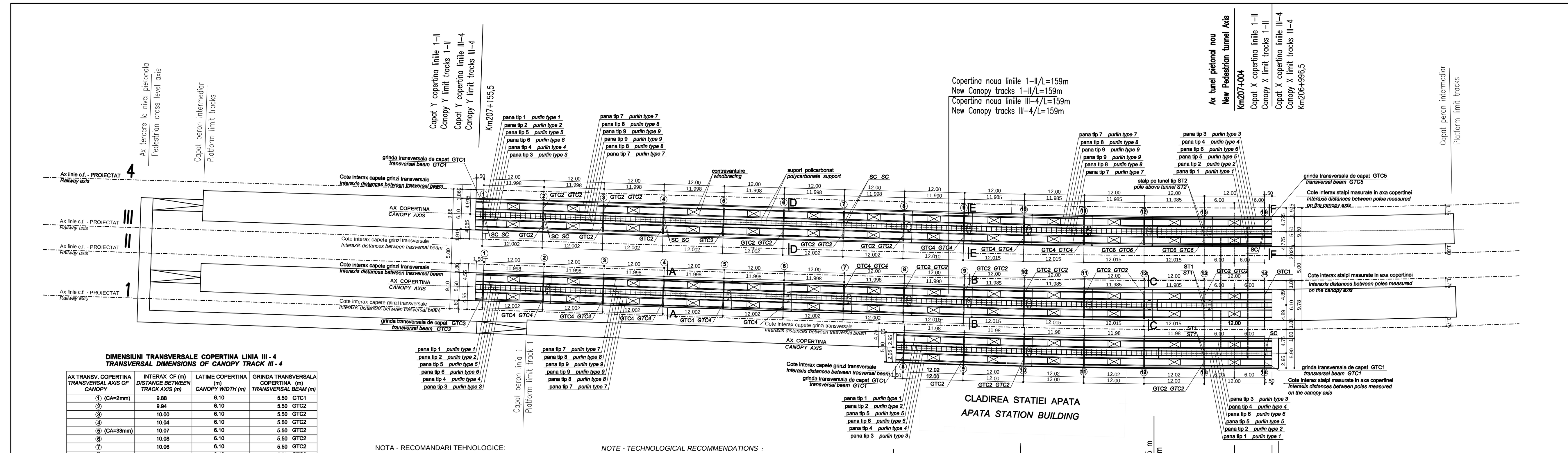


DIMENSIUNI TRANSVERSALE COPERTINA LINIA III - 4
TRANSVERSAL DIMENSIONS OF CANOPY TRACK III - 4

AX TRANSV. COPERTINA *TRANSVERSAL AXIS OF CANOPY*	INTERAX CF (m) *DISTANCE BETWEEN TRACK AXIS (m)*	LATIME COPERTINA (m) *CANOPY WIDTH (m)*	GRINDA TRANSVERSALA COPERTINA (m) *TRANSVERSAL BEAM (m)*
① (CA=2mm)	9.88	6.10	5.50 GTC1
②	9.94	6.10	5.50 GTC2
③	10.00	6.10	5.50 GTC2
④	10.04	6.10	5.50 GTC2
⑤ (CA=33mm)	10.07	6.10	5.50 GTC2
⑥	10.08	6.10	5.50 GTC2
⑦	10.06	6.10	5.50 GTC2
⑧	10.00	6.10	5.50 GTC2
⑨ (CA=64mm)	9.91	5.90	5.30 GTC4
⑩	9.78	5.90	5.30 GTC4
⑪	9.66	5.70	5.30 GTC4
⑫	9.58	5.50	5.20 GTC6
⑬	9.56	5.50	5.20 GTC6
⑭ (CA=95mm)	9.50	5.50	5.20 GTC5

