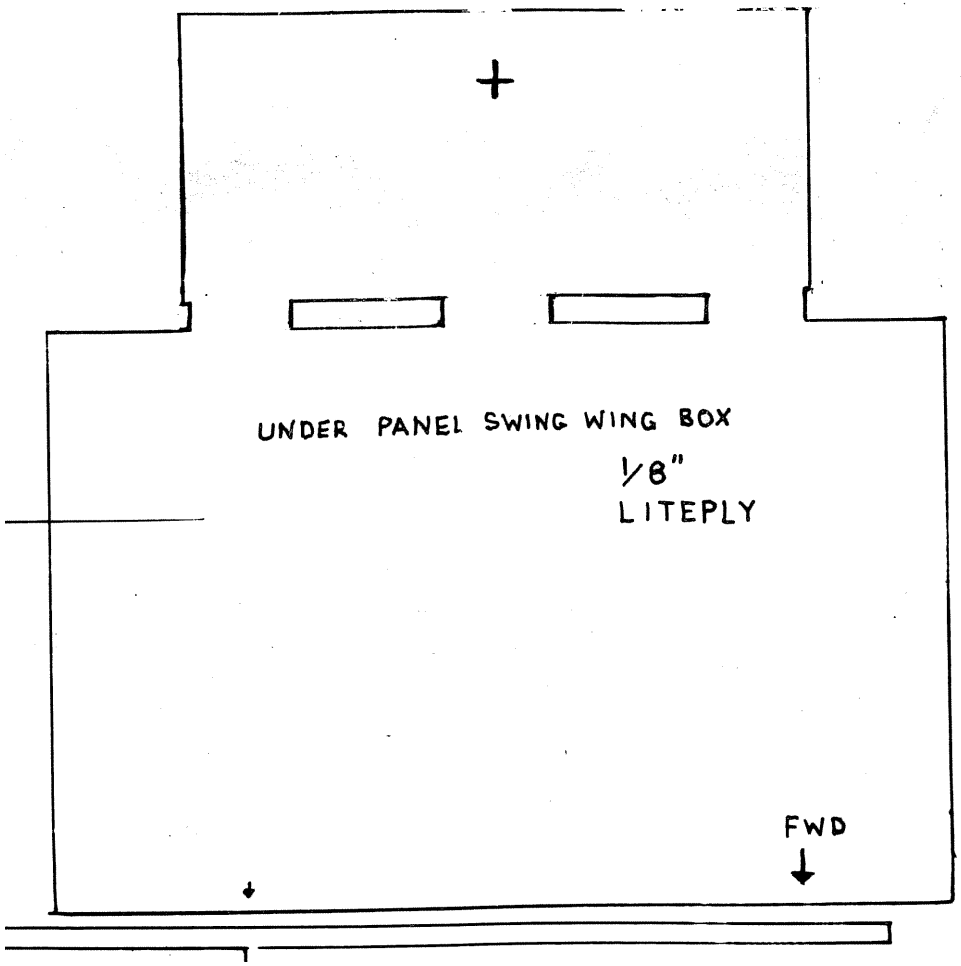
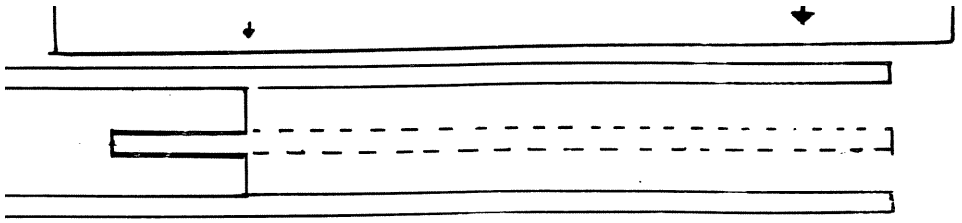
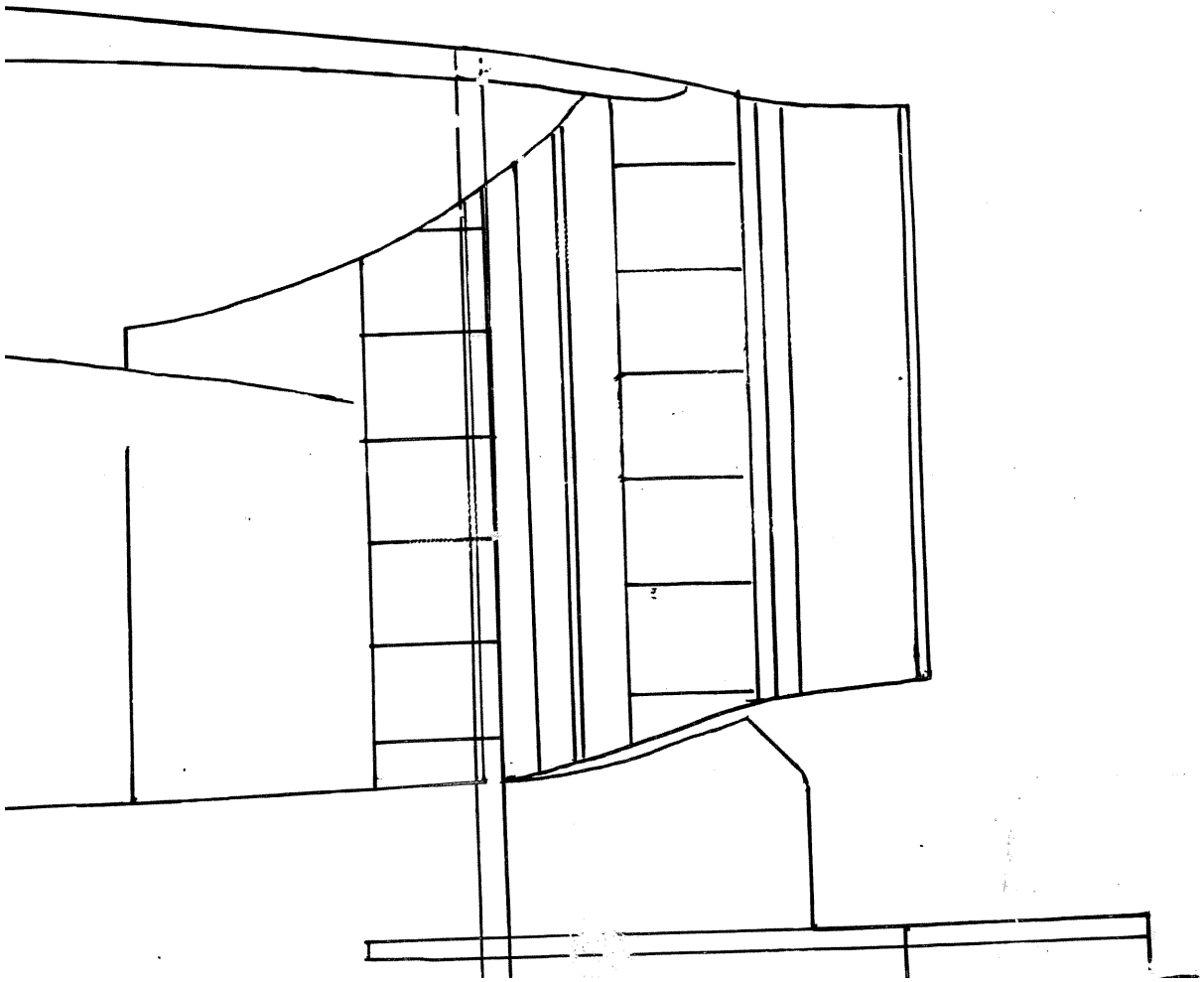
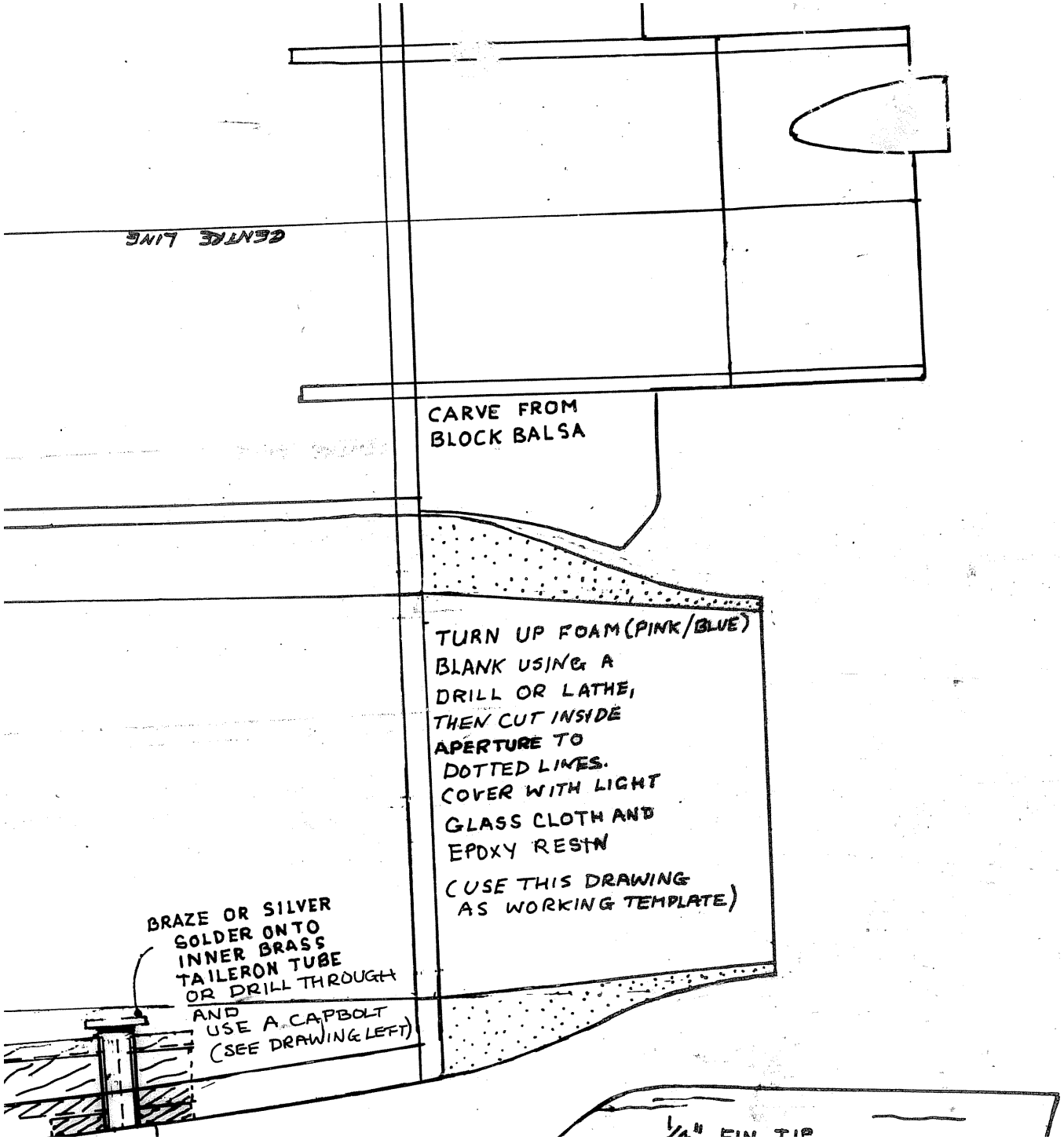
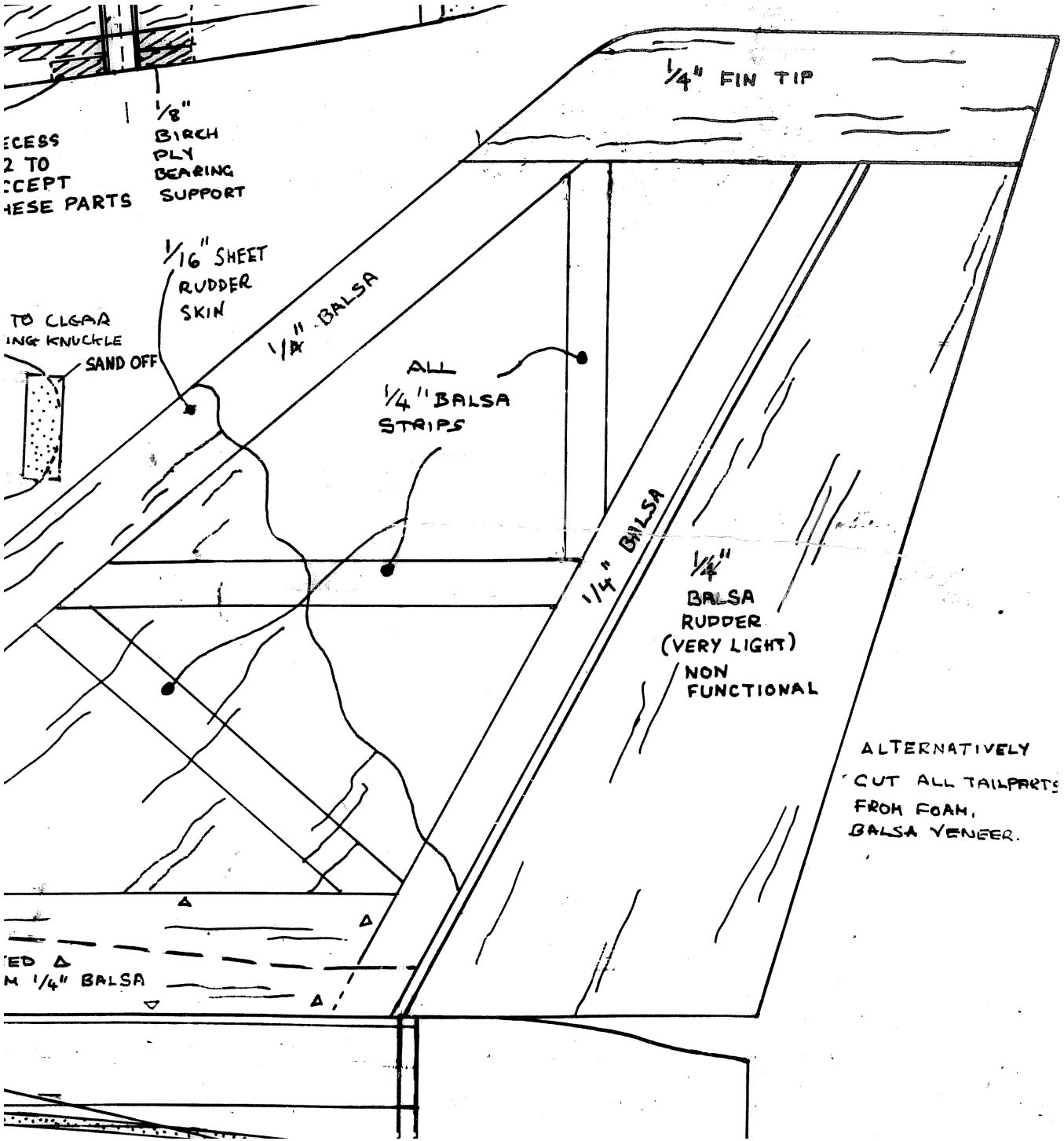

