

AGENDA

Clallam County Planning Commission

Planning Commission Meeting of Wednesday, January 18, 2023, 6:00 p.m.

The Planning Commission will conduct a regularly scheduled meeting in Room 160 of the Clallam County Courthouse, 223 East Fourth Street, Port Angeles, WA 98362 and by Zoom, meeting number 857 7304 5582 with passcode 12345. Materials regarding past and upcoming meetings are available at: <https://wa-clallamcounty.civicplus.com/669/Live-Archived-Meetings-Online>

- A. CALL TO ORDER**
- B. PLEDGE OF ALLEGIANCE**
- C. ROLL CALL**
- D. WELCOME**
- E. APPROVAL OF MINUTES:** January 4, 2023
- F. ANNOUNCEMENTS**
- G. PUBLIC COMMENT** – Please Limit Comments to Three Minutes
- H. UNFINISHED BUSINESS:** Red-lined Sign Ordinance
- I. PUBLIC HEARING: NONE**
- J. WORK SESSION ITEMS:** Proposed Landscaping Ordinance
- K. PUBLIC COMMENT** – Please Limit Comments to Three Minutes
- L. ADJOURNMENT**

Members:

Chair, Steve Gale & Vice-Chair, Ron Long
Robert Miller; N. Bonnie Booth; Jeff Carter; Thomas Butler; Kenneth Reandeau; Jane Hielman
Vacancy District 2

Department of Community Development Staff:

Donella Clark, Principal Planner; Greg Ballard, Senior Planner; Bruce Emery, DCD Director

MINUTES

Clallam County Planning Commission

Meeting of January 4, 2023, 6:00 PM

- A. CALL TO ORDER: The meeting was called to order at 6:00 p.m.
- B. PLEDGE OF ALLEGIANCE.
- C. ROLL CALL: Members present were Chair Steve Gale, Vice-Chair Ron Long, Jeff Carter, Tom Butler, Bonnie Booth, Robert Miller, Ken Reandeau, and Jane Hielman. Donella Clark, Principal Planner and Bruce Emery, Director, represented staff from the Department of Community Development.
- D. WELCOME: Chair Gale welcomed all in attendance.
- E. APPROVAL OF MINUTES: December 14, 2022
- F. ANNOUNCEMENTS: The Commission held nominations and a vote to re-elect Steve Gale as Chair and re-elect Ron Long as Vice-Chair. Staff provided a workplan for the Commission that will be posted on-line and will continue to be a working document for the projects the Commission will be working on. Staff also informed the Commission about a Workshop being held January 23rd at the Port Angeles library regarding the future of housing in Port Angeles.
- G. PUBLIC COMMENT PERIOD: Steve Workman provided comment regarding signs. Ed Bowen commented he would like aerial transportation to be addressed in the upcoming Comp Plan update and to see a matrix of codes that affect homelessness and affordable housing. Commission agreed that there are other boards currently working on affordable housing who Mr. Bowen should address for that information.
- H. UNFINISHED BUSINESS: Discussion regarding Sign Ordinance. Staff has been directed to bring back a red-line of the code with some standards for electronic signs to the January 18th meeting.
- I. PUBLIC HEARING ITEM: None
- J. WORK SESSION ITEMS: Discussed difficulties with the current code and SEPA appeals. Staff informed the Commission that they hope to bring back the simple fixes for a public hearing in the near future.
- K. PUBLIC COMMENT PERIOD: None.
- L. ADJOURNMENT: The meeting adjourned at ____7:30__ p.m.



MEMORANDUM

Clallam County Department of Community Development

Date: January 18, 2023
To: Clallam County Planning Commission
From: Donella Clark, Principal Planner
Re: Sign Code

Discussion

In anticipation of the Public Workshop to be conducted on February 1, 2023, staff presents the Final Draft Sign Ordinance. The draft is a red-lined version showing the changes that have been made from the current adopted sign code. A summary of the changes are:

- The "Goals and Intent" section was changed to a Purpose statement consistent with other regulations in the Clallam County Code. The statements were mostly retained but minor modifications made to clarify the intent of the Sign Code.
- Numerous definitions have been added that are intended to help update and clarify the standards of the code.
- The exempt signs section has been moved up in the code since many signs being sought are exempt from permitting and this will quickly provide the public answers they are searching. Clarification on what is allowed regarding maintenance of signs that will not require a permit has been added, along with clarification on signs related to real estate and construction sites to offer clear exemption standards.
- The prohibited signs section has been moved to follow exempt signs since this will also help determine if a permit is necessary. This section has also been clarified to help with enforcement of signs that are not intended to be allowed.
- The section regarding Permitting has been confusing for both staff and the public for many years. The new section is intended to explain when a permit is required and how a building permit may also be necessary and the expectation of what the application should include.
- Following review of several other jurisdictions and much discussion, the standards for commercial signs have been expanded, requiring monument signs to include a structure around the sign, addition of landscaping at the base, and considers standards for electronic/digital signs which the old code did not address. Clarifying language has been added to the list for façade signs, but overall the number, size, and height of commercial signs has not been changed, though the definition of sign area now does not include the structural components.
- Residential sign standards remain the same, merely clarifying the standards.
- The section regarding non-conforming sign was largely invalidated and contained language regarding a program that no longer exists. This section has been simplified, using standard language from other jurisdictions that will allow the continuance of non-conforming signs, and require them to eventually come into compliance.
- Nothing was changed regarding signs on the scenic highway or appeals. The section regarding variances has been removed, because no special provisions other than what is already existing in the code should be allowed.
- A section on Enforcement has been added in an attempt to make the process simple. The owner of an illegal sign will receive a letter and will have 90 days to correct the violation. If after ninety days the sign has not been brought into compliance, fines will accrue against the property.

33.57.010 PurposeGoals and intent.

~~(1) The goals of these sign regulations are:~~

~~(1a) To encourage the effective use of signs as a means for businesses to ~~of~~ communicate with customers in the County;~~

~~(2b) To maintain and enhance the visual environment and the County's ability to attract sources of economic development and growth;~~

~~(3e) To minimize excessive lighting in rural Clallam County along designated scenic highways;~~

~~(4d) To maintain and not impede ~~enhance~~ scenic views along the County's scenic highways;~~

~~(5e) To improve traffic and pedestrian safety and to minimize ~~eliminate~~ distractions to vehicle drivers;~~

~~(6f) To minimize the potential adverse effects of signs on nearby public and private property;~~

~~(7g) To prevent damage and person injury from signs improperly constructed;~~

~~(8) To ensure compliance with the Scenic Vistas Act and the Growth Management Act; and~~

~~(9h) To enable the fair and consistent enforcement of these sign regulations.~~

~~This chapter is adopted under the zoning authority of the County in furtherance of the more general purposes set forth in this title.~~

~~(2) It is the intent of this chapter that signs may be erected, placed, established, painted, created or maintained in the County only in conformance with the standards, procedures, exemptions and other requirements of this chapter. The intent of this chapter, as more specifically set forth herein, is:~~

~~(a) To permit a variety of types of signs in commercial and industrial zones and a limited variety of signs in other zones, subject to the standards of this chapter;~~

~~(b) To permit certain signs which are small, unobtrusive, and incidental to the principal use of the lots on which they are located; provided, that these types of signs are not portable signs which often cause safety problems due to blockage of vehicle/pedestrian sight lines and are further subject to the substantive requirements of this chapter;~~

~~(c) To bring existing, nonconforming signs which exceed an area/height/number cap set in this chapter into compliance with these standards after a set period of time in order to further the goals and intent set forth in this chapter;~~

~~(d) To prohibit signs not expressly permitted by this chapter; and~~

~~(e) To provide for monitoring and compliance with the provisions of this chapter. This chapter distinguishes between signs by their structural type and duration of use but to the maximum~~

~~extent possible does not distinguish between signs by their content. Certain types of signs are classified as temporary if they are only up for a short and specified period of time. Signs required by law, public signs required for safety, and public signage, the purpose of which is to inform the traveling public of public roadside facilities, are exempt from the ordinance requirements.~~

33.57.020 Definitions.

Except where specifically defined herein, all words used in this chapter shall carry their customary meanings. Words used in the present tense include the future, and the plural includes the singular. The word “shall” is mandatory; the word “may” denotes a use of administrative discretion in making a decision. The words “used” or “occupied” shall be considered as though followed by the words “or intended, maintained, arranged or designated to be used or occupied.”

(1) “Abandoned sign” means a sign that, for a period of more than six (6) months, no longer correctly identifies, exhorts, or advertises any person, business, lessor, lessee owner, product or activity conducted or available on or off the premises on which the sign is located. Signage on a property which is continuously listed for sale or lease shall not be considered abandoned. ~~for a period of six (6) months after which it shall be considered abandoned and subject to conformance with this chapter.~~

(2) “Administrator” means the Director of the Clallam County Department of Community Development or ~~their~~ his/her designee.

(3) “Advertising” means to announce publicly by emphasizing a printed notice or to call public attention to desirable qualities so as to arouse a desire to buy or patronize. This also includes logos, borders, backgrounds and accents.

(4) “A-frame” or “Sandwich Board” means two usually hinged boards not permanently attached to the ground and generally oriented to pedestrians.

(5) “Animation” means the manipulation of electronic images in order to create moving images; or a sign depicting action, motion, light, or color changes through electrical or mechanical means.

(6) “Awning” means a shelter extending from the exterior wall of a building and composed of nonrigid materials except for the supporting framework.

(7) “Backlit sign” means a sign whose face is illuminated from behind.

(8) “Banner sign” means a flexible substrate on which copy or graphics are displayed. These signs can be mounted to a structure with a cord, rope, cable, or a similar method, or that may be supported by stakes in the ground. These signs are considered a temporary sign unless affixed to a building.

(94) “Building frontage” means the linear frontage of a building facing an abutting public or private street. When a building fronts on multiple streets, the building frontage shall be the one building front that would result in the greatest linear frontage.

(10) "Copy" means the words, logos, symbols, or message displayed on a sign.

(11) "Dwell time" means the amount of time that text or animated content is required to stay in place on a digital sign.

(12) "Digital or Electronic components" means changeable copy that uses illumination (LED-light emitting diodes, LCD-light crystal display, plasma display, individual light bulbs) to display or project copy.

(13) "Exterior illuminated sign" means a sign illuminated by a light source that is directed toward and shines on the face of a sign.

~~(5) "Community event sign" means a temporary informational sign that pertains exclusively to a specific upcoming event sponsored by a nonprofit organization or by a governmental entity and is removed soon after the event.~~

~~(6) "Construction sign" means a temporary informational sign that identifies the architect, engineers, contractors, suppliers or grant agencies involved in construction project or announces the character of the building and is removed soon after completion of construction.~~

~~(7) "Election sign" means any sign which serves to influence, is intended to influence, or appears to be of the type which is commonly erected to influence, an election or ballot proposition.~~

(148) "Facade sign" means a sign which is attached parallel to and within nine (9) inches of the wall of a building, or vertical face of an awning or parapet which is supported by and confined within the limits of such wall, awning or parapet and which displays only one sign surface. "Facade sign" also includes signs affixed to (within nine (9) inches at one point) or painted on an awning, canopy or roof so long as they do not extend above the primary roofline or more than eight (8) feet from the outside edge of the building. Soft drink dispensing machines will be considered a facade sign if located within nine (9) inches of the building.

(15) "Fade" means a mode of message transition on a digital sign accomplished by varying light intensity or color, where the first message gradually grows faint and disappears.

(16) "Feather, Flutter, Flag, or Blade sign" means a freestanding portable sign that contains a harpoon-style pole or staff driven into the ground for support that resembles a sail or flag made of fabric, or nylon, or a flexible material.

(179) "Flashing sign" means a sign or a portion thereof which changes light intensity or switches on and off in a repetitive pattern at less than one-minute intervals, or uses electrical energy to provide motion or the optical illusion of motion.

(1840) "Freestanding sign" means a sign which is supported by permanent uprights, pole or braces to the ground and which is not connected to a building.

(1944) "Grade" means the average elevation of the natural ground surface immediately below the sign before construction, exclusive of any filling, berming, mounding or excavating solely for

the purpose of locating the sign; and provided, that when the elevation of the natural ground surface of a freestanding/monument sign is below the grade of the edge of the adjacent roadway, then the height of a freestanding or monument sign shall be measured from the grade at the outer edge of the roadway nearest the proposed sign location.

(2012) "Grand opening sign" means a temporary sign of no more than thirty (30) days' duration announcing the new opening of a store or a complete change in ownership or product line sold.

(2113) "Illuminated sign" means any sign illuminated in any manner by an on-site artificial light source. These signs include both exterior-illuminated and backlit signs.

(22) "Illegal sign" means any sign placed without proper approval or permits as required by any applicable zoning or building code and also any sign placed contrary to the terms of time limits of any permit, or out of compliance with any applicable code.

(23) "Legal Nonconforming sign" means any sign in existence within the County on the date of adoption of Ordinance 694 codified in the year 2000 which did not conform to all applicable laws in effect on the date the sign was originally erected. Also, those signs permitted under Ordinance 694 that do not conform to the standards herein.

(24) "Marquee" means a permanent, roof-like canopy with an integral sign that extends from part or all of the building face that may or may not project over a public right-of-way.

(25) "Memorial sign" means a sign memorializing a person, event, or significance related to a site, building, or structure.

(2614) "Monument sign" means a ground-related, freestanding sign which is attached to the ground or to its base on grade by a solid sign structure and which structure extends from the ground or base to the sign face at the same or greater width as the sign face. Banner signs on fences are considered a form of monument sign and are only allowed to be placed temporarily. Signs on fences are considered a form of monument sign.

(2715) "Multiple-business complex" means a group of structures housing at least two (2) separate businesses or agencies operating under separate State tax numbers, or a single structure containing more than one business with separating walls and at least one outside or inside access for each business which shares a common lot, access and/or parking facility operating under separate State tax numbers.

~~(16) "Multiple-business complex sign" means a sign that is designated to identify a multiple business complex including directory signs for businesses within the complex.~~

(2817) "Mural" means an outdoor wall painting on a building which consists exclusively of paint applied to the wall or to framework attached within nine (9) inches of the wall and which contains no advertising.

(2918) "Noise" means any intended or unintended sound created by the sign or its installed equipment which exceeds forty (40) decibels as measured from the nearest point adjacent to the property or place of business, whichever is closer.

~~(19) “Nonconforming sign” means any sign in existence within the County on the date of adoption of the ordinance codified in this chapter which does not conform with the provisions of this chapter, but which did conform to all applicable laws in effect on the date the sign was originally erected.~~

(30) “Permanent sign” means a sign attached to a building, structure, or the ground, in a manner that enables the sign to resist environmental loads, such as wind, and precludes ready removal or movement of the sign.

