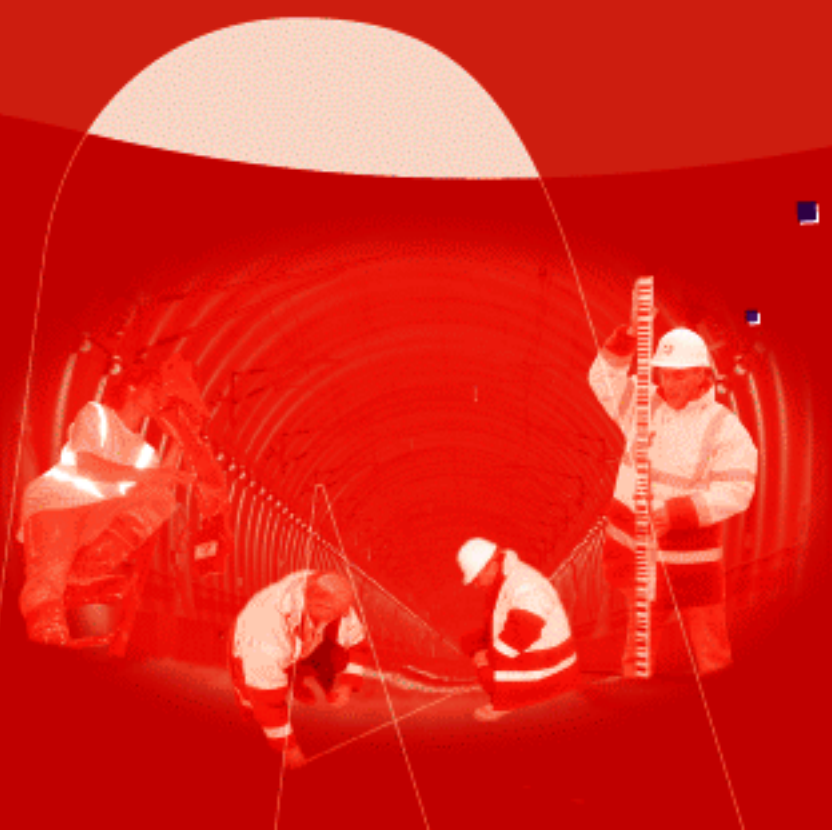




Métrie, Implantations, Réseaux, Études



Activities

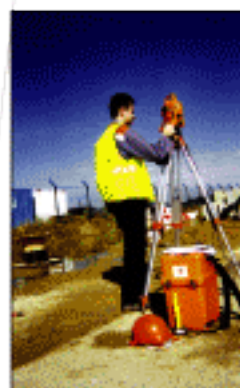
CIVIL ENGINEERING TOPOGRAPHY

After the accomplishment of topography works of lot 35b on EOLE, our teams have continued their efforts on the majority of projects conducted by the biggest French groups of civil works.

Fields of intervention :

We particularly carry out work in the following fields :

- Control surveys
- Pre-commencement topography surveys
- Volume calculations
- Main control points placing
- Precise leveling
- As-built plans
- Quantity survey

