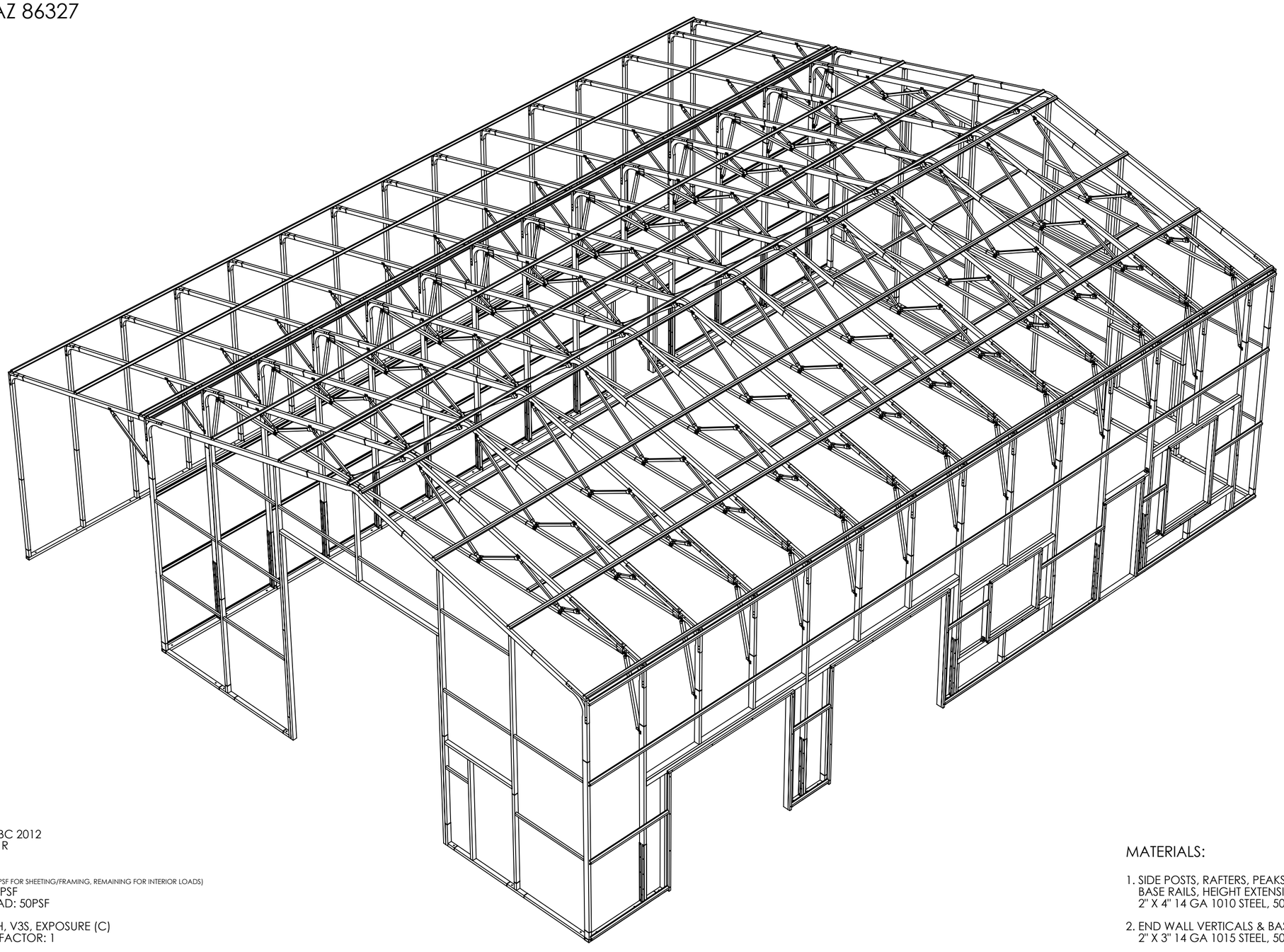
ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327



DESIGN CRITERIA:

CODE COMPLIANCE: IBC 2012
OCCUPANCY GROUP: R
3:12 PITCH

1. DEAD LOAD: 5 PSF (2PSF FOR SHEETING/FRAMING, REMAINING FOR INTERIOR LOADS)
2. ROOF LIVE LOAD: 30PSF
   GROUND SNOW LOAD: 50PSF

3. WIND LOAD: 115MPH, V3S, EXPOSURE (C)
   WIND IMPORTANCE FACTOR: 1

4. SEISMIC CATEGORY: C

5. ON CENTER FRAME SPACING: 4'/2'
   ROOF HAT CHANNEL SPACING: 67 5/16"
   LEAN-TO ROOF HAT CHANNEL SPACING: 70 5/8"
   SIDE HAT CHANNEL SPACING: 62-3/16"
   RAT TRACK HAT CHANNEL SPACING: 102 13/16"

6. SHEET METAL: 26GA R-PANEL, 80KSI, STEEL
   ALLOWABLE WIND PRESSURE LOAD ON 62 3/16" CENTERS: 40.57 PSF
   ALLOWABLE GRAVITY LOAD ON 67 5/16" CENTERS: 40.12 PSF
   PANELS ARE CLASS (A) FIRE RATED. EXTERIOR SHEETING NOT SHOWN.

MATERIALS:

1. SIDE POSTS, RAFTERS, PEAKS, DOOR HEADERS, DOOR JAMBS, BASE RAILS, HEIGHT EXTENSIONS:
   2" X 4" 14 GA 1010 STEEL, 50 KSI

2. END WALL VERTICALS & BASE RAILS, COLLAR TIE, LEAN-TO FRAMING:
   2" X 3" 14 GA 1015 STEEL, 50 KSI

3. WEB BRACES, GABLE END GIRTS, NAILER TUBES:
   1 1/2" X 1 1/2" 18 GA 1008 STEEL, 45 KSI

4. HAT CHANNEL (ROOF PURLINS, EAVE SIDE GIRTS, RAT TRACK):
   18 GA, 1010 STEEL, 50 KSI

5. BRACKETS:
   BK-40, 700-BK40: 18GA, 50 KSI STEEL
   BK-BPR-24: 16GA, 50 KSI STEEL
   BK-30, BK-31, BK-60, BK-61: 14GA, 50 KSI STEEL
   BK-10, 700-BK10, BK-20, BK-WEB-1.5SQ: 12GA, 50 KSI STEEL

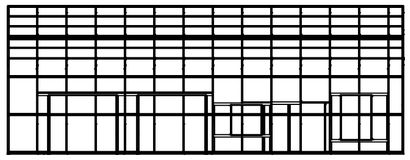
NOTE TO BUILDING DEPARTMENT OFFICIAL:
THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

