WE SUPPORT YOUR NEEDS

M.M. S.R.L.
Fiberglass Reinforced Polymer
gratings and structures

Via Antonio Zanussi, 300/302
33100 Udine - Italy
Cap. Soc. EURO 100.000 i.v.

P.Iva / C.F. 00477620306
Reg. Imp. UD 00477620306
R.E.A. UD-138461

ph. +39.0432.522970
fax +39.0432.522253
info@mmgrigliati.it

INSULATED PEDESTRIAN ELEVATED SECTIONS

LOCATION

Urban and extra-urban railway circuit where trains leave Naples' terminal towards south and east connecting the Vesuvio disctrict and other turistic areas as Pompei. Some of these segments are part of the subway line. The railway line is being continuously renewed by the doubling of some of them, by the construction of new segments and stations, the building of elevated sections and underground ones.

CLIENT

Local Pubblic Transport company (TPL) with over 40 milion passengers and 1.600 workers.

LOCATION	**NAPLES - ITALY**
USE	**INSULATING BARRIERS FOR ELEVATED SECTIONS**
PRODUCT	**DOUBLE LAMINATED SANDWICH PANELS**

OBJECTIVE

The company needed to find a solution for the insulation and the protection of its elevated sections. The presence of train medium tension power cables which are placed close to the steel structures, could represent a possible risk for pedestrians. A long-lasting solution with the necessity of little or no maintenance was a must because of the difficult installation of some parts.

SOLUTION

In order to meet the customer's demand, M.M. has conceived a solution with double laminated sandwich panels and its FRP support frame. The basic material of the product is totally dielectric and it has been designed and tested for the maximum electric insulation according to the EN 61340-2.3 and IEC 61340-4-5 safety norms in force. It has been classified as an eccellent insulator in the resistivity and RS surface and RT transversal electric resistance tests and resistivity and safety resistance to ground tests which have been carried out according to the ASTM D 149-97a norm. These products also have a low current absorption. M.M. has supplied the support frame and the panels which have been fixed to the steel structure by means of FRP threaded rods and bolts. Their weight is of 12 kg/m^2 and they guarantee a total insulation between the laminated plates and the bearing structure with no need of additional separating devices.