

LOT No.1

Bicycle path

Red. br.:		OPIS RADA	Jed. mjere	Količina	Jed.cijena	Ukupno
1.)	PREPARATORY WORKS	PRIPREMNI RADOVI				
	<p>GEODETTIC WORKS</p> <p>1. STAKING OUT OF THE ROUTE AND OF THE STRUCTURES Staking out of the route and of the structures includes all geodetic survey transferring the data from the design onto the field or vice versa, provisions for the axis of the staked out route, profiling, renewal and maintenance of staked out marks on the field during the whole construction period, until delivery of works to the Investor. The work includes Staking out of the route map and of the structures production of the geodetic map of as-builts</p>	<p>GEODETSKI RADOVI</p> <p>ISKOLČENJE TRASE I OBJEKATA Iskolčenje trase i objekata obuhvaća sva geodetska mjerenja, kojima se podaci iz projekta prenose na teren ili s terena u projekte, osiguranje osi iskolčene trase, profiliranje, obnavljanje i održavanje iskolčenih oznaka na terenu za sve vrijeme građenja, odnosno do predaje radova investitoru. Cijena obuhvaća i izradu elaborata iskolčenja te geodetske snimke izvedenog stanja s prijavom nadležnom uredu za katastarske poslove.</p>		km		1,93
	<p>PREPARATION OF THE GROUND</p> <p>2. REMOVAL OF SHRUBS AND TREES This work includes cutting brushwood and trees of all sizes, cutting off the branches, cutting of trees and thick branches to the length appropriate for transportation, extracting roots, brushwood and old stumps, extracting stumps of newly cut trees, hauling of brushwood, branches, logs and stumps outside the road section, to the dump area at the distance up to 15 km. Hollows from extracted stumps on the foundation soil must be backfilled with the same material as in the surrounding soil and compacted to the required compactness grade. Accounting of works:</p> <p>3. Removing brushwood and branches (up to Ø10 cm) is accounted per square meter of cleaned grown surface.</p> <p>4. Removing trees and stumps is accounted per unit, taking into account the thickness (profile) of the tree (measured at 1 m height): · Ø min. 30 cm</p>	<p>ČIŠĆENJE I PRIPREMA TERENA</p> <p>UKLANJANJE GRMLJA I DRVEĆA Ovaj rad obuhvaća sječenje stabala svih dimenzija, odsijecanje granja, rezanje stabala i debelih grana na dužine pogodne za prijevoz, vađenje korijenja, šiblja te starih panjeva i panjeva novo posječenih stabala, zatim odnošenje šiblja, granja, trupaca i panjeva izvan profila ceste na odlagalište koje se nalazi na udaljenosti do 15 km. Udubine od izvađenih panjeva na temeljnom tlu treba ispuniti istim materijalom kakav je na okolnom temeljnom tlu te izvesti zbijanje do propisane zbijenosti. Obračun radova: Uklanjanje grmlja i šiblja (do Ø 10 cm) obračunava se po četvornom metru očišćene zarasle površine. Uklanjanje drveća i panjeva obračunava se po komadu, uzimajući u obzir debljinu (profil) stabla (mjereno na visini 1 m od zemlje): · Ø većega od 30 cm.</p>			m ²	900,00
	<p>5. DISMOUNTING OF EXISTING STRUCTURES, TRAFFIC SIGNS, CONCRETE CURBSTONE, BILBOARDS AND THE OTHER Demolition, excavation, loading, transport to dump and organization of dump for removed pavement structure, curbstones, concrete hollow tiles, gutters and dismantling of existing traffic equipment . The work also includes machinery cutting of asphalt edge on the place of fitting, construction of ditch...</p> <p>Accounting of works:</p> <p>6. Demolition of the concrete curbs 18/24 cm</p> <p>7. Demolition of the existing pavement structure, d=25 cm (average) includes all of machinery cutting of edge of asphalt</p> <p>8. Dismounting of existing traffic equipment on the road</p> <p>9. Machinery cutting of edge of asphalt</p>	<p>UKLANJANJE I ODVOZ POSTOJEĆE KONSTRUKCIJE, PROMETNIH ZNAKOVA, RUBNJAKA, REKLAMNIH PLOČA I SLIČNO</p> <p>Radovi rušenja i uklanjanja postojećih asfaltiranih površina i dijela pješačke staze pri uklapanju, te demontažu prometne opreme ceste. Rad uključuju i utovar u prijevorna sredstva te odvoz na deponiju udaljenosti do 15 km. Površine koje se ruše označene su prilogu B.3. Situacija iskolčenja i odvodnje i B.6.Karakteristični poprečni presjeci. Obračun radova: Rušenje betonskih rubnjaka 18/24cm Rušenje dijela postojeće pješačke staze prosječne debljine 25cm Izmještanje postojećih prometnih znakova Strojno zasijecanje asfalta na mjestu uklapanja na kolne prilaze i pješačke staze uz zahvat.</p>			m'	15,00
	<p>10. Laying of concrete half-pipes in order to protect existing installations at the locations that are found necessary after the exact position of installation is established. Locations of protection to establish with representatives of the installation owners. Protection of telecommunication instalation Protection of electronic instalation Protection of the other instalation</p> <p>11. Torch height fitting lids with the frame of existing wells various utility installations which are located in the project area. The work includes removing existing caps with frame, repair damaged parts of the panes, concrete and reinstall the cover on a particular dimension of the project.</p> <p>12. Adapting to the new grade line covers plumbing - shutter and water hydrants. This item includes the following works: removal and protection in the excavation box with lid, excavation and concrete hedge trimmer around the cap, relocation to a new dimension specific project, backfill around the lids with compaction and concreting them.</p> <p>13. Torch height fitting the bearing plate AB existing wells major dimensions that are in the project area. The work includes breaking and removing the existing slab, and the performance of new concrete slab at a certain elevation in the project.</p> <p>14. Trial excavations to determine the actual position of existing installations under the supervision of representatives of companies whose installations. Digging exclusively by hand.</p>	<p>LOKACIJA I ZAŠTITA KOMUNALNIH INSTALACIJA I OSTALIH PRIKLJUČAKA</p> <p>Obračun radova: Polaganje betonskih polucijevi za zaštitu postojećih instalacija na mjestima za koja se pokaže nužnim nakon što se ustanovi točan položaj instalacija. Mjesta zaštite utvrditi s predstavnicima vlasnika instalacija. '- zaštita TK instalacija '- zaštita EL instalacija '- zaštita drugih instalacija Izvedba visinskog uklapanja poklopaca sa okvirom postojećih zdenaca različitih komunalnih instalacija koji se nalaze u području zahvata. Rad obuhvaća uklanjanje postojećih poklopaca sa okvirom, popravak oštećenih dijelova okna, betoniranje i ponovnu ugradnju poklopca na kotu određenu projektom. Prilagođavanje novoj niveleti poklopaca vodovodnih instalacija - zatvarača za vodu i hidranata. Ova stavka obuhvaća sljedeće radove: uklanjanje i zaštita kod iskopa okvira sa poklopcem, iskop i štemanje betona oko poklopca, izmještanje na novu kotu određenu projektom, zatrpavanje oko poklopaca uz nabijanje i betoniranje istih. Izvedba visinskog uklapanja nosivih AB ploča postojećih zdenaca većih gabarita koji se nalaze u području zahvata. Rad obuhvaća razbijanje i uklanjanje postojećih ploča, te izvedbu novih AB ploča na kotu određenu u projektu. Probni iskopi radi utvrđivanja stvarnog položaja postojećih instalacija uz nadzor predstavnika poduzeća čije su instalacije. Iskope vršiti isključivo ručno.</p>			m'	50,00
					m'	50,00
					m'	50,00
					kom.	5,00
					kom.	2,00
					m ²	3,00
					m ³	20,00
	TOTAL 1.) - PREPARATORY WORKS	Ukupno 1.) - PRIPREMNI RADOVI (kn):				
2.)	EARTH WORKS	ZEMLJANI RADOVI				
	<p>TOPSOIL EXCAVATION</p> <p>Work includes topsoil excavation of 15 cm thickness and hauling of excavation material into dump area that is insured and maintained by Contractor. This work is performed according to the elevations and details from the design. When excavating topsoil, care should be taken to enable the transversal and longitudinal drain. Surfaces on which the fill is foreseen after humus removal should be immediately prepared and compacted and the fill first layer should be made. Accounting of works per cubic meters of actually excavated topsoil, measured in grown state.</p>	<p>SKIDANJE HUMUSA</p> <p>Rad obuhvaća površinski iskop humusa u debljini sloja od 15 cm i njegovo prebacivanje u stalno ili privremeno odlagalište. Humus se iskopava strojno, buldožerima, bagerima ili univerzalnim strojevima. Obračun radova po m3 stvarno iskopanog humusa mjereno u sraslom stanju.</p>			m ³	1.027,86
	<p>WIDE EXCAVATIONS</p> <p>This work includes excavations provided in the design, including: excavations in the route, steps, cutting, hack, excavations in deviations of roads and access paths and wide excavations for the construction of structures. The work also include loading of excavated material into means of transportation, transport to the dump area, lodgement and regulation of dump area. The dump area must be insured by Contractor. A part of material which will be used for earth filling should be temporarily disposed on construction site.</p>	<p>ŠIROKI ISKOP</p> <p>Ovaj rad obuhvaća široke iskope u materijalu "C" kategorije koji su predviđeni projektom, a to su: iskopi u trasi za izvedbu staze, a nakon skidanja humusa. Rad uključuje i utovar iskopanog materijala u prijevorna sredstva. Iskop se obavlja prema visinskim kotama iz projekta te propisanim nagibima. Obračun radova: Po kubičnom metrom iskopanog materijala mjereno u sraslom stanju.</p>			m ³	1.588,65

