
TO: CITY MANAGER **DATE:** 2009 August 26

FROM: DIRECTOR PLANNING AND BUILDING **FILE:** 71130 20
Reference: BC Hydro Horne-Payne Substation

**SUBJECT: BC HYDRO HORNE-PAYNE SUBSTATION
4051 LOUGHEED HIGHWAY
BEAUTIFICATION LANDSCAPING, ROAD WIDENING DEDICATION
AND FIELD OPERATIONS FACILITY
ATTACHED SKETCHES #1, #2, #3 AND #4**

PURPOSE: To inform Council of proposals by BC Hydro to provide beautification screening landscaping for the BC Hydro Horne-Payne Substation, to provide road widening along Gilmore Avenue and a statutory right-of-way to protect an existing City-owned storm sewer crossing the site, and to develop a Field Operations Facility on the northeast portion of the site under Preliminary Plan Approval #09-264.

RECOMMENDATION:

1. **THAT** a copy of this report be sent to BC Hydro (Attn: Stephen Chua, Building Development Properties, Corporate Resources, B1 – 798 Beatty Street, Vancouver, BC V6B 2M1) and to OMNICRON (Attn: Pablo Yuste, Fifth Floor, Three Bentall Centre, 595 Burrard Street, PO Box 49369, Vancouver, BC V7X 1L4).

REPORT

1.0 INTRODUCTION

The BC Hydro Horne-Payne Substation occupies a high profile location at the northwest corner of Lougheed Highway and Gilmore Avenue. (See *attached* context Sketch #1) The substation predates major redevelopment of the Brentwood Town Centre east of Gilmore Avenue that has taken place over the past twenty years as well as the Bridge Business Park to the south of the Lougheed Highway. There have been a number of requests over past years, some initiated by Council enquiries, for BC Hydro to provide screening landscaping particularly along the Lougheed Highway and Gilmore Avenue frontages of this major M3 District zoned industrial facility. The BC Hydro Newell Substation at Kingsway and Griffiths Drive and the screening landscaping provided along its frontages has been cited as a desirable precedent. In addition, the City has also desired further road widening dedications from the subject site at 4051 Lougheed Highway along its Gilmore Avenue frontage north of the Lougheed Highway in order to achieve needed traffic management improvements at Lougheed and Gilmore intersection. An existing City-owned storm sewer also traverses 4051 Lougheed Highway and is not protected by a statutory right-of-way in the City's favour. Also, BC Hydro is pursuing the development of the Horne-Payne Field Operations Facility on the northeast portion of the site as a Preliminary Plan

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Approval application in line with the prevailing M3 District zoning. The purpose of this report is to inform Council of agreements reached with BC Hydro on achieving desired landscape screening improvements as well as obtaining road widening dedications and a statutory right-of-way for the storm sewer and of the new Field Operations Facility.

2.0 HORNE-PAYNE SUBSTATION CONTEXT

The BC Hydro Horne-Payne Substation at 4051 Lougheed Highway encompasses a large lot of approximately 9 ha (22 acres) which slopes down towards the Lougheed Highway (see *attached* Sketches #1 and #2). The site has frontages along the Lougheed Highway of 345.3m (1,132.8 ft), Gilmore Avenue of 233.7m (766.7 ft) and Second Avenue of 375.7m (1,232.6ft).

The site abuts the Brentwood Town Centre. The east side of Gilmore Avenue frontage across from the Horne-Payne Substation is designated for high density, high-rise apartment development in the Council-adopted Brentwood Town Centre Plan. To the south across Lougheed Highway is the Bridge Business Centre with high quality office and office/warehouse developments fronting the Lougheed Highway. To the north across Second Avenue are older M3 zoned industrial developments. To the west are two large industrial M3 zoned properties extending to Boundary Road.

