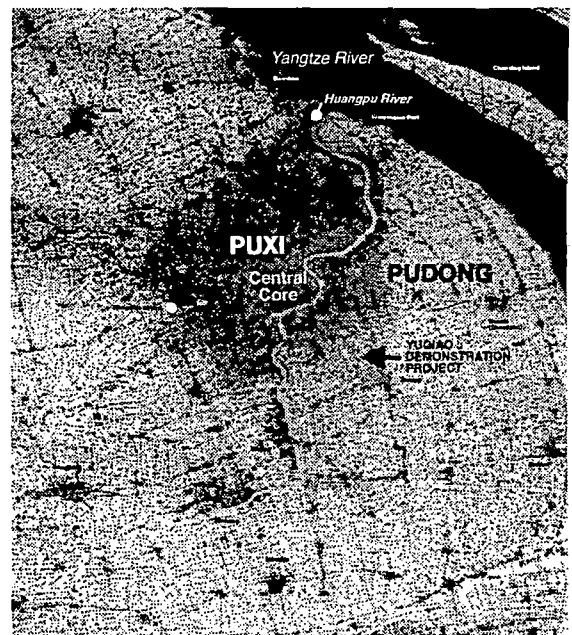


Canada-China Low Cost Housing Demonstration Project, Shanghai

Pre-Feasibility Assessment FINAL REPORT



Canada Mortgage and Housing Corporation

2 April 1996

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NOTE: LE RÉSUMÉ EN FRANÇAIS SUIT IMMÉDIATEMENT LE RÉSUMÉ EN ANGLAIS.

Executive Summary

1. Shanghai's Housing Market

China is expected to construct 240 million m² of housing annually over the next five years. Most of this housing is planned to accommodate millions of households that are being resettled due to redevelopment of inner urban areas, as well as those who live in substandard accommodation. Shanghai expects to continue an annual volume of construction of 11 million m² well into the next decade. While historically the provision of housing was considered a responsibility of the state, local governments and State Owned Enterprises do not have the financial capacities to continue development of subsidized housing: there are significant moves afoot across China towards the provision of housing on a market basis.

Shanghai, as the largest and most cosmopolitan city in China, is considered to be one of few locations where local purchasing power has grown to the point that market-based housing is now considered widely affordable. Aside from 18 million m² of low cost housing required for resettlement purposes, there is an estimated unmet demand for at least 800,000 units of housing for middle income households. Most of this accommodation will be in the form of apartments in 5-6 storey walkup and highrise buildings.

The Shanghai Municipal Government, with the support of China's Ministry of Construction, last year promulgated regulations which provide significant incentives for foreign companies to enter the low cost housing market and, as a follow-through, the domestic "commodity housing" or full-price market. **These regulations provide for a "guaranteed" 15% net profit after corporate income tax on the construction of low cost housing in designated sites.** District governments will purchase these units from foreign-involved ventures for on-sale and rentals to local residents.

2. Commercial Opportunities for Canadian Companies in Shanghai's Housing Market

The principal opportunities for Canadian firms are: 1) development of low cost housing through the "guaranteed" purchase arrangement with local governments in Shanghai; 2) development of market-based, "commodity housing" for sale to Shanghai's rapidly-expanding middle class at full market value; and 3) linked development of low cost housing for inner-city households that are being resettled, and market-based housing on the vacated sites in good urban core locations. **If Canadian building technology companies, builders, and building material manufacturers can provide core housing (without finishes and fit up) at a building construction cost of CDN \$ 150 - 170 m² (\$ 14 - 16/SF), there is considerable scope for joint venture real estate development, joint venture manufacturing, and joint venture construction in Shanghai's housing market well into the next decade.**

3. Market Entry Opportunity Identified by CMHC

Through high-level discussions between Ministers of CMHC and China's Ministry of Construction, a specific opportunity has been identified and defined for Canadian companies to enter the Shanghai housing market. Agreement in principle has been reached for the development of a demonstration project in the Yuqiao New Town, part of Shanghai's Pudong New Area, that could showcase Canadian capabilities in site planning and architectural design, building construction, and building materials manufacturing. The demonstration project is planned to include the following buildings:

- two 5-6 storey residential blocks of 3,000 to 4,000 m² each, consisting of 1, 2 and 3-bedroom units;
- a 200 - 300 m² demonstration building showcasing displays of Canadian building products and technologies; this building could eventually be converted to commercial use.

A 9.4 hectare site has been identified and set aside by local and national governments for the Canada-China Demonstration Project. It is part of a new town being developed to accommodate households being

resettled from Shanghai's crowded inner core; a project is already under construction adjacent to the proposed site. Although a site plan has already been approved, Chinese parties welcome improvements, including complete re-design, by Canadian designers. Parties to the development of this Demonstration Project have also been identified: the locally government-owned company developing the Yuqiao New Town which owns the land use rights; and an experienced construction company owned by China's Ministry of Construction, and which has recently completed a high-quality low cost housing project near the Project site.

China's Vice Minister of Construction has stated that Canadian companies developing the Demonstration Project will be paid reasonable construction costs and a profit of 15%. This profit - to be shared among whatever parties form a joint venture for this Project, including Chinese parties - is expected to compensate for import tariffs on building products and equipment used for the Demonstration Project.

While it is unlikely that most Canadian building products will be cost competitive in Shanghai on an exporting basis (given shipping costs and tariffs), lower factor costs in Shanghai and the surrounding Yangtze Delta Region are thought to provide opportunities for Canadian firms to establish local manufacturing joint ventures to tap into the overall building construction market with a particular niche in the housing sector.

4. Pre-Feasibility Assessment of the Yuqiao-Canada Demonstration Project

A mission comprised of senior officials from CMHC and the Department of Foreign Affairs and International Trade, and a consultant from Chreod Ltd., visited Beijing and Shanghai from 16 - 26 March to conduct a pre-feasibility assessment of the Demonstration Project. Strong support from national and local government agencies was found for the Project. The local housing market in Shanghai was analysed as a prelude to a technical, financial and management assessment of the proposed Demonstration Project in Yuqiao. This assessment found that: 1) the market for the Demonstration Project appears to be secure; 2) the site is technically feasible; 3) local parties with which Canadian companies might joint venture for the Project are experienced and appear technically sound; and 4) the undertakings made through which Canadian companies could recover reasonable construction costs and obtain a 15% net profit through a guaranteed purchase agreement with local government appear to be sound. A risk assessment was also conducted for the Demonstration Project; although financial, technical and regulatory risks do exist, they are not thought to be unusual in the China market and, with careful planning, could be mitigated.

5. Next Steps

The following steps are suggested as being the most appropriate. While CMHC, with the assistance of the Department of Foreign Affairs and International Trade, has identified this market entry opportunity for Canadian industry and prepared it to the current stage of bilateral government undertakings, **the lead for development of the Yuqiao-Canada Demonstration Project must now be taken by Canadian companies.** This means that a firm or a consortium of Canadian companies must now commit to: 1) establish their marketability in the wider low cost and commodity housing market in Shanghai and China based on the parameters identified by CMHC; 2) undertake their own due diligence of the Yuqiao-Canada Demonstration Project; 3) enter into cooperative and/or joint venture agreements with local stakeholders to develop the Project; 4) negotiate a Development Agreement for the Project with local government; 5) negotiate a Purchase Agreement with local government for the completed Project; and 6) mobilize to design and construct the Project within the next 14-18 months.

1. CMHC will convene a roundtable meeting of the project's Steering Committee from Canadian industry towards the end of April 1996 to review the results of the Pre-feasibility Assessment Mission and to address any issues that might remain outstanding.

- Action by Canadian Industry:**
- a. agreement in principle by single Canadian company or a partnership of Canadian companies to take the lead on the Demonstration Project, initially through the Feasibility and then Preparation Stages;
2. A proposal must be prepared and delivered to the MOC by the end of the first week in May. CMHC's Vice President, Jim Lynch, will visit Beijing in mid May to conduct activities under the Canada-China Memorandum of Understanding on cooperation in the housing field. At that time, he could discuss the contents of the proposal with officials of the MOC. This outline proposal could include: 1) a preliminary project program; 2) a description of the proposed scope of Canadian involvement, including technologies and products to be showcased; 3) a position on tariffs and cost sharing of these for the Demonstration Project; 4) a preliminary position on the commercial aspects of the Project, particularly related to the development joint venture, the Development Agreement, and the Purchase Agreement; and 5) a proposed time plan for the project. Mr. Lynch could suggest that this outline proposal be reflected in a CMHC-Ministry of Construction (non-binding) Memorandum of Understanding. The detailed MOU could be negotiated by CMHC and MOC during the summer months and lead to a signing at the next Steering Committee in September. Assuming that these negotiations were progressing satisfactorily, the Canadian Industry lead partner could commence negotiations on a Memorandum of Agreement with their Chinese counterparts during the summer.

Action by Canadian Industry and CMHC:

- b. Preparation of an outline project proposal to the Chinese Ministry of Construction by 1 May 1996 that would form the basis of negotiations over the summer months;

Action by CMHC:

- c. Proceed with the design of a project site plan as requested by MOC;
- d. Proceed with MOC negotiations over summer months on project MOU;

Action by Canadian Industry:

- e. market analysis and due diligence by the summer months; negotiation of a Memorandum of Agreement with joint venture partners in Shanghai;

3. A Canada-China Steering Committee meeting of CMHC and Ministry of Construction officials will be held in Ottawa in September or early October of this year to review progress on various bilateral undertakings in the housing field. At that time, CMHC could be a party to signing of the Memorandum of Understanding with the Ministry of Construction on the Canada-Yuqiao Demonstration Project. This could also be a good opportunity for the Canadian Industry lead partner to sign with its commercial Chinese counterparts their own Memorandum of Agreement for establishment of a joint venture to develop the Demonstration Project, depending on results of due diligence analysis and negotiations over the summer months.

Action by Canadian Industry:

- f. signing of commercial Memorandum of Agreement with Chinese counterparts in September of this year in Ottawa.

4. Final commercial agreements will then need to be negotiated by the Canadian Industry lead partner with its joint venture partners, and with the Pudong government (Development and Purchase

Agreements). CMHC could facilitate these negotiations, if desired, under the umbrella of its bilateral undertakings with the Ministry of Construction, and through a presence at the meetings if deemed necessary.

Résumé

1. Marché de l'habitation à Shanghai

On prévoit que la Chine construira 240 millions de m² de logements par année au cours des cinq prochaines années. La plupart de ces logements serviront à réinstaller des millions de ménages touchés par le réaménagement de quartiers de centres urbains ou habitant des logements qui ne répondent pas aux normes. Shanghai prévoit construire annuellement 11 millions de m² de logements pour une bonne partie de la prochaine décennie. Bien que la production de logements soit traditionnellement considérée comme une responsabilité de l'État, les administrations locales et les entreprises appartenant à l'État ne disposent pas des capacités financières voulues pour poursuivre la production de logements subventionnés : D'un bout à l'autre de la Chine, une forte tendance vers la production de logements au prix du marché se dessine.

Shanghai, la ville la plus importante et cosmopolite de la Chine, est considérée comme l'un des rares endroits où le pouvoir d'achat local a tellement progressé que la plupart des consommateurs estiment maintenant abordables les logements du marché. Abstraction faite des 18 millions de m² de logements à prix modique nécessaires à des fins de réinstallation, on estime qu'au moins 800 000 logements, dont la plupart sous forme d'immeubles de 5 à 6 étages sans ascenseur ou de tours d'habitation, pourraient être produits et vendus à des ménages à revenu moyen.

L'administration municipale de Shanghai, avec l'appui du ministère de la construction de la Chine, a promulgué l'an passé des règlements qui prévoient des stimulants importants pour les entreprises étrangères souhaitant percer le marché des logements à prix modique et, par effet d'entraînement, le marché national des «logements de base» ou de plein prix. Ces règlements «garantissent» un bénéfice net de 15 % après l'impôt sur les sociétés pour la construction de logements à prix modique sur des terrains désignés. Les administrations de district achèteront ces logements d'entreprises à contenu étranger pour les vendre ou les louer aux résidents locaux.

2. Débouchés commerciaux s'offrant aux entreprises canadiennes sur le marché de l'habitation de Shanghai

Les principaux débouchés s'offrant aux entreprises canadiennes sont les suivants : 1) production de logements à prix modique dans le cadre de l'accord d'achat «garanti» offert par les administrations locales de Shanghai; 2) production de «logements de base» au prix du marché en vue de les vendre à leur pleine valeur marchande à la classe moyenne qui connaît une expansion rapide à Shanghai; 3) aménagement avec compensation de logements à prix modique pour les ménages obligés de se réinstaller en raison du réaménagement de centres urbains et de logements au prix du marché sur les terrains libérés des noyaux centraux urbains qui s'y prêtent bien. Si les entreprises de techniques de construction, les entrepreneurs et les fabricants de matériaux de construction canadiens peuvent offrir des logements semi-finis (sans finition ni aménagements) au prix de 150 dollars canadiens par 170 m² (14 à 16 \$/pi²) (il s'agit du coût de construction), il devient alors très possible de former des entreprises conjointes de promotion immobilière, de fabrication et de construction sur le marché de l'habitation de Shanghai pour une bonne partie de la prochaine décennie.