~~(3120)~~ “Portable sign or movable sign” means any ~~moveable~~ sign which is not permanently affixed to the ground or a structure or building. This definition includes movable reader boards, outdoor soft drink dispensers located farther than nine (9) inches from a building and sandwich boards that are placed so as to be seen from public right-of-ways.

~~(3224)~~ “Primary roofline” means the roofline under which a majority of the square footage of the business is located.

~~(3322)~~ “Real estate sign” means a temporary sign advertising real estate for sale, rent or lease.

(34) “Rotating signs” means a temporary sign advertising real estate for sale, rent, or lease.

(35) “Sidewalk sign” means a moveable sign not secured or attached to the ground or surfaces upon which it is located, supported by its own frame.

~~(3623)~~ “Sign” means any object, device, fixture, placard, banner, structure or portion thereof, including any letters, figures, design, symbol, trademark or device that uses any color, form, graphic, illumination, symbol or writing intended to advertise, announce the purpose of, or identify the purpose of a person or entity, or to attract attention to any message, activity, service, place, subject, person, firm, corporation, public performance, article, machine or merchandise or to communicate information of any kind to the public, and which is visible from any right-of-way open to the public. Lighting that highlights an architectural feature of a building and does not consist of lettering, symbols or graphics shall not be considered a sign.

~~(3724)~~ “Sign area” means the ~~entire~~ face of the sign, including advertising surface, backlit surface, but does not include any framing and any framing, trim or molding, or supporting structure, but does not include the supporting structure. Sign area is measured by multiplying the maximum horizontal width by the maximum vertical width. The surface area of a sign painted on a wall, awning or roof shall be measured by multiplying the maximum width of the copy by the maximum length of the copy. Sign areas may also be calculated by measuring the smallest square, circle, rectangle, triangle or combination thereof that will encompass the extreme limits of the advertising copy, together with any material or color forming an integral part of the background of the display or used to differentiate the sign from the backdrop or structure against which it is placed, including an awning. Supportive framework which contains no written copy or other advertising and is clearly incidental to the display itself shall not be included in sign area calculations; provided, that the sign support structure shall be the minimum necessary to support the sign. For the purpose of this chapter the total sign area of any two (2) faced sign with parallel faces or V-type sign having an interior angle of forty-five (45) degrees or less shall be calculated

as the area of the larger of the two (2) faces or one face if equal in size. All other multiple-faced or paneled signs shall be the total area of all faces or panels combined. [picture]

(3825) "Sign surface" means any surface of a sign upon which there is lettering, logos, symbols, or other advertising.

(3926) "Sign height" means the vertical distance from grade to the highest point of a sign or any projection thereof.

(4027) "Sign structure" means any structure that supports or is capable of supporting any sign as defined in this chapter. A sign structure may be a pole or poles, or may be an integral part of a building. Structures that perform a separate use, such as a telephone booth, bus shelter, recycling or used goods container, etc., shall not be considered a sign structure. Sign structures shall be the minimum necessary to support the sign and shall not depict any product being advertised.

(4128) "Street" means a public or private way open to the general public for the purpose of vehicular traffic, including all classes of roadways and easements.

(4229) "Temporary sign" means a nonpermanent sign intended for use for a short period of time, which includes election signs, construction signs, real estate signs, grand opening signs, community event signs and residential yard sale signs.

(4330) "Under common ownership" describes a situation where one person, corporation, legal entity or related legal entities owns contiguous properties occupied by closely related businesses in which case these businesses will be considered to be one business, operating on one property for the purpose of applying this chapter (i.e., a car dealership may cover multiple contiguous parcels and have several related businesses on these parcels but shall be considered to be "under common ownership" for the purpose of interpreting the provisions of this chapter).

(4431) "Vehicular signs" are signs affixed or painted on work vehicles, tractor-trailers, ³⁰⁴⁵⁵ ~~busses,~~ vans or other vehicles.

(45) "Window sign" is any sign viewable through and/or affixed in any manner to a window or exterior glass that is intended to be viewable from the exterior. These signs count toward the square footage of façade signs.

33.57.060030 Exempt signs.

The following types of signs shall be exempt from the standards established within this code and from the permitting certificate of compliance requirements of this chapter; provided, that the any standards in this section are met:

(1) Official notices authorized by a court, public body or public safety official, provided they are removed within seven (7) days after conclusion of the subject of notification;

(2) Directional, warning or information signs authorized by federal, State or municipal governments or signs required by law not exceeding 200 square feet of sign area and twenty (20) feet in height. Directional signs located within State or County right-of-way shall be

administered by State standards for directional signs and, if within Clallam County right-of-way, shall be administered by the Motorist Informational Sign Ordinance, Chapter 9.21 CCC;

(3) Memorial plaques, building identification signs and building cornerstones which are cut or carved into a masonry surface or when made of noncombustible material and made an integral part of the building or structure. Plaques, tablets, or inscriptions indicating the name of a building, its date of erection, or other commemorative information, which are an integral part of the building structure or are attached flat to the face of the building, and which are not illuminated, except incidentally from light sources used for other purposes;

(4) Sculptures, murals, landscape features, fountains, mosaics, religious symbols, and design features which do not incorporate advertising or identification;

(5) The flag of a **recognized** government or noncommercial institution such as a school;

(6) Traffic or pedestrian control signs or signals, or signs indicating scenic or historic points of interest which are erected by, or on the order of, a public officer in the performance of his/her public duty;

(7) Exterior signs or displays not visible from streets or ways open to the public;

(8) "No trespassing," "no dumping," "no parking," "private," and other informational warning signs which shall not exceed four (4) square feet in surface area and eight (8) feet maximum height above grade;

(9) Commercial or residential address signs with lettering not exceeding twelve (12) inches in height and newspaper boxes located within ten (10) feet of an existing commercial/industrial building; and

(10) Election signs no greater than thirty-two (32) square feet in area and five (5) feet in height above grade. Signs erected in anticipation of an election (for the purpose of advertising a candidate or proposal) shall be no greater than thirty-two (32) square feet in area and five (5) feet in height above grade and shall be compliant with WAC 468-66-050 regarding removal;

(11) Replacement of legal non-conforming signs if not changed in height, shape, size, lighting/illumination and does not affect the structure of the sign;

(12) Painting, cleaning, refacing, or replacement of defective parts.

(13) Signs at a construction site, no more than three signs and no greater than 32 square feet each, that may identify the architect, engineers, contractors, supplies or grant agencies involved in the construction project or announces the character of the building. Signs not permitted shall be removed fourteen days after construction is complete;

(14) Signs advertising real estate for sale, rent, or lease, no greater than thirty-two (32) square feet, and removed after the real estate transaction is complete.

(15) Grand opening or closing displays, such as temporary banners, flags, or balloons, are allowed to remain for a period of fourteen days from set up of the display, to announce the opening of a completely new business, new management, or closing of the business.

(16) Banner signs displayed for 3 months as a temporary monument sign used by businesses within commercial zones. Banner signs shall not be used as permanent monument signs. Banner signs affixed to a wall shall be required to be permitted as façade signs.

(17) Portable signs used to provide traffic and directional information during events or for agricultural businesses that do not block safety sight lines of motorists pulling into or out from a business or within safety sight triangles on corner lots, and are removed immediately upon conclusion of the event or the end of the harvest season.

33.57.0470 Prohibited signs.

The following signs or displays are prohibited, except as otherwise specifically allowed within this chapter and subject to enforcement action and/or removal by the County. Prohibited signs are subject to removal by the County at the owner's or user's expense.

(1) Signs which, by reason of their size, location, movement, content, coloring or manner of illumination may be confused with or construed as a traffic control sign, signal, or device, or the light of an emergency or radio equipment vehicle; or which obstruct the visibility of any street sign or signal device;

(2) Signs erected, altered or relocated without a permit issued by the County or any other governmental agency that requires a permit under law;

(32) Signs identifying activities, products, businesses or services which have been discontinued for more than six (6) months on the premises upon which the signs are located;

(43) Private signs on public utility poles;

(5) Any sign that interferes with safe sight distances (determined by the County Road Department) at an intersection or causes an intersection to be illuminated.

(64) Portable signs, except if placed as an exempt sign as listed in section 33.57.030, but that shall not due to fact that they are often placed where they block safety sight lines of motorists pulling into or out from a business or within safety sight triangles on corner lots;

(5) Signs erected, altered or relocated without a permit issued by the County or any other governmental agency that requires a permit under law;

(76) Signs that rotate or have a part or parts that move or revolve shall not be permitted in any zone except for the face of a clock less than six (6) square feet in size;

(87) Signs or advertising displays consisting of clusters of posters, banners not affixed to a building wall;

(9) Banner signs that do not meet the exemption listed under 33.57.030;

(10) Pennants, ribbons, streamers, strings of lights other than holiday lights used exclusively for decorative purposes, spinners, twirlers or propellers, flashing signs, rotating or blinking lights, chasing or oscillating lights, light projections on other natural or manmade surfaces, television type video, flares, balloons, inflatable signs, bubble machines and similar devices of carnival nature, or containing elements creating sound greater than 40 decibels as measured from the nearest adjacent property or business boundary shall not be permitted in any zone;

(11) Parking of vehicles with the sole intent to remain stationary for more than three days for purposes of using the signage in or on the vehicle as advertising. Parking of registered vehicles on property with a company message is not considered intentionally advertising;

(128) Signs within the public right-of-way unless erected by Clallam County or the State of Washington. These signs are subject to removal by the Clallam County Road Department.

33.57.0530 Certificate of compliance Permitting.

No sign may be erected, relocated, constructed, or altered within the areas of the County under Clallam County jurisdiction without a permit obtained from the Clallam County Department of Community Development. A certificate of compliance for a sign is used to track sign installations for record keeping and to ensure all signs erected after passage of this chapter are in conformance with the chapter. No sign may be erected within the areas of the County under Clallam County jurisdiction without a certificate of compliance obtained from the Clallam County Department of Community Development unless it is a temporary sign or specifically an exempt under this codesign (CCC 33.57.0380). Painting, cleaning, refacing, or replacement of defective parts may be completed without a permit; however, replacement of the sign structure will need to be reviewed by the building department to determine if a building permit is required in accordance with the International Building Code. No nonconforming sign maintenance, except exchanging the area of existing advertising copy for a business not changing land use category or repainting to freshen faded or damaged advertising copy shown on the face of the sign for a business not changing land use category or changing lighting tubes/bulbs with bulbs of the same or lesser intensity, is allowed without a certificate of compliance.

The application for permitting a sign shall include drawings and details of the proposed sign, associated support structure and method of attachment, drawing of all exterior lighting (if any), a site plan with location of all proposed and existing signs, and dimensions of all existing signs.

33.57.0640 Commercial and Industrial sign standards.

The following standards shall apply to signs placed on property zoned commercial or industrial: There are only four (4) basic types of signs that are used by business and industry. Those four (4) types include signs that are attached to the building (facade), signs that are set apart from the building (freestanding/monument), vehicular signs and temporary signs that are needed when certain conditions are met. Any sign that cannot be configured to qualify as one of these four (4) sign types and is not an exempt sign is prohibited in all zones. The time, place, number and manner regulations of these four (4) types of signs is as follows:

(1) ~~The total area of signage attached to any face of the building(s) in one or more facade signs shall not exceed the square footage limit for a facade signage of one square foot of sign area for each linear foot of building frontage facing a single public or private road. No facade sign may extend above the primary roofline or project more than eight (8) feet from the roofline edge of the building. For multiple business complexes each business within a plaza may have one facade sign attached to the commercial structure that is limited to one square foot of sign area per linear foot of each businesses building frontage.~~

(12) Freestanding sign, including monument signs, shall meet the following standards:

a. Shall be designed so they appear firmly anchored to the ground with a base width at least forty percent of the total sign width. [picture]

b. Integrates a top, middle, and base element.

c. One sign permitted for each business not part of a multiple-business complex. A freestanding sign or monument sign within a commercial or industrial zone shall be limited to one sign for each area of land under common ownership that is not the site of a multiple-business complex.

d. Shall be designed as an integrated architectural feature of the site and include durable high-quality materials that complement the design of on-site buildings.

e. Located outside of the public right-of-way.

f. Shall include one square foot of decorative landscaped area around the base of the sign per one square foot of sign area. Landscaping shall include ground cover or shrubs which accent the sign and shall be native, drought-tolerant plantings.

g. ~~This one sign (either freestanding or monument) shall not exceed thirty-two (32) square feet of sign area and shall not exceed ten (10) feet in height above grade., except f~~ For multiple-business complexes advertising multiple businesses.

h. Multiple-business complex signs shall be limited to ~~one freestanding sign or one monument sign may be used to advertise the plaza or complex name and the businesses within the complex. This sign shall be limited to one sign not exceeding the signage area limit of 100 square feet and whose height shall not exceed ten (10) feet in height above grade.~~ shall be used to advertise the complex name and the businesses within the complex. The business complex⁵ name shall be distinct from the names of the tenants, and can be included on a distinctive sign cap. The sign may not be ^{USED} ~~used~~ entirely for only one tenant, unless it is limited to 32 square feet. Individual tenants in a multiple-business complex may not erect individual freestanding signs.

i. Sign copy shall not exceed ten (10) feet in height above grade and the structure shall be a maximum fifteen (15) feet above grade.

j. Sign may be internally or externally illuminated and shall have a steady, stationary, fully shielded light source with a brightness of no greater than 0.3 foot candles.

k. Illumination of a business's fleet or outside inventory shall be considered advertising and shall not exceed brightness of no greater than 0.3 foot candle at the property line.

(2) Façade sign(s) shall meet the following standards:

a. The total area of signage attached to any face of the building(s) shall not exceed a total of one square foot of sign area for each linear foot of the building frontage facing a single public or private road. Banner signs affixed to a wall count toward the total square footage for façade signs. For multiple-business complexes each business within a plaza may have one façade sign attached to the commercial structure, limited to one square foot of sign area per linear foot of each businesses building frontage.

b. Shall not extend above the building parapet soffit, eave line, or primary roofline of the building.

c. The sign frame shall be concealed or integrated into the building's architectural character in terms of form, color, and materials.

d. Marquee, awning, and window signs will be considered as façade signs.

e. Shall be placed a minimum of eight feet above a sidewalk or walkway.

f. Sign may be internally or externally illuminated and shall have a steady, stationary, fully shielded light source with a brightness of no greater than 0.3 foot candles.

(3) Vehicular signage visible from a State scenic and recreational highway shall be limited to thirty-two (32) square feet and vehicular signage shall be set back from the lot line or right of public use line that fronts on the State scenic and recreational highway a minimum of fifty (50) feet. Firm identification signage and other signage at the minimum sizes required by State or federal law on commercial/industrial vehicles shall not be calculated as part of the thirty-two (32) square foot signage limitation. Work vehicles making a delivery or making a service call away from the home base of the business are not subject to this provision, as the purpose of this provision is to prevent vehicular signs from being used as a form of long-term freestanding sign. Likewise, local franchise holders for national moving van companies are not subject to the square footage limitation of this provision, as the local franchise holder has no control over the size of signage on the vehicles.

