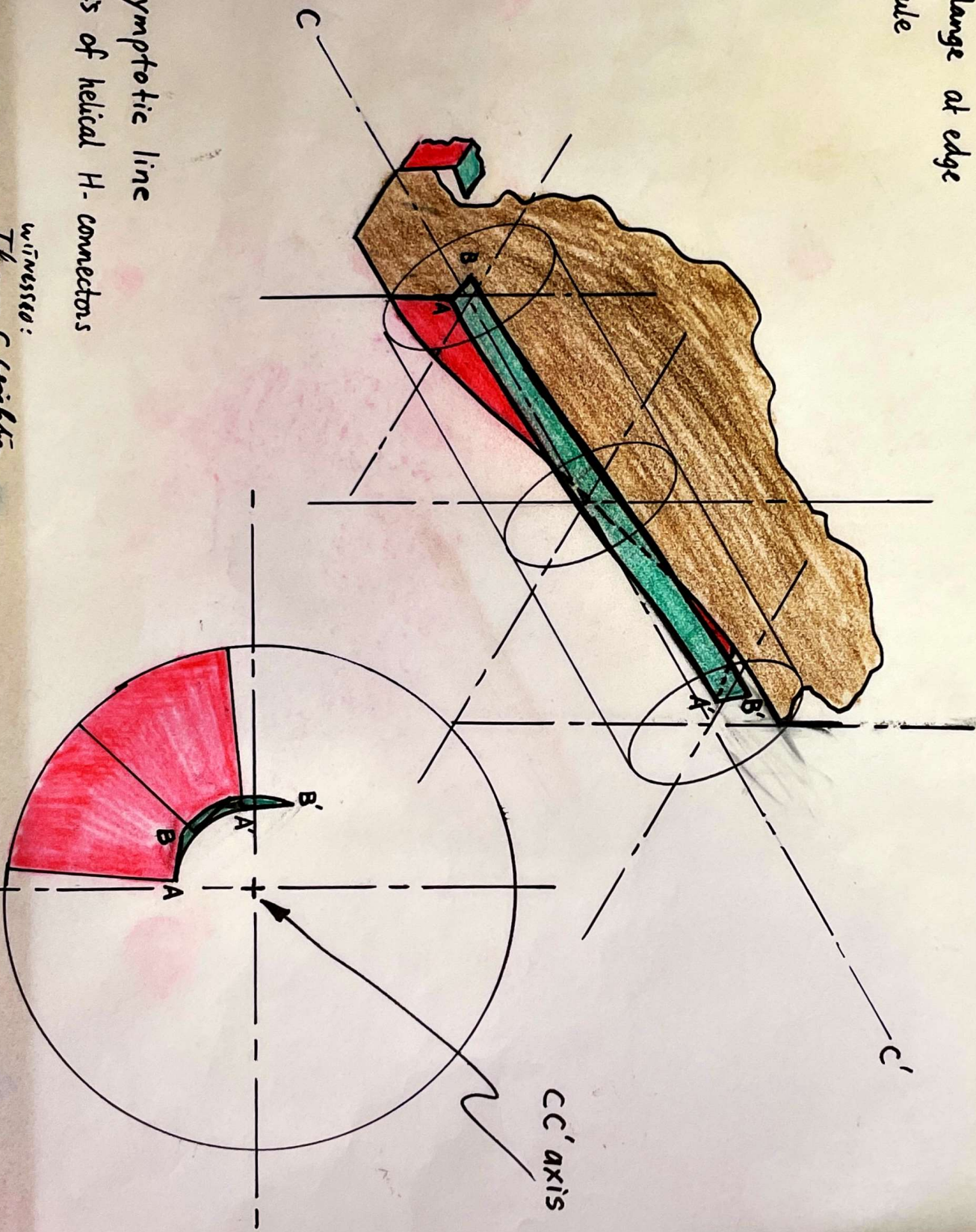


Fig. 1

Helical flange at edge
of module



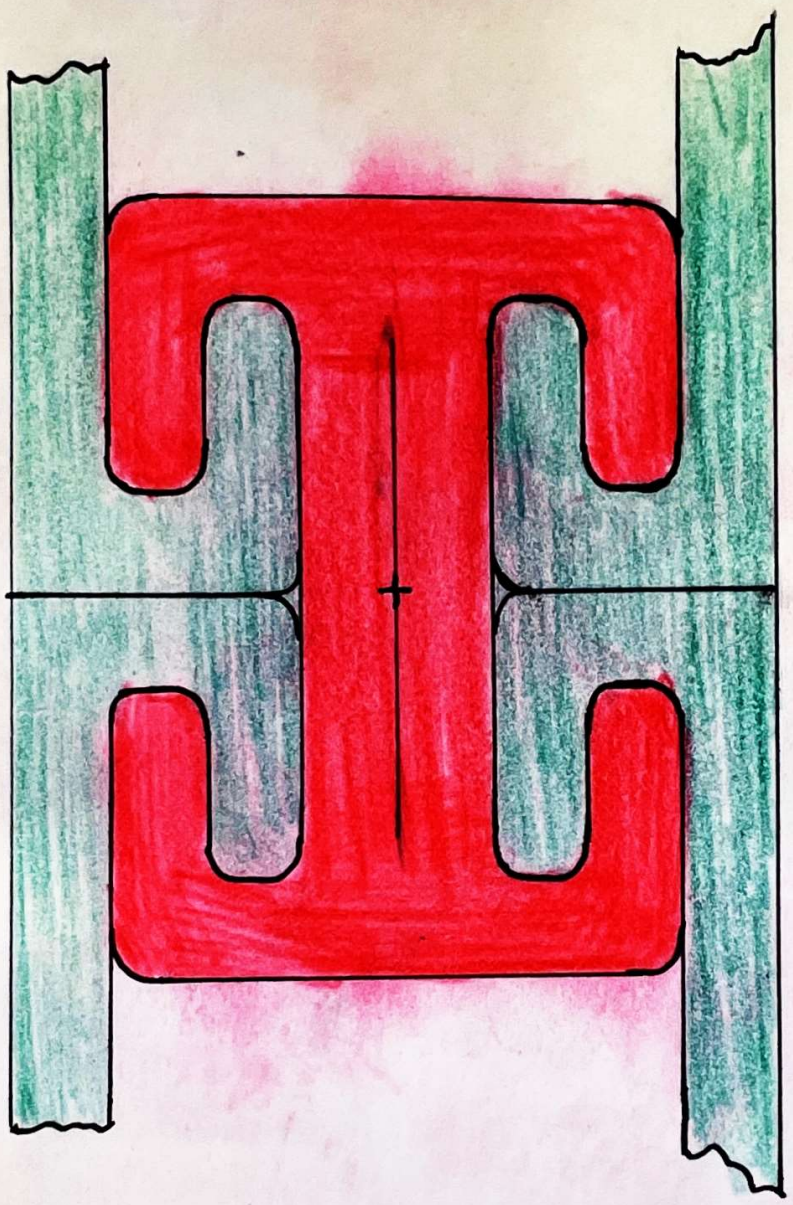
CC' = asymptotic line
= axis of helical H-connectors

