Title: KRAKÓW SOUTH BY-PASS OF MOTORWAY A-4

section: INTERCHANGE “WIELICKA” (A-4 and ROAD No 4)
         from km 423+950 to km 426+310

Sub-programme: Transport

Location: The A4 Motorway is the major road axis linking Germany with the coal-mining and industrialised southern Poland. It is to be extended to the Ukrainian border, thus facilitating the transit movements from western Europe to Ukraine and southern Russia. The A4 is part of the E40 European link running along the itinerary Ostend-Brussels-Aachen-Köln-Erfurt-Dresden-Wrocław-Katowice-Kraków-Kiev.

This project is located on the south route of A4 Kraków By-Pass and in connection with section Kapilowka-Malinówka composes a continuation of the completed part of A4 Balice-Zakopianska.

Objectives:

- Finance and ensure completion of Katowice-Kraków Motorway section including Kraków South By-pass (8.2 km).
- Support the more economic and reliable international transport of people and goods in areas of interest to EU and Poland.
- Increased trade and improve transit traffic in voivodship of Kraków.
- Decrease costs of transport.
- Protect natural and human environment along the new part of Motorway A4.

Description

The Interchange “Wielicka” is part of large infrastructure project Wroclaw-Katowice-Kraków motorway A4 for which already a 126 km section between Bielany, near Wrocław, and Nogawczyce, is financed by Phare and the EIB.

The project Kraków South By-Pass as component of Motorway A4, is related to the following ongoing or already completed sub-projects:

- Wrocław–Nogawczyce motorway section of 125 km is financed by Phare 68 MECU (all structural works) and roads works from EIB (220 MECU) and the State Budget.

- Katowice by-pass ( oncoming project within most recent Phare ZZ9722 Programme of 35 MECU fund) 20.4 km long section of A4 co-financed from Phare , European Investment Bank and Polish Government budget.

- Tyniec-Opatkowice : 9.2 km long section of A4 completed in the period of 1989-1997 and financed from Polish Government budget

This project of Interchange will be implemented as a selected sub-project to be financed entirely from Phare programme. The remaining section of Kraków By-Pass (6 km long approx), subject to EIB and Polish Government financing, constitutes a complete link between Motorway A4 and sub-urban road network of Kraków.

Basic technical data for both sections:

- Design speed: 120 km/h
- Roadway width: 35.5 m
- Dual carriageway: 3 lanes each direction
- Emergency line: 3.0 m
- Soft verge width: 1.25 m
- Median width: 6.0 m

Works covering the section of Wielicka Interchange financed by Phare:

- earthworks total: 324 500 m³
- pavement: 78 000 m²
- slip roads at interchange: 3 400 m
- viaducts: 7 Nos
- bridges: 2 Nos
- footbridges: 2 Nos
- storm drainage including water drainage treatment appliances: 2 600 m
- acoustic screens: 4 400 m

Works coverage financed by EIB and State Budget (section Kapiełowa - Malinówka):

- embankments: 373 567 m³
- excavations: 368 717 m³
- pavement: 234 206 m²
- viaduct on Kapiełowa Str.: 177 000 m
- overbridge: 7 Nos
- motorway viaduct: 3 Nos
- motorway bridges: 2 Nos
- drainage: 7 km
- retention reservoirs: 4 Nos
- regulation of Wilga stream: 200 m
- reconstruction of 110 kV line: 2 300 m
- acoustic screens

Budget:
Cofinancing of “A4 Kraków By-Pass” project is included in Memorandum signed by the European Investment Bank and Polish Government in December 1997. The composition of the budget, shown in the table, is made in accordance with Phare /IFI financial policy. Financial input of the Polish Government for construction and supervision is planned in 1999 budget.

The finalisation of the tender dossiers and detailed design is managed by GDDP Kraków (Regional Directorate of Public Roads)

**Institutional Framework and implementation arrangements:**

The Agency for Motorway Construction & Operation (ABiEA) has been in charge of preparation of the project up to tender process. The Ministry of Transport (General Directorate of Public Roads) will act as an implementing agency for Phare, EIB and Polish Government co-financed projects and will be in charge of tendering and contracting the Phare component according to the Phare DIS procedures. The GDDP Kraków will be appointed as an institutional Engineer for the Project. The start-up of the project is planned to take place in May 1999 and be finalised by December 2001.

**Implementation schedule**

Start of tendering: October 1998
Start of project activity: May 1999
Completion: December 2001

**Equal opportunity:**

The participation of women and men in the project will be based on relevant standards of European Community concerning EOE (Equal Opportunity of Employment) and it will be assured by the official advertisements published for recruitment of the project staff.

**Environment:**

The basic designing criteria for A4 Kraków By-Pass focus on the achievement of several positive environmental effects, through construction of the modern motorway facilities. The major effects are as follows:

- reduction of a very intensive pollution in metropolis area;
- preservation of Kraków Old Town (monument of architecture class “O”) by elimination of transit traffic running presently through the town;
- reduction of accidents;
- socio-economic development.
An environmental impact assessment was performed by Polish experts COMPLEX PROJEKT Katowice and accepted by the Ministry of the Environment, the Ministry of Home Affairs and Administration and the Ministry of Culture. All analyses presented in the report were conducted with full respect to the relevant International Conventions signed by Polish Government. This report is available from the Ministry of Transport in Warsaw.