DIMENSIUNI TRANSVERSALE COPERTINA LINIA 1-II
TRANSVERSAL DIMENSIONS OF CANOPY TRACK 1-II

AX TRANSV. COPERTINA *TRANSVERSAL AXIS OF CANOPY*	INTERAX CF (m) *DISTANCE BETWEEN TRACK AXIS (m)*	LATIME COPERTINA (m) *CANOPY WIDTH (m)*	GRINDA TRANSVERSALA COPERTINA (m) *TRANSVERSAL BEAM (m)*
①	9.10	5.50	5.30 GTC3
②	9.10	5.50	5.30 GTC4
③	9.11	5.50	5.30 GTC4
④	9.13	5.50	5.30 GTC4
⑤	9.16	5.50	5.30 GTC4
⑥	9.21	5.60	5.30 GTC4
⑦	9.29	5.70	5.30 GTC4
⑧	9.41	5.80	5.50 GTC2
⑨	9.56	5.90	5.50 GTC2
⑩	9.67	6.00	5.50 GTC2
⑪	9.75	6.00	5.50 GTC2
⑫	9.79	6.10	5.50 GTC2
⑬	9.80	6.10	5.50 GTC2
⑭	9.78	6.10	5.50 GTC1

NOTA - RECOMANDARI TEHNOLOGICE:

1. Toate cotele de trasare longitudinale, transversale si verticale ale copertinelor au ca elemente de referinta : axele liniilor C.F. , axa tunelului pietonal si cota ± 0.00 = NSS proiectata a fiecarei linii:
   a. axele longitudinale ale fundatiilor stalpilor copertinelor se pozitioneaza fata de axele de cale ferata ale liniilor proiectate : 1, respectiv 1 - II, respectiv III - 4, conform planului ;
   b. transversal, trasarea axelor pentru fundatiile stalpilor copertinelor se va face avand ca reper axa tunelului pietonal ; trasarea se va face 6 m stanga, 6 m dreapta fata de aceasta axa ;
   c. cota de fundare, este data fata de ±0.00=NSS proiectat al fiecarei linii in parte, respectiv : pentru copertina la linia 1 cota de referinta este ±0.00=NSS linia 1, pentru copertina la liniile 1-II cota de referinta este ±0.00=NSS linia II, pentru copertina la liniile III-4 cota de referinta este ±0.00=NSS linia III .
2. Trebuie avut in vedere ca atit copertinele (cu fundatiile aferente), cit si peroanele nou proiectate , urmaresc profilul longitudinal al liniilor.
3. Acest plan se va citi corelat cu: planul de situatie (amplasament) , planurile de suprastructura c.f. ale statiei si planurile de structura ale tunelului si ale peroanelor.
4. Este importanta corelarea cotelor verticale intre stalpii care se pozitioneaza pe grinzile tunelului (din axa 13) si stalpii si fundatiile adiacente ale copertinei, astfel incat sa se asigure continuitatea la nivelul superior al grinzilor transversale si panelor, cat si realizarea gabaritului pe intreaga lungime a copertinei.
5. Nu se vor prinde de elementele structurale ale copertinei alte echipamente sau dispozitive in afara celor prevazute in proiect (pentru orice modificare se va cere avizul proiectantului).
6. Pe zona statiei, distanta intre axele liniilor c.f. proiectate 1-II, respectiv III-4, nu este constanta ; in consecinta atat copertinele (cat si peroanele) au latimi variabile pe lungimea lor, (vezi tabel alaturat).
7. Pentru pozitionare si detalii stalpi linia de contact , vezi : PLAN DE SITUATIE MONTARI LC, aferent statiei.
8. Stalpii liniei de contact strapung copertina in zona invelitorii de policarbonat (se va face decuparea si etansarea policarbonatului dupa sectiunea stalpului LC).

