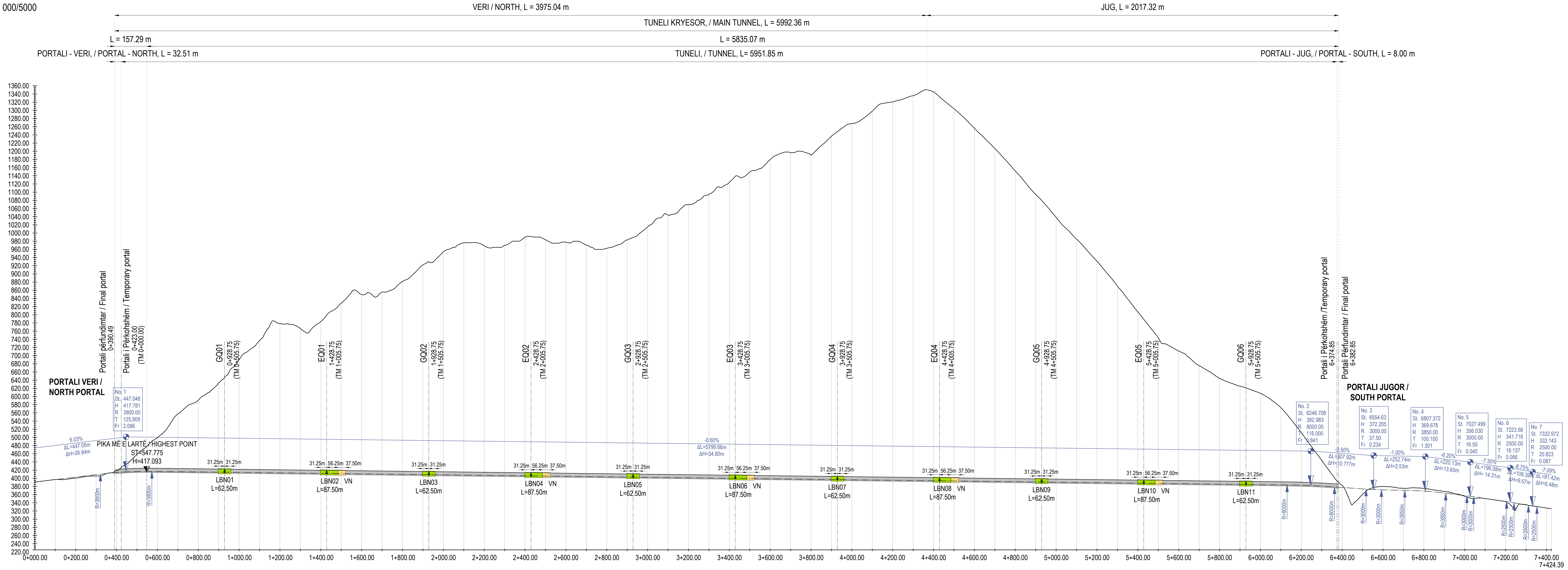
# PROFILI GJATËSOR - TUNELI KRYESOR / LONGITUDINAL SECTION - MAIN TUNNEL

SHKALLA / SCALE 1 10 000/5000


VERI / NORTH, L = 3975.04 m
JUG, L = 2017.32 m
TUNELI KRYESOR, / MAIN TUNNEL, L = 5992.36 m
L = 157.29 m
L = 5835.07 m
PORTALI - VERI, / PORTAL - NORTH, L = 32.51 m
TUNELI, / TUNNEL, L= 5951.85 m
PORTALI - JUG, / PORTAL - SOUTH, L = 8.00 m
1360.00
1340.00
1320.00
1300.00
1280.00
1260.00
1240.00
1220.00
1200.00
1180.00
1160.00
1140.00
1120.00
1100.00
1080.00
1060.00
1040.00
1020.00
1000.00
980.00
960.00
940.00
920.00
900.00
880.00
860.00
840.00
820.00
800.00
780.00
760.00
740.00
720.00
700.00
680.00
660.00
640.00
620.00
600.00
580.00
560.00
540.00
520.00
500.00
480.00
460.00
440.00
420.00
400.00
380.00
360.00
340.00
320.00
300.00
280.00
260.00
240.00
220.00
Portali përfundimtar / Final portal
0+390.49
Portali i Përkohshëm / Temporary portal
0+423.00
(TM 0+000.00)
PORTALI VERI /
NORTH PORTAL
No. 1
St. 447.048
H 417.781
R 3800.00
T 125,909
Fr 2,086
6.03%
ΔL=447.05m
ΔH=26.94m
PIKA MË E LARTË / HIGHEST POINT
ST=547.775
H=417.093
R=3800m
R=3800m
GQ01 0+928.75 (TM 0+505.75)
EQ01 1+428.75 (TM 1+005.75)
GQ02 1+928.75 (TM 1+505.75)
EQ02 2+428.75 (TM 2+005.75)
GQ03 2+928.75 (TM 2+505.75)
EQ03 3+428.75 (TM 3+005.75)
GQ04 3+928.75 (TM 3+505.75)
EQ04 4+428.75 (TM 4+005.75)
GQ05 4+928.75 (TM 4+505.75)
EQ05 5+428.75 (TM 5+005.75)
GQ06 5+928.75 (TM 5+505.75)
31.25m 31.25m
LBN01
L=62.50m
