

APPENDIX DOCUMENTS

**STANDARDS & GUIDELINES FOR
SIGNAGE, PARKING AND DESIGN**

**DEFINITIONS OF USES
(CHAPTER 18 OF THE TRPA CODE OF ORDINANCES)**

**HEIGHT REGULATIONS
(CHAPTER 22 OF THE TRPA CODE OF ORDINANCE)**

WEST SHORE GENERAL PLAN OF PLACER COUNTY

**PLACER COUNTY DESIGN STANDARDS
AND
GUIDELINES**

FOR

WEST SHORE GENERAL PLAN OF PLACER COUNTY

DEFINITIONS OF USES

HEIGHT REGULATIONS



Participants

ORIGINAL DRAFTING OF TAHOE CITY AND NORTH TAHOE MANUAL

North Tahoe Community Plan Team

Janet Mize, Chairman
Lane Lewis
Dick Davis
Ellen McBride
Hugh McBride
Marty Cohen
Virginia Walsh
Leah Kaufman
Jack Shumate
Bill Combs
Gordon Barrett

Tahoe City Community Plan Team

Terry Dyer, Chairman
Mary Harrington
Bev Bedard
Cindy Gustafson-Shaw
Judy Lingle
John Gordon
Walt Kass
Bill Combs
Gordon Barrett

North Tahoe Design Review Committee

Hugh McBride, Chairman
Bill Copeland
Janet Mize
Nan Russell
Marty Cohen
Susan Smith
Andrea Kincaid

Tahoe City Area Design Review Committee

Tim Hauserman, Chairman
Loring Sagan
Dick Munday
Ken Foster
Lolly Kupec
Andrew Otto
Walt Kass

WEST SHORE GENERAL PLAN COMMITTEE

Bev Bedard
Nancy Dodge
Hugh Harris
Mary NelHartnett
Jim Mitchell
David Powell
Mike Schenone
Beccie Small
Steve Kastan *

*(non-voting member, Field Deputy to Supervisor Bloomfield)
Advisory Chapter 4, "Lighting"... Richard Hartshorne



Table Of Contents

INTRODUCTION.....	i
Purpose.....	i
Organization Of This Manual.....	i
How To Use This Manual.....	ii
Approval Process.....	ii
Placer County Review Process.....	vi
The Design Process: Advocating A Design Holism.....	viii
CHAPTER 1 SITE PLAN.....	1-1
CHAPTER 2 GRADING AND DRAINAGE.....	2-1
CHAPTER 3 LANDSCAPING.....	3-1
CHAPTER 4 LIGHTING.....	4-1
CHAPTER 5 ARCHITECTURE.....	5-1
CHAPTER 6 DESIGN FOR SNOW.....	6-1
CHAPTER 7 ENERGY CONSERVATION.....	7-1
CHAPTER 8 UTILITY AND SERVICE AREA.....	S 8-1
CHAPTER 9 HISTORIC BUILDINGS (TRPA Only).....) 9-1
CHAPTER 10 SCENIC HIGHWAY CORRIDORS (TRPA Only).....	10-1
CHAPTER 11 SHOREZONE (TRPA Only).....	11-1
CHAPTER 12 PARKING.....	12-1
CHAPTER 13 ACCESS.....	13-1
CHAPTER 14 CIRCULATION.....	14-1
CHAPTER 15 PARKING LOT LANDSCAPING.....	15-1
CHAPTER 16 PARKING FOR DISABLED PERSONS.....	16-1
CHAPTER 17 LOADING.....	17-1
CHAPTER 18 SIGNS.....	18-1
APPENDIX A PARKING DEMAND TABLE.....	A-1
APPENDIX B UNIFORM BUILDING CODE, CHAPTER 70.....	B-1



INTRODUCTION

PURPOSE

The scenic beauty of the Lake Tahoe Region has been recognized as a national treasure through many eyes, including those of the U.S. Congress. The visual quality of the natural landscape is the primary contributor. National treasure status has afforded the Region unparalleled stewardship. The concept of stewardship carries through to the design and development of the built environment, and the way it fits into the natural setting becomes critical. This Manual of Signage, Parking and Design Standards and Guidelines represents a concerted effort to keep this area a national treasure while accommodating the sensitive development and use of land.

In order to maintain and improve the overall quality of the built environment in the Lake Tahoe Region, Placer County and TRPA have adopted minimum design standards. The manual contains a collection of design and site planning methods which may be used during project development to meet the design standards. Property owners and project applicants should be aware that both the standards and guidelines will be considered by Placer County and TRPA's Project Review Divisions during project review.

As an area dependent on the tourism industry, the appearance and aesthetic features of the communities in the Region take on an economic importance. These design standards and guidelines are intended to create and maintain community settings that are visually attractive to both visitors and residents.

This manual, prepared as a part of the West Shore General Plan update by Placer County, has further been adopted for other portions of the Placer County portion of the Tahoe Basin.

ORGANIZATION OF THIS MANUAL

This manual is laid out to identify what is required (the Standard) and, if appropriate, provide design solutions (the Guidelines) to meet that Standard.

The Standards and Guidelines for the West Shore General Plan Area are organized by the design subject, i.e., Site Design, Building Design, Setbacks, etc. (see Table of Contents). Each design subject is divided into Standards and Guidelines.

Since this manual contains both Standards and Guidelines, it is important to understand the difference. Standards are rules which must be met, i.e., a requirement. A Standard cannot be overridden by a Guideline. They may only be changed through the administrative procedures of Placer County and TRPA.

Guidelines are not rules, but rather suggestions on how to meet a Standard. More latitude and flexibility exist when dealing with Guidelines than Standards. Placer County and TRPA will consider the Guidelines and suggestions by the applicant in the review and approval of a project.

HOW TO USE THIS MANUAL:

To use this manual the following steps should be taken:

1. Besides reviewing this set of design, parking and sign regulations, review all applicable TRPA and Placer County codes and standards applicable to your property. If there are questions, you should contact the Placer County Planning Department or the TRPA.
2. Once all the review parameters are known, review the General Standards and Guidelines for County-wide projects contained herein.
3. With the General Standards and Guidelines known, check to see if your site is within a Community Plan Area.
4. If the site is within a Community Plan Area, review the Community Plan Standards and Guidelines for that specific Community Plan. Should a conflict occur within the General Standards and Guidelines, the Community Plan Standards and Guidelines would take precedence.
5. Begin the design process. Informal consultation with the two Planning staffs is encouraged early in the process.

