

Report for Preliminary Development Permit Application

PROPOSED
MIXED USE DEVELOPMENT
COAL HARBOUR PARCELS 1.1 & 1.5

for

City of Vancouver

February 24, 1997

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A3.02	Broughton and Jervis Street Elevations
L - 1	Community Park / Daycare Landscape Plan

HENRIQUEZ • PARTNERS Architects, Urban Designers

Contact: Gregory Henriquez, MAIBC Tel: 687-5681 Fax: 687-8530

COAL HARBOUR MIXED-USE DEVELOPMENT: Coal Harbour Parcels 1.1 & 1.5 Community Centre, Parkade, Park, School, Daycare & Housing

CIVIC ADDRESS:

301 Jervis Street

(Marina Neighbourhood Sub-area 1B)

Vancouver, BC

LEGAL DESCRIPTION: Part of Lot 13, District Lot 185, and of the Public Harbour of Burrard Inlet,

Plan LMP 29891

ZONING:

CD.1 (365) 301 Jervis Street, Bylaw No. 7677

1.0 **PURPOSE OF REPORT / PROJECT GOALS & OBJECTIVES**

This Report accompanies the Preliminary Development Application for a Proposed Mixed Use Development on the subject site, as envisioned in the Coal harbour Master Plan. The program of

uses includes:

- community centre
- school, K 7
- daycare
- non-market housing

park

underground parking

The goal of the development of Coal Harbour Area 1-B is to provide the community amenities envisioned in the Coal Harbour Master Plan, meeting the needs of the existing adjacent neighbourhood, and the future residents of Coal Harbour.

The achievement of this goal is related to the following objectives:

- 1. To develop a schematic design which unifies the various component relationships for the entire site and ensures that all parts of the site work together.
- 2. To provide a facility that will be accessible to its users and seen as a positive addition to the neighbourhood. Logical and clearly identified pedestrian and vehicular access is critical, as well as sufficient accommodation for parking.
- 3. To create a facility that integrates the various components into a "whole" unified concept, and with the character of the non-market housing blending with the other housing being developed in Coal Harbour.
- 4. To create a facility that will be responsive throughout its life cycle to the changing needs of the users and the community as a whole.
- 5. To design a facility that meets the project budget, while also being a building of high quality with minimum operational requirements and maintenance.
- 6. To design a facility which sets high standards for energy use, resource conservation and well-being.





AERIAL VIEW OF SITE

2.0 DESIGN PROCESS

The process took the form of a series of workshops and user group meetings, beginning with programming in April, 1996 and resulting in the development of this P.D.P. application.

- Stage 1: Completed.
 - Programming space requirements and component relationships for entire site.
- Stage 2: Current (this application).
 - Integrated design for entire site, to stage of Pre.D.P. application for Phase 1 and 2.
- Stage 3: Next step.
 - Phase 1 design development, contract documents, and construction contract administration for community centre, parkade and park for Park Board and Marathon Realty (Parcel 1.1).
- Stage 4: Future Date.
 - Phase 2 design development, contract documents, and construction contract administration for K-7 School, Daycare and Non-Market Housing (Parcel 1.5).

Project Committee

The objective of the committee was to ensure that the major stakeholders were consulted in a timely way resulting in a Preliminary Development Permit application which meets the identified needs and requirements.

The following committee participants reviewed and commented on the project as the design process developed.

- Vancouver Park Board, Planning & Facility Development:
 - Project Manager, with special input into the design and approval of the community centre and the park.
- City of Vancouver, Corporate Services, Facilities Development:
 - In this case, to monitor design and construction of civic facilities with respect to time, budget and quality.
- City of Vancouver, Housing and Properties Department:
 - Special input into the design and approval on the Child Care and Non-Market Housing components.
- City of Vancouver, Social Planning:
 - Special input into the design and approval of the daycare facilities Licensing Office
- Vancouver School Board:
 - Special input into the schematic design of the K 7 elementary school, and associated outdoor space.
- City of Vancouver, Planning Department
- City of Vancouver, Housing Centre:
 - Special input into the design and approval of the 40 non-market housing units.
- Marathon Realty:
 - Developer

3.0 CONTEXT

The subject site is located on the Burrard Inlet, immediately adjacent to the waterfront on its northern edge, and fronting a major urban street, Hastings Street, on its southern edge. The site is within an area of major new developments well underway in the Coal Harbour precinct and in the Bayshore Lands further to the west. Several residential towers are now under construction or in the planning stage.

4.0 SITE DESCRIPTION

The subject site - Coal Harbour Phase 1, Area 1-B, Parcels 1.1 and 1.5 (adjacent) - is located at the foot of Broughton Street, between Broughton and Jervis. It is on the north side of Hastings Street, between Hastings and the Seawall, and is part of the overall development of Coal Harbour by Marathon Realty.

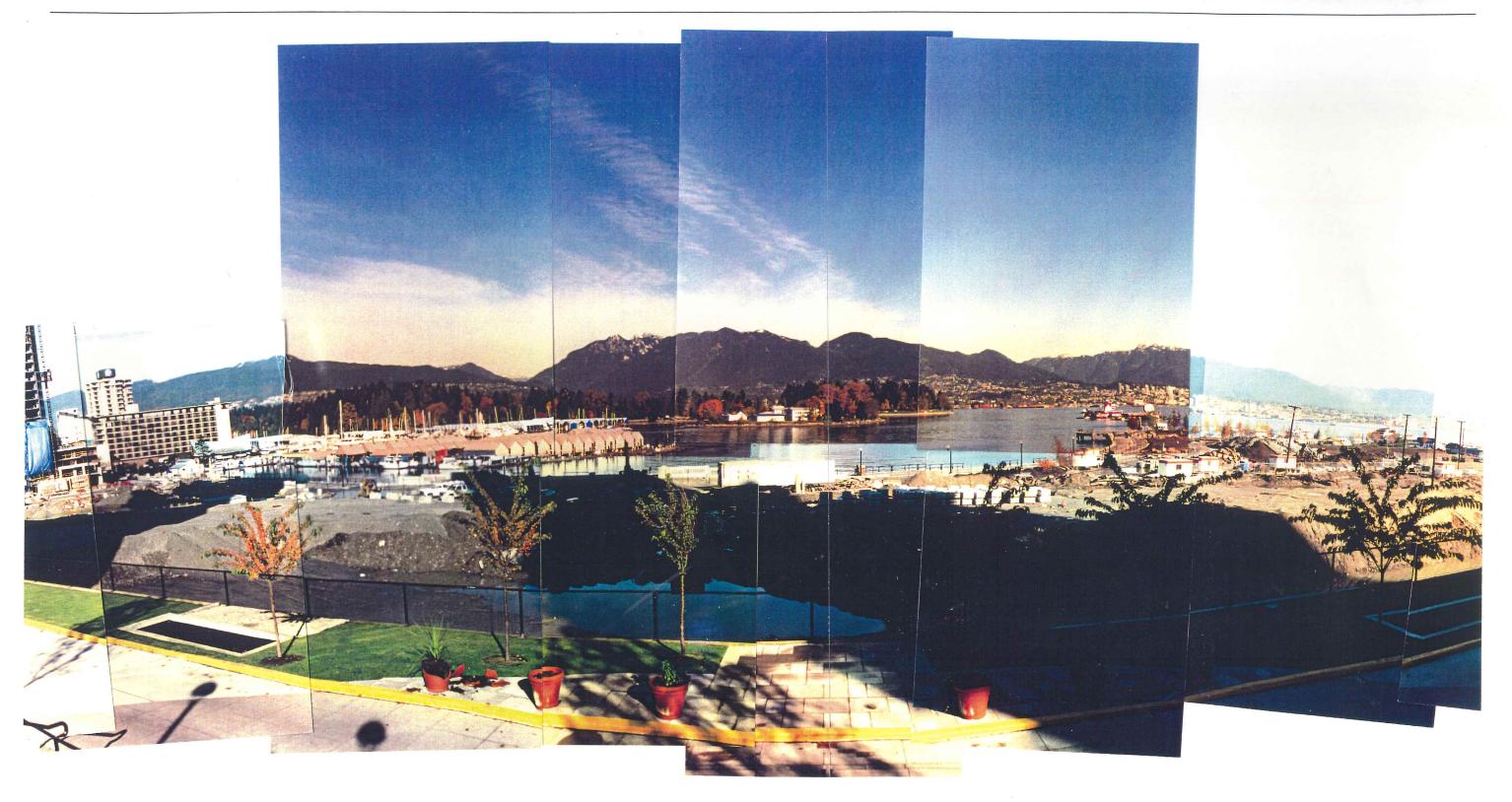
The site is an irregular shape and slopes down toward the water-front about 4.5 m from Hastings Street to the seawall on Broughton, and about 4.5 m from the end of Cordova Street to the seawall. The eastern boundary of the site, Jervis Street, slopes approximately 3.0 m down from Hastings Street north to Cordova.





SITE CONTEXT, TOWARDS SOUTH

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SITE CONTEXT, TOWARDS NORTH

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5.0 HISTORY OF THE SITE

General History of Coal Harbour

Ten thousand years ago when the 1500 meters of ice that covered the Burrard Inlet receded, the area looked geologically much the same as it does today. The landscape was one of grey glacial clays and erratics overlying black and brown bedrock which were polished by the forces of moving ice. With the passing of time, nutrient rich soils formed atop of the barren rock, eventually giving rise to the great coniferous forests of the region.

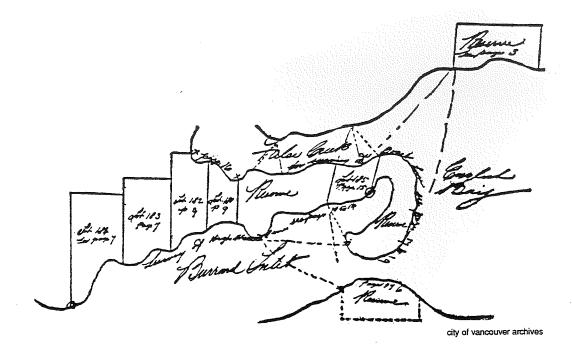
Prior to the arrival of the Europeans at the Strait of Georgia in the 1700's, the peninsula that is now Vancouver's "West End" was settled by the Coastal Salish Indians. A large settlement existed within the bounds of what is now Stanley Park. "Whoi Whoi", as this settlement was called, is said to have housed upwards of 2000 men, women, and children. The fish and shellfish of the sea, along with the indigenous bird and animals, provided a plentiful food supply. By the 19th century a shell heap, 8 feet deep and covering acres in area, had collected near "Whoi Whoi". Often 100 or more dugout canoes could be seen on the shores near the settlement. Potlatches of 2000 took place here both before and after the arrival of the Europeans.

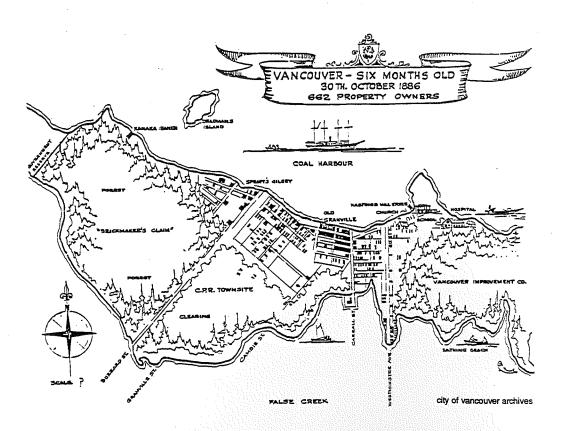
When Captain Vancouver sailed into the Burrard Inlet in 1792 he was met by, as he called them, "these good people who showed much understanding and conducted themselves with great decorum and civility". It is said that the indigenous peoples greeted Captain Vancouver, by "throwing snow white down feathers, which rose, wafted in the air aimlessly about, then fell like flurries of snow to the waters surface, and rested there like white rose petals scattered before a bride".

"Squit-sahs" to the Salish, or "Deadman's Island" to Europeans, was a sacred place to both races. Here the natives used to put to rest their dead in canoes which they suspended from trees. White men later used this island as a burial ground, burying many on the small island until 1887. Prior to the opening of Mountain View Cemetery, Stanley Park was proposed as the site for what was to become Prospect Cemetery.

The settlement of non-indigenous peoples in the vicinity of Coal Harbour began around 1860. Prior to this date European settlement had been restricted to the then town of Granville. In 1862 William Hailstone, Sam Brighouse and John Morton laid claim to what is now the West End of Vancouver. "Lot 185", as the claim became known, stretched from Burrard Street to Denman and from English Bay to Coal Harbour. The 550 acres was granted to the three men for the sum of 114 pounds sterling. The current Coal Harbour development by Marathon is situated within this claim.

The first legal description of this land was noted within a survey of the peninsula in 1863, showing its location and common boundary with the Government reserve which was later to become Stanley Park. (See adjacent drawing.)





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Squatters began to occupy the area of Coal Harbour in the early 1860's. Perhaps the most famous of these squatters were Ehiu, a native Hawaiian, and his wife Mary, a Cowichan Indian. The land the Ehiu's lived on was known as Kanaka Ranch, and was located at the end of Denman north of Georgia.

By 1884 real estate values bordering Coal Harbour began to escalate, forcing squatters to move on. Squatter's huts on Deadman's Island were burnt and real estate representatives began to pressure the Ehiu family to vacate their home of thirty years. In 1899 this pressure turned to violence as a real estate broker burnt three dwellings at Kanaka Ranch, and advertised the land for sale.

By the end of the 19th century, the property in Coal Harbour had begun to be used for industrial enterprises. With the building of the Pacific Coast Lumber Company Mill the city grid was extended to meet the water. At this time the land west of the mill was subdivided into sixty-six foot lots.

In 1887 the Canadian Pacific Railway line was extended from Port Moody to Coal Harbour. However, the original station at Granville and Cordova Streets was not the western terminus of this line. A "spur line" ran along Canadian Pacific land, west past Cardero and onto the Pacific Coast Lumber site. The exact western termination point of the CPR line on the mainland remained on the site until recently.

During the following years the area began developing into a mixed industrial site, servicing mainly the marine sector. Boat builders, marine electrical and repair shops flourished. The floating docks that sprang from these industrial sheds connected the operators to their clientele, as well as providing valuable rental space. Alongside the service shops co-existed canneries and a houseboat community. Over time a rich economic and built environment grew. The shallow waters of the harbour were gradually infilled and by 1913 the original shoreline was lost.

Airmail service was ushered in near the floats of the Vancouver Rowing Club. In 1919 the first airmail to leave Canadian soil was carried to Seattle by Mr. W.E. Boeing. In later years Boeing would build a seaplane manufacturing plant in Coal Harbour.

In 1922 the Coal Harbour bridge to Stanley Park was transformed into the Park Causeway. This new land separated the original harbour into two bodies of water. "Chul Wal Ulch" or "the bay that goes dry" of the native Salish became our Lost Lagoon of today.

East of Cardero, on the Port Roadway, one can still see a small outcropping of the original built fabric of the area. The life expectancy of these buildings is short. The withdrawal of Canadian Pacific Rail from the area has placed this valuable property under control of Marathon Realty. The Marathon Lands Project will transform the waterfront of this area.

With the loss of these remaining industrial sheds, the City loses its final link with the history of Coal Harbour, and our generation will have deposited new land over old, burying the foundations of our collective past.



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5.0 HISTORY OF THE SITE (cont'd.)

