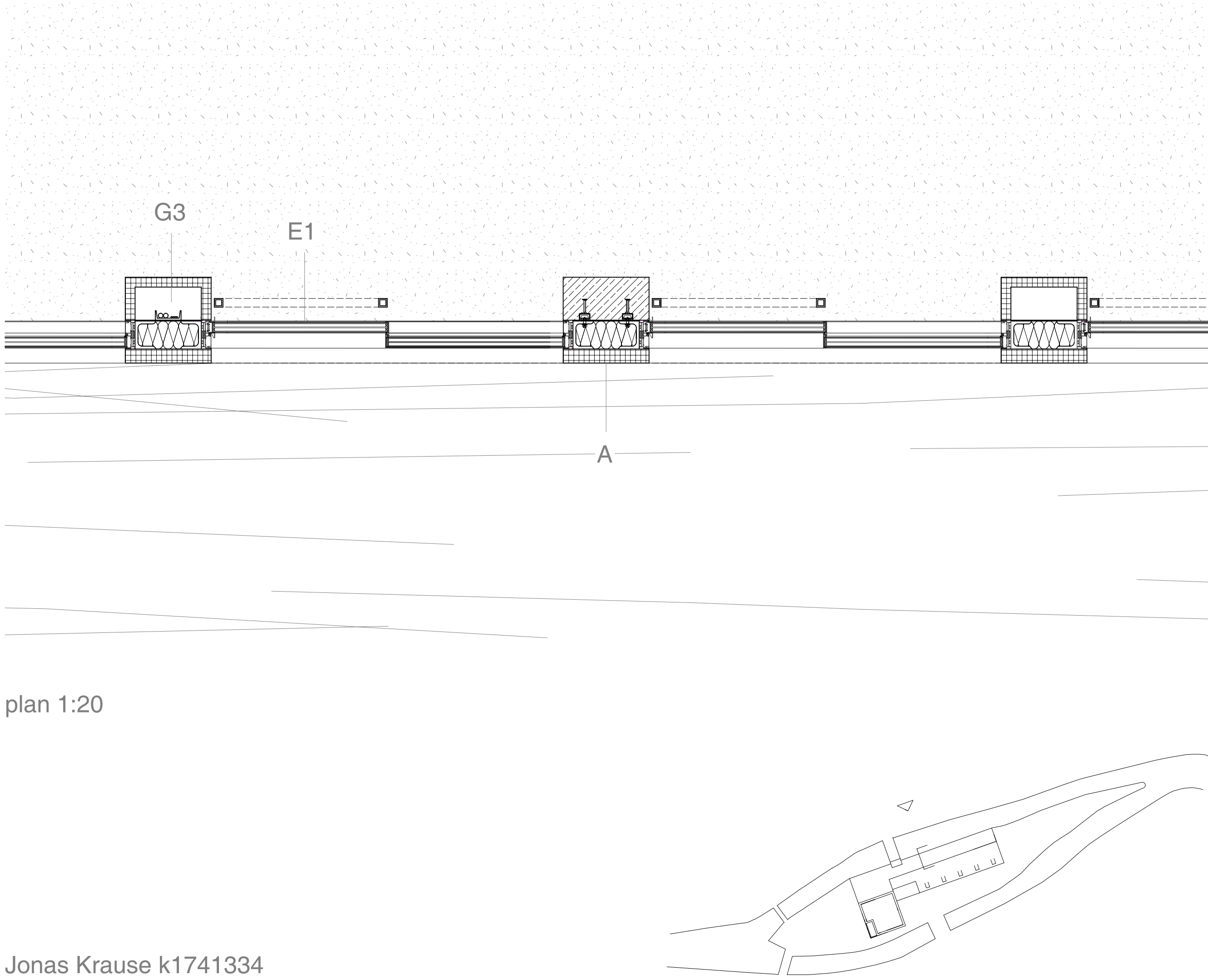
