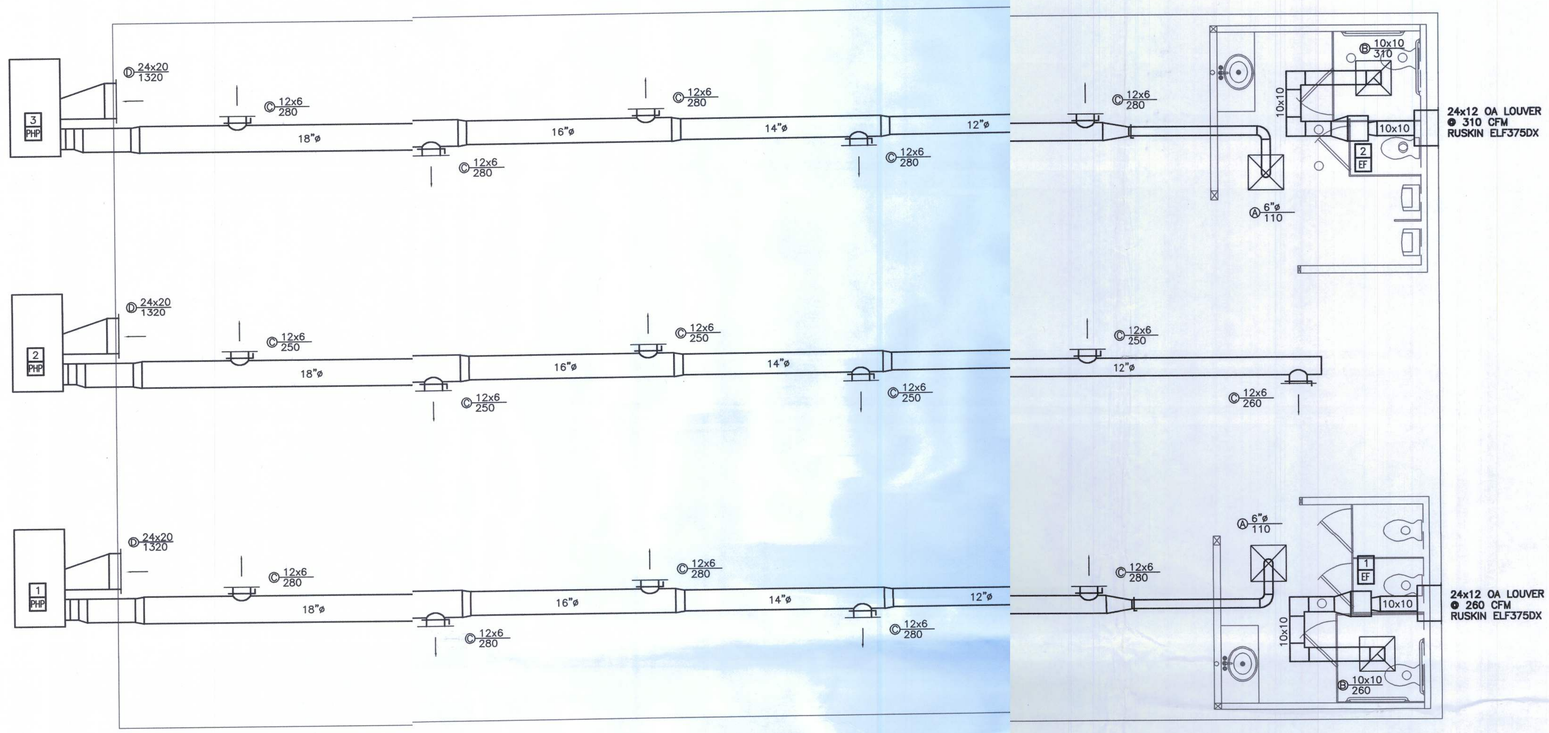


MECHANICAL PLAN

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

DESIGN CONDITIONS

EXTERIOR DESIGN CONDITIONS
SUMMER DRY/WET BULB 96°F/77°F
WINTER DRY BULB 29°F

INTERIOR DESIGN CONDITIONS
SUMMER 75°F +/-3° /R.H.
WINTER 72°F

UNITARY PACKAGED HEAT PUMPS

MARK	TYPE	SEER/ HSPF	S.A.	O.A.	SUPPLY FAN DATA E.S.P	T.S.P	HP.	VOLTAGE	COOLING COIL DATA UNIT E.A.T. DB/WB	UNIT L.A.T. DB/WB	TOTAL MBH	SENS MBH	COMP. kW	HEATING CAP. kW	FLA	PWR SUPPLY MCA	MOCP	MFGR.	MODEL
PHP-1	DRAW THRU	14.0/8.3	1510	190	0.5	–	3/4	230/1	80/67	–	46.0	35.4	–	10.0	46	53	60	GOODMAN	GPH1448H41A
PHP-2	DRAW THRU	14.0/8.3	1510	190	0.5	–	3/4	230/1	80/67	–	46.0	35.4	–	10.0	46	53	60	GOODMAN	GPH1448H41A
PHP-3	DRAW THRU	14.0/8.3	1510	190	0.5	–	3/4	230/1	80/67	–	46.0	35.4	–	10.0	46	53	60	GOODMAN	GPH1448H41A

ALL PACKAGED HEAT PUMPS SHALL ME MOUNTED ON STEEL SERVICE PLATFORM MAINTAIN SERVICE CLEARANCE AND PROVIDE ACCESS FOR PROPER UNIT MAINTENANCE.

DIFFUSER SCHEDULE

TYPE	SERVICE	CFM RANGE MIN	MAX	SIZE	NECK	MANUFACTURER/MODEL
A	SUPPLY	0	150	24x24	6"ø	TITUS
B	EXHAUST	251	450	24x24	10x10	TITUS
C	SIDEWALL SUPPLY	151	300	12x6	12x6	TITUS
D	SIDEWALL RETURN	551	910	24x14	24x14	TITUS

NOTES

1 SEE DETAIL(S) FOR ADDITIONAL INFORMATION
2 DIFFUSER RUNOUT SIZE SHALL BE DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED ON PLANS
3 PROVIDE SURFACE MOUNT HARDWARE IN ALL INACCESSABLE CEILING SYSTEMS
4 PROVIDE LAY-IN MOUNT HARDWARE IN ALL SUSPENDED CEILING SYSTEMS
5 COORDINATE FINISH WITH INTERIORS
6 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF DIFFUSERS
7 PROVIDE SELECTION BASED ON A MAXIMUM RADIATED NOISE NC-30

FAN SCHEDULE

MARK	TYPE	CFM	STATIC PRESS.	RPM	ELECTRICAL	M. H. P.	REMARKS
EF-1	IN-LINE	260	.33	995	115/1/60	.062	LOREN COOK GN-520
EF-2	IN-LINE	320	.33	1135	115/1/60	.062	LOREN COOK GN-520

PROVIDE THE FOLLOWING OPTIONS:
STANDARD DS
BDD
INTERLOCK WITH SWITCH

MECHANICAL NOTES:

1. DUCT SIZES ARE FREE AREA. NO DUCTWORK SHALL RUN PARALLEL OVER WALLS.
2. VERIFY ALL NECK SIZES ON ALL AIR TERMINALS AND EQUIPMENT. TRANSITION DUCTWORK AS NECESSARY.
3. SEE REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING OUTLETS.
4. CONTRACTOR SHALL VERIFY CLEARANCE SPACE AVAILABLE, OFFSETS REQUIRED, STRUCTURAL OPENINGS AND WORK BY OTHER TRADES PRIOR TO FABRICATION OF DUCTWORK. SUBMIT SHOP DRAWINGS ON DUCTWORK LAYOUT. COORDINATE WITH ROOF STRUCTURE.
5. FLEX DUCT TO DIFFUSERS SHALL BE NO GREATER THAN 5'-0" IN LENGTH. (SEE DETAIL)
6. ALL MAIN DUCTS SHALL BE FABRICATED WITH GALVANIZED SHEETMETAL IN ACCORDANCE WITH SMACNA STANDARDS FOR LOW PRESSURE DUCT.
7. INSULATE SUPPLY AND RETURN DUCTS WITH 2" THICK FIBERGLASS DUCT INSULATION. INSULATION IN UNCONDITIONED SPACES SHALL HAVE A MINIMUM OF AN R-6 VALUE. APPLY AT JOINTS AND SEAMS GENERAL PURPOSE FINISH FABRIC USING FOSTER GPM-35-00 OR EQUIVALENT.
8. DUCT CONSTRUCTION SHALL BE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, 3rd EDITION-GALVANIZED SHEET METAL
9. DUCT SIZES AND ALL OPENINGS THRU BUILDING CONSTRUCTION SHALL SUIT EQUIPMENT FURNISHED
10. COORDINATE DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND EQUIPMENT OF ALL TRADES.
11. LOCATE THERMOSTAT 54" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
12. ALL EQUIPMENT, DUCTWORK, ETC., SHALL BE SUPPORTED AS DETAILED AND/OR SPECIFIED. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION.
13. ALL DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
14. ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN DUCTS AND PIPING (INCLUDING DIVIDED DUCTS) AND TRASITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST.
15. DAMPERS AND INSIDES OF DUCTS VISIBLE THROUGH GRILLES, REGISTERS AND DIFFUSERS SHALL BE PAINTED FLAT BLACK
16. ACCESS PANELS IN DUCTWORK AND CEILING SHALL BE PROVIDED WHERE REQUIRED FOR OPERATION, BALANCING AND MAINTENANCE OF ALL MECHANICAL EQUIPMENT.
17. ALL DUCTWORK AND PIPING IS SHOWN SCHEMATICALLY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS, FITTINGS, ETC., TO ALLOW SMOOTH FLOWS. ALL SPLIT DUCT FITTINGS SHALL TRANSITION TO FULL SIZE OF THE SUM OF BOTH BRANCHES, UPSTREAM OF SPLIT.
18. COORDINATE THERMOSTAT LOCATIONS WITH FURNITURE/EQUIPMENT LAYOUTS, WINDOWS AND DOOR SWING AREAS.
19. COORDINATE WITH OWNER BEFORE PURCHASING GRILLES, REGISTERS, DIFFUSERS, LOUVERS AND OTHER AIR DISTRIBUTION DEVICES TO VERIFY FINISH ALL SUPPLY GRILLES TO BE LOUVER FACE-THROW AS INDICATED
20. PROVIDE TRANSITIONS AT DIFFUSER NECKS AS REQUIRED TO MATCH SIZES OF FLEX DUCTS TO BE CONNECTED.
21. VERIFY EXISTING CONDITIONS IN FIELD AND COORDINATE WITH ALL TRADES INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL, STRUCTURAL, LIGHTING, POWER, SYSTEM, PLUMBING, FIRE PROTECTION AND OTHER EXISTING AND NEW WORK.
22. MAINTAIN CLEARANCE OF A MINIMUM OF 6" BETWEEN DUCTWORK, PIPING, EQUIPMENT, ETC., AND ALL FIRE RATED AND FIRE/SMOKE RATED PARTITIONS, TO ALLOW FOR INSPECTIONS OF RATED WALLS
23. LOCATE ALL EXHAUST FANS AND PLUMBING VENTS A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES.
24. FURNISH A COMPLETE TEST AND BALANCE REPORT FOR ALL EQUIPMENT, AIR DISTRIBUTION AND SMOKE DETECTOR DIFFERENTIAL PRESSURE AND SUBMIT FOR APPROVAL. TEST AND BALANCE AGENCY SHALL BE NEBB CERTIFIED.

MECHANICAL LEGEND

- SUPPLY AIR DUCT
- RETURN AIR DUCT
- EXHAUST AIR DUCT
- SUPPLY DIFFUSER
- EXHAUST GRILLE
- MANUAL BALANCING DAMPER
- SUPPLY/OUTSIDE AIR DUCT UP
- SUPPLY/OUTSIDE AIR DUCT DOWN
- RETURN DUCT UP
- RETURN DUCT DOWN
- EXHAUST DUCT UP
- (T) THERMOSTAT

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

AEC ASSOCIATED ENGINEERING CONSULTANTS, Inc.
523 Stockton Street
Jacksonville, Florida 32204
Phone (904) 354-7302
David D. Bones, PE
Registration #35646
Engineering Business
#EB-7540

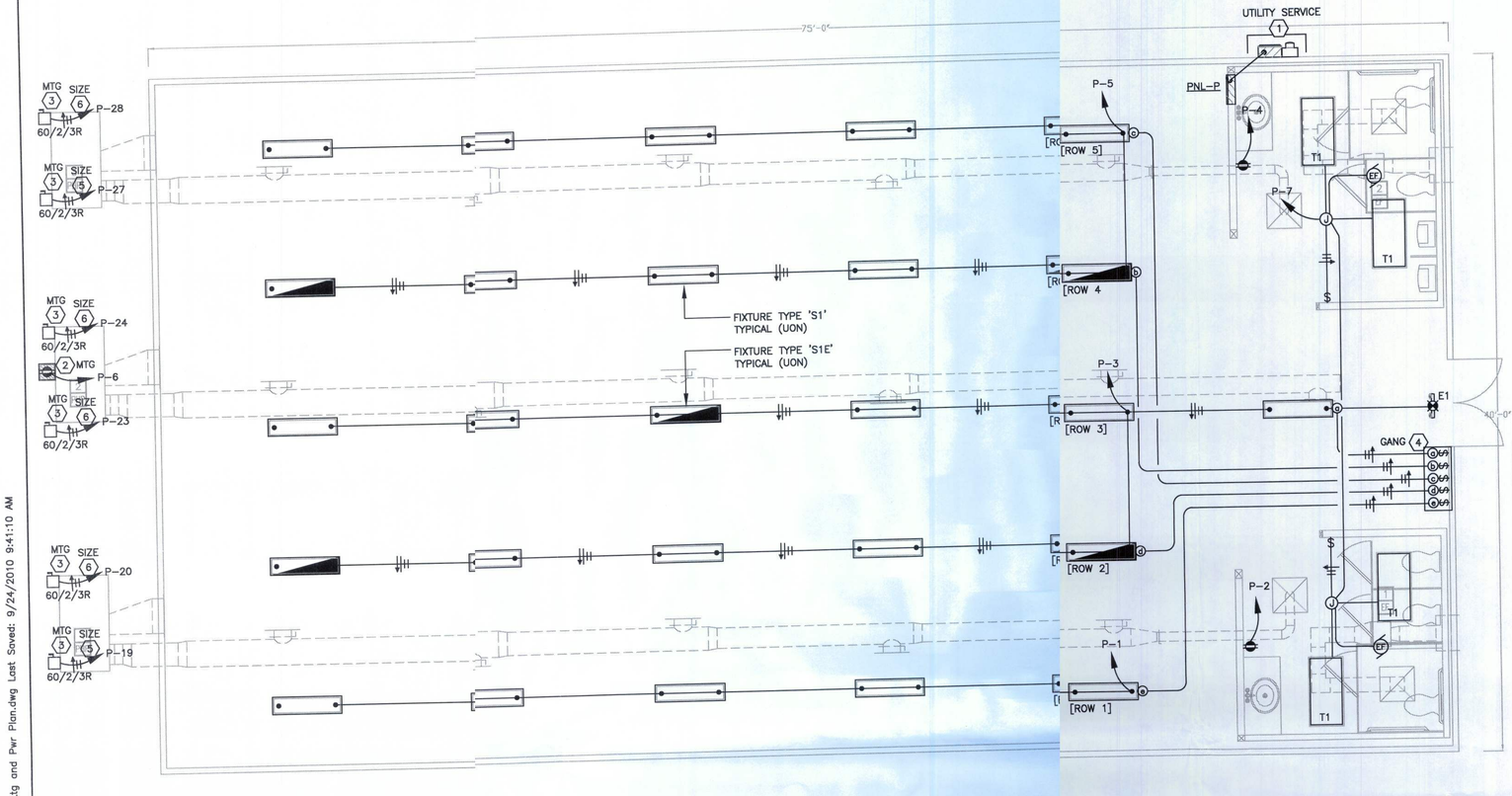
9/28/10

DRAWN BY: REM	DATE: 9/27/10	4/6/06	ISSUE A
APP'D BY: DDB	SCALE: N.T.S.		
ARCHITECT:			
MECHANICAL ENGINEER:		DATE	DESCRIPTION
			REVISIONS

W.W. GAY MECHANICAL CONTRACTOR, INC.
524 STOCKTON ST.
JACKSONVILLE, FLORIDA 32204
(904) 388-2896
MECHANICAL CONTRACTOR, Inc.