3.0 NEW BC HYDRO FIELD OPERATIONS FACILITY

On the northeastern portion of the site encompassing some 1.94 ha (4.81 acres), BC Hydro proposes to develop a new Field Operations Facility, one of ten to be developed in the Province (see *attached* Sketch #4). The Field Operations Facility is an industrial building that will accommodate functions related to the operation and maintenance of the sub-station as well as functions related to the dispatch of materials and staff involved in repairing the electrical distribution network in Burnaby and elsewhere in Greater Vancouver. The building is proposed to be in the range of 7,800m² (183,960 sq.ft.), and be comprised of 75% industrial, 17% office/administrative space, 8% shared (including areas such as a fitness room, lunch room and mechanical areas). The industrial floor area includes truck bays, workshops (repair, welding, painting), equipment and materials storage, locker rooms, first aid stations, and staff marshalling/dispatch space. Landscaped yards of 4.5m (14.76 ft) along its Second Avenue frontage and a minimum 6m (20ft) along its Gilmore Avenue frontage are provided. Some servicing upgrades are also being pursued. A Preliminary Plan Approval application, PPA #09-264, is currently being processed for the development in line with the prevailing M3 Heavy Industrial District. This application has been submitted by OMNICRON on behalf of BC Hydro. The development is estimated to be valued in the range of \$25 million and is mandated to meet a LEED Gold, and could possibly achieve a Platinum standard. This new, high quality, development will also assist in screening the remaining portions of the substation. The landscaping improvements discussed below will become the basis of an undertaking by BC Hydro to be submitted prior to issuance of the subject PPA.

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4.0 PROPOSED SCREENING LANDSCAPING (See *attached* Sketches #2, #3 and #4)

4.1 Lougheed Highway Retaining Wall

The primary frontages for which landscape screening is particularly needed are the Lougheed Highway and Gilmore Avenue frontages. Along the Lougheed Highway, BC Hydro is constrained by the existing substation facility which necessitates that an existing retaining wall be retained. The wall varies in height up to 1.6m (5.25 ft) above the boulevard grade with a necessary “buried metal grid” (for grounding purposes) behind the retaining wall up to the perimeter security fence. The retaining wall is generally located coincident with the existing property line but encroaches onto the Lougheed Highway right-of-way by about 0.22m to 0.34m (9 in. to 13.4 in.) for about a stretch of 84 m (275.6 ft) or 24% of this frontage. Some portions of this retaining wall will be removed as part of the three large landscape nodes to be provided along this frontage. An encroachment agreement will be entered into by BC Hydro with the City Engineering Department to acknowledge the remaining retaining wall encroachment as well as the planting of the screening hedge in front of this retaining wall and its continued maintenance by BC Hydro.

4.2 Lougheed Highway Landscaping

The landscaping and screening proposals for the Lougheed Highway frontage consist of the following:

- a) A new 3m (10ft) high, architectural metal, black mesh, security fence is proposed to replace the existing security fence as well as around the rear of the three proposed landscaped nodes.
- b) A columnar cedar hedge will be placed at the base of the existing retaining wall, which is intended to be allowed to grow naturally to a height of 4.5m to 6m (15 ft to 20 ft).
- c) Three substantial special landscaped nodes amounting to a landscaped area of 1,420m² (15,285 sq ft) will be provided along this frontage as noted in the *attached* Sketches #2 and #3. Low curving basalt walls are proposed as a landscape feature. A line of deciduous trees and ground covers will be provided in front of the curving walls with groves of conifers such as Cypresses and Firs behind. The existing retaining wall would be removed along the frontage of these nodes.
- d) A feature area will be provided at the Lougheed Highway and Gilmore Avenue corner with enhancements such as paving and benches.
- e) BC Hydro has also agreed to provide street trees with species specified by the City. However, the planting of these trees would be pursued at the time of the future upgrading of the Lougheed Highway with final curbs and separated sidewalk.
- f) Any hedge landscaping and feature area within the City right-of-way will be maintained by BC Hydro. A maintenance and encroachment agreement will be required to be established with the City Engineering Department.

