

**APPENDIX G
DEVELOPMENT STANDARDS**

WORKING PAPER

PINE NUT ALLOTMENTS DEVELOPMENT STANDARDS

I. General Provisions

Title

This document shall be known as and may be referred to as the Pine Nut Allotments Development Standards.

Authority

The Pine Nut Development Standards is enacted by the Bureau of Indian Affairs pursuant to its general duty and broad authority over the Pine Nut Trust Lands. This document will be administered and enforced by the Bureau of Indian Affairs (BIA), Western Regional Office.

Purpose

The purpose of this document is to provide codified development standards and design criteria for the development of leased property included within the Pine Nut Allotments. This document is to be used in conjunction with the associated Pine Nut Allotments Land Use and Development Procedural Plan (date) that recommends the highest and best use for allotments included in the study area of the plan.

The purpose of these Development Standards is to further define standards to be met for development of leased lands within the Pine Nut Allotments which are included in the Land Use and Development Procedural Plan to protect the value and assets associated with these lands. These standards are intended as an aid in the submittal of plans for approval by providing detailed information on which to develop plans and to base a review of said plans. Where any specific conflicts exist between these standards and other applicable governmental codes and regulations, the most stringent shall take precedence.

Intent

The Pine Nut Allotments include parcels in a variety of sizes and configurations, with differing levels of services such as roads, water, service, electric power, gas, telecommunication lines, and amenities. Development of the Pine Nut Allotments will be guided by this document as well as applicable county, state and federal governmental codes and regulations. Together these conditions prescribe standards that will achieve a safe, sustainable, high quality, attractive, and desirable development within the Pine Nut Allotments.

Development standards for the Pine Nut Allotments are intended to provide a unified landscape and environmental setting. This concept will be realized through an emphasis on quality site planning, design standards, sustainability, environmental diligence, landscape materials, and signage and lighting design.

Severability

The provisions contained in these standards are severable. Should any section or provision of these standards be declared unconstitutional or otherwise invalid by any court of competent jurisdiction in a valid judgment or decree, such determination shall not affect the validity of these standards as a whole, or any part thereof, other than the specific part declared to be unconstitutional or invalid.

Similar Use Determination

The BIA may authorize a use not specifically listed within a use feasibility designation if it is determined that the use is similar to other permitted or conditional uses in the use feasibility designations, provided that the use is not determined to be prohibited.

Applicability

The Pine Nut Allotments Development Standards shall apply to all leased lands within the Pine Nut Allotments included in the Plan and shall bind all persons possessing allotment trusts, heirs, and other successors-in-interest.

The lessee or developer, hereinafter referred to as the “applicant” of parcels within the Pine Nut Allotment area, should familiarize themselves with the intent and requirements of these guidelines and all applicable governmental codes and regulations. They shall implement all those provisions applicable to their specific development. This will allow expeditious completion of the review process by the Bureau of Indian Affairs, and hereinafter referred to as the “BIA”, and/or their designated agents.

Pine Nut Allotments include discrete areas that have been assessed for development suitability on a variety of land uses depending on location, access, development feasibility, topography, and proximity and ability to provide services which are presented in the Pine Nut Land Use and Development Plan.

Objectives

The Pine Nut Allotments Development Standards attempts to achieve the following:

1. Provide comprehensive, consistent and clear design criteria for allotment lessees, developers, and reviewing staff.
2. Promote site design that provides for the public health, safety, and welfare for residents and visitors alike.
3. Promote sustainable development practices with the following Sustainability Goals:
 - To the greatest extent possible, new construction shall incorporate sustainable materials and construction practices
 - New structures shall incorporate design and technologies to reduce energy use (including but not limited to heating and cooling) to the greatest extent possible
 - Minimize cut and fill and extensive grading to prevent erosion and sedimentation
 - Reuse surface soils on-site
 - Reduce irrigation requirements and employ xeriscaping methods where feasible. Use drought tolerant and native plants
 - Consider LEED Certification for new construction
 - Utilize building materials from certified sources and suppliers who provide recycled products

- Preserve natural features through restoration, maintenance and enhancement, and discourage natural feature removal
4. Promote designs that will provide safe and convenient vehicular, pedestrian, and bicycle accessibility and circulation between and within developments.
 5. Encourage sustainable and quality architectural design and building materials, which are aesthetically pleasing and provide human scale within commercial, industrial, institutional and residential developments.
 6. Coordinate building design, signage, lighting, landscape design to provide diversity, variety in building form and type, open spaces, and site features while maintaining a sense of design continuity throughout the site.
 7. Protect the scenic views and prevent unsightly developments.
 8. Promote harmony between new and existing developments and encourage shared access and parking between adjacent compatible land uses.
 9. Provide Residential developments that promote neighborhood identity and neighborhood amenities.
 10. Provide economic development opportunities in a well-planned, unique, and orderly manner.
 11. Create opportunities for both tribal and non-tribal businesses to thrive.

II. Use Feasibility Designations

The Pine Nut Allotment Land Use and Development Plan indicate each allotment’s suitability for various types of development. Allotments that are not included in the Master Plan are generally most suited for cultural, non-commercial recreational, natural resource and in some cases individual residential use.

Uses

This section outlines which uses are allowed, conditional, temporary or prohibited uses upon leased lands within the Pine Nut Allotments in compliance with the Pine Nut Allotment Land Use and Development Plan, the provisions contained in this Title and applicable state and federal laws and regulations.

Allowed Uses (A)

The following uses subject to this document are allowed as a permitted use upon the issuance of a Type I Development Permit. Single family residential use will require proof of adequate provisions for potable water and sewage disposal. These uses are:

- Single family residential use
- Agricultural use of the land
- Home occupations including in-home daycare
- Public parks and playgrounds
- Accessory uses customarily incidental to the above uses and permitted in conjunction with such uses

Conditional Uses (C)

Conditional Use are those uses that require review on a case by case basis because of their size or operation. These uses are subject to the conditional use regulations because they may, but do not necessarily, cause impacts on the environment, require public services, change the character of an area, create or foster nuisances. A review of these uses is necessary due to the potential individual or cumulative impacts these uses may have on the surrounding area.

The conditional use review provides the reviewing authority an opportunity to allow the use when there are minimal impacts, to allow the use but impose conditions specifying mitigation measures to address identified impacts or to deny the use if the impacts are substantial and the impacts cannot be mitigated.

The following uses require the approval of a Type II-Conditional Use Permit and include all uses not specified as a permitted, temporary or prohibited use including:

- Commercial uses including retail stores and services and wholesale businesses
- Multi-family residential use
- Professional office, clinics, or services
- Manufactured home park
- Assisted living or group care facility
- Public or municipal buildings
- Utility or telecommunication facilities
- Schools and educational facilities
- Commercial Recreational use
- Resort or overnight accommodation facilities
- Industrial use and facilities
- Grading for more than 500 cubic yards
- Off-premises signage

Temporary Uses (T)

The following uses are allowed on a temporary basis after application and approval from the BIA for a period not to exceed twelve (12) months, with the intent to discontinue such use after the time period expires:

- Emergency non-commercial telecommunications
- Temporary batch plants
- Temporary construction or sales offices
- Temporary dwelling units
- Seasonal sales lots

Prohibited Uses (P)

Those uses that create noise, vibration, odor, heat and glare that are discernable from the parcel line and cannot be effectively mitigated are prohibited.