Alan H. Schoen 3-25-67

Witnessed:
Thomas C. Wright
3-27-67

Fig. 2

H-connector for internal edges



Alan H. Schoen 3-25-67

WITNESSED:
Thomas C. Langston 3-27-67

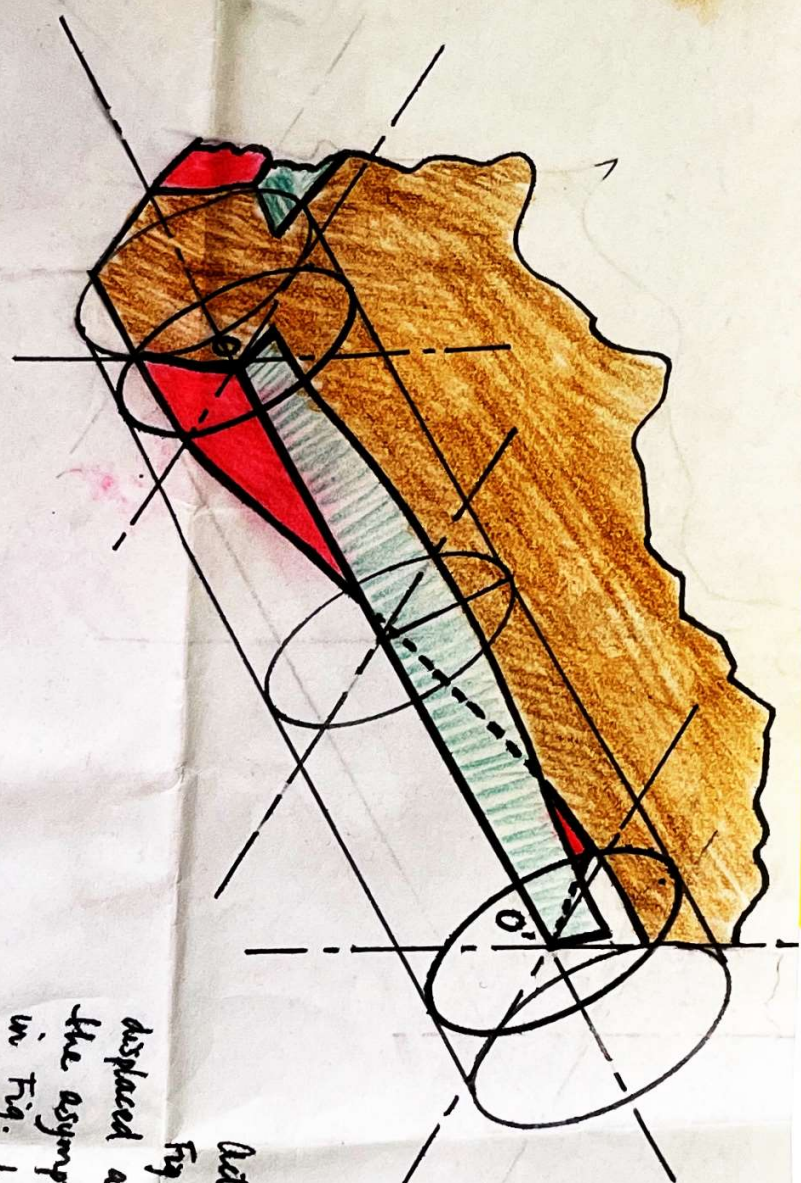
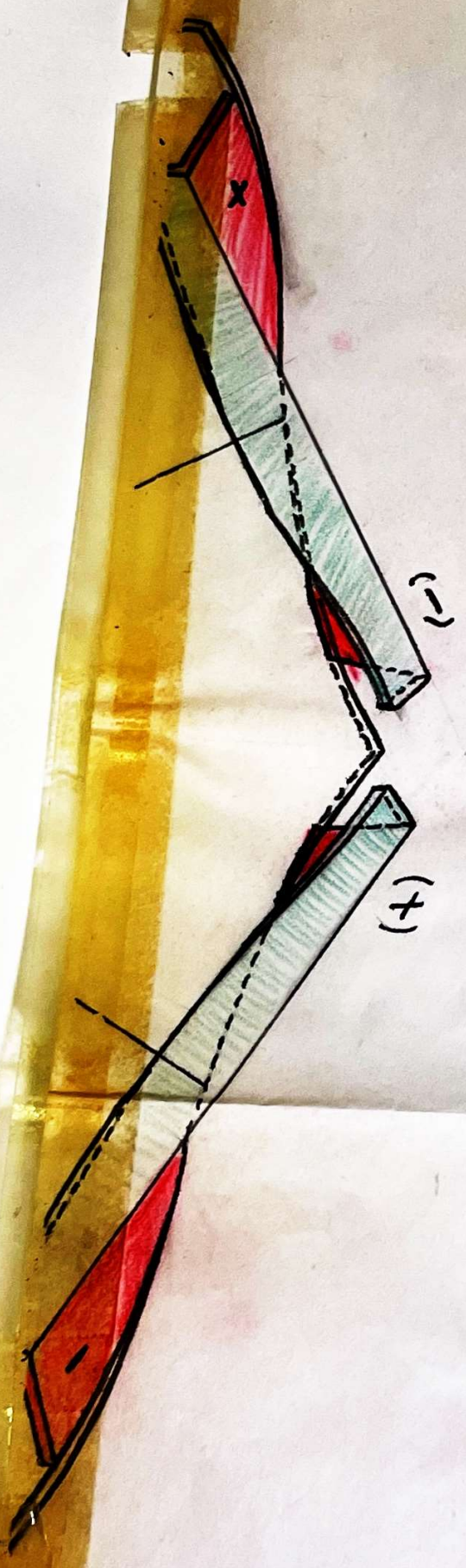


Fig. 3

(Edge OO' is shown as a straight line, in order to simplify the drawing in Fig. 4.

Actually, as shown in

Fig. 1, OO' is a helix, displaced a fixed distance from the asymptotic line CC' shown in Fig. 1.)