UNDER PANEL SWING WING BOX
1/8"
LITEPLY
FWD

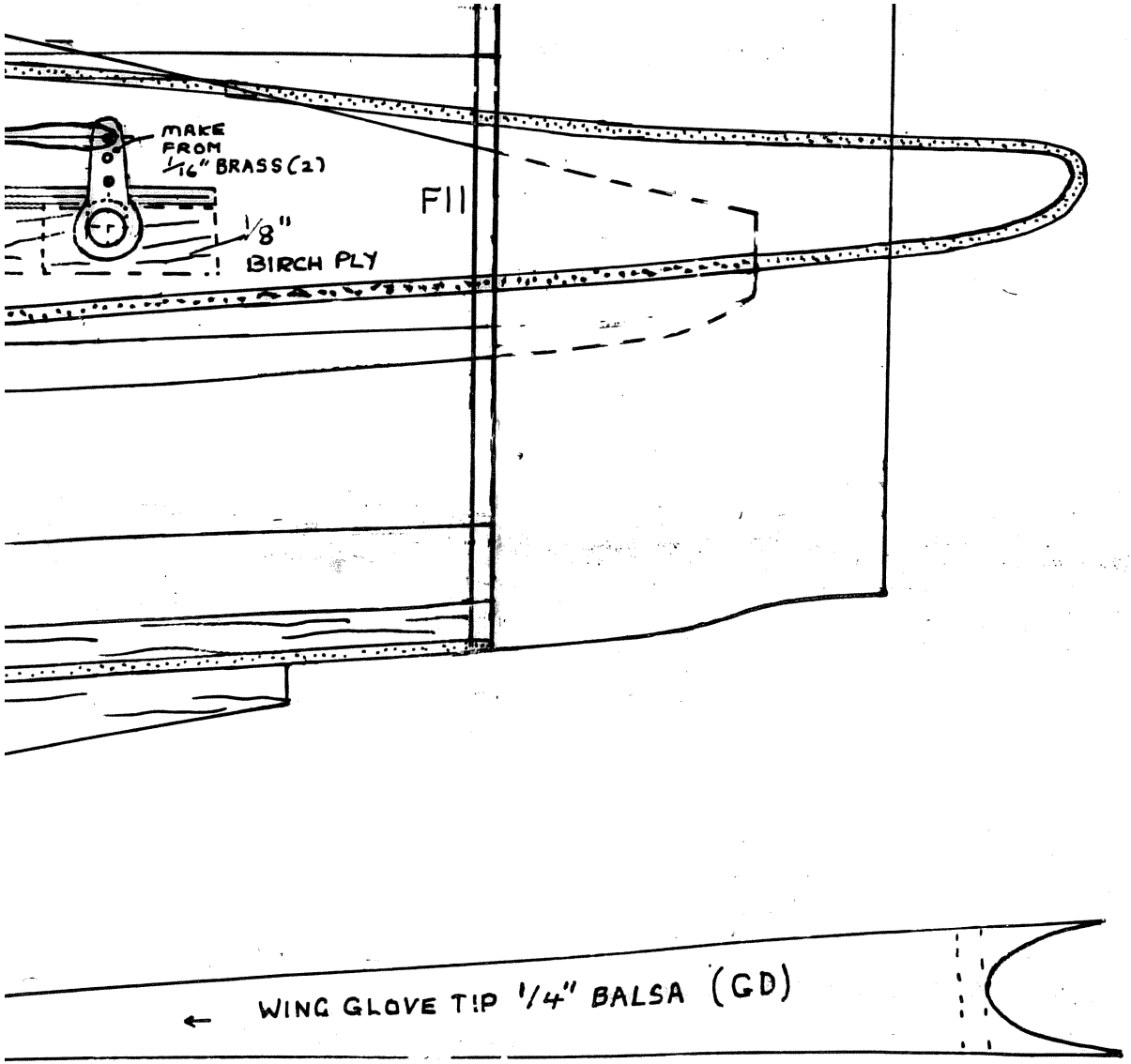


PLY

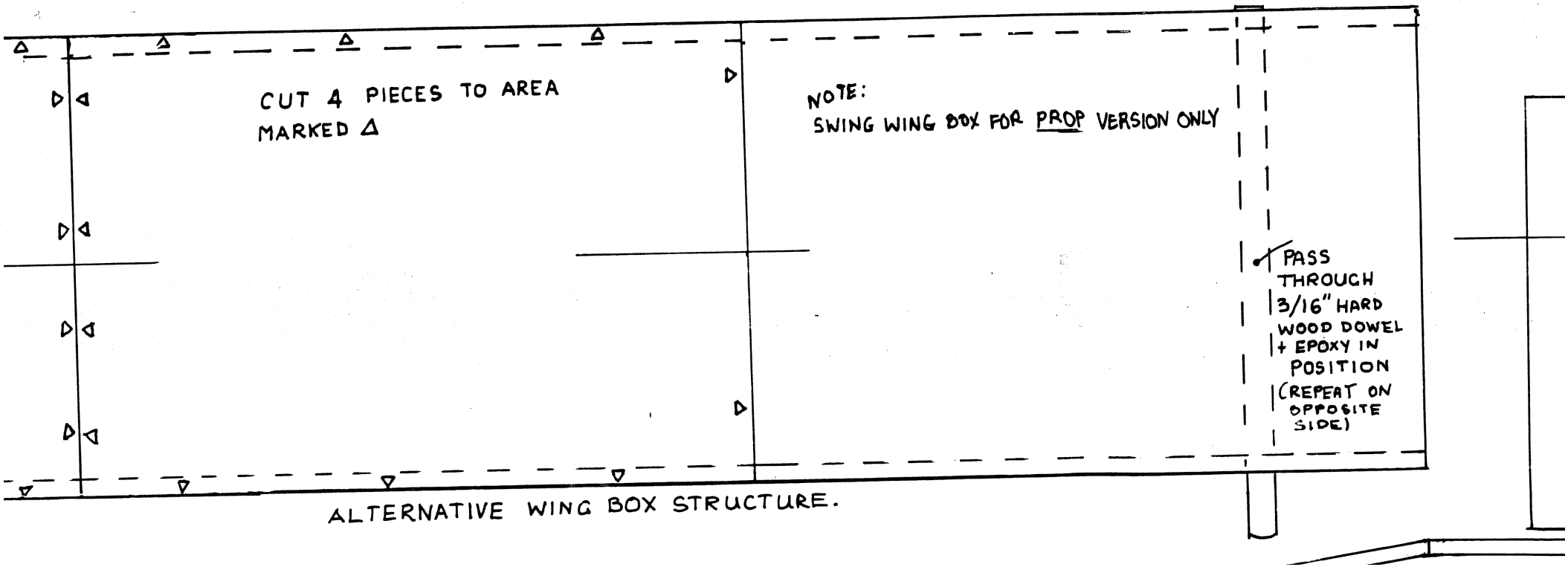



CENTRE LINE
CARVE FROM BLOCK BALSA
TURN UP FOAM (PINK/BLUE) BLANK USING A DRILL OR LATHE, THEN CUT INSIDE APERTURE TO DOTTED LINES. COVER WITH LIGHT GLASS CLOTH AND EPOXY RESIN
(USE THIS DRAWING AS WORKING TEMPLATE)
BRAZE OR SILVER SOLDER ONTO INNER BRASS TAILERON TUBE OR DRILL THROUGH AND USE A CAPBOLT (SEE DRAWING LEFT)


1/4" FIN TIP
1/8" BIRCH PLY BEARING SUPPORT
1/16" SHEET RUDDER SKIN
1/4" BALSA
ALL 1/4" BALSA STRIPS
1/4" BALSA
1/4" BALSA RUDDER (VERY LIGHT) NON FUNCTIONAL
SAND OFF
ALTERNATIVELY CUT ALL TAILPARTS FROM FOAM, BALSA VENEER.

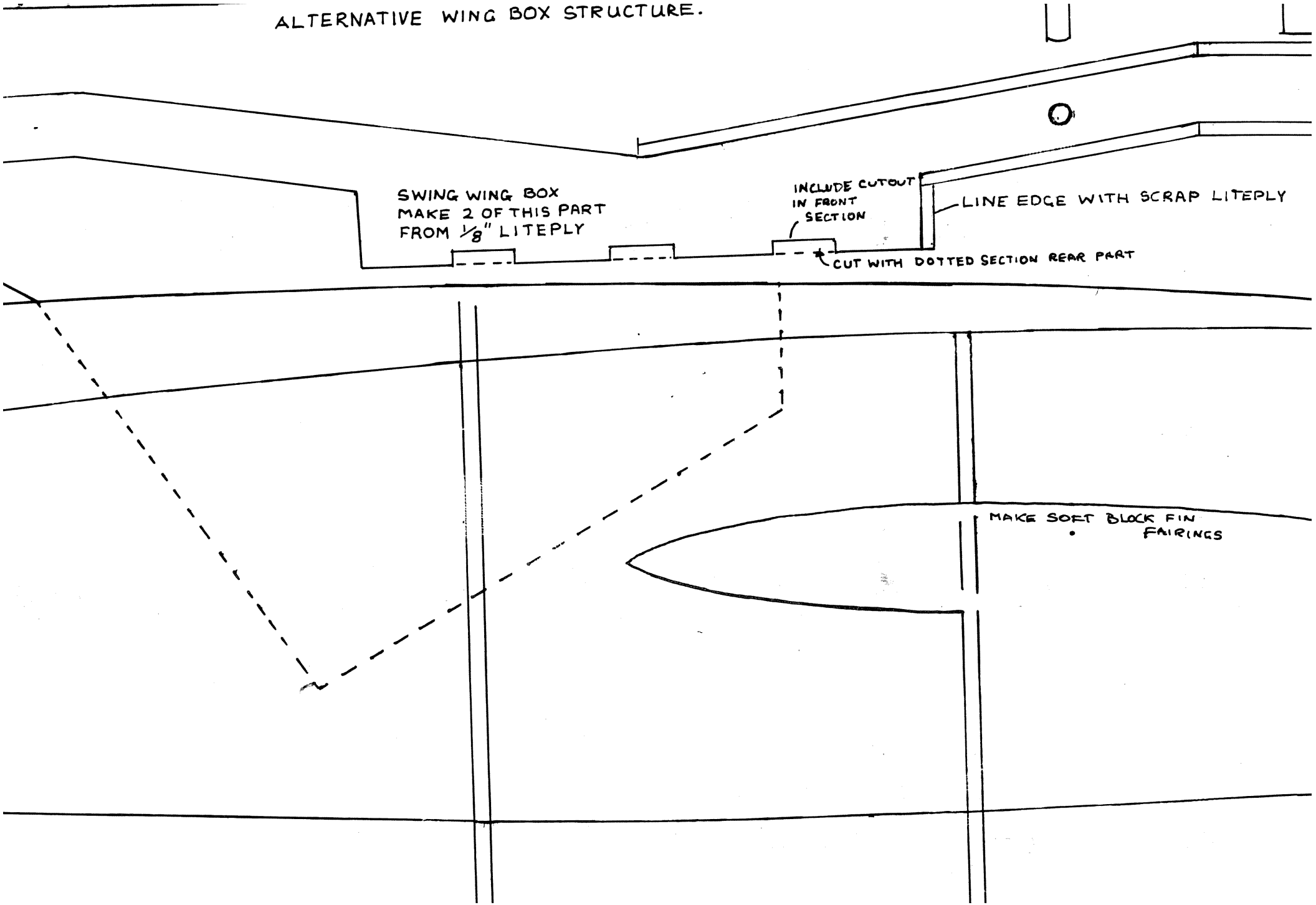

MAKE
FROM
1/16" BRASS (2)
1/8"
BIRCH PLY
F11

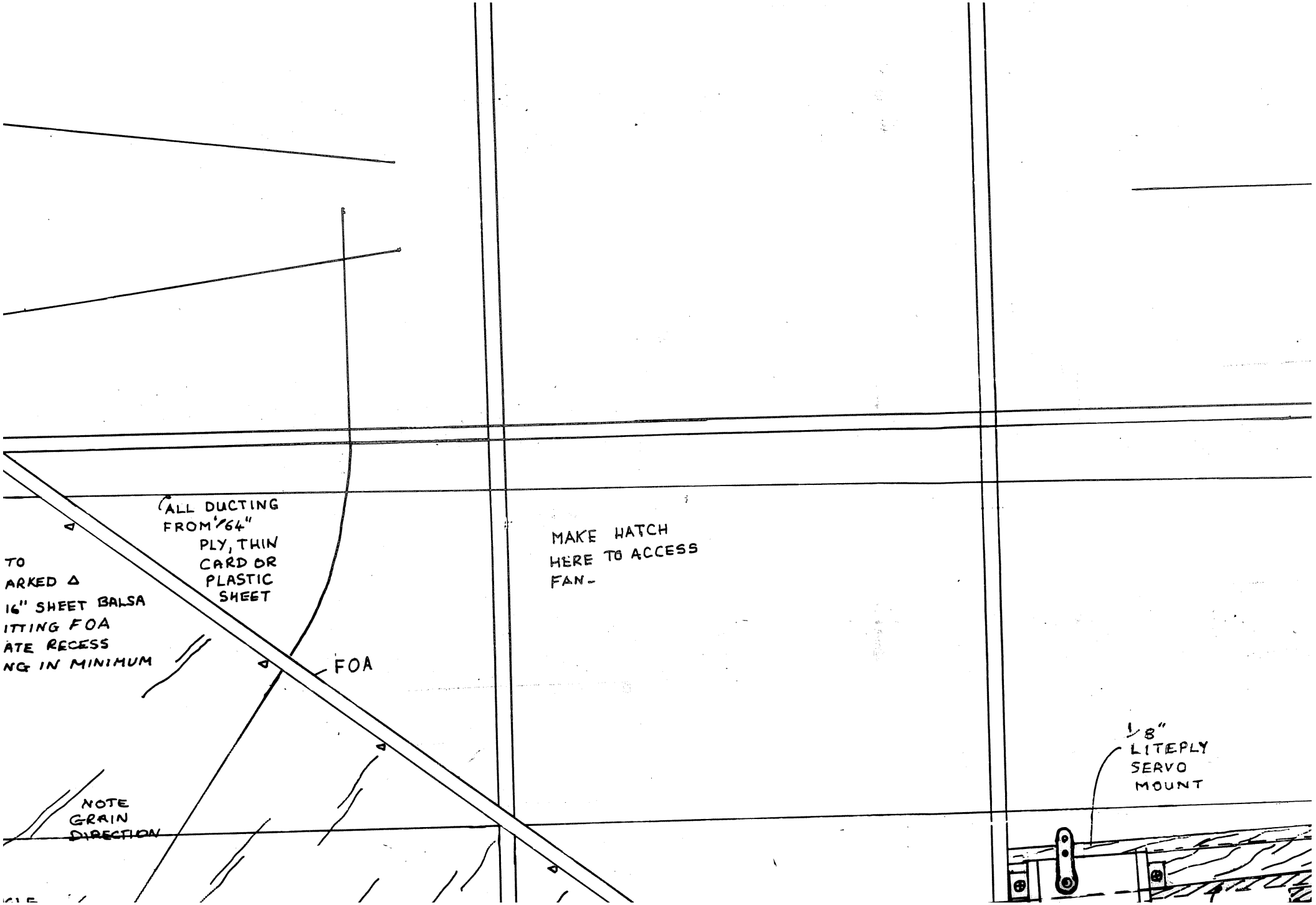
← WING GLOVE TIP 1/4" BALSA (GD)