III. Type I and Type II Application Procedure and Requirements

A. Development Review

Purpose. The purpose of these provisions is to:

- Provide rules, regulations and standards for efficient and effective administration of development review
- Carry out the Pine Nut Land Use and Development Plan and the highest and best use recommendations based on the criteria set forth in this document
- Promote the public health, safety and general welfare
- Lessen or avoid congestion in the streets, and secure safety from fire, flood, pollution and other dangers
- Provide adequate light and air, prevent overcrowding of land, and facilitate adequate provision for transportation, water supply, sewage and drainage
- Encourage the conservation of energy and resources
- Encourage efficient use of land resources, full utilization of urban services, transportation options, and human-scaled design
- Ensure compliance with the land use plan and development criteria

Applicability

There are two types of development review processes, Development Review I and Development Review II-Conditional Use Permit. All new developments and modifications of existing developments, shall be require one of the two reviews, except regular maintenance, repair and replacement of materials (e.g., roof, siding, awnings, etc.), parking resurfacing, and similar maintenance and repair shall be exempt.

All plans, specifications, reports and other documents prepared by a registered professional must be stamped or sealed and wet signed in accordance with state law. The architect or engineer of record shall take responsibility for all architectural components and must wet stamp and sign all associated plans.

All architects, engineers, and contractors shall be licensed in the State of Nevada.

All applications must be complete before the permit issuing authority is required to consider the application. An application is deemed complete when it contains all of the information that is necessary for the permit issuing authority to decide whether or not the proposed development, if completed as proposed, will comply with all of the requirements contained in these provisions and applicable local, state and federal laws and regulations.

Notification and agency review requirements

Public notification requirements for a Type I development review proposal is at the discretion of the BIA. Public notification for a Type II development review proposal (Conditional Use Permit) is required as outlined below:

If the reviewing authority determines that the request will have, or may have, substantial impact on surrounding properties, he shall, at least ten (10) days before taking final action on the permit requested, send a written notice to those persons whose property is adjacent to the allotment that is subject to the application, informing them that:

- An application has been filed for a permit to authorize the identified property to be used in a specified way
- All persons wishing to comment on the application should contact the reviewing authority by a certain date

- Persons wishing to be informed of the outcome of the application should send a written request for such notification from the reviewing authority

The BIA may solicit comments from applicable service providers and governmental agencies in the course of the review process for all Type I and Type II development permits.

Building Permits

The Building Permit process is defined by the BIA’s Planning Office. This process includes:

- Consultation with the Cultural Resource Protection Program and development of a cultural resource protection agreement prior to any ground-disturbing activity
- Approval of applicable access permits
- Trees within one hundred (100) feet of residents and other principle structures shall be thinned so that crowns do not touch each other and pruned of all limbs within ten (10) feet of the ground

Development Review Type I

Development Review I is a non-discretionary or “ministerial” review conducted by the BIA through an administrative review process without a public hearing. It is for less complex developments and land uses that do not have significant design review issues. Development Review I is based on clear and objective standards and ensures compliance with the basic development standards such as building setbacks, lot coverage, maximum building height, and similar provisions and meets the purpose and goals of the Pine Nut Allotments Land Use and Development Plan.

The applicant requesting a Type I development review shall submit a scaled site plan and elevation views and other support drawings, calculations, and documentation showing the location and dimensions and all proposed improvements proposed, including proposed structures or modifications, landscaping, fences, signage, parking, access, topography, adjacent uses, existing vegetation and applicable environmental information to the site as required. The applicant shall also provide a written narrative outlining all information relevant to the proposed use. The reviewing agency may require additional information and plans relevant to its consideration of whether the applicant meets the development standards.

Development Review I is required for development types listed below.

- Single-family detached dwelling (including manufactured homes), when required by a condition of land division approval
- Building additions of not more than 500 square feet
- Minor modifications to development approvals
- Home occupations including in-home daycare
- Temporary use, except that temporary uses shall comply with the procedures and standards for temporary uses
- Accessory structures with less than 600 square feet of floor area, including accessory dwellings

Development Review Type II-Conditional Use Permit

Development Review II is a discretionary review conducted by the BIA through an administrative process and requires public notification of adjacent property owners as outlined above. At the discretion of the BIA, the review may include a third party design professional.

The Type II Conditional Use Permit process applies to all developments contained in the Pine Nut Land Use and Development Plan except those specifically listed under the Type I development review process or those uses deemed to be prohibited uses. Development Review II is required for development types listed below:

- Commercial uses including retail stores and services and wholesale businesses
- Multi-family residential use
- Professional office, clinics, or services
- Manufactured home park
- Assisted living or group care facility
- Public or municipal buildings
- Utility or telecommunication facilities
- Schools and educational facilities
- Commercial Recreational use
- Public Parks and recreation facilities
- Resort or overnight accommodation facilities
- Industrial use and facilities
- Grading for more than 500 cubic yards
- Off-premises signage

Approval Criteria

The Type II development review process ensures compliance with the basic development standards of the land use type (e.g., building setbacks, lot coverage, maximum building height), as well as the more detailed design standards and public improvement requirements.

The BIA after the review of the application materials and other pertinent documents will determine if the application is complete. All applications must comply with the following applicable provisions:

- Conformity with the goals and policies embodied in the Pine Nut Allotments Land Use and Development Plan
- Standards which are generally or specially applicable to particular uses including specific conditions relative to operation of the use
- Compatibility between the proposed development and adjacent development and uses
- Preservation of the character and integrity of adjacent development and uses
- Will not significantly adversely affect the environment
- Will not significantly adversely affect cultural resources
- Protection of the health, safety and general welfare of the planning area

Where additional conditions are imposed, the body imposing the conditions shall make findings which embody the basic purpose of the conditions placed on the application.

The BIA may deny a Type II Conditional Use Permit if it concludes that based on the information submitted in the application, and public and agency comments that if completed as proposed, the development, more probably than not:

- Will materially endanger the public health or safety
- Will substantially injure the value of an adjoining or abutting property
- Will not be in harmony with the area in which it is to be located
- Will not be in general conformity with the Pine Nut Allotments Land Use and Development Plan
- Will significantly adversely affect the environment
- Will significantly adversely affect cultural resources

Submittal Requirements

Site plan shall contain the following information:

- The site plan shall be drawn to scale with the scale identified on the plan. The scale shall be no smaller than 1 inch equals 100 feet. The plan should show property boundaries, existing and proposed land uses, existing and proposed transportation facilities, natural features, and any other pertinent information that would help identify how the proposed use is compatible with the surroundings. The reviewing authority shall (where applicable) refer the submittal or portion thereof to other agencies or individuals for their review and comment.
- A site map showing existing and proposed property lines, easements, right-of-ways, and ownership of abutting properties
- The plan shall show its relationship to adjacent properties
- The plan shall include any existing structures on the property and indicate the setback distances from the property lines. Any wells, cisterns, septic tanks, or underground storage tanks shall be shown on the plan
- Existing utilities on or adjacent to the property shall be indicated
- Location of existing and proposed paving, parking, and loading facilities including accessible spaces
- Location of existing and proposed fences along with their heights and type of materials
- Any other relevant site characteristics

A Grading plan.