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4.2 Gilmore Avenue Landscaping

Along the entire Gilmore Avenue frontage from Lougheed Highway north to Second Avenue, a minimum 6m (19.69ft) landscaped setback from any “final” property line (after road widening dedications) is proposed. The landscape provisions consist of the following:

- a) Any security fence required for the secured parking and the substation will be setback 6m (19.69 ft) from any final property line. The security fence will be of an architectural metal, black mesh standard, 2.4m (8 ft) high for the secured parking and 3m (10 ft) high for the substation.
- b) A columnar cedar hedge will be placed against the security fence and allowed to grow naturally to achieve the appearance of a green wall.
- c) Some taller cedars and firs are provided in the landscaped setback with an undulating line of deciduous trees in front, near the property line, with appropriate ground covers.
- d) The landscaped setback in the area of unsecured visitor parking will be landscaped in a more open but similar manner as an appropriate setting for the new building.
- e) BC Hydro has agreed to provide street trees with species specified by the City. However, the planting of these trees would be pursued at the time of the upgrading of Gilmore Avenue with the final curb location and separated sidewalk.

4.3 Second Avenue Landscaping

The landscape provisions along the Second Avenue frontage consist of the following:

- a) A minimum 4.5m (14.76 ft) landscaped setback to the proposed new building is required and provided.
- b) To the west of the site for the new building, a new 2.4m (8ft) high, architectural metal, black mesh, security fence set back 4.5m (14.76 ft) from the property line is proposed to replace the existing security fence. A columnar cedar hedge will be provided in front of the security fence along this stretch of frontage to the west property line.
- c) BC Hydro has agreed to provide street trees with species specified by the City. However, the planting of these trees would be pursued at the time of the upgrading of Gilmore Avenue with the final curb and sidewalk.

4.4 Other Landscaping within the Site

The landscape provisions within the site consist of the following:

- a) The site slopes down from Second Avenue to Lougheed Highway. The site has an east-west sharply sloped bank at an approximate midpoint of the site. As indicated on the *attached* Sketch #2, an east-west band of landscaping 14m (46 ft) wide by 187.6m (615 ft) long amounting to an area of 2,626 m² (28,271 sq ft) composed of pine and fir conifers is to be provided within the site on this bank.

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5.0 DEDICATIONS TO THE CITY

- 5.1 The City has desired widening dedications on the west side of Gilmore Avenue to accommodate a full final road standard and improvements to the busy intersection of Gilmore Avenue and Lougheed Highway. As part of the overall discussions related to the preceding outlined proposal, BC Hydro has agreed to provide widening dedications for the Gilmore Avenue frontage ranging from 2.75m to 6m (9 ft to 19.69 ft) encompassing an area of some 1,000m² (10,764 sq. ft.) at no cost to the City.
- 5.2 An existing City-owned storm sewer also traverses the site and BC Hydro has agreed to provide a statutory right-of-way in favour of the City to protect this utility at no cost to the City.
- 5.3 BC Hydro will prepare the necessary dedication and statutory right-of-way survey plans.

6.0 CONCLUSION

After extensive discussions spanning a number of years, BC Hydro has agreed to provide landscape screening along the frontages of the 9 ha (22 acre) Horne-Payne Substation as well as within the site as described in this report. The Engineering Department will determine an agreement with BC Hydro to acknowledge an encroachment of the existing retaining wall along the Lougheed Highway frontage and for BC Hydro to maintain any landscaping approved within the right-of-way. BC Hydro has also agreed to provide substantial widening dedications along the Gilmore Avenue right-of-way amounting to some 1,000 m² (10,764 sq. ft.) which will permit the City to pursue desired future improvements to the intersection of Gilmore Avenue at the Lougheed Highway. BC Hydro has also agreed to provide a statutory right-of-way for an existing City-owned storm sewer that traverses the site.

BC Hydro has also made application through PPA #09-264, for a new large Field Operations Facility on the northeastern portion of the site. It is intended that all of the provisions outlined in this report would be coordinated in conjunction with this PPA.

This is for the information of Council.