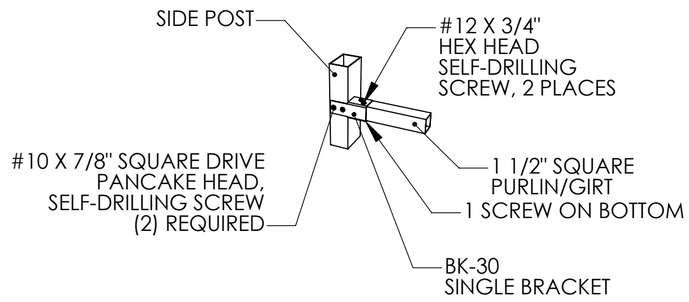
Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

VersaTube® BUILDING SYSTEMS

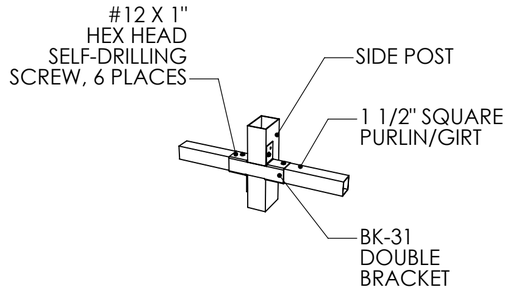
PROJECT: VERSATUBE SUMMIT BUILDING
TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO
DWG NO: VXC34541604023GD7W3WD-12LTRO30KB_195827 5-8-18
DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 1 OF 9

ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327

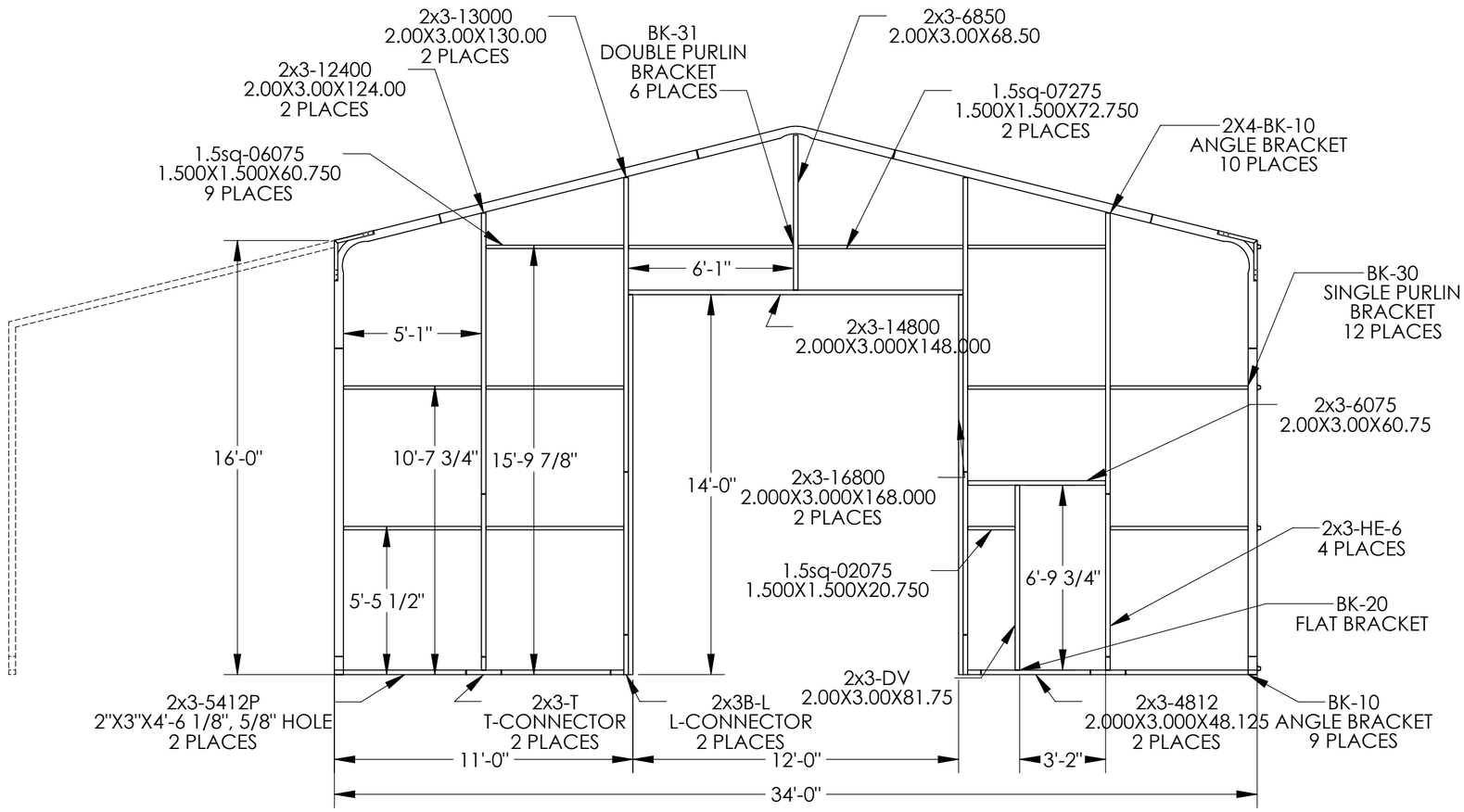


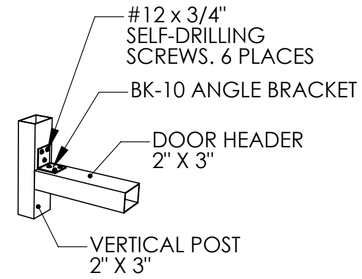


SINGLE PURLIN BRACKET

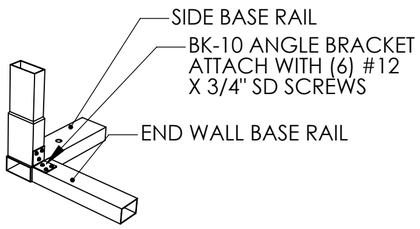


DOUBLE PURLIN BRACKET

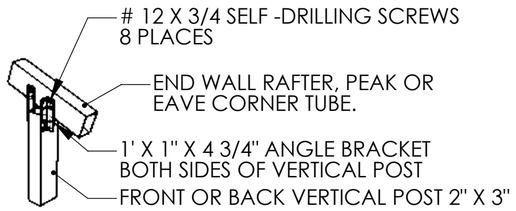




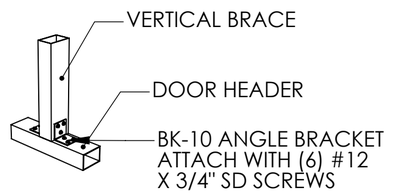
WALK DOOR HORIZONTAL



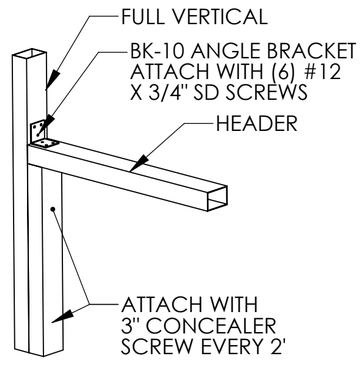
END WALL BASE RAIL TO SIDE BASE RAIL PIN