Alan H. Schoen
3-25-67

WITNESSED & VERIFIED
Thomas C. Lightfoot 3-27-67

Standard module

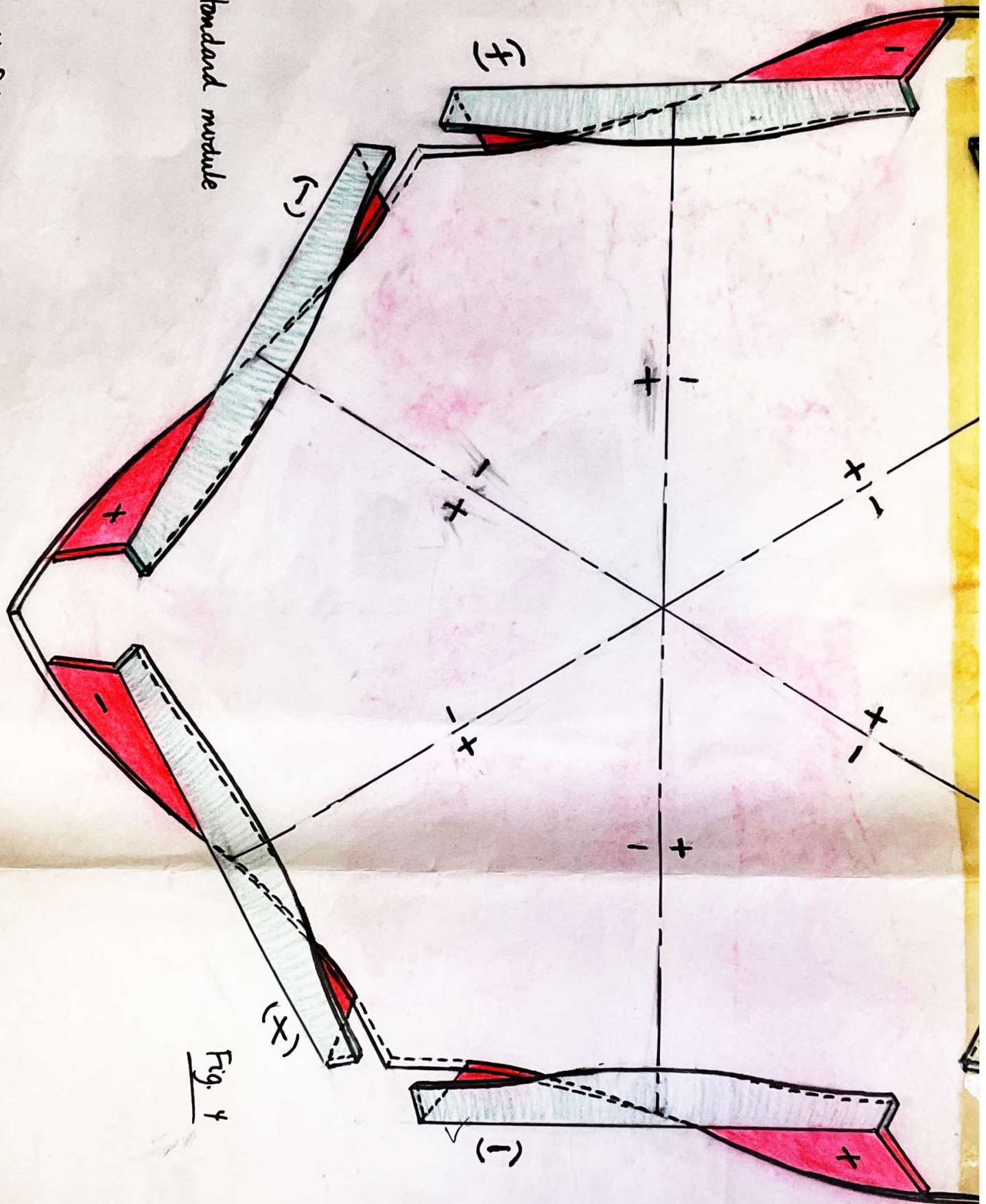
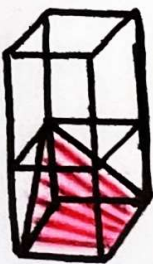
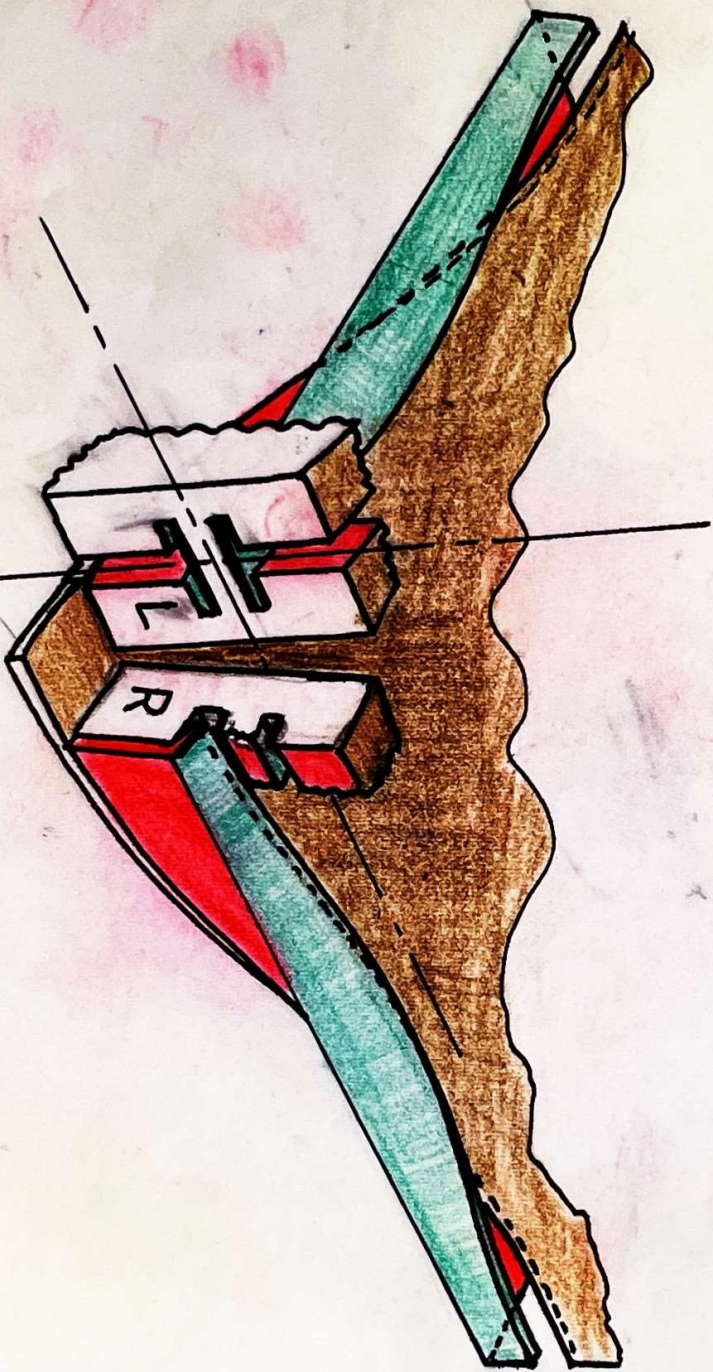


