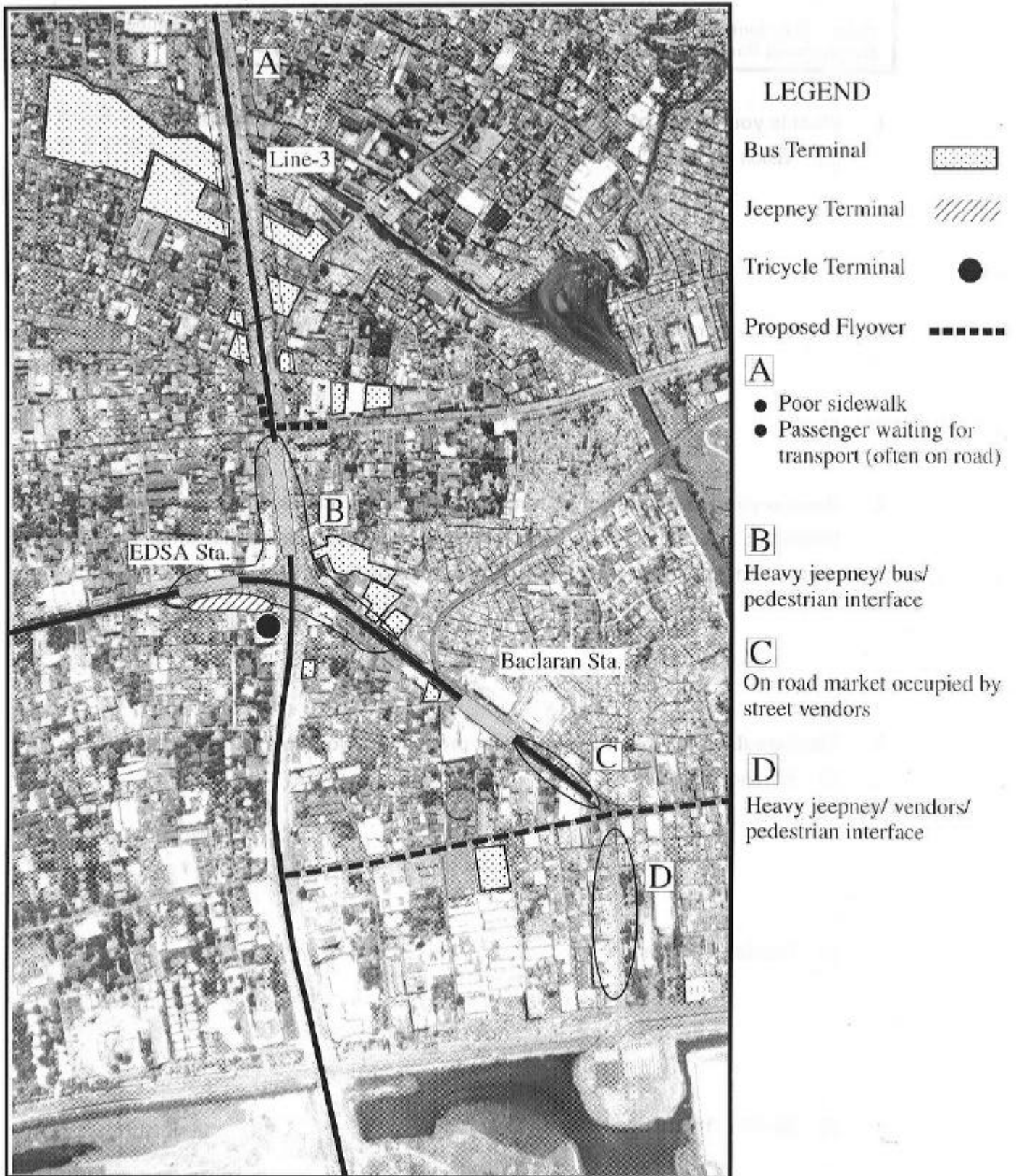
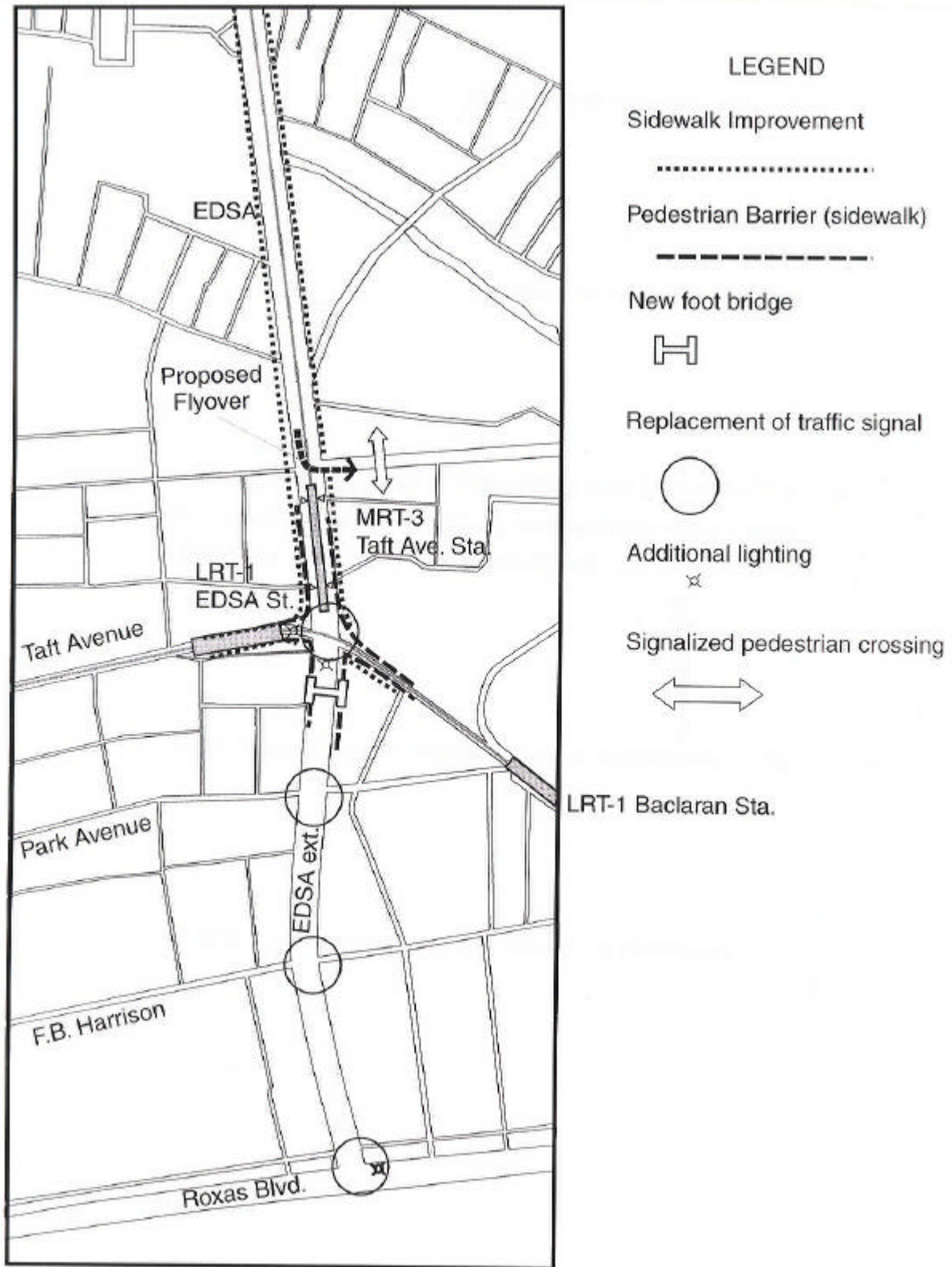


