



STEEL BUILDINGS, INC.

P.O. Box 2314 Muscle Shoals, AL 35662 Phone (256) 383-7322 Fax: (256) 381-9669 E-Mail: info@bigbee.com

E-J Builders, Inc.
220 W. Laurel Ave.
Foley, AL 36535

July 21, 2014

Letter of Certification

Job No. 12872

40 ft. x 60 ft. x 14 ft. EHT 1 in/ft Gable
City of Orange Beach - Fire Station

This is to certify that the metal building system components furnished by Bigbee Steel Buildings, Inc. are designed to comply with the following design criteria.

Governing Building Code: 2012 International Building Code

Metal Building Dead Load: Bldg Mail's
Roof Live Load: 20 psf
Frame Live Load: Reduced per Code
Collateral Load: 2 psf
Occupancy Category: 4

Snow Design Criteria:

Ground Snow Load, P_g : 0 psf
Flat Roof Snow Load, P_f : 0 psf
Snow Load Importance Factor, I_s : 1.20
Snow Exposure Factor, C_e : 1.0
Thermal Factor, C_t : 1.0

Wind Design Criteria:

Basic Wind Speed (3-sec. Peak Gust): 170 mph
Wind Exposure: B
Internal Pressure Coeff, GC_{pi} : ± 0.18
Enclosure Classification: Enclosed

Earthquake Design Criteria:

Analysis Procedure: Equivalent Lateral Force Procedure
Seismic Importance Factor, I_e : 1.50

Site Class: D
0.2 sec. Spectral Response Acceleration, S_a : 0.088 Spectral Response Coefficient, S_{ds} : 0.092
1.0 sec. Spectral Response Acceleration, S_a : 0.052 Spectral Response Coefficient, S_{d1} : 0.083

Seismic Design Category: B

Lateral Seismic Force Resisting System: Ordinary Steel Moment Frames
Response Modification Factor, R : 3.50
Deflection Amplification Factor, C_d : 3.00 Seismic Response Coefficient, C_s : 0.0393

Longitudinal Seismic Force Resisting System: Ordinary Steel Centrically Braced Frames
Response Modification Factor, R : 3.25 Seismic Response Coefficient, C_s : 0.0423
Deflection Amplification Factor, C_d : 3.25 Design Base Shear, kips: 0.60

The building is designed in accordance with AISC 360.10 Specification for Structural Steel Buildings, AISC 341.10 Seismic Provisions for Structural Steel Buildings, AISI S100-07 Standard North American Specification for the Design of Cold Formed Steel Structural Members, AWS D1.1-10 Structural Welding Code-Steel and AWS D1.3-08 Structural Welding Code-Sheet Steel.

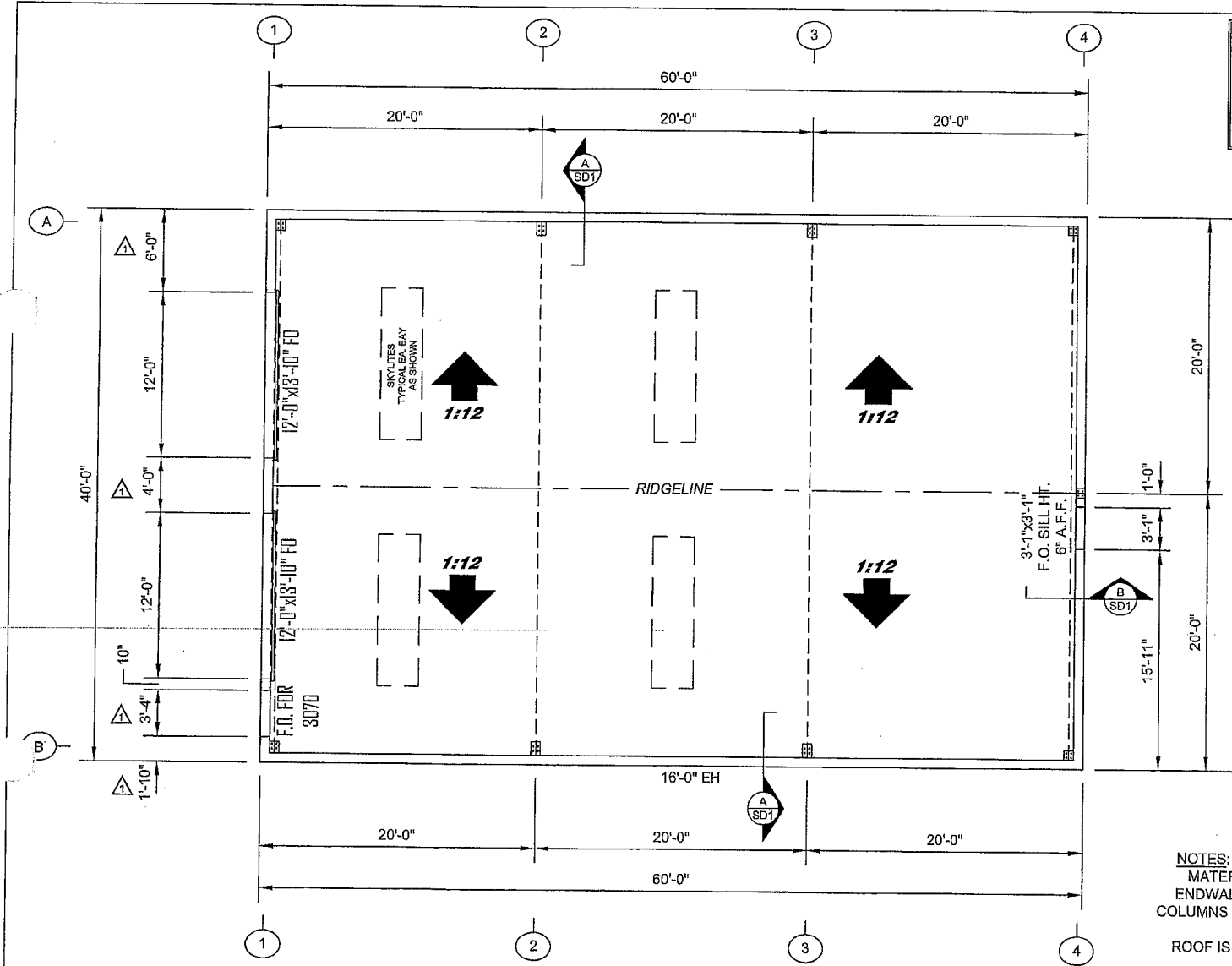
This certification is limited to the design of the structural framing and fastening components manufactured in Bigbee Steel Buildings, Inc. facility in Muscle Shoals, Alabama and structural components fabricated by outside suppliers pursuant to Bigbee Steel Buildings, Inc. QA program. This certification specifically excludes accessories such as floors, windows, awnings, translucent panels, louvers and ventilators, all assumed to be properly designed for the appropriate loads. The building should be erected on a properly designed foundation and in accordance with the detailing and erection drawings prepared by Bigbee Steel Buildings, Inc. for this project. The undersigned is not the engineer of record for the overall project.

Charles L. Mullahey, P.E.
Bigbee Steel Buildings, Inc.

Professional Engineer Seal for Charles L. Mullahey, No. 17345, State of Alabama, Accredited AC472, dated 7/21/14.



RECEIVED
JUL 23 2014
O.B. COMMUNITY DEV.



PRELIMINARY NOTE
 THESE DRAWINGS ARE PRELIMINARY AND TO BE USED FOR REVIEW AND COMMENT ONLY. THEY SHOW ALL PERMANENT DIMENSIONS, SET-UPS, FRAMED OPENING CONDITIONS, AND SECTION WITH DETAILS AS WELL AS SCOPE OF WORK ISSUES... ALL TO BE EVALUATED AND VERIFIED TO AG WITH THE ENGINEERING DESIGN A DURING PROCESS. THEY SHOULD NOT BE A REPLACEMENT OR SUBSTITUTE FOR FINAL SECTION DRAWINGS, ANCHOR BOLT PLANS OR ANY SPECIFIC ENGINEERING DESIGN.
 THE ENGINEERING DESIGN SUMMARIES, FOR CONSTRUCTION ANCHOR BOLT PLANS, AND SECTION BY SECTION & DETAIL DRAWINGS WILL BE SENT OUT LATER AT THE DESIGN PROCESS CONTINUED FORWARD.



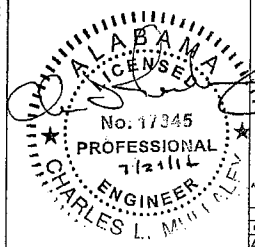
CUSTOM STEEL BUILDINGS
 P.O. BOX 2034
 MUSCLE SHOALS, ALABAMA 35682
 PHONE (205) 344-1224 FAX (205) 344-8987

THIS DRAWING REFLECTS PRELIMINARY STEEL LAYOUT PLANS AND/OR ELEVATIONAL AND SECTIONAL AND TRIM DETAILS OF THIS STRUCTURE. ITS PURPOSE IS TO CLARIFY THE PROJECT SCOPE FOR WHICH BIGBEE STEEL BUILDINGS, INC. IS RESPONSIBLE, AND TO INDICATE OUR UNDERSTANDING OF CONSTRUCTION ELEMENTS TO BE ADDED BY OTHERS. CONSTRUCTION ELEMENTS DETECTED HEREIN (BEYOND THE METAL BUILDING STRUCTURE) ARE NOT TO BE CONSTRUCTED AS REPRESENTING ENGINEERING DESIGN OF THOSE ELEMENTS. SUCH ENGINEERING DESIGN MUST BE SECURED FROM OTHER DESIGN PROFESSIONALS.

THE DESIGN OF ANY ELEMENTS ADDED TO THE METAL BUILDING STRUCTURE BY OTHERS DOES NOT FALL UNDER THE ENGINEERING SEAL APPLIED TO THIS DRAWING EXCEPT AS SPECIFICALLY STATED IN THE DESIGN SUMMARY DRAWINGS. IN ADDITION, THE DESIGN OF THE PHYSICAL CONSTRUCTION OF SUCH ELEMENTS TO THE METAL BUILDING STRUCTURE IS BY OTHERS AND DOES NOT FALL UNDER THE ENGINEERING SEAL.

NOTHING DEPICTED IN BIGBEE STEEL BUILDING INC. DRAWINGS IS TO BE UNDERSTOOD AS PROVIDING ARCHITECTURAL SERVICES. THE SERVICES OF A REGISTERED ARCHITECT MUST BE CONTRACTED BY THE OWNER TO INSURE THAT ALL APPLICABLE CODES ARE COMPLETED AND THAT ALL LOCAL BUILDING CODE REQUIREMENTS ARE MET. PARTICULAR DOORS AND WINDOWS SHOWN IN BIGBEE STEEL BUILDING INC. DRAWINGS ARE NOT ONLY THE CUSTOMER'S REQUESTS AND HAVE NOT BEEN SUBJECT TO ANY BUILDING CODE REVIEW.

GENERAL NOTE
 TRIM, CONVEYERS AND TRIM SET-UPS IN THE SECTION OF THIS DRAWING ARE PRELIMINARY. IT IS THE OWNER'S RESPONSIBILITY TO MAKE ANY NECESSARY ADJUSTMENTS TO CREATE THE BUILDING & CONCRETE SECTIONS WITH CORRECT TRIM PARTS FOR THE PROJECT. REMOVE THIS NOTE AFTER FINAL CHECKS.



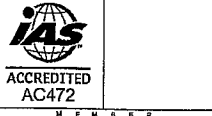
NOTES: ALL FRAMED OPENING MATERIAL EXCEPT GIRTS & ENDWALL RAFTERS & CORNER COLUMNS IS GALVANIZED MATERIAL.

ROOF IS (PBR) BIGBEE II (GALV.)
 NO WALL PANELS, CORNER OR FRAMED OP'NG TRIM, ONLY GIRTS WITH EXTERIOR WALL COVERING BY OTHERS

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NO.	DATE	BY	DESCRIPTION
1	05-17-14	Charles L. Minnieley	Initial Design
2			
3			
4			

DESIGN CERTIFICATION
 CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIGBEE STEEL BUILDINGS, INC. IS LIMITED TO THE FACTORS OF DESIGN AND CONSTRUCTION OF THE METAL BUILDING STRUCTURE. THE BUILDING IS NOT TO BE CONSIDERED AS A STRUCTURE UNLESS IT IS DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE METAL BUILDING STRUCTURE DESIGN MANUAL, 2ND EDITION, 2008, PUBLISHED BY BIGBEE STEEL BUILDINGS, INC. THE USER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE AND THE DESIGN OF THE FOUNDATION.

