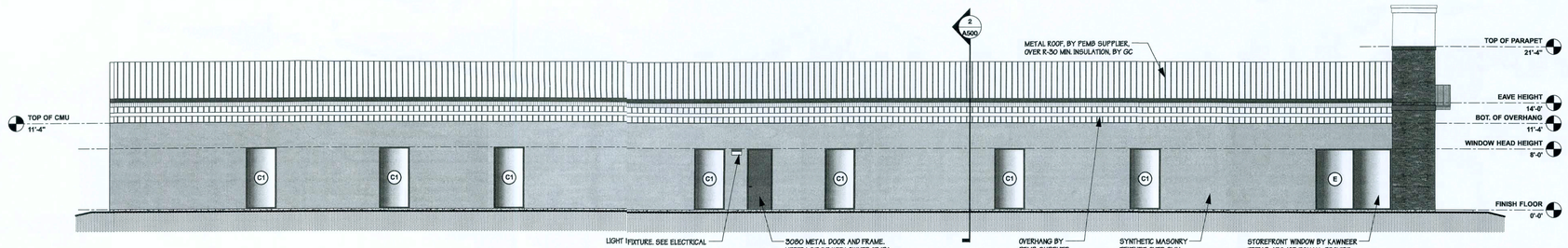
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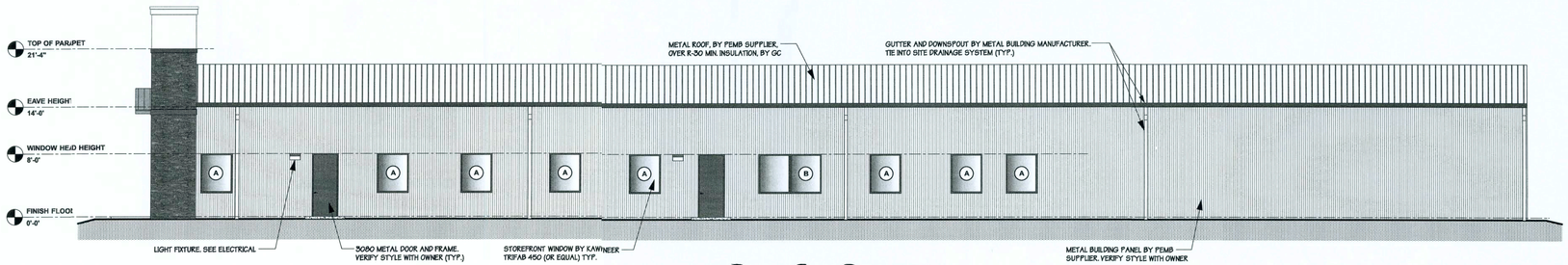
1 A200 **FRONT ELEVATION**
SCALE: 1/8" = 1'-0"



2 A200 **REAR ELEVATION**
SCALE: 1/8" = 1'-0"



3 A200 **LEFT-SIDE ELEVATION**
SCALE: 1/8" = 1'-0"



4 A200 **RIGHT-SIDE ELEVATION**
SCALE: 1/8" = 1'-0"

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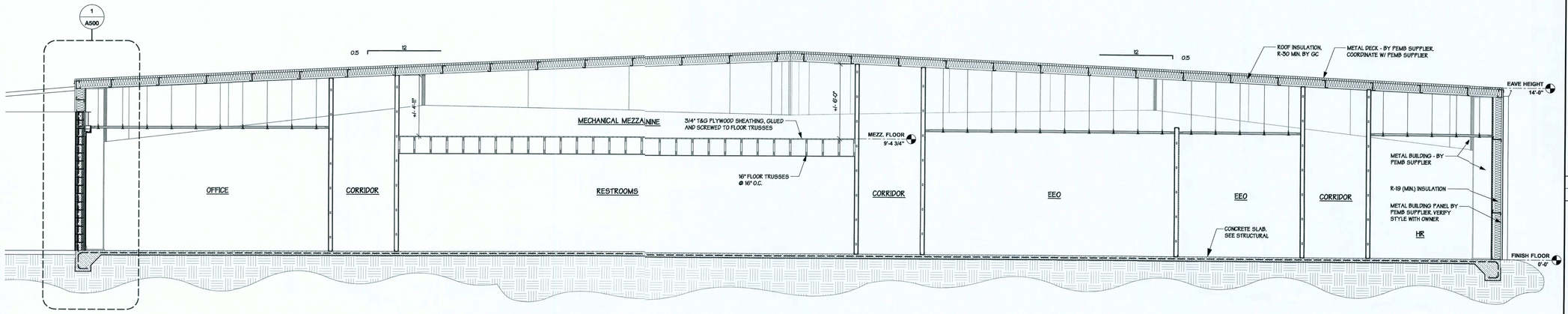
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1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000953, CA # RA0013263
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ELEVATIONS

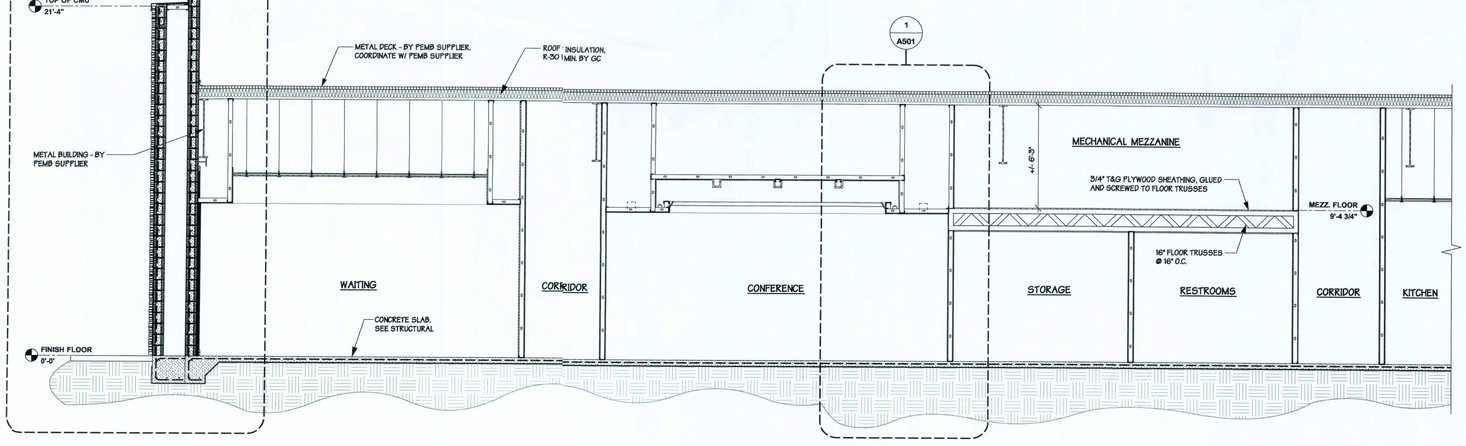
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A200
Permit Set
OF 39



1 A202 **BUILDING SECTION**
Scale: 1/4" = 1'-0"



2 A202 **BUILDING SECTION**
Scale: 1/4" = 1'-0"

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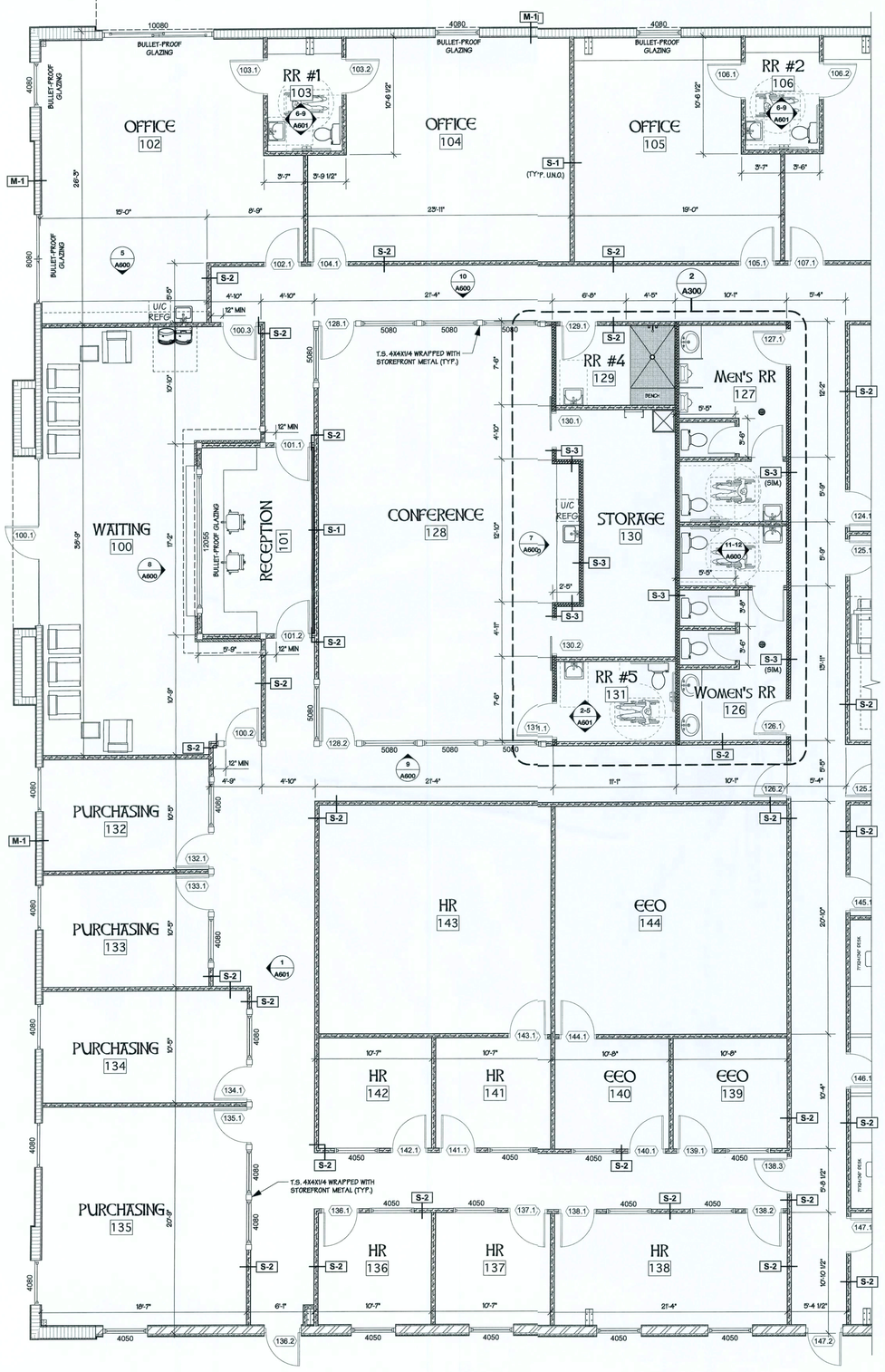
DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL# AA26000833, GA.# RA012483
FL Engineering CA # 29147, GA # RER2000848

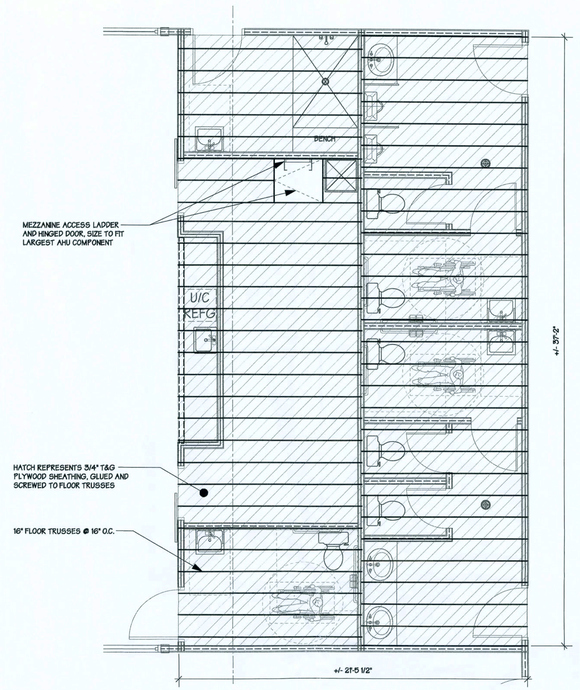
BUILDING SECTIONS

BUILDING SECTIONS

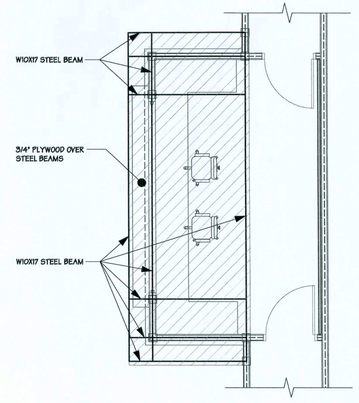
A New Office for
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DATE 10/29/18	
JOB D_17061	
DRAWN BY JD JAD	6
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2 A300 MECHANICAL MEZZANINE PLAN
Scale: 1/4" = 1'-0"



3 A300 RECEPTION FRAMING PLAN
Scale: 1/4" = 1'-0"

1 A300 ENLARGED FLOOR PLAN - WEST
Scale: 3/16" = 1'-0"

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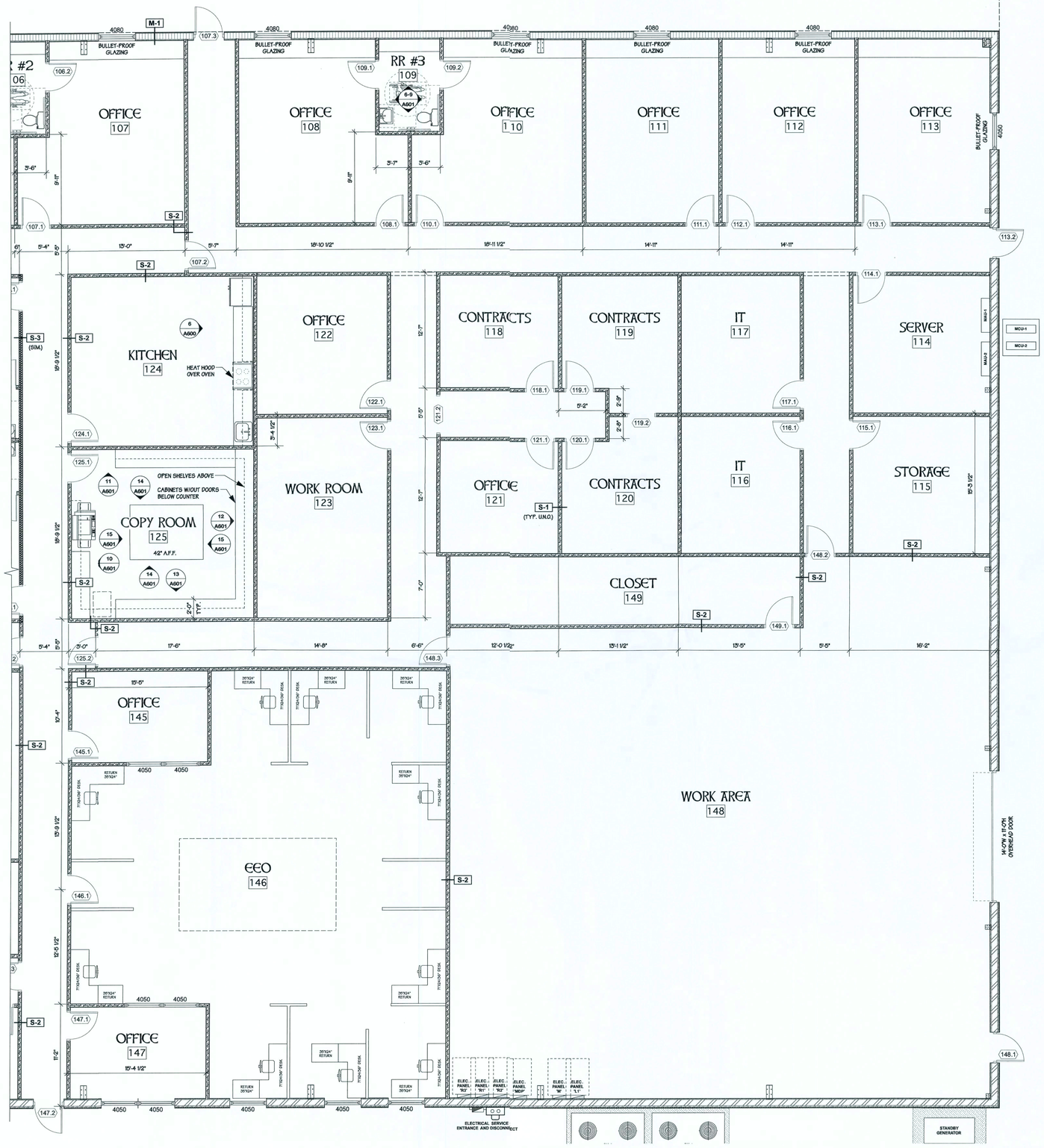
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Ocala, FL. 34471
T 352.861.5148
E john@donahue-arch.com
FL # AA26000933, GA # RA012363
FL Engineering CA # 32147, ID # IB26000848

FLOOR PLANS

ENLARGED FLOOR PLAN - WEST

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1 A301 ENLARGED FLOOR PLAN - EAST
SCALE: 3/16" = 1'-0"

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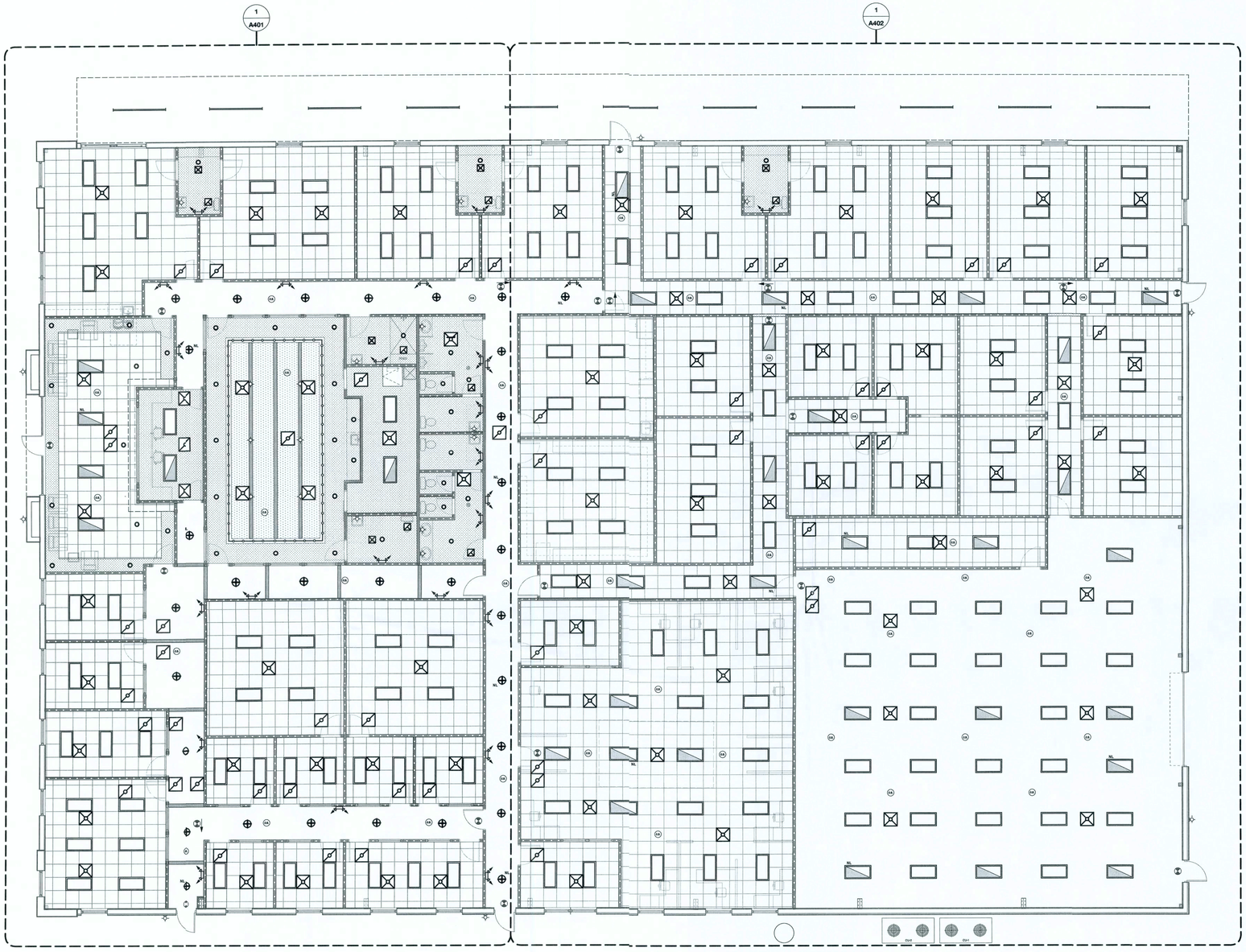
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T 352.867.5148
E john@donahue-arch.com
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FL Engineering CA: # 32147, ID: # IB26000848

FLOOR PLANS

ENLARGED FLOOR PLAN - EAST

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CEILING FINISH SCHEDULE

MATERIAL	MANUFACTURER	PRODUCT #	DESCRIPTION / REMARKS
GENERAL CEILING TILE	ARMSTRONG	1774 "DUNE"	2'X2' FINE TEXTURED CEILING TILES; "WHITE"
CEILING GRID SYSTEM	ARMSTRONG	7300 WH	WHITE GRID, 15/16"

1 A400 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

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REFLECTED CEILING

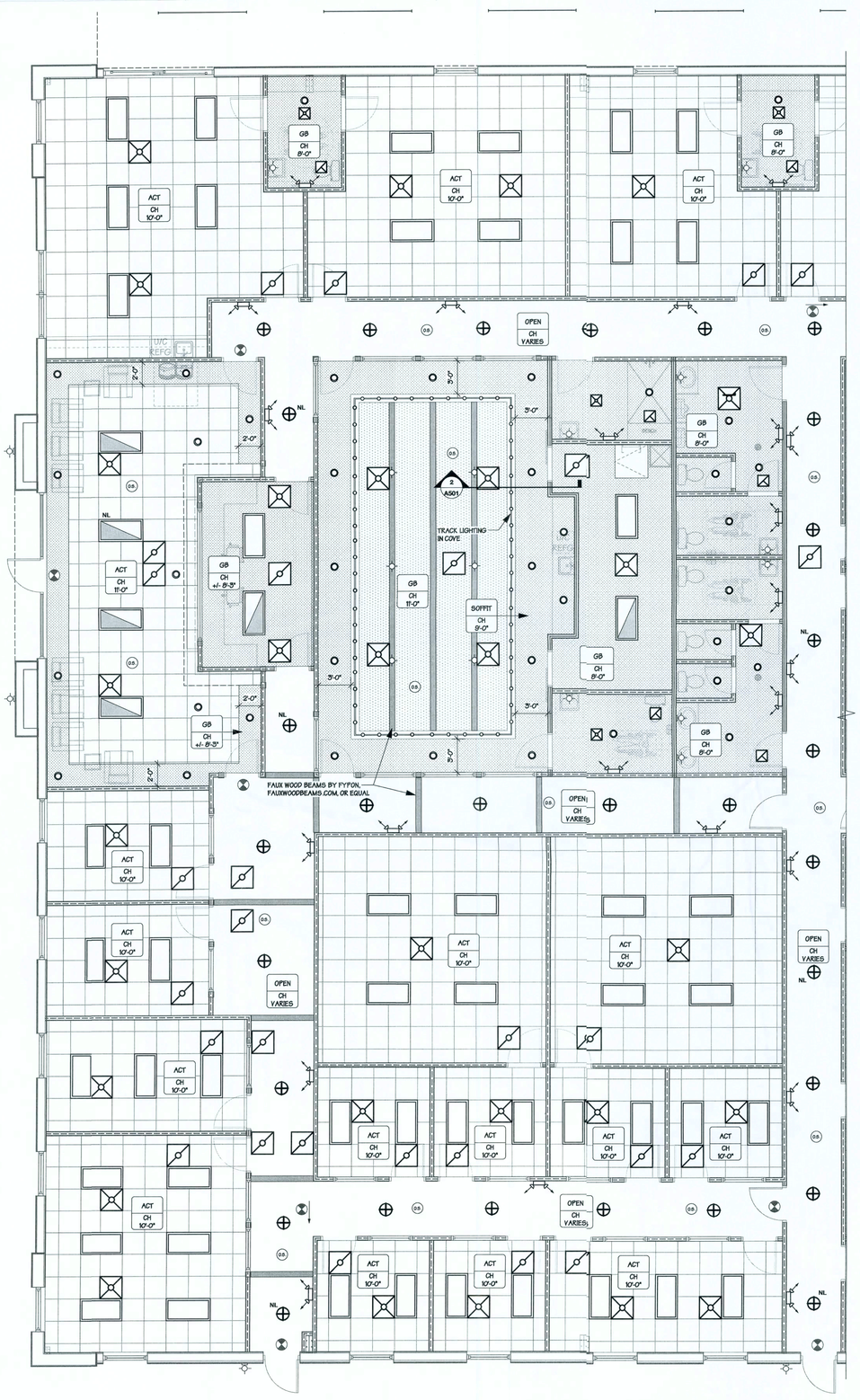
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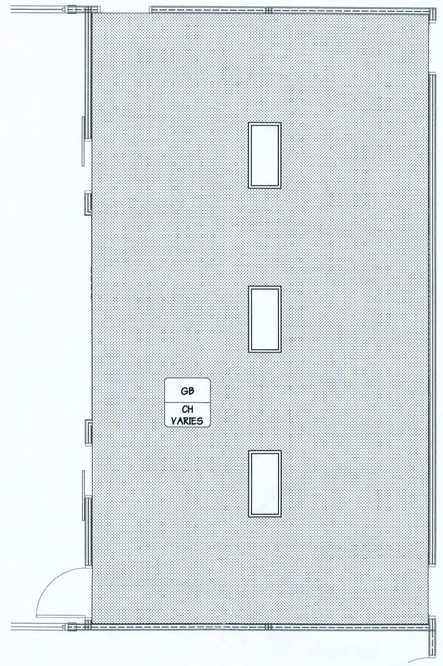
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9

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Permit Set

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2 A401 MECHANICAL MEZZANINE RCP
SCALE: 1/4" = 1'-0"

1 A401 ENLARGED RCP - WEST
SCALE: 3/16" = 1'-0"

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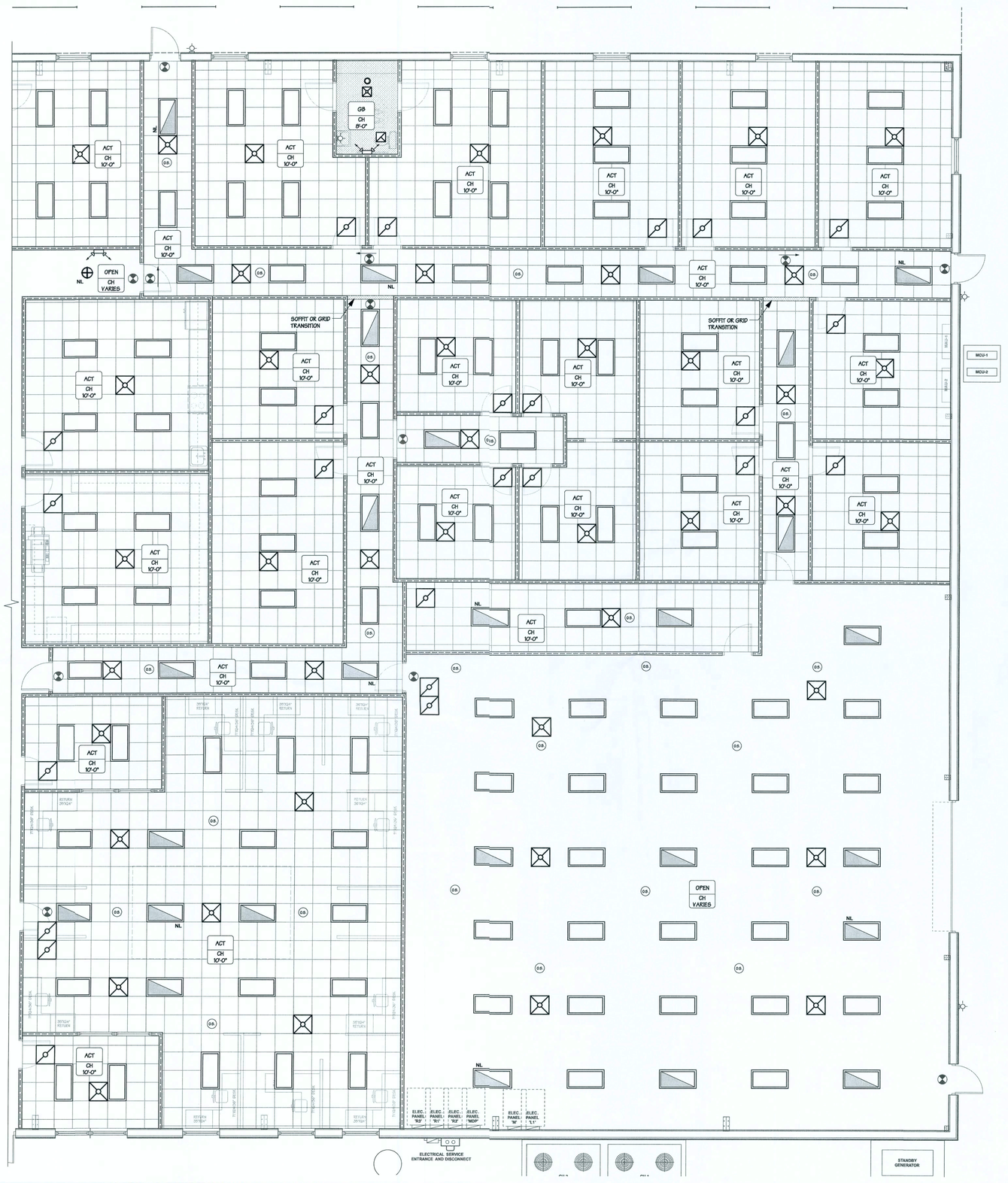
ENLARGED REFLECTED CEILING PLAN - WEST

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1 A402 ENLARGED RCP - EAST
SCALE: 3/16" = 1'-0"

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Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
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REFLECTED CEILING

ENLARGED REFLECTED CEILING PLAN - EAST

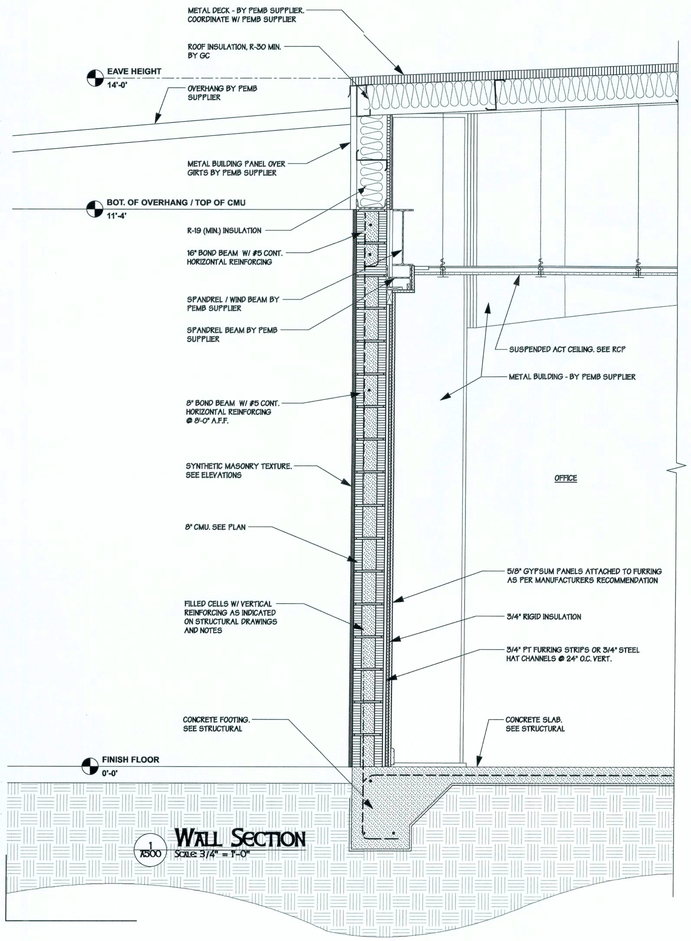
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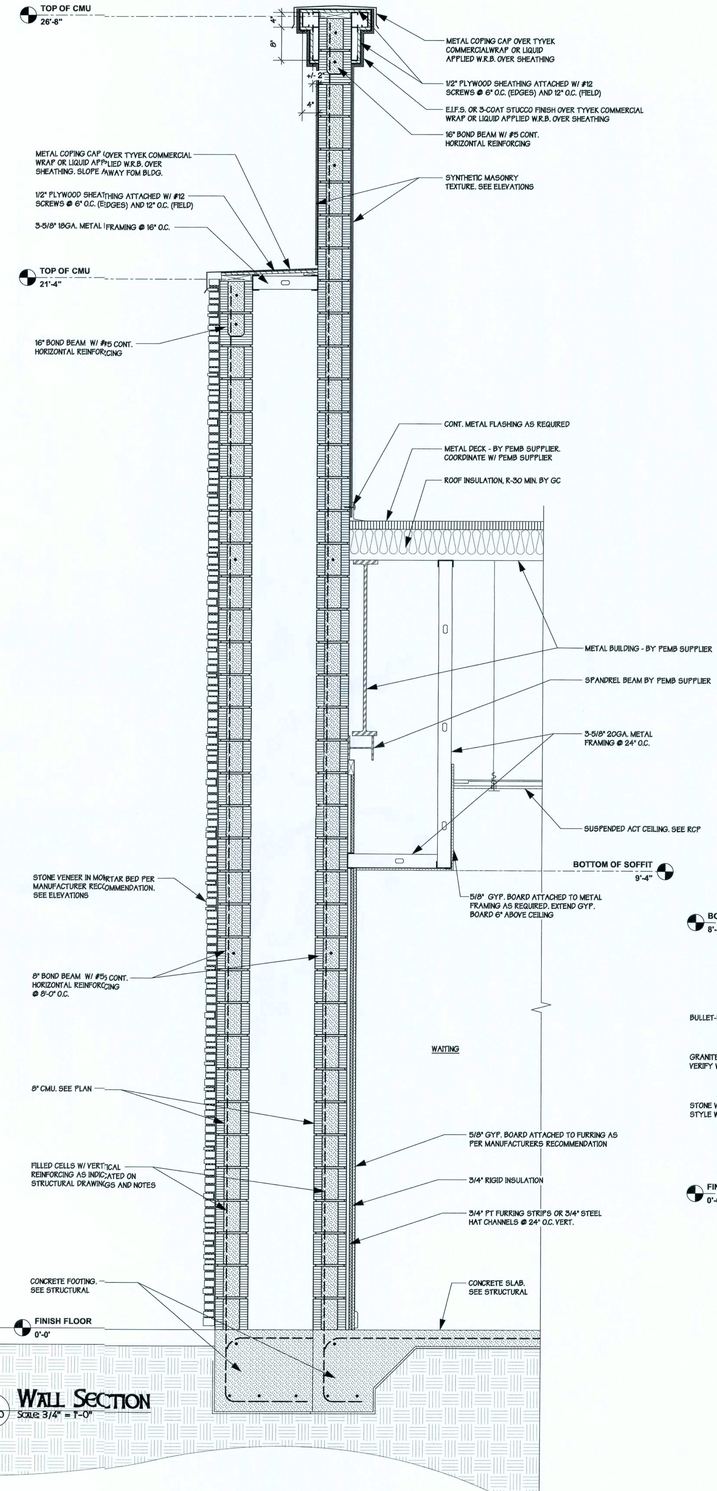
A402
Permit Set

OF 39

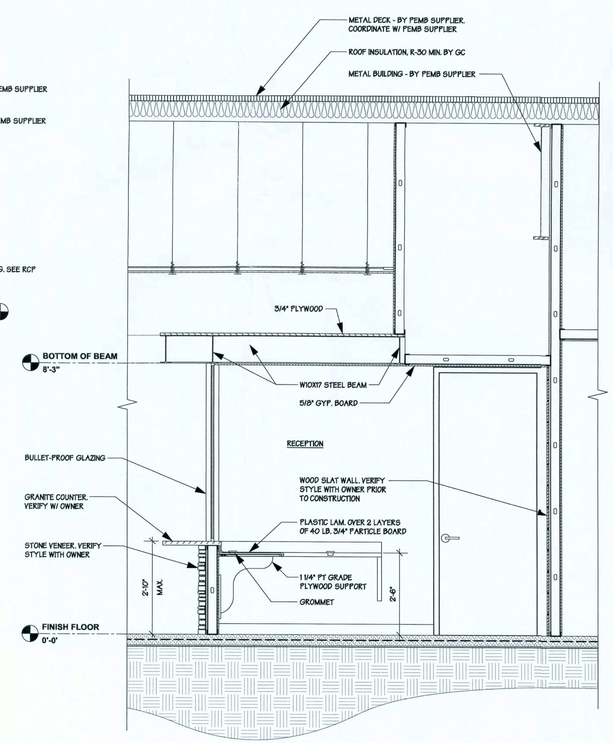
JAN 04 2019



1 A500 **WALL SECTION**
Scale: 3/4" = 1'-0"



2 A500 **WALL SECTION**
Scale: 3/4" = 1'-0"



3 A500 **WALL SECTION**
Scale: 1/2" = 1'-0"

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john@donahue-arch.com
FL. # AA26000633, GA. # RA012393
Ft.Engineering CA. # 3147, ID. # IB26000848

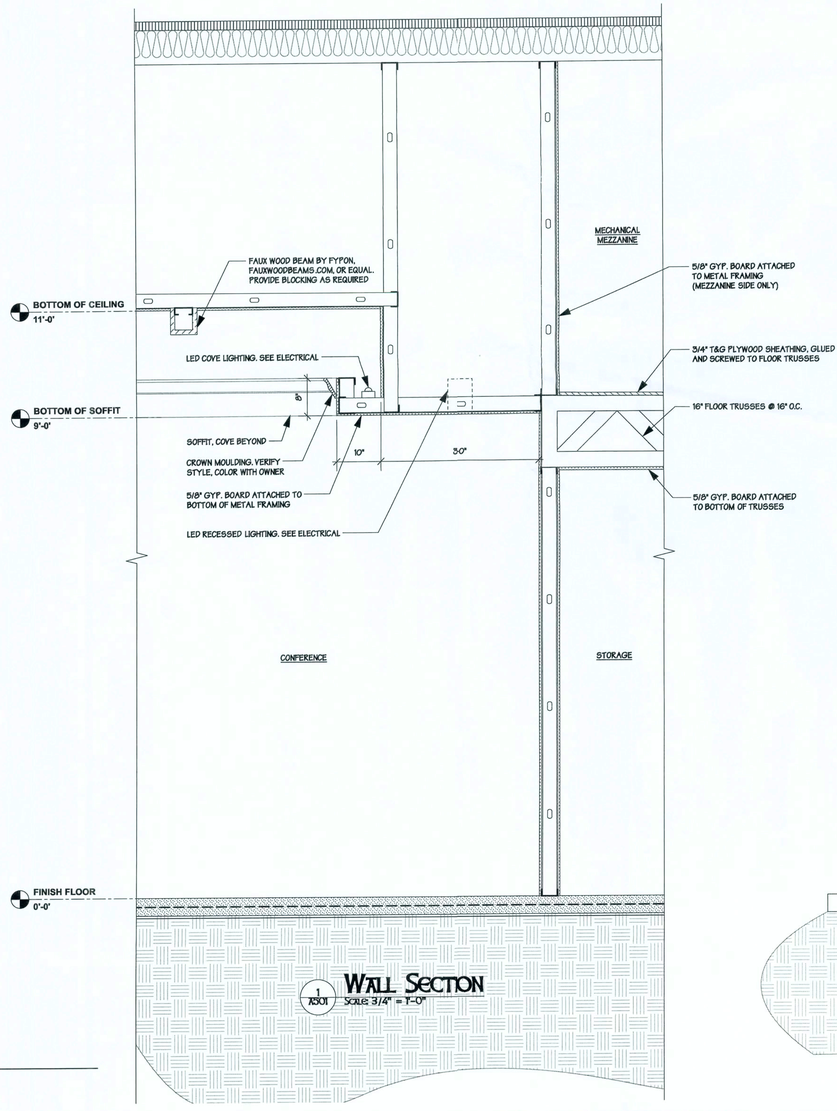
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WALL SECTIONS

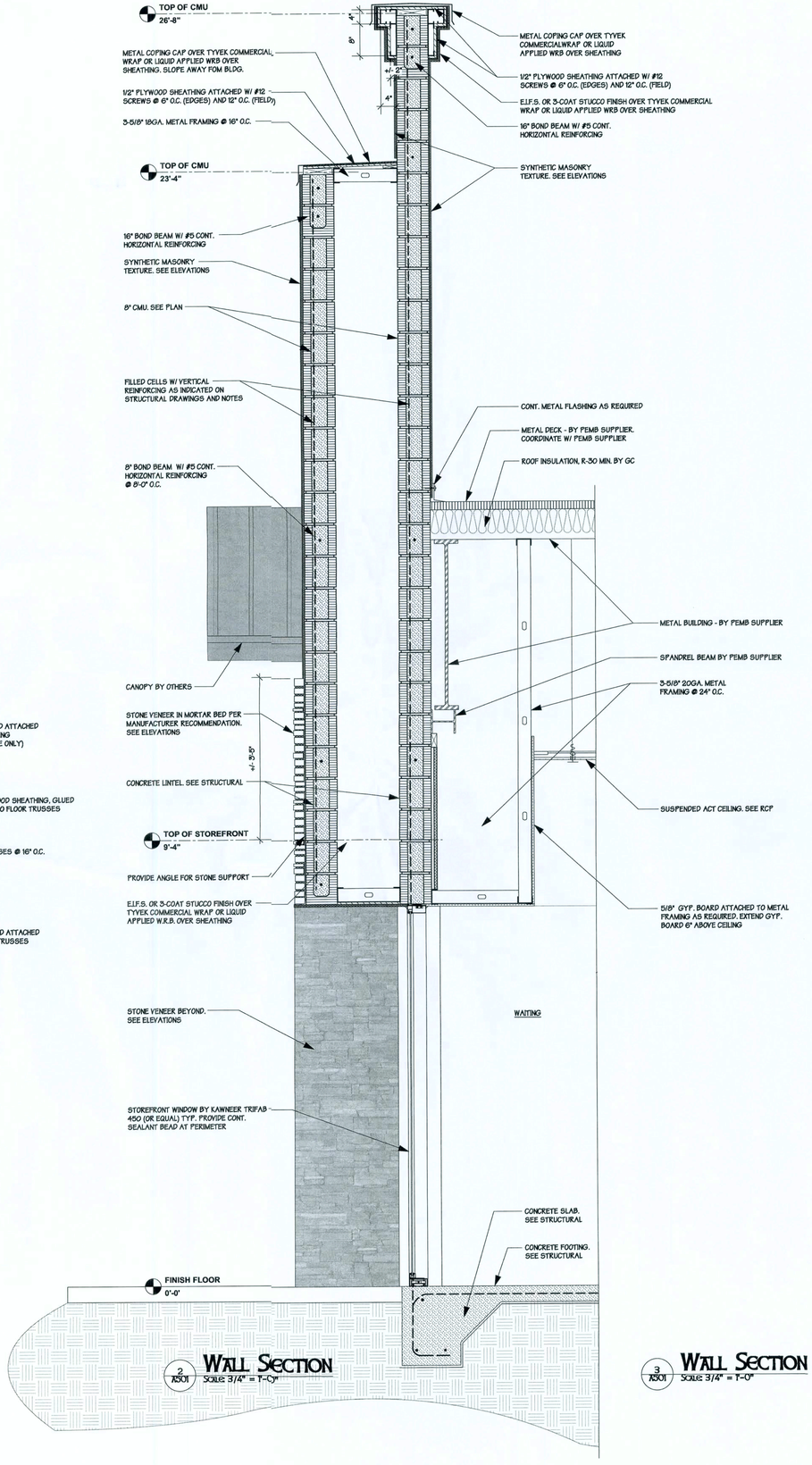
WALL SECTIONS

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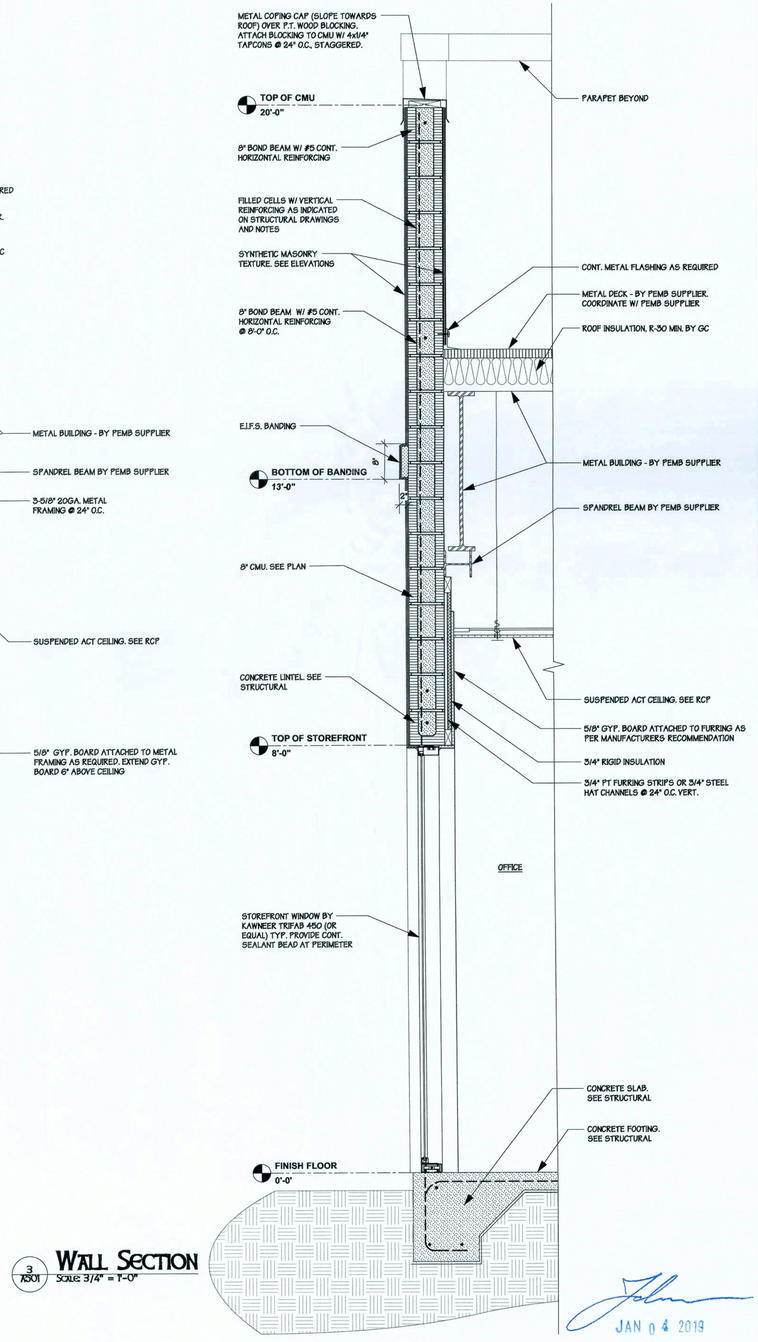
DATE	10/29/18
JOB	D_17061
DRAWN BY	JD / JAD
	12
A500	OF 39
Permit Set	



1 A501 WALL SECTION
Scale: 3/4" = 1'-0"



2 A501 WALL SECTION
Scale: 3/4" = 1'-0"



3 A501 WALL SECTION
Scale: 3/4" = 1'-0"

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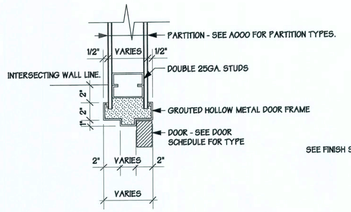
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WALL SECTIONS

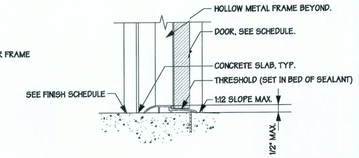
WALL SECTIONS

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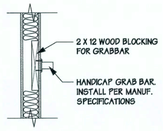
DATE 10/29/18
JOB D_17061
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13
A501
Permit Set
OF 39



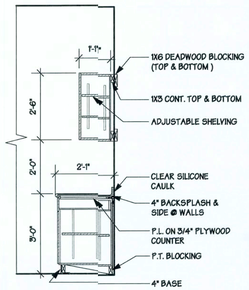
1 A600 DOOR HEAD DETAIL
Scale: 1 1/2" = 1'-0"



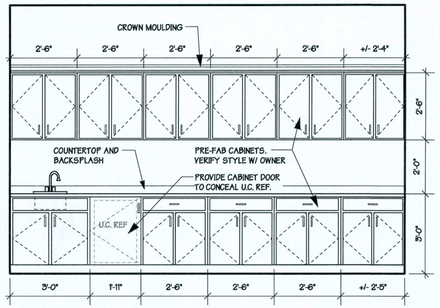
2 A600 TYPICAL THRESHOLD DETAIL
Scale: 1 1/2" = 1'-0"



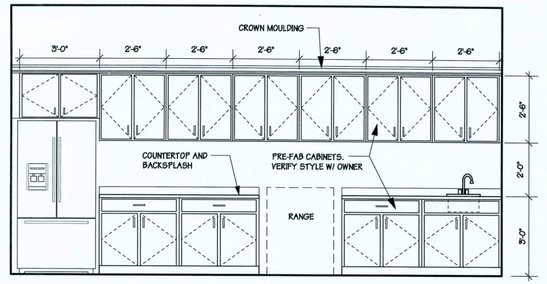
3 A600 WOOD BLOCKING DETAIL
Scale: 3/4" = 1'-0"



