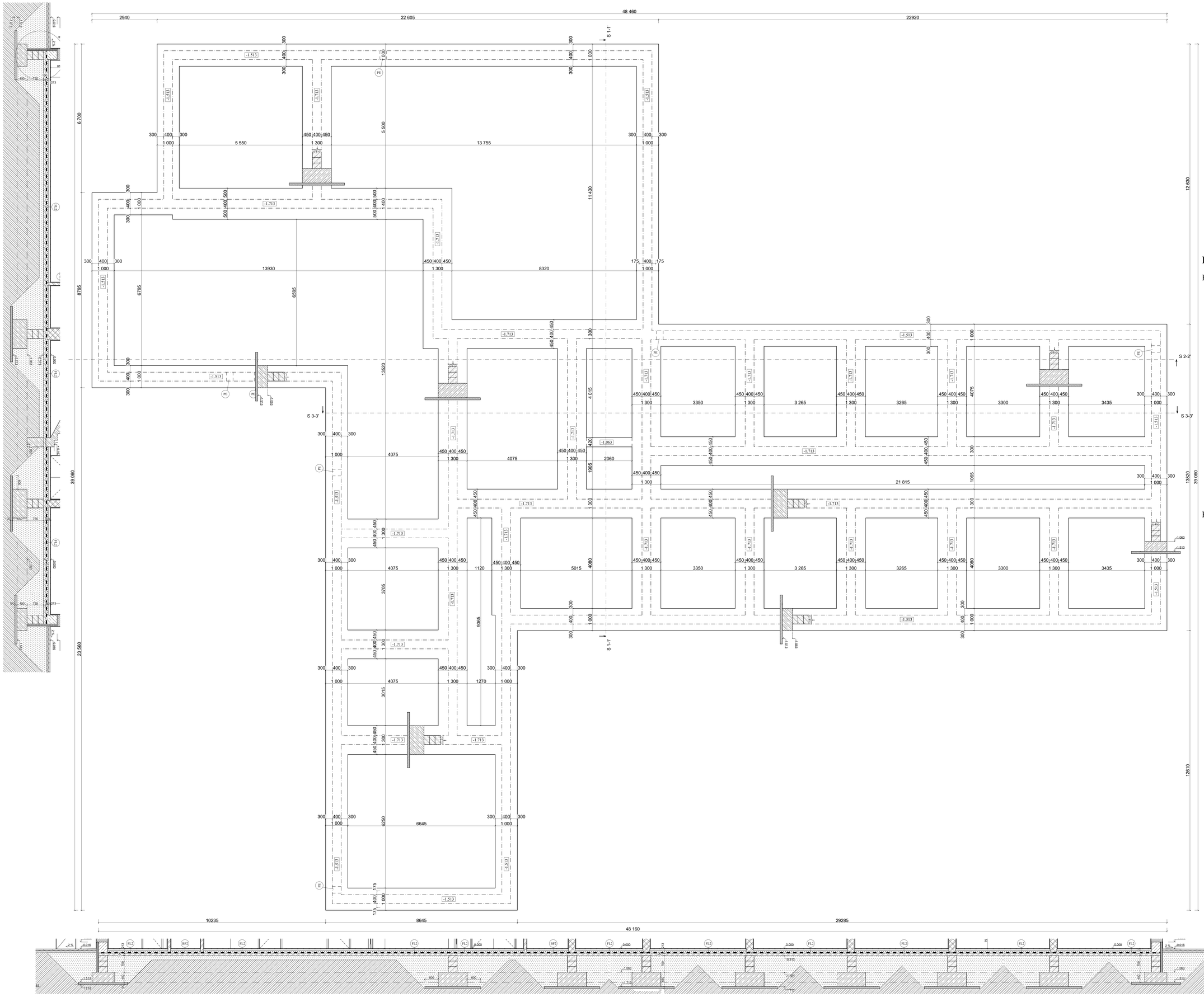
FOUNDATIONS

SC 1:50



LEGEND OF COMPOSITIONS

BF2 FLOOR IN 1st ABOVE GROUND FLOOR

N	FUNCTION	MATERIAL SPECIFICATION	STABILIZATION	THICKNESS
1	GROUTING MORTAR	FLEXIBLE GROUTING MORTAR curing time 24 hours, flexural strength ≥ 2.5 N/mm², compressive strength ≥ 15 N/mm²	rubber trowel	-
2	SURFACE FINISH	CERAMIC TILES dimensions 30 x 30 cm, coefficient of thermal conductivity λ_k 1.01W/m*K, diffusion resistance factor μ > 0.5, anti-slip R11	-	10
3	TILE ADHESIVE	CEMENT BASED ADHESIVE WITH EXTENDED OPEN TIME AND REDUCED SLIP curing time 24 hours, consumption 3-5 kg/m², 4 mm in case of 30x30cm tiles, tensile adhesion strength ≥ 1.0 N/mm², fire reaction class A1, slip >0.5 N/mm²	stainless steel trowel	4.0
4	WATERPROOFING	ACRYLIC EMULSION BASED, ONE COMPONENT ELASTIC WATERPROOFING curing time 4 hours, consumption 1.5 kg/m², 3 layers, tensile strength ≥ 0.8 N/mm², tensile adhesion strength ≥ 0.8 N/mm², water-vapour permeability class I, equivalent air thickness S_d < 5	brush or roller	1.0
5	PENETRATION	ACRYLIC PRIMER ready to use acrylic based primer, temperature range (+5°C)-(+35°C), minumum drying time 45-60 minutes, pot life 20 minutes, consumption 150 gr/m², 2 layers needed	roller, brush or spraying machine	-