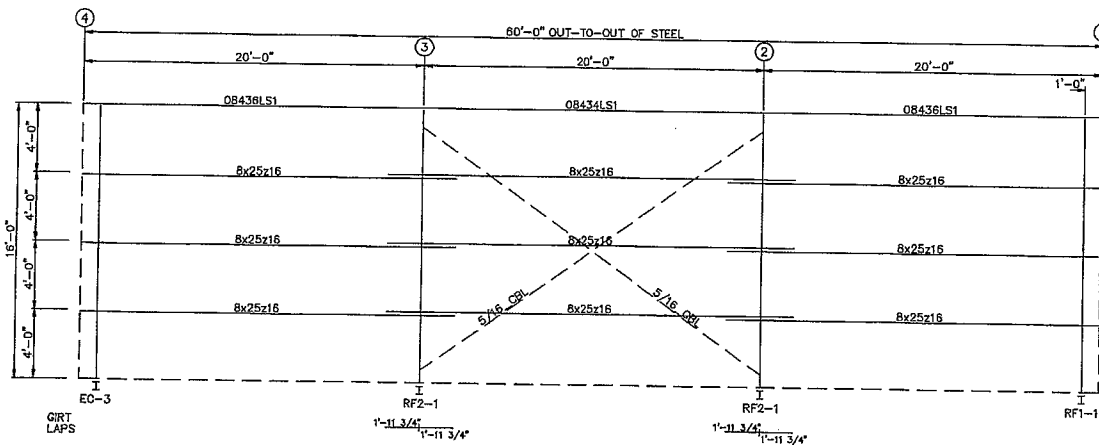


Column Layout

OWNER: **City of Orange Beach Fire Station**
 Location: **Orange Beach, AL**

PROJECT: **12672 Column Layout**

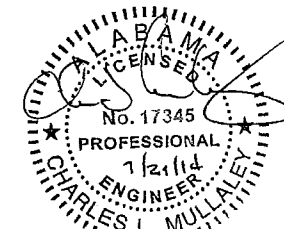
DATE: 05-17-14	SCALE: N.T.S.	DRAWING NO: 12672
DESIGNED BY: [Signature]	CHECKED BY: [Signature]	DATE: 4-30-14
APPROVED BY: [Signature]		CL-1



SIDEWALL FRAMING: FRAME LINE A



CUSTOM STEEL BUILDINGS
P.O. BOX 2314
MUSCLE SHOALS, ALABAMA 35662
PHONE: (256) 343-7221 FAX: (256) 341-6662



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REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	clm	Revised Company Catalog to Match Actual Metal Speed to 140 mph
2			
3			
4			
5			

DESIGN CERTIFICATION
CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE LOADS SPECIFIED ON THE BIG BEE STEEL BUILDINGS, INC. PURCHASE ORDER. THE METAL MUST BE Erected IN ACCORDANCE WITH THE ERECTION DRAWINGS AND EXCLUDES ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



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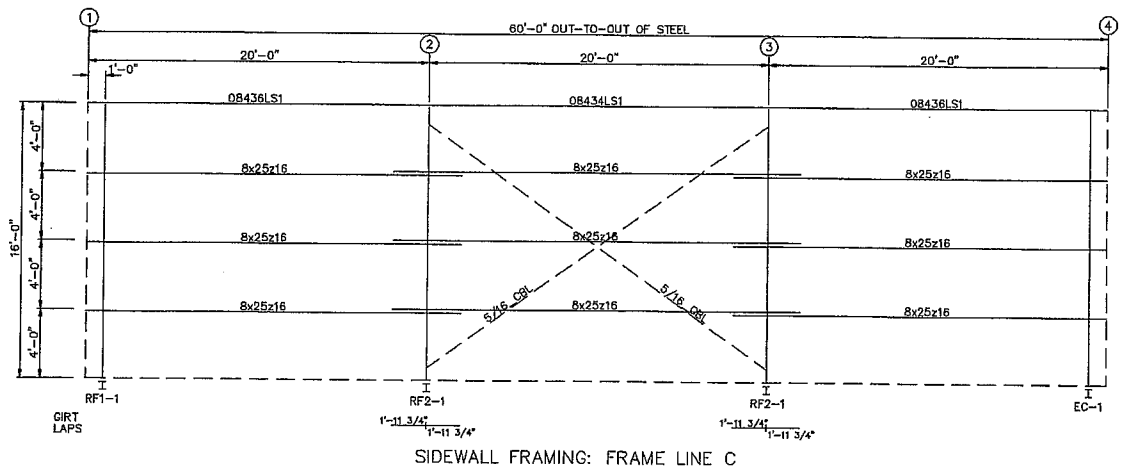
DRAWING NAME:
DESIGN SUMMARY

CUSTOMER:
E.J. Builders, Inc.
Foley, AL

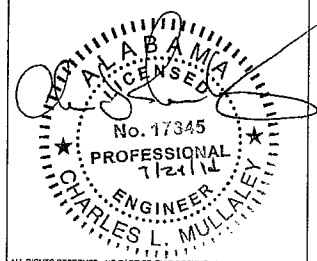
PROJECT:
City of Orange Beach Fire Sta.
Orange Beach, AL

FILENAME: 201407-1.dwg JOB # 12672
12672 - DS - Dwgs

DRAWN	DESIGN	ICS	DRAWING #
CHECKED	SCALE	NOTED	DS-SWB
APPROVED	DATE	05/01/14	



CUSTOM STEEL BUILDINGS
P.O. BOX 2814
MUSCLE SHOALS, ALABAMA 36682
PHONE: (205) 383-7322 FAX: (205) 381-9665



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REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	clm	Revise Occupancy Category to M-Increase Wind Speed to 170 mph
2			
3			
4			
5			

DESIGN CERTIFICATION
CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE LOADS SPECIFIED ON THE BIG BEE STEEL BUILDINGS, INC. PURCHASE ORDER. THE BIG BEE STEEL BUILDINGS, INC. ASSUMES NO LIABILITY FOR THE DESIGN OR CONSTRUCTION OF THE BUILDING OR THE ACCORDANCE WITH THE ERECTION DRAWINGS AND EXCLUDES ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



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DESIGN SUMMARY

CUSTOMER: E.J. Builders, Inc.
Foley, AL

PROJECT: City of Orange Beach Fire Sta.
Orange Beach, AL

FILED NO: 5x289-3d4f JOB #: 12672
12672 - DS - Dwgs

DRAWN	DESIGN	JCS	DRAWING #
CHECKED	SCALE	NONE	
APPROVED	DATE	05/01/14	DS-SWF

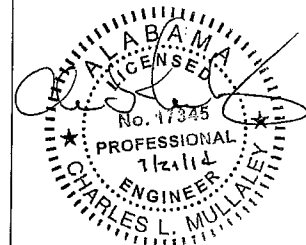
BOLT TABLE		
FRAME LINE 4		
LOCATION	QUAN	TYPE DIA LENGTH
Cor. Column/Raft	4	A325 5/8 1 3/4"
ER-1/ER-1	4	A325 5/8 1 3/4"
EC-2/ER-1	4	A325 1/2 1 3/4"

FLANGE BRACE TABLE	
FRAME LINE 4	
WELD MARK	LENGTH
1 F824.8	12'-0 3/4"

CONNECTION PLATES	
FRAME LINE 4	
ID	MARK/PART
1	RT
2	CMP
3	AR-B



CUSTOM STEEL BUILDINGS
P.O. BOX 2314
MUSCLE SHOALS, ALABAMA 35662
PHONE(205) 333-7322 FAX(205) 381-9559



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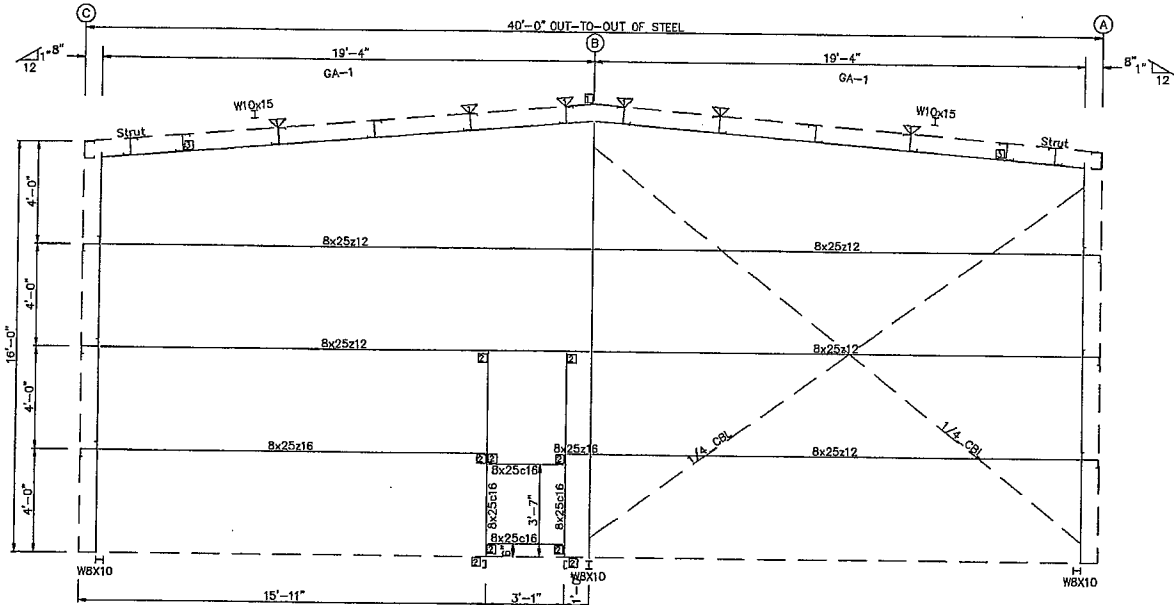
REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	clm	Revised Occupancy Category to IV - Increase Wind Speed to 110 mph
2			
3			
4			
5			

DESIGN CERTIFICATION
CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE LARGES SPECIES OF THE METAL BUILDING SYSTEMS AND PURCHASE ORDER. THE BUILDING MUST BE ERECTED IN ACCORDANCE WITH THE DESIGN DRAWINGS AND EXCLUDES ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



DESIGN SUMMARY

CUSTOMER	E.J. Builders, Inc. Foley, AL
PROJECT	City of Orange Beach Fire Sta. Orange Beach, AL
FILENO: E-Draw-1407 12672 - DS-Dwg	JOB # 12672
DRAWN	REVISION JCS DRAWING #
CHECKED	SCALE NONE
APPROVED <i>clm</i>	DATE 05/01/14 DS-EWR



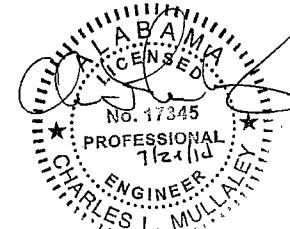
ENDWALL FRAMING: FRAME LINE 4

BOLT TABLE			
FRAME LINE 1			
LOCATION	QUAN	TYPE	DIA LENGTH
Joint	4	A367	1/2" 1 1/4"

CONNECTION PLATES	
FRAME LINE 1	
NO	MARK / PART
1	CMP
2	ZC-4
3	AR-B



CUSTOM STEEL BUILDINGS
P.O. BOX 2814
MUSCLE SHOALS, ALABAMA 35662
PHONE (256) 343-7322 FAX (256) 351-3668



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REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	clm	Final Occupancy Category to V - Increase Wind Speed to 110 mph
2			
3			
4			
5			