31.25m 56.25m 37.50m
LBN02 VN
L=87.50m
31.25m 31.25m
LBN03
L=62.50m
31.25m 56.25m 37.50m
LBN04 VN
L=87.50m
31.25m 31.25m
LBN05
L=62.50m
31.25m 56.25m 37.50m
LBN06 VN
L=87.50m
31.25m 31.25m
LBN07
L=62.50m
31.25m 56.25m 37.50m
LBN08 VN
L=87.50m
31.25m 31.25m
LBN09
L=62.50m
31.25m 56.25m 37.50m
LBN10 VN
L=87.50m
31.25m 31.25m
LBN11
L=62.50m
-0.60%
ΔL=5799.66m
ΔH=34.80m
Portali i Përkohshëm /Temporary portal
6+374.85
Portali Përfundimtar / Final portal
6+382.85
PORTALI JUGOR /
SOUTH PORTAL
No. 2
St. 6246.708
H 382.983
R 8000.00
T 116.000
Fr 0.841
-3.50%
ΔL=307.92m
ΔH=10.777m
R=8000m
R=8000m
No. 3
St. 6554.63
H 372.205
R 3000.00
T 37.50
Fr 0.234
-1.00%
ΔL=252.74m
ΔH=2.53m
R=3000m
R=3000m
No. 4
St. 6807.372
H 369.678
R 3850.00
T 100.100
Fr 1.301
-6.20%
ΔL=220.13m
ΔH=13.65m
R=3850m
R=3850m
No. 5
St. 7027.499
H 356.030
R 3000.00
T 16.50
Fr 0.045
-7.30%
ΔL=196.08m
ΔH= 14.31m
R=3000m
R=3000m
No. 6
St. 7223.58
H 341.716
R 2500.00
T 18.137
Fr 0.066
-8.75%
ΔL=109.39m
ΔH=9.57m
R=2500m
R=2500m
No. 7
St. 7332.972
H 332.143
R 2500.00
T 20.823
Fr 0.087
-7.09%
ΔL=91.42m
ΔH=6.48m
R=2500m
R=2500m
0+000.00
0+200.00
0+400.00
0+600.00
0+800.00
1+000.00
1+200.00
1+400.00
1+600.00
1+800.00
2+000.00
2+200.00
2+400.00
2+600.00
2+800.00
3+000.00
3+200.00
3+400.00
3+600.00
3+800.00
4+000.00
4+200.00
4+400.00
4+600.00
4+800.00
5+000.00
5+200.00
5+400.00
5+600.00
5+800.00
6+000.00
6+200.00
6+400.00
6+600.00
6+800.00
7+000.00
7+200.00
7+400.00
7+424.39

