



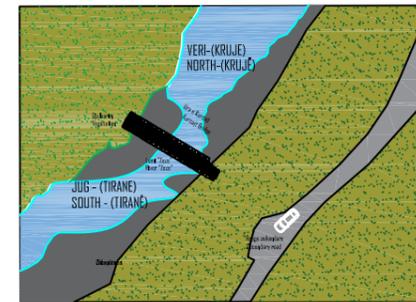
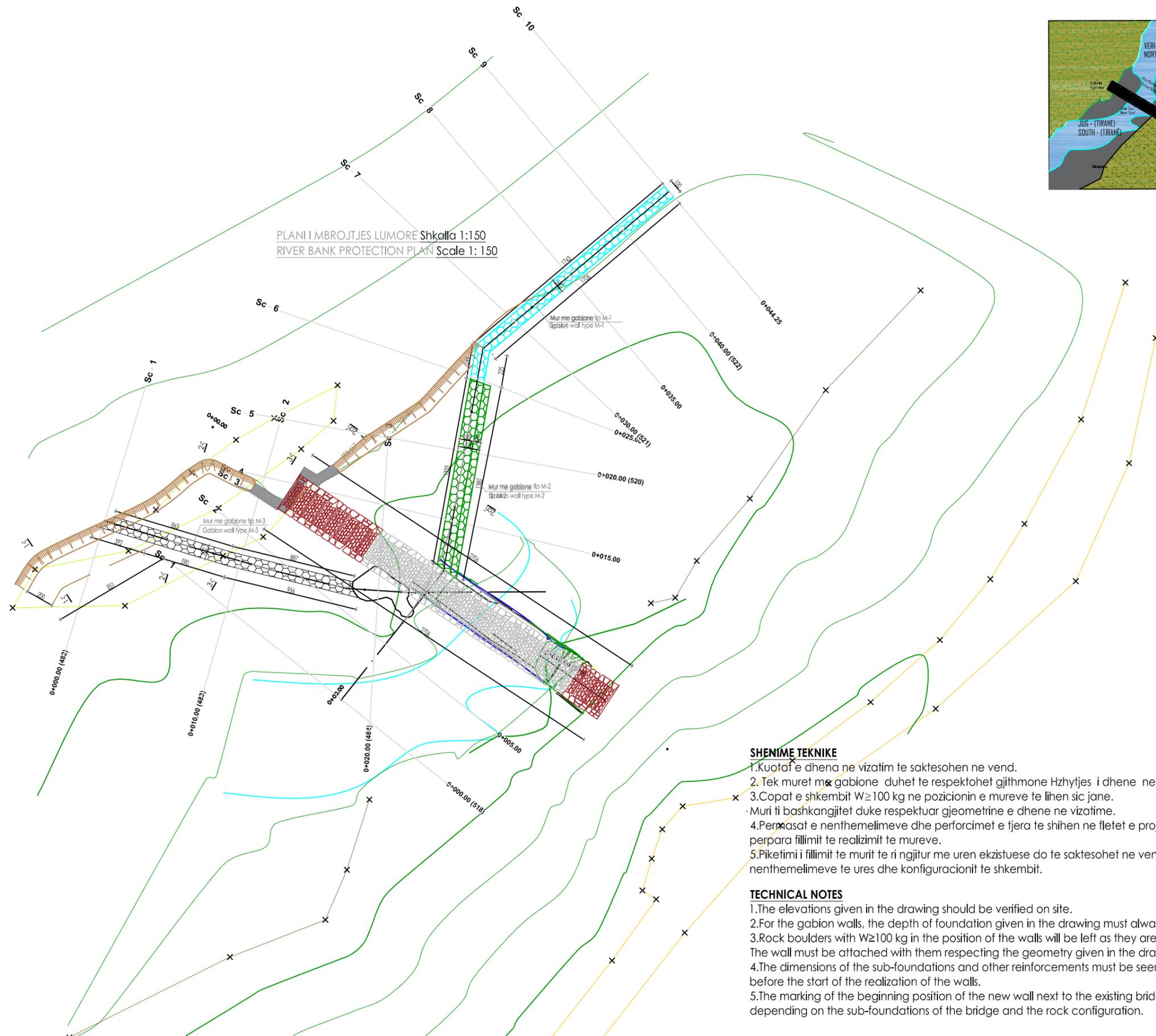
Funded by  
the European Union



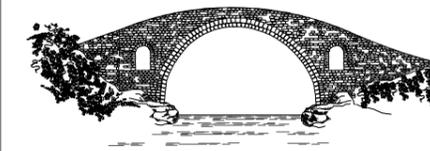
# **MBROJTJA LUMORE / RIVER BANK PROTECTION KURCAJ BRIDGE, KRUJË / URA KURCAJ, KRUJË**

**Constructive Detailed Design / Projekt Zbatimi Struktural**





## KURCAJ BRIDGE URA KURCAJ



Contract No. / Nr. i Kontratës

22644-001\_ALB\_EU4C\_RFP\_01  
"Provision of Consultancy for Design services for EU4CULTURE Project - Support for revitalization of cultural heritage sites and monuments affected by Earthquake in Albania."

22644-001\_ALB\_EU4C\_RFP\_01  
"Sigurimi i Konsulencës për Shërbimet e Projektimit për Projektin EU4CULTURE - Mbështetje për rijetëzimin e siteve dhe monumenteve të trashëgimisë kulturore të prekura nga Tërmeti në Shqipëri."