Fig. 4

Fig. 5

left- and right-handed
H. connectors for joining
edges of modules



Rigid foam core,
cut with straight-line cutter,
is ruled surface.

Alan H. Schwan 3-25-67

WITWISSER
Thomas C. Lighten 3-27-67

WORK STATEMENT

ABR Task-277

ABR Project #69-ROG-001

This task will consist of a conceptual design of a plastic forming mold for Gyroid surfaces. The attached sketch showing the helices required to form the Gyroid surface will be the dimensions used for this conceptual design. It is anticipated that further designs will have various helix angles and this should also be considered in this task.

The Basic Design Parameters are as follows:

- A. Weight of forming mold should be as light as possible.
- B. Manufacturing processes should not require highly specialized or sophisticated machine tools or talent.
(NOTE: Such as NC equipment, 3D tracers etc).
- C. Novel but practical fabrication techniques should essentially be the basic guidelines leading to a design conclusion.
- D. A projected forming mold cost of approximately \$1,000 if at all possible should also be a consideration, but in the event a mold cost of this amount would tend to restrict creativity in the conceptual design it should be discontinued as a major factor.
- E. Any number of conceptual design approaches may be followed and submitted in any form at the conclusion of this contract; however, at the discretion of the vendor one design concept should be presented. Drawings and/or sketches with sufficient explanation and information should be provided so that formal engineering design drawings can be made from these inputs and eventually be placed for fabrication.

