Socioeconomic Assessment of the Apoquindo-Manquehue-Alonso de Córdova Traffic Junction, 1999

Summary:

The project arose in response to a request from the Las Condes municipality and MIDEPLAN to the directors of CIAPEP 1999 to study an alternate public transit system for the municipality in order to minimize the impact on vehicle traffic resulting from the housing expansion expected over the next ten years. Housing growth was particularly important in the Parque Araucano district, where construction was expected to cover an area equal to ten times that currently taken up by Parque Arauco Mall.

Limited information and time for conducting the study led to the assessment of a specific roadway infrastructure project, the validity of which was independent of the overall transit solution adopted. That project sought to determine the optimum time to construct an underpass at the Apoquindo-Manquehue-Alonso de Córdova-Cuarto Centenario traffic junction for two project alternatives, entitled Trinchera de Túnel.

The methodological contribution of this project was to develop a simplified procedure to estimate the cost of disturbances associated with the redirection of traffic during project implementation. Instead of using mathematical optimization models that redirect vehicle traffic along alternate routes with the lowest social cost (the most commonly used in the industry is the SATURN model, which requires considerable investment in surveys and data calibration), in this project the team used good judgment and simplifications of the problem, notably limiting the cost and duration of the study.