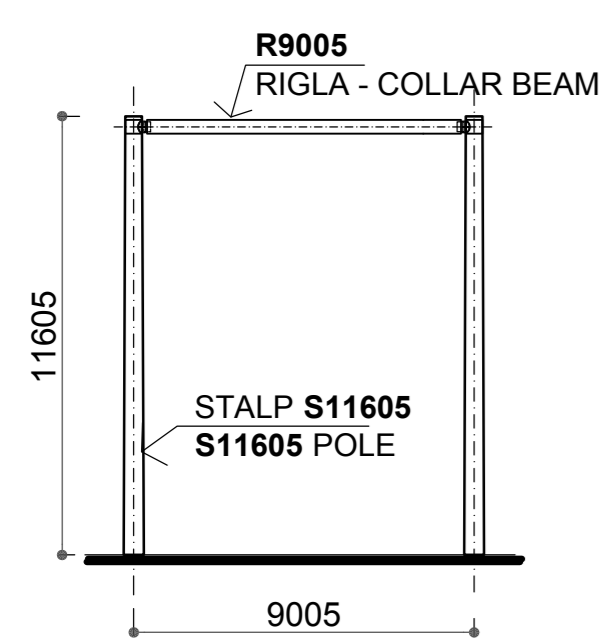


**TIP VII - TYPE VII** sc. 1 : 250  
- COTE in MM. / LEVELS in MM.-



**EXTRAS PIESE METALICE ptr. IMBINARI S235JR**  
**TABLE of METALLIC PIECES for S235JR JOINTS**

TIP IMBINARE JOINING TYPE	POZ.	DENUMIRE NAME	DIMENS.	NR.BUC No. of PCS.	GREUT. WEIGHT -kg.-	GREUT.TOT TOTAL WEIGHT -kg.-
TIP VII TYPE VII	P7a	PIESA de IMBINARE SCAUN SEAT JOINING PIECE	244x10L	1	19.200	21.772
	P7b	PIESA de IMBINARE CAPAC CAP JOINING PIECE				
	P8	OPRITOR STALP POLE STOPPER	ø25 L=120	2	0.922	
	P9	OPRITOR RIGLA COLLAR BEAM STOPPER	ø25 L=430	1	1.650	

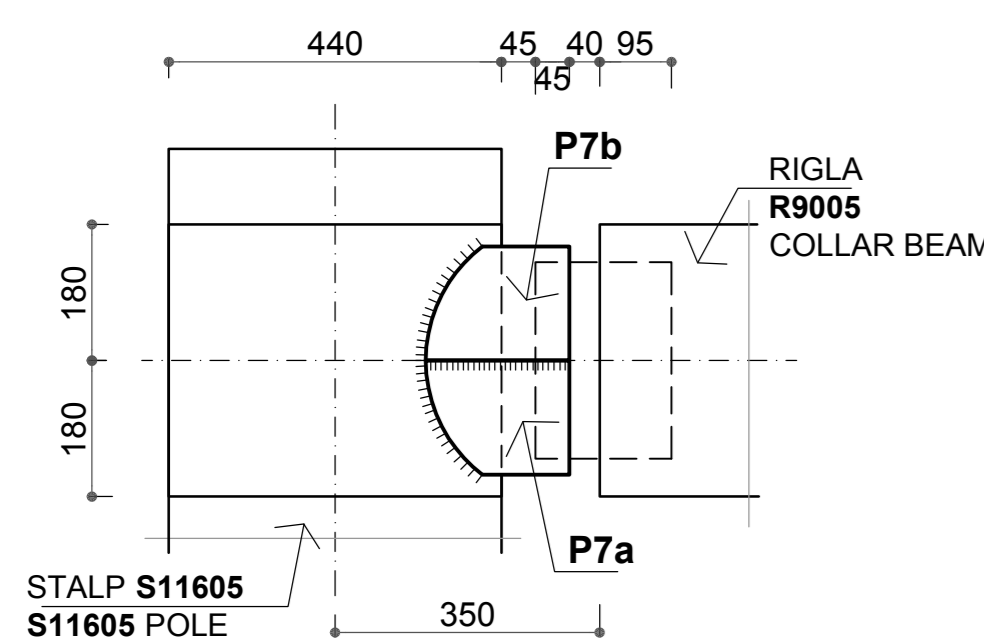
**NOTA**

- PENTRU SUDURA CE SE EXECUTA LA INALTIME, SE VA ASIGURA O PLATFORMA DE LUCRU CU BALUSTRADE.
- SE VOR RESPECTA NORMELE N.T.S.M. PRIVIND EXECUTIA SUDURILOR.