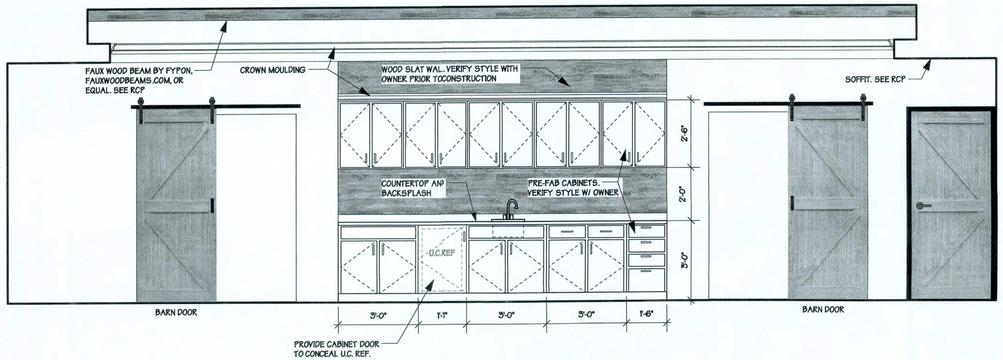
4 A600 CABINET SECTION TYP.
Scale: 3/8" = 1'-0"



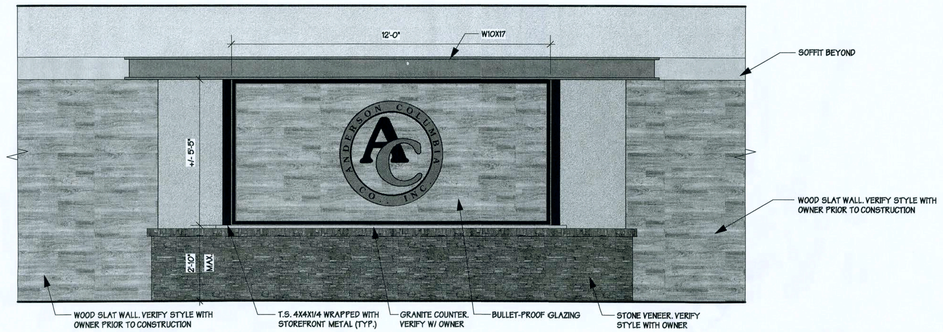
5 A600 ELEVATION - OFFICE
Scale: 3/8" = 1'-0"



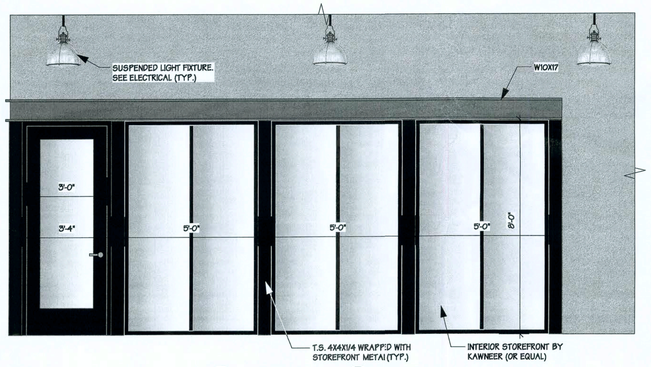
6 A600 ELEVATION - KITCHEN
Scale: 3/8" = 1'-0"



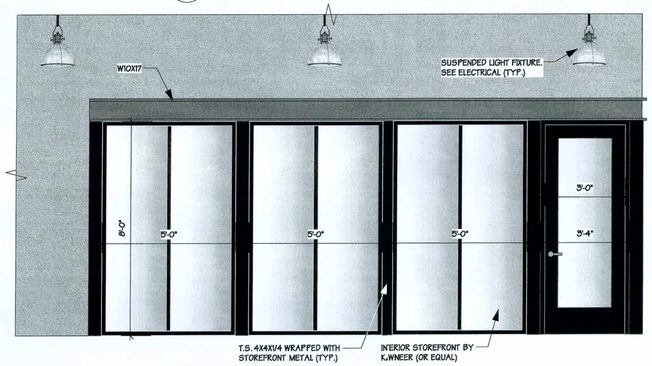
7 A600 ELEVATION - CONFERENCE
Scale: 3/8" = 1'-0"



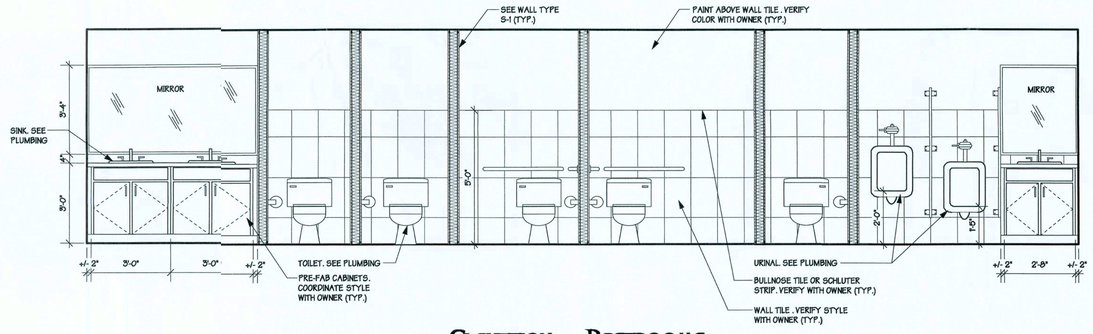
8 A600 ELEVATION - RECEPTION
Scale: 3/8" = 1'-0"



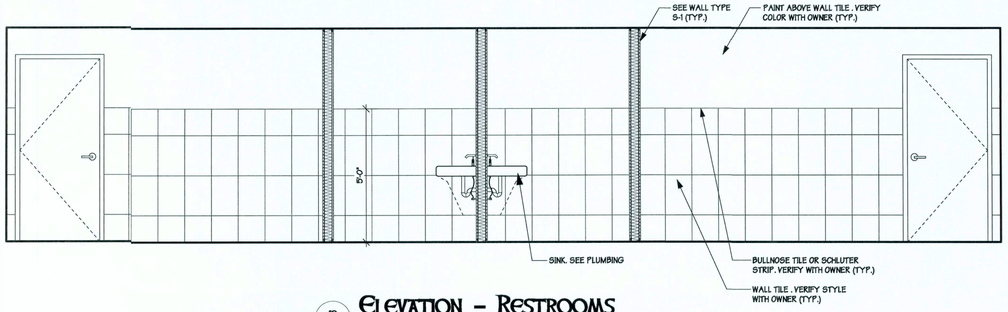
9 A600 ELEVATION - CONFERENCE
Scale: 3/8" = 1'-0"



10 A600 ELEVATION - CONFERENCE
Scale: 3/8" = 1'-0"



11 A600 ELEVATION - RESTROOMS
Scale: 3/8" = 1'-0"



12 A600 ELEVATION - RESTROOMS
Scale: 3/8" = 1'-0"

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E john@donahue-arch.com
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INTERIOR DETAILS

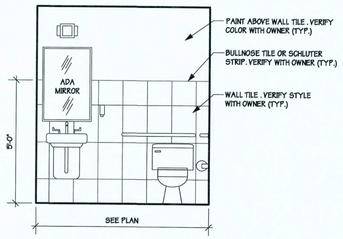
INTERIOR & EXTERIOR DETAILS / INTERIOR ELEVATIONS

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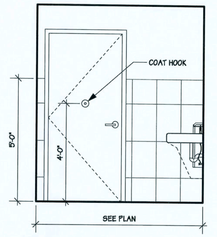
DATE	10/29/18
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	14
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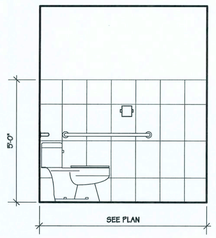
1 A601 **ELEVATION - CORRIDOR**
Scale: 3/8" = 1'-0"



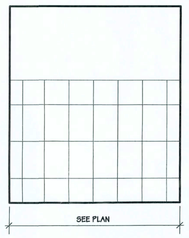
2 A601 **ELEVATION - R.R. #5**
Scale: 3/8" = 1'-0"



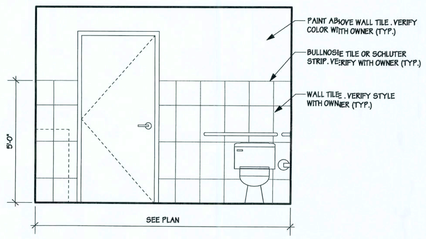
3 A601 **ELEVATION - R.R. #5**
Scale: 3/8" = 1'-0"



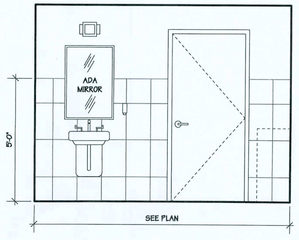
4 A601 **ELEVATION - R.R. #5**
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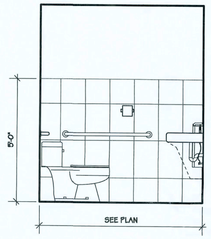
5 A601 **ELEVATION - R.R. #5**
Scale: 3/8" = 1'-0"



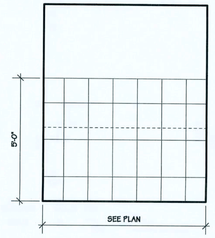
6 A601 **ELEVATION - R.R. #1-3**
Scale: 3/8" = 1'-0"



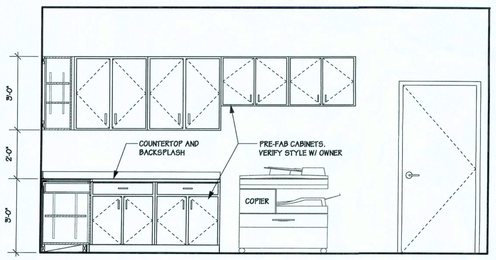
7 A601 **ELEVATION - R.R. #1-3**
Scale: 3/8" = 1'-0"



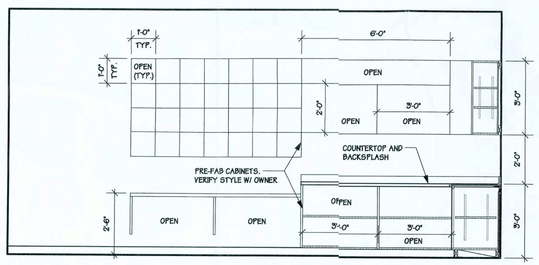
8 A601 **ELEVATION - R.R. #1-3**
Scale: 3/8" = 1'-0"



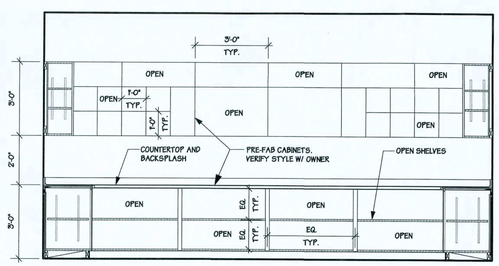
9 A601 **ELEVATION - R.R. #1-3**
Scale: 3/8" = 1'-0"



10 A601 **ELEVATION - COPY ROOM**
Scale: 3/8" = 1'-0"



11 A601 **ELEVATION - COPY ROOM**
Scale: 3/8" = 1'-0"


3'-0" TYP.
OPEN
OPEN
OPEN
OPEN
1'-0" TYP.
OPEN
OPEN
OPEN
OPEN
OPEN
1'-0" TYP.
OPEN
OPEN
OPEN
OPEN
OPEN

Finish Hardware Specification
Based on:

Hinge - (4-1/2 Std Wt(.134))	McKinney
Hinge - (4-1/2 Hvy Wt(.180))	McKinney
Flush Bolt - Manual (Corner)	IVES
Cyl. Lockset (no thru-bolts)	Sargent
Exit Device - Rim	Sargent
Closer	Sargent
Wall Stop	IVES
Floor Stop	IVES
Weatherstrip	Pemko
Sweep	Pemko
Threshold	Pemko
Silencer	IVES

HARDWARE SPECIFICATIONS:

Hardware Set#: 1 (Alum Exterior Pair With Panic)

Qty	UOM	Item Type	Item Series / Description	Finish
6	EA	Hinge	TA2314 4.5 x 4.5 x NRP	630/US32D
2	EA	Exit Device	8800-ETL Rim	630/US32D
1	EA	Outside Access	776 Control	630/US32D
1	EA	pull plate		630/US32D
2	EA	Door Closer	1431 RUO TB Door Closer	Alum
1	EA	Weatherstripping	S88D X L.A.R.	Dk. Bronze
2	EA	Sweep Strip	57AV X L.A.R.	Alum
1	EA	Threshold	2005AV X L.A.R.	Alum

Hardware Set#: 2 (Double Interior Glass Door Non-Locked)

Qty	UOM	Item Type	Item Series / Description	Finish
6	EA	Hinge	TA2314 4.5 x 4.5 x NRP	630/US32D
2	EA	Push Plate		
2	EA	Pull Plate		
2	EA	Door Closer	1431 RUO TB Door Closer	Alum
2	EA	Floor Stop	FS18L	Black
1	EA	Weatherstripping	S88D X L.A.R.	Dk. Bronze
2	EA	Sweep Strip	57AV X L.A.R.	Alum
1	EA	Threshold	2005AV X L.A.R.	Alum

Hardware Set#: 3 (Office Set Locked)

Qty	UOM	Item Type	Item Series / Description	Finish
3	EA	Hinge	T2714 4.5 x 4.5	626/US26D
1	EA	Lockset	28-7G05-LL Entrance or Office	626/US26D
1	EA	Kickplate		626/US26D
1	EA	Wall Bumper	407 1/2 Stop	626/US26D
3	EA	Silencer	SR64 Rubber Silencer	Gray

Hardware Set#: 4 (Office Set Non-Locked)

Qty	UOM	Item Type	Item Series / Description	Finish
3	EA	Hinge	T2714 4.5 x 4.5	626/US26D
1	EA	Passage set	7U15 Passage	626/US26D
1	EA	Door Closer	1431 RUO TB Door Closer	Alum
1	EA	Wall Bumper	407 1/2 Stop	626/US26D
3	EA	Silencer	SR64 Rubber Silencer	Gray

Hardware Set#: 5 (Toilet Room Entry)

Qty	UOM	Item Type	Item Series / Description	Finish
3.0	EA	Hinge	T2714 4.5 x 4.5	626/US26D
1	EA	Pull Plate		626/US26D
1	EA	Push Plate		626/US26D
1	EA	Kickplate		626/US26D
1	EA	Door Closer	1431 RUO TB Door Closer	Alum
1	EA	Wall Bumper	407 1/2 Stop	626/US26D
3	EA	Silencer	SR64 Rubber Silencer	Gray

Hardware Set#: 6 (Typical Toilet Privacy Locked)

Qty	UOM	Item Type	Item Series / Description	Finish
3.0	EA	Hinge	TA2314 4.5 x 4.5	626/US26D
1.0	EA	Lockset	28-7U65 Privacy	626/US26D
1.0	EA	Wall Bumper	407 1/2 Stop	626/US26D
3.0	EA	Silencer	SR64 Rubber Silencer	Gray

Hardware Set#: 7 (Typical Janitor/Storeroom Set)

Qty	UOM	Item Type	Item Series / Description	Finish
3	EA	Hinge	TA2314 4.5 x 4.5	626/US26D
1	EA	Lockset	28-7G04-LL Storeroom or Closet	626/US26D
1	EA	Wall Bumper	407 1/2 Stop	626/US26D
3	EA	Silencer	SR64 Rubber Silencer	Gray

Hardware Set#: 8 (Closet Pair Doors)

Qty	UOM	Item Type	Item Series / Description	Finish
6	EA	Hinge	TA2314 4.5 x 4.5	626/US26D
1	EA	Lockset	28-7G04-LL Storeroom or Closet	626/US26D
1	EA	Single Lever Pull	7U93	626/US26D
6	EA	Silencer	SR64 Rubber Silencer	Gray

NOTE: VERIFY FINAL SELECTIONS W/ OWNER PRIOR TO CONSTRUCTION.

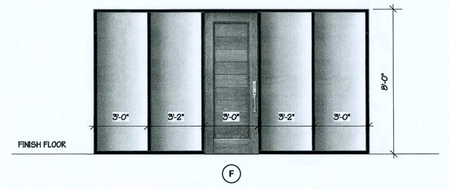
DOOR SCHEDULE

Door						Glazing		Frame			Fire	Hardware	General
Mark	Type	Width	Height	Material	Door Finish	Side Lights	Glaze. Style	Type	Material	Finish	Fire Rating	HW Set	Comments
100.1	EX2	3'0"	8'0"	WD	STAIN	*		STR	ALUM	STR		ENTRY	KEY CARD ACCESS
100.2	STR1	3'0"	8'0"	ALUM	STR			STR	ALUM	STR		PASSAGE	BULLET-PROOF GLAZING, KEY CARD ACCESS
100.3	STR2	3'0"	8'0"	ALUM	STR			STR	ALUM	STR		PASSAGE	BULLET-PROOF GLAZING, KEY CARD ACCESS
101.1	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
101.2	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
102.1	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
103.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
103.2	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
104.1	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
105.1	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
106.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
106.2	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
107.1	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
107.2	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		PASSAGE	-
107.3	EX1	3'0"	8'0"	METAL	PTD			2	MTL	PTD		ENTRY	KEY CARD ACCESS
108.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
109.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
109.2	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
110.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
111.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
112.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
113.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
113.2	EX1	3'0"	8'0"	METAL	PTD			2	MTL	PTD		ENTRY	KEY CARD ACCESS
114.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
115.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
116.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
117.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
118.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
119.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
119.2	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		CLOSET	-
120.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
121.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
121.2	-	4'0"	7'0"	-	-			2	MTL	PTD		-	CASE OPENING
122.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
123.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
124.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		PASSAGE	-
125.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
125.2	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		PASSAGE	-
126.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
126.2	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		PASSAGE	-
127.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
128.1	STR1	3'0"	8'0"	ALUM	STR			STR	ALUM	STR		PASSAGE	-
128.2	STR1	3'0"	8'0"	ALUM	STR			STR	ALUM	STR		PASSAGE	-
129.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		TOILET	-
130.1	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		-	BARN DOOR
130.2	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		-	BARN DOOR
131.1	F	3'0"	8'0"	WD	STAIN			2	MTL	PTD		TOILET	-
132.1	STR1	3'0"	8'0"	ALUM	STR			STR	ALUM	STR		OFFICE	-
133.1	STR1	3'0"	8'0"	ALUM	STR			STR	ALUM	STR		OFFICE	-
134.1	STR1	3'0"	8'0"	ALUM	STR			STR	ALUM	STR		OFFICE	-
135.1	STR1	3'0"	8'0"	ALUM	STR			STR	ALUM	STR		OFFICE	-
136.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
136.2	EX1	3'0"	8'0"	METAL	PTD			2	MTL	PTD		ENTRY	KEY CARD ACCESS
137.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
138.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
138.2	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		PASSAGE	-
138.3	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
139.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
140.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
141.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
142.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
143.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
144.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
145.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
146.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
147.1	F1	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
147.2	EX1	3'0"	8'0"	METAL	PTD			2	MTL	PTD		ENTRY	KEY CARD ACCESS
148.1	EX1	3'0"	8'0"	METAL	PTD			2	MTL	PTD		ENTRY	KEY CARD ACCESS
148.2	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
148.3	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-
149.1	F	3'0"	7'0"	WD	STAIN			2	MTL	PTD		OFFICE	-

ROOM FINISH SCHEDULE

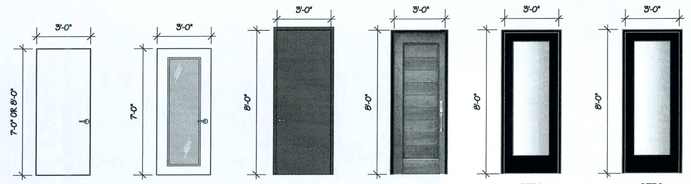
		Floor		Wall				
Number	Room Name	Matl	Base	North	East	South	West	Ceiling
100	WAITING	-	-	PT	PT	PT	PT	ACT
101	RECEPTION	-	-	PT	PT	PT	PT	ACT
102	OFFICE	-	-	PT	PT	PT	PT	ACT
103	RR #1	-	-	PT	PT	PT	PT	GB
104	OFFICE	-	-	PT	PT	PT	PT	ACT
105	OFFICE	-	-	PT	PT	PT	PT	ACT
106	RR #2	-	-	PT	PT	PT	PT	GB
107	OFFICE	-	-	PT	PT	PT	PT	ACT
108	OFFICE	-	-	PT	PT	PT	PT	ACT
109	RR #3	-	-	PT	PT	PT	PT	GB
110	OFFICE	-	-	PT	PT	PT	PT	ACT
111	OFFICE	-	-	PT	PT	PT	PT	ACT
112	OFFICE	-	-	PT	PT	PT	PT	ACT
113	OFFICE	-	-	PT	PT	PT	PT	ACT
114	SERVER	-	-	PT	PT	PT	PT	ACT
115	STORAGE	-	-	PT	PT	PT	PT	ACT
116	IT	-	-	PT	PT	PT	PT	ACT
117	IT	-	-	PT	PT	PT	PT	ACT
118	CONTRACTS	-	-	PT	PT	PT	PT	ACT
119	CONTRACTS	-	-	PT	PT	PT	PT	ACT
120	CONTRACTS	-	-	PT	PT	PT	PT	ACT
121	OFFICE	-	-	PT	PT	PT	PT	ACT
122	OFFICE	-	-	PT	PT	PT	PT	ACT
123	WORK ROOM	-	-	PT	PT	PT	PT	ACT
124	KITCHEN	-	-	PT	PT	PT	PT	ACT
125	COPY ROOM	-	-	PT	PT	PT	PT	ACT
126	Women's RR	-	-	PT	PT	PT	PT	GB
127	Men's RR	-	-	PT	PT	PT	PT	GB
128	CONFERENCE	-	-	PT	PT	PT	PT	GB
129	RR #4	-	-	PT	PT	PT	PT	GB
130	STORAGE	-	-	PT	PT	PT	PT	GB
131	RR #5	-	-	PT	PT	PT	PT	GB
132	PURCHASING	-	-	PT	PT	PT	PT	ACT
133	PURCHASING	-	-	PT	PT	PT	PT	ACT
134	PURCHASING	-	-	PT	PT	PT	PT	ACT
135	PURCHASING	-	-	PT	PT	PT	PT	ACT
136	HR	-	-	PT	PT	PT	PT	ACT
137	HR	-	-	PT	PT	PT	PT	ACT
138	HR	-	-	PT	PT	PT	PT	ACT
139	EEO	-	-	PT	PT	PT	PT	ACT
140	EEO	-	-	PT	PT	PT	PT	ACT
141	HR	-	-	PT	PT	PT	PT	ACT
142	HR	-	-	PT	PT	PT	PT	ACT
143	HR	-	-	PT	PT	PT	PT	ACT
144	EEO	-	-	PT	PT	PT	PT	ACT
145	OFFICE	-	-	PT	PT	PT	PT	ACT
146	EEO	-	-	PT	PT	PT	PT	ACT
147	OFFICE	-	-	PT	PT	PT	PT	ACT
148	WORK AREA	-	-	PT	PT	PT	PT	OPEN
149	CLOSET	-	-	PT	PT	PT	PT	ACT

WINDOW TYPES

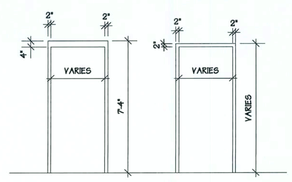


NOTE: STOREFRONT WINDOWS BY KAWNEER TRIFAB 450 (OR EQUAL).

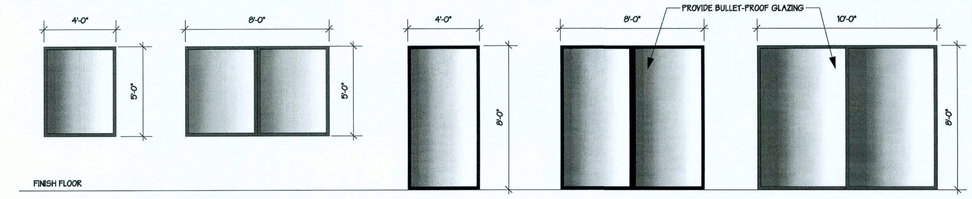
DOOR TYPES



DOOR FRAME



WINDOW TYPES



NOTE: VERIFY ALL FINISHES, DOOR, WINDOW & HARDWARE STYLES W/ OWNER PRIOR TO CONSTRUCTION.

JAN 04 2019

REVISIONS

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL: # AA26000933, GA: # RA012363
FL Engineering CA: # 32147, ID: # B26000846

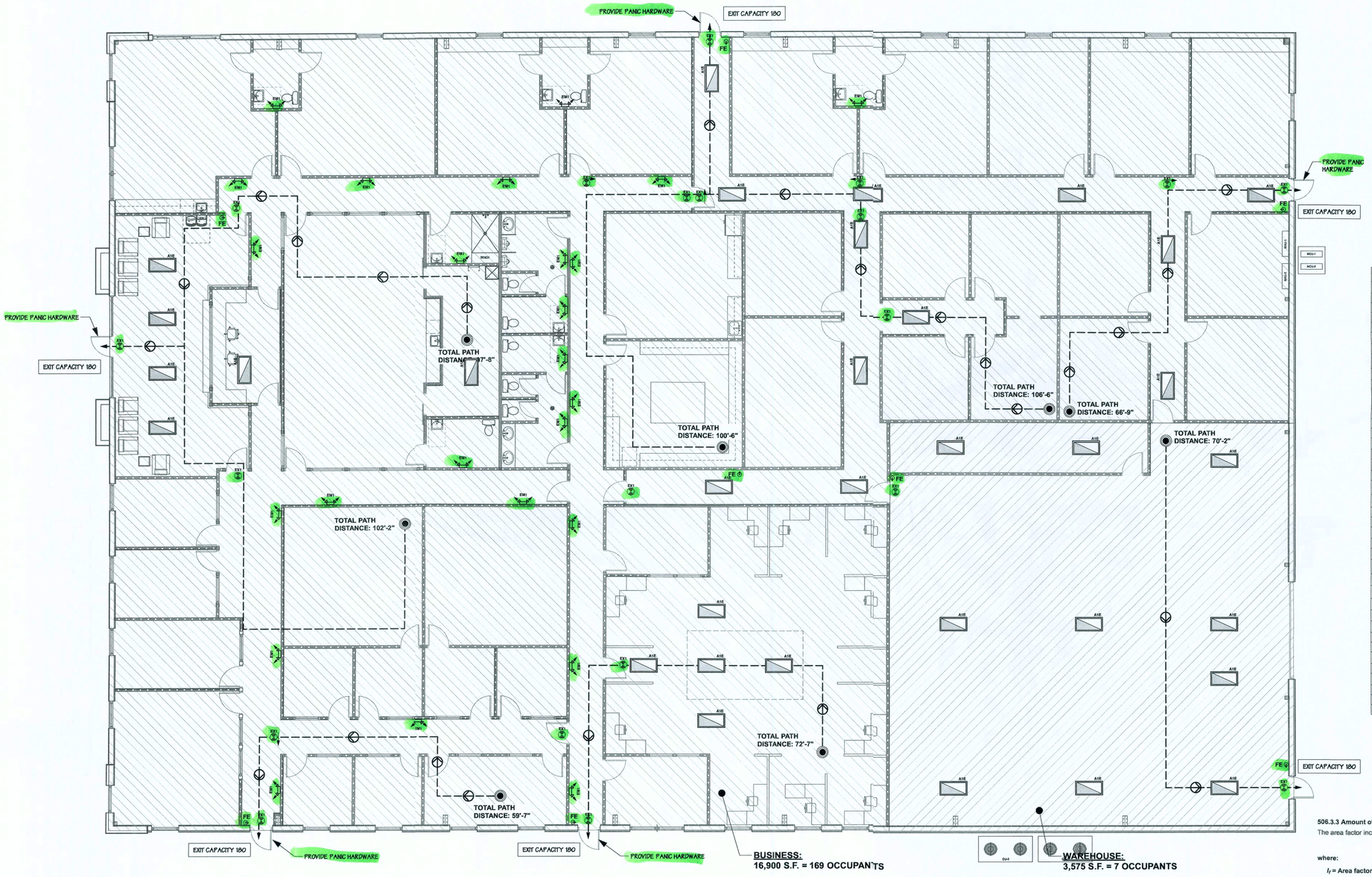
DA

SCHEDULES

DOOR SCHEDULE / FINISH SCHEDULE / DOOR, FRAME, AND WINDOW TYPES

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE	10/29/18
JOB	D_17061
DRAWN BY	JD
JAD	
	16
A700	OF 39
PermitSet	



LIFE SAFETY LEGEND

SYMBOL	DESCRIPTION
	EGRESS TRAVEL PATH
	EGRESS TRAVEL DIRECTION
	POINT OF BEGINNING
FE	FIRE EXTINGUISHER
EX1	ILLUMINATED EXIT SIGN
EM1	EMERGENCY BACKUP LIGHTING
COMBO EXIT	COMBO EMERGENCY BACKUP/ EXIT LIGHTING
A2	2'X4' LAY-IN LED FIXTURE W/ 1400 LUMEN EMERGENCY BATTERY BACKUP

MAX FLOOR AREA ALLOWANCES PER OCCUPANT

OCCUPANCY	FLOOR AREA IN SQ. FT. PER OCCUPANT	OCCUPANT LOAD
BUSINESS	16,900 S.F. / 100	169
WAREHOUSE	3,575 S.F. / 500	7
TOTAL ALLOWED OCCUPANT LOAD		176

MINIMUM PLUMBING FIXTURE REQUIREMENTS

CLASSIFICATION	WATER CLOSETS MALE / FEMALE	LAVATORIES MALE / FEMALE	DRINKING FOUNTAIN
BUSINESS	1 PER 25 FOR 1ST 50	1 PER 40 FOR 1ST 50	1 PER 100
	1 PER 50 FOR REMAINDER EXCEEDING 50	1 PER 80 FOR REMAINDER EXCEEDING 50	
REQUIRED:	5	3	2
PROVIDED:	12	10	2

MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD

OCCUPANT LOAD	MINIMUM NUMBER OF EXITS	ACTUAL NUMBER OF EXITS
'50-500'	2	6

BUILDING LIMITATIONS

	ACTUAL	ALLOWED
STORIES	1	1
MAX TRAVEL DISTANCE (w/o SPRINKLER)		200 ft.
ALL TRAVEL DISTANCES SHOWN ARE LESS THAN MAX		
BUILDING HEIGHT	+/- 26'-8"	40 ft.
SQ. FT.	20,475 S.F.	19,000 S.F.
AREA INCREASE		10,431 S.F.
TOTAL SQ. FT.	20,475 S.F.	29,431 S.F.

506.3.3 Amount of increase.

The area factor increase based on frontage shall be determined in accordance with Equation 5-5:

$$I_f = [F/P - 0.25]W/30 \quad \text{(Equation 5-5)}$$

where:

I_f = Area factor increase due to frontage.
F = Building perimeter that fronts on a *public way* or open space having minimum distance of 20 feet (6096 mm).
P = Perimeter of entire building (feet).
W = Width of *public way* or open space (feet) in accordance with Section 506.3.2.

AREA INCREASE DUE TO FRONTAGE

[467/584 - 0.25 = 0.549] 30/30

0.549 x 1 = 0.549 (AREA INCREASE FACTOR)

19,000 x 0.549 = 10,431 S.F. (AMOUNT OF INCREASE)

1 LS-1 **LIFE SAFETY PLAN**
Scale: 1/8" = 1'-0"

JAN 04 2019

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000833, GA: # RA012363
FL Engineering CA. # 32147, ID: # IB26000848

DA

LIFE SAFETY

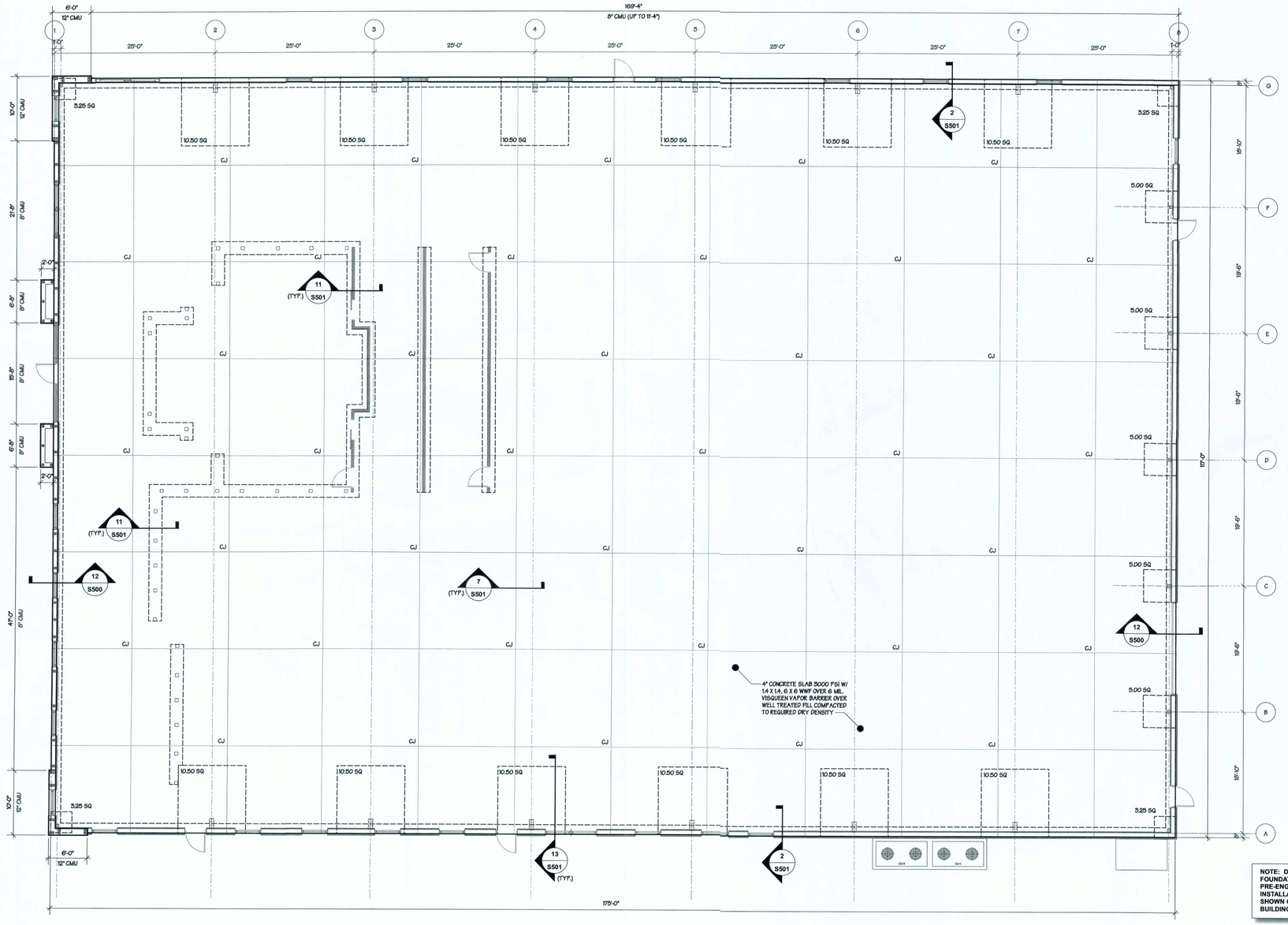
LIFE SAFETY PLAN / NOTES / LEGEND

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE 10/29/18
JOB D_17061
DRAWN BY JD JAD
17

LS-1
Permit Set

OF 39



1 S100 FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

NOTE: DONAHUE ARCHITECTURE, INC. IS RESPONSIBLE FOR THE DESIGN OF THE FOUNDATION SYSTEM ONLY. OUR SCOPE OF SERVICES EXCLUDES THE PRE-ENGINEERED METAL BUILDING STRUCTURAL DESIGN, FABRICATION, INSTALLATION, ETC. BUILDING FOUNDATION DESIGNS ARE BASED ON THE REACTIONS SHOWN ON EACH FOUNDATION PLAN, PROVIDED BY THE PRE-ENGINEERED METAL BUILDING SUPPLIER. PROVIDE SEALED PEMB PLANS TO A/E PRIOR TO FABRICATION.

JAN 04 2019

REVISIONS

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL: # AA26000933, GA: # RA012383
FL Engineering CA: # 32147, ID: # 1826000848

DA

STRUCTURAL

FOUNDATION PLAN / STRUCTURAL DETAILS, NOTES

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE	10/29/18
JOB	D_17061
DRAWN BY	JD
JAD	18
S100	OF 39
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STRUCTURAL NOTES:

WIND RESISTANCE OF THE REFERENCED BUILDING HAS BEEN DESIGNED USING A WIND SPEED OF 124MPH AS REQUIRED BY FLORIDA BUILDING CODE 2017 (6TH EDITION).

BASIC WIND SPEED	ULTIMATE WIND SPEED OF 124 MPH (Vult) NOMINAL DESIGN WIND SPEED OF 99 MPH (Vasd)
RISK CATEGORY	II - NORMAL
WIND EXPOSURE	B
ASSUMED SOIL BEARING CAPACITY	2,000PSF

(IF SITE CONDITIONS DO NOT SUPPORT THIS ASSUMPTION, CONTACT THE ARCHITECT. THE DESIGN ALSO ASSUMES SOILS WHICH ARE NON-EXPANSIVE, AND ARE COMPACT. SOILS SUCH AS LOOSE SANDS OR EXPANSIVE CLAYS MAY REQUIRE REMEDIAL TREATMENT, AND A GEOTECHNICAL ENGINEER SHOULD BE CONSULTED FOR RECOMMENDATIONS.)

GENERAL REQUIREMENTS:

1. STRUCTURAL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2017 (6TH EDITION).
2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER PROJECT DRAWINGS BY OTHER DISCIPLINES. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CODES LISTED BELOW.

SPECIALTY ENGINEERING REQUIREMENTS:

1. DELEGATED ENGINEER: THE FLORIDA STATE BOARD OF PROFESSIONAL ENGINEERS HAS ISSUED STATEMENTS ON RESPONSIBILITIES OF PROFESSIONAL ENGINEERS. CERTAIN COMPONENTS OF THE STRUCTURE REQUIRE THE WORK OF DELEGATED ENGINEERS FOR THE DESIGN OF THOSE COMPONENTS. ALL RELEVANT PROCEDURES PRESENTED IN THE FLORIDA ADMINISTRATIVE CODE APPLY TO THIS PROJECT.

CONTRACTOR REQUIREMENTS:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS RELATING TO EXISTING CONDITION BY MAKING FIELD SURVEYS AND MEASUREMENTS PRIOR TO COMMENCING FABRICATION OF CONSTRUCTION. VERIFICATION SHALL BE MADE WITH NOT ONLY THE EXISTING CONDITIONS BUT ALSO WITH THE ARCHITECTURAL AND STRUCTURAL PLANS.
2. NOTIFY ARCHITECT OF ANY DISCREPANCIES OR INCONSISTENCIES.
3. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION METHODS USED WILL NOT CAUSE DAMAGE TO ADJACENT BUILDINGS, UTILITIES OR OTHER PROPERTY. THIS REQUIREMENT IS PARTICULARLY IMPORTANT DURING FOUNDATION INSTALLATION.
4. THE GENERAL CONTRACTOR IS ADVISED TO CONSIDER PERFORMING PHOTOGRAPHIC SURVEYS AND OTHER DOCUMENTATION OF THE CONDITION OF ADJACENT BUILDINGS AND OTHER STRUCTURES BEFORE THE START OF CONSTRUCTION.
5. CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING OF ALL STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS IN THE STRUCTURE.
6. WRITTEN REQUESTS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL OF ANY PROPOSED CHANGE TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. NO STRUCTURAL MEMBERS SHALL BE CUT, NOTCHED OR OTHERWISE ALTERED UNLESS APPROVED IN WRITING BY STRUCTURAL ENGINEER. THE RESULTS OF ANY UNAUTHORIZED DEVIATION FROM THE CONTRACT DOCUMENTS, AND CORRECTION THEREOF, BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.

CONSTRUCTION RESPONSIBILITY:

THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE, AND ARE NOT INTENDED TO INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND FOR JOB SAFETY.

THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CAST-IN-PLACE CONCRETE:

1. CONCRETE CODE AND SPECIFICATIONS:
   - 1.1. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-14)
   - 1.2. SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301)
   - 1.3. LATEST EDITION OF THE CRSI MANUAL OF STANDARD PRACTICE WITH ALL SUPPLEMENTS.
2. THE LATEST EDITION OF THE FOLLOWING ACI STANDARDS APPLY:
   - 2.1. ACI 318 (CODE)
   - 2.2. ACI 306 (WINTER CONCRETING)
   - 2.3. ACI 305 (HOT-WEATHER CONCRETING)
   - 2.4. ACI 211.1 (MIX PROPORTIONING)
   - 2.5. ACI 304 (PLACING)
   - 2.6. ACI 315 (DETAILING)
   - 2.7. ACI 347 (FORMWORK)
3. ALL CONCRETE SHALL BE NORMAL WEIGHT (145PCF), WITH MIXES DESIGNED TO MEET THE FOLLOWING CRITERIA FOR USE IN VARIOUS ELEMENTS OF THE STRUCTURE AS FOLLOWS:

REINFORCING STEEL:

1. REINFORCING STEEL: ASTM A 615, GRADE 60
2. REINFORCING STEEL TO BE WELDED: ASTM A 706 (FOR EMBED ANCHORS, ETC)
3. WELDED WIRE FABRIC: ASTM A 185 (FLAT SHEETS), MINIMUM YIELD STRENGTH OF 70,000 PSI
4. MINIMUM REINFORCING STEEL CLEAR COVER (UNO):
   - 4.1. CONCRETE CAST DIRECTLY AGAINST EARTH 3"
   - 4.2. INTERIOR SLABS 1"
   - 4.3. INTERIOR BEAMS AND COLUMNS 1-1/2" TO TIES
   - 4.4. EXTERIOR BEAMS AND COLUMNS 2" TO TIES
   - 4.5. EXTERIOR SLABS 1-1/2"
   - 4.6. SLABS ON GRADE 1-1/2" FROM TOP
5. WHERE SPLICE LENGTHS ARE NOT SPECIFIED, USE 48 BAR DIAMETERS IN MASONRY AND 40 BAR DIAMETERS IN CAST CONCRETE.
6. REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL SPLICES ARE NOT PERMITTED.
7. LAP ALL WELDED WIRE FABRIC A MINIMUM DISTANCE OF ONE CROSS WIRE SPACING PLUS 2 INCHES.
8. ALL REINFORCING STEEL SHALL BE SUPPORTED ON STANDARD ACCESSORIES, HELD RIGIDLY AND ACCURATELY IN PLACE, AND PROTECTED AGAINST DISPLACEMENT BEFORE AND DURING PLACEMENT OF CONCRETE. SUPPORTING ACCESSORY LEGS THAT REST ON CONCRETE SURFACES THAT WILL BE EXPOSED IN THE FINISHED STRUCTURE SHALL BE FABRICATED OF STAINLESS STEEL.
9. AT CHANGES IN DIRECTION OF CONCRETE WALLS AND BEAMS, PROVIDE CORNER BARS OF THE SAME SIZE AND SPACING AS HORIZONTAL STEEL.
10. REINFORCING TO BE USED IN A CORROSIVE ENVIRONMENT AND SPECIFIED TO BE EPOXY-COATED, SHALL COMPLY WITH ASTM A-775-916.

CONCRETE FORMWORK:

1. ALL FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED AND MAINTAINED ACCORDING TO ACI 347, RECOMMENDED STANDARD PRACTICE FOR CONCRETE FORMWORK.
2. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE.
3. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED WHERE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.

STRUCTURAL ELEMENT	28-DAY COMPRESSIVE STRENGTH (PSI)	MAX. SIZE AGGREGATE	MAX. W/C RATIO
A. GRADE BEAMS, FOOTINGS, FOUNDATION WALLS	3,000	1"	0.55
B. SLAB ON GRADE	AS NOTES	3/4"	0.50

1. SLUMP RANGE AT POINT OF DISCHARGE: 5" TO ±1".
2. WATER REDUCING AND AIR ENTRAINING AGENTS SHALL BE INCLUDED IN DESIGN MIXES. SUPERPLASTICIZERS MAY BE USED AT THE CONTRACTOR'S OPTION.
3. A CONCRETE MIX DESIGN FOR EACH UNIQUE COMBINATION OF STRENGTH, COARSE AGGREGATE GRADATION AND WATER CEMENT RATIO SPECIFIED SHALL BE PREPARED BY THE SUPPLIER OR AN INDEPENDENT TESTING LABORATORY AND BE SUBMITTED FOR REVIEW PRIOR TO CASTING ANY CONCRETE. MIXES THAT WILL BE TRANSPORTED AT THE PROJECT SITE BY PUMPING SHALL BE SPECIFICALLY DESIGNED FOR PUMPING.

NOTE: DONAHUE ARCHITECTURE, INC. IS RESPONSIBLE FOR THE DESIGN OF THE FOUNDATION SYSTEM ONLY. OUR SCOPE OF SERVICES EXCLUDES THE PRE-ENGINEERED METAL BUILDING STRUCTURAL DESIGN, FABRICATION, INSTALLATION, ETC. BUILDING FOUNDATION DESIGNS ARE BASED ON THE REACTIONS SHOWN ON EACH FOUNDATION PLAN, PROVIDED BY THE PRE-ENGINEERED METAL BUILDING SUPPLIER. PROVIDE SEALED PEMB PLANS TO A/E PRIOR TO FABRICATION.

FOUNDATIONS:

1. A GEOTECHNICAL REPORT DESCRIBING SUBSURFACE SOIL CONDITIONS WAS NOT AVAILABLE AT THE TIME OF DESIGN. OWNER/CONTRACTOR SHALL HAVE GEOTECHNICAL INVESTIGATIONS PERFORMED IN ORDER TO VERIFY THE MINIMUM ALLOWABLE SOIL BEARING CAPACITY, AND TO DETECT SUBSURFACE SOIL CONDITIONS WHICH MAY REQUIRE FOUNDATION PREPARATION IN EXCESS OF THAT DESCRIBED BELOW.
2. ALL VEGETATION, TOPSOIL, ROOTS AND ORGANIC ZONES SHALL BE STRIPPED AND REMOVED FROM THE CONSTRUCTION AREA FOR A DISTANCE OF AT LEAST 5 FEET BEYOND THE EXTERIOR OF THE BUILDING FOUNDATION LIMITS. THE DEPTH OF STRIPPING SHALL BE THAT REQUIRED TO REMOVE SIGNIFICANT ROOT ZONES, SMALL TREE STUMPS AND OTHER UNACCEPTABLE MATERIALS, BUT IN NO CASE LESS THAN 6 INCHES.
3. EXCAVATIONS FOR LARGE STUMPS, ABANDONED UTILITIES, UNDERGROUND TANKS, ETC. SHALL BE BACKFILLED IN LAYERS WITH COMPACTION AND TESTING OF EACH LAYER AS DESCRIBED FOR PLACEMENT AND COMPACTION OF FILL MATERIAL. USE LOOSE BACKFILL LAYER THICKNESS APPROPRIATE FOR THE SIZE; COMPACTOR BEING USED BUT IN NO CASE GREATER THAN 12 INCHES.
4. AFTER THE STR. HAS BEEN CLEARED, THE EXPOSED SOILS AT THE STRIPPED SURFACE WITHIN AND TO A POINT 5 FEET OUTSIDE THE BUILDING CONSTRUCTION AREA SHALL BE COMPACTED. DENSITIES OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D1557) SHALL BE UNIFORMLY OBTAINED TO A DEPTH OF AT LEAST 12 INCHES BELOW THE COMPACTED SURFACE.
5. AFTER COMPLETION OF DENSIFICATION OF EXISTING SOILS, STRUCTURAL FILL SHALL THEN BE PLACED IN LIFTS NOT EXCEEDING 12 INCHES IN LOOSE THICKNESS. EACH LIFT SHALL BE THOROUGHLY COMPACTED WITH THE VIBRATORY ROLLER UNTIL DENSITIES EQUIVALENT TO A LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY ARE UNIFORMLY OBTAINED. STRUCTURAL FILL SHALL CONSIST OF AN INORGANIC, NON-PLASTIC, GRANULAR SOIL CONTAINING LESS THAN 10 PERCENT MATERIAL PASSING THE NO. 200 MESH SIEVE, A RELATIVELY CLEAN SAND WITH A UNIFIED SOIL CLASSIFICATION OF SP OR SP-SM.
6. FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 2,000 PSF. THE UPPER 12 INCHES OF SANDY BEARING SOILS IN THE FOOTING EXCAVATION BOTTOMS SHALL BE COMPACTED TO DENSITIES EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. COMPACTION, OR RE-COMPACTION OF THE FOOTING EXCAVATION BEARING LEVEL SOILS LOOSENED BY THE EXCAVATION PROCESS, SHALL BE ACHIEVED BY MAKING SEVERAL PASSES WITH A RELATIVELY LIGHTWEIGHT, WALK-BEHIND VIBRATORY SLED OR ROLLER COMPACTOR.
7. ALL FREE WATER SHALL BE REMOVED FROM EXCAVATIONS BEFORE PLACING CONCRETE.
8. UNLESS NOTED, ALL FOOTINGS SHALL BE CENTERED UNDER COLUMNS, PIERS AND WALL.
9. SLAB-ON-GRADE CONSTRUCTION SHALL BE SUPPORTED ON SUBGRADE COMPACTED TO A DENSITY OF NO LESS THAN 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D1557) TO A DEPTH OF AT LEAST 12 INCHES. SLABS-ON-GRADE SHALL BE CAST OVER A VABOR BARRIER.