| SEKSIONI / SECTION | | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 24 | 25 | 26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PIKETA / STATION | 0.000 | 20.000 | 60.000 | 100.000 | 140.000 | 180.000 | 220.000 | 260.000 | 300.000 | 340.000 | 380.000 | 440.000 | 500.000 | 600.000 |
| KUOTA E TERRENIT / TERRAIN | 390.84 | 392.04 | 394.49 | 397.15 | 396.88 | 399.38 | 401.91 | 405.11 | 405.76 | 409.36 | 413.78 | 432.22 | 458.42 | 499.06 |
| KUOTA E PROJEKTIT / ALIGNMENT LEVEL | | 392.04 | 394.45 | 396.86 | 399.28 | 401.69 | 404.10 | 406.51 | 408.92 | 411.28 | 413.28 | 415.50 | 416.76 | 416.86 |

| SEKSIONI / SECTION | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PIKETA / STATION | 700.000 | 800.000 | 900.000 | 1000.000 | 1100.000 | 1200.000 | 1300.000 | 1400.000 | 1500.000 | 1600.000 | 1700.000 | 1800.000 | 1900.000 | 2000.000 |
| KUOTA E TERRENIT / TERRAIN | 557.46 | 590.90 | 613.50 | 613.36 | 613.18 | 613.01 | 612.83 | 612.66 | 612.49 | 612.31 | 612.14 | 611.97 | 611.79 | 611.62 |
| KUOTA E PROJEKTIT / ALIGNMENT LEVEL | 416.26 | 415.66 | 415.06 | 414.46 | 413.86 | 413.26 | 412.66 | 412.06 | 411.46 | 410.86 | 410.26 | 409.66 | 409.06 | 408.46 |

| SEKSIONI / SECTION | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PIKETA / STATION | 2100.000 | 2200.000 | 2300.000 | 2400.000 | 2500.000 | 2600.000 | 2700.000 | 2800.000 | 2900.000 | 3000.000 | 3100.000 | 3200.000 | 3300.000 | 3400.000 |
| KUOTA E TERRENIT / TERRAIN | 611.45 | 611.27 | 611.10 | 610.93 | 610.75 | 610.58 | 610.41 | 610.23 | 610.06 | 609.88 | 609.71 | 609.54 | 609.36 | 609.19 |
| KUOTA E PROJEKTIT / ALIGNMENT LEVEL | 407.86 | 407.26 | 406.66 | 406.06 | 405.46 | 404.86 | 404.26 | 403.66 | 403.06 | 402.46 | 401.86 | 401.26 | 400.66 | 400.06 |

| SEKSIONI / SECTION | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PIKETA / STATION | 3500.000 | 3600.000 | 3700.000 | 3800.000 | 3900.000 | 4000.000 | 4100.000 | 4200.000 | 4300.000 | 4400.000 | 4500.000 | 4600.000 | 4700.000 | 4800.000 |
| KUOTA E TERRENIT / TERRAIN | 609.02 | 608.81 | 608.61 | 608.41 | 608.20 | 608.00 | 607.80 | 607.59 | 607.39 | 607.19 | 606.98 | 606.78 | 606.58 | 606.37 |
| KUOTA E PROJEKTIT / ALIGNMENT LEVEL | 399.46 | 398.86 | 398.26 | 397.66 | 397.06 | 396.46 | 395.86 | 395.26 | 394.66 | 394.06 | 393.46 | 392.86 | 392.26 | 391.66 |

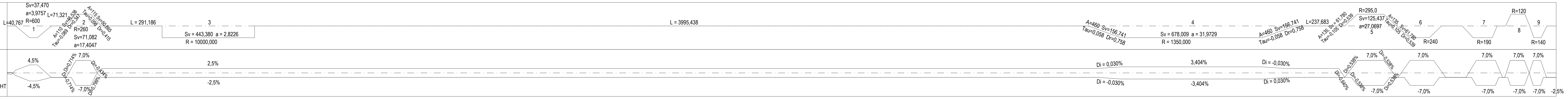
| SEKSIONI / SECTION | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PIKETA / STATION | 4900.000 | 5000.000 | 5100.000 | 5200.000 | 5300.000 | 5400.000 | 5500.000 | 5600.000 | 5700.000 | 5800.000 | 5900.000 | 6000.000 | 6100.000 | 6200.000 | 6300.000 |
| KUOTA E TERRENIT / TERRAIN | 606.17 | 605.97 | 605.76 | 605.57 | 605.38 | 605.20 | 604.99 | 604.77 | 604.55 | 604.50 | 604.50 | 604.50 | 572.83 | 511.64 | 444.01 |
| KUOTA E PROJEKTIT / ALIGNMENT LEVEL | 391.06 | 390.46 | 389.86 | 389.26 | 388.66 | 388.06 | 387.46 | 386.86 | 386.26 | 385.66 | 385.06 | 384.46 | 383.86 | 382.96 | 380.87 |