END WALL VERTICAL TO RAFTER



VERTICAL SUPPORT OVER GARAGE DOOR



GARAGE DOOR VERTICAL SUPPORT

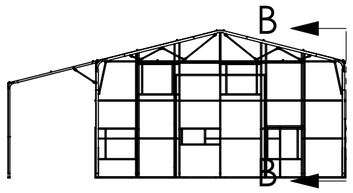
NOTE TO BUILDING DEPARTMENT OFFICIAL:
THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

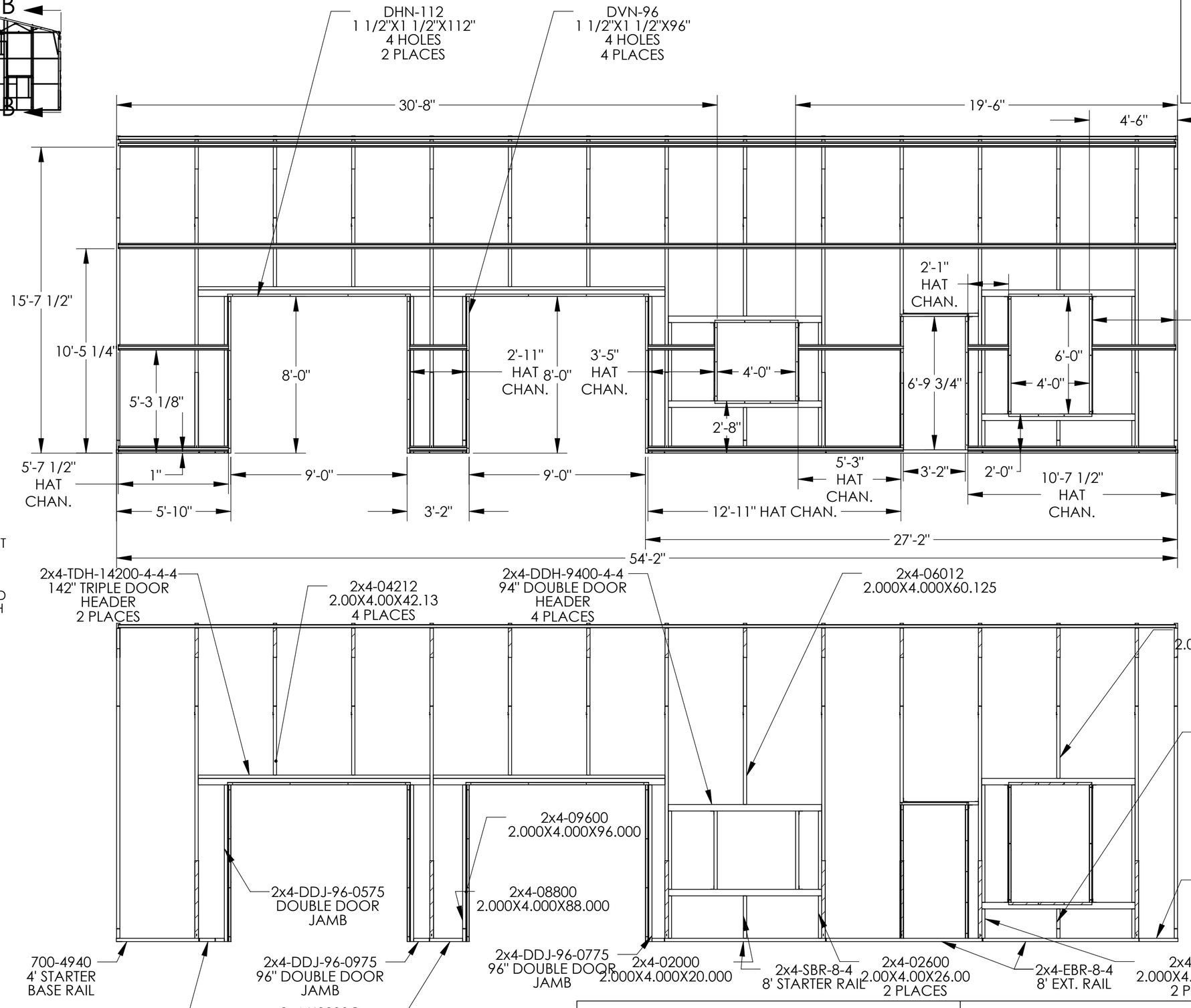
Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

VersaTube® BUILDING SYSTEMS

PROJECT: VERSATUBE SUMMIT BUILDING
TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO
DWG NO: FRONT ELEVATION
DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 2 OF 9

ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327





SECTION B-B
SCALE 1 : 48

SECTION B-B
SCALE 1:48

NOTE: WINDOW PLACEMENT MAY BE FIELD ADJUSTED.

ALL VERTICAL WINDOW SUPPORT STUDS ARE CONNECTED TO THE ADJACENT FRAME WITH A 3" CONCEALER SCREW APPROX. EVERY 24". HORIZONTAL SILL AND HEADERS ARE CONNECTED WITH BK-10 ANGLE BRACKETS

FOR 4X4 WINDOW:
(2) 2x4-DDH-9400-4-4
(4) 2x4-WV-4 (2"X4"X48")
(2) WHN-4 (1.5"X1.5"X52")
(2) WVN-4 (1.5"X1.5"X48")
(8) BK-10
(10) CON-3

FOR 4X6 WINDOW:
(2) 2x4-DDH-9400-4-4
(4) 2x4-WV-6 (2"X4"X72")
(2) WHN-4 (1.5"X1.5"X52")
(2) WVN-6 (1.5"X1.5"X72")
(8) BK-10
(10) CON-3

FOR WALK DOOR:
(1) 2X4-DV (2"X4"X81 3/4")
(1) 2X4-WDH-4 (2"X4"X45 3/4")
(3) BK-10
(1) BK-20
(12) CON-3
(1) DHN (1.5"X1.5"X42")
(2) DVN (1.5"X1.5"X81 3/4")

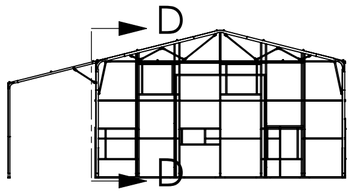
NOTE TO BUILDING DEPARTMENT OFFICIAL: THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

