



FOAM, GLUE, TAPE AND A LITTLE IMAGINATION....



(RC Model Airplane Construction Plans)

rcFoamFighters

FF-VIPER 70

(Original Design & CAD Drawing by Paul Petty - Sept. 2020)

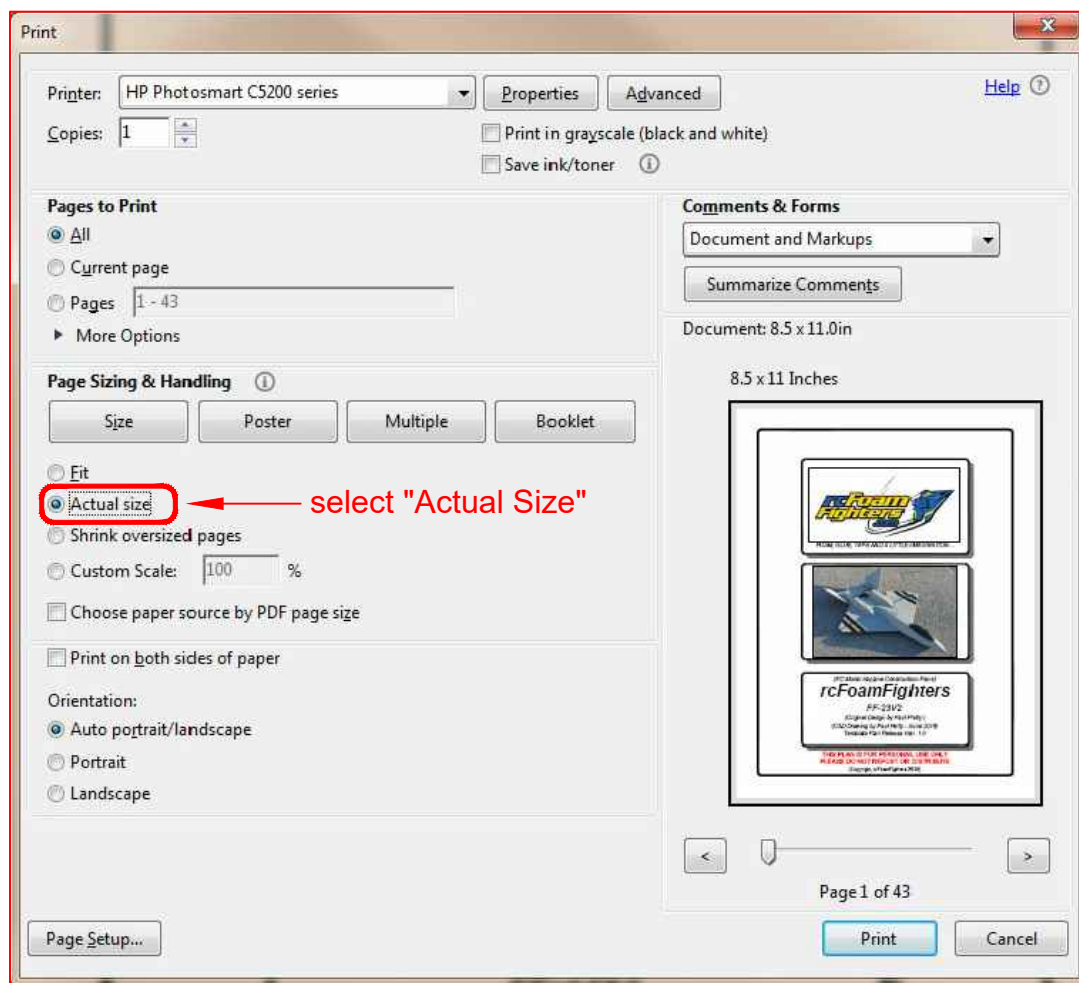
Template Plan Release Ver. 1.0

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PLEASE DO NOT REPOST OR DISTRIBUTE**

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Very Important printing instructions!!!

Make sure you print to "Actual Size" or your plan may come out the wrong scale. Do not use "Fit" or "Shrink oversized pages". Older Acrobat versions may also list "Fit to Printable Area" or similar as the default. Make sure you Select "Actual Size" or "Scaling to None" or similar setting to print your plans correctly. See example below.



rcFoamFighters

FF-VIPER 70

Template Plan

(CAD Plans by Paul Petty - Rev. 1.0, SEPT. 2020)

(Plan Release 1.0 - Copyright rcFoamFighters 2020)

(Contact rcFoamFighters at: admin@rcfoamfighters.com)

(Please Visit Our Blog at: <http://rcfoamfighters.com/blog/>)

Basic Specs as built by rcFoamFighters:

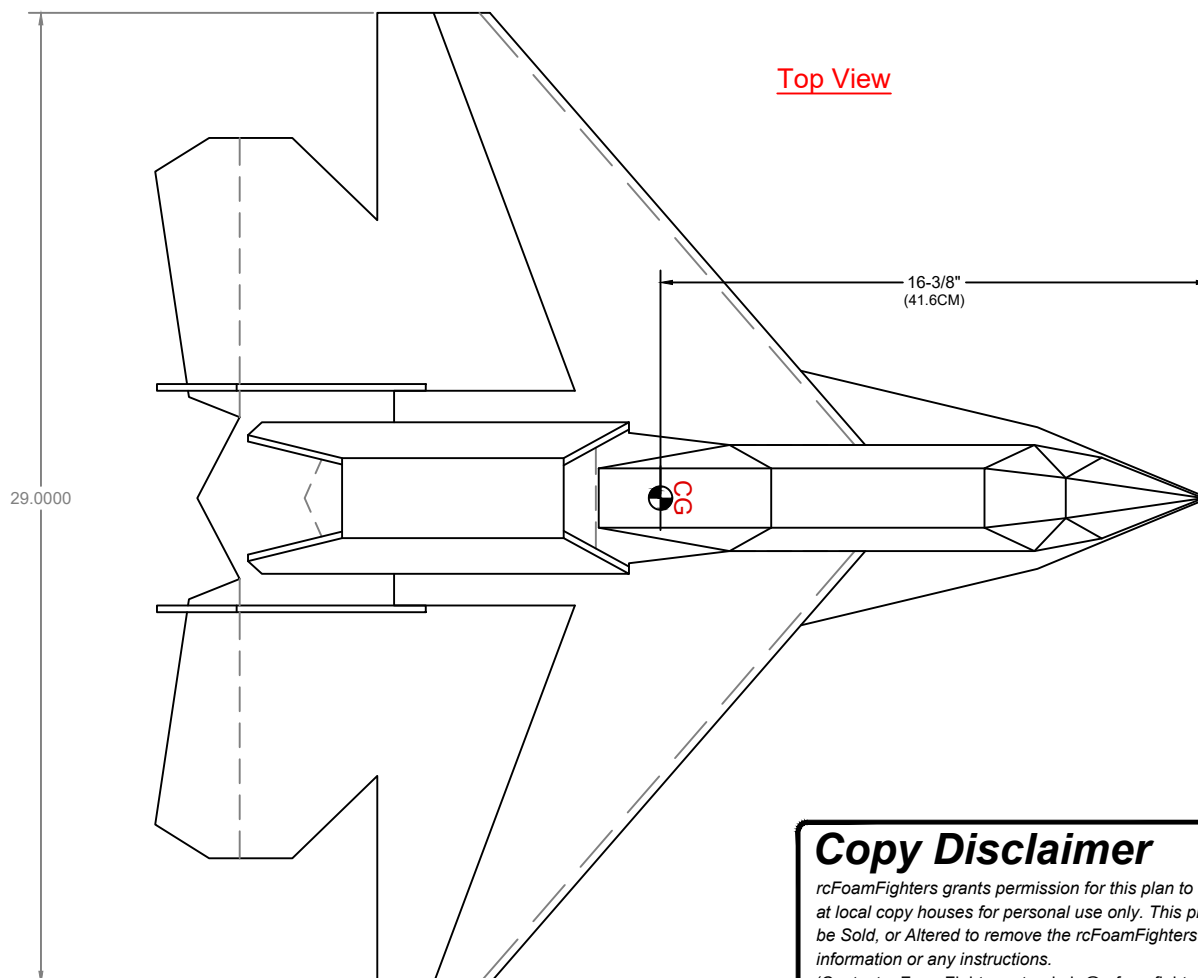
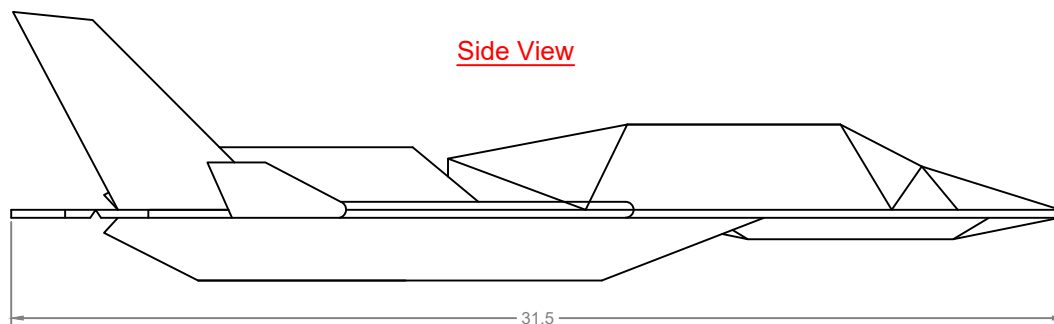
Wingspan: 29.0 Inches (73.66cm)

Length: 31.5 Inches (80.00cm)

All Up Weight (AUW): 34.0oz. (963.9gms)

Top Speed: 70+mph (112+kph)

Note, weight and top speed may vary depending on materials, motor, battery and electronics used. The weight given here is based on the model rcFoamFighters made using Readiboard brand Foamboard.



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Recommend Parts:

BASIC SETUP (70+mph)

Motor: Dr. Mad Thrust 11-Blade 70mm EDF, 3900kv 1300 Watt Motor

ESC: 40A Brushless ESC

Battery: 4S 2600mah (60C or better recommended)

Servos: 2 Mini Metal Gear

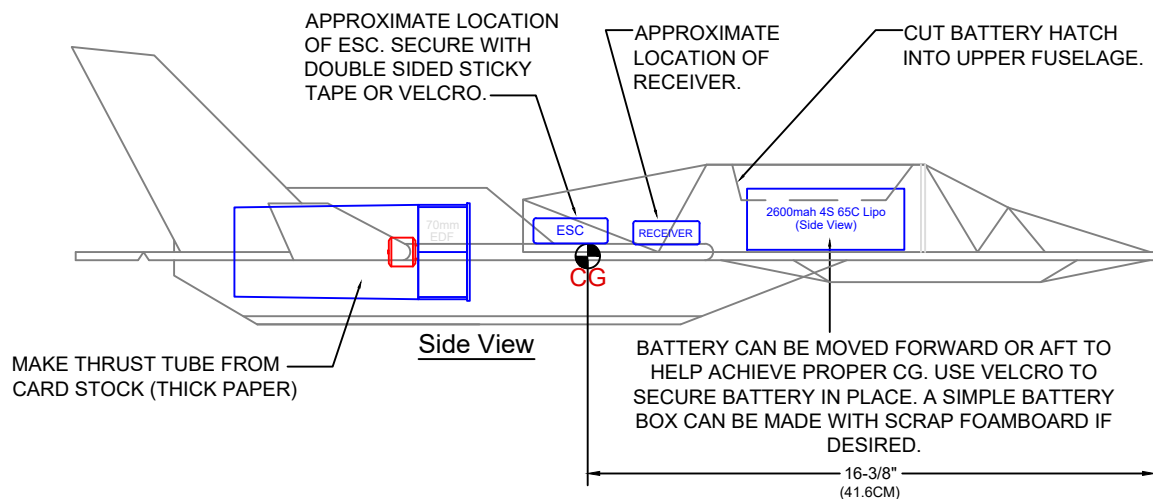
TX/RX: Any 4-channel with Delta Mixing (2.4ghz preferred)

Plane was originally designed to be made from 20x30 Sheets of Foamboard.

Depron or FanFold Foam with Carbon Spars may be used .

Disclaimer (Please Read):

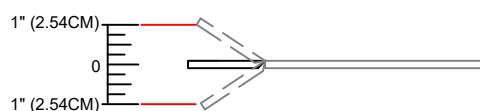
- This is a design template for a high performance, high speed RC aircraft. This plane should only be built and flown by experienced pilots with adequate skill to fly fast, maneuverable planes.
- **DO NOT fly this plane where it can endanger people, livestock or property.**
- **ANY PERSONS DECIDING TO BUILD AND FLY THIS PLANE DOES SO AT HIS/HER OWN RISK AND LIABILITY. RCFOAMFIGHTERS ASSUMES NO RESPONSIBILITY FOR THE PERFORMANCE OF THIS PLANE.**
- All minors should fly under the supervision of an adult or guardian.



AILERON THROWS

RECOMMENDED AILERON THROWS:

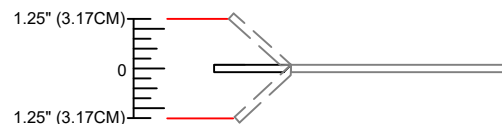
SET YOUR AILERON THROWS TO ABOUT 1 INCH (2.54CM) UP AND DOWN.



ELEVATOR THROWS

RECOMMENDED ELEVATOR THROWS:

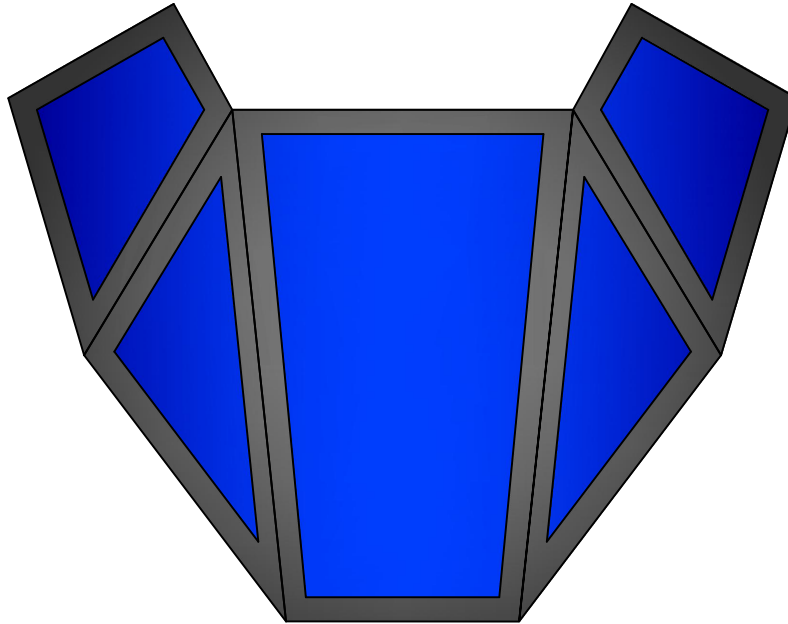
SET YOUR ELEVATOR THROWS TO ABOUT 1.25 INCHES (3.17CM) UP AND DOWN.



