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**FINANCE AND CIVIC DEVELOPMENT COMMITTEE**

*HIS WORSHIP, THE MAYOR  
AND COUNCILLORS*

**SUBJECT: MEDIAN PILOT PROJECT ON LOUGHEED HIGHWAY  
FROM ROSSER AVENUE TO MADISON AVENUE,  
BRENTWOOD TOWN CENTRE**

**RECOMMENDATIONS:**

1. THAT Council adopt the landscape concept, as outlined in this report, for the centre median of the Lougheed Highway from Rosser Avenue to Madison Avenue.
2. THAT Council approve a budget of \$222,560 (inclusive of 7% GST) for a landscape planting plan, construction and three years of initial maintenance based upon the concept as outlined in this report for the centre median of the Lougheed Highway from Rosser Avenue to Madison Avenue, with the source funding being from the Maintenance Reserve (Operating).
3. THAT Council authorize an increase in the Engineering Operating Budgets for Public Works for Boulevards by \$26,000 without offset and subject to budget review commencing in 2009.

**REPORT**

The Finance and Civic Development Committee, at its meeting held on 2005 November 24, received and adopted the *attached* report seeking approval to landscape the Lougheed Highway centre median from Rosser Avenue to Madison Avenue as a pilot beautification project.

Respectfully submitted,

Mayor Derek R. Corrigan  
Chair

Councillor Dan Johnston  
Vice Chair

Councillor Nick Volkow  
Member

Copied to: City Manager Director Engineering Director Parks, Recr. & Cult. Services Director Finance Director Planning & Building
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**TO:** CHAIR AND MEMBERS  
FINANCE AND CIVIC DEVELOPMENT  
COMMITTEE

**DATE:** 2005 November 21

**FROM:** DIRECTOR PLANNING AND BUILDING

**FILE:** 90300-20  
*Reference: Lougheed Median  
Improvements*

**SUBJECT: MEDIAN PILOT PROJECT ON LOUGHEED HIGHWAY FROM  
ROSSER AVENUE TO MADISON AVENUE, BRENTWOOD TOWN  
CENTRE**

**PURPOSE:** To obtain Committee approval to landscape the Lougheed Highway centre median from Rosser Avenue to Madison Avenue as a pilot beautification project.

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**RECOMMENDATIONS:**

1. **THAT** the Committee request Council to adopt the landscape concept, as outlined in this report, for the centre median of the Lougheed Highway from Rosser Avenue to Madison Avenue.
2. **THAT** the Committee request Council to approve a budget of \$222,560 (inclusive of 7% GST) for a landscape planting plan, construction and three years of initial maintenance based upon the concept as outlined in this report for the centre median of the Lougheed Highway from Rosser Avenue to Madison Avenue, with the source funding being from the Maintenance Reserve (Operating).
3. **THAT** the Committee request Council to increase the Engineering Operating Budgets for Public Works for Boulevards by \$26,000 without offset and subject to budget review commencing in 2009.

**REPORT****1.0 INTRODUCTION**

The purpose of this report is to initiate a pilot project as a different way of constructing and sustaining boulevard beautification projects. By treating the trees and plants in the landscape as appreciating assets and proposing completion of the Lougheed Highway median from Rosser Avenue to Madison Avenue as a pilot beautification project in the Brentwood Town Centre, we will better understand both the capital and maintenance cost implications of a larger beautification strategy for the entire City.

## 2.0 BACKGROUND

There has been a long standing desire to continue to beautify Burnaby as demonstrated by many successful beautification projects pursued to date such as the centre medians on Royal Oak Avenue, and Cariboo Road; Burnaby Eco-sculptures and floral display gardens; Metrotown Civic Square; and the recently renovated City Hall Complex. Beyond these high profile projects, however, there is a need for an over all beautification strategy to ensure that boulevard enhancement projects, particularly in Town Centres, are designed and maintained to contribute toward the larger goal of creating an integrated high quality, visually pleasing environment for Burnaby as a whole.

### 2.1 Broader Beautification Issues

Concurrently, individual Councillors and members of the business community have raised the prospect of beautifying Burnaby's arterial streets and the streets and public spaces in the four town centres.

