

NOTE: THIS FOUNDATION DESIGN MEETS ALL REQUIREMENTS FOR WIND LOAD'S PER FBC2010, SECTION 1609, 130 MPH BASIC WIND SPEED, EXPOSURE C, EXACT ANCHOR BOLT LOCATIONS AND SIZES ARE PER METAL BUILDING SEALED ENGINEERING ANCHOR BOLT PLAN.

- ANCHOR BOLTS AND REINFORCEMENT -(ANCHOR BOLTS ARE TO BE HEADED ANCHORS WITH HEADS 3" FROM BOTTOM OF FOUNDATION. DO NOT USE "L" OR "J" BOLTS) ANCHOR BOLTS, BOLT DIAMETER, AND LOCATION PER METAL BUILDING SEALED ENGINEERING DIESIGN DRAWINGS. TIE ANCHOR BOLTS TO BOTTOM REINFORCING STEEL

REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI DETAILING MANUAL, SP-66, AND ACI318. REINFORCING SHALL NOT BE HEATED OR WELDED. REINFORCING SHALL BE APPROVED BY ENGINEER OR HIS REPRIESENTATIVE BEFORE CONCRETE IS PLACED. PROVIDE 3" COVER FOR EXPOSED FOOTING SURFACES, 2" COVER IFOR FORMED EXPOSED SURFACES, 3/4" COVER FOR NOT EXPOSED SURFACES. LAP SPLICES SHALL BE 48 BAR DIAMETERS.

SITE PREPARATION:

SITE ANALYSIS AND PREPARATION ARE NOT PART OF THIS PLAN AND ARE RESPONSIBILITY OF THE OWNER. SITE INSPECTION BY BUILDER OR BUILDING OFFICIAL SHALL DETERMINE IF THERE IS ANY EVIDENCE OF UNSUITABLE BEARING MATERIALS. IF THERE IS ANY QUESTION, CALL A GEOTECHNICAL ENGINEER TO ASSURE THAT EXPANDING CLAYS AND OTHER PROBLEMATIC SOIL CONDITIONS DO NOT EXIST OR TO ALLOW MITIGATION SHOULD THEY EXIST. ALL FILL UNDER STRUCTURAL ELEMENTS SHALL BE CLEAN SAND/SOIL FILL, FREE FROM DEBRIS AND ORGANIC MATERIALS COMPACTED TO 95% OF MAXIMIUM DRY BEARING CAPACITY, IN LIFTS OF NOT MORE THAN 6 INCHES. IT IS THE OWNER'S/BUILDER'S RESPONSIBILITY TO VERIFY EXISTING SOIL AND CLEAN FILL ARE COMPACTED STABLE SOIL CONDITIONS WITH 1500 PSF BEARING CAPACITY OR TO REQUEST FOUNDATION DESIGN BASED ON ACTUAL SITE CONDITIONS.

THE OWNER HAS NOT YET PROVIDED A GEOTECHNICAL REPORT TO THE ENGINEER. ASSUMED SAFE BEARING CAPACITY OF 1500 PSF SHALL BE APPROVED BY THE OWNER. FOOTINGS AND SLAB ARE TO BEAR ON FIRM UNDISTURBED EARTH OR CLEAN SAND/SOIL FILL, FREE FROM DEBRIS AND ORGANIC MATERIALS COMPACTED IN LIFTS OF NOT MORE THAN 6 INCHES. WHERE UNACCEPTABLE MATERIAL OCCURS, EXCAVATE AND REPLACE WITH ENGINEERED FILL. FOUNDATION WORK MUST BE COORDINATED WITH UNDERGROUND UTILITIES. FOOTINGS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES. TO MINIMIZE WEATHERING, THE LAST 6 INCHES OF EXCAVATION FOR ALL FOOTINGS SHALL BE MADE IMMEDIATELY PRIOR TO PLACEMENT OF FOOTINGS.

MINIMUM COMPRESSIVE STRENGTH OF COINCRETE AT 28 DAYS SHALL BE F'c = 3000 PSI. WHERE EXCESS WATER IS ADDED TO THE CONCRETE SO THAT ITS SERVICEABILITY IS DEGRADED, THE ATTAINMENT OF REQUIRED STRENGTH SHALL NOT RELEASE THE CONTRACTOR FROM PROVIDING SUCH MODIFICATIONS AS MAY BE REQUIRED BY THE ENGINEER TO PROVIDE A SERVICEABLE MEMBER OR SURFACE. ALL CONCRETE SHALL BE VIBRATED. NO REPAIR OR RUBBING OF CONCRETE SURFACES SHALL BE MADE PRIOR TO INSPECTION BY AND APPROVAL OF THE ENGINEER, OWNER, OR HIS REPRESENTATIIVE.

