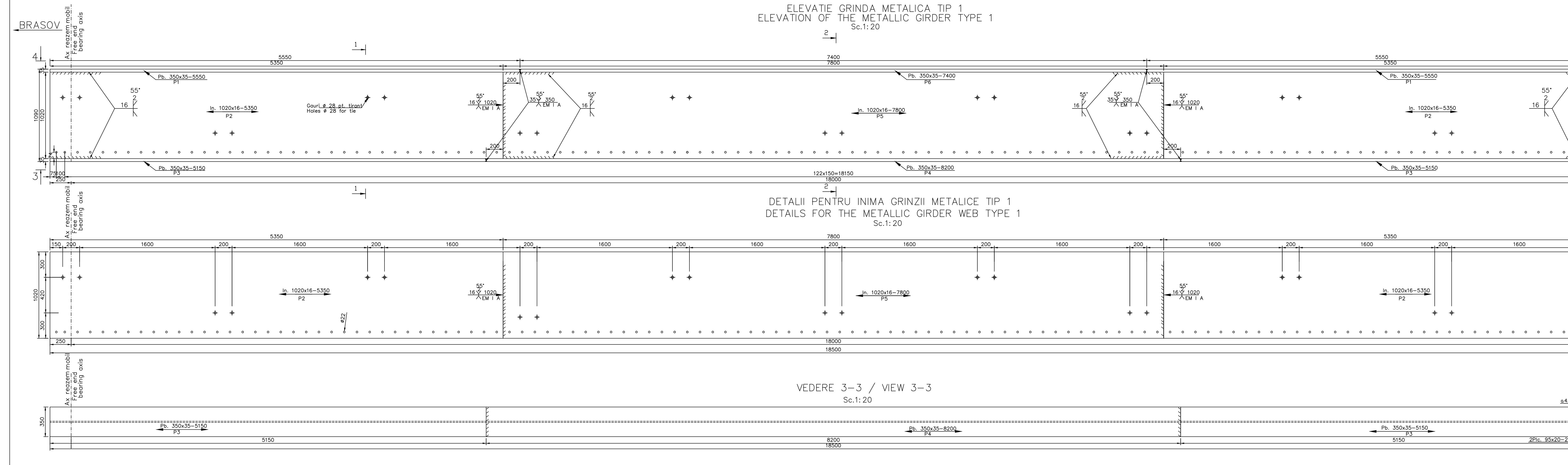
ELEVATIE GRINDA METALICA TIP 1 / ELEVATION OF THE METALLIC GIRDER TYPE 1
Sc.1:20

