

TO: CITY MANAGER

1995 NOVEMBER 16

FROM: DIRECTOR PLANNING & BUILDING

OUR FILE: 08.640

SUBJECT: BURNABY MOUNTAIN PARKWAY: DALLA-TINA EXTENSION OPTIONS

PURPOSE: To review the option for extending Dalla-Tina Avenue to the Burnaby Mountain Parkway submitted by Mr. A. Dalla Tina of 7321 Hastings Street and to summarize the feasible options for constructing this access road.

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## RECOMMENDATIONS:

1. THAT Council approve the recommendation in the September 11, 1995 Manager's Report #41, Item 1, to request the Ministry of Transportation and Highways to modify the design of the access road as shown in **Figure 5** of this report.
2. THAT alternatively should Council wish to recommend that the Ministry of Transportation and Highways construct an extension of Dalla-Tina Avenue to the Burnaby Mountain Parkway it approve either Option A or Option B as outlined in this report.
3. THAT a copy of this report be forwarded to Mr. A. Dalla Tina, 7321 Hastings Street and Mr. T. Tasaka, Project Director, Barnet/Hastings People Moving Project.

## REPORT

### 1.0 INTRODUCTION

At its regular meeting of 1995 November 06 Council received a delegation from Mr. R. De Lazari with regard to the proposal by Mr. A. Dalla Tina to extend Dalla-Tina Avenue to the Burnaby Mountain Parkway. The delegation questioned the need for relocating the access road, the removal of trees in the forested area which acts as a screen for residents against the Burnaby Mountain Parkway, and the cost of the proposal.

Subsequently, Council received a report from the City Manager which put forward a "best alternative" proposal to extend Dalla-Tina Avenue and a further proposal by Mr. Dalla Tina which modified the "best alternative" proposal of staff. In response Council referred the City Manager's report back to staff to review the concerns expressed by the neighbourhood with regard to Mr. Dalla Tina's alternative proposal.

This report reviews the recent alternative for extending Dalla-Tina Avenue submitted by Mr. Dalla Tina and outlines the feasible options for constructing this access road for the information of Council in considering this matter.

## 2.0 NEW DALLA TINA PROPOSAL

The new proposal by Mr. A. Dalla Tina for extending Dalla Tina Avenue as shown in **Figure 1** is a variant of an option previously submitted by Mr. Dalla Tina on 1995 October 04 which was intended to relocate the access road further to the west to avoid impact on the dedicated parkland. In response to the request of Council staff have evaluated the new proposal by Mr. Dalla Tina and our analysis is summarized in the following sections:

- (i) **basic design** - one way roadway with a pavement surface width of 7.3m (24 ft.) to accommodate fire trucks and a sidewalk of 1.8m on the **west** side.
- ii) **grade** - similar to the previous option suggested by Mr. Dalla Tina, the alignment of this access road is oriented down the slope of Burnaby Mountain rather than traversing across the slope. The Dalla Tina alternative shown in Figure 1 would therefore result in a maximum grade of up to 20% accompanied by sharp changes in grade at the bottom and top of the access road at Burnaby Mountain Parkway and Hastings Street.
- iii) **cleared area** - the right of way for this alternative would require clearing of 615 sq.m. of forested area including 22.5 m. located in the dedicated parkland. Within the right-of-way area 14 mature trees would be removed including 13 deciduous, 5 of which are growing from an original stump, and 1 conifer.

The new proposal by Mr. Dalla Tina cannot be developed to a safe vertical profile without the substantial cost and disruption of regrading of the existing Dalla-Tina Avenue north of Hastings Street and Hastings Street east of Dalla-Tina Avenue. This conclusion has been reached based on an extensive review of a number of alignment options as shown in **Figure 2**. This review has shown that options which are feasible are oriented to traverse the slope in a north-south direction rather than down the slope in an east-west direction. The following sections provide a review of these "feasible" options for the information of Council.

