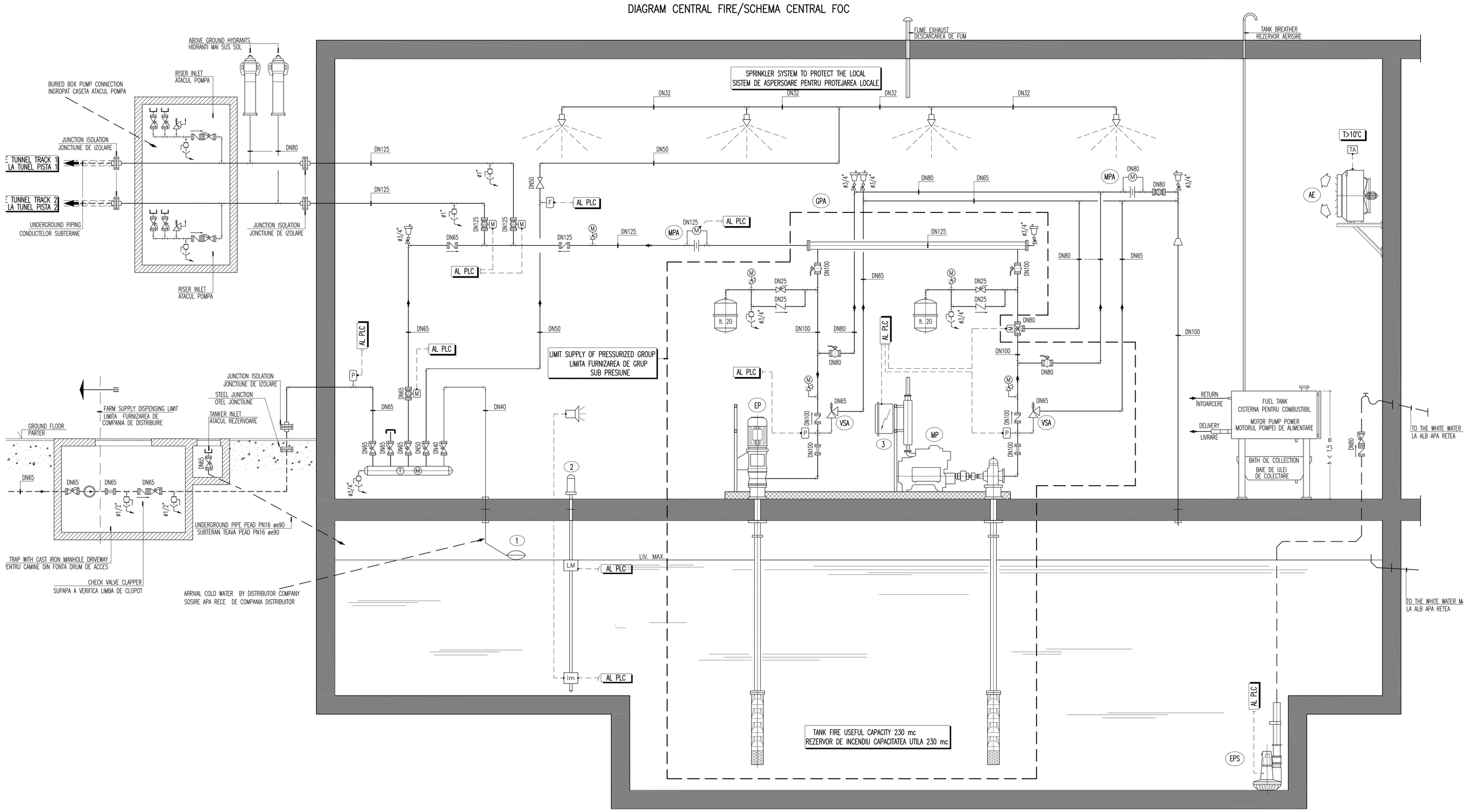
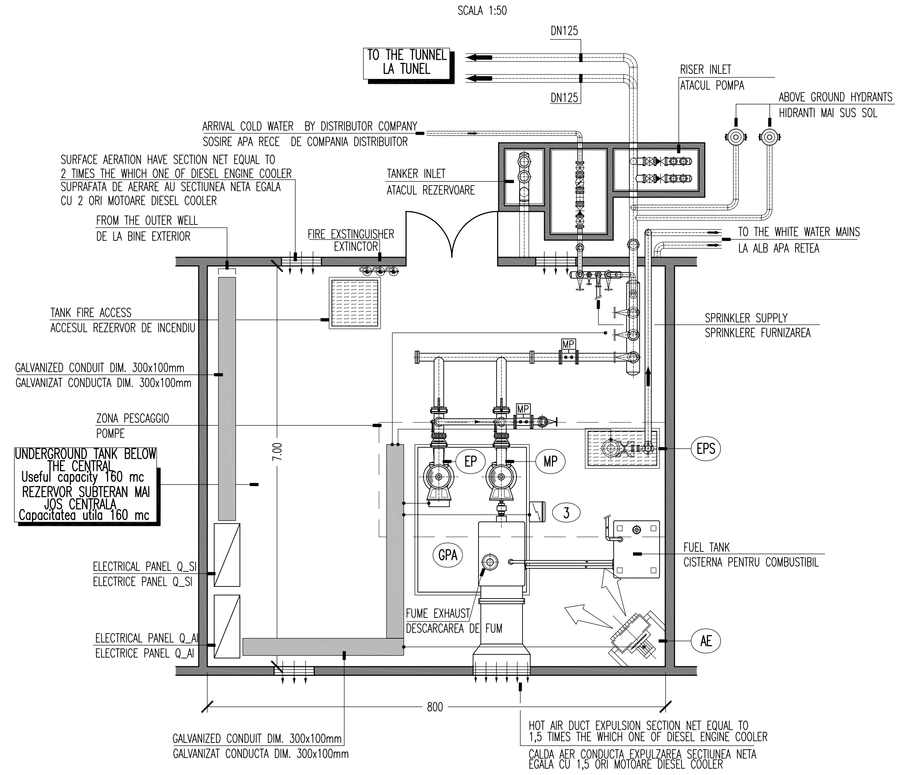
DIAGRAM CENTRAL FIRE/SCHEMA CENTRAL FOC