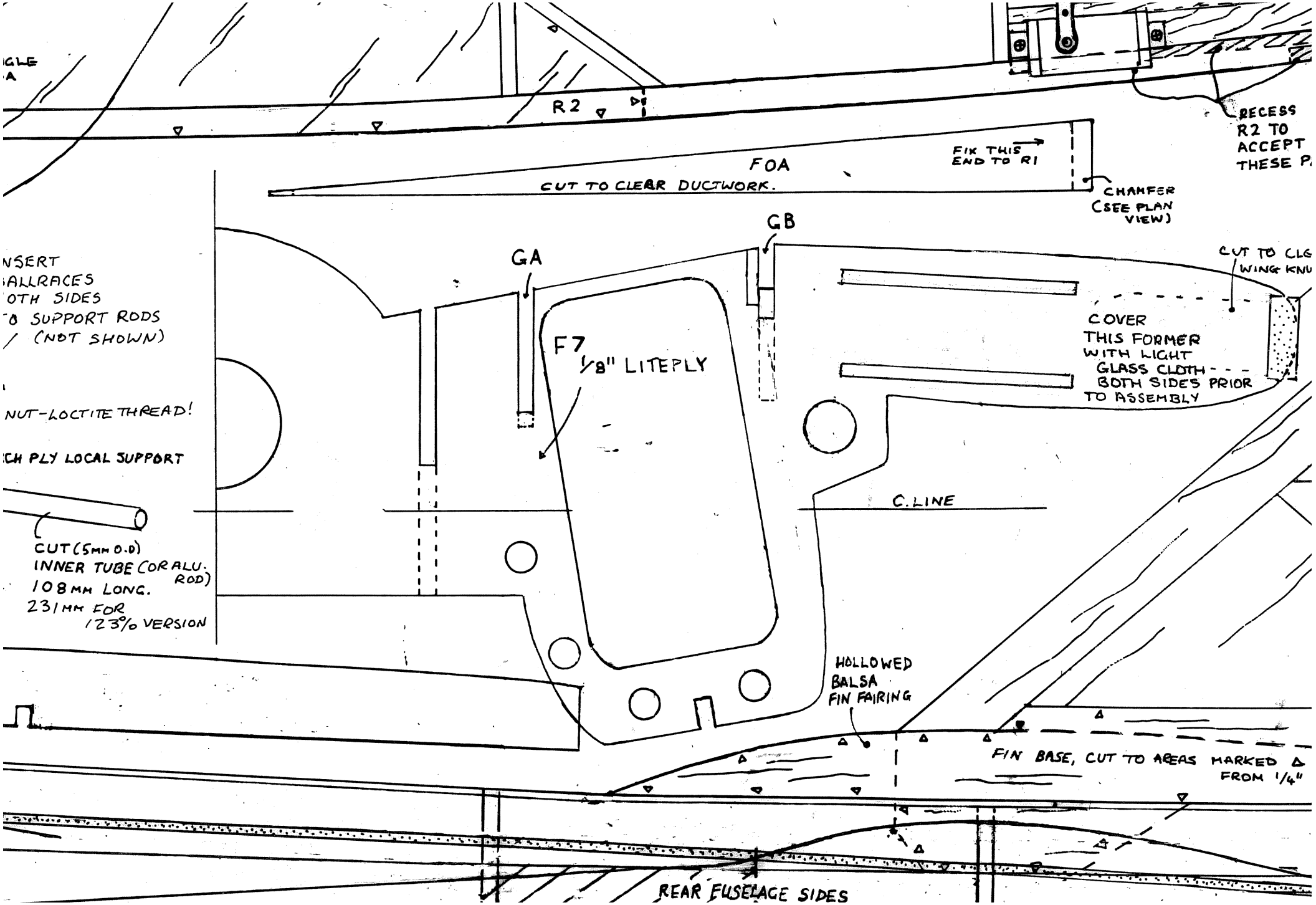


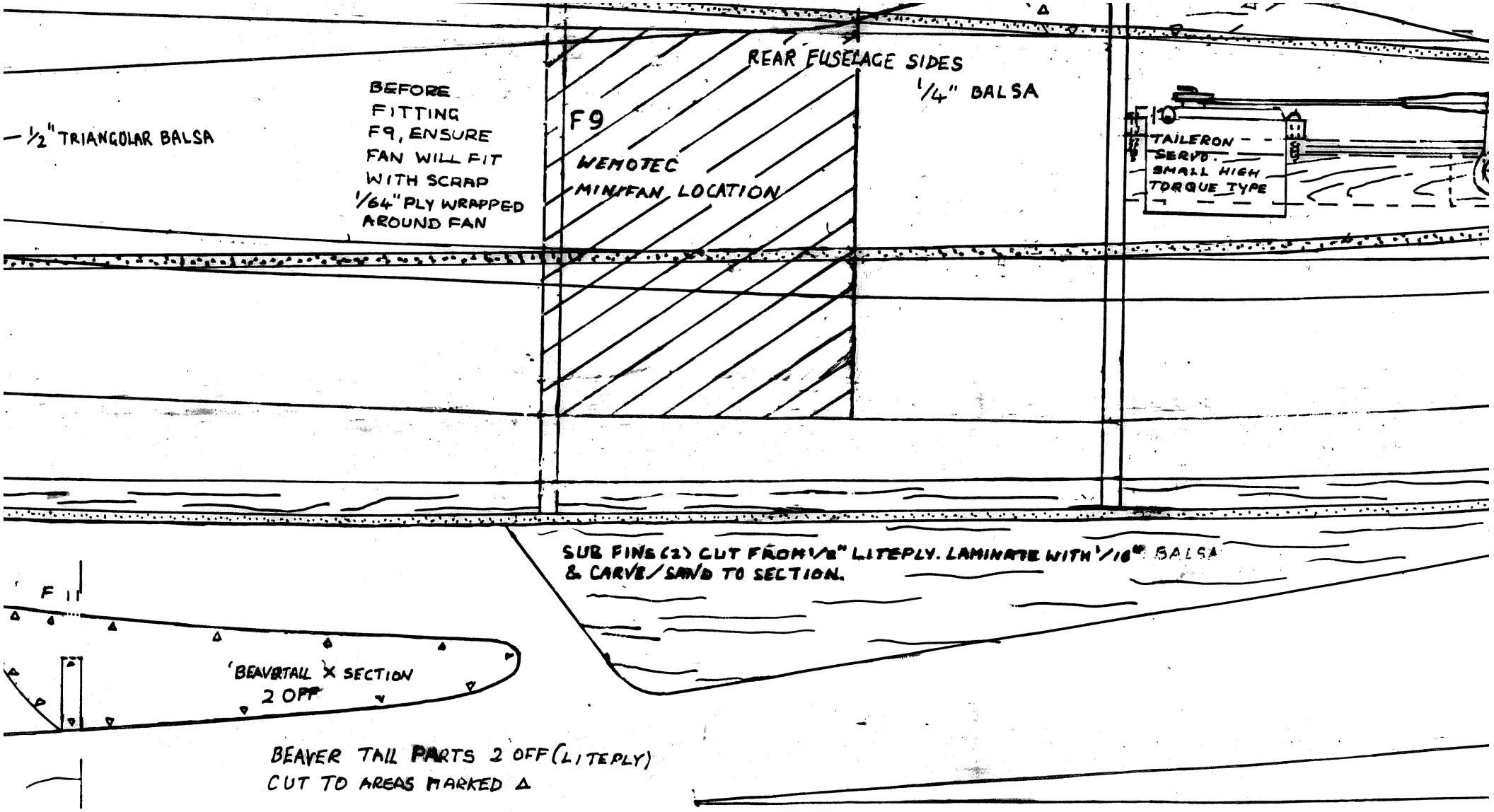
ALTERNATIVE WING BOX STRUCTURE.

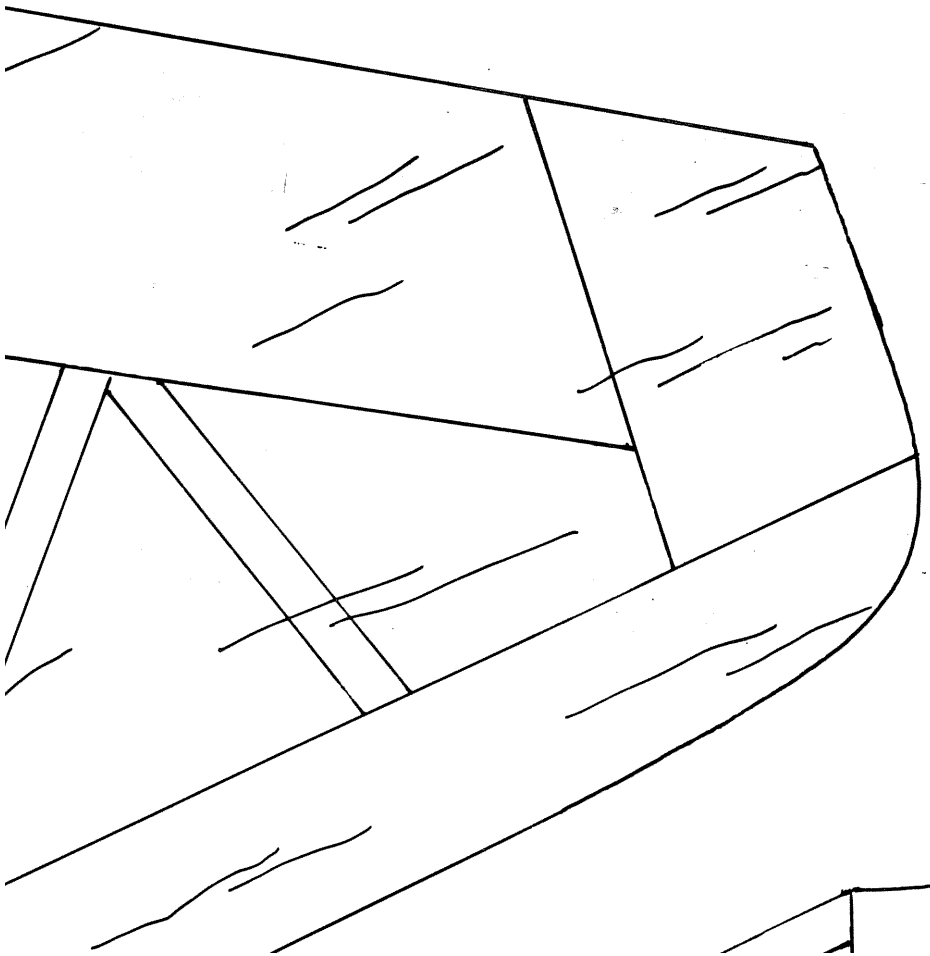
ALTERNATIVE WING BOX STRUCTURE.

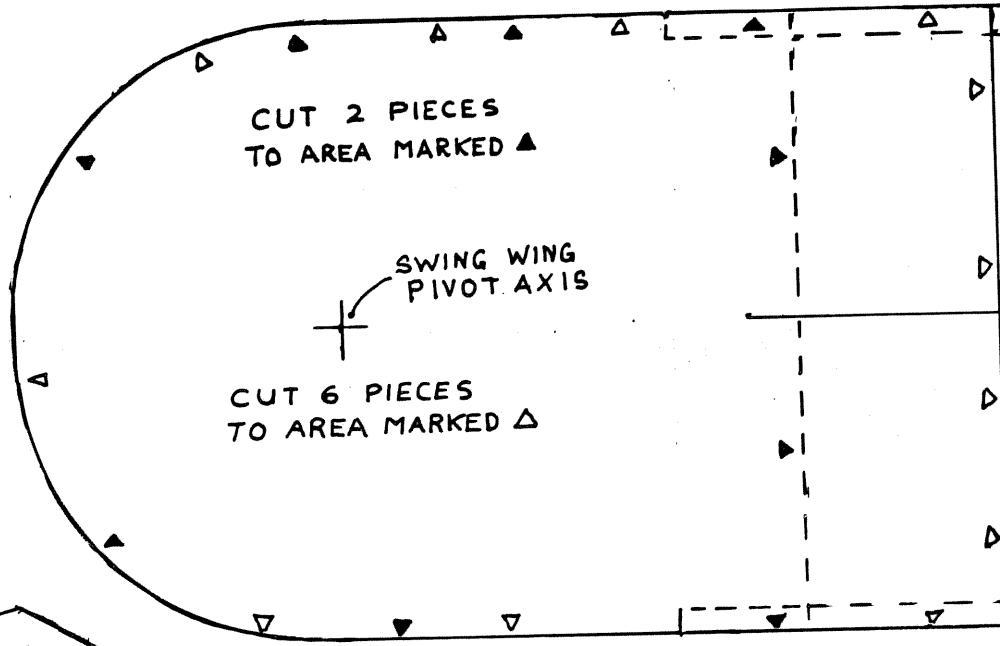


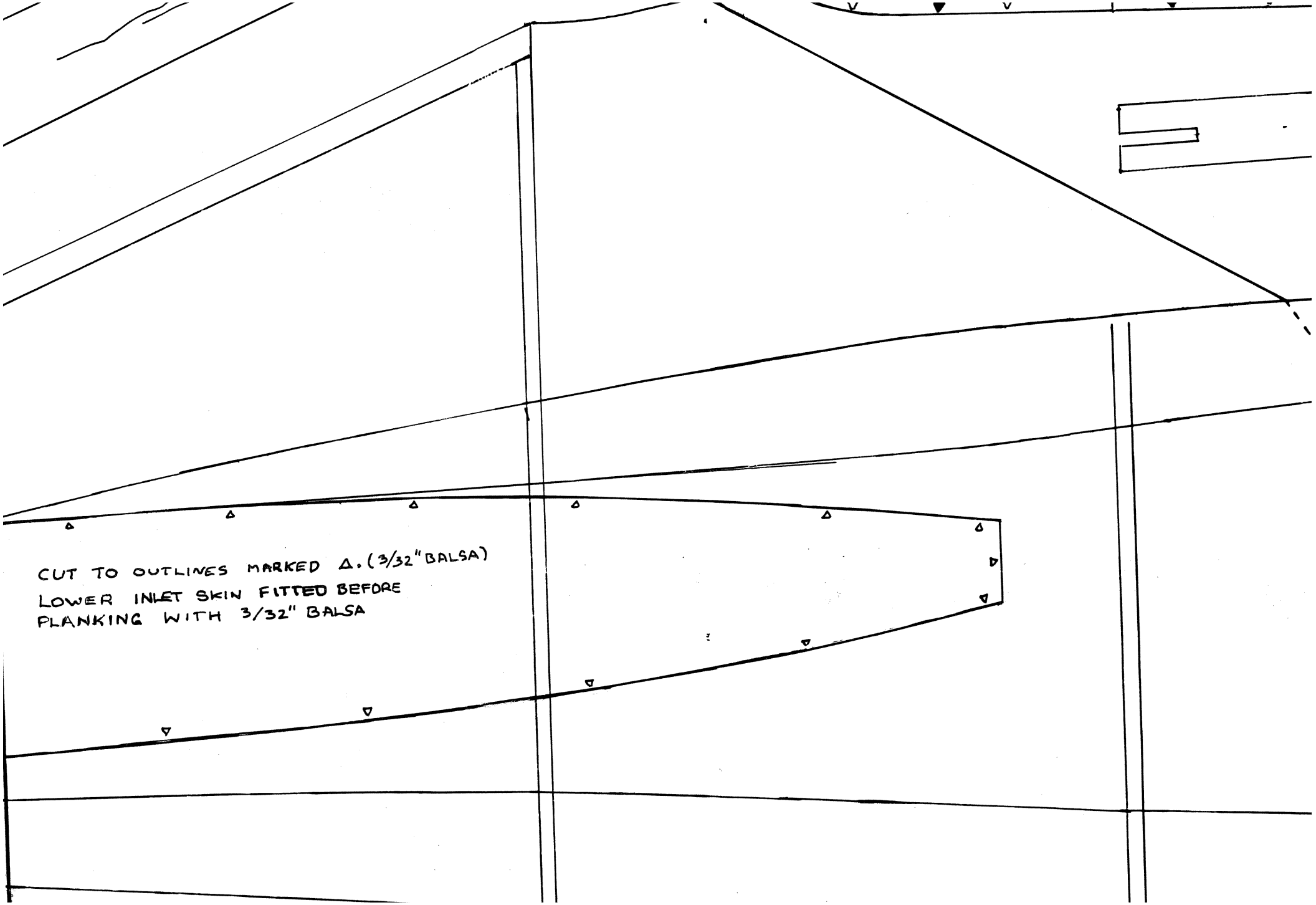

ALL DUCTING FROM 1/64" PLY, THIN CARD OR PLASTIC SHEET
TO
ARKED Δ
16" SHEET BALSA
ITTING FOA
ATE RECESS
NG IN MINIMUM
FOA
MAKE HATCH HERE TO ACCESS FAN-
NOTE GRAIN DIRECTION
1/8" LITEPLY SERVO MOUNT