NOTE - TECHNOLOGICAL RECOMMENDATIONS :

1. All longitudinal, transversal and vertical levels of the canopy have as a reference: the railway axis, the axis of the pedestrian tunnel and the RUL designed = ± 0.00 level of the rail (for each one):
a. the longitudinal axis of the canopy poles will be positioned, according to the drawing , as compared to the axis of designed track : 1, respectively 1 - II, respectively III - 4 ;
b. the axis of the passengers tunnel shall be used as a guide mark when lining the transversal axis of the canopy poles. The lining shall be made from 6 m left and 6 m to right given the above-mentioned axis ;
c. the foundation level refers to ±0.00=RUL designed for each one, respectively : for canopy to line 1, the reference level is ±0.00=RUL line 1, for canopy to lines 1-II, the reference level is ±0.00=RUL line II, for canopy to lines III- 4, the reference level is ±0.00=RUL line III.
2. It is important that both the three canopies (with coresponding foundations) as well as new platforms , follow the longitudinal profile of the new designed lines.
3. This plan shall be read in correlation with: site layout plan , the drawings for railway station superstructure , and the structural drawings of the tunnel , and of the platforms.
4. It is important to ensure the complience of the vertical levels between the canopy poles resting on the tunnel beams (axis 13) and the adjacent poles (and corsponding foundations) of the canopy. So, it will be ensured the continued level of transversal beams and purlins , and of the clearance for the entire canopy.
5. No other equipment or device, apart those foreseen in the project, shall be attached to the structural elements of the canopy .
6. In the station area, the distance between the designed railway axis 1-II, respectively III-4 is not a constant value ; consequently, both the canopies and platforms have variable widths all along their length, (see table nearby).
7. For positioning and details of contact line poles, see : LAYOUT MOUNTING PLAN LC afferent to the station.
8. The contact line poles pierce through the canopy in the central area of the polycarbonate covering (the polycarbonate will be cut off and sealed around the LC pole section).

MATERIALE
Beton de egalizare : C4/5 - T2/T3 - I 32,5 R/0 - 31
Beton simplu : C8/10 - T2/T3 - I 32,5 R/0 - 31
Beton armat : C18/22.5 , C16/20- T3/T4 - I 32,5 R/0 - 16
Otel beton : PC 52 , OB 37
Laminate : S235J2G3 (OL 37.2n), S275J2G3 (OL44.2n)
Buloane de ancorare M30-grupa 6.6

MATERIALS
Leveling concrete : C4/5 - T2/T3 - I 32,5 R / 0 - 31
Plain concrete : C8/10 - T2/T3 - I 32,5 R / 0 - 31
Reinforced concrete : C18/22.5 , C16/20- T3/T4 - I 32,5 R / 0 - 16
Steel concrete : PC 52 , OB 37
Laminated : S235J2G3 (OL 37.2n), S275J2G3 (OL44.2n)
Anchoring bolts M30 , resistance group 6.6

DISPOZITIE GENERALA COPERTINE scara 1:250
CANOPY GENERAL ASSEMBLY PLAN scale 1:250

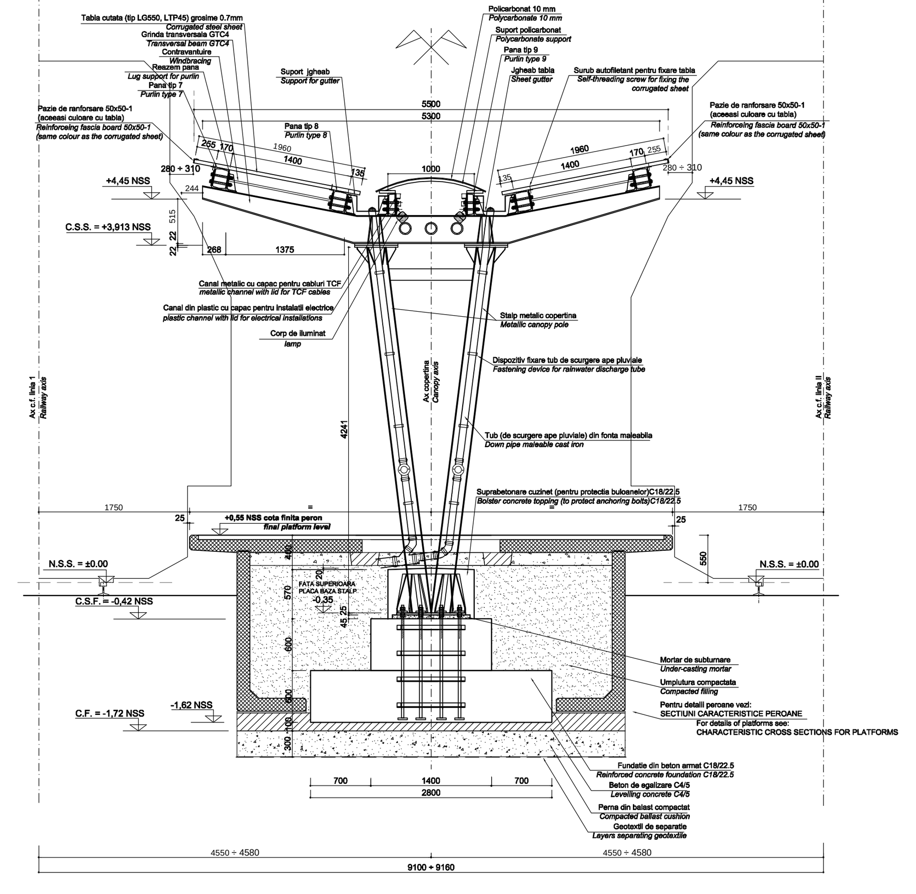
CENTRALIZATOR STALPI SI GRINZI TRANSVERSALE / STATIE
SUMMARY TABLE FOR POLES AND TRANSVERSAL BEAMS / STATION