LAYOUT CENTRALE ANTINCENDIO

SCALA 1:50



LEGEND/LEGENDA

GPA	PRESSURE GROUP DETECTION FIRE SYSTEM WITH AXIAL FLOW PUMP IMMERSED CONSISTING OF A MAIN ELECTRIC, RESERVE PUMP, TWO TANKS OF PRESSURE FROM 20 lt, CIRCUIT RELIEF, TEST CIRCUIT MANIFOLDS, INTERCEPTION, VIBRATION TEST CIRCUIT MANIFOLDS, INTERCEPTION, VIBRATION GRUP PRESIUNEA DIN SISTEM DE DETECTARE A INCENDIULUI CU POMPA AXIAL FLOW SCUFUNDATE, ALCATUIT DINTR-O ELECTRIC PRINCIPAL,REZERVA PUMP, DOUA REZERVOARE DE PRESIUNE DIN 20 LT RELIEF CIRCUITUL ,CIRCUITUL VARETATI TEST, INTERCEPTAREA, VIBRATII
EPS	SUBMERSIBLE PUMPS FOR EMPTY TANK – POWER 1,9 kW POMPE SUBMERSIBILE PENTRU REZERVOR GOL – PUTERE 1,9 kW
MPA	FIRE WATER FLOW METER DEBITMETRULUI APA PENTRU STINGEREA INCENDIILOR
VSA	RELIEF VALVE CALIBRATION SUPAPA CALIBRARE
AE	ELECTRIC AIR HEATER WITH THERMOSTAT – THERMAL POWER 6.5 kW ELECTRICE DE ÎNCALZIRE A AERULUI CU TERMOSTAT – 6.5 kW PUTERE TERMICA
1	POWER VALVE FLOAT BOWL POMER ROBINET FLOTOR BOL
2	LEVEL/NIVEL
3	ELECTRIC STARTER MOTOR PUMP ELECTRIC STARTER MOTOR POMPA
EP	AXIAL FLOW ELECTRIC PUMP IMMERSED, PART OF PRESSURE GROUP
MP	AXIAL FLOW RESERVE PUMP IMMERSED, PART OF PRESSURE GROUP

PUMPING FEATURES:

	DELIVERY/LIVRAREA
ELECTRIC PUMP/POMPA ELECTRICA	
FLOW RATE/FLUXUL CURS:	48 mc/h
PRESSURE GAUGE/PRESIUNE GAUGE:	630 kPa
POWER/PUTERE:	30 kW
* RISER/POMPA (MP)	
FLOW RATE/FLUXUL CURS:	48 mc/h
PRESSURE GAUGE/PRESIUNE GAUGE:	630 kPa
GIRI/MIN	2900
POWER/PUTERE:	26,5 kW