3. Possibilités de pénétration du marché selon la SCHL

Lors de discussions à haut niveau entre les ministres de la SCHL et le ministère de la construction de la Chine, on a discerné un débouché dont pourrait tirer parti les entreprises canadiennes souhaitant pénétrer le marché de l'habitation de Shanghai. Une entente de principe a été conclue pour la construction d'un projet de démonstration dans le Yuqiao New Town, qui fait partie du Pudong New Area de Shanghai, projet qui pourrait exposer les techniques canadiennes dans les domaines de l'élaboration de plans d'ensemble, de l'architecture, de la construction d'immeubles et de la fabrication de matériaux de construction. On prévoit que le projet de démonstration comprendra les immeubles suivants :

- Deux immeubles résidentiels de 5 à 6 étages, d'une superficie de 3 000 à 4 000 m² chacun, constitués de logements comptant 1 à 3 chambres à coucher;
- Un immeuble de démonstration d'une superficie de 200 à 300 m² abritant des présentoirs de techniques et de produits de construction canadiens; cet immeuble pourrait éventuellement être converti en immeuble commercial.

Les administrations locale et nationale ont réservé un terrain de 9,4 hectares aux fins du projet de démonstration Canada-Chine. Ce terrain se situe dans une nouvelle ville aménagée à l'intention des ménages quittant le noyau central surpeuplé de Shanghai. On est déjà en train de construire un immeuble sur un terrain adjacent. Bien que le plan d'ensemble ait déjà été approuvé, les intervenants chinois accepteraient volontiers que les concepteurs canadiens l'améliorent et même le refassent. On a également choisi les participants à la construction du projet de démonstration : l'entreprise appartenant à l'administration locale et chargée de l'aménagement du Yuqiao New Town, titulaire des droits d'occupation des sols, et une entreprise de construction d'expérience appartenant au ministère de la construction de la Chine et ayant récemment terminé un ensemble résidentiel à prix modique de haute qualité près du terrain prévu pour le projet de démonstration.

Le sous-ministre de la construction en Chine a affirmé que le coût de construction imputable aux entreprises canadiennes qui produiront le projet de démonstration sera raisonnable et que le bénéfice atteindra 15 %. Ce bénéfice, qui doit être réparti entre tous les participants de l'entreprise conjointe établie pour la réalisation du projet, y compris les participants chinois, devrait rembourser les taxes à l'importation sur les produits et le matériel de construction nécessaires à la réalisation du projet de démonstration.

Bien que la plupart des produits canadiens de construction exportés à Shanghai risquent de ne pas y être concurrentiels (en raison des frais d'expédition et des taxes à l'importation), on estime que le faible coût des facteurs de production à Shanghai et dans la région avoisinante du Yangtze Delta peut permettre aux entreprises canadiennes d'établir des entreprises conjointes locales de fabrication afin de percer le marché global de la construction d'immeubles par un créneau particulier du secteur de l'habitation.

4. Étude de pré-faisabilité du projet de démonstration Yuqiao-Canada

Une mission composée de hauts fonctionnaires de la SCHL et du Ministère des Affaires étrangères et du Commerce extérieur et d'un consultant de Chreod Ltd. s'est rendue à Pékin et Shanghai du 16 au 26 mars afin de réaliser une étude de pré-faisabilité du projet de démonstration. Les administrations locales et nationale ont fortement appuyé le projet de démonstration. Comme préalable à l'évaluation technique, financière et administrative du projet de démonstration proposé à Yuqiao, ces experts ont analysé le marché local de l'habitation à Shanghai. Résultats : 1) le marché pour le projet de démonstration semble propice; 2) le terrain ne pose aucun problème technique; 3) les participants locaux avec lesquels les entreprises canadiennes établiraient des entreprises conjointes ont de l'expérience et sont saines d'un point de vue technique; 4) les engagements touchant l'accord d'achat garanti offert par l'administration locale aux entreprises canadiennes pour leur permettre de recouvrer les coûts de construction raisonnables et de réaliser un bénéfice net de 15 % semblent sérieux. Ces experts ont également évalué les risques liés au projet de démonstration; bien qu'il y ait effectivement des risques d'ordre financier, technique et réglementaire, ces risques ne sont pas inhabituels dans le marché chinois et, avec une planification soignée, pourraient être atténués.

5. Prochaines étapes

Les étapes suggérées ci-après sont considérées comme étant les plus pertinentes à franchir. Bien que la SCHL, avec l'aide du Ministère des Affaires étrangères et du Commerce extérieur, ait déniché une voie pouvant permettre à l'industrie canadienne de pénétrer le marché et l'ait préparée à l'étape actuelle des engagements bilatéraux entre les gouvernements, **ce sont les entreprises canadiennes qui doivent maintenant prendre les commandes en vue de réaliser le projet de démonstration Yuqiao-Canada.** Cela veut dire qu'une entreprise ou un consortium d'entreprises canadiennes doit s'engager maintenant à faire ce qui suit : 1) déterminer ses possibilités de commercialisation dans le vaste marché des logements à prix modique à Shanghai et en Chine en se fondant sur les paramètres dégagés par la SCHL; 2) entreprendre l'examen approfondi du projet de démonstration Yuqiao-Canada; 3) conclure des ententes de coopération et/ou de coentreprise avec des dépositaires d'enjeux locaux

en vue de réaliser le projet; 4) négocier une entente d'aménagement avec les administrations locales; 5) négocier un accord d'achat du projet de démonstration achevé avec l'administration locale; 6) se mobiliser pour concevoir et construire le projet dans les prochains 14 à 18 mois.

1. La SCHL convoquera à une table ronde pour la fin d'avril 1996 le comité directeur du projet constitué de représentants de l'industrie canadienne afin d'examiner les résultats que la mission a tiré de l'étude de pré-faisabilité et d'aborder tout problème en suspens.

Industrie canadienne :

- a. Une entreprise canadienne ou un partenariat d'entreprises canadiennes doit signer un accord de principe l'engageant à prendre en main le projet de démonstration en commençant par les étapes de l'étude de faisabilité et de la préparation.

2. Une proposition doit être rédigée et expédiée au ministère de la construction de la Chine d'ici la fin de la première semaine de mai. Le vice-président de la SCHL, Jim Lynch, se rendra à Pékin à la mi-mai afin de réaliser des activités dans le cadre du protocole d'entente Canada-Chine sur la collaboration dans le domaine de l'habitation. À ce moment-là, il pourra discuter du contenu de la proposition avec les fonctionnaires du ministère de la construction de la Chine. Cette proposition-cadre pourrait renfermer ce qui suit : 1) un avant-programme du projet; 2) une description de la portée proposée de la participation canadienne, y compris des techniques et des produits à exposer; 3) une proposition de tarifs douaniers et de partage des coûts des techniques et des produits pour le projet de démonstration; 4) une proposition provisoire sur les aspects commerciaux du projet et en particulier sur ceux ayant trait à l'entreprise conjointe de construction, à l'entente d'aménagement et à l'accord d'achat; 5) une proposition d'échéancier pour le projet. M. Lynch pourrait suggérer que cette proposition-cadre soit mentionnée dans un protocole d'entente (non exécutoire) entre la SCHL et le ministère de la construction de la Chine. Les détails du protocole d'entente entre la SCHL et le ministère de la construction de la Chine pourraient être négociés durant les mois d'été et signés au cours de la prochaine réunion du comité directeur, en septembre. En présumant que ces négociations se déroulent de façon satisfaisante, le partenaire de l'industrie canadienne jouant le rôle principal pourrait commencer à négocier un protocole d'entente avec ses homologues chinois au cours de l'été.

Industrie canadienne et SCHL :

- b. Expédier, au ministère de la construction de la Chine d'ici le 1^{er} mai 1996, une proposition-cadre de projet sur laquelle reposeraient les négociations devant avoir lieu durant les mois d'été;

SCHL :

- c. Procéder à la conception du plan d'ensemble du projet comme le demande le ministère de la construction de la Chine;
- d. Procéder, durant les mois d'été, aux négociations touchant le protocole d'entente sur le projet auprès du ministère de la construction de la Chine;

Industrie canadienne : e. Analyser le marché et examiner à fond le projet d'ici les mois d'été; négocier un protocole d'entente avec ses coentrepreneurs de Shanghai;

3. Une réunion des membres du comité directeur Canada-Chine constitué de fonctionnaires de la SCHL et du ministère de la construction de la Chine aura lieu à Ottawa en septembre ou au début d'octobre de l'année en cours afin d'examiner le degré d'avancement des divers engagements bilatéraux dans le domaine de l'habitation. À ce moment-là, la SCHL pourrait agir en tant que l'un des signataires du protocole d'entente devant être conclu avec le ministère de la construction de la Chine au sujet du projet de démonstration Canada-Yuqiao. Selon les résultats des négociations et de l'examen approfondi du projet qui se dérouleront durant les mois d'été, cette réunion pourrait également être une bonne occasion pour le partenaire principal de l'industrie canadienne et ses homologues chinois de signer leur propre protocole d'entente sur la création d'une entreprise conjointe de construction du projet de démonstration.

Industrie canadienne : f. Signer, à Ottawa, le protocole d'entente commercial avec ses homologues chinois au mois de septembre de l'année en cours.

4. Le partenaire principal de l'industrie canadienne devra ensuite négocier des ententes commerciales définitives (de construction et d'achat) avec ses coentrepreneurs et l'administration de Pudong. La SCHL pourrait, au besoin, faciliter ces négociations dans le cadre de ses engagements bilatéraux avec le ministère de la construction de la Chine et en étant présente aux réunions, si besoin est.

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Currency Equivalents Used in this Report

Currency Name: Renminbi (RMB)

Currency Unit: Yuan (Y)

1 Yuan = 100 fen

US\$ 1.00 = Y 8.3 (as of April 1996)

CDN\$ 1.00 = Y 5.87 (as of April 1996)

Abbreviations and Acronyms:

CMHC:	Canada Mortgage and Housing Corporation
ITIC:	International Trade and Investment Corporation
JV:	joint venture enterprise
MOC:	China Ministry of Construction
SGREDC:	Shanghai Guangshun Real Estate Development Company
SMG:	Shanghai Municipal Government
WFOE:	wholly foreign owned enterprise
YDC:	Yuqiao Development Company

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1.0 Background

During the 1994 visit to Canada by Hou Jie, China's Minister of Construction, agreement in principle was reached with the Honourable David Dingwall, Minister of Public Works and Government Services, concerning bilateral cooperation on housing. A Steering Committee was formed at that time to coordinate this cooperation; this Committee is chaired by CMHC President Marc Rochon and Tan Qinglian, Vice Minister of Construction.

Minister Dingwall visited China from 3 - 9 December, 1995 with Mr. Rochon and senior CMHC officials to review various aspects of cooperation. During this visit, a Memorandum of Understanding was signed by the two Ministers that outlined specific undertakings in housing finance, housing planning and design, building materials, participation at an international exhibition on building materials and technologies, and the possible development of a low cost housing demonstration project in Shanghai showcasing Canadian design and construction capabilities.

CMHC subsequently convened a roundtable meeting of Canadian industry on 23 January, 1996, to review potential industry interest in conducting the demonstration project as a vehicle for market entry into the China housing market. A number of technical, financial and management-related questions were raised at that meeting; CMHC decided to conduct a technical mission to China in order to address these and other issues. Mission members were: John Herbert (Mission Leader), Manager - International and New Business, Land Management Division; James A. Holt, Trade Commissioner, China Division, Department of Foreign Affairs and International Trade; and Edward Leman, President of Chreod Ltd., consultants retained by CMHC to assist in the mission.

Objectives of this mission were:

1. to conduct a pre-feasibility assessment of the Shanghai Demonstration Project in order to: 1) define the market opportunity and identify potential risks to Canadian private sector participants; 2) identify feasible measures to mitigate any risks that might exist; and 3) recommend responsibilities for implementing these measures;
2. and to better define the Project in order to provide Canadian private sector participants with an understanding of: 1) purpose and content of the project; 2) possible management roles (both on the Canadian and Chinese sides); 3) costs; and 4) timing.

Meetings were held in Beijing with Ministry of Construction officials, and in Shanghai with local government officials and representatives of key stakeholders from the development industry (see Annex 1: List of Persons Met) during the period 16-26 March, 1996.

This report outlines Chreod Ltd.'s findings from this mission.

2.0 China's Housing Challenge

.1 Demand Considerations

Despite official figures that suggest only 28.6% of the population lives in cities, including the burgeoning suburban and peri urban areas in which most new industries are now locating, China's urban population is around 40%. This means that there are approximately 460 million urban consumers in the country.

The World Bank estimates that more than 50% of the population will become urban by 2010 at the latest. The implications of this urbanization trend are far-reaching: consumer markets are becoming concentrated as never before in China's history, and the rapid shift from rural to urban living is creating unprecedented demands on infrastructure, including housing.