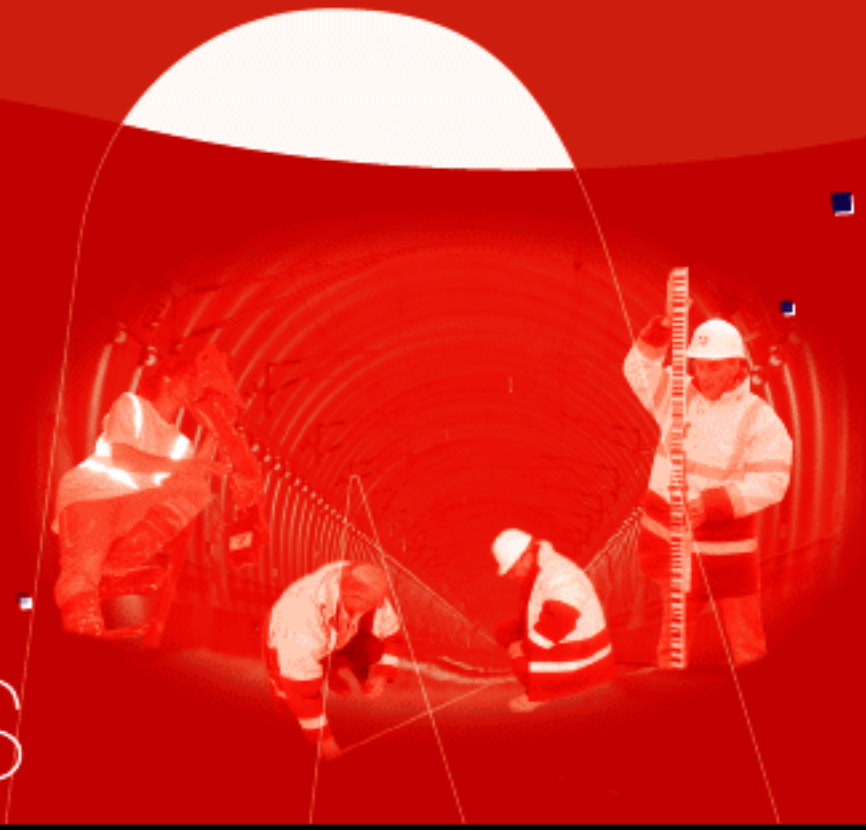


References :

- > Bara-Verdun Bridges
- > Roubaix viaduct
- > Angers rail bridge
- > ADP Technical gutters
- > PN8, PN8A, PN9, GCO Mareil Marly
- > Pantin flyover
- > Mariage Bridge (Lille)
- > Boule flyover (Nanterre)
- > Austeritz-Tolbiac-Massena Technical gutters
- > Float in Romania : ST Gobain
- > Algiers Metro: VINCI
- > Granite tower : JD Topo
- > Tour Granite : JD TOPO
- > Inspection pit at St Ouen : RATP



Métrie, Implantations, Réseaux, Études.



Activities

GPS

The new generation of GPS systems is being used for an ever expanding range of operations within Civil Engineering. Whether used for network surveying, large scale topographic mapping, or machine control, nowadays these techniques have moved out of the experimental stage, and are firmly established as normal.

MIRE® utilises its know-how in this area more and more frequently, in collaboration with some of our largest clients, particularly SNCF.

Used equipment :

- 500 Dual frequency receivers
- 6 GPS receivers 1200

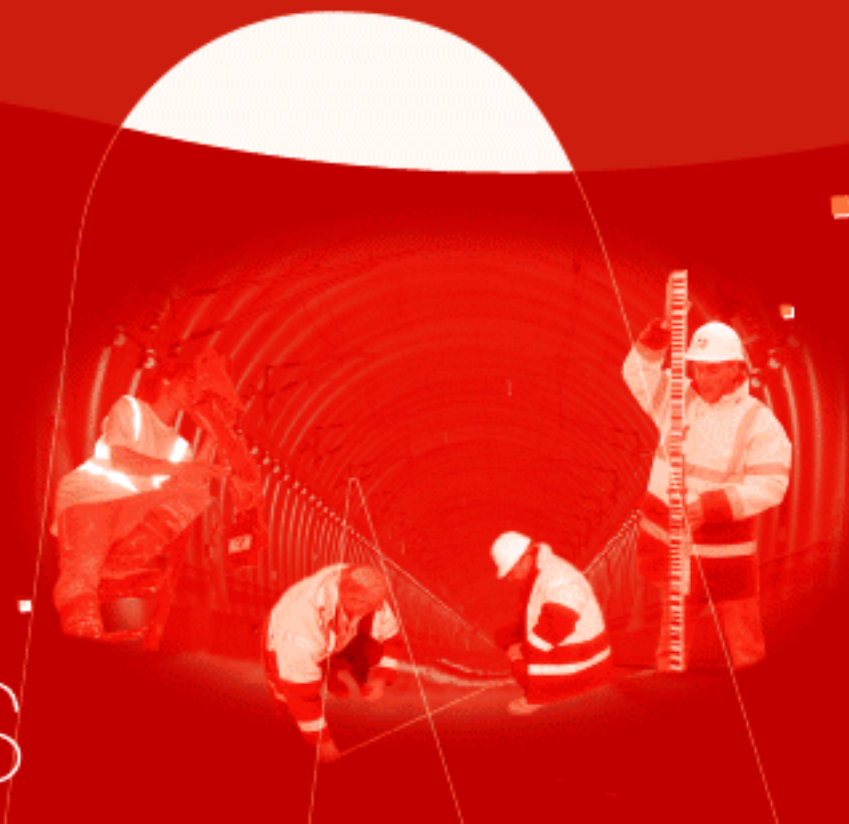


References :