APPROVAL PROCESS:

Applicability

For the Lake Tahoe Region of Placer County, the standards and guidelines presented in the document replace the TRPA Design Standards (Chapter 30), Parking Standards (Chapter 24), the Sign Standards (Chapter 26), and the Design Review Guidelines adopted by TRPA previous to adoption of this document¹. These standards and guidelines also replace the Placer County Design Review Standards and Guidelines, the Parking Standards, and the Sign Standards adopted by Placer County previous to the adoption of this document. If there is a conflict with other adopted standards of TRPA and Placer County, such as those regarding land coverage, height, UBC, etc., the standards of those ordinances shall apply.

In general, the standards and guidelines in this document govern new construction activities subject to ordinance standards rather than retroactive changes to existing structures. New construction includes but is not limited to, construction of new buildings, remodeling and improvements to exterior spaces such as sidewalks and surface parking which require permits. All activities shall comply with the following design standards except:

1. Projects, for which the cost of the required improvements exceed 10% of the project cost, may submit schedules for compliance,
2. Projects which are in assessment districts (wherein the assessments have been levied or are contained in approved funded public works projects) which are committed to implement the required improvements,
3. Projects for which TRPA and Placer County have found the standard not to be applicable due to unique circumstances arising from or regarding the project, and, all required findings have been made, including the finding that the waiver of standards will result in equal or superior result, and
4. Activities whose primary purpose is to come into compliance with these standards and guidelines shall only be required to conform in areas directly altered by construction.

Criteria

Each project is reviewed for compliance with the applicable codes and these design standards and guidelines. In considering a project, the staffs may consider items such as:

- Zoning
- Yard setbacks
- Building height
- Parking needs
- Landscaping
- Signs
- Lighting
- Traffic
- Fire
- Emergency vehicle access
- Service needs
- Building materials and color
- Covenants, codes and restrictions on the deed
- Such other features as may affect the project and its setting

Conditions of Approval

All projects approved under design review are subject to standard conditions of approval. The County or TRPA may impose additional conditions or approval for a project as needed. For minor projects, such as remodelling or signs, the County or TRPA may ask for minor improvements in order to gradually upgrade the appearance of existing buildings or properties. In such cases, each project will be considered individually and the staffs will work with the applicant to arrive at a plan that will make the property more attractive and still be economically feasible for the owner or tenant.

Permit Coordination

In order to save time and effort, a project which requires both Placer County and TRPA action, joint design review may occur or TRPA may delegate design review authority to Placer County through

a Memorandum of Understanding.

TRPA Design Review Procedures

For projects which still require TRPA review and approval, TRPA staff shall conduct design review pursuant to the procedures staffers in the TRPA Code. See TRPA project handouts available at TRPA for review requirements.

Placer County Design Review Application Procedure

Applicants are encouraged to meet with The County Planning Department and the Design Review Committee at the earliest possible stage in the design of the project

1. The applicant obtains the Design Review application form and fee information form the Placer County Planning Department. Application are also available at the front counter of the Tahoe City Building Division.
2. The applicant submits the completed application form together with the required submittals and fee to the Placer County Planning Department.
3. The Placer County Planning Department sends the project plans to the Tahoe City Design Review Committee or North Tahoe Design Review Committee and other county offices for comment.
4. The Design Review Committee reviews a project, ensuring that County ordinance regulations, and adopted design standards and policies are met. Action is taken by the Design Review Committee and a recommendation made to the Planning Department within approximately 14 day after receipt of a completed application. If the Design Review Committee does not take action within this time period, the project is automatically reviewed by Placer County Planning staff and action taken within 21 days of receipt of a completed application.
5. If the applicant is dissatisfied with the conditions of approval or denial of the project by the Design Review Committee and the County, he may appeal the decision to the Planning Commission, who will consider County ordinances and adopted design standards and guidelines when reviewing a project design. Decisions of the Planning Commission may be further appealed to the Board of Supervisors.

Placer County Submittal Requirements

1. Completed application form
2. Fee

Three (3) sets of plans that include the following as applicable:

Site Plan

- legend with scale, north arrow and date

- parcel property lines, lot area, yard setbacks, distance form street center line
- grades, existing and proposed
- structures-locations, dimension, use of existing and proposed structures
- garbage-location of dumpsters, screening, etc.
- land capability
- land coverage
- drainage-arrangement and facilities
- lighting-location of all exterior lighting standards and devices, along with design details
- utilities
- parking spaces, dimensions
- new storage area(s)
- pedestrian circulation areas
- mechanical equipment units
- improvements
- bicycle path alignment

Landscape Plans

- all existing trees, with diameter size and scientific and common name
- all trees to be removed and their approximate trunk diameter, breadth, and height
- precise location or pattern and spacing of all proposed plant materials.
- size and numbers of proposed plant materials, with scientific and common names incorporated into a plant list, erosion control, and revegetation techniques
- irrigation plan with irrigation details

Building Elevations

- all principal exterior walls
- types or roof and wall materials to be used
- color of materials
- sign locations, showing relationship to architecture (see sign plans)
- location of roof equipment, exterior lights, trash enclosures, or other structures or fixtures to be attached to building
- samples which illustrate the color and material selected

Floor Plan

- showing the dimensions and use of each room and each floor

Sections

- where necessary to illustrate special conditions

Applicants are encourage to submit sign design as part of their project design review. This eliminates the separate review and fee for signs which would be required if the sign plans were submitted separately.

Sign Plans

- Location of existing and proposed signs
- relationship of signage to building
- dimensions of existing and proposed signs
- color samples, materials, and design of proposed signs
- photographs of existing signs on the property
- site plan which shows building and road frontage

PLACER COUNTY REVIEW PROCESS

Preliminary Review

The County encourages applicants to meet with the County Planning staff and the Design Review Committee early in the development of a project's design in order to ensure that the plans finally submitted for review will meet County, TRPA and Community Plan requirements. Preliminary review requires no formal application from the Design Review Committee.

Meetings

A meeting between the applicant and the Design Review Committee will be scheduled within 14 days of receipt of the complete application.

Action

The following is a summary of possible actions that may be taken on a project during the 21-day review process:

Approval

The plans are approved as submitted. The applicant can submit plans for a building permit.

Approval With conditions or Modifications

The plans are made subject to conditions which are specified in a letter of notification of the design review decision. If the conditions necessitate revisions in the plans, the applicant submits revised plans to the Design Review Committee and the County for review and approval. If dissatisfied with conditions, an applicant may appeal the action to the Board of Zoning Appeals.

Continuance

The applicant or Design Review Committee may request continuance of the project review beyond the 21-day review period. Further discussion or review takes place at a subsequent meeting.

