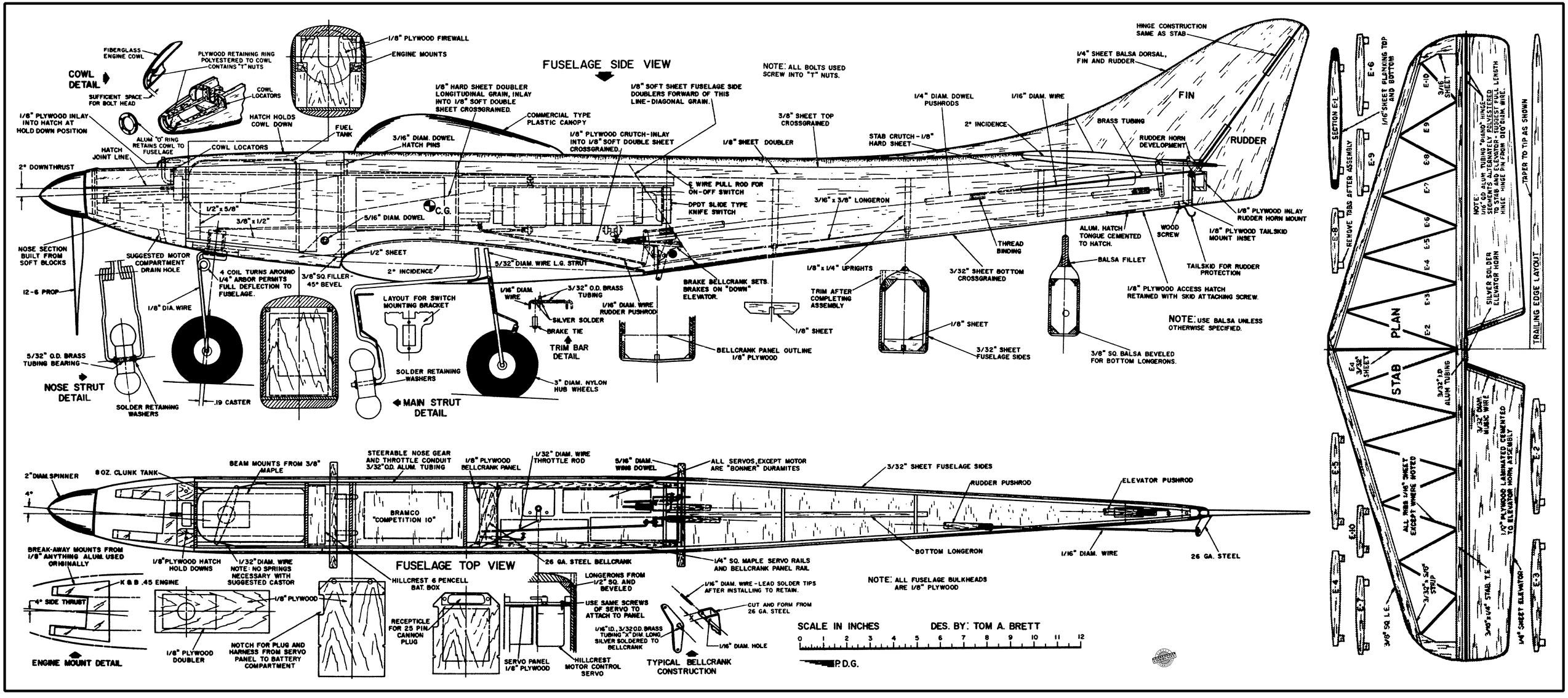
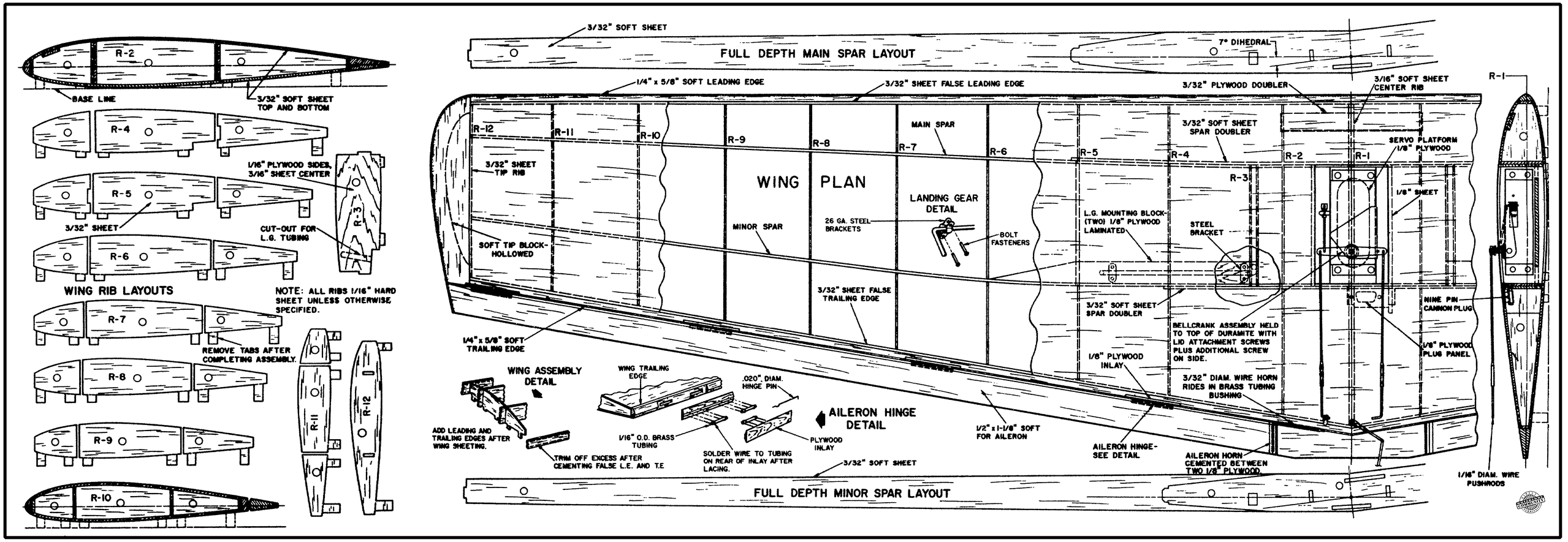

FUSELAGE SIDE VIEW
NOTE: ALL BOLTS USED SCREW INTO "T" NUTS.
COWL DETAIL
FIBERGLASS ENGINE COWL
PLYWOOD RETAINING RING POLYESTERED TO COWL CONTAINS "T" NUTS
SUFFICIENT SPACE FOR BOLT HEAD
COWL LOCATORS
1/8" PLYWOOD INLAY INTO HATCH AT HOLD DOWN POSITION
ALUM "O" RING RETAINS COWL TO FUSELAGE
HATCH JOINT LINE
HATCH HOLDS COWL DOWN
1/8" PLYWOOD FIREWALL
ENGINE MOUNTS
FUEL TANK
COWL LOCATORS
3/16" DIAM. DOWEL HATCH PINS
1/8" HARD SHEET DOUBLER LONGITUDINAL GRAIN, INLAY INTO 1/8" SOFT DOUBLE SHEET CROSSGRAINED.
COMMERCIAL TYPE PLASTIC CANOPY
