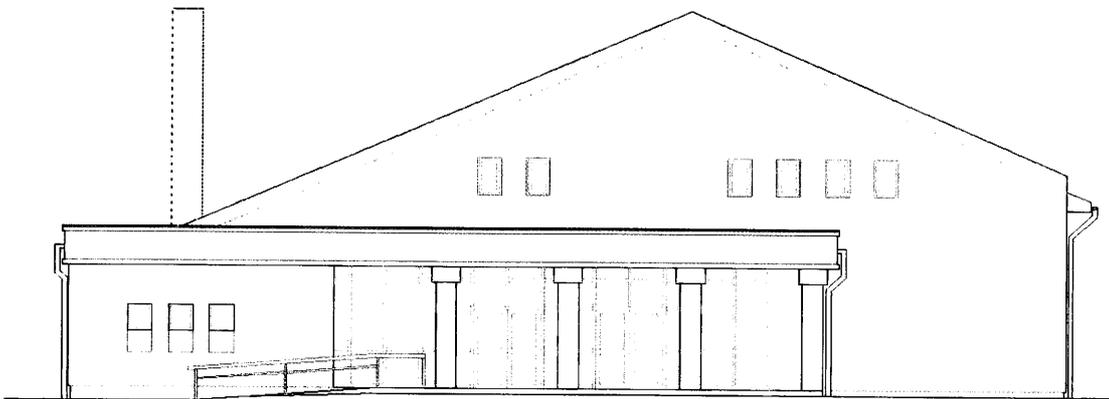

***Building a Tourism Center for
Cultural and Sport Activities
- Lupsa de Jos village, Brosteni Commune -***



F.S.

[Feasibility study]

January 2016

Beneficiary: Brosteni Commune
Designer: DAN Boruga - individual architectural office



Dan Borugă INDIVIDUAL ARCHITECTURAL OFFICE FISCAL IDENTIFICATION CODE 32493934

Office: 220142 - 38 B Eroii de la Cerna str, Bl. E13, ent.1, Ap.5, Drobeta Turnu Severin, Mehedinți cty.

E-mail: dan.boruga@gmail.com; telephone / fax: +40 252 319 849; mobile: +40 722 58 68 54

architecture | Interior design | Engineering | planning | consulting

COVER PAGE

Project Name: Building a Tourism Center for Cultural and Sports Activities

Location: (NC 50 918); Lupsa de Jos village; Brosteni commune, Mehedinti county

Beneficiary: Brosteni commune

General Designer: Dan Boruga - individual architectural office

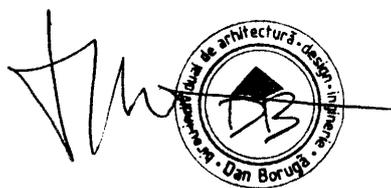
Project No: 1/2016

Date: January 2016

Design phase: F.S. - Feasibility study

Volume: Single (written part, drawing part, General Estimate)

Arch. Dan Borugă





Dan Boruga INDIVIDUAL ARCHITECTURAL OFFICE FISCAL IDENTIFICATION CODE 32493934

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architecture | Interior design | Engineering | planning | consulting

SUMMARY

WRITTEN PART:

Cover page
List of responsibilities
Schedule
Property documents
Land register
Urbanism Certificate
Notifications and agreements
GEO study
Feasibility study
General estimate
Estimate on object
General graphic
Evaluations
Equipments and facilities list

DRAWING PART:

RT - Plan of existing situation and topographic survey

Architecture:

A00 – Commune situation plan
A01 – Locality situation plan
A02 – Area situation plan
A03 - Existent situation plan
A04 - Proposed situation plan
A05 -Ground floor plan
A06 - ATTIC Plan
A07 – COVER Plan
A08 - Section A-A '
A09 - Section B-B '
A10 - Section C-C '
A11 - North facade
A12 - South facade
A13 - West facade
A14 – East facade
A15 - Wood barn

Installations:

RTE01 - urban technical network situation plan
II01 – Ground floor plan - interior installations
II02 – Attic plan- interior installations

Drafted by
Arch. Dan Boruga





Dan Borugă INDIVIDUAL ARCHITECTURAL OFFICE FISCAL IDENTIFICATION CODE 32493934

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architecture | Interior design | Engineering | planning | consulting

LIST OF SIGNATURES

ARCHITECTURE:

Arch. Dan BORUGA



STRUCTURE :

Eng. Diana Marin

URBANISTIC INSTALLATIONS:

Eng. Dan Cristian DRAGUT

ELECTRICAL INSTALLATIONS:

Eng. Dan Cristian DRAGUT

TECHNICAL - ECONOMIC ANALYSIS:

Ec. Gabi BIZOI

DRAWINGS CHECK

Eng. Marinel RADULESCU

Project manager,
Arch. Dan Borugă



ROMÂNIA



**MINISTERUL AFACERILOR INTERNE
INSTITUȚIA PREFECTULUI – JUDEȚUL MEHEDINȚI**

NR. 69/06 .01.2016

**CĂTRE,
PRIMĂRIA COMUNEI BROȘTENI
JUDEȚUL MEHEDINȚI**

Urmare adresei Dvs. înregistrată la nr. de mai sus, vă facem cunoscut faptul că, *Hotărârea nr.50/30 12 2015-privind modificarea inventarului bunurilor care aparțin domeniului public al comunei Broșteni* adoptată de Consiliul local al comunei Broșteni nu a fost atacată, până la această dată, la instanța de contencios administrativ de Prefectul județului Mehedinți , în baza prerogativelor conferite de art. 123, alin (5) din Constituția României și art.19 , alin (1) din Legea privind Prefectul și Instituția prefectului nr. 340/2004, republicată și ale art.6, pct.2, lit.b din HG 460/2006 privind aplicarea unor prevederi ale Legii nr. 340/2004.



PREFECT,

Nicolae DRĂGHIEA

**Șef Serviciu,
Cons. jr. Vintilă Constantin**

**Întocmit,
Cons jr. Ciudiu Maria**

CONSILIUL LOCAL BROSTENI
JUDETUL MEHEDINTI

HOTĂRÂREA NR. 50
privind modificarea inventarului bunurilor care aparțin domeniului public al
comunei Brosteni, aprobat prin Hotărârea Guvernului nr.963/2002

Consiliul Local al Comunei Brosteni, întrunit în ședința ordinară din data de 28.03.2014,
Având în vedere raportul compartimentului urbanism prin care se propune modificarea
inventarului bunurilor care aparțin domeniului public al comunei Brosteni, aprobat prin
Hotărârea Guvernului nr 963/2002;

În conformitate cu prevederile Legii nr 213/1998 privind proprietatea publică și regimul
juridic al acesteia, modificată și completată;

În temeiul art 36 alin.2 lit.e coroborat cu alin 5 lit a, art.45 alin.3, art.61 alin.2 și art 115
alin 1 lit.b din Legea nr 215/2001, republicată, privind administrația publică locală;

HOTĂRĂȘTE:

Art.1. Se aprobă completarea inventarului bunurilor care aparțin domeniului public al
Comunei Brosteni aprobat prin Hotărârea Guvernului nr.963/2002 conform anexei nr.1 care
face parte integrantă din prezenta hotărâre;

Art.2. Compartimentul urbanism va lua măsuri pentru îndeplinirea procedurilor legale, prin
intermediul Consiliului Județean Mehedinți, pentru modificarea corespunzătoare a Hotărârii
Guvernului .

Art.3. Primarul comunei Brosteni , prin aparatul de specialitate: Serviciul Administrație
Publică Locală, serviciul urbanism și serviciul Economico – Financiar vor aduce la
îndeplinire prevederile prezentei hotărâri.

Adoptată azi 30.12.2015 în comuna Brosteni.

PREȘEDINTE,
Enculescu Georgeta

CONTRASEMNEAZA,
SECRETAR,
jr.Catan Gh. Florin

Florian

Judetul Mehedinti
Comuna Brosteni

Anexa
Insusit de Consiliul Local
prin HCL nr.50/2015
Primaria Comunei Brosteni

Comisia speciala
pentru intocmirea inventarului
bunurilor care alcatuiesc
domeniul public al
comunei Brosteni

COMPLETAREA INVENTARULUI
bunurilor care apartin domeniului public al comunei Brosteni

Nr. crt.	Cod de clasif.	Denumirea bunului	Elemente de identificare	Anul dobandirii sau dupa caz al darii in folosinta	Val. de inventar	Situatia juridica actuala. Denumire act de proprietate sau alte acte doveditoare
79		Teren intravilan	Sat Lupsa de Jos Suprafata = 3855mp N- DC 60;GRADINITA Lupsa de Jos, Pescaru Gheorghe S-Gherghe Constantin, Trusconiu Ersilia V- Gradinita Lupsa de Jos, Geambasu Dumitru E-Vilcu Vasile	1991	2000	HCL 50/2015

Presedinte de sedinta
Cons. Enculescu Gheorghe

Secretar
jr. Catan Gh. Florin

S-a cerut autentificarea prezentului înscris:

DUPLICAT

DECLARAȚIE

Subsemnatul, **Gherghe Constantin**, CNP-1670507252346, domiciliată în comuna Broșteni, sat Lupșa de Jos, județul Mehedinți, prin prezenta declar pe propria răspundere și sub sancțiunea prevăzută de art. 326 din Codul Penal, că permit instalarea conductei canalizare pentru obiectiv Centru Cultural și acces pentru mentenanță sau intervenție pe o fâșie de 3 m. Pe terenul proprietatea mea-----

Dau prezenta declarație fiind necesară la nevoie.-----

Tehnoredactat la Biroul Notarului Public IOAN CĂTĂLIN ALEXOIU, cu sediul în municipiul Motru, județul Gorj, într-un exemplar original și două duplicate, astăzi, data autentificării, din care un exemplar pentru arhiva biroului notarial și un exemplar s-a eliberat părții.-----

DECLARANT,
Gherghe Constantin

ROMÂNIA

UNIUNEA NAȚIONALĂ A NOTARILOR PUBLICI

BIROUL INDIVIDUAL NOTARIAL IOAN CĂTĂLIN ALEXOIU

LICENȚA DE FUNCȚIONARE 3398/2986/20.12.2013

cu sediul în Motru, str. Pieții, nr.1, bl.J3, sc.1 ap:4, jud. Gorj.

ÎNCHEIERE DE AUTENTIFICARE NR. 105

Anul 2016, luna ianuarie, ziua 20

În fața mea, Ioan-Cătălin Alexoiu, notar public, la sediul biroului notarial s-au prezentat:

Gherghe Constantin, CNP-1670507252346, domiciliată în comuna Broșteni, sat Lupșa de Jos, județul Mehedinți, identificată prin CI seria MH, nr.279447/2008, eliberată de SPCLEP Dr Tr Severin, județul Mehedinți, în nume propriu;

Care, după ce au citit actul, au declarat că i-au înțeles conținutul, că cele cuprinse în act reprezintă voința lor, au consimțit la autentificarea prezentului înscris și au semnat unicul exemplar, precum și cele ___ anexe.

În temeiul art. 12 lit. b) din Légea notarilor publici și a activității notariale nr. 36 / 1995, republicată, cu modificările ulterioare,

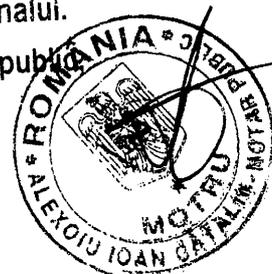
SE DECLARĂ AUTENTIC PREZENTUL ÎNSCRIS.

S-a perceput onorariu de 15 lei cu chitanța nr.16816/ 2016.

**NOTAR PUBLIC,
IOAN CĂTĂLIN ALEXOIU**

Prezentul duplicat s-a întocmit în 2 exemplare,
de **IOAN CĂTĂLIN ALEXOIU**
NOTAR PUBLIC
astăzi, data autentificării actului, și are
aceeași forță probantă ca originalul.

Notar public



Oficiul de Cadastru și Publicitate Imobiliară MEHEDINTI
Biroul de Cadastru și Publicitate Imobiliară Drobeta-Turnu
Severin

Dosarul nr. 445/11-01-2016

INCHEIERE Nr. 445

REGISTRATOR Preda Gabriel

ASISTENT REGISTRATOR Buzatu Lucia

Asupra cererii introduse de PRIMARIA BROSTENI domiciliat in Romania, Jud. MEHEDINTI, Loc. Brosteni, Str. PRINCIPALA privind prima inregistrare a imobilelor/unitatilor individuale (u.i.) in cartea funciara , in baza:

- act normativ nr. 69/06-01-2016 emis de INSTITUTUL PREFECTULUI JUDETUL MEHEDINTI, act normativ nr. 963/05-09-2002 emis de GUVERNUL ROMANIEI; act administrativ nr. 39/05-01-2016 emis de PRIMARIA BROSTENI; HCL nr.50/30.12.2015 emisa de PRIMARIA BROSTENI; fiind indeplinite conditiile prevazute la art. 29 din Legea cadastrului si a publicitatii imobiliare nr. 7/1996, republicata, cu modificarile si completarile ulterioare, tariful achitat in suma de 0 lei, pentru serviciul avand codul 211,
Vazand referatul asistentului registrator in sensul ca nu exista impedimente la inscriere

DISPUNE

Admiterea cererii cu privire la :

- imobilul cu nr. cadastral 50918, inscris in cartea funciara 50918 UAT Brosteni avand proprietarii:
- se inscrie provizoriu dreptul de PROPRIETATE cu titlul domeniu public mod dobandire Lege in baza art. 29 din Legea cadastrului si a publicitatii imobiliare nr. 7/1996 republicata asupra A1 in favoarea : **COMUNA BROSTENI**, sub B.1 din cartea funciara 50918 UAT Brosteni;

Prezenta se va comunica partilor:

Clasura Florin,
Comuna Brosteni.

Pe drept de reexaminare in termen de 15 zile de la comunicare, care se depune la Biroul de Cadastru și Publicitate Imobiliară Drobeta-Turnu Severin, se inscrie in cartea funciara si se solutioneaza de catre registratorul-sef.

data soluționării,
13-01-2016

Registrator,
Preda Gabriel

Asistent registrator,
Buzatu Lucia

(Data și semnătura)

(Data și semnătura)

Notă: Cu privire la actele prezentate la Art. 62 alin. (1) din Regulamentul de aplicare, recepția și înscrierea în cartea funciara este asigurată de către Biroul de Cadastru și Publicitate Imobiliară Drobeta-Turnu Severin, în conformitate cu art. 29 din Legea nr. 7/1996 republicată.





EXTRAS DE CARTE FUNCIARA pentru INFORMARE

Oficiul de Cadastru și Publicitate Imobiliară MEHEDINTI
Biroul de Cadastru și Publicitate Imobiliară Drobeta-Turnu Severin

Nr.cerere	445
Ziua	11
Luna	01
Anul	2016

A. Partea I. DESCRIEREA IMOBILULUI

TEREN intravilan

Adresa: Lupsa de Jos

Nr crt	Nr.cadastral Nr.topografic	Suprafata* (mp)	Observatii / Referinte
A1	50918	3.855	-

B. Partea II. PROPRIETAR si ACTE

Inscrieri privitoare la dreptul de proprietate si alte drepturi reale		Observatii / Referinte
445 / 11.01.2016		
Act normativ nr. 69, din 06.01.2016, emis de INSTITUTUL PREFECTULUI JUDETUL MEHEDINTI, act normativ nr. 963/05-09-2002 emis de GUVERNUL ROMANIEI; act administrativ nr. 39/05-01-2016 emis de PRIMARIA BROSTENI; HCL nr.50/30.12.2015 emisa de PRIMARIA BROSTENI		
B1	Inscrierea provizorie, drept de PROPRIETATE, cu titlul domeniu public, dobandit prin Lege, cota actuala 1 / 1	A1
	1) COMUNA BROSTENI	-

C. Partea III. SARCINI

Inscrieri privind dezmembramintele dreptului de proprietate, drepturile reale de garantie si sarcini	Observatii / Referinte
NU SUNT	

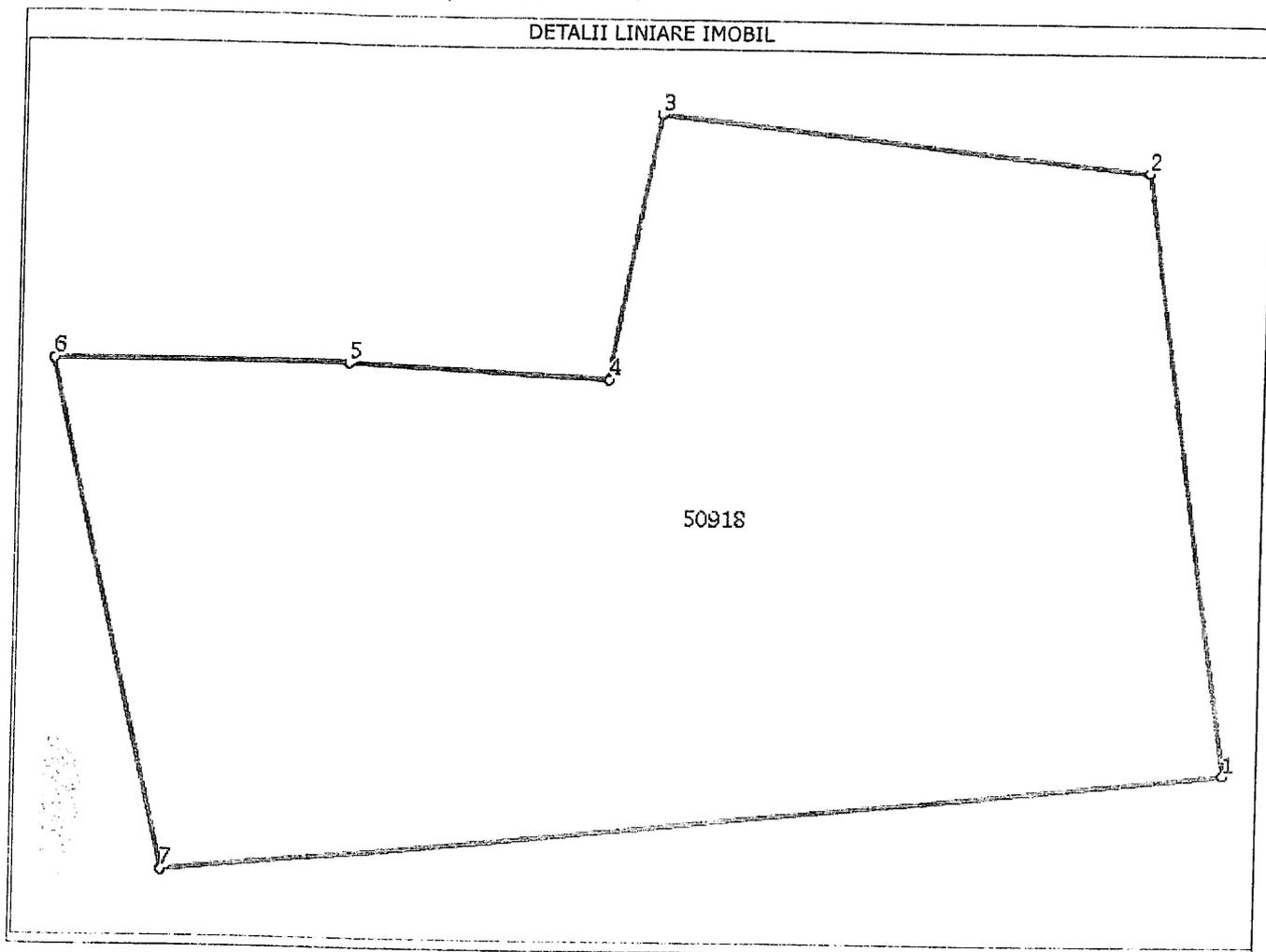
Anexa Nr. 1 la Partea I

TEREN intravilan

Adresa: Lupsa de Jos

Nr. cadastral	Suprafata masurata (mp)*	Observatii / Referinte
50918	3.855	-

* Suprafata este determinata in planul de proiectie Stereo 70.



Date referitoare la teren

Nr. crt	Categorie folosinta	Intravilan	Suprafata (mp)	Nr. taria	Nr. parcela	Nr. Topografic	Observatii / Referinte
1	curti constructii	DA	3.855	CV6	8	-	-

Lungime Segmente

1) Valorile lungimilor segmentelor sunt obtinute din proiectie in plan.

Punct Inceput	Punct sfarsit	Lungime segment (m)
1	2	56,8
2	3	32,9
3	4	25,1
4	5	17,3
5	6	19,5
6	7	48,5
7	1	70,9

** Lungimile segmentelor sunt determinate in planul de proiectie Stereo 70 si sunt rotunjite la 10 centimetri.
 *** Distanța dintre puncte este formata din segmente cumulate ce sunt mai mici decât valoarea 10 centimetri.

Certific că prezentul extras corespunde cu pozițiile în vigoare din cartea funciara originală, păstrată de acest birou.

Prezentul extras de carte funciara este valabil la autentificarea de către notarul public a actelor juridice prin care se sting drepturile reale precum și pentru dezbateră succesiunilor, iar informațiile prezentate sunt susceptibile de orice modificare, în condițiile legii.