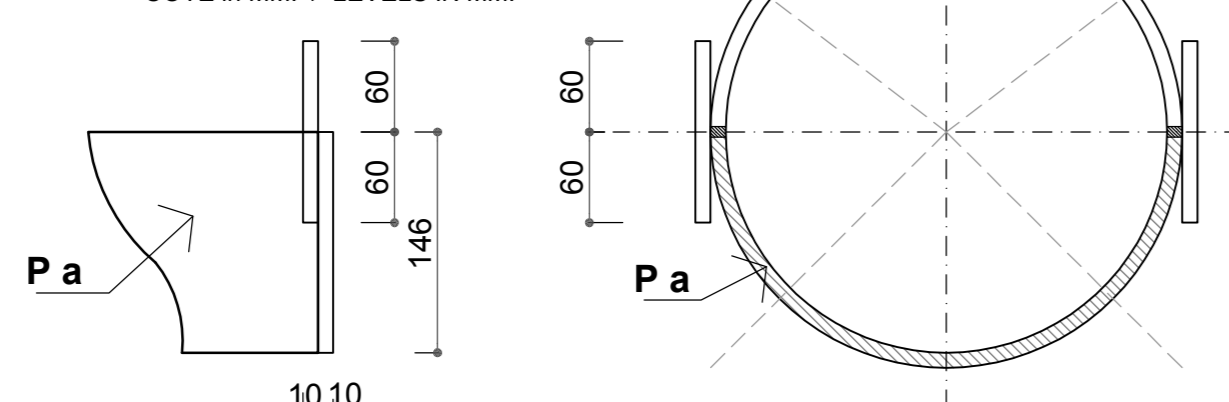
**NOTE**

- A WORKING PLATFORM WITH BALUSTRADE WILL BE PROVIDED IN CASE OF WELDING IN HIGH AREAS.
- THE NORMS N.T.S.M. WILL BE OBSERVED FOR WELDING.

