

FAZA I – LUCRARI PREGATITOARE STAGE I – PRELIMINARY WORKS

FAZA II – INTRODUCERE POD PROVIZORIU PE LINIA II
STAGE II – INTRODUCTION OF THE TEMPORARY BRIDGES ON LINE II

ELEVATIE A-A / ELEVATION A-A
Sc.: 1:200

FAZA II – LUCRARI PREGATITOARE STAGE II – PRELIMINARY WORKS

**FAZA III – LUCRARI DE FINISARE
STAGE III – FINISHING WORKS**

VEDERE PLANA / PLAN VIEW
Sc.: 1:200

FAZA IV – LUCRARI DE FINISARE STAGE IV – FINISHING WORKS

VEDERE PLANA / PLAN VIEW
Sc.: 1:200

FAZA III – REALIZAREA UNEI INFRASTRUCTURI NOI
STAGE III – EXECUTING OF A NEW INFRASTRUCTURE

1. Se scoate de sub tensiune linia I și se asigură protecția electrică.
2. Se secționează și se demontează linia, se demontează suprastructura c.f. pe zona pasajului, pe linia I, pe o lungime de 180,00 m.
3. Se scoate din cale tabloul existent pe linia I și se transportă în depozit.
4. Se decupează terasamentul și se demolează zidul întors al culeii și arpa corespunzătoare liniei I.
5. Se bot pereți de palpișane, pana când incinta este complet incintă inclusiv pe zona podului existent.
6. Se execută sapătura pentru introducerea în cale a fundației prefabricate provizorii și a podului provizoriu tip G18 sub protecția sprâncinelor din lungii colți ferate.
7. Se introduce în cale fundatia prefabricata provizoare și podul provizoriu tip G18, corespunzător liniei I.
8. Se monteaza suprastructura c.f. pe podul provizoriu și se racordeaza la capetele si stadiu extenla. Montarea suprastructurii c.f. se va face la cota NSS pr. 171.74.
9. Se repune sub tensiune linia de contact și se reafecșide circulația, cu restricție de viteză de 30 km/h conform instrucțiilor c.f. în vizare.
10. Se luie sub observatie podul provizoriu pe tota durata de excavare, cu remedierea eventualelor defecte și aducerea lor în limita admisa de toleranțe.
11. Se execută sapătura necesară pentru demolarea infrastructurii existente la adpostul incintei de palpișane.
12. Se demolează complet infrastructura existentă;
13. Se execută sapătura necesară pentru executarea noii infrastructuri la adpostul incintei de palpișane.
14. Se execută o culie nouă până la nivelul banchetelor cizmnelior.
15. Se execută umpluturi în jurul infrastructurilor;

STAGE III: PLACING THE TEMPORARY BRIDGES ON LINE I, EXECUTION OF A NEW INFRASTRUCTURE

Line I: railway traffic closure
 Line II: speed limit of 30 km/h

1. Cutting-off the voltage of line I and ensuring the electric protection.
2. Sectioning and removing the voltage of the line, dismantling the railway superstructure on the passage area, on line I, on a length of 180,00 m.
3. Removing from the track the existing deck from line I and transporting it to the depot.
4. Scraping the embankment and dismantling the wing wall of the abutment and the wing corresponding to line I.
5. Driving sheet-pile walls until the premises is completely closed including on the existing bridge area.
6. Excavating under the existing bridge type G18 under the protection of propping-ups along the railway track.
7. Introducing in the track the temporary precast foundation and temporary bridge type G18, corresponding to line I.
8. Mounting the railway superstructure on the temporary bridge connecting at the ends to the existing situation. The railway superstructure will be mounted at designed NSS (top of rail level) 171.74.
9. Restoring the voltage to the contact line and opening the traffic, with speed limit of 30 km/h according to the railway instructions in force.
10. Monitoring the temporary bridge during the entire operation time, by remedying the eventual defects and bringing them into the admitted tolerance level.
11. Making the excavation needed for dismantling the existing infrastructure under the protection of the sheet-pile premises.
12. Completely dismantling the existing infrastructure.
13. Making the excavation needed for executing the new infrastructure under the protection of the sheet-pile premises.
14. Making a new abutment up to the level of the bearings support box.
15. Making fillings around the infrastructures.

