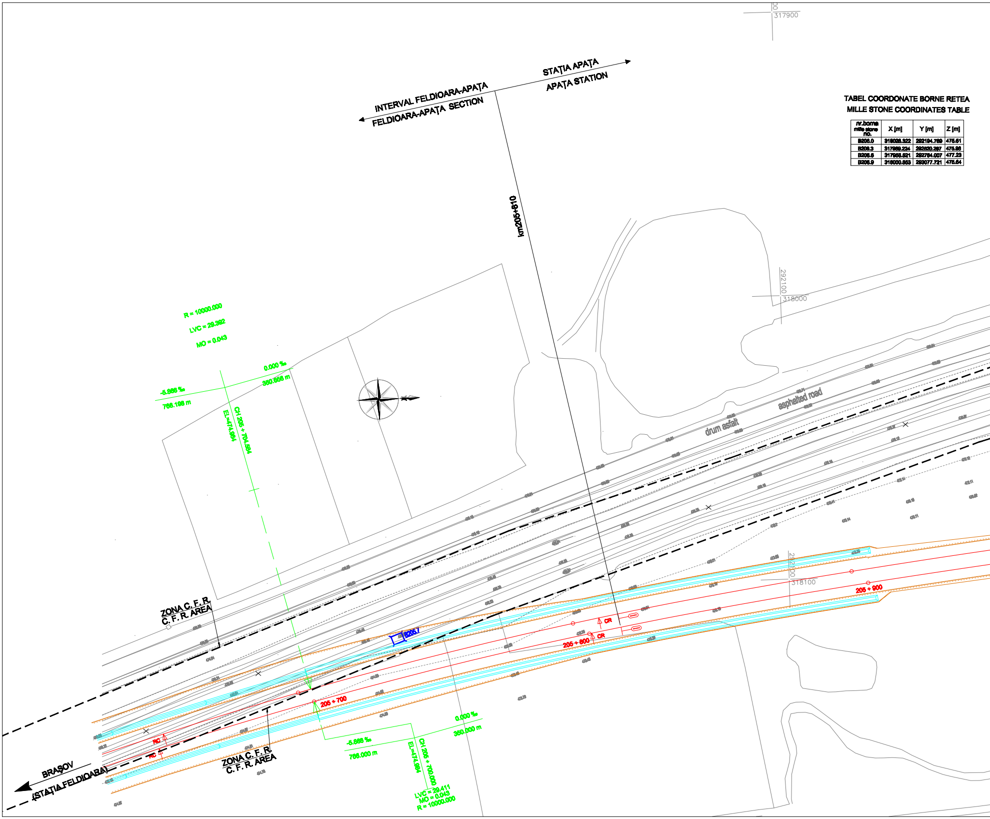