(4) When the conditions for a temporary sign are met, one temporary sign may also be allowed on a commercial/industrial property. Conditions present to qualify for a temporary sign would include the sale of property/business, a grand opening, construction of a business, and when advertising a community event. Such signage is limited to one unlit thirty-two (32) square foot sign that shall not exceed five (5) feet in height above grade.

(5) Externally illuminated signs shall not exceed background area average illumination levels when measured five (5) feet beyond any vertical surface of the sign; lighting fixtures shall be carefully located, aimed and shielded so that light is only directed on to the sign surface with a light source that is not directly visible from the adjacent roadway. Internally illuminated signs

using 800-milliamp ballasts shall not have lamps spaced closer than twelve (12) inches apart or if using 425-milliamp ballast shall not be closer than six (6) inches apart.

(3) Digital and Electronic components may be used within the design of the sign and shall meet the following standards:

(a) Only one sign on the property may contain digital messaging;

(b) All digital/electronic signs shall be equipped with automatic dimming capabilities;

(c) The brightness of the sign shall be no greater than 0.3 foot candles above ambient light (includes day and night);

(c) Messages shall remain static for a minimum 10 seconds and shall change instantaneously, avoiding startling flashes of light, and shall transition without animation.

(6) Commercial/Industrial zoning includes the following zoning districts

Zone Name	Zoning Symbol
Light Industrial	LI
Industrial	M
Commercial	GC
Tourist Commercial	TC
Western Region Rural Center	WRC
Urban Center	UC
Urban Regional Commercial	URC
Urban Neighborhood Commercial	UNC
Rural Center	CEN
Rural Limited Commercial	RLC
Rural Neighborhood Commercial	RNC
Carlsberg Commercial	CC
Rural Village	RV

Zone Name

Zoning Symbol

Rural Commercial

RC

Sequim General Retail District

S(GC)

Sequim Light Manufacturing

S(LM)

Sequim Bypass Commercial

S(BC)

Sequim Neighborhood Commercial

S(NC)

33.57.0750 Residential/Resource zoning district sign standards.

The following standards apply to signs placed on property zoned residential or resource:

~~There are only four (4) basic types of signs that are used in residential/resource zones. Those four (4) types include signs that are attached to the building (facade), signs that are set apart from the building (freestanding/monument), vehicular signs and temporary signs that are needed when certain conditions are met. Any sign that cannot be configured to qualify as one of these four (4) sign types and is not an exempt sign is prohibited in all zones. The time, place, number and manner regulations of these four types of signs is as follows:~~

~~(1) Freestanding, monument and facade signage in Residential/Resource zoning districts, regardless of use, is limited to one unlit freestanding or facade sign;~~

~~(2) Sign shall contain no electronic or digital components or be illuminated;~~

~~(3) Sign shall be no more than one type with a maximum of six (6) square feet of signage on residentially zoned property and no more than and provided, that within a Commercial Forest zoning district (CF) the maximum sign size is twenty (20) square feet of signage. on resource zoned property;~~

~~(4) Freestanding sign If the one sign allowed is a freestanding sign or monument sign, it shall not exceed five (5) feet in height above grade and no facade sign may extend above the primary roofline. shall be unlit.~~

~~(3) Vehicular signage visible from a County road or State scenic and recreational highway shall be limited to a total of thirty-two (32) square feet and vehicular signage shall be set back from the lot line or public right of use line that fronts on the State scenic and recreational highway a minimum of 100 feet. On parcels that predate the effective date of this chapter that cannot meet the 100-foot vehicular sign setback due to lack of lot depth, vehicular signs can be parked within twenty (20) feet of the lot line farthest from the scenic and recreational highway. Firm identification signage and other signage at the minimum sizes required by State or federal law on~~

commercial/industrial vehicles shall not be calculated as part of the thirty-two (32) square foot signage limitation. Work vehicles making a delivery or making a service call away from the home base of the business are not subject to this provision, as the purpose of this provision is to prevent vehicular signs from being used as a form of long-term freestanding signs.

(4) When the conditions for a temporary sign are met, one temporary sign may also be allowed on a Residential/Resource property. Conditions present to qualify for a temporary sign would include property/home sale and when advertising a community event. Such signage is limited to one unlit six (6) square foot sign for a property/home sale, construction sign and community event and shall not exceed five (5) feet in height above grade.

(5) Residential/Resource Zoning includes the following zoning districts

Zone Name	Zoning Symbol
Urban Moderate Density	MD
Urban Very Low/Urban Low Density	VLD/LD
Urban Low Density	LD
Urban Very Low Density	VLD
Urban Residential Low	URL
Urban Residential High	URH
Rural Low Mixed	RLM
Rural Character Conservation 3	RCC3
Rural Character Conservation 5	RCC5
Quillayute Residential	QR
Western Regional Rural	RW1
Rural	R1
Rural Suburban Community	RSC
Western Regional Rural Moderate	RW2
Rural Moderate	R2

Zone Name**Zoning Symbol**~~Western Regional Rural Low~~~~RW5~~~~Rural Low~~~~R5~~~~Rural Very Low~~~~R20~~~~Commercial Forest/Mixed Use 5~~~~CFM5~~~~Commercial Forest/Mixed Use 20~~~~CFM20~~~~Commercial Forest~~~~CF~~~~Agricultural Retention~~~~AR~~~~Public Land~~~~P~~~~Airport Overlay District~~~~AO~~~~Open Space Overlay/Open Space Corridors~~~~OS~~~~Sequim Urban Residential—I~~~~S(R-I)~~~~Sequim Urban Residential—II~~~~S(R-II)~~~~Sequim Urban Residential—III~~~~S(R-III)~~~~Sequim Urban Residential—IV~~~~S(R-IV)~~~~Sequim Mixed Use~~~~S(MU)~~**~~33.57.060 Exempt signs.~~**

~~The following types of signs shall be exempt from the standards established within this code and from the certificate of compliance requirements of this chapter; provided, that any standards in this section are met:~~

~~(1) Official notices authorized by a court, public body or public safety official, provided they are removed within seven (7) days after conclusion of the subject of notification;~~

~~(2) Directional, warning or information signs authorized by federal, State or municipal governments or signs required by law not exceeding 200 square feet of sign area and twenty (20) feet in height. Directional signs located within State or County right-of-way shall be~~

~~administered by State standards for directional signs and, if within Clallam County right-of-way, shall be administered by the Motorist Informational Sign Ordinance, Chapter 9.21 CCC;~~

~~(3) Memorial plaques, building identification signs and building cornerstones which are cut or carved into a masonry surface or when made of noncombustible material and made an integral part of the building or structure. Plaques, tablets, or inscriptions indicating the name of a building, its date of erection, or other commemorative information, which are an integral part of the building structure or are attached flat to the face of the building, and which are not illuminated, except incidentally from light sources used for other purposes;~~

~~(4) Sculptures, murals, landscape features, fountains, mosaics, religious symbols, and design features which do not incorporate advertising or identification;~~

~~(5) The flag of a government or noncommercial institution such as a school;~~

~~(6) Traffic or pedestrian control signs or signals, or signs indicating scenic or historic points of interest which are erected by, or on the order of, a public officer in the performance of his/her public duty;~~

~~(7) Exterior signs or displays not visible from streets or ways open to the public;~~

~~(8) "No trespassing," "no dumping," "no parking," "private," and other informational warning signs which shall not exceed four (4) square feet in surface area and eight (8) feet maximum height above grade;~~

~~(9) Commercial or residential address signs with lettering not exceeding twelve (12) inches in height and newspaper boxes located within ten (10) feet of an existing commercial/industrial building; and~~

~~(10) Election signs no greater than thirty-two (32) square feet in area and five (5) feet in height above grade.~~

~~33.57.070 Prohibited signs.~~

~~The following signs or displays are prohibited, except as otherwise specifically allowed within this chapter. Prohibited signs are subject to removal by the County at the owner's or user's expense.~~

~~(1) Signs which, by reason of their size, location, movement, content, coloring or manner of illumination may be confused with or construed as a traffic control sign, signal, or device, or the light of an emergency or radio equipment vehicle; or which obstruct the visibility of any street sign or signal device;~~

~~(2) Signs identifying activities, products, businesses or services which have been discontinued for more than six (6) months on the premises upon which the signs are located;~~

~~(3) Private signs on public utility poles;~~

~~(4) Portable signs, due to fact that they are often placed where they block safety sight lines of motorists pulling into or out from a business or within safety sight triangles on corner lots;~~

~~(5) Signs erected, altered or relocated without a permit issued by the County or any other governmental agency that requires a permit under law;~~

~~(6) Signs that rotate or have a part or parts that move or revolve shall not be permitted in any zone except for the face of a clock less than six (6) square feet in size;~~

~~(7) Signs or advertising displays consisting of clusters of posters, banners not affixed to a building wall, pennants, ribbons, streamers, strings of lights other than holiday lights used exclusively for decorative purposes, spinners, twirlers or propellers, flashing signs, rotating or blinking lights, chasing or oscillating lights, light projections on other natural or manmade surfaces, television type video, flares, balloons, inflatable signs, bubble machines and similar devices of carnival nature, or containing elements creating sound greater than 40 decibels as measured from the nearest adjacent property or business boundary shall not be permitted in any zone;~~

~~(8) Signs within the public right-of-way unless erected by Clallam County or the State of Washington.~~

33.57.080 Legal nNonconforming signs.

It is the intent of this section to ensure that nonconforming signs are brought into compliance with standards with the standards of this code. of exceptional size and height are reduced in size and height in accord with this section and to ensure that nonconforming signs are retrofitted into conforming signs as expeditiously and fairly as possible while avoiding any unreasonable invasion of established property rights. The following standards apply to nonconforming signs:

(1) Residential/Resource Zones.

(1) A nonconforming sign shall not be altered in height, shape, size, lighting/illumination, or affect the base or support without conforming with the provision of this chapter. No off-premise sign shall add electronic components to a sign.

(2) A nonconforming sign may be maintained as long as the nonconformity of the sign is not increased.

(3) Properties with nonconforming signage shall only be allowed new or replacement signage requiring a permit after brining an equivalent number of nonconforming signs on the property into conformance with standards of this chapter.

(a) Existing, legally erected, nonconforming freestanding signs greater than 128 square feet in area and/or taller than fifteen (15) feet shall be reduced to this standard (128 square feet in area/fifteen (15) feet in height).

(b) A property whose commercial use predates the existence of a zoning code in Clallam County shall be able to retain one existing, legally erected, nonconforming freestanding sign between

thirty-two (32) square feet and 100 square feet in area and fifteen (15) feet in height but any sign larger than this standard shall be reduced to this standard. All existing, legally erected, nonconforming facade signage may be retained but shall not be enlarged in area or changed in location.

(c) All existing, legally erected, nonconforming, freestanding signs not covered in subsections (1)(a) or (1)(b) of this section which are greater than twenty (20) square feet in area and/or taller than five (5) feet shall be reduced to this standard.

(2) Commercial/Industrial Zones.

(a) Existing, legally erected, nonconforming, freestanding signs greater than 128 square feet in area and/or taller than fifteen (15) feet shall be reduced to this standard (128 square feet in area/fifteen (15) feet in height).

(b) A property with one or more existing, legally erected, nonconforming, freestanding sign(s) larger than 128 square feet covered by subsection (2)(a) of this section, that also has a secondary sign larger than thirty-two (32) square feet but smaller than 128 square feet may retain such secondary, existing nonconforming, freestanding sign; provided, that if it is greater than sixty-four (64) square feet in size and fifteen (15) feet in height then it must be reduced to this standard.

(c) A property with no existing, legally erected, nonconforming, freestanding sign(s) larger than 128 square feet may retain one existing, legally erected, nonconforming freestanding sign between thirty-two (32) square feet and 100 square feet in size and fifteen (15) feet in height but any sign larger than this standard shall be reduced to this standard if a single sign or the standards below if more than one sign exceeds this standard.

(d) All existing nonconforming, freestanding signs not covered in subsections (2)(a), (2)(b) or (2)(c) of this section shall be reduced to the new sign standard of thirty-two (32) square feet in area and ten (10) feet in height.

(e) All existing, legally erected, nonconforming facade signage erected prior to the passage of the 1993 sign code may be retained but shall not be enlarged in area or changed in location.

(3) Clallam County passed a comprehensive sign code in 1993. Since the 1993 sign code did not require nonconforming signs to come into compliance, all owners of legally erected, nonconforming signs have already had at least seven (7) years to amortize their signs. Nonconforming signs which must be brought into conformance with the area and/or height standards of this chapter may elect to do so after an amortization period that begins either, on the date of the original sign building permit and runs for a term of one year for every \$1,000 of project value claimed on the original sign building permit, or alternatively, two (2) years from the effective date of this chapter whichever is greater.

(4) Any sign which was nonconforming under the sign code adopted in 1993 (formerly Chapter 9.26 CCC) or under this code that has been enlarged shall be subject to conformance with the standards of this code without the amortization periods provided in subsection (3) of

~~this section for legally established nonconforming signs after the notice specified in this title is provided to the owner. If the enlarged portions of the sign are not removed within the period specified in the notice, the entire sign becomes a prohibited sign subject to immediate conformance with the area and height requirements of this code.~~

~~(5) Any sign erected after the passage of the 1993 sign code (formerly Chapter 9.26 CCC) that was a prohibited sign under the 1993 sign code shall be subject to removal by the County after the notice specified in this title is provided to the owner.~~

~~(6) Properties with nonconforming signage shall only be allowed to erect new or replacement signage requiring a certificate of compliance after bringing an equivalent number of nonconforming signs on the property into conformance with the standards of this chapter.~~

~~(7) A change in commercial or industrial land use as determined from review of land uses listed for each zone or change in a conditional use or a change of use under Section 3405 of the Uniform Building Code shall require all signage to come into conformance with the new sign standards of this chapter.~~

~~(8) Nonconforming signs which have had the entire sign face area taken down to the ground as a result of natural disaster or which are removed as a result of loss of lease or are removed as a result of a construction project shall not be re-erected without bringing them into conformance with this chapter. No work on an undamaged, existing nonconforming sign that brings such sign into greater conformance with this code shall be considered to be a sign removal requiring conformance with the standards for new signage.~~

~~(9) A sign or sign structure removed by the County shall be held not less than thirty (30) days after notice to the owner by the County during which period it may be recovered by the owner upon paying the County for cost of removal and storage, and upon payment of any imposed fine. If not recovered within the thirty (30) day period, the sign or sign structure is hereby declared abandoned and title thereto shall be vested in the County for disposal in any manner permitted by law.~~

~~(10) All existing illuminated signs, other than facade signs, located in Rural Commercial, Rural Limited Commercial and Rural Neighborhood Commercial zoning districts and which:~~

~~(a) Are within 600 feet of the outer boundary of a designated scenic and recreational highway; and~~

~~(b) Do not advertise a business that is open during the entire time the sign is illuminated, shall be allowed a five (5) year amortization period after which lighting to these signs must be set by timer to be off when the business closes in order to further the goal in CCC 33.57.010(1)(c).~~

~~(11) To encourage the retrofit of nonconforming signs to the standards of this chapter, Clallam County establishes an incentive program to assist owners of such signs. The County will make available, on a competitive basis, the total sum of \$30,000 for a program to assist the owners of nonconforming signs to replace or retrofit such signs into a sign that meets the standards of this code. The \$30,000 County funding set aside for this program may also be used as a match to scenic byway grant funding available to remove outdoor advertising signs.~~

33.57.090 Signage visible from a scenic highway.

A permit or other written approval is required from the Washington State Department of Transportation prior to review of certain types of sign permits by Clallam County for those areas within 600 feet of a designated scenic and recreational highway to show conformance with the Scenic Vistas Act and the Highway Advertising Control Act (Chapter [468-66](#) WAC).