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17.	<p>TRANSPORT OF SURPLUS TOPSOIL MATERIAL AND MATERIAL FROM EXCAVATION The work includes transportation of surplus topsoil material (after the performance of topsoil planning) and dredged material from the excavation and all waste material to the point of unloading at the landfill, including loading, unloading, spreading and planning. The Contractor shall fully provide transport on the construction site and in public traffic areas.</p> <p>The unit price includes the finding of the landfill, the landfill planning design with all the necessary approvals (Investor, supervising engineer and main designer) and landfill remediation. Calculation per cubic meter of actually transported material measured in grown condition in accordance with the design.</p> <p>Trasnsport of surplus topsoil material to a distance up to 6000m Trasnsport of surplus earth material to a distance up to 6000m</p>	<p>PRIJEVOZ VIŠKA HUMUSNOG MATERIJALA I MATERIJALA IZ ISKOPA S TRASE Rad obuhvaća prijevoz viška humusnog materijala (nakon izvedbe humuziranja), materijala iz iskopa od mjesta iskopa do mjesta istovara na odlagalište i svog otpadnog materijala, uključivo utovar, istovar, razastiranje i planiranje. Izvođač je dužan u potpunosti osigurati prijevoz na samom gradilištu i na javnim prometnim površinama.</p> <p>Jediničnom cijenom je obuhvaćen i pronalazak odlagališta, projekt uređenja odlagališta sa svim potrebnim suglasnostima (Investitora, nadzornog inženjera i glavnog projektanta) kao i samo uređenje odlagališta. Obračun po kubičnom metru stvarno prevezenog materijala mjereno u sraslom stanju sukladno projektu.</p> <p>Prievoz viška humusnog materijala na udaljenost do 6000 m Prijevoz viška zemljanog materijala na udaljenost do 6000 m</p>				
			m ³	489,79		
			m ³	596,92		
18.	<p>COMPACTING OF FOUNDATION SOIL MECHANICAL COMPACTION OF THE FOUNDATION SOIL Compacting of foundation soil in earth materials must be performed so as to achieve the compactness grade with respect to the standard Proctor procedure of Sz≥97%, i.e. the compressibility module of Ms≥20MN/m2. Work is accounted per square meter of actually arranged foundation soil.</p>	<p>UREĐENJE TEMELJNOG TLA UREĐENJE TEMELJNOG TLA MEHANIČKIM ZBIJANJEM Temeljno se tlo uređuje tek pošto je uklonjen sav humus prema projektu. Prije zbijanja površinu tla treba izravnati. Zbijanje temeljnog tla u zemljanim materijalima treba izvršiti tako, da se postigne stupanj zbijenosti u odnosu na standardni Proctor-ov postupak Sz≥97%, odnosno modul stišljivosti Ms≥20MN/m2. Rad se mjeri i obračunava po četvornom metru stvarno uređenog temeljnog tla.</p>				
			m ²	9.243,93		
19.	<p>REPLACEMENT OF LOW BEARING FOUNDATION SOIL WITH BETTER MATERIAL The item includes excavation of low bearing material in foundation soil including transport to lanfill, together with procurement, transport and instalation of crushed stone material as a replacement material in a layer of 30cm of average depth. Requested quality requirements by performance of this layer are: Compacting of fill in mixed material must be performed so as to achieve the compactness grade with respect to the standard Proctor of Z Sz≥100%, i.e. the compressibility module of Ms≥40MN/m2</p>	<p>ZAMJENA SLOJA SLABOG TEMELJNOG TLA BOLJIM MATERIJALOM Rad uključuje iskop sloja slabog materijala u temeljnom tlu sa odvozom na odlagalište, te nabavu transport i ugradnju kamenog materijala kao zamjenskog materijala u sloju prosječne debljine od 30cm. Traženi zahtjevi kvalitete po izvedbi ovog sloja su: stupanj zbijenosti u odnosu na standardni Proctor-ov postupak Sz≥100%, odnosno modul stišljivosti Ms≥40MN/m2.</p>				
			m ³	277,32		
20.	<p>TREATMENT OF FOUNDATION SOIL OF POOR BEARING CAPACITY AND ROAD FOUNDATION WITH GEOSYNTHETICS (GEOGRIDS) Levelling of possible uneven spots on the foundation soil, supply, delivery and laying of geotextile of the quality and class as provided in GTC. Geotextile type 300g/m2. Work includes laying of geosynthetics to the prepared foundation soil, overlapping and sewing. Overlaps to be executed in the direction in which the material is filled. Work is accounted per square meter of actually arranged foundation soil.</p>	<p>UREĐENJE SLABONOSIVOG TEMELJNOG TLA GEOTEKSTILOM Planiranje i poravnanje eventualnih neravnina na temeljnom tlu i nabava, dobava i polaganje geotekstila kvalitete i klasifikacije prema OTU. Koristi se geotekstil tip 300g/m2. Rad obuhvaća polaganje geotekstila na pripremljeno temeljno tlo s preklapanjem i šivanjem. Preklapanje treba izvesti u smjeru nasipanja materijala. Obračun radova: Prema kvadratnom metru ugrađenog geotekstila</p>				
			m ²	825,00		
21.	<p>EMBANKMENTS MAKING MAKING OF SOIL EMBANKMENTS Work includes mechanical rough and fine levelling, compacting with smooth rollers or rollers on pneumatics. Compacting of road foundation in earth material is to be executed so as to achieve the compactness grade with respect to the standard Proctor of Sz≥100%, i.e. compressibility module of Ms≥25MN/m2</p> <p>Accounting of works: Per cubic meter of actually fill.</p>	<p>IZRADA NASIPA IZRADA NASIPA OD ZEMLJANIH MATERIJALA Izrada nasipa bankine od zemljanog materijala dobivenog iz iskopa. Rad obuhvaća strojno razastiranje i planiranje zemljanog materijala, zbijanje ježevima, glatkim valjcima ili valjcima s kotačima na pneumaticima uz potrebno kvašenje vodom. Zbijanje nasipa u zemljanim materijalima treba izvršiti tako, da se postigne stupanj zbijenosti u odnosu na standardni Proctor-ov postupak Sz≥ 10l odnosno modul stišljivosti Ms≥25MN/m2.</p> <p>Obračun radova: Po kubičnom metru stvarno izvedenog nasipa.</p>				
			m ³	991,73		
22.	<p>EXECUTION OF ROAD FOUNDATION This work includes arranging the placenta, coarse and fine planning material and compacting to the required compactness. It must be made according to the elevations of the project. EXECUTION OF ROAD FOUNDATION OF EARTH MATERIAL Work includes mechanical rough and fine levelling, compacting with smooth rollers or rollers on pneumatics. Compacting of road foundation in earth material is to be executed so as to achieve the compactness grade with respect to the standard Proctor of Sz≥100%, i.e. compressibility module of Ms≥25MN/m2</p> <p>Accounting of works: Per square meter of actually executed road foundation</p>	<p>IZRADA POSTELJICE Ovaj rad obuhvaća uređenje posteljice, tj. grubo i fino planiranje materijala i nabijanje do tražene zbijenosti. Posteljicu treba izraditi prema kotama iz projekta. IZRADA POSTELJICE OD ZEMLJANIH MATERIJALA Rad obuhvaća strojno grubo i fino planiranje, zbijanje glatkim valjcima ili valjcima s točkovima na pneumaticima. Zbijanje posteljice u zemljanim materijalima treba izvršiti tako, da se postigne stupanj zbijenosti u odnosu na standardni Proctor-ov postupak Sz≥100%, odnosno modul stišljivosti Ms≥25MN/m2</p> <p>Obračun radova: Po četvornom metru stvarno izvedene posteljice</p>				
			m ²	7.520,92		
23.	<p>SLOPE PROTECTION BY APPLICATION OF TOPSOIL MATERIAL AND GRASS VEGETATION This work includes protection of fill slopes exposed to the activity of small quantities of water. The protection is achieved with application of topsoil material and grassy vegetation on the surfaces specified in the design. Slope protection run as provided in GTC. Thickness of humus layer is determined in the design. The item includes material supply, delivery, spreading and rough levelling of the material.</p> <p>Accounting of works: Per square meter of actually executed area</p>	<p>ZAŠTITA POKOSA PRIMJENOM HUMUSNOG MATERIJALA I TRAVNATE VEGETACIJE Zaštita pokosa nasipa, koji je izložen djelovanju malih količina vode primjenom humusnog materijala i travnate vegetacije na površinama određenim projektom. Zaštita se vrši u svemu prema O.T.U. Debljina humusnog sloja određena je projektom i iznosi 15 cm. Nabava, dobava i prijevoz humusnog materijala sa pozajmišta te sav potreban rad i materijal uključeni su u stavku.</p> <p>Obračun radova: Po četvornom metru stvarno izvedene površine</p>				
			m ²	1.709,11		
24.	<p>EXECUTION OF SHOULDERS OF EARTH MATERIAL Levelling, compacting and spreading of humus layer of green surface beside green islands at parking sites, footsides in the centre of town. The item includes material supply, delivery and levelling of the humus layer d=15, l=50 cm in the compactness grade. The humus layer have to be rolled with light static roller. If the weather if too dry or/and too hot, humus layer have to be damped. On the arranged humus layer grass is sowed. The seed type and mixture is chosen depending on environmental conditions, as to provide for the growth of vegetation. Seed quantity amounts to ca. 5.1-8.0 g/m2, and that of fertilizer ca. 80 g/m2.</p> <p>Per lineal meters.</p>	<p>IZRADA HUMUZIRANIH I ZATRAVLJENIH BANKINA Nabava, dobava, razastiranje, planiranje, zbijanje i zatravljivanje humusnog sloja bankine širine 50 cm i debljine 15 cm u zbijenom stanju. Razastrti sloj humusa je potrebno uvaljati laganim valjkom. U slučaju suhog i vrućeg vremena potrebno je vlažiti zasijane površine. Po fino uređenom humusnom sloju sije se trava. Vrsta i mješavina trave odabire se u ovisnosti o ekološkim uvjetima zbog sigurnosti rasta vegetacije. Količina sjemena iznosi oko 5,1-8,0 g/m2, a gnojiva oko 80 g/m2.</p> <p>Po dužnom metru stvarno izvedene bankine širine 0.5m</p>				
			m'	3.756,03		
TOTAL 2.) - EARTH WORKS		Ukupno 2.) - ZEMLJANI RADOVI (kn):				

