# POGLAVLJE 3/ VOLUME 3

# 

# TEHNIČKE SPECIFIKACIJE / TECHNICAL SPECIFICATIONS

**Kolone 1-2 treba da popuni partner na projektu**

**Kolone 3-4 treba da popuni ponuđač**

**Kolona 5 rezervisana je za komisiju za ocjenjivanje**

**Aneks III - tehnička ponuda dobavljača**

**Columns 1-2 should be completed by the Project partner**

**Columns 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the Contractor's technical offer

Od ponuđača se traži da popune obrazac na sledećim stranicama:

* Kolona 2 je popunjena od strane partnera na projektu i pokazuje potrebne specifikacije (ponuđač ih ne smije mijenjati),
* Kolonu 3 treba da popuni ponuđač i mora da navede detaljno ono što se nudi (na primjer, riječi „usaglašeno“ ili „da“ nisu dovoljne)
* Kolona 4 omogućava ponuđaču da komentariše predloženu ponudu i da eventualno uputi na dokumentaciju

The tenderers are requested to complete the template on the next pages:

* Column 2 is completed by the Project partner shows the required specifications (not to be modified by the tenderer),
* Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words “compliant” or “yes” are not sufficient)
* Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

| **1.**  **Redni broj / Item Number** | **2.**  **Potrebne specifikacije / Specifications Required** | **3.**  **Ponuđene specifikacije i cijena / Specifications Offered and price** | **4.**  **Napomene, primjedbe,**  **ref. na dokumentaciju Notes, remarks,  ref to documentation** | **5.**  **Odluka komisije za ocenjivanje (DA / NE)**  **Evaluation Committee’s decision (Y/N)** |
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|  | **Restauracija pješačke staze u Virpazaru/Restauration of the walking trail near Virpazar** | | |  |

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| **A** | **PRIPREMNI RADOVI/PREPARATION WORKS** |  |

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| **1** | Kresanje – uklanjanje krupnog i sitnog rastinja i korova sa kamenih zidova nasipa. Kresanje izvesti ručno uz upotrebu ličnog alata i pribora i uz upotrebu mašinskih alata i pribora. Pri kresanju i uklanjanju rastinja i korova voditi računa da ne dođe do poremećaja zidne strukture – konstrukcije kamenog zida nasipa. Rastinje i korov skupljati na nekoliko punktova na samoj stazi ili u neposrednoj okolini. Sakupljeno rastinje odvesti na deponije biološkog otpada uz strogu kontrolu i po instrukcijama uprave Nacionalnog parka teren očistiti.  Obračun po m2 – 2400m2  Cutting - removal of large and small plants and weeds from the stone walls of the embankment. Cutting is done manually using personal tools and accessories and with the use of machine tools and accessories. When pruning and removing plants and weeds, take care not to come to the disruption of the wall structure - the construction of the stone wall of the embankment. Collect plants and weeds at several points on the trail itself or in the immediate vicinity. Finally, collected vegetation under strict control to be transported to the landfill for the bio-waste according to the instructions of the National Park Administration.  Calculation per m2 - 2400m2 |  |  |  |