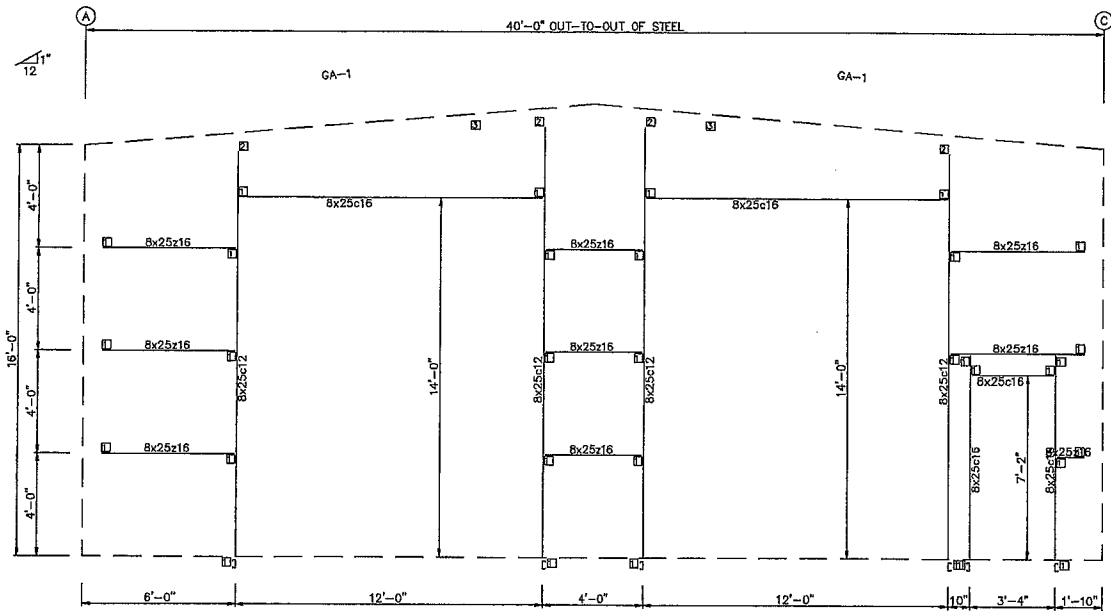
DESIGN CERTIFICATION
CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE SCOPE SPECIFIED ON THE BIG BEE STEEL BUILDINGS, INC. PURCHASE ORDER. THE BUILDING MUST BE ERECTED IN ACCORDANCE WITH THE SECTION DRAWINGS AND EXCLUDES ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



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DRAWING NAME			
DESIGN SUMMARY			
CUSTOMER: E.J. Builders, Inc. Poley, AL			
PROJECT: City of Orange Beach Fire Sta. Orange Beach, AL			
FILE NAME: 12672 - DS - DWG	EX-DESIGN: DS-11WPS	JOB #	12672
DRAWN	DESIGN	JCS	DRAWING #
CHECKED	SCALE	NONE	DS-EWL
APPROVED: [Signature]	DATE	05/01/14	



ENDWALL FRAMING: FRAME LINE 1

SPLICE PLATE & BOLT TABLE										
Mark	Qty	Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	3/4"	2 1/4"	5"	1 1/2"	1"-7 3/4"	
SP-2	4	4	0	A325	3/4"	1 3/4"	5"	3/8"	1"-7 3/4"	

FLANGE BRACE TABLE					
VID	SIDES	MARK	LENGTH	OFFSET	DETAIL CLIP
1	1	FB25.8L	2'-1 3/4"	1'-10 3/4"	

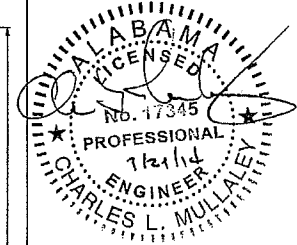
BASE PLATE TABLE			
Col Mark	Plate Width	Plate Thick	Plate Length
BP-1	8"	1/2"	10 1/2"

MEMBER TABLE								
Mark	Web Depth		Web Thick	Plate Length	Outside Flange		Inside Flange	
	Start/End	Thick			W x Thk x Length	W x Thk x Length		
RF2-1	10.0/11.9	0.135	13'-7"	5 x 1/4" x 15'-3 7/8"	5 x 1/4" x 14'-1"			
RF2-2	11.9/12.0	0.250	1'-9 13/16"	5 x 1/4" x 10 15/16"	5 x 1/4" x 18'-3 7/16"			

CONNECTION PLATES	
VID	Mark/Part
1	1 AR-8



CUSTOM STEEL BUILDINGS
P.O. BOX 2314
MUSCLE SHOALS, ALABAMA 35662
PHONE (256) 353-7332 FAX (256) 331-8829



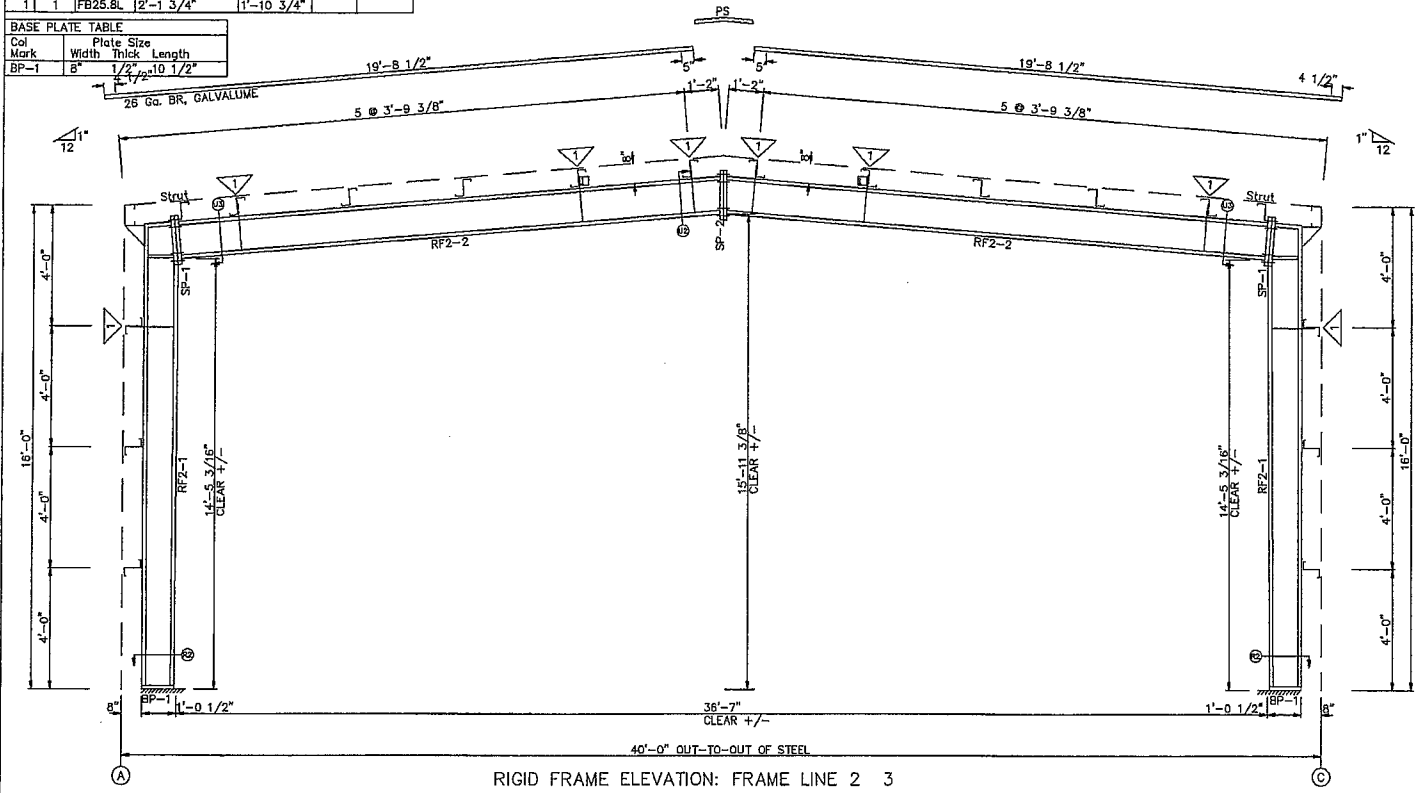
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REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	cm	Perfor Diaphragm Category to H-Increase 1/8" Steel to 1/8" gph
2			
3			
4			
5			

DESIGN CERTIFICATION
CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED
BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE
LOADS SPECIFIED ON THESE DRAWINGS. INCORPORATING ANY
PURCHASE ORDER, THE BUILDING MUST BE REJECTED BY
ACCORDANCE WITH THE SECTION DRAWINGS AND INCLUDES
ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC.
THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR
THE OVERALL PROJECT.



DRAWING NAME			
DESIGN SUMMARY			
CUSTOMER: E.J. Builders, Inc. Foley, AL			
PROJECT: City of Orange Beach Fire Sta. Orange Beach, AL			
FILENAME: 12672 - DS-Dwg05	REV #: 1	DRAWING #: 12672	
DRAWN: JCS	DESIGN: JCS	SCALE: NONE	CHECKED: NONE
APPROVED: [Signature]	DATE: 05/01/14	DRAWING #: DS-F2	



SPLICE PLATE & BOLT TABLE									
Mark	Qty		Type	Dia	Length	Width	Thick	Length	
	Top	Bot						Int	Ext
SP-1	4	4	0	A325	3/4"	2 1/4"	5"	1/2"	1'-4 3/4"
SP-2	4	4	0	A325	5/8"	1 3/4"	5"	3/8"	1'-4 3/4"

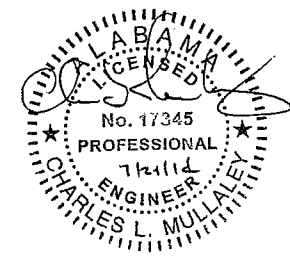
BASE PLATE TABLE			
Col Mark	Plate Size		
	Width	Thick	Length
BP-1	8"	1/2"	9 3/4"

MEMBER TABLE						
Mark	Web Depth		Web Plate		Outside Flange	
	Start/End	Thick	Length	W x Thk	Length	W x Thk x Length
RF1-1	9.0/ 9.0	0.313	15'-4 7/16"	5 x 3/8"	15'-3 3/4"	5 x 3/8" x 14'-3 5/8"
RF1-2	9.0/ 9.0	0.135	18'-7 1/16"	5 x 1/4"	18'-7 1/16"	5 x 1/4" x 18'-6 5/16"

CONNECTION PLATES	
Col Mark	Part
1	1AR-6



CUSTOM STEEL BUILDINGS
P.O. BOX 2314
MUSCLE SHOALS, ALABAMA 36682
PHONE (205) 969-7222 FAX (205) 961-6669



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REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	clm	Revised Occupancy Category to IV - Increase Wind Speed to 120 mph
2			
3			
4			
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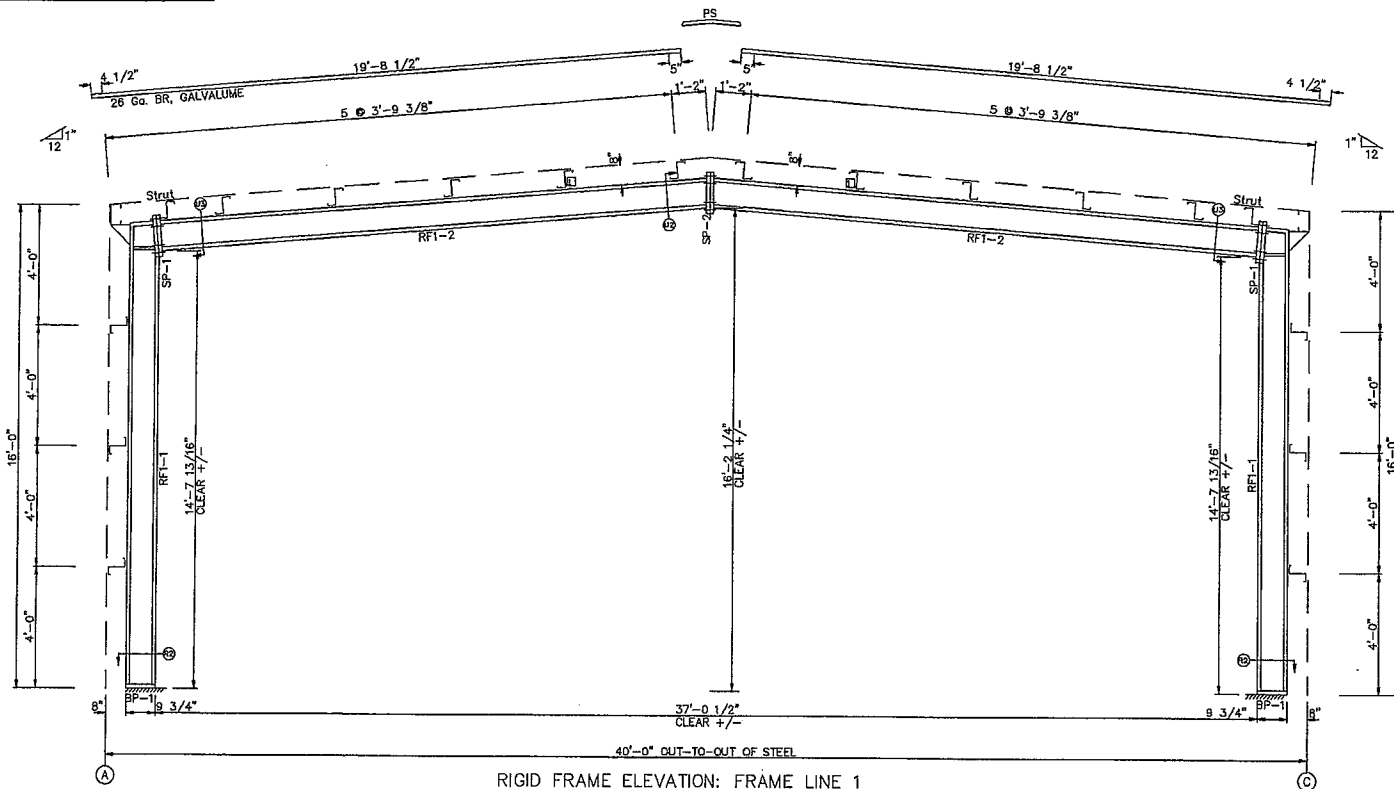
DESIGN CERTIFICATION
CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC IS LIMITED TO THE LOADS SPECIFIED ON THE BIG BEE STEEL BUILDINGS, INC PURCHASE ORDER. THE BUILDING MUST BE ERECTED IN ACCORDANCE WITH THE SPECIFICATIONS AND EXCLUDES ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



