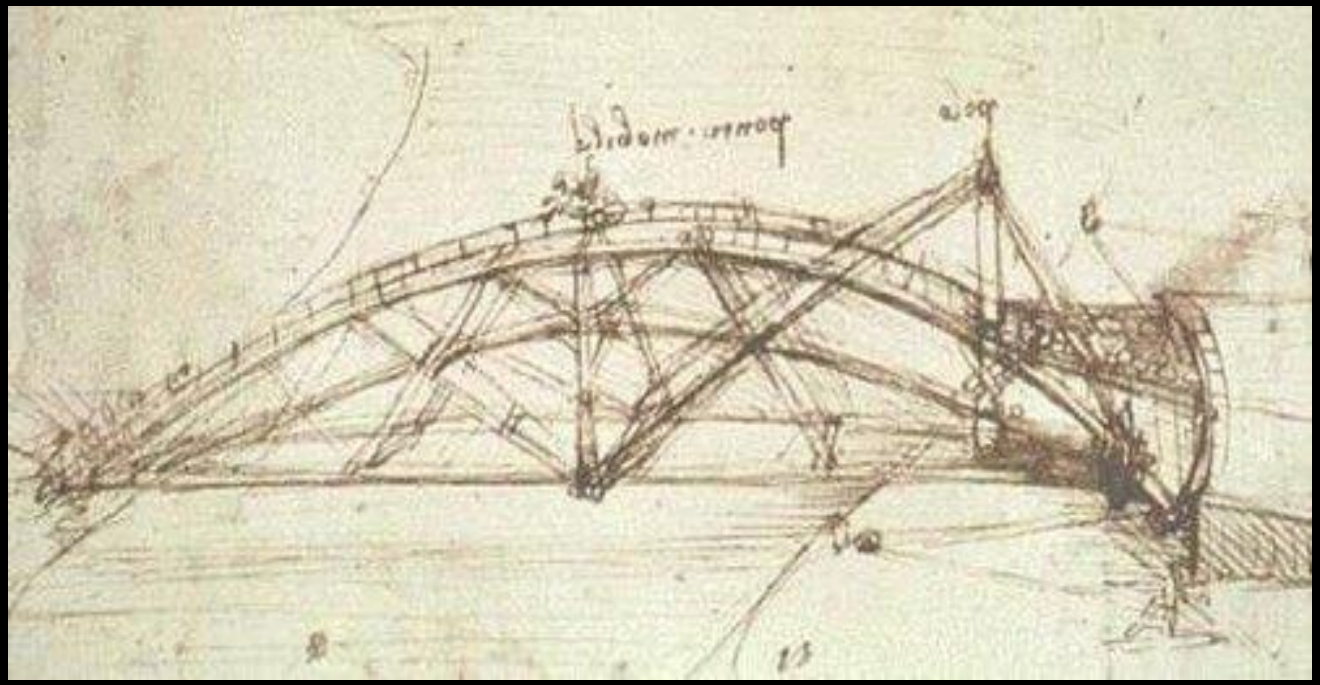
The Culture of Engineering.