33.57.100 Variances.

~~Applications for a variance from the standards established by this code shall be processed as Type III permits as set forth in Chapter [26.10](#) CCC and the review criteria outlined in Chapter [33.30](#) CCC, Variances. Variances shall not be permitted for modification to the number of signs and sign types specified in this chapter. Sign size variances shall not exceed 10 percent of the standard required unless it can be demonstrated that the sign qualifies as a community landmark sign and must show that the increase is required to allow the sign owner to purchase a standardized sign required by a national manufacturer who does not offer signs in a conforming size. A sign size (area) variance of less than 10 percent in area that meets the preceding criteria shall be processed as a Type II administrative variance as set forth in Chapter [26.10](#) CCC. Sign height variances over the 10 percent limit are available to those business owners that can demonstrate that their nonconforming sign qualifies as a community landmark sign. A community landmark sign must predate the effective date of this code by at least 20 years, have advertised the same business under the same name for all of that time, have become an important cultural landmark to County residents and would be difficult to retrofit to the nonconforming sign standard without destroying the unique character of the sign.~~

33.57.1040 Review of Administrator's action (appeals).

Any person aggrieved by the granting, denying or rescinding ~~or enforcement~~ of a decision of the Administrator made under this chapter may seek review from the Hearing Examiner in accordance with Chapters [33.33](#) and [26.10](#) CCC. The request must be in writing setting forth the basis of the appeal and must be accompanied by the appropriate fees outlined in Chapter [5.100](#) CCC.

33.57.110 Enforcement

The provisions of this title are subject to enforcement and penalty provisions contained in CCC Title 20, Code Compliance, except to the extent preempted by State or Federal law, and except to the extent preempted by any contrary enforcement and penalty provisions contained in this title.

Upon identification of a noncomplying or abandoned sign by the Department of Community Development, a notice of violation will be sent to the violator and landowner (if different) requiring correction action within 90-days. Failure to correct the violation on or before a specified date, which shall be 90 days after mailing of the notice of violation, will result in the accrual of fines. If the violation identified in the notice of violation have not been corrected by the specified date, a certified letter will be sent informing the violator

and/or landowner that fines shall accrue at a rate of \$100 per day on residential property and \$250 per day on commercial/industrial property until the violations are corrected.

33.57.120 Severability.

If any provision of this chapter or its application to any person or circumstance is held invalid, the remainder of this chapter or the application to other persons or circumstances shall not be affected.



CLALLAM COUNTY
Department of Community Development
County Courthouse
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Port Angeles, WA 98362-3015
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Bruce Emery, Director

MEMO

DATE: January 11, 2023
TO: Clallam County Planning Commission
FROM: Greg Ballard, Senior Planner 
RE: Proposed Landscaping and Lighting Ordinance

1. Background:

Planning Commission

At the January 17, 2018 Planning Commission work session, staff introduced and provided an overview of the existing county's landscape ordinance. Staff addressed the need to promote an ordinance that allowed for a more functional landscape design as it related to streetscapes and the desire to strengthen commercial and industrial landscape requirements when abutting residential zoning districts. Staff followed up the landscape requirement discussion at the February 7 and March 7 Planning Commission work sessions to review a draft landscape ordinance that is a repeal and replacement of the existing ordinance. At the March 7, 2018 meeting, the Planning Commission supported the proposed changes to the draft ordinance and agreed to schedule a public hearing.

Staff met with the Crescent Community Advisory Council on March 14, 2018 to discuss the proposed draft landscape ordinance. The community council had varied opinions on the proposed ordinance that ranged from being too burdensome to the property owners that have commercial properties to appreciating the protection of residential from commercial development and from incompatible land uses.

At the April 4, 2018 Planning Commission public hearing, the Planning Commission recommended approval of the proposed draft ordinance amendment to Chapter 33.53, Landscaping Requirements, and found the proposal consistent with the six criteria for evaluating a text amendment by a vote of 6-0.

As part of the Planning Commission record, Staff received a letter from a property owner in Carlsborg, stating opposition to the landscape requirements for screening and buffering of new commercial and industrial development. This letter is attached as Exhibit 4 in the Planning Commission Staff Report.

The record and deliberations of the Planning Commission is attached and includes: Planning Commission staff report, letters from the public, legal notice, Planning Commission minutes, and SEPA threshold determination and environmental checklist that were the subject to the April 4, 2018 Planning Commission Hearing (Exhibit Log).

Board of County Commissioners:

The Landscaping Ordinance and record from the Planning Commission was provided to the Clallam County Board of County Commissioners (BOCC) at a workshop on April 23, 2018. On May 1, 2018 the BOCC scheduled a public hearing for May 15, 2018. [Link to the Video of the BOCC Public Hearing held on May 15, 2018.](#)

The BOCC had the following issues with the proposed landscaping ordinance:

1. When tree and shrub obtained maturity the spacing proposed within the visual buffer and visual screens would not fit within the area provided.
2. That the Landscaping Ordinance was too inflexible.
3. That there should be mechanisms for rectifying landscaping that was not successful.
4. That a vision triangle should be provided for corner lots.
5. That excessive landscaping requirement could impact the limited commercial and industrial area within Clallam County.
6. That visual screens or buffers should be provided between more intensive development with the Urban Growth Area and Limited Area of More Intensive Rural Development (LAMIRD) and Rural Areas.
7. That the Landscaping Ordinance was not provided to the Permit Advisory.

The BOCC voted to table the Landscaping Ordinance to have the issues above addressed.

2. Revision to the Landscaped Ordinance passed by the PC and reviewed by BOCC.

Based on the above DCD reviewed the Landscaping Ordinance that went before the PC and BOCC and proposed changes to address these issues, make the Landscaping Ordinance more understandable and flexible, while still providing protections between uses and provides visual enhancement of development.

Attached the DCD proposed Strike In and ~~Strike Out~~ version of the Landscaping and Lighting Ordinance that was approved by the PC and reviewed by the BOCC. A clean version of the DCD Amended Landscaping and Lighting Ordinance dated January 11, 2023 has also been attached.

Instead of requiring standard width of landscaping visual screens and visual buffers (one size fits all), DCD revised Landscaping Ordinance dated January 11, 2023 (revised ordinance) to allow the reduction of the width visual screens from 15 to 10 feet and the visual buffer from 10 to 5 feet by utilizing fencing, decorative block walls, berms, and/or hedges.

The revised ordinance also provides more flexibility through alternative visual screens, visual buffers or alternative landscape plans that would be reviewed by DCD or the Hearing Examiner. This allows custom landscape plans with larger and smaller visual buffers and screens, or different plant sizes based on the potential of nuisances, type of development, location of the proposal, etc.

The revised ordinance also provides more flexibility on the size of plants provided, which is intended to allow the use of younger plants that are easier to establish while still ensuring that landscaping provides protections between uses and provides visual enhancement of development. The revised ordinance also allows the use of aerial cover of trees and shrubs for visual screens and buffers, which is intended to allow the ultimate size and width of trees and shrubs to be utilized to ensure that these plants will fit within the landscaping areas provided.

DCD added a general lighting section in Section 33.53.090 to address lighting issues. Currently DCD addresses lighting issues through SEPA by issuing a Mitigation Determination of Non-Significance since there are no county lighting standards.

DCD has also provided a copy of the Washington State University Extension Selective Plants for Screens and Hedges published in 2015 & other sources. This provides information on the height and width of trees and shrubs that is useful in determining appropriate plants for visual screens and visual buffers, and aerial cover of trees and shrubs.

Ordinance _____

Amending Title 33, Zoning, Chapter 33.53, Landscape and Lighting Requirements, of the Clallam County Code, to repeal all section of Chapter 33.53, Landscape Requirements and replace

BE IT ORDAINED BY THE BOARD OF CLALLAM COUNTY COMMISSIONERS:

Section 1. Section 33.53.010, Purpose, is created to read as follows:

The landscaping and lighting requirements specified in this chapter are intended to foster aesthetically pleasing development which will protect and preserve the appearance and character of the county. These regulations are intended to increase the compatibility of adjacent land uses due to development and, in doing so, minimize the potential of noise, light, odor, and visual impacts created from such uses.

Section 2. Section 33.53.020, Applicability, is created to read as follows:

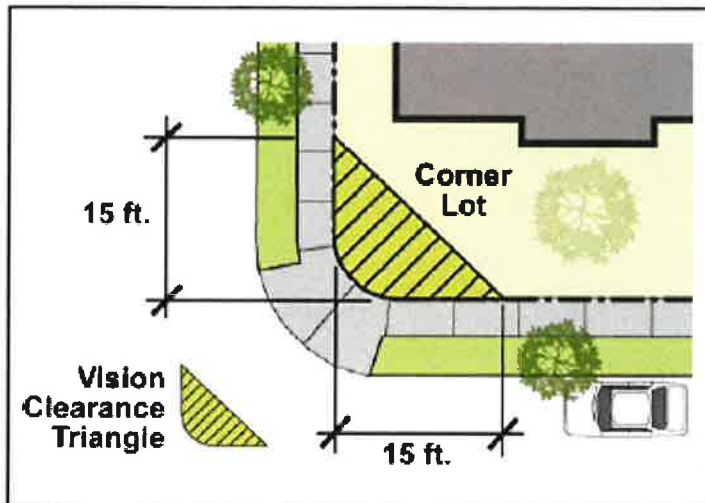
The standards set forth in this chapter shall apply to the following:

- (1) Commercial and industrial development or use;
- (2) Multi-family development;
- (3) Subdivisions and binding site plans (including RV and MH Parks) within urban growth areas; and Limited Areas of More Intensive Rural Development (LAMIRD) per Sections 33.22.300(2)&(3) CCC
- (4) Public and institutional uses;
- (5) Public buildings and facilities;
- (6) Above ground utility buildings or facilities;
- (7) Expansion of an existing building footprint or use greater than 50% for above listed development;
- (8) Uses requiring landscaping as a condition of a conditional use permit under Chapter 33.27 of this Title, and
- (9) Uses requiring landscaping in other sections of this Title.

Section 3. Section 33.53.030, Landscape Plans, is created to read as follows:

Landscape plans shall contain the following information:

- (1) Proposed retention of existing vegetation and plant types to comply with landscaping requirements of this chapter.
- (2) Proposed location of plants meeting the standards of this code and how all disturbed areas are to be replanted.
- (3) Spacing between individual plants.
- (4) Location, quantity, size and name, both botanical and common names, of all proposed plants.
- (5) Location of impervious surfaces and hardscape features.
- (6) Location and dimensions of all existing or proposed structures, property lines, easements, parking lots and driveways, roadways and rights-of-way, sidewalks, monument/freestanding signs, refuse dumpsters, fences, walls, freestanding electrical equipment, and stormwater facilities.
- (6)(7) Outdoor and security lighting consistent with Section 33.53.090.
- (8) The proposed location of fencing, decorative block wall, berms, and/or hedges.
- (9) Corner lots shall maintain a vision clearance triangle consisting of an area in which no physical obstruction, such as a structure, fence, tree or shrub higher than 36 inches above grade shall be permitted. Such triangular area shall have one angle formed by the front lot line and the side lot line separating the lot from the side street, the length of which lot line sides of the triangle shall be 15 feet. The third side of the triangle shall be a line connecting the two lot lines at the 15-foot point on each (Section 33.20.050(4) CCC).



- (10) The creation of an account in the name of Clallam County DCD equal to 110 percent of the fair market value of the required landscaping may be required through a public hearing, or when the Administrator determines that the success of the landscaping is needed to ensure compatibility with the existing and/or potential adjacent land uses. The account shall be provided to the Clallam County Treasurer for a minimum of three years and can be used by DCD to have the required landscaping installed as designed if the landscaping installed by the applicant is unsuccessful and if the applicant does not replace dead trees and shrubs within 30 days up of notification by DCD.

