

# CORSYS ARM PIPES IN THE MEGAPOLIS: A NEW SOLUTION FOR OLD PROBLEMS

by Marina Shinkorenko

The Government of the Sverdlovsk Region has approved the Stolitsa (Capital) Programme and Ekaterinburg will undergo a complex modernisation of road networks within the next five years. A pilot project has already begun involving the construction of a road interchange at the intersection of Moscovskaya Street and Obyezdnaya Road. This large transport interchange is strategically important for the city's development and could be compared

to the Moscow Orbital Motorway (MKAD) in terms of traffic volume.

Transferring the underlying utility systems, particularly water pipelines, is a vital part of the interchange construction project. It involves constructing the 900 mm diameter pipeline in special outer casings due to the shallow laying depth and extremely high transport load. It was initially planned to use steel pipes for the casings however this was rejected due to their shorter lifespan

and a propensity for corrosion when exposed to underground water.

In spring, POLYPLASTIC Group specialists submitted a proposal to install multi-layer reinforced CORSYS pipes with an ID of 1000 mm. This alternative to steel pipes was considered for the following reasons:

- a total absence of corrosion;
- double the lifetime of steel pipes;
- high ring stiffness;
- flexibility of pipes and fittings



(joints are not affected by ground movements);

- simplicity and low cost of installation.

After giving due consideration to the innovative technology being proposed, Gorodskoe Blagoustroistvo (Redevelopment of the City) local authority and the customer agreed to progress with the POLYPLASTIC Group recommendation and made the necessary amendments to the project plan.

Ludmila Makarova, Technical Director of POLYPLASTIC Ural said: “This interchange has heavy traffic and the load on the water pipeline will be enormous. It is important to ensure reliable and long-lasting protection of city’s water systems. CORSYS ARM pipes used as a casing is the best technical and economical solution. I would also point out that replacing steel pipes with modern ones has not increased the project budget and the characteristics of CORSYS ARM pipe are better than of any other used previously”.

The first installation of CORSYS pipe was done jointly: the contractor joined pipes using heat shrink tubes and specialists from POLYPLASTIC Ural provided additional pipe welding with hand extruders as well as overall supervision of the install.

Igor Kuznetsov, Deputy Technical Director said: “Installation was quite quick and easy – each joint took 60–90 minutes to weld. CORSYS has proved its reliability on-site and the traffic was flowing again less than 24 hours after installation. These pipes withstand massive loads and distortion doesn’t occur despite the shallow laying depth”.

POLYPLASTIC Group reinforced pipes were also used in Russia at the 2014 Olympic facility in Sochi. CORSYS ARM have helped to solve a difficult problem, commonly found in built-up areas.

Looking forward, POLYPLASTIC Group have already supplied the pipes required for the next stage of the water pipeline project. Using CORSYS ARM pipes will help to resolve issues effec-