Andrew Scoones

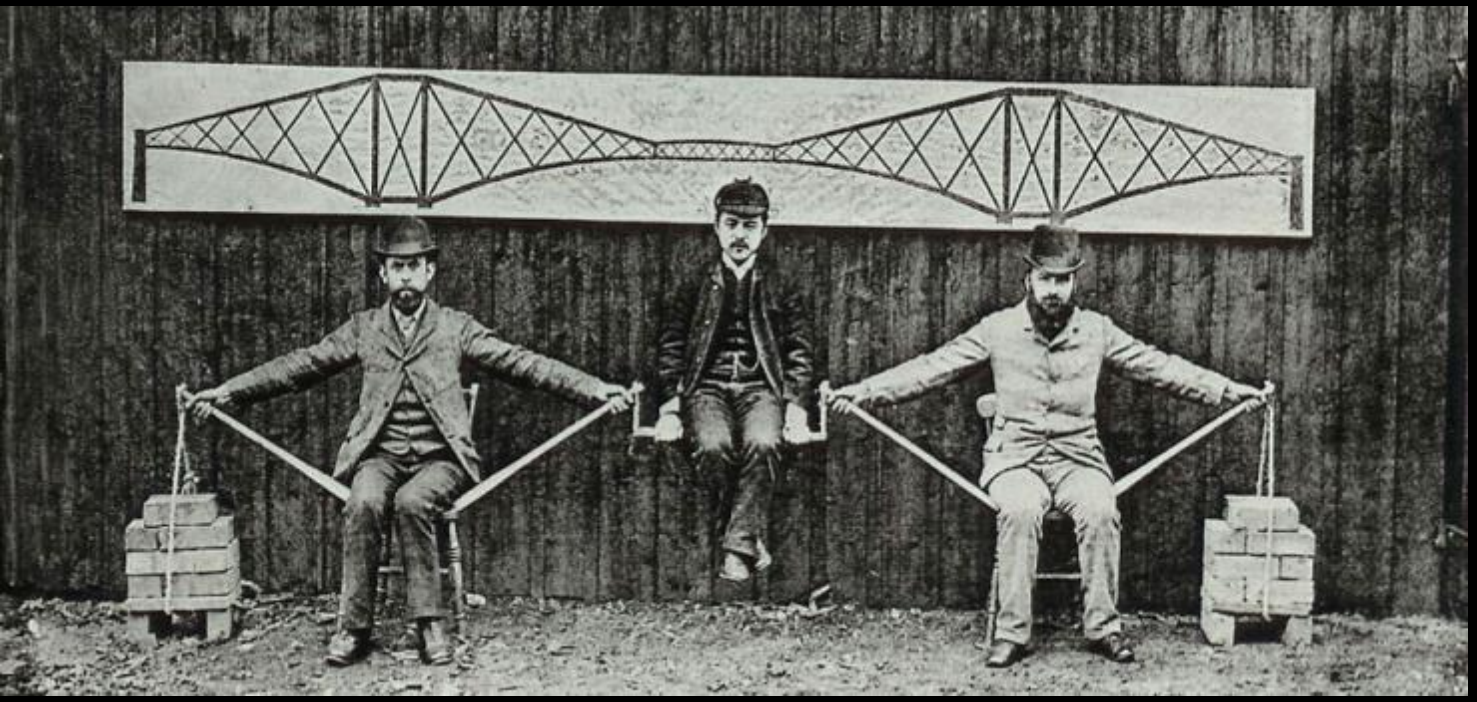
What is culture?

A question of status

What is an engineer?