JOB NAME: GRACE AND PRAISE MIN. FELLOWSHIP HALL
15880 US HWY SOUTH 441 LAKE CITY, FL 32024
DRWG. TITLE: MECHANICAL PLAN

JOB NUMBER 010401
CONTRACT SHEET NO.
W.W. GAY SHEET NO. 1 OF 1
CAD FILE NAME GPM2010-1
DRAFTING JOB NUMBER
DRAWING NUMBER: M-1



ELEC LIGHTING & POWER PLAN

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

0 1' 2' 4' 8' 12'

KEYED PLAN NOTES:

1. FOR UTILITY SERVICE, SEE 'ELEC POWER RISER' THIS DWG.
2. MOUNT REC– DUPLEX GFI W/IN–USE ENCLOSURE TO MECH SERVICE PLATFORM.
3. MOUNT DISCONNECT SO AS NOT TO OBSTRUCT ANY MAINTENANCE ACCESS PANELS, ETC TO MECH EQUIPMENT.
4. GANG TOGETHER WITH ONE SINGLE FACEPLATE.
5. 45A BKR – 2 #8, #10G, IN 1/2"C.
6. 60A BKR – 2 #4, #10G, IN 1"C.

BUILDING SERVICE LOAD CALCULATION

Project: **Grace and Praise Ministries**

Elec Contractor To be determined Ph (904) X
Project Manager To be determined Ph (904) X
Builder or Owner Wayne Cook Ph (904) 219-5532
Property Address 15880 South US Highway 441, Lake City, FL 32024

Project Type (EXISTING) Concrete Slab Permit #
Use of Building –

ELECTRICAL UTILITY SERVICES

☐ Commercial ☐ LG Residential ☑ Overhead ☐ Underground
☐ Undergnd Up Pole ☐ Unmetered Main AS REQUIRED No. of Meters

Square Footage of Building 3000
Lighting Load 2 VA x Square Feet = 6000 VA
Receptacle Load 1 VA x Square Feet = 3000 VA

Non–General Illumination Loads:
Not Applicable – x – = X VA
– – x – = X VA

Other Loads (3) HVAC UNITS 50,400 VA
EXTERIOR BUILDING LIGHTS N/A VA
WATER HEATER N/A VA
– X VA
Total 59,400 VA

Notes:

240/120 Voltage 1 Phase Total 300 A
SEE 'ELEC POWER RISER' THIS DWG. Wire Size

ELECTRICAL LEGEND

BRANCH CIRCUIT HOMERUNS:
[(2) CIRCUIT 'EXAMPLE']
> GND HASHMARK DENOTES GROUND WIRE
> LONG HASHMARK DENOTES NEUTRAL WIRE
> SHORT HASHMARKS DENOTES PHASE WIRES
(20A CKTS SHALL BE MIN #12, 1/2"C UIN)
(30A CKTS SHALL BE MIN #10, 1/2"C UIN)

[NO HASHMARKS DENOTES 3 WIRES]
(GROUND, NEUTRAL, PHASE)

CKT– CONDUIT/WIRE
GROUNDING ELECTRODE
CKT– CONDUIT TURNED UP/DWN SEE DWGS
LTG– EMERGENCY EXIT SIGN W/EGRESS HEADS
LTG– SWITCH SINGLE POLE TOGGLE
LTG– SWITCH (LETTER DESIGNATES ROW OF LIGHTS CONTROLLED)
LTG– FLUOR TROFFER ACRYLIC/OTHER
LTG– FLUOR STRIP W/10% UP LIGHT FINS
LTG– FLUOR W/EMERG BALLAST
ELEC PANELBOARD (PNL)
30/3/3R DISC– SWITCH (NEMA FRAME SIZE/ # POLES/NEMA ENCLOSURE)
EF MOTOR SYMBOL– EXHAUST FAN BY MECH
J JBX– JUNCTION BOX (JBX)
REC– DUPLEX
REC– DUPLEX GFI
REC– DUPLEX GFI W/IN–USE WP ENCLOSURE

ABBREVIATIONS

A	AMPS	MB	MAIN BREAKER
AF	AMP FRAME	MCA	MINIMUM CIRCUIT AMPACITY
AT	AMP TRIP (BREAKER)	MT/MTD	MOUNT/ MOUNTED
C	CONDUIT	N/A	NOT APPLICABLE
CLG	CEILING	NEC	NATIONAL ELECTRIC CODE
CKT	CIRCUIT	PHP	UNITARY HEAT PUMP
DISC	DISCONNECT	PNL	PANELBOARD
EF	EXHAUST FAN	PWR	POWER
ELEC	ELECTRICAL	REC	RECEPTACLE
FLUOR	FLUORESCENT	SE	SERVICE ENTRANCE
G	GROUND	SPECS	SPECIFICATIONS
GEC	GROUNDING ELECTRODE	UON	UNLESS OTHERWISE NOTED
GFI	GRD FAULT INTERRUPTER	V	VOLTAGE
GND	GROUND	WP	WEATHER PROTECTED
HACR	HEATING/AIR COND/RATED	XFMR	TRANSFORMER
LT/LTG	LIGHT/ LIGHTING		

LUMINAIRE SCHEDULE (1)(2)

MARK	DESCRIPTION	MANUFACTURER	VOLTAGE	LAMPS QTY	LAMPS TYPE	INPUT WATTS	MTG/INSTALLATION (UNLESS OTHERWISE NOTED)	NOTES
E1	EXIT SIGN– W/EGRESS	BEGHELLI– VC–R–W	120	N/A	INCLUDED	3	SURFACE	(1)
T1	TROFFER– 2x4 ACRYLIC	DAYBRITE–2TG8–3–32–12–120–1/3		3	32 T8	100	SUSPENDED CLG	
S1	STRIP W/FINS	1FD–232–PP–120–1/2		2		65	CABLE HUNG	(2)
S1E	– AND EMERG	1FD–232–PP–120–1/2–E5						(2)(3)

KEYED LTG SCHEDULE NOTES:

1. CONNECT EXIT SIGNS AHEAD OF ALL SWITCHES.
2. ORDER FIXTURE WITH ALL REQUIRED PARTS, CABLES (APPROX 8FT), BRACKETS, ETC FOR MOUNTING SUSPENDED FROM STRUCTURE.
3. WHERE 'SYMBOL HALF SHADED' IS INDICATED, PROVIDE FIXTURE WITH BUILT–IN EMERGENCY BATTERY UNIT FOR EMERGENCY EGRESS LIGHTING (1100 LUMEN MIN FOR 4FT LAMPS). CONNECT FIXTURE WIRING AS FOLLOWS: 'HALF SHADED'– FIXTURES OPERATE WITH LOCAL SWITCH, BATTERY UNIT OPERATES LAMPS ON FAILURE OF BRANCH CIRCUIT.

KEYED PNL SCHEDULE NOTES:

1. CIRCUITS TO LIGHTING ARE UNDERUTILIZED TO FACILITATE FUTURE EXPANSION.
2. BREAKER SIZE IS FOR 'REFERENCE ONLY', PROVIDE BREAKER SIZE & TYPE TO MATCH NAMEPLATE OF 'FINAL EQUIPMENT SELECTIONS'. USE ONLY HACR TYPE CIRCUIT BREAKER.

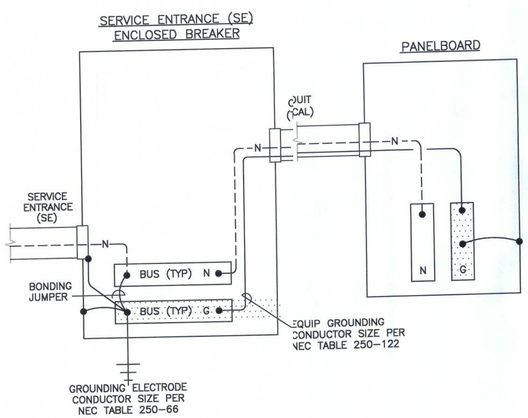
PNL–P

LOCATION: INTERIOR NE WALL
FED FROM: UTILITY METER

240/120 VOLTS/1ø 3 WIRE ☐ TOP FED
400 AF LUGS AT ☐ MAIN BKR ☑ MAIN LUGS
☑ FLUSH MTD ☐ SURFACE MTD ☐ BOTTOM FED ☐ FEED THRU LUGS
10,000 AIC @ 240 VOLTAGE

KVA	LOAD DESCRIPTION		BKR	CKT	L1	L2	CKT	BKR	LOAD DESCRIPTION	KVA
0.3	LTG– ROW 1	(1)	20	1			2	20	REC– BATHRM	1.0
0.7	ROWS 2 & 3	(1)	20	3			4	20	REC– BATHRM	1.0
0.7	ROWS 3 & 4	(1)	20	5			6	20	REC– EXTERIOR	0.2
0.6	BATHRMS/ EXHAUST FANS	(1)	20	7			8		(SPACE)	
	(SPACE)			9			10			
				11			12			
				13			14			
				15			16			
				17			18			
5.8	DISC– UNIT PHP–1	(2)	45	19			20	60	DISC– 10KW HEATER	11.0
				21			22			
5.8	DISC– UNIT PHP–2	(2)	45	23			24	60	DISC– 10KW HEATER	11.0
				25			26			
5.8	DISC– UNIT PHP–3	(2)	45	27			28	60	DISC– 10KW HEATER	11.0
				29			30			

TOTAL KVA: 54.9

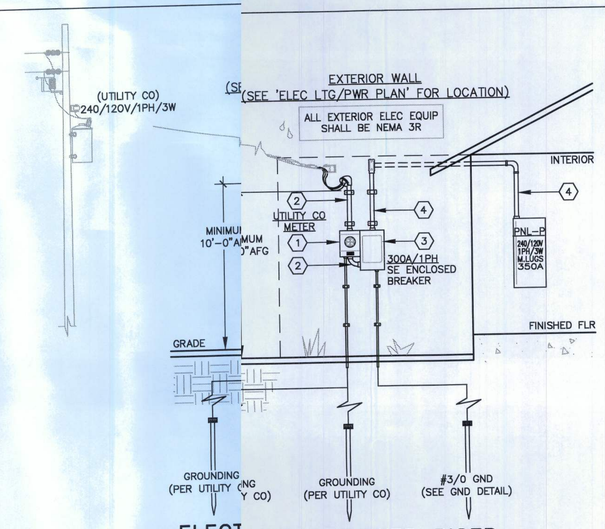


GROUNDING DETAIL

NOT TO SCALE

NOTES:

1. ALL NEUTRAL BUSSES TO BE ISOLATED.
2. PROVIDE SEPARATE GROUND BUS



ELECTRICAL POWER RISER

NOT TO SCALE

POWER RISER NOTES:

1. METER CAN FURNISHED BY UTILITY CO, INSTALLED BY ELEC CONTRACTOR. PER UTILITY CO REQUIREMENTS PROVIDE/INSTALL WEATHER HEAD/ CONDUIT/ SUPPORTS/ METER ADDRESS LABEL/ GROUNDING RODS.
2. PROVIDE 1 SET: 3 #350, NO GROUND WIRE, IN 2.5"C.
3. PROVIDE NEMA 3R ENCLOSED 300A/1PH BREAKER.
4. PROVIDE 1 SET: 3 #350, 1 #4G, IN 2.5" 2.5"C.

ERS ENGINEERING INC
5775 Timuquana Road
Jacksonville, Florida 32210
Ph. (904) 777-3080 • Fx. (904) 777-3726
Engineering Business No. 7884
www.ersengineering.com

ERIC S. SCHATZ, P.E.
FL LICENSE: 58364
9/24/10

© Copyright ERS Engineering, Inc 2010. All rights reserved. No part of this work may be used, reproduced, distributed, displayed or otherwise communicated in any form or by any means without prior written consent of ERS Engineering, Inc.

GRACE AND PRAISE MINISTRIES FELLOWSHIP HALL

15880 US HWY SOUTH 441, LAKE CITY, FL 32024-0271

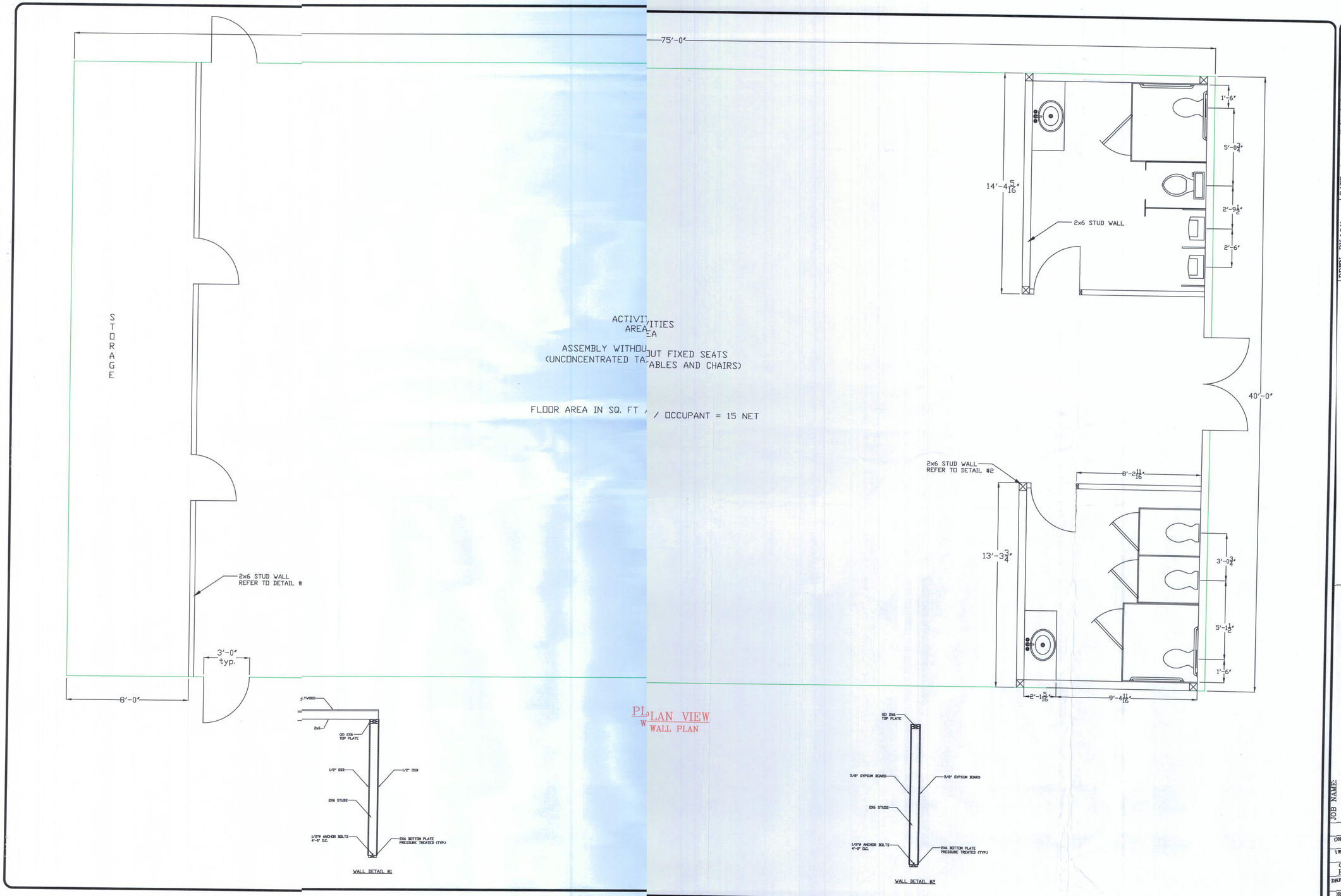
REV	DATE	ISSUE DESCRIPTION
	09-22-10	PERMIT ISSUE

JOB NO 10-027
DRAWN BY LW
CHECKED BY ERS
SCALE AS NOTED

DRAWING DECRIPTION
ELEC LTG/PWR PLAN, LEGEND, SCHEDULES, & RISER

E-1
DRAWING NUMBER

Filename: Z:\ERS ENG 2010\2010 Projects\GRACE AND PRAISE\10-027 FELLOWSHIP HALL\Issue Folder\09-24-10 Permit Issue- Reissue\E1 - Ltg and Pwr Plan.dwg Last Saved: 9/24/2010 9:41:10 AM



DRWN. BY: J.C.M.	DATE: 1/26/06	5/26/06	ISSUE A
APP'D BY: W.F.C.	SCALE: N.T.S.	10/12/10	ISSUE B
ARCHITECT:		3/31/11	ISSUE C
MECHANICAL ENGINEER:		DATE	DESCRIPTION
			REVISIONS

W.W. GAY MECHANICAL CONTRACTOR, INC.
524 STOCKTON ST.
JACKSONVILLE, FLORIDA 32204
(904) 388-2696

MECHANICAL CONTRACTOR, Inc.