**FIGURE 5.5A**  
**BACLARAN: EXISTING FACILITIES AND CONDITION**

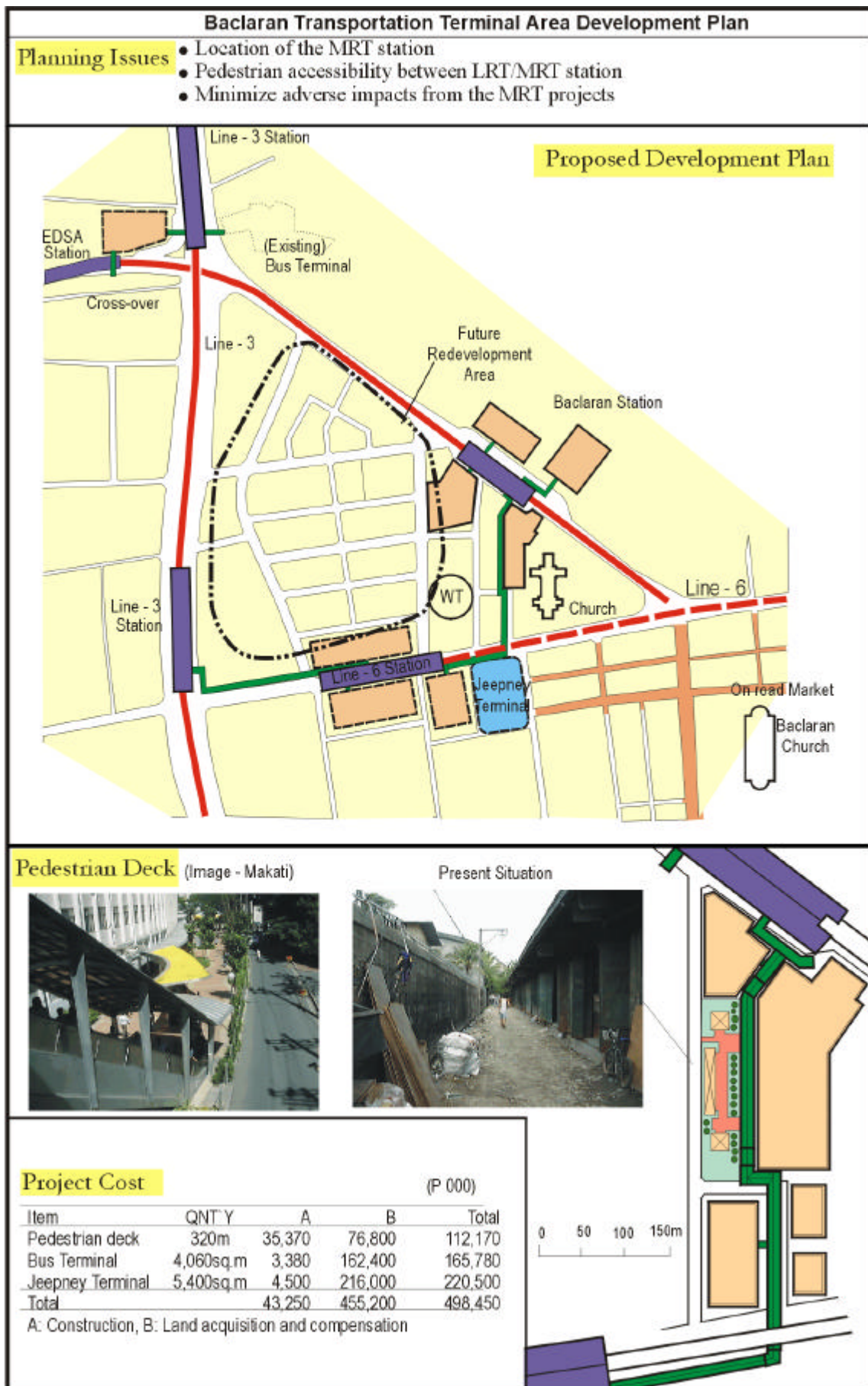


**FIGURE 5.5B**  
**BACLARAN: PROPOSED IMPROVEMENT BY MMURTRIP**



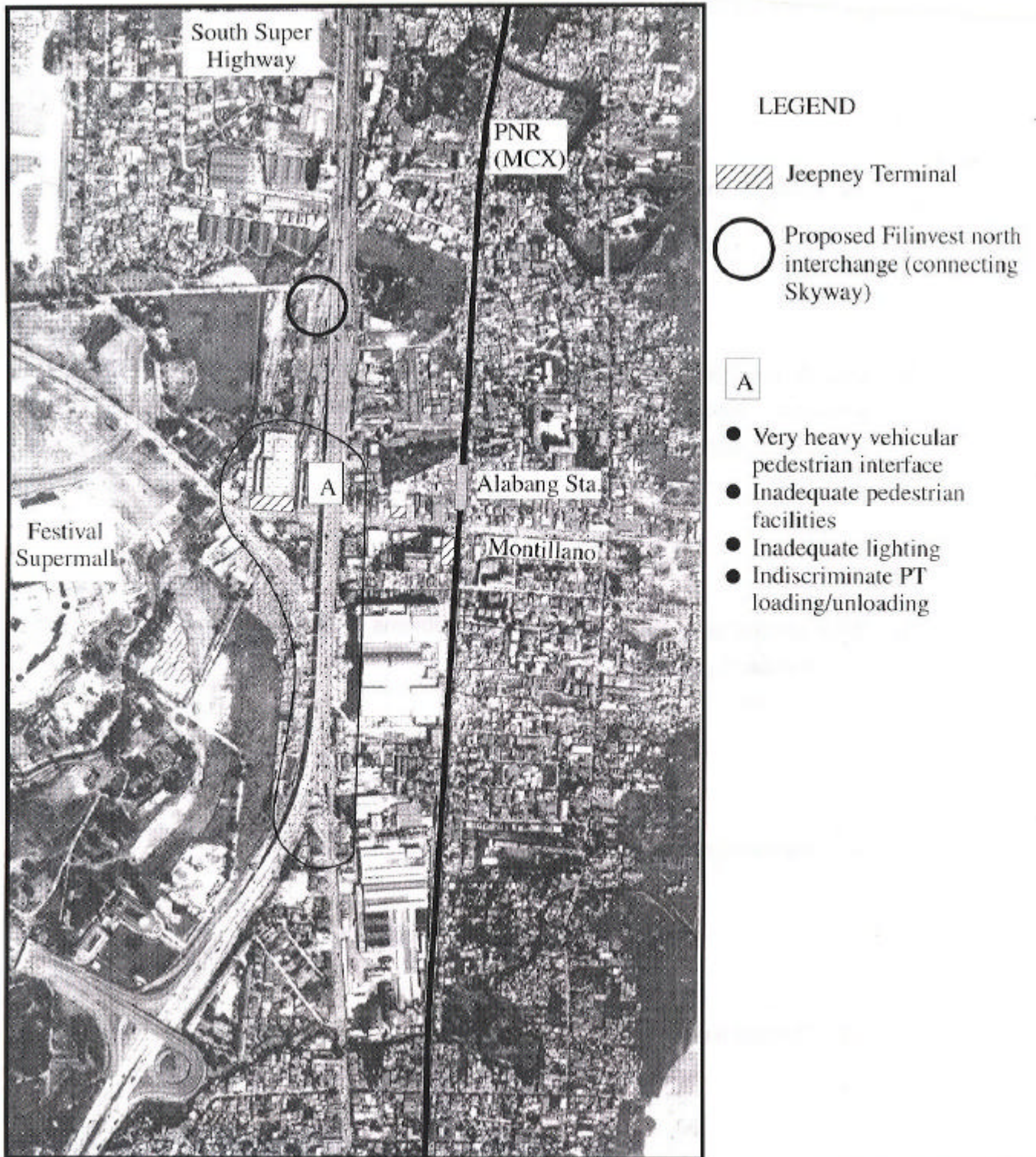
Scale 1/10,000

FIGURE 5.5C





**FIGURE 5.6A**  
**ALABANG: EXISTING TRANSPORT FACILITIES AND CONDITION**





**FIGURE 5.6B**  
**ALABANG: PROPOSED IMPROVEMENT PROJECT BY MMUTIP**

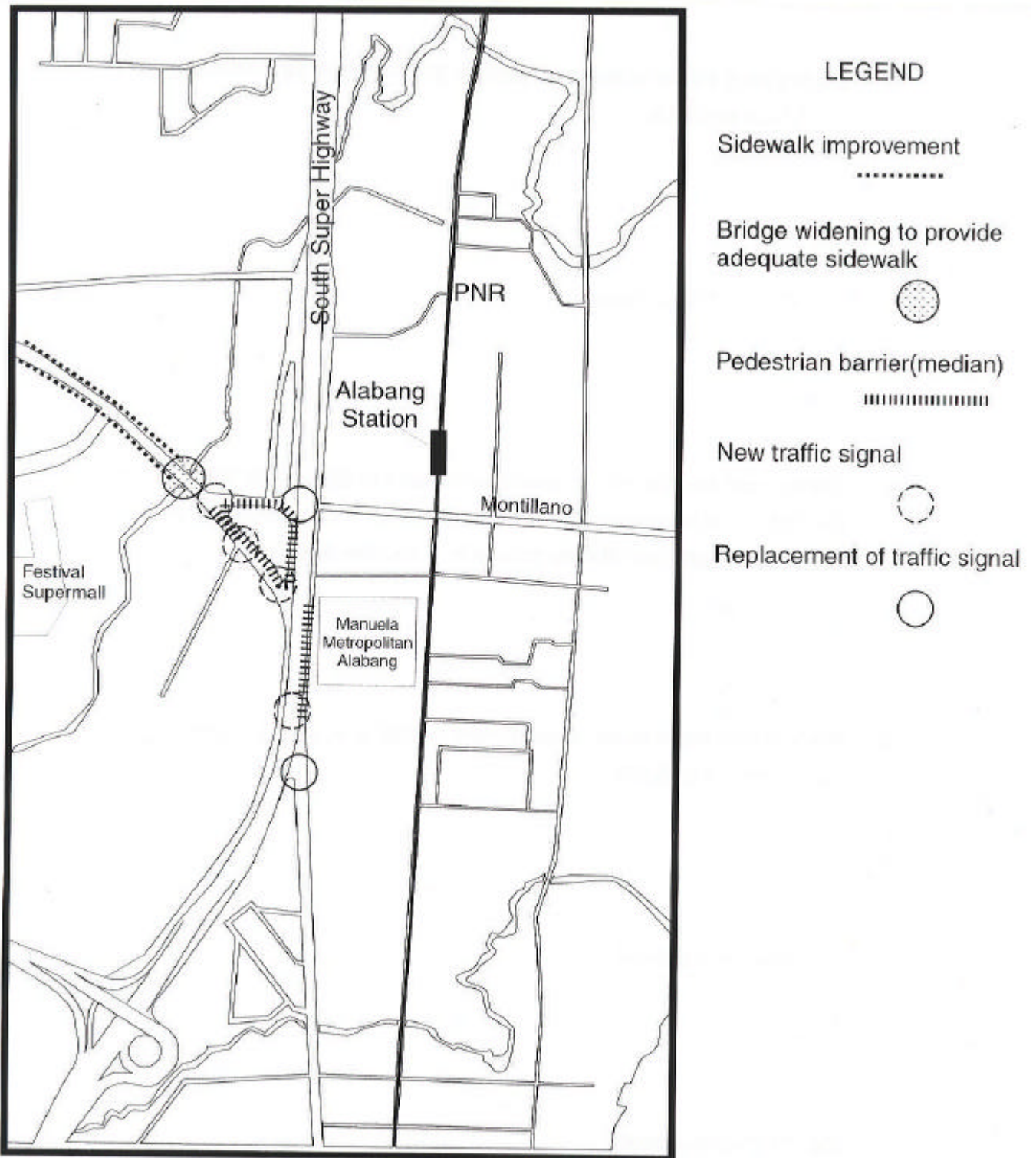
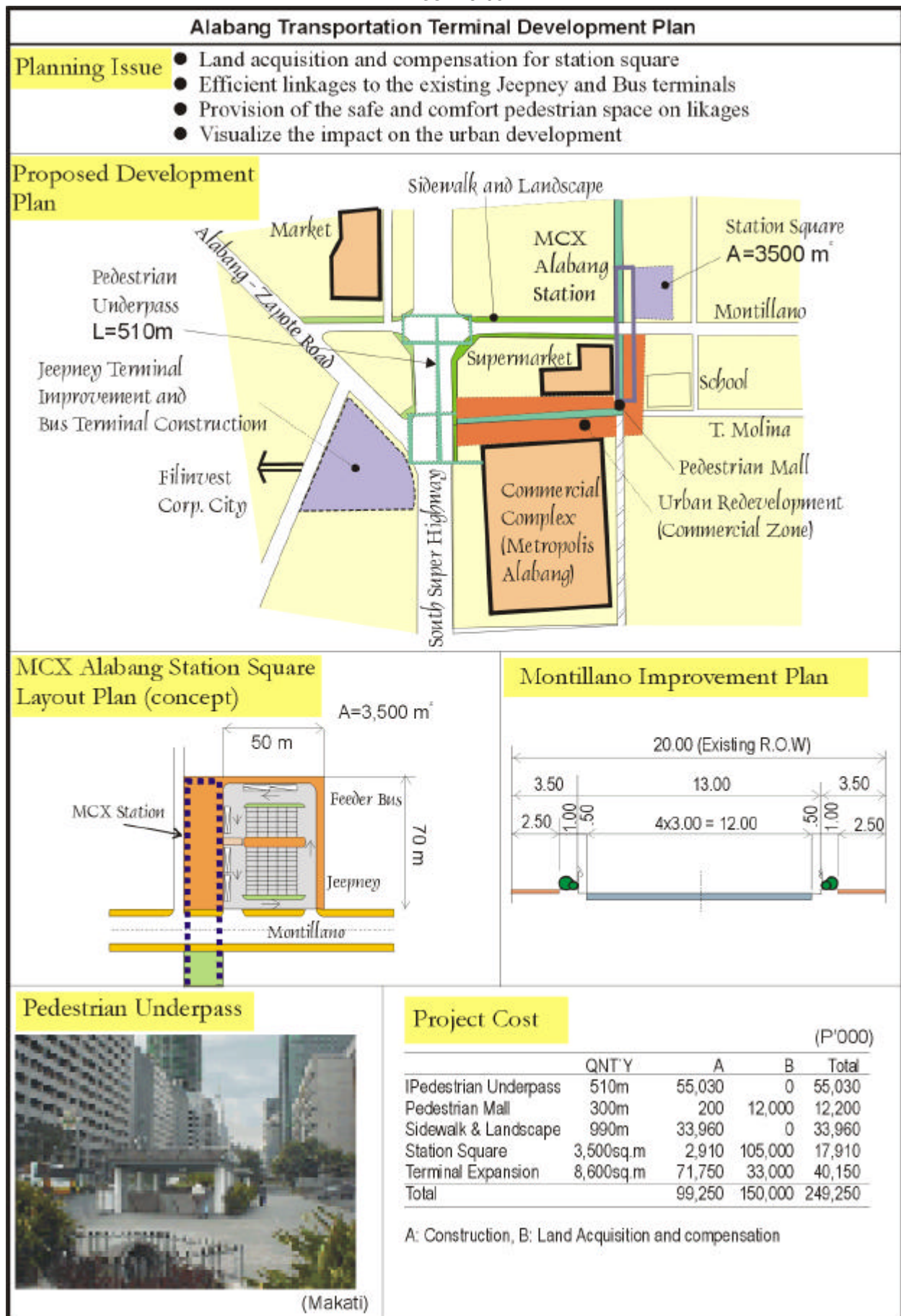


FIGURE 5.6C



## 6. PROJECT EVALUATION

### 6.1 Socioeconomic Evaluation

The socioeconomic impact expected to be generated by the terminal and its related projects will include savings in time costs for the transfer passengers, savings in vehicle operation costs derived from the improvement of traffic congestion, reduction of traffic accidents between vehicles and pedestrians, and increased comfort both in passenger and transport, among others.

There are a lot of positive impacts that can be expected. However, it is difficult to evaluate them quantitatively, particularly in the case of comfort and accidents. Nevertheless, quantitative analysis is carried out on the economic impact from the elimination of traffic congestion, and provision of an effective and comfortable pedestrian deck.

The savings in vehicle operation cost is estimated on the basis of the increased capacity (volume) derived from the removal of jeepney/bus loading and unloading space from the carriageway. The savings in time cost for the transfer passengers may be estimated from the time difference between using the pedestrian deck and the road surface. In the case of road surface usage, the up and down movement from/to the station concourse-level of approximately 6-meter height is considered. In order to evaluate the level of comfort afforded by the pedestrian deck, the difference of calorie consumption between the two cases is taken into account. The results of the estimated impacts are discussed below.

The total cost savings obtained from the elimination of traffic congestion at the terminal area will amount to 12 million pesos for 10 years. A simple calculation of benefit/cost ratio is estimated at more than 3.0. On the other hand, the economic impact for transfer passengers is estimated to reach more than 400 million pesos for 10 years, compared with the 200-million peso construction cost for a 300-meter long pedestrian deck. The benefit/cost ratio will be as high as almost 2.0.

Based on this evaluation, the terminal and its related projects is clearly desirable from the viewpoint of their socioeconomic impact. Following are the details of the evaluation results.