TheEngineeringClub



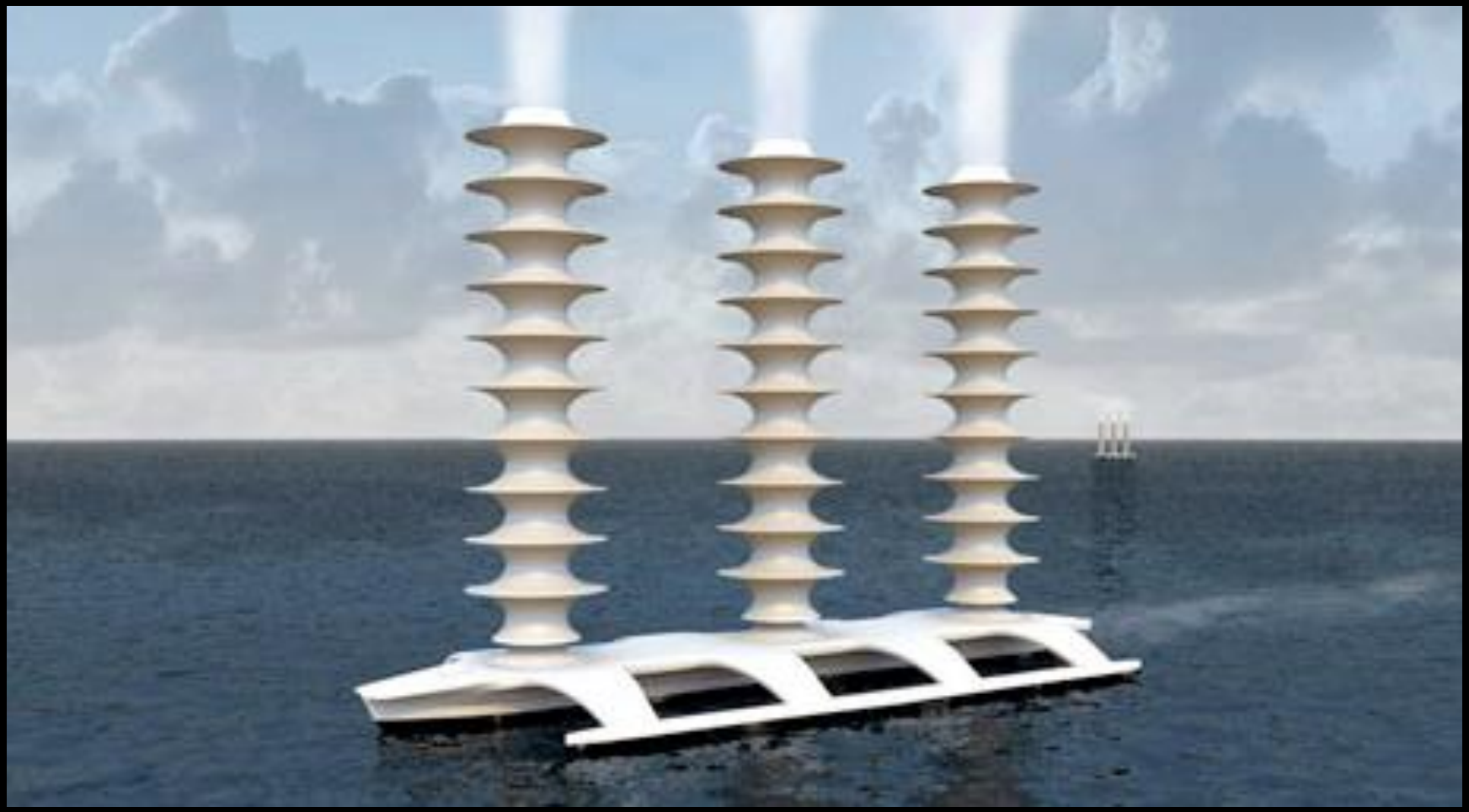
The Culture of Engineering

Sir Neil Cossons

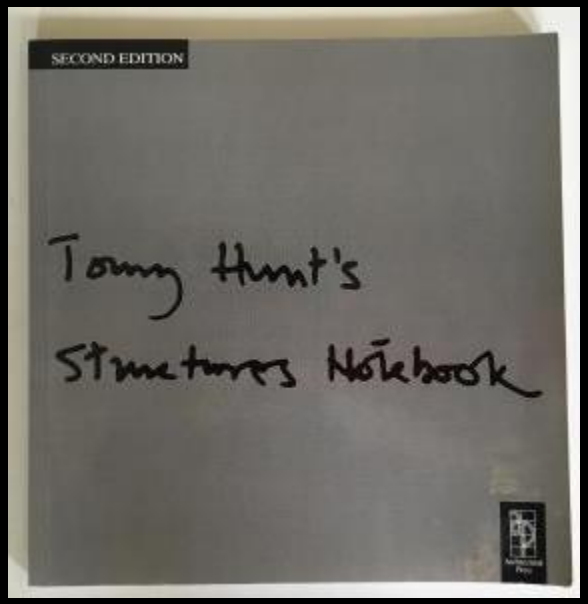
@TheEngClub #EngineeringCulture

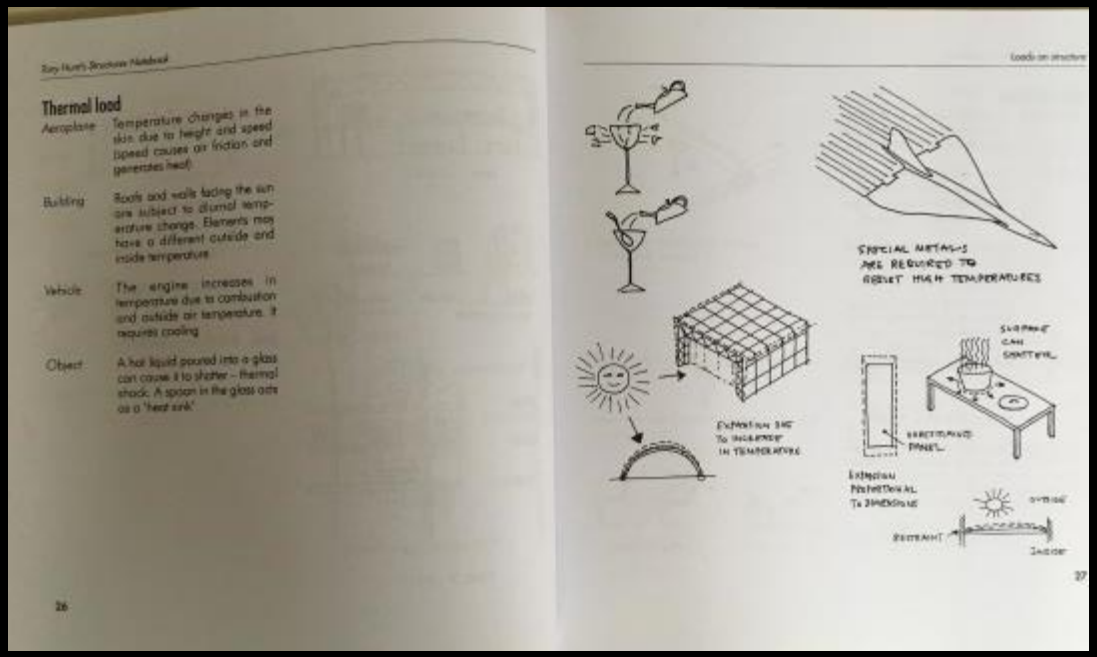
Supported by:
AKTII
Arup
Atelier Ten
ChapmanBDSP
Civic Engineers
Davies Maguire + Whitby
Eckersley O'Callaghan
Elliott Wood
EngineersHRW
Evolve
Expedition
Heyne Tillett Steel
Lyons O'Neill
Malishev Engineers
Max Fordham
Michael Barclay Partnership
Michael Hadi Associates
Milk
Momentum
Morph Structures
Newtecnic
OR Consulting Engineers
Price & Myers
Ramboll
Robert Bird Group
Sinclair Johnston
Skelly & Couch
Spatiale
Structure Mode
Structure Workshop
Structured Environment
Tall Engineers
Techniker
Webb Yates Engineers

