

*For more detail on these TORs and on the status of the studies
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**ALAT-ASTARA-STATE BORDER WITH ISLAMIC REPUBLIC OF IRAN M3
HIGHWAY UPGRADE
200 KM SECTION SOUTH OF PK 75**

**TERMS OF REFERENCE
FOR**

**THE SELECTION OF PREFERRED ALTERNATIVES
PRELIMINARY DESIGN
DETAILED DESIGN
AND RELATED STUDIES**

1. The current ToRs describe the assignment that the Consultants are expected to carry out in order to issue a set of studies to help the Government of Azerbaijan (GoA) with the modernization of the M3 to a 4 lane motorway between PK75 and 80 and between PK102 (about 27 km South of Alat) and the border with Iran (the studies related to the portion of the Itinerary between PK 80 and PK 102 are not part of the assignment as there are already dealt with separately) . The studies should allow (i) the selection of Preferred Alternatives for all sections along the itinerary, (ii) the Preliminary Design for each of the preferred alternative (Alat to Masalli South only), (iii) the Detailed Design for each Section (Alat to Masalli South only) and the entire set of bidding documents for the Construction¹ (Alat to Masalli South only) and (iv) Resettlement Action Plan² (Alat to Masalli South only) associated with the Construction. An Environmental Assessment and an Environmental Management Plan will be carried out by another consultant in parallel to the assignment. Both efforts will have to be coordinated and complementary.

Terminology

- **Bank:** means the International Bank for Reconstruction and Development (IBRD)
- **Consultants:** means the firm or group of firms in charge of the assignment.
- **Construction:** means all or part of the motorway once completed.
- **EA:** means Environmental Assessment. Environmental Assessment uses a screening process for each Section to determine as early as possible the extent of impact on

¹ Bidding documents including prequalification documents and request for proposals (RFP) should be prepared, based on Bank's standard document.

² A sample Table of Contents of a RAP is attached in Annex 2.

environment and details appropriate studies and describes measures to prevent or at least minimize or compensate for adverse project impacts.

- EA consultant: means the firm that will be in charge of carrying out EA and Environmental Management Plan (see EMP definition below) in parallel to the current assignment.
- EMF: means Environmental Management Framework. The EMF outlines the procedures for the environmental screening, management consultation and disclosure of Sections.
- EMP(s): means Environmental Management Plan. The EMP describes for each Section and within each construction contract the environmental performance measures including the requirement to ensure full implementation of the relevant EA. The EMP(s) will be drafted by the EA consultant in parallel to the current assignment.
- GDP: means Gross Domestic Product
- Itinerary: means the M3 itinerary between Alat and the border with Iran.
- Motorway: means a four lane road with median strip and grade-separated intersections.
- OP/BP(s): means Operational Policy or Bank Procedure. Operational Policies are short, focused statements that establish the parameters for the conduct of operations for Bank financed projects. Bank Procedures describe how Bank staff carry out the policies set out in the OPs. Both OPs and BPs are accessible at the following web address: <http://wbln0018.worldbank.org/institutional/manuals/opmanual.nsf/textonly>. The current assignment has to take into consideration at minimum OP/BP 4.01 (environmental assessment), OP/BP 4.04 (Natural Habitats), OP 4.11 (Cultural Property) and, OP/BP 4.12 (involuntary resettlement).
- Ramsar: refers to the convention on wetlands, signed in Ramsar, Iran, in 1971. The Ramsar convention is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.
- RAP: means Resettlement Action Plan. The RAP details plans and procedures for the expropriation of land and physical relocation of the people affected by the construction. It also provide all detailed information regarding the land that would be acquired to allow for the construction to take place. A sample outline for the RAP is attached under annex 2 to the ToRs.
- RPF: means Resettlement Policy Framework. RPF identifies the constructions that may result on negative impact on the population. It then defines policies procedures and institutional arrangements to be implemented regarding resettlement matters.

- RTSD: means the Road Transport Service Department at the Ministry of Transport (MoT). RTSD is responsible for the design and for the implementation of the investment.
- RTSD/ESS: is the Ecology and Safety Sector unit at the RTSD. RTSD/ESS will be in charge of reviewing and implementing the EMP. They will be the main partners when it comes to EA design and review. The EA consultant will provide assistance to RTSD/ESS and train them to up to date standard regarding management of EA matters.
- RTSD/LAD: is the Land Acquisition Department at RTSD. They will be in charge of the design of the RAP and they will proceed with land acquisition and the implementation of other recommendations of the RAP. The Consultants will provide assistance to RTSD/LAD when needed to design the RAP and to implement it. The Consultants will have to provide constant on the field training to RTSD/LAD as needed to ensure the professionalism of the team is up to the standards and to ensure that the team is operational and can respond to the demanding schedule attached to the investment.
- RTSD/DMU: are the District Maintenance Units at RTSD. There are 63 DMUs
- RER: means Regional Environmental Review. RER was carried since the exact alignments were not known at the time of Loan approval. The RER describes the existing environment and discuss projects alternatives and identifies risks and issues to be addressed during project design and project implementation.
- Section or Sections: means a stretch of 20 to 40 km of the Itinerary. The Itinerary will be divided into 8 to 10 “stand alone” Sections by the Consultants depending on the location of the interchanges and on the possible temporary connection to the existing Itinerary during the construction period (3 to 5 years).
- Study: means, depending on the context, the selection of Preferred Alternative, the Preliminary Design, the Detailed Design, The Resettlement Action Plan or all of the above.

Introduction

2. Azerbaijan's geographical position makes it an important link between the Black and Caspian Seas and between Russia and Iran. Trade with its neighbors, both transit and bilateral, is an important feature of the Azeri Economy. Economic prospects are bright on the short and middle terms, hinging heavily on the development of the oil and gas sectors. The overall GDP is estimated to increase from \$8.5 billion in 2004 to \$22.2 billion in 2008, with non oil GDP increasing from \$5.7 billion in 2004 to \$10 billion in 2008³. With much of the non-oil trade being shipments transported by road to neighboring countries, access to international markets requires the provision of suitable road transport infrastructure on corridors, ready to safely accommodate the mid-term strong traffic increase, to replace the presently narrow, low quality roads.

3. The vehicle fleet is increasing sharply together with the traffic. In 2002, the total vehicle fleet was 517,000⁴. About 12,000 vehicles were imported in 2003 and 37,000 in 2004. This trend should gain further momentum following the strong growth of the GDP, as the middle class should widen and get broad access to car property. Traffic on M3 Baku to Astara is currently about 10,000 vehicles per day (vpd) between Baku and Alat, falling to around 7,000 vpd after Alat and then ranging between 3,000 to 5,000 vpd near the Iranian border. Anticipating on the growth of the economy (and thereafter of the road traffic and on the increase of the vehicle fleet), the Government of Azerbaijan (GoA) is considering the modernization of the M3 to a 4 lane motorway with grade-separated intersections and is therefore expecting the Consultants to carry out with due diligence and with the use of sufficient capacity the current assignment so that the modernization can be carried out within a 3 to 5 year period starting in Spring 2007, following the construction of a first Section (that is not part of the assignment) between PK80 and PK102.