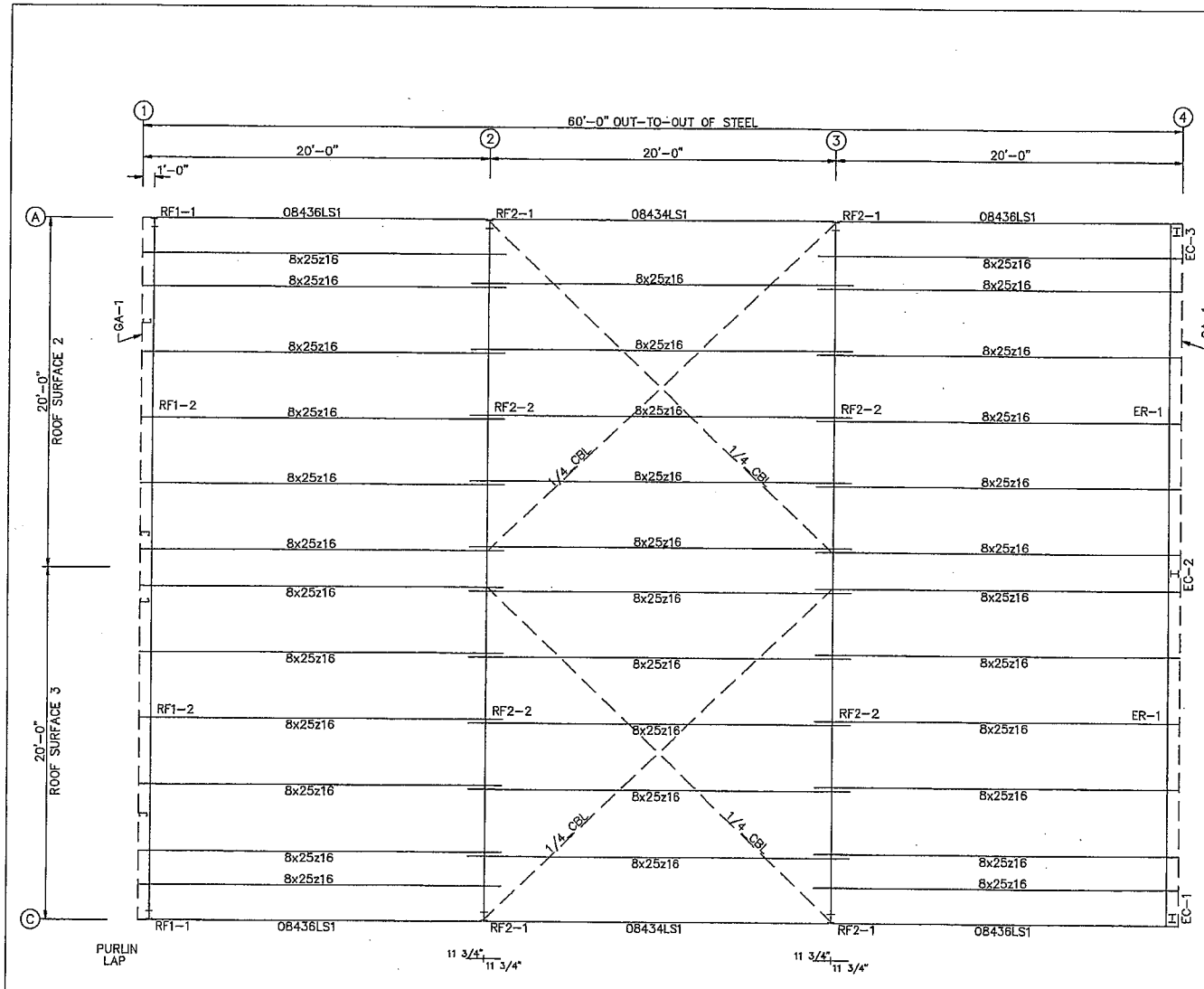
ACCREDITED
AC472



DRAWING NAME			
DESIGN SUMMARY			
CUSTOMER: E.J. Builders, Inc. Foley, AL			
PROJECT: City of Orange Beach Fire Sta. Orange Beach, AL			
FILENAME: 12672 - DS-Dwgs	JOB #:	12672	
DRAWN:	DESIGN:	JCS	DRAWING #:
CHECKED:	SCALE:	NONE	DS-F1
APPROVED:	DATE:	05/01/14	



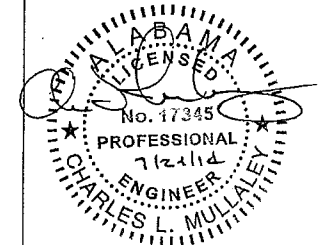
RIGID FRAME ELEVATION: FRAME LINE 1



ROOF FRAMING PLAN



CUSTOM STEEL BUILDINGS
 P.O. BOX 2514
 MUSCLE SHOALS, ALABAMA 35682
 PHONE (256) 543-7322 FAX (256) 381-9669



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REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	clm	Provide Occupancy Category to IV - increase Wind Speed to 100 mph
2			
3			
4			
5			

DESIGN CERTIFICATION
 CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE LOADS SPECIFIED ON THESE SITE SPECIFIC BUILDING AND PURCHASE ORDER. THE BUILDING MUST BE ERECTED IN ACCORDANCE WITH THE ERECTION DRAWINGS AND EDC LINES. ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. ARE UNDER THE SUPERVISION OF THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



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 AC472



DRAWING NAME:
DESIGN SUMMARY

CUSTOMER:	E.J. Builders, Inc. Poley, AL
PROJECT:	City of Orange Beach Fire Sta. Orange Beach, AL
FILE NAME: Roof Design.dwg	DWG # 12672
12672 - DS - DWG	
DRAWN:	DESIGN: JCB DRAWING #
CHECKED:	SCALE: NONE
APPROVER: <i>clm</i>	DATE: 05/01/14

GENERAL NOTES

1.1 Fabrication shall be in accordance with Bigbee Steel Buildings, Inc. standard practices in compliance with the applicable sections relating to design requirements and allowable stresses of the latest edition of the "AWS Structural Welding Codes - D1.1 and D1.3".

MATERIALS	ASTM DESIGNATION	MINIMUM YIELD
Hot rolled # 4 shapes	A502	FY = 50 KSI
Structural steel plate	A529/A572/A1011/A1018	FY = 65 KSI
Cold formed light gauge shapes	A955	FY = 65 KSI
Cable bracing	A192	Stress High Strength
Roof and wall sheets	A597, gr A	FY = 50, 55, KSI
Machine bolts	A325, type 1	FY = 120 KSI
High strength bolts (1/2" to 1" Ø)	A325, type 1	FY = 105 KSI
High strength bolts (1 1/8" to 1 3/8" Ø)	A307, gr C, F1554	FY = 58 KSI
Anchor bolts (if required)	A307, gr B	FY = 42 KSI
Pipe	A500, gr B	

* LATEST ISSUE

1.3 PRIMER

Framing members shall be cleaned and prepared in accordance with SSPC-SP2 as a minimum, and primer coated with Bigbee Steel Buildings, Inc.'s standard Red Oxide color meeting SSPC No. 16. The shop coat of paint is the prime coat of the protective system. It is intended as protection for only a short period of exposure in ordinary atmospheric conditions and is considered a temporary and provisional coating. Bigbee Steel Buildings, Inc. is not responsible for any deterioration of the shop primer paint as a result of improper handling and/or storage. Bigbee Steel Buildings, Inc. shall not be responsible for any field applied paint and/or coatings. (Section 6.5 AISC Code of Standard Practice, 13th Edition).

1.4 GALVANIZED OR SPECIAL COATINGS

See Contract Documents.

1.5 A325 BOLT TIGHTENING REQUIREMENTS

Snug Tight condition is defined as the tightness that exists when all piles in a joint are in firm contact. This may be attained by a few impacts of an impact wrench or the full effort of a person using an ordinary speed wrench. Hardened washers are not required except when bolts are installed in overcast or shaded holes.

Turn-of-nut is the method to be used for connections requiring full pre-tensioning. There shall first be enough bolts brought to a snug tight condition to insure that the piles of the joint are in firm contact. Bolts shall then be placed in remaining holes and the connection shall be tightened additionally by the applicable amount of nut rotation specified below, with tightening progressing systematically from the most rigid part of the joint to the free edges. During this operation there shall be no rotation of the part not turned by the wrench.

A325 BOLTS

BOLT SIZE IN INCHES	WIDTH IN INCHES	SPECIFIED MINIMUM FASTENER TENSION RATIO (MINI LBS)	SPECIFIED NUT ROTATION TURNS
1/2"	7/8"	12	1/3 TURN
3/4"	1 1/4"	28	1/2 TURN
7/8"	1 7/16"	39	
1"	1 5/8"	51	

1.6 CLOSURE STRIPS ARE FURNISHED FOR APPLICATION

INSIDE - Under roof panels at eave.
OUTSIDE - Under continuous ridge vent eaves.

NOTE: Conditions vary at hips, valleys, fascias, mansards and canopies refer to Erection Drawings for closure applications.

1.7 ERECTION NOTE

All bracing strapping and bridging shown and provided by Bigbee Steel Buildings, Inc. for this building is required and shall be installed by the erector as a permanent part of the structure unless noted otherwise on the erection drawing. 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.

1.8 UNLOADING AND ERECTION NOT BY BIGBEE STEEL BLDG. INC.

Due to Bigbee Steel Buildings, Inc.'s insurance policy, Bigbee Steel Buildings, Inc. drivers MAY NOT ASSIST in the unloading of structure.

1.9 CORRECTIONS OF ERRORS AND REPAIRS (MBMA B-10)

Claims for correction of alleged mistakes will be disallowed unless Bigbee Steel Buildings, Inc. has received prior notice thereof and allowed reasonable inspection of such mistakes. The correction of minor mistakes by the use of drift pins to draw the components into line, shimming, moderate amounts of reaming, clipping and cutting, and the replacement of minor shortages of material are a normal part of erection and are not subject to claim. No part of the building may be returned for alleged mistakes without the prior approval of Bigbee Steel Buildings, Inc.

BUYER / END USE CUSTOMER RESPONSIBILITIES

2.1 It is the responsibility of the BUYER / END USE CUSTOMER to obtain appropriate approvals and secure necessary permits from City, County, State or Federal Agencies as required, and to advise / release Bigbee Steel Buildings, Inc. to fabricate upon receiving such.

2.2 Bigbee Steel Buildings, Inc. standard specifications apply unless stipulated otherwise in the Contract Documents. Bigbee Steel Buildings, Inc.'s design, fabrication, quality criteria, standards, practice, methods and tolerances shall govern the work with any other interpretations to the contrary not withstanding. It is understood by both Parties that the BUYER / END USE CUSTOMER is responsible for clarification of inclusions or exclusions from the architectural plans and / or specifications.

2.3 In case of discrepancies between Bigbee Steel Buildings, Inc.'s structural steel plans or other trades, Bigbee Steel Buildings, Inc.'s plans govern. (Section 3 AISC Code of Standard Practices, 13th Edition).

