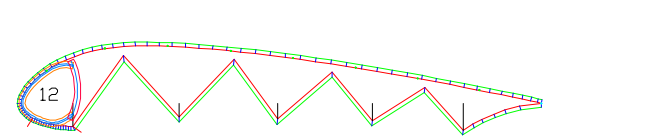
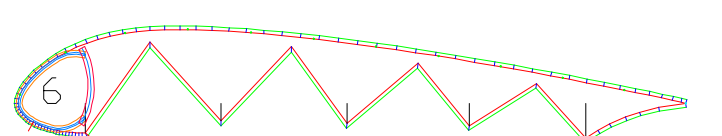
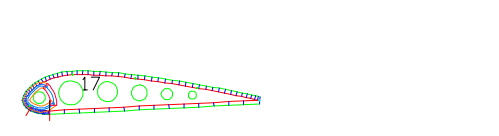
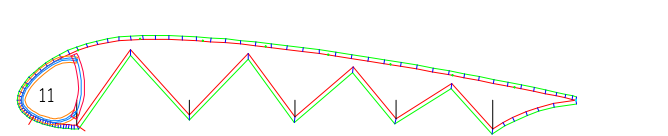
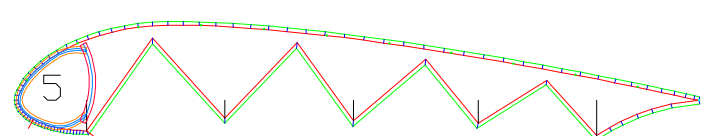
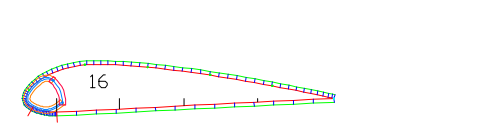
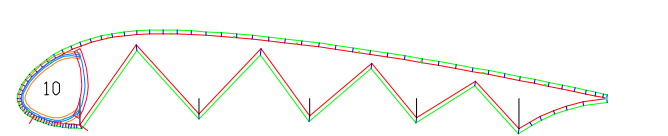
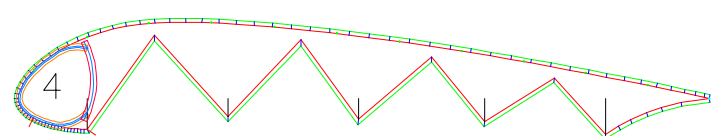
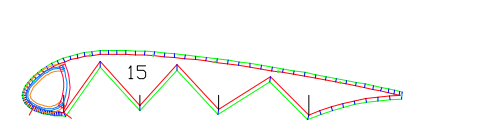
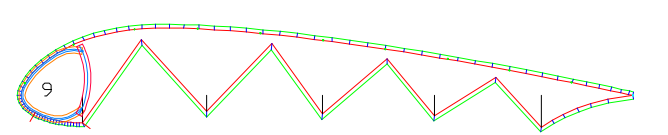
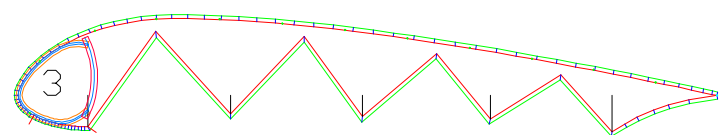
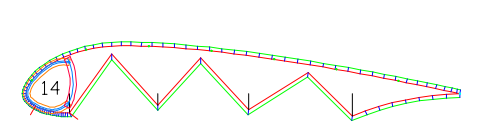
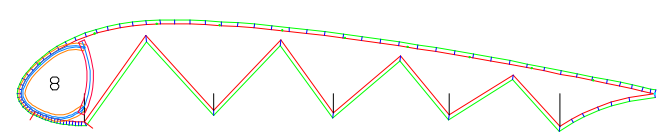
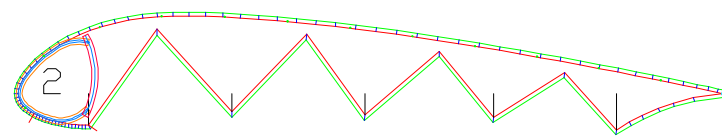
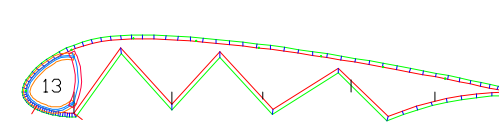
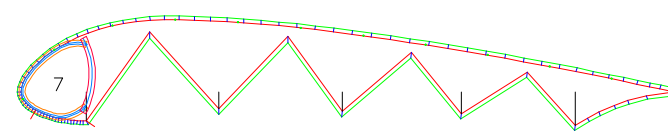
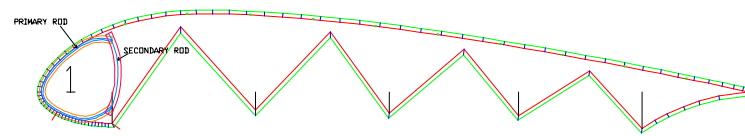
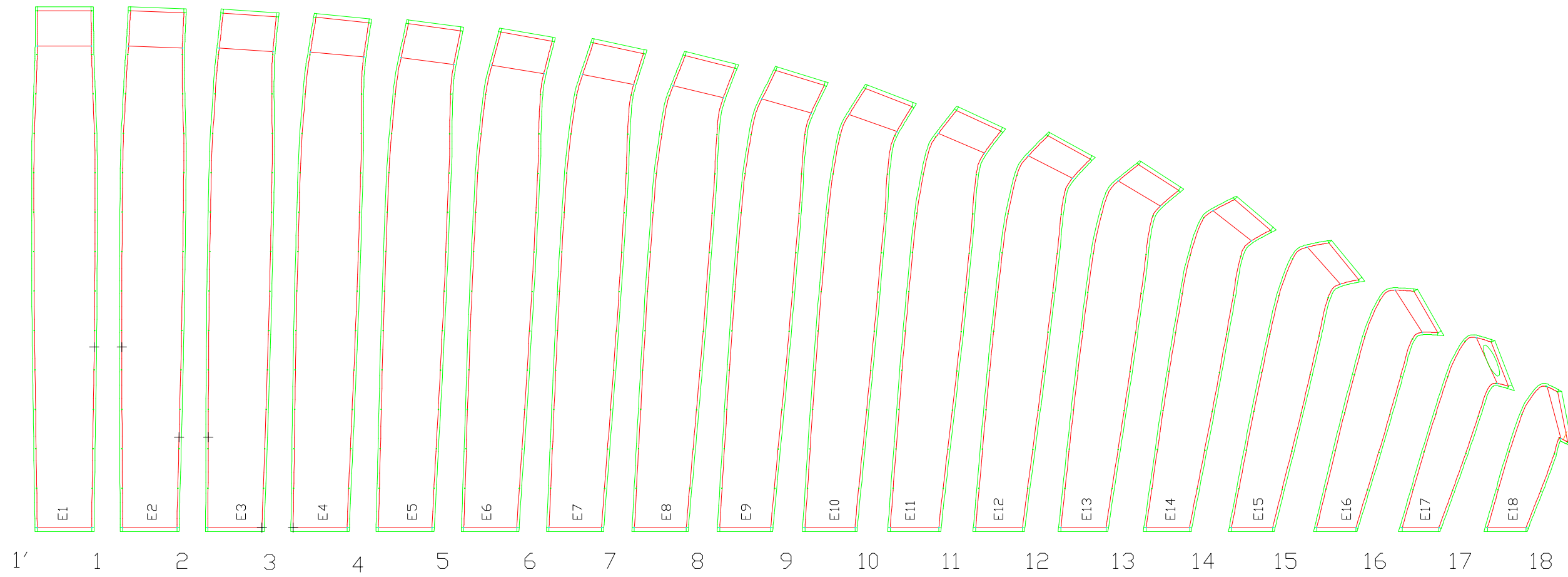


Laboratori d'envol BHL4-24
 Flat area (m²) : 24.04
 Flat span (m) : 10.62
 Flat aspect ratio : 4.69
 Cells number : 35
 Version : 20201209