ELEMENT *ELEMENT*	nr. bucati / statie *no. pieces / station*
STALP CURENT TIP SC *CURRENT POLE TYPE SC*	32
STALP PE TUNEL TIP ST1 *POLE ABOVE TUNNEL TYPE ST1*	2
STALP PE TUNEL TIP ST2 *POLE ABOVE TUNNEL TYPE ST2*	1
GRINDA TRANSVERSALA TIP GTC1 *TRANSVERSAL BEAM TYPE GTC1*	4
GRINDA TRANSVERSALA TIP GTC2 *TRANSVERSAL BEAM TYPE GTC2*	18
GRINDA TRANSVERSALA TIP GTC3 *TRANSVERSAL BEAM TYPE GTC3*	1
GRINDA TRANSVERSALA TIP GTC4 *TRANSVERSAL BEAM TYPE GTC4*	9
GRINDA TRANSVERSALA TIP GTC5 *TRANSVERSAL BEAM TYPE GTC5*	1
GRINDA TRANSVERSALA TIP GTC6 *TRANSVERSAL BEAM TYPE GTC6*	2

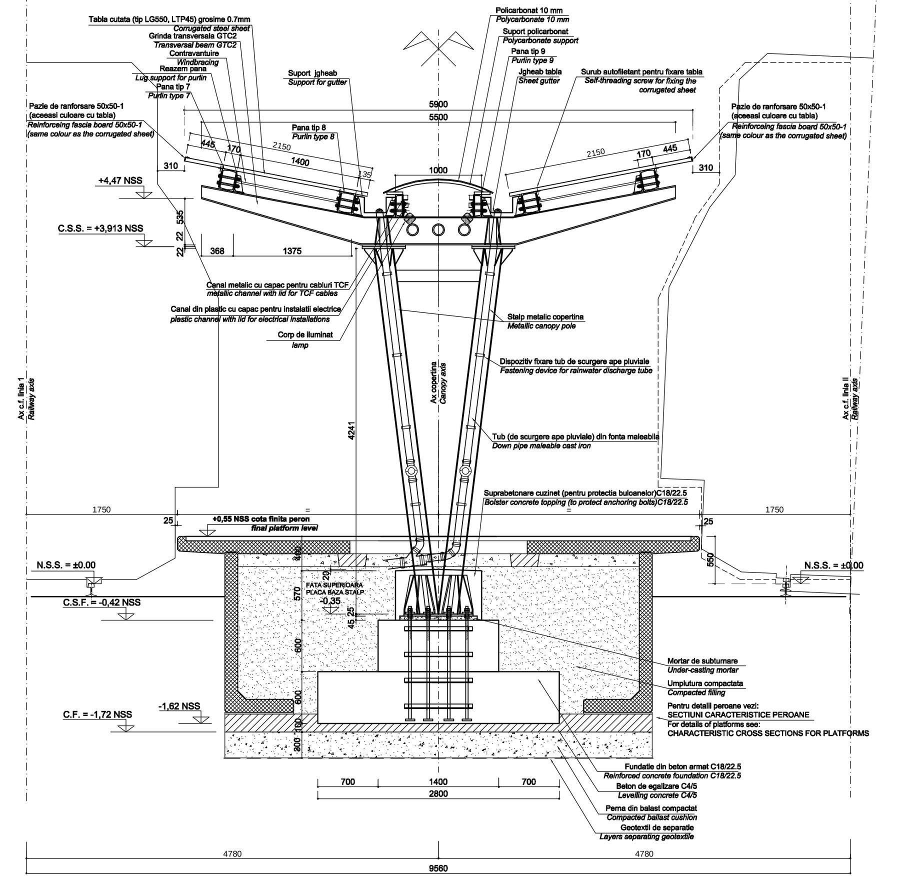
OBSERVATIE
Pozitionarea copertinelor in amplasamentul statiei se va face conform PLAN DE SITUATIE PROPUS statia APATA, avand ca reper kilometrajul firului I proiectat.