WOOD:

1. ALL STRUCTURAL WOOD MEMBERS ARE DESIGNED AS "DRY-USE". MOISTURE CONTENT MUST BE 19% OR LESS. STORE WOOD FRAMING ABOVE GROUND AND UNDER TARPS WITH PROPER AIR CIRCULATION.

2. ALL LUMBER SHALL BE SOUTHERN PINE SPECIES #2 GRADE OR APPROVED EQUAL. ALLOWABLE DESIGN STRESSES SHALL FOLLOW NATIONAL DESIGN SPECIFICATION (NDS) (LATEST EDITION).

3. HEADERS AT NON BEARING CONDITIONS SHALL BE AS FOLLOWS:

OPENING SIZE	HEADER
UP TO 4'-0"	(2) 2" X 6"
4'-0" TO 6'-0"	(2) 2" X 8"
6'-0" TO 9'-0"	(2) 2" X 10"

4. PROVIDE SP ACQ PRESSURE TREATED LUMBER IN ACCORDANCE WITH AWPA STANDARDS TO A MINIMUM 0.40 PCF RETENTION WHERE LUMBER IS IN CONTACT WITH CONCRETE/MASONRY OR OUTSIDE OF BUILDING. ALL METAL CONNECTORS IN CONTACT WITH PRESSURE TREADED LUMBER SHALL BE GALVANIZED WITH A RATING OF G-185 AND CONFORM TO ASTM A653. ALL NAILS AND SCREWS USED WITH PRESSURE TREATED LUMBER ARE TO BE HOT-DIPPED GALVANIZED AND TO CONFORM TO ASTM A153 CLASS D. ELECTROGALVANIZED FASTENERS SHALL HAVE A CLASS RATING PER ASTM B695 NO LESS THAN 55. ALUMINUM NOT TO BE USED IN DIRECT CONTACT WITH ACQ TREATED LUMBER.

5. PLYWOOD SHEATHING:

   A. FLOOR: USE 3/4" T&G APA 24oc STURD-I-FLOOR, EXP. 1, PLYWOOD SUB-FLOOR SHEATHING.
   B. WALL: USE 19/32" APA 32/16 RATED, EXP. 1, PLYWOOD SHEATHING.
   C. ROOF: USE 1/2" 32/16 RATED, EXP. 1, PLYWOOD SHEATHING
   D. SEE FRAMING PLANS FOR NAILING AND/OR BLOCKING REQUIREMENTS. USE 8'-0" LONG X 4'-0" WIDE SHEETS WITH LENGTH ACROSS FRAMING. STAGGER PANEL END JOINTS 4'-0" TYP., ALLOW 1/8" SPACE ALONG PANEL EDGES AND END JOINTS.
   E. FLOOR SHEATHING TO BE SCREWED WITH #10 WOOD SCREWS AT 6" O.C. AND GLUED FOR PARTIAL COMPOSITE ACTION. SELECT ADHESIVE WITH APA AFG-01 SPECIFICATION AND FOLLOW APA RECOMMENDATIONS.
   F. SEE FRAMING PLANS FOR DIAPHRAGM NAILING TYPE, SIZE, SPACING AND LOCATIONS.

6. WOOD CONNECTIONS - ALL NAILS USED FOR STRUCTURAL FRAMING MEMBERS SHALL BE COMMON WIRE, U.N.O. ALL NAILS, TRUSS HANGERS, TRUSS ANCHORS AND STRAPS SHALL BE GALVANIZED FOR CORROSIVE RESISTANCE. ALL METAL STRAPS MUST BE INSTALLED WITH EQUAL LENGTHS ABOUT THE JOINT LINE. USE SIMPSON STRONG-TIE CONNECTOR PRODUCTS OR APPROVED EQUAL. TOE NAILING WILL NOT BE PERMITTED.

TIMBER:

1. ALL MICROLLAM LVL BEAMS TO

   A. BE ENGINEERED AND MANUFACTURED BY TRUS JOIST WEYERHAEUSER (TJW) OR APPROVED EQUAL. TEMPORARY BRACING TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE CONTINUOUS SUPPORT OF THE COMPRESSION EDGE AND PROVIDE LATERAL SUPPORT AT ALL BEARINGS. THE MINIMUM ALLOWABLE STRESSES FOR MICROLLAM BEAMS ARE AS FOLLOWS:

   Fb = 2,600 PSI Fv = 285 PSI E = 1,900,000 PSI

   B. CONNECT:(2) PLY LVL W/3 ROWS OF 16d COMMON NAILS AT 12" O/C;
   C. CONNECT:(3) PLY LVL W/3 ROWS OF 16d COMMON NAILS AT 12" O/C, EACH FACE;
   D. CONNECT:(4) PLY LVL W/2 ROWS OF 1/2" DIAM. BOLTS AT 12" O/C AT A 2" EDGE DISTANCE, TOP & BTM. USE ASTM A307 GRADE BOLT WITH WASHERS UNDER HEAD AND NUT.

WOOD TRUSSES:

1. WOOD

   A. ROOF TRUSSES ARE TO BE DESIGNED FOR THE WOOD FABRICATOR BY A PROFESSIONAL SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA. SEALED CALCULATIONS AND LAYOUT DRAWINGS ARE TO BE SUBMITTED FOR APPROVAL. TRUSS FABRICATOR TO PROVIDE ALL TRUSS-TO-TRUSS HANGERS AS REQUIRED TO RESIST GRAVITY AND UPLIFT REACTION. UPLIFT LOADING SHALL USE COMPONENTS & CLADDING WIND FORCES.)

2. WOOD TRUSSES SHALL BE BRACED AND ERECTED IN ACCORDANCE WITH THE 2006 EDITION OF THE BUILDING COMPONENT SAFETY INFORMATION GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES, JOINTLY PRODUCED BY WTCA AND TRUSS PLATE INSTITUTE. BRACING IN THE PLANE OF THE WEB MEMBERS:

   A. THE TRUSS FABRICATOR SHALL PROVIDE AND LOCATE CONTINUOUS LATERAL BRACING FOR EACH TRUSS WEB MEMBER AS REQUIRED.
   B. LATERAL BRACING SHALL BE RESTRAINED BY DIAGONAL BRACING (MIN. 2" THICK NOMINAL LUMBER). THIS BRACING IS TO BE CONTINUOUS.
   C. A MINIMUM OF TWO ROWS OF DIAGONAL BRACING IS REQUIRED, ONE AT EACH VERTICAL WEB MEMBER CLOSEST TO BEARING LOCATIONS.

3. THE BOTTOM CHORDS SHALL BE BRACED BY CONTINUOUS LATERAL BRACING SPACED AT 8'-0" ON CENTER WITH A CEILING ATTACHED TO BOTTOM OF TRUSSES. IF NO CEILING IS ATTACHED TO BOTTOM OF TRUSSES, BRACING SHALL BE MINIMUM 2X4 @ 36" ON CENTER NAILED TO THE TOP OF THE BOTTOM CHORD. DIAGONALS PLACED AT 45 DEGREES TO THE LATERAL BRACES SHALL BE LOCATED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20 FOOT INTERVALS.

4. TOP CHORD BRACING:

   A. IF PLYWOOD DECKING IS APPLIED DIRECTLY TO TOP CHORD, PROPERLY LAPPED AND NAILED TO DEVELOP DIAPHRAGM ACTION, BRACING IS NOT REQUIRED.
   B. IF PURLINS ARE USED, DIAGONAL TOP CHORD BRACING IS REQUIRED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20-FOOT INTERVALS.

5. DO NOT CUT, DRILL OR NOTCH ROOF OR FLOOR TRUSSES WITHOUT WRITTEN APPROVAL FROM TRUSS ENGINEER. COORDINATE MECHANICAL, ELECTRICAL, PLUMBING, ETC. SIZES AND LOCATIONS WITH TRUSS LAYOUT PRIOR TO ERECTION.

6. TRUSSES SHALL BE MANUFACTURED & DESIGNED IN ACCORDANCE WITH NATIONAL DESIGN SPECIFICATION(S) FOR WOOD CONSTRUCTION, AF & PA, AND NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION, ANSI/TPI 1-1995, AND THE LOCAL CODE JURISDICTIONS.

7. DO NOT OVERLOAD FLOOR OR ROOF TRUSSES WITH BUILDING MATERIALS.

8. CONNECTOR PLATES SHALL BE MANUFACTURED BY A WTCA MEMBER PLATE SUPPLIER AND SHALL MEET OR EXCEED ASTM A653/A653M REQUIREMENTS FOR STRUCTURAL STEEL.

9. WOOD TRUSS MANUFACTURER TO DESIGN BOTTOM CHORDS OF WOOD ROOF TRUSSES FOR A MINIMUM 10 PSF LIVE LOAD. BOTTOM CHORDS OF WOOD ATTIC TRUSSES TO BE DESIGNED FOR 30 PSF MINIMUM LIVE LOAD.

10. WOOD TRUSSES MANUFACTURER TO DESIGN BOTTOM CHORD OF WOOD TRUSSES FOR 15 PSF DEAD LOAD.

11. IN ADDITION TO THE LOADS SHOWN IN THE DESIGN LOAD SCHEDULE, THE WOOD TRUSS MANUFACTURER SHALL DESIGN FOR THE WEIGHT OF ALL MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT/FIXTURES AS WELL AS CHANDELIER FIXTURES, BAR CABINETS AND ART WORK/MOBILES.

FOOTING & REINFORCING SCHEDULE

Frame-Col. Line	Footing Size (ft)	Footing Depth (ft)	Anchor Bolt Dia. (in)	db (in)	Rebar Size	Rebar Spacing (in)	Notes
1A	3.25 SQ	2.00	0.75	15	# 5	11	1
1G	3.25 SQ	2.00	0.75	15	# 5	11	1
2A	10.50 SQ	2.50	1.25	24	# 5	12	1
2G	10.50 SQ	2.50	1.25	24	# 5	12	1
3A	10.50 SQ	2.50	1.25	24	# 5	12	1
3G	10.50 SQ	2.50	1.25	24	# 5	12	1
4A	10.50 SQ	2.50	1.25	24	# 5	12	1
4G	10.50 SQ	2.50	1.25	24	# 5	12	1
5A	10.50 SQ	2.50	1.25	24	# 5	12	1
5G	10.50 SQ	2.50	1.25	24	# 5	12	1
6A	10.50 SQ	2.50	1.25	24	# 5	12	1
6G	10.50 SQ	2.50	1.25	24	# 5	12	1
7A	10.50 SQ	2.50	1.25	24	# 5	12	1
7G	10.50 SQ	2.50	1.25	24	# 5	12	1
8A	3.25 SQ	2.00	0.75	15	# 5	11	1
8B	5.00 SQ	2.00	0.75	15	# 5	11	1
8C	5.00 SQ	2.00	0.75	15	# 5	11	1
8D	5.00 SQ	2.00	0.75	15	# 5	11	1
8E	5.00 SQ	2.00	0.75	15	# 5	11	1
8F	5.00 SQ	2.00	0.75	15	# 5	11	1
8G	3.25 SQ	2.00	0.75	15	# 5	11	1

Notes

1. 3" Minimum Cover

JAN 04 2019

DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000253, GA # R301238
FL Engineering CA # 32547, ID # EB26000648

REVISIONS

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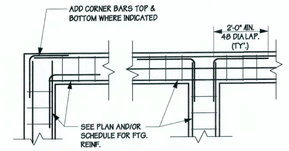
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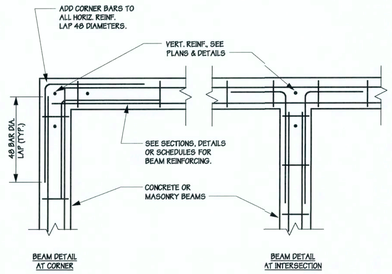
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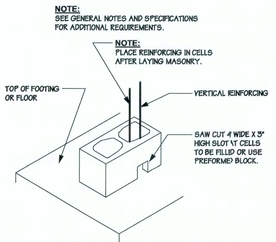
1 S501 Scale: NTS0"

CONT. FTG. CORNER BARS



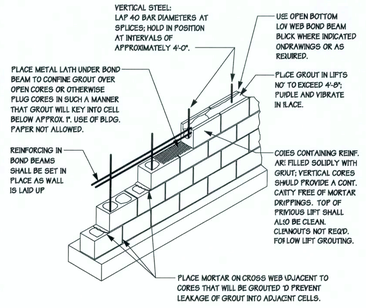
2 S501 Scale: NTS0"

TIE BEAM/ BOND BEAM/ BEAM DETAILS



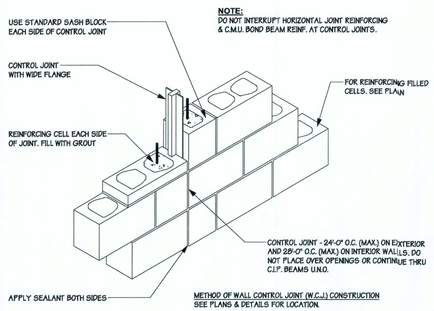
3 S501 Scale: NTS0"

TYPICAL CLEANOUT



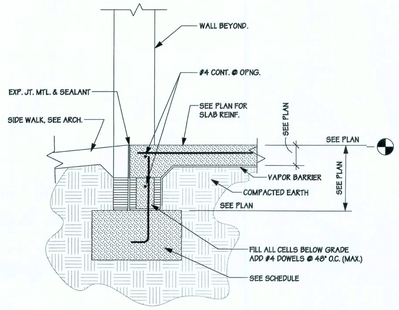
4 S501 Scale: NTS0"

LOW LIFT GROUTING



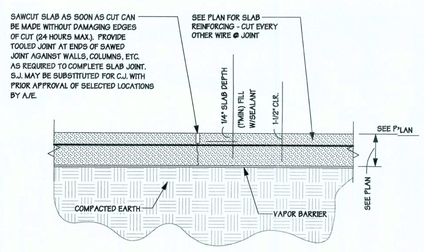
5 S501 Scale: NTS0"

CONTROL JOINT



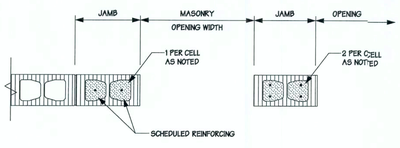
6 S501 Scale: NTS0"

EXPANSION JOINT DETAIL



7 S501 Scale: NTS0"

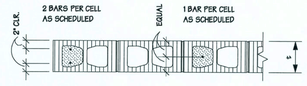
TYPICAL CONTROL JOINT



JAMB REINFORCING SCHEDULE		
OPENING WIDTH	NUMBER OF REINFORCED CELLS PER JAMB	
	OPNG. IN EXTERIOR WALL	OPNG. IN INTERIOR WALL
UP TO 3'-4"	1 #5 IN 1 CELL	1 #5
TO 8'-8"	2 #5 IN 1 CELL	1 #5

8 S501 Scale: NTS0"

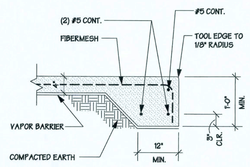
TYPICAL JAMB REINFORCING



WALL REINFORCING SCHEDULE				
WALL TYPE	WALL THICKNESS 'x'	REINF.	MAXIMUM SPACING O.C.	REMARKS
M-1	8"	(1) #5	48"	TYP. U.N.O.
M-2	8"	(2) #5	24"	SEE PLAN FOR LOCATIONS

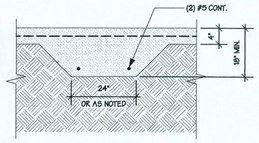
9 S501 Scale: NTS0"

TYPICAL FILLED CELL



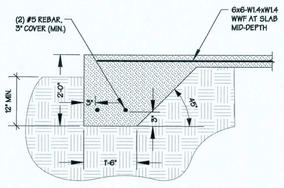
10 S501 Scale: 3/4" = 1'-0"

THICKENED EDGE



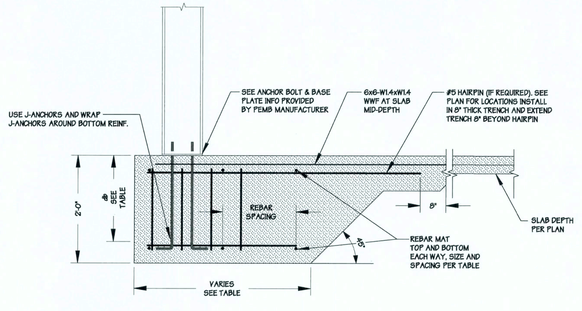
11 S501 Scale: 3/4" = 1'-0"

THICKENED SLAB



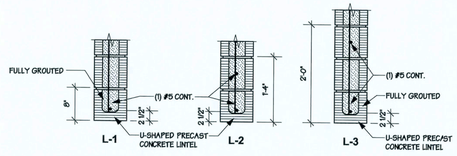
12 S501 Scale: NTS

THICKENED EDGE PERIMETER



13 S501 Scale: NTS

COLUMN FOOTING DETAIL



NOTES:
1. SHORE PRECAST LINTEL PER MANUFACTURER'S SPECIFICATIONS.
2. VERIFY WITH ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATIONS OF OPENINGS.
3. PROVIDE 4" MIN. BEARING AT EACH END.
4. PROVIDE TRUSS ENGINEERING TO A/E PRIOR TO CONSTRUCTION SO LINTEL SIZES CAN BE VERIFIED.

14 S501 Scale: NTS0"

8" CMU PRECAST LINTELS

REVISIONS

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DA

DONALHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E John@donalhue-arch.com
FL: # AA26009933, GA: # RA012363
FL Engineering CA: # 32147, ID: # 1826000848

STRUCTURAL

DETAILS

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

JAN 04 2019

DATE: 10/29/18	
JOB D_17061	
DRAWN BY JD JAD	20
S501	OF 39
Permit Set	

GENERAL NOTES:

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) SYSTEMS.
2. REFER TO TYPICAL DETAILS FOR ADDITIONAL INFORMATION REGARDING INSTALLATION OF DUCTWORK, PIPING, AND EQUIPMENT.
3. THE CONTRACTOR IS EXPECTED TO ORDER MATERIALS IN SUFFICIENT TIME TO AVOID DELAYING THE COMPLETION OF THE PROJECT. DELAY IN DELIVERIES WILL NOT BE CONSIDERED A JUSTIFIABLE REASON FOR SUBSTITUTION OF MATERIALS.
4. THE CONTRACTOR SHALL COMPLY WITH THE 2017 FLORIDA BUILDING CODE AND ALL OTHER APPLICABLE CODES AND STANDARDS.
5. ALL REQUESTS FOR INFORMATION (RFIS) SUBMITTED BY THE CONTRACTOR SHALL INCLUDE A PROPOSED SOLUTION.
6. INSTALLATION OF EQUIPMENT SHALL COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION AND CLEARANCE REQUIREMENTS. THE CONTRACTOR SHALL VERIFY INSTALLATION CLEARANCES WILL BE MAINTAINED AND DISCREPANCIES SHALL BE REPORTED TO THE ARCHITEC PRIOR TO THE ACQUISITION OF EQUIPMENT.
7. THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF DIFFERENT TRADES SO THAT INTERFERENCE BETWEEN HVAC, PIPING, EQUIPMENT, STRUCTURAL, AND ELECTRICAL WORK WILL BE AVOIDED. ALL NECESSARY OFFSETS IN DUCTWORK, PIPING, AND FITTINGS REQUIRED TO INSTALL THE WORK PROPERLY SHALL BE PROVIDED COMPLETE IN PLACE AT NO ADDITIONAL COST TO THE OWNER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR, AT HIS COST, AN' DAMAGED ITEMS DUE TO WORK PERFORMED. DAMAGED ITEMS SHALL BE BROUGHT BACK TO LIKE-NEW IONDITION OR REPLACED WITH ORIGINAL.
9. DUCTWORK, PIPING AND EQUIPMENT LOCATIONS SHOWN ARE SCHEMATIC PRIOR TO EXCAVATION, LAYOUT AND CONSTRUCTION OF THE MECHANICAL SYSTEMS, THE CONTRACTOR SHALL SUBMIT LAYOUT AND FABRICATION SHOP DRAWINGS FOR APPROVAL. CONTRACTOR SHALL NO' COMMENCE WORK WITHOUT APPROVED SHOP DRAWINGS ON THE CONSTRUCTION SITE.
10. INSULATE ALL SURFACES SUBJECT TO CONDENSATION.
11. ALL DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE THE INTERNAL CLEAR DIMENSIONS.
12. FLEX DUCTS SHALL BE ONE CONTINUOUS PIECE (NO SPLICES) AND SHALLBE A MAXIMUM LENGTH OF 10 FEET.
13. INSIDE AREAS OF DUCTWORK VISIBLE THROUGH DIFFUSERS, REGISTERS GRILLES OR LOUVERS SHALL BE PAINTED FLAT BLACK.
14. INSULATE ALL LOUVER PLENUMS AND BLANK-OFFS TO PREVENT CONDENSATION.
15. ALL RESTROOM MAKE-UP AIR SHALL BE BY WAY OF GALVANIZED STEELTRANSFER DUCTS WITH ZERO LEAKAGE BACKDRAFT DAMPERS.
16. ALL NEW SUPPLY AND RETURN DUCTWORK SHALL BE GALVANIZED STEE, EXTERNALLY INSULATED WITH 2.2-INCH THICK, 3/4 POUND DENSITY FIBERGLASS DUCTWRAP WITH VAPOR BARRIER. INSTALLED R VALUE SHALL BE A MINIMUM OF 6.0. SEAL ALL JOINTS AND SEAMS WITH GLASS FABRIC AND MASTIC MEETING UL 181.
17. REFER TO ARCHITECTURAL AND/OR STRUCTURAL SHEETS FOR LOUVER MOUNTING HEIGHTS.
18. PROVIDE A 4-INCH THICK CONCRETE HOUSEKEEPING PAD WITH 6-INCH BOLDER ALL AROUND FOR ALL EXTERIOR GRADE-MOUNTED MECHANICAL EQUIPMENT.
19. PROVIDE COLD GALVANIZED PAINT ON ALL FIELD CUTS/WELDS OF GALVANIZED STEEL SUPPORTS AND THREADED RODS.
20. ROUTE CONDENSATE TO EXTERIOR DRYWELL AND TERMINATE INDIRECTLY.
21. THE REFRIGERANT PIPING SIZES AND ROUTING DESIGN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE INTO ACCOUNT LENGTH OFRUN, ELEVATION CHANGES, AND FIELD CONDITIONS. PROVIDE ALL ACCESSORIES REQUIRED FOR "LONG LINE" APPLICATIONS. CONTRACTOR SHALL SUBMIT CALCULATIONS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.
22. ROUTE ALL UNDERGROUND REFRIGERANT PIPING ON LONG-RADIUS SCHEDULE 40 PVC CONDUIT.
23. THE BUILDING DOES NOT HAVE A FIRE ALARM SYSTEM. PROVIDE A DUCTMOUNTED SMOKE DETECTOR IN THE SUPPLY AIR OF THE AIR HANDLING UNIT. ACTIVATION OF THE SMOKEDETECTOR SHALL SHUT DOWN THE UNIT AND ACTIVATE A VISIBLE AND AUDIBLE SIGNAL IN AN APPROVED LOCATION. THE DUCT SMOKE DETECTORS SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR AND POWERED BY THE ELECTRICAL CONTRACTOR.
24. ALL TEMPERATURE SENSORS/CONTROLS SHALL BE LOCATED TO ALLOWPARALLEL APPROACH BY A PERSON IN A WHEELCHAIR AND MOUNTED 54" AFF. WHERE ONLY FORWARD APPROACH IS POSSIBLE, SENSORS/CONTROLS SHALL BE MOUNTED 48" AFF.
25. NOT ALL DUCT TRANSITIONS HAVE BEEN LABELED, THE CONTRACTOR SHALL PROVIDE ALL SUCH TRANSITIONS, FITTINGS, ADAPTERS, COUPLINGS, ETC. NECESSARY FOR A COMPLETE AND FUNTIONAL SYSTEM.
26. THE CONTRACTOR SHALL PERFORM A COMPLETE CERTIFIED TEST AND BALANCE OF EACH MECHANICAL SYSTEM IN ACCORDANCE WITH A NATIONAL STANDARD. PROVIDE THREE(3) WRITTEN COPIES OF THE COMPLETED TEST AND BALANCE REPORT TO THE OWNER FOR REVIEW.

HVAC DESIGN DATA

LOCATION			Ocala, Florida
OUTDOOR AIR DESIGN CONDITIONS	SUMMER		WINTER
	DB (DEG F)	WB (DEG F)	DB (DEG F)
ALL UNITS	93	77	33
INDOOR AIR DESIGN CONDITIONS	SUMMER	RELATIVE HUMIDITY	WINTER
ALL UNITS	75	50%	72

CONSTRUCTION	
FLOOR U-VALUE (BTU/HR•SF•DEG F)/R-VALUE	0.212/R-4.7
WALL U-VALUE (BTU/HR•SF•DEG F)/R-VALUE	0.097/R-10.31
ROOF U-VALUE (BTU/HR•SF•DEG F)/R-VALUE	0.035/R-30
WINDOW U-VALUE (BTU/HR•SF•DEG F)/R-VALUE	0.25
WINDOW SHADING COEFFICIENT/SHGC	0.34/0.30

OUTDOOR AIR CALCULATIONS - MULTI-ZONE UNITS

MARK	TOTAL UNCORRECTED OUTDOOR AIR CFM	SYSTEM COOLING VENTILATION EFFICIENCY (Ev)	SYSTEM HEATING VENTILATION EFFICIENCY (Ev)	TOT. REQUIRED OUTDOOR AIR CFM	SCHEDULED OUTDOOR AIR CFM
AHU-1	830	0.63	0.63	1,324	1,325
AHU-2	1003	0.62	0.59	1,622	1,625

THE REQUIRED OUTSIDE AIR FOR EACH SYSTEM WAS CALCULATED USING THE GUIDELINES SET FORTH IN THE FLORIDA BUILDING CODE. THE APPROPRIATE PEOPLE OUTDOOR AIR RATE (Rp) AND THE AREA OUTDOOR AIR RATES (Ra) WERE SELECTED BASED ON THE OCCUPANCY CATEGORY FOR EACH SPACE. THE SYSTEM VENTILATION EFFICIENCY WAS CALCULATED USING THE EQUATIONS FOR MULTIPLE-ZONE SYSTEMS. THE SYSTEM VENTILATION EFFICIENCY (Ev) FOR EACH AIR HANDLING UNIT WAS CALCULATED USING THE EQUATION Ev = MINIMUM (Evz). THE SYSTEM VENTILATION EFFICIENCY WAS APPLIED TO THE MINIMUM OUTDOOR AIRFLOW REQUIRED TO ENSURE THAT THE MINIMUM VENTILATION AIRFLOW WAS SUPPLIED TO EVERY ZONE AT THE ZONE'S MINIMUM PRIMARY AIRFLOW.

AIR DEVICE SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	BORDER	FACE/NECK	FINISH	MATERIAL	MAX NC LEVEL	MAX. PRESSURE DROP (IN. WG)	ACCESSORIES	NOTES
SUPPLY AIR DEVICES											
SD-1	METALAIRE	5000	CEILING DIFFUSER	CEILING	24x24/1	SEE TABLE	WHITE	ALUMINUM	-	0.08	1,2,5	1,2
SD-2	METALAIRE	5000	CEILING DIFFUSER	CEILING	12x12/1	SEE TABLE	WHITE	ALUMINUM	-	0.08	1,2,5	1,2
SD-3	METALAIRE	4000-AF	WALL MOUNTED	CEILING	4x6/1	SEE TABLE	WHITE	ALUMINUM	-	0.08	1,2,5	1,2
RETURN AIR DEVICES												
RG-1	METALAIRE	RP	CEILING GRILLE	CEILING	24x24/1	SEE TABLE	WHITE	ALUMINUM	18	0.02	1,2,5	1,2
RG-2	METALAIRE	RH	WALL MOUNTED	CEILING	6x6/1	SEE TABLE	WHITE	ALUMINUM	18	0.02	1,2,5	1,2
EXHAUST AIR DEVICE												
EF-1 THRU EF-4	GREENHECK	SP-A50	CEILING EXHAUST	CEILING	12X12		WHITE	POLYMERIC	0.3	0.1		
EF-5	GREENHECK	SP-A200	CEILING EXHAUST	CEILING	12X12		WHITE	POLYMERIC	0.3	0.1		
EF-6	GREENHECK	SP-A150	CEILING EXHAUST	CEILING	12X12		WHITE	POLYMERIC	0.3	0.1		
EF-7	GREENHECK	SP-A50	CEILING EXHAUST	CEILING	12X12		WHITE	POLYMERIC	0.3	0.1		

ACCESSORIES
1. INSULATED DUCT BOOT FOR CONNECTION TO ROUND DUCTWORK.
2. OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF AIR DEVICE
3. ALUMINUM SURFACE MOUNT ADAPTER FRAME FOR LAY-IN AIR DEVICES LOCATED IN HARD CEILINGS

NOTES
1. USE NECK SIZES IN TABLE 1 RIGHT IF NECK SIZE IS NOT SPECIFIED ON THE PLANS
2. PAINT DUCTWORK VISIBLE THROUGH AIR DEVICE MATTE BLACK
3. INCLUDE BIRD AND INSECT SCREEN AND BACKDRAFT DAMPER.

TABLE 1

CFM RANGE	NECK SIZE
0 to 110	6" DIA.
111 to 220	8" DIA.
221 to 325	10" DIA.
326 to 475	12" DIA.
476 to 650	14" DIA.
651 to 1,000	16" DIA.

LEGEND

AIR DEVICE TAG	EXAMPLE
MARK - TYPE OR (IN/IN)	SD-1
AIRFLOW (CFM)	250 CFM

VARIABLE AIR VOLUME SINGLE DUCT TERMINAL UNITS

UNIT TAG	QUANTITY	MANUFACTURER	UNIT MODEL	AIRFLOW				HEATING COIL				
				PRIMARY INLET	DESIGN COOLING AIRFLOW (CFM)	MIN COOLING AIRFLOW (CFM)	HEATING AIRFLOW (CFM)	HEATING CAPACITY (MBH)	ELECTRIC HEATER (kW)	ELECTRIC HEATER VOLTAGE	ELECTRIC HEATER STAGES
VAV1.1	1	TRANE	VCEF (Electric Heating)	8"	730	198	198	9.9	3.00	208/3	1
VAV1.2	1	TRANE	VCEF (Electric Heating)	5"	285	71	71	4.24	1.50	208/3	1
VAV1.3	1	TRANE	VCEF (Electric Heating)	6"	460	115	115	8.67	2.50	208/3	1
VAV1.4	1	TRANE	VCEF (Electric Heating)	6"	410	123	123	8.34	2.50	208/3	1
VAV1.5	1	TRANE	VCEF (Electric Heating)	10"	1000	171	171	14.97	4.50	208/3	2
VAV1.6	1	TRANE	VCEF (Electric Heating)	10"	850	213	213	16.47	4.50	208/3	2
VAV1.7	1	TRANE	VCEF (Electric Heating)	8"	600	180	180	10.42	3.00	208/3	1
VAV1.8	1	TRANE	VCEF (Electric Heating)	6"	440	132	132	8.79	2.50	208/3	1
VAV1.9	1	TRANE	VCEF (Electric Heating)	8"	610	153	153	10.01	3.00	208/3	1
VAV2.1	1	TRANE	VCEF (Electric Heating)	6"	430	172	172	5.26	1.50	208/3	1
VAV2.2	1	TRANE	VCEF (Electric Heating)	8"	535	214	214	7.36	2.00	208/3	1
VAV2.3	1	TRANE	VCEF (Electric Heating)	10"	1000	400	400	15.8	4.50	208/3	2
VAV2.4	1	TRANE	VCEF (Electric Heating)	10"	1210	545	545	18.84	5.50	208/3	2
VAV2.5	1	TRANE	VCEF (Electric Heating)	8"	650	260	260	6.69	2.00	208/3	1
VAV2.6	1	TRANE	VCEF (Electric Heating)	6"	295	118	118	3.16	1.00	208/3	1
VAV2.7	1	TRANE	VCEF (Electric Heating)	10"	845	338	338	15.23	4.50	208/3	2

VAV BOXES
1. SINGLE POINT POWER CONNECTION
2. FACTORY-MOUNTED DDC CONTROLLER WITH CONTROL POWER TRANSFORMER COORDINATED WITH SUPPLY VOLTAGE TO THE TERMINAL UNIT.
3. 1-INCH THICK 1.5 LB/FT3 COMPOSITE DENSITY GLASS FIBER WITH FOIL-FACED INSULATION INSULATION SHALL BE UL LISTED AND MEETS NFPA-90A AND UL 181 STANDARDS AND BACKTERIOLOGICAL STANDARD ASTM C665. INSULATION SHALL HAVE NO EXPOSED EDGES (COMPLETE METAL ENCAPSULATION)
4. SLIP AND DRIVE OUTLET CONNECTION
5. WALL-MOUNTED DDC ZONE TEMPERATURE SENSOR WITH NO EXTERNALLY-ADJUSTABLE CONTROLS
6. ELECTRIC HEAT WITH 24-VOLT MAGNETIC CONTACTORS AND AUTOMATIC THERMAL CUTOUT WITH MANUAL RESET
7. AIRFLOW SWITCH TO DISABLE HEATER WHEN THE SYSTEM FAN IS OFF.

NOTES:
1. ALL AIR TERMINAL UNIT SHALL BE SUPERVISED AND CONTROLLED BY THE BUILDING MANAGEMENT SYSTEM.
2. COORDINATE AIR TERMINAL UNIT LOCATIONS WITH OTHER SYSTEMS ABOVE THE CEILING TO MAINTAIN THE REQUIRED 36" CLEARANCE IN FRONT OF THE UNIT ELECTRICAL CONNECTION AND DISCONNECT.
3. COORDINATE AIR TERMINAL UNIT LOCATIONS WITH HARD CEILINGS TO ALLOW THE INSTALLATION OF ACCESS PANELS LARGE ENOUGH TO REMOVE THE UNIT FROM THE CEILING.
4. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ACCESS PANEL REQUIREMENTS. THE DESIGN INTENT IS FOR THE ACCESS PANELS TO BLEND IN WITH THE SURROUNDING FINISHES AS BEST AS POSSIBLE.
5. PROVIDE RIGHT- OR LEFT-HAND ORIENTATION AS INDICATED ON THE CONTRACT DOCUMENTS.

AIR COOLED CONDENSING UNIT SCHEDULE

MARK	LOCATION	MANUF.	MODEL NO.	NOMINAL TONNAGE	REFRIGERANT	COMPRESSOR			CONDENSER FAN		ELECTRICAL				UNIT REQUIREMENT			
						OUTDOOR DESIGN TEMP (F)	NUMBER OF STAGES	NUMBER OF COMPRESSORS	NO. OF FANS	MOTOR HP	VOLTAGE/PHASE/HZ	COMPRESSOR RLA EACH	CONDENSER FAN MOTOR FLA EACH	MINIMUM CIRCUIT AMPACITY	MAXIMUM FUSE SIZE	SEER	UNIT WEIGHT (LBS)	ACCESSORIES	NOTES
CU-1	Grade	Trane	TTA24043	20.0	R-410A	93	2	2	2	1	208/230/3/60	35.4	5.00	67	110	12.5	900	1-6	1-2
CU-2	Grade	Trane	TTA18043	15.0	R-410A	93	2	2	2	1	208/230/3/60	25.0	5.00	67	90	12.7	900	1-6	1-2

1. Louvered Coil Guard
2. Anti-Short Cycle Kit
3. Freeze Protection Kit
4. High and Low Pressure Switches
5. Refrigerant Charging Valves
6. Long Line Set Application Accessories; Hard Start Kit, Thermostatic Expansion Valve (TXV), Liquid Line Solenoid as Outdoor Unit, and an Inverted Refrigerant Trap at the Indoor Unit

Notes
1. The Contractor is responsible for coordinating with the equipment manufacturer for the proper refrigerant pipe sizing for the application.
2. Unit shall be AHRI Certified, ETL Listed.

AIR HANDLING UNIT EQUIPMENT SCHEDULE

MARK	LOCATIONS SERVED	MANUF.	MODEL NO.	FAN					EVAPORATOR COIL									
				AIRFLOW (CFM)	OA (CFM)	ESP (IN WG)	DRIVE/SPEED	HP	SENSIBLE CAPACITY (MBH)	TOTAL CAPACITY (MBH)	ENTERING AIR TEMP (DB/WB)	LEAVING AIR TEMP (DB/WB)	VOLTS/PH/HZ	MIN. CIRCUIT AMPACITY	MAX. FUSE SIZE	FILTER SIZE	FILTER TYPE	UNIT OPERATING WT. (LBS)	ACCESSORIES	NOTES
AHU-1	ROOMS 100-131	TRANE	CLIMATE CHANGER AIR HANDLER - SIZE 12	5,130	1,100	2.00	1,186 RPM	7.5	154.72	212.54	77.9/64.7	53.0/51.9	208/230/3/60	28	50	(1) 16"X20"X2"	MERV 8, PLEATED	1,400	1-8	1,2
AHU-2	ROOMS 132-149	TRANE	CLIMATE CHANGER AIR HANDLER - SIZE 10	4,945	970	2.00	1,879 RPM	7.5	132.4	185.61	77.8/64.8	53.0/52.0	208/230/3/60	28	50	(1) 16"X25", (2) 20"X25"	MERV 8, PLEATED	1,200	1-8	1,2

ACCESSORIES
1. Single Point Power Connection with Factory-Installed Pull-Type Disconnect
2. Built-In Filter Rack
3. Sequence-Controlled Rust Resistant Nickel Chromium Heating Elements
4. Secondary Condensate Overflow Switch Mounted In Auxiliary Condensate Drain Connection On Air Handler Which Will Shut Down The Air Handler If the Primary Condensate Drain Clogs
5. Unit Controller
6. Stand Alone Unit for Economizer
7. Variable Frequency Drive.
8. Inverter duty-rated fan motor for variable air volume application

NOTES
1. Unit Shall Be AHRI Certified, ETL Listed
2. Unit has no heat.

HVAC LEGEND

- SD-1 / 250CFM — AIR DEVICE TAG / TYPE MARK AIRFLOW (CFM)
- UC / 100 — UNDERCUT DOOR AIRFLOW AMOUNT (CFM)
- 1 — REFERENCE NOTE
- X / X-X — DETAIL NUMBER SHEET DETAIL APPEARS
- X / X-X — SECTION NUMBER SHEET SECTION APPEARS
- 8" DIA. — SUPPLY AIR DUCT
- 8" DIA. — RETURN AIR DUCT
- 8" DIA. — OUTSIDE AIR DUCT
- 8" DIA. — EXHAUST AIR DUCT
- 6 Ø — FLEXIBLE DUCT
- SQUARE TO ROUND DUCT TRANSITION
- RECTANGULAR ELBOW W/ TURNING VANES
- VERTICAL RISER DUCT
- BD — BALANCING DAMPER
- BDD — BACKDRAFT DAMPER
- MVD — MANUAL VOLUME DAMPER
- M — MOTORIZED DAMPER
- SUPPLY AIR DIFFUSER
- RETURN GRILLE
- EXHAUST GRILLE
- LINEAR DIFFUSER

BUILDING PRESSURIZATION

MARK	AIRFLOW (CFM)	CONTROL	EFFECT ON BLDG PRESSURE	BLDG EXHAUST (CFM)
EF-1 THRU EF-4	50	LIGHTING CIRCUIT	INTERMITTENT	-200
EF-5	200	LIGHTING CIRCUIT	INTERMITTENT	-200
EF-6	150	LIGHTING CIRCUIT	INTERMITTENT	-150
EF-7	50	LIGHTING CIRCUIT	INTERMITTENT	-50
TOTAL CONTINUOUS EXHAUST				0
TOTAL INTERMITTENT EXHAUST				-600
TOTAL BUILDING OUTSIDE AIR INTAKE				+1,665
BUILDING PRESSURIZATION W/ CONTINUOUS EXHAUST				+1,665
BUILDING PRESSURIZATION W/ INTERMITTENT EXHAUST				+1,065



REVISIONS

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DA

DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL: # AA26000933, GA: # RA012363
FL Engineering CA: # 32147, ID: # IB26000848

MECHANICAL

LEGENDS, SCHEDULES & NOTES

A New Office for
Anderson Columbia - Lake City
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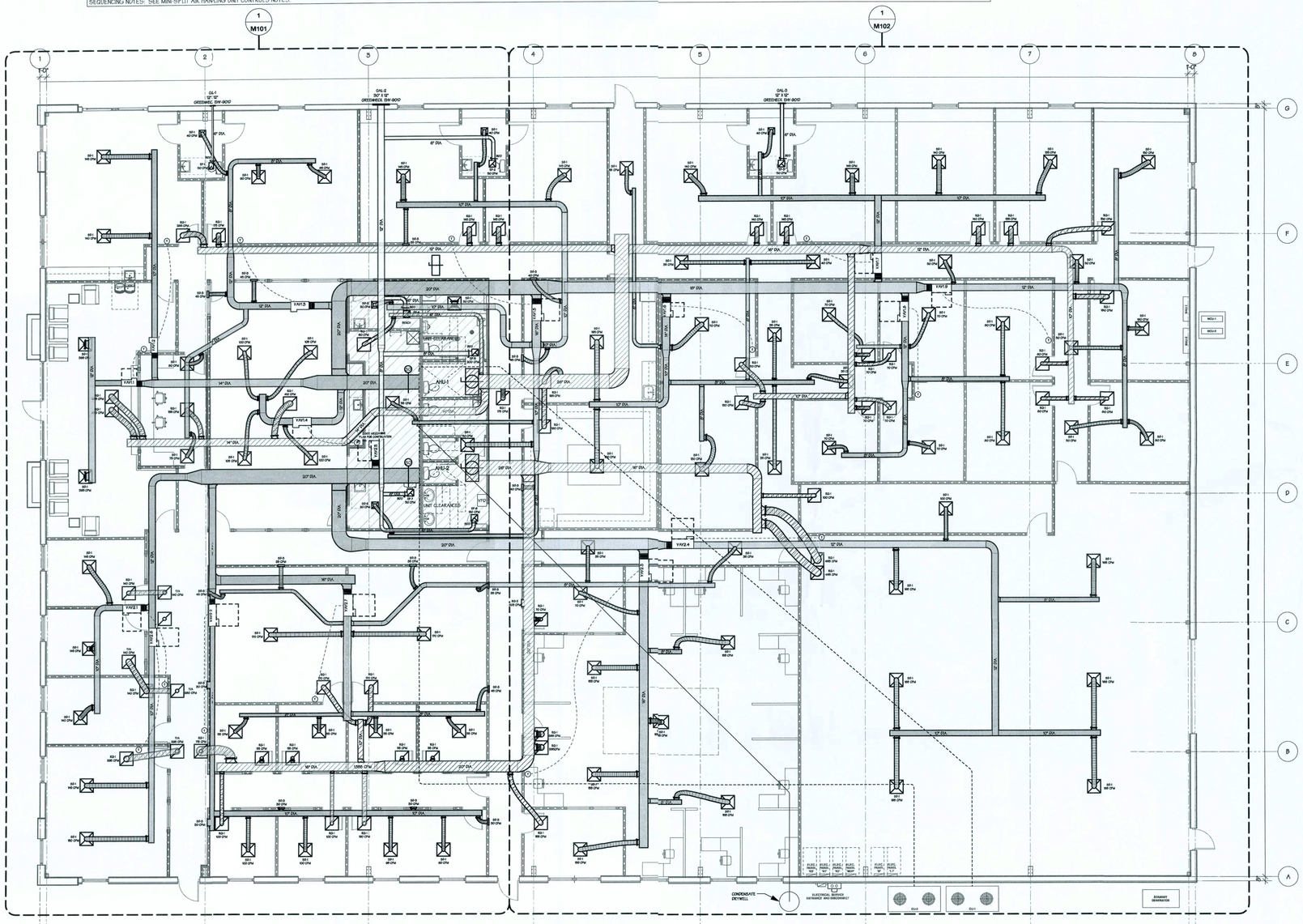
M000
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OF 39

MINI SPLIT HEAT PUMP

MARK	LOCATION	COMPRESSOR			ELECTRICAL					UNIT INFORMATION		MANUFACTURER	MODEL NO.	NOTES
		OUTDOOR DESIGN TEMP	QTY	CAPACITY TEPS	VOLTAGE PHASE	RLA/FLA	MCA	MOCP	SEER	UNIT SIZE	OPERATING WEIGHT			
MCU-1	GROUND	92	1	100%	208/230V, 1PHASE,60Hz	7/11	19	26	19.8	37.5"x13"x37"	153	MITSUBISHI	PUZ-HA42NKA	FULLY-VARIABLE SPEED OPERATION
MCU-2	GROUND	92	1	100%	208/230V, 1PHASE,60Hz	7/11	19	26	19.8	37.5"x13"x37"	153	MITSUBISHI	PUZ-HA42NKA	FULLY-VARIABLE SPEED OPERATION

SEQUENCING NOTES: SEE MINI-SPLIT AIR HANDLING UNIT CONTROLS NOTES.



MINI SPLIT AIR HANDLING UNITS

MARK	LOCATION SERVED	FAN			COOLING COIL					FILTERS		HEAT PUMP INFORMATION			UNIT INFORMATION			
		TOTAL AIRFLOW (CFM)	EXTERNAL STATIC PRESSURE (IN WG)	DRIVE TYPE	ENTERING AIR TEMP DB/WB)	LEAVING AIR TEMP (DB/WB)	TOTAL CAPACITY (BTUH)	SENSIBLE CAPACITY (BTUH)	SEER	TYPE	EFFICIENCY	TOTAL CAPACITY (BTUH)	VOLTS/PHASE	HPSF	UNIT SIZE (H"XW"XD")	OPERATING WEIGHT (LB)	MANUFACTUER	MODEL NUMBER
MAU-1	ROOM 114	VARIABLE, 740 1025 CFM	--	--	90/73	55/54	42000	28980	15.8	INTERNAL	25% - 30%	42000	208-230V/1PHASE, 60Hz	10.2	63"x9-1/6"x26-3/4"	86	MITSUBISHI	PCA-A42KA6
MAU-2	ROOM 114	VARIABLE, 740 1025 CFM	--	--	90/73	55/54	42000	28980	15.8	INTERNAL	25% - 30%	42000	208-230V/1PHASE, 60Hz	10.2	63"x9-1/6"x26-3/4"	86	MITSUBISHI	PCA-A42KA6

CUSTOM CONTROLS: THE DESIGN SETPOINT TEMPERATURE FOR THE SPACE IS 65 DEG F AND 50% RELATIVE HUMIDITY. THE CONTRACTOR SHALL PROVIDE A SINGLE CONTROL UNIT THAT CONTROLS BOTH UNITS AS FOLLOWS: FAN UNITS SHALL ALTERNATE OPERATION. IF THE TEMPERATURE IN THE SPACE RISES ABOVE 68 DEG F, THE CONTROLLER SHALL OPERATE THE OPPOSITE FAN UNIT SIMULTANEOUSLY TO COOL THE SPACE. WHEN THE SPACE TEMPERATURE REACHES 65 DEG F, BOTH FAN UNITS SHALL SHUTDOWN AND RESUME NORMAL ALTERNATING OPERATION. THE CONTRACTOR SHALL PROVIDE CONDENSATE DRAIN AID REMOVAL SYSTEM AS NECESSARY TO REMOVE ALL CONDENSATE FROM THE SPACE.