Access information indicating how access standards are met:

- Distances to neighboring constructed public access points, median openings, traffic signals, intersections, and other transportation features on both sides of the property including the section of roadway between the nearest upstream and downstream collector.
- Number and direction of site-access driveway lanes to be constructed, as well as internal signing and striping plan
- All planned transportation features on the local transportation system (such as auxiliary lanes, signals, etc.)
- Trip generation data or appropriate traffic studies, if applicable
- Parking and internal circulation plan
- Existing and proposed walkways and sidewalks

The location and size of any existing and proposed signs.

Landscaping, both existing and proposed.

Drainage provisions for all impervious surfaces.

Time of Review

The BIA will determine if the application is complete and has ten (10) working days in which to make a determination of completeness.

If the application is incomplete, the Applicant will be informed and will have twenty (20) working days to provide the missing information.

Once the application is complete, the BIA has thirty (30) calendar days to issue a preliminary finding. They may determine that the application is compliant with the design criteria and standards within this document; determine that the application is compliant if the applicant makes Committee recommended modifications; or, determine that the application is non-compliant.

The applicant then has thirty (30) working days to revise the application and resubmit it to the reviewing authority.

When final plans are submitted for review, the BIA has ten (10) working days to make a final finding.

Time of Expiration

Unless otherwise specifically provided for, development permits shall automatically expire and become null or void within one (1) year after the issuance of such if:

- The use authorized by such permits has not commenced, in circumstances where no substantial construction, erection, alteration, excavation, demolition, or similar work is necessary before commencement of such use, or
- Less than ten (10) percent of the total cost of construction, erection, alteration, excavation, demolition, or similar work on any development authorized by such permits has been completed on the site

The BIA may extend for a period up to six (6) months that date when the permit would otherwise expire if he concludes:

- The permit has not yet expired; and
- The permit recipient has proceeded with due diligence and in good faith; and
- Conditions have not changes so substantially as to warrant a new application. Successive extensions may be granted for periods of up to six months upon the same findings. All such extensions may be granted without resort to the formal processes and fees required for a new permit.

B. Leasing Process

Initial Review

Prospective tenants start an initial confidential consultation with the Pine Nut BIA Reality Department to review the business and financing plan as well as the incentives available and also to review the development concept and discuss fit with these guidelines.

Letter of Intent

The next step is a confidential Letter of Intent with the Pine Nut Allotment governing body. This Letter of Intent will recognize the mutual commitment of the tenant and the Pine Nut Allotment governing body to proceeding through the development and leasing process.

Leasing

Once the Letter of Intent is completed, a Pine Nut Allotment governing body and tenant will proceed to finalize the ground lease. The lease must be approved by the Bureau of Indian Affairs prior to commencement of construction activities.

Initial Development Review

Once the Letter of Intent is completed, the tenant shall submit site plan and building drawings at schematic design stage (roughly 30% completion) for preliminary Development Review.

Development Review

Development Review will proceed as outlined herein.

Fees

Review fees will be determined by the BIA in conjunction with the application review required for each specific development proposal. If the BIA determines that a third party design professional shall conduct

any portion of the development review process, the applicant will be responsible for the review fees which shall be the actual cost of the review professional fees.

Applications for Areas without Existing Infrastructure

Applications for new development may be accepted prior to infrastructure and utility construction if all of the required guarantees and financing are in place to ensure that infrastructure can be completed; and the applicant parcel is legally defined. No occupancy may be granted to buildings until all required infrastructure improvements are in place.

Conformance with Approved Plans

Final Site Development Plans and Building Permit Plans shall be substantially the same as the approved plans. Major modifications from the approved plans will require additional review or be cause for final site plan or building permit denial.

IV. Development Standards

Purpose

Building design and site design are important to the long-term success and livability of the Pine Nut Allotments and the surrounding area. Lessees, surrounding residents, and visitors will be attracted to a built environment with high quality and consistent design standards, where each development is consistently executed, well maintained and functional. These standards will also help provide protection of the value and assets associated with the allotments.

General

All requirements contained in this section represent the minimum standards for areas subject to this document.

Building Setbacks and Buffer Standards

Building setbacks may be required to be consistent with previously established buildings in the development areas and may be required to setback greater distances than the minimum standards. The following setbacks are the minimum building, parking and livestock grazing or boarding setback areas required:

A minimum buffer area of 100 feet will be required along the outside perimeter of an existing allotment area to minimize impacts to adjacent allotments. These buffer areas must be maintained in their natural vegetative state except when access is required to an adjacent allotment.

In addition to the required perimeter buffer areas, minimum building setbacks shall be required on all existing and proposed lots.

Minimum Front Yard Building Setback (less than 10 acres) – 50 feet

Minimum Front Yard Building Setback from Hwy 395 (less than 10 acres) – 25 feet

Minimum Rear Yard Building Setback (less than 10 acres) – 50 feet

Minimum Side Yard Building Setback (less than 10 acres) – 50 feet

Minimum Street Side Yard Setback (less than 10 acres) – 50 feet

Minimum Front, Rear & Side Yard Parking Setback from Hwy 395 (less than 10 acres) – 25 feet

Minimum Front Yard Building Setback (greater than 10 acres) – 75 feet

Minimum Front Yard Building Setback from Hwy 395 (greater than 10 acres) – 50 feet

Minimum Rear Yard Building Setback (greater than 10 acres) – 75 feet
Minimum Side Yard Building Setback (greater than 10 acres) – 75 feet
Minimum Street Side Yard Setback (greater than 10 acres) – 75 feet
Minimum Front, Rear & Side Yard Parking Setback from Hwy 395 (greater than 10 acres) – 50 feet
Minimum Lot Width at Front Building Line – 175 feet
Maximum Lot Coverage – 35 percent
Maximum Building Height
 Residential Structures – 35 feet
 Commercial & Industrial Structures – 50 feet
 Accessory Agricultural Structures – 60 feet
Minimum Distance Between Structures – 15 feet
Minimum Lot Size - Minimum lot size shall not be less than 1 acre and will be based on providing adequate provisions for potable water and sewage disposal.

Allowed improvements within required building setback areas:

- Driveways per the requirements of the Douglas County Engineering standards
- Roof overhangs, bay windows, eaves, cornices, awnings and similar building supported elements may extend a maximum of 24 inches into the required setback areas from property lines
- Minor utility improvements such as transformers, meters, and mechanical equipment
- All setback areas for commercial and industrial uses shall be planted, improved or maintained in a manner compatible and complimentary to the architecture and landscape design concepts described herein

V. Design Criteria for Non-residential Uses

The following criteria apply to the commercial, industrial, Commercial Recreation/ Resort, and Planned Unit Development and uses.

SITE LAYOUT

Building Arrangement

Buildings should be arranged and located on a parcel so that:

- sustainable practices can be maximized
- conflicts between activities are minimized and safety is maximized
- unsightly activities are screened
- visual monotony is avoided
- safe pedestrian environments are created
- Commercial, industrial, and institutional buildings should orient the primary and public entry to clearly direct visitors
- Where multiple building occur on a parcel they shall be arranged to provide safe pedestrian areas and convenient access between areas. Accessory structures such as trellises, arcades, low walls can be used to visually and physically link multiple buildings
- Buildings shall be located in a manner that compliments adjacent properties that have a similar use. For example vehicle and pedestrian access between properties should be seamless and safe. Building setbacks be compatible for shared access and visual harmony.
- Drive through windows and drive in garage or loading doors should not face the Primary Street or access.
- Existing natural features should be retained and incorporated into the site layout to create a unique setting that reflects the natural environment to the greatest extent possible

- Storage areas and storage buildings shall be located in the rear of the site. Outdoor storage yards shall be screened with a six (6) foot opaque fencing, decorative wall, or evergreen shrubs
- Buildings, landscaping, grading, or other solid structures shall not be located within a clear vision triangle at any intersection of streets or driveways and streets

Circulation and Parking

The overall circulation pattern shall be designed to avoid conflicts between movement of pedestrians, vehicles and bicycles.