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| **2** | Kresanje – uklanjanje krupnog i sitnog rastinja oko zidova nasipa2.- staze, u širini (dubini) od 2,5 m. Kresanje izvesti ručno uz upotrebu ličnog alata i pribora i uz upotrebu mašinskih alata i pribora. Pri kresanju i uklanjanju rastinja voditi računa da ne dođe do poremećaja zidne strukture – konstrukcije kamenog zida nasipa. Rastinje i korov skupljati na nekoliko punktova na samoj stazi ili u neposrednoj okolini. Sakupljeno rastinje odvesti na deponije biološkog otpada uz strogu kontrolu i po instrukcijama uprave Nacionalnog parka teren očistiti.  . Obračun po m2 - **2400m2**  Cutting - removal of large and small vegetation around the walls of the embankment2.- path, in width (depth) of 2.5 m. Cutting is done manually with the use of personal tools and accessories and with the use of machine tools and accessories. When pruning and removing plants, take care not to disturb the wall structure - the construction of the stone wall of the embankment. Collect plants and weeds at several points on the trail itself or in the immediate vicinity. Finally, collected vegetation under strict control to be transported to the landfill for the bio-waste according to the instructions of the National Park Administration.  Calculation per m2 - 2400m2 |  |  |  |
| **3** | Čišćenje i kresanje gazišne površine staze od trave i travnatog korova. Čišćenje i kresanje izvesti ručno uz upotrebu ličnog alata i pribora i uz upotrebu mašinskih alata i pribora. Pri čišćenju i kresanju voditi računa da ne dođe do poremećaja hodne površine pješačke staze.  Obračun po m2 – 1600m2  Cleaning and trimming the tread surface of grass and grass weeds. Cleaning and trimming should be performed manually using personal tools and utensils and using machine tools and utensils. When cleaning the pruning, take care not to disturb the walking surface of the footpath.  Calculation per m2 - 1600m2 |  |  |  |
| **4** | **Čišć**enje kamenog mosta od sitnog korova i rastinja.  Kresanje izvesti ručno uz upotrebu ličnog alata i pribora i uz upotrebu mašinskih alata i pribora. Pri kresanju i uklanjanju 3.-korova i rastinja voditi računa da ne dođe do poremećaja zidne strukture kamenog mosta i njegovih fuga kao i kamenog sloga.  Obračun po m2 – 135m2  Cleaning the stone bridge from small weeds and plants.  Cutting is done manually with the use of personal tools and accessories and with the use of machine tools and accessories. When cutting and removing3.- weeds and plants take care not to damage the wall structure of the stone bridge and its pits as well as the stones.  Calculation per m2 - 135m2 |  |  |  |
| **B** | **DEMONTAŽNI RADOVI/ DISASSEMBLY WORKS** | |  |  |
| **1** | Demontaža betonskih šahti vodovodnih i elektro instalacionih vodova koji se pružaju duž trase pješačke staze. Šahtovi su u ruševnom stanju i bez završne ploče i poklopca i izvedeni su u plićoj dubini.  Demontažu izvesti ručno i pažljivo pri čemu se ne smiju oštetiti instalacije.  Obračun po komadu šahta – 5 komada  Dismantling of concrete shafts of water supply and electrical installation lines that extend along the route of the pedestrian path. The shafts are in a dilapidated condition and without a plate and cover, and they were made at a shallower depth. Disassemble manually and carefully without damaging the installations.  Calculation per piece of shaft – 5 pieces |  |  |  |
| **2** | Obijanje fuga sa postojećih partija parapetnih zidova u Segmentu 2. Obijanje izvesti ručno i pažljivo da se ne oštete kameni blokovi.  Obračun po m2 – 24,10  Cracking the joints from the existing parts of the parapet walls in Segment 2. Perform the cracking manually and carefully so as not to damage the stone blocks.  Calculation per m2 - 24.10 |  |  |  |
| **C** | **ZEMLJANI RADOVI / GROUND WORK** | |  |  |
| **1** | Skidanje površinskog sloja zemlje i djelimično kamena sa gazišne površine pješačke staze. Skidanje izvesti u debljini od 5 do 10 cm, ručno i mašinskim putem, uz upotrebu lake mehanizacije. Otkopani materijal nasuti na obrušenim partijama staze i potpornih zidova.  Obračun po m3 - 128,00m3  Removing the surface layer of earth and partly stone from the tread of the footpath. Remove in the thickness of 5 to 10 cm, manually and by machine, using light machinery. Excavated material is poured on the collapsed parts of the track and retaining walls.  Calculation per m3 - 128.00 m3 |  |  |  |
| **2** | Nabavka i ugradnja lomljenog kamena srednje veličine od 3 cm do 10 cm, na pješačkoj površini 4.- staze. Kamen nabaviti iz lokalnog majdana. Kamen ugraditi tako da se imitira spontani mjestimični i nepravilni raspored po stazi, nivelisati tako da se vodi računa o završnoj koti gazišne površine. Slaganje kamena uraditi na licu mjesta prilagođavajući se terenu i partijama staze i u saradnji i po instrukcijama nadzornog organa.  Obračun po m3 - 38,40m3  Procurement and installation of crushed stone of medium size from 3 cm to 10 cm, on the pedestrian surface 4.- paths. Get the stone from the local square. Install the stone in such a way as to imitate spontaneous sporadic and irregular arrangement along the path, level it in this way to take into account the final elevation of the tread. The laying of the stone should be done on the spot, adapting to the terrain and the parts of the path, both in cooperation and according to the instructions of the supervisory body.  Calculation per m3 - 38.40 m3 |  |  |  |
| **3** | Nasipanje otkopane gazišne površine pješačke staze. Nasipanje izvesti sa drobljenim šljunkom granulacije od 0-30 mm. Nakon nasipanja izvršiti nivelisanje i valjanje malim valjkom. Nasipanje izvesti i između ugrađenih kamenih blokova na površini staze, što sve treba da je nivelisano i uvaljano. U cijenu uračunati kompletan materijal i rad do završnog nivoa i druge sitne stavke koje nisu navedene.  Obračun po m3 - 102,40m3  Embankment of the excavated tread surface of the footpath. The embankment is performed with crushed gravel with a granulation of 0-30 mm. After filling, level and roll with a small roller. Filling must be performed between the built-in stone blocks on the surface of the track, which should all be leveled and rolled. The price includes the complete material and work to the final level and other small items that are not listed.  Calculation per m3 - 102.40 m3 |  |  |  |
| **D** | **BETONSKI I ARMIRANO-BETONSKI RADOVI / CONCRETE AND REINFORCED CONCRETE WORKS** | |  |  |
|  | Izrada armirano-betonskih zidova i ploče instalacionih šahtova na mjestima na kojima su postojeći demontirani.  Šahtove treba uraditi u propisanim dimenzijama sa prilagođenom dubinom u odnosu na postojeće instalacije.  Betoniranje šahtova izvesti u betonu marke MB 30 u potrebnoj oplati.  Obračun po komadu šahta. – 5 komada  Production of reinforced concrete walls and installation of the shaft slabs at the places where the existing ones were dismantled.  Manholes should be made in the prescribed dimensions with adjusted depth in relation to the existing installations.  Concreting of manholes is performed in MB 30 concrete in the required formwork.  Calculation per piece of shaft. - 5 pieces |  |  |  |
|  | Nabavka i ugradnja metalnog- željeznog poklopca šahta presjeka ø60 cm. Obruč poklopca prethodno ugraditi i nivelisati u svježu betonsku masu ploče šahta.  Obračun po komadu – 5 komada  Procurement and installation of metal-iron manhole cover with a cross-section of ø60 cm. Pre-install and level the cover ring  fresh concrete mass of the shaft slab.  Calculation per piece - 5 pieces |  |  |  |
| **E** | **KONZERVATORSKO-RESTAURATORSKI RADOVI/ CONSERVATION AND RESTORATION WORKS** | | |  |
|  | Prikupljanje i čišćenje obrušenih kamenih blokova sa i oko nasipa pješačke staze. Prikupljanje vršiti ručno i mašinskim putem uz korištenje manje mehanizacije koja ne smije povrijediti konstrukciju nasipa.  Obračun po m3- 144,00m3  Collection and cleaning of collapsed stone blocks from and around the embankment of the footpath. Collection is done manually and mechanically using less machinery which must not injure the embankment structure.  Calculation per m3 - 144.00 m3 |  |  |  |
|  | Zidanje – rekonstrukcija obrušenih partija kamenih zidova nasipa staze. Zidanje-rekonstrukciju izvesti prikupljenim autentičnim kamenim blokovima, utopljenim u cementni malter koji ne smije sa spoljnje strane biti vidljiv. Kamene blokove zidati u postojećem “kiklopskom slogu” sa uklapanjem kamenih blokova po uzoru na postojeće očuvane zidove. Ukoliko je potrebno zidanje i slaganje većih i teških kamenih blokova vršiti uz pomoć lake manje mehanizacije.  Obračun po m2. - 85,00 m2  Masonry - reconstruction of collapsed parts of the stone walls of the embankment of the path. Masonry-reconstruction should be performed with collected authentic stone blocks, immersed in cement mortar, which must not be visible from the outside. Masonry stone blocks in the existing "cyclopean style" with the fitting of stone blocks on the model of the existing preserved walls. If it is necessary to build and stack larger and heavier ones stone blocks to perform with the help of light minor mechanization.  Calculation per m2. - 85.00 m2 |  |  |  |
|  | Nabavka i dovoz kao i obrada nedostajućeg kamena. Kamen za novu nabavku treba da je iz istog lokalnog majdana, iste obrade i veličine po uzoru na postojeći.  Obračun po m3. – 45m3  Procurement and delivery as well as processing of the missing stone. The stone for the new purchase should be from the same local square, the same processing and size modelled according the existing one.  Calculation per m3. - 45m3 |  |  |  |

