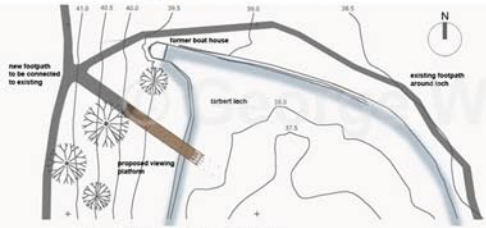
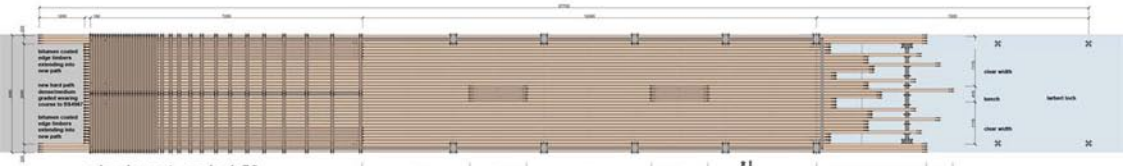
viewing platform

larbert loch, forth valley royal hospital

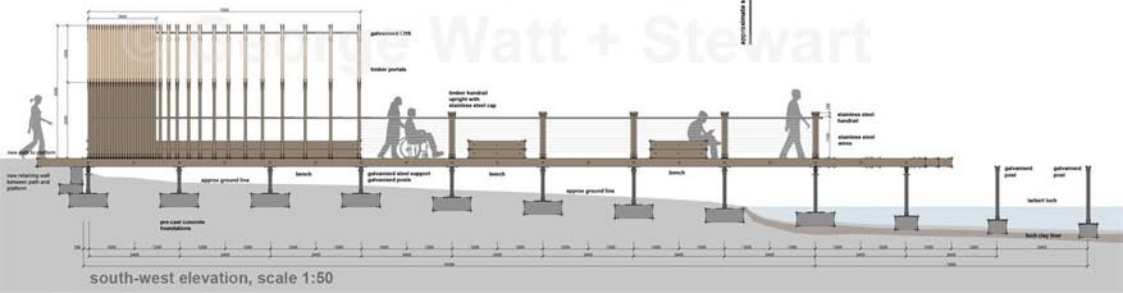


location plan, scale 1:500

view towards north-west elevation



plan layout, scale 1:50



south-west elevation, scale 1:50

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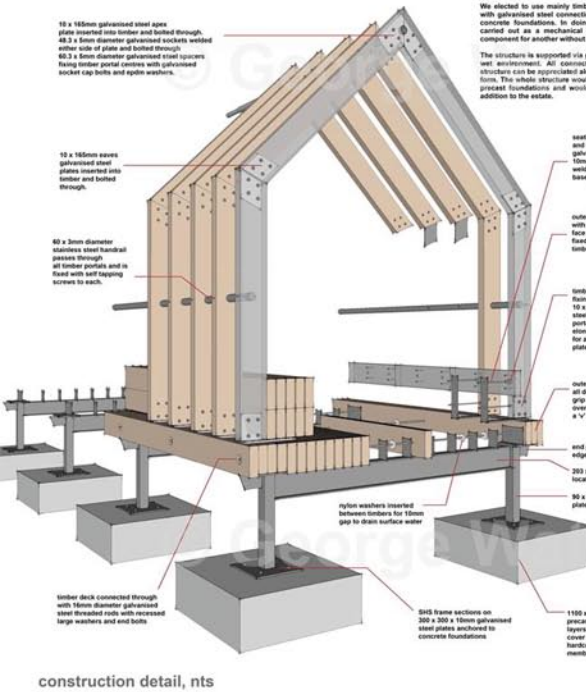

construction detail, nts

structure

We elected to use mainly timber components connected together with galvanised steel connecting tubes, plates and posts down to concrete foundations. In doing this, future maintenance can be carried out as a mechanical operation of swapping one timber component for another without major disruption.

