

Juniper Ridge

Annexation, PUD Zone Change & Tentative Map Application

to the City of Reno

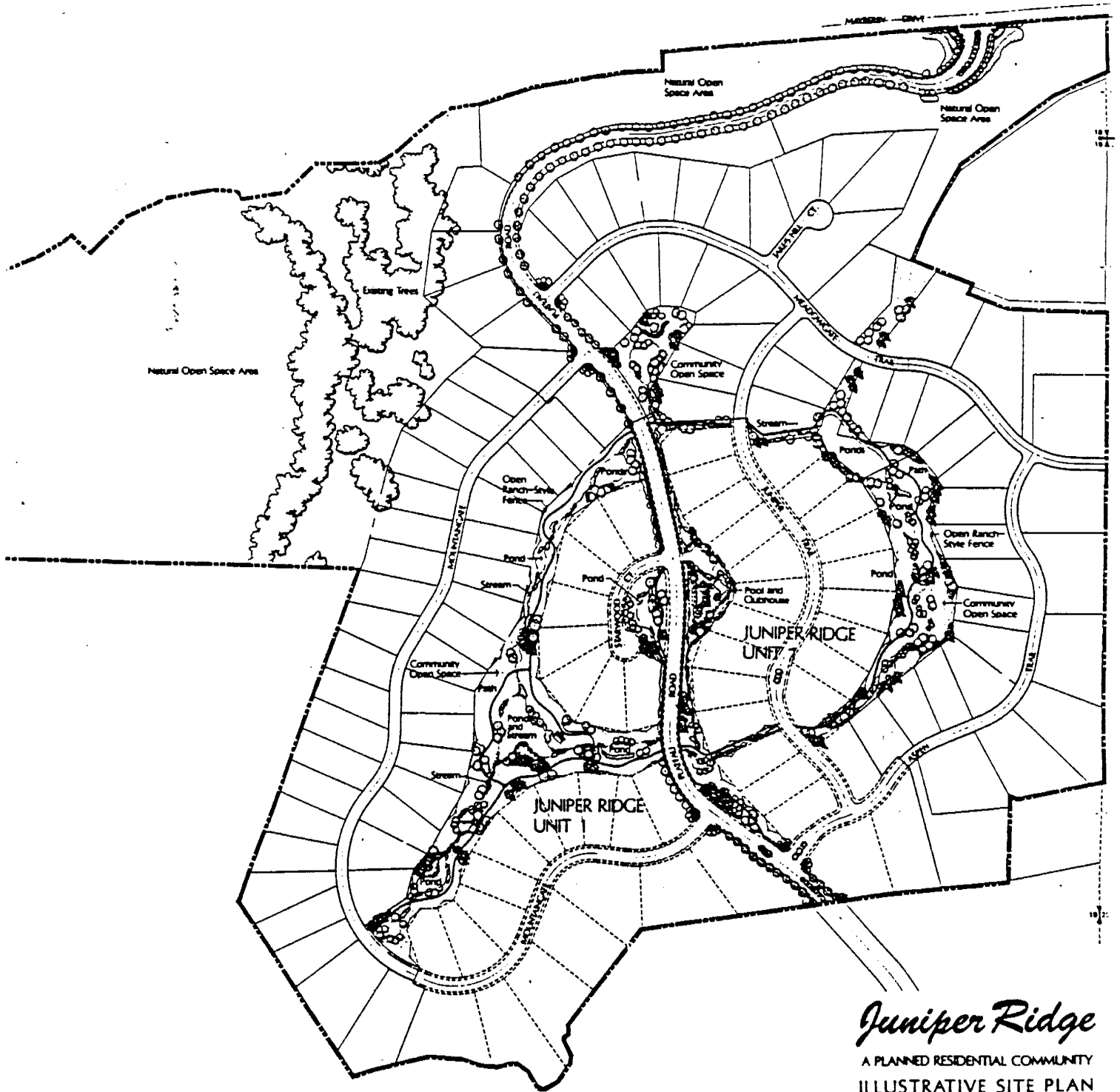
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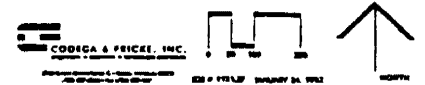
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April 1, 1992



Juniper Ridge
 A PLANNED RESIDENTIAL COMMUNITY
 ILLUSTRATIVE SITE PLAN



Illustrative Master Plan

1. Introduction

Lands of Sierra and the other JUNIPER RIDGE property owners are requesting that the City of Reno annex the property known as Juniper ridge subject to an Annexation Agreement. The Annexation Agreement calls for JUNIPER RIDGE to be annexed into the City of Reno subject to the project design and community design standards presented herein. Along with this Annexation request, Lands of Sierra, Inc. requests approval of a Zone Change (to P.U.D.) and Tentative Map applications for the unrecorded portions of the project.

Fifty of the 143 lots master-planned for JUNIPER RIDGE are developed on 50± acres. The remaining 93 lots will be developed in the City of Reno with the zone change and subdivision map applications. This application spells out all of the conditions for the development of the remainder of the project.

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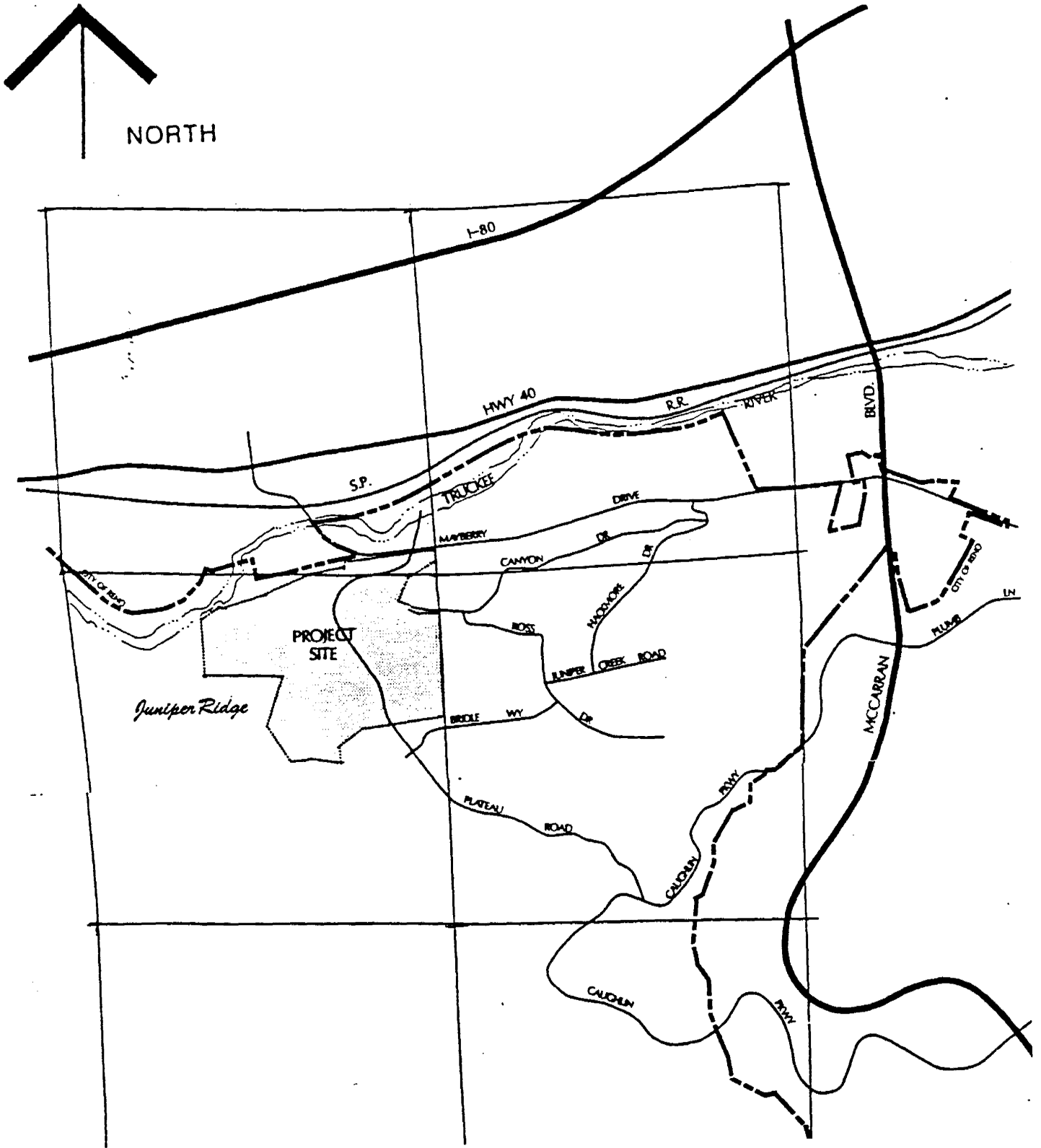
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1. Location Map.

2. Project Description

Project Concept

JUNIPER RIDGE is a master-planned residential community of 143 custom homesites strategically positioned on a little over 161 acres. The land use concept is to develop a mix of lots that range from one-half to over an acre in size, with the community tied together by a series of water feature-laced greenbelts. One-acre lots are placed at the project's perimeter where JUNIPER RIDGE homesites abut existing subdivisions. Natural common areas placed where they have the greatest beneficial impact:

- At the entrance canyon where Plateau Road climbs up from Mayberry Drive to protect this natural water course and buffer the adjoining homes which lie to the east, perched above the drainageway.
- North of Plateau Road where it makes its way to the heart of JUNIPER RIDGE to provide a natural undisturbed foreground to the project from Mayberry Drive, just as is the case along the adjoining stretches of the street.
- Over most of the westerly spur of the project site, where the property is considered a significant wildlife habitat by neighbors and the natural hillside setting provides a backdrop to both JUNIPER RIDGE and the surrounding properties and also where Hunter Creek winds its way through tree-studded canyonland and meadows to the Truckee River. Note that this area may be dedicated to a public or non-profit entity.

Access to JUNIPER RIDGE is limited to Plateau Road which will extend from its present terminus at the south property line north through the project to mayberry Drive. Access is also provided through the site to the Hunter Creek Reservoir/Water Treatment Facility.

The table below presents a statistical description of the project.

Table 1

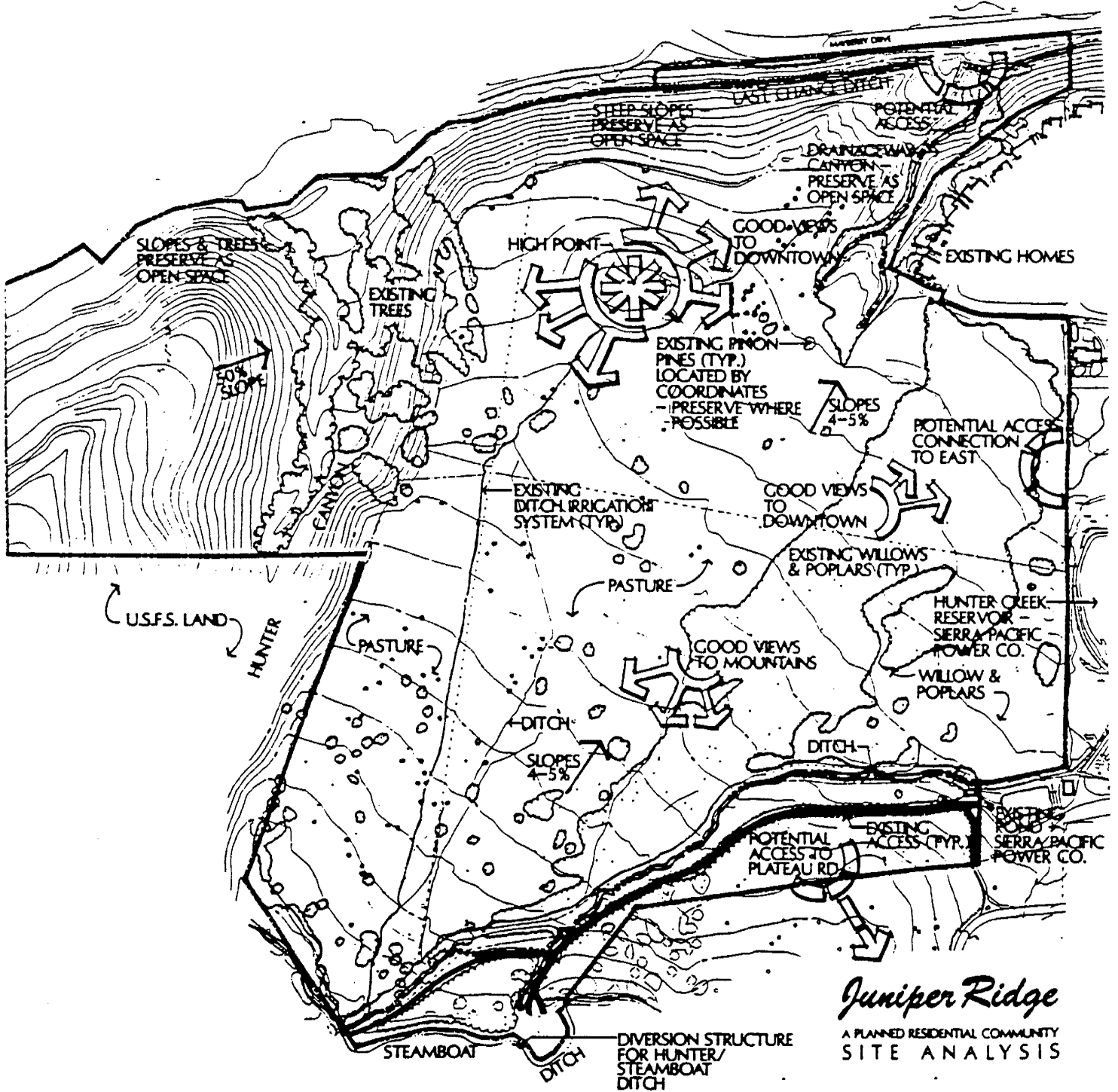
Development Statistics

Homesites	
Acreage	92.2±Acres
1-Acre Lots	25
1/2-Acre	118
Total Lot Count	143
Average Lot Size	0.64±Acres
Common Areas	
Landscaped	17.1±Acres
Semi-Natural	2.3±Acres
Natural	34.6±Acres
Total	54.0±Acres
Street Rights-of-Way	
Plateau Road	5.7±Acres
Local Streets	9.2±Acres
Total	14.9±Acres
TOTAL ACREAGE	161.1± Acres

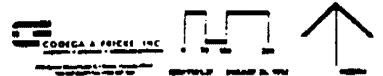
The project master plan is designed to meet several planning criteria. Each criterion is discussed below:

Buffering - Wherever the project abuts an existing subdivision, one-acre lots are placed to ensure adjoining residents interface with a lot fully commensurate with the site's current one-acre zoning, even though some adjoining lots are smaller than one-half acre in size.

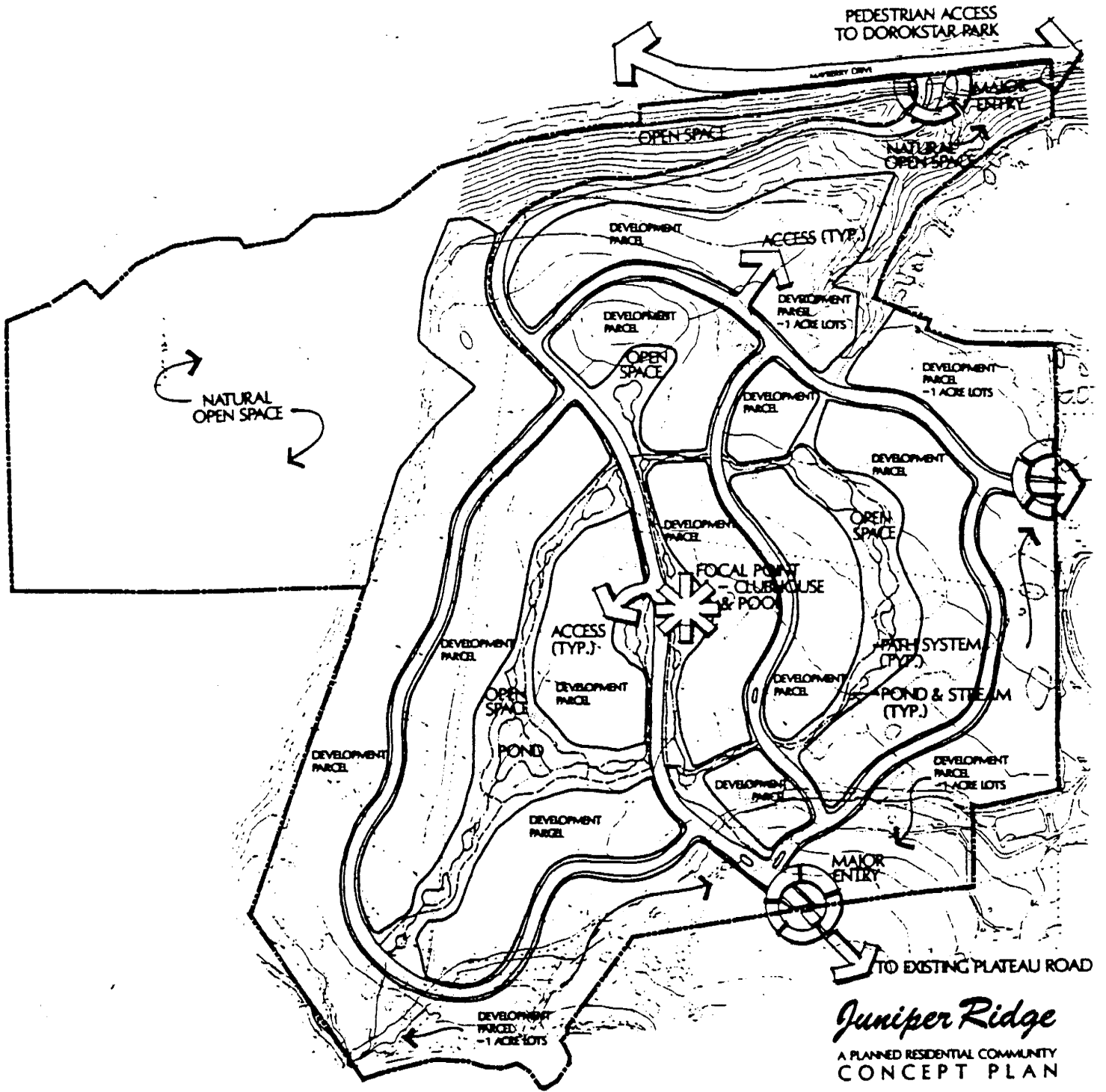
Lot Livability - Every lot is either large and placed at the periphery of the project (eg. the one-acre buffer lots and the three-quarter-acre lots above the Aspen Glen area) or back onto common areas. The common areas are either "long view oriented" and meet natural common areas that provide viewsheds or have a "landscaped/waterscaped" theme that separates homesites.



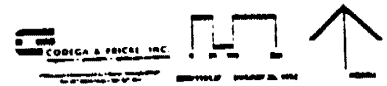
Juniper Ridge
A PLANNED RESIDENTIAL COMMUNITY
SITE ANALYSIS



2. Site Analysis Map



Juniper Ridge
A PLANNED RESIDENTIAL COMMUNITY
CONCEPT PLAN



3. Project Concept Plan

Building Envelopes - Every lot has a building envelope that is designed to protect viewsheds, nurture privacy, effect home separation, and dictate a variety of building setbacks for a inviting streetscene.

Views - The combined effect of the lotting, building envelope designation, building height limits, and the limited grading is to optimize the view potential of the various mountain, city and pastoral views the site affords.

Pedestrian/Bicycle Access - The plan includes a comprehensive system of paths that provide for convenient and safe pedestrian and bicycle access.

Plateau Road - Plateau Road's alignment and cross-section as it climbs up from Mayberry Drive have carefully been selected to minimize grading in this area. Essentially, the road is cut into the hillside to keep a natural edge to the north and to minimize hard-to-treat fill slopes.

Grading - Grading is generally limited to that area necessary to construct Plateau Road, the local roads, and the landscaped common areas. In addition, some of the excess material associated with building Plateau Road was used as fill for lots in the core of the subdivision with Unit 1.

Meaningful Common Areas - The common areas in JUNIPER RIDGE all serve a purpose. The landscaped series of ponds provide an obvious aesthetic benefit, visually and functionally tie the homesites together and serve to separate rear yard areas. The eastern canyon area provides a clear separation to the homes to the east and preserves the riparian canyon bottom environment.

The large common area of the westerly spur yields a scenic backdrop for the homesites in JUNIPER RIDGE that ring the bluff along the west side of the project. This common area also protects the beautiful tree lined canyon of Hunter Creek with its nature habitat value, and some Truckee River frontage. This property, often referred to as the "Durkee" property has a truly significant environmental value, which is recognized by both wildlife groups and the adjoining neighbors. Although a carefully conceived project here would be spectacular, this plan preserves the area in its current state.

Access - Access to the project is strictly limited to Plateau Road.

Recreation Facilities - A portion of the common area is used as a club facility with a pool.

Rural/Open Character - Through proper use of common areas, perceived density is reduced. The use of common areas, in lieu of a sea of individual lots, provide a feeling of less density. Specific community design features, such as open, ranch-style common area fencing further nurtures this type of character.

Landscaping - Landscaping is placed to provide a sense of place or community and create a positive internal environment. Landscaped entries anchor each end of Plateau Road. Scattered hedgerows of trees are placed along Plateau Road as it rises from Mayberry Drive. The internal landscape palette is centered around the waterscaping. A series of ponds are designed to slowly pass water at a rate sufficient to account for evaporation thus using less water than typical turf application. Park-like, tree-lined grassy areas with scattered groves surround the ponds and creekbeds.

Stormwater Management - The series of ponds are designed to provide stormwater detention capacity, thus ensuring downstream impacts are prudently accommodated.

The following table presents a statistical description of the JUNIPER RIDGE plan.

Table 2

Development Statistics - Existing & Proposed

JUNIPER RIDGE Unit 1 - Existing

Unit Yield	50 lots
Minimum Lot Size	21,780± s.f.
Average Lot Size	25,987± s.f.
Lot Acreage	29.8± ac.
Street R/W Acreage	6.2± ac.
Common Areas Acreage	14.0± ac.
Subtotal Acreage	50.0± ac.

JUNIPER RIDGE Units 2-7 - Proposed

Unit Yield	93 lots
Minimum Lot Size	21,780± s.f.***
Average Lot Size	27,663± s.f.
Lot Acreage	59.1± ac.
Street R/W Acreage	8.6± ac.
"Internal" Common Areas	11.3± ac.
Subtotal Acreage	79.0± ac.

External Common Area/Potential Dedication Parcel 32.2± ac.

Combined Lots

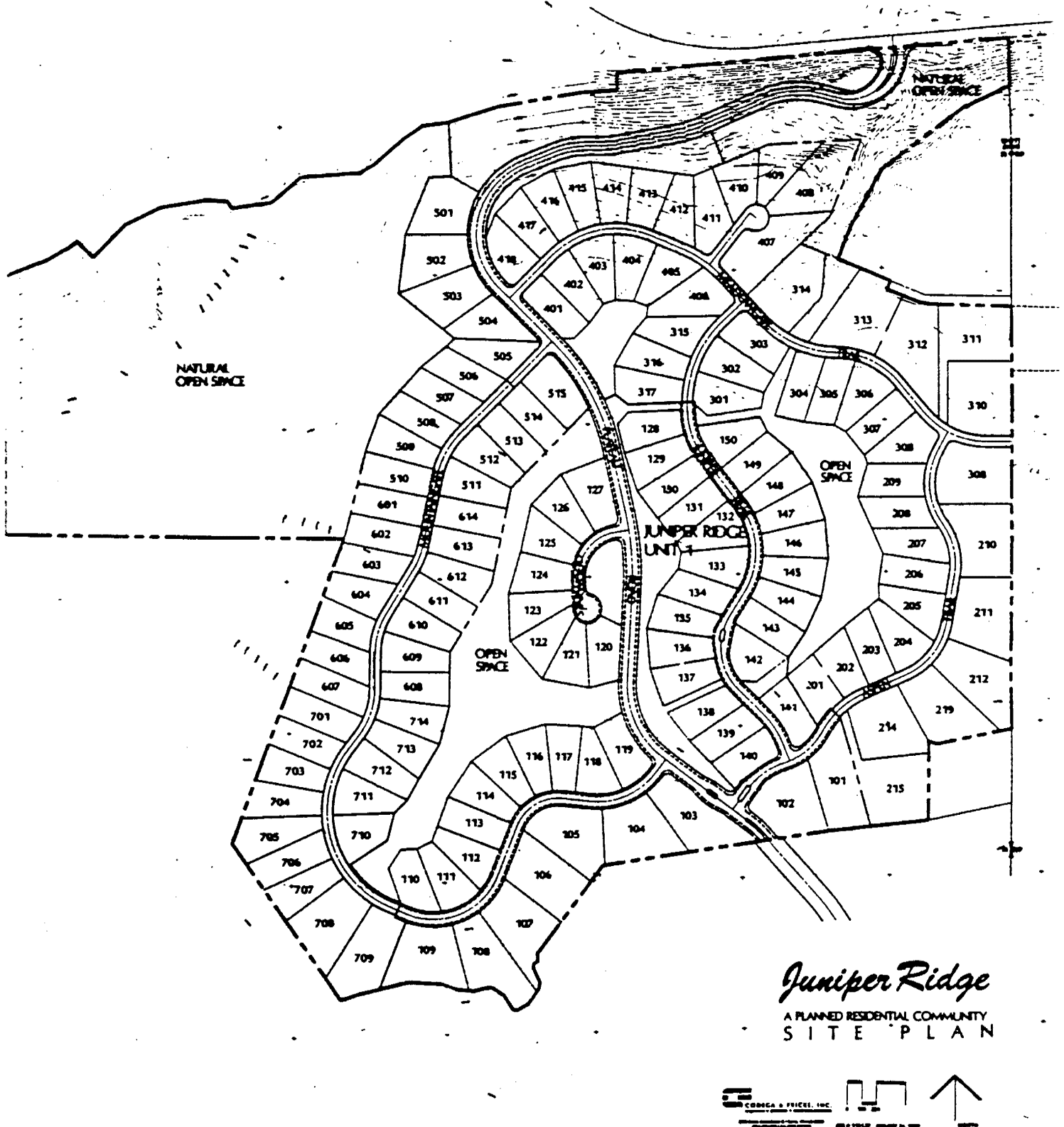
Unit Yield	143 lots
Average Lot Size	26,827± s.f.
Gross Density	0.89± du/ac.
Net Density*	0.98± du/ac.
Net Net Density**	1.25± du/ac.

Grand Total Acreage 161.1± ac.

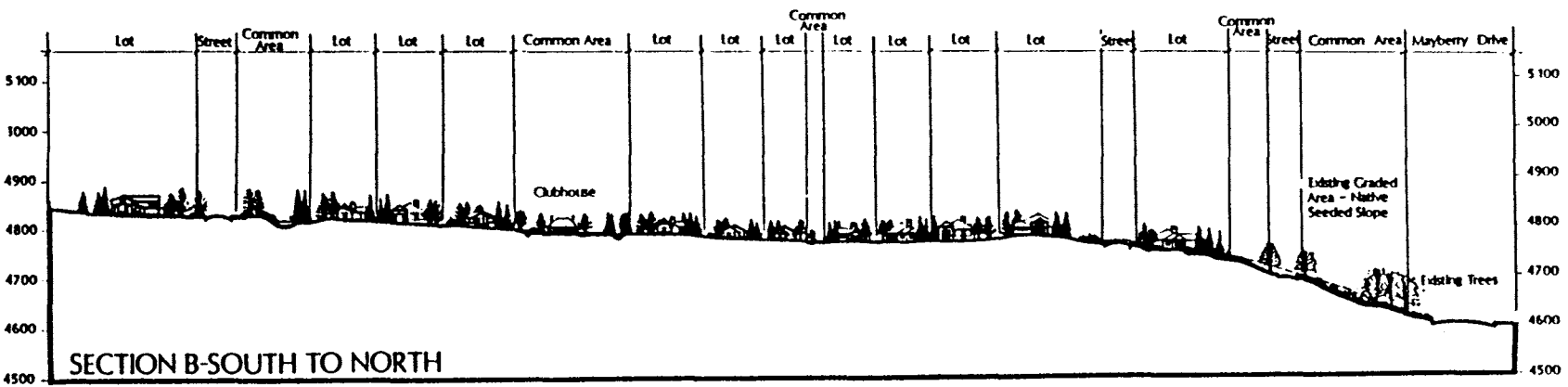
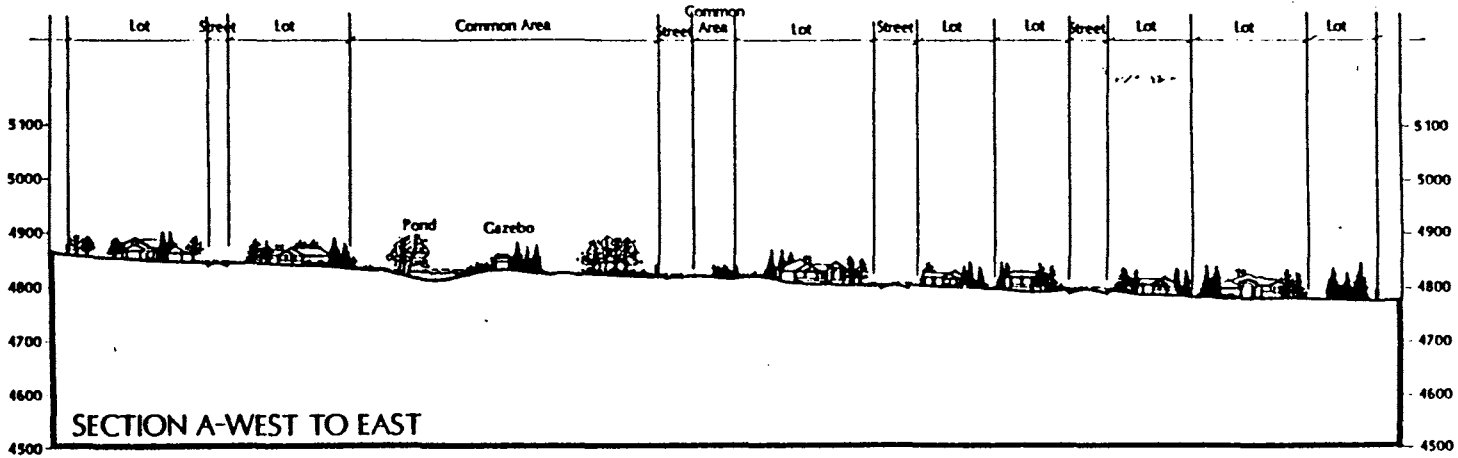
* Density net of public rights-of-way

** Density net of public rights-of-way and potential dedication parcel

*** Lot sizes may be reduced only if necessary to provide for a public or association owned trail or recreational facility.



4. Site Plan.



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ECB # 111127 JANUARY 24, 1992

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Juniper Ridge
 A PLANNED RESIDENTIAL COMMUNITY
 SITE CROSS SECTIONS
 SHEET 3 of 3
 TENTATIVE MAP

3. Community Design Standards

Introduction

This chapter describes the various design and control elements that together make JUNIPER RIDGE a unique community. The following topics are addressed: architecture, building envelopes, landscape design, site furnishings (signage and mailboxes), parks/recreation/open space and protective covenants (CC&Rs). In all instances where discreet standards are not specified herein, Reno Municipal Code shall apply.

Architecture

Character

The architecture at the site is illustrated by the house drawings depicted in Figures 6, 7 and 8. Variation of setbacks within the prescribed minimum setback guidelines will be required through the recordation of building envelopes for each lot with each final subdivision map. Variation of height and massing are also important to avoid the monotony found in many subdivisions. Each house will employ architectural elements, materials and finishes consistent with the selected architectural style. Colors must relate to the selected architectural style. Note that all colors must be approved by the Architectural Control Committee approved palette.

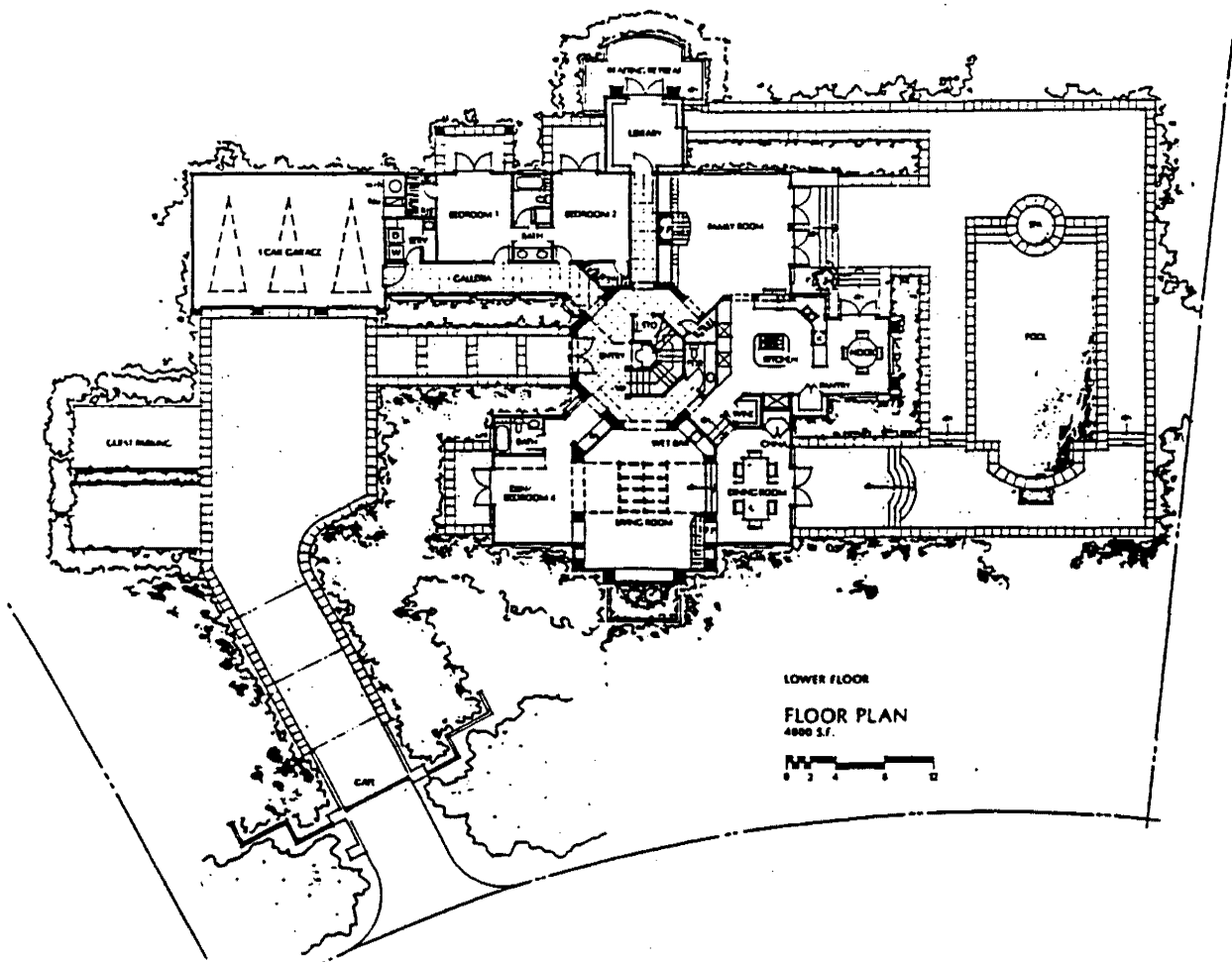
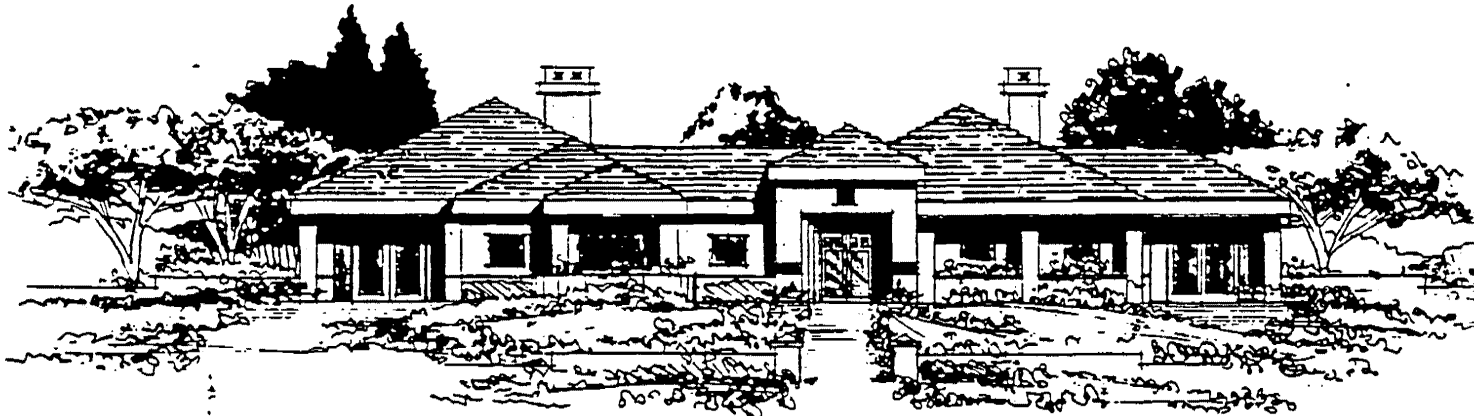
Individual homes should have a clear and strong sense of entry. This can be accomplished by central placement of the entry in the house plan. The use of covered porches, projecting steps with architectural elements such as columns, archways, pergolas are all devices which help define entry. A strong indoor/outdoor relationship is to be encouraged, especially in back yards with patios and decks that effectively extend the interior living areas of the house.

Each home must have a minimum of 2,000 square feet of fully enclosed floor area usable for living space. This excludes area used for porches, terraces, garages, carports, guest houses, and other outbuildings. A garage must be provided that can store at least three automobiles. In order to keep a recreational vehicle on a lot, it must be within a fully-enclosed, roofed garage. All materials and exterior colors must be approved by the Architectural Committee. All reflective metal such as chimney stacks, flashings, exhaust vents, and pipes must be painted to match or complement surrounding materials. Complete construction plans must be reviewed and approved by the Architectural Committee prior to applying for a building permit. It is strongly recommended that preliminary plans (site/grading plan, floor plans and elevations) be submitted to the Architectural Committee for review and preliminary approval prior to commencing the preparation of complete construction plans.

The proper design of a home must take several factors into account:

- Space needs and functional considerations
- Develop and articulate a consistent design theme or concept
- Incorporate the use of proper materials in proper ways
- The scale, proportions, and form of the structure properly relate to each other and the surroundings
- The unique opportunities and constraints of the lot and its surroundings are properly considered
- Fenestration is well organized
- The building envelope, designated access point and height limit are prudently respected

In order to make the home design process as positive as is possible and to maintain the JUNIPER RIDGE master plan's standards, each home will be designed by an architect or designer approved to prepare plans in the project. A list of architects, as may be amended from time to time, allows one to efficiently manage this very important aspect of creating a new home.



6. Illustrative House Concept A

Architectural Elements

Architectural elements such as porches, projecting wings and bays add interest to simple shapes. Covered porches also provide an additional layer of shelter in the transition from inside to outside which is appropriate in the sometimes harsh Reno climate.

Use of architectural features such as columns, brackets, railings and trim work will create a pleasing texture on wall surfaces. The articulation of the facade in a consistent manner is required on all building elevations, not only the street facade.

Garages

Automobile garages typically make up a significant portion of the house plans. It is important that the design of the garage is well-integrated with the overall house design. Quite often in current residential design, garages become the dominant element facing the street on each house yielding an undesirable streetscape of garage doors. To avoid this condition, garages will frequently be placed toward the rear of the lot or turned perpendicular or at another angle to the street and primary facade.

Exterior Materials

Appropriate exterior materials include:

1. Exterior Siding - must be submitted and approved by the Architectural Control Committee.
2. Roofing - appropriate materials include: metal, tile, wood shakes or wood shingles (as approved by Truckee Meadows Fire Department) or concrete in colors approved by the Architectural Control Committee.

Fenestration

1. Openings should be composed on an ordered arrangement with attention paid to the entire elevation. Window and door proportion should be sympathetic to the particular architectural style of each house.
2. Proportion of window to wall area should be carefully designed.
3. Where windows have a small pane break-up, real muntin bars between panes are preferred.
4. Wood and aluminum windows and doors are favored.
5. Swinging patio doors are favored over sliding glass doors.
6. Window and door frame trim work is encouraged.

Building Envelopes/Setbacks

The building envelope is a critical aspect of the JUNIPER RIDGE Master Plan that serves several important purposes. The building envelope is that portion of the lot within which the house is to be constructed. Each lot also has a designated point of access (driveway location). The point of access is designed to conveniently serve the homesite, reflecting the lot's setting, and to develop a pleasing streetscene. The maximum building height is also specified for each lot.

The building envelope protects any important natural features on your lot, such as trees and interesting landforms. The envelope also provides for proper spacing between homes. The building envelope protects views to the degree practical. The building envelopes may also protect southern exposure, by limiting the shadows from adjoining homes, to allow the incorporation of solar energy applications. The building envelope

lope generally defines that portion of the lot where topographic constraints are minimized, and thus building is the most economical.

Note that the JUNIPER RIDGE Architectural Committee may grant building envelope variances. These variances may be granted when the intent of the envelope designation is addressed and/or the variance does not significantly impact neighboring properties.