FIBER CONCRETE SLAB:

CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTHS SHALL BE 1/2 INCH TO 2 INCHES IN LENGTH. DOSAGE AMOUNTS SHALL BE FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SYNTHETIC FIBERS SHALL COMPLY WITH ASTM C 1116. THE MANUFACTURER OR SUPPLIER SHALL PROVIDE CERTIFICATION OF COMPLIANCE WITH ASTM C 1116 WHEN REQUESTED BY THE BUILDING OFFICIAL.

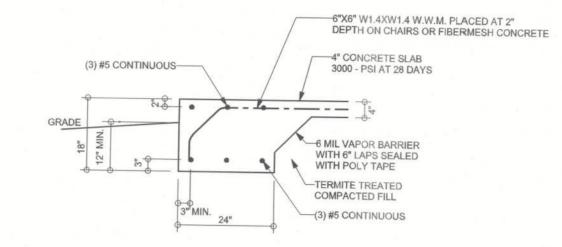
WELDED WIRE REINFORCED SLAB:

6"x6" W1.4xW1.4, FB = 85KSI, WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) CONFORMING TO ASTM A185; LOCATED IN THE MIDDLE OF THE SLAB: SUP'PORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACING NOT TO EXCEED 3'.

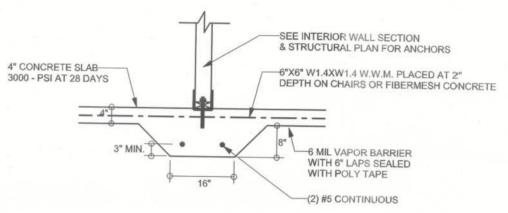
ASTM A 615, GRADE 60, REINFORCED BARS, FY = 60 KSI. ALL LAP SPLICES 40* DB (30" FOR #5 BARS); UNO. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-95 UNLESS NOTED OTHERWISE. ALL TENSION DEVELOPMENT LENGTHS SHALL BE 30 INCHES.

CONCRETE CONTROL JOINTS:

WHERE SPECIFIED, SAWN CONTROL JOINTS IN SLAB-ON-GRADE SHALL BE CUT IN ACCORDANCE WITH ACI 302.JOINTS SHALL BE CUT WITH IN 12 HOURS OF SLAB PLACEMENT. LENGTH/WIDTH RATIOS OF SLAB AREAS SHALL NOT EXCEED 1.5 AND TYPICAL SPACING OF CUTS TO BE 12FT \. DO NOT CUT W.W.M. OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTOR'S APPROVAL. THE CONTIROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE.)



SECTION A-A SCALE: 1/2" = 1'-0"



SECTION B-B

SCALE: 1/2" = 1'-0"

FOUNDATION PLAN

NOTE: SEE ANCHOR BOLT PLAN FOR DIMENSIONS

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

(ENCLOSED SIMPLE DIAPHRAGM BUILDINGS WITH FLAT, HIPPED, OR GABLE ROOFS; MEAN ROOF HEIGHT BUILDING IS NOT IN THE HIGH VELOCITY HURRICANE ZONE BUILDING IS NOT IN THE WIND-BORNE DEBRIS REGION 1.) BASIC WIND SPEED = 130 MPH, (3 SEC GUST, 33 FT) .) WIND EXPOSURE = C, BUILDER MUST FIELD VERIFY 3.) TOPOGRAPHIC FACTOR = 1.0, BUILDER MUST FIELD VERIFY 4.) BUILDING CATEGORY = II, (MRI = 700 YR) 5.) ROOF ANGLE = 7-45 DEGREES .) MEAN ROOF HEIGHT = <30 FT .) INTERNAL PRESSURE COEFFICIENT = N/A (ENCLOSED BUILDING) COMPONENTS AND CLADDING DESIGN WIND PRESSURES (TABLE R301.2(2)) Zone Effective Wind Area (ft2) Garage Door 2010 FBCR, Table R301.2.(4) x7 Garage Door 16x7 Garage Door 36