S-a achitat tariful de 0 RON, pentru serviciul de publicitate imobiliară cu codul nr. 211,

Data soluționării,
12/01/2016

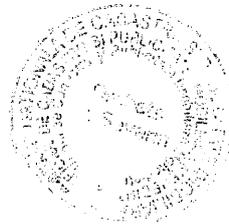
Asistent-registrator,
LUCIA BUZATU

Referent,

Data eliberării
12/01/2016

(parafa și semnătura)

(parafa și semnătura)

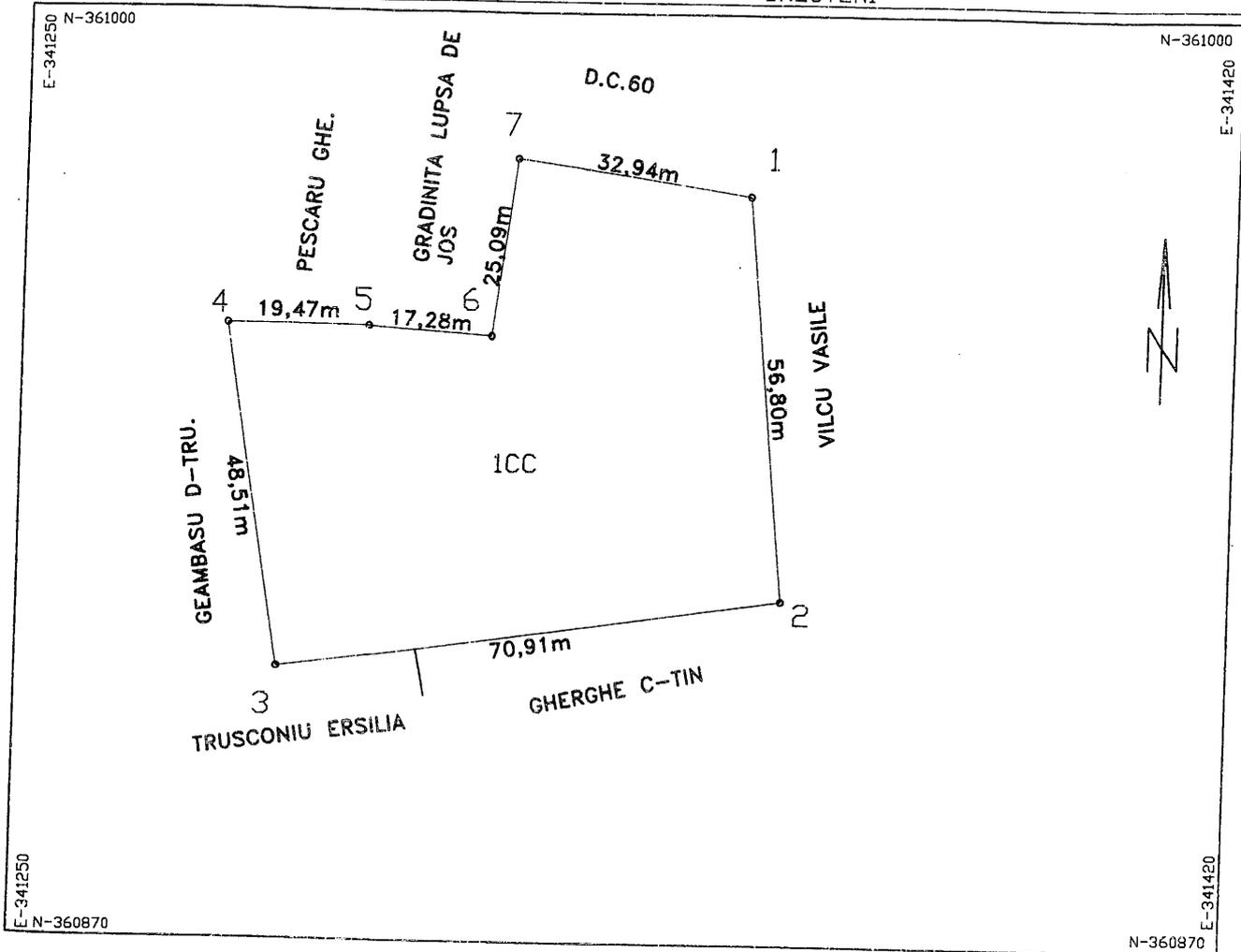


Plan de amplasament si delimitare a imobilului

Scara: 1:1000

Nr.cadastral	Suprafata masurata	Adresa imobilului
50918	3855mp	INTRAVILAN Com.Brosteni/LDC.Lupsa de Jos CV6JP8

Nr.Cartei Funciare nr.	Unitate Administrativ Teritoriala (UAT)
	BROSTENI



A. Date referitoare la teren			
Nr. parcela	Categoria de folosinta	Suprafata (mp)	Mentiiuni
1	CC	3855	Teren intravilan imprejmuit
Total		3855	

B. Date referitoare la constructii			
Cod	Destinatia	Suprafata construita la sol (mp)	Mentiiuni
Total			

Suprafata totala masurata = 3855 mp
 Suprafata din act = 3855 mp.

<p>Executanti Ing.Cruceru Florin-Robert</p> <p>Confirm executarea masuratorilor la teren, corectitudinea intocmirii documentatiei cadastrale si corespondenta acesteia cu realitatea din teren</p> <p>Semnatura si stampila</p> <p>Data: 03.01.2016</p>	<p>Inspector</p> <p>Confirm introducerea in baza de date integrata si atribuirea numarului cadastral</p> <p>Semnatura si parafa</p> <p>Data: 03.01.2016</p> <p>Stampila BCPI</p>
---	--

STUDIU GEOTEHNIC
CONSTRUIRE CENTRU CULTURAL SI FACILITATI
SPORTIVE IN SATUL LUPSA DE JOS, COM.
BROSTENI, JUD. MEHEDINTI
BENEFICIAR: COMUNA BROSTENI

1. DATE GENERALE

1.1. Denumirea si amplasarea lucrarii

Lucrarea proiectata "Centru cultural si facilitati sportive" este amplasata in satul Lupsa de Jos avand ca beneficiar comuna Brosteni .

1.2. Proiectant general : arh. Dan Boruga B.I.A. si de specialitate geo.: ing. Popescu Laura.

1.3. Date privind sistemul constructiv: fundatii continue din beton, zidarie din caramida, invelitoare din tigla sau tabla.

2. DATE PRIVIND TERENUL DIN AMPLASAMENT

2.1. DATE SEISMICITATEA

2.1.1. Zona de hazard seismic : 0,15 ag.

2.1.2. Perioada de control(colt): 0,7s.

2.2. DATE PRIVIND ADANCIMEA DE INGHET

Adancimea maxima de inghet : 0,70m

2.3. DATE MORFOMETRICE

Terenul amplasamentului este situat pe o forma de relief de tip terasa - terasa superioara a raului Motru, cu energie de relief redusa care asigura stabilitatea.

2.4. DATE GEOLOGICE:

Zona este alcatuita din depozite cuaternare constand din pamanturi coezive - argile. La baza acestor depozite se intalnesc depozite mai vechi din perioada neogena - constituita din marme.

2.5. APA SUBTERANA

Pe amplasament apa subterana se intalneste la adancimi de 4 - 6m neinfluentand terenul de fundare.

2.6. DATE GEOTEHNICE:

Stratificatia terenului: 0,00- 0,50m umpluturi; 0,50 - 4,00m argila prafoasa.

Terenul de fundare argila prafoasa cu plasticitate mare, stare de consistenta - vartos, gradul de umiditate - umed, compresibilitate medie.

Terenul de fundare se incadreaza in categoria terenurilor bune de fundare.

Adancimea minima de fundare:

Dmin f = 0,80 m de la T.N. Terenul de fundare permite fundarea directa.

Presiunea conventionala de baza:

$$P_{conv} = 280 \text{ Kpa (} B > 1,0 \text{ m, } D_f = 2,0 \text{ m)}$$

3. RISCURI NATURALE

3.1. Alunecari de teren : nu este cazul.

3.2. Inundatii : nu este cazul.

3.3. Cutremure : risc modest.

4. CONCLUZII:

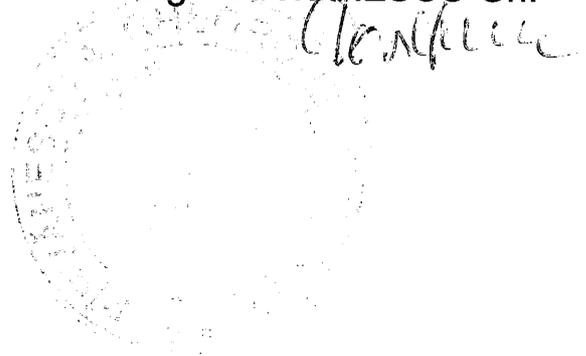
Constructia proiectata se poate realiza in conditii constructive normale - teren bun de fundare, sapatura fara epuismenete, vecinatati fara riscuri.

Intocmit :
Ing. POPESCU Laura

popescu

Verificat :
Ing. PARVANESCU Gh.

Parvanescu





Nr. 1064 din 28.01.2016

Decizia etapei de evaluare initiala

Nr. 10 din 28.01.2016

Ca urmare a solicitarii depuse de **COMUNA BROSTENI** pentru proiectul « **Construire centru turistic pentru activitati culturale si sportive in satul Lupsa de Jos , com. Brosteni** » propus a fi realizat in intravilanul sat Lupsa de Jos, com. Brosteni jud.Mehedinti, inregistrata la Agentia pentru Protectia Mediului Mehedinti cu nr.1064 din 28.01.2016

- in urma analizarii documentatiei depuse, a localizarii amplasamentului in planul de urbanism si in raport cu pozitia fata de arii protejate, zone-tampon, monumente ale naturii sau arheologice, zone cu restrictii de construit, zona costiera;

-avand in vedere ca:

▪ proiectul intra sub incidenta Hotararii Guvernului nr.445/2009 privind evaluarea impactului anumitor proiecte publice si private asupra mediului, fiind incadrat in anexa nr.2, la pct 10 Proiecte de infrastructura, lit .f) [...] « lucrari impotriva inundatiilor si pct. 11, lit.c) statii pentru epurarea apelor uzate

▪ proiectul propus nu intra sub incidenta art. 28 din Ordonanta de urgenta a Guvernului nr. 57/2007 privind regimul ariilor naturale protejate, conservarea habitatelor naturale, a florei si faunei salbatice, cu modificarile si completarile ulterioare, Agentia pentru Protectia Mediului Mehedinti d e c i d e:

Necesitatea declansarii procedurii de evaluare a impactului asupra mediului pentru proiectul « Construire centru turistic pentru activitati culturale si sportive in satul Lupsa de Jos , com. Brosteni »

Pentru continuarea procedurii titularul va depune :

- a) Memoriu de prezentare, completat conform continutului cadru prevazut in anexa nr.5 la metodologie, in format electronic si format de hartie.
- b) dovada achitarii tarifului aferent etapei de incadrare , in cuantum de 400 lei.
- c) Anunt public privind depunerea solicitarii de emitere a acordului de mediu, conform modelului prezentat in Anexa 8 la Ord.nr.135/2010, pe care vi-l prezentam alaturat.





Ministerul Mediului, Apelor și Pădurilor
Agenția Națională pentru Protecția Mediului
AGENȚIA PENTRU PROTECȚIA MEDIULUI MEHEDINȚI



« COMUNA BROSTENI anunța publicul interesat asupra depunerii solicitării de emitere a acordului de mediu pentru proiectul « Construire centru turistic pentru activități culturale și sportive în satul Lupșa de Jos, com. Brosteni » propus a fi amplasat în jud. Mehedinți, com. Brosteni

Informațiile privind proiectul propus pot fi consultate la sediul Agenției pentru Protecția Mediului Mehedinți, str. Baile Romane nr.3 și la sediul titularului, în zilele de luni până vineri între orele 8-14

Observațiile publicului se primesc zilnic la sediul Agenției pentru Protecția Mediului Mehedinți, str. Baile Romane nr.3 »

Anunțul se publică în termen de 3 zile de la data primirii, în presa națională sau locală și va fi afișat și la sediul propriu/pe pagina proprie de internet sau al autorităților administrației publice locale (com. Brosteni)

Documente suplimentare vor putea fi solicitate după analizarea Memoriului Tehnic în ședința CAT în care se va lua o decizie asupra parcurgerii procedurii, conform Ord. 135/2010 privind aprobarea Metodologiei de aplicare a evaluării impactului asupra mediului pentru proiecte publice și private .

DIRECTOR EXECUTIV
dr. ing. Mihai DEMIAN

Sef Serv. A.A.A
ing. Dragos Nicolae TARNITA

Intocmit,
dr. ing. Marilena FAIER



ROMÂNIA
Judetul Mehedinti
Primaria Comunei Brosteni
Nr. 361 din 27.01.2016

CERTIFICAT DE URBANISM

Nr.7din 27.01.2016

În scopul: Construire Centru turistic pentru activitati culturale si sportive in satul Lupsa de Jos,
comuna Brosteni, judetul Mehedinti

Ca urmare a Cererii nr.361/27.01.2016 adresate de¹⁾ Primaria Brosteni. prin Boruga Alexandru-primar cu domiciliul²⁾/sediul în județul Mehedinti, municipiul/orașul/comuna Brosteni, satul Brosteni, sectorul, cod poștal, str. nr....., bl. , sc. .., et. , ap. , telefon/fax0252/383020 , e-mail, înregistrată la nr. 361 din 27.01.2016, pentru imobilul — teren și/sau construcții —, situat în județul Mehedinti , municipiul/orașul/comuna Brosteni, sat Brosteni , sectorul....., cod poștal, str. nr., bl., sc., et., ap., sau identificat prin³⁾ PLAN DE INCADRARE IN ZONA,

în temeiul reglementărilor Documentației de urbanism nr. 14/2006, faza PUG/PUZ/PUD, aprobată prin hotărârea Consiliului Local nr. 23/30.11.2006

în conformitate cu prevederile Legii nr.50/1991, privind autorizarea executării lucrărilor de construcții, republicată, cu modificările și completările ulterioare,

SE CERTIFICĂ :

1. REGIMUL JURIDIC :

-Teren intravilanal comunei Brosteni si apartine domeniului public conform HG nr.963/2002, anexa 14

2. REGIMUL ECONOMIC :

Imobilul are categoria de folosinta de curti c-tii si conform PUG comuna Brosteni imobilul are destinatie de teren intravilan

¹⁾ Numele și prenumele solicitantului.

²⁾ Adresa solicitantului.

³⁾ Date de identificare a imobilului — teren și/sau construcții — conform Cererii pentru emiterea Certificatului de urbanism

3. REGIMUL TEHNIC :

Se pot realiza lucrari de construire a unei cladiri pentru Centru turistic pentru activitati culturale si sportive cu o suprafata de desfasurata de 656.20 mp. Inaltimea cladirii va fi de 10.12 m

- Sistematizare pe verticala
- Realizare fosa septica
- realizare statie de epurare si bazine de apa pentru incediu si de retentie.
- alimentare cu apa prin put forat
- Centrala termica
- alimentare cu energie electrica
- imprejmuire

Documentatia tehnica pentru autorizarea executariii lucrarilor se va intocmi in conformitate cu reglementarile tehnice specifice si cu respectarea stricta a prevederilor Legii 50/1991 republicata cu modificarile si completarile ulterioare-Anexa1, continut cadru

Prezentul certificat de urbanism poate fi utilizat/nu poate fi utilizat în scopul declarat⁴⁾ pentru/întrucât:

„ **Construire Centru turistic pentru activitati culturale si sportive in satul Lupsa de Jos, comuna Brosteni, judetul Mehedinti**”

⁴⁾ Scopul emiterii certificatului de urbanism conform precizării solicitantului, formulată în cerere

Certificatul de urbanism nu ține loc de autorizație de construire / desființare și nu conferă dreptul de a executa lucrări de construcții.

4. OBLIGAȚII ALE TITULARULUI CERTIFICATULUI DE URBANISM :

În scopul elaborării documentației pentru autorizarea executării lucrărilor de construcții — de construire/de desființare — solicitantul se va adresa autorității competente pentru protecția mediului :

Agentia pentru Protectia Mediului Mehedinti , Str. Baile Romane, nr.3, Drobeta Turnu Severin, tel. 0252/320396, fax 0252/306018.

În aplicarea Directivei Consiliului 85/337/CEE (Directiva EIA) privind evaluarea efectelor anumitor proiecte publice și private asupra mediului, modificată prin Directiva Consiliului 97/11/CE și prin Directiva Consiliului și Parlamentului European 2003/35/CE privind participarea publicului la elaborarea anumitor planuri și programe în legătură cu mediul și modificarea, cu privire la participarea publicului și accesul la justiție, a Directivei 85/337/CEE și a Directivei 96/61/CE, prin certificatul de urbanism se comunică solicitantului obligația de a contacta autoritatea teritorială de mediu pentru ca aceasta să analizeze și să decidă, după caz, încadrarea/neîncadrarea proiectului investiției publice/private în lista proiectelor supuse evaluării impactului asupra mediului.

În aplicarea prevederilor Directivei Consiliului 85/337/CEE, procedura de emiteră a acordului de mediu se desfășoară după emiteră certificatului de urbanism, anterior depunerii documentației pentru autorizarea executării lucrărilor de construcții la autoritatea administrației publice competente.

În vederea satisfacerii cerințelor cu privire la procedura de emiteră a acordului de mediu, autoritatea competentă pentru protecția mediului stabilește mecanismul asigurării consultării publice, centralizării opțiunilor publicului și formulării unui punct de vedere oficial cu privire la realizarea investiției în acord cu rezultatele consultării publice.

În aceste condiții:

După primirea prezentului certificat de urbanism, titularul are obligația de a se prezenta la autoritatea competentă pentru protecția mediului în vederea evaluării inițiale a investiției și stabilirii demarării procedurii de evaluare a impactului asupra mediului și/sau a procedurii de evaluare adecvată.

În urma evaluării inițiale a notificării privind intenția de realizare a proiectului se va emite punctul de vedere al autorității competente pentru protecția mediului

În situația în care autoritatea competentă pentru protecția mediului stabilește efectuarea evaluării impactului asupra mediului și/sau a evaluării adecvate, solicitantul are obligația de a notifica acest fapt autorității administrației publice competente cu privire la menținerea cererii pentru autorizarea executării lucrărilor de construcții

În situația în care, după emiteră certificatului de urbanism ori pe parcursul derulării procedurii de evaluare a impactului asupra mediului, solicitantul renunță la intenția de realizare a investiției, acesta are obligația de a notifica acest fapt autorității administrației publice competente.

5. CEREREA DE EMITERE A AUTORIZAȚIEI DE CONSTRUIRE/DESFIINȚARE va fi însoțită de următoarele documente:

- a) certificatul de urbanism (copie);
- b) dovada titlului asupra imobilului, teren și/sau construcții, sau, după caz, extrasul de plan cadastral actualizat la zi și extrasul de carte funciară de informare actualizat la zi, în cazul în care legea nu dispune altfel (copie legalizată)
- c) documentația tehnică — D.T., după caz (2 exemplare originale).

D.T.A.C.

D.T.O.E.

D.T.A.D.

d) avizele și acordurile de amplasament stabilite prin certificatul de urbanism:

d.1) avize și acorduri privind utilitățile urbane și infrastructura (copie):

alimentare cu apă

gaze naturale

Alte avize/acorduri

canalizare

telefonizare

alimentare cu energie electrică

salubritate

alimentare cu energie termică

transport urban

d.2) avize și acorduri privind:

ISU

sănătatea populației

d.3) avize/acorduri specifice ale administrației publice centrale și/sau ale serviciilor descentralizate ale acestora (copie)

Direcția sanitar veterinară

Apele Române

d.4) studii de specialitate (1 exemplar original)

e) punctul de vedere/actul administrativ al autorității competente pentru protecția mediului (copie);

f) Dovada înregistrării proiectului la Ordinul Arhitecților din România (1 exemplar original).

g) Documentele de plată ale următoarelor taxe (copie)

Prezentul certificat de urbanism are valabilitate de 12 luni de la data emiterii.

Conducătorul autorității
administrației publice emittente **,
Primar

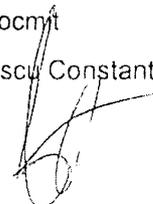
Ing. Boruga Alexandru



Secretar,
jr. Catan Gh. Florin



Intocmit
Ing. Daescu Constantin



Achitat taxa de : ----- conform Chitanței nr. -----

Prezentul certificat de urbanism a fost transmis solicitantului direct/prin poștă la data de _____

În conformitate cu prevederile Legii nr.50/1991 privind autorizarea executării lucrărilor de construcții, republicată, cu modificările și completările ulterioare,

**se prelungește valabilitatea
Certificatului de urbanism**

de la data de până la data de

După această dată, o nouă prelungire a valabilității nu este posibilă, solicitantul urmând să obțină, în condițiile legii, un alt certificat de urbanism.

Data prelungirii valabilității :

Achitat taxa de : lei, conform Chitanței nr..... din
Transmis solicitantului la data de direct/prin poștă

Conducătorul autorității
administrației publice emitente **,
Primar

Secretar,

Intocmit

*¹) Se completează, după caz :

- Consiliului județean ;
- Primăria Municipiului București ;
- Primăria Sectorului al Municipiului București ;
- Primăria Municipiului
- Primăria Orașului
- Primăria Comunei

**²) Scopul emiterii certificatului de urbanism conform precizării solicitantului, formulată în cerere

- ***³) Se completează, după caz : --- președintele Consiliului județean
- primarul general al municipiului București
 - primarul sectorului al municipiului București
 - primar.