1-1 PLANFORM AND VAULT



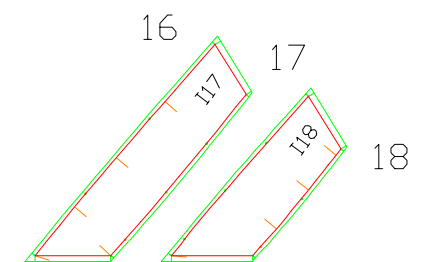
Leading edge



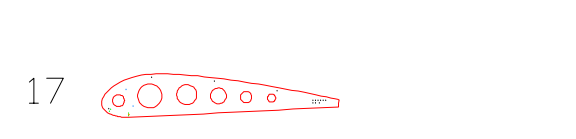
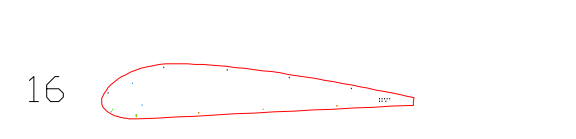
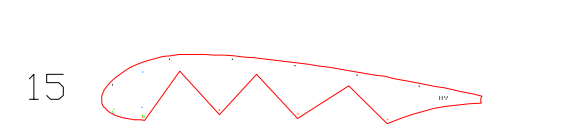
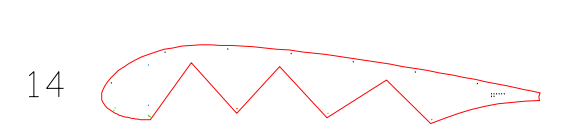
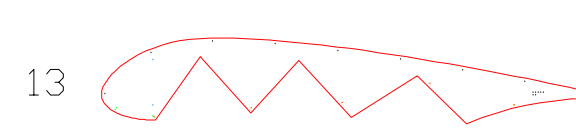
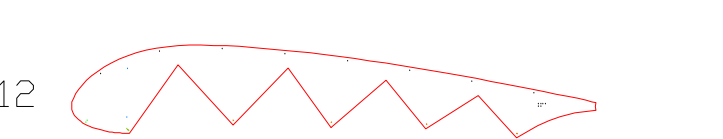
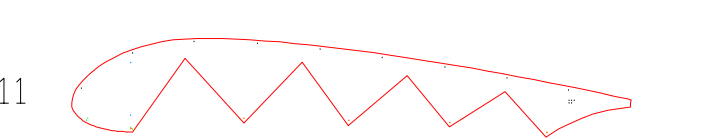
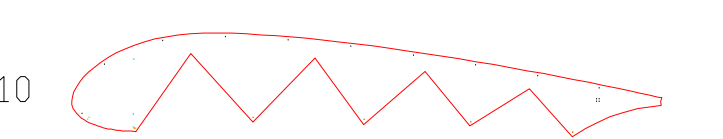
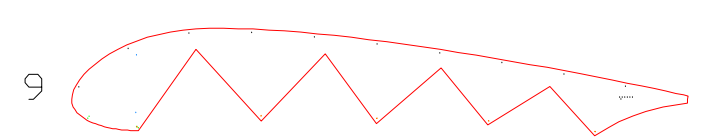
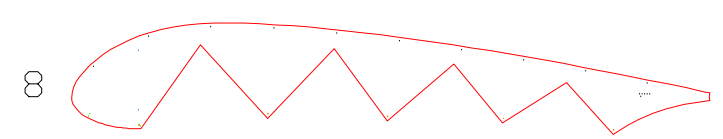
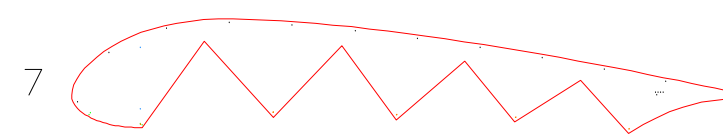
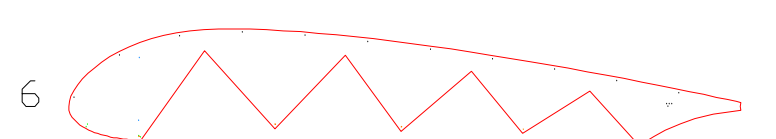
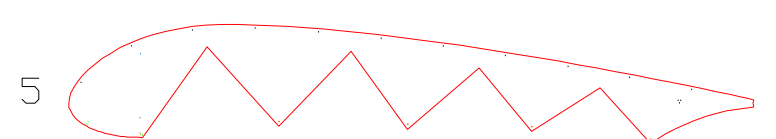
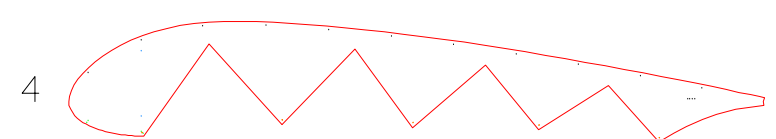
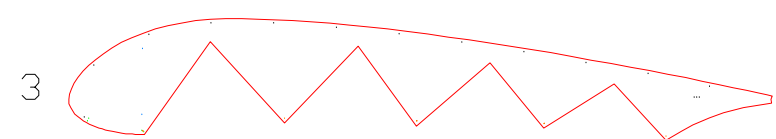
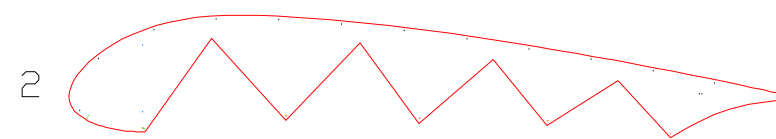
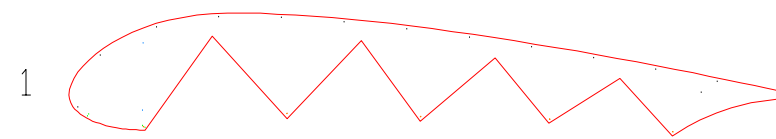
Trailing edge

1-3 EXTRADOS PANELS

Trailing edge

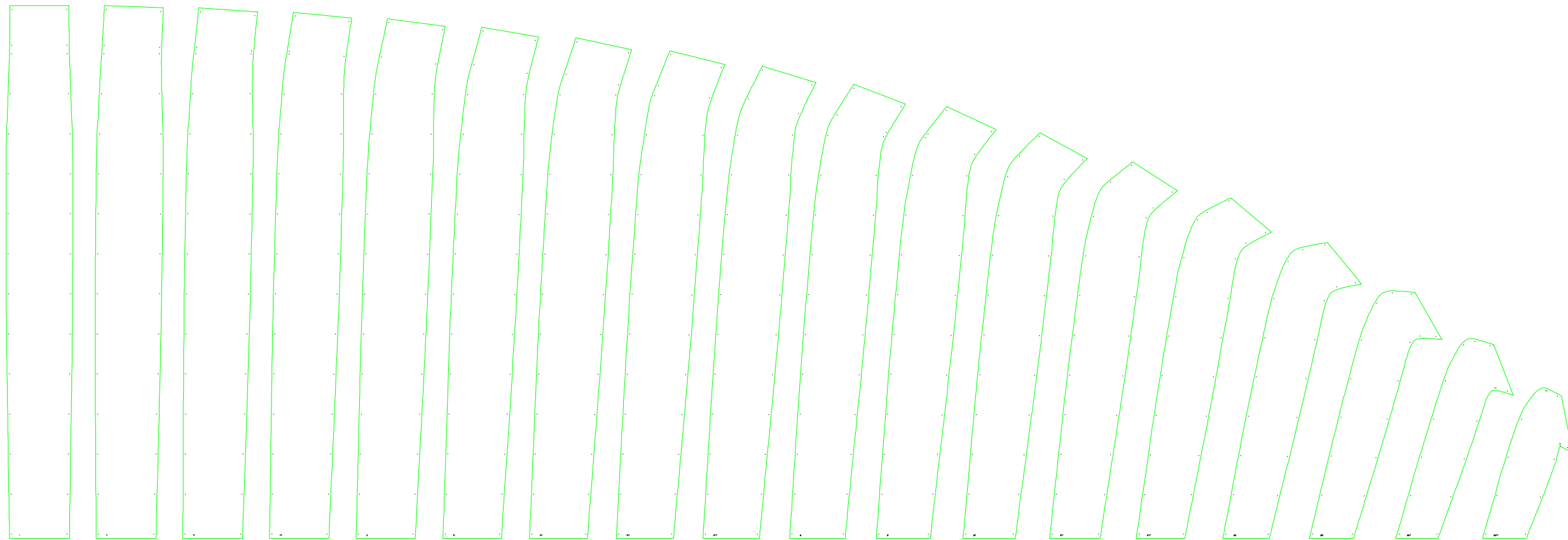


Leading edge



1-4 RIBS (FOR CUTTING TABLE)

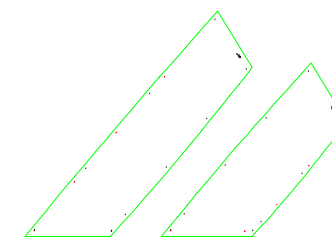
Leading edge



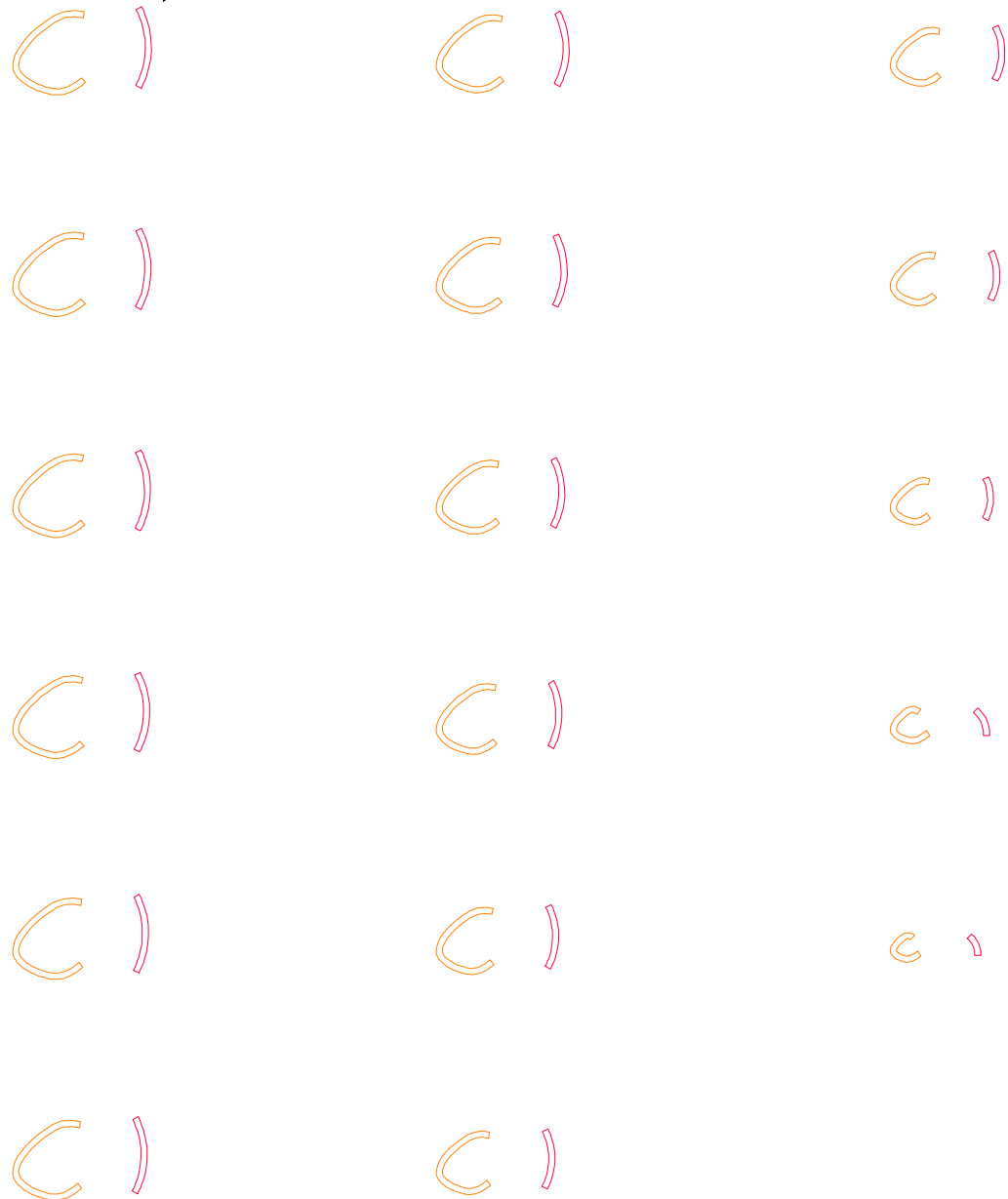
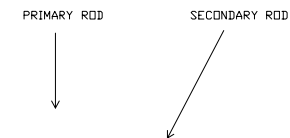
Trailing edge