2.4 Approval of Bigbee Steel Buildings, Inc. drawings and calculations indicates that Bigbee Steel Buildings, Inc. has correctly interpreted and applied the Contract Documents. The approval constitutes the contractor / owners acceptance of Bigbee Steel Buildings, Inc.'s design concepts, assumptions, and loading. (Section 4.4 AISC Code of standard practices 13th edition, and section 3.3.3 MBMA 2008 Metal Building Systems Manual).

2.5 Once the BUYER / END USE CUSTOMER has signed Bigbee Steel Buildings, Inc.'s Approval Package and the project is released for fabrication, changes shall be filed 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.

2.6 The BUYER / END USE CUSTOMER is responsible for overall project coordination. All interfaces, compatibility, and design considerations concerning any materials not furnished by Bigbee Steel Buildings, Inc. are to be considered and coordinated by the BUYER / END USE CUSTOMER. Specific design criteria concerning the interface between materials must be furnished before release for fabrication at Bigbee Steel Buildings, Inc.'s assumptions will govern. (Section 4 and Commentary AISC Code of Standard Practice, 13th Edition).

2.7 It is the responsibility of the BUYER / END USE CUSTOMER to insure that Bigbee Steel Buildings, Inc.'s plans comply with 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 Bigbee Steel Buildings, Inc. 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 Bigbee Steel Buildings, Inc.

2.8 The BUYER / END USE CUSTOMER is responsible for setting anchor bolts and erection of steel in accordance with Bigbee Steel Buildings, Inc.'s "For Construction" drawing only. Temporary supports such as gyps, braces, falsework, cribbing or other elements required for erection operation shall be determined and furnished and installed by the erector. No items should be purchased from a preliminary set of drawings, including anchor bolts. Use only final "FOR CONSTRUCTION DRAWINGS" for this use. (Section 7 AISC Code of Standard Practices, 13th Edition).

2.9 Bigbee Steel Buildings, Inc. is responsible for the design of the anchor bolts to permit the transfer of force between the base plate and anchor bolts in shear, bearing and tension, but is not responsible for the transfer of anchor bolts forces to concrete or the adequacy of the anchor bolts in relation to the concrete. Unless otherwise provided in the Order Documents, Bigbee Steel Buildings, Inc. does not design and is not responsible for the design, material, and construction of the foundation or foundation embedments. The BUYER / 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. It is recommended that the anchorage and foundation of the building be designed by a Registered Professional Engineer experienced in the design of such structures (Section A3 MBMA 2008 Metal Building Systems Manual).

2.10 Normal erection operations include the corrections of minor mistakes by moderate amounts of reaming, clipping, 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 member configuration are to be reported immediately to Bigbee Steel Buildings, Inc. by the BUYER / END USE CUSTOMER to enable whoever is responsible either in contact the erector or to approve the most efficient and economical method of correction to be used by others. (Section 7.12 AISC Code of Standard Practices, 13th Edition).

2.11 It is not permissible to cut, drill or alter the metal building components supplied by Bigbee Steel Buildings, Inc. unless such work is clearly specified in the contract documents or verified in writing by Bigbee Steel Buildings, Inc. Whenever such work is specified, the BUYER / END USE CUSTOMER is responsible for furnishing complete information as to materials, size, location and number of alterations prior to preparation of shop drawings. (Section 7 AISC Code of Standard Practice, 13th Edition).

2.12 WARNING

In no case should Aluminized Zinc steel panels be used in conjunction with lead or copper. Both lead and copper have harmful corrosive effects on the Aluminized Zinc alloy coating when they are in contact with Aluminized Zinc steel panels. Even run-off from copper flashing, wiring or tubing onto Aluminized Zinc should be avoided.

2.13 SAFETY COMMITMENT

Bigbee Steel Buildings, Inc. 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 Bigbee Steel Buildings, Inc. It is strongly recommended that safe working conditions and accident prevention practices be the top priority of any job site. Local, State and Federal safety and health standards should always be followed to help insure worker safety. Make certain all employees know the safest and most productive way of erecting 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.

SERVICEABILITY CONSIDERATIONS

3.1 Deflections of buildings and building components are part of the overall serviceability criteria that must be carefully considered by the BUYER / END USE CUSTOMER for a building project. The AISC Code of Standard Practice stipulates that when a fabricator has both design and fabrication responsibility, the owner must provide the "performance criteria of the structural steel frame". Absent of this criteria it is the design practice of Bigbee Steel Buildings, Inc. to use the "Serviceability Design Considerations for Steel Buildings", AISC Design Guide #3, as a reference for minimum standards.

ATTACHING BUILDING MATERIALS AND COMPONENTS TO THE METAL BUILDING SYSTEM

4.1 Special care and detailing should be considered when attaching building materials and components not designed and supplied by Bigbee Steel Buildings, Inc. to the metal building system. In areas where snow and ice accumulations can occur vertical deflections of the structural steel frames and purlins can be an issue when:

4.1a Attaching steel walls directly to the metal building framing without allowing for connection slip at the wall / building interface. Even a minimal amount of vertical deflection (1/4" - 3/8") of the structural steel framing can cause a metal stud to deflect laterally 6" to 8" when no allowance for building deflection has been made.

4.1b Suspending ceilings from the structural frames or purlins. In hallways or small rooms the ceiling should be supported from permanent walls or partitions. In larger rooms where the ceiling must be suspended from the metal building system it is important to allow the ceiling to deflect at the outside walls at the same rate it deflects in the center of the room. If the ceiling is supported continuously along any non-yielding wall while the rest of the ceiling is deflecting, obvious problems occur.

BUILDING POROSITY

5.1 Bigbee Steel Buildings, Inc. assumes that all overhead doors and all windows and walk doors which are not furnished by Bigbee Steel Buildings, Inc. have been designed to resist the required wind load of your building. In many cases, openings which have not been designed for full wind load will reduce the building as partially open; thereby increasing wind coefficients, increased wind coefficients may require additional girts and purlins, as well as, horizontal bracing of the girt frames. If you are using overhead doors, double check with Bigbee Steel Buildings, Inc. if you have not been designed for full wind load. Fully open Bigbee Steel Buildings, Inc. in advance so that your building can be properly designed for partially open conditions.



CUSTOM STEEL BUILDINGS

P.O. BOX 2514
MUSCLE SHOALS, ALABAMA 35682
PHONE: (256) 343-7322 FAX: (256) 341-9659

NOTE TO ERECTOR:

THE ERECTION INFORMATION PRESENTED ON THIS DETAIL SHEET IS PROVIDED AS A BUILDING SUPPLEMENT TO THE ERECTION DRAWINGS SUPPLIED WITH YOUR BIGBEE METAL BUILDING.

ILLUSTRATIONS AND TEXT ARE TYPICAL FOR MOST STANDARD BIGBEE BUILDINGS, ALTHOUGH VARIATIONS MAY OCCUR DUE TO SPECIFIC CUSTOMER REQUIREMENTS OR SUBSEQUENT ENGINEERING CHANGES.

FOR THESE REASONS, ALWAYS REFER TO THE ERECTION DRAWINGS SUPPLIED WITH THE BUILDING SHIPMENT BEFORE BEGINNING THE ERECTION PROCESS. IF PROPER DETAILS ARE NOT SHOWN OR A QUESTION ARISES, IT IS RECOMMENDED THAT YOU CONTACT BIGBEE STEEL BUILDINGS, INC. FOR FURTHER INFORMATION. (WATTS: 1-800-633-3378) (WEB: www.bigbee.com)

SAFETY

BIGBEE STEEL BUILDINGS, INC. IS COMMITTED TO THE MANUFACTURE OF QUALITY BUILDING COMPONENTS THAT CAN BE SAFELY ERECTED. HOWEVER, THE SAFETY COMMITMENT AND JOB SITE PRACTICES OF THE ERECTOR ARE BEYOND THE CONTROL OF BIGBEE STEEL BUILDINGS, INC.

BIGBEE STEEL BUILDINGS, INC. INTENDS THAT THIS DETAIL SHEET BE INTERPRETED AND ADMINISTERED WITH SOUND JUDGMENT CONSISTENT WITH GOOD SAFETY PRACTICES.

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REVISIONS

ID	DATE	BY	DESCRIPTION
1			
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5			

DESIGN CERTIFICATION

CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIGBEE STEEL BUILDINGS, INC. IS LIMITED TO THE CONDITIONS SPECIFIED ON THE BIGBEE STEEL BUILDINGS, INC. PURCHASE ORDER. THE BUILDING MUST BE ERECTED IN ACCORDANCE WITH THE ERECTION DRAWINGS AND EXCLUDES ITEMS NOT SUPPLIED BY BIGBEE STEEL BLDG. INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



ACCREDITED
AC472



GENERAL NOTES

DRAWING NAME: **GENERAL NOTES**

CUSTOMER: **E.J. Builders, Inc. Foley, AL**

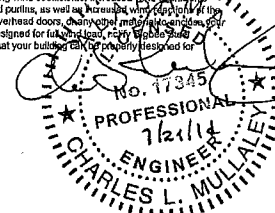
PROJECT: **City of Orange Beach Fire Sta. Orange Beach, AL**

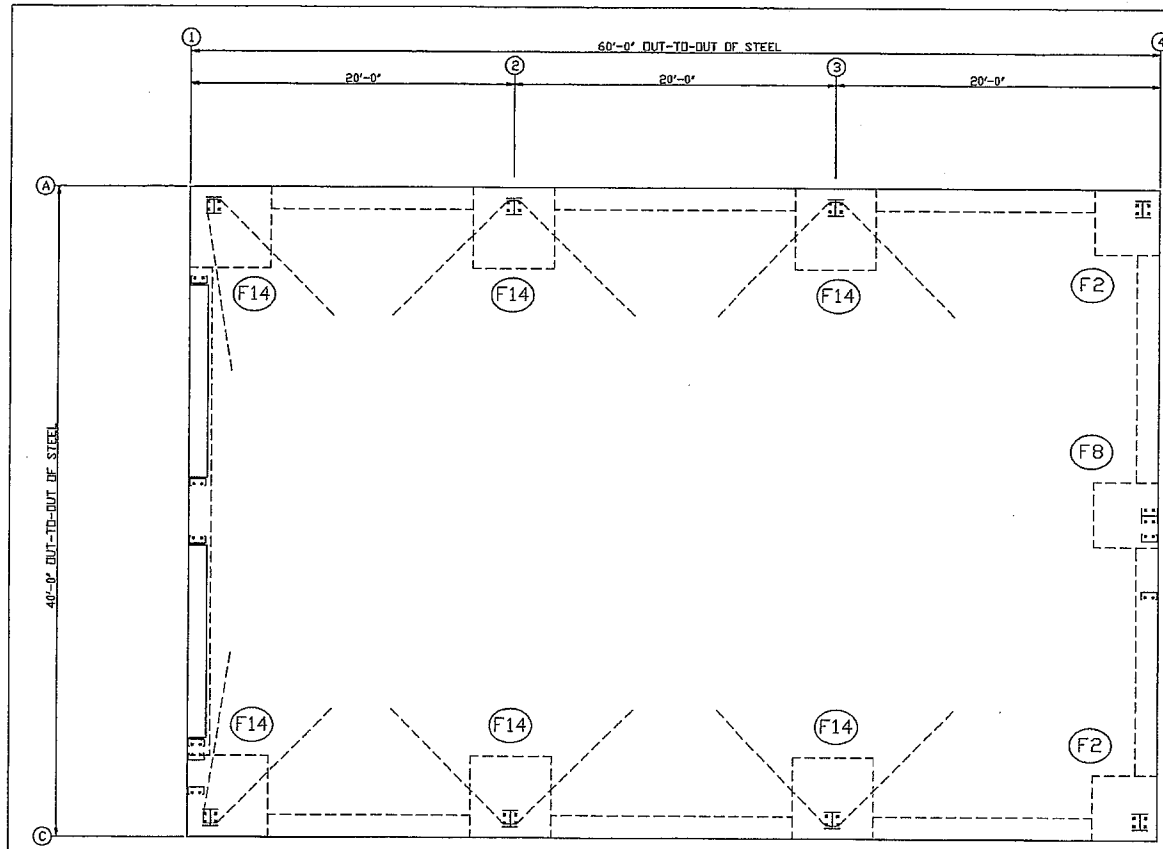
FILED NO: **12672 - DS - Dwg8**

DRAWN: **JCS** DESIGN: **JCS** DRAWING #: **D-0**

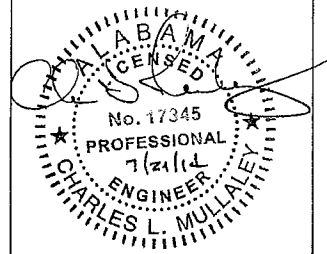
CHECKED: **NONE**

APPROVED: **CLM** DATE: **05/01/14**





CUSTOM STEEL BUILDINGS
 P.O. BOX 2814
 MUSCLE SHOALS, ALABAMA 35662
 PHONE (256) 383-7322 FAX (256) 381-9652



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REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	clm	Revised Footing Details
2			
3			
4			
5			

DESIGN CERTIFICATION
 CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED
 BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE
 TERMS SPECIFIED ON THE CUSTOMER ORDER. THE BUILDING MUST BE ERRECTED BY
 PURCHASE ORDER. THE BUILDING MUST BE ERRECTED IN
 ACCORDANCE WITH THE SPECIFICATIONS AND INCLUDES
 ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC.
 THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR
 THE OVERALL PROJECT.