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FEASIBILITY STUDY

1. GENERAL INFORMATION:

- 1.1. Denomination of the Investment Objective: The investment is titled "Building a Tourism Center for Cultural and Sports Activities".
- 1.2. LOCATION: The touristic center will be located in Lupsa de Jos village, Brosteni commune, Mehedinți county, the land for investment is located within the village, cadastral number 50918. Access to land will be realised using CR 60.
- 1.3. holder of investment: Brosteni commune, Mehedinți county
- 1.4. BENEFICIARY: Brosteni commune, Mehedinți county
- 1.5. DESIGNER: DAN Boruga - individual architectural office
- 1.6. PHASE: F.S (Feasibility study)

2. GENERAL INFORMATION ON THE PROJECT:

2.1 Current status and information about the entity responsible for implementing the project:

The land belonging to the public domain of Lupsa de Jos village, Brosteni commune, with area of 3855 square meters, with cadastral number 50,918 is located inside Lupsa de Jos village, Brosteni commune. The lot is not built, it is inside the village and falls into the category of courtyards, construction in land use categorization.

Location

Situated in the north-east of Mehedinți county, in Motru Piedmont area, Brosteni commune is an administrative-territorial well individualized commune, with ancient tradition, having an existence linked to Motru river, being placed around the meeting place of NR 67 Turnu Severin -Tirgu Jiu -Petrosani with NR-67A Brosteni- Strehaia.

The landscape is harmoniously composed of the beautiful valley of Motru, of not too high hills and valleys, the relief being varied, portrayed by colour, NW-SE oriented, bounded by less evolved slopes, which provide favorable conditions for the settlement situated on the second terrace of Motru.

It comprises six villages: Broșteni, Căpățânești, Luncoșoara, Lușsa de Jos, Lușsa de Sus, Meriș, the commune borders with Cazanesti commune in the West, in the north bordering the Sisesti and Floresti commune, in the east with Gorj county, the boundary being formed of Motru river to Corcova commune, which is bordered in the south.

Brosteni commune took its name from the place probably very favorable to breeding frogs around the confluence point of Motru river Pesteana creek. Indeed nowadays we hear the noise of frogs and other frogs that live in large numbers in these places as well as on the bed of Motru and Pesteana. Brosteni village took its name from the "place of frogs".

The first documentary mentioning Brosteni village is in 1501, when it is mentioned together with other villages such as Vrabeti, Mihailesti. In subsequent, increasingly rich writings, the continuity of the settlement until today is confirmed.

Main economic activities: agriculture, forestry, animal husbandry, tourism.



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With its location between the cities of Drobeta Turnu Severin, Strehaia, Targu Jiu and Baia de Arama, Brosteni locality was and remains a trade center. Merchants opened shops and pubs here. It is important

that the weekly fair was founded in 1923, which at the beginning took place on Friday close to Cutuilor Manor House, then moved over the water of Pesteană on its right bank, where takes place today in Sundays.

Lupsa de Jos village is located between Luncsoara and Capatanesti villages. From NR 67A to the left in the direction of travel from Brosteni to Strehaia, CR 60 traverses Lupsa de Jos village.

Lupsa de Jos village is known as the Rosia, this name comes from the red soil found in the west of the village. Lupsa de Jos designation distinguishes it from another village Lupsa de Sus, both villages in certain periods forming one commune. Lupsa de Jos is situated at a lower altitude than the other village, where the name "de jos" was probably added.

The first mention of the village is given in the eighteenth century when Motrului Valley configuration is completed, namely in December 5th 1669.

Population

According to the census conducted in 2011, the Brosteni commune's population amounts to 2.865 inhabitants, decreasing from the previous census in 2002, when 3037 people had been registered. Most inhabitants are Romanians (95.6%), with a minority of Roma people (1.99%). For 2.37% of the population, ethnicity is not known. In terms of confessional affiliation majority of inhabitants are Orthodox (96.51%). For 2.37% of the population their confessional affiliation.

In Lupsa de Jos village live around 450 inhabitants.

The population consists of farmers.

Climate

It is temperate continental, characteristic to high hills with low Mediterranean influences, respectively with autumn rains and mild winters. The average annual temperature ranges from 8-10 ° C, registering in areas with the highest temperature values in the country. Rainfall totals 700-800mm annually.

Access routes

Railway access can be achieved by tap line 900 (Bucharest - Timisoara), and stations are: Drobeta Turnu-Severin, further trip being realized using the bus.

Access to the area by car is made:

- through Drobeta Turnu-Severin, following the national road NR67 to Brosteni, then national road NR 67A at Strehaia and communal road CR60.

The present commune councillors are concerned about raising the area economically, socially and culturally, fund raising projects, creating jobs, attracting investors from the country and abroad. The primary role, in terms of developing each area, belongs to the human resources, local communities, participants to economic and social life, cultural landscape values.

The present study will address the technical and economic point of view of the construction of a building that is best for the Touristic Center for cultural and sportactivities, with utilities, access roads and amenities and sports facilities.

Responsible for implementing the project is Brosteni commune, by its specialized departments

Responsibilities on the project exploitation belong to Brosteni Commune.

In terms of project implementation it is advisable to contact a specialized consultant.

The address of Brosteni Commune Hall: Romania, Mehedinți county, Brosteni locality, Post number 50

Persons in the institution:

Mayor: Eng. Boruga Alexandru

Vice Mayor: eng. Bunoiu George

Surface of the commune: 2911 ha

Inside: 313 ha



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Outside: 2598 ha
Population: 3,093
Households: 1162
No. of dwellings: 1,415
No. of kindergartens : 4
No. of schools: 5

2.2. Description of the investment:

a) The conclusions of prefeasibility study or detailed plan of long-term investment (if they were developed in advance) on the current situation, the necessity and desirability of promoting the investment as well as the selected technical-economic scenario:

The objective of the project

It consists of construction of an assembly comprising a building functioning as touristic center for cultural events and arranging a sportive platform for practicing amateur football.

The touristic center meets the need to provide technical and organizational physical support in the organized tourism, by providing the necessary infrastructure to host some artistic cultural events.

The sport field is an extension of the main function of the building by provided support to sports activities proposed by project, activities likely to offer a wider range of options for tourism development of the area.

The use of this objective is not exhaustive, a wide range of tourists benefiting of it:

- Very flexible age groups
- Various nationalities – the attractions offered by this center are of interest for Romanian tourists who want to closely get in touch with the specifics of this area, and the foreigners who want to discover our national specific
- Groups organized by various themes: arts, traditions, popular culture, religion, etc.
- Groups of experts (ethnography, architecture, music, dances, etc.)

The infrastructure will be created by the project implementation will have a continuous use and includes both permanent host of activities such as exhibitions, sports competitions, periodic holidays but also organized according to market demand - organized groups or solitary tourists.

Necessity

In the context of initiating a regional branding process with the involvement of public entities in the South-West Oltenia and Serbia, the need for a center that would provide support for proposed tourism activities is created.

Tourism is one of the options for sustainable development of the area which is based on a valuable potential supported by favourable geographic location - the confluence of the plains and plateaus with the sub-mountainous area, being in the middle of an area rich in folklore with valuable traditions through consistency and variety, a very present folk art in architectural representations, handicraft, traditional port but also in community events - dances, songs, etc.

The project proposes actions to support tourism development based on an organized framework. Thus, it is intended to support the promotion and enhancement of cultural goods through more specialized entities in the field - travel agencies, tour operators operating in the area, partner institutions, which through the proper demands can potentiate the activity of tourism in the area - museums, institutions, schools, etc. After studying specific business requirements, the need to build a center that can meet the demands of this type of tourism, without being limited thereto was highlighted.

A number of needs identified in the project impose certain requirements:



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- The possibility of hosting some itinerant or permanent exhibition with cultural specific which can illustrate the popular traditions, popular culture, handicrafts and art; The importance of represented area has a great impact qualitatively and quantitatively, in the center either southern Oltenia areas but also the hills and mountains in the north being represented.
- possibility of symposia and lectures, thematic conferences for professional groups (researchers, students, scholars, specialists in areas of interest)
- Multimedia presentations (film screenings, slide shows, recordings of events, etc.) for groups of tourists with the aim of presenting local values
- Organized traditional performances that can be organized in the framework of predefined actions (festivals, contests periodicals, etc) but also with particular occasions (groups of tourists for whom these activities ensure the program)
- Sports events such as inter-regional competitions that could be attractive for tourists both by the possibility to track the evolution of local teams as spectators (in areas of interest in the project, with representation from both Romania and Serbia) but also by sport practising as option of recreational activities within tourist packages; sport component has a great impact on visitors who mostly found in the programs such organized leisure opportunity.

Infrastructure that can provide at least some of these features is currently almost non-existent in the area, the intention of such an investment presenting the premises of future developments to produce effects on several levels.

The partnership with Kladovo municipality was born from the need for cultural exchanges between Brosteni and this region of Serbia on the border with Romania in the context of the possibilities offered by traditional heritage of each nation, but to which common cultural connotations can be identified.

Opportunity

The investment proposed by the present study is based on a frame consisting of both positive and negative aspects of the region.

Thus several positive factors that can make this a success can be identified, such as:

- Increased appetite and increased mobility of the population in favour of cultural tourism
- Actions to promote tourism in recent years that were supported by substantial capital injections in this area, both from public and private sources in the country but also from European funds; These programs follow directions of development that can be found even in the specific objectives of the present project
- Availability of EU funds to support the tourism sector that overlaps with the period of interest to investors for the present project

Unfortunately, the appropriateness of this investment is also justified by the major identified difficulties, namely the absence of other centers that could support actions in the field of cultural tourism and sports, but also the absence of such practices in the area - currently a series of events with local character are not promoted because of technical and organizational difficulties.

b) technical and economic scenarios to achieve the objectives of the investment project:

Proposed Scenarios:

Scenario 1:

This scenario involves rehabilitating of an existing building of a community center.

Advantages:

- 1. Lower initial investment costs compared to a new building;*
- 2. The reduced deadline of the investment;*

Disadvantages:

- 1. Current Community Center has insufficient area for the proposed purpose, and it is difficult to extend the current buildings;*



2. There is not enough space for building the sport field.

Scenario 2:

To create the appropriate framework for proposed activities in the future, this scenario involves the construction of a building that will have the function Touristic center and arrangement of a sport field for practising sports games.

The building will have ground floor height (GF). The land on which the building will be constructed is in mild slope, so the project will be adapted to the land.

The building will consist of: a multifunctional hall with removable stage, which can be divided into two through removable panels, having the function of exhibition hall and projection room and shows, a foyer, toilets for men, women and persons with disabilities, an office for cleaning materials, two halls, a buffet with an office, two rooms functioning as wardrobe for artists equipped with bathrooms, an office, staircase to the attic, space for heating plant with access from the outside.

The building will be adapted for people with locomotor disabled.

A sport field with synthetic turf, size 38x18 m, with a protective fence around 2 m from the field, according to the planned situation will be set up.

The land will be fenced.

Advantages:

1. It will provide ample space for developing proposed activities in optimal conditions;
2. The new building to be constructed will benefit of all the facilities of a modern building;
3. The building will be adapted for disabled people;
4. It enables visitors to enjoy the common areas for socializing;
5. Assumes lower costs for organizing activities.

Disadvantages:

1. Initial investment costs higher compared with the first solution;
2. The deadline for the investment is higher than the first solution;
3. It supposes maintenance costs.

Suggested scenario:

Analyzing the two possible solutions and considering the functional, technical and economic criteria, the developer of the study proposes scenario 2 for implementation. It is the construction of a building that will function as a touristic center for cultural and sport activities. The affected area of the project will contain a sports field. This scenario assumes high initial costs for implementation, but they will be amortized over time, because on long-term all problems supposing high cost are satisfied. Another advantage of this scenario is that it offers the availability to ensure proper development of sport cultural activities, unlike the first scenario which would not solve the problems satisfactorily.

c) Constructive, functional and technological description

The projected building is suited for Touristic centre for cultural and sport activities. The capacity of the building was determined by the current situation of the commune and prospect of the village and Serbia youth coming here in the region, in this respect sizing the building for about 3 buses with tourists, about 120 people and administrative staff was requested.

Sizing ,air volume, the glass surface, sunny rooms were calculated according to regulations in force. The building will be built in the ground floor regime. The land on which the building will be constructed being with a slight slope, the project will be adapted to the land.

The main entrance to the building is located on the northern façade. Access will be through a portal that will allow access to other areas of the building, namely:



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- Foyer;
- Multipurpose room;
- Disabled toilet;
- men toilet;
- women toilet;
- cleaning office;
- Serving buffet office;
- Hall;
- 2 wardrobes for artists and related toilets
- office;
- staircase.

From the porch of northern facade foyer entrance is made using two doors. This will allow access to the multipurpose room (front) and to toilets and cleaning office (left). The multipurpose room can be divided into two through removable panels, operable exhibition hall and projection room and shows. On the left is a multifunctional hall with buffet counter which opens to the foyer. Here is a hallway that leads to the wardrobe artists, to the office at the staircase leading to the attic and an exit to the south end of the building. All this corridor toward a double door opens to evacuate the audience in the auditorium, and an access door to the scene.

Buffet office will be equipped with two refrigerators for soft drinks, furniture, and a microwave that can warm sandwiches prepared in a specialized location and brought here to work.

Artists wardrobes will be equipped with lockers, benches and tables with make-up mirrors. Each wardrobe will have a bathroom with sinks, showers and WC.

Multifunctional room has a door directly to the outside outlet on the west side of the building. Scene auditoria will be removed. Hall can be divided into two through removable panels, operable exhibition hall and projection room and shows. When the 60 seats needed and will be removed.

Bureau staff will serve administrative services center.

The ground floor, in the south east of the building, with access from the outside is the boiler room.

All rooms will have large windows with PVC double glazing. The attic will have Velux windows type. Exterior doors will be of PVC and the interior doors will be of wood.

The rooms will have plastered walls and ceiling and covered with washable paint in pale colours. The floor in the multipurpose room will be covered with traffic resistant flooring, and the buffet with non slip tiles. This will also be found on foyer, stairs, hallways, cloakrooms and toilets floor. Office floor will be covered with parquet.

The toilets will have ceramic walls to a height of 2.10 m.

The ceiling of the auditorium and of the staircase will be in plasterboard system 60 minutes fire resistant on steel frame.

In the south of the land allocated to tourism center, a sports field covered with synthetic turf will be arranged. Its area will be of 68.40 square meters. It will be surrounded by a fence 2 meters of land and will be high on the side of 4 meters and 6 meters behind the gates. The land between the lawn and the fence will be covered with gravel.

In the north part of the sports field a parking for 11 passenger car will be arranged.

In the south - east part of the land a shed for firewood will be built.

The land has a slope that requires shaping it; in this respect vertical development works will be realized with the aim of organizing outdoor spaces, landscaping, walkways planning, storm water.

The alleys, pedestrian walkways and platforms will be paved and parking will be covered with crushed stone.



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The green spaces of the yard will be planted with grass. Trees and shrubs will be planted on the premises.

A grassy trench will be fit in the entire length of North-East land that will drain rainwater off the field. We believe that this subdivision is optimal for the proposed function.

The utilities for the cultural center will be provided as follows:

- Water supply: drilled well.
- sewage: treatment plant.
- Power supply: connected to the area.
- Heat supply: heating plant

Pedestrian access: from NR 60.

Car access: from NR 60.

2.3. Technical data of the investment:

a) The area and location

Situated in the north-east of Mehedinți county, in Motru Piedmont area, Brosteni commune is an administrative-territorial well individualized commune, with ancient tradition, having an existence linked to Motru river, being placed around the meeting place of NR 67 Turnu Severin -Tirgu Jiu -Petrosani with NR-67A Brosteni- Strehaia.

The landscape is harmoniously composed of the beautiful valley of Motru, of not too high hills and valleys, the relief being varied, portrayed by colour, NW-SE oriented, bounded by less evolved slopes, which provide favorable conditions for the settlement situated on the second terrace of Motru.

It comprises six villages: Broșteni, Căpățânești, Luncșoara, Lupșa de Jos, Lupșa de Sus, Meriș, the commune borders with Cazanesti commune in the West, in the north bordering the Sisesti and Floresti commune, in the east with Gorj county, the boundary being formed of Motru river to Corcova commune, which is bordered in the south

Lupsa de Jos village is located between the villages Luncsoara and Capatanesti. Left on NR 67A in the direction of travel from Brosteni to Strehaia , we have CR 60 which traverses Lupsa DE Jos village. 3855 sqm land area (Cadastral number 50 918), allocated to the objective according to current standards is part of the public domain of Brosteni commune, Lupsa de Jos village.

Vicinities of the land are:

- North: the communal road DC 60
- East: property of Vilcu Vasile
- West: Lupsa de Jos kindergarten, property Gheorghe Pescaru, property Geambasu Dumitru
- South: property Ersilia Trusconiu, property Gherghe Constantin

The projected building will be located in the ground as planned situation at 8m towards the northern limit of the field (front street) parallel to it and the nearest 2m in front of the eastern limit of the smallest distance. To the west, the limit of the property will be 7.80m and minimum distance southward will be 21.8m.

b) The legal status of the land to be occupied

The land on which the building will be made is part of the public domain of Brosteni commune, Cadastral number 50918, it is located inside Lupsa de Jos village and falls into the category courtyards, construction in land use categorization.

Access to land is communal road CR60.

c) Situation of final land occupation: total area representing inner / outer land

The land on which works will be performed is inside the locality and now it is free of any construction.



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Land area =3855 sqm

Built area = 656.20 sqm

Total surface 656.20 sq.m.

Volume- 3735 cubic meter

Degree of occupancy (P.O.T.):

- P.O.T. : 17.02%.

Coefficient of land use (C.U.T.):

- C.U.T. : 0.170

d) Field studies

Topography

The land is a slight slope, with a north-south bias. There is a brook in the south of the land, about 50 m.

Relief

Brosteni commune is surrounded on two sides by hills and open vision occurs to the east and west along Motru valley.

Lupsa de Jos village is situated perpendicular to the river Motru in his right side, between two hills, on the banks of a creek.

Climate

The studied area is located in the extreme south western part of the country, is mostly under the influence of Actium barometric centers in the Mediterranean Sea, characterized by higher temperatures with lower annual average mari100C (the annual average is 11,70C Tr. Severin).

In these regions, autumns are long and warm.

The average temperature in October is 12,50 C Tr. Severin.

Polar air invasions are more rare compared to neighbouring areas, which is reflected by recording the minimum 7-100C values higher than those recorded in Moldova Plateau and the Transylvanian plateau.

Rainfall in most part of the year in liquid form. Winter is recorded on average 20 days with snow and snow lasts no more than 15 days.

The second maximum precipitation approaching quantitative first of May-June, is here today, reflected in the amount of water fell to Tr. Severin for 71mm in May, 79mm in June, 68mm in November and 75mm in December.

The emergence of short-term climate events side, most significant in their effects, as the showers and melting snow, leave marks on the surface by morphogenetic processes that they generate.

Geophysical characteristics of the land from site

Geological data:

The land site is located on the upper terrace of the river Motru.

According to P100-1 / 2013 building is located in the seismic hazard $a_g = 0.15g$ and control period (corner) $T_c = 0,7s$.

Maximum depth of frost is 0.70 m.

The land site is located on a landform type terrace - upper terrace of the river Motru, low energy relief to ensure stability.

Geologically the area consists of Quaternary deposits consisting of cohesive soils - clay. Underlying these deposits are found ancient deposits of the Neogene period consisting of marl.

On-site ground water is found at a depth of 4-6 m not influence the foundation soil.

Surveys have identified stratification performed on site:

- 0.00-0.50m fillings
- 0.50-4.00m clay dust.



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Silty clay soil foundation with high plasticity, consistent state - vigorous, the humidity - wet compressibility foundation. The land fall into the category of good soils foundation.

Foundation soil allows direct foundation.

The minimum depth of foundation: $D_{minf} = 0.80m$ from TN

Basic conventional pressure: $P_{conv} = 280KPa$ ($B = 1.0m$, $df = 2.0m$).

Hydrogeological characteristics of the site

The perimeter studied for the preparation of this study is located in the western Motru Piedmont.

Motru Piedmont stretches from the eastern edge of the Plateau County, which is separate from depression corridor Drobeta Turnu Severin-Bala-Comănești like a triangle limited by valleys Tismanei and Jiu north and east and valleys Hușniței and motive that separate him from Piedmont Bălăciței in the south.

Hydrogeological drilling performed both in the investigated area and in areas adjacent to it, have provided important information on the conditions of groundwater reservoir in different geological formations stationed in the basement area.

According to data provided by the hydrogeological drilling, it was found that deposits of Dacian can sometimes accumulate reserves important groundwater.

Dacian aquifer has been studied closely linked to the exploitation of coal deposits in the area and the water supply of the town Severinesti.

Dacian located in the upper aquifer is captured in drilling for water from Severinesti, was captured Dacian aquifers located below.

For the water supply of the whole recommended achieving a drilling depth of 150m estimated.

In the context of the above, for hydrogeological drilling exploration-exploitation to be executed for the purpose of water supply to the building, we estimate the following technical data:

- Drilled and completed H depth 150 m.
- PVC final column diameter $D = 180-200$ mm with.
- Estimated operating flow $Q = 2.00$ l / s.