1 M100 **MECHANICAL PLAN**
SCALE: 1/8" = 1'-0"

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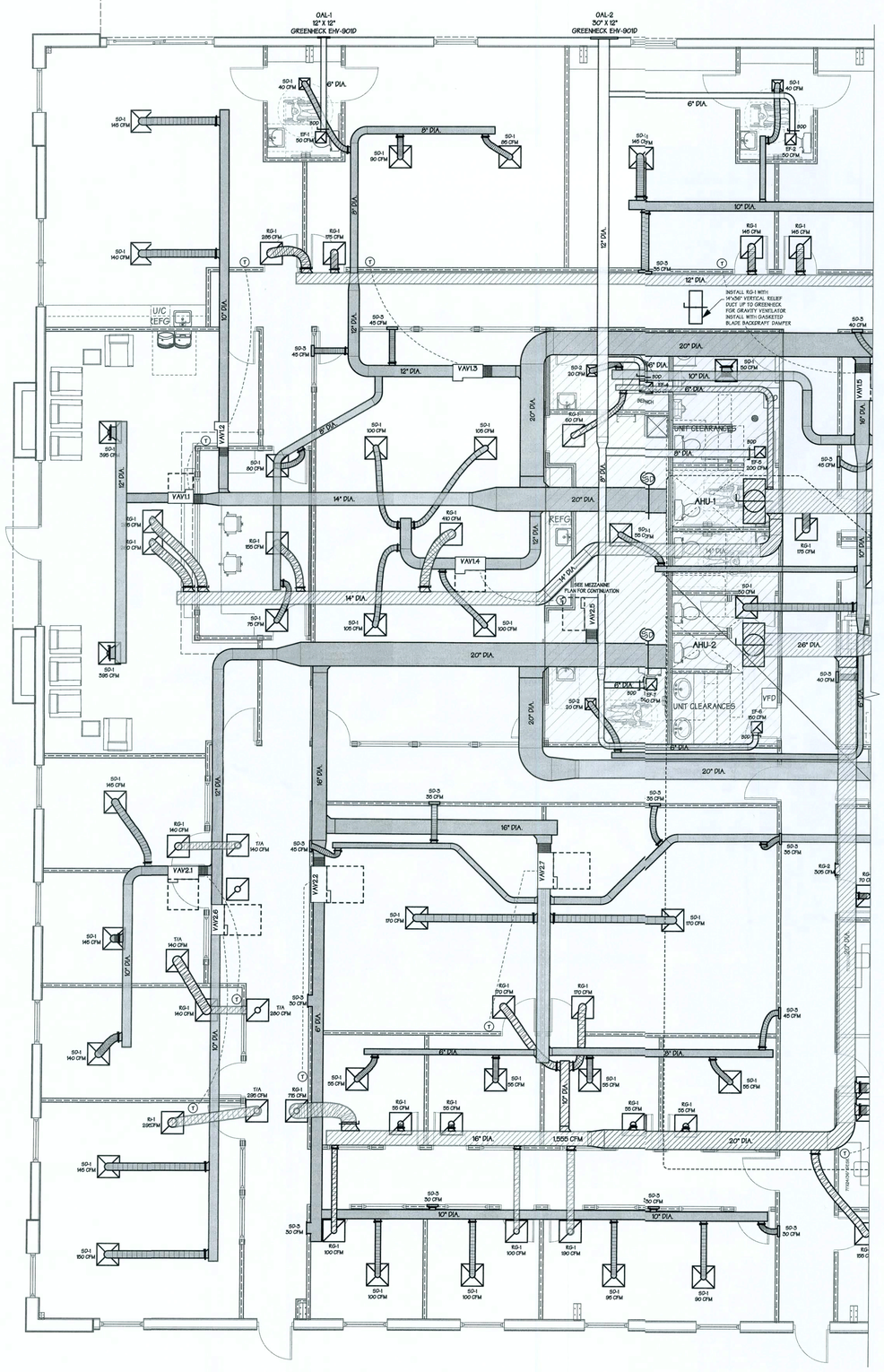
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1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL: # AA26000933, GA: # RA012263
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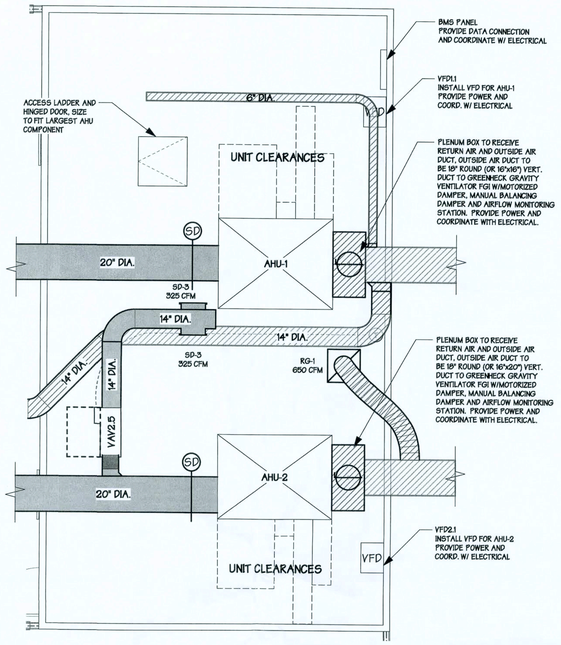
MECHANICAL

MECHANICAL PLAN / NOTES

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2 M101 **MECHANICAL MEZZANINE**
SCALE: 1/4" = 1'-0"

1 M101 **ENLARGED MECHANICAL PLAN - WEST**
SCALE: 3/16" = 1'-0"

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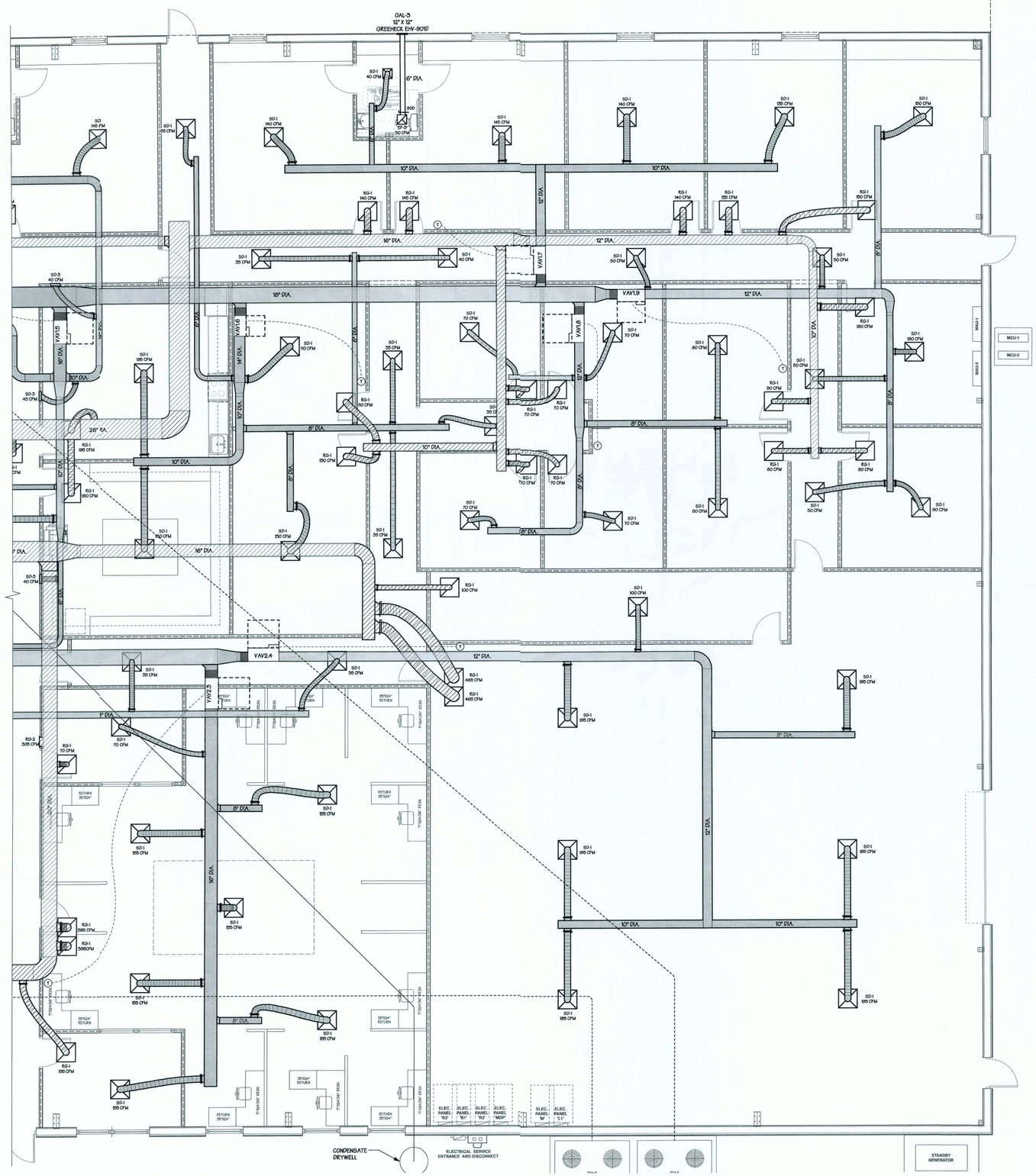
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T 352.867.5148
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MECHANICAL

ENLARGED MECHANICAL PLAN - WEST

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1 M102 ENLARGED MECHANICAL PLAN - EAST
SCALE: 3/16" = 1'-0"

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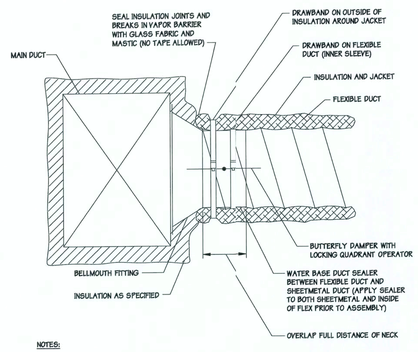
ENLARGED MECHANICAL PLAN - EAST

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M102
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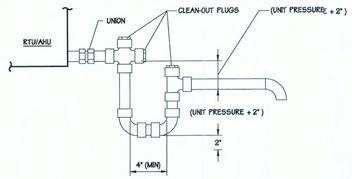
OF 39



NOTES:

1. TYPICAL FOR: LOW PRESSURE AND HIGH PRESSURE CONNECTION TO MAIN DUCT, FAN TERMINAL UNITS, VARIABLE AIR VOLUME UNITS, AND DIFFUSERS.
2. DRAWBANDS SHALL BE EQUIVALENT TO FANDUIT FLT-H.

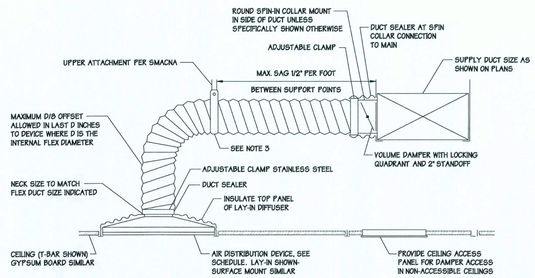
1 M500 Flexible Duct Detail
NTS= 1'-0"



NOTES:

1. CONDENSATE DRAIN SHALL BE PIPED FULL SIZE OF UNIT CONNECTION.
2. CONDENSATE PANS SHALL BE INSTALLED WITH ADEQUATE PITCH TO ENSURE POSITIVE DRAINAGE OF ACCUMULATED CONDENSATE.

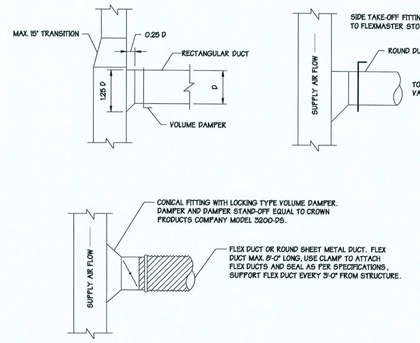
2 M500 Condensate Drain Detail
NTS= 1'-0"



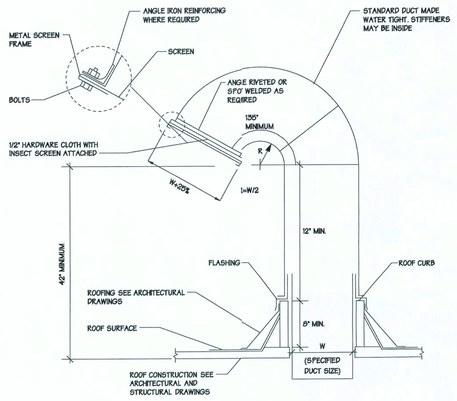
NOTES:

1. FLEXIBLE DUCTS SHALL BE ONE-PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MINIMUM 1-1/2" WIDE 22 GAUGE GALVANIZED STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NO COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D=1.0.

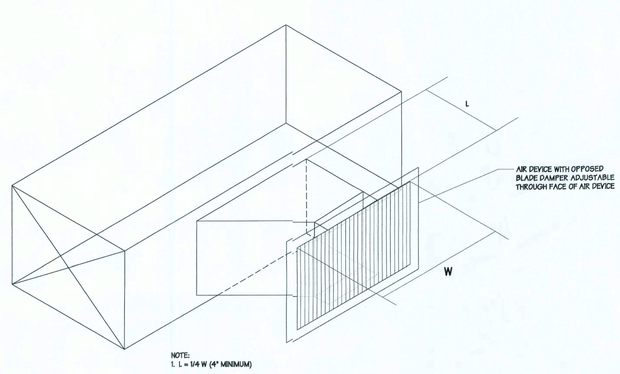
3 M500 Flexible Duct Detail
NTS= 1'-0"



4 M500 Supply Branch Duct Details
NTS= 1'-0"

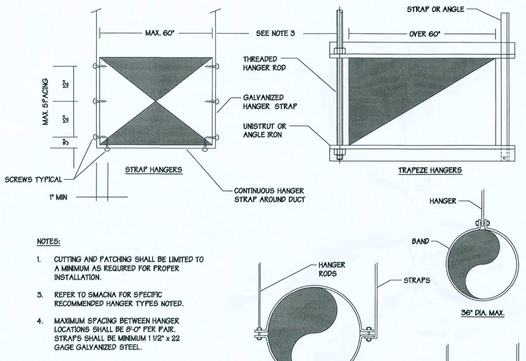


5 M500 Gooseneck Detail
NTS= 1'-0"



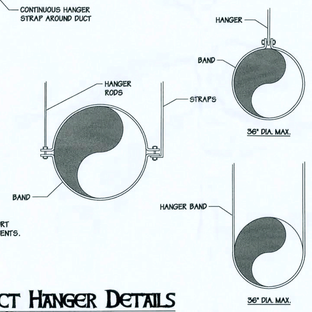
NOTE:
1. L = 1/4 W (4" MINIMUM)

6 M500 Air Device - Typical Sidewall Take-Off
NTS= 1'-0"



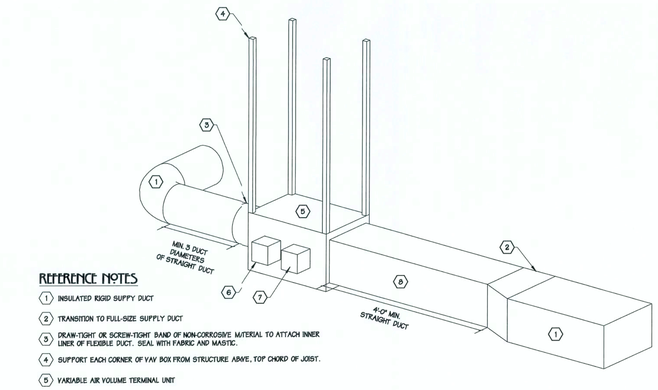
NOTES:

1. CUTTING AND PATCHING SHALL BE LIMITED TO A MINIMUM AS REQUIRED FOR PROPER INSTALLATION.
3. REFER TO SMACNA FOR SPECIFIC RECOMMENDED HANGER TYPES NOTED.
4. MAXIMUM SPACING BETWEEN HANGER LOCATIONS SHALL BE 8'-0" PER PAIR. STRAPS SHALL BE MINIMUM 1 1/2" x 22 GAGE GALVANIZED STEEL.



CONFORM TO SMACNA SUPPORT SIZE AND SPACING REQUIREMENTS.

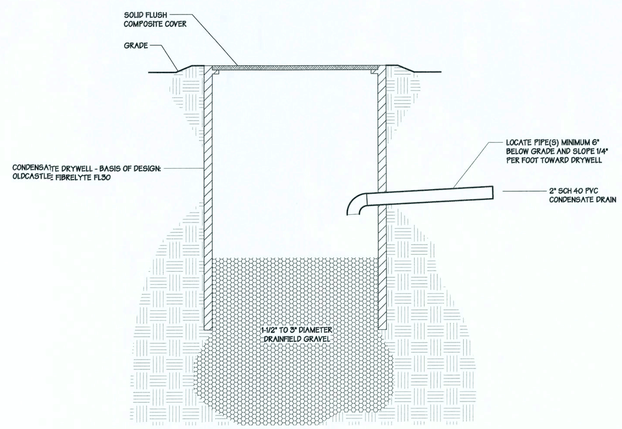
7 M500 Duct Hanger Details
NTS= 1'-0"



REFERENCE NOTES

1. INSULATED RIGID SUPPLY DUCT
2. TRANSITION TO FULL-SIZE SUPPLY DUCT
3. DRAW-TIGHT OR SCREW-TIGHT BAND OF NON-CORROSIVE MATERIAL TO ATTACH INNER LINER OF FLEXIBLE DUCT. SEAL WITH FABRIC AND MASTIC.
4. SUPPORT EACH CORNER OF VAV BOX FROM STRUCTURE ABOVE, TOP CHORD OF JOIST.
5. VARIABLE AIR VOLUME TERMINAL UNIT
6. CONTROL ENCLOSURE FACTORY-MOUNT THE CONTROL POWER TRANSFORMER, DAMPER ACUATOR, AND DDC CONTROLLER
7. ELECTRIC HEATER CONTROL ENCLOSURE - MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCE AND ACCESS REQUIREMENTS
8. PROVIDE 40" OF STRAIGHT DUCT, SAME SIZE AS VAV OUTLET, BEFORE ANY DUCT CONNECTIONS OR TRANSITIONS (VAV UNITS WITH HEATERS ONLY)

8 M500 VAV Box Detail
NTS= 1'-0"



9 M500 Condensate - Drywell
NTS= 1'-0"

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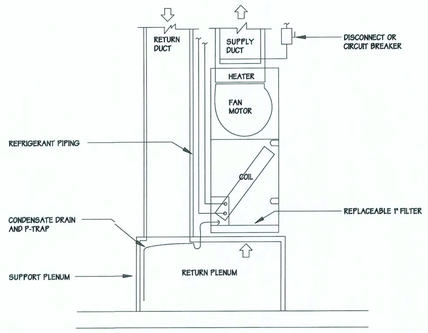
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Ocala, FL 34471
T 352.867.5148
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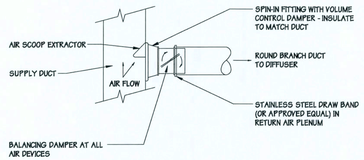
MECHANICAL DETAILS

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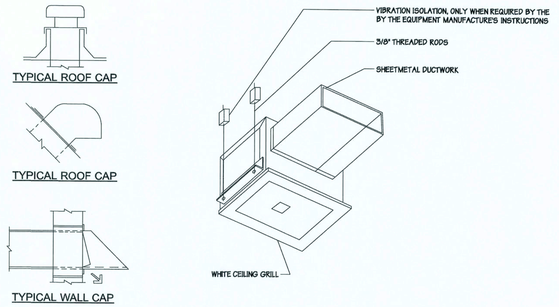
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1 M501 VERTICAL AIR HANDLING UNIT MOUNTING DETAIL
NTS" = 1'-0"

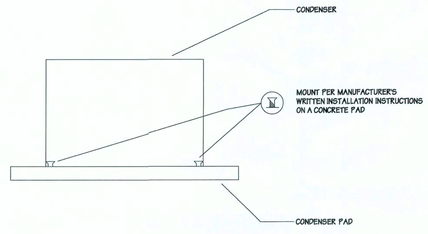


2 M501 ROUND DUCT CONNECTION FITTING
NTS" = 1'-0"

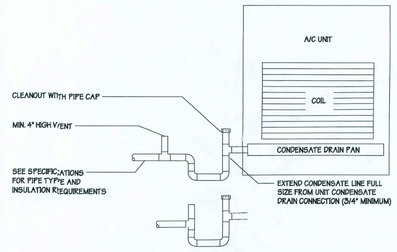


NOTES:
1.- PROVIDE BACKDRAFT DAMPER W/ BIRDSCREEN
2.- FLASH & SEAL WALL AND ROOF CAP
3.- PROVIDE INTERNAL ISOLATION AND SOUND INSULATION
4.- SUPPORT FAN FROM STRUCTURE

3 M501 CEILING FAN DETAIL
NTS" = 1'-0"



4 M501 CONDENSING UNIT MOUNTING DETAIL
NTS" = 1'-0"



5 M501 CONDENSATE TRAP DETAIL
NTS" = 1'-0"

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T 352.867.5148
E john@donahue-arch.com
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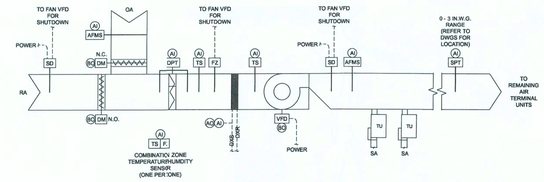
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CONTROL LEGEND

SYMBOL	DESCRIPTION
CONTROLS	
AFMS	AIR FLOW MONITORING STATION
CS	CURRENT SWITCH
DM	DAMPER MOTOR - ELECTRIC
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
FZ	FREEZESTAT
FM	FLOW METER
FS	FLOW SWITCH
HS	HUMIDITY SENSOR
SD	SMOKE DETECTION - PROCUIED AND MOUNTED BY MECH - INSTALLED BY ELEC
SPL	STATIC PRESSURE LIMIT SWITCH MANUALLY RESETTABLE TYPE
SPT	STATIC PRESSURE TRANSMITTER
STR	MOTOR STARTER WITH RELAYS
TS	TEMPERATURE SENSOR
VFD	VARIABLE FREQUENCY DRIVE
VM	MOTORIZED VALVE - ELECTRIC
VPS	VELOCITY PRESSURE SWITCH
XFMR	TRANSFORMER
AI	ANALOG INPUT
AO	ANALOG OUTPUT
BI	BINARY INPUT
BO	BINARY OUTPUT
BC	FULL BI-DIRECTIONAL COMMUNICATOR

SYMBOL	DESCRIPTION
EQUIPMENT	
	FAN
	COOLING COIL
	HEATING COIL
	CONTROL DAMPER
	PUMP
	AIR FILTER SECTION
	TERMINAL UNIT (VAV BOX)
ABBREVIATIONS	
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
EA	EXHAUST AIR
OA	OUTDOOR AIR
RA	RETURN AIR
SA	SUPPLY AIR
TU	TERMINAL UNIT

CONTROL SCHEMATIC



AIR HANDLING UNITS

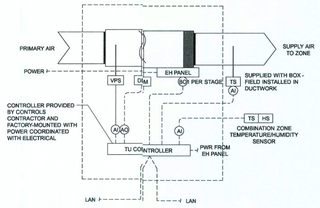
AHU MARK	AHU-1	AHU-2				
INTERLOCKED EXHAUST FANS	N/A	N/A				

TYPICAL CONTROL POINTS LIST

CONTROL POINT	INUT		OUTPUT	
	ANALOG	BINARY	ANALOG	BINARY
SUPPLY FAN MOTOR VARIABLE SPEED DRIVE*	BMS COMMUNICATION CARD			
START/STOP	-	-	-	X
MOTOR CURRENT DRAW (AMPS)	X	-	-	-
MOTOR SPEED (HZ)	X	-	-	-
MOTOR SPEED SET POINT (HZ)	-	-	X	-
MIXED AIR TEMPERATURE (DEG F)	X	-	-	-
COOLING COIL LEAVING AIR TEMPERATURE (DEG F)	X	-	-	-
CONDENSING UNIT COMPRESSOR STAGE	X	-	-	-
OUTSIDE AIR DAMPER POSITION (% OPEN)	X	-	-	-
RETURN AIR DAMPER POSITION (% OPEN)	X	-	-	-
OA AIR FLOW MEASURING STATION (CFM)	X	-	-	-
FILTER DIFFERENTIAL PRESSURE (IN-H20)	X	-	-	-
DUCT STATIC PRESSURE (IN-H20)	X	-	-	-
FREEZESTAT	-	X	-	-
FIRE ALARM SHUTDOWN	-	X	-	-
SMOKE DETECTOR SHUTDOWN	-	X	-	-
DUCT HIGH PRESSURE LIMIT	-	X	-	-
SA AIR FLOW MEASURING STATION (CFM)	X	-	-	-

NOTES:
* DENOTES FULL COMMUNICATION WITH DEVICE VIA COMMUNICATION CARD COORDINATED WITH BMS SYSTEM.

THIS SCHEDULE SHOWS THE MINIMUM POINTS REQUIRED. PROVIDE ALL POINTS AS REQUIRED FOR THE MECHANICAL EQUIPMENT TO PERFORM THE SEQUENCE OF OPERATION..



CONTROL'S SCHEMATIC

TYPICAL SEQUENCE OF OPERATION

SEQUENCE OF OPERATION - AIR TERMINAL UNITS - VARIABLE VOLUME WITH ELECTRIC HEAT

THE AIR TERMINAL UNITS SHALL BE GROUPED BY AIR HANDLING UNIT SERVED FOR TIME OF DAY SCHEDULING. EACH GROUP SHALL HAVE AN INDEPENDENT TIME OF DAY SCHEDULE.

UPON RISE OF SPACE TEMPERATURE ABOVE THE COOLING SET POINT, THE AIR VALVE SHALL OPEN TO INCREASE THE SUPPLY AIR FLOW AS REQUIRED TO MEET ZONE TEMPERATURE COOLING SET POINT. UPON FALL IN SPACE TEMPERATURE THE REVERSE SHALL OCCUR UNTIL THE TERMINAL UNIT REACHES THE MINIMUM SCHEDULED AIRFLOW. UPON CONTINUED FALL IN SPACE TEMPERATURE BELOW THE HEATING SET POINT, THE ELECTRIC HEATER STAGES SHALL ENERGIZE AS REQUIRED TO MAINTAIN THE ZONE TEMPERATURE AT THE HEATING SET POINT.

OCCUPIED MODE COOLING SET POINT:
75 DEG F COOLING (USER ADJUSTABLE)
OCCUPIED MODE HEATING SET POINT:
72 DEG F HEATING (USER ADJUSTABLE)

UNOCCUPIED MODE COOLING SET POINT:
80 DEG F (USER ADJUSTABLE)
UNOCCUPIED MODE HEATING SET POINT:
60 DEG F (USER ADJUSTABLE)

TYPICAL CONTROL POINTS LIST

CONTROL POINT	INPUT		OUTPUT	
	ANALOG	BINARY	ANALOG	BINARY
ZONE TEMPERATURE SET POINT	-	-	X	-
ZONE TEMPERATURE (DEG F)	X	-	-	-
ZONE RELATIVE HUMIDITY (%)	X	-	-	-
AIRFLOW (CFM)	X	-	-	-
DAMPER POSITION (% OPEN)	X	-	X	-
HEATER STAGE - ONE PER STAGE	-	-	-	X

THIS SCHEDULE SHOWS THE MINIMUM POINTS REQUIRED. PROVIDE ALL POINTS AS REQUIRED FOR THE MECHANICAL EQUIPMENT TO PERFORM THE SEQUENCE OF OPERATIONS.

CONTROL SYSTEM NOTES

1. THE BUILDING MANAGEMENT SYSTEM (BMS) SHALL PROVIDE FOR GLOBAL CONTROL AND MONITORING OF THE INDIVIDUAL ITEMS OF EQUIPMENT. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL A COMPLETE FUNCTIONING AND OPERABLE BMS.

2. THE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

A. MICROPROCESSOR BASED CONTROLLERS

B. SENSORS

C. ROUTERS AND COMMUNICATION

D. PANELS

E. SWITCHES

F. WIRING AND CONDUIT

G. WORKSTATION , PRINTER, DESK AND CHAIR

H. SOFTWARE OPERATING SYSTEMS, PROGRAMMING , AND FULL OPERATOR WORKSTATION SYSTEM GRAPHICS

I. COMMISSIONING , CALIBRATION , ACTIVATION, AND DE-BUGGING

J. DEMONSTRATIONS AND TRAINING

3. COORDINATE THE RANGE, SET POINT, DEAD BAND, CHARACTERISTICS AND MOUNTING LOCATIONS OF SENSORS WITH THE ACTUAL EQUIPMENT FURNISHED. INSTALL SENSORS, TUBING, AND WIRING TO BE ACCESSIBLE AND AS NOT TO IMPEDE OR ENCROACH UPON EQUIPMENT SERVICE AND ACCESS AREAS.

4. ALL SENSOR TUBING SHALL BE RIGID HAND-DRAWN TYPE L COPPER TUBING.

5. WHERE PROPOSED SEQUENCES COULD DEFEAT THE EQUIPMENT MANUFACTURER'S EQUIPMENT SAFETIES OR BE DETRIMENTAL TO THE EQUIPMENT CONTROLLED , ALERT THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.

6. SEQUENCES ARE PERFORMANCE-BASED AND GENERALLY DO NOT REFER TO SPECIFIC DEAD-BANDS, RESET RATIOS, DELAYS, AND RANGES REQUIRED FOR STABLE OPERATION. THESE PARAMETERS SHALL BE FULLY ADJUSTABLE AT THE OPERATOR WORKSTATION.

7. PROVIDE MODIFICATION TO THE SET POINTS, DEAD-BANDS, DELAYS AND RANGES BASED UPON THE ACTUAL PERFORMANCE OF THE CONTROLLED EQUIPMENT IN ORDER TO PROVIDE STABLE OPERATION WITHOUT EXCESSIVE CYCLING OR HYSTERESIS . DO NOT MODIFY THE SEQUENCE WITHOUT SUBMITTING AN ALTERNATE SEQUENCE TO THE ENGINEER FOR REVIEW AND APPROVAL..

8. DEMONSTRATE THE SEQUENCE OF OPERATION IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE AND THE ENGINEER FOR ALL CONTROLLED EQUIPMENT. TO INCLUDE GENERATION OF ALARMS AND SIMULATION OF POWER OUTAGES, POWER RESTORATION, AND GENERAL EQUIPMENT FAILURES.

9. IN ADDITION TO SPECIFIC EQUIPMENT ALARMS NOTED IN THE CONTRACT DOCUMENTS, PROVIDE STANDARD ALARMS FOR ITEMS SUCH AS SENSOR FAILURE, OUT-OF-RANGE (HIGH/LOW LIMITS) AND SIMILAR ITEMS.

10. COORDINATE SEQUENCES AND DATA ACQUISITION REQUIREMENTS AND PROVIDE FOR TREND LOGGING, REPORT GENERATION, CALCULATED RUN-HOURS, AND SIMILAR PREVENTATIVE MAINTENANCE FUNCTIONS.

11. POWER WIRING SHALL NOT BE RUN IN THE SAME CONDUIT AS LOW VOLTAGE WIRING, SIGNAL, OR COMMUNICATION WIRING. FINAL CONNECTION TO SENSORS AND ACTUATORS MAY BE MADE WITH FLEXIBLE CONDUIT NOT TO EXCEED 30 INCHES IN LENGTH. COMMUNICATION CABLING CONCEALED ABOVE CEILINGS SHALL BE PLENUM-RATED AND MAY BE RUN WITHOUT CONDUIT, BUT SHALL BE SUPPORTED IN CABLE TRAY (WHERE AVAILABLE), OR SUPPORTED WITH BRIDAL RINGS. EXPOSED COMMUNICATION CABLING SHALL BE RUN IN CONDUIT, EXCEPT WHERE CABLE TRAY IS AVAILABLE TO BE USED.

12. WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT VERSION OF THE NATIONAL ELECTRIC CODE (NEC). CONDUCTORS SHALL BE COPPER, ONE-PIECE, INSTALLED WITHOUT SPLICES. WIRING SHALL BE COLOR-CODED.

13. POWER (120V AND ABOVE) AND CONDUIT TO UNIT CONTROLLERS AND PANELS SHALL BE PROVIDED AND TERMINATED BY ELECTRICAL CONTRACTOR. TRANSFORMERS, DC POWER RECTIFIERS, AND EXTENSION OF LOW-VOLTAGE POWER TO ACTUATORS , TRANSMITTERS, AND SIMILAR CONTROL DEVICES AND SENSORS SHALL BE PROVIDED BY THE CONTROLS CONTRACTOR.

TYPICAL VAV AHU SEQUENCE OF OPERATION

SEQUENCE OF OPERATION - VARIABLE AIR HANDLING UNIT WITH AIR TERMINAL UNITS

SUPPLY FANS

THE AHU SUPPLY FAN SHALL BE STARTED AND STOPPED BY THE BMS BASED ON AN OCCUPANCY SCHEDULE. THE FAN START SHALL BE SUBJECT TO SAFETIES SUCH AS FREEZESTATS , SMOKE DETECTORS, OVERLOADS, ETC. SUPPLY FAN SPEED SHALL BE BASED ON DUCT STATIC PRESSURE AND SHALL INCORPORATE THE DUCT STATIC RESET SEQUENCE OF OPERATION .

OCCUPIED MODE

WHEN THE AHU IS IN THE OCCUPIED MODE, THE INTERLOCKED EXHAUST FANS, IF ANY, SHALL OPERATE CONTINUOUSLY, THE AHU SUPPLY FAN SPEED SHALL BE MODULATED TO MAINTAIN THE DUCT STATIC PRESSURE AT SET POINT (REFER TO DUCT STATIC PRESSURE RESET SEQUENCE BELOW), THE RETURN AIR AND OUTDOOR AIR DAMPERS SHALL MODULATE TO MAINTAIN THE REQUIRED OUTDOOR AIR FLOW RATE MEASURED BY THE AIRFLOW MONITORING STATION , AND THE STAGES OF REFRIGERATION SHALL BE MODULATED TO MAINTAIN COOLING COIL DISCHARGE AIR TEMPERATURE SET POINT.

UNOCCUPIED MODE

IN THE UNOCCUPIED MODE THE AHU SUPPLY FAN AND INTERLOCKED EXHAUST FANS, IF ANY, SHALL BE OFF AND THE OUTSIDE AIR DAMPER CLOSED.

IF THE "CRITICAL ZONE" TEMPERATURE SENSOR ("CRITICAL ZONE" TEMPERATURE SENSOR TO BE SELECTED BY THE OWNER'S REPRESENTATIVE) RISES ABOVE THE UNOCCUPIED TEMPERATURE SET POINT, THE AHU SUPPLY FAN SHALL BE STARTED AND MODULATED TO MAINTAIN THE DUCT STATIC PRESSURE SET POINT, THE OUTDOOR AIR DAMPER SHALL REMAIN CLOSED, THE INTERLOCKED EXHAUST FANS, IF ANY, SHALL REMAIN OFF AND THE STAGES OF REFRIGERATION SHALL BE MODULATED TO MAINTAIN COOLING COIL DISCHARGE AIR TEMPERATURE SET POINT. THE TERMINAL UNITS SHALL OPERATE TO ACHIEVE THE UNOCCUPIED ZONE TEMPERATURE SET POINTS AND THE AHU FAN SHALL BE STOPPED WHEN THE "CRITICAL" ROOM TEMPERATURE SET POINT IS ACHIEVED.

IF THE "CRITICAL ZONE" TEMPERATURE SENSOR (CRITICAL ZONE TEMPERATURE SENSOR TO BE SELECTED BY OWNER'S REPRESENTATIVE) FALLS BELOW THE UNOCCUPIED TEMPERATURE SET POINT, THE AHU SUPPLY FAN SHALL BE STARTED AND MODULATED TO MAINTAIN THE DUCT STATIC PRESSURE SET POINT, THE OUTDOOR AIR DAMPER SHALL REMAIN CLOSED, THE INTERLOCKED EXHAUST FANS, IF ANY, SHALL REMAIN OFF, AND THE STAGES OF REFRIGERATION SHALL BE REMAIN OFF/CLOSED. THE TERMINAL UNITS SHALL OPERATE THEIR ELECTRIC HEATERS TO ACHIEVE THE UNOCCUPIED ZONE TEMPERATURE SET POINTS AND THE AHU FAN SHALL BE STOPPED WHEN THE "CRITICAL" ROOM TEMPERATURE SET POINT IS ACHIEVED.

IF THE AVERAGE HUMIDITY RISES ABOVE 60% (USER ADJUSTABLE) DURING THE OCCUPIED PERIOD, THE AHU FAN SHALL BE STARTED AND RAMPED UP TO 100% (60 HZ). THE RETURN AIR DAMPER SHALL OPEN FULLY, THE OUTDOOR AIR DAMPER SHALL REMAIN CLOSED, AND THE STAGES OF REFRIGERATION SHALL BE MODULATED TO MAINTAIN COOLING COIL DISCHARGE AIR TEMPERATURE SET POINT. ONCE THE AVERAGE HUMIDITY FALLS BELOW 55% THE STAGES OF REFRIGERATION AND SUPPLY FAN SHALL BE STOPPED.

DUCT STATIC PRESSURE RESET

SUPPLY FAN SPEED CONTROL VIA AIR DUCT STATIC PRESSURE CONTROL - OPTIMIZED. THE CONTROLLER SHALL MEASURE DUCT STATIC PRESSURE AND MODULATE THE SUPPLY FAN VFD SPEED TO MAINTAIN AN OPTIMIZED DUCT STATIC PRESSURE SET POINT.

1. THE INITIAL DUCT STATIC PRESSURE SET POINT SHALL BE 0.75 IN-H20 (ADJUSTABLE)

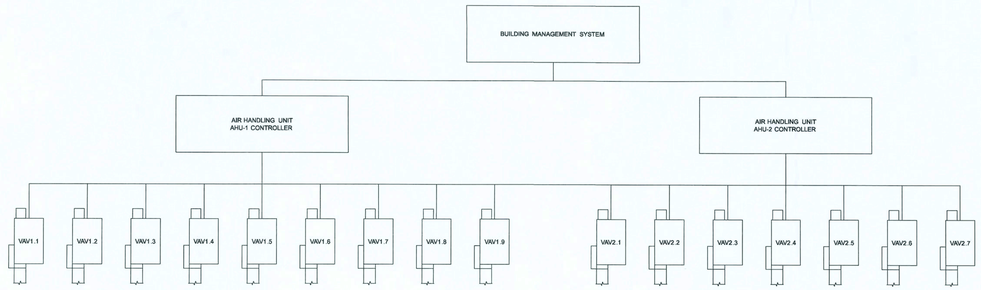
2. EACH AHU CONTROLLER SHALL BE NETWORKED WITH ALL ASSOCIATED VAV TERMINAL UNITS TO OBTAIN AIRFLOW REQUESTS . THE STATIC PRESSURE SET POINT SHALL BE RESET BASED ON ZONE AIRFLOW REQUESTS, DERIVED FROM DAMPER POSITION AND MEETING AIRFLOW AND SPACE TEMPERATURE REQUIREMENTS AS DESCRIBED BELOW.

3. WHEN THERE ARE NO ZONE AIRFLOW REQUESTS, (WHEN ALL ZONE DAMPERS ARE THROTTLING CLOSED - BELOW 90% OPEN AND ACTUAL/SET POINT AIRFLOW RATIO IS GREATER THAN 95%), THE DUCT STATIC PRESSURE SET POINT SHALL BE INCREMENTALLY RESET DOWN BY 0.10 IN-H20 AT A FREQUENCY OF 10 MINUTES TO A MINIMUM OF 0.30 IN-H20 (ADJUSTABLE) OR THE SUPPLY FAN VFD HAS REACHED ITS LOWEST OPERATING SPEED LIMIT.

4. AS AIRFLOW REQUESTS INCREASE, WHEN AT LEAST ONE ZONE DAMPER IS GREATER THAN 99% OPEN AND THE ACTUAL/SET POINT AIRFLOW RATIO IS LESS THAN 90% AND SPACE TEMPERATURE IS NOT SATISFIED, THE REVERSE SHALL OCCUR AND THE DUCT STATIC PRESSURE SET POINT SHALL INCREMENTALLY RESET UP AT THE SAME RATE AS ABOVE TO A MAXIMUM OF 1.25 IN H2O (ADJUSTABLE).

5. THE SUPPLY FAN VFD MINIMUM SPEED SETTING WITHIN THE VFD ITSELF SHALL BE OPTIMIZED IN THE FIELD DURING SYSTEM BALANCING AND COMMISSIONING TO BE AS LOW AS POSSIBLE WHILE AVOIDING INERTIAL STALLING OF FAN, APPROXIMATELY 5% ABOVE THE FIELD OBSERVED STALL SPEED OF THE FAN OPERATING IN THE SYSTEM.

6. AN AIRFLOW MEASURING STATION STALL CONTINUOUSLY MONITOR THE TOTAL SUPPLY AIR FAN VOLUME IN CFM AND SEND OUTPUT TO THE BMS. SET POINTS (USER ADJUSTABLE)
AHU DISCHARGE AIR TEMPERATURE:
55 DEG F
DUCT STATIC PRESSURE SET POINT:
TBD DURING TAB
OCCUPIED SPACE COOLING TEMPERATURE SET POINT:
75 DEG F
OCCUPIED SPACE HEATING TEMPERATURE SET POINT:
72 DEG F
CRITICAL ZONE UNOCCUPIED SPACE COOLING SET POINT:
80 DEG F
CRITICAL ZONE UNOCCUPIED SPACE HEATING SET POINT:
60 DEG F





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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T E 352.867.5148
E johir@donahue-arch.com
FL # AA26000933, GA # R407263
FL Engineering CA: # 32147 ID: # IB2000848

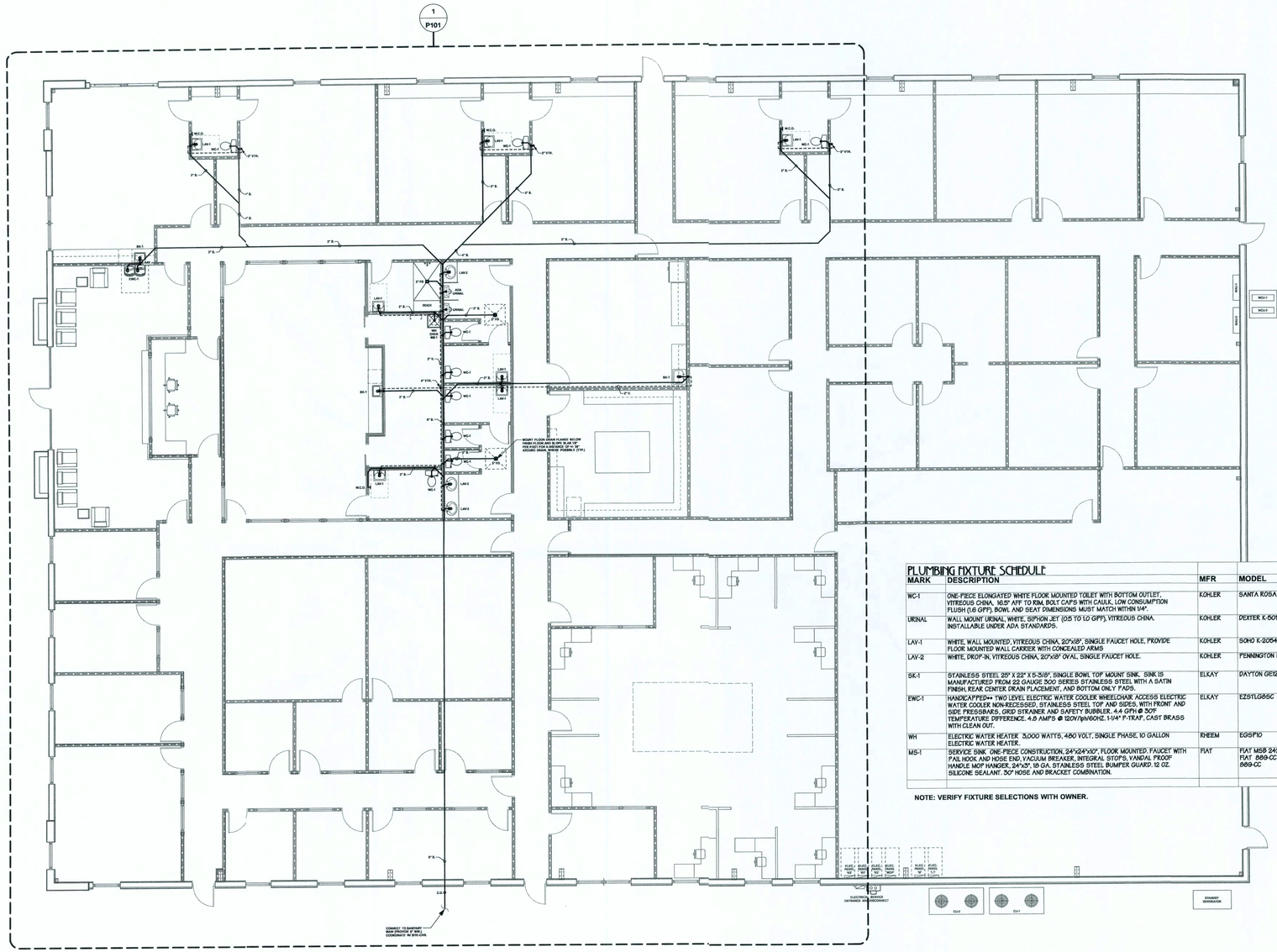
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MECHANICAL

MECHANICAL CONTROLS

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PLUMBING NOTES

1. ALL INSTALLATIONS AND EQUIPMENT SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE STATUTES, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION.
2. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE RATING AND WEATHERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS. ALL PENETRATION FOR ALL PIPING THRU FLOOR SLAB SHALL BE WATERPROOFED.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HEREIN SPECIFIED OR OTHERWISE.
5. ALL SANITARY PIPING OVER 2" IN DIAMETER SHALL HAVE A 1/8" (MIN.) PER FOOT SLOPE AND ALL SANITARY PIPING 2" OR LESS IN DIAMETER SHALL HAVE A 1/4" (MIN.) PER FOOT SLOPE UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE INSTALLATION OF NEW SEWER LINES.
7. ALL VENTS THROUGH ROOF SHALL BE MIN. 10'-0" FROM ANY AIR INTAKES.
8. INSTALL WATER HAMMER SHOCK ARRESTORS AT EACH FIXTURE AND BATTERY OF FIXTURES. ARRESTORS SHALL BE FACTORY-FABRICATED. INSTALL ARRESTORS AND SIZE PER PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I. WH-201. ACCEPTABLE MANUFACTURERS - SIOUX CHIEF, PRECISION PLUMBING PRODUCTS INC, FOR 1-11 FUS PROVIDE PDI-A, 12-32 FUS PDI-B.
9. PROVIDE ACCESS PANELS TO ALL VALVES WITHIN CHASES OR ABOVE NON-ACCESSIBLE CEILINGS.
10. PROVIDE CLEAN OUTS AS REQUIRED BY CODE AND AHJ. PROVIDE AT INTERVALS AS REQUIRED BY CODE AND AHJ. PROVIDE CLEAN OUTS AT THE BASE OF ALL SANITARY STACKS, STORM LEADERS AND CONDENSATE DRAIN RISERS MIN. 24" ABOVE FLOOR.
11. ALL FLOOR DRAINS SHALL BE PROVIDED WITH TRAP PRIMER VALVE AND FITTINGS. INSTALL TRAP PRIMER VALVES FULLY ACCESSIBLE, RUN 1/2" CW SUPPLY TO FLOOR DRAIN CONNECTION.
12. ENTIRE INSTALLATION SHALL BE GUARANTEED FREE OF DEFECTS AND CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO COST TO THE OWNER FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY ENGINEER.
13. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT / OWNER.
14. PROVIDE FROST PROOF HOSE BIBS.

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MFR	MODEL	CONNECTIONS CW	HW	WASTE	NOTES
WC-1	ONE-PIECE ELONGATED WHITE FLOOR MOUNTED TOILET WITH BOTTOM OUTLET, VITREOUS CHINA, 16.5" AFF TO RIM, BOLT CAPS WITH CAULK, LOW CONSUMPTION FLUSH (1.6 GPF), BOWL AND SEAT DIMENSIONS MUST MATCH WITHIN 1/4".	KOHLER	SANTA ROSA K-3615-0	1"		3"	FLUSH LEVER TO BE LOCATED ON LAVATORY SIDE.
URINAL	WALL MOUNT URINAL WHITE, SIPHON JET (0.5 TO 1.0 GPF), VITREOUS CHINA. INSTALLABLE UNDER ADA STANDARDS.	KOHLER	DEXTER K-5016-ETSS	3/4"		2"	
LAV-1	WHITE, WALL MOUNTED, VITREOUS CHINA, 20"x18", SINGLE FAUCET HOLE, PROVIDE FLOOR MOUNTED WALL CARRIER WITH CONCEALED ARMS	KOHLER	SOHO K-2054	1/2"	1/2"	2"	
LAV-2	WHITE, DROP-IN, VITREOUS CHINA, 20"x16" OVAL, SINGLE FAUCET HOLE.	KOHLER	PENNINGTON K-2196-1-0	1/2"	1/2"	2"	
SK-1	STAINLESS STEEL 25" X 22" X 5-3/8", SINGLE BOWL TOP MOUNT SINK. SINK IS MANUFACTURED FROM 22 GAUGE 300 SERIES STAINLESS STEEL WITH A SATIN FINISH, REAR CENTER DRAIN PLACEMENT, AND BOTTOM ONLY PADS.	ELKAY	DAYTON GE12522	1/2"	1/2"	1 1/2"	
EWC-1	HANDICAP/PED=+ TWO LEVEL ELECTRIC WATER COOLER WHEELCHAIR ACCESS ELECTRIC WATER COOLER NON-RECESSED, STAINLESS STEEL TOP AND SIDES, WITH FRONT AND SIDE PRESSBARS, GRID STRAINER AND SAFETY BUBBLER. 4.4 GPH @ 50°F TEMPERATURE DIFFERENCE. 4.8 AMPS @ 120V/1ph/60HZ. 1-1/4" P-TRAP, CAST BRASS WITH CLEAN OUT.	ELKAY	EZSTLG8SC	1/2"		1 1/2"	
WH	ELECTRIC WATER HEATER. 3,000 WATTS, 480 VOLT, SINGLE PHASE, 10 GALLON ELECTRIC WATER HEATER.	RHEEM	EGSP10	3/4"	3/4"		
MS-1	SERVICE SINK. ONE-PIECE CONSTRUCTION, 24"x24"x10", FLOOR MOUNTED. FAUCET WITH PAIL HOOK AND HOSE END, VACUUM BREAKER, INTEGRAL STOPS, VANDAL PROOF HANDLE MOP HANGER, 24"x3", 18 GA. STAINLESS STEEL BUMPER GUARD. 12 OZ. SILICONE SEALANT. 30" HOSE AND BRACKET COMBINATION.	FIAT	FIAT MSB 2424 FIAT 830-AA FIAT 849-CC FIAT 835-AA FIAT 869-CC	1/2"	1/2"	2"	

NOTE: VERIFY FIXTURE SELECTIONS WITH OWNER.