DETALII PENTRU INIMA GRINZII METALICE TIP 1 / DETAILS FOR THE METALLIC GIRDER WEB TYPE 1
Sc.1:20

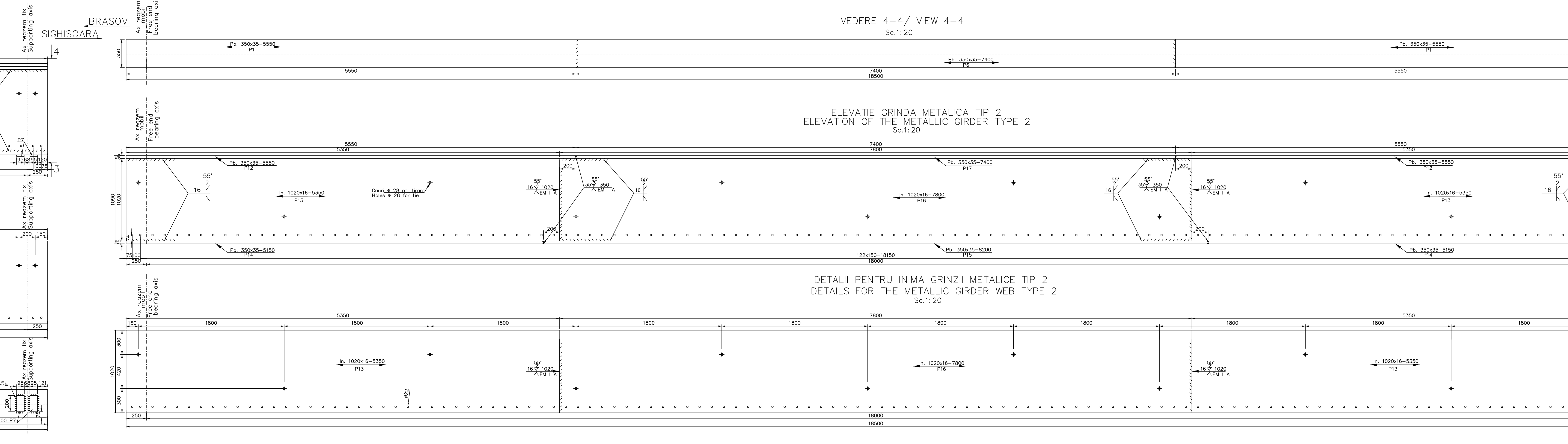
VEDERE 3-3 / VIEW 3-3
Sc.1:20



VEDERE 4-4/ VIEW 4-4
Sc.1:20

ELEVATIE GRINDA METALICA TIP 2 / ELEVATION OF THE METALLIC GIRDER TYPE 2
Sc.1:20

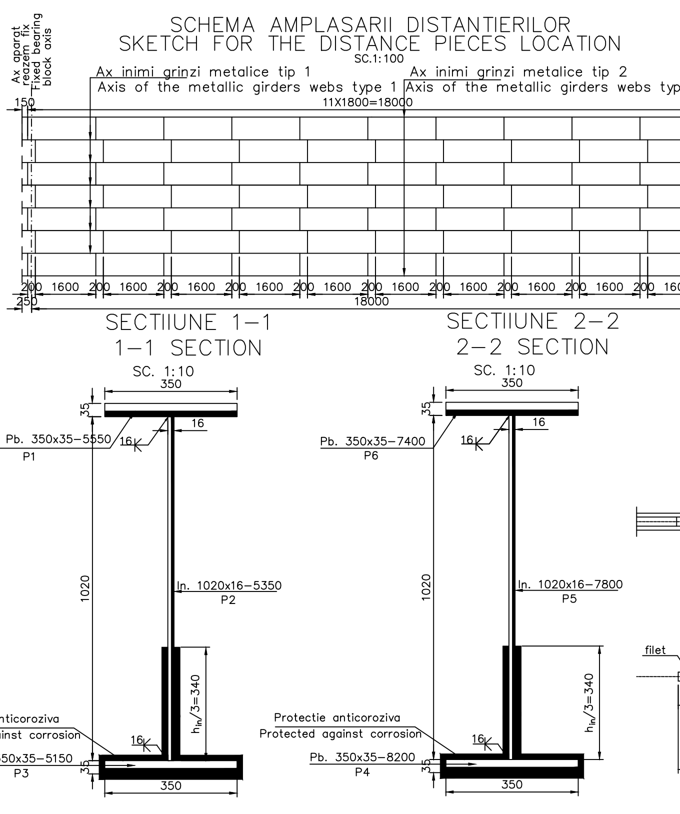
DETALII PENTRU INIMA GRINZII METALICE TIP 2 / DETAILS FOR THE METALLIC GIRDER WEB TYPE 2
Sc.1:20



SCHEMA AMPLASARII DISTANTIERILOR / SKETCH FOR THE DISTANCE PIECES LOCATION
SC.1:100

SECTIIUNE 1-1 / 1-1 SECTION
SC. 1:10

SECTIIUNE 2-2 / 2-2 SECTION
SC. 1:10

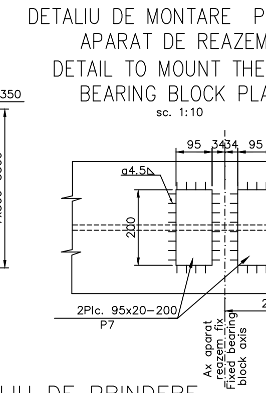


MATERIALE
(- OL37 EP STAS 12187-88 elementele grinzilor metalice.)
- $S275J_3G_3$ EN 10025/2004

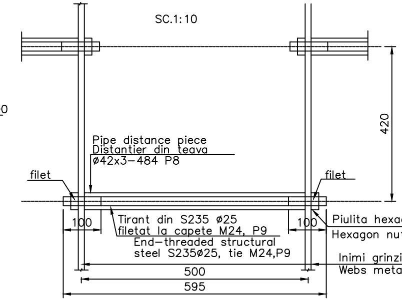
NOTA
Placutele de la aparatele de reazem se vor samfrena cu un unghi de 60°.
Gaurile din inima pentru armatura de rezistenta vor fi alezate.

