

NOVALICHES

One of the fastest growing suburban centers in Metro Manila, Novaliches needs planning treatment now, so as to guide its future developments. The recommended approach is for Metro Manila Commission (MMC) to initiate a land consolidation program north of and around the existing town proper with a view to urban restructuring and redevelopment. Inclusion of transport interchange facilities in such a scheme should follow.

The development of three (3) separate but smaller sites for transport terminals with a combined space requirement of 4,840 sq.m. and investment of P10.2 million is proposed, in addition to the following measures (see Figures S-21 to S-23).

- a) Construction of a bypass road, about 3.2 kilometers long, with an alignment that uses as much of the existing subdivision roads as possible (about P39 million in cost). Early completion of sections of C-6 is also desirable.
- b) Expansion of such distinctive transportation services as trunk routes (between the CBD and EDSA to Novaliches town proper), feeder routes (linking the subdivisions with the town proper), and local neighborhood lines (tricycles within subdivisions).
- c) Implementation of traffic management controls at two key intersections at Quirino/Susano and Quirino/Geronimo.
- d) Localized adjustments in five (5) jeepney routes.
- e) Conversion of Ramirez section south of Susano Market into a pedestrian mall.
- f) Minor civil works such as widening of G. Luis between Susano and Austria, repaving between Susano and Ramirez, etc.