Client / Klienti Beneficiary / Përfutuesi

UNOPS

Republic of Albania,  
Ministry of Culture  
Republika e Shqipërisë,  
Ministria e Kulturës

Design team / Grupi i projektimit



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Eng. Emre Çeçen  
Eng. Ergys Çausi  
Eng. Spiro Drita  
Eng. Dëshira Mena

Drawing title / Emërtimi i vizatimit

River Bank Protection Plan  
Plani i Mbrojtjes Lumore

Drawing no. / Nr. i vizatimit

**EU4C- 1.1.2 - D - S - 09**

Scale / Shkalla 1:100

Date / Data June 2021 / Qershor 2021

Project phase / Faza e projektit

**Detailed Design / Projekt Zbatim**

Revision / Rishikim	Date / Data	Project phase / Faza e projektit

### SHENIME TEKNIKE

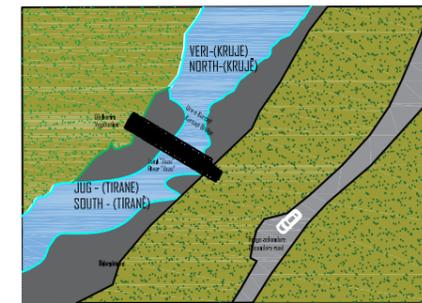
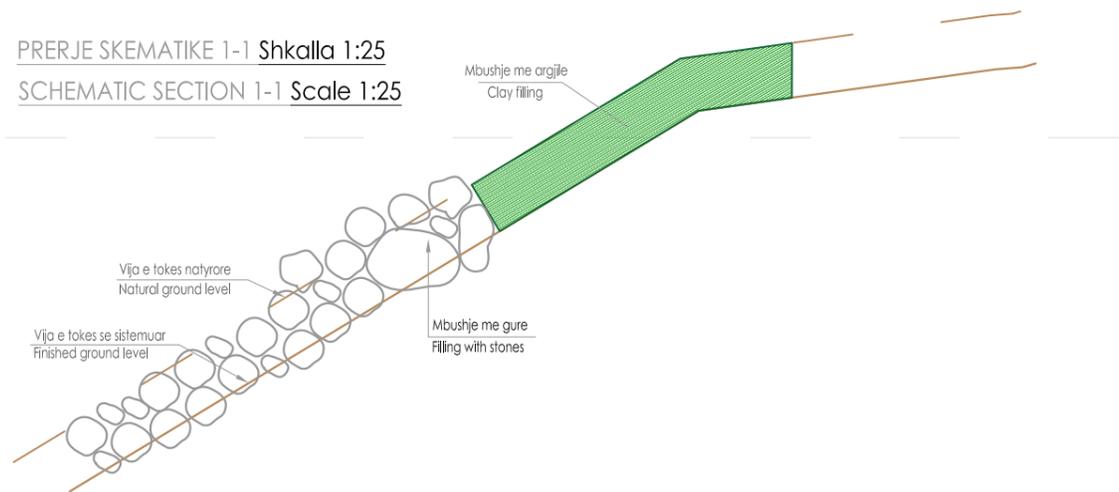
1. Kuotat e dhena ne vizatim te saktësohen ne vend.
2. Tek muret me gabione duhet te respektohet gjithmone Hzytjes i dhene ne vizatim.
3. Copat e shkembit  $W \geq 100$  kg ne pozicionin e mureve te lihen sic jane.
4. Perxasat e nenthemelimeve dhe perforcimet e tjera te shihen ne fletet e projektit te nderhyrjeve perpara fillimit te realizimit te mureve.
5. Piketimi i fillimit te murit te ri ngjitur me uren ekzistuese do te saktësohet ne vend, ne funksion te nenthemelimeve te ures dhe konfiguracionit te shkembit.

### TECHNICAL NOTES

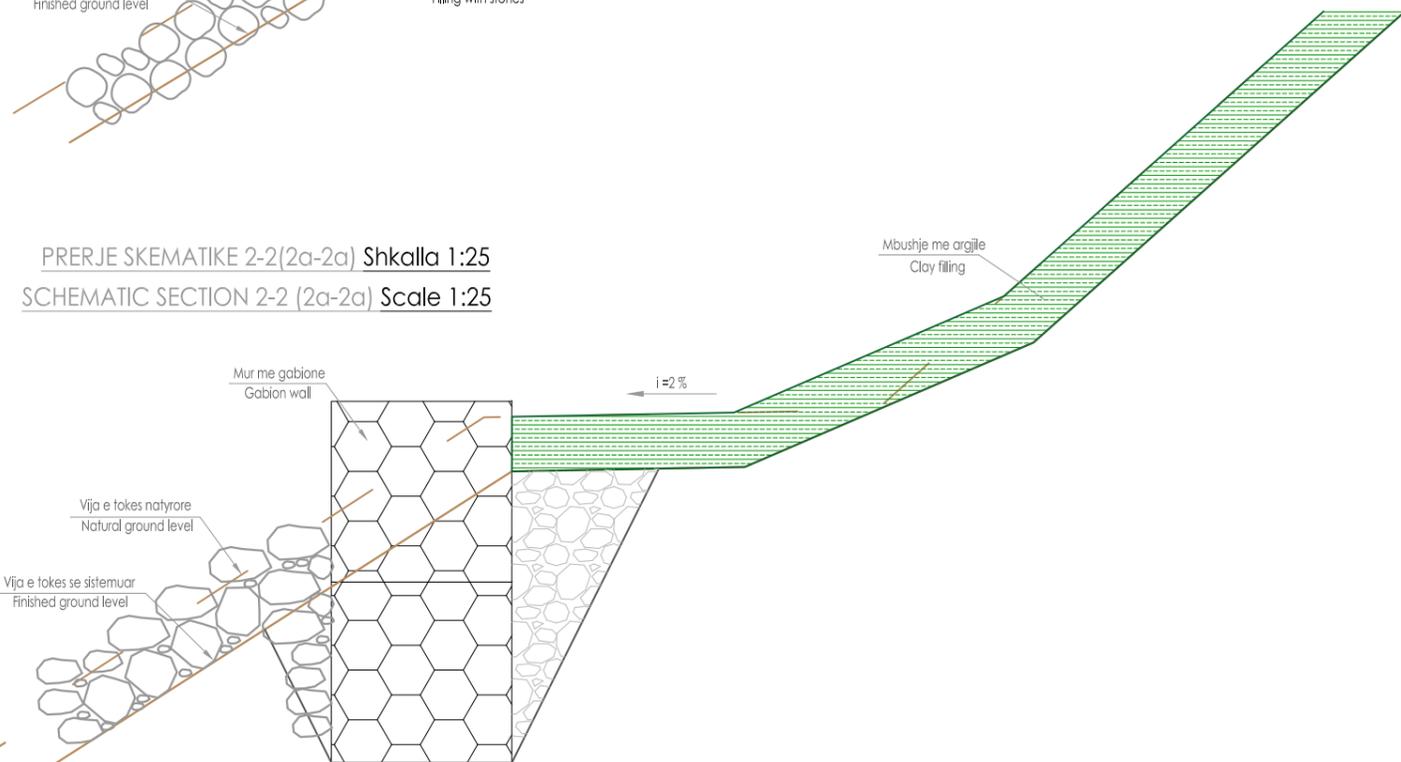
1. The elevations given in the drawing should be verified on site.
2. For the gabion walls, the depth of foundation given in the drawing must always be respected.
3. Rock boulders with  $W \geq 100$  kg in the position of the walls will be left as they are. The wall must be attached with them respecting the geometry given in the drawings.
4. The dimensions of the sub-foundations and other reinforcements must be seen in the intervention project before the start of the realization of the walls.
5. The marking of the beginning position of the new wall next to the existing bridge will be specified on site, depending on the sub-foundations of the bridge and the rock configuration.