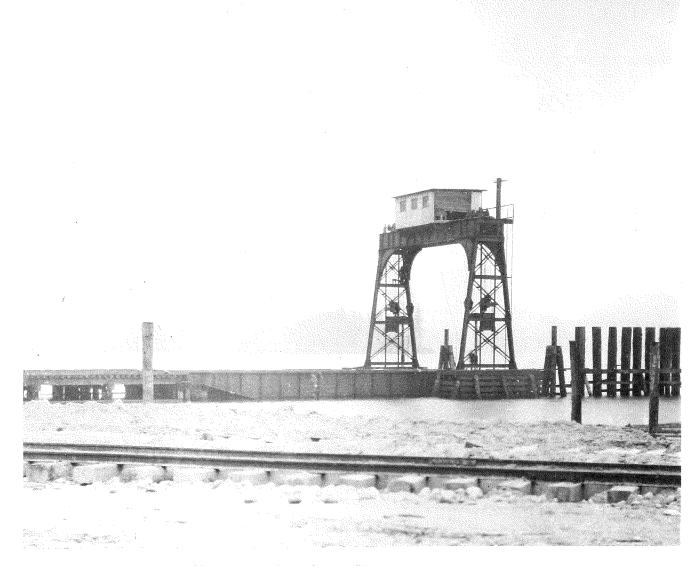
History of the Marina Neighbourhood Site

The site of the proposed mixed-use development is part of the "Marina Neighbourhood". The following "capsule history" of the Marina Neighbourhood as prepared by the City of Vancouver Planning Department describes the development of the site from the early 1900's:

The southerly boundary of the site follows a low relief escarpment which demarcates the original high water level. The site has been largely created by filling operations at various times. By 1910 the present area of tracks was largely in place. The rail lines were surrounded by lumber storage areas, both on raised wooden platforms and on fill. During the period 1930 to 1940, the former lumber storage area was extended seaward by filling and developed for a marina and ship building and repair yard. By approximately 1960 these yards were substantially closed, with the old buildings remaining and subsequently adapted for uses such as the Keg Boathouse Restaurant.

A portion of the site just north of the railyard was used as a tank farm for fuel oil storage from approximately 1910 to 1975. A shipping wharf and CPR transfer slip was developed adjacent the tank farm. The wharf was demolished in 1977 while the CPR wharf and ferry terminal continued to operate.

City of Vancouver Planning Department Marina CD-1 Guidelines, June 1995



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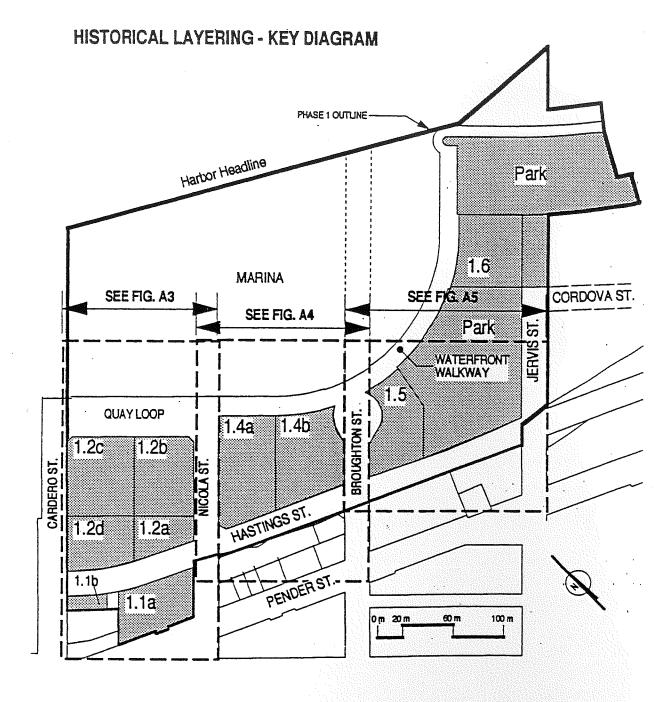
CIDCA 1007	COA Fuel Oil Tank
CIRCA 1897	C24 Fuel Oil Tank C25 Gasoline
A1 Floating Dock	
A1 Floating Dock A2 Boat Building	C26 Pump
A3 Boat NSR	CIRCA 1960
	CIRCA 1900
CIRCA 1912	D1 Lady Alexandra Shipyard
CINCA 1312	D2 Engine Repairs
B1 Pacific Coast Lumber Co.	D3 Machine Shop
(1910)/Bidlake Cedar Co.	D4 Auto
(1919)	D5 Office
B2 Pacific Coast Lumber Co.	D6 W.R. Menchions & Co. Boat
Wooden Platform (1910)	Building
B3 Dilapidated Houses (1919)	D7 Bel-Aire Shipyards (1930-60)
B4 Fuel Oil Unloaders	D8 Unknown
B5 Vancouver Dredge (1919)/	D9 Woodward's Marine Store/
Pacific Coyle Navigation Co.	Storage
Ltd. (1925)	10 Marine Eng.
B6 Coal Bunkers	D11 Unknown
B7 Fuel Oil Tank (1912)	D12 Wright Shipyard
B8 Fuel Oil Tank (1912)	D13 Aitken Shop
B9 Fuel Oil Tank (1912)	D14 Office
	D15 Machine Shop
	D16 Woodworking
CIRCA 1925	•
C1-C4 Unknown	CIRCA 1991
C5 Marine Repairs	
C6 Office	El Pub
C7 H & B Machine Shop	E2 Boat Building & Repair
C8 Autos	E3 Marine Electric Sales
C9 Watchman	E4 Dry Dock
C10 Winch Ho	E5 Boat Moorage
C11 Unknown	E6 Keg Restaurant
C12 W.R. Menchions & Co.	E7 Boathouse Marine Supply Store
C13 Columbia Works	& Offices
C14 Unknown	E8 Yacht Sales & Charter
C15 Boat House	E9 Transport Truck & Trailer
C16 Unknown	Parking
C17 Floating Dock	E10 Yacht Sales
C18 Wright Shipyards	Ell Air Dock
C19 Grain Door Repair Shop	E12 Air Terminal
C20 Aitken Tug & Barge Co.	E13 Office Barge/Yacht Charter
C21 Roat Houses	

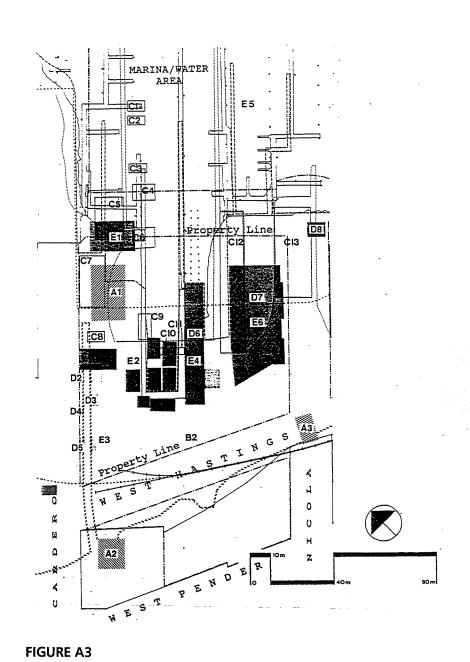
C20 C21

C22

Boat Houses

Machine Shop Diesel Fuel Tank





GEORGIA

FIGURE A4

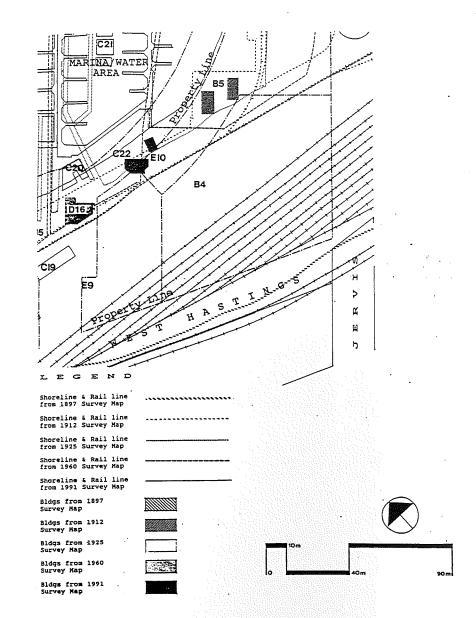


FIGURE A5

6.0 ZONING

The proposed development is covered under CD.1 (365) 301 Jervis Street, Bylaw No. 7677.

Particular provisions of this By-law include:

Permitted Uses

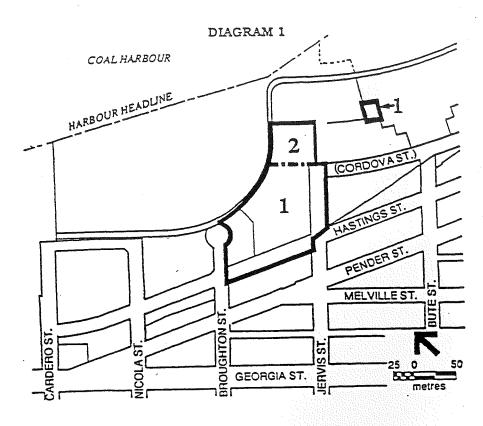
- 3. (a) Dwelling units, not exceeding 21,951 m2 in total gross floor area, provided separately or in conjunction with any of the listed uses, provided that
 - (i) a minimum of 25 units (but not including the units provided under clause (ii) below) must be for family housing, all of which must be designed in accordance with the Council-adopted "High-Density Housing for Families with Children Guidelines", and
 - (ii) a minimum of 40 units must be provided through government funded program, targeted for core-need households or of such other non-market housing programs or initiatives as Council may generally define or specifically approve from time to time, all of which must be designed for family housing consistent with clause (i) above.
 - (b) Cultural and Recreational Uses.
 - (c) Institutional Use, but not including Detoxification Centre, Hospital and School University or College.
 - (d) Office Uses. (permitted but not part of this application)
 - (e) Parking Uses.
 - (f) Retail Uses. (permitted but not part of this application)
 - (g) Service Uses. (permitted but not part of this application)
 - (h) Accessory Uses customarily ancillary to the above uses.

Sub-Areas

4. The district will comprise 2 sub-areas, approximately as illustrated in Diagram 1. This application deals only with sub-area 1.

Floor Area and Density

- 5.1 The total-floor area for Residential Uses must not exceed Maximum Total Floor Area of 21,951 m2 (FSR).
- 5.5 The total floor area (FSR) for sub-area 1, Residential Use, must not exceed 4,170 m2. Any use permitted by Section 3, but not listed in this section is not limited by this sub-section. In the case of this report, uses not listed for sub-area 1 in this section include school, daycare, community centre, parkade, and retail / office / service uses.
- 5.6 The maximum number of dwelling units allowed in sub-area 1 is 40.



Height

6.1 The maximum building height measured from the building grade on Broughton Street for subarea 1, but excluding the mechanical penthouse and roof, is 30 metres.

Parking

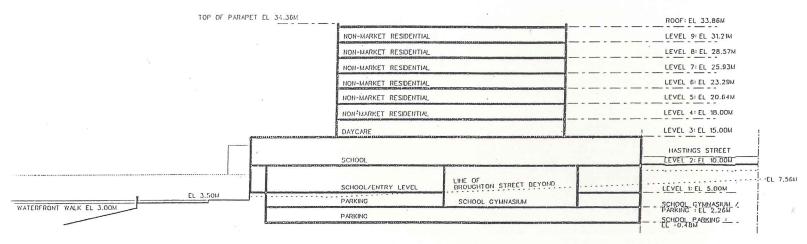
- 8. Off-street parking must be provided, developed and maintained in accordance with the applicable provisions of the Parking By-law, except that:
 - (c) dwelling uses, not including units designated for core-need or seniors housing, must provide a minimum of 0.9 spaces for each dwelling unit plus 1 space for each 200 m2 of gross floor area, with a maximum of 1.1 spaces for each dwelling unit plus 1 space for each 125 m2 of gross area except that no more than 2.2 spaces for each dwelling unit need be provided.
 - (d) recreational and cultural uses must provide parking as determined by the Director of Planning in consultation with the City Engineer.

7.0 PREVIOUS PLANNING

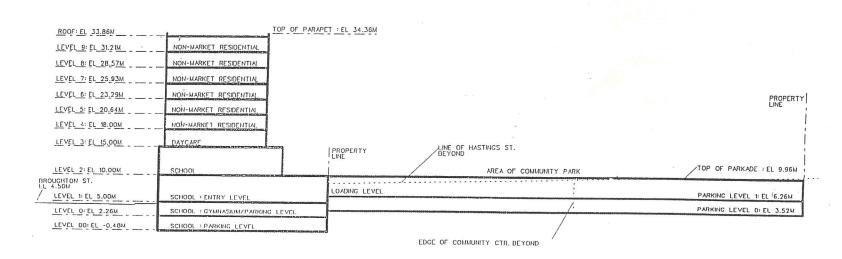
Previous Master Planning was done by The Hulbert Group and finalized July 20, 1995, prior to the Adopted CD-1 Guidelines of November, 1996.

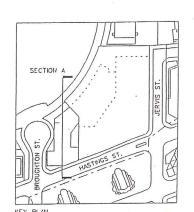
The Hulbert scheme placed the school, daycare and non-market housing in a stacked configuration on Parcel 1.5 and the community centre and large parkade below the neighbourhood park on Parcel 1.1. The non-market housing had a floor plate of 755 sq. m., and a total of 6 floors set above the daycare and school. The initial intent was to provide independent parking for each of the two parcels. Parcel 1.5 was to have +/- 42 cars below the school, to serve the housing above. Parcel 1.1 was intended to have +/- 174 cars on two levels, serving the daycare, community centre and school. The front doors of all four uses were accessed off the Broughton Street round-about.

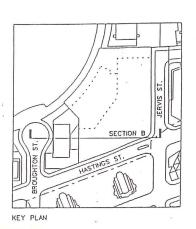
Refer to Section A-A and B-B below, and Level 0 and Level 1 drawings on the following page.