In response to these concerns, staff has initiated a process to develop a strategic beautification plan for boulevards and other landscape features. This process has the following two streams:

- reviewing the maintenance of current and future beautification assets; and
- developing a draft beautification strategy.

Without a specific policy direction in place, a default position has been to focus operational dollars on higher priority high use recreation areas such as sports fields, parkland and public buildings, based upon safety and public complaints rather than on beautification and maintenance cost measures. The results have been threefold:

1. The investment in boulevard beautification operations has been relatively reduced over time and has not kept pace with demand for maintenance dollars due to the growth rate of new capital projects in parks and erosion by inflation.
2. The city has not been investing in new boulevard beautification projects to preserve operational maintenance dollars for existing infrastructure.
3. Design criteria for beautification projects have been skewed by the priority to minimize or eliminate maintenance costs, which has resulted in "bare bones" streetscapes that in some cases become unkempt and incapable of rejuvenating themselves.

Burnaby is at a pivotal point in its development with substantial development occurring in all of the town centres. Developments are achieving a high level of design and landscaping. In contrast some public frontages have suffered. A boulevard beautification strategy for Burnaby will require an overall review of how landscaped boulevards are built and maintained so that their value to the community increases over time. The solution may be to apply the same approach to beautification that Burnaby applies to so many other areas - investing in beautification in a way that appreciates in value and becomes an asset to the community. This will require a reasonable program for beautifying City street boulevards and allocating appropriate separated regular funding for capital costs and associated operating costs for on going maintenance. This report focuses upon the specifics of a proposed test case (a pilot beautification project in the Brentwood Town Centre) to help better understand the capital and operating cost implications for a larger beautification strategy.

## 2.2 Landscaped Median Rosser to Madison

At its meeting of 2001 November, Council approved spending \$62,000 on landscaping the centre medians under the Millennium SkyTrain Line on the Lougheed Highway between Rosser Avenue and Madison Avenue: \$38,000 to plant the medians; and \$24,000 to reimburse a developer for the soil and drainage system that he had previously installed. Upon closer examination the City concluded that the soil and drainage system did not meet the specifications and the developer was not reimbursed and the plant material was not installed.

In the past four years, construction prices have increased dramatically and a more detailed planting design and cost estimate has been developed as outlined in Section 4.0 to addresses rehabilitation of the medians and the harsh planting conditions under the SkyTrain Guideway.

With inadequate funds available to purchase and place the landscaping in the medians and no new funds to maintain them, it was considered imprudent to proceed with construction without a review of overall direction.

## 3.0 BRENTWOOD MEDIANS

The proposed concept for the Lougheed Highway medians in the Brentwood Town Centre is a 1.2 km planted centre median from Beta Avenue to Gilmore Avenue, as shown in **Figures 1, 2 and 3 (attached)**, which completes the streetscape under the SkyTrain Millennium Line by complementing plantings and paving being installed on either side of the street through new development.

### 3.1 Proposed Pilot Beautification Project

The first 0.4km phase, shown as Sections 1, 2 and 3 in **Figures 4 and 5 (attached)**, would be installed between Rosser Avenue and Madison Avenue setting the theme for the remainder of the median plantings. The basic proposal is to have a colourful four season planting scheme that can tolerate the harsh growing conditions in the centre of a regional highway underneath a rapid transit guideway. To achieve this, the design incorporates shade tolerant plants on the north side, sun loving plants on the south side, and a mixture of evergreen plants and deciduous plants. All of the plants are to be salt tolerant to survive salt spray in the winter and drought tolerant to withstand the lack of rainfall.

### 3.2 Revised Approach

The proposed approach is to develop the landscape as an appreciating asset. Under the City's current guidelines for the design of beautification landscapes the emphasis is on eliminating all operating costs, but we are finding that this is not possible. To ensure that the landscape can withstand a lack of maintenance the soil is capped with expensive mulch and weed fabric which reduces weeds in the short term, but prevents plants from receiving nutrients and makes maintenance, when it does occur, very laborious and therefore expensive. This approach results in landscaping that is pleasing at initial installation but then slowly declines until it needs replacing by more plant material or is simply paved over. In this regard, the landscape is a depreciating asset in a repetitive replacement process that relies heavily on capital dollars and lightly on operational dollars.