-(1) #5 X 20'-0" HAIR PIN (TYP.) RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTOR'S APPROVAL. THE CONTROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE. DO NOT CUT WELDED WIRE MESH OR REINFORCING STEEL. 6" CONC. SLAB, 3000 PSI REINFORCED W #4 REBAR @ 24" OC EACH WAY PLACED AT 3" DEPTH & FIBER MESH CONCRETE, OVER 6 MIL VAPOR BARRIOR ON TERMITE TREATED EARTH FILL COMPACTED TO MIN. 95% MAX. DRY DENSITY, MOD. PROCTOR

WIND LOADS PER 2010 FLORIDA BUILDING CODE, SECTION 1609

SCOPE OF WORK

SOIL BEARING CAPACITY 1500PSF NOT IN FLOOD ZONE (BUILDER TO VERIFY)

DESIGN DATA

FOUNDATION DESIGN

REVISIONS

THIS ENGINEERING IS ONLY FOR

THE DESIGN LOADS OF THE

METAL BUILDING DESIGNER.

THE FOUNDATION DESIGN TO MEET

I AM NOT ENGINEER OF RECORD AND

REVIEW THE DESIGN OF THE BUILDING. SINCE THIS IS A SINGLE FAMILY RESIDENTIAL PROJECT THE OWNER AND BUILDER ARE RESPONSIBLE TO

DID NOT DESIGN THE BUILDING OR

RESOLVE ANY GAPS IN ENGINEERING. THE METAL BUILDING PLANS CALL OUT A DOOR WHICH DOES NOT HAVE FLORIDA PRODUCT APPROVAL. THERE APPEARS TO BE NO

SPECIFICATION FOR THE DOOR ATTACHMENT TO THE BUILDING OR

WIND PRESSURE AT THE TOP OF THE

METAL BUILDING ROOF NEEDS TO

DID NOT SPECIFY ROOFING OR WALL

MAY NEED OSB SHEATHING SINCE

MATERIAL BUT THE ROOF AND WALLS

ADEQUATE SHEAR CAPACITY, CHECK PRODUCT APPROVAL DATA FOR SHEAR CAPACITY, NOT WIND PRESSURE OR SUCTION.

ACT AS A DIAPHRAGM OR THE WALLS NEED TO ACT AS SHEAR WALLS AND

BRACINGTO WITHSTAND

+/- 350 PLF X 40' = 14000 LB. ALSO, I'M NOT SURE IF THE

THE BUILDING ENGINEER

LIGHT GAGE SHEET METAL,

29GA OR 26GA MAY NOT HAVE

DOOR, APPROX

BASED ON COLUMN REACTIONS BY: STEPHEN P. MASLAN & CO. ENGINEERS / DESIGENERS 8011 PASEO SUITE 201 KANSAS CITY, MO 64131 816.444.6260 DRAWING # E1 DATED 11/11/13

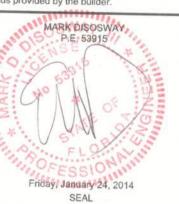
No.53915, POB 868, Lake City, FL 32056,

386-754-5419 dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

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CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind enginee comply with section R301.2.1, 2010 Florida Building Code Residential to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location and is limited to just the design of the foundation based on the loads provided by the builder.



Doroshenko Hangar

(Metal Building Foundation)

ADDRESS: 252 SW Voyager Ct. Lake City, Florida

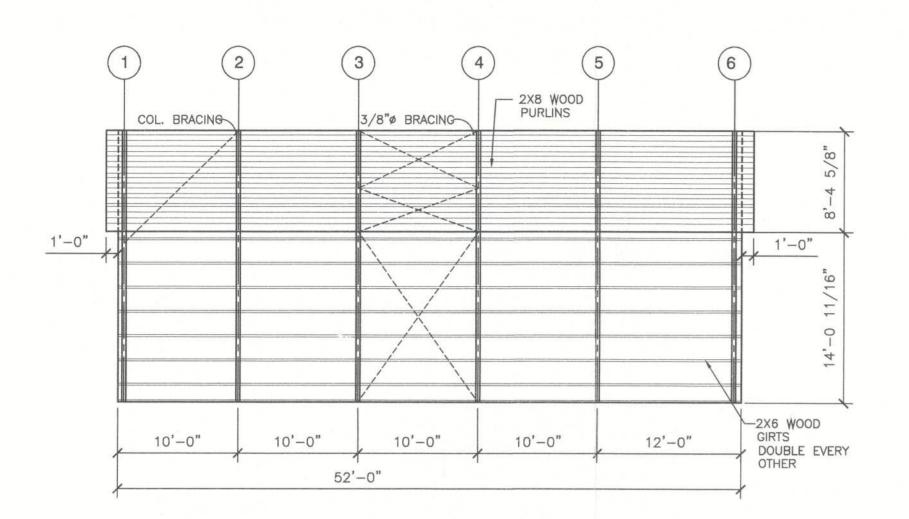
Mark Disosway P.E. P.O. Box 868 Lake City, Florida 32056 Phone: (386) 754 - 5419 Fax: (386) 269 - 4871

