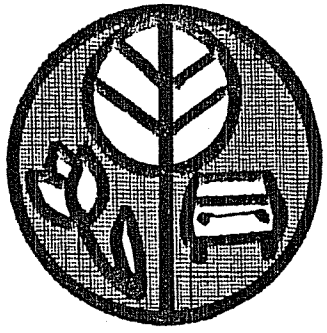
STREET AND HIGHWAY LANDSCAPE PLAN



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Anchorage, Alaska

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CHAPTER I
INTRODUCTION

INTRODUCTION

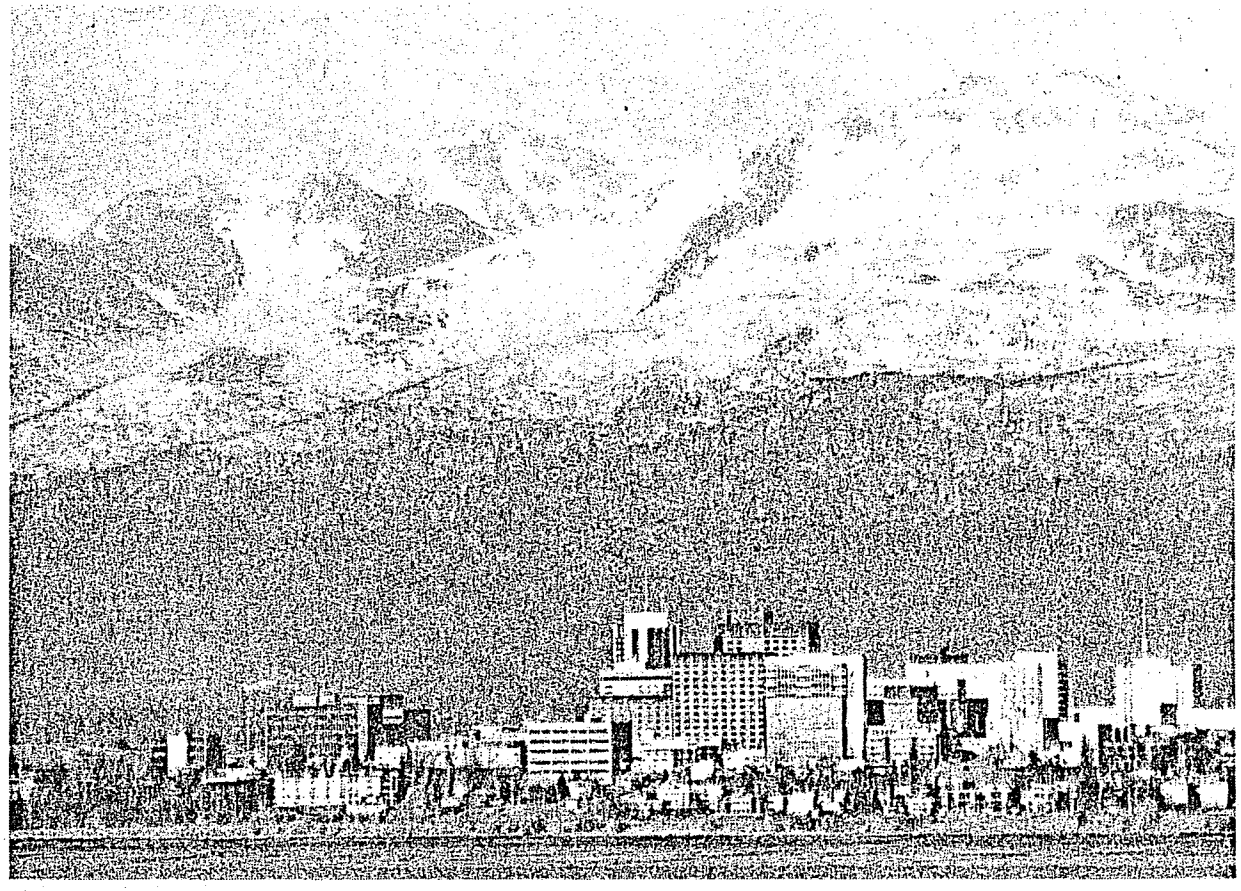
The visual character of a community's street and roadway system very much affects how successfully a community such as Anchorage can remain an attractive place for people to live and work. The physical qualities of one's environment not only contribute towards improving the quality of life but also play an integral part towards maintaining economic values.

Over the past two decades, the Anchorage Bowl has undergone a dramatic surge of growth and development. Against a backdrop of exceptional scenic beauty the Municipality's network of roadways have steadily laced an urban fabric, a fabric sometimes visually attractive but more often of less appealing results. Consequently, native woodlands have given way to the systematic incursion of neighborhoods and commercial development. Out of economic necessity the visual characteristics of the roadway system have not been given a high priority, leaving a patchwork clutter of developed and undeveloped areas.

This patchwork of development and subsequent lack of visual cohesion is the result of thousands of incremental decisions and actions made independently and in the absence of an overall plan. These decisions were made over the years by homeowners, business firms, developers and public agencies.

The challenge of improving the visual character of Anchorage's streets is one of coordinating the various improvements made along its roadway system following established landscape design criteria, guidelines, and a comprehensive landscaping plan. Street improvements involving landscape should be designed to preserve or enhance existing woodlands that still border many of Anchorage's streets while integrating landscape improvements in roadway project where past development has eliminated the native vegetation.

The Municipality of Anchorage Street and Roadway Landscape Plan represents an initial effort towards advancing the aesthetic quality of life in Anchorage through improvements of the street landscape. The purpose of the Plan is to establish design guidelines that encourage the preservation of existing woodlands located within public roadway right-of-ways and enhance the aesthetic qualities of public roadways through the systematic development of various landscape elements. This document contains three sections. The first explains the planning process and methodology used in preparing the study. The second describes the design, administrative, and financial recommendations necessary to implement the plan. And the third indicates prototypical landscape recommendations for the various types of streets in the Anchorage Bowl, based upon a functional classification system.



CHAPTER II
PLAN DEVELOPMENT PROCESS

INTRODUCTION

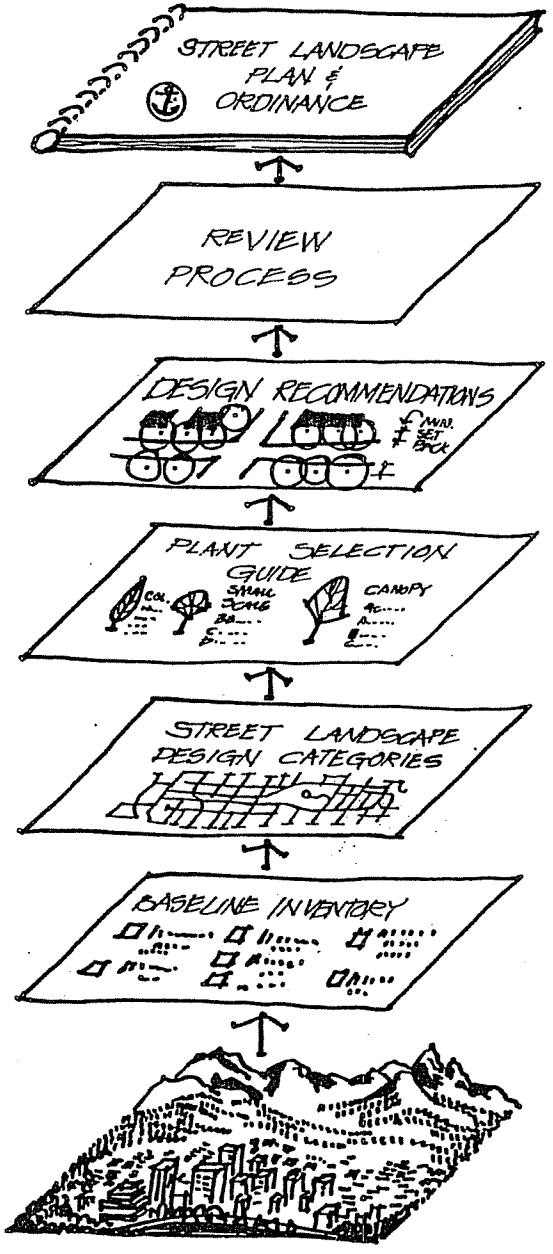
The recommendations of the Street and Highway Landscape Plan are meant to provide a focus for the beginning of community landscaping along major streets. Hopefully, its impact will be felt in the way the community looks, how people react to their living environment, and in the overall quality of life in Anchorage. More specifically, the plan is intended to effect the manner in which streets are designed and constructed. For all of these reasons, the recommendations contained herein must be based on a thorough and accurate inventory of current conditions and an assessment of available design, engineering, and planting options.

The process of plan development focussed on trying to identify the various conditions that now exist and affect the opportunities for street landscaping. It also examined the alternatives that might be available in terms of design features, plantings, and those administrative measures necessary to implement the Plan. It became apparent during the process of the study's preparation that considerable uncertainty–as well as opportunity–exists for landscaping, and that the Plan should address the **process** of landscaping for Municipal streets. This study does not recommend particular design solutions for arterials, but suggests a method to evaluate the available design opportunities. It then specifies a method whereby those design options can be translated into a street landscaping project.

To arrive at both the nature of the available design options and the corresponding implementation actions, required a series of analytic steps, including ....

- **Review of available literature** on street landscaping programs in other communities.
- Development of a **baseline inventory** of street roadway characteristics and vegetation types.
- Preparation of a **plant selection guide** specifying the types of vegetation consistent with particular roadway classifications.
- Preparation of landscaping **design guidelines** for the various roadway types.

These steps provided the basis for the design and regulatory recommendations contained in this Plan. The scope of this study is confined to the area of the Anchorage Bowl and to a 10-20 year planning period.



PLAN DEVELOPMENT PROCESS

Literature Review

Prior to initiating the inventory, a literature search was conducted to evaluate the street tree programs of other communities for any insights they might provide. At the conclusion of this research, the overriding impression was that none of the communities investigated had developed nor attained the level of effort the Municipality intended. These studies focussed on identifying particular landscaping treatments for specific streets or on the type of maintenance program necessary to implement an adopted plan. Consequently, the work ahead was not merely that of adapting a composite of what other communities had done but involved a process of evolving a workable program that was truly unique, and would be appropriate to our climatic conditions.

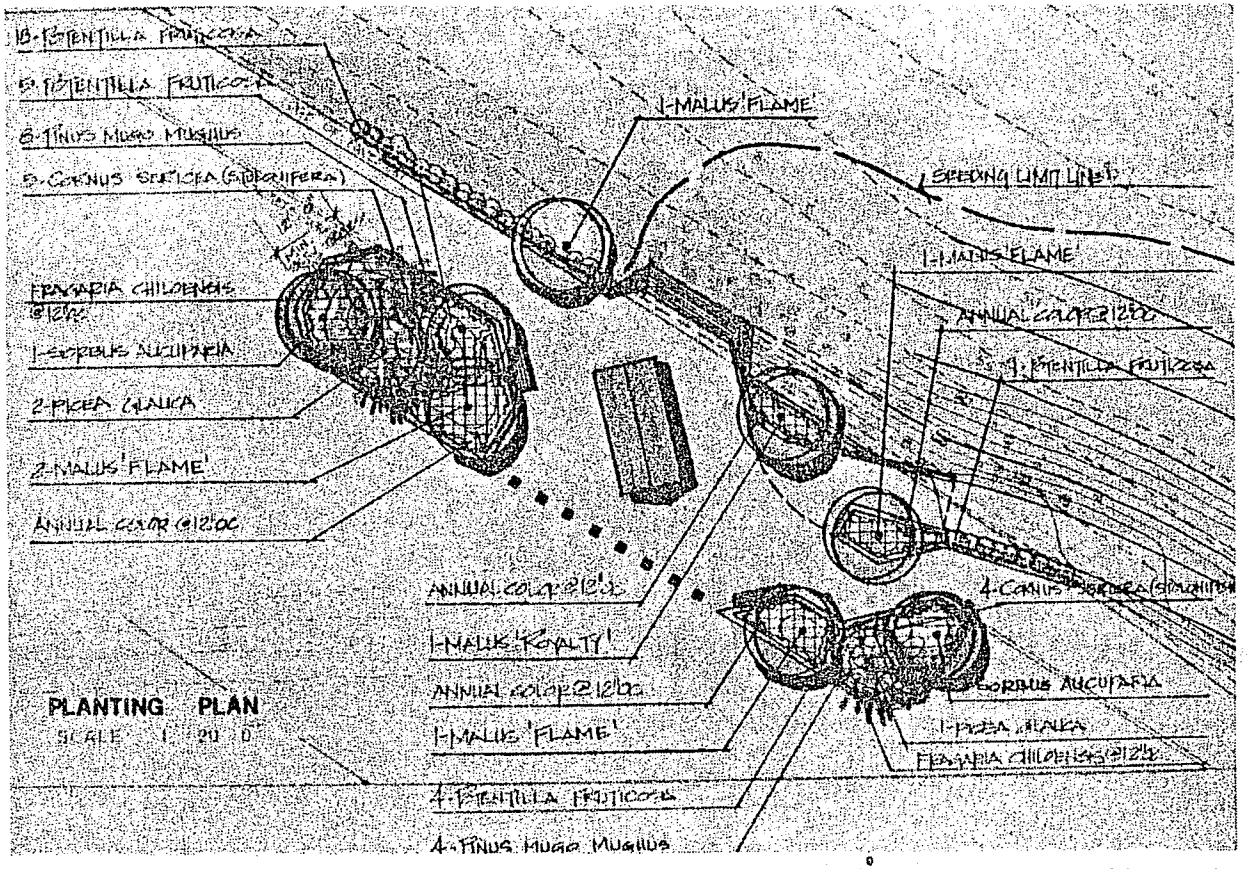
The planning process focused on identifying the peculiar landscaping requirements intrinsic to Anchorage and our subarctic climate, and specifically upon:

- The types of tree species adaptable to a maritime transitional climate and to roadway environments,
- The need for snow removal,
- The utilization of the remaining native vegetation, and
- The adaption of proposed landscape treatments to unique physiographic, scenic, and architecture contions.

Baseline Inventory

The initial phase of plan development concentrated on developing a baseline inventory of existing conditions within the Anchorage Bowl. This inventory included the four street classifications given in the Anchorage Metropolitan Area Transportation Study's Long Range Element[1]. It also evaluated the vegetated areas next to these roadways. The importance of this inventory was in determining the range of landscape enhancement problems and opportunities that existed.

The baseline inventory was initially designed to examine the physical and visual attributes of the major roadways and their adjoining woodlands. However, once the windshield survey was underway, the rationale for conducting the two independently of each other gave way to a rapid realization that the existing woodland areas and presence or absence of roadside vegetation emerged as the dominant attribute in delineating a street's character. Therefore, the roadway survey and the woodland survey were conducted simultaneously.



At the completion of the windshield inventory, survey data was transferred to working maps. These maps were used as tools in conjunction with aerial and ground-view photographs, to analyze the different information assessments by superimposing one on the other to render a composite image. Then, land use maps containing the standard planning categories (industrial, commercial, residential, institutional, open space) were overlayed with view analyses (vistas, panoramas, corridors, undesirable views) and nodes of special consideration (commercial strips and centers, busy traffice intersections) maps. The resultant composite was a map of neighborhood character types. This map was also valuable in its ability to define the constraints to and opportunities for landscaping on roadway sections. Examples of such constraints include right-of-way and set-back limitations, overhead utility lines, the presence of sign and other free-standing advertisements and intensive commercial-industrial uses. Examples of landscaping opportunities included the presence of native vegetation, scenic vistas, and compatible land uses (parks, open space, and like institutional uses).

The information gathered revealed gross patterns of continuity among the many different roadway landscapes patchworked through out the Municipality. Transferred to a map of the Bowl, the inventory data was then subjected to further analysis where a "bird's eye view" would reveal patterns, forms, and arrangements not necessarily apparent from the ground eye level. This subsequent analysis led to a range of recommendations that in their final form appeared in Volume I - **Design Guidelines,** a guide with illustrated design alternatives accompanied by descriptive narratives. These design guidelines reflected a range of landscape treatments suitable for improving the (1) functional and aesthetic qualities of roadways in the Bowl, and (2) preservation and (or) enhancement of existing woodland areas located on public lands adjoining the roadway system. In a separate section fo this inventory, the landscape implementation responsibilities of municipal and state agencies were examined.