JOB NAME: GRACE AND PRAISE MIN.

DRWG. TITLE: WALL PLAN

JOB NUMBER 010401

CONTRACT SHEET NO.

W. GAY SHEET NO. 1 OF 1

CAD FILE NAME P2006-10

DRAFTING JOB NUMBER

DRAWING NUMBER:

Builder/Contractor Responsibilities

Drawing Validity – These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the building authority of all changes to the order documents which result in changes to the drawings, supporting structural calculations and design certification.

Builder Acceptance of Drawings – Approval of the manufacturer's drawings and design data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice Sept 86 Section 4.2.1)(Mar 05 Section 4.4.1)

Code Official Approval – It is the responsibility of the Builder/Contractor to ensure that all project plans and specifications comply with the applicable requirements of any governing building authority. The Builder/Contractor is responsible for securing all required approvals and permits from the appropriate agency as required.

Builder is responsible for State, Federal and OSHA safety compliance – The Builder/Contractor is responsible for applying and observing all pertinent safety rules and regulations and OSHA standards as applicable.

Building Erection – The Builder/Contractor is responsible for all erection of the steel and associated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determined, furnished and installed by the erector (AISC Code of Standard Practice Sept 86 Section 7.9.1) (Mar 05 Section 7.10.3)

Discrepancies – Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice Sept 86 Section 3.3) (Mar 05 Section 3.3)

Materials by Others – All interface and compatibility of any materials not furnished by the manufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. Unless specific design criteria concerning any interface between materials if furnished as a part of the order documents, the manufacturers assumptions will govern.

Correction of Errors – Normal erection operations include the correction 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 the foregoing means or which require major changes in the member configuration should be reported immediately to the owner and fabricator by the erector, to enable whoever is responsible either to correct the error or to approve the most efficient and economical method of correction to be used by others. (AISC Code of Standard Practice Sept 86 Section 7.12)(Mar 05 Section 7.14)

Modification of the Metal Building from Plans – The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this drawing. Modification of the building configuration, such as removing wall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

Safety Commitment
The Metal Building Manufacturer has a commitment to manufacture quality building components that can be safely erected. However, the safety commitment and job site practices of the erector are beyond the control of the building manufacturer. It is strongly recommended that safe working conditions and accident prevention is the top priority of any job site. Local, State and Federal safety and health standards, whether standard statutory or customary, should always be followed to help ensure worker safety. Make certain all employees know the safest and most productive way to erect a building. Emergency procedures should be known to all employees. Daily meetings highlighting safety procedures are also recommended. The use of hard hats, rubber sole shoes for roof work, proper equipment for handling material, and safety nets where applicable, are recommended. For purposes of determining lift requirements, no bundles supplied by the manufacturer will exceed 4000 lbs. For further information also reference the bill of materials for individual member weights of other structural members. If additional information is required contact the customer service department.

Foundation Design
The Metal Building Manufacturer is not responsible for the design, materials and workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA 06 Sections 3.2.2 and A3)

Shop Primed Steel
All structural members of the Metal Building System not fabricated of corrosion resistant material or protected by a corrosion resistant coating are painted with one coat of shop primer meeting the performance requirements of SSPC Paint Specification No. 15. All surfaces to receive shop primer are cleaned of loose rust, loose mill scale and other foreign matter by using, as a minimum, the hand tool cleaning method SSPC-SP2 (Steel Structures Painting Council) prior to painting. The coat of shop primer is intended to protect the steel framing for only a short period of exposure to ordinary atmospheric conditions. Shop Primed steel which is stored in the field pending erection should be kept free of the ground and so positioned as to minimize water-holding pockets, dust, mud and other contamination of the primer film. Repairs of damage to primed surfaces and/or removal of foreign material due to improper field storage or site conditions are not the responsibility of the manufacturer. The Manufacturer is not responsible for deterioration of the shop coat of primer or corrosion that may result from exposure to atmospheric and environmental conditions, nor the compatibility of the primer to any field applied coating. Minor abrasions to the shop coat (including galvanizing) caused by handling, loading, shipping unloading and erection after painting or galvanizing are unavoidable. Touch-up of these minor abrasions is the responsibility of the End Customer (MBMA 06 V 4.2.4)

Dissimilar Materials
Never allow your roof to come in contact with, or water runoff from, any dissimilar metal including but not limited to: Copper and Arsenic Salts used in treated lumber, Calcium used in concrete, mortar and grout.

Debris Removal
Any foreign debris such as sawdust, dirt, animal droppings, etc. will cause corrosion of the roof, gutters, trim, etc. if left on building surfaces for a long enough time. The roof should be periodically inspected for such conditions and if found, they should be removed.

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSEE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

ENGINEERING DESIGN CRITERIA

Building Code ..... 2007 Florida with 2009 Amendments
Occupancy Category ..... Normal (Category II)
Roof Dead Load
Superimposed ..... 2.79 psf
Collateral ..... 2.00 psf
(0.00 psf Ceiling 2.00 psf Other)
Roof Live Load ..... 20.00 psf reduction allowed

Wind
Basic Wind Speed ..... 110.00 mph
Wind Importance Factor (I) ... 1.00
Wind Exposure Category C
Internal Pressure Coef (GCpi) 0.55/-0.55
Loads for components not provided by building manufacturer
Corner Areas (within 4.80' of corner) 34.43 psf pressure -42.98 psf suction
Other Areas 34.43 psf pressure -36.56 psf suction
These values are the maximum values required based on a 10 sq ft area.
Components with larger areas may have lower wind loads.

PROJECT NOTES

Material properties of steel bar, plate, and sheet used in the fabricat of built-up structural framing members conform to ASTM A529, ASTM A572, ASTM A1101 SS, or ASTM A1011 HSLAS with a minimum yield point of 50 ksi. Material properties of hot rolled structural shapes conform to ASTM A99 ASTM A529, or ASTM A572 with a minimum specified yield point of 50 ksi. Hot rolled angles, other than flange braces, conform to ASTM 36 minimum. Hollow structural shapes conform to ASTM A500 grade B, minimum yield point is 42 ksi for round HSS and 46 ksi for rectangular HSS. Material properties of cold-formed light gage steel members conform to the requirements of ASTM A1011 SS Grade 55, or ASTM A1011 HSLAS Class 1 grade 55, with a minimum yield point of 55 ksi.

All bolted joints with A325M-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 and calibrated wrench are NOT required.

This project is designed using manufacture's standard serviceability standards. Generally this means that all stresses and deflections are within typical performance limits for normal occupancy and standard metal building products. If special requirements for deflections and vibrations must be adhered to, then they must be clearly stated in the contract documents.

The manufacturer does not assume any responsibility for the erection nor field supervision of the structure and or any special inspections (including inspection of high strength bolts or field welds) as required during erection. The coordination and costs associated for setting up any Special Inspections are the responsibility of the Erector, Owner, Architect, or Engineer of Record.

The framing as shown at EWB (Line 1) is not designed for future expansion. Corresponding frame reactions are calculated based upon actual tributary area.

The framing as shown at EWD (Line 4) is not designed for future expansion. Corresponding frame reactions are calculated based upon actual tributary area.

Using standard gutter with 4 x 5 downspouts, the roof drainage system has been designed using the method outlined in the MBMA Metal Building Systems Manual. Downspout locations have not been located on these drawings. The downspouts are to be placed on the building sidewalls at a spacing not to exceed 23.34 feet with the first downspout from both ends of the gutter run within 1.0 feet of the end. Downspout spacing that does not exceed the maximum spacing will be in compliance with the building code. The gutter and downspout system as provided by the manufacturer is designed to accommodate 10 in/hr rainfall intensity as it corresponds to a 5 year recurrence interval.

Product approval numbers for the State of Florida, Department of Community Affairs per Product Rule 9B-72
1. Panel Walls
FL11917.4 MBCI PBR 22, 24, 26 and 29 gauge walls
Not yet assigned DuraRib 24 gauge walls
Approved product evaluation report is available upon request until Florida Building Department assigns an approval number.
3. Roofing Products
FL11868.2 MBCI PBR 22, 24, and 26 gauge roofs
FL11819.1 MBCI BattenLok HS 22 and 24 gauge roofs, 12" and 16" wide
FL11819.2 MBCI DoubleLok 22 and 24 gauge roofs, 12", 18" and 24" wide
FL11819.4 MBCI SuperLok 22 and 24 gauge roofs, 12" and 16" wide
FL11819.5 MBCI UltraDek 24 gauge roofs
FL11868.3 MBCI PBU 22, 24, 26 gauge roofs

Drawing Index

Page	Description
F1	Anchor Rod
	Anchor Rod Details & Reactions
E1	Cover Sheet
E2	Primary Steel
E3	Roof Framing
E4	Roof Sheeting
E5	Sidewall At Grid Line A & B
E6	Endwall At Grid Line 1 & 4
E7-E10	Main Frame Cross Sections
E11	Iso Trim

Revison	Date	Description	By	Ck'd
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	MARK

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSEE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1286 LECHLADE ST.
JACKSONVILLE FL 32205

Project Name & Location:
RING POWER CORPORATION
390 SW RING COURT
LAKE CITY FL 32025

Drawing Status: ☐ Preliminary ☐ For Approval ☒ For Construction Permit ☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	EDB 4/8/11
Checked by:	MARK 4/12/11
Project Engineer:	JRF
Job Number:	22-T-53538-1
Sheet Number:	E1 of 11

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Aaron K. Batchellor, P.E.
Florida P.E. 67187

COLUMBIA COUNTY BUILDING DEPT. FILE COPY Code Compliance PLANS EXAMINER

AARON K. BATCHELOR LICENSE No. 67187 STATE OF FLORIDA PROFESSIONAL ENGINEER
Apr 13, 2011

A & S Building Systems | FRAME DESCRIPTION: ce 46./20./14.167 20./110./ | USER NAME: jfrench JOB NAME: 53538A | DATE: 4/ 7/11 FILE: 6_1_4.fra | PAGE: 1-3

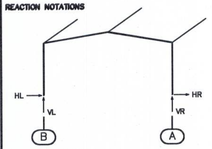
SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft.

FRAME ID #01 LOCATION: frame lines 1,4

TIME: 09: 28: 03

GRID LINES 1 & 4

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	LEFT COLUMN			RIGHT COLUMN		
BASE PLATE	8.0X11.0X0.375			8.0X11.0X0.375		
ANC. RODS	(4)-3/4			(4)-3/4		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.5	1.9	0.0	-0.5	1.9	0.0
CULL	0.2	0.7	0.0	-0.2	0.7	0.0
PLLL1	0.0	0.6	0.0	0.0	0.0	0.0
PLL1	1.4	4.1	0.0	-1.4	4.1	0.0
PLLR1	0.0	0.0	0.0	0.0	0.6	0.0
LL	1.3	4.6	0.0	-1.3	4.6	0.0
EQ	0.0	0.0	0.0	0.0	0.0	0.0
WL1	-5.2	-14.4	0.0	-0.7	-9.4	0.0
WL2	-5.4	-5.6	0.0	-0.5	-0.5	0.0
LWL1	-0.4	-11.7	0.0	0.6	-10.6	0.0
LWL2	-0.6	-10.6	0.0	0.4	-11.7	0.0
LWL3	0.4	-8.2	0.0	-0.3	-7.7	0.0
LWL4	0.3	-7.7	0.0	-0.4	-8.2	0.0
WL3	0.7	-9.4	0.0	5.2	-14.4	0.0
WL4	0.5	-0.5	0.0	5.4	-5.6	0.0

LOAD GROUP DESCRIPTION

DL	:	Roof Dead Load
COLL	:	Roof Collateral Load
PLLL1	:	Pattern Live Load Left Leanto/Canopy [PLLLxx]
PLL1	:	Pattern Live Load [PLLxx]
PLLR1	:	Pattern Live Load Right Leanto/Canopy [PLLRxx]
LL	:	Roof Live Load
EQ	:	Lateral Seismic Load [parallel to plane of frame]
WL1	:	Lateral Primary Wind Load
WL2	:	Lateral Primary Wind Load
LWL1	:	Longitudinal Primary Wind Load
LWL2	:	Longitudinal Primary Wind Load
LWL3	:	Longitudinal Primary Wind Load
LWL4	:	Longitudinal Primary Wind Load
WL3	:	Lateral Primary Wind Load
WL4	:	Lateral Primary Wind Load

A & S Building Systems | FRAME DESCRIPTION: ce 46./20./22.833 20./110./ | USER NAME: jfrench JOB NAME: 53538A | DATE: 4/ 7/11 FILE: 6_2_3.fra | PAGE: 2-3

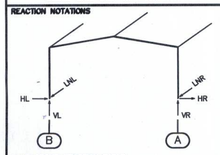
SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTES: (1) All reactions are in kips and kip-ft.
(2) The seismic overstrength factor (Omega) is not included in the "LEQ" Load Group reactions.
Seismic "BASE-ONLY" combination reactions include an overstrength factor of: 2.500