PRINTED DATE: Friday, January 24, 2014 DRAWN BY: STRUCTURAL BY

FINALS DATE: 21Jan14

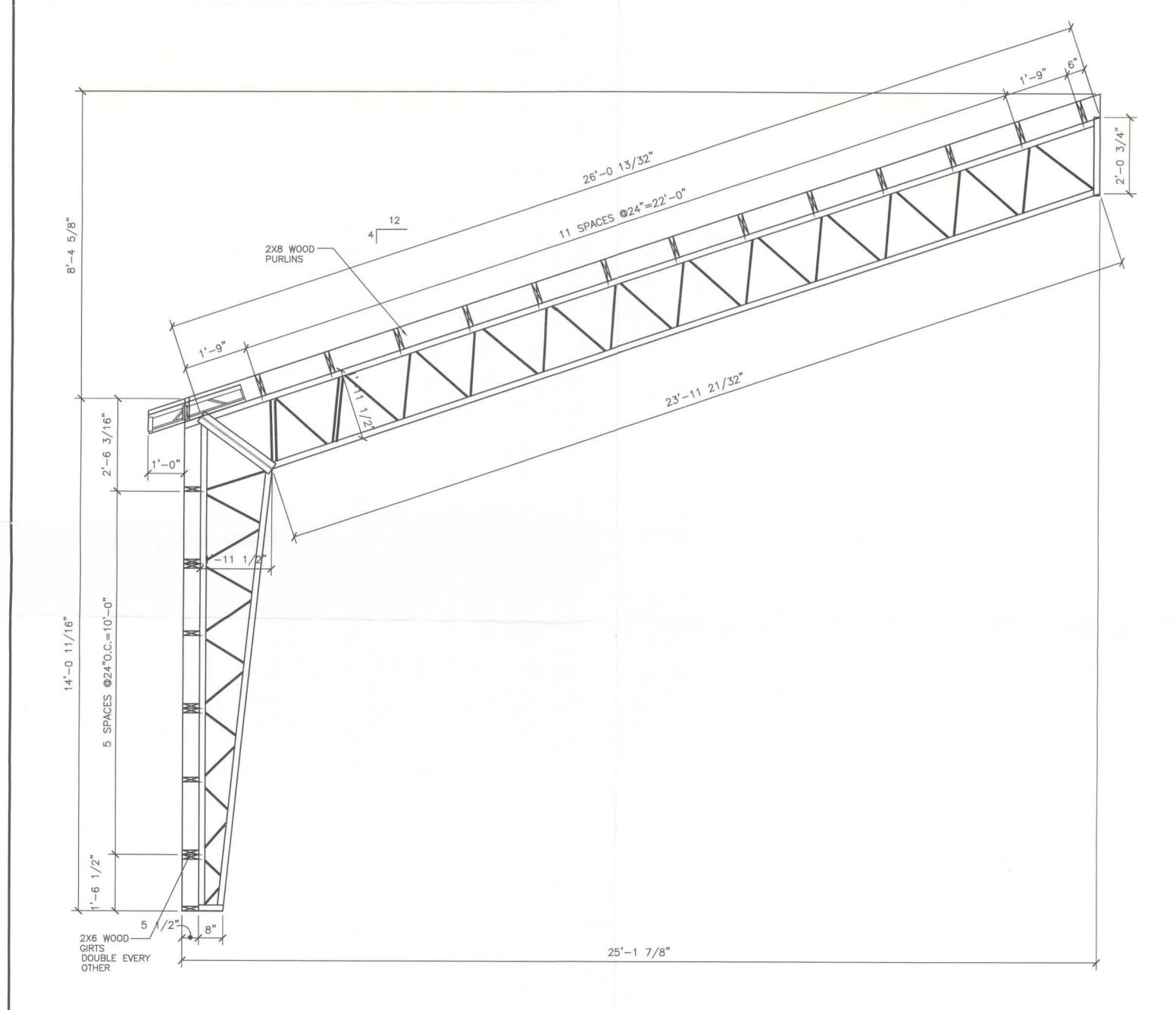
> JOB NUMBER: 1312045a DRAWING NUMBER

> > OF 2 SHEETS



RIGHT SIDEWAL ELEVATION

SCALE 1/8"=1'-0"



