

GENERAL NOTES

1. Design and/or fabrication shall be in accordance with Whirlwind's standard practices and interpretations of the following codes: Ninth Edition AISC Steel Construction Manual ASD,

2001 North American Specification For The Design Of Cold-Formed Steel Structural Members, 2004 AWS D1.1 Structural Welding Code-Steel and any other code listed within the Design Information.

2. Materials	ASTM Designation	Minimum Yield and Tensile
Hot Rolled Mill Shapes	A992 or A572	Fy= 50 ksi, Fu= 65 ksi
Steel Plate/Flat Bar	A572 or A529	Fy= 50 ksi, Fu= 60 ksi
Structural Steel Strip	A1011 or A529	Fy= 50 ksi, Fu= 60 ksi
Structural Steel Sheet	A1011, A529 or A572	Fy= 50 ksi, Fu= 60 ksi
Cold-Formed Light Gauge Shapes	A1011	Fy= 57 ksi, Fu= 65 ksi
Cable Bracing	A475	Extra High Strength
Round Bar Bracing	A36	Fy= 36 ksi, Fu= 58 ksi
Roof and Wall Cladding	A792	Fy= 50, 60 ksi, Fu= 65 ksi
Machine Bolts	A307	
High Strength Bolts	A325	
Anchor Rods (not by Whirlwind)	A307	

3. Finish:

- a. All cold-formed structural framing members shall be shot blasted, given one coat (0.5 mils) of premium polyester-based red primer, then oven baked prior to any fabrication. The primer contains a "wax" type lubricant to facilitate roll forming and deter marring during these operations. Hair line crazing which may occur during forming operations is considered normal.
- b, All other structural framing members shall be cleaned in accordance with the AISC Code of Standard Practice and given one shop coat (1.0 mils) of Whirlwind's standard red-oxide primer designed for short term field protection during the erection process. Whirlwind's standard red-oxide primer meets the performance specifications of Federal Specification TT-P-636D and TT-P-664.
- 4. All bolts are 12" x 0'-114" A307 except as noted. Refer to the erection drawings for specific framing connections and the cross-section(s) for main frame connections.

5. A325 Bolt Tightening Requirements

All high strength bolts are A325 unless specifically noted otherwise. All structural A325 bolts with heavy hex nuts for the Rigid Frame are to be installed using the turn-of-the-nut method specified in the "Specification for Structural Joints Using ASTM A325 or A490 Bolts" in the AISC Manual, Unless noted otherwise, all bolted connections are designed as bearing type connections with bolt threads not excluded from the shear plane.

Closure Strips Furnished for Roof Applications

6. INSIDE — under roof panels at eave

OUTSIDE - between endwall panels and rake trim and at the high side eave trim

* ERECTION NOTES

- 1. All bracing shown and provided by Whirlwind for this building is required and shall be installed by the erector as a permanent part of the structure ("Code of Standard Practice for Steel Buildings and Bridges" in the AISC Manual; Section 7.9).
 - 2. Temporary supports, such as guys, braces, falsework, cribbing or other elements required for the erection operation shall be determined and furnished by the erector ("Code of Standard Practice for Steel Buildings and Bridges" in the AISC Manual; Section 7.9).
 - 3. Normal erection operations include the correction of minor misfits by moderate amounts of reaming, chipping, or cutting and the drawing of elements into line through use of drift pins. Errors which require major changes in the member configuration are to be reported immediately to Whirlwind by the customer to enable whoever is responsible either to correct the error or to approve the most efficient and economic method of correction to be used by others ("Code of Standard Practice for Steel Buildings and Bridges" in the AISC Manual; Section 7.12).
 - 4. Erection tolerances are set forth in AISC Code of Standard Practice 7.11 except that individual members are considered plumb, level and aligned if the deviation does not exceed 1:300. Variations in finished overall dimensions of structural steel framing are deemed within the limits of good practice when they do not exceed the cumulative effect of rolling, fabricating, and erection tolerances.

When crane support systems are part of the metal building system erection tolerances Section 9. Common Industry Practices, 1996 MBMA Low Rise Building Systems Manual shall apply. To achieve the required tolerances grouting of the columns and shimming of the runway beams may be required. The customer shall provide grout if required. The contractor erecting the runway beams is responsible for shimming, plumbing, and leveling of the runway system. When aligning the runway beams the alignment shall be with respect to the beam webs so that the center of the aligned roil is over the runway web.

- 5. As a general rule field welding is not used to assemble a metal building system. In cases where the drawings indicate field welding and in cases where approved corrections are to be made by field welding the following requirements shall be met:
- a. Welders must be qualified by an independent testing agency, with suitable documentation to AWS D1.1 Structural Welding Code - Steel or AWS D1.3 Structural Welding Code - Sheet Steel as applicable, for the processes, positions, and materials involved.
- b. All welds must be made in conformance to a documented and approved Welding Procedure Specification (WPS), All joints which are not prequalified must be supported by a certified Procedure Qualification Record (PQR) by an independent testing agency.
- All documentation and records shall be the responsibility of the customer.
- 6. Any claims or shortages by buyer must be made to Whirlwind within seven (7) working days after delivery, or such claims will be considered to have been waived by the customer and disallowed. All claims should be directed to Whirlwind Steel Buildings Customer Service Department.
- 7. Claims for correction of alleged misfits will be disallowed unless Whirlwind shall have received prior notice thereof and allowed reasonable inspection of such misfits. Ordinary inaccuracies of shop work shall not be construed as misfits. No part of the building may be returned or charges assessed for alleged misfits without prior approval from Whirlwind.
- 8. Neither Whirlwind nor the customer will cut, drill or otherwise alter their work, or the work of other trades to accommodate other trades unless such work is clearly specified in the contract documents. Whenever such work is specified the customer is responsible for furnishing complete information as to materials, size, location, and number of alterations prior to preparation of shop drawings ("Code of Standard Practice for Steel Buildings and Bridges" in the AISC Manual; Section 7.13).

RESPONSIBILITIES

- 1. The Whirlwind Customer, hereafter referred to as the "customer", obtains and pays for all building permits, licenses, public assessments, paving or utility pro rata, utility connections, occupancy fees and other fees required by any governmental authority or utility in connection with the work provided for in the Contract Documents. The customer provides at his expense all plans and specifications required to obtain a building permit. It is the customer's responsibility to ensure that all plans and specifications comply with the applicable requirements of any governing building authorities.
- 2. The customer is responsible for identifying all applicable building codes, zoning codes, or other regulations applicable to the Construction Project, including the metal building system.
- It is the responsibility of the customer to interpret all aspects of the End User's specifications and incorporate the appropriate specifications, design criteria, and design loads into the Order Documents submitted to Whirlwind.
- It is the responsibility of Whirlwind, through Whirlwind's Engineer, to design the metal building system to meet the specifications including the design criteria and design loads incorporated by the Contractor into the Order Documents. Whirlwind is not responsible for making an independent determination of any local codes or any other requirements not part of the Order Documents.