Each lot will have a building envelope designated (recorded at the final map stage of the development process) that describes the individually tailored setbacks and height restrictions for that lot. Building envelopes will be established that effect the desired look by requiring varied front yard setbacks. The designation of building envelopes must also reflect other considerations such as: the retention of existing vegetation and other site features, protecting viewsheds from the building site, protecting the viewsheds of adjoining building sites, creation of usable yard space, and protection of solar access.

Table 3 presents the general setback criteria that will be used in designating the building envelopes in.

Table 3
Building Setback Criteria

	<u>1/2-Acre Lots</u>	<u>1-Acre Lots</u>
Minimum Front Yard	30 feet	30 feet
Minimum Driveway Length	30 feet	30 feet
Minimum Exterior Side Yard*	20 feet	20 feet
Minimum Side Yard	10 feet	12 feet
Minimum Distance Between Structures	20 feet	24 feet
Minimum Rear Yard	20 feet**	30 feet**
Minimum Average Lot Width	100 feet***	120 feet***
Maximum Lot Coverage	40 percent	30 percent
Maximum Ratio Second Floor Area to First Floor Area	67 percent	75 percent

* Exterior Side Yard means the area between the side wall of a building and the property line abutting a street right-of-way on corner lots.

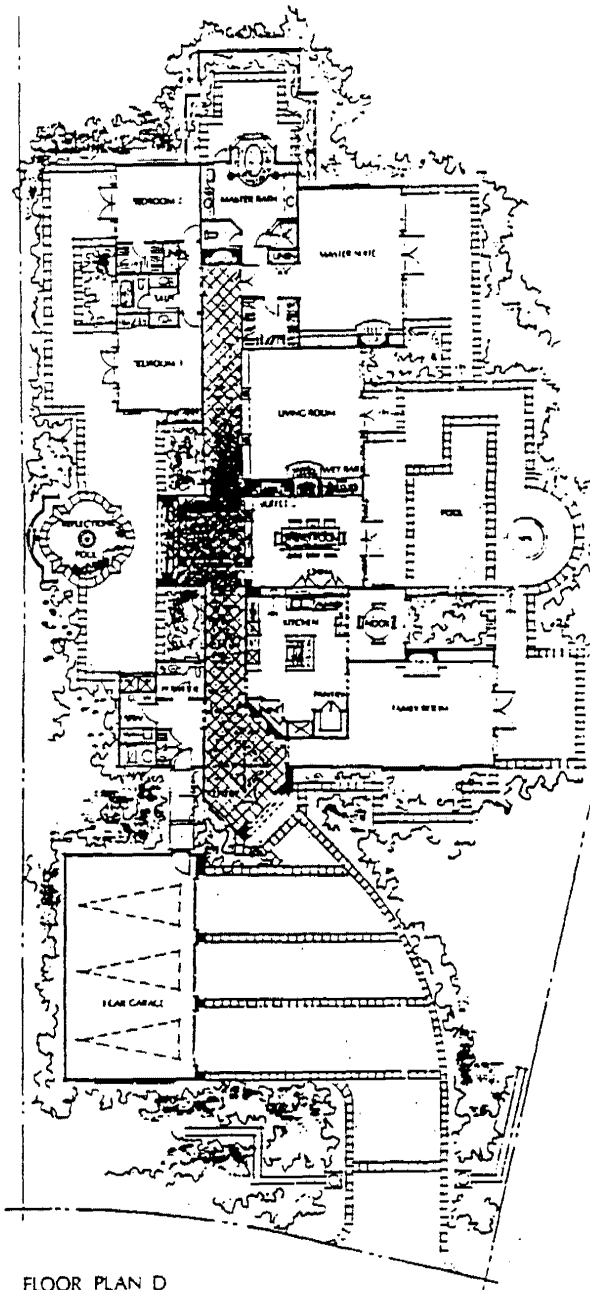
** 30 feet if not adjacent to a common area.

*** May be reduced by the width of any trail or recreational facility dedication, common area or easement.

Front yard building setbacks will be staggered so that the wall closest to the street of each home is off-set from the adjoining homes according to the following table.

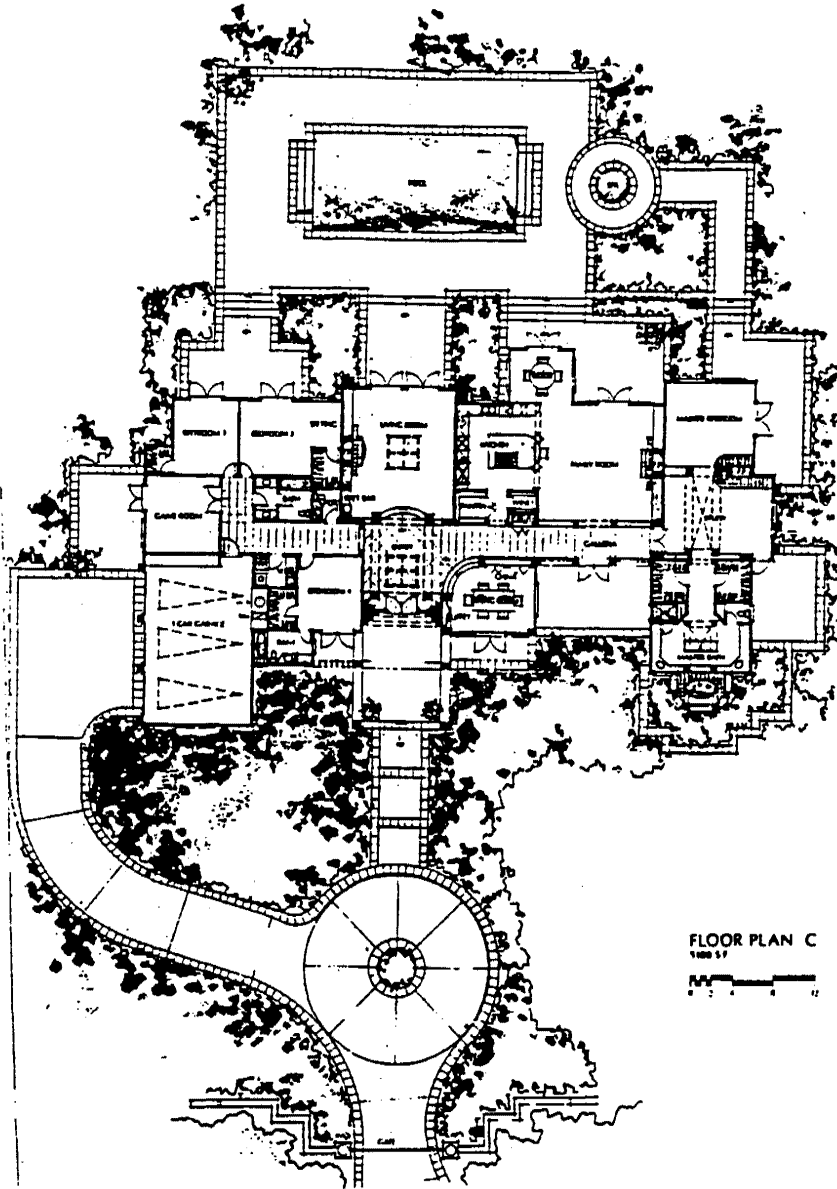
Table 4
Minimum Setback Variation Standards

<u>Minimum Front Yard Setback Variation</u>	<u>Minimum Angular Offset of the Front Building Lines of Adjoining Homes</u>
10 feet	0 degrees
8 feet	5 degrees
6 feet	10 degrees
4 feet	15 degrees
2 feet	20 degrees
0	25 degrees

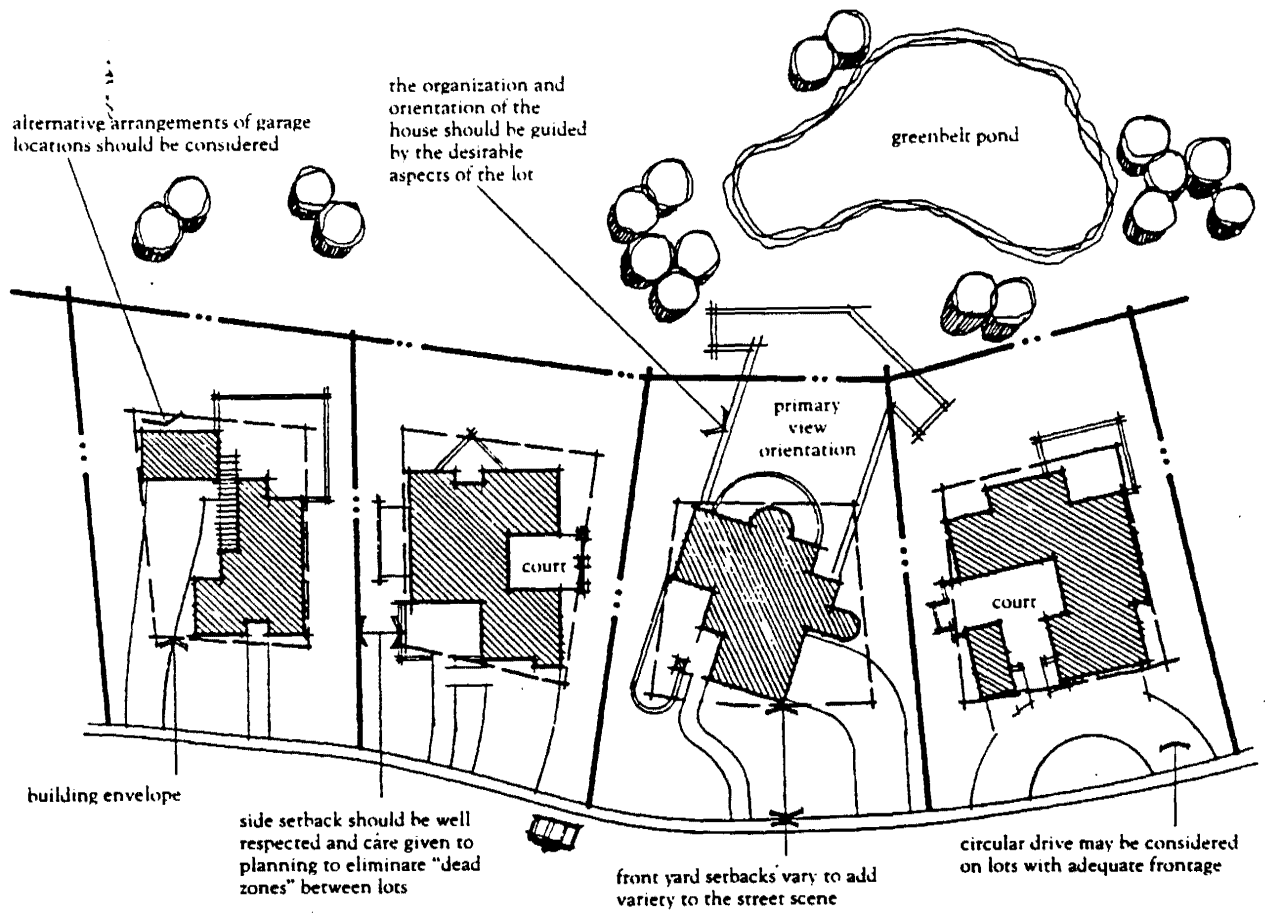


FLOOR PLAN D

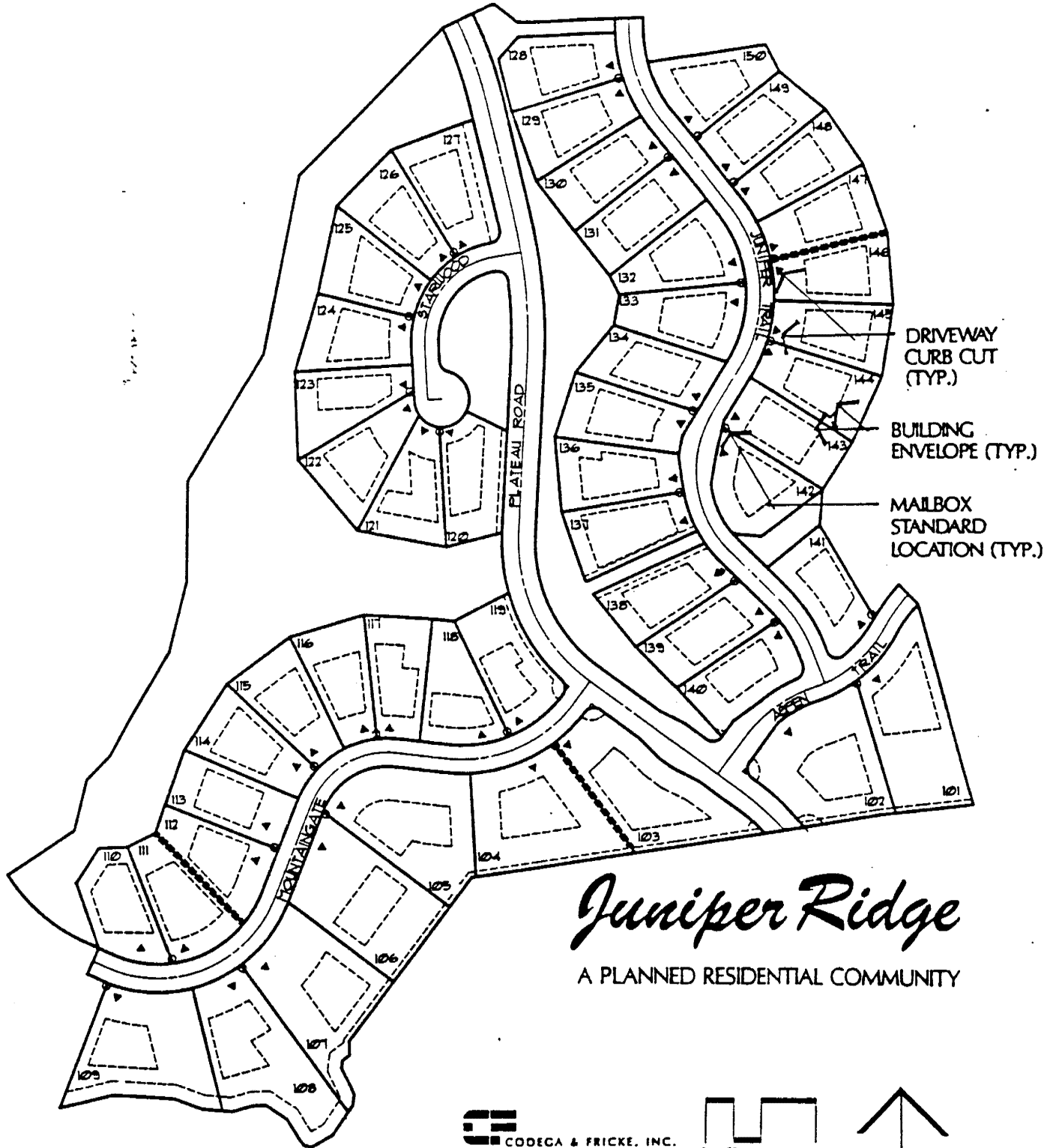
7. Illustrative House Concept B



8. Illustrative House Concept C.



9. Typical Setbacks and Lot Design



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JOB#113.127 JANUARY 26, 1992

NORTH

10. Unit 1 Building Envelopes

Landscape Design

The design of the JUNIPER RIDGE landscape will establish a high quality image that reinforces the beauty of the site. These landscape design guidelines address common areas, streets, private yards, and recommended plant species.

Common Areas

Common area landscaping is intended to provide simple, relatively low maintenance open areas that are highly visible from roadways and paths. The following guidelines will help to implement these goals:

1. Preserve selected existing mature trees by locating roads and buildings away from major tree groups and protecting trees within their driplines during construction.
2. Provide new tree plantings in formal rows on the main roadway to create an allee' and reinforce street edges.
3. Provide informal plantings in internal common areas to relate to the National Forest land adjacent to the project.
4. Provide plantings which accent and are compatible with the water features in the common areas.
5. Provide a landscape design which draws on the landscape from the surrounding mountains and utilizes:
 - Water drops or cascades for sound
 - Native plants such as pines, junipers, aspens and willow shrubs where water occurs
 - Evergreen shrubs/ground covers, wildflowers, perennials in focal areas
 - Large boulders and rock ground cover
6. Provide ground plane landscape with:
 - Mowed lawn at focal areas only
 - Partially buried boulders
 - Ground covers
 - Wildflowers
 - "Mounds" or islands of planting that carry interest through winter months while grass is covered with snow or brown
7. Except for plantings directly on creeks and ponds, use of drought resistant plants is preferred and drip irrigation systems will be utilized for water saving purposes.

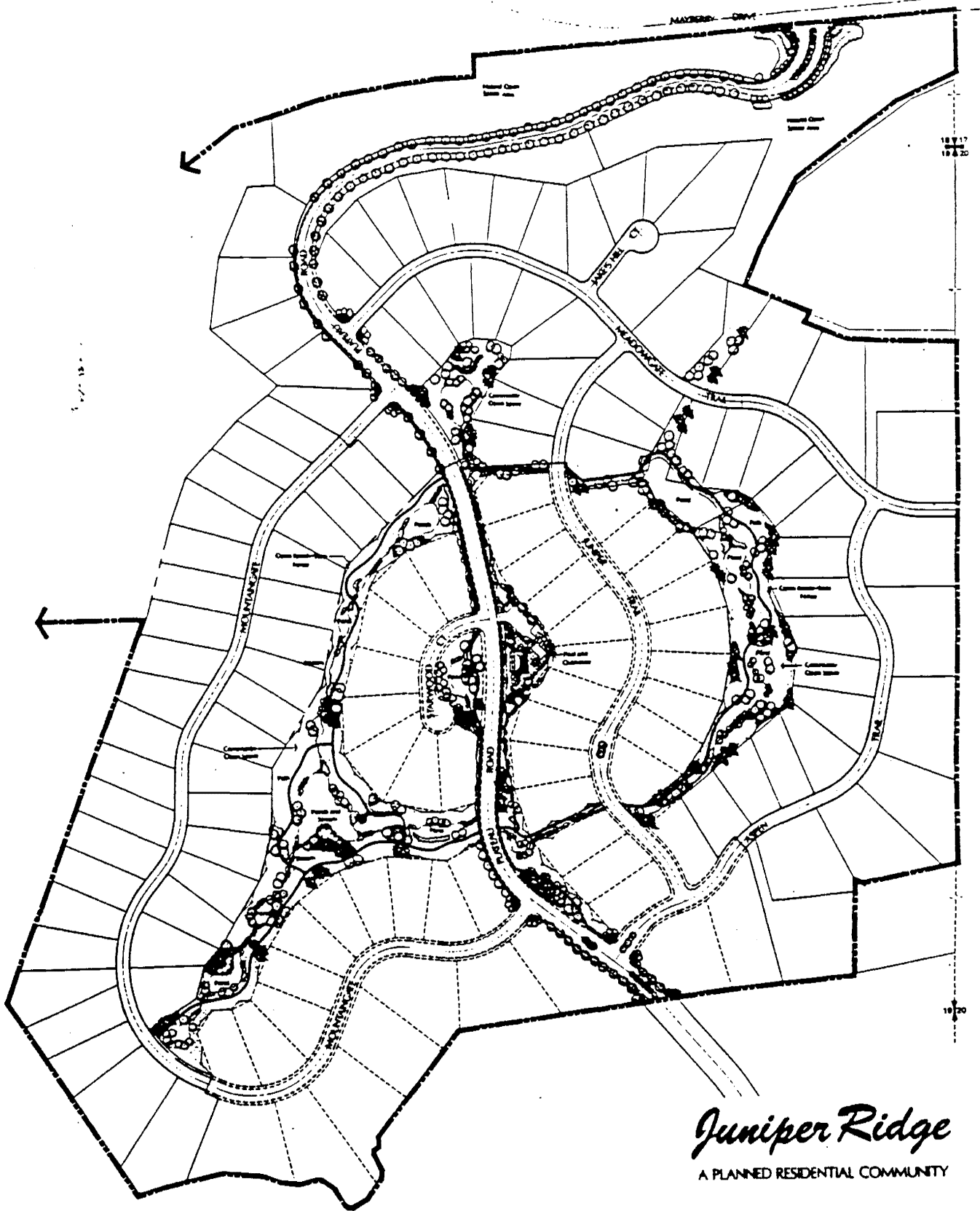
Streets

The appearance of streets, because they are a part of the community, is a highly visible, important element of the JUNIPER RIDGE character. Streetscape design will provide a sense of entry into the community and assure orientation and progression from entries to minor residential courts. Streets will be designed according to the following standards:

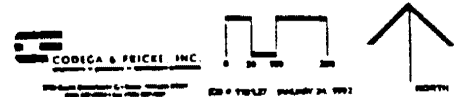
1. The primary road (Plateau Road) has a sixty foot right-of-way.
2. The local streets will generally have 38-foot rights-of-way that accommodate two travel lanes and two parking lanes. Any streets which are less than 28 feet in width (curb face to curb face) will be shown and designated for "no parking." These streets will be generally designed for 25 m.p.h. speeds. Streets may have a lesser design speed (eg. 15 m.p.h.) if so signed. All streets constructed after annexation will be built according to City structural standards. A path system is used in lieu of sidewalks.
3. Street lighting exists at the Mayberry Drive/Plateau Road intersection. Other limited street lighting will be provided as follows:

JUNIPER RIDGE Annexation, PUD Zone Change & Tentative Map

- Street lighting will occur at the intersections of Mountaingate, (Both the north and south ends), Aspen Trail, and Meadowgate Trail with Plateau Road and also the portion of Plateau Road between Mayberry Drive and future Meadowgate Trail.
 - This street lighting will be of a character like that used in the Recreation Center parking lot and as low as is practical, as shown in Figure 27.
 - The luminaries will be cut-off to focus the light on the intersection or roadway and limit spillover light onto adjacent areas.
4. Reflective markings will be placed on fencing, boulders, etc. or within the landscape across from intersecting streets on the local street "T" intersections within the project.
 5. Curve warning signage, speed limit signage and/or reflective devices will be used to provide safety along streets with sharp curves to the satisfaction of the City traffic engineer.
 6. Advance pedestrian crossing warning signage will be placed along Plateau Road for the two pedestrian crossings.
 7. Fire hydrants will be provided in future units according to City standards. With the construction of the next unit, two additional fire hydrants will be provided in Unit 1, with the locations mutually agreed upon by the City and the developer.



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11. Master Common Area Planting Plan

Clubhouse

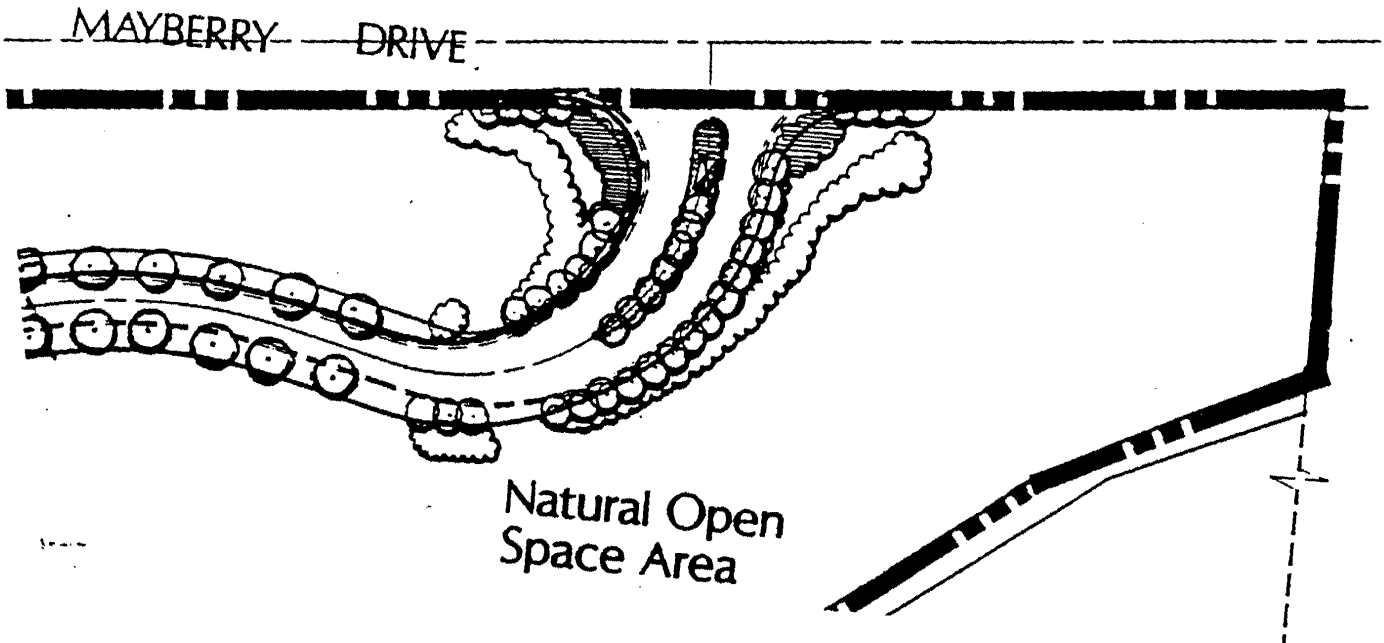
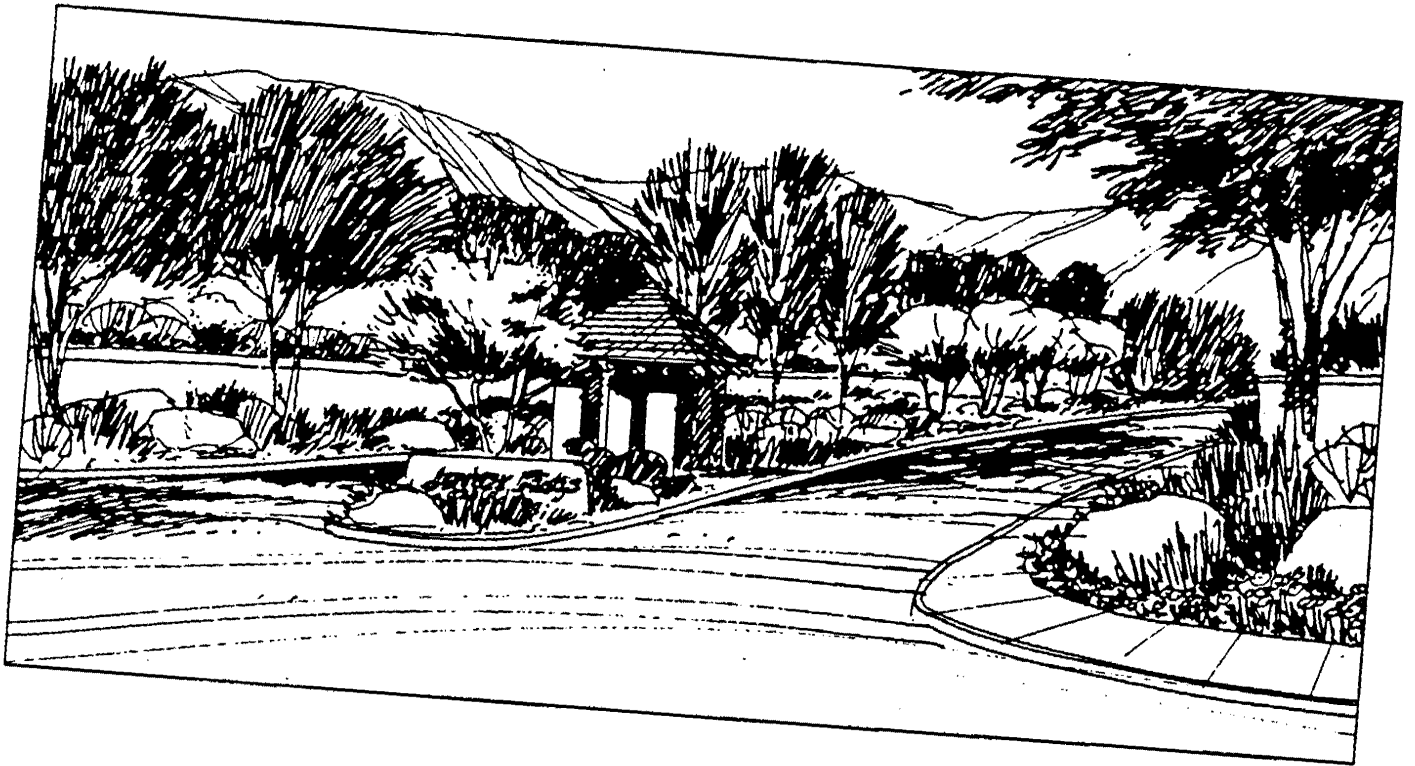


Pond

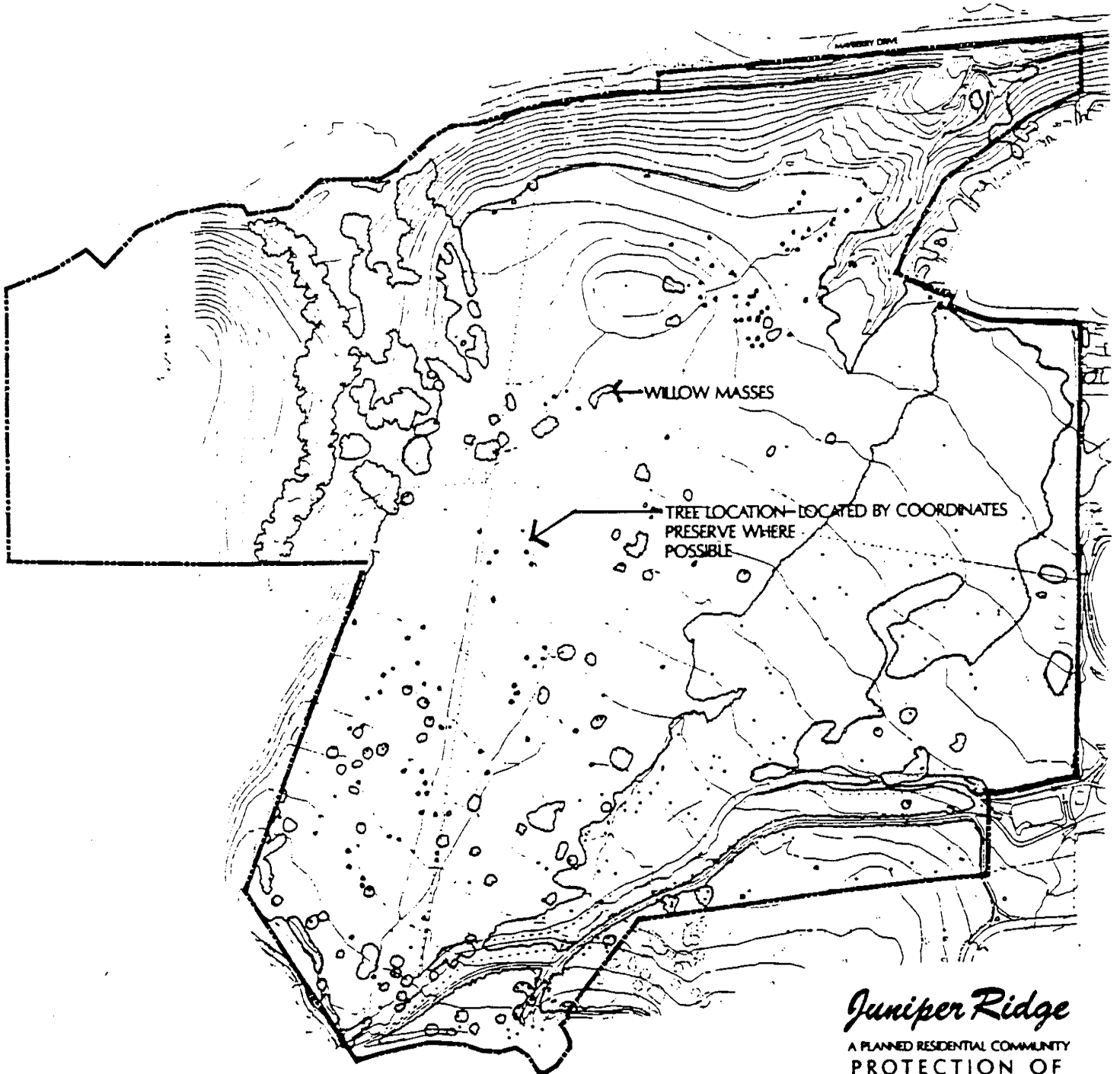
Gazebo



12. Site Landscaping Cross Sections

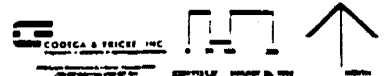


13. Project Entry Sketches.



Juniper Ridge

A PLANNED RESIDENTIAL COMMUNITY
PROTECTION OF
EXISTING TREES



14. Protection of Existing Trees

LANDSCAPE PLANTING CONCEPTS

Natural and informal groupings in large masses.



Limit the use of multiple plant varieties or exotic plants.

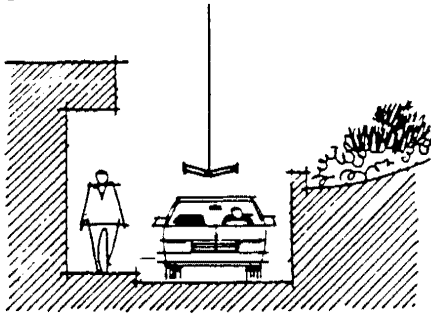


Contrast evergreen and deciduous masses.

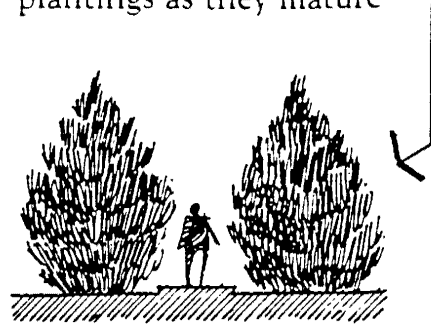
THIS:

NOT THIS:

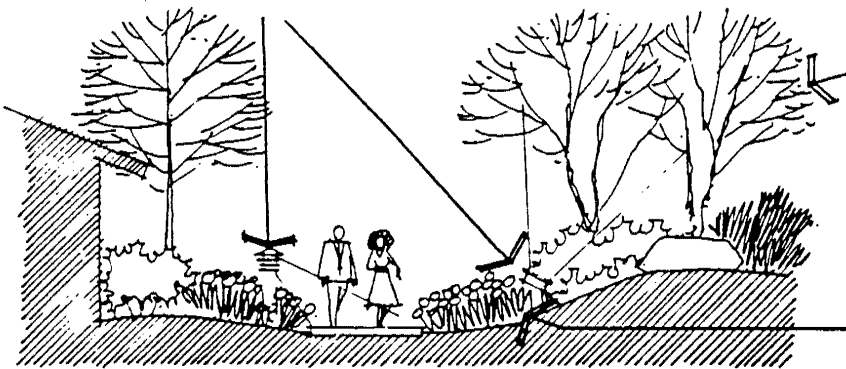
avoid creating congested circulation and poorly scaled environments



consider the scale created by plantings as they mature



indirect lower level walk lighting and uplighting of trees



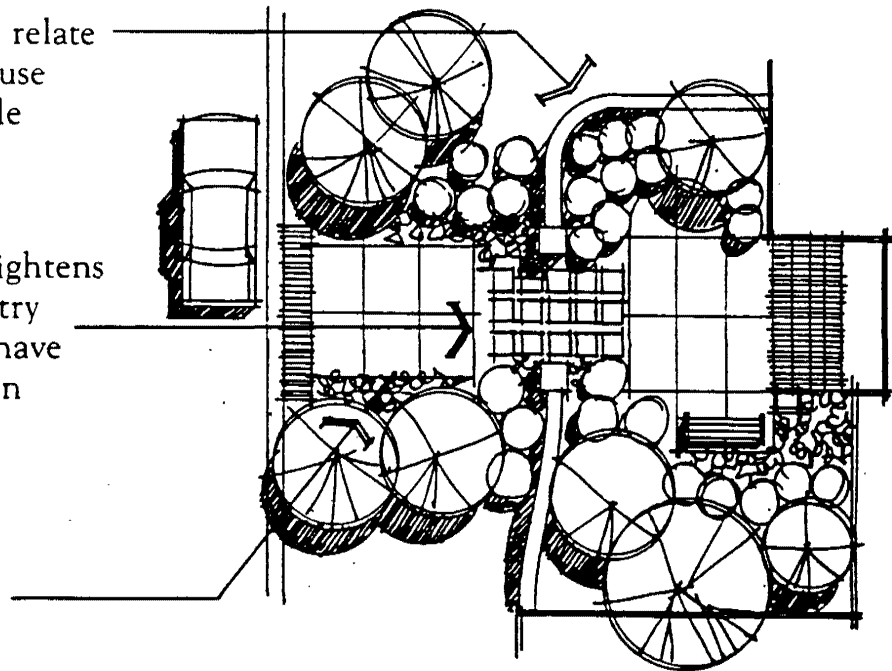
larger-scaled backdrop shrubbery and trees enclose and define outdoor rooms

lower, more delicate and visually stimulating plant material for foreground areas

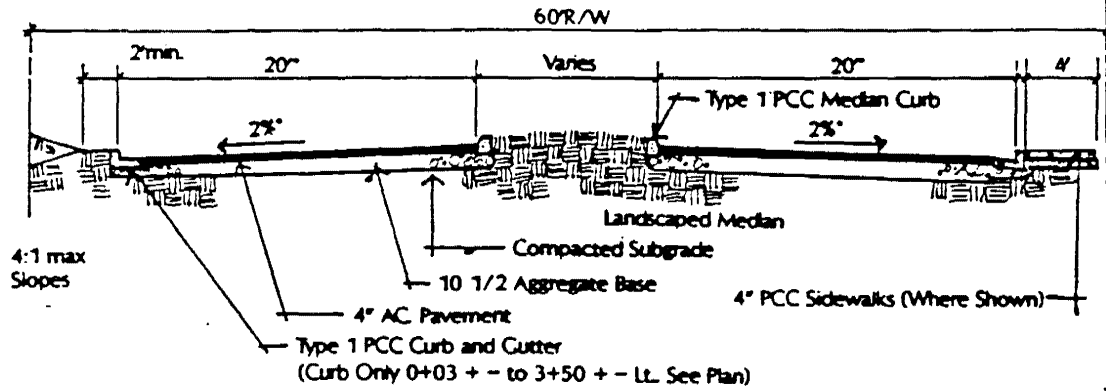
landscape walls should relate or complement the house through materials, scale and detail

gateway experience heightens sense of arrival and entry courts and courtyards have historical precedence in western architecture

use low level indirect lighting for walkways



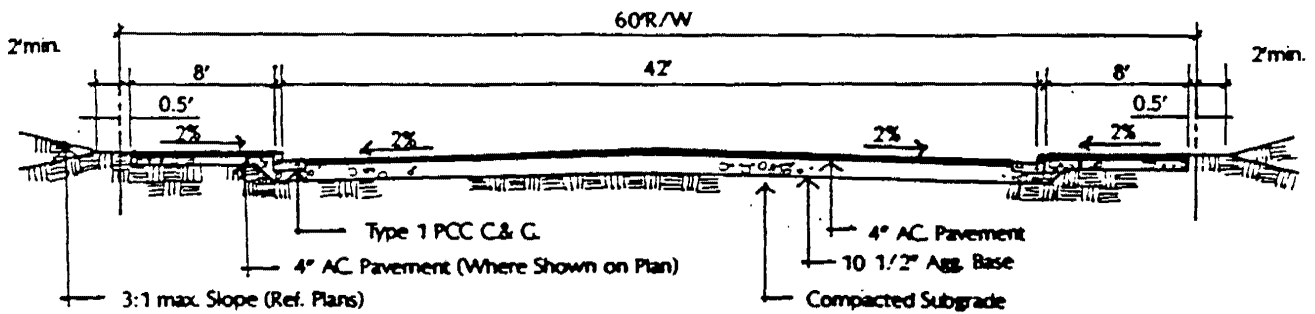
16. Planting Concepts



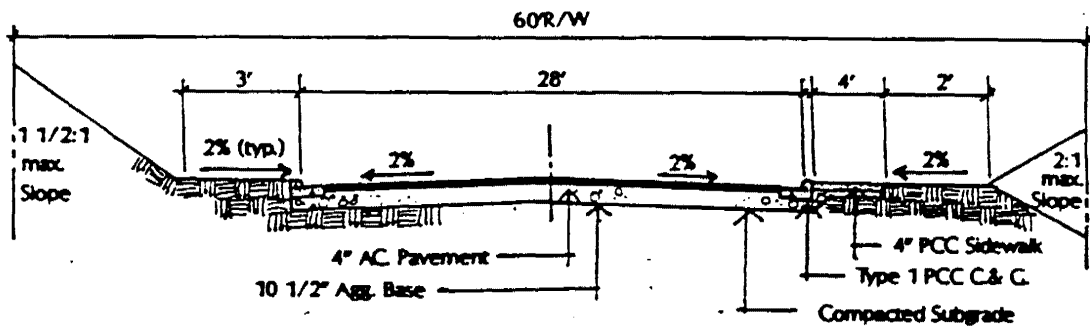
* Note: North Entrance @ Maryberry Lane - Width and Slope Vary (Ref. Plan)

PLATEAU ROAD

40'