TRUSS DETAIL

SCALE 1/2"=1'-0"

GENERAL STRUCTURAL NOTES

DESIGN SPECIFICATIONS
 2010 FBC

2. MATERIAL SPECIFICATIONS STRUCTURAL STEEL WELDING BOLTING

Fy = 36 KSI AWS - E70XX ELECTRODES AISC 5/8" DIA. GRADE 5A

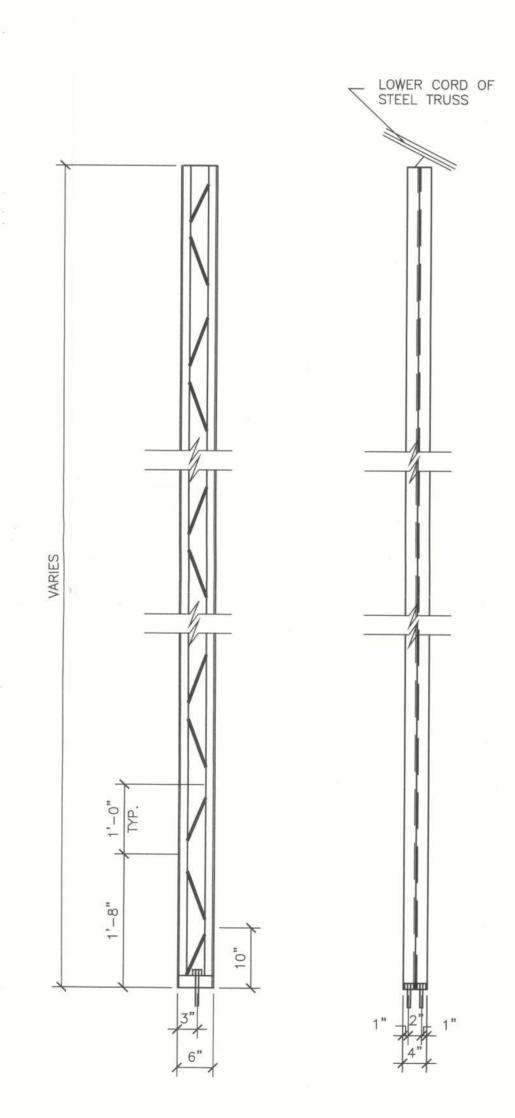
LIVE LOAD
WIND LOAD:
SEISMIC DESIGN CATEGORY: B

20 PSF
V ULT=120 MPH EXP. C

PURLINS DOUGLAS FIR-LARCH #1
GIRTS DOUGLAS FIR-LARCH #1

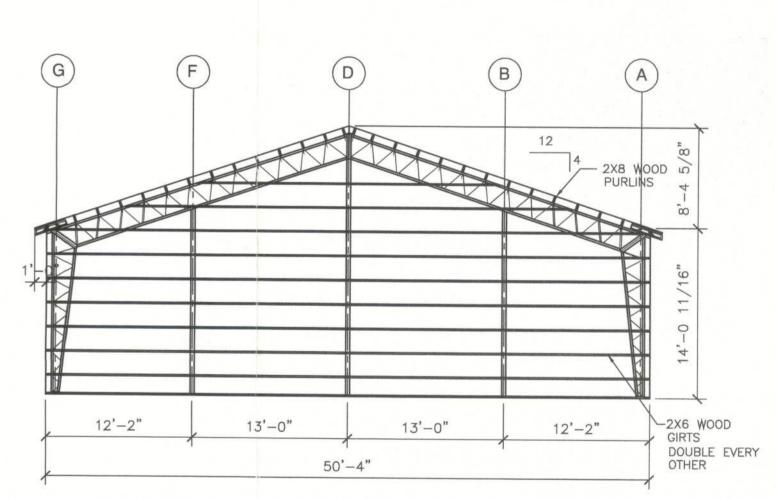
Exact location of windows, overhead doors and man doors shall be determined during building erection. Trusses and diagonal bracing shall not be moved to install windows, overhead doors and man doors.