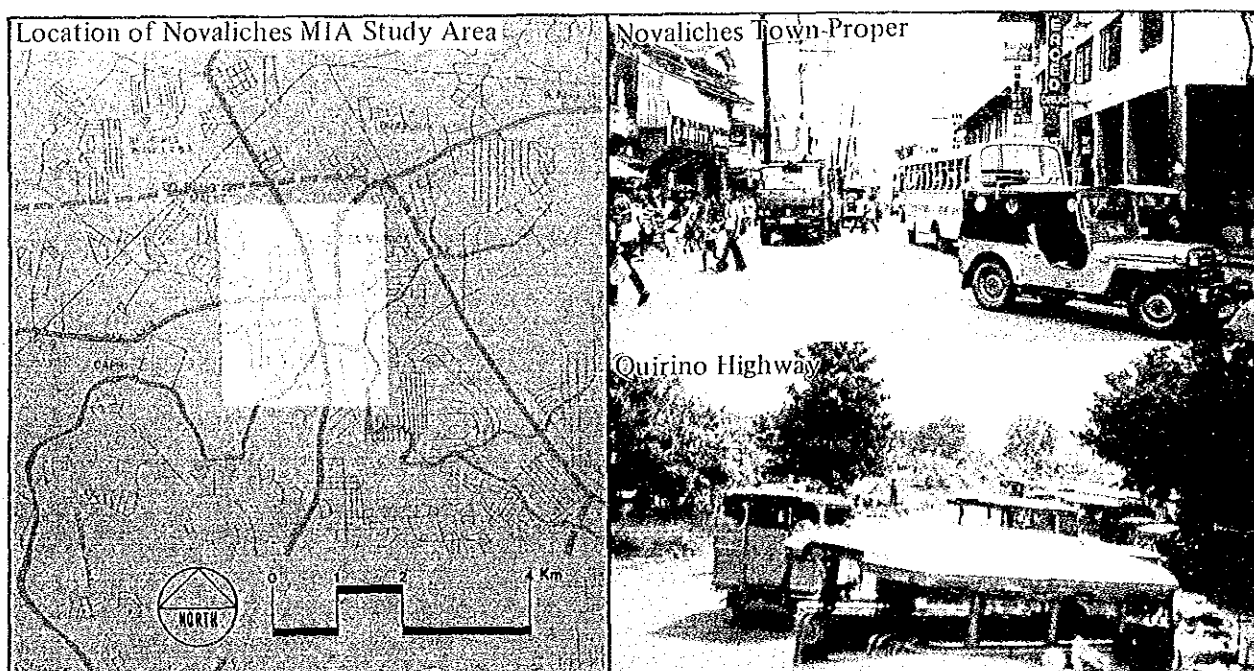


Figure S-21
 Concept and Plan of Mode Interchange
 Facilities for Novaliches MIA

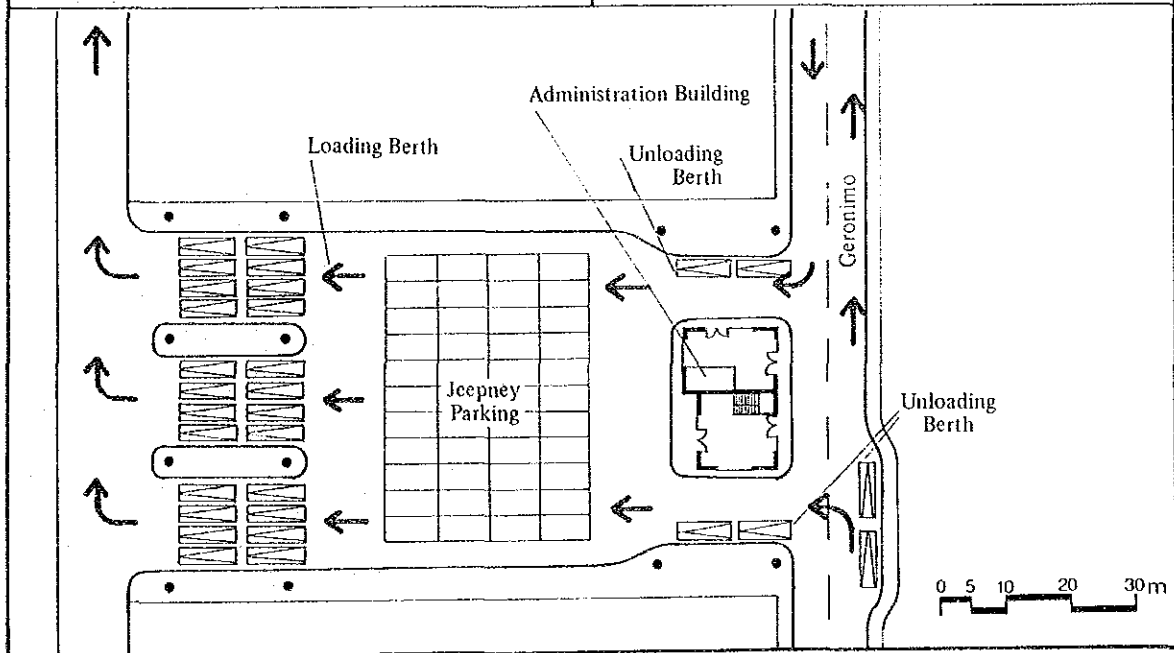
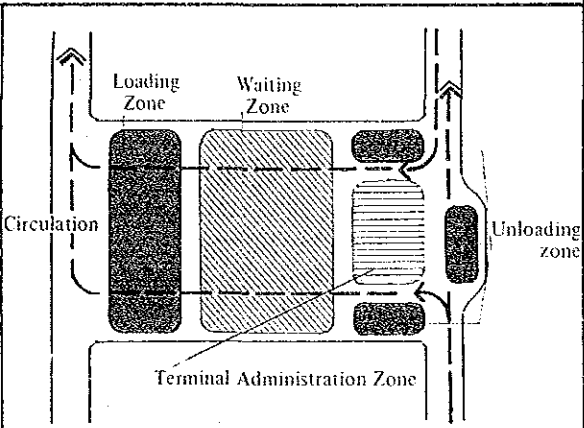
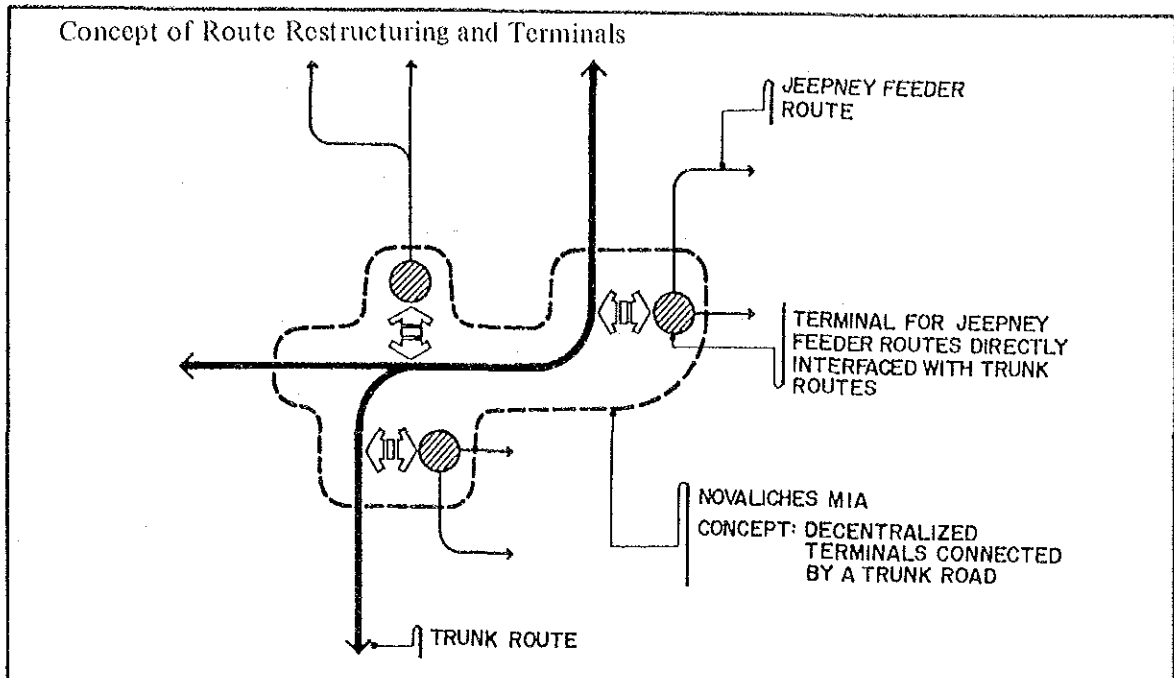