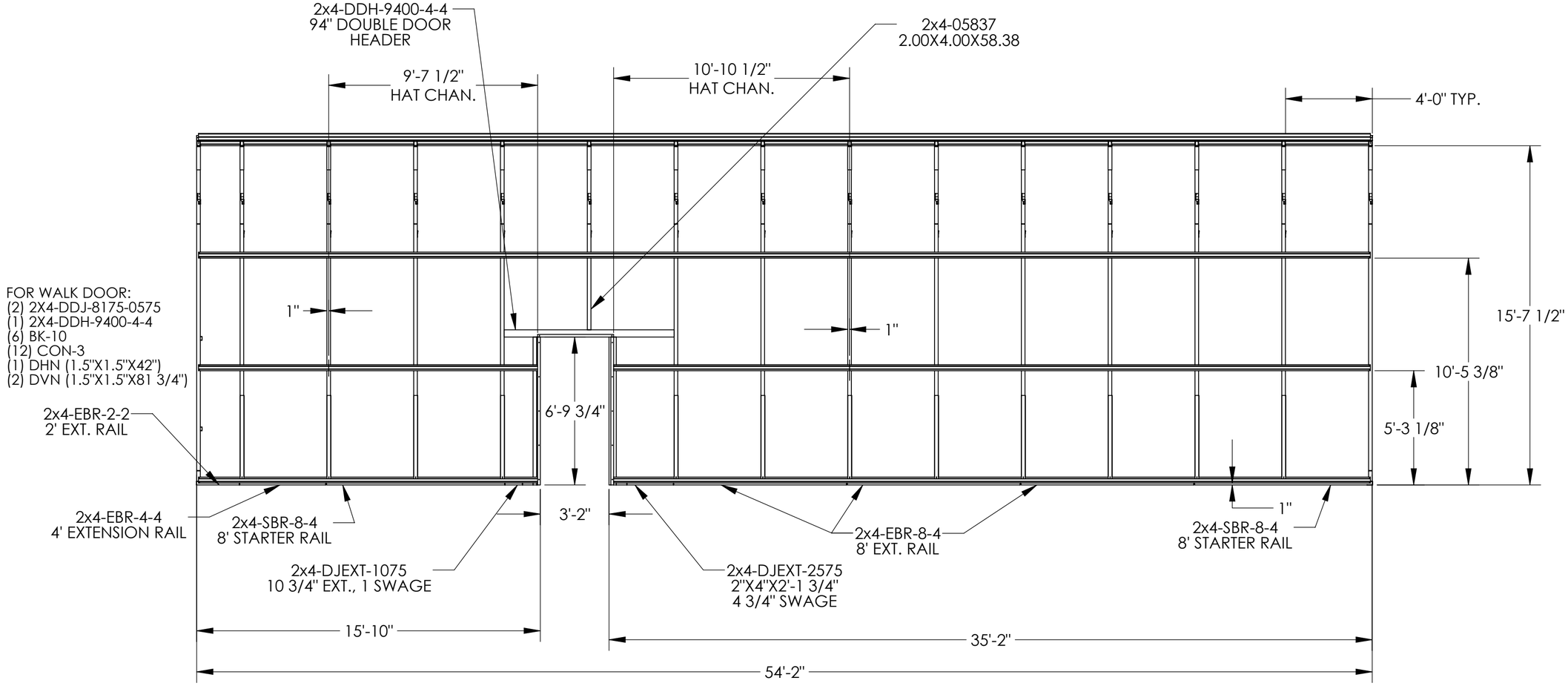
Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

VersaTube® BUILDING SYSTEMS

PROJECT: VERSATUBE SUMMIT BUILDING
TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO
DWG NO: RIGHT ELEVATION
DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 3 OF 9

ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327





SECTION D-D
SCALE 1 : 48

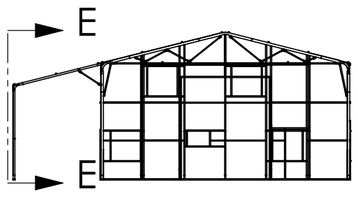
NOTE TO BUILDING DEPARTMENT OFFICIAL:
THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

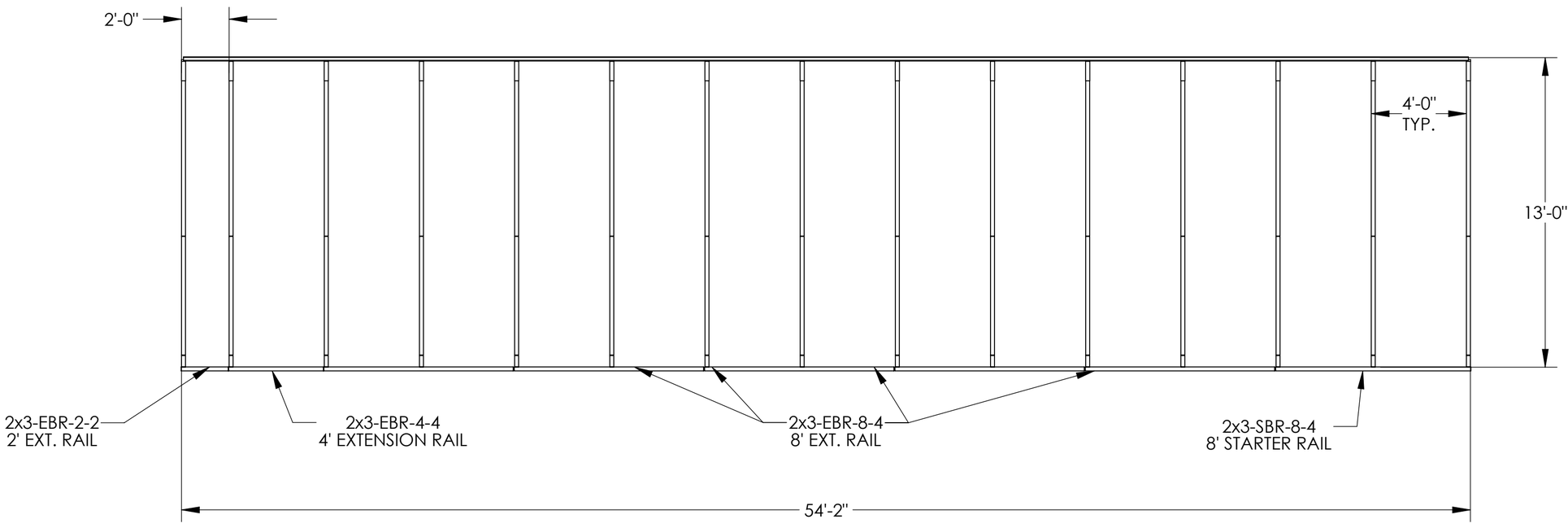
Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