#### 6.1.1 Economic Impact of the Elimination of Traffic Congestion

- (1) Traffic Volume (Traffic Capacity – Service Level E): 2,000 pcu/hour/lane
- (2) Adjustment Factor for Roadside Parking: 0.90
- (3) Reduction of Volume due to Roadside Friction  
 (2 lanes):  $2,000 \times 2 \text{ (lanes)} \times (1.00 - 0.90) = 400 \text{ pcu/hour}$   
 If the roadside friction would be removed in the terminal, the capacity of the road section will be increased, equivalent to the volume (3).
- (4) Influence section of bus or jeepney loading and unloading: 500m long
- (5) Congested peak hour: Morning 3 hours, Evening 3 hours, Total 6 hours
- (6) Increased pcu.km during peak hours:  $400 \times 0.5 \times 6 = 1,200 \text{ pcu.km}$
- (7) Operations cost per pcu.km: 4 pesos/pcu.km
- (8) Savings cost for 10 years:  $1,200 \times 4 \times 250(\text{days}) \times 10 = 12 \text{ million}$

- (9) Construction cost (jeepney and bus terminal square):  
 $A = 5,000 \text{ sq.m}$   
 $5,000 \text{ sq.m} \times 640 \text{ pesos/sq.m} = 3.2 \text{ million}$   
 (10) Benefit/Cost:  $12.0 / 3.2 = 3.75$

### 6.1.2 Economic Impact on the Transfer Passengers

- (1) Length of pedestrian deck: 300m  
 (2) Ground level pedestrian pass: 300m (including 10 m x 2 Staircase)  
 (3) Walking time between stations:  
     Walking speed level = 80 m/minute  
     Staircase Up = 30 m/minute  
     Staircase Down = 40 m/minute  
     Pedestrian Deck = 3.75 minutes  
     Ground Level =  $0.30 + 3.50 + 0.40 = 4.20$  minutes  
 (4) Calorie Consumption: Level = 0.6 calorie/10m  
     Staircase Up = 6.0 calorie/10 m  
     Staircase Down = 0.96 calorie/10m  
 (5) Total Calorie Consumption:  
     Pedestrian Deck =  $0.6 \times 300/10 = 18.00$  cal  
     Ground Level =  $0.6 + 0.6 \times 280/10 + 0.96 = 23.76$  cal  
 (6) Convert the difference of calorie consumption to time:  
      $(23.76 - 18.00)/0.6 \times 10 = 96 \text{ m}$   $96 / 80 = 1.20$  minute  
 (7) Time difference between the deck and ground:  
      $(4.20 - 3.75) + 1.20 = 1.65$  minutes  
 (8) Time cost for passenger: 1 peso per minute  
 (9) Average transfer passenger per terminal area: 100,000 persons/day  
 (10) Total time savings for 10 years:  
      $100,000 \times 1.65 \times 1.0 \times 250 \times 10 = 412.5$  million pesos  
 (11) Pedestrian deck (L=300 m, W=5 m) construction cost:  
      $90,000 \text{ pesos/m} \times 300 = 210$  million pesos  
 (12) Benefit/Cost:  $412.5/210 = 1.96$

### 6.2 Environmental Impact

Another important aspect of project evaluation is the environmental impact, on both socioeconomic and natural environment, as well as pollution. Table 6.1 presents the scoping checklist for the transportation terminal development projects in Metro Manila. Based on the checklist, a preliminary assessment of possible environmental impact is made for each proposed terminal and its related projects.

The impact on most environmental items will be negligible for the proposed medium-term projects. The proposed projects are not included in the large-scale development, particularly the pedestrian deck, improvement of existing terminal facilities, improvement of sidewalk, etc. Only some adverse impact is expected on the socioeconomic environment and pollution. There is no impact on the natural environment, judging from the proposed location of the terminal in the existing urbanized area. The following sections will further explain the major environmental impact.



### **6.2.1 Resettlement of Squatters**

The most significant issue in the socioeconomic environment is the squatter problem. This issue is not only for the terminal development projects, but also for the other infrastructure and urban development projects. It will be most predominant in the Recto area, which occupy more than 20,000 sq.m around the old prison building. The squatters in this area not only live there but they are also involved in small commercial activities, such as selling foods and small items. The Government, therefore, should consider how to maintain their existing source of income aside from resettling them.

In Alabang, the main concern is the squatters living along the ROW of the PNR railway lines. The squatters live not only in the proposed terminal development area, but also along the stretch of the PNR line. To address this problem, it is important to prepare a comprehensive counter measure which includes the resettlement program, compensation, as well as the source of funds.

For the squatter issue, the national government in coordination with the LGU's, has to establish drastic measures including regulatory development. In other countries, the squatter problem is being addressed by imposing the provision of low cost housing on all large-scale housing development projects, according to the areas of development. In Metro Manila, the same direction is already being taken, with the implementation of the "The Urban Development and Housing Act of 1992." However, further efforts and enforcement are still required.

### **6.2.2 Economic Activities**

The terminal development project generally expects a significant positive economic impact in the improved accessibility areas. However, in the areas where the existing passenger flows will be changed and wherein economic activities depend on the existing passenger flows, terminal development may have some adverse negative impact. This apprehension is possible in the Baclaran area.

In preparing the plan for the Baclaran area, a countermeasure has already been proposed, by way of introducing an urban redevelopment program.

### **6.2.3 Public Health, Waste and Hazards**

The negative impact on these aspects of the environment will occur during the construction stage, and this impact will be more remarkable in the high-density developed areas. The construction methods and management should be examined carefully so as to minimize these adverse effects.

### **6.2.4 Pollution**

Traffic nuisance such as air, noise, vibration and so forth will be induced due to the increased traffic demand at the terminal areas. However, based on the land use (highly urbanized) of the proposed terminal areas, the degree of this impact will not be so significant. The appropriate traffic management in the area should be considered.

**TABLE 6.1**  
**SCOPING CHECKLIST FOR TRANSPORTATION TERMINAL AREA DEVELOPMENT**

| No.                              | Environmental items                   | Evaluation | Basis   |
|----------------------------------|---------------------------------------|------------|---|
| <b>Socioeconomic Environment</b> |                                       |            |   |
| 1.                               | Resettlement                          | A          | Land acquisition for the construction. Resettlement of squatters in Project site.   |
| 2.                               | Economic Activities                   | B          | Inflow and outflow of population and goods resulting from operation of traffic.   |
| 3.                               | Traffic/Public Facilities             | D          | Change of transport means by the operation of new roads, traffic control.   |
| 4.                               | Split of Community                    | D          | Interruption of existing regional transportation, pedestrian traffic, and distribution of goods due to construction of new facilities |
| 5.                               | Cultural property                     | D          | Vibration and air pollution caused by vehicles and heavy equipment.   |
| 6.                               | Water rights/ Right of Common Passage | D          | Obstruction of fishing rights, water rights, rights of common passage.  |
| 7.                               | Public health                         | C          | Generation of construction wastes, surplus soil and general waste.  |
| 8.                               | Waste                                 | B          | Generation of debris and construction waste following the construction of new facilities.   |
| 9.                               | Hazards (Risk)                        | C          | Damage to roads and buildings due to construction work of transportation facilities.  |
| <b>Natural Environment</b>       |                                       |            |   |
| 10.                              | Topography/Geology                    | D          | Change of valuable topography and geology due to excavation or filling work.  |
| 11.                              | Soil erosion                          | D          | Topsoil erosion by rainfall   |
| 12.                              | Groundwater                           | D          | Contamination caused by drainage and filtrate water in excavation work and lowering of ground water table due to overdraft.           |
| 13.                              | Hydrology                             | D          | Hydrology regime would be altered by structures, such as piers, when the route passes over lakes and rivers                           |
| 14.                              | Coastal zone                          | D          | Coastal erosion and change of vegetation due to coastal reclamation.  |
| 15.                              | Fauna / Flora                         | D          | Removal of vegetation and extinction. Generation of exhaust gas from operating vehicles.  |
| 16.                              | Meteorology                           | D          | Change of temperature, precipitation, wind etc. due to large scale elevated roads and   |
| 17.                              | Landscape                             | D          | Change of topography by construction and appearance of transportation facilities  |
| <b>Pollution</b>                 |                                       |            |   |
| 18                               | Air pollution                         | C          | Exhaust gas and dust generated by heavy equipment and vehicles.   |
| 19                               | Water pollution                       | D          | Pollution caused by inflow of silt, sand  |
| 20                               | Soil contamination                    | C          | Dispersion of paving materials, such as asphalt emulsion, during construction   |
| 21                               | Noise and vibration                   | B          | Operation of construction equipment and vehicles  |
| 22                               | Land subsidence                       | D          | Deformation of land and land subsidence due to the lowering of ground water   |
| 23                               | Offensive odor                        | B          | Generation of exhaust gas and offensive odor by facility construction and operation   |

Note: Evaluation grade

A: Serious impact is expected

B: Some impact is expected

C: Extent of impact is unknown (Examination is needed. Impacts may become clear as study progresses.)