Figure S-21
 Concept and Plan of Mode Interchange
 Facilities for Novaliches MIA

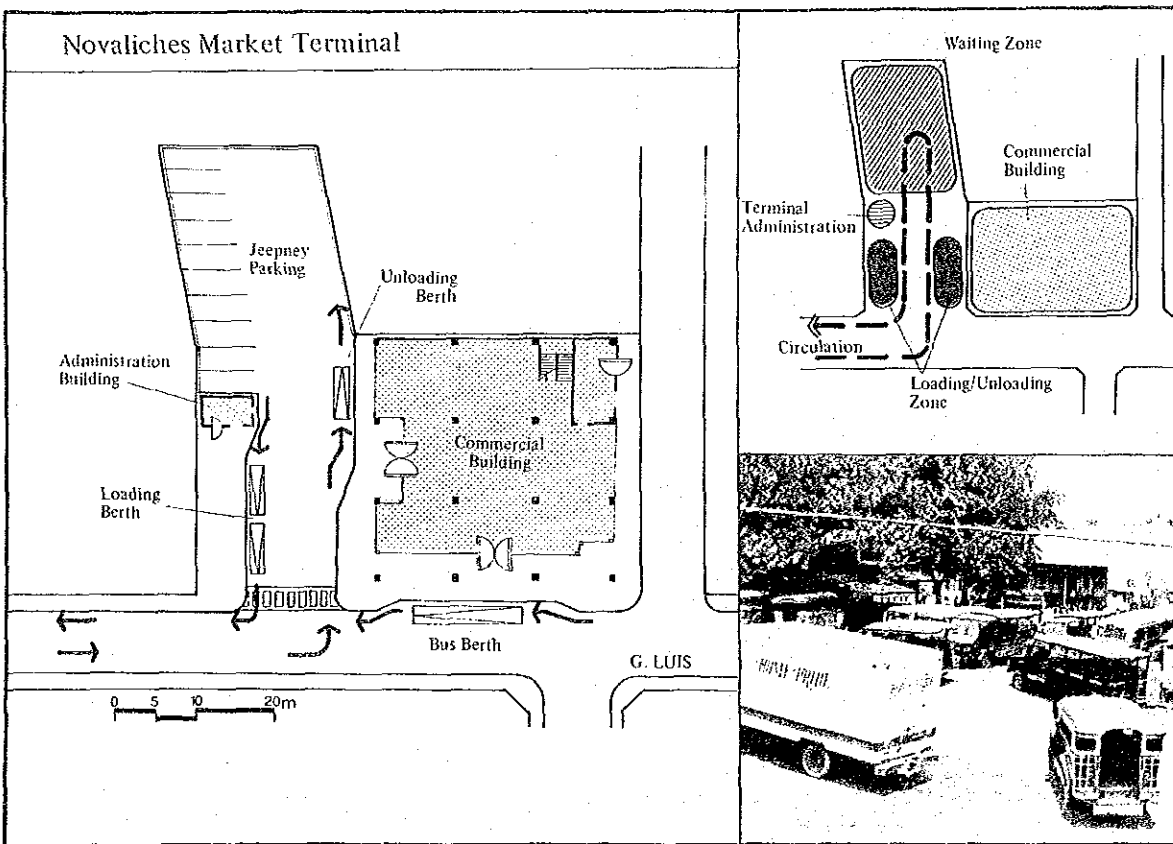