NATURAL HAZARDS

Earthquakes: moderate risk.

Landslide: not applicable.

Floods: not applicable.

e) The main characteristics of constructions within the investment objective and variants of achieving constructive variants of realization of the investment, with optimal variant recommendation for approval:

Employing the objective in importance classes

Construction falls in category "C" of importance, according to Government Decision 766 / 10.12.1997 and entered in Class III of importance, according to P / 100/92.

Architecture and resistance

To create the right conditions for the the activities that will take place in the future, the following works are proposed:

- 1). Construction of a building for a Touristic center for cultural and sport activities with an area of 656.20 square meters located on land according to the annexed plan situation.
- 2). Construction of a sports field on the premises.



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Partition and form the building for cultural and sporting activities were designed to obtain the necessary space for activity proposed in accordance with current requirements and standards in force. Sizing air volume, the glass surface and sunny rooms were calculated according to the regulations in force.

Land area = 3855 sqm

Built area = 656.20 sqm

Total surface 656.20 sq.m.

Building volume 3735 cubic meters

Degree of occupancy (P.O.T.):

- P.O.T. : 17.02%.

Coefficient of land use (C.U.T.):

- C.U.T. : 0.170

The maximum height of the building will be 10.12 m above the 0 of the building (ground floor), and the eaves will be 4.83 m.

The main entrance to the building is located on the northern façade. Access will be through a port (S = 33.70 sqm) that will enable access to other areas of the building, these being:

- Foyer; S = 100.80 sqm;
- Multipurpose room; S = 242.20 sqm;
- Disabled toilet; S = 6.45 sq.m.
- men toilet; S = 19.35 sq.m.
- women toilet = 16.85 sq m;
- cleaning office; S = 3.90 sq.m.
- Serving buffet and office; S = 32.50 sq m;
- Hall S = 31.60 sqm;
- 2 wardrobes for artists with related bathrooms each with S = 23.90 sq.m.
- office; S = 15.40 sq.m.
- staircase S = 15.40 sqm

heating plant with S = 15.00 sqm is situated in the ground floor with access from the outside.

The building structure will be made on system frameworks with reinforced concrete pillars and beams on reinforced concrete foundations. Porotherm brick masonry is made of 30 cm and 15-30 cm from the exterior walls to the interior dividing walls, as planned.

The ceiling multifunctional hall will be supported by steel firm set on concrete pillars. The farms will be protected with intumescent paint. The ceiling will be fire resistant plasterboard 60 min, double metal structure. Concert halls height will be 6.55 m, a wheelbase of 3.00 m span will be.

The floors above the ground floor to the other rooms of the center are made of reinforced concrete. Ceiling height is 3.48 m them.

The bridge will have exterior walls and partitions brick. The attic structure will be softwood fireproof.

Between rafters with mineral wool insulation should be 15 cm. Access ladder to the bridge will be concrete and plasterboard ceiling will be suspended on double steel structure, fireproof 60 minutes.

The roof will be of softwood framing fireproof, ridged, with ceramic roofing tiles and sheet snow fence.

Interior finishes

Interior plaster will execute resistant cementitious material with sand, preferably using a plastering machine performance. Over plaster will stretch two layers of plaster. After sanding and priming surfaces will stretch two layers of coloured washable paint.

All wet rooms will be finished with tiles on the walls to a height of 2.10 m and washable paint on the ceiling and masonry remaining.



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The floor in the multipurpose room will be covered with flooring resistant to traffic, and slip tiled buffet. This will be found on the floor of the foyer, stairs, hallways, cloakrooms and toilets. Office floor will be covered with parquet.

Will be wooden interior carpentry.

The windows will be provided inside the jamb type Emal.

Exterior finishes

The building will be insulated with 10 cm thick thermal, mattresses made of wool, fish will finish with a decorative plaster pastel.

Building facades will enroll in a simple architecture, porch columns will be covered with travertine and the other finishes are simple (as planned), devoid of parasitic elements that affect the typical style of the area.

The cap will be insulated with extruded polystyrene thermal 5 cm thick, covered with decorative plaster.

Access stairs and sloping plan for disabled access will be constructed of concrete will be covered with granite.

The outside windows will be made of PVC windows.

It will choose a ceramic tile covering with snow fences sheet.

Guard and treated wood will be made and varnished.

The system of collecting and removing rain water (gutters, downspouts) will be sized according to requirements and will be in the color of the cover.

It will install drains to collect rainwater.

Interior arrangement of space will be as follows:

From the porch of northern facade is located on the second door entry foyer. It will allow access to the multipurpose room (front) and to toilets and cleaning materials Office (left).

Multifunctional room (S = 242.20 square meters) can be divided into two through removable panels, operable exhibition hall and projection room and shows. When the 60 seats needed within the range of projections backrest can be dismantled (6 12 rows of seats). Scene auditoria (S = 46.80 sqm) will consist of modules 1.06x4.00 m and will be removed. Demountable partition panels made of OSB will be mounted on metal frames with metal legs for stability and size of 1.20x2.00 m. Panourile will be used as support materials to be subject exhibitions.

On the left is a buffet multifunctional rooms and a bar serving office (2.70x0.60m) which opens to the foyer.

This will have two bodies of furniture with drawers and worktop 1.20x 0.60 m, two of 0.60x0.60 m and 3 shelves (0.85x0.45m). Part of the space will be reserved for storage.

Cloakrooms artists will be identical and will be furnished 9 wardrobes type dressing (0.30x0.60 m), two banks (1.80x0.45 m), a table with makeup mirror (1.80x0.60 m) and 2 seats with backrest, each.

The office will be furnished with two cabinets (0.80x0.45m), two offices and two ergonomic office chairs and a wall hanger.

Exterior landscaping will be done in the following way:

In the south of the land allocated Tour for cultural and sporting activities will also be arranged a sports field covered with synthetic turf. Its surface will be 684.0 square meters. It will be surrounded by a fence which is 2 meters of land and will be high on the side of 4 meters and 6 meters behind the gates. The land between the lawn and the fence will be covered with gravel.

In the north of the sports field will arrange parking for 11 passenger car.

In the south - east of the land will build a shed for firewood consisting of:

- Platform perimeter concrete foundation
- Wooden structure and closings
- Type roof framing wooden structure
- Roof tiles



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It will have an area of 36 sqm.

Also in this area will be located wastewater treatment plant and water for fire and retention.

The land has a slope that require shaping it; in this respect will be installed for the vertical development with the aim of organizing outdoor spaces, landscaping, walkways planning, storm water.

The alleys, pedestrian walkways and platforms will be paved and parking will be covered with crushed stone.

The green spaces of the Centre Court grass will be planted. Trees and shrubs will be planted on the premises

It will fit in a grassy trench the entire length of North-East land that will drain rainwater off the field.

It will make alleys and road surfaces. External stairs and sidewalks will design and execute so as to ensure smooth movement of people, including those with physical and / or neuromotor. For this purpose will be achieved inclination ramps comply with current standards.

Fencing, access route

The perimeter of the center will be protected by a wire mesh fence height of 2.0 m with poles mounted on metal pipe fixed in concrete foundations and curbs 10 cm between poles. Just will not surround the street front, here demarcation is done through space. The total length of the fence will be 238 m.

List of supplies and furniture:

- Visitor chair with back type - 60 pieces
- Ergonomic Office Chair - 2 pieces
- Wall hanger - 1 pc
- Office (0.7m x 1.5m) - 2 pcs
- Dressing table with mirror (1.85mx 0.6m wardrobe artists) - 2 pcs
- Cloakroom benches (180x45 cm) - 4 pieces
- 3-door wardrobe locker (wardrobe artists 0.9mx 0.6x0,9m) - 6 pieces
- 5 shelves cabinet documents (0.80mx 0.45mx 2,00m) - 4 pieces
- Buffet shelves (0.85x0.45 mx2.0m) - 3 pieces
- Counter (for buffet 2.70x0.60m) - 1 piece
- Buffet bodies(0.6 x 0.9m 1.20x) - 2 pcs
- suspended bodies for Buffet (0.6x 0.6 x0.6 m) - 2 pcs
- 2 faces partition panels (1.20x2.00m) - 22 pcs
- Microwave - 1 piece
- Refrigerator - 2 pieces
- Stage modules (1.06x4.00 m) - 11 pieces
- Video - 1 piece
- projection screen +/- 10% 180x240cm - 1 piece
- For portable computer. projector - 1 piece
- Expo frames 50x70, 50 pcs x 138 lei / piece = 6.900 lei
- LCD -TV (diagonal 125-128cm) - 1 piece.

Electrical installations

Power supply

Power supply to the consumer will make the electric network in the area studied.

Power supply will be as follows:

- From the public electricity network to niche connections and metering
- From niche branch must, connect to the switchboard of sectorization of the electric generator
- The general switchboard TEG for the building will be powered from the electrical panel heating
- The general switchboard TEG for the boiler will be fuelled electrical panel in the cabin well bore pumping group and fire group



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According P118 / 2-2013 is important to build a network of external hydrants and for this it is necessary to install a water supply group for maintenance during fire pump group.

The total installed capacity for the entire building Studios is around 40 kW and maximum power absorbed estimated value is around 32 kW.

The electrical installation will be conductor (PE) distributed and will be copper for lighting circuits and sockets, and the connection of the panel outlet grounding will be made through separation piece with strip OL-Zn 25 x 4 mm.

Earth resistance for internal consumers will be shared with the lightning protection system and will need to have maximum value of 1 ohm.

Earth resistance for internal consumers will be shared with the lightning protection system and will need to have maximum value of 1 ohm.

Indoor lighting installation and plugs

For lighting installation will ensure a minimum level of 300 lx lighting for most areas. To meet these conditions will be used luminaires equipped with incandescent or fluorescent sources depending on the destination chosen space.

The toilets will be installed luminaire type apply bathroom with power 3x60 W.

The sockets will be installed at a height of 0.4 m, 1.3 m and 2 m from finished floor.

Customer equipment will be installed at a height of 0.8 m from the floor finite.

All cables or wires buried or surface mounted in / on elements of construction will be completed in CYYF cable and be mounted in protective tubes type copex / PVC IPEY.

Junction boxes installed in walls are mounted so that their cover on the surface to find finite element construct.

The junction boxes can be mounted on vertical surfaces of the building.

Connections will be made with appropriate nature and over sizing.

Switches will be placed 0.8 m from the floor finite, and where the situation does not allow it they will be placed at a different height consulted only after the architect, designer or end.

The luminaires are connected only between phase and neutral. Phase conductor terminal part binds to the holder and bottom contact conductor binds to the terminal threaded part of the holder.

All circuits shall be provided with fuses with differential protection.

All electrical circuits shall be conducted buried in the construction elements or construction elements apparently where the situation justifies this and will be installed using the retaining clips.

All links in the doses will tinker and have at least 10 windings, and depending on the nature and conductor section.

Breakers and switches will interrupt conductor phase and will choose for rated current 10 A.

The power lighting circuits will be protected conductor 3x1,5 CYYF type protective tube type copex.

Power sockets circuits will be conductor 3x2,5 type CYYF protected type protection tube copex.

All units are assembled in doses buried in the construction elements; devices that can be mounted buried there will apparently be mounted only after consulting architect and designer.

The tubes are installed on the vertical and horizontal routes. Oblique paths are allowed in tubes is mounted above the ceiling.

Security lighting is planned to evacuate people in buildings made with luminoblock type bodies with autonomy 1 hour.

Security lighting is planned to be achieved against panic with type fluorescent luminaires with autonomy 1 hour.

Lighting is planned to continue working in the boiler room and general switchboard-type fluorescent luminaires with autonomy 1 hour.

When installing electrical panel took into account the separation of consumption for each establishment.



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Observe the installation height and type of lamps on display in the drawing project.

Electrical outlets are provided in the lens ST sockets are supplied with cable and FY 3x2,5 mm².

All outlets will be provided with protective contact.

While some circuits have opted for low power on a single circuit supplying their aesthetic and technical considerations. More sockets mounted on a circuit involves carrying boxes on construction elements of the building and the risk of accidents in mining.

All circuits outside the building will be done in cable types specified in the drawing project and these will be installed in accordance with the date of the works.

Lighting enclosure will be achieved with luminaires equipped with photovoltaic panels in order to save energy during operations building. Lighting power will be 50 W.

Sports field lighting will be achieved for this type of lighting fixtures type projector mounted in the corners thereof.

Lightning protection system

A IONIFLASH type self-priming lightning protection system was provided for the studied objective with a maximum reach of 15 meters.

It will be connected to the earth connection through two descents with flat bar 25x4 mm Pb Zn OL descents that will be connected to earth connection in two parts separation.

Parts of separation will be protected in order to avoid dislodging box of screws or mechanical action on them.

Lowering outlet strip of land will be made on insulators avoiding contact with other surfaces of the building.

Protection against accidental touch voltages

Plant protection against accidental touch voltages will be made of copper conductors for lighting circuits and sockets for connection of the picture and plug grounding of the OL-Zn strip 25 x 4 mm.

Plant protection against accidental voltages outside of touch electrodes will be made of Zn OL 21/2 "length L = 3m strip 40X4 mm Pb Zn OL.

Measures to prevent fire-fighting

Technical solutions were chosen so as not to favour the onset or development of a fire. Thus, they complied with the regulations I7-2011.

Thermal installations

Objective heating the building will be centralized with a thermal interior.

Heaters will be a wood gasifying boiler to be installed in a room specifically proposed for this.

Thermal energy demand for heating was calculated according to STAS 1907/97.

Thermal energy needs for heating all spaces is 90 kW, plus hot water preparation and the necessary power consumption resulting in a total power of 100 kW wood boiler.

Therefore wood boiler will be fully automatic and can heat measurements will be equipped with all safety related equipment.

HEATING adopted is apparent distribution / buried.

All ties are installed inside the building elements apparently.

Distribution pipes inside the building will be made of copper pipe.

Links to radiator bodies will be made of copper pipe mounted in a recessed construction elements.

Heating water is 80 degrees warm water. / 60grd.

Ensure boiler installations against rising pressure and temperature above the permissible limit is according to STAS 7132 and ISCIR.



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Heating works will be carried out only by specially trained personnel in the boiler to be carried out by specialized companies that hold specific arrangements of such works.

Ensuring installation of central heating include the following:

1. The boiler is provided by a closed membrane expansion vessel for receiving excess water from the rise in temperature expansion.
2. limiting water temperature ensured through the power switchgear.
3. discharge excess water vapours off that is through a safety valve.

Safety pipe connection of expansion tank is mounted boiler return before any Sectorising.

Circulation heat heating circulation pump is mounted on the flow pipe.

Operation is controlled and maintained pump room thermostat and outdoor thermostat that give control automation boiler.

Filling the heating system water is water from local utilities provider.

Compensation natural expansion is the configuration of routes and by providing fixed points.

Venting is done automatically.

Hot water will be produced through a bivalent boiler with 300 liters capacity.

Bivalent boiler is in summer heat hot water produced by solar panels mounted on the roof.

Thus the solar panels will be of particular ie they will be working on during winter as it gets nice (no light).

Solar panels will be fully automated and kits give dispose of circulation in order to function smoothly movement.

Avoid natural circulation solar panels.

Heaters for the whole object type are steel radiators, with wheelbase of 600 mm for all areas.

Location front of the building blocks is done according to the manufacturer's recommendation.

The radiators are fitted with double valves control flow and return.

The valves on the tour will be normal or thermostat valves remaining beneficiary to choose this solution.

Catching radiators is done with the constructive elements and brackets.

To achieve inner heating system using copper pipe pipes.

The distribution will be provided separation organs, drain stub connections and mounting measuring devices.

It will consider the winter heating work and at night.

Space cooling appliances will be split type air conditioner mounted in common areas according to the feasibility study.

Pipe penetrations through walls and floors will be made by Conduit fitted with filler pipe type specific protected.

Cold water and hot water supply

The needs for drinking water will be provided through a drilled depth which will have a minimum depth of 150-170 m according hydro geological study. It will have to have a minimum rate of 1.2 m / s in order to ensure recovery tank fire in a normal time of 24 hours.

The size pipe will be drilled Dn 1 1/4 ".

Cold water will be distributed in the building through a water pump stations will be installed in the vicinity of the shaft (shaft corresponding technical room).

Cold water pipes, hot water (DHW) required to supply sanitary equipment in bathrooms, toilets will be made of polypropylene pipe and apparently will be mounted or buried. All pipes mounted buried will be isolated.

Hot water in the toilets of the building study will be provided by a tank of 300 liters capacity bivalent mounted boiler.



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The boiler will operate during the summer through roof-mounted solar panels and winter through the heat produced by the solar panels. Solar panels will serve the building will be made of each panel vacuum tubes and vacuum tubes will be at least 12.

Links to sanitary will be tapped crossing to ensure their isolation if necessary.

Cold water pipes and hot water (DHW) and required to supply sanitary equipment in bathrooms, toilets will be made of pipe polypropylene certificate of guarantee and will flush mountable and / or apparent where the situation justifies this .

All lines will be isolated with Armaflex type insulation.

Considering the destination of the building, number of occupants, volume and its surface is required according P118 / 2-2013 making a fire in reserves that amount representing a volume of 54 cubic meters rules concerning the functioning of an outside hydrant that has a flow rate of 5 l / s powered 180 minutes.

Underground tank will be achieved and will be capable of 54 m.

Shunt fire hydrants for the exterior will have a flow rate of 5 l / s and a height of 4 mWS pumping. Shunt will be installed in the well bore corresponding technical room.

Interior and exterior sewerage

Sewage from the study will be building the treatment plant discharged into own goal.

Purified water will be discharged into a water retention basin conventionally clean. In the study proposed state emit no odors around it and it is a performance that meets all station parameters required by applicable law.

Conventional clean water will be stored and used for watering green spaces belonging lens.

Conventional storage tank water clean will be concrete and will have a capacity of 20 cubic meters.

Wastewater treatment plant will have a capacity of 50 LE will be made of stainless steel and will be fully equipped with its own fan to not give off any odor during operations.

WWTP will be staged buried.

Sewer manholes will be made of concrete tubes or monolithic concrete will be achieved.

The caps that they will be covered will be embedded in a reinforced concrete slab.

All materials will be experienced will need to have technical agreements for Romania and have technical approval.

The installation of sewerage interior will be made of PVC pipe - PVC G or U of various sizes and is presented in Exhibits attached to this documentation.

Sanitary objects will be household sanitary porcelain white.

The sanitary drain pipes will be made of PVC - G with the following diameters:

- Toilet bowl DN 110 mm;
- Toilet Dn 40 mm;
- Floor drain DN 50 mm;
- Shower bath Dn 50 mm.

Waters accidents resulting in washrooms will be taken siphon floor.

These pipes will be connected to the sewer columns or floor traps. Laying them will be buried.

The columns will provide sewer cleaning parts where the situation requires.

Sanitary fixtures that will be experienced will adapt to the destination of the building studied.

All exterior excavations greater than 1.5 meters will be supported by specific processes of this type of work.

Sewage pipes must have technical approvals and certificates of quality for the market in Romania.

For all external works to be performed will be respected and included under STAS in force at the time of execution.

Any change to this project only with the designer specialist or under his authority.

The execution of these categories of work will be done by qualified personnel respecting the norms and technical rules and the rules of labour protection and fire.



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f) the existing situation of utilities and consumer analyze:

Analysis of water use

It is estimated a total of 100 people three days a week in which 100% will use the toilets.
Estimated consumption: 50 liters / person / day x 100 days x person x 12 = 720.00 m year 12 months.

Analysis of the consumption of sewage

Domestic water discharged into the existing sewage network shall be:
80% x 80% x estimated consumption = = 576.00 m 720.00 m year annually

Analysis of electricity consumption

Electricity consumption is estimated at - 40 kW / hx 8 hx 12 days = 46,080 kW x 12 months per year

Analysis of thermal energy consumption

Thermal energy consumption is estimated at - 100 kW / hx 8 hx 12 days = 48,000 kW x 5 months annually

g) Environmental impact assessment conclusions

Site and restoration

The building has a normal function and has no environmental impact. Before starting any part of the works, the contractor shall provide all necessary temporary access roads, including any provisional derivatives which can be sometimes necessary. The Contractor shall maintain these roads in a proper condition for carrying traffic safe vehicles and traffic light until these vehicles will no longer be necessary for the purpose of the contract.

Before starting any work the contractor will make a record of the status of any public lands or private areas necessary for access to site. The contractor will put all these areas will be suitable access and maintain these surfaces in a proper state of cleanliness and repair the duration of the works. Upon completion by the contractor using these bouts, he would return to a state surfaces for at least equal to that before starting any work.

The Contractor shall not come first in any part of the site, passing over private land without the owner's prior consent of those lands.

The Contractor shall maintain the site in a clean, tidy and hygienic entire period he is responsible for the work.

The Contractor shall ensure that all roads used by it are not contaminated as a result of such use, and in the event that they will be dirty, the Contractor shall take all necessary measures to clean them without additional expenses to the recipient.

The structure, quality of materials and workmanship all roads and pavements restoration will be done according STAS 174, STAS 179, STAS 6978, STAS 9095.

Air Quality Protection

No air pollution.

Protection against noise and vibration

The machines are efficient, do not produce noise above the permissible level. The level of noise produced by machinery is between 60-70 NDB and is low frequency, which does not create noise levels that exceed limits set by STAS 10009/1988.