Withdrawal

The applicant or Design Review Committee may request continuance of the project review beyond the 21-day review period. Further discussion or review takes place at a subsequent meeting.

Denial

If the project, as presented, is denied approval, the applicant may return with new plans and a new fee, or appeal the decision of the Design Review Committee to the Board of Zoning Appeals. Written findings as to why the action was taken will be provided to the applicant.

Temporary Approvals

There are no provisions for temporary approvals.

Notification of Action

Official notice of the Design Review Committee's and the County's action is sent to each applicant. The applicant should note the conditions of approval detailed in the letter. All conditions must be complied with before an occupancy permit will be issued for the project.

Standard Conditions

In addition to any special conditions which may be imposed on a project as part of a design review approval, the standard conditions which apply to all design review applications approved within the boundaries of the Design Review Committee are as follows:

1. All modifications to the plans that are required by the conditions of approval shall be submitted for review to the Design Review Committee and the County prior to the issuance of a building permit.
2. All modifications to approved plans after the issuance of a building permit must be submitted for approval prior to execution.
3. All improvements must be installed prior to occupancy, except for any landscaping that has been secured by a surety to be approved by the County.
4. Landscape and irrigation plans for required landscaped areas shall be subject to approval by the Design Review Committee and County.
5. Landscaping shall be perpetually maintained with prompt removal and replacement of dead and diseased plants.
6. All landscaping areas abutting traffic areas shall be protected by approved material such as, but not limited to, concrete, wood, asphalt, or stone.
7. All parking shall conform to the adopted County parking standards.

8. All projects shall meet the fire protection features deemed necessary by the Fire District or the appropriate fire protection authority.
9. Adequate refuse handling facilities shall be provided, Trash and garbage containers will be screened in a manner acceptable to the Design Review Committee.
10. All propane tanks visible from the street shall be screened in an appropriate manner acceptable to the Design Review Committee and the Fire District.
11. Outside utility meters and other utility structures, when not included in a cabinet, shall be screened from view, or integrated into surrounding materials according to fire protection requirements.
12. All metal flashings and mechanical equipment shall be harmonious with the exterior colors of the structures.
13. All lighting sources shall be shielded and directed so that no light source is directed off-site.
14. All roof-mounted equipment shall be adequately screened.

Appeal Procedure

An applicant may file an appeal with the Planning Commission not later than ten calendar days following the action of the County. The appeal is filed with the Planning Department and is placed onto the next available Planning Commission agenda. The Planning Commission may affirm, reverse, modify or alter the decision of the County and the Design Review Committee. Further appeals may proceed to the Board of Supervisors.

THE DESIGN PROCESS: ADVOCATING A DESIGN HOLISM

At first glance, this manual may seem to address design of the built environment in a segmented approach. What is intended, however, is to advocate a holistic approach to design, that is, where the whole is greater than the sum of the individual parts. As an example, the parts of a development project might include the building style, landscaping, signage, parking, interior floor plan and so forth. The whole is the complete site, from end to end, and from top floor to ground level.

The holistic approach to design begins with a strong design concept. Once a design concept is formulated, each design decision can then be made within the concept's framework. It is believed that this approach can provide a more complete, more coordinated final product than an approach which designs each project element as an isolated piece.

While there is no one universally-accepted theory on how to produce good design, there exists an identifiable set of steps which are followed in almost everyone's design process:

1. Looking at what exists on the site;
2. Analyzing what you see in terms of constraints and opportunities relative to the intended use; and

3. Synthesizing a design or arrangement of spaces which matches the program of elements to the existing conditions of the land.

Although it appears straight-forward, there are many complex and subtle decisions made during the design process which only experienced and "open eyes" can foresee. Based on these intricacies and the Basin's complex regulations, the staff would strongly suggest that you retain design and engineering professionals (architects, landscape architects, interior designers, civil engineers and the like) to help prepare your plans.



CHAPTER 1 SITE PLAN

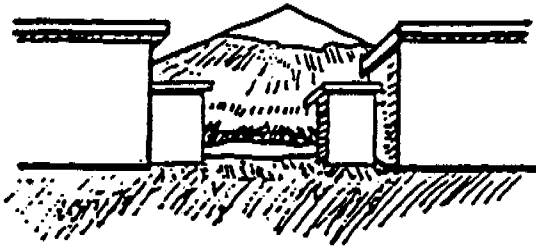
Site design involves the arrangement of indoor and outdoor spaces to accommodate the activities required for a proposed use. Customer service, vehicle movement patterns, loading needs, and expansion potential should all be considered in laying out the site design. Because a site functions as an integral part of the community, the site design should also relate the spaces and activities to each other, to the site, and to the structures and activities on adjacent sites. The design should take into account such factors as safety, privacy, community identity, and character preservation of the natural environment and pedestrian open space.

Standards

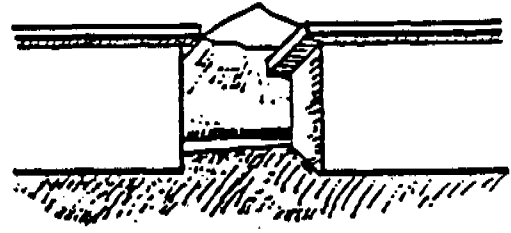
- A. *The existing natural features of a site shall be retained and used to advantage. The incorporation of features such as creeks, trees, natural slope, rocks and views often leads to a more interesting and unusual design.*
- B. *Buildings shall be sited with consideration given to sun and shade, changing climatic conditions, noise, safety, and privacy.*
- C. *Each step of a phased project shall provide a design that is as complete as possible in the functional, visual, drainage and traffic aspects.*
- D. *In the Community Plan areas special emphasis shall be placed on the provision for pedestrian open space and landscaping.*
- E. *Setbacks standards shall follow requirements set forth below .*
 - (1) *Structures: Structures set back from property lines shall be in accordance with the Placer County Zoning Code except when superseded by setbacks established in Plan Area Statements or Community Plans.*
 - (2) *Scenic Corridors: Buildings and structures shall be setback (20') from the highway right-of-way line in accordance with the TRPA Scenic Threshold Roadway standards (Chapter 10) for designated corridors except when superseded by the Community Plan standards.*
 - (3) *Stream Environment Zone: Buildings, structures, and other land coverage/disturbance shall be setback from SEZs in accordance with Chapter 37 of the TRPA Code.*
 - (4) *Grading: Building setbacks from cuts and fills are set forth in Chapter 2 of this manual.*

Guidelines

- A. Buildings should be sited so that they do not interrupt the flow of the skyline as viewed from common vantage points.