OBSERVATION
The canopies will be positioned in the station location according to PROPOSED LAYOUT PLAN station APATA, having the kilometer positions of designed track I as reference

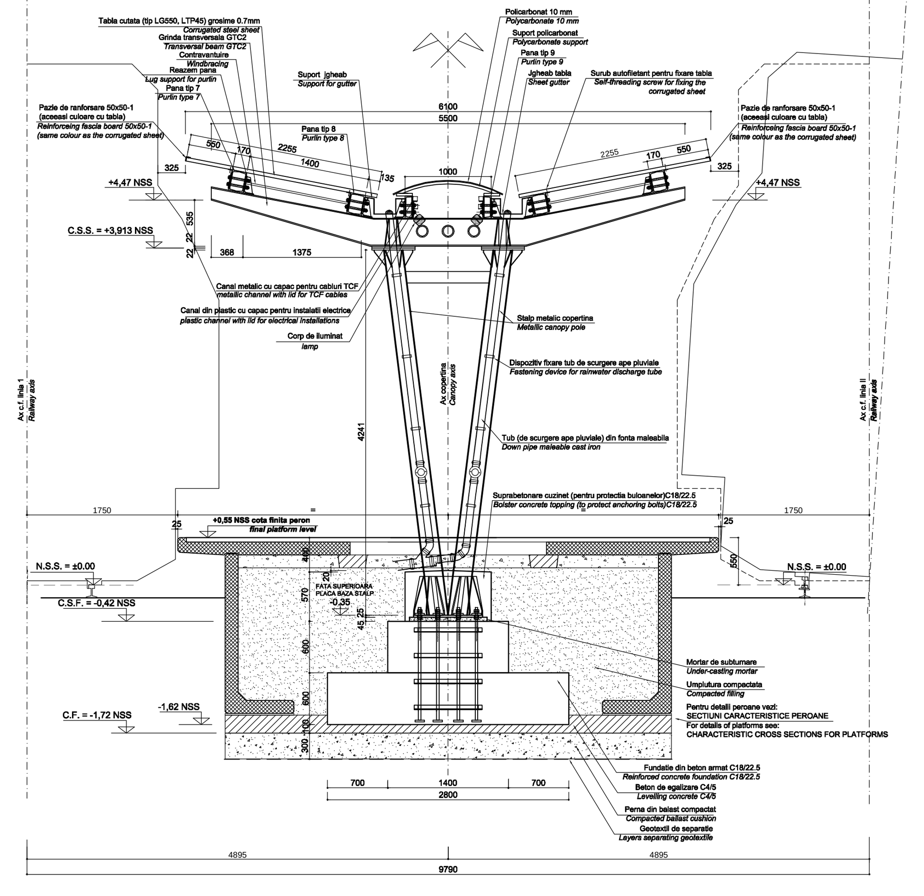
SECTIUNE A - A (pentru peron + 0,55 NSS) sc 1:25
axe 1, 2, 3, 4, 5 COPERTINA INTRE LINIILE 1-II
SECTION A - A (for platform + 0,55 NSS) sc 1:25
axis 1, 2, 3, 4, 5 CANOPY FOR RAILWAY LINES 1-II