D: No impact is expected

Evaluation grade has examined possible degree of impact as overall terminal development projects in Metro Manila.

**TABLE 6.2**  
**ASSESSMENT OF POSSIBLE ENVIRONMENTAL IMPACTS DUE TO THE PROPOSED DEVELOPMENTS**

| No                         | Environmental items           | Recto | Cubao | Masinag | Baclaran | Alabang | Caloocan |
|----------------------------|-------------------------------|-------|-------|---------|----------|---------|----------|
| <b>Social Environment</b>  |                               |       |       |         |          |         |          |
| 1.                         | Resettlement                  | A-    | C-    | -       | -        | B-      | C-       |
| 2.                         | Economic Activities           | A+    | B+    | B+      | B-       | B+      | B+       |
| 3.                         | Traffic/Public Facilities     | A+    | A+    | A+      | A+       | A+      | A+       |
| 4.                         | Split of Community            | -     | -     | -       | -        | -       | -        |
| 5.                         | Cultural property             | -     | -     | -       | -        | -       | -        |
| 6.                         | Water right/ Right of Common. | -     | -     | -       | -        | -       | -        |
| 7.                         | Public health                 | C-    | C-    | C-      | B-       | B-      | C-       |
| 8.                         | Waste                         | B-    | B-    | C-      | B-       | B-      | B-       |
| 9.                         | Hazards (Risk)                | C-    | C-    | C-      | C-       | C-      | C-       |
| <b>Natural Environment</b> |                               |       |       |         |          |         |          |
| 10.                        | Topography/Geology            | -     | -     | -       | -        | -       | -        |
| 11.                        | Soil erosion                  | -     | -     | -       | -        | -       | -        |
| 12.                        | Groundwater                   | -     | -     | -       | -        | -       | -        |
| 13.                        | Hydrology                     | -     | -     | -       | -        | -       | -        |
| 14.                        | Coastal zone                  | -     | -     | -       | -        | -       | -        |
| 15.                        | Fauna / Flora                 | -     | -     | -       | -        | -       | -        |
| 16.                        | Meteorology                   | -     | -     | -       | -        | -       | -        |
| 17.                        | Landscape                     | -     | -     | -       | -        | -       | -        |
| <b>Pollution</b>           |                               |       |       |         |          |         |          |
| 18.                        | Air pollution                 | C+    | C+    | C-      | C+       | C-      | C+       |
| 19.                        | Water pollution               | -     | -     | -       | -        | -       | -        |
| 20.                        | Soil contamination            | -     | -     | C-      | -        | -       | -        |
| 21.                        | Noise and vibration           | C-    | C-    | B-      | C-       | B-      | C-       |
| 22.                        | Land subsidence               | -     | -     | -       | -        | -       | -        |
| 23.                        | Offensive odor                | -     | -     | B-      | C-       | C-      | -        |

A+ : Significant Positive Impact  
 B+ : Moderate Positive Impact  
 C+ : Negligible Positive Impact

A- : Significant Negative Impact  
 B- : Moderate Negative Impact  
 C- : Negligible Negative Impact



## **7. EXAMINATION OF THE IMPLEMENTATION STRATEGIES**

### **7.1 Regulatory Framework**

#### **7.1.1 General**

This section describes the existing institutional/regulatory framework for bus and jeepney transport in Metro Manila. It discusses the functions and activities of different government agencies that are in various ways involved with the policy making, regulation and operation of the bus and jeepney transport industries, including the various legislative actions that created these organizations.

#### **7.1.2 Government Agencies Concerned with the Bus and Jeepney Industries**

a) Department of Transportation and Communications (DOTC)

The DOTC is tasked to promote, develop and regulate the transportation and communications systems. It is the national planning and policymaking body of the government that is responsible for overseeing public transport programs through its divisions and agencies. The responsibility for planning public land transport programs specifically rests on the Road Transport Planning Division of the department's Transportation Planning Service.

b) Land Transport Franchising and Regulatory Board (LTFRB)

The LTFRB is a quasi-judicial government agency under the DOTC that is mandated to rationalize, regulate and supervise motorized land-based public transport services. Its functions are as follows:

- 1) Issue, amend, revise, suspend and cancel public transport franchises;
- 2) Identify/rationalize land transport routes;
- 3) Prescribe, approve/review and adjust land transport fares;
- 4) Fix, impose, collect and adjust reasonable fees and other related charges for services rendered in accordance with existing laws;
- 5) Investigate and hear complaints for violations of pertinent public service laws, standards, rules and regulations;
- 6) Administer and enforce laws, formulate and promulgate rules and regulations on public land transportation; and
- 7) Perform other functions as provided by law.

In 1987, Executive Order No. 125-A structurally and functionally reorganized the former Ministry of Transportation and Communications (MOTC) into the DOTC. The Land Transportation Commission (LTC, created in March 1985) which merged the former Board of Transportation (BOT) and Bureau of Land Transportation (BLT), was also abolished in 1987. Executive Order No. 202 dated June 19, 1987 created the LTFRB to regulate and oversee the granting of authority (by issuing to qualified operators Certificates of Public Convenience or CPC) to operate public vehicles and to exercise quasi-judicial powers in implementing various regulatory and franchising functions. The planning function of the former BOT was transferred to the DOTC, and public vehicle inspection and law enforcement were transferred to the LTO.

c) Land Transport Office (LTO)

The LTO was created by virtue of Republic Act No. 4136, known as the Land Transportation and Traffic Code. It is responsible for implementing and carrying out policies, rules and regulations governing the land transportation system in the Philippines. It is in charge of licensing drivers and the registration of private and public vehicles. Together, the LTFRB and the LTO are directly responsible for the regulation of the land transportation industry. The LTO enforcers and other deputized agents are limited to those involving non-moving or administrative violations such as non-registration of vehicles, operation outside authorized routes, operation of unauthorized or colorum vehicles, etc.

d) Metropolitan Manila Development Authority (MMDA)

The MMDA was created through Republic Act 7924 on March 22, 1995 replacing the erstwhile Metro Manila Authority (MMA). It performs planning, monitoring and coordinating functions for services that have metro-wide impact and transcend the political boundaries of Metro Manila's 17 cities and municipalities. Among others, it is responsible for transport traffic management in Metro Manila and in regulating the implementation of all programs and projects concerning traffic management. It is tasked to administer a single ticketing system and fix, impose and collect fines and penalties for all kinds of traffic violations of the PNP, local government traffic enforcers and others in enforcing traffic laws and regulations. The MMDA also endorses to the DOTC public transport routes that to its judgment should be continued or opened.

e) Department of Trade and Industry (DTI) and Its Agencies

The DTI-Board of Investments (BOI), by virtue of the Omnibus Investment Code of 1987, carries out the Investment Priorities Plan or IPP which facilitates the importation of buses (engines and underchassis) free of duties and taxes. The DTI-Bureau of Import Services (BIS) likewise facilitates the importation of second-hand buses through its Second-Hand Bus Importation Program. The DTI-Bureau of Product Standards (BPS) sees to it that manufacturing standards and regulations are met in the production of buses and jeepneys.

f) Department of Tourism (DOT)

The DOT becomes involved in the franchising by the LTFRB of tourist buses as a DOT certification is required of operators applying as legitimate tourist transport operators.

g) Office of Transport Cooperatives (OTC)

The OTC, an agency of the DOTC, has the authority and responsibility to promote and organize transportation cooperatives.

h) Local Government Units (LGUs)

The LGUs are also involved in bus and jeepney transport. Endorsements are made by the LGUs to the DOTC stressing the need for continued opening of existing and developmental routes. Bus and jeepney operators are also required to secure business permits from their respective local governments before they can operate their trade.

i) Metro Manila Transit Corporation (MMTC)

The MMTC, the government-owned public transport corporation with 700 units, started its process of privatization in March 1995 in line with the national government's thrust of privatizing government-owned enterprises. There are currently four groups of former employees of the MMTC which bought and now operate the company's buses, as follows:

- 1) United Workers Transport Corporation (134 units);
- 2) Fastrans (31 units);
- 3) Filipino Commuters Trans Service Cooperative (14 units); and
- 4) Drivers Conductors Mechanics MPTS Cooperative (12 units).

The number of buses that can be bought by any group should not exceed the ratio of 1 bus: 5 employees. These groups are currently using the franchises of the MMTC and will do so until they get their own franchises as prescribed in the contract between them and the MMTC.

The MMTC now has a skeletal force of 12 people. In the light of its privatization, MMTC's functions are as follows:

- Disposal of its assets;
- Auditing and monitoring of the four (or more) groups that operate its units; and
- Collection of payment for the Bus Installment Procurement Program (BIPP) from private operators. In the BIPP, about 1,200 brand new completely knocked-down buses were imported from Japan and assembled during the severe public transportation crisis in 1989 to 1991.