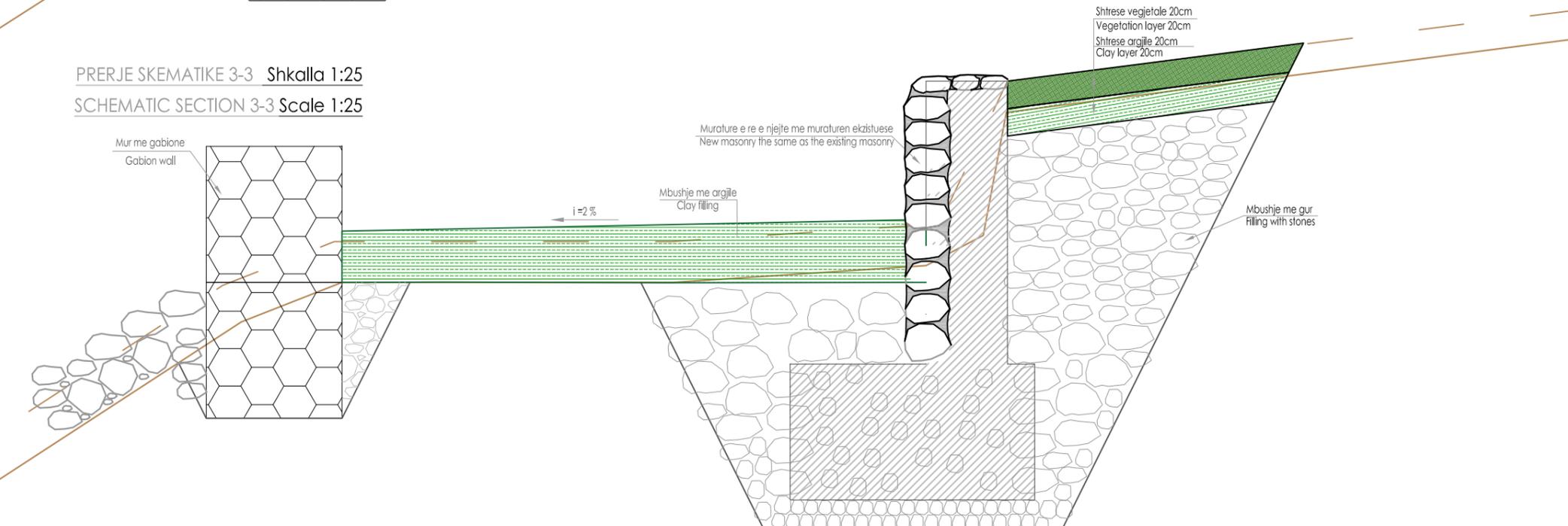
PRERJE SKEMATIKE 1-1 Shkalla 1:25  
SCHEMATIC SECTION 1-1 Scale 1:25



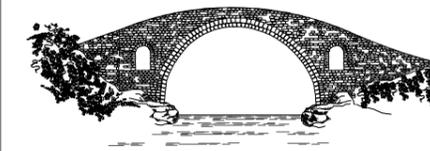
PRERJE SKEMATIKE 2-2(2a-2a) Shkalla 1:25  
SCHEMATIC SECTION 2-2 (2a-2a) Scale 1:25



PRERJE SKEMATIKE 3-3 Shkalla 1:25  
SCHEMATIC SECTION 3-3 Scale 1:25



**KURCAJ BRIDGE  
URA KURCAJ**



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Eng. Ergys Çaushi  
Eng. Spiro Drita  
Eng. Dëshira Mena

Drawing title / Emërtimi i vizatimit

River Bank Protection - Sections  
Mbrojtja Lumore - Prerje Skematike

Drawing no. / Nr. i vizatimit

**EU4C- 1.1.2 - D - S - 10**

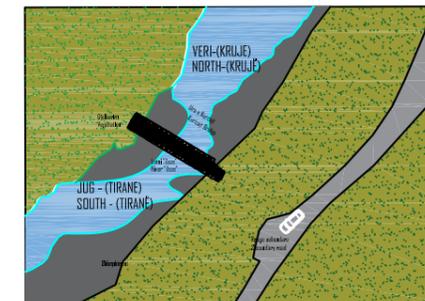
Scale / Shkalla 1:25

Date / Data June 2021 / Qershor 2021

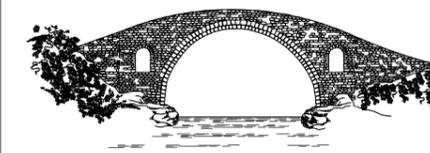
Project phase / Faza e projektit

Detailed Design / Projekt Zbatim

Revision / Rishikim	Date / Data	Project phase / Faza e projektit



## KURCAJ BRIDGE URA KURCAJ



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Eng. Spiro Drita  
Eng. Dëshira Mena

Drawing title / Emërtimi i vizatimit

River Bank Protection - Longitudinal section  
Mbrojtja Lumore - Prerje gjatesore