1-5 EXTRADOS PANELS (FOR CUTTING TABLE)

Trailing edge



Leading edge



List of primary nylon rods

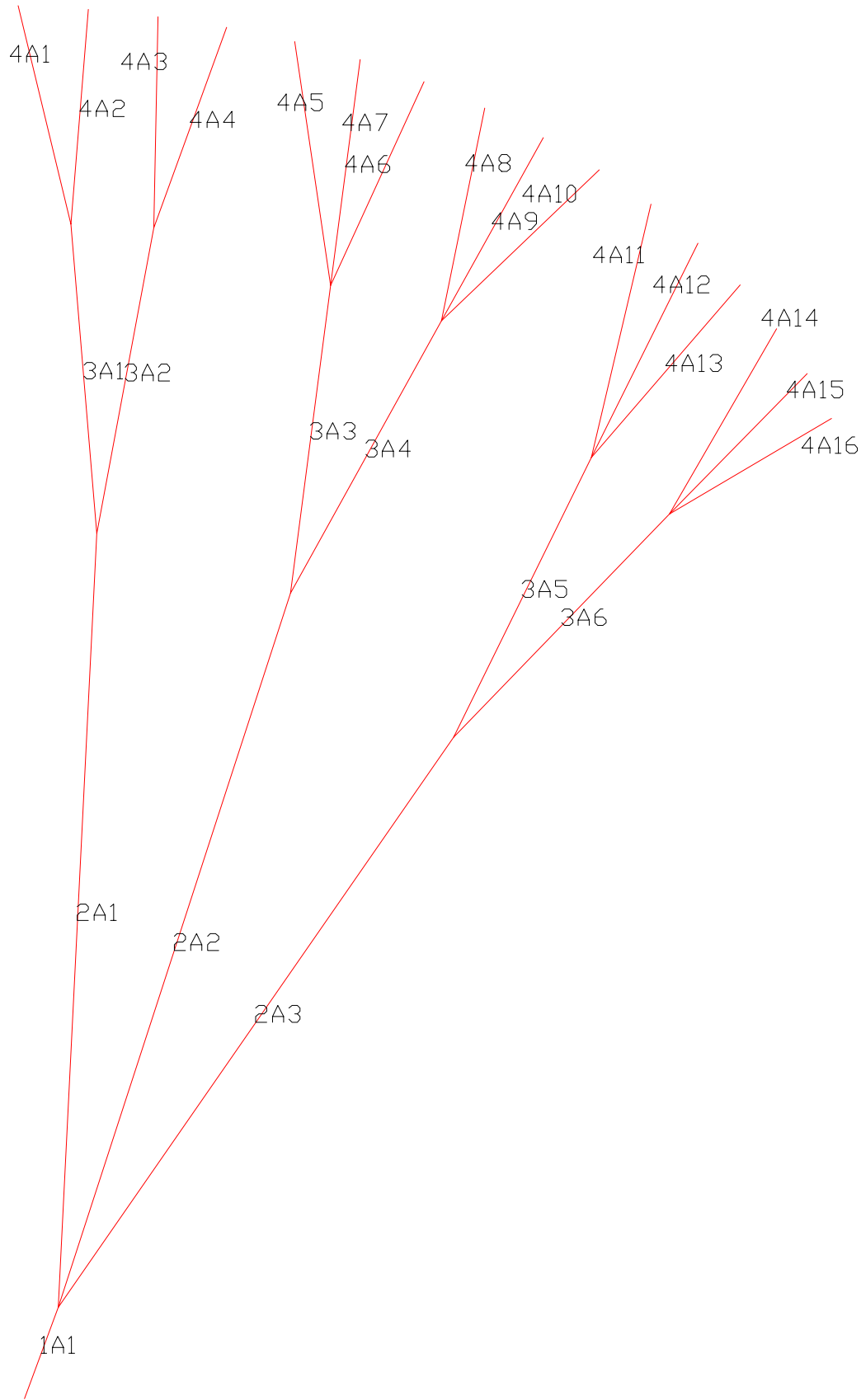
Jonc	1	72.4
Jonc	2	72.1
Jonc	3	71.6
Jonc	4	70.8
Jonc	5	69.7
Jonc	6	68.4
Jonc	7	66.8
Jonc	8	64.9
Jonc	9	62.7
Jonc	10	60.0
Jonc	11	56.8
Jonc	12	53.2
Jonc	13	49.2
Jonc	14	44.4
Jonc	15	38.5
Jonc	16	33.1
Jonc	17	25.1

List of secondary nylon rods

Jonc	1	33.3
Jonc	2	33.1
Jonc	3	32.9
Jonc	4	32.5
Jonc	5	32.0
Jonc	6	31.4
Jonc	7	30.6
Jonc	8	29.8
Jonc	9	28.7
Jonc	10	27.4
Jonc	11	26.0
Jonc	12	24.3
Jonc	13	22.4
Jonc	14	20.2
Jonc	15	17.3
Jonc	16	11.8
Jonc	17	8.8

Line - Label - Length

1	1A1	47.0
2	2A1	373.7
3	2A2	361.6
4	2A3	333.8
5	3A1	149.9
6	3A2	149.9
7	3A3	149.8
8	3A4	149.8
9	3A5	149.8
10	3A6	149.9
11	4A1	108.5
12	4A2	104.0
13	4A3	102.1
14	4A4	102.9
15	4A5	119.0
16	4A6	109.8
17	4A7	107.7
18	4A8	104.7
19	4A9	100.8
20	4A10	105.0
21	4A11	126.2
22	4A12	115.6
23	4A13	109.8
24	4A14	103.1
25	4A15	94.8
26	4A16	93.9