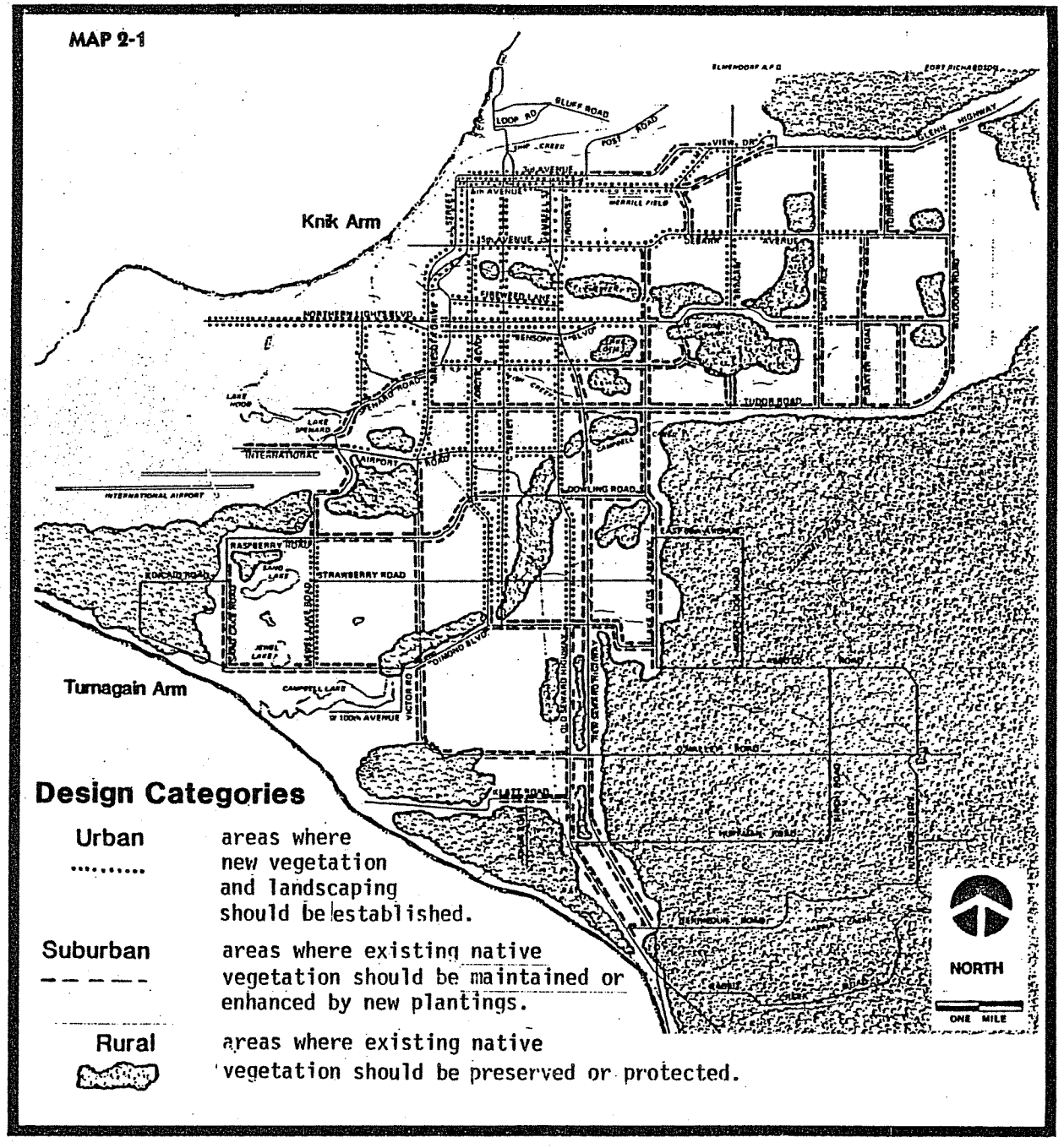
The woodland areas were mapped separate from the neighborhood character types. The information entered onto this map documented the woodland areas by their dimension, appearance, and landscape character, the categories being:

- woodlands-natural stands that are densely and somewhat impenetrable,
- buffer-usually penetrable plant screens between developed areas,
- open land-flat grassland or bog containing few trees, and
- pockets of native plantings on undeveloped land within developed areas.

After completing the inventory maps for neighborhood character types and woodland areas, these two maps were then superimposed on each other. The resulting analysis led to the creation of three roadway design categories that best describe the aggregate landscape character contained within each. Each of these categories, in turn, formed the basis for different landscape design alternatives.

These roadway design categories included the urban, suburban, and rural street. The separation of roadways

MAP 2-1



into these three classificaiton may be viewed as an over-simplification of the obvious, but it nonetheless had the advantage of:

- Defining the general character of native landscaping now present on streets,
- Specifying the constraints to and opportunities for landscaping, and
- Avoiding inherent semantic problems regarding the types of landscape treatment.

The following paragraphs define each of the roadway character design categories and may be referred to when looking at Map 2-1.

Urban: The urban street traverses intensively developed areas containing high density commercial buildings, expanses of paved surfaces, structures, and considerable pedestrian and vehicular traffic. Landscaping forms should be large, bold, and formal.

Suburban: The suburban street is divided into two categories, formal and informal. The formal suburban street typically traverses residential subdivisions and its attendant development of schools, churches, shopping centers, gas stations, and spot commercial fast food franchises. Roadway edges and pedestrian areas are not rigidly defined, thereby creating more opportunities for planting than the urban setting. Informal suburban streets maintain a close proximity to both woodland areas and native stands of undeveloped land while traversing residential subdivisions and their associated development.

Rural: The rural street is found throughout the Municipality where native woodland stands prevail as the dominant landscape feature. Even with some development encroachment, the native character is still in evidence. Landscaping programs in these sections attempt to retain as much of the native vegetation as practicable.

Plant Selection Guide

The Plant Selection Guide was developed to be a resource for making well informed decisions on the types of plants compatible with sub-arctic climatic conditions and roadway environments having large volumes of traffic. It was designed to provide the user with specific information with which to select compatible plants for a variety of roadway settings, with each section contributing a slightly different informational perspective toward the selection decision. In this context, then, it forms the information base for subsequent landscape decision-making on the type and mix of vegetation to be included in a landscaping project.

In order to provide the basis for this decision-making, the Plant Selection Guide includes the following sections:

a. A **Design Category Matrix** which cross references a plant to a subscribed development circumstance that occurs within a roadway zone for one of three types of land use. These types are equivalent to the Urban, Suburban, and Rural definitions, previously described.

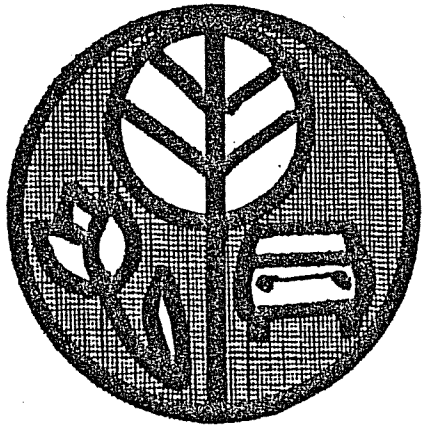
b. A **Plant List** Section containing a listing of plants by physical attributes, environmental tolerances, and seasonal color. The intent of the listing is to aid in selecting plants that conform to site specific or aesthetic requirements, especially where one or two attributes may dominate or preclude the consideration of other plant attributes when making a design selection.

c. A **Plant Description** section including a catalog of selected plants contained in the Plant list. The catalog is organized by common name into five types (deciduous and coniferous trees, shrubs, ground covers, and vines). Varieties are also listed and supplemental planting considerations are noted for various plant species as appropriate.

d. A **Planting and Maintenance** Section which identifies the growing measures necessary for the implementation of a successful roadway landscape program. This section is divided into four major program parts–plant procurement, methods and procedures of installation, maintenance, and costs–with each part defining both the program planting and implementation facets.

Design Guidelines

This aspect of the Plan development process focussed on identifying alternative design options that apply to



various roadway conditions. A methodology was developed that allows a designer to determine the most appropriate landscape treatment for a given project. The Plan does not contain particular design recommendations for individual street sections, but identifies the engineering and design treatments that should be evaluated in the development of a landscape improvement.

The Design Guidelines are intended to be a companion publication to the Plant Section Guide and together they should provide the assistance necessary to carry out a long-term landscaping program. The Design Guidelines consist of the following techniques:

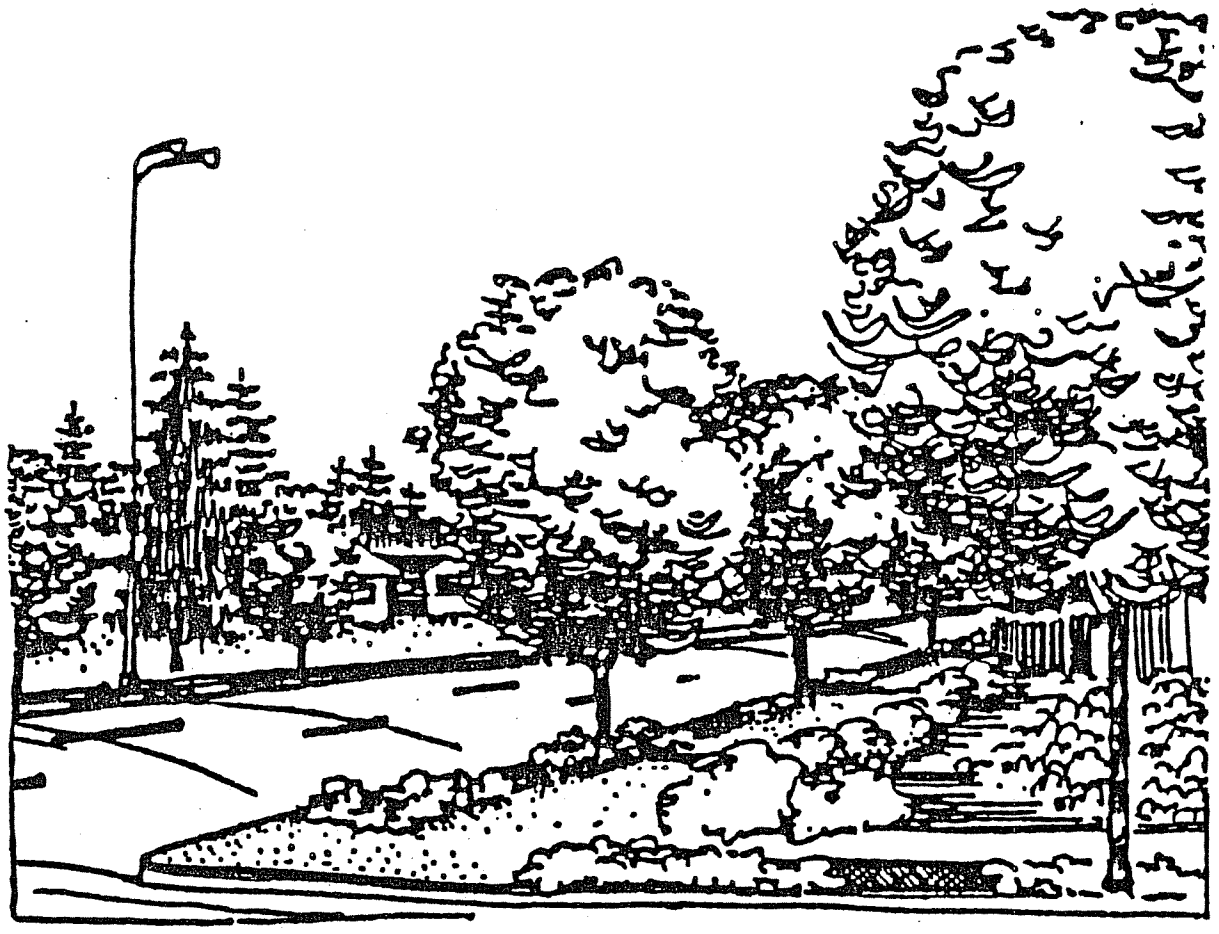
a. The **Design Category Matrix** includes categories corresponding to urban, suburban, and rural streets and relates these categories to specific streets and street sections.

b. The **Design Considerations** identify various aesthetic and practical landscape treatments appropriate for specific developments adjacent to the road right-of-way.

c. The **Design Recommendations and Prototypes** are illustrated landscape treatments emphazing plants, hardscape, and earthware. Each illustrated prototype and accompanying narrative recommendation reinforces a roadway landscape design concept that can be consistently applied throughout the Anchorage Bowl.

CONCLUSION

These three sections, used in the above sequence, constitute a **process** for developing specific roadway landscape design plans. Each of these process tools refine the design choices to a limited range of landscape treatments most suitable for specific roadway segments. Used in conjunction with the Plant Selection Guide, the Design Guidelines are intended to aid designers in developing a visually coherent, aesthetically pleasing roadway system.



CHAPTER III
LANDSCAPE PLAN

INTRODUCTION

The intent of the Street and Highway Landscape Plan is to establish landscaping as an important objective of orderly community growth and to identify a process whereby this general objective can be translated into specific landscaping proposals. It is important to recognize that the Plan does not specifically design configurations. Nor does it absolutely require that landscaping be provided in all street construction/reconstruction projects. Rather, it identifies roadway sections that, based on planning design principles, should be considered for landscaping and provides a process that can be followed to evaluate its feasibility. These planning and administrative features are now described.

GOALS, POLICIES, AND OBJECTIVES

Goals represent desired end-state conditions. They are meant to establish a particular condition that should be attained and provide a general indication as to the manner through which this condition can be realized.

Landscaping Goals

The Municipal goals toward landscaping are to:

a. Provide for the enhancement of the visual, aesthetic, and functional landscape of the Municipality of Anchorage by the planting, maintenance, and protection of trees, shrubs, and ground covers and installation of scenic pullouts and decorative street furniture upon public streets and road rights-of-way.

b. Maintain and/or enhance existing native woodlands within public road rights-of-way.

c. Develop a sense of visual cohesiveness along roadway corridors or within neighborhoods regardless of the land use.

Landscaping Objectives

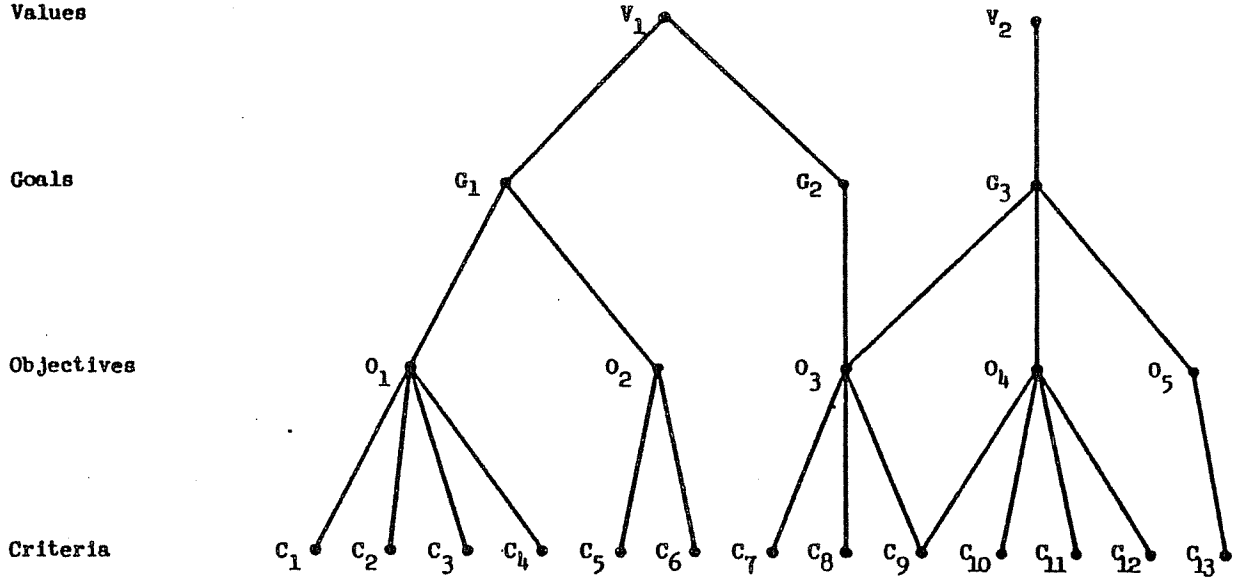
Objectives are specific statements as to how community goals can be realized. They are intended to be attainable within a 1-10 year period and should establish, in general, the techniques to be used and specific directions to be followed in attaining goals.

The following objectives represent initial steps towards realizing the overall Municipal landscaping goal:

a. The Municipality shall provide, where practicable, an appropriate form of landscape treatment for all roadway improvements determined to need landscaping in this Plan.

b. The Anchorage Metropolitan Area Transportation Study should adopt a policy to landscape public streets and roadways for projects identified in the Transportation Improvement Program and specified as needing landscaping in this Plan.

c. Landscape design plans shall be prepared for streets scheduled for construction and identified as requiring landscaping in this Plan, and shall form the basis for the form, scale, and cost of the actual landscape treatment.



Hierarchical interrelationships among values, goals, objectives, and criteria.

d. The Municipality shall establish a short-range landscape plan that specifies the streets to receive landscape treatment over a 1-5 year period, sets the priorities of project development, and evaluates the overall fiscal implications of landscape improvements.

e. The Municipality and AMATS should develop a predictable level of funding (capital and operational) to support roadway landscaping projects.

f. The Municipality shall integrate landscaping considerations in other planning functions, especially park, open space, transportation, and comprehensive land use planning. The basis of this integration should be the (alternate) design configurations described in this Plan.

g. The Municipality should encourage a sense of community concern about street landscaping through award programs, beautification programs, community education, and the sponsorship of joint public-private landscape projects.

h. The Municipality shall encourage through rezonings, site plans, and subdivision reviews, the inclusion of compatible landscape forms along landscaped public right-of-ways in adjoining private lands.

Landscape Policies

Policies are intended to identify general courses of action for implementing long-term objectives and achieving community-wide goals. They are designed to represent specific Municipal procedures that are to be followed in design, engineering, or land use decisions.

a. Street improvements should be designed to preserve or enhance existing woodlands.

b. Aesthetic qualities of roadway corridors should be enhanced through the systematic planting and/or installation of landscape elements.