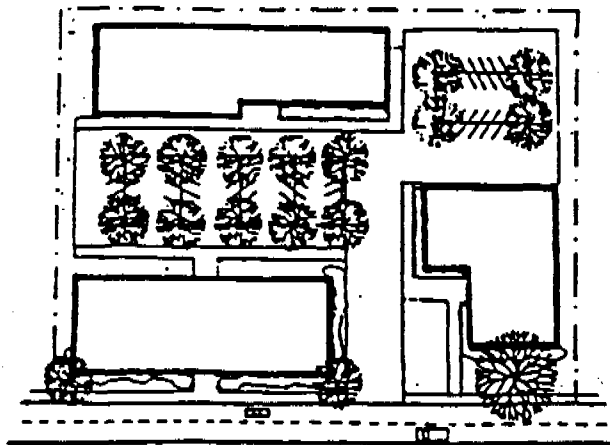


Appropriate



Inappropriate

- B. Site plans should be compatible with adjacent properties and streetscape in the placement of structures and uses. Cooperation in development between properties such as sharing driveways and parking can be advantageous.

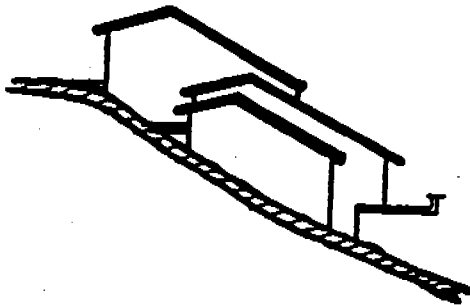


- C. Buildings should be located on a site so as to enhance the architecture and natural features of the site. In general, off-street parking and loading areas should be located to the sides and rear of the site and screened from the street with landscaping, in such a way that it will not cause problems related to snow removal or site distance. For commercial projects such as shopping centers, a portion of the total building area should be located at the street perimeter in such a way that it will not cause problems related to snow removal and site distance. Such siting reinforces the streetscape and screens the parking areas.
- D. Consideration should be given to the possibility of future expansion, with adequate room and functional placement allowed for in the site layout.
- E. Buildings and spaces should have a strong functional relationship to the site. Required side and rear yards, open space and snow storage should be utilized and integrated into the overall site arrangement. Left-over spaces and inaccessible yards do not permit full utilization of the site.

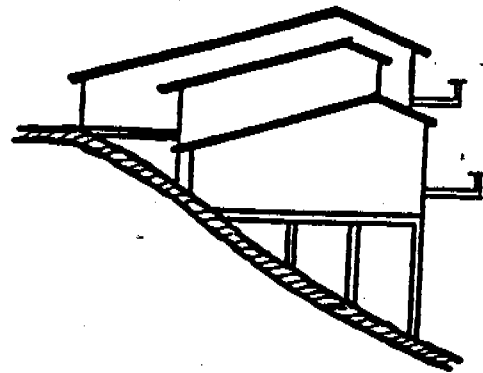
- F. Buildings designed for sloping topography should conform to the natural topography rather than altering the natural topography to accommodate the structure. In areas where slopes exceed five percent, stepped foundations are recommended in order to avoid grading necessary for flat-pad foundations.

The form, mass, and profile of individual buildings and architectural features should be designed to blend with the natural terrain and preserve the character and profile of the site as much as possible. Techniques that should be considered include:

- (1) Split pads, pier foundations, stepped footings, and grade separations to permit dwellings to step down or step up the natural slope.
- (2) Flat rooflines and/or low profiles with rooflines following the lines of the natural slope;
- (3) Detached garages, carports, or open parking to decrease apparent building mass;
- (4) Varied and articulated elevations and rooflines to soften the appearance of large vertical surfaces and to avoid the appearance of a massive, rigid, vertical element.