China's Ministry of Construction (MOC) reports that, under the Ninth Five Year Plan (1996-2000), housing completions will reach 240 million m² annually. The objective is to raise per capita living space¹ from the present 7.7 m² to 10 m² by the year 2000.

.2 Constraints to Housing Delivery

Most housing in urban China is built and owned by local governments and State Owned Enterprises (SOEs); residents are either allocated dwelling units by local housing bureaux, or are provided rental accommodation by their employers. All of this housing is heavily subsidized, and rentals do not even cover most operating and maintenance costs. The central government no longer transfers funds to municipalities for housing construction. Local governments' fiscal capacities are badly stretched to meet investments in core infrastructure that are essential to sustain rapid economic growth. SOEs, at least 60% of which are loss-making, can no longer afford massive investments in housing. A major part of the current program to reform SOEs is the de-linking of housing from employment.

In order to reduce inflation (that reached 24% in cities in 1994), and to slow economic overheating, the central government recently introduced drastic measures to curb the availability of credit; these measures are expected to be maintained until the end of this decade. The result is that local governments and SOEs can no longer borrow from policy and commercial banks as easily as in the past. Domestic capital markets in China are undeveloped, and access to domestic equity and debt financing by local governments is extremely limited.

These fiscal constraints are balanced by a rapid rise in residents' purchasing power and bank savings during the last decade. The World Bank now estimates that national per capita GDP, at purchasing power parity levels, has reached at least US\$ 1,900 in China; in some localities (such as Shanghai), per capita GDP at market rates is estimated at US\$ 2,000 and the purchasing power of households is believed to be approaching levels in some Southeast Asian countries. China's gross domestic savings rate is among the highest in the world at 40% of GDP. In 1995, urban and rural residents' savings deposits reached ¥ 3 billion (US\$ 360 billion).

To build 240 million m² of housing a year China will need to invest somewhere in the order of ¥ 150 - 240 billion (US\$ 18 - 29 billion) at current costs. This would represent 20 - 33% of total investment in all forms of construction in 1995, including energy, transportation, telecommunications and agriculture-related projects. This is clearly beyond the capacity of governments and their enterprises to finance.

Over the last two years significant moves have been made to tap into domestic purchasing power and reduce government involvement in housing development through experimentation with the market delivery of housing. This is taking various forms in different parts of the country, but the underlying thrust to have residents pay market prices is becoming accepted as the only way that China can meet its housing challenge. However, while housing subsidies are being laid to rest, the problem of tight credit remains.

¹ "Living space" refers to the area occupied by bedrooms and living/dining room; it does not include corridors, WC, kitchen and storage space. "Usable area" is the term used for total interior space of the dwelling. "Gross floor area" includes stairwells walls and partitions, elevators, public corridors, storage, and mechanical areas measured from the outer surface of the building.

Residents may increasingly be able to afford housing at market prices, but, given the constraints to domestic equity and debt markets, it is becoming extremely difficult to pool sufficient capital to invest in housing construction.

.3 Opening to Foreign Involvement

Development

The domestic housing sector has only recently been opened up to foreign involvement, mostly due to financial necessity. While there is clear recognition that foreign technologies and building products could improve the speed, efficiency and quality of housing in China, the overriding need is to access foreign financing without increasing foreign debt. With the policy support of the Ministry of Construction, some municipalities are now offering financial inducements to foreign investors to support housing development. The principal incentive is a "guaranteed purchase" arrangement in which the local government promises to purchase from foreign joint ventures completed housing projects on a cost plus basis. The Ministry of Construction states that a "minimum" 15% profit is allowed net of corporate income tax.

According to MOC, "cost" consists of the following elements:

1. land acquisition and resettlement compensation costs;
2. site surveying, engineering and architectural design costs;
3. building construction costs;
4. on-site infrastructure and public facilities;
5. financing costs;
6. taxes (e.g. VAT) and local development charges;
7. developers' management fee of 3% of items # 1 through # 4.

No formal cost ceilings have been established since input prices vary widely across China. These are negotiated by the developer with local governments. Foreign lenders interviewed in the course of this study do not accept local government undertakings as quasi-sovereign guarantees against project risk. Guarantors acceptable to foreign commercial lenders are the Bank of China and major commercial banks, and some provincial-level ITICs (International Trust and Investment Corporations tied to governments); guarantees are limited by central government quotas, and in today's fiscal environment, are not likely to be diverted to local housing. This means that domestic housing projects in China - like any other form of real estate development - need to be financed entirely from equity investment or through corporate financing.

Building Products Manufacturing

Imports of building materials are subject to national tariffs. Effective 1 April 1996, tariffs on a wide range of building materials are being reduced by an average of 30% (CMHC has on file a schedule of tariffs for major types of building materials as of 1 April). Depending on the building product, imports may be subject to testing by national safety certification agencies.

Given the cost structure of low cost housing in China, it is assumed that, to be price competitive, most building products will need to be manufactured domestically either through joint ventures set up with foreign companies, or through wholly foreign owned enterprises (WFOE). Such foreign investment is governed by the "Provisional Regulations Guiding Foreign Investment" issued in June 1995 by the Ministry of Foreign Trade and Economic Cooperation, the State Planning Commission, and the State

Economic and Trade Commission. Major provisions of these regulations affecting building products are²:

"A. Encouraged Investments

- floating glass production line with a daily melting capacity over 500,000 pieces;
- high sanitation porcelain line with an annual production of over 500,000 fixtures;
- new building materials;
- special cements;
- cement additives;
- production of glass fiber and glass fiber reinforced plastic;
- inorganic non-metal material and products;

B. Restricted Foreign Investments

- production line of cement with an annual output capacity below 300,000 tons;
- production line of plate glass for ordinary construction use, with a daily capacity below 200 tons".

"Restricted" investments require State-level approval of relevant agencies, and foreign equity joint ventures must have a definite termination date. Sectors that are not "restricted" or "forbidden" (none appear to apply to building manufacturing) are treated as "permitted". Although these regulations are subject to interpretation, it does not appear that most Canadian building materials and technologies are unduly constrained by China's new foreign investment regulations.

Construction

Foreign construction firms need to obtain certification from the Ministry of Construction in addition to a business license from the State Administration of Commerce and Industry before being allowed to operate in China. The MOC certification is governed by the "Ministerial Decree on Foreign Construction Firms in China" promulgated in March of 1994. Involvement of foreign construction companies is allowed in projects: 1) developed through foreign loans or WFOE investment; 2) financed from World Bank or Asian Development Bank loans; 3) joint venture developments for which domestic construction firms are judged not to have sufficient technical skill; and 4) financed by Chinese investment, but again for which domestic companies are thought to not have sufficient technical skill. Final approval of certification is given by the Minister. To date, sixty eight foreign construction companies have obtained licenses in China; an additional fifty seven have established representative offices and are presently seeking MOC certification.

Architectural Design

Foreign architectural firms seeking market entry through design of low cost housing projects are governed by three major national regulations. The "Temporary Regulations on Cooperative Design by Local and Foreign Designers" were adopted in 1986 and define the scope of cooperation on single projects; such cooperation is generally possible only on joint venture or wholly-foreign investments. The "Regulations Governing Chinese Partners in Design Cooperation" set standards and define the scope for domestic participants in single projects. The 1992 "Regulations on Joint Venture Design Firms" are directed to permanent joint ventures with foreign firms, and set strict standards for domestic partners: they must have a Class A or B license (out of four classes) and be state-owned; private firms are not allowed to joint venture with foreign firms. Ninety eight joint venture architectural firms have been approved in China to date.

² Canadian companies should obtain legal advice on the implications of these regulations on potential manufacturing investments in China.

3.0 Shanghai's Housing Market

.1 Regional Overview: The Yangtze Delta Market

There are major economic differences between regions in China, even among the coastal provinces that have gained the most from market reforms. Inland regions remain poor and isolated from the most populated and prosperous urban consumer markets found in strategic locations along the coast. There are twelve major regional market systems in Greater China today (including Hongkong and Taiwan). They have formed around major cities, and clusters of cities: the Yangtze Delta Region comprised of Shanghai, and Jiangsu, Zhejiang and Anhui Provinces; the North China Region in Heilongjiang Province; the Northeastern Region consisting of Jilin and Liaoning Provinces; the Beijing-Tianjin Region, which includes Hebei and parts of Shanxi Province; the Middle Yellow River Region, largely in Henan; the Shaanxi Region; the Shandong Peninsula Region; the Middle Yangtze Region, comprised of Hubei and parts of Hunan Provinces; the Western Yangtze Region, anchored on Chengdu and Chongqing in Sichuan Province; the Fujian Region; the Southern Coastal Region, comprising Guangdong and Hainan Provinces and including Hongkong; and Taiwan (Fig. 1). The largest market region, in terms of size of population and economic output, is the Yangtze Delta Region, anchored on Shanghai.

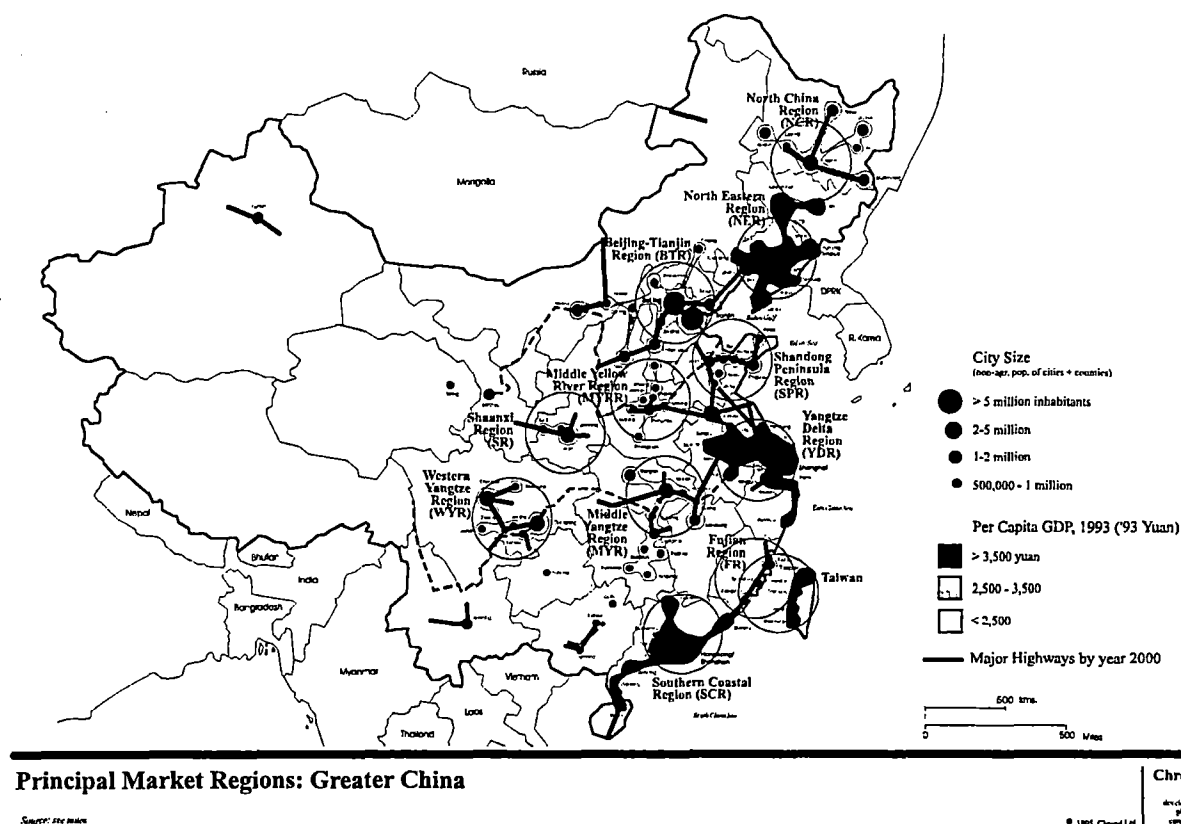


Figure 1: China's Principal Urban Regions

There are 193 million consumers in the Yangtze Delta Region on a land base half the size of Alberta. This is more than the population of Indonesia, three times the population of the Philippines, and three and a half times the consumer base of Thailand. At an average population density of 530 people per square

kilometre, the Yangtze Delta is one of the most concentrated markets in the world (at this density the entire NAFTA consumer base of almost 360 million people would fit into 3/4 of Ontario). There are 35 urban centres with populations over one million people within 500 kilometres of Shanghai (the distance from Toronto to Montreal). This compares to 33 such cities in all of North America, and 42 in Europe (including Eastern Europe).

Recent economic growth in the Yangtze Delta Region has been faster than in most of the Asian Tiger economies at any time during the past two decades. So far this decade the average annual real GDP growth rate in the Yangtze delta has been almost double that in the "Tiger" economies of Taiwan and South Korea, and over two percentage points higher than in Thailand and Malaysia. The major dynamo of the Yangtze Delta Region is a dense urbanizing corridor of 76 million consumers stretching 600 km. from Nanjing to Shanghai, Hangzhou and Ningbo (Fig. 2). At current growth rates, this megalopolis will have a population of more than 90 million people in ten years time.