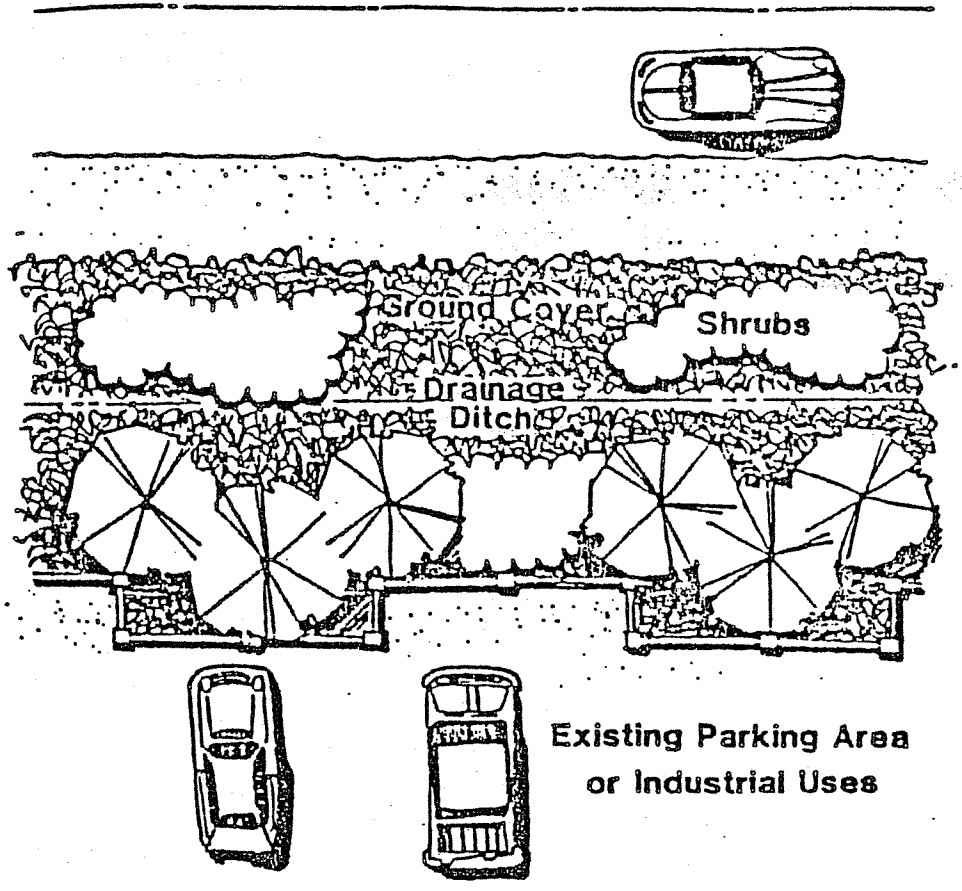
c. Provide supplementary landscape plantings along streets where native vegetation has a diminished presence but where the roadway and surrounding land use patterns would be enhanced.

d. Incorporate landscape elements of bold visual characteristics along streets where urban development exists.

e. Develop scenic pullouts along major roadways to provide opportunities for viewing landmarks or as trail heads to unique historical, recreational or geographical features.

f. Instill a sense of community pride, ultimately achieving a more beautiful city through cooperative roadway and property enhancement efforts from the public and private community.

g. Provide a workable framework or set of design tools for unifying public and private efforts in urban beautification.



STREET AND ROADWAY LANDSCAPE PLAN MAP

The general design recommendations of the Street and Roadway Landscape Plan are given on Map 3-1. This map assigns one of three design categories to several categories of streets in the Anchorage Bowl. The Plan attempts to develop a systematic pattern of landscaping throughout the community, and especially emphasize the use and maintenance of native vegetation.

The following defines each of the roadway character categories:

The **urban street** traverses intensively developed areas containing high density commercial buildings, expanses of paved surfaces, structures, and considerable pedestrian and vehicular traffic.

The **suburban street** is divided into two categories, formal and informal. The formal suburban street traverses residential subdivisions and its attendant development of schools, churches, shopping centers, gas stations, and fast food franchises. Roadway edges and pedestrian areas are not rigidly defined, thereby creating more opportunities for planting than the urban setting. Informal suburban streets maintain a close proximity to both woodland areas and native stands of undeveloped while traversing residential subdivisons and their attendant development.

The **rural street** is found throughout the Municipality where native woodland stands prevail as the dominant landscape feature. Even with some development encroachment, the native character is still in evidence.

Specific landscape recommendations are made for each street design category. These recommendations can be found in two technical documents:

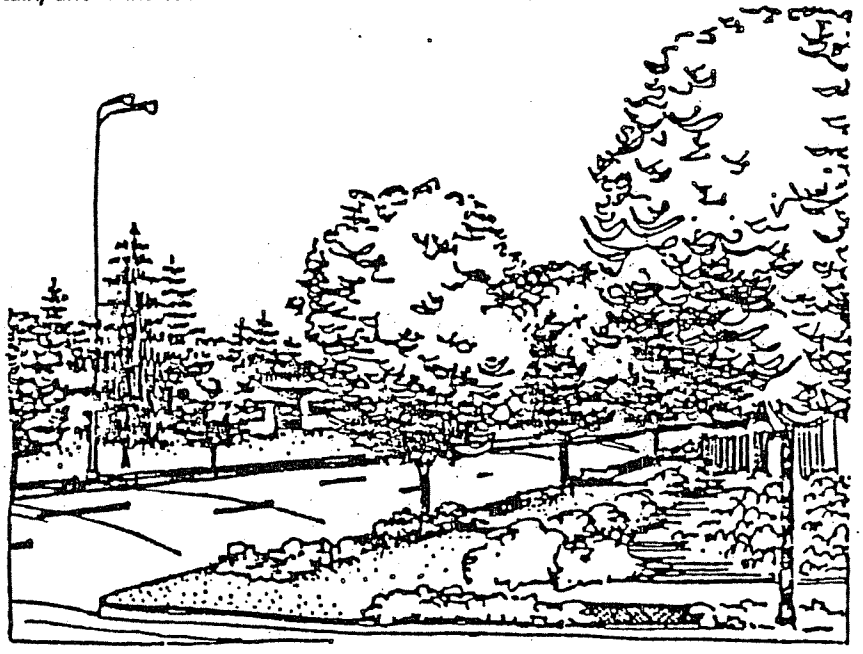
Design Guidelines
Plant Selection Guide

The two studies contain a procedure for selecting street landscape alternatives (in the case of the Design Guidelines) or procedure for selecting specific plant species (in the case of the Plant Selection Guideline).

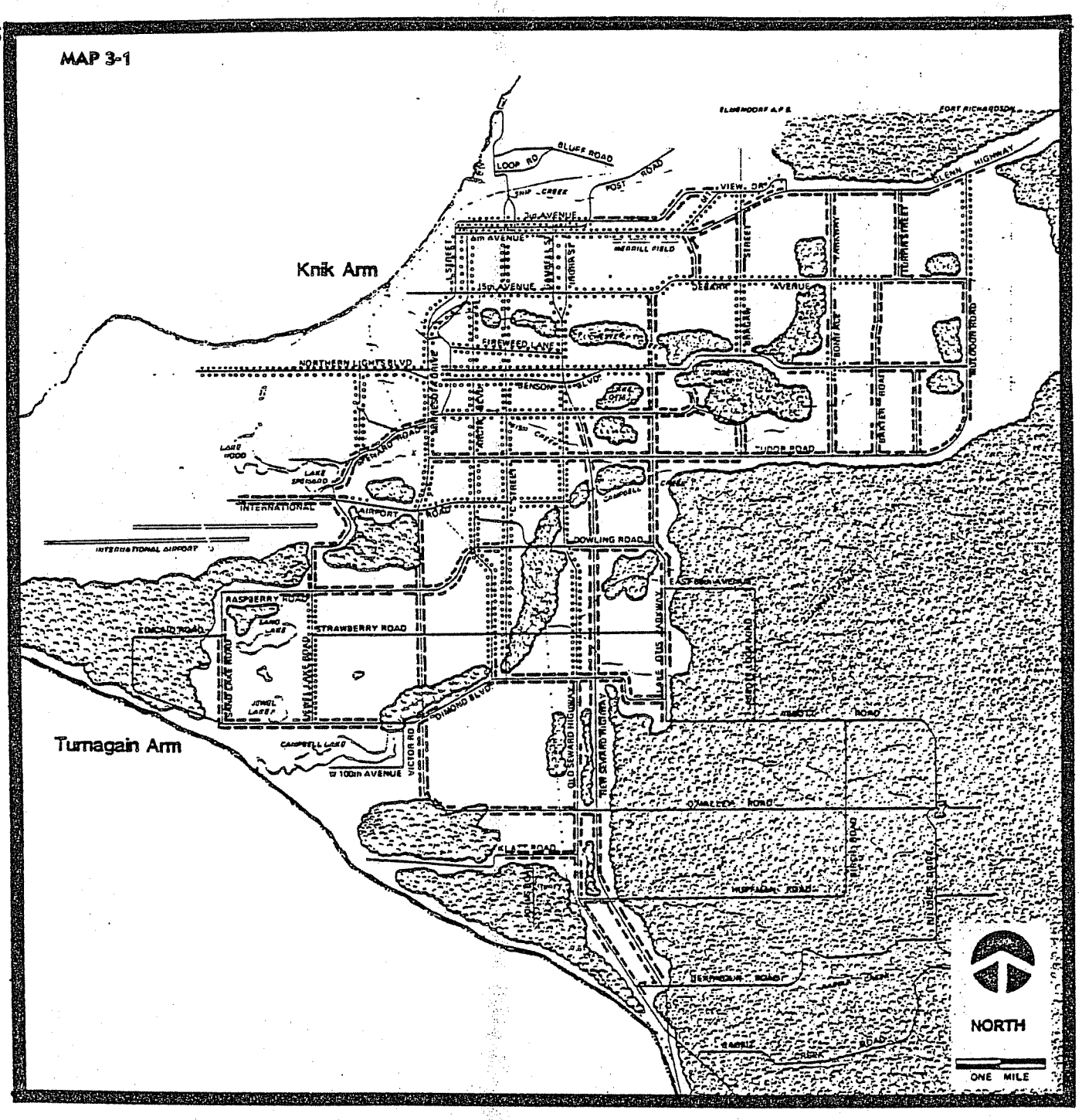
Both the baseline inventory and the application of landscape design principles were used to establish the need for landscaping in these sections. As described, the inventory identified and assessed both the opportunities for and constraints to landscaping on particular street sections. It included an evaluation of vegetation types and distributions; programmed street improvements; right-of-way and easement requirements; scenic vistas; utility line obstructions and placement, both current and planned; and both the types and intensity of developed land uses. Based upon these data, the following principles were then applied to determine the appropriateness for landscape treatment:

- The need to provide an improved aesthetic character adjacent to heavily traveled streets.
- The opportunity to provide landscape treatment due to the presence of native vegetation.
- The need for and opportunity to provide a sense of imagery and visual cohesion to neighborhoods and community nodes.
- The presence of scenic vistas, panoramas, or architectually significant features.
- The requirement to protect, maintain, and enhance natural amenities.
- The volume of current and projected traffic, and the availabilty of sufficient public right-of-way for landscaping.
- The absence of over-riding sight distance considerations.

The Plan Map represents an expression of Municipal policy to consider landscaping as an essential feature of roadway projects. It also expresses the intent to develop an integrated system of landscaped roadway corridors for all major entranceways and most major arterials throughout the community. It is nonetheless recognized that the form and type of street landscaping is best decided on an individual, case-by-case basis depending on engineering constraints, financial considerations, and the presence of native vegetation. The plan is intended to provide the overall framework to these decisions, to afford an element of consistency in community landscape design. The method by which these individual project assssments are made is described in the administrative section.



MAP 3-1



Design Categories

Urban ..... areas where new vegetation and landscaping should be established.

Suburban - - - - areas where existing native vegetation should be maintained or enhanced by new plantings.

Rural areas where existing native vegetation should be preserved or protected.

BUDGET AND PLAN PRIORITIES FOR IMPLEMENTATION

It is proposed, in the adoption of the Street and Roadway Landscape Plan, that all streets identified in Map 3-1 be considered for landscape improvements following the design guidelines and criteria developed in the **Plant Selection Guide** and **Design Guidelines.** Two processes would be followed to establish funding for landscape treatment, depending upon the timing of major street improvements.

For streets scheduled for major construction/reconstruction in either the Municipal Capital Improvement Program or AMATS Transportation Improvement Program, monies would be reserved for landscaping as part of total project costs. Preliminary cost estimates would be prepared based upon the general design standards of the Street and Roadway Landscape Plan and according to the landscape design category specified in Map 3-1. These monies would be included in the AMATS TIP and Municipal CIP as part of overall project costs. The actual arterial landscaping costs – and the landscaping design plan from which these costs would be derived –would then be developed as part of the typical design process.

This approach to funding reflects the real costs of landscaping and does not place any artificial funding ceiling upon landscaping requirements. It also recognizes that landscaping is an integral part of a street project – as important as drainage, curbs, and the street section itself. It must be reemphasized, however, that the previous process applies only to those minor arterials, major arterials, and expressways-freeways shown in the Plan Map (Map 3-1).

The previous funding method only applies to streets to be constructed/reconstructed over the next six years. It does not address the need to provide landscaping on streets built to full design standards and not scheduled to be improved within the foreseeable future, **but** requiring landscape treatment. A different funding process is appropriate for this situation. It is recommended, on a periodic basis, that the Urban Beautification Commission identify high-priority arterial streets requiring landscaping and, with the concurrence of the Municipal Administration, that individual arterial landscape design plans be prepared. These plans would be based upon the general design standards of this Plan and would be consistent with the design category given for specific arterial streets in Map 3-1. The landscaping costs would then be included in the Short Range Landscaping Plan and Municipal Capital Improvement Budget and Program. Monies would then be appropriated on an annual basis by the Assembly for the restoration of certain streets. The previous method would allow for landscape treatment for needed roadway sections and insure that the typical review process is used as the basis for the actual estimation of costs.

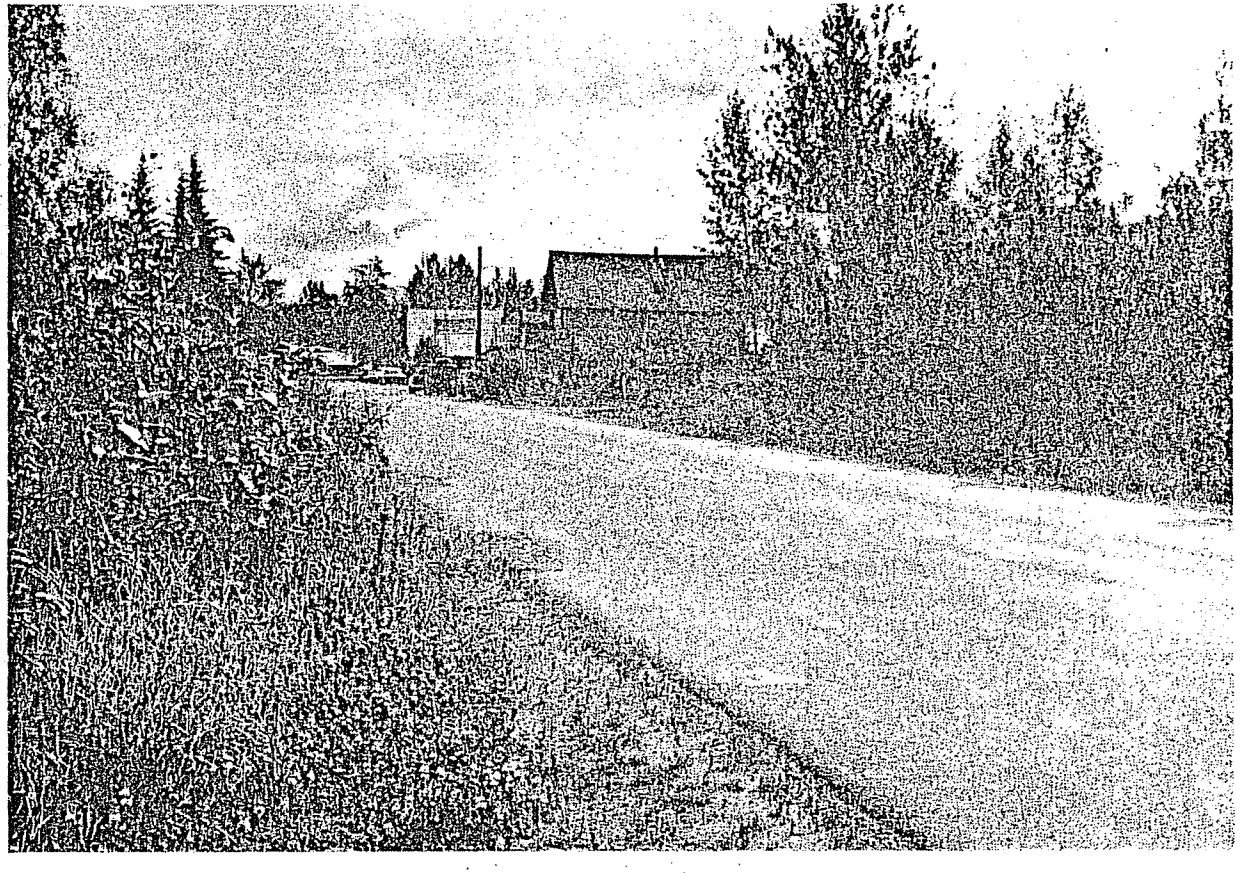


Table 3-1
Street & Roadway Landscape Planning Priorities

Level I:

* Northern Lights/Benson: Minnesota-Lake Otis Pkwy.
* Minnesota: International-15th Ave.
* Northside Corridor: Muldoon to western terminus of project
* New Seward: Northern Lights-Rabbit Creek
* Minnesota Drive Extension: International-Dimond
* International Airport Rd.: Airport-Minnesota
* A-C Couplet: Tudor-9th Ave.