DRAWING NAME: **SLAB PLAN & FOOTING DETAILS**

CUSTOMER: **E.J. Builders, Inc.
Foley, AL**

PROJECT: **City of Orange Beach Fire Sta.
Orange Beach, AL**

FILE NO: **12672 - AB-Plans** JOB #: **12672**

DRAWN	JCS	DESIGN	JCS	DRAWING #	F1
CHECKED	JS	SCALE	NONE		
APPROVED	CLM	DATE	05/01/14		

- CONCRETE SLAB MUST BE IN PLACE PRIOR TO ERECTION OF STEEL STRUCTURE TO ENGAGE HAIRPINS.
- SLAB CONTRACTION JOINTS ARE REQUIRED. SEE NOTES FOR GUIDANCE ON JOINT SPACING AND CUTTING.
- REFER TO THE STANDARD FOOTING SCHEDULE(S) SUPPLIED WITH THIS PACKAGE FOR FOOTING DESIGNATION REFERENCE INFORMATION.
- SLAB PERIMETER IS REQUIRED TO HAVE AN APPROPRIATE TURNDOWN AS SHOWN IN THE FOOTING SCHEDULE(S).

Basic Building Anchorage Notes

Footings designations shown on the Footing Plan require:

1. Minimum Soil Bearing Capacity of: 2000 psf.
2. Maximum Frost Depth of: 14 in.
3. Absence of Plastic (Expansive) Soils.

The footing and foundation information shown on these pages is provided as part of the total building package. The sections and dimensional sizes shown are suitable to properly anchor the building structure. If the general assumptions noted above are valid.

BigBee Steel Buildings, Inc. engineers have not reviewed geotechnical data for the specific location of this building. If such geotechnical data indicate that the assumptions noted above are invalid, then the owner/general contractor must acquire the services of a local design professional to provide an appropriately engineered foundation. Also, local building officials may require a site-specific engineered foundation design which would necessitate the services of a local design professional.

Other foundation elements beyond and unrelated to the basic building anchorage, or other foundation elements that conflict with the basic building anchorage, may invalidate the information shown here and will require the services of a local design professional. Such elements might include, but are not limited to, bid or block wall system foundations, loading docks, retaining walls, structural slabs, special floor constructions, etc.

The building anchors are to be placed per the Anchor Plan drawing (typically AB-1). The owner/contractor should carefully review the overall dimensions of the slab, the anchor dimensions, and the individual base plate details prior to setting the anchors. The anchors must be installed exactly to the requirements of the Anchor Plan drawing for the building to be properly anchored and erected. Anchor bolts/rods should conform to ASTM F1554 grade 35.

The slab thickness shown in the footing and foundation information is illustrative only. The owner/contractor must consider the slab loading and usage in order to determine the slab thickness.

It is recommended that any slab area be over-excavated to ensure that plastic (expansive) soils, organics, and other deleterious materials are removed. If material is required to bring a slab area to proper grade, the fill material should be placed in lifts appropriate for the compaction equipment to be employed. Fill material quality and compaction should follow code requirements. Uniform soil capacity is essential to insure the integrity of the slab and foundation system. A base course (minimum of 4" thick with maximum particle size of 1/2") of clean, crushed stone to provide drainage and stability is recommended on top of the compacted soil. A 6-mil polyethylene vapor retarder with joints lapped not less than 6 inches is recommended between the base course and the concrete floor slab. It is recommended that a local design professional be contracted to guide the site preparation.

Foundation reinforcement steel should be placed according to the following code requirements:

Footing mat placements and other reinforcing bars:
 In concrete cast against earth: 3" clear
 Otherwise: 1 1/2" - 2" clear

Perimeter reinforcing bars (rebar in slab turndowns) are to be continuous through footers. Splicing it to be per ACI-308. Minimum splice lengths are to be as follows:
 17" for #3 bars,
 22" for #4 bars,
 28" for #5 bars,
 33" for #6 bars.

Slab penetration points (such as interior column locations and pipe penetrations) should be isolated from the slab. Additional slab reinforcing should be provided around such locations as well as perimeter reentrant points to inhibit slab cracking.

Temperature and shrinkage reinforcement is required and the following options are listed in order of considered effectiveness:

Deformed bars (ASTM A 615 grade 60 reinforcing steel):
 4" slab-#3 reinforcing bars at 24" centers each way
 6" slab-#3 reinforcing bars at 18" centers each way
 8" slab-#3 reinforcing bars at 12" centers each way

Welded wire reinforcing (ASTM A 185):
 4" slab-6x6-w1.4xw1.4
 6" slab-6x6-w1.4xw1.4
 8" slab-6x6-w2.0xw2.0

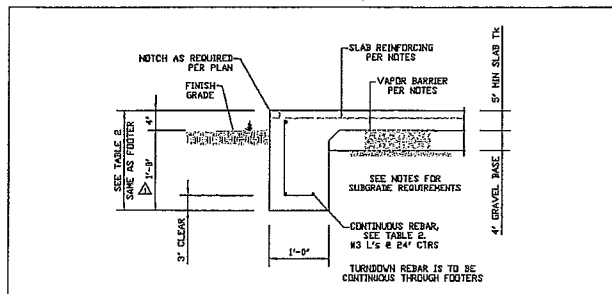
Shrinkage and temperature reinforcement should be at or above mid-depth of the slab on grade. Placement 2" to 2" below the top surface of the concrete is common.

Polypropylene or nylon fibers added to concrete at a rate of 1/4 to 1 1/2 pounds per cubic yard of concrete serve to control shrinkage during curing but are not considered acceptable as substitutes for the temperature and shrinkage reinforcement options listed above.

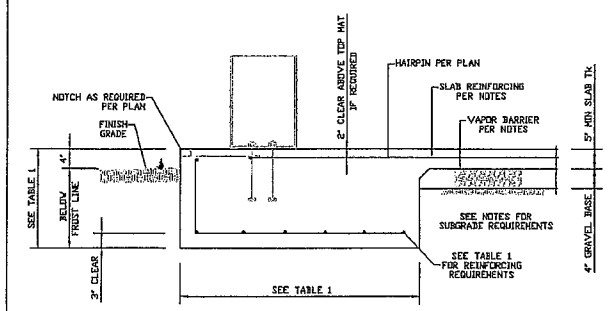
Slab contraction joints are required. Contraction joint recommended spacing is (in feet) no more than 2-3 times the slab thickness (in inches), with joint spacing not exceeding 15'. Joints must be cut to 25% of the depth of the slab within 4-12 hours after finishing the concrete. Cuts are not to sever the slab reinforcing steel. Cuts should occur at all column centerlines in both directions. Cuts should be straight lines, incorporate reentrant points, and not form T's.

Dowel joints are required at all construction joints, and at contraction joints in slabs subject to moving loads. Dowels should be saw cut (not sheared) and must be installed straight and aligned. The dowels should be grouted or cast in one side to enable slippage. Formed keyways at construction joints are not recommended.

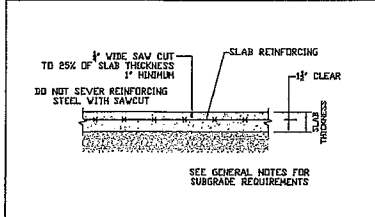
Concrete recommendations:
 Cement: ASTM C 150 type I or II
 ASTM C33 aggregate: size 57
 Air entrainment: 0.00
 Water/cement ratio (by weight): 0.50 max.
 Compressive strength at 28 days: 3000 psi
 Maximum slump: 3"-1"



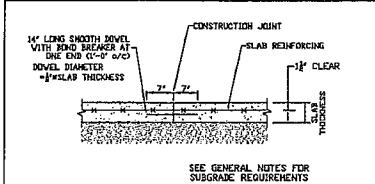
MONOLITHIC POUR TURNDOWN



MONOLITHIC POUR FOOTER



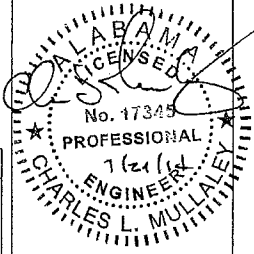
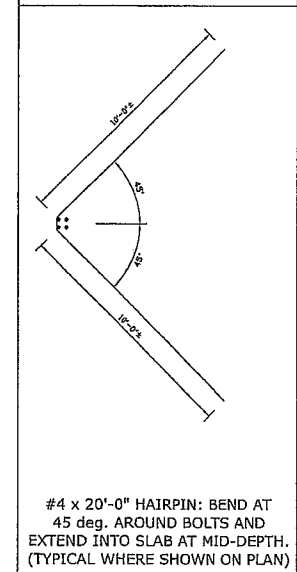
CONTRACTION JOINT DETAIL



CONSTRUCTION JOINT DETAIL

TABLE 1: FOOTER DIMENSIONS & REINFORCING			
	SQUARE FOOTER DIMENSIONS	FOOTER DEPTH	BOTTOM REINFORCING (EACH DIRECTION)
F1	3'-0" x 3'-0"	1'-8"	(5) #4 x 30" LONG
F2	3'-0" x 3'-0"	2'-4"	(5) #5 x 30" LONG
F3	3'-0" x 3'-0"	3'-0"	(7) #5 x 30" LONG
F4	3'-6" x 3'-6"	1'-8"	(6) #4 x 36" LONG
F5	3'-6" x 3'-6"	2'-4"	(6) #5 x 36" LONG
F6	3'-6" x 3'-6"	3'-0"	(8) #5 x 36" LONG
F7	4'-0" x 4'-0"	1'-8"	(7) #4 x 42" LONG
F8	4'-0" x 4'-0"	2'-4"	(7) #5 x 42" LONG
F9	4'-0" x 4'-0"	3'-0"	(6) #6 x 42" LONG
F10	4'-6" x 4'-6"	1'-8"	(5) #5 x 48" LONG
F11	4'-6" x 4'-6"	2'-4"	(8) #5 x 48" LONG
F12	4'-6" x 4'-6"	3'-0"	(7) #6 x 48" LONG
F13	5'-0" x 5'-0"	1'-8"	(6) #5 x 54" LONG
F14	5'-0" x 5'-0"	2'-4"	(8) #5 x 54" LONG
F15	5'-0" x 5'-0"	3'-0"	(8) #6 x 54" LONG
F16	5'-6" x 5'-6"	1'-8"	(6) #5 x 60" LONG
F17	5'-6" x 5'-6"	2'-4"	(9) #5 x 60" LONG
F18	5'-6" x 5'-6"	3'-0"	(9) #6 x 60" LONG
F19	6'-0" x 6'-0"	1'-8"	(7) #5 x 66" LONG
F20	6'-0" x 6'-0"	2'-4"	(10) #5 x 66" LONG
F21	6'-0" x 6'-0"	3'-0"	(9) #6 x 66" LONG

HAIRPIN REQUIREMENTS



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NO.	DATE	BY	DESCRIPTION
1	21 July 11	dlb	Review Footing Details.
2			
3			
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REVISIONS



STANDARD FOOTING SCHEDULE S-1

OWNER: E.J. Builders, Inc. Foley, AL

PROJECT: City of Orange Beach Fire Sta. Orange Beach, AL

FOOTING: 12x12 - AS-308

DATE: 05/01/14

12672

S-1

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Wind_Left1 Horz	Wind_Right1 Horz	Wind_Left2 Horz	Wind_Right2 Horz	Wind_Press Horz	Wind Suct Horz
4	C	0.5	0.2	2.1	0.0	-5.0	0.0	-5.0	0.0	3.2
4	B	0.8	0.4	3.9	2.9	-10.2	0.0	-5.0	0.0	-6.0
4	A	0.5	0.2	2.1	0.0	-0.5	2.9	-7.5	0.0	0.0