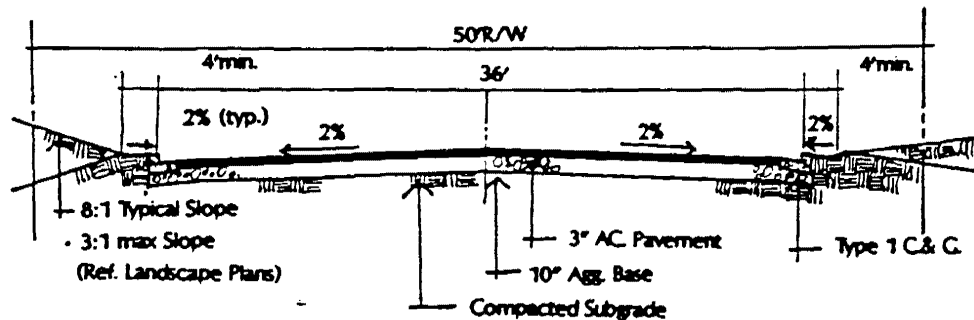
PLATEAU ROAD



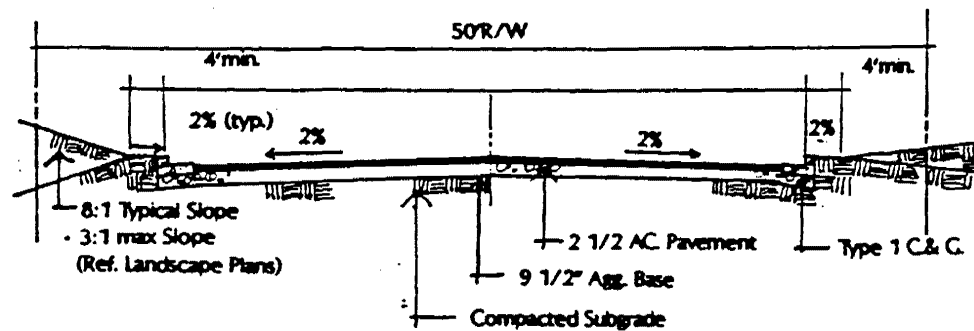
PLATEAU ROAD

EXISTING STREET SECTIONS

36'

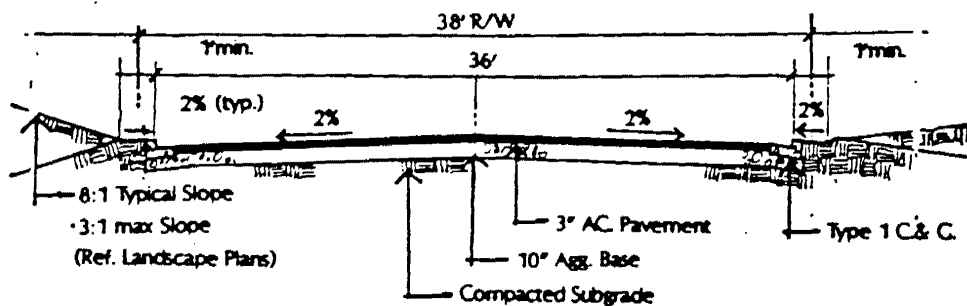


TYPICAL 50' STREET ASPEN TRAIL, MOUNTAINGATE, JUNIPER TRAIL



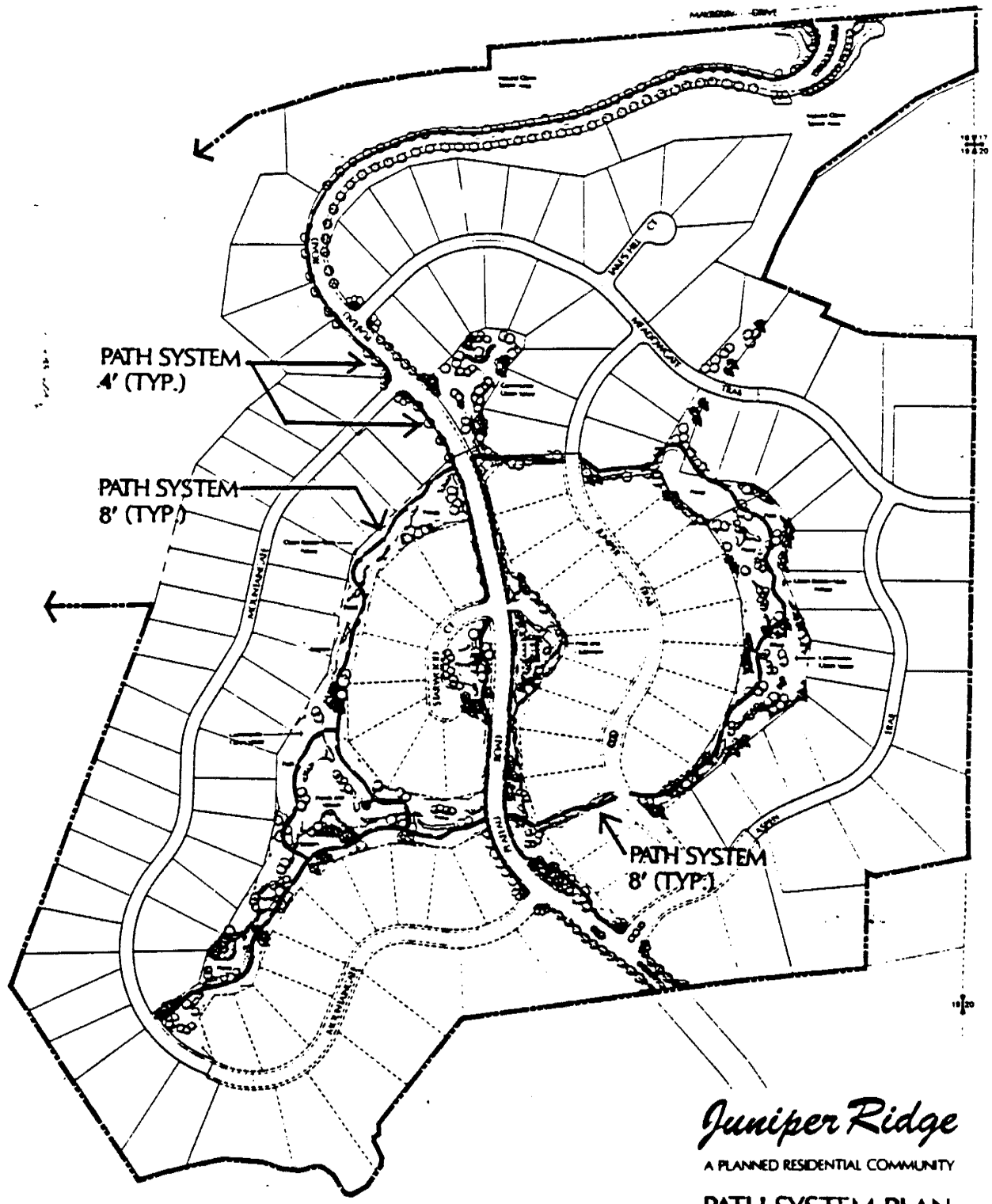
STARWOOD

EXISTING STREET SECTIONS



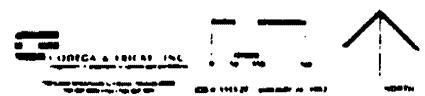
TYPICAL 38' STREET
FUTURE UNIT'S STREETS -

PROPOSED STREET SECTIONS

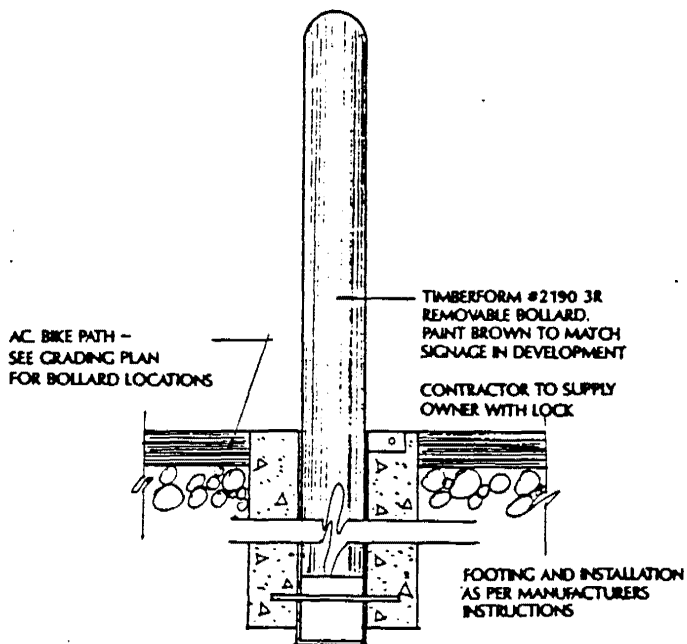


Juniper Ridge
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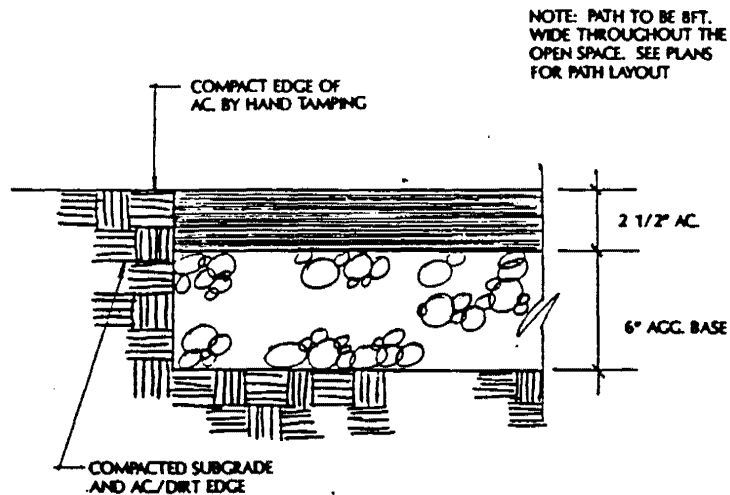
PATH SYSTEM PLAN



20. Path System Plan

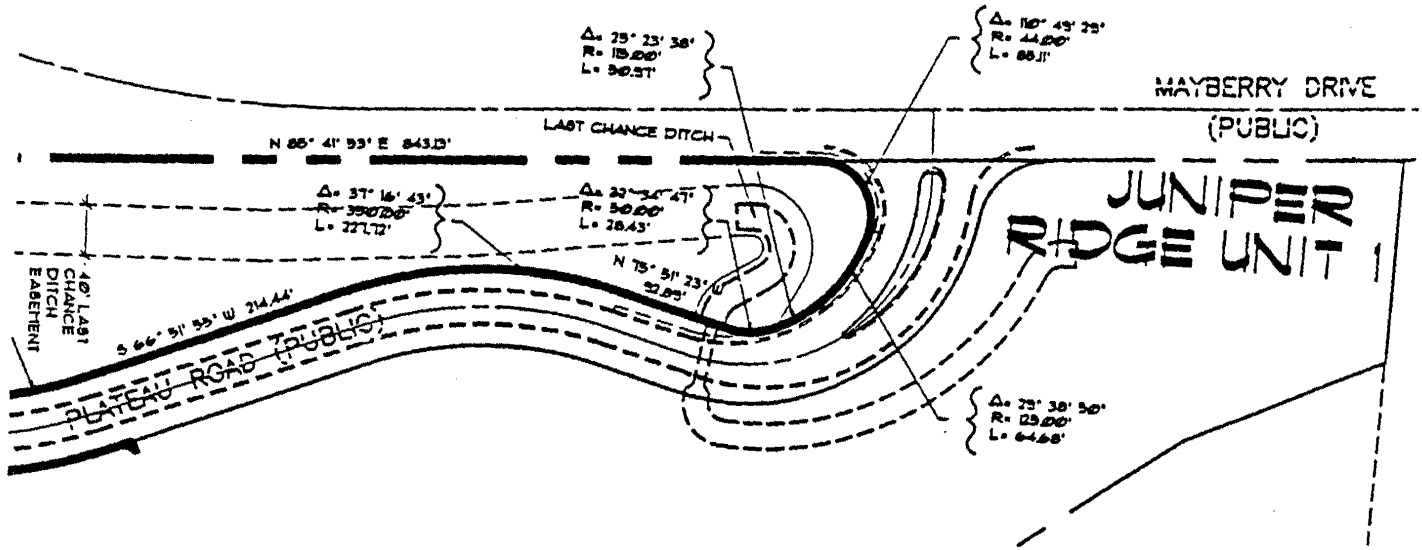


BOLLARD

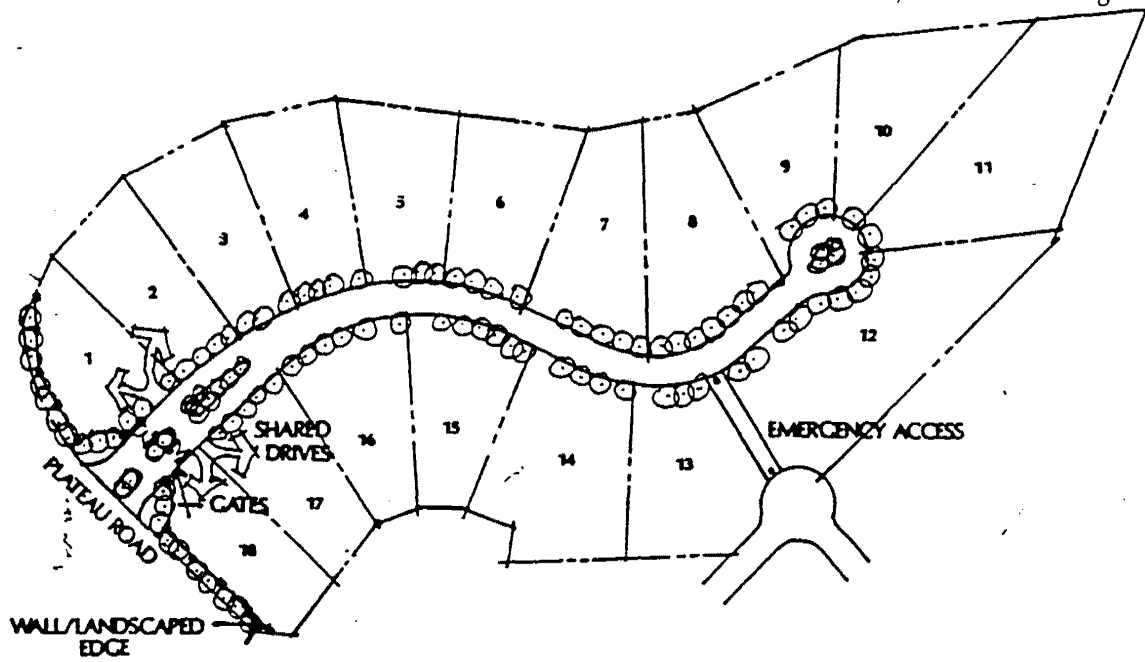


TRAIL/PATH PAVEMENT

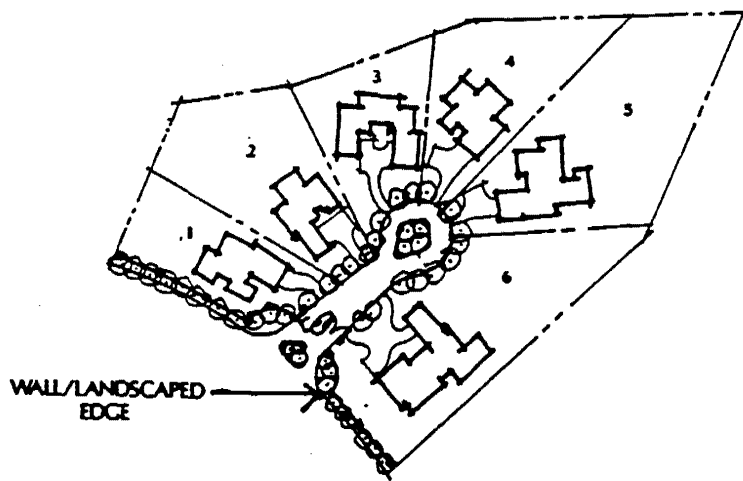
21. Path System Elements



22. Mayberry/Plateau Intersection Plan



18 – LOT PRIVATE PROJECT ALTERNATIVE



6 – LOT PRIVATE PROJECT ALTERNATIVE

PRIVATE STREET ALTERNATIVES

23. Possible Private Street Alternatives

4. Some of the streets may be private and/or gated within the project where proper access is still provided to the remainder of the project as depicted in Figure 23.

Private Yards

The landscape design of private yards and the location of buildings on the lot is an important aspect of the quality of JUNIPER RIDGE. In general, building setbacks are intended to create usable space within lots, and generate a proper feeling of space and proportion along the street and between buildings that is consistent with the project. The landscape design of private yards should complement the street by use of a simple palette of plant materials and site furnishings.

1. Front yard setbacks will be varied in order to avoid a regimented, uninteresting street edge.
2. The entire area between the street curb line and the building setback line, exclusive of walks, drives and approaches, will be landscaped.
3. Plant materials should be selected from the recommended plant list. Plant palettes for private yards will be limited to a small number of species in order to achieve a strong, elegant landscape effect. Sufficient quantities of the same tree species should be planted in groupings to achieve a simple, distinct and immediate result.
4. Private area landscaping should be designed for maximum energy conservation, allowing maximum sun exposure during winter months and sun screening in summer.

A complete landscape plan which addresses the lot from lot line to lot line, specifies all plant material and sizes, hardscaping, lighting and irrigation is required prior to final approval for the construction of a home. Within eight months of the completion of a home, the portions of the lot that are visible from streets or common areas must be landscaped. Within two years of home completion, the entire lot must be landscaped. The protective covenants call for a minimum of three six foot tall evergreen trees in the front yard. This is a minimum requirement designed to provide year-round greenery along the streets. A satisfactory landscape scheme must take numerous factors into account. Following is a brief discussion of some of these design considerations:

Relationship to the Home - Landscaping should complement the home design. In fact, in some cases landscaping is required to make a home "work." For example, an expansive, rather stark wall might make sense from a home design's functional perspective, but require large, tall planting to create a suitable exterior elevation.

Scale/Proportion - The sizes of areas influence the perception of a comfortable space. When planning the sizes of outdoor areas, they should be roughly the same size as the interior rooms accommodating the same activities. For example - a barbecue/eating area should be the same size as a kitchen/dining room that is considered comfortable inside the house. Smaller than necessary spaces will be non-functional; larger than necessary spaces will have an empty, uncomfortable feeling.

Provide "human scale" in the outdoor environment. Generally, an enclosed space is considered to have human scale when the enclosure height equals 1/2 to 1/3 of the width of the space. Heights less than 1/4 of the width provide little sense of enclosure. Enclosure can also be created by the use of such things as umbrellas, patio covers, or a spreading tree. The "walls" of the space may be building walls, fences, or the imaginary walls created by the shade of a tree.

Form - The relationships of the forms of all objects in your landscape setting should be considered. Both two- and three-dimensional forms should be in balance and complementary to each other.

Unity - Do not use too great a variety of forms, colors, textures and materials. Repeat the use of common elements in different locations, Too much variety can be unharmonious and disconcerting.

Relationship to Grading - The landscaping should be designed to work with the grading and natural landforms of the lot. Naturally contoured areas generally work best with natural landscape patterns, while linear/structured landforms typically call for more formal landscape arrangements. Practical irrigation considerations and plant water requirements must also be considered for the relative high and low areas.

Connection/Sequence - Develop an experience for movement through the landscape. The connections between spaces should be logical, but interesting. The front entrance to your house might be an obvious straight line or might be given interest by varying the direction of entry or by manipulating the openness or enclosure of space.

Color/Texture - Careful consideration should be given to the color combinations of plant and hard materials. Selection of plants and their placements can provide color in every season. Look at all of the plant parts: foliage, flowers, twigs and stems. Texture is the combined effect of leaf size, position on branches, color and reflectivity of plant parts, and juxtaposition to other materials. Simple observation will tell you whether a material is fine or coarse. A fine material will make a space feel large and conversely a coarse material will make it feel smaller.

Climate Control - Landscaping can be used as an integral aspect of both outdoor and indoor climate control. Landscaping can provide windbreaks. Deciduous trees planted along southern and western home exposures provide sun in the winter and shade in the summer. Various microclimates can be created in your yard.

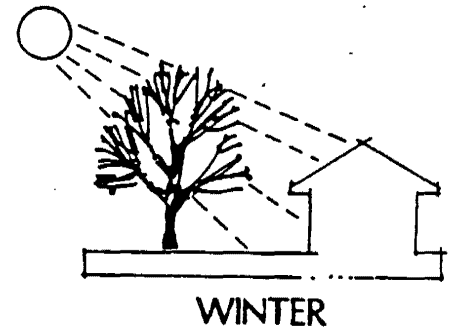
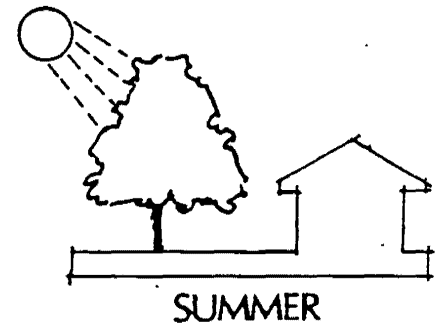
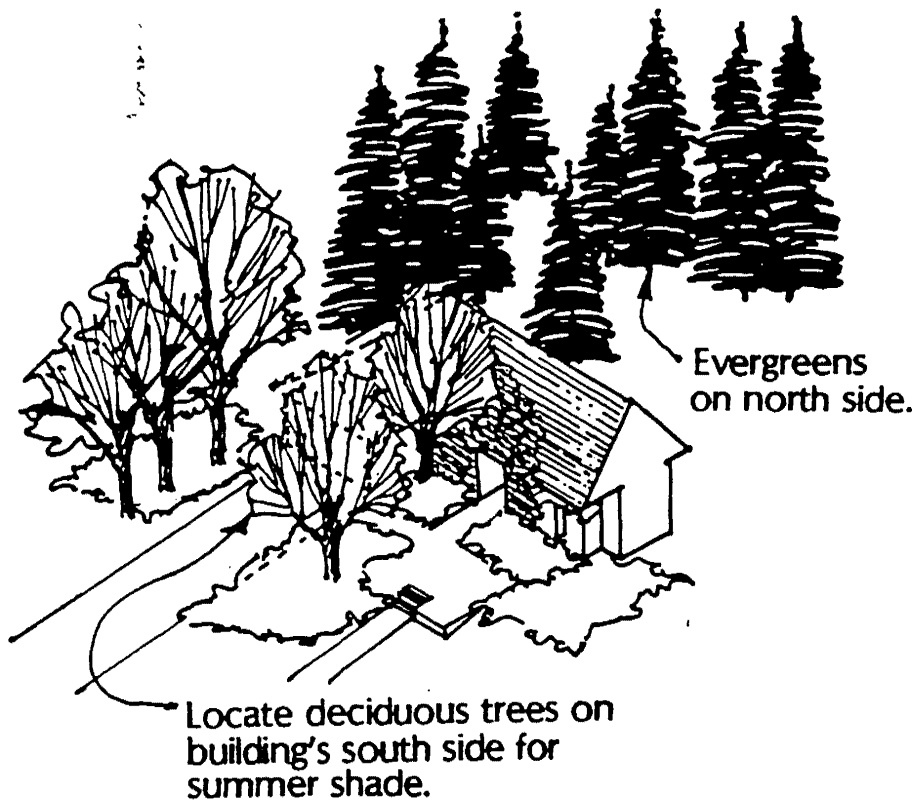
Views - Consider the positions in your house from which you will regularly view your landscape. This includes views off your property. Views can be screened or enhanced with landscaping. Thick planting can be used to screen a noxious element, while trees can be used to frame a picture window view. Consider the views to the outside from various rooms and consider the various seasonal aspects of plants.

Irrigation - All landscaping is to be watered via an irrigation system that is on an automatic timer. Drip irrigation is to be used to the maximum degree practical for the landscape scheme.

Maintenance - The landscape palette, irrigation system design all have an effect on the time and money required to maintain the quality and appearance of the yard.

Relationship to Landscaped Common Areas - If your lot abuts landscaped common area, you are highly encouraged to make the landforms and planting palette of your rear and side yards blend in with those of the common area.

Landscaping is a critical aspect of the homebuilding process. It is recommended that one seek the advice and services of a landscape architect and/or a qualified landscaping contractor.



24. Energy Conservation Planting Concepts

Plant List

The following is a partial list of plants that would grow well, require minimal care and retain the overall character of the project site.

Small Deciduous Trees

- Eastern Redbud
- Flowering Plum
- Flowering Cherry
- Scarlet Hawthorne
- Smooth Sumac
- Amur Maple
- Crabapple

Medium Deciduous Trees

- Red Horsechestnut
- Washington Hawthorn
- Fruitless Mulberry
- Black Locust
- Bradford Pear
- European Mountain Ash
- White Alder
- River Birch
- Quaking Aspen*

Large Deciduous Trees

- White Alder Hackberry
- Green Ash
- London Plane
- Norway Maple
- European Beach
- Pin Oak
- Scarlet Oak
- Western Hackberry
- Honeylocust
- Bur Oak
- Red Oak

Small Evergreens

- Juniper sp.
- English Holly

Medium Evergreen Trees

- Austrian Pine
- Lodgepole Pine
- Japanese Red Pine
- Arizona Cypress

Large Evergreen Trees

- White Fir
- Colorado Spruce
- Scotch Pine
- Giant Sequoia
- Dogwood
- Spirea

Ground Plane

Common Area groundcover shall contain the following mixture; hydroseeded at minimum 8 lbs/1000 sq.ft.

- 80% Scaldis Hard Fescue
- 10% Perennial Ryegrass (Manhattan or Derby)
- 10% Sweet Alyssum (lobularia Maritima)

* These species are generally prohibited in the City of Reno, but are used here via the PUD approval to provide for continuity in common area design.

- Mock Orange
- Tamarisk
- Forsythia
- Quince
- Lavender Cotton
- Burkwood Broom
- Honeysuckle

Deciduous Shrubs

- Fernleaf Yarrow
- Warminster Broom
- Winged Euonymus
- Barberry
- Sand Cherry
- Skunkbush
- Currant
- Dwarf Alaska Willow*
- Lilac

Evergreen Shrubs

- Grey Rabbit Brush
- Cotoneaster sp.
- Juniperus sp.
- Oregon Grape
- Big Sagebrush
- Mugho Pine
- Firethorn
- Evergreen Euonymus

Groundcovers & Perennials

- Bearberry
- Blue Fescue
- St. John's Wort
- Winter Creeper
- Blanket Flower
- Shasta Daisy
- Japanese Honeysuckle
- Yarrow
- Snow-in-Summer
- Dwarf Periwinkle
- Creeping Thyme
- Carpet Bugle
- California Poppy
- Virginia Creeper
- Clematis
- Day Lily
- Fernleaf Yarrow

Site Furnishings

Site furnishings include signage, mailboxes, lighting, fencing, paving, and seating. These elements will be designed as a coordinated system with common colors, materials and styles that reflect the existing character of the site and create a unified identity for the community. Conformity to this provision will rest solely with the Architectural Committee.

Signage

Signage will be used for public traffic control (stop signs, road crossings, etc.) and for public information (street names, subdivision names, special places, etc.) Signage will be clear and direct, relating the required information with minimal confusion. Certain restrictions related to signage are also specified in the Declaration of Protective Covenants. All signage must be approved by the Architectural Committee.

1. The size and scale of signage will relate to the exposure to passing viewers. For example, smaller scale signage will be used for slow moving traffic and along local streets.
2. Signs will employ the JUNIPER RIDGE logo and other symbols where such symbols effectively convey meaning.
3. The use of standing or hanging signage will be minimized to the extent feasible.
4. Signage structures will be made of natural materials as is practical.
5. Painted or base relief lettering will be emphasized. Styles and graphic symbols should be as simple and bold as possible.
6. All signage will use a uniform color scheme and style.
7. Street numbers on single family dwellings will be made of wood, brass or black metal and affixed or routed into the mail box standard.
8. Area identification signs:
 - a) The area may not exceed 64 square feet on each side.
 - b) The height may not exceed 12 feet.
9. Construction signs:
 - a) The area may not exceed 800 square inches and 36 inches is the maximum dimension.
 - b) The height may not exceed 72 inches.
10. Real estate property signs:
 - a) 24" x 18" is the standard size.
 - b) Colors - Background - green; Frame - black; JUNIPER RIDGE logo - white; "For Sale" - white or other; Realtor Name - white or other; Phone Number - white or other
 - c) Design of Sign - JUNIPER RIDGE logo - 6" at top of sign; "For Sale" - 2-1/2" high; Realtor Name - 3" high; Phone Number - 3" high
 - d) Rider - one "rider" under sign will be allowed; colors - green background/block type, white lettering.
 - e) Sold - when property sells, a red 'Sold' magnetic sign can be placed to the left of the JUNIPER RIDGE logo.
11. Political signs
 - a) The area and height may not exceed that allowed for other permitted signs except area identification signs.

- b) If the sign complies only with the standards imposed on a particular type of permitted sign, it is subject to removal, spacing and other requirements applicable to that particular type of sign.

12. Subdivision sales signs

- a) The area may not exceed 64 square feet on each side for each subdivision or project.
- b) Two signs are allowed, each having an area of 32 square feet on each side.
- c) The height may not exceed 12 feet.
- d) The distance between the signs must not be less than 200 feet.
- e) The signs must be removed when all of the lots or units in the subdivision or project have been sold or leased.

13. Direction-information signs

- a) The area may not exceed 16 square feet on each side.
- b) The height may not exceed 6 feet.

14. Flashing and animated signs are prohibited.

Conformity to this provision will again rest solely with the Architectural Control Committee.

Mail Boxes

Mail boxes will be approximately 4' high and have approximately a 3' x 3' square base. Wood posts shall accommodate 2 standard mailboxes. The standard shall be placed to allow for a shared mailbox standard for 2 lots, as designated on the building envelopes (see Figure 10).

Lighting

Lighting in JUNIPER RIDGE will be functional and aesthetically pleasing. It will illuminate pathways, points of potential pedestrian/automobile conflict, foster a sense of security and light signs. Aesthetically, it will highlight entrances to buildings, key areas of the project, and points of interest. Lighting along public streets will be owned and operated by the governmental entity that owns the street.

Lighting used in residential areas will have three basic functions. It will provide a sense of security, mark a driveway at the street level, and illuminate entryways and outdoor living areas. Lighting standards are presented below:

1. The scale, placement and style will be determined by its function. Example: pedestrian and slow vehicular lighting will not be intense and close to the ground.
2. Soft, indirect lighting will be employed wherever feasible, particularly in residential areas.
3. The light housings and support structures for lighting will be black, or of natural materials, or of a color harmonious to the structure.
4. Spillover, intrusive light will be minimized.
5. Lighting color will be uniform throughout the development.
6. Lights will be placed where they are most useful rather than trying to light entire areas. For example, they should be used to illuminate information and directional signage and for security, and not for flooding an entire backyard with light.
7. Lighting levels will conform to standards recommended by the Illuminating Engineers Society in IES Lighting Handbook, 4th Edition, New York, where warranted.

Lighting on road intersections along Plateau Road will occur to provide safety in night driving. Standards for intersection lighting are presented below:

1. The light housing shall contain a cutoff luminaire with photometric design which directs light onto intersections, and eliminates spill light onto adjacent areas.
2. The light housing constructed of steel or aluminum, shall be secured by a rectangular arm to either a steel or aluminum pole, as depicted in Figure 27.
3. Lighting shall be placed at the two crosswalks on Plateau Road.

Fences and Walls

All fencing for small children, pets or pool enclosures located on any lot should be constructed of three or four rail split cedar with a suitable wire mesh and must be set back a minimum of fifteen feet or four feet for every foot in height from the property line, whichever is greater. Courtyard or privacy walls that are of the same design as the home may be placed within the building envelope for each lot, provided that such courtyard or privacy walls may extend beyond such a building envelope if approved by the Committee. Open rail fencing will be used along the "western open space" parcel. Notwithstanding the foregoing, all fences and walls shall be approved by the Committee prior to installation and detailed plans therefor shall be submitted to the Committee as in the case of other structures.

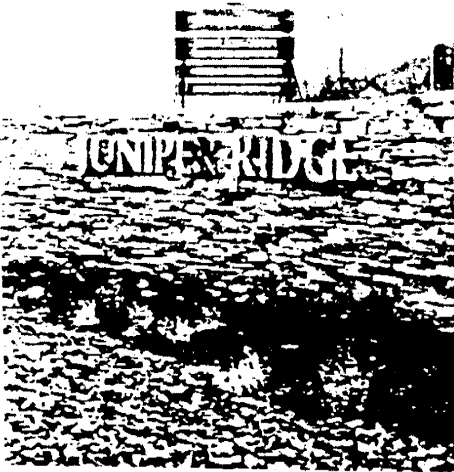
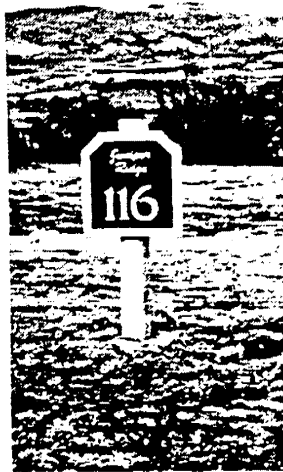
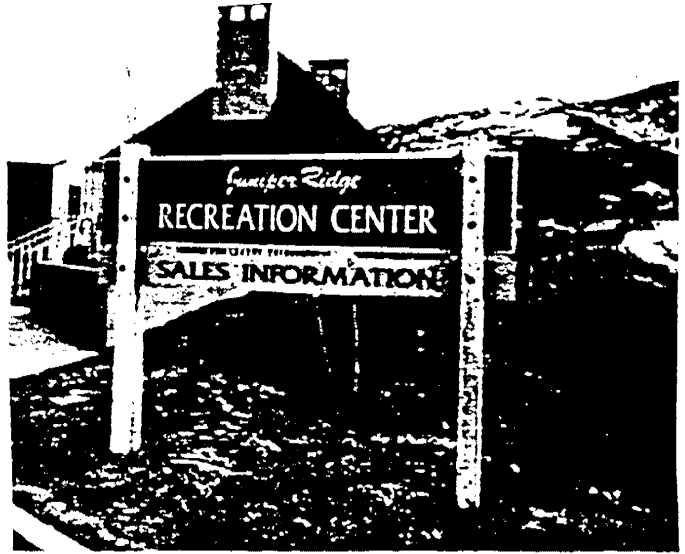
Paving

Paving provides for easy vehicular and pedestrian circulation, and can be used to accentuate key areas.

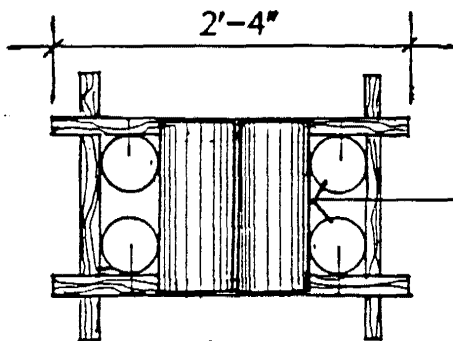
1. Streets will be paved with asphaltic concrete. Entry areas for any private streets may be paved with brick, interlocking concrete pavers, or textured or color concrete. Colors should be limited to those reflecting natural stone colors.
2. Bicycle and pedestrian paths within the greenway will be paved with asphaltic concrete and will be at least six feet in width.

Seating

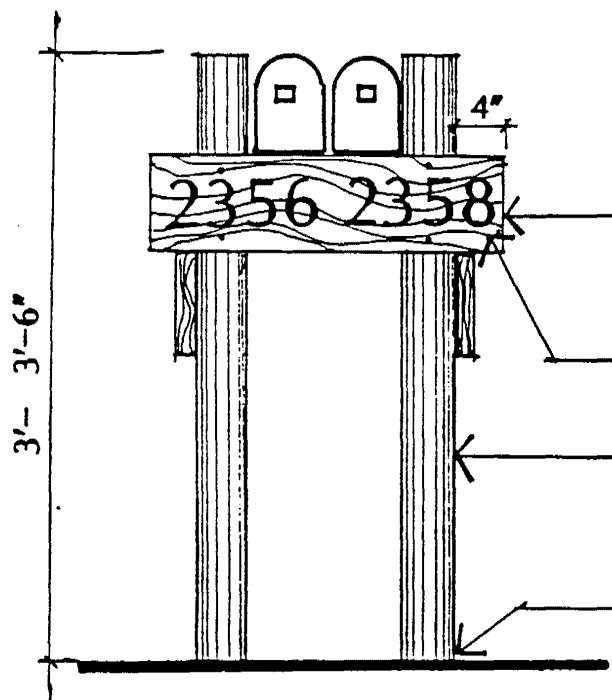
The design of seating and other furnishings designed for common areas should complement the overall system of fencing and signage.