VersaTube® BUILDING SYSTEMS

PROJECT: VERSATUBE SUMMIT BUILDING
TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO
DWG NO: LEFT ELEVATION
DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 4 OF 9

ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327





SECTION E-E
SCALE 1 : 48

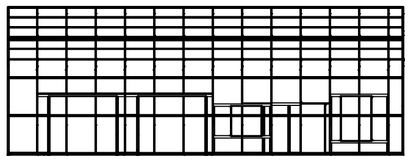
NOTE TO BUILDING DEPARTMENT OFFICIAL:
THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

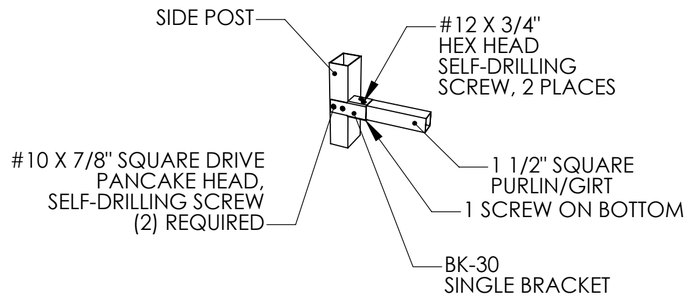
Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

VersaTube® BUILDING SYSTEMS

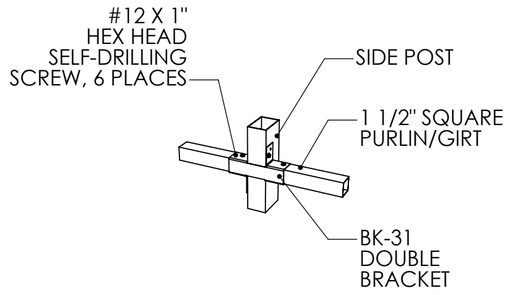
PROJECT: VERSATUBE SUMMIT BUILDING
TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO
DWG NO: LEFT LEAN-TO ELEVATION
DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 5 OF 9

ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327

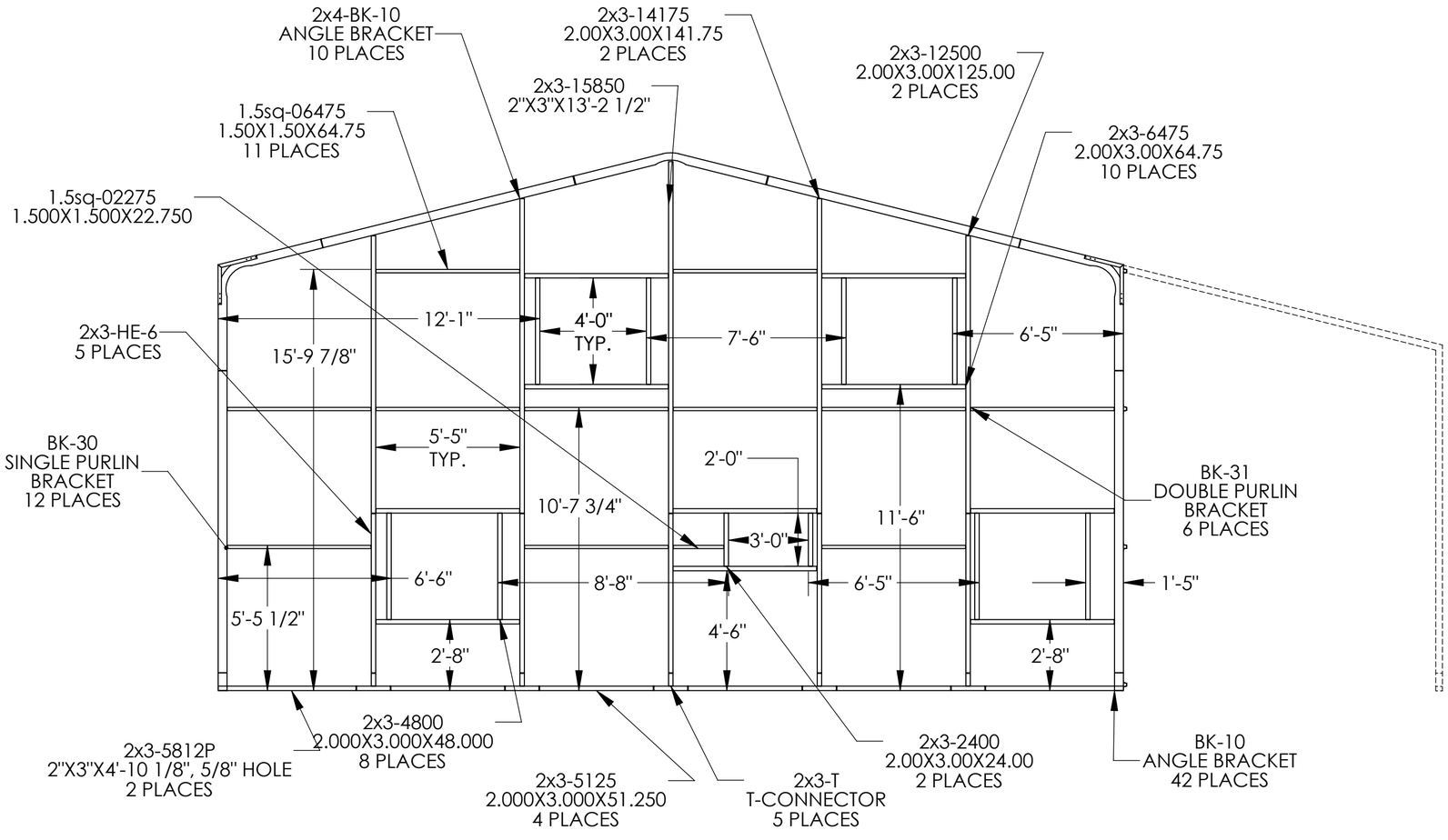


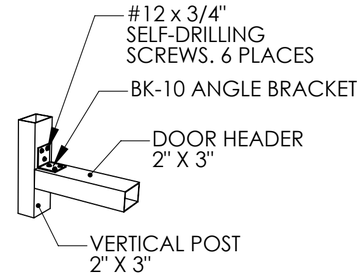


SINGLE PURLIN BRACKET

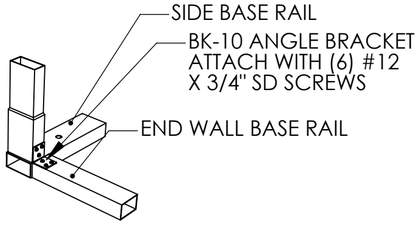


DOUBLE PURLIN BRACKET

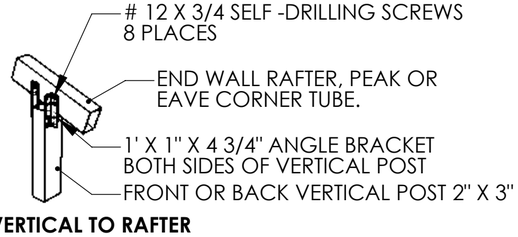




WINDOW HORIZONTAL



END WALL BASE RAIL TO SIDE BASE RAIL PIN



END WALL VERTICAL TO RAFTER

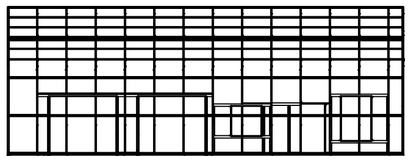
NOTE TO BUILDING DEPARTMENT OFFICIAL:
THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

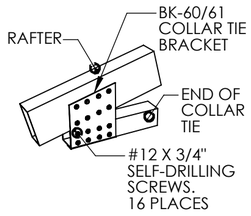
Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

VersaTube® BUILDING SYSTEMS

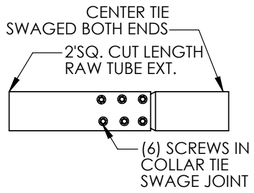
PROJECT: VERSATUBE SUMMIT BUILDING
TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO
DWG NO: BACK ELEVATION
DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 6 OF 9

ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327

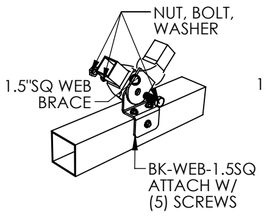




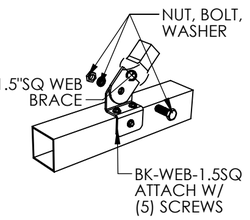
COLLAR TIE BRACKET



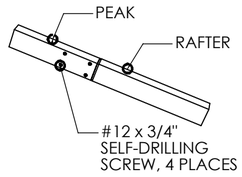
COLLAR TIE CONNECTION



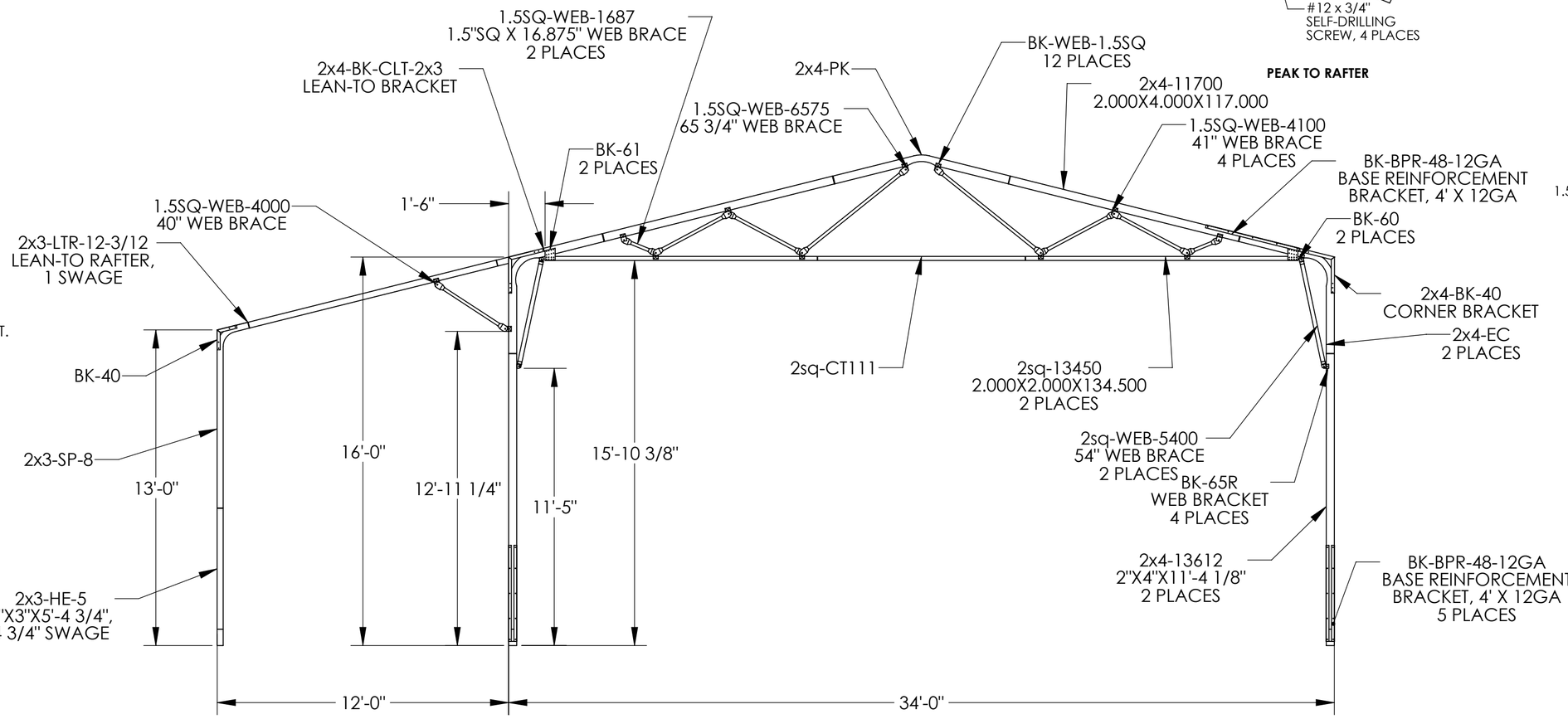
DOUBLE WEB BRACES TO BRACKET

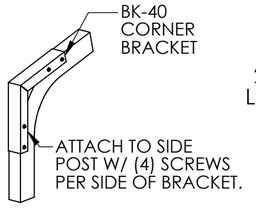


SINGLE WEB BRACE TO BRACKET

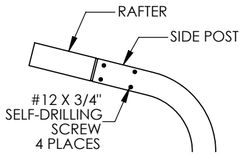


PEAK TO RAFTER

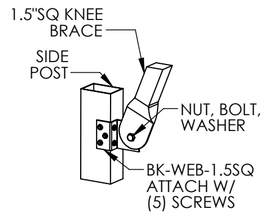




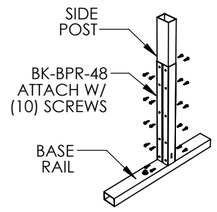
EAVE CORNER BRACKET



SIDE POST TO RAFTER DETAIL



KNEE BRACE TO BRACKET



BK-BPR-48 TO SIDE POST

NOTE TO BUILDING DEPARTMENT OFFICIAL:
THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