## 3.0 DALLA-TINA EXTENSION

### 3.1 Alignments Considered

In an effort to determine the feasible alignments from a design perspective for an extension of Dalla-Tina Avenue staff have assessed a variety of alignment options as shown in Figure 2.

On this basis it was determined that only three of the alignment options (shown as solid lines in Figure 2) could be designed to a safe vertical profile without overly steep grades or abrupt changes in slope at the top and bottom of the road where it would intersect with Hastings Street and the Burnaby Mountain Parkway.

As alignments 1 and 2 are very similar in orientation they can be viewed as one option (Option A) with alignment 3 being the other feasible option (Option B). The implications of these two feasible options are outlined in the following sections.

### 3.2 Feasible Alignment Options

#### 3.2.1 Option A (*Figure 3*)

Option A is the "best" alternative as identified in the City Manager's report to Council of 1995 November 06. The following are the basic characteristics of this option:

- (i) **basic design** - one way road with a pavement surface width of 7.3m (24 ft.), sufficient to accommodate fire trucks, and a sidewalk of 1.8m (6 ft.) on the **east** side.
- (ii) **maximum grade** - 8.8%
- (iii) **right of way requirements** - to accommodate fill slopes on the downhill side a maximum right of way of 15.2m (50 ft.) would be required.
- (iv) **forest clearing** - An area of 630 sq.m. (6780 sq. ft.) would be cleared requiring the removal of 12 major trees (over 25m (80 ft.) in height) including 11 deciduous and 1 conifer. Five of the deciduous trees are grouped in a cluster growing out of an original tree trunk.
- (v) **impact on dedicated parkland** - the road right of way would intrude into 270 sq.m. (2906 sq. ft.) of dedicated parkland.

Option A offers the best design solution to extending Dalla-Tina Avenue to the Burnaby Mountain Parkway as the vertical profile would be more gradual than the other options without abrupt changes in slope. It, however, intrudes to a greater degree into the dedicated parkland.

#### 3.2.2 Option B (*Figure 4*)

Option B is aligned further to the west of Option A and therefore does not intrude as much into the dedicated parkland. The following summarizes the characteristics of this option.


- (i) **basic design** - one way road with a pavement surface width of 7.3m (24 ft.) sufficient to accommodate fire trucks and a sidewalk of 1.8m (6 ft.) on the **west** side.

- (ii) **maximum grade** - 8.8%
- (iii) **right of way requirements** - a 15.2m (50 ft.) right of way is required to accommodate the road width and the fill slopes to support the road.
- (iv) **forest clearing** - an area of 615 sq.m. (6618 sq. ft.) of forested land would be cleared as right of way including 14 trees including 13 deciduous and 1 conifer.
- (v) **impact on dedicated parkland** - the road right of way would intrude into 22.5 sq.m. (242 sq. ft.) of dedicated parkland.

In summary Option B could be designed to an acceptable maximum grade but has a sharper profile than Option A with more abrupt changes in grade at the top of the hill near Hastings Street and the bottom of the hill near the Burnaby Mountain Parkway. Thus while Option B is not as desirable from a design perspective as Option A, Option B would intrude only marginally into dedicated parkland.