4. The Highway II Project (PO94488) supported by the World Bank will finance the full design and the upgrade of the M3 motorway between Alat and South of Masally (and the selection of Preferred Alternative for the entire itinerary including the Sections South of Masally to the border with Iran), including expansion of the existing 2 lane roadway to a 4 lane motorway under a mostly new alignment; and the construction of bypasses around key towns. The itinerary will be divided into eight to ten Sections⁵. Works are expected to start by March 2006 with the realization of a first year's program consisting of a section of 22 km about 5 km south of Alat between PK 80 and PK 102 where the four-lane motorway would be constructed within the existing right of way which is free of encroachment and without major environmental issues. Given the commitment of the Government to embark on a rapid construction of the Work program detailed by the Consultants should allow for the construction of the rest of the itinerary (that is between PK75 and PK 80 and between PK102 and South of Masally) within a 3 to 5 year period starting in spring 2007.

³ World Bank, *Program Document for a Proposed Poverty Reduction Support Credit to the Republic of Azerbaijan*, Annex III, April 2005.

⁴ 43 passenger private car per 1,000 inhabitants, which is very low by comparison with European norms. It was 35 in 1995 and 39 in 1999.

⁵ This number is to be confirmed by the Consultants during the Studies.

5. So far the following studies have been completed: (i) a draft Analysis on Preferred Alternatives for the entire Itinerary, (ii) an Environmental Assessment and Preliminary Design for the Section PK 80 to PK 102 (report dated September 2005) and (iii) a Regional Environmental Review (RER) for the entire Itinerary. These studies are available on demand at RTSD.

Characteristics of the motorway to be constructed and description of the corridor

Characteristics of the motorway to be constructed

6. The M3 is heading South toward the Iranian border starting at PK75 (see location of the itinerary under annex 1). The project aims at turning the Itinerary into a stretch of about 200 km of four-lane motorway. The great majority of the new Itinerary will be new alignments. It will replace the current 243km two-lane itinerary. It is important at this stage to point at the relative lack of road infrastructure on the South-East part of the country and thus, deriving from that, to highlight the importance of the investment and its role structuring the region including at a long term horizon. The Consultants will need to launch appropriate multi-criteria analysis during the screening process among the various alternatives to be considered to ensure that all structural aspects of the investment are weighted. Value analysis could also be considered by the Consultants as a complement or as a substitute to a multi-criteria analysis.

7. The exact alignment of the M3 highway will be defined during the detailed study (phase III of the current assignment) following appropriate consultation with the Ministry of Transport Road Transport Service Department (RTSD). The road section should be economically efficient, environmentally sound and its design should be compatible with international standards and with the present ToR. The intersections and junctions will be grade-separated as per the standards in force in the Azerbaijan Republic. No access will be granted to the new motorway other than from the grade-separated intersections. The design will also provide the residents with access to parallel routes that will connect to the motorway through the grade-separated intersection. The design will include the location of toll plaza as the motorway should be changed to toll road in the medium to long term. The motorway and its surrounding will be fenced. The itinerary should be designed to allow maintenance unit, equipment and material to access the network to operate on a daily basis including winter maintenance, emergency interventions and diversion of the traffic when necessary.

8. The road to be constructed is a four lane road category with no toll gate, but as it has been mentioned under the previous paragraph, the design should make it possible to upgrade to a toll road in the future. It is expected that type of vehicles allowed to access the road will be limited to trucks, cars and motorbike above 125cm³. It is also expected that no access except intersections that will be design within the project will be allowed. The characteristics of the cross section of the Sections to be design are as follows:

- (i) Subgrade width 28.5 m;
- (ii) number of lanes 4;
- (iii) lane width: 3.75 m;

- (iv) carriageway width: 2 x 7.50 m;
- (v) width of shoulder: 2 x 2.50 m paved;
- (vi) median strip width: 6.0 m (depending on space available);
- (vii) carriageway gradient 2 %; (where there is no superelevation)
- (viii) shoulder inclination 4 %; (where there is no superelevation)
- (ix) embankment slope ratio 1:3; (x) fencing along the itinerary.

The horizontal and vertical alignment parameters are as follows:

- (i) Min. curve radius 1200 m;
- (ii) Max. longitudinal gradient 3 % ;
- (iii) Min. crest curve radii 8,000 m;
- (iv) Min. sag curve radii 30,000m.
- (v) Transition curve - be considered as per the standards

The design speed of 120 km/h for flat terrain will be used for design purpose.

Description of the corridor

9. The environment of the study corridor is diverse ranging from less populated dry semi desert in the North to more densely populated areas in the southern lowlands (including swampy areas) and foothills of the Talysh Mountains. Coastal sea plains dominate ranging from 10 – 40 km width in the north to between 2 – 4 km width in the south between the sea and the foothills of the Talysh Mountains. Mud volcanoes stand out in the plain in the first 30 – 40 km south of Alat, and the Kura-Talysh area is known for seismic activity with earthquakes registering magnitudes between 6 and 7 on the Richter scale.

10. There are many rivers, canals, and wetland systems in the corridor as well as some lakes and mineral springs. Flooding is common especially on the Kura River. Numerous protected areas and other significant natural sites of both national and international importance are found in the study corridor. Biodiversity is high and fish resources are abundant. The southern area is largely agricultural (tea plantations, vineyards). Lankaran is a developing industrial region. Cultural heritage is rich with archaeological finds dating back to the Neolithic period.

11. The portion starting 22 km South of Alat between Yenikand and Shorsulu is heavily influenced by agriculture with a dense network of drainage and irrigation channels.

12. South of this portion, two alignments (“direct” and “railway” alignments) were considered from Shorsulu to Masalli, both options route through existing natural wetlands. The “direct” alignment (about 52 km long) includes a 12 km section that routes through the Madmudchala and Akhchala wetlands that are proposed for future Ramsar designation but are currently unprotected. The “railway” alignment (about 55 km long) includes an 11 km section between Mugan Channel and Uzuntapa that runs in parallel and approximately 2 – 3 km to the northwest of the railway line and that also routes through the Akhchala wetland. The first 23 km of the “railway” alignment up to the Mugan Channel runs through irrigated land and the final 30 km after Uzuntapa crosses largely agricultural land gradually becoming more densely populated to the south. The RER notes that there is no reliable baseline data on the hydrological setting in the

area, the interrelation of the various alignments with the adjacent wetlands or the geotechnical requirements for road construction in terms of design and construction and their impact on local hydrology. The Consultants are encouraged to explore those two options together with other options that may be relevant for this portion of the Itinerary (including one adjacent to the railways) and after the respective agreement of results with RTSD to pay particular attention to the issues related to environment there⁶, and especially regarding hydrology.

13. The most southern portion of the itinerary between Masalli and Astara is about 60 km long. Sensitive natural areas are in the South Western part of the corridor and alignments need to be carefully selected to minimize their direct and indirect impact on natural forest vegetation of the Hirkan Forest to the west of Lankaran and the Talysh Relict Forest in Hirkan National Park.

14. In closing, a wide range of people and businesses have the potential to be impacted particularly in areas where new alignment will develop. The lack of existing transport infrastructure in the region makes the construction of a four lane motorway a key element to human activities for the decades to come. There is no doubt that the location of the motorway will impact all regional and urban planning of South-East Azerbaijan. This regional and urban planning dimension of the assignment will have to be addressed by the Consultants.