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|  | Zidanje – rekonstrukcija kamenih parapetnih zidova koji su obrušeni u zahvatu Sekcije 2, označene u projektu. Parapetni zidovi su bili ogradni zidovi iznad vodenog propusta. Zidanje izvesti u prikupljenom obrušenom autentičnom kamenu, u cementnom malteru u slogu po uzoru na postojeće očuvane partije.  Zidanje izvesti sa obije strane staze. Desna strana ima veći dio očuvanog parapetnog zida dok je lijeva strana potpuno obrušena sa ostacima donjeg reda kamena. Zidanje izvesti u cementnom malteru.  Obračun po m2 – 11m2  Masonry - reconstruction of stone parapet walls that collapsed in the intervention of Section 2, marked in the project. Parapetni6.-walls were fence walls above the water culvert. Masonry will be performed in the collected crushed authentic stone, in cement mortar in the style of modelled on existing preserved parties.  Perform masonry on both sides trails. The right side has most of the preserved parapet wall while the left side is completely demolished with the remains of the lower row of stones. Masonry is performed in cement mortar.  Calculation per m2 - 11m2 |  |  |  |
|  | Fugovanje postojećih i novosazidanih –rekonstruisanih parapetnih zidova u Sekciji 2. Fugovanje izvesti produžnim malterom, malo udubljene u odnosu na kamen. Fuge ne smiju pokrivati kamene blokove.  Nakon ugradnje, fuge iščetkati čeličnom četkom ili metlicom (dersovati), da se skine cementna glazura fuga.  Za spravljanje fuga koristiti cemenat iz cementare Split – Hrvatska.  Obračun po m2 – 85m2  Grouting of existing and newly built - reconstructed parapet walls in Section 2. Grouting is performed with extension mortar, slightly recessed in relation to the stone. Joints must not cover stone blocks.  After installation, brush the joints with a steel brush or broom, to remove the cementitious glaze joints.  Use cement from the Split - Croatia cement plant to make joints.  Calculation per m2 - 85m2 |  |  |  |
| **F** | **ELEKTRIČNA RASVJETA/ ELECTRICAL LIGHTING** | | |  |