- > Bois - Harel interchange : traverse surveying and plotting of 50 Ha.
- > Cap d'Agde beach : plotting of 30 Kms.
- > Traverses surveying works for SNCF at Douai : 20 Kms.
- > Traverses surveying works for SNCF at St Denis : 14 Kms.
- > EPR3 : Flamanville
- > Nice-Breil line (6kms)
- > Traverse in Corsica (100km)
- > Algiers tramway (20km)
- > PN8
- > Relevés zones Archéologiques et zone de dépôt TGV Est (GTM)
- > Polygonales sur voies Ferrées (125 kms) à Grenoble, Macon, Vitry, St Etienne



MIR, Implantation, Réseaux, Études.



Activities

Precision traverse surveying

All construction works must be based on accurate topographic surveys, and they require high quality survey data. We are regularly undertaking precision traverses, either based on existing control networks, or establishing our own.

Typical applications :

Our expertise in this area has many uses :

- Civil engineering.
- Highways.
- Railways.
- Tunnelling works.
- Machine guidance.
- Monitoring.



Used equipment :

- Digital electronic levels (Zeiss DIN).
- Precision Theodolite (Geodimeter 640).
- Forced centring pillars, and brackets.



References :

- > TGV Méditerranée
- > EOLE worksite (Paris) : SNCF
- > LIRE Sud worksite (Paris) : SAGEP
- > Saint-Petersbourg underground (Russie) : IMPREGILO
- > Mariage bridge (Lille) : DG Construction
- > Roubaix viaduc : SNCF
- > Montpellier Tramway
- > Nantes Tramway
- > Grenoble Tramway : Lot 3
- > Lyon Tramway : LEA
- > Montpellier Tramway
- > Maréchaux Tramway (Paris)
- > Eastern High Speed Line
- > Algiers Tramway
- > Algiers Metro
- > EPR 3 Flamanville
- > Float in Roumania : St GOBAIN



Miroir, Implantation, Révisé, Étude.



Activities

Building and facade surveys

MIRE® is increasingly requested to carry out internal surveys of buildings, as well as the external facades..

Equipment used :