LEGEND/LEGENDA

- NORMALLY CLOSED VALVE/NORMAL ÎNCHIS ROBINET
- NORMALLY OPENED VALVE/NORMAL DESCHIS ROBINET
- VALVE BALL FULL BORE PN16 – THREADED INLET
  ROBINET CU BILA COMPLET BORE PN16 – ATACUL FILETATE
- VALVE BALL FULL BORE PN16 – FLANGED INLET
  ROBINET CU BILA COMPLET BORE PN16 – ATACUL FLANSA
- BUTTERFLY VALVE – FLANGED INLET
  ROBINET FLUTURE – ATACUL FLANSA
- GATE VALVE, CAST IRON SCREW EXTERNAL PN16 – FLANGED CONNECTIONS
  GATE VALVE, CAST IRON SCREW EXTERNAL PN16 – FLANGED CONNECTIONS
- SWING CHECK VALVE – FLANGED CONNECTIONS
  SWING SUPAPA – ATACUL FLANSA
- CHECK VALVE – THREADED CONNECTIONS
  SUPAPA DE RETINERE – ATACUL FILETATE
- PRESSURE REDUCER/REDUCTOR DE PRESIUNE
- POWERED BY-PASS VALVE FOR THE OPERATION OF THE PUMP
  OPEN DURING DELIVERY AND CLOSED AT TIME OF FILLING – FLANGED CONNECTIONS
  PRESURIZATE TUB DE BYPASS PENTRU FUNCTIONARREA POMPEI
  DESCHIS ÎN TIMPUL NASTERII SI ÎNCHISA LA TIMPUL UMPLERII – FLANSA
- JOINT VIBRATION PN16 – FLANGED CONNECTIONS/MIXT VIBRATION PN16 – ATACUL FLANSA
- BALL VALVE DRAIN WITH HOSE/ROBINET CU BILA DE EVACUARE CU FURTUNUL
- FUNNEL DRAIN/FUNNEL SCURGERE
- AIR VENT VALVE WITH SHUT-OFF VALVE/AER VENT VALVE CU ROBINET DE ÎNCHIDERE
- DIAL THERMOMETER CHARGE OF INERT GASES: -10 to 50 ° C SCALE
  DIAL CHARGE TERMOMETRU DE GAZE INERTE: -10 LA 50 ° C SCALA
- DIAL GAUGE, BOURDON SYSTEM, COMPLETE THREE-WAY VALVE AND CURLY GAUGE APEL, BOURDON SISTEMUL, COMPLET TREI CA SI CÂRLIONTAT — SCALE 0-..... bar
- P — PRESSURE SWITCH/PRESOSTAT
- L — LEVEL SWITCH-(LM) MAXIMUM-(LM) MINIMUM/COMUTATOR DE NIVEL-(LM) MAXIM-(LM) MINIMUM
- F — FLOW SWITCH/FLUXUL SWITCH
- TA — TEMPERATURE SENSOR/SENZOR DE TEMPERATURA
- VE – EXPANSION VALVE CLOSED/ROBINET DE EXPANSIUNE ÎNCHIS

LEGEND/LEGENDA

- ELECTRICAL CONNECTION/CONEXIUNI ELECTRICE
- GALVANIZED STEEL PIPE FIRE/GALVANIZAT TEAVA DE OTEL FOC
- UNDERGROUND PIPE GALVANIZED STEEL COATED/TEAVA SUBTERANE ZINCATA FILMATE OTEL

* PROVIDE VENTS IN SYSTEM HIGH POINTS AND DISCHARGE IN LOW POINTS
* THE VALVES MUST BE KIND OF FLANGED/ROBINETI TREBUIE SA FIE FEL DE FLANSA:
  THE CHARACTERISTICS OF SEAL (PN) AND TEMPERATURE SHOULD BE SUITABLE FOR FLUID CONSIDERING AN INCREASE OF 20% COMPARED TO THE MAXIMUM VALUES REACHED IN THE CIRCUIT SERVED/
  CARACTERISTICILE DE FOCA (PN) SI TEMPERATURA TREBUIE SA FIE ADECVATA DE LICHID AVÂND ÎN VEDERE O CRESTERE DE 20% FATA DE MAXIME ATINSE ÎN CIRCUITUL SERVIT
* FOR ALL THE INTERCEPTION, UNLESS OTHERWISE SPECIFIED, PREDICT,/PENTRU TOATE INTERCEPTARE, CU EXCEPTIA CAZULUI ÎN CARE SE PREVEDE ALTFEL, PREDICT:
  – BUTTERFLY VALVE PN16 ON THE PRESSURE GROUP/ROBINET FLUTURE PN16 ASUPRA GRUP DE PRESIUNI
  – CAST IRON VALVES/EXPRIMATE SUPAPE DE FIER
* FORECAST FOR THE CHECK VALVES VALVES SWING/PROGNOZA PENTRU SUPAPE DE RETINERE VENTILE SWING
* THE VALVE MUST HAVE DIAMETER NOT LESS THE PIPES ON WHICH ARE INSTALLED/
  VALVE TREBUIE AU DIAMETRUL NU MAI CONDUCTELE CARE SUNT INSTALATE
* ALL WASTE, TO BE PERFORMED IN GEBERIT (MAX WATER UP TO 80 ° C) OD GALVANIZED STEEL MUST BE CONNECTED AND PIPED TO THE WELLS OR PREPARED CONDUIT /
  OATE DESEURILE, SA FIE EXECUTATE ÎN GEBERIT (MAX APA PÂNA LA 80 ° C) OTEL GALVANIZAT TREBUIE SA FIE CONECTAT SI TRANSMIS PUTURI SAU CANALE PREGATITE