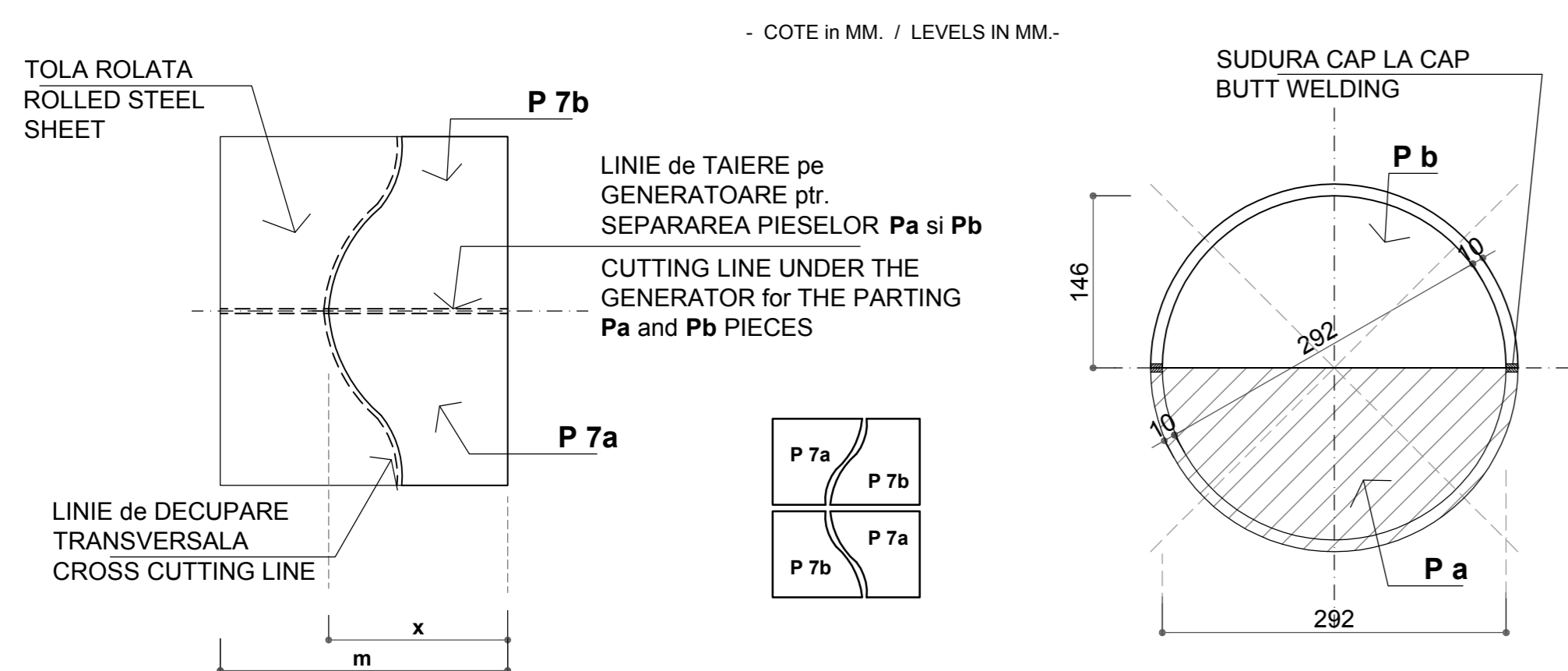
**IMBINARE TIP VII** sc. 1 : 10  
**TYPE VII JOINING**  
- COTE in MM. / LEVELS in MM.-



