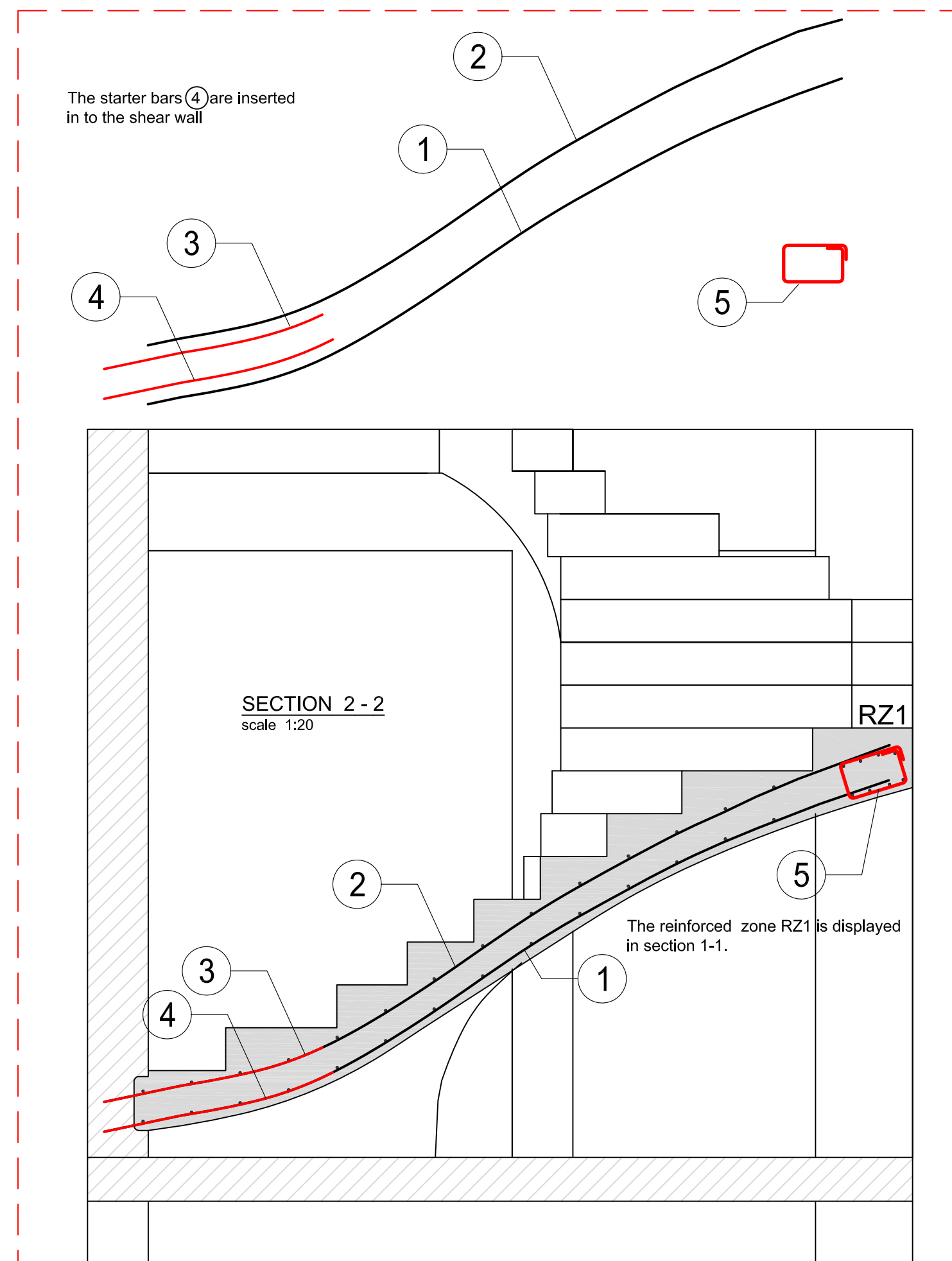