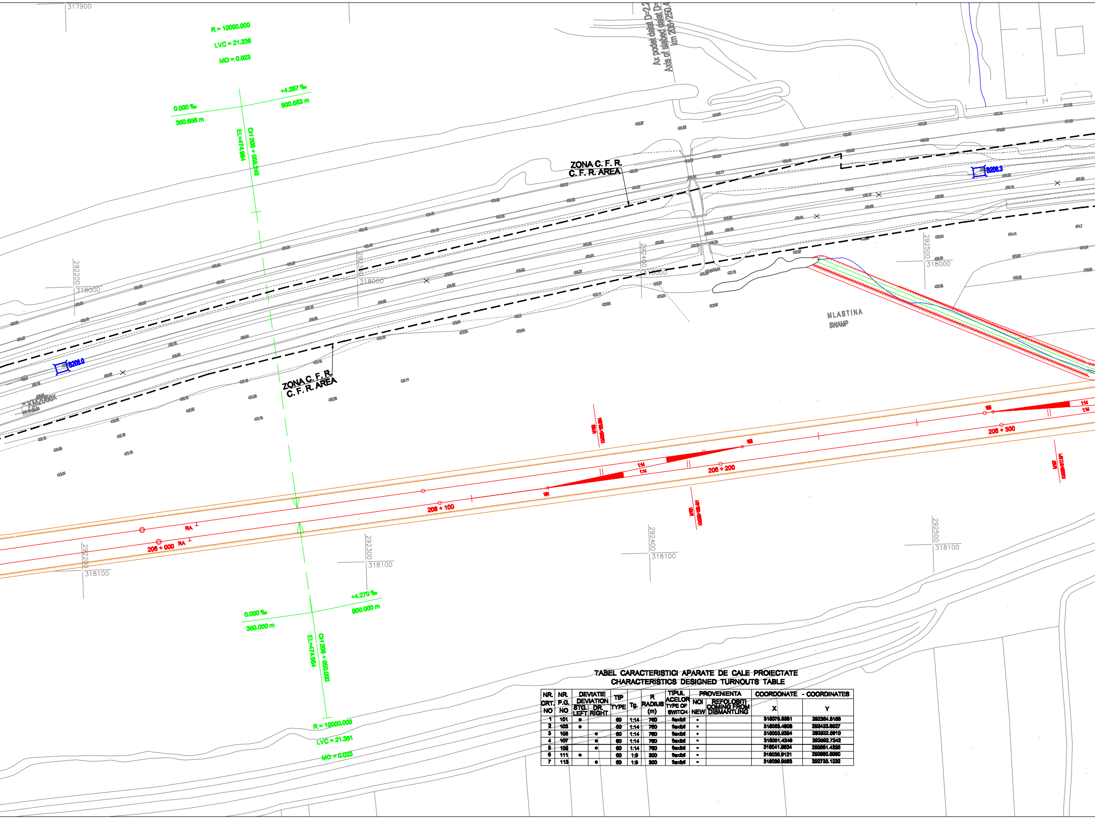