#### 4.0 CONCLUSION

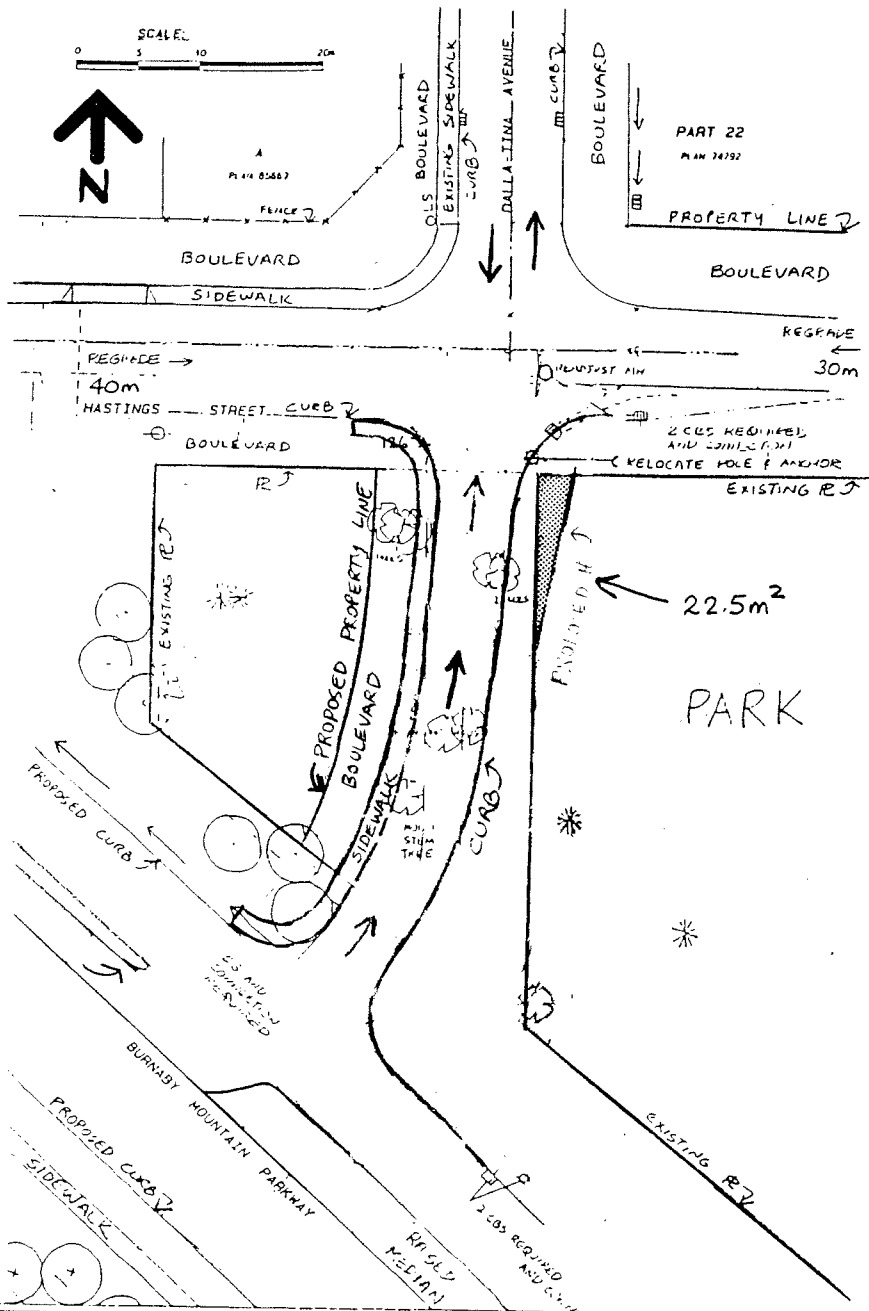
The purpose of this report has been to review the new proposal for extending Dalla Tina Avenue proposed by Mr. Dalla Tina, and to outline for Council consideration the feasible options for constructing this access road. Based on this review it has been concluded that the new proposal from Mr. Dalla Tina would require regrading of both Dalla-Tina Avenue and Hastings Street in order to achieve a safe vertical profile and that two options are available to achieve minimum safety standards. Option A offers the "best alternative" from a design perspective but intrudes significantly into dedicated park while Option B marginally meets design standards but intrudes only to a minor degree into dedicated parkland.