Whirlwind is responsible only for the structural design of the metal building system it provides. Whirlwind or Whirlwind's Engineer is not the Design Professional or Engineer of Record for the Construction Project. Whirlwind is not responsible for the design of any components or materials not provided by it or their interface and connection with the metal building system.

- 3. Whirlwind Steel Buildings' standard specifications apply unless stipulated otherwise in the Contract Documents. Whirlwind design, fabrication, quality criteria, standards, practice, methods and tolerances shall govern the work any other interpretations to the contrary notwithstanding. It is understood by both parties that the customer is responsible for clarifications of inclusions or exclusions from the Architectural plans and/or specifications.
- 4. In case of discrepancies between Whirlwind's structural steel plans and plans for other trades, Whirlwind's shall govern ("Code of Standard Practice for Steel Buildings and Bridges" in the AISC Manual; Section 3.3)
- 5. The customer is responsible for overall project coordination. All interface, compatibility and design considerations concerning any materials not furnished by Whirlwind and Whirlwind's steel system are to be considered and coordinated by the customer. Specific design criteria concerning this interface between materials must be furnished before release for fabrication or Whirlwind's assumptions will govern.
- 6. Anchor bolts and foundation bolts are designed, furnished, and set by the customer in accordance with an approved drawing. Dimensional accuracy shall satisfy the requirements of Section 7.5.1 of "Code of Standard Practice for Steel Buildings and Bridges" in the AISC Manual.

All other embedded items or connection materials between the structural steel and the work of other trades are located and set by the customer in accordance with approved location on erection drawings. Accuracy of these items must satisfy the erection tolerance requirements.

- 7. Once the Contractor has signed Whirlwind's Approval Package and the project is released for fabrication, changes shall be billed to the Contractor including material, engineering, and other costs. An additional fee may be charged if the project must be moved from fabrication and shipping
- 8. Whirlwind does not investigate the influence of the metal building system on existing buildings or structures. The End Customer assures that such buildings and structures are adequate to resist snow drifts, wind loads, or other conditions as a result of he presence of the metal building

APPROVAL NOTES

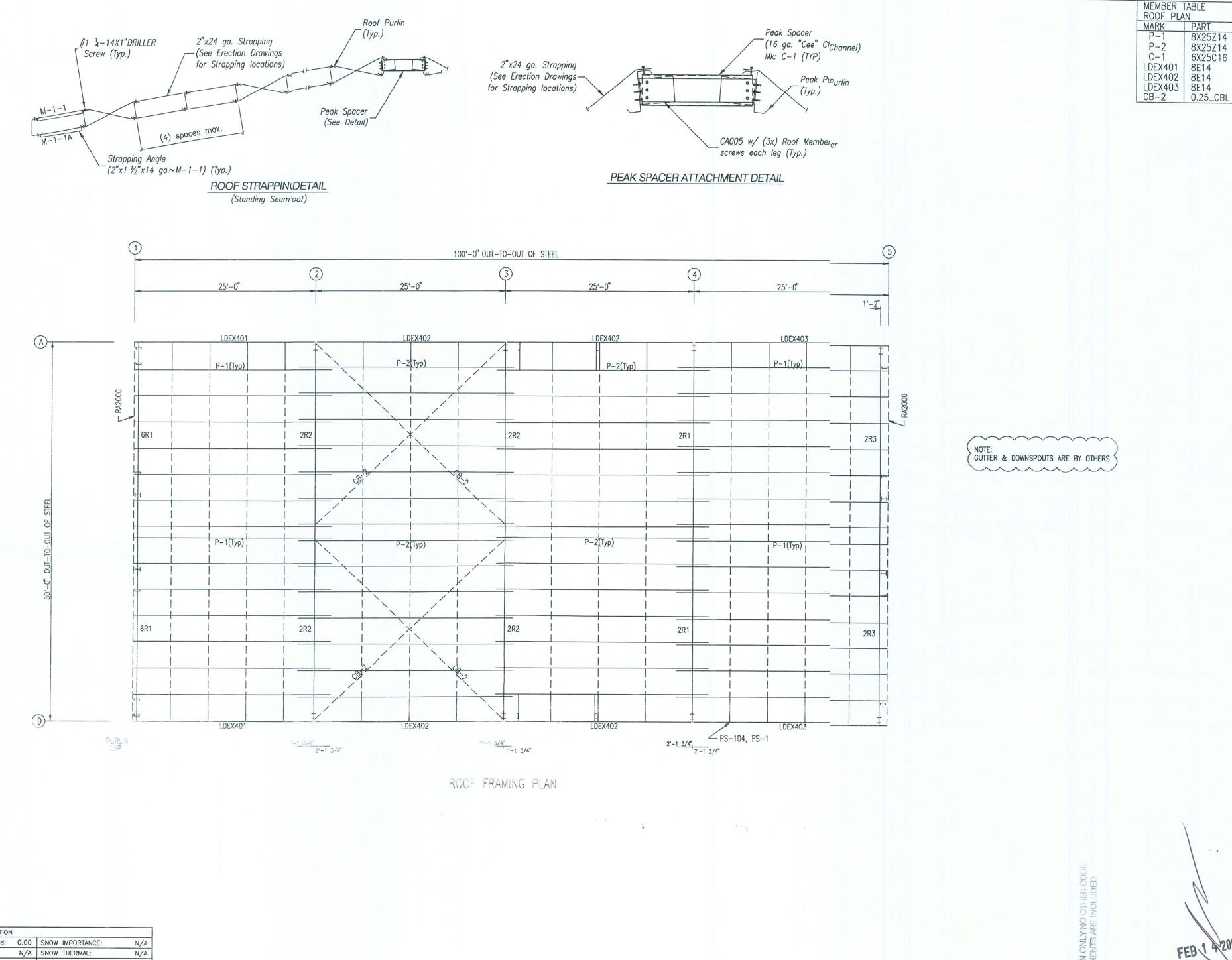
- 1. It is imperative that any changes to these drawings:
- A) Be made in contrasting ink
- B) Be legible and unambiguous
- C) Have all instances of change clearly indicated.
- 2. A dated signature, in the designated areas, is required on all pages. The signature must be from the person authorized on the contract or a person authorized, in writing, by the Whirlwind customer.
- 3. Whirlwind reserves the right to resubmit drawings with extensive or complex changes required to avoid misfabrication. This may impact the delivery schedule.
- 4. Any changes noted on the drawings not in conformance with the terms and requirements of the contract between Whirlwind and its customer are not binding on Whirlwind unless subsequently specifically acknowledged and agreed to in writing by change order or separate documentation.
- 5. Approval of Whirlwind drawings and/or calculations indicate that Whirlwind has correctly interpreted the contract requirements. This approval constitutes the customer acceptance of the Whirlwind design, concepts, assumptions, and loadings. Once the Whirlwind customer has signed and returned the Whirlwind drawings and/or calculations and the project is released for fabrication, changes shall be billed to the Whirlwind customer including material, engineering, and other cost. An additional fee may be charged if the project must be moved from the fabrication and/or the shipping schedule.
- 6. The customer approves of all notes and conditions on the drawings and/or calculations by signing an Approval Drawing Waiver Form.