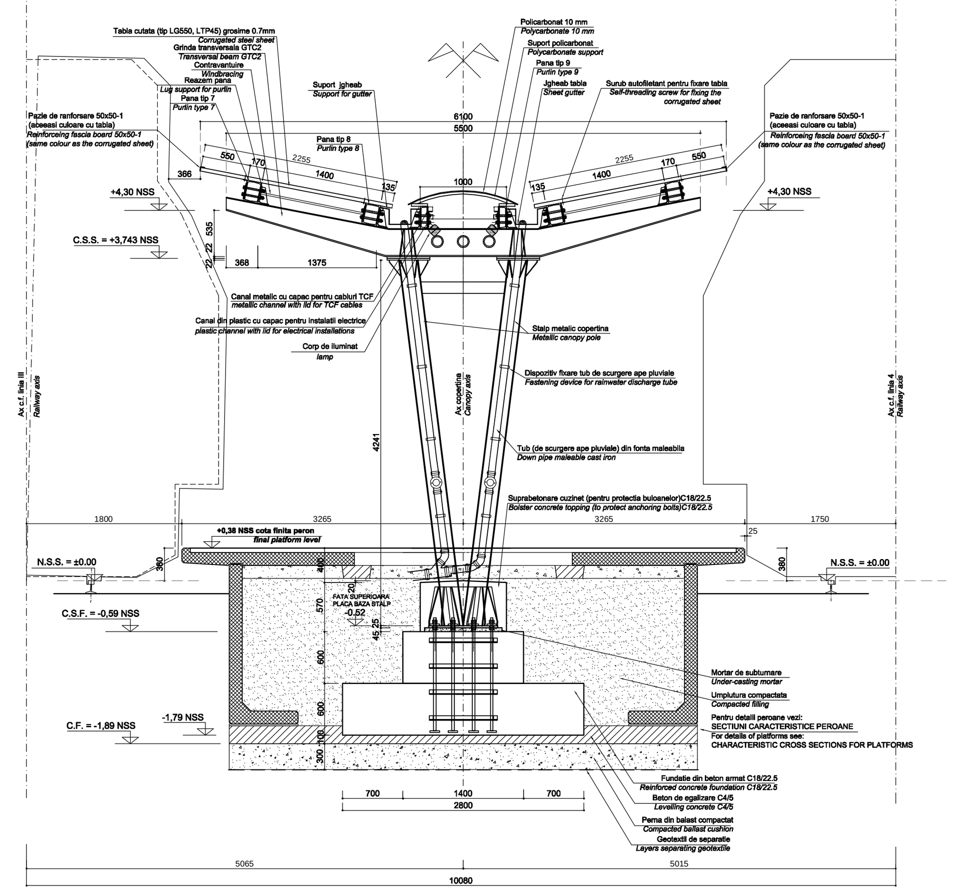
SECTIUNE B - B (pentru peron + 0,55 NSS) sc 1:25
axa 9 COPERTINA INTRE LINIILE 1-II
SECTION B - B (for platform + 0,55 NSS) sc 1:25
axis 9 CANOPY FOR RAILWAY LINES 1-II