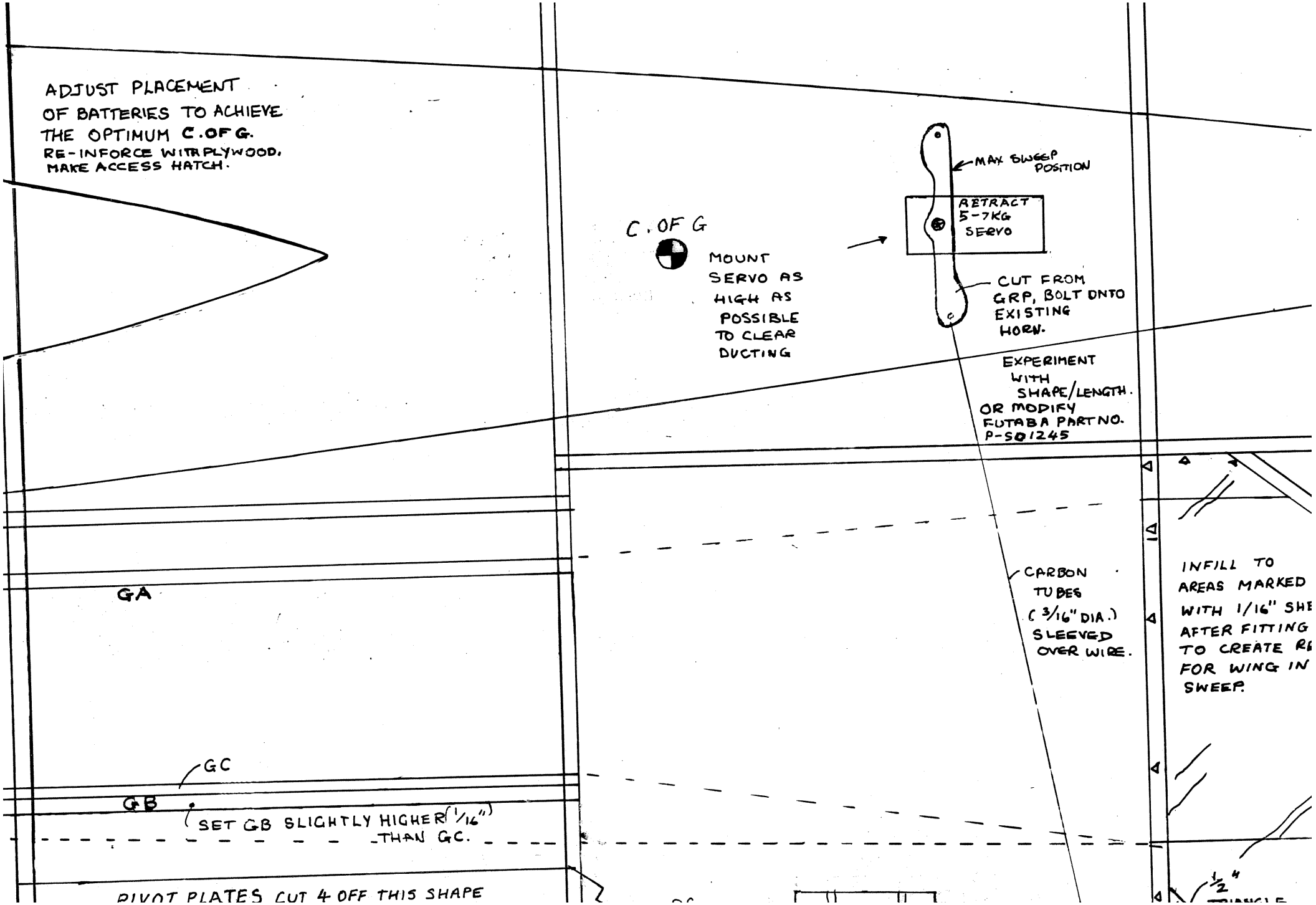

R2
RECESS R2 TO ACCEPT THESE P
FIX THIS END TO R1
FOA
CUT TO CLEAR DUCTWORK.
CHAMFER (SEE PLAN VIEW)
GB
GA
CUT TO CLE WING KNU
COVER THIS FORMER WITH LIGHT GLASS CLOTH - - - BOTH SIDES PRIOR TO ASSEMBLY
F7
1/8" LITEPLY
C.LINE
NSERT
ALLRACES
OTH SIDES
O SUPPORT RODS
/ (NOT SHOWN)
NUT-LOCTITE THREAD!
CH PLY LOCAL SUPPORT
CUT (5MM O.D) INNER TUBE (OR ALU. ROD) 108 MM LONG. 231 MM FOR 123% VERSION
HOLLOWED BALSA FIN FAIRING
FIN BASE, CUT TO AREAS MARKED Δ FROM 1/4"
REAR FUSELAGE SIDES


½" TRIANGULAR BALSA
BEFORE FITTING F9, ENSURE FAN WILL FIT WITH SCRAP 1/64" PLY WRAPPED AROUND FAN
F9
WEMOTEC MINIFAN LOCATION
REAR FUSELAGE SIDES
¼" BALSA
F10
TAILERON SERVO SMALL HIGH TORQUE TYPE
SUB FINS (2) CUT FROM 1/8" LITEPLY. LAMINATE WITH 1/16" BALSA & CARVE/SAND TO SECTION.
F11
'BEAVERTAIL' X SECTION
2 OFF
BEAVER TAIL PARTS 2 OFF (LITEPLY)
CUT TO AREAS MARKED Δ




CUT 2 PIECES
TO AREA MARKED ▲
SWING WING
PIVOT AXIS
CUT 6 PIECES
TO AREA MARKED △


CUT TO OUTLINES MARKED Δ. (3/32" BALSA)
LOWER INLET SKIN FITTED BEFORE
PLANKING WITH 3/32" BALSA


ADJUST PLACEMENT
OF BATTERIES TO ACHIEVE
THE OPTIMUM C.OF G.
RE-INFORCE WITH PLYWOOD.
MAKE ACCESS HATCH.
C.OF G
MOUNT
SERVO AS
HIGH AS
POSSIBLE
TO CLEAR
DUCTING
MAX SWEEP POSITION
RETRACT
5-7KG
SERVO
CUT FROM
GRP, BOLT ONTO
EXISTING
HORN.
EXPERIMENT
WITH
SHAPE/LENGTH.
OR MODIFY
FUTABA PART NO.
P-S01245
CARBON
TUBES
(3/16" DIA.)
SLEEVED
OVER WIRE.
INFILL TO
AREAS MARKED
WITH 1/16" SHE
AFTER FITTING
TO CREATE R
FOR WING IN
SWEEP.
GA
GC
GB
SET GB SLIGHTLY HIGHER (1/16")
THAN GC.
PIVOT PLATES CUT 4 OFF THIS SHAPE
1/2"
TRIANGLE

PIVOT PLATES CUT 4 OFF THIS SHAPE FROM 1/8" LITEPLY COVER WITH GLASS CLOTH AND EPOXY RESIN BOTH SIDES BEFORE FITTING.

GLUE 1/16" BALSA ALONG BOTH SIDES (SCRAP VIEW) AFTER FITTING PS PARTS

PS

IF USING RETRACTS, YOU WILL NEED TO CUT A HOLE BENEATH TO CLEAR THE WHEEL.

PS

PS CUT 6 PIECES 1/8" LITEPLY

NOTE: ENSURE F7 IS FITTED TRULY STRAIGHT AND VERTICAL

1/16" PLY DISC. FIT AFTER OILITE BEARING WITH EPOXY

BEARING LET IN AND EPOXIED. (TOP + BOTTOM)

'OILITE' BEARINGS WITH 5MM CENTRE. USED IN R/C CARS

PS

UPPER HATCH OUTLINE

1/2" TRIANGLE BALSA

INSERT BALLRA BOTH S TO SUP (Ne

2MM CAPBOLT

PLASTIC LUG ACTUATOR

BEARING TUBE 6MM

SECURING NUT-LO

BALL LINK

1/8" BIRCH PLY

CU INN 10 23

TAILERON BOX GENERAL ARRANGEMENT. CONSTRUCT FROM 1/8" LITEPLY (NOT TO SCALE)

ALLOW FOR ASSIT BENDING

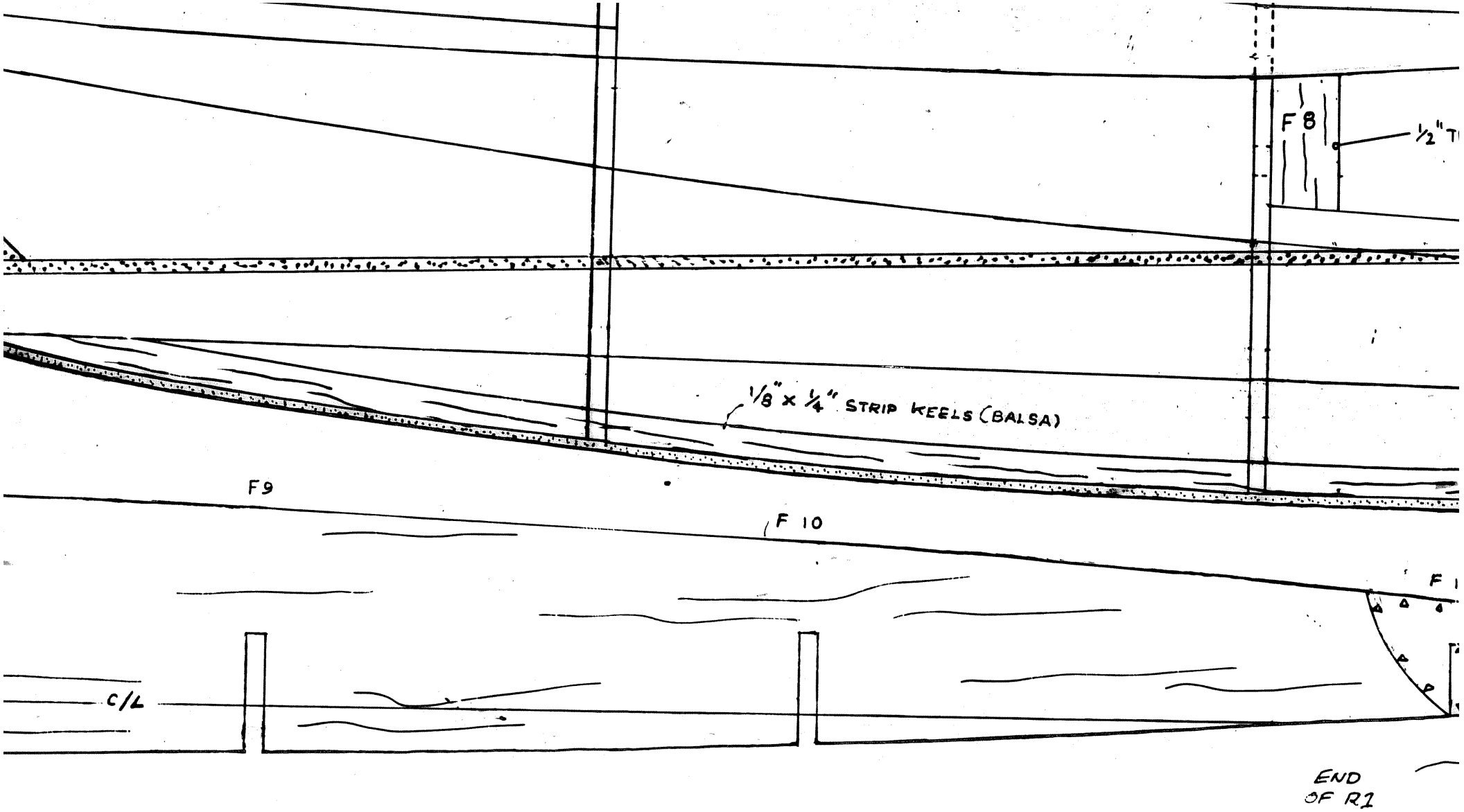
FORWARD

F6

GC 1/8" LITEPLY

GLOVE TIP (CD)

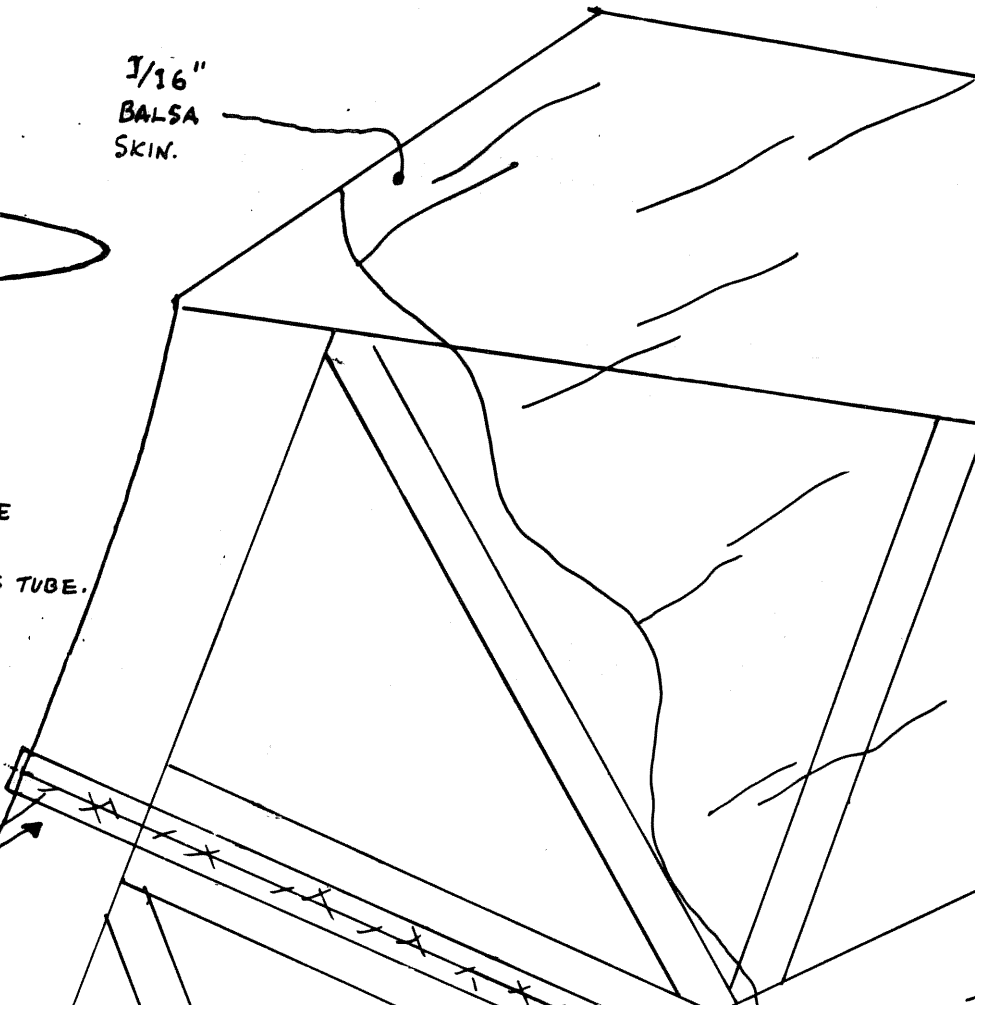
F7


F 8
1/2" T
1/8" x 1/4" STRIP KEELS (BALSA)
F9
F 10
F
C/L
END
OF R1

CARVE TAILERONS TO THIS SHAPE

SELECTION:
THE WLGHTEST
AVAILABLE,
'LY, UNLESS STATED,
TEPLY.
ABER TO
RE PASSAGE
EEN FORMERS
ES FOR SERVO
JTION LEADS,

NYTHING ABOUT
CONSTRUCTION
NCLEAR TO
PLEASE CONTACT
HROUGH MY
NT E-MAIL
ESS, OR



NT E-MAIL
CESS, OR
E TO ME.

Y THANKS
SELECTING
F-14 TOMCAT,
BE LET ME
OW HOW YOURS
ELOPS & SHARE
ITOGRAPHS.