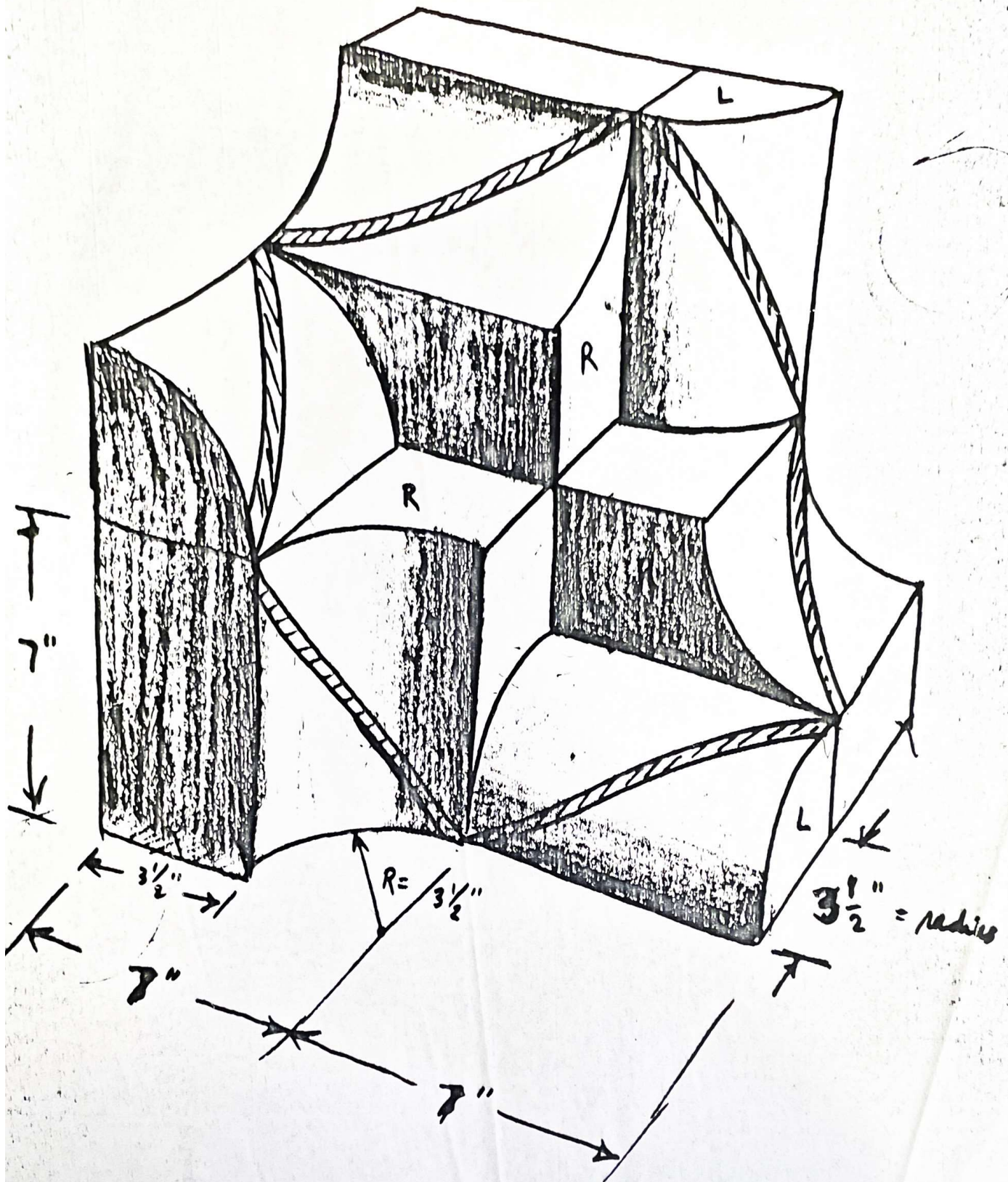
- F. Light-weight materials for the mold are essential.
- G. The plastic material to be formed will be heated to an approximate temperature of 200°F.