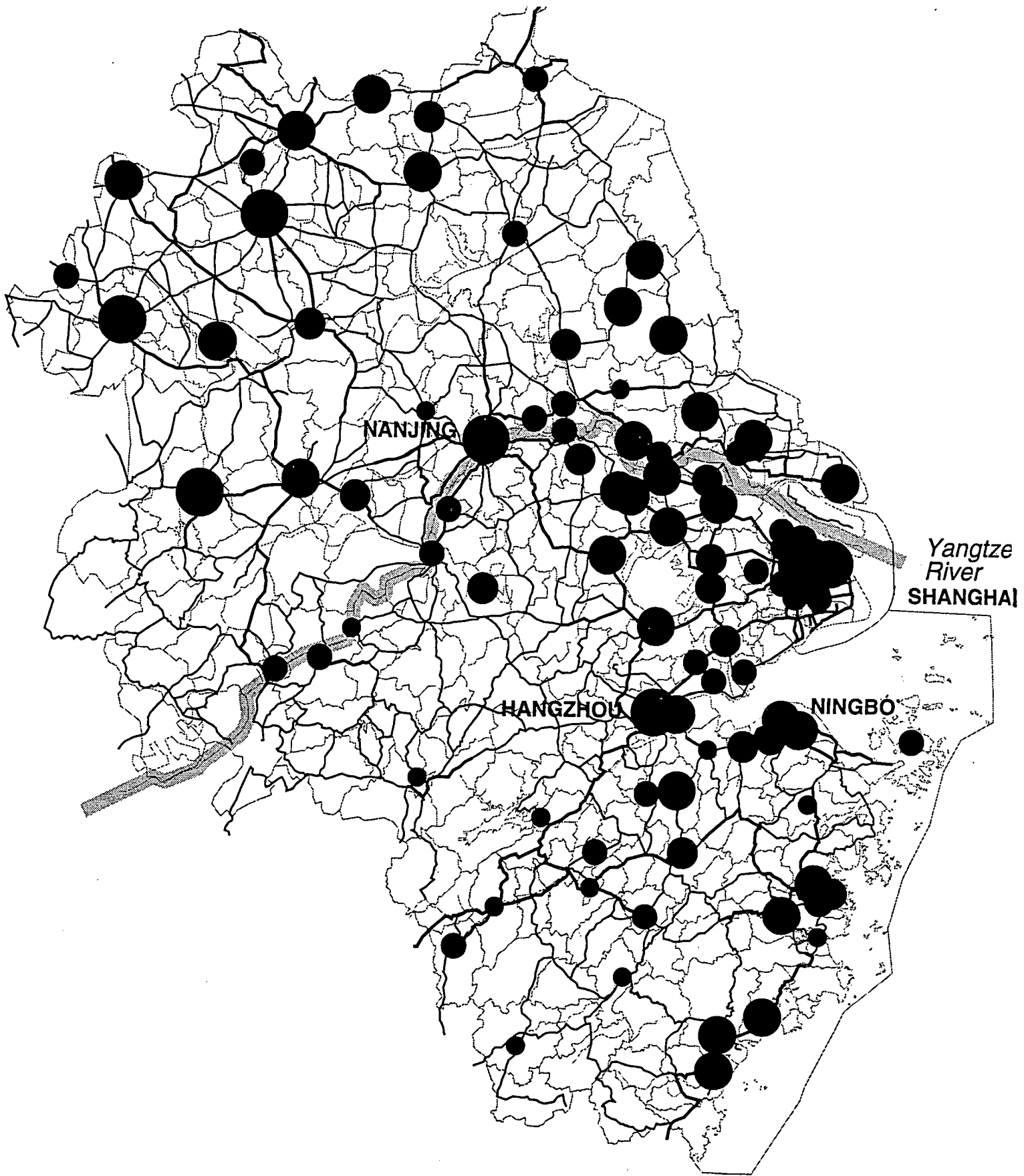
The Delta's economy in 1993 was already the size of Indonesia's, larger than Thailand's, and almost 40% of South Korea's. Fully one quarter of China's increased economic production between 1990 and 1993 was created in the Yangtze Delta, compared to 20% in the Bohai Gulf provinces of Liaoning, Hebei, Shandong, Beijing and Tianjin, and 13% in Guangdong. Although it holds 16% of China's population, the Yangtze Delta generated almost 40% of its industrial production value in 1993; the value of industrial output tripled in real terms from 1990 to 1993. Even though this industrial growth is expected to moderate somewhat in coming years, the value of industrial output in the Yangtze Delta Region will likely grow in real terms to six or seven times its present level by the year 2005. Most of this growth will occur in the Nanjing-Shanghai-Hangzhou megalopolis which is expected to account for 80% of all industrial production in the Yangtze Delta in ten years time.

Despite its recent growth, it will clearly take some time for the Yangtze Delta Region to reach the purchasing power of other more affluent Asian economies. However, this may be happening much faster than anywhere else in East Asia during the past two decades. For example, from 1990 to 1993, average bank deposits in the Yangtze Delta rose by 70% in real terms; in the Yangtze megalopolis, the value of deposits grew by 80%. Some estimates place per capita GDP in strategic parts of the Yangtze Delta Region, on a purchasing power parity basis, at around US\$ 2,000, about 50% higher than for China as a whole. Per capita production and incomes in parts of the Yangtze Delta megalopolis are quickly approaching those in Thailand. A prosperous middle income population is emerging in strategic parts of the Delta with a buying power previously seen in China only in Shenzhen, adjacent to Hongkong.

.2 Shanghai Overview

One of three provincial-level cities in China, Shanghai is the country's largest urban centre with a permanent population approaching 13 million and a "temporary" population of approximately 3 million. Almost 80% of Shanghai's population is concentrated in the 254 km² urban zone of the municipality which, together with 9 rural counties, covers an area of 6,340 km². Including temporary residents, Shanghai has an urban population density of just under 50,000 inh/km², making it one of the most dense cities in the world. The municipality's population is expected to continue to grow to at least 17 million people by the year 2000, in large part due to a growing number of rural migrants seeking employment in China's most important industrial base, its largest port, and its major centre of commerce, trade, finance and science.

Shanghai exported over US\$ 9.1 billion worth of goods in 1994 and imported US\$ 6.7 billion, resulting in a trade surplus of almost US\$ 2.4 billion, a 21% increase over 1993. The city's per capita Gross



Major Cities and Towns
Yangtze Delta Region

Figure 2

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Domestic Product (GDP) - at ¥ 11,700 in 1993 (US\$ 1,410) - was the highest in China, more than three times the national average, 2.4 times that of Guangdong, and 42% higher than in Beijing. After decades of neglect and comparatively low economic growth, reforms launched in the early 1990s have led to real annual GDP growth rates of almost 15% in the first half of this decade. From 1990 to 1993, Shanghai's per capita GDP grew by 36% in real terms.

Shanghai is now undergoing a process of rapid, unprecedented change. The main entrepot city in all of Asia in the early part of this century, Shanghai suffered greatly during the Japanese occupation and civil war. After Liberation it was left to atrophy both because of its symbolic role as the pre-Communist hub of foreign capitalism, and because of its strategic exposure to military attack by "foreign imperialists". As China's economy began to develop, Shanghai slowly re-attained its function as the country's principal industrial city, but it had lost its international role in finance and trade. The present course of development under market reforms is seeing Shanghai rapidly re-establish that role.

Shanghai is the most cosmopolitan city in China. Actual direct foreign investment in 1994 amounted to US \$ 3.23 billion, slightly higher than in 1993. The average (declared) wage in Shanghai in 1994 was ¥ 7,405, 63% higher than in China as a whole. However, with the opening of the municipal economy many workers now hold more than one job, mostly in the more informal services sector. It is now estimated that only 30-40% of gross income for the average middle-income household in Shanghai comes from official wage receipts. Real annual income growth, after inflation, has averaged from 10-15% so far this decade. This means that demand for household goods, luxury goods, better housing, and consumer services is increasingly being backed up in Shanghai with the ability to pay to satisfy this demand.

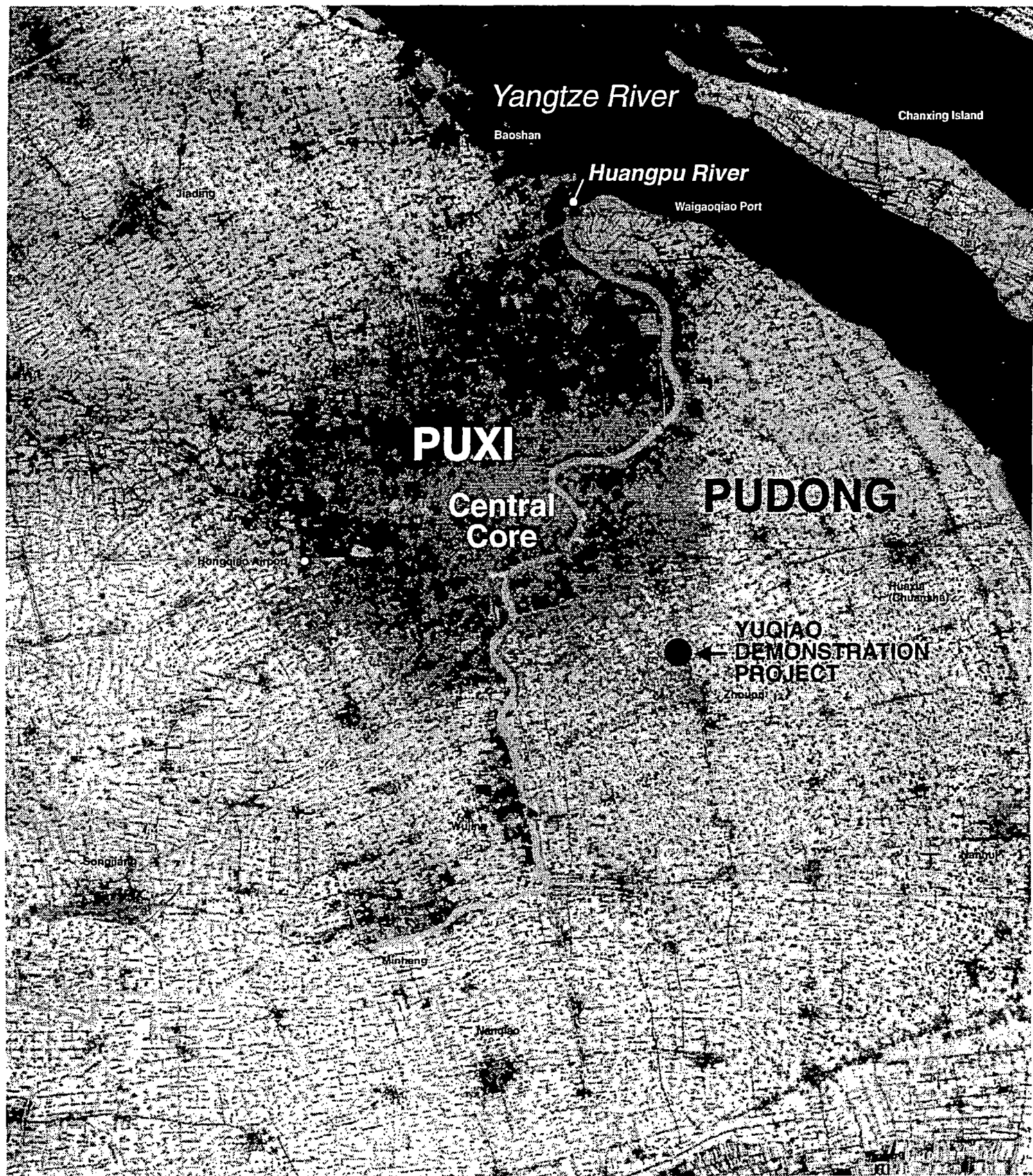
.3 Urban Structure

The urban area of Shanghai, known as "Puxi" essentially occupies the west bank of the Huangpu River which flows into the Yangtze River upstream from the city (Fig. 3). The city has generally developed along an east-west corridor anchored on the historic "Bund" on the Huangpu River front. The central business core, and the larger central commercial area, generally correspond to the French, British and International areas of Shanghai prior to Liberation in 1949.

Pent up demand, the opening of the urban land market, and large infrastructure projects are causing major redevelopment in Puxi. Entire neighbourhoods are being cleared to make way for new office buildings, retail facilities, and elevated expressways to support Shanghai's tertiary sector growth. Although key heritage sites are protected, including the historic Bund area, the urban fabric of dense, low-rise neighbourhoods is rapidly being transformed. Over 300,000 households have been resettled in the past few years to make way for redevelopment projects, and government officials predict at least as many will need to be relocated by the end of this decade, often to suburban districts.

A basic thrust of Shanghai's recent development has been to reduce densities and congestion in the central core. This has led to the recognition that the virtually undeveloped east bank of the Huangpu River ("Pudong") is an ideal location to direct new urban development. Premier Li Peng announced the State Council's decision to develop the "Pudong New Area" in April of 1990. This multi-billion dollar, State-level initiative is led by the Shanghai Municipal Government, and seeks to transform the coastal industrial backwater and rural area into a major economic zone that will incorporate the key reforms already tested in the Special Economic Zones in coastal China.