1 P100 SANITARY PLAN
Scale: 1/8" = 1'-0"

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T (352) 867.5148
E john@donahue-arch.com
FL # AA26003933, GA # RA012363
FL Engineering CA # 32147, ID # IB26000848

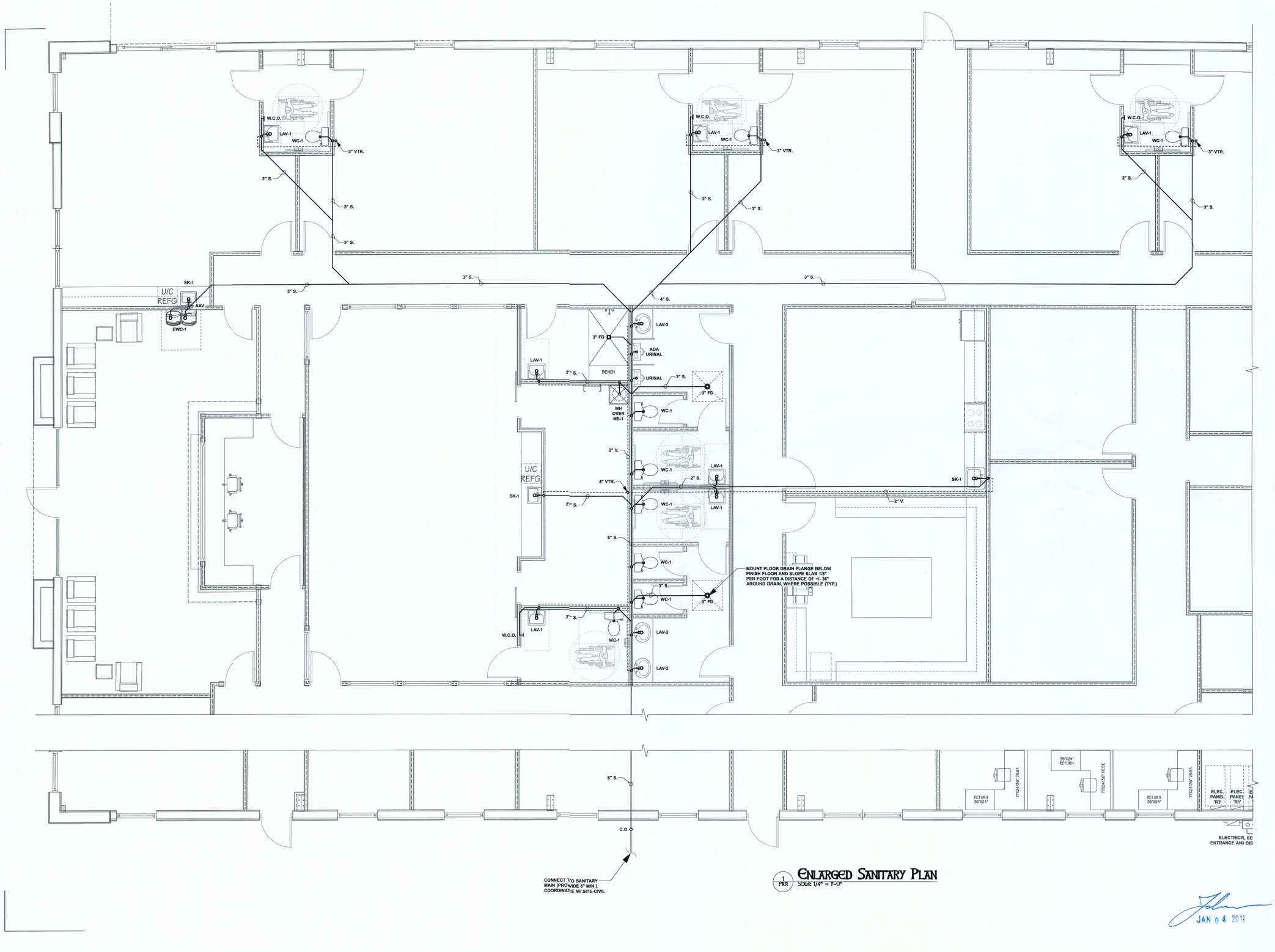
PLUMBING

PLUMBING PLAN

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1 P101 ENLARGED SANITARY PLAN
Scale: 1/4" = 1'-0"

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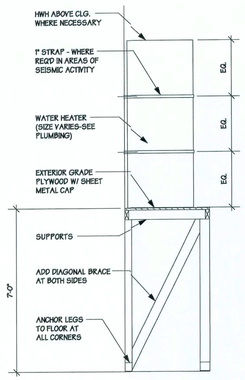
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1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000933 , GA. # RA012363
FL Engineering CA. # 32147 , ID # IB26020648

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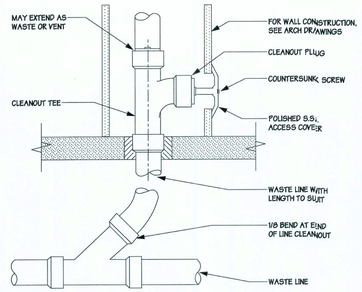
ENLARGED SANITARY PLAN

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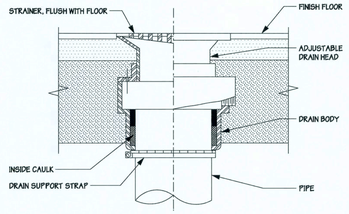
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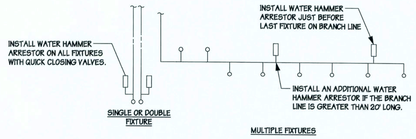
1 P102 **Utility Shelf Detail**
Scale: NTS0"



2 P102 **Wall Cleanout Detail**
Scale: N.T.S.



3 P102 **Floor Drain Detail**
Scale: N.T.S.

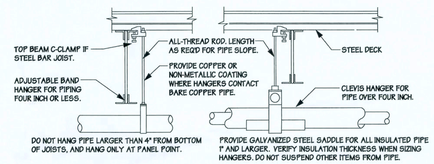


PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	154-330

WATER SUPPLY FIXTURE UNIT (WSFU)		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	5	--
URINAL	4	--
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3

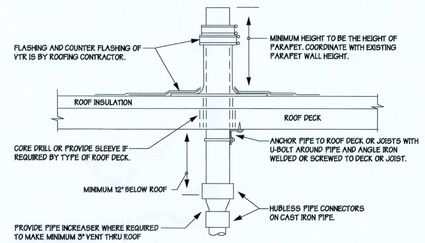
COMMENTS:
1. WATER HAMMER ARRESTERS SHALL BE HAVE PISTON AND O-RING CONSTRUCTION WITH PDI #WH-201, ASSE # 1010 AND ANSI # A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. SIZE THE UNITS AS SHOWN PER THE TABLES SHOWN ABOVE.

4 P102 **Water Hammer Arrester Detail**
Scale: N.T.S.



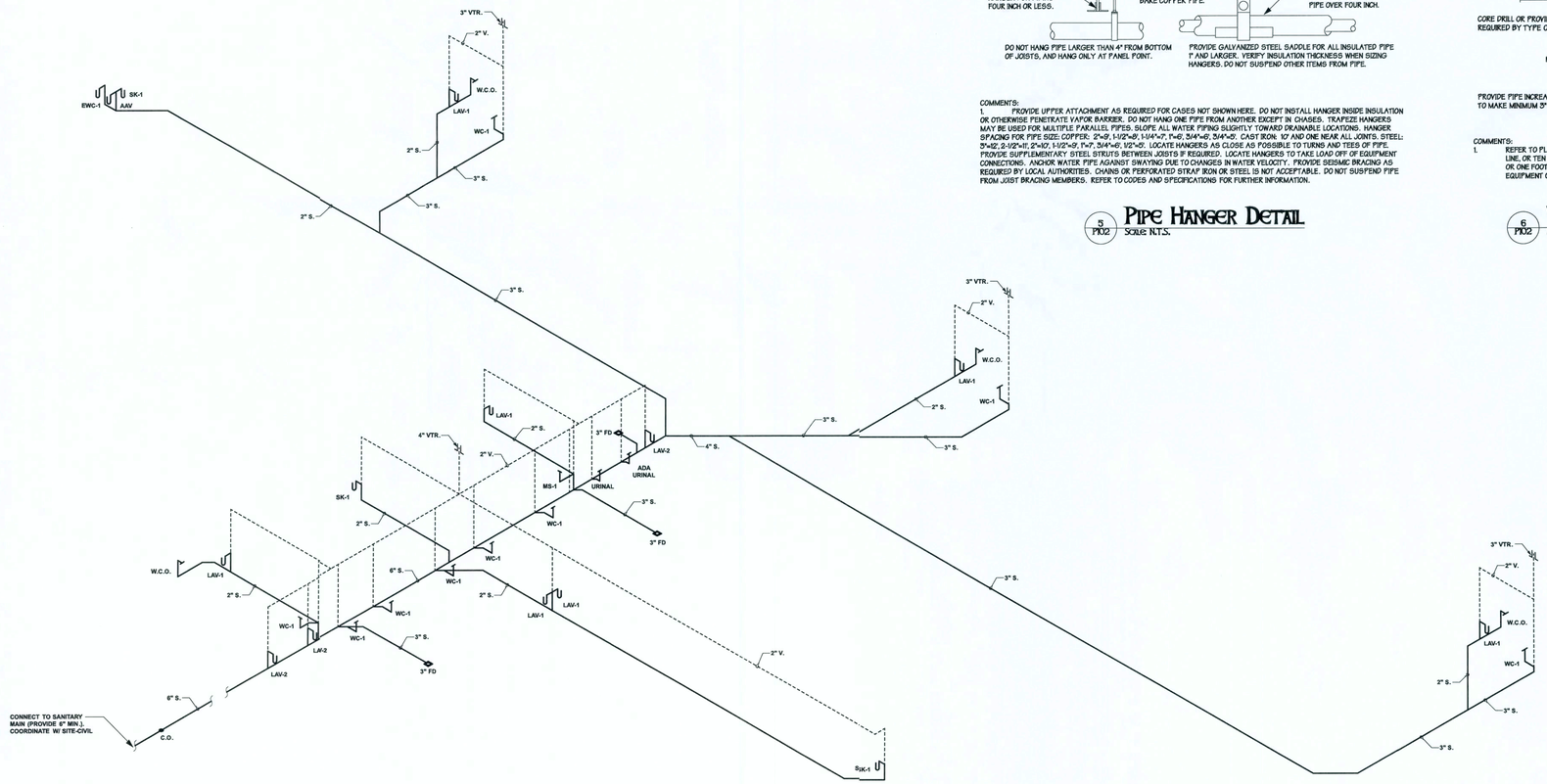
COMMENTS:
1. PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES. SLOPE ALL WATER PIPING SLIGHTLY TOWARD DRAINABLE LOCATIONS. HANGER SPACING FOR PIPE SIZE: COPPER: 2"=5', 1-1/2"=8', 1-1/4"=7', 1"=6', 3/4"=6', 3/4"=5'. CAST IRON: 10' AND ONE NEAR ALL JOINTS. STEEL: 3"=12', 2-1/2"=11', 2"=10', 1-1/2"=9', 1"=7', 3/4"=6', 1/2"=5'. LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED. LOCATE HANGERS TO TAKE LOAD OFF OF EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. PROVIDE SEISMIC BRACING AS REQUIRED BY LOCAL AUTHORITIES. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE. DO NOT SUSPEND PIPE FROM JOIST BRACING MEMBERS. REFER TO CODES AND SPECIFICATIONS FOR FURTHER INFORMATION.

5 P102 **Pipe Hanger Detail**
Scale: N.T.S.



COMMENTS:
1. REFER TO PLANS FOR VTR PIPE SIZES AND LOCATIONS. LOCATE VTR MINIMUM THREE FEET FROM PROPERTY LINE, OR TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, OR ONE FOOT FROM ANY VERTICAL SURFACE. LOCATE VTR MINIMUM 10' FROM PARAPET, EXPANSION JOINT, EQUIPMENT CURB, ETC. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS.

6 P102 **Vent Thru Roof (VTR) Detail**
Scale: N.T.S.



7 P102 **Sanitary Riser**
Scale: NTS0"

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000933, GA # RA012363
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PLUMBING

DETAILS / SANITARY RISER

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ELECTRICAL SPECFICATIONS

GENERAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE 2017 FLORIDA BUILDING CODE (FBC), 2014 NEC, NFPA 101, ALL LOCAL CODES, ORDINANCES, REGULATIONS AND UTILITY POWER AND TELEPHONE COMPANY STANDARDS.
2. ALL BUILDING WIRE SHALL BE COPPER TYPE "THHN/THWN" FOR ALL SIZES. MINIMUM WIRE SIZE SHALL BE #12 AWG.
3. ALL BRANCH AND FEEDER CIRCUITS SHALL CONTAIN A SEPARATE GROUNDING CONDUCTOR AND SEPARATE NEUTRAL CONDUCTOR AND SHALL BE SIZED AND BONDED IN ACCORDANCE WITH ARTICLE 250 OF THE N.E.C.
4. ALL CONDUIT SHALL BE CONCEALED AND INSTALLED IN INTERIOR LOCATIONS SHALL BE TYPE E.M.T. WITH SET SCREW STEEL CONNECTORS AND COUPLINGS. ALL EMT SHALL BE A MINIMUM 1/2". ALL CONDUIT INSTALLED IN EXTERIOR LOCATIONS, ABOVE GRADE, SHALL BE GALVANIZED RIGID CONDUIT. ALL CONDUIT BELOW GRADE SHALL BE SCHEDULE 40 P.V.C. ALL CONDUIT SHALL BE INSTALLED CONCEALED. THE USE OF METAL CLAD CABLE (MC) SHALL BE PERMITTED ON THIS PROJECT IN CONCEALED LOCATIONS ONLY AND AS APPROVED BY THE NEC AND AHJ.
5. CONTRACTOR SHALL COORDINATE THE LOCATION OF RECEPTACLES, EQUIPMENT, CONTROL CIRCUITS, COMMUNICATIONS AND DATA OUTLETS, LIGHTING FIXTURES AND DEVICES WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
6. DRAWINGS ARE DIAGRAMMATIC - CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS AND FIELD CONDITIONS FOR ALL DIMENSIONS.
7. CONTRACTOR SHALL OBTAIN AND FURNISH ALL PERMITS REQUIRED. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, APPLIANCES AND TOOLS TO PERFORM ALL WORK NECESSARY FOR THE COMPLETE EXECUTION OF THE ELECTRICAL WORK AS SHOWN ON THE DRAWINGS. PROVIDE WORK NOT SPECIFICALLY SHOWN OR SPECIFIED, YET REQUIRED TO INSURE PROPER AND COMPLETE OPERATION OF ALL SYSTEMS AND TO SATISFY THE DESIGN INTENT OF THE WORK AND COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS.
8. THE DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF CIRCUITS, OUTLETS, LOCATIONS OF SWITCHES, PANELBOARDS, CONDUITS AND OTHER WORK. PRIOR FIELD VERIFICATION OF ALL DIMENSIONS IS REQUIRED AS PART OF THIS WORK. CONDUIT RUNS AND GROUNDING ARE SHOWN DIAGRAMMATICALLY ONLY. FIELD VERIFY THE ACTUAL ROUTING OF CONDUITS PRIOR TO BIDDING.
9. PROVIDE ALL 125VAC 20 AMP SPECIFICATION GRADE RATED WIRING DEVICES UNLESS OTHERWISE NOTED. PROVIDE NEMA TYPE POWER OUTLETS. PROVIDE MATCHING COVER PLATES. JUNCTION BOXES AND PLASTER RINGS AS REQUIRED TO FACILITATE THE INSTALLATION OF FLUSH MOUNTED WIRING DEVICES AS NOTED AND AS THE PROJECT CONDITIONS WARRANT. COORDINATE WITH ARCHITECT FOR DEVICE AND COVER COLORS.
10. ANY PENETRATIONS MADE THROUGH A FIRE RATED ASSEMBLY SHALL BE PROPERLY SEALED TO MAINTAIN THE INTEGRITY OF THE ASSEMBLY PER U.L. AND NFPA.
11. CONTRACTOR SHALL PROVIDE STRICT COORDINATION WITH ALL NEW EQUIPMENT AND FIELD VERIFY THE EXACT FINAL LOCATION AND EQUIPMENT POWER CHARACTERISTICS WITH THE OWNER'S AUTHORIZED REPRESENTATIVE AND OTHER TRADES PRIOR TO INSTALLING CONDUIT AND PRIOR TO CONSTRUCTION.
12. EACH BIDDER SHALL INSPECT THE SITE AS REQUIRED FOR KNOWLEDGE OF EXISTING CONDITIONS PRIOR TO BIDDING AND FAILURE TO OBTAIN SUCH KNOWLEDGE SHALL NOT RELIEVE THE SUCCESSFUL BIDDER OF THE RESPONSIBILITY TO COORDINATE EXISTING CONDITIONS IN PERFORMING THE WORK UNDER THIS CONTRACT.
13. WHERE NEW WORK CANNOT BE INSTALLED WITHOUT CHANGES IN EXISTING FACILITIES OR SYSTEMS OR WHERE IT IS INDICATED ON DRAWINGS TO REWORK AN EXISTING INSTALLATION, THIS CONTRACT SHALL INCLUDE ALTERATIONS TO EXISTING WORK AS REQUIRED TO INSTALL NEW WORK. ADDITIONS TO THE CONTRACT COST WILL NOT BE ALLOWED DUE TO THE CONTRACTORS FAILURE TO INSPECT EXISTING CONDITIONS AT THE SITE OF THE WORK.
14. PROVIDE HACR RATED CIRCUIT BREAKERS FOR ALL HVAC EQUIPMENT.
15. THE WORK SHALL INCLUDE ANY REVISIONS, MODIFICATIONS, AND REWORK OF THE EXISTING FACILITY ELECTRICAL SYSTEMS AS REQUIRED FOR INSTALLATION OF NEW WORK, AND FOR CONNECTIONS BETWEEN EXISTING WORK AND NEW WORK WHERE REQUIRED OR AS DIRECTED BY CODE OR LOCAL INSPECTOR. THE WORK SHALL ALSO INCLUDE THE COMPLETION OF ELECTRICAL POWER AND CONTROL CIRCUITS FOR DEVICES AND EQUIPMENT THAT ARE TO REMAIN IN SERVICE. IF THE CIRCUITS ARE BROKEN BY DEMOLITION WORK, OR BY THE REMOVAL OR CUTTING OF EXISTING BUILDING CONSTRUCTION, THE EXISTING CONDUIT AND WIRING SHALL BE REROUTED AND RECONNECTED WHERE NECESSARY.
16. FINAL PANELBOARD DIRECTORIES SHALL REFLECT THE ACTUAL, FINAL CONDITIONS. ALL FINAL UPDATES SHALL BE TYPEWRITTEN. ALL NEW ELECTRICAL DEVICES MUST BE LABELED AT THE DEVICE WITH CIRCUIT AND PANELBOARD NUMBER.
17. PROVIDE A COMPLETE FIRE ALARM SYSTEM DESIGN AND INSTALLATION PER NFPA AND LOCAL REQUIREMENTS.
18. PROVIDE A COMPLETE EMERGENCY GENERATOR SYSTEM AND AUTOMATIC TRANSFER SWITCH, ANNUNCIATOR AND ALL TESTING. PROVIDE A BASE MOUNTED FUEL TANK AND ALL FUEL. THE GENERATOR AND AUTOMATIC TRANSFER SWITCH WILL BE PROVIDED BY THE OWNER TO CONTRACTOR FOR INSTALLATION, CONNECTION AND TESTING.

1. CUTTING AND PATCHING

THE RESPONSIBILITY FOR ANY CUTTING OF CONSTRUCTION WHICH IS REQUIRED FOR THE INSTALLATION OF DIVISION 16 WORK, SHALL BE BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AND THE OWNER BEFORE ANY CUTTING AND OBTAIN APPROVAL FROM THE ARCHITECT/ENGINEER PRIOR TO ANY CUTTING. ALL PATCHING, PAINTING AND FINISH SHALL BE BY THE CONTRACTOR.

2. CUTTING SHALL BE DONE WITH EXTREME CARE AND IN SUCH A MANNER THAT THE STRENGTH OF THE STRUCTURE WILL NOT BE ENDANGERED. WHEREVER POSSIBLE, OPENINGS IN CONCRETE OR MASONRY CONSTRUCTION SHALL BE BY CONCRETE SAW OR ROTARY CORE DRILL. OPENINGS IN ANY CONSTRUCTION SHALL BE CUT THE MINIMUM SIZE REQUIRED FOR THE INSTALLATION OF THE WORK. ADEQUATE PROTECTION SHALL BE PROVIDED TO PREVENT DAMAGE TO ADJACENT AREAS AND TO PREVENT DUST FROM SPREADING TO ADJACENT AREAS.

3. WHERE OPENINGS OR HOLES ARE CUT IN CONSTRUCTION AND THE CUTTING BREAKS ELECTRICAL CIRCUITRY OR CONTROL CIRCUITRY CONDUIT AND WIRING, THEN IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REROUTE THE CIRCUITRY CONDUIT AND REWIRING AND TO COMPLETE THE CIRCUITRY AS REQUIRED AND AS APPROVED BY THE ARCHITECT/ENGINEER. TEMPORARY COMPLETION SHALL BE PROVIDED WHERE NECESSARY BEFORE THE PERMANENT REROUTING AND COMPLETION WORK IS FINISHED.

4. BEFORE ANY CUTTING, PATCHING, OR FINISHING WORK IS STARTED, DUST AND MOISTURE PROTECTION SHALL FIRST BE INSTALLED AS REQUIRED AND AS SPECIFIED IN THESE SPECIFICATIONS.

5. OPENINGS CUT IN FLOOR SHALL BE CUT BY CORE DRILLING WHERE POSSIBLE. AFTER WORK IS INSTALLED THROUGH ANY OPENING IN FLOOR, THE OPENING AROUND THE WORK SHALL BE PATCHED AND SEALED WATERTIGHT AND EPOXY OR SILICONE BASED, NON-CRACKING ELASTOMERIC SEALANT.

PAINTING

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAINTING AREAS OF CONSTRUCTION THAT ARE SCRATCHED, MARRED, OR DAMAGED BY THE NEW CONSTRUCTION. CONTRACTOR SHALL MATCH THE COLOR, TYPE AND THICKNESS OF PAINT AS PREVIOUS.

ACCEPTANCE TESTING

1. UPON COMPLETION OF WORK, THE ENTIRE WIRING SYSTEM SHALL BE TESTED, AND SHALL BE SHOWN TO BE IN PROPER WORKING CONDITION IN ACCORDANCE WITH INTENT OF SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL SYSTEMS READY FOR OPERATION AND TO HAVE AN ELECTRICIAN AVAILABLE TO OPERATE SAME IN ACCORDANCE WITH AND UNDER THE SUPERVISION OF THE INSPECTION REPRESENTATIVE OF THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL BE AVAILABLE TO ASSIST IN REMOVAL OF PANEL FRONTS, ETC., TO PERMIT INSPECTION AS REQUIRED.

AS-BUILT DRAWINGS

1. THE CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE A COMPLETE RECORD SET OF CONSTRUCTION "AS-BUILTS" BLUELINE PRINTS WHICH SHALL BE CORRECTED DAILY, AND SHALL SHOW EVERY CHANGE FROM THE ORIGINAL CONTRACT DRAWINGS, INCLUDING ADDENDA AND CHANGE ORDERS IN ACCORDANCE WITH GENERAL REQUIREMENTS AND SPECIAL CONDITIONS. THIS SET OF PRINTS SHALL BE KEPT ON THE JOB SITE, AND SHALL BE USED ONLY AS A RECORD SET. THIS SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTORS TO MAKE CHANGES IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE.

PROTECTION

1. THE CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE CLEAN OF ALL WASTE MATERIALS AND RUBBISH CAUSED BY HIS WORK OR EMPLOYEES. UPON COMPLETION OF THE WORK AND AT TIMES DURING PROGRESS OF THE WORK WHEN REQUESTED BY THE ARCHITECT/ ENGINEER, THE CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIALS, RUBBISH, AND DEBRIS RESULTING FROM THE OPERATION, AND SHALL LEAVE THE ENTIRE BUILDING AND INVOLVED PORTIONS OF THE SITE, INSOFAR AS THE WORK OF THE CONTRACT IS CONCERNED, IN A NEAT, CLEAN, AND ACCEPTABLE CONDITION AS APPROVED BY THE ARCHITECT/ENGINEER. EQUIPMENT, LIGHTING FIXTURES, MATERIALS AND ACCESSORIES SHALL BE THOROUGHLY CLEANED OF CEMENT, PLASTER, AND OTHER MATERIALS.
2. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION, WHEREVER WORK IS TO BE PERFORMED IN FINISHED/OCCUPIED SPACES, TO PREVENT DAMAGE TO ADJACENT AREAS, EQUIPMENT, OR FURNISHINGS; TO PREVENT ACCIDENTAL INJURY TO BUILDING OCCUPANTS AND THE PUBLIC; TO PREVENT THE SPREADING OF DUST, DIRT, DEBRIS, AND MOISTURE FROM THE AREA WHERE WORK IS BEING PERFORMED; AND TO PREVENT DUST, DIRT, DEBRIS, AND MOISTURE FROM GETTING ON OR IN THE BUILDING OCCUPANTS FURNISHINGS OR EQUIPMENT.
3. THE CONTRACTOR SHALL REPAIR, AT NO COST TO THE OWNER, ANY DAMAGE DONE BY HIMSELF OR HIS EMPLOYEES. HE SHALL ALSO BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED TO PROPERLY INSTALL HIS WORK. THIS SHALL ALSO INCLUDE THE PATCHING OF EXISTING ROADWAYS (PAVED OR IMPROVED), PARKING AREAS, SIDEWALKS, CURBS, GUTTERS, ETC., CUT TO INSTALL WORK PROVIDED BY THE CONTRACTOR. PATCH WORK SHALL COMPLY WITH THE APPLICABLE SECTIONS OF THESE SPECIFICATIONS AND SHALL MATCH THE EXISTING FINISHES.

NOTE:
VERIFY FINAL RECEPTACLE HEIGHTS, QUANTITIES, AND LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.

CAT 5 SHALL NOT BE RUN OVER 300'-0".

LIGHTING LEGEND

SYMBOL	DESCRIPTION
A1	2'x4' LED FLAT PANEL BY CREE, ADDEL ESSENTIA "FP24"
A1E NL	2'x4' LED FLAT PANEL BY CREE, ADDEL ESSENTIA "FP24" W/ INTEGRAL 1400 LUMEN EMERGENCY BATTERY BACKUP. NL = UNSWITCHED NIGHT LIGHT
B	WALL MOUNTED LED LIGHT FIXTURE. RATED FOR DAMP LOCATIONS W/ INTEGRAL 700 LUMEN BATTERY PACK (IN EXTERIOR APPLICATIONS)
C	14" DEEP REFLECTOR LIGHT FIXTIRE BY TROY RLM LIGHTING, MODEL "RDM" WITH LED1255 LAM, BURNISHED BRONZE FINISH, WIRE GUARD AND STEM MOUNT.MOUNT BOTTOM 10'-0" A.F.F.
D	6" LED RECESSED CAN BY CREE MODEL "KR6-ROUND" IC RATED
F	LED PENDANT MOUNTED LIGHT
G	MOTION ACTIVATED LED LIGHT FIXTURE UNDER CANOPY
Y	LED TRACK LIGHTING
EX1	LED EMERGENCY 90 MINUTE EXIT LIGHT. CONNECT TO "HOT" UNSWITCHED CONDUCTORS
EM1	LED EMERGENCY 90 MINUTE BATTERY LIGHTING
COMBO EXIT	LED COMBO EMERGENCY 90 MINUTE BATTERY / EXIT LIGHTING
S	LIGHT SWITCH MOUNTED 48" A.F.F. OR AS NOTED
S_D	LIGHT SWITCH WITH LED DIMMER MOUNTED 48" A.F.F. OR AS NOTED
S_3	THREE-WAY LIGHT SWITCH MOUNTED 48" A.F.F. OR AS NOTED
$S_{O.S.}$	COMBINATION OCCUPANCY SENSOR LIGHT SWITCH WALL MOUNTED 48" A.F.F. OR AS NOTED
O.S.	DUAL CIRCUIT, DUAL OPERATION CEILING MOUNTED OCCUPANCY SENSOR
EF	EXHAUST FAN

NOTE: VERIFY ALL LIGHTING FIXTURE SELECTIONS WITH OWNER PRIOR TO ORDERING AND CONSTRUCTION.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
E	EQUIPMENT CONNECTION (VERIFY SIZE, TYPE, AND LOCATION W/ EQUIPMENT SUPPLIER.)
30	FUSED SAFETY DISCONNECT SWITCH (VERIFY SIZE, TYPE, AND LOCATION W/ EQUIPMENT SUPPLIER.)
	120V DUPLEX WALL OUTLET MOUNTED 18" A.F.F. OR AS NOTED
WP	120V DUPLEX GFI RECEPTACLE MOUNTED 18" A.F.F. OR AS NOTED.
GFI 42"	120V DUPLEX GFI RECEPTACLE MOUNTED 18" A.F.F. OR AS NOTED.
	TELEPHONE OUTLET. (CAT-5 WIRING) COORDINATE LOCATION W/ OWNER.
	DATA OUTLET. (CAT-5 WIRING) - PROVIDE PULL BOX AND CONDUIT FOR FUTURE WIRING COORDINATE LOCATION W/ OWNER.
	TELEPHONE / DATA OUTLET. (CAT-5 WIRING) COORDINATE LOCATION AND NUMBER W/ OWNER
TV	CABLE TELEVISION OUTLET. COORDINATE LOCATION AND NUMBER W/ OWNER.

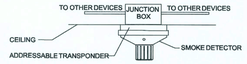
FIRE ALARM AND SYSTEMS:

F	MANUAL PULL STATION, WP= WEATHERPROOF
F	COMBINATION AUDIBLE AUDIO/VISUAL SIGNALING UNIT- HORN/FLASHING "FIRE" LIGHT WALL MOUNTED 4'-0" AFF UNLESS OTHERWISE NOTED. WP=WEATHER PROOF. 110 CANDELA UNLESS NOTED OTHERWISE. LOW FREQUENCY SOUNDER (520 HZ.) WHERE REQUIRED.
F	VISUAL SIGNALING UNIT, WALL MOUNTED- FLASHING "FIRE" LIGHT ONLY (NO AUDIO DEVICE) 75 CANDELA UNLESS NOTED OTHERWISE. WP=WEATHER PROOF. 110 CANDELA UNLESS NOTED OTHERWISE.
H	SYSTEM SMOKE DETECTOR.
H R S	PHOTOELECTRIC DUCT SMOKE DETECTOR. WP= WATERPROOF ENCLOSURE R=RETURN DUCT S=SUPPLY DUCT
R WP	HVAC UNIT SHUTDOWN RELAY. WP= WATERPROOF ENCLOSURE
RTI WP	DUCT DETECTOR REMOTE TROUBLE INDICATOR. MOUNT ADJACENT TO UNIT. WP= WATERPROOF ENCLOSURE
H	FIRE ALARM HEAT DETECTOR.
FACP	FIRE ALARM CONTROL PANEL.
FAJB	FIRE ALARM JUNCTION BOX.
FAAP	REMOTE FIRE ALARM ANNUNCIATOR PANEL (FLUSHED MOUNTED).
WP TS	WEATHERPROOF SPRINKLER TAMPER SWITCH CONNECTION
WP FS	WEATHERPROOF SPRINKLER WATERFLOW SWITCH CONNECTION
WP PIV	WEATHERPROOF POST INDICATOR VALVE

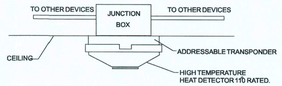
THESE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRICAL CODE.

VOLTAGE DROP

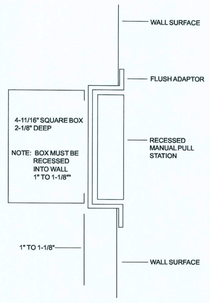
THIS PROJECT IS IN COMPLIANCE WITH 2014 FBC-ENERGY CONSERVATION C405.7.3 AND NEC WITH REGARDS TO VOLTAGE DROP FOR BOTH DISTRIBUTION PANELS AND DOWNSTREAM BRANCH CIRCUITS.



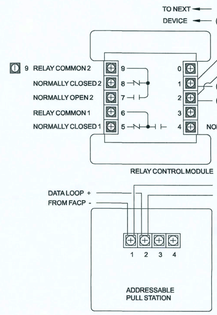
SMOKE DETECTOR DETAIL
NTS

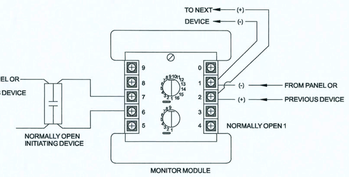


HIGH TEMPERATURE HEAT DETECTOR DETAIL
NTS

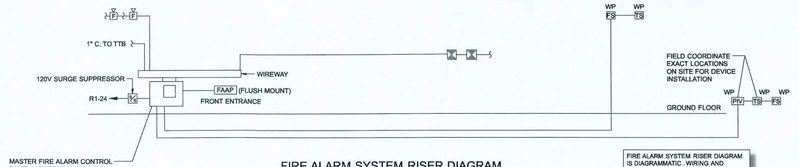


RECESSED FIRE ALARM PULL STATION DETAIL
N.T.S





TYPICAL FIRE ALARM DEVICE CONNECTION DETAILS
N.T.S.



FIRE ALARM SYSTEM RISER DIAGRAM
N.T.S.

FIRE ALARM SYSTEM RISER DIAGRAM IS DIAGRAMMATIC. WIRING AND DEVICE QUANTITY, PLACEMENT AND TYPE SHALL BE PER NFPA-72 AND ALL LOCAL AND STATE CODES

FIRE ALARM SYSTEM SEQUENCE OF OPERATIONS

A. FIRE ALARM SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES:
1. MANUAL STATIONS.
2. HEAT DETECTORS.
3. SMOKE DETECTORS.
4. VERIFIED AUTOMATIC ALARM OPERATION OF SMOKE DETECTORS.
5. AUTOMATIC SPRINKLER SYSTEM WATER FLOW.

B. FIRE ALARM SIGNAL SHALL INITIATE THE FOLLOWING ACTIONS:
1. ALARM NOTIFICATION APPLIANCES SHALL OPERATE CONTINUOUSLY.
2. IDENTIFY ALARM AT THE FACP AND REMOTE ANNUNCIATORS.
3. TRANSMIT AN ALARM SIGNAL TO THE REMOTE ALARM RECEIVING STATION.
4. SWITCH HEATING, VENTILATING, AND AIR-CONDITIONING EQUIPMENT CONTROLS TO FIRE ALARM MODE.
5. RECORD EVENTS IN THE SYSTEM MEMORY.

C. SUPERVISORY SIGNAL INITIATION SHALL BE BY OPERATION OF A FIRE-PROTECTION SYSTEM VALVE TAMPER.

D. SYSTEM TROUBLE SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES OR ACTIONS:
1. OPEN CIRCUITS, SHORTS AND GROUNDS OF WIRING FOR INITIATING DEVICE, SIGNALING LINE, AND NOTIFICATION-APPLIANCE CIRCUITS.
2. OPENING, TAMPERING, OR REMOVAL OF ALARM-INITIATING AND SUPERVISORY SIGNAL-INITIATING DEVICES.
3. LOSS OF PRIMARY POWER AT THE FACP.
4. GROUND OR A SINGLE BREAK IN FACP INTERNAL CIRCUITS.
5. ABNORMAL AC VOLTAGE AT THE FACP.
6. A BREAK IN STANDBY BATTERY CIRCUITRY.
7. FAILURE OF BATTERY CHARGING.
8. ABNORMAL POSITION OF ANY SWITCH AT THE FACP OR ANNUNCIATOR.

E. SYSTEM TROUBLE AND SUPERVISORY SIGNAL ACTIONS: RING TROUBLE BELL AND ANNUNCIATE AT THE FACP AND REMOTE ANNUNCIATORS. RECORD THE EVENT.

F. ACTUATION OF ALARM NOTIFICATION APPLIANCES, ANNUNCIATION, ELEVATOR RECALL AND ACTUATION OF SUPPRESSION SYSTEMS SHALL OCCUR WITHIN 10 SECONDS AFTER THE ACTIVATION OF AN INITIATING DEVICE.

G. SMOKE-ALARM VERIFICATION:
1. INITIATE AUDIBLE AND VISIBLE INDICATION OF AN "ALARM VERIFICATION" SIGNAL AT THE FACP.
2. ACTIVATE A LISTED AND APPROVED "ALARM VERIFICATION" SEQUENCE AT THE FACP AND THE DETECTOR.
3. RECORD EVENTS.
4. SOUND GENERAL ALARM IF THE ALARM IS VERIFIED.
5. CANCEL FACP INDICATION AND SYSTEM RESET IF THE ALARM IS NOT VERIFIED.

H. POWER SUPPLY FOR SUPERVISION EQUIPMENT: SUPPLY FOR AUDIBLE AND VISUAL EQUIPMENT FOR SUPERVISION OF THE AC POWER SHALL BE FROM A DEDICATED DC POWER SUPPLY, AND POWER FOR THE DC COMPONENT SHALL BE FROM THE AC SUPPLY.

I. ALARM SILENCING, TROUBLE, AND SUPERVISORY ALARM RESET: MANUAL RESET AT THE FACP AND REMOTE ANNUNCIATORS. AFTER INITIATING DEVICES ARE RESTORED TO NORMAL.
1. SILENCING-SWITCH OPERATION HALTS ALARM OPERATION OF NOTIFICATION APPLIANCES AND ACTIVATES AN "ALARM SILENCE" LIGHT. DISPLAY OF IDENTITY OF THE ALARM ZONE OR DEVICE IS RETAINED.
2. SUBSEQUENT ALARM SIGNALS FROM OTHER DEVICES OR ZONES REACTIVATE NOTIFICATION APPLIANCES UNTIL SILENCING SWITCH IS OPERATED AGAIN.
3. WHEN ALARM-INITIATING DEVICES RETURN TO NORMAL AND SYSTEM RESET SWITCH IS OPERATED, NOTIFICATION APPLIANCES OPERATE AGAIN UNTIL ALARM SILENCE SWITCH IS RESET.

J. TRANSMISSION TO REMOTE ALARM RECEIVING STATION: AUTOMATICALLY TRANSMIT ALARM, TROUBLE, AND SUPERVISORY SIGNALS TO A REMOTE ALARM STATION THROUGH A DIGITAL ALARM COMMUNICATOR TRANSMITTER AND TELEPHONE LINES

K. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

JAN 04 2019

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352-857-5148
E john@donahue-arch.com
FL # AA26000933, GA # RA012263
FL Engineering CA # 32147, ID # IB26000848

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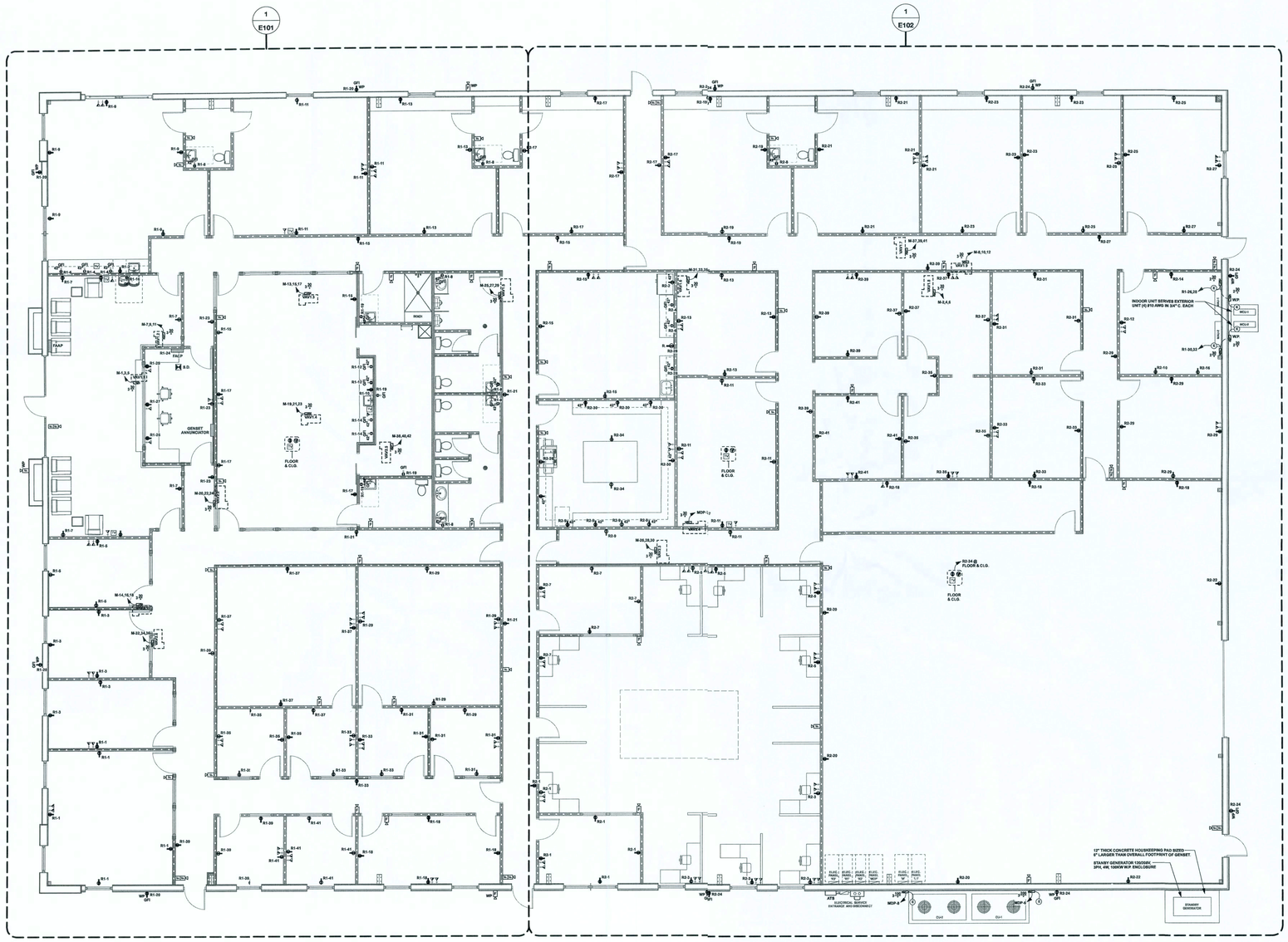
ELECTRIC LEGEND / SCHEDULES / SPECIFICATIONS

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE 10/29/18
JOB D_17061
DRAWN BY JD JAD
31

E000
Permit Set

OF 39



1 POWER PLAN
Scale: 1/8" = 1'-0"

JAN 11 2019

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1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
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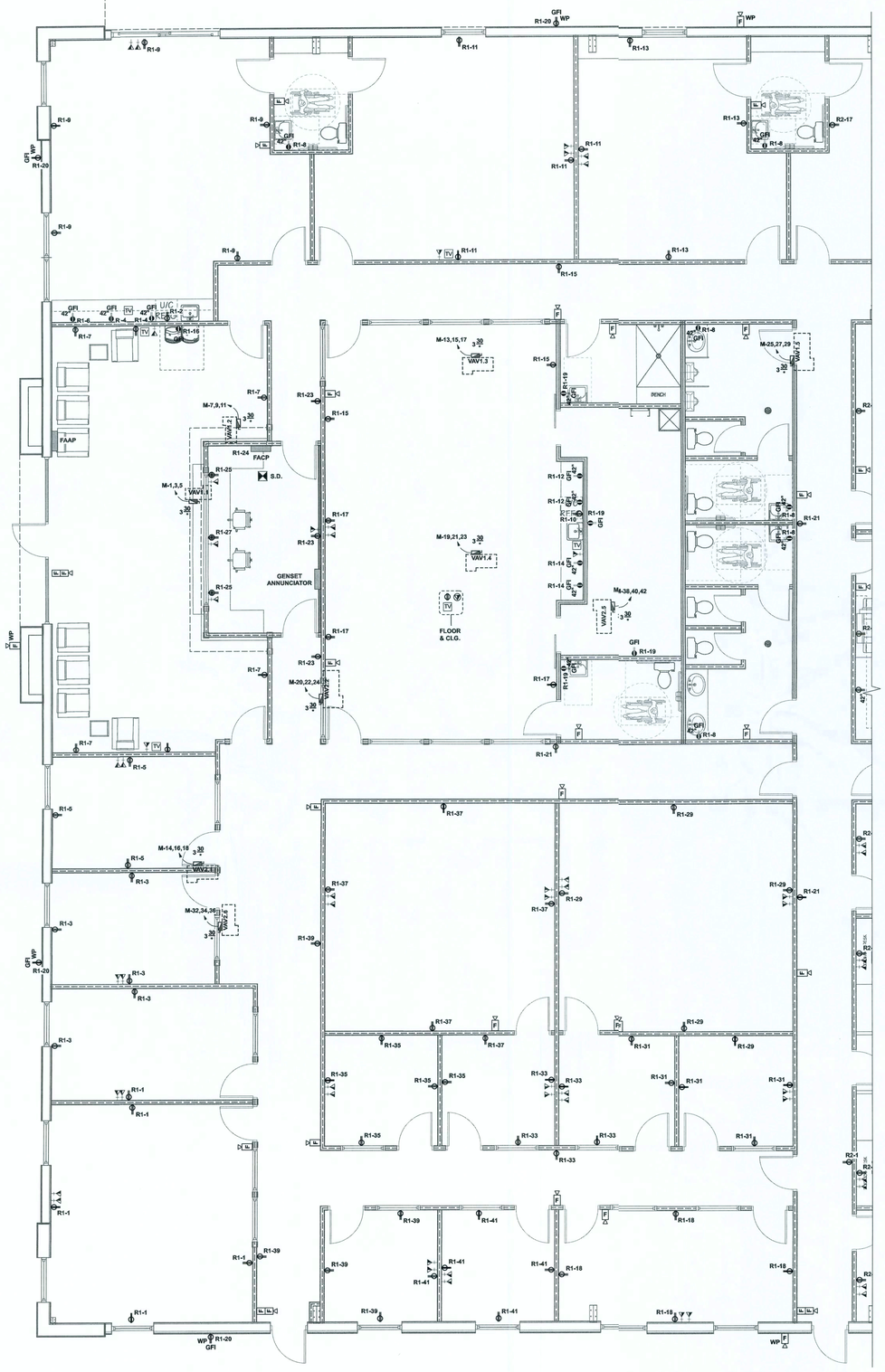
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ELECTRICAL

POWER PLAN

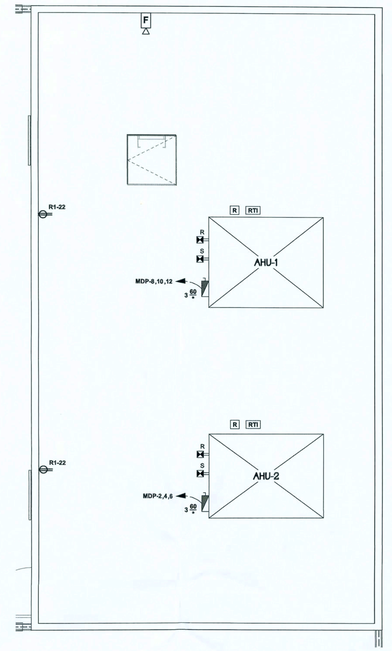
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JOB D_17061	
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E100 Permit Set	OF 39



Enlarged Power Plan - West

1 E101 — Scale: 3/16" = 1'-0"



Mechanical Mezzanine - Power

2 E101 — Scale: 1/4" = 1'-0"

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL. 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000933, GA # RA012363
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ELECTRICAL

ENLARGED POWER PLAN - WEST

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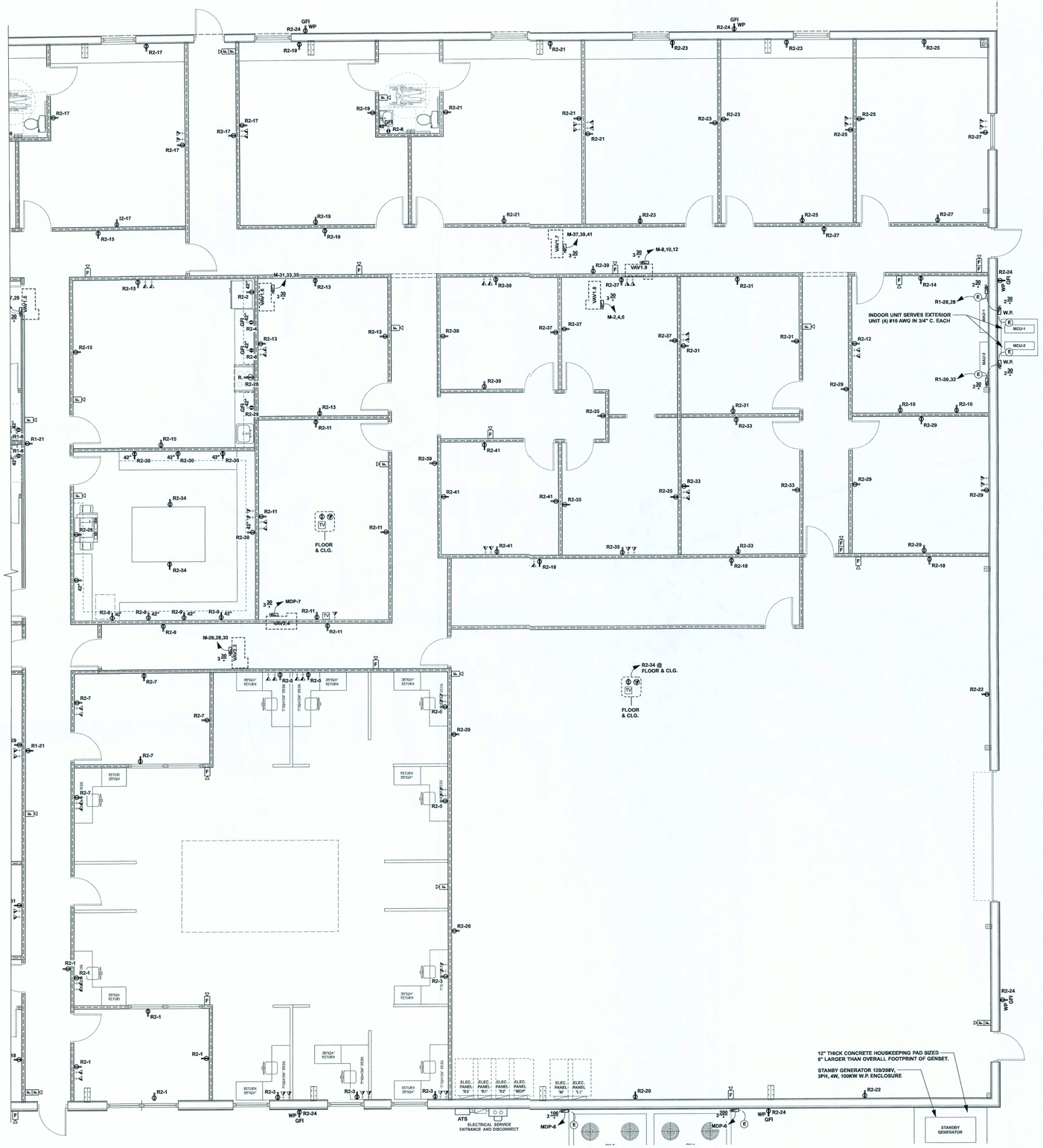
DATE 10/29/18
JOB D_17061
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33

E101

Permit Set

OF 39



1 E102 ENLARGED POWER PLAN - EAST
Scale: 3/16" = 1'-0"

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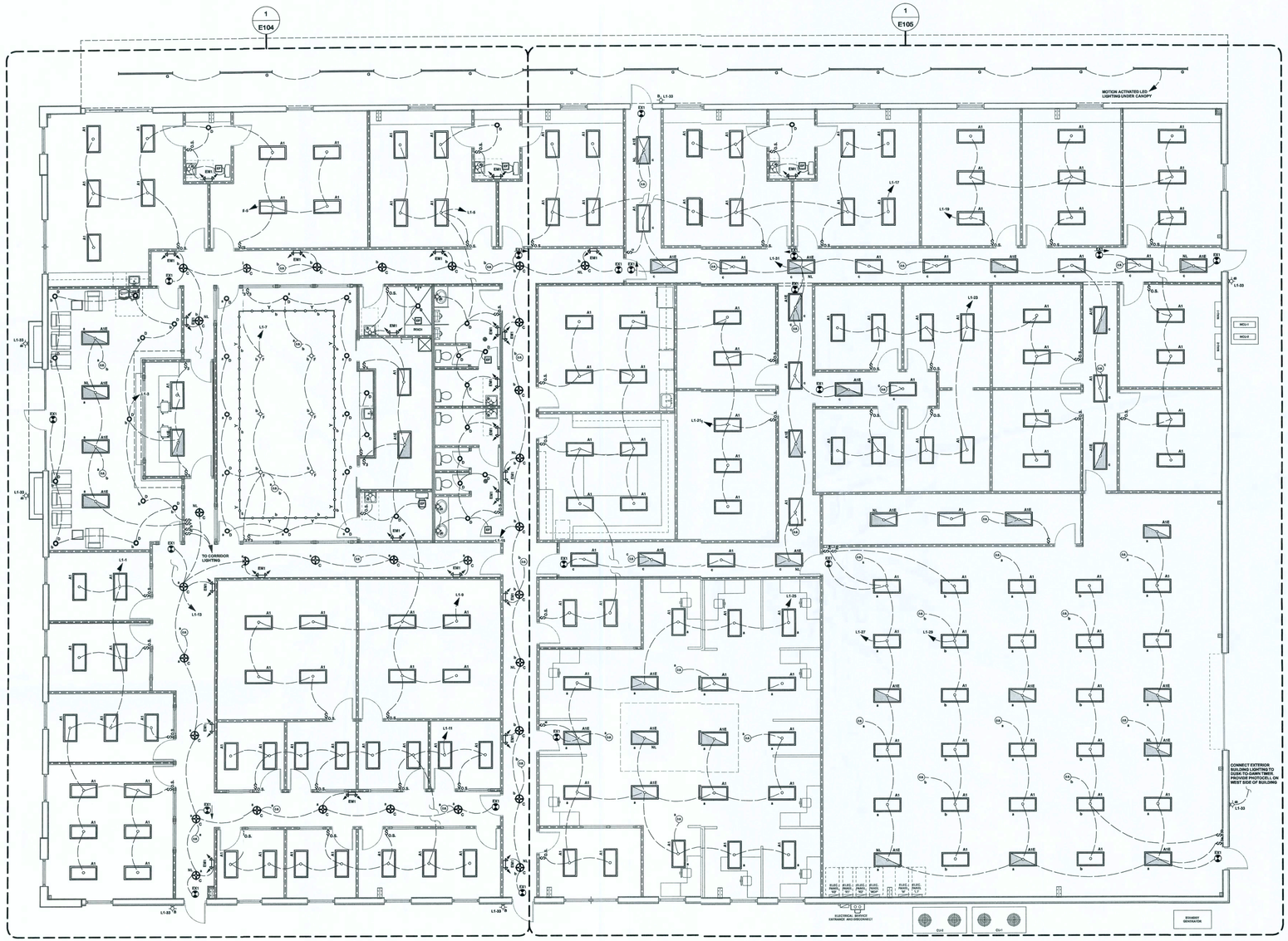
DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000933, GA # RA013263
FL Engineering CA: # 32147, ID # 8326000848

ELECTRICAL

ENLARGED POWER PLAN - EAST

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE	10/29/18
JOB	D_17061
DRAWN BY	JD / JAD
	34
E102	OF 39
Permit Set	



LIGHTING PLAN
Scale: 1/8" = 1'-0"

LIGHTING NOTES:

1. INSTALL OCCUPANCY SENSOR, TO CONTROL LIGHTING, AS NOTED (O.S.) TO MEET FBC-ENERGY CONSERVATION 2014, SECTION 505.
2. LIGHTING CIRCUITS, EXTERIOR SECURITY WALL PACKS AND SIGNAGE SHALL BE CONTROLLED VIA PHOTOCELL.
3. EMERGENCY/EXIT LIGHTING AND NIGHT LIGHTING SHALL BE WIRED AHEAD OF ANY LOCAL SWITCHING ARRANGEMENTS, ON THE CIRCUIT PROVIDING POWER TO LIGHTING IN THE SAME AREA.
4. 2'X4' LED LIGHTING FIXTURES SHALL BE SUPPORTED BY TWO 12-GAUGE WIRES FROM STRUCTURE. ALL RECESSED DOWNLIGHTS SHALL BE SUPPORTED BY ONE 12-GAUGE WIRE FROM STRUCTURE.
5. PROVIDE ALL REQUIRED MOUNTING AND HANGING HARDWARE.
6. COORDINATE AND VERIFY ALL FIXTURE INFORMATION, TYPES, AND FINAL LOCATIONS WITH THE OWNER.