JT NOTE:
AN VIEW OF
SELAGE IS
LIT - ½ SIDE SHOWS
PER DETAILS, OTHER
LF SHOWS LOWER DETAILS.

STATIC BALANCE TAILERON STABS AT THE ACTUATOR AXIS. ENSURE GOOD BALANCE AT NEUTRAL. ADD SMALL WEIGHTS IF REQUIRED.

EDGES WILL REQUIRE SHAMFERING TO CLEAR FUSELAGE WHEN IN OPERATION

ALL FRAMES FROM 1/8" BALSA

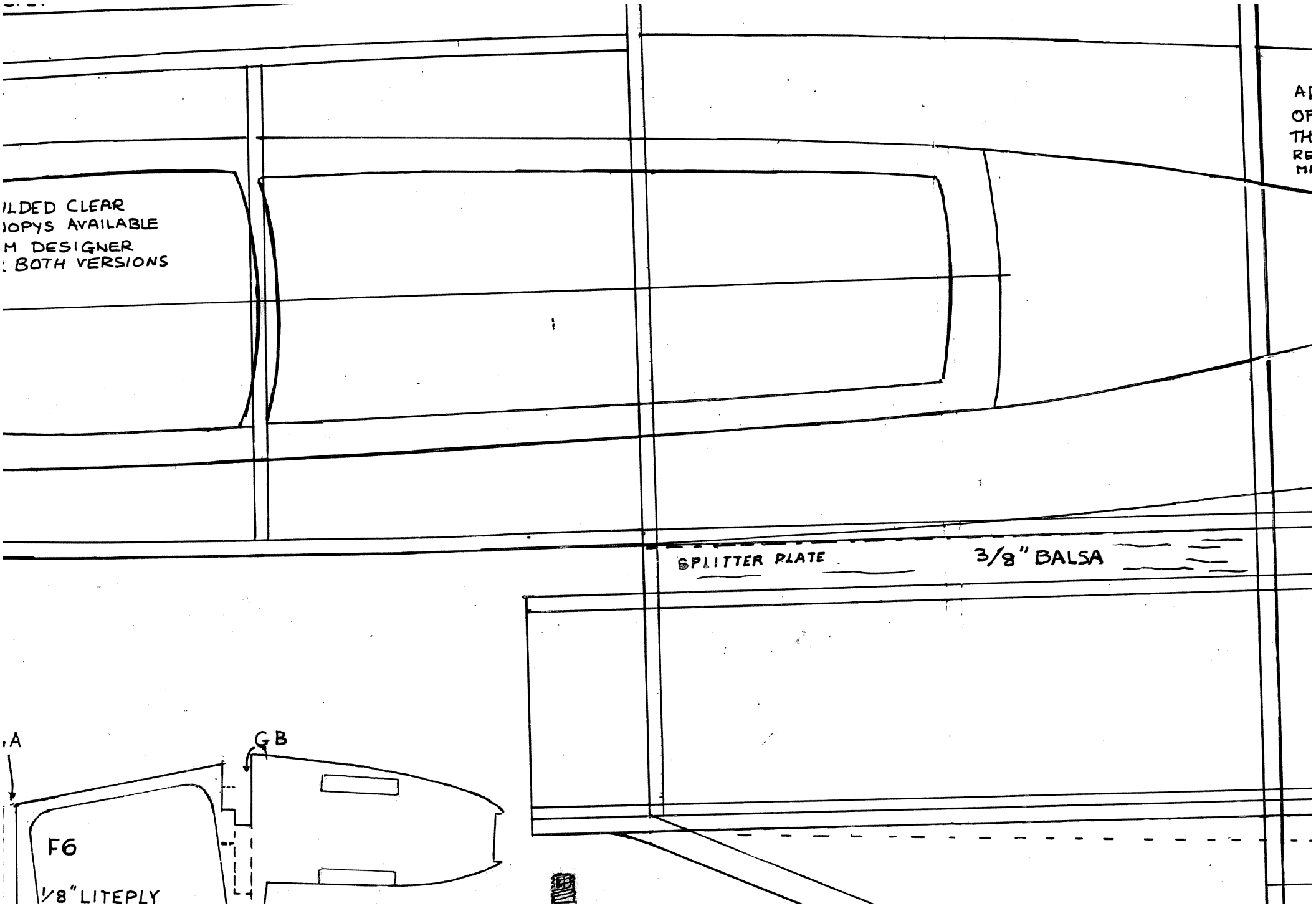
BALANCE WEIGHT HERE.

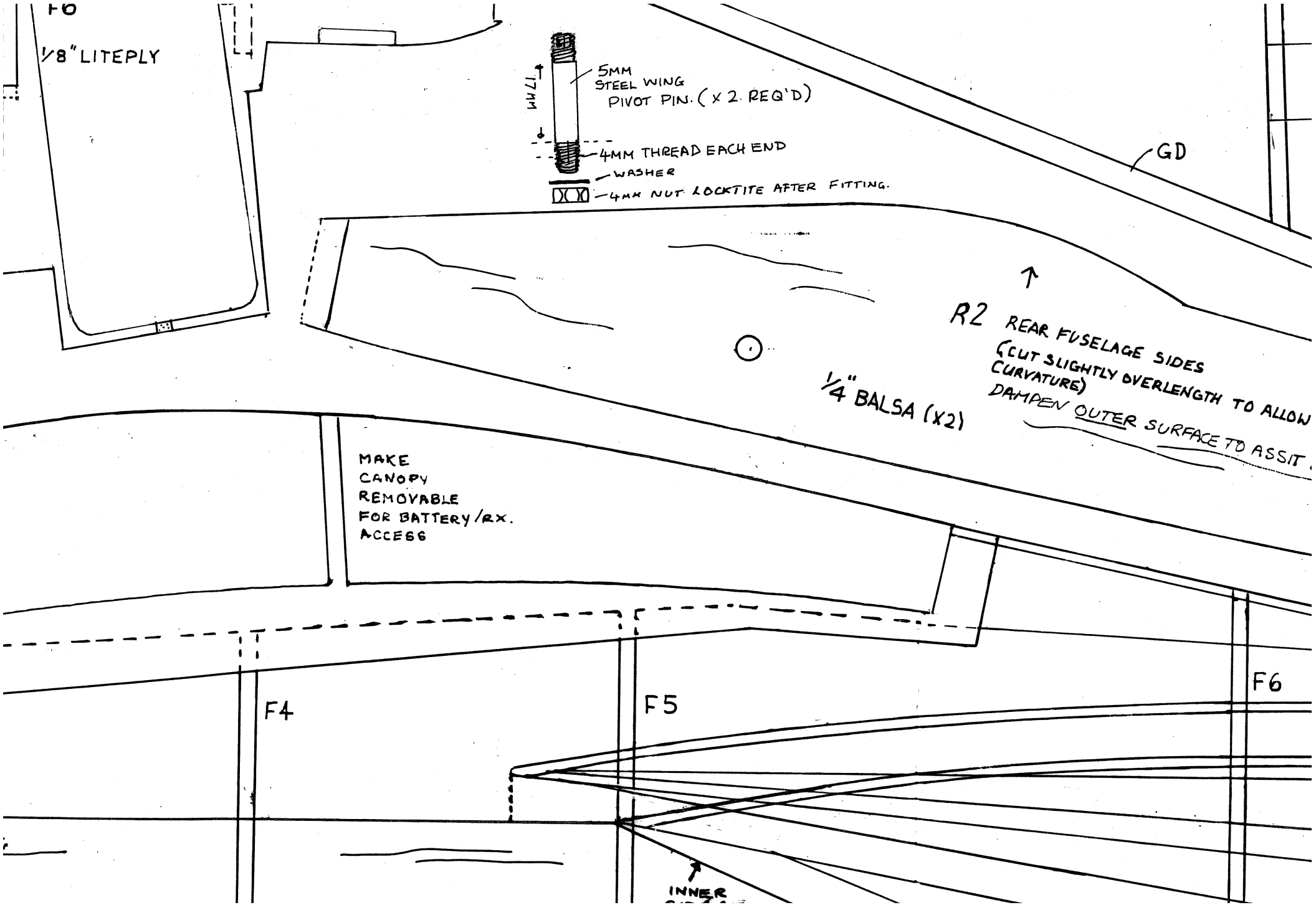
ITEPLY

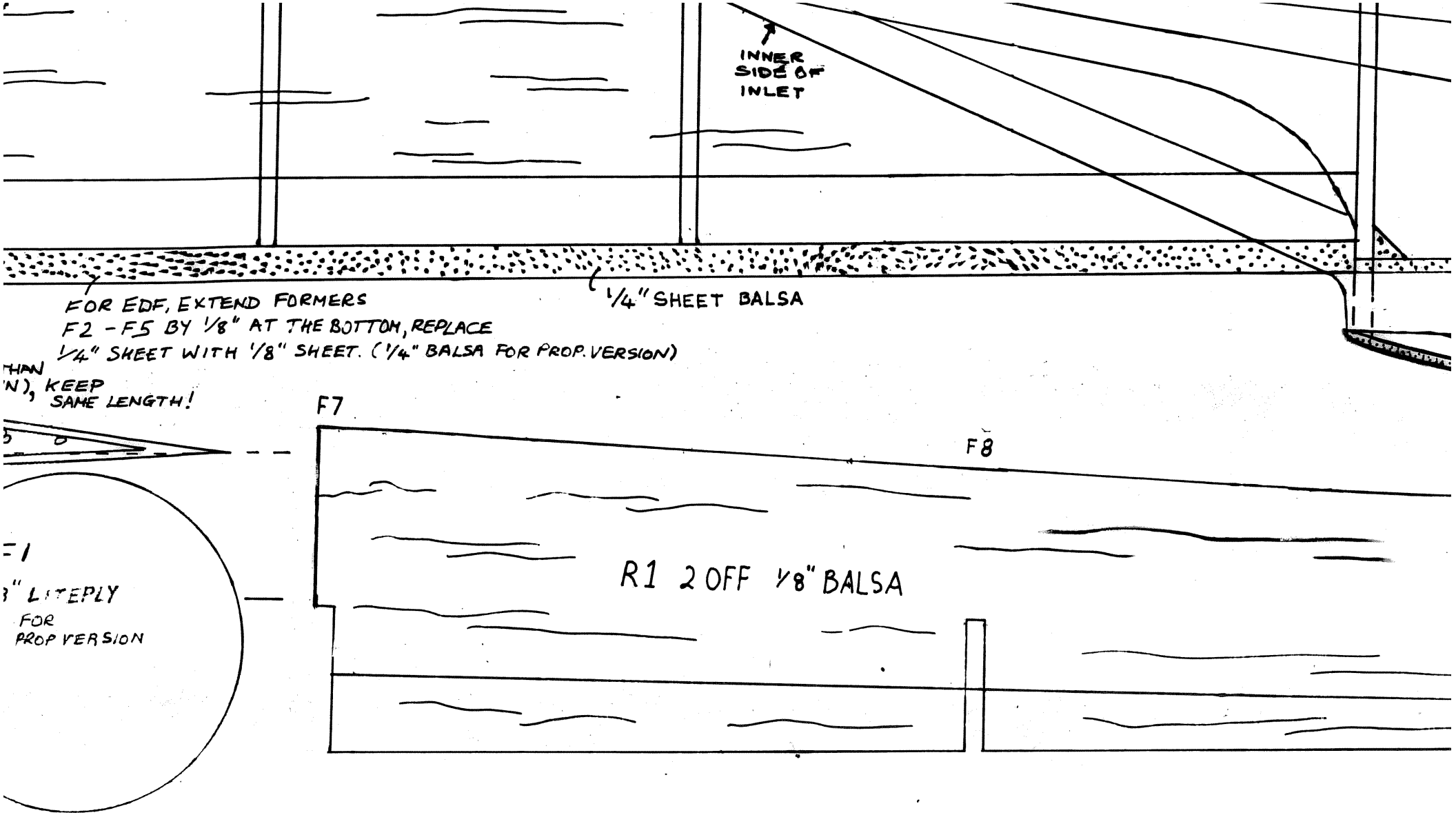
(YOU MAY NEED TO TRIM THESE PARTS AFTER FITTING)

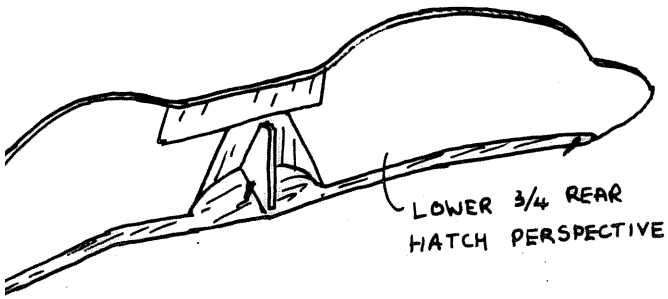
EPLY

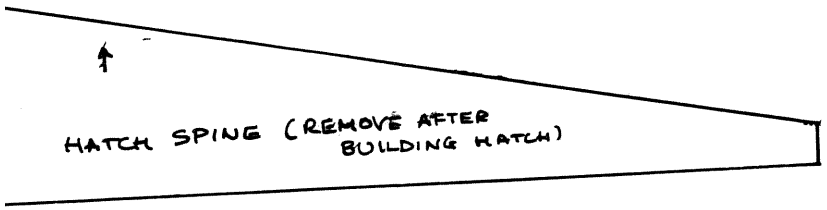
CU
LO
PL


ILDED CLEAR
IOPYS AVAILABLE
M DESIGNER
BOTH VERSIONS
SPLITTER PLATE
3/8" BALSA
A
B
F6
1/8" LITEPLY


F6
1/8" LITEPLY
17MM
5MM
STEEL WING
PIVOT PIN. (X 2 REQ'D)
4MM THREAD EACH END
WASHER
4MM NUT LOCKTITE AFTER FITTING.
GD
R2 REAR FUSELAGE SIDES
(CUT SLIGHTLY OVERLENGTH TO ALLOW
CURVATURE)
DAMPEN OUTER SURFACE TO ASSIT
1/4" BALSA (X2)
MAKE
CANOPY
REMOVABLE
FOR BATTERY/RX.
ACCESS
F4
F5
F6
INNER


INNER SIDE OF INLET
FOR EDF, EXTEND FORMERS F2 - F5 BY 1/8" AT THE BOTTOM, REPLACE 1/4" SHEET WITH 1/8" SHEET. (1/4" BALSA FOR PROP. VERSION)
1/4" SHEET BALSA
THAN N), KEEP SAME LENGTH!
F7
F8
F1
" LITEPLY FOR PROP VERSION
R1 2 OFF 1/8" BALSA





GENERAL BUILDING NOTES:

CUT ALL FORMERS, REAR 1/8" (R1)
BALSA FUS. CRUTCHES AND
FORWARD FUS. SIDES (1/8" BALSA.
ENSURE YOU HAVE A VERY
FLAT SURFACE TO BUILD ON.
TRIAL FIT ALL PARTS BEFORE GLUEING.
OPEN OUT FORMERS WHERE YOU
INTEND PLACING BATTERIES TO FIT.
PLY SWING WING BOX IS FOR
PROP VERSION ONLY.
BEING AN EXPERIENCED MODEL
BUILDER, FEEL FREE TO MAKE
MODIFICATIONS TO SUIT YOUR STYLE
OF BUILDING.

IMPORTANT NOTES:

FORMER F7 MUST BE POSITIONED
PERFECTLY SQUARE & VERTICAL

WOOD SELE

USE THE W
BALSA AVAI
ALL PLY, UN
IS LITEPLY
REMEMBER
ENSURE PA
BETWEEN F
ALLOWS FO
EXTENTION
ETC.
IF ANYTHIN
THE CONST
IS UNCLEA
YOU, PLEAS
ME THROUG
PRESENT &
ADDRESS,

TCH
NSTRUCTION:
TCH IS MADE FROM 3/32" BALSA.