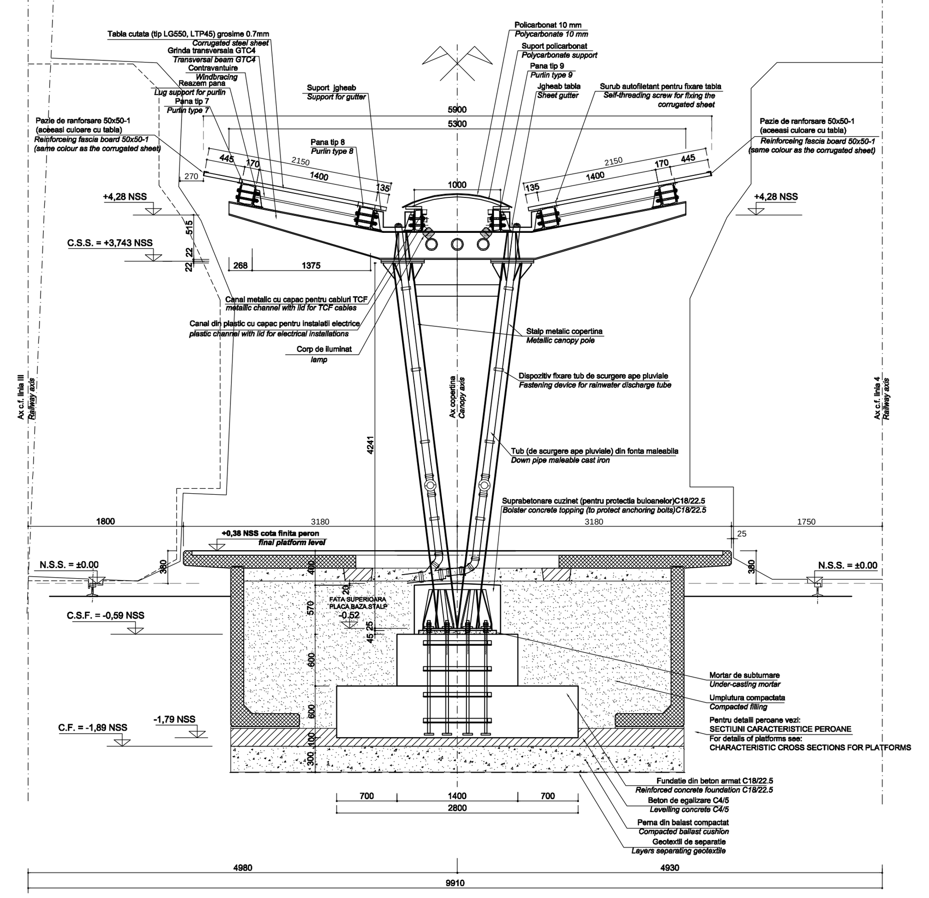
SECTIUNE C - C (pentru peron + 0,55 NSS) sc 1:25
axa 12 COPERTINA INTRE LINIILE 1-II
SECTION C - C (for platform + 0,55 NSS) sc 1:25
axis 12 CANOPY FOR RAILWAY LINES 1-II