FRAME ID #02 LOCATION: frame lines 2,3

TIME: 09: 01: 06

GRID LINES 2 & 3

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

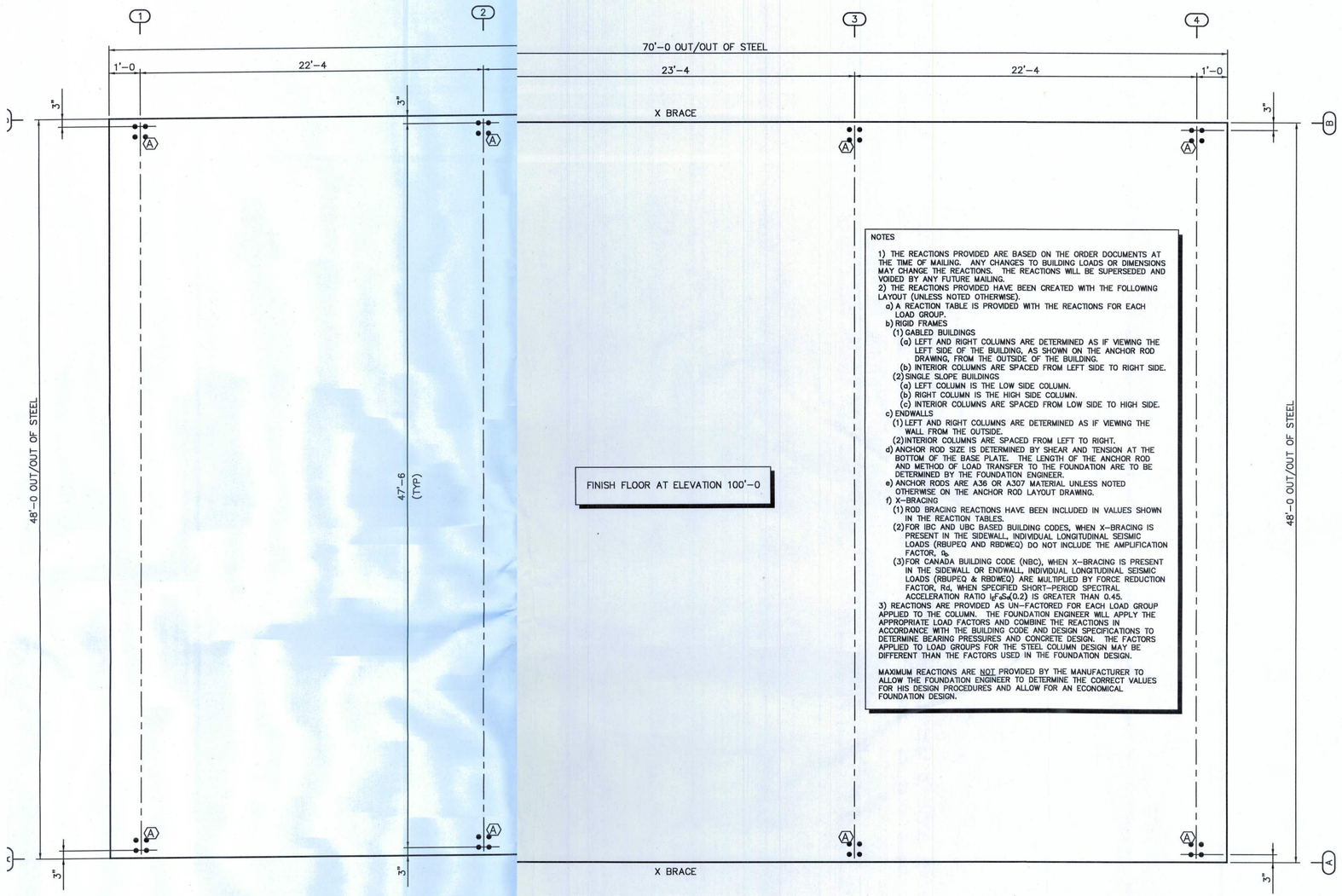
COLUMN	LEFT COLUMN			RIGHT COLUMN		
BASE PLATE	8.0X11.0X0.375			8.0X11.0X0.375		
ANC. RODS	(4)-3/4			(4)-3/4		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.7	2.7	0.0	-0.7	2.7	0.0
COLL	0.4	1.1	0.0	-0.4	1.1	0.0
PLLL1	0.0	0.9	0.0	0.0	0.0	0.0
PLL1	2.3	6.6	0.0	-2.3	6.6	0.0
PLLR1	0.0	0.0	0.0	0.0	0.9	0.0
LL	2.2	7.5	0.0	-2.2	7.5	0.0
RBDWEQ	0.0	0.2	0.0	0.0	0.2	0.0
EQ	0.0	0.0	0.0	0.0	0.0	0.0
RBUPEQ	0.0	-0.2	-0.2	0.0	-0.2	-0.2
WL1	-5.9	-18.2	0.0	-1.6	-12.2	0.0
WL2	-6.9	-4.0	0.0	-0.6	2.0	0.0
WL3	1.6	-12.2	0.0	5.9	-18.2	0.0
WL4	0.6	2.0	0.0	6.9	-4.0	0.0
LWL1	0.0	-18.8	0.0	0.4	-17.1	0.0
RBUPLW	0.0	-4.4	-5.1	0.0	-4.4	-5.1
LWL2	-0.4	-17.1	0.0	0.0	-18.8	0.0
LWL3	1.3	-13.2	0.0	-1.2	-12.5	0.0
LWL4	1.2	-12.5	0.0	-1.3	-13.2	0.0
RBDWLW	0.0	4.4	0.0	0.0	4.4	0.0

LOAD GROUP DESCRIPTION

DL	:	Roof Dead Load
COLL	:	Roof Collateral Load
PLLL1	:	Pattern Live Load Left Leanto/Canopy [PLLLxx]
PLL1	:	Pattern Live Load [PLLxx]
PLLR1	:	Pattern Live Load Right Leanto/Canopy [PLLRxx]
LL	:	Roof Live Load
RBDWEQ	:	Downward Acting Rod Brace Load from Long. Seismic
EQ	:	Lateral Seismic Load [parallel to plane of frame]
RBUPEQ	:	Upward Acting Rod Brace Load from Longit. Seismic
WL1	:	Lateral Primary Wind Load
WL2	:	Lateral Primary Wind Load
WL3	:	Lateral Primary Wind Load
WL4	:	Lateral Primary Wind Load
LWL1	:	Longitudinal Primary Wind Load
RBUPLW	:	Upward Acting Rod Brace Load from Longitud. Wind
LWL2	:	Longitudinal Primary Wind Load
LWL3	:	Longitudinal Primary Wind Load
LWL4	:	Longitudinal Primary Wind Load
RBDWLW	:	Downward Acting Rod Brace Load from Longit. Wind

ANCHOR BOLTS TO BE DESIGNED BY FOUNDATON ENGINEER USING DIAMETERS SHOWN IN THIS TABLE.

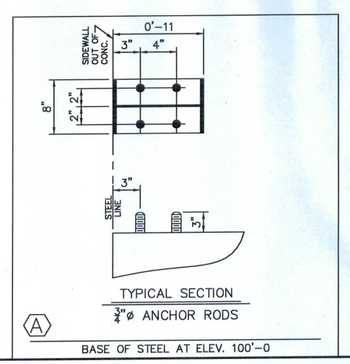
ANCHOR ROD DESCRIPTION	QUANTIT
¾"ø DIAMETER X	32



NOTES

1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTED OTHERWISE).
a) A REACTION TABLE IS PROVIDED WITH THE REACTIONS FOR EACH LOAD GROUP.
b) RIGID FRAMES
(1) GABLED BUILDINGS
(a) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE LEFT SIDE OF THE BUILDING, AS SHOWN ON THE ANCHOR ROD DRAWING, FROM THE OUTSIDE OF THE BUILDING.
(b) INTERIOR COLUMNS ARE SPACED FROM LEFT SIDE TO RIGHT SIDE.
(2) SINGLE SLOPE BUILDINGS
(a) LEFT COLUMN IS THE LOW SIDE COLUMN.
(b) RIGHT COLUMN IS THE HIGH SIDE COLUMN.
(c) INTERIOR COLUMNS ARE SPACED FROM LOW SIDE TO HIGH SIDE.
c) ENDWALLS
(1) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE WALL FROM THE OUTSIDE.
(2) INTERIOR COLUMNS ARE SPACED FROM LEFT TO RIGHT.
d) ANCHOR ROD SIZE IS DETERMINED BY SHEAR AND TENSION AT THE BOTTOM OF THE BASE PLATE. THE LENGTH OF THE ANCHOR ROD AND METHOD OF LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY THE FOUNDATION ENGINEER.
e) ANCHOR RODS ARE A36 OR A307 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
f) X-BRACING
(1) ROD BRACING REACTIONS HAVE BEEN INCLUDED IN VALUES SHOWN IN THE REACTION TABLES.
(2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ AND RBDWEQ) DO NOT INCLUDE THE AMPLIFICATION FACTOR, Ω_0.
(3) FOR CANADA BUILDING CODE (NBC), WHEN X-BRACING IS PRESENT IN THE SIDEWALL OR ENDWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ & RBDWEQ) ARE MULTIPLIED BY FORCE REDUCTION FACTOR, Rd, WHEN SPECIFIED SHORT-PERIOD SPECTRAL ACCELERATION RATIO $I_E F_a S_a(0.2)$ IS GREATER THAN 0.45.
3) REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN.

MAXIMUM REACTIONS ARE NOT PROVIDED BY THE MANUFACTURER TO ALLOW THE FOUNDATION ENGINEER TO DETERMINE THE CORRECT VALUES FOR HIS DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN.



TYPICAL SECTION
¾"ø ANCHOR RODS

BASE OF STEEL AT ELEV. 100'-0

ANCHOR ROD SETTING PLAN

Anchor Rod Drawings

1) This drawing is for anchor rod placement only and is not foundation design.
2) Foundation must be square and level with all anchor rods true in size, location, and projection.
3) Projection shown must be held to keep threads clear of finished concrete.
4) This structural design data includes magnitude and location of design loads and suppose conditions, material properties, and type and size of major structural members necessary to show compliance with the Order Documents at the time of this issue. Any change to building loads or dimensions may change structural member sizes and locations shown. This structural design data will be superseded and voided by any future mailing.
5) Anchor rod size is determined by shear and tension at the bottom of the base plate. The length of the anchor rod and method of load transfer to the foundation are to be determined by the foundation engineer, and are not provided by the manufacturer.
6) Anchor rods are A36 or A307 material unless noted otherwise.

Revison	Date	Description	By	Ck'd MARK
0	04/12/11	FOR ERECTOR INSTALLATION	EDB	

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSEE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer: METAL BUILDING SPECIALIS 1266 LECHLADE ST. JACKSONVILLE FL 32205

Project Name & Location: RING POWER CORPORATION 390 SW RING COURT LAKE CITY FL 32025

Drawing Status: ☐ Preliminary ☐ For Approval ☐ For Construction Permit ☒ For Erector Installation

Scale: NOT TO SCALE
Drawn by: EDB 4/8/11
Checked by: MARK 4/8/11
Project Engineer: JRF
Job Number: 22-T-53538-1
Sheet Number: F1 of 1

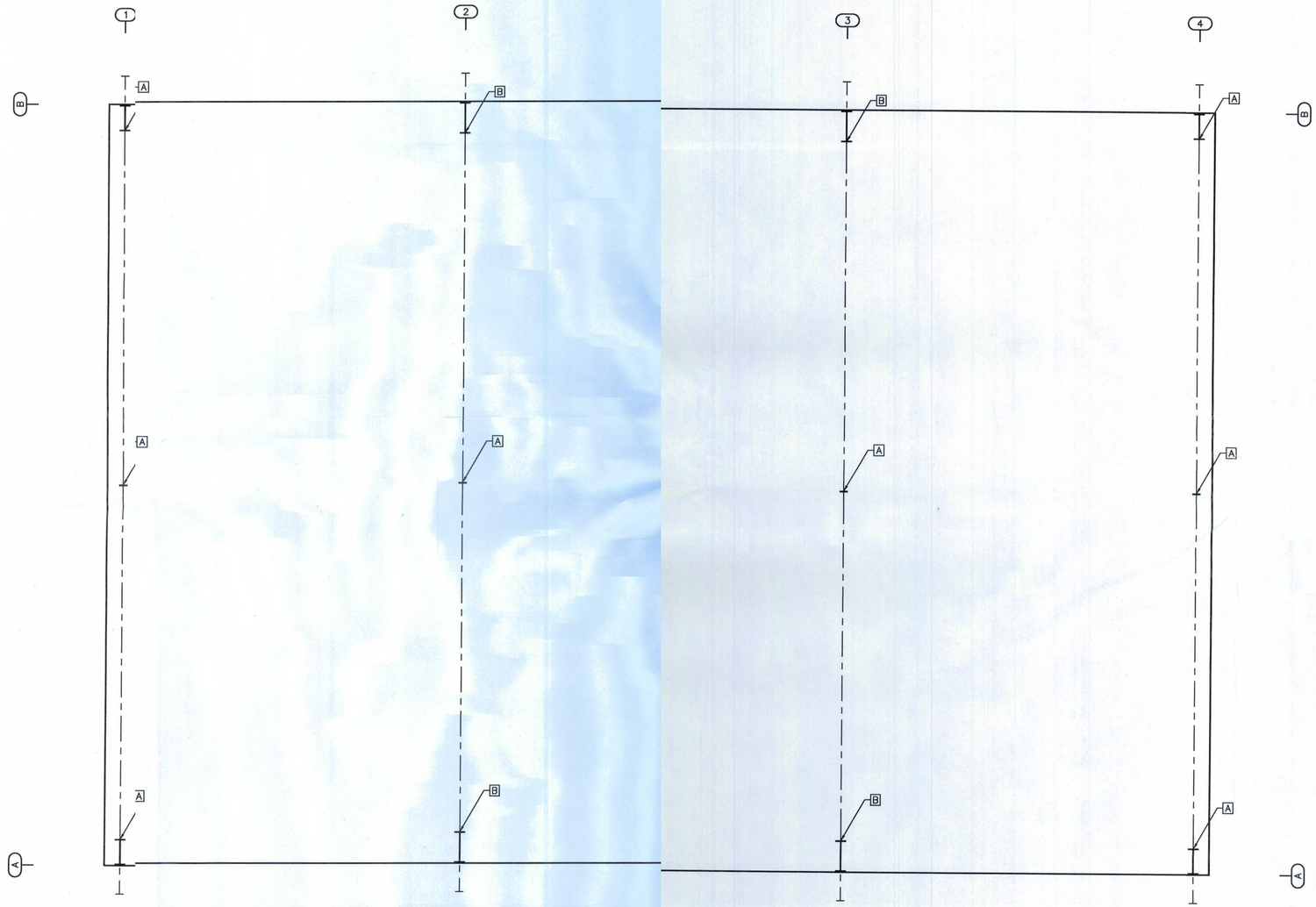
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Aaron K. Batchellor, P.E.
Florida P.E. 67187

AARON K. BATCHELLOR LICENSE No. 67187 STATE OF FLORIDA PROFESSIONAL ENGINEER

Apr 13, 2011

SPLICE BOLT TABLE				
CONN.	QTY.	SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(8)	¾ X 2"	A325 B&N	0	0
B	(10)	¾ X 2"	A325 B&N	0	0



PRIMARY STEEL LOCATION PLAN

Revison	Date	Description	By	Ck'd
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	MARK

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSEE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1264 LECHLADE ST.
JACKSONVILLE FL 32205

Project Name & Location:
RING POWER CORPORATION
390 SW RING COURT
LAKE CITY FL 32025

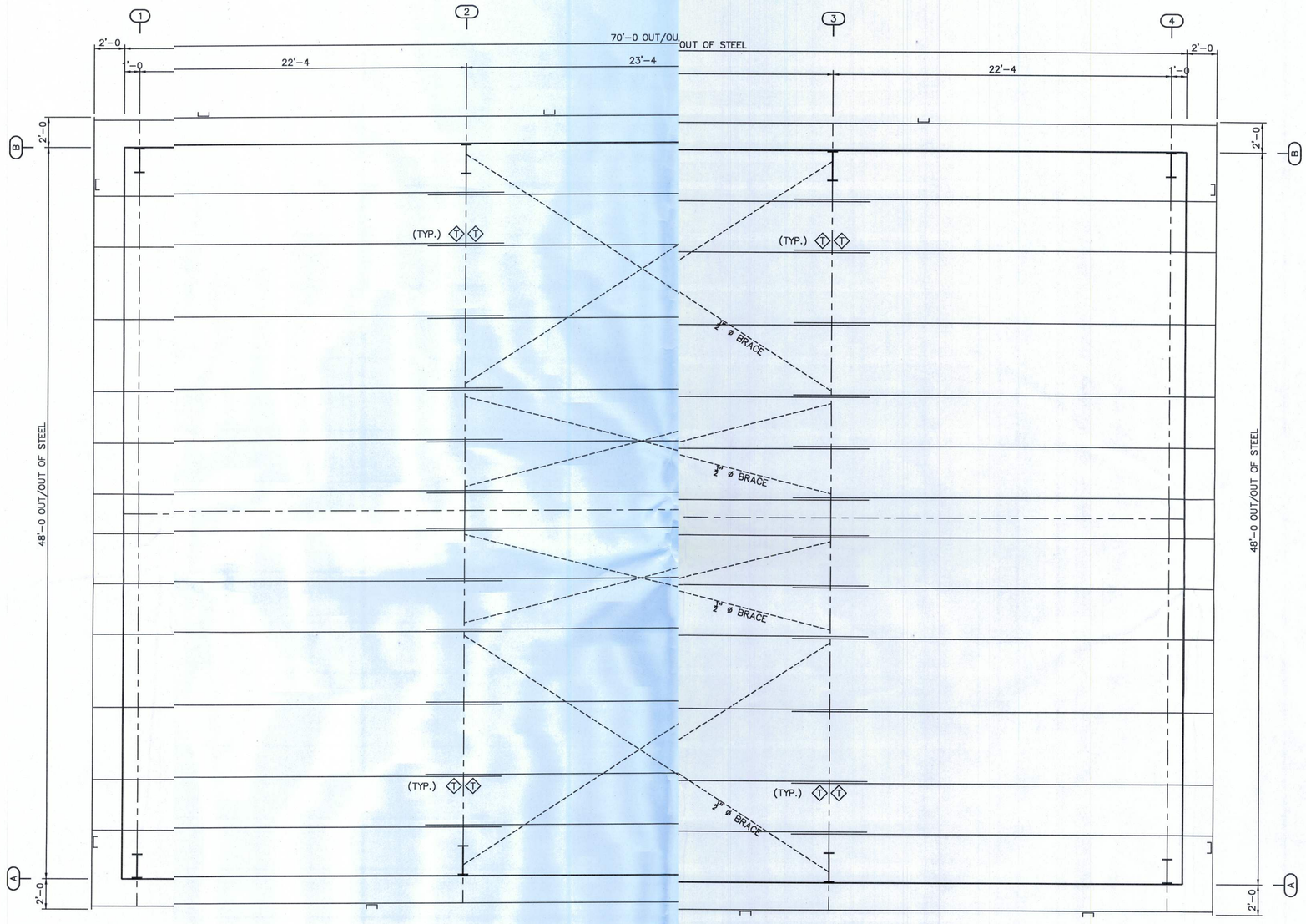
Drawing Status: ☐ Preliminary ☐ For Approval ☒ For Construction Permit ☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: EDB 4/8/11
Checked by: MARK 4/12/11
Project Engineer: JRF
Job Number: 22-T-53531-1
Sheet Number: E2 of 1

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Aaron K. Batchellor, P.E.
Florida P.E. 67187

AARON K. BATCHELLOR LICENSE No. 67187 STATE OF FLORIDA PROFESSIONAL ENGINEER
Apr 13, 2011



ROOF FRAMING PLAN

Z_SECTION LAP TABLE			
SYMBOL	LAP (LENGTH)	SYMBOL	LAP (LENGTH)
S	0'-2" (3 3/8")	T	2'-4"(2'-5 3/8")
R	1'-4"(1'-5 3/8")	V	3'-0"(3'-1 3/8")

Revison	Date	Description	By	Ck'd
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	MARK

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSEE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1266 LECHLADE ST.
JACKSONVILLE FL 32205

Project Name & Location:
RING POWER CORPORATION
3910 SW RING COURT
LAKE CITY FL 32025

Drawing Status:
☐ Preliminary
☐ For Approval
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	EDB 4/8/11
Checked by:	MARK 4/12/11
Project Engineer:	JRF
Job Number:	22-T-53538-1
Sheet Number:	E3 of 11

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Aaron K. Batchellor, P.E.
Florida P.E. 67187

AARON K. BATCHELLOR
LICENSE
No. 67187
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Apr 13, 2011

USE STANDARD WALL PROCEDURES TO ERECT THE SIDEWALL AND ENDWALL PANELS.