D.G. Stenson, Director  
PLANNING & BUILDING

RG/db

cc: Deputy City Manager, Corporate Services  
Director Engineering  
City Solicitor



Date:  
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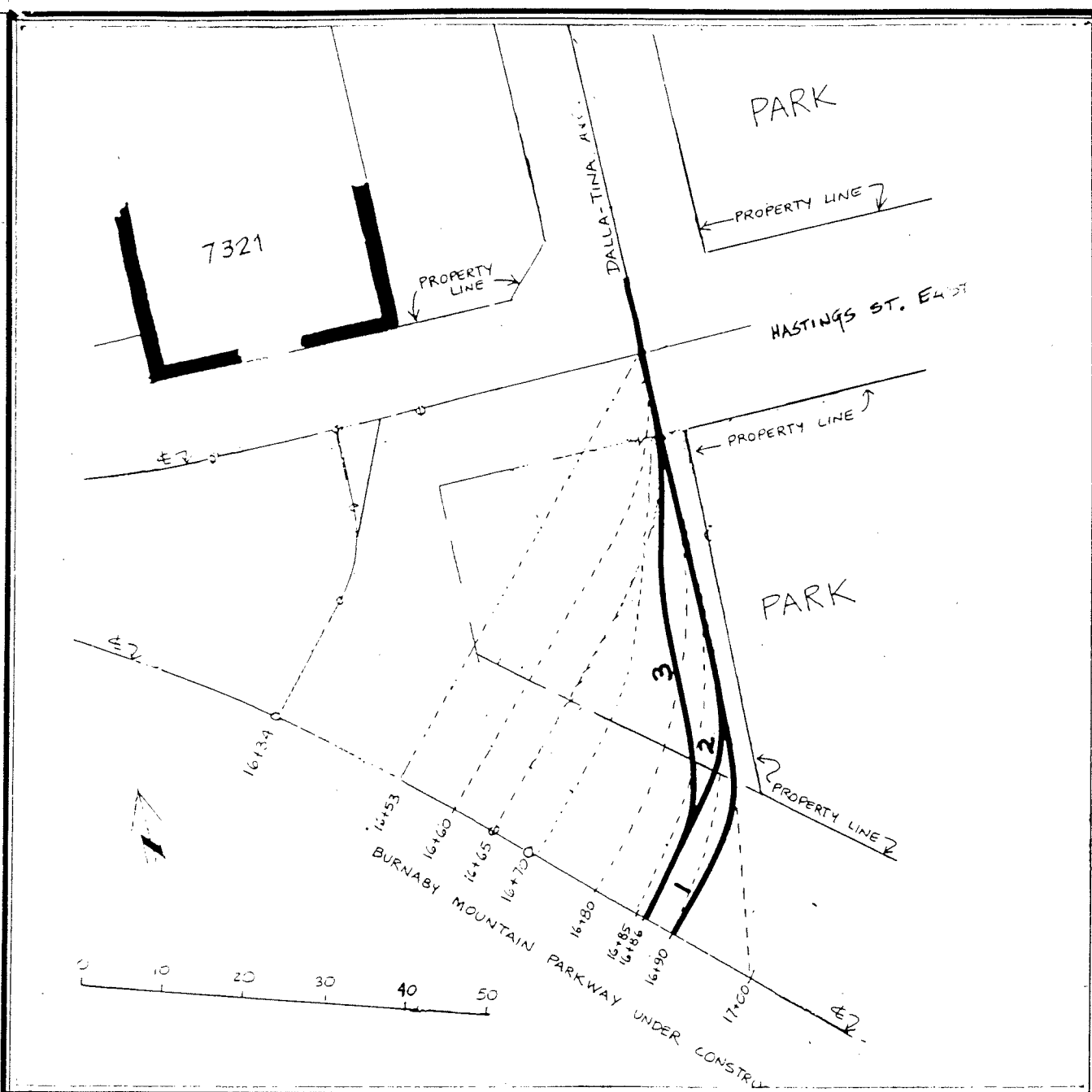
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NEW DAMATINA PROPOSAL

Scale:  
NTS

Drawn By:  
J. A. TESSLA

FIGURE 1



Date:

95 11 10

Scale:

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J. A. T. S. C. A.