The MMTC intends to totally cease operations by January 31, 1997 with its operational units sold to private groups and its big compound in North Avenue, Quezon City returned to its owner, the National Housing Authority.

In a nutshell, Table 7.1 shows the basic functions of various government agencies related to public transportation.

### 7.1.3 Franchise Application

Application for franchises comes in two forms, namely with and without hearing. Petitions with hearing are those that ask the board to grant and extend franchises. Specifically, a hearing is required for the following:

- Application for franchises;
- Increase of authorized units;
- Amendment of line;
- Sale and transfer;
- Extension of franchise validity; and
- Change of base operation.



**TABLE 7.1**  
**GOVERNMENT AGENCIES CONCERNED WITH BUS AND JEEPNEY TRANSPORT**

| <b>Government Agency</b>          | <b>Major Function</b>   |
|-----------------------------------|---|
| DOTC                              | Overall policy making<br>Public transport planning                          |
| DOTC - LTFRB                      | Franchises<br>Fare setting  |
| DOTC - LTO                        | Licensing<br>Registration<br>Enforcement (non-moving)                       |
| MMDA                              | Traffic management<br>Enforcement (moving)<br>Endorsement of routes to DOTC |
| DTI - Board of Investments        | Importation of buses with tax incentive                                     |
| DTI - Bureau of Product Standards | Bus and jeepney vehicle manufacturing regulation                            |
| DTI - Bureau of Import Services   | Importation of second-hand buses  |
| DOT                               | Certification of tourist operators for franchising of tourist buses         |
| OTC                               | Promotion and organization of transportation cooperatives                   |
| MMTC                              | Privatization   |
| LGU's                             | Securing business permits<br>Endorsement of routes to DOTC                  |

The issuance of a CPC is the authority from which all the abovementioned petitions are based.

Petitions without hearing are those wherein requests for modification in the authorized units or correction of data in the franchise can be verified from the records of the board alone. Specifically, this applies to the following:

- Dropping of authorized units;
- Substitution of units;
- Change chassis;
- Interchange of units;
- Correction of errors; and
- Registration in lieu of originally authorized units.

Special permits for out of line may also be granted as provided for by the Public Service Act. Public utility vehicles are allowed to make extra or special trips within or outside the territory covered by the CPC if the public interest or special circumstances so require.

The franchise application procedure (with hearing) involves the following steps:

- 1) Registration of bus or jeepney units in LTO as private vehicle.

- 2) Submission of the following requirements to LTFRB Technical Evaluation Division:
  - Application form;
  - LTO official receipt and certification receipt; and
  - Copy of old order or decision in case application is for modification of current franchises.
- 3) Verification if route measured capacity (RMC) for route being applied for is not yet exceeded.
- 4) Checking of supporting documents, assessment of fees and issue of payment order slip at the Technical Evaluation Division.
- 5) Scheduling of hearing at Legal Division.
- 6) Verification of records at the Management Information Division.
- 7) Conduct of hearing and preparation of decision at Legal Division.
- 8) Approval of application by the Board.
- 9) Docketing and authentication of decision at the office of the Executive Director.
- 10) Release of decision to the applicant by the Management Information Division.
- 11) Registration of vehicle at the LTO as public utility vehicle. Required documents are confirmation from the MID, insurance and inspection report.
- 12) Submission of proof of registration to MID.

#### **7.1.4 Fare Setting**

Fare setting is one of the basic functions of the Board. The objectives of the Board in regulating fares are as follows:

- Assure the riding public of reasonable, fair and affordable fares;
- Assure operators of fares sufficient to cover operating costs and return of investment; and
- Protect operators against ruinous competition.

Public hearings and consultation are conducted for fare increase petitions.

Part of the deregulation program is the deregulation of fares for air-conditioned buses in Metro Manila. Passenger fares for ordinary or third class service should be within a range specified by the Board. Another form of deregulation is route flexibility, which applies exclusively to public utility buses. Under this, operators may shift their authorized units from one authorized route to another depending on the perceived market forces.

#### **7.1.5 Standards and Guidelines**

Standards and guidelines are formulated in the establishment of routes and areas of operation for the purpose of determining fares and rates of public utility vehicles. As part of the rationalization program of the DOTC, policy guidelines were prepared on the supervision of bus and jeepney public transport services. These are used by the DOTC's Road Transport Planning Division as well as by the LTFRB. Guiding principles, such as the ceiling distance for jeepney routes (15 kms.) and minimum route length overlap of 50% between existing and developmental routes, are used as basis for planning public transportation routes.

### **7 .1.6 Route Identification**

New routes, called developmental routes, are studied by the DOTC's Road Transport Planning Division upon the request of private operators or the riding public in general. Such routes are first deemed experimental for a period of three years after which the operator decides to give the route to other interested and capable operators as part of its liberalization policy.

### **7 .1.7 Private Organization**

Bus and jeepney operators have formed organizations which serve as a venue where they can discuss common concerns and issues. Such organizations also serve as links for dialogue with the government and the general public. The Integrated Metro Bus Operators Association (IMBOA, formerly called the Integrated Metro Manila Bus Operators Association or IMMBOA) is a 60-member association established in 1995 out of the union of the former United Metro Bus Operators Association (UMBOA) and the INTERBOA.

There are several jeepney associations such as the PISTON, with 20,000 members in Metro Manila, and FEJODAP with 15,000. The Kapisanan ng mga Kooperatibang Pansasakyan ng Pilipinas, Inc. (KKPPI) or Association of Transport Cooperatives in the Philippines, Inc. counts 109 member cooperatives in Metro Manila, the majority of which are jeepney cooperatives.

In line with the government's drive to have a more equitable distribution of income among the citizenry, the formulation of transport cooperatives is encouraged. A transport service cooperative is an organization of persons like drivers, driver-owners, small operators and allied workers of the transport industry who have agreed to pool their skills, savings and other resources to operate a business enterprise to provide the members and the public with the necessary transport facilities and services. The MMTC, for instance had been privatized into four groups, all of which are cooperatives composed of former employees. In the jeepney industry, there are numerous transport cooperatives because the industry is dominated by small operators with usually 1 to 3 units.

Applications/petitions for authority to operate land-based transport services in Metro Manila are divided between the LTFRB Central Office (CO) and the National Capital Region (NCR). Applications for bus franchises in Metro Manila (inter and intra) are filed in the CO. Jeepney franchises are likewise filed in the CO for franchises up to 1988 (consisting of about 33% of the 90,000 jeepneys in Metro Manila). Jeepney franchise applications from 1989 onwards (translating about 60,000) are the responsibility of the NCR. However, the LTFRB Memorandum Circular No. 96-017 which prescribes that "applications/petitions for authority to operate all motorized land-based transportation services within Metro Manila shall be the responsibility of the NCR." The Information Division of the CO is currently in the process of turning over their records to the NCR. However, bus and jeepney franchises with route endpoints in Metro Manila and outside are still the responsibility of the CO.



## 7.2 Institutional Arrangements

### 7.2.1 Issues and Concerns

The need for and the impacts of transportation node development have been discussed since the early 1980's, starting from the JUMSUT study. In spite of this recognition, the node development projects have not been implemented so far. There are some institutional/organizational issues causing much of the delay of the projects. These are as follows:

- a) Lack of delineation of the area of responsibilities among transport-related government agencies in planning, regulation and supervision of the establishment of public transport node development projects.

- 1) DOTC

Department Orders and Memoranda issued through the LTFRB by the Road Transport Planning Division of DOTC for PUJs state that terminals are turning points which link Metro Manila with nearby provincial areas and provincial routes and/or provincial PUJ routes with Metro Manila.

- 2) Local Government Units (LGUs)

Section 17 of the Local Government Code and Article 17 of its Implementation Rules and Regulations stipulate that the LGUs shall likewise exercise such powers and discharge such other functions and responsibilities as are necessary, appropriate, or incidental to efficient and effective provisions of the basic services and facilities, and for a city, adequate communication and transportation facilities.