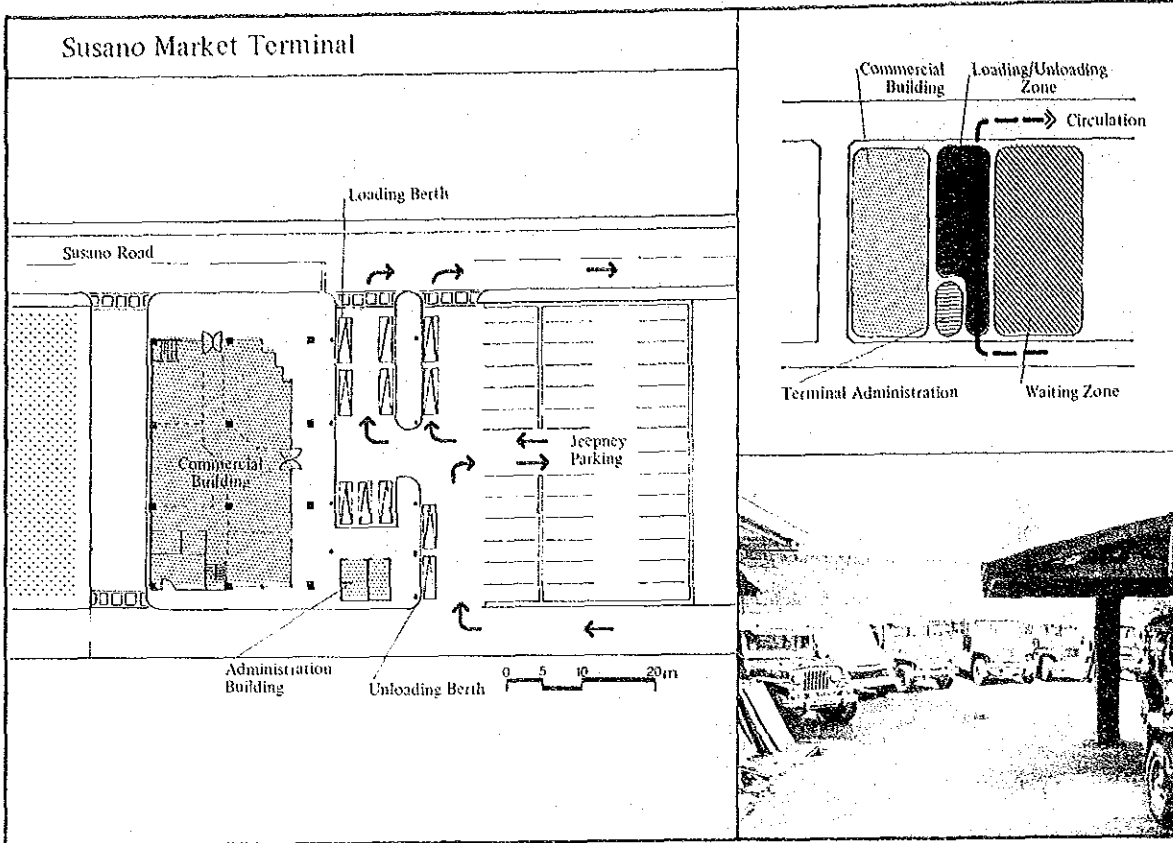
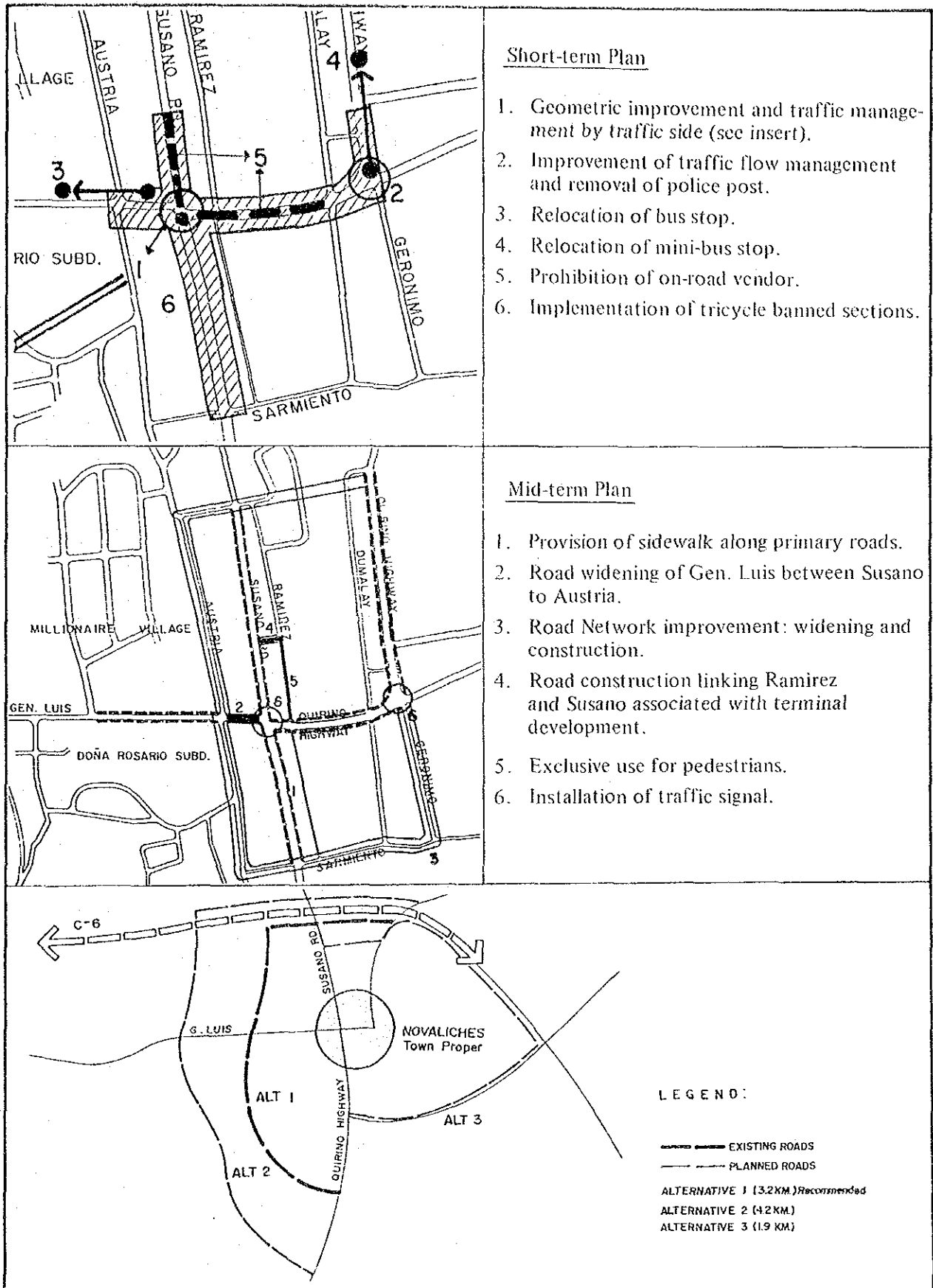