**DETALIU "n"**  
**DETAIL "n"** sc. 1 : 5  
- COTE in MM. / LEVELS in MM.-



**CONFECTIONAREA PIESELOR DE IMBINARE Pa ( Pb )**  
**MAKING-UP Pa ( Pb ) THE JOINING PIECES** sc. 1 : 5



**NOTA**

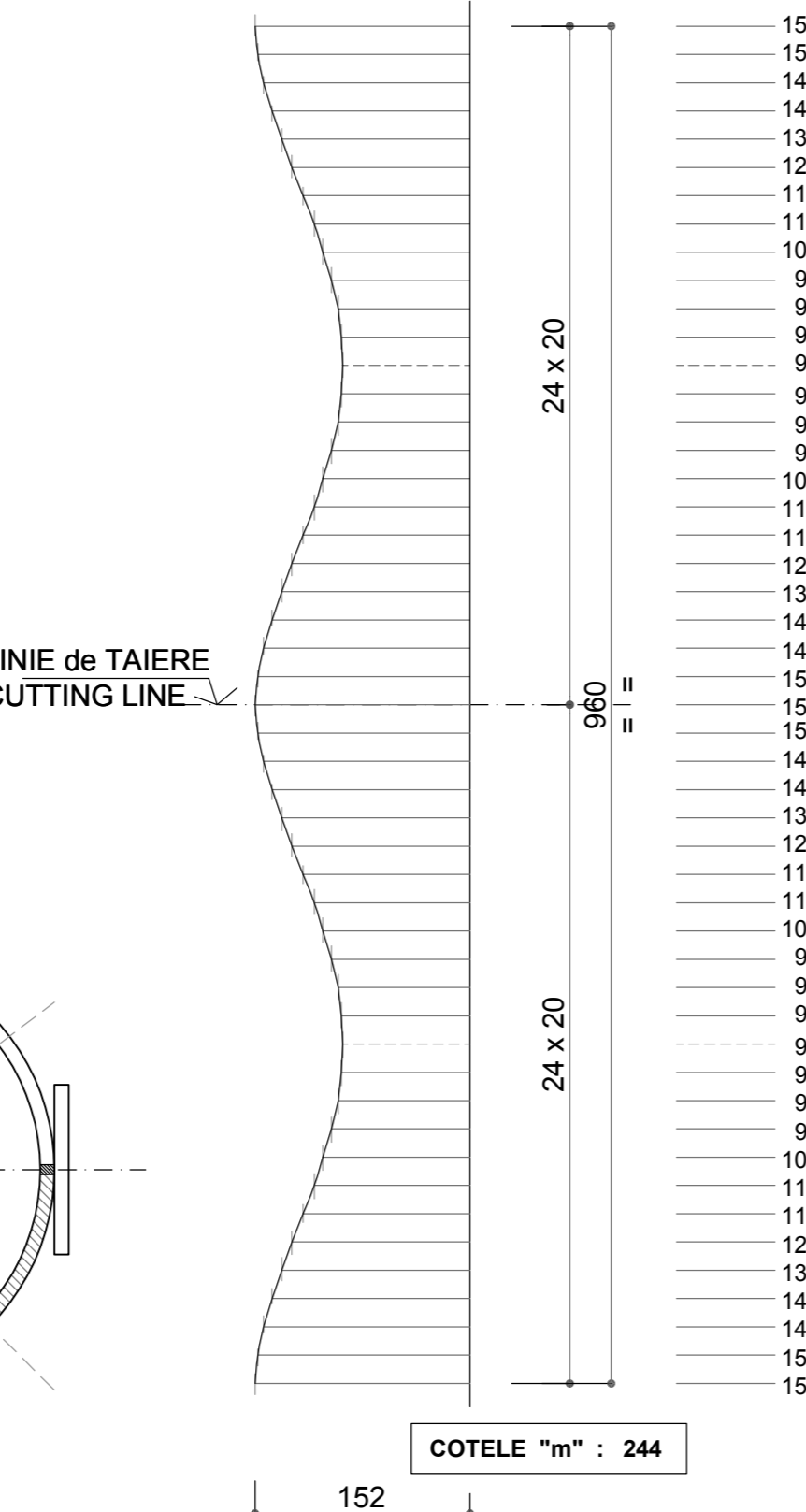
- SUDURILE SE VOR EXECUTA LA DIMENSIUNILE INDICATE, CU ELECTROZI BAZICI Ø4 mm, CARE SE VOR USCA ANTICIPAT TIMP DE 2 ORE LA TEMPERATURA DE 350°C.
- PIESELE METALICE, CE SE VOR SUDA, TREBUIE SA AIBA / GARANTAT, CONTINUTUL DE CARBON ≤ 0.2 %.
- PIESELE METALICE SE ROLUIESC DIN TABLA DE 10 mm GROSIME, LA DIAMETRUL ARATAT IN DESEN SI APOI SE DECUPEAZA CU FLACARA, ASEZAND SABLONUL DIN DESEN LA EXTERIOR.
- LA TOATE PIESELE METALICE, POZITIA P1a, ..... P7a SE VOR SUDA OPRITORII Ø 25 mm, L = 120 mm, CONFORM DETALIULUI "n"