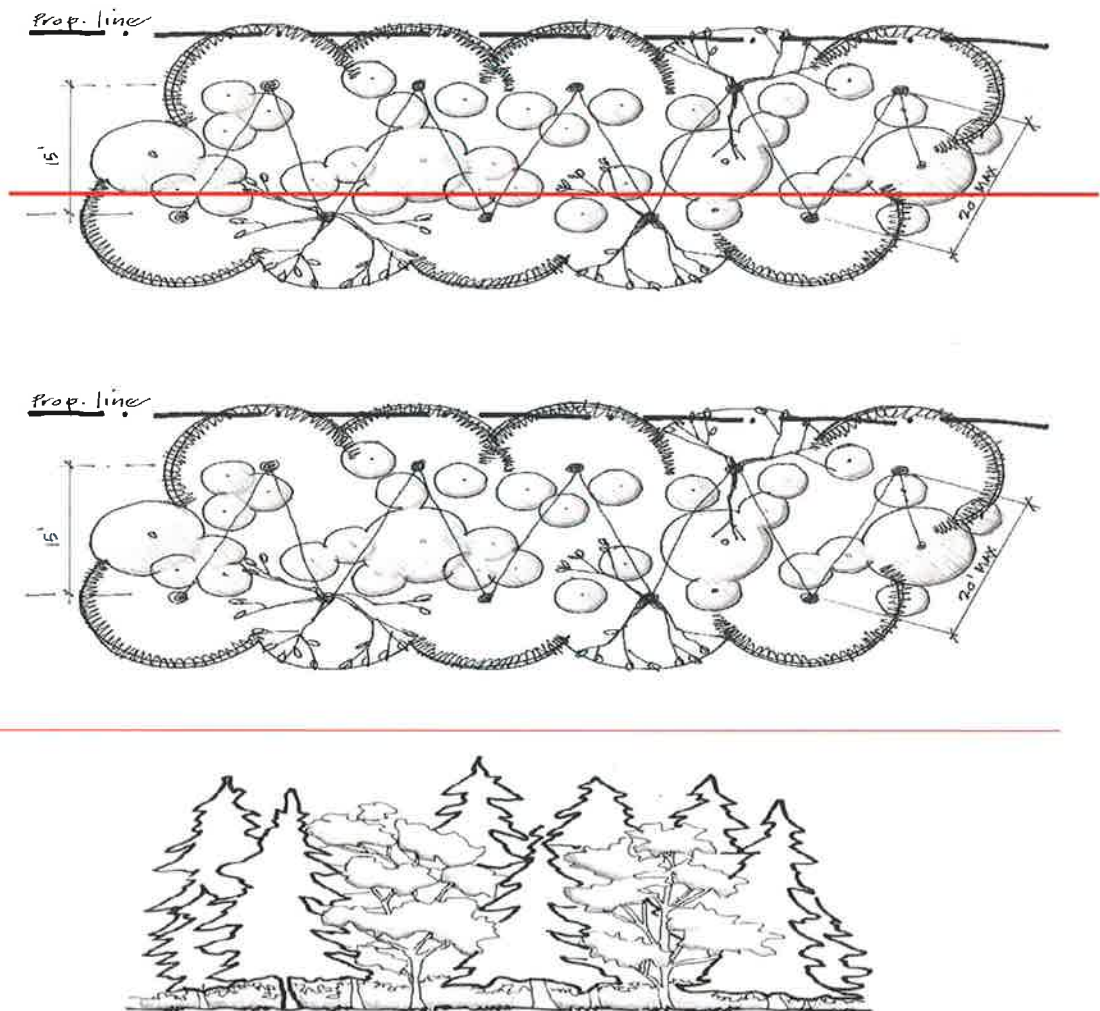
Alternatively, DCD may also allow the signing of a maintenance contract with a landscape company for up to 3 years to ensure that the landscaping installed is maintained, and that dead trees and shrubs are replaced within 30 days of notification by DCD.

Section 4. Section 33.53.040, Landscape Requirements, is created to read as follows:

- (1) A landscape visual screen is required ~~along any property line and road frontages that are not adjacent to a commercial or industrial zone for the developed area for commercial, industrial public/industrial uses, above ground utilities/facilities, and zoning conditional uses along any property line adjacent to residentially zoned areas, or areas containing an existing use (i.e. schools, churches, daycares, residences, etc.) that requires protection from nuisances (as determined by the Administrator).~~ New subdivisions and binding site plans located within an urban growth area or LAMIRDS require a landscape visual screen along any property line ~~and road frontages~~ adjacent to non-urban growth area lands to ensure compatibility with existing and potential land uses.
- The standard visual screen planting shall be at least 15 feet in width and consist of ~~two~~ staggered or alternating rows of evergreen ~~trees and , with an assortment of~~ deciduous trees (maximum 50%) planted at 15 feet on center, and planted no more than 20 feet apart, unless an alternative landscape plan is approved pursuant to Section 33.53.080 of this Chapter.
 - The visual screen planting shall provide at least 1 understory tree interspersed between the larger trees, with at least 3 shrubs (no more than 50% ~~evergreen~~ deciduous) planted around each large tree.
 - Planting patterns ~~shall~~ should promote tree and shrub spacing and clustering throughout the landscaped area versus a linear planting approach.
 - For uses with minimal potential to impact adjacent land uses requiring visual screening per Section 35.53.010(1) above, the Administrator Hearing Examiner may allow a modified visual

screen of 10 feet in width, or a 5 foot wide visual screen with the use of fencing, decorative block wall, berms, and/or solid hedges.

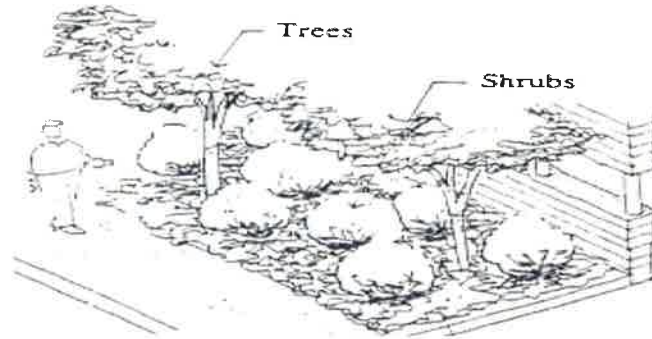
- e. For uses (i.e. heavy industrial or activity using machinery or equipment outside an enclosed structure) that create significant noise, odors, vibration, pollution, or other nuisances with a high likelihood of significantly impacting adjacent land uses (i.e. residential or other sensitive land uses), the Administrator or Hearing Examiner may require a visual screen up to 25 feet in width through the SEPA or public hearing process. In addition to the expanded visual screen width, the Administrator or Hearing Examiner may also require the use of fencing, decorative block wall, berms, and/or hedges, in addition to the standard visual screening requirements.
- d.f. Alternative visual screen landscaping designs and widths may be considered by the Administrator or the Hearing Examiner that provide for an effective, natural screen of the development site that are appropriate based on the existing conditions, zoning and existing and potential land uses to prevent nuisances and are aesthetically pleasing.



Example of Landscape Screen

- (2) A landscape buffer is intended to promote a natural buffer and visual enhancement of the development site. A landscape buffer is required within the front yard and road frontages that are not adjacent to a residential zone, for all uses requiring landscaping per Section 33.53.020 CCC.

- a. The standard landscape buffer shall be at least 10 feet in width and include an assortment of evergreen and deciduous trees planted 25 feet on center (no more than 75% deciduous), shrubs and groundcover, unless an alternative landscape plan is approved pursuant to Section 33.53.080 of this Chapter.
- b. ~~This type of~~ When a standard landscape ~~design~~ buffer is not necessary or feasible to promote a natural buffer and visual enhancement of the aesthetics pleasing development site for an area, or through the use of the fencing, decorative block wall, berms, and/or solid hedges, the Administrator or Hearing Examiner may allow a modified landscape buffer of 5 feet in width.
- c. Alternative landscape buffer designs and widths may be considered by the Administrator that promotes effective visual buffering of the development site.



Example of Landscape Buffer

~~For industrial uses, the Administrator may increase the width of the visual screen to 25 feet in combination with fencing, decorative block wall, or berms to minimize nuisance impacts.~~

- (3) Required landscape visual screens and buffers may include sidewalks and stormwater management features that are integrated with the landscaping design.
- (4) The Administrator may consider landscape visual screens and buffers to be located around the perimeter of the development site where only a small part of the lot and/or street frontage are developed. For example, a small public utility building and related vehicle service access/parking and security fencing with a small footprint on a lot that is vacant or containing development not requiring landscaping subject to this chapter.
- (5) Vegetation shall not obscure line of sight at intersection of a public road or state highway.
- (6) Vegetation along state or county right-of-way shall not impact any roadway or sidewalk.
- (7) All landscaping shall be maintained in a healthy growing condition for the life of the development.
- (8) Soil amendments and mulch are required to help maintain a healthy landscape.
- (9) Drought tolerant and native vegetation is encouraged as a means of reducing water use.
- (10) Vegetation that does not survive shall be replaced within the next growing season.

Section 5. Section 33.53.050, Parking Lot Landscape, is created to read as follows:

~~A minimum~~ The Administrator may require a 5 to 10 foot wide landscape buffer shall be provided around along the perimeter of any parking lot; except that driveways with more than 10 parking spaces to ensure compatibility with adjacent land uses, minimize the view from county or private roads (serving more than 4 parcels), and sidewalks, needed to serve the use and buildings on the lot, may be located within this required landscape buffer to foster aesthetically pleasing development. Landscape areas may be integrated with pedestrian and stormwater facilities to comply with both County landscape and stormwater standards. Stormwater bioretention facilities are encouraged to be integrated into the parking lot design.

- (1) The landscape buffer shall promote tree and shrub spacing and clustering throughout the landscape area versus a linear planting approach with an assortment of evergreen and deciduous trees planted 25 feet on center (no more than ~~75~~50% deciduous), shrubs and groundcover.
- (2) Surface parking lots, with more than 20 parking spaces shall provide landscaping islands at the end of every parking row with a maximum spacing of at least one island for every 12 parking spaces. Each island is an equivalent of a parking space shall contain at least 1 tree, shrubs and groundcover.
- (3) If the parking lot is located behind the building and is not adjacent to a residential zone or road frontage, the landscaping islands are not required.

Section 6. Section 33.53.060, Screening Of Refuse Disposal Dumpsters, is created to read as follows:

All refuse disposal dumpsters shall be screened on all sides by a solid wood fence, decorative block wall or an equivalent opaque material.

Section 7. Section 33.53.070, Plant Standards, is created to read as follows:

- (1) Deciduous trees shall be a minimum 1½ inches diameter at 3 feet above grade DBH and be a minimum height of 4 feet at time of planting.
- (2) Evergreen trees shall be a minimum 2 inches in diameter at 3 feet above grade and a minimum height of 4 feet in height at time of planting and may be either broadleaf or conifer. A range of heights is permissible and encouraged when trees are proposed in a grouping to allow for water efficiency.
- (3) Ground cover is low evergreen or deciduous plantings at 3 foot spacing in all directions.
- (4) Shrubs shall be a minimum size of 3 gallons at the time of planting.
- (5) DCD may allow alternative to the size of planting, if a landscaping plan is provided to DCD for approval that substantially meets the intent of this Chapter. The calculations would be based on expected height and width of trees and shrubs. For a visual buffer this would include installing landscaping that shall provide 55% aerial cover (from trees and shrubs) within 3 years of planting, or 150 trees or shrubs per acre. For a visual screen 75% aerial cover (from trees and shrubs) shall be obtained within 3 years of planting. The vegetated areas shall comprise at least 80 percent of the landscape area for a visual buffer and 90 percent for a visual screen. The remaining area may be utilized for other uses (benches, sign, stormwater, etc.). Low growing species may be allowed for visual buffers. Native vegetation is preferred but non-native ornamental trees and shrubs is allowed. Invasive or noxious weed species shall not count toward the density or cover thresholds.
- (6) If fencing, decorative block wall, or berms are provided to for immediate screening or where immediate screening is not required, DCD may allow the use of native trees, shrubs, and ground cover (seedlings and bare root plants like from the Clallam Conservation District) at three times the required numbers of standard and with denser spacing of visual buffer or visual screening requirements to promote long term survivorship. The use of native tree, shrubs and groundcover may also be allowed if a wider visual screen or buffer is proposed, which will provide adequate protection from nuisances from the proposed development to adjacent uses, and aesthetic pleasing development (as determined by the Administrator). Once landscaping is established, with approval from DCD, trees and shrubs to be removed to promote plant health provided that a minimum of 55 percent aerial cover is maintained based on the expected height and width of plants.
- (57) The retention of existing vegetation in place of new plants is encouraged and allowed.

Section 8. Section 33.53.080, Alternative Landscape Plan, is created to read as follows:

Alternative landscape designs may be allowed if, upon review by the Administrator (for Type I & II Permits) or Hearing Examiner (for Type III Permits); the alternative design meets one or more of the following criteria:

- (1) Provides landscaping or fencing, decorative block wall, berms, and/or solid hedges that substantially meets the purpose and intent of this Chapter;
- (2) Results in retention and protection of existing native vegetation (especially trees greater than 12 inches in diameter) and meet the intent of the required visual screen and buffer requirements of this Chapter;
- (3) Addresses existing significant site constraints due to unusual lot size or shape, topography, soil conditions, existing development (buildings, utilities, power lines, irrigation lines, sidewalks, etc....), existing easement restrictions, or other unique circumstance are such that full compliance with the standards is impossible or impractical for such development or use; or
- (4) Addresses impacts to roads or other infrastructure (e.g., sidewalks) or safety concerns (e.g., line of site) along state highways and county roads.
- (5) The Administrator may consider approval of a landscape easement on adjacent properties to comply with the landscape visual screen and buffers of this Chapter.
- ~~(5)~~(6)The creation of an assurance bank account or maintenance agreements may be required to ensure that the landscaping is successful per Section 33.53.030(9) CCC.

The Administrator shall have the authority to attach conditions to any alternative landscape plan or modification from the standards of this Chapter necessary to protect the public health, safety or welfare, or to assure that the spirit of this chapter is maintained.

Section 9. Section 33.53.090, Outdoor and Security Lighting, is created to read as follows:
New outdoor, security, or light emitting from land uses shall be directed downward and shielded to prevent glare and light trespass that could significantly impact neighboring properties and roads.

When outdoor lighting has the potential to significantly impact adjacent uses or roadways, DCD may require a lighting plan as part of the review of new development proposals. The lighting plan shall note the location, type, and intensity of lighting. It shall also demonstrate how location, type, and mitigation measures (ie. Shielding, timers, motion sensors, etc) that will prevent glare and light trespass. For large or complex commercial, industrial, subdivisions, multi-family projects, Shoreline Permits, Zoning Conditional Use Permit, or projects requiring a public hearing, DCD may require the lighting plan to be prepared by a qualified professional. The approved plan must be implemented and any significant changes to the number of lighting fixtures, location, and intensity will require an updated lighting plan to be approved by DCD.

ADOPTED this _____ day of _____ 2018~~23~~

BOARD OF CLALLAM COUNTY COMMISSIONERS

 Mark Ozias, Chair

ATTEST:

 Randy Johnson

 Loni Gores, Clerk of the Board

~~Bill Peach~~Mike French

Ordinance _____

Amending Title 33, Zoning, Chapter 33.53, Landscape and Lighting Requirements, of the Clallam County Code, to repeal all section of Chapter 33.53, Landscape Requirements and replace

BE IT ORDAINED BY THE BOARD OF CLALLAM COUNTY COMMISSIONERS:

Section 1. Section 33.53.010, Purpose, is created to read as follows:

The landscaping and lighting requirements specified in this chapter are intended to foster aesthetically pleasing development which will protect and preserve the appearance and character of the county. These regulations are intended to increase the compatibility of adjacent land uses due to development and, in doing so, minimize the potential of noise, light, odor, and visual impacts created from such uses.

