

## Transportation Infrastructure

Motorway Design for Kırkağaç - Manisa Section within Istanbul-Izmir Route



**Client** General Directorate of Highways

**Work Period** 01.05.1997 - 04.12.2008

**Services provided**  
Detailed design services  
Environmental impact assessment  
Feasibility study  
Geodesy and surveying works  
Geological survey

**Technical Details** The project consists of detailed design services including environmental impact assessment, feasibility study, geodesy and surveying works, geological survey, hydraulic-hydrogeological design, plan-profile and cross-sections, drainage design, traffic signaling, roadway railing-wire fence, landscape design, cubing (volume calculations), bill of quantities, expropriation planning, cost estimation regarding 53,6 km long 2x3 lanes motorway and 11,731 km long 2x2 lanes access roads together with 6 multi-level interchanges, 1 level crossing, 3 toll areas, 1 maintenance center, 1 service facility, 1 parking zone, 9019 m long sidewalk, 96 culverts, 30 underpasses (width<10m), 25 underpasses and flyovers (width>10m), 18 motorway bridges with a total length 1512,29 m, 1 viaduct with a total length 796,50m and 7705,89 m<sup>2</sup> of retaining walls.