- The number of required parking spaces will be based on the use and the requirements listed in the Douglas County Development Code Chapter 20, and on a case by case review by the BIA based on the ITE Trip Generation Manual, as amended
- Parking stalls and access aisle dimensions requirements are specified in Douglas County Development Code Chapter 20 and shall be designed to insure emergency vehicle access to the site
- All parking areas shall comply with the requirements of the Americans with Disabilities Act
- Parking is not allowed between the parking setback line and the property line. The Parking setback area will be landscaped with shrubs and trees and decorative landscaping as required
- Parking that is adjacent to a residential use shall have a ten (10) foot landscape bed and a six (6) foot high decorative wall, fence or evergreen shrubs
- There are specific landscaping requirements associated with parking areas. See the Landscape Guidelines
- Rows with twenty-five (25) parking spaces or more must have an interior landscaped island that is a minimum of six (4) feet wide
- Large parking areas with more than fifty (50) spaces should be divided into a series of smaller connected lots and separated with landscape islands or the building.
- Parking aisles should be arranged to direct pedestrians parallel to cars to prevent crossing over aisles, between cars, and over landscape islands. Pedestrian walkways through parking areas may also be provided
- Provide a six (4) foot wide landscape strip or sidewalk between parking areas and buildings
- Where separate sites share parking and access, the circulation patterns must be coordinated with each other
- Parking area turning radii must accommodate emergency vehicles and meet AASHTO standards
- Parking areas shall be paved and graded in accordance with Douglas County Engineering standards
- Parking stalls should not be located where vehicles back into a primary ingress driveway or roadway

Vehicular Access

- Vehicular access to lots must be paved with asphalt or concrete paving or unit pavers and meet the Douglas County Engineering Design Criteria and Improvement Standards, as amended
- Shared driveways between abutting lots is encouraged. In such cases, a joint use maintenance and upgrading agreement between tenants is required
- Driveway access permits shall comply with the Douglas County Engineering Design Criteria and Improvement Standards, as amended
- Dimensional standards and spacing between driveways and driveways and intersections shall comply with Douglas County Engineering Design Criteria and Improvement Standards, as amended

Pedestrian Circulation

- All sidewalks will be Portland cement concrete or comparable concrete, brick pavers, or all weather material.
- Clear and direct concrete or asphalt walkways shall be provided to the main entries of all buildings and throughout the site. They shall be a minimum of four feet wide
- All sidewalks and pedestrian access ways must comply with the requirements of the Americans with Disabilities Act
- There shall be a connecting sidewalk or pedestrian walkway between entries in a multi-tenant building
- Pedestrian walkways shall be of a contrasting material or painted crosswalk when crossing paved vehicular surfaces
- Pedestrian walkways (except where crossing parking areas) shall be separated from vehicular drives by curbing or a landscape bed
- Pedestrian walkways (except where crossing parking areas) and plazas may be included as part of the minimum landscape area
- Uses that have frequent passenger drop off and pick up needs shall have a designated area close to an entry that does not conflict with pedestrian or vehicular circulation

Loading and Service Access

- Loading and service areas shall be on the side or rear of a building when required for the proposed use. They shall be screened from view of a public street and adjacent residential development
- The screen must be 6 feet high and constructed from concrete, masonry block, or solid vegetative plantings, or slatted chain link fencing facing a public street or adjacent to residential development
- Service and loading areas must be paved and clearly indicated with no parking signage or striping
- Access to loading areas should have adequate width and turning radii to accommodate truck access without multiple maneuvers
- Loading areas shall not interfere with on site circulation

Outdoor Storage

Outdoor storage areas that are accessories to a permitted use shall be adequately screened from view with a 6 foot high opaque wall, or solid vegetative screening or a slatted chain link fence.

Snow Storage

Developments should include open areas with good sun exposure where snow can be placed out of the access and parking areas and without damage to landscape planting.

Trash enclosures

Trash areas must be screened from the street with a six foot high solid or slatted fence, wall, or evergreen shrubs. They shall have a steel post mounted gate for access.

Utilities and Mechanical Equipment

- Electrical and telecommunication vaults shall be located where there is adequate space to provide appropriate screening. Locations near or adjacent to main building entries or main driveway entries are discouraged. FDC's (fire connections) locations will be determined through consultation with the Fire District
- Where space allows, screen above ground utility vaults with sight-obscuring vegetation or walls

- To the greatest degree possible, roof mounted mechanical equipment shall be screened with building parapets or screening material that matches the building

Fencing and Walls

- Walls should blend in with the building color and materials or surrounding environment
- Fencing between a building and street shall not exceed six-feet and shall not exceed three (3) feet within the clear view triangle area
- Razor wire fencing is not allowed

Signage

Signs associated with commercial and industrial uses

Signage associated with commercial and industrial uses shall:

- Not exceed a maximum total area for all signs of four hundred (400) square feet
- Exceed a maximum height above the ground of thirty-five feet
- Light control to exclude directed light or bright glare onto streets in such a manner as to be a traffic hazard
- Not located within a public right-of-way
- No sign structures or parts to extend over any part of a street traffic way
- One (1) sign may be permitted as a free standing structure to identify an establishment or place of business
- All sign structures shall be of permanent type construction and the location and structural design shall be such as to not interfere with the safe and efficient use of off-street parking and loading areas including aisle ways and access driveways thereto, or with roads within or adjoining the site
- Any illuminated sign which does not maintain, when in operation or se, a stationary light of constant intensity and color shall be prohibited
- Plans for such signs and their location shall be submitted as a part of the development permit

Off-premises signage

- Off-premises signage shall not be permitted in public right-of-ways, not exceed three hundred (300) square feet in area and a height of thirty (30) feet above the level of the adjoining road. The signs shall not exceed a density of two (2) per mile including signs on both sides of the road, nor spaced closer than two thousand (2,000) feet apart. Any lighting shall be controlled to eliminate direct light or strong glare and reflection toward adjacent streets or roadways or existing structures

Fire Standards

As part of the building permit review process the following minimum fire standards are required for all residential, commercial, and industrial construction:

- Roofs shall be made of noncombustible materials as described in the International Building Code
- All wood stoves must be approved by the Environmental Protection Agency (EPA)
- All chimneys shall be equipped with approved spark arrestor and all tree branches within fifteen (15) feet of a chimney shall be removed
- All weeds and combustible debris (except for scattered ornamental(s) shall be cleared for a distance of at least thirty (30) feet from each structure

Lighting

- Lighting fixture shall be full cut off light fixtures that do not emit light above the 90-degree

- horizon and must be so controlled as to prevent glare on streets and adjoining property
- Lighting shall be designed to insure uniform light levels and provide appropriate safety and security for the development
- The height of parking lot light poles shall not be greater than 15 feet adjacent to residential or agricultural uses and no greater than 25 feet in other areas
- Light poles shall be engineered for local wind speeds. Allowable pole materials include cast aluminum, concrete, or steel. All finishes shall be permanent and factory applied
- Pedestrian level lighting shall be provided for all pedestrian circulation areas
- Up lighting is allowed to illuminate building fronts and signage at night with the review and approval of a Type I development permit
- Flashing lights are not allowed