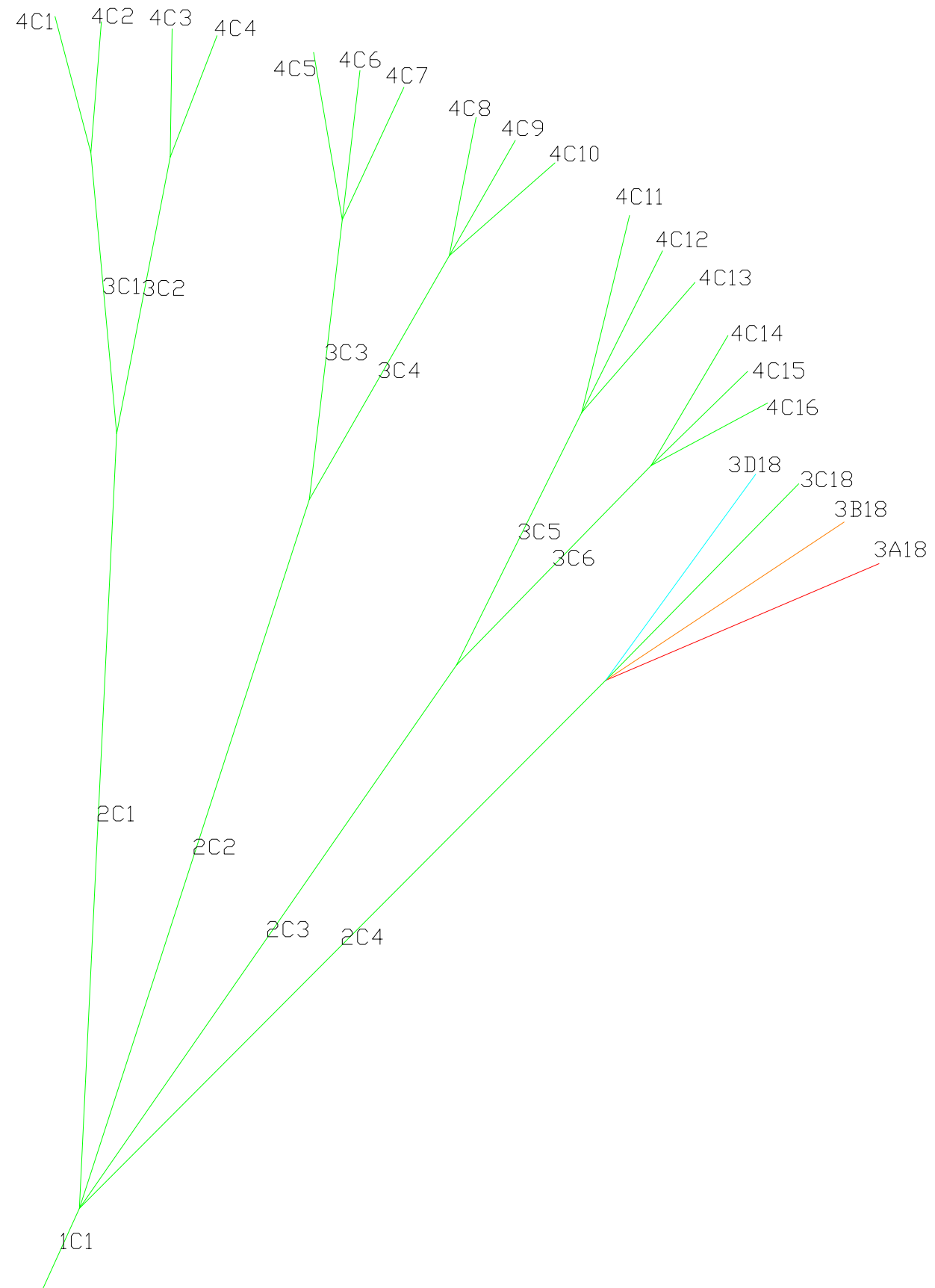


27	1B1	47.0
28	2B1	413.7
29	2B2	398.6
30	2B3	355.8
31	3B1	149.9
32	3B2	149.9
33	3B3	149.8
34	3B4	149.8
35	3B5	149.8
36	3B6	149.9
37	4B1	72.1
38	4B2	67.1
39	4B3	65.3
40	4B4	66.6
41	4B5	86.9
42	4B6	76.5
43	4B7	74.5
44	4B8	71.6
45	4B9	67.7
46	4B10	73.0
47	4B11	106.2
48	4B12	94.9
49	4B13	88.6
50	4B14	81.1
51	4B15	73.4
52	4B16	71.5

3-3 LINES B

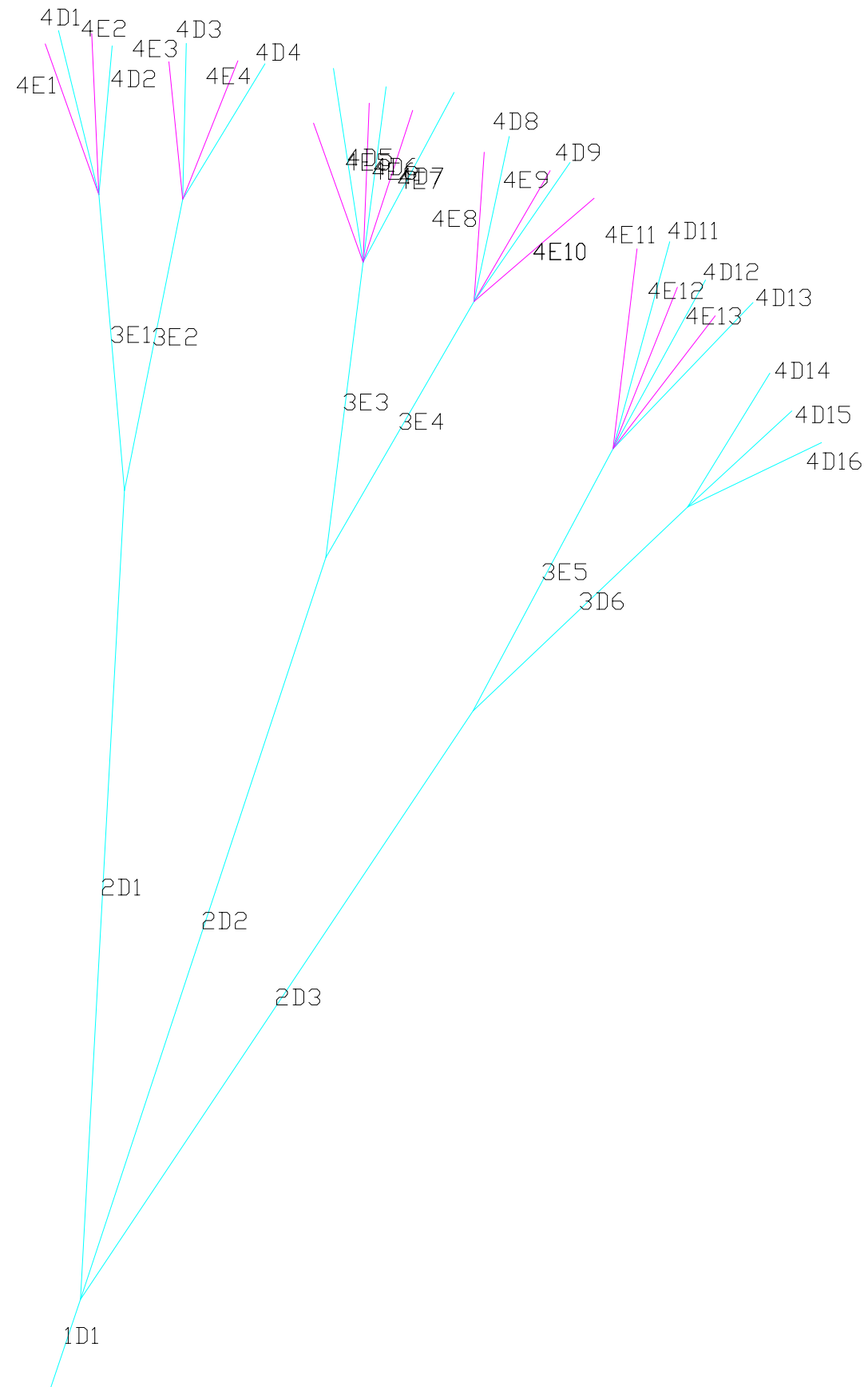
Line - Label - Length

53	1C1	47.0
54	2C1	412.9
55	2C2	396.8
56	2C3	353.9
57	2C4	403.0
58	3C1	149.9
59	3C2	149.9
60	3C3	149.9
61	3C4	149.9
62	3C5	149.9
63	3C6	149.9
64	3A18	151.2
65	3B18	150.0
66	3C18	151.0
67	3D18	154.0
68	4C1	75.4
69	4C2	70.3
70	4C3	68.4
71	4C4	69.6
72	4C5	90.6
73	4C6	80.4
74	4C7	78.2
75	4C8	75.3
76	4C9	71.2
77	4C10	75.5
78	4C11	108.1
79	4C12	96.6
80	4C13	92.7
81	4C14	81.1
82	4C15	73.4
83	4C16	72.9



Line - Label - Length

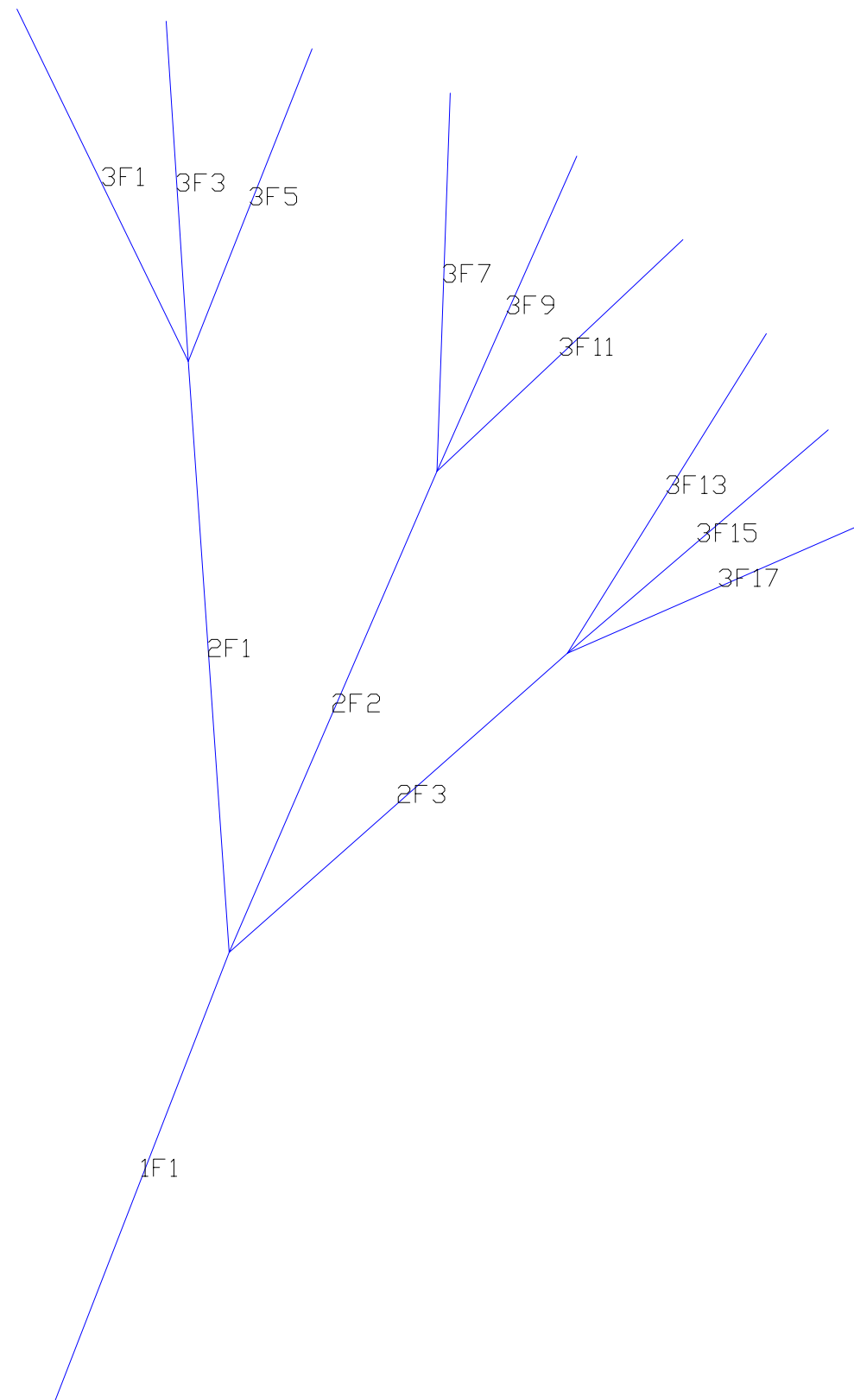
84	1D1	47.0
85	2D1	408.9
86	2D2	394.8
87	2D3	357.9
88	3E1	149.9
89	3E2	149.9
90	3E3	149.9
91	3E4	149.9
92	3E5	149.9
93	3D6	150.0
94	4D1	84.0
95	4E1	91.5
96	4D2	79.3
97	4E2	87.0
98	4D3	77.6
99	4E3	85.4
100	4D4	78.9
101	4E4	86.2
102	4D5	97.6
103	4E5	104.0
104	4D6	88.0
105	4E6	94.5
106	4D7	86.1
107	4E7	92.2
108	4E8	88.5
109	4D8	84.1
110	4E9	83.7
111	4D9	80.1
112	4E10	85.9
113	4E10	85.9
114	4D11	106.9
115	4E11	111.0
116	4D12	95.8
117	4E12	99.3
118	4D13	100.7
119	4E13	97.8
120	4D14	80.4
121	4D15	72.8
122	4D16	75.6



