1. Basic information
1.1 Number: PL01.08.05
1.2 Title: Wilkanowo by-pass
1.3 Sector: Infrastructure
1.4 Location: Poland, Province of Ziemia Lubuska and the region of Brandenburg, District of Zielona Góra, 60 km away from the Polish-German border

2. Objectives
2.1 General/strategic objective:
Reinforcement of polish transport infrastructure. Implementation of the transport infrastructure system development programme, which requires leading the transit traffic out of the town.
Improvement of environmental conditions
General increase in economic activities through the development of tourist and recreational possibilities

2.2 Direct objectives:
Eliminating of dangerous and inconvenient transit traffic from the town, increase in speed of travelling, shorter travelling time, lower number of road accidents, lower level of exhaust gases and noise, lower costs of road maintenance, creation of new jobs.

2.3 Priority of Partnership for Membership and the National Preparation Programme for the Membership in the European Union
This investment is in accordance with the objectives defined in the Partnership for Membership and, in particular, in the National Preparation Programme for the Membership in the European Union. This programme assumes:
### intensifying of works in the range of construction of highways, modernisation of international railway lines and roads being a part of the transeuropean transport ways system and covered by the European network scheme
### preparation of study works and implementation of the investment in the range of transport infrastructure shall be financed from budget resources of the Polish government with considerable financial support of PHARE funds and credits from the World Bank
### over the years ahead, the basic priority in the transport sector shall be the continuation of modernisation and extension of transport infrastructure, with special regard to border crossings and access roads to border crossings
### introduction of obligatory environmental impact assessments

2.4 Participation in the National (or Preliminary) Development Plan (NPR) as well as the Joint Programme Document (JPD) Phare CBC or Phare CBC/Interreg IIIA
Transport infrastructure plays the key role in efforts aiming at the reduction of regional differences in economic growth. Therefore one of the priorities of the policy aiming at building national links identified in the Preliminary National Development Plan, in the form of an annex to NPAA, is the integration of the polish economy through the modernisation and development of transport networks. Therefore all activities, according to the priority, focus on transport infrastructure existing in Transeuropean Networks and they shall be supplemented by activities undertaken in regions as a contribution to the building of economic and social links in the country. They are written down in accordance with the priority "Reinforcement of the development potential of regions and the prevention of some areas from becoming of minor importance". One of the countermeasures proposed according to the priority is "The Development and modernisation of infrastructure aiming at higher competition". This project is in accordance both with the Preliminary National Development Plan and the operational programme for the Lubuskie Voivodship.
The development of cross-border co-operation has been included in the Preliminary National Development Plan. The implementation of this task will give rise to higher economic activity of the border regions and will have an impact on economic growth of border communes.

2.5 Cross-border impact
The implementation of this project will
- Improve the cross-border transport infrastructure
- Prevent the natural environment pollution
- Assure higher standard of travelling, especially for the growing tourist traffic from the countries of the European Union.
Road no 32 goes directly to the new border crossing Gubin – Gubinek. The by-pass of the locality of Wilkanów will considerably improve road safety.
There is a possibility of the implementation of the similar project on the German side. Within the extension of the Odrzanska - Luzycka route in Brandenburg, the road connection to the highway no 15 will be constructed.
The project is strictly related to the JPD priority: infrastructure and the measure concerning development of the integrated regional transport and communication networks.

3. Description

3.1 Origin and substantiation:
The investment is a phase of the final solution of the transport lay-out in the border area. Uniformly and densely constructed road system as well as sufficient number of border crossings will assure proper economic and tourist development of the whole region. At present, vehicles bound for the border crossings in Olszyna, Leknica and Przewóz, entering the national road no 27, have to go through Luzycka Street in Zielona Góra, among the housing estates. The construction of the by-pass will cause bracing of all the national roads entering the town, thus eliminating the transit traffic from the centre of the town as well as facilitating access to the industrial district without the need to enter the town. The by-pass of Wilkanów is the continuation of the North-Western Route in Zielona Góra, constructed during the last few years, and being the part of the national road no 32 Gubin – Poznan. The constructed by-pass will take over the traffic going to the above mentioned border crossings from the national road no 32. The project is connected with other ones co-financed by the Phare funds in the field of transport. The General Directorate of Public Roads, Office in Zielona Góra is prepared to implement the investment. The design documentation is prepared and necessary financial resources amounting to 60% of the investment value are assured. The enterprise has got the full approval of the Voivode, the Marshall of the District, the Council and the Management of the Commune. This undertaking, through the improvement of transport infrastructure in the border region Poland - Germany, would be the visible contribution to the transport integration of Poland with the European Union.