REVISIONS

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL: # AA26000833, CA: # RA0012983
Engineering CA: # 29747, ID: # 8826000648

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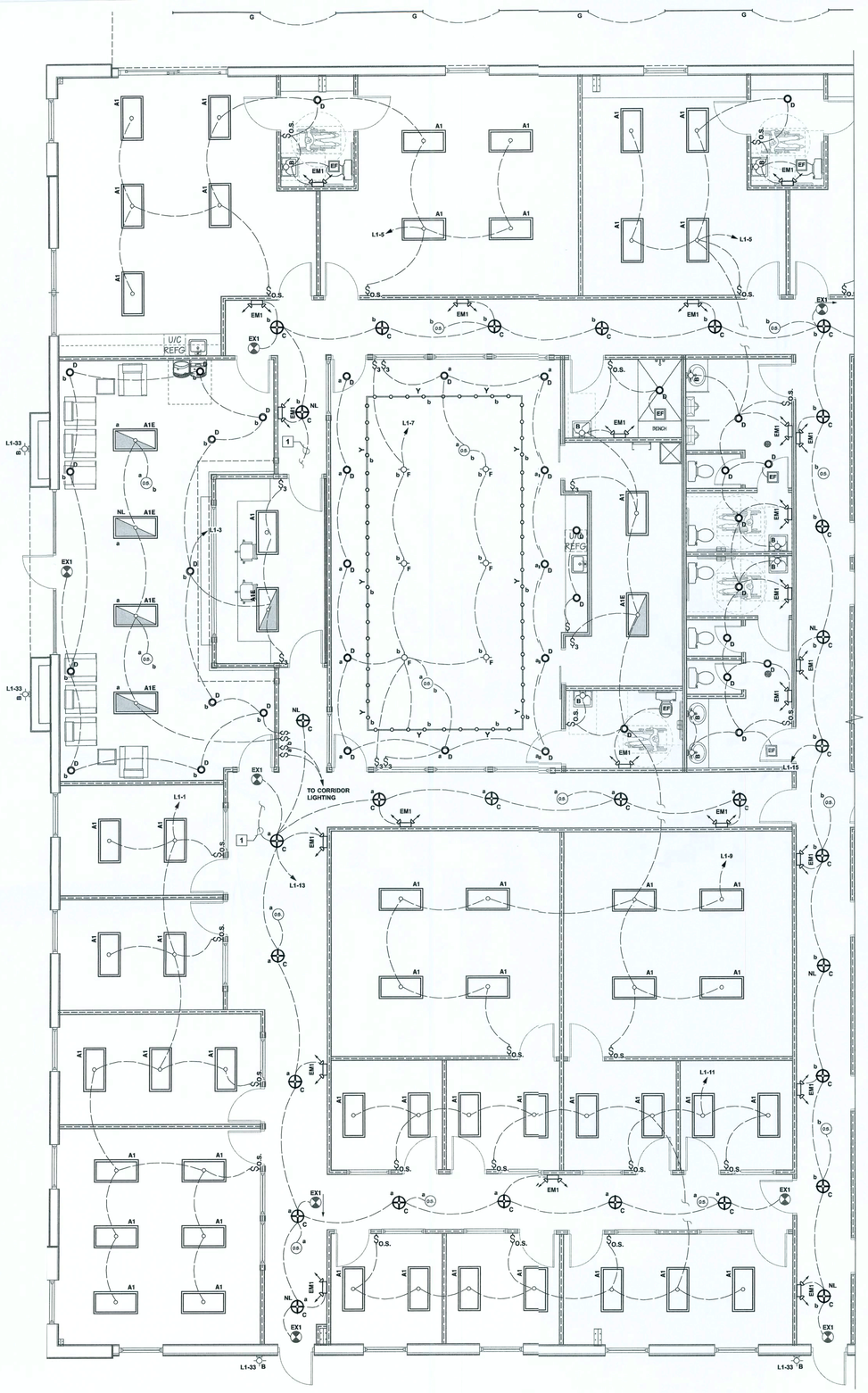
ELECTRICAL

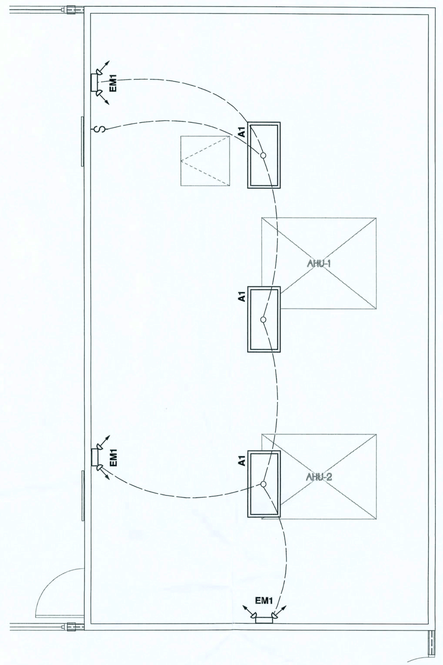
LIGHTING PLAN

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE 10/29/18	
JOB D_17061	
DRAWN BY JD JAD	35
E103 Permit Set	OF 39

JAN 04 2019





2 E104 MECHANICAL MEZZANINE - LIGHTING
SCALE: 1/4" = 1'-0"

LIGHTING KEYED NOTES:

1. TO CORRIDOR LIGHTING MASTER SWITCH LOCATION (BY RECEPTION).

1 E104 ENLARGED LIGHTING PLAN - WEST
SCALE: 3/16" = 1'-0"

JAN 0 4 2019

REVISIONS

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1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000933, GA. # RA012283
FL Engineering CA: # 32147, ID # 8826000848

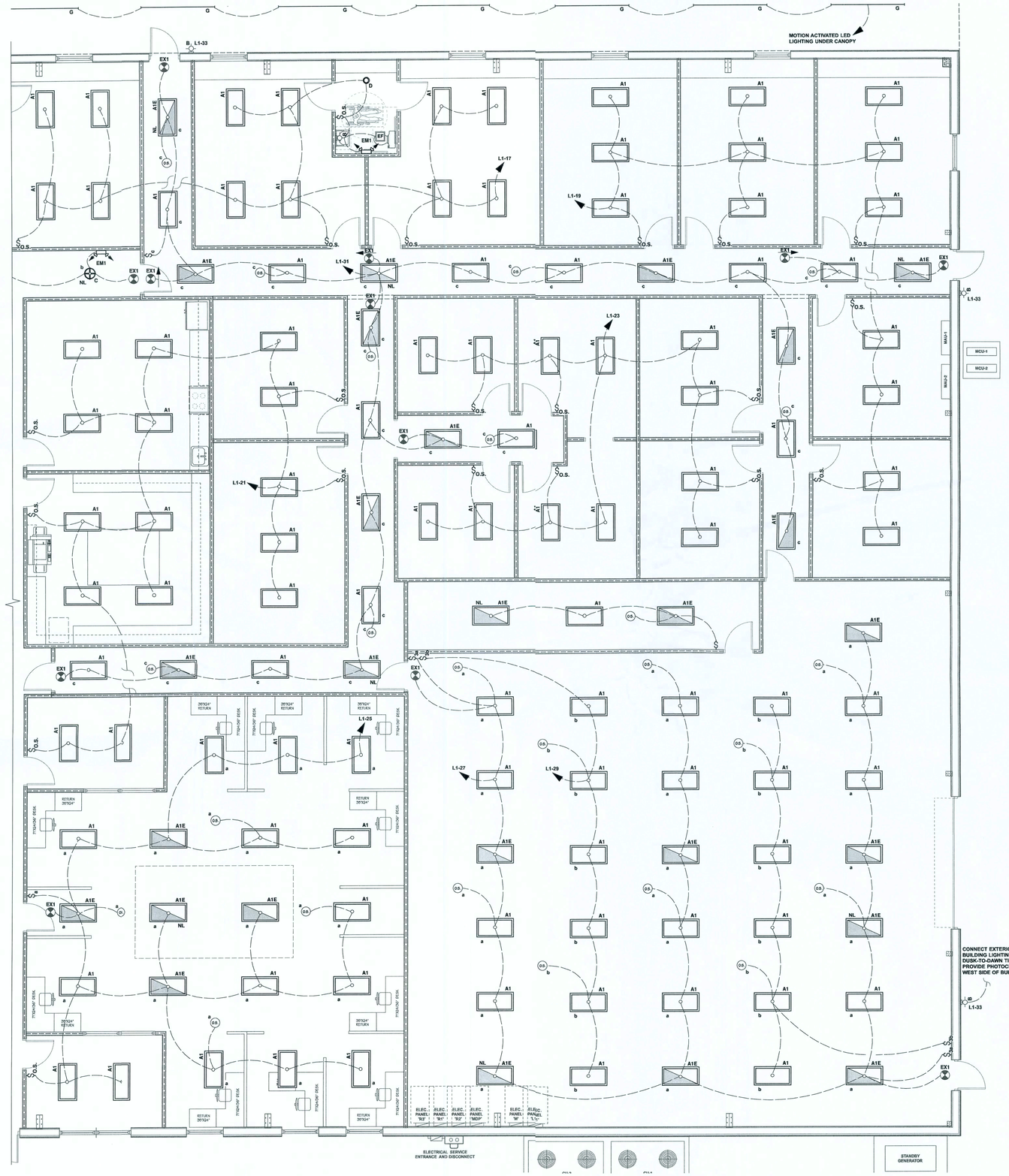
DA

ELECTRICAL

ENLARGED LIGHTING PLAN - WEST

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE 10/29/18
JOB D_17061
DRAWN BY JD JAD
36
E104
Permit Set
OF 39



Enlarged Lighting Plan - East

E105 Scale: 3/16" = 1'-0"

JAN 04 2019

REVISIONS

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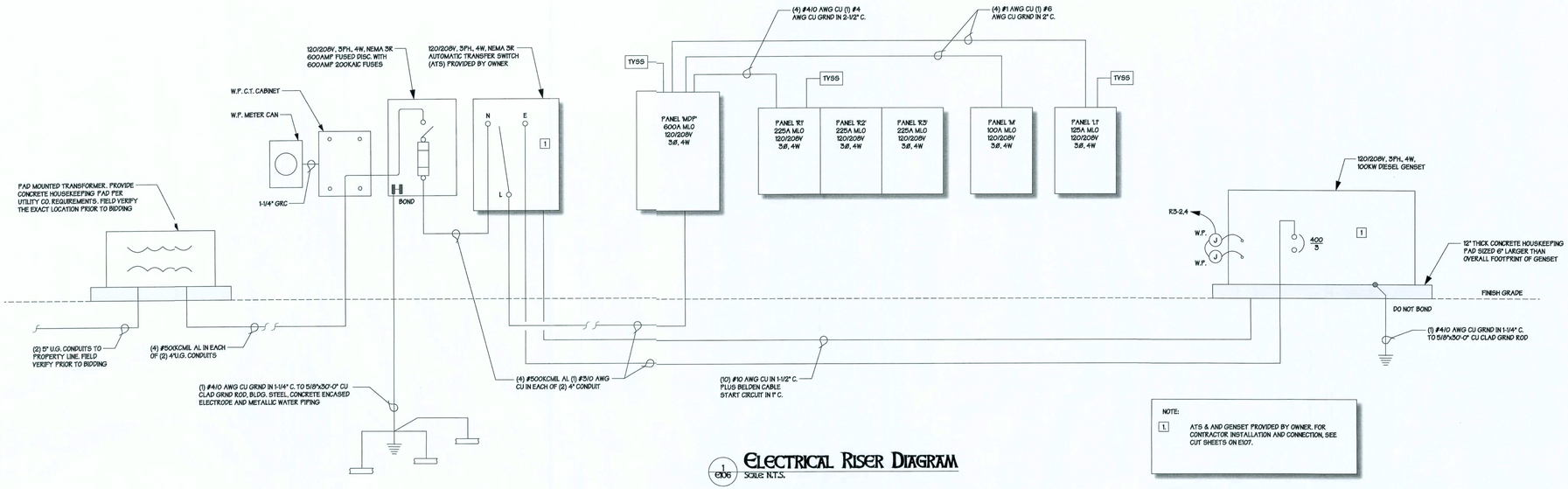
DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL: # AA26000933, GA: # RA012363
FL Engineering CA: # 32147, ID: # 8926000848

ELECTRICAL

ENLARGED LIGHTING PLAN - EAST

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE: 10/29/18	
JOB D_17061	
DRAWN BY JD JAD	37
E105 Permit Set	OF 39



NOTE:

1. ATS & AND GENSET PROVIDED BY OWNER. FOR CONTRACTOR INSTALLATION AND CONNECTION, SEE CUT SHEETS ON E107.

1 E106 **ELECTRICAL RISER DIAGRAM**
SCALE: N.T.S.

PANEL MDP

RATING 600 AMP MLO | LUG LOCATION TOP | A.I.C. 42KAIC
SERVICE 120 / 208V, 3Ø, 4W | MOUNTING SURFACE | TYPE SQ.-D I-LINE OR EQUAL

CKT NO	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND	Ø	CKT. NO.	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND
1	PANEL R1	14.70	3	225	4/0	4/0	4	2-1/2"	A	2	AHU-1	3.50	3	60	6	--	6	1"
	--	14.70	--	--	4/0				B		--	3.50	--	--	6			
	--	14.70	--	--	4/0				C		--	3.50	--	--	6			
3	PANEL M	4.83	3	100	1	1	6	2"	A	4	AHU-2	3.50	3	60	6	--	6	1"
	--	4.83	--	--	1				B		--	3.50	--	--	6			
	--	4.83	--	--	1				C		--	3.50	--	--	6			
5	PANEL L1	7.50	3	125	1	1	6	2"	A	6	ACU-1	10.57	3	110	1	--	6	1-1/4"
	--	7.50	--	--	1				B		--	10.57	--	--	1			
	--	7.50	--	--	1				C		--	10.57	--	--	1			
7	VAV 2.4	.666	3	15	12	--	12	1/2"	A	8	ACU-2	9.00	3	100	1	--	6	1-1/4"
	--	.666	--	--	12				B		--	9.00	--	--	1			
	--	.666	--	--	12				C		--	9.00	--	--	1			
9	BUSSED		3						A	10	BUSSED		3					
									B									
									C									
11	BUSSED		3						A	12	BUSSED		3					
									B									
									C									
13	BUSSED		3						A	14	TVSS	--	3	60	6	6	6	1"
									B		--	--	--	--	6			
									C		--	--	--	--	6			

EQUIPMENT SERVED	CONN. LOAD	LF	DF	DESIGN LOAD (KVA)
PANEL R1, M, L1	81.09		1.00	81.09
HVAC	61.00		1.00	61.00
			TOTAL	142.09 KVA
			SPARE	

REMARKS
- PROVIDE TYPE WRITTEN PANEL DIRECTORY.
- PROVIDE GRND BUS & NEUTRAL BUS.
- PROVIDE PERMANENT IDENTIFICATION NAMEPLATE.
- PROVIDE SERVICE ENTRANCE LABEL.

42 CIRCUITS 395 AMPS

PANEL R1

RATING 225 AMP MLO | LUG LOCATION TOP | A.I.C. 22KAIC
SERVICE 120 / 208V, 3Ø, 4W | MOUNTING SURFACE | TYPE SQ.-D NQOD OR EQUAL

CKT NO	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND	Ø	CKT. NO.	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND
1	RECEPTS	.900	1	20	12	12	12	1/2"	A	2	RECEPTS	.800	1	20	12	12	12	1/2"
3	RECEPTS	.900	1	20	12	12	12	1/2"	B	4	RECEPTS	.500	1	20	12	12	12	1/2"
5	RECEPTS	.900	1	20	12	12	12	1/2"	C	6	RECEPTS	.500	1	20	12	12	12	1/2"
7	RECEPTS	.900	1	20	12	12	12	1/2"	A	8	RECEPTS	1.00	1	20	12	12	12	1/2"
9	RECEPTS	.900	1	20	12	12	12	1/2"	B	10	RECEPTS	.800	1	20	12	12	12	1/2"
11	RECEPTS	.900	1	20	12	12	12	1/2"	C	12	RECEPTS	1.00	1	20	12	12	12	1/2"
13	RECEPTS	.900	1	20	12	12	12	1/2"	A	14	RECEPTS	1.00	1	20	12	12	12	1/2"
15	RECEPTS	.900	1	20	12	12	12	1/2"	B	16	RECEPTS	1.00	1	20	12	12	12	1/2"
17	RECEPTS	.900	1	20	12	12	12	1/2"	C	18	RECEPTS	1.00	1	20	12	12	12	1/2"
19	RECEPTS	.900	1	20	12	12	12	1/2"	A	20	RECEPTS	1.00	1	20	10	10	10	3/4"
21	RECEPTS	.900	1	20	12	12	12	1/2"	B	22	RECEPTS	1.00	1	20	12	12	12	1/2"
23	RECEPTS	.900	1	20	12	12	12	1/2"	C	24	FACP*	.200	1	20	12	12	12	1/2"
25	RECEPTS	.900	1	20	12	12	12	1/2"	A	26	MAU-1	2.00	2	25	10	10	10	3/4"
27	RECEPTS	.900	1	20	12	12	12	1/2"	B	28	--	2.00	--	--	10			
29	RECEPTS	.900	1	20	12	12	12	1/2"	C	30	MAU-2	2.00	2	25	10	10	10	3/4"
31	RECEPTS	.900	1	20	12	12	12	1/2"	A	32	--	2.00	--	--	10			
33	RECEPTS	.900	1	20	12	12	12	1/2"	B	34	SPARE		1	20				
35	RECEPTS	.900	1	20	12	12	12	1/2"	C	36	SPARE		1	20				
37	RECEPTS	.900	1	20	12	12	12	1/2"	A	38	TVSS	--	3	30	10	10	10	3/4"
39	RECEPTS	.900	1	20	12	12	12	1/2"	B	40	--	--	--	--	10			
41	RECEPTS	.900	1	20	12	12	12	1/2"	C	42	--	--	--	--	10			

EQUIPMENT SERVED	CONN. LOAD	LF	DF	DESIGN LOAD (KVA)
RECEPTS	10.00		1.00	10.00
RECEPTS	68.20		.50	34.10
SPARE	20.00		1.00	20.00
			TOTAL	44.10 KVA
			SPARE	

*PROVIDE RED HANDLE BUTTON DEVICE

REMARKS
- PROVIDE TYPE WRITTEN PANEL DIRECTORY.
- PROVIDE GRND BUS & NEUTRAL BUS.
- PROVIDE PERMANENT IDENTIFICATION NAMEPLATE.
- PROVIDE FEED-THRU LUGS TO FEED PANEL R2.

42 CIRCUITS 123 AMPS

PANEL R2

RATING 225 AMP MLO | LUG LOCATION TOP | A.I.C. 22KAIC
SERVICE 120 / 208V, 3Ø, 4W | MOUNTING SURFACE | TYPE SQ.-D NQOD OR EQUAL

CKT NO	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND	Ø	CKT. NO.	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND
1	RECEPTS	.900	1	20	12	12	12	1/2"	A	2	RECEPTS	1.00	1	20	12	12	12	1/2"
3	RECEPTS	.900	1	20	12	12	12	1/2"	B	4	RECEPTS	1.00	1	20	12	12	12	1/2"
5	RECEPTS	.900	1	20	12	12	12	1/2"	C	6	RECEPTS	1.00	1	20	12	12	12	1/2"
7	RECEPTS	.900	1	20	12	12	12	1/2"	A	8	RECEPTS	1.00	1	20	12	12	12	1/2"
9	RECEPTS	.900	1	20	12	12	12	1/2"	B	10	RECEPTS	1.00	1	20	12	12	12	1/2"
11	RECEPTS	.900	1	20	12	12	12	1/2"	C	12	RECEPTS	1.00	1	20	12	12	12	1/2"
13	RECEPTS	.900	1	20	12	12	12	1/2"	A	14	RECEPTS	1.00	1	20	12	12	12	1/2"
15	RECEPTS	.900	1	20	12	12	12	1/2"	B	16	RECEPTS	1.00	1	20	12	12	12	1/2"
17	RECEPTS	.900	1	20	12	12	12	1/2"	C	18	RECEPTS	1.00	1	20	12	12	12	1/2"
19	RECEPTS	.900	1	20	12	12	12	1/2"	A	20	RECEPTS	1.00	1	20	12	12	12	1/2"
21	RECEPTS	.900	1	20	12	12	12	1/2"	B	22	RECEPTS	1.00	1	20	12	12	12	1/2"
23	RECEPTS	.900	1	20	12	12	12	1/2"	C	24	RECEPTS	1.00	1	20	12	12	12	1/2"
25	RECEPTS	.900	1	20	12	12	12	1/2"	A	26	COPIER	1.60	1	20	10	10	10	3/4"
27	RECEPTS	.900	1	20	12	12	12	1/2"	B	28	RECEPTS	1.00	1	20	12	12	12	1/2"
29	RECEPTS	.900	1	20	12	12	12	1/2"	C	30	RECEPTS	1.00	1	20	12	12	12	1/2"
31	RECEPTS	.900	1	20	12	12	12	1/2"	A	32	RECEPTS	1.00	1	20	12	12	12	1/2"
33	RECEPTS	.900	1	20	12	12	12	1/2"	B	34	RECEPTS	1.00	1	20	12	12	12	1/2"
35	RECEPTS	.900	1	20	12	12	12	1/2"	C	36	POWER OUTLET	1.50	2	20	10	10	10	1"
37	RECEPTS	.900	1	20	12	12	12	1/2"	A	38	--	--	--	--	10			
39	RECEPTS	.900	1	20	12	12	12	1/2"	B	40	POWER OUTLET	1.50	2	20	10	10	10	1"
41	RECEPTS	.900	1	20	12	12	12	1/2"	C	42	--	--	--	--	10			

EQUIPMENT SERVED	CONN. LOAD	LF	DF	DESIGN LOAD (KVA)
			TOTAL	
			SPARE	

*SEE PANEL R1

REMARKS
- PROVIDE TYPE WRITTEN PANEL DIRECTORY.
- PROVIDE GRND BUS & NEUTRAL BUS.
- PROVIDE FEED-THRU LUGS TO SERVE FUTURE PANEL R3.

42 CIRCUITS

PANEL R3

RATING 225 AMP MLO | LUG LOCATION TOP | A.I.C. 22KAIC
SERVICE 120 / 208V, 3Ø, 4W | MOUNTING SURFACE | TYPE SQ.-D NQOD OR EQUAL

CKT NO	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND	Ø	CKT. NO.	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND
1	SPARE		1	20					A	2	GENSET	1.00	1	20	10	10	10	3/4"
3	SPARE		1	20					B	4	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
5	SPARE		1	20					C	6	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
7	SPARE		1	20					A	8	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
9	SPARE		1	20					B	10	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
11	SPARE		1	20					C	12	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
13	SPARE		1	20					A	14	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
15	SPARE		1	20					B	16	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
17	SPACE								C	18	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
19	SPACE								A	20	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
21	SPACE								B	22	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
23	SPACE								C	24	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
25	SPACE								A	26	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
27	SPACE								B	28	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
29	SPACE								C	30	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
31	SPACE								A	32	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
33	SPACE								B	34	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
35	SPACE								C	36	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
37	SPACE								A	38	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
39	SPACE								B	40	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"
41	SPACE								C	42	GENSET WTR HTR	1.00	1	20	10	10	10	3/4"

EQUIPMENT SERVED	CONN. LOAD	LF	DF	DESIGN LOAD (KVA)

*SEE PANEL R1

REMARKS
- PROVIDE TYPE WRITTEN PANEL DIRECTORY.
- PROVIDE GRND BUS & NEUTRAL BUS.
- PROVIDE PERMANENT IDENTIFICATION NAMEPLATE.

42 CIRCUITS

PANEL M

RATING 100 AMP MLO | LUG LOCATION TOP | A.I.C. 42KAIC
SERVICE 120 / 208V, 3Ø, 4W | MOUNTING SURFACE | TYPE SQ.-D I-LINE OR EQUAL

CKT NO	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND	Ø	CKT. NO.	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND
1	VAV 1.1	.330	3	1/2	12	--	12	1/2"	A	2	VAV 1.8	.330	3	15	12	--	12	1/2"
3	--	.330	--	--	12				B	4	--	.330	--	--	12			
5	--	.330	--	--	12				C	6	--	.330	--	--	12			
7	VAV 1.2	.330	3	1/2	12	--	12	1/2"	A	8	VAV 1.9	.330	3	15	12	--	12	1/2"
9	--	.330	--	--	12				B	10	--	.330	--	--	12			
11	--	.330	--	--	12				C	12	--	.330	--	--	12			
13	VAV 1.3	.330	3	1/2	12	--	12	1/2"	A	14	VAV 2.1	.330	3	15	12	--	12	1/2"
15	--	.330	--	--	12				B	16	--	.330	--	--	12			
17	--	.330	--	--	12				C	18	--	.330	--	--	12			
19	VAV 1.4	.330	3	1/2	12	--	12	1/2"	A	20	VAV 2.2	.666	3	15	12	--	12	1/2"
21	--	.330	--	--	12				B	22	--	.666	--	--	12			
23	--	.330	--	--	12				C	24	--	.666	--	--	12			
25	VAV 1.5	.500	3	1/2	12	--	12	1/2"	A	26	VAV 2.3	.500	3	15	12	--	12	1/2"
27	--	.500	--	--	12				B	28	--	.500	--	--	12			
29	--	.500	--	--	12				C	30	--	.500	--	--	12			
31	VAV 1.6	.500	3	1/2	12	--	12	1/2"	A	32	VAV 2.6	.330	3	15	12	--	12	1/2"
33	--	.500	--	--	12				B	34	--	.330	--	--	12			
35	--	.500	--	--	12				C	36	--	.330	--	--	12			
37	VAV 1.7	.330	3	1/2	12	--	12	1/2"	A	38	VAV 2.5	.330	3	15	12	--	12	1/2"
39	--	.330	--	--	12				B	40	--	.330	--	--	12			
41	--	.330	--	--	12				C	42	--	.330	--	--	12			

EQUIPMENT SERVED	CONN. LOAD	LF	DF	DESIGN LOAD (KVA)
VAV EQUIP	14.50		1.00	14.50
			TOTAL	14.50 KVA
			SPARE	

REMARKS
- PROVIDE TYPE WRITTEN PANEL DIRECTORY.
- PROVIDE GRND BUS & NEUTRAL BUS.
- PROVIDE FEED-THRU LUGS.

42 CIRCUITS 41 AMPS

PANEL L1

RATING 125 AMP MLO | LUG LOCATION TOP | A.I.C. 22KAIC
SERVICE 120 / 208V, 3Ø, 4W | MOUNTING SURFACE | TYPE SQ.-D NQOD OR EQUAL

CKT NO	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND	Ø	CKT. NO.	EQUIPMENT SERVED	KVA	CKT. BKR. POLE	TR	BRANCH CIRCUIT Ø	NEUT	GND	COND
1	LIGHTING	1.00	1	20	12	12	12	1/2"	A	2	SPACE							
3	LIGHTING	1.00	1	20	12	12	12	1/2"	B	4	SPACE							
5	LIGHTING	1.00	1	20	12	12	12	1/2"	C	6	SPACE							
7	LIGHTING	1.00	1	20	12	12	12	1/2"	A	8	SPACE							
9	LIGHTING	1.00	1	20	12	12	12	1/2"	B	10	SPACE							
11	LIGHTING	1.00	1	20	12	12	12	1/2"	C	12	SPACE							
13	LIGHTING	1.00	1	20	12	12	12	1/2"	A	14	SPACE							
15	LIGHTING	1.00	1	20	12	12	12	1/2"	B	16	SPACE							
17	LIGHTING	1.00	1	20	12	12	12	1/2"	C	18	SPACE							
19	LIGHTING	1.00	1	20	12	12	12	1/2"	A	20	SPACE							
21	LIGHTING	1.00	1	20	12	12	12	1/2"	B	22	SPACE							
23	LIGHTING	1.00	1	20	12	12	12	1/2"	C	24	SPACE							
25	LIGHTING	1.00	1	20	12	12	12	1/2"	A	26	SPACE							
27	LIGHTING	1.20	1	20	12	12	12	1/2"	B	28	SPACE							
29	LIGHTING	1.20	1	20	12	12	12	1/2"	C	30	SPACE							
31	LIGHTING	1.60	1	20	12	12	12	1/2"	A	32	SPACE							
33	EXT. LIGHTING	1.00	1	20	10	10	10	3/4"	B	34	SPACE							
35	SPARE		1	20					C	36	SPACE							
37	SPARE		1	20					A	38	TVSS	--	3	30	10	10	10	1"
39	SPARE		1	20					B	40	--	--	--	--	10			
41	SPARE		1	20					C	42	--	--	--	--	10			

EQUIPMENT SERVED	CONN. LOAD	LF	DF	DESIGN LOAD (KVA)
LIGHTING	18.00	1.25		22.50
			TOTAL	22.50 KVA
			SPARE	

REMARKS
- PROVIDE TYPE WRITTEN PANEL DIRECTORY.
- PROVIDE GRND BUS & NEUTRAL BUS.
- PROVIDE PERMANENT IDENTIFICATION NAMEPLATE.

42 CIRCUITS 63 AMPS

JAN 04 2019

REVISIONS

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DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352.867.5148
E john@donahue-arch.com
FL # AA26000933, GA. # RA012363
FL Engineering CA. # 3247, ID # IBR2003848

DA

ELECTRICAL

ELECTRICAL RISER DIAGRAM / PANEL SCHEDULES

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

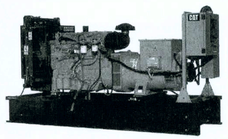
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38

E106
Permit Set

OF 39

DIESEL GENERATOR SET

CATERPILLAR



STANDBY 60-100 kW
PRIME 54-90 kW
60 Hz

Model	Standby kW (kVA)	Prime kW (kVA)
D60-4S	60 (60)	54 (54)
D75-4S	75 (75)	67.5 (67.5)
D80-4	80 (100)	72 (90)
D90-4S	90 (90)	82 (82)
D100-4	100 (125)	90 (112.5)
D100-4S	100 (100)	90 (90)

Tier II EPA Approved, Emissions Certified

FEATURES

GENERATOR SET
- Complete system designed and built at ISO 9001 certified facilities
- Factory tested to design specifications at full load conditions

ENGINE
- Governor, electronic
- Electrical system, 12 VDC
- Cartridge type filters
- Battery rack and cables
- Coolant and lube drains piped to edge of base

GENERATOR
- Insulation system, class H
- Drip proof generator air intake (NEMA 2, IP23)
- Electrical design in accordance with BS5000 Part 99, EN61000-6, IEC60034-1, NEMA MG-1.33

CONTROL SYSTEM
- EMCP 3.1 digital control panel
- Vibration isolated NEMA 1 enclosure with lockable hinged door
- DC and AC wiring harnesses

MOUNTING ARRANGEMENT
- Heavy-duty fabricated steel base with lifting points
- Anti-vibration pads to ensure vibration isolation
- Complete OSHA guarding
- Stub-up pipe ready for connection to silencer pipework
- Flexible fuel lines to base with NPT connections

COOLING SYSTEM
- Radiator and cooling fan complete with protective guards
- Standard ambient temperatures up to 50° C (122° F)

CIRCUIT BREAKER
- UL/CSA listed
- 3-pole with solid neutral
- NEMA 1 steel enclosure, vibration isolated
- Electrical stub-up area directly below circuit breaker

AUTOMATIC VOLTAGE REGULATOR
- Voltage within ± 0.5% 3-phase and ± 1.0% single phase at steady state from no load to full load
- Provides fast recovery from transient load changes

EQUIPMENT FINISH
- All electroplated hadware
- Anticorrosive paint protection
- High gloss polyurethane paint for durability and scuff resistance

QUALITY STANDARDS
- BS4999, BS5000, BS514, EN61000-6, IEC60034, NEMA MG-1.33, NFPA 110 (with optional equipment)

DOCUMENTATION
- Operation and maintenance manuals provided
- Wiring diagrams induded

WARRANTY
- All equipment carries full manufacturer's warranty.

CATERPILLAR

OPTIONAL EQUIPMENT*

ENCLOSURE
- B Series weather protective enclosure (includes internal silencer system)
  - Single point lift
  - Panel viewing window
  - External emergency stop pushbutton
- Sound attenuated enclosure (includes internal silencer system)

SILENCER SYSTEM – OPEN UNIT
- Level 1 silencer
- Level 2 silencer
- Level 3 silencer
- Mounting kit
- Through-wall installation kits

ENGINE
- Battery heater
- Lube oil drain pump
- High lube oil temperature shutdown
- Lube oil sump heater

CIRCUIT BREAKER
- Auxiliary voltfree contacts
- Shunt trip (100+ amp breakers)

GENERATOR
- Anti-condensation heater
- Permanent magnet generator
- AREP excitation system (D80-4, D100-4)
- Generator upgrade 1 size (D80-4, D100-4)

CONTROL SYSTEM
- No control system
- EMCP 3.2 digital control panel

MOUNTING ACCESSORIES
- Seismic (Zone 4) vibration isolators

FUEL SYSTEM
- Metal fuel tank
- UL listed closed top-diked skid-mounted fuel tank base (1224-hour capacity) with fuel alarm (low level/leak detected)
- Critical high fuel alarm
- Critical low fuel level shutdown

COOLING SYSTEM
- Coolant heater
- Low coolant temperature alarm
- Low coolant level shutdown
- Radiator transition flange

REMOTE ANNUNCIATORS
- 16-channel remote annunciator panel (supplied loose)

MISCELLANEOUS ACCESSORIES
- Toolkit
- Additional operator's manual pack
- Special enclosure color
- UL listing
- CSA certification
- French or Spanish language labels

EXTENDED SERVICE CONTRACTS
- Extended Service Coverage available

TESTING
- Factory witness test (restricted to 6 hours – full load, 1.0 pf)

* Some options may not be available on all models. Not all options are listed.

CATERPILLAR

SPECIFICATIONS

GENERATOR

Voltage regulation ..... ± 0.5% 3-phase and ± 1.0% single phase at steady state from no load to full load
Frequency ..... ± 0.25% for constant load, no load to full load
Waveform distortion ..... THD < 4%, at no load
Radio interference ..... Compliance with EN61000-6
Telephone interference ..... TIF < 50, THF < 2%
Overspeed limit ..... 2250 rpm
Insulation ..... Class H
Temperature rise ..... Within Class H limits
Available voltages ..... 1-phase – 120/240, 115/230, 110/220
3-phase – 277/480, 266/460, 120/240, 127/220, 120/208, 347/600
Duration ..... Consult factory for available outputs
Ratings ..... At 30° C (86° F), 152.4 m (500 ft), 60% humidity, 1.0 pf (1-phase), 0.8 pf (3-phase)

ENGINE

Manufacturer ..... Caterpillar
Type 4-cycle
Bore – mm (in) 105.0 (4.13)
Stroke – mm (in) 127.0 (5.00)
Governor Type ..... Electronic
Class G2
Piston speed – m/sec (ft/sec) 7.62 (25.0)
Engine speed – rpm 1800
Air cleaner type ..... Dry, replaceable paper element type with restriction indicator

D80-4, D60-4S, D75-4S – C4.4

Aspiration ..... Turbocharged
Cylinder configuration ..... In-line 4
Displacement – L (cu in) 4.4 (268)
Compression ratio 19.3:1
Max power at rated rpm – kW (hp)
Standby 94 (126)
Prime 85 (114.5)
BMEP – kPa (psi)
Standby 1422 (206)
Prime 1292 (187)
Regenerative power – kW (hp) 13.8 (18.5)

D90-4S, D100-4, D100-4S – C4.4

Aspiration ..... Turbocharged
Cylinder configuration ..... In-line 4
Displacement – L (cu in) 4.4 (268)
Compression ratio 19.3:1
Max power at rated rpm – kW (hp)
Standby 117.5 (157.5)
Prime 105.8 (143.2)
BMEP – kPa (psi)
Standby 1778 (258)
Prime 1616 (234)
Regenerative power – kW (hp) 13.8 (18.5)

CONTROL PANEL
- Heavy duty sheet steel enclosure with lockable hinged door
- Vibration isolated from generating set
- LCD display
- AC metering
- DC metering
- Fail to start shutdown
- Low oil pressure shutdown
- High engine temperature
- Low/high battery voltage
- Underspeed/overspeed
- Loss of engine speed detection
- 2 spare fault channels
- 20 event fault log
- 2 LED status indicators
- Lockdown emergency stop push button

RATING DEFINITIONS AND CONDITIONS

Standby – Applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The generator is peak rated (as defined in ISO8528-3).

Prime – Applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and the generator set can supply 10 percent overload power for 1 hour in 12 hours.

CATERPILLAR

D100-4 (3-Phase)

Materials and specifications are subject to change without notice.

Generator Set Technical Data – 1800 rpm/60 Hz			Standby		Prime	
Power Rating	kW	kVA	100	125.0	90	112.5
Lubricating System						
Type: full pressure						
Oil filter: spin-on, full flow						
Oil cooler: watercooled						
Oil type required: API CG4/CH4						
Total oil capacity	L	U.S. gal	8.0	2.1	8.0	2.1
Oil pan	L	U.S. gal	5.5	1.4	5.5	1.4
Fuel System						
Generator set fuel consumption						
100% load	L/hr	gal/hr	29.8	7.9	26.8	7.1
75% load	L/hr	gal/hr	22.5	5.9	20.4	5.4
50% load	L/hr	gal/hr	15.8	4.2	14.8	3.9
Engine Electrical System						
Voltage/ground: 12/negative						
Battery charging generator ampere rating	amps		65		65	
Cooling System						
Water pump type: centrifugal						
Radiator system capacity incl. engine	L	U.S. gal	12.6	3.3	12.6	3.3
Maximum coolant static head	m H_2O	Ft H_2O	10.2	33.5	10.2	33.5
Coolant flow rate	L/hr	U.S. gal/hr	11 640	3,075	11 640	3,075
Minimum temperature to engine	°C	°F	70	158	70	158
Temperature rise across engine	°C	°F	5.5	9.9	5.0	9.0
Heat rejected to coolant at rated power	kW	Btu/min	65.6	3,731	59.7	3,396
Total heat radiated to room at rated power	kW	Btu/min	20.7	1,177	18.3	1,041
Radiator fan load	kW	hp	5.0	6.7	5.0	6.7
Air Requirements						
Combustion air flow	m³/min	cfm	78	276	7.75	274
Maximum air cleaner restriction	kPa	in H_2O	8	32	8	32
Radiator cooling air (zero restriction)	m³/min	cfm	276	9,746	276	9,746
Generator cooling air	m³/min	cfm	26.4	933	26.4	933
Allowable air flow restriction (after radiator)	kPa	in H_2O	0.120	0.48	0.120	0.48
Cooling airflow (@ rated speed)						
Rate with restriction	m³/min	cfm	244	8,616	244	8,616
Exhaust System						
Maximum allowable backpressure	kPa	in Hg	15	4.5	15	4.5
Exhaust flow at rated kW	m³/min	cfm	20.4	721	18.4	651
Exhaust temperature at rated kW – Dry exhaust	°C	°F	574	1,065	517	963
Generator Set Noise Rating* (without attenuation) at 1 m (3 ft)	dB(A)		95		95	

Generator Technical Data		277/480V	266/460V	127/220V	120/240V 120/208V	347/600V
Motor Starting Capability: (30% voltage dip)	(kVA)					
	Self excited	206	191	177	160	N/A
	PM excited**	271	252	233	211	271
	AREP excited	271	252	233	211	271
Full Load Efficiencies:	Standby	91.0	90.9	90.5	90.0	91.0
	Prime	91.4	91.0	90.9	90.4	91.4
Reactances (per unit):	X_d	3.58	3.90	4.26	4.77	3.58
	X'_d	0.14	0.15	0.17	0.19	0.14
Reactances shown are applicable to the standby rating.	X''_d	0.083	0.091	0.099	0.111	0.083
	X_q	2.15	2.34	2.56	2.86	2.15
	X'_q	0.104	0.113	0.123	0.138	0.104
	X''_q	0.094	0.102	0.112	0.125	0.094
	X_2	0.005	0.009	0.008	0.006	0.005
Time Constants:		T'_d 100 ms	T''_d 10 ms	T'_{do} 556 ms	T_a 15 ms	

* dB(A) levels are for guidance only
** With PMG Excited Option AVR12

GENERATOR DATA

OCTOBER 31, 2006
For Help Desk Phone Numbers Click here

Selected Model

Engine: C4.4	**Generator Frame:** LC3014B	**Genset Rating (kW):** 100.0	**Line Voltage:** 208
Fuel: Diesel	**Generator Arrangement:** 2679912	**Genset Rating (kVA):** 125.0	**Phase Voltage:** 120
Frequency: 60	**Excitation Type:** Self Excited	**Pwr. Factor:** 0.8	**Rated Current:** 347.0
Duty: STANDBY	**Connection:** PARALLEL STAR	**Application:** EPG	**Status:** Current

Version: 38901 /38397 /38762 /4874

Spec Information

Generator Specification

Frame: LC3014B **Type:** LC **No. of Bearings:** 1
Winding Type: RANDOM WOUND **Flywheel:** 11.5
Connection: PARALLEL STAR **Housing:** 3
Phases: 3 **No. of Leads:** 12
Poles: 4 **Wires per Lead:** 1
Sync Speed: 1800 **Generator Pitch:** 0.6667

Generator Efficiency

Per Unit Load	kW	Efficiency %
0.25	25.0	90.0
0.5	50.0	91.8
0.75	75.0	91.2
1.0	100.0	90.1

Reactances	Per Unit	Ohms
SUBTRANSIENT - DIRECT AXIS X''_d	0.1109	0.0384
SUBTRANSIENT - QUADRATURE AXIS X''_q	0.1378	0.0477
TRANSIENT - SATURATED X'_d	0.1864	0.0645
SYNCHRONOUS - DIRECT AXIS X_d	4.7698	1.6509
SYNCHRONOUS - QUADRATURE AXIS X_q	2.8621	0.9906
NEGATIVE SEQUENCE X_2	0.1248	0.0432
ZERO SEQUENCE X_0	0.0064	0.0022

Time Constants	Seconds
OPEN CIRCUIT TRANSIENT - DIRECT AXIS T'_{do}	2.5550
SHORT CIRCUIT TRANSIENT - DIRECT AXIS T'_d	0.1000
OPEN CIRCUIT SUBSTRANSIENT - DIRECT AXIS T''_{do}	0.0160
SHORT CIRCUIT SUBSTRANSIENT - DIRECT AXIS T''_d	0.0100
OPEN CIRCUIT SUBSTRANSIENT - QUADRATURE AXIS T''_{qo}	0.2070
SHORT CIRCUIT SUBSTRANSIENT - QUADRATURE AXIS T''_q	0.0100
EXCITER TIME CONSTANT T_e	0.0540
ARMATURE SHORT CIRCUIT T_a	0.0150

Short Circuit Ratio: 0.21 | Stator Resistance = 0.0231 Ohms | Field Resistance = 2.58 Ohms

Voltage Regulation

Voltage level adustment: +/-	5.0%
Voltage regulation, steady state: +/-	0.5%
Voltage regulation with 3% speed change: +/-	0.5%
Waveform deviation line - line, no load: less than	2.0%
Telephone influence factor: less than	50

Generator Excitation

	No Load	Full Load, (rated) pf Series	Parallel
Excitation voltage:	6.99 Volts	46.61 Volts	Volts
Excitation current	0.38 Amps	2.08 Amps	Amps

Selected Model

Engine: C4.4	**Generator Frame:** LC3014B	**Genset Rating (kW):** 100.0	**Line Voltage:** 208
Fuel: Diesel	**Generator Arrangement:** 2679912	**Genset Rating (kVA):** 125.0	**Phase Voltage:** 120
Frequency: 60	**Excitation Type:** Self Excited	**Pwr. Factor:** 0.8	**Rated Current:** 347.0
Duty: STANDBY	**Connection:** PARALLEL STAR	**Application:** EPG	**Status:** Current

Version: 38901 /38397 /38762 /4874

Generator Mechanical Information

Center of Gravity

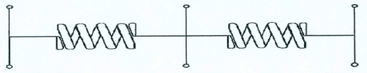
Dimension X	-335.0 mm	-13.2 IN.
Dimension Y	0.0 mm	0.0 IN.
Dimension Z	0.0 mm	0.0 IN.