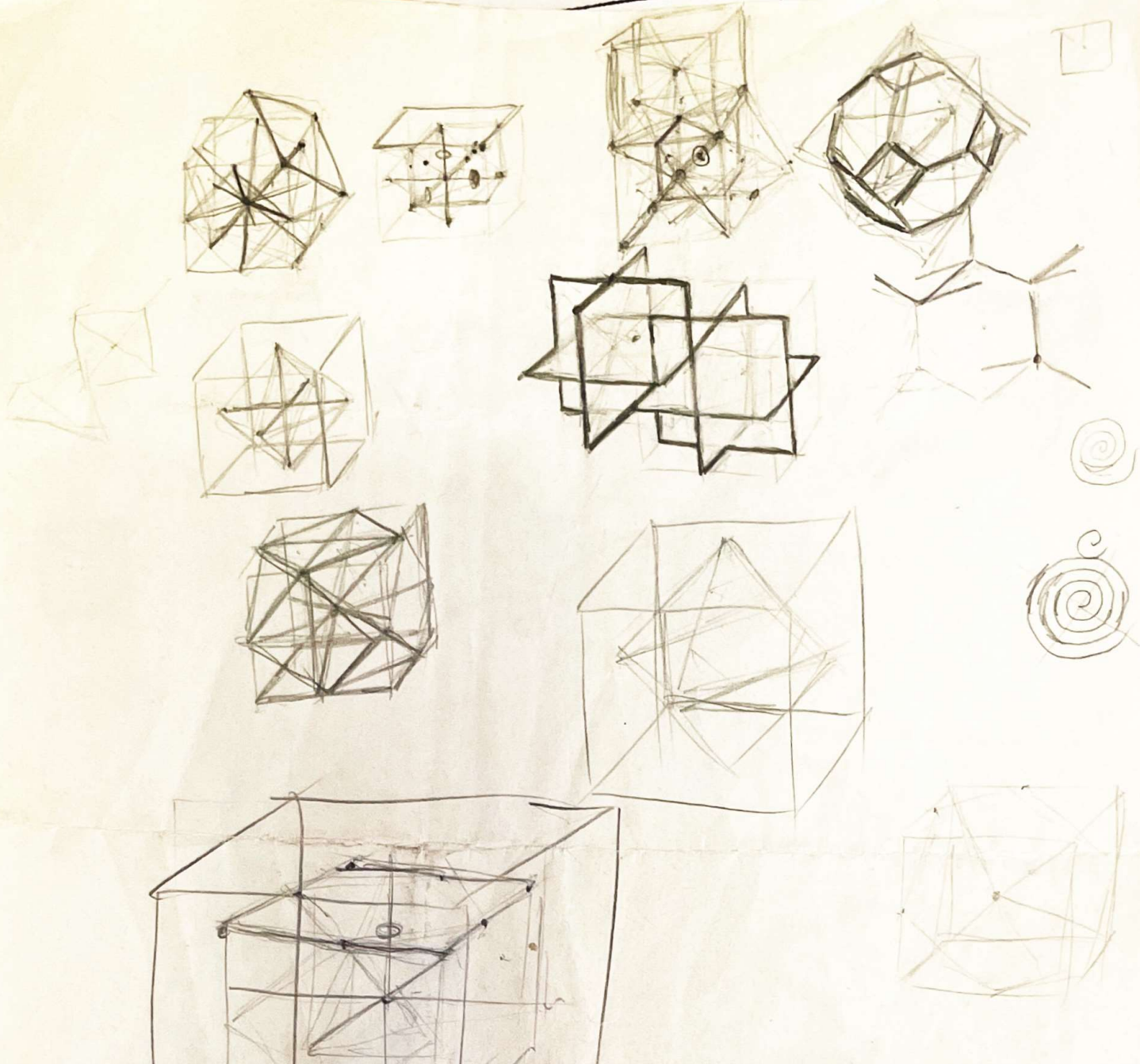
NOTE: It may be of interest to the vendor to be aware of the following:

1. This task will be awarded simultaneously to more than one vendor. This Work Statement and the amount of money for this task will be identical for all vendors.
2. The vendors who have been selected to perform this task will also be given an opportunity to bid on the formal drawings based on the conceptual design selected by NASA/ERC to be followed.
3. NASA/ERC, however, will have the option to allow the vendor of a given design concept of his to be the sole bidder to provide formal engineering drawings.

DELIVERY SCHEDULE: Two (2) weeks.