Figure S-22
Other Proposed Improvement Measures
for Novaliches MIA



6.6 C-3/QUEZON AVENUE

In anticipation of the rapid commercialization of this important junction once Circumferential Road 3 (C-3) is completed, the early planning and acquisition of a site for a public transportation interchange is recommended. Another approach is for government to acquire the land in conjunction with the road and grade separation construction, or at least direct the development, through land use and building controls, of the property northwest of the intersection.

Since this place is not yet a major pick-up point in the absence of actual bus/jeepney plying C-3, the size of the proposed terminal is contingent on government decision on new routes. As previously recommended, C-3 should be a bus-only route.

In almost all the mode interchange areas investigated by JUMSUT Phase II, their financial viability poses a serious concern, when taken independent of commercial developments. Because of their economic merits (which preclude the misuse of roads for purposes other than vehicle flow), however, these MIAs should be promoted, encouraged, or even directly induced by the government through a combination of fiscal incentives, administrative controls, and land purchase. In all cases, the private sector should be encouraged in the operation and management of these terminals.

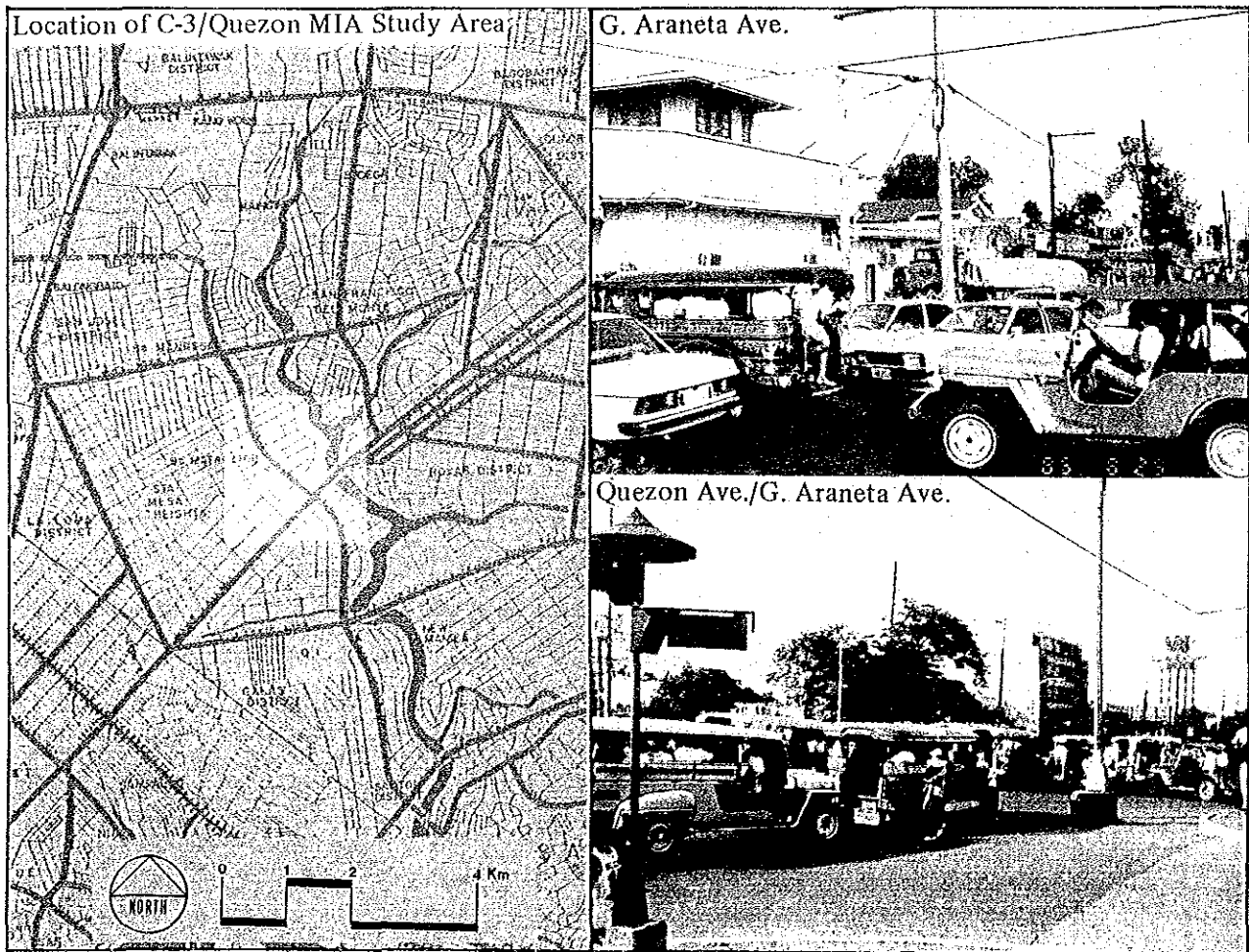
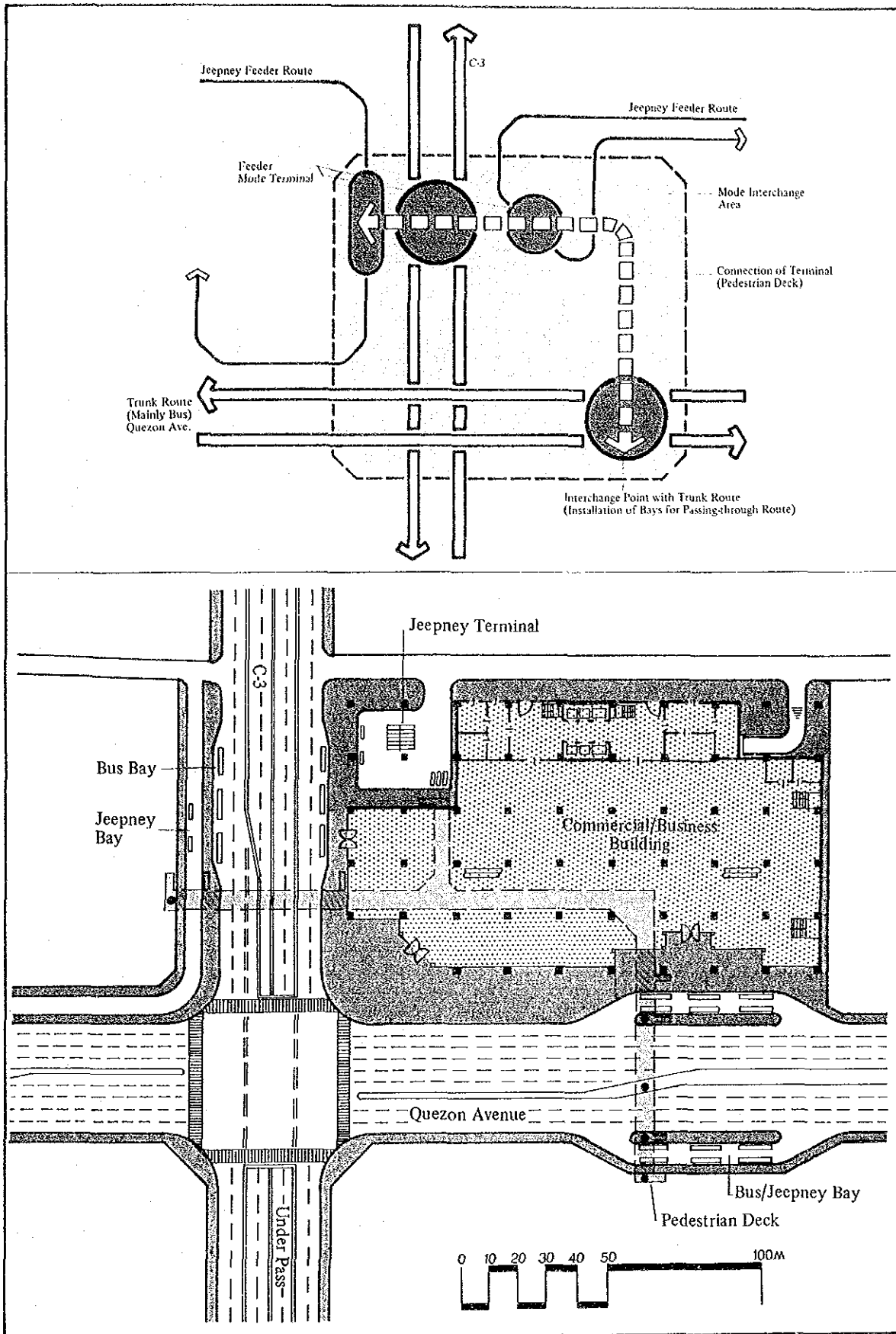
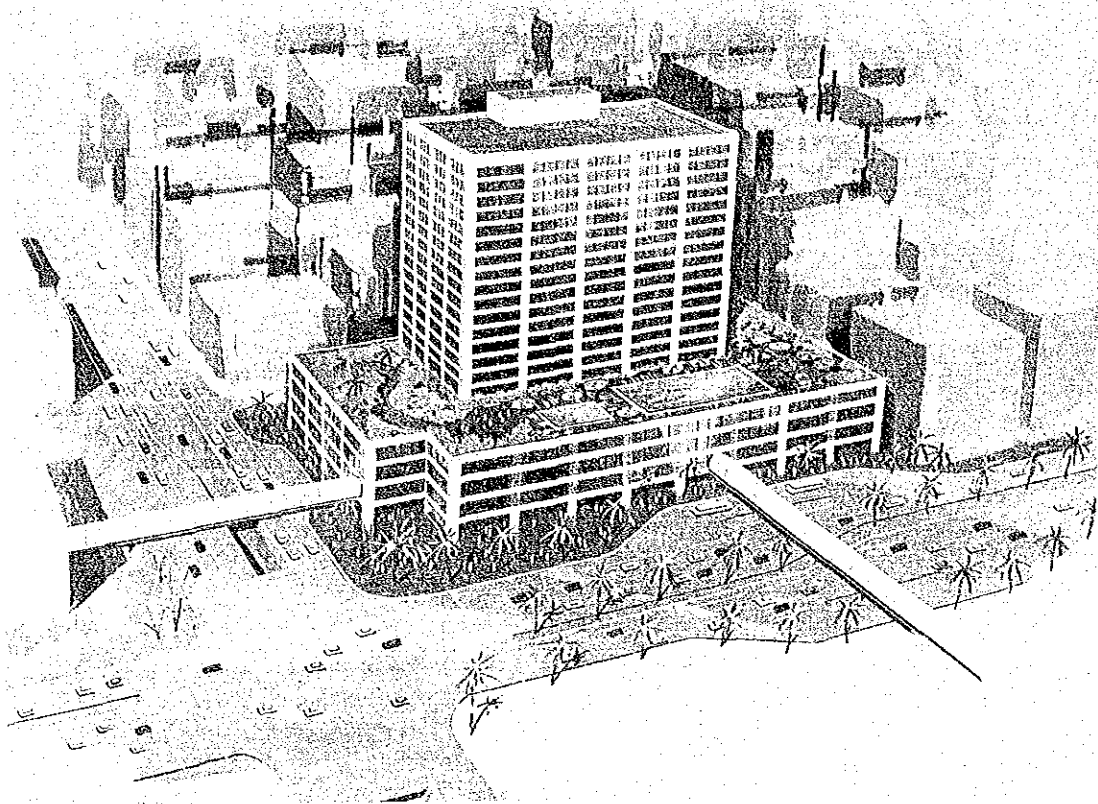