REACTIONS	ASD				
		KIPS	DEAD LOAD	LIVE LOAD	WIND LOAD
		VERTICAL	1.761	5.421	-6.261
		HORIZONTAL	0.751	2.524	-5.155



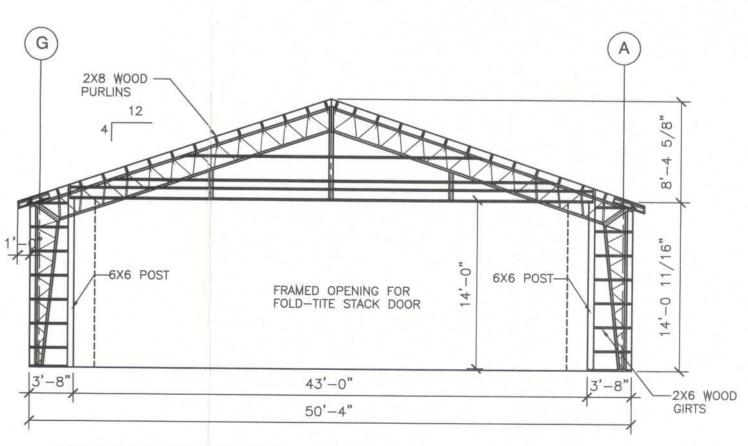
ENDWALL COLUMN

SCALE 3/4"=1'-0"



REAR ENDWALL ELEVATION

SCALE 1/8"=1'-0"



FRONT ENDWALL ELEVATION

SCALE 1/8"=1'-0"

STEPHEN
ENGINEERS/DES
8011 PASEO S
KANSAS CITY, N
(816) 444-626

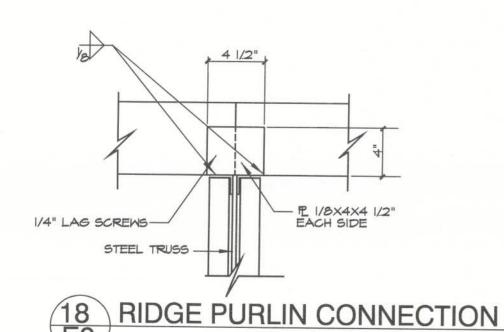
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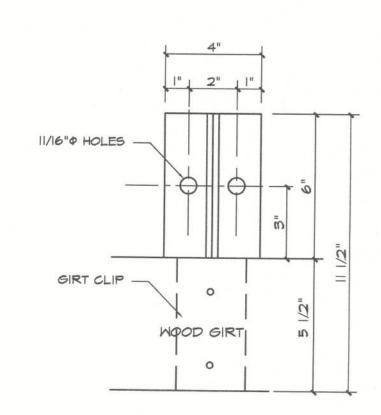
JOEL DOROSCHENKO

date 11-9-13
drawn by R.E.S.
checked by S.P.M.

sheet no.