3.2 Related activity

Dozen or so road investments of considerable importance to the improvement of the transport system have been implemented within the transport infrastructure extension in the Lubuskie District. These investments have been financed from the Phare and the World Bank funds.
Projects integrally connected with the considered investment
- Contract PL 9402 „Construction of the cross-border bridge over the Nysa Luzycka river in the locality of Gubinek”
- Contract PL 9402-01-02-L001 „Construction of the access road to the border crossing in the locality of Gubinek”
- Contract PL 9502-01-02-L003 „Construction of the by-pass of the locality of Polupin in the course of the national road no 274 (32)
- Contract PL 9502-01-03 „Access roads to the locality of Lesniów Wielki in the course of the national road no 275 (32).

3.3 Results:
Construction of the new road section 4,9 km long and transference to the public use.

3.4 Products / effects:
Gaining qualified personnel for the management of the project, supervision, design and construction works. Obtaining construction materials, equipment and machines.

3.5 Costs
Construction of the new road section 4,9 km long together with objects. The entire cost of the investment 5,000 MEUR - 2,000 MEUR of Phare funds and 3,000 MEUR of budget resources

4. Institutional framework

On the central level
General Directorate of Public Roads
Address: 00-921 Warszawa, ul. Wspólna 1/3
Contact person
5. Detailed budget (M€)

<table>
<thead>
<tr>
<th></th>
<th>Financed by PHARE CBC 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Investment support</td>
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<tr>
<td>Construction of a</td>
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</tr>
<tr>
<td>new road section</td>
<td></td>
</tr>
<tr>
<td>together with</td>
<td></td>
</tr>
<tr>
<td>objects</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2,000</td>
</tr>
</tbody>
</table>

Budget resources for this investment are reserved in the state budget.

6. Implementation arrangement

6.1 Implementation department

Preparation and execution of tender procedure: Implementing Authority for Phare Cross-Border Co-operation Programme, General Directorate of Public Roads South-West Division, Office in Zielona Góra.

Conclusion of Contract with a contractor: Implementing Authority for Phare Cross-Border Co-operation Programme, General Directorate of Public Roads South-West Division, Office in Zielona Góra

Supervision of investment works: Implementing Authority for Phare Cross-Border Co-operation Programme, General Directorate of Public Roads South-West Division, Office in Zielona Góra

Final approval: Implementing Authority for Phare Cross-Border Co-operation Programme, General Directorate of Public Roads South-West Division, Office in Zielona Góra, The Representative of the European Commission in Poland

Elaboration of reports: General Directorate of Public Roads South-West Division, Office in Zielona Góra

Co-ordination: General Directorate of Public Roads, Implementing Authority for Phare Cross-Border Co-operation Programme

The Implementing Authority for Phare Cross Border Co-operation Programme

Krucza 36 Street; 00-522 Warsaw
6.2. Twinning
Not applicable

6.3 Non-standard aspects
During the implementation of the task non-standard procedures related to the contract are not provided for. The investment will be executed according to The Handbook of Decentralised Realisation (DIS)

6.4 Contracts
Only one tender procedure for the Phare component is planned and one contract will be signed. The value of the contract is 5,000 MEUR. It will be tender procedure for works.

7. Implementation schedule
7.1 Start of tendering
I quarter of 2002
7.2 Start of project activity
I 2002
7.3 Completion
IV 2004

8. Equal opportunities
Opportunities of employment for men and women will be based on relevant standards of the European Union concerning EOE (Equal Opportunity of Employment), which will be assured by an official announcement in the press during the employment procedure.

9. Impact on natural environment
The evaluation of impact on environment has been elaborated for this project in 2000. The evaluation has been made by Biuro Uslug Geoinzynieryjnych ###GEOMAX### in Wroclaw and is available at the seat of the Beneficiary.
It covers the main and most substantial elements of environment:
### geological environment
### soil and underground water
### elements of landscape and flora
### protection of atmospheric air
### waste-water disposal
### acoustic climate

10. Rates of return
The following has been carried out for the project:
financial internal rate of return FIRR - 74,50 %
economic rate of return ERR - 94,50 %

11. Investment criteria
11.1 Catalytic effect:
The investment:
Will play an important role in the economical and tourist development of the region.
Will involve other activities in accordance with the policy of integration (e.g. facilitation of transit traffic, health protection, etc)
11.2 Co-financing:
The project is co-financed by the government funds to the amount of 60 % of total costs of the investment. The Polish party is financing payments related to the preparation of the investment as well as covers the part of costs of the construction works.
11.3 In addition:
Other sources of financing will not be eliminated
11.4 Preparation and size of the project:
The General Directorate of Public Roads Office in Zielona Góra is prepared to implement the contract. The evaluation of impact on the environment as well as financial and economic analysis have been elaborated. The design documents has been prepared. The size of the project is planned for 5,000 MEUR.