- "X" is measured from driven end of generator and parallel to rotor. Towards engine fan is positive. See General Information for details
- "Y" is measured vertically from rotor center line. Up is positive.
- "Z" is measured to left and right of rotor center line. To the right is positive.

Generator WT = 385 kg * Rotor WT = 141 kg * Stator WT = 245 kg
849 LB 311 LB 540 LB

Rotor Balance = 0.0508 mm deflection PTP
Overspeed Capacity = 125% of synchronous speed

Generator Torsional Data



J1 = Coupling and Fan
J2 = Rotor
J3 = Exciter End
TOTAL J = J1 + J2 + J3

K1 = Shaft Stiffness between J1 + J2 (Diameter 1)
K2 = Shaft Stiffness between J2 + J3 (Diameter 2)

J1	K1	Min Shaft Dia 1	J2	K2	Min Shaft Dia 2	J3
0.5 LB IN. s²	11.9 MLB IN./rad	3.5 IN.	6.21 LB IN. s²	15.1 MLB IN./rad	2.8 IN.	0.6 LB IN. s²
0.056 N m s²	1.34 MN m/rad	90.0 mm	0.703 N m s²	1.71 MN m/rad	70.0 mm	0.063 N m s²

Total J
7.3 LB IN. s²
0.822 N m s²

Selected Model

Engine: C4.4	**Generator Frame:** LC3014B	**Genset Rating (kW):** 100.0	**Line Voltage:** 208
Fuel: Diesel	**Generator Arrangement:** 2679912	**Genset Rating (kVA):** 125.0	**Phase Voltage:** 120
Frequency: 60	**Excitation Type:** Self Excited	**Pwr. Factor:** 0.8	**Rated Current:** 347.0
Duty: STANDBY	**Connection:** PARALLEL STAR	**Application:** EPG	**Status:** Current

Version: 38901 /38397 /38762 /4874

Generator Cooling Requirements - Temperature - Insulation Data

Cooling Requirements:		**Temperature Data: (Ambient 40 °C)**	
Heat Dissipated:	11.0 kW	**Stator Rise:**	150.0 °C
Air Flow:	26.4 m³/min	**Rotor Rise:**	150.0 °C
		Insulation Class:	H
Insulation Reg. as shipped:	100.0 MΩ minimum at 40 °C		

Thermal Limits of Generator

Frequency:	60 Hz
Line to Line Voltage:	208 Volts
B BR 80/40	98.0 kVA
F BR -105/40	111.0 kVA
H BR - 125/40	122.0 kVA
F PR - 130/40	122.0 kVA
H PR - 150/40	129.0 kVA
H PR27 - 163/27	134.0 kVA

JAN 04 2019

REVISIONS

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DA

DONAHUE ARCHITECTURE, INC.
1202 SW 17th Street, Ste.201-165
Ocala, FL 34471
T 352 867 5148
E john@donahue-arch.com
FL - # AA26000933, GA: # RA012383
IE Engineering CA: # 32147 - ID: # IBS0000848

ELECTRICAL

GENERATOR DETAILS

A New Office for
Anderson Columbia - Lake City
871 NW Guerdon St
Lake City, FL 32055

DATE 10/29/18
JOB D_17061
DRAWN BY JD
JAD

39

E107

Permit Set

OF 39

GENERAL NOTES

FABRICATION SHALL BE IN ACCORDANCE WITH ELITE STRUCTURES STANDARD PRACTICES AND IN COMPLIANCE WITH THE APPLICABLE SECTIONS, RELATING TO DESIGN REQUIREMENTS AND ALLOWABLE STRESSES OF THE LATEST EDITION OF THE "AWS STRUCTURAL WELDING CODE D 1.1 AND D1.3"

MATERIALS	ASTM DESIGNATION	MIN. YIELD STRENGTH
HOT ROLLED STEEL SHAPES	A572	FY = 50 KSI
STEEL PIPES	A500	FY = 42 KSI
STRUCTURAL TUBING	A500	FY = 46 KSI
STRUCTURAL STEEL WEB PLATE	A572/A1011	FY = 50 KSI
STRUCTURAL STEEL FLANGE PLATES/BARS	A529/A572	FY = 55 KSI
COLD FORM LIGHT GAUGE	A653/A1011	FY = 50, 55 KSI
ROOF AND WALL SHEETS	A792/A653	FY = 50, 80 KSI
CABLE BRACE	A475- TYPE1	EXTRA HIGH STRENGTH
ROD BRACE	A36	FY = 36 KSI
MILL SECTIONS	A36	FY = 36 KSI
		MIN. TENSILE STRENGTH
MACHINE BOLTS & NUTS	A307	FU = 60 KSI
HIGH STRENGTH BOLTS (1" DIA & LESS)	A325 - TYPE 1	FU = 120 KSI
HIGH STRENGTH BOLTS (>1" TO 1-1/2")	A325 - TYPE 1	FU = 105 KSI
ANCHOR BOLTS (IF SUPPLIED)	F1554 - GR36	

CLOSURE STRIPS ARE FURNISHED ONLY IF NOTED ON SHIPPING DOCUMENTS
INSIDE - UNDER ROOF PANELS AT EAVE
OUTSIDE - BETWEEN END WALL PANELS AND RAKE TRIM
UNDER CONTINUOUS RIDGE VENT SKIRTS

ERECTION NOTE:
ALL BRACING, STRAPPING, & BRIDGING SHOWN AND PROVIDED BY ELITE STRUCTURES FOR THIS BUILDING IS REQUIRED AND SHALL BE INSTALLED BY THE ERECTOR AS A PERMANENT PART OF THE STRUCTURE. IF ADDITIONAL BRACING IS REQUIRED FOR STABILITY DURING ERECTION, IT SHALL BE THE ERECTOR'S RESPONSIBILITY TO DETERMINE THE AMOUNT OF SUCH BRACING AND TO PROCURE AND INSTALL AS NEEDED.

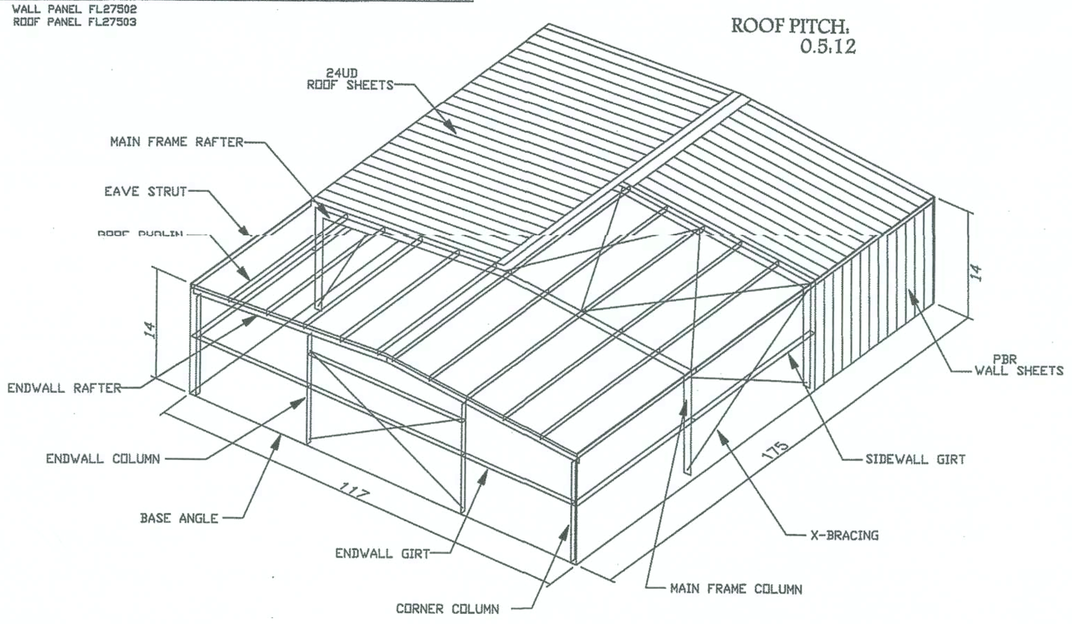
ERECTION AND UNLOADING NOT BY ELITE STRUCTURES

SHORTAGES
ANY CLAIMS OR SHORTAGES BY BUYERS MUST BE MADE TO ELITE STRUCTURES AT TIME OF DELIVERY, OR SUCH CLAIMS SHALL BE CONSIDERED WAIVED BY THE CUSTOMER AND DISALLOWED IF MATERIAL IS SHOWN DELIVERED

CORRECTIONS OF ERRORS AND REPAIRS (MBMA 6.10)
CLAIMS FOR CORRECTIONS OF ALLEGED MISFITS WILL BE DISALLOWED UNLESS ELITE STRUCTURES SHALL HAVE RECEIVED PRIOR NOTICE THEREOF AND ALLOWED REASONABLE INSPECTION OF SUCH MISFITS. THE CORRECTION OF MINOR MISFITS BY THE USE OF DRIFT PINS TO DRAW THE COMPONENTS INTO LINE, MODERATE AMOUNTS OR REAMING, CHIPPING AND CUTTING, AND THE REPLACEMENT OF MINOR SHORTAGES OF MATERIAL ARE A NORMAL PART OF ERECTION AND ARE NOT SUBJECT TO CLAIM.

A-325 BOLT TIGHTENING REQUIREMENTS
ALL BOLTED JOINTS WITH A325-09 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30,2004, PRETENSIONING METHODS, INCLUDING TURN-OF-NUT,CALIBRATED WRENCH,TWIST OFF TYPE TENSION CONTROL BOLTS OR DIRECT TENSION INDICATOR ARE NOT REQUIRED, INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT (SPECIFICATION FOR STRUCTURAL JOINTS 9.1) IS SUGGESTED.
REFERENCE: STEEL CONSTRUCTION MANUAL
AMERICAN INSTITUTE OF STEEL CONSTRUCTION INC.
THIRTEENTH EDITION (AISC)

FLORIDA PRODUCT APPROVAL NUMBER - ELITE STRUCTURES 26 GAUGE PBR PANEL
WALL PANEL FL27502
ROOF PANEL FL27503



BUILDING DRAWING FOR ILLUSTRATION ONLY

401 OLD QUITMAN RD.
ADEL, GA. 31620
229-896-7569

DATE: 1/24/19

ELITE STRUCTURES
ELITE-STRUCTURES.COM
CONSTRUCTION MANUAL AVAILABLE ONLINE
WWW.ELITE-STRUCTURES.COM

PROJECT: GRAY CONSTRUCTION SERVICES

PROJECT MANAGER: ALAN DUKES

LOCATION: LAKE CITY,FL

BUILDING DESCRIPTION:
117 x 175 x 14

LOCAL BUILDING CODE:	FBC 17
ENCLOSURE TYPE:	Closed
BUILDING RISK CATAGORY	II - Normal
LOAD REDUCTION USED:	Yes
LIVE LOAD TO FRAMES:	12
LIVE LOAD TO PURLINS:	20.00
DEAD LOAD:	2.500
COLLATERAL LOAD:	5
SNOW LOAD (GROUND):	0
SNOW LOAD (ROOF):	0
WIND SPEED:	120
WIND EXPOSURE:	B
SEISMIC ZONE:	B
SEISMIC IMPORTANCE:	1.00
SPECTRAL RESPONSE Ss	0.10
SPECTRAL RESPONSE S1	0.05
RAIN INTENSITY: 5 yr.	10.0000
25 yr.	11.0000

DESIGN SPECIFICATIONS
FOR
JOB ID: 11030

BUYER/CUSTOMER RESPONSIBILITIES

APPROVAL OF ELITE STRUCTURES DRAWINGS AND CALCULATIONS INDICATES THAT ELITE STRUCTURES HAS CORRECTLY INTERPRETED AND APPLIED THE CONTRACT DOCUMENTS. THIS APPROVAL CONSTITUTES THE CONTRACTOR/OWNER ACCEPTANCE OF THE ELITE STRUCTURES DESIGN CONCEPTS, ASSUMPTIONS, AND LOADING.
(SECTION 4 AISC CODE 9TH EDITION AND MBMA 3.3.3)

ONCE THE BUYER/END USE CUSTOMER HAS SIGNED ELITE STRUCTURES APPROVAL PACKAGE AND THE PROJECT IS RELEASED FOR FABRICATION, CHANGES SHALL BE BILLED TO THE BUYER/END USE CUSTOMER INCLUDING MATERIAL, ENGINEERING AND OTHER COSTS. AN ADDITIONAL FEE MAY BE CHARGED IF THE PROJECT MUST BE MOVED FROM THE FABRICATION AND SHIPPING SCHEDULE.

THE BUYER/END USE CUSTOMER IS RESPONSIBLE FOR OVERALL PROJECT COORDINATION. ALL INTERFACE, COMPATIBILITY AND DESIGN CONSIDERATIONS CONCERNING ANY MATERIAL NOT FURNISHED BY ELITE STRUCTURES ARE TO BE CONSIDERED AND COORDINATED BY THE BUYER/END CUSTOMER. SPECIFIC DESIGN CRITERIA CONCERNING THIS INTERFACE BETWEEN MATERIALS MUST BE FURNISHED BEFORE RELEASE FOR FABRICATION OR ELITE STRUCTURES ASSUMPTIONS WILL GOVERN (SECTION 4 AND COMMENTARY, AISC CODE OF STANDARD 9TH EDITION)

IT IS THE RESPONSIBILITY OF THE BUYER/END CUSTOMER TO INSURE THAT ELITE STRUCTURES PLANS COMPLIES WITH THE APPLICABLE REQUIREMENTS OF ANY GOVERNING BUILDING AUTHORITIES. THE SUPPLYING OF SEALED ENGINEERING DATA AND DRAWINGS FOR THE METAL BUILDING SYSTEM DOES NOT IMPLY OR CONSTITUTE AN AGREEMENT THAT ELITE STRUCTURES OR ITS DESIGN ENGINEERS ARE ACTING AS THE ENGINEER OF RECORD OR DESIGN PROFESSIONAL FOR A CONSTRUCTION PROJECT. THESE DRAWINGS ARE SEALED ONLY TO CERTIFY THE DESIGN OF THE STRUCTURAL COMPONENTS FURNISHED BY ELITE STUCTURES

THE BUYER/ END CUSTOMER IS RESPOSIBLE FOR SETTING OF ANCHOR BOLTS AND ERECTION OF THE STEEL IN ACCORDANCE WITH ELITE STRUCTURES "FOR CONSTRUCTION" DRAWINGS ONLY. TEMPORARY SUPPORTS SUCH AS GUYS, BRACES, FALSEWORK, CRIBBING OR OTHER ELEMENTS REQUIRED FOR ERECTION OPERATION SHALL BE DETERMINED FURNISHED AND INSTALLED BY ERECTOR. NO ITEMS SHOULD BE PURCHASED FROM A PRELIMINARY SET OF DRAWINGS, INCLUDING ANCHOR BOLTS. USE ONLY FINAL "FOR CONSTRUCTION DRAWINGS" FOR THE USE.
(SECTION 7 AISC CODE OF STANDARD 9TH EDITION)

ELITE STRUCTURES IS RESPONSIBLE FOR THE DESIGN OF THE ANCHOR BOLTS TO PERMIT THE TRANSFER OF FORCES BETWEEN THE BASE PLATE AND ANCHOR BOLT IN SHEAR, BEARING AND TENSION, BUT IS NOT RESPONSIBLE FOR THE TRANSFER OF ANCHOR BOLT FORCES TO THE CONCRETE OR THE ADEQUACY OF THE ANCHOR BOLT IN RELATION TO THE CONCRETE.

UNLESS OTHERWISE PROVIDED IN THE ORDER DOCUMENT, ELITE STRUCTURES DOES NOT DESIGN AND IS NOT RESPONSIBLE FOR THE DESIGN, MATERIAL AND CONSTRUCTION OF THE FOUNDATION OR FOUNDATION EMBEDMENT. THE END USE CUSTOMER SHOULD ASSURE HIMSELF THAT ADEQUATE PROVISIONS ARE MADE IN THE FOUNDATION DESIGN FOR LOADS IMPOSED BY COLUMN REACTIONS OF THE BUILDING, OTHER IMPOSED LOADS, AND BEARING CAPACITY OF THE SOIL AND OTHER CONDITIONS OF THE BUILDING SITE.

NORMAL ERECTION OPERATIONS INCLUDE THE CORRECTIONS OF MINOR MISFITS BY MODERATE AMOUNTS OF REAMING, CHIPPING, WELDING OR CUTTING, AND THE DRAWING OF ELEMENTS INTO LINE THROUGH THE USE OF DRIFT PINS. ERRORS WHICH CANNOT BE CORRECTED BY FOREGOING MEANS OR WHICH REQUIRE MAJOR CHANGES IN MEMBERS CONFIGURATION ARE TO REPORT IMMEDIATELY TO ELITE STRUCTURES BY THE BUYER/ END USE CUSTOMER, TO ENABLE WHEREVER IS RESPONSIBLE EITHER TO CORRECT THE ERROR OR TO APPROVE THE MOST EFFICIENT AND ECONOMIC METHOD OF CORRECTION TO BE USED BY OTHERS.
(SECTION 7 AISC CODE OF STANDARD 9TH EDITION)

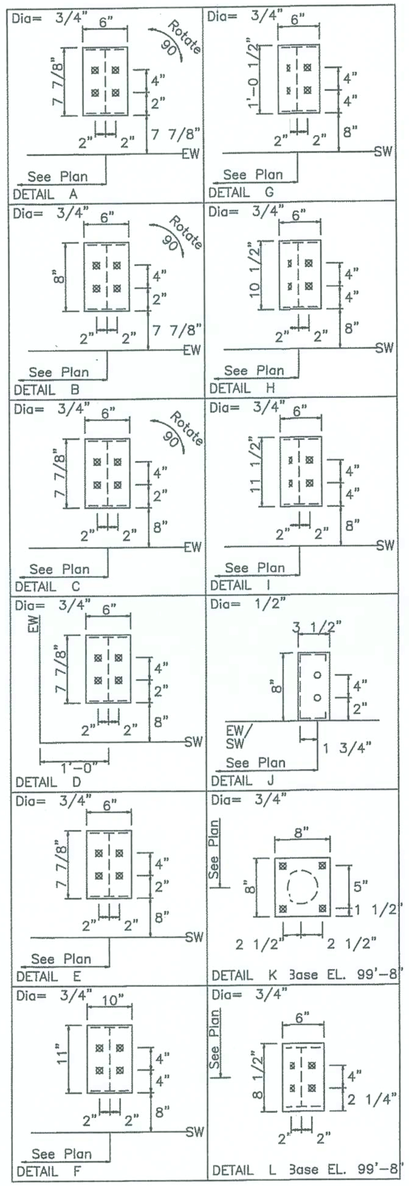
Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

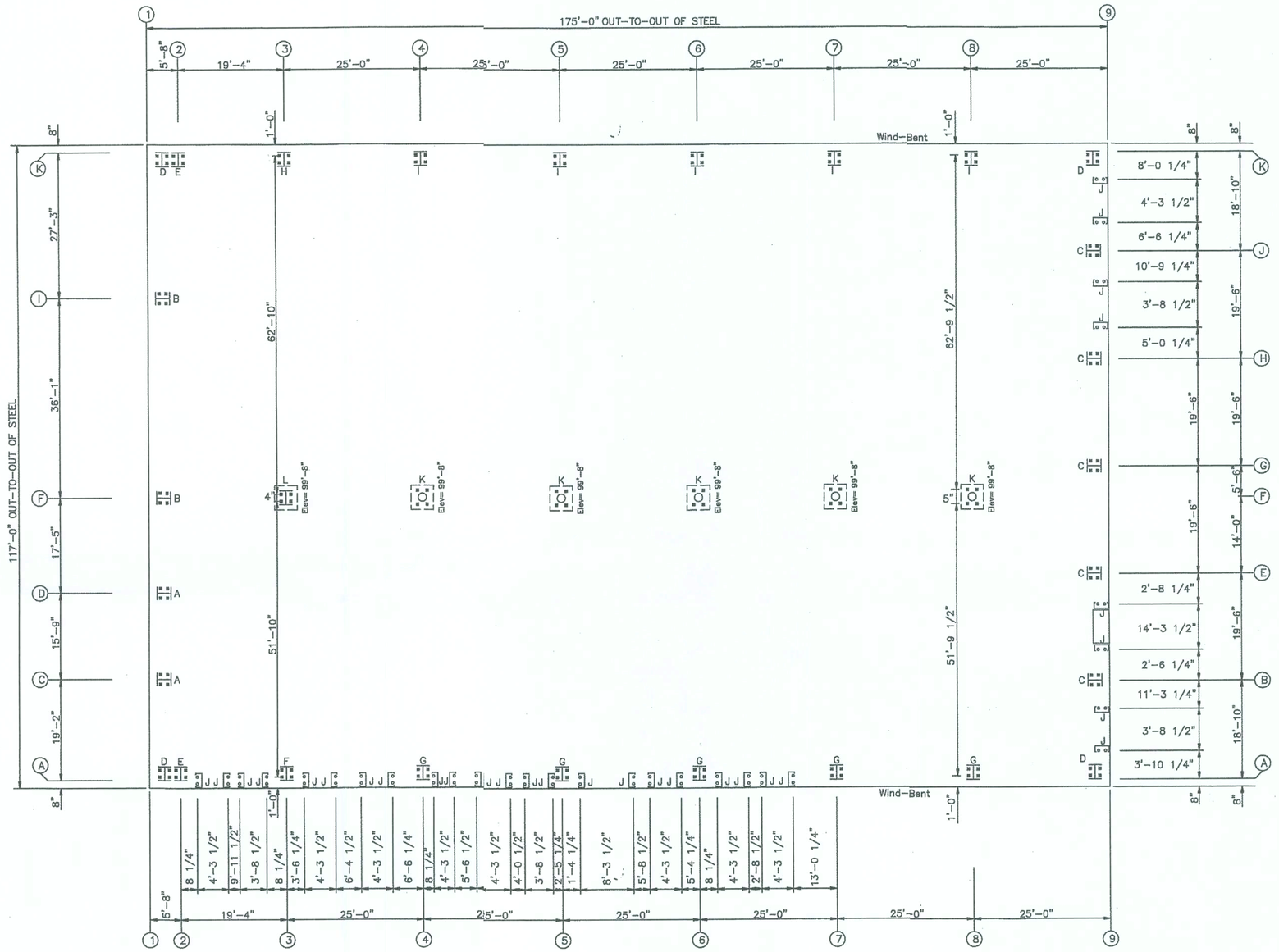
COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

ENGINEERING SEAL
THIS CERTIFICATION COVERS PARTS MANUFACTURED AND DELIVERED BY ELITE STRUCTURES ONLY

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-14-19

SEALING OF THESE DRAWINGS DOES NOT IMPLY OR CONSTITUTE THAT ELITE STRUCTURES ENGINEER IS THE ENGINEER OF RECORD OR THE DESIGN PROFESSIONAL FOR THE THIS PROJECT. ONLY THE DESIGN OF THE METAL BUILDING SYSTEM AS FURNISHED BY ELITE STRUCTURES IS INCLUDED. FOUNDATIONS ANALYSIS, ELECTRICAL, AND MECHANICAL SYSTEMS, AND/OR OTHER PARTS SUPPLIED BY ANYONE OTHER THAN ELITE STRUCTURES ARE SPECIFICALLY EXCLUDED, NO INSPECTION OR SUPERVISION IS IMPLIED.





NOTE: All Base Plates @ 100'-0" (U.N.)

DESIGN CRITERIA

BUILDING CODE:	FBC	17
LIVE LOAD TO FRAMES:	12	PSF
LIVE LOAD TO PURLINS:	20	PSF
COLLATERAL LOAD:	5	PSF
SNOW LOAD: (GROUND)	0	PSF
WIND LOAD: (ULTIMATE)	118	MPH
WIND EXPOSURE:	B	
BUILDING RISK CATEGORY	II	
ENCLOSURE CLASSIFICATION	ENCLOSED	

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-14-19

ELITE STRUCTURES
PH 229-896-7569
FAX 229-896-7560
P.O. BOX 207
ADEL , GA 31620

SCALE: N.T.S. | DATE: 01-09-19
DRAWN BY: M. TWOMEY | SALES: A. DUKES
BUILDING SIZE: 117x175x14

REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION: GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN: ANCHOR BOLT PLAN

JOB # 11030-AB

SHEET 1 OF 11

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Wind Left1 Vert	Wind Right1 Vert	Wind Left2 Vet	Wind Right2 Vert	Wind Press Horz	Wind Suct Horz	Wind Long1 Vert	Wind Long2 Vert	Seis Left Vert
1	K	0.6	0.7	2.7	−3.6	−2.1	−2.5	−1.0	0.0	0.0	−3.6	−2.0	0.0
1	I	2.0	2.4	9.5	−10.2	−6.8	−6.4	−3.1	−4.2	4.6	−11.6	−7.0	0.0
1	F	1.8	2.0	8.0	−5.2	−5.3	−2.2	−2.4	−3.8	4.2	−7.3	−7.3	0.0
1	D	0.6	0.6	2.5	−2.0	−2.7	−1.0	−1.6	−2.3	2.5	−4.1	−4.1	0.0
1	C	1.2	1.4	5.6	−4.0	−7.1	−2.8	−4.9	−2.3	2.5	−4.6	−6.7	0.0
1	A	0.5	0.5	2.1	−1.7	−2.6	−1.8	−1.8	0.0	0.0	−1.5	−2.9	0.0

Frm Line	Col Line	Seis Right Vert
1	K	0.0
1	I	0.0
1	F	0.0
1	D	0.0
1	C	0.0
1	A	0.0

Frm Line	Col Line	----Dead---- Horz	Vert	Collateral Horz	Vert	---Live--- Horz	Vert	Wind Left1 Vert	Wind Right1 Vert	Wind Left2 Vert	Wind Right2 Vert	Wind_Press Horz	Vert	Wind_Suct Horz	Vert
9	A	0.0	0.5	0.0	0.5	0.0	2.0	−2.3	−1.5	−1.7	−0.6	0.0	0.0	0.0	0.0
9	B	0.0	1.1	0.0	1.4	0.0	5.4	−7.1	−4.1	−4.9	−1.8	−2.5	0.0	2.7	0.0
9	E	0.0	0.9	0.0	1.2	0.0	4.7	−4.1	−3.6	−2.3	−1.7	−2.7	0.0	2.9	0.0
9	G	0.0	1.0	0.0	1.3	0.0	4.9	−3.1	−3.6	−1.7	−1.7	−2.8	0.0	3.1	0.0
9	H	0.0	0.9	0.0	1.2	0.0	4.7	−3.1	−4.3	−1.7	−2.3	−2.7	0.0	2.9	0.0
9	J	0.0	1.1	0.0	1.4	0.0	5.4	−4.1	−7.1	−1.8	−4.9	−2.5	0.0	2.7	0.0
9	K	−0.1	0.8	−0.2	1.1	−0.8	4.2	−1.5	−2.5	−0.6	−1.7	−0.6	1.8	1.5	−4.1

Frm Line	Col Line	Wind Long1 Vert	Wind Long2 Vert	Seis Left Vert	Seis Right Vert	E2PAT_LL_1- Horz	Vert	E2PAT_LL_2- Horz	Vert	E2PAT_LL_3- Horz	Vert	E2PAT_LL_4- Horz	Vert
9	A	−2.6	−1.5	0.0	0.1	0.0	2.(	0.0	−0.2	0.0	0.0	0.0	0.0
9	B	−6.9	−4.1	0.0	0.0	0.0	5.(	0.0	2.3	0.0	−0.3	0.0	0.1
9	E	−5.3	−3.4	0.0	0.0	0.0	2.(	0.0	5.5	0.0	2.3	0.0	−0.3
9	G	−5.0	−5.0	−0.1	−0.1	0.0	−0.(	0.0	2.3	0.0	5.5	0.0	2.3
9	H	−3.4	−6.3	0.0	0.0	0.0	0.(	0.0	−0.3	0.0	2.3	0.0	5.5
9	J	−4.1	−6.9	0.0	0.0	0.0	0.(	0.0	0.1	0.0	−0.3	0.0	2.3
9	K	−1.5	−2.6	0.1	0.0	0.0	0.(	0.0	0.0	0.0	0.0	0.0	−0.2

Frm Line	Col Line	E2PAT_LL_5- Horz	Vert	E2PAT_LL_6- Horz	Vert	E2PAT_LL_7- Horz	Vert
9	A	0.0	0.0	0.0	2.3	0.0	−0.3
9	B	0.0	0.0	0.0	2.6	0.0	2.8
9	E	0.0	0.1	0.0	2.4	0.0	2.3
9	G	0.0	−0.3	0.0	2.5	0.0	2.5
9	H	0.0	2.3	0.0	2.3	0.0	2.4
9	J	0.0	5.7	0.0	2.8	0.0	2.6
9	K	0.0	2.0	0.0	−0.3	0.0	2.3

SOLDIER COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	---Dead--- Horz	Vert	Collateral Horz	Vert	---Live--- Horz	Vert	Wind_Press Horz	Vert	Wind_Suct Horz	Vert	Wind Long1 Horz
2	A	0.0	0.1	0.0	0.0	0.0	0.0	1.(	0.0	−1.8	0.0	−1.2
2	K	0.1	0.4	0.1	0.4	0.6	1.7	0.3	−3.2	−1.3	1.4	−1.2

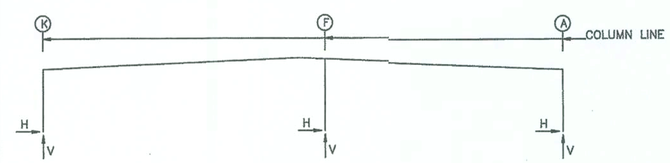
ENDWALL COLUMN: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
1	K	4	0.0	−1.8	4	0.0	−1.8	4	0.750	6.000	7.875	0.375	0.0
		1	0.0	4.0									
1	I	9	2.8	−5.8	10	−2.5	−5.8	4	0.750	6.000	8.000	0.375	0.0
		1	0.0	13.8	9	2.8	−5.8						
1	F	9	2.5	−3.4	10	−2.3	−3.4	4	0.750	6.000	8.000	0.375	0.0
		1	0.0	11.8	9	2.5	−3.4						
1	D	11	1.5	−2.1	12	−1.4	−2.1	4	0.750	6.000	7.875	0.375	0.0
		1	0.0	3.8	11	1.5	−2.1						
1	C	13	1.5	−3.5	12	−1.4	−3.3	4	0.750	6.000	7.875	0.375	0.0
		1	0.0	8.3	13	1.5	−3.5						
1	A	5	0.0	−1.4	5	0.0	−1.4	4	0.750	6.000	7.875	0.375	0.0
		1	0.0	3.2									
9	A	4	0.0	−1.3	4	0.0	−1.3	4	0.750	6.000	7.875	0.375	0.0
		17	0.0	3.3									
9	B	18	1.6	−3.6	10	−1.5	−3.5	4	0.750	6.000	7.875	0.375	0.0
		19	0.0	8.2	18	1.6	−3.6						
9	E	9	1.8	−3.2	10	−1.6	−3.2	4	0.750	6.000	7.875	0.375	0.0
		20	0.0	7.7	9	1.8	−3.2						
9	G	11	1.9	−2.4	12	−1.7	−2.4	4	0.750	6.000	7.875	0.375	0.0
		21	0.0	7.8	11	1.9	−2.4						
9	H	11	1.8	−3.2	12	−1.6	−3.2	4	0.750	6.000	7.875	0.375	0.0
		22	0.0	7.7	11	1.8	−3.2						
9	J	13	1.6	−3.6	12	−1.5	−3.5	4	0.750	6.000	7.875	0.375	0.0
		23	0.0	8.2	13	1.6	−3.6						
9	K	11	0.8	−3.5	1	−1.1	6.1	4	0.750	6.000	7.875	0.375	0.0
		1	−1.1	6.1	11	0.8	−3.5						

SOLDIER COLUMN: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
2	A	14	1.0	0.1	15	−1.1	0.1	4	0.750	6.000	7.875	0.500	0.0
		16	−1.1	0.1									
2	K	24	0.9	0.7	15	−0.7	1.1	4	0.750	6.000	7.875	0.500	0.0
		25	0.1	2.8	14	0.4	−1.7						

FRAME LINES: 3 4 5 6 7 8



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
3	K	1	6.9	21.8	2	−4.0	−10.2	4	0.750	6.000	10.50	0.500	0.0
3	A	3	4.8	−5.9	1	−6.9	12.7	4	0.750	10.00	11.00	0.500	0.0
		8	−4.9	13.3	3	4.8	−5.9						
3	F	6	0.0	−11.1	6	0.0	−11.1	4	0.750	6.000	8.500	0.500	−4.0
		1	0.0	31.9									

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
4*	K	1	7.1	22.6	2	−3.6	−10.6	4	0.750	6.000	11.50	0.500	0.0
4*	A	3	4.2	−5.8	1	−7.1	12.7	4	0.750	6.000	12.50	0.500	0.0
		7	−4.8	13.4	5	1.4	−8.0						
4*	F	6	0.0	−11.1	6	0.0	−11.1	4	0.750	8.000	8.000	0.500	−4.0
		1	0.0	31.6									

4* Frame lines: 4 5 6 7 8

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	------Dead------ Horiz	Vert	------Collateral-- Horiz	Vert	------Live------ Horiz	Vert	--Wind_Left1-- Horiz	Vert	--Wind_Right1-- Horiz	Vert	--Wind_Left2-- Horiz	Vert
4*	K	1.3	3.7	1.8	5.0	4.0	13.9	−7.3	−21.4	−2.0	−10.9	−5.5	−15.2
4*	A	−1.3	2.4	−1.8	3.1	−4.0	7.2	1.3	−6.9	8.3	−12.1	−0.5	−1.9
4*	F	0.0	5.5	0.0	7.7	0.0	18.4	0.0	−20.0	0.0	−20.1	0.0	−8.1

Frame Line	Column Line	--Wind_Right2-- Horiz	Vert	--Wind_Long1-- Horiz	Vert	--Wind_Long2-- Horiz	Vert	--Seismic_Left Horiz	Vert	Seismic_Right Horiz	Vert	--Seismic_Long Horiz	Vert
4*	K	−0.2	−4.8	−4.4	−18.3	−4.1	−12.8	−0.4	−0.1	0.4	0.1	0.0	−1.8
4*	A	6.5	−7.1	4.8	−10.9	3.6	−15.7	−0.6	0.1	0.6	−0.1	0.0	−1.8
4*	F	0.0	−8.3	0.0	−23.3	0.0	−24.0	0.0	−0.1	0.0	0.1	0.0	0.0

Frame Line	Column Line	F1PAT_LL_1- Horiz	Vert	F1PAT_LL_2- Horiz	Vert
4*	K	3.0	9.3	1.8	−0.2
4*	A	−3.0	−0.5	−1.8	7.9
4*	F	0.0	10.3	0.0	8.1

Frame Line	Column Line	------Dead------ Horiz	Vert	------Collateral-- Horiz	Vert	------Live------ Horiz	Vert	--Wind_Left1-- Horiz	Vert	--Wind_Right1-- Horiz	Vert	--Wind_Left2-- Horiz	Vert
3	K	1.2	3.5	1.7	4.9	3.9	13.3	−8.0	−20.6	−1.0	−10.5	−6.4	−14.5
3	A	−1.2	2.5	−1.7	3.0	−3.9	7.2	0.1	−6.5	9.2	−12.3	−1.5	−1.6
3	F	0.0	5.6	0.0	7.8	0.0	18.6	0.0	−20.3	0.0	−20.2	0.0	−8.3

Frame Line	Column Line	--Wind_Right2-- Horiz	Vert	--Wind_Long1-- Horiz	Vert	--Wind_Long2-- Horiz	Vert	--Seismic_Left Horiz	Vert	Seismic_Right Horiz	Vert	F2PAT_LL_1- Horiz	Vert
3	K	0.6	−4.4	−3.9	−14.7	−3.9	−9.3	−1.2	−0.2	1.2	0.2	2.6	9.3
3	A	7.6	−7.4	4.3	−7.4	3.5	−12.1	−1.5	0.4	1.5	−0.4	−2.6	−0.5
3	F	0.0	−8.2	0.0	−23.5	0.0	−24.2	0.0	−0.2	0.0	0.2	0.0	10.4

Frame Line	Column Line	F2PAT_LL_2- Horiz	Vert
3	K	2.0	−0.2
3	A	−2.0	7.9
3	F	0.0	8.2

4* Frame lines: 4 5 6 7 8

BUILDING BRACING REACTIONS

Loc	Wall Line	Col Line	± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Seis	Note
L_EW	1								(l)
F_SW	A	7,8	3.5	3.5	1.8	1.7			(b)
R_EW	9						20	19	
B_SW	K	7,8	3.5	3.5	1.9	1.8			(b)

(b)Wind bent in bay, base above finish floor
(l)Bracing in roof to rigid frame

NOTES FOR REACTIONS

Building reactions are based on the following building data:

Width (ft)	= 117.0
Length (ft)	= 175.0
Eave Height (ft)	= 14.0/ 14.0
Roof Slope (rise/12)	= 0.5/ 0.5
Dead Load (psf)	= 2.5
Collateral Load (psf)	= 5.0
Roof Live Load(psf)	= 20.0
Frame Live Load(psf)	= 12.0
Wind Speed (mph)	= 120.0
Wind Code	= FBC 17 (IBC 15)
Exposure	= B
Closed/Open	= C
Importance Wind	= 1.00
Importance Seismic	= 1.00
Seismic Zone	= B
Seismic Coeff (Fa*Ss)	= 0.16

ID	Description
1	Dead+Collateral+Live
2	0.6Dead+0.6Wind_Left1
3	0.6Dead+0.6Wind_Right1
4	0.6Dead+0.6Wind_Long1L
5	0.6Dead+0.6Wind_Long2L
6	0.6Dead+0.6Wind_Long2R
7	Dead+Collateral+F1PAT_LL_2
8	Dead+Collateral+F2PAT_LL_2
9	0.6Dead+0.6Wind_Suction+0.6Wind_Long1L
10	0.6Dead+0.6Wind_Pressure+0.6Wind_Long1L
11	0.6Dead+0.6Wind_Suction+0.6Wind_Long2L
12	0.6Dead+0.6Wind_Pressure+0.6Wind_Long2L
13	0.6Dead+0.6Wind_Right1+0.6Wind_Suction
14	0.6Dead+0.6Wind_Pressure
15	0.6Dead+0.6Wind_Suction
16	Dead+0.6Wind_Suction
17	Dead+Collateral+E2PAT_LL_6
18	0.6Dead+0.6Wind_Left1+0.6Wind_Suction
19	Dead+Collateral+E2PAT_LL_1
20	Dead+Collateral+E2PAT_LL_2
21	Dead+Collateral+E2PAT_LL_3
22	Dead+Collateral+E2PAT_LL_4
23	Dead+Collateral+E2PAT_LL_5
24	Dead+Collateral+0.75Live+0.45Wind_Pressure
25	Dead+Collateral+0.75Live+0.45Wind_Suction

ANCHOR BOLT SUMMARY

Qty	Locate	Dia (in)	Type	Proj (in)
60	Jamb	1/2"	GR36	1.50
52	Endwall	3/4"	GR36	2.50
72	Frame	3/4"	GR36	2.50
8	Soldier	3/4"	GR36	2.50

Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

DESIGN CRITERIA

BUILDING CODE:	FBC 17
LIVE LOAD TO FRAMES:	12 PSF
LIVE LOAD TO PURLINS:	20 PSF
COLLATERAL LOAD:	5 PSF
SNOW LOAD: (GROUND)	0 PSF
WIND LOAD: (ULTIMATE)	118 MPH
WIND EXPOSURE:	B
BUILDING RISK CATEGORY	II
ENCLOSURE CLASSIFICATION	ENCLOSED

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-14-19

ELITE STRUCTURES
PH 229-896-7569
FAX 229-896-7560
P.O. BOX 207
ADEL , GA 31620

SCALE: N.T.S. | DATE: 01-09-19
DRAWN BY: M. TWOMEY | SALES: A. DUKES
BUILDING SIZE: 117x175x14

REVISION

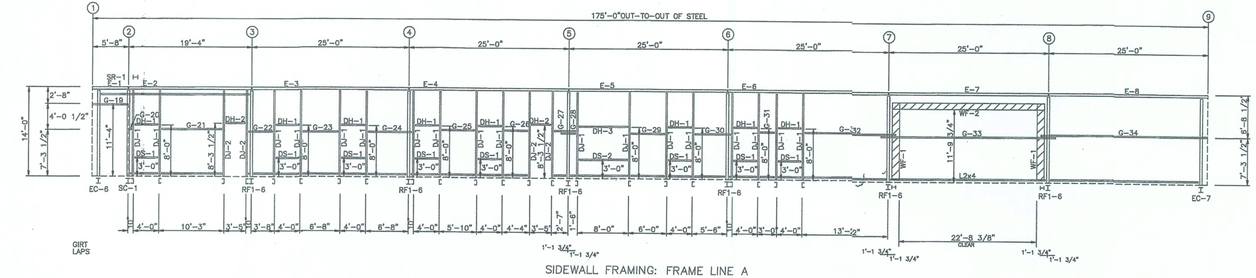
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION: GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

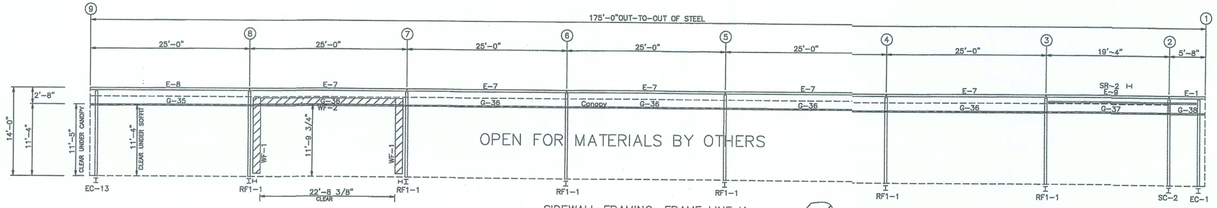
PLAN: COLUMN REACTIONS

JOB # 11030-CR

SHEET 2 OF 11



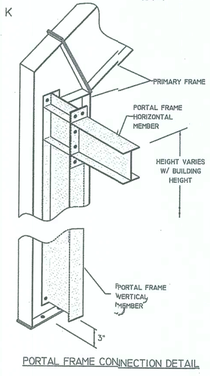
SIDEWALL FRAMING: FRAME LINE A



SIDEWALL FRAMING: FRAME LINE K

BOLT TABLE FRAME LINE A & K				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 TO WF-2	8	A325	3/4"	3"
WF-1 TO RF1-6	14	A325	3/4"	4"
WF-1 TO RF1-1	14	A325	3/4"	4"
SC-1	4	A325	1/2"	1"
SC-2	2	A325	1/2"	1 1/2"
SR-2	2	A325	1/2"	1 1/2"

MEMBER TABLE FRAME LINE A & K		
MARK	PART	LENGTH
WF-1	W14X22	12'-4"
WF-2	W12X26	22'-7 3/8"
SC-1	W8X10	11'-1 1/8"
SC-2	W8X10	11'-1 1/8"
SR-1	W8X18	23'-5/8"
SR-2	W8X18	23'-6 3/8"
DJ-1	BX25C14	13'-4 1/16"
DJ-2	BX25C14	13'-4 1/16"
DH-1	BX25C14	3'-11 1/2"
DH-2	BX25C14	3'-4 1/2"
DH-3	BX25C14	7'-11 1/2"
DS-1	BX25C14	3'-11 1/2"
DS-2	BX25C14	7'-11 1/2"
E-1	BE514L1	5'-7 1/2"
E-2	BE514L1	19'-3 1/2"
E-3	BE514L1	24'-11 1/2"
E-4	BE514L1	24'-11 1/2"
E-5	BE514L1	24'-11 1/2"
E-6	BE514L1	24'-11 1/2"
E-7	BE514L1	24'-11 1/2"
E-8	BE514L1	24'-11 1/2"
E-9	BE514L1	19'-3 1/2"
G-19	CBx11.5	8'-7 1/2"
G-20	BX25Z16	7'-0"
G-21	BX25Z16	6'-8 1/2"
G-22	BX25Z16	4'-6 1/2"
G-23	BX25Z16	4'-6 1/2"
G-24	BX25Z16	5'-5 1/2"
G-25	BX25Z16	5'-4 1/2"
G-26	BX25Z16	5'-4 1/2"
G-27	BX25Z16	5'-10 1/2"
G-28	BX25Z16	2'-6"
G-29	BX25Z16	2'-6"
G-30	BX25Z16	5'-6 1/2"
G-31	BX25Z16	5'-10 1/2"
G-32	BX25Z16	7'-6 1/2"
G-33	BX25Z16	27'-1"
G-34	BX25Z14	27'-3 1/2"
G-35	CBx11.5	24'-11 1/2"
G-36	CBx11.5	24'-11 1/2"
G-37	CBx11.5	19'-3 1/2"
G-38	CBx11.5	8'-7 1/2"



PORTAL FRAME CONNECTION DETAIL

Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

DESIGN CRITERIA		
BUILDING CODE:	FBC	17
LIVE LOAD TO FRAMES:	12	PSF
LIVE LOAD TO PURLINS:	20	PSF
COLLATERAL LOAD:	5	PSF
SNOW LOAD: (GROUND)	0	PSF
WIND LOAD: (ULTIMATE)	118	MPH
WIND EXPOSURE:	B	
BUILDING RISK CATEGORY	II	
ENCLOSURE CLASSIFICATION	ENCLOSED	

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER
5-14-19

ELITE STRUCTURES
PH 229-896-7669
FAX 229-896-7510
P.O. BOX 207
ADEL , GA 31620

SCALE: N.T.S. | DATE: 01-09-19
DRAWN BY: M. TWOMEY | SALES: A. DUKES
BUILDING SIZE: 117x175x14

REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION: GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN: SIDEWALL FRAMING

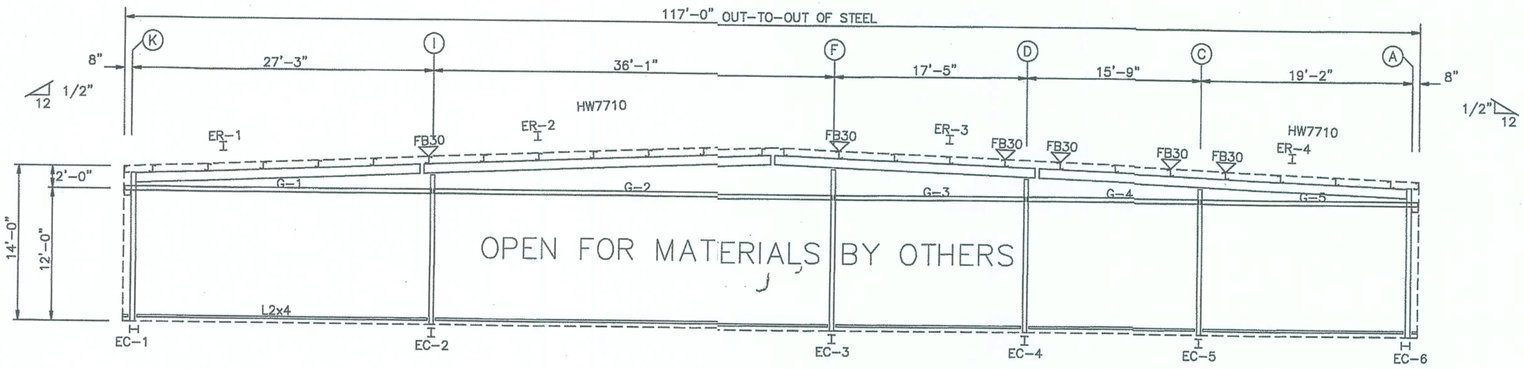
JOB # 11030-SF

SHEET 3 OF 11

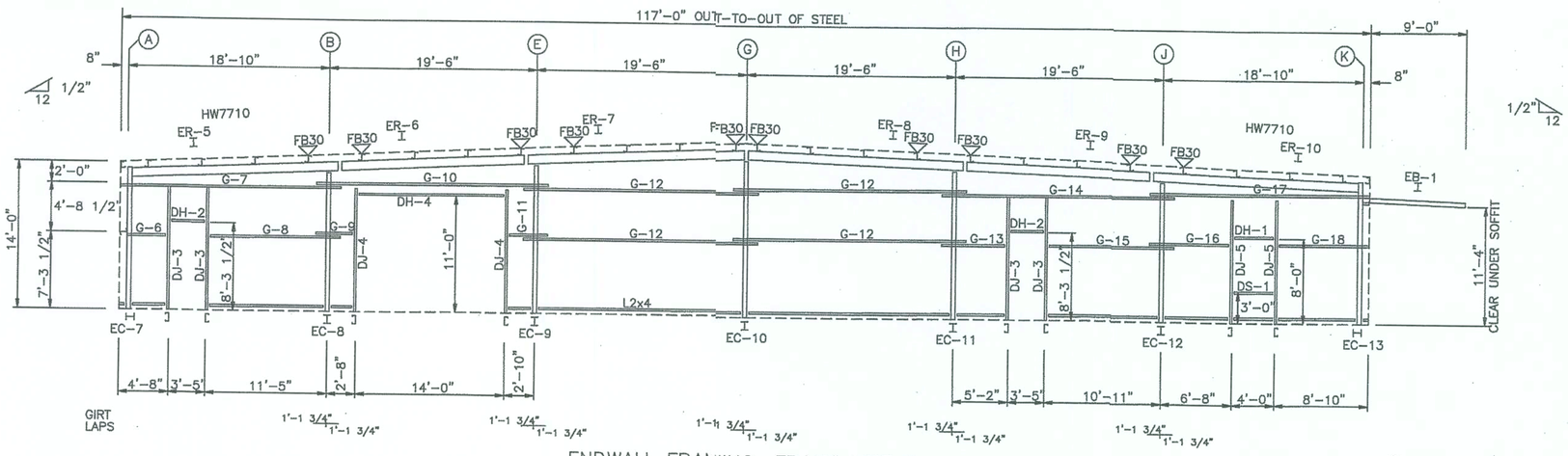
BOLT TABLE FRAME LINE 1 & 9				
LOCATION	QUAN	TYPE	DIA	LENGTH
Cor_Column/Raf	4	A325	3/4"	3"
ER-1/ER-2	8	A325	3/4"	3"
ER-2/ER-3	8	A325	3/4"	3"
ER-3/ER-4	8	A325	3/4"	3"
ER-5/ER-6	8	A325	3/4"	3"
ER-6/ER-7	8	A325	3/4"	3"
ER-7/ER-8	6	A325	3/4"	3"
ER-8/ER-9	8	A325	3/4"	3"
ER-9/ER-10	8	A325	3/4"	3"
Int_Column/Raf	4	A325	1/2"	1 1/2"