Appropriate

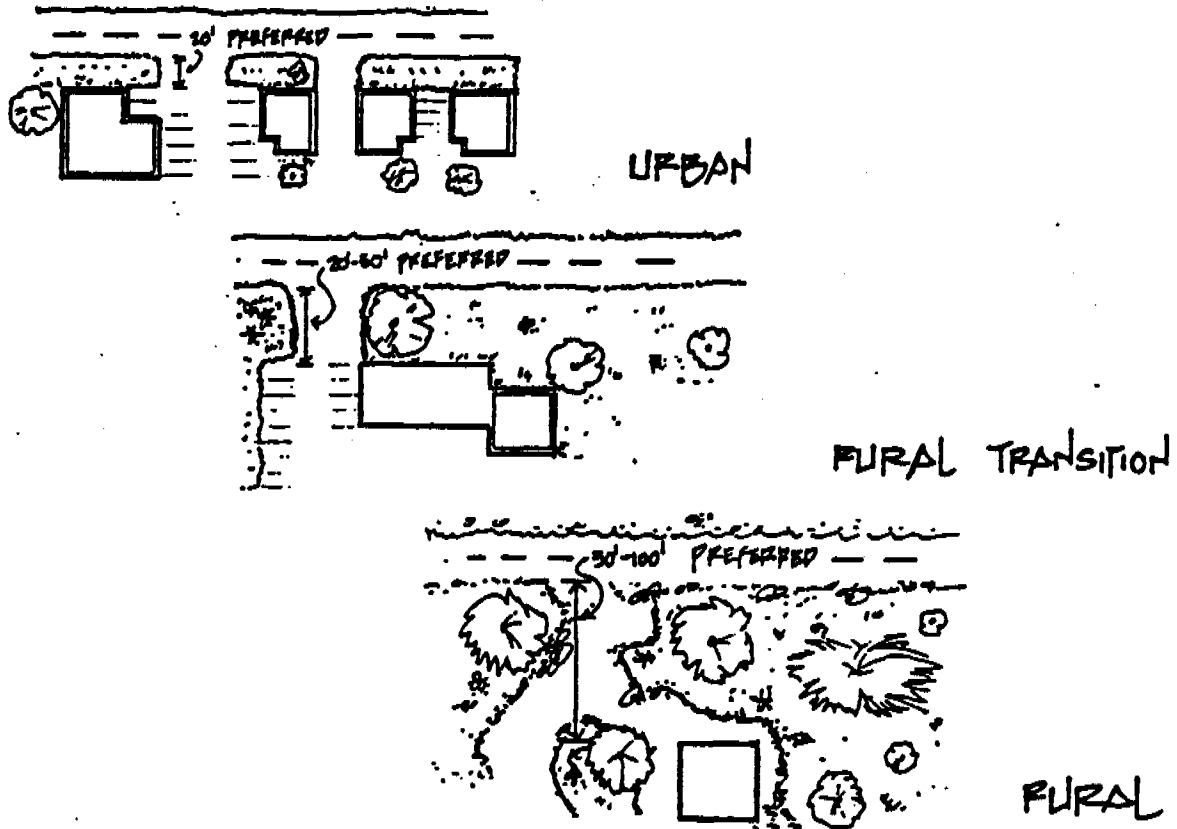


Inappropriate

G.. Commercial Setbacks

- (1). **Provide Variety.** Variety is encouraged in the setbacks and in the relationship of buildings to the street in order to reduce the sense of sameness which characterizes strip development.
- (2). **Relate Size of Project to Amount of Setbacks.** Projects with longer street frontages are encouraged to have generally larger setbacks.
- (3). **Coordinated Setbacks.** The setbacks for a project should be responsive to neighboring uses and appear coordinated to them. Front setbacks should conform to the average setback of the properties immediately adjacent to the site. Where existing buildings along a side of a street have a fairly uniform setbacks, all or part of a new building should recognize such setbacks even if the zoning allows a different setback distance.

- (4) **Reduced Setbacks Along Scenic Threshold Roadways.** This guideline only applies to situations where the proposed building or building addition is closer than 20 feet and is along a TRPA Scenic Threshold Roadway. Setbacks closer than 20 feet are generally discouraged. In scenic threshold roadway units which are in threshold attainment buildings proposed closer than 20 feet may be approved when the proposed building is set back the same distance or greater than existing buildings along the same travel unit. Visual mitigation measures such as landscaping, building facade improvements, walkway installation, etc., may be required to offset the visual impact.



If a building is proposed to be set back closer than 20 feet along a scenic threshold roadway unit which is not in threshold attainment, the applicant first should review the visual assessment and recommendations for that unit. This information is located in TRPA's Scenic Quality Improvement Program. If lack of setbacks is a significant problem in the unit, exceptions to the 20 foot setback will likely not be approved. If setbacks are not listed as a specific problem, visual mitigation measures such as those listed above may be required to offset the visual impact.

- (5) **Activities Within Setbacks.** Only landscaping, architectural features such as canopies or overhangs, structures housing mechanical or other utility equipment which are 3 feet in height or lower, driveways and signs should be located within front yard setbacks. See also Landscaped Setbacks Guidelines in Section 6. Landscaping. Community plans may have differing requirements regarding what is allowed within setbacks. Please check these requirements before designing your project.

- (6) Provide Landscaped Setbacks on Commercial Properties. A landscaped buffer no less than 10 feet wide is recommended between the edge of the travelled roadway and building facades in order to provide a sense of separation between the landscaping and the building is preferable to placement along the street edge. Landscape treatments should be compatible with snow removal techniques.

H. Residential Setbacks

- (1) Residential Setbacks. In non-commercial areas, the purpose of building setbacks should be to minimize the visibility of development from adjoining travel corridors. The setback may permit a densely planted buffer of native vegetation to be maintained along the roadway. Such a buffer should respect and attempt to maintain significant views of natural features or other scenic elements.

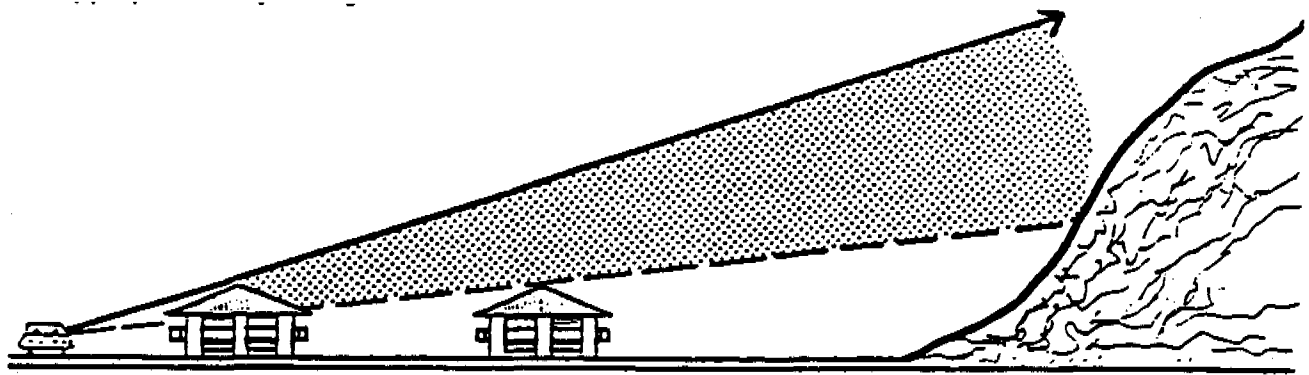
Residential units that take direct access off major travel routes should be set back as far as possible. Deeper setbacks along major travel routes will also permit the preservation of views from the roadway. In many cases this guideline conflicts with minimum coverage regulations because longer driveways to serve the residences take up additional coverage. Since no coverage overrides for deeper setbacks are provided, this conflict must be resolved on an individual basis.

Front yard setbacks for residential development along threshold routes must meet the minimum twenty (20) feet setback from the road right-of-way. Garages, decks, and stairs should not intrude into front setback.

As much as possible, existing mature, natural vegetation (especially tree cover) located in the front setback should be preserved. To insure effective screening, additional native trees (species should be selected from TRPA's Recommended Native and Adapted Plant List and should be compatible with existing native species in surrounding area) should be introduced so that trees are spaced at an average of 20 feet on-center minimum and at least two rows deep.

- (2) Subdivision Frontages. Residential subdivision frontages along major travel corridors should use a combination of existing vegetation, setbacks of structures, and landscape screening so that they are not readily visible from major travel corridors (i.e., average setback of 200-250 feet from roadway).

Subdivision entrances should be designed to provide safe, efficient, easy-to-identify access points, while also creating a positive first impression that is compatible with the surrounding natural vegetation. The location and geological features should help determine the appropriate entry setting.