Pudong is planned to accommodate 2 million people by the end of this decade in five principal districts: the Lujiazui Financial and Services District across from the existing central core; the Waigaoqiao free



km 0 5 15 25

Urban Structure Metropolitan Shanghai

Figure 3 Chreod
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consultants

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trade zone and harbour near where the Huangpu and Yangtze Rivers intersect; the Jingqiao Export Processing Zone; the Liuli industrial development zone; and the Zhangjiang R+D zone. The municipal government is channelling huge sums into Pudong, and most of the transport and infrastructure required to sustain the first major stage of redevelopment are now in place.

The present population of Pudong is 1.3 million. An estimated 2 million people cross between Pudong and Puxi each day. Of Pudong's 700,000 workers, two-thirds commute daily from Puxi. Pudong authorities state that 3 million m² of residential accommodation was completed last year; of this, 2.1 million m² was low cost housing.

Because of its strategic national importance, Pudong is now administered as a single district by the Pudong New Area Administration Committee which reports directly to a Vice Mayor of Shanghai. However, linkages to the Shanghai Municipal Government are gradually weakening as the Pudong Administration establishes a parallel government structure of Commissions and Bureaux, and enacts its own regulations. While not entirely autonomous, there is growing competition at the operational level between the Pudong Administration and the Shanghai Municipal Government; what applies in Puxi does not necessarily apply in Pudong.

.4 Principal Housing Markets in Shanghai

Approximately 11 million m² of housing was completed in 1995; this volume is expected to continue throughout the Ninth Five Year Plan period (1996-2000). At the present time, 46% of housing construction is conducted by governments and State Owned Enterprise, 10% by collectively owned enterprises, 29% by commercial developers, and 15% by individual owners (mostly in rural districts).

There are four principal housing markets in Shanghai: 1) housing for foreigners; 2) high-end domestic housing; 3) standard domestic housing; and 4) low cost domestic housing.

Housing for Foreigners

There has been considerable foreign investment over the last three years in development of housing for foreigners in Shanghai. Approximately 2 million m² of villas, townhouses and apartment units have been completed of which less than half has been pre-sold. Land use rights sales over the last three years in this high-end market could potentially generate another 5 million m² of supply. At an average size of 120 m²/unit, this means that the market currently holds over 16,000 units and could potentially grow to almost 60,000 units if all of the land zoned and sold for foreigner housing is developed. Shanghai currently holds approximately 3,000 - 5,000 foreigners (not including Overseas Chinese), including dependents; there is growing consensus that this segment of the market is vastly oversupplied and little additional development activity is foreseen at least for the next 2-3 years. Sales prices of existing stock ranges from US\$ 1,000 to 2,000/m².

High-end Domestic Housing

This market consists of high-standard housing for domestic purchase; most of the 1 million m² of existing stock is in the form of apartments. Purchasers in this market are commercial enterprises that allocate units to senior managers, and Overseas Chinese who often make units available to local relatives. Sales prices currently range from ¥ 6,000 - 15,000/m².

Standard Domestic Housing ("Commodity Housing")

By far the largest segment of Shanghai's housing market, standard domestic housing - sometimes referred to as "commodity housing" - accounts for 80% of residential construction. Units range from 55 - 60 m²

and are almost all either 6-storey walk-up or high rise housing. Approximately 20% of purchasers are private households, with the remainder being commercial enterprises who on-rent units to staff, often as employment inducements. Sales prices range from ¥ 2,500 - 5,000/m². Take up rates are very high in good locations (northern part of Minhang district, north of Suzhou Creek, and in the western portion of Pudong); vacancy rates are generally high in outlying suburban locations, southern Minhang, and in eastern Pudong.

Low Cost Domestic Housing

Approximately 15% of residential construction is for low cost domestic housing, the focus of the CMHC-MOC Demonstration Project. This market segment consists of households being resettled as a result of infrastructure construction and redevelopment, and those families currently occupying less than 4 m²/person of living area. Up until recently, most of this housing was developed by the Shanghai Municipal Government; however, commercial developers in inner city locations are often now first constructing low cost housing in outlying areas in order to accommodate households that need to be resettled in order to free up redevelopment sites. Households are strongly encouraged to accept designated housing in a new suburban development; they are offered an average ¥ 50,000 as compensation for resettlement which they can apply to purchase of housing. Residents may sell their units after five years at market prices; if they do so before then, they must compensate the local government for the difference between development costs and market value.

There is little difference in size and quality between standard domestic and low cost domestic housing. A low cost housing unit is offered to purchasers or renters in unfinished form, generally bare concrete slab and walls with no plumbing or kitchen fixtures. The distinction between these domestic housing types is more institutional and financial: in the case of low cost housing, land is provided by District and County governments at a 20-30% discount to market value, and almost all construction and development levies and charges are foregone. Construction Commission officials maintain that demand for cost price housing is huge, and will continue for many years due to the estimated 18 million m² of housing required for households with sub-standard accommodation and those facing resettlement by the end of this decade. Figure 4 illustrates the underlying cause for housing demand in Shanghai, particularly to accommodate households in sub-standard accommodation in the very dense inner city districts of Huangpu and Nanshi.

.5 Development Costs of Domestic Housing

Table 1 shows the average costs of developing domestic housing in Shanghai in 1994; while costs have likely escalated by at least 15% since then, the proportional structure of major cost items continues to apply in 1996.

.6 Domestic Housing Finance in Shanghai

Housing reforms in Shanghai began in 1991, and are based on the recognition that the historical system whereby State Owned Enterprises provided subsidized housing to employees is no longer financially viable. Approximately 50% of SOE-owned housing has so far been sold to employees at a price that covers basic construction cost. Proceeds from these sales have gone into enterprise housing funds from which other employees can borrow to purchase dwellings either from the SOE's existing housing stock or on the open market.

The Shanghai Municipal Government has also introduced a Housing Provident Fund, modelled on Singapore's Central Provident Fund. All employees and employers are required to contribute equal payments of 5% of the worker's average monthly wage earned during the previous year. The estimated

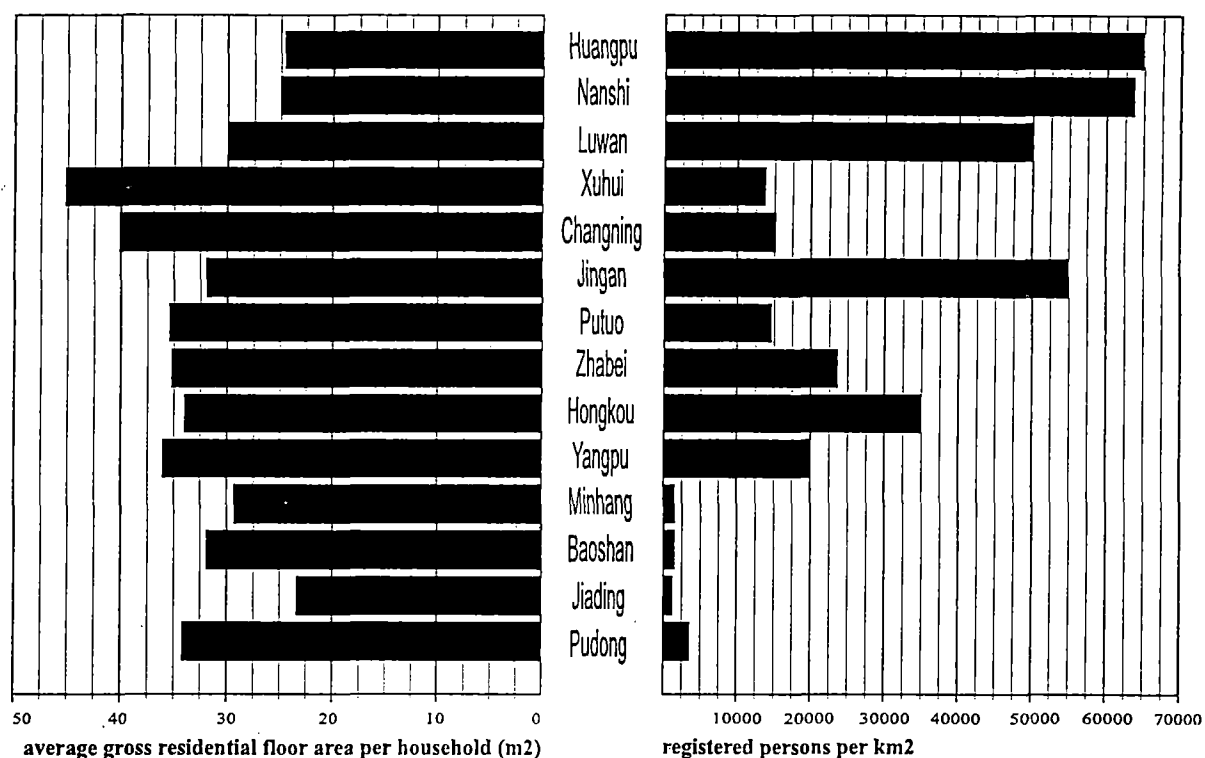


Figure 4: Population Densities and Housing Floor Areas, by Districts

Table 1: Costs for Development of "Ordinary" Commodity Housing, Shanghai 1994

Type of Site	Bldg. Type	Cost per square meter of gross building area (RMB: Yuan)											
		Total	%	Reset- tlement, Site Clearing	%	Bldg. Const- ruction	%	On-site Infra. & Public Facility	%	Dev. Mgmt. Fee; Finance	%	Off- site Infra.	%
New Greenfield	Highrise	3080	100	666	21.6	1501	48.7	321	10.4	345	11	247	8.1
	Walkup	1935	100	534	27.6	793	41.0	232	11.9	157	8.1	219	11.4
Redevelop- ment	Highrise	4347	100	1527	35.1	1747	40.2	233	5.4	659	15.2	181	4.1
	Walkup	3080	100	1038	33.7	1368	44.4	268	8.7	296	9.6	110	3.6

Source: Shanghai Housing and Land Administration Bureau

Housing Fund income in 1995 was ¥ 3.6 billion (US\$ 430 million), enough to finance the purchase of approximately 2 million m² of commodity and low cost housing (at a sales price of ¥ 2500/m²). Therefore, the Fund appears able to finance about 20% of Shanghai's total residential construction in the next few years. Employees can only access their housing fund accounts to buy or renovate a new dwelling for themselves or their immediate families. Mortgages can cover a maximum of 70% of the purchase price of a unit. Rates are 5.1% for the first year, increasing by 0.3% annually; terms are 15 years.

Alternately, purchasers can access commercial mortgages at a rate of 8.4% for the first year, increasing by 0.45% per year, again for a 15 year term.

It appears that most commodity housing in Shanghai is sold by developers, not rented. Most commodity housing in Shanghai is purchased by work units both as investments and for on-rental to employees. Given the severe domestic credit crunch, it would appear that work units finance purchases from retained earnings or working capital.

.7 Effective Demand for Domestic Housing

Standard Domestic Housing

Detailed data are not available in Shanghai to accurately estimate household incomes. However, sufficient data exist to provide for general estimates of the size and purchasing power of Shanghai's rapidly expanding middle class.

An estimated 20% of the 6.227 million workers living in Shanghai's urban districts earn more than ¥ 20,000/year (ie. 1.245 million workers). The average wage in Shanghai is ¥ 7405/year. There are typically two wage earners per household. Assuming that one of these wage earners earns an average wage, as many as 1.245 million households in urban Shanghai could have pre-tax household incomes of over ¥ 27,000/year. Assuming an average 25% tax rate, this leaves a disposable income of ¥ 20,250. Average household expenditures are ¥ 14,000 per year, leaving a balance of ¥ 6250.

In 1994, the total balance of savings deposits in urban Shanghai reached ¥ 88.870 billion, or an average of ¥ 27,500 per household.

This could mean that perhaps as many 1.245 million households would need only to work for three to five years to save enough for a down payment of ¥ 45,000 for an average 60 m² apartment costing ¥ 150,000.

An estimated 150,000 commodity housing units have been completed each year for the past three years in Shanghai. From a potential effective market base of 1.245 million households, this leaves a possible unmet demand of almost 800,000 units for which domestic purchasers seem to have the ability to pay.

Low Cost Housing

Shanghai's low cost housing problem is severe: to re-settle an additional 300,000 households at 60 m²/unit over the next four years will require at least ¥ 60 billion worth of investment in 18 million m² of building construction. At the current rate of construction of low cost housing (approximately 1.6 million m²/year), it will take at least eleven years to build sufficient housing to handle four years' worth of resettlement demand.

.8 Foreign Involvement in Shanghai's Low Cost Housing Sector

The Shanghai Municipal Government promulgated regulations governing foreign involvement in the low cost housing sector in August of 1995. There are two regulations: one for inner city redevelopment projects; and the other for greenfield developments in suburban and outlying areas. SMG's regulations apply to Pudong as well, ie. this is not a case where Pudong has developed separate and different regulations. The regulations are essentially those contained in MOC's guidelines (outlined on page 3) but with one major difference: Shanghai does not recognize debt financing costs as one of the allowable costs on which a 15% net profit is based. The position of the municipal government is that financing is treated entirely as equity.