The Engineering Club



people

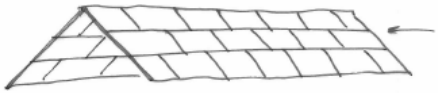




Thermal load

Aeroplane	Temperature changes in the skin due to height and speed (speed causes air friction and generates heat)
Building	Roofs and walls facing the sun are subject to diurnal temperature change. Elements may have a different outside and inside temperature
Vehicle	The engine increases in temperature due to combustion and outside air temperature. It requires cooling
Object	A hot liquid poured into a glass can cause it to shatter – thermal shock. A spoon in the glass acts as a 'heat sink'

ROOF SHEETING.

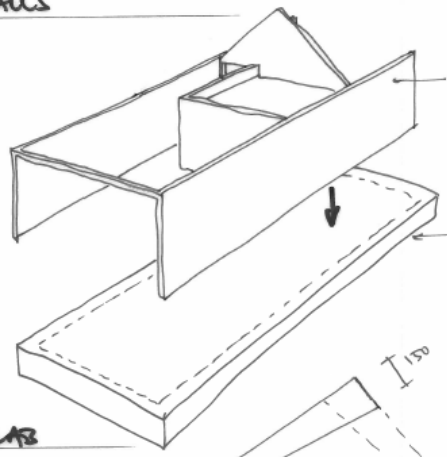


2 LAYERS 12mm PLY
JOINTS STAGGERED
FINNISH BIRCH.

RAFTERS

PLY RAFTERS @
1.2m CRS CROSSTIES
STAGGERED BY 600mm.