Figure S-23
 Concept and Proposed Plan of Mode Interchange
 Facilities for C-3/Quezon MIA





Bird's Eye View of Proposed Mode Interchange Facility for C-3/Quezon Ave. MIA

6.7

SUMMARY OF MIA PLANS

Table S-4 presents a tabular comparison of the problems and potentials of the five (5) mode interchange facilities.

Table S-4
The Five Mode Interchange Areas at a Glance

PARAMETERS	CUBAO	RECTO	DIVISORIA	NOVALICHES	C 3/ QUEZON
Area Characteristics	Private-sector led & planned development; non-trad commercial center amidst independent residential growths	Public-sector led urban redevelopment amidst a traditional area; Adjoins an LRT station & several institutional traffic generators	Haphazard traditional business & commercial area w/ heavy retail & wholesale trading activities; surrounded by low-income households near busy ports	Suburban town center in the throes of urban explosion w/out clear directions. Mainly catering to middle-income residential private subdivisions	Not yet a mode interchange area but anticipated to be; a future busy cross-road among high-income neighborhoods
Problem Statement	Intensification of commercial activities ahead of effort at transport developments w/ consequent congestion from lack of external access & unruly PT behavior	Lack of adequate space to accommodate public transport in the Quiapo area & only Old Bilibid site offers relief plus facilities to pedestrians	Misuse of main roads for market & trading related activities resulting in severe congestion, worsened by absence of transport terminals & pedestrian facilities	Misaligned intersection in the heart of Town Proper where most activities occur & transport converge; no alternative routes & no off street terminals	Congestion foreseen similar to Cubao if no prior action is introduced due to potential transfers & commercialization to be unleashed by completion of C-3
Rerouting Proposals	Delete overlapping of jeepney routes at Aurora-EDSA intersection; use of Arayat & Center Avenue for on-street terminals	Rerouting of North-South bound jeepneys to use Oroquieta & D. Jose	Rerouting to less-used Del Pan & disperse turning points to avoid concentration at CM Recto; use other sidestreets	Restructure bus-jeepney-tricycle routes for better complementation & service to subdivisions	Open up C-3 to High Capacity Vehicles only to preserve future options akin to EDSA.
Traffic Management	Paired one-way flow for Banahaw-P. Tuazon and New York-E. Garcia TM treatments on Aurora & add'l bus-bays for EDSA	Limitations on the use of A Mendoza service road for smooth flow of traffic; open CM Recto median to connect Evangelista to Oroquieta.	TM treatments not promising due to accepted anarchy in relation to the market; pedestrian control may alleviate problems	Geometric improvements at the L-shape intersection plus traffic signal & enforcement	Implementation of traffic signalization & geometric improvement at the same time as C-3 opening
Road Proposals	Widen P. Tuazon, build bridge at Diliman Creek	Extend D. Jose & Evangelista to the Old Bilibid area	New road link extending Moriones up to Rizal Avenue	New secondary road to serve as bypass; early construction of C-6	Review proposed grade-separation as to traffic eng'g
Terminal Development	Earmark 15500 sq.m. at the Aranaeta complex and 15400 sq.m. at the Arayat-Pinatubo; terminal req'ts piggybacked on commercial endeavours.	Allocate 14,600 sq.m. at the northern side of Old Bilibid site for PT use; develop ahead of phase with MMC planned urban redevelopment	Temporary use of Del Pan; construction of a 800-m flyover on Recto Ave. to evade market-based activities & use roadspace below for PU use	Develop 3 small but separate sites with total area= 4,840 sq.m. On the long run, pursue land consolidation to restructure urban center	Acquire 2,000 sq.m. at the same time as the road construction to preserve gov't option for future terminal use
Financial Variables	Not financially viable if operated independently; 1st site will cost P16m while 2nd site needs P32m	Not viable financially; will require P28m for facilities; Int'l funding possible for terminal to seed MMC program	Del Pan may cost P2m Cost of flyover=P100m. Redevelopment cost of PNR-Tutuban=P91m	Minimal investments for the 3 sites at a sum of P13m; By-pass road estimated to cost P39m	Facilities for terminal will cost about P1.8m
Economic Variables	1st year benefits very high at P86m	Not quantified but believe to be substantial	Flyover would create savings of P182m/yr.	Savings not quantified but believe to exceed cost	Predicted savings will exceed cost of allowing congestion
Management Variables	Private sector under gov't encouragement via tax and regulatory measures; MMC as the main promoter; use jeepney associations	The same entity as the developer of the Old Bilibid Site; terminal itself should be run by PU associations	Fly-over solution is up to MPWH to evaluate & implement; terminal operations to be under PU associations	MMC to take the lead in inducing proposed developments, with possibility of land consolidation; let transport operators manage	Land acquisition by MPWH; terminal development under private investor thru MMC supervision; actual running by bus