Frm Line	Col Line	Wind_Long1 Horz	Wind_Long2 Horz	Sels_Left Horz	Sels_Right Horz
4	D	0.0	-5.8	0.0	-3.3
4	B	0.0	-8.1	0.4	-8.8
4	A	0.4	-3.8	0.0	-5.4

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

Frm Line	Col Line	Column Reactions (k)	V	Anc. Bolt Qty	Base Plate (in)	Grout (in)
Line	Line	Load ID	Hmax H	Vmax ID	Hmin H	Vmin H
4	C	10	0.0	-3.2	10	0.0
4	B	11	3.9	-5.6	12	-3.6
4	A	13	0.0	-4.2	13	0.0

BUILDING BRACING REACTIONS

Wall Loc	Col Line	Reactions (k)	Panel Shear (lb/ft)
Line	Line	Wind Horz	Selsm Vert
L_EW	1	Rigid Frame At Endwall	
F_SW	C	2.3	6.1
R_EW	A	2.9	2.4
B_SW	A	3.2	6.1

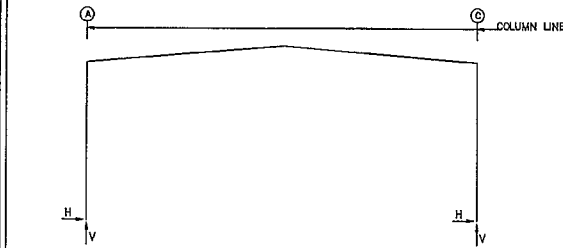
NOTES FOR REACTIONS

- Building reactions are based on the following building data:
- Width (ft) = 40.0
 - Length (ft) = 60.0
 - Eave Height (ft) = 16.0/16.0
 - Roof Slope (rise/12) = 1.0/1.0
 - Dead Load (psf) = 2.0
 - Roof Live Load (psf) = 20.0
 - Frame Live Load (psf) = 12.0
 - Wind Speed (mph) = 170.0
 - Wind Code = IBC 12
 - Exposure = B
 - Closed/Open = C
 - Importance Wind = 1.00
 - Importance Seismic = 1.50
 - Seismic Zone = C
 - Seismic Coeff (Fa/Sa) = 0.14

ID Description

- 1 Dead+Collateral+Live
- 2 Dead+Collateral+0.75Live+0.45Wind_Left1
- 3 Dead+Collateral+0.75Live+0.45Wind_Right1
- 4 0.6Dead+0.6Wind_Left1
- 5 0.6Dead+0.6Wind_Right1
- 6 0.6Dead+0.6Wind_Left2
- 7 0.6Dead+0.6Wind_Right2
- 8 0.6Dead+0.6Wind_Long1
- 9 0.6Dead+0.6Wind_Long2
- 10 0.6Dead+0.6Wind_Suction+0.6Wind_Long1
- 11 0.6Dead+0.6Wind_Left2+0.6Wind_Suction
- 12 0.6Dead+0.6Wind_Pressure+0.6Wind_Long2
- 13 0.6Dead+0.6Wind_Right2+0.6Wind_Suction

FRAME LINES: 1 2 3



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

Frm Line	Col Line	Column Reactions (k)	V	Anc. Bolt Qty	Base Plate (in)	Grout (in)
Line	Line	Load ID	Hmax H	Vmax ID	Hmin H	Vmin H
1	A	3	1.6	1.1	6	-3.8
1	C	7	3.8	-4.5	2	-1.6
1	C	1	-1.5	4.7	5	3.7

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

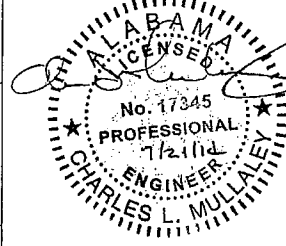
Frm Line	Col Line	Column Reactions (k)	V	Anc. Bolt Qty	Base Plate (in)	Grout (in)
Line	Line	Load ID	Hmax H	Vmax ID	Hmin H	Vmin H
2*	A	3	2.4	1.6	6	-4.7
2*	C	7	4.7	-4.9	2	-1.6
2*	C	1	-2.1	6.9	9	-0.4

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead	Collateral	Live	Wind_Left1	Wind_Right1	Wind_Left2
Line	Line	Horz	Vert	Horz	Vert	Horz	Vert
1	A	0.2	1.0	0.1	0.4	1.1	3.3
1	C	-0.2	1.0	-0.1	0.4	-1.1	3.3
2*	A	0.3	1.3	0.3	0.8	1.5	4.8
2*	C	-0.3	1.3	-0.3	0.8	-1.5	4.8



CUSTOM STEEL BUILDINGS
P.O. BOX 2514
MUSCLE SHOALS, ALABAMA 35662
PHONE (256) 343-7322 FAX (256) 381-9889



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REVISIONS

NO	DATE	BY	DESCRIPTION
1	21 Jul 14	clm	Issue Occupancy Category to V-Reseal Wind Speed & T/W Spd
2			
3			
4			
5			

DESIGN CERTIFICATION
CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE LOADS SPECIFIED ON THE BIG BEE STEEL BUILDINGS, INC. PURCHASE ORDER. THE BUILDING MUST BE REERECTED ACCORDANCE WITH THE ERECTION DRAWINGS AND EXCLUDES ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



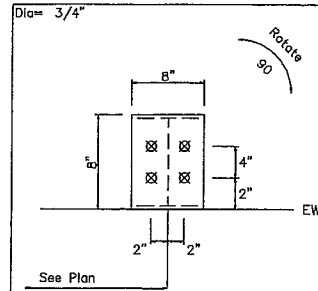
DRAWING NAME
COLUMN & BRACING REACTIONS

CUSTOMER
E.J. Builders, Inc.
Foley, AL

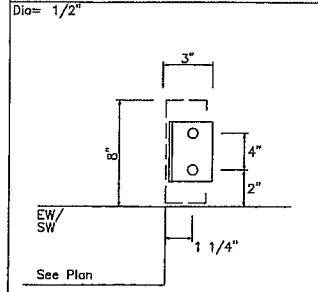
PROJECT
City of Orange Beach Fire Sta.
Orange Beach, AL

FILENAME Andwg-3.dwg **ISS #** 12672
12672 - AB-Plans

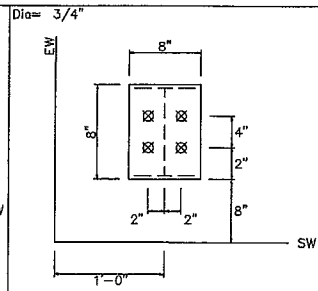
DRAWN DESIGN JCS **DRAWING #** AB3
CHECKED SCALE NONE
APPROVED DATE 05/01/14



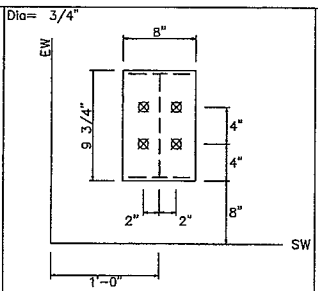
DETAIL A



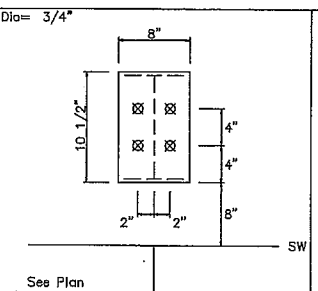
DETAIL E



DETAIL B



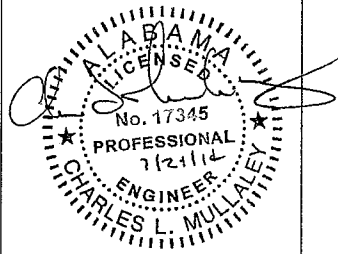
DETAIL C



DETAIL D



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 P.O. BOX 2314
 MUSCLE SHOALS, ALABAMA 35662
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REVISIONS			
NO	DATE	BY	DESCRIPTION
1	21 July 14	clm	Revise Occupancy Category to IV - Increase Wind Speed to 130 mph
2			
3			
4			
5			

DESIGN CERTIFICATION
 CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. IS LIMITED TO THE LOADS SPECIFIED ON THE BIG BEE STEEL BUILDINGS, INC. PURCHASE ORDER. THE BUILDING MUST BE ERRECTED IN ACCORDANCE WITH THE ERECTION DRAWINGS AND EXCL. LISTS ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



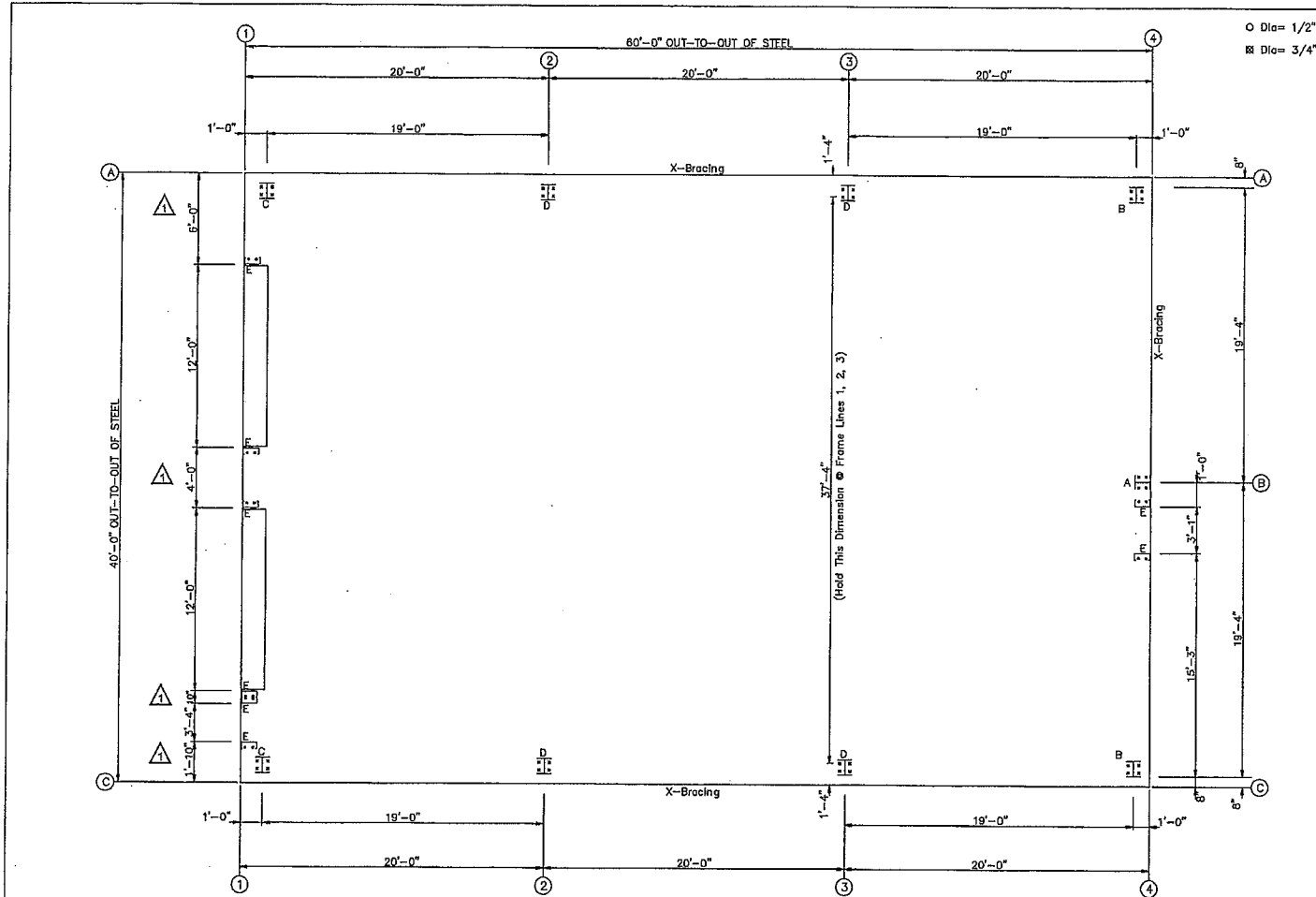
DRAWING NAME
BASE PLATE DETAILS

CLIENT:
 E.J. Builders, Inc.
 Foley, AL

PROJECT:
 City of Orange Beach Fire Sta.
 Orange Beach, AL

FILENAME: *mlb-241* **JOB #**
 12672 - AB-Plans **12672**

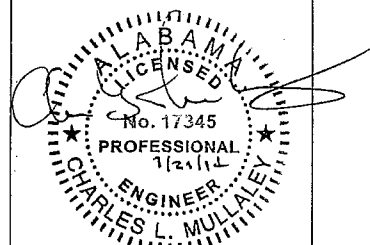
DRAWN	DESIGN JCS	DRAWING #
CHECKED	SCALE NONE	AB2
APPROVED <i>[Signature]</i>	DATE 05/01/14	