**NOTE**

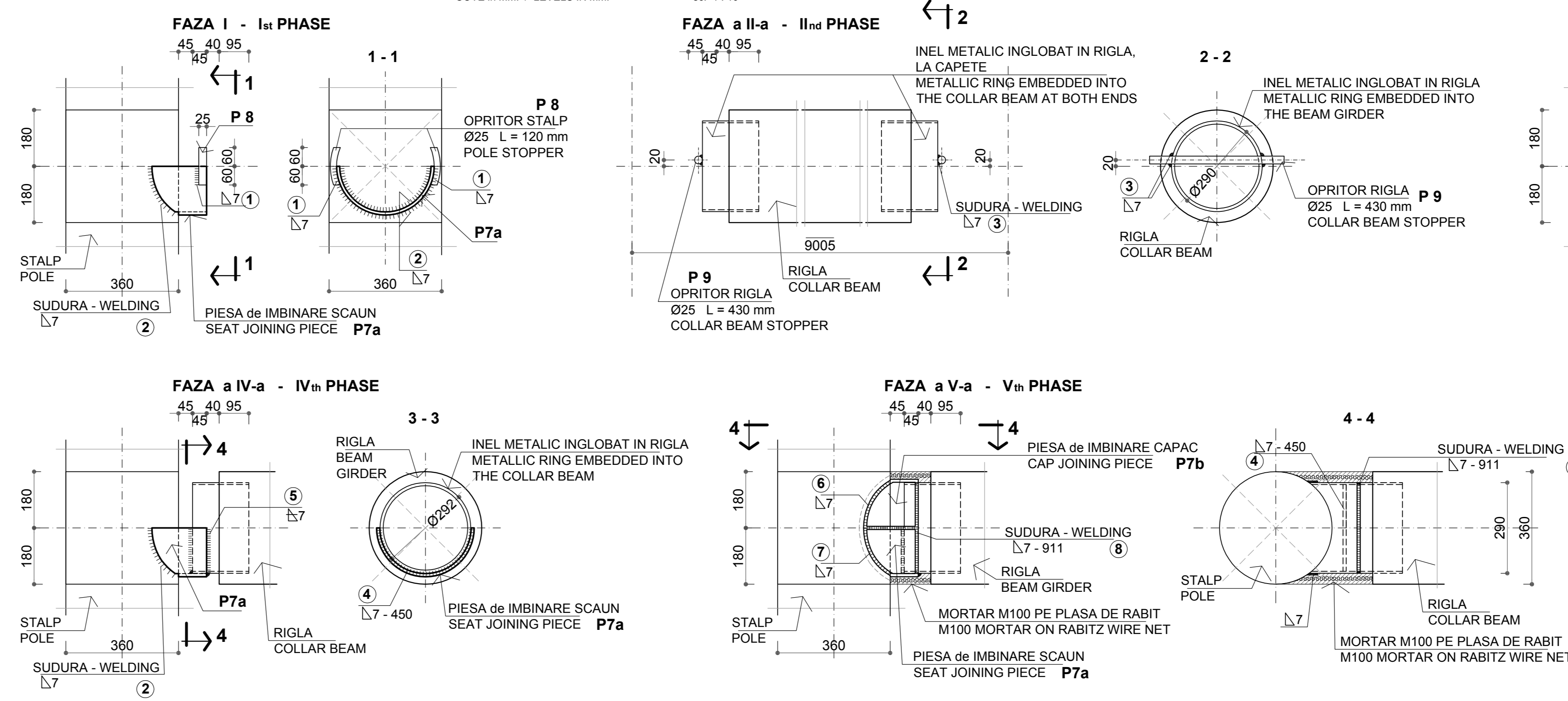
- THE WELDING WILL BE MADE ACCORDING TO THE SPECIFIED DIMENSIONS WITH BASIC Ø4 mm ELECTRODES THAT WILL BE PREVIOUSLY DRIED FOR 2 HOURS AT TEMPERATURE 350°C.
- THE GUARANTEED CARBON CONTENT SHALL BE ≤ 0.2 % FOR THE METALLIC PARTS TO BE WELDED.
- THE METALLIC PARTS WILL BE ROLLED OUT OF 10 mm THICK SHEET TO THE DIAMETER SHOWN ON THE DRAWING AND THEN THEY SHALL BE CUT BY FLAME, PLACING THE TEMPLATE TO THE OUTSIDE.
- STOPPERS Ø 25 mm, L = 120 mm, WILL BE WELDED FOR ALL METALLIC PARTS, POSITION P1a, ..... P7a ACCORDING TO DETAIL "n".