COCKPIT GLASS AND DECALS TEMPLATE

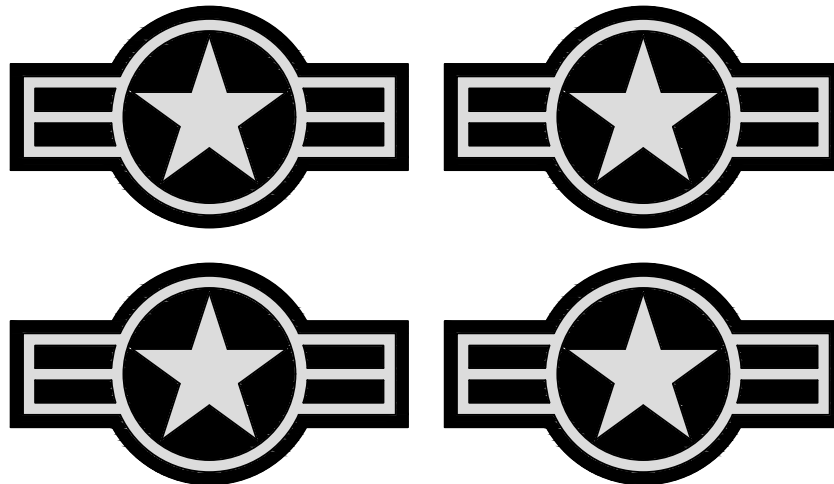
INSTRUCTIONS:

PRINT TO 8.5X11 AVERY LABEL STICKER (#8165) OR PLAIN PAPER AND USE GLUE TO ADHERE TO PLANE. CLEAR TAPE CAN BE USED OVER DECALS ONCE PRINTED TO MAKE MORE WATER RESISTANT.



U.S. AIR FORCE

U.S. AIR FORCE



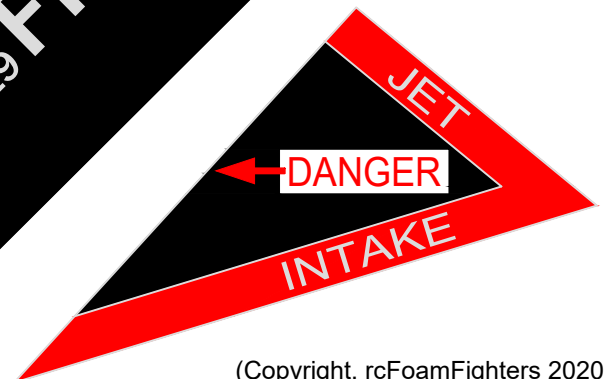
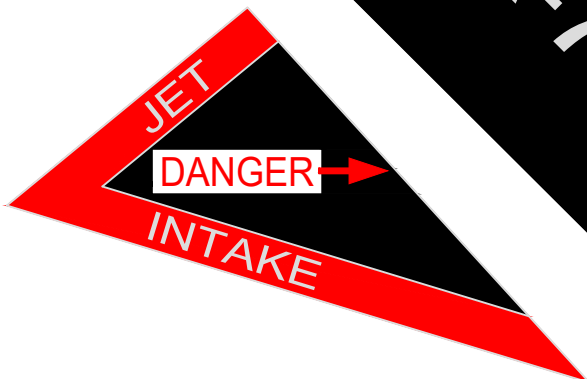
FF-VIPER-50

RCFOAMFIGHTERS

VERTICAL STABILIZER & OTHER DECALS

INSTRUCTIONS:

PRINT TO 8.5X11 AVERY LABEL STICKER (#8165) OR PLAIN PAPER AND USE GLUE TO ADHERE TO PLANE. CLEAR TAPE CAN BE USED OVER DECALS ONCE PRINTED TO MAKE MORE WATER RESISTANT.



TEMPLATE ASSEMBLY KEY PLAN

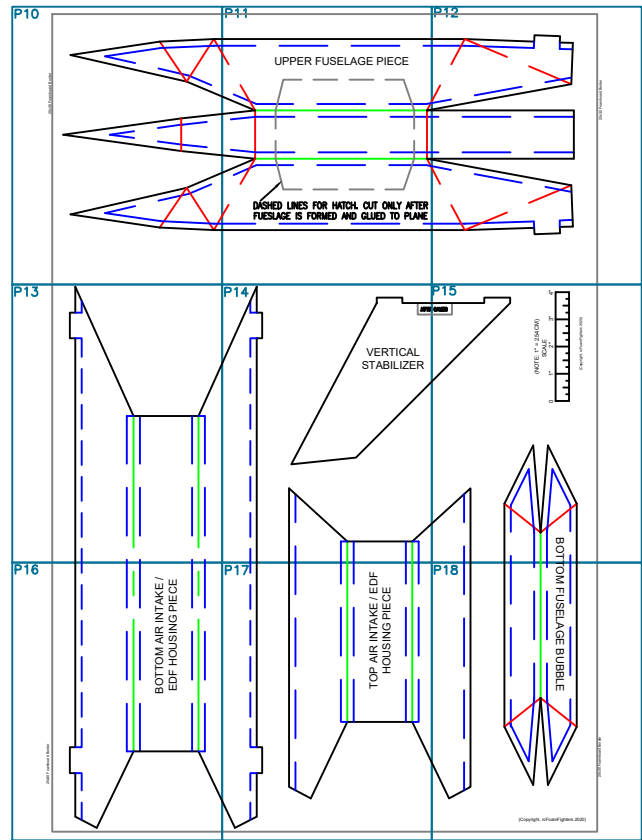
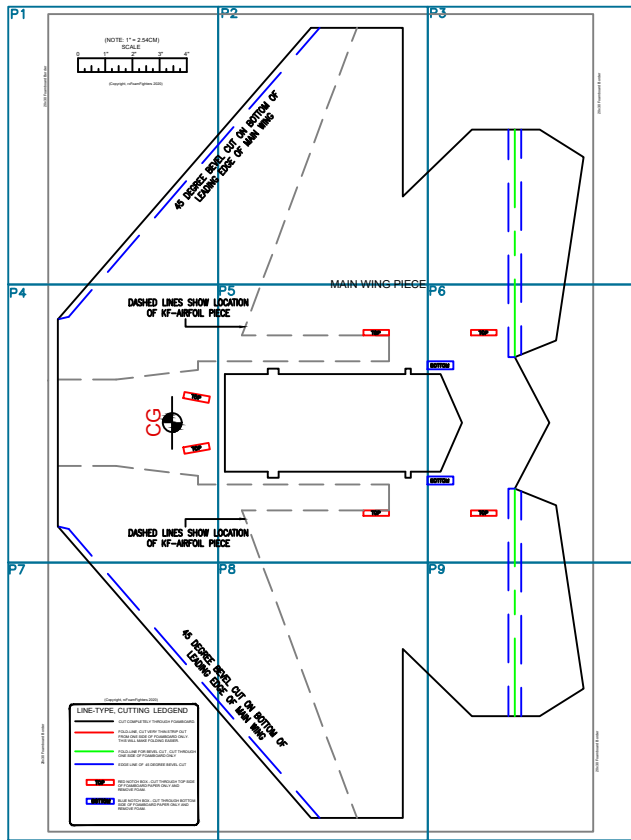
rcFoamFighters

FF-Viper-70 (Design by Paul Petty - Sept. 2020)

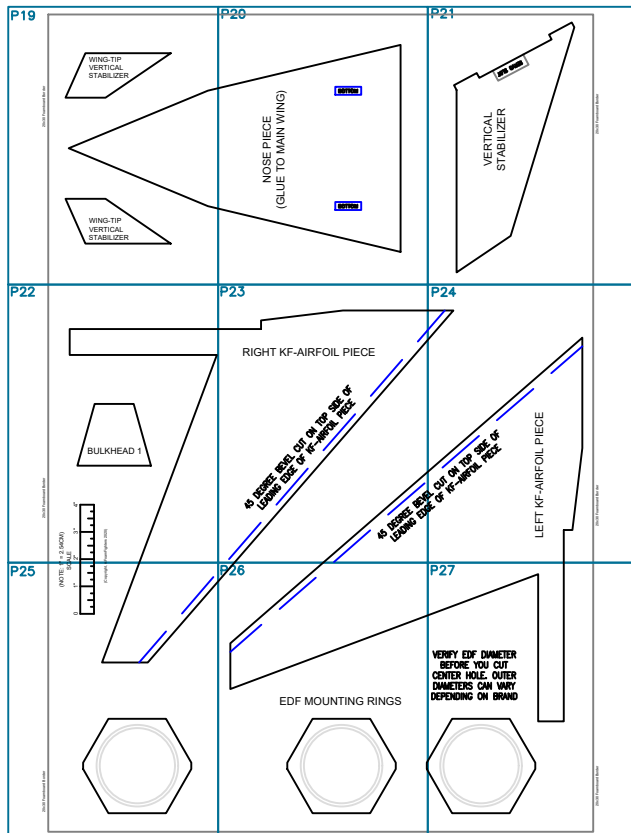
INSTRUCTIONS:

PRINT ALL TEMPLATE SHEETS. CUT AND ASSEMBLE AS SHOWN BELOW. USE SCOTCH TAPE TO SECURE SHEETS TOGETHER.

GRAY BOX OUTLINE SHOWS TYPICAL FIT ON 30"X20" FOAMBOARD.



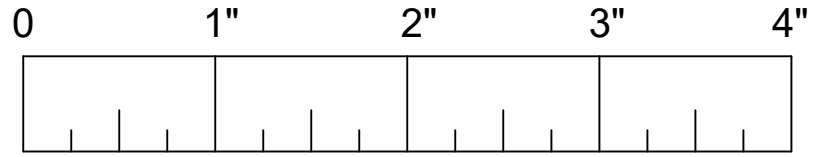
(Copyright, rcFoamFighters 2020)



20x30 Foamboard Border

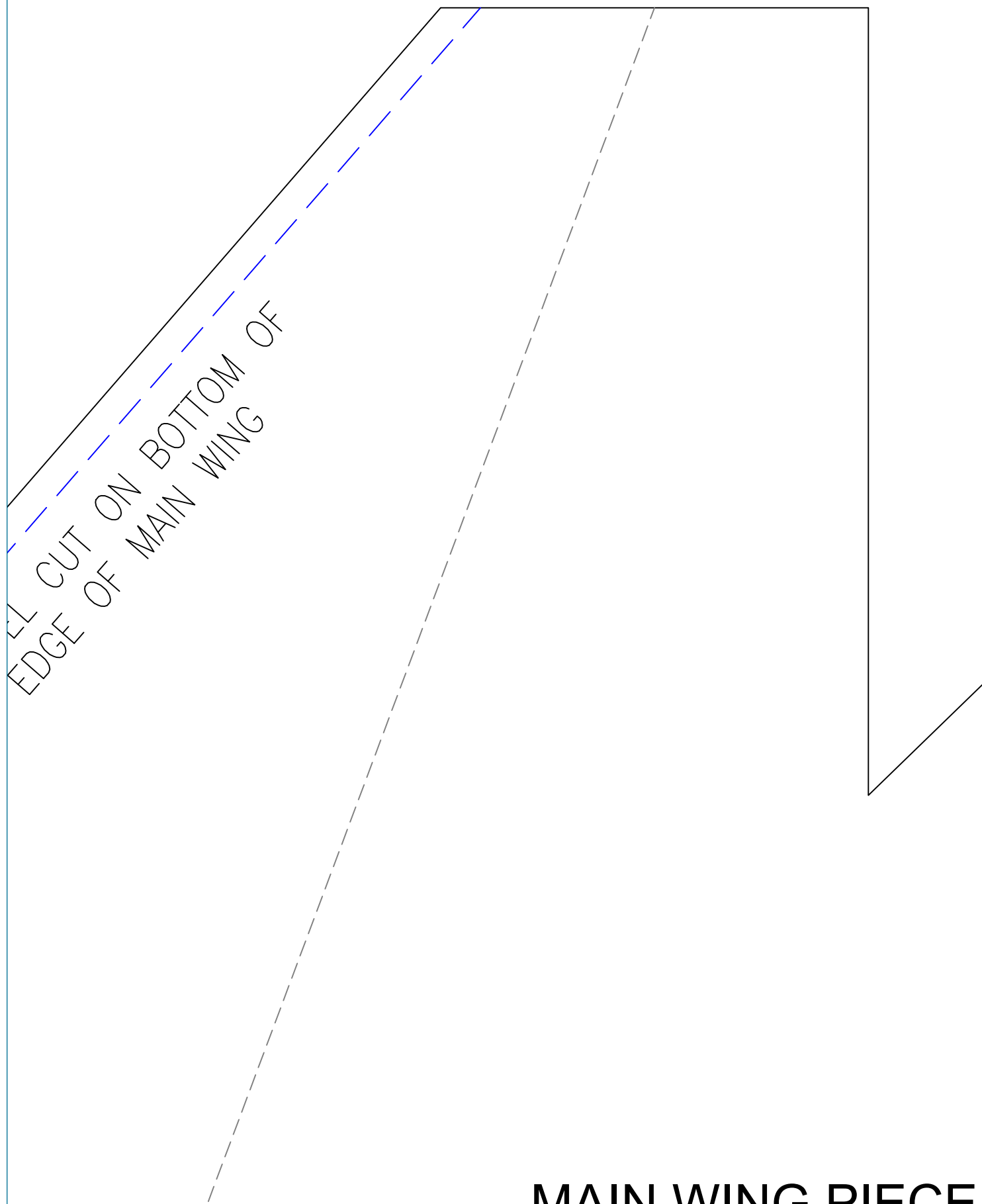
(NOTE: 1" = 2.54CM)

SCALE



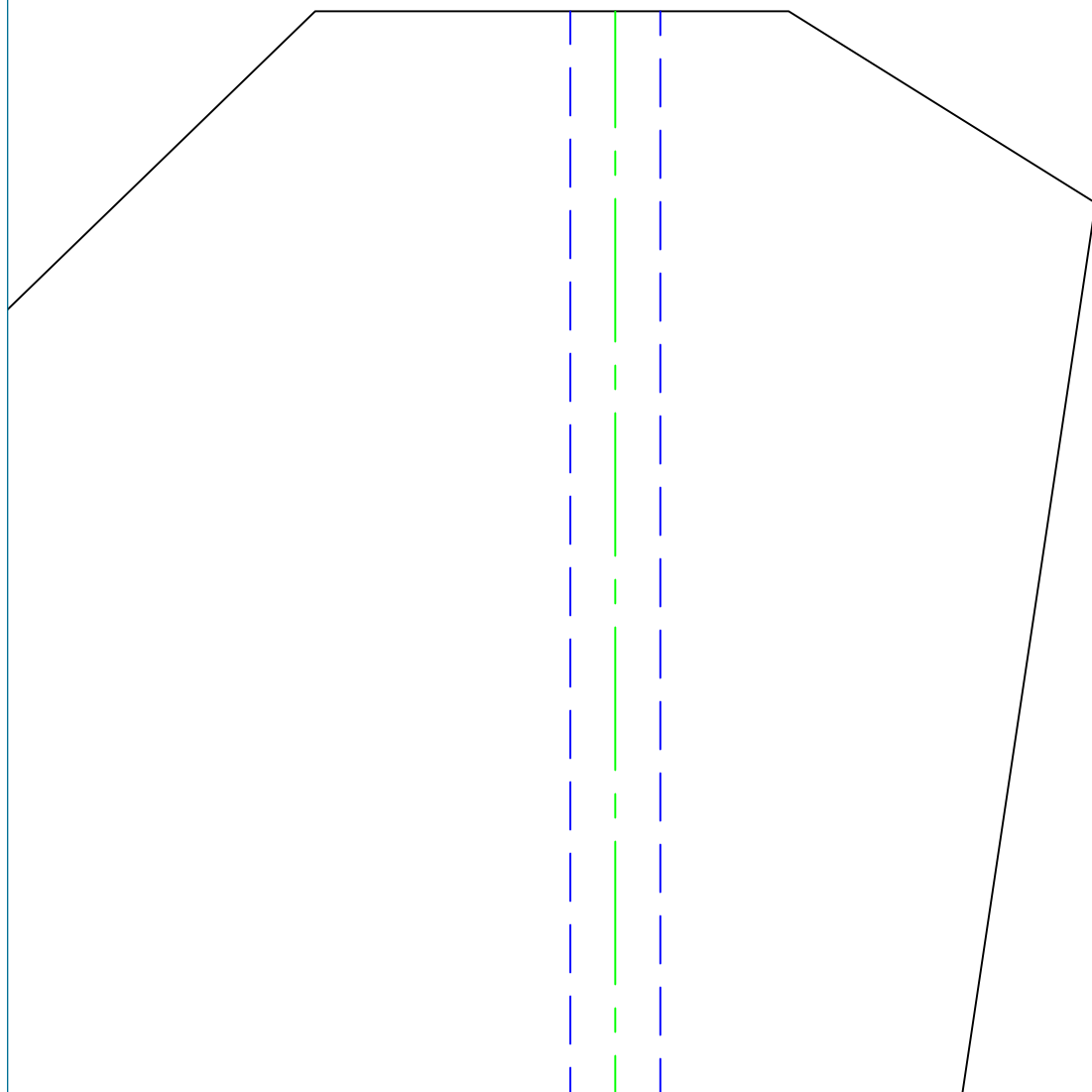
(Copyright, rcFoamFighters 2020)