ABR/ERC Technical Monitor	- D. J. Delpidio	- 494-2709
ABR/ERC Design Specialist	- A. Rabasco	- 494-2535
(Alternate Contact)		
ABR/Northeastern Co-op Student	- S. Hassell	- 494-2258



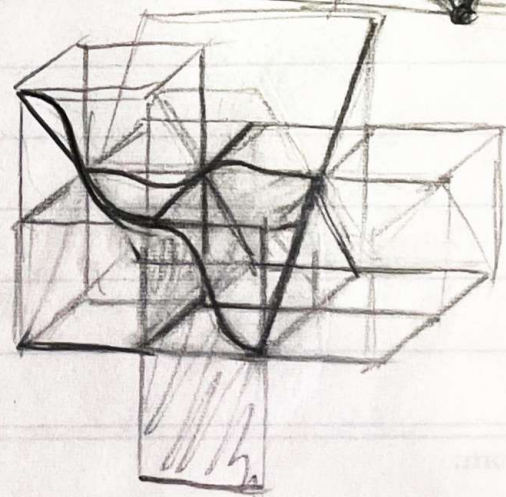
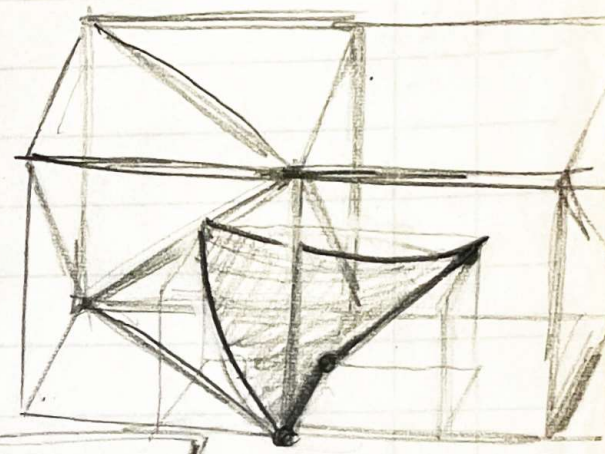
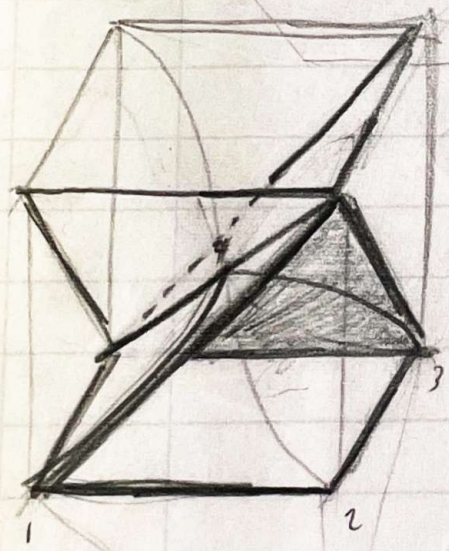
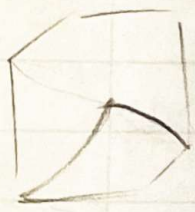
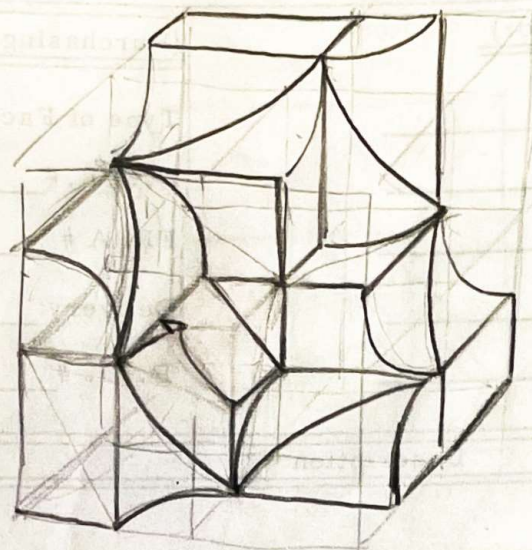


Pasadena Ferry
 → Golden State
 → Blairfield
 → Victoria Ferry
 ↓
 Allyn Ferry
 ↓
 90 north
 → Vicky Blvd.
 → 90 W or Vicky
 → Colburn Ave
 (1 mi)
 turn right
 76.57

(.01)(3.5)



PURCHASE REQUEST



(City/State)
(Address)
(Firm)

(City/State)
(Address)
(Firm)

NOTED

$$P_0 \left(\frac{1}{3} \frac{1}{3} 1 \right)$$

$$P_1 \left(\frac{1}{3} -1 -\frac{1}{3} \right)$$

$$P_2 \left(-1 \frac{1}{3} -\frac{1}{3} \right)$$