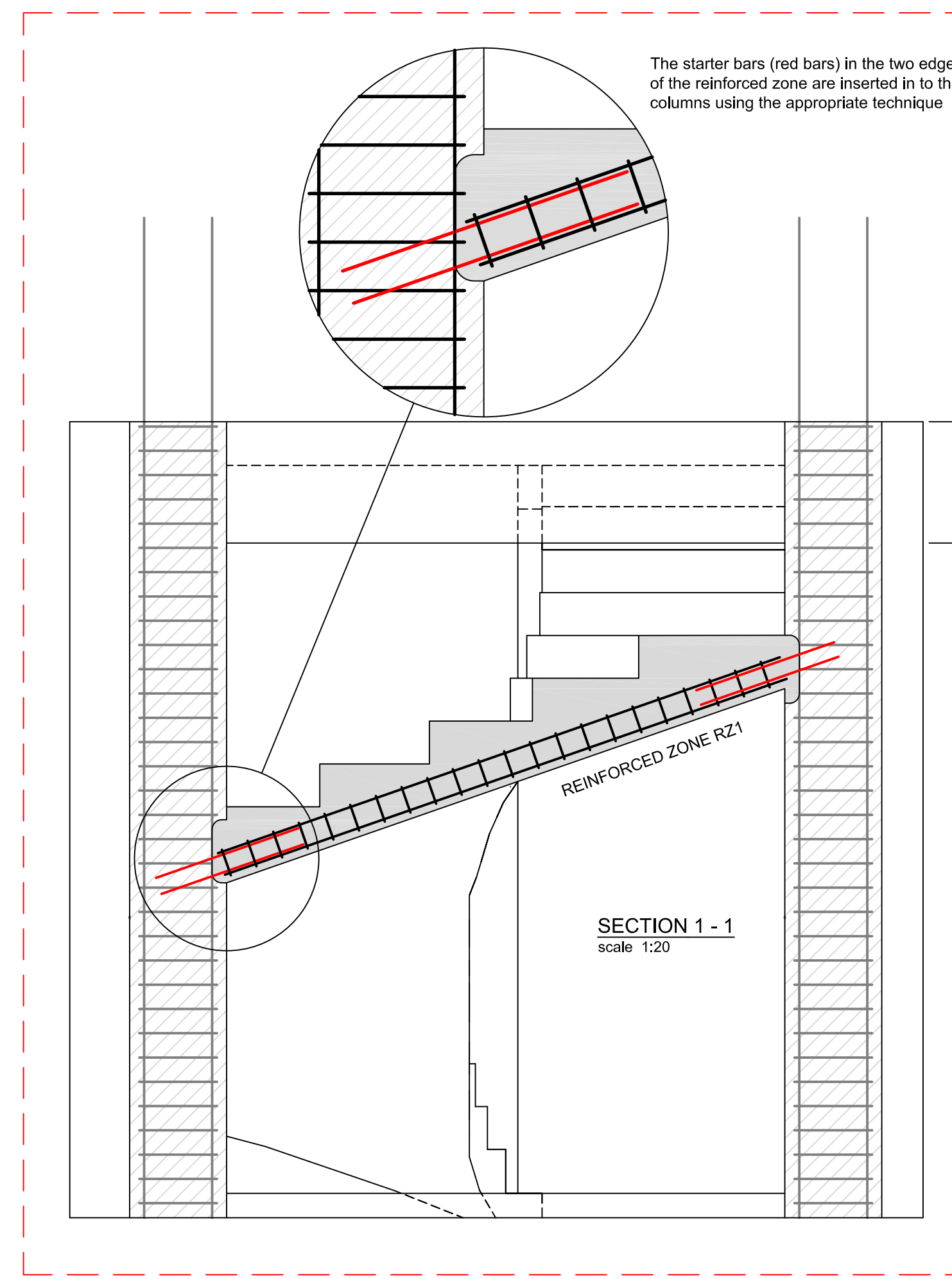
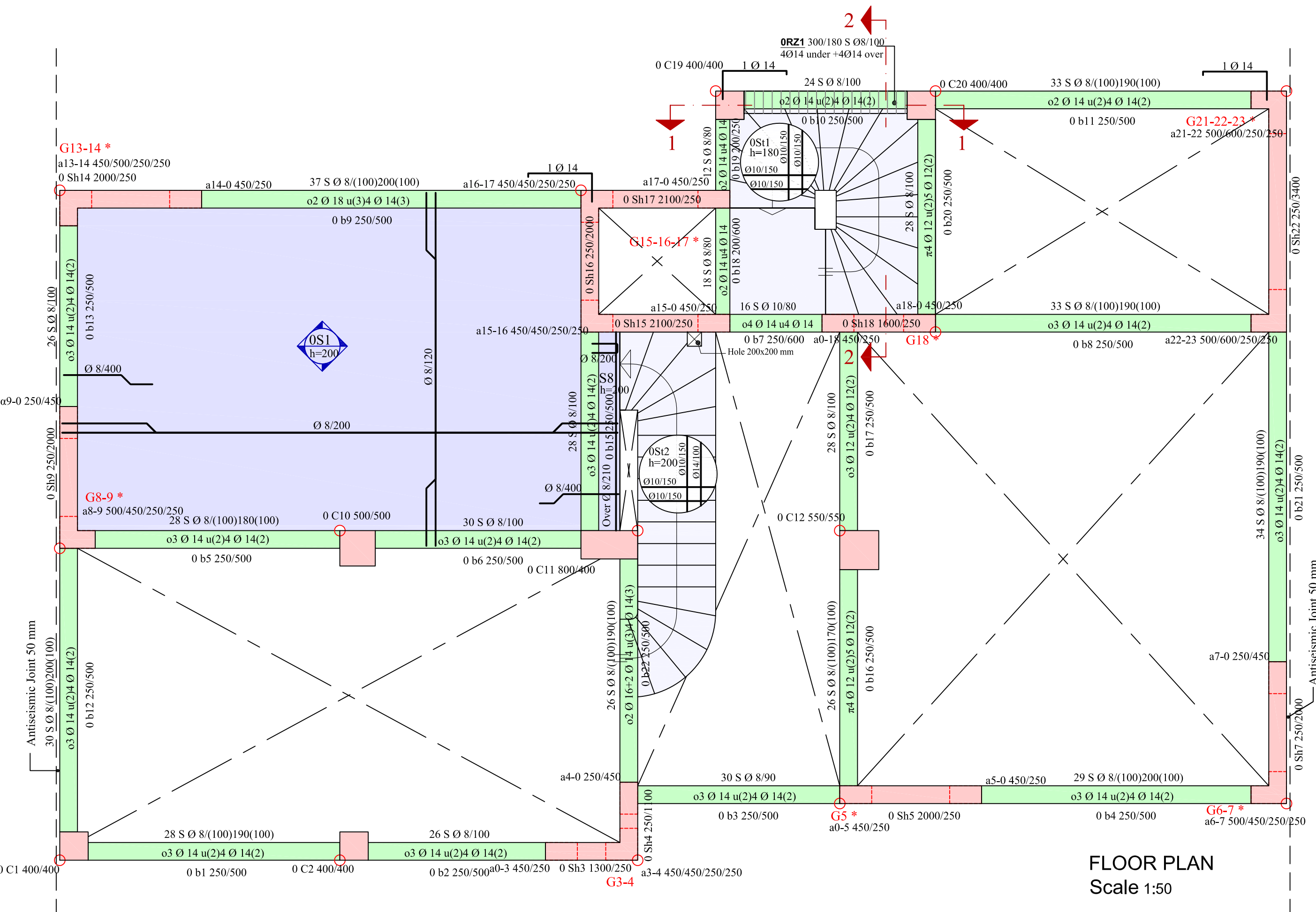
