FIG 7.2 Concrete slab systems

Structural System - Concrete Slabs
FIG 7.1  Concrete Column & beam system

STRUCTURAL SYSTEM - beam & column
Vertical service shafts for housing:

- Water supply pipes
- Waste water pipes
- Electrical conduits

SERVICE SHAFTS
MECHANICAL SYSTEM - air conditioning

FIG 7.4_Air conditioning system
FIG 7.10_Ground floor plan - Portion C
FIG 7.5_3D SITE Plan view
FIG 7.21_Detail F

"EEFROIUM" SP4 FULLY BONDED WATERPROOFING MEMBRANE TO BE APPLIED AND LAID IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS ON A STEEL FLOATED SAND-CEMENT SCREED LAID TO NON FALL OF 1:50 TO OUTLETS. THE SCREED TO HAVE A "COPROY" WATERPROOFING ADDITIVE MIXED IN. THE SCREED TO BE KIN 40MM THICK WITH A REF 193 STEEL MESH REINFORCEMENT ON A 25MM THICK "COOLITE" BITPAPER INSULATION LAYER ON CONCRETE SLAB.

PRECAST CONCRETE COPING AS PER SPECIFICATION
- 230MM WIDE X 90MM HIGH CONCRETE UPHAND WITH CHAMFERED EDGES
DETAIL I

SCALE 1 : 10
FIG 7.25_Detail J

DETAIL J

SCALE 1 : 10

13.52mm THICK TOUGHENED LAMINATED SAFETY GLASS FIXED TO 200mm X 100mm X 2mm STEEL HOLLOW RECTANGULAR TUBE STEEL FRAME WITH 6 NO. STEEL CLAMPS

GLASS CLAMP

200mm X 100mm X 2mm STEEL RECTANGULAR FRAME WELDED TO 50mm STEEL HOLLOW TUBE

160mm STEEL HOLLOW TUBE COLUMN FIXED TO CONCRETE SLAB WITH FIXING PLATE
FIG 7.28_Detail A

120mm x 120mm SQUARE TUBE COLUMN SPACED AT 2980 CTS FIXED TO CONCRETE SLAB
WITH 300mm X 5mm STEEL FIXING PLATE AS PER STRUCTURAL ENG

254 x 146 x 31.3kg/m PARALLEL FLANGE I-SECTION STEEL BEAM MIG Welded TO 120mm X 120mm STEEL SQUARE HOLLOW TUBE

10mm THICK 'EVERITE' FIBRECOM FLAT SHEETING TO FORM CEILING UNDER ROOF OVERHANG
CEILING TO BE PAINTED AS PER SPECIFICATION

10mm THICK X 200mm WIDE 'EVERITE' FIBRECOM FACIA BOARD FIXED
TO 130mm X 50mm X 20mm X 0.8mm COLOURED LIPPED CHANNEL PURLIN

PURPOSE MADE BRONNBUILT FACIA FLASHERS IN GLUBLA C/Finish TO MATCH ROOF SHEETING

ROOF NOTE:
0.5mm THICK 'BRONNBUILT' GALVANISED ROOF SHEETING AT 11 deg PITCH WITH GLUFLA C/Finish,
COLOUR: DOWE GREY ON 160 X 50 X 130 X 2.0mm COLOURED LIPPED CHANNEL PURLINS AT MAXIMUM 1200mm CTS FIXED TO
IPE 180 STEEL ROOF BEAMS ALL AS PER STRUCTURAL ENG DESIGN AND DETAIL

7mm THICK 'ACOULITE' OR SIMILAR INSULATION
BLANKET LAYED ON CEILING STRUCTURE

6.4mm THICK PLASTERBOARD CEILING WITH TAPED AND SCREWED JOINTS TO BE SKIM PLASTERED
WITH 'BRENOGLIDE' TO A SMOOTH AND EVEN FINISH TO BE FIXED TO 30mm X 30mm 8A PINE CEILING BATTENS

