Arthur Erickson (1975:33) “I have been anxious to find, wherever I build, the right response to light”
Louis Kahn (Wurman, 1986:257) – “A space can never reach its place in architecture without natural light”
Development

"In great architecture there is constant deep breathing of shadow and light, shadow inhales and illumination exhales light" – (Juhani Pallasmaa, 2005:47)

Fig 3 - Section through office and exhibition space
Louis Kahn (Wurman, 1986:6) - "...structure is the maker of light. When you decide on the structure, you are deciding on light. In old buildings, the columns were an expression of light. Light, no light, light, no light, you see. The module is also light, no light."
The application of light is guided by the three primary facets of architectural light, namely: Northern light, direct light and broken or diffused light. It is near impossible to fully quantify the exact light quality that will be attained, but this methodology helps to rationalize the application of light to space.
Air is sucked in through sculptural intake ducts which points in the direction of the predominant wind direction. This air is then circulated through copper pipes in a water storage tank, which lowers the air temperature with a few degrees. This cool, filtered air is then distributed through the building via a mechanical ventilation network.

The water in the storage tank is harvested from the site surface. This water is collected via a network of flat full-bores with downpipes, cast into columns, and drainage channels distributed across the site. This water is collected in a 192,000L primary collection tank, and then distributed to three smaller storage tanks where it is implemented in the ventilation strategy.
concrete column with shaft in core
to accommodate handwashbasins, wc and shower downpipes

concrete beams
concrete columns
Fig 16 - 3D Structural system - plan
Entrance Canopy

Detail 3

Scale 1:10

Art Workshop
DETAIL 5

scale 1:20
70 x 150mm balanced steel rectangular hollow section material welded to 25mm balanced circular hollow section balance.
All notched balustrades to comply with SANS2031, all welding to comply with SANS2031-ES.

25mm thick plywood with open joints on 50mm thick floor joists, fixed with 3x countersunk wood screws on each joint.

Balanced notched steel rectangular hollow section balustrades welded to 25mm balanced steel balustrade, all welding to comply with SANS2031-ES.

Steel balustrade balustrade welded to reinforced concrete andchemy rebar & 5mm reinforcing.

Where not welded, use galvanized steel balustrade with a galv. Class 4B bolts and glacial wax.

Laminated Kynar 260 or Ral colour matched balustrade membrane, waterproofing. All surfaces to receive waterproofing to comply with SANS2031.

Reinforced concrete slab to comply with SANS1010, 40mm concrete, fixed to minimum of 500 W20 L22.8 rebar in main slab.

Reinforced steel membrane rebar to reinforced concrete slab with concrete bolts.
LIGHT CANON

6.8m safety glass fixed to 34.5m die-cast
door frame shoulders with stainless steel.
Join door with SA230/32/1263 panel.

100mm beauty header.

5.62m deep z-sheet metal clad to manufacturer's edge.
70mm deep, 10mm well-rounded gasket along.
Aluminium edge cover.

4K washer all glass edges, to comply
with SANStan.

Reinforced structural glass to comply with SA64/1000.

40mm concrete, laid to gradient of 1:20 (UBD 5.2.3)

To centre

Galvanised steel profiled channel cast and
reinforced structural glass.

Clean glass recessed from ceiling, peeled/or.

Routed channel leads to glass/steel.

Central breech led by breech.

Dedicated skylight visible with cloth/bracket.

DETAIL 8

scale 1:10

ART WORKSHOP

DETAILS
CARRY ARM

125 x 75 x 8mm steel rigid angle, galvanised according to SAN61206A, primed with corrosion protected paint to comply with SAN61294A, bolted to steel frame with 8x M16 class 4.8 bolts and class 4 nuts.

140x100x8mm I-beam, welded close ends and covered with galvanised covering, according to SAN61206A, primed with corrosion protected paint to comply with SAN61294A, bolted to I-beam with glued plate with 8x M16 class 4.8 bolts and class 4 nuts. All welding to comply with SAN61206A.

Galvanised steel angle plates bolted to steel frame with 8x M16 class 4.8 bolts and class 4 nuts.

254 x 230 x 254mm I-beam, galvanized according to SAN61206A, primed with corrosion protected paint to comply with SAN61294A, bolted to beam with M16 class 4.8 bolts and class 4 nuts. Welds to comply with SAN61206A.

230mm fascia wall, laid in bonded bed with a suitable membrane every 3m levels, to comply with SAN61206A.

DETAIL 9

scale 1:10

ART WORKSHOP

DETAILS
DETAIL 10
scale 1:10

ART WORKSHOP

DETAILS