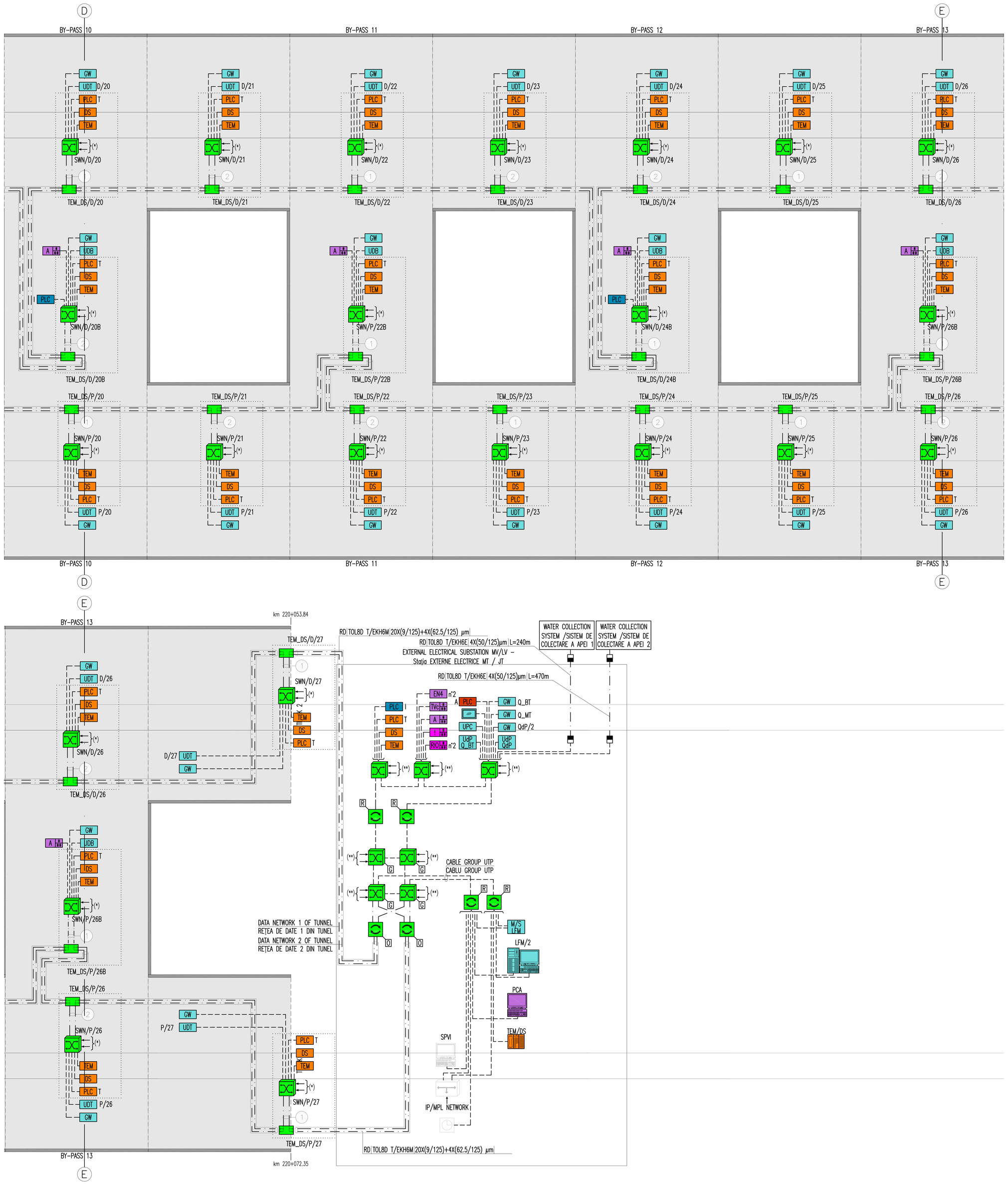


DESIGNATION EQUPIMENTS LEGEND/ LEGENDA DESEMNAREA EQUIPAMENTE

SW	PRINCIPAL SWITCH/SWITCH PRINCIPALELE
SWN	SWITCH NODE/SWITCH NOD
SWB	SWITCH OF CROSSOROADS/SWITCH LA INTERSECTIE
TEM_DS	COLUMNS TEM_DS/COLOANE TEM_DS