**VALORILE COORDONATELOR "x"**  
**"x" COORDINATE VALUES** sc. 1 : 5

DISTANTE INTRU COORDONATE IMBINARE TIP VII  
DISTANCES BETWEEN COORDINATES, TYPE VII JOINING



**FAZE de MONTAJ - MOUNTING PHASES**  
- COTE in MM. / LEVELS in MM.- sc. 1 : 10



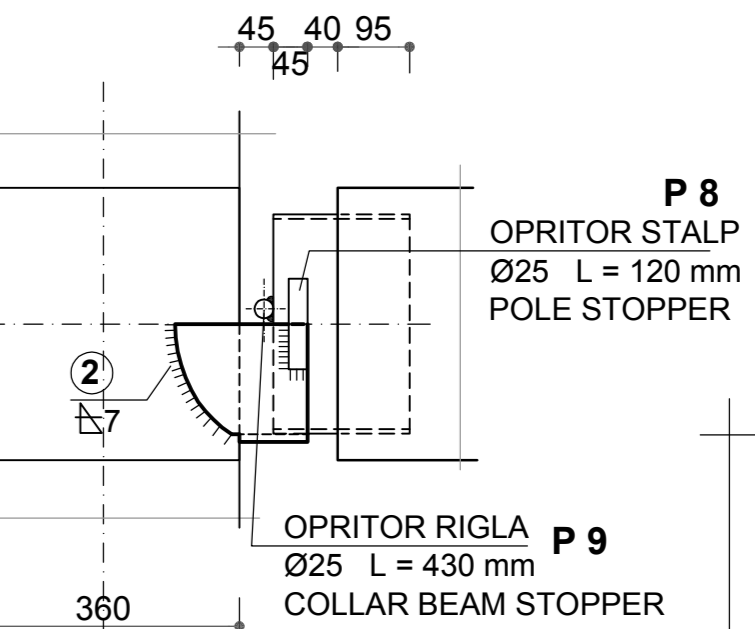
**FAZE de MONTAJ**

- **FAZA I** (SE EXECUTA LA SOL)  
SE SUDEAZA OPRITORUL STALP DE ELEMENTUL DE IMBINARE P7a SUDURILE (1) SE SUDEAZA ELEMENTUL DE IMBINARE SCAUN DE INELUL INGLOBAT IN STALP (SUDURILE (2) INTR-O PARTE SAU IN AMANDOUA PARTILE, CONFORM SCHEMEI DE MONTAJ.
- **FAZA a II-a**  
SE SUDEAZA OPRITORUL P9 DE INELUL DE IMBINARE P7 DIN RIGLA (SUDURILE (3) LA AMBELE CAPETE ALE RIGLEI. SE ATRAGE ATENTIA CA ACESTI OPRITORI TREBUIE FIXATI PE ACEEASI GENERATOARE A RIGLEI.
- **FAZA a III-a**  
SE RIDICA STALPII DIN FUNDATIE, FIXANDU-SE PROVIZORIU CU PENE DE LEMN. SE RIDICA RIGLA SI SE ASEAZA PE SCAUNELE METALICE P7a, ASTFEL INCAT OPRITORII STALP SI RIGLA SA ASIGURE FIXAREA PROVIZORIE.
- **FAZA a IV-a**  
SE EXECUTA SUDURILE DE REZISTENTA (4) SI (5) DUPA CARE SE INLATURA PRIN TAIERE CU ARCUL ELECTRIC, OPRITORII RIGLA SI STALP.
- **FAZA a V-a**  
SE EXECUTA ELEMENTUL DE IMBINARE CAPAC P7b, SUDURILE DE REZISTENTA (6) APOI (7) SUDURILE SE VOR REALIZA IN ORDINE INDIRECTA DE LA 1 LA 8. SE BETONEAZA STALPII IN FUNDATII CU C 12/15, CONFECTIONAT CU AGREGATE CU DIMENSIUNEA MAXIMA DE 15 mm. BETONUL DE MONOLITIZARE SE VA INDESA BINE IN JURUL STALPIILOR PENTRU ASIGURAREA INCASTRARI. SE RABITEAZA NODUL, SI SE TENCUIESTE CU MORTAR M100. INELUL METALIC INGLOBAT IN STALP, RAMAS APARENT, DUPA EXECUTAREA IMBINARII, SE VA REVOPSI LA CULOAREA BETONULUI.