ROOF SHEETING PLAN

Revison	Date	Description	By	Ck'd
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	MARK

A&S BUILDING SYSTEMS
1980 HWY. 116, CARVALLE, TENNESSE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1266 LECHLADE ST.
JACKSONVILLE FL 32205

Project Name & Location:
RING POWER CORPORATION
390 SW RING COURT
LAKE CITY FL 32025

Drawing Status:
☐ Preliminary
☐ For approval
☒ For Construction Permit
☐ For Erector Installation

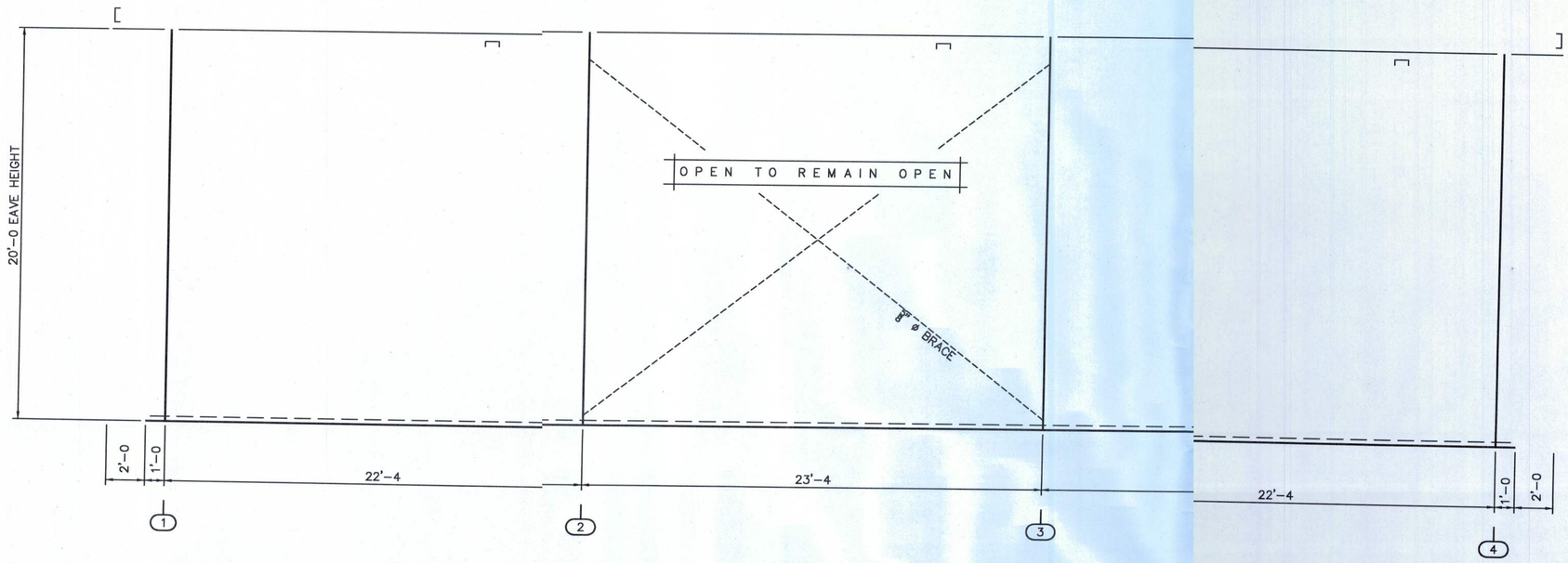
Scale:	NOT TO SCALE
Drawn by:	EDB 4/8/11
Checked by:	MARK 4/12/1
Project Engineer:	JRF
Job Number:	22-T-53538-
Sheet Number:	E4 of 11

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

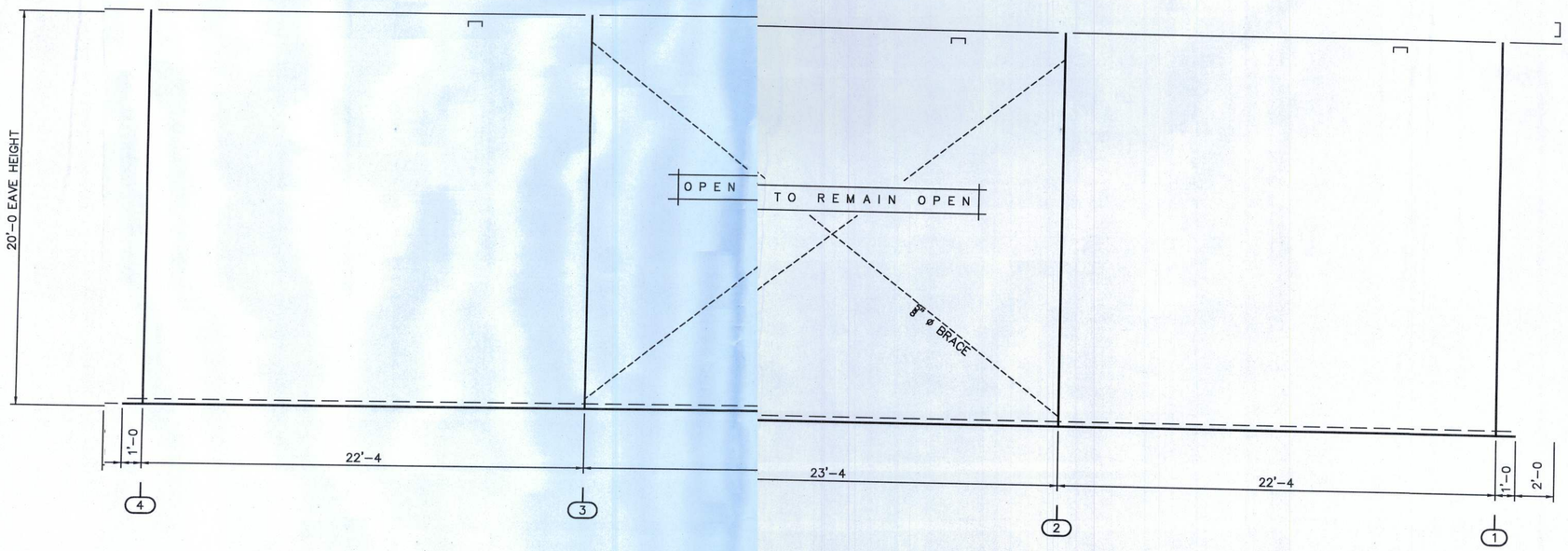
Aaron K. Batchellor, P.E.
Florida P.E. 67187

AARON K. BATCHELLOR
LICENSE
No. 67187
STATE OF FLORIDA
PROFESSIONAL ENGINEER

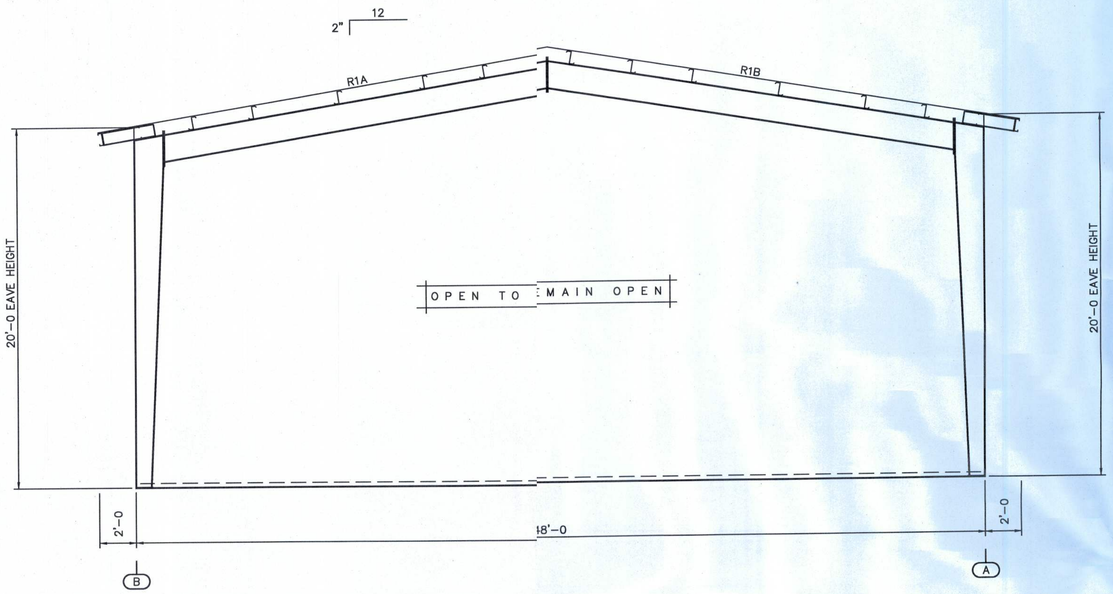
Aug 13, 201



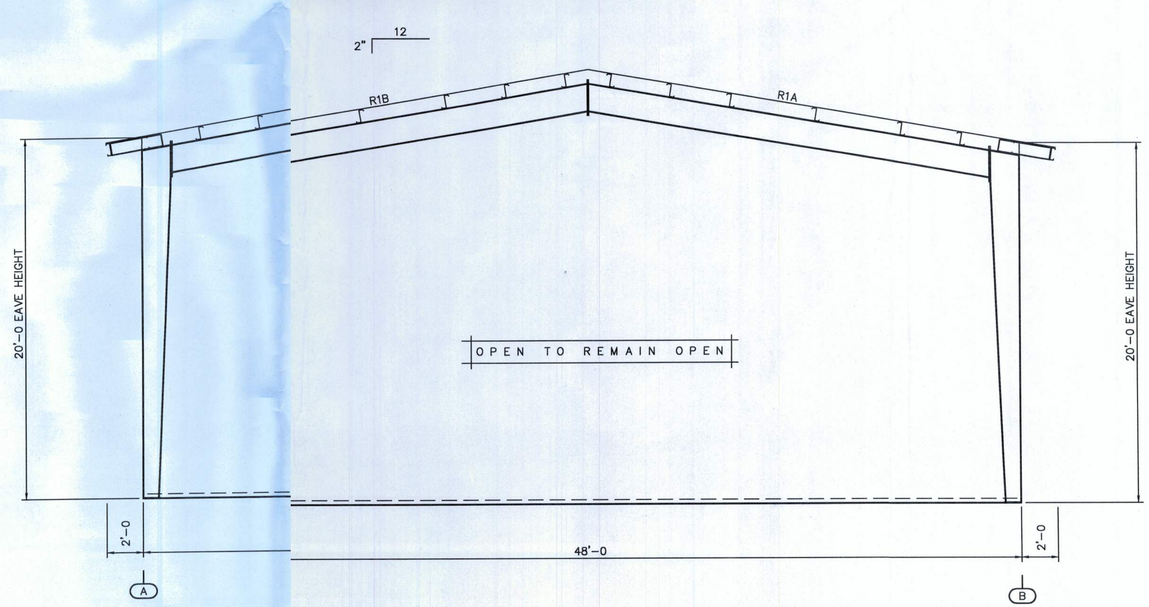
SIDEWALL ELEVATION AT GRID LINE "A"



SIDEWALL ELEVATION AT GRID LINE "B"



ENDWALL ELEVATION AT GRID LINE "1"



ENDWALL ELEVATION AT GRID LINE "4"

Revison	Date	Description	By	Ck'd
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	MARK

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1266 LECHLADE ST.
JACKSONVILLE FL. 32205

Project Name & Location:
RING POWER CORPORATION
390 SW RING COURT
LAKE CITY FL 32025

Drawing Status:
☐ Preliminary
☐ For Approval
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	EDB 4/8/11
Checked by:	MARK 4/12/11
Project Engineer:	JRF
Job Number:	22-T-53538-1
Sheet Number:	E6 of 11

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

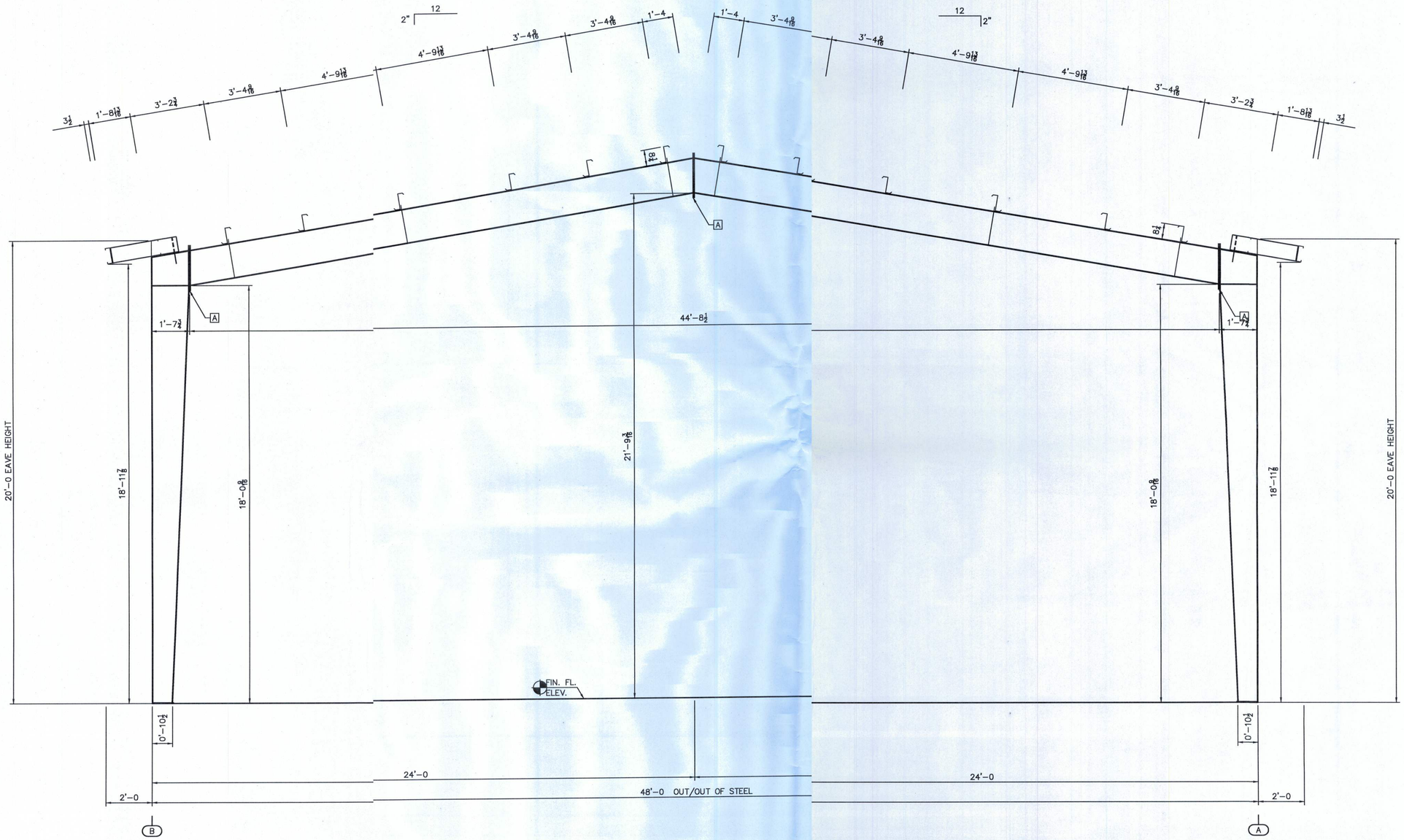
Aaron K. Batchellor, P.E.
Florida P.E. 67187