45 DEGREE BEVEL
LEADING



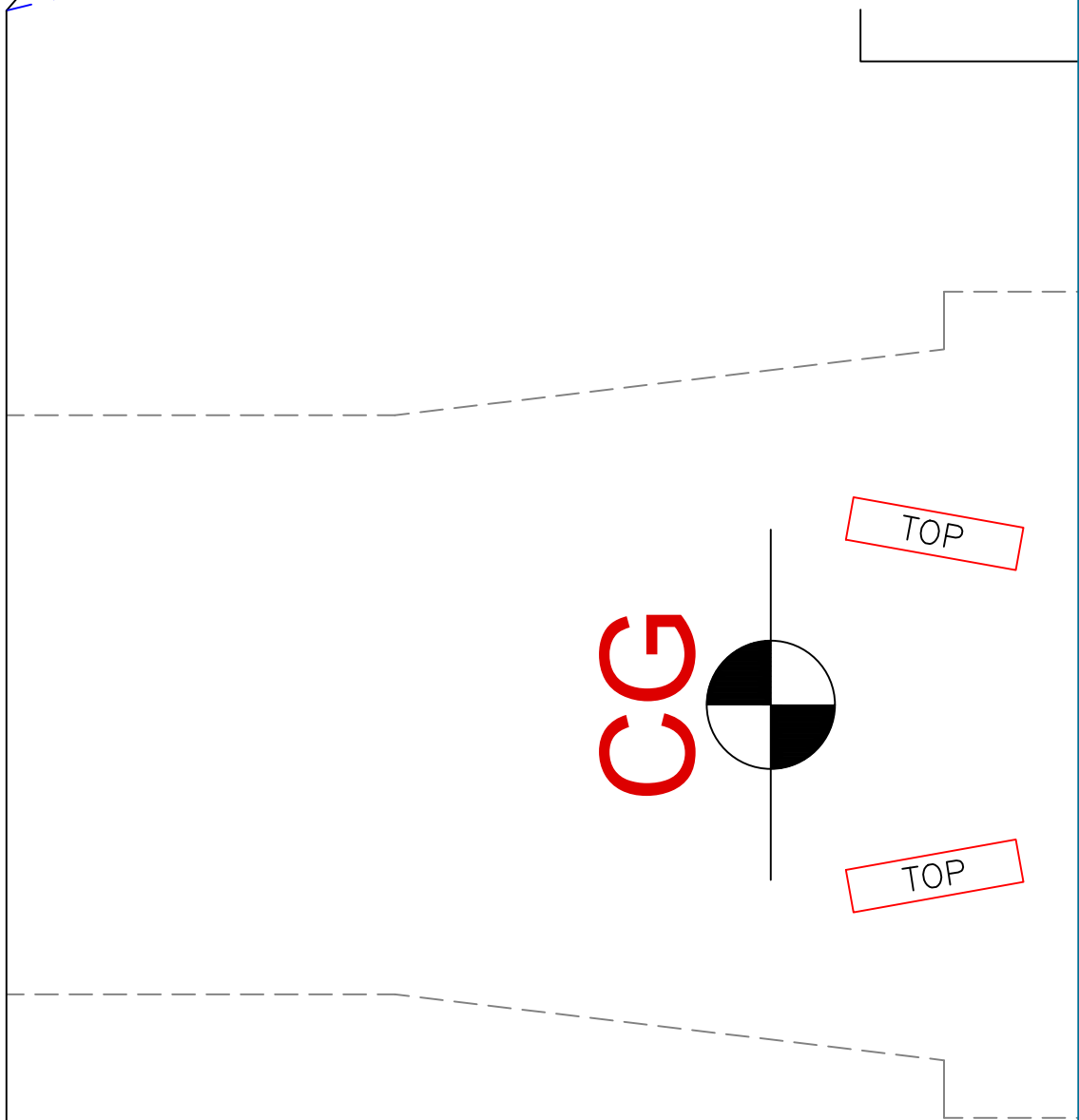
P3

20x30 Foamboard Border



P 4

DASHED LINES SHOW L
OF KF-AIRFOIL PIE



DASHED LINES SHOW L
OF KF-AIRFOIL PIE

P5

LOCATION
FACE



TOP



LOCATION
FACE



TOP

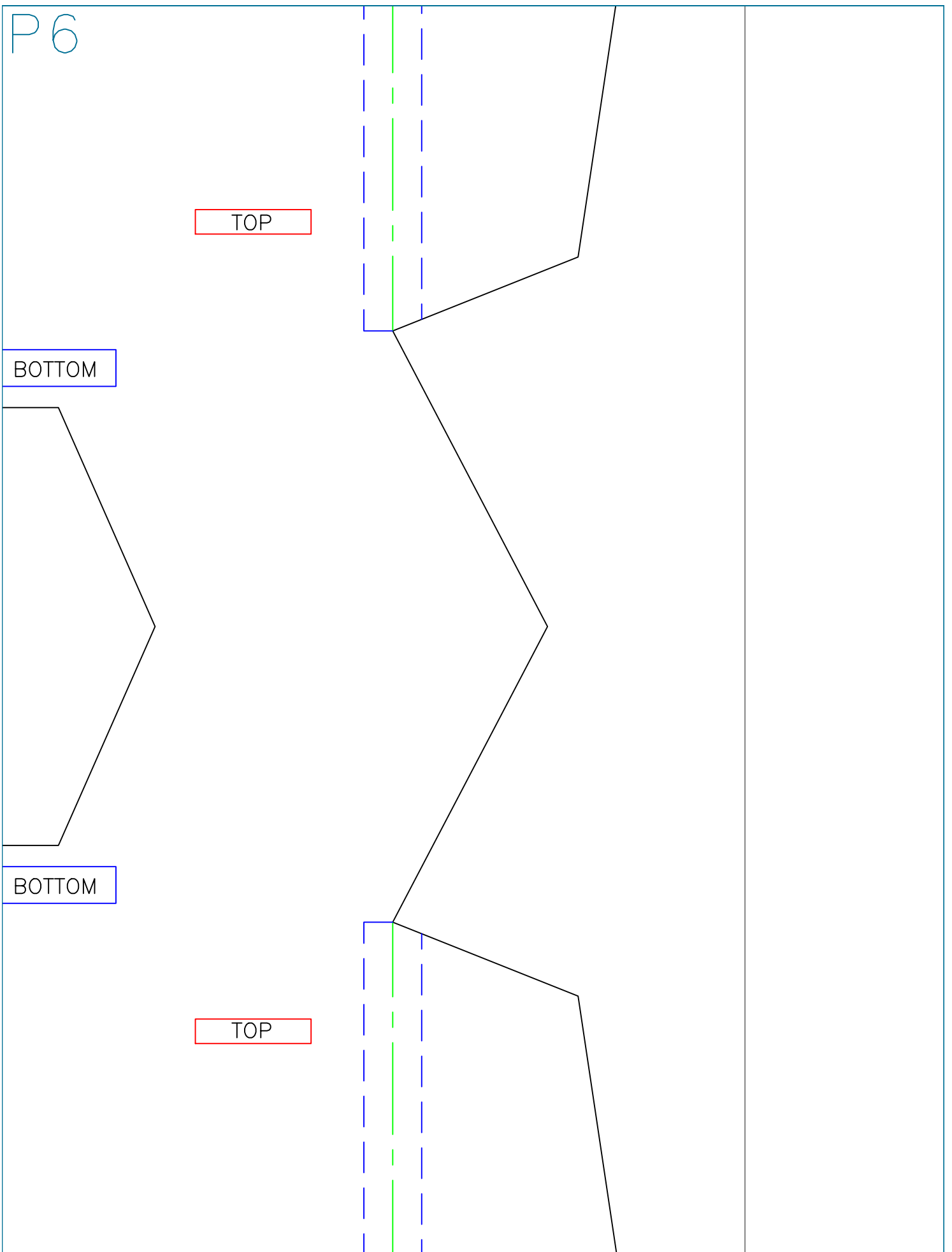
P 6

TOP

BOTTOM

BOTTOM

TOP



45 DEGREE BEVEL
LEADING EDGE

(Copyright, rcFoamFighters 2020)

LINE-TYPE, CUTTING LEDGEND

———— CUT COMPLETELY THROUGH FOAMBOARD.

— — — — FOLD-LINE, CUT VERY THIN STRIP OUT
FROM ONE SIDE OF FOAMBOARD ONLY.
THIS WILL MAKE FOLDING EASIER.

— — — — FOLD-LINE FOR BEVEL CUT , CUT THROUGH
ONE SIDE OF FOAMBOARD ONLY

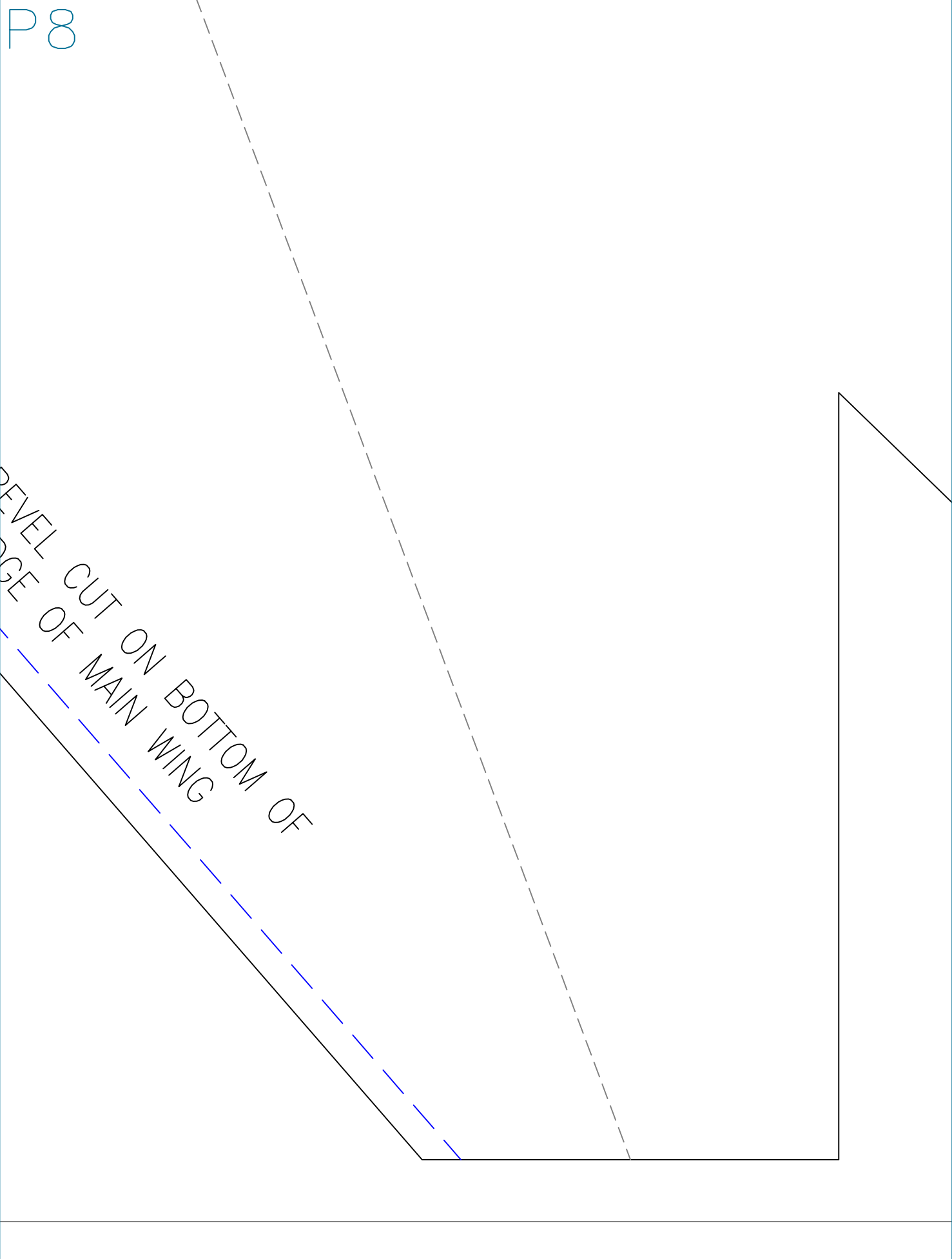
— — — — EDGE LINE OF 45 DEGREE BEVEL CUT

TOP RED NOTCH BOX - CUT THROUGH TOP SIDE
OF FOAMBOARD PAPER ONLY AND
REMOVE FOAM.

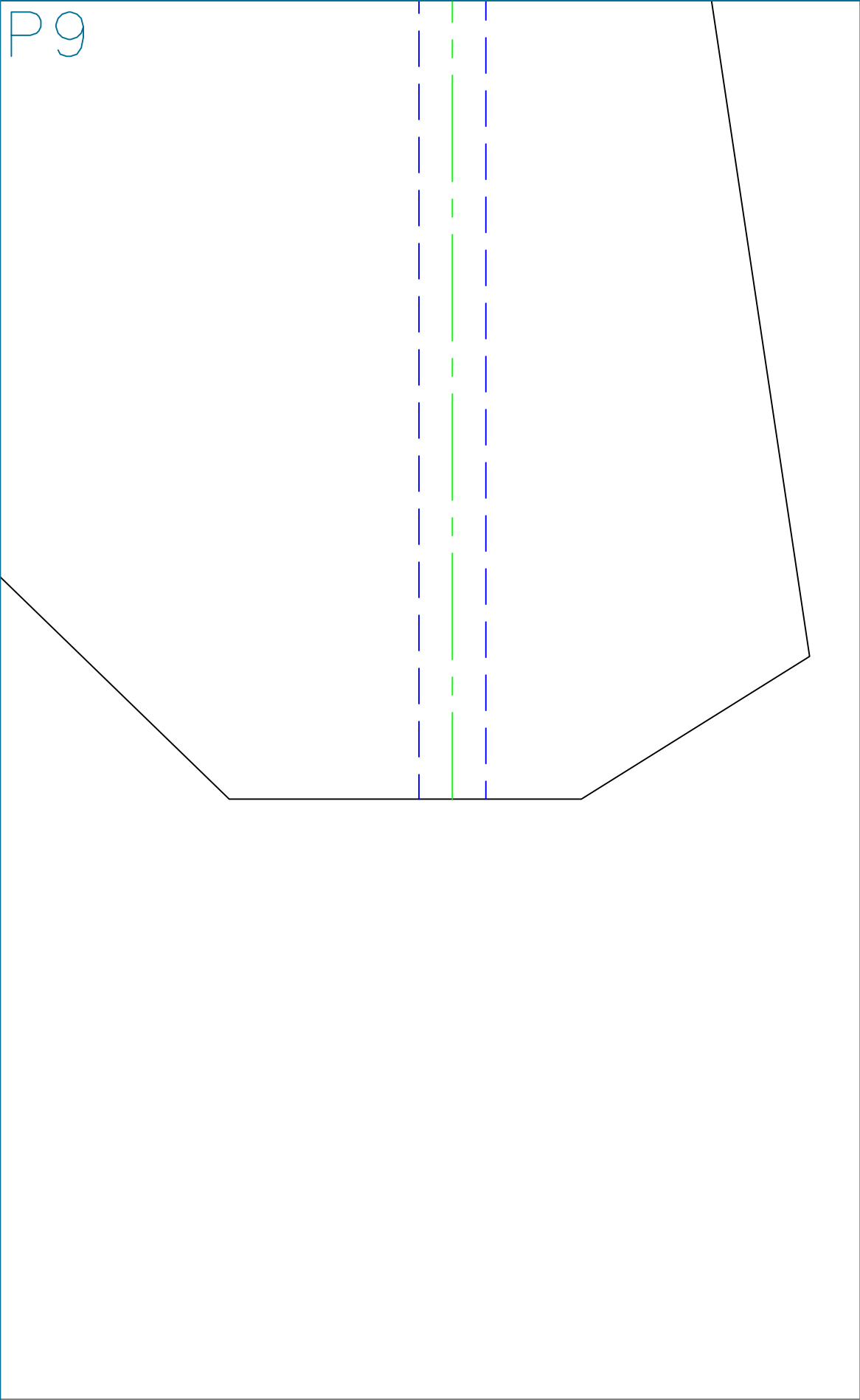
BOTTOM BLUE NOTCH BOX - CUT THROUGH BOTTOM
SIDE OF FOAMBOARD PAPER ONLY AND
REMOVE FOAM.