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|  | Izrada elektro instalacionog razvoda za montiranje električnih rasvjetnih tijela. Elektro instalaciju postaviti u manji zemljani rov koji treba da ide duž spoljnih ivica staze, sa one strane sa koje je planirana rasvjeta. Instalacije položiti u zemlju propisno sa zaštitnom trakom i zaštitna crijeva (bužire). Vrstu i tip instalacionih kablova ugraditi prema preporukama i uputstvu proizvođača rasvjetnih tijela. Elektroinstalacioni priključak uraditi uz zvaničnu saglasnost i uslove od nadležne institucije uz obavezu i posredovanje investitora JP Nacionalni parkovi CG. U cijenu uračunati iskop rova, polaganje kablova i zatrpavanje, sve u propisnim radnjama za ove vrste poslova  Obračun po m – 400m  Production of electrical installation distribution for installation of electric lighting fixtures. Place the electrical installation in a small earthen trench that should go along the outer edges of the path, on the side from which the lighting is planned. Lay the installations in the ground properly with a protective tape and protective hoses (sleeves). Install the type of installation cables according to the recommendations and instructions of the luminaire manufacturer. Make the electrical connection with the official consent and conditions from the competent institution with the obligation and mediation of the investor - National Parks of Montenegro. The price includes the excavation of the trench, laying cables and burying, all in the proper shops for these types of jobs  Calculation per m - 400m |  |  |  |
|  | Nabavka i ugradnja rasvjetnih tijela na stazi. Rasvjetna tijela treba da su parternog tipa, niska ili potpuno parterna, u nivou terena staze. Rasvjetna tijela ugraditi prema detalju proizvođača. Rasvjetna tijela moraju biti sigurnosna za pješake kao i otporna na spoljnje atmosferske uticaje. Tip i model rasvjetnih tijela dat je u Prilogu 4.  Obračun po komadu – 30 komada  Procurement and installation of lighting fixtures on the track. Lighting fixtures should be of the ground type, low or full ground, at ground level of the track. Install the luminaires according to the manufacturer's details. Lighting fixtures must be safe for pedestrians as well as resistant to external atmospheric influences. The type and model of lighting fixtures are given in Annex 4.  Calculation per piece - 30 pieces |  |  |  |
|  | **MOBILIJAR/MOBILIAR** | | |  |
|  | INFO TABLA/ INFO BOARD  Nabavka i ugradnja informativne table. Informativna table treba da ima tekst koji je dostavljen od strane JP Nacionalni perkovi CG.  Dimenzija Info table je: dužina 110 cm, širina 60 cm. Tip, dizajn i veličinu table nabaviti i uraditi po izboru projektanta.  Informativnu tablu ugraditi na projektom predviđena mjesta uz mogućnost promjene na zahtjev investitora, JP Nacionalni parkovi CG.  Tablu uraditi prema Prilogu 3 uz asistenciju nadzora.  U cijenu uračuna sav potreban material i rad sa dovozom i ugradnjom.  Obračun po komadu info-table – komada 2.  Procurement and installation of info board. Information boards should have text submitted by  by Nacionalni parkovi CG.  The dimension of the Info Board is: length 110 cm, width 60 cm.  Type, design and size of the board to be procured and to perform according to the designer choice.  Install the information board on locations defined by the project with possibility of change on request from investor, National parks of Montenegro.  Make the board according to Annex 3 with assistance from the supervision.  The price includes everything you need material and work with delivery by installation.  Calculation per piece of info-table – 2 pieces. |  |  |  |