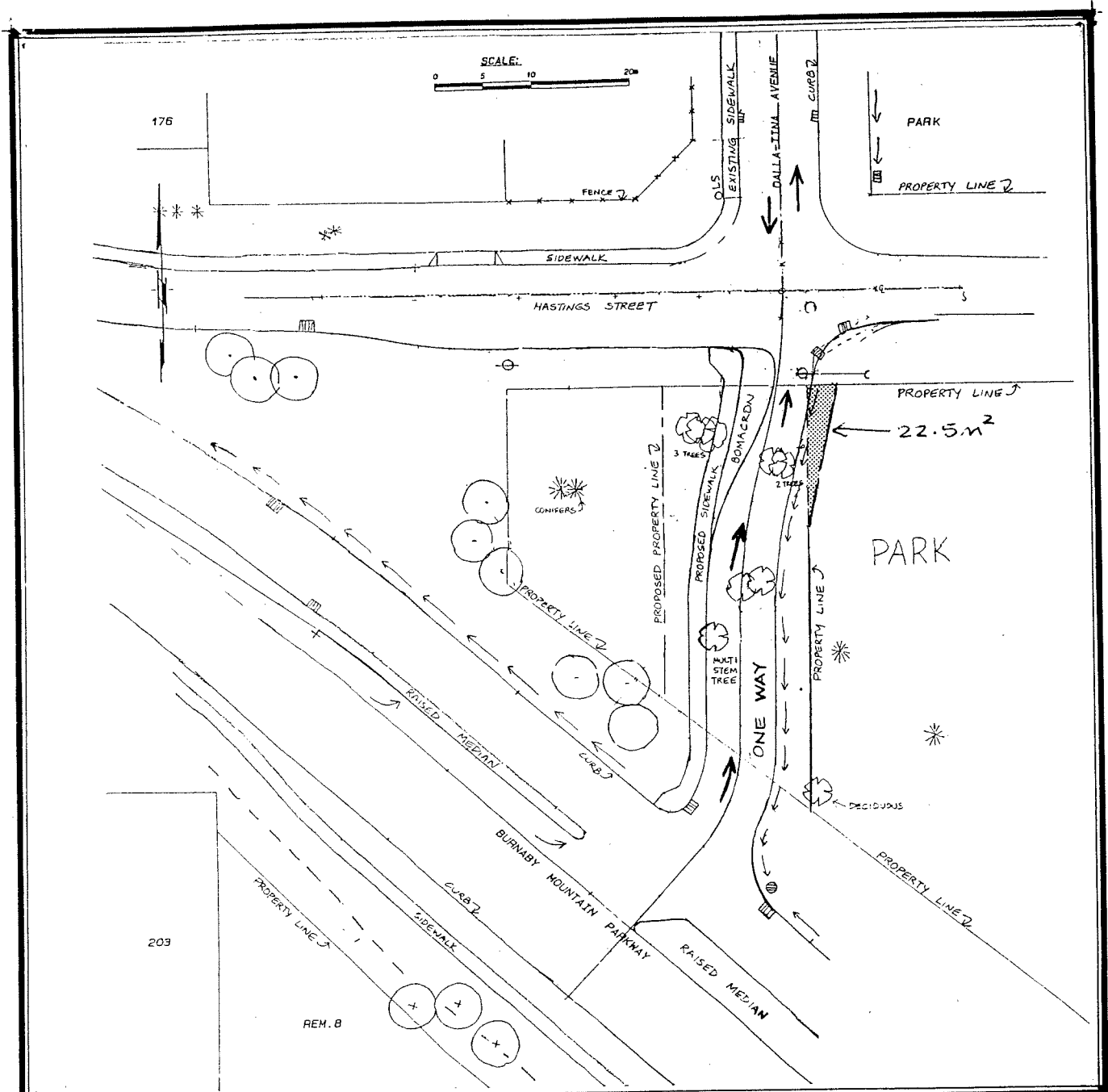
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ACCESS ROAD OPTIONS CONSIDERED

FIGURE 2





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Scale:  
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J. A. TESSLA