P8

LEVEL CUT ON BOTTOM OF
EDGE OF MAIN WING

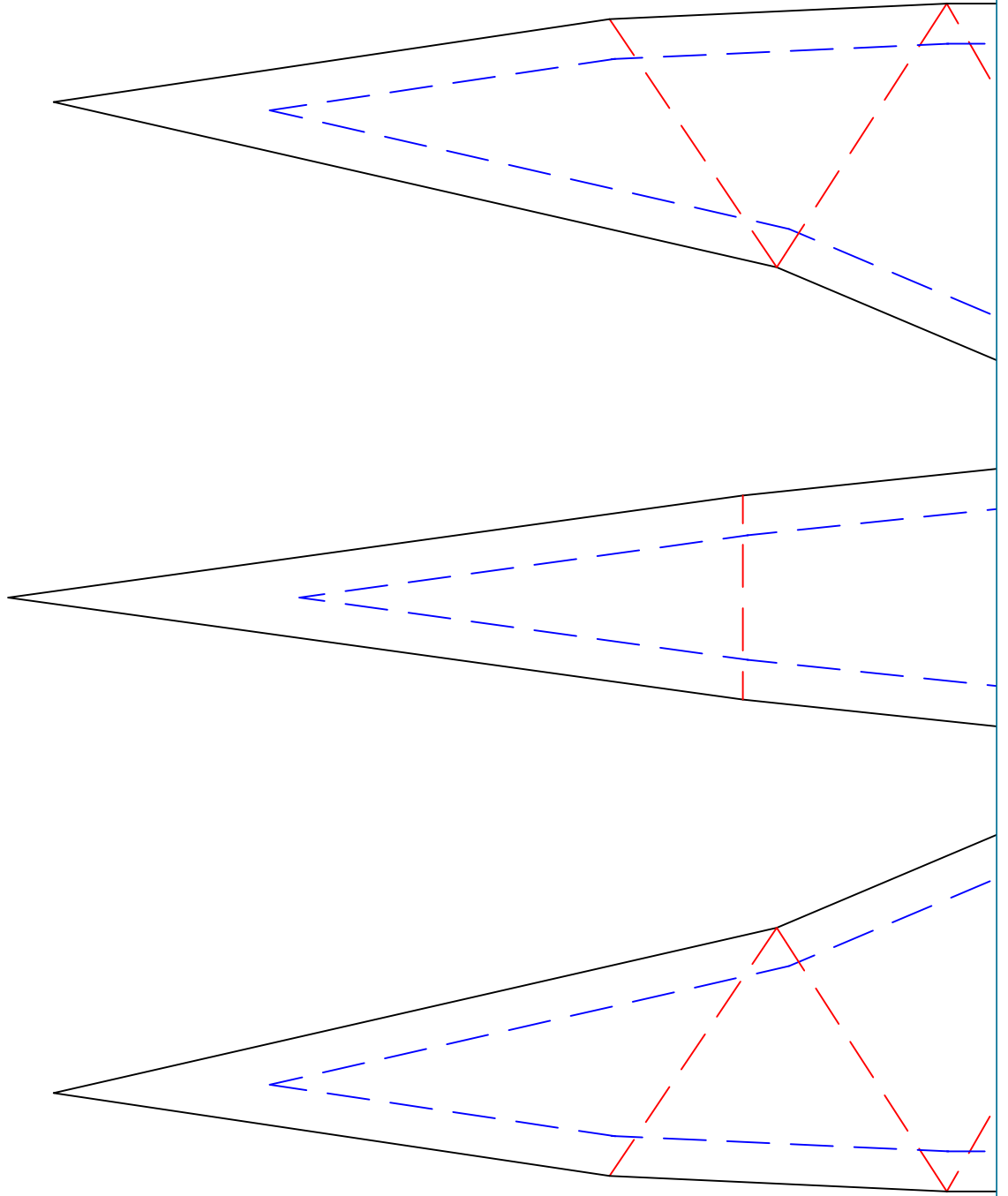


P9

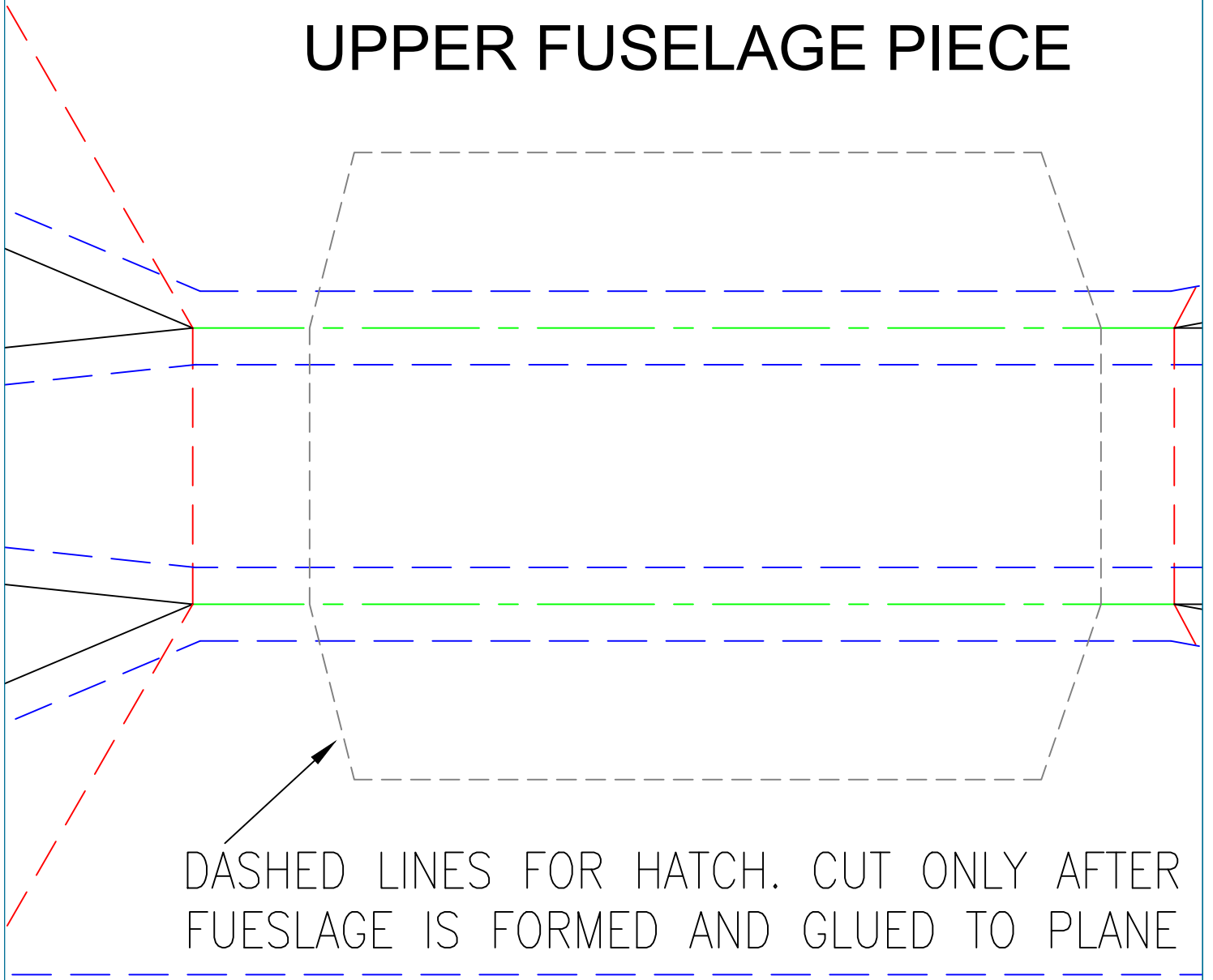


20x30 Foamboard Border

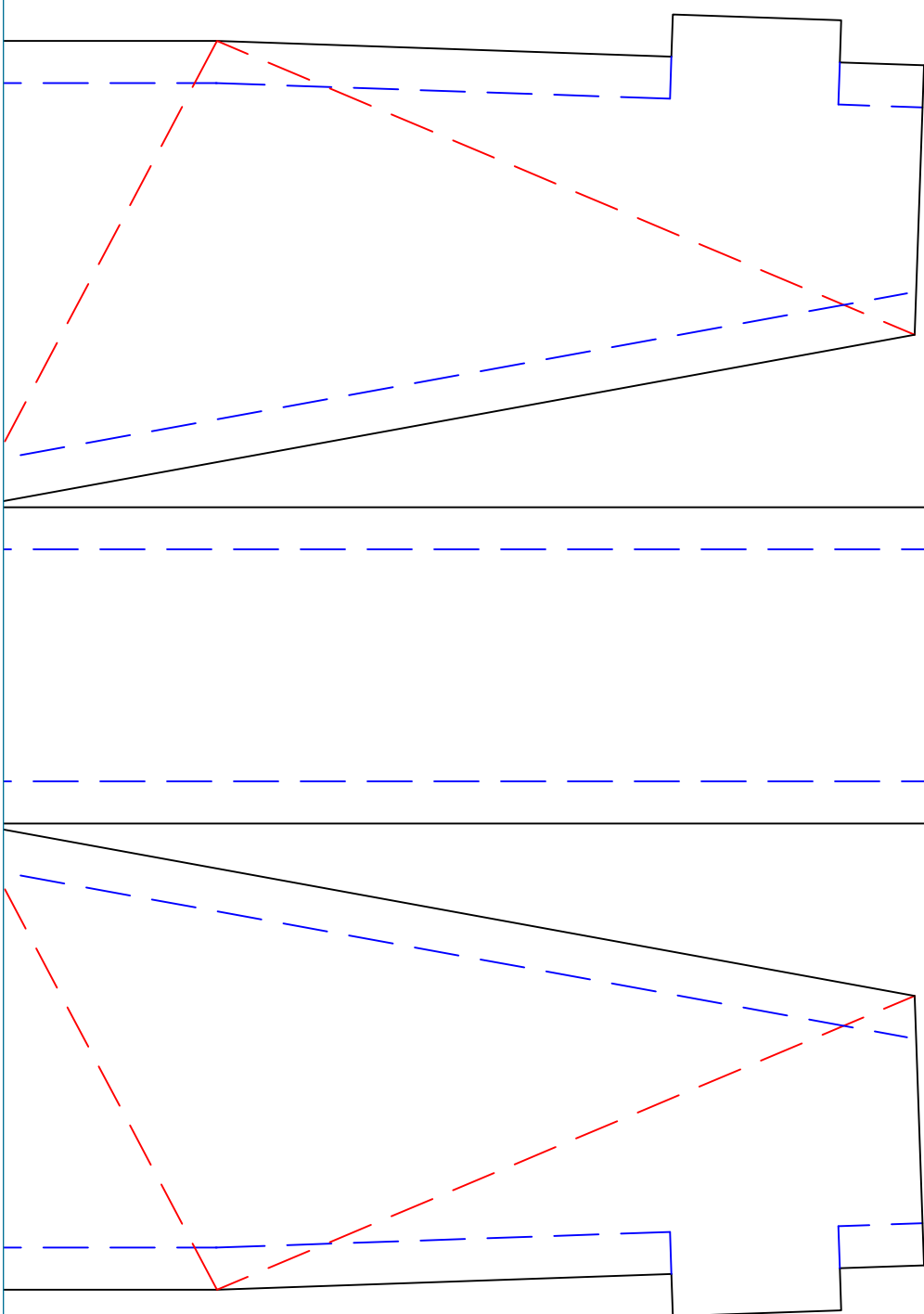
20x30 Foamboard Border



UPPER FUSELAGE PIECE

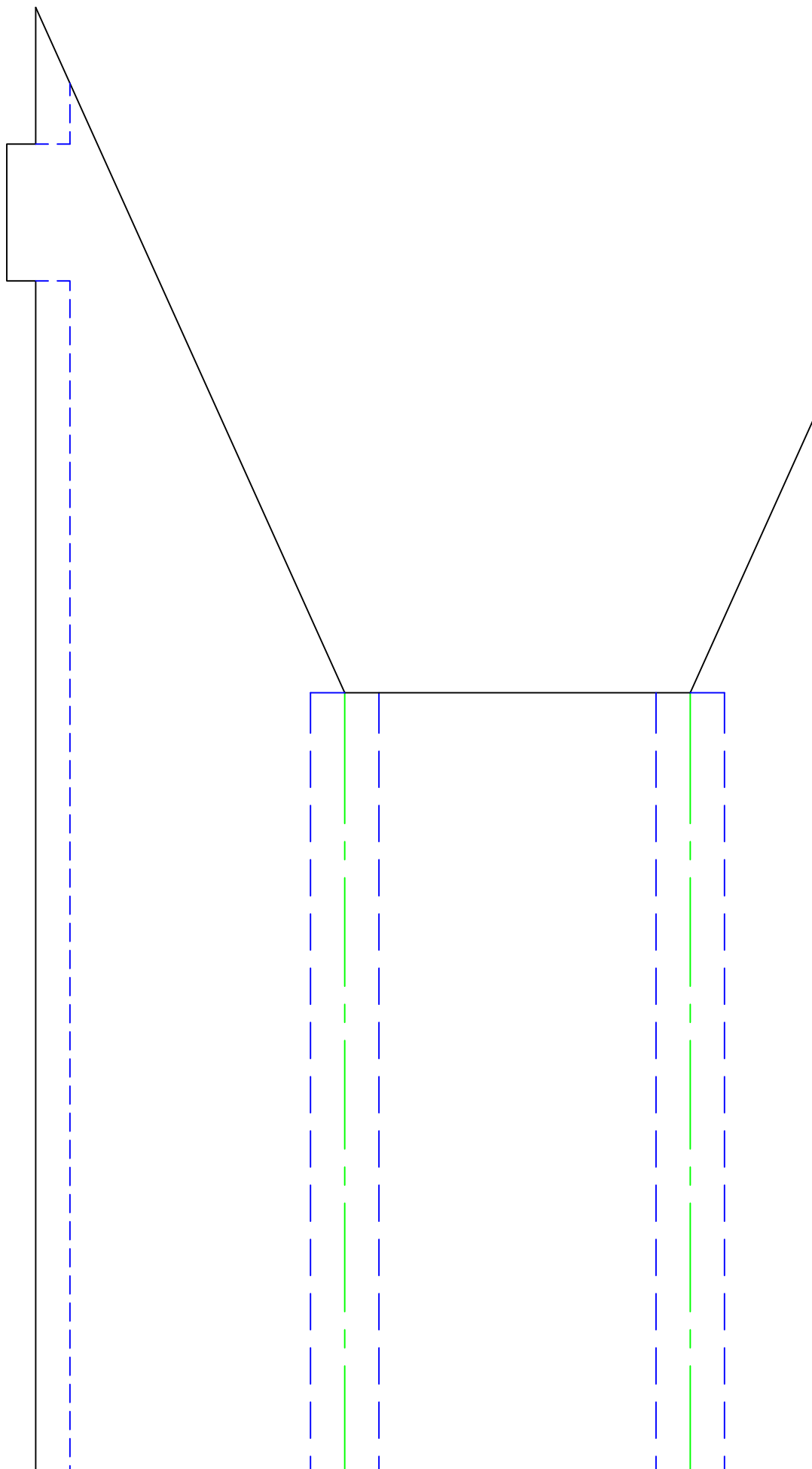


P12



20x30 Foamboard Border

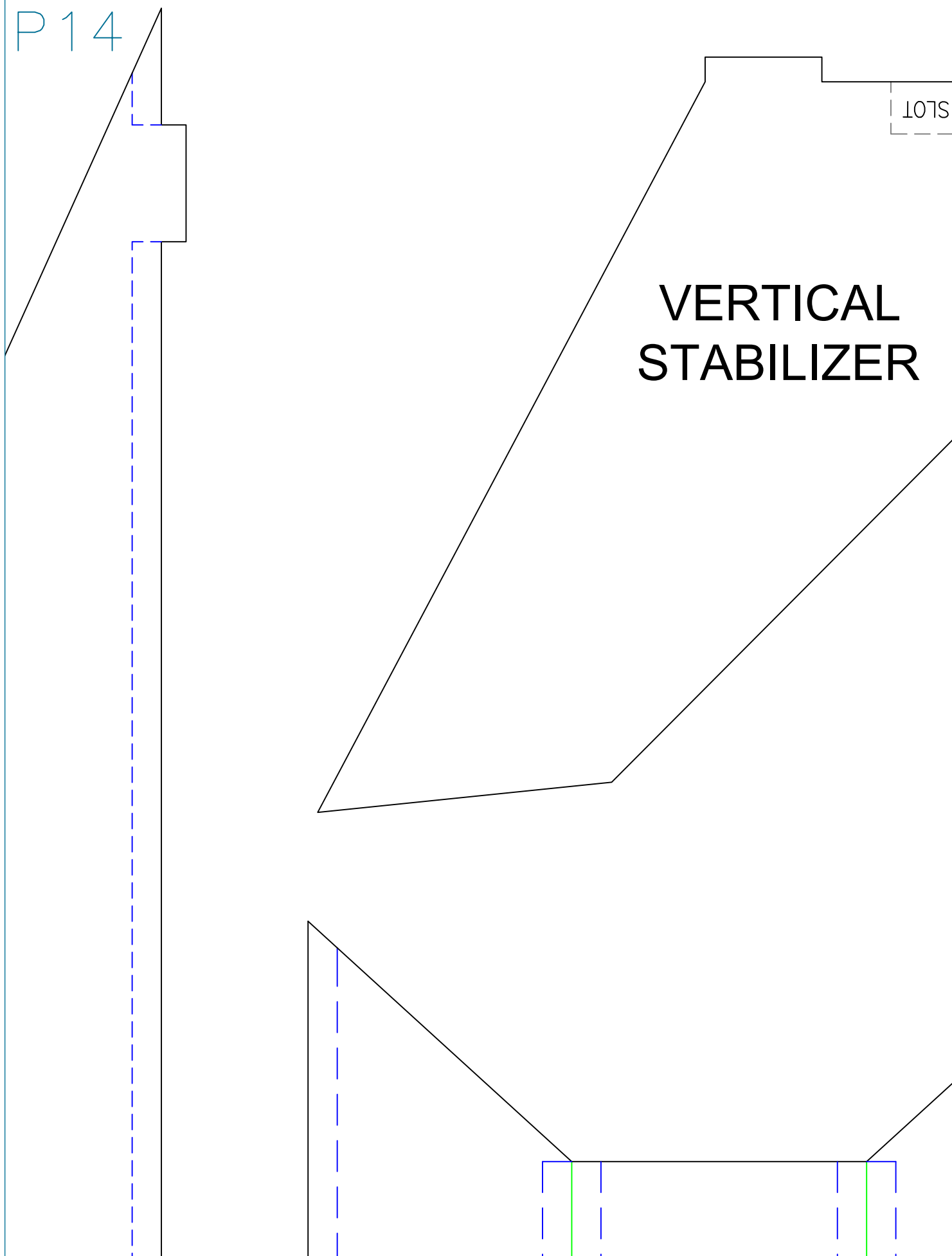
P13



