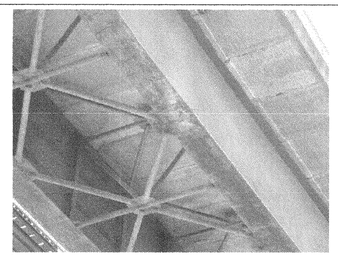
INTERVENTION WORK: D1- PAINTING OF STEEL STRUCTURES

The item covers the following activities:
- procurement, transport,storage and handling of related materials and equipment;
- surface preparation using power tool cleaning to bare metal and high-pressure waterjetting;
- painting with one coat of zinc-rich primer and two coats of approved paint applied using airless spray.

DETERIORATION:



Corrosion on viaduct steel deck



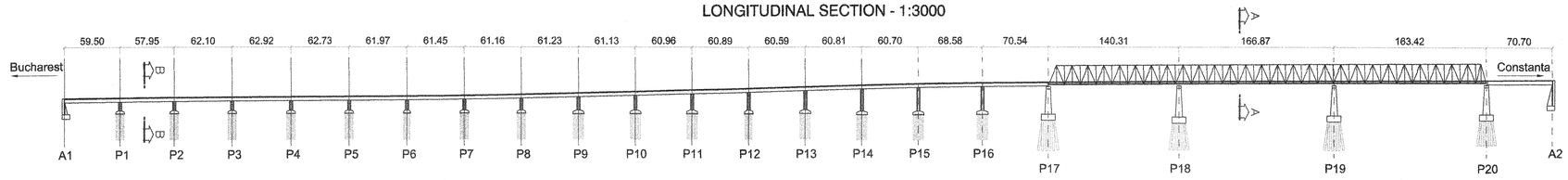
Corrosion on bridge steel deck

IVANESCU T. TOMA ROMANIA MEMBRU OGLP NR. 445 M.C.I.C. INGINER VERIFICATOR PROIECTE

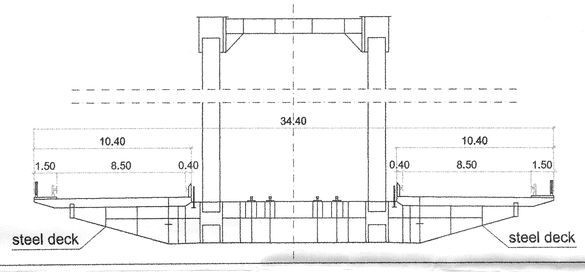
15-11-2008

GENERAL VIEWS

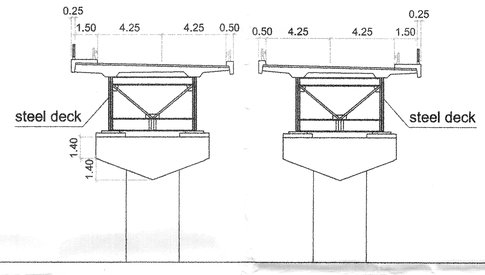
LONGITUDINAL SECTION - 1:3000



BRIDGE TRANSVERSAL SECTION (A-A) - 1:200



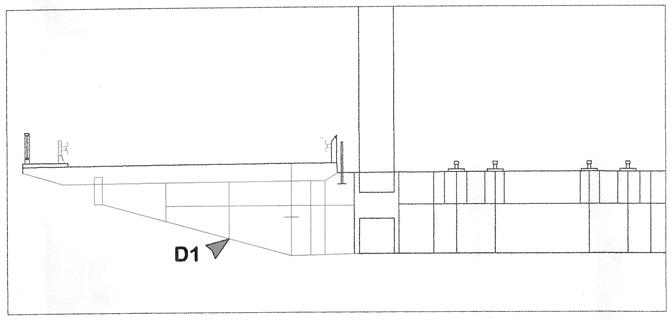
VIADUCT TRANSVERSAL SECTION (B-B) - 1:200