MEMBER TABLE FRAME LINE 1 & 9		
MARK	PART	LENGTH
EB-1	W10X12	9'-0 1/2"
EC-1	W8X10	13'-4 5/8"
EC-2	W8X13	13'-9 7/8"
EC-3	W8X13	14'-10 7/16"
EC-4	W8X10	14'-1 3/4"
EC-5	W8X10	13'-5 7/8"
EC-6	W8X10	13'-4 5/8"
EC-7	W8X10	13'-4 5/8"
EC-8	W8X10	13'-5 15/16"
EC-9	W8X10	14'-3 11/16"
EC-10	W8X10	15'-1 3/8"
EC-11	W8X10	14'-3 11/16"
EC-12	W8X10	13'-5 15/16"
EC-13	W8X10	13'-4 5/8"
ER-1	W8X18	25'-8 1/16"
ER-2	W8X18	31'-7"
ER-3	W8X18	23'-10 7/8"
ER-4	W8X18	33'-4 1/8"
ER-5	W8X10	19'-2 15/16"
ER-6	W8X10	17'-6 3/16"
ER-7	W8X10	20'-5 7/8"
ER-8	W8X10	20'-5 7/8"
ER-9	W8X10	17'-6 3/16"
ER-10	W8X10	19'-2 15/16"
DJ-3	8X25C14	12'-0"
DJ-4	8X35C14	12'-0"
DJ-5	8X25C14	12'-0"
DH-1	8X25C14	3'-11 1/2"
DH-2	8X25C14	3'-4 1/2"
DH-4	8X35C14	13'-11 1/2"
DS-1	8X25C14	3'-11 1/2"
G-1	W8X18	27'-10 1/2"
G-2	W8X24	36'-0 1/2"
G-3	W8X10	17'-4 1/2"
G-4	W8X10	15'-8 1/2"
G-5	W8X10	19'-9 1/2"
G-6	8X25Z16	3'-9"
G-7	8X25Z16	20'-7 1/2"
G-8	8X25Z16	12'-4"
G-9	8X25Z16	3'-6"
G-10	8X25Z16	21'-9 1/2"
G-11	8X25Z16	3'-8"
G-12	8X25Z16	21'-9 1/2"
G-13	8X25Z16	6'-1"
G-14	8X25Z16	21'-9 1/2"
G-15	8X25Z16	11'-10"
G-16	8X25Z16	7'-7"
G-17	8X25Z16	20'-7 1/2"
G-18	8X25Z16	8'-7"

FLANGE BRACE TABLE FRAME LINE 1 & 9		
VID	MARK	LENGTH
1	FB30	2'-6"



ENDWALL FRAMING: FRAME LINE 1



ENDWALL FRAMING: FRAME LINE 9

Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

DESIGN CRITERIA		
BUILDING CODE:	FBC	17
LIVE LOAD TO FRAMES:	12	PSF
LIVE LOAD TO PURLINS:	20	PSF
COLLATERAL LOAD:	5	PSF
SNOW LOAD: (GROUND)	0	PSF
WIND LOAD: (ULTIMATE)	118	MPH
WIND EXPOSURE:	B	
BUILDING RISK CATEGORY	II	
ENCLOSURE CLASSIFICATION	ENCLOSED	

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-14-19

ELITE STRUCTURES
PH 229-896-7569
FAX 229-896-7560
P.O. BOX 207
ADEL, GA 31620

SCALE: N.T.S. DATE: 01-09-19
DRAWN BY: M. TWOMEY SALES: A. DUKES
BUILDING SIZE: 117x175x14

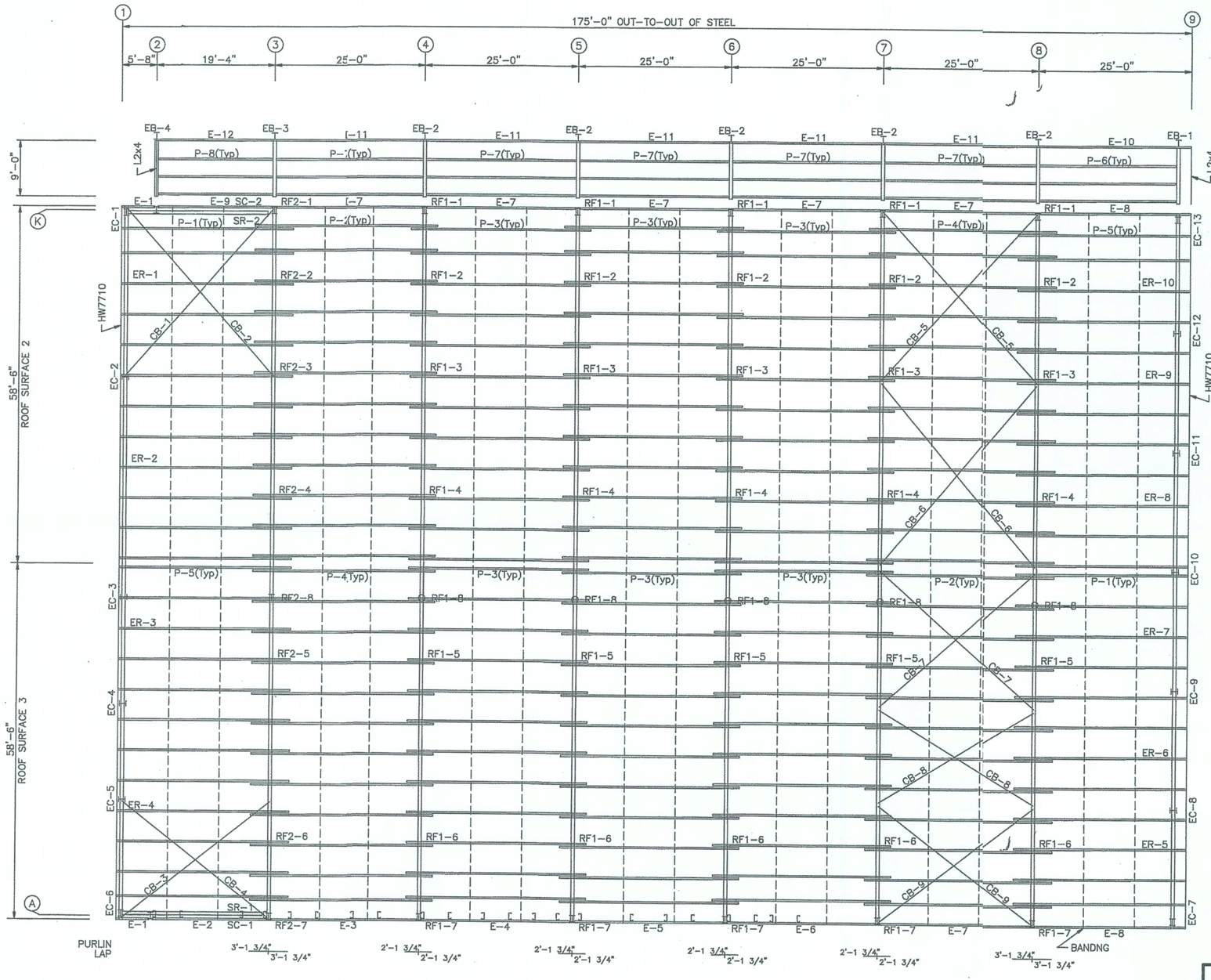
REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION: GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN: ENDWALL FRAMING

JOB # 11030-EF

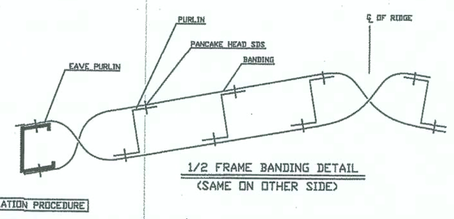
SHEET 4 OF 11



EXTENSION/CANOPY BOLTS ROOF PLAN				
MARK	QUAN	TYPE	DIA	LENGTH
EB-1	4	A325	3/4"	3"
EB-2	4	A325	7/8"	3 1/2"
EB-3	4	A325	7/8"	3 1/2"
EB-4	4	A325	3/4"	3"

ANGLE TABLE ROOF PLAN			
◇ID	MARK	LENGTH	DETAIL
	BANDNG	500'-0"	ANGLE_1
	HW7710	20'-0"	ANGLE_28
	L2x4	20'-0"	ANGLE_36

MEMBER TABLE ROOF PLAN		
MARK	PART	LENGTH
EB-1	W10X12	9'-0 1/2"
EB-2	W10X19	9'-0 9/16"
EB-3	W10X19	9'-0 9/16"
EB-4	W10X12	9'-0 1/2"
P-1	8X35Z12	28'-1 1/2"
P-2	8X35Z16	30'-3 1/2"
P-3	8X35Z16	29'-3 1/2"
P-4	8X35Z16	30'-3 1/2"
P-5	8X35Z12	28'-1 1/2"
P-6	10X25Z12	23'-5 1/2"
P-7	10X25Z12	24'-5 1/2"
P-8	10X25Z14	18'-9 1/2"
E-1	8E514L1	5'-7 1/2"
E-2	8E514L1	19'-3 1/2"
E-3	8E514L1	24'-11 1/2"
E-4	8E514L1	24'-11 1/2"
E-5	8E514L1	24'-11 1/2"
E-6	8E514L1	24'-11 1/2"
E-7	8E514L1	24'-11 1/2"
E-8	8E514L1	24'-11 1/2"
E-9	8E514L1	19'-3 1/2"
E-10	10E512L1	24'-9 1/2"
E-11	10E512L1	24'-7 1/2"
E-12	10E514L1	18'-11 1/2"
CB-1	1/4_CBL	36'-5"
CB-2	1/4_CBL	35'-8"
CB-3	1/4_CBL	30'-4"
CB-4	1/4_CBL	30'-11"
CB-5	5/16_CBL	37'-1"
CB-6	1/4_CBL	39'-7"
CB-7	1/4_CBL	34'-1"
CB-8	1/4_CBL	29'-10"
CB-9	5/16_CBL	31'-9"



1/2 FRAME BANDING DETAIL
(SAME ON OTHER SIDE)

INSTALLATION PROCEDURE

1. CUT THE BANDING IN REQUIRED LENGTHS TO STRETCH FROM EAVE TO RIDGE (2 PIECES FOR EACH SECTION).
2. FASTEN THE BANDING TO THE TOP AND BOTTOM FLANGES OF THE RIDGE PURLIN.
3. KEEP TOP AND BOTTOM BANDING AS CLOSE TOGETHER AS POSSIBLE
4. ATTACH THE BINDING AT THE EAVE PURLIN ON TOP AND BOTTOM FLANGES.
5. BANDING IS TO BE INSTALLED AS TIGHT AS POSSIBLE.
6. FASTEN THE BANDING ON EACH OF THE PURLINS IN THE RUN ON THE TOP AND BOTTOM FLANGES
7. CROSS BANDING AT EAVE AND RIDGE AS SHOWN IN DETAIL ABOVE.

Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

DESIGN CRITERIA		
BUILDING CODE:	FBC	17
LIVE LOAD TO FRAMES:	12	PSF
LIVE LOAD TO PURLINS:	20	PSF
COLLATERAL LOAD:	5	PSF
SNOW LOAD: (GROUND)	0	PSF
WIND LOAD: (ULTIMATE)	118	MPH
WIND EXPOSURE:	B	
BUILDING RISK CATEGORY	II	
ENCLOSURE CLASSIFICATION	ENCLOSED	

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-14-19

ELITE STRUCTURES
PH 229-896-7569
FAX 229-896-7560
P.O. BOX 207
ADEL, GA 31620

SCALE: N.T.S. | DATE: 01-09-19
DRAWN BY: M. TWOMEY | SALES: A. DUKES
BUILDING SIZE: 117x175x14

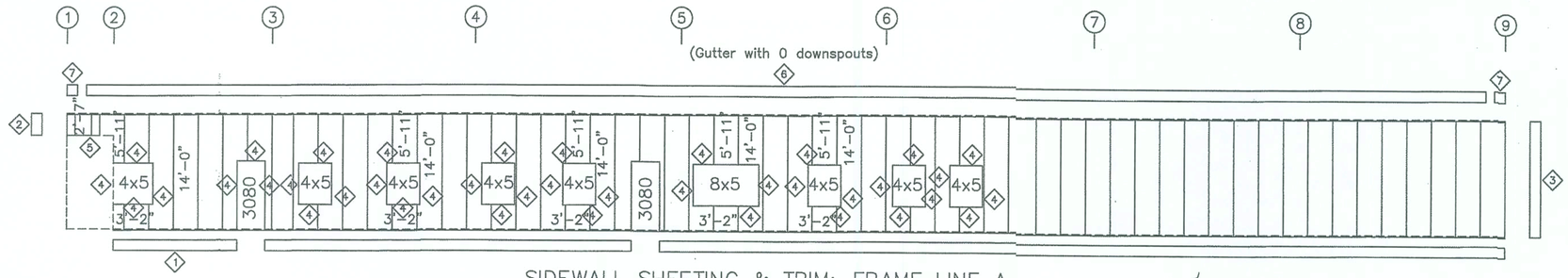
REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION: GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN: ROOF FRAMING

JOB # 11030-RF

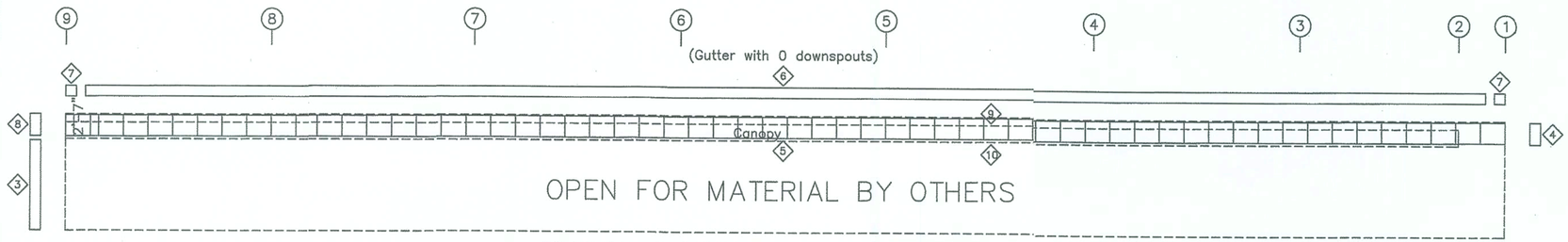
SHEET 5 OF 11



SIDEWALL SHEETING & TRIM: FRAME LINE A

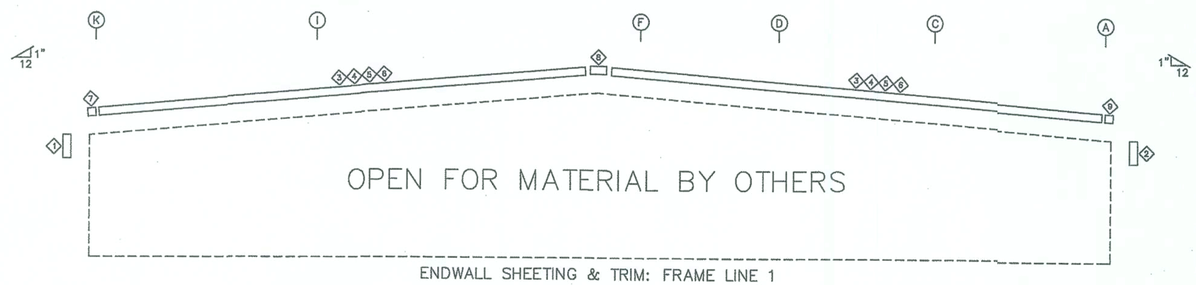
PANELS: 26 Ga. PBR – NEED COLOR

TRIM TABLE FRAME LINE A & G		
◇ID	PART	DETAIL
1	E-108	TRIM_43
2	FL-26	TRIM_49
3	FL-830	TRIM_47
4	FL-26	TRIM_49
5	FL-870	TRIM_44
6	E-303	TRIM_31
7	E-332	TRIM_34
8	FL-830	TRIM_47
9	FL-874	TRIM_15
10	E-134	TRIM_26

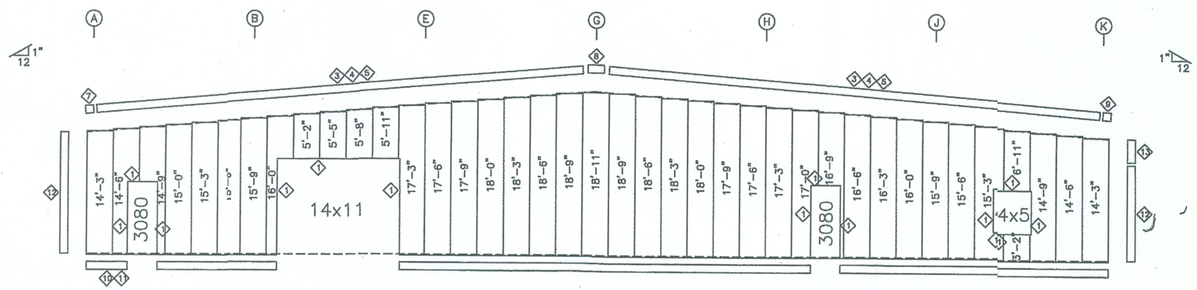


SIDEWALL SHEETING & TRIM: FRAME LINE K

PANELS: 26 Ga. PBR – NEED COLOR



ENDWALL SHEETING & TRIM: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 9

PANELS: 26 Ga. PBR – NEED COLOR

TRIM TABLE FRAME LINE 1 & 9		
◇ID	PART	DETAIL
1	FL-26	TRIM_49
2	FL-26	TRIM_49
3	E-323	TRIM_19
4	FL-290	TRIM_21
5	FL-115	TRIM_62
6	E-141	TRIM_27
7	E-327	TRIM_8
8	E-301	TRIM_24
9	E-309	TRIM_8
10	E-108	TRIM_43
11	E-108	TRIM_43
12	FL-830	TRIM_47
13	FL-830	TRIM_47

Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

DESIGN CRITERIA		
BUILDING CODE:	FBC	17
LIVE LOAD TO FRAMES:	12	PSF
LIVE LOAD TO PURLINS:	20	PSF
COLLATERAL LOAD:	5	PSF
SNOW LOAD: (GROUND)	0	PSF
WIND LOAD: (ULTIMATE)	118	MPH
WIND EXPOSURE:	B	
BUILDING RISK CATEGORY	II	
ENCLOSURE CLASSIFICATION	ENCLOSED	

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER

2-14-19

ELITE STRUCTURES
PH 229-896-7569
FAX 229-896-7560
P.O. BOX 207
ADEL , GA 31620

SCALE: N.T.S.	DATE: 01-09-19
DRAWN BY: M. TWOMEY	SALES: A. DUKES
BUILDING SIZE:	117x175x14

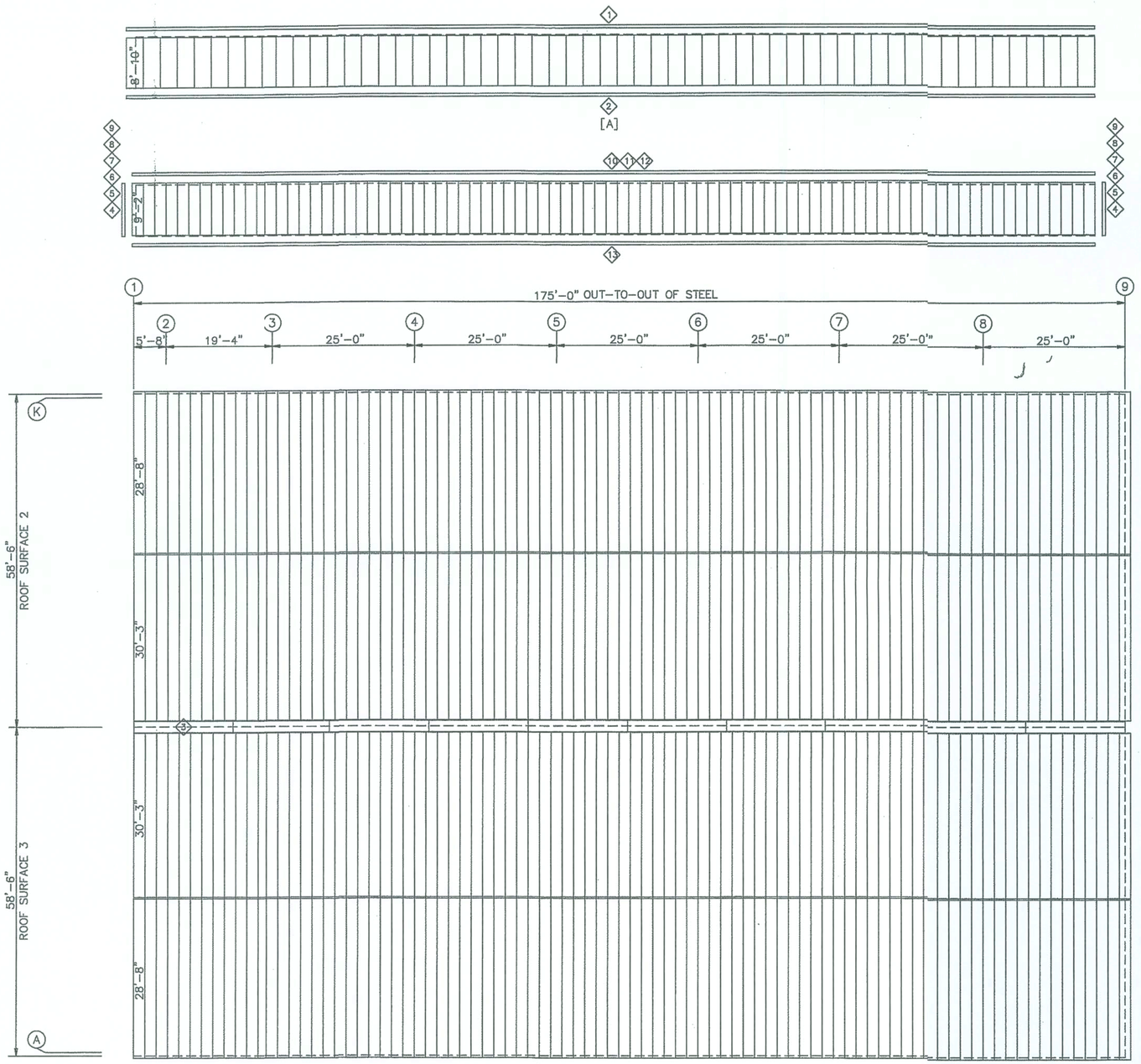
REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION: GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN: WALL SHEETING

JOB # 11030-WS

SHEET 6 OF 11



PANELS: 24 Ga. 24UD – Galvalume

[A] SOFFIT PANELS: 26 Ga. PBU – NEED COLOR

TRIM TABLE
ROOF PLAN

◇ID	PART	DETAIL
1	E-142	TRIM_55
2	E-134	TRIM_26
3	FL-214	TRIM_41
4	E-323	TRIM_19
5	E-323	TRIM_19
6	FL-290	TRIM_21
7	FL-115	TRIM_62
8	E-141	TRIM_27
9	E-141	TRIM_27
10	FL-272	TRIM_1
11	HW-426	
12	HW-512	
13	FL-874	TRIM_15

Gregory S. Barfield, P.E.
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DESIGN CRITERIA

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2-14-19

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DRAWN BY: M. TWOMEY | SALES: A. DUKES
BUILDING SIZE: 117x175x14

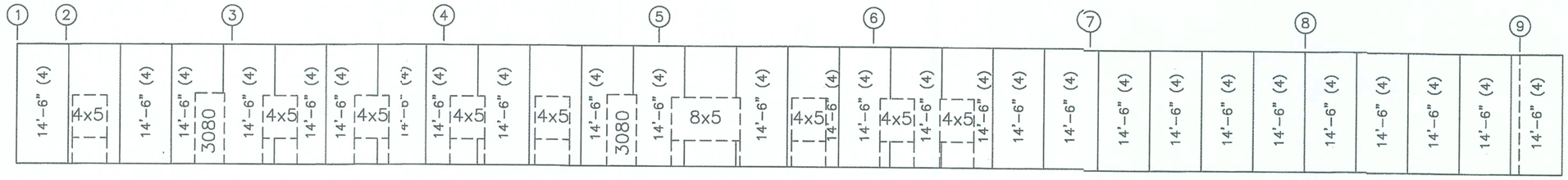
REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION
GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN: ROOF SHEETING

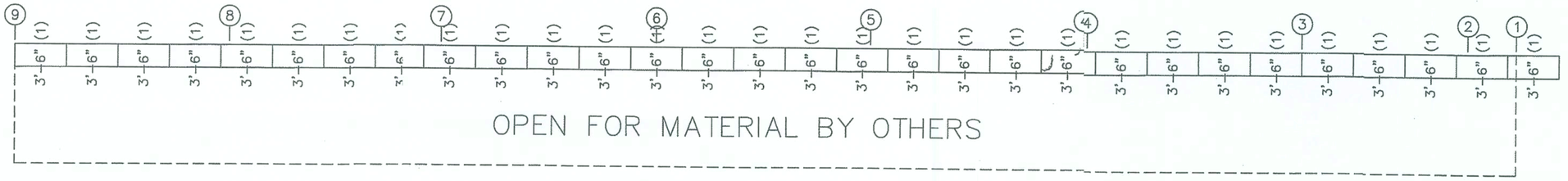
JOB # 11030-RS

SHEET 7 OF 11



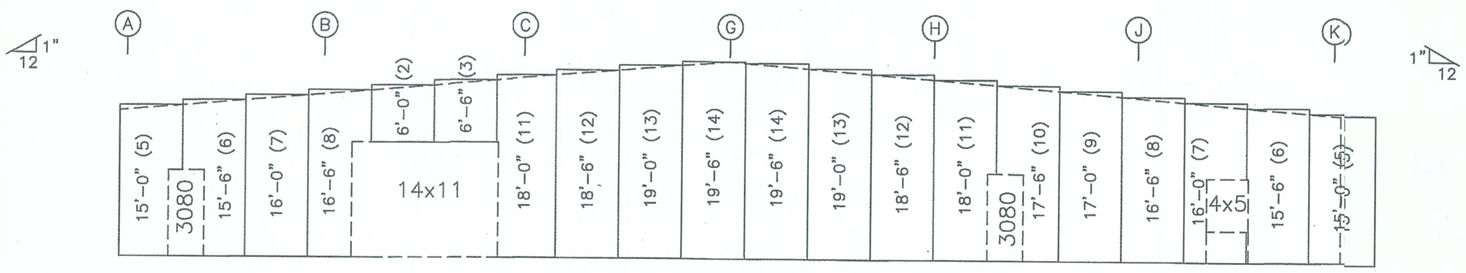
SIDEWALL INSULATION: FRAME LINE A

INSULATION: R-19



SIDEWALL INSULATION: FRAME LINE G

INSULATION: R-19



ENDWALL INSULATION: FRAME LINE 9

INSULATION: R-19

INSULATION TABLE
FRAME LINE A 9 G

ROLL	QUAN	MARK	WIDTH	LENGTH
1	30	WI-1	6'-0"	3'-6"
2	1	WI-2	6'-0"	6'-0"
3	1	WI-3	6'-0"	6'-6"
4	30	WI-4	6'-0"	14'-6"
5	2	WI-5	6'-0"	15'-0"
6	2	WI-6	6'-0"	15'-6"
7	2	WI-7	6'-0"	16'-0"
8	2	WI-8	6'-0"	16'-6"
9	1	WI-9	6'-0"	17'-0"
10	1	WI-10	6'-0"	17'-6"
11	2	WI-11	6'-0"	18'-0"
12	2	WI-12	6'-0"	18'-6"
13	2	WI-13	6'-0"	19'-0"
14	2	WI-14	6'-0"	19'-6"

LEGEND:
3'-6" (1)
Length (Roll #)

Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

DESIGN CRITERIA

BUILDING CODE:	FBC 17
LIVE LOAD TO FRAMES:	12 PSF
LIVE LOAD TO PURLINS:	20 PSF
COLLATERAL LOAD:	5 PSF
SNOW LOAD: (GROUND)	0 PSF
WIND LOAD: (ULTIMATE)	118 MPH
WIND EXPOSURE:	B
BUILDING RISK CATEGORY	II
ENCLOSURE CLASSIFICATION	ENCLOSED

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-14-19

ELITE STRUCTURES
PH 229-896-7569
FAX 229-896-7560
P.O. BOX 207
ADEL , GA 31620

SCALE: N.T.S. | DATE: 01-09-19
DRAWN BY: M. TWOMEY | SALES: A. DUKES
BUILDING SIZE: 117x175x14

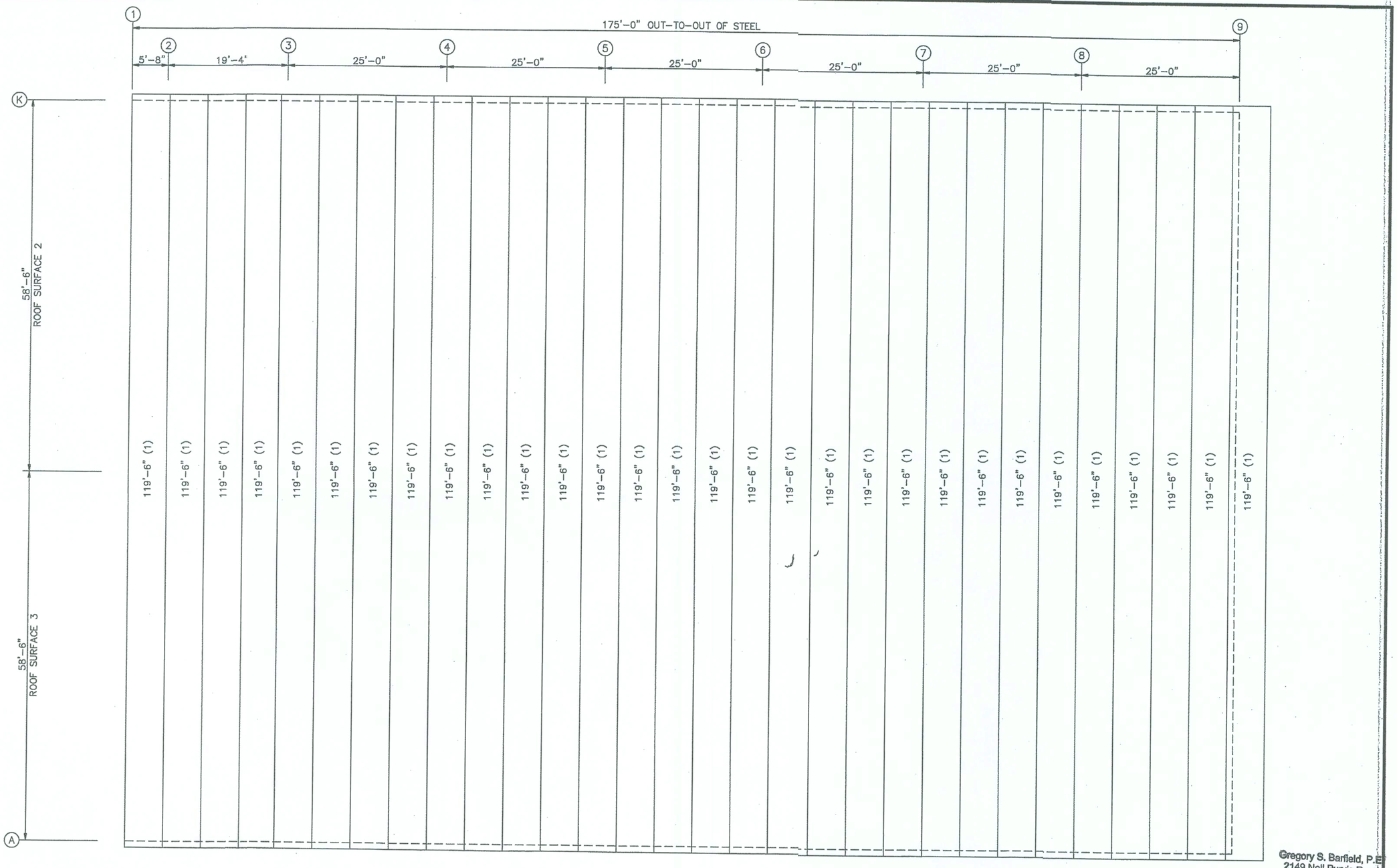
REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION: GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN: WALL INSULATION

JOB # 11030-WI

SHEET 8 OF 11



INSULATION: R-30

INSULATION TABLE ROOF PLAN				
ROLL	QUAN	MARK	WIDTH	LENGTH
1	30	RI-1	6'-0"	119'-6"

DESIGN CRITERIA		
BUILDING CODE:	FBC	17
LIVE LOAD TO FRAMES:	12	PSF
LIVE LOAD TO PURLINS:	20	PSF
COLLATERAL LOAD:	5	PSF
SNOW LOAD: (GROUND)	0	PSF
WIND LOAD: (ULTIMATE)	118	MPH
WIND EXPOSURE:	B	
BUILDING RISK CATEGORY	II	
ENCLOSURE CLASSIFICATION	ENCLOSED	

Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. #54419

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PH 229-896-7569
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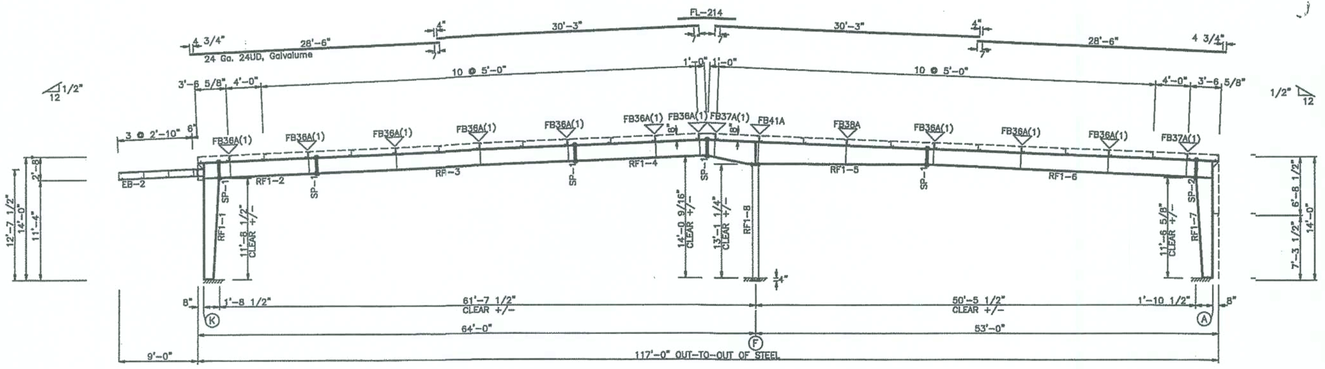
SCALE: N.T.S. | DATE: 01-09-19
DRAWN BY: M. TWOMEY | SALES: A. DUKES
BUILDING SIZE: 117x175x14

REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION: GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN: ROOF INSULATION

JOB # 11030-RI

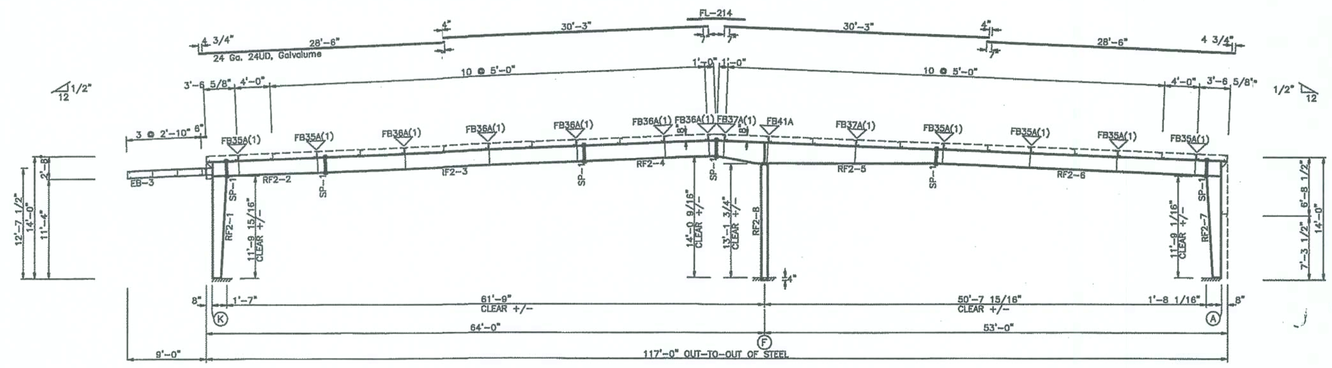


BUILDING CROSS SECTION: FRAME LINE 4 5 6 7 8

MEMBER TABLE						
Mark	Weight	Web Depth Start/End	Web Plate Thick	Web Plate Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF1-1	360	11.0/12.2	0.188	18.5	6 x 1/4" x 159.5	6 x 1/4" x 136.8
		12.2/20.0	0.188	118.0	6 x 3/8" x 27.3	
		20.0/19.0	0.250	23.7		
RF1-2	330	20.0/20.0	0.188	118.0	6 x 1/4" x 133.8	6 x 5/16" x 133.8
		20.0/20.0	0.188	15.8		
RF1-3	882	20.0/20.0	0.188	118.0	6 x 3/8" x 120.0	6 x 1/4" x 240.0
		20.0/20.0	0.188	118.0	6 x 1/2" x 238.0	6 x 1/4" x 118.0
		20.0/20.0	0.188	110.0		
		20.0/20.0	0.188	12.0		
RF1-4	403	20.0/20.0	0.188	118.0	6 x 1/4" x 180.0	6 x 1/4" x 179.2
		20.0/20.0	0.188	62.0		
RF1-5	746	20.0/29.0	0.188	54.7	6 x 1/4" x 60.7	6 x 5/16" x 54.6
		29.0/28.6	0.188	12.0	6 x 1/4" x 240.0	6 x 5/16" x 126.0
		28.6/24.3	0.188	116.0		6 x 1/4" x 120.1
		24.3/20.0	0.188	118.0		
RF1-6	803	20.0/20.1	0.188	16.2	6 x 1/4" x 130.2	6 x 1/4" x 130.2
		20.1/20.7	0.188	118.0	6 x 1/4" x 240.0	6 x 1/4" x 240.0
		20.7/21.4	0.188	118.0		
		21.4/22.0	0.188	118.0		
RF1-7	335	22.0/15.2	0.188	118.0	6 x 1/4" x 29.2	6 x 1/4" x 135.0
		15.2/12.0	0.188	42.3	6 x 1/4" x 159.5	
RF1-8	165	P4X11				

SPLICE BOLT TABLE							CAP PLATE BOLTS				
Mark	Qty Top	Bot	Int	Type	Dia	Length	Mark	Qty	Type	Dia	Length
SP-1	4	4	0	A325	0.750	3.00	RF1-8	4	A325	0.750	3.00
SP-2	4	4	2	A325	0.750	3.00					

▽FLANGE BRACES: Both Sides(U.N.)
FBxxA(1): xx=length(in)
A - L2X2X14G



BUILDING CROSS SECTION: FRAME LINE 3

MEMBER TABLE						
Mark	Weight	Web Depth Start/End	Web Plate Thick	Web Plate Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF2-1	356	10.0/11.2	0.188	20.0	6 x 1/4" x 159.5	6 x 1/4" x 138.2
		11.2/18.5	0.188	118.0	6 x 3/8" x 25.8	
		18.5/17.6	0.250	22.2		
RF2-2	331	18.5/19.8	0.188	118.0	6 x 1/4" x 135.0	6 x 5/16" x 135.0
		19.8/20.0	0.188	17.0		
RF2-3	887	20.0/20.2	0.188	118.0	6 x 3/8" x 120.0	6 x 1/4" x 240.0
		20.2/20.3	0.188	118.0	6 x 1/2" x 238.0	6 x 1/4" x 118.0
		20.3/20.5	0.188	110.0		
		20.5/20.5	0.188	12.0		
RF2-4	406	20.5/20.2	0.188	118.0	6 x 1/4" x 180.0	6 x 1/4" x 179.2
		20.2/20.0	0.188	62.0		
RF2-5	730	20.0/28.5	0.188	54.7	6 x 1/4" x 60.7	6 x 5/16" x 54.5
		28.5/28.0	0.188	12.0	6 x 1/4" x 240.0	6 x 5/16" x 126.1
		28.0/23.3	0.188	116.0		6 x 1/4" x 120.1
		23.3/18.5	0.188	118.0		
RF2-6	779	18.5/18.6	0.188	18.6	6 x 1/4" x 132.6	6 x 1/4" x 132.6
		18.6/18.9	0.188	118.0	6 x 1/4" x 240.0	6 x 1/4" x 240.0
		18.9/19.2	0.188	118.0		
		19.2/19.5	0.188	118.0		
RF2-7	467	19.5/12.9	0.188	118.0	10 x 1/4" x 26.8	10 x 5/16" x 137.3
		12.9/10.0	0.188	42.2	10 x 1/4" x 159.5	
RF2-8	255	W8X18				

SPLICE BOLT TABLE							CAP PLATE BOLTS				
Mark	Qty Top	Bot	Int	Type	Dia	Length	Mark	Qty	Type	Dia	Length
SP-1	4	4	0	A325	0.750	3.00	RF2-8	4	A325	0.750	3.00

▽FLANGE BRACES: Both Sides(U.N.)
FBxxA(1): xx=length(in)
A - L2X2X14G

Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

GENERAL NOTES:

BOLT TIGHTENING - ALL BOLTED JOINTS WITH A325-09 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30,2004, PRETENSIONING METHODS, INCLUDING TURN-OF-NUT,CALIBRATED WRENCH,TWIST OFF TYPE TENSION CONTROL BOLTS OR DIRECT TENSION INDICATOR ARE NOT REQUIRED, INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT (SPECIFICATION FOR STRUCTURAL JOINTS 9.1) IS SUGGESTED.

REFERENCE: STEEL CONSTRUCTION MANUAL
AMERICAN INSTITUTE OF STEEL CONSTRUCTION INC.
THIRTEENTH EDITION (ASD)

DESIGN CRITERIA		
BUILDING CODE:	FBC	17
LIVE LOAD TO FRAMES:	12	PSF
LIVE LOAD TO PURLINS:	20	PSF
COLLATERAL LOAD:	5	PSF
SNOW LOAD: (GROUND)	0	PSF
WIND LOAD: (ULTIMATE)	118	MPH
WIND EXPOSURE:	B	
BUILDING RISK CATEGORY	II	
ENCLOSURE CLASSIFICATION	ENCLOSED	

GREGORY S. BARFIELD LICENSE No 54419 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-14-19

ELITE STRUCTURES
PH 229-856-7569
FAX 229-893-7560
P.O. BOX 207
ADEL , GA 31620

SCALE: N.T.S.	DATE: 01-09-19		
DRAWN BY: M. TWOMEY	SALES: A. DUKES		
BUILDING SIZE: 117x175x14			

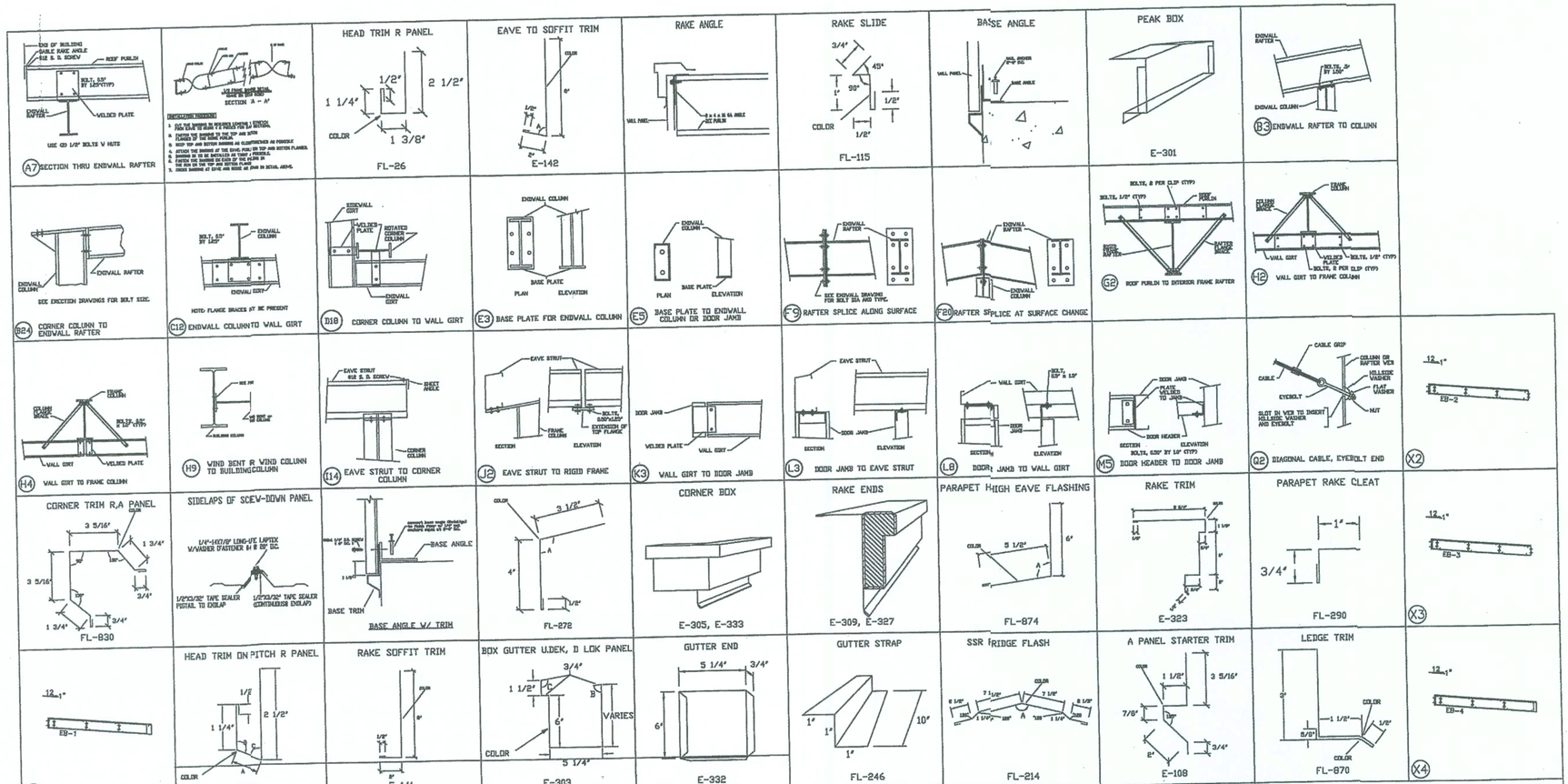
REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION
GRAY CONSTRUCTION
RE: ANDERSON COLUMBIA
LAKE CITY, FL.

PLAN:
CROSS SECTION

JOB # 11030-XS

SHEET 10 OF 11



Gregory S. Barfield, P.E.
2149 Nell Purvis Road
Adel, GA 31620
P.E. # 54419

DESIGN CRITERIA

BUILDING CODE:	FBC	17
LIVE LOAD TO FRAMES:	12	PSF
LIVE LOAD TO PURLINS:	20	PSF
COLLATERAL LOAD:	5	PSF
SNOW LOAD: (GROUND)	0	PSF
WIND LOAD: (ULTIMATE)	118	MPH
WIND EXPOSURE:	B	
BUILDING RISK CATEGORY	II	
ENCLOSURE CLASSIFICATION	ENCLOSED	

STATE OF FLORIDA PROFESSIONAL ENGINEER
GREGORY S. BARFIELD LICENSE No 54419
2-14-19

ELITE STRUCTURES
PH 229-896-7569
FAX 229-896-7560
P.O. BOX 217
ADEL, GA 31620

SCALE: N.T.S. | DATE: 01-09-19
DRAWN BY: M. TWOMEY | SALES: A. DUKES
BUILDING SIZE: 117x175x14

REVISION	
DATE:	DESCRIPTION
01-25-19	REVISED
02-14-19	REVISED

TITLE/LOCATION
GRAY CONSTRUCTION
RE: ANDERSION COLUMBIA
LAKE CITY, FL.

PLAN: DETAIL PAGE

JOB # 11030-DP

SHEET 11 OF 11