project cost. If a hazardous materials site cannot be avoided, the Consultant shall take appropriate steps to remediate the hazardous site prior to construction in order to reduce the potential health/safety risk.

202.04 ENVIRONMENTAL CHECKLIST

All of the environmental factors described in Sections 202.02 and 202.03 are included in the Environmental Checklist located at the end of this section. Where appropriate to this project, the Consultant shall use the Environmental Checklist as an initial tool to identify those environmental factors that may influence the design of alternatives

The checklist is designed as a question and answer exercise that will aid in the comparison of project alternatives. A response of "No" to a specific question means the environmental factor in question is not applicable to the project. A response of "Yes" or "Maybe" indicates to the Consultant that the environmental resource exists and may be affected by the proposed project. In this case, the resource should be assessed further during the development of alternative designs to determine the exact nature and extent of impact that will be incurred on that resource. The objective is to design a project alternative that has the least amount of adverse impact to the environmental factors on the checklist. An alternative design that yields all "No" answers on the Environmental Checklist is considered to be the ideal design. However, this ideal situation is seldom achieved as there is always some level of impact to the listed environmental considerations.

203 TECHNICAL INVESTIGATIONS

203.01 INTRODUCTION

All roadway and bridge projects require technical investigations, to establish the basic building blocks of the design. These technical investigations are initiated in the data collection phase and continue through the development of the Design Concept Report. This subsection identifies the initial activities associated with these investigations. The basic technical investigations include:

- Geotechnical
- Traffic Data Collection
- Survey Control/Field Surveys
- Drainage Surveys

203.02 GEOTECHNICAL ENGINEERING

The objective of highway geotechnical work should be to seek, interpret, and evaluate subsurface and surface data in order to predict the behavior of the soils and materials along, and adjacent to, the alignment. The resulting information is to be presented in a technical report to be used in the project design.

Data collection includes research of existing geotechnical reports which were prepared for other projects in the geographic area as well as field reviews and preliminary testing. For review of existing geotechnical reports, the Abu Dhabi Municipality Road Section as well as other Municipality and Government agencies should be contacted. The existing data will be used to define the number of additional soil borings and the testing requirements for the boring program as described in Part 1, Section 300, Design Concept Report and Part 2, Section 600, Geotechnical Engineering. The Consultant shall obtain approval from the Road Section, Traffic Police and any other concerned agencies prior to commencing geotechnical investigation.

203.03 TRAFFIC COUNTS

203.03.01 Introduction

Traffic counts are basic to all phases of highway development and operation. An important component of traffic counts is existing and future traffic volumes. Traffic volumes are needed for highway planning, project cost-benefit comparisons, priority determinations, analyzing, monitoring and controlling traffic movement on the highways, traffic accident surveillance, research purposes, highway maintenance, public information, highway legislation and for many other purposes. However, it should be noted that the traffic data collection and projection techniques described herein are specifically intended for providing traffic volume data required for roadway and bridge design. It is the