Overview of the assignment

15. The assignment is divided into three consecutive phases:

(i) Phase I, Preferred Alternatives for the entire Itinerary south of PK75 and to the border with Iran (Section from PK80 to PK102 excluded): The aim is to conduct an analysis of alternatives in terms of engineering and economics (in parallel with the environmental assessment that will be carried out by the EA consultant) in order to recommend a Preferred Alternative for each Section. At this stage the Consultants are expected to carry out multi-criteria analysis to investigate on potential benefits and impacts of the investment on economy, social pattern, urban, environment and so on. The Consultants could also consider using an approach based on Value Analysis to select various alternatives and to identify the preferred one. At this stage the Consultants will help RTSD/LAD gathering data regarding the RAP, which will be drafted during phase II. Assistance to RTSD/LAD will include training and it is therefore expected that the Consultants will deploy a social sector specialist as part of the team. The sector specialist should be present in Baku on a regular basis, to be determined at negotiations.

(ii) Phase II, Preliminary Design for each Section of the itinerary for the Sections between PK 75 and South of Masally (Section from PK80 to PK102 excluded): (the

⁶ Routes through the wetland areas have significant potential for adverse environmental impacts including large scale sedimentation due to construction on unstable ground, habitat fragmentation and the creation of barriers for wildlife movement, disruption of breeding colonies for rare and endangered species and to the hydrology in the area. Natural wetlands and areas with saline soils also raise concerns for construction: saline soils are prone to collapse under load or vibration and may lead to the corrosion of steel reinforcements and also require high volumes of construction materials.

Sections South of Masally are expected to be financed through an Asian Development Bank support and therefore it was decided to deal with the design for those sections separately⁷). The aim of the Preliminary Design is to prepare for detailed engineering to the construction of the 4 lane motorway for each Section. During this stage the Consultants will, in addition and in parallel to the detailed engineering, assist RTSD/LAD in the preparation of the RAP that should be approved in its final form by the end of the phase⁸. The Consultants will have therefore to continue having a social sector specialist as part of their team at that stage.

(iii) *Phase III, Detailed Design for each Section of the itinerary for the Sections between PK 75 and South of Masally (Section from PK80 to PK102 excluded)*: This phase will include not only the detailed design for each of the Sections but also the preparation of the bidding documentation and the implementation of the RAP.

16. The schedule for the three phases is demanding. It is therefore very important that the workforce at the Consultants be ample enough and that enough resources be available early in the process to match the deadlines that are set by RTSD (see detailed schedule further described in these ToRs).

17. Detailed description for each phase is provided under sections Scope of Services Phase I, II and III.

Consultants' counterparts and interference with others studies Activities carried out so far

Counterparts at the ministerial level:

18. The implementation of the study is part of the implementation of the "Highway II Project", the responsibility of which remains with the Ministry of Transport (MoT). The project will be implemented by the Road Transport Service Department (RTSD) at the MoT with the assistance of a Project Implementation Unit (PIU). The PIU has already been established to implement a previous project financed by the Bank (the Highway Project Credit AZ-3517⁹). There is one director, two engineers, three procurement specialists, one financial specialist and support staff at the PIU. The PIU is to be considered as the main counterparts to the Consultants. The PIU will be in charge of assisting the Consultants during the studies and they will also be in charge of reviewing and submitting to RTSD for approval interim and final reports that the Consultants will issue.

⁷ Consultants will have to check through RTSD the uniformity of the motorway cross section for all Sections including the Sections financed by ADB.

⁸ The RAP will detail the actions to be implemented at phase III and beyond regarding potential resettlements. It will also provide all information and maps to allow for the acquisition of the land that will be needed for the construction.

⁹ Information on this project available at http://www-wds.worldbank.org/servlet/WDS_IBank_Servlet?pcont=details&eid=000104615_20050608112709

Resettlement Policy Framework:

19. A Resettlement Policy Framework (RPF) has been prepared in accordance with Bank OP/BP 4.12. The RPF constitutes the basis of the Consultants work to assist RTSD/LAD preparing a RAP (or several RAPs, the decision will be taken at Phase I) during the assignment. At Phase I data related to the RAP will be collected, at Phase II the RAP will be drafted and approved and at Phase III the RAP will be implemented. The RPF describes broad socioeconomic and demographic characteristics of project areas and compare social impacts of alternative alignments. It also sets out resettlement procedures and presents rough estimates of the scale of land acquisition and physical relocation, and that of the cost of compensation, for the implementation of the proposed project. At present (October 2005) the proposed project is expected to generate about 816 hectares of land along about 130 km of the Itinerary. It is likely that physical relocation of households will be necessary. The Consultants will be asked to assist RTSD/LAD in the design of a Resettlement Action Plans (RAP) per the RPF¹⁰. The RAP(s) will detail plans and procedures for the expropriation of land and physical relocation of the people affected by the project. It will also detail the procedures and provide all information and maps at adequate scale for the expropriation of the land that will not induce resettlement. At this stage it is worth mentioning that some particularities of the Azeri law are not compliant with OP/BP 4.20. The RPF has addressed this gap and provided a comprehensive description of the policies that will apply and of the procedures related to these policies to be applied under the project. Also of interest the fact that RTSD/LAD was established recently and remains small in size –a handful of permanent staff only- and has limited experience in involuntary resettlement of the scale expected under the project. This is why the Consultants are expected to provide training to RTSD/LAD during Phase I so that the issues regarding RAP and related matters can be handled during Phases II and III and beyond.

20. Public consultations already took place in the seven districts along the itinerary. The discussion centered on the preferred location of new highways. Community members supported the proposed highway since less transit traffic would pass through residential areas and thus road would become safer, but they also stressed that adequate compensation must be provided. Concerns were raised that new highways running far away from existing settlements can damage local economy, especially if no roads are built that connect the new highways and existing towns. It is thus important that the Consultants, while dealing the various alternatives, can contemplate the possibility for existing settlements to get reasonable access to the new investment through connection to the grade-separated intersections. In closing, it is expected that the land acquisition process -and it result the availability of the new right of way needed for the construction- will be an important parameter when scheduling the construction (i.e., in which order to built the various Sections). The scheduling exercise will have therefore to remain adjustable to seize any opportunity resulting from the evolving land acquisition process.

Environmental Studies:

¹⁰ RPF and all documentation mentioned in this document are available at the PIU's office.

21. The proposed highway development program has been classified as a Category A project for environmental assessment purposes¹¹. The highway development program will be implemented over a number of years and it is envisaged that there will be several Category A or B sub-projects¹². A Regional Environmental Review (RER) has been prepared covering the entire scope of the development. The RER describes the existing environment, discusses and compares project alternatives and identifies risks and issues to be addressed during project implementation). An Environmental Management Framework (EMF) has also been developed which outlines the procedures for the screening and management of environmental issues related to Category A and B sub-projects. The findings and recommendations of the RER and of the EMF will be used by the EA consultant to conduct EA and EMP studies during phases I to III of the assignment. It is important that the two teams cooperate so that an iterative pattern is operational to maximize the quality of the decision process leading to the concurrence by RTSD of the Preferred Alternative for each Section of the itinerary and to agree on the sets of mitigation measures. It will be therefore important to the Consultants to liaise constantly with the EA consultant so that the two studies remain consistent and complementary.

Project Approach

22. The Project is funded by the World Bank. Therefore the Government comply with the typical requirements for candidacy under Bank financing, including the formal investigations and studies to demonstrate the technical, financial, environmental and social viability of the scheme while addressing the impacts the proposed development will have on the environment and on the people. The Project is subject to OP/BP 4.01 (environmental assessment), OP/BP 4.04 (Natural Habitats), OP 4.11 (Cultural Property) and, OP/BP 4.12 (involuntary resettlement).