6	LEVELING	SELF-LEVELING SCREED calcium sulfate base, thickness from 2.5 to 10 mm, compressive strength >35 N/mm², coefficient of thermal conductivity λ 1.4 W/m*K, density 2100 kg/m³ initial setting 15-30 minutes, final setting 60-90 minutes, curing 48 hours	smooring trowel or screeding rake	10
7	GROUTING	GROUTING CONCRETE SCREED concrete C20/25 XC1, consistancy S3, with reinforcement mesh diameter 4/150	-	60
8	SEPARATION	PLASTIC FOIL PE foil	-	-
9	INSULATION	ACOUSTIC INSULATION stone wool, thermal resistance R 1.10 m²*K/W, coefficient of thermal conductivity λ_k 0.035W/m*K, fire reaction class A1, diffusion resistance factor μ 1, density 40 kg/m³	-	40
10	THERMAL INSULATION	THERMAL INSULATION EPS polystyrene, thermal resistance R 5.80 m²*K/W, coefficient of thermal conductivity λ_k 0.034W/m*K, fire reaction class E, compressive strength 250 MPa, diffusion resistance factor μ 100	-	80
11	WATERPROOFING/ ANTI-RADON	BITUMEN SHEETS modified SBS, top layer separation spill, core layer glass textile, bottom layer PE foil, coefficient of thermal conductivity λ_k 0.21W/m*K	melted	2x4
12	FOUNDATION PLATE	CONCRETE PLATE + KARI WIRE MESH concrete C20/25 XC1, consistancy S3, with reinforcement mesh diameter 4/150	-	100
13	BASE	COMPRESSED SOIL class 6, Rdt 500 kPa	-	200