Stormwater Detention and infiltration areas

- Where the topography allows storm water should be directed toward shallow stormwater swales that parallel the street. They should include native bunch grasses and rocks to dissipate energy and slow the flow of water and provide for infiltration
- Where swales are not feasible water should be directed to detention basins. The detention basins may be gradually sloped and grassed for use as open space at other times. Where they abut a public street and present a hazard they should be fenced with a low maintenance decorative metal fence. Use only non buoyant material within the detention basins
- Where site conditions allow it, stormwater shall be directed to an infiltration pond or vault where it will be treated for water quality and then infiltrate into the ground or be released into an appropriate outlet at pre-development rates
- Stormwater Detention designs must be reviewed and approved by the Douglas County Engineering Department

Construction Activities

- Construction activity shall not block access to any other lot
- Construction activities shall not disrupt business or the operations of adjacent lot
- The applicant shall be responsible for the repair of any street, public feature, landscape material, utility, or adjoining property damaged during the course of construction
- The applicant is responsible for street cleaning necessitated by construction activity
- The applicant shall maintain a dust suppression program, water and wind erosion prevention and stabilization measures
- Construction activities shall be conducted between the hours of 7:00 am to 7:00 pm

Landscaping

Purpose

The guidelines provide a minimum standard to insure that the overall landscape reflects the character of the Pine Nut Allotments. Various types of land use and development will require different landscape treatment. The standards are designed to:

- Insure an overall aesthetic for each development area appropriate for the various land uses
- Provide adequate screening and transition between differing land uses
- Reduce erosion and stormwater runoff
- Promote health safety and comfort through air quality and shading benefits of plant material
- Soften the visual impacts of paved surfaces and vehicular uses

General Landscaping Requirements

- Plants shall be appropriate for the climate and consistent with the recommended plant list in Appendix A
- Use of native vegetation or drought tolerant vegetation is encouraged to reduce irrigation water requirements
- All required Landscaping shall be installed, maintained, and replaced as necessary by the owner or lessee of the lot
- Existing vegetation should be preserved and incorporated into the Landscape and Site Plan as much as possible
- Plants used should be at a scale that is appropriate for to accomplish the intended purpose
- All areas where new landscaping is required shall be equipped with an automatic irrigation system. The system shall be designed, installed and operated to maintain the plant materials in a healthy condition. However, utilization of native and drought-tolerant plants is encouraged as much as possible
- Storm water filtration or detention facilities and required buffer areas may be included as part of the required landscape areas as outlined below.

Entry areas

Landscaping should be used to identify and enhance entry drives.

Between parking areas and the primary street or access

There should be a combination of trees shrubs and groundcover treatment within a 10 foot minimum landscape area.

Interior Parking area

Required interior parking islands shall have a shade tree. The remaining area shall have groundcover or shrubs providing 50% vegetative cover. The remaining 50% of the area may be decorative rock.

Building Perimeter Landscaping

The landscape areas at the perimeter of buildings shall have ground covers, shrubs, and trees. Evergreen and deciduous trees shall be used as accents and to provide shade. Hardscape may be used as a design element at entry areas to provide pedestrian plazas. Building Perimeter landscape is a general landscape style whose purpose is provide visual enhancement and softening to the development, rather than screening for a particular activity. Perimeter landscaping shall comply with the fire standards contained in this Title.

Open Space and Undeveloped Lot Areas

Open space and undeveloped portions of a developed lot may remain with undisturbed native plant material or cultivated crops and do not require irrigation. Undeveloped but disturbed areas shall be seeded with native grasses and maintained to prevent noxious weeds, erosion and dust.

Landscape design for the highway corridor includes both the natural highway right of way landscape and the areas within the development setback line and the lease lines of abutting properties. Increased development setback lines along the Highway have been established to provide ample space to create a landscaped corridor along the highway. A landscape buffer area of ten (10) feet within the corridor that incorporates an enhancement of the native vegetation and a material is required.

Maintenance Standards

Lessees shall maintain their lots in a neat and orderly fashion at all times, free of fire hazards and injury risks, including any area set aside for future development. Lessees are responsible for:

- Regularly scheduled maintenance to buildings and all landscaped areas
- Ensuring that no noxious or invasive weeds are allowed to become established on their lots

- Removing trash, debris or rubble of any kind, including windborne noxious weeds
- Maintaining adequate exterior lighting
- Replacement of dead or damaged landscape material in a timely manner
- Trimming and maintaining landscape material in a neat and tidy manner
- Removal of any accumulation of non-operational and/or non-essential equipment or material

Building Design

Buildings are often the most significant feature of a site development. The intent of this section is to provide for the construction of high quality structures that:

- Compatible with the surrounding development
- Function efficiently for the individual user
- Allow architectural variety and visual interest
- Additions to existing buildings should blend with the existing architecture.

Metal (Steel) buildings are subject to specific criteria outlined in the section relating to Metal Buildings. The use of unadorned plywood panels is not allowed.

Tilt-up concrete, masonry/block, metal (steel) and wood construction are allowed provided that the construction complies with the International Building Code, International Fire Code and the additional fire provisions contained in this Title.

Accessory structures shall be architecturally compatible with the main structure.

Metal (Steel) Buildings

- Metal building facades shall incorporate concrete or masonry wainscoting on walls facing public streets and provide visual interest at the entry
- Acceptable exterior metal walls and roof panels shall be anodized aluminum, galvanized steel, and weathering steel
- Galvanized and coated steel shall have factory-applied baked paint finish, resistant to chalking, fading and failure. Exterior finishes shall not cause glare
- Metal panels shall have sufficient gauge and quality to ensure a rigid surface
- Structural members and fastening devices shall be on the interior except when used for design purposes. Exterior fasteners must be rustproof

VI. Subdivision Standards

SUBDIVISION DESIGN

Purpose

- To assure that development occurs in an orderly, efficient, and cost-effective manner, while preserving the livability of the Pine Nut Allotments
- Individual subdivisions should integrate with the adjacent developments with respect to the street system, pedestrian connections and appropriate buffering
- Grading concepts shall respect the natural terrain and minimize grade differentials
- When significant slopes are present between properties, rear and side yard property lines shall be located at the top of the slope to avoid maintenance problems
- Subdivision design shall minimize the conflict between differing land uses. Parkways, right of way landscaping, and oversized lots can provide separation between residential and non-residential uses

Regulation of Subdivisions

No person may subdivide their land except in accordance with all of the provisions contained herein. In particular, no person may subdivide until a final plat of the subdivision has been approved in accordance with the provisions contained in this plan and recorded in Douglas County and with the Bureau of Indian Affairs Title Office.

Minor subdivisions, four (4) lots or less require a one step administrative approval process of the approval of a final plan in conformance with the provisions outlined herein. A major subdivision, five (5) lots or more are subject to a two step approval process with the physical improvements and lot layout to be reviewed via a preliminary plat process and the division of lots to be permitted after final plat approval.

An engineer retained by the developer shall certify that all facilities and improvements have been constructed or bonded for in accordance with the requirements contained in these provisions. This certification shall be a condition precedent on the recording of the final plat for minor or major subdivision and prior to the issuance of a building permit.