LOT No.1

Bicycle path

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3.)	DRAINAGE	ODVODNJA				
	DRAINAGE	DRENAŽE				
25.	<p>EXECUTION OF DRAINAGE OPENINGS</p> <p>Work includes supply and execution of a thin layer of graded stone material 30/60 mm as an extension of the subbase of the pavement structure in the shoulder width, on both sides, or only in the width of the lower shoulder, to the manually levelled base, thickness is 0.20. The material is applied and compacted with light compacting devices to the compressibility module of $M_s \geq 35 \text{ MN/m}^2$. The item includes excavation, loading and transport of material to the dump area which must be insured by Performer.</p>	<p>IZRADA PROCIJEDNICA</p> <p>Rad obuhvaća nabavu, transport i ugradnju zrnatog kamenog materijala granulacije 30/60 mm za izvedbu tankog kontinuiranog drenažnog sloja kao produžetka donjeg nosivog sloja kolničke konstrukcije u širini niže bankine, na ručno isplaniranu podlogu u debljini 0.10 m. Zrnati kameni materijal ugrađuje se strojno ili iznimno u manjim količinama, ručno. Materijal se ugrađuje i sabija laganim sredstvima za sabijanje do modula stišljivosti koji iznosi $M_s \geq 35 \text{ MN/m}^2$</p>				
	Accounting of works:	Obračun radova: Rad se mjeri i obračunava u kubičnim metrima (m3) ugrađenog zrnatog kamenog materijala.	m ³	11,76		
26.	<p>EXCAVATION FOR FOUNDATIONS OF CULVERT</p> <p>The work includes foundation and trench excavation for the culvert, up to 2m, in designed width with any necessary bracing, in material of "C" category, all in accordance with drawings from the design, together with loading, transport and disposal of dredged material to the landfill.</p> <p>Calculation is per cubic meter of excavation in grown together state according to the measures in design, and the price includes all the possible auxiliary works (formwork, pumping, vertical transfers, temporary disposal, etc.), alignment of bottom and possible requirements of sporadic remediation.</p>	<p>ISKOP ZA TEMELJE PROPUSTA</p> <p>Rad obuhvaća iskop temelja i rova za propust, dubine do 2m, a projektirane širine s eventualno potrebnim razupiranjem, u materijalu kategorije "C", u svemu prema nacrtima iz projekta, te utovar, odvoz i deponiranje iskopanog materijala na deponiju.</p> <p>Obračunava se po m3 iskopa u sraslom stanju prema mjerama iz projekta, a u cijeni su uključeni i svi eventualni pomoćni radovi (oplat, crpljenja, vertikalni prijenosi, privremeno odlaganje i sl.), poravnanje dna, eventualno potrebna mjestimična sanacija</p> <p>Izvedba, kontrola kakvoće i obračun prema Općim tehničkim uvjetima za radove na cestama, OTU, 1 i 2. Poglavlje; odredba 2-04. i 3-03.1.</p> <p>Obračun radova: Rušenje i iskop se mjeri po kubičnom metru stvarno obavijenog iskopa.</p>				
	Accounting of works:		m ³	103,80		
27.	<p>INSTALLATION OF TAMPON GRAVEL LAYER FOR CULVERT FOUNDATIONS</p> <p>Machine-made of bearing layer of granular stone material maximum grain up to 31.5 mm without binders, in thickness according to design. The price includes the procurement of natural stone or crushed granular material quality and grain size distribution according to design requirements and GTC, shipping, transportation, and installation (machine-spreading, planning and compacting to the required compressibility modulus)</p>	<p>UGRADNJA TAMPONSKOG SLOJA ŠLJUNKA ZA TEMELJE PROPUSTA</p> <p>Strojna izrada nosivog sloja od zrnatog kamenog materijala najvećeg zrna do 31,5 mm bez veziva, u debljini prema projektu. U cijenu je uključena dobava kamenih prirodnih ili droljenih zrnatih materijala kakvoće i granulometrije prema zahtjevima projekta i OTU, utovar, prijevoz, i ugradba (strojno razastiranje, planiranje i zbijanje do traženog modula stišljivosti)</p> <p>Izvedba, kontrola kakvoće i obračun prema Općim tehničkim uvjetima za radove na cestama, OTU, 1. i 5. Poglavlje; odredbe 5-01; 5-01.1 do 5-01.4.</p> <p>Obračun radova: Radovi se mjere i obračunavaju po m3 izvedenog sloja.</p>				
	Accounting of works:		m ³	8,76		
27	<p>INSTALLATION OF CONCRETE PIPES FOR CULVERTS</p> <p>Installation of pipes for concrete culvert Ø1000mm according to details in the design. Pipes are installed on already prepared concrete foundation in designed slope. Backfilling of the trench may begin only after the supervising engineer receives installed pipes and the same before that must undergo a control test under the regulations for sewage works. Special attention is paid to the construction of pipe joints, to prevent leakage of compounds in stage of construction or exploitation. Pipes must be attested, and their application is approved by the supervising engineer.</p>	<p>UGRADNJA BETONSKIH CIJEVI ZA PROPUSTE</p> <p>Ugradnja cijevi za betonski propust Ø1000mm prema detaljima u projektu. Cijevi se polažu na već pripremljenu betonsku podlogu u projektiranom nagibu. Zatrpavanje rova smije započeti tek nakon što nadzorni inženjer primi ugrađene cijevi, a iste se prije toga moraju podvrgnuti kontrolnom ispitivanju prema propisima za kanalizacijske radove. Posebnu pozornost obratiti izvedbi spojeva cijevi, kako ni u kojoj fazi izvedbe ili eksploatacije ne bi došlo do curenja spojeva. Cijevi moraju biti atestirane, a njihovu primjenu odobrava nadzorni inženjer.</p>				
	Accounting of works:	Obračun radova: Po m' ugrađene betonske cijevi. Ø1000 mm	m'	14,00		
29	<p>CONSTRUCTION OF THE SPANDREL WALLS OF CONCRETE CULVERT</p> <p>Construction of the pipe culvert spandrel walls from concrete class C30/37, according to the elevations and dimensions given in design details. The calculation is per m3 of built in concrete, the price includes the procurement and delivery of concrete, all transportation and transfers, preparation and dismantling of formwork, mounting of concrete and concrete care, and all other necessary materials.</p>	<p>IZRADA ČEONIH ZIDOVA BETONSKIH PROPUSTA</p> <p>Izrada čeonih zidova cijevnih propusta od betona klase C30/37, a prema kotama i dimenzijama danim u detaljima projekta. Obračun je po m3 ugrađenog betona, a u cijeni je uključena nabava i doprema betona, svi prijevozi i prijenosi, izrada i demontaža oplata, rad na ugradbi i njezi betona, te sav drugi potrebni materijal.</p> <p>Izvedba, kontrola kakvoće i obračun prema Općim tehničkim uvjetima za radove na cestama, OTU, 1., 3. i 7. Poglavlje; odredbe 3-03.2; 7-01. i 7-01.04.</p> <p>Obračun radova: Betonski radovi se obračunavaju u kubičnim metrima (m³) ugrađenog betona.</p>				
	Design, quality control and calculation according to the General technical conditions for road works, OTU, 1, 3 and 7 Chapter; provisions 3-03.2, 7-01. and 7-01.04.		m ³	13,56		
	CONCRETING OF THE PIPE CULVERT LINING	BETONIRANJE OBLOGE CIJEVI PROPUSTA				
30.	<p>Concreting of the pipe culvert lining in one-sided formwork with concrete of class C 25/30 on a bed of 10cm thick concrete the class C 12/15 in all according to the drawings, details and conditions from the design or by the instructions of the supervising engineer.</p> <p>The calculation is per m3 built in concrete according the designed section, and the price includes procurement of concrete, all transportation and transfers, preparation and dismantling of formwork and scaffolding, working on mounting and concrete care, and all other required work and materials.</p>	<p>Betoniranje obloge cijevi propusta u jednostranoj oplati betonom klase C 25/30 na podlozi od betona debljine 10cm kalse C 12/15 u svemu prema nacrtima, detaljima i uvjetima iz projekta odnosno uputama nadzornog inženjera.</p> <p>Obračun je po m3 ugrađenog betona po projektiranom presjeku, a u cijeni je uključena dobava betona, svi prijevozi i prijenosi, izrada i demontaža oplata i skele, rad na ugradbi i njezi betona, te sav drugi potrebni rad i materijal.</p> <p>Izvedba, kontrola kakvoće i obračun prema Općim tehničkim uvjetima za radove na cestama, IGH 2001. (OTU), 1., 3. i 7. Poglavlje; odredbe 3-03.2; 7-01.01. i 7-01.04.</p> <p>Obračun radova: Rad se mjeri po metru kubnom ugrađenog betona.</p>				
	Accounting of works: Works with concrete are accounted in cubic meters (m3) of poured concrete.		m ³	8,58		