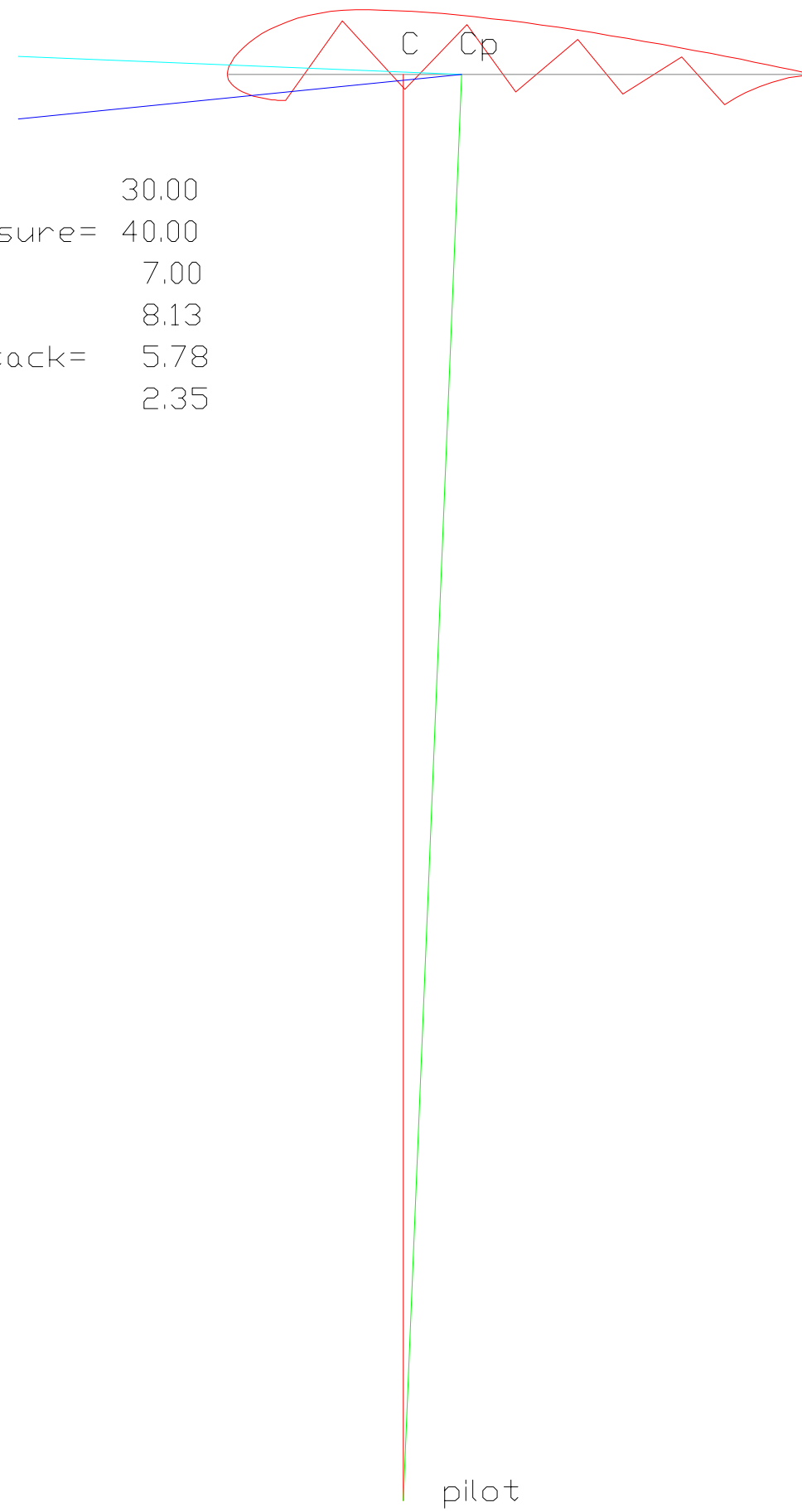
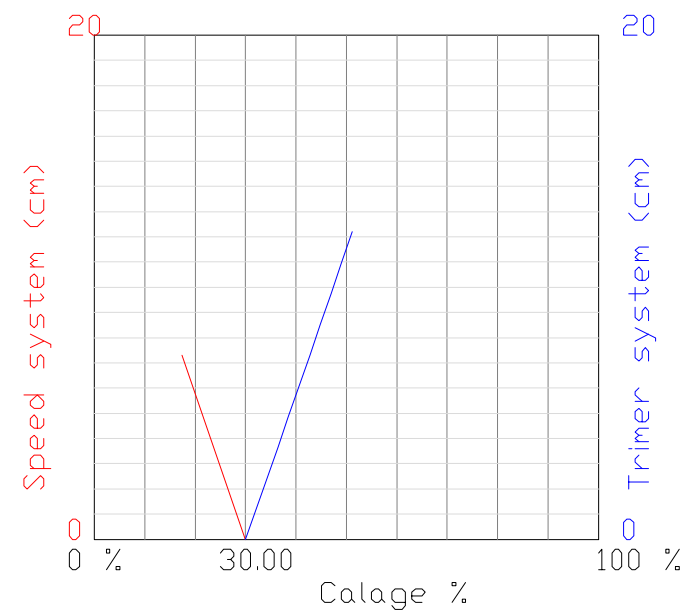
3-5 LINES D