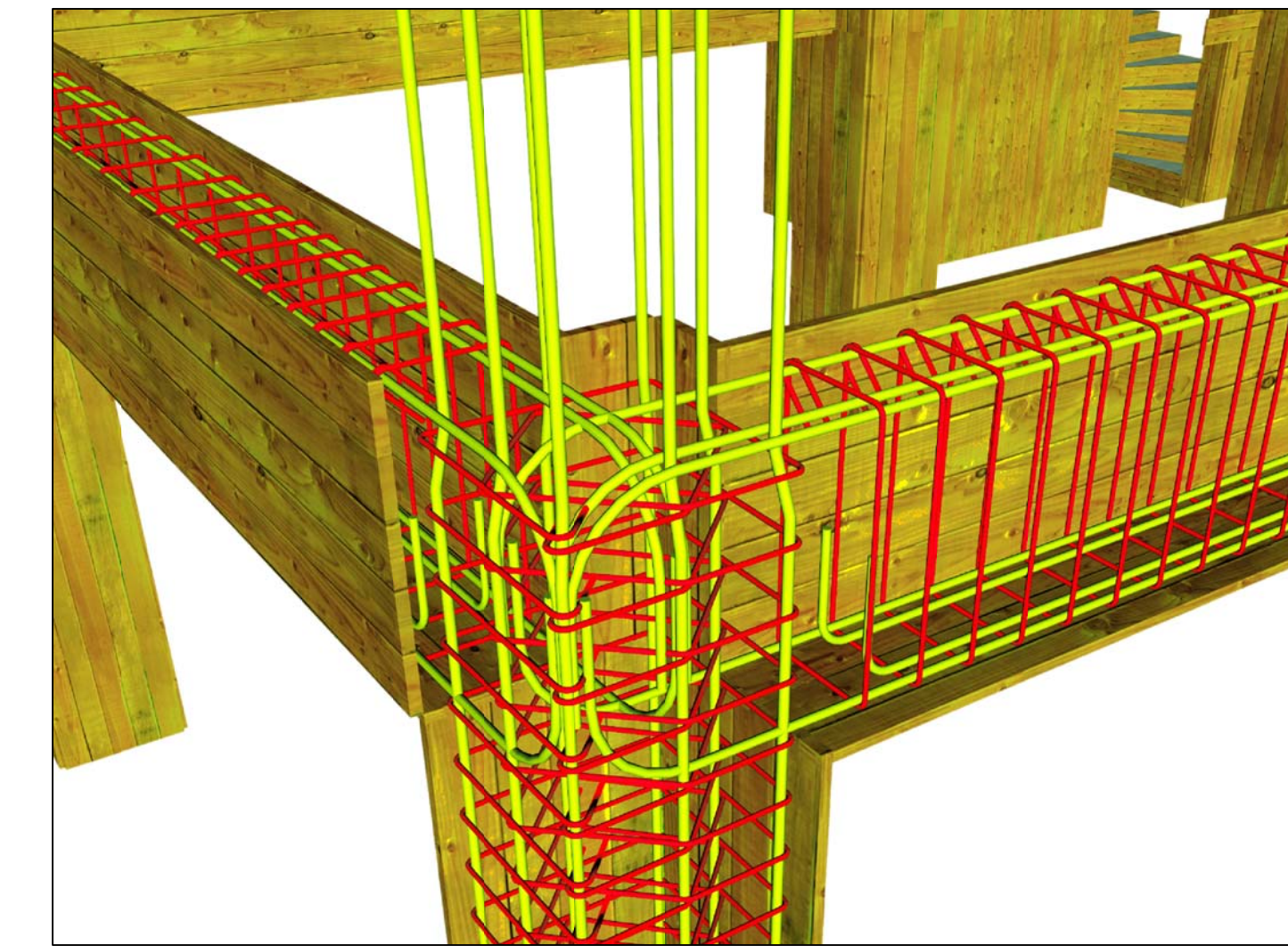