Radiation protection

No radiation sources.



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Soil and subsoil protection

No pollution for soil and subsoil.

In carrying out excavations will comply with the regulatory C 169/88 for the execution of earthworks and the I 22-99.

The cut will start only after the complete organization of the site, supply pipes and other materials required for trenches remain open a short time.

The execution fillings will comply indicative guide GP 043/99. The grouting must be cleared of stones and blocks (granules 20 mm more) and materials likely to deteriorate hidden works (ashes aggressive) and goals that may further subsidence.

It prohibits the execution of filling in cold weather with temperatures below 0 ° C.

Protection of terrestrial and underwater

Do not endanger terrestrial and aquatic ecosystems

Fire Safety Measures

The execution and mining of documents will take into account compliance with current regulations.

Labor protection measures

For execution indicated in this project it is absolutely necessary to respect the executor and beneficiary of the provisions of the "Regulation on labor protection in construction" approved by Order. 9 / 15.03.1993 of MLPAT published in BC 5-6-7-8.

Waste management

Waste produced during construction works shall be managed by the contractor, the waste collected is organized.

The management of toxic and hazardous substances

There's no need.

Ecological restoration works

Following this investment unnecessary ecological reconstruction works.

2.4. Duration of achievement and main stages; Schedule of investment

3. Estimated costs of the investment

3.1. The total value detailing the structure of the general estimate

3.2. Staggering costs in conjunction with the investment Scoreboard

4. COST BENEFIT ANALYSIS

4.1. Investment identification and definition of objectives, the reference period

4.2. Options analysis

4.3. Financial analysis, financial performance indicators calculation: cumulated flow, net present value, internal rate of return and cost-benefit

4.4. Economic analysis, calculation of economic performance indicators: net present value, internal rate of return and cost-benefit

4.5. Sensitivity analysis

4.6. Risk Analysis



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INTRODUCTION

In an investment project, the cost-benefit analysis has the role of estimating the financial effects of the investment on the entity implementing it (Broșteni township, Mehedinți county), and, on the other hand, estimating the propagated economic (social) impacts of the investment on the socio-economical environment.

The financial analysis compares the investment costs with the marginal benefits (operating surpluses) resulted from comparing the two options "with -" or "without project". The performing of the financial analysis will be done consistent with the received recommendations regarding the development of the cost-benefit analysis, according to the provisions of the cross-border cooperation programme Romania-Serbia 2014-2020.

The economic analysis examines the investment's social effects and economic externalities, the addition of the latter to the financial ones, but also the comparison of all these elements with the total value of the investment. This step is necessary in order to demonstrate the necessity of the investment for the local community, namely the generation of economic and social benefits that exceed the costs incurred by the achievement of the proposed investment objective.

According to Appendix 4, the economic analysis is not mandatory, except for major public investments (exceeding 25 million EUR), reason for which it does not represent the object of the present analysis.

The indicators which will be calculated to demonstrate the financial efficiency of the investment are:

- ✓ the net present value (NPV-VAN);
- ✓ the internal rate of return (IRR-RIR).



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A. THE IDENTIFICATION OF THE INVESTMENT AND THE DEFINITION OF THE OBJECTIVES

A.1. The capital investment

The proposed investment project aims to build a touristic center, which hosts cultural and sporting activities in the Lupșa de Jos village, township Broșteni, Mehedinți county.

The project aims the construction of an ensemble, comprising of a building - a tourist center, which hosts cultural activities and a sporting platform designed to the practicing of amateur football. Currently, the parcel on which the investment objective is to be built is free of constructions, and it is included in the courtyard, construction category, within the land use taxonomy.

The completion of the investment project assumes certain activities:

- the construction of a building, a tourist center, designed to host organized touristic cultural events from which a large number of tourists can benefit:
 - very flexible age groups;
 - various nationalities – the attractions offered by this center are of interest for Romanian tourists who want to get closely in touch with the specifics of this area, and those foreigners who want to discover our national specifics;
 - organized groups, according to different theme interests: arts, traditions, popular culture, religion, etc.;
 - groups of experts (ethnography, architecture, music, dances, etc.)
- the construction of a sporting platform (a sports ground) for practicing amateur football.

The works involved by the completion of the project are foreseen to happen over a period of 15 months. The total cost of the investment is estimated at a value of 3.138.661 lei VAT (692.922,30 euro at a rate of 4,5296 lei /euro).

A.2. The contracting strategy

The financing of the investment will be made from European funding (the Cross-Border Cooperation Programme Romania-Serbia 2014-2020), the local budget and from other legally constituted funding having this destination, according to the legal bills of investments.

The contracting of the investment project construction works will be made through a public auction in accordance with the Government Emergency Ordinance no. 34/2006 regarding the award of public procurement contracts, public works concession contracts and service concession, approved and modified by Law no. 337/2006.

The contracting strategy will be structured in two parts:

I. Contracting the non-reimbursable financing, which will be consistent with the principles set by the Contracting Authority and the legislation concerning the allocation and use of European funding;

II. Contracting the investment construction works, which will be the subject of the investment project, the construction of a touristic center, which will host cultural and sporting activities in the Lupșa de Jos village.



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This component will be implemented by a third party, a legal person, who holds the technical capacity and logistics for the construction of the touristic center, in Lupșa de Jos village, Broșteni township, Mehedinți county. The selection of the contractor for the investment project will be based on the European and/ or national legislation on public procurement.

A.3. The investment objectives

The proposed investment aims to build a touristic center, which will host cultural and sporting activities in the village Lupșa de Jos, Broșteni township, Mehedinți county.

The general objective of the project is the encouragement of the touristic activity from the Mehedinți county and the enhancement of the Romania - Serbia tourist flows.

In any investment project, the use of the the logical framework ensures the realization of a coherent and transparent plan that includes indicators for monitoring and evaluating the results after its implementation, taking into account the external environment of the project. The logical framework can be seen as a useful visualization of the internal structure of the project. The logical framework consists of four rows and four columns. The 4 columns show the intervention logic, the objectively verifiable indicators, the sources of verification, and the assumptions underlying the intervention logic at all 4 levels of the goals hierarchy defined on the vertical axis.

The first column contains the logical intervention of the project. It shows a hierarchy of goals with varying degrees of generality and the manner in which they result from the causal relationships: at the level of the project specific activities are carried out, activities which should lead to well defined results. The activities represent what is to be done throughout the project, and the results represent achievements (outputs) of these activities (of the entire project). The project results (in our case, the construction of a touristic center, which will host cultural and sporting activities in the village Lupșa de Jos, Broșteni township, Mehedinți county) must ensure the achievement of all project objectives.

At the top of the objectives hierarchy (head of the column in the logical matrix) are the general objectives (the overall objective) of (the) project. These represent objectives with a high degree of generality, and their achievement may help the project, but which cannot be achieved by the project itself (the overall objective of this project: the development of touristic activity in the Mehedinți county and the enhancement of the Romania - Serbia tourist flows).

The second column of the logical framework shows objectively verifiable indicators at all levels of the objectives' hierarchy (= logical intervention). In order to provide a solid basis for a more accurate evaluation of the project results, it is very important to have objectively verifiable indicators, so as to prove the degree of the proposed objectives' achievement. Only if these indicators are well selected, the project results can be evaluated accurately and the assessment will be generally accepted.

Although there are standard sets of indicators for various fields of intervention, it is advisable to identify quantifiable indicators for each general objective, purpose and results in part (note: the indicators for activities show us whether they were or not made). In a generally accepted sense, in the logical framework there will not be objectives, for which any reasonable indicator cannot be identified, as an objective whose achievement can not be measured is not a valid objective.



Often it is possible to develop approximate indicators with which we maintain feasible objectives aiming qualities apparently immeasurable.

This is the subject of the third column, which specifies the sources of verification for each of the objectively verifiable indicators. For some indicators, the sources can be project documents or publicly available statistics data (e.g., number of exhibits organized by the center or number of registered tourists, etc.). At this point it is important to keep in mind that using existing data sources is more convenient and it costs less than a special survey carried out or a additional developed documentation system (in addition to the existing documentation system, the project should have for internal control).

The fourth column refers to the assumptions on the external environment that are made in the drafting stage of the logical intervention. Consequently, the expansion of tourism in the Broșteni area, Mehedinți county, depends on additional factors beyond the project control. Thus, the number of tourists who will visit Lupșa de Jos depends on the convergent road infrastructure, the accommodation facilities, the evolution of the potential clients' purchasing power on the one hand, and on the other hand, the quality of the rendered services depends, in time, from the allocated funding for staff salaries, the periodic maintenance works of the building and sporting ground, etc.

The table below illustrates the logical framework for the project to assess. This underlines the importance of the construction of a touristic center, which will host cultural and sporting activities in the village Lupșa de Jos, Broșteni township, Mehedinți county.

Table 1. The logical framework matrix for the project aiming the of the construction of a touristic center, which will host cultural and sporting activities in the village Lupșa de Jos, Broșteni township, Mehedinți county.

Logical intervention	Objectively verifiable indicators	Verification sources	Previsions
General objectives: 1.- the encouragement of the touristic activity from the Mehedinți county and the enhancement of the Romania - Serbia tourist flows	1.- The increase of th number of cultural events organized by the township	1. Data provided by the Brosteni township.	
Project purpose: 1.- the construction of a touristic center, which will host cultural and sporting activities in the village Lupșa de Jos, Broșteni township, Mehedinți county	1.- The functioning of a touristic center, organizing and hosting cultural events 2.- The construction of a sports ground of 38x18 square meters	Data provided by the Brosteni township	1. The built objective will be used according to the foreseen functional description.
Project results: 1.- The construction of a building - which will host a touristic center, for cultural activities and a sporting ground	1.- The increase of the number of tourists in the area	Data provided by the Department of Statistics	1.- The Broșteni township is able to ensure the necessary funding for its periodical maintenance.



Logical intervention	Objectively verifiable indicators	Verification sources	Previsions
Activities: 1. Winning the procurement for the construction of the building and the sports ground 2. Detailed implementation plans prepared by the contractor and approved within the first two months from the award of contract 3. Starting the construction works (building + sports ground). 4. The contractor's works and all other aspects supervised by competent institutions, from approval to completion. 5. The work should be completed within 20 months	1.- A contract with the procurement winner	1. Quarterly progress reports prepared by contractors for the Broșteni township.	1. - The Broșteni township is able to guarantee (from own sources) the necessary funds for the construction. 2. - An appropriate tender a contract may be employed at the level of the planned price.

A.4 The entities involved in the investment project

A relatively small number of entities are involved in the proposed project. The following entities are taken into account:

The **Broșteni township**, which is according to the law, the manager of the cultural center and sports ground. It will contribute to the construction of the touristic center and will be responsible for the maintenance of the building and the sports ground. It will hire the contractor, make the reception, once the investment is finished; and be responsible for both annual and periodic maintenance of the touristic center, throughout its existence.

The **population from Lupșa de Jos**- who will benefit from the services of the touristic center, and the increase of the number of tourists.

A.5. Reference timeframe

In the lifetime design of the project a total period of 15 years (according to the provisions of the EC Law 480/2014, Appendix 1) - 15 months were considered after the completion of the investment, due to the fact that at the end of this period new works will be required so as to maintain the initial technical and functional characteristics.

B. OPTION ANALYSIS

The status and accessibility of cultural and touristic infrastructure and of its facilities significantly contribute to the achievement of the specific objectives from the field of tourism in the south-western part of Romania. The funds attracted from foreign financing allocated from the state budget for tourism investment does not cover the necessity for the rehabilitation of tourist and cultural infrastructure in Romania.



These investments will ensure the premises to increase the cultural tourism in the Mehedinți county. The interventions of the Cross-Border Cooperation Programme 2014-2020 Romania-Serbia will be complementary to the investments from other sources, namely state budget, local budgets, and external borrowings.

In these conditions, the options taken into account for the increase of cultural tourism in the Broșteni area are:

The situation "**Option 0 – Maintaining the status quo**" is represented by the current situation in which there is no touristic center, to host cultural activities, only an old cultural center, which finds itself in an advanced state of degradation.

The situation "**Option 1**" aims to carry out the following activities:

- the construction of a building, a tourist center, designed to host organized touristic cultural events from which a large number of tourists can benefit:
 - very flexible age groups;
 - various nationalities – the attractions offered by this center are of interest for Romanian tourists who want to get closely in touch with the specifics of this area, and those foreigners who want to discover our national specifics;
 - organized groups, according to different theme interests: arts, traditions, popular culture, religion, etc.;
 - groups of experts (ethnography, architecture, music, dances, etc.)
- the construction of a sporting platform (a sports ground) for practicing amateur football.

The situation "**Option 2**" provides the rehabilitation of the existent cultural center, where cultural events can be hosted, but it does not assume the built of the sporting ground, because the surface of the ground is not sufficient. Moreover, the existent cultural center itself has a limited surface, insufficient for the proposed objective, and the extension of the actual building is difficult.

For each variant grades from 1 and 5 were awarded for each criterion. These grades were weighted by importance coefficients attached to each criterion. The final score for each variant is obtained by adding the weighted grades.

Given the mentioned technical and economic aspects, for the construction of the touristic center and sporting ground, the technical solution Variant 1 is recommended to be applied, as seen in the multi-criteria analysis and scenarios:

Table 2. The scenarios multi-criterial analysis

Situation WITHOUT the project – zero scenario	Score	Weight	Impact
The value of the investment effort	0	0,2	0
Functionality	0	0,2	0
The quality of the offered services	1	0,3	0,3
Sustainability	1	0,2	0,2
Equal opportunities	1	0,1	0,1



Total <i>0,6 = insufficient impact</i>			
Situation WITH the project – scenario 1	Score	Weight	Impact
The value of the investment effort	5	0,2	1
Functionality	5	0,2	1
The quality of the offered services	5	0,3	1,5
Sustainability	4	0,2	0,8
Equal opportunities	4	0,1	0,4
Total <i>4,7 = very large impact</i>			
Situation WITH the project – scenario 2	Score	Weight	Impact
The value of the investment effort	4	0,2	0,8
Functionality	3	0,2	0,6
The quality of the offered services	3	0,3	0,9
Sustainability	4	0,2	0,8
Equal opportunities	3	0,1	0,3
Total <i>3,4 = moderate impact</i>			

where:

- 0 : zero impact;
- 1 : insufficient impact;
- 2 : moderate impact;
- 3 : relevant impact;
- 4 : very large impact.

The multi-criteria analysis performed shows that the investment option expected to produce the most significant impact is **variant 1**. This option has accumulated the highest score (4,7) compared to the other investment alternatives proposed and analyzed.

C. FINANCIAL ANALYSIS

C.1. The foreseen evolution of the operational expenses

The operating expenses foreseen for the touristic center to be built in the Lupșa de Jos village, Broșteni township, Mehedinți county, an ensemble formed out of a building to be hosting the cultural events and the sports ground:

- utility expenses (electrical energy, water, sanitation)
- staff remuneration expenses
- other operating expenses (maintenance).

The utility expenses consist of expenses for electricity, water and sanitation and are estimated considering the following assumptions (as detailed by the technical specialist designer):

- energy costs correspond to a consumption of 3.520 kWh/ year, while the rate is 0,45 RON/ kWh;
- water expenses correspond to a water consumption of 75 cubic meters / year at a price of 4 lei / cm.
- Sanitation expenses correspond to a consumption of 60 cubic meters / year at a price of 1,44 lei/ cm.



- Expenses are generated every month since the fourth month of the first year until the end of the 15th year
- For each of these expenses, during the analysis we did not consider an average annual rate of growth.

Table 3. Determining the utility expenses

Utility expenses	Consumption (kw/h)	hours/day	days	months	tariff	Total (lei)
Electrical energy(lei/year)	40	8	12	12	0,45	20.736,00
Thermal energy	100	8	12	5	0,06	2.880,00
Water (cm/year)	720				4	2.880,00
Sanitation (cm/year)	576				1,44	829,44
						27.325,44

The staff expenditures depend on the number of employees, gross monthly salary for each category of employee and employer social security contributions, calculated in accordance with the gross salary. For employees who will work at the touristic center from Lupșa de Jos, Broșteni township, Mehedinți county the following assumptions were taken into account:

- Number of jobs during the operating phase: 1 (manager)
- The average gross salary in the Arts, entertainment and recreation business: 2.409 lei (according to the bulletin of the National Institute of Statistics 15/2015)
- The contributions paid by employers for wages - approximately 23%
- The expenses in the operational phase are generated every month since the fourth month of the first year until the end of the 15th year.

Table 4. Determining the staff expenditures

Staff expenditures	Implementation phase
Number of persons	1
Gross salary	2409
Net salary	1715
Employers' contributions	23,00%
TOTAL monthly	2.963
TOTAL annually	35.557

The estimated annual staff remuneration costs during the analysis was done without taking into account an average annual rate of growth.

To summarize, operating expenses are shown below:

Table 5. Estimating the operating expenses

Year	Utility expenses	Staff expenses	Other expenses	TOTAL
0				
1	9.108,48	11.852,28	1.000,00	21.960,76



2	27.325,44	35.556,84	1.000,00	63.882,28
3	27.325,44	35.556,84	1.000,00	63.882,28
4	27.325,44	35.556,84	1.000,00	63.882,28
5	27.325,44	35.556,84	1.000,00	63.882,28
6	27.325,44	35.556,84	1.000,00	63.882,28
7	27.325,44	35.556,84	1.000,00	63.882,28
8	27.325,44	35.556,84	1.000,00	63.882,28
9	27.325,44	35.556,84	1.000,00	63.882,28
10	27.325,44	35.556,84	1.000,00	63.882,28
11	27.325,44	35.556,84	1.000,00	63.882,28
12	27.325,44	35.556,84	1.000,00	63.882,28
13	27.325,44	35.556,84	1.000,00	63.882,28
14	27.325,44	35.556,84	1.000,00	63.882,28
15	27.325,44	35.556,84	1.000,00	63.882,28

C.2. The presumed evolution of the operating revenues

Given the fact that the investment is not generating incomes, in order to predict revenues, the following assumptions were considered:

- Indirect revenues respectively funds from the local budget, to cover operating expenses.

The presumed evolution of the operating revenues is represented in the following table:

Table 6. Determining the operation revenues

Year	Revenues of the Brosteni town hall
0	
1	21.960,76
2	63.882,28
3	63.882,28
4	63.882,28
5	63.882,28
6	63.882,28
7	63.882,28
8	63.882,28
9	63.882,28
10	63.882,28
11	63.882,28
12	63.882,28
13	63.882,28
14	63.882,28
15	63.882,28

C.3 Financial performance indicators

To assess the viability of the overall proposed investment project, it is necessary to consolidate all the identified and quantified costs and benefits for all the involved entities. The consolidation involves the aggregation into a single format, of the financial flows determined for each entity. Usually, this is done for



both the situation "without project" and the situation "with project", which determines the marginal results of the project, offering the possibility to evaluate the added value resulting from the project.

The analysis of the annual net benefits for the whole project involves the discounting method, in order to ensure the comparability of costs and benefits which are registered in different periods of time. For the infrastructure projects implemented by public authorities the recommended discount rate used in the calculations is 8%.

The indicators reflecting the efficiency of the investment are: the net financial present value in total investment value (NFPV / C), the internal rate of financial return in total investment value (IRFR / C), the net financial present value of own contribution (VANF / K) and financial internal rate of return of own contribution (RIRF / K).

C.3.1. Financial net present value at total investment value (VANF/C)

Financial net present value (VANF/C) is determined as a difference between the net discounted future benefits and invested capital.

That indicator characterizes the economic advantage of a certain investment project, comparing the discounted total net benefit of the project on the entire period of economic life with total investment effort specific to the project.

Computing relationship of VANF is:

$$VANF = -I + \sum_{t=1}^{15} \frac{BN_t}{(1+e)^t} + \frac{V_{rez}}{(1+e)^{15}}$$

where: VANF – net present value;

I – investment, has the "minus" sign and is specific to "zero" period;

BN – flow of net benefits released at the forecasting period level (15 years) and is determined as difference between total benefits and total costs;

e – the discount rate;

t – number of years specific to the forecasting period, considered for the computation of VANF; it values from 1 to 15;

V_{rez} – the residual value, calculated as remaining value for amortization, from the end of the forecasting period to the end of normal using period, based on the formula:

$$V_{rez} = I^* \times \left(1 - \frac{DC}{DNU}\right) = 2.624.806 \times \left(1 - \frac{15}{40}\right) = 1.640.504 \text{ lei}$$

I* - investment without VAT

DC – the consumed period (is equal with forecasting period) = 15 years;

DNU – the normal using period of the building (according to the catalogue from 30.11.2004) = 40 years

Table 7. Determination of VANF/C

Year	Invest. costs	Operation costs	Total revenues	Net flow	Financial discount rate	Discount coefficient	Discounted net flow	Cumulated net flow	VAN
0	1.574.884		0	-1.574.884	8%	1	-1.574.884	-1.574.884	
1	1.049.922	21.961	21.961	-1.049.922	8%	0,925925926	-972.150	-2.547.034	
2		63.882	63.882	0	8%	0,85733882	0	-2.547.034	



Year	Invest. costs	Operation costs	Total revenues	Net flow	Financial discount rate	Discount coefficient	Discounted net flow	Cumulated net flow	VAN
3		63.882	63.882	0	8%	0,793832241	0	-2.547.034	
4		63.882	63.882	0	8%	0,735029853	0	-2.547.034	
5		63.882	63.882	0	8%	0,680583197	0	-2.547.034	
6		63.882	63.882	0	8%	0,630169627	0	-2.547.034	
7		63.882	63.882	0	8%	0,583490395	0	-2.547.034	
8		63.882	63.882	0	8%	0,540268885	0	-2.547.034	
9		63.882	63.882	0	8%	0,500248967	0	-2.547.034	
10		63.882	63.882	0	8%	0,463193488	0	-2.547.034	
11		63.882	63.882	0	8%	0,428882859	0	-2.547.034	
12		63.882	63.882	0	8%	0,397113759	0	-2.547.034	
13		63.882	63.882	0	8%	0,367697925	0	-2.547.034	
14		63.882	63.882	0	8%	0,340461041	0	-2.547.034	
15		63.882	63.882	0	8%	0,315241705	0	-2.547.034	
VR	2.624.806		916.313	1.640.504		0,315241705	517.155	-2.029.879	-2.029.878,77

Financial net present value resulted from computation is negative, according to the recommendations regarding the elaboration of the cost-benefit analysis. From a technical point of view, that result is caused by the negative cash flow from the first year which, for the discount procedure, weights more than the resulted flow from the forecasting period.