23. The Consultants effort should be phased such that the macro conditions are examined first to ensure understanding of the context as more detailed data is collected and analyzed. At each stage of the Study potential set of alternative actions must be screened so that data collection is focused only on the alternatives that remain viable candidates. It is also important that the initial stages of data collection be sufficiently comprehensive and detailed as to prevent the exclusion of viable alternatives. This approach must be integrated with the public and government participation programs to test for viability at the appropriately defined stages. Integration of mitigation measures will be secured by applying an environmental factors screening process at each stage of the evaluation to identify factors which will be used in the viability assessment of candidate alternatives. Cooperation with the EA consultant will be paramount during this screening and throughout the assignment.

24. The Consultants will create a library of all documents, reports, maps, working papers, and other reference material used on and created ahead of his assignment (e.g., feasibility study and the environmental impact assessment). During the course of the Study and for each stage they will maintain the library in good order and in a reference library format in office space at the PIU

¹¹ In accordance with the World Bank's safeguard policies and procedures, including OP/ BP/ GP 4.01 *Environmental Assessment*

¹² The first Section (between PK75 and PK80) may be a category B while the rest of the itinerary will be likely category A (to be determined by the EA consultant).

for use by the PIU and eventually for controlled access by the public upon request. Reports and background documents that could be disclosed should be available for downloading by the public from a dedicated project web site. The web site will be located on a server computer acceptable to the PIU so that they may continue its operation after the Consultants have completed the Study. For ease of use and to support the preservation of this important resource, the Consultants will ensure that there are sufficient computer-equipped work-stations, copying facilities, and work space available at the library location to support the needs of Consultants staff, PIU staff, and the visitors to the project library.

25. On completion of each stage of the Study, the Consultants will pack and deliver to RTSD the entire contents of the project library in good order and properly indexed and marked and a CD-ROM suitable for public distribution will be prepared to include the material that can be disclosed at that time. The copyright of all project materials will remain with RTSD.

Scope of Services Phase I
Preferred Alternatives for the entire itinerary south of PK 102

26. During this first stage of the Study the Consultants will have to explore the viable options for the alignment and they will then analyze them in detail prior to recommending the Preferred Alternative for each Section. To do so, the Consultants will have first to identify viable variants and then propose how to divide the Itinerary into a series of Sections as mentioned below. It is expected that the Consultants will identify and suggest about 7 to 12 Sections. Then, as a second step, and for each Section, the Consultants will explore alternatives and provide RTSD with a Preferred Alternative for its consideration.

27. The responsibility to divide the Itinerary into Sections will remain with the Consultants. The first task assigned to the Consultants will be to identify the various alternatives that could be contemplated further during the Study for the entire Itinerary. Only then could the Consultants divide the Itinerary into Sections for more detailed analysis. The existing draft Analysis on Preferred Alternatives for the entire Itinerary has suggested very few alternatives which do not seem to be a number large enough. The division that is described below is tentative and it only aims at providing a broad description of the Itinerary:

- Section 1 between Alat and Yenikand
- Section 2 between Yenikand and Salyan
- Section 3 bypass of Salyan
- Section 4 between Salyan and Shorsulu
- Section 5 between Shorsulu and the possible connection with Jalilabad road
- Section 6 between the connection with the Jalilabad road and the possible connection with the road to Masalli
- Section 7 between the connection road to Masalli and Leman
- Section 8 between Leman and Lenkeran
- Section 9 between Lenkeran and the border with Iran.

28. Once the scheme regarding the division of the Itinerary into Sections is approved by RTSD, and for each Section, the Consultants, in collaboration with RTSD, will secure all information on any prior studies as may pertain to the study. The bibliography of prior work will be included in the documentation, and copies of all the studies will be delivered to the PIU as they are secured. The Consultants shall be responsible for obtaining all necessary field and archive data required to complete the services. Data will be completely catalogued and copies provided to RTSD in easily retrievable format. On the other hand, RTSD will provide to the Consultants copies of all the relevant documentation available.

29. It is expected that at this stage the cooperation with the EA consultant will be operational and as frequent as needed. The non objection of the World Bank will be requested regarding each Preferred Alternative. In addition the Consultants will have to determine the best schedule for the construction of the entire itinerary given a 3 to 5 years period starting in spring 2007 (as mentioned previously the pace of actual land acquisition will be a factor to be considered among others when agreeing on this schedule). Accessibility to adjacent villages of the entire network of roads should be part of the criteria used to establish the investment priorities. Construction

stages that the Consultants will recommend should contain the optimal set of improvements needed to meet the short-term as well as medium term goals for the entire itinerary. The Consultants will work based on technical, environmental and social-economic studies available, together with the EA consultant when needed (see the list of available studies further in the document). During the Study, it is expected that the Consultants will discuss Preferred Alternatives with key stakeholders such as Ministries, chambers of commerce, affected municipalities etc. to ensure that all economic, environmental and social aspects are identified and taken into consideration during the analysis. The assignment for this first stage will end with the acceptance by the Ministry of Transport of the Preferred Alternative for each Section and of the schedule for the construction works proposed by the Consultants.

30. The decisive importance of the new Itinerary in the modeling of the region is to be pointed out once again at this stage. Multi-criteria analysis and even perhaps Value Analysis will need to be considered by the Consultants to help choose the Preferred Alternative for each Section.

31. When proposing Preferred Alternatives, the Consultants will have to base their finding on economic and engineering feasibility studies. Economic studies have been carried out already and are available at RTSD¹³. These studies will only need to be computed again by the Consultants to adjust the results taking into consideration updated construction costs.

32. When updating the economical analysis the Consultants will have to consider that the estimate of future benefits should principally rely on vehicle-operating costs, accident cost savings, and some externalities (positive and negative impact to the communities, business and the environment at large when feasible). Data such as average Vehicle Operating Cost of the Road with and without the road reconstruction or improvement will be estimated using HDM-4 or similar method.

33. When updating the economical analysis the Consultants will carry out sensitivity analyses on the parameters that are estimated with the greatest uncertainty, e.g. traffic forecast, cost estimate. NPV should be estimated using a 12% interest rate.

34. When analyzing between the various options for a given section the Consultants will have to consider all aspects of the potential impact of the constructions and in particular the impacts on human environment and the impacts on protected areas. For a given impact the mitigations measures should be detailed and associated costs should be appraised.

35. Gathering of data for the design of a MAP and partnership with RTSD/LAD: During Phase I, the Consultants will have to help RTSD/LAD with the gathering of sufficient data and information in the broader sense so that RTSD/LAD can draft the RAP during Phase II. The Consultants will help developing the capacity of RTSD/LAD on involuntary resettlement, and

¹³ The economical studies include (i) traffic forecast over a 5 – 10 and 15 year horizon; (ii) the calculation of benefits to the adjoining land and activities (externalities); (iii) standard cost – benefit analysis; and (iv) sensitivity analysis Overall GDP was estimated to increase from \$8.5 billion in 2004 to \$19.2 billion in 2008 (non oil GDP increasing from \$5.9 billion in 2004 to \$9.6 billion in 2008). The studies have computed the economic rate of return (ERR) and net present value (NPV) for some alternatives and compared them to a “do-nothing” alternative (adequate maintenance of the existing road) using a standard cost/benefit methodology and a 25 year period.

help them collect necessary information and seek guidance from relevant government agencies regarding the specific measures to be included in the RAP. In this context it is important that the Consultants devote sufficient time and presence of a social sector specialist in Baku during the assignment to provide hands-on support so that its counterpart can:

- Gain fair understanding of social safeguard policies of major international financial institutions, especially the World Bank, and resettlement instruments used;
- Develop an concrete action agenda for the project, that will match physical investment plans;
- Compare Azeri property valuation methods with standard international practice, identify gaps and develop sound measurement methods that will be used under the project;
- Discuss with relevant government agencies, including Local Executive Bodies, an information dissemination campaign and grievance redress mechanisms that will be put in place;
- Discuss with relevant government agencies, including Local Executive Bodies, rehabilitation plans that should be provided to PAP in accordance with the policies and procedures set out in the RPF;
- Explore the potential of land swap in project areas;
- Develop a sound and cost-effective internal monitoring mechanism to allow RTSD/LAD keeping abreast of the progress of RAP implementation. The internal monitoring mechanism should pay a particular attention to a process for early detection of anomalies and negative impacts on the people affected by the project;
- Identify any vulnerable population in the project affected areas.