25. Signage

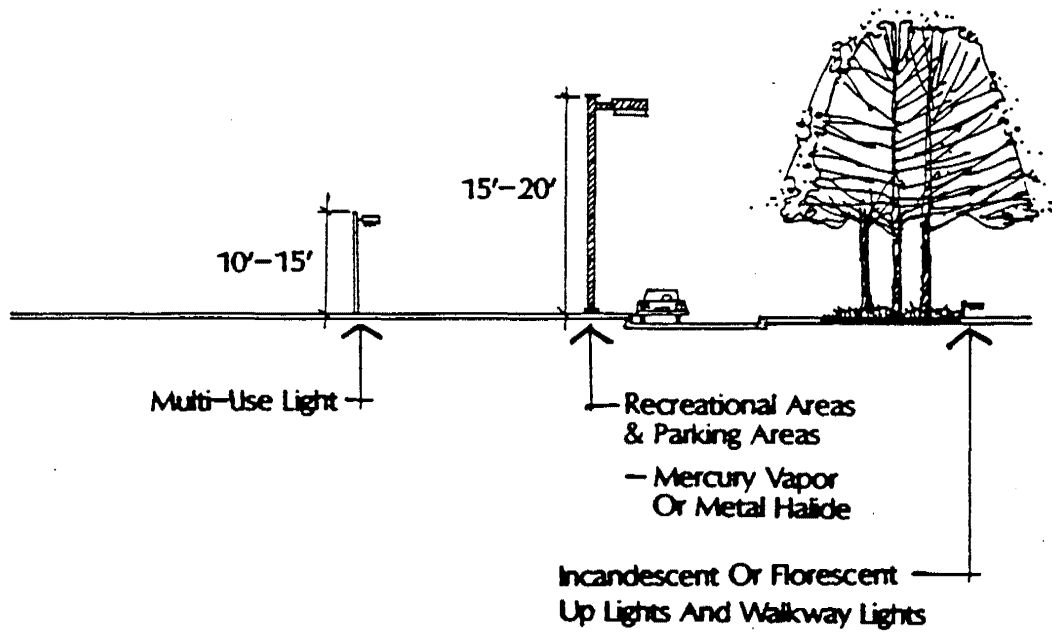


2-Standard Metal Mailboxes;
Approximately 6"x8"x16",
Painted Black,
Attached To 2"x8"

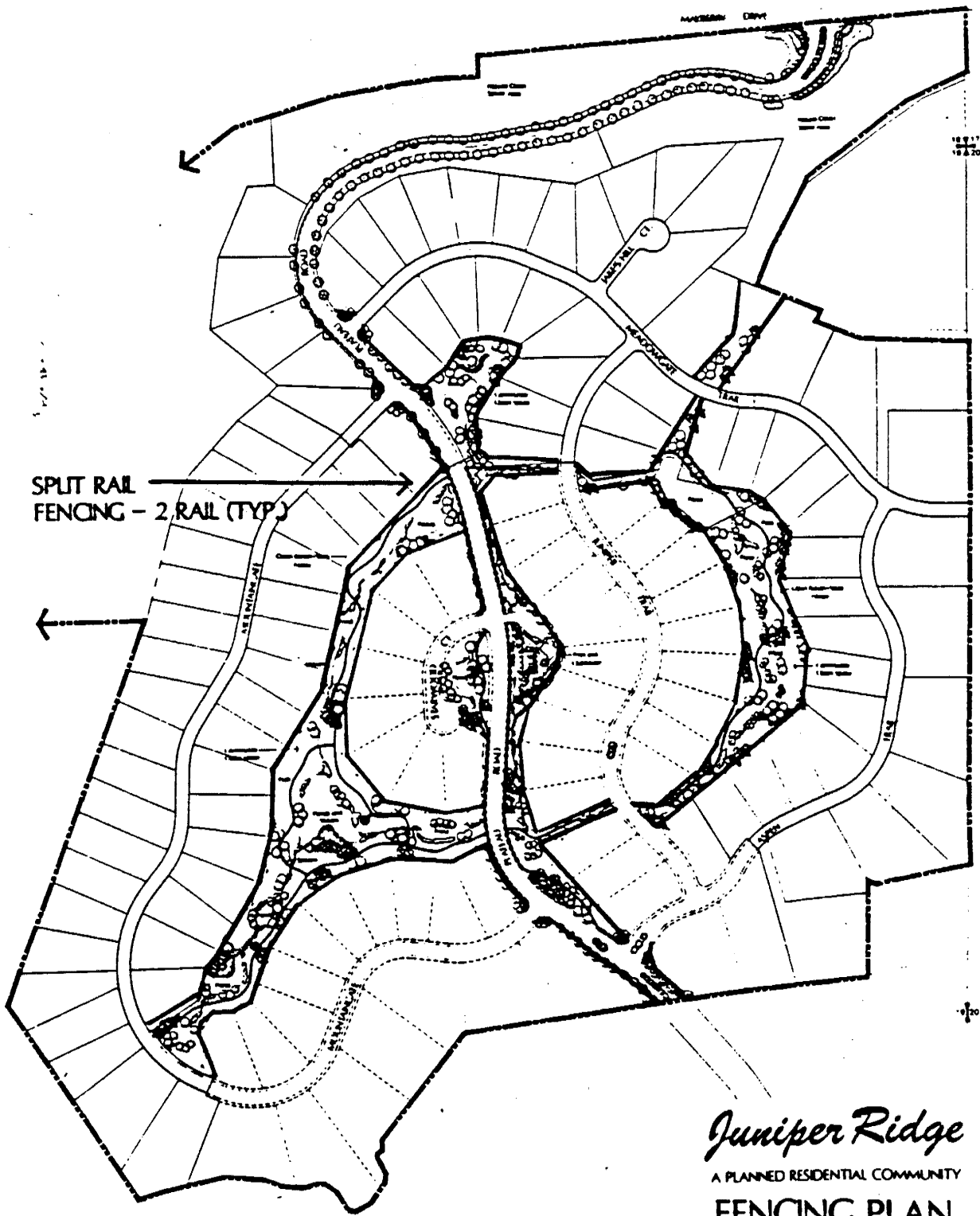


2"x8" Screwed To Post
Address Numbers 4"x6" Metal
or Routed Into Wood
4" Wood Post
Light Stain
Post Set Back From Curb
Per U.S. Postal Service
Requirements

26. Paired Mail Box Pylon



27. Lighting Plan

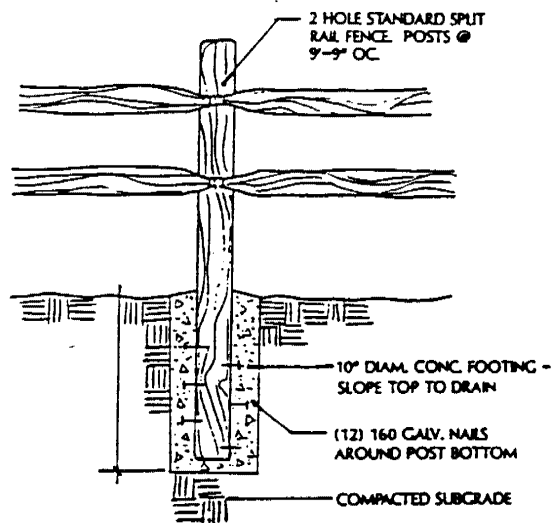
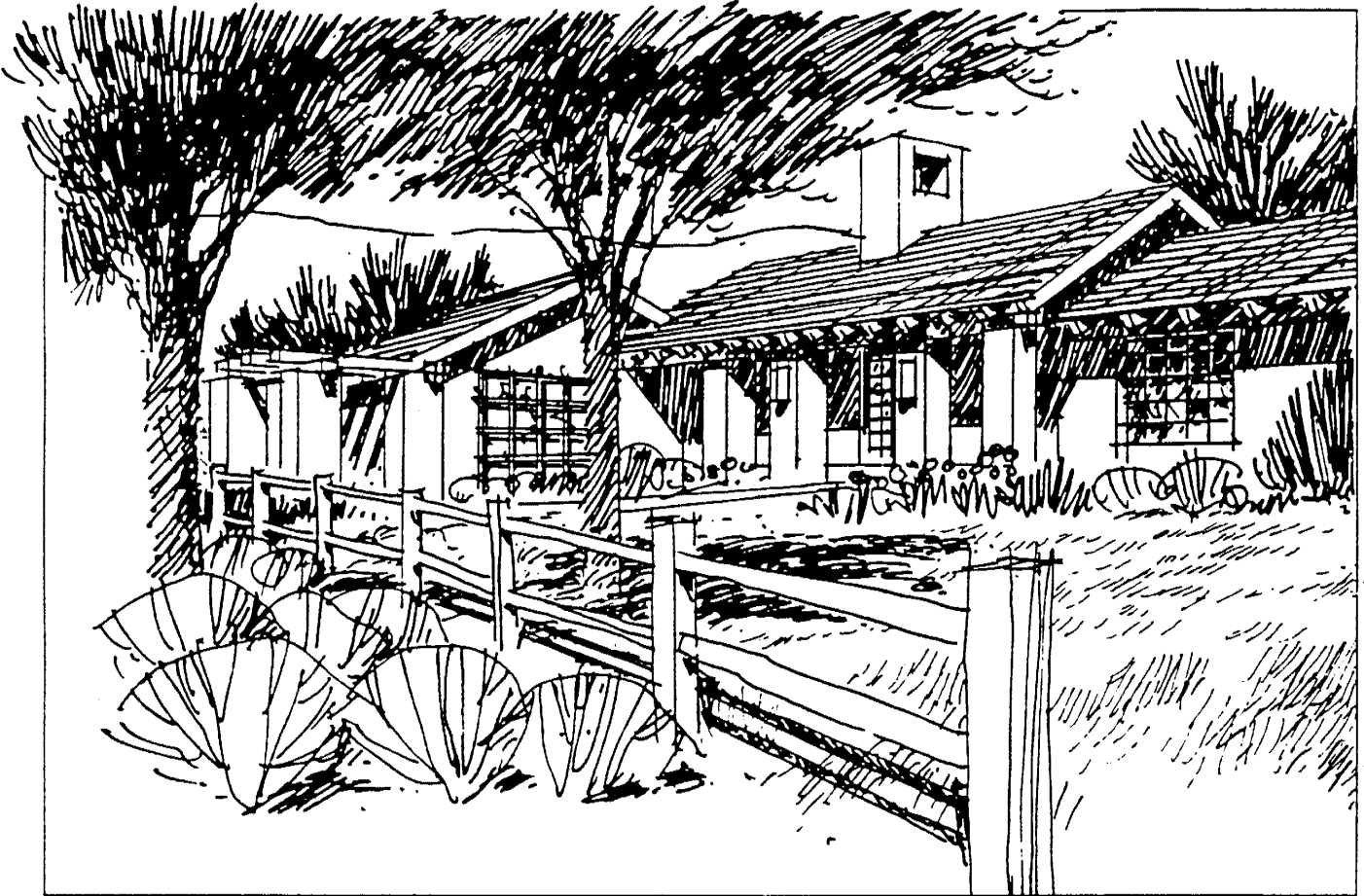


SPLIT RAIL
FENCING - 2 RAIL (TYP.)

Juniper Ridge
A PLANNED RESIDENTIAL COMMUNITY
FENCING PLAN



28. Fencing Plan



OPEN RAIL FENCE

29. Fencing Details

Parks, Recreation & Open Space

Residential Construction Tax Refunds

JUNIPER RIDGE includes a variety of recreational facilities, both on-site and off-site. The on-site facilities provide a combination of recreational improvements which will meet the specific recreation and park needs of the future residents of the area including the following features:

1. Landscaped park-like and quiet areas - 17.1 ac
2. Family picnic areas (included in 1.)
3. Informal open play turf areas (included in 1.)
4. Path System; 1.4 miles - path 8' wide; .4 miles - walk 4' wide
5. Gazebo with seating - 2
6. Clubhouse/pool facility - 1

Off-site, Lands of Sierra has provided improvements to Dorostkar Park to the north across Mayberry Drive. Costs for these facilities are summarized below.

Clubhouse/Pool Facility	\$50,000
Path System - Unit 1	\$35,000
Informal Park Areas	\$600,000
Dorostkar Park Improvements	\$65,000
Subtotal - Unit 1 Costs	\$705,000
Path System - Future Units	\$25,000
Informal Park Areas - Future Units	\$400,000
Subtotal - Future Units	\$425,000
Grand Total	\$1,129,000

The 140± unconstructed homes in JUNIPER RIDGE should yield \$140,000 in Residential Construction Tax (RCT) or park funds. Since a great deal of the parks/recreation needs are accommodated with JUNIPER RIDGE improvements, 50% of the RCT collected will be refunded to the JUNIPER RIDGE developer, Lands of Sierra, Inc. By requesting 50% of the RCT in a refund, 50% of the RCT collected remains for park development such as ballfields. This refund of \$70,000± is well below the facility costs of \$1,129,000.

Lands of Sierra, Inc. will enter into an agreement with the City of Reno regarding the RCT refunds as follows:

1. The agreement shall be effective on the first of the month following the month in which a Planned Unit Development (PUD) has been approved by the Reno City Council for the JUNIPER RIDGE development.
2. Fifty percent (50%) of all RCT Tax monies collect by City on issuance of building permits for construction within JUNIPER RIDGE hereafter, shall be credited to Lands of Sierra.

3. City shall collect the RCT in accordance with its usual practices and procedures and applicable law. Disbursements shall be made by the City not less often than each calendar quarter, on or before the fifteenth day following the end of such quarter. All disbursements shall be accompanied by sufficient data to enable Lands of Sierra to identify the source of such payments. Periodically, but not more frequent than semi-annually, Lands of Sierra shall have the right for its representatives to inspect the City's books and records to determine the accuracy of payments.
4. Lands of Sierra agrees to fully comply with all provisions of the Master Plan respecting development of the above recreation facilities. Lands of Sierra agrees to convey such facilities in a lien free condition to the Association as each such facility has been completed.
5. The JUNIPER RIDGE Homeowners Association hereby agrees to maintain the common area paths in a first class condition in perpetuity or until the City relieves Association of such responsibility, and to charge such reasonable assessments to its members as may be necessary to cover the costs of such maintenance.
6. The common areas shall be maintained by Association in a first class condition to standards in keeping with the highest quality park maintenance by the City anywhere in Reno. The City is given the right to enter upon all common area paths and recreational facilities deeded to the Association as aforesaid with police, fire and other necessary City personnel to maintain order, and protect the facilities from fire or other hazard in accordance with the City's accepted standards. The common area paths will be accessible to the general public. The Association may make such reasonable rules governing use of the facilities as may be necessary. The Association may take such reasonable steps as may be necessary to prevent vandalism and damage to the facilities or any part thereof.
7. The parties hereto agree to execute such other and further documents as may be necessary to carry out the provisions hereof.

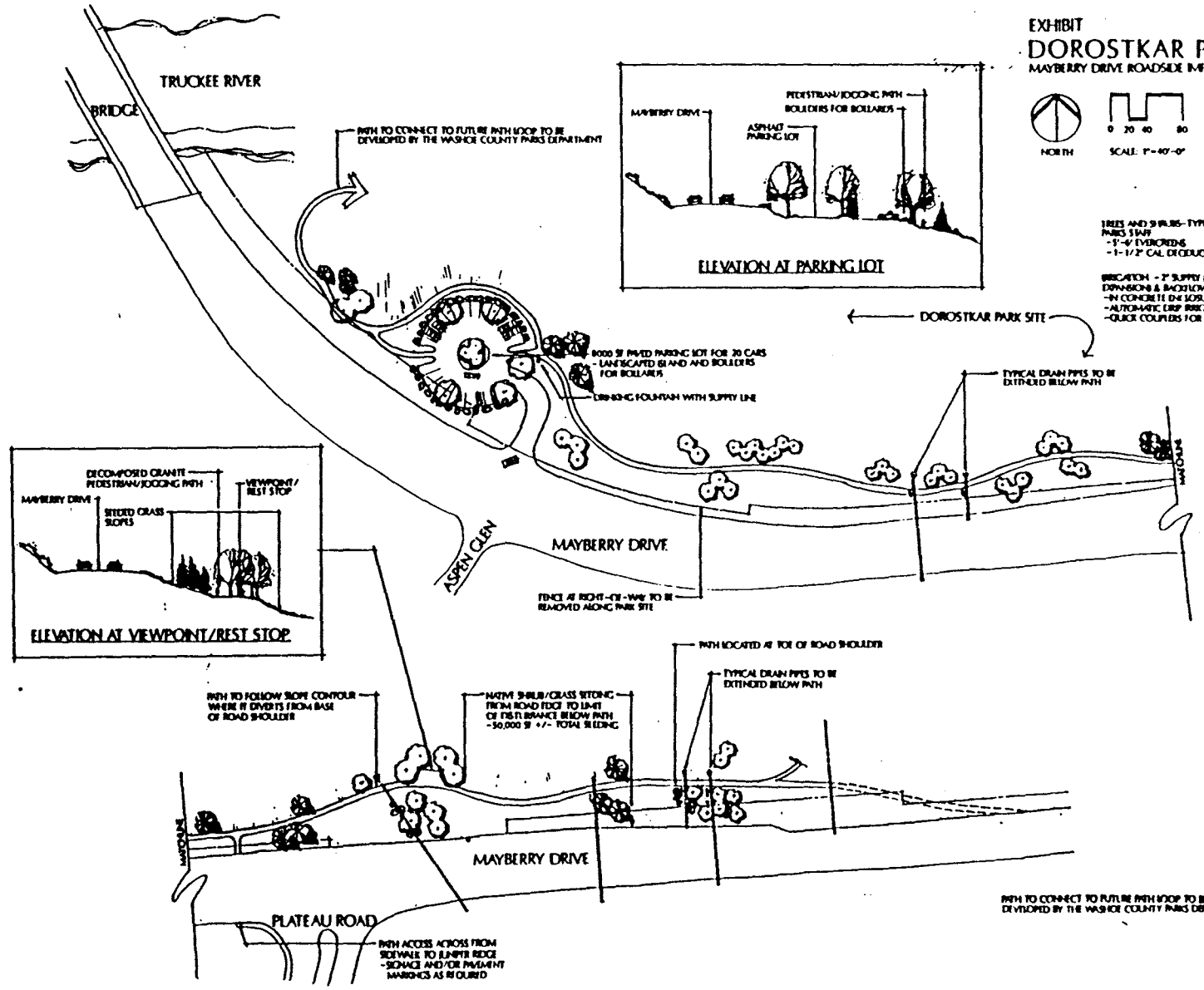
Westerly Open Space Dedication

The "westerly open space parcel" (32.2± acres), shown in Figure 31, including existing rights to access, will be offered for dedication to the U.S. Forest Service or the City of Reno with the recordation of the next final map, for passive open space/resource management purposes, subject to approval of all involved parties currently recorded on the property.

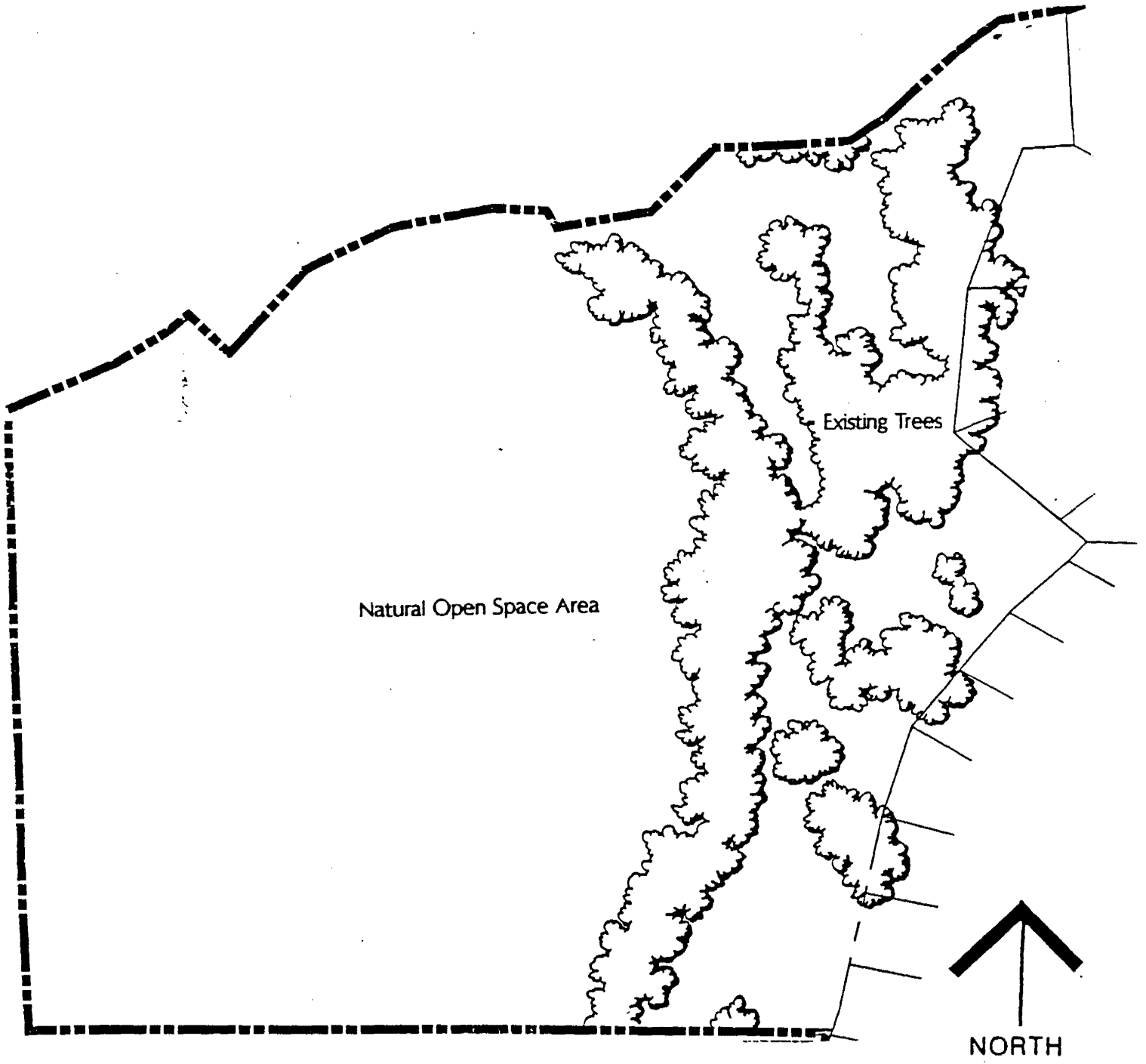
EXHIBIT
DOROSTKAR PARK
 MAYBERRY DRIVE ROADSIDE IMPROVEMENT CONCEPT



- TREES AND SHRUBS - TYPES TO BE APPROVED BY PARKS STAFF
- 1\"/>
- IRRIGATION - 2\"/>
 - IN CONCRETE OR 4\"/>
 - AUTOMATIC DRIP IRRIGATION FOR TREES
 - QUICK CLOSURES FOR GRASSES



30. Dorostkar Park Plan



31. Westerly Open Space Dedication Parcel

Trail System Access

A single pedestrian/bicycle only connection within a ten-foot wide permanent access easement will be provided the U. S. Forest Service property to the west. The trail connection will serve as project and neighborhood resident access to adjacent public land. The standards for trail development are presented below:

1. Any automobile parking will take place informally (eg. no trail parking signage) on Plateau Road or other streets.

2. No signage other than standard Juniper Ridge signage will be placed at or along the trail.

3. This trail connection corridor will be compatible with other Juniper Ridge common areas (as shown in Figure 33):

- The path will be 8' wide and surfaced with asphalt.
- Bollards or gates will be placed to prohibit/control motorized vehicle and equestrian use on the trail. No motorized vehicle or equestrian use is permitted, except for maintenance or emergency purposes.
- Landscaping will be placed along both sides of the trail connection, either in the trail easement, common area, or in landscape easements on future adjacent lots.
- Open rail fencing will occur between the trail and adjacent homes.
- The trail will be wheelchair accessible.

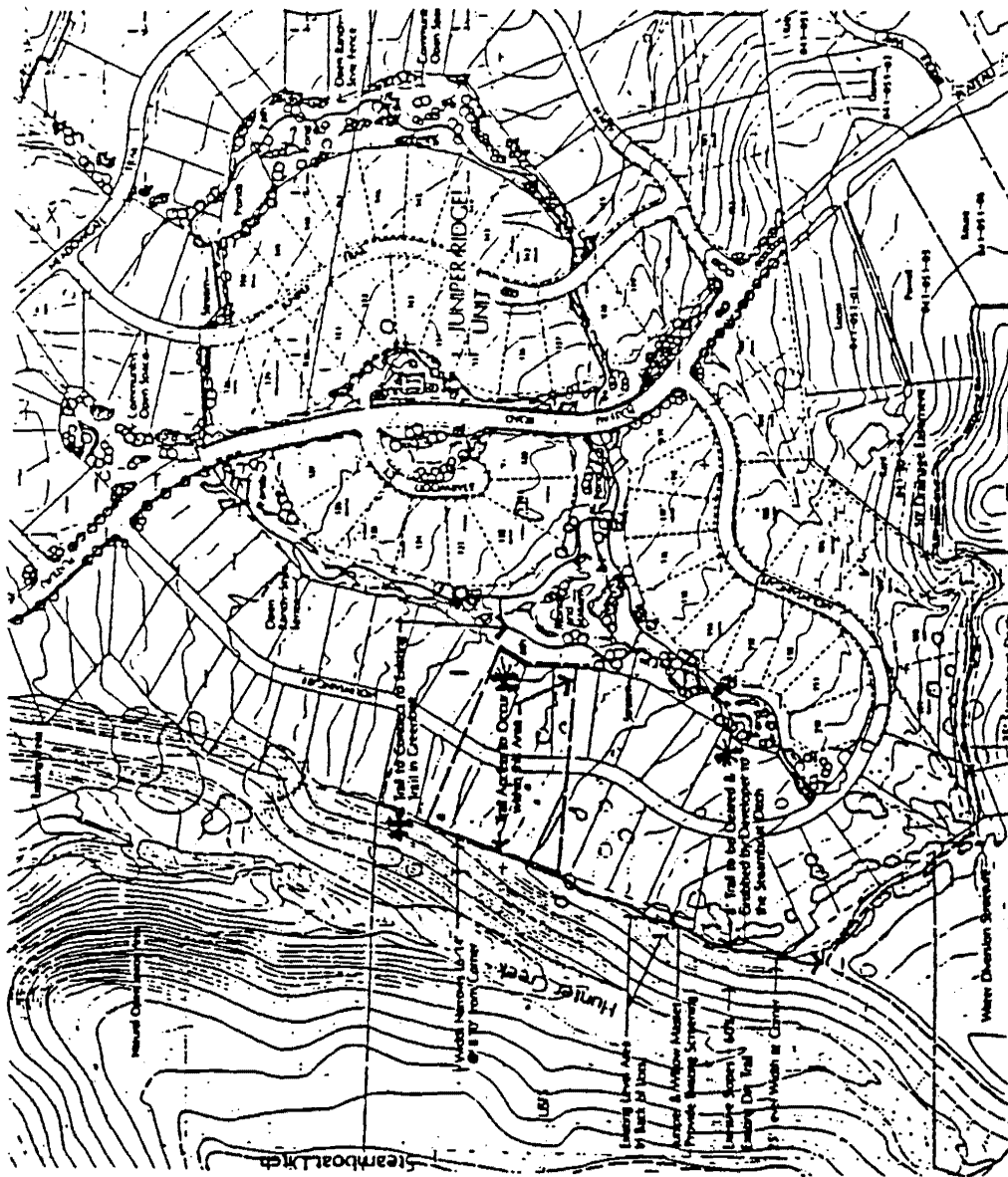
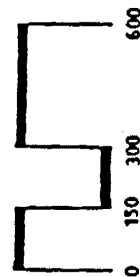
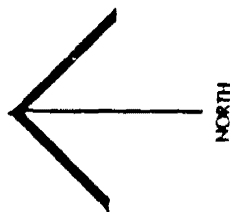
4. The trail connection easement and connecting Juniper Ridge paths will be permanently open to the public. The Juniper Ridge Homeowner Association will maintain the access and may impose reasonable rules and regulations (eg. dogs on leashes, no equestrians or motorized vehicles). All such rules or regulations will first be approved by the City of Reno. In no case will such rules or regulations prevent pedestrian, bicycle or wheelchair access to the subject U.S.F.S. property. The public entity responsible for the adjoining property and/or trail system will hold harmless the owner(s) of the trail connection and the Juniper Ridge paths. The Homeowners Association will not be held harmless for negligence or failure to maintain the common area.

5. Prior to the developer improving the portion of the subdivision that is shown in Figure 32, a temporary ten-foot, relocatable easement will be provided to afford an interim connection to the U.S.F.S. property.

6. The trail connection will be located in the area shown in Figure 32 and connect the existing Juniper Ridge path system with the U.S.F.S. property to the west. The specific location and implementation of the trail connection will be established at the time the surrounding area is proposed for final platting.

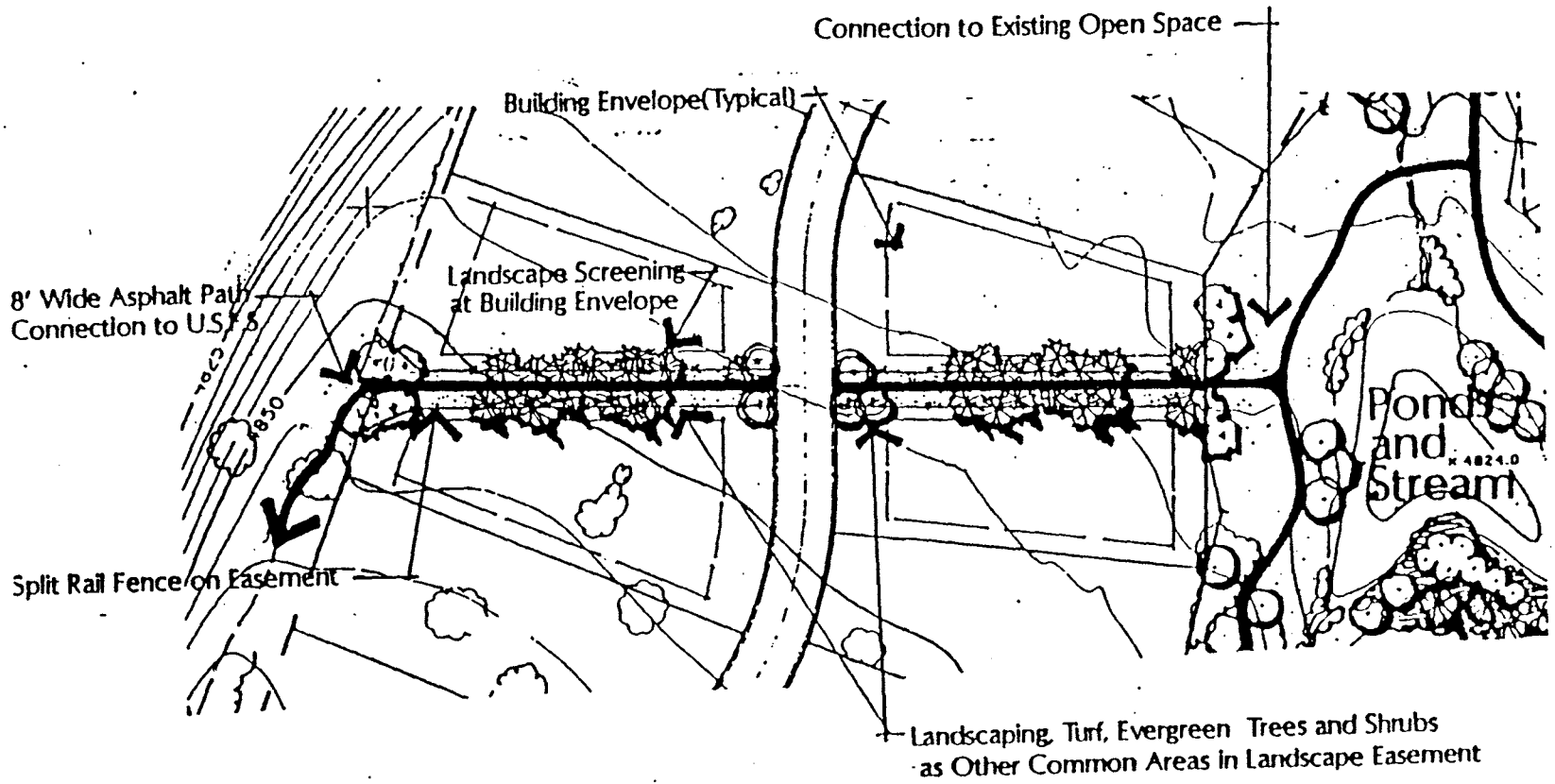
CODICA & FRICKE, INC.
engineers & planners • landscape architects
2001 Grand Development Court, Alameda, CA 94591
(925) 437-0813 • Fax (925) 437-0810

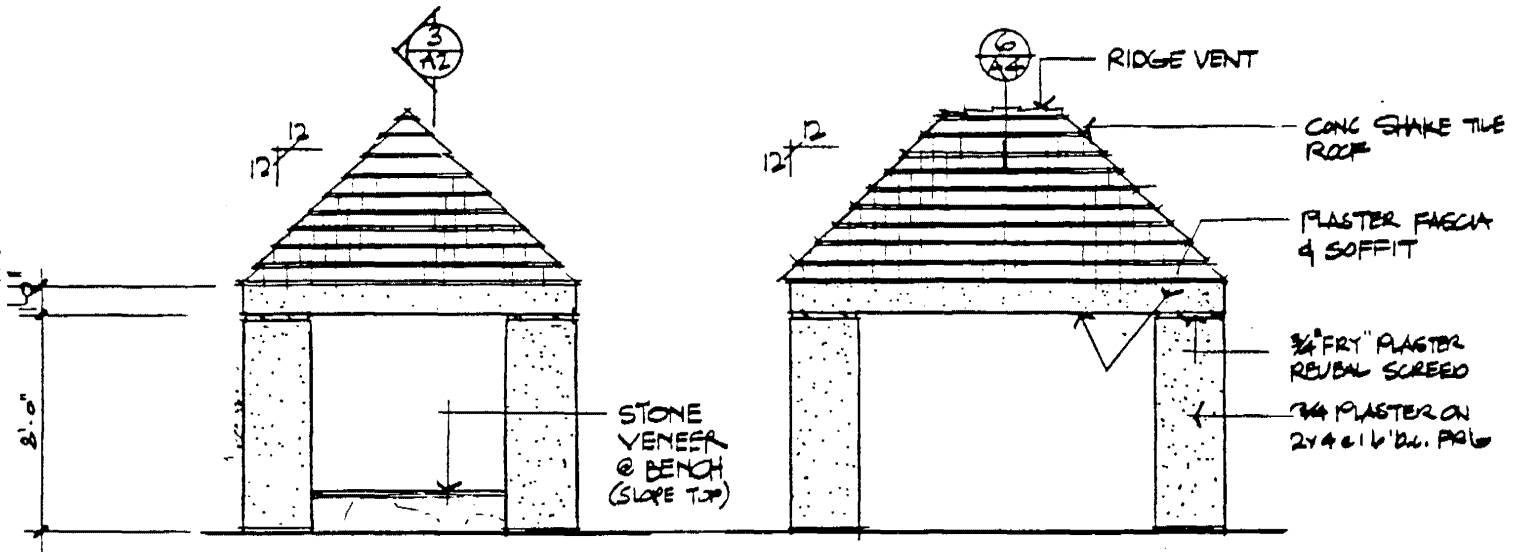
JOB # 113131 FEBRUARY 24, 1992



32. Public Land Access Location.

33. Public Land Connection Standards



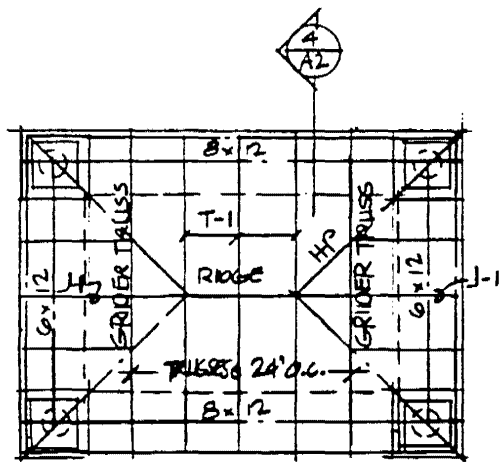


N/S ELEVATION **2**

SC: 1/4" = 1'-0"

E/W ELEVATION **1**

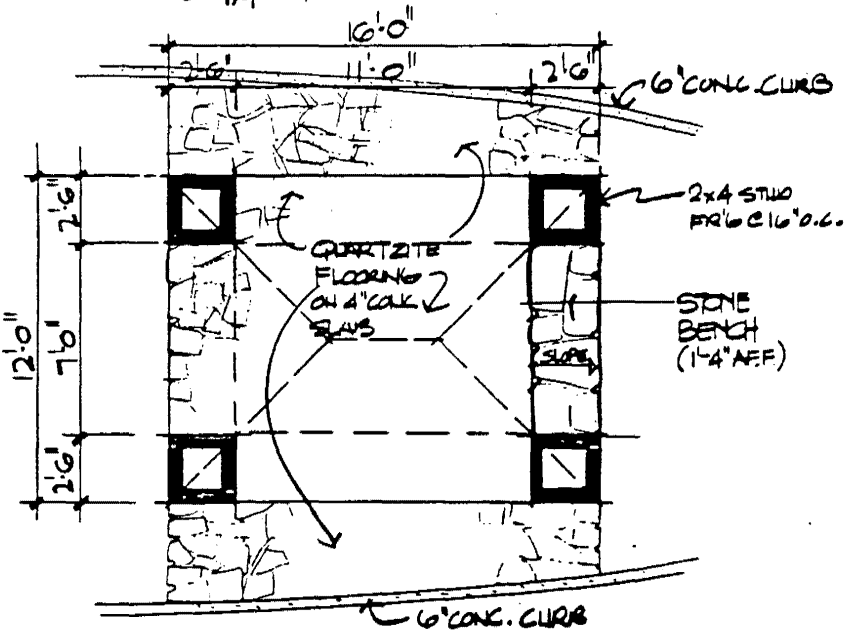
SC: 1/4" = 1'-0"



" REFER TO SHEET S-19 S-2 "
FOR TYPICAL STRUCTURAL NOTES.

FRAMING PLAN **6**

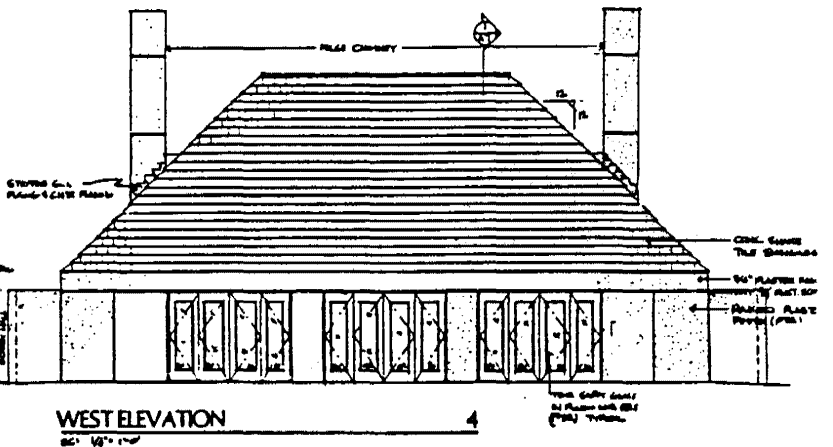
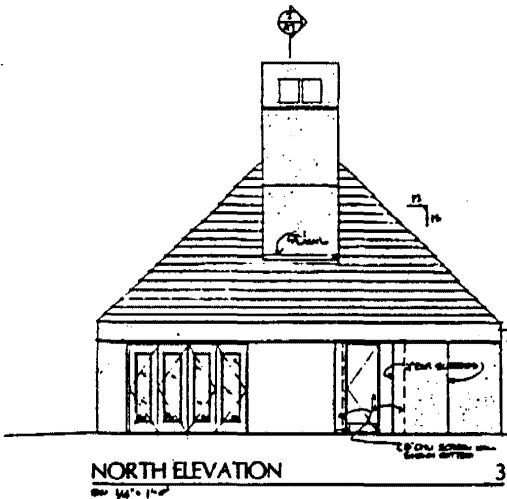
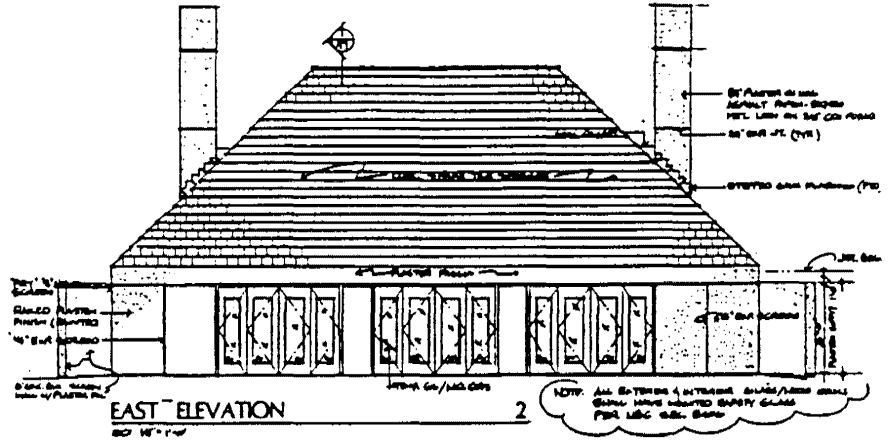
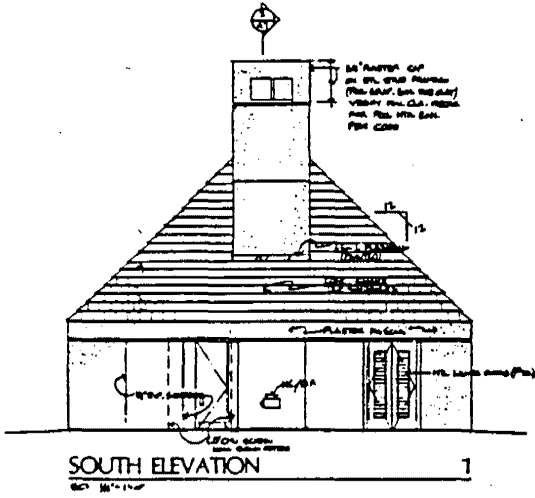
SC: 1/4" = 1'-0"



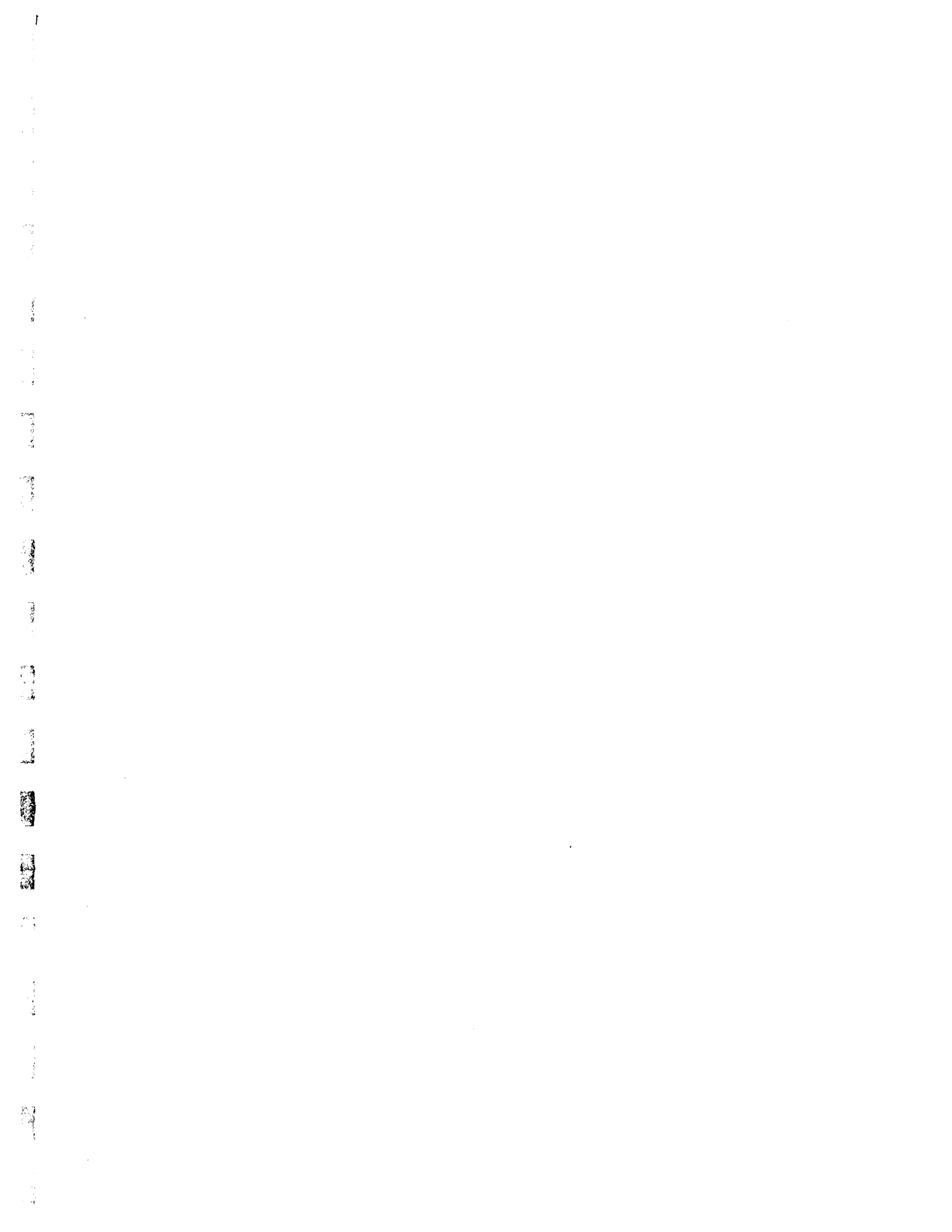
FLOOR PLAN **5**

SC: 1/4" = 1'-0"

34. Gazebo Elevations



35. Clubhouse Elevations



Declaration of Protective Covenants

DECLARATION OF PROTECTIVE COVENANTS -

JUNIPER RIDGE

By

LANDS OF SIERRA, INC.

DECLARATION OF PROTECTIVE COVENANTS JUNIPER RIDGE

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DECLARATION OF PROTECTIVE COVENANTS JUNIPER RIDGE

THIS DECLARATION is made as of the _____ day of July, 1990, by Lands of Sierra, Inc., a Nevada corporation (the "Declarant").

RECITALS

The Declarant is the developer of that certain real property located on City of Reno, Washoe County, State of Nevada, known as JUNIPER RIDGE, as shown on the map thereof attached hereto as Exhibit "A" and made a part hereof.