7.0 TRANSFER OF TECHNOLOGY

7.1 FORM

The upgrading of the technical proficiency of local staff was carried out in two forms i.e., through "hands-on on-the-job" training of counterpart government staff and a series of seminars on the applications of microcomputers in transportation planning. The seminar topic was chosen to familiarize government technical staff with the data collected on Metro Manila transportation system and the use of three (3) software packages developed in JUMSUT Phase I, and to enrich the collection of training materials in this technology.

7.2 STRUCTURE AND CONTENT

Four seminar modules of one-day each of 7 hours of classroom instructions per day, and three tutorial sessions of 4 hours of laboratory exercises per day were offered in the succeeding subsections.

Seminars

- a) Microcomputer Fundamentals -- It was intended for the novice and dealt with the hardware, software, and internal workings of the microcomputer.
- b) Spread-sheet Applications -- After introducing a number of commercial available packages, the seminar concentrated on SUPERCALC as a tool for transportation analysis.
- c) Programming in BASIC -- The fundamentals of flowcharting and programming were taught, and provided working knowledge of the BASIC language.
- d) Project Management -- To help in managing transportation projects, two popular project management packages (the Mac-Project and Harvard Project Manager) were presented with illustrative applications.

Tutorials

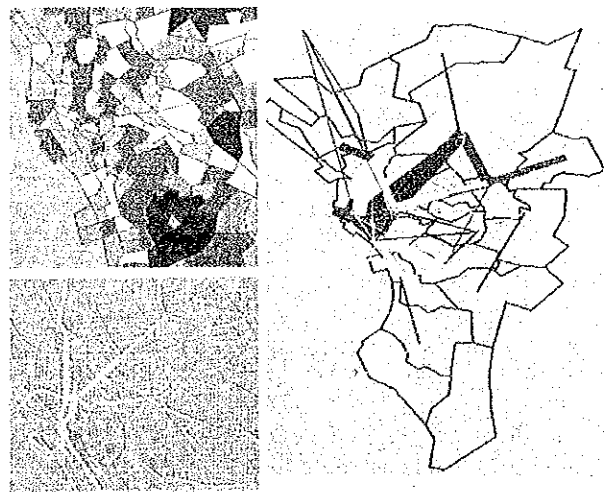
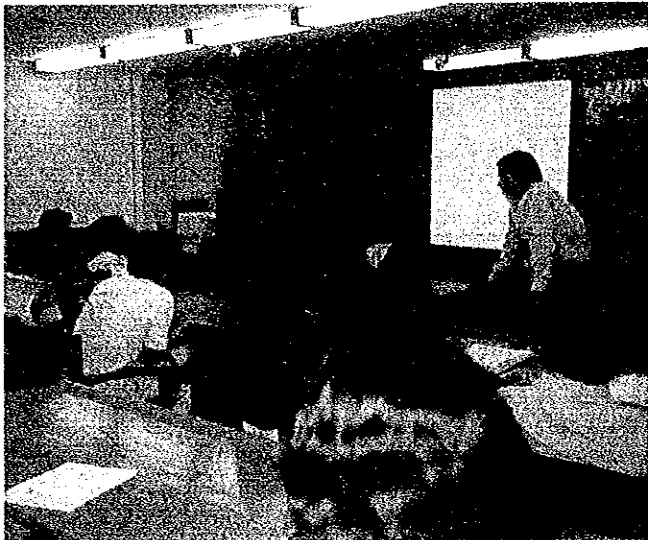
- e) Socio-Economic Data Base System -- Use of color graphics in the handling of varied statistics on Metro Manila.
- f) Jeepney Route Information Management System -- Use of graphics for displaying and updating jeepney routes and frequencies.
- g) Network Assignment Program -- Traffic assignment model for determining vehicular volumes at designated road links.

7.3 TRAINING POSTSCRIPTS

Thirty (30) participants have attended at various times the seminars or tutorials. Of these, about one-half came from MOTC and the rest from such agencies as MMC,

BLT, BOT, and MPWH. Two NEC 16-bit microcomputers were relied upon throughout the sessions; supplemented by eight FM-8 Fujitsu microcomputers of UP-TTC and the IBM PCs of MOTC at appropriate occasions. Resource persons came from the UP-TTC teaching staff, the JUMSUT II consultants pool, and some outside experts.

Future replicability has been assured with the use of UP-TTC staff and facilities and the documentation of computer programs.



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