Over 100 sites for low cost housing have been identified by the Shanghai Construction Commission. The Commission's Housing and Land Administration Bureau determines the site location, floor-area ratio, and site development requirements, not the local Districts or Counties where the site is located. However, district governments are the "guarantors" of the 15% profit, and are the purchasers of the dwellings completed by the foreign developer³. In the event of non-payment by these district governments, foreign investors supposedly have recourse directly to the Shanghai Municipal Government. Land prices are negotiable, but are expected to be discounted by 20-30% from market value.

Foreign investors are required to enter into two separate agreements with district governments: 1) a Development Agreement outlining the standard, timing and costs of development, as well as inflation and cost escalation provisions; and 2) a Purchase Agreement outlining the agreed upon purchase price, profit rate, and local purchase guarantees. Both agreements require the approval of the Construction Commission. Standard forms of agreement are now being developed by the Housing and Land Administration Bureau, and should be ready for public issue by July of this year.

To date, developers from Hongkong, Singapore and the US have expressed interest in this new approach. The Singapore project is the most ambitious and apparently the furthest advanced; it is being led by the Government of Singapore Investment Corporation in Sanling District in the southwest portion of Pudong. Plans call for the development of a 1 km² parcel of land in an overall new town development of 5 km². Rather than partnering with the Pudong Administration, the Singapore project will be a joint venture with a unit of the Shanghai Construction Commission. This unit, the Chengdu Road Resettlement Development Company, is responsible for housing an estimated 20,000 households from Puxi that have needed to be resettled as a result of construction of the Chengdu Road elevated, north-south expressway in Puxi. Therefore, the Singapore developer is assured of an immediate and captive market for their project.

.9 Principal Target Markets for Canadian Companies

There appear to be four principal target markets for Canadian companies interested in the Shanghai housing sector:

1. Low Cost Housing in Outlying Areas

These are generally greenfield projects with low land costs. Although relatively straightforward, access, location and undeveloped infrastructure are factors that need to be carefully assessed.

³ "Foreign" developers can refer either to a wholly foreign owned venture, or to a joint venture with a domestic enterprise in which there is at least 25% foreign equity.

2. Low Cost Housing in Inner City Areas

The Shanghai Construction Commission has identified a number of sites (north of the new Inner Ring Road) that it wishes to redevelop into low cost housing. Similarly, every inner city district government is eager to see more low cost housing developed within their areas. While land costs are higher than in outlying areas, market preference for inner city sites is very strong, and infrastructure is rarely an issue.

3. Commodity Housing in Inner City Areas

There is very strong market demand for good quality commodity housing in inner city districts of Shanghai.

4. Linked Low Cost and Commodity Housing

Because developers in inner city districts need to compensate displaced residents, there appears to be a significant market opportunity for linked housing projects in which developers build low cost housing in outlying areas on the 15% profit and government "guaranteed" purchase basis, and market-priced commodity housing in inner city locations.

4.0 The Yuqiao Canada Demonstration Project

.1 Location and Market

The Ministry of Construction has offered CMHC one site in Pudong for a demonstration project showcasing Canadian design and construction technology. This site is located in the Yuqiao Development Zone in the southwest portion of Pudong. Yuqiao is designated in the Shanghai Master Plan as a major development zone for low cost housing, and is being actively promoted by the Ministry of Construction. It is located north of the planned Outer Ring Road, 7 km. from the Nanpu Bridge linking Pudong to Puxi (Fig.5). Yuqiao is sandwiched between two other planned residential development zones to the north and south across the Pudong boundary in Nanhui County. Although served by six bus routes (another two are planned by the end of 1996), the site is not as accessible as Sanling or other large low cost housing projects in Huamu and Jinqiao districts. It is not considered a particularly attractive location by Shanghai residents, and would likely not be viable if structured as a market-priced, commodity housing project. However, since it is a low cost housing development designed for residents who are being resettled - and given the severe shortage of housing options - it appears at the present time that a "market" will exist for Yuqiao in the short and medium terms⁴.

.2 The Yuqiao Town Development

Yuqiao covers an area of 290 hectares, and consists of three principle zones: 1) an industrial zone to the east, covering 117.5 ha.; 2) the residential zone to the west, covering 103 ha.; and 3) a central commercial zone (Fig. 6). The development is bisected by Hunan Road running north-south, and Yuqiao Road running east-west. Water supply, drainage and sewerage networks were built in conjunction with the recent widening of Hunan Road to four lanes. Water will be supplied from the Hangtong Water Treatment plant in Nanhui County; its present capacity of 120,000 tons/d will be doubled to 240,000 tons/d by 1999.

⁴ Developers are encouraged to continually monitor fast-changing market conditions in Shanghai as supply coming onstream is difficult to quantify and locate spatially with precision.

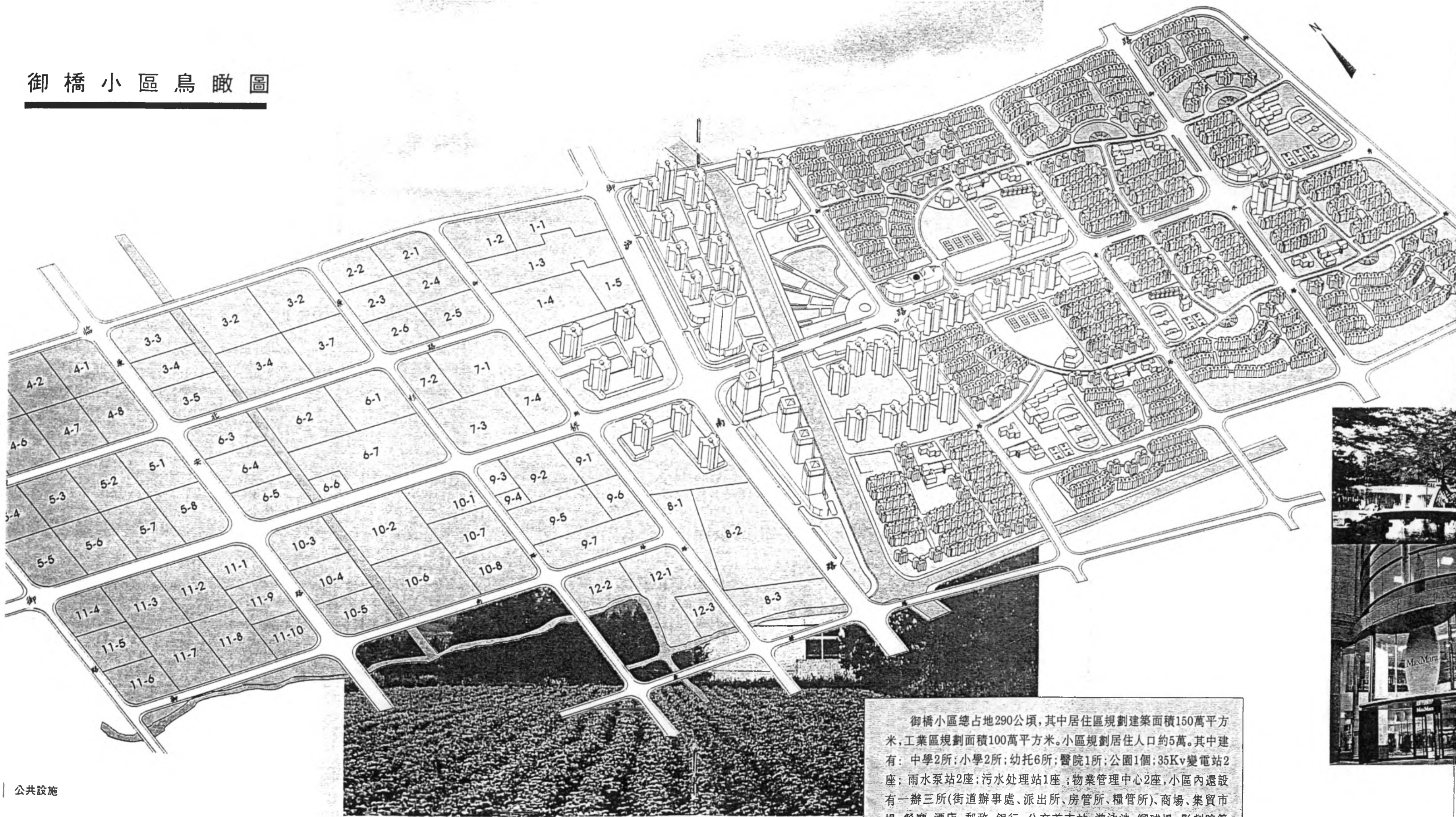


**Yuqiao Demonstration Project in Context of Shanghai
Master Plan to Year 2010**

Figure 5

Figure 6: Development Plan for Yuqiao Town
Source: Yuqiao Development Company

御橋小區鳥瞰圖



公共設施
市政設施
商業辦公

御橋小區總占地290公頃，其中居住區規劃建築面積150萬平方米，工業區規劃面積100萬平方米。小區規劃居住人口約5萬。其中建有：中學2所；小學2所；幼托6所；醫院1所；公園1個；35Kv變電站2座；雨水泵站2座；污水處理站1座；物業管理中心2座，小區內還設有一辦三所（街道辦事處、派出所、房管所、糧管所）、商場、集貿市場、餐廳、酒店、郵政、銀行、公交首末站、游泳池、網球場、影劇院等公建娛樂設施。



A total of 1.5 million m² of housing is planned for Yuqiao, mostly in the form of 5- and 6-storey walk up apartments. The residential area will be developed in eight neighbourhoods linked by a circular boulevard. Five kindergartens, two primary schools, and two high schools are planned as well as a hospital, post office, shopping mall and recreational facilities.

Aside from roads and infrastructure, the only development occurring so far is a low cost residential area covering 11.92 ha. This project, known as Minle Garden, is currently under construction, and is scheduled for completion in August of this year.

.3 Block 7 Canada Demonstration Project

Land Use and Infrastructure

The Ministry of Construction has proposed that the Canada Demonstration Project be located in Block 7, immediately east of Minle Garden currently under construction. Block 7 covers an area of 90,400 m². Although site plan approval has already been granted by the Pudong Administration, MOC has invited Canada to modify or completely re-do the site plan; the only restrictions are that the planned (and approved) arterial road network, power sub-station on the northwest corner of the Block, and the bus layby on the west edge of the Block be retained (Fig. 7). The site has a floor-area ratio of 1.4, resulting in a maximum allowable building area of 125,800 m²; of this, 113,000 m² is for walk-up apartment buildings, 6,000 m² for a primary school, and 5,000 m² for commercial retail use. Infrastructure to Block 7 will not be started until the modified site plan is approved; local officials indicate that construction of infrastructure could take six months. The site is flat; sub-soil is reported as clay and soil bearing capacity is reported as 9 ton/m².

Preliminary Program

MOC has invited Canadian firms to construct three buildings using Canadian technology:

1. two 5-6 storey residential blocks of 3,000 to 4,000 m² each;
2. a 200 - 300 m² demonstration building showcasing permanent displays of Canadian building products.

The program for the residential blocks is essentially up to Canadian companies to propose. However, indications were given that the program for Minle Garden should be used as a guide:

- 1-bedroom units: 27% of usable floor area; 39 m² usable floor area per unit
- 2-bedroom units; 33% of usable floor area; 49 m² usable floor area per unit
- 3-bedroom units; 40% of usable floor area; 61 m² usable floor area per unit.