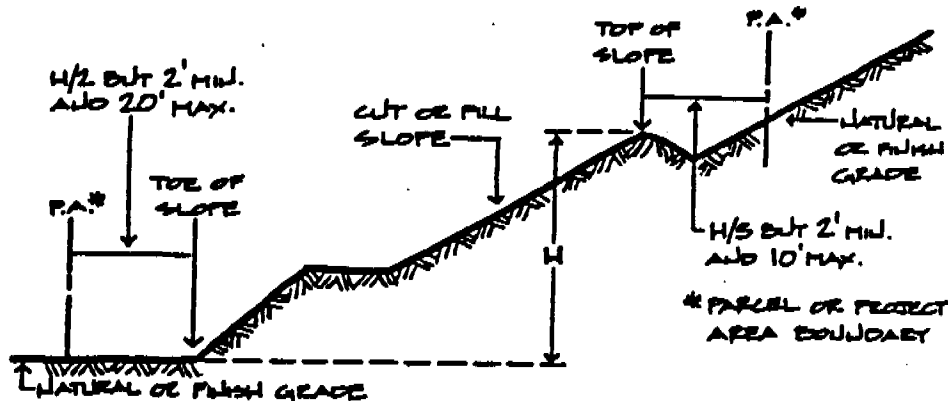
not this

this

Encourage Deeper Setbacks To Preserve Views

CHAPTER 2 GRADING AND DRAINAGE

Grading and drainage are engineering aspects of site development that can affect both the site and the surrounding area. Poor grading can inflict substantial damage on the environment, the site and surrounding properties. Creative grading can enhance the architecture, screen nuisances and provide privacy.



Standards (TRPA grading and drainage standards are addressed in Chapters 25, 61, 62, 63, 64, and 65 of the TRPA Code.)

- A. *The site shall drain adequately without interfering with adjacent properties.*
- B. *Natural contours shall be maintained as much as possible. Buildings, parking area, and drives shall be located to fit the terrain, requiring minimum grading. Cut and fill shall be kept to a reasonable minimum.*
- C. *Only those areas that are needed for construction shall be disturbed. Vegetation outside the construction zones shall be protected.*
- D. *All slopes shall be protected against erosion. Grading cannot create slopes greater than 2:1 unless controlled by mechanical stabilization. No slope shall exceed the angle of repose for the material involved. See County Grading Ordinance and TRPA grading requirements set forth in Section 64.6 of the TRPA Code*
- E. *All projects in the Plan are required to have erosion control plans in accordance with the erosion control practices contained in the TRPA's Handbook of Best Management Practices or the Erosion and Sediment Control Guidelines for Developing Areas of the Sierra Foothills and Mountains prepared by the Resource Conservation and Development Council, 1981. Best Management Practices include temporary and permanent erosion control measures, vegetation protection, and revegetation.*
- F. *The County may require an erosion control plan for any project believed to have significant erosion hazard.*

Guidelines

- A. All grading should be kept to a minimum. Natural contours should be maintained as much as possible. Extensive regrading of a site to create building pads for construction is not recommended. Buildings should be fitted to the land with graded areas limited, whenever possible, to the portion of the site to be covered by the structure. When graded areas cannot be covered by the structure, they should preferably be screened from public views by the building.
- B. In order to minimize the visual impacts associated with grading, the following grading guidelines are recommended:
 - (1) The overall shape, height, and grade of any cut or fill slope should be designed to simulate the existing natural contours and scale of the natural terrain of the site.
 - (2) The angle of a graded slope should be gradually adjusted so that it merges smoothly into the angle of the natural terrain. Flat planes and sharp angles which suggest a more formal landscape should be reserved for institutional and public service sites when a formal landscape is desired.
 - (3) Graded slopes should be promptly revegetated with a ground cover or combination of ground cover, shrubs, and trees to reduce the visual impact of the graded slope and to stabilize the slope and minimize erosion.
- C. Minimal roadway dimensions are recommended to reduce the amount of grading required, thus reducing the visual impact. A looped system of one-way streets can be used or roadways may be split (i.e., one lane in either direction) in order to reduce the area of cut required on a hillside.
- D. Grading should be designed to minimize the disruption to existing vegetation (including ground covers and shrubs, as well as trees). Revegetation of graded areas should utilize plant materials that will blend well with the surrounding vegetation and are on TRPA's List of Approved Plant Species, or those identified in this manual.
- E. When graded slopes (either cut or fill) extend horizontally for more than 100 feet (such as along roadways), the contours should be curved to create an undulating bank with greater visual variety and a more natural appearance.
- F. Also known as retention or detention basins, sediment basins are used to remove sediment from storm water and other surface water runoff. TRPA's Hand book of Best Management Practices provides standards and specifications dealing with the installation and operation of sediment basins, and should be consulted early in the design process.

The appearance and integration of these systems into the landscape can be greatly improved over existing practices. In times of non-storm events the basins can serve as open spaces in neighborhoods or in existing recreation areas. Terrace basin slopes whenever possible as shown below in order to minimize the safety hazard of straight, deep slopes.

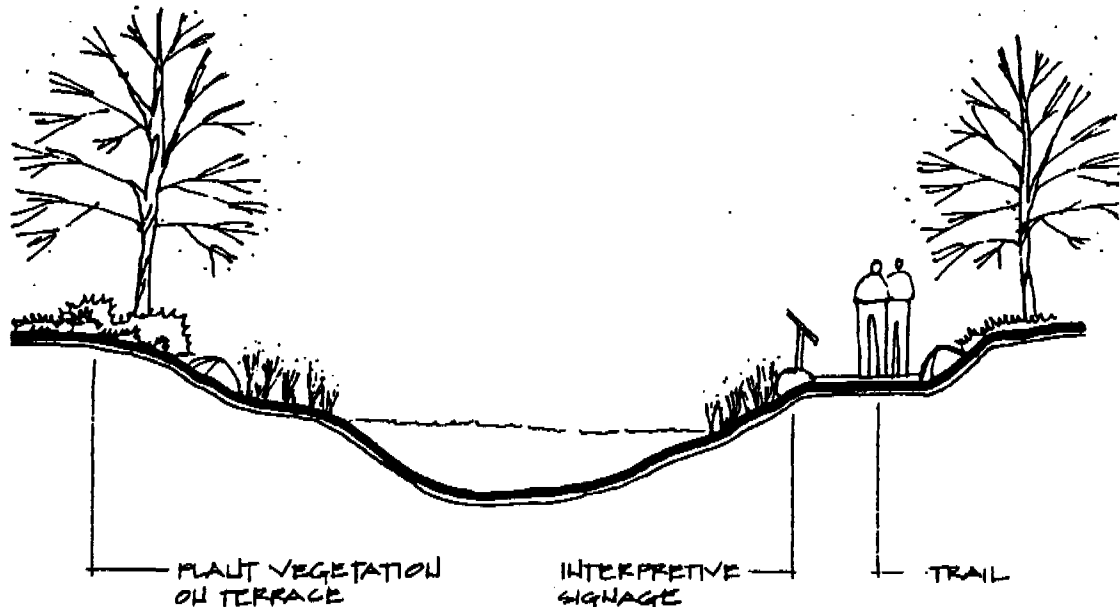
Long, straight engineered slopes look unnatural and detract from the scenic quality of the roadway landscape. Varying slope bank gradients (i.e., 2:1 in some areas, 3:1, 5:1, etc., in others) is another method for producing graded slopes that have a more natural appearance.