Section 2. Section 33.53.020, Applicability, is created to read as follows:

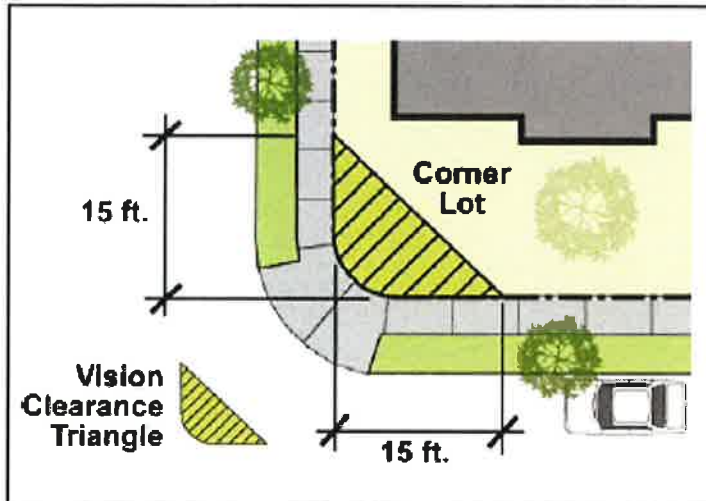
The standards set forth in this chapter shall apply to the following:

- (1) Commercial and industrial development or use;
- (2) Multi-family development;
- (3) Subdivisions and binding site plans (including RV and MH Parks) within urban growth areas, and Limited Areas of More Intensive Rural Development (LAMIRD) per Sections 33.22.300(2)&(3) CCC
- (4) Public and institutional uses;
- (5) Public buildings and facilities;
- (6) Above ground utility buildings or facilities;
- (7) Expansion of an existing building footprint or use greater than 50% for above listed development;
- (8) Uses requiring landscaping as a condition of a conditional use permit under Chapter 33.27 of this Title, and
- (9) Uses requiring landscaping in other sections of this Title.

Section 3. Section 33.53.030, Landscape Plans, is created to read as follows:

Landscape plans shall contain the following information:

- (1) Proposed retention of existing vegetation and plant types to comply with landscaping requirements of this chapter.
- (2) Proposed location of plants meeting the standards of this code and how all disturbed areas are to be replanted.
- (3) Spacing between individual plants.
- (4) Location, quantity, size and name, both botanical and common names, of all proposed plants.
- (5) Location of impervious surfaces and hardscape features.
- (6) Location and dimensions of all existing or proposed structures, property lines, easements, parking lots and driveways, roadways and rights-of-way, sidewalks, monument/freestanding signs, refuse dumpsters, fences, walls, freestanding electrical equipment, and stormwater facilities.
- (7) Outdoor and security lighting consistent with Section 33.53.090.
- (8) The proposed location of fencing, decorative block wall, berms, and/or hedges.
- (9) Corner lots shall maintain a vision clearance triangle consisting of an area in which no physical obstruction, such as a structure, fence, tree or shrub higher than 36 inches above grade shall be permitted. Such triangular area shall have one angle formed by the front lot line and the side lot line separating the lot from the side street, the length of which lot line sides of the triangle shall be 15 feet. The third side of the triangle shall be a line connecting the two lot lines at the 15-foot point on each (Section 33.20.050(4) CCC).



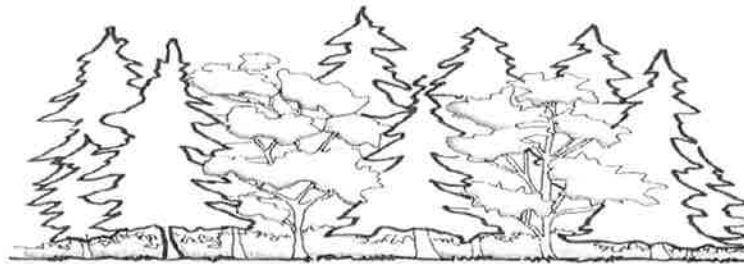
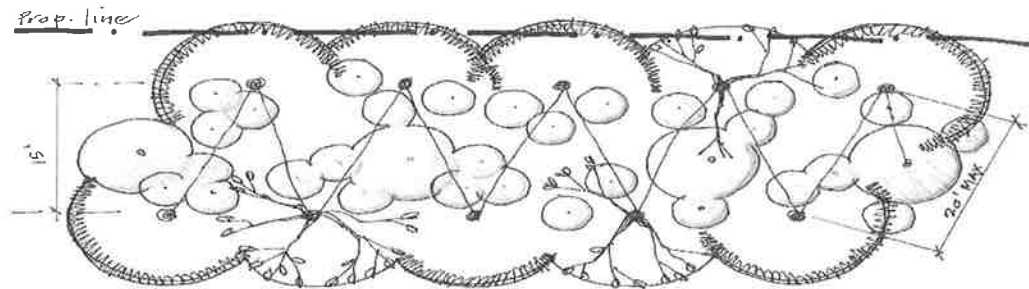
- (10) The creation of an account in the name of Clallam County DCD equal to 110 percent of the fair market value of the required landscaping may be required through a public hearing, or when the Administrator determines that the success of the landscaping is needed to ensure compatibility with the existing and/or potential adjacent land uses. The account shall be provided to the Clallam County Treasurer for a minimum of three years and can be used by DCD to have the required landscaping installed as designed if the landscaping installed by the applicant is unsuccessful and if the applicant does not replace dead trees and shrubs within 30 days up of notification by DCD.

Alternatively, DCD may also allow the signing of a maintenance contract with a landscape company for up to 3 years to ensure that the landscaping installed is maintained, and that dead trees and shrubs are replaced within 30 days of notification by DCD.

Section 4. Section 33.53.040, Landscape Requirements, is created to read as follows:

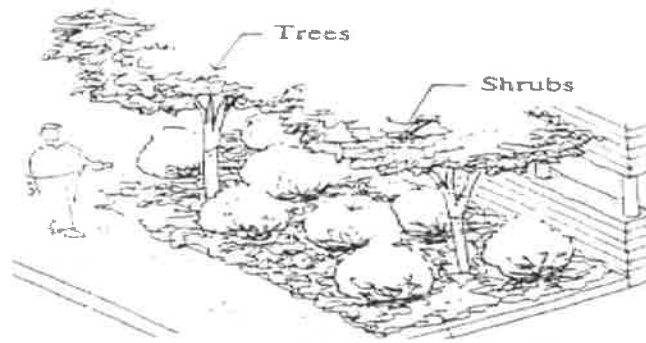
- (1) A landscape visual screen is required for the developed area for commercial, industrial public/industrial uses, above ground utilities/facilities, and zoning conditional uses along any property line adjacent to residentially zoned areas, or areas containing an existing use (i.e. schools, churches, daycares, residences, etc.) that requires protection from nuisances (as determined by the Administrator). New subdivisions and binding site plans located within an urban growth area or LAMIRDS require a landscape visual screen along any property line adjacent to non-urban growth area lands to ensure compatibility with existing and potential land uses.
- The standard visual screen planting shall be at least 15 feet in width and consist of staggered evergreen and deciduous trees (maximum 50%) planted at 15 feet on center, and planted no more than 20 feet apart, unless an alternative landscape plan is approved pursuant to Section 33.53.080 of this Chapter.
 - The visual screen planting shall provide at least 1 understory tree interspersed between the larger trees, with at least 3 shrubs (no more than 50% deciduous) planted around each large tree.
 - Planting patterns should promote tree and shrub spacing and clustering throughout the landscaped area versus a linear planting approach.
 - For uses with minimal potential to impact adjacent land uses requiring visual screening per Section 35.53.010(1) above, the Administrator or Hearing Examiner may allow a modified visual screen of 10 feet in width, or a 5 foot wide visual screen with the use of fencing, decorative block wall, berms, and/or solid hedges.

- e. For uses (i.e. heavy industrial or activity using machinery or equipment outside an enclosed structure) that create significant noise, odors, vibration, pollution, or other nuisances with a high likelihood of significantly impacting adjacent land uses (i.e. residential or other sensitive land uses), the Administrator or Hearing Examiner may require a visual screen up to 25 feet in width through the SEPA or public hearing process. In addition to the expanded visual screen width, the Administrator or Hearing Examiner may also require the use of fencing, decorative block wall, berms, and/or hedges, in addition to the standard visual screening requirements.
- f. Alternative visual screen landscaping designs and widths may be considered by the Administrator or the Hearing Examiner that provide for an effective, natural screen of the development site that are appropriate based on the existing conditions, zoning and existing and potential land uses to prevent nuisances and are aesthetically pleasing.



Example of Landscape Screen

- (2) A landscape buffer is intended to promote a natural buffer and visual enhancement of the development site. A landscape buffer is required within the front yard and road frontages for all uses requiring landscaping per Section 33.53.020 CCC.
 - a. The standard landscape buffer shall be at least 10 feet in width and include an assortment of evergreen and deciduous trees planted 25 feet on center (no more than 75% deciduous), shrubs and groundcover, unless an alternative landscape plan is approved pursuant to Section 33.53.080 of this Chapter.
 - b. When a standard landscape buffer is not necessary or feasible to promote aesthetics pleasing development for an area, or through the use of the fencing, decorative block wall, berms, and/or solid hedges, the Administrator or Hearing Examiner may allow a modified landscape buffer of 5 feet in width.
 - c. Alternative landscape buffer designs and widths may be considered by the Administrator or Hearing Examiner that promotes effective visual buffering of the development site.



Example of Landscape Buffer

- (3) Required landscape visual screens and buffers may include sidewalks and stormwater management features that are integrated with the landscaping design.
- (4) The Administrator may consider landscape visual screens and buffers to be located around the perimeter of the development site where only a small part of the lot and/or street frontage are developed. For example, a small public utility building and related vehicle service access/parking and security fencing with a small footprint on a lot that is vacant or containing development not requiring landscaping subject to this chapter.
- (5) Vegetation shall not obscure line of sight at intersection of a public road or state highway.
- (6) Vegetation along state or county right-of-way shall not impact any roadway or sidewalk.
- (7) All landscaping shall be maintained in a healthy growing condition for the life of the development.
- (8) Soil amendments and mulch are required to help maintain a healthy landscape.
- (9) Drought tolerant and native vegetation is encouraged as a means of reducing water use.
- (10) Vegetation that does not survive shall be replaced within the next growing season.

Section 5. Section 33.53.050, Parking Lot Landscape, is created to read as follows:

The Administrator may require a 5 to 10 foot wide landscape buffer along the perimeter of any parking lot with more than 10 parking spaces to ensure compatibility with adjacent land uses, minimize the view from county or private roads (serving more than 4 parcels), and to foster aesthetically pleasing development. Landscape areas may be integrated with pedestrian and stormwater facilities to comply with both County landscape and stormwater standards. Stormwater bioretention facilities are encouraged to be integrated into the parking lot design.

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- (2) Surface parking lots, with more than 20 parking spaces shall provide landscaping islands at the end of every parking row with a maximum spacing of at least one island for every 12 parking spaces. Each island is an equivalent of a parking space shall contain at least 1 tree, shrubs and groundcover.
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- (3) Ground cover is low evergreen or deciduous plantings at 3 foot spacing in all directions.
- (4) Shrubs shall be a minimum size of 3 gallons at the time of planting.
- (5) DCD may allow alternative to the size of planting, if a landscaping plan is provided to DCD for approval that substantially meets the intent of this Chapter. The calculations would be based on expected height and width of trees and shrubs. For a visual buffer this would include installing landscaping that shall provide 55% aerial cover (from trees and shrubs) within 3 years of planting, or 150 trees or shrubs per acre. For a visual screen 75% aerial cover (from trees and shrubs) shall be obtained within 3 years of planting. The vegetated areas shall comprise at least 80 percent of the landscape area for a visual buffer and 90 percent for a visual screen. The remaining area may be utilized for other uses (benches, sign, stormwater, etc.). Low growing species may be allowed for visual buffers. Native vegetation is preferred but non-native ornamental trees and shrubs is allowed. Invasive or noxious weed species shall not count toward the density or cover thresholds.
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- (1) Provides landscaping or fencing, decorative block wall, berms, and/or solid hedges that substantially meets the purpose and intent of this Chapter;
- (2) Results in retention and protection of existing native vegetation (especially trees greater than 12 inches in diameter) and meet the intent of the required visual screen and buffer requirements of this Chapter;
- (3) Addresses existing significant site constraints due to unusual lot size or shape, topography, soil conditions, existing development (buildings, utilities, power lines, irrigation lines, sidewalks, etc...), existing easement restrictions, or other unique circumstance are such that full compliance with the standards is impossible or impractical for such development or use; or
- (4) Addresses impacts to roads or other infrastructure (e.g., sidewalks) or safety concerns (e.g., line of site) along state highways and county roads.

- (5) The Administrator may consider approval of a landscape easement on adjacent properties to comply with the landscape visual screen and buffers of this Chapter.
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When outdoor lighting has the potential to significantly impact adjacent uses or roadways, DCD may require a lighting plan as part of the review of new development proposals. The lighting plan shall note the location, type, and intensity of lighting. It shall also demonstrate how location, type, and mitigation measures (ie. Shielding, timers, motion sensors, etc) that will prevent glare and light trespass. For large or complex commercial, industrial, subdivisions, multi-family projects, Shoreline Permits, Zoning Conditional Use Permit, or projects requiring a public hearing, DCD may require the lighting plan to be prepared by a qualified professional. The approved plan must be implemented and any significant changes to the number of lighting fixtures, location, and intensity will require an updated lighting plan to be approved by DCD.

ADOPTED this _____ day of _____ 2023

BOARD OF CLALLAM COUNTY COMMISSIONERS

Mark Ozias, Chair

ATTEST:

Randy Johnson

Loni Gores, Clerk of the Board

Mike French



SELECTING PLANTS FOR SCREENS AND HEDGES

SELECTING PLANTS FOR SCREENS AND HEDGES

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By

Charles A. Brun, Regional Horticulture Specialist, College of Agricultural, Human, and Natural Resource Sciences; and **Paula Dinius**, Urban Horticulturist, WSU Chelan County.

Published: June 2015

Abstract

This publication discusses the many benefits of installing screens and hedges in the home landscape. It also provides information on how to plan layouts, including spacing issues, types of design, and the best plant choices for creating healthy and effective screens and hedges.

Part 1: Planning a Living Screen or Hedge

"Screens and hedges are [closely spaced] linear strips of vegetation that perform a variety of valuable functions in urban environments" (McPherson 1988).

Benefits of Live Screens and Hedges

In designing a landscape, consider the need for privacy or blocking the view of an undesirable vista (Figure 1). As an alternative to a wall built with wood, plastic lumber, or brick, one can utilize a range of different plants to build a living screen or hedge that will provide years of service. Using trees and shrubs for screens and hedges can provide additional benefits, such as reducing noise, blocking wind or dust, conserving energy, and improving water and air quality. They can also define a space, create habitat for beneficial wildlife, and beautify the landscape (Vaughan 2013).

To design a screen for **noise** control from moderate speed traffic (<40 mph) in neighborhoods, plant a row of trees or shrubs with the near edge of the buffer within 20 to 50 ft of the center of the nearest traffic lane (Bassuk 2009). The height will be determined by line-of-sight safety issues for vehicle and pedestrian traffic, overhead utility lines, and local ordinances. Strive for a minimum density of 60 percent at plant maturity. Density is the solid area presented by foliage and woody parts of the plant. The width of the row should be 20 ft, minimum, to effectively reduce noise levels, and twice as long as the distance from the noise source (NRCS 2011). When choosing plant material, consider tolerance to dust particle deposition, salt spray, and vehicle emissions (Bassuk 2009).