LOT No.1

Bicycle path

Red. br.:		OPIS RADA	Jed. mjere	Količina	Jed.cijena	Ukupno
	REINFORCEMENT WORKS	ARMIRAČKI RADOVI				
31.	PROCUREMENT, TRANSPORTATION AND INSTALLATION OF STEEL REINFORCEMENT OF CONCRETE STRUCTURES The work includes supply, delivery, cutting, straightening, placing and connecting the reinforcement. Calculation is per kilogram (kg) of embedded reinforcement according to the specifications in the design and the price includes procurement of reinforcing steel; sorting and cleaning, cutting and bending, delivery to the construction site, transportation and transfers; setup, lining and binding.	NABAVA, PRIJEVOZ I UGRADBA ČELIKA ZA ARMIRANJE BETONSKIH KONSTRUKCIJA. Obračunava se po kilogramu (kg) ugrađene armature prema specifikacijama iz projekta, a u cijeni je uključena nabava čelika za armiranje; razvrstavanje i čišćenje, sječenje i savijanje; doprema na gradilište, prijevozi i prijenosi; postava, podlaganje i vezanje. Izvedba, kontrola kakvoće i obračun prema Općim tehničkim uvjetima za radove na cestama, OTU, 1. i 3. Poglavlje; odredbe 3-03.2, 7-00.2. i 7-01.5.				
	Accounting of works:	Obračun radova: kg ugrađene armature (šipke i mreže)	kg	745,80		
32.	BACKFILLING OF PIPE CULVERT TRENCH Backfilling of the trench with sand, earth from the excavation or mixed material. The work includes transportation, planning and spreading of the material in layers, compaction with lightweight means for compaction of soil or manual compactors. This work includes filling, spreading, moistening or drying as needed, and planning of materials in the embankment to the dimensions and grades given in the design, as well as compaction as specified in GTC. All works had to be performed according to croatian regulation.	ZATRPVANJE ROVA CIJEVNOG PROPUSTA Zatrpavanje rova pijeskom, zemljom iz iskopa ili mješanim materijalom. Rad obuhvaća prijevoz, razastiranje i planiranje materijala u slojevima, sabijanje laganim sredstvima za sabijanje tla ili ručno nabijačima. Ovaj rad obuhvaća nasipanje, razastiranje, prema potrebi vlaženje ili sušenje, te planiranje materijala u nasipu prema dimenzijama i nagibima danim u projektu, kao i zbijanje prema zahtjevima iz OTU. Rad mora biti obavljen u skladu s projektom, propisima, programom kontrole i osiguranja kakvoće (PKOK), projektom organizacije građenja (POG), zahtjevima nadzornog inženjera i OTU (2-09.3).				
	Accounting of works:	Obračun radova: Rad na zatrpavanju rova cijevnog propusta obračunava se u kubičnim metrima ugrađenog i zbijenog nasipa.	m³	86,25		
33.	CONCRETE CURBSTONES Installation of concrete curbstones Supply and installation of concrete curbstone of cross section 18/24 cm and 8/20 cm to the previously executed base of fresh concrete, according to the detail from the design. The concrete of the curbstone must be of class C 40/45 (MB 45) – w/c factor less than 0.45, resistant to frost and defrosting salts.	RUBNJACI Izrada betonskih rubnjaka Dobava i ugradba betonskih rubnjaka poprečnog presjeka 18/24 i 8/20 na prethodno izvedenu podlogu od svježeg betona prema detalju iz projekta. Beton ugrađenog rubnjaka mora biti klase C 40/45 (MB-45) – v/c faktor ispod 0.45, otporan na smrzavanje i soli za odmrzavanje.				
	Accounting of works: The work is measured in meters (m') of executed curbstones according to the details from the design, including the execution of the base. Curbstone 24/18/100 cm Curbstone 8/20/100 cm	Obračun radova: Rad se mjeri u metrima (m') postavljenih rubnjaka prema detaljima iz projekta, uključivo s izvedbom podloge. Rubnjaci 24/18/100 cm Rubnjaci 8/20/100 cm				
			m'	20,00		
			m'	3.952,00		
TOTAL 3.) - DRAINAGE		Ukupno 3.) - ODVODNJA (kn):				
4.) PAVEMENT STRUCTURE		KOLNIČKA KONSTRUKCIJA				
34.	BEARING COURSE OF GRAIN STONE MATERIAL Construction of bearing course of mechanically stabilized crushed stone material. This layer is installed as a new bicycle path pavement structure. The work includes supply and installation of crushed stone material grain size 0-32 mm. The quality requirements are: the degree of compaction Sz = 100%, Ms = 80 MN/m2.	NOSIVI SLOJEVI OD ZRNATOG KAMENOG MATERIJALA Izrada nosivog sloja od mehanički stabiliziranog drobljenog kamenog materijala. Ovaj sloj ugrađuje se na mjestima nove kolničke konstrukcije biciklističke staze. Rad obuhvaća dobavu i ugradnju drobljenog kamenog materijala veličine zrna 0-32 mm. Zahtjevi kvalitete su: stupanj zbijenosti Sz=100%, Ms=80 MN/m2.				
	Accounting of works: The work is measured in cubic meters for each layer thickness. base layer of crushed stone material under the newly designed bike paths in the thickness of min. 20cm.	Obračun radova: Rad se mjeri u kubičnim metrima za svaku debljinu sloja. nosivi sloj od drobljenog kamenog materijala ispod novoprojektirane biciklističke staze u debljini od min. 20cm.				
			m³	1.370,86		
35.	BEARING COURSE OF GRAIN STONE MATERIAL STABILIZED WITH HYDRAULIC BINDER Execution of the bearing course of cement stabilized gravel. The work includes supply and installation of cement stabilisation. The installed layer must meet the criterion of bearing capacity β28 =2,5-6,0 MN/m2. Accounting of works: Per cubic meter. Base layer of cement stabilized gravel layer thickness of 12 cm	NOSIVI SLOJ OD ZRNATOG KAMENOG MATERIJALA STABILIZIRANOG HIDRAULIČNIM VEZIVOM Izrada nosivog sloja od cementom stabiliziranog šljunka. Rad obuhvaća dobavu i ugradnju cementne stabilizacije. Ugrađeni sloj mora zadovoljavati kriterij nosivosti od β28 =2,5-6,0 MN/m2. Obračun radova: Rad se mjeri u kubičnim metrima. Nosivi sloj od cementom stabiliziranog šljunka u debljini sloja od 12 cm.				
			m³	634,04		
36.	WEARING COURSE Machine-making of asphalt wearing course(AC surf), produced and built-in in hot procedure, type of bitumen and aggregates according to a confirmed working structure. The price includes the purchase and transport of previously machine-made mixtures from aggregates and bitumen as a binder, nominal maximum grain size, type of stone material and grading according to the provisions in the design and according to: HRN EN 13043:2003 (aggregates), HRN EN 12591: 2009 (paving grade bitumens) and HRN EN 13108-1:2007 (Asphalt), and the loading, transport and mechanical installation (spreading and compaction). Construction, quality control and calculation according to HRN EN 13108-1. The price of performance of the wearing course includes cleaning of surfaces and procurement, transportation and spraying with bituminous emulsion before the performance of the layer in an amount of 0.30 kg/m2.	HABAJUĆI SLOJEVI (AC surf) Strojna izrada asfaltnog habajućeg sloja (AC surf), proizvedenog i ugrađenog po vrućem postupku, vrste bitumena i agregata prema potvrđenom radnom sastavu. U cijenu je uključena nabava i prijevoz prethodno strojno proizvedene mješavine od agregata i bitumena kao veziva, nazivne veličine najvećeg zrna, vrste kamenog materijala i granulometrijskog sastava prema odredbama u projektu i u skladu prema: HRN EN 13043:2003 (agregati); HRN EN 12591:2009 (cestograđevni bitumen) i HRN EN 13108-1:2007 (asfaltbeton), te utovar, prijevoz, i strojna ugradba (razastiranje i zbijanje). Izvedba, kontrola kakvoće i obračun prema HRN EN 13108-1. U cijenu izvedbe habajućeg sloja uključeno je čišćenje podloge te nabava, prijevoz i prskanje bitumenskom emulzijom prije izvedbe samog sloja u količini od 0.30 kg/m2.				
	Accounting of works: Work is accounted per square meter	Obračun radova po m2: Izrada habajućeg sloja AC 8 surf 50/70 AG4 M4-E debljine 4cm na biciklističkoj stazi.				
			m²	5.032,15		
TOTAL 4.) - ROAD CONSTRUCTION		Ukupno 4.) - KOLNIČKA KONSTRUKCIJA (kn):				
5.) ROAD EQUIPMENT		OPREMA CESTE				
	VERTICAL SIGNALIZATION Traffic signs with its species, meaning, shape, color, size and method of installation are designed in accordance with the Regulations on traffic signs, road signs and markings and road equipment (N.N. 33/05) and Croatian norms governing this area HRN. U.S4.201/80, U.S4.202/80, Z.SO.001-005/82, Z.SO.010/82, Z.S2.235/82, Z.S2.236/82, Z.S2.240/83, Z.S2.301-307/83, Z.S52.313-316/82, ISO 1114-1118 and 1126, EN 12899-1, and OTU for work on the roads (December 2001). Vertical traffic signs with its size and color are designed in a way to suit the level of road. Regarding to that specific shapes and colors of traffic signs are defined. Attaching the traffic signs must be performed in such a way that the front side has no visible marks of attachment. Fastening elements must be designed to prevent turning of traffic sign around the column axis. The screws must be secured against self-unfolding. Traffic signs are attached to poles that are made of Fe (iron) tube and protected against corrosion by hot dip galvanizing or attached on aluminum poles.	PROMETNI ZNAKOVI (OKOMITA SIGNALIZACIJA) Prometni znakovi svojom vrstom, značenjem, oblikom, bojom, veličinom i načinom postavljanja su projektirani u skladu s Pravilnikom o prometnim znakovima, signalizaciji i opremi na cestama (N.N. 33/05) i hrvatskim normama koje reguliraju to područje HRN. U.S4.201/80, U.S4.202/80, Z.SO.001-005/82, Z.SO.010/82, Z.S2.235/82, Z.S2.236/82, Z.S2.240/83, Z.S2.301-307/83, Z.S52.313-316/82, HRN 1114-1118 i 1126, HRN EN 12899-1, te O.T.U. za radove na cestama (prosinac 2001). Predviđena vertikalna prometna signalizacija projektirana je na način tako da odgovara svojom veličinom i bojom za razinu ceste. S tim u vezi određeni su oblici i boje prometnih znakova. Pričvršćivanje prometnih znakova mora biti izvedeno na način da s prednje strane znaka nema vidljivog mjesta pričvršćivanja. Elementi za pričvršćivanje moraju biti izvedeni tako da se onemoguću okretanje prometnog znaka oko osi stupca.Vijci se moraju osigurati protiv samoodvijanja. Prometni znakovi pričvršćuju se na stupove koji su izrađeni od Fe cijevi i zaštićeni protiv korozije postupkom vrućeg cinčanja ili na aluminijske stupove.				