317900
INTERVAL FELDIOARA-APAȚA
FELDIOARA-APAȚA SECTION
STAȚIA APAȚA
APAȚA STATION
km205+610
292100
318000
R = 10000.000
LVC = 29.392
MO = 0.043
0.000 ‰
350.856 m
-5.868 ‰
766.198 m
CH 205 + 704.994
EL=474.994
drum asfalt
asphalted road
ZONA C. F. R.
C. F. R. AREA
B205.7
205 + 600
205 + 700
205 + 900
CR
RC
292300
318100
0.000 ‰
350.000 m
-5.868 ‰
766.000 m
CH 205 + 700.000
EL=474.994
LVC = 29.411
MO = 0.043
R = 10000.000
ZONA C. F. R.
C. F. R. AREA
BRAȘOV
(STAȚIA FELDIOARA)

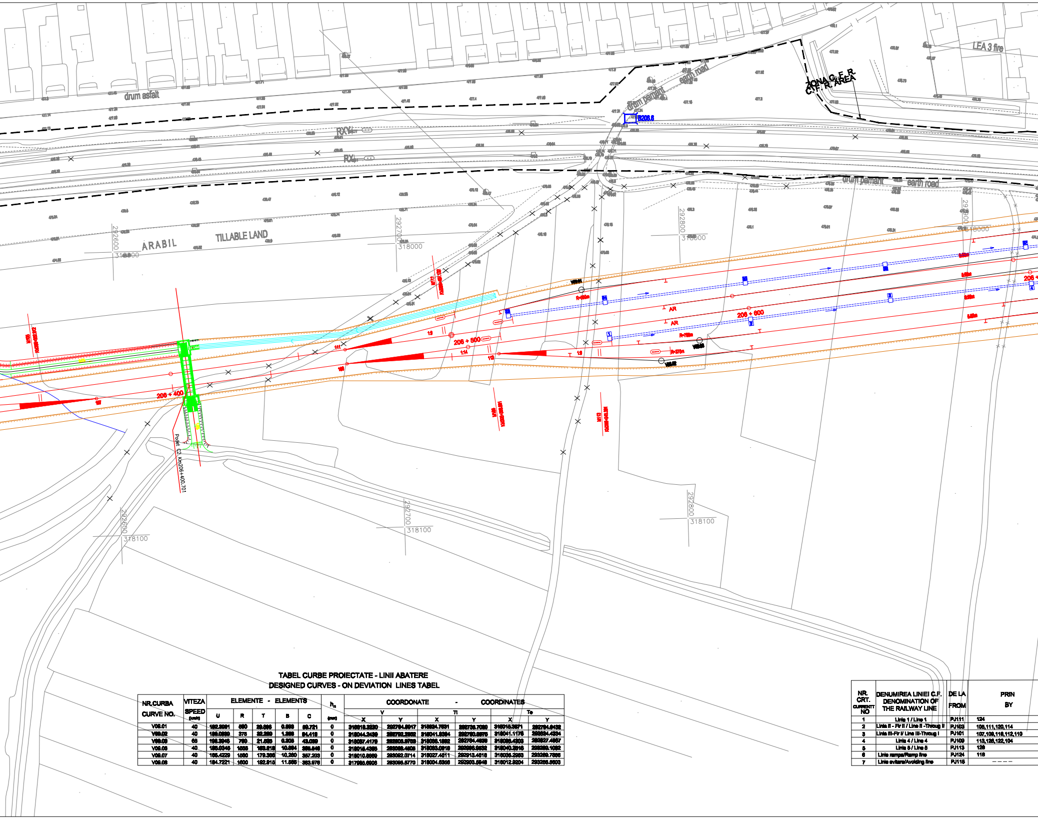
TABEL COORDONATE BORNE RETEA
MILLE STONE COORDINATES TABLE

nr.borne mille stone no.	X [m]	Y [m]	Z [m]
B206.0	318026.322	292194.789	475.61
B206.3	317969.224	292520.287	475.96
B206.6	317958.521	292784.007	477.23
B206.9	318000.853	293077.721	475.84


R = 10000.000
LVC = 21.336
MO = 0.023
0.000 ‰
360.656 m
+4.267 ‰
800.553 m
EL=474.964
CH 206 + 066.240
Ax pod el dalat D=2.2
Axis of slabed culvert D=
km 206+230.4
ZONA C. F. R.
C. F. R. AREA
ZONA C. F. R.
C. F. R. AREA
MLASTINA
SWAMP
B206.0
B206.3
KM206
206 + 000
206 + 100
206 + 200
206 + 300
RA
1:14
1:14
1:14
1:14
0.000 ‰
360.000 m
+4.270 ‰
800.000 m
EL=474.964
CH 206 + 060.000
R = 10000.000
LVC = 21.351
MO = 0.023
317900
318000
318000
318000
318000
318100
318100
318100
318100
292200
292300
292400
292500
292200
292300
292400
292500