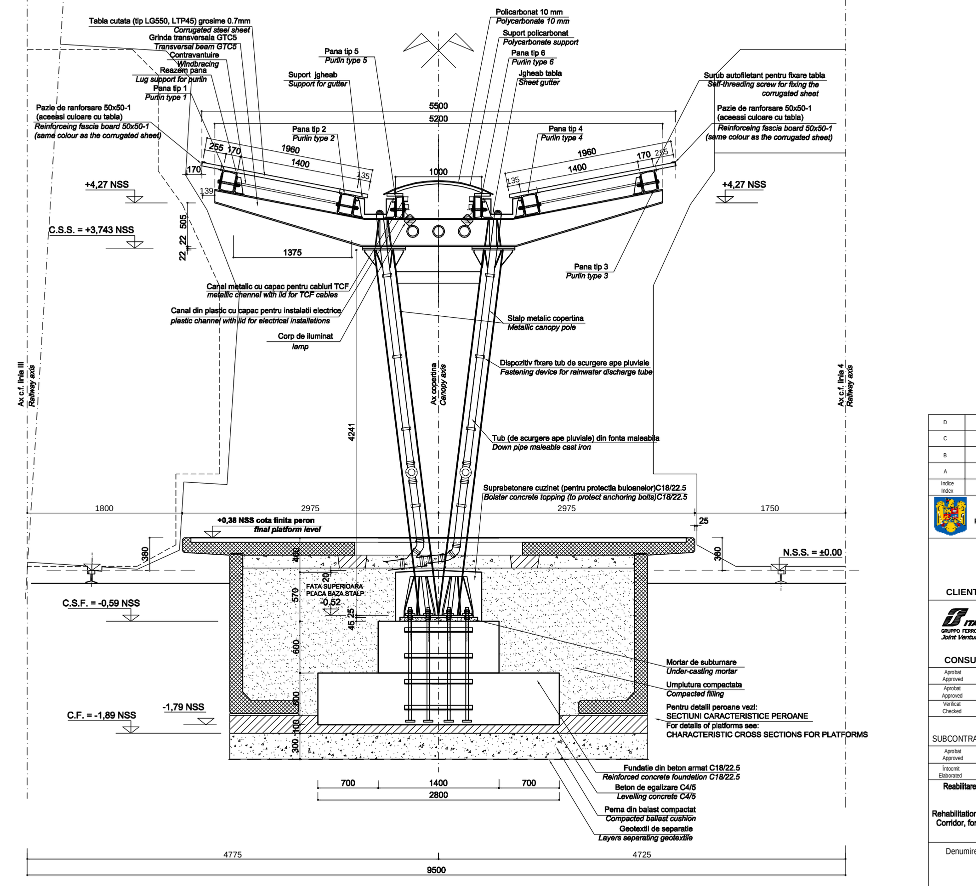
SECTIUNE D - D (pentru peron + 0,38 NSS) sc 1:25
axa 6 COPERTINA INTRE LINIILE III-4
SECTION D - D (for platform + 0,38 NSS) sc 1:25
axis 6 CANOPY FOR RAILWAY LINES III-4



SECTIUNE E - E (pentru peron + 0,38 NSS) sc 1:25
axa 9 COPERTINA INTRE LINIILE III-4
SECTION E - E (for platform + 0,38 NSS) sc 1:25
axis 9 CANOPY FOR RAILWAY LINES III-4

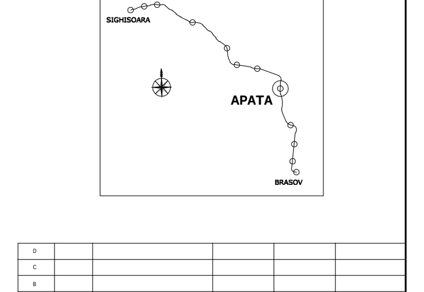


SECTIUNE F - F (pentru peron + 0,38 NSS) sc 1:25
axa 14 COPERTINA INTRE LINIILE III-4
SECTION F - F (for platform + 0,38 NSS) sc 1:25
axis 14 CANOPY FOR RAILWAY LINES III-4



LEGENDA
N.S.S. = cota nivel superior sina proiectat
C.S.F. = cota superioara fundatie
C.F. = cota de fundare
C.S.S. = cota superioara stalp

LEGEND
R.U.L. = designed rail upper level = N.S.S.
C.S.F. = foundation upper level
C.F. = foundation level
C.S.S. = pole upper level



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

CLIENT / CLIENT — **C.N.C.F. "C.F.R." - S.A.**

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	12.2011	
Aprobat Approved	Coordonator Secțiune 1 Section 1 Coordinator	C. Gambelli	12.2011	
Verificat Checked	Verificator Verifier	Giuseppe Fioravanti	12.2011	

SUBCONTRACTANT / SUBCONTRACTOR

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	12.2011	
Întocmit Elaborated	Proiectant Designer	ing. / eng. Tudor ALMALEH	12.2011	

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulația 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 :

COPERTINE STATIA APATA - PLAN DISPOZITIE GENERALA
CANOPY APATA STATION - GENERAL ASSEMBLY PLAN

Codificare / Codification System: E A 5 1 | 0 1 | C | 0 9 | P Z | C C | 0 0 | 5 | 3 | 0 0 2 | 1
Scara / Scale 1 : 250 , 1:25 — LOT / LOT — Nr. / No 01 / 01

9 ¾ A2 594 x 4100 = 2.44 mp