ELEVATIE A-A / ELEVATION A-A

Sc.:1:200

The elevation drawing shows a cross-section of the railway track and bridge. Key elements include:

- A vertical scale bar on the left indicating heights of 18.00, 17.74, 17.10, and 2.00 meters.
- A dashed line labeled "NSS pr. 171.74" representing the Normal Surface Level.
- A concrete structure labeled "Beton spalișoare beton concrete 20cm".
- A dimension of 163.10 shown across the top of the structure.
- A dimension of 70.10 shown for the width of the track bed.
- A dimension of 2.00 shown for the height of the temporary foundation.
- Labels for "Pod provizoriu tip G18 Temporary bridge type G18" and "Fundatie provizoria prefab. foundation Temporary prefab. foundation".
- A label for "Palpișane metalice L=8.00m Metallic sheet-piles L=8.00m".

VEDERE PLANA / PLAN VIEW

Sc. 1:200

The plan view drawing shows the layout of the railway tracks and bridge structures. Key elements include:

- A horizontal scale bar at the bottom indicating dimensions of 9.30, 2.00, 2.00, and 2.00 meters.
- A vertical scale bar on the right indicating dimensions of 2.00, 2.00, and 2.00 meters.
- A dimension of 9.30 shown for the width of the track bed.
- A dimension of 8.00 shown for the width of the track bed.
- Labels for "Ax.c.f. proiectat fir II Designed axis track II" and "Ax.G18 proiectat fir I Designed axis track I".
- Labels for "Palpișane metalice Metallic sheet-piles" and "Pod provizoriu tip G18 Temporary bridge type G18".

FAZA IV – REALIZARE SUPRASTRUCTURA FIR II PR
STAGE IV – EXECUTING OF A NEW SUPRASTRUCTURE ON TRACK II DSG.

VEDERE PLANA / PLAN VIEW
Sc. 1:200

Labels in the drawing include:
 - **Sprintere longitudinala padului** / Longitudinal propping
 - **Pod temporar tip G18** / Temporary bridge type G18
 - **Ax c.f. protecat fir II** / Designed axis track II
 - **Ax c.f. existent fir II** / Existing axis track II
 - **Ax c.f. protecat fir I** / Designed axis track I
 - **Ax c.f. existent fir I** / Existing axis track I
 - **Polipane metalice** / Metallic sheet-piles
 - **Protecție electrică** / Electric protection
 - **Protecție împotriva scuturării** / Protection against vibration
 - **Protecție împotriva alunecării** / Protection against sliding
 - **Protecție împotriva căderii** / Protection against falling
 - **Protecție împotriva scuturării** / Protection against vibration
 - **Protecție împotriva alunecării** / Protection against sliding
 - **Protecție împotriva căderii** / Protection against falling

STAGE IV: EXECUTION OF A NEW SUPRASTRUCTURE, LINE II:
 Existing line I: speed limit of 30 km/h
 Existing line II: railway traffic closure

STAGE IV: EXECUTION OF A NEW SUPRASTRUCTURE, LINE II:
 Existing line I: speed limit of 30 km/h
 Existing line II: railway traffic closure

1. Se scoate de sub tensiune linia II și se asigură protecția electrică.
 2. Se scoate din cale podul provizoriu tip G18.
 3. Se scoate polipanele din dreptul liniei II;
 4. Se înlocuiesc caile, se execută drenaj și se execută protecția împotriva scuturării;
 5. Se execută calea diferențială liniei II;
 6. Se execută patul perii de beton din oală;
 7. Se montează sprijinii longitudinali între lini, pe talier;
 8. Se execută umplutura, conform calculului de sarcini, se refac teseramentul și calea în zona podului până la cota finală NSS protecată pe linia II, asigurând racordarea în plan orizontal și vertical cu situația existentă.
 9. Se asigură continuitatea circulației de cale, se asigură protecția împotriva scuturării și alunecării;
 10. Se desicele circulația și protecția de cădere, conform instrucțiunilor c.f. în vigoare, până la viteză $V_{max}=30\text{ km/h}$.