Tree and shrub plantings for **wind or dust buffers** should be oriented as close to perpendicular to the prevailing wind as possible for the time of year protection is most



Figure 1. Emerald Green arborvitae (*Thuja occidentalis* 'Smaragd') grows to 15 ft in height and 3 ft in width, making it a very popular hedge plant for screening. Photo by Charles Brun, WSU

desired. For example, if the objective is to buffer cold winter winds, an evergreen windbreak would be at a 90-degree angle to the prevailing winter wind.

Windbreaks work by building up large quantities of air on the windward side of a windbreak, causing the air to rise up and over or around the ends. The greatest protection is provided within 2–10 times the height of the tallest tree or shrub and over an uninterrupted distance of 10 times the height (Wright and Stuhr 2002). The density of the row at maturity should be at least 60 percent. Density can be estimated by the proportion of solid area to open area (Straight and Brandle 2007).

Living screens and hedges can **conserve energy** and **improve water and air quality**. With proper planting of trees and shrubs, home energy costs can be significantly reduced, with actual savings between 15 and 25 percent (Dwyer et al. 1992; Kuhns 2012; Strine 2004). Provide summer shade by placing deciduous trees on the south, southwest, and west side of the house for maximum cooling effects. When leaves fall in winter, the trees will let the winter sun in. In winter, an evergreen buffer planted perpendicular to the wind will provide protection from cold winter winds. Locate the planting row at a distance 2 to 4 times the height of the tallest tree upwind from the building for effective draft protection (Bassuk

Benefits of Living Screens & Hedges

- Provide privacy
- Screen unsightly elements
- Buffer against wind
- Noise and odor abatement
- Dust reduction
- Improve water and air quality
- Energy conservation
- Wildlife habitat
- Increase species diversity
- Beautify the landscape

NRCS Conservation Practice Standards, 2010

2009). For example, if the tallest plant in the row is 10 ft, the planting row should be placed 20 to 40 ft from the structure, at a right angle to the prevailing winter wind.

Water and air quality are improved through natural plant filtering systems that screens and hedges provide. Plant leaves exchange atmospheric gases and trap particulate matter, thereby appreciably reducing the amount of air pollutants. Tree and shrub canopies intercept rainfall by catching and slowing rain before it hits the ground. This reduces soil erosion and runoff volume flowing into waterways (Nowak 2006).

Living screens and hedges can provide



habitat for **pollinators and other beneficial wildlife**. All wildlife needs food, water, and shelter to survive. Screens and hedges can provide one or more of these basic needs.

Choose trees and shrubs that will provide year-round nectar, pollen, or fruit resources for food. Pollinators include birds, butterflies, bees, and beetles (Webb 2011), so planting flowers in a variety of sizes, shapes, and colors is important. Use at least three different plant species, each with consecutive bloom times throughout the season.

Additional pollinator-friendly flowers can be planted in the landscape to supplement habitat needs (Figure 2). Many of our native bee pollinators are ground nesting, so part of the soil should be accessible and undisturbed. For other wildlife, such as birds, consider branch density, thorns, and evergreens for shelter, nesting, and overwintering sites (Vaughan et al. 2013).

Planning, Design, and Development

It is important to plan the layout of a screen or hedge before installation. Once trees or shrubs are planted and begin growing, it can be difficult to make changes. Factors to consider include the available space on the property; whether it will be a formal



wildfire, the need for defensible space.

Space Requirements

During the planning and design phase, it is important to know the square footage of the planting area. Measurements of the planting site should be considered not only to ensure adequate plant root soil volume, but also to ensure enough available width and height for mature plant clearance. Be aware of overhead utility lines, street visibility, sidewalk clearance, and property line boundaries. This information will guide plant selection, the number of plants needed, and their spacing. One of the biggest design mistakes made is planting species that are too large for the designated area (Mason 2013). Select plant material based on mature size, with consideration of formal or informal hedge type.

The height, width, form, and salient characteristics of 80 different species that could be used for screens and hedges are described in Part 2 of this

or informal design; the need for deciduous or evergreen plants; the aesthetics of plant texture; and, in areas prone to

publication, which focuses on plant choices. The mature height and width listed reflect the generally recognized size of plants grown in the northern temperate zone of the United States. These data came from university references (Bassuk 2009; Breen 2015; Brun 2015; Brand 2015; Detweiler 2006; Kuhns 2015; and Love 2009).

Formal or Informal

Choosing a formal or informal hedge or screen depends on the site characteristics and personal choice. Consider the maintenance level, space available (which allows plants to take their natural form) and the overall aesthetics desired. An informal hedge can be left to grow naturally or it can be selectively pruned using thinning and heading cuts to maintain desired height and width (Figure 3). With formal hedges, start with a young plant to build the structure of the hedge and continue to prune on a regular basis. When building the structure, prune the top of the hedge narrower than the base to ensure good light penetration. Otherwise, the lower limbs will de-foliate, thus reducing the desired privacy. Flowering hedges should be pruned after the blooms have dropped. Frequent shearing of flowering hedges often results in a reduction of flower bud formation over time (Gilman 2005). There are many pictorial guides to pruning formal hedges available (Gilman 2010).



Figure 2. European honey bee (*Apis mellifera*) is a key pollinator for the landscape. Photo by Charles Brun, WSU



Figure 3. With its fine texture and numerous sharp thorns, William Penn barberry (*Berberis gladiolifera*) can be left to grow naturally or sheared to form an impregnable hedge. It grows to 5 ft in height and width; hardy to Zone 5. Photo by Charles Brun, WSU



Figure 4. On larger parcels, a row of Hogan cedars (*Thuja plicata* 'Hogan') will provide year-round screening and noise reduction. This western red cedar cultivar grows to 40 ft in height, 20 ft in width, and is hardy to Zone 5. Photo by Charles Brun, WSU

Deciduous or Evergreen

For a screen or hedge to be effective, it must be designed around the specific function it is to perform. If the objective is to provide privacy or block an intrusive view, year-round screening is necessary. Broadleaf Evergreen or conifer plants (Figure 4) should be used in this case, selecting species for site tolerance. For example, a broadleaf evergreen species may have sufficient cold hardiness, but suffer from winter leaf burn in regions with cold winter temperatures. In winter when the ground freezes, roots cannot take up water. On sunny or windy winter days, plants lose water through their leaves and if the water cannot be replaced as quickly as it is lost, leaf burn can result (Maleike 2014). An evergreen conifer species tolerant to winter desiccation may be more appropriate. Deciduous plants may be more effective when only seasonal performance is needed, such as acting as privacy screens or reducing summer solar heat. A combination of evergreen and deciduous plants can be effective, if space allows.

Plant Texture

Plant texture is the visual perception of the size, shape, spacing, and color of leaves and twigs. Texture can be fine to coarse, heavy to light, and dense to thin. Coarse textures tend to be bold, with large leaves that

attract attention from the play of light and dark contrasts, such as oak leaf hydrangea. Medium textures have a smooth, simple leaf shape, and moderately spaced branching, such as viburnum. Fine textures have small leaves and thin, intricately branched twigs such as arborvitae. From an aesthetic perspective, a landscape can appear larger if fine-textured plants are used as background hedge or screen material and medium- and coarse-textured plants are placed in front (Hansen 2013).

Wildfire Defensible Space

In many areas of the Pacific Northwest, wildfire is a natural component of our landscape. In many cases homes can be protected

by creating a defensible space. The term defensible space refers to the area between homes and other structures where fuel sources, such as woody vegetation, has been cleared or modified to reduce the spread of a fire or, at least, slow it down. For more information, refer to *Fire-Resistant Plants for Home Landscapes* (Detweiler 2006) at <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20921/%2apnw590.pdf>.

Living screens and hedges can be considered a green fence (Figure 5) when suitable plant material is used and properly located in the landscape. In areas prone to wildfire, a screen or hedge should be placed at least 30 ft away from the home, and it should not be connected to any flammable attachments near the house, such as wooden fences or decks. The screen or hedge should be surrounded by fuel breaks in the form of lawns, driveways, sidewalks, or retaining walls (Firewise Communities Program 2014).

Winter Hardiness Zones

Plant hardiness zones help define the optimum growing climates for all ornamentals. One can use their postal zip code to look up hardiness zones (Hardiness Zones 2014). There are six winter hardiness zones in Washington State (Table 1). Refer to Figure 6 for a pictorial guide to the plant hardiness zones in Washington State.



Figure 5. A solid row of David viburnum (*Viburnum davidii*) will grow to 5 ft in height and width and is hardy to Zone 7. Its thick leathery leaves make it drought tolerant. Photo by Charles Brun, WSU

Table 1. Plant hardiness zones across Washington State.

Zone 4	-30 °F to -20 °F
Zone 5	-20 °F to -10 °F
Zone 6	-10 °F to 0 °F
Zone 7	0 °F to 10 °F
Zone 8	10 °F to 20 °F
Zone 9	20 °F to 30 °F

Avoid Invasive Plants

This publication does not include plants from any portion of the United States that are found in the USDA's Introduced, Invasive, or Noxious Plants Floristic Area database (NRCS 2014). Introduced plants may become invasive as they lack co-evolved competitors and natural enemies to control their populations.

Native plants

This publication does note native plants that could be considered as screens or hedges. A native plant is defined as one that occurred naturally in a particular region at the time when the first European settlers arrived in North America, and which was not a result of direct or indirect human influence. Oregon grape (Figure 7) is a native plant that can be used as a screen throughout the state, though it has a ragged habit and generally is not sheared. It is hardy to Zone 5. The cultivar *Compacta* matures at 3 ft in height and has a finer texture than the native species (Rhodus 2015). Because of its dense habit, it can be sheared into a hedge.

Native plants are generally adaptable because they evolved with competing species, predators, and diseases over many thousands of years. Thus they are considered to be in ecological balance in the region where they were first found. There are guides to the use of native plants for areas west of the Cascades Mountains (McMahan 2008; Leigh 2005), as well as the arid regions on the east side of the state (Detweiler 2008). Refer to other publications on native plants under Further Reading.



Figure 6. USDA Plant hardiness zones. (Hardiness Zones 2014).

Figure 7. Oregon Grape (*Mahonia aquifolium*) can serve as a native screen, growing 3–10 ft tall.

Part 2: Plant Choices for Screens and Hedges

Dwarf Conifers as Hedges

The smaller dwarf conifers can be effectively used in the contemporary residential landscapes as they add interesting texture, diversity of form, and coloration to the garden (Relf 2015). There are a number of different genera to choose from (Table 2). Within each genus, note the diverse number of cultivars. In the genus *Chamaecyparis* (false cypress), look for cultivars with predominately yellow-colored

foliage, which is very effective at providing visual interest during the winter months when herbaceous perennials have gone dormant. In the genus *Picea* (spruce), look for a wide selection of globe-shaped dwarfs that feature extremely dense foliage arranged in trim shapes. In the genus *Tsuga* (hemlock), look for shade-loving selections.

In general, dwarf conifers are considered free from disease pests (Pscheidt 2015), and they do not require any annual pruning. In areas west of the Cascades, they will all grow very well and fill out their



allotted space, while in areas east of the Cascades, high temperatures can affect their growth. West of the Cascades they are all considered drought tolerant, winter hardy, and insensitive to soil fertility levels. In eastern Washington, variegated and golden foliage may burn in hot, sunny areas.

With their lower heights, dwarf conifers could be used to line a walkway leading up to a home's entrance (Russ and Polomski 1999).

Avoid using them as foundation shrubs in areas prone to wildfires. While many of the dwarf conifers may not be readily available at local garden centers, they can be mail-ordered as small plants (one gallon containers). A web search using a plant's genus will yield a plethora of cultivars. Landscape contractors should be able to provide the dwarf conifers as well, as they have access to wholesale grower suppliers, who do not sell directly to retail customers.

Medium Height Conifers for Use as Screens and Hedges

Conifers that mature to heights of less than 10 ft are very functional as a screen or hedge; many mature at shoulder height (Fare 2009). They are especially useful in urban areas as they do not overwhelm the yard, or block the view of distant landscapes.

All of the selections shown in Table 3 have dense canopies that extend to the ground. They could be used

Table 2. Conifers Under 4 ft in Height at Maturity

 Figure 8. <i>Abies balsamea</i> 'Nana' Dwarf balsam fir Zone 3 Width: 3 ft Dense globose form; light green new growth contrasts with dark green older foliage; can take shade.	 Figure 9. <i>Abies nordmanniana</i> 'Golden Spreader' Golden Spreader Nordmann fir Zone 4 Width: 5 ft Dwarf spreader to 4 ft; soft, bright yellow winter foliage; greener in summer; best in full sun; best not sheared.	 Figure 10. <i>Abies procera</i> 'Glauca' Blue Prostrate noble fir Zone 5 Width: 4 ft Prostrate version of native Noble fir; steely-blue foliage; soft textured needles; shear any upright shoots to maintain form.	 Figure 11. <i>Chamaecyparis pisifera</i> 'Golden Mop' Golden Mop threadleaf false cypress Zone 4 Width: 4–5 ft A ground-hugging mounder; mop-like stringy foliage stays golden yellow; best in full sun.
 Figure 12. <i>Picea pungens</i> 'Glauca Globosa' Globe blue spruce Zone 2 Width: 6 ft Beautiful silver blue prickly needles; needs full sun; widely adaptable, very drought tolerant.	 Figure 13. <i>Thuja occidentalis</i> 'Danica' Danica arborvitae Zone 3 Width: 4 ft A slow-growing, dense, globular foundation shrub; bright green foliage in vertical sprays; shear as desired.	 Figure 14. <i>Thujopsis dolobrata</i> 'Nana' False Hiba cedar Zone 6 Width: 5 ft Spreading bun shape; green and white needles; tolerates light summer shade and dry sites; best unsheared.	 Figure 15. <i>Tsuga heterophylla</i> 'Thorsens Weeping' Thorsens Weeping hemlock Zone 6 Width: 3 ft Mounding habit if staked, otherwise, forming a prostrate groundcover; soft green foliage; can take shade if needed in hot climates.

Photos 8-15 by Charles Brun, WSU



as alternatives to the conventional 6-ft-tall fence that is often used between adjacent yards. The selections listed in this category are hardy for areas east of the Cascades and are considered drought tolerant.

The Montgomery blue spruce would be especially useful with its sharp, prickly foliage that could serve to keep intruders out. When a very narrow screen is desired, consider columnar conifers, such as *Compressa* or Gold Cone junipers. While columnar

conifers are especially well suited to formal gardens, serving as specimen or focal plants (Walton 2008), they can be arranged in rows for screening. Both of the junipers listed will grow well without any maintenance pruning and have been found to shed snow better than the taller arborvitae in western Washington.