Using Minle Garden as a guide, each of the Canada Demonstration Project residential buildings could therefore consist of:

- | | |
|--|--------------------------|
| - 24 x 1-bedroom units @ 40 m ² = | 960 m ² |
| - 24 x 2-bedroom units @ 50 m ² = | 1200 m ² |
| - 24 x 3-bedroom units @ 60 m ² = | 1440 m ² |
| - circulation @ 10% = | <u>400 m²</u> |
| | 4000 m ² |

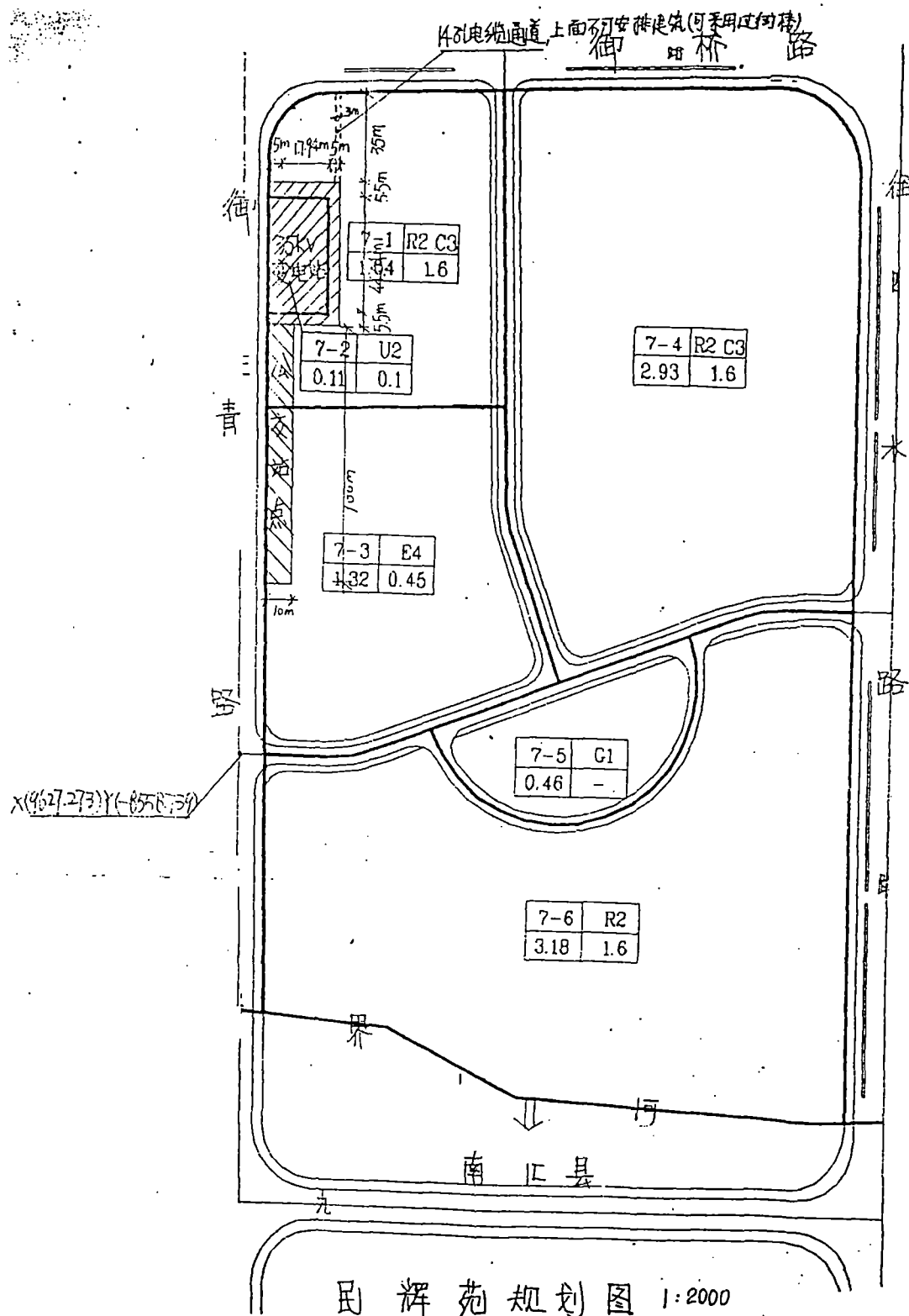


Figure 7: Development Parameters for Block 7, Yuqiao
Source: Yuqiao Development Company

Architectural plans of apartment buildings in Minle Garden, and the approved site plan for Block 7 are on file at CMHC. All units should have a balcony, kitchen, WC and living/dining area. Provision should be made at ground level for parking of bicycles. Piped natural gas is planned for all buildings in Yuqiao⁵.

Since these units will eventually be sold, most should be left completely bare to provide for occupants' choice in fit up, ie. no flooring, sub-ceiling, kitchen or WC fixtures, doors and doorframes (except entry door and balcony door), electrical fixtures and finishes. Several units could be finished as showcase units to illustrate fit-up possibilities: complete fit-up of a typical low cost housing unit ranges from ¥ 40,000 to ¥ 80,000 per unit although most occupants are likely to only initially install WC and essential kitchen fixtures.

Preliminary Cost Plan

The building construction cost target for Yuqiao low cost housing is ¥ 900 - 1,000/m² in 1996 renminbi. At ¥ 1,000/m², a very preliminary cost target for the complete 8,300 m² Canada Demonstration Project using the "six costs" that are factored into the 15% profit and guaranteed purchase system is:

1. land (very approximate, subject to negotiation):	¥ 2,000,000
2. surveying and design (3.5% of building construction cost):	¥ 290,500
3. building construction: 8,300 m ² x ¥ 1,000=	¥ 8,300,000
4. on-site infrastructure: 12% of building construction cost =	¥ 1,000,000
5. developers' management fee: 3% of # 1-4:	¥ 350,000
6. off-site infrastructure + public facilities: 11% of building const. cost =	¥ 915,000
	¥ 12,855,500

The 15% "profit" would be ¥ 1,928,325 or approximately CDN \$ 315,000, most likely paid out according to shareholdings in the joint venture. The Canadian share would presumably be used to offset tariffs on imported Canadian building materials and equipment used in the Demonstration Project, finishes and fitups of model units, and Canadian companies' time and market development expenses.

.4 Preliminary Management Framework

Principal Stakeholders

The Ministry of Construction's Steering Group on Development of Urban Housing Estates is responsible for preparing low cost housing policy guidelines; it is the principal unit in the Ministry involved in the Yuqiao Canada Demonstration Project. Vice Minister Tan Qinglian advised the CMHC mission in a wrap up meeting in Beijing on 18 March 1996 that: 1) MOC welcomes Canadian input on planning and design of Block 7 and of the Demonstration Buildings; 2) the scope for Canadian building materials, products and technologies in the Demonstration Project is completely open as long as cost targets are met; 3) MOC guarantees that development and construction costs will be recovered from sales revenues; and 4) that the Pudong Administration will guarantee to purchase the units or, alternately, the development team can sell these units on the open market.

MOC has nominated the Shanghai Guangshun Real Estate Development Company (SGREDC) to act as joint venture party with Canadian firms. This company is owned by the Ministry of Construction, and has recently developed a low cost housing demonstration project in Sanling; this project was visited by

⁵ Given that many middle-income households are now purchasing electric space heaters (and therefore adding considerably to power consumption), Canadian firms may wish to explore potential markets for small, natural gas space heaters linked to the proposed gas supply to the Yuqiao units.

the CMHC mission and was found to be of high design and construction quality. Due diligence on this company has not been conducted in the course of this study, and will be the responsibility of those Canadian companies who decide to pursue the Demonstration Project. Potential roles of SGREDC include equity participation in a joint venture with Canadian firms, and development and construction management either in exchange for equity or on a fee basis.

The Yuqiao Development Company (YDC) owns the entire land area of Yuqiao. It is owned by the Shanghai Lujiazui Finance and Trade Zone Development Company which is responsible for developing the Lujiazui financial district and which is listed on the Shanghai Stock Exchange with majority of shares owned by the Pudong Administration. Yuqiao Development Company will be responsible for development of all off-site infrastructure. The Canadian team can either purchase the land use rights for the Demonstration Project from the Yuqiao Development Company, or include YDC as an equity partner in the joint venture.

The organization of Canadian stakeholders is up to those companies who are prepared to take the lead in this commercial venture. The Canadian side could be a single promoter firm, a consortium, and/or a new company formed for the China market. CMHC's role, aside from having identified and prepared this opportunity for Canadian firms, could consist of an advisory function and continuing liaison with the Ministry of Construction.

Development Process

There are likely to be five major stages in the development of the Yuqiao Canada Demonstration Project:

- .1 **Site Planning and Building Design**
Work on this can begin immediately. Both site planning and building design will need to be done in association with a local Chinese planning institute, and a local architectural bureau or institute. It is expected that this stage could take three months. Site plan approval can occur within 30 days of application. Building design approvals may take two months. The Purchase Agreement with the Pudong Administration can be negotiated during this initial stage.
- .2 **Site Preparation**
Once the site plan revisions have been approved, the Development Agreement can be signed with the Yuqiao Development Company at which time site preparation and off-site infrastructure can commence. The Yuqiao Development Company has indicated that infrastructure construction could take six months; it may occur concurrently with building construction.
- .3 **Construction and Fit Up**
Construction and fit up time will depend on the technologies selected for the Demonstration Project, and Canadian companies' mobilization efficiencies. Vice Minister Tan has indicated that a total of fourteen months should be allowed from the signing of final agreements to the completion of construction.
- .4 **Demonstration**
The length of time that Canadian companies will want to hold model units for demonstration purposes is subject to negotiation with the Chinese.
- .5 **Sale to Pudong Government**

Exiting the Project

Presumably, the Pudong Administration will pay the development team the agreed upon purchase price at the completion of construction and final inspection. The team will be paid in renminbi; the Canadian partners can then apply to the Shanghai Foreign Exchange Control Department for a certificate to convert renminbi into foreign currency at the Bank of China; this process generally takes 2-3 weeks.

Ownership and operation of the 300 m² demonstration building will need to be negotiated at the outset; the possibility exists for this building to be eventually converted into commercial use and sold at market prices.

.5 Market Development Potentials for Canadian Companies Arising from Yuqiao Canada Demonstration Project

There appear to be five major potential development opportunities arising from the Yuqiao Canada Demonstration Project:

- .1 Planning and Design
Canadian urban planning and architectural firms can become involved in the site planning and building design work. This may be coordinated by CMHC.
- .2 Construction Technology Showcase
Canadian builders can use the Demonstration Project to showcase the quality, speed and cost competitiveness of their construction techniques. Given MOC's support and involvement in the project, it is very likely that information on successful techniques will be disseminated widely across China.
- .3 Building Products Showcase
Canadian building material and product manufacturers can use the Yuqiao project to showcase their products to potential purchasers in this market. They could also use the project to explore joint venture manufacturing opportunities in China.
- .4 Land Development Entry
Real estate development in China is complex; should a Canadian developer join the team, the Yuqiao project could be a useful and, given MOC's involvement, a relatively safe way to learn about the process and market opportunities in Shanghai both in low cost housing and in market-priced commodity housing.
- .5 Property Management Showcase
Although not specifically addressed in this study, there would appear to be significant opportunities for introducing Canadian property and facility management expertise into the low cost and commodity housing markets in China. The Yuqiao project could provide Canadian firms with an entry vehicle into this market.

.6 Risk Assessment of the Yuqiao Canada Demonstration Project

The following is a preliminary assessment of risks associated with the Yuqiao Canada Demonstration Project from the perspective of Canadian industry. It must be emphasized that the risk profile for this

project ultimately depends on which Canadian companies are interested in pursuing this initiative, their financial capacities and export-readiness, the technical nature of their proposed contributions, the competitiveness of Canadian technologies and products (both cost and quality competitiveness), and the final commercial arrangement agreed upon by Canadian partners among themselves, and with the Chinese parties.

Market Demand Risk

There does not appear to be much market demand risk for the Yuqiao Canada Demonstration Project given verbal guarantees offered by Vice Minister Tan Qinglian that the units will be purchased by the Pudong Administration at a price to cover reasonable costs plus 15%. Clearly, this is an undertaking that will need to be confirmed through a Purchase Agreement between the final Canadian industry parties and the Pudong Administration.

Competitiveness of Canadian Supply

The principal unknown in this project is to what extent Canadian products and technologies will be competitive in the Shanghai, Yangtze Delta, and wider China markets. It is assumed that, particularly with tariffs, the export of most Canadian building materials and products will not be competitive with local supply in the low cost and commodity housing markets. Before proceeding with this initiative, Canadian firms will need to conduct their own assessments of potential competitiveness of their technologies and products on a locally-manufactured basis.

Given low base building construction costs in the low cost housing market, and the typical 3.5% design fee paid to architects and engineers, Canadian design firms' involvement is not likely to be competitive beyond the conceptual design stage.

Technical Risks

The Yuqiao Development Company gave verbal assurances to the mission that the site for the Demonstration Project will be cleared and made available; it has also given assurances that the off-site infrastructure required for the project (water, sewage, drainage, power, telecomm) will be completed within six months of final site plan approval. These undertakings will need to be confirmed in a Development Agreement with the Yuqiao Development Company by whatever joint venture is assembled to implement the Demonstration Project. Technical risks related to building products and technologies cannot be assessed until the structure of Canadian industry participation in this project is finalized; this applies particularly to possible testing and certification of building components by domestic testing agencies.

Policy and Regulatory Risks

Possible agreements required in the course of implementation of the Demonstration Project include: 1) a joint venture agreement between the Canadian side and Yuqiao Development Company and Shanghai Guangshun Real Estate Development Company; 2) a Development Agreement between the joint venture and the Yuqiao Development Company and/or the Pudong Administration; and 3) a Purchase Agreement between the joint venture and the Pudong Administration. Each of these agreements are subject to standard risks associated with a comparatively undeveloped commercial legal environment in China in which enforceability and recourse are not codified to Canadian standards. These risks are somewhat mitigated for the Demonstration Project by the apparent strong support of the Ministry of Construction and its influential Vice Minister.

For eventual entry into the wider low cost housing market in Shanghai, the major policy risk is that the current regulations and guidelines concerning foreign investment in low cost housing are rescinded or

modified in a way that diminishes the 15% net profit margin, or the terms under which this net profit is paid to investors/developers. There is no way of precisely gauging this risk; however, given the large demand for low cost housing in Shanghai, the expectation for continuing tight credit quotas, and the gradual liberalization of the Chinese policy environment in local infrastructure, this is not likely to occur in the medium term (3-5 years).