The structure is supported via galvanised posts for durability in the wet environment. All connections would be expressed so the structure can be appreciated along with the materials in their purest form. The whole structure would be fully demountable down to the precast foundations and would be a sustainable and appropriate addition to the estate.

south-east elevation, scale 1:40

Material	Item	Component Sizes	Approx Quantity
Timber- Treated Douglas Fir	Deck	115 x 35mm (but this would be reduced to 150 x 75mm sections if there was an issue with timber supply to the central sections of timbers)	24no. lengths wide x 21.33m long approx, 857 linear metres, but not allowing for wastage.
Timber- Treated Douglas Fir	Timber Portals	225 x 75mm	2no. 1990mm & 2135mm (at longest) lengths, cut to splay fixing per detail x 57no. portals. 357 linear metres, but not allowing for wastage.
Timber- Treated Douglas Fir	Handrail Uprights	225 x 75mm	20no. at 1100/1200 high. 24 linear metres, but not allowing for wastage. Note handrail uprights are in pairs
Timber- Treated Douglas Fir	Benches	225 x 75mm	Note benches would be constructed from offcuts of standard lengths, 170 linear metres approx
Galvanised Steel	Support Goalposts	90 x 90 x 6mm SHS posts with 300 x 300 x 10mm baseplates, four anchor bolts per plate.	Approx 24 linear metres with 24no. baseplates
Galvanised Steel		203 x 102 UB horizontal sections	Approx 26 linear metres
Galvanised Steel		154 x 90 x 10mm 'fin' plates	Approx 180no.
Galvanised Steel		115 x 200 x 10mm edge cantilever plate with 120 x 10mm stiffeners	Approx 20no.
Galvanised Steel	Decking Connecting Rods	10mm dia threaded rods with large 50mm dia x 4mm washers and end bolts.	Approx 61 linear metres, 21 pairs of fixings.
Galvanised Steel	Handrail upright Fixing Plates	195 x 140 x 10mm baseplate with central 208 x 102 x 10mm fin, four bolt through connections through timber upright, four bolt through connections through decking including 5H steel plate to underside.	Approx 19no.
Galvanised Steel	Timber Portal Fixing Plates	195 x 140 x 10mm baseplate with central 208 x 102 x 10mm fin, four bolt through connections through timber upright, four bolt through connections through decking including 5H steel plate to underside. Note elongated baseplate at 600 centres under benching. Note every portal requires bolt down plates to concrete.	Approx 24no. standard baseplates Approx 24no. with elongated base plates
Galvanised Steel	Eaves Connection Plates	Angled flat plates fitted within slot in timber. 165 x 400 each length x 10mm, 4no. bolts per length.	Approx 76no.
Galvanised Steel	Apex Connection Plates	Angled flat plates fitted within slot in timber. 165 x 400 each length x 10mm, 4no. bolts per length. Each plate to have 48.3 x 5mm dia sockets welded either side of plate and bolted through. 60.3 x 5mm CHS sections between timbers. Each side of sleeve fixing connected with 2no. bolts with socket nuts and EPDM washers.	Approx 57no.
Stainless Steel	Handrail	60.3 x 3mm dia brushed stainless steel. Sleeve fixings	8no lengths of 4800mm, 1no length of 2850mm 4no. intermediate connections (inboard and fixing) 2no. right angle radius connections (inboard & fixing)
Stainless Steel	Handrail Wires	3mm dia twisted wires with tension fixings and fixed eye fixings	2no. lengths of 4800mm and 1x12mm 1no. length of 2850mm Tension fixings at one end and fixed to other. Note 21no. wires and fixings to each length shared.
Stainless Steel	Handrail upright Caps	2mm stainless steel sheet formed into over cap 50mm high to sit over 75 x 225mm timber uprights, fixed with SS screw either side.	Approx 24no.
Concrete	Foundations	1100 x 1100 x 350mm C40 concrete with 2no. layers A393 mesh and 40mg bars	Approx 18no.
Concrete	Foundations	600 x 600 x 350mm C40 concrete with 1no. layer A393 mesh and 30mg bars	Approx 6no.
Misc	Nylon spacer washers	30mm dia with 10mm central hole x 10mm thick	Approx 360no.
Misc	Retaining Wall	To maintain end of path by others	30m²