- 3) DPWH

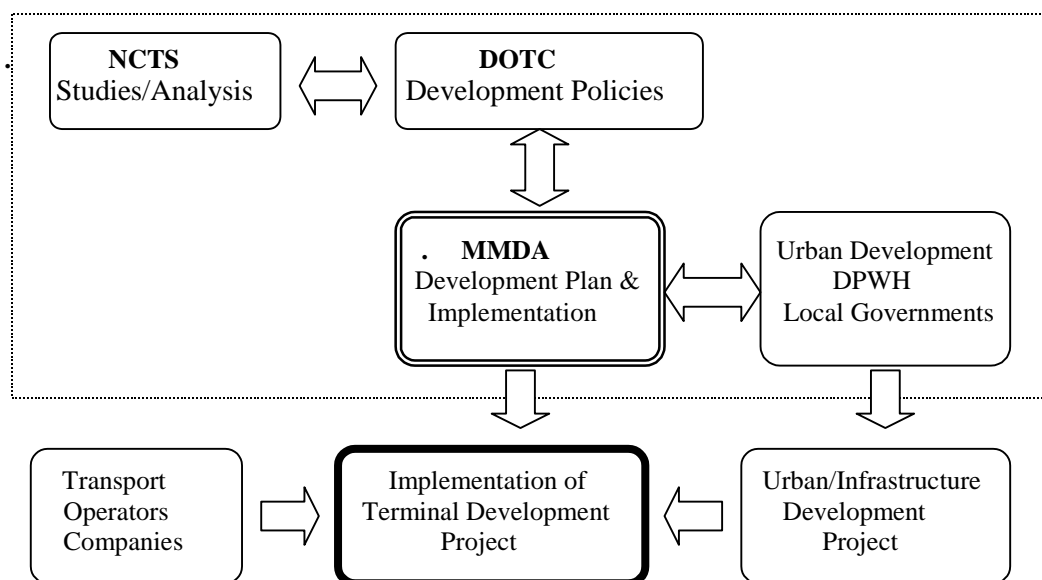
In accordance with Section 3 of Republic Act No. 8150, otherwise known as the Public Works Act, the development and economic usefulness and impact of the road under the category of arterial roads shall be a major consideration and, therefore priority shall be given to the roads leading to national growth centers in areas of significant economic development potentials. Roads leading to regional industrial and tourist centers, roads leading to national ports and airports, roads traversing the principal agricultural areas, roads connecting regional and provincial capitals and other major urban areas, and other roads are strategically important to provide immediate and direct access to population centers in case of national and regional emergencies.

- b) Based on the above-cited provisions of law, the responsibility of transportation node development-related planning and supervision is outside the mainstream of transport-related existing organizations/institutions and/or takes on a low priority when viewed from the parochial interests of any one agency.
- c) Lack of coordination among the many organizations involved in transportation planning, roads, traffic, transit operations, enforcement and regulations.

- d) Every administration has its own priorities that are consistent with the set development objectives.
- e) Lack of formulation/design of assistance schemes, short of direct financial subsidies and feasibility study conducted regarding transportation nodes.
- f) Lack of promotion of cooperative ventures among jeepney operators and bus consortia to encourage the use of an integrated public transport terminals.
- g) Lack of technical capability among LGU employees in the following aspects:
  - 1) Plan preparation;
  - 2) Subvention of national funds; and
  - 3) Encouragement of local initiatives in transportation node development projects.

Considering these weaknesses in the existing institutional set-up, it is recommended that an inter-agency committee or unit attached to DOTC be created to facilitate coordination and cooperation between the various agencies. A proposed organizational set-up is shown in Figure 7.1. Members of the committee consist of DOTC, MMDA, NCTS and related agencies and their responsibilities are to prepare development policies, to conduct studies and analyze the data to prepare development plans and implementation strategies with the cooperation of related agencies. The committee will also have a responsibility for privatization of the projects.

**FIGURE 7.1**  
**PROPOSED ORGANIZATIONAL SET-UP FOR TRANSPORTATION NODE DEVELOPMENT**



### 7.2.2 Public/Private Partnership

As mentioned earlier, the financial viability of the node development project is generally not sufficient. To reduce and minimize government expenditures is also a significant concern in national economic development. Therefore, public and private partnership in the development of the transportation nodes becomes a more important issue to encourage project implementation.

There are many types of implementation methods being considered, such as the following:

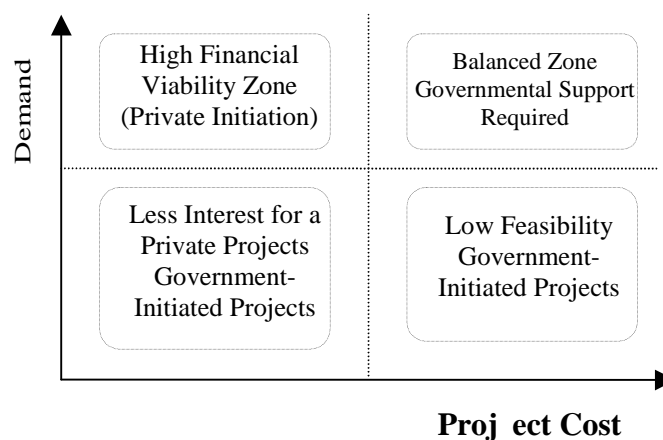
- a) By the government budget;
- b) By public cooperation or authority with the budget obtained from issuing government bonds;
- c) By public transport companies or their consortium;
- d) By privatization (secure the fund from the stock market);
- e) As part of an urban development project; and
- f) By the combination of the above methods.

What kind of method to be applied will depend much upon the viability of the projects. When the project is highly financially viable, a private company may be willing to initiate the project. If a project is not financially justified, the government will have to bare all the cost.

Basically, these relations are illustrated in Figure 7.2.

As seen in the figure, the chances to promote transportation development projects as a private initiated project are very narrow, only in the area of low project cost and high demand. The government is still required to take a major role and responsibility.

**FIGURE 7.2**  
**DEGREE OF FINANCIAL VIABILITY BETWEEN PROJECT COST AND DEMAND**



Therefore, the following recommendations should be taken into account in order to enhance the public and private partnership and to provide smooth project implementation:

- 1) Provide direct support for private initiated project, such as sharing in costs, provision of sufficient land areas, financial support and guarantee;
- 2) Prepare a comprehensive and integrated way of node development projects in line with especially urban development or urban re-development;
- 3) Initiate, promote and coordinate the integrated projects leading and directing the private sector in the government's role, responsibility and power.

### 7.3 Implementation Strategies

This section discusses the issues on the implementation of the proposed terminal projects, including organizational set up and funding concerns.

The transportation node area development program contains several types of facilities. Some facilities can be a part of the specific transport system such as railway station square. For some facilities, the user can be identified, either an LRT passenger or bus passenger. Generally, however, some facilities cannot identify the specific user group. If the development benefit is generated for a particular organization or body, the beneficiary should bear the cost. For more general usage, the government will have to take the responsibility for it as an urban infrastructure.

Before, there was a clear jurisdiction between public and private projects. However, recent privatization of projects has introduced another type of tool for their implementation. Due to lack of the government budget for privatization, the private entities will play more significant roles in infrastructure development.

To ensure the implementation of the proposed terminal and its related projects, it is important to identify an organization and private entity to take the responsibility for their implementation and also to clarify how to prepare the fund, source the fund, and share the responsibility between government and the private sector.

Before identifying the implementing body for each proposed project, several examinations regarding project funding are discussed below.

If the cost can be imposed on the users of public transport system, how much is the burden? There is a simple calculation below based on future commuter LRT passengers.

- 1) Number of commuter passengers on LRT 1,2,3,4,6 and MCX = 3.00 million per day
- 2) Share of the cost per passenger per year for 5 years =  

$$1.106 \text{ billion} / (3.0 \text{ million} \times 5 \text{ years}) = 74 \text{ pesos}$$
- 3) Share of the cost per day =  $74 \text{ pesos} / 250 \text{ days} = 0.3 \text{ peso per day per passenger}$

Based on this simple calculation, if a passenger can share 0.3 peso per day, they can cover the total investment cost for the priority projects. On the other hand, taking into account other terminal projects which may require the proposed rail-based transport

system for the medium-term plan, if a passenger could share one peso per day, it may cover the total investment.

If the cost is charged to the development company or organization of the rail-based transport system, one company has to bear the average amount of 184 million pesos (1.106 billion/6), adding to their investment cost. The amount will be a small percentage of the total investment cost. However, the very limited balance sheet of the transport operator may not accommodate even this small additional percentage.

One way of avoiding the argument on who will bear the cost for the terminal and its related facilities is to coordinate the projects with spatial urban development, to reduce the burden on both the government and the private sector.

Out of total project cost of 1.06 billion pesos, land acquisition and compensation cost accounts for more than 80% share. Land readjustment method is a useful tool to create space for the infrastructure, as well as a powerful method to improve the urban living environment. However, the legal framework for the implementation of such new urban redevelopment method is not yet available in the Philippines. It is strongly required to establish a new urban redevelopment method not only for terminal facilities, but also for other infrastructure, as well as for the improvement of projects for the urban environment and quality of life in Metro Manila.