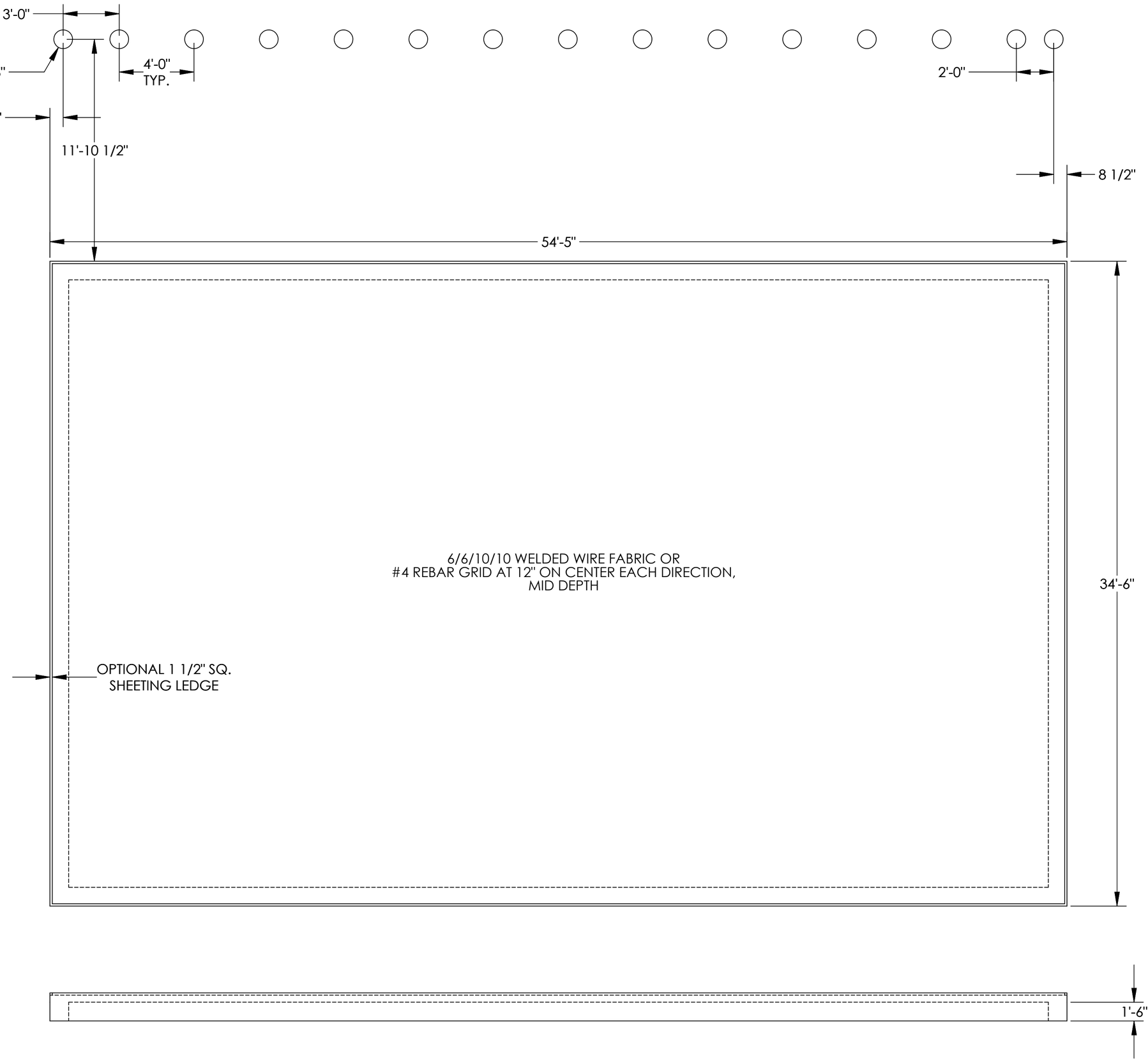
VersaTube® BUILDING SYSTEMS

PROJECT: VERSATUBE SUMMIT BUILDING

TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO

DWG NO: FRAME ELEVATION

DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 7 OF 9



ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327

LEAN-TO ANCHOR POINTS WILL NEED TO BE ANCHORED ON AT LEAST 12"DIAMETER X 18" PIERS.

GENERAL NOTES:

1. MAXIMUM ALLOWABLE SOIL BEARING PRESSURE IS AS FOLLOWS: 1000 PSF MINIMUM. OWNER TO VERIFY THAT SOIL IS STABLE AND COMPACTED TO A MINIMUM OF 90% RELATIVE OPTIMUM VALUE.
2. MAXIMUM SIZE AGGREGATE SHALL BE AS FOLLOWS: 1" DIA.
3. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE AS FOLLOWS: 2500 PSI
4. PLACE REINFORCEMENTS AT MID THICKNESS FOR SLABS ON THE GROUND.
5. ALL SPLICES IN CONTINUOUS REINFORCEMENT OR REINFORCING AS USED IN WALLS, FOOTINGS , ETC. SHALL HAVE A MINIMUM LAP OF 40 DIAMETERS. SPLICES IN ADJACENT BARS SHALL NOT BE LESS THAN 4'-0" APART. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. BARS MAY BE WIRED TOGETHER AT SPLICES OR LAPS EXCEPT FOR TOP REINF. OF BEAM AND SLABS, OR WHERE SPECIFICALLY DETAILED TO BE SEPARATED.
6. CONCRETE SHALL NOT BE DROPPED THROUGH REINF. STEEL AS IN WALLS SO AS TO CAUSE SEGREGATION OF AGGREGATES. IN SUCH CASE, HOPPERS AND VERTICAL CHUTES OR TRUNKS SHALL BE USED. CHUTES OR TRUNKS SHALL BE OF VARIABLE LENGTHS SO THAT FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED FIVE (5) FEET AND SUFFICIENT NUMBER SHALL BE USED TO INSURE THE CONCRETE BEING LEVEL AT ALL TIMES.