| SEKSIONI / SECTION | 85 | 88 | 91 | 95 | 98 | 101 | 104 | 107 | 110 | 113 | 116 | 119 | 122 | 125 | 129 | 134 | 137 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PIKETA / STATION | 6382.864 | 6420.000 | 6480.000 | 6540.000 | 6600.000 | 6675.000 | 6750.000 | 6820.000 | 6880.000 | 6940.000 | 7000.000 | 7060.000 | 7120.000 | 7180.000 | 7240.000 | 7320.000 | 7380.000 |
| KUOTA E TERRENIT / TERRAIN | 389.77 | 366.90 | 349.85 | 375.33 | 380.09 | 376.26 | 376.92 | 374.03 | 369.57 | 364.04 | 356.19 | 351.15 | 349.10 | 344.70 | 324.99 | 333.19 | 328.83 |
| KUOTA E PROJEKTIT / ALIGNMENT LEVEL | 378.22 | 376.92 | 374.82 | 372.80 | 371.75 | 371.00 | 370.01 | 367.90 | 365.08 | 361.45 | 357.73 | 353.66 | 349.28 | 344.90 | 340.28 | 333.29 | 328.81 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PORTALI/TUNELI LIDHËS / PORTAL / CROSS PASSAGE | FP | TP | 500.00m | GQ01 | 500.00m | EQ01 | 500.00m | GQ02 | 500.00m | EQ02 | 500.00m | GQ03 | 500.00m | EQ03 | 500.00m | GQ04 | 500.00m | EQ04 | 500.00m | GQ05 | 500.00m | EQ05 | 500.00m | GQ06 | 446.10m | TP | FP |
| KUOTA E TERRENIT / TERRAIN | 417.12 | 426.76 | | 646.73 | | 799.40 | | 929.31 | | 991.29 | | 989.17 | | 1138.68 | | 1247.88 | | 1333.24 | | 1079.76 | | 789.07 | | 621.48 | | 393.76 | 389.775 |
| KUOTA E PROJEKTIT / ALIGNMENT LEVEL | 413.74 | 414.97 | | 414.89 | | 411.89 | | 408.89 | | 405.89 | | 402.89 | | 399.89 | | 396.89 | | 393.89 | | 390.89 | | 387.89 | | 384.89 | | 378.50 | 378.22 |

DREJTIMI / DIRECTION

PJERRËSIA / EDGES


Sv=37,470
a=3,9757
L=71,321
R=600
L=40,767
1
A=110 Sv=46,538
Tau=0,089 Di=0,347
2
R=260
Sv=71,082
a=17,4047
A=115 Sv=50,865
Tau=0,098 Di=0,415
L = 291,186
3
Sv = 443,380 a = 2,8226
R = 10000,000
L = 3995,438
A=460 Sv=156,741
Tau=0,058 Dr=0,758
4
Sv = 678,009 a = 31,9729
R = 1350,000
A=460 Sv=156,741
Tau=0,058 Dr=0,758
L=237,683
A=135 Sv = 61,780
Tau=0,105 Dr=0,539
R=295,0
Sv=125,437
a=27,0697
5
A=135 Sv=61,780
Tau=0,105 Dr=0,539
6
R=240
7
R=190
R=120
8
9
R=140
MAJTAS / LEFT
DJATHTAS / RIGHT
4,5%
-4,5%
Di=0,714%
7,0%
Di=0,434%
Di=0,714%
-7,0%
Di=0,799%
2,5%
-2,5%
Di = 0,030%
Di = -0,030%
3,404%
-3,404%
Di = -0,030%
Di = 0,030%
Di=0,640%
Di=0,538%
Di=0,538%
7,0%
Di=0,538%
Di=0,538%
-7,0%
7,0%
-7,0%
7,0%
-7,0%
7,0%
-7,0%
7,0%
-7,0%
-2,5%