36. Maps: At this stage the Consultants will report their work on synoptic at the scale 1/100,000 and detailed variants and Preferred Alternatives at the scale of 1/20,000 for each section.

Scope of Services Phase II
Preliminary Design for each section of the itinerary for the sections
between PK 102 and South of Masally:

37. During this phase, the Consultants will ensure technical, environmental, socioeconomic feasibility of the Preferred Alternative for each Section between PK75 and PK80 and between PK102 and South of Masally and its compliance with relevant safeguards. The design of the motorway should allow the possible upgrade of the itinerary to a toll road in the future. The studies must comply with World Bank guidelines OP/BP 4.01 (environmental assessment), OP/BP 4.04 (Natural Habitats), OP 4.11 (Cultural Property) and, OP/BP 4.12 (involuntary resettlement).

38. During the Preliminary Design the Consultants will take into consideration prevailing capacities and expertise regarding construction norms and the various regulations. They will also ensure that the levels of service for each section of the itinerary will meet standard that will be provided by RTSD. When national standards do not exist, international standards will prevail (American Association of States Highway and Transportation Officials –AASHTO- or equivalent). Phase II will cover at least: (i) schedule for the construction of the new alignment; (ii) preliminary geometrical design for each preferred alternative; (iii) preliminary pavement design for each preferred alternative; (iv) preliminary bridge & structure design, and (v) preliminary cost estimates.

39. At this stage the Consultants will have already agree with RTSD on the parameters to be used for the cross section of the road, including side slopes and drainage types. The Consultants will elaborate on the pros and cons of the various locations of the grade-separated intersections. The construction of such intersections will be planned as part of the initial construction.

40. The Consultants will detail the measures to be taken to restrict the access to the new road, and they will suggest mitigation measures in case the construction impose new constrains to the local communities, to the fauna, and to any other ecosystem in the vicinity of the road.

41. The Consultants will be responsible for recommending to RTSD for approval the best intercept points with the existing road alignment so that the construction process with phases remains physically possible. For the section where new alignment will have to be built the Consultants will assess the volume of land acquisition effort to be deployed by RTSD along with recommendation regarding the timing of such operations.

42. In closing the Consultants will continue assisting RTSD/LAD taking into consideration the findings of social screening in order to minimize negative social impacts on the affected populations. This will be done through extensive cooperation with the EA consultant who will carry out EA study at who will prepare the EMP at the same time. The Consultants, in parallel with their work on the Preliminary Design, will accompany RTSD/LAD in carrying out the drafting of the RAP based on the data collection of Phase I and on additional information available at Phase II. The Consultants will help RTSD/LAD take census of the people affected by the project along the alignments that are determined during Phase I. Household socioeconomic characteristics, occupation, size of land holding and loss of land, loss of crops,

loss of permanent structure, impact on livelihood, business undertakings, scale and nature of land ownership without titles, etc., will be collected. The Consultants will also help their counterparts develop RAPs, as per policies and procedures set out in the RPF, and concrete measures identified during Phase I to fill gaps between Azeri laws and Bank OP/BP 4.12 as it was already mentioned. Concrete action plans for information dissemination campaign and grievance redress mechanisms should also be spelled out in RAPs. The Consultants should refer to the generic table of contents of RAP which is attached in the ToRs. RTSD/LAD should take a major hand in the process, and the Consultants should remain as advisors, to maximize the learning effect of this opportunity.

Phase II specifics

43. Geotechnical investigation: The preliminary design study of each section will provide most of the necessary data regarding geotechnical investigations and tests regarding the subgrade and existing pavement condition. The study also includes a preliminary soil investigation at proposed locations for bridges to be constructed.

44. Quarries and borrow pits: Existing quarries and borrow pits investigation and search for suitable material for the construction of sub-base, base, concrete and asphalt is to be carried out under the Preliminary Design phase. The Consultants will assess local capacity to produce adequate material for the different phases of the constructions and based on this assessment they will make recommendations to use existing quarries and/or to open new quarries. Procedures associated with the opening of new quarries should be detailed when necessary, in coordination with the EA consultant.

45. Existing bridges: Some existing bridges are seriously damaged and should be newly constructed. For those locations, the preliminary design provide for penetrometer tests. The preliminary design study provides a first pavement design, along with proposals for use of local materials in the works.

46. Hydrology: a survey is carried out under the preliminary design. The survey should contain inventory of the existing structures and suggest rehabilitation where obvious deficiencies require improvement of shoulders and slopes, ditches, drainage structures, water crossing structure, discharges. The Consultants will have to liaise with the EA consultant to ensure that the survey will be able to cover all aspects related to environmental / hydrological matters.

47. Coordination with EA consultant: The Consultants will have to inform the EA consultant of the needs for additional studies regarding environment when necessary. Periodic coordination meetings are recommended.

48. Road safety: the Consultants will have to ensure they get sufficient expertise in the field of road safety and that the characteristics of the road can guarantee a standard level of service regarding safety (e.g., connections between the existing network and the motorway, separation with adjacent traffic, distance between interchanges, road equipment). In particular, the design will incorporate traffic safety audits during phases 2 and 3.

49. Maps: The Section should be surveyed in 50 m intervals average. The width of the surveyed corridor should be at least 120 m. The survey should be converted to CAD road design program. Plan drawings should exist at a scale of 1:2,000 and should be handed over to RTSD in A3 hard and softcopy format .

Scope of Services Phase III
Detailed Design for each of the sections between
PK75 and South of Masally and preparation of bidding documentation.

50. The objective of the detailed design phase is to provide the detailed engineering design of all Sections between PK75 and PK80 and between PK102 and South of Masally, including detailed drawings, specifications, bill of quantities, cost estimates and traffic management plan including during the construction phase and the detailed and the implementation by RTSD/LAD of the RAP which would have been completed under Phase II. The Consultants are also required to draft the bidding documentation for International Competitive Bidding for each Section during this phase, including the recommendation of the EMP. The preparation of the detailed engineering design study will be based on the outputs of the preliminary design (Phase II). The road should be designed with all grade-separated intersections. The motorway should be separated from adjacent property by a continuous fence. The design should allow the sections to be upgraded to a toll road itinerary (the location of the toll plazas and land used related to the plazas are to be reported).

51. The Consultants should design the road using internationally accepted geometric and structural standards. Works shall be designed in such a way that it would allow the construction to be carried out under day and night traffic.

52. Pavement design: The Consultants are expected to carry out the necessary physical investigation of the pavement to design the optimum pavement structure to be strengthened and/or built. The Consultants will detail this investigation program in their proposal. For the purpose of design a 11.5 tons per axle bearing and a 20-year performance period are to be considered.