DETAIL A
SCALE 1 : 20
**FIG 7.29_Detail B**

- "3.5mm THICK" GALVANIZED ROOF SHEETING AT 11 deg PITCH WITH GLOBALCOURT FINISH.
  - COLOUR: DOVE GREY ON 160 x 50 x 20 x 2.6mm GUSSEEN FORGED LIPPED CHANNEL PURLINS AT MAXIMUM 1000mm CTS FIXED TO
  - IPE 100 STEEL ROOF BEAMS ALL AS PER STRUCTURAL ENG DESIGN AND DETAIL

- 75mm THICK "AFRILITE" OR SIMILAR INSULATION
  - BLANKET LAYED IN CEILING STRUCTURE

- IPE 100 STEEL ROOF BEAMS FIXED TO CONCRETE BEAM WITH STEEL
  - FIXING BRACKET ALL AS PER STRUCTURAL ENG’S DESIGN AND DETAIL

- 6.4mm THICK PLASTERBOARD CEILING WITH TAPED AND SCRAMMED JOINTS TO BE SKIM PLASTERED
  - WITH "AFROoco" TO A SMOOTH AND EVEN FINISH TO BE FIXED TO 300mm x 30mm SA PINE CEILING BATTENS

- 345mm X 150mm HIGH CONCRETE BEAM AS PER STRUCTURAL ENG’S DESIGN AND DETAIL
"DERGUM" SP4 FULLY BONDED WATERPROOFING MEMBRANE TO BE APPLIED AND Laid IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS ON A STEEL FLOATED SAND-CEMENT SCREE Laid TO MIN FALL OF 1:50 TO OUTLETS. THE SCREE TO HAVE A "CORROD" WATERPROOFING ADDITIVE MIXED IN. THE SCREE TO BE MIN 40mm THICK WITH A REP 153 STEEL MESH REINFORCEMENT.

SPEC 180 STEEL ROOF BEAMS FIXED TO CONCRETE BEAM WITH STEEL FIXING BRACKET ALL AS PER STRUCTURAL ENG'S DESIGN AND DETAIL.

ROOF NOTE:
0,50mm THICK "ZINCALUME" GALVANISED ROOF SHEETING AT 31 deg PITCH WITH GLUECOAT FIXING, ON 100 X 50 X 20 T 2,0mm COLFORMED LIPPED CHANNEL PURLINS AT MAXIMUN 1000mm CTs FIXED TO SPEC 180 STEEL ROOF BEAMS ALL AS PER STRUCTURAL ENG'S DESIGN AND DETAIL.

PURPOSE MADE STEEL BRACKET FIXED TO CONCRETE BEAM WITH 4 No. off EXPANSION BOLTS.

7mm THICK "KEROBITE" OR SIMILAR INSULATION BLANKET Laid ON CEILING STRUCTURE.

10mm THICK X 30mm Wide "ALUMITE" FORGED FACIA BOARD FIXED TO 100mm X 50mm X 25mm X 2,0mm COLFORMED LIPPED CHANNEL PURLIN.

PRECUT CONCRETE COPING AS PER SPECIFICATION.
FIG 7.31_Detail D

DETAIL D

SCALE 1 : 10
FIG 7.32_Detail E

1.25m x 1.75m x 20mm x 2mm GALVANIZED STEEL COLD FORMED LIPPED CHANNEL GUTTER FIXED TO 60.3mm x 2mm GALVANIZED STEEL COLD ROLLED ROUND TUBE SPACE FRAME STRUCTURE WITH 150mm x 50mm x 10mm GALVANIZED STEEL ANGLE CLEAT

1.25mm THICK "HEAT STOP" POLYCARBONATE IRR PROFILE ROOF SHEETING FIXED TO 160 X 50 X 20 X 2.0mm COLDFORMED LIPPED CHANNEL PARLINS AT MAXIMUM 1000mm CTS FIXED TO 60.3mm x 2mm STEEL COLD ROLLED ROUND TUBE SPACE FRAME STRUCTURE AS PER STRUCTURAL ENG’S DESIGN AND DETAIL.

60.3mm x 2mm GALVANIZED STEEL COLD ROLLED ROUND TUBE SPACE FRAME STRUCTURE AS PER STRUCTURAL ENG’S DESIGN AND DETAIL.

DETAIL E

SCALE 1 : 10