Level II:

* Fireweed: Spenard-New Seward
* Arctic: Tudor-Dimond
* E. Northern Lights: Lake Otis Pkwy.-Muldoon
* Spenard: International Airport-Minnesota
* East City Bypass: Glenn Hwy.-Lake Otis Pkwy.
* Abbott Loop: Abbott-E. City Bypass
* Lake Otis Pkwy.: Tudor-Dowling
* Commercial Drive
* Providence: Lake Otis-Bragaw (extended)
* Dowling: Lake Otis Pkwy.-Minnesota
* Raspberry: Jewel Lake-Minnesota
* Dimond: Jewel Lake-New Seward
* Boniface Pkwy.: Tudor-DeBarr
* Minnesota Dr. Extension: Dimond-O'Malley
* Jewel Lake: Dimond-International
* Bragaw: Tudor-Providence

Tudor: Pioneer-Minnesota
36th: Lake Otis-Spenard
Boniface Pkwy.: DeBarr-Glenn
Muldoon: Glenn-E. Northern Lights
Arctic: Tudor-15th Ave.

Level III:

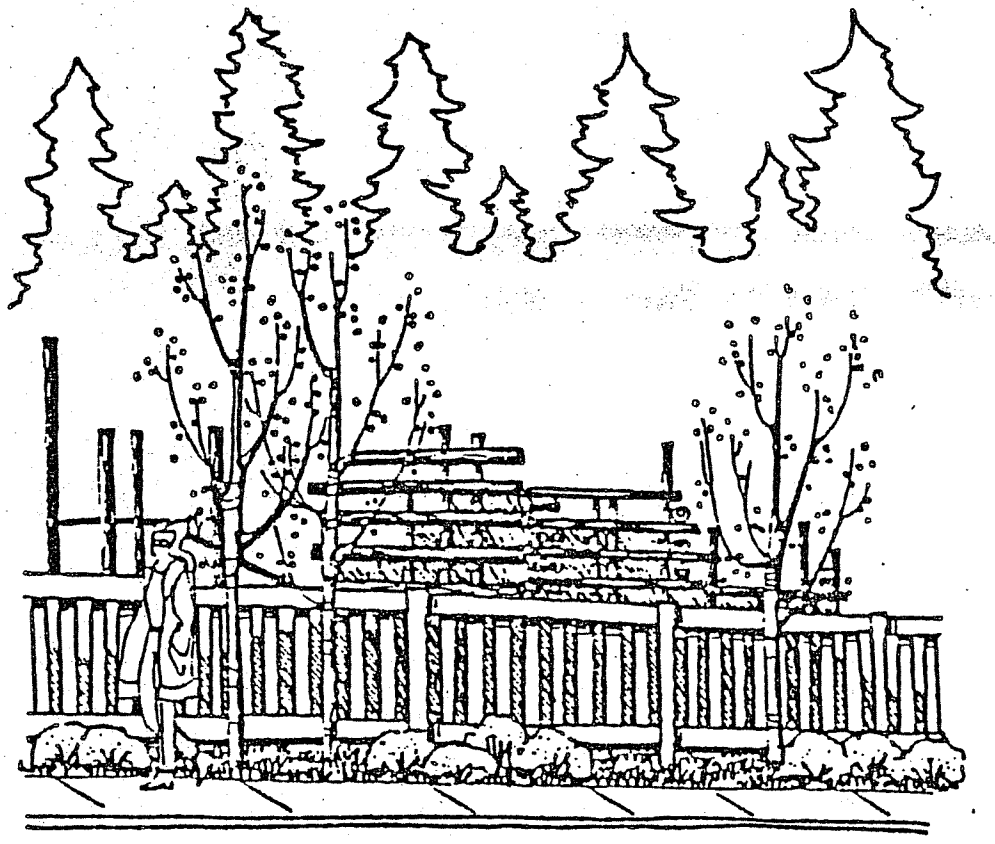
* Lake Otis Pkwy.: Abbott-Huffman
* W. Northern Lights: Wisconsin-western terminus of project

Lake Otis Pkwy.: DeBarr-Tudor
Dimond: Jewel Lake-Sand Lake
Airport Heights
Baxter: DeBarr-Tudor
Bragaw: Northern Lights-Glenn
Old Seward: 36th Ave.-Dowling

Level IV:

All other streets

*Funded Projects: Derived from AMATS and Municipal improvement programs.



INSTITUTIONAL AND ADMINISTRATIVE LANDSCAPING RECOMMENDATIONS

The effective development of a comprehensive Municipal landscaping program can only occur if administrative techniques are developed that ensure the consideration of landscaping in the planning, programming, and design of projects. Recommendations are now described that will:

- Identify institutional responsibilities for the planning and review of landscape proposals,
- Identify review procedures and the types of information to accompany this review
- Specify changes to current subdivision and plan ordinances as they relate to landscaping.

Institutional Recommendations Affecting Landscaping

1. The Municipal Urban Beautification Commission should be the body designated by the Mayor to perform in an advisory capacity to the Planning and Zoning Commission, in establishing roadway landscape policy, and in the review of specific roadway project landscape improvements.
2. A lead agency should be designated by the Mayor's office to be responsible for the review and coordination of all Municipal roadway landscape projects originated by public agencies or private developers for their conformance to any Street and Roadway Landscape Plan or ordinance that is adopted by the Municipal Assembly.
3. The responsibilities of the lead agency should be to:
   a. Insure that any development proposal will be in conformance initially with Design Guidelines and Plan Selection Guide and eventually with a prepared comprehensive roadway landscape plan for a specific project.
   b. Establish uniform procedures for implementing the adopted guidelines and plan.
   c. Advise the Planning and Zoning Commission on the relative merits and deficiencies of any development proposal with regard to street and roadway landscape.
   d. Serve as a single point of contact whereby Plan compliance could be consistently managed;
   e. Develop and implement a short-range program that will bring about a timely completion of an adopted comprehensive Street and Roadway Plan;
4. Establish a counterpart to the Municipal Street and Roadway Landscape lead agency at the state level (probably within the Department of Transportation and Public Facilities, Division of Regional Transportation Planning). This position would serve as a liaison for all street and roadway landscaping along state-owned and maintained roads within the Municipality of Anchorage.
5. Along with a commitment of including landscape improvements in overall roadway construction, adequate budgeting allowances should be made for providing staff, materials, and equipment for the continued maintenance of installed roadway landscaping. The responsibility for roadway landscape should be assumed by either:
   a. Joint powers agreement by the Municipality and the State, or
   b. Independent maintenance program based on existing street maintenance responsibilities.

Planning Recommendations Affecting Landscaping

- Short Range Landscaping Plan

  The Municipal Planning Department shall annually prepare a short-range (1-5 years) landscaping plan that identifies road sections for landscaping and sets funding levels and sources. The short range improvement plan is intended to devote better attention to short-term programming and to solve currently perceived landscaping problems. This plan is also designed to increase the likelihood of achieving the long range objectives incorporated in this Plan.

  The short range landscape plan is to concentrate on a program of specific short-term actions to be intertaken in a stated sequence, provide stated time limits for projected development; specify organizational responsibilities; be based on specific targets or objectives, many of which are derived from the need to alleviate immediate problems rather than to obtain long-range goals; and include a more explicit analysis of economic and environmental consequences of implementing the elements of the landscape plan than is possible in the long-range Landscaping Plan.

  The Short Range Landscaping Plan shall be reviewed by the Urban Beautification Commission and forwarded to the Planning Commission for action. It will be the basis for the inclusion of landscaping elements in the Municipal Capital Improvement Program and the AMATS Transportation Improvement Program for state and federally funded roadway projects.

- Municipal Capital Improvement Program

  The Short Range Landscaping Plan shall constitute the basis for a new element in the Capital Improvement Program, termed the "landscaping element." Projects identified in the Municipal Capital Improvement Program shall be based upon and derived from those facilities identified for improvement within the Short Range Landscaping Plan.

- AMATS Transportation Improvement Program

  The Short Range Landscaping Plan shall constitute the basis for a new element in the Transportation Improvement Program, termed the "landscaping element." Projects identified in the AMATS Transportation Improvement Program for landscaping shall be based upon and derived from those facilities identified for improvement in the Short Range Landscaping Plan.

- Plan Update

  The Street and Roadway Landscape Plan, as with all other planning efforts, must be subject to periodic updating. This updating must reflect changed considerations involving funding, project priorities, and both opportunities and constraints to project development. The Roadway Landscaping Map and the Street and Roadway Landscaping Planning Priorities establish the overall basic strategy for the implementation of the street and roadway landscape program.

  The Planning Department shall be responsbile for the updating of the landscape plan. Review of this docu-

ment shall be based upon changes in funding, landscape policies and goals, and opportunities for roadway development. Review of plan modifications shall be the responsibility of the Urban Beautification Commission; the Commission shall submit its recommendations to the Planning and Zoning Commission and the Assembly. The review of the landscape plan shall occur once every three years in association with the updating of the AMATS long-range transportation plan.

- AMATS Long Range Element

  The Long Range Element of the Anchorage Metropolitan Area Transportation Study shall be amended to include, in its statement of goals and objectives, the following:

  > It is the policy of the Anchorage Metropolitan Transportation Study to provide landscaping of those roadway projects identified in the Street and Roadway Landscaping Plan.

  This Plan shall also be amended to include Map 3-1: the definitions/characteristics of urban, suburban, and rural streets; and a description of the relationship of the Short Range Landscaping Plan to the Transportation Improvement Program.

- Anchorage Comprehensive Development Plan

  The Anchorage Comprehensive Development Plan shall be amended to include, in its statement of goals and objectives (21.01.045), the following:

  B. Objective 15:

  > To provide and maintain landscaping of designated streets and roads to enhance the beauty of Anchorage and improve the welfare of its citizens.

Administrative Recommendations Affecting Landscaping

- Project Review and Project Review Criteria

  The existing process of project landscaping review shall be continued. The Urban Beautification Commission shall review project landscape plans and forward its recommendations to the Municipal Planning and Zoning Commission. The basis of its recommendations shall be a landscape design plan, and the Planning Design Guidelines shall be used generally as criteria. Also included as criteria shall be cost, feasibility, and the appropriateness of the proposed landscaping relative to the type of street and adjacent land uses. The steps involved in the review process are depicted in Figure 3-1.

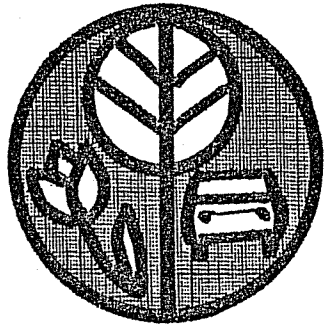
- Funding Requirements of the Landscape Plan

  Funding for the landscaping of roadway projects shall be included in all preliminary cost estimates of Municipal, State and Federally funded road projects identified as requiring landscaping in this Plan. These estimates shall be based upon the general design standards for specific types of arterial streets specified on Map 3-1. The adoption of this Plan will constitute direction by the Municipality and State to the respective planning and design staffs to develop and implement landscaping design plans for all projects identified herein as needing landscape treatment and included in the AMATS TIP and Municipal CIP. Preliminary cost estimates shall be prepared by design staffs, included in the Short Range Landscaping Plan, and eventually incorporated in the AMATS TIP and Municipal CIP for budgeting purposes. These documents shall identify the type of project landscaping required and that part of total costs directly related to street landscaping.

- Subdivision Regulations

  The Street and Landscaping Plan, as adopted or updated by ordinance, shall be considered in subdivision reviews. To accomplish this, AMC 21.80.020 should be revised to include under its section on **Conformance to Official Plans,** the following:

  > In connection with the review of proposed subdivisions or other applications made under Chapters 21.75 through 21.87 of this title, the Platting Officer and the Platting Authority shall consider the recommendations policies of the Official Streets and Roadways Landscaping Plan that is adopted or updated by ordinance.



CHAPTER IV
ROADWAY PULLOUTS

INTRODUCTION

This section of the Landscape Plan identifies the design characteristics of roadway pullouts. These areas provide the opportunity for a safe, temporary exit from major roads so that drivers and passengers can directly experience the special features of scenic views, panoramas, or historic/architecturally distinctive areas. These facilities should be considered as integral components of road projects that include landscape treatment of some form.

TYPES OF PULL-OUT SITES

Potential Pull-Out sites fall into three general categories:

Scenic View Pull-Outs are strategically located to reveal vistas, panoramic views, and specific points of interest. The majority of road pull-outs potentially developable under the landscaping recommendations of this Plan are of this type. Facilities that should be considered for these types of pull-outs include:

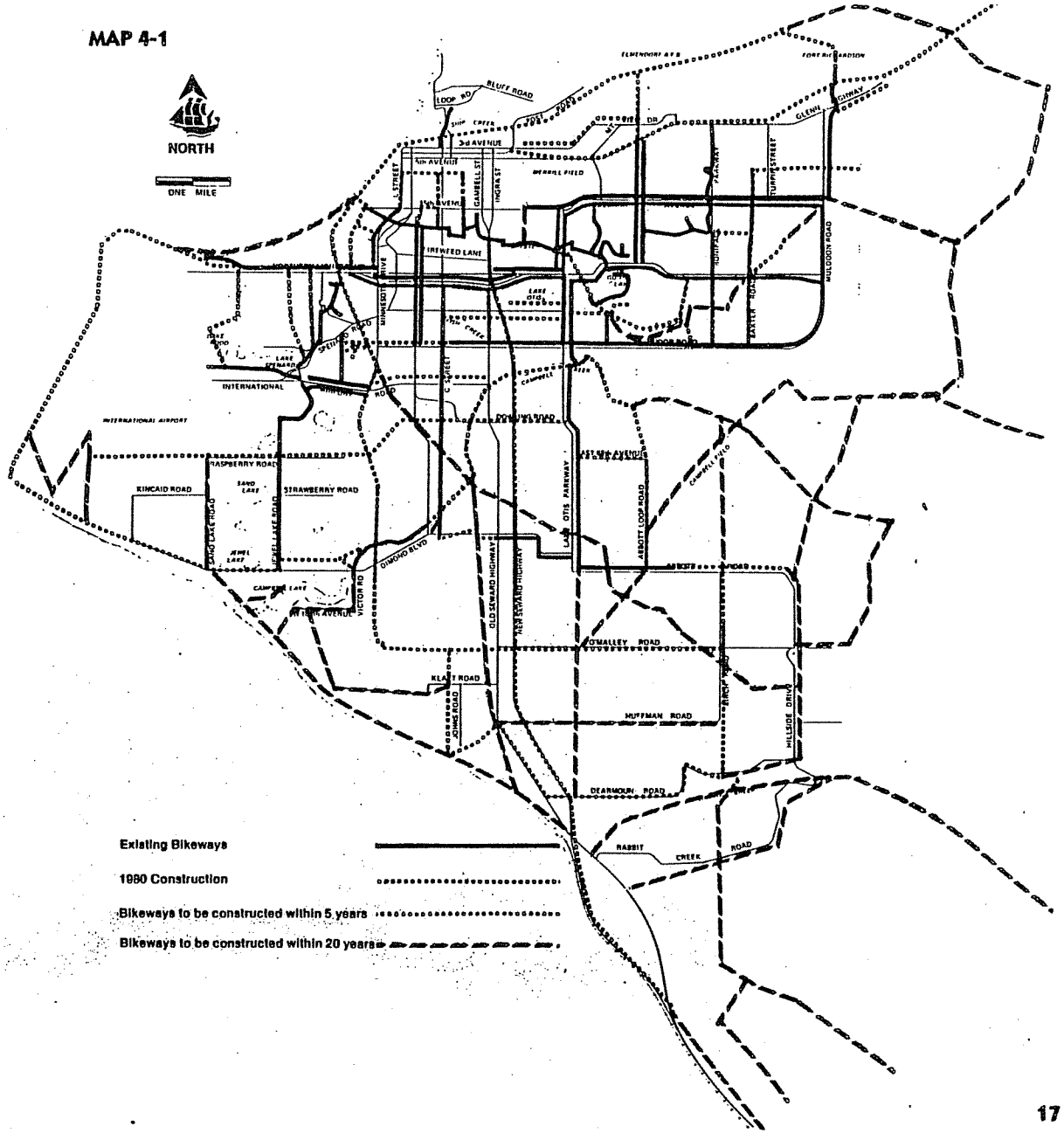
Muldoon: Pioneer-Boniface
Northside Corridor: entire length
Minnesota Drive: Dimond-O'Malley
East City Bypass: entire length
New Seward Hwy.: Dowling-Potter Marsh
International Airport Rd.: Airport-Minnesota
Minnesota Drive: Northern Lights-15th Ave.
O'Malley Road: New Seward-Birch Rd.