All lots or parcels proposed to be developed and are divided in a major or minor subdivision shall verify adequate provisions for potable water, sewage disposal and access prior to final plat approval.

Minor Subdivision Approval

The reviewing authority shall approve or disapprove a minor subdivision final plat in accordance with the provisions of this section.

An applicant for minor subdivision plat approval shall submit a site plan to the reviewing authority for a determination of whether the approval process authorized by this section can be utilized. The reviewing authority may require the applicant to submit whatever information is necessary to make this determination, including but not limited to, a copy of the tax map showing the land being subdivided and all lots previously subdivided from that tract of land within the previous five (5) years.

Once the site plan is reviewed and preliminarily approved the applicants for minor subdivisions shall submit to the reviewing authority a copy of the plat map drawn in waterproof ink on a sheet made of material that will be acceptable to the auditor's office in the county and the BIA Title Office for recording purposes and having the dimensions as follows:

A 21" by 30" Mylar plat at a scale of not more than 1" equals 100' that contains the required endorsements and contains:

- The name of the subdivision, which name shall not duplicate the name of any existing subdivision as recorded in the applicable recordation office
- The name of the subdivision lessee
- The township, county, and state where the subdivision is located and its status as trust land
- The name of the surveyor and his/her registration number and the date of the survey
- The scale according to which the plat is drawn in feet per inch or scale ratio in words, and
- All of the additional information required by the regulations contained in these provisions

The reviewing authority shall approve the proposed plat unless he finds that the plat or the proposed subdivision fails to comply with one or more of the requirements of these standards or differs

significantly from the sketch map submitted that authorized the preparation of the final plat.

If the final plat is disapproved by the reviewing authority, the applicant shall be furnished with the written statement of the reasons for the disapproval.

Approval of the final major subdivision plat is contingent upon it being recorded within sixty (60) days after the approval certificate is signed by the reviewing authority or his designee.

Major Subdivision Approval

The reviewing authority shall approve or disapprove a major subdivision final plat in accordance with the provisions of this section.

An applicant for a major subdivision plat approval shall submit a site plan to the reviewing authority for a determination of whether the approval process authorized by this section can be utilized. The reviewing authority may require the applicant to submit whatever information is necessary to make this determination.

Once the site plan is reviewed and preliminarily approved the applicants for major subdivisions shall submit to the reviewing authority a copy of the plat map drawn in waterproof ink on a sheet made of material that will be acceptable to the auditor's office in the county and the BIA Title Office for recording purposes and having the dimensions as follows:

A 21" by 30" Mylar plat at a scale of not more than 1" equals 100' that contains the required endorsements and contains:

- The name of the subdivision, which name shall not duplicate the name of any existing subdivision as recorded in the applicable recordation office
- The name of the subdivision lessee
- The township, county, and state where the subdivision is located and its status as trust land
- The name of the surveyor and his/her registration number and the date of the survey
- The scale according to which the plat is drawn in feet per inch or scale ratio in words, and
- All of the additional information required by the regulations contained in these provisions.

The reviewing authority shall approve the proposed plat unless he finds that the plat or the proposed subdivision fails to comply with one or more of the requirements of these standards or differs significantly from the site plan submitted that authorized the preparation of the final plat.

If the final plat is disapproved by the reviewing authority, the applicant shall be furnished with the written statement of the reasons for the disapproval.

Approval of the final major subdivision plat is contingent upon it being recorded within sixty (60) days after the approval certificate is signed by the reviewing authority or his designee.

Site Plan Requirements

Site plan shall contain the following information:

- The site plan shall be drawn to scale with the scale identified on the plan. The scale shall be no smaller than 1 inch equals 100 feet. The plan should show property boundaries, existing and proposed land uses, existing and proposed transportation facilities, natural features, and any other pertinent information that would help identify how the proposed use is compatible with the surroundings. The reviewing authority shall (where applicable) refer the submittal or portion

thereof to other agencies or individuals for their review and comment.

- Plat map showing existing and proposed property lines, easements, right-of-ways, and ownership of abutting properties.
- The plan shall show its relationship to adjacent properties
- The plan shall include any existing structures on the property and indicate the setback distances from the property lines. Any wells, cisterns, septic tanks, or underground storage tanks shall be shown on the plan
- Existing utilities on or adjacent to the property shall be indicated
- Location of existing and proposed paving, parking, and loading facilities including accessible spaces
- Location of existing and proposed fences along with their heights and type of materials
- Any other relevant site or environmental characteristics

A Grading plan.

Access information indicating how access standards are met:

- Distances to neighboring constructed public and private access points, median openings, traffic signals, intersections, and other transportation features on both sides of the property including the section of roadway between the nearest upstream and downstream collector
- Number and direction of site-access driveway locations to be constructed including length, width and base and surface improvements
- All planned transportation features on the local transportation system (such as auxiliary lanes, signals, etc.)
- Trip generation data or appropriate traffic studies for five or more lots

Drainage provisions to mitigate for all anticipated impervious surfaces.

Single Family and Manufactured Homes

- Accessory buildings except for agricultural structures should be visually similar to the primary building
- Metal (steel) roofs and buildings shall have a non-glossy surface
- Accessory dwelling units shall have the same architectural character as the primary residence
- Houses should be sited to consider solar and wind exposures
- Landform and topography should be preserved to minimize grading
- Driveways should be long enough so that vehicles will not obstruct the driveway and wide enough to allow emergency vehicle access

Street Design Provisions

- Access must be maintained to adjacent allotments
- Entrances and exits for vehicles shall be designed to encourage smooth traffic flow with controlled turning movements and minimum hazards to pedestrians, bicyclists, passing traffic, or to traffic entering or leaving the development
- Street design shall consider alternative modes of transportation such as, bicycle lane, sidewalk and pedestrian or equestrian trails, and public transit stops
- Safe and easy access for emergency vehicles shall be provided throughout the entire subdivision
- If private streets are allowed they must be built to all public road standards
- Subdivisions shall have access points connecting with existing County or State roads

- The layout of streets shall provide for the continuation of arterial, collector, connector, and local streets within the development and between adjoining developments when feasible. Through traffic shall be directed to arterial or collector streets
- When public access to adjoining property is required, this access shall be improved and dedicated to the County
- Street stubs shall be provided to allow for future access to adjacent undeveloped property as deemed necessary
- A street which is dedicated to the boundary of the subdivision or partition shall have a reserve strip deeded to the County for the purposes of controlling access from adjacent properties to said street until such time as the street is continued into the adjacent properties and constructed
- Streets within developments shall be designed to discourage the use of minor streets for through traffic
- Street alignments, intersections, and centerline deflection angles shall be designed to the standards of the Douglas County Roadway Standards
- Street intersections shall be as near to right angles as possible or as otherwise provided under the County Roadway Standards. Street jogs with offsets of less than 125 feet between centerlines shall be avoided
- Intersections with arterial streets should be separated by at least 1000 feet or as otherwise provided under the Douglas County Roadway Standards
- If existing streets provide adequate access to a minor or major arterial, new access roads shall enter on the lower classification street
- New roads terminating in cul-de-sacs are prohibited except where natural features (such as topography, streams, or wetlands), parks, dedicated open space, or existing development preclude road connections to adjacent properties, existing street stubs, existing roads or the proposed road system

Lot or Parcel Provisions

- Every lot or parcel shall abut or have adequate access to a public street or roadway and shall conform to the minimum frontage requirements
- Lots or parcels shall not be configured with un-useable awkward shapes
- Residential lots which have street frontage along two opposite boundaries are discouraged, except for reverse frontage lots which are necessary to separate residential development from arterial streets or to overcome specific disadvantages of topography and orientation
- Developments with reverse frontage lots shall have an additional 10 feet of width in addition to the minimum lot size and shall have a restriction at least one foot wide along the lot lines abutting the arterial street, across which there shall be no access. Alternatively, there shall be a note on the final plat stating that direct access to the arterial street will not be allowed

Stormwater detention and infiltration areas

- Where the topography allows storm water should be directed toward shallow stormwater swales that parallel the street. They should include native bunch grasses and rocks to dissipate energy and slow the flow of water and provide for infiltration
- Where swales are not feasible water should be directed to detention basins. The detention basins may be gradually sloped and grassed for use as open space at other times. Where they abut a public street and present a hazard they should be fenced with a low maintenance decorative metal fence. Use only non buoyant material within the detention basins

Planned Unit Development -Clustered development.