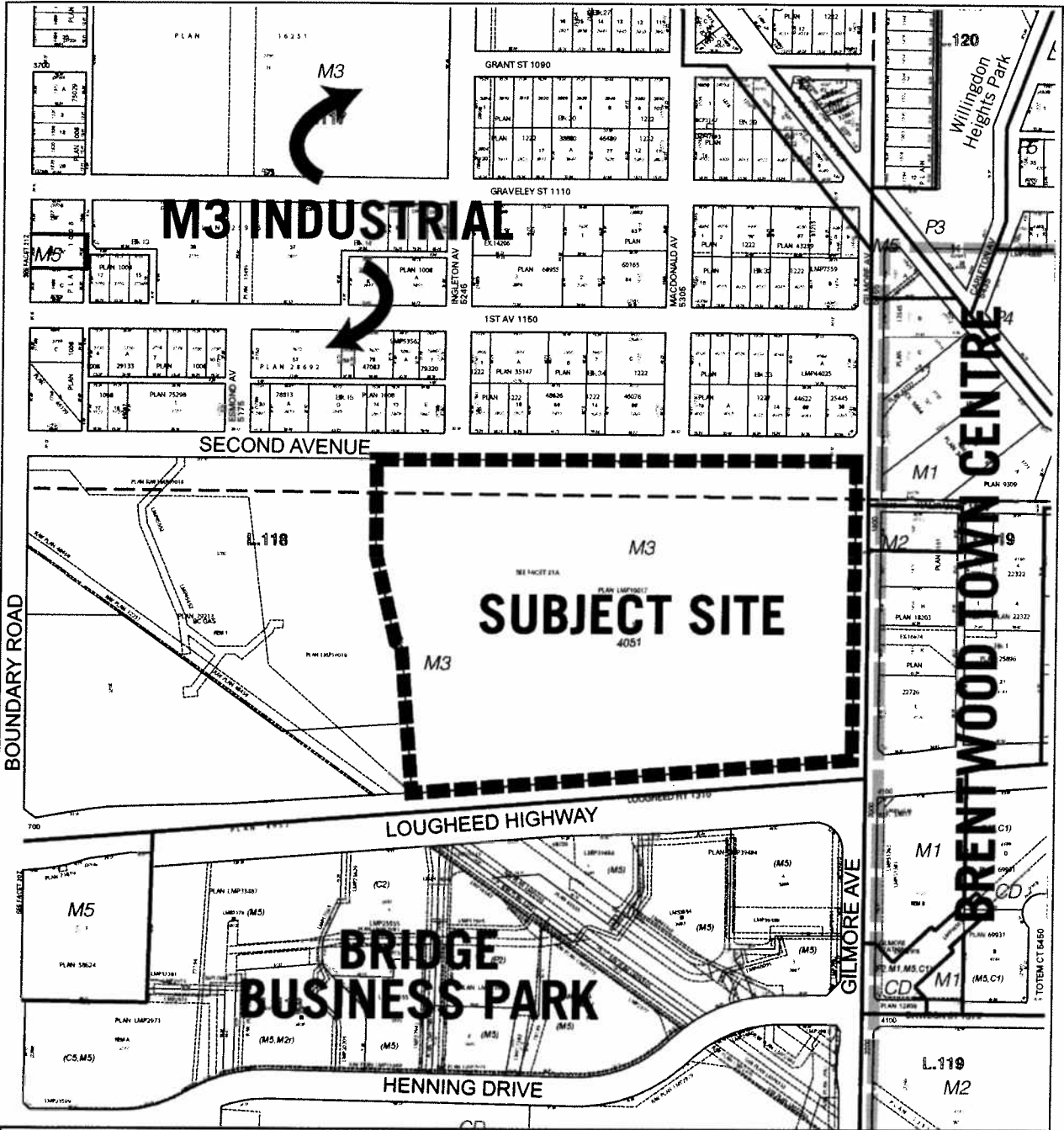


Basil Luksun, Director
PLANNING AND BUILDING

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Attachments