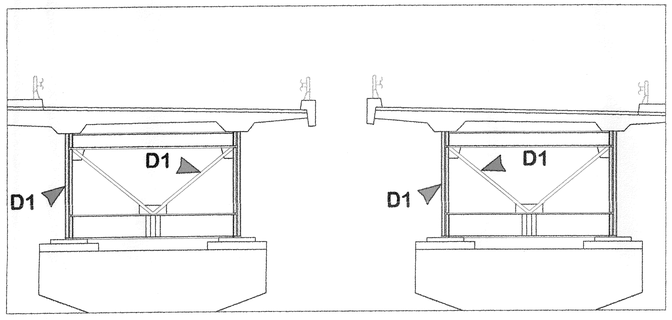
WORKING CODE LIST

CODE	MAINTENANCE AND REHABILITATION WORKS	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
	ROAD FINISHES AND EQUIPMENT										
A1	Painting of pedestrian parapet										
A2	Replacement of pedestrian parapet										
A3	Guard rail replacement										
A4	Electrical equipment replacement										
A5	Walkway slab substitution										
	PAVEMENTS										
B1	Roadway pavement and waterproofing replacement										
B2	Roadway superficial drainage rehabilitation										
B3	Walkway pavement replacement										
B4	Expansion joints replacement										
B5	Bearings replacement										
	CONCRETE REPAIR										
C1	Deck slab repair										
C2	Prestressed concrete beams repair										
C3	Pier caps concrete repair										
C4	Piers concrete repair										
C5	Tower leg concrete repair										
C6	Structural strengthening										
C7	Superstructure replacement										
	STEEL WORKS										
D1	Painting of steel structures							■			
D2	Stay cables maintenance										
D3	Strengthen of anchor bolts										
D4	Rehabilitation of inspection gantry and rails										
	EARTHWORKS										
E1	Ashlar stoneworks repair										
E2	Repair of strutture connection with embankment										
E3	Cone quarters rehabilitation										
E4	Rehabilitation of storm water collecting system										
E5	River bank improvement										

INTERVENTION DETAILS



INTERVENTION ON BRIDGE ROADWAY STEEL DECK - 1:100



INTERVENTION ON VIADUCT STEEL DECK - 1:100

INTERVENTION SEQUENCE:
1- Surface preparation: power tool cleaning to bare metal SSPC-SP11 in areas demonstrating a higher tendency to corrode and high pressure waterjetting SSPC-SP12 30000 psi in all surface;
2- Coating program: application of epoxy zinc primer, an epoxy intermediate and polyurethane finish coats using airless spray.

Power Tool Cleaning to Bare Metal SSPC-SP11:
It produces a greater degree of cleaning than SSPC-SP3 and may be considered for coatings requiring a bare metal substrate. This method produces surfaces that "look" like near white or commercial blast. Examples of circumstances where this specification may be applied are:
_ Touch-up of welded or damaged areas of erection assemblies;
_ Reducing volume of hazardous waste produced by abrasive blasting;
_ Cleaning around sensitive equipment or machinery.

High Pressure Waterjetting SSPC-SP 12:
Generally used in maintenance cleaning of previosly painted surfaces. Waterjetting opens the profile under the existing paint or rust and removes the detritus.
The key to cleaning by water is to get the energy of pressurized water transferred to the substrate efficiently.

Primer - Intercure 200 HS:
A two component, high solids, low VOC, epoxy zinc phosphate/ micaceous iron oxide primer offering excellent barrier protection, low temperature cure and rapid overcoating properties.
Intercure 200 HS is preferred for use with systems for chemical environments where zinc based materials can be subject to attack in both acid and alkaline conditions.

Intermediate Coat - Intercure 420 HS:
A two component, high solids, low VOC, epoxy micaceous iron oxide intermediate coating offering excellent barrier protection, low temperature cure and rapid overcoating properties.
The incorporation of plate-like micaceous iron oxide pigment, both increases the barrier effect and improves long term overcoating properties of the system.

Finish Coat - Interthane 990:
A two component acrylic polyurethane finish giving durability and long term recoatability.
Level of sheen and surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.
Best results in terms of gloss and appearance will always be obtained with conventional airless spray application.

INTERVENTION AND PRODUCTS DESCRIPTION

INVESTOR/INVESTITOR

ROMANIAN NATIONAL COMPANY OF MOTORWAYS AND NATIONAL ROADS
COMPANIA NATIONALA DE AUTOSTRAZI SI DRUMURI NATIONALE DIN ROMANIA

DESIGNER/PROIECTANT

LOUIS BERGER GROUP inc.

CONSULTING SERVICES FOR DESIGN AND WORKS SUPERVISION OF 10 BRIDGES IN DOBROGEA AREA

TECHNICAL DESIGN

B07-BRIDGE A2 CERNAVODA

TD - B07 - 11

DESIGN TEAM LEADER
Vittorio Ascoli Marcheselli

ORDINE INGEGNERI ROMA N° 12645

STEEL WORKS

CONSULTANTS
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D1
PAINTING OF STEEL STRUCTURES

scale	various	file name TD - B07 - 11				
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08 aug 2008	0	issue	SOLIDUS	ASCOLI		