Drawing no. / Nr. i vizatimit

**EU4C- 1.1.2 - D - S - 11**

Scale / Shkalla 1:150

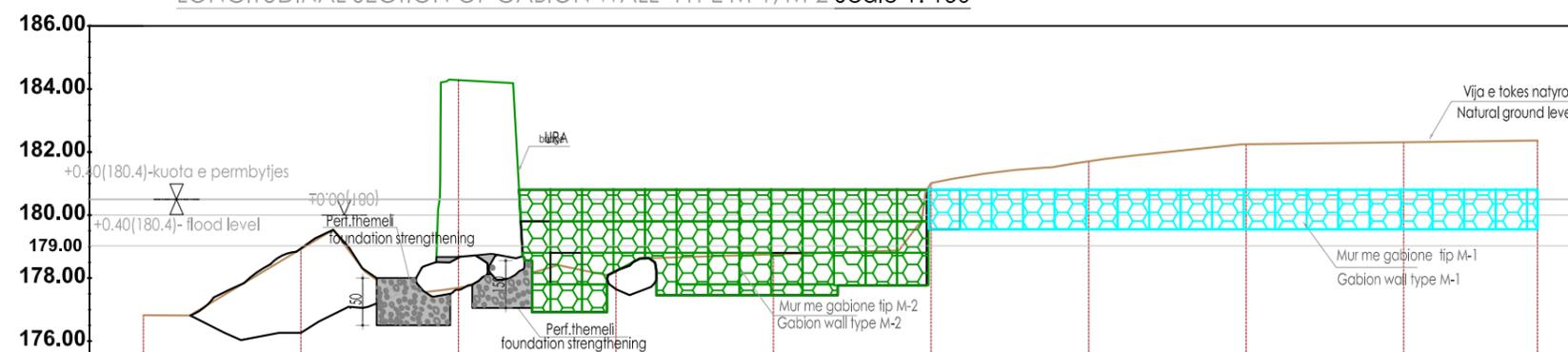
Date / Data June 2021 / Qershor 2021

Project phase / Faza e projektit

Detailed Design / Projekt Zbatim

Revision / Rishikim	Date / Data	Project phase / Faza e projektit

PRERJE GJATESORE E MURIT ME GABIONE TIP M-1,M-2 Shkalla 1:150  
LONGITUDINAL SECTION OF GABION WALL TYPE M-1, M-2 Scale 1: 150



Seksionet / Sections	Sc-1	Sc-2	Sc-3	Sc-4	Sc-5	Sc-6	Sc-7	Sc-8	Sc-9	Sc-10
Dist.Pjesore / Partial Distances		5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.25
Dist.Progres / Progressive Dis	0+000.00 (519)	0+005.00	0+010.00 (519)	0+015.00	0+020.00 (520)	0+025.00	0+030.00 (521)	0+035.00	0+040.00 (522)	0+044.25
Kuota Tokes / Terrain level	176.82	178.94	184.29	178.22	178.75	181.2	181.71	182.24	182.31	182.36
Kuota Projekt / Project level	180.70	180.70	180.70	180.70	180.70	180.70	180.70	180.70	180.70	180.70

### SHENIME TEKNIKE

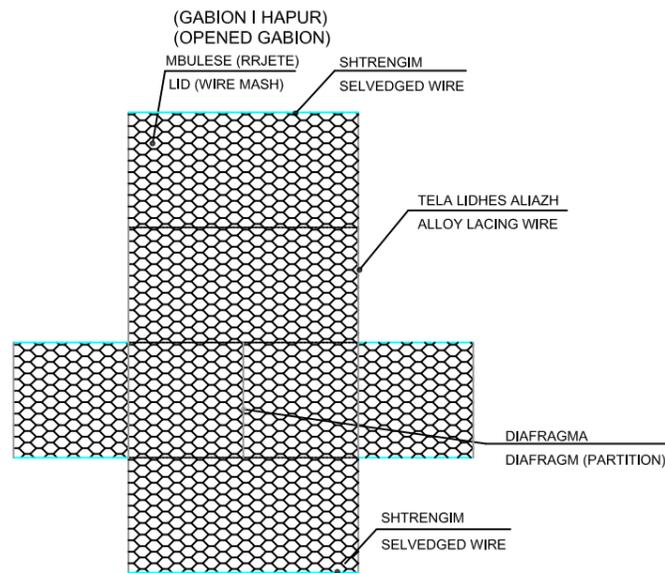
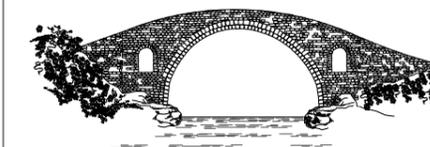
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- 3.Copat e shkembit  $W \geq 100$  kg ne pozicionin e mureve te lihen sic jane. Muri ti bashkangjitet duke respektuar gjeometrine e dhene ne vizatime.
- 4.Permasat e nenthemelimeve dhe perforcimet e tjera te shihen ne fletet e projektit te nderhyrjeve perpara fillimit te realizimit te mureve.
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### TECHNICAL NOTES

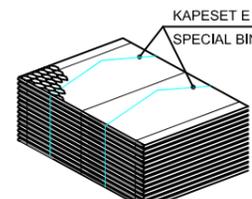
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# KURCAJ BRIDGE URA KURCAJ