COLUMNS' DETAILS
scale 1:20



NODE AREA OF COLUMN C1



DESIGN ASSUMPTIONS

- MATERIAL**
Concrete C30/37
Steel B500C
Stirrups B500C
- Ground stress 0.25 Mpa
- Seismic coefficients
R_s(x): 0.114
R_d(x): 0.114
- REGULATIONS
Loadings ΦEK 325A/45
Con. Reg. ΦEK 315B/17-04-97
GRRC 2000 - 2003 - 2004
Antiseismic EAC 2000 - 2003
- Future floors : 0
- Antiseismic analysis assumptions
Earthquake zone : 1 (a=0.16)
Ground category B (T1=0.15, T2=0.60 sec)
Importance category II (γ=1.00)
Damping coefficient ζ=5%
Foundation coefficient θ=1
Spectral amplification coefficient β=2.5
Earthquake behavior coefficient q=3.5
- Dead loads
Concrete specific weight 25.00 KN/m³
Single wall weight 2.10 KN/m²
Double wall weight 3.60 KN/m²
Roof covering 2.00 KN/m²
Slab covering 1.50 KN/m²
- Loadings safety coefficient
Dead loads γ_d = 1.35
Live loads γ_d = 1.50
Loadings combination ψ₂ = 0.30
- Material covering
a) Slab covering 20 mm
b) Beam covering 25 mm
c) Column covering 25 mm
d) Footing covering 50 mm
- Live loads
House floors 2.00 KN/m²
Office floors 2.00 KN/m²
Balcony floors 5.00 KN/m²
Stair floors 3.50 KN/m²

COMMENTS

- The contractor, the possible super contractors and the project manager ought to be sufficiently informed about the approved from the corresponding authority Health and Safety plan, prior to the beginning of construction works and must follow all safety instructions described in the plan. Furthermore, it is their responsibility to inform all personnel about their obligations and rights according to the Health and Safety regulations and insure the proper implementation of the regulations.
- Protective grounding in foundation according to the E/M plan

QUANTITIES ESTIMATION

Concrete C30/37	Columns:	17,50 m ³
Beams-Slabs:	19,00 m ³	
Stairs:	4,10 m ³	
Formworks		
Columns:	152,0 m ²	
Beams-Slabs:	140,0 m ²	
Stairs:	30,0 m ²	
Column steel		
Rebars B500c:	1,930 kg	
Stirrups B500c:	910 kg	
Beam-Slab steel		
Rebars B500c:	935 kg	
Stirrups B500c:	335 kg	

employer:	EARTHQUAKE RESISTANT BUILDINGS
project:	Drawings sample
location:	VOLUME A'
engineers:	The Author's Team

Project type:	STATIC AND DYNAMIC ANALYSIS	date:	03/06/10
Project phase:	DETAILING	Drawing number:	R.40
Drawing subject:	GROUND FLOOR CEILING FORMWORK level "0": +3000		
Scale:	1:50 1:20	Project name:	bkGR
		Revision code:	

ARCHITECTURAL PROJECT:	Stamp, signature:
STATIC ANALYSIS PROJECT:	
ELECTRICAL-MECHANICAL PROJECT:	