



TUNNEL PART		PORTAL CUT		MINED TUNNEL										PORTAL CUT																					
PROFILE		500	501	502	503	504	505	506	507	508	509	510	511	512	513	514																			
CHAINAGE [km]		12+480	12+500	12+500	12+540	12+580	12+580	12+600	12+620	12+640	12+680	12+680	12+700	12+720	12+740	12+780																			
OVERBURDEN (cca) [m]				5	12	20	28	33	35	36	31	22	15	8																					
GROUND TYPE	dominating			GT2b		GT2a		GT2b, GT3b		GT2b, GT3b		GT2a		GT2b, GT3a																					
	subordinate			GT2a, GT3a		GT2b, GT3b		GT2a		GT2b, GT3b		GT2a		GT2a, GT3b																					
BEHAVIOUR TYPE				BT7		BT2, BT3		BT3, BT4, BT10		BT2, BT3		BT7																							
ASSOCIATED PLANS	central tunnel	regular cross section		G.31.120		G.31.120		G.31.120		G.31.120		G.31.120		G.31.120																					
		geotechnical measurements and solutions		G.31.400-402, STUDY 102		G.31.400-402, STUDY 102		G.31.400-402, STUDY 102		G.31.400-402, STUDY 102		G.31.400-402, STUDY 102		G.31.400-402, STUDY 102																					
		support measures		G.31.208-210		G.31.201-207		G.31.204-210		G.31.201-207		G.31.208-210		G.31.208-210																					
SUPPORT MEASURES	central tunnel	BT7 7/12.6 excavation step <1.0m -face bolting IBO l=12m -shotcrete ds=5cm 1x wire mesh Q189 (50%) -shotcrete, ds=15cm -wire mesh 2 layers Q189 -steel rib TH16 -SN/IBO anchor, F=250kN, l=4m -ribbed reinforced bars Ø28, l=3m -support body		BT2 4/3.38 excavation step <2.2m -shotcrete, ds=3cm -shotcrete, ds=10cm -wire mesh 1 layer Q189 -steel rib TH16 -ribbed reinforced bars Ø28, l=4m -support body		BT3 6/5.43 excavation step <1.3m -shotcrete, ds=5cm -shotcrete, ds=10cm -wire mesh 1 layer Q189 -steel rib TH16 -ribbed reinforced bars Ø28, l=3m -support body		BT3 BT4 7/10 excavation step <1.0m -shotcrete, ds=5cm -shotcrete, ds=15cm -wire mesh 2 layers Q189 -steel rib TH16 -SN/IBO anchor, F=250kN, l=4m -ribbed reinforced bars Ø28, l=3m -support body		BT10 7/15.2 excavation step <1.0m -face bolting IBO l=12m -shotcrete ds=5-10cm 1x wire mesh Q189 (50%) -shotcrete, ds=15cm -wire mesh 2 layers Q189 -steel rib TH16 -SN/IBO anchor, F=250kN, l=4m -forepoling piles, l=3m -support body		BT2 4/3.38 excavation step <2.2m -shotcrete, ds=3cm -shotcrete, ds=10cm -wire mesh 2 layers Q189 -steel rib TH16 -ribbed reinforced bars Ø28, l=4m -support body		BT3 BT7 7/12.6 excavation step <1.0m -face bolting IBO l=12m -shotcrete ds=5cm 1x wire mesh Q189 (50%) -shotcrete, ds=15cm -wire mesh 2 layers Q189 -steel rib TH16 -SN/IBO anchor, F=250kN, l=4m -ribbed reinforced bars Ø28, l=3m -support body																					
	central tunnel	BT7 7/17.8 -shotcrete ds=5cm 1x wire mesh Q189 (50%) -shotcrete, ds=20cm -forepoling piles, l=3m		BT2 6/5.43 excavation step <1.3m -shotcrete, ds=5cm -ribbed reinforced bars Ø28, l=3m -support body		BT3 7/10 excavation step <1.0m -shotcrete, ds=15cm -wire mesh 2 layers Q189 -SN/IBO anchor, F=250kN, l=4m -support body		BT3 BT4 7/17.8 -face bolting IBO l=12m -shotcrete ds=5-10cm 1x wire mesh Q189 (50%) -shotcrete, ds=20cm -forepoling piles, l=3m		BT10 7/17.8 -shotcrete, ds=20cm		BT2 6/5.43 excavation step <1.3m -shotcrete -ribbed reinforced bars Ø28, l=3m -support body		BT3 BT7 7/17.8 -shotcrete ds=5-10cm 1x wire mesh Q189 (50%) -shotcrete, ds=20cm -forepoling piles, l=3m																					
WARNING AN ALARM LEVELS	central tunnel	Calculated deformation		~0.5 cm		~1.0 cm		~1.5 cm		~1.0 cm		~0.5 cm																							
	central tunnel	80% deformation tolerances		6.0 cm		3.0 cm		6.0 cm		3.0 cm		6.0 cm																							
	central tunnel	100% deformation tolerances		10.0 cm		5.0 cm		10.0 cm		5.0 cm		10.0 cm																							
GEOTECHNICAL MEASUREMENTS	central tunnel	12+480	12+500	12+510 MS I-CP	12+515 MS I-CP	12+520 MS I-CP	12+525 MS I-CP	12+530 MS I-CP	12+535 MS I-CP	12+540 MS I-CP	12+550 MS I-CP	12+560 MS I-CP	12+570 MS I-CP	12+580 MS I-CP	12+590 MS I-CP	12+600 MS I-CP	12+610 MS I-CP	12+620 MS I, MS III	12+625 MS II, MS III	12+630 MS I-CP	12+640 MS I-CP	12+650 MS I-CP	12+660 MS I-CP	12+670 MS I-CP	12+680 MS I-CP	12+690 MS I-CP	12+700 MS I-CP	12+705 MS I-CP	12+710 MS I-CP	12+715 MS I-CP	12+720 MS I-CP	12+725 MS I-CP	12+730 MS I-CP	12+740	12+760

- LEGEND**
- ALLUVIAL SOILS (CLAYS, SILTS, SANDS)
 - SOILS AND SOIL-LIKE MATERIALS (TOPSOIL, RESIDUAL SOIL W6, COMPLETELY WEATHERED ROCK W5)
 - MARLY CLAYSTONE, SILTSTONE, SANDSTONE, SANDS, FRACTURED AND DISINTEGRATED DUE TO SURFACE WEATHERING
 - MARLY CLAYSTONE, SILTSTONE (< 50%), SANDSTONE & SANDS (> 50%)
 - MARLY CLAYSTONE, SILTSTONE (> 70%), SANDSTONE & SANDS (< 30%)
 - TECTONICALLY HIGHLY DISTURBED
 - TECTONICALLY DISTURBED
 - FAULT, ASSUMED
 - BEDDING

br./no.	promena/change	datum/date	ime/name
Klijent/client:			
naslov/title: SRSDD Standardni crteži putnih detalja u Republici Srbiji SRSDD Serbian road standard detail drawings			
crtež/drawing: <div style="text-align: center;"> Plan iskopa Excavation work plan </div>			
razmera/scale: 1:1000	datum/date: 30.4.2012	strana/page: 7.2.1	