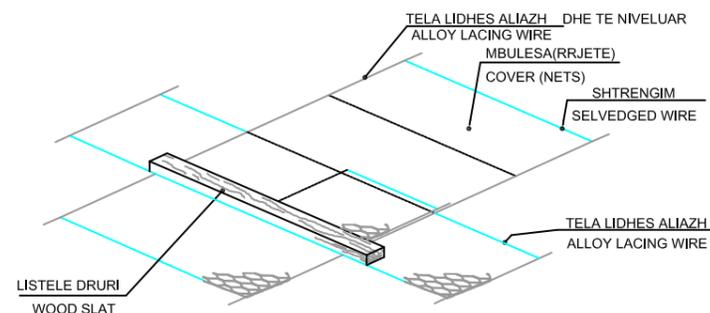


## SKEMA E HAPJES DHE FORMIMIT TE GABIONEVE KUTI SCHEME OF OPENING AND FORMING GABION BOX

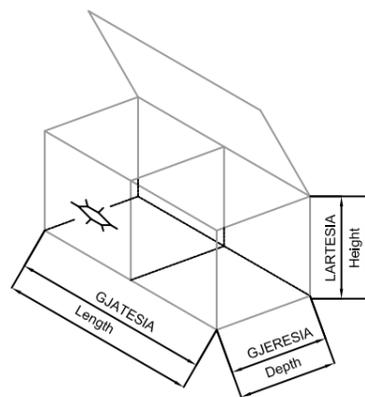


PAKETA E GABIONEVE  
GABION PACKAGE

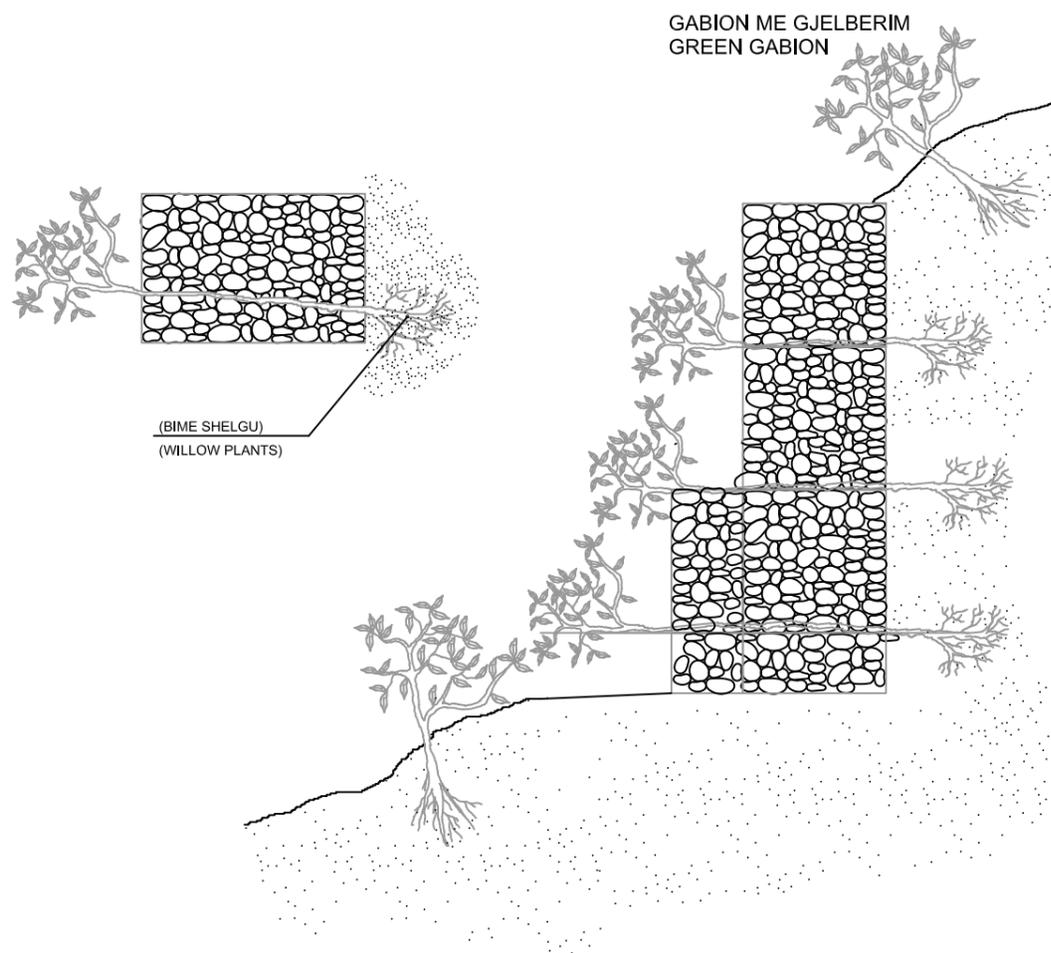
- 1) OPEN THE GABION PACKAGE.  
1) HAPNI PAKETEN E GABIONEVE
- 2) OPEN EVERY GABION BY PLACING THE ELEMENTS IN STABLE AND LEVELLED GROUND. PLACE THE ELEMENT IN THE WAY TO BE IN THE RIGHT POSITION TO FORM THE BOX.  
2) HAPNI SECILIN GABION DUKE VENDOSUR ELEMENTIN NE TOKE TE QENDRUESHME VENDOSNI ELEMENTIN NE MENYRE TE TILLE QE TE JENE NE POZICIONIN E DUHUR PER TE FORMUAR KUTINE
- 3) FOLD THE FRONT AND BACK SIDE.  
3) PALOS ANET E PERPARME DHE TE PASME