NOTE
The plates of the bearing blocks will be chamfered at an angle of 60°.
The web holes for the strong reinforcements will be bored.

DETALIU DE MONTARE PLACUTE APARAT DE REAZEM FIX / DETAIL TO MOUNT THE FIXED BEARING BLOCK PLATES
sc. 1:10



DETALIU DE PRINDERE A GRINZILOR METALICE / DETAIL FOR METALLIC GIRDERS FASTENING
SC.1:10



ELEMENTE DE ASAMBLARE
-Piulita M24 STAS 4971-88 Clasa de precizie 'C'
-Saiba STAS 5200/4-91-24-OL 34

ASSEMBLY ELEMENTS
-Nut M24 STAS 4971-88 Precision class 'C'
-Washer STAS 5200/4-91-24-OL 34

EXTRAS DE MATERIAL PENTRU O GRINDA METALICA OL37-EP TIP 1 / MEASURING MATERIAL FOR UNE METALLIC GIRDERS OL37-EP TYPE 1

Poz. Pos.	Denumire Name	Dimensiuni Dimension	Nr. buc. asemenea Pieces	Greutate,Weight S 245 J_3G_3 kg/ml	kg/buc.	Total(kg)
P1	Pb. superioara Upper band steel	350x35-5550	2	96.163	533.705	1068.00
P2	Inima Web	1020x16-5350	2	128.11	659.767	1319.50
P3	Pb. inferioara Lower band steel	350x35-5150	2	96.163	495.240	990.50
P4	Pb. inferioara Lower band steel	350x35-8200	1	96.163	788.540	788.54
P5	Inima Web	1020x16-7800	1	128.11	999.350	999.50
P6	Pb. superioara Upper band steel	350x35-7400	1	96.163	711.610	711.61
P7	Placute ap.fix	95x20-200	2	14.915	2.983	6.00
Total partial						5883.00
Spor 3% pt. sudura						177.00
Total pt. 1buc. grinda						6060.00

TOTAL PENTRU UN TABLIER: 6 grinzi x 6060kg=36360kg
TOTAL FOR 1 DECK: 6 girders x 6060kg=36360kg

EXTRAS DE MATERIAL PENTRU O GRINDA METALICA OL37-EP TIP 2 / MEASURING MATERIAL FOR UNE METALLIC GIRDERS OL37-EP TYPE 2

Poz. Pos.	Denumire Name	Dimensiuni Dimension	Nr. buc. asemenea Pieces	Greutate,Weight S 245 J_3G_3 kg/ml	kg/buc.	Total(kg)
P12	Pb. superioara Upper band steel	350x35-5550	2	96.163	533.705	1068.00
P13	Inima Web	1020x16-5350	2	128.11	659.767	1319.50
P14	Pb. inferioara Lower band steel	350x35-5150	2	96.163	495.240	990.50
P15	Pb. inferioara Lower band steel	350x35-8200	1	96.163	788.540	788.54
P16	Inima Web	1020x16-7800	1	128.11	999.350	999.50
P17	Pb. superioara Upper band steel	350x35-7400	1	96.163	711.610	711.61
P7	Placute ap.fix	95x20-200	2	14.915	2.983	6.00
Total partial						5883.00
Spor 3% pt. sudura						177.00
Total pt. 1buc. grinda						6060.00

TOTAL PENTRU UN TABLIER: 2 grinzi x 6060kg=12120kg
TOTAL FOR 1 DECK: 2 girders x 6060kg=12120kg