## LEGJENDA / LEGEND

| | | |
|---|---|---|
| TM | ... | PIKETA / TUNNEL METER |
| TP | ... | PORTALI PËRKOHSHËM / TEMPORARY PORTAL |
| FP | ... | PORTALI PËRFUNDIMTAR / FINAL PORTAL |
| GQ | ... | TUNELI LIDHËS PËR KËMBËSORË / PEDESTRIAN CROSS PASSAGE |
| EQ | ... | TUNELI LIDHËS PËR AUTOMJETE / VEHICLE CROSS PASSAGE |
| LBN | ... | SKUTË VENDQËNDRIMI / LAY BY NICHE |
| VN | ... | SKUTË VENTILIMI / VENTILATION NICHE |

## MATJET / MEASUREMENT

| | |
|---|---|
| Sistemi koordinativ: | KRGJSH sistemi i koordinatave - Sistemi koordinativ Shqiptar |
| Coordinate system: | KRGJSH system coordinates - Albanian coordinate system |

M 1:10.000

0 200 m 400 m 600 m 800 m 1000 m

**REPUBLIKA E SHQIPERISË**
***REPUBLIC OF ALBANIA***
**Ministria e Infrastrukturës dhe Energjisë**
***Ministry of Infrastructure and Energy***

**Konsorciumi i Projektit të Tunelit të Llogarasë**
***Llogara Tunnel Design Consortium***

iC Consulenten
Ziviltechniker GesmbH

Elea iC d.o.o.
Engineering and consulting

IBE d.d.
Svetovanje, projektiranje in inženiring

SEED Consulting sh.p.k.
Smart Environment Engineering Design

InfraKonsult sh.p.k.
konsulence inxhinierike

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Dizajn origjinal / Original design | 10.3.2021 | S. Saje | P. Schubert | 01 |
| Përshkrimi i ndryshimit/ Change Description | Data/ Date | Projektoi/ Designer | Aprovoi/ Approver | Ver. Nr./ Rev. No. |

Projekti/ Project

**Rishikim i Studimit të Fizibilitetit dhe Hartimi i Projektit të Detajuar Inxhinierik Ndërtimi i Tunelit të Llogarasë**
***Review of the Feasibility Study and Engineering Detailed Design of Llogara Tunnel***

Faza e projektit/ Project stage

**Projekt Zbatimi**
***Detailed Design***

Disiplina e projektit/ Design discipline

Tunelimi
*Tunneling*

Emërtimi i Vizatimit/ Drawing title

Profili Gjatësor- Tuneli Kryesor
*Longitudinal section - Main Tunnel*

Punuar nga/ Elaborated by

**iC consulenten Ziviltechniker GesmbH Schönbrunner Straße 297 1120 Vienna, Austria**

| Data/ Date | Projektoi/ Designed | Nënshkrimi/ Signat. |
|---|---|---|
| 20.3.2021 | Saje S | |
| Data/ Date | Kontrolloi/ Checked | Nënshkrimi/ Signat. |
| 20.3.2021 | Žibert M | |
| Data/ Date | Aprovoi/ Approved | Nënshkrimi/ Signat. |
| 20.3.2021 | Schubert P | Peter Schubert |

| Dosja e vizatimit/ Drawing folder | Nr. i viz./ Draw. No. | Lloji i viz./ Draw. typ. | Gjuha/ Language | Stat. i viz/ D. Status | Rishikimi/ Revision |
|---|---|---|---|---|---|
| LLO_ICC_DD_TU_TGD | 0201 | LC | BI | W | 02 |

| Shkalla/ Scale | Skedari i vizatimit/ Drawing File |
|---|---|
| 1:10000 / 5000 | LLO_ICC_DD_TU_TGD_0201_LC_BI_W_02.dwg |

Përmbajtja e këtij vizatimi është pronë e Konsorciumit të Projektit të Llogarasë. Të gjitha të drejtat që nuk i transferohen klientit nga kontrata janë të rezervuara. Ndalohet çdo riprodhim i vizatimit pa autorizim me shkrim.
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