Based on the above discussion, each component of the terminal node area development projects is examined and the responsible implementing organization proposed.

### 7.3.1 Recto

There are two significant issues for the implementation of the projects in Recto, namely the PFA redevelopment project in the Old Bilibid Prison area, and the squatters living in and around the old prison. Resettlement of the squatters is the most important not only in the development of terminal facilities but also of other urban environment development projects.

The sharing of responsibilities for the construction can be as follows:

Phase 1 : LRT Line 2 and Line 1 Pedestrian Corridor Development

Pedestrian Deck is planned for the transferring passenger from LRT Line 1 to Line 2 and vice-versa. Therefore, the deck should be constructed by both LRT lines, but land acquisition and compensation will be covered with the Jeepney Transit Mall development project, which will be developed by the LGU (City Government of Manila) as a general infrastructure.

Phase 2: LRT Line 4 and Development Integrated Bus and Jeepney Terminals in the Old prison area.

The Line 4 Recto station and the integrated Bus and Jeepney Terminal are recommended to be constructed and funded as part of the PFA redevelopment project. To increase the effectiveness of the new



modern terminal, linkages between other LRT lines should be provided. Linkages not only in the physical structure, but also institutional arrangements with bus and jeepney companies, is indispensable for the sharing of maintenance cost and licensing, etc.

The MMDA will be required to take the lead and prepare an overall development plan, as well as to coordinate with the related agencies and companies.

### **7.3.2 Cubao**

The proposed projects in Cubao area are basically located independently, although they function as a whole system with sufficient linkages with the public transportation system.

Basically, no difficulty exists on the construction, except in the preparation of the land for LRT Line 3 Station Square. The Station Square is not only a part of Line 3 facility but also functions as an urban open space in the area. From this viewpoint, the LGU (Quezon City Government) is expected to arrange the land including the cost.

Other projects can be justified according to who would be the beneficiaries and which one should be responsible for the implementation. However, involving several independent organizations may induce a conflict of interests. The MMDA should prepare a detailed implementation program including the sharing of the cost, and to work out a consensus among them.

In addition, the construction of the segregated bus bay along the west side of EDSA will have to be constructed in line with the redevelopment project, but this is still premature.

### **7.3.3 Masinag**

The terminal should be developed with LRT Line 2. However, since the terminal requires a huge of land to accommodate a large number of buses and jeepneys to provide a public transport system to the hinterland, it will be too much of a burden on the Line 2. Promoting usage of public transport system in the hinterland definitely provides a benefit in decongesting Metro Manila traffic, and improving accessibility to the area will encourage the urbanization in the municipal areas. The municipal LGUs may, therefore, share in the cost of this development.

### **7.3.4 Baclaran**

LRT Line 1, Line 3 and Line 6 are existing or planned on Mexico Road, EDSA and Quirino Avenue, running north to south and east to west, respectively. Along this triangle area, five stations will be located. EDSA can provide a sufficient space for LRT line 3, but the construction of Line 6 will require a widening of Quirino Avenue from 10 m to 20 m approximately. Moreover, to construct the proposed transportation terminal and related facilities, another new area of land will be required.

Acquiring the land facing the main roads will impose a large amount on the cost of the development of the public transport system and may become a cause of delay for such development. Therefore, as discussed above, this area is recommended to be taken as a spatial urban redevelopment component for the development of public transportation system and terminals.

### **7.3.5 Alabang**

The issues on the development of the proposed projects in Alabang are as follows:

- a) Land acquisition for the station square for the MCX line; and
- b) Development of the linkages between MCX station and jeepney/bus terminals, particularly construction of the pedestrian underpass.

All facilities proposed will be important components in the future Alabang town center, so that LGU (Muntinlupa Government) is expected to be responsible for its implementation. However, due to the lack of funds of the municipality, all projects will be constructed in coordination with relevant agencies or organizations, and will utilize urban redevelopment methods as well.

The MMDA is also expected to play an important role in supporting the LGUs in the preparation of the plans as well as coordination with national government agencies and transport operators.

Table 7.2 presents the proposed sharing of implementation responsibilities.

**TABLE 7.2**  
**SHARING OF RESPONSIBILITIES IN PROJECT IMPLEMENTATION**

|  |               | DOTC | MMDA | LGU | Developer | LRT 1 | LRT 2 | LRT 3 | LRT 4 | LRT 6 | MCX | Bus | Jeepney | Remarks   |
|--|---------------|------|------|-----|-----------|-------|-------|-------|-------|-------|-----|-----|---------|---|
| <b>Recto (LGU : Manila, Developer : PFA Redevelopment Project)</b> |               |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Total Development Plan   |               |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Pedestrian Deck  | Design        |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Land          |      |      |     |           |       |       |       |       |       |     |     |         | Using road ROW                                      |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Construction  |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Jeepney Mall   | Maintenance   |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Design        |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Land          |      |      |     |           |       |       |       |       |       |     |     |         | Resettlement of Squatters                           |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Development committee  | Construction  |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Maintenance   |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Design        |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Terminal   | Land          |      |      |     |           |       |       |       |       |       |     |     |         | Coordination with urban redevelopment project (PFA) |
|  | Construction  |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Maintenance   |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | User Charges  |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Institutional |      |      |     |           |       |       |       |       |       |     |     |         | PUB,PUJ License                                     |
|  | Design        |      |      |     |           |       |       |       |       |       |     |     |         |   |
| <b>Cubao (LGU : Quezon, Developer : Araneta)</b>                   |               |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Total Development Plan   |               |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Pedestrian Deck  | Design        |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Land          |      |      |     |           |       |       |       |       |       |     |     |         | Road ROW Araneta                                    |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Construction  |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Jeepney Mall   | Maintenance   |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Design        |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Land          |      |      |     |           |       |       |       |       |       |     |     |         | Existing ROW  |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Sidewalk   | Construction  |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Maintenance   |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Design        |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Station Square   | Land          |      |      |     |           |       |       |       |       |       |     |     |         | Squatter  |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Construction  |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Cost          |      |      |     |           |       |       |       |       |       |     |     |         |   |
|  | Maintenance   |      |      |     |           |       |       |       |       |       |     |     |         |   |
| Cost   |               |      |      |     |           |       |       |       |       |       |     |     |         |   |

: Main Responsible Organization  
 : Supplementary / Support / Assistance

**TABLE 7.2 (CONT'D.)  
 SHARING OF RESPONSIBILITIES IN PROJECT IMPLEMENTATION**

|   |              | DOTC | MMDA | LGU | Developer | LRT 1 | LRT 2 | LRT 3 | LRT 4 | LRT 6 | MCX | Bus | Jeepney | Remarks                            |
|---|--------------|------|------|-----|-----------|-------|-------|-------|-------|-------|-----|-----|---------|------------------------------------|
| Masinag (LGU : Marikina)  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Station Square  | Design       |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Land         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Construction |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Maintenance  |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Cost  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Baclaran (LGU : Pasay Developer: Proposed Urban Redevelopment Corporation ) |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Total Development Plan  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Pedestrian  | Design       |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Land         |      |      |     |           |       |       |       |       |       |     |     |         | Urban Redevelopment                |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Construction |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Maintenance  |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Cost  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Bus and Jeepney   | Design       |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Land         |      |      |     |           |       |       |       |       |       |     |     |         | Urban Redevelopment                |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Construction |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Maintenance  |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Cost  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Alabang (LGU : Muntinlupa )   |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Total Development Plan  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Pedestrian Underpass  | Design       |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Land         |      |      |     |           |       |       |       |       |       |     |     |         | Existing ROW                       |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Construction |      |      |     |           |       |       |       |       |       |     |     |         | S.S. Highway                       |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Maintenance  |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Cost  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Station Square  | Design       |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Land         |      |      |     |           |       |       |       |       |       |     |     |         | Possibility of urban redevelopment |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Construction |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Maintenance  |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Cost  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Pedestrian Mall   | Design       |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Land         |      |      |     |           |       |       |       |       |       |     |     |         | Possibility of urban redevelopment |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Construction |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Maintenance  |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Cost  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Sidewalk  | Design       |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Land         |      |      |     |           |       |       |       |       |       |     |     |         | Existing ROW                       |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Construction |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Maintenance  |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Cost  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Jeepney/Bus Terminal  | Design       |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Land         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Construction |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Cost         |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
|   | Maintenance  |      |      |     |           |       |       |       |       |       |     |     |         |                                    |
| Cost  |              |      |      |     |           |       |       |       |       |       |     |     |         |                                    |