C.3.2. Financial internal rate of return at total investment value (RIRF/C)

Financial internal rate of return (RIRF) is the discount rate for that the value of the flow of discounted net benefits is zero, respectively discounted revenues are equal to discounted payments.

That rate expresses the medium capacity of capitalization of the used resources on the period taken into consideration as investment life period.

RIRF = e, if:

$$\sum_{t=1}^{15} \frac{FB_t}{(1+e)^t} = 0$$

where: FB_t – flow of net benefits;

e – discount rate <

t – number of years of forecasting period; it takes values from 1 to 15.

For operative computation of RIRF we will use the interpolation method, the computing formula being:

$$RIRF = e_{\min} + (e_{\max} - e_{\min}) \times \frac{FB_{e_{\min}}}{FB_{e_{\min}} + |FB_{e_{\max}}|}$$

where: e_{min} – small discount rate, which makes positive the flow of net discounted benefits, but appropriated to zero;



e_{max} – high discount rate, which makes negative the flow of net discounted benefits, but appropriated to zero;

FB_{emin} ; FB_{emax} – flow of net discounted benefits with small, respectively high discounted rate.

The benefits and costs taken into consideration when we compute RIRF, include:

- the basis is offered by initial investment, given by the total value of the investment object from the general estimate;
- the residual value is the final value of the investment of the end of forecasting period; that value is considered to be equal with the net flow of the last year of the forecasting period, capitalized on 15 years;
- flow of benefits and costs for the period of the years 1 – 15 include only elements specific to the exploitation cycle;
- flow of net benefits;
- the discount rate realizes the bringing of the cash flows (initial, final and future flows) at the values of the base investment moment, considered to be the year 1;
- the discount coefficient has the expression:

$$\frac{1}{(1+e)^t}$$

where: e – discount rate, represented by e_{min} and e_{max} ;

t – the year taken into consideration, $t = 1 \div n$ (1 – the base moment of the investment; $1 \div 15$ – years of the forecasting period)

- the discounted cash flow represents the correction of the cash flow through the

Table 8. Determination of RIRF/C

Year	Invest. costs	Operation costs	Total revenues	Net flow	Financial discount rate	Discount coefficient	Discounted net flow	Cumulated net flow	RIR
0	1.574.884		0	-1.574.884	8%	1	-1.574.884	-1.574.884	
1	1.049.922	21.961	21.961	-1.049.922	8%	0,925925926	-972.150	-2.547.034	
2		63.882	63.882	0	8%	0,85733882	0	-2.547.034	
3		63.882	63.882	0	8%	0,793832241	0	-2.547.034	
4		63.882	63.882	0	8%	0,735029853	0	-2.547.034	
5		63.882	63.882	0	8%	0,680583197	0	-2.547.034	
6		63.882	63.882	0	8%	0,630169627	0	-2.547.034	
7		63.882	63.882	0	8%	0,583490395	0	-2.547.034	
8		63.882	63.882	0	8%	0,540268885	0	-2.547.034	
9		63.882	63.882	0	8%	0,500248967	0	-2.547.034	
10		63.882	63.882	0	8%	0,463193488	0	-2.547.034	
11		63.882	63.882	0	8%	0,428882859	0	-2.547.034	
12		63.882	63.882	0	8%	0,397113759	0	-2.547.034	
13		63.882	63.882	0	8%	0,367697925	0	-2.547.034	
14		63.882	63.882	0	8%	0,340461041	0	-2.547.034	
15		63.882	63.882	0	8%	0,315241705	0	-2.547.034	
VR	2.624.806		916.313	1.640.504		0,315241705	517.155	-2.029.879	-2,97%

The financial internal rate of return of the investment is calculated taken into consideration the total costs of the investment as an output (including both investment costs and exploitation costs) and the revenues from the exploitation as an input. In those circumstances, it is not absolute necessary as that indicator to be



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positive, being enough as the obtained value of the indicator (-2,97%) to be under value of the used discount rate (8% - according with the recommendations regarding cost-benefit analysis attached to the Solicitant Guide).

C.3.3. Financial net present value for own contribution (VANF/K)

That indicator is determined taken into consideration only own contribution (2% from the eligible value of the project). Applying the calculation methodology of the net present value (presented in section C.3.1.), VANF/K is reflected in the following table:

Table 9. Determination of VANF/K

Year	Invest. costs	Operation costs	Total revenues	Net flow	Financial discount rate	Discount coefficient	Discounted net flow	Cumulated net flow	VAN
0	31.498			-31.498	8%	1,0000	-31.498	-31.498	
1	20.998	21.961	21.961	-20.998	8%	0,9259	-19.443	-50.941	
2	0	63.882	63.882	0	8%	0,8573	0	-50.941	
3	0	63.882	63.882	0	8%	0,7938	0	-50.941	
4	0	63.882	63.882	0	8%	0,7350	0	-50.941	
5	0	63.882	63.882	0	8%	0,6806	0	-50.941	
6	0	63.882	63.882	0	8%	0,6302	0	-50.941	
7	0	63.882	63.882	0	8%	0,5835	0	-50.941	
8	0	63.882	63.882	0	8%	0,5403	0	-50.941	
9	0	63.882	63.882	0	8%	0,5002	0	-50.941	
10	0	63.882	63.882	0	8%	0,4632	0	-50.941	
11	0	63.882	63.882	0	8%	0,4289	0	-50.941	
12	0	63.882	63.882	0	8%	0,3971	0	-50.941	
13	0	63.882	63.882	0	8%	0,3677	0	-50.941	
14	0	63.882	63.882	0	8%	0,3405	0	-50.941	
15	0	63.882	63.882	0	8%	0,3152	0	-50.941	
VR	52.496	916.313	916.313	32.810		0,3152	10.343	-40.598	-40.598

C.3.4. Financial internal rate of return for own contribution (RIRF/K)

Applying the calculation methodology of the internal rate of return (presented in section C.3.2.), RIRF/K is reflected in the following table:

Table 10. Determination of RIRF/K

Year	Invest. costs	Operation costs	Total revenues	Net flow	Financial discount rate	Discount coefficient	Discounted net flow	Cumulated net flow	RIR
0	31.498			-31.498	8%	1,0000	-31.498	-31.498	
1	20.998	21.961	21.961	-20.998	8%	0,9259	-19.443	-50.941	
2	0	63.882	63.882	0	8%	0,8573	0	-50.941	
3	0	63.882	63.882	0	8%	0,7938	0	-50.941	
4	0	63.882	63.882	0	8%	0,7350	0	-50.941	
5	0	63.882	63.882	0	8%	0,6806	0	-50.941	
6	0	63.882	63.882	0	8%	0,6302	0	-50.941	
7	0	63.882	63.882	0	8%	0,5835	0	-50.941	



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8	0	63.882	63.882	0	8%	0,5403	0	-50.941	
9	0	63.882	63.882	0	8%	0,5002	0	-50.941	
10	0	63.882	63.882	0	8%	0,4632	0	-50.941	
11	0	63.882	63.882	0	8%	0,4289	0	-50.941	
12	0	63.882	63.882	0	8%	0,3971	0	-50.941	
13	0	63.882	63.882	0	8%	0,3677	0	-50.941	
14	0	63.882	63.882	0	8%	0,3405	0	-50.941	
15	0	63.882	63.882	0	8%	0,3152	0	-50.941	
VR	52.496	916.313	916.313	32.810		0,3152	10.343	-40.598	-2,97%

D. ECONOMIC ANALYSIS

Not the case.

E. SENSITIVITY ANALYSIS

The sensitivity follows to determine the reaction of the investment efficiency indicators to the modification of the main variables characterizing it. The efficiency indicators considered are VANF and RIRF and the main variables taken into account were the investment costs, the operating expenses and the total social benefits. For each of these key parameters we tested two types of scenarios (pessimistic and optimistic).

Table11. Sensivity analysis

	Variations	VANF	RIRF
Base scenario	0%	-2.029.879	-2,97%
Variation of the investment expenses:			
Pessimistic scenario - 1% increase	101%	-2.055.349	-3,03%
Optimistic scenario - 1% reduction	99%	-2.004.408	-2,91%
Variation of the operating expenses:			
Pessimistic scenario - 1% increase	101%	-2.029.879	-2,97%
Optimistic scenario - 1% reduction	99%	-2.029.879	-2,97%

From the table above, we can see that between the two most important considered key variables the strongest impact on the net present value is held by the modification of the investment costs. This is because the investment is made in the first years, and the impact of the discount factor on the relationship benefit-cost and on the rate of return is also pronounced.

We can see that regardless of the type of the simulated scenario (optimistic or pessimistic), the values of the obtained net present value (NPV) are negative, the RIRF values do not exceed 8% (thus being lower than the used discount rate). **These results confirm the fact that the proposed investment project is feasible.**

In order to have a better picture on the intervals within which the main economic indicators of the project can vary, on the likelihood of these indicators to reach negative values or below a certain threshold, the sensitivity analysis should be complemented by the risk analysis.



F. RISK ANALYSIS

Like any other project, this investment project too is the subject of a risk analysis, given the threat of technical, financial, institutional and legal risks. The description of these risks, the consequences and ways to eliminate them and the allocation of management responsibilities are presented below:

Table 12. The risk matrix affecting the investment project

Risk category	Description	Consequences	Elimination	The person in charge of risk management
Technical risks				
<i>Construction</i>	The risk of an event occurring during the investment, event that leads to the impossibility of concluding it in time and at the estimated cost	Delays in the implementation and increases of the investment execution costs	The investor generally enters into a contract of fixed duration and amount. The constructor must have the resources and technical capacity to respect the manufacturing requirements	The investor
<i>The investment reception</i>	The risk is both physical and operational and it refers to the late reception of the investment	The consequences for both parties. For the ones performing the work - delayed revenues and lost profits. For the beneficiaries - delaying the start of using the spaces for the parks, with all the consequences.	The BrosteniTown Hall will not pay the entire cost of the investment for the works and it will not perform the reception of the investment	The investor
<i>Input resources</i>	The risk that the necessary resources for the construction of the center and sports ground to cost more than anticipated, not to have an adequate quality or quantity	Cost increases and in some cases negative effects on service quality	The contractor can manage risk through long-term supply contracts with specific provisions. Partly, this can be resolved at the level of the design phase	The contractor
<i>Maintenance and repair</i>	The quality of design and / or works to be inadequate, resulting to increases higher than forecasted of the maintenance and repairs costs	Increasing the cost with negative effects of using the parks	The investor can manage the risk by contractual provisions guaranteeing the work performed by the contractor	The investor
<i>Technical capacity</i>	The contractor does not have the technical capacity	Failure of the Brosteni town hall to	The investor examines in detail	The Contractor



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Risk category	Description	Consequences	Elimination	The person in charge of risk management
	to achieve the execution of the investment	achieve constructing the center and the sports ground.	the technical and financial capacity of the contractor	
<i>Old or inadequate technical solutions</i>	The proposed technical solutions are not appropriate in terms of technology	All the expected benefits are greatly diminished	The investor can manage risk through contractual clauses relating to quality of work	The investor
Financial risks				
<i>Unavailable funding</i>	The risk that the financier can not provide financial resources when needed and in sufficient amounts	Lack of funding for the continuation or completion of the investment	The investor will consider carefully his financial commitments and compliance with the investment planning	The investor
<i>Mispricing of the investment value and operating costs</i>	The investment and operating costs are understated	The investor can not provide the investment financing	The investor can use its own financial resources (if available) to cover the additional costs. Also the investor may seek other sources of funding.	The investor
<i>Inflation</i>	The real value of payments over time is diminished by inflation	The decrease in real terms of the contractor's revenues	The contractor will seek an appropriate mechanism to offset inflation. The investor will accept indexation clauses in the contract.	The investor The contractor
Institutional risks				
<i>Changing the amount of taxes</i>	The risk that the tax regime changes during the project disadvantaging the investor.	Negative impact on the financial revenues of the investor.	Investor's revenues should allow the cover of the unfavorable differences, up to an amount determined through the agreement between the parties.	The investor
<i>Withdraw of the governmental support</i>	If the facility is based on a complementary support if the governmental body withdraws its support it affects the project negatively.	Consequences on the project financing sources	The investor will try to recover financially the project after the changes affect the project discriminatorily.	The investor and the other project beneficiaries
Legal risks				
<i>Legislative / Policy changes</i>	Legislative and policy changes of the government authorities can not be anticipated, when signing	A significant increase in the operational costs of the investor and / or the need to	Political lobbying at the level of the public authorities at higher levels of the	The investor



Risk category	Description	Consequences	Elimination	The person in charge of risk management
	the contract and the manner affecting the investment directly, fact leading to additional operational and capital costs of the investor	make capital expenditures in order to respond to these changes	government bodies, in order to prevent regulations with negative impacts on the project	

These concrete risk management measures are proposed for the identified risks in order to mitigate or eliminate their negative effects:

Internal risks

1. According to the performed sensitivity analysis, the most sensitive input factor is the investment expenditures, an increase of 1% causing a decrease by 1,88% of the NPV and a 2,93% decrease of the IRR. In order to avoid this situation, it is mandatory for the beneficiary to identify and adopt appropriate solutions, both in financial terms, and in terms of respecting the set deadlines.
2. The contractor can abandon work. In order to prevent these situations, the specifications listed in the project must be well prepared to establish rights and obligations of the contractor.
3. During the construction phase, there is a risk of *improper execution of the contracted work*, leading to a delay in the implementation and increase of the cost of the works of the center's execution. **Actions:**
 - ✓ When you select the contractor through the public procurement procedure, it is mandatory to take into account if it has the resources and technical capacity to fit the manufacturing requirements. The reason is that the investor (the Brosteni town hall) will be party to a contract with values and time limits, and the possible consequences of this risk would be the delay in implementation and the increase of the investment costs. It will also designate a site master with experience in this type of technical execution.
4. *Failure to respect execution schedule* is another risk deriving from the one mentioned in paragraph 1. So, on reception investment, another risk can be identified, namely *the risk of delays in carrying out reception by contractor's fault*. **Actions:**
 - ✓ In order to eliminate the negative effects on the investor (delays in using the center), it will stipulate in the contract penalties for any delays due to the contractor;
 - ✓ At the same time, the payment of the entire work will not be done until the reception of the investment (if delays occur, the amounts due shall be reduced by rigorous penalties under the contract).
5. There is a risk that *the necessary resources to build the tourist center from Lupsa de Jos to cost more than it was anticipated, not have the adequate quality or the required quantity to be unavailable*. **Actions:**
 - ✓ The contractor can manage this risk through long-term supply contracts with specific clauses regarding quality assurance supplies. Partly, this can be resolved also from the design phase.
6. There is a risk for *inadequate design and/ or work*, leading to unexpected increases of the maintenance and repair expenses. **Actions:**
 - ✓ The investor (the Brosteni town hall) will include into their contracts, which they will sign with the technical designer and contractor warranty clauses regarding the performed works.
7. There is a risk that the *beneficiary cannot provide timely financial resources and in sufficient amounts (ineligible expenditures)*, which will make it impossible to use the village tourist center from Lupsa de Jos as intended by the project. **Actions:**



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- ✓ The performing of an analysis by the investor (the Brosteni town hall) regarding its commitments necessarily to be taken into account before programming the investment to be build: the Lupsa de Jos touristic center.

External risks

8. *Economical external risks* aim the negative effects of increased inflation rates, rising prices of the construction materials, which will lead to the decrease of the contractor's real income, following the receipt of the executed work, and for the beneficiary, increasing investment costs, in case the contract between the beneficiary and the contractor provides rectifying price clauses. **Actions:**

- ✓ In order to conserve the real value gains from the execution of the tourist center from Lupsa de Jos, the contractor will seek to mention in the contract he concludes with the beneficiary, a price indexation clause, as follows:

$$P_1 = P_0 \times (1 + d/100 + r/100)^n$$

where:

P_1 – equivalent price;

P_0 – initial price;

d – interest rate;

r – inflation rate;

n – number of years.

- ✓ Depending on the evolution of the average annual price of raw materials, specific construction works materials, the beneficiary will provide resources to cover the increase of these prices (own funds or raised).

9. *External risks of a political nature* aim at adopting unfavorable measures (in profit tax, income tax and the VAT rate change), which could lead to a decrease in investments, of entrepreneurial initiatives, of motivation of the work force, the diminishing of the standard of living. In this context, funds raised to the local budget will be reduced, and the share for financing the project will be lower. **Actions:**

- ✓ Political lobby at the level of central public authorities, in order to maintain unchanged the regulatory actions, which can negatively impact the project.

10. *External social risks* aim the increase of labor costs and some trade union movement in construction.

Actions:

- ✓ The beneficiary will ensure the start of the public procurement procedure so that only a construction company with a certain reputation and experience can win.

G. ANALYSIS RECAPITULATION

The proposed investment project refers to the realization of a touristic center for cultural and sports activities in Lupsa de Jos village, Brosteni township, Mehedinți county.

The period of the works specific to the project is 20 months.

The total costs of the investment are estimated at 3.138.661 lei including VAT (2.624.806 lei without VAT).

The cost-benefit analysis was realized in order to offer an evaluation of the financial costs and benefits in the situation "without project" and in situation "with project" and to underline the net situation between those two situations.



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The situation "**Option 0 – Maintaining the status quo**" is represented by the current situation in which there is no touristic center, to host cultural activities, only an old cultural center, which finds itself in an advanced state of degradation.

The situation "**Option 1**" aims to carry out the following activities:

- the construction of a building, a tourist center, designed to host organized touristic cultural events from which a large number of tourists can benefit:
- the construction of a sporting platform (a sports ground) for practicing amateur football.

The situation "**Option 2**" provides the rehabilitation of the existent cultural center, where cultural events can be hosted, but it does not assume the built of the sporting ground, because the surface of the ground is not sufficient. Moreover, the existent cultural center itself has a limited surface, insufficient for the proposed objective, and the extension of the actual building is difficult.

In projecting the life cycle of the project a period of 15 years is taken into account, after the completion of works (15 months – considered from year 0 and year 1 – 4 months of analysis).

As a result of the financial analysis, the obtained values for the relevant feasibility factors of an investment are:

- ✓ the financial net present value (FNPV/C): -2.029.878,77 lei
- ✓ financial internal rate of return (FIRR): -2,97%
- ✓ VANF/K : -40.598 lei
- ✓ RIRF/K : -2,97%

In these conditions the recommendations regarding the elaboration of cost-benefit analysis of the Cross-Brder Cooperation Programme Romania-Serbia are respected.

Based on the conclusions from the cost-benefit analysis regarding the construction of a touristic center and a sports ground in Lupsa de Jos village, Brosteni township, Mehedinti county it is recommended that the project be approved to be financed.

Ec. Gabriel Bizoi



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5. SOURCES OF FUNDING INVESTMENT

Funding will come from budgetary sources and funds.

6. Estimates of labour employed by the carrying out the investment

6.1. Number of jobs created in the execution phase

In the execution phase will not create new jobs, given that it will use contracted services and thus will use existing human resources contractor. This project will contribute to maintaining existing jobs. The company that will execute the work can provide jobs during execution of works.

6.2. Number of jobs created during the operational phase

In the operating phase is required hiring an administrator. For the remaining activities will ensure staff in the hall.

7. technical economic HIGHLIGHTS INVESTMENT

7.1. The total value (INV) including VAT (thousand)

7.2. Staggering investment (INV / C + M) – according to the graphic

Total investment values, including VAT, thousands: 1.138,6610 lei; 692,9223 euro,

by which C+M in, in thousands: 2.459,1874 lei; 542,9149 euro

7.3. Project duration (months)

18 months

7.4. Capacities (in physical units and value)

Built area = 656.20 sqm

Total surface = 656.20 sq.m.

Number of seats in the auditorium: 60

Number of parking spaces: 11

7.5. Other indicators specific to the industry in which the investment

8. approvals and agreements in principle

8.1. beneficiary's approval of investment on the need and opportunity investment

8.2. Planning certificate

8.3. Permit on the insurance of utilities (electrical and thermal energy, gas, water, sewerage, telecommunications, etc.)