The Declarant intends to sell and convey all Lots situated within the Exhibit "A" property subject to the imposition upon all of the Lots within the Exhibit "A" property of mutual and beneficial restrictions, covenants, equitable servitudes and charges under a general plan or scheme of improvement for the benefit of all Lots and portions of the Exhibit "A" property and the Owners and future Owners thereof; provided however, that the Declarant hereby expressly reserves the right to sell a certain portion of the Exhibit "A" property, being approximately thirty-three (33) acres more or less as designated on Exhibit "A," free and clear of the mutual and beneficial restrictions, covenants, equitable servitudes and charges imposed herein until such time, if ever, a Supplemental Declaration is recorded designating such property as common area transferred to the JUNIPER RIDGE Homeowners Association referred to in this Declaration.

Except for the real property reserved as set forth above, the Declarant declares that all of the Exhibit "A" land, including all Lots therein as may be hereinafter created by virtue of Supplemental Declarations being recorded, are now held and shall hereinafter be held, conveyed, hypothecated or encumbered, occupied and agreed to be in furtherance of a plan for the development, improvement and sale of the Lots and are established for the purpose of enhancing and protecting the value, desirability and attractiveness thereof. The provisions of this Declaration are intended to create mutual equitable servitudes upon each Lot within the Exhibit "A" land in favor of each and all other Lots therein; to create reciprocal rights between the respective Owners of all of the Lots and to create a privity of contract and estate between the grantees of Lots and their heirs, successors and assigns, and shall, as to the Owner of each Lot, his heirs, successors or assigns, operate as covenants running with the land for the benefit of each and all other Lots within the Exhibit "A" land and their respective Owners, present and future.

Declarant intends that the City of Reno be made a third party beneficiary or directly benefit to certain of the restrictive conditions herein contained as further set forth in this Declaration.

1. DEFINITIONS. The following terms as used in this Declaration are defined as follows:

1.1 "Articles" means the Articles of Incorporation of the Association.

1.2 "Association" means the JUNIPER RIDGE Homeowners Association, the property owner's association which is a Nevada nonprofit corporation.

1.3 "Board" means the Board of Directors of the Association.

1.4 "Bylaws" means the Bylaws of the Association.

1.5 "Committee" means the JUNIPER RIDGE Architectural Committee.

1.6 "Common Area" means all real property which may be later described by Supplemental Declarations as common area and all real property acquired by the Association, whether from the Declarant or otherwise, together in each instance with all Improvements which may at any time be constructed thereon and owned by the Association, including, but not limited to the Recreational Facility and other recreational and community facilities, easements, drainage facilities that are not located in dedicated right-of ways, fuel modification areas, fire break areas, parks, paths, trails and Watercourses.

1.7 "Declarant" means Lands of Sierra, Inc., a Nevada corporation, its successors and assigns.

1.8 "Declaration" means this Declaration of Protective Covenants and any amendments hereto.

1.9 "Development" means all that real property situate in the City of Reno, County of Washoe, State of Nevada, described in the Exhibit "A" which Development is commonly known as JUNIPER RIDGE but does not include the Reserved Property unless and until a Supplemental Declaration is recorded transferring the Reserved Property to the Association.

1.10 "Improvement" means any building, outbuilding, street, road, driveway, parking area, fence, retaining and other walls, landscaping, light standard, antenna and any other structure of any type or kind.

1.11 "Lot" means any numbered lot as designated on any Supplemental Declaration.

1.12 "Owner" means:

(a) Any person or legal entity, including the Declarant, who holds fee simple title to any Lot.

(b) Any person or legal entity who has contracted to purchase fee title to a Lot pursuant to a written agreement recorded in the Washoe County Recorder's Office in which case the seller under the agreement shall cease to be the owner while the agreement is in effect; or

(c) A lessee of a Lot under a recorded lease from the owner of fee simple title to the Lot for a remaining term of not less than thirty (30) years, in which case the lessor under the lease ceases to be the owner while the lease is in effect during such term.

(d) Owner does not include the Association.

1.13 "Recreational Facility" means the swimming pool and associated Improvements to be constructed on the Common Area as to be set forth in a Supplemental Declaration.

1.14 "Reserved Property" means that certain portion of the property described on Exhibit "A", being approximately thirty-three (33) acres, further identified and marked as open space on Exhibit "A".

1.15 "Single Family Dwelling" means a residential dwelling for the Owner and his immediate family, his casual guest and his domestic servants and domestic employees, which dwelling is constructed on a Lot described in a Supplemental Declaration.

1.16 "Supplemental Declaration" means maps and other materials recorded by the Declarant covering all or any part of the Development which incorporate the provisions of this Declaration by reference.

1.17 "Watercourse" means any lake, stream, ditch, pond or other body of water within the Development, excepting swimming pools.

2. **LAND USE.** All Lots in any Supplemental Declaration shall be designated therein for solely Single Family Dwellings and shall thereupon become subject to the restrictive or other provisions of this Declaration relating to such use. Only activities connected with the Single Family Dwelling as set forth herein and in a Supplemental Declaration may be carried out on any Lot. There shall be no use of a Lot other than for a Single Family Dwelling.

3. **RESTRICTIONS ON USE.** Only Single Family Dwellings and Improvements incidental thereto as may be specifically permitted by the Committee shall be permitted on any Lot. No Single Family Dwelling or other Improvement may be constructed on any Lot without the prior written approval of the Committee. All approved Single Family Dwellings and other Improvements shall be constructed in accordance with the plans and specifications approved by the Committee and in accordance with any restrictions, conditions or terms imposed by the Committee in granting its approval. The following restrictions shall apply specifically to Lots.

3.1 Minimum Area. Each Single Family Dwelling constructed shall have fully enclosed floor area usable for living space (exclusive of roofed or unroofed porches, terraces, garages, carports, guest houses, or other outbuildings) not less than 2,000 square feet.

3.2 Height Limitation. No Single Family Dwelling or other Improvement (except chimneys) constructed on any Lot shall extend to a point higher than that designated for each Lot in an applicable Supplemental Declaration, except as may be specifically approved by the Committee. In the absence of a Supplemental Designation, no Single Family Dwelling or other Improvement (except chimneys) constructed on any Lot shall extend to a point higher than that designated for that Lot by the Committee.

3.3 Building Envelope. In the Supplemental Designation, the Declarant shall establish a building envelope and point of access for each Lot. The building envelope will be based upon the topography of the Lot, its relationship to neighboring Lots, and any unique feature that the Lot may have such as trees, meadows, rock outcroppings, etc. The size and shape of the building envelope may vary from Lot to Lot. Every part of the Single Family Dwelling shall be confined to the building envelope area. If, in the opinion of the Committee, the building envelope caused the Lot Owner undue hardship in the siting of the Single Family Dwelling, small variances may be permitted by the Committee. Any variance must be in writing and signed by the chairperson of the Committee.

3.4 Accessory Outbuildings. No accessory outbuildings (e.g. garages or sheds) shall be erected on any Lot prior to the erection thereon of a Single Family Dwelling. No accessory outbuilding may be constructed from metal or fabric materials. All accessory buildings shall be designed to harmonize with the architectural design and color of the Single Family Dwelling. In no event shall any accessory outbuilding or temporary structure or trailer or tent ever be used for human occupancy or habitation, except such guest houses or servants quarters as may be approved in writing by the Committee.

3.5 Completion of Construction. Construction of any Improvement, once approved and commenced, shall be pursued diligently to completion. Improvements not so completed or upon which construction has ceased for ninety (90) consecutive days or which have been partially or totally destroyed and not rebuilt within a reasonable period shall be deemed nuisances. The Declarant or the Association may remove any such nuisance or repair or complete the Improvement at the cost of the Owner, provided the Owner has not commenced required work within thirty (30) days from the Association or the Declarant posting a notice to commence such work upon the property and mailing a copy of the notice to the Owner at the address appearing on the books of the Association. The notice shall state the steps to be taken to eliminate the nuisance. Neither the Association nor the Declarant nor any of their agents, employees, or contractors shall be liable for any damage which may result from any removal or maintenance work as performed, nor shall the Association or the Declarant, or any of their agents or employees, be liable for any failure to exercise the right to remove or complete any Improvement.

3.6 Prohibition Against Used Structures. No used or existing or previously constructed Improvement intended for use as a dwelling or outbuilding shall be placed on any Lot except for temporary buildings used by the Declarant for construction and sales activities directly related to and during the development stage of the Development.

3.7 Maintenance of Lots. All Lots, whether vacant or improved, occupied or unoccupied, and any Improvements placed thereon, shall at all times be maintained in such manner as to prevent their becoming unsightly, unsanitary, or a hazard to human health or the environment both within the Development and outside of the Development, including without limitation the maintenance in accordance with applicable fire and safety codes of any and all fuel modification and fuel break areas on a Lot as may be shown from time to time on any Supplemental Declaration. If not so maintained, the Association shall have the right, after giving thirty (30) days written notice in like manner as above set forth in subsection , through its agents and employees, to undertake such work as may be necessary and desirable to remedy the unsightly, unsanitary, or hazardous condition, the cost of which shall be added to and become a part of the annual assessment to which that Lot is subject. The Board has sole discretion as to what is unsightly, unsanitary or hazardous. Neither the Association nor any of its agents, employees, or contractors shall be liable for any damage which may result from any maintenance work as performed nor shall the Association

or any of its agents or employees be liable for any failure to exercise its right to maintain any Lot or Improvement.

It is incumbent upon all Owners to maintain their Lots and yards in neat, orderly, and well groomed manner, whether the Lots are vacant or improved.

3.8 Disposal of Sanitary Waste. All permanent plumbing fixture, dishwashers, toilets, or garbage disposal systems shall be connected to the sanitary sewer in the Development.

3.9 Fences and Walls. No fences or walls may be constructed except in accordance with legal requirements and the requirements contained in a Supplemental Declaration and this Declaration. All fences and walls shall be approved by the Committee prior to installation and detailed plans therefor shall be submitted to the Committee as in the case of other structures. Except as the Committee may otherwise authorize for a specific purpose or location, any fencing bounding the Common Area shall be double split rail fencing with such other design and construction features as shall be determined from time to time by the Committee. Nothing herein contained shall prevent necessary erection of retaining walls required by topography and approved by the Committee.

3.10 Nuisances. No noxious or offensive activities or nuisances shall be permitted on any Lot. No refuse, unsightly, or abandoned vehicles, debris, noxious material, discarded personal effects, construction materials not for immediate use, compost materials, and similar matter shall be permitted on any Lot or portion thereof.

3.11 Signs and Lot Numbers. Other than during construction of a house, no sign, billboard, or advertising structure of any kind may be displayed on any Lot, except upon approval by the Committee. The Committee shall not unreasonably withhold permission with respect to signs advertising a Lot for sale; however, the Committee may specify that the signs be of a standard size and color with space provided for the name and telephone number of the seller or seller's agent, which signs only shall be used if specified.

Upon application, the Committee shall approve one sign identifying the contractor during construction which shall be of such size, color and design, and containing such information, as the Committee may designate in the approval.

All residences shall have a designated number that is easily viewable from the road of such design that is consistent with the Development and in accordance with criteria established from time to time by the Committee.

Signs not meeting the standards of size, color, and other specifications set forth herein, or as set forth in the Committee approval, will be removed from the premises where displayed. Removed signs will be held for fourteen (14) days in the administrative office of the Association to be claimed by the Owner.

Exceptions to the above criteria may be granted by the Committee upon application. No other signs shall be permitted except as specified in this section or as may be approved by the Committee for a particular location and purpose.

3.12 Animals. No animals shall be permitted on any portion of the Development except within the animal owner's Lot and except when any such animal is in the presence of the owner and restrained by a leash or similar device. No animals shall be kept or maintained on any Lot except the usual household pets (specifically excluding split-hoofed animals) not kept for commercial purposes which shall be kept reasonably confined so as not to become a nuisance. Household pets shall not unreasonably interfere with the comfort, privacy, or safety of other Owners within the Development. No Lot shall have more than three (3) household pets. The Declarant may file a Supplemental Declaration allowing horses on specified Lots, provided those Lots are a minimum of one acre in size and are in an area where such use would be in keeping with the physical constraints of the land and in character with the uses of the surrounding properties. Horses will not be allowed on any lot abutting the Hunter Creek open space.

3.13 Garbage and Refuse Disposal. There shall be no exterior burning of trash, garbage, or other like household refuse, nor shall any Owner accumulate on his Lot junked or unsightly vehicles or litter, refuse, or garbage, except in receptacles provided for such purposes.

3.14 Concealment of Trash Receptacles. Every receptacle for ashes, trash, rubbish, or garbage shall be installed underground or be so placed and kept as not to be visible from any Improvement, Lot, Watercourse or Common Area except at the times when refuse collections are made.

3.15 Antennas. Television antennas, satellite dishes, and antennas for short wave or ham radio installations will not be installed on any Lot.

3.16 Travel Trailers, Motor Homes, and Boat Storage. No travel trailer, motor home (R.V.), camper shell or boat trailer shall be parked within the Development for more than forty eight (48) consecutive hours, nor for more than five (5) days in any thirty (30) day consecutive period unless kept within a fully enclosed roofed garage so as not to be visible from any Improvement, Lot, Watercourse or Common Area. The intent of this paragraph is to allow only for loading and unloading such vehicles within the Development unless kept in a fully enclosed roofed garage.

3.17 Defacing or Removal of Common Area Improvement. No tree, shrub, or Improvement within a Common Area shall be defaced or removed except at the express direction of the Association.

3.18 Limited Access. There shall be no access to any Lot on the perimeter of the Development except from designated streets or roads as shown on Supplemental Declarations.

3.19 Docks and Piers. No dock, pier, or other similar structure shall be erected on or into any Watercourse, except such structures as may be constructed by the Association with the written permission of the Committee.

3.20 Resubdivision of Lots. No Lot shall be further subdivided nor shall there be any severance of the surface and subsurface rights. This condition shall constitute a covenant running with the land and shall run to the benefit of the City of Reno.

3.21 Joinder of Lots. The Owner of two (2) or more contiguous Lots may apply to the Committee for permission to use such Lots as the site of one Single Family Dwelling. Notwithstanding such permission, the Lots shall remain as separate Lots for all purposes except for utilization of the facilities of the Association as to which utilization those Lots shall be treated as a single Lot as set forth in Section .

3.22 Operation of Motor Vehicles. Except as to authorized maintenance vehicles, no motorized vehicle shall be operated within the Development except on a street or driveway. All speed limit and other traffic control signs erected within the Development shall be observed at all times. Motorized vehicles are specifically prohibited on all paths, trails, or walkways.

3.23 Utility Lines. With the exception of those major utility lines existing as of the date of the filing of this Declaration all utility lines and connections within the Development shall be placed underground. No light shall be suspended from a pole in excess of six (6) feet from the ground within the Development except those owned and maintained by the Declarant or the Association or as expressly approved in writing by the Committee.

3.24 No Commercial Enterprise. No business or commercial enterprise shall be performed or conducted upon any Lot or within the Development, except for a home business conducted upon a Lot as allowed under City of Reno Code covering planning and zoning and for construction and sales activities directly related to and during the development stage of the Development. Permission for any temporary construction or sales facility must be approved in writing by the Association and may be revoked at any time by the Association. Nothing herein contained shall be construed as preventing the construction of Improvements approved by the Committee.

3.25 Temporary Structures. No temporary structure of any form or type shall be permitted on any Lot except for temporary structures approved by the Committee to be used during construction of a specific Improvement on that Lot.

3.26 Peaceful Enjoyment. No use of any Lot or Improvement shall annoy or adversely affect the use, value, occupation, and enjoyment of adjoining property or the general neighborhood. Final determination within these bounds shall be left to the decision of the Association.

3.27 Excavation. No excavation for minerals, stone, gravel, or earth shall be made upon any Lot other than excavation for necessary construction purposes relating to the Single Family Dwelling and other Improvements approved by the Committee and for the purpose of contouring, shaping, landscaping, or erection of Committee approved fencing generally improving any Lot.

3.28 Certificate of Occupancy. A certificate of occupancy must be issued by the appropriate governing building department prior to occupancy of any Improvement intended for occupancy.

3.29 Clothes Lines. No clothes line shall be constructed or erected which would be visible from any Improvement, Lot, Watercourse or Common Area.

3.30 Landscaping. Within eight (8) months of completion of the Single Family Dwelling, the portions of each Lot which are visible from the streets and roads within the Development and from the Common Areas shall be landscaped. Within two (2) years of the completion of the Single Family Dwelling, each Lot shall be completely landscaped. For the purposes of this Section, "completion of the Single Family Dwelling" shall be deemed to occur on the earlier of (a) the date that a Certificate of Occupancy for the Single Family Dwelling is first issued by the appropriate governmental authority or (b) the date which is one (1) year after issuance of a building permit by the appropriate governmental authority for the Single Family Dwelling.

All landscaping shall be consistent with Committee approved landscape plans and constructed in a manner suitable to the character and quality of the Development, and all landscaping shall be maintained to harmonize with and sustain the attractiveness of the Development. Unless the Committee otherwise provides in its approval of the landscape plans, a minimum of three (3) fifteen (15) gallon evergreen trees will be planted between the front lot line and the Single Family Dwelling as part of the overall landscape plan.

In the event the landscaping is not completed and maintained in accordance with the requirements of this Section, all other Owners of Lots will be damaged in that their Lots will depreciate in value. It is difficult to determine the exact amount of the damages caused by the failure to complete and maintain landscaping on a Lot and the amount of damages accruing on a daily basis until landscaping on a Lot has been completed and maintained in accordance with this Section. By reason of the foregoing, liquidated damages are hereby established at a rate of one hundred dollars (\$100.00) for each day that landscaping is not completed or maintained as required by the provisions of this Section. The sum of one hundred dollars (\$100.00) per day is a reasonable estimate of the probable damages.

The Owner of any Lot that is not landscaped as required by this Section shall pay the sum of one hundred dollars (\$100.00) per day liquidated damages commencing on the date such Owner is notified in writing by the Association of the failure to complete or maintain landscaping as required by this Section. Any assessment or payment of liquidated damages shall have no effect on the Owner's obligation to complete and maintain landscaping as required by this Section or on the right of the Association to seek and obtain equitable relief, including without limitation injunctive relief, against the Owner for the failure to complete and maintain landscaping. All costs of litigation, including attorneys' fees, shall be charged to and paid by the defendant if the Association prevails. All such charges shall constitute a lien on the Owner's Lot from the date of entry of the judgment in the judgment docket, and shall be enforceable as any judgment. In the event the Association is not successful, each party shall pay its own costs and attorneys' fees.

3.31 Garage. Every Single Family Dwelling constructed shall have on the same Lot enough completely enclosed and covered automobile storage space for at least three (3) standard larger size automobiles. This condition shall constitute a covenant running with the land and shall run to the benefit of Washoe County.

3.32 No Commercial Leasing. No Owner of any Lot shall participate in any plan or scheme for the rental of the Lot or any Improvement, nor shall any Lot or Improvement be operated as a commercial venture. Nothing in this Section shall prevent an Owner of a Lot from renting the Lot and Improvements thereon during periods of the Owner's absence; provided the Owner's absence does not extend for more than six months in any one year period. The Owner of a Lot may rent the Lot and Improvements thereon for a longer period provided that the Lot and Improvements are listed for sale with a real estate agent and the Owner is actively attempting to sell the Lot and Improvements.

3.33 Chimneys. The materials, color, height and location of all exterior chimneys must be approved by the Committee prior to construction..

3.34 Building Height. Building height limitations may be imposed by the Declarant in order to preserve views from neighboring homes into Common Areas and to minimize the impact of structures on sensitive natural areas of the Development.

3.35 Driveways. Driveways cut onto roads within the Development will be limited to one per Lot, unless otherwise approved by the Committee. The maximum entrance width shall be twenty four (24) feet. The Committee may permit the use of one driveway for more than one site. However, the approval of a common driveway shall require that a legal easement be established between the site Owners prior to approval.

3.36 Exterior Lighting. All exterior lighting plans must be submitted to the Committee with construction plans and no exterior lighting may be installed without Committee approval. Except as may be provided the Committee approval, no direct lighting shall extend beyond the boundaries of a Lot.

3.37 Exterior Walls and Trims. A sample of the actual material to be used for the exterior walls and trim for any Improvement, which must be painted, stained or otherwise treated in the manner set forth in the construction plans, shall be submitted to the Committee with the construction plans. All materials and exterior colors must be approved by the Committee. Unless the Committee approval of the construction plans provides otherwise, all reflective metal such as chimney stacks, flashings, exhaust vents, and pipes must be painted to match or blend with surrounding materials. The Declarant may file subsequent Declarations specifying acceptable colors of stains and paints.

3.38 Window Coverings and Doors. All draperies and window coverings should be of materials and colors which harmonize with the surroundings and should be chosen in consideration with neighbors and neighboring views, especially along greenbelt and roads. Unless otherwise set forth in the Committee approval of the construction plans, all metallic window frames, door frames, and skylight frames must be painted or otherwise treated to match or blend with surrounding materials. All colors are subject to approval by the Committee.

3.39 Mailboxes. The size, location, color and other characteristics of mailboxes and newspaper holders shall be designated in a Supplemental Designation.

3.40 Roofs. All roofs shall be constructed of metal, tile, "class A" shingles (as approved by the Reno Fire Department) or concrete in colors approved by the Committee. The Committee may consider and approve other material if deemed in character with the Development by the Committee and if approved by the Reno Fire Department.

3.41 Removal of Trees, Rocks, Shrubs, or Other Natural Forms. All removal of trees, rocks, shrubs, or other natural vegetation must be shown on the construction plans and approved by the Committee.

3.42 Construction Procedures. Prior to the commencement of any construction activity on any Lot, the Owner and/or contractor shall rope off those areas not intended for actual construction or staging to protect the site from unnecessary damage to foliage and to reduce erosion and dust problems. The site shall be kept in a clean and orderly fashion at all times, and the contractor shall have approved sanitary facilities on site as well as a garbage dumpster or other suitable device for regular disposal of trash. No construction materials shall be dumped or stored on roadways, pathways, trails, greenbelt, open space, or any Common Area. Construction work hours shall be limited to 7:00 A.M. to 6:00 P.M., Monday through Saturday. The Committee may require the contractor to submit an erosion protection plan to control possible sedimentation travel to parks, greenbelt, Watercourses, or other Common Areas when in the sole opinion of the Committee it is deemed necessary. If requested, the erosion protection plan will be submitted prior to any construction activity and carried out diligently.

4. RECREATIONAL FACILITY. The Declarant may file a Supplemental Declaration which designates the use of a portion of the Common Area for the construction and operation of a facility primarily used for recreational purposes. Upon transfer to the Association, the Recreational Facility shall be maintained by the Association. The Association may open the Recreational Facility for a charge or without a charge to the general public, provided that the Recreational Facility must be open to the members of the Association for an annual or other periodic fee which shall not be greater than the fee charged to members of the general public for similar periods, excepting special promotional offers. The Recreational Facility shall be of such a design, constructed of such materials and in such colors as shall be designated on the Supplemental Declaration permitting the same.

5. COMMON AREA. All areas in the Development designated as Common Area and the Recreational Facility (owned and to be owned by the Association) are and shall remain private property. The Declarant's recordation of a Supplemental Declaration showing the Common Area and Recreational Facility shall not be construed as a dedication to the public of any of the Common Area or the Recreational Facility, provided that the public shall be permitted access to the Common Area subject to reasonable Association rules and regulations (eg. dogs on leashes, no equestrians or motorized vehicles).

5.1 Ownership. The Declarant will convey all Common Area and the Recreational Facility to the Association (except as set forth herein) free and clear of all liens and encumbrances (other than liens for taxes), but subject to easements and rights-of-way as then appear of record. The conveyances of Common Area shall be accomplished in segments from time to time as Improvements, if any, to be located thereon as shown on the recorded Supplemental Declarations of the Development are completed.

5.2 Use. The use and enjoyment of the Common Area and Improvements thereon, whether before or after conveyance to the Association, shall be subject to the powers of the Association as set forth in its Articles and Bylaws and to rules and regulations governing the use of the Common Area and Improvements as may from time to time be adopted by the Board.

5.3 Maintenance. Maintenance of the Common Area, including without limitation the maintenance of all drainage facilities that are not located in dedicated right-of ways, the maintenance in accordance with applicable fire and safety codes of any and all fuel modification and fuel break areas on the Common Area as may be shown from time to time on any Supplemental Declaration, and repairs to any Improvements thereon shall be the obligation and responsibility of the Declarant until conveyance thereof to the Association; thereafter, the Association shall have sole responsibility therefor.

5.4 Subsequent Dedication. At any time after conveyance to the Association of any Common Area, the Association may, upon the affirmative vote of eighty percent (80%) of its memberships, offer any Common Area for dedication to public use. A dedication offer shall be subject to acceptance by the appropriate governmental authority pursuant to its then applicable standards. During the period of control of the Association by the Declarant as set forth hereinafter in Section , the Declarant shall not offer for dedication any of the Common Area.

6. THE JUNIPER RIDGE ARCHITECTURAL COMMITTEE.

6.1 General Powers. Construction of any Improvement on any Lot must not commence without the prior written approval of the Committee. Construction or work on any remodeling, adding to existing structures, making structural changes or change of exterior colors must not commence without the prior written approval of the Committee. The Committee shall have the power to render decisions on such other matters as are referred to the Committee under this Declaration, or as may be referred to the Committee by the Association with the Committee's consent, with applications for such decisions and the renderings thereof to be in accordance with such rules and regulations as may from time to time be adopted by the Committee.

6.2 Preapproval. Owners are encouraged to submit conceptual drawings and other materials for a Single Family Dwelling to the Committee which contain in lesser detail the information required to be provided pursuant to Section . The Committee may, in its sole discretion, approve in writing such conceptual drawings together with such additional conditions, restrictions and other terms as the Committee may determine. If the Committee approves in writing the conceptual drawings, the Committee must approve plans and specifications submitted pursuant to Section by the Owner within a reasonable period of time following such approval; provided that the plans and specifications are in total conformity with the approved conceptual drawings and with the additional conditions, restrictions and other terms imposed by the Committee.

6.3 Plans and Specifications. The plans and specifications ("construction plans") for a Single Family Dwelling must be prepared by an architect who holds a certificate of registration issued by the Nevada State Board of Architecture and is further approved by the Committee. The Committee shall establish a list of approved architects and shall provide for a procedure to determine whether an architect not listed may be placed upon the list. The Committee may permit a residential designer to prepare construction plans for a Single Family Dwelling if the Committee determines, based on its sole judgment, that the residential designer has performed work which is equal to the quality of the work performed by listed architects.

6.4 Application. The application must be accompanied by not less than two (2) sets of construction plans and shall show each of the following:

- (a) the location of all Improvements, if any, existing upon the Lot;
- (b) the location of the Single Family Dwelling and all Improvements proposed to be constructed;
- (c) the proposed material staging area;
- (d) the existing topography with a minimum contour interval of two (2) feet;
- (e) front, rear, and all side elevations showing the structures relationship to the existing and finished topography;
- (f) all cuts and fills;
- (g) the color and composition of all exterior materials and trim (together with a sample thereof) to be used;
- (h) a landscape and lighting plan; and
- (i) any other information which the Committee may require, including soil and engineering reports and recommendations, if requested by the Committee.

In the event an Owner of a Lot desires to change the color on the exterior of any existing Single Family Dwelling or Improvement, it shall only be necessary to submit the new proposed color scheme to the Committee for its approval.

6.5 Approval. The Committee shall act promptly to approve or disapprove the application. In approving an application, the Committee may condition its approval upon such additional conditions, restrictions and other terms as the Committee may determine. The Committee may require the Owner to enter into a contractual commitment to complete the Single Family Dwelling and Improvements as set forth in the application and may require the payment of a deposit or other surety in the event of the Owner's breach of the improvement agreement. Failure of the Committee to comment on any application, properly submitted, within forty five (45) days of receipt by the Committee at its office shall be deemed approval of such

application by the Committee. Committee comments with respect to any application shall be strictly followed. If requested by the Committee, applications must be resubmitted to the Committee, in which case the Committee shall have forty five (45) days after the resubmission to comment thereon.

6.6 Grounds for Disapproval. The Committee may disapprove any application:

(a) If the application does not comply with this Declaration; or

(b) The Committee is dissatisfied with the construction plans (including landscaping plans, erosion control plans or any other plans and specifications) for any reason whatsoever, including without limitation, the grading plans, location of the proposed Single Family Dwelling or any Improvement on a Lot, finished ground elevation, color scheme, exterior finish, design, proportions, architecture, shape, height, or style of the proposed Single Family Dwelling or any Improvement, the materials used therein, the kind, pitch, or type of roof proposed to be placed thereon, or for purely aesthetic reasons.

By becoming subject to this Declaration, each Owner understands and agrees that the Committee's action on an application necessarily requires the Committee to exercise arbitrary and subjective judgment as to the appropriateness of the Single Family Dwelling or any Improvement with respect to the Development, the surrounding community and each other Owner. By becoming subject to this Declaration, each Owner agrees that the Committee, and its members, agents, and employees, will not be liable for the failure to approve any particular application or for imposing conditions, restrictions or other terms on any approval granted.

6.7 Rules and Regulations. The Committee may from time to time adopt written rules and regulations of general application governing its procedures and approval criteria which may include, among other things, provisions for the form and content of application; required number of copies of plans and specifications; provisions for notice of approval or disapproval, and various approval criteria. Copies of the rules shall, if adopted, be available to each buyer of a Lot at the time of close of escrow and shall be maintained at the office of the Committee.

6.8 Variances. Subject to applicable governmental statutes, laws, regulations and ordinances, the Committee may grant reasonable variances or adjustments from the provisions in this Declaration where literal application thereof results in unnecessary hardship and if the granting thereof in the opinion of the Committee will not be materially detrimental or injurious to other Owners.

6.9 Committee Membership. The Committee shall be composed of not less than three (3) nor more than seven (7) members to be appointed by the Declarant, at least one of whom shall be a qualified member of one of the allied physical design professions (i.e., civil engineer, architect, land planner, etc.). The first Committee shall consist of Mark S. Letter, James Brooks, and Reed Simmons. Committee members shall be subject to removal by the Declarant, and any vacancies from time to time existing shall be filled by appointment of the Declarant, except that the Committee need have no more than three (3) members. The power to appoint or remove Committee members shall be transferred permanently to the Association upon the sale of all Lots, or at any time prior thereto at the discretion of the Declarant. A quorum shall consist of the lesser of a majority of Committee members or three (3) persons. A decision may be rendered by a majority of Committee members at a meeting at which a quorum is present.

6.10 Administrative Fees. As a means of defraying its expenses, the Committee shall require a filing fee of one hundred dollars (\$100.00) to accompany the submission of construction plans for a new Single Family Dwelling and a filing fee of fifty dollars (\$50.00) for submitting plans for remodeling or additions or exterior redecorating color scheme or for the construction of any other Improvement. No additional fee shall be required for resubmissions, nor shall a fee be required for proposals for erection of a fence not part of the original construction plans.

6.11 Liability. Notwithstanding the approval by the Committee of any plans and specifications, neither the Committee, the Declarant, the Association, nor any person acting on behalf of any of them shall be responsible in any way for any defects in any plans or specifications or other material submitted to the Committee, nor for any defects in any work done pursuant thereto, nor for compliance of the plans and speci-

cation with applicable governmental statutes, rules, regulations or ordinances. Each person submitting any plans or specifications shall be solely responsible for the sufficiency thereof and adequacy of the Single Family Dwelling or any Improvements constructed pursuant thereto. No member of the Committee shall be held liable to any person, whether an Owner or not, on account of any action or decision of the Committee or failure of the Committee to take any action or make any decision.

6.12 Principal Office. The principal office of the Committee shall be at 294 East Moana, Suite 18, Reno, Nevada 89509, or at such other address as the Committee shall notify the Association in writing from time to time.

6.13 Enforcement. In the event construction of any Single Family Dwelling or any Improvement shall be commenced without Committee approval as herein required or in the event any Improvement is constructed not in conformity with plans therefor approved by the Committee, or not in conformity with required conditions, restrictions or other terms imposed as a condition of approval, or not in conformity with this Declaration or any Supplemental Declaration, the same shall constitute a violation of this Declaration.

In the event an Owner has violated this Section, all other Owners of Lots will be damaged in that their Lots will depreciate in value. It is difficult to determine the exact amount of the damages caused by an Owner's violation of this Section and the amount of damages accruing on a daily basis until such violation has been remedied. By reason of the foregoing, liquidated damages are hereby established at a rate of one hundred dollars (\$100.00) for each day that an Owner is in violation of this Section. The sum of one hundred dollars (\$100.00) per day is a reasonable estimate of the probable damages.

The Owner of any Lot who is in violation of this Section shall pay the sum of one hundred dollars (\$100.00) per day liquidated damages commencing on the date such Owner is notified in writing by the Committee or the Association of the violation of this Section. Any assessment or payment of liquidated damages shall have no effect on the Owner's obligation to remedy a violation of this Section or on the right of the Association to seek and obtain equitable relief, including without limitation injunctive relief, against the Owner for violation as provided below.

In addition to the liquidated damages remedy set forth above and the remedies set forth in Section below, the Committee shall also have the power and authority to institute legal or other appropriate proceedings to enjoin or otherwise prevent a violation of the provisions of this Section provided, however, that no suit or other proceeding shall be commenced by the Committee after the expiration of one hundred eighty (180) days from such violation coming to the attention of the Committee or the Association in writing. All costs of litigation, including attorneys' fees, shall be charged to and paid by the defendant if the Committee or the Association prevails. All such charges shall constitute a lien on the Owner's Lot from the date of entry of the judgment in the judgment docket, and shall be enforceable as any judgment. In the event the Committee or the Association is not successful, each party shall pay its own costs and attorneys' fees.

7. JUNIPER RIDGE HOMEOWNERS ASSOCIATION A NONPROFIT CORPORATION

7.1 General. The Association is a Nevada nonprofit corporation organized to maintain, develop and operate the Common Area, Recreational Facility and other Improvements located on the Common Area. The Association shall have such powers in the furtherance of its purposes as are set forth in its Articles and By-laws.

7.2 Control of Association by the Declarant. Until the final Supplemental Declaration for the last phase in the Development has been recorded and all Lots within such final Supplemental Declaration have been sold, or at such sooner date at the Declarant's option, but in any event not more than twenty (20) years from the recording of this Declaration, the Declarant, by and through its authorized employees and agents, shall have sole management of the Association and the right to vote all memberships therein on all matters which may properly be voted on by members and such right herein set forth shall constitute, without further documentation, an irrevocable proxy coupled with an interest in favor of the Declarant, for the period of control herein set forth. From and after the initial period, all Owners of Lots shall exercise full

membership rights with respect to the Association; assessments may be levied as herein provided against Owners (including the Declarant to the extent the Declarant is an Owner of Lots or Lots during the development period). The Declarant may not during the development period (a) cause any of the Association's property to be dedicated for public use; or (b) cause the Association to be dissolved; or (c) pledge, encumber or hypothecate any of the Association's property or cause the Association to borrow funds, except such as may be necessary for current expenses of the Association or for capital improvements or acquisitions by the Association.

7.3 Membership. Membership in the Association is limited to Owners of Lots and is automatic with and appurtenant to such ownership and may be represented by a membership certificate; provided, however, that no certificate shall be transferred on the books until a transfer fee of not less than one hundred dollars (\$100.00) (except for a transfer of a membership by the Declarant) and all prior charges and assessments against the membership shall have been paid in full. No other persons may become members. There is only one class of membership.

7.4 Membership Rights, Privileges and Obligations. The rights and duties, privileges and obligations appertaining to membership in the Association, including voting rights and assessment obligations, and penalties for failure to comply with the Association's Rules and Regulations are as set forth in its Articles and Bylaws. An Owner of more than one Lot shall be considered as one member for the purpose of use of the Recreational Facility and other facilities of the Association. In the event a corporation, partnership or association shall own any Lot, the corporation, partnership or association shall designate, by corporate resolution certified by the secretary or by written consent of all partners or members delivered in each case to the Association, the name of the person who, together with his family, shall have the right to utilize the facilities of the Association.

7.5 Duties of Association. The Association, in its own name and on its behalf, or on behalf of any Owner who consents, shall have the right and duty, and the Declarant and the County of Washoe as a third party beneficiary as to certain provisions of this Declaration as more particularly set forth in Sections and shall have the right, of enforcing the provisions of this Declaration including the commencement and maintenance of an action to enjoin any breach or threatened breach of the provisions hereof. In addition to such enforcement remedies as may be contained in the Articles and Bylaws of the Association, failure of any member to comply with the Rules and Regulations of the Association shall be deemed to be a violation of this Declaration and enforceable as other violations of this Declaration. The Association shall from and after transfer of the Common Area to the Association, be expressly required to maintain and repair and otherwise to manage to high standards all Common Area owned or controlled by the Association, including the Recreational Facility and all Watercourses and all Improvements on the Common Area including, but not limited to, all roads or paths or trails and easements owned by the Association. The Association shall pay all taxes and assessments levied against the Common Area and other property of the Association.

The Association shall purchase any and all equipment, materials and supplies necessary to undertake its duties imposed by this Declaration or its Articles and Bylaws. The Declarant may sell any of such equipment, materials and supplies to the Association and the Association may purchase any of such equipment, materials and supplies provided the purchase price shall be the fair market value thereof.

7.6 Transfer to Owners of Record. In the event (a) the Association makes any assignment or arrangement for the benefit of creditors, (b) the filing by or against the Association of a petition for relief of debtors or a petition for reorganization or arrangement under any law relating to bankruptcy or insolvency, (c) the appointment of a trustee or receiver to take possession of any of the Associations assets, (d) the failure of the Association to maintain the Common Area in accordance with the requirements of these Restrictive Covenants and all applicable legal standards or (e) the failure of the Association to pay any tax assessed against the Common Area when due, then the Board of the Association shall grant to each record owner of fee simple title to a Lot a one hundred forty fourth (1/143) share of the Common Area for each Lot owned by each record owner. The Board shall execute the such grant deed upon the determination made by the Reno City Council after a hearing that the Association is in default under any of items (a) through (e) above.

The Association shall be deemed to have failed to maintain the Common Areas in accordance with the requirements of these Bylaws and all applicable legal standards upon receipt from the City of Reno and the Washoe County Health Department or any other governmental entity charged with a responsibility for public health and safety of any notice of violation, citation or any other type of legal service related to the Association's obligation to maintain the Common Areas. The Association shall have a thirty (30) day opportunity to correct the situation leading to the issuance of the notice, citation or other legal process or, if the violation may not be corrected within the thirty (30) day, to commence a correction of the situation and thereafter diligently pursue the correction until completion.

This subsection is established for the benefit of the Reno City Council and may not be altered or amended by the Owners or the Declarant without the prior written approval of the Reno City Council.

7.7 City A Third Party Beneficiary. The City of Reno, State of Nevada, or other political subdivision which may have hereafter have governmental power over the Development (the "City") is hereby expressly made a third party beneficiary to the following provisions of this Declaration:

- (1) Section , as those provisions relate to maintenance of fuel modification and fire break areas on Lots;
- (2) Section , as those provisions relate to nuisances;
- (3) Section , as those provisions relate to resubdivision of Lots;
- (4) Section , as those provisions relate to required garages.
- (5) Section , as those provisions relate to maintenance of drainage facilities and fuel modification and fire break areas on the Common Area;
- (6) Section , as those provisions relate to the payment of assessments and taxes by the Association;
- (7) Section , as those provisions relate to the transfer to Owners upon the occurrence of certain events;
and
- (8) Section .

In this connection, the City shall have the right to enforce in a court of law or in equity the provisions of the above specified sections, and none of the foregoing Sections shall be amended in any material respect without the express written consent of the City having first been obtained.

8. ASSESSMENTS.

8.1 General. Pursuant to the powers granted to it in its Articles and Bylaws, the Association is hereby expressly authorized and empowered to levy annual and special assessments against all Lots, excluding those owned by the Declarant. All assessments shall be uniform as to membership class.

8.2 Initial Assessment. At the time of the transfer of any Lot by the Declarant to the Owner, the Owner shall pay to the Association an initial assessment equal to two-twelfths of the annual assessment in effect on the date of closing of the transfer.

8.3 Annual Assessments. Within thirty (30) days prior to the commencement of each calendar year, beginning with the year 1991, the Board shall consider the current and future needs of the Association (excluding expenditures for which special assessments may be levied) and, in light of those needs, shall fix by resolution the amount of annual assessment for purposes, other than capital improvements for acquisitions, to be levied against each Lot, which amount shall be a debt of the Owner at the time the assessment is made. No assessment shall be levied by the Board against Lots owned by the Declarant.

8.4 Special Assessments. Special assessments may be made by the Board upon an affirmative vote of a majority of the memberships representing Lots so assessed, upon a determination by the Board that such an assessment is necessary for capital improvements of Association property or for purposes related to the

health, safety and welfare of such Lot Owners or for the acquisition of additional Association property. No such special assessment shall be levied without benefit of a hearing for which at least twenty (20) days' written notice shall be given to all affected Lot Owners. Special assessments may be made by the Board against any Lot to secure the liability of the Owner thereof to the Association arising out of any breach of the provisions of this Declaration by such Owner, which breach shall require the Association to expend funds by virtue thereof. No special assessment may be levied by the Board against Lots owned by the Declarant.

8.5 Notice. The secretary shall mail to each Owner whose Lot is assessed, at such Owner's address within the Development, written notice of each annual or special assessment and the time and manner for payment thereof at least two (2) weeks prior to the time such assessment is due and payable to the Association.