DRAWING SCHEDULE

DRAWING NUMBER	ISSUE	DATE	DESCRIPTION
C1	1	01.21.08	COVER SHEET
E1	1	01.21.08	ROOF FRAMING PLAN
E2	1	01.21.08	ELEVATION FRAMING
E3	1	01.21.08	ELEVATION FRAMING
E4	1	01.21.08	ELEVATION FRAMING
D1	1	01.21.08	DETAIL PAGE
D2	1	01.21.08	DETAIL PAGE
P1	1	01.21.08	RIGID FRAME ELEVATION
F1	1	01.21.08	ANCHOR BOLT PLAN
F2	1	01.21.08	REACTIONS SHEET

ERECTOR NOTE ONLY USE DRAWINGS ISSUED "FFOR ERECTION" TO ERECT BUILDING

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		REV	DATE	DESCRIPTION	BY	СНК	DESC:				BLDG. SIZE:		
VALUED VALADO CTEEL D	IIII DINICO	0	01.09.08	FOR CONSTRUCTION	AM	JM		ER SHEET				00'-0" x 16'-	-0"
(WHIRLWIND) STEEL B	OILDINGS	1	01.21.08	FOR ERECTION			CUSTOMER:	RKS CONST	RUCTION		LOCATI	on: KE CITY, FL. 3	2056
			01121100	TON ENCOTION	SLV	VA	REFERENCE:		NOOHO!!		1 0/1	VE CITT, TE. J	2030
P.O. BOX 75280 PH: 8	300-324-9992						TAYL	OR BUILDIN	NG .				
	832-553-4600						JOBSITE:	- OID/ FI	70050			COUNTY:	
							LAKE	CITY, FL.	32056			COLUMBI	Д
© 2005 Whirlwind Steel Buildings Inc. A	I rights reserved				-		DWN:	CHK:	DATE:	ENG:	JOB NO:	DWG NO:	ISSUE
	,						MBS	1 .	1/8/08	TM	14180	C1	1



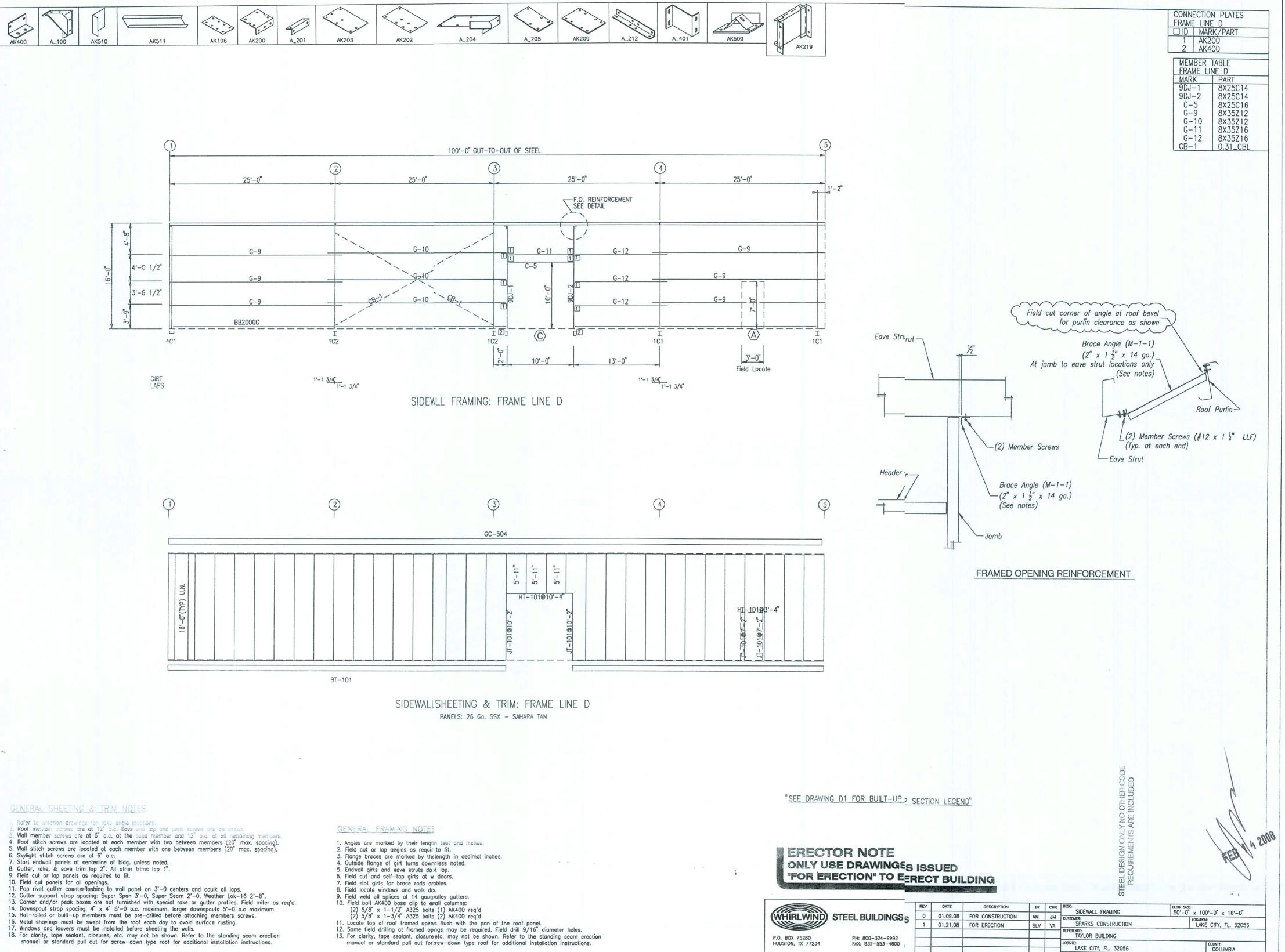
DESIGN INFORMATION FBC 04 Ground/Roof Snow Load: 0.00 SNOW IMPORTANCE: BUILDING CODE: DEAD LOAD: Metal Building Only SNOW EXPOSURE: COLLATERAL LOAD: (psf) 2 SEISMIC USE GROUP: SEISMIC IMPORTANCE : SPRINKLER LOAD: (psf) O SPECTRAL RESP. ACCEL Ss: 12.2 SPECTRAL RESP. ACCEL S1: 5.4 WALKDOORS AND WINDOWS FRAMED OPENINGS ROOF LIVE LOAD: (psf) 20 SPECTRAL RESP. SDs: . SPECTRAL RESP. SD1: 24GA ROOF - SUPER SEAM PLUS - GALVALUME PLU MK. QTY. FINISH DESCRIPTION HEIGHT WIDTH FRAME LIVE LOAD: Reducible SITE CLASS: D | SEISMIC DESIGN CATEGORY: 26GA WALL - SUPER SPAN X - SAHARA TAN A 2 WHITE 3070 (M) WALDOOR W/ 14'-0" RUD WIND LOAD: (mph) 110 DIRECTION: LATERAL LONGITUDINAL 26GA TRIM - EVERGREEN 10'-0" RUD KEY ALIKE, DEAD BOLT 10'-0 1.00 STRUCTURAL SYSTEM: STRUCTURAL STEEL SYSTEMS NOT WIND IMPORTANCE: GUTTER & DOWNSPOUTS - BY OTHERS & WEATHERSTRIP WIND EXPOSURE: B SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE. UL580, CLASS 90 ROOF - CONST. No. 538 WIND COND .: Enclosed | RESPONSE MODIFICATION (R): INTERNAL PRES. COEFF.: +/-0.18 DEFLECTION AMPLIFICATION (Cd): NO SKYLIGHT EDGE ZONE WIDTH: (feet) 5.00 SEISMIC RESPONSE COEFF. CS: DESING BASE SHEAR V: NO VENTILATORS EQUIVALENT LATERAL FORCE PROCEDURE