Where there is more space, the dwarf Aurea Nana oriental arborvitae would be highly appropriate as it forms a very dense wall of soft yellow-green

foliage, and does not grow to the mature height of the more commonly planted Emerald Green arborvitae. Both of the pines listed here are winter hardy for all of Washington. For a bright winter accent plant, look for Louie eastern white pine, which features soft, feathery needles. For shady yards, consider Moon Frost hemlock whose white spring growth sets it apart from other shade-tolerant species. Keep in mind that in eastern Washington variegated and golden foliage may burn in hot, sunny areas.

Table 3. Conifers Under 5 ft to 10 ft in Height at Maturity

 Figure 16. <i>Juniperus communis</i> 'Compressa' Compressa juniper Zone 2 Width: 1 ft Tapered candle form; blue-green, awl-shaped needles, accent specimen plant; could be set close in rows.	 Figure 17. <i>Juniperus communis</i> 'Gold Cone' Gold Cone juniper Zone 2 Width: 3 ft Barrel-shaped habit; soft, golden foliage; set multiple plants in a row for screening.	 Figure 18. <i>Picea glauca</i> 'Sander's Blue' Sander's Blue spruce Zone 3 Width: 5 ft Pyramidal form; dense foliage with slate-blue to green coloration; best not sheared.	 Figure 19. <i>Picea pungens</i> 'Montgomery' Montgomery blue spruce Zone 3 Width: 8 ft Conic wedge shape to 10 ft; silvery-blue, sharp needles; drought tolerant; do not shear.
 Figure 20. <i>Pinus strobus</i> 'Louie' Louie Eastern white pine Zone 3 Width: 7 ft Upright, dense form to 10 ft; bright yellow fall foliage; best in acidic sites, best not sheared.	 Figure 21. <i>Pinus parviflora</i> 'Ogon Janome' Dragon's Eye white pine Zone 5 Width: 6 ft Compact form; blue-green needles with bands of yellow; needs partial shade in hot areas.	 Figure 22. <i>Thuja orientalis</i> 'Aurea Nana' Dwarf Oriental arborvitae Zone 5 Width: 5 ft Tidy pointed globe shape; bright golden foliage; set plants 3 ft apart for a hedge; often not sheared.	 Figure 23. <i>Tsuga canadensis</i> 'Moon Frost' Moon Frost hemlock Zone 3 Width: 3 ft Excellent mounding habit; beautiful white new growth over older green; best not sheared.

Photos 16-18 and 20-23 by Charles Brun, WSU; Photo 19 by Paula Dinius, WSU Chelan County



Tall Conifers for Use as Screens and Hedges

The tall conifer selections shown in Table 4 can be used very effectively as screens. They provide dense, intricate branching and fine leaves (needles) that can block out unsightly views and undesired light exposure, both summer solar radiation and urban light pollution. Tall conifers block cold winter winds, capture air pollutants, and can reduce noise significantly.

The selection is vast, with cultivars

ranging in height and width to fit many screen designs. They come in a variety of colors from bright green (Smaragd arborvitae and Incense cedar), to blues (Colorado blue spruce, Vanderwolf's Pyramid pine, Arizona cypress). Branch characteristics can be found from upright (Incense cedar) to weeping (Weeping white spruce) forms that provide aesthetic appeal.

It is important to remember the mature size of these plants, as many can grow quite large, potentially 50 ft or more (Cox 2005). Where space is available,

these workhorses will prove their merit as year-round evergreens. If desired, some can be sheared, such as Emerald green arborvitae and Skyrocket juniper. Caution should be taken not to cut into the interior dead zone of conifers because they will not fill out with new green growth (McConnell 1998). A screen planted with tall conifers can be a useful backdrop for other plants to create a beautiful landscape. Wildlife find that conifers provide good shelter and protection from predators and harsh environmental conditions.

Table 4. Conifers Over 10 ft at Maturity

 Figure 24. <i>Calocedrus decurrens</i> Incense cedar Zone 5 Width: 15 ft Upright conical shape to 75 ft; dense canopy; aromatic green foliage; furrowed bark; no winter browning. WA state native	 Figure 25. <i>Chamaecyparis nootkatensis</i> Weeping Alaska cedar Zone 4 Width: 12 ft Ascending to 60 ft; horizontal branches; scale-like, blue-green foliage; best west of Cascades. WA state native	 Figure 26. <i>Cupressus glabra</i> 'Blue Ice' Blue Ice Arizona cypress Zone 5 Width: 12 ft Grows to 30 ft; drought tolerant; powdery-blue foliage; do not shear; best west of the Cascades.	 Figure 27. <i>Juniperus scopulorum</i> 'Skyrocket' Skyrocket juniper Zone 3 Width: 2 ft A drought Rocky Mountain juniper cultivar; matures at 14 ft; minimize shearing; blue-green foliage. WA state native
 Figure 28. <i>Picea glauca</i> 'Pendula' Weeping white spruce Zone 2 Width: 8 ft Rocketship form may reach 40 ft; weeping, prickly needles; striking accent; no shearing.	 Figure 29. <i>Picea pungens</i> var. <i>glauca</i> Colorado blue spruce Zone 3 Width: 15 ft Stately pyramidal growth habit; excellent cold hardiness; silvery-blue foliage; great on the east side.	 Figure 30. <i>Pinus flexilis</i> 'Vanderwolf's Pyramid' Vanderwolf's Pyramid pine Zone 2 Width: 15 ft Soft, silvery, blue-green needles; grows to 30 ft; full sun; do not shear. WA state native	 Figure 31. <i>Thuja occidentalis</i> 'Smaragd' Emerald Green arborvitae Zone 2 Width: 3–5 ft Very common; allow to grow 8–20 ft tall; shear as needed; do not top; set plants 4 ft apart in rows.

Photos 24–31 by Charles Brun, WSU



Shorter Broadleaf Evergreens for Hedges

Low-growing evergreen shrub selections (Table 5) are very popular as foundation plants that can either be left to develop on their own or sheared into formal hedges (Klett 2011), in contrast to the low-growing conifers (Table 2) that are best not sheared.

Most of the selections shown in Table 5 are suitable for pathways leading up to the entrance of a home, or as fillers in a boulevard strip (area

between sidewalk and street curb). For alternatives that circumvent the maintenance and pest issues associated with boxwood, consider the fine texture offered by Sutherland Hebe, which should not be sheared, and Grosso lavender, which can be sheared as it ages. With the exception of Sutherland Hebe and the Orchid rockrose, all of the selections are largely winter hardy for most of Washington State.

Gardeners with shaded sites will find that Warty barberry, Girard's Rainbow

leucothoe, Sutherland Hebe, Fragrant Sweetbox, and Taunton's hybrid yew will all perform well. For flowering hedges, gardeners should consider Grosso lavender, Girard's Rainbow leucothoe, or Orchid rockrose. In order to attract a plethora of nectar-seeking pollinators in early July, plant a row of lavender from the vast selection of cultivars available. For a barrier shrub, the Warty barberry is an excellent choice as it has very spiny foliage. The Goshiki Holly Osmanthus can serve as an alternative for English Holly for Christmas greenery.

Table 5. Broadleaf Evergreens Under 4 ft at Maturity



Figure 32. *Berberis verruculosa*

Warty barberry



Zone (5) 6 Width: 5 ft
Arching habit; branches are very stiff; foliage glossy dark green and spiny; 3-part spines cover the stems; rod shaped, very small fruit in the fall; very drought tolerant. Can be sheared as desired.



Figure 33. *Cistus purpureus*

Orchid rockrose



Zone 7 Width: 4 ft
Rounded form, 1-in.-long, narrow leaves; dull grey above, lighter below; 2–3 in. flowers, pink with 5 red spots; yellow stamens; typically not sheared.



Figure 34. *Hebe pinguifolia* 'Sutherlandii'

Sutherland Hebe

Zone 7 Width: 4 ft
Rounded form, dense habits with small silver-green leaves, small white summer flowers; typically not sheared; drought tolerant.



Figure 35. *Lavandula intermedia* 'Grosso'

Grosso lavender



Zone 5 Width: 4 ft
This popular herbal shrub features summer flowers used for perfumes and sachets; grows to 3 ft; often used to line a pathway; best sheared in the spring.



Figure 36. *Leucothoe fontanesiana* 'Girard's Rainbow'

Girard's Rainbow leucothoe



Zone 4 Width: 6 ft
A leucothoe cultivar with early season white, pink, and coppery foliage; matures to green with streaks of cream; fragrant, urn-shaped flowers. Do not shear.



Figure 37. *Osmanthus heterophyllus* 'Goshiki'

Goshiki Holly Osmanthus

Zone 6 Width: 4 ft
Goshiki Holly features glossy green variegated leaves with splashes of pink and orange that lack spines; fragrant spring flowers, can be sheared to form a hedge.



Figure 38. *Sarcococca confusa*

Fragrant Sweetbox

Zone (6) 7 Width: 4 ft
Widely used in the floral market for its very fragrant white winter flowers and lustrous green leaves; dense habit; spreads by underground shoots; shiny black berries if not sheared; can take shade.



Figure 39. *Taxus x media* 'Tauntonii'

Taunton's hybrid yew

Zone 5 Width 6 ft
A foundation shrub with dark green foliage; a spreading habit; resistance to winter burn; good summer heat tolerance; can withstand full shade. Shear as desired.

Photos 33-39 by Charles Brun, WSU



Medium Height Broadleaf Evergreens for Screens and Hedges

The medium height evergreens listed in Table 6 represent the best plant material for arranging into hedges, which can be used to divide yards from one another. They can be informal or sheared, as desired. Other than the Blueblossom, Sundance Mexican orange, and Escallonia, they are all generally winter hardy in many areas of Washington and

lack any serious pest issues. All of the selections feature small leaves that will block views through their canopies. All of them offer interesting colors that provide nice contrasts to the traditional evergreen hedges.

The Blueblossom and Delavay Osmanthus make very attractive hedges, which pollinators will greatly enjoy when the flowers are in full bloom. The Meserve hybrid hollies and the Ebbinge's silverberry offer vigorous growth that can be easily sheared into dense hedges.

The Mexican orange and Delavay Osmanthus both work well in the shade. Finally, the Japanese pieris makes a wonderful addition in any garden as it offers a multitude of colors as the season progresses. To ensure a bountiful supply of flowers, limit the amount of pruning, or prune according to flowering time. Prune plants that flower in the spring on last year's wood after flowering display. For plants that flower in the summer on new wood, prune in late winter (Gilman 2005).

Table 6. Broadleaf Evergreens 6 ft to 10 ft at Maturity

 Figure 40. <i>Ceanothus thyrsiflorus</i> Blueblossom  Zone 7 Width: 6 ft Vigorous growth; bright shiny 2-in. green leaves; spike-like, blue flower cluster from May through June; a great hedge plant; takes well to shearing. WA state native	 Figure 41. <i>Choisya ternata</i> 'Sundance' Sundance Mexican orange  Zone 8 Width: 6 ft Mounding form; chartreuse golden foliage arranged in whorls; citrus smelling, white spring flowers; likes part shade.	 Figure 42. <i>Elaeagnus ebbingei</i> 'Gilt Edge' Ebbinge's silverberry  Zone (6) 7 Width: 6 ft Dense habit; 2–4-in.-long leaves with ruffled margins; variegated green/yellow foliage; excellent hedge plant; shear as needed.	 Figure 43. <i>Escallonia langleyensis</i> 'Pride of Donard' Pride of Donard Escallonia  Zone 7 Width: 6 ft Arching stems; narrow dark green leaves; scarlet flowers spring through summer; can be hedged.
 Figure 44. <i>Ilex meserveae</i> 'Blue Girl' Blue Girl meserve holly  Zone 5 Width: 8 ft Bright red stems bear blue-green foliage; bright red fruit on female plants; needs male plant for pollination; good for hedging; shear in winter.	 Figure 45. <i>Ilex x meserveae</i> 'Heckenstar' Castle Wall blue holly  Zone 5 Width: 4 ft Columnar blue-green holly is ideal for narrow privacy hedging; grows 2 in. per year; takes well to shearing.	 Figure 46. <i>Osmanthus delavayi</i> Delavay Osmanthus  Zone 7 Width: 8 ft Sweet April flower fragrance (peach fruit scent) and dark green leathery leaves. Tea Olive makes a great shade-tolerant evergreen mound. It looks best not sheared and may produce small blue-black berries.	 Figure 47. <i>Pieris japonica</i> Japanese Pieris  Zone 5 Width: 6 ft Upright habit; narrow, elliptical leaves arranged in whorls; spring growth red; summer growth green; white urn-shaped flowers.

Photos 40-44 and 46-47 by Charles Brun, WSU; Photo 45 by Paula Dinius, WSU Chelan County

Tall Broadleaf Evergreens for Screens and Hedges

The plants listed in Table 7 have been proven to grow vigorously throughout Washington State. However, not all are hardy in the colder regions of the state. Most broadleaf evergreen shrubs do best west of the Cascades. In eastern Washington, consider species hardiness and tolerance to winter leaf burn.

These plants form tall, dense screens that can be left either natural or sheared to a desired height and width. If a formal look is desired, consider

plant selection and form because it will be hard to shear an evergreen shrub that is over 10 ft in height, unless a stepladder is used to stand alongside the hedge.

In order to attract songbirds to a home garden, consider plants that provide food, shelter, and protection, such as the female *Altaclara* holly, Pacific wax myrtle, or Burkwood viburnum. For shadier sites, consider the Japanese plum yew, mountain laurel, or Burkwood viburnum. The Fraser photinia is popular with its early season red leaves, but it does require good air circulation and a sunny site

in order to reduce the incidence of fungal leaf spot.

When space is at a premium, consider the Japanese plum yew, which can be sheared to stay narrow. To attract pollinators, Zanzibar variegated California lilac, Pacific wax myrtle, Pacific rhododendron, and mountain laurel are good choices (Webb 2011). The *Altaclara* holly is popular in Europe as it is not invasive and does not have the spiny leaves of English holly. It is available from mail-order supply houses. Plant both a male and a female if one desires beautiful red berries in the fall.

Table 7. Broadleaf Evergreens over 10 ft at Maturity

 Figure 48. <i>Cephalotaxus harringtonia</i> 'Fastigiata' Upright Japanese plum yew Zone 5 Width: 7 ft Columnar habit; erect branches; dark green 2-in.-long needles with sharp tips; can take full shade.	 Figure 49. <i>Ceanothus thyrsiflorus</i> Zanzibar California lilac Zone 8 Width: 10 ft Greenish-yellow leaves blotched with green centers; profuse light blue flowers in the spring that are attractive to pollinators.	 