○ Dia = 1/2"
 ⊗ Dia = 3/4"



CUSTOM STEEL BUILDINGS
 P.O. BOX 2814
 MUSCLE SHOALS, ALABAMA 35882
 PHONE: (256) 363-7222, FAX: (256) 381-8659



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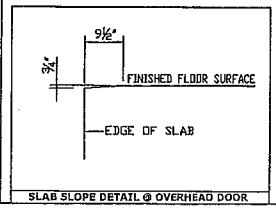
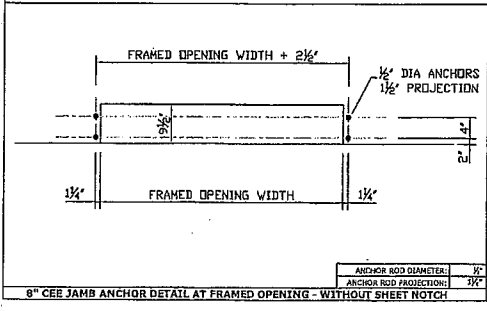
REVISIONS			
NO	DATE	BY	DESCRIPTION
1	6-7-14	FS	Adjusted framed openings per returned approval drawings
2	21 July 14	clm	Permit Occupancy Category by 1' - Increase Wind Speed to 110 mph
3			
4			
5			

DESIGN CERTIFICATION
 CERTIFICATION OF THE METAL BUILDING COMPONENTS SUPPLIED BY BIG BEE STEEL BUILDINGS, INC IS LIMITED TO THE LINES SPECIFIED ON THIS BIG BEE STEEL BUILDINGS, INC PURCHASE ORDER. THE BUILDING MUST BE ERRECTED IN ACCORDANCE WITH THE ERECTION DRAWINGS AND INCLUDES ITEMS NOT SUPPLIED BY BIG BEE STEEL BUILDINGS, INC. THE UNDERSIGNED IS NOT THE ENGINEER OF RECORD FOR THE OVERALL PROJECT.



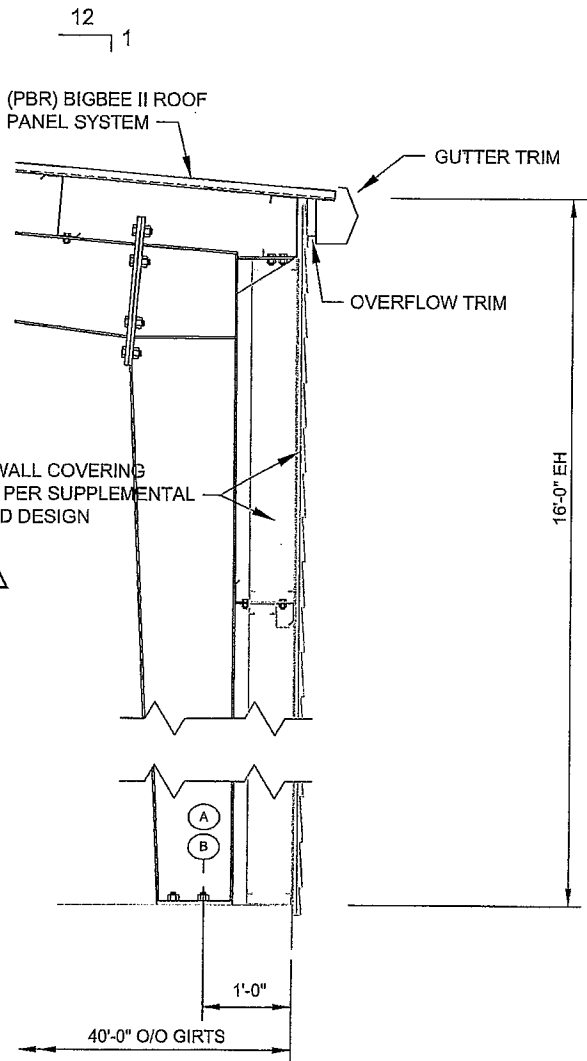
DRAWING NAME: ANCHOR BOLT PLAN	
CUSTOMER: E.J. Builders, Inc. Foley, AL	
PROJECT: City of Orange Beach Fire Sta. Orange Beach, AL	
FILED NO: 12672 - AB-Plans	JOB # 12672
DRAWN: [Signature]	SCALE: NONE
CHECKED: F.S.	DATE: 05/01/14
APPROVED: [Signature]	DRAWING # AB1

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

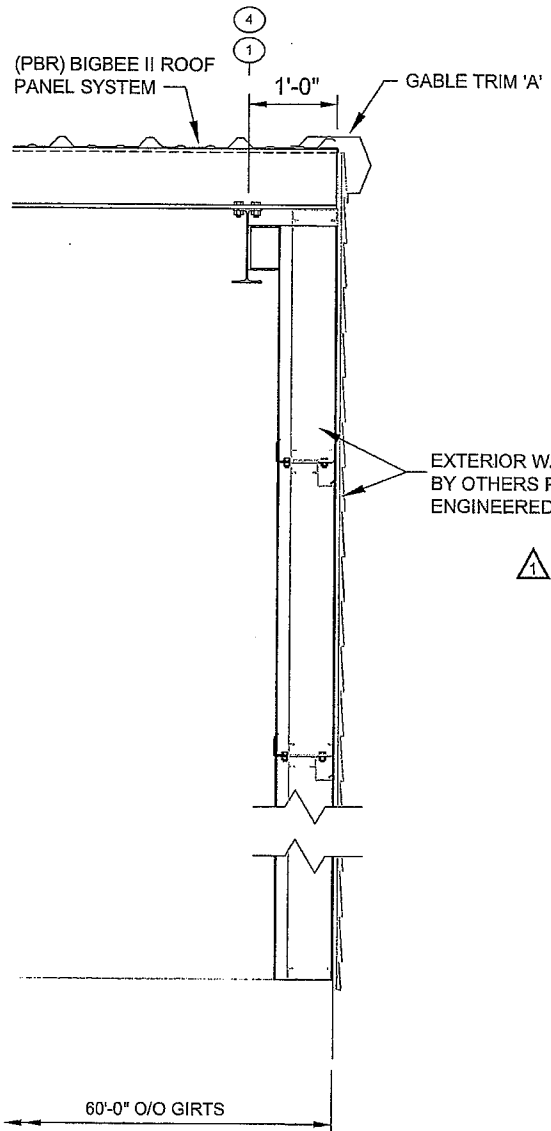


CAUTION:
 REFER TO AB-2 FOR INDIVIDUAL BASE PLATE DETAILS. ANCHOR BOLT SETTING PATTERNS ARE NOT IDENTICAL AT EVERY COLUMN. CARE MUST BE EXERCISED TO INSURE BOLTS ARE PROPERLY SET AT EACH COLUMN LOCATION TO INSURE THAT THE BUILDING WILL ERECT PROPERLY.

ANCHOR ROD DIAMETER:	3/4"
ANCHOR ROD PROJECTION:	1 1/2"



SECTION 'A'



SECTION 'B'

PRELIMINARY NOTE
 THESE DRAWINGS ARE PRELIMINARY AND TO BE USED FOR REVIEW AND COMMENT ONLY. THEY SHOW ALL PERTINENT DIMENSIONS, SETTING, BOARDING CONDITIONS, AND SECTIONS WITH DETAILS, AS WELL AS SCOPE OF WORK. THESE SHALL BE A REPLACEMENT OR SUBSTITUTE FOR FINAL DESIGN DRAWINGS, ANCHOR BOLT PLACEMENT, SPECIFIC ENGINEERED DESIGN.
 THE ENGINEERING DESIGN SUMMARY, FOR CONSTRUCTION ANCHOR BOLT PLANS, AND ELECTION W/ SECTION A DETAIL DRAWINGS WILL BE SENT OUT LATER AS THE DESIGN PROCESS CONTINUES FORWARD.



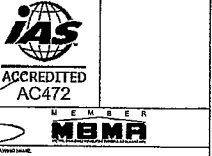
THIS DRAWING REFLECTS PRELIMINARY STEEL LAYOUT PLANS AND/OR ELEVATIONS, AND SHEETING AND TRIM DETAILS OF THIS STRUCTURE. ITS PURPOSE IS TO CLARIFY THE PROJECT SCOPE FOR MINKIN BIGBEE STEEL BUILDINGS, INC. IS RESPONSIBLE, AND TO INDICATE OUR UNDERSTANDING OF CONSTRUCTION ELEMENTS TO BE ADDED BY OTHERS. CONSTRUCTION ELEMENTS DEPICTED HEREIN (BEYOND THE METAL BUILDING STRUCTURE) ARE NOT TO BE CONSIDERED AS REPRESENTING ENGINEERING DESIGN OF THOSE ELEMENTS. SUCH ENGINEERING DESIGN MUST BE SECURED FROM OTHER DESIGN PROFESSIONALS.
 THE DESIGN OF ANY ELEMENTS ADDED TO THE METAL BUILDING STRUCTURE BY OTHERS DOES NOT FALL UNDER THIS ENGINEERING SEAL AFFIXED TO THIS DRAWING EXCEPT AS SPECIFICALLY STATED BY THE DESIGN SUMMARY DRAWINGS. IN ADDITION, THE DESIGN OF THE PHYSICAL CONNECTION OF SUCH ELEMENTS TO THE METAL BUILDING STRUCTURE IS BY OTHERS AND DOES NOT FALL UNDER THE ENGINEERING SEAL.
 NOTHING DEPICTED IN BIGBEE STEEL BUILDINGS INC. DRAWINGS IS TO BE UNDERSTOOD AS PROVIDING ARCHITECTURAL SERVICES. THE SERVICES OF A REGISTERED ARCHITECT MUST BE CONTRACTED BY THE OWNER TO INSURE THAT A COMPREHENSIVE CODE REVIEW IS COMPLETED AND THAT ALL LOCAL BUILDING CODE REQUIREMENTS ARE MET. IN PARTICULAR, CODES AND REGULATIONS SHOWN IN BIGBEE STEEL BUILDINGS, INC. DRAWINGS REFLECT ONLY THE CUSTOMER'S REQUESTS AND HAVE NOT BEEN SUBJECT TO ANY BUILDING CODE REVIEW.

DETAILS NOTE:
 YOUR CONTRIBUTIONS AND TRIM DETAILS IN THE ELEVATIONS AND THIS DRAWING ARE FOR INFORMATION. THE REGISTERED ARCHITECT HAS THE SOLE RESPONSIBILITY TO MAKE ADJUSTMENTS AS NECESSARY TO CREATE THE FINISHED & CORRECT EXECTIONS WITH CORRECT TRIM PARTS FOR THE PROJECT. OBTAIN THE NOTE AFTER FINAL CHECK.

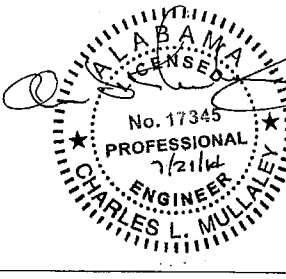
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NO.	DATE	BY	DESCRIPTION
1	8-17-14	ES	Adjusted wall ratio per related appendix.
2			
3			
4			

DESIGN CERTIFICATION
 CERTIFICATION OF THE DESIGN PROFESSIONAL'S SIGNATURE AND SEAL IS LIMITED TO THE DESIGN OF THE METAL BUILDING STRUCTURE. THE DESIGN PROFESSIONAL IS NOT RESPONSIBLE FOR THE DESIGN OF ANY OTHER ELEMENTS OF THE STRUCTURE. THE DESIGN PROFESSIONAL'S SIGNATURE AND SEAL SHALL BE PLACED ON THE ORIGINAL PROJECT DRAWINGS AND SHALL BE PLACED ON THE ORIGINAL PROJECT DRAWINGS.



Sections & Details
 CONTRACTOR: EJ Builders, Inc., Foley, AL
 PROJECT: City of Orange Beach Fire Station, Orange Beach, AL
 DRAWING: 15972 Column Layout, SHEET: 12672
 SCALE: AS SHOWN
 DATE: 4-30-14
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]



SD-1