

# 聖文森橫貫山區道路特殊工程環境規劃概述

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## 摘 要

聖文森島位於東加勒比海地區，由火山噴發形成。島上有三個火山噴發中心，造成主島由濱海低地陡峭的向中心攀升至1219m的高度，也形成了狹窄的山脊、陡峭的坡地和散佈的集水區。火山形成的地層非常複雜，從堅硬的火山熔岩到鬆軟風化的火山碎屑堆積物都有存在。主島寬度雖僅18公里，但因其特殊的地形及地質條件，東西兩岸至今仍無聯通道路，因此聖文森政府決定在主島中部興建橫貫公路，穿越此一多雨且植生茂盛的地區，以改善兩岸的連接交通。

本規劃設計工作為於20個月內，完成勘查、測量、地質調查、選線、規劃及設計等作業及合約文件製作，乃以現代科技調查方式配合對業主選定路廊的深入探討，規劃出一條長19.71km的路線進行設計，同時對施工方式與相關規範加以修訂，期使完成的設計能與當地情況及資源密切契合。

**關鍵字：**聖文森橫貫公路、火山地形、特殊工程環境。

## A Brief Report on St. Vincent Cross Country Road - Design and Planning with Special Geo-Environmental Considerations

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## Abstract

The island of St. Vincent, located in east Caribbean Sea, was formed by volcanic eruption. There are 3 volcanic centers in the island which raised the terrain abruptly to 1219m high from coast to its middle, narrow ridges with steep gradient and watersheds were then developed. Its volcanic geological formation is complicated, varying from hard lava magmas to weathering pyroclastic debris. The island is only 18km wide, but because of its critical terrain and geological formation, there is yet to have a passage to connect the east and west coast. The St. Vincent Government thus decided to build a Cross Country Road passing through the heavily rainfall and dense forest area.

The Design Work, including the site reconnaissance, topo-survey, geo-survey and investigation, route selection, preliminary and detail design, and contract documentation, had to be completed in 20 months. The Design Group had to apply modern techniques to facilitate the survey and investigation work. On the other hand, based on their profound study, the group had also to work out a 19.71km alignment within the corridor assigned by the Government, to modify the construction methodology and technical requirements to cope their design works with local environment and resource.

**Key Words :** ST. vincent cross country road, volcanic landform, special geo-environmental conditions.

## 一、前言

聖文森政府為改善主島東西兩岸的連接交

通，開發生態旅遊等觀光資源，在全國積極推動下，自2002年起進行橫貫公路興建計畫。橫貫公路規劃全長25公里，分三期進行。第一、二期工程為改善東、西兩端既有道路，已完工。第三期