8.6 Additional Phases. The Lots described in Supplemental Declarations shall be subject to pay the next installment of the previously established annual or special assessment, due (a) after the first sale of a Lot for a Single Family Dwelling by the Declarant.

8.7 Collection and Lien. Annual assessments shall be paid either quarterly on January, April, July and October on the first day of each said months or monthly on the first day of each month as determined by the Board. The amount of any special assessment levied by the Association shall be paid to it on or before the date fixed by resolution of the Board. If any assessment payment is not paid on the date required, with ten (10) days grace, the entire amount of such assessment, including any deferred portion of any annual assessment, plus any other charges thereon, plus interest thereon at the prime or reference rate of interest then announced by Valley Bank of Nevada or its successor, or, if such rate unannounced or unavailable and in lieu thereof, the legal rate for judgements in Washoe County, Nevada, plus three percent (3%) per annum from date of delinquency and costs of collection, including attorney's fees, if any, shall constitute and become a lien on the Lot so assessed when the Board causes to be recorded in the Office of the County Recorder of Washoe County, Nevada, a notice of delinquent assessment which shall state the (a) amount of the assessment and interest, costs and penalties, (b) a description of Lot which has been assessed, and (c) the name of the record owner and Owner, if different, of the Lot. (See NRS 278A.150). The notice shall be signed by the President or Secretary of the Association who are hereby authorized on behalf of the Association to sign the notice. The Association may designate such other representatives who shall be authorized to sign the notice. Upon payment of the assessment and charges, or other satisfaction thereof, the Board shall, within a reasonable time, cause to be recorded a further notice stating the satisfaction and the release of the lien.

8.8 Priority of Lien. Conveyance of any Lot shall not affect any lien for assessments provided herein. The lien shall be prior to all other liens and property taxes recorded subsequent to the notice of assessment.

8.9 Enforcement. The lien provided for herein may be enforced by sale of the property which is subject to a notice of delinquent assessment, such sale to be made by the Association or any of its authorized officers or attorneys in accordance with the provisions of Covenants numbered 6, 7 and 8 of NRS 107.030 and in accordance with the provisions of NRS 107.080 and 107.090 applicable to the exercise of powers of sale in deeds of trust, or in any other manner provided by law. In exercising the power of sale herein contained, the Association shall be deemed to occupy the position of Trustee and Beneficiary and the delinquent Owner the position of defaulting Trustor. In addition to the above enumerated items constituting the lien, the Association may also realize from the sale the costs of such sale together with a reasonable attorney's fees. The Association may be a bidder at the sale. All sales shall be conducted in accordance with the provisions of NRS 278A.150 and 278A.160.

8.10 Enforcement of Assessment and Lien by City. In addition to its powers under Section , in the event the Association fails to perform or enforce any of the following described provisions of this Declaration:

- (1) Section , as those provisions relate to maintenance of fuel modification and fire break areas on Lots;
- (2) Section , as those provisions relate to nuisances.

- (3) Section , as those provisions relate to maintenance of drainage facilities and fuel modification and fire break areas on the Common Area;
- (4) Section , as those provisions relate to the payment of assessments and taxes by the Association;

then the City shall be entitled to commence an action as set forth in Section to enforce such provisions by the levy of a special assessment equally against all of the Owners, which special assessment shall be secured by a lien against all of the Lots in the manner provided in this Article . Notwithstanding the foregoing, the City shall be entitled to commence such an action only after (i) the County has given reasonable notice (which shall be no less than 30 days) to the Association, which shall describe the violation, or, if no Association is in existence, by publication of reasonable notice in a newspaper of general circulation in the City of Reno, and (ii) the Association, the Declarant or the Owners shall have failed to cure such violation with a reasonable time thereafter to the reasonable satisfaction of the City.

8.11 Proof of Payment. Upon request, the Association shall furnish a statement certifying that all assessments then due have been paid or indicating the amount then due.

8.12 Suspension. The Association shall not be required to transfer membership on its books or to allow the exercise of any rights or privileges of membership, including voting rights, on account thereof to any Owner or to any person claiming under them unless or until all assessments and charges to which they are subject have been brought current.

8.13 Fiscal Year. The Board may adopt a fiscal year other than the calendar year.

9. EASEMENTS.

9.1 Reservation. The following easements also constituting irrevocable licenses over each Lot and the Common Area and the right of ingress and egress to the extent reasonably necessary to exercise such easements and irrevocable licenses are reserved to the Declarant and its licensees and where applicable for the benefit of the Association, the Declarant, its successors and assigns.

9.1.1 Utilities. The utility easements as are shown on Supplemental Declarations recorded from time to time together with the right to extend all utility services within such easements to other areas being developed within the Development itself for the installation, maintenance and operation of all utilities, including street lights and the accessory right to locate or to cut, trim or remove trees and plantings wherever necessary in connection with such installation, maintenance and operation.

9.1.2 Slope and Drainage. A ten (10) foot wide easement across Lot lines coincident with street right-of-way for the purpose of cutting, filling, drainage and maintenance of slopes and drainage courses.

9.1.3 Paths, Trails and Greenbelt. An easement on, over and under all paths, trails and greenbelt within the Development for the purpose of installing, maintaining and operating utilities thereon or thereunder to all portions of the over-all Development, for purposes of drainage control; for access of any Lot; and for the purposes of maintenance of such paths, trails and greenbelt and for providing access to undeveloped portions of the Development of any and all purposes at any and all times, including, but not by way of limitation, the right to use the paths, trails and green belts during construction of Improvements on undeveloped portions of the Development and as may be necessary from time to time in connection with maintenance and repair and operation of any Watercourse.

9.1.4 Other Easements. Any other easements shown on the Supplemental Declarations of the Development recorded from time to time with the Washoe County Recorder.

9.1.5 Transfer of Easements. A conveyance of Common Area to the Association shall transfer to such Association all easements herein reserved to the Declarant which are necessary or convenient to the obligation of the Association to carry out its duties prescribed herein and in its Articles and Bylaws, which transfer shall not diminish the rights in and to the easements herein reserved. Nothing set forth herein shall be construed to impose on the Declarant any duty or obligation of maintenance of paths, trails and

greenbelt, utility lines, Common Area or Improvements thereon after conveyance of the Common Area on which such may be located to the Association. The Declarant reserves to itself and the licensees the right to extend any and all utility lines (water, sewer, electrical, etc.), roads and any other Improvements necessary to complete the entire Development and as may be necessary with respect to the Development as a whole, except that the roads shall not be extended beyond the Development, except for fire and emergency roads as required by the County of Washoe or the City of Reno.

9.2 Use or Maintenance by Owners. The areas of any Lot affected by the easements reserved herein shall be landscaped and maintained continuously by the Owner of such Lot, but no structures shall be placed or permitted to remain or other activities undertaken thereon which may damage or interfere with the use of the easements for the purposes herein set forth.

9.3 Liability for Use of Easement. No Owner shall have any claim or cause of action against the Declarant or the Association or their respective successors and assigns arising out of the use or because of any easement reserved hereunder or shown on Exhibit "A" hereto or on any Supplemental Declaration, by any person.

9.4 Modification. None of the easements and rights granted under this Section may be modified, terminated or abridged without the written consent of the persons in whose favor such easements run.

10. REMEDIES.

10.1 Enforcement. As provided in Section and except as otherwise provided herein, Declarant, the Association, any Owner, and the City of Reno as to provisions to which it has been expressly been made a third party beneficiary, shall have the right (but not the duty) to enforce any and all of the covenants, conditions, and restrictions now or hereafter imposed by this Declaration upon the Owners in any proceeding at law or in equity to prevent the occurrence, continuation, or violation of any provision of this Declaration, and the court in such action may award the successful party reasonable expenses in prosecuting such action, including attorneys fees. If funds are required to commence an action, a special assessment may be imposed on the Lots affected to cover such costs. Nothing in the Declaration shall be construed as creating a third party beneficiary contract in favor of any person except as specifically provided herein.

10.2 Suspension of Privileges. The Board may, anything herein to the contrary notwithstanding, suspend all voting rights and all rights to use the Association's Common Area, including without limitation the Recreational Facility, of any Owner for any period during which any Association assessment against such Owner's property remains unpaid, or during the period of any continuing violation of the provisions of this Declaration by such Owner after the existence thereof has been declared by the Board, including a violation by virtue of the failure of an Owner to comply with the rules and regulations of the Association.

10.3 Cumulative Rights. Remedies specified herein are cumulative and any specifications of them shall not be taken to preclude an aggrieved party's resort to any other remedy at law or in equity. No delay or failure on the part of any aggrieved party to invoke an available remedy in respect of a violation of any provision of this Declaration shall be held to be a waiver by that party of any right available to him upon the recurrence or continuance of the violation or the occurrence of a different violation.

11. GRANTEE'S ACCEPTANCE. Each grantee or purchaser of any Lot shall, by acceptance of a deed conveying title thereto, or the execution of a contract for the purchase thereof, whether from Declarant or a subsequent Owner of the Lot, accept the deed or contract upon and subject to each and all of the provisions of this Declaration and to the jurisdiction, rights, powers, privileges, and immunities of Declarant and of the Association. By such acceptance, the grantee or purchaser shall for himself, his heirs, personal representatives, successors, and assigns covenant, consent, and agree to and with Declarant, and to and with the grantees and subsequent Owners of each of the other Lots to keep, observe, comply with, and perform all of the provisions of this Declaration and shall further agree to the continuation to completion of the Development and all parts and projected real property to be included within the Development in substantially the manner heretofore approved by the City of Reno.

12. RESTRICTIONS ON RESERVED PROPERTY. Declarant covenants with the City of Reno that a Supplemental Declaration covering the Reserved Property will be recorded which is intended to prevent further development of the Reserved Property. Declarant covenants with the City of Reno that such a Supplemental Declaration will not be filed for record unless and until the City has reviewed the proposed Supplemental Declaration and has given its written consent to the filing of the Supplemental Declaration or the City has waived in writing its rights under this Section .

This Section is made by Declarant for the sole benefit of the City of Reno and shall not be construed as creating a third party beneficiary contract in favor of any person including without limitation any Owner and the Association.

13. RESTRICTIONS ON IDENTIFIED LOTS. Declarant covenants with the City of Reno that a Supplemental Declaration covering that portion of the Development now identified as Lots 501 through 507, as set forth in the proposed tentative subdivision map, will comply with the restrictions to be placed on such area as set forth in Condition Number 28 of the approval of the Development by Washoe County in 1990. Declarant covenants with the City of Reno that such a Supplemental Declaration will not be filed for record unless and until the City has reviewed the proposed Supplemental Declaration and has given its written consent to the filing of the Supplemental Declaration.

This Section is made by Declarant for the sole benefit of the City of Reno and shall not be construed as creating a third party beneficiary contract in favor of any person including without limitation any Owner and the Association.

14. SEVERABILITY. Every provision of this Declaration is hereby declared to be independent of and severable from every other provision hereof. If any provision hereof shall be held by a court of competent jurisdiction to be invalid or unenforceable, all remaining provisions shall continue unimpaired and in full force and effect.

15. CAPTIONS. Paragraph captions in this Declaration are for convenience only and do not in any way limit or amplify the terms or provisions hereof.

16. TERM AND AMENDMENT.

16.1 Term. The provisions of this Declaration shall affect and run with the land and shall exist and be binding upon all parties claiming an interest in the Development until January 1, 2040, after which time the same shall be extended for successive periods of ten (10) years each.

16.2 Amendment. Prior to January 1, 2040, this Declaration may be amended by the affirmative vote of seventy percent (70%) of the then Owners of all Lots entitled to vote and thereafter by a majority of the Owners by recording an amendment to this Declaration duly executed by (a) the requisite number of such Owners required to effect the amendment; or (b) by the Association, in which latter case the amendment shall have attached to it a copy of the resolution of the Board attesting to the affirmative action of the requisite number of such Owners to effect the amendment, certified by the secretary of the Association.

The provisions of this Section 16.2, Section 8.3, Section 12 and 13 may not be amended without the prior written consent of Declarant. The provisions of this Section 16.2 and the following further provisions may not be amended without the prior written consent of the City of Reno:

- (1) Section 3.7, as those provisions relate to maintenance of fuel modification and fire break areas on Lots;
- (2) Section 3.10, as those provisions relate to nuisances;
- (3) Section 3.20, as those provisions relate to the resubdivision of Lots;

- (4) Section 5.3, as those provisions relate to maintenance of fuel modification and fire break areas on the Common Area;
- (5) Section 7.5, as those provisions relate to the payment of assessments and taxes by the Association;
- (6) Section 7.6, as those provisions relate to the transfer to Owners upon the occurrence of certain events;
- (7) Section 7.7, as those provisions relate to the enforcement of certain provisions by the City;
- (8) Section 8.10;
- (9) Section 12, as those provisions relate to the Reserved Property; and
- (10) Section 13, as those provisions relate to restrictions to be placed on certain identified lots.

If the prior written consent of the Declarant or the City of Reno, or both, is required to any amendment of this Declaration, the amendment shall not be effective unless and until the prior written consent of Declarant or City of Reno, or both, to such amendment is filed in the real property records of Washoe County.

17. INTERPRETATION. The Association shall have sole right and authority to interpret any of the provisions of this Declaration, which interpretation shall, so long as the same is reasonable, be conclusive.

18. DISCLAIMER OF LIABILITY. Declarant disclaims any liability for repairs or maintenance of roads, or other Improvements, including utility lines located within the Common Area from and after the date of conveyance of the Common Area to the Association.

IN WITNESS WHEREOF, Declarant has executed this Declaration the day and year first above written.

DECLARANT: LANDS OF SIERRA, INC.

By _____
Marks S. Letter, President

By _____
John R. Pedersen, Secretary

4. Planning Analysis

Introduction

Here, JUNIPER RIDGE is evaluated with respect to its 'fit' with the various plans, policies and standards that guide growth and development in the community. Specifically, land use compatibility, zoning, the Land Use/Transportation Guide, the Master Plan/Policy Plan, the Community Design Handbook and the Zone Change Findings are discussed.

Existing Zoning/Land Use Compatibility

Existing zoning in the project area varies greatly. The planned PUD zoning complements the existing zoning of the area as depicted in Figure 36. The JUNIPER RIDGE plan calls for 1-acre minimum lots adjacent to private property. The balance of the lots are 1/2-acre or larger in area.

Reno Land Use/Transportation Guide

The primary objective behind the Land Use/Transportation Guide is to facilitate Reno's community goals, objectives and policies by providing guidelines which assist developers in determining appropriate land use. Listed below is a series of Land Uses and their associated location guidelines

The Guide designates the site for Rural use. Following is the Lane Use/Transportation Guide's description of Rural:

Land Use: Rural
Symbol: Dust color

Description: Land utilized primarily for very low residential densities or agricultural use.

Location Guidelines: The rural activity classification was developed to preserve existing and accommodate future areas for primarily large lot residential use or for agriculture. This activity is normally located along the outer fringes of the city.

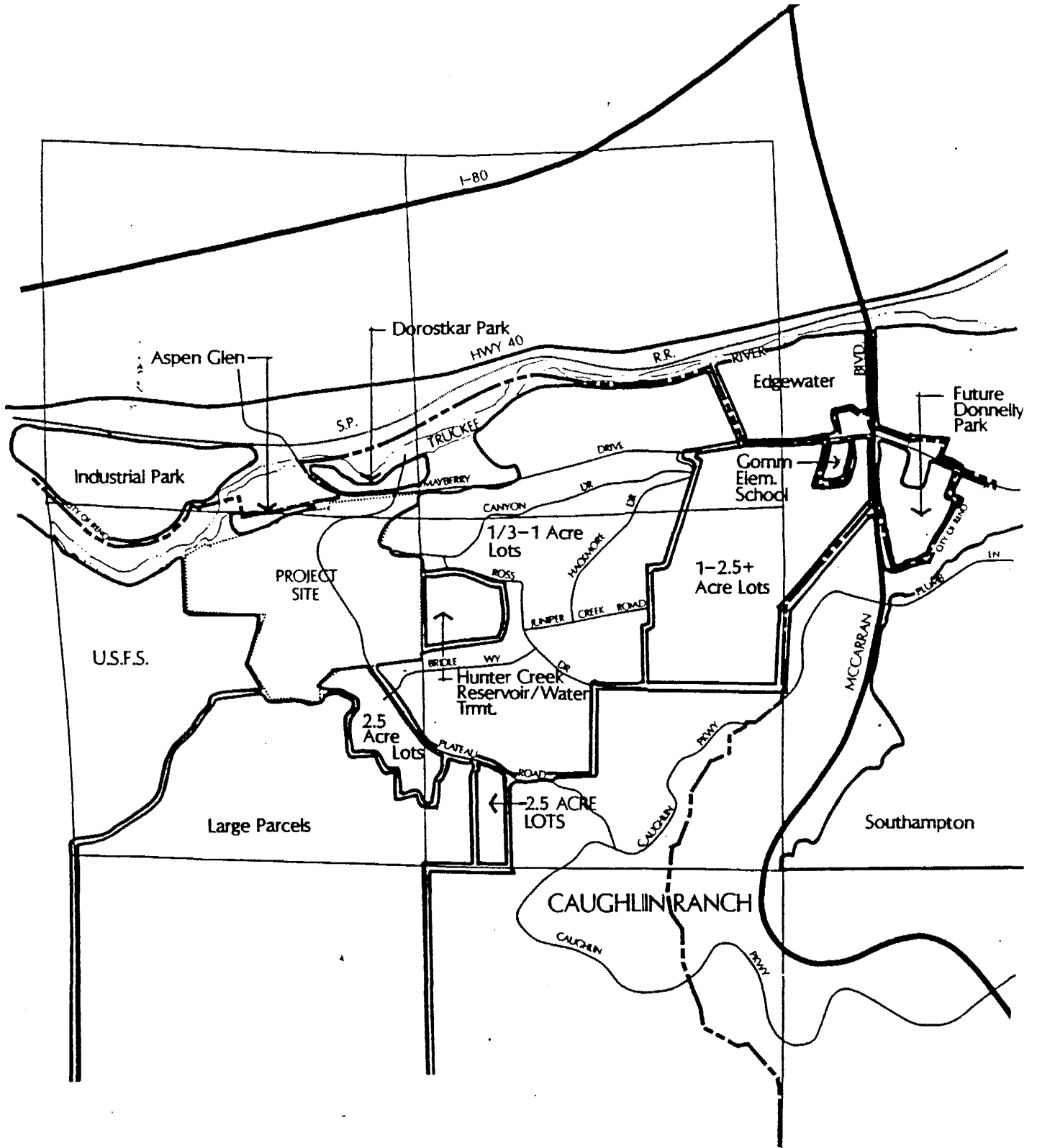
Because the overall density in rural areas is extremely low, suitable vehicular access is provided by "local" roads. Development in these areas is generally not clustered, but, rather, sparsely covers the landscape. There are few requirements for municipal services beyond police and fire. The extension of central water distribution or sanitary sewer to these areas is not mandatory.

The existence of some physical constraints is tolerated in rural areas. Drainage courses, geologic hazards, and variable topography can normally be avoided on large lots planned for low density rural development.

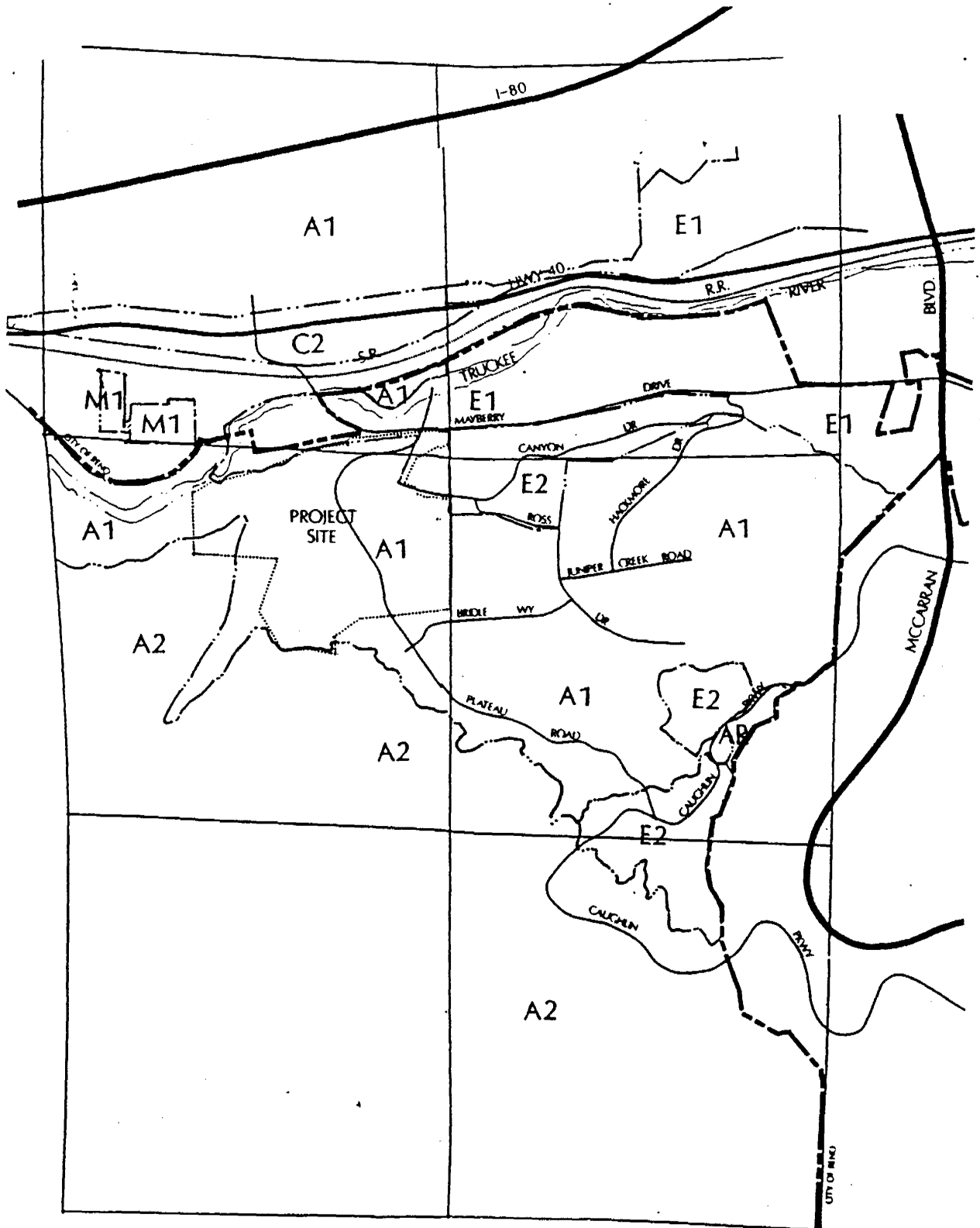
Rural activity is sometimes a transition use between single family residential and open space. In some places the rural land use designation denotes an area that may be suitable or desirable for urban development at some time in the future.

Rural land uses are commonly found between single family residential and vast areas of open space. It is compatible adjacent to large regional parks and national forests. Commercial and industrial activity are generally not desirable adjacent uses because those activities are designated in centralized localities, i.e., places normally not on the urban fringe.

JUNIPER RIDGE obviously fits this land use description well.



36. Surrounding Land Uses



37. Surrounding Zoning

Master Plan/Policy Plan

JUNIPER RIDGE is also consistent with the policy framework established by the City of Reno to review development projects - both the Compulsory Development Policies and the Facilitative Development Policies. Each policy statement is addressed here.

Compulsory Development Policies

II.B.1 Require that new development pay the full cost of all public improvements required by the development within the boundaries of that development.

Plateau Road has been constructed through the project.

II.B.2 Require new developments to pay a proportional share of the cost of public improvements outside the development boundaries that are directly attributable to that development.

A great deal of money has already been spent on off-site sewerage (\$550,000±) and the Plateau Road/Mayberry Drive intersection improvements (\$150,000±).

II.B.3 Develop and utilize a reimbursement mechanism by which developers may be repaid by adjacent developments which will use the public improvement, when oversizing of a public improvement is necessary for efficiency and effective service.

The off-site sewer improvements will serve more than just JUNIPER RIDGE and a reimbursement mechanism needs to be established.

II.B.4 Require dedication of sufficient land to allow for adequate rights-of-way for all major roads in developing areas.

A fifty-foot right-of-way is provided for Plateau Road.

II.B.5 Require drought-resistant landscaping along all arterial as buffering for adjacent land uses.

Not applicable.

II.B.6 Assure, in an established neighborhood when new development consists of a different land use, that landscaped or compatible land use buffers between the new development and surrounding uses are provided.

Large lot buffers are provided at the periphery of the project where it abuts private property.

II.B.7 Require that the density or intensity of new developments in established neighborhoods is compatible with the existing neighborhood, except where the established neighborhood has been designated by the City in its Master Plan or other official document as a redevelopment area or designated as an area in transition to another predominant land use.

The density or intensity of this project is compatible with its surroundings.

II.B.8 Assure new development is compatible with surrounding land use.

See Land Use Compatibility.

II.B.9 Require tall buildings to be set back a reasonable distance from low density residential areas.

Not applicable.

II.B.10 Assure that development within the vicinity of the airport is compatible with the impacts of airport operations and that no unusual health or safety risks are created.

Not applicable.

II.B.11 Limit high-rise developments to the downtown area, except for high-rise developments existing or approved outside of the downtown area as of February 14, 1986. (This exception does not apply to any other policy.)

Not applicable.

II.B.12 Require development applications for hotel/casinos to specify the operators of the project.

Not applicable.

II.B.13 Require hotel/casinos outside the downtown area to meet the following criteria:

- 1. provide for 30% of the land area to be reserved for recreational and landscape uses, at least half shall be landscape,*
- 2. provide significant recreational facilities,*
- 3. provide convention facilities or permanent access to the Reno-Sparks Convention Center,*
- 4. be located outside "critical areas" of Reno Cannon International Airport,*
- 5. have direct access from a major arterial, and*
- 6. be located at least 500 feet from the building footprint of the casino to the nearest existing school, church or residence unless the owners within 500 feet consent.*

Not applicable.

II.B.14 Locate new commercial development in existing or planned shopping centers or in established strip commercial areas and prohibit new strip commercial areas.

Not applicable.

II.B.15 Require shopping centers, office parks and industrial parks to utilize integrated site design.

Not applicable.

II.B.16 Assure that primary access to commercial development is provided only from arterial in developing areas.

Not applicable.

II.B.17 Require mini-lot developments to minimize visual and other impacts on adjacent residential developments.

Not applicable.

II.B.18 Require residential developments to create varied and interesting residential streetscapes. This is a major design component of JUNIPER RIDGE.

II.B.19 Assure that access to all residential lots and/or units is provided only from collectors or local streets and that buffering is provided from freeways and arterial by site orientation and landscaping.

Access to all of the lots is via local streets. In fact, the plan is designed to ensure that only a few lots access the collector street, Plateau Road.

II.B.20 Require buffering through site orientation and/or landscaping between different housing types.

Not applicable.

II.B.21 Require developments which will be substantial generators or attractors of traffic to implement reasonable techniques to mitigate site specific traffic-induced air pollution problems.

Not applicable.

II.B.22 Retain natural features of hillside by requiring densities to be diminished as slope increases. Limit the density of the base zoning by the following method: Each property to be developed should be divided into cells of similar slope, utilizing the following average slope ranges. The maximum density of the base zoning is then multiplied by the relevant reduction factor assigned to each cell. The result of this calculation is the maximum allowable density for each cell.

<u>Average Slope Range</u>	<u>Density Reduction Factor</u>
0 to 10%	none
10.1 to 15%	.9
15.1 to 20%	.8
20.1 to 25%	.6
25.1 to 30%	.4
Greater than 30%	no development

Not applicable with a PUD zone.

II.B.23 Require landscaping when appropriate to maintain necessary cut and fill slopes and to stabilize areas of difficult soils and erosion hazards.

Any cut and fill slopes will be landscaped.

II.B.24 Preserve as open space all natural drainage courses within developing areas. The Hunter Creek canyon and the "entrance canyon" are left natural.

II.B.25 Require that any channelization of natural drainage courses utilize materials and prevent concrete channelization.

Not applicable.

II.B.26 Assure that new development will not interfere with important wildlife habitats.

The Hunter Creek canyon area is left natural and is offered for dedication as a resource management area.

Facilitative Development Policies

II.C.1 Encourage infill development in areas where public services and improvements presently exist.

JUNIPER RIDGE, with public facilities and services adjacent or through to the site, is a "fringe/infill" project.

II.C.2 Encourage preservation of historic and/or architecturally unique buildings, homes and places.

Not applicable.

II.C.3 Encourage new developments both residential and non-residential to provide on-site recreational facilities.

On-site, a variety of recreational facilities are provided.

II.C.4 Encourage the preservation of scenic vistas.

Again, this is a touchstone of the plan.

II.C.5 Encourage landscaping which utilizes drought-tolerant types and efficient irrigation or other low water usage practices.

State-of-the-art low water use practices are incorporated into the project.

II.C.6 Encourage efforts to reduce adverse noise impacts in existing and new developments.

Buffering is provided to mitigate the potential Mayberry Drive noise through both vertical and horizontal separation.

II.C.7 Discourage the development of high occupancy land uses on geologically hazardous property.

Not applicable.

II.C.8 Encourage new development adjacent to the Truckee River to be complementary to the City's efforts to beautify the Truckee River Corridor.

Not applicable.

II.C.9 Support development and expansion of projects contributing to diversification of Reno's economy.

Not applicable.

II.C.10 Encourage new developments with intense activities to locate in existing or planned urban focal centers.

Not applicable.

II.C.11 Where appropriate and with minimal impact on the neighborhood, encourage infill development to utilize site designs which are coordinated with surrounding site designs.

The entire project has a coordinated community design theme.

II.C.12 Encourage the location of neighborhood-oriented shopping and services in convenient and close proximity to residential areas.

Not applicable.

II.C.13 Encourage the location of housing in the vicinity of employment centers.

JUNIPER RIDGE is very convenient to the central Reno employment base and via the freeway to other employment centers.

II.C.15 Allow "mini-lot" subdivisions throughout the City so that they do not become concentrated or isolated in one particular area and require that all "Mini-lot" developments provide for adequate and accessible open space in the development.

Not applicable.

II.C.16 Allow "Mobile/Manufactured" housing where appropriate.

Not applicable.

II.C.17 Encourage clustered housing developments along four-lane roadways and assure that single family housing developments which back onto four-lane roadways utilize landscaping to provide sufficient buffering.

Not applicable.

II.C.18 Encourage the design and construction of new housing to utilize alternate energy sources.

Solar access and building/fenestration orientation can be accommodated to a goal degree with the building envelope program.

II.C.19 Encourage P-U-D and P-D Overlay zoning to allow for flexible lot sizes and clustering in hillside areas to preserve the natural topography, drainage courses and ridgelines.

P-U-D zoning is proposed to provide this flexibility and to best accommodate existing site conditions and to put into effect a specific plan.

II.C.20 Encourage P-U-D and P-D Overlay zoning for residential development in all areas 5,000 feet above mean sea level to promote clustering and view protection.

Not applicable.

II.C.21 Encourage grading practices which will relate to the natural contour of the land and which will round off in a natural manner all angles at the edge of cut and fill slopes.

Grading will include "contour" practices, particularly in common areas.

II.C.22 Encourage and provide for the preservation of aquifer recharge zones.

Not applicable.

II.C.23 Encourage incorporation of crime prevention measures in design of new developments.

JUNIPER RIDGE is planned with "typical" residential crime prevention measures.

Community Design Handbook

Here, JUNIPER RIDGE is evaluated in terms of the project's conformance to the Community Design Handbook element of the Master Plan.

Site Design

Objective #1:

Site Analysis

Each plan for development should be based on a thorough analysis of the site in order to fully understand the development's relationship to the physical environment.

The site analysis should include such opportunities and constraints as:

Topography

Views

Vegetation

Drainage

Solar Path/summer & winter

Winter Winds

Summer Breezes

Access

Adjacent Built Environments

The subject property's environmental constraints are well respected in the plan. The topography of developed area is gentle. Views can be framed or enhanced with development. Existing vegetation and structures are preserved to the extent practical. Drainage/stormwater management guides the plan to a large degree.

Solar access considerations and winds are practically accommodated. Access is straight-forward and functional. The project sensitively fits within the context of the adjacent built/planned environment.

Objective #2:

Significant Natural Features

The significant natural features of a site should be retained and used to advantage. The incorporation of features such as creeks, trees, natural slopes, rocks, views and irrigation ditches should be considered in the design of the site and placement of the buildings. Only those areas that are needed for construction should be disturbed. Areas that are disturbed should mimic natural features. Destruction of vegetation outside the construction zone should be minimized.

The existing vegetation, views, and irrigation ditches, drainage patterns are all reflected in the plan for JUNIPER RIDGE.

Objective #3:

Platting Lots

Each subdivision should demonstrate that all lots provide a buildable, useable area. In platting lots, it should be recognized that rear and side yards are important to the proper functioning of residential developments. These areas, which provide privacy, recreation, storage and aesthetic value, must be designed such that they meet the needs of the future residents of the property.

Each lot provides a buildable, useable area. With the custom tailored building envelopes and the architectural requirements, the function and efficiency of yards and open spaces is optimized.

Objective #4:

Grading

The grading of any hillside should achieve and undulating naturalistic appearance by varying the gradient of the slope or grading to curvilinear contours. Hillside street alignments should generally parallel contours unless doing so would result in unsafe street as determined by the City or would preclude solar orientation of lots.

The uniqueness of each site deserves an independent approach to grading. By placing an emphasis on landscaping and naturalizing the developed site, the visual impact of grading can become less harsh and unnaturally imposed. Since development is considered to be an improvement to existing conditions, its characteristics should be altered to fit the terrain and keep grading at an optimal level.

JUNIPER RIDGE accomplishes this objective.

Objective #5:

Percent in Natural State

In hillside developments, the following table indicates those minimum percentages of the ground surface which should remain in a natural state (no cut or fill) based on the average percent slope of a parcel unless a detailed grading plan demonstrates that the subject property can be properly graded with respect to erosion control, slope stability and visual impacts. The area remaining in a natural state should generally be comprised of the steeper slopes on the site.

JUNIPER RIDGE exceeds this objective's requirements. JUNIPER RIDGE's subdivision or development area has an average slope well below ten percent. Thus, there is no minimum percentage to remain in a natural state.

Objective #6:

Cut and Fill Slopes

In order to reduce the negative physical and visual impacts that may be created, cut or fill slopes should be designed such that they are visible from the residence on the property in which they are located. This will encourage property owners to personalize, stabilize and maintain slopes such that erosion is prevented and exterior space is aesthetically treated.

Slopes adjacent to a roadway should be maintained in a uniform manner. This is assured either through a homeowners association, easements, or deed restrictions. In addition, cut and fill slopes should not drastically alter the slope's grade with respect to adjacent property owners.

All of the slopes in JUNIPER RIDGE will be properly located, treated and maintained.

Objective #7:

Skylines

Ridgelines should be preserved as much as possible. Structures located adjacent to prominent ridgelines should complement, rather than provide a stark contrast with, the natural landform(s). Through careful placement, development can help preserve vistas and landforms, provide more access to sensory experiences, and create a positive visual impact.

Not applicable.

Objective #8:

Wind and Solar Orientation

Each plan for development should analyze wind direction and solar orientation. Consideration of such factors as landscaping, window placement, overhangs, building location, and activity areas will improve site utilization and help solve environmental problems.

Landscaping is particularly oriented to provide wind protection and solar management.

Building Design

Objective #9:

Integrated Design

Building and site design should be blended to create an architecturally, cohesive project. Through the careful selection of building types, materials, textures, and color schemes, a positive, supporting relationship can be achieved.

Building design does play a powerful role as a communicator. Integrated designs express such information as function, access, circulation, and corporate image.

Integrated design is the essence of JUNIPER RIDGE.

Objective #10:

Glare

Reflected glare on nearby buildings, streets or pedestrian areas should be avoided. Negative impacts can be prevented with the careful selection and cautious use of building materials, incorporation of overhangs, control angles of reflection, and appropriate placement of landscaping.

This project's material palette and design take this into account.

Objective #11:

Compatibility

New structures should complement adjacent structures in terms of scale and proportion rather than creating a sense of encroachment. Textures, shadow lines, and articulation of details are some of the design elements that could be used.

Transition areas can be developed and a balanced interrelationship with existing structures achieved through the use of complementary form, materials and details, without necessarily copying existing architectural styles. In addition, establishment of similar organizational schemes will strengthen compatibility with neighboring sites.

JUNIPER RIDGE will complement the scale and textures of existing and proposed residential uses in the area.

Objective #12:

Additions

Additions and accessory buildings should have an exterior appearance which is sensitive to the main structure. Color schemes, materials, forms and style should enhance rather than detract from the existing structure.

With an Architectural Control Committee, JUNIPER RIDGE will be able to effectively deal with additions and accessory buildings.

Objective #13:

Scale

A human scale should be achieved near ground level on large buildings and along street facades and entryway through the use of such scale elements as windows, doors, columns, and beams. Landscaping along a pedestrian way can provide a transition from the street scene, offering buffering and protection. Incorporation of public plazas, public art, and fountain areas along with variations in surface treatment further promotes areas of human interest and contact.

The entire JUNIPER RIDGE project will have a human scale.

Objective #14:

Building Planes

The building should be considered as an integrated whole. Equal consideration shall be given to every side of a building, especially sides adjacent to existing structures and in clear, public view. Facades which are long uninterrupted horizontal planes should be avoided. Exterior treatment shall integrate the use of material, color and texture on every side of the building.

JUNIPER RIDGE will require that the homes present a consistent architectural statement on all sides.

Objective #15:

Building Mass

Buildings should be designed with architectural elements to appear more as an aggregation of smaller "building blocks" or as "sculpted forms", rather than a single large block or box. Transition spaces between buildings should be recognized and enhanced, solar access should be considered, and buildings should avoid extending out to the property line.

The residential architecture of JUNIPER RIDGE meets this objective well.

Objective #16:

Visually Defined Structures

Building masses should be arranged so that they cast shadows on each other and emphasize the contrast of light and shaded surfaces.

Vertical planes of a building should be designed with architectural elements in order to articulate the building.

This will be accomplished.

Streets, Parking & Access

Objective #17:

Curvilinear Streets

Use of curvilinear streets, loop streets, and cul-de-sacs in residential subdivisions is encouraged to reduce through traffic, vehicular speeds, pavement areas, and to increase open space.

All of these measures are incorporated in JUNIPER RIDGE.

Objective #18:

Intersections

When designing streets, intersections on the inside of curves should be avoided. By improving sight distances for vehicles turning at intersections, potential traffic hazards will be reduced. Where such intersections are needed, streets shall be designed with lower traffic volumes and special setbacks for adjoining properties. Wherever possible, local streets should connect at T-intersections to increase safety and reduce traffic speeds.

All of JUNIPER RIDGE's intersections will be safe.

Objective #19:

Access

Access points should be kept to a minimum. Joint access between adjacent businesses should be used whenever possible in order to reduce traffic hazards along major routes. When a site has access to two streets, access should utilize the street which has the least impact on traffic flow.

This is accomplished.

Objective #20:

Loading

The parking and circulation plan of a project should be designed such that loading activity does not interfere with other site circulation patterns. This objective will reduce potential conflicts with vehicles accessing the site, as well as those moving within the site, and will encourage screening of loading activity from public view. In addition, placement of loading areas shall be sensitive to a non-disruptive adjoining uses.

Not applicable.

Objective #21:

Parking Circulation

The circulation patterns of parking lots should be logical and easily comprehended by the user. Conflicts should be reduced through the use of berms, landscape areas, stacking spaces, and the like.

Not applicable.

Objective #22:

Landscaping

Through the prudent use and placement of compact spaces, adequate area for landscaping within parking areas should be provided. Parking areas should be designed and landscaped to minimize glare, provide shade, and reduce the visual impact of large numbers of cars.

Not applicable.

Objective #23:

Sidewalks

Sidewalk areas, especially those located at major intersections and areas of significant public exposure, shall be wide enough to accommodate such uses as bus loading, news vending, community resource boards, window shopping lanes, and other pedestrian traffic needs. In addition to directing activities and movements, sidewalks should provide a safe, public place for people to stand or sit out of the stream of traffic.

All of the paths serving JUNIPER RIDGE are residential in character and size.

Reno Annexation Program

The subject property is in Reno's Sphere of Influence in the Truckee Meadows Regional Plan. The recently adopted Annexation Program identifies the subject property for immediate "voluntary" annexation. The current sewerage will serve agreement from the City of Reno calls for this property to be annexed as it is now (since September of 1991) contiguous with the city limits.

5. Impact Analyses

Traffic Impact Analysis

This report presents Omni-Mean's assessment of the potential traffic impacts associated with development of the JUNIPER RIDGE Subdivision. Note that this report assumes a higher level of development than that now planned and is therefore, conservative. The format of this report follows the June 1989 Traffic Report Guidelines prepared by the Washoe County Department of Comprehensive Planning. This analysis is intended to describe existing traffic conditions and the impacts of the project under future conditions. Toward this end, existing traffic conditions have been evaluated through observation of current A.M. and P.M. peak-hour traffic volumes. These counts, together with traffic volumes obtained from the Regional Transportation Commission (RTC), which simulate the opening of the McCarran Boulevard bridge, were used to calculate current operating levels of service. Probable project trip generation has been estimated by applying published trip generation rates to the project's proposed land use. The directional distribution of project trips was estimated and assigned to the street system based on the most likely travel paths. Levels of service were again calculated to determine the anticipated impacts of the proposed project under existing and future conditions.