cc: Director Engineering
City Solicitor



PLANNING & BUILDING DEPARTMENT



DATE:
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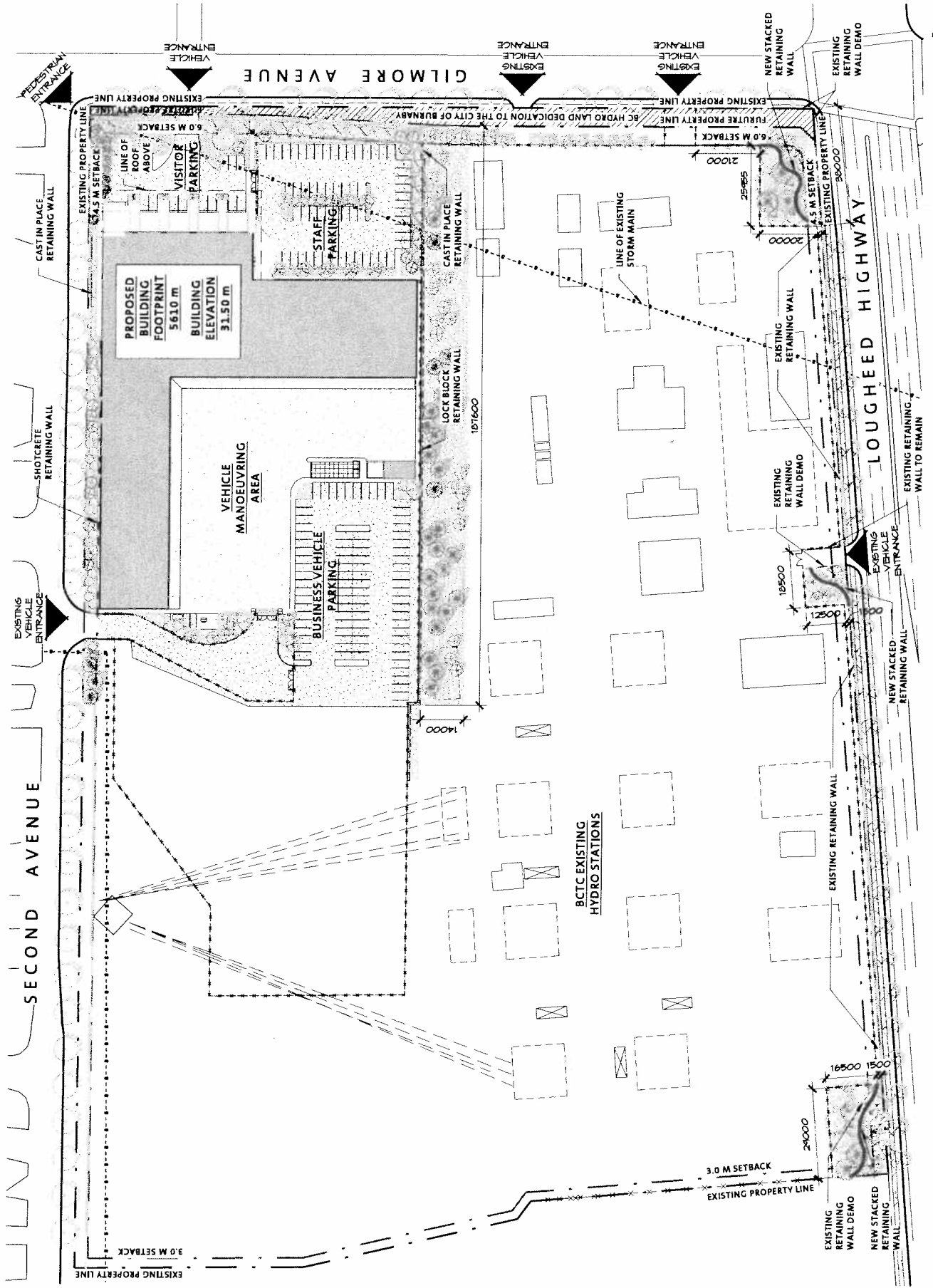
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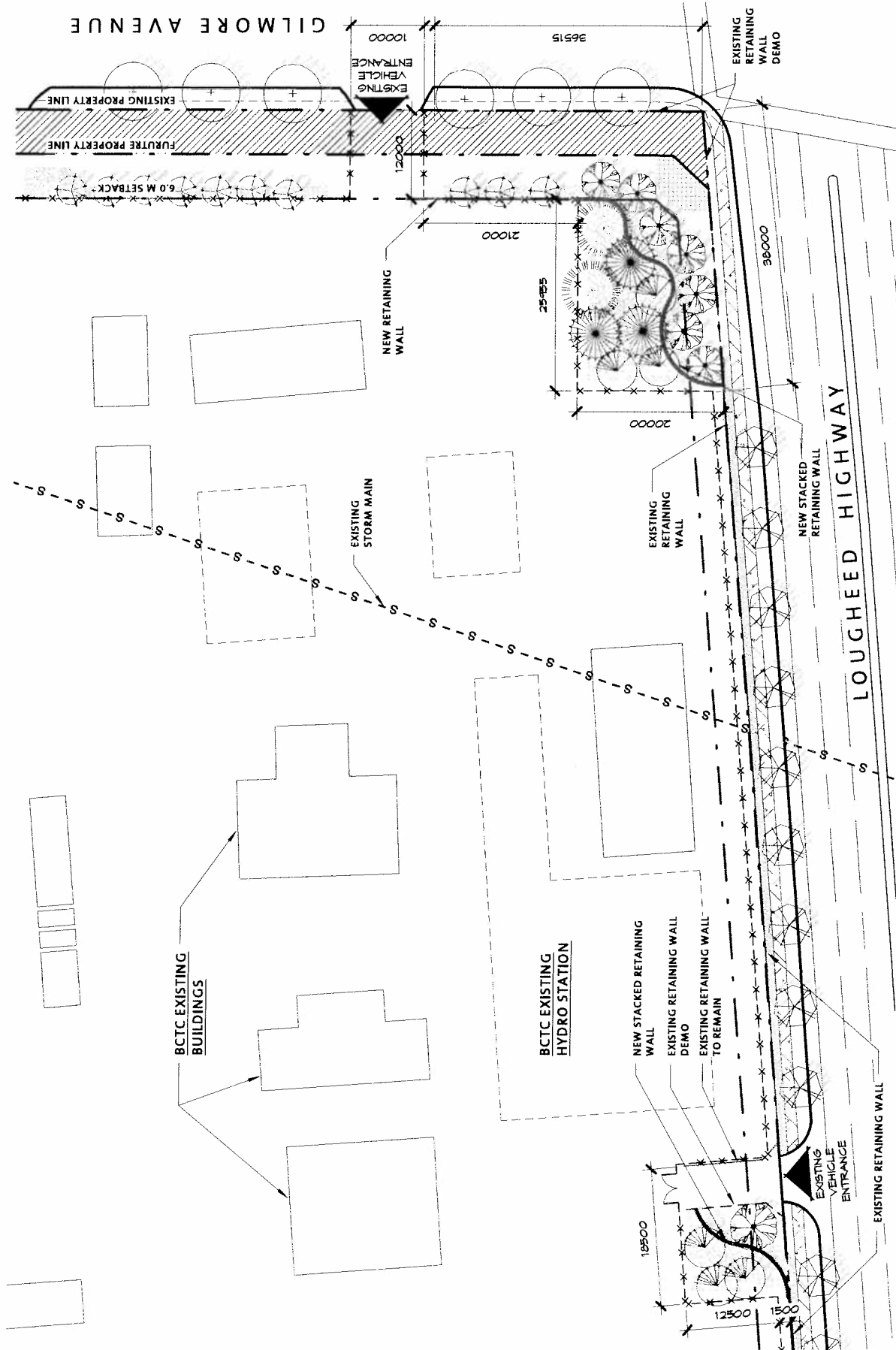
BC HYDRO HORNE-PAYNE SUBSTATION