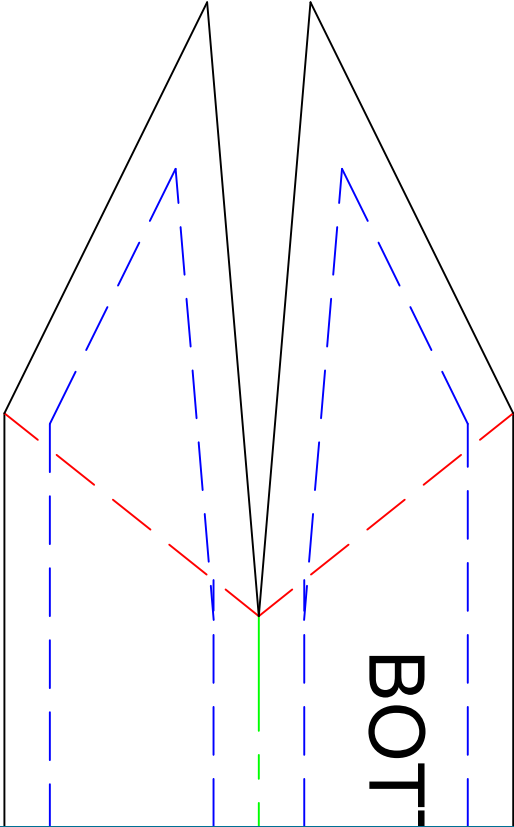
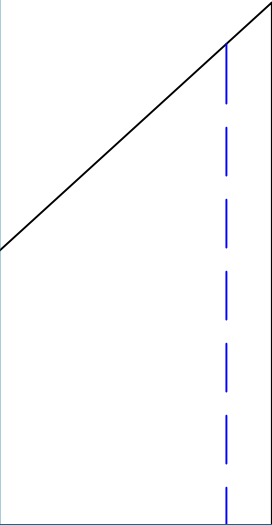
P14

LOTS

**VERTICAL
STABILIZER**



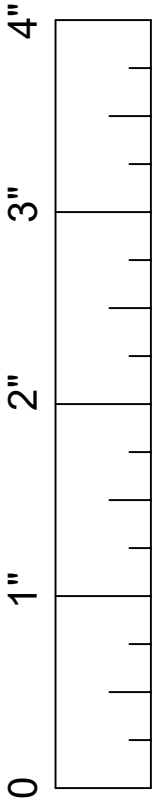
SERVO



BOT

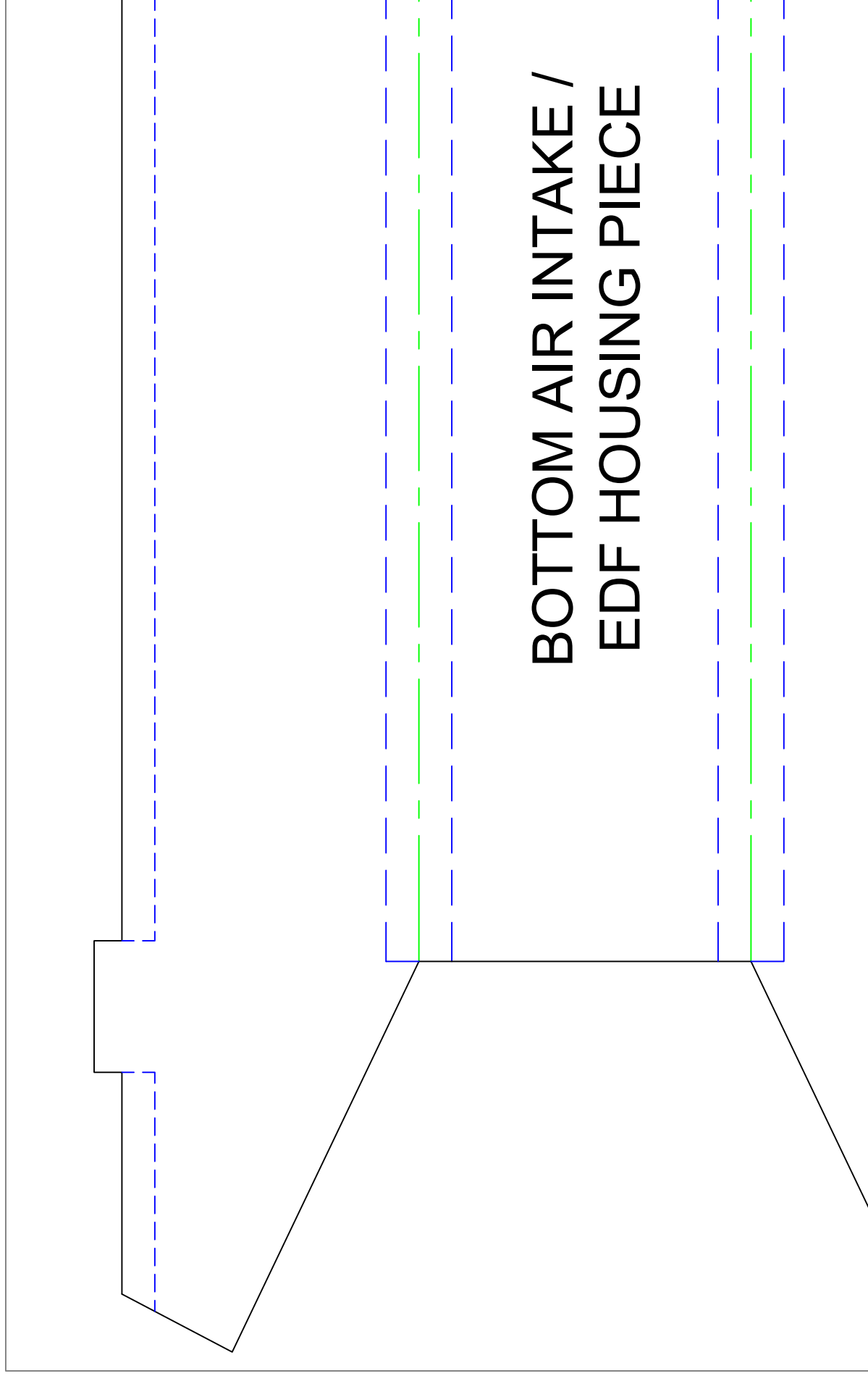
(NOTE: 1" = 2.54CM)

SCALE



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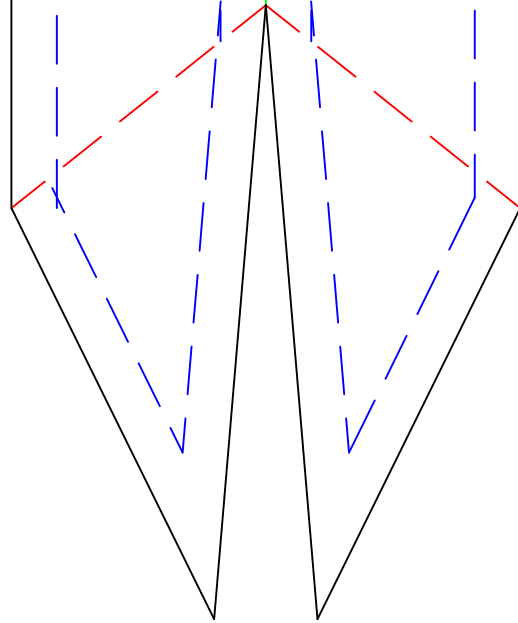
20x30 Foamboard Border