P.O. BOX 75280 HOUSTON, TX 77234

WHIRLWIND STEEL BUILDING S

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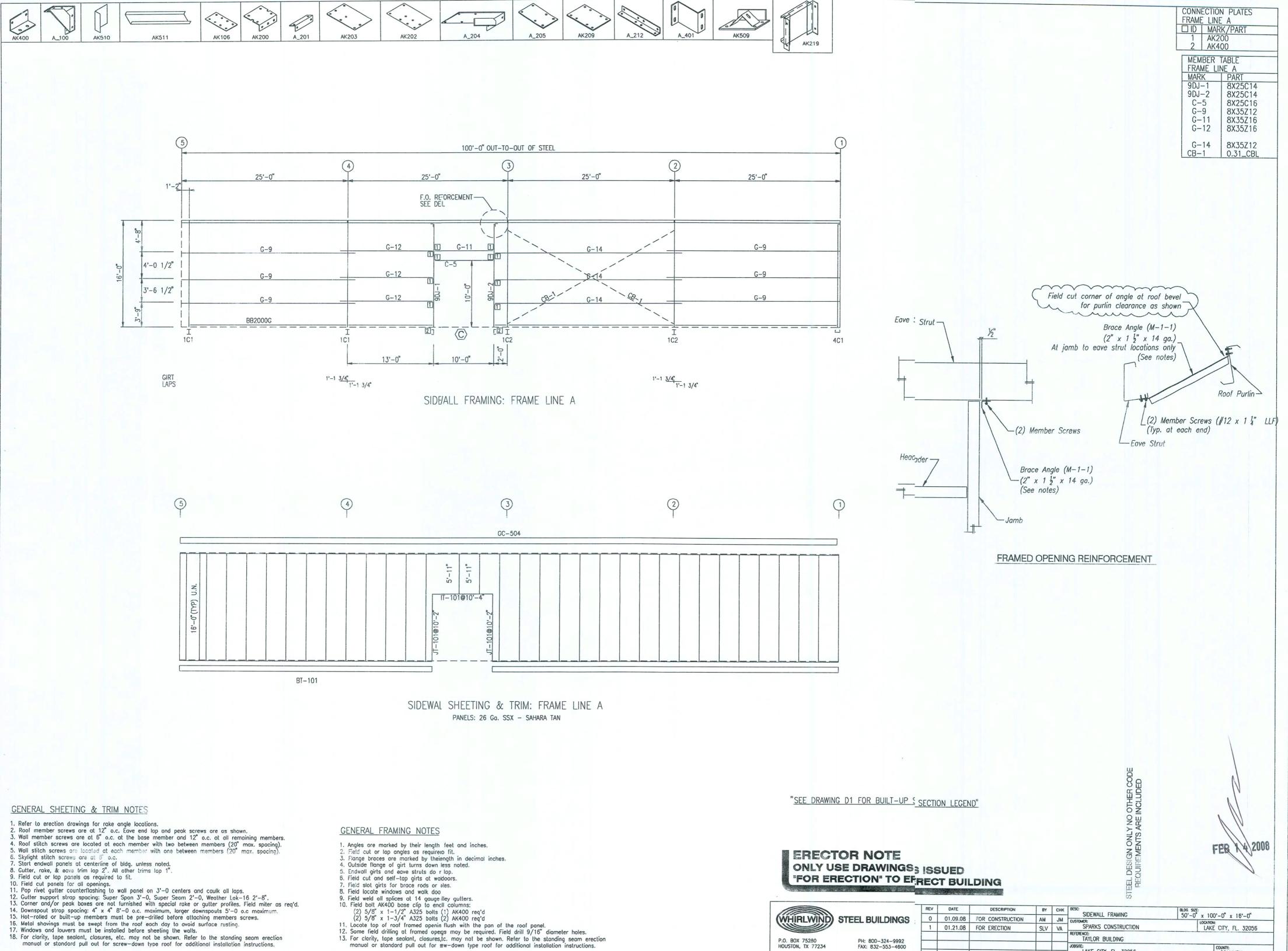
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01.21.08	FOR ERECTION	SLV	VA	- COSTOMOT			
				REFERENCE:			
				JOBSITE: LAK	E CITY,		
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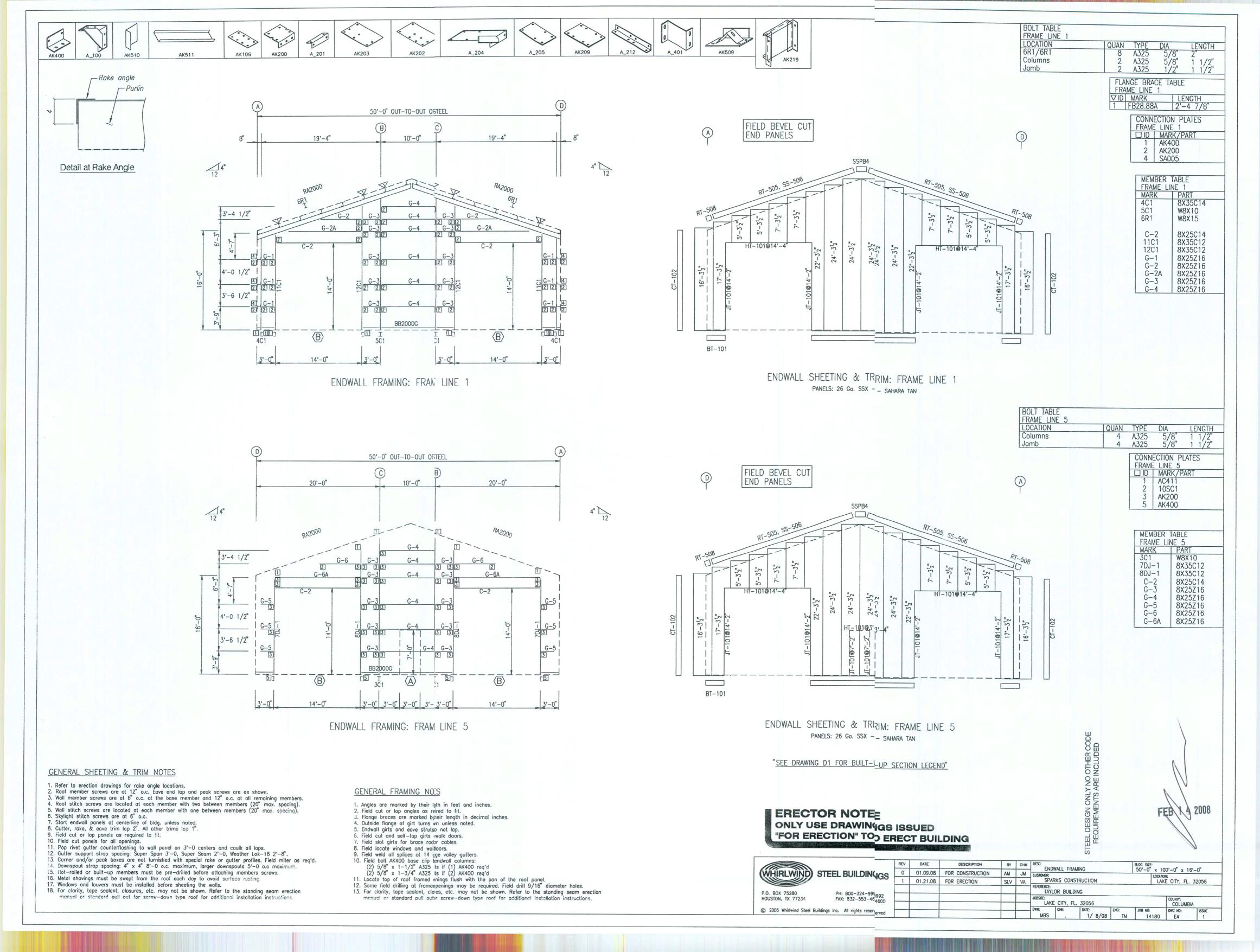
MBS