TABEL CARACTERISTICI APARATE DE CALE PROIECTATE
CHARACTERISTICS DESIGNED TURNOUTS TABLE

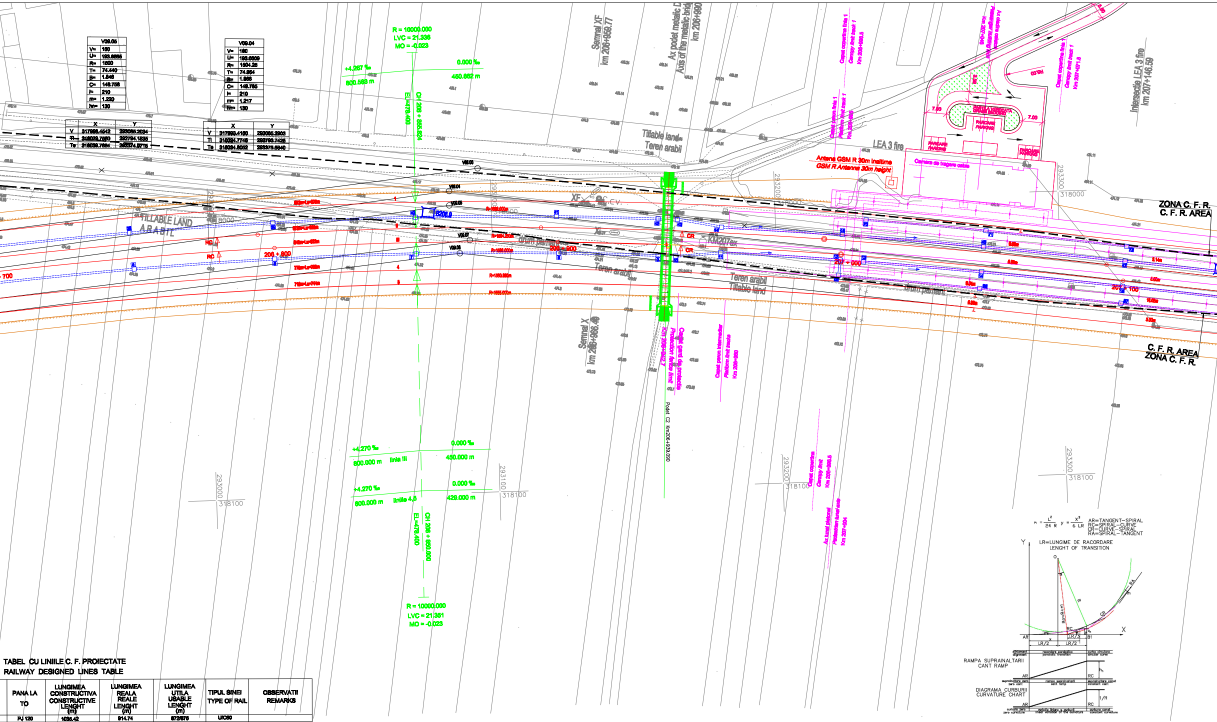
NR. CRT. NO	NR. P.G. NO	DEVIATIE DEVIATION		TIP TYPE	Tg.	R RADIUS (m)	TIPUL ACELOR TYPE OF SWITCH	PROVENIENTA		COORDONATE - COORDINATES	
		STG. LEFT	DR. RIGHT					NOI NEW	REFOLOSITI COMING FROM DISMANTLING	X	Y
1	101	●		60	1:14	760	flexibil	•		318075.9361	292364.8186
2	103	●		60	1:14	760	flexibil	•		318063.4809	292433.8827
3	105		●	60	1:14	760	flexibil	•		318053.9394	292522.8910
4	107		●	60	1:14	760	flexibil	•		318051.4246	292592.7242
5	109		●	60	1:14	760	flexibil	•		318041.8534	292661.4526
6	111	●		60	1:9	300	flexibil	•		318036.9121	292690.8960
7	113		●	60	1:9	300	flexibil	•		318039.9583	292735.1232


drum asfalt
RXV
ARABIL
TILLABLE LAND
drum pamant
earth road
ZONA C.F.R.
C.F.R. AREA
LEA 3 fire
B206.6
206 + 400
206 + 500
206 + 600
AR
Podet C2 Km206+400.701
292600
292700
292800
318000
318100