P 17

TOP AIR INTAKE / EDF
HOUSING PIECE

FROM FUSELAGE BUBBLE



20x30 Foamboard Border

20x30 Foamboard Border

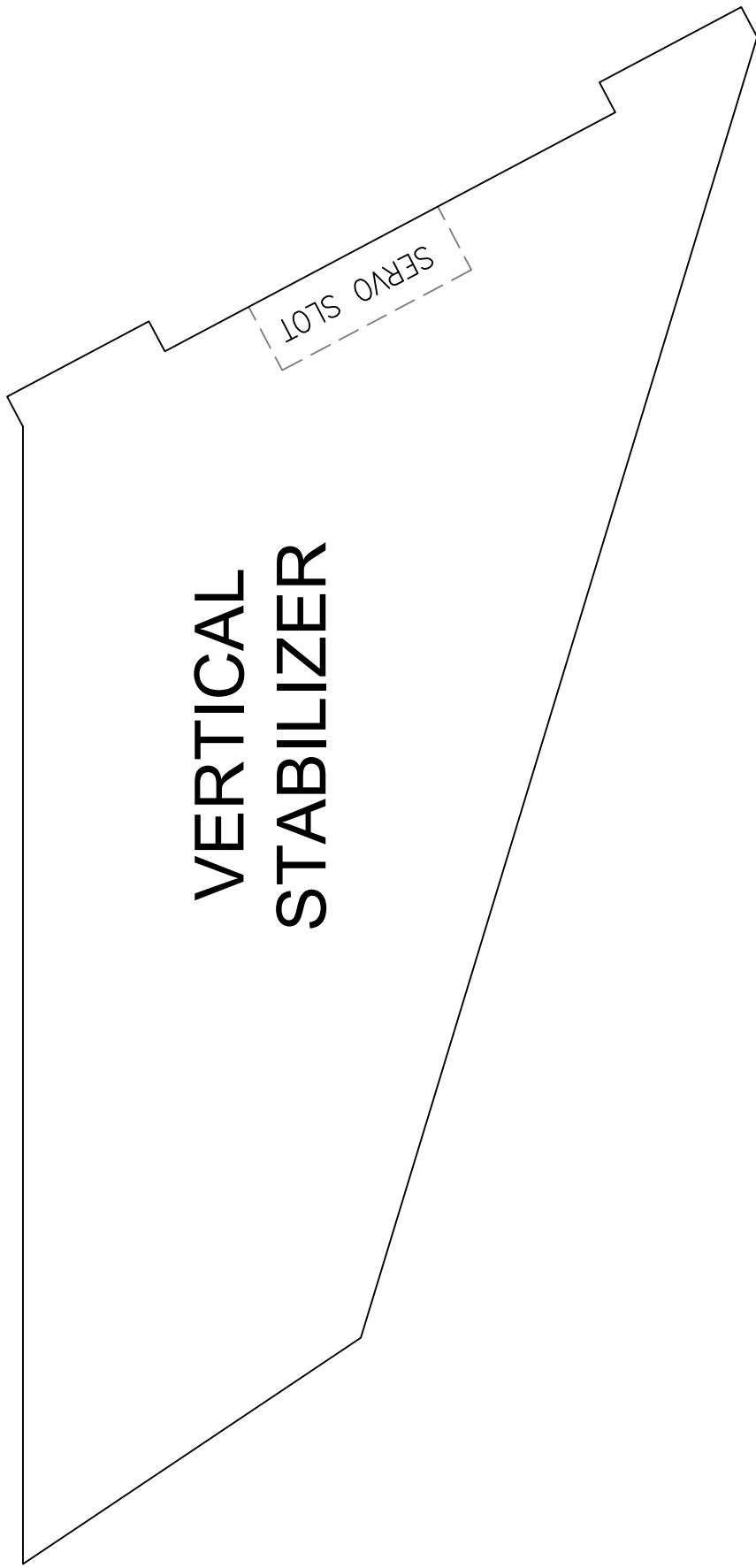
WING-TIP
VERTICAL
STABILIZER

WING-TIP
VERTICAL
STABILIZER

**NOSE PIECE
(GLUE TO MAIN WING)**

BOTTOM

BOTTOM

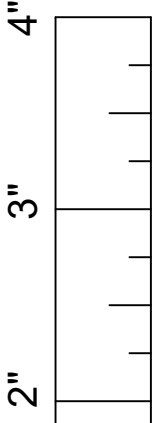


20x30 Foamboard Border

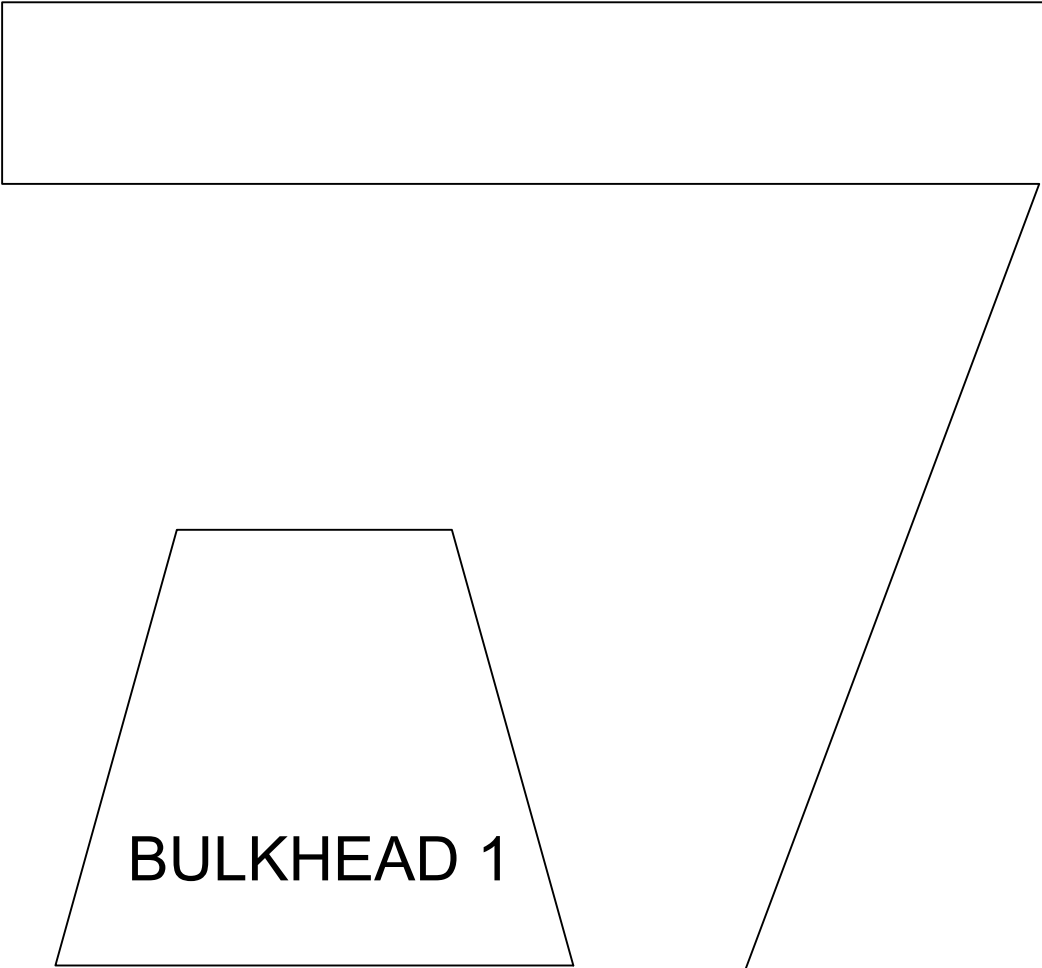
20x30 Foamboard Border

1" = 2.54CM)

SCALE



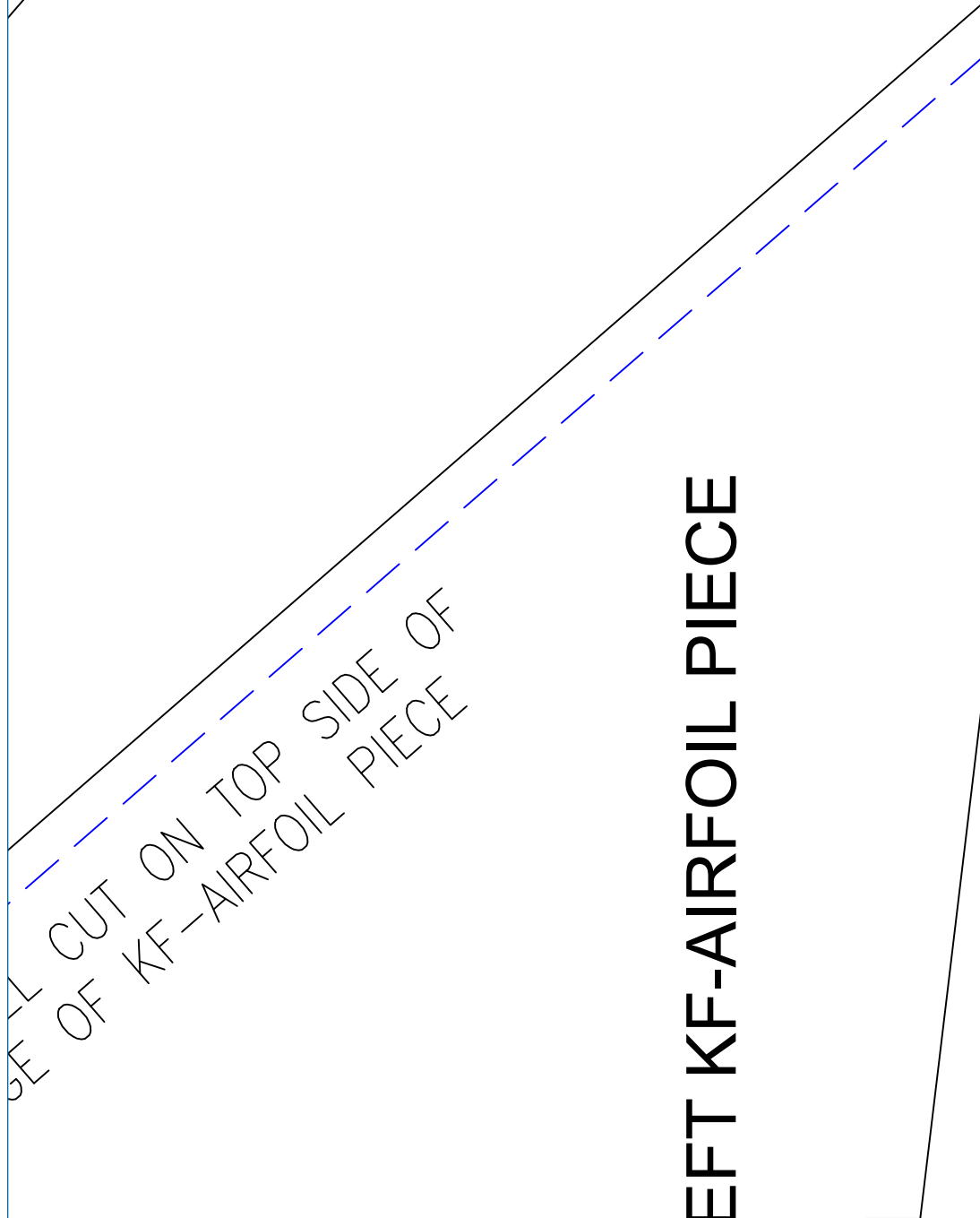
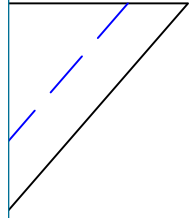
©FoamFighters 2020)



RIGHT KF-AIRFOIL PIECE

45 DEGREE BEVEL CUT ON TOP SIDE OF
LEADING EDGE OF KF-AIRFOIL PIECE

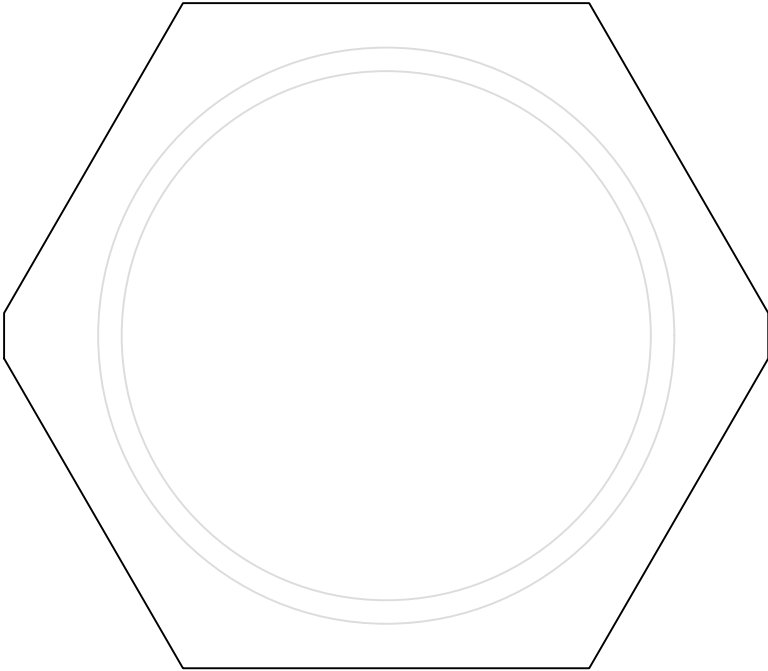
45 DEGREE BEVEL
LEADING EDGE



LEFT KF-AIRFOIL PIECE

20x30 Foamboard Border

20x30 Foamboard Border

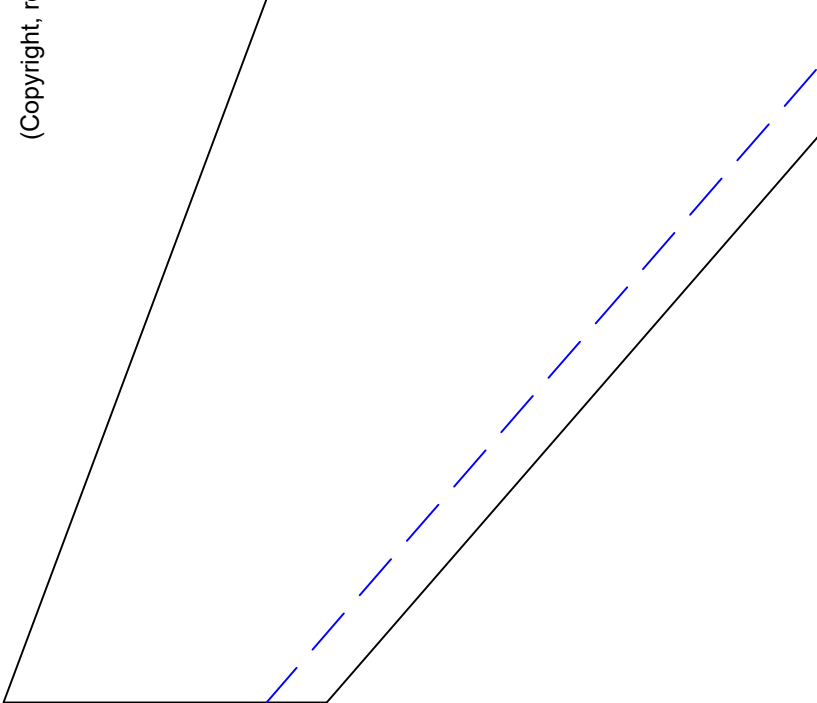


(NOTE: 1 SC

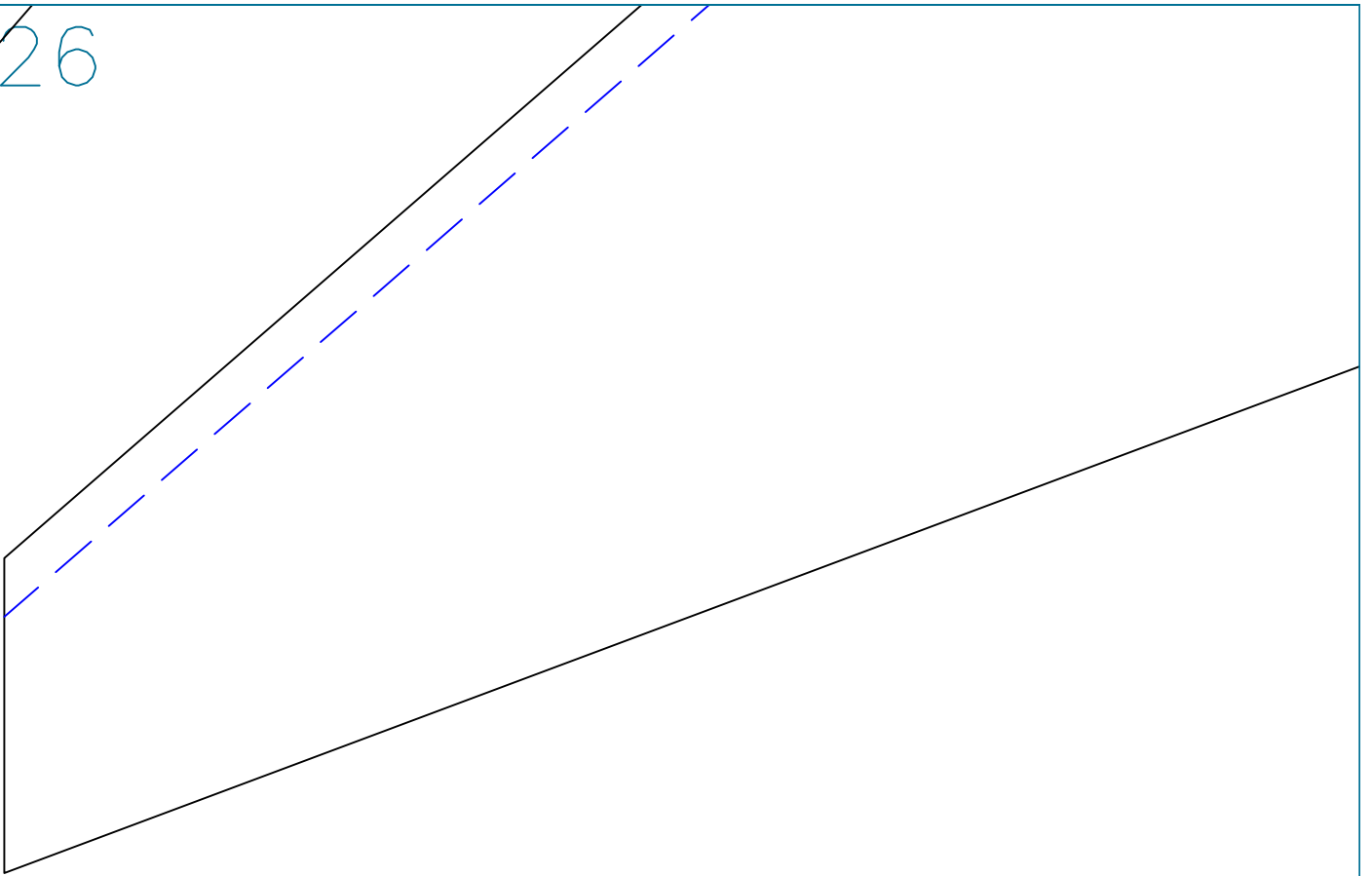
0 1"