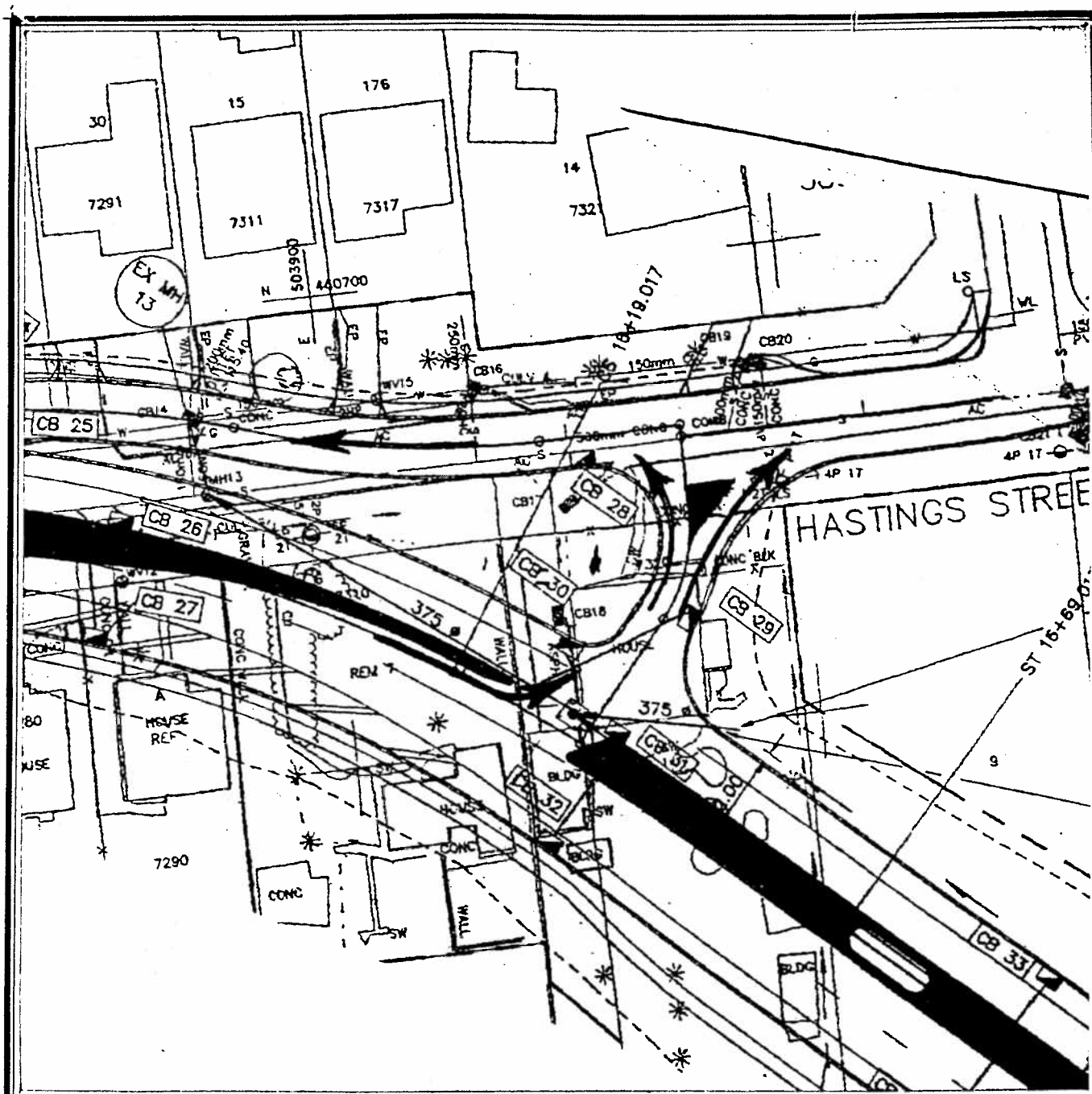
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OPTION B

FIGURE 4





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Drawn By:  
RSG



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FIGURE 5