TABEL CURBE PROIECTATE - LINII ABATERE
DESIGNED CURVES - ON DEVIATION LINES TABEL

NR.CURBA CURVE NO.	VITEZA SPEED (km/h)	ELEMENTE - ELEMENTS					h_n (mm)	COORDONATE - COORDINATES					
								V		Ti		Te	
		U	R	T	B	C		X	Y	X	Y	X	Y
V09.01	40	192.3991	500	29.896	0.893	59.721	0	318019.2220	292784.8917	318024.7581	292736.7080	318015.3871	292784.9432
V09.02	40	189.0899	375	32.289	1.389	64.419	0	318044.2439	292792.2952	318041.8394	292760.8976	318041.1178	292834.4334
V09.03	65	198.3946	780	21.595	0.305	43.089	0	318037.4179	292805.9759	318036.1892	292784.4639	318036.4303	292827.4867
V09.06	40	185.0345	1555	169.619	10.694	286.846	0	318016.4365	293088.4808	318033.0918	292936.9632	318040.2516	293239.1082
V09.07	40	186.4229	1550	179.386	10.260	357.203	0	318010.8959	293092.0714	318027.4511	292913.4518	318036.2963	293269.7856
V09.08	40	184.7221	1600	192.915	11.585	383.976	0	317985.6906	293095.5770	318004.5356	292903.5948	318012.9204	293288.5803

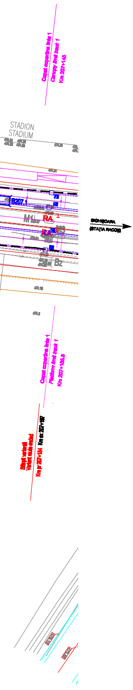
NR. CRT. CURRENT NO	DENUMIREA LINIEI C.F. DENOMINATION OF THE RAILWAY LINE	DE LA FROM	PRIN BY
1	Linie 1 / Line 1	PJ111	124
2	Linia II - Fir II / Line II -Throug II	PJ103	105,111,120,114
3	Linia III-Fir I/ Line III-Throug I	PJ101	107,109,116,112,110
4	Linia 4 / Line 4	PJ109	113,126,122,104
5	Linia 5 / Line 5	PJ113	128
6	Linie rampa/Ramp line	PJ124	118
7	Linie evitare/Avoiding line	PJ118	– – – –


V09.05
V= 160
U= 193.8665
R= 1500
T= 74.440
B= 1.846
C= 148.758
l= 210
m= 1.220
hn= 130
X Y
V 317986.4542 293085.2034
Ti 318029.7580 292794.1835
Te 318039.7884 293374.5715
V09.04
V= 160
U= 193.6809
R= 1504.25
T= 74.954
B= 1.866
C= 149.785
l= 210
m= 1.217
hn= 130
X Y
V 317993.4160 293085.2903
Ti 318024.7746 292793.7425
Te 318034.8062 293375.5940
R = 10000.000
LVC = 21.336
MO = -0.023
+4.267 ‰
600.583 m
0.000 ‰
450.662 m
CH 206 + 865.824
EL=478.400
Semnal XF
km 206+959.77
Ax podet metalic D
Axis of the metalic brid
km 206+990
Tillable land
Teren arabil
LEA 3 fire
Antena GSM R 30m inaltime
GSM R Antenna 30m height
Camera de tragere cable
Capat copertina linia 1
Canopy limit track 1
Km 206+998.5
Capat peron linia 1
Platform limit track 1
Km 206+985
PARCARE
PARKING
Capat copertina linia 1
Canopy limit track 1
Km 207+071.5
Intersectie LEA 3 fire
km 207+146.59
ZONA C. F. R.
C. F. R. AREA
TILLABLE LAND
ARABIL
206 + 800
206 + 900
207 + 000
207 + 100
drum pamant
KM207ex
CR
RC
Teren arabil
Tillable land
Semnal X
km 206+968.49
Capat gard de protectie
Protection fence limit
Km 206+942.7
Capat peron intermediar
Platform limit inside
Km 206+990
Podet C2 Km206+939.090
C. F. R. AREA
ZONA C. F. R.
+4.270 ‰
600.000 m
linia III
0.000 ‰
450.000 m
+4.270 ‰
600.000 m
liniile 4,5
0.000 ‰
429.000 m
CH 206 + 850.000
EL=478.400
R = 10000.000
LVC = 21.381
MO = -0.023
Capat copertina
Canopy limit
Km 206+998.5
Ax tunel pietonal
Pedestrian tunel axis
Km 207+004
293000 318100
293100 318100
293200 318100
293300 318100
293300 318000
m = L²/24 R y = x³/6 LR
AR=TANGENT−SPIRAL
RC=SPIRAL−CURVE
CR=CURVE−SPIRAL
RA=SPIRAL−TANGENT
LR=LUNGIME DE RACORDARE
LENGHT OF TRANSITION
Y
X
O
R
Ro=R+m
RC
CR
RA
AR
B1
LR/2
LR/3
x
aliniament
alignment
racordare parabolica
parabolic transition
curba circulara
circular curve
RAMPA SUPRAINALTARII
CANT RAMP
hn
supraînaltare zero
zero cant
rampa supraînaltarii
cant ramp
supraînaltare const
constant cant
DIAGRAMA CURBURII
CURVATURE CHART
1/R
curbura zero
zero curvature
variatia liniara a curburii
linear variation of the curvature
curbura const
constant curvature