53. Topography: The Consultants will make sure that sufficient data is available regarding topography (scale 1:1,000) and that the entire ground and pavement surfaces are triangulated and contoured. The interval selected must help calculate quantities to the desired accuracy and shall be justified by the Consultants. Full cross-sections extending to an appropriate distance either side of the road centerline and elevations along the centerline of the existing road at appropriate intervals shall be taken. The interval selected shall be justified by the Consultants.

54. Soils and materials: The Consultants shall undertake additional soils and materials investigations as required for good and cost-effective design and characterized by common material properties of base and sub base layers, and subgrade/roadbed soil (e.g., CBR, Atterberg limits, material strength and durability, moisture-density balance, natural moisture content and in-situ density and so on). The Consultants shall investigate also on suitable materials for road embankment, pavement and structures and propose use of the most economic materials available. The Consultants will decide to undertake additional sub-soil investigation at bridge and culvert or any other sites, if required, or condition survey and evaluation of existing pavement.

55. Implementation of the MAP: The Consultants will support RTSD/LAD implement RAPs, and provide advice, as necessary, to improve information dissemination campaign and grievance redress mechanism. Efforts must be made to ensure that the people affected by the project are aware of their entitlements allowed under the project, which may be different from what Azeri

laws provide for. Assistance must be provided to the people with legitimate complaints to help them getting their compensation.

Points to be discussed with the Client prior to the drafting of the design:

- Incorporation of mitigation measures. The Consultants will refer to the EA and EMPs prepared for each Section to ensure that the detailed design matches the World Bank requirements.
- Location of new construction for crossing (vehicles, pedestrians, animals) in addition to the interchanges which locations will have been agreed upon at Phase II;
- Management of existing utilities and of the ones to be placed on the right of way;
- Need and standard for illumination, road signs, road marking and other equipment or services;
- Adjustment of the design to allow the sections to become a toll road;
- Location and size of adjacent road network;
- Traffic management during the works;
- Traffic safety: equipment, uniformity of the design all along the itinerary, connection with and proximity of the adjacent network through junctions;
- Road plan, longitudinal alignment and pavement structure;
- Recreation areas to be identified by the Consultant.

Detailed design outputs

56. For each Section of the itinerary between PK75 and PK80 and between PK102 and South of Masally, the Consultants are to produce the following:

57. *Geometrical design, (longitudinal profile, plan and cross sections).* Alignment and longitudinal profile will be at the scale of 1:1,000 showing existing roads, tracks, rivers, ground levels/vertical alignment of the existing lane, formation and design levels, gradient etc. The geometrical elements of the sections will be based on computerized techniques. The geometric design elements for horizontal and vertical alignment will take into consideration the existing road. Basic design rules like optimum phasing of horizontal and vertical alignment, sequence of curves, clearance for drainage structures etc. will be considered as well as hydrological study findings, geotechnical and environmental constraints and structural aspects. The design will incorporate safety features in the geometric design, road markings, crash barriers, guardrails, etc. Cross-sections will be drawn in 50 meter interval at the scale of 1:100. The drawings will show cut and fills, side drains, pavement, camber, superelevation, erosion protection etc. The Consultants will also locate the future toll plazas and they will outline the needs for land acquisition relating to the construction of the plazas.

58. *Materials report:* suitability of materials for various components of work, giving all the required information on selected borrow pits and quarries (quantities available, haul distance and cost).

59. *Pavement design:* The preliminary design has suggested a pavement design that is to be confirmed. For designs of pavements the Consultants shall consider a 11.5 tons per axle bearing

capacity and a 20-year performance period with proper consideration to local conditions (e.g. floods, high rainfall, shortage of construction material, fund constraint for road works, etc.) in addition to RTSD requirement and appropriate life cycle analysis. If no sufficient guidance is available, the Consultants shall follow the guidelines given in the latest series of American Association of States Highway and Transportation Officials (AASHTO) Guides or other internationally practiced standards for Design of Road Pavement Structures. The Consultants shall also study analytical approach of pavement design in addition to other methods to ensure best possible pavement design from both technical and economical aspects.

60. *Drainage and culverts*; Drainage structures will be designed based on analysis summarized in the preliminary design. The detailed design will describe improvement or replacement of the roadside drains based on standard profile. The Consultants shall ensure adequate surface and sub-surface drainage to the pavements considering local precipitation and water table levels. Drainage includes both cross and longitudinal drainage facilities to ensure safe and fast disposal of free draining water from the pavement. In built up areas special consideration should be made regarding covered/open channels appropriately designed for draining out both surface and sub-surface water. The drainage design should include detail plan showing both vertical and horizontal placements of drains, conduits, out falls, turn outs, specialized drainage layers if any and all other provisions for all sections including special attention to road intersections and built up areas. AASHTO and other internationally practiced standards for drainage design should be consulted if necessary.

61. *Bridge and structure detailed design* (general and detail plan only at the scale of 1:50): The Consultants are expected to incorporate in their teams an architect with qualification in bridge design in order to have a homogeneous as well as harmonious pattern of bridges along the Itinerary. When designing bridges and culverts the Consultants will suggest adopting loading and design standards in accordance with RTSD standards and generally accepted international practices. The Consultants will undertake detailed design of all proposed bridges and culverts and prepare detail drawings for the same and also for the structures to be rehabilitated or repaired. The drawings for the structures should be prepared to such scale and detail as required for ready use by the contractor during construction. All designs will be prepared on the basis that the work will be executed utilizing appropriate technologies and the bridges longer than 50 m will be lit. The Consultants will take full responsibility regarding the soundness and safety of their design.

62. *Road equipment and facilities*: Drawings for structures, culverts, pedestrian and animal crossings, drains, road equipment and safety devices will use various scales between 1:50 and 1:10 depending on the structure. The Consultants will conduct a survey of the existing utility services and liaise closely with the authorities concerned on the proposed relocation of such services. The Consultants shall put up detailed plans and proposal for the relocation of the services affected by the proposed roadwork. The Consultants shall also ascertain what new utility services are required to be installed on each Sections (keeping in mind the Sections will be constructed gradually within a 3 to 5 years period).

63. *Temporary Works or Diversions*: The Consultants shall include in the design any temporary works and/or diversions that are needed during the construction period. All temporary works or

diversion designed or proposed should be able to cater for the uninterrupted flow of traffic for the period concerned. The Consultants shall use the RTSD standards/guide lines for traffic control at temporary road works and diversion sites. The Consultants shall ensure that adequate provisions are made for access to all adjacent properties during the construction as well as for utility services in the design of the bridges.

64. *Temporary construction (start and end of the Sections):* The Consultants shall include in their design temporary constructions that will be needed at both ends of the Sections to connect with the existing network. The design should allow both the connection of the Sections with actual itinerary and the upgrade to a full motorway itinerary by the end of the construction period.

65. *Preliminary Plans:* Preliminary plans shall be submitted from time to time to RSTD or as requested for the approval of endorsement before the final plans are drawn. The Consultants will prepare all drawings in full detail as will be required for final implementation of the Project, such as: (i) plan and profile of the Section with details of all curves, super elevations, levels, locations of bench marks, locations of bridges and culverts, cross-sections of the existing and proposed roads etc.; (ii) plan, elevation, section and structural details of elements of bridges, culverts and other structures; (iii) location of borrow areas, quarries etc.; and (iv) drawings of other protective and ancillary works including retaining walls, road marking, traffic signs and other necessary roadside furniture etc. Scales shall be 1:100 for vertical and 1:1000 for horizontal measurements. All lines and texts shall be clearly visible by naked eye.