- Disto Laser
- Leica TRCM total station
- Autocad plus other software

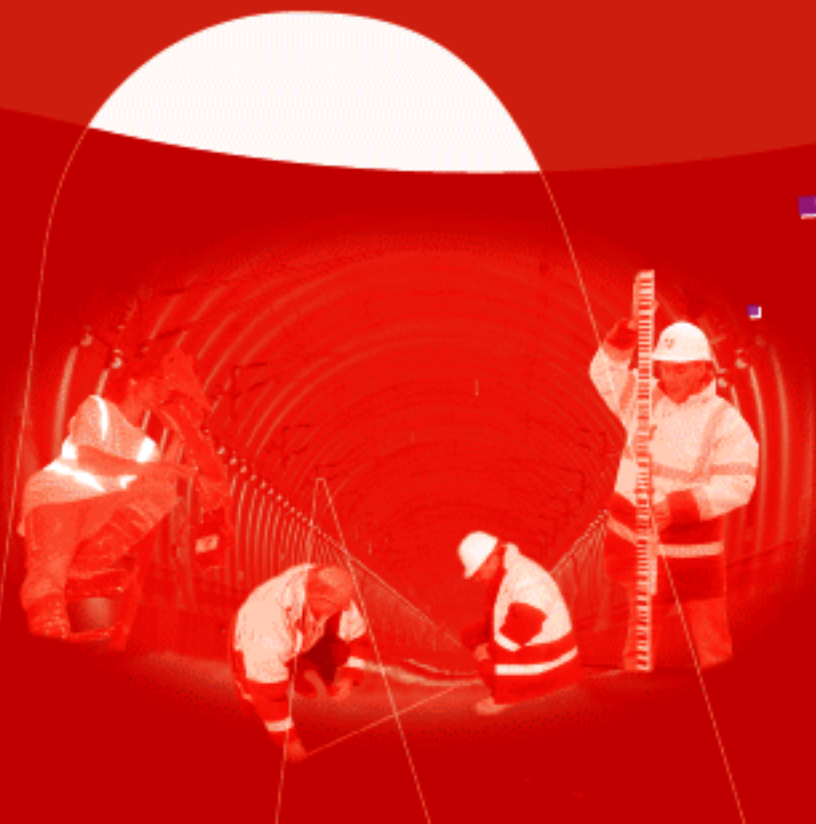


References :

- > Desquenne et Giral's registered office.
- > Bonne Espérance workshop.
- > Renault Sandouville.
- > Mureaux buildings.
- > Vosges square
- > République et F. Pyat at Puteaux schools.
- > Etampes Station
- > Neuilly Station



MIRIS, Implantation, Réseaux, Études



Activities

Railway works

Issued from a group traditionally oriented towards railway activities, MIRE SA has naturally inherited the heart of the profession: The rail.

Fields of intervention :

- High speed lines (new lines and maintenance)
- Classic lines works
- Tramway lines works (new lines and maintenance)
- Metro lines works



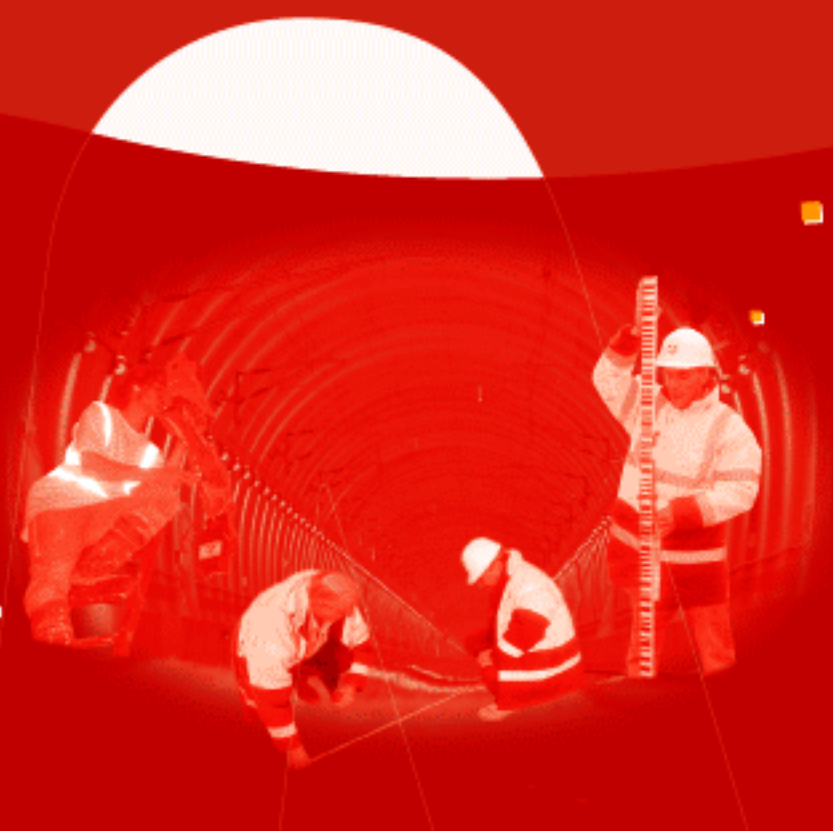
References

> See our sheets :

- High speed lines works
- Classic lines works
entretien , RVB
- Tramway works



Métrie, Implantation, Révisé, Guide.



Activities

Road works

At main road workers request, and during our works, our team helped in the road fields several times. Beyond the topography classical tasks, we managed the installation of guidance systems, embarked on graders or finishers.