WALLS

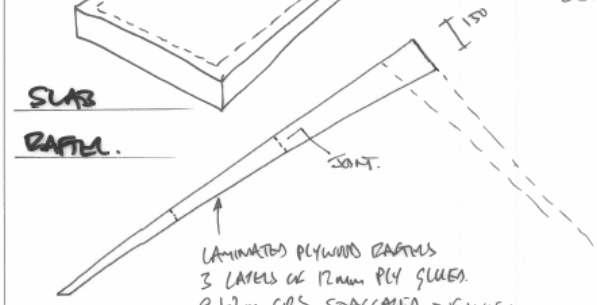


STUD WALLS.
100×50 (OR 150×50)
@ 400 CRS. OSB
SHEATHING EXTERNALLY.

100 SLAB
WITH 1m
STRIP PORTION.
SOIL CRAB'S
T.B.C.

SLAB

RAFTER.



LAMINATED PLYWOOD RAFTERS
3 LAYERS OF 12mm PLY GLUED.
@ 1.2m CRS. STAGGERED → FINNISH
BIRCH.

N.T.S.

Drawing No. 52397
Project GRANGER.
Drawing Title CASCADE
Date
Drawn by
Scale N.T.S.
Status
Revision

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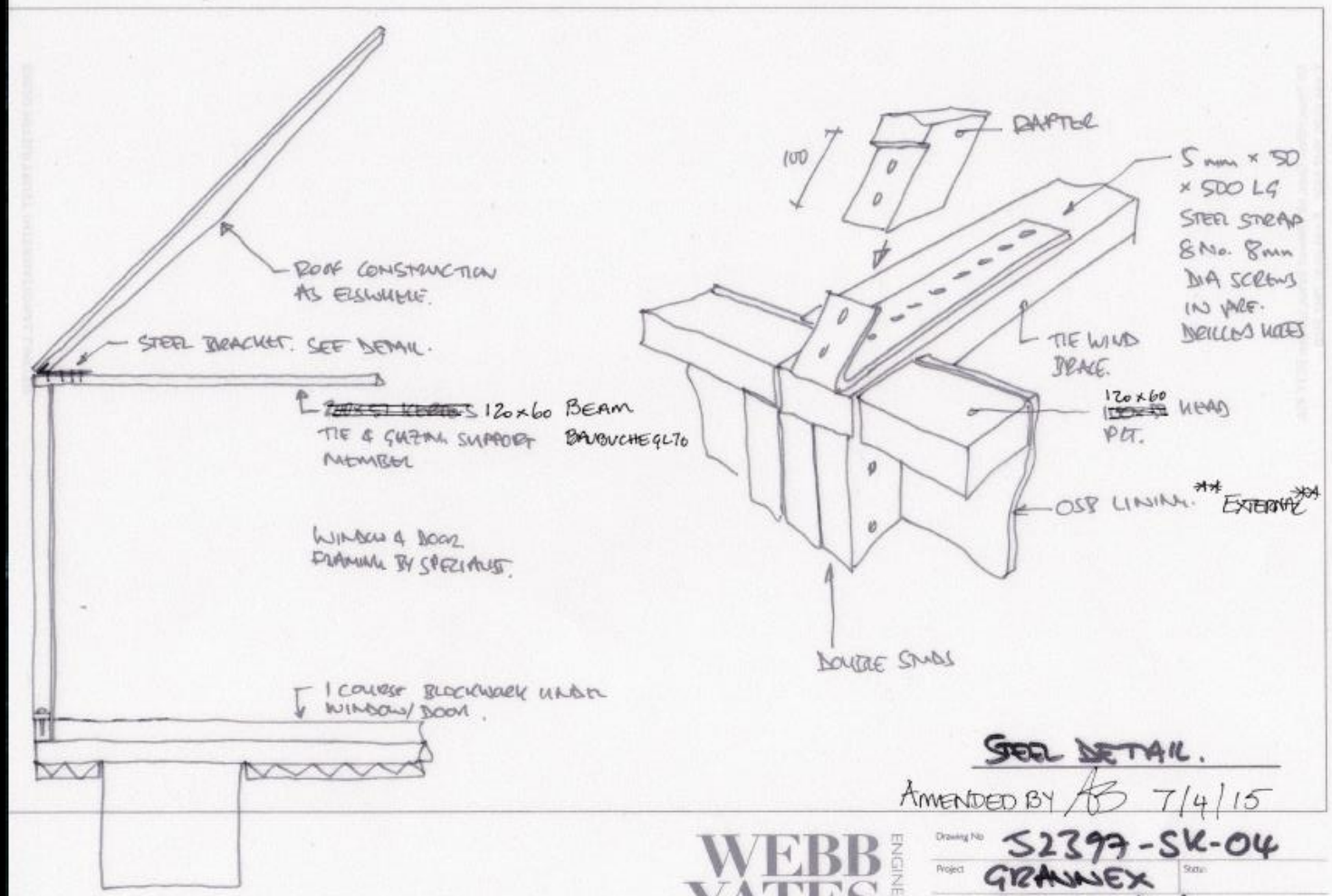