 4051 Lougheed Highway

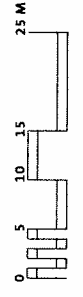
Sketch #1



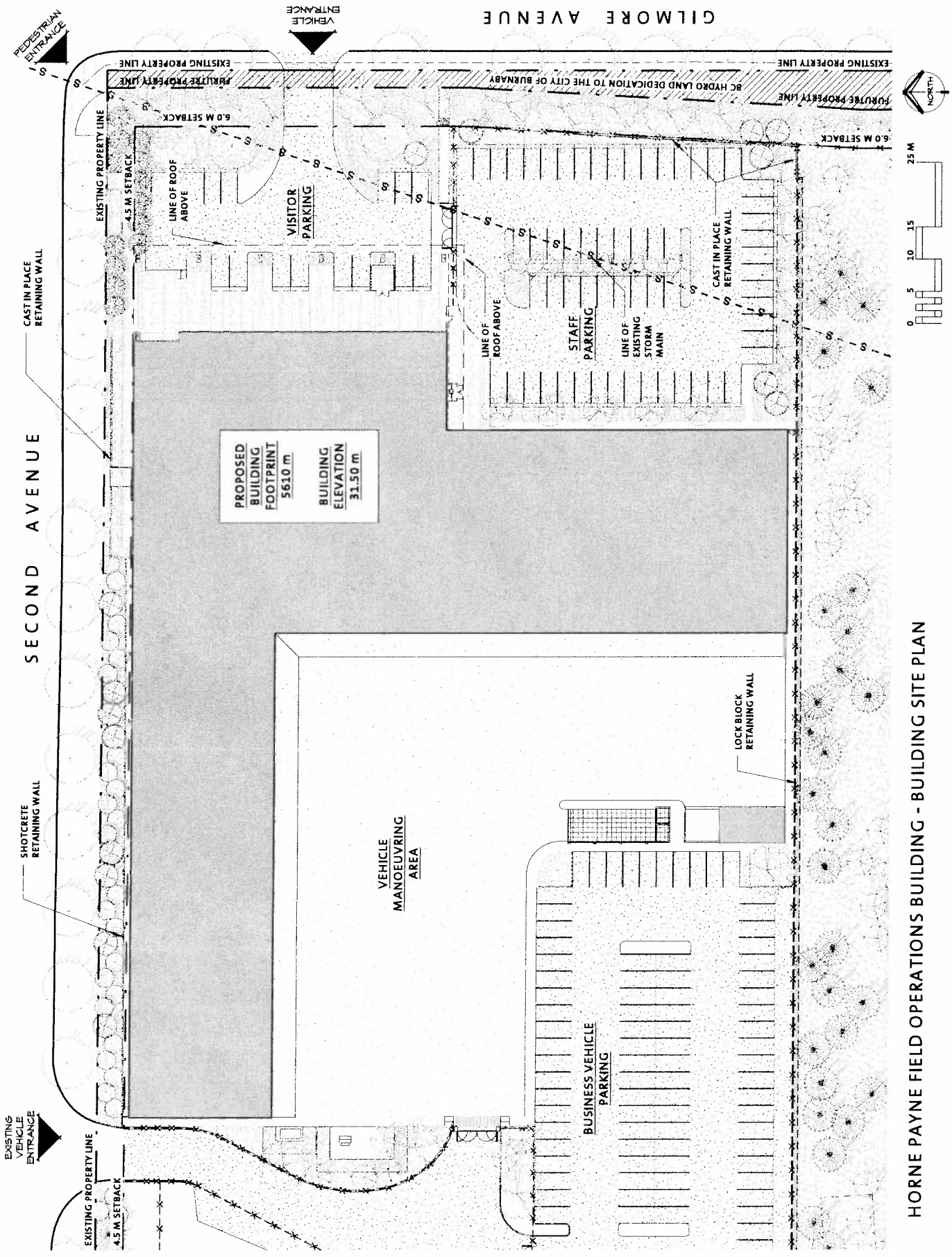
HORNE PAYNE FIELD OPERATIONS BUILDING - OVERALL SITE PLAN



HORNE PAYNE FIELD OPERATIONS BUILDING - LOUGHEED HWY/GILMORE AVE
 INTERSECTION SITE PLAN



Sketch #3



PROPOSED
BUILDING
FOOTPRINT
5610 m²
BUILDING
ELEVATION
31.50 m

HORNE PAYNE FIELD OPERATIONS BUILDING - BUILDING SITE PLAN