To ensure that the proposed landscape will appreciate in value, weed fabric and expensive large diameter bark mulch will be eliminated in favour of increased weeding, fertilising, and cheaper small diameter mulch to establish the plant material and allow it to grow. As the landscape matures, fertilising and mulching will continue, but weeding will diminish as plants crowd out opportunities for weeds. At the ten year mark, the landscape is expected to look better than at initial installation, and no new capital costs will be required. This process is a balance of capital outlay at the beginning and ongoing operational dollars.

### 3.3 Revised Specifications

To ensure plant growth and survival, the soil in the planting beds is a minimum 0.6m deep with a drain pipe and gravel drainage underneath and a drip irrigation and bark mulch on top. The soil depth allows plants to develop deep extensive roots to tap nutrients and moisture. Drainage pipes and gravel ensure that excess water from rainfall or irrigation doesn't drown the plants. A year round irrigation system is required to ensure that all areas receive adequate moisture. And to keep

the moisture in, reduce weeding requirements and add nutrients, small diameter bark mulch is used to cap the planting bed.

### **3.4 Initial Maintenance Approach**

A key component of this scheme is to get the plant material growing and established so that it covers the planting area to prevent invasive weeds and looks pleasing for adjacent residents, businesses and those traveling the Loughheed Highway. The first three years are critical to this growth and establishment. In the first year new plants are most susceptible to vandalism, transplant shock and invasive weeds. In the second year there will be some weeding and new replacement plants required. In the third year weeding will be the main requirement.

### **3.5 On-going Maintenance Approach**

In subsequent years, there will be little room for weeds. Litter removal, spot weeding and replenishing the bark mulch as it breaks down will be the critical aspects to maintaining a healthy pleasing landscape. Regular maintenance requirements can be expected to diminish over time. However, occasional overhead washing/spraying of the plant material will be required to keep the leaves clean for photosynthesis and the pores open to breath.

## **4.0 COSTS AND FINANCING**

The total cost of the design, construction and three year initial maintenance for the planting is \$208,000: \$33,000 to remove the old soil and replace parts of the drainage system, \$97,000 to install the new landscape and \$78,000 for three years of initial maintenance to establish the landscape, including weeding, fertilising, garbage clean up and occasional overhead washing/spraying.

Sufficient Maintenance Reserve (Operating) is available and this project is included under the 2005 Annual Operating Budget Prior Years Surplus / Stabilization Funding Requests. It is recommended that the amount of \$222,560 (inclusive of 7% GST) be allotted to finance this project. The net cost to the City is \$208,000, after claiming a 7% GST rebate.

Future Public Works Operating Maintenance Budgets will be affected by increases in maintenance costs associated with boulevard weeding, irrigation and plant propagation. Annual costs of \$26,000 will be incurred in future Operating Budgets. This estimated cost will be subject to budget review in 2009.

To: City Manager  
From: Director Planning and Building  
Re: Brentwood Centre Median Pilot Project  
2005 November 21..... Page 6

## 5.0 CONCLUSION

The City is re-examining the beautification strategy, including public boulevards. One component of the review is to estimate the overall financial impact (capital and operating) of the beautification strategy. This test case would assist in this process by providing the City with a start on real information on the difference in life cycle costs. The centre medians on Loughheed Highway are proposed to be planted and maintained to ensure that the landscape will mature and appreciate in value for the benefit of residents and surrounding businesses and to test the assumption that investing in the landscape on a regular basis will increase the value of the landscape without creating any over all increase in cost to the City.

To achieve this, staff is proposing that the regular one year maintenance and warranty period be extended to three years as a capital cost and that operating dollars beyond 2009 be subject to Budget review at that time.



J.S. Belhouse, Director  
PLANNING AND BUILDING

IW:sla  
Attachment

cc: City Manager  
Director Engineering  
Director Parks, Recreation and Cultural Services  
Director Finance

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Fig. 1  
**Lougheed Medians Concept**

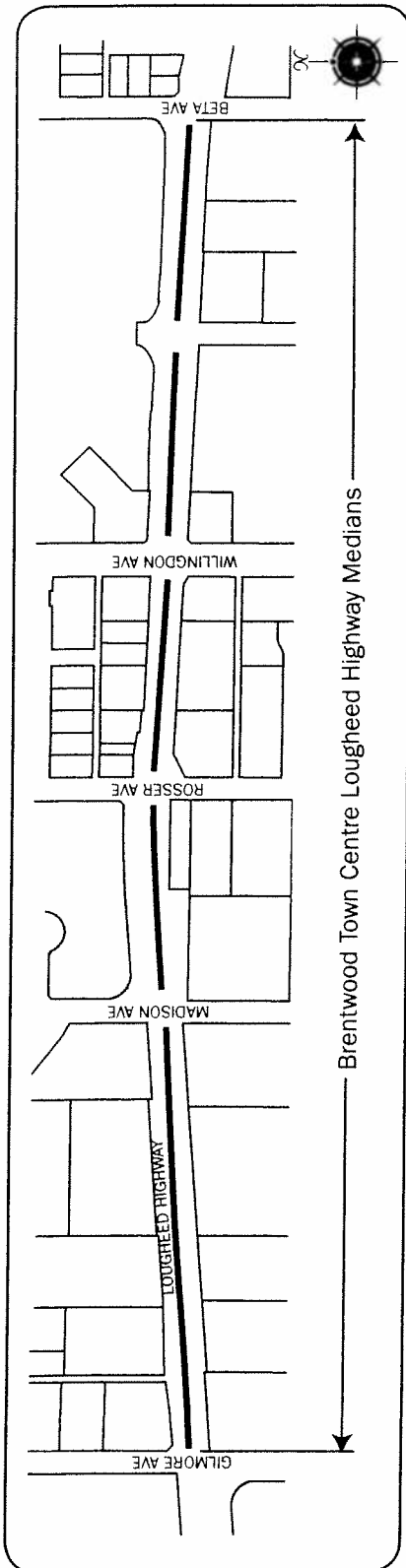


Fig. 2 **Lougheed Highway looking east**

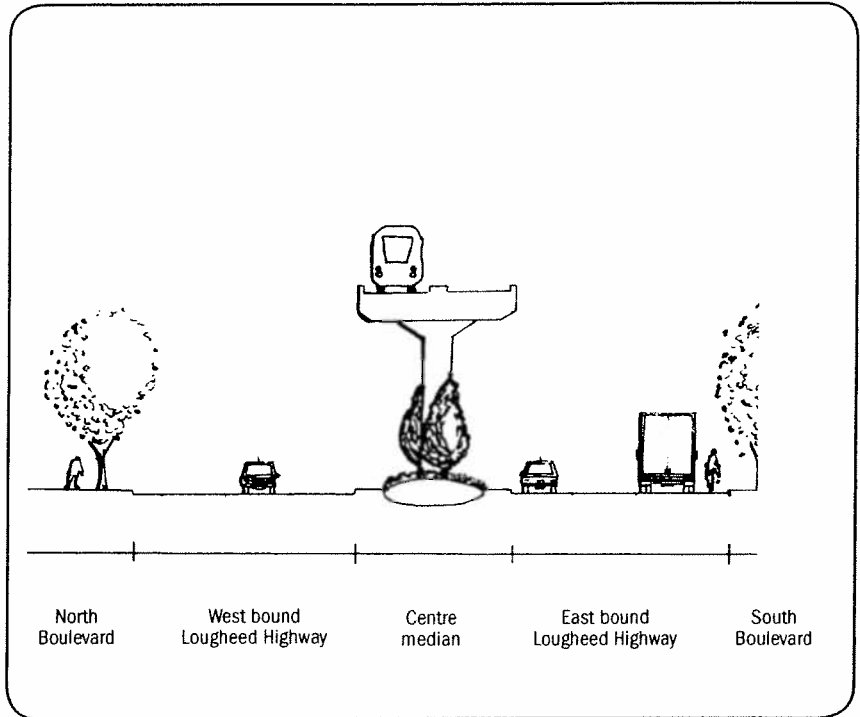
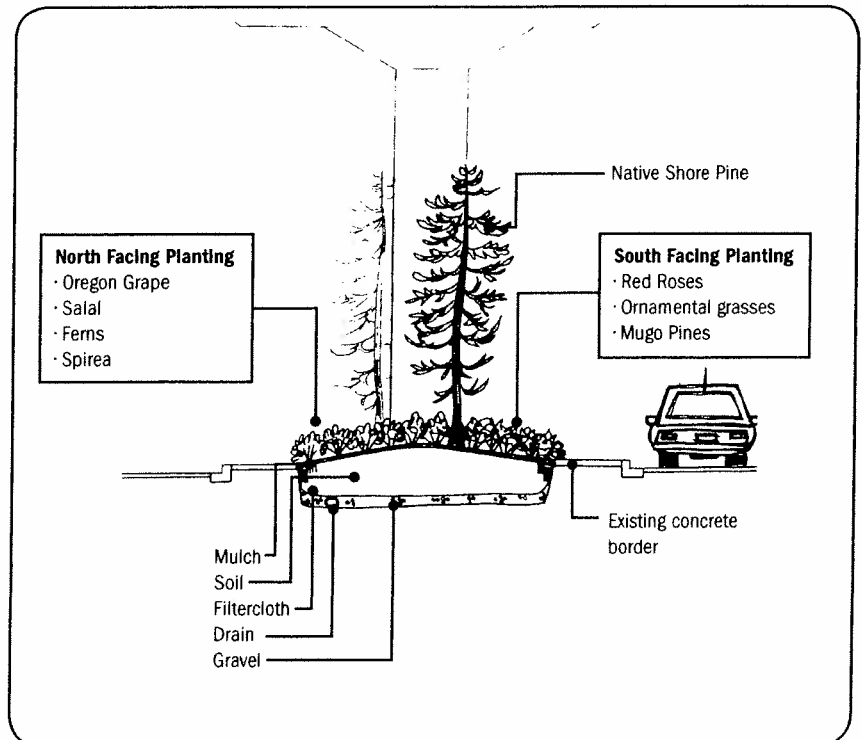


Fig. 3 **Typical Median Cross Section**





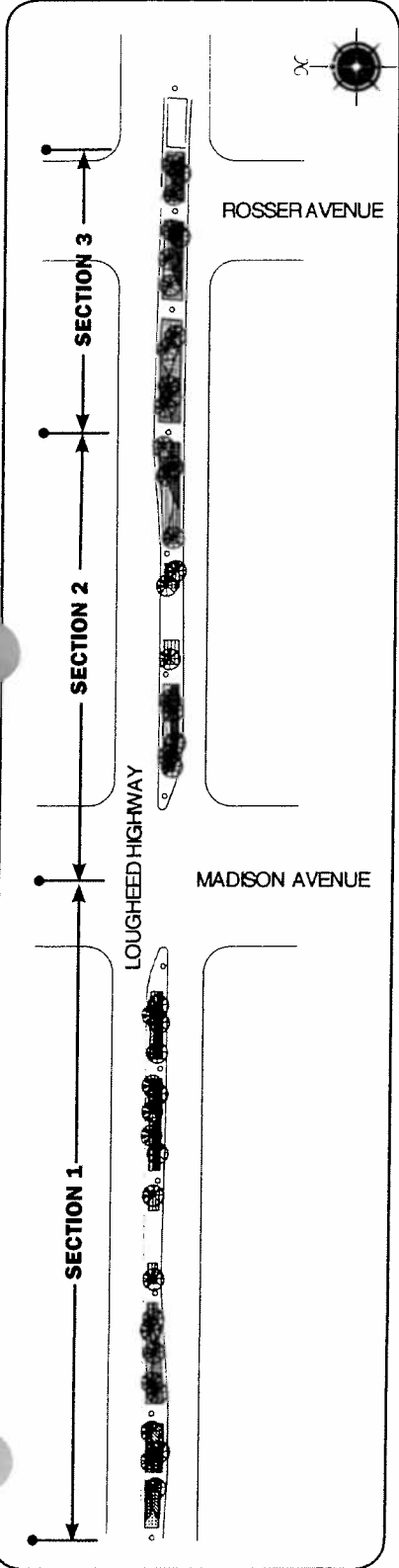


Fig. 4  
**Loughheed Medians Planting Design: East of Madison Avenue to Rosser Avenue**

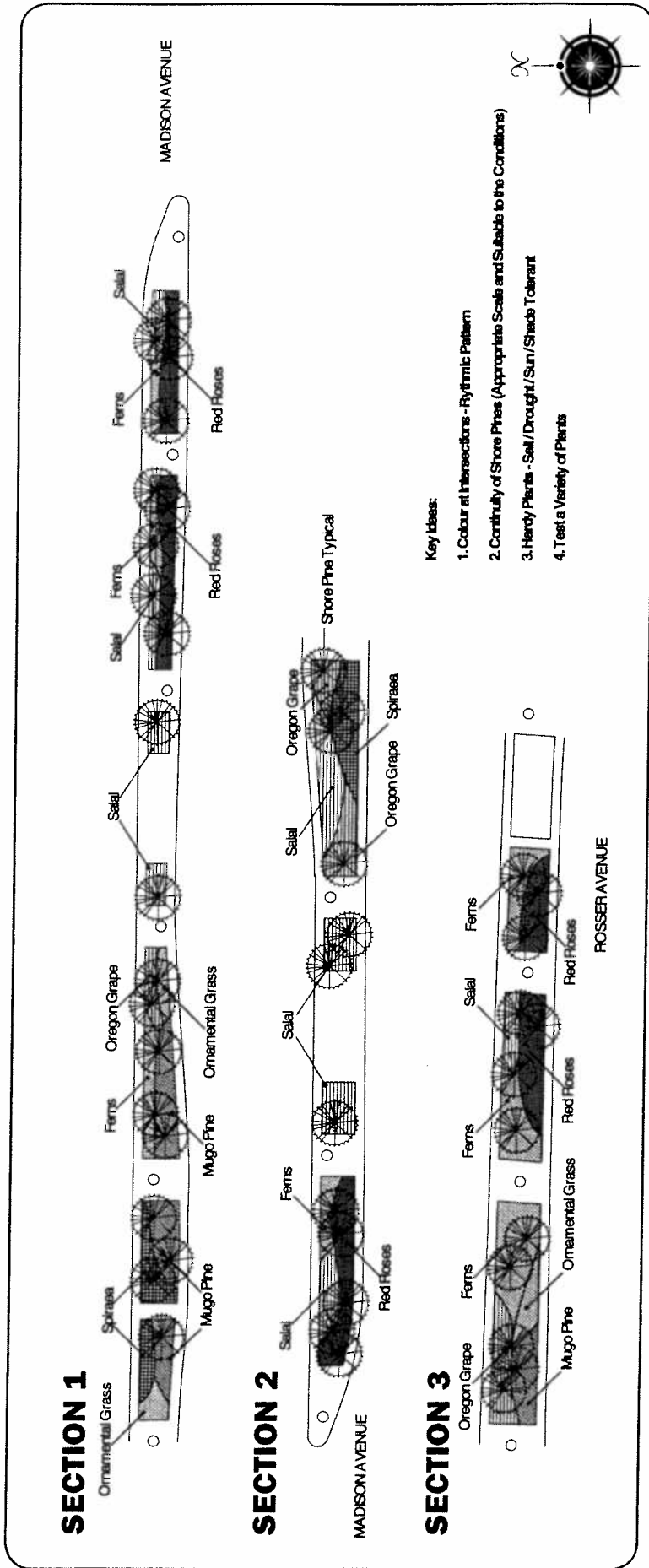


Fig. 5  
**Loughheed Medians Planting Design: East of Madison Avenue to Rosser Avenue**