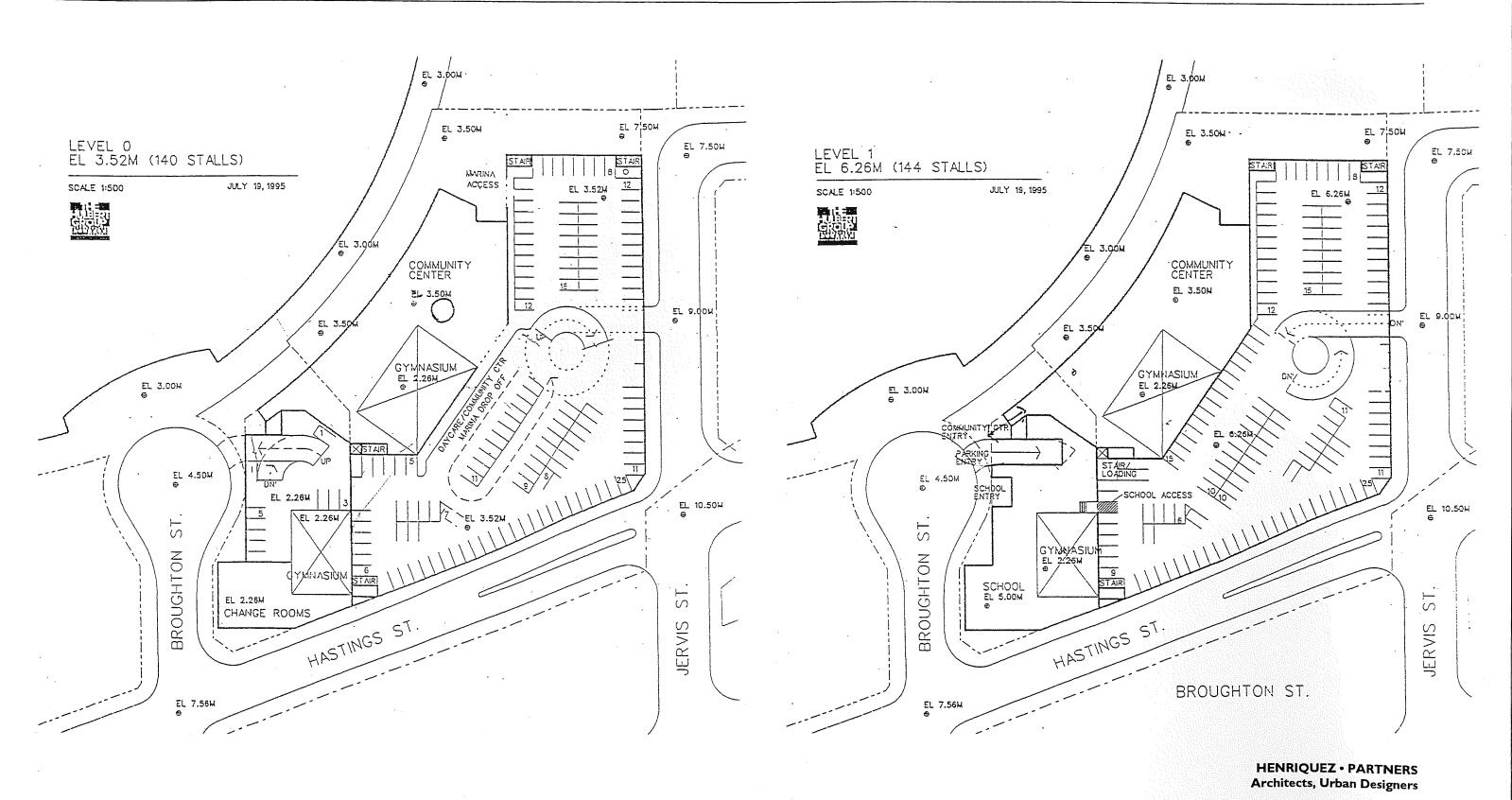




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SECTION B-B





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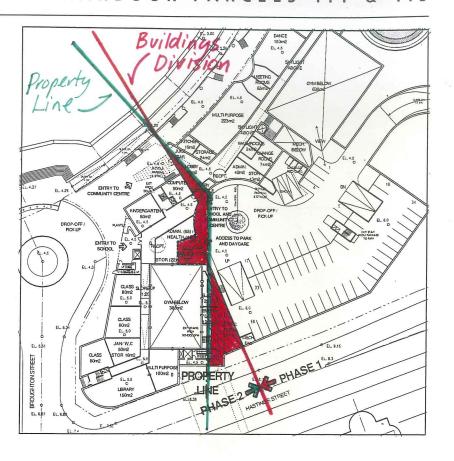
8.0 PROPOSED DEVELOPMENT

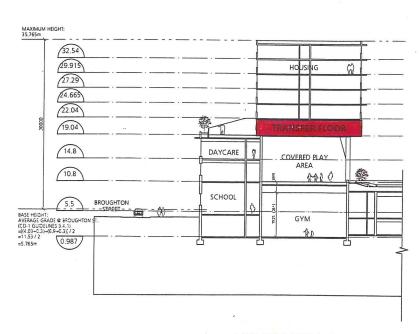
The proposed development follows the intent of the CD-1 Guidelines, and is in compliance with the CD-1 zoning. This current proposal has the same generic program as envisioned in the Master Plan of July, 1995. There are three major deviations, noted below.

- 1. The two parcels 1.1 and 1.5 were previously conceived as self-sufficient. The various program components are now more unified and interdependent. During the 11 month programming and preliminary design process it became evident that the existing lot lines were not enabling the interface between the two sites. Thus the proposed development has both programs overlapping onto both sites. Refer to the following two relationship diagrams illustrating the park level and the parking / grade access points and component links. Also, parking which was initially intended to be on Parcel 1.5 (for the non-market housing) is now incorporated in the lowest level of the parkade below the Harbour Green Park on Parcel 1.1.
- 2. The program has a non-market housing project placed above a school which has an underground gymnasium. In order to transfer the load of the housing tower around the gymnasium, a structural transfer floor is required. To efficiently facilitate this, the location of the tower must be directly above the gymnasium. The result is a 3 meter high transfer floor above the daycare level, and a relocated tower, not previously accounted for in the master planning process. The tower now has a slightly larger floorplate of 800 sq.m. to accommodate the program of 40 units, and still adheres to the 30 m height requirements of the zoning.
- 3. The Guidelines envision all four of the Parcel 1.1 and 1.5 uses entering off the Broughton Street drop-off area. As the schematic design unfolded, it became apparent that relocation of the entrances and exits was necessary in order for the school to have an efficient floor layout, and for each use to have an identifiable front entry. The results were:
 - The community centre and school share the Broughton Street drop-off area, and pedestrian entry to both the community centre and school are off the Broughton Street roundabout.
 - The daycare drop-off area is in the parkade, and pedestrian access is off the park, through an entry pavilion integrated into the east facade of the school.
 - The housing component's pedestrian entrance is off of Hastings Street. Pedestrian access is also available from the parkade, from the area of 40 security-gated parking stalls on the lowest level of the parkade.
 - Vehicle access to the parkade remains off Jervis Street for all cars entering the site. Pedestrian access to the parkade is from each program component, and also through a pavilion on the edge of the park over the parkade.

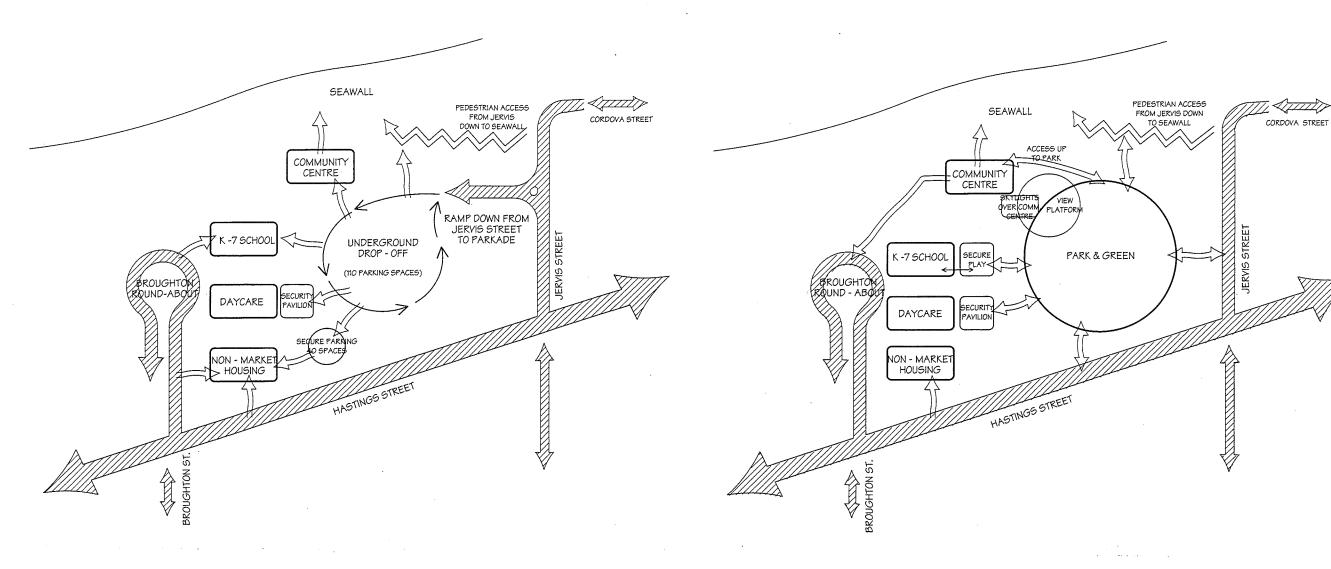
Phasing

The parcel will be developed in two phases, as originally intended. Phase 1 is the community centre, park and parkade, and is intended to have construction start-up taking place in early 1998. Phase 2 is the school, daycare, and housing components, and will follow once funding has been secured, and the Vancouver Schoolboard has a neighbourhood of children. Alternate interim uses are being explored for the school portion of the program so as not to impede construction of the daycare component which has funding in place from Marathon, and the non-market housing which would require provincial funding.





PROPOSED DEVELOPMENT (continued)



RELATIONSHIP DIAGRAM: Parking / Grade Access

RELATIONSHIP DIAGRAM: Park Access

9.0 ALTERNATE SCHEMES

Previous Master Planning, completed July 1995 by The Hulbert Group. Tower of 6 floors for housing, floor plate area of 755 m2, and height of 30m. No structural transfer floor was accounted for. A floorplate of this size, with the structural transfer floor, and meeting the height requirements would only accommodate 34 housing units. Refer to Section 7.0 of this report for details.

Scheme 2: This application. Five floors of housing, floor plate area of 800 m2, above a 3m structural transfer floor. The tower is relocated further south to accommodate integration with the uses below, and shaped to decrease view blockages from behind, toward the waterfront. The tower is within the 30m height restriction and provides 40 units of housing.

Scheme 3: Similar to Scheme 2, except the height of the tower is increased to 33 m to accommodate the 3m transfer floor. Scheme 3 has a smaller floor plate area (685 m2), which is lower than the Scheme 1 area, and still provides 40 units of housing.



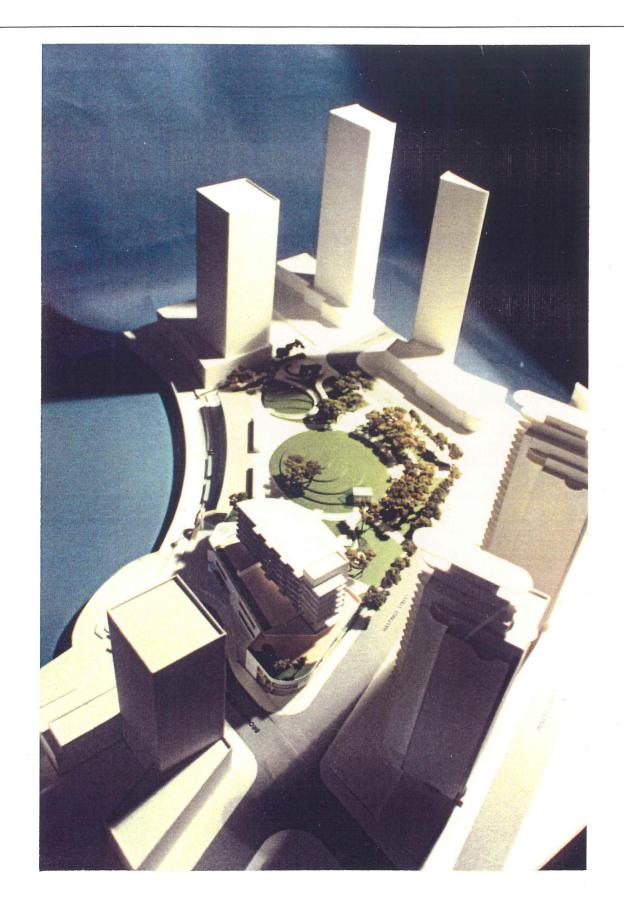
SCHEME 1



SCHEME 2 Preferred Scheme



SCHEME 3



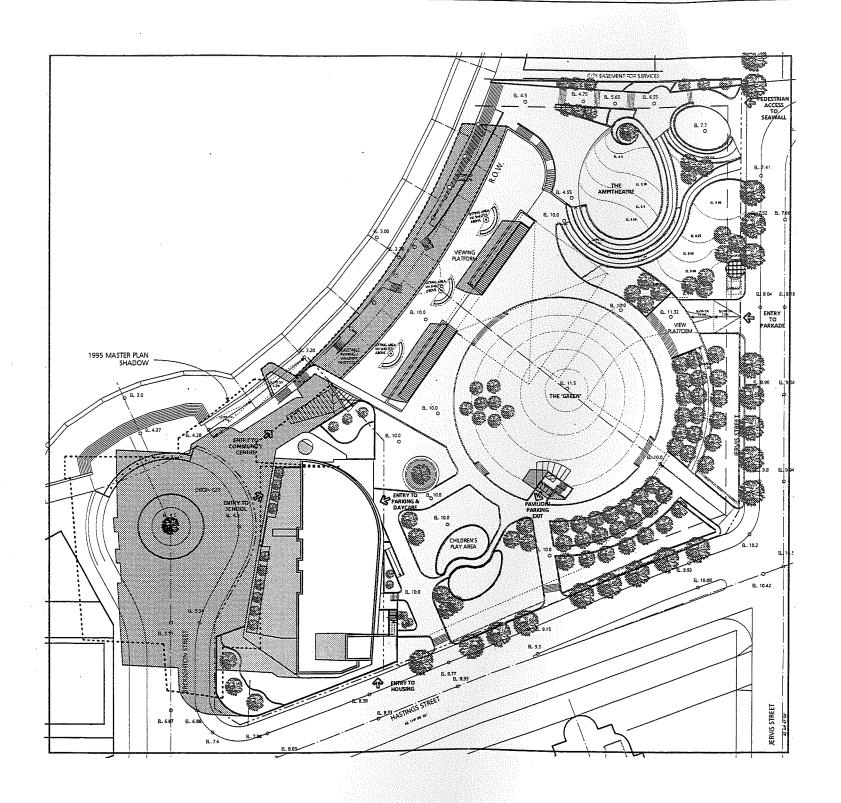
10.0 SUNLIGHT AND SHADOWS

Much of this proposed development is underground, with the main impact on sun / shadow being the housing component. The following drawings represent the sun / shadow analysis done:

- Coal Harbour Housing Alternate 2 (preferred) + Previous Master Plan Shadow Study, September 21 / March 21, 10:00 am Shadow Study, September 21 / March 21, 12:00 noon Shadow Study, September 21 / March 21, 2:00 pm
- Previous Master Plan (Alternate Scheme 1)
 Shadow Study, September 21 / March 21, 10:00 am
 Shadow Study, September 21 / March 21, 12:00 noon
 Shadow Study, September 21 / March 21, 2:00 pm
- Coal Harbour Housing Alternate Scheme 3
 Shadow Study, September 21 / March 21, 10:00 am
 Shadow Study, September 21 / March 21, 12:00 noon
 Shadow Study, September 21 / March 21, 2:00 pm

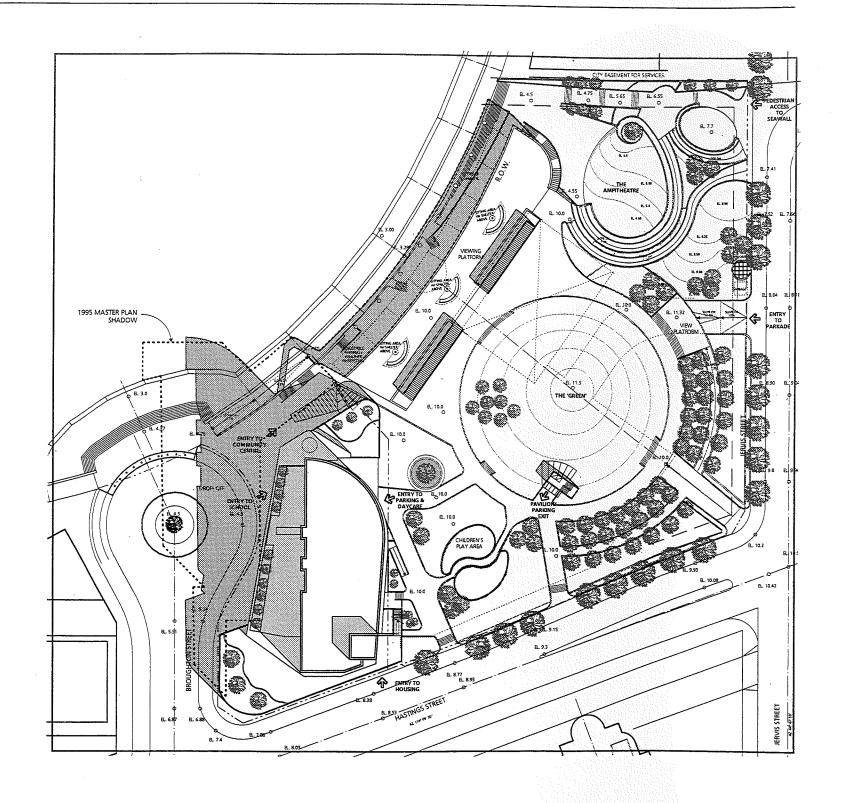
Conclusions reached by the analysis are that the proposed development equals or improves upon the performance of the previous Master Plan.