66. *Engineering Plans:* The Consultants shall prepare contract drawings in sufficient detail suitable for tendering and construction. The tender drawings shall include all items such as horizontal and vertical alignments, cross-sections, earthworks, details of junctions, culverts, bridges, draining system, road pavements, erosion and slope protection measures, road signs and signals, safety barriers, pavement and lane markings, guardrail, street lighting, fencing, traffic control devices etc. necessary for the full and effective implementation of the project. Plans will be presented in plan profile or other approved format on sheets of approximately 60 cm by 90 cm. The format should allow for the reproduction on paper. Locally produced on half scale (A-3 size) format will also be required. Scales shall be 1:100 for vertical and 1:1000 for horizontal measurements. All lines and texts shall be clearly visible by naked eye. The originals of all plans shall be submitted to, and become the property of the Government.

67. *Bill of quantities, time frame, phasing of the works and traffic management plan:* The Consultants will draw from the detailed design the bill of quantities and propose organization and time frame for the civil works. The Consultants will also draft detailed technical specifications required for inclusion in the Special Conditions of Contract to be part of the Bank standard International Competitive Bidding (ICB) documentation related to the construction. The Consultants will also prepare a traffic management plan (to be included in the ICB bidding documents) to deal with the traffic during the work periods, with concerns for safety and comfort of the road users.

68. *Cost estimate:* The cost estimate will be prepared, on the basis of detailed quantities, including costs associated with mitigating measures. The Consultants will estimate the total costs

of the construction of the road and will present all the details of the computation including the hypothesis and source of information.

Preparation of the bidding documents

69. For the Section of the itinerary between PK 75 and PK80, the procurement of the works will be carried out in one step. For each of the Section of the itinerary between PK 102 and South of Masally, the procurement of the works will be carried out in two steps¹⁴. The first step will focus on the preselection of the applicants (contractors and joint ventures willing to become potential bidders), based on Bank's Standard Prequalification Document. The second step will focus on the preparation of the bidding documents. The second step starts after completing the studies described above. The Consultants is to prepare the full package of bidding documents according to Bank guidelines and taking into account the comments from the client. The Consultants will liaise with the EA consultant to ensure that the recommendations and mitigations measures that will be described in the EA and in the EMP are taken into consideration in the bidding documents, including HIV related recommendations during the construction period (awareness of the workers).

70. The Consultants shall prepare complete tender documents. Bidding documents including prequalification documents and request for proposals (RFP) should be prepared, based on Bank's standard documents. Prior consultation with RTSD and with the Bank will be necessary before the tender documents are finalized. Five (5) copies of each draft tender documents shall be submitted for RTSD and the Bank review. Final tender documents shall only be printed after the draft documents have been approved by RTSD and the Bank.

71. Standard Technical Specifications adopted by RTSD will be used as much as possible. These will be expanded by the Consultants to areas not currently covered, in a manner that is consistent with current RTSD Specifications. Any such modifications will require prior approval of RTSD.

72. For each Section, the preparation of the tender documents shall be in four (4) volumes i.e.

- Volume I: Instruction to Bidders. Forms of Bid, Qualification Information, Letter of Acceptance and Agreement, Conditions of Contract, Special Conditions of Contract.
- Volume II: Technical Specifications.
- Volume III: Bill of Quantities and Schedule of Particulars
- Volume IV: Contract Drawings.

73. Schedule for the procurement of the works: The Consultants are expected to prepare the necessary documents to allow RTSD to launch as soon as possible the prequalification process for each of the Section, depending on the schedule for the construction. As the schedule may evolve during the assignment (e.g., due to the progress made in land acquisition as mentioned above in the document) the Consultants are expected to adjust to the situation. It is also expected that the Consultants will examine the need for launching separate bidding process for isolated

¹⁴ Provided the package is estimated to cost above US\$10 million (procurement below US\$10 million does not require prequalification).

construction (e.g., large bridges) depending on the specificity of the given construction, on the availability of the land.

Validation and Reporting

74. The process of validation by RTSD of the various steps in the Study will be as follow (the Consultants would launch a further step at their own risk if the previous step is not validated):

Phase I:

- Identification of variants
- Breakdown in Sections (Bank non objection required)
- List of alternative per Section
- Proposal based on environment, social, economic impact of a Preferred Alternative per Section (Bank non objection required)
- Schedule for the construction of the entire itinerary, in line with financing means available over a 3 to 5 year period following Spring 2007.

Phase II:

- Description of the features attached to the Preferred Alternative for each Section (Bank non objection required).

Phase III:

- Description of the features attached to the Detailed Design for each Section (Bank non objection required);
- Bidding documentation for each Section (Bank non objection required).

75. The Consultants may propose a different set of steps than the one described above. This new set would have to be agreed upon by RTSD at negotiations. It should facilitate the review of the various Studies by the RTSD/PIU and it should aim at minimizing the risks that efforts are deployed but of no use. Based on the validation process that will be agreed with RTSD, the Consultants will draft, and then updated on a monthly basis, a detailed chronogram of all the activities under the Study, including interference with other actors' activities (e.g., EA consultant, RTSD/LAD).

76. In they proposal the Consultants are expected to describe the methodology related to the Studies that they intend to carry out including the description of the various steps mentioned above. The Consultants will report to RTSD/PIU directly asking for RTSD's clearance of documentation as per the chronogram mentioned under the previous paragraph.

77. The reporting requirement will be finalized with RTSD at negotiations based on the following: (i) work plan and time schedule (in advance of starting the work program); (ii) monthly progress reports (within one week of month end); (iii) technical reports (e.g., preliminary engineering, feasibility study, analysis of alternatives, partnership with RTSD/LAD and MAP activities etc...); (iv) report on public consultation; and (v) consultancy completion report summarizing the results and findings of their activities.

78. Report on assistance provided to RTSD/LAD: Land acquisition and the process of compensating the people affected by the project is clearly seen as a potential bottleneck to the project. It is therefore mandatory that the Consultants report every quarter under a separate

report on the progress made with the assistance provided to RTSD/LAD and on all matters related to the MAP, land acquisition and compensations. The report will highlight potential difficulty in the timely implementation of the works and will suggest remedies to such situations when they arise.

79. The schedule for reporting is expected to be as follow (to be finalized at the time of negotiations with RTSD):

- *Phase I:* report on the launching of the selection of Preferred Alternative (within one month of contract signature); work plan and time schedule for each phase (within one month following contract signature); monthly Progress reports (within one week of month end); reviewed and completed phase I (selection of Preferred Alternatives) within four months of contract signature; report on assistance provided to RTSD/LAD.
- *Phase II:* monthly Progress reports (within one week of month end), reviewed and completed phase II report (Preliminary Design) for one Section within four months of Client concurrence to phase I. Report on phase II for all other Sections within twelve months of Client concurrence to phase I; report on assistance provided to RTSD/LAD.
- *Phase III:* technical reports (geometrical design, pavement design, bridge and structure design, information, and bidding documents; report on assistance provided to RTSD/LAD.

80. During the assignment the Consultants will keep RTSD/PIU informed of progress and any issues arising to ensure their timely resolution. When finalized, copies of all required documents shall be submitted in English and Azeri (7 paper copies in each language and one submission in electronic format). Four copies of the interim reports shall be provided in English and a further four in Azeri. To expedite the review and comments, all reports will be sent electronically to the Bank simultaneously. The Consultants will ensure adequate and timely issuing of the Azeri version of the report not later than 7 days after the English version is issued.