Fields of intervention :

We intervene particularly in these fields :

- Surveying traverse.
- Plotting before works.
- Studies, cubature calculation.
- Layouts of main axes and ground entries.
- Precision leveling.
- As-built plans
- Quantity survey.

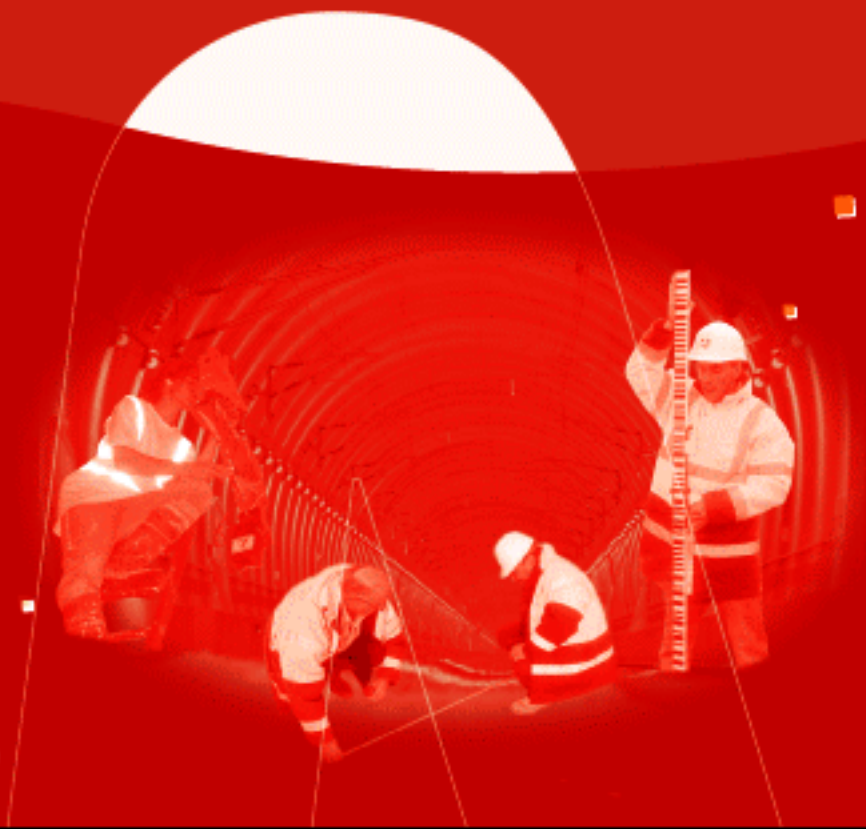


References

- > Bois-Harel Interchange (Rennes): DDE of Ile-et-Vilaine
- > RN 41 tranche 1 (Lille) : SCREG
- > N 41 Tranche 2 (Lille) : COLAS
- > Ressons Parking area Highway A1 : TINEL TP
- > Meaux diversion : RAZEL
- > Epône roundabout: SURBECO
- > RN 13 (Orgeval) : DDE of Yvelines
- > Arcas knot (Portugal) : EIFFAGE
- > RN 90 at Aix-Les-Bains : DDE of Savoie
- > Nanterre viaduct RD 914 : Valentin
- > Belgian High Speed Line : Finisher over 35km



Métrie, Implantation, Bétons, Études



Activités

underground works

Following our work on the EOLE worksite, our topography teams have specialized in underground works. Since then, they intervened on several sites for the last decade. Today they are recognized professionals by the tunneling industry.

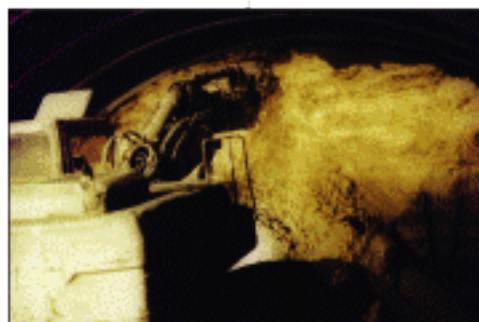
Fields of intervention :

Machine guidance :

- Tunnel Boring Machines, Road headers
- Profilometer surveys.
- Gyro-Theodolite alignment checks.
- Conventional traverses