POSITION EQUPIMENTS LEGEND/ LEGENDA POZITIA EQUIPAMENTE

…./PE	SAFE AREA/ZONA SIGURA
…./…./D	TRACK 2/PISTA 2
…./…./P	TRACK 1/PISTA 1
……../1	PROGRESSIVE NUMBERING/PROGRESSIVE NUMEROTAREA

NETWORK LEGEND/LEGENDA OBIECTIVE

— · · —	LOW VOLTAGE NETWORK/REȚEA DE JOASA TENSIUNE (BT) 400÷230 V
— — —	ETHERNET NETWORK ON CABLE CAT6 UTP/ETHERNET PE CABLU CAT 6 UTP
— · —	ETHERNET NETWORK ON FIBER OPTIC/ETHERNET PE FIBRA OPTICA

SYMBOLS LEGEND/LEGENDA SIMBOLURI

(x)	DATA NETWORK N°/ REȚEA DE DETALII
	ACTIVE EQUIPMENT/ACTIVE UTILAJE SWITCH NODE /SWITCH NOD [G] GENERAL SWITCH TUNNEL NETWORK/SWITCH GENERALE TETEA DE TUNELUL [B] SWITCH TO CROSSROADS/SWITCH LA CROSSROADS
	PASSIVE SYSTEM PATCH/PASIV SISTEM PATCH [R] CABLE UTP CAT.6/CABLE UTP cat.6 [O] FIBER OPTIC CABLE (MULTIMODE AND–OR SINGLEMODE)/CABLU DE FIBRA OPTICA (MULTIMODE SI / SAU SINGLEMODE)
	JUNCTION AND EXTENSIONS BOX FIBER OPTIC NETWORK DATA/BOX PENTRU JONCȚIUNE ȘI RAMURĂ FIBRA DATE OPTICĂ
TEM	SPEAKER PHONE/DIFUZOR
DS	SOUND DIFFUSION/SUNETUL
A	ACCESS CONTROL AND INTRUSION DETECTION CENTRAL/CENTRAL DE CONTROLUL ACCES SI DE DETECTIE A INTRUZIUNILOR
EN4	ENCODER FOR VIDEO INPUTS N°4+N°1 SERIAL INPUT WITH ETHERNET EXIT/ ENCODER PENTRU INTRĂRILE VIDEO N°4+N°1 INTRARE SERIALĂ CU ETHERNET IEȘIRE
L	CENTRAL LOCAL TECHNICAL FIRE DETECTION–BYPASS–NICHE/CENTRAL TEHNIC LOCAL DE DETECTARE A INCENDIILOR–BYPASS–DE NISA
RO	CENTRAL FIRE DETECTION FOR OPTICAL SENSOR CABLE/CENTRAL DE DETECTARE A INCENDIULUI PENTRU CABLU SENZOR OPTIC
RIPC	RELAY "INDIRECT PROTECTION AND CONTROL (INCP)/RELEU "PROTEJEZE INDIRECT ȘI CONTROL (INCP)
UDT	UNIT PLC IN QDT/UNITATEA PLC IN QDT
UDB	UNIT PLC IN QDB/UNITATEA PLC IN QDB
UPC	UNIT PLC IN Q_MT/UNITATEA PLC IN QDB
UPP	PROTECTIONS Q_MT/PROTECȚIE Q_MT
UdP Q_BT	UNIT PLC IN Q_BT/UNITATEA PLC IN Q_BT
UdP QdP	UNIT PLC IN QdP/UNITATEA PLC IN QdP
M/S LFM	UNIT MASTER–SLAVE LFM/UNITATEA MASTER–SLAVE LFM
GW	GATEWAY ETHERNET TCP/IP–SERIAL RS485
	PANEL VIEWER/PANOULUI DE AFIȘARE
PLC	PROGRAMMABLE LOGIC CONTROLLERS (PLC)/CONTROLERE LOGICE PROGRAMABILE T – EMERGENCY TELEPHONE+SPEAKER PHONE/TELEFON DE URGENTA+DIFUZOR I – RADIOPROPAGATION GSM SYSTEM/SISTEM PROPAGARE RADIO GSM A – FIRE PROTECTION/FOC
	CLIENT
	SERVER
	CONSOLE DESK (PHONE EMERGENCY)/BIROU CONSOLĂ (EMERGENCY PHONE)
	ROUTER IP / MPL
	CENTRAL TIME SYNCHRONIZATION FROM GPS SIGNAL/CENTRAL SINCRONIZARE TIMPUL DE SEMNAL GPS
	SIGNAL CONVERTER: OPTICAL–ELECTRICAL FIBER ON MULTIMODE SEMNAL CONVERTOR: ELECTRICE–OPTICE DE FIBRA MULTIMOD