Project Description

JUNIPER RIDGE is located in the western portion of the Truckee Meadows, south of the Truckee River. As shown in Figure 1, the 161-acre project site is south of Mayberry Drive and west of River View Estates and the Hunter Creek Reservoir. The proposed project consists of 157 single-family residential lots that range in size from one-third acre to one acre. A small recreation center is also proposed, which includes a swimming pool, jacuzzi, and club house.

Existing Traffic Conditions

Existing Street System. A regional streets and highways system has been adopted as part of the Land Use and Transportation Element of the Comprehensive Regional plan. Roadways in the vicinity of the project site are identified in the plan and described in the following paragraphs.

McCarran Boulevard is classified as a major arterial that provides important circulation throughout the Truckee Meadows. McCarran is currently a four-lane facility with limited access. Future traffic volumes, which are based on land use and population projections prepared by the two cities and the county, indicate a six-lane facility will be warranted.

Highway 40 (West Fourth Street) is classified as a minor arterial. This east-west roadway extends from the River Inn on the west, through downtown Reno to U.S.395 on the east. Along its western portion, Highway 40 is a two-lane roadway with no left-turn pockets. In the vicinity of Summit Ridge Drive, it widens to four lanes with protected left turns in many locations. Highway 40 is posted with a 45 miles per hour (mph) speed limit.

Mayberry Drive is a four-lane, minor arterial that links residential areas in west Reno with the downtown area. Eastbound and westbound traffic is separated by double-yellow lines and, except at major intersections, there are no protected left-turn pockets. In the vicinity of the project, only Aspen Glen Road has a protected left-turn. Mayberry is posted for 35 mph.

Plateau Road is classified as a collector.

Canyon Drive is adjacent to the project at the northeast corner of the site. The current site plan shows only emergency access onto Canyon Drive. Canyon Drive is a two-lane local street, with limited site distance in several locations and no improved shoulder. Canyon is posted for 25 mph.

Existing (1990) Traffic Volumes. After conversations with RTC staff, five intersections were selected for study. A sixth intersection was added after an August 16th meeting with surrounding homeowners. At that meeting,

the homeowners expressed concern about the impact of this project on the intersection of Mayberry and Canyon Drives.

The six intersections analyzed in this report are listed below:

1. McCarran Boulevard and I-80 westbound on and off ramps
2. McCarran Boulevard and I-80 eastbound on and off ramps
3. McCarran Boulevard and Highway 40 (West Fourth Street)
4. McCarran Boulevard and Mayberry Drive
5. Mayberry Drive and Canyon Drive
6. Mayberry Drive and Plateau Road

To assess existing traffic conditions, Omni-Means conducted A.M. (7:00-9:00) and P.M. (4:00-6:00) peak-hour turning movement counts at the study intersections. These counts were conducted midweek (i.e., Tuesday through Thursday) during the month of August 1989. These counts were used to evaluate existing conditions. However, the counts were used to only a limited degree because the completion of McCarran bridge will significantly affect travel patterns throughout the area. This bridge is scheduled to open by the end of 1989 and will result in a redistribution of traffic patterns.

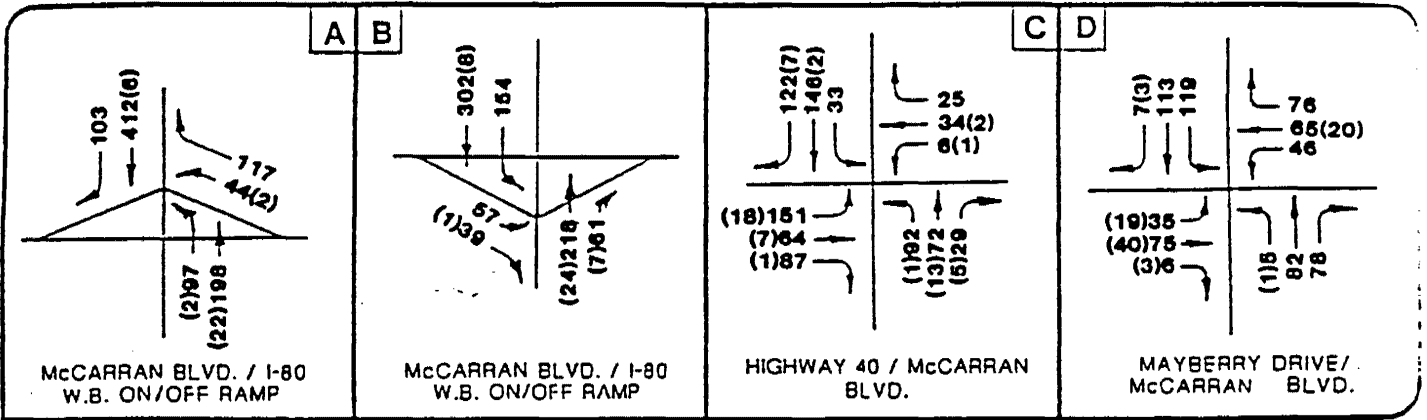
To address this problem, Omni-Means requested that RTC staff, using the MINUTP Regional Traffic Forecasting Model, provide 1987 average daily traffic (ADT) volumes with the McCarran Boulevard bridge. These 1987 volumes were then converted to 1990 volumes using an average annual growth rate of 2.5 percent (A. Shahinfarshchi, personal communication). Further, it was necessary to convert ADT volumes to peak-hour volumes. This was done by assuming that 7 percent of the ADT occurs during the A.M. peak hour and 8 percent during the P.M. peak hour (G. Krause, personal communication). Directionality along each link was based on a combination of existing turning movement counts, an evaluation of similar roadways in the Truckee Meadows, and McCarran Bridge opening-day volumes prepared by RTC in November 1988.

Projected 1990 A.M. and P.M. peak-hour traffic volumes for all study intersections are presented in Figures 38 and 39, respectively. These estimates have been reviewed and approved by RTC staff (A. Shahinfarshchi, personal communication). The resulting traffic volumes provide a base condition for use in evaluating project trips associated with full development of the project.

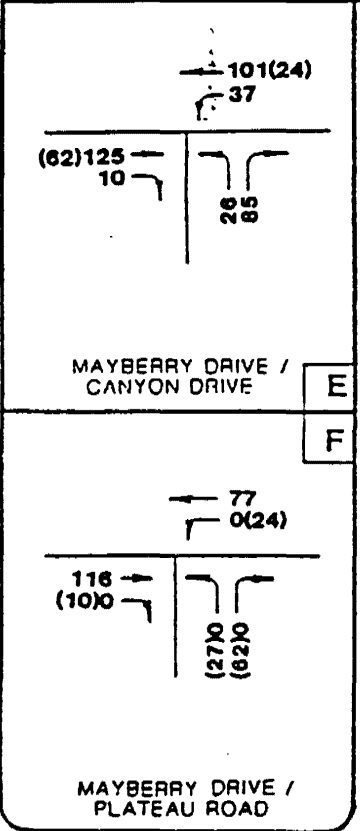
Existing (1990) Levels of Service. To quantitatively evaluate existing traffic operating conditions and to provide a basis for comparison of operating conditions today and in the future, peak-hour levels of service were determined. Level of Service (LOS) is a measure of traffic operating conditions whereby a letter grade A through F, representative of progressively worsening conditions, is calculated for an intersection or roadway segment. LOS A through F are a function of roadway and/or intersection geometrics, volumes of traffic, and, in the case of intersections, the turning movement conflicts and signal phasing. Table 5 presents the characteristics associated with each LOS grade. As shown, LOS A, B, and C are considered satisfactory to most motorists, while LOS D is marginally acceptable. LOS E and F are associated with severe congestions and delay and are unacceptable to most motorists. Washoe County requires that mitigation measures be proposed when the LOS falls below C, for both existing and future conditions with the project. (D. Young and A. Shahinfarshchi, personal communication).

The procedure for calculating the LOS at a signalized intersection is based on Critical Movement Analysis. This procedure incorporates the effects of geometry and traffic-signal operation and results in a LOS determination for the intersection as a whole operating unit. At an unsignalized intersection, the LOS is based on determining the "reserve capacity" for each intersection movement that must yield the right-of-way. Reserve capacity is a function of the volume of conflicting traffic, operating speed, and type of control (e.g., stop or yield). Therefore, unlike a signalized intersection where overall traffic operation is described by one LOS grade, a LOS is calculated for each movement that must yield the right-of-way at an unsignalized intersection.

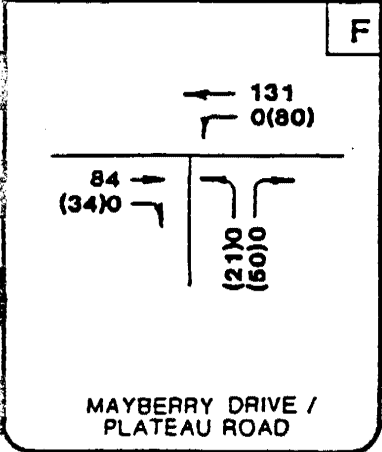
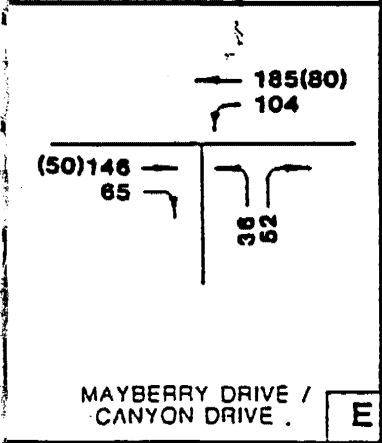
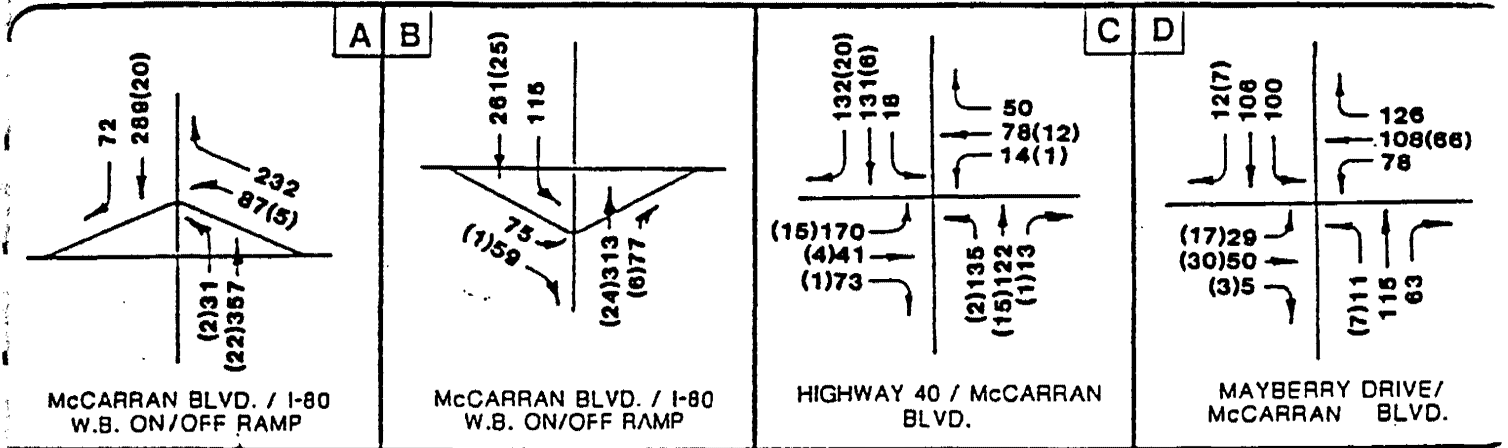
As required by the county's Traffic Report Guidelines, LOS were calculated using methodologies and criteria documented in the 1985 Highway Capacity Manual Special Report 209 published by the Transportation Research Board. In addition to using the Highway Capacity Manual, TRC staff requested that Passer III be



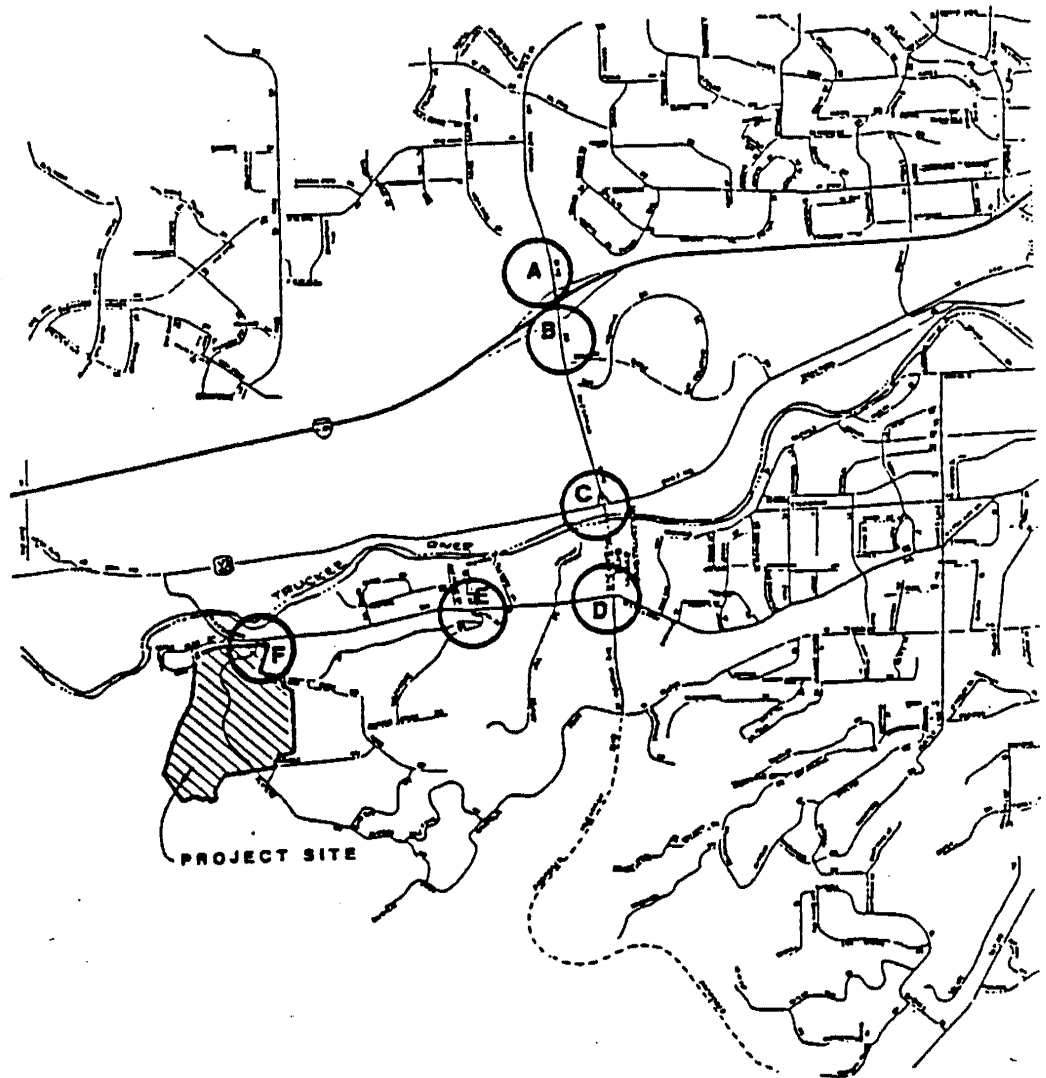
() ADDITIONAL TRIPS DUE TO PROJECT



38. A.M. Peak Hour Traffic Volumes 1990
With and Without Project



() ADDITIONAL TRIPS DUE TO PROJECT



39. P.M. Peak Hour Traffic Volumes 1990
With and Without Project

used to analyze the eastbound and westbound diamond interchanges at I-80 and McCarran Boulevard. Passer III is a program specifically designed to analyze diamond interchanges.

Table 5

Level Of Service Definitions

Level of Service	Signalized Intersection	Unsignalized Intersection
A	Uncongested operations, all queues clear in a single-signal cycle. $V/C_1 = 0.00 - 0.60$	Little or no delay.
B	Uncongested operations, all queues clear in a single cycle. $V/C = 0.61 - 0.70$	Short traffic delays.
C	Light congestion, occasional backups on critical approaches. $V/C = 0.71 - 0.80$	Average traffic delays.
D	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. $V/C = 0.81 - 0.90$	Long traffic delays.
E	Sever congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of Very long traffic delays, failure, critical approach(es). $V/C = 0.91 - 1.00$	extreme congestion.
F	Total breakdown, stop-and-go operation. $V/C > 1.00$	Intersection blocked by external causes.

1 V/C = volume to capacity ratio

Existing LOS at the study intersection are presented in Table 5. As shown, existing operations at the study intersections are good, as represented by the relatively high LOS (i.e., B or C) shown at all locations. Since the intersection at Mayberry and Canyon Drive is unsignalized, the LOS indicated is a worst case LOS and represents left turns out of Canyon Drive. When the McCarran Boulevard bridge is opened, a signal will be installed at the intersection of Mayberry Drive and McCarran Boulevard. Since no traffic signal timing is available for this intersection, city staff requested that Omni-Means develop the timing (K. Krater, personal communication). This was also the case at the intersection of Highway 40 and McCarran Boulevard. This intersection currently operates as a "T" intersection. The signal timing will change when the bridge is opened, however, no timing is available from the City of Reno at this time. (City of Reno staff is responsible for maintaining all signals evaluated in this report.)

Table 6
1990 A.M. and P.M. Peak-Hour Levels of Service Without Project

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	LOS	Delay ^c	V/C	LOS	Delay	V/C
McCarran/I-80 WB on/off ramps	B	13.5	0.40	B	13.4	0.41
McCarran/I-80 EB on/off ramps	B	11.7	0.27	B	12.8	0.26
McCarran/Highway 40	C	17.8	0.43	C	21.2	0.54
McCarran/Mayberry	C	16.2	0.31 ^b	C	16.2	0.33
Mayberry/Canyon	A	a	—	B	—	—

- a Represents unsignalized intersection and LOS is an "overall" LOS.
- b V/C ratios are not calculated at unsignalized intersections.
- c Average vehicle delay in seconds.

Project Trip Generation

The number of automobile trips that will be generated by the project were estimated through use of known trip-generation rates for single-family detached housing and racquet clubs. Trip generation rates used for this study are from the Institute of Transportation (ITE) publication Trip Generation, 4th Edition. Specifically, the ITE trip rates for single-family detached housing, which are presented on pages 257 through 259, and racquet clubs, on pages 737 through 739, were used.

Facilities at the recreation center will include tennis courts, swimming pool, jacuzzi, and club house. Initially, two tennis courts will be constructed, however, four courts may eventually be developed. As a result, a trip generation rate based on four courts was used. Additionally, purchase of a lot within Juniper ridge will include membership to the recreation center, and, therefore, most of the club's capacity will be used by homeowners. For this traffic report, a worst-case analysis was conducted, which assumed that all members will be from outside the project and will travel to the recreation center by car.

The trip generation rates applicable to the proposed project are presented in Tables 7 and 8. As shown, single-family homes are expected to generate 9.94 trips per dwelling unit, with 0.78 trips (8 percent) occurring during the morning-peak hour and 1.06 tips (11 percent) occurring during the evening-peak hour. The racquet club generates 49.25 trips per court, with 1 trip (2 percent) occurring during the morning-peak hour and 5.5 trips (11 percent) occurring during the evening-peak hour. Based on these estimates, the project can be expected to generate a total of 1,757 daily trips, with 126 and 188 during the morning and evening peak hours, respectively.

Table 7
ITE Trip Generation Rates

Use	Daily Trips Per Unit/Court	Peak-Hour Trips					
		A.M.			P.M.		
		In	Out	Total	In	Out	Total
Single-Family Homes	9.94	0.21	0.57	0.78	0.67	0.39	1.06
Recreation Center	49.25	*	*	1.00	*	*	5.50

* Directional distribution not available. For purposes of trip distribution, a 50-50 split was assumed.

Note: The figures presented in Table 7 are based on the fitted curve equations presented in the ITE publication Trip Generation.

Table 8
JUNIPER RIDGE Trip Generation

Use	No. of Unit/Courts	Daily Trips	Peak-Hour Trips					
			A.M.			P.M.		
			In	Out	Total	In	Out	Total
Single Family Homes	157	1,560	33	89	122	105	61	166
Recreation Center	4	197	2	2	4	11	11	22
Total		1,757	35	91	126	116	72	188

Trip Distribution and Assignment

Having determined the trip generation from the project, the directional distribution of these trips was estimated and assigned to the street system based on the most likely travel paths and 1990 and 2007 traffic patterns. The directional distribution of peak-hour traffic will be primarily influenced by home-to-work and work-to-home trips. In conjunction with this, least-time travel paths were identified and the trips were assigned to those paths. The directional distribution of the project traffic is presented in Table 9. The directional distribution has been discussed with and approved by RTC staff (G. Krause and A. Shahinfarshchi, personal communication).

Table 9
Directional Distribution

Direction	1990	2007
East via Mayberry	69.0%	79.0%
West via Mayberry	29.0%	19.0%
South via Plateau	2.0%	2.0%

As shown in Table 9, it is assumed that very few trips will go south on Plateau Drive to Caughlin Parkway. This is a circuitous route that takes most of the peak-hour trips (i.e., home-to-work, work-to-home) away from the destinations they are trying to reach. It was concluded that a majority of the trips will enter and exit the site from the north via Mayberry. Since there are very few destinations west of the site, it was felt that a majority of the trips would be towards the east. In the future, it is assumed that a greater percentage of the trips will be towards the east because of the completion of McCarran Boulevard.

Project Impacts on Existing (1990) Traffic

The distribution of trips generated by JUNIPER RIDGE is presented in Figures 37 and 38. Having assigned these trips to the adjacent street system, LOS based on A.M. and P.M. peak-hour volumes "with the project" were calculated. The resultant LOS and V/C ratios are presented in Table 10.

Table 10
1990 A.M. AND P.M. Peak-Hour Traffic Volumes With Project

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	LOS	Delay ^c	V/C	LOS	Delay	V/C
McCarran/I-80 WB on/off ramps	B	13.4	0.41	B	13.3	0.42
McCarran/I-80 EB on/off ramps	B	11.9	0.28	B	12.8	0.27
McCarran/Highway 40	C	17.9	0.45	C	21.6	0.58
McCarran/Mayberry	C	16.3	0.32	C	16.4	0.36
Mayberry/Canyon	B	—	—	C	—	—
Mayberry/Plateau	A ^a	— ^b	—	A	—	—

a Represents unsignalized intersection and LOS is a "worst case" LOS.

b B/C ratios are not calculated at unsignalized intersections.

c Average vehicle delay in seconds.

As shown, JUNIPER RIDGE is not expected to have a significant impact on 1990 traffic operations and LOS remain unchanged. average delays at the intersections are projected to increase by less than one second. Volume to capacity ratios are projected to increase by 1 to 2 percent.

Future (2007) Traffic Conditions

To gain a full understanding of the potential traffic impacts of the proposed project, it is appropriate to consider the project's impacts within the context of anticipated future traffic conditions around the project site. The two main factors influencing traffic conditions around the project site are the future street system and future traffic volumes.

Future Street System. The completion of McCarran Boulevard is the primary road improvement influencing traffic patterns in the vicinity of the project. the unfinished segment of McCarran Boulevard between Skyline Boulevard and Plumb Lane is scheduled for completion by spring of 1991. McCarran is currently a four-lane roadway, however, future traffic volumes indicate a need for a six-lane facility. RTC staff has indicated that McCarran should be analyzed as a six-lane facility for future scenarios (A. Shahinfarshchi, personal communication).

Future (2007) Traffic Volumes. Daily turning movements for 2007 were developed by Omni-Means and are based on work currently begin done by Omni-Means for the RTC on the 2007 Regional Transportation Plan Street and Highway Element. Using the MINUTP Regional Traffic model, RTC staff has developed average daily traffic volumes, Omni-Means prepared daily turning movement volume. These daily volumes were then converted to peak-hour volumes. Again, it was assumed that 8 percent of the daily traffic occurs during the P.M. peak hour and 7 percent occurs during the A.M. peak hour.

The projected future A.M. and P.M. peak-hour traffic volumes are presented in Tables 11 and 12, respectively. These volumes have been reviewed and approved by RTC staff (A. Shahinfarshchi, personal communication).

Future (2007) Levels of Service. To determine the potential impacts of JUNIPER RIDGE on future traffic operations, LOS were calculated for the "future without project" and "future with project" scenarios. The result LOS are presented in Tables 11 and 12.

Table 11
2007 A.M. AND P.M. Peak-Hour Volumes Without Project

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	LOS	Delay ^c	V/C	LOS	Delay	V/C
McCarran/I-80 WB on/off ramps	D	28.6	1.26	C	17.2	0.95
McCarran/I-80 EB on/off ramps	D	25.2	0.98	C	22.2	0.87
McCarran/Highway 40	E	43.1	0.90	E	46.6	1.00
Mayberry/Canyon		D ^a	---	---	E	---

- a Represents unsignalized intersection and LOS is a worst case LOS.
- b V/C ratios are not calculated at unsignalized intersections.
- c Average vehicle delay in seconds.

Table 12
2007A.M. AND P.M. Peak-Hour Volumes With Project

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	LOS	Delay ^c	V/C	LOS	Delay	V/C
McCarran/I-80 WB on/off ramps	D	31.6	1.27	C	17.3	0.96
McCarran/I-80 EB on/off ramps	D	25.7	0.98	C	18.8	0.88
McCarran/Highway 40	E	54.6	1.05	E	51.0	1.02
McCarran/Mayberry	C	23.8	0.83	D	39.0	0.99
Mayberry/Canyon		E ^a	---	---	E	---
Mayberry/Plateau		D	---	---	E	---

- a Represents unsignalized intersection and LOS is a worst case.
- b V/C ratios are not calculated at unsignalized intersections.
- c Average vehicle delay in seconds.

As shown in Tables 11 and 12, all of the signalized intersection locations are projected to operate below LOS C during the A.M. or P.M. peak hours with or without development of the project. This primarily due to the large projected turning measurements at several locations. A six-lane McCarran Boulevard will provide sufficient capacity for through movements along McCarran Boulevard. Similarly, adequate capacity is available at the cross-street intersections for east-west travel.

LOS displayed in Tables 11 and 12 are based on the Highway Capacity Methodology (HCM) for intersection analysis. In addition, the McCarran Boulevard/I-80 ramp intersections were evaluated using the Passer III diamond-interchange analysis software. The resulting interchange operations indicate similar LOS for existing conditions. Satisfactory operations results from the timing and cycle length as currently exists.

Interchange operations for 2007 conditions indicate congested conditions and queue back-ups as indicated by the HCM intersection calculations. With mitigation (i.e., additional turning lanes) as outlined in the following section, improved operations would result. Future volumes will likely require an increased cycle length (100-110 seconds) at the intersections.

The unsignalized intersections of Plateau Road and Canyon Drive with Mayberry Drive are projected to operate satisfactorily overall; however, left turns onto Mayberry Drive will experience LOS D to E delays during the peak traffic periods. Left turns into Plateau Road and Canyon Drive are projected to operate at LOS A. A left-turn pocket on Mayberry Drive at Plateau Road is recommended with development of the project to mitigate safety concerns. Cumulative volumes on Mayberry Drive, installation of a left turn pocket into the site is recommended.

Left turns out of Canyon Drive and Plateau Road will experience delays under cumulative projected conditions; however, left turns at both locations are projected to be relatively minor. Signalization of either location is not warranted based upon MUTCD peak-hour signal-warrant criteria.

Mitigation and Recommendations

Improvements to provide satisfactory intersection and roadway operations are outlined below. Improvements have been identified with respect to each analysis scenario studied. In general, project trips will incrementally increase delays and volume to capacity ratios at all locations. However, development of the project in itself will not result in LOS thresholds below LOS C. Tables 9 and 10 display the intersection LOS resulting from improvements required to mitigate cumulative traffic volumes.

Existing Conditions with Bridge Extension. No mitigation required.

Existing Plus Project Conditions. Provide westbound left-turn pocket on Mayberry Drive at Plateau Road.

2007 A.M. and P.M. Traffic Conditions. At Mayberry Drive and McCarran Boulevard, the addition of a second left-turn lane to northbound McCarran Boulevard mitigates the intersection to a LOS C during both the A.M. and P.M. peak-hour periods.

At Fourth Street and McCarran Boulevard, the following improvements are necessary to achieve a LOS C during both the A.M. and P.M. peak-hour periods: 1) add a second left-turn lane to westbound Fourth Street; 2) add a right-turn lane to eastbound Fourth Street; and 3) add a second left-turn lane to northbound McCarran Boulevard.

At McCarran Boulevard and I-80 Eastbound On/Off Ramps, the addition of a second left-turn lane to southbound McCarran Boulevard mitigates the intersection to a LOS C during both the A.M. and P.M. peak hour periods.

At McCarran Boulevard and I-80 Westbound On/Off Ramps, the addition of a second left-turn lane to northbound McCarran Boulevard and a right-turn lane to southbound McCarran Boulevard improves the intersections LOS B during the A.M. peak-hour period and LOS C during the P.M. peak-hour period.

2007 A.M. and P.M. Conditions with Project Traffic

No further mitigation measures are required due to the addition of project-generated traffic. All four intersections identified for improvements during the 2007 traffic conditions remain at LOS C. The contribution of project trips to the improvement locations outlined above are summarized below.

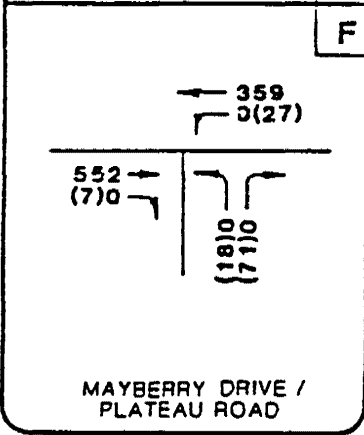
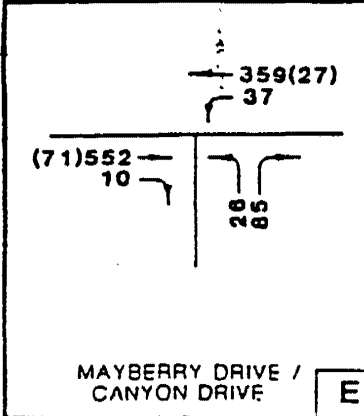
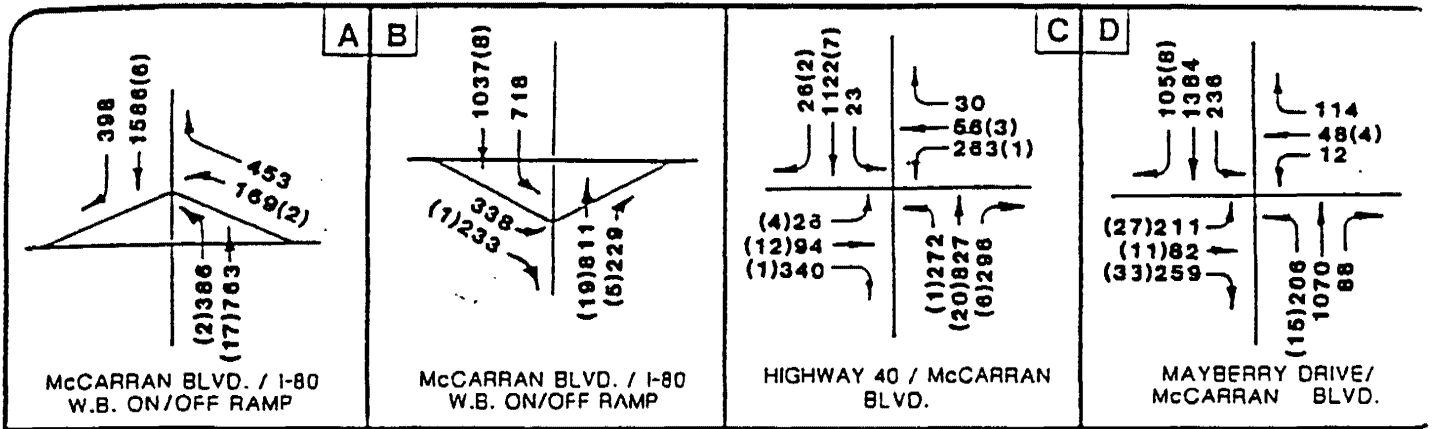
The addition of project-generated traffic increases the total intersection volume at the McCarran Boulevard/Fourth Street intersection by approximately 1.7 percent during the A.M. peak-hour period and 2.0 percent during the P.M. peak-hour period. The left-turn volume from northbound McCarran Boulevard onto westbound Mayberry Drive increases by approximately 7.3 percent during the A.M. and 14.4 percent during the P.M. peak-hour periods due to the addition of project traffic making the left-turn movement. The volume increases slightly for the left-turn movement from northbound McCarran Boulevard onto the I-80 westbound on-ramp by approximately 0.5 percent during the A.M. and 0.8 percent during P.M. peak-hour periods.

Table 13
2007 A.M. AND P.M. (With Mitigation)
Levels of Services

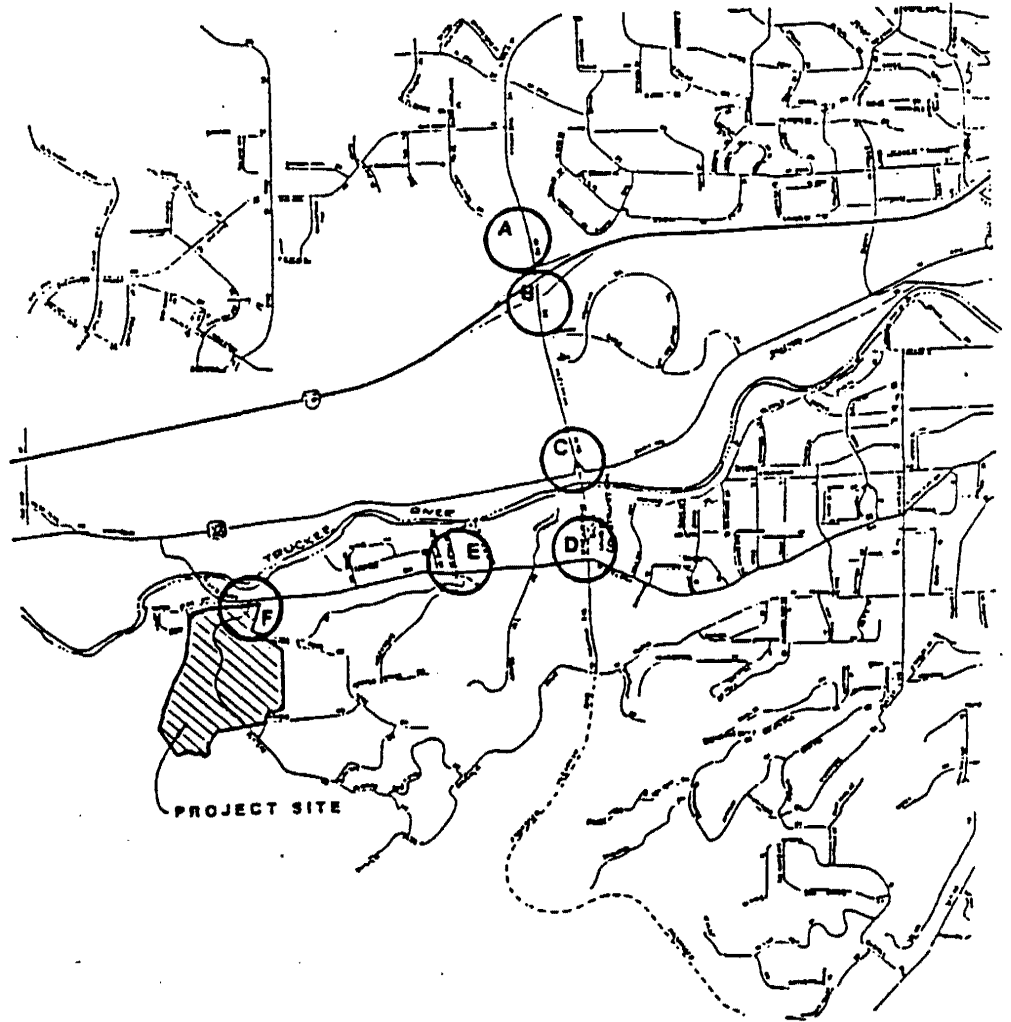
Intersection	A.M.			P.M.		
	LOS	Delay	V/C	LOS	Delay	V/C
McCarran/I-80 WB on/off ramps	B	14.1	0.95	C	16.5	0.82
McCarran/I-80 EB on/off ramps	C	19.9	0.62	C	21.7	0.72
McCarran/Highway 40	C	21.5	0.59	C	19.7	0.63
McCarran/Mayberry	C	21.7	0.76	C	23.0	0.79
Mayberry/Canyon	--	--	--	--	--	--
Mayberry Drive/Plateau Road	--	--	--	--	--	--
- No Mitigation Required						

Table 14
2007 A.M. AND P.M. Plus Project (With Mitigation)
Levels of Service

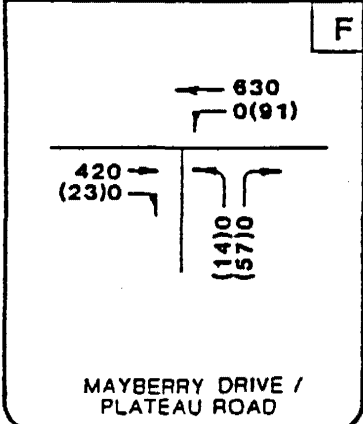
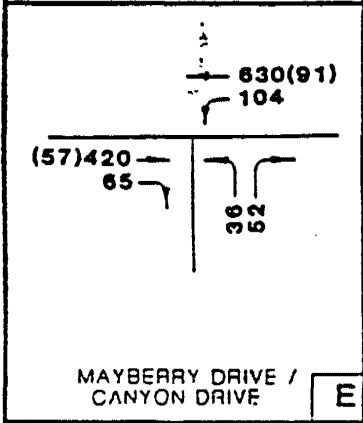
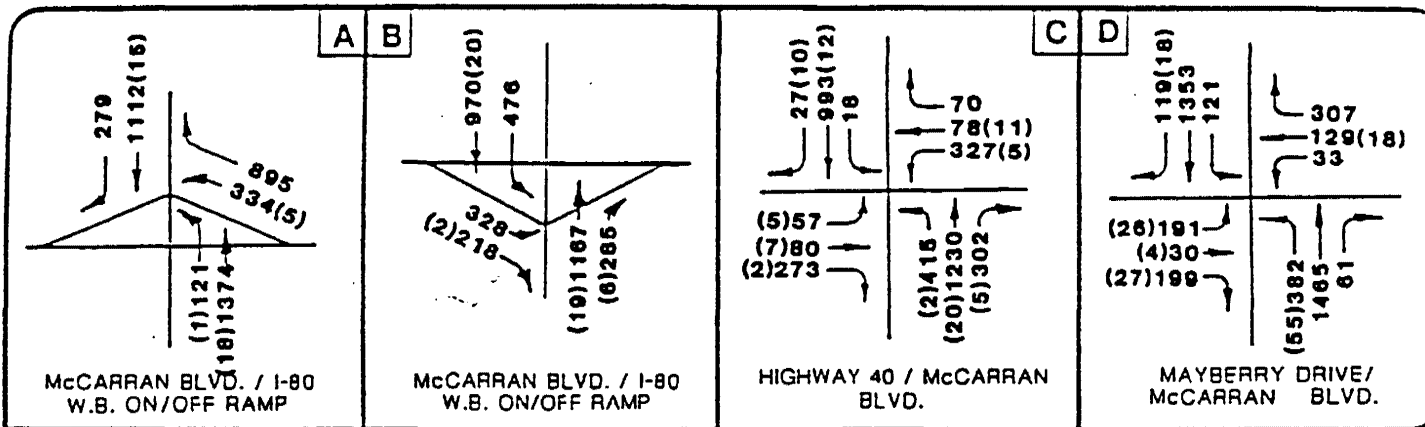
Intersection	A.M.			P.M.		
	LOS	Delay	V/C	LOS	Delay	V/C
McCarran/I-80 WB on/off ramps	C	17.3	0.95	C	16.3	0.82
McCarran/I-80 EB on/off ramps	C	20.5	0.63	C	21.8	0.73
McCarran/Highway 40	C	21.6	0.61	C	19.9	0.65
McCarran/Mayberry	C	22.2	0.79	C	24.1	0.84
Mayberry/Canyon	--	--	--	--	--	--
Mayberry Drive/Plateau Road	--	--	--	--	--	--
- No Mitigation Required						



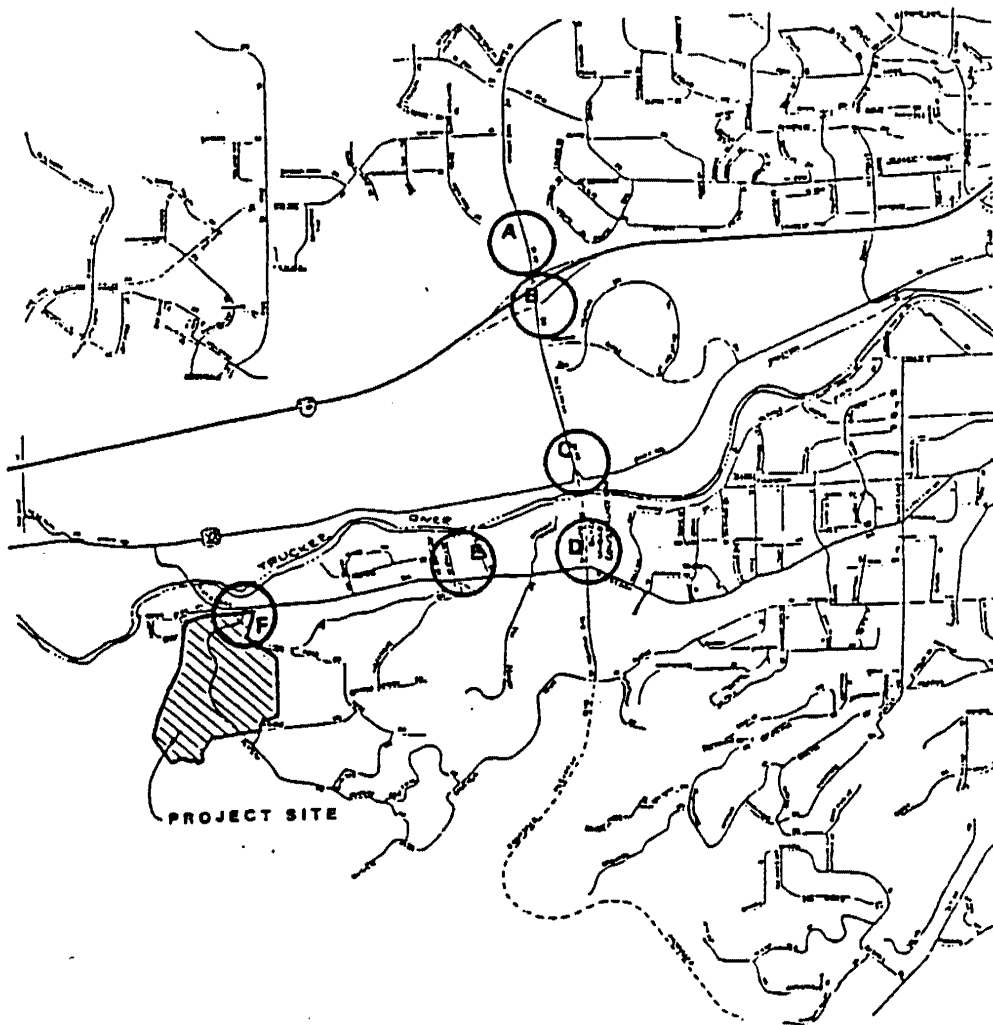
() ADDITIONAL TRIPS DUE TO PROJECT



40. A.M. Peak-Hour Traffic Volumes Future With and Without Project



() ADDITIONAL TRIPS DUE TO PROJECT



41. P.M. Peak-Hour Traffic Volumes Future With and Without Project

Air Quality Impact Analysis

This report documents Omni-Means' assessment of the potential air quality impacts associated with development of Juniper ridge Subdivision. JUNIPER RIDGE is a 157-lot, single family residential subdivision located in the western portion of the Truckee Meadows. As shown on the vicinity map, JUNIPER RIDGE is located south of Mayberry Drive and west of River View Estates and Hunter Creek Reservoir.