Note: Grading setbacks pursuant to Chapter 70 of the Uniform Building Code are listed in Appendix B.

Terracing of side slopes also allows sediment basins to be integrated into other types of land uses such as trail systems, golf course hazards, or wetland systems. This may be an important consideration when siting a sediment basin.

Restricting access to sediment basins has often been accomplished by a 6 foot high cyclone or chain link fence with little or no additional landscape screening. A more visually successful solution is to combine changes in grade with low (3-4 feet high) wooden fencing, and a substantial landscape screen of trees, shrubs, and ground cover. Formal landscape plantains will give a more formal or urban appearance, while native or naturalized grasses and riparian species can give the appearance of a wet meadow or wetland marsh. All mechanical equipment should be screened from view of the road or the lake.

The use of signs around sediment basins should be incorporated into the design. Signs should be of an interpretive nature as well as regulatory explaining in simple English the function and potential hazards of sediment basins. A well thought-out signage plan can stress the importance of avoiding sediment basins during and after storm events. A combination of grading, landscaping, controlling access and signage can turn a traditionally attractive nuisance and visual eyesore into a pleasing and usable community resource. It is appropriate to increase the access restrictions to basins which are potentially more hazardous due to such factors as degree of side slope, depth, and volume.

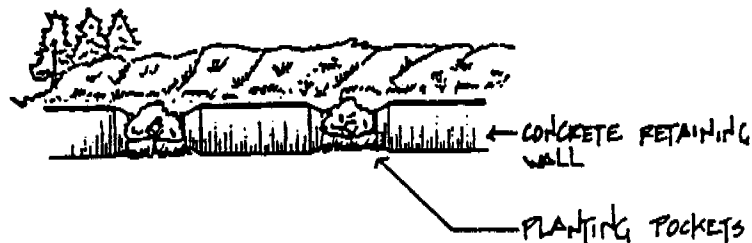


- G. Maximum height of retaining walls should be limited to three to four feet. When slopes greater than three vertical feet must be retained, terraces should generally be used to create smaller grade changes (three to five feet or less). Areas between terraces should be wide

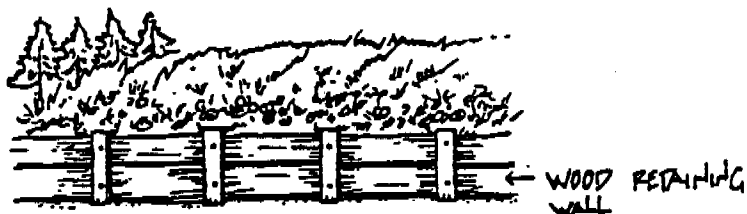
enough to accommodate vegetation. Down hill sides of retaining walls should be planted in order to help screen the structure. Please also see the Handbook of Best Management Practices.

Long, straight unbroken retaining walls with no articulation or other surface features are strongly discouraged, especially when they are sited along roadways. Retaining walls which match the architectural style, color and materials of a project's primary structures are also appropriate. Retaining walls are often used as informal seating. In areas where this appears likely, consideration should be given to providing seating. (See Chapter 16 for description of urban, rural transition, and rural areas).

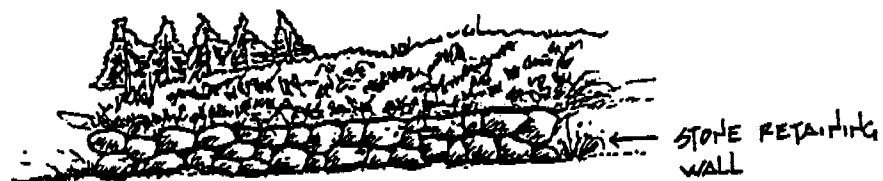
Urban. Retaining walls in urban areas may be built from the widest range of materials including textured concrete, wood, stone, or brick. Wherever possible retaining walls should be accompanied with landscape planting pockets to soften the wall's appearance.



Rural Transition. In rural transition areas the setting and context of the site as well as the site's primary use should be used to determine whether retaining walls will have more of an urban appearance (i.e., form, color, materials), or a rural appearance.

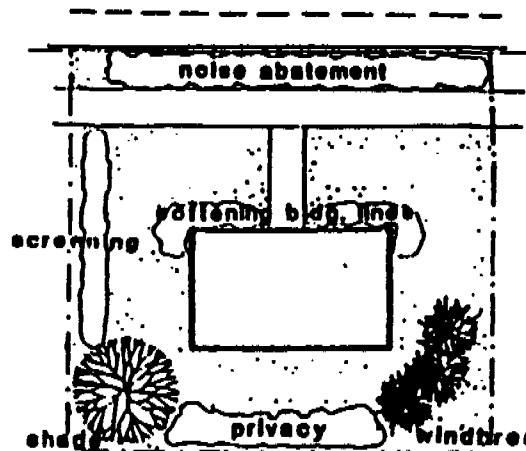


Rural. In rural areas the narrowest range of materials should be used. These should be limited to wood (including wood timbers and logs) or stone, and combined with planting areas or pockets wherever possible.



CHAPTER 3 LANDSCAPING

Landscaping is a major factor in the image of an area. However, the landscaping of a project should attempt to do more than make a place look attractive. Plants can perform a number of functions to enhance the land use and increase user comfort. Plants can be used to create spaces, separate uses, give privacy, screen heat and glare, deflect wind, muffle noise, articulate circulation, emphasize entrances and exits, inhibit soil erosion, purify air, and soften the lines of architecture and paving. Careful thought should be given to the needs of site when designing the landscaping.



Plant Selection Criteria

The County considers the following when evaluating the plant species specified for a project. These concerns help to ensure that the plants approved will add to the visual interest of the community and be relatively problem-free. The developer may wish to use the following when formulating a landscape plan:

Select:

- Plants whose final size will be appropriate to the location. Sensible plant choice will ensure that the function for which the plant was chosen will be fulfilled. It also eliminates the need for frequent maintenance or replacement of a plant which outgrows its space.
- Plants that can survive the climate and snow loads. Proper location of sun and shade loving plants also helps to ensure survival.
- Plants that are relatively pest and disease resistant.
- Plants that can offer year-round visual interest such as flower, fruit, fall color, and winter branching pattern.
- A mix of plants that can offer contrast and harmony of form, texture, and color.