**MOUNTING PHASES**

- **1st PHASE** (TO BE CARRIED OUT AT THE GROUND LEVEL)  
THE POLE STOPPER WILL BE WELDED TO THE JOINING ELEMENT P7a (WELDING (1) THE POLE JOINING ELEMENT WILL BE WELDED TO THE RING EMBEDDED INTO THE POLE (WELDING (2)) ON ONE OR BOTH SIDES ACCORDING TO THE MOUNTING SCHEME.
- **IIInd PHASE**  
THE STOPPER P9 WILL BE WELDED TO THE JOINING RING P7 OF THE COLLAR BEAM (WELDING (3)) AT BOTH ENDS. ATTENTION SHALL BE PAID TO FIX THESE STOPPERS ON THE SAME GENERATRIX OF THE COLLAR BEAM.
- **IIIrd PHASE**  
THE POLES IN THE FOUNDATION WILL BE ERECTED, BEING TEMPORARILY FIXED WITH WOODEN WEDGES. THE COLLAR BEAM WILL BE ERECTED AND PLACED ON METALLIC SEATS P7a, SO THAT THE STOPPERS FOR POLE AND COLLAR BEAM CAN ENSURE TEMPORARY FIXING.
- **IVth PHASE**  
THE STRENGTH WELD (4) SI (5) WILL BE CARRIED OUT, THEN THE STOPPERS FOR COLLAR BEAM AND POLE WILL BE REMOVED BY ELECTRIC ARC CUTTING.
- **Vth PHASE**  
THE COVER JOINING ELEMENT P7b WILL BE MOUNTED, THE STRENGTH WELD (6) AND THEN (7) THE WELDS WILL BE MADE IN INDIRECT SEQUENCE FROM 1 TO 8. THE POLES IN FOUNDATIONS WILL BE C 12/15 CONCRETE WITH MAXIMUM 15 mm AGGREGATES. THE MONOLITH CONCRETE WILL BE WELL COMPACTED AROUND THE POLES TO ENSURE THE EMBEDMENT. THE JUNCTION POINT WILL BE RABITZ NETTED AND PLASTERED WITH M100 MORTAR. THE METALLIC RING EMBEDDED INTO THE COLLAR BEAM WILL BE REPAINTED ACCORDING TO THE CONCRETE COLOUR.

**FAZA a III-a - IIIrd PHASE**



BETON ARMAT : C12/15, C16/20, C25/30  
REINFORCED CONCRETE :  
C 12/15, C 16/20, C 25/30  
OTEL BETON : OB 37  
STRUCTURAL STEEL : OB 37  
OTEL LAMINAT : S235JR  
ROLLED STEEL : S235JR

Index	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 EUROPEANA EUROPEAN UNION FINANCED PROJECT

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

ITALFERR GRUPPO FERROVIE DELLO STATO  
Scott Wilson  
OBERMEYER PLANEN + BERATEN GmbH  
TECNIC Consulting Engineers

CONSULTANT / CONSULTANT		Date	Semnatura Signature
Aprobat Approved	Şef proiect Project manager	12.2011	
Aprobat Approved	Coordonator Sectiune 1 Section 1 Coordinator	12.2011	
Verificat Checked	Verificator Verifier	12.2011	

SUBCONTRACTANT / SUBCONTRACTOR		Date	Semnatura Signature
Aprobat Approved	Responsabil Subcontractant Subcontractant Responsible	12.2011	
Intocmit Elaborated	Proiectant Designer	12.2011	

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

Denumire desen / Drawing Title :  
SUBSTATIE TRACTIUNE - CONSTRUCTII EXTERIOARE - TRACTION SUBSTATION - OUTDOOR CONSTRUCTION  
SCHEMA IMBINARI între STALPI SI RIGLA.  
DETALII PIESE METALICE, DETALII de MONTAJ.  
JOINING SCHEME BETWEEN THE CONCRETE POLES AND THE COLLAR BEAM.  
DETAILS for METALLIC PARTS, MOUNTING DETAILS

Codificare / Codification System	Scara / Scale 1:5	LOT / LOT	Nr. / No 01 / 01
E A 5 1 0 1 E 0 0 B Z A C 0 0 0 4 0 1 7 0			