ELECTRIC CABLES INDICATORS/ INDICATORI DE CABLURI ELECTRICE

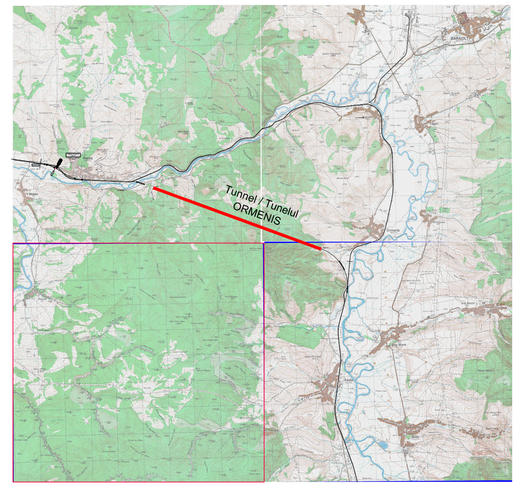
A – SYSTEM

MV	MEDIUM VOLTAGE,MEDIE TENSIUNE
BT(x)	LOW VOLTAGE/JOASA TENSIUNE (1) = 1000 V, (2) = 690 V, (3) 400/230 V;
PE	PROTECTIVE CONDUCTOR/CONDUCTORULUI DE PROTECȚIE
IE	OUTDOOR LIGHTING/ILUMINAT EXTERIOR;
RD	DATA NETWORK/REȚEA PENTRU DATE;
CA	ANTINTRUSION–ACCESS CONTROL/ANTIEFRACTIE–ACCESUL CONTROLUL;
RI	FIRE DETECTION/DE DETECTARE A INCENDIILOR; TV TVCC;
RA	RADIO GSM.

A B C D

B – CABLE TYPE/CABLU TIP
C – TRAINING CABLE/FORMAREA CABLE
D – OTHERS INFORMATIONS/INFORMAȚII SUPLIMENTARE

GENERAL PLAN / PLANUL GENERAL



Indice Index	Data Date	Modificare Modification/Revision	Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR
D					
C					
B					
A					

GUVERNUL ROMANIEI / ROMANIAN GOVERNMENT

PROIECT FINANȚAT DE UNIUNEA EUROPEANĂ / EUROPEAN UNION FINANCED PROJECT

C.N.C.F. "C.F.R." - S.A.

CLIENT / CLIENT

ITALFERR GRUPPO FERROVIE DELLO STATO Joint Venture-leader | Scott Wilson | OBERMEYER PLANEN + BERATEN GmbH | TECNIC Consulting Engineers

CONSULTANT / CONSULTANT

			Data Date	Semnătură Signature
Aprobat Approved	Șef proiect Project manager	R. Liuzza		
Aprobat Approved	Coordonator Secțiune 1 Section 1 Coordinator	C. Gambelli		
Verificat Checked	Tunel Expert Tunnel Expert	C. Gambelli		
Întocmit Elaborated	Proiectant Designer	P. Amodio		

SUBCONSULTANT / SUBCONSULTANT

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible			
Întocmit Elaborated	Proiectant Designer			

Reabilitarea liniei de cale ferata Brașov - Simeria, parte componentă a coridorului IV Pan European, pentru circulația trenurilor cu viteza maximă de 160 km/h.
Secțiune 1 Brașov - Sighișoara

Rehabilitation of the railway line Brașov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h.
Section 1 Brașov - Sighișoara

Proiect/Project 2004/RO/16/P/PA/003

Faza / Phase: P.Th. / T.D.

Denumire desen / Drawing Title : **TUNNEL/TUNELUL ORMENIS**
NATURAL TUNNEL/TUNELUL NATURAL

Radiocommunication systems/Sisteme radio
Diagrams radiocommunication systems: emergency data network /Diagrame Sistem radio: rețea de date de urgență

Codificare / Codification System

Scara / Scale -

LOT

Nr. / Nr **3/3**

EA51 01 C 10 LX TS 10 1 4 006 0