In addition, significant time was spent on the relative financial import of joint development projects. While speakers noted that revenue from projects can account for 5-6 % of system operating costs in the U.S., it was noted by Mr. Barbero that in a private concession situation, this 5-6% is a highly profitable component of the teams efforts. It was also noted that in Asia, sale of air rights can account for 15-25% of capital costs, and land lease arrangements can generate up to 50% of operating costs.

In wrapping up the afternoon's activities, Carlos Colon asked whether subsidizing transit has become a self-fulfilling prophesy, and wondered whether the rules preventing transit agencies from doing wrong also inadvertently prevent them from making correct, rational decisions

An International Perspectives-Hong Kong

Charles Nicholas Brooke Senior Partner Brooke Hiller Parker Hong Kong

In his paper, Large Scale Real Estate Development and Marketing Strategy: Hong Kong Development— Railway Station Development, Mr. Brooke discussed the joint development activities of the Hong Kong Mass Transit Railroad (METRO) emphasizing large scale real estate development and the related marketing strategy. Metro is government owned, receives no subsidy and operates an 85 kilometer, full metro system consisting of three lines. The system has been in service since 1979, serves seven million Hong Kong residents and averages 2.5 million passengers daily. Its joint development activities have yielded eighteen developments, including 31,000 apartment housing units and 440,000 sq. meters of commercial development.

Hong Kong is a large, dynamic, fast growing commercial city and region contiguous to the New Territories and Kowloon sections of the south China coastal mainland and the islands of Hong Kong and Lantau Island. The land areas are largely, difficult mountainous terrain interspersed with foot hills and valleys which are developed. Population densities are very high and available developable land is intensely utilized especially on the island city of Hong Kong. Major sea port and airport developments are underway utilizing man-made island structures in lieu of available land. Metro serves, or is being extended to, each of these areas.

Real property development plays several roles in the funding and the success of METRO:

 utilizes potentially redundant air space and development rights

- generates passengers and operating income
- enables strategic planning (office decentralization

and new towns) and, produces profits and income for METRO.

Mr. Brooke discussed the joint development process as practiced by METRO.

(A) Conceptual Phase—Establish a market driven development mix. The selected developments have five to six year lead times, are subjected to feasibility analyses and must blend rather than compete with other METRO properties.

(B) Packaging by METRO—Inviting interested architect/engineers to develop the conceptual proposals into architectural designs. During this phase there is close interaction between the design consultants and the railway designers and engineers.

The METRO and the design consultants secure the appropriate planning and environmental approvals. METRO's professional team develops the tender/bid packages.

(C) The Mechanics of Bidding—The size and scale of the resulting projects tends to be enormous, necessitating a structured bidding approach. In the structured bidding, METRO issues an expression of interest solicitation to prequalify bidders relative to financial and technical capabilities. Following the review of the technical and financial capabilities, firms are shortlisted and an invitation to bid (tender) for development is issued to the short listed firms. The short list usually is five or six firms for commercial projects. The short list may be longer for residential projects which are very profitable for the developer.

The design specifications and documentation are detailed with little scope for revisions. There are many technical and design manuals. The purpose here is to control the development and ensure accountability.

(D) Requirements of the Developer -There are certain requirements placed on the developer which include:

- Payment of air rights by way of lump-sum, upfront premium payment.
- (2) Accept all financial and development risk and frequently, by way of a down-payment, to fund certain rail related improvements.
- (3) Provide guarantees in regard to the financial and technical performance,
- (4) Produce cost estimates and building specification to indicate quality of the development.
- (5) Provide a detailed program.
- (6) Provide information on the technical team inhouse capabilities and generally to demonstrate the ability to deliver.
- (7) Provide a detailed financial proposal showing revenues, costs, profits, etc., and to indicate what

part of the profit the developer will share with the METRO by way of advance payments, guaranteed shares and amounts, and balance at risk

In the case of retail accommodations, the developer is not allowed to resell but must rent and offer METRO a share of the rental income for the duration of the leasehold.

E. The Bidding Process—Developer bids are evaluated and scored on technical and financial merits by separate panels. The technical and financial panels are expert groups and frequently international in makeup. The scoring results are merged and the bidder with the highest total score is awarded the contract.

F. Experience and Lessons Learned—There have been many lessons learned to date. Clearly, there is a need to proceed in a planned and targeted manner, and the transit elements and services must be available as promised. Since the developer bids not knowing the land costs, bids are frequently based on a range of land costs (high and low) with subsequent negotiation.

Mr. Brooke discussed the lessons learned from the perspective of the owner (METRO) and the developer. From the owner's perspective the lessons include:

The inflexibility of the METRO approach, its unwillingness to consider design changes, development alternatives and profit sharing, discourages some developers. The process of dealing with a quasi-governmental body can be frustrating. The size of the bid packages is daunting with the minimum package equivalent to United States \$500 million. METRO can be a difficult client as the metro operation takes precedence. Interfacing of the METRO with the developer and between developers working on different phases is a problem.

• The large investment amounts and a lack of local know how makes it difficult for foreign investors and developers to compete, even if they have an interest. Only Singaporean consortia have been successful to date, but the latest series of bids include Malaysian and Indonesian interests.

• Some developers are reluctant to share profits and prefer to focus on schemes where they can enjoy the full profit and not share.

The duration of the developments spans periods of eight to twelve years. Developers are exposed to fluctuations in the property cycle and it is difficult to anticipate what will be the situation that far ahead. For this reason, longer term potential profits are discounted heavily.

From the developer's perspective there is strong interest and competition. This is due to:

The accessibility provided by the transit system to the entire urban region.

Location. Location. Location.

The station sites are attractive for the development of large flagship statements. The locations are likely to hold their value better even in the event of a downturn. The ready access of the transit system makes it possible to decentralize office locations to various transit station locations. The sites are especially attractive for regional shopping centers, new residential communities (New Town sites) and tourist and leisure attractions.

Federal Perspective

Edward L. Thomas Director, Office of Planning Innovation and Analysis Federal Transit Administration U.S. Department of Transportation Washington, D.C.

Mr. Thomas discussed the Federal Transit Administration's Turnkey Demonstration Program. The program started in 1992 and to date has committed \$3.9 billion to five turnkey demonstration projects. The projects in the demonstration program are the Baltimore Light Rail Extensions (\$106 million), the Los Angeles Union Station Gateway (\$150 million), New Jersey Hudson-Bergen LRT Line (\$350 million), San Juan Tren Urbano (\$1.25 billion), and the Bay Arca Rapid Transit (BART) San Francisco Airport Extension (\$1.17 billion). Mr. Thomas noted these projects range in their type and in their requirements and provide a base of experience for understanding the turnkey process.

The five FTA demonstration projects vary relative to their turnkey provisions. Baltimore and San Francisco are limited civil and systems design build contacts, San Juan and Los Angeles are modified turnkeys with systems operations and maintenance incorporated in the projects. New Jersey represents a full turnkey with the contacting consortium including important project finance provisions.

Mr. Thomas reviewed the outreach and assistance FTA has provided to the transit project sponsors and contractors in initiating turnkey projects. The major aspects of the technical assistance includes industry seminars and workshops; project sponsoring agency workshops; expert technical assistance, and project evaluations which are being conducted by independent contractors.

Between 1987 and 1992 there was a 300 percent increase in design-build projects, indicative of the growing importance of turnkey projects in the construction industry. By 1995, 30 percent of all non-residential construction was using the turnkey method according the statistics provided by the *Engineering News Record*. The growing importance of turnkey approaches was credited to its benefits in saving time and costs with no reduction of quality relative to conventional project approaches.