1/8" SOFT SHEET FUSELAGE SIDE DOUBLERS FORWARD OF THIS LINE - DIAGONAL GRAIN.
1/8" PLYWOOD CRUTCH-INLAY INTO 1/8" SOFT DOUBLE SHEET CROSSGRAINED.
1/8" SHEET DOUBLER
3/8" SHEET TOP CROSSGRAINED
STAB CRUTCH - 1/8" HARD SHEET
1/4" DIAM. DOWEL PUSHRODS
1/16" DIAM. WIRE
2° INCIDENCE
HINGE CONSTRUCTION SAME AS STAB
1/4" SHEET BALSA DORSAL, FIN AND RUDDER
FIN
BRASS TUBING
RUDDER HORN DEVELOPMENT
RUDDER
2° DOWNTHRUST
1/2" x 5/8"
3/8" x 1/2"
5/16" DIAM. DOWEL
C.G.
℄ WIRE PULL ROD FOR ON-OFF SWITCH
DPDT SLIDE TYPE KNIFE SWITCH
3/16" x 3/8" LONGERON
1/8" PLYWOOD INLAY RUDDER HORN MOUNT
1/8" PLYWOOD TAILSKID MOUNT INSET
WOOD SCREW
ALUM. HATCH TONGUE CEMENTED TO HATCH.