Construction work monitoring :

- Shuttering adjustments and arch setting out.
- Monitoring
- Shaft construction

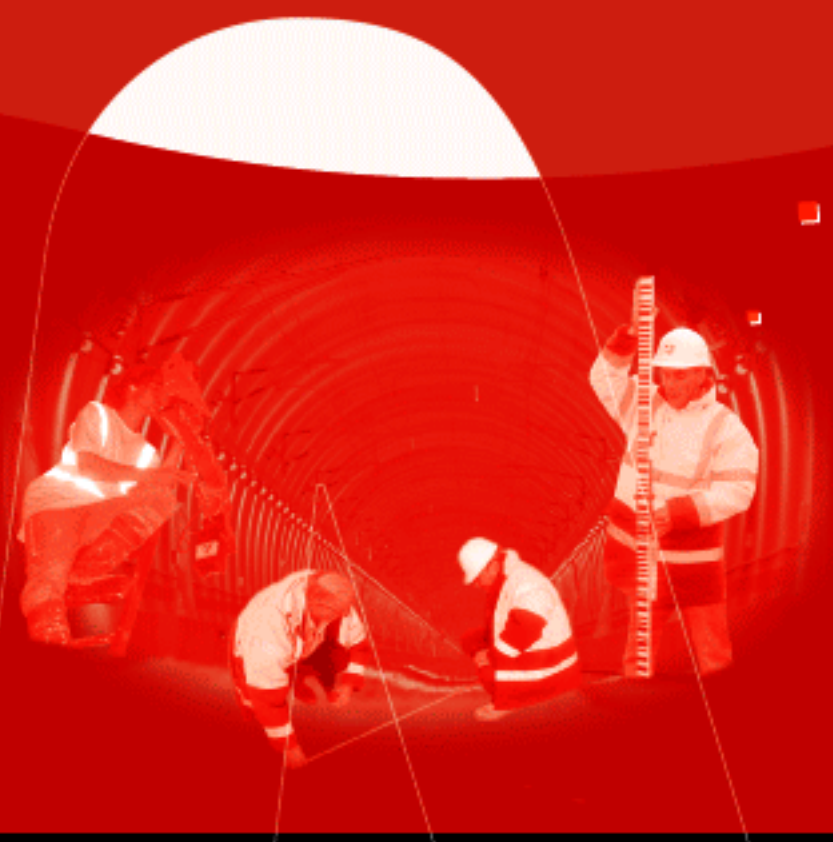


References

- > LIRE Sud worksite (Paris) : SAGEP
- > EOLE worksite (Paris) : SNCF
- > Besançon tunnel (La Crête de Fontain) : DDE
- > Muils tunnel - Excavation: LAFARGE
- > Col de la Machine tunnel : RTS
- > Pianoro tunnel: SECOESTRA
- > Genovas tunnel: METROGENOVA
- > Chavants tunnel: EIFFAGE TP
- > Pannerdensch Kanaal (Netherlands) : GROUPE VINCI
- > EPR3 Flamanville: Dumping shaft
- > Algiers Metro: VINCI



MIRIS, Implantations, Réseaux, Études.



Activities

Utilities topography

MIRE® provides utility contractors with a fast and reliable solution adapted to their individual topographical requirements. We fulfill the conditions of topographical tender documents in plans execution. We can also provide a follow-up for all sites covering all works phases of a project, from preparatory studies to as-built surveys.

Fields of intervention :

We are particularly involved in the following fields :

- Pre-start surveys.
- Control surveys.
- Studies.
- Layouts of main axes of works.
- Precision leveling.
- As-built plans.
- Drainage networks.
- Networks.
- Paving plans.
- Surface plans.
- Quantity surveys.



References

- > Eurodisney tranche 2 : SCREG, ASSTECH
- > Dalle T2, T3 at la Défense : EUROVIA, SURBECO
- > La Boule square : SUBECO, PAVECO
- > Epône town hall car park
- > Crest town hall
- > Nantes Tramway as-built : SCREG-EUROVIA
- > Algiers tramway
- > Place making Disney
- > Street plotting: Le Perreux
- > School plotting: La Plaine - Cachan