Avoid:

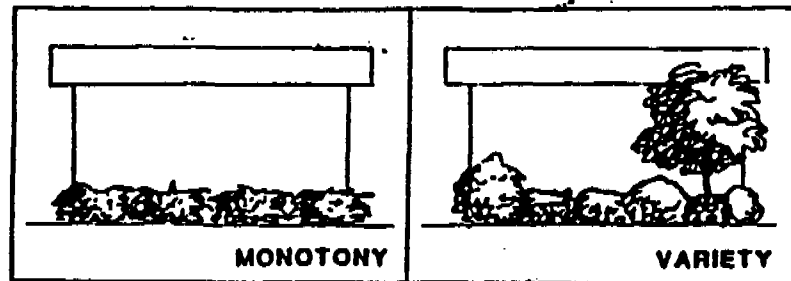
- Plants with thorns, sharp leaves, or poisonous parts near walkways or high use areas.
- Plants that drop fruit or branches in locations where they could cause maintenance problems or safety hazards.
- Plants with shallow root systems near paving or in lawns. Tree roots can heave sidewalks. Surface feeder roots can compete with grass, making it difficult for grass to grow.
- Plants with roots that seek water near or over underground water or sewer lines.

Standards

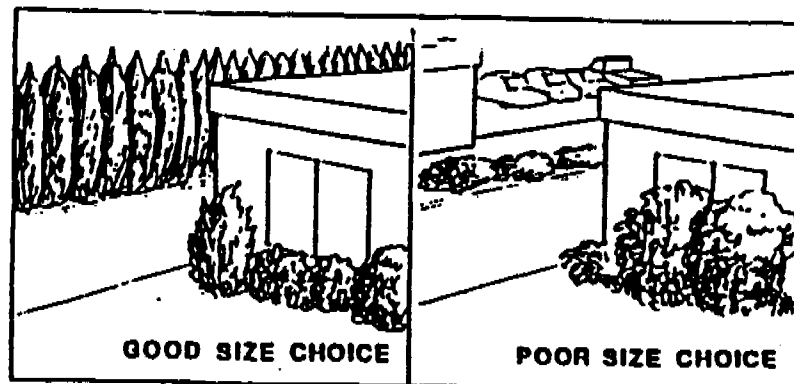
- A. *All site development shall include landscaping. The use of planter boxes or trellises is encouraged where larger landscaping areas are not available.*
- B. *Existing trees and natural features should be preserved and incorporated into the landscape plan. Trees to be saved shall be protected during construction.*
- C. *Landscaping shall be designed to preserve adequate sight distance for motorists and pedestrians.*
- D. *Incorporation of water conservation measures in landscaping specifications is encouraged. Such measures include the use of drought tolerant plants, drip irrigation, mulch layer (3" thick) over landscape beds to slow evaporation, and soil amendment with compost and clay to increase water retention.*
- E. *Areas designated open space, as per County standards, shall either remain in natural vegetation if possible or be landscaped.*
- F. *For all projects other than single family residential development and erosion control projects, the following plant sizes and spacing shall be required for woody material at the time of planting:*
 - (1) *trees should be minimum 6' high and 1.5" DBH;*
 - (2) *upright shrubs shall be a minimum 3 gallon pot size with a minimum 18" height and spread, spreading shrubs shall be a minimum 3 gallon pot size with a 24" spread; and*
 - (3) *ground cover shall be a minimum 4" pot size with a maximum 24" O.C. spacing.*
- G. *Plant species not found on the TRPA recommended list may be used as accent plantings. Accent planting areas are restricted to borders, entry ways, flower beds and other similar locations.*
- H. *An irrigation system shall be required. Automatic systems are preferred over drip systems due to climatological factors.*

Guidelines

- A. Except for accent plantings, plant species on the TRPA Recommended Native and Adapted Plant List shall be used for lawn and landscaped areas.



- B. All landscape plans should use the plant materials in a logical manner to solve environmental problems and provide user comfort.
- C. Landscape materials should be selected whose ultimate size and shape are appropriate for their location and functions.



- D. Plant materials should be compatible in size, shape, and color with native or neighborhood vegetation.
- E. Live plant material should be used in all landscaped areas. Gravel, colored rock, and similar materials are generally not acceptable as ground cover.
- F. Planting beds shall have a minimum area of twenty-five (25) square feet. These standards may be altered at the discretion of the Design Review Committee TRPA.
- G. Each planting bed should usually be enclosed by wood, concrete, or masonry curbing a minimum 6" in width and 6" in height above the paving surface or other materials such as mountable dikes which will adequately facilities snow removal.
- H. A landscape maintenance agreement between the owner and the County may be required to ensure that landscaping will not deteriorate soon after installation because of neglect.
- I. Species from the following list can be used to reinforce Tahoe's natural character.

List of Suggested Plant Materials

Trees	
Botanical Name	Common Name
<i>Abies concolor</i>	White Fir
<i>Abies magnifica</i>	Red Fir
<i>Calocedrus decurrens</i>	Incense Cedar
<i>Juniperus occidentalis</i>	Juniper
<i>Pinus albicaulis</i>	Whitebark Pine
<i>Pinus jeffreyi</i>	Jeffrey Pine
<i>Pinus murrayana</i>	Lodgepole Pine
<i>Pinus monticola</i>	Western White Pine
<i>Pinus ponderosa</i>	Ponderosa Pine
<i>Populus tremuloides</i>	Aspen
<i>Populus trichocarpa</i>	Black Cottonwood
<i>Sequoiadendron giganteum</i>	Giant Sequoia

Ground Cover, Shrubs and Wildflowers	
Botanical Name	Common Name
<i>Acer glabrum</i>	Mountain Maple
<i>Alnus tenuifolia</i>	Mountain Alder
<i>Amelanchier alnifolia</i>	Western Serviceberry
<i>Aquilegia formosa</i>	Columbine
<i>Arctostaphylos nevadensis</i>	Pinemat Manzanita
<i>Arctostaphylos patula</i>	Green Leaf Manzanita
<i>Artemisia tridentata</i>	Sagebrush
<i>Artemisia tridentata</i>	rush Chinquapin
<i>Ceanothus cordulata</i>	Snow Brush
<i>Ceanothus prostratus</i>	Squaw Carpet
<i>Ceanothus velutinus</i>	Tabacco Brush
<i>Chrysothamnus nauseosus</i>	Rabbitbrush
<i>Cornus stolonifera</i>	Red Stem Dogwood