A more detailed listing of potential pull-out locations is given in Map 4-2.

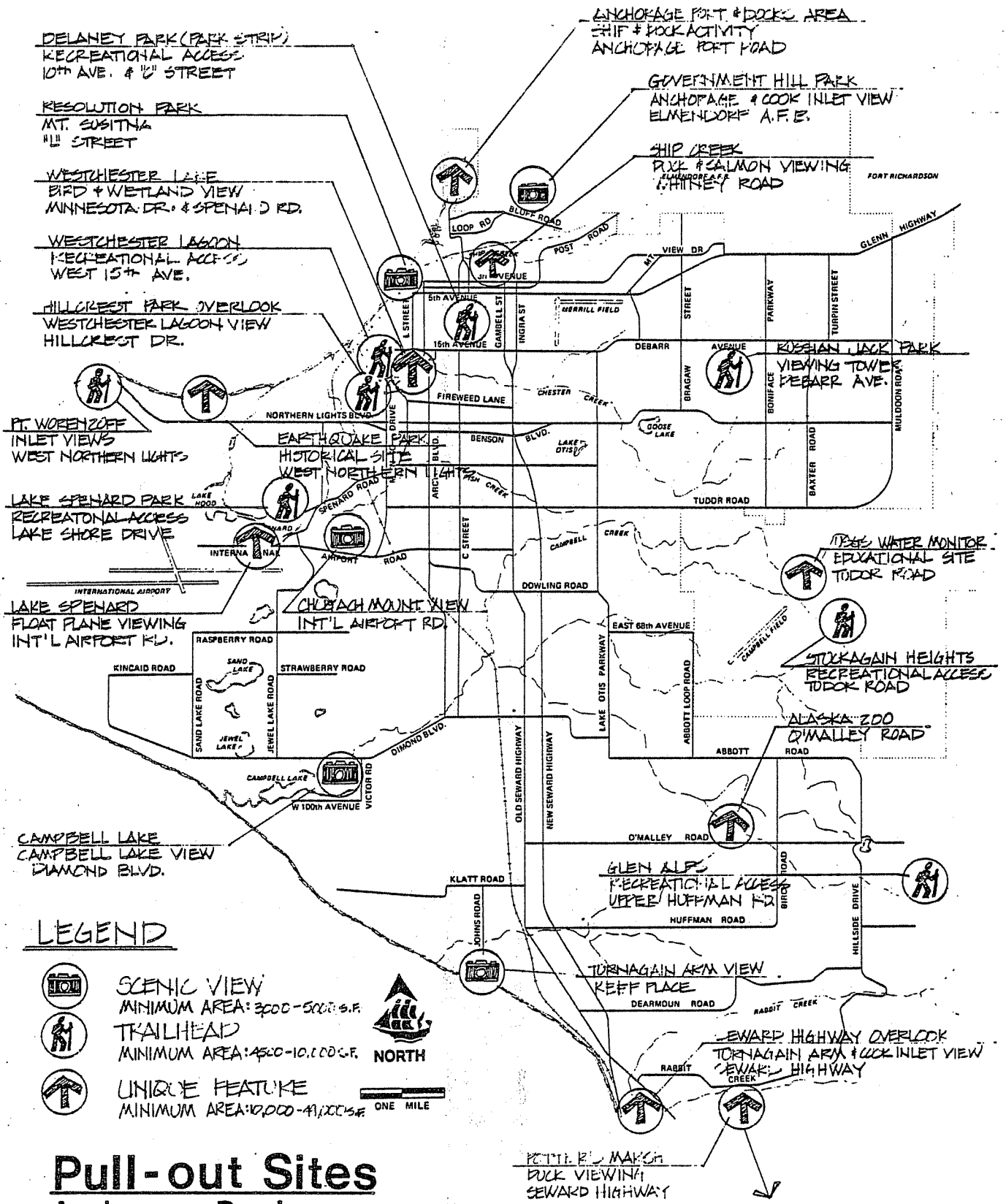
Trailhead Pull-Outs are sited to give the traveler access to trails and bikeways. Map 4-1 identifies scheduled and proposed bikeway construction. Roadways scheduled for improvement and affected by the recommendations identified in Map 4-1 should be considered for the inclusion of trailhead pull-outs.

Unique Feature Pull-Outs incorporate a large range of sites that have educational, historical, and/or special significance to Anchorage.

MAP 4-1



MAP 4-2



Pull-out Sites

Anchorage Bowl

DESIGN CRITERIA

There are general design elements that need to be considered in the layout of all three types of pull-outs.

The access to and from all pull-outs should be safe and easy. The elements needed to insure this will vary depending upon the site. Directional signs should be located one-quarter mile before the pull-out and at the pull-out. The need for stop or yield signs will be dictated by the site. Parking spaces should be oriented to the special feature. Where it is feasible, bus pull-outs should be included in the design. A landscaped buffer of native vegetation should screen the pull-out from the roadway where space allows. All pull-outs should include an interpretive sign or signs identifying and discussing the view or special feature. Bicycle and foot trails should be clearly labeled. A general design schematic is given in Figure 4-1.

Scenic view pull-outs require the least amount of development. Basically the elements to consider are discussed above. Some clearing and planting may be desirable to frame the view. Visitors to trailhead pull-outs will generally stay longer than at scenic view pull-outs, implying the need for more development. Bollards, picnic tables, waste receptacles and other such site furnishings may prove desirable. New alternative trails and smaller loop trails may be proposed to satisfy a wider range of users.

Unique feature pull-outs require the most development. Generally more parking spaces may be needed. Interpretive signs and viewing platforms should be more extensive. Site furnishings could include bollards, signs, seating, lighting, trails, view platforms, picnic tables, and landscaping with native vegetation as site dictates. Overall, the pull-outs should blend with surroundings while directing attention to the views or special features.

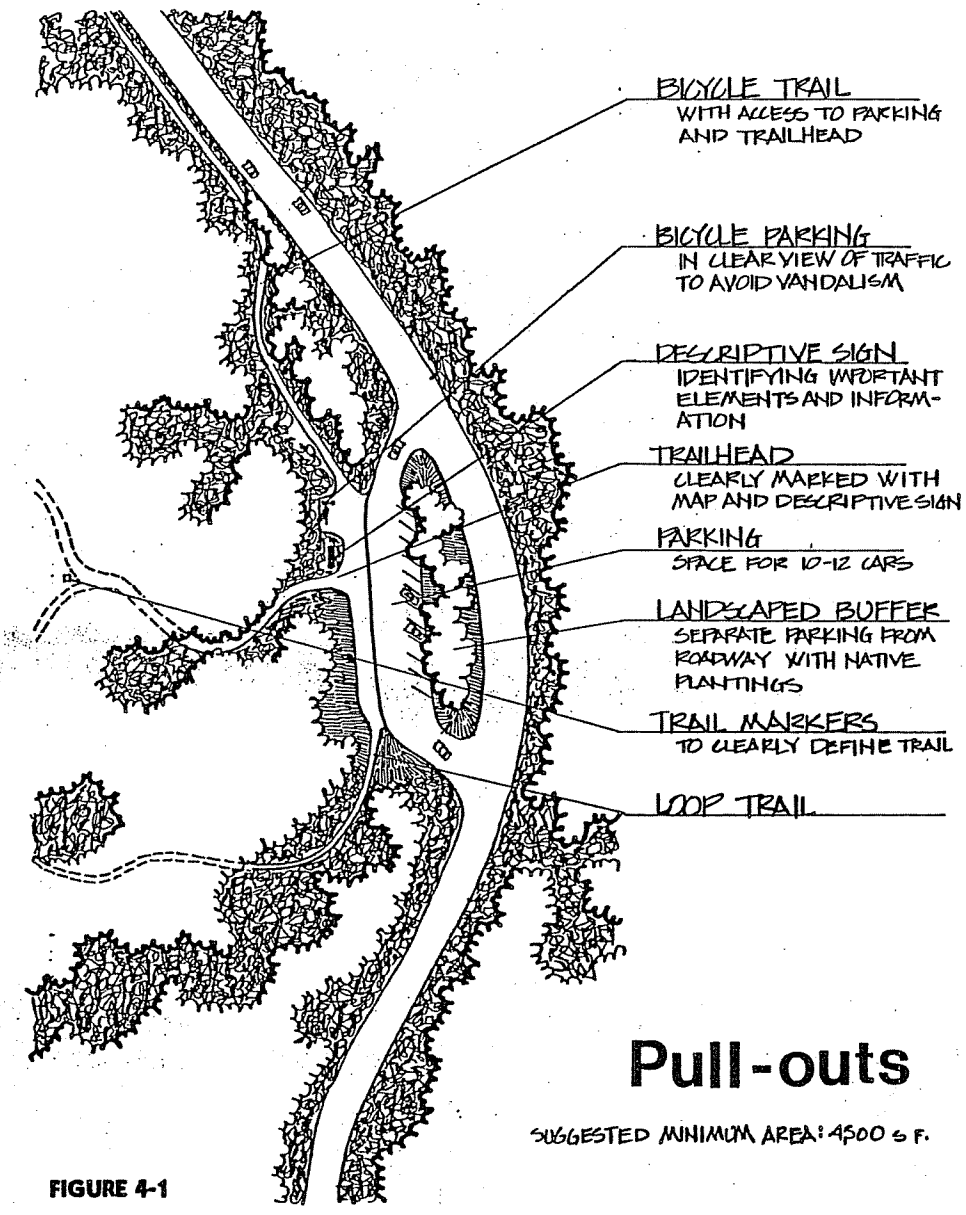


FIGURE 4-1

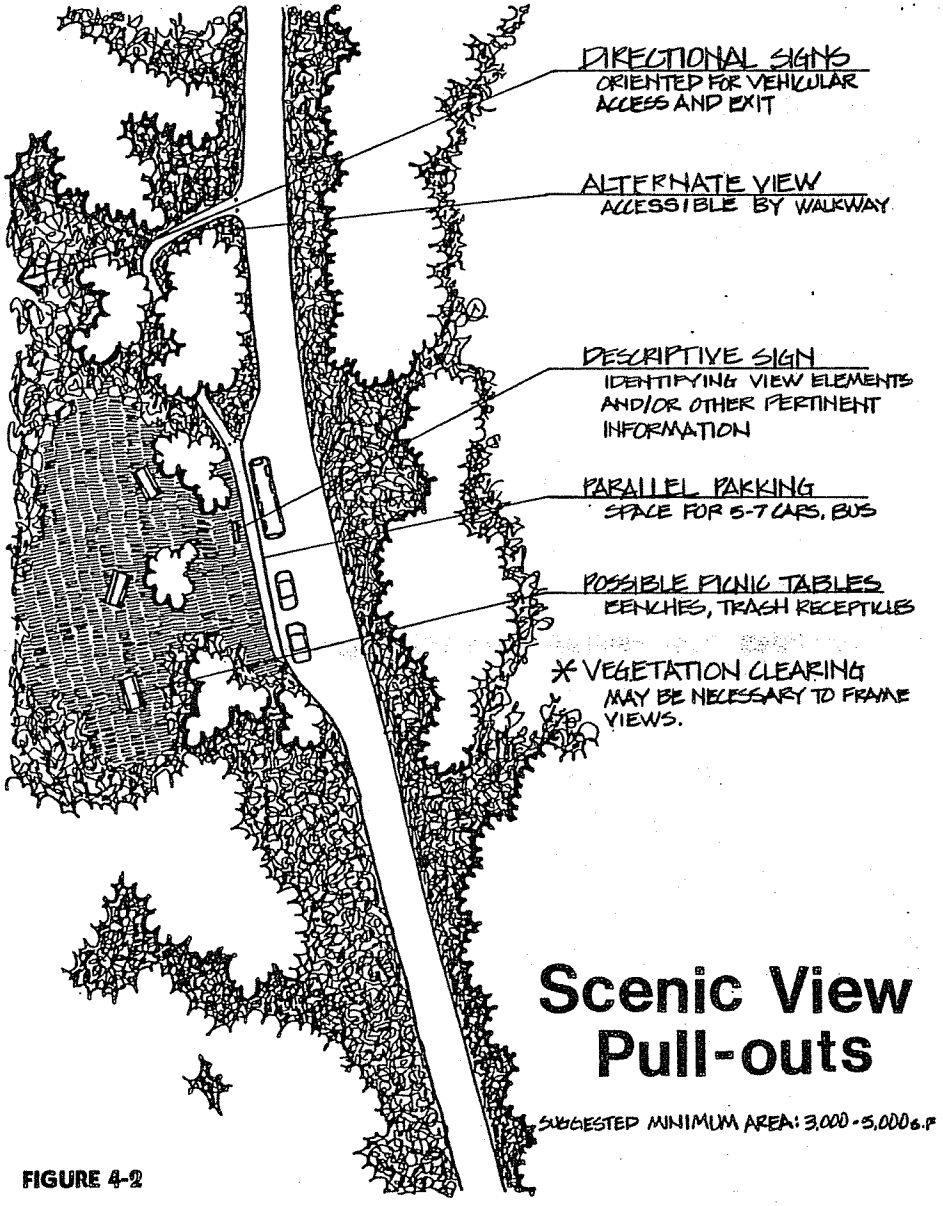


FIGURE 4-2

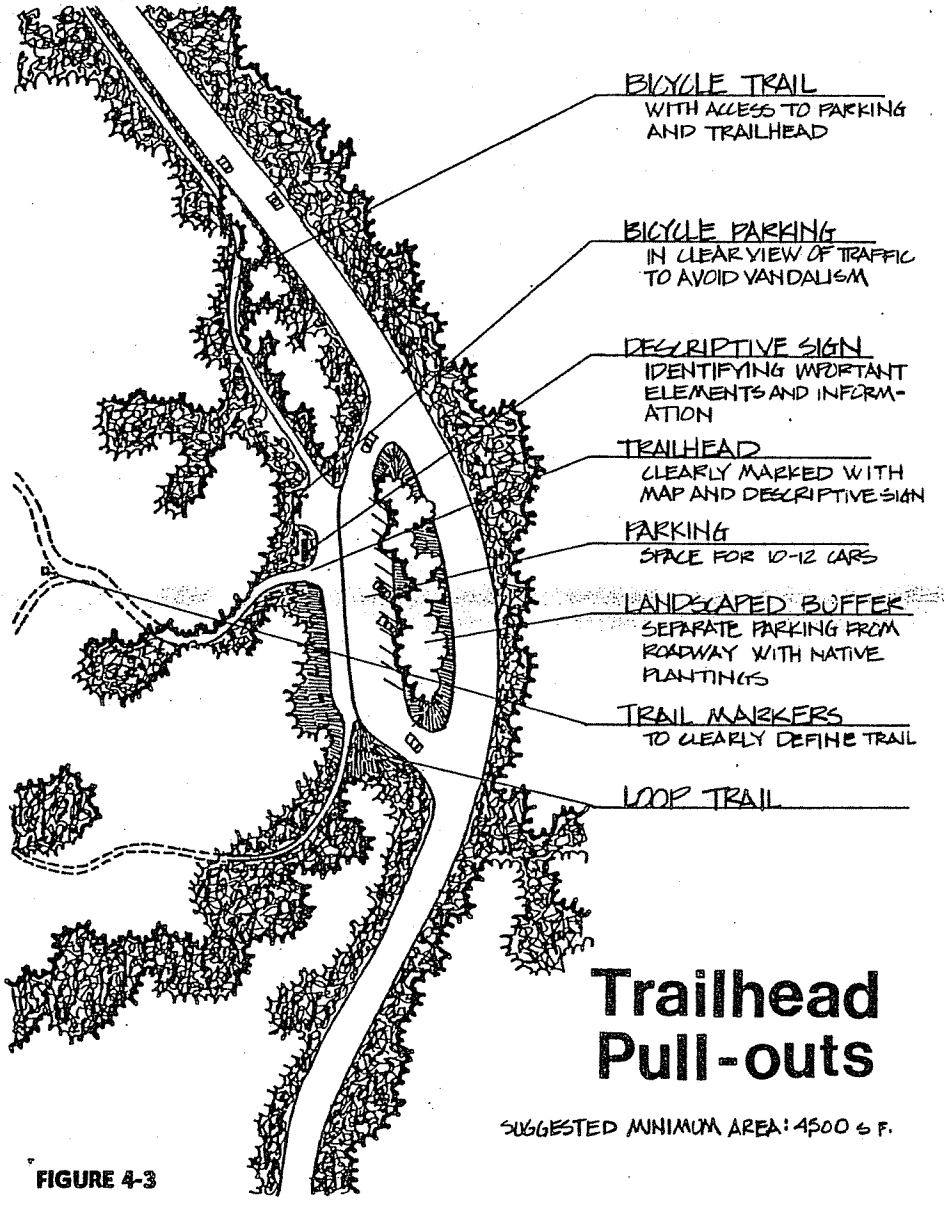
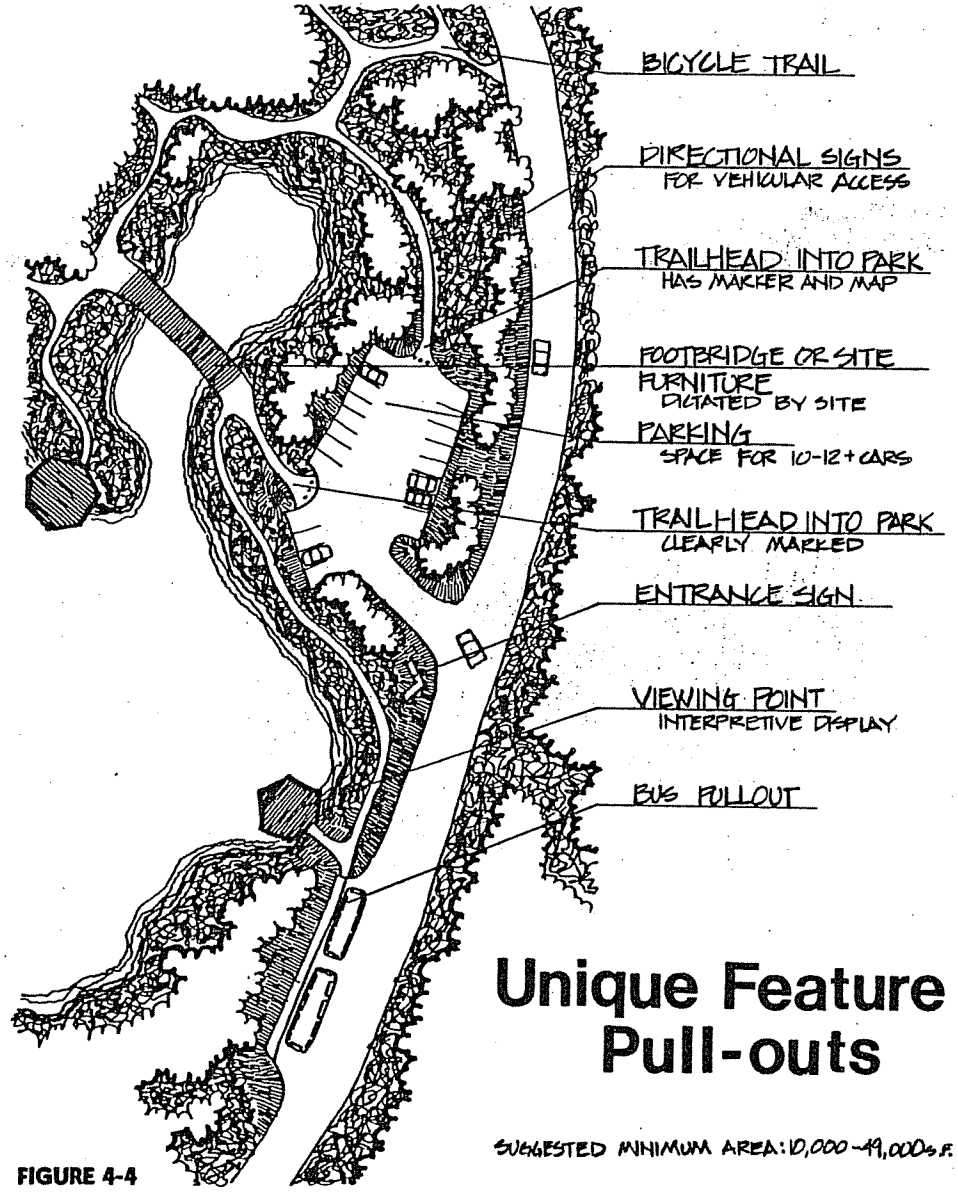