AARON K. BATCHELLOR
LICENSE
No. 67187
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Apr 13, 2011

GENERAL NOTES
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



CROSS SECTION AT GRID LINE "1"

	SPLICE BOLT TABLE				
CONN.	QTY.	SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(8)	¾ X 2"	A325 B&N	0	0

Revison	Date	Description	By	Ck'd
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	MARK

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSEE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1266 LECHLADE ST.
JACKSONVILLE FL 32205

Project Name & Location:
RING POWER CORPORATION
390 SW RING COURT
LAKE CITY FL 32025

Drawing Status:
☐ Preliminary
☐ For Approval
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: EDB 4/8/11
Checked by: MARK 4/12/11
Project Engineer: JRF
Job Number: 22-T-53538-1
Sheet Number: E7 of 11

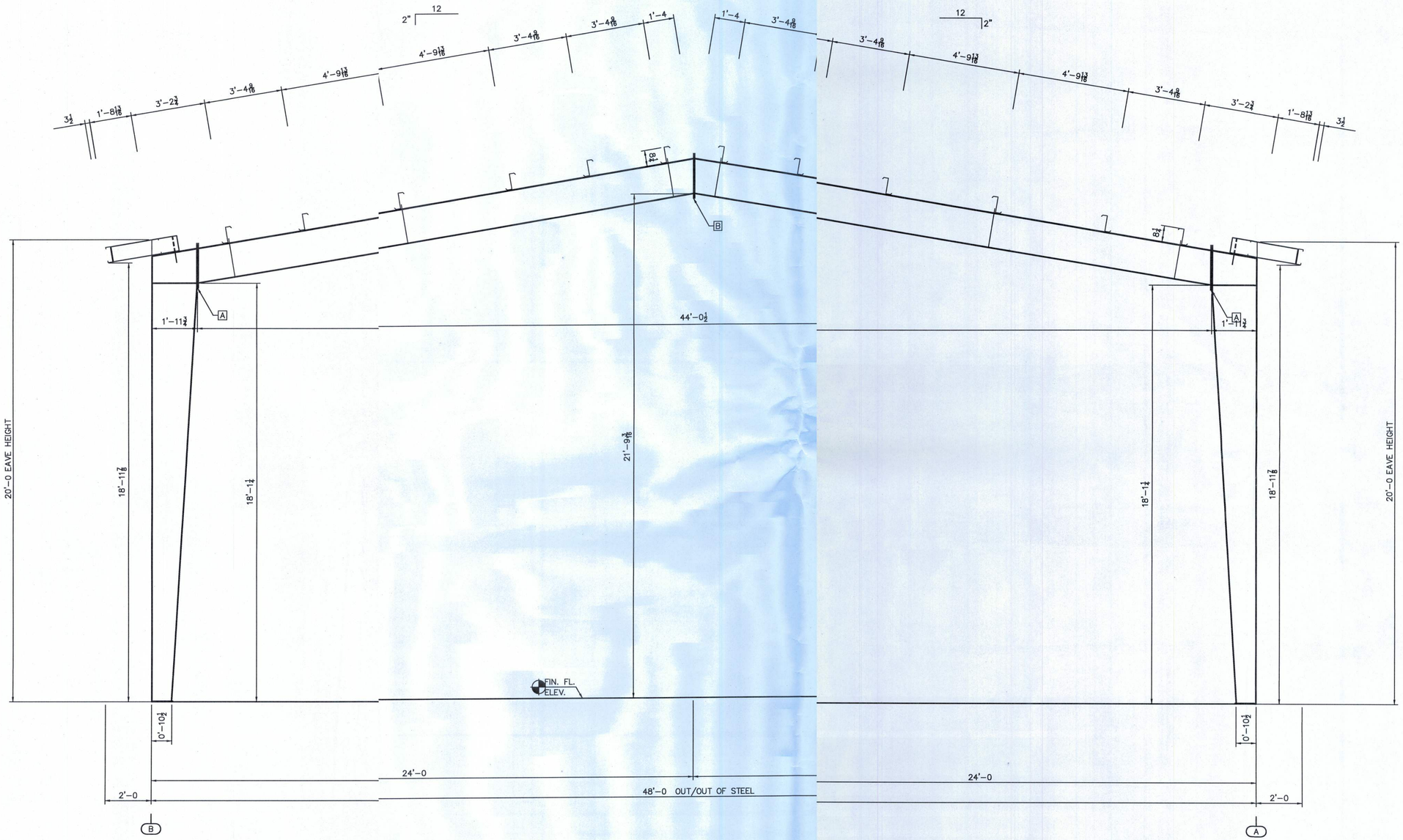
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Aaron K. Batchellor, P.E.
Florida P.E. 67187

AARON K. BATCHELLOR
LICENSE No. 67187
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Apr 13, 2011

GENERAL NOTES
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



CROSS SECTION AT GRID LINE "2", "2"

	SPLICE BOLT TABLE				
ONN.	QTY.	SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(10)	¾ X 2"	A325 B&N	0	0
B	(8)	¾ X 2"	A325 B&N	0	0

Revison	Date	Description	By	Ck'd MARK
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSEE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1266 LECHLADE ST.
JACKSONVILLE FL 32205

Project Name & Location:
RING POWER CORPORATION
390 SW RING COURT
LAKE CITY FL 32025

Drawing Status:
☐ Preliminary
☐ For Approval
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: EDB 4/8/11
Checked by: MARK 4/12/11
Project Engineer: JRF
Job Number: 22-T-53538-1
Sheet Number: E8 of 11

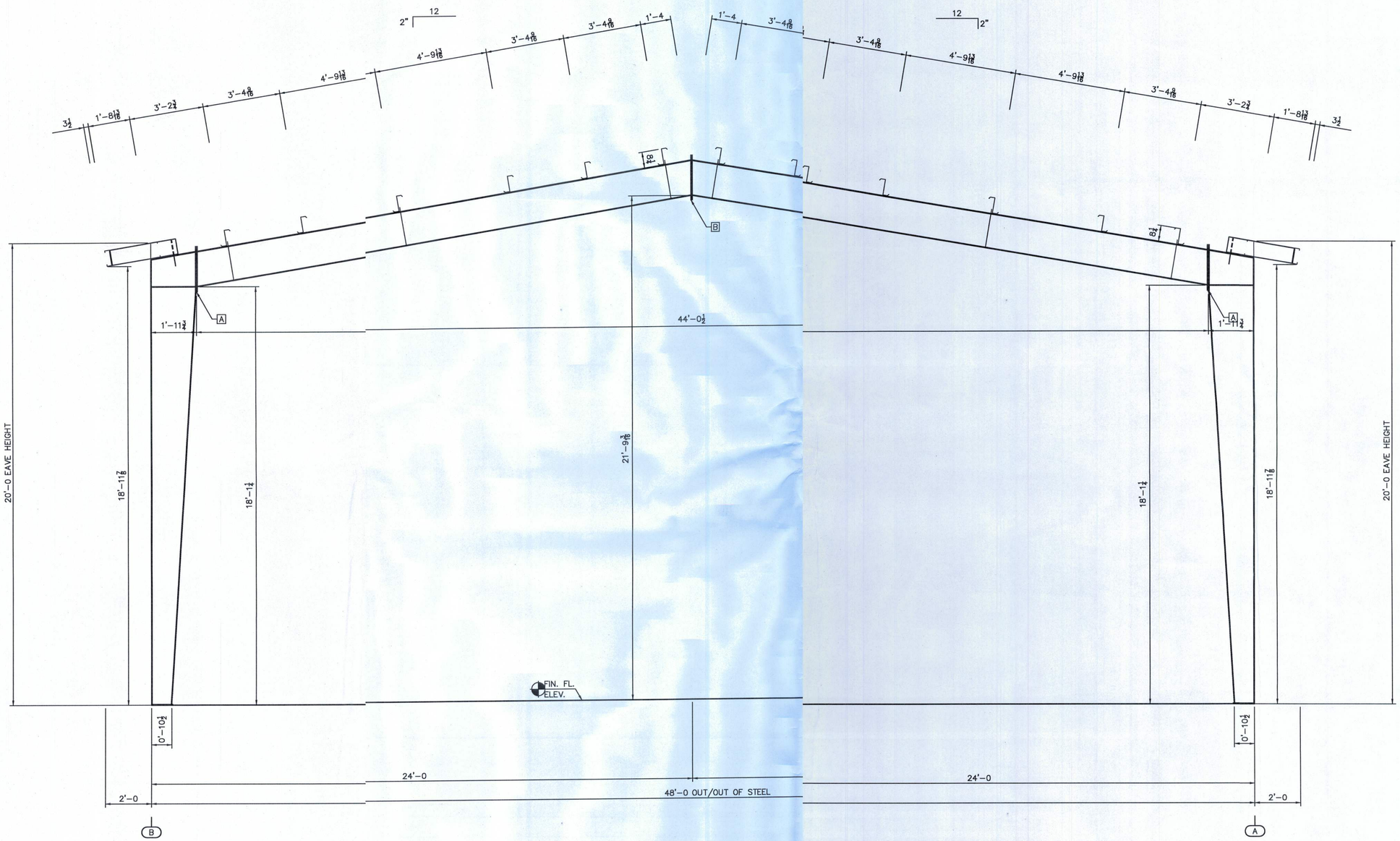
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Aaron K. Batchellor, P.E.
Florida P.E. 67187

AARON K. BATCHELLOR LICENSE No. 67187 STATE OF FLORIDA PROFESSIONAL ENGINEER
Apr 13, 2011

GENERAL NOTES
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



CROSS SECTION AT GRID LINE "3"

SPLICE BOLT TABLE				
CONN.	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(10) ¾ X 2"	A325 B&N	0	0
B	(8) ¾ X 2"	A325 B&N	0	0

Revison	Date	Description	By	Ck'd
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	MARK

A&S BUILDING SYSTEMS
1880 HWY. 116, CARYVILLE, TENNESSE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1266 LECHLADE ST.
JACKSONVILLE FL 32205

Project Name & Location:
RING POWER CORPORATION
390 SW RING COURT
LAKE CITY FL 32025

Drawing Status:
☐ Preliminary
☐ For Approval
☒ For Construction Permit
☐ For Erector Installation

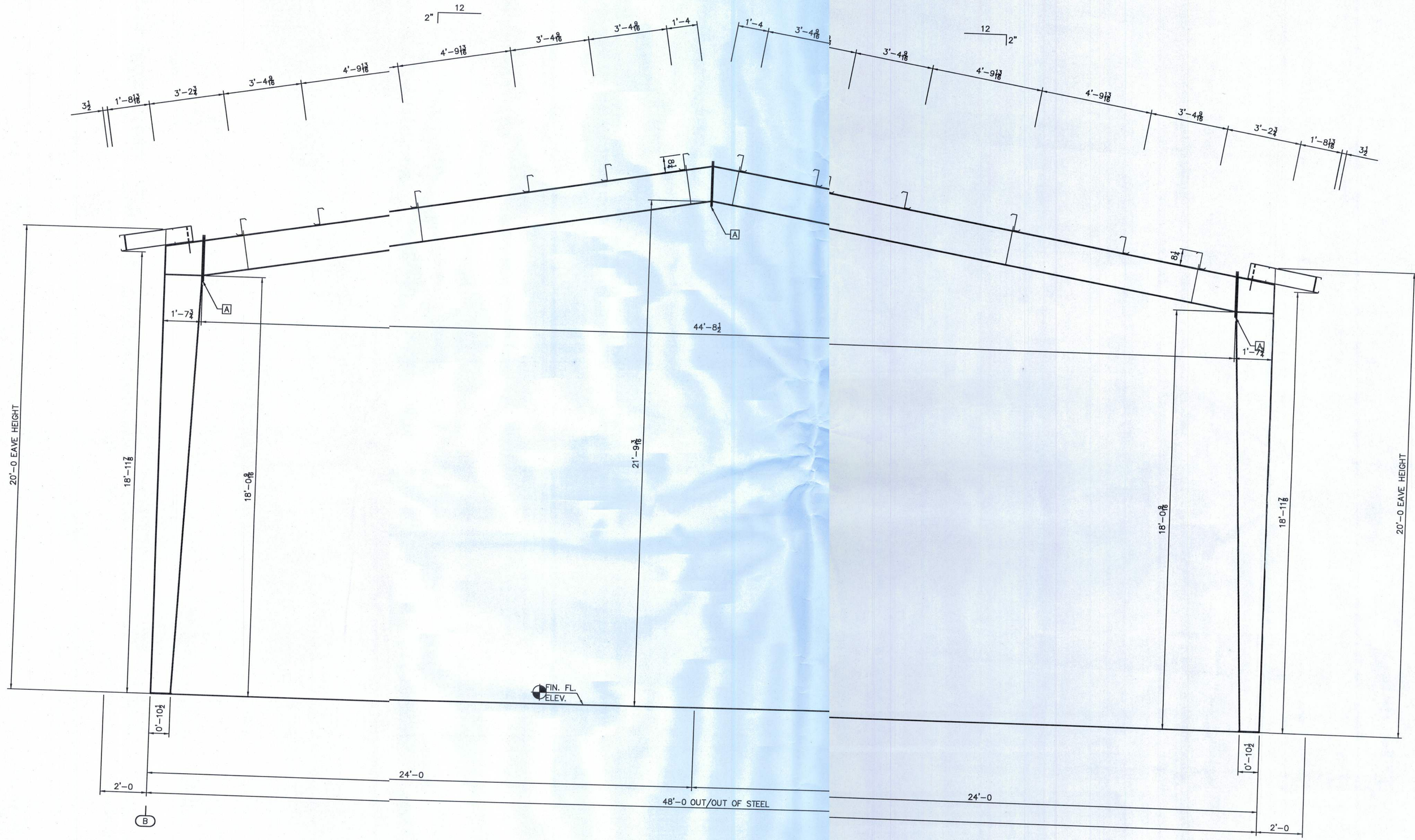
Scale:	NOT TO SCALE
Drawn by:	EDB 4/8/11
Checked by:	MARK 4/12/11
Project Engineer:	JRF
Job Number:	22-T-53538-1
Sheet Number:	E9 of 11

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Aaron K. Batchelior, P.E.
Florida P.E. 67187