LOT No.1

Bicycle path

Red. br.:	OPIS RADA	Jed. mjere	Količina	Jed.cijena	Ukupno
	<p>When setting up a road sign it should be rotated 3-5 ° to the axis of the road to avoid the intense reflections and reduce contrast of marks, sign and background that is illuminated. No more than two traffic signs should be attached on the same column .</p> <p>The columns signs are installed in concrete foundations with minimum quality of concrete class C 20/25 (25 MB), in a shape of truncated pyramid, with length of lower side of 30 cm and upper 20 cm.</p> <p>Accounting of works: Placing of variable traffic signs is accounted per unit of placed sign, including the post and the foundation.</p>				
	<p>Pri postavljanju prometni znak treba zakrenuti za 3-5° u odnosu na os prometnice da se izbjegne intenzivna refleksija i smanji kontrast oznaka, znaka i pozadine koja je osvijetljena. Na isti se stup ne smije postaviti više od dva prometna znaka.</p> <p>Stupovi znakova postavljaju se u betonske temelje minimalne kakvoće betona C 20/25 (MB 25), oblika zarubljene piramide čije su stranice donjeg kvadrata 30 cm i gornjeg 20 cm.</p> <p>Obračun se vrši po komadu ugrađenog znaka prema obliku i dimenzijama, a u njega ulazi sav potreban materijal i rad do potpunog dovršenja ugradnje znaka.</p>				
37.	Road sign B02 forms an octagon, inscribed in a circle in diameter 60cm, mounted on galvanized pole in length of 3.0 m, made of retro-reflective foil class according to Regulation (stable to ultraviolet radiation) applied to aluminum foundation in thickness of 2mm.	Prometni znak B02 oblika osmerokuta, upisanog u kružnicu promjera ø 60cm, pričvršćen na pocinčani stup duljine 3,0 m; izrađen od retroreflektivne folije klase prema pravilniku (stabilnom na ultraljubičasto zračenje) apliciranom na Al. podlogu debljine 2mm.	kom	5	
38.	Road sign B46 forms an octagon, inscribed in a circle in diameter 60cm, mounted on galvanized pole in length of 3.0 m, made of retro-reflective foil class according to Regulation (stable to ultraviolet radiation) applied to aluminum foundation in thickness of 2mm.	Prometni znak B46 oblika kružnice, promjera ø 40cm, pričvršćen na pocinčani stup duljine 3,0 m; izrađen od retroreflektivne folije klase prema pravilniku (stabilnom na ultraljubičasto zračenje) apliciranom na Al. podlogu debljine 2mm.	kom	1	
39.	Road sign B48 forms an octagon, inscribed in a circle in diameter 60cm, mounted on galvanized pole in length of 3.0 m, made of retro-reflective foil class according to Regulation (stable to ultraviolet radiation) applied to aluminum foundation in thickness of 2mm.	Prometni znak B48 oblika kružnice, promjera ø 40cm, pričvršćen na pocinčani stup duljine 3,0 m; izrađen od retroreflektivne folije klase prema pravilniku (stabilnom na ultraljubičasto zračenje) apliciranom na Al. podlogu debljine 2mm.	kom	2	
40.	Road sign C02 forms an octagon, inscribed in a circle in diameter 60cm, mounted on galvanized pole in length of 3.0 m, made of retro-reflective foil class according to Regulation (stable to ultraviolet radiation) applied to aluminum foundation in thickness of 2mm.	Prometni znak C02 oblika kvadrata dužina stranice 40cm, pričvršćen na pocinčani stup duljine 3,0 m; izrađen od retroreflektivne folije klase prema pravilniku (stabilnom na ultraljubičasto zračenje) apliciranom na Al. podlogu debljine 2mm.	kom	2	
41.	Road sign C03 forms an octagon, inscribed in a circle in diameter 60cm, mounted on galvanized pole in length of 3.0 m, made of retro-reflective foil class according to Regulation (stable to ultraviolet radiation) applied to aluminum foundation in thickness of 2mm.	Prometni znak C03 oblika kvadrata dužina stranice 40cm, pričvršćen na pocinčani stup duljine 3,0 m; izrađen od retroreflektivne folije klase prema pravilniku (stabilnom na ultraljubičasto zračenje) apliciranom na Al. podlogu debljine 2mm.	kom	6	
42.	Road sign C18 forms an octagon, inscribed in a circle in diameter 60cm, mounted on galvanized pole in length of 3.0 m, made of retro-reflective foil class according to Regulation (stable to ultraviolet radiation) applied to aluminum foundation in thickness of 2mm.	Prometni znak C18 oblika kružnice, promjera ø 40cm, pričvršćen na pocinčani stup duljine 3,0 m; izrađen od retroreflektivne folije klase prema pravilniku (stabilnom na ultraljubičasto zračenje) apliciranom na Al. podlogu debljine 2mm.	kom	2	
43.	Road sign C19 forms an octagon, inscribed in a circle in diameter 60cm, mounted on galvanized pole in length of 3.0 m, made of retro-reflective foil class according to Regulation (stable to ultraviolet radiation) applied to aluminum foundation in thickness of 2mm.	Prometni znak C19 oblika kružnice, promjera ø 40cm, pričvršćen na pocinčani stup duljine 3,0 m; izrađen od retroreflektivne folije klase prema pravilniku (stabilnom na ultraljubičasto zračenje) apliciranom na Al. podlogu debljine 2mm.	kom	2	
44.	Road sign E15 forms an octagon, inscribed in a circle in diameter 60cm, mounted on galvanized pole in length of 3.0 m, made of retro-reflective foil class according to Regulation (stable to ultraviolet radiation) applied to aluminum foundation in thickness of 2mm.	Dopunska ploča E15 oblika pravokutnika dužine stranice 40cm, izrađen od retroreflektivne folije klase prema pravilniku (stabilnom na ultraljubičasto zračenje) apliciranom na Al. podlogu debljine 2mm.	kom	1	
45.	<p>PAVEMENT MARKS</p> <p>This work includes execution of pavement marks for traffic control, as defined in the Regulation and General Technical Conditions. The colors and dimensions of marks are determined in the Regulation and in respective standards.</p>	<p>OZNAKE NA KOLNIKU</p> <p>Ovaj rad obuhvaća izradu oznaka na kolniku za reguliranje prometa koje su definirane u Pravilniku i ovim OTU. Boje i dimenzije oznaka određene su Pravilnikom i pripadajućim normama.</p>			
46.	<p>LONGITUDINAL PAVEMENT MARKS</p> <p>Accounting of works: - continous line (dividing); w=10 cm yellow - dashed line 0,25+0,25 (dividing); w=10 cm yellow</p>	<p>UZDUŽNE OZNAKE NA KOLNIKU</p> <p>Obračun radova: - puna crta; š=10cm, žute boje - isprekidana crta; 0,25+0,25; š=10cm, žute boje</p>	m	1.900,00	
47.	<p>TRANSVERSAL PAVEMENT MARKS</p> <p>Accounting of works: Pedestrian crossing mark, width 5,00 m Pedestrian crossing mark, width 3,00 m Pedestrian crossing mark</p>	<p>POPREČNE OZNAKE NA KOLNIKU</p> <p>Obračun radova: - oznaka pješačkog prijelaza preko kolnika, širine 5,0 m, traka širine 50cm i razmaka 50cm, bijele boje, prema HRN. U.S4.227. - oznaka pješačkog prijelaza preko kolnika, širine 3,0 m, traka širine 50cm i razmaka 50cm, bijele boje, prema HRN. U.S4.227. - oznaka prijelaza biciklističke staze preko kolnika, hladna plastika - crvene boje</p>	m ²	35,00	
48.	<p>OTHER PAVEMENT MARKS</p> <p>Accounting of works: Marks of route for pedestrians, yellow Marks of route for cycle, yellow Marks H24 Yellow</p>	<p>OSTALE OZNAKE NA KOLNIKU</p> <p>Za oznake na kolniku mora biti upotrijebljen materijal ili boja koji bitno ne smanjuju hvatljivost kolnika.</p> <p>Obračun radova: - oznaka staza za pješake, žute boje - oznaka staza za bicikle, žute boje - oznaka H24 strelica dim. 1.6x0.6m; žute boje</p>	kom	6,00	
49.	<p>TEMPORARY TRAFFIC REGULATION</p> <p>The work includes supply, transport, mounting and installation of the console post with foundation, electronic operatin unit, yellow lantern, traffic sign C02 and all necessary details until the traffic light is finnish.</p> <p>This item is covered and obtaining the necessary approvals for temporary traffic regulation by relevant organizations, as well as possibly making the necessary drawings and graphic display of the planned interim regulation.</p> <p>Accounting of works:</p>	<p>PRIVREMENA REGULACIJA PROMETA</p> <p>Ova stavka obuhvaća: postavljanje novih i izmjenu postojećih prometnih znakova, izradu privremene vodoravne signalizacije, vraćanje postojećih prometnih znakova u prvobitno stanje nakon prestanka radova i održavanje svih znakova za vrijeme trajanja privremene regulacije. Postavljanje privremene regulacije prometa ovisi o dinamici izvođenja radova i primijenjenoj tehnologiji građenja.</p> <p>Ovom stavkom obuhvaćeno je i pribavljanje potrebnih suglasnosti za privremenu regulaciju prometa od nadležnih organizacija kao i izrada eventualno potrebne skice odnosno grafičkog prikaza planirane privremene regulacije</p> <p>Obračun radova:</p>			kpl.

TOTAL 5.) - ROAD EQUIPMENT

Ukupno 5.) - OPREMA CESTE (Kn):

RECAPITULATION FOR BICYCLE PATH:

1. Preparatory works

Pripremni radovi

2. Earth works

Zemljani radovi

3. Drainage

Odvodnja

4. Pavement structure

Kolnička konstrukcija

5. Road equipment

Oprema ceste

TOTAL:

LOT No.1

Bicycle path

Red. br.:		OPIS RADA	Jed. mjere	Količina	Jed.cijena	Ukupno
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Skate park flooring