8.4. Environmental Permit

8.5. Other specific approvals and agreements in principle

Drafted by,

Arch. Dan Boruga

Feasibility study

Construction of Touristic Center for Cultural and Sport Activities in Lupsa de Jos village. Brosteni commune, Mehedinti County

Evaluations

quantities required for the investment, on items

Object estimate rating

DO 00 - Organisation of site

Arranging and platform decommissioning

Quantity = 60 mp

Specific investment = 40.00 lei

Investment value = 2.400 lei

Location barracks for construction site (Site Manager office, tool storage, locker)

Quantity = 2 pcs

Specific investment = 1,200.00 lei

Investment value = 2.400 lei

Fencing location

Quantity = 200 ml

Specific investment = 10.00 lei

Investment value = 2.000 lei

Site Panel

Quantity = 1 pc

Specific investment = 550.00 lei

Investment Value = 550.00 lei

Location ecological toilets

Quantity = 2 pcs.

specific investment= 900,00 lei

Investment value = 1.800 lei

TOTAL = 9150.00 lei

Drafted by,

Arch. Dan Boru



General estimate (according to GD no. 28/2008)

regarding the expenditures necessary to achieve "Building a Tourism Center for Cultural and Sports Activities in Lupsa de Jos Village , Brosteni Commune, Mehedinti County"

Info:EUR Exchange rate in January 2016 - 1 EUR = 4.5296 RON

GENERAL TOTAL						
Of which C + M						
Chapter 1 Expenses for land obtaining and landscaping						
1,1	Obtaining land	0,0000	0,0000	0,0000	0,0000	0,0000
1,2	Land preparation	0,0000	0,0000	0,0000	0,0000	0,0000
1,3	Arrangements for environmental protection and bringing to its original state	5,0000	1,1039	1,0000	6,0000	1,3246
Total Chapter 1		5,0000	1,1039	1,0000	6,0000	1,3246
Chapter 2 Expenses for utilities necessary for the objective						
2,1	D.01 Power supply	10,7500	2,3733	2,1500	12,9000	2,8479
2,2	D.02 Water supply	179,6600	39,6635	35,9320	215,5920	47,5963
2,3	D.03 sewer connection	17,3600	3,8326	3,4720	20,8320	4,5991
TOTAL CHAPTER 2		207,7700	45,8694	41,5540	249,3240	55,0433
Chapter 3 Expenses for design and technical assistance						
3,1	Field studies	2,1000	0,4636	0,4200	2,5200	0,5563
3,2	Fees for obtaining approvals, permits and authorizations	7,3890	1,6313	0,0000	7,3890	1,6313
3,3	Design and engineering	101,0043	22,2987	13,0309	114,0351	25,1755
3,4	Organizing procurement procedures	1,0000	0,2208	0,2000	1,2000	0,2649
3,5	Consulting	61,6543	13,6114	12,3309	73,9851	16,3337
3,6	Technical support	30,8271	6,8057	6,1654	36,9926	8,1668
Total Chapter 3		203,9746	45,0315	32,1471	236,1218	52,1286
Chapter 4 Expenses for the basic investment						
4,1 Construction and Installation						
4.1.1	DO 04 - Construction and facilities common for the main building	1.346,2010	297,2009	269,2402	1.615,4412	356,6410
4.1.2	DO 05 - Exterior arrangements	339,1498	74,8741	67,8300	406,9798	89,8489
4.1.3	DO 06 - Outdoor Electrical Networks	113,4940	25,0561	22,6988	136,1928	30,0673
TOTAL CHAPTER 4.1		1.798,8448	397,1310	359,7690	2.158,6138	476,5573
4,2 Installation of technological equipment						
4.2.1	Installation of technological equipment and devices - water-supply	0,9500	0,2097	0,1900	1,1400	0,2517
	Installation of technological equipment and devices-sewer networks	3,6000	0,7948	0,7200	4,3200	0,9537
4.2.2	Installation of technological equipment and devices- DO4	13,5000	2,9804	2,7000	16,2000	3,5765
4.2.3	Installation of technological equipment and devices - DO6	10,5080	2,3199	2,1016	12,6096	2,7838
TOTAL CHAPTER 4.2		28,5580	5,7116	5,7116	34,2696	7,5657
4,3 Devices, technological and functional equipment with assembly						
4,3,1	Central heating plant on wood with gasification P = 100 kW - 1 piece	18,3000	4,0401	3,6600	21,9600	4,8481
4,3,2	Bivalent boiler for DHW 300 liters capacity - 1 piece	4,8000	1,0597	0,9600	5,7600	1,2716
4,3,3	Solar panels for DHW - 2 pieces	4,8880	1,0791	0,9776	5,8656	1,2949
4,3,4	Heating circulation pump - 1 piece	0,4590	0,1013	0,0918	0,5508	0,1216
4,3,5	DHW circulation pump 1 piece	0,2620	0,0578	0,0524	0,3144	0,0694
4,3,6	Solar Panels CirculationKit including automation - 1 piece	0,8820	0,1947	0,1764	1,0584	0,2337
4,3,7	Closed pressure expansion vessel with a capacity of 50 l - 3 pieces	0,9420	0,2080	0,1884	1,1304	0,2496
4,3,8	Continuous Source 3 kW UPS - 1 piece	1,8000	0,3974	0,3600	2,1600	0,4769
4,3,9	Recirculation Pump - 1 piece	0,2620	0,0578	0,0524	0,3144	0,0694
4,3,10	IONIFLASH type lightning with action radius 20 m 1 pc	9,2550	2,0432	1,8510	11,1060	2,4519
4,3,11	Info Kiosk - 1 piece	9,9450	2,1956	1,9890	11,9340	2,6347
4,3,12	Air conditioners 12000 Btu - 13 pcs	26,0000	5,7400	5,2000	31,2000	6,8880
4,3,13	Drilled well submersible pump- 1 piece	4,6000	1,0155	0,9200	5,5200	1,2187
4,3,14	Water meter - 1 piece	0,1890	0,0417	0,0378	0,2268	0,0501
4,3,15	Stainless steel compact wastewater treatment plant - 1 piece	35,0000	7,7270	7,0000	42,0000	9,2723
4,3,16	Hidrofor basin - 1 pc	0,8900	0,1965	0,1780	1,0680	0,2358
4,3,17	Green spaces watering submersible pump - 1 piece	0,7310	0,1614	0,1462	0,8772	0,1937
4,3,18	Fire Pump Group - 1 piece	21,5660	4,7611	4,3132	25,8792	5,7134
4,3,19	Electrical Generator 20 kVA three-phase P =	26,0000	5,7400	5,2000	31,2000	6,8880
TOTAL CHAPTER 4.3		166,7710	36,8180	33,3542	200,1252	44,1816
4,4 Devices without assembly and transport equipment						
4.4.1	Various machines					
TOTAL CHAPTER 4.4						
4,5 Facilities						
4,5,1	Facilities - Furniture and accessories for main building	60,2680	13,3054	12,0536	72,3216	15,9664
4,5,3	Fire extinction facilities	0,7000	0,1545	0,1400	0,8400	0,1854
TOTAL CHAPTER 4.5		60,9680	13,4599	12,1936	73,1616	16,1519
4,6 Intangible assets						
TOTAL CHAPTER 4		2.055,1418	447,4090	411,0284	2.466,1702	544,4565
Chapter 5 Other expenses						
5,1	Organization of construction					
5.1.1	Construction works for the site organization	9,1500	2,0200	1,8300	10,9800	2,4241
5.1.2	Expenses related logging site	7,8800	1,7397	1,5760	9,4560	2,0876
5,2	Commissions, quotas, taxes, cost of credit	0,0000	0,0000	0,0000	0,0000	0,0000
5.2.1	Commissions, fees and legal shares: 0.6% commission ISC	12,2959	2,7146	0,0000	12,2959	2,7146
5.2.2	CSC related share 0.5%	0,0000	0,0000	0,0000	0,0000	0,0000
5,3	Contingency expenses 5%	123,5943	27,2859	24,7189	148,3132	32,7431
TOTAL CHAPTER 5		152,9203	33,7602	28,1249	181,0451	39,9693
Chapter 6 Expenses for technological tests and tests and teaching the recipient						
6,1	Training the operating personnel	0,0000	0,0000	0,0000	0,0000	0,0000
6,2	Technological tests and tests	0,0000	0,0000	0,0000	0,0000	0,0000
TOTAL CHAPTER 6		0,0000	0,0000	0,0000	0,0000	0,0000
GENERAL TOTAL		2.624,8067	573,1739	513,8544	3.138,6610	692,9223
Of which C + M		2.049,3228	452,4291	409,8646	2.459,1874	542,9149

By, Arch. Dan Borugă



**Financial estimate no. 1
Land studies (3.1 DG)**

No	Denomination of chapters and subchapters of expenses	Thousands lei	Thousands euro	Thousands lei	Thousands lei	Thousands euro
1	Hydrogeological studies	0,0000	0,0000	0,0000	0,0000	0,0000
2	Mapping studies	0,0000	0,0000	0,0000	0,0000	0,0000
3	Geotechnical studies	2,1000	0,4636	0,4200	2,5200	0,5563
4	Hydrochemical study	0,0000	0,0000	0,0000	0,0000	0,0000
5	Environmental Study	0,0000	0,0000	0,0000	0,0000	0,0000
Total financial estimate no. 1		2,1000	0,4636	0,4200	2,5200	0,5563

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

**Financial estimate no. 2
Taxe pentru obtinere avize, acorduri, autorizatii (3.2 DG)**

No	Denomination of chapters and subchapters of expenses	Value		VAT	Value	
		Thousands lei	Thousands euro	Thousands lei	Thousands lei	Thousands euro
1	Certificate of urbanism and building permit	0,0000	0,0000	0,0000	0,0000	0,0000
2	Public Health Department permit	0,5000	0,1104	0,0000	0,5000	0,1104
3	SGA Permit	0,0000	0,0000	0,0000	0,0000	0,0000
4	Environmental Permit	0,5000	0,1104	0,0000	0,5000	0,1104
5	Power supply approval	4,5000	0,9935	0,0000	4,5000	0,9935
6	Environmental Operating Permit	1,0000	0,2208	0,0000	1,0000	0,2208
7	SGA Operating Permit	0,0000	0,0000	0,0000	0,0000	0,0000
8	DSP Operating Permit	0,3890	0,0859	0,0000	0,3890	0,0859
9	Romtelecom Permit	0,5000	0,1104	0,0000	0,5000	0,1104
10	County roads permit	0,0000	0,0000	0,0000	0,0000	0,0000
11	Natural parks permit	0,0000	0,0000	0,0000	0,0000	0,0000
Total financial estimate no. 2		7,3890	1,6313	0,0000	7,3890	1,6313

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

**Financial estimate no. 3
Design and engineering (3.3 DG)**

No	Denomination of chapters and subchapters of expenses	Thousands lei	Thousands euro	Thousands lei	Thousands lei	Thousands euro
1	Feasibility study	35,8500	7,9146	0,0000	35,8500	7,9146
2	Technical design and execution details	61,6543	13,6114	12,3309	73,9851	16,3337
3	Technical check MLPTL, ISU	3,5000	0,7727	0,7000	4,2000	0,9272
4	Environmental Impact Study	0,0000	0,0000	0,0000	0,0000	0,0000
Financial estimate no. 3		101,0043	22,2987	13,0309	114,0351	25,1755

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

**Financial estimate no. 4
Organizing procurement procedures (3.4 DG)**

No	Denomination of chapters and subchapters of expenses	Thousands lei	Thousands euro	Thousands lei	Thousands lei	Thousands euro
1	Expenses for documentation	0,0000	0,0000	0,0000	0,0000	0,0000
2	Internal expenses commission	0,0000	0,0000	0,0000	0,0000	0,0000
3	Advertising expenses	1,0000	0,2208	0,2000	1,2000	0,2649
Total financial estimate no. 4		1,0000	0,2208	0,2000	1,2000	0,2649

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

**Financial estimate no. 5
Consulting (3.5 DG)**

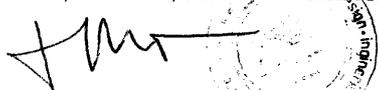
No	Denomination of chapters and subchapters of expenses	Value		VAT	Value	
		Thousands lei	Thousands euro	Thousands lei	Thousands lei	Thousands euro
1	Expenses for consulting services to prepare the funding application	0,0000	0,0000	0,0000	0,0000	0,0000
2	Expenses for consulting services in investment management and administration contract execution	61,6543	13,6114	12,3309	73,9851	16,3337
3	Other expenses	0,0000	0,0000	0,0000	0,0000	0,0000
Financial estimate no. 5		61,6543	13,6114	12,3309	73,9851	16,3337

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

**Financial estimate no. 6
Technical assistance (3.6 DG)**

No	Denomination of chapters and subchapters of expenses	Thousands lei	Thousands euro	Thousands lei	Thousands lei	Thousands euro
1	Technical Assistance Designer	10,2757	2,2686	2,0551	12,3309	2,7223
2	Technical surveillance - site inspectors	20,5514	4,5371	4,1103	24,6617	5,4446
Financial estimate no. 6		30,8271	6,8057	6,1654	36,9926	8,1668

Euro Exchange 4,5296 lei / euro since Ianuarie 2016



**Object Estimate no. 1 (according to the GD no. 28/2008)
of hte object "power supply -new connections and metering" (2.1 DG)
in thousands lei / euro at 4.5296 lei thousand euro since January 2016**

I. Construction Work						
1	Excavation	0,0000	0,0000	0,0000	0,0000	0,0000
2	Power supply for the objective (located inside the lot)	8,7000	1,9207	1,7400	10,4400	2,3048
3	Power supply for the objective (of the outside lot)	2,0500	0,4526	0,4100	2,4600	0,5431
4	Other installations	0,0000	0,0000	0,0000	0,0000	0,0000
Total I estimate the object no. 1		10,7500	2,3733	2,1500	12,9000	2,8479
5	Mounting machinery and technological equipment	0,0000	0,0000	0,0000	0,0000	0,0000
Total II estimate the object no. 1		0,0000	0,0000	0,0000	0,0000	0,0000
II. PROCUREMENT						
6	Machinery and technological equipment	0,0000	0,0000	0,0000	0,0000	0,0000
7	Features	0,0000	0,0000	0,0000	0,0000	0,0000
Total III estimate the object no. 1		0,0000	0,0000	0,0000	0,0000	0,0000
TOTAL (TOTAL I + TOTAL II + TOTAL III)		10,7500	2,3733	2,1500	12,9000	2,8479

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

**Estimate Object no. 2 (according to the GD no. 28/2008)
object "Water supply" (2.2 DG)
in thousands lei / euro at 4.5296 lei thousand euro since January 2016**

I. Construction Work						
1	Networks interiors precincts water supply	89,6600	19,7942	17,9320	107,5920	23,7531
2	Construction of 56 m underground rezervor	75,0000	16,5578	15,0000	90,0000	19,8693
3	20 m underground Engineering rezervor	15,0000	3,3116	3,0000	18,0000	3,9739
Total I object estimate no. 2		179,6600	39,6635	35,9320	215,5920	47,5963
II. MOUNTING						
4	Mounting machinery and technological equipment	0,9500	0,2097	0,1900	1,1400	0,2517
5	Mounting machinery and technological equipment	0,0000	0,0000	0,0000	0,0000	0,0000
6	Mounting machinery and technological equipment	0,0000	0,0000	0,0000	0,0000	0,0000
Total II object estimate no. 2		0,9500	0,2097	0,1900	1,1400	0,2517
II. PROCUREMENT						
7	Drilled well submersible pump- 1 piece	4,6000	1,0155	0,9200	5,5200	1,2187
8	Water meter - 1 piece	0,1890	0,0417	0,0378	0,2268	0,0501
9	Hidrofor basin - 1 pc	0,8900	0,1965	0,1780	1,0680	0,2358
Total III object estimate t no. 2		5,6790	1,2538	1,1358	6,8148	1,5045
TOTAL (TOTAL I + TOTAL II + TOTAL III)		186,2890	41,1270	37,2578	223,5468	49,3524

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

**Estimate Object no. 3 (according to the GD no. 28/2008)
object "sewerage network" (2.3 DG)
in thousands lei / euro at 4.5296 lei thousand euro since January 2016**

No	Denomination of chapters and subchapters of expenses	Value (including VAT)		VAT	Price (including VAT)	
		Thousands lei	Thousands euro		Thousands lei	Thousands lei
1	2	3	4	5	6	7
I. CONSTRUCTION WORKS						
1	Drainage network	17,3600	3,8326	3,4720	20,8320	4,5991
2	Sewerage Network	0,0000	0,0000	0,0000	0,0000	0,0000
3	Installations	0,0000	0,0000	0,0000	0,0000	0,0000
Total I object estimate no. 3		17,3600	3,8326	3,4720	20,8320	4,5991
II. MOUNTING						
4	Mounting machinery and technological equipment	3,6000	0,7948	0,7200	4,3200	0,9537
Total II object estimate no. 3		3,6000	0,7948	0,7200	4,3200	0,9537
II. PROCUREMENT						
5	Submersible pump for watering green spaces - 1 piece	0,7310	0,1614	0,1462	0,8772	0,1937
6	Compact stainless steel wastewater treatment plant - 1 piece	35,0000	7,7270	7,0000	42,0000	9,2723
Total III object estimate no. 3		35,7310	7,8883	7,1462	42,8772	9,4660
TOTAL (TOTAL I + TOTAL II + TOTAL III)		56,6910	12,5157	11,3382	68,0292	15,0188

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

Estimate Object no. 4 (according to the GD no. 28/2008)
object "Construction and installations common for the main building" (4.1.1 DG)
in thousands lei / euro at 4.5296 lei thousand euro since January 2016

1	Resistance structure	541,3650	119,5172	108,2730	649,6380	143,4206
2	Architecture	561,0510	123,8633	112,2102	673,2612	148,6359
3	Common indoor installations	209,9840	46,3582	41,9968	251,9808	55,6298
4	Construction annex building including installations	19,2960	4,2600	3,8592	23,1552	5,1120
5	Fire extinction installations	14,5050	3,2023	2,9010	17,4060	3,8427
6	Fire detection installations	0,0000	0,0000	0,0000	0,0000	0,0000
7	Other Installations	0,0000	0,0000	0,0000	0,0000	0,0000
Total I object estimate no. 4		1.346,2010	297,2009	269,2402	1.615,4412	356,6410
II. MOUNTING						
8	Mounting machinery and technological equipment	13,5000	2,9804	2,7000	16,2000	3,5765
Total II object estimate no. 4		13,5000	2,9804	2,7000	16,2000	3,5765
II. PROCUREMENT						
9	Central heating plant on wood with gasification P = 100 kW - 1 piece	18,3000	4,0401	3,6600	21,9600	4,8481
10	Bivalent boiler for DHW 300 liters capacity - 1 piece	4,8000	1,0597	0,9600	5,7600	1,2716
11	Solar panels for DHW - 2 pieces	4,8880	1,0791	0,9776	5,8656	1,2949
12	Heating circulation pump - 1 piece	0,4590	0,1013	0,0918	0,5508	0,1216
13	DHW circulation pump - 1 piece	0,2620	0,0578	0,0524	0,3144	0,0694
14	Solar Panel Circulation Kit including automation - 1 piece	0,8820	0,1947	0,1764	1,0584	0,2337
15	Closed pressure expansion vessel with a capacity of 50 l - 3 pieces	0,9420	0,2080	0,1884	1,1304	0,2496
16	Recirculation pump- 1 pc x 262 lei / pc	0,2620	0,0578	0,0524	0,3144	0,0694
17	Continuous Source UPS 2kW - 1 piece	1,8000	0,3974	0,3600	2,1600	0,4769
18	Info Kiosk - 1 piece	9,9450	2,1956	1,9890	11,9340	2,6347
19	FEATURES-furniture and furnishings main building	60,2680	13,3054	12,0536	72,3216	15,9664
20	Fire Pump Group - 1 piece	21,5660	4,7611	4,3132	25,8792	5,7134
21	Electrical Generator 20 kVA three-phase P =	26,0000	5,7400	5,2000	31,2000	6,8880
22	Air conditioning equipment	26,0000	5,7400	5,2000	31,2000	6,8880
Total III object estimate no. 4		176,3740	38,9381	35,2748	211,6488	46,7257
TOTAL (TOTAL I + TOTAL II + TOTAL III)		1.536,0750	339,1193	307,2150	1.843,2900	406,9432
Euro Exchange 4,5296 lei / euro since Ianuarie 2016						

Estimate Object no. 5 (according to the GD no. 28/2008)
object "Exterior arrangements" (4.1.2 DG)
in thousands lei / euro at 4.5296 lei thousand euro since January 2016