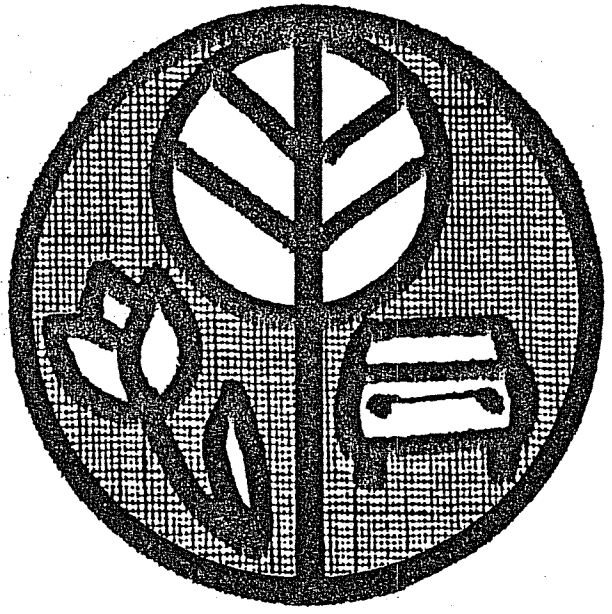
FIGURE 4-3



Unique Feature Pull-outs

SUGGESTED MINIMUM AREA: 10,000-49,000 s.f.

FIGURE 4-4



CHAPTER V
DESIGN GUIDELINES

INTRODUCTION

The preceding sections of the Street and Highway Landscape Plan have examined the goals and objectives related to landscaping, the methods used in developing this Plan, and Plan recommendations. The aspects of plant selection and design guidelines were described briefly, and largely in terms of techniques to be applied in the development of a landscape design schematic for a specific street improvement project. This chapter explains these landscape design characteristics in more detail.

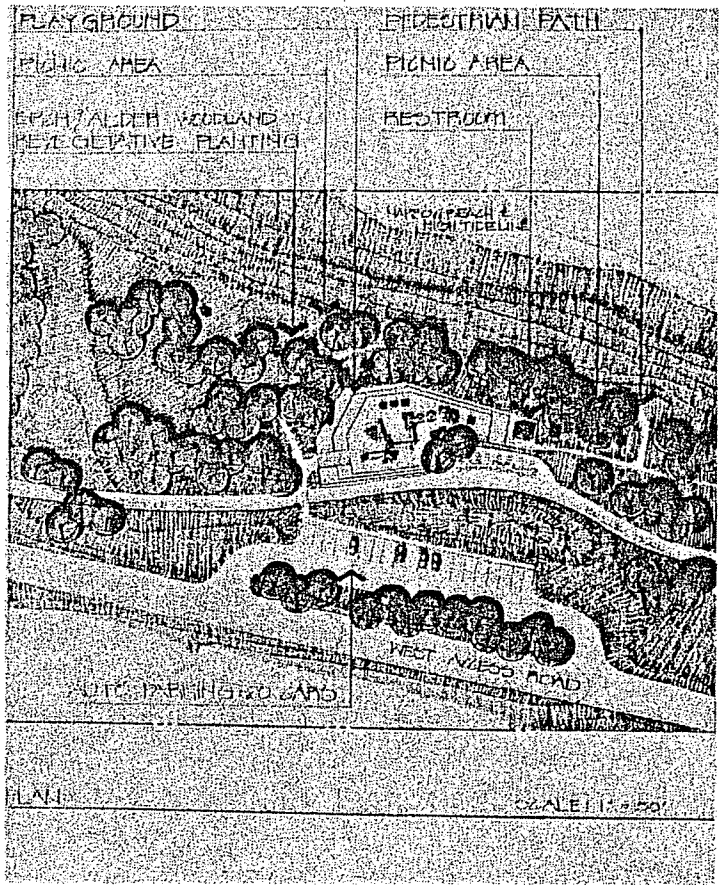
Two factors must be stressed in this discussion of design features. First, and most importantly, it must be emphasized that this description is meant to examine the range of design options that exist. It is **not intended** that these design characteristics must be included in the preparation of street design plan; rather, that they be **considered** in the project design and review processes. The intent of this Plan is to establish the actual form and composition of landscaping as a product of a project design process.

Second, the value of the remaining native vegetation to the landscaping design recommendations contained herein must be emphasized. Unlike most communities where the patterns of development have all but destroyed the native vegetation, the impact of the native vegetation yet exists in Anchorage and has a meaningful presence. The pattern of native vegetation can be found along the street system in the form of bogs, wetlands, woodlands and in distant views to the foothills and still undeveloped coastal fringes.

The value of this remaining native vegetation has relevance both to the environmental processes of the region's air, water, and wildlife components as well as to the quality of life for the Anchorage community. For those inheriting what remains of the native vegetation, an outstanding opportunity exists whereby the maintenance and/or enhancement of this vegetation becomes the key towards realizing a viable street landscape program.

The conceptual basis of the street and roadway landscape program is to build on the resources available by:

1. Maintaining or enhancing native vegetation that still exists. This implies placing a definite value on existing vegetation, a value comprised of both economic and aesthetic factors. This concept would apply to streets falling under the rural category.
2. Providing supplementary landscape plantings along streets where the native vegetation has a diminished presence but where the roadway right-of-way and surrounding land use patterns could be enhanced with plantings of native or native-like vegetation. This concept would apply to streets designed under the suburban category.
3. Incorporating landscape elements of bold visual patterns along streets where urban development now exists. This concept would apply to streets falling under the urban category.

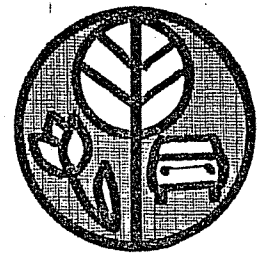


STREET AND ROADWAY LANDSCAPE DESIGN GUIDELINES

Design guidelines for executing landscape treatment along a particular roadway section can be found in **Street and Roadway Landscape Guidelines.** A simple seven step procedure at the beginning of this volume guides the user in selecting the appropriate landscape design alternatives for incorporation into specific roadway improvements. The design alternatives fall under three major headings, namely: planting, earthwork and hardscape. A variety of design options or design prototypes are illustrated under each heading. Figure 5-1, **Design Considerations and Options,** presents a framework for evaluating design options for any given roadway situation. Where specific plant selection recommendations are required, the **Street and Roadway Plant Selection Guide** is available for use in determining species of both native and introduced plants appropriate for any given set of conditions throughout the Municipality.

The landscape design options or prototypes illustrated in the volume, **Street and Roadway Design Guidelines,** emphasize through the use of text, plans and sections, landscape improvements incorporating not only plantings of trees, shrubs and ground cover but also earthwork or grading options and hardscape features such as paving and street furniture. In summary, the landscape design options applied singly or together should:

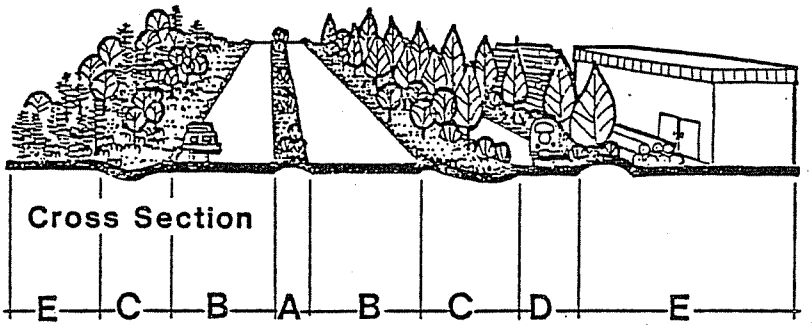
1. Develop a sense of visual cohesiveness along a road or within any given neighborhood, regardless of the land use.
2. Improve roadway safety by reducing visual clutter, allowing drivers and passengers to more readily concentrate on traffic.
3. Aid in maintaining or enhancing economic values for residential, commercial and urban development.
4. Enhance opportunities for scenic, recreation and visitor uses along the roadway system particularly where visitor pull-outs or trails (foot or bicycle) can be incorporated.
5. Provide a workable framework or set of design tools for unifying public and private efforts in urban beautification.
6. Make it possible to establish long range capital improvement and operating programs for incorporating landscape improvements in street and roadway projects.



opportunity matrix

	Planting	Small/Medium Trees	Medium/Tall Trees	Short Shrubs	Tall Shrubs	Ground Cover	Perennials	Grass/Wildflower Seed Mix	Mowed Grass	Hardscape	Cobbles	Accent Paving	Paving Cutouts	Planter Boxes	Fencing	Earthwork	Clearing/Grading	Earth Mounds
A_1			●	●		●		●									●	●
C_1			●	●	●	●		●							●		●	●
C_2			●	●	●	●		●							●		●	●
E_1			●	●	●	●	●	●							●		●	●

FIGURE 5-1



A Median Planting Strip

- A_1 Undivided Road
- A_2 Center Divider

B Roadway

C Roadside Planting Strip

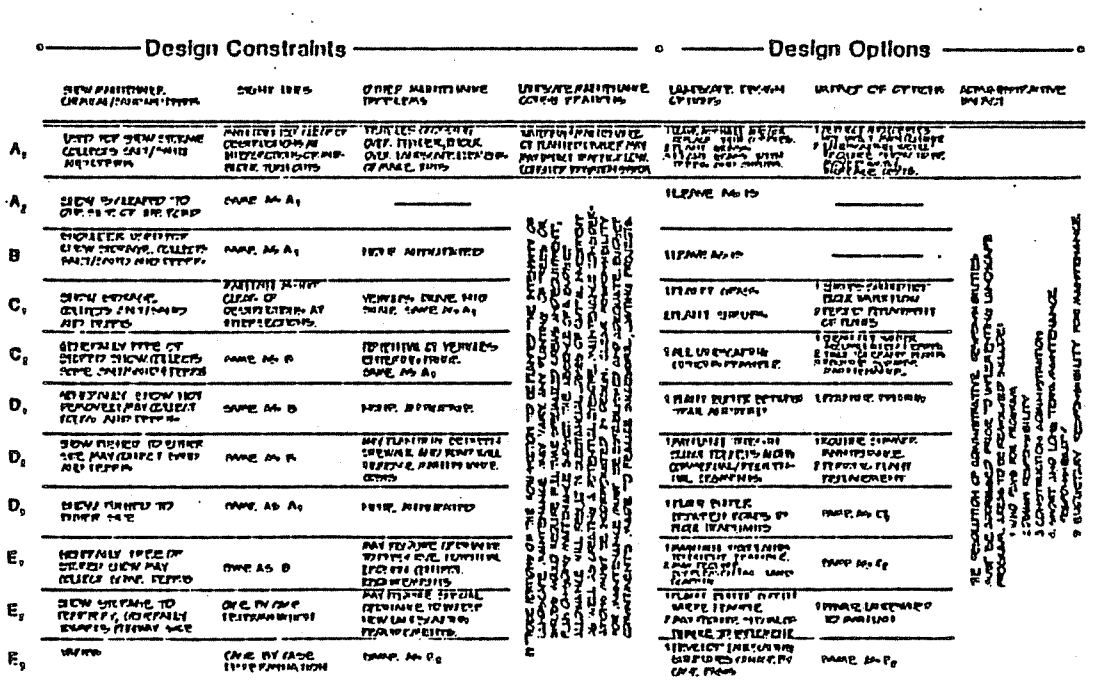
- C_1 Drainage Swale
- C_2 Parkway

D Paved Surface

- D_1 Bike Trail
- D_2 Sidewalk
- D_3 Frontage Road

E Outside R.O.W.

- E_1 Woodland or Landscaping
- E_2 Parking
- E_3 Structures



DESIGN CONSIDERATIONS AND OPTIONS

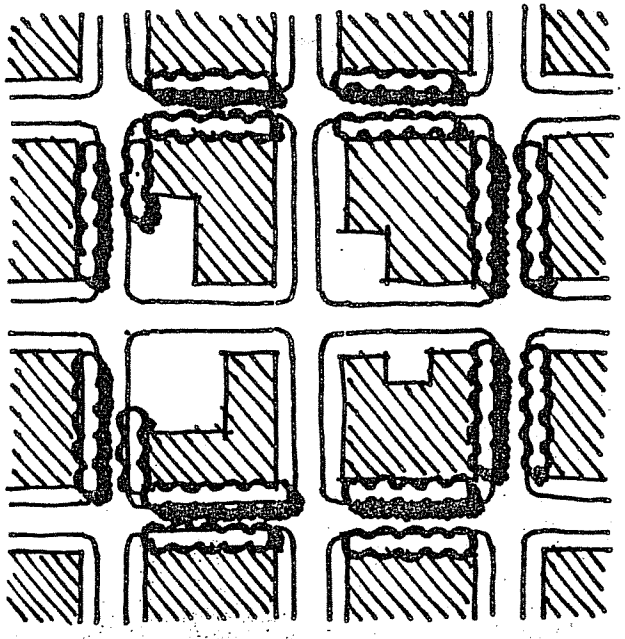
LANDSCAPE DESIGN ALTERNATIVES

A summary of the design options included in Volume I: **Design Guidelines** is described below. The design alternatives are organized under the headings: Landscape Planting, Clearing, and Grading.

Landscape Planting

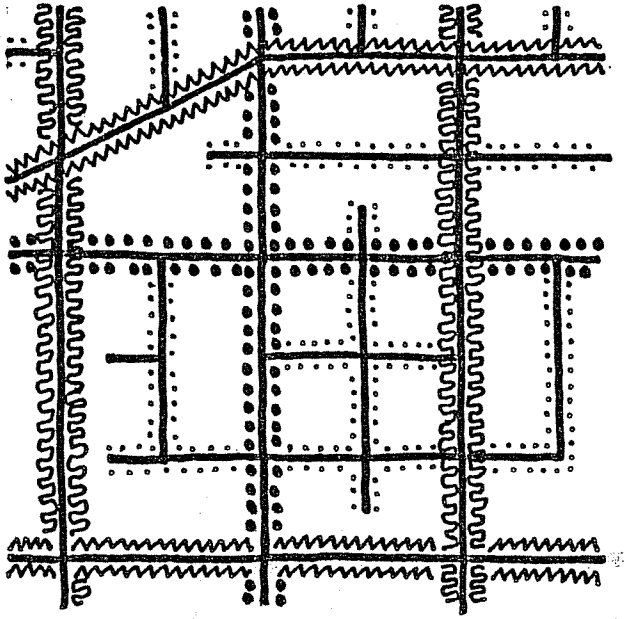
Plant material is used to satisfy both practical and aesthetic functions in street landscaping. **Practical** applications include providing erosion control on slopes, screening unsightly view, buffering roadway noise, and helping define roadway alignment and edges. **Aesthetic** functions include framing attractive views, highlighting points of interest, and helping unify a neighborhood, by providing visual harmony.