1.) PREPARATORY WORKS		PRIPREMNI RADOVI				
CLEANING AND PREPARATION OF THE GROUND REMOVAL OF BUSHES AND TREES		ČIŠĆENJE I PRIPREMA TERENA UKLANJANJE GRMLJA I DRVEĆA				
Cutting and removal of brushwood and trees of all sizes, cutting off the branches, cutting of trees and thick branches to the length appropriate for transportation, extracting roots, brushwood and old stumps, extracting stumps of newly cut trees which are in the road belt, carrying to the dump area and restructuring this area that is chosen by Performer.		Ovaj rad obuhvaća sječenje stabala svih dimenzija, odsijecanje granja, rezanje stabala i debelih grana na dužine pogodne za prijevoz, vađenje korijena, šiblja te starih panjeva i panjeva novo posječenih stabala, zatim odnošenje šiblja, granja, trupaca i panjeva izvan profila ceste na odlagalište koje se nalazi na udaljenosti do 15 km.				
Calculation of work:		Udobine od izvađenih panjeva na temeljnom tlu treba ispuniti istim materijalom kakav je na okolnom temeljnom tlu te izvesti zbijanje do propisane udobine.				
50. Removal of bushes and twigs (up to 10 cm in diameter) is calculated per square meter of cleared/overgrown areas.		Obračun radova: Uklanjanje grmlja i šiblja (do Ø 10 cm) obračunava se po četvornom metru očišćene zarasle površine. m² 195,00				
51. Removal of trees and stumps is calculated by piece, taking into account the thickness (profile) of trees (measured at a height of 1 m from ground): diameter larger than 30 cm.		Uklanjanje drveća i panjeva obračunava se po komadu, uzimajući u obzir debljinu (profil) stabla (mjereno na visini 1 m od zemlje): Ø većega od 30 cm. pcs. 3,00				
TOTAL 1.) - PREPARATORY WORKS		Ukupno 1.) - PRIPREMNI RADOVI (kn):				
2.) EARTH WORKS		ZEMLJANI RADOVI				
Work includes topsoil excavation of 15 cm thickness and hauling of excavation material into dump area that is insured and maintained by Performer. This work is performed according to the levels and information from the design. When excavating humus, care should be taken to enable the transversal and longitudinal drain. Surfaces on which the fill is foreseen after humus removal should be immediately prepared and compacted and the fill first layer should be made. Calculation of work per cubic meter of excavated topsoil measured in grown state		Rad obuhvaća površinski iskop humusa u debljini sloja od 15 cm i njegovo prebacivanje u stalno ili privremeno odlagalište. Humus se iskopava strojno, buldožerima, bagerima ili univerzalnim strojevima. Obračun radova po m ³ stvarno iskopanog humusa mjereno u sraslom stanju. m³ 29,25				
WIDE EXCAVATION This work includes excavations provided in design, including: excavations in the route, steps, cutting, hack, excavations in deviations of roads and access paths and wide excavations for the construction of structures.		ŠIROKI ISKOP Ovaj rad obuhvaća široke iskope u materijalu "C" kategorije koji su predviđeni projektom, a to su: iskopi u trasi za izvedbu staze, a nakon skidanja humusa. Rad uključuje i utovar iskopanog materijala u prijevorna sredstva.				
53. Work also includes loading of excavation material into means of transportation, transport to the dump area, lodgement and regulation of dump area. The dump area must be insured by Performer. A part of material which will be used for earth filling should be temporarily disposed on construction site. Calculation of work per cubic meter of excavated material measured in grown state.		Iskop se obavlja prema visinskim kotama iz projekta te propisanim nagibima. Obračun radova: Po kubičnom metrom iskopanog materijala mjereno u sraslom stanju. m³ 39,00				
TRANSPORTATION OF SURPLUS TOPSOIL MATERIAL AND MATERIAL FROM EXCAVATIONS ALONG THE ROUTE Work includes transportation of surplus topsoil material (after performance of humus backfill), material from the excavation of the landfill and unloading of waste material, including loading, unloading, spreading and planning. The contractor is required to fully provide transport to dumping site and in public traffic areas.		PRIJEVOZ VIŠKA HUMUSNOG MATERIJALA I MATERIJALA IZ ISKOPA S TRASE Rad obuhvaća prijevoz viška humusnog materijala (nakon izvedbe humuziranja), materijala iz iskopa od mjesta iskopa do mjesta istovara na odlagalište i svog otpadnog materijala, uključivo utovar, istovar, razastiranje i planiranje. Izvođač je dužan u potpunosti osigurati prijevoz na samom gradilištu i na javnim prometnim površinama.				
54. Unit cost includes finding of the landfill, the landfill design with all the necessary approvals (Investor, supervisor and main designer) as well as the arrangement of the landfill. Transportation of surplus topsoil material to a distance up to 6000 m. Calculation per cubic meter of transported grown-together material in accordance with design.		Jediničnom cijenom je obuhvaćen i pronalazak odlagališta, projekt uređenja odlagališta sa svim potrebnim suglasnostima (Investitora, nadzornog inženjera i glavnog projektanta) kao i samo uređenje odlagališta. Prijevoz viška humusnog materijala na udaljenost do 6000 m. Obračun po kubičnom metru stvarno prevezenog materijala mjereno u sraslom stanju sukladno projektu. m³ 40,00				