NOTA:
 1. Podurile provizorii se găsesc în dotarea Beneficiarului și pot fi puse la dispoziția Constructorului.
 2. Circulația pe podurile provizorii se face cu viteză de maxim 30 km/h.
 3. Detaliile prezentate în acest plan nu sunt obligatorii și pot fi modificate sau adaptate în funcție de dotările constructorului cu respectarea condițiilor de realizare a lucrărilor definitive prevăzute în celele de sarcini.

NOTA:
 1. CALCULATION CONVOY FOR THE TEMPORARY BRIDGES: 0.978.5
 2. Temporary bridges are in the endowment of the Beneficiary and can be made available to the Constructor.
 3. Traffic on the temporary bridges takes place with maximum speed 30 km/h.
 4. The details presented in this plan are not compulsory and can be modified or adapted depending on the constructor's endowments by observing the execution conditions of the final works provided in the Technical Specifications.

FAZA V – REALIZARE SUPRASTRUCTURA FIR I PR.

STAGE V – EXECUTING OF A NEW SUPRASTRUCTURE ON TRACK I DSG.

FAZA VI – ALTE LUCRARI

STAGE VI – OTHER WORKS

FAZA V: EXECUTIA UNEI NOI SUPRASTRUCTURI, LINA I;

Linia I: inchidere de circulație feroviară;

Linia II: Restrictie de viteză de 50 km/h;

1. Se scoate de sub tensiune linia I si se asigura protectie electrica.

2. Se demonteaza suprapstructura c.f. diferenta liniei I.

3. Se scoate din cale fundatia prefabricata provizorie si podul provizoriu tip G18.

4. Se scoate sprijinul din lungul liniei I.

5. Se executa deal diferenta liniei I.

6. Se executa partial pereti de beton din amonte;

7. Se realizeaza umplutura, conform calculului de sarcini, se realizeza terenul si calea in zona podului pana la cot linia NSS protecat fir II.

8. Se asigura continuitatea circulator de cale, se asigura electrizarea si nelor si protectia catodica.

9. Se deschide circulatia in trepte de viteză, conform instructiilor c.f. in vigoare, cu viteză normală pe ambute linii.

FAZA VI: ALTE TIPURI LUCRARI

Linia I – circulatie cu viteză normală;

Linia II – circulatie cu viteză normală;

1. Se executa pereti pe zona, podului conform dispozitiei generale, scările de acces pe terasament si parapetul metalic.

2. Se amenajeaza albia in oval cu pereti din beton pozati pe un strat de nisip.

3. Se finalizeaza pereti si amenajarea de albie din amonte si oval.

4. Se executa salteaua din armocement in oval.

5. Se realizeaza racordarea drenurilor de colectare din zona de aval, la camera de colectare din amonte si cu zidul către pod.

6. Se dezafectueaza platformele, accesele din zona de lucru, organizarea de sniler.

STAGE VI – OTHER TYPES OF WORKS

Linia I – normal speed traffic

Linia II – normal speed traffic

1. Executing the pitching in the bridge area according to the general layout, the access stairs on the embankment and the metallic handrail.

2. Arranging the riverbed downstream with concrete pitching laid-down on a sand layer.

3. Completing the pitching and the riverbed arrangement upstream and downstream.

4. Executing the riprap mattress downstream.

5. Executing the drainage system for collecting drain on the culvert area with the collecting chamber upstream and the wall between the bridges.