FL2 FLOOR IN 1st ABOVE GROUND FLOOR

N	FUNCTION	MATERIAL SPECIFICATION	STABILIZATION	THICKNESS
1	SURFACE FINISH	LAMINATE FLOORING marmoleum, 2 mm on top finish, load-bearing 7 mm, bottom 1 mm	lock connected	10
2	SEPARATION	PE FOAM LAYER mirelon layer	-	5
3	LEVELING	SELF-LEVELING SCREED calcium sulfate base, thickness from 2.5 to 10 mm, compressive strength >35 N/mm², coefficient of thermal conductivity λ 1.4 W/m*K, density 2100 kg/m³ initial setting 15-30 minutes, final setting 60-90 minutes, curing 48 hours	smooring trowel or screeding rake	10
4	GROUTING	GROUTING CONCRETE SCREED concrete C20/25 XC1, consistancy S3, with reinforcement mesh diameter 4/150	-	60
5	SEPARATION	PLASTIC FOIL PE foil	-	-
6	INSULATION	ACOUSTIC INSULATION stone wool, thermal resistance R 1.10 m²*K/W, coefficient of thermal conductivity λ_k 0.035W/m*K, fire reaction class A1, diffusion resistance factor μ 1, density 40 kg/m³	-	40
7	THERMAL INSULATION	THERMAL INSULATION EPS polystyrene, thermal resistance R 5.80 m²*K/W, coefficient of thermal conductivity λ_k 0.034W/m*K, fire reaction class E, compressive strength 250 MPa, diffusion resistance factor μ 100	-	80
8	WATERPROOFING/ ANTI-RADON	BITUMEN SHEETS modified SBS, top layer separation spill, core layer glass textile, bottom layer PE foil, coefficient of thermal conductivity λ_k 0.21W/m*K	melted	2x4
9	FOUNDATION PLATE	CONCRETE PLATE + KARI WIRE MESH concrete C20/25 XC1, consistancy S3, with reinforcement mesh diameter 4/150	-	100
10	BASE	COMPRESSED SOIL class 6, Rdt 500 kPa	-	200

LEGEND OF MATERIALS

- EXTERNAL WALL, Heluz 50 2in1, 500 mm
- INTERNAL WALL, Heluz, load-bearing
- INTERNAL WALL, Heluz, non load-bearing
- FOUNDATION BRICK, Heluz STI, load-bearing, 400 mm
- THERMAL INSULATION, EPS polystyrene
- THERMAL INSULATION, XPS, 100 mm
- REINFORCED CONCRETE, C20/25 XC1, consistancy S3, with reinforcement mesh diameter 4/150
  Additional reinforcement B500B - STATIC CALCULATION REQUIRED
- CONCRETE SCREED, calcium sulfate base
- COMPRESSED SOIL, class 6, Rdt 500 kPa
- ORIGINAL SOIL, TYPE F4 CS, R_R = 150 kPa
- GRAVEL, fraction 8-16
- GRAVEL, fraction 4-8
- PAVEMENT, interlocking, Premac vega
- PAVEMENT, interlocking, Premac klasiko
- FOUNDATION FORMWORK, concrete blocks filled with C20/25 reinforced by reinforcement bars
- BASE LAYER, cocnrete C20/25, for securing of even reinforcement cover
- WATERPROOFING, modified SBS, self-adhesive
- PE PASSAGE ENTRANCE, passage for pipeline 300 x 300 mm

NOTES:

- FOUNDED ON CONCRETE FOUNDATION STRIPS
- CONCRETE C 20/25
- REINFORCEMENT STEEL B500B
- COMPOSITIONS OF WALLS AND FLOORS CAN BE SEEN IN THE ANNEX D.1.1.1
- FOUNDATION PLATE IS REINFORCED BY KARI NETS AND LAYED ON LAYER OF COMPACTED SOIL, R_R = 500 kPa

0.000 = 162.00 m.a.s.l., B.H.S. / COORDINATE SYSTEM S-JTSK

TYPE OF WORK	DIPLOMA THESIS		FAKULTA STAVEBNÍ ústav pozemního stavitelství
DRAWN BY	Bc. Richard Sadu		
SUPERVISED BY	Ing. Karel Struhala		
CUSTOMER	John Davidson, Savorovova 2888/9, 902 01 Pezinok-Staré hora		
SITE LOCATION	Savorovova 2888/9, 902 01 Pezinok-Staré hora		
PROJECT TITLE	HOTEL	PAPER FORMAT	1300*1000
BUILDING OBJECT	B-1 HOTEL	DATE	01/2019
PART	D.1.2 - Building Construction Solution	PHASE	DPS
DRAWING TITLE:	FOUNDATIONS	SCALE 1: 50	DRAWING NO. D.1.2-01