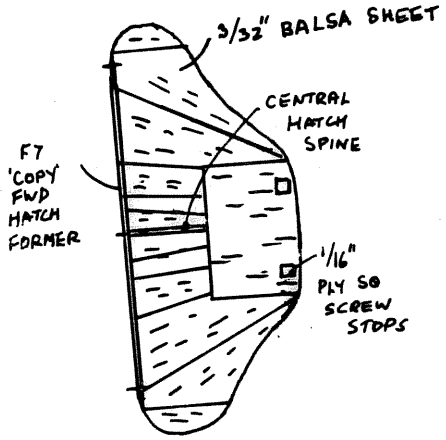
E A PIECE OF STIFF CARD
COPY REAR OF F7 (SEE DRAWING)

T 3 20G (OR SIMILAR) WIRE PINS
TO HATCH FORMER (SEE PLAN)

OVER CENTRAL POSITION WITH TRANSPARENT
OOD WRAP FILM. (WINGS ON)

SE CARD TEMPLATE TO
UT A COPY IN 1/8" LITEPLY (F7 PART)

JSE SPOT CYANO TO FIT BEHIND F7.
FIT HATCH SPINE IN PLACE.
PLANK CENTRE FORWARD SECTION,
FIT SHEETS AS SHOWN ON DRAWING →
PIN TO UPPER FUS. TUBES WHILST DRYING.
WHEN FULLY DRIED, REMOVE FROM MODEL
OR COVER WITH 1/2 OZ GLASS CLOTH IN
POSITION. FIT TO MODEL USING PLY 1/8"
SQUARES AS SHOWN.



LOWER VIEW OF HATCH
GRAIN DIRECTION AND BALSA SHEET SEGMENTATION ILLUSTRATED

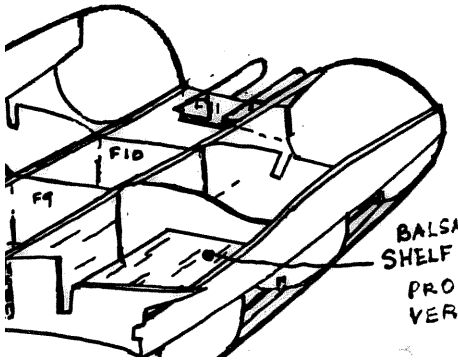
FORMER F7 MUST BE POSITIONED
PERFECTLY SQUARE & VERTICAL
AS MUST HINGE FITTING TO ENSURE
A WARP FREE WING SET UP.
ALL INTERNAL DUCTING IS FROM
1/64" PLY, OR YOUR PREFERENCE.
SAVE WEIGHT WHEREVER POSSIBLE,
WITHOUT ALTERING STRUCTURAL
INTEGRITY.
WING SWEEP SERVO, AT LEAST
5KG TORQUE REQUIRED.
FOAM WINGS ARE PREFERRED,
DUE TO SIMPLICITY & LIGHT
WEIGHT. FIND A COMMERCIAL
WING CUTTING FIRM IF YOU
ARE NOT ABLE TO CUT YOUR
OWN WINGS.
USE A PLASTIC F-14 KIT
FOR REFERENCE, I FOUND IT
VERY USEFUL.
USE CARBON TUBES TO ACTUATE
WING SWEEP FROM SERVO.

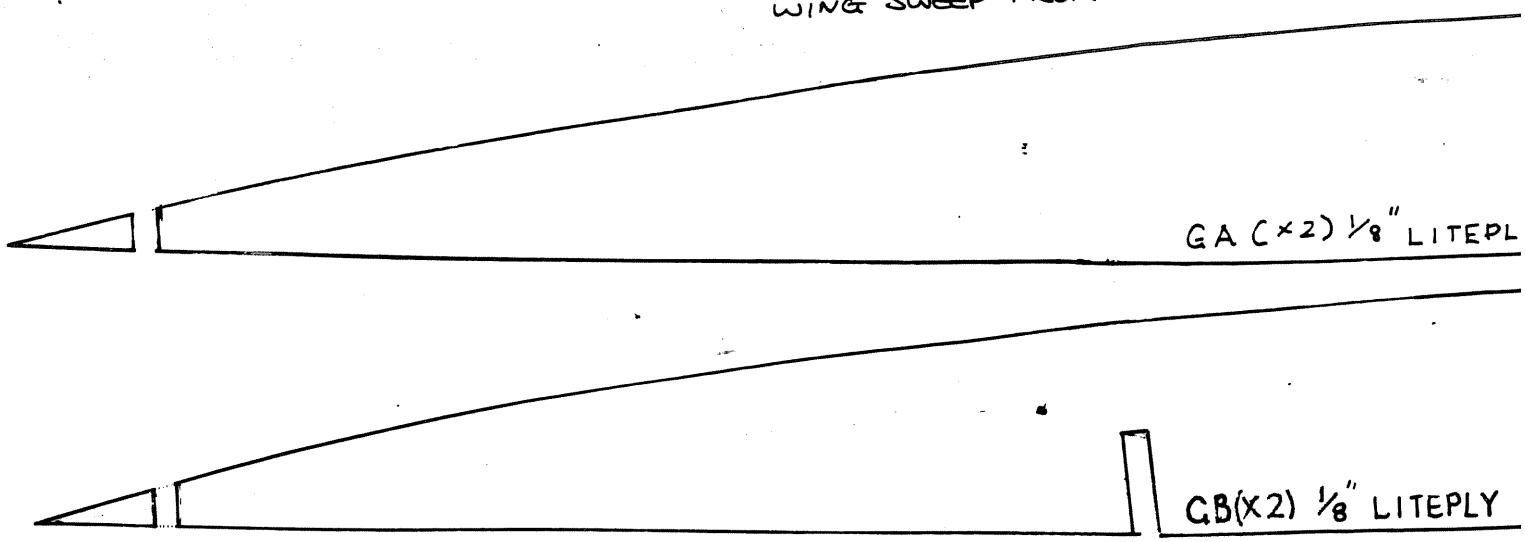
PRESENT &
ADDRESS, &
WRITE TO

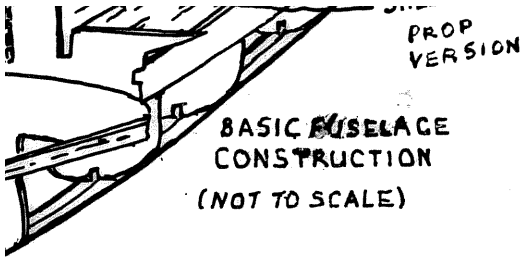
MANY THA
ON SELE
THE F-14
PLEASE LE
KNOW HO
DEVELOPS
PHOTOGR

FOOT NOT
PLAN VIE
FUSELAG
SPLIT - 1
UPPER DE
HALF SH

IN YOUR UNDERSTANDING!







PROP VERSION

BASIC FUSELAGE CONSTRUCTION (NOT TO SCALE)

STRIP BALSA

USE COMMERCIALLY AVAILABLE SPINNER

NOTE: SIDETHRUST BUILT IN FOR PROP. VERSION

EDF: MAKE NOSE FROM CARVED/SANDED PINK/BLUE FOAM. COVER WITH 2 LAYERS OF CRISS-CROSSED GLASS + EPOXY. FINAL SAND FINISH REMOVE FOAM WITH GASOLINE.

MOULDED CANOPYS FROM DES FOR BOTH

DGES, UR SPAR TEMPLATE

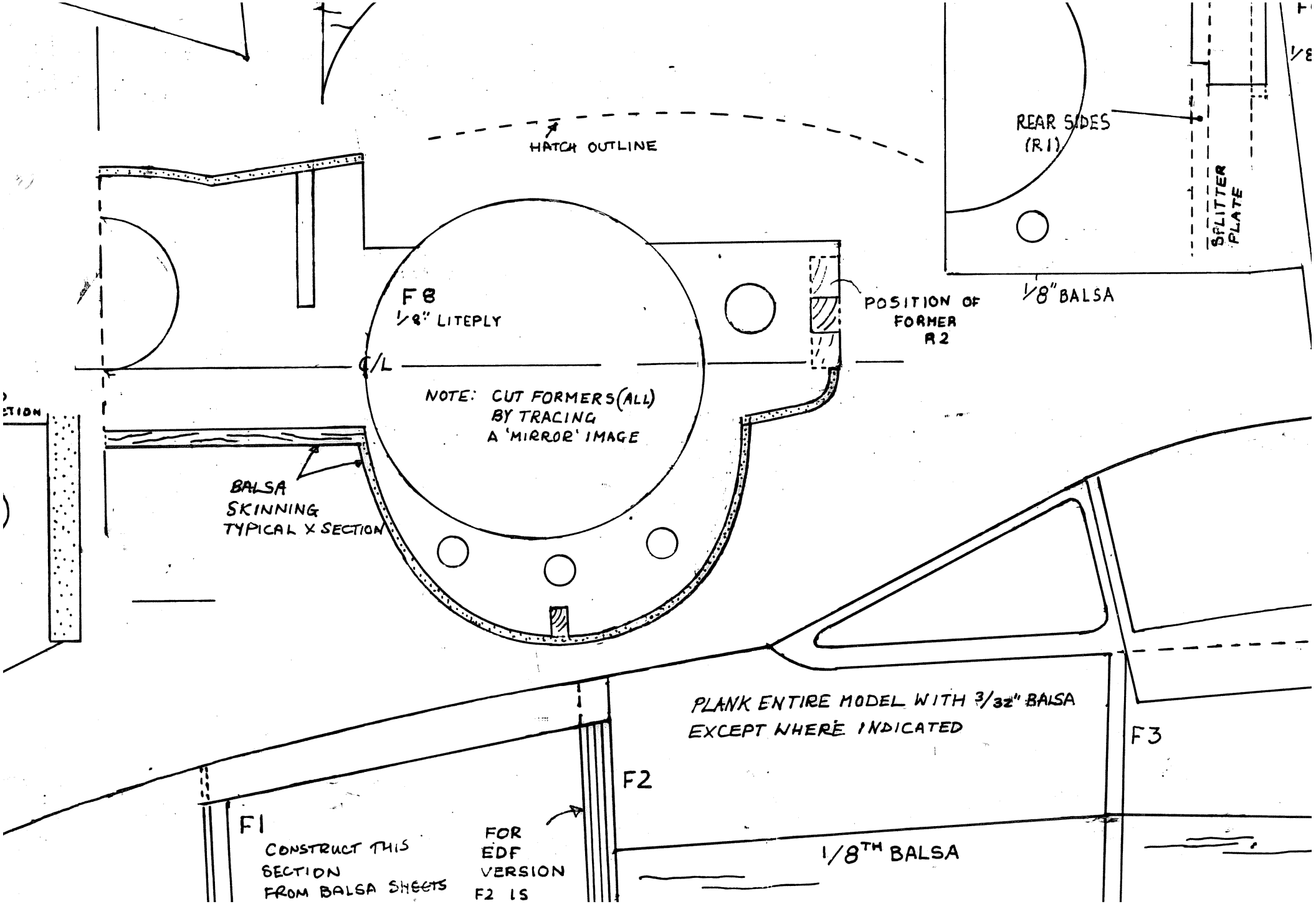
ET EXTENSION BALSA

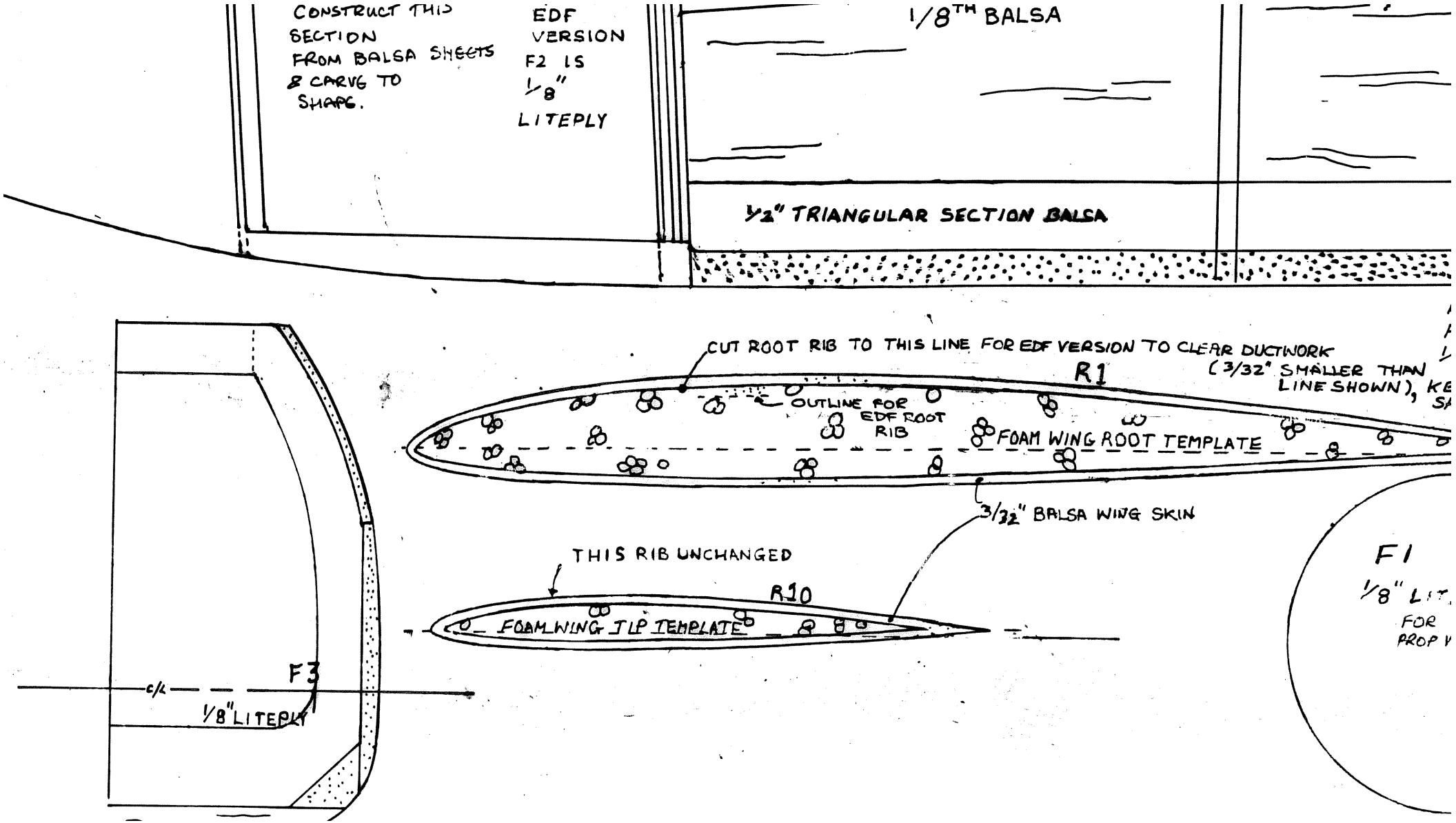
3/8 BALSA SPLITTER PLATE X 2

GA

F

1/8

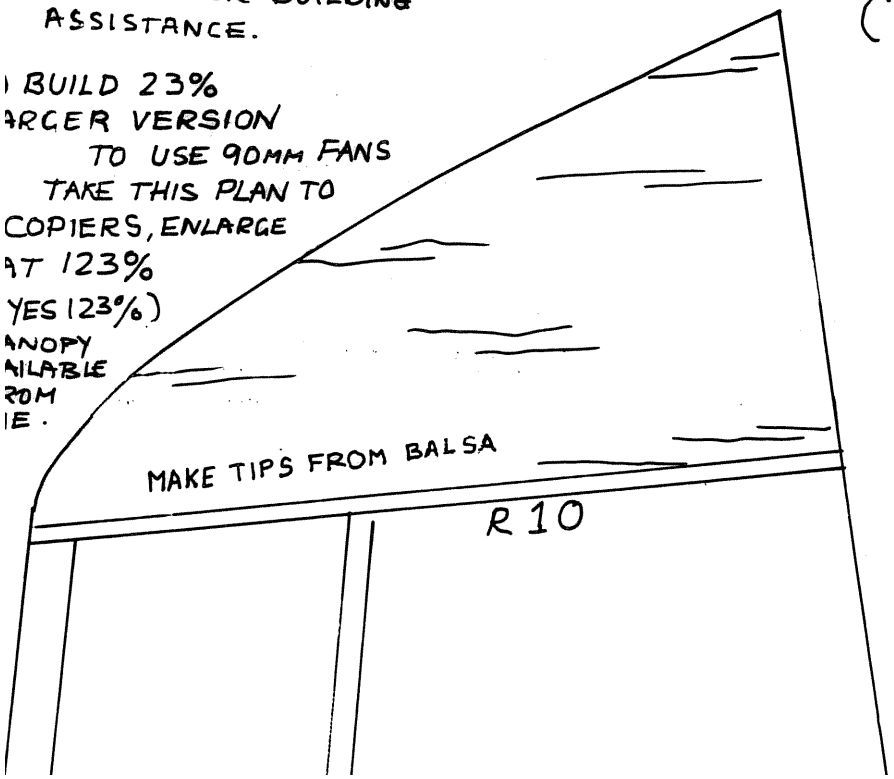

HATCH OUTLINE
REAR SIDES
(R1)
SPLITTER PLATE
1/8" BALSA
F8
1/8" LITEPLY
POSITION OF FORMER R2
℄/L
NOTE: CUT FORMERS (ALL) BY TRACING A 'MIRROR' IMAGE
BALSA SKINNING TYPICAL X SECTION
PLANK ENTIRE MODEL WITH 3/32" BALSA EXCEPT WHERE INDICATED
F3
F2
F1
CONSTRUCT THIS SECTION FROM BALSA SHEETS
FOR EDF VERSION F2 IS
1/8TH BALSA