ARRANGEMENT OF FOUNDATION SOIL ARRANGEMENT OF FOUNDATION SOIL BY MECHANICAL COMPACTING Compacting of foundation soil in earth materials must be performed to achieve the compactness grade with respect to the standard Proctor procedure of Sz≥97%, i.e. the compressibility module of Ms≥20MN/m ² . Work is measured and calculated per square meter of actually arranged foundation soil.		UREĐENJE TEMELJNOG TLA UREĐENJE TEMELJNOG TLA MEHANIČKIM ZBIJANJEM Temeljno se tlo uređuje tek pošto je uklonjen sav humus prema projektu. Prije zbijanja površinu tla treba izravnati. Zbijanje temeljnog tla u zemljanim materijalima treba izvršiti tako, da se postigne stupanj zbijenosti u odnosu na standardni Proctor-ov postupak Sz≥97%, odnosno modul stižljivosti Ms≥20MN/m ² . Rad se mjeri i obračunava po četvornom metru stvarno uređenog temeljnog tla. m² 195,00				
56. REPLACEMENT OF LOW BEARING FOUNDATION SOIL LAYER WITH BETTER MATERIAL Work includes excavation of the layer of low bearing material in the foundation soil with transport to landfill waste site, procurement, transport and installation of stone material as a replacement material in a layer of average thickness of 30cm. Requested quality requirements for the performance of this layer are: the degree of compaction compared to the standard Proctor's procedure Sz ≥ 100% and modulus of compressibility Ms ≥40MN/m ² . The work is measured and calculated per cubic meter of actually replaced low bearing layer of foundation soil.		ZAMJENA SLOJA SLABOG TEMELJNOG TLA BOLJIM MATERIJALOM Rad uključuje iskop sloja slabog materijala u temeljnom tlu sa odvozom na odlagalište, te nabavu transport i ugradnju kamenog materijala kao zamjenskog materijala u sloju prosječne debljine od 30cm. Traženi zahtjevi kvalitete po izvedbi ovog sloja su: stupanj zbijenosti u odnosu na standardni Proctor-ov postupak Sz≥100%, odnosno modul stižljivosti Ms≥40MN/m ² . Rad se mjeri i obračunava po četvornom metru stvarno uređenog temeljnog tla. m³ 25,00				
57. TREATMENT OF FOUNDATION SOIL OF LOW BEARING CAPACITY AND ROAD FOUNDATION WITH GEOSYNTHETICS Planning and aligning any irregularities on foundation soil and procurement, supply and laying of geotextile of quality and classification according to OTU. Geotextile type 300g/m ² is used. The work includes laying of geotextile at the prepared soil with folding and sewing. The overlap should be performed in the direction of material filling. Calculation of work per square meter of actually built-in geotextile.		UREĐENJE SLABONOSIVOG TEMELJNOG TLA GEOTEKSTILOM Planiranje i poravnjanje eventualnih neravnina na temeljnom tlu i nabava, dobava i polaganje geotekstila kvalitete i klasifikacije prema OTU. Koristi se geotekstil tip 300g/m ² . Rad obuhvaća polaganje geotekstila na pripremljeno temeljno tlo s preklapanjem i šivanjem. Preklapanje treba izvesti u smjeru nasipanja materijala. Obračun radova prema kvadratnom metru ugrađenog geotekstila. m² 195,00				
FILL EXECUTION 58. FILL EXECUTION OF EARTH MATERIAL The item includes delivery of earth material, mechanical spreading and leveling of earth material, with moistening with water if required. Compacting of fill in earth material must be performed so as to achieve the compactness grade with respect to the standard Proctor of Sz≥100%, i.e. the compressibility modulus of Ms≥25MN/m ² . If it is necessary earth material must be lead from dump area. Duty of the Performer of works is to locate and provide a dump site. Calculation of work: Per cubic meter of actually built embankment		IZRADA NASIPA IZRADA NASIPA OD ZEMLJNIH MATERIJALA Izrada nasipa bankine od zemljanog materijala dobivenog iz iskopa. Rad obuhvaća strojno razastiranje i planiranje zemljanog materijala, zbijanje ježevima, glatkim valjcima ili valjcima s kotačima na pneumaticima uz potrebno kvašenje vodom. Zbijanje nasipa u zemljanim materijalima treba izvršiti tako, da se postigne stupanj zbijenosti u odnosu na standardni Proctor-ov postupak Sz≥ 100% odnosno modul stižljivosti Ms≥25MN/m ² . Obračun radova: Po kubičnom metru stvarno izvedenog nasipa. m³ 8,50				
59. EXECUTION OF ROAD FOUNDATION This work includes the arrangement of the road foundation, i.e., coarse and fine material planning and compacting to required density. The road foundation should be performed according to elevations in design. EXECUTION OF ROAD FOUNDATION IN EARTH MATERIAL Work includes mechanical rough and fine leveling, compacting with smooth rollers or rollers on pneumatics. Compacting of road foundation in earth material is to be executed so as to achieve the compactness grade with respect to the standard Proctor procedure of Sz≥100%, i.e. compressibility modulus of Ms≥30MN/m ² . Calculation of work: Per square meter of actually built road foundation		IZRADA POSTELJICE Ovaj rad obuhvaća uređenje posteljice, tj. grubo i fino planiranje materijala i nabijanje do tražene zbijenosti. Posteljicu treba izraditi prema kotama iz projekta. IZRADA POSTELJICE OD ZEMLJANIH MATERIJALA Rad obuhvaća strojno grubo i fino planiranje, zbijanje glatkim valjcima ili valjcima s točkovima na pneumaticima. Zbijanje posteljice u zemljanim materijalima treba izvršiti tako, da se postigne stupanj zbijenosti u odnosu na standardni Proctor-ov postupak Sz≥100%, odnosno modul stižljivosti Ms≥25MN/m ² Obračun radova: Po četvornom metru stvarno izvedene posteljice m² 195,00				
60. LAND PLANNING AND GRASS PLANTING						