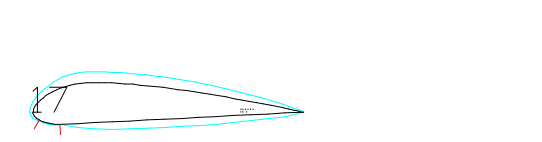
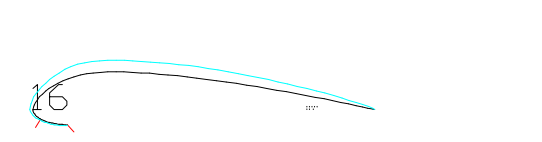
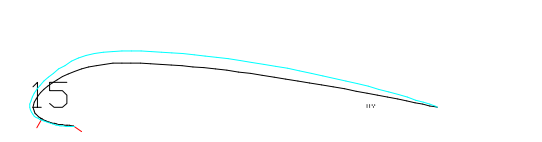
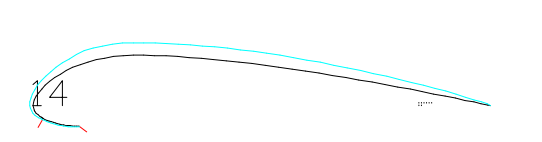
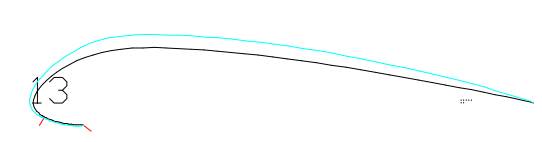
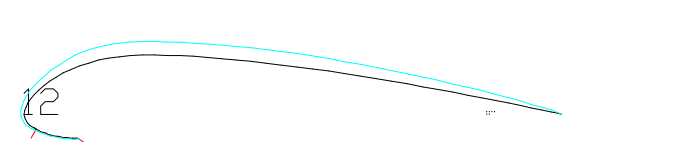
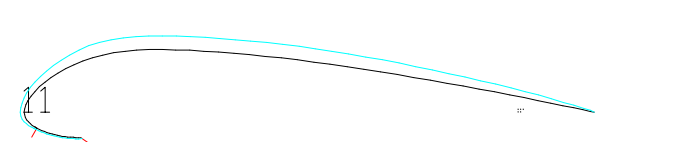
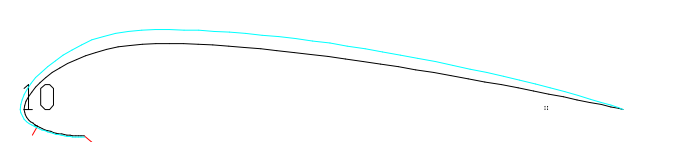
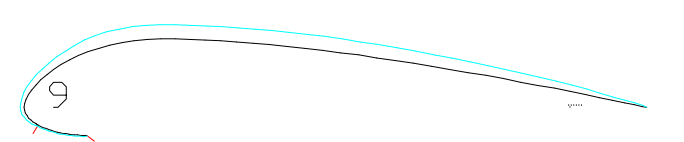
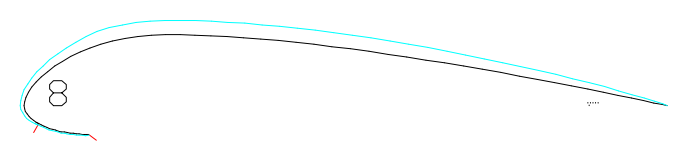
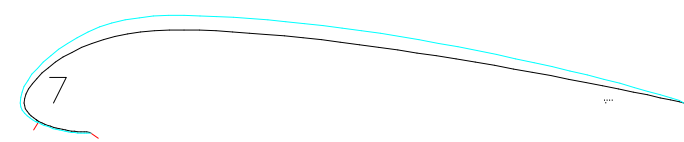
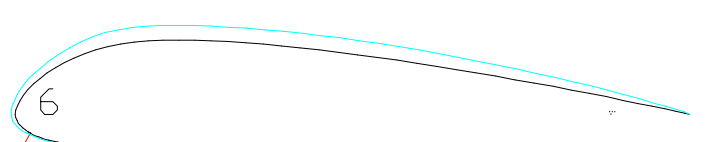
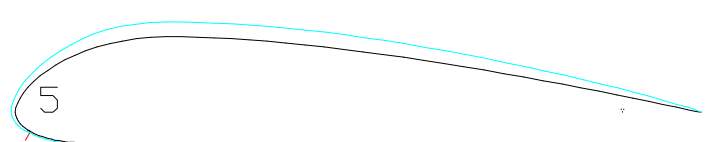
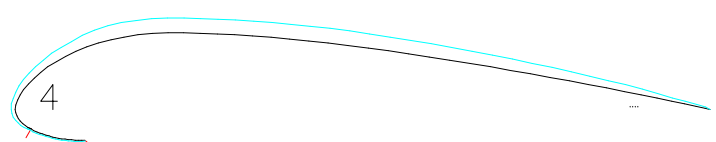
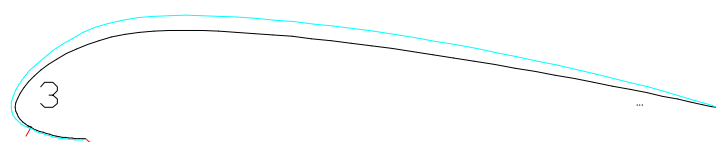
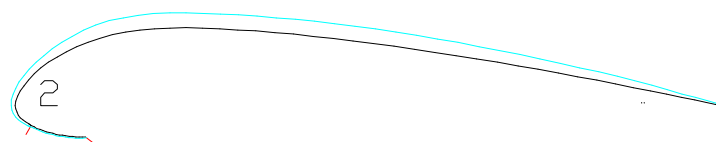
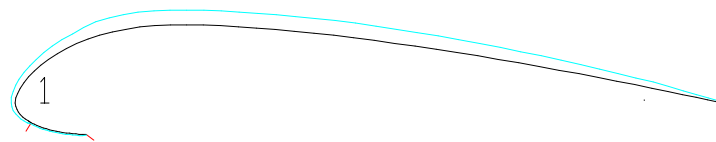
Line - Label - Length

123	1F1	230.0
124	2F1	283.0
125	2F2	250.0
126	2F3	213.0
127	3F1	185.5
128	3F3	162.7
129	3F5	160.0
130	3F7	180.5
131	3F9	164.3
132	3F11	159.7
133	3F13	179.6
134	3F15	162.3
135	3F17	154.6

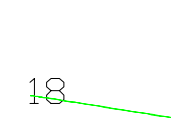
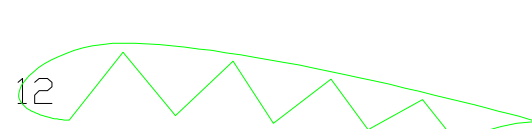
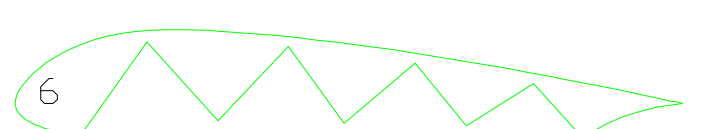
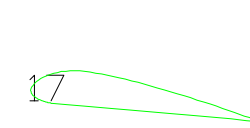
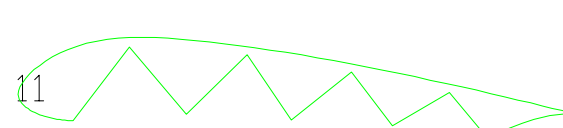
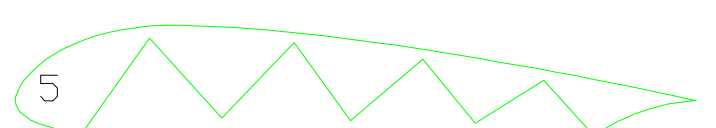
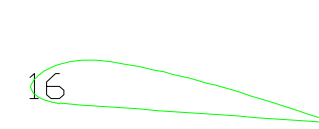
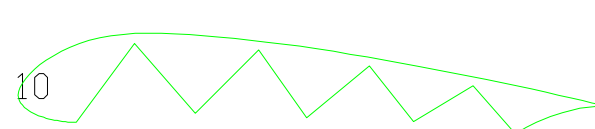
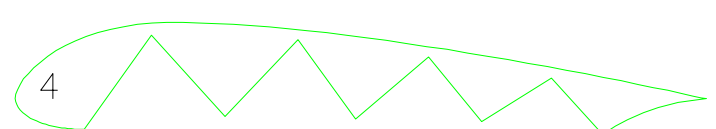
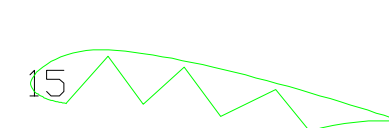
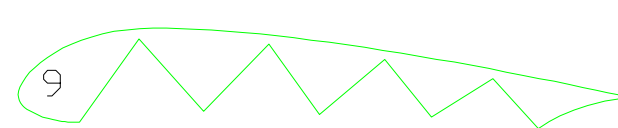
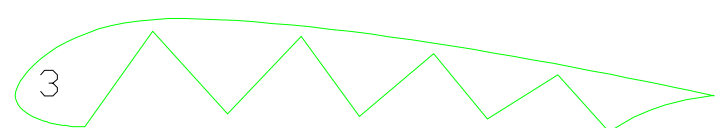
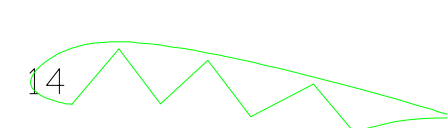
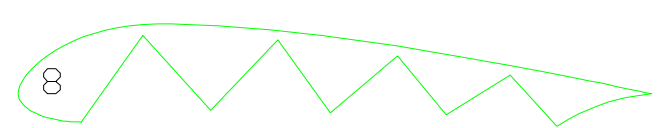
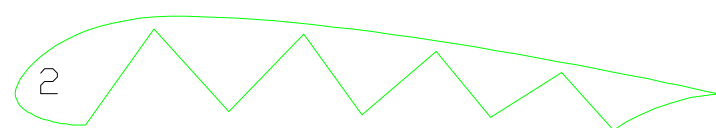
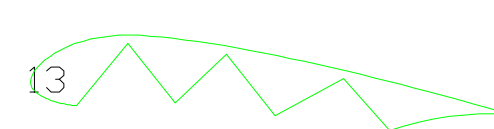
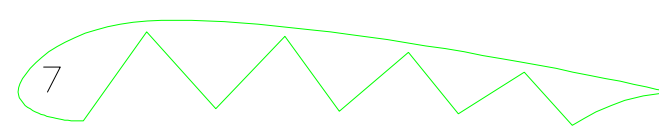
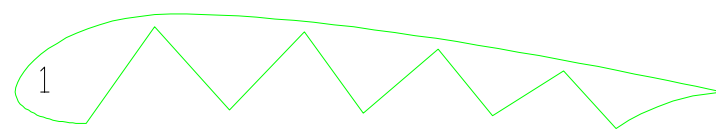


calage= 30.00
center pressure= 40.00
glide ratio= 7.00
glide angle= 8.13
angle of attack= 5.78
assiette= 2.35