(TOTAL OL37-EP=100160kg)
TOTAL $S275J_3G_3$=48480kg

EXTRAS DE MATERIAL PENTRU SOLIDARIZAREA GRINZILOR METALICE PENTRU UN TABLIER DE CALE FERATA SIMPLA / TABLE OF MATERIALS TO JOIN THE METALLIC GIRDERS FOR SINGLE TRACK RAILWAY BRIDGE DECK

Poz. Pos.	Denumire Name	Dimensiuni Dimension	Nr. buc. asemenea Pieces	Greutate,Weight S 245 J_3G_3 kg/ml	kg/buc.	Total(kg)
P8	Distantier teava	ø42x3-484	77	2.88	1.40	107.40
P9	Tirant S235	ø25, L=595	77	3.85	2.30	176.50
P10	Piulite	M24	154	–	0.10	15.40
P11	Saibe	M24	154	–	0.023	3.60
Total (kg)						310.00

TOTAL POD (2 TABLIERE): 2 x 310.00kg=620.00kg
TOTAL BRIDGE (2 DECKS): 2 x 310.00kg=620.00kg

NOTA
1.La executia in uzina a grinzilor metalice sudate se vor respecta cu strictete prevederile STAS 9407-75.
2.In uzina se va aplica o protectie anticoroziva pe talpile inferioare si pe o treime din inima grinzilor metalice.
3.Protectia anticoroziva se va executa dintr-un strat de baza alcatuit dintr-o pelicula de zinc de 80µm grosime si doua straturi de invelis poliuretanic, fiecare de 85µm.
Stratul de baza si un invelis poliuretanic se vor aplica in uzina, urmand ca ultimul strat poliuretanic sa fie aplicat pe santier dupa finalizarea lucrarilor la suprastructura.
4.Pregatirea suprafetelor metalice in vederea aplicarii procedeelor de protectie anticoroziva se face prin:
-Perierea de rugina cu ajutorul unor perii de sarma.
-Spalarea suprafetelor metalice.
-Degresarea cu solventi organici prin stergere sau cu emulsii.
-Dupa degresare se spala cu jet de apa pentru indepartarea urmelor de detergent. Solutia pentru degresare va fi aleasa astfel incat sa nu afecteze mediul.
Curatirea suprafetelor se va face conform gradului SA 1 1/2.

NOTE
1.The prvisions STAS 9407-75 will be strictly observed when the welded metallic girders are manufactered in the factory.
2.In the plant, corrosion protection will be applied on the lower flanges and on one third of the web of metallic girders.
3.The protection against corrosion will consist in a primary layer made of a zinc membrane (80µm thickness) and two polyurethane covering layer, each of 85µm thickness. The primary layer and the first polyurethane covering layer will be applied in the factory and the second polyurethane layer will be applied on site, after completing the superstructure works.
finalizarea lucrarilor la suprastructura.
4.Preparing the metallic surfaces in order to apply the corrosion-proof procedures shall be made by:
-Rust removal using wire brushes.
-Washing the metallic surfaces.
-Organic solvent degreasing by wiping or using emulsions.
-After degreasing, the surface is washed by water jet to eliminate the detergent stains. The solution selected for degreasing shall not affect the environment. Cleaning the surfaces is made according to the SA 1 1/2.

Indice Index	Data Date	Modificare Modification/Revision	Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR
D					
C					
B					
A	12.2011	Revizia 1 1 Revision	Maria Campan		

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		
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	C. Gambelli		
Verificat Checked	Expert Cheie Checking Expert	V. Kallidromitis		

SUBCONTRACTANT / SUBCONTRACTOR
AREX Lider COMPANY

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A. Dinulescu Stanciu	11.2011	
Întocmit Elaborated	Proiectant Designer	Campan Maria	11.2011	

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: D.E. / E.D.

Denumire desen / Drawing Title : **INTERVAL / SECTION ACATA - VANATORI**
POD / BRIDGE Km 270+262.472 D=18.00m+45.00m+18.00m
GRINZI METALICE TABLIER 2 / METALLIC GIRDERS DECK 2

Codificare / Codification System: E A 5 1 | 0 1 | E | 1 6 | B C | P V | 0 4 | 2 | 3 | 0 0 8 | 1
Scara / Scale 1:20;1:10;1:100
LOT / LOT
Nr. / No 01 / 01

297X2750