81. If on any report the Consultants receive comments by RTSD within 21 days, their will incorporate these and then issue the final version of the report. Diagrams in the reports should be in Azeri and in English.

82. During the preparation of the Study the Consultants must keep the Client, RTSD and the Bank, informed of progress and of any issues arising to ensure their timely resolution. When finalized, copies of all required documents shall be submitted in English and Azeri (7 paper copies in each language and one submission in electronic format). To expedite the review and comments, all reports will be sent electronically to the Bank simultaneously.

Schedule and resources

83. RTSD will provide free of charge all previous relevant studies that were carried out to ensure the timely completion of the Study. RTSD is expecting the schedule for the detailed design to be as follows, assuming the staged delivery of a section about every two months:

- (i) One month from the signature of the contract the working plan for all three phases is drafted and submitted by the Consultants;
- (ii) Four months from the signature of the contract the Consultants have completed Phase I;
- (ii) Eight months from the signature of the contract the Consultants have completed phase II activities for one of the Sections and documents to launch prequalification for one Section;
- (iii) Ten months from the signature of the contract the Consultants have completed phase III activities for one of the Sections and documents to launch prequalification for three more Sections;
- (iv) Eleven months from the signature of the contract the Consultants have completed the bidding documents for one Section;
- (v) Fifteen months from the signature of the contract the Consultants have completed Phase II;
- (vi) Twenty months from the signature of the contract the Consultants have completed all bidding documentation for all Sections.

Team composition

84. The Consultants shall propose and justify the range of disciplines to be included in the core project team and the complementary skills of short-term specialists. Inputs by foreign and local specialists should be clearly indicated. The Consultants shall name individuals to participate in specified roles within the project team and provide full curriculum vitae and any other information considered relevant. The Consultants are expected to have a sound knowledge of highway engineering work and relevant previous experiences in highway detailed design in the region.

85. The Consultants will be expected to have:

- Significant knowledge and experience in conducting alternatives analyses of road projects, including benefit-cost analyses, geometric design, and engineering of structures including pavements;
- Specific experience in the management of the outcome of environmental assessment (those studies will be carried out by another team);
- Significant knowledge on public consultations for major infrastructure projects, in particular for highway design and construction.
- Capacity to deal with all aspects of the MAP and training of RTSD/LAD staff (about ten people)
- Include an architect in the team to deal with bridges and landscape design.

Coordination, Consultation and Disclosure

86. RTSD (through RTSD/PIU) will inform the Consultants on their policy regarding disclosure of information to the public. Information campaign on how to disclose the outcome of the various studies will be discussed with the Consultants. The Consultants will be in charge of preparing the material for such campaign and they will assist RTSD during the campaign.

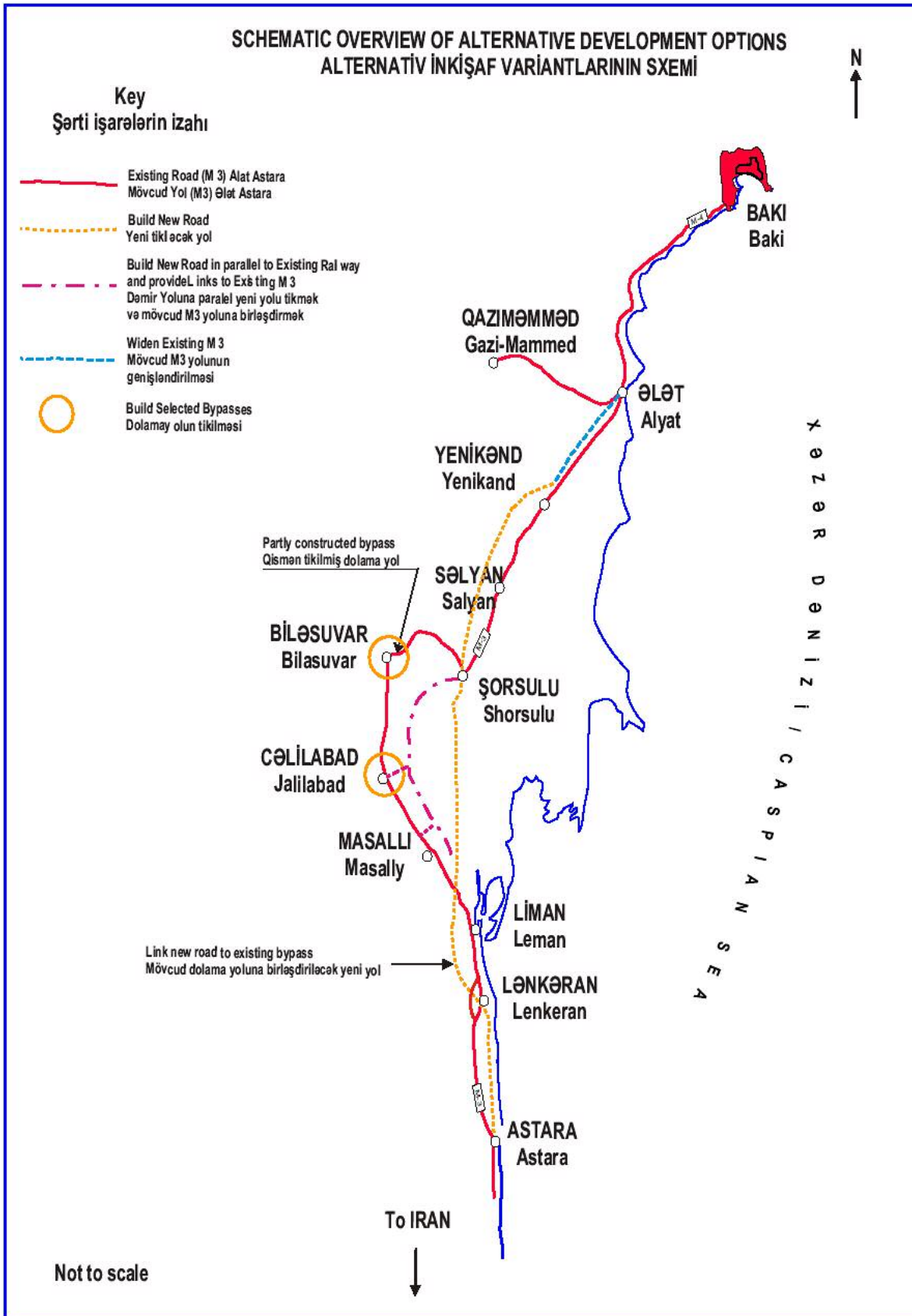
Documentation available to the Consultants

87. The Client (RTSD) will provide information free of charge on existing field works and any engineering and environmental studies that are available for the existing main road. The following documentation and maps are available to the Consultants:

- Terms of Reference Environmental Assessment, Environmental Management Plan and Capacity Building
- List to be provided by RTSD/PIU
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Annex 1 Maps



Annex 2 Sample RAP outline

Table of Contents of Resettlement Action Plan

1. Baseline planning surveys
2. Avoidance or reduction of displacement
3. Identification of PAPs (Project Affected People)
4. Vulnerable groups
5. Consultation and participation
6. Resettlement mechanisms
7. Coordination with civil works
8. Contractual arrangements with partner institutions
9. Institutional capacity and implementation skills
10. Training
11. Monitoring and reporting
12. Grievance procedures
13. Transparency of process
14. Budget and funding
15. Contingencies and flexibility
16. Acceptance and commitment
17. Contribution to overall policy and practice