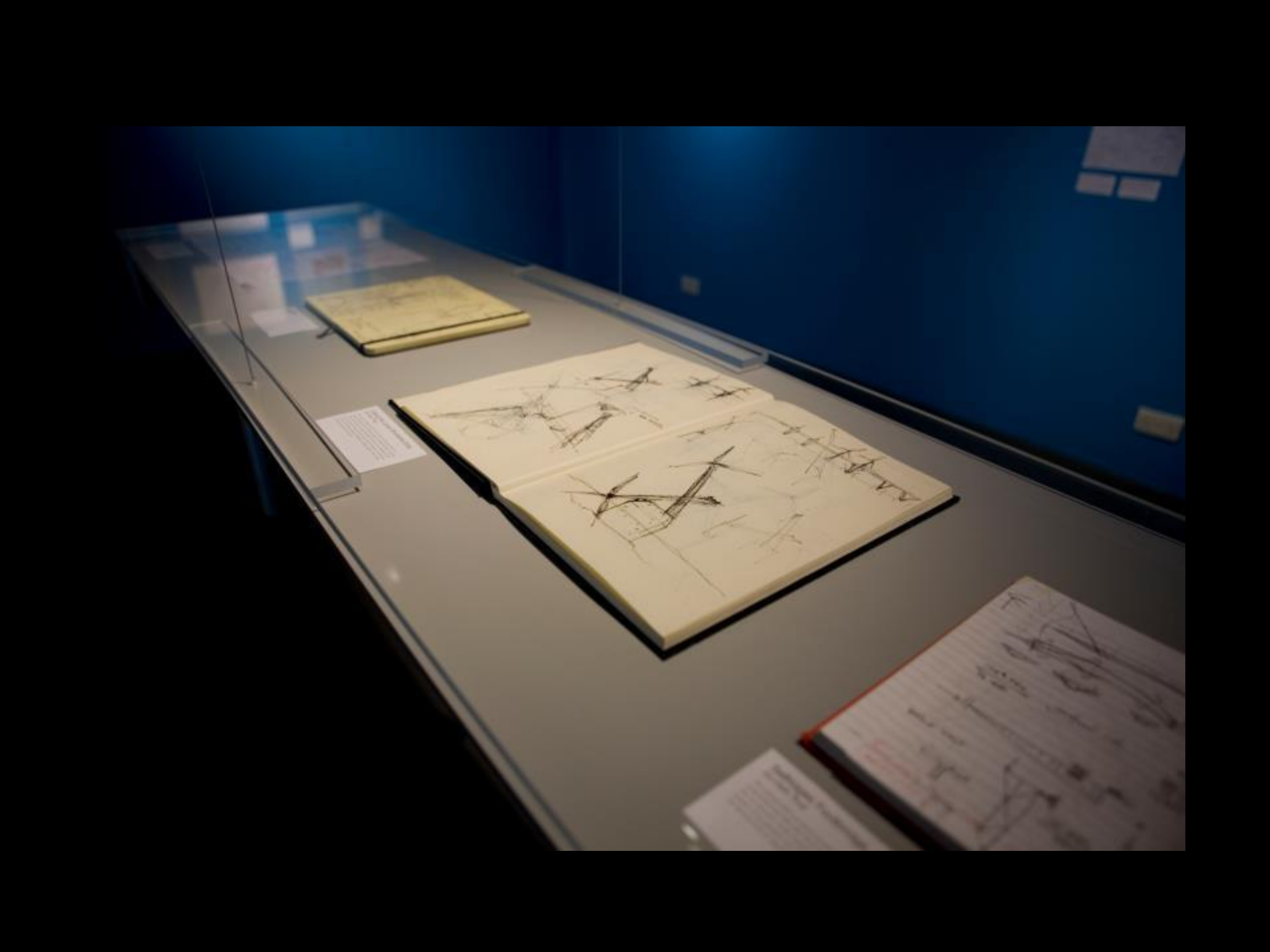
STEEL DETAIL.