The executive summary of the report specified the environmental preservation conditions of implementation of the Project:

**Construction stage:**
- protection measures during mass earthworks
- protection coating to access roads
- preservation of embankment slopes from erosion
- protection measures to agriculture areas and water reservoirs
- preservation of archeological and architecture monuments

**Motorway operation stage:**
- noise preservation measures in built-up areas (acoustic screens)
- green belts up to 50 m from roadways
- longitudinal fencing (live-stock protection)
- wild animals passages
- ecological drainage (water purification appliances)
- air pollution prevention measures

**Rates of Return**

- Significant benefits can be expected once the whole project has been implemented and the connection to the western part of A.4 (west of Gliwice) completed.
- Traffic forecasts to years 2005/2015/2025 were performed in 1997 by Transprojekt Warsaw and TecnEcon for the whole A4 corridor. The Economic Internal Rate of Return (IRR) was estimated at 26%.

**Investment criteria**

The project A4 Kraków By-Pass is part of the Crete corridor III (see maps in annex) and meets the following CEC criteria of selection for investment:

- Implementation Readiness – The project is proven technically and economically feasible. Preliminary design permitted cost estimations and environmental impact studies have been completed.
- Additionality - The project is one that the government would not undertake or would considerably delay without the financial support from a source such as a EU aid programme.
- Conditionality – Phare funding of the project will be conditional on the co-financing with European Investment Bank and its contribution will not exceed 25% of the total cost of the project. EIB contribution and Polish Government contribution in financing will be shared adequately to the conditions of Memorandum signed in December 1997 by EIB and Polish Authorities.

**Conditionalities:**
- Cofinancing from the Government and other sources as proposed
- Completion of the project on schedule (by end 2001) assuming project construction start in May 1999.
- Maintenance ensured by the Polish Government
- Assurance by the Polish Government of temporary duty free importation of equipment in case of tender award to foreign contractors
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<td>• finance and ensure completion of the A4 Motorway;</td>
<td>• 154 km of completed motorway sections;</td>
<td>• GDDP reports, monitoring and assessment reports;</td>
<td>• continued political commitment towards European Integration;</td>
</tr>
<tr>
<td>• support the more economic and reliable international transport of people and goods in areas of interest to the EU and Poland;</td>
<td>• increased trade and transit in the voivodship</td>
<td>• regional development data (local authorities, chambers of commerce and trade);</td>
<td>• continued foreign investments and availability of national budget funds for transport infrastructure projects;</td>
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<td>• assist in regional socio-economic development and international exchanges through the improved movement of people and goods.</td>
<td>• decreased travel and transit time;</td>
<td>• transport companies and organisations;</td>
<td>• implementation of concessions for motorway operation and/or further construction;</td>
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<td>• savings in vehicle operating costs;</td>
<td>• international and national statistics and traffic surveys;</td>
<td>• further integration of transport operation.</td>
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<td>• decreased cost of transport;</td>
<td>• traffic police statistics.</td>
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<th>Results of Project (5)</th>
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<td>• completion of the A4 Motorway;</td>
<td>• commitment/disbursement ratios;</td>
<td>• supervision consultants reports;</td>
<td>• available private and public funds to complete other sections in Corridor III;</td>
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<td>• completion of the &quot;Wielicka&quot; Interchange;</td>
<td>• timely handing-over of the civil works to the GDDP (24 months);</td>
<td>• PMU reports, Strategic Plans and Work Programmes;</td>
<td>• traffic growth as expected;</td>
</tr>
<tr>
<td>• protected natural and human environment along the new motorway sections.</td>
<td>• noise and emissions not exceeding standards;</td>
<td>• environmental and traffic surveys;</td>
<td>• adequate maintenance of vehicle fleet and road/motorway sections;</td>
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<td>• decreased transit traffic through city centres</td>
<td>• DODP Kraków reports.</td>
<td>• economic growth of Kraków Voivodship.</td>
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<th>Outputs of Subprojects (9)</th>
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<tr>
<td>• completed section km 418.1 - 426.3</td>
<td>• commitment/disbursement ratios for Phare component;</td>
<td>• supervision consultants reports;</td>
<td>• available complementary financing resources to cover potential supplementary costs on the Phare financed works;</td>
</tr>
<tr>
<td>8.2 km of 2 x 3 lane carriageway of A4</td>
<td>• timely handing-over of the civil works to GDDP (24 months);</td>
<td>• PMU reports, Strategic Plans and Work Programmes;</td>
<td>• availability of high-quality contractors and consultants;</td>
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<tr>
<td>- 7 Nos large structures</td>
<td>• quality of the works in accordance with international standards.</td>
<td>• laboratory tests.</td>
<td>• availability of qualified management staff at the GDDP PMU and Kraków DODP.</td>
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