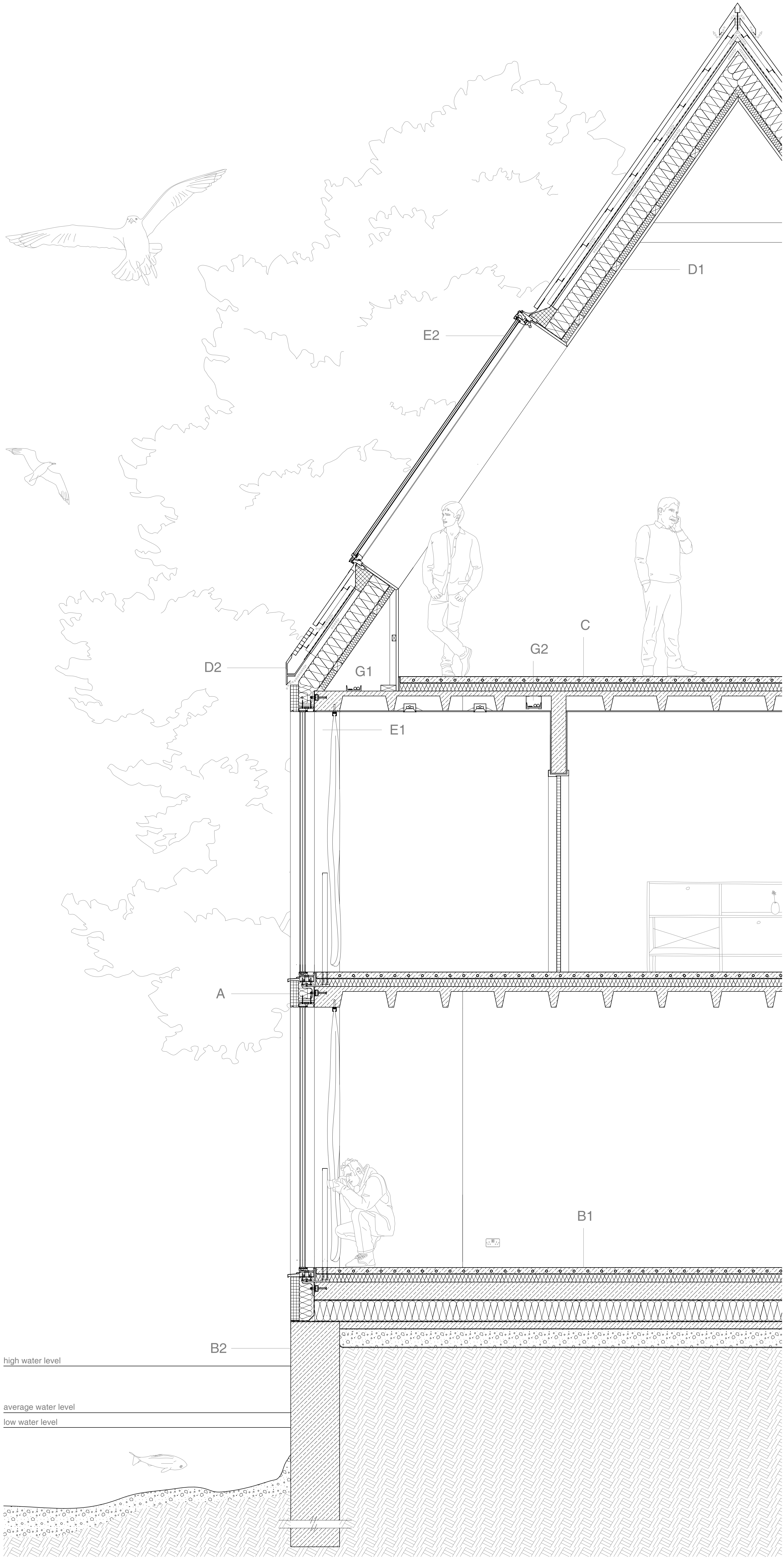