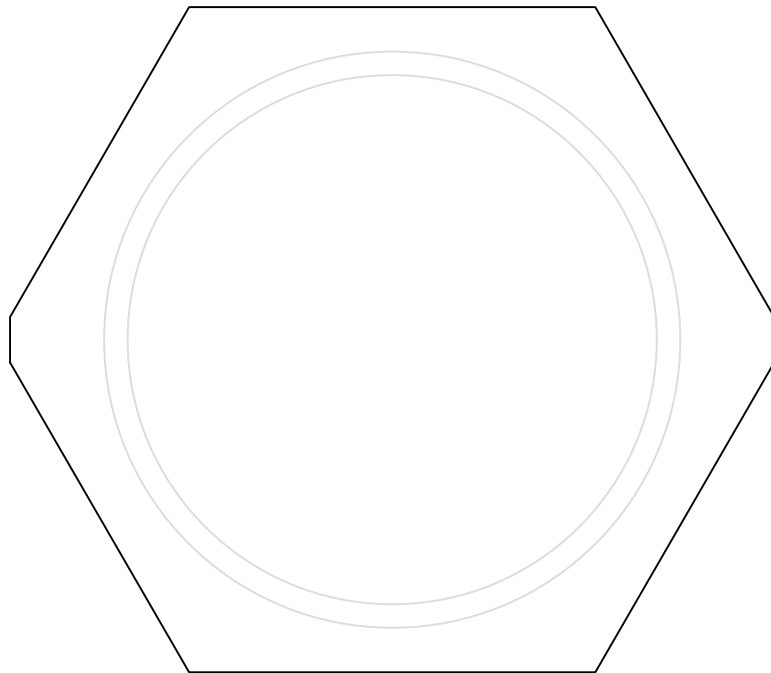
(Copyright, r



P26

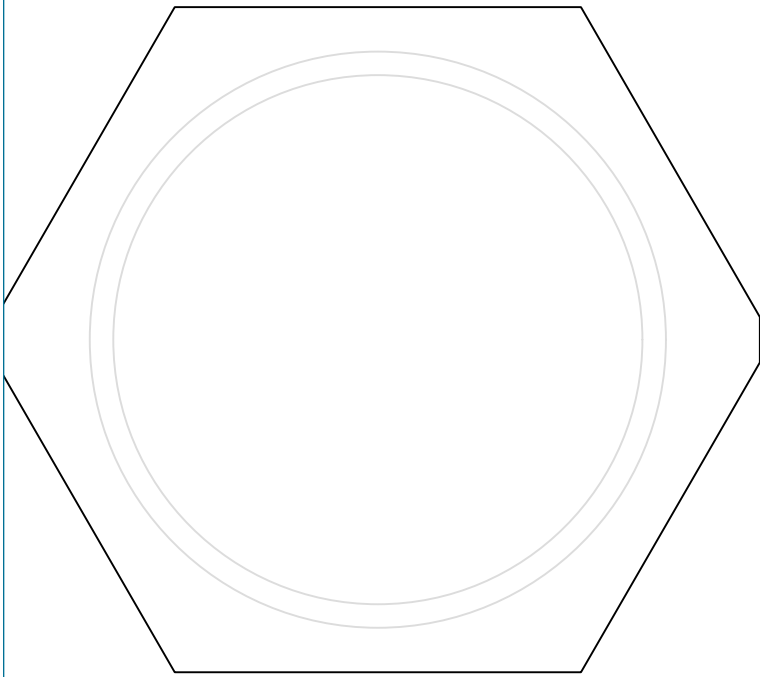


EDF MOUNTING RINGS



P27

VERIFY EDF DIAMETER
BEFORE YOU CUT
CENTER HOLE. OUTER
DIAMETERS CAN VARY
DEPENDING ON BRAND



20x30 Foamboard Border

GRAY BOX OUTLINE SHOWS TYPICAL
FIT ON 30"X20" FOAMBOARD.

LINE-TYPE, CUTTING LEDGEND

- CUT COMPLETELY THROUGH FOAMBOARD.
- FOLD-LINE, CUT VERY THIN STRIP OUT FROM ONE SIDE OF FOAMBOARD ONLY. THIS WILL MAKE FOLDING EASIER.
- FOLD-LINE FOR BEVEL CUT , CUT THROUGH ONE SIDE OF FOAMBOARD ONLY
- EDGE LINE OF 45 DEGREE BEVEL CUT

TOP

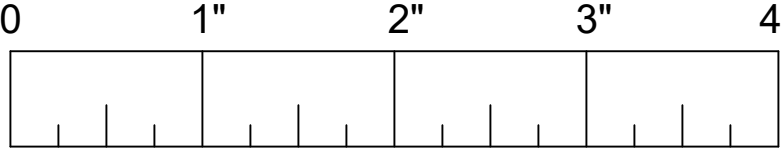
RED NOTCH BOX - CUT THROUGH TOP SIDE OF FOAMBOARD PAPER ONLY AND REMOVE FOAM.

BOTTOM

BLUE NOTCH BOX - CUT THROUGH BOTTOM SIDE OF FOAMBOARD PAPER ONLY AND REMOVE FOAM.

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(NOTE: 1" = 2.54CM)
SCALE



(Copyright, rcFoamFighters 2020)

45 DEGREE BEVEL CUT ON BOTTOM OF
LEADING EDGE OF MAIN WING

DASHED LINES SHOW LOCATION
OF KF-AIRFOIL PIECE

CG

TOP

TOP

DASHED LINES SHOW LOCATION
OF KF-AIRFOIL PIECE

45 DEGREE BEVEL CUT ON BOTTOM OF
LEADING EDGE OF MAIN WING

MAIN WING PIECE

TOP

TOP

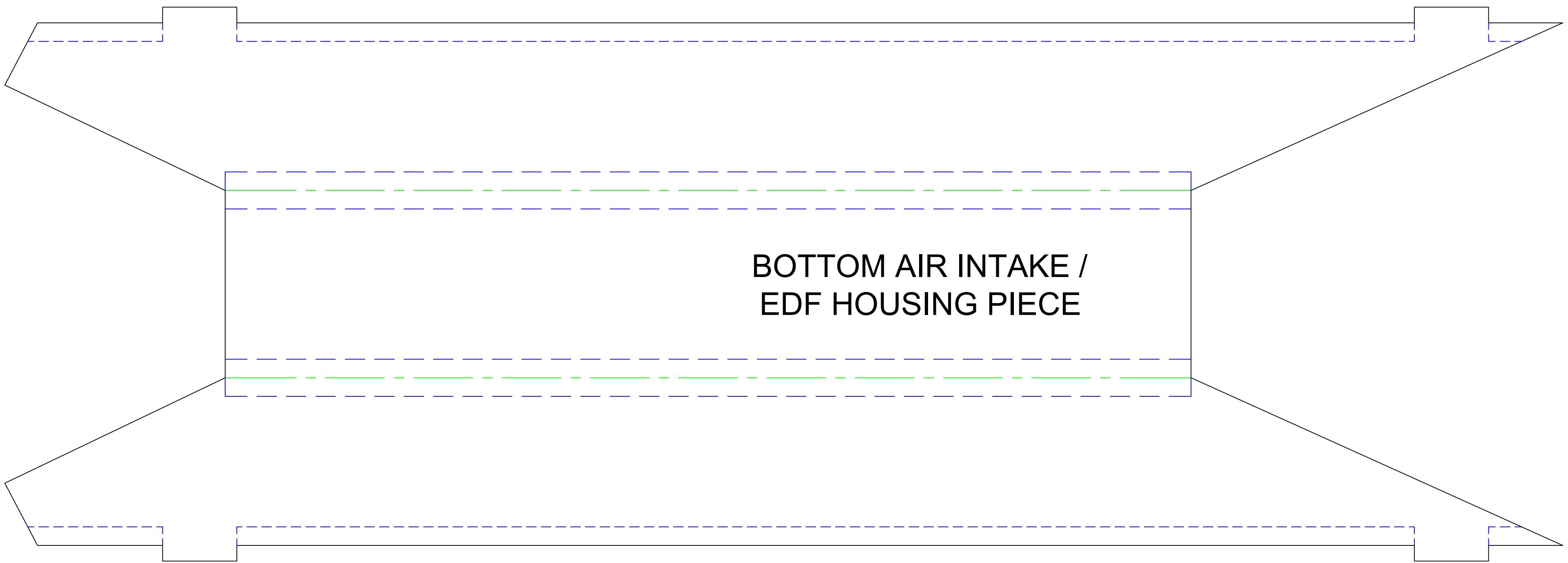
BOTTOM

BOTTOM

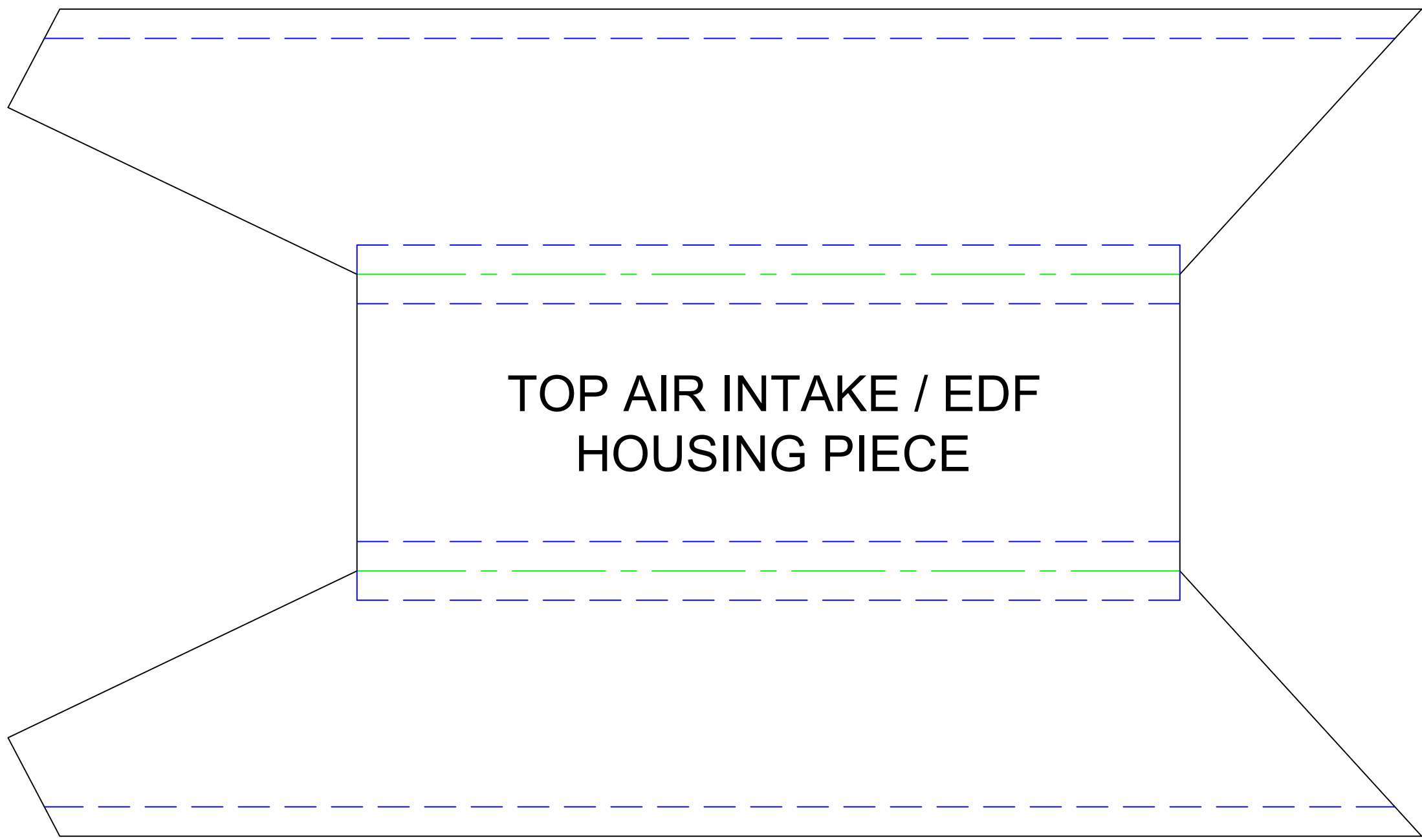
TOP

TOP

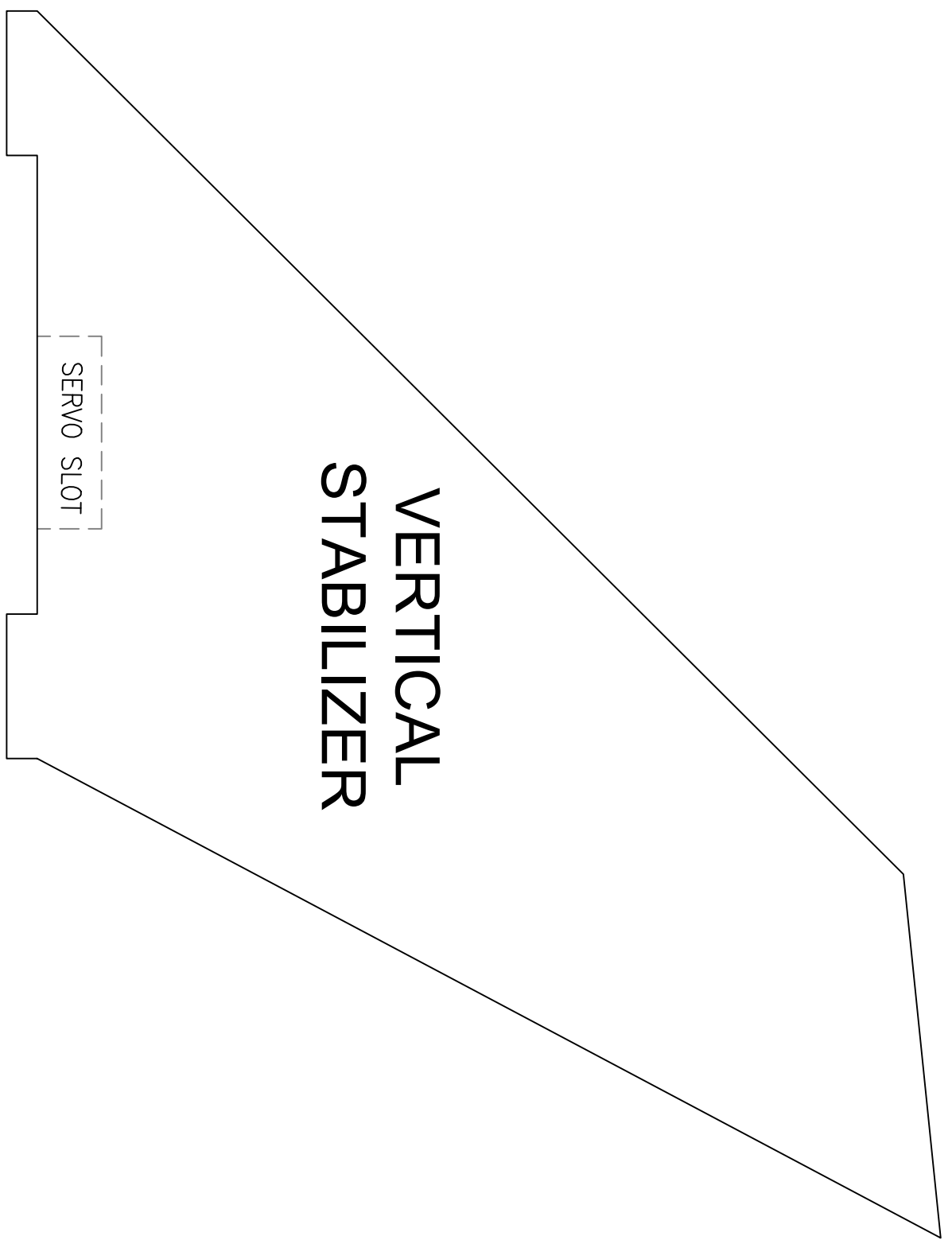
GRAY BOX OUTLINE SHOWS TYPICAL
FIT ON 30"x20" FOAMBOARD.