Clustered development occurs when a parcel or contiguous parcels under the same ownership are developed to cluster lots for residential use. The purpose of the clustered development is to provide a mechanism to preserve agricultural lands and open space, locate housing in areas which can readily be served by emergency services, utilities, etc. Clustered housing may be used when it meets the following requirements:

The minimum parcel size for clustered lots is 1/2 net acre when individual septic systems are required and one half acre when public sanitary sewer is available. Individual parcels are not to exceed five net acres.

- The number of clustered lots created on the parcel for single-family units cannot exceed the assessed site suitability density recommendation for the parcel as provided herein
- The remainder parcels with density removed are restricted to ranching, farming, recreational, or agricultural open space use as designated, and cannot be developed for any other use. The remainder parcels shall be further restricted by including in a deed restriction on the land owned in common by the owners or developer of the clustered parcels, or an open space easement in favor of the BIA, or a homeowners association approved by the BIA
- Clustered lots shall not be located in a special flood hazard area
- Clustered lots can only be located in areas that will support the installation and use of an individual sewage disposal system or connection with an existing sewer system. Clustered lots are prohibited in any other areas
- The provisions of this section are applicable through the approval of tentative and final subdivision or parcel maps

APPENDIX A: APPROVED TREE, SHRUB, AND GROUNDCOVER SPECIES LIST

Please Note: All landscape plans submitted are subject to site approval and are reviewed on a case-by-case basis according to the land use proposed, Species and varieties appropriate for the proposed development which are not included in this list are also subject to approval by the BIA or their designee. Note: An asterisk (*) denotes approved street trees.

DECIDUOUS TREES	BETULA pendula spp.
<u>Botanical Name</u>	CARPINUS betula
ACER freemanii	CATALPA bignonioides 'Nana'
ACER ginnala	CATALPA speciosa
ACER negundo 'Sensation'	CEDRUS Atlantica 'glauca'
ACER negundo 'Variegatum'	CELTIS occidentalis
ACER platanoides	CELTIS reticulate
ACER platanoides schwedleri	CERRCIS occidentalis
ACER pseudoplatanus	CONTINU'S coggygria D
ACER rubrum	CRATAEGUS spp.
BETULA	ELAEAGNUS angustifolia

FRAXIN3S americana

FRAXIN[JS excelsior

FRAXINUS ornus

FRA.XINUS pennsylvanica

FRA.XEVUS quadrangulata

Common Name

'Jeffersned' Autumn Blaze Maple

Amur Maple (*)

Sensation Box Elder

Variegated Box Elder

Norway Maple (*)

Schwedler Maple

Sycamore Maple (*)

Red Maple

White Birch

Weeping Birch

European Hombeam

Umbrella Catalpa

Western (northern) Catalpa

Blue Atlas Cedar

Common. Hackberry (*)

Western Hackberry (*)

Western Red Bud Smoke

Tree

Hawthorn

Russian Olive

Autumn Purple Ash

European Ash

Flowering *Ash*

Green Ash

Blue Ash

GINKO biloba	Maindenhair Tree (male only)
GLEDITSIA triacanthos inermis	Thornless Honey locust
GYMNOCLADUS dioicus	Kentucky Coffee tree Golden
KOELREUTERTA paniculata	rain tree
LABURNUM	Golden chain tree
MALUS spp,	Flowering Crabapple
OSTRYA virginiana	Ironwood
PLATATT spp.	Plane tree
POPULUS tremulodes	Aspen
PRUNUS cerasifera atropurpurea	Purple Leaf Plum
PRUNUS persica	Flowering Peach
PRUNUS spp.	Flowering Cherry
PRUNUS triloba	Flowering Almond
PYRUS calleryana	Flowering Pear
QUERCUS coccinea	Scarlet Oak
QUERCUS douglasii	Blue Oak
QUERCUS gambelii	Gambel Oak
QUERCUS lobata	Valley Oak
QUERCUS palustris	Pin Oak
QUERCUS robur	English Oak
QUERCUS rubra	Red Oak
ROBINIA ambigua -	Idaho / Purple Robe Locust
ROBINIA hybrida	Flowering Locust
ROBINIA hybrida monument	Monument Black Locust
SALIZ matsundana	Corkscrew willow
SORBUS aucuparia	European Mountain Ash
TILIA cordata	Little Leaf Linden

EVERGREEN TREES

(Avoid planting any evergreen trees in the heat of summer, late fall, early winter and without adequate irrigation. Evergreens need a minimum of two winters with adequate water supply)

<u>Botanical Name</u>	<u>Common Name</u>
CALOCEDRUS decurrens	Incense cedar
CEDRUS atlantica	Atlas Cedar
CUPRESSUS <i>arizonica</i>	Arizona Cypress
JUNIPERUS communis	Swedish Juniper Western
J. Scopulorum spp.	Redcedar Redcedar
J. virginiana spp.	(eastern cedar)
Picea engelmannii	Engleman Spruce
P. excelsa	Norway Spruce Black
P. glauca densata	Hills Spruce Colorado
P. pungens glauca	Blue Spruce Colorado
P. pungens	Green Spruce
P. contorta	Shore Pine
PINUS aristata	Bristlecone Pine
PINUS contorta latifolia	Lodgepole Pine
PILAEUS densiflora	Japanese umbrella Pine
umbraculifera PINUS edulis	Two-needle Pinyon Pine
PINUS flexilis	Limber Pine
PINUS jeffrey	Jeffrey Pine
PINUS monophylla	Single-leaf Pinyon Pine
PINUS monticola	Western White Pine
PINUS mugo	Swiss Mt. Pine
PINUS nigra	Austrian Pine
PINUS ponderosa	Ponderosa Pine
PILAEUS strobiformis	Border Pine
PINUS sylvestris	Scotch Pine
TAXLJS baecata	English yew
THL1JA occidentalis varieties	Arborvitaes

DROUGHT TOLERANT SHRUBS

Note: (D) denotes deciduous plants, (E) denotes evergreen plants and (*) denotes plants for hillside and erosion control

Botanical Name

Common Name

Shrubs (1-4 feet in height)