1-8 MIDDLE AND MIDDLE OVALIZED AIRFOILS



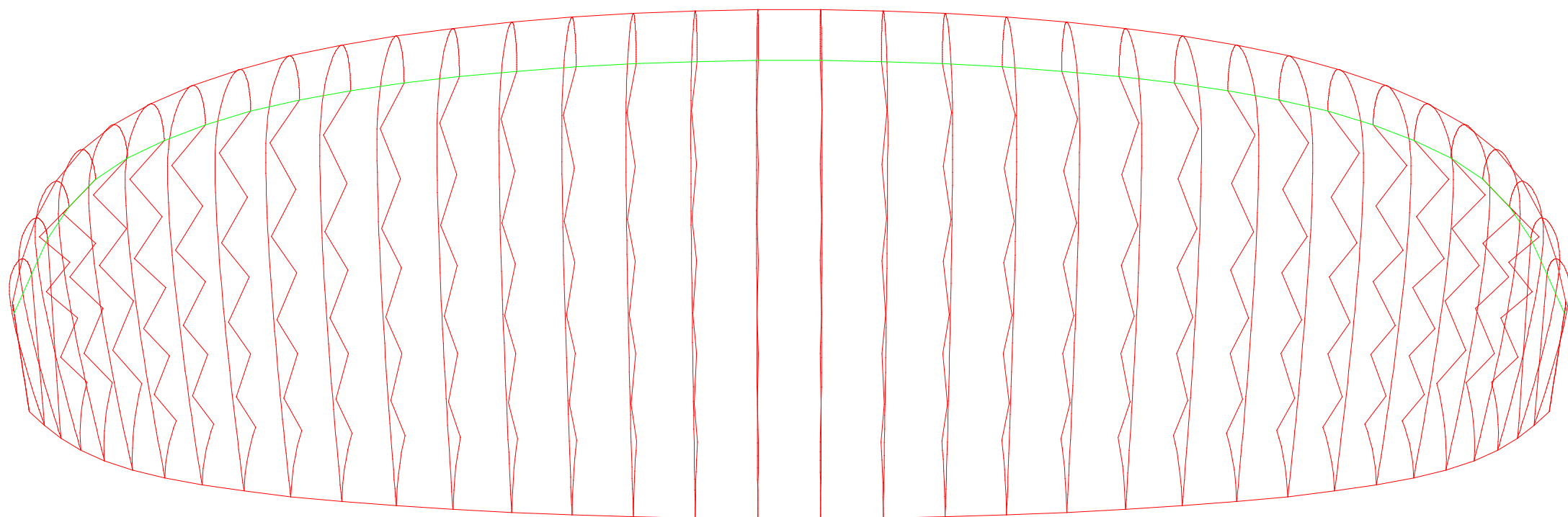
0 1


4 5

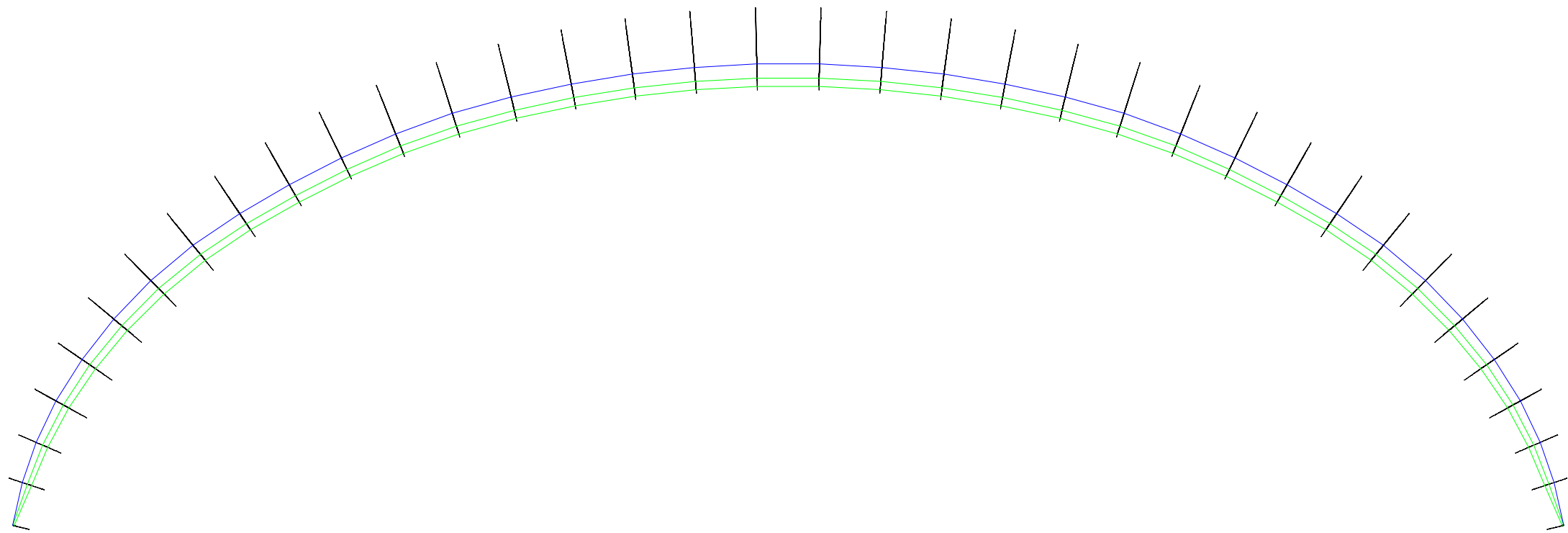

7 8


10 11

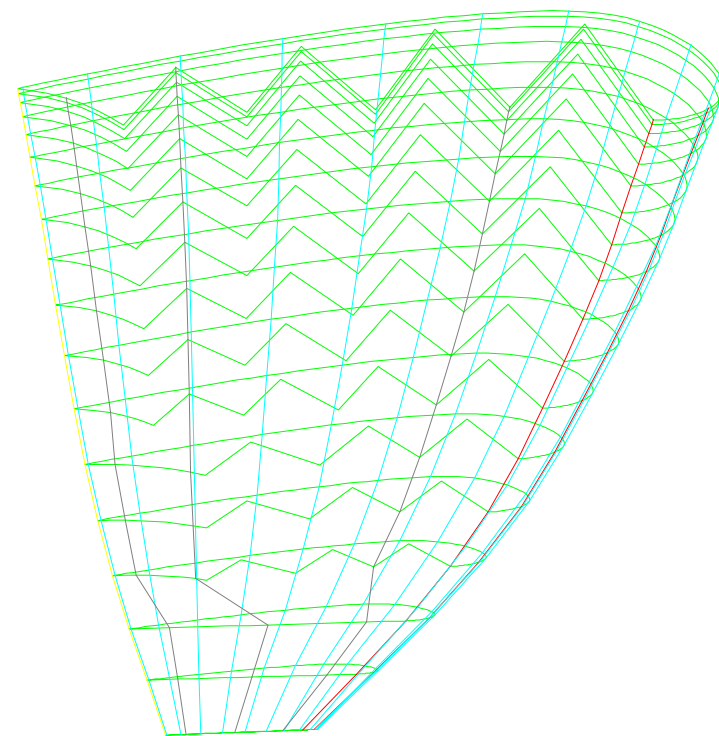

13 14

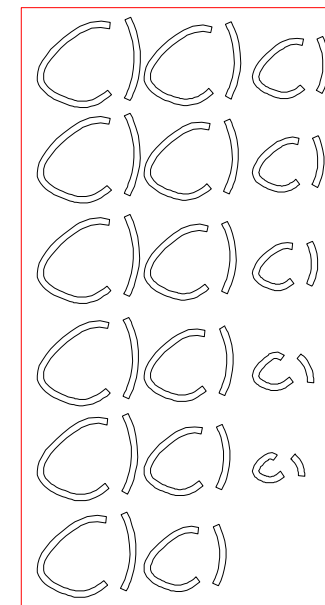
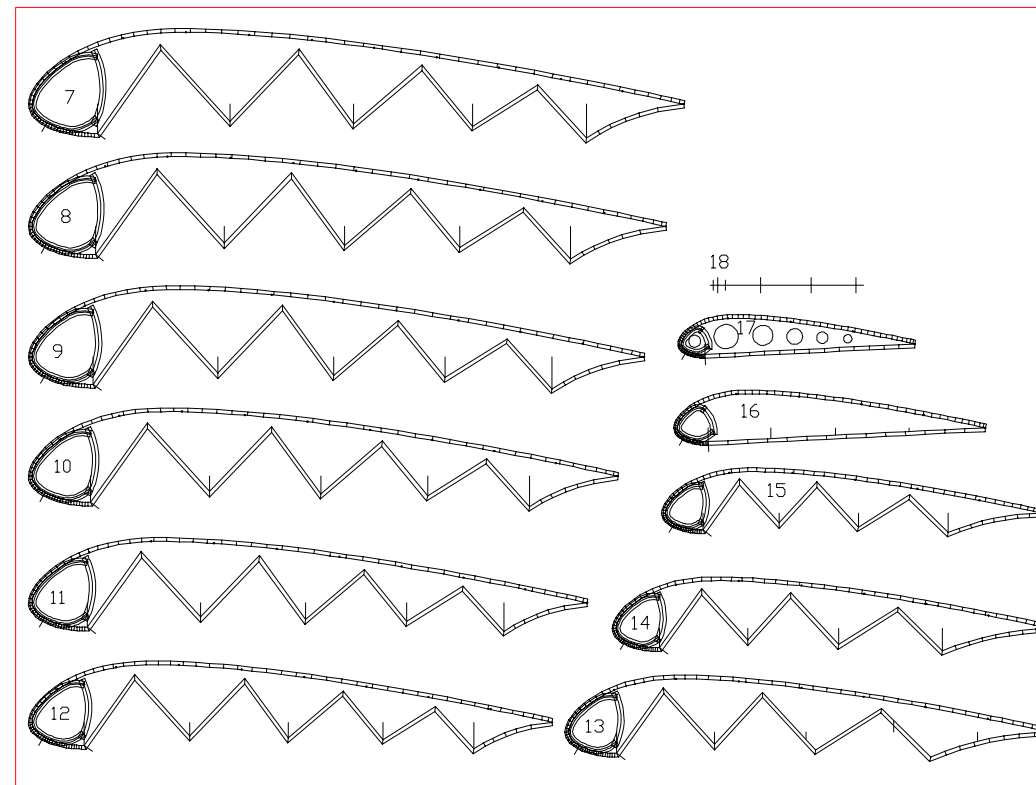
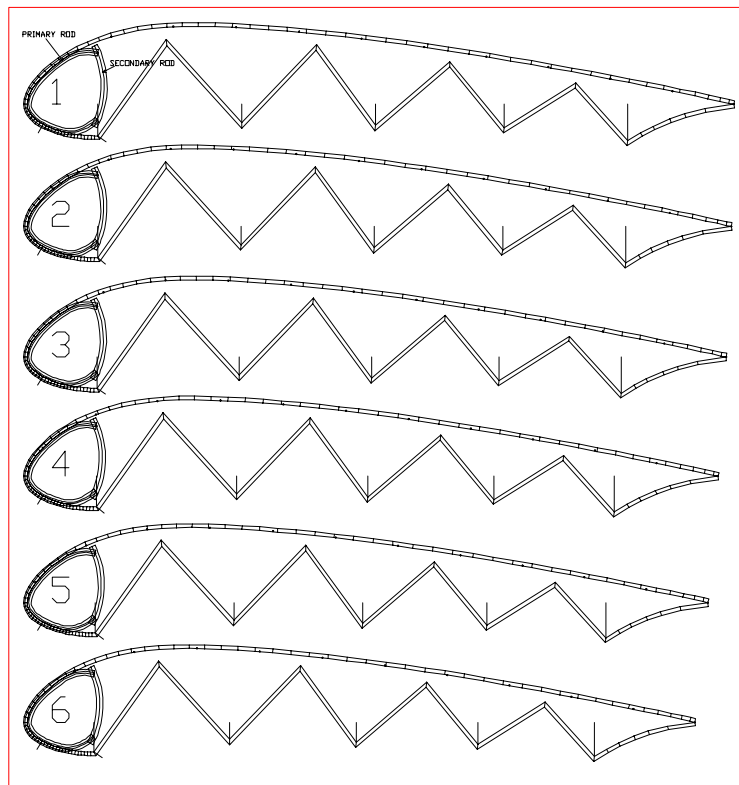
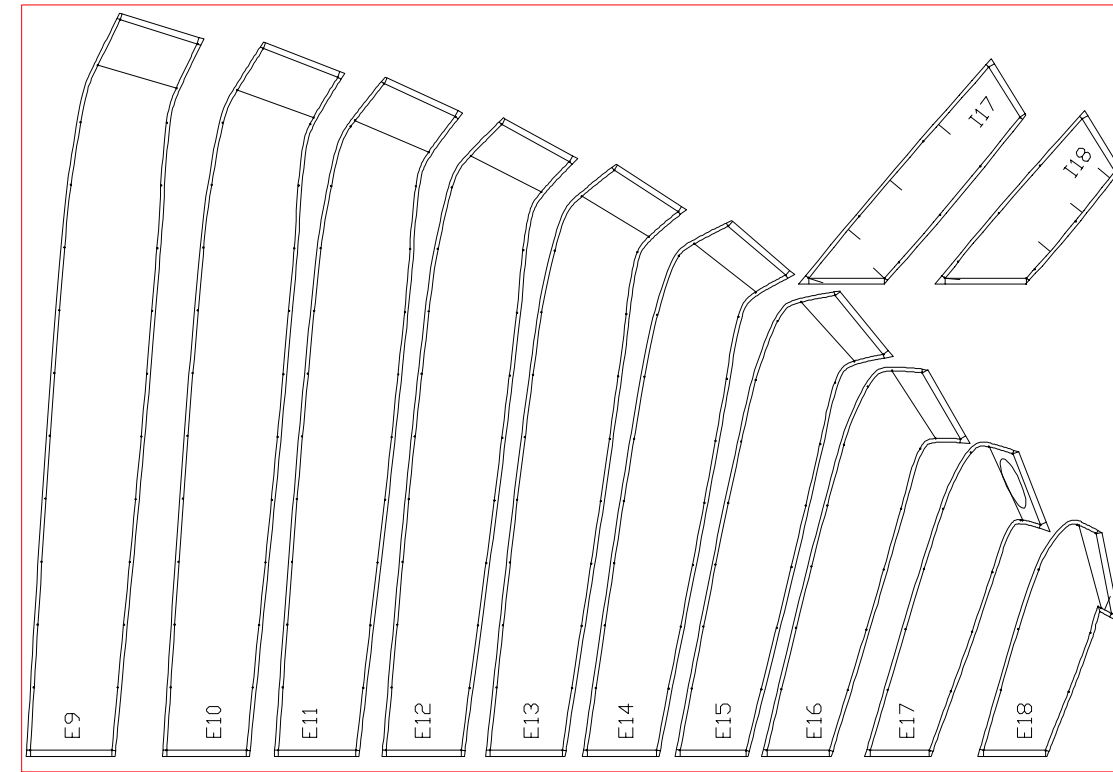
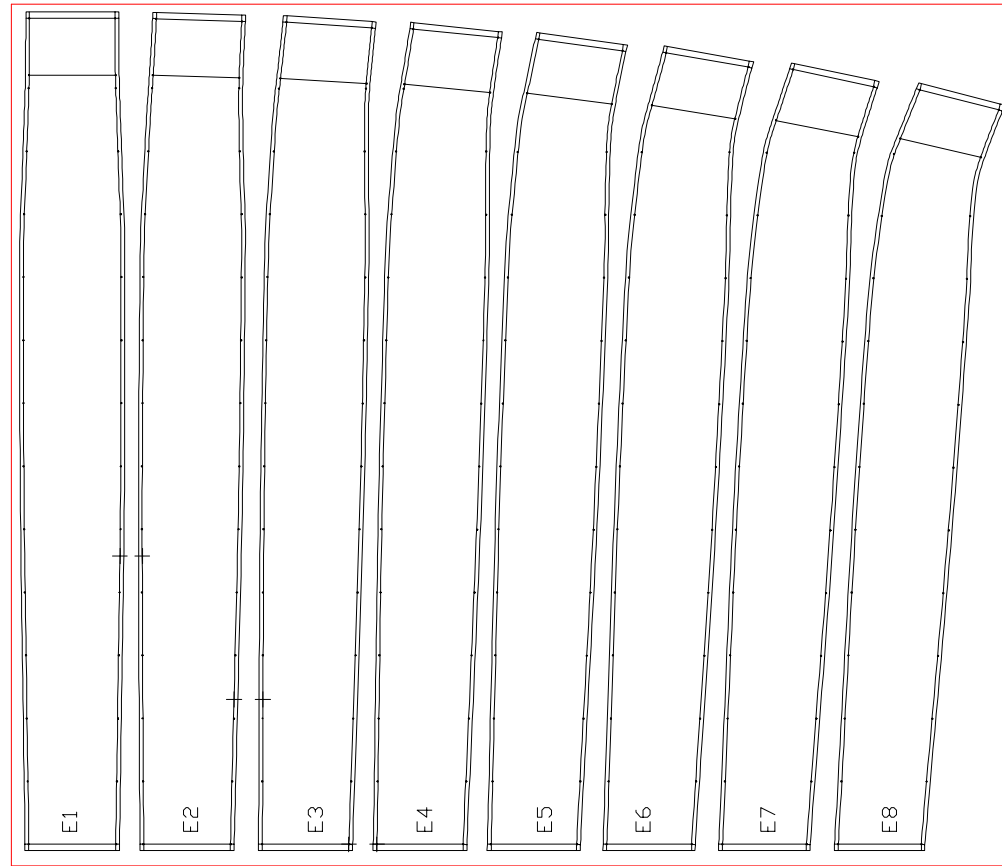
3-1 UPPER VIEW



4-1 VAULT VIEW



4-2 LATERAL VIEW



3-8 ALL PARTS TO PRINT

BRAKE_DISTRIBUTION
CENTER

WING_TIP

0.00

0.00

0.00

0.00

0.00

0.00

25.00

55.00

70.00

100.00

PLANS GENERAL NOTES

- 1-1: Planform and vault view (informative)

1-2: Ribs for plotter, one side

1-3: Extrados panels for plotter, one side

1-4: Ribs for laser cutting, one side. Units cm

1-5: Extrados for laser cutting, one side.Units cm

1-6: Middle unloaded ribs for laser cutting,
one side Units cm

1-7: Rods pockets and nylons lengths, mylars

1-8: Intermediate and ovalized airfoils
- 2-1: Calage estimation, speed and trim systems

2-2: Ribs printed with washin angle (informative)

2-3: Intrados panels for plotter, one side

2-4: Mini-ribs horizontal and diagonal