Project Preparation Risks

Canadian companies and design firms must be prepared for cultural, professional and technical differences with their Chinese counterparts in the course of project preparation. These kinds of differences are not unique to China; they are faced to varying degrees by Canadian companies in all new markets. However, it must be emphasized that Canadian firms - especially those new to the China market - should be aware that China has not, through its market reforms, sought to "Westernize" but rather to "modernize". Recognition of the subtle differences between these two bases for reform should go a long way in resolving differences during the preparation stages of the Demonstration Project and in achieving consensus.

Project Completion Risks

This set of risks cannot be defined until the technical nature of the Demonstration Project is finalized by Canadian industry partners. However, given the innovative and prototypical nature of the project, it is highly unlikely that any domestic party will be prepared to offer a performance guarantee on any aspect of construction. Canadian companies need to be aware that technical standards for building construction in China are not generally as high as in Canada. They also need to be aware that domestic construction labourers are generally un-skilled or semi-skilled migrant workers from poor, rural areas of China. Difficulties will invariably emerge in the course of assembly and construction caused by the low level of skills, in some cases the lack of basic education, and problems in communication (most migrant workers do not speak the Shanghainese dialect, and some are not even proficient in Mandarin). These risks should be mitigated by transferring them, as much as possible, to the local construction partner.

Financing

The Yuqiao Canada Demonstration Project will most likely need to be financed entirely through equity and corporate debt financing. Given tight credit supply, Chinese banks are not likely to give foreign companies access to domestic debt financing. Foreign banks are highly unlikely to accept domestic purchase "guarantees" of the completed housing units against which to offer debt financing. Canadian firms should seek advice from the Export Development Corporation on financing and insurance mechanisms that might be applied to the Yuqiao project.

Currency and Exit Risks

Indications are that the renminbi will devalue slightly in the next 12-24 months; if possible, this currency risk should be transferred to the Pudong Administration through the Purchase Agreement. There do not appear to be any risks in repatriating the Canadian portion of sales revenues in foreign exchange; however, if possible, formal undertakings by the Pudong Administration should be sought to guarantee or facilitate access to the Foreign Exchange Control Department and the Bank of China.

.7 Implementation Options

There appear to be two options available for implementing the Yuqiao Canada Demonstration Project:

- .1 immediate and complete handover of the Project to Canadian firm(s);

.2 or continuation of CMHC's involvement as Project Coordinators.

The first option should, in our view, be pursued if a Canadian industry group with extensive China experience is prepared to take over the Project.

The second option recognizes that continued government-to-government collaboration between MOC and CMHC may hedge some of the risks attached to the innovative nature of the Demonstration Project and the recently opened low cost housing sector in Shanghai. A coordination role for CMHC could consist of an advisory and liaison function on a full or partial cost recovery basis with the Canadian companies who may decide to pursue the Demonstration Project.

.8 Next Steps

The following steps are suggested as being the most appropriate. While CMHC, with the assistance of the Department of Foreign Affairs and International Trade, has identified this market entry opportunity for Canadian industry and prepared it to the current stage of bilateral government undertakings, **the lead for development of the Yuqiao-Canada Demonstration Project must now be taken by Canadian companies.** This means that a firm or a consortium of Canadian companies must now commit to: 1) establish their marketability in the wider low cost and commodity housing market in Shanghai and China based on the parameters identified by CMHC; 2) undertake their own due diligence of the Yuqiao-Canada Demonstration Project; 3) enter into cooperative and/or joint venture agreements with local stakeholders to develop the Project; 4) negotiate a Development Agreement for the Project with local government; 5) negotiate a Purchase Agreement with local government for the completed Project; and 6) mobilize to design and construct the Project within the next 14-18 months.

1. CMHC will convene a roundtable meeting of the project's Steering Committee from Canadian industry towards the end of April 1996 to review the results of the Pre-feasibility Assessment Mission and to address any issues that might remain outstanding.

Action by Canadian Industry: a. **agreement in principle by single Canadian company or a partnership of Canadian companies to take the lead on the Demonstration Project, initially through the Feasibility and then Preparation Stages;**

2. A proposal must be prepared and delivered to the MOC by the end of the first week in May. CMHC's Vice President, Jim Lynch, will visit Beijing in mid May to conduct activities under the Canada-China Memorandum of Understanding on cooperation in the housing field. At that time, he could discuss the contents of the proposal with officials of the MOC. This outline proposal could include: 1) a preliminary project program; 2) a description of the proposed scope of Canadian involvement, including technologies and products to be showcased; 3) a position on tariffs and cost sharing of these for the Demonstration Project; 4) a preliminary position on the commercial aspects of the Project, particularly related to the development joint venture, the Development Agreement, and the Purchase Agreement; and 5) a proposed time plan for the project. Mr. Lynch could suggest that this outline proposal be reflected in a CMHC-Ministry of Construction (non-binding) Memorandum of Understanding. The detailed MOU could be negotiated by CMHC and MOC during the summer months and lead to a signing at the next Steering Committee meeting in September. Assuming that these negotiations were progressing satisfactorily, the Canadian Industry lead partner could commence negotiations on a Memorandum of Agreement with their Chinese counterparts during the summer.

Action by Canadian Industry and CMHC:

- b. Preparation of an outline project proposal to the Chinese Ministry of Construction by 1 May 1996 that would form the basis of negotiations over the summer months;

Action by CMHC:

- c. Proceed with the design of a project site plan as requested by MOC;
- d. Proceed with MOC negotiations over summer months on project MOU;

Action by Canadian Industry:

- e. market analysis and due diligence by the summer months; negotiation of a Memorandum of Agreement with joint venture partners in Shanghai;

- 3. A Canada-China Steering Committee meeting of CMHC and Ministry of Construction officials will be held in Ottawa in September or early October of this year to review progress on various bilateral undertakings in the housing field. At that time, CMHC could be a party to signing of the Memorandum of Understanding with the Ministry of Construction on the Canada-Yuqiao Demonstration Project. This could also be a good opportunity for the Canadian Industry lead partner to sign with its commercial Chinese counterparts their own Memorandum of Agreement for establishment of a joint venture to develop the Demonstration Project, depending on results of due diligence analysis and negotiations over the summer months.

Action by Canadian Industry:

- f. signing of commercial Memorandum of Agreement with Chinese counterparts in September of this year in Ottawa.

- 4. Final commercial agreements will then need to be negotiated by the Canadian Industry lead partner with its joint venture partners, and with the Pudong government (Development and Purchase Agreements). CMHC could facilitate these negotiations, if desired, under the umbrella of its bilateral undertakings with the Ministry of Construction, and through a presence at the meetings if deemed necessary.

Annex 1: List of Persons Met

BEIJING:

- Vice Minister Tan Qinglian, Ministry of Construction
- Xi Ruilin, Deputy Head of Steering Group, Chief of Office, Development of Urban Housing Estates, Ministry of Construction
- Shen Jianguo, Deputy Director General, Department of International Relations, Ministry of Construction
- Cui Fuqiu, Deputy Division Chief, Department of International Relations, Ministry of Construction
- Gai Wei, Construction Industry Department, Ministry of Construction
- (Mme.) Hou Shulian, Deputy Director, Prospecting, Survey and Design Bureau, Ministry of Construction
- Wang Yu Ping, Deputy Chief, Department of Real Estate, Ministry of Construction
- Jacques Castonguay, Counsellor (Commercial), Canadian Embassy

SHANGHAI:

- Qian Gang, General Manager, Shanghai Guangshun Real Estate Development Company
- (Mme.) Gao Jing Fen, General Manager, Shanghai Yuqiao Development Co. Ltd.
- Jiang Jian, Assistant General Manager, Shanghai Yuqiao Development Co. Ltd.
- Li Jianeng, Vice Chairman, Shanghai Pudong New Area Administration Committee
- Fu Aiming, Chief, Real Estate Division, Comprehensive Planning and Land Bureau of Shanghai Pudong New Area
- Jochen, Division of Real Estate Regulation, Comprehensive Planning and Land Bureau of Shanghai Pudong New Area
- Zhu Wen Ting, Deputy Director, Office of the Shanghai Municipal Committee for Land Use System Reform, Property Administration Department, Shanghai Municipal Housing and Land Administration Bureau
- Tian Hanxiong, Chief, Public Housing Management Office, Shanghai Municipal Housing and Land Administration Bureau
- Zhao Min, Deputy Director, Planning Bureau, Shanghai Construction Commission
- Dai Xiaobo, Chief, Long Term Planning Department, Shanghai [Economic] Planning Commission
- R.W. Morse, Vice President - China, General Manager, Shanghai Branch, Royal Bank of Canada
- Ted Lipman, Consul General of Canada, Canadian Consulate General, Shanghai
- T.R. Greenberg, Consul and Senior Trade Commissioner, Canadian Consulate General, Shanghai
- George Jung, Consul and Trade Commissioner, Canadian Consulate General, Shanghai

Annex 2: "Proposal on Joint Venture Project"

(translation from Chinese document provided by Yuqiao Development Company and Shanghai Guangshun Real Estate Development Company, with approval of Ministry of Construction)

Proposal on Joint Venture Project of Yuqiao District in Pudong New Area, Shanghai

Shanghai Yuqiao Development Ltd.

March 14, 1996

Joint Venture Project on Yuqiao District

1. Introduction to the District

- 1.1 Location: Yuqiao is situated in the south of Pudong New Area. It has the Yu-Shen Highway to its north, Kangqiao Industrial Area to its south, Puchuan Road (planning) to its west and the city green area to its east. The district is between the outer ring and the inner ring. The Yang Pu Bridge is about 7km north of the district, the Xu Pu Bridge is 5km west and the international air port is about 12 km east. By the east side of the district, there is the subway no. 2. Yuqiao is a district closely connected with the developed areas and has a great development potential. The west part will be mostly industrial area which will be for developing new and high technology products, the east part will be the Yuqiao Garden - a model residential area set up by the Ministry of Construction in the Pudong New District. By the end of 1995, the company's capital reached ¥4.3 billion.
- 1.2 Master Plan of the District: The district covers an area of 290 hectares, of which 1.5 million m² are for residential, 1 million m² for industrial. It plans to have a population of 50,000. There will be 2 high schools, 2 elementary schools, 6 kindergartens, 1 hospital, 1 park, 2 transformer stations of 35Kv., 2 pumping stations, 1 sewage treatment plant, 2 administration buildings. There will also be a neighbourhood office, public security office, real estate management office, and rice supply centre, shopping centre, free markets, restaurants, hotels, post office, bank, bus terminal, swimming pool, tennis court, cinema and theatre, and some other recreational facilities.

2. Introduction to the Company

Shanghai Yuqiao Development Ltd. is jointly run by the LJZ Trade Development Co. and the LJZ Development Co. Ltd. Its registered capital is ¥30 million. It focuses on land development, real estate development and administration.

The LJZ Trade Development Co., after 5 years of development, has now a capital of ¥89 billion. It has become a consortium. The development of LJZ finance and trade district is well underway. Over 100 buildings have been built. The total construction area is around 5 million m². In order to coordinate with the developed area, we plan to develop Yuqiao. This project will be solely managed by the Shanghai Yuqiao Development Ltd.

3. Background

Yuqiao Garden master plan covers an area of 103 hectares with a total construction area of 1.5 million m², divided by 8 residential areas. It will have a cross design with Hunan Road from

north to south and Yuqiao Road from east to west. The downtown area and residential area will all be arranged along the two roads. In the residential area, a encircling road will connect all the eight residential areas. Along the encircling road, there will be mostly walkups like schools and kindergartens with a lot of green areas between the buildings.

In the residential area, there will be 2 high schools and 2 elementary schools, 6 kindergartens and nurseries, 1 park and 1 hospital. Apart from all these, there will be post office, shopping centre, recreational centre, bus terminals, and sports facilities like tennis court and swimming pools. 34.5% of the total area will be green area.

The under-construction residential area, Yuqiao Garden "Minle Garden", is the Neighbourhood No. 6, which covers an area of 11.92 hectares and will have walkups covering a floor space of 119,000m². The design of the "Minle Garden" reflects the best traditional Shanghai residential designs. They will be mostly 4-5 stories high with pitched roofs and iron frame balconies. The apartments will have smaller bedrooms and bigger living rooms, as well as a storage room, phone facilities, gas, and cable. The residential buildings will all have the first floor raised and left open so that they can be used as garages when there are more cars in the future.

4. Proposed Neighbourhood to be built by this joint venture project

4.1 Neighbourhood No. 7 will be the project proposed for this project.

4.2 Data of the Neighbourhood No. 7

Location	Neighbourhood No. 7
Site Area	90400m ²
FAR	1.4
Building Area	125800m ²
Walkups	113000m ²
Elementary Schools	6000m ²
Commercial	5000m ²

Enclosed: Location of the small district, master plan of the Yuqiao Garden, map of the proposed neighbourhood.

on notebook: F:\wpwin\yuqiao