AMENDED BY AB 7/4/15

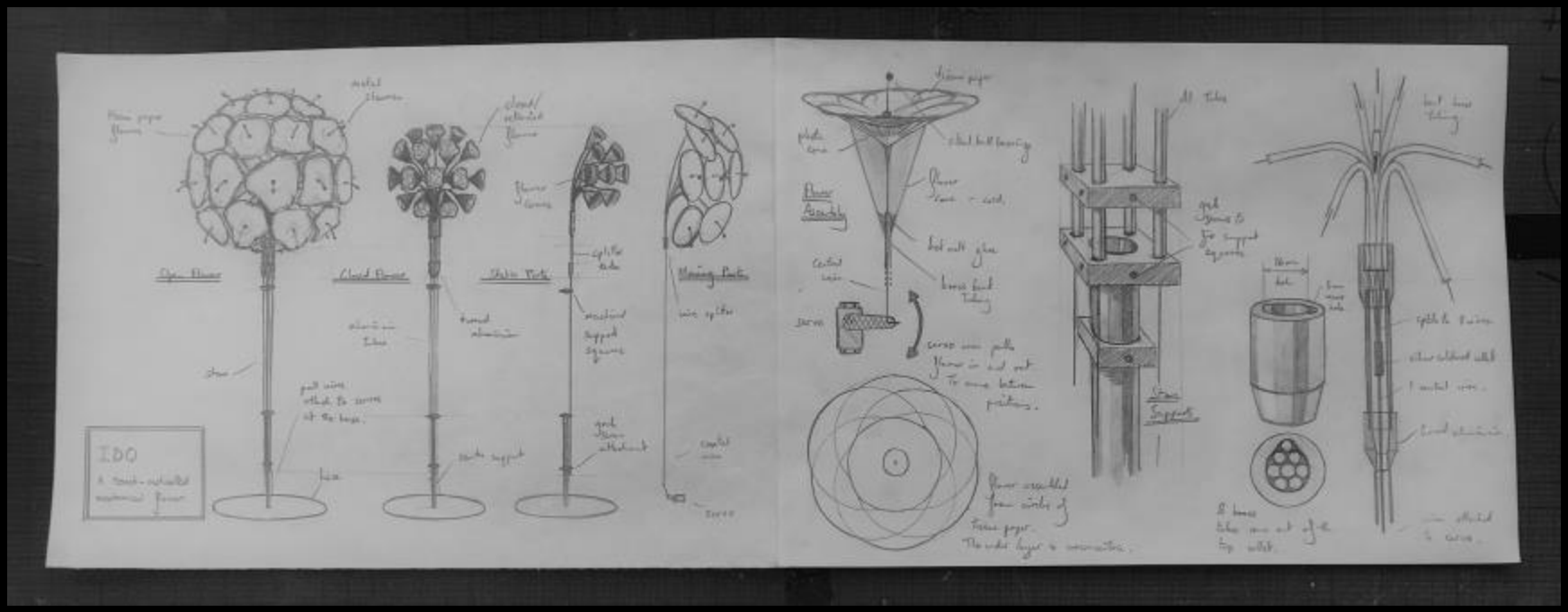
WEBB YATES ENGINEERS

020 3696 1550 info@webbyates.co.uk

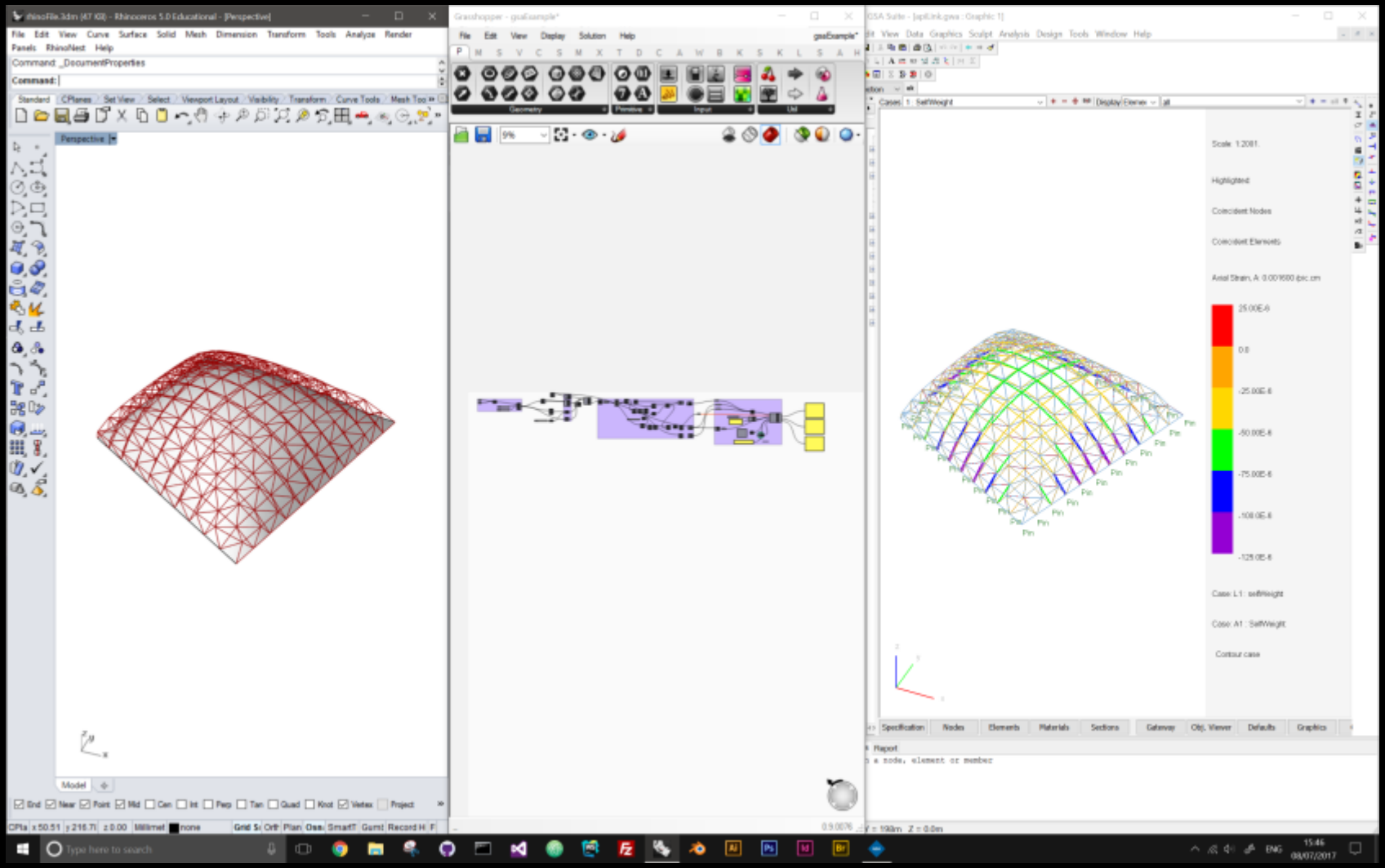
Drawing No	S2397-SK-04
Project	GRANNEX
Status	
Drawing Title	SECTION A-A
Date	
Drawn by	
Scale	
Revision	



Student Prize



Open the Black Box



In Conclusion

- Drawing is an essential element of engineering culture
- Encourage and teach students to draw
- Challenge them to enter the Engineering Sketches competition
- Whitby Bird Foundation bursaries for those with A level Art wishing to study engineering
- Recruitment possibilities