THREAD BINDING
NOSE SECTION BUILT FROM SOFT BLOCKS
SUGGESTED MOTOR COMPARTMENT DRAIN HOLE
1/2" SHEET
5/32" DIAM. WIRE L.G. STRUT
2° INCIDENCE
3/8" SQ. FILLER - 45° BEVEL
4 COIL TURNS AROUND 1/4" ARBOR PERMITS FULL DEFLECTION TO FUSELAGE.
12-6 PROP
1/8" DIA. WIRE
BRAKE BELLCRANK SETS BRAKES ON "DOWN" ELEVATOR.
1/8" x 1/4" UPRIGHTS
3/32" SHEET BOTTOM CROSSGRAINED
BALSA FILLET
TAILSKID FOR RUDDER PROTECTION
1/8" PLYWOOD ACCESS HATCH RETAINED WITH SKID ATTACHING SCREW.
NOTE: USE BALSA UNLESS OTHERWISE SPECIFIED.
LAYOUT FOR SWITCH MOUNTING BRACKET
1/16" DIAM. WIRE
3/32" O.D. BRASS TUBING
SILVER SOLDER
BRAKE TIE
TRIM BAR DETAIL
1/16" DIAM. WIRE RUDDER PUSHROD
TRIM AFTER COMPLETING ASSEMBLY
1/8" SHEET
BELLCRANK PANEL OUTLINE 1/8" PLYWOOD
3/32" SHEET FUSELAGE SIDES
3/8" SQ. BALSA BEVELED FOR BOTTOM LONGERONS.
5/32" O.D. BRASS TUBING BEARING
NOSE STRUT DETAIL
SOLDER RETAINING WASHERS
.19 CASTER
SOLDER RETAINING WASHERS
3" DIAM. NYLON HUB WHEELS
MAIN STRUT DETAIL
FUSELAGE TOP VIEW
2" DIAM. SPINNER
8 OZ. CLUNK TANK
4°
BEAM MOUNTS FROM 3/8" MAPLE
STEERABLE NOSE GEAR AND THROTTLE CONDUIT 3/32" O.D. ALUM. TUBING
1/8" PLYWOOD BELLCRANK PANEL
1/32" DIAM. WIRE THROTTLE ROD
5/16" DIAM. WING DOWEL
ALL SERVOS, EXCEPT MOTOR ARE "BONNER" DURAMITES
3/32" SHEET FUSELAGE SIDES
RUDDER PUSHROD
ELEVATOR PUSHROD
BRAMCO "COMPETITION 10"
BOTTOM LONGERON
1/16" DIAM. WIRE
26 GA. STEEL
BREAK-AWAY MOUNTS FROM 1/8" ANYTHING ALUM. USED ORIGINALLY
1/8" PLYWOOD HATCH HOLD DOWNS
1/32" DIAM. WIRE NOTE: NO SPRINGS NECESSARY WITH SUGGESTED CASTOR
26 GA. STEEL BELLCRANK
1/4" SQ. MAPLE SERVO RAILS AND BELLCRANK PANEL RAIL
NOTE: ALL FUSELAGE BULKHEADS ARE 1/8" PLYWOOD
K & B .45 ENGINE
4° SIDE THRUST
1/8" PLYWOOD
HILLCREST 6 PENCELL BAT. BOX
LONGERONS FROM 1/2" SQ. AND BEVELED
USE SAME SCREWS OF SERVO TO ATTACH TO PANEL
1/16" DIAM. WIRE - LEAD SOLDER TIPS AFTER INSTALLING TO RETAIN.
CUT AND FORM FROM 26 GA. STEEL
RECEPTICLE FOR 25 PIN CANNON PLUG
1/16" I.D., 3/32 O.D. BRASS TUBING "X" DIM. LONG. SILVER SOLDERED TO BELLCRANK
1/16" DIAM. HOLE
ENGINE MOUNT DETAIL
1/8" PLYWOOD DOUBLER
NOTCH FOR PLUG AND HARNESS FROM SERVO PANEL TO BATTERY COMPARTMENT
SERVO PANEL 1/8" PLYWOOD
HILLCREST MOTOR CONTROL SERVO
TYPICAL BELLCRANK CONSTRUCTION
SCALE IN INCHES
0 1 2 3 4 5 6 7 8 9 10 11 12
DES. BY: TOM A. BRETT
P.D.G.