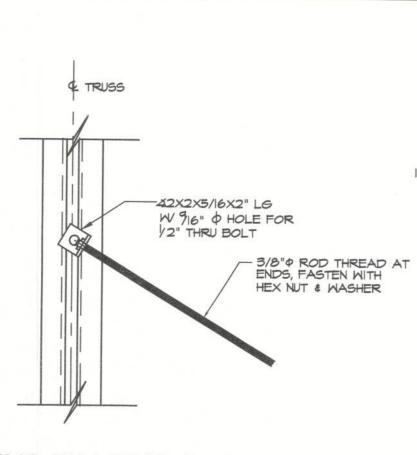
17 GIRT CONNECTION E2



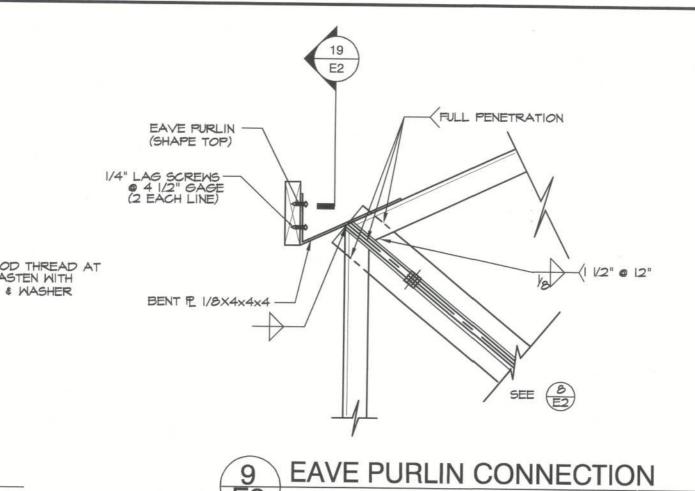


ENDWALL COLUMN BASE PLATE

FOR ENDWALL COLUMNS OVER 20' USE 9" COLUMN, BOLT HOLES ARE THE SAME



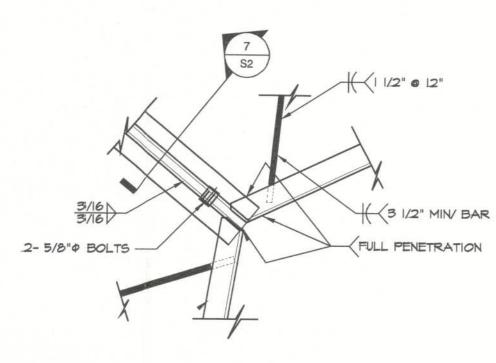
13 WIND BRACING DETAIL E2



DETAIL 16/E2 SEE 16 PURLIN CONN.PL -

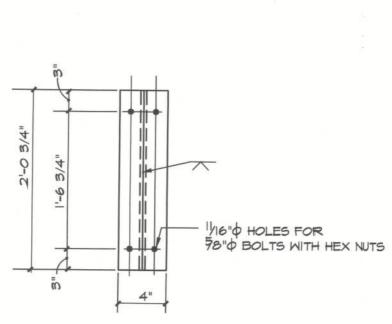
3 1/2" MIN/ BAR

WEB CONNECTION

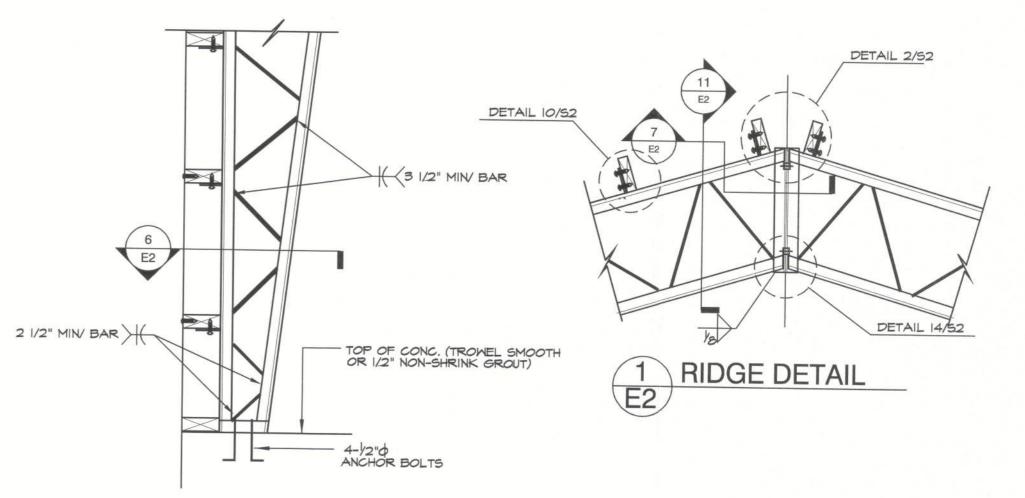


14 BOTTOM CORD E2

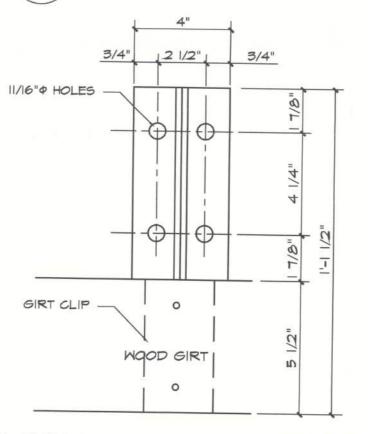
15 KNEE CONNECTION E2



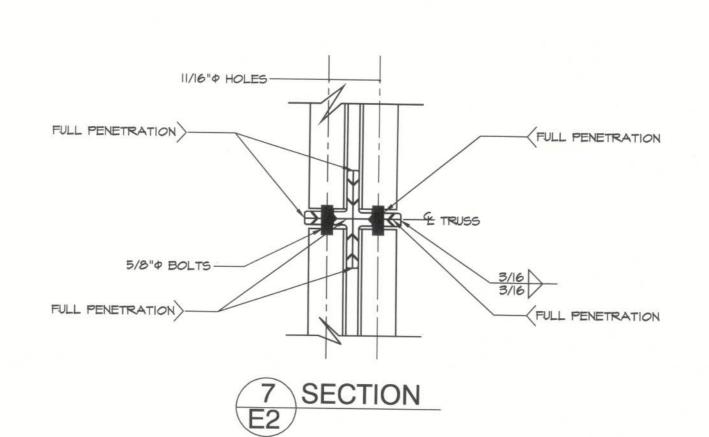