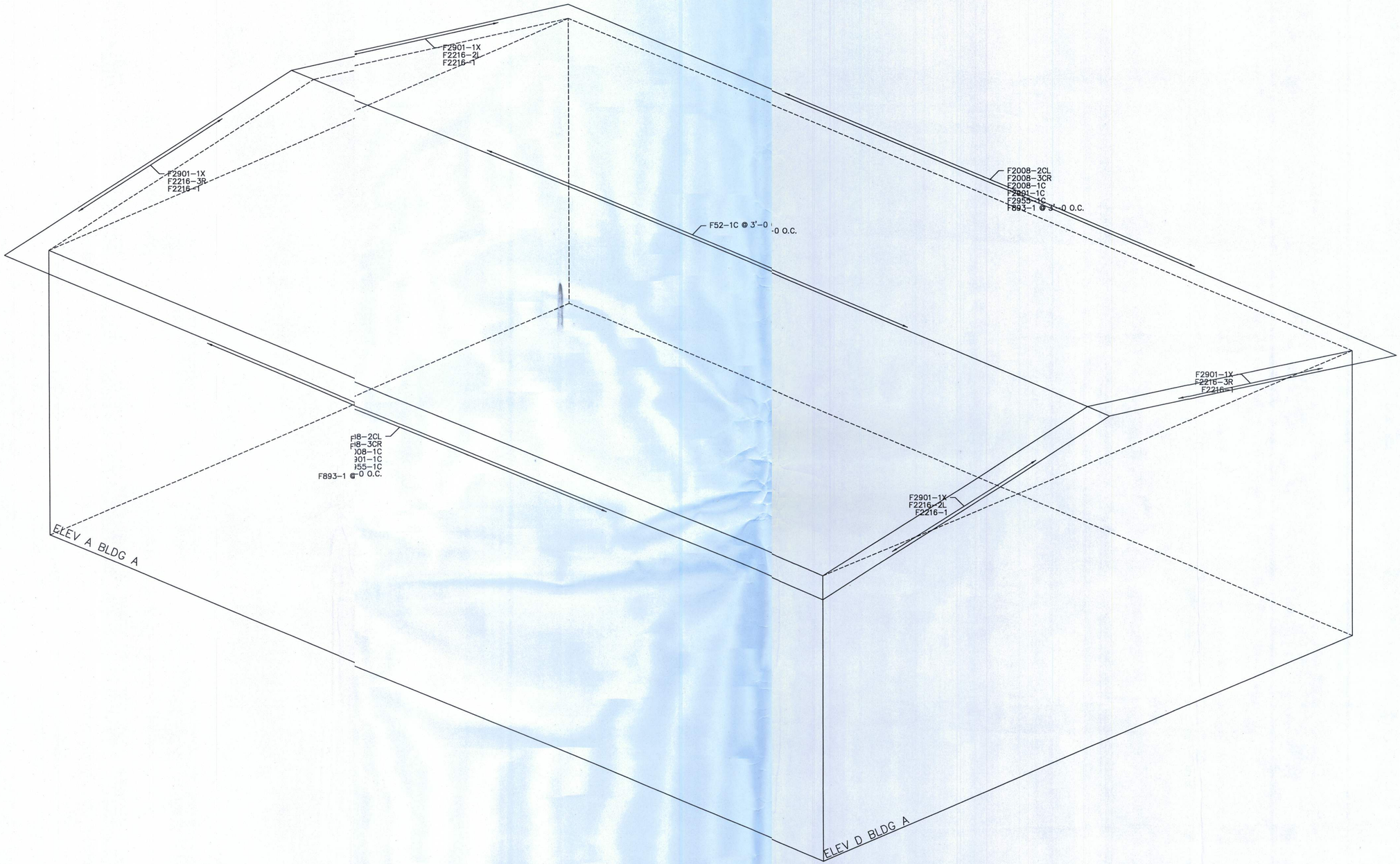
AARON K. BATCHELIOR
LICENSE
No. 67187
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Apr 13, 2011

GENERAL NOTES
FRAME CLEARAN
MAY VARY DUE
VERTICAL CLEARA
FINISHED FLOOR



CROSS SECTION AT GRID LINE "4"

SPLICE BOLT TABLE			
QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
(8) ¾ X 2"	A325 B&N	0	0



FLASHING LAYOUT

Revision	Date	Description	By	Ck'd
A	04/12/11	FOR CONSTRUCTION PERMIT	EDB	MARK

A&S BUILDING SYSTEMS
1980 HWY. 116, CARYVILLE, TENNESSEE 37714
PHONE: 865-426-2141 FAX: 865-426-2011

Customer:
METAL BUILDING SPECIALIS
1266 LECHLADE ST.
JACKSONVILLE FL 32205

Project Name & Location:
RING POWER CORPORATION
390 SW RING COURT
LAKE CITY FL 32025

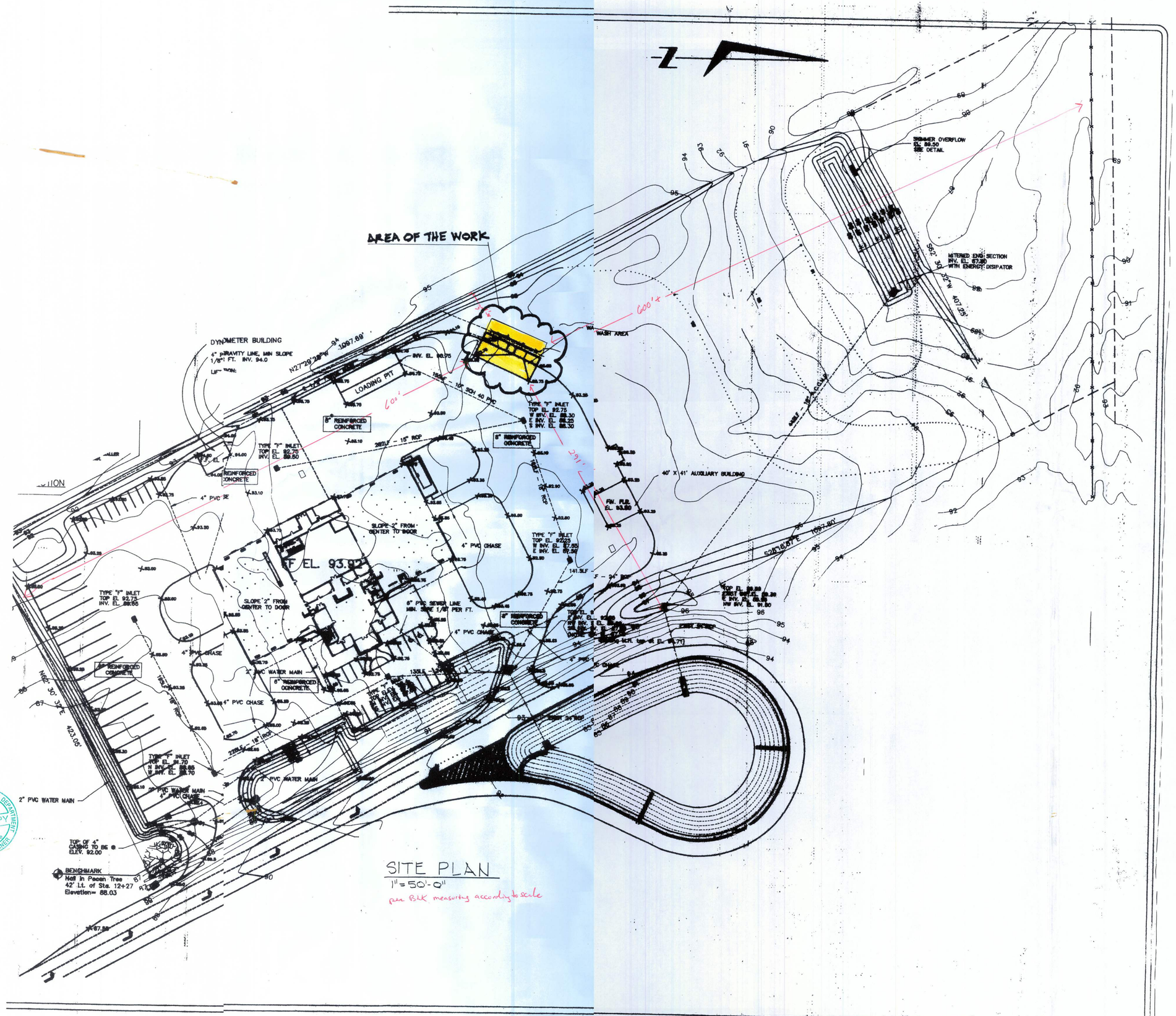
Drawing Status:
☐ Preliminary
☐ For Approval
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: EDB 4/8/11
Checked by: MARK 4/12/11
Project Engineer: JRF
Job Number: 22–T–53538–1
Sheet Number: E11 of 11

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Aaron K. Batchellor, P.E.
Florida P.E. 67187

AARON K. BATCHELLOR
LICENSE
No. 67187
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Apr 13, 2011



SITE PLAN

1" = 50'-0"

per BLK measuring according to scale

NEW METAL BUILDING STRUCTURE FOR

RINGPOWER CORPORATION

CANNON CREEK - I-75 AND CR 47

COLUMBIA COUNTY, FLORIDA

Contrac Stage:
CONSTRUCTION DRAWINGS

Revisions:

Drawn By:
Checker By:

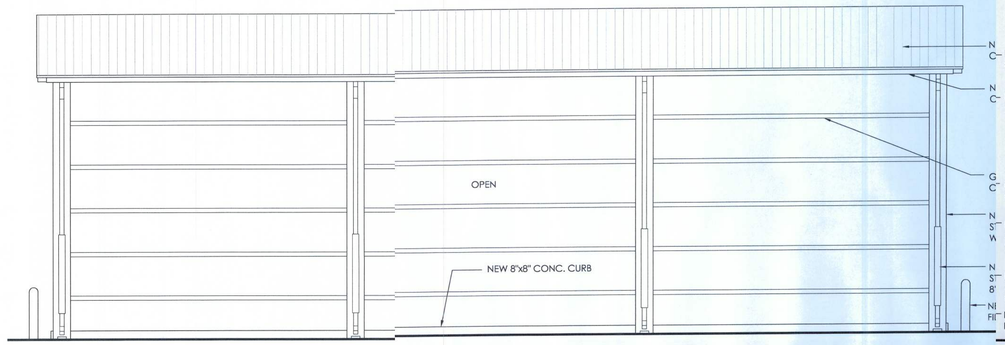
Sheet Tile:

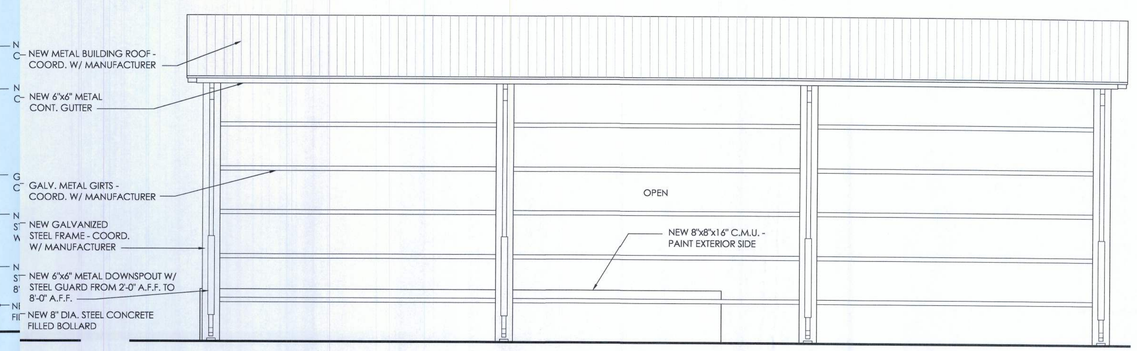
SITE PLAN

Sheet No:

A1.0

Last Plo Date: 04/04/2011



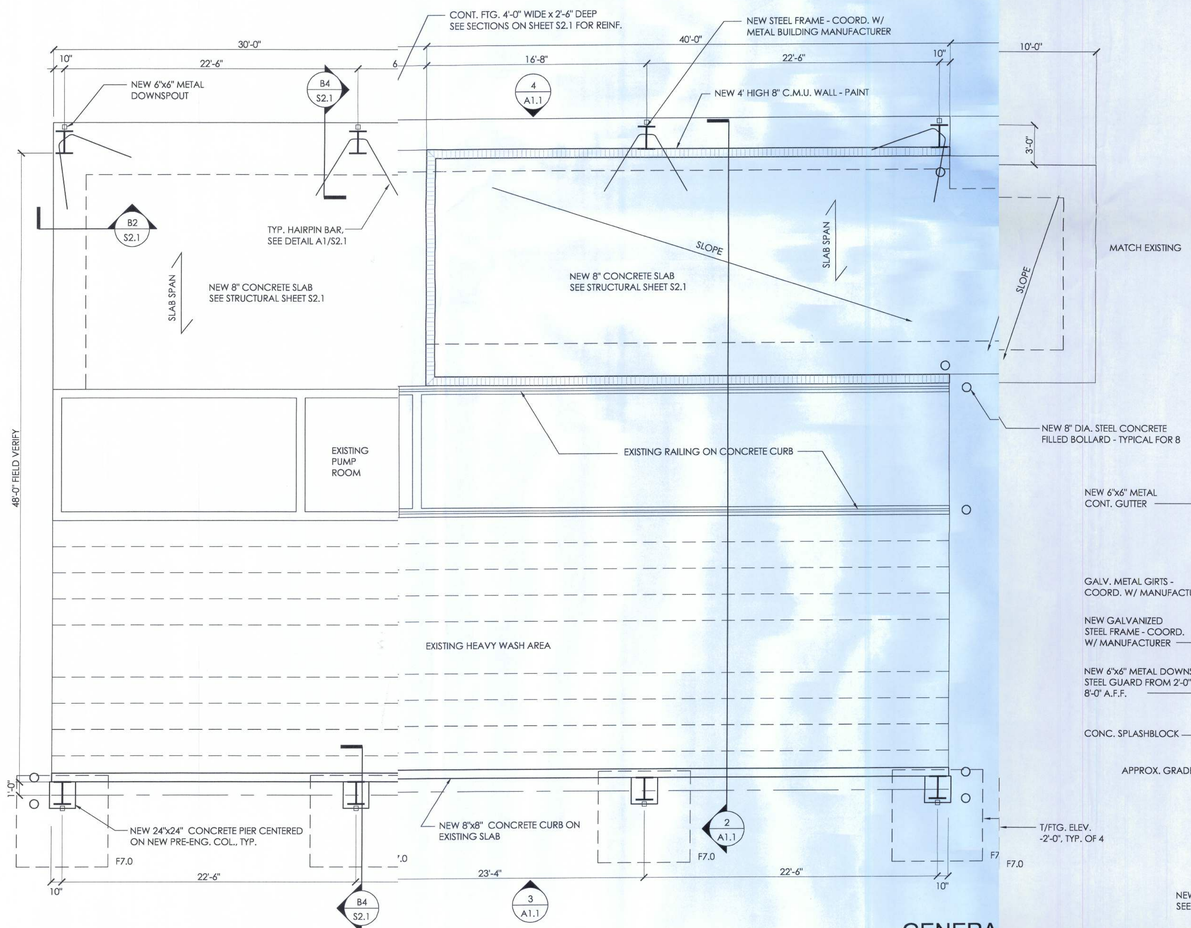


3 / A1.1 EAST ELEVATION

SCALE: 3/16" = 1'-0"

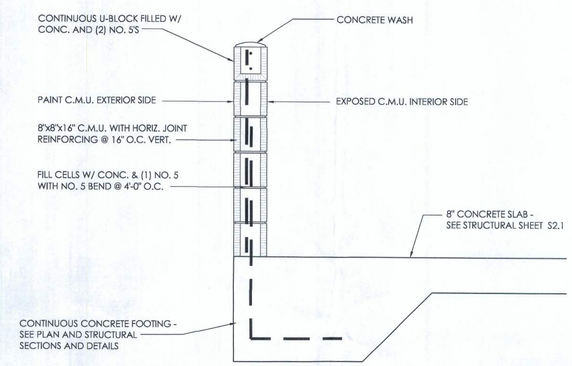
4 / A1.1 WEST ELEVATION

SCALE: 3/16" = 1'-0"



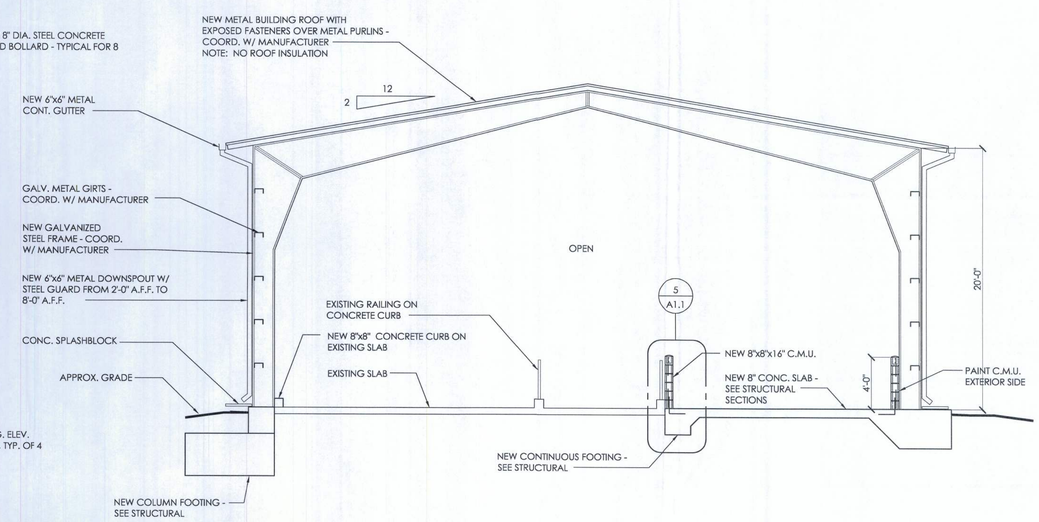
1 / A1.1 FLOOR AND FOUNDATION PLAN

SCALE: 3/16" = 1'-0"



5 / A1.1 SECTION THRU NEW LOW WALL

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



2 / A1.1 BUILDING SECTION

(NORTH ELEVATION SIMILAR)

SCALE: 3/16" = 1'-0"

GENERAL INFORMATION

BUILDING OCCUPANCY - U - UTILITY
BUILDING CONSTRUCTION TYPE - IIB
AREA UNDER ROOF - 3,360 S.F.