GABIONI I HAPUR KUTI  
OPENED GABION BOX



## GABION ME GJELBERIM GREEN GABION



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Eng. Dëshira Mena

Drawing title / Emërtimi i vizatimit

River Bank Protection - Gabion Details  
Mbrojtja Lumore - Detaje Gabioni

Drawing no. / Nr. i vizatimit

**EU4C- 1.1.2 - D - S - 12**

Scale / Shkalla

-

Date / Data

June 2021 / Qershor 2021

Project phase / Faza e projektit

Detailed Design / Projekt Zbatim

Revision /  
Rishikim

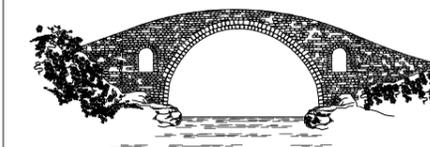
Date /  
Data

Project phase /  
Faza e projektit

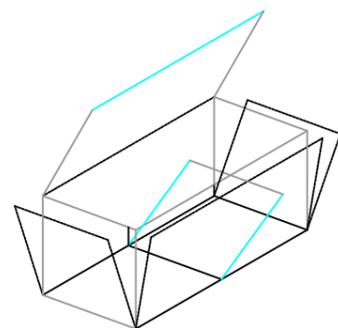





**KURCAJ BRIDGE  
URA KURCAJ**



**GABIONE ME DIAFRAGME  
GABION WITH DIAPHRAGM**



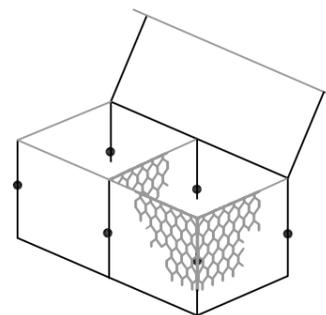
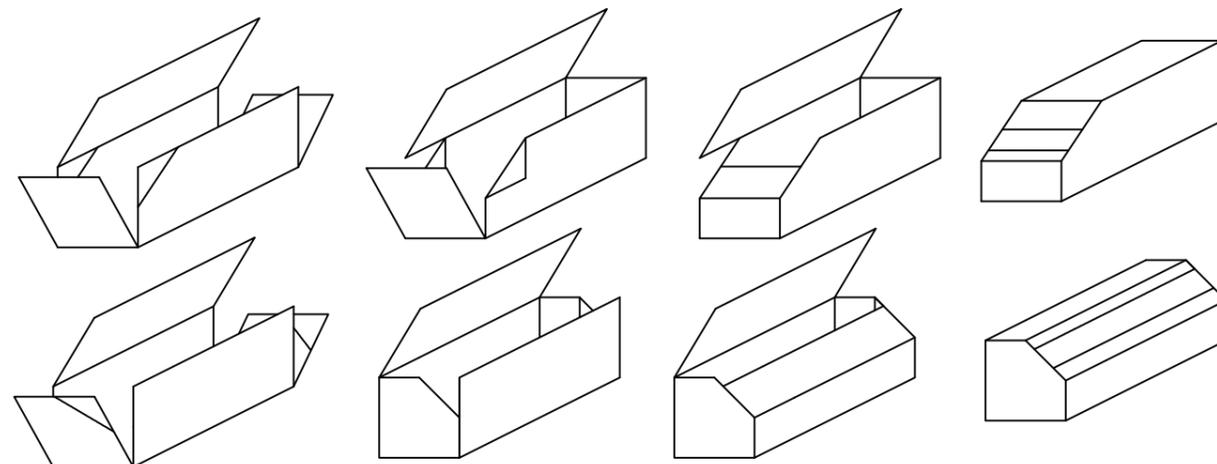
NGRINI FAQET ANESORE  
DHE RREGULLONI KENDET ME ANE TE TELIT  
NE KETE MENYRE SIGUROHET  
PALOSJA E SKAJEVE TE KUTISE

RAISE THE SIDE MASHES  
AND ADJUST THE ANGLES BY MEANS OF THE WIRE.  
IN THIS WAY IT IS PROVIDED THE  
FOLDING OF THE EDGE OF THE BOX.

**FORMIMI I GABIONEVE  
CREATION OF THE GABIONS**

NESE DO TE JETE E NEVOJSHME PER TI DHENE FORME , KJO MUND TE BEHET ME ANE TE PALOSJES  
SE " DYERVE " DHE " KAPAKEVE " SIC DUHET

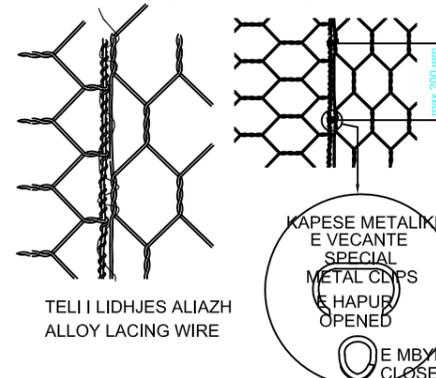
IF IT WILL BE NECESSARY TO GIVE SHAPE TO THE BOX, THIS CAN BE DONE BY FOLDING  
THE "DOORS" AND THE "LID" AS NECESSARY



FIKSONI DYERT DHE ANET E KUTISE  
ME NJE OSE ME SHUME PIKA.  
OPERACIONI I FIKSIMIT MUND TE KRYHET  
NGA RRJETA OSE ME PIKA TE PERSHTATSHME  
METALIKE TE VENDOSURA MANUALISHT  
OSE ME NJE ARME PNEUMATIKE

JOIN THE DOORS AND SIDE OF THE BOX  
IN ONE OR MORE POSITIONS.  
THE JOINTING OPERATION CAN BE DONE  
WITH WIRE OR WITH SUITABLE METALIC CLIPS  
MANUALLY SET  
OR WITH A PNEUMATIC TOOL.

**DETAJ LIDHJE  
JOINTING DETAILS**



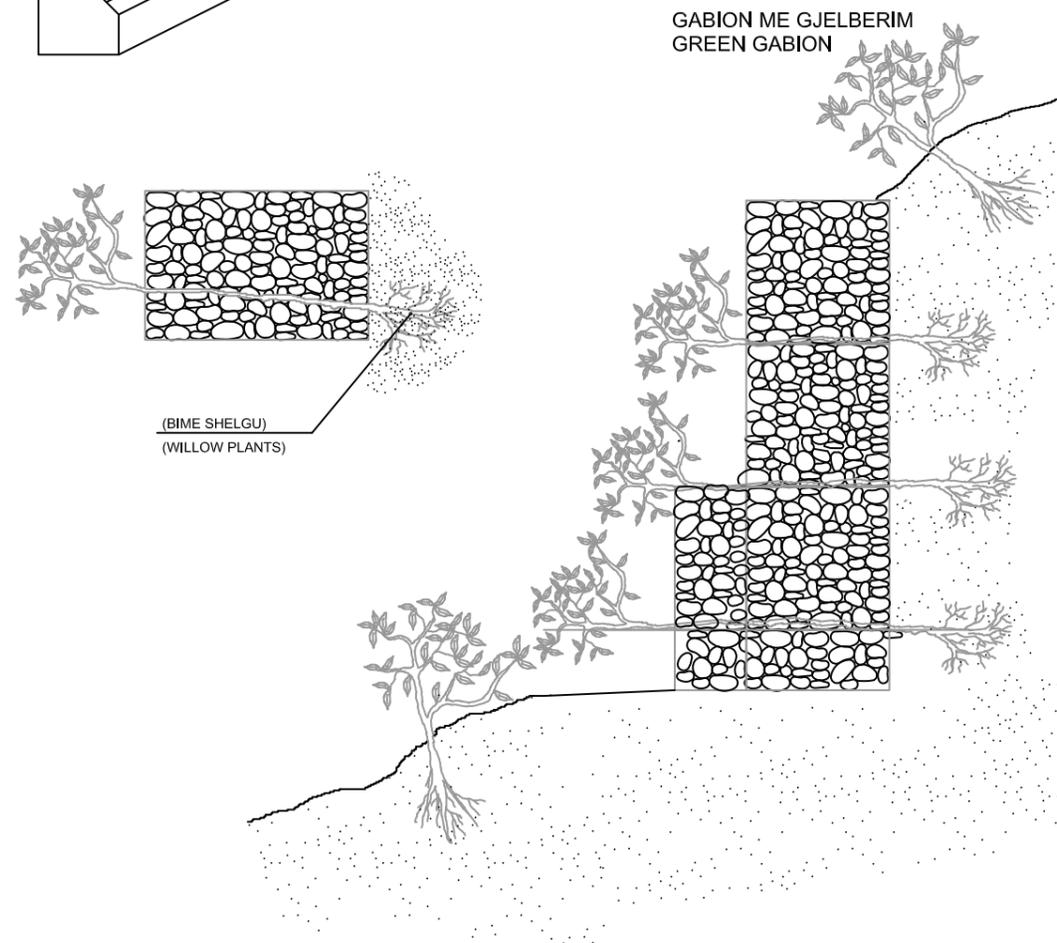
TELI I LIDHJES ALIAZH  
ALLOY LACING WIRE