TABEL CU LINIILE C. F. PROIECTATE
RAILWAY DESIGNED LINES TABLE

PANA LA TO	LUNGIMEA CONSTRUCTIVA CONSTRUCTIVE LENGHT (m)	LUNGIMEA REALA REALE LENGHT (m)	LUNGIMEA UTILA USABLE LENGHT (m)	TIPUL SINEI TYPE OF RAIL	OBSERVATII REMARKS
PJ 120	1036.42	914.74	872/876	UIC60	
PJ 108	1609.70	1305.39	873/899	UIC60	
PJ 106	1676.92	1339.49	940/922	UIC60	
PJ 102	1459.10	1236.70	770/750	UIC60	
PJ 100	1442.75	1343.06	719/744	UIC60	
Opritor/Buffer	228.36	166.00	100	49	
Opritor/Buffer	95.75	68.62	60	49	

1	2


Capat copertina linie 1
Canopy limit track 1
Km 207+145
STADION
STADIUM
B207.1
M1
RA
RA
Bz
SIGHIŞOARA
(STAŢIA RACOŞ)
Capat copertina linie 1
Platform limit track 1
Km 207+155.5
Sfârşit variantă
Variant route ended
Km pr 207+184
Km ex 207+187

LEGENDA
LEGEND

- Ax linie c.f. existent
  Axis of existing railway line
- Ax linie c.f. demontat
  Dismounted axis line of railway line
- Aparate de cale existente
  Existing turnouts
- Aparate de cale demontate
  Dismounted turnouts
- Name Level — Borne de nivel
  Benchmarks
- Ax linie c.f. proiectat
  Axis of designed railway line
- Aparate de cale proiectate
  Designed turnouts
- Marca proiectata
  Designed mark
- Semnal proiectat
  Designed signal
- Peron proiectat
  Designed platform
- Copertina proiectata
  Designed canopy
- Sant monolit de beton
  Prefabricate concrete ditch
- Dren longitudinal
  Longitudinal drain
- Amprize sapaturi/umpluturi
  Excavation/fillings at the work place of natural soil
- Lucrari de consolidare
  Consolidate works
- Lucrari de drumuri proiectate
  Designed road works

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

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANŢAT 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. Garibaldi		
Verificat Checked	Expert Verificator Checking Expert	S. MENICHINI		

SUBCONTRACTANT / SUBCONTRACTOR

AREX COMPANY

Aprobat Approved	Responsabil Sub-contractant Subcontractor Responsible	A.Stanciu - Dinulescu		
Întocmit Elaborated	Proiectant Designer	F. Mihai	12.2011	FMihai

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă de 160 km/h,
Tronsonul : 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 : Braşov - Sighişoara

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

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

Denumire desen / Drawing Title :

Plan de situaţie - Staţia Apaţa
Apaţa station - Track Layout on designed plan

Codificare / Codification System	Scara / Scale 1:500	LOT / LOT	Nr. / No
E A 5 1 0 1 C 0 9 L 8 S L 0 0 5 0 0 0 1 2			