**BOTTOM AIR INTAKE /
EDF HOUSING PIECE**

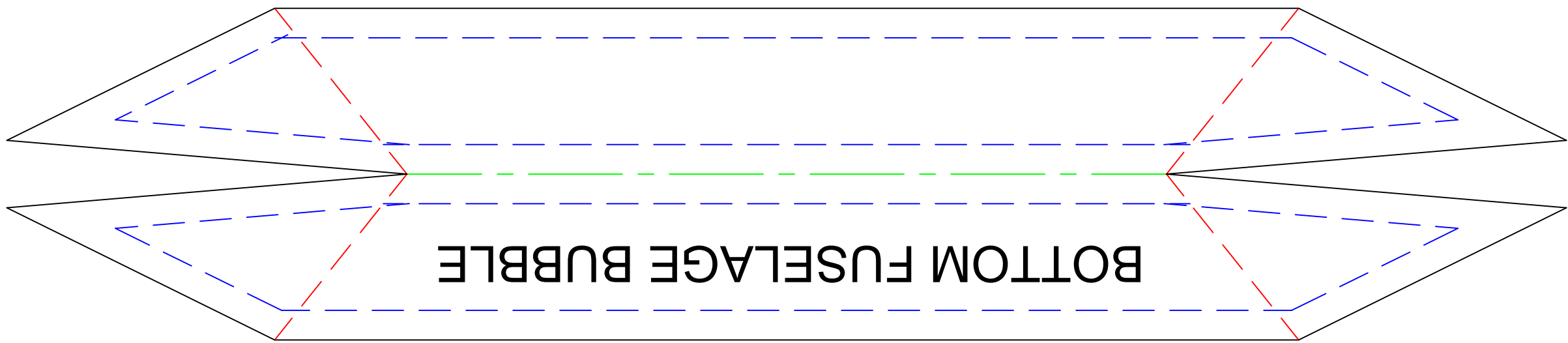


**TOP AIR INTAKE / EDF
HOUSING PIECE**

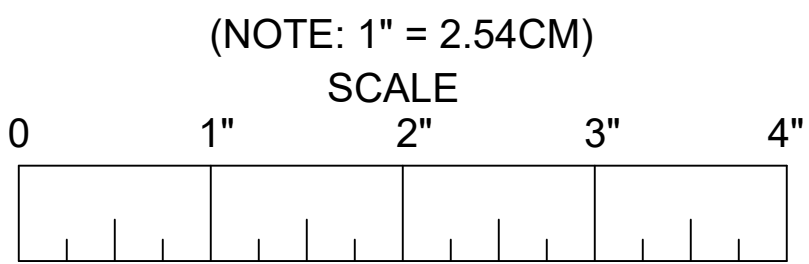


**VERTICAL
STABILIZER**

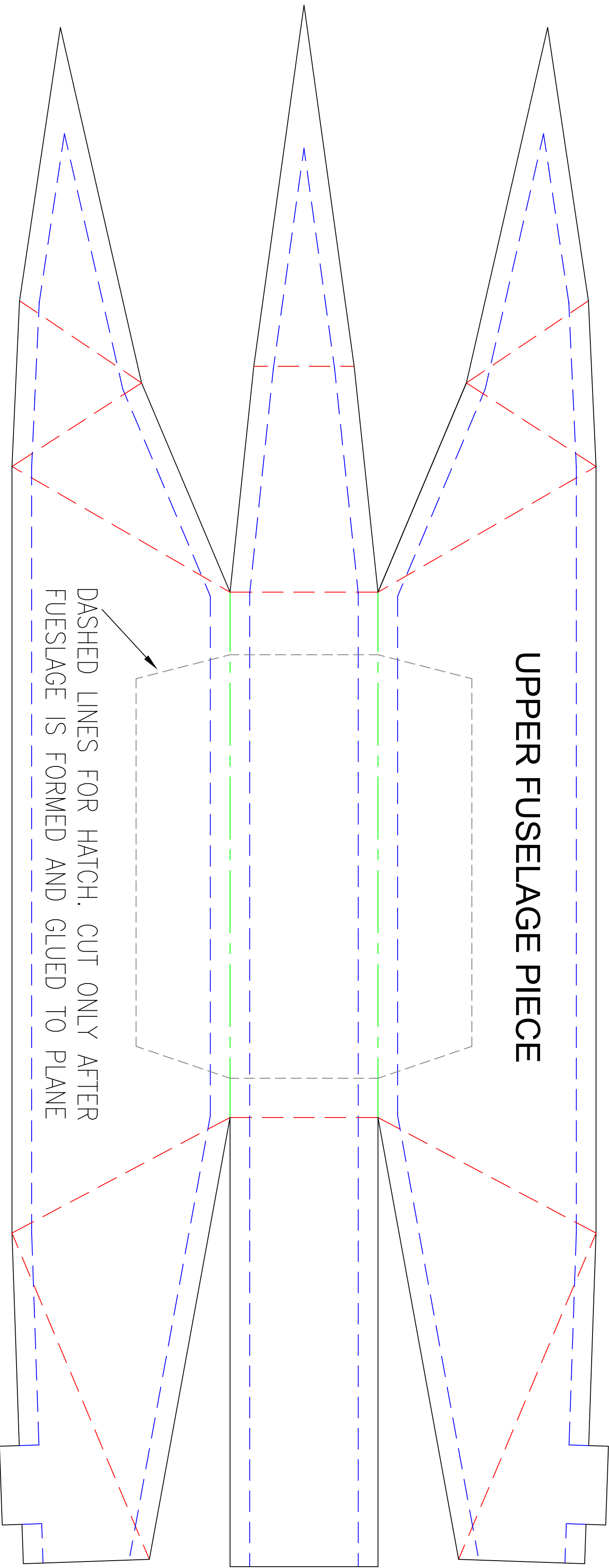
SERVO SLOT



BOTTOM FUSELAGE BUBBLE



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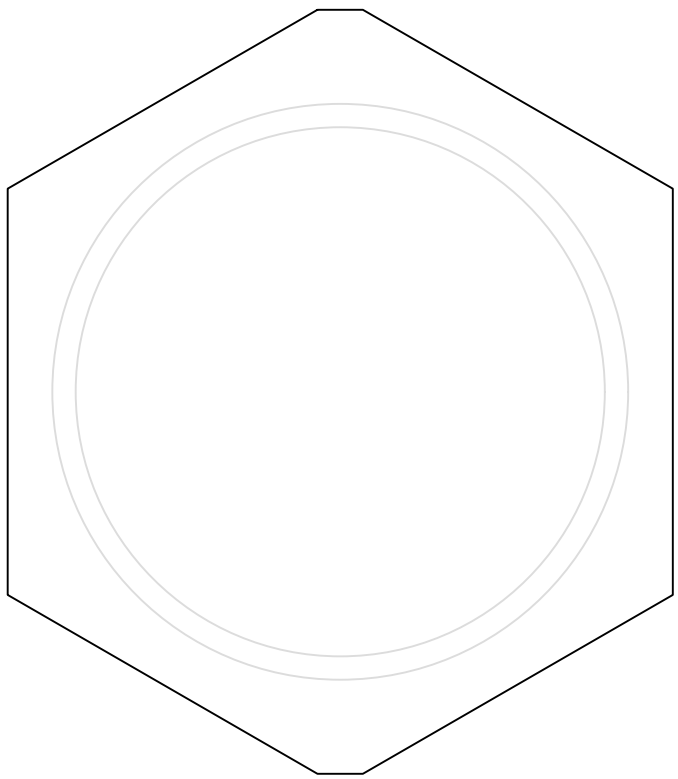
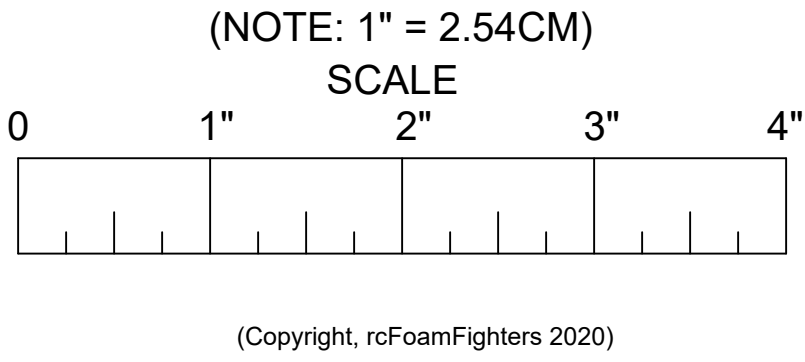


UPPER FUSELAGE PIECE

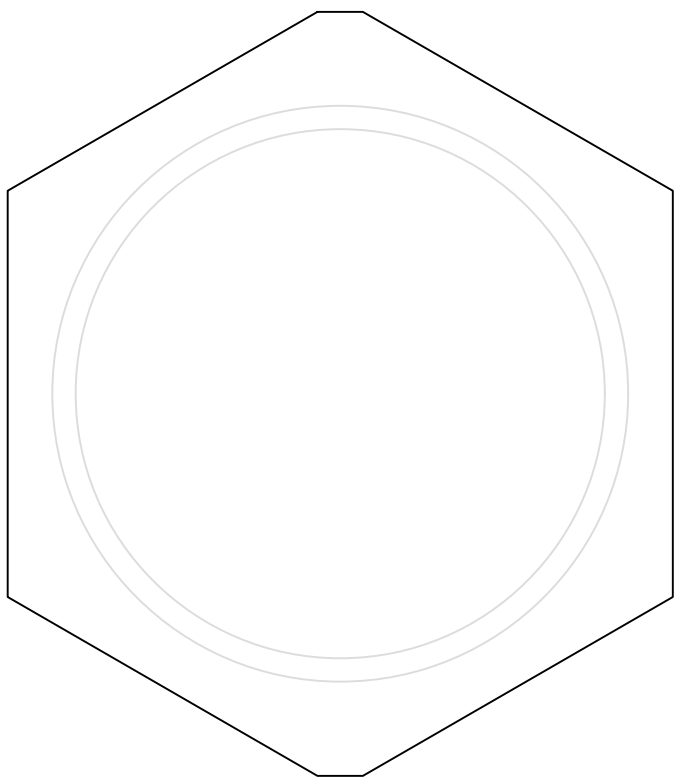
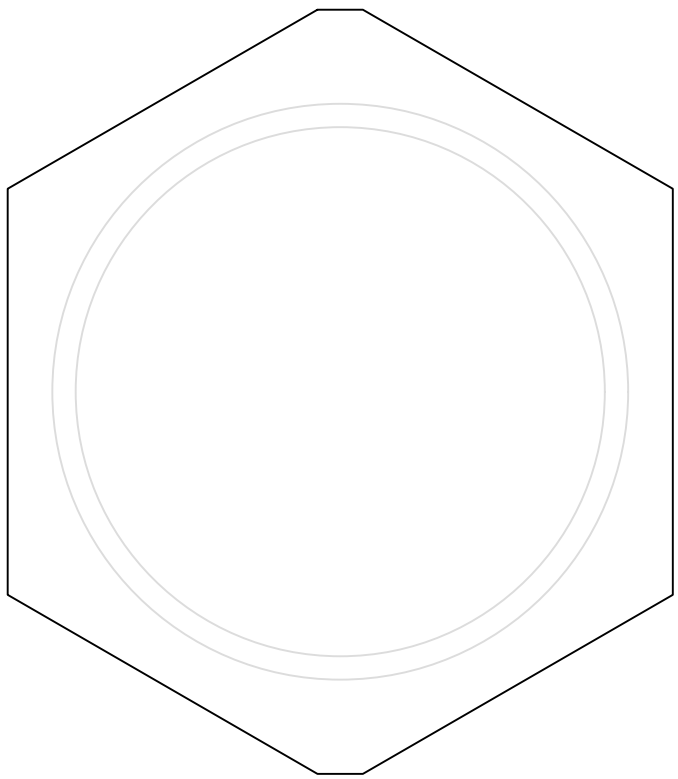
DASHED LINES FOR HATCH. CUT ONLY AFTER
FUSELAGE IS FORMED AND GLUED TO PLANE

(Copyright, rcFoamFighters 2016)

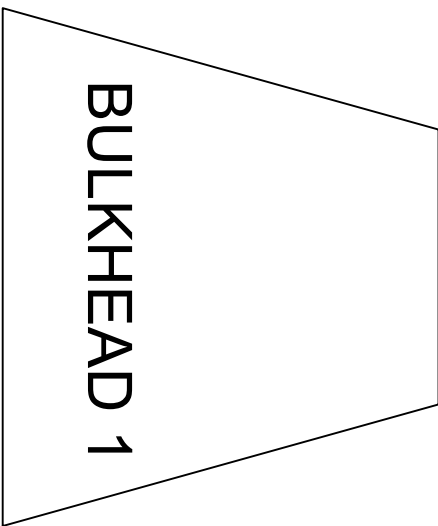
GRAY BOX OUTLINE SHOWS TYPICAL
FIT ON 30"X20" FOAMBOARD.



VERIFY EDF DIAMETER
BEFORE YOU CUT
CENTER HOLE. OUTER
DIAMETERS CAN VARY
DEPENDING ON BRAND



EDF MOUNTING RINGS

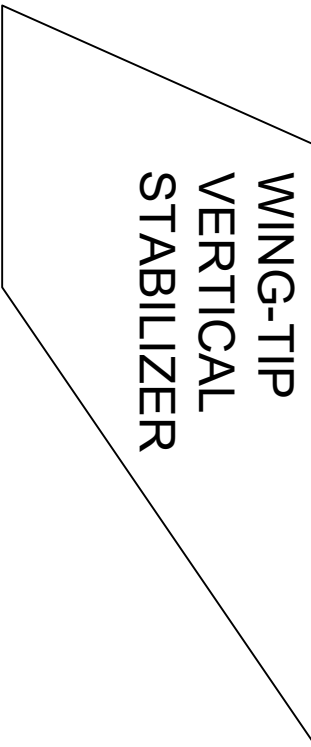
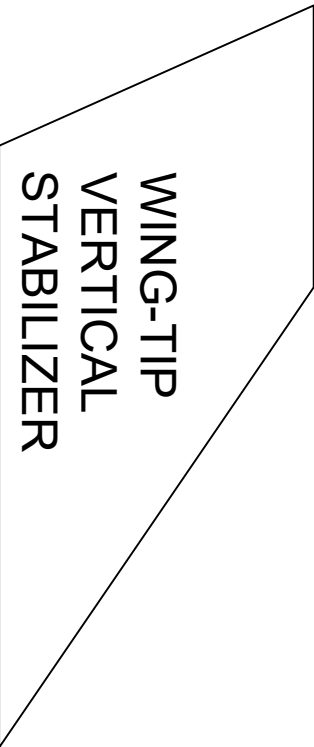


RIGHT KF-AIRFOIL PIECE

45 DEGREE BEVEL CUT ON TOP SIDE OF
LEADING EDGE OF KF-AIRFOIL PIECE

45 DEGREE BEVEL CUT ON TOP SIDE OF
LEADING EDGE OF KF-AIRFOIL PIECE

LEFT KF-AIRFOIL PIECE



NOSE PIECE
(GLUE TO MAIN WING)

BOTTOM

BOTTOM

VERTICAL
STABILIZER

SERVO SLOT