2-5: Intrados for laser cutting, one side

2-6: Full diagonal ribs laser, one side

2-7: Free
- 3-1: Upper view 3D (informative)

3-2: Lines A

3-3: Lines B

3-4: Lines C

3-5: Lines D

3-6: V-rib type-6

3-7: Free
- 4-1: Vault view (informative)

4-2: Lateral view (informative)

4-3: Brake distribution (informative)

4-4: Free

4-5: Brake lines

4-6: Free

4-7: General notes

UNITS

Main units are centimeters. Scale x10 to use in mm

WIDTHS FOR SEWING AND OFFSETS

- Lateral width in extrados (mm): 15.00

Width in leading edge ex (mm): 25.00

Width in trailing edge ex (mm): 25.00

Lateral width in intrados (mm): 15.00

Width in leading edge in (mm): 25.00

Width in trailing edge in (mm): 25.00

Lateral width in ribs (mm): 15.00

Lateral width in V-ribs (mm): 15.00

General offset lateral points (mm): 1.20
- Distance between equidistant points (cm): 25.00

“ROMAN” NUMBERS CODIFICATION

Numbering panels, ribs, mini-ribs, V-ribs

Number	1	=	.
Number	2	=	..
Number	3	=	...
Number	4	=
Number	5	=	.
Number	6	=	..
Number	7	=	...
Number	8	=
Number	9	=
Number	10	=	..
Number	11	=	..
Number	12	=	...
Number	13	=
Number	14	=
Number	15	=	...
Number	16	=
Number	17	=
Number	18	=