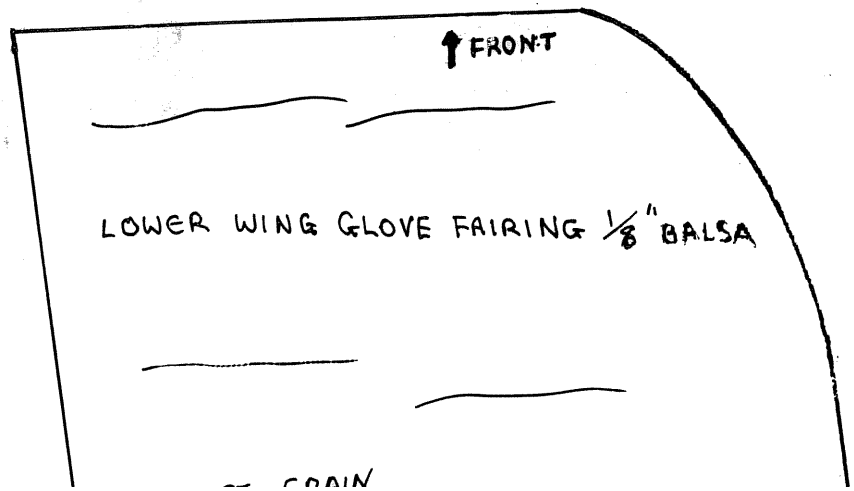

CONSTRUCT THIS SECTION FROM BALSA SHEETS & CARVE TO SHAPE.
EDF VERSION F2 IS 1/8" LITEPLY
1/8TH BALSA
1/2" TRIANGULAR SECTION BALSA
CUT ROOT RIB TO THIS LINE FOR EDF VERSION TO CLEAR DUCTWORK (3/32" SMALLER THAN LINE SHOWN), KE
R1
OUTLINE FOR EDF ROOT RIB
FOAM WING ROOT TEMPLATE
3/32" BALSA WING SKIN
THIS RIB UNCHANGED
R10
FOAM WING TIP TEMPLATE
F3
c/L
1/8" LITEPLY
F1
1/8" LIT
FOR
PROP

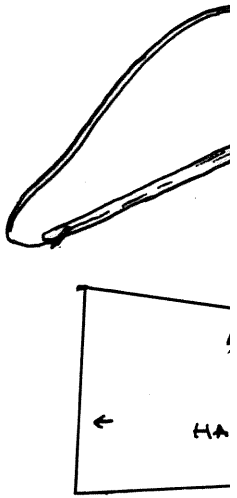
CONGRATULATIONS!
I WISH YOU EVERY SUCESS
WITH YOUR F-14.
PLEASE VISIT MY WEBSITE
FOR FURTHER BUILDING
ASSISTANCE.

) BUILD 23%
ARGER VERSION
TO USE 90MM FANS
TAKE THIS PLAN TO
COPIERS, ENLARGE
AT 123%
YES 123%)
ANOPY
AILABLE
ROM
IE.

LIGHTWEIGHT GRADED BALSA
('CONTEST') IS RECCOMENDED
VERY HIGHLY FOR BEST FLIGHT
PERFORMANCE!







NOTE GRAIN
DIRECTION

HATCH
CONSTRU
HATCH IS

USE A PIE
TO COPY

FIT 3 2
INTO HA
COVER C
FOOD W

USE CAR
CUT A C
USE SP
FIT HA
PLANK
FIT SH
PIN T
WHEN
OR CO
POSITI
SQUA

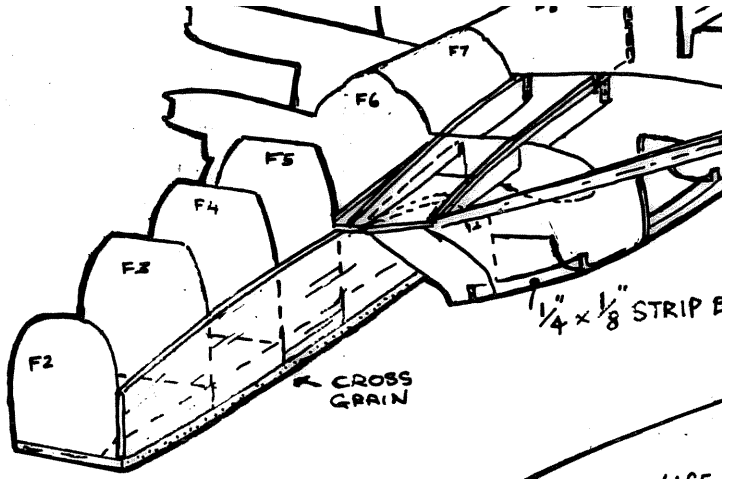
BEFORE BUILDING PLEASE STUDY
DRAWINGS TO ASSIST IN Y

FOR RIBSET,
PLEASE CONTACT
ME, I WILL SEND IT
VIA. EMAIL. YOU
NEED A CAD
PROGRAMME TO
READ IT.

NOTE:
RIB POSITIONS SHOWN
FOR OPTIONAL BUILT UP VERSION.
USE 'SANDWICH' METHOD

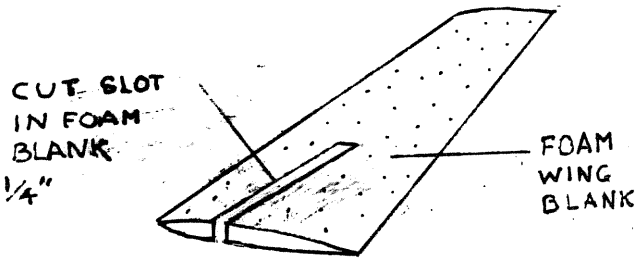
NOTE:
ANGLE RESISTS
TWISTING IN FLIGHT.

SKIN WINGS WITH 3/32" BALSA AFTER
STUB SPAR HAS BEEN EPOXIED IN PLACE
INTO FOAM.



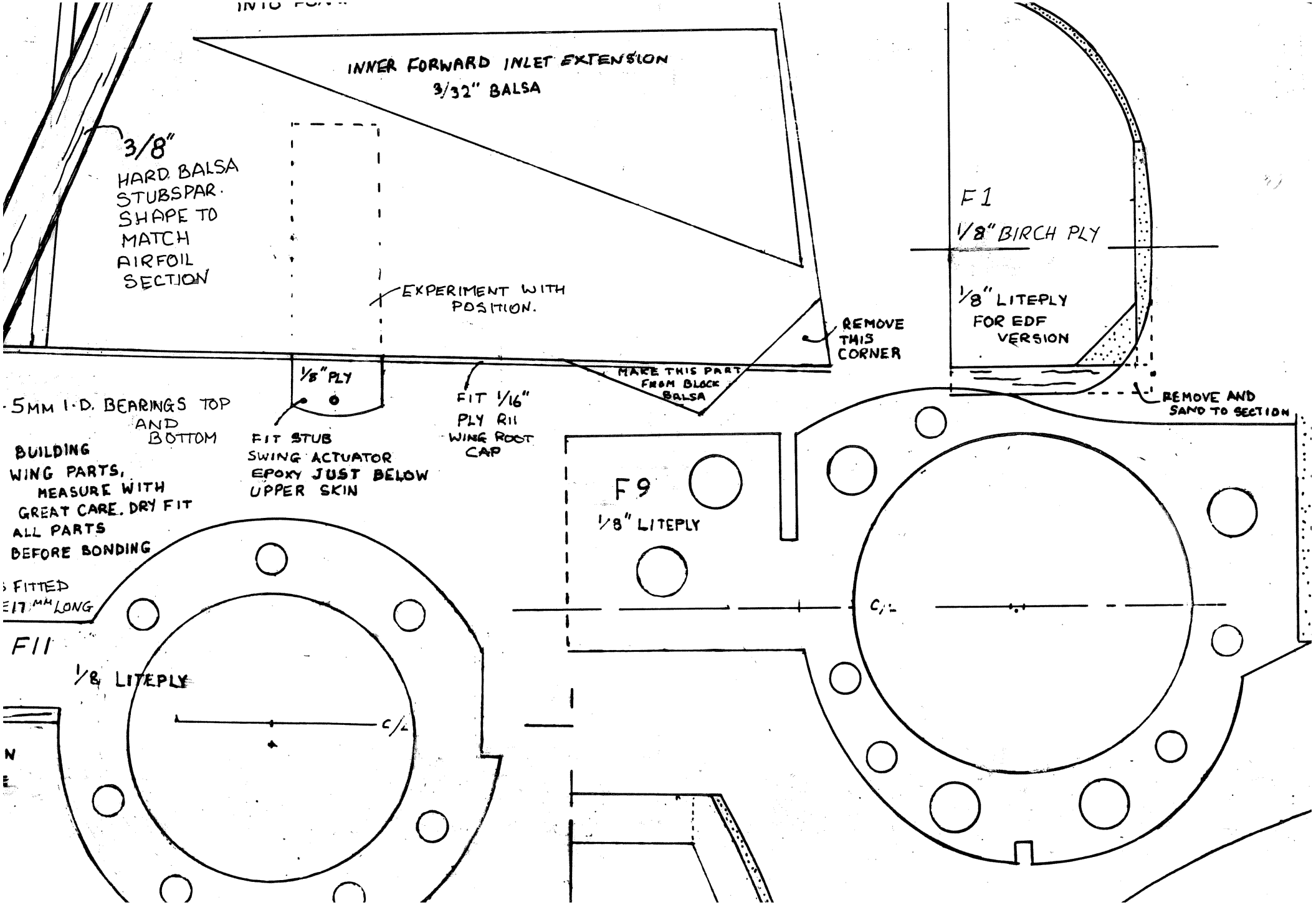
USE
AVAIL

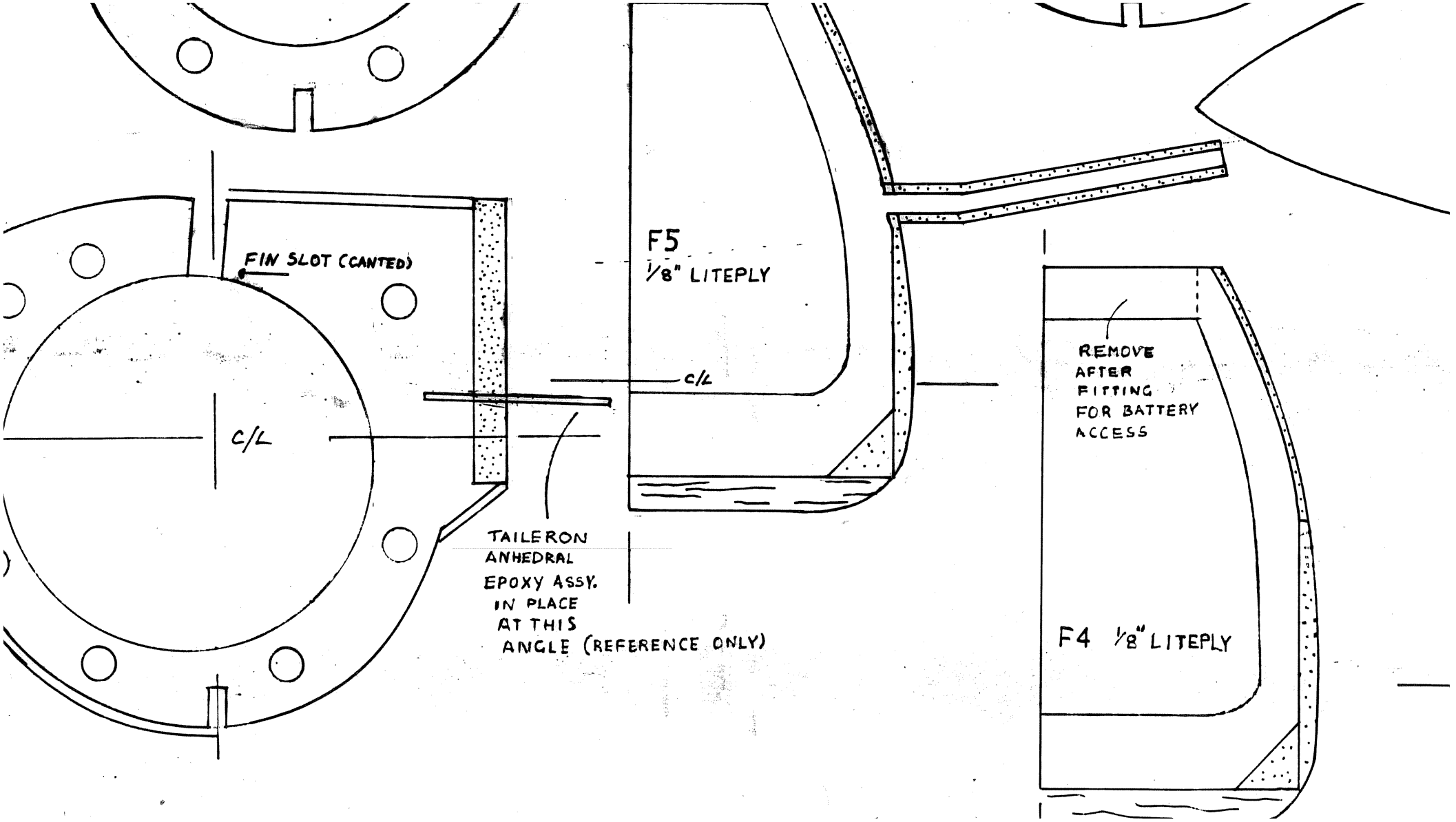
CUT SLOT
IN WING BLANKS,
WITH WING
CORE IN THE
MIDDLE TO
ENSURE A VERTICAL
CUT IN THE
CORE.