6. Dismantling the platforms, the accesses from the working area, the site organisation.

ELEVATIE A-A / ELEVATION A-A

Sc: 1:200

VEDERE PLANA / PLAN VIEW

Sc: 1:200

STAGE V: EXECUTION OF A NEW SUPERSTRUCTURE,

Linia I

Linia I: railway traffic closure

Linia II: speed limit of 50 km/h

1. Cutting-off the voltage of line I and ensuring the electric protection of the track.

2. Dismantling the railway superstructure affrent to line I.

3. Removing from the track the temporary precast foundation and the temporary bridge type G18.

4. Removing the propping-ups between lines;

5. Making the deck affrent to line I.

6. Partially making the concrete pitching upstream;

7. Making the filling, according to the Technical Specifications, renewing the embankment and the track in the culvert area up to the final designed NSS (top of rail level) on line I, ensuring the continuity of the horizontal and vertical plan to the existing situation.

8. Ensuring the continuity of track circuits, the rails' electric insulation and the cathode protection.

9. Opening the traffic in speed levels, according to the railway instructions in force, with normal speed on both lines.

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3. Completing the pitching and the riverbed arrangement upstream and downstream.

4. Executing the riprap mattress downstream.

5. Executing the drainage system for collecting drain on the culvert area with the collecting chamber upstream and the wall between the bridges.

6. Dismantling the platforms, the accesses from the working area, the site organisation.

STAGE V: EXECUTION OF A NEW SUPERSTRUCTURE,

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1. Cutting-off the voltage of line I and ensuring the electric protection of the track.

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3. Removing from the track the temporary precast foundation and the temporary bridge type G18.

4. Removing the propping-ups between lines;

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STAGE V: EXECUTION OF A NEW SUPERSTRUCTURE,

Linia I

Linia I: railway traffic closure

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1. Cutting-off the voltage of line I and ensuring the electric protection of the track.

2. Dismantling the railway superstructure affrent to line I.

3. Removing from the track the temporary precast foundation and the temporary bridge type G18.

4. Removing the propping-ups between lines;

5. Making the deck affrent to line I.

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7. Making the filling, according to the Technical Specifications, renewing the embankment and the track in the culvert area up to the final designed NSS (top of rail level) on line I, ensuring the continuity of the horizontal and vertical plan to the existing situation.

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STAGE V: EXECUTION OF A NEW SUPERSTRUCTURE,

Linia I

Linia I:

		Prezentul plan anuleaza si inlocuieste versiunea anterioara This plan cancels and replaces previous version			
Verificator / Expert Checker / Expert	Cerinta Requirement	Semnatura Signature	Referat / Expertiza Report / Expertise	 European Investment Bank	
 COMPANIA NAȚIONALĂ DE CĂI FERATE "CFR" SA		 PROIECTANT / DESIGNER:		 Subcontractant / Subcontractor	
Aprobat Approved	Sef de echipa Team leader	C. Teodorescu	01.2013	 Semnatura Signature	
Verificat Checked	Expert Cheile Key Expert	R. Tudorascu	01.2013	 Semnatura Signature	
Subcontractant / Subcontractor					
Aprobat Approved	Adjunct Sef de echipa Deputy Team leader	A.M. Baicu	01.2013	 Semnatura Signature	
Proiectat Designed	Inginer Engineer	S. Amăricăi	01.2013	 Semnatura Signature	
"Reabilitarea liniei c.f. Frontier ă - Curtici - Simeria, parte componentă a coridorului IV Pan - European pentru circulația trenurilor cu viteză maximă de 160 km/h" Tronsoanel 2-C : cap Y Iileu - cap Y Gurasada "Rehabilitation of the Railway Line Border - Curtici - Simeria, a component Part of the IV Pan - European Corridor for the Trains Circulation with maximum speed of 160 km/h" Section 2-C : end Y Iileu - end Y Gurasada					
Denumire desen / Drawing name:					
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