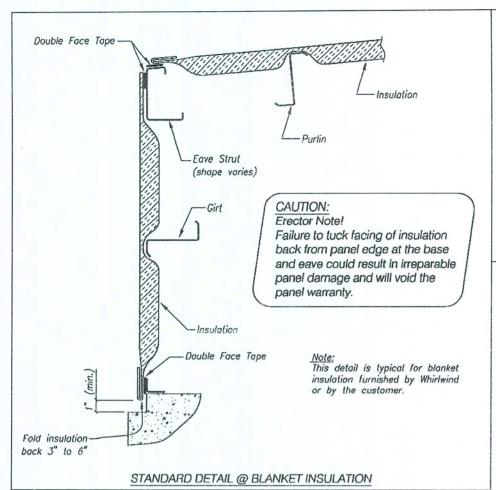


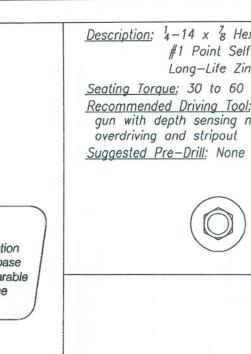
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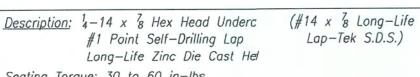
COLUMBIA LAKE CITY, FL. 32056 DATE: DNC: JOB NO: DWG NO: 1/ 8/08 TM 14180 E3

MBS

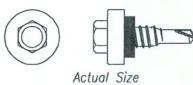






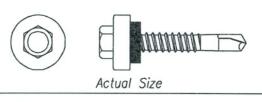


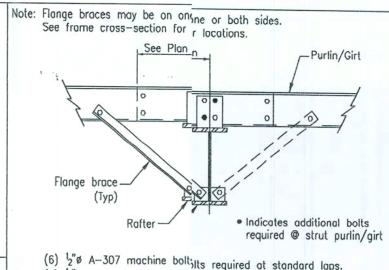
Seating Torque: 30 to 60 in-lbs Recommended Driving Tool: 1800 RPM ettric screw gun with depth sensing nosepiece to prent overdriving and stripout



Description: 12-14 x 14 Hex Head Undercut (#12 x 1¹/₄ Long-#3 Long Pilot Point Self-Drilling Life S.D.S.) Long-Life Zinc Die Cast Head

Seating Torque: 30 to 60 in-lbs Recommended Driving Tool: 1800 RPM electric screw gun with depth sensing nosepiece to prevent overdriving and stripout Suggested Pre-Drill: None