INSERT A PIECE OF
1/4" BALSA INTO THE SLOT,
DRAW AROUND THE EDGES,
THIS IS YOUR SP

OUTER FORWARD INLET EXT
3/32" BALS


INNER FORWARD INLET EXTENSION
3/32" BALSA
3/8" HARD BALSA STUBSPAR. SHAPE TO MATCH AIRFOIL SECTION
EXPERIMENT WITH POSITION.
REMOVE THIS CORNER
MAKE THIS PART FROM BLOCK BALSA
1/8" PLY
FIT 1/16" PLY RIB WING ROOT CAP
FIT STUB SWING ACTUATOR EPOXY JUST BELOW UPPER SKIN
5MM I.D. BEARINGS TOP AND BOTTOM
BUILDING WING PARTS, MEASURE WITH GREAT CARE. DRY FIT ALL PARTS BEFORE BONDING
FITTED
17 MM LONG
F11
1/8 LITEPLY
C/L
F1
1/8" BIRCH PLY
1/8" LITEPLY FOR EDF VERSION
REMOVE AND SAND TO SECTION
F9
1/8" LITEPLY
C/L


FIN SLOT (CANTED)
C/L
F5
1/8" LITEPLY
C/L
TAILERON
ANHEDRAL
EPOXY ASSY.
IN PLACE
AT THIS
ANGLE (REFERENCE ONLY)
REMOVE
AFTER
FITTING
FOR BATTERY
ACCESS
F4 1/8" LITEPLY

GRUMMAN

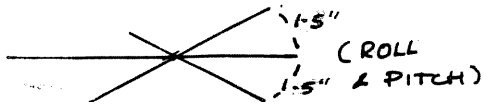
F-14A TOMCAT

DESIGNED AND DRAWN BY MATT HALTON 2001 ©

NET ADDRESS: http://www.geocities.com/grumman_uk

PROP DRIVEN	.32 - .40 ENGINES	SWING WING
WEIGHT: 5-7LBS. SPAN: 32" MIN. 57" MAX.		
FOR EXPERIENCED BUILDERS ONLY!		
EDF: 2 x WeMoTec MINI FANS (480) OR SIMILAR		

TAILERON DEFLECTIONS:



NOTE: AS OF FEB. 2002, THIS MODEL IS AVAILABE IN CNC LASER CUT PARTS. EMAIL FOR

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LARGER
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TAK
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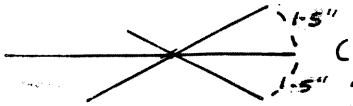
(YES 12
CANOPY
AVAILABLE
FROM
ME.



(ROLL & PITCH)

SET TO YOUR FLYING TASTES AFTER 1ST FLIGHT.
WINGS FORWARD
USE RATES FOR
WINGS BACK
1/4" EACH WAY

AILERON ONLY, PITCH IS THE SAME SETTING

CNC LASER CUT PARTS. EMAIL FOR DETAILS AT:

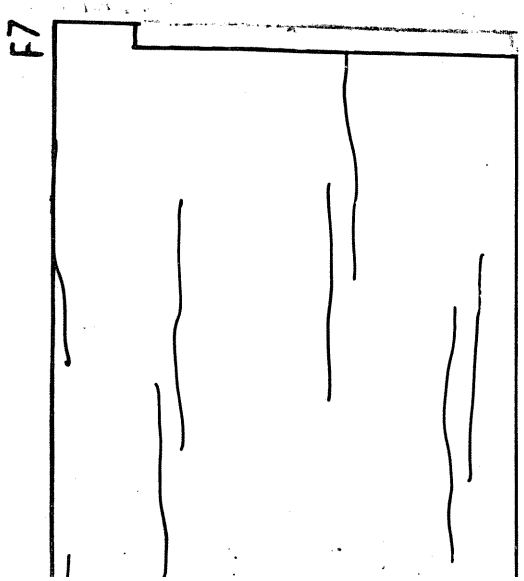
planeplans@lineone.net

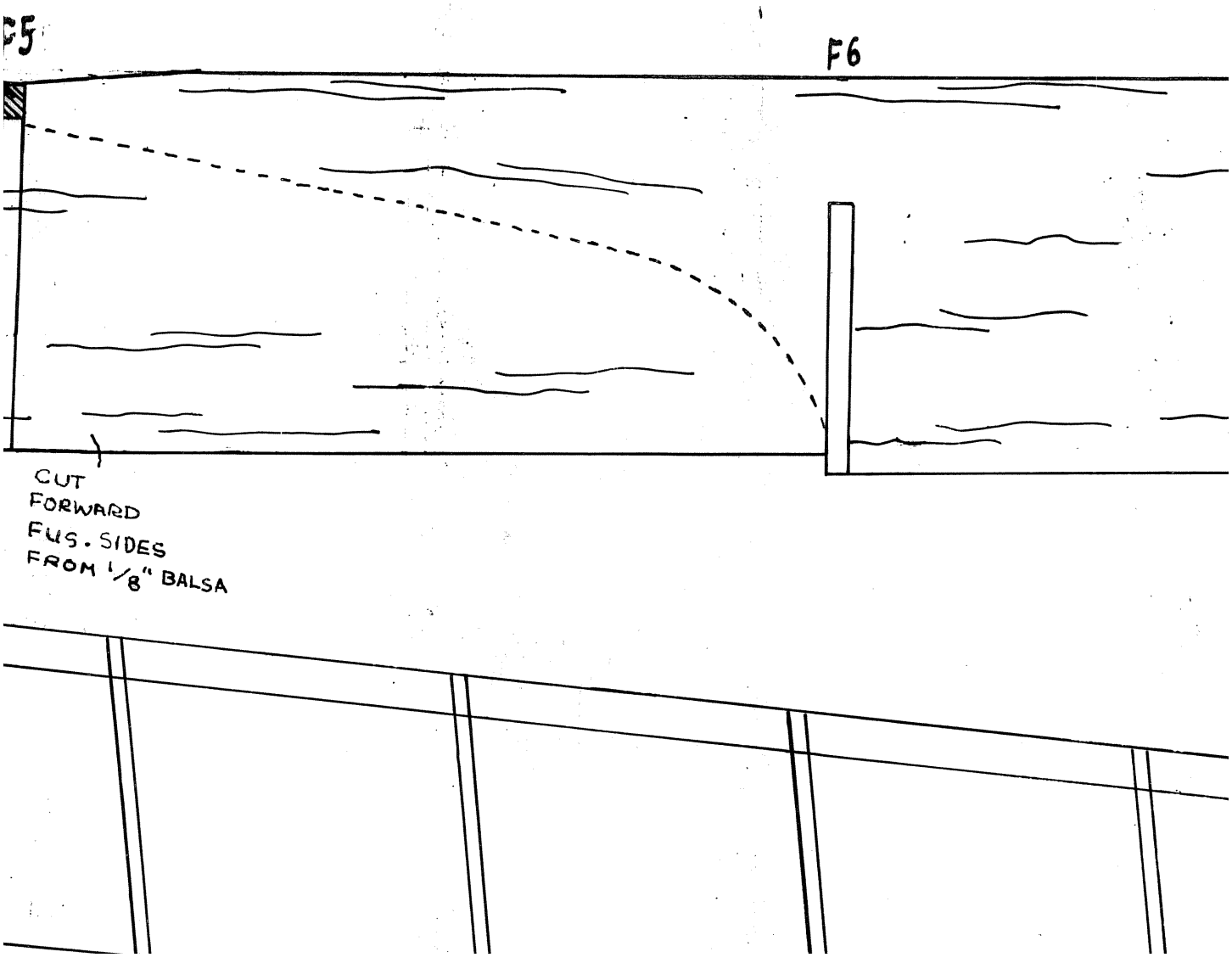
NOTE:
PLEASE VISIT MY WEBSITE TO VIEW AN ON-LINE BUILDING SEQUENCE WITH PHOTO'S & TEXT. SEE BOX ABOVE FOR U.R.L.

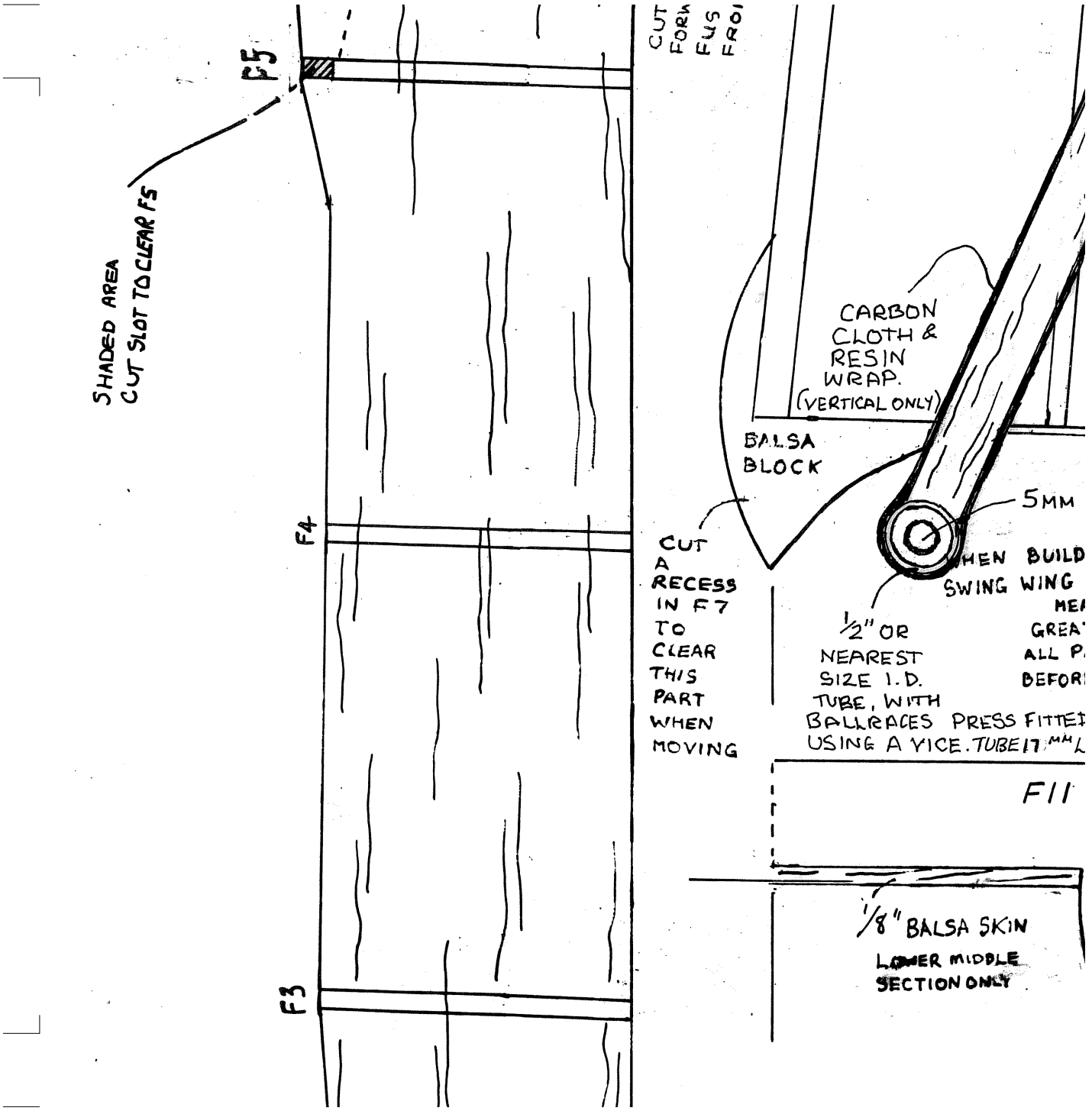
IF YOU WOULD LIKE TO BUILD A LARGER VERSION TO USE 90MM FANS, TAKE THIS COPY TO YOUR COPY SHOP, ASK FOR A 123% ENLARGEMENT. THIS WILL SCALE THE MODEL BY A PHYSICAL 23% BIGGER.

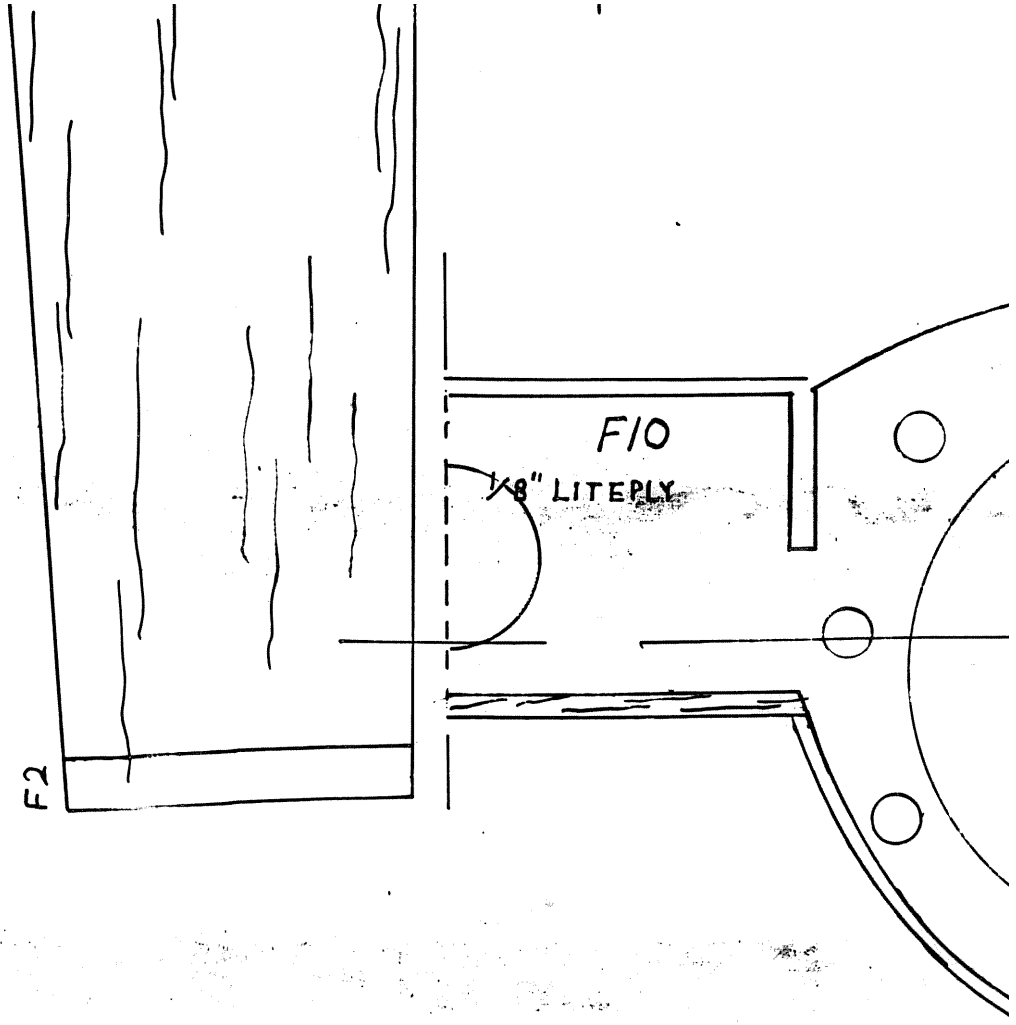
THE LARGER VERSION CAN BE CONVERTED TO USE SPRING AIR MICRO RETRACTS.

LARGER CANOPY IS NOW AVAILABLE!




F5
F6
CUT
FORWARD
FUS. SIDES
FROM 1/8" BALSA


F5
SHADED AREA
CUT SLOT TO CLEAR F5
F4
F3
CUT FORM FUS FRO
CARBON CLOTH & RESIN WRAP. (VERTICAL ONLY)
BALSA BLOCK
5MM
CUT A RECESS IN F7 TO CLEAR THIS PART WHEN MOVING
½" OR NEAREST SIZE I.D. TUBE, WITH BALLRACES PRESS FITTE
USING A VICE. TUBE 17 MM
F11
⅛" BALSA SKIN
LOWER MIDDLE SECTION ONLY


F10
1/8" LITEPLY
F2