KAPESE METALIKE  
E VECANTE  
SPECIAL  
METAL CLIPS

HAPUR  
OPENED

QJE MBYLLUR  
CLOSED

**GABION ME GJELBERIM  
GREEN GABION**



(BIME SHELGU)  
(WILLOW PLANTS)

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Drawing title / Emërtimi i vizatimit

River Bank Protection - Gabions with diaphragm  
Mbrojtja Lumore - Gabione me diafragme

Drawing no. / Nr. i vizatimit

**EU4C- 1.1.2 - D - S - 14**

Scale / Shkalla -

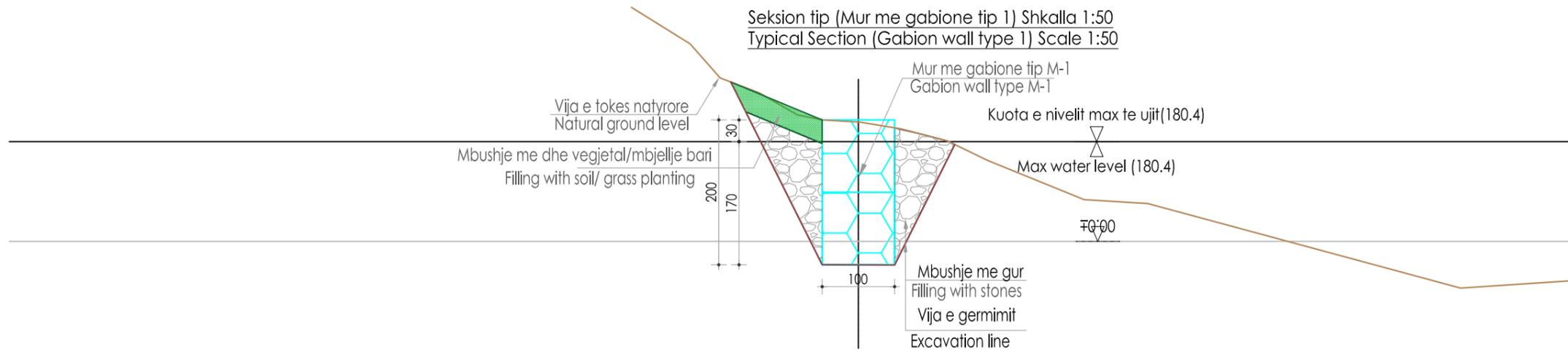
Date / Data June 2021 / Qershor 2021

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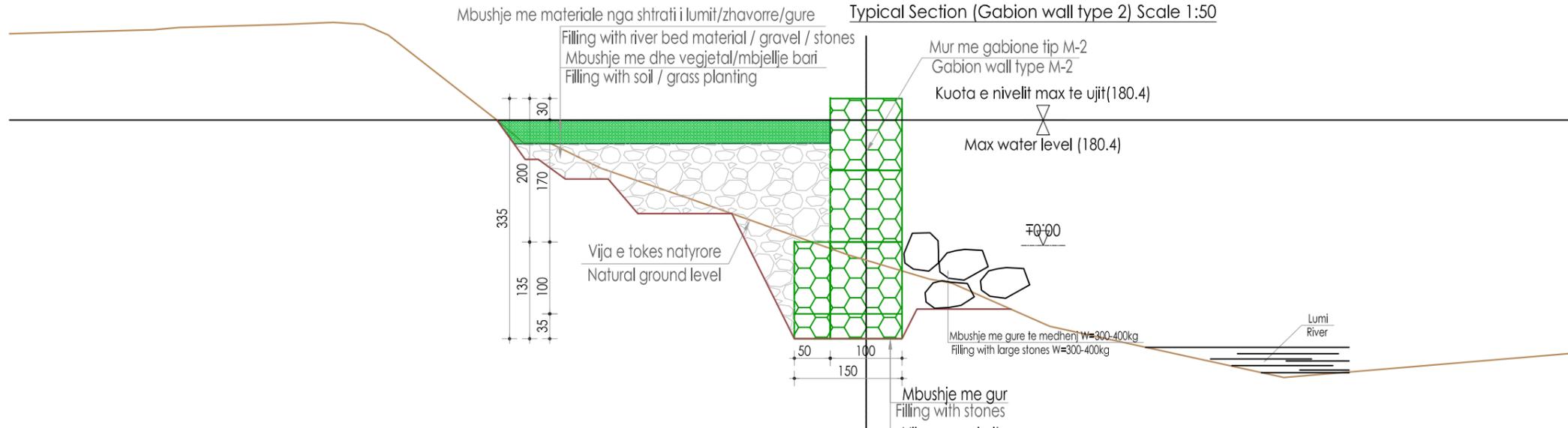
Revision / Rishikim	Date / Data	Project phase / Faza e projektit