11 RIDGE ANGLES



COLUMN BASE DETAIL

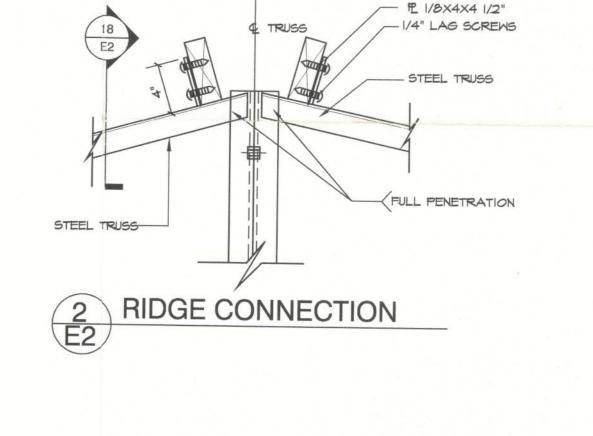


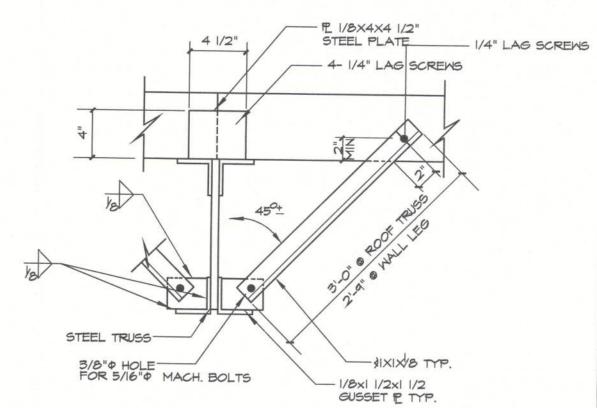
COLUMN BASE PLATE DETAIL



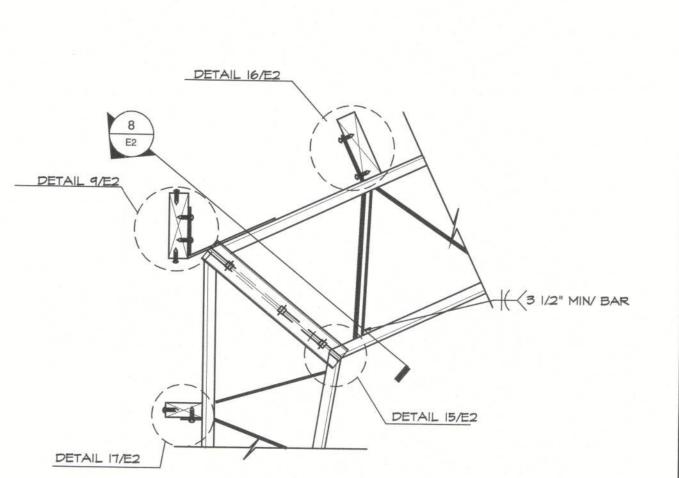
-ADD 1/8" PL BTWN BOLTS 3 1/2" MIN/ BAR - 1/16" Pholes FOR 58" PROLTS WITH HEX NUTS

KNEE DIAGONAL





SWAY BRACE DETAIL



4 KNEE DETAIL E2

AN MASL STEPHEN
ENGINEERS/D
8011 PASEO
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(816) 444-6

DOROSCHENKO 2409 SW SISTERS WELCOME LAKE CITY,

JOEL

date 11-9-13 drawn by R.E.S. checked by S.P.M. revised

sheet no.

E2