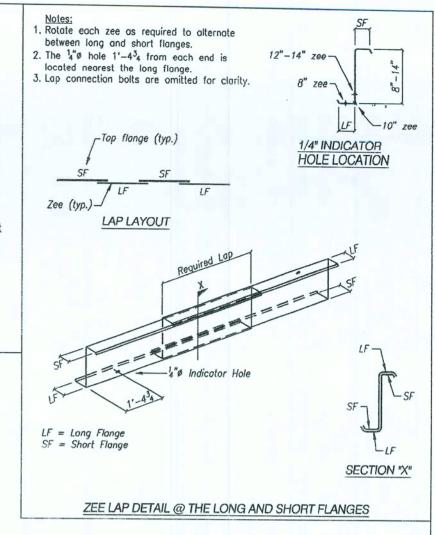


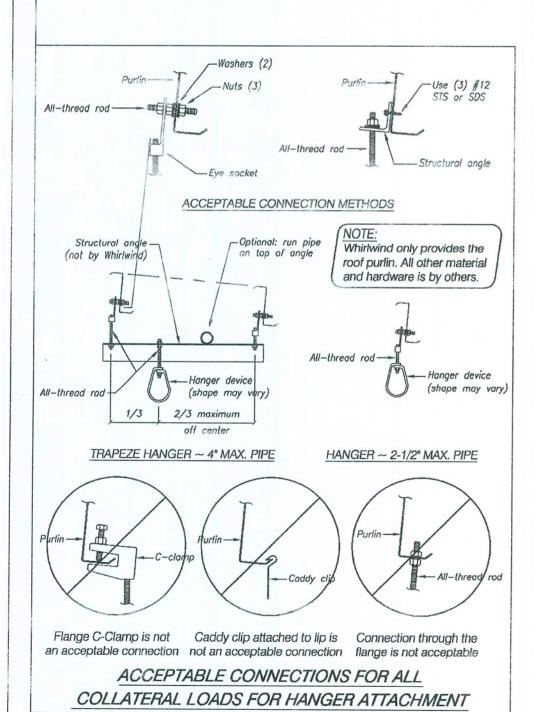


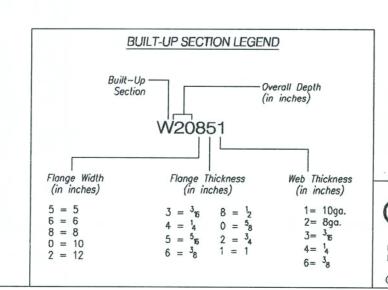
(6) ½"ø A-307 machine bolt;Its required at standard laps. (8) 12 Ø A-307 machine boltists required at strut members. (A strut member is a purling or girt at the bracing points.

The struts continue across the length of the building.)

See E-drawing for exceptions no size and quantity of bolts. LAP DETAIL



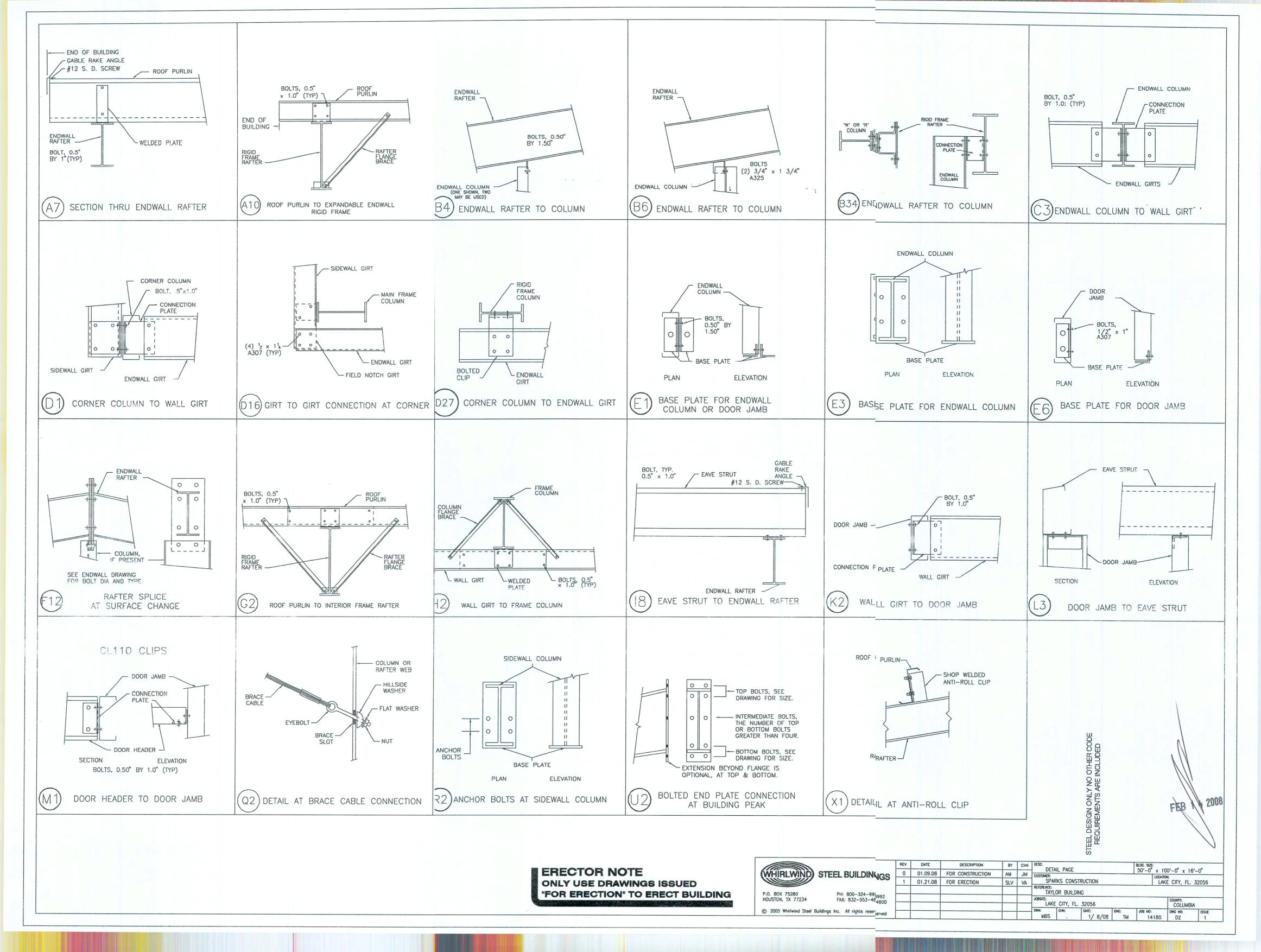




ERECTOR NOTE ONLY USE DRAWINGS; ISSUED "FOR ERECTION" TO EFRECT BUILDING

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		REV	DATE	DESCRIPTION	BY	СНК	DESC:	DAOF			BLDG. SIZE:		
WHIRLWIND)	STEEL BUILDINGS	0	01.09.08	FOR CONSTRUCTION	AM	JM	CUSTOMER:	L PAGE			50'-0" x 10	00'-0" x 16'-	-0"
		1	01.21.08	FOR ERECTION	SLV	VA	SPAR	KS CONST	RUCTION			E CITY, FL. 3	2056
.O. BOX 75280	PH: 800-324-9992						REFERENCE: TAYLO	R BUILDIN	NG				
OUSTON, TX 77234	FAX: 832-553-4600						JOBSITE: LAKE	CITY, FL.	32056			COLUMBIA	
2005 Whirlwind Steel Bu	ildings Inc. All rights reserved				-	-	DWN:	CHK:	DATE:	ENC:	JOB NO:	DWG NO:	ISSUE