11.5 Permanent effects of the projects
The project provides permanent solution for road safety problems and shorter travelling time. It will be sufficient for the planned traffic flow for the period of 30 years. Funds for the maintenance of the project after its completion have been assured and they come from the government budget.

11.6 Compliance with provisions concerning governmental support
The project complies with provisions concerning governmental support in this type of investments.

11.7 Contribution to the National Development Plan and the Joint Programme Document
The integration of Polish economy through the development of transport networks covers: modernisation and development of road and railway network in transeuropean transport ways (TINA network) including activation of highways construction programme, commencement of road surfaces reinforcement programme, reinforcement of bridges, improvement of road and traffic management system as well as control of road users’ compliance with binding standards and rules, especially those which concern traffic safety.

12. Conditionality and sequencing
The project is just being prepared for implementation.
<table>
<thead>
<tr>
<th>Wider objective</th>
<th>Indicators of Achievement:</th>
<th>Sources of information</th>
<th>Assumptions and risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>improvement of environmental conditions</td>
<td>travelling time through towns</td>
<td>general measurement of traffic GDDP Warszawa</td>
<td>changes of legislature, national and European Union policy in the field of transport</td>
</tr>
<tr>
<td>reduction of life and health hazard</td>
<td>traffic capacity in the border area</td>
<td>statistical data GUS</td>
<td></td>
</tr>
<tr>
<td>improvement of travelling standard</td>
<td>number of road accidents</td>
<td>SOSN measurements GDDP Warszawa after completion of the by-pass</td>
<td></td>
</tr>
<tr>
<td>general growth of economic activity through the development of tourist and recreation possibilities</td>
<td>number of new accidents</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Immediate Objectives</th>
<th>Indicators of Achievement</th>
<th>Sources of information</th>
<th>Assumptions and risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>higher travelling speed</td>
<td>number of accidents</td>
<td>general measurement of traffic GDDP Warszawa</td>
<td>delay of contract procedures</td>
</tr>
<tr>
<td>improvement of traffic safety</td>
<td>savings of engine fuels</td>
<td>statistical data GUS</td>
<td>discrepancies concerning organisation of the project, coordination and management</td>
</tr>
<tr>
<td>shorter travelling time</td>
<td>surface load-carrying ability</td>
<td>SOSN measurements GDDP Warszawa after completion of the by-pass</td>
<td></td>
</tr>
<tr>
<td>lower level of exhaust gases emission and noise</td>
<td>level of exhaust gases in the city centre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>creation of new jobs</td>
<td>travelling time, travelling speed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>number of new jobs</td>
<td></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Results/Outputs</th>
<th>Indicators of achievement:</th>
<th>Sources of information</th>
<th>Assumptions and risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>improvement of transport</td>
<td>compliance with Contract Documents, including the plan of works, time schedule of implementation and take over protocols</td>
<td>tender documents GDDP Office in Zielona Góra</td>
<td>all the means available on time</td>
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<tr>
<td>improvement of traffic safety</td>
<td></td>
<td>technical design GDDP Office in Zielona Góra</td>
<td>proper qualifications and skills of the main contractor and subcontractors</td>
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<tr>
<td>lower pollution of environment</td>
<td></td>
<td>minutes from meetings, reports, documents presented by the Contractor and the Supervising Engineer during implementation of the by-pass</td>
<td>proper management and supervision of works</td>
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<tr>
<td>development of trade, industry and tourism</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activities</th>
<th>Inputs</th>
<th>Sources of information</th>
<th>Assumptions and risks</th>
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<tr>
<td>construction of the new road section 4.9 km long and transference to the public use</td>
<td>necessary outlays for the project implementation amount to 2.0 MEUR - Phare funds 3.0 MEUR – budget funds</td>
<td>contracts signed by GDDP Office in Zielona Góra and the Contractor before commencement of by-pass construction</td>
<td>changes among proposed employees</td>
</tr>
</tbody>
</table>
### Annex 2-4 Cumulative implementation, contracting and disbursement schedule