1	Walkways, sidewalks and concrete pedestrian platforms	63,3150	13,9781	12,6630	75,9780	16,7737
2	Parking roadways and alleys paved with crushed stone	26,0700	5,7555	5,2140	31,2840	6,9066
3	Surface of synthetic turf for sports field	154,5840	34,1275	30,9168	185,5008	40,9530
4	Fenced sports ground, h = 4 / 6m	15,2950	3,3767	3,0590	18,3540	4,0520
5	Green spaces	16,3850	3,6173	3,2770	19,6620	4,3408
6	Crushed stone platform for sports field	8,4708	1,8701	1,6942	10,1650	2,2441
7	Fenced enclosure	25,8400	5,7047	5,1680	31,0080	6,8456
8	Network for watering green spaces	26,0300	5,7466	5,2060	31,2360	6,8960
9	Concrete Platform for generator	3,1600	0,6976	0,6320	3,7920	0,8372
Total I object estimate no. 5		339,1498	74,8741	67,8300	406,9798	89,8489
II. MOUNTING						
10	Mounting machinery and technological equipment	0,0000	0,0000	0,0000	0,0000	0,0000
Total II object estimate no. 5		0,0000	0,0000	0,0000	0,0000	0,0000
II. PROCUREMENT						
11	FIRE EXTINGUISHING FACILITIES	0,7000	0,1545	0,1400	0,8400	0,1854
12	FACILITIES	0,0000	0,0000	0,0000	0,0000	0,0000
Total III object estimate no. 5		0,7000	0,1545	0,1400	0,8400	0,1854
TOTAL (TOTAL I + TOTAL II + TOTAL III)		339,8498	75,0287	67,9700	407,8198	90,0344
Euro Exchange 4,5296 lei / euro since Ianuarie 2016						




Estimate Object No. 6 (according to the GD no. 28/2008)
object "Exterior electrical networks" (4.1.3 DG)
in thousands lei / euro at 4.5296 lei thousand euro since January 2016

I. CONSTRUCTION						
1	Exterior Electrical Networks	108,6940	23,9964	21,7388	130,4328	28,7957
2	Exterior protection installations	4,8000	1,0597	0,9600	5,7600	1,2716
3	Sewers	0,0000	0,0000	0,0000	0,0000	0,0000
Total I object estimate no. 6		113,4940	25,0561	22,6988	136,1928	30,0673
II. MOUNTING						
4	Installation Equipment	10,5080	2,3199	2,1016	12,6096	2,7838
Total II object estimate no. 6		10,5080	2,3199	2,1016	12,6096	2,7838
III. PROCUREMENT						
5	IONIFLASH type lightening with action radius 20 m 1 pc	9,2550	2,0432	1,8510	11,1060	2,4519
Total III object estimate no. 6		9,2550	2,0432	1,8510	11,1060	2,4519
TOTAL (TOTAL I + TOTAL II + TOTAL III)		133,2570	29,4192	26,6514	159,9084	35,3030

Exchange 4,5296 lei / euro since Ianuarie 2016

Estimate Object No. 7 (according to the GD no. 28/2008)
object "Organization of site (5.1 DG)
in thousands lei / euro at 4.5296 lei thousand euro since January 2016

I. CONSTRUCTION						
1	Arranging and platform decommissioning	2,4000	0,5298	0,4800	2,8800	0,6358
2	Location barracks for construction site (Site Manager office, tool storage,	2,4000	0,5298	0,4800	2,8800	0,6358
3	Fencing	2,0000	0,4415	0,4000	2,4000	0,5298
4	Construction panel	0,5500	0,1214	0,1100	0,6600	0,1457
5	Location for ecological toilets	1,8000	0,3974	0,3600	2,1600	0,4769
Total I object estimate no. 7		9,1500	2,0200	1,8300	10,9800	2,4241
II. MOUNTING						
6	Mounting machinery and technological equipment	0,0000	0,0000	0,0000	0,0000	0,0000
Total II object estimate no. 7		0,0000	0,0000	0,0000	0,0000	0,0000
III. PROCUREMENT						
7	Features	0,0000	0,0000	0,0000	0,0000	0,0000
8	Features	0,0000	0,0000	0,0000	0,0000	0,0000
9	Features	0,0000	0,0000	0,0000	0,0000	0,0000
Total III object estimate no. 7		0,0000	0,0000	0,0000	0,0000	0,0000
TOTAL (TOTAL I + TOTAL II + TOTAL III)		9,1500	2,0200	1,8300	10,9800	2,4241

Euro Exchange 4,5296 lei / euro since Ianuarie 2016

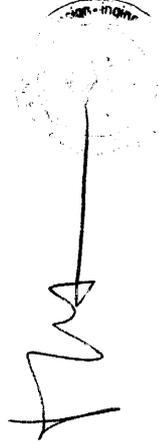
 

Dan Boruḡă Birou Individual de Arhitectura - Drobeta Turnu Severin
 Building a Tourism Center for Cultural and Sports Activities
 Lupșa de Jos, comuna Brosteni, jud. Mehedinți

GENERAL SCHEDULE OF REALIZATION OF PUBLIC INVESTMENT (THOUSANDS RON)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2 Design and engineering, field studies, fees for obtaining approvals, permits and authorizations																				
3 Consulting and technical assistance																				
4 Land arrangements																				
5 Arrangements for environmental protection and bringing to its original state																				
6 Power supply																				
7 Water supply																				
8 Sewerage connection																				
9 Architecture																				
10 Structure																				
11 Common interior installations																				
12 Exterior electrical installations																				
13 Exterior arrangements																				
14 Installation of technological equipment																				
15 Installation of technological equipment																				
16 Devices, technological and functional equipments with assembly																				
17 Functional and technological equipment																				
18 Site organization																				
19 Construction works for the site organization																				
20 Expenses related to logging site																				

By, Arch. Dan Boruḡă



Object estimate rating

DO 01 - Power supply

Power supply of the objective (located inside the lot)

Cable 0.4 kW

Quantity = 0.02 km

Specific investment = 205,000.00 lei / km

Investment value = 4.100 lei

Consumer cubicle branching point

Quantity = 1 pc

Invest specify = 4.600 lei / pc

Value Invest = 4.600 lei

TOTAL = 8700.00 lei

Power supply of the objective (located the outside lot)

Cable 0.4 kW

Quantity = 0.01 km

Specific investment = 205,000.00 lei / km

Investment value = 2.050 lei

TOTAL = 2050.00 lei

TOTAL = 10750.00 lei

Drafted,

Ing. Cristian Drăgulea



Object estimate rating

DO 02 - Water supply

Interior inside networks of water supply

Construction of underground fire water tank with V = 56 cm - 1 pc = 75.000 lei

Construction of reservoir for conventional clean water, underground capacity 20 cubic meters – 1 pc = 15.000 lei

Manual filling

Quantity = 40 ml

Specific Investment = 32 lei / ml

Investment value = 1.280 lei

Polyethylene pipe Dn 32 mm

Quantity = 40 ml

Specific Investment = 25 lei / ml

Value investment = 1000 lei

Branching hearth drilled water, pumping group and fire water pump station

Quantity = 1 pc

Specific investment = 3.350 lei / pc

Investment value = 3.350 lei

Deep drilled well

Quantity = 170 ml

Specific investment = 450 lei / ml

Investment Value = 76,500 lei

Polyethylene pipe Dn 40 (pipeline)

Quantity = 170 ml

Specific Investment = 25 lei / ml

Investment value = 4.250 lei

Mounting deep well pump

Quantity = 1 pc

Specific investment = 400 lei

Value investment = 400 lei

Installation vessel pump

Quantity = 1 pc

Specific investment = 400 lei

Value investment = 400 lei

Water meter installation Dn 32

Quantity = 1 pc

Specific investment = 150 lei

Value investment = 150 lei

TOTAL = 180,610.00 lei

From the C = 179,660.00 lei

M = 950,00 lei

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Object estimate rating

DO 03 - Sewerage network

Drainage network

Manual excavation

Quantity = 60 ml

Specific Investment = 82 lei / ml

Investment value = 4.920 lei

Manual excavation

Quantity = 40 ml

Specific Investment = 82 lei / ml

Investment value = 3.280 lei

Manual filling

Quantity = 60 ml

Specific Investment = 32 lei / ml

Investment value = 1.920 lei

PVC sewer pipe Dn 125 mm

Quantity = 60 ml

Specific Investment = 55 lei / ml

Investment value = 3.320 lei

Sewers

Quantity = 6 pieces

Specific investment = 1.200 lei / pc

Investment value = 7.200 lei

Installation of stainless steel compact wastewater treatment plant

Quantity = 1 pc

Specific investment = 3.200 lei / pc

Investment value = 3.200 lei

Green space watering pump assembly

Quantity = 1 pc

Specific investment = 400 lei / pc

Value investment = 400 lei

TOTAL = 20960.00 lei

From the C = 17360.00 lei

M = 3.600,00 lei

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Object estimate rating

DO 04 - Construction and common installations for main building and annex

Framework, main building

S (built surface) = 656.2 sq.m.

Is (specific investment) = 825.00 lei / sqm

Value [S x Is] = 541,365.00 lei

The architecture of the main building

S (GEA) = 656.2 sq.m.

Is (specific investment) = 855 lei / mp

Value [S x Is] = 561,051.00 lei

Common indoor plants main building

S (built surface) = 656.2 sq.m.

Is (specific investment) = 320.00 lei / mp

Value [S x Is] = 209,984.00 lei

Construction of annex building

S (built surface) = 36.0 sq.m.

Is (specific investment) = 536.0 euro / sq.m.

Value [S x Is] = 19296.00 lei

Assembling wood heating plant

Quantity = 1.00 pc

Specific investment = 900.00 lei / pc

Investment Value = 900.00 lei

Installation of bivalent boiler for DHW

Quantity = 1.00 pcs.

Specific investment = 400.00 lei / pc

Investment Value = 400.00 lei

Installation of Solar panels

Quantity = 2.00 pcs.

Specific investment = 400.00 lei / pc

Value investment = 800,00 lei

Heating circulation pump assembly

Quantity = 1.00 pcs.

Specific investment = 200.00 lei / pc

Investment Value = 200.00 lei

DHW circulation pump assembly

Quantity = 1.00 pcs.

Specific investment = 200.00 lei / pc

Investment Value = 200.00 lei

Mounting kit for solar panels circulation

Quantity = 1.00 pcs.

Specific investment = 400.00 lei / pc

Investment Value = 400.00 lei

Installation of closed expansion vessel

Quantity = 3.00 pcs.

Specific investment = 300.00 lei / pc

Investment Value = 900.00 lei

Mounting recirculation pump

Quantity = 1.00 pcs.

Specific investment = 200.00 lei / pc

Investment Value = 200.00 lei

Mounting UPS

Quantity = 1.00 pcs.

Specific investment = 200.00 lei / pc

Investment Value = 200.00 lei

Installation of air conditioning equipment

Quantity = 13.00 pc.

Specific investment = 200.00 lei / pc

Value investment = 2600.00 lei

Installation of info kiosk

Quantity = 1.00 pcs.

Specific investment = 400.00 lei / pc

Investment Value = 400.00 lei

TOTAL = 1,331,696.00 lei

Total installation = 7200.00 lei

TOTAL = 1,338,896.00 lei

Fire plants - exterior hydrants network

Manual excavation

Quantity = 75 ml

Specific Investment = 82 lei / ml

Investment value = 6.150 lei

Manual filling

Quantity = 75 ml

Specific Investment = 32 lei / ml

Investment value = 2.400 lei

Polyethylene pipe Dn 32 mm

Quantity = 8 ml

Specific Investment = 25 lei / ml

Value investment = 200 lei

Polyethylene pipe Dn 110 mm

Quantity = 7 ml

Specific Investment = 85 lei / ml

Value investment = 595 lei

Polyethylene pipe Dn 90 mm

Quantity = 60 ml

Specific Investment = 66 lei / ml

Investment value = 3.960 lei

Fire hydrants DN 80 mm

Quantity = 1 pc

Specific investment = 1.200 lei / pc

Investment value = 1.200 lei

Mounting fire shunt group

Quantity = 1 pc

Specific investment = 6.300 lei / pc

Investment value = 6.300 lei

TOTAL = 20805.00 lei

Of which C = 14505.00 lei

M = 6300.00 lei

TOTAL = 1,346,201.00 lei

TOTAL ASSEMBLY = 13500.00 lei

TOTAL = 1,359,701.00 lei

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Object estimate rating

DO 05 – Exterior arrangements

Walkways, sidewalks and concrete pedestrian platforms

Quantity = 201,00 sq.m.

Specific investment = 315.00 lei / mp

Investment Value = 63315.00 lei

Parking and roadways alleys paved with crushed stone

Quantity = 790,00 sq.m.

Specific investment = 33.00 lei / mp

Value investment = 26.070 lei

Synthetic turf surface for sports field

Quantity = 684.00 sq.m.

Specific investment = 226.00 lei / mp

Value investment = 154,584.00 lei

Fencing for sports ground, h = 4 / 6m

Quantity = 133.00 sq.m.

Specific investment = 115.00 lei / mp

Investment Value = 15,295 lei

Green spaces

Quantity = 1.130,00mp.

Specific investment = 14.50 lei / mp

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Investment value = 16.385 lei

Platform crushed stone for sports field

Quantity = 362.00 sqm.

Specific investment = 23.40 lei / mp

Value investment = 8470.80 lei

Enclosure fencing

Quantity = 170 ml

Specific investment = 152,00 lei / ml

Investment Value = 25840.00 lei

Green spaces network watering

Manual excavation

Quantity = 170 ml

Specific Investment = 82 lei / ml

Value investment = 13.940 lei

Manual filling

Quantity = 170 ml

Specific Investment = 32 lei / ml

Investment value = 5.440 lei

Polyethylene pipe Dn 32 mm

Quantity = 170 ml

Specific Investment = 25 lei / ml

Investment value = 4.250 lei

Watering hydrants

Quantity = 6 pieces

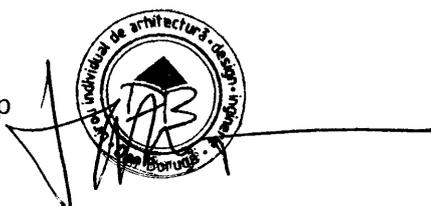
Specific investment = 400 lei / ml

Investment value = 2.400 lei

Concrete Platform for generator

Quantity = 10.00 sq.m.

Specific investment = 316,00 lei / mp



Investment value= 3160.00 lei

Total = 339,149.80 lei

Drafted,

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DO 06 – Outdoor Electrical Networks

Outdoor Electrical Networks

Manual excavation

Quantity = 218 ml

Specific Investment = 82 lei / ml

Value investment = 17.876 lei

Manual filling

Quantity = 218 ml

Specific Investment = 32 lei / ml

Investment value = 6.676 lei

0.4 kV cable

Quantity = 0.218 km

Specific investment = 205,000 lei / km

Value investment = 44.690 lei

Sports field lighting poles

Quantity = 4 pc

Specific investment = 2.863 lei / pc

Value investment = 11.452 lei

Inside lighting poles

Quantity = 8 pcs

Specific investment = 3.500 lei / pc

Investment Value = 28,000 lei

Mounting generator group

Quantity = 1 pc

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Specific investment = 3.856 lei / pc

Investment value = 3.856 lei

TOTAL = 112,550.00

From the C = 108,694.00 lei

M = 3856.00 lei

Exterior protection installations

Earthing plug

Quantity = 1 pc

Specific investment = 4.800 lei / pc

Investment value = 4.800 lei

Total = 4800.00 lei

Mounting IONIFLASH type lightning

Quantity = 1 pc

Specific investment = 6.652 lei / pc

Investment value = 6.652 lei

Total = 11452.00 lei

Of which C = 4800.00 lei

M = 6652.00 lei

General total = 124,002.00 lei

Drafted,

eng. Cristian DRĂGUT



Equipments and facilities LIST

No.	Name	Image/details	Main technical features	Quantity	Placement
Technological Equipments					
1	Heating plant with wood		Thermal power 100 kW; Gasification plant; Single phase supply; Overtension sensitive protection; Module power in output levels	1	According to the Technical Project
2	Bivalent Boiler for domestic hot water		300 liter capacity; Number of resistances 1; Vertical mounting	1	According to the Technical Project
3	Heating circulation pump		Single pumps; Maximum flow 3 mc / h; pumping height 2 mCA	1	Competitional field
4	Hot water circulation pump		Single pumps; Maximum flow 1.5 m ³ / h; Height pumping 1.2 mCA	1	According to the Technical Project
5	Solar Panels Kit		Complete equipped kit for solar panels; Expansion vessel included	1	According to the Technical Project
6	Closed expansion vessel		Expansion vessel vertical; Capacity: 50 liters	3	According to the Technical Project
7	Heating plant recirculation pump		Single pumps; Maximum flow 2MC / h; Pumping height 1.2 mCA	1	According to the Technical Project
8	Continuous Source 2 kW UPS		Monophasic source; Power 2 kW; Run Time 6:00	1	According to the Technical Project
9	IONIFLASH type Lightning		Action range 20 m; Metering device included; Lowering the ground sockets included	1	Mounted on the roof
10	Solar panels for DHW		Number of vacuum tubes 12 / panel	2	Mounted on the roof
11	Air conditioner		Mounted on wall; Cooling capacity - 12,000 Btu; Single phase supply	13	According to the Technical Project
12	Fire shunt group		Installation at home; Minimum flow 5 l / s; Number of pumps 2 + 1 (one active, one book, one pilot); Three-phase power	1	According to the Technical Project
13	Generator Group		Mounting outside; Power 20 kVA; Three phases; AAR included	1	According to the Technical Project
14	Green space watering Submersible Pump		Single pumps; Flow up to 4 m ³ / h; Height pumping two mWS	1	According to the Technical Project
15	Drilled well submersible pumps		Single pumps; Maximum flow 5 m ³ / h; Pumping height 200 mCA	1	According to the Technical Project
16	Stainless compact wastewater treatment plant		Single phase supply; Capacity 50 LE; Blower included; Picture automation included; Integral stainless steel	1	According to the Technical Project
17	Water supply plant basin		Single phase supply; Capacity 200 liters; Vertical type	1	According to the Technical Project
18	Counter drinking water		Drinking water Counter Dn 32; Outside mounting	1	According to the Technical Project
19	Athletic field lighting column		400w Halogen projectors	4	Athletic field
20	Lighting column for the premises		Independent lighting column with solar panel, 30w LED projector, accumulator, automation, 6h autonomy	8	Premises
21	Outdoor water hydrant		Buried	6	According to the Technical Project
22	Outdoor fire hydrant		Buried, Dn 80 mm size	1	According to the Technical Project

Furniture					
1	Guest chair with backrest	Natural wood appearance	Assembled size (L x l x h) : 0.54x0.45x0.79m (+/- 10%); from steel frame with the backrest and the seat made of lacquered wood	60	Screenings and performances hall
2	Ergonomic office chair	Black tapestried chair with backrest and armrest pads	Assembled size (L x l x hmax) : 0.45x0.41x1.175m (+/- 10%); nylon and metal structure; tapestry: fabric; Mechanism chair and sitting chair : fix	2	Office
3	Wall hanger	Massive wood and inox	Assembled size (L x l) : 0.60x0.04m (+/- 10%)	1	Office
4	Desk	Natural wood appearance	made from 16mm particleboard and plastic ABS edges; 0.7 x 1.5m;	2	Office
5	Dressing table with mirror		made from particleboard with plastic ABS edges; 1.85 x 0.6m; mirror with frame	2	Artists checkroom
6	Checkroom bench		1.80 x 0.45, metal frame and wood seat	4	Artists checkroom
7	Checkroom locker with 3 doors		0.9m x 0.6m x 0.90m; Metal locker with electrostatic coating; endowed with locks	6	Artists checkroom
8	Document cabinet with 5 shelves	Natural wood appearance	0.80m x 0.45m x 2,00m; from particleboard; open shelving;	4	Office
9	Buffet shelves		0.85 x 0.45 m x 2,00 m; from particleboard	3	Expresso Bar
10	Bar counter		2.70x0.60m; particleboard	1	Expresso Bar
11	Cabinets with worktop		1.20x 0.6 x 0.9m; with doors, shelves and drawers, made from particleboard	2	Expresso Bar
12	Wall cabinets		0.6x 0.6 x0.6 m; with doors, made from particleboard	2	Expresso Bar
Facilities					
1	Info kiosk		Single-phase, specific mounting foot - Touch screen with a diagonal 17-inch, Full HD 1920x1080 resolution display - 1TB HDD, USB 2.0, directly media player included - Embedded and active Loudspeakers - Windows 10 operating system, processor, fanless, minimum 2 Gb RAM - Integrated UPS - Metal Keyboard	1	Lobby
2	Microwave		20l (+/- 10%) capacity ; 800W power	1	Expresso Bar
3	Double - sided poster board divider		1.20x2.00m; metallic structure coated with OSB panels finisate with emulsion paint finish	22	Multifunctional room, to divide it
4	Fridge		Energy efficiency class A+; Volume 220 - 350l	2	Expresso Bar
5	Modular decking stage		1.05x4.00 m; metal structure; bearing capacity 150kg/sqm; with mechanical fixings between them forming a flooring for show	11	Screenings and performances hall
6	Video projector		Full HD, 2000lm; resolution 1920 x 1080; connectivity interfaces: 1 x USB (Type A) 1 x Composite In 1 x Audio in 2 x HDMI in 1 x Stereo mini-jack out	1	Screenings and performances hall
7	Projection screen		Viewable screen: 180x240cm +/- 10% ; Type: electric; vinyl screen surface	1	Screenings and performances hall
8	Laptop for video projector		Dual Core processor; Graphics: 1GB; Operating system included; 1TB HDD	1	Screenings and performances hall
9	Expo frames		50x70cm; Frame made of a composite material with glass and wall hanging system; the back is made from MDF	50	Exhibition hall
10	TV		LCD, diagonal 125-128cm	1	Exhibition hall
11	Fire Fighting Kit fully equipped		2 portable fire extinguishers, 1 pickaxe and 4 metal buckets	1	In the courtyard near the warehouse for storing wood

By, Arch. Dan Borugă