CHARLES R. WALKER, AIA
741 PALMERA DRIVE EAST
PONTE VEDRA BEACH, FL 32082
904.868.1584

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION UNDER THE LAWS OF THE STATE OF FLORIDA.

CHARLES R. WALKER AR0006658

4-12-11

NEW METAL BUILDING STRUCTURE FOR
RINGPOWER CORPORATION
CANNON CREEK - I-75 AND CR 47
COLUMBIA COUNTY, FLORIDA

Contract Stage
CONSTRUCTION DRAWINGS

Revisions:

Drawn By:
Checked By:

Sheet Title:
-

Sheet No:
A1.1

Last Plot Date: 04/04/2011

GENERAL STRUCTURAL NOTES

FLORIDA BUILDING CODE 2007 w/LATEST SUPPLEMENTS 2009

DESIGN CRITERIA:

LOADS:

DESIGN LOADS:
ROOF LIVE LOADS:
20 PSF TYP. U.O.N.

DEAD LOADS:
COLLATERAL 7 PSF
WIND LOADS PER ASCE 7-05
120 MPH WIND SPEED, EXPOSURE CATEGORY C
BUILDING IMPORTANCE FACTOR I=1.0

CONCRETE:
ALL CONCRETE NOT OTHERWISE DESIGNATED SHALL 3000 PSI AT END OF 28 DAYS AS DETERMINED BY USE OF ASTM C31 AND C39. CODES GOVERNING WORK ARE AS FOLLOWS:
ACI-318 BULDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, LATEST EDITION.
ACI-347 RECOMMENDED PRACTICE FOR CONCRETE FORMWORK, LATEST EDITION.
ACI-301 SPECIFICATIONS FOR STRUCTUAL CONCRETE FOR BUILDINGS, LATEST EDITION.

ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES IN CONFORMANCE WITH CRSI MANUAL OF STANDARD PRACTICE AND ACI 315 DURING PLACEMENT OF THE CONCRETE.

UNLESS OTHEREWISE NOTED, SPLICES IN REINFORCING WHERE PERMITTED, SHALL BE AS FOLLOWS:
WELEDED WIRE FABRIC WIRE SPACING PLUS 6"
REINFORCING BARS 40 BAR DIAMETERS

ALL REINFORCING STEEL SHALL CONFORM TO ASTM 15, GRADE 60. LAPS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 OR AS INDICATED ON THE DRAWINGS. USE CLASS B SPLICES UNLESS OTHERWISE NOTED. MIMIMUM COVER SHALL BE AS FOLLOWS:
FOOTINGS: 3"
COLUMNS AND PEDESTALS: 2"
SLABS AND WALLS (EXPOSED TO EARTH, LIQUID OR WEATHER): 2"
SLABS AND WALLS (NOT EXPOSED TO EARTH, LIQUID OR WEATHER): 3/4"
SLABS ON GRADE: 2" FROM TOP

ALL HOOKS IN REINFORCING BARS SHALL BE AN AGTANDARD HOOK, U.O.N.

DOWELS FROM FOUNDATIONS OR SLABS TO WALLS SHALL MATCH WALL REINFORCING, U.O.N. DOWELS SHALL BE PLACED BEFORE CONCRETE IS PLACED. THEY SHALL NOT BE PUSHED INTO CONCRETE.

PROVIDE 3/4" CHAMFER AT ALL EXPOSED CORNERS OF BEAMS, WALL, ETC.

AT CHANGE IN DIRECTION OF CONCRETE WALLS, BEAMS AND STRIP FOOTINGS PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL STEEL.

STRUCTURAL STEEL: (PER CURRENT EDITION AISC)
ALL WELDED WIRE FABRIC ASTM A185
WIDE FLANGE: ASTM A572 GRADE 50
STEEL PIPE ASTN A53, GRADE B, OR ASTM A501
STEEL TUBE ASTM A500, GRADE B.
CHANNELS, ANGLES, PLATES AND OTHER MIS. STEEL ASTM A36.
ALL BOLTS SHALL BE 3/4" DIAMETER (A325N) U.O.N.
ANCHOR BOLTS SHALL BE ASTM A307
WELDED STUDS ASTM A108
DEFORMED BAR ANCHORS ASTM, A706

STRUCTURAL STEEL GROUT: FOR STEEL COLUMNS SHALL BE A NON-SHRINKAGE, NON-EXPANSIVE, NON-METALLIC, GROUT WITH A MIMIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI WHEN TESTED IN ACCORDANCE WITH ASTM C109. FORMS SHALL BE PLACED AROUND BASE PLATE AND THE STRUCTURAL GROUT SHALL BE POURED. NO DRY/DAMP PACKING.

MIMIMUM SIZE OF FILLET WELDS SHALL CONFORM TO AISC SPECIFICATIONS EVEN THOUGH SHOWN OTHERWISE ON ARCHITECTURAL, MECHANICAL OR STRUCTURAL DRAWINGS. ALL WELDS ALONG THE LENGTH OF MEMBERS INDICATED ON ARCHITECUTRAL OR STRUCTURAL DRAWINGS, BUT NOT SIZED, SHALL BE MIMIMUM 3/16" ALTERNATING 2-12

ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES. ALL WELDING IS TO BE DONE BY WELDERS HOLDING CURRENT CERTIFICATES FROM A RECOGNIZED TESTING LAB. ALL WELDS ARE TO BE PER A.W.S. D1.1 CODE

PRIME ALL STEEL SURFACES BOTH EXPOSED AND CONCEALED, ARE TO RECEIVE ONE SHOP COAT AND FIELD SPOT PRIME (WELDS, SCARS, CONN. ETC.)

ALL ANGLES, BARS, ANCHORS, ANCHOR BOLTS, ETC. EMBEDDED IN CONCRETE SHALL BE HOT DIPPED GALV. AFTER FABRICATION.

ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALV. AFTER FABRICATION.

SHOP DRAWINGS:
ALL FABRICATED ITEMS ARE TO HAVE APPROVED SHOP DRAWINGS BEFORE FABRICATION. CONTRACTOR SHALL CAREFULLY CHECK AND STAMP "APPROVED" BEFORE SUBMITTAL TO THE ENGINEER. NO SPLICES OR OTHER DETAILS ARE TO BE ADDED WITHOUT SUBMITTAL.

EXPANSION ANCHORS: U.O.N. INSTALL ANCHORS PER MANUF. WRITTEN INSTRUCTIONS, INCLUDING MANUF. MIMIMUM EMBEDMENTS AND EDGE DISTANCE. ALL ANCHORS WITH EXTERIOR EXPOSURE SHALL BE HOT DIPPED GALV.

CONTRACTOR SHALL VERIFY ALL STRUCTURAL OPENINGS AFFECTED BY MECH. EQUIPMENT PURCHASED BEFORE PROCEEDING WITH STRUCTURAL WORK.

NO STRUCTURAL MEMEBER SHALL BE CUT, NOTCHED OR OTHERWISE REDUCED IN STRENGTH.

MASONRY:
CONCRETE MASONRY UNITS SHALL BE HOLLOW UNIT MASONRY IN ACCORDANCE WITH ASTM C90 AND SHALL HAVE A MIMIMUM NET AREA COMPRESSIVE STRENTH OF 1900 PSI WHEN USING TYPE M OR S MORTAR (ASTM C270). IN ACCORDANCE WITH ACI 530, THE 1900 PSI BLOCK IN COMBINATION WITH TYPE M OR S MORTAR PROVIDES A DESIGN COMPRESSIVE STRENGTH (f'm) OF 1500 PSI.
GROUT:
THE GROUT SHALL BE IN ACCORDANCE WIT ASTM C476 AND SHALL HAVE A MAXIMUM COURSE AGGREGRATE OF 3/8" PLACED AT AN 8" TO 11" SLUMP AND HAVE A MIMIMUM SPECIFIED COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C1019.

GROUT POUR HEIGHTS-THE TOTAL HEIGHT OF MASONRY TO BE GROUTED PRIOR TO ERECTION OF ADDITIONAL MASONRY.
GROUT POUR-CONSISTS OF ONE OR MORE GROUT LIFTS.
GROUT LIFT-THE LAYER OF GROUT PLACED IN A SINGLE CONTINUOUS OPERATION AND IS LIMITED TO 5 FEET.

THE CONTRACTOR SHALL DESIGN, ENGINEER AND ERECT ALL TEMPORARY BRACING INCLUDDING MEASURES NECESSARY TO PROTECT THE STRUCTURE AND ANY PERSONNEL DURING CONSTRUCITON.

VERIFY ALL DIMENSIONS WITH ARCHITECUTRAL DRAWINGS.

CHARLES R. WALKER, ATA
741 PALMERA DRIVE EAST
PONTE VEDRA BEACH, FL 32082
904.868.1584

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION UNDER THE LAWS OF THE STATE OF FLORIDA.

CHARLES R. WALKER AR0006658

NEW METAL BUILDING STRUCTURE FOR
RINGPOWER CORPORATION
CANNON CREEK - I-75 AND CR 47
COLUMBIA COUNTY, FLORIDA

Contract Stage
CONSTRUCTION DRAWINGS

Revisions:

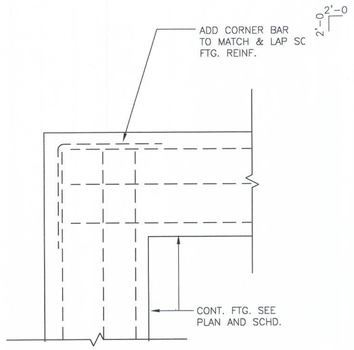
Drawn By:
Checked By:

Sheet Title:
DESIGN CRITERIA AND GENERAL NOTES

Sheet No:
S1.1

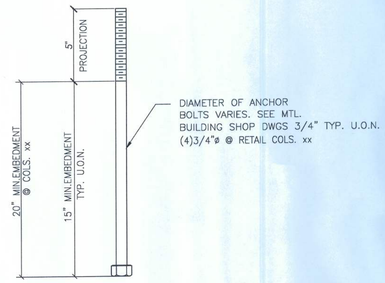
Last Plot Date: 04/04/2011

4/12/11
GINA.M HILL P.E.
52225



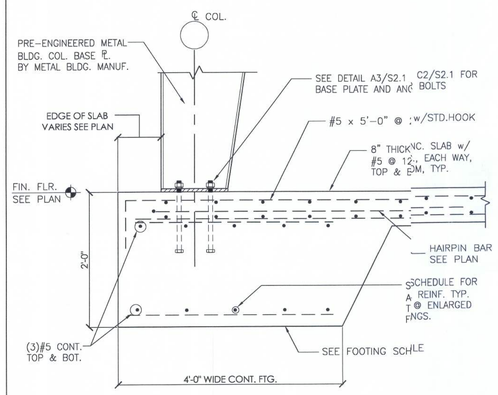
TYP. FTG. CORNER REINF. (C1)

SCALE: 3/4"=1'-0



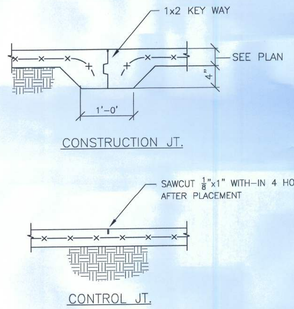
ANCHOR BOLT EMBED. DETAIL (C2)

SCALE: N.T.S.



SLAB EDGE AT EXT. WALL (B1)

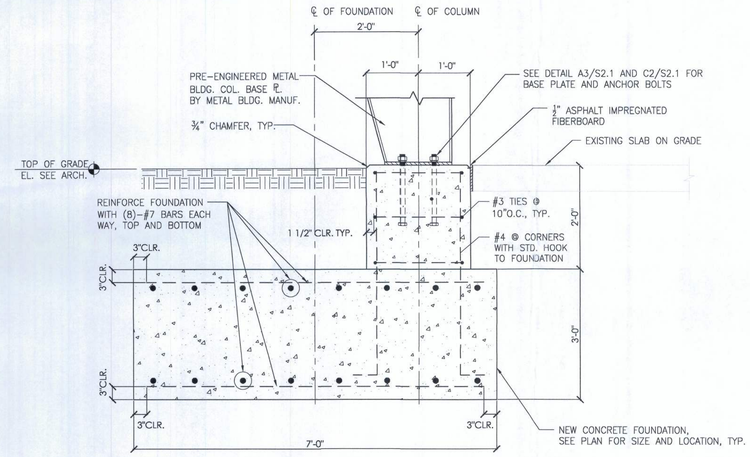
SCALE: 3/4"=1'-0"



NOTE: CONTRACTOR HAS THE OPTION OF SUBSTITUTING CONSTRUCTION JOINTS FOR CONTROL JOINTS

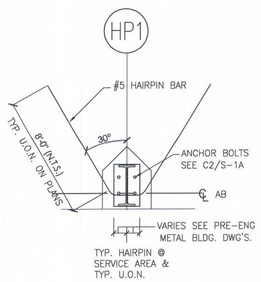
SLAB JOINT DETAILS (B2)

SCALE: 3/4"=1'-0



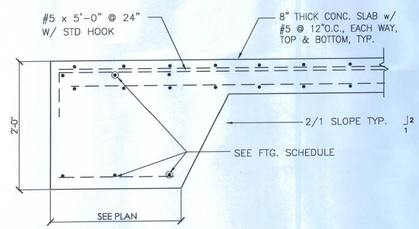
SECTION AT EXIST. SLAB (B4)

SCALE: 3/4"=1'-0



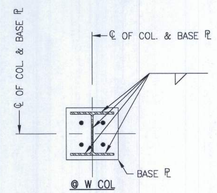
HAIRPIN BAR DETAIL (A1)

SCALE: N.·



SLAB EDGE AT EXT. WALL (A2)

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



BASE PLATE & ANCHOR BOLT (A3)

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

GINA.M HILL P.E.
52225

CHARLES R. WALKER, AIA
741 PALMERA DRIVE EAST
PONTE VEDRA BEACH, FL 32082
904.868.1584

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION UNDER THE LAWS OF THE STATE OF FLORIDA.

CHARLES R. WALKER AR0006658

NEW METAL BUILDING STRUCTURE FOR

RINGPOWER CORPORATION

CANNON CREEK - I-75 AND CR 47
COLUMBIA COUNTY, FLORIDA

Contract Stage
CONSTRUCTION DRAWINGS

Revisions:

Drawn By:
Checked By:

Sheet Title:
FOUNDATION SECTIONS AND DETAILS

Sheet No:
S2.1

Last Plot Date: 04/04/2011