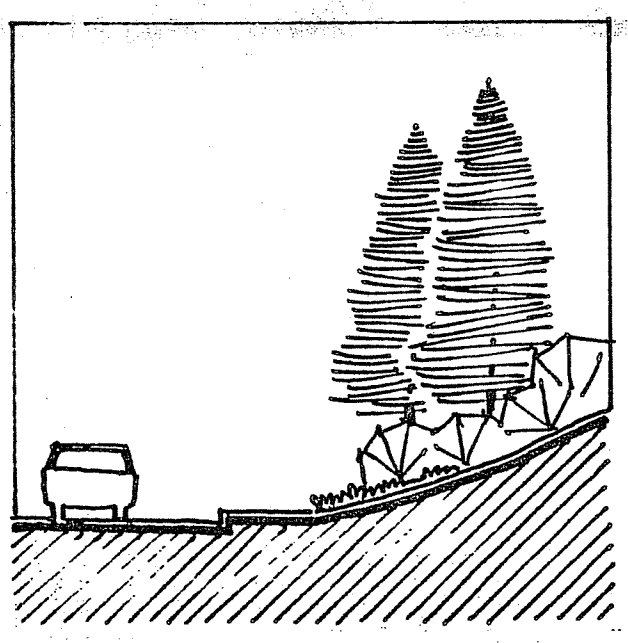
The following design options illustrate some of the landscape planting concepts to be considered when designing roadway improvement projects:



A. Consistent use of one or several plant species is desirable in a particular neighborhood or business district in order to promote a sense of visual cohesiveness.

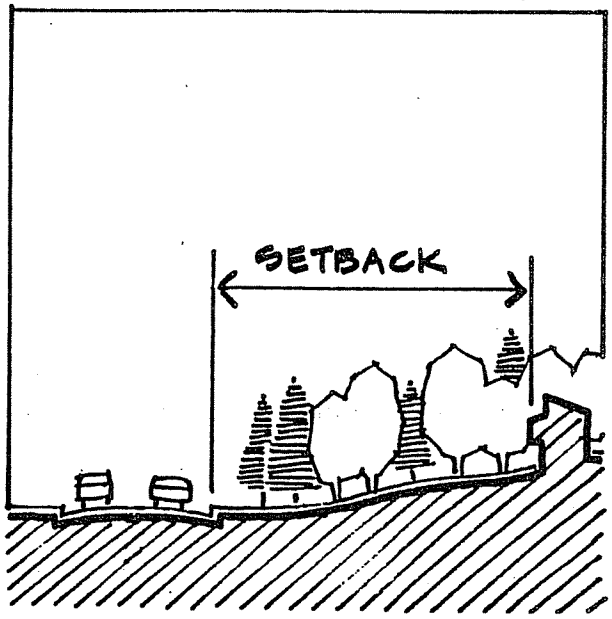
B. Plant a variety of plant species throughout the Anchorage Bowl in order to safeguard against the elimination of any one species due to disease, pest or adverse climatic conditions. The vegetative mix should consist of no more than 20% of any one species or 35% of any one genus.



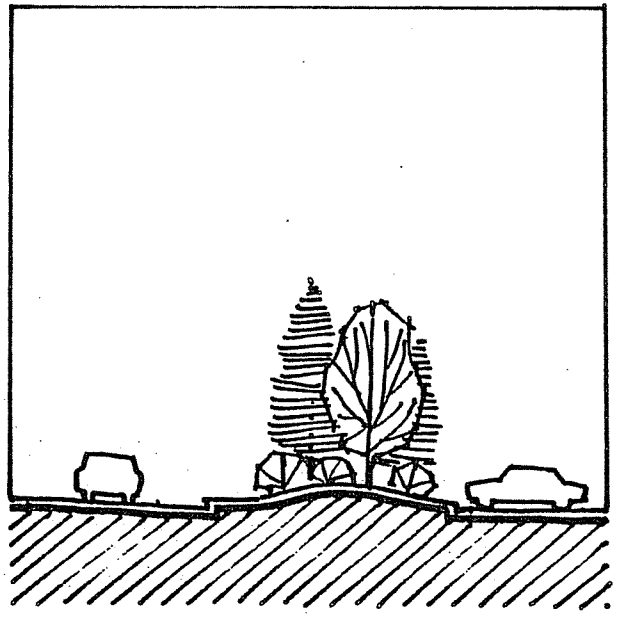


C. Plant a combination of both trees and shrubs along roadway right-of-way where screening or buffer planting is desirable rather than planting just trees in single, spaced rows.

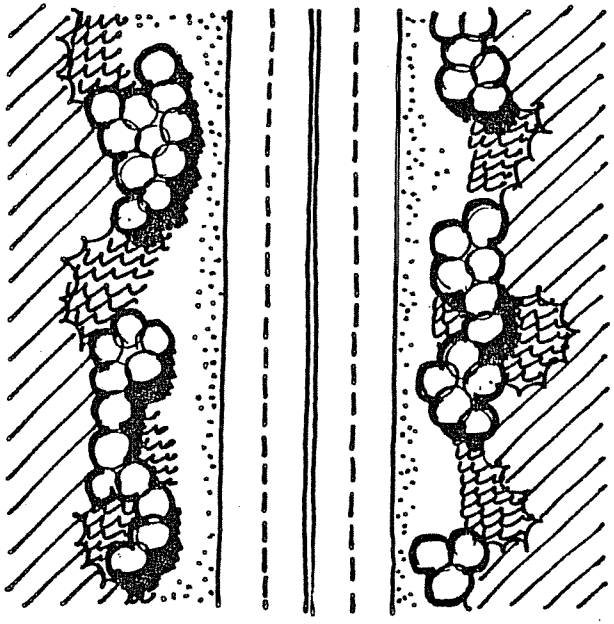
D. Encourage deep development setbacks where existing woodland vegetation exists to the greatest extent possible in order to preserve the woodland character.



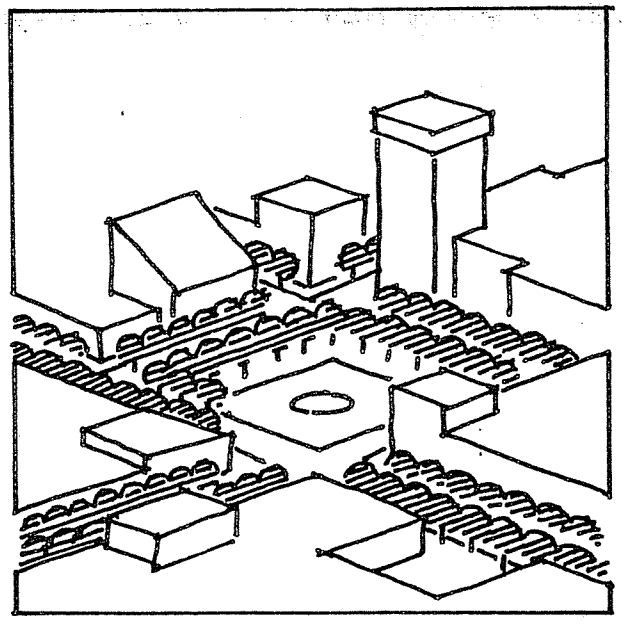
E. Plant buffers of mixed vegetation types along large parking areas or building development complexes in order to maintain visual unity along the roadway corridor.

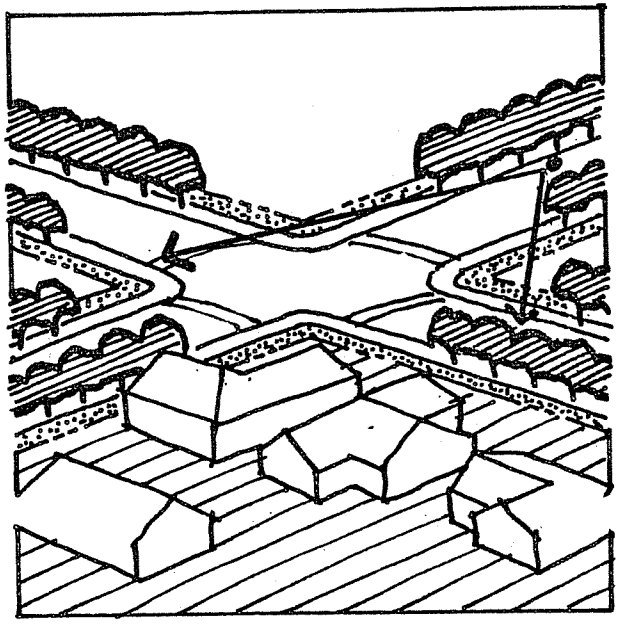


F. Plant indigenous species or plants of similar visual qualities where native vegetation remains. Plant in non- symmetrical patterns using a mix of trees, shrubs and ground covers. Avoid regular spacing of plants particularly trees.



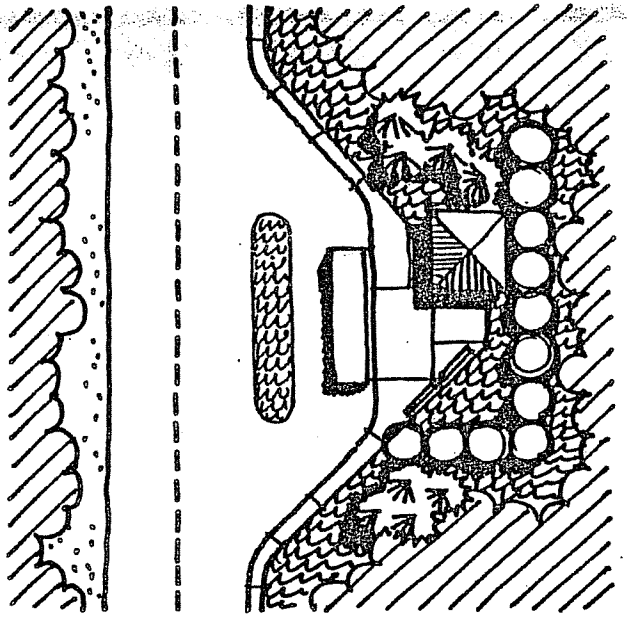
G. Select plants having bold or striking form, color or texture in urbanized areas. Arrange plants following a symmetry compatible with land development patterns. Regular spacing of plants, particularly the trees, may be appropriate.

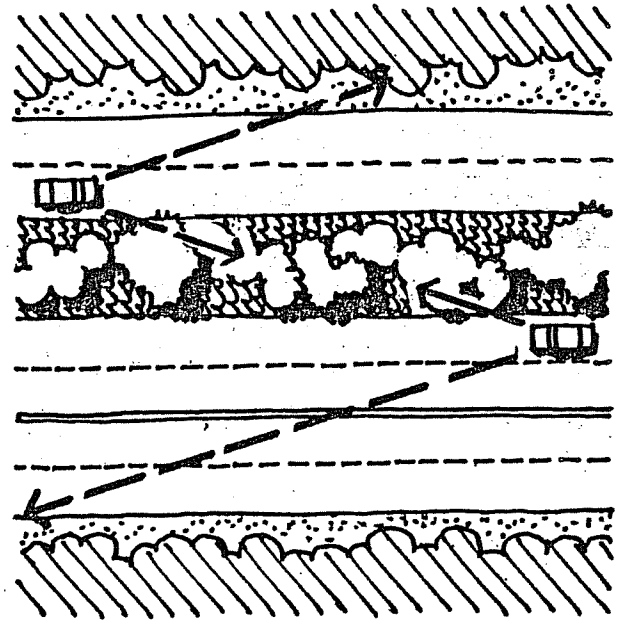




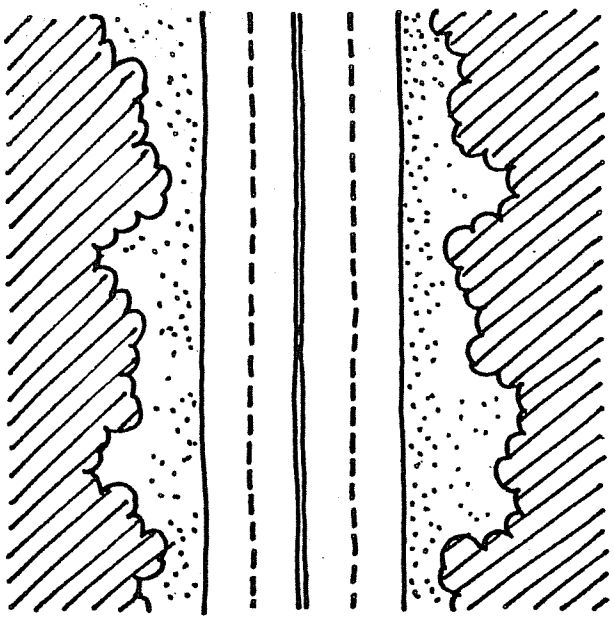
H. Avoid planting large plants at roadway intersections. Maintain a visual cone of vision using setbacks consistent with the designed traffic speed. Ground cover and low growing shrubbery can be used where landscaping is desirable while accomodating driver's line-of-sight.

I. Use vegetative plantings to define special use functions such as bus or scenic pull-outs, bicycle paths and public use facilities. Planting options at these locations include providing visual screening, noise softening barriers, and establishing human-scale relationships.





J. Plantings of trees and shrubs between frontage and main roads or along roadway medians can provide an effective headlight glare barrier while providing needed enhancement of the visual environment.



K. Provide a natural irregular edge rather than long, precise straight edges when clearing existing vegetation with a roadway right-of-way.

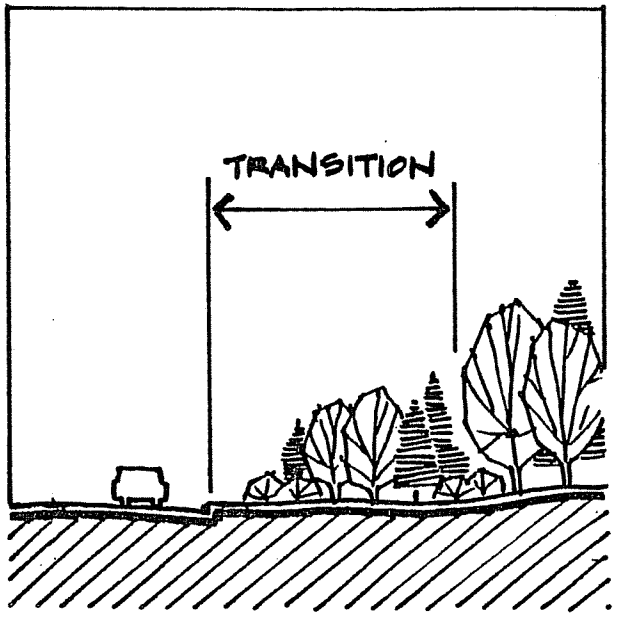
Clearing and Grading

Clearing, grading, mounding and reshaping of the ground plane constitute earthwork. Clearing and grading are performed to improve sight lines for safety, to soften grades so they will blend with existing slopes, and to modify rigid clearing lines to give a more natural looking woodland edge. Mounding may be used to buffer adjacent areas or provide visual interest and emphasis.

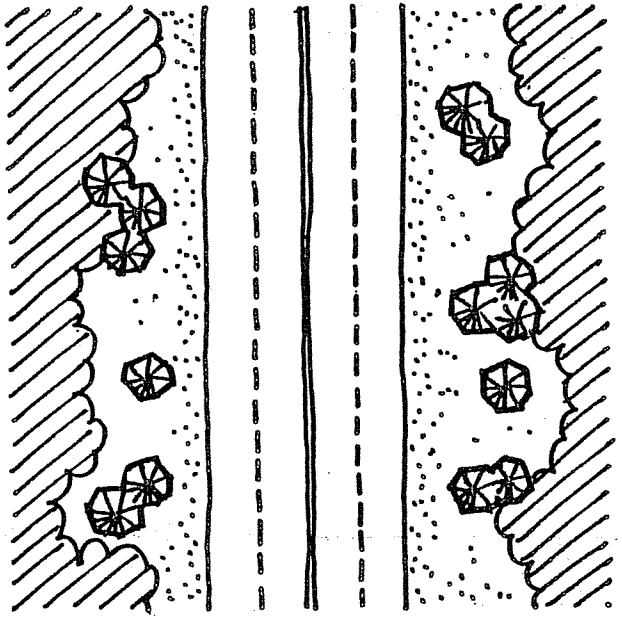
Design Options

Proper clearing and grading can enhance the visual corridor within a roadway right-of-way as illustrated in the following design guidelines:

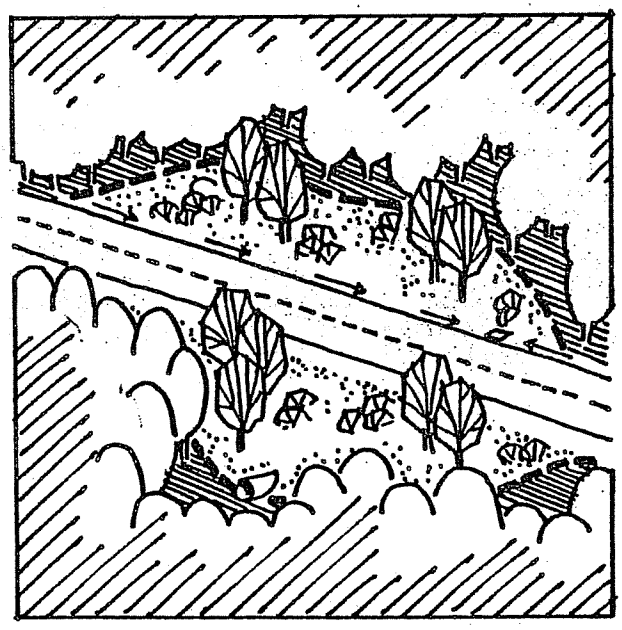
1. Selectively thin or clear woodland vegetation along the roadway right-of-way to provide a gradual or soft transition from the roadway edge to the existing woodlands. This can be accomplished by maintaining a height transition of lower growing shrubbery between the roadway and the remaining stands of trees.