AEnelanchier (D)	Dwarf Serviceberry
Artemisia spp. (D)	Southernwood, Common Wormwood
Caragana pygmaea (D)	Pygmy Pea-shrub
Caryopteris (D)	Blue Spiraea
Chaenotaxcles japonica (D)	Japanese Flowering Quince
Deutzia gracilis (D)	Slender Deutzia Rose-
Deutzia rosea (D)	panicled Deutzia
Genista hispanica (D)	Spanish Broom
Penstemon newberri	Mountain Pride
Potentilla frnticosa (D)	Bush Cinquefoil
Ribes alpinum (D)	Alpine Currant
Salvia offleinalis(D)	Garden Sage
Santolina chamaecyparissus (E)	Lavender Cotton
Senecio cineraria (D)	Dusty Miller
Syraphoricarpos albus (D)	Common Snowberry*
Symphoricarpos chenaulti (D)	Cbenault Coralberry
Symphoricarpos orbiculatus (D)	Indian Currant
Spiraea spp. (D)	Spiraea

Shrubs (4-8 feet in height)

Atriplex canescens (E)	Saltbrush, Quail Bush*
Berberis thunbergii (D)	Japanese Barberry
Berberis mentorensis (D)	Mentor Barberry
B.thunbergii "Crimson pygmy" (D)	Crimson Pygmy
Boxus microphylla Koreans (E)	Korean Boxwood
Boxus sempervirens (F)	Common Boxwood
Chaenomeles speciosa (D)	Common Flowering Quince

<u>Botanical Name</u>	<u>Common Name</u>
Deutzia scabra (D)	Fuzzy Deutzia
Eleagnus multiflora (D)	Cherry Eleagnus
Fallugia paradoxa (D)	Apache Plume
Mahonia aquifolium (E)	Oregon Holly Grape
Paeonia suffruticosa (D)	Tree Peony
Picea abies varieties (E)	Dwarf Norway Spruce
Pious maghus (E)	Dwarf Mugho Pine
Prunus besseyi (D)	Western Sand Cherry
Prunus glandulosa (D)	Dwarf Flowering Almond
Prunus tomentosa (D)	Nanking Cherry
Purshia tridentata	Bitterbrush, Antelope
Rhos arornotica (D)	Fragrant Sumac
Rhus trilobata (D)	Skunkbusb, Squawbush
Ribes aureum (D)	Golden Currant
Ribes sanguineum (D)	Winter Currant
Robinia hispida (D)	Rose Acacia
Rosa harisonii (D)	Hanson's Yellow Rose
Rosa hugonis (D)	Father Hugo Rose
Rosa rugosa (D)	Ramanas Rose/Sea Tomato
Spiraea spp. (D)	Spiraea
Syringa persica (D)	Persian Lilac
Tamarix odessana (D)	Odessa Tamarix
<i>Shrubs (Over 8 feet)</i>	
Amelanchierr alnifolia (D)	S erviceberry/Juneberry
Aronia arbutifolia (D)	Red Chokeberry
Arternisia tridentata (E)	Big Sagebrush
Buddleia davidii (D)	Fountain Butterfly Bush
Caragana arborescens (D)	Siberian Peasbrub
Coznus alba (D)	Dogwood
Corms mas (D)	Cornelian Cherry
Cor ^p us stolonifera (D)	Redosier Dogwood
Corylus maxima purpurea (D)	Smoke Bush

Botanical Name**Common Name**

Euonymus alatus (D)	Burning Bush/Winged Euonymus
Exochorda spp. (D)	Pearl bush
Forsythia intermedia (D)	Forsythia
F. suspensa (D)	Weeping Forsythia
F. viridissima (D)	Greenstem Forsythia
Hippophae rhamnoides (D)	Sea Buckthorn
Holodiscus discolor (D)	Cream Bush/Ocean Spray
Kerria japonica (D)	Kerria
Kolkwitzia amabilis (D)	Beauty Bush
Ligustrum amurense (D)	Amur Privet
L. vulgare (D)	Common Privet
Lonicea spp. (D)	Honeysuckle
Philadelphus coronarius (D)	Sweet Mock Orange
Prunus virginiana demissa (D)	Western Chokecherry
Pyracantha spp. (E)	Firethorn
Rhamnus frangula (D)	Alder Buckthorn
Rosa foetida (D)	Austrian Brier
Shepherdia argentea (D)	Silver Buffalo Berry/Wild Oleaster
Syringe chinensis (D)	Chinese Lilac
S. vulgaris (D)	Common Lilac
T. pentandra (D)	Five-Stamen Tamarix
Taxus spp.(E)	Yew
Viburnum spp, (D)	Fragrant Snowball/Arrowwood, etc.
Vitex agnuscastus latifolia (I)	Chinese Chaste Tree
Yucca glauca (E)	Yucca

DROUGHT TOLERANT**Botanical Name****Common Name**

Coronilla varia (D)	Crown Vetch
Cotoneaster horizontalis (D)	Rock Cotoneaster
Cotoneaster microphylla (E)	Rockspray Cotoneaster

Duehesnea Mica (D)

Indian Mock Strawberry

Eriogonum umbellatum (D)

Sulphur Flower/Wild Buckwheat

Botanical Name

Common Name

Genista sagittalis (D)

Broom

Helianthemum nummularium (E)

Sunrose

Hypericum calycium (E)

Aaron's BeardfSt. Johnswort

Iberis sempervirens (E)

Candytuft

Juniperus spp.(E)

Juniper

Mahonia nervosa (E)

Longleaf Mahonia

Mentha piperita (D)

Peppermint

M. spicata (D)

Spearmint

Phlox subulata (D)

Creeping Phlox|Moss Pink

Polygonum cuspidatum (D)

Japanese Knotweed

Sedum acre (E)

Golden Carpet

Teucrium chamaedrys (E)

Germander

Thymus praecox areticus (1)

Mother-of-Thyme/Creeping Thyme

Vinca minor (E)

Periwinkle

GROUNCOVER-OTHER

Achillea tomentosa

Wolly Yarrow

Aethoisnema coridi:folium warleyense

Stone-cress

Aigopodium podagraria variegatum

Variegated Goutweed

Alyssum saxatile (D)

Basket-of-gold

Arabis spp.

Rock -cress

Artemisia schmidtiana nana (D)

Silver mound artemisia

Artemisia stelleriana

Beach wormwood

Campanula earpatica

Carpathian bellflower

Cerastiuzn tomentosum (D)

Snow-in-summer

Coreopsis Verticillata

Coreopsis

Coronilla varia (D)

Crown vetch

Dianthus spp.	Pinks
Pestuca ovina glauca	Blue fescue -grass
Gypsophila repens	Dreeping gypsophlla
Hemerocallis spp.(D)	Daylily
Kniphofia uvaria (D)	Red-hot poker
Lavandula (l))	Lavender

Botanical Name

Lonicera "Hall's"

Ophiopogon japonicas Pachysandra terminalis (shade) Phalaris arundinacea pieta Phlox amoena

Phlox subulata

Potentilla tridentata (D)

Santolina (D)

Sanonaria ocymoides

Satureja montana

Sedum spp. D) Sempervivum spp. (D)

Sencio cineraria (D) Stachys lanata (D)

Thymus spp. (D)

Vinca Minor Viola

Viloa pedtapedata (shade only)

Ground honeysuckle Japan grass, lily-turf Japanese pachysandra Ribbon grass

Trailing phlox

Moss pink

Three toothed cinquefoil Chamaecyparissus Rock Soapwort

Winter savory Stonecrop Hen-and-chickens Dusty miller

Lamb's ear

Thyme

Periwinkle

Violet, Pansy

Bird's-foot violet