EEL DESIGN ONLY NO OTHER CODE REQUIREMENTS ARE INCLUDED



SPLICE BOLTS Splice Mark ----Bolt----Top/Bot/Int Type Dia Len
 SP- 1
 4
 4
 0
 A325
 3/4" 2
 1/2"

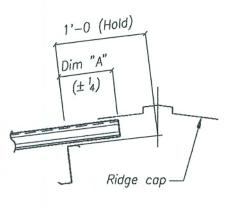
 SP- 2
 4
 4
 0
 A325
 3/4" 2"

BASE PLATES Wid Thick Length BP- 1 8" 3/8" 1'-4 1/2"

✓ FLANGE BRAÇEŞ: FBxx (1 or 2) xx=length(in) (1) One Side; (2) Two Sides A - L2X15X12



ETAIL @ PANEL END



Roof Slope	Dim "A"
0 to 1½: 12	0'-734"
19 ₁₆ to 2½: 12	0'-84"
29 ₁₆ to 31 ₂ : 12	0'-81/2
39 ₁₆ to 4 : 12	0'-834
@ Ridge Vent	4½" min.

DETAIL	<u>@</u>	RIDGE	CAP
DLIME	(u	INDUL	OM

	T	MEMBER SIZE TABLE		
PIECE	- WEB DEPTH START/END	WEB PLATE	OUTSIDE FLANGE	INSIDE FLANGE
1C1	15.0/15.0	THICK 0.164	W x T x LEN 6x1/4	W x T x LEN 6x5/16"
2R1	15.0/15.0 15.0/15.0	0.134 0.134	6x1/4" 6x1/4"	6x1/4"

26'-5 1/2" 26'-5 1/2" 26'-5 1/2" 26'-5 1/2" 28374(1) 4" 12	FB32A(1) FB32A(1)	26'-5 1/2" 6 SP@ 3'-7 7/16" 4 1, 1/4" 10 00
BP-1 BP-1 1'-3 !16"	46'-0 3/8" Clearance	1'-3 9/16" B 1/4" _{4"}
A	50'-0" OUT-TO-OUT OF STEEL RIGID FRAME ELEVATION FOR FRAME LINE 2 3 4 5	D

Connections for rigid frames must be properly pre-tensioned. The Specification for Structural Joints Using ASTM A325 or A490 Bolts dated November 13, 1985 (future reference to this section is to be called the Code) recognizes four methods to properly tighten the bolts; 1) "Turn-of-Nut", 2) calibrated wrench, 3) alternate design bolts and 4) direct tension indicator. All of these methods require special bolts and/or equipment to install, except the Turn-of-Nut Method. This is why Whirlwind specifies this method for bolt installation.

According to paragraph 7(c) of the Code, washers are not required to be installed.

Excerpts from the Code for installation come from paragraph 8(d): "Bolts shall be installed in all holes of Excerpts from the Code for installation come from paragraph 8(d): "Bolts shall be installed in all holes of the connection and brought to a snug-tight condition. Snug-tight is defined as the tightness that exist when the plies of the joint are in firm contact. This may be attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench. Snug tightening shall progress systematically from the most rigid part of the connection to the free edges, and then the bolts of the connection shall be retightened in a similar systematic manner as necessary until all bolts are simultaneously snug tight and the connection is fully compacted. Following this initial operation, all bolts in the connection shall be tightened further by the applicable amount of rotation specified in table 5..."

Table 5. Nut Rotation From Snug-Tight Condition.

Bolt Length (from under side of head to end of bolt) **ERECTOR NOTE** ONLY USE DRAWING'S ISSUED "FOR ERECTION" TO FERECT BUILDING