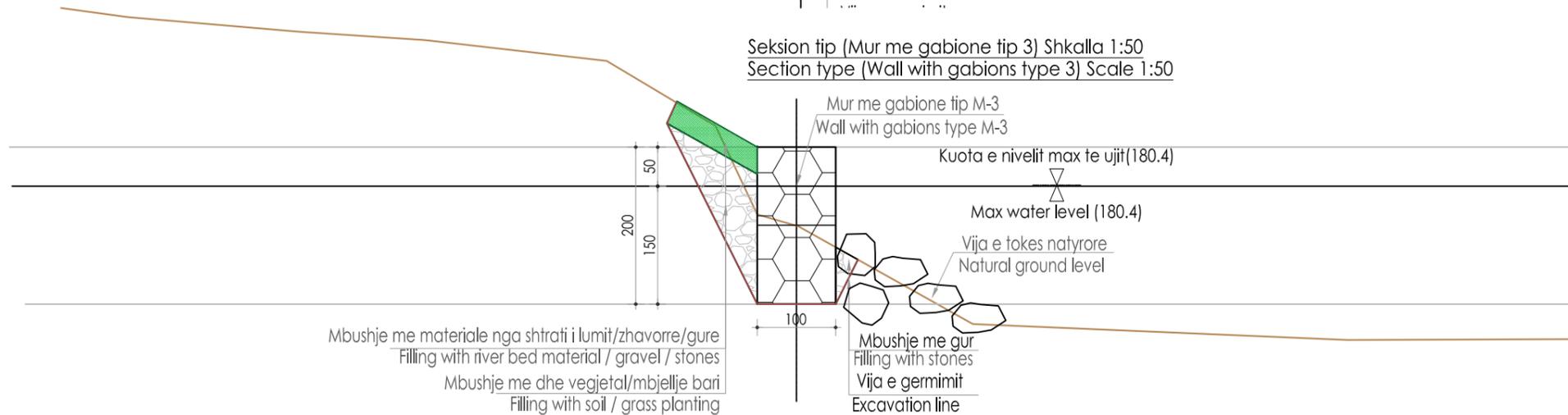
Seksjon tip (Mur me gabione tip 1) Shkalla 1:50  
Typical Section (Gabion wall type 1) Scale 1:50



Seksjon tip (Mur me gabione tip 2) Shkalla 1:50  
Typical Section (Gabion wall type 2) Scale 1:50



Seksjon tip (Mur me gabione tip 3) Shkalla 1:50  
Section type (Wall with gabions type 3) Scale 1:50



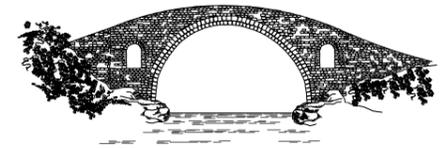
**SHENIME TEKNIKE (MURET ME GABIONE)**

- Muret me gabione qe do te perdoren te jene muret me gabione tip 1 , tip 2 , tip 3 (shih profilet tip)
- Mbushesi tip 1 do te jene copa shkemb kompakt , rezistent ndaj ujit, ngricave , ndryshimit e temperaturave. Madhesite e copave do te jene (100\*200)mm, raport maksimal gjatesi -gjeresi 1.5+1. Rezistenca ne shtypje Rshcopes=200daN/cm<sup>2</sup>.
- Te muret me gabione duhet te respektohet gjithmone Hzhytjes te dhene ne vizatim.
- Karakteristikat e rjetes , dopjo rjete e perdredhur 8 x 10 Ø 3.7mm Galmac (Zn-Al 5%) me veshje te plastifikuar , lartesia e modulit 0.76+1m,konturi i shufrave te celikut Ø12mm
- Kuotat e dhena ne vizatim te saktesohen ne vend.

**TECHNICAL NOTES (GABION WALLS)**

- Gabion walls that will be used must be gabion wall type 1, type 2, type 3 (see typical profiles)
- The type 1 filler will be compact rock pieces, resistant to water, frost, temperature changes. The sizes of the pieces will be (100 + 200) mm, maximum length-width ratio 1.5 +1. Compressive strength R<sub>c</sub>pieces = 200 daN/cm<sup>2</sup>.
- For the gabion walls, the depth of foundation given in the drawing must always be respected.
- Characteristics of the wire mesh: double twisted wire mesh 8 x 10 Ø 3.7mm Galmac (Zn-Al 5%) with plastic coating, module height 0.76m + 1m, contour of steel bars Ø12mm
- The elevations given in the drawing should be verified on site.

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URA KURCAJ**



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22644-001\_ALB\_EU4C\_RFP\_01  
"Provision of Consultancy for Design services for EU4CULTURE Project - Support for revitalization of cultural heritage sites and monuments affected by Earthquake in Albania."

22644-001\_ALB\_EU4C\_RFP\_01  
"Sigurimi i Konsulencës për Shërbimet e Projektimit për Projektin EU4CULTURE - Mbështetje për rijetëzimin e siteve dhe monumenteve të trashëgimisë kulturore të prekura nga Tërmeti në Shqipëri."



Client / Klienti

Beneficiary / Përfituesi

UNOPS

Republic of Albania,  
Ministry of Culture  
Republika e Shqipërisë,  
Ministria e Kulturës

Design team / Grupi i projektimit



**ATELIER 4**  
ARCHITECTURE • ENGINEERING • CONSULTING

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Eng. Dëshira Mena

Drawing title / Emërtimi i vizatimit

River Bank Protection - Typical Gabion Section  
Mbrojtja Lumore - Prerje Tipike e Gabionit

Drawing no. / Nr. i vizatimit

**EU4C- 1.1.2 - D - S - 16**

Scale / Shkalla 1:20

Date / Data June 2021 / Qershor 2021

Project phase / Faza e projektit

Detailed Design / Projekt Zbatim

Revision / Rishikim	Date / Data	Project phase / Faza e projektit