<table>
<thead>
<tr>
<th></th>
<th>I '02</th>
<th>II '02</th>
<th>III '02</th>
<th>IV '02</th>
<th>I '03</th>
<th>II '03</th>
<th>III '03</th>
<th>IV '03</th>
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<th>II' 04</th>
<th>III' 04</th>
<th>IV' 04</th>
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<td>I</td>
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<td></td>
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<td>Disbursement schedule</td>
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<td>1.3</td>
<td>1.4</td>
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<td>1.7</td>
<td>1.8</td>
<td>1.9</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

D = design of sub-projects / C = tendering and contracting / I = contract implementation and payment
ANNEX 5 - Reference to the feasibility study.
Advantages gained due to the implementation of the project include the improvement of road safety, shorter travelling time, improvement of traffic conditions.
The feasibility study of the project includes all the financial aspects (calculation of results, balance, cash flows and forecasts of demand). All these data can be obtained from the feasibility study reports.
The following complex elaborations make up the above analysis:
###conceptual design study
###environmental impact assessment
###financial and economic analysis
###preliminary cost estimation of the project

The need for the execution of the investment which is in accordance with the development plan results from detailed analysis. It will not have a negative impact on the environment. The used technologies will minimise a negative impact of road traffic on the environment. Besides, they will lower the level of noise and exhaust gases emission in relation to the existing state. An increase in such a factor as the level of traffic convenience, which is one of the basic factors determining traffic conditions on the road, will also give rise to the establishment of better interregional links (access to schools, market etc). The route of the by-pass approved in the conceptual design study as well as the used technologies and materials ensure the achievement of technical parameters on the same level as in the countries of the European Union for this type of regional road connections. The preliminary cost estimation places the project on the level of expenditures acceptable by financing institutions.

ANNEX 6 - Conclusions from environmental impact assessment
The designed by-pass of Wilkanowo that is a part of the by-pass of Zielona Góra is the investment indispensable for eliminating burdensome transit traffic from the border crossings (Olszyna, Leknica, Przewóz and Zasieki in the future) to the middle part of the country.
The by-pass runs through the unbuilt area; 8,33 ha - forest area and 1,86 ha - arable area.
The chosen route minimises the forest area necessary under the investment.
The execution of the by-pass will bring positive changes especially for the residents of Luzycka Street and the housing estates situated along this street as well as for those homesteads in Wilkanowo that are situated by the road no 27 and nearby. The residents will be freed from noise, air pollution and the threat of road accidents.
The prognoses for spreading noise spheres as well as the concentration of exhaust gases’ toxic components, exceeding standard requirements, showed the lack of environmental threats to the locality of Wilkanowo.

Rain wastes from the roadway are not the threat to the underground water intakes situated nearby the road. The only exception is the single water well situated appr. 300 m south from the first section of the by-pass. To protect the well the project provides draining of rain wastes by means of sealed trenches. Considering the shallow underground water level a special way of draining with the use of the rain sewage system will be needed for those sections of the by-pass that run through the depressions of the area caused by the exploitation of lignite. The other sections of the by-pass, in case the sufficient thickness of the aeration zone in the water-bearing formations is confirmed by the geological examination, will be drained by means of non-sealed grassy trenches. In case of negative results of the examination it will be necessary to use sealed trenches with draining of rain wastes to evaporating or dry tanks of extended retention.

Geological-engineering examinations are also necessary when searching for depression zones of the area. They will enable to determine the way of the by-pass passage through those zones - with the use of embankments or trestle bridges.

No negative impact of the road on natural environment is foreseen. Considering that the designed by-pass separates forest complexes it will be necessary to execute road culverts to enable animals to roam free from the possibility of collisions.
The whole earth works should be supervised by an archaeologist.
Environmental impact assessment is available at the seat of the Beneficiary
ANNEX 7 - Conclusions from financial and economic analysis
1. FIRR = 74,50% The net up-to-date value NPV reaches the zero value at discount rate equal to 74,50%.
   It indicates that the execution of the investment is necessary. Very high level of FIRR makes the investment a priority task in the field of road construction.
2. ERR = 94,50%
3. High level of discount rate has been achieved in both cases through an increase in travelling speed and shorter travelling time and thus reduction in costs related to the loss of time by passengers and reduction in the operating costs of vehicles.
4. Higher road capacity
5. Higher traffic safety as a result of lower number of possible road collisions
6. Lower emission of exhaust gases’ toxic constituents as a result of better traffic convenience
7. Lower level of noise
Financial and economic analysis is available at the seat of the Beneficiary