The purpose of this report is to identify the impacts on carbon monoxide concentrations resulting from development of the project. A general description of the attainment status of the Truckee Meadows and a discussion of the CALINE4 modeling inputs are presented in the first two sections. This is followed by an evaluation of the two intersections that the staff of the District Health Department recommended for analysis - West Fourth Street and McCarran Boulevard and Mayberry Drive and McCarran Boulevard. The intersection analysis, both with and without the project, was conducted for 1990. The conclusion summarizes the finding of this analysis.

Background

The Truckee Meadows violates the federal standard for both carbon monoxide (CO) and particulate. This report does not address particulate, because the project will not have a significant impact on particulate concentrations, which are primarily caused by wood burning, dirt from paved streets, and motor vehicle exhaust. All wood burning stoves that are installed by future homeowners will be required to meet the emission control standards that have been adopted by the Washoe County District Health Department (WCDHD). During the construction phase, the owners will be required to prepare a dust control plan for review and approval by the WCDHD.

The primary source of CO emissions is from the incomplete combustion of petroleum fuels, particularly from automobiles. Due to meteorological conditions, which are typified by low-level temperature inversions and calm or light winds, the highest CO concentrations are measured during the winter months. The wintertime inversion layer, which is a warm air mass resting on a cold air mass, will occur from early evening through mid-morning. Once an inversion layer has formed, it acts as a "roof" trapping the carbon monoxide close to the ground, thereby creating high concentrations. Because of its ability to readily combine with hemoglobin and displace oxygen in the human body, high levels of CO, coupled with inversion conditions, can produce hazardous conditions for elderly people or individuals with respiratory ailments.

Air Quality Standards. Both the state of Nevada and the U.S. Environmental Protection Agency (EPA) have established air quality standards for various pollutants. For carbon monoxide, primary and secondary standards are identical for both the one-hour and eight-hour standards. The current air quality standards for carbon monoxide are presented in Table 15. The averaging time for the one-hour standard is the average carbon monoxide concentration measured over any given one-hour period. The averaging time for the eight-hour standard is the average carbon monoxide concentration measured over any consecutive, non-overlapping, eight-hour period. There can be at most three eight-hour violations in any one day.

Table 15
Carbon Monoxide Standards

Averaging Time	Nevada Standards	National Standards	
		Primary	Secondary
8 hours	10 mg/M ³ (9 ppm)	10 mg/M ³ (9 ppm)	Same as prim.
1 hour	40 mg/M ³ (35 ppm)	40 mg/M ³ (35 ppm)	Same as prim.

Source: U.S. Environmental Protection Agency

Carbon monoxide levels are monitored at four stations within the Truckee Meadows. The highest and second highest eight-hour recorded CO concentrations at these stations are presented in Table 16. It should be noted that CO levels can vary widely, even within a relatively short distance, therefore, the levels recorded at these stations may not be representative of conditions that would be measured around the project area. As shown, violations of the eight-hour standard have occurred regularly, however, the Truckee Meadows has never exceeded the one-hour standard.

Table 16
Carbon Monoxide
Highest and Second Highest Eight-Hour Averages
(ppm)

Monitor	Year	Highest Value	2nd Highest Value
Reno	1980	13.3	12.9
	1981	11.9	10.2
	1982	9.9	8.8
	1983	17.8	15.3
	1984	8.4	8.3
	1985	9.6	8.8
	1986	10.5	9.8
	1987	8.2	8.0
	1988	Not Available	Not Available
Sparks	1980	18.4	18.3
	1981	15.0	14.6
	1982	17.4	16.3
	1983	16.2	15.9
	1984	21.4	13.4
	1985	15.2	12.3
	1986	14.9	13.4
	1987	9.7	8.9
	1988	Not Available	Not Available

Source: Washoe County District Health Department

CALINE4 Model Inputs

Carbon monoxide concentrations were estimated using CALINE4, the fourth generation line source dispersion model developed by the California Department of Transportation. This model can be used to predict carbon monoxide concentrations near transportation facilities. Given traffic emissions, site geometry, and meteorology, the model can reliably predict pollutant concentrations for receptors located within 150 meters of the roadway.

Outputs from CALINE4 show the resulting carbon monoxide concentration for each receptor. The contribution of each link is shown and then summed, including the ambient concentration, to give the total parts per million (ppm) concentration for the receptor. Inputs to the model are listed on the following pages. Input values corresponding to the "worst case" condition were utilized, as required by the WCDHD. After discussions with Health Department staff, it was determined that two intersections--West Fourth Street and McCarran Boulevard and Mayberry Drive and McCarran Boulevard--should be analyzed (C. Ralph, personal communication). The Health Department usually requires that the analysis be conducted for the projected project completion date, both with and without the project. In this case, since Washoe County's Traffic report Guidelines do not require that the project completion year be analyzed, WCDHD staff concluded that 1990 conditions should be analyzed (C. Ralph, personal communication).

Receptor Inputs

1. Receptor Location - One receptor was located at each quadrant of the intersection, thereby, resulting in four receptors per intersection. The receptors were located within 10 meters of the roadway edge. (Refer to Figure 40.)

Site Inputs

1. Wind Speed - A wind speed of 1.0 meters/second was used, as required by the Washoe County District Health Department (WCDHD).

2. Wind Bearing - The CALINE4 model searches for and calculates the emissions for the "worst case" wind direction.

3. Stability Class - A stability class of "F" was used, which represents very stable conditions. This input is also specified by the WCDHD.

4. Mixing Height - The WCDHD requires that a mixing height of 65 meters be used. Mixing height is a measure of the height of the stagnant air mass.

5. Standard Deviation of Wind Bearing - A sigma-theta value of 75 degrees was used, as required by the WCDHD.

6. Surface Roughness - A value of 150 cm was used, which represents an average between various land uses listed in Appendix A of the 1987 California Air Resources Board Manual. surface roughness represents the amount of vertical and horizontal dispersion of pollutants released near ground level. CALINE4 is relatively insensitive to this parameter.

7. Ambient Concentration - A background concentration of 5.0 ppm was used, as required by the WCDHD.

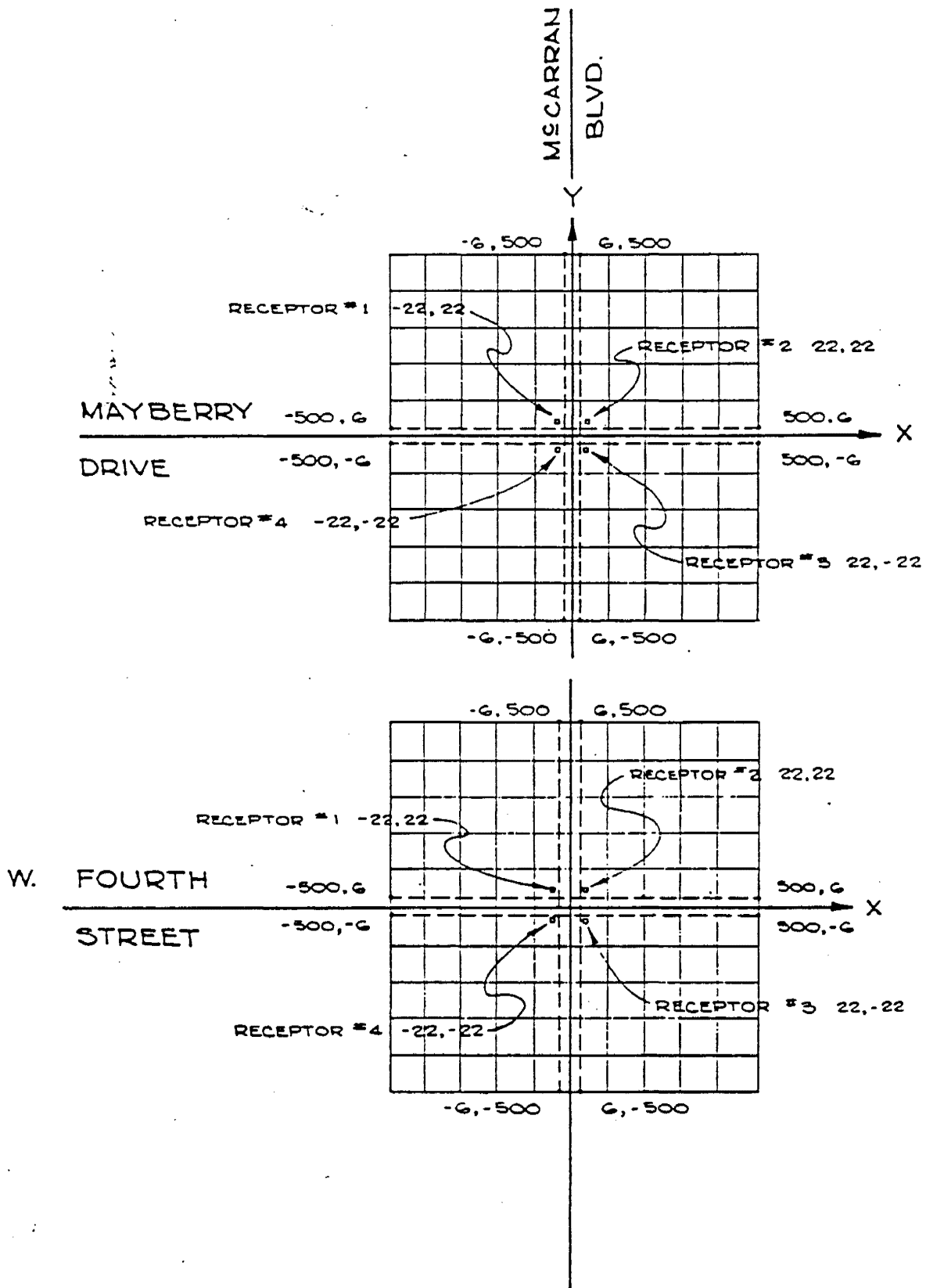
8. Temperature - A temperature of 0 degrees Centigrade was assumed, again as required by the WCDHD guidelines.

Link Inputs

1. Vehicles Per Hour and Hourly Departure Volume - P.M. peak-hour traffic volumes were used. The WCDHD allows either the A.M. or P.M. peak-hour volumes to be used, whichever are higher. In this case, the traffic volumes during the P.M. peak-hour were greater for both project-generated and existing traffic. The traffic volumes used in both the traffic and air quality reports assume that the McCarran Boulevard bridge has been opened. As described in the traffic report, Omni-Means request that Regional Transportation Commission (RTC) staff provide average daily traffic (ADT) volumes with the McCarran Boulevard bridge. These daily volumes were converted to peak-hour volumes by assuming that 8 percent of the ADT occurs during the P.M. peak hour (G. Krause, personal communication. The traffic volumes used in this study have been approved by RTC staff (A. Shahinfarshchi, personal communication).

2. Roadway Width - Information on roadway width was obtained from aerial photographs. This information was also used to estimate the distance to stopline.

3. Emission Factor and Idle Emission Factor - CALINE4 uses an emission factor of 16 mph. Emission factors were obtained from M.r Leonard Crowe, Washoe County Department of Comprehensive Planning. The source for these emission factors is the February 1989 Mobile Source Emission Factor Model (Mobile4) developed by the EPA. Mobile4 is a computer program used to calculate emission factors for carbon monoxide and other pollutants from motor vehicles. Mobile4 provides emission factors by functional classification (e.g., freeways, major arterials, minor arterials, collectors, and local streets) for various speeds. Additionally, Mobile4 calculates emission factors for high and low altitude areas but does not calculate emis-



42. Air Quality Receptors

sion factors for high and low altitude areas but does not calculate emission factors for areas with intermediate elevation, such as the Truckee Meadows. Therefore, it was necessary to apply the formula presented in the 1987 Truckee Meadows Reasonable Further Progress Report for Carbon Monoxide to arrive at the emission factors used in this report.

The Land Use and Transportation Element of the Comprehensive Regional Plan classifies McCarran Boulevard as a major arterial. Mayberry Drive and West Fourth Street are classified as minor arterials. These designations resulted in an emission factor of 53.2 gm/mile for McCarran Boulevard and 52.6 gm/mile for West Fourth and Mayberry. An idle emission factor of 5.0 gm/minute was used for both major and minor arterials.

4. Average Vehicle Speed - An average P.M. peak-hour vehicle speed of 35 mph was assumed on both McCarran Boulevard and West Fourth Street, and, on Mayberry Drive, an average speed of 30 mph was used.

5. Deceleration and Acceleration Time - On McCarran boulevard and West Fourth Street, a deceleration time of 14 seconds and an acceleration time of 18 seconds were used. On Mayberry Drive, 10 seconds and 12 seconds, respectively, were used. These times are based on 1985 study conducted by Mr. Paul Benson, California Department of Transportation, entitled The Mammoth Lake Route 203 Transportation Project: A Case Study in Air Quality Modeling and Mitigation (FHWA/CA/TL-85-11).

6. First Vehicle Idle Time - Based on information presented in the traffic report, a signal cycle of 78 seconds was assumed for the intersection of McCarran and Mayberry. Traffic on McCarran will have 41 seconds of green time and 37 seconds of red time, whereas, traffic on Mayberry will have 37 seconds of green time and 41 seconds of red time. A signal cycle of 85 seconds was estimated at McCarran and West Fourth. McCarran will receive 44 seconds of green time and 41 seconds of red time. Traffic on West Fourth will have 41 seconds of green time and 44 seconds of red time.

1990 Emissions With and Without Project

Carbon monoxide concentrations surrounding this intersection were calculated for the P.M. peak-hour traffic conditions. These worst case conditions were modeled for 1990, both with and without the project. The eight-hour CO concentrations were calculated from the one-hour CO concentrations by using a persistence factor of 0.6771. The CALINE4 computer runs are presented at the end of this analysis.

As shown by the CALINE4 results presented in Table 17, no violations of either the state and federal one-hour or eight-hour standards are predicted under worst case solutions.

Table 17
Worst Case Predicted CO Concentrations at Study Intersections
(ppm)

	Concentration	
	One-Hour	Eight-Hour
Federal Standard	35.0	9.0
Nevada Standard	35.0	9.0
1990 CO Concentrations McCarran/West Fourth		
Without Project	9.2	7.8
With Project	10.3	8.6
1990 CO Concentrations McCarran/Mayberry		
Without Project	8.8	7.6
With Project	10.3	8.6

Note: One-hour and eight-hour concentrations displayed in Table 17 represent the highest concentrations measured from all four receptors. For concentrations measured at individual receptors, refer to attachments.

Conclusion

The data indicate that no violations of either the one-hour or the eight-hour CO standards are anticipated to occur at the study intersections. Since no violations are predicted, no mitigation measures are proposed. However, should regional programs, aimed at improving air quality be adopted, the owners would be required to participate in proportion to their impact.

In regards to particulate emissions, these impacts are best mitigated during the construction phase by performing work in accordance with the dust control regulations enforced by the Washoe County District Health Department. Additionally, as required by local ordinance, only certified wood burning stoves, that meet emission control requirements, will be installed.

Fiscal Impact Analysis (Exhibit "C")

Purpose

The purpose of this analysis is to estimate the fiscal effects of annexing the 161±acre JUNIPER RIDGE project into the City of Reno. As is customary, the analysis is performed for the "buildout" condition. Further, the study is based on current service (budget) levels and all "up-front" fees/charges being considered as service costs (merely covering the cost of the facilities or services involved).

Description of Use

This annexation includes 143 "high end" lots for rather expensive housing.

Summary

The JUNIPER RIDGE Annexation Fiscal Impact Analysis employs a hybrid methodological approach. A key step in the process is segregating municipal costs into those associated with residential and nonresidential uses. By so doing, the "fact" that residential uses don't pay their way is "corrected" to a great degree. The following analysis projects annual revenues of \$280,498 and annual costs of \$162,240 for an annual surplus of \$118,258 for the project. Given the conservative assumptions presented later, it seems safe to say the annexation will not impair City of Reno finances.

Methodology

The "Per Capita Multiplier Method" as specified in The Fiscal Impact Handbook, Burchell & Listokin, Center for Urban Policy Research, 1978, is the approach used here to gauge the fiscal impacts of the residential uses. This method uses detailed demographic data and the average municipal operating cost per person, including the amortization of capital expenditures, to project the annual operating and capital costs associated with a project. The "Proportional Valuation Method" (also in The Fiscal Impact Handbook, 1978) is used to assign a portion of the municipal expenditures to nonresidential uses. Then, the per capita residential costs and the "proportionate value" of nonresidential costs are used to estimate annual municipal expenditures associated with the area of JUNIPER RIDGE to be annexed.

Analysis

Each of the eleven steps in the prescribed methodology follow.

Step 1 Property Assessment Information

Table 18 presents information on the assessed valuation of property in Washoe County. Washoe County data are presented because there is no relatively straight-forward way to obtain nonresidential valuations in the City of Reno alone. Washoe County nonresidential property valuations are based on a random sample of these properties from Washoe County Assessor's data.

Later, the ratio of nonresidential property values to total/average assessed valuation is extended to City of Reno tax base data. This is a conservative approach -- with Reno's position as the employment/economic center of Washoe County, Reno should have a greater share of nonresidential valuation. This makes the ensuing analysis conservative (overstating residential municipal costs somewhat) because JUNIPER RIDGE is exclusively residential in character and with a low estimate of nonresidential valuation, municipal costs associated with nonresidential uses are under-allocated (or over-allocated to residential uses). This line of thinking seems particularly valid in light of the significant tourist population/service demands associated with the primary nonresidential sector of the local economy.

Table 18
1991-92 Washoe County Real Property Valuation Data

1. Total assessed real property value	\$ 3,934,199,910*
2. Total Real property value for nonresidential properties	\$ 1,425,860,670**
3. Equalization ratio	0.35
4. Total equalized real property value	\$11,240,571,170
5. Total equalized nonresidential real property value	\$4,073,887,629
6. Total number of parcels	97,971***
7. Total number of nonresidential parcels	4,602***
8. Average equalized value per parcel	\$ 114,734
9. Average equalized nonresidential value per parcel	\$ 885,243

*1987-88 Washoe County Budget

**Based on average value of a sample of 461 properties

*** Western Realty Data (From Washoe County Assessor's Records), updated April 24, 1987.

Steps 2 & 3 Local Expenditures by Municipal Service Category

The following general (operating) fund and debt service expenditures are from the adopted "Program and Financial Plan for the City of Reno, Nevada, Fiscal Year 1991-92".

Table 19
1991-92 Reno Municipal Expenditures

	<u>Expenses</u>	<u>Percent of Total</u>
General Fund		
General Government	\$ 7,825,958	10
Public Safety	\$45,639,415	60
Public Works	\$ 6,981,103	9
Statutory & Unclassified	\$ 3,783,475	5
Recreation & Culture	\$ 3,691,471	5
Debt Service	\$ 7,934,301	10
Total	\$75,855,723	99

Step 4 Nonresidential Use Expenditures

Here, the nonresidentially-induced costs are estimated so that costs can fairly be assigned to residential and nonresidential uses. Table 20 presents the calculations that determine the allocation of municipal expenditures to nonresidential uses.

Table 20
1991-92 Municipal Expenditures Attributable to Nonresidential Uses

1. Total equalized value	\$11,240,577,170
2. Total equalized nonresidential value	\$4,073,887,629
3. Proportion of nonresidential to total (2/1)	0.36
4. Average equalized value per parcel	\$114,734
5. Average equalized nonresidential value per parcel	\$885,243
6. Ratio of nonresidential to average parcel value (5/4)	7.72
7. Refinement coefficient (Exhibit 6-3)*	0.85
8. Total Municipal Expenditures (TME)	\$75,855,723
9. TME attributable to nonresidential uses (3x7x8)	\$23,311,851

* p. 124, The Fiscal Impact Handbook

Step 5 Net Annual Per Capita Expenditures

Table 21 presents the annual per capita expenditures associated with residential development.

Table 21
1991-92 Per Capita Residential Municipal Expenditures

1. Total Municipal Expenditures	\$75,855,723
2. Nonresidential Municipal Expenditures	\$23,211,851
3. Residential Municipal Expenditures (1-2)	\$52,643,872
4. City of Reno Population	135,000±
5. Per Capita Municipal Expenditures (3/4)	\$390

Step 6 Resident Population by Housing Type

JUNIPER RIDGE's 143 homes are expected to have 3 persons per household and a 97% occupancy rate for a total population of 416.

Step 7 Residentially Induced Annual Municipal Expenses

With a population of 416 and per capita municipal expenses of \$390 annually, the annual impact is \$162,240 in municipal expenditures.

Step 8 Total Annual Public Revenues

The next set of tables present the municipal revenues associated with the JUNIPER RIDGE annexation.

Table 22
Annual Property Tax Revenue

Reno General Fund & Debt Service Tax Rate = \$0.005956/\$ of assessed value_____					
Project	Yield	Average Unit Value	Total Market Value(MV)	Assessed Market Value @ 0.35MV	Reno Value @ Tax
Total	143	\$400,000	\$57,200,000	\$20,020,000	\$119,239

Table 23

Annual Franchise Fees

Component	Number of Units	Tax Base	Tax Rate	Franchise Fees
Residential	143 d.u.	\$4,000/d.u.	2%	\$11,440
Nonresidential	-0-	\$1,600/s.f.	2%	\$ -0-
Total	---	---	2%	\$11,440

Table 24

Annual SCCRT Revenue

1. Existing Tax Base (Prop. Valuation)	\$2,414,755,000
2. Added Tax Base	\$20,020,000
3. Proportionate Increase in Tax Base (2/1)	0.00829
4. 1991-92 SCCRT Budget Revenue	\$10,544,177
5. Projected Annual Added SCCRT (3x4)	\$87,419

Table 25

Annual "Other General Fund" Revenue (OGFR)

For residential uses (does not include business licenses and permits, charges for services, miscellaneous revenues and fund transfers.)

1. 1991-92 OGFR	\$20,261,480
2. City Population	135,000
3. OGFR per capita (1/2)	\$150
4. Project Population	416
5. Annual Added OGFR Revenue (3x4)	\$62,400

Table 26

Total Annual Revenue

1. Property Tax	\$119,239
2. Franchise Fees	\$ 11,440
3. SCCRT	\$ 87,419
4. OGFR	\$ 62,400
Total	\$280,498

Step 9 Cost-Revenue Impact

Table 27

Annual Cost-Revenue Impact

1. Annual Costs	\$ 162,240
2. Annual Revenues	\$ 280,498
Surplus of (Deficit) (2-1)	\$ 118,258

Thus, the JUNIPER RIDGE Annexation results in a projected surplus of \$118,258 annually for the City of Reno.

Proposed Drainage System

Development of the Juniper Ridge Units 2 through 7 subdivision consist of 93 single family residences approximately 111.2 acres. With development and construction, runoff occurring on site will be routed offsite using stormdrain lines and common area streams. (See previous explanation of hydrology calculation methodology.)

Using the previously mentioned methods, the following flows result:

Location	5-Year Peak Flow (cfs)	100-Year Peak Flow (cfs)
Steamboat Ditch	1.0	2.7
Last Chance Ditch	25.2	68.3
Hunter Creek	8.6	23.4
Northeast Ravine	14.1	52.3
Hunter Creek Reservoir Overflow Ditch	4.0	10.9
Totals	52.9	157.6

As can be seen, overall peak flows for the site have been increased. Further inspection shows that the flows to all of the individual locations have either reduced or unchanged with the exception of the Last Chance Ditch. This is an increase over conditions as they exist presently, but not over original undeveloped conditions. Prior to development of Juniper Ridge Unit 1, all runoff reaching the northeastern ravine went directly into the Last Chance Ditch. When Juniper Ridge Unit 1 was developed, a culvert was constructed under the Last Chance Ditch that routed all of the runoff reaching the ravine under the ditch and to the Truckee River. In a hydrology report prepared for the original Juniper Ridge Tentative Map, dated December 1989, the pre-development flow to the Last Chance ditch via the northeastern ravine was calculated to be $Q_{10} = 21.6$ cfs and $Q_{100} = 36.7$ cfs. These flows indicate an approximate $Q_5 = 15$ cfs.

If these peak flows are added to the existing peak flows to the Last Chance Ditch, the resulting flows are $Q_5 = 30.8$ cfs and $Q_{100} = 79.8$ cfs. When these flows are compared to the developed conditions, a reduction in flows to the Last Chance Ditch is indicated.

Conclusions

The Juniper Ridge Units 2 through 7 subdivision is an extension of an earlier subdivision that included the existing Juniper Ridge Unit 1 subdivision. Measures taken to control runoff in Juniper Ridge Unit 1 were intended to serve all future units of the subdivision. Hydrologic calculations that compare flows as they currently exist to full development of the subdivision under consideration in this report show an increase in peak flow to the Last Chance Ditch. When developed peak flows are compared to original, pre-development peak flows, there is actually a reduction of peak flows to the Last Chance Ditch. This latter comparison is more realistic than the former comparison because the entire Juniper Ridge subdivision works as a unit in controlling peak runoff.

Therefore, development of Juniper Ridge will not have an adverse effect on neighboring and downstream property.

Tentative Hydrology

Existing Conditions

32.31 acre Parcel Only:

To Steamboat Ditch

$$A = 1.8 \text{ ac}$$

$$L = 475 \text{ FT}$$

$$C = 0.4$$

$$S = 10\% = v = 3.2 \text{ fps}$$

$$tc = 475/3.2(60) = 2.5 \text{ min. } 10 \text{ min.}$$

$$i_5 = 1.4 \text{ in/hr}$$

$$i_{100} = 3.8 \text{ in/hr}$$

$$Q_5 = 0.4(1.4 \text{ in/hr})(1.8 \text{ ac}) = 1.0 \text{ cfs}$$

$$Q_{100} = 0.4(3.8 \text{ in/hr})(1.8 \text{ ac}) = 2.7 \text{ cfs}$$

To Last Chance Ditch

$$A = 15.3 \text{ ac}$$

$$L = 890 \text{ FT}$$

$$S = 28\% = v = 4.4 \text{ fps}$$

$$tc = 890/4.4(60) = 3.4 \text{ min. } 10 \text{ min.}$$

$$C = 0.4$$

$$Q_5 = 0.4(1.4 \text{ in/hr})(15.3 \text{ ac}) = 8.6 \text{ cfs}$$

$$Q_{100} = 0.4(3.8 \text{ in/hr})(15.3 \text{ ac}) = 23.3 \text{ cfs}$$

To Hunter Creek

$$A = 15.4 \text{ ac}$$

$$L = 1670 \text{ FT}$$

$$S = 16.7\% = v = 4.1 \text{ fps}$$

$$tc = 1670/60(4.1) = 6.8 \text{ min. } 10 \text{ min.}$$

$$Q_5 = 0.4(1.4 \text{ in/hr})(15.4 \text{ ac}) = 8.6 \text{ cfs}$$

$$Q_{100} = 0.4(3.8 \text{ in/hr})(15.4 \text{ ac}) = 23.4 \text{ cfs}$$

Areas to be Developed

To Hunter Creek

$$A = 0.7 \text{ ac}$$

$$C = 0.20$$

$$tc = 10 \text{ min.}$$

$$Q_5 = 0.20(1.4 \text{ in/hr})(0.7 \text{ ac}) = 0.2 \text{ cfs}$$

$$Q_{100} = 0.20(3.8 \text{ in/hr})(0.7 \text{ ac}) = 0.5 \text{ cfs}$$

To Last Chance Ditch

$$A = 30 \text{ ac}$$

$$C = 0.30$$

$$L = 2420 \text{ FT}$$

$$S = 5.6\% = v = 1.7 \text{ fps}$$

$$tc = 2420 \text{ FT}/(1.7 \text{ fps})(60) = 23.7 \text{ min.}$$

$$i_5 = 0.8 \text{ in/hr}$$

$$i_{100} = 2.2 \text{ in/hr}$$

$$Q_5 = 0.30(0.80 \text{ in/hr})(30 \text{ ac}) = 7.2 \text{ cfs}$$
$$Q_{100} = 0.30(2.2 \text{ in/hr})(30 \text{ ac}) = 19.8 \text{ cfs}$$

To Hunter Creek Reservoir Overflow Ditch

$$A = 18.0 \text{ ac}$$
$$C = 0.2$$
$$L = 890 \text{ FT}$$
$$S = 3.5\% = v = 1.4 \text{ fps}$$
$$tc = 860/1.4(60) = 10.2 \text{ min.} = 10 \text{ min.}$$

$$Q_5 = 0.2(1.4 \text{ in/hr})(18.0 \text{ ac}) = 5.0 \text{ cfs}$$
$$Q_{100} = 0.2(3.8 \text{ in/hr})(18 \text{ ac}) = 13.7 \text{ cfs}$$

Totals

To Steamboat Ditch

$$Q_5 = 1.0 \text{ cfs}$$
$$Q_{100} = 2.7 \text{ cfs}$$

To Last Chance Ditch

$$Q_5 = 8.6 \text{ cfs} + 7.2 \text{ cfs} = 15.8 \text{ cfs}$$
$$Q_{100} = 23.3 \text{ cfs} + 19.8 \text{ cfs} = 43.1 \text{ cfs}$$

To Hunter Creek

$$Q_5 = 8.6 \text{ cfs} + 0.2 \text{ cfs} + 8.8 \text{ cfs}$$
$$Q_{100} = 23.4 \text{ cfs} + 0.5 \text{ cfs} = 23.9 \text{ cfs}$$

To Hunter Creek Reservoir Overflow Ditch

$$Q_5 = 5.0 \text{ cfs}$$
$$Q_{100} = 13.7 \text{ cfs}$$

Developed Conditions

All portions of 32.21 ac parcel remain unchanged

Developed Area

To Last Chance Ditch

1) Common Area & Undeveloped Land

$$A = 14.4 \text{ ac}$$
$$C = .40$$

2) Single Family Residences

$$A = 12.1 \text{ ac}$$
$$C = 0.45$$

3) Paving

$$A = 0.7 \text{ ac}$$
$$C = 0.90$$

$$L = 1100 \text{ FT}$$
$$S = 13.6\% = v = 3.1 \text{ fps}$$
$$tc = 1100/3.1(60) = 5.9 \text{ min.} = 10 \text{ min.}$$

CA = 11.84 ac
Q₅ = 11.84 ac (1.4 in/hr) = 16.6 cfs
Q₁₀₀ = 11.84 ac (3.8 in/hr) = 45.0 cfs

To Hunter Creek Reservoir Overflow Ditch

1) Single Family Residential

A = 6.0 ac
C = 0.45

2) Street

A = 0.2 ac
C = 0.9
AC = 2.88 ac

tc = 10 min.

Q₅ = 2.88 ac(1.4 in/hr) = 4.0 cfs
Q₁₀₀ = 2.88 ac(3.8 in/hr) = 10.9 cfs

Totals

To Steamboat Ditch

Q₅ = 1.0 cfs
Q₁₀₀ = 2.7 cfs

To Last Chance Ditch

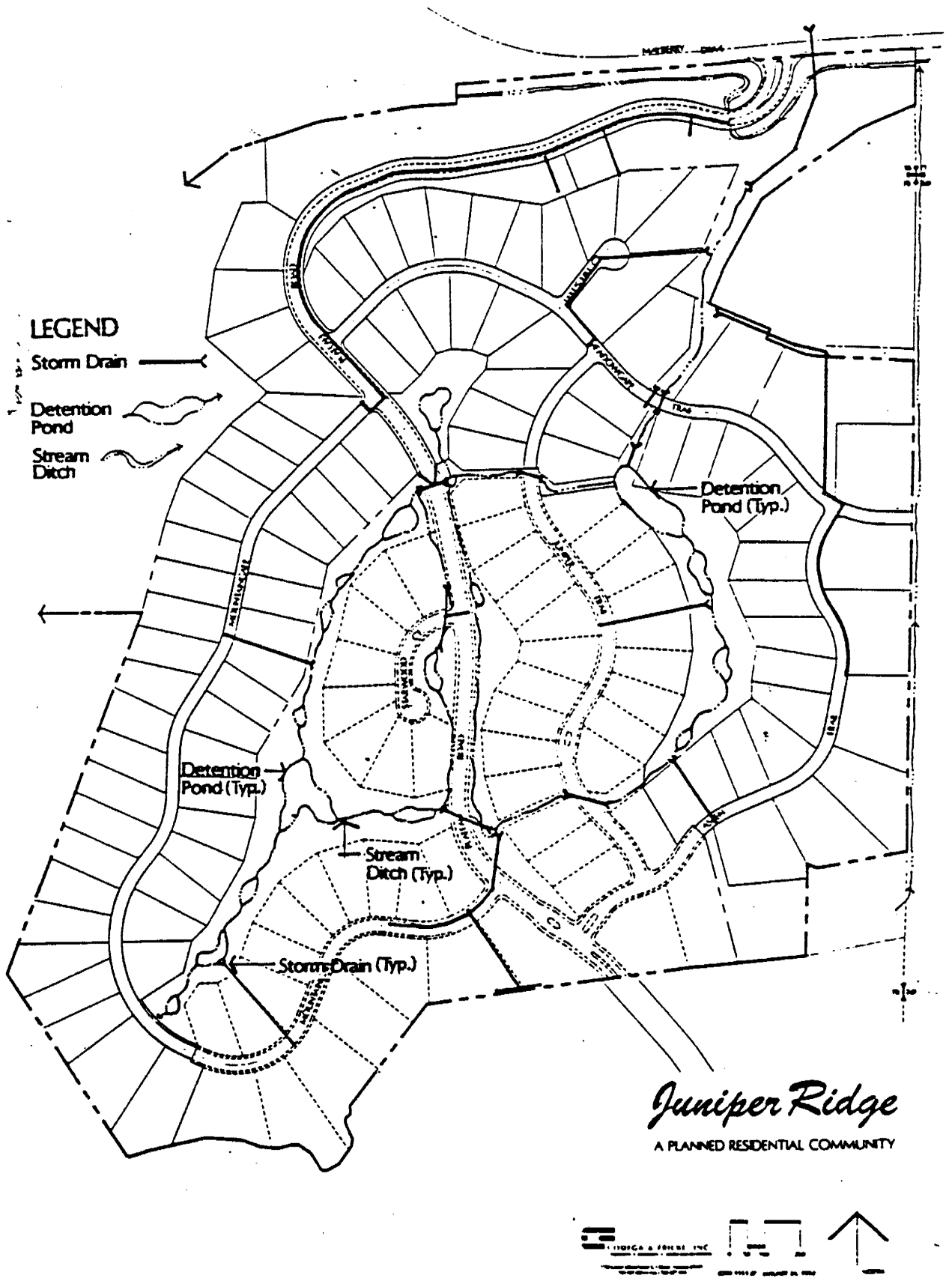
Q₅ = 8.6 cfs + 16.6 cfs = 25.2 cfs
Q₁₀₀ = 23.3 cfs + 45.0 cfs = 68.3 cfs

To Hunter Creek

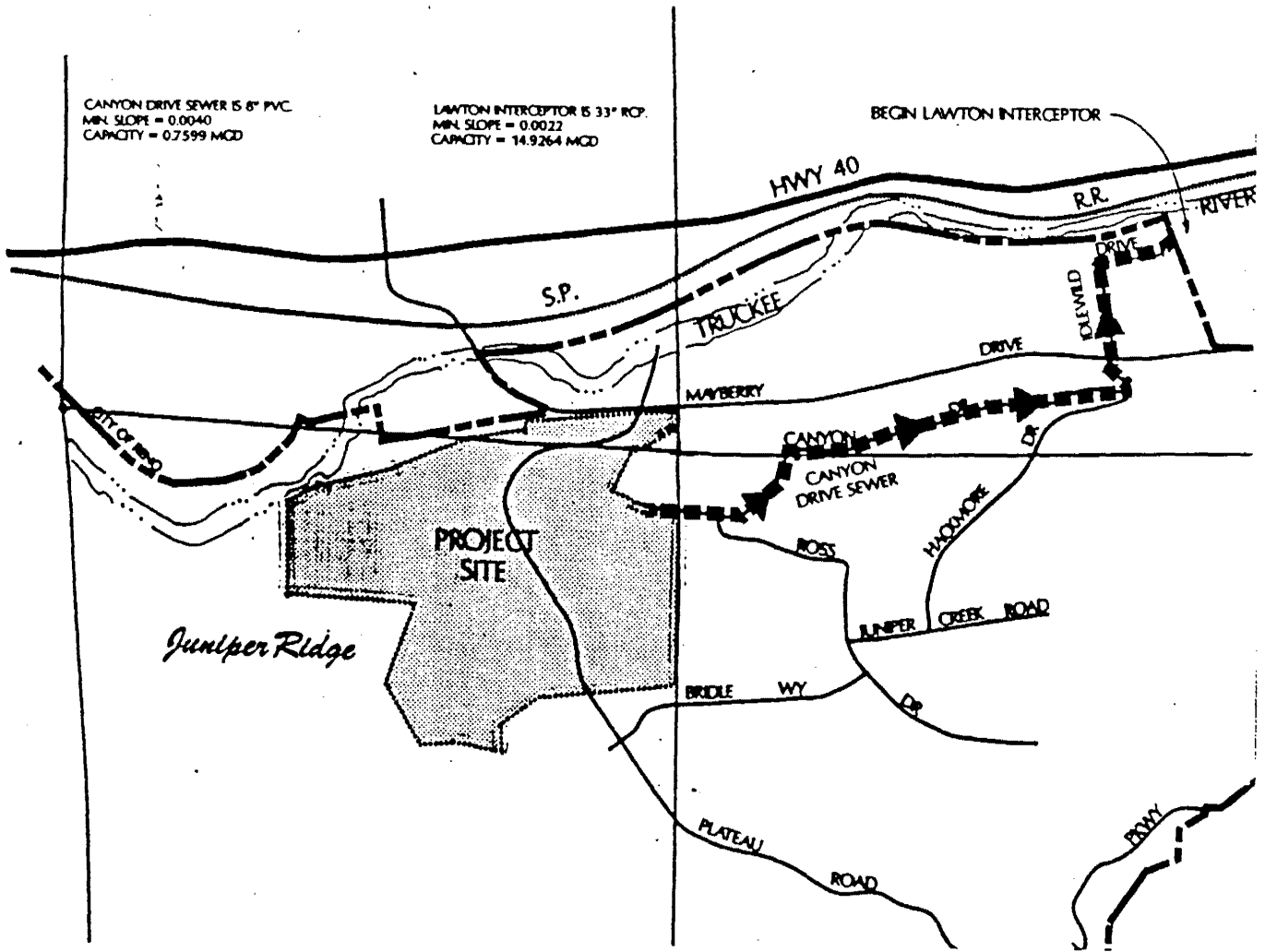
Q₅ = 8.6 cfs
Q₁₀₀ = 23.4 cfs

To Hunter Creek Reservoir Overflow Ditch

Q₅ = 4.0 cfs
Q₁₀₀ = 10.9 cfs



43. Stormwater Management Plan



44. Off-Site Sewerage Plan

J

100-92

Juniper Ridge

1/2 ac lots: 30-10-30 (20-21 corners),

or 30 on each side of 20, dist between

1 ac lots 30-10-30, dist 30, and 20-20-20,
dist between 24

(both have stone in the middle)

40-90

Juniper Trails 8 (AKA Evergreen)

20-10-25 avg (min. 20) around subd. Ld
20 min lots