LOT No.1

Bicycle path

Red. br.:	OPIS RADA	Jed. mjere	Količina	Jed.cijena	Ukupno
	Rolling, planning and filling of flat green areas on the traffic islands and green areas in the intersection zones. The work includes supply, transportation Nabava, dobava, razastiranje, planiranje, zbijanje i zatravljivanje humusnog sloja bankine debljine 15 cm u zbijenom stanju. Razastrti sloj humusa je and fill of fertile soil (humus) and a mixture of grass in a layer with thickness of 15cm.Spreaded layer of topsoil should be rolled with a lightweight roller. potrebno uvajati laganim valjkom. U slučaju suhog i vrućeg vremena potrebno je vlažiti zasijane površine. Po fino uređenom humusnom sloju sije se In case of dry and hot weather it is necessary to dampen the sown areas. Grass is sown on top of well planned topsoil layer. The type and mix of grass trava. Vrsta i mješavina trave odabire se u ovisnosti o ekološkim uvjetima zbog sigurnosti rasta vegetacije. Količina sjemena iznosi oko 5,1-8,0 g/m2, a is selected depending on environmental conditions for the safety of growth of vegetation. The quantity of seed is about 5,1 to 8,0 g/m2, and fertilizers of gnojiva oko 80 g/m2.				
		m ²	64,00		
TOTAL 2.) - EARTH WORKS		Ukupno 2.) - ZEMLJANI RADOVI (kn):			
3.) DRAINAGE	ODVODNJA				
61. Installation of concrete curbstones Supply and installation of concrete curbstones with specified dimensions 18/24cm and 8/20cm on previously derived surface of fresh concrete according to details in design. Concrete for curbstones must be of class C 40/45 (MB-45) - v/c ratio below 0.45, resistant to frost and de-icing salts. Work is measured in meters (m ') of installed curbstones according to design details, including the execution of the subbase. Curbstones 8/20/100 cm.	UGRADBA BETONSKIH RUBNJAKA Dobava i ugradba betonskih rubnjaka poprečnog presjeka 8/20 na prethodno izvedenu podlogu od svježeg betona prema detalju iz projekta. Beton ugrađenog rubnjaka mora biti klase C 40/45 (MB-45) – v/c faktor ispod 0.45, otporan na smrzavanje i soli za odmrzavanje. Rad se mjeri u metrima (m') postavljenih rubnjaka prema detaljima iz projekta, uključivo s izvedbom podloge. Rubnjaci dimenzija 8/20/100.				
		m'	64,00		
TOTAL 3.) - DRAINAGE		Ukupno 3.) - ODVODNJA (kn):			
4.) PAVEMENT STRUCTURE	KOLNIČKA KONSTRUKCIJA				
62. SPRAYING OF BITUMEN EMULSION Spraying of the existing pavement with bituminous emulsion prior to applying the bearing asphalt layer in a quantity of 0.3 kg/m2.The price includes cleaning of roadway, procurement and delivery of emulsions and all activities necessary to complete the work. Calculation of work: Per square meter of cleaned and coated surface	PRSKANJE BITUMENOM Prskanje postojeće konstrukcije bitumenskom emulzijom prije ugradnje asfalta u količini od 0,3 kg/m2. u cijenu je uključeno čišćenje kolnika, nabava i dostava emulzije i sav potreban rad. Obračun radova po metru kvadratnom očišćene i premazane konstrukcije.				
		m ²	195,00		
63. BEARING COURSE OF GRADED STONE MATERIAL Execution of the bearing course of mechanically stabilised crushed stone material. This course is installed on the locations of pavement widening, bus stops, on the recovery place, parking spaces, etc. The works include supply and installation of crushed stone material, grain size 0-63 mm. Quality requirements: compaction level Sz=100%, Ms=100 MN/m2.	NOSIVI SLOJEVI OD ZRNATOG KAMENOG MATERIJALA Izrada nosivog sloja od mehanički stabiliziranog drobljenog kamenog materijala. Ovaj sloj ugrađuje se na mjestima nove kolničke konstrukcije biciklističke staze. Rad obuhvaća dobavu i ugradnju drobljenog kamenog materijala veličine zrna 0-63 mm. Zahtjevi kvalitete su: stupanj zbijenosti Sz=100%, Ms=100 MN/m2. Rad se mjeri u kubičnim metrima za svaku debljinu sloja. Nosivi sloj od drobljenog kamenog materijala ispod novoprojektirane biciklističke staze u debljini od min. 20cm.				
		m ³	48,75		
64. BEARING COURSE OF GRADED STONE MATERIAL STABILIZED BY HYDRAULIC BINDER Execution of bearing course of cement-stabilized gravel. The work includes supplying and installing of cement stabilization. Built-in layer must fulfill the bearing criteria of b28=2,5 – 6,0 MN/m2. Calculation of work: Per square meter of actually built road foundation	NOSIVI SLOJ OD ZRNATOG KAMENOG MATERIJALA STABILIZIRANOG HIDRAULIČNIM VEZIVOM Izrada nosivog sloja od cementom stabiliziranog šljunka. Rad obuhvaća dobavu i ugradnju cementne stabilizacije. Ugrađeni sloj mora zadovoljavati kriterij nosivosti od b28 =2,5-6,0 MN/m2. Rad se mjeri u kubičnim metrima. Nosivi sloj od cementom stabiliziranog šljunka u debljini sloja od 12 cm. Obračun radova po metru kubnom izvedenog sloja.				
		m ³	23,40		
65. WEARING COURSE OF ASPHALT-CONCRETE (HS-AB) Production, transportation and execution of asphalt wearing course (HS-AB) of thickness according to design: AB 8 with standard marginal area of granulometric composition, composed of stone mixture with carbonate content. Wearing course – asphalt concrete is produced in plants for production of asphalt mixes - asphalt bases with controlled individual materials and controlled production and transported to the building site. Execution of the HS-AB is done mechanically by spreading machines – pavers and compaction rollers, static, vibratory and rollers with tires on wheels. Work is measured in square meters Execution of asphalt-concrete wearing course AB 8 on bicycle path with thickness of 4 cm	NOSIVI SLOJ OD ASFALTCEMENTNOG BETONA. Proizvodnja, transport i ugradnja asfalta (HS-AB) debljine prema projektu. AB-8 standardnog granulometrijskog sastava. U cijenu je uključena nabava i prijevoz prethodno strojno proizvedene mješavine od agregata i bitumena kao veziva, nazivne veličine najvećeg zrna, vrste kamenog materijala i granulometrijskog sastava prema odredbama u projektu i u skladu prema: HRN EN 13043:2003 (agregati); HRN EN 12591:2009 (cestograđevni bitumen) i HRN EN 13108-1:2007 (asfaltbeton), te utovar, prijevoz, i strojna ugradba (razastiranje i zbijanje). Izvedba, kontrola kakvoće i obračun prema HRN EN 13108-1.U cijenu uključena nabava, mehaničko zbijanje valjcima na pneumaticima. Obračun radova po m ² Debljina sloja 4 cm.				
		m ²	195,00		
66. APPROACH Production, transportation and execution of approaching route taht consist of bearing course, excavation, and asphalt wearing course (HS-AB) of thickness according to design: AB 8 with standard marginal area of granulometric composition, composed of stone mixture with carbonate content. Work is measured in square meters Execution of asphalt-concrete wearing course AB 8 on bicycle path with thickness of 4 cm	PRISTUP Proizvodnja, transport i izrada pristupne ceste uključujući iskope i nosivu konstrukciju i završni asfaltni sloj debljine prema projektu. Obračun radova u metrima kvadratnim. Debljina sloja 4 cm.				
		m ²	58,00		
TOTAL 4.) - PAVEMENT		Ukupno 4.) - KOLNIČKA KONSTRUKCIJA (kn):			

RECAPITULATION FOR SKATE PARK FLOORING:

1. Preparatory works	Pripremni radovi
2. Earth works	Zemljani radovi
3. Drainage	Odvodnja
4. Pavement structure	Kolnička konstrukcija
SUB- TOTAL - skate park:	

LOT No.1 Bicycle path

Red. br.:		OPIS RADA	Jed. mjere	Količina	Jed.cijena	Ukupno
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Acces to sunbathing platform

1.) WORKS	ACCES	RADOVI				
	<p>The processing, supply and installation of steel bridge made of the steel rolled profiles length 16,20 m and width 1,50 m by structural analysis. Bridge must have fence on both side. All works had to be performed according to croatian regulation. General: all the steel construction must be mechanically cleaned, painted two-component coating based on the finished two-component coating based on epoxy thickness 250 µm. On the set steel construction will be incorporated oak planks thickness 50 mm and width 40 and 50 mm. the surface is protected with used oil.</p> <p>Calculation of work: per piece.</p>	<p>PRISTUP</p> <p>Izrada, dobava i ugradnja čeličnog mosta izgrađenog od čeličnih valjanih profila dužine l=6,20 m, širine 1,50 m prema statičkom proračunu. Most je s obje strane opremljen ogradom. Pri izradi koristiti hrvatske propise. Općenito: kompletnu čeličnu konstrukciju mehanički očistiti te nanijeti dvokomponentni premaz na nanijeti završni dvokomponentni premaz na bazi epoksidnih smola u debljini od 250µm. na postavljenu čeličnu konstrukciju mosta ugrait će se hrastove daske d=50mm za potrebe poda i rubnjake, za rukohvat 40 i 50 mm širine. zaštita drvenih elemenata premazivanjem rabljenim uljem.</p> <p>Obračun radova: po komadu</p>				kom 2,00

SUB- TOTAL - acces to platform:

OVERALL RECAPITULATION FOR LOT 1:

1. Radovi na stazi	Radovi na stazi
2. Earth works	Podloga za skate park
3. Acces to sunbathing platforms	Pristup sunčališnim platformama

TOTAL LOT 1: HRK