PIPES/TEVI

* FIRE SYSTEM PIPING IN CENTRAL IN STEEL GALVANIZED/CONDUCTE SISTEM DE FOC IN CENTRALE IN OTEL GALVANIZAT
* FIRE SYSTEM PIPING NETWORK, GALVANIZED STEEL PLAIN END, POLYETHYLENE COATING/
  CONDUCTE SISTEM DE FOC, RETEAUA DE DISTRIBUTIE,OTEL GALVANIZAT,CAPETE NETEDE, DE ACOPERIRE DIN POLIETILENA
* UNDERGROUND PIPE GALVANIZED STEEL PLAIN END, POLYETHYLENE COATING, STAY IN SIMILAR PIPE CHARACTERISTICS
  CONDUCTA SUBTERANA, GALVANIZAT OTEL, CAPETE NETEDE, DE ACOPERIRE DIN POLITILENA, STATI IN CARACTERISTICI SIMILARE DE CONDUCTA.
* WATER SUPPLY PIPE GALVANIZED STEEL DRAWN S-S/CONDUCTA SISTEM DE APA GALVANIZAT OTEL ÎNTOCMITE S-S
* THE PIPES NOT ISOLATED OR NOT COATED, MUST BE PAINTED WITH RUST OR PRIMER IF ZINC AND TWO HANDS OF POLISH OLEOSINETICO IN TRADITIONAL SOLID (RED FIRE)
  CONDUCTE NU IZOLATE ACOPERITA SAU NU, TREBUIE SA FIE VOPSITE CU RUST SAU PRIMER SI ZINC DACA DOI MÂINILE DE TRADITIONALE POLONEZA (ROSU FOC)

INSULATION/IZOLATIE

* COLD WATER: INSULATING AI CLOSED CELL, TYPE ARMAFLEX, RESISTANCE TO STEAM> 3000, THICK. 13 mm
  APA RECE: IZOLARE A CELULE ÎNCHISE, TIP ARMAFLEX, REZISTENTA LA ABUR> 3000, GROSIME 13 mm
* FINISH FOR ALL THE INSULATION WITH SHEATH IN SEMI-RIGID PVC TYPE ISOGENOPACK/
  FINISAJ PENTRU TOATE IZOLATIE CU TECII DIN PVC SEMI-RIGIDE TIP ISOGENOPACK
* CONDUCTIVITY INSULATION <0.04 W/m°C At 40° C/CONDUCTIVITATE IZOLATIE <0,04 W/m°C la 40°C
* CLASS OF REACTION TO FIRE INSULATION <1/CLASA DE REACTIE LA FOC IZOLARE <1
* THE INSULATION SHOULD BE OF APPROPRIATE TYPE TO TEMPERATURE OF FLUID THAT RUNS THE PIPELINE
  IZOLATIA TREBUIE SA FIE TIPUL POTRIVIT DE LA O TEMPERATURA DE LICHID CARE EXECUTA CONDUCTE

PLEASE NOTE THAT FOR ALL EQUIPMENT AND COMPONENTS MINIMUM MECHANICAL PN16
VA RUGAM SA RETINETI FAPTUL CA PENTRU TOATE ECHIPAMENTE S COMPONENTE MECANICE MINIME PN16

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 FINANTAT 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	Şef proiect Project manager	R. Liuzza		
Aprobat Approved	Coordonator Secţiune 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 Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă de 160 km/h.
Secţiune 1 Braşov - Sighişoara

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

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

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

Denumire desen / Drawing Title : **TUNNEL/TUNELUL ORMENIS**
RACOS SIDE/INSPRE RACOS

Emergency and fire protection systems/Sisteme de urgenţă şi de incendiu
Emergency system - Plan and schema central fire C2/Sistemul de urgenţă - Plan şi schiţă de incendiu centrale C2

Codificare / Codification System	Scara / Scale	LOT	Nr. / No
E A 5 1 0 1 C 1 0 L X T S 1 0 3 3 0 0 1 0	-		-