SHADOW STUDY FOR PREFERRED SCHEME 2 AND THE PREVIOUS MASTER PLAN 10:00 am, March 21 / September 21



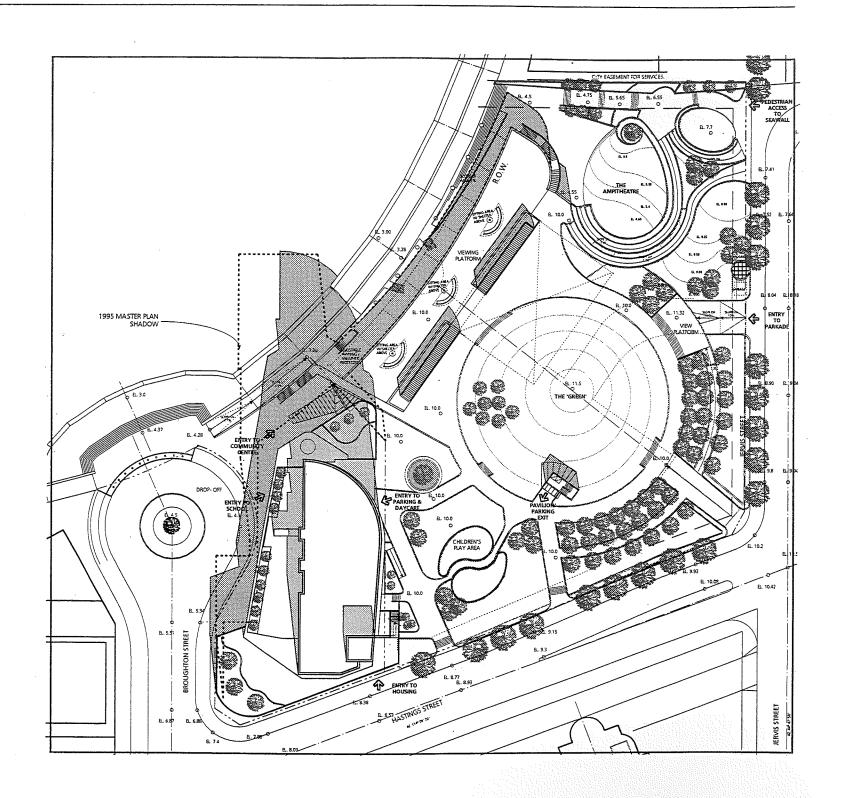
HENRIQUEZ • PARTNERS
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SHADOW STUDY FOR PREFERRED SCHEME 2 AND THE PREVIOUS MASTER PLAN 12:00 noon, March 21 / September 21



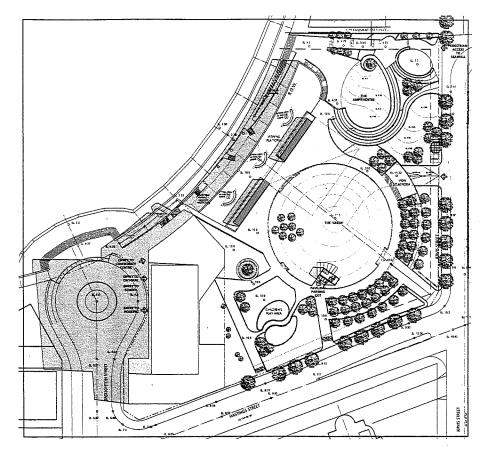
HENRIQUEZ • PARTNERS Architects, Urban Designers

SHADOW STUDY FOR PREFERRED SCHEME 2 AND THE PREVIOUS MASTER PLAN 2:00 pm, March 21 / September 21

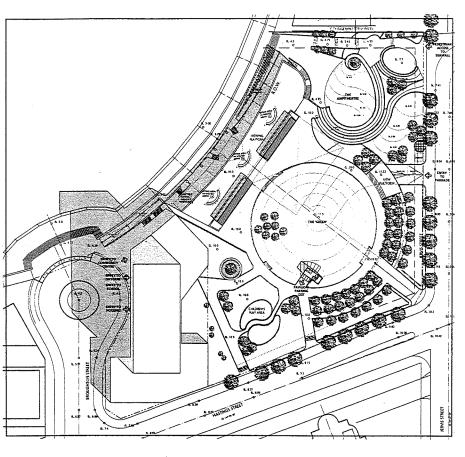


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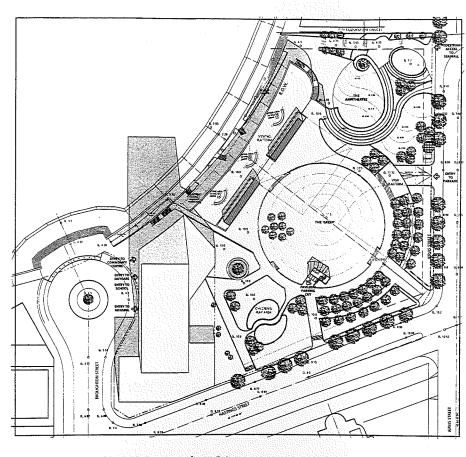
SHADOW STUDY FOR PREVIOUS MASTER PLAN



10:00 am, March 21 / September 21

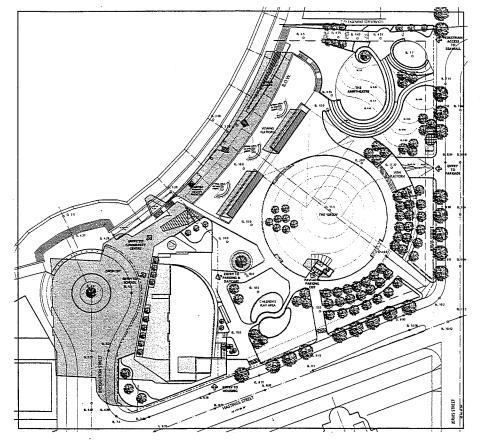


12:00 noon, March 21 / September 21

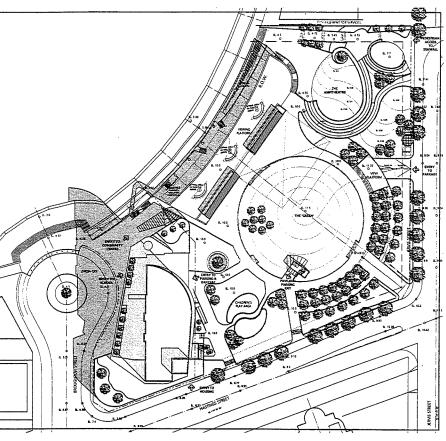


2:00 pm, March 21 / September 21

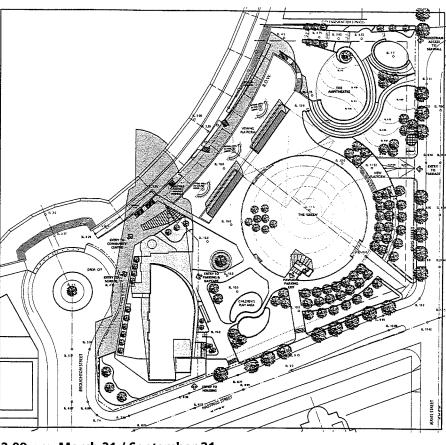
SHADOW STUDY FOR ALTERNATE SCHEME 3



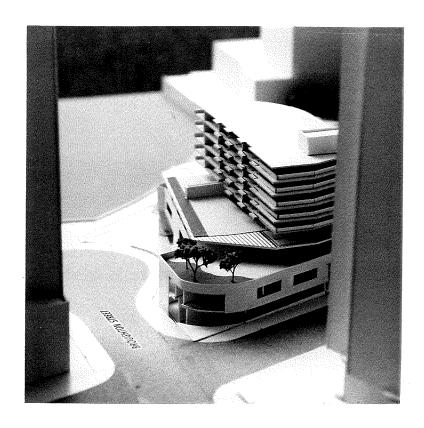
10:00 am, March 21 / September 21



12:00 noon, March 21 / September 21



2:00 pm, March 21 / September 21



11.0 VIEWS

The potential for views maintained or blocked is mostly impacted by the housing component of the project. The following comparison chart and drawings are the result of the analysis of the previous Master Plan, the impact of Scheme 2 (preferred scheme) and Scheme 3.

Drawings include:

• Previous Master Plan:

Sum of Views Maintained

Sum of Views Blocked

• Alternative Scheme 2, five floors (preferred scheme):

Sum of Views Maintained

Sum of Views Blocked

• Alternative Scheme 3, six floors:

Sum of Views Maintained

Sum of Views Blocked

The average residential unit views blocked by the Preferred Scheme (alternative 2) are slightly increased by 1.85°, and residential views maintained are slightly decreased by 1.34°, which is almost not detectable.

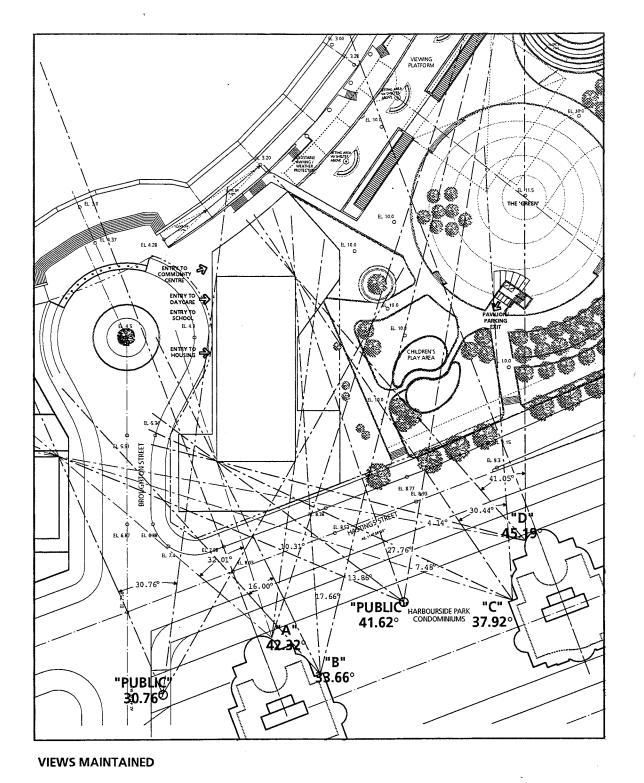
The average of public views blocked is slightly increased by 2.75°, and public views maintained have actually been increased (improved) by .86°. Thus, th overall difference in public views is a net loss of 1.89°, which is again not a substantial number.

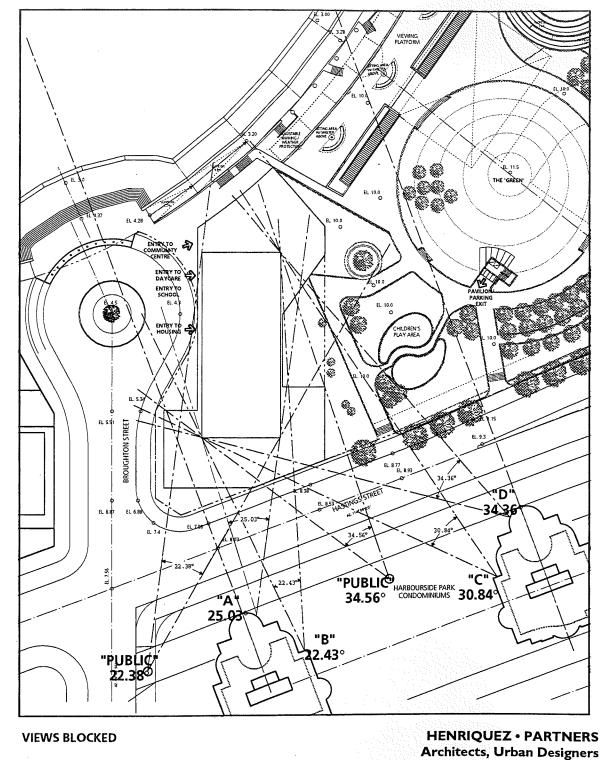
The conclusion reached by the analysis is that there is no significant difference between the previous Master Plan diagram or the preferred scheme in terms of the impact on public and private views.

VIEW COMPARISON CHART

	VIEW ANGLES BLOCKED			VIEW ANGLES MAINTAINED		
	SCHEME 1 PREVIOUS MASTER PLAN	SCHEME 2 PREFERRED SCHEME	SCHEME 3	SCHEME 1 PREVIOUS MASTER PLAN	SCHEME 2 PREFERRED SCHEME	SCHEME 3
# FLOORS UNITS	6	5 + 1 TRANS	6 + 1 TRANS.	6	5 + 1 TRANS	6 + 1 TRANS.
Α	25.03°	26.04°	24.54°	42.32°	43.46°	43.90°
В	22.43°	22.62°	21.33°	33.66°	33.46°	36.13°
С	30.84°	33.43°	31.04°	37.92°	35.33°	38.95°
D	34.36°	37.95°	35.20°	45.19°	41.59°	44.34°
TOTAL RESIDENTIAL	675.96°	720.24°	784.77°	955.20°	923.04°	1143.24°
RESIDENTIAL UNIT AVERAGE	28.16°	30.01°	28.03°	39.80°	38.46°	40.83°
PUBLIC 1	22.38°	24.41°	23.59°	30.76°	35.96°	36.78°
PUBLIC 2	34.56°	38.04°	35.85°	41.62°	38.14°	40.33°
TOTAL PUBLIC	56.94°	62.45°	59.44°	72.38°	74.10°	77.11°
PUBLIC AVERAGE	28.47°	31.22°	29.72°	36.19°	37.05°	38.55°
GROSS FLOOR PLATE m2	755	800	695	755	800	695
HEIGHT	30.00 m	30.00 m	33.00 m	30.00 m	30.00 m	33.00 m