NOTE TO BUILDING DEPARTMENT OFFICIAL:
THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

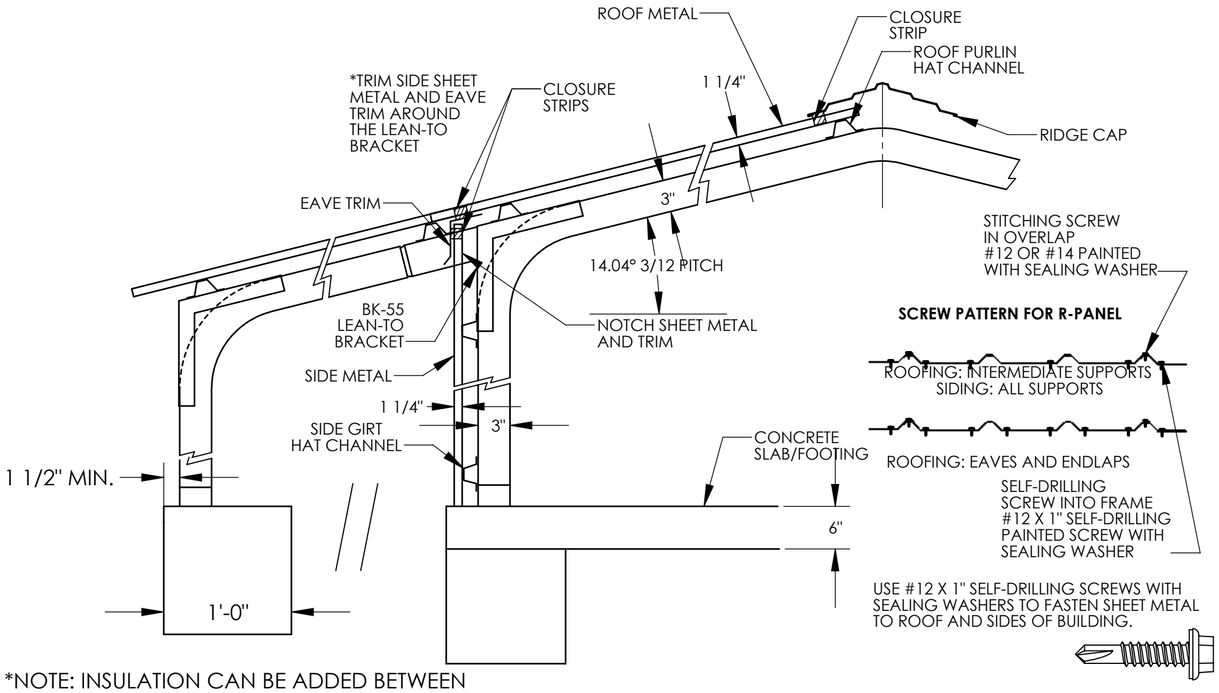
Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

VersaTube® BUILDING SYSTEMS

PROJECT: VERSATUBE SUMMIT BUILDING
TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO
DWG NO: FOUNDATION
DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 8 OF 9

ADAM GOLDENSTEIN
10685 E. ROCKY HILL ROAD
DEWEY, AZ 86327

*IF ROOF SHEET METAL IS IN 2 PANELS, THE LOWER PANEL ON THE LEAN-TO IS TO BE PLACED UNDER THE UPPER ROOF PANEL

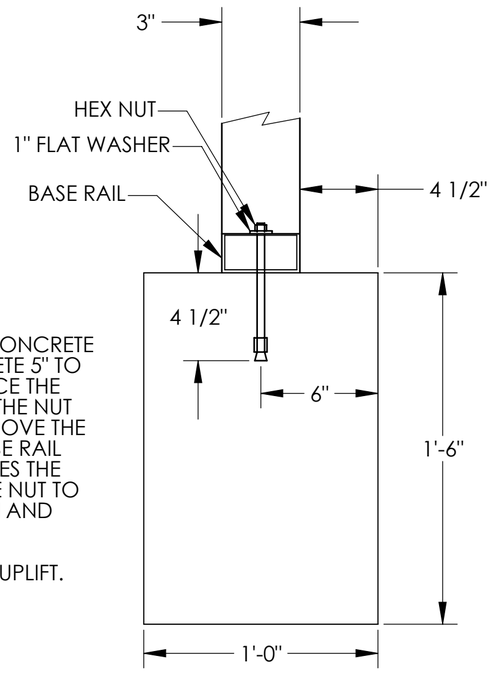


SCREW PATTERN FOR R-PANEL

USE #12 X 1" SELF-DRILLING SCREWS WITH SEALING WASHERS TO FASTEN SHEET METAL TO ROOF AND SIDES OF BUILDING.

*NOTE: INSULATION CAN BE ADDED BETWEEN SHEET METAL AND FRAMING. IF ADDED, USE LONGER SHEET METAL SCREWS.

INSTALLATION:
USING HAMMER DRILL AND A 5/8" X 12" CONCRETE DRILL BIT, DRILL A HOLE INTO THE CONCRETE 5" TO DEEP. REMOVE DEBRIS FROM HOLES. PLACE THE FLAT WASHER ON THE BOLT AND INSTALL THE NUT UNTIL ABOUT 2 THREADS ARE EXPOSED ABOVE THE NUT.
TAP THE ANCHOR THROUGH THE BASE RAIL INTO THE HOLE UNTIL THE WASHER TOUCHES THE TOP OF THE BASE RAIL. NOW, TIGHTEN THE NUT TO SET THE ANCHOR. DO NOT OVER TIGHTEN AND CRUSH THE TUBE.



LEAN-TO ANCHOR INSTALLATION:
USING HAMMER DRILL AND A 1/2" X 12" CONCRETE DRILL BIT, DRILL A HOLE INTO THE CONCRETE 5" TO DEEP. REMOVE DEBRIS FROM HOLES. PLACE THE FLAT WASHER ON THE BOLT AND INSTALL THE NUT UNTIL ABOUT 2 THREADS ARE EXPOSED ABOVE THE NUT. TAP THE ANCHOR THROUGH THE BASE RAIL INTO THE HOLE UNTIL THE WASHER TOUCHES THE TOP OF THE BASE RAIL. NOW, TIGHTEN THE NUT TO SET THE ANCHOR. DO NOT OVER TIGHTEN AND CRUSH THE TUBE.

DEPTH TO BE DICTATED BY FROST LINE OR UPLIFT.

NOTE TO BUILDING DEPARTMENT OFFICIAL:
THESE DRAWINGS AND/OR CALCULATIONS ARE VALID ONLY FOR STRUCTURES MANUFACTURED BY VERSATUBE BUILDING SYSTEMS. VERIFICATION IS RECOMMENDED PRIOR TO BUILDING APPROVAL.

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
FAX 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

VersaTube® BUILDING SYSTEMS

PROJECT: VERSATUBE SUMMIT BUILDING
TITLE: 34' X 54'2" X 16' SUMMIT, 12' ROOF ONLY LEAN-TO
DWG NO: SHEET METAL & ANCHORING
DRAWN BY: A. STRICKER | **DATE:** 5/17/2018 | PAGE 9 OF 9