)	STEFI	BUILDINGS	
'	♥ I Imimim	DOILDING	0

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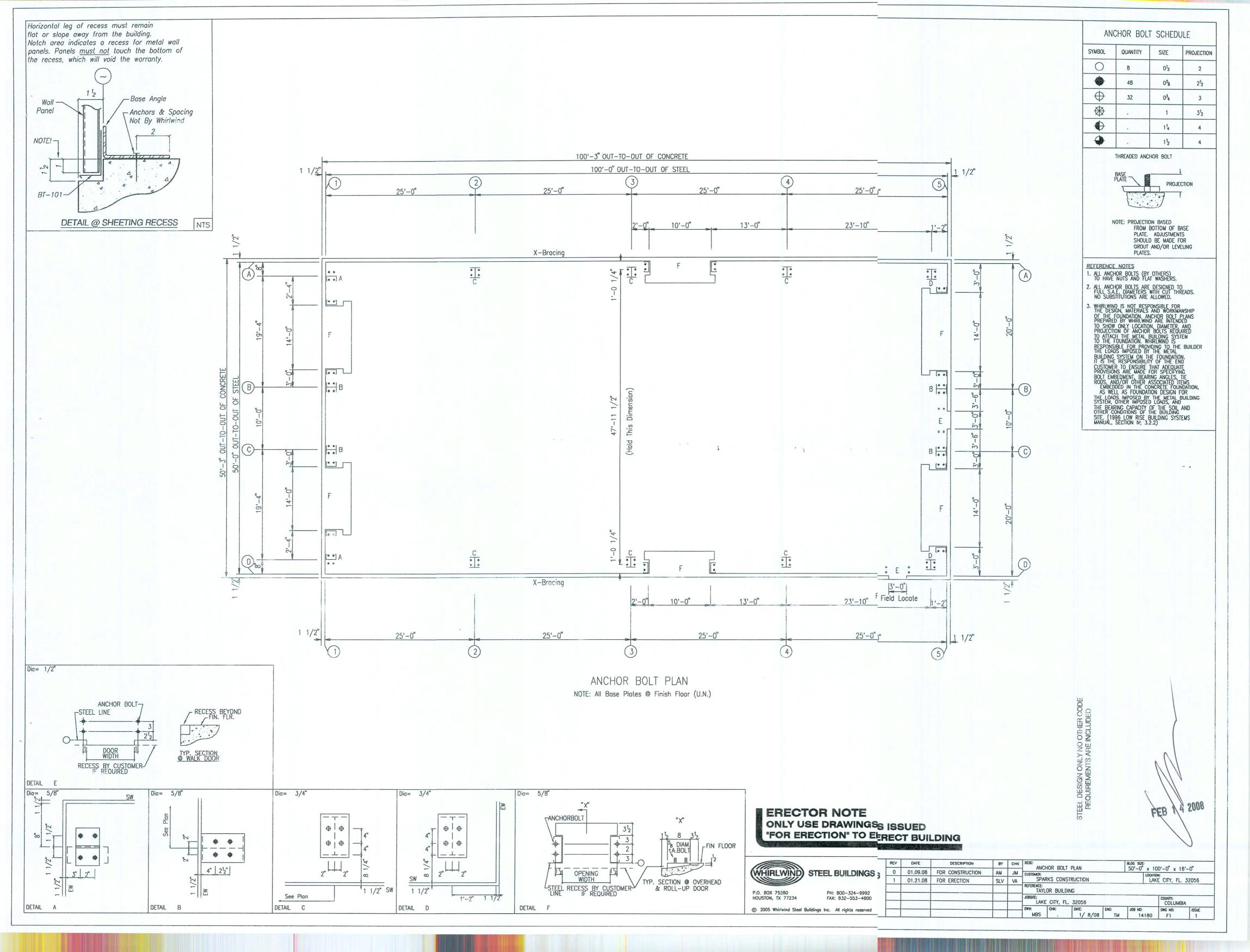
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1	01.21.08	FOR ERECTION	SL
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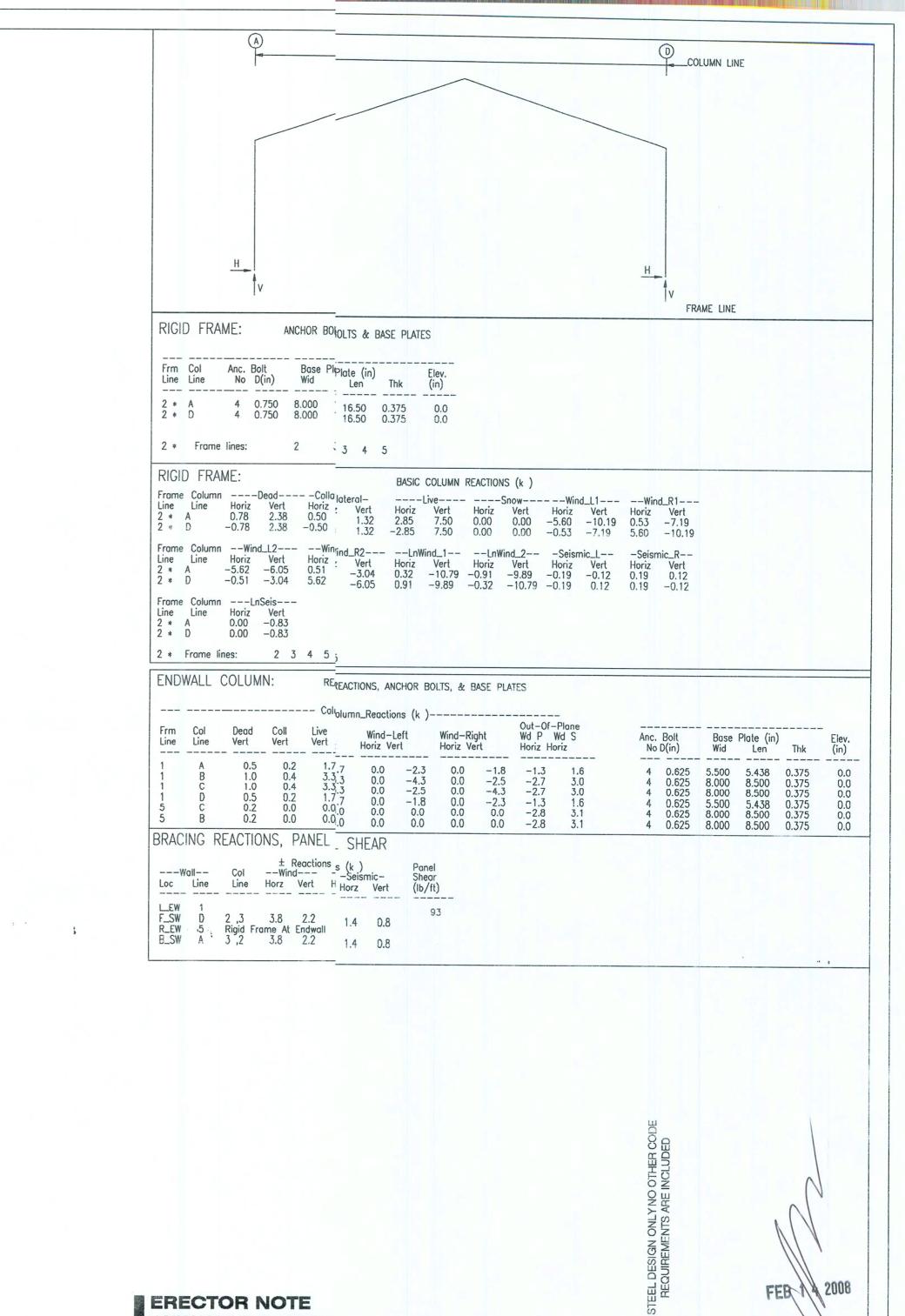
STEEL DESIGN	
ATION	BLDG. SIZE: 50'-0"
CTION	

BY	СНК	DESC: RIGID FRAME ELEVATION	BLDG. SIZE:
M	JM		50'-0" x 100'-0" x 16'-0"
1101		CUSTOMER:	LOCATION:
SLV	VA	SPARKS CONSTRUCTION	LAKE CITY, FL. 32056
		REFERENCE: TAYLOR BUILDING	
		JOBSITE: LAKE CITY, FL. 32056	COUNTY: COLUMBIA
- 1			

DATE: DAG: JOB NO: DWG NO: ISSUE 1/8/08 TM 14180 P1 1

FEB





ERECTOR NOTE ONLY USE DRAWINGS; ISSUED "FOR ERECTION" TO ERRECT BUILDING



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REV	DATE	DESCRIPTIO
0	01.09.08	FOR CONSTRUC
1	01.21.08	FOR ERECTION

REACTIONS SHEET AM JM CUSTOMER:
SPARKS CONSTRUCTION FERENCE: TAYLOR BUILDING LAKE CITY, FL. 32056 DATE: ENG: JOB NO: DWG NO: 1/ 8/08 TM 14180 F2

BLDG. SIZE: 50'-0" x 100'-0" x 16'-0" LAKE CITY, FL. 32056 COLUMBIA

FEB