elevation 1:20



plan 1:20



section 1:20

detail key:

A Exterior Wall Build-Up

from exterior to interior:

80mm Precast Concrete Cladding mechanically fixed to structure, polished grey
160mm Glass Mineral Wool Insulation (u-value: 0,19)
160x120mm Metal Bracket to fix Windows and Concrete Cladding to structure
5mm Expansion Joint to accommodate thermal movements
250x500mm Cast-in-situ Reinforced Concrete Column, polished grey

B1 Ground Floor Build-Up (Passivhaus Standard)

from bottom to top:

Ground
Geotextile Membrane
180mm Capillary-breaking Gravel Filling
Polyethylene Film
70mm Concrete Clean Layer as basis
Horizontal Moisture Barrier
210mm EPS Rigid Insulation, non-compressible (u-value: 0,16)
180mm Cast-in-situ Reinforced Concrete Slab
80mm EPS Rigid Acoustic Insulation, non-compressible (u-value: 0,40)
Moisture Barrier
60mm Wearing Screed with Underfloor Heating, polished grey

B2 Foundation

500mm Cast-in-situ Reinforced Concrete Strip Foundation, new construction of river wall

C Upper Floor Build-Up

from bottom to top:

12mm Plasterboard, painted, joints skimmed, mechanically fixed to structure
200mm Cast-in-situ Reinforced Concrete Ribbed Structure
80mm EPS Rigid Acoustic Insulation, non-compressible (u-value: 0,40)
Horizontal Moisture Barrier
60mm Wearing Screed with Underfloor Heating, polished grey

D1 Roof Build-Up (Cold Roof)

from exterior to interior:

40mm Corrugated Aluminium Roofing, painted
25x80mm Horizontal Aluminium Substructure
25x80mm Vertical Aluminium Substructure
Waterproofing Membrane
15mm Timber Planking
70x50mm Vertical Timber Lathing
200mm Glass Mineral Wool Insulation between rafters (u-value: 0,15)
Vapour Barrier
60mm Glass Mineral Wool Insulation (u-value: 0,50) between 70x90mm Horizontal Timber Lathing
12mm Plasterboard, painted, joints skimmed, mechanically fixed to structure

D2 Rainwater Gutter Detail

from bottom to top:

Aluminium Sheet to cover ventilation level, painted
200x100mm Rainwater Gutter integrated into eave, painted
Removable grill as protection from leaves, painted

E1 Sliding Window Detail

from exterior to interior:

Sky-Frame Triple-glazed Frameless Sliding Door (u-value: 0,66)
160x120mm Metal Bracket to fix Windows and Concrete Cladding to structure
Stainless Steel Parapet with Chrome finish, 1m height, mechanically fixed to floor
White Textile Curtain in Curtain Track, mechanically fixed to ceiling

E2 Roof Window Detail

Velux Triple-glazed Roof Window (u-value: 0,82)
Additional EPS Rigid Insulation

G1 Service Route

Horizontal Cable Tray on Floor

G2 Service Route

Horizontal Cable Tray hanging from structure, mechanically fixed with Hangers

G3 Service Route

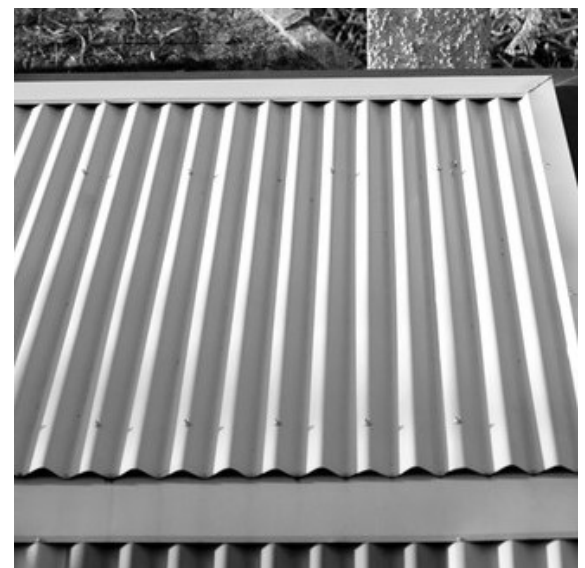
Vertical Cable Tray in Column-cladding, mechanically fixed to Metal Bracket

note:

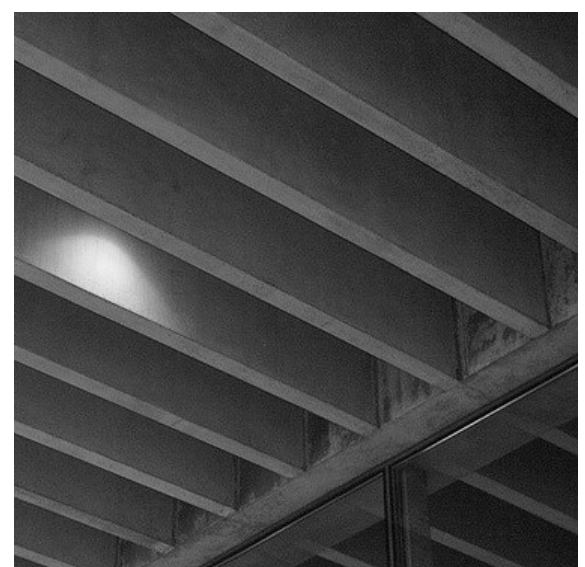
The idea behind the design is on the one hand to create a clear but powerful construction on a high-end insulation standard and on the other hand to make the appearance of the building as simple and seamless as possible. Therefore puristic materials like polished concrete are presented and not hidden. Further windows and openings are integrated in a way that steps can be avoided and a undisturbed view to the context of the river is provided.

* u-values in W / (m2 K)

references:



Corrugated Aluminium Roof
(Campbell House, Sam Crawford Architects)



Ribbed Concrete Ceiling Structure
(Walsall Art Gallery, Caruso St John)



Frameless Sliding Door
(Sky-Frame)