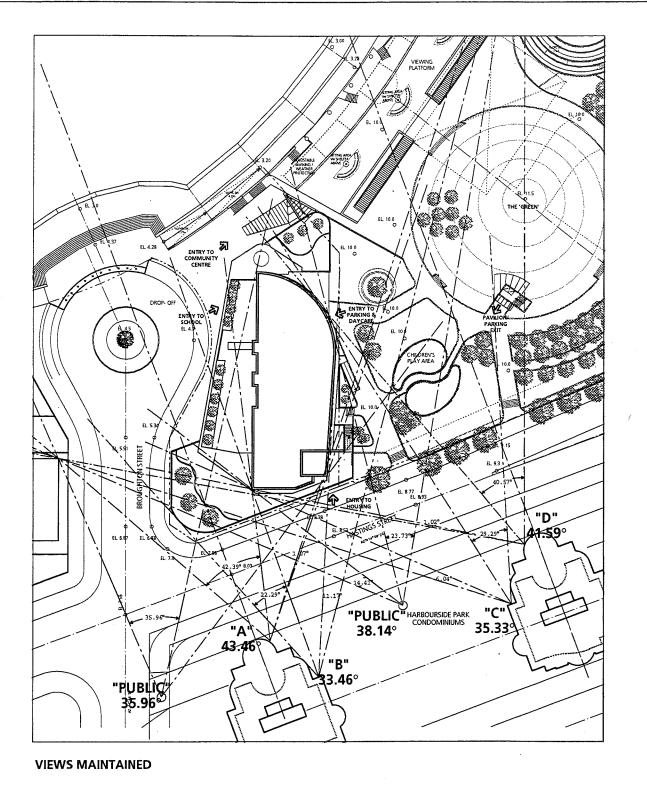
PREVIOUS MASTER PLAN

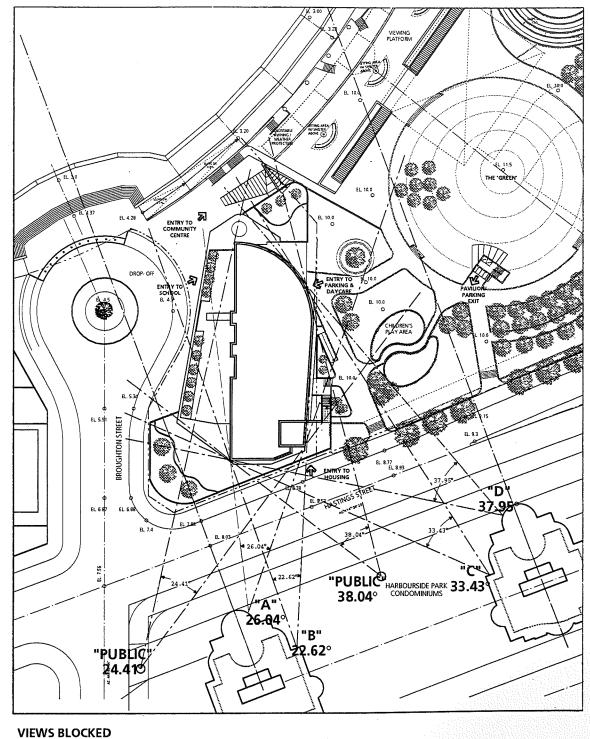




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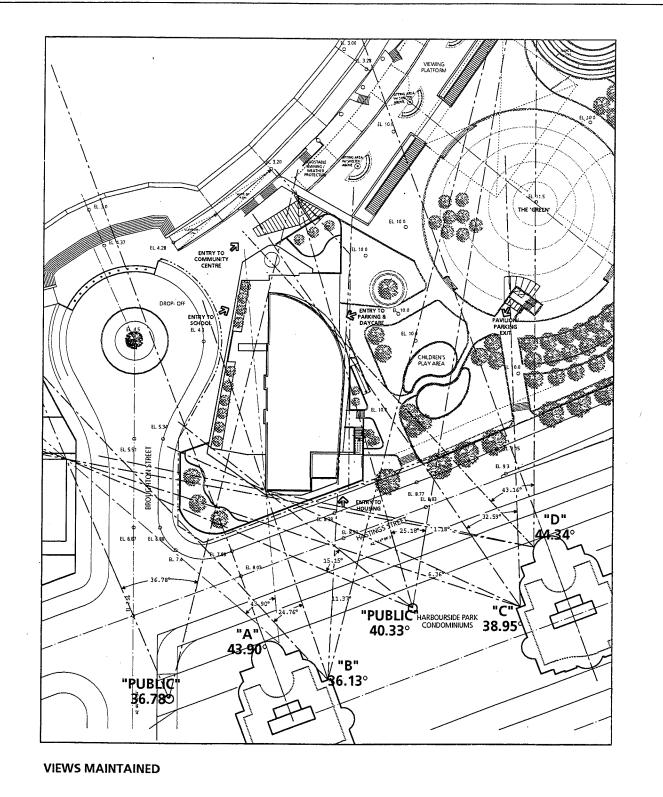
ALTERNATE SCHEME 2 (Preferred Scheme)

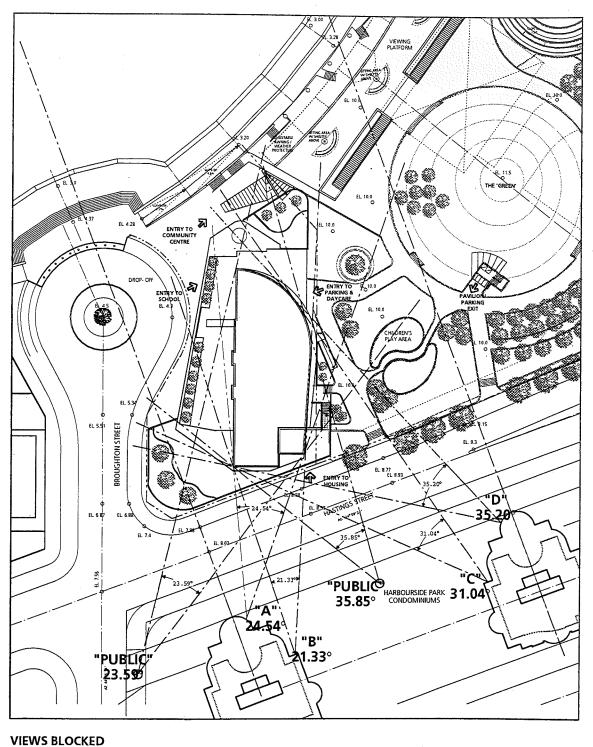




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ALTERNATE SCHEME 3





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12.0 INTERPRETATION OF CD-1 GUIDELINES

12.1 Organizing Principles

- a. To animate the waterfront with the presence and activity of the Community Centre and the Harbour Green Park along the marina edge.
- b. Integrate the building with the City by acknowledging both the City grid and the diagonal line of Hastings Street.
- c. Respect public and private view corridors and conform to heights set to limit shadows on public spaces. Detailed analysis of views is included in Section 11.0 of this report.
- d. Provide a diverse grouping of community facilities.
- e. Provide amenities, open space and livability for all residents and children. Harbour Green Park will serve all local residents and visitors, while green amenity decks are provided for both the daycare and the non-market housing.
- f. Increase public access to the waterfront for all including young, old, and the physically challenged. There has been an increase in handicapped ramps at the northern access point where Jervis meets Cordova.

12.2 Siting

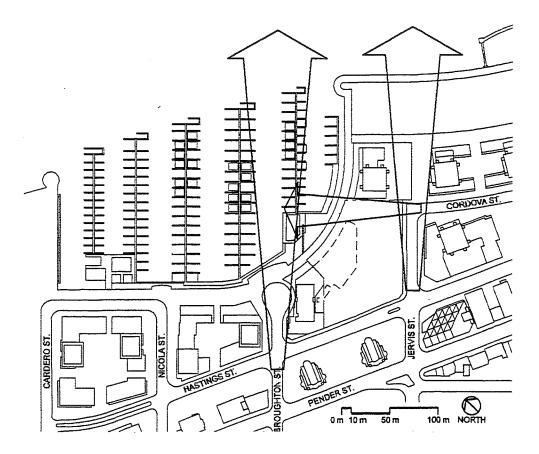
The location of the building form adheres to the form of development approved in principle by Council. The street base (school and daycare) of Broughton is continuous, as outlined in the Guidelines.

12.3 Building Orientation

The lower building element (the community centre) is parallel to the seawall / waterfront, while the non-market housing respects the established street grid.

12.4 Views

The building mass has been located to respect the various public, semi-public and private views. The five degree street view-end corridors have been respected. Refer to the following diagram from the Guidelines, and to Section 11.0 of this report.

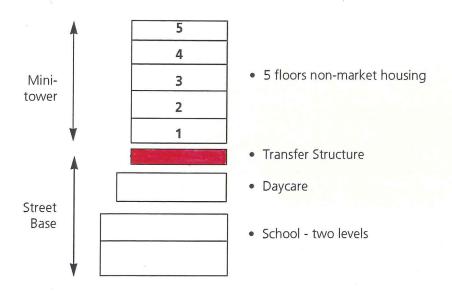


12.5 Height

The maximum height of 30 meters for Parcel 1.5 has been respected and the mass of the tower located slightly north-east to better improve sunshine to ground level, access to the housing component of the program, and to respect adjacent public and private views. (Refer to Section 11.0 of this report.)

12.6 Vertical Building Issues

The building on Parcel 1.5 is 30 meters in height with 3 program elements.



The school and daycare comprise the streetbase zone and are designed to express the scale of the activities. The intention is to use a warm brick / masonry skin which will be contrasted by feature street entry canopies. The top of the street edge is defined by the daycare which provide a cornice to the school below.

The mini-tower (6 floors) then steps back and is orientated to the city grid, and curved at the northern edge to better permit views through from the residential towers and public spaces to the rear.

12.7 Architectural Expression

It is proposed that the building have a maritime theme, where both the non-market housing and the community centre have "ship-like" appearances. This is contrasted with the traditional street base facades of primarily brick along Broughton and Hastings, and opening up with more glass along the seawall and in the tower element. Weather protection is to be provided at all "front doors" of each program area by way of steel and glass entry canopies, as well as covered recessed entries.

Continuous adjustable awnings are to be provided along the waterfront walkway. The goal is to provide flexibility in both programming of outdoor events which open up onto the promenade slightly above the seawall walkway, and also maximize light into the interior spaces on cloudy days.



12.8 Residential Livability

The 40 non-market residential units are intended to be family-oriented. There are two outdoor spaces for providing play areas for children. The private deck / play area is on the east side of the building above the daycare and has the 6-storey housing above, meeting the intention of the Guidelines. There is also Harbour Green park to the east, which provides a specific Children's play area.

The amenities of this block of downtown Vancouver are excellent: a school, daycare, after school care, community centre and park comprise the program, and the waterfront walkway is at one's doorstep.

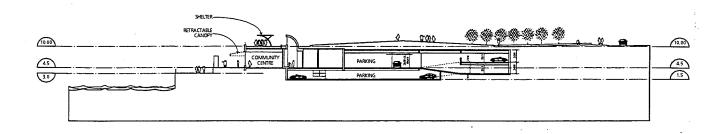
12.9 Disabled Access

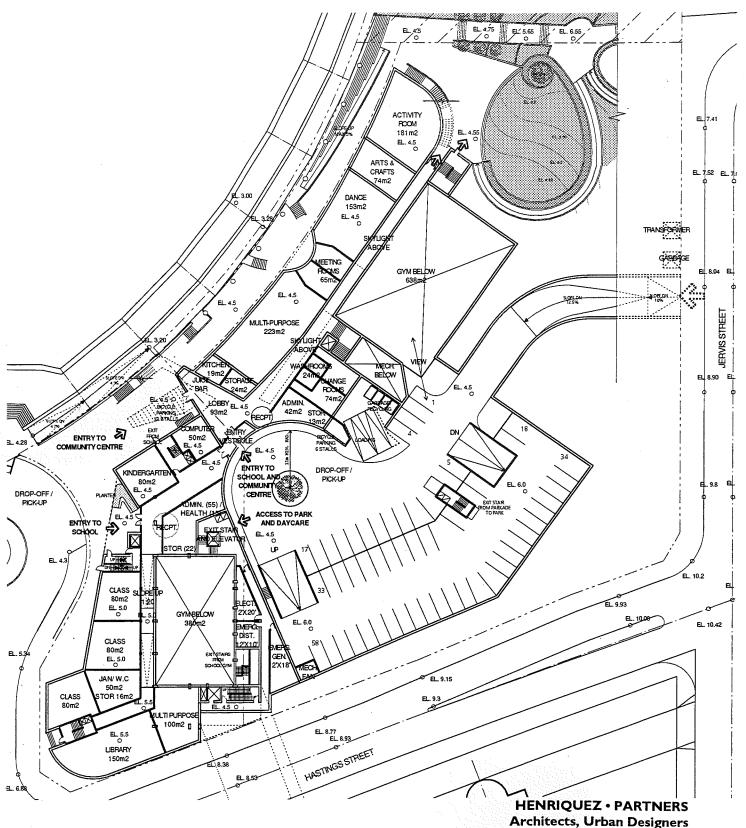
The needs of the physically challenged have been carefully considered. All public and private realms are accessible and provide clear linkages to the surrounding neighbourhood.

12.10 Parking and Loading Access

Parking is accessed off Jervis Street, with the intention to clearly separate the public institutional visitor from the residential parking which will be located at the lowest level of the parkade. Each program area has its own parking entry for pedestrians, which will be clearly evident in a spatial sense, and also well delineated with thoughtful signage.

Garbage storage and collection, as well as loading, have been well considered. The loading, garbage storage and recycling bins will be below grade, with one collection point hidden in the same area as one of the electrical transformers, within the entry ramp off the Jervis Street parking entry.





13.0 LANDSCAPE CONCEPT

The Community Park at Coal Harbour makes several bold design gestures that embrace, celebrate, symbolize and reinforce its place in the Coal Harbour neighbourhood fabric.

The initial conceptual gesture symbolizes the notion of community by delivering a "circle" footprint as the major focus to the park. Reinforcing the circle is a triple row of large scale deciduous trees on the street side which embrace the community circle and reinforce the parks orientation toward the harbour.

The circle is connected to the community centre and parking level by a stair. This connection reinforces the opportunity for programmed use by the centre and the school.

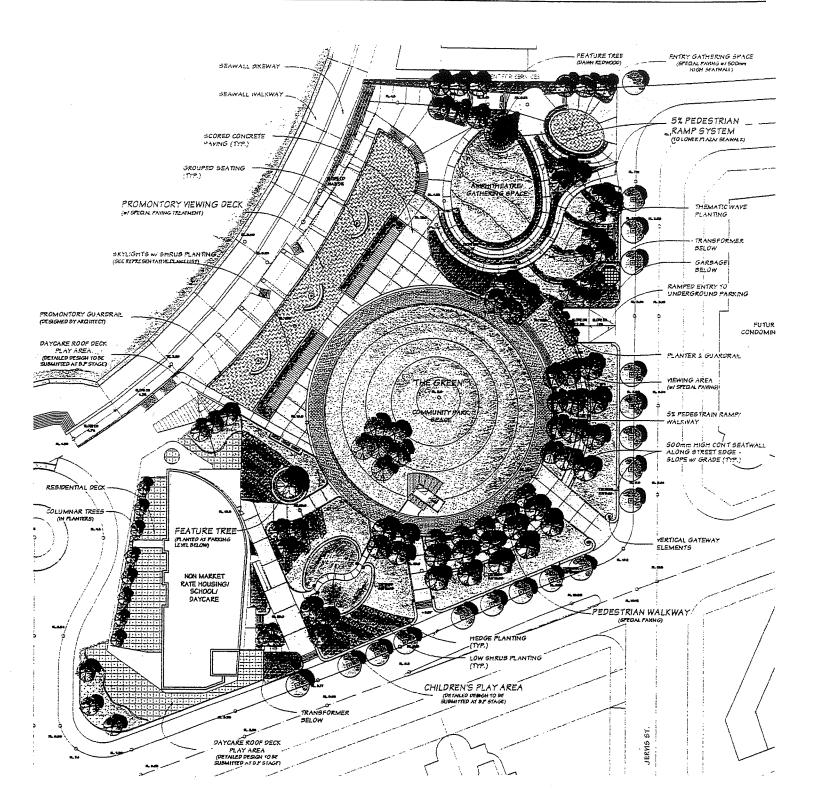
Connection is symbolized by the creation of an opening in the park floor for thee planting of a large deciduous tree (Pin Oak - Quercus palustris) at the community centre and school drop off level below. Juxtaposed to this tree is the planting of a large coniferous tree (Dawn Redwood - Metasequoia glyptostroboides) at the outdoor theatre area on the opposite side at the waterfront theatre.