SECTION E-1
E-6
1/16" SHEET PLANKING TOP AND BOTTOM
E-10
3/16" SHEET
E-9
E-8
E-7
E-6
E-5
E-4
E-3
E-2
E-8
REMOVE TABS AFTER ASSEMBLY
NOTE: 1/16" O.D. ALUM. TUBING "BIAND" HINGE PIVOTS SHOULD BE SOLDERED TO STAB AND ELEVATOR. SUGGEST FULL LENGTH HINGE. HINGE PIN FROM .010" DIAM. WIRE.
TAPER TO TIP AS SHOWN
TRAILING EDGE LAYOUT
PLAN
STAB
SILVER SOLDER ELEVATOR HORN
E-4 3/32" SHEET
3/32" I.D. ALUM. TUBING
3/32" DIAM. MUSIC WIRE
ALL RIBS 1/16" SHEET EXCEPT WHERE NOTED
1/2" PLYWOOD LAMINATED CEMENTED TO ELEVATOR HORN ASSEMBLY
E-10
E-5
E-4
E-7
E-3
E-2
3/8" SQ. L.E.
3/16" SQ. STRIP
3/16" SQ. STRIP
3/16" x 1/4" STAB. T.E.
1/4" SHEET ELEVATOR


R-2
BASE LINE
3/32" SOFT SHEET TOP AND BOTTOM
R-4
1/16" PLYWOOD SIDES, 3/16" SHEET CENTER
R-5
3/32" SHEET
CUT-OUT FOR L.G. TUBING
R-3
R-6
WING RIB LAYOUTS
NOTE: ALL RIBS 1/16" HARD SHEET UNLESS OTHERWISE SPECIFIED.
R-7
REMOVE TABS AFTER COMPLETING ASSEMBLY.
R-8
R-11
R-12
R-9
R-10
3/32" SOFT SHEET
FULL DEPTH MAIN SPAR LAYOUT
7° DIHEDRAL
1/4" x 5/8" SOFT LEADING EDGE
3/32" SHEET FALSE LEADING EDGE
3/32" PLYWOOD DOUBLER
3/16" SOFT SHEET CENTER RIB
R-1
R-12
R-11
R-10
R-9
R-8
R-7
MAIN SPAR
R-6
R-5
R-4
R-3
R-2
R-1
3/32" SOFT SHEET SPAR DOUBLER
SERVO PLATFORM 1/8" PLYWOOD
3/32" SHEET TIP RIB
WING PLAN
LANDING GEAR DETAIL
1/8" SHEET
MINOR SPAR
26 GA. STEEL BRACKETS
BOLT FASTENERS
L.G. MOUNTING BLOCK-(TWO) 1/8" PLYWOOD LAMINATED
STEEL BRACKET
SOFT TIP BLOCK-HOLLOWED
3/32" SHEET FALSE TRAILING EDGE
3/32" SOFT SHEET SPAR DOUBLER
NINE PIN CANNON PLUG
BELLCRANK ASSEMBLY HELD TO TOP OF DURAMITE WITH LID ATTACHMENT SCREWS PLUS ADDITIONAL SCREW ON SIDE.
1/4" x 5/8" SOFT TRAILING EDGE
1/8" PLYWOOD PLUG PANEL
1/8" PLYWOOD INLAY
3/32" DIAM. WIRE HORN RIDES IN BRASS TUBING BUSHING
WING ASSEMBLY DETAIL
WING TRAILING EDGE
.020" DIAM. HINGE PIN
AILERON HINGE DETAIL
ADD LEADING AND TRAILING EDGES AFTER WING SHEETING.
1/16" O.D. BRASS TUBING
PLYWOOD INLAY
1/2" x 1-1/8" SOFT FOR AILERON
AILERON HINGE-SEE DETAIL
AILERON HORN CEMENTED BETWEEN TWO 1/8" PLYWOOD.
TRIM OFF EXCESS AFTER CEMENTING FALSE L.E. AND T.E.
SOLDER WIRE TO TUBING ON REAR OF INLAY AFTER LACING.
3/32" SOFT SHEET
FULL DEPTH MINOR SPAR LAYOUT
1/16" DIAM. WIRE PUSHRODS