2. When clearing in dense woodland areas leave islands of specimen trees and selectively clear to provide an irregular edge in order to create a natural appearance.

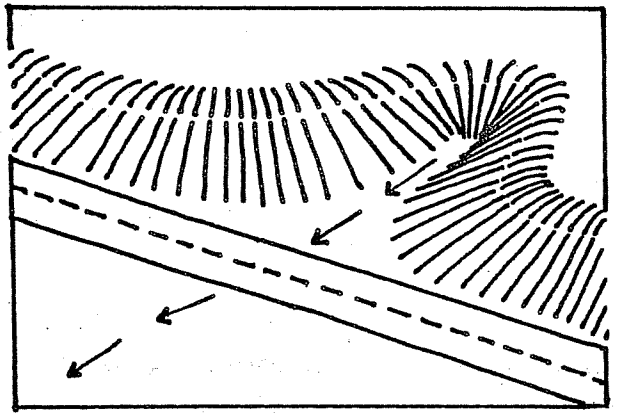


3. Selectively clear vegetation along cut or fill slopes to produce an irregular, natural looking edge. Provide supplemental plantings of trees, shrubs and grasses along the cleared boundaries in an effort to blend cut or fill slopes with the surrounding, undisturbed topography.

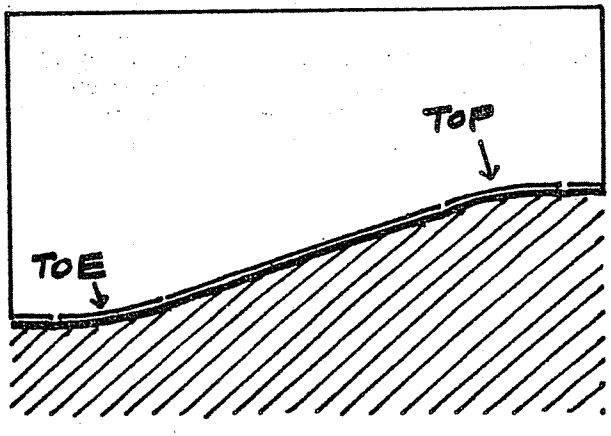


4. Create landform diversity along cut slopes or fill embankments to produce more natural appearances. Earthwork methods for creating landform diversity include:

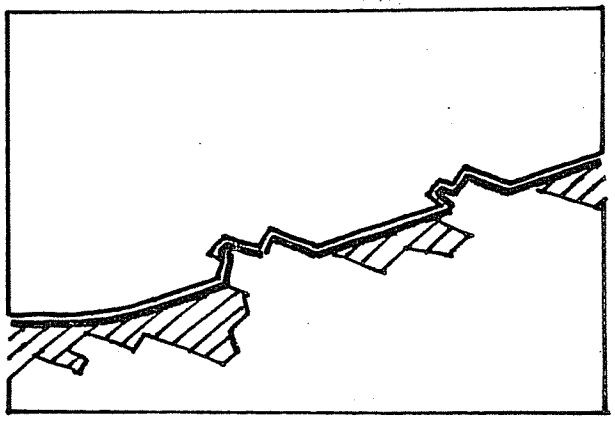
   a. lay back or flattern tops of slopes where draws occur.



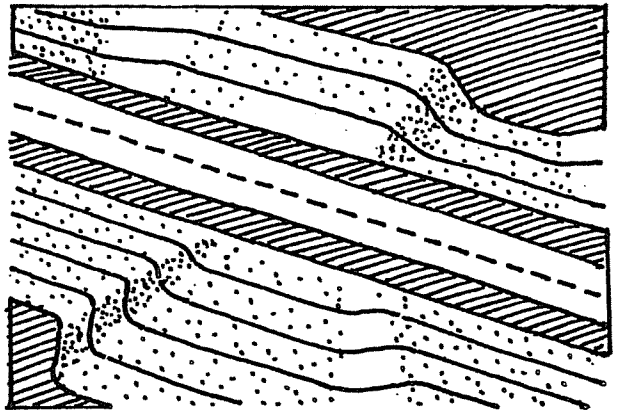
   b. round tops and toes of slopes to provide a gradual transition between existing topography and constructed embankments.



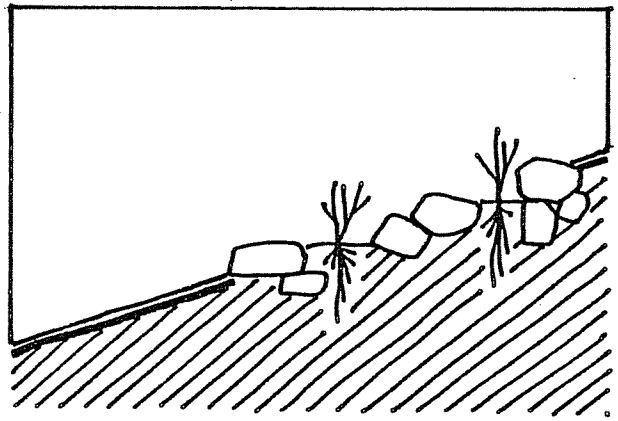
c. leave irregular rock out-croppings along long cut slopes.



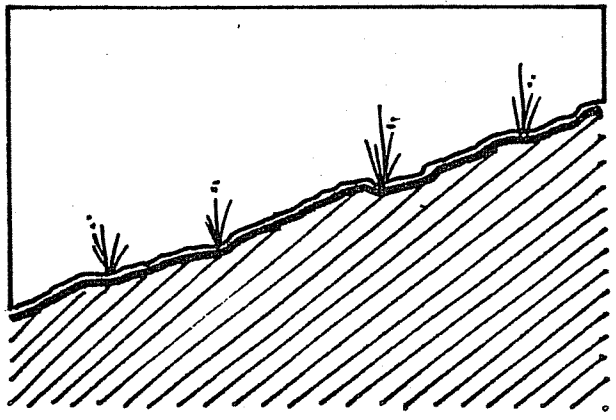
d. vary slope angle along cut or fill slopes rather than maintaining long, consistent slope faces.



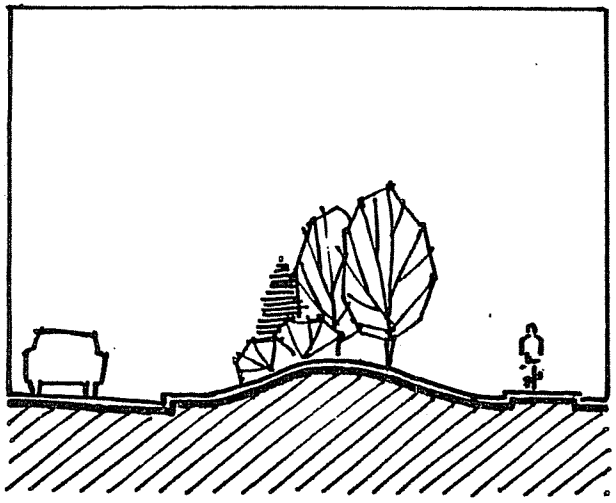
e. provide pockets or ledges for planting pockets.



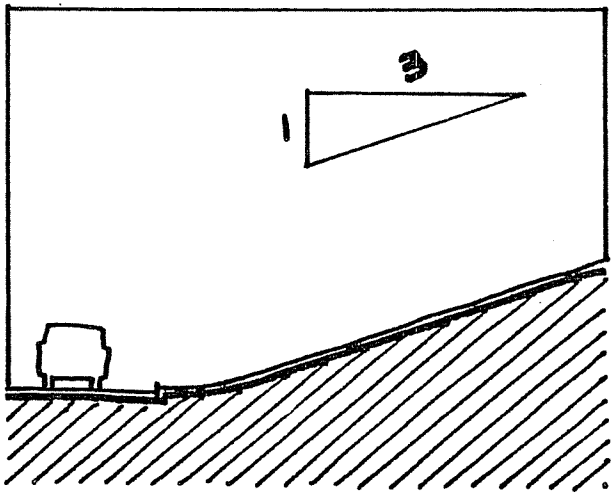
f. leave cut and fill slopes in a roughened condition in order to enhance revegetation activities as well as aid in reducing erosion.



5. Install earth mounds where feasible with gradual slopes no geater than 3:1, to provide a visual buffer between parking, pedestrian or bicycle trails along roadways.



6. Provide slopes of 3:1 or flatter in areas where revegetation is required. These flatter slopes blend with natural landforms as well as provide a more desirable condition for establishing landscape vegetation.



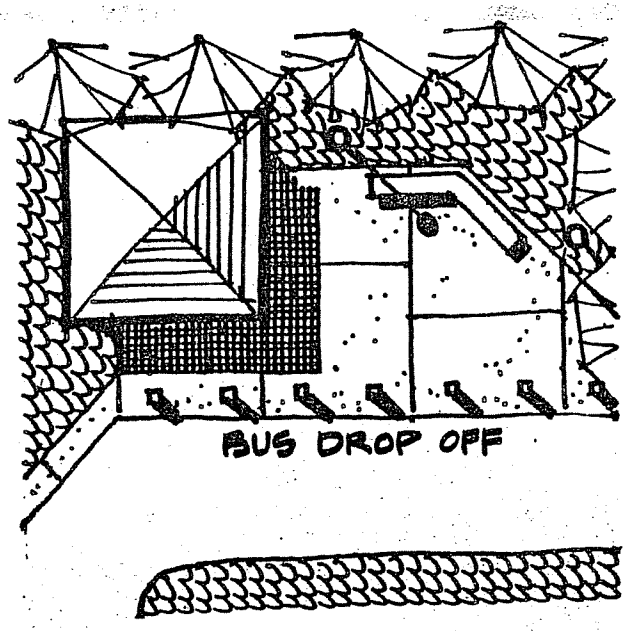
Hardscape

The features in the landscape not included in planting and earthwork are in the category of hardscape. All the constructed elements such as retaining walls, paving, fencing, street fencing, street furniture, and planter boxes are part of the hardscape. It is common to include hardscape elements in pedestrian areas that must accommodate heavy use, or to accent a special point of interest. Hardscape may also be used in areas with limited space, since planting or earthwork generally require more space. Street furniture provides a welcome addition to an area, increasing convenience, comfort and visual interest.

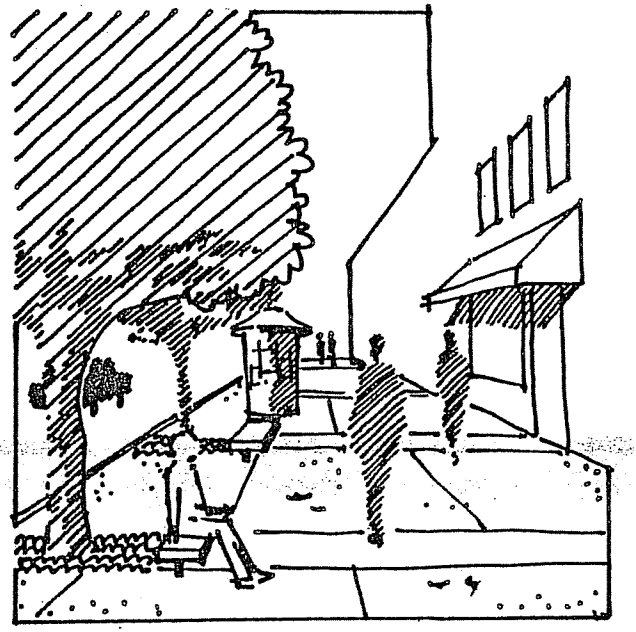
Design Options

The following design options illustrate the type of hardscape elements that could be incorporated in street landscape design projects.

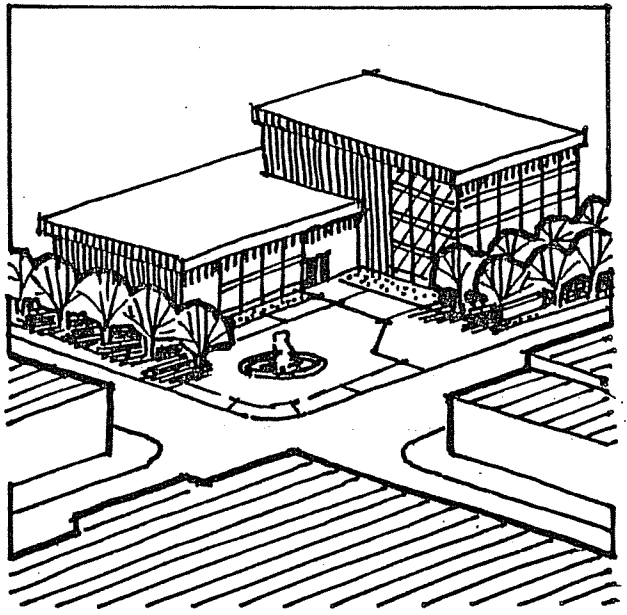
1. Incorporate paving, benches, landscaping and other appropriate physical amenities where special roadway use facilities such as bus stops and pull-outs are to be located.

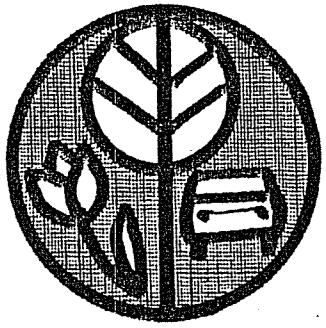


2. Provide widened, landscaped sidewalks on major urban streets to strengthen the urban design qualities of those streets so as to attract and maintain desirable development.

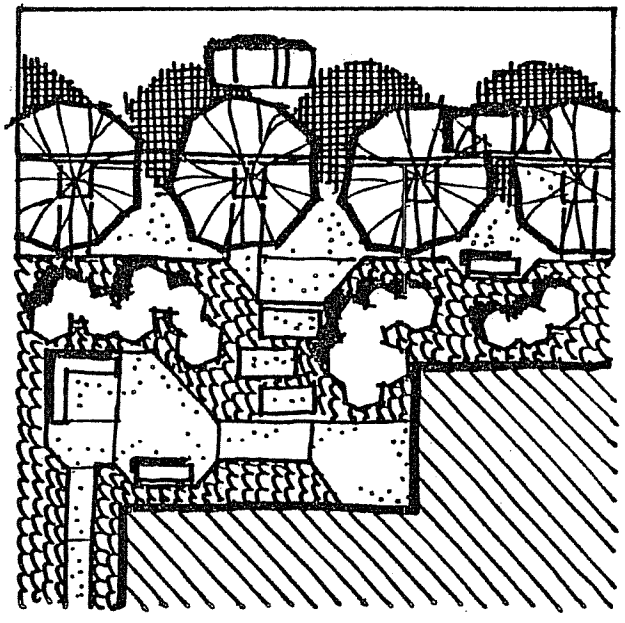


3. Make centers of activity more prominent through the installation of special landscape design features such as paving, street furniture, signs and landscaping.





4. Emphasize the differences between pedestrian, vehicular and building activity functions through incorporation of distinctive landscape features into the design of those funcitonal elements.



CHAPTER VI
CONCLUSION

The aim of the Street and Highway Landscape Plan is to improve the quality of life in Anchorage by upgrading the visual environment of the street and roadway system. The visual character of a road system very much affects how successfully a community can remain as an attractive place for people to live and work. The physical aspects of one's environment not only contribute toward improving the quality of life but also play an important part in maintaining economic values.

The addition of landscape elements can also help to provide a more understandable roadway system. These elements can be placed to mark intersections, driveways and important destinations. Understandable streets can make the community more efficient and less frustrating. But, the most important intended result of the Plan, from a procedural standpoint, is to establish a municipal policy to provide for landscaping of streets and roadways.

It is important to recognize that the Plan does not specify specific design configurations. Nor does it absolutely require that landscaping be provided in all street construction/reconstruction projects. Rather, it identifies roadway sections that, based on planning design principles, should be **considered** for landscaping. It then specifies a process that can be followed to evaluate the feasibility of landscaping and to define the actual types of trees, shrubs, and landscape that are appropriate.

This is, perhaps, one of its greatest advantages. The Plan establishes a municipal policy for landscaping on municipal streets, but allows the normal design and engineering processes to determine the actual form of landscaping that is appropriate and feasible. It provides a **framework** for municipal landscaping, and sets the **direction** of future landscaping design projects.