Pedestrian connection from park and street level is celebrated by flowing pathways (maximum gradient 5%) which embrace the waterfront "agora" or "theatre". The theatre is visually and physically accessible from the main floor of the centre. This connection provides for increased programming use of the park by the centre. The ground plane of the theatre and adjacent upper slope area is contoured to create a wave-like pattern. This pattern is a conscious continuation of the art waves and historic shoreline established at Harbour Green.

The notion of wave-like forms and patterns is further reinforced in the children's play area. Planting bands of broad-leaved evergreen hedging, shoreline ornamental grasses and native-like shrub roses ensure year round texture, colour and form.

The play area is embraced by an architectural apron / seating edge that provides a sense of containment and safety.

This feature of a raised apron / seating edge is further developed along the park and street interface. This provides for continuous seating opportunities and minimizes the maintenance of lawn areas at this edge.



14.0 PROJECT DATA / AREA SUMMARY

Address:

301 Jervis Street

Vancouver, BC

Legal Description:

Part of Lot 13, District Lot 185, and of the Public Harbour of Burrard Inlet, Plan LMP 29891

Zoning:

CD.1 (365) 301 Jervis Street, Bylaw No. 7677

Site Area:

1.199 hectares

Component Areas:

Actual Gross Floor Areas

Allowable Areas

Community Centre

2,150 sq. m.

Not limited by zoning Not limited by zoning

School, K - 7 Daycare, indoor area Non-market Housing 3,100 sq. m. 806 sq.m. <u>4,844 sq. m.*</u>

Not limited by zoning 4,170 sq.m. (FSR area)*

Total

10,900 sq.m.

Height:

Actual

Maximum Allowable

30 m.

Actual

2 bays

30 m.

Parking:

Loading:

Actual Required

Community Centre 82 stalls
School 24 stalls for staff
Daycare 4 stalls for staff + drop-off

Discretion of Planning and Engineering Discretion of Planning and Engineering Discretion of Planning and Engineering Discretion of Planning and Engineering

Non-Market Housing

40 stalls

Total 150 stalls

stalls

Required 2 bays

Bicycle Stalls:

Actual

Required

Community Centre School, K - 7 Non-Market Housing 4 Class A, 12 Class B, 6 lockers 2 Class A, 20 Class B, 2 lockers 50 Class A, 6 Class B, no lockers 56 Class A, 38 Class B 4 Class A, 12 Class B, 6 lockers 2 Class A, 20 Class B, 2 lockers 50 Class A, 6 Class B, no lockers 56 Class A, 38 Class B

Total Stalls Provided Suite Distribution:

1-bedroom units 02 2-bedroom units 23 3-bedroom units 13 4-bedroom units 02

Total # units 92 40 - Actual

Total Maximum Allowable - 40

^{*} Gross floor area includes balconies, service areas, areas below grade. Therefore the FSR area for the housing portion application would be 4,170 sq. m. or less, which conforms to zoning.

15.0 BUILDING PERFORMANCE OUTLINE

15.1 Performance, Flexibility and Durability

The Coal Harbour Community Facilities are expected to be a long term addition to the neighbourhood. Consequently, the building design should be timeless and constructed of durable materials, allowing for flexibility and future adaptability.

15.2 Accessibility / Elevators

The design of the buildings must reflect universal accessibility and ensure that the facility serves all people including: the disabled, whether in wheelchairs, on crutches or sight impaired; parents with young children, daycare staff with multi-child strollers holding 4 to 5 children, and senior citizens unsure of their footing. Public circulation spaces, elevators, washrooms, etc. must be accessible by all. All areas should be designed in accordance with accepted standards and regulations for people with disabilities.

Cabs for elevators providing access to the daycare must be oversized with extra wide entry doors. City of Vancouver requirements for elevators and their on-going maintenance to be considered in specifying elevators for the Complex.

Interior space must be appropriately scaled to facilitate the movement of people while still maintaining a sense of comfort and intimacy. The layout of the building should be transparent and self explanatory, encouraging the participant's security, confidence, and comfort.

Within the Community Facilities there should be clearly identifiable traffic "corridors". A minimum aisle width of 2000 mm (6.5ft.) should be used in all public areas. Cross aisles should be a minimum of 1220 mm (4 ft.) wide. Corridor width within the school will have to be adjusted to suit the functional requirements (a minimum aisle width of 2100 mm is required when serving more than 2 classrooms).

15.3 Space Layout and Flexibility

The layout of spaces must be flexible enough to easily accommodate future program changes with non-structural alterations. Building elements with the least likelihood of change should be grouped together to ensure freedom of expansion and change of use in the remaining areas of the building.

The layout should accommodate the amount of circulation needed to comfortably and properly ensure integration of all facilities.

5.4 Codes and Standards

The building must conform to local and national building codes and standards for use as a public building. The Daycare modules should be designed to meet the requirements of the Community Care Facility Act - Childcare Licensing Regulation, the City of Vancouver Childcare Design Guidelines, and Public Health Regulations, Homes BC - Non-Profit Housing Development Guidelines, May 1996.

15.5 Security and Fire Safety Systems

The following concepts outline the principal security and fire safety systems anticipated for this building:

- The design of the facility should incorporate the concepts of "defensible space". It should be reviewed by the Police based on the issues identified by the Safer City Task Force.
- Particular attention should be paid in the parkade to measures which improve visibility, such as painting walls, colour rendition of lighting sources, clear sightlines, wayfinding signage, etc.
- Resistance to vandalism and graffiti should be a factor in the design of the building, furniture and equipment controls (for example limited access covers for pull stations, CO2 detectors, gate activation devices, etc.).
- The services of a security consultant may be retained to analyze security needs and develop a final security system.
- Consideration should be given to the safety of all persons using the facility, when deciding on a suitable security and fire safety system.
- The complex will be divided into separate buildings, and then into separate zones of use. Within each use, there will be sub-zones which need to be separately secured. For example, particular areas will need to have secured access for evening / weekend programming (i.e. Family Place / Child Minding, Multi Purpose Room, Kitchen and Gymnasium).3

15.6 Structural Requirements

The building structure will be based on a modular system. Structural bays should be sized to minimize obstruction and allow for flexible layouts while remaining cost-effective. An appropriate bay size should be selected to co-ordinate with the parking layout where appropriate. Adequate headroom in the parkade is essential, with attention paid to the design and installation of service lines such as sprinklers, ducts, water, power, etc. The parkade podium will be required to accommodate extensively landscaped areas above grade, in the park and in the future day care outdoor play areas. Columns should be designed with integrated conduits for electrical and communication cabling.

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13.7 Environmental Criteria

The increased use of a large number of technological equipment will place demands on the HVAC system. The temperature and humidity levels in the building should be:

Temperature: ± 20° - 25°
 Relative humidity: ± 40% - 10%

• Natural ventilation and access to natural light is encouraged where ever possible.

Coordinated by DDC.

• Mechanical cooling is to be provided only in special areas such as computer rooms.

13.8 Acoustics

Isolation is required for activity areas, daycare sleep areas, daycare outside play areas, confidential staff work areas, and service areas. Mechanical systems will be designed to meet appropriate acoustical standards. The services of an Acoustic Engineer will be used to determine specific construction requirements such as the use of sound absorbent materials on both the floor (carpet) and the ceiling in specific areas. Any large public space will require special acoustic provisions. Part of the engineer's work will be to minimize the acoustic impact of the gym on the adjacent residential property.

13.9 Refuse Disposal

Refuse disposal will make provision for separate systems for both recyclable and non-recyclable waste products even though, at this point in time, there is no recycling program. A similar system will be used for the school. Options being considered for non-recyclable refuse are private shuttling below grade and at grade pick-up by the City.

13.10 Janitorial

Janitorial services may be shared by some uses within the Project. Janitorial Rooms equipped with a sink and storage space will be provided at each floor level. There should be sufficient vandal-resistant hot and cold water hose bibs for janitorial use within the complex, and outside for uses such as washing decks, walkways and planters, and for outdoor water play in the Day Care facility. Provisions for window cleaning should be considered in the design of the complex.

13.11 Fenestration

Day lighting opportunities will be maximized where ever appropriate.

Where desirable, windows will provide visibility into the public activity areas of the buildings and will serve as an attraction to the passing public. They will also provide visual relief to those inside the building. The

amount of fenestration must be carefully gauged, balancing the advantages of visual continuity with the need for environmental control and a glare-free technical environment in most areas. Selected windows must be operable for ease of cleaning and for ventilation.

At the Daycare, the windows should be designed in such a manner as to avoid creating a safety hazard when opening out onto the outdoor play areas. The sill should be located at a suitable child's height, which will vary with the age group.

The school floor level will be raised at Broughton Street to discourage direct visual contact with the students.

13.12 Materials and Finishes

The selection of all materials and finishes must address the need for minimal maintenance, durability, health, and ease of cleaning. Painted surfaces or surfaces requiring waxing, polishing and other forms of special upkeep should be used sparingly. Acrylic Stucco panel systems will specifically not be used for perimeter wall construction.

Quality of finishes, materials and detailing will fit well with the Coal Harbour development. Trade warranties, guarantees and standards should be appropriate for a highly used civic facility. City Guidelines for the area will be applied.

13.13 Millwork

The millwork should have compatible finishes, details, and surfaces for the cabinets, work counters, etc., and also for special equipment items such as the registration / reception desk and free standing display cases. Refer to applicable standards for day care, for example, corners should be rounded to 1/2" radius in locations within the daycare / childcare areas where children might bump into them. Generally, millwork and hardware standards should be heavy-duty commercial appropriate for a highly used civic facility.

13.14 Ceiling Systems

Consideration should be given to a variety of ceiling systems which are integrated with the structural, spatial, lighting and sound absorption systems supporting the activities below. The minimum gymnasium ceiling height is 24 feet clear, including mobile curtains and partitions.

13.15 Mechanical Systems

Life cycle costs should be considered in choosing the mechanical system. Vertical shafts will be provided for the mechanical supply and return air ducts. These ducts will be concealed within the ceiling space horizontally. Ease of access for maintenance is important.

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In the Child Daycare Facilities, the mechanical system should be zoned to allow for different temperatures in the various areas. There should be no electrical baseboard heaters or exposed pipes / conduits. Special attention should be paid to ventilation in the napping and service areas such as the diaper changing areas.

Design of mechanical systems must consider the context of a highly urban setting where rooftops are overlooked. This complex should use DDC and Energy Management systems which are highly compatible with the existing systems used in city-owned buildings. Services to the separate uses throughout the Complex must be capable of being separately metered and conveniently controlled. Major service entrances to the site and service areas within the parkade (eg., water, power, fire panels, sewers telecommunications, etc.) should be sized to allow for future development of the school, daycare, and non-market housing. Provisions should be made for a central plant with adequate room to meet Code requirements for boilers, chillers, etc.

13.16 Plumbing Systems

Plumbing fixtures should be selected to reduce maintenance. Special measures such as drains, overflow sensors, water temperature controls, and sandtraps will be needed in various areas.

13.17 Electrical Systems

See mechanical systems above. Wiring throughout the complex should meet current standards for computer controlled systems. The incoming service should be underground, complying with the City of Vancouver's requirements. The light switches and outlets should be mounted to ensure easy access by people with disabilities and to protect children. A dedicated "clean" power source will be provided for computer use in the school. Wiring to be a minimum Category 5.

13.18 Lighting Systems

Lighting will be of critical importance for staff and user comfort, general spatial definition, highlighting of signage and the general ambiance of the building. Different types of lighting systems would be used to provide visual relief and variety, as well as suitability to specific functions. The lighting should be designed to minimize work surface glare. The number of different types of lighting fixtures should be kept to a minimum and the ease of retubing should be a major consideration in fixture selection. Natural light should be utilized where ever possible.

Within the daycare, two systems of lighting should be provided - incandescent and fluorescent, with separately switched dimmable incandescents for naptimes, and a separately switched area lighting system.

Night lighting and emergency lighting systems should be separate from general lighting patterns and switched separately. The night lighting should provide for illumination at all times, even when the building is closed to the public. This system should also provide for safe staff and user egress.

Exterior lighting is required for the safety of the users. Consideration should be given for the location and protection of fixtures to prevent vandalism.

See mechanical systems above. Concepts of separate metering of uses, convenient placement of controls, and sizing of service entrances and areas apply.

13.19 Bicycle Parking / Storage

Bicycle parking will be provided at grade in the vicinity of the lobbies. Additional bicycle parking and storage will be provided below grade, in close proximity to the Entry/Exit Ramps. Bicycle storage will conform to the City of Vancouver Bicycle Parking Requirements and Design Guidelines.

13.20 Common Services Below Grade

See mechanical and electrical systems above. Concepts of separate metering of uses, convenient placement of controls and sizing of service entrances and areas to code requirements apply. The mechanical, electrical, and telephone service rooms will be located in the area below grade, adjacent to the parking. In addition, storage space will be required for small site maintenance equipment and materials. Non-market housing and the daycare will also require some bulky storage areas below grade for facility maintenance equipment, etc. The school will require additional service space (approx. 4% of the building area) that should be easily accessed. It will be built at the same time as the parking allocated for the school's use.

13.21 Landscaping

Provide a minimum 2% slope for lawn areas and 0.75% slope for paved areas. Lawn areas should not exceed a 25% slope. Provide an automatic irrigation system as required for exterior areas. The daycare facility will include extensively landscape play areas above grade to be serviced by an automatic sprinkler system, and well as vandal resistant hose bibs for outdoor water play and cleaning.

13.22 Park Board Construction Standards

Park Board Construction Standards will be adhered to.

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DRAWINGS

A0.01 Con	text	Plan
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- A1.01 Park / Site Floor Plan
- A1.02 Basement Plan
- A1.03 Main Floor Plan
- A1.04 School Upper Floor Plan
- A1.05 Daycare, Transfer, 1st, 2nd & Typical Floors
- A2.01 Sections
- A2.02 Sections
- A3.01 Seawall and Hastings Street Elevations
- A3.02 Broughton and Jervis Street Elevations
- L 1 Community Park / Daycare Landscape Plan

Drawings for Preliminary Development Permit Application

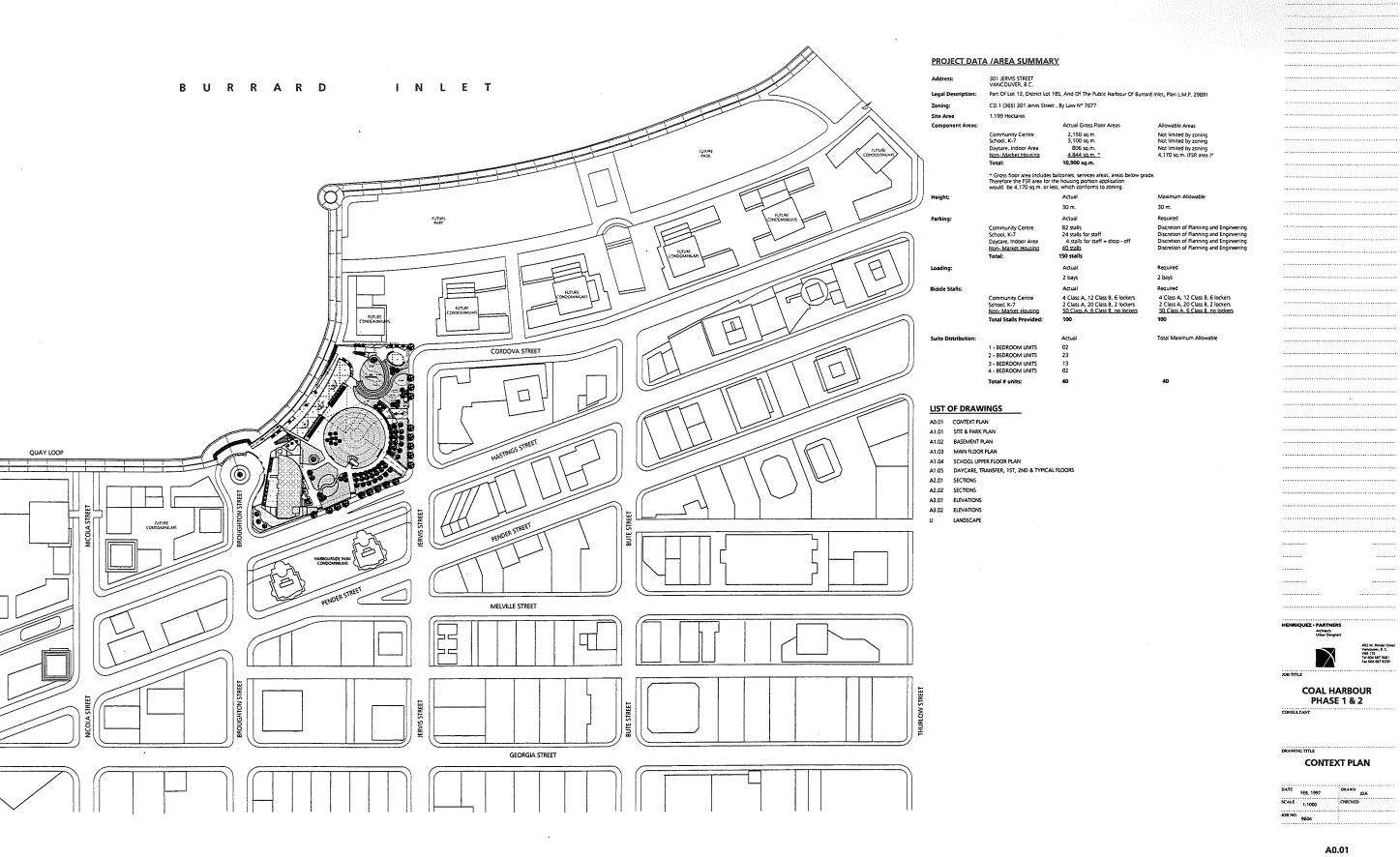
PROPOSED
MIXED USE DEVELOPMENT
COAL HARBOUR PARCELS 1.1 & 1.5

for

City of Vancouver

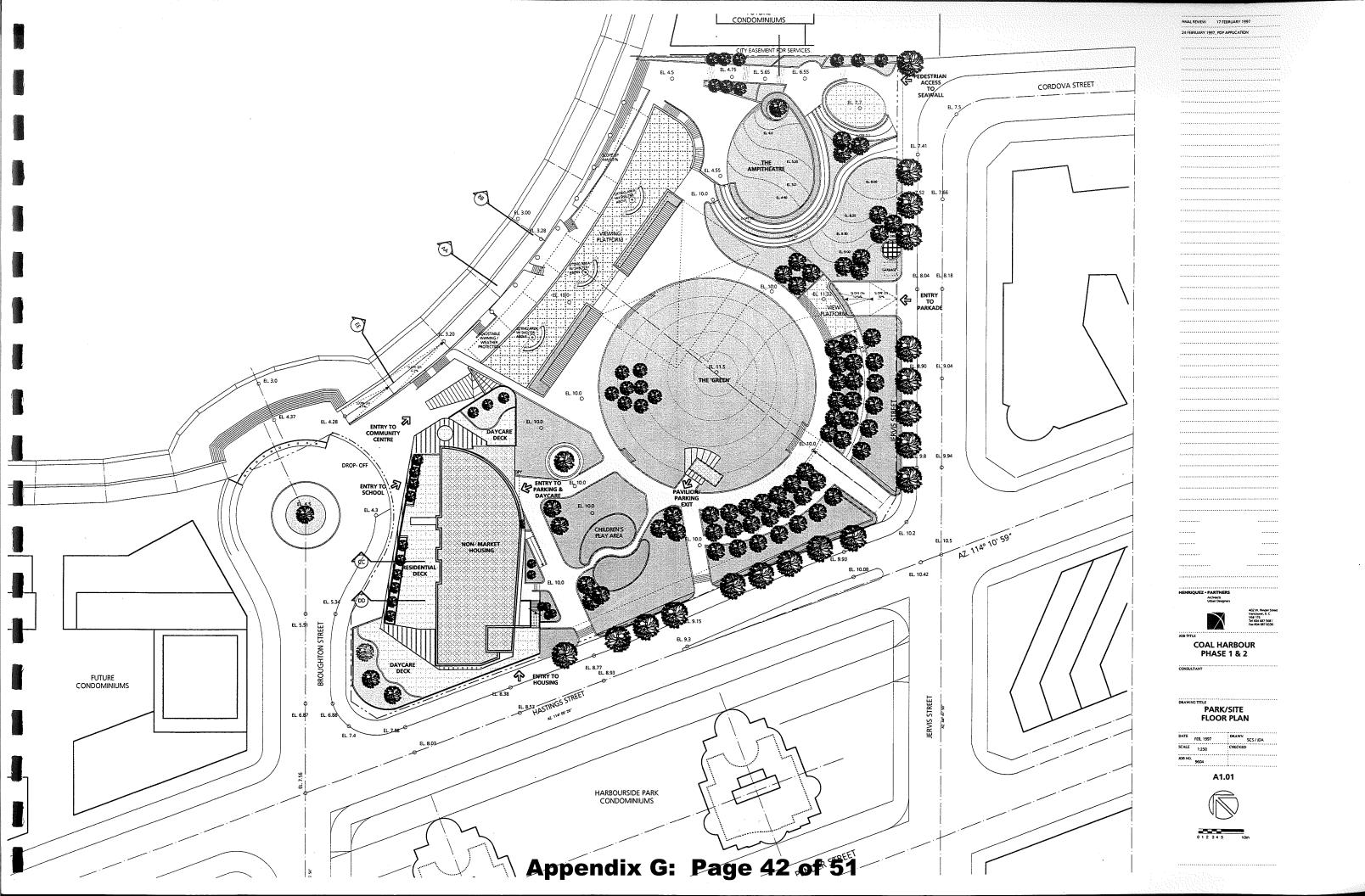
February 24, 1997

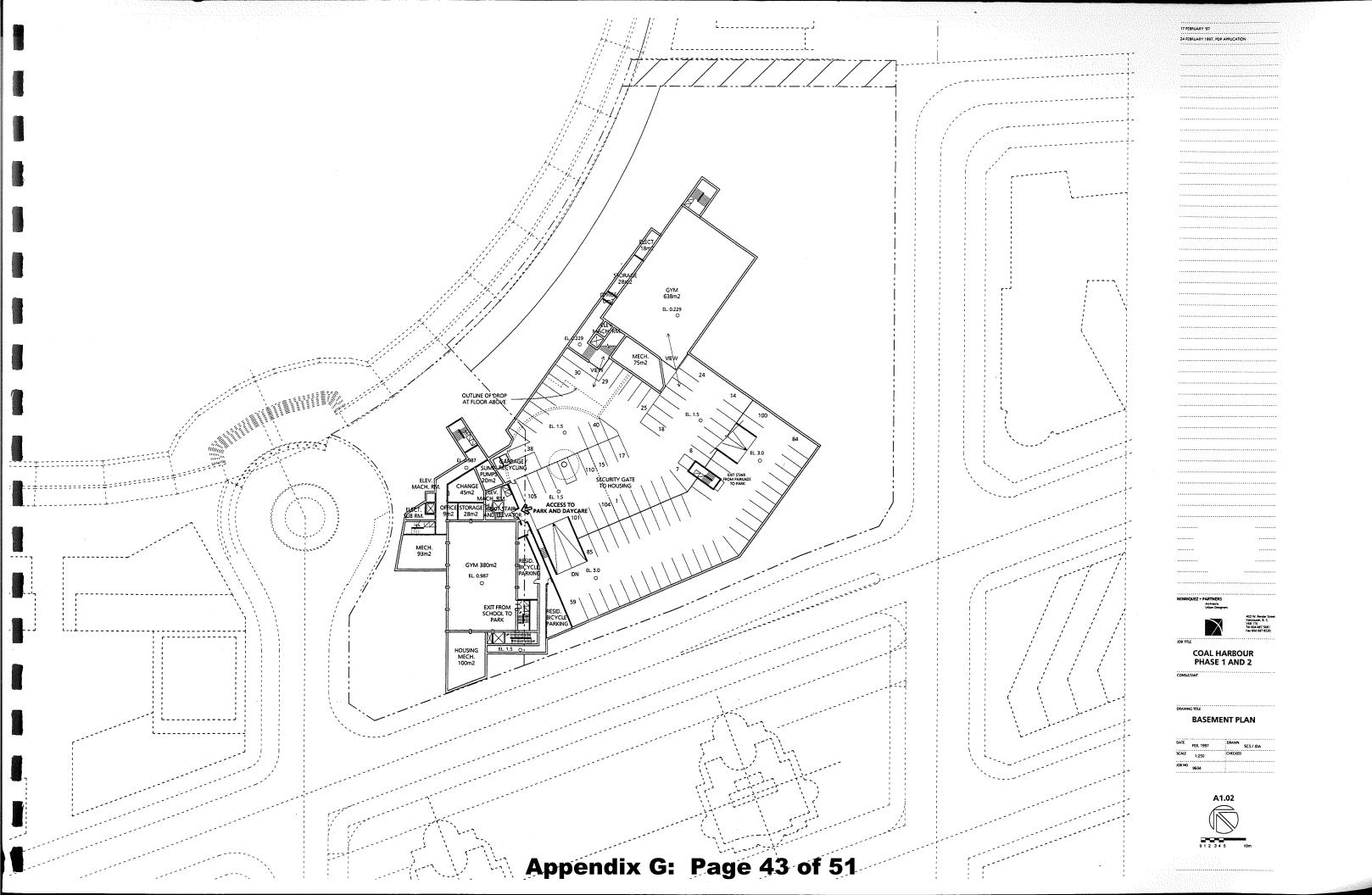
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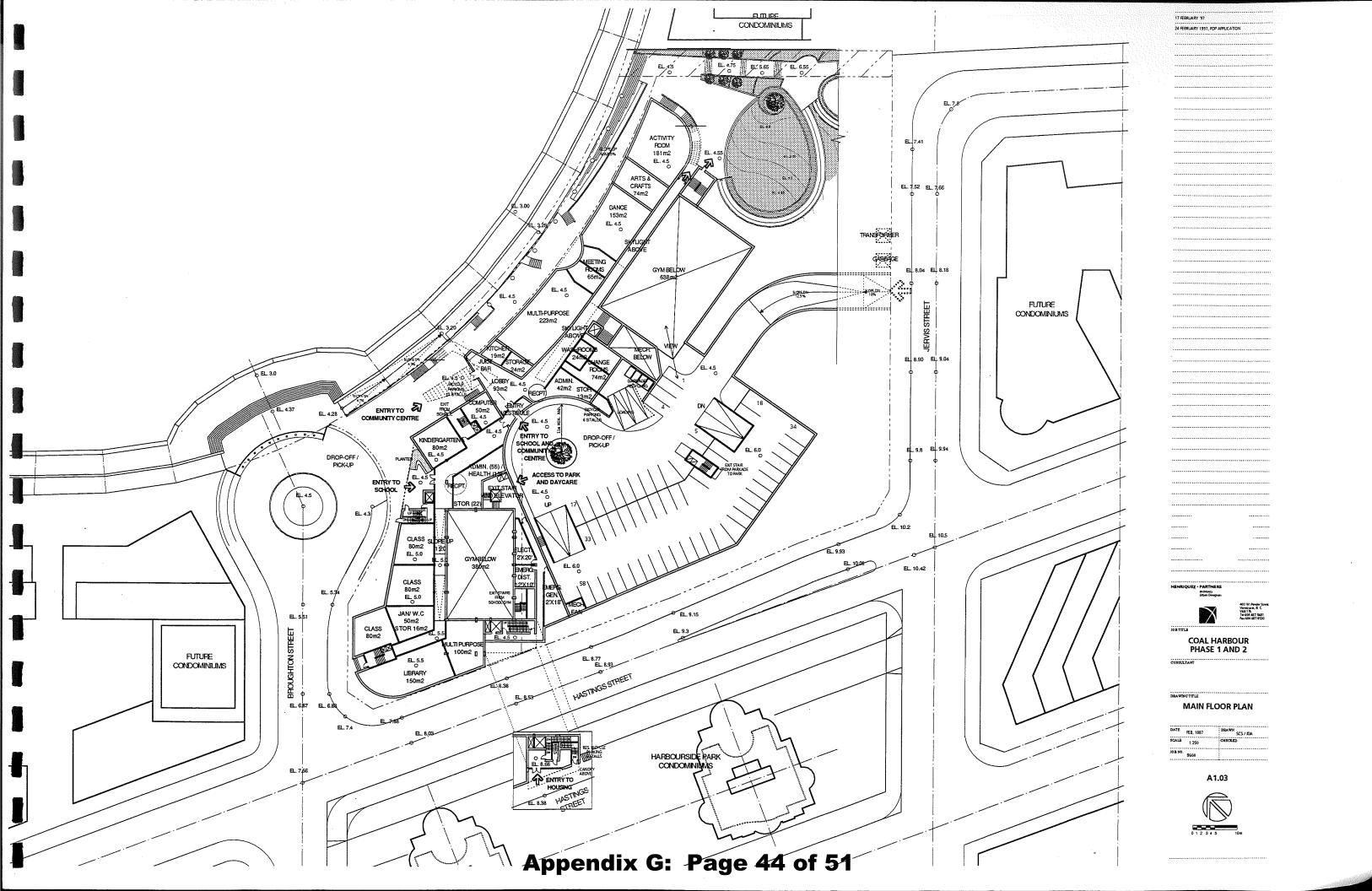


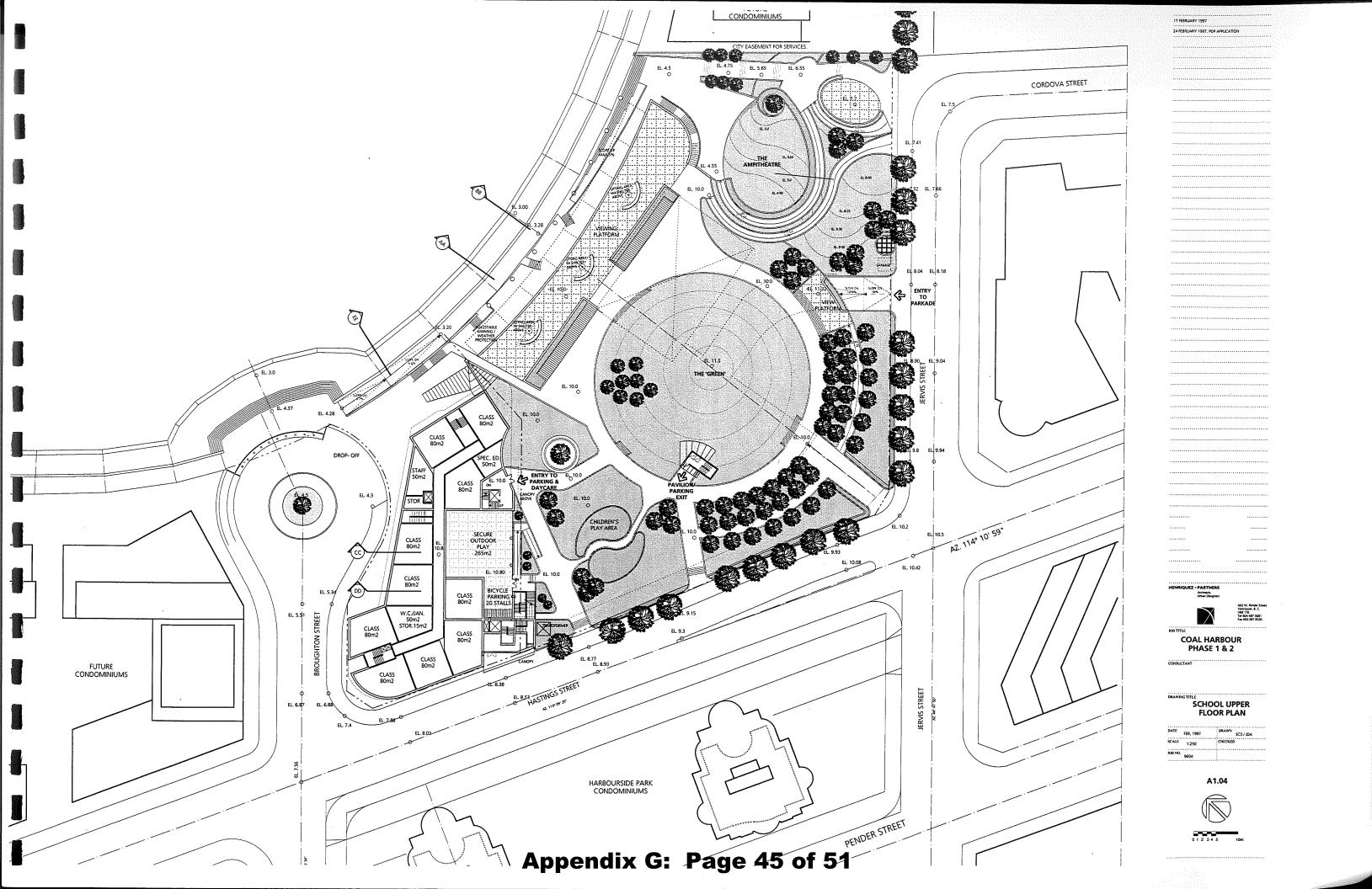
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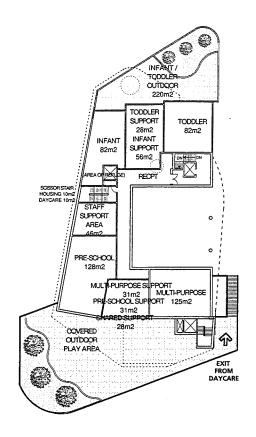




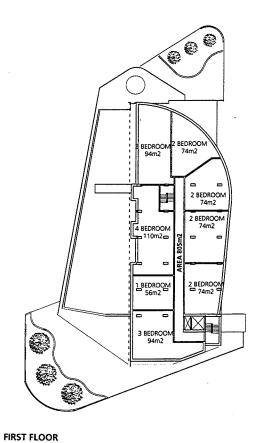


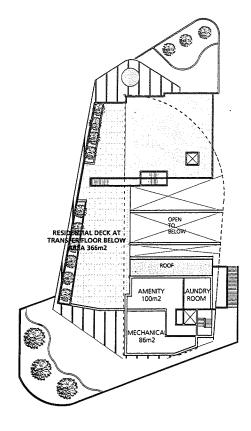




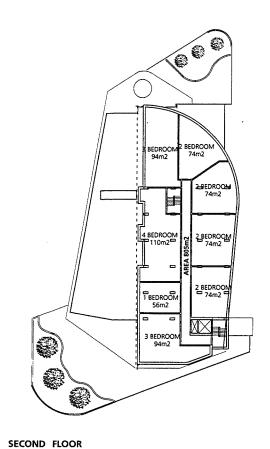


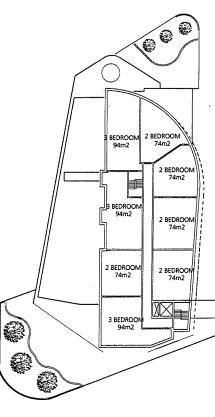
DAYCARE FLOOR



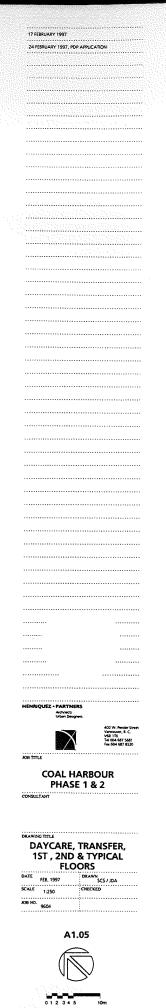


TRANSFER FLOOR

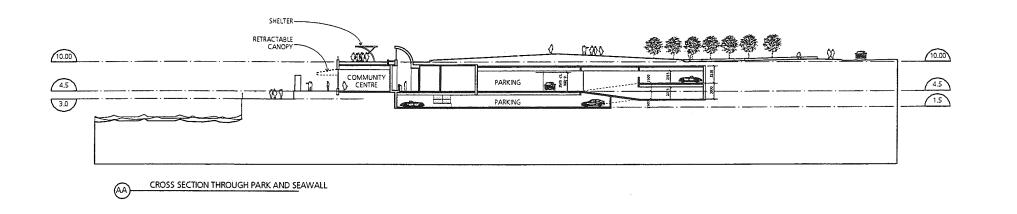


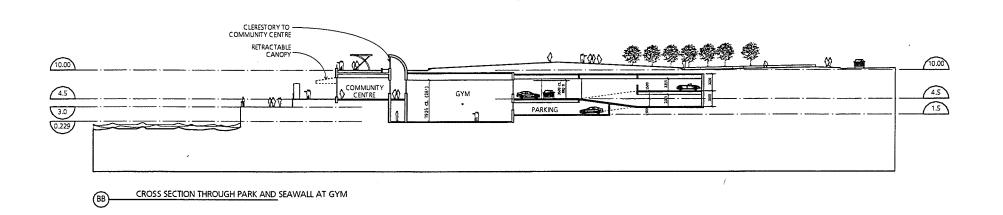


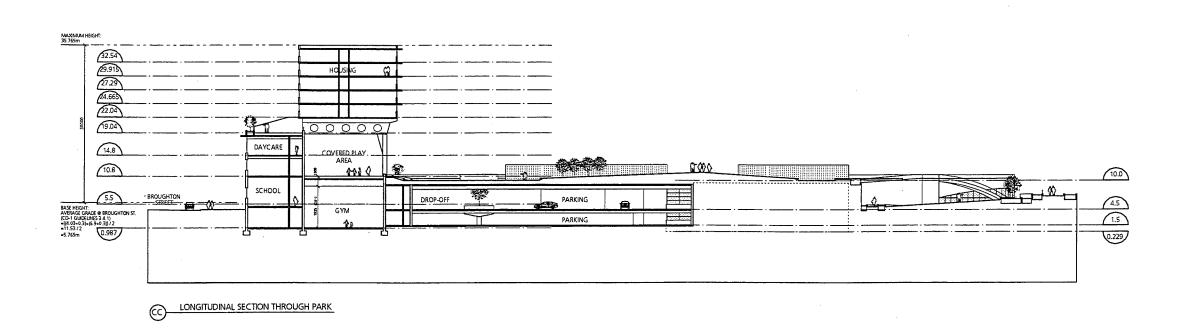
TYPICAL FLOOR



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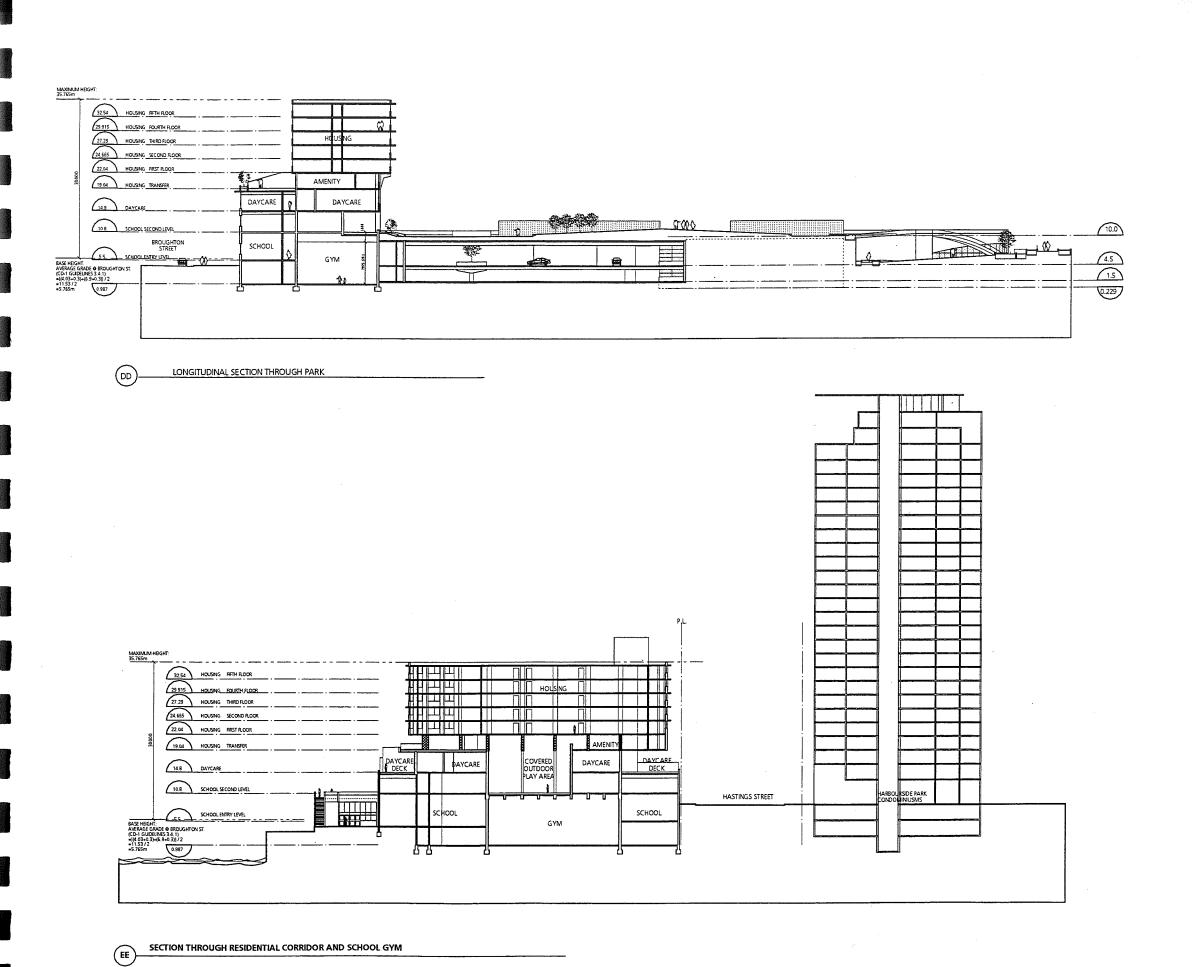






COAL HARBOUR PHASE 1 AND 2 SECTIONS A2.01





COAL HARBOUR PHASE 1 AND 2 SECTIONS A2.02

17 FEBRUARY 1997

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Architects Urban Designers

24 FEBRUARY 1997, PDP APPLICATION



COAL HARBOUR PHASE 1 & 2

CONSULTANT

SEAWALL AND
HASTINGS STREET
ELEVATIONS
DATE FEB. 1997
DIADNIN SCS / JDA

DATE FEB, 1997 DRAWN SCS / JDA SCALE 1:250 CHECKED

A3.01





BROUGHTON ST.

JERVIS STREET

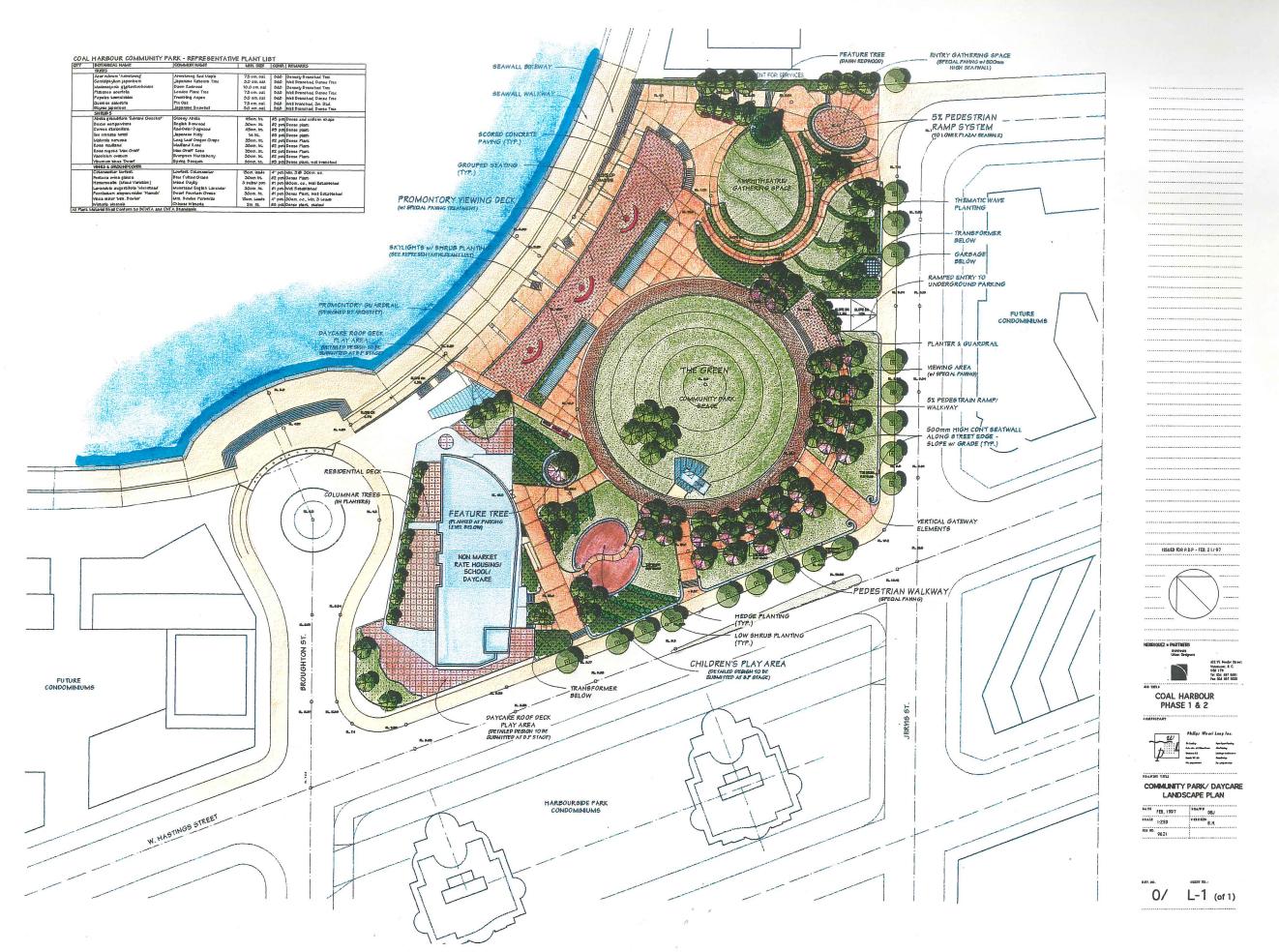


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COAL HARBOUR PHASE 1 & 2 BROUGHTON AND
JERVIS STREET
ELEVATIONS
DATE FEB. 1997
SCALE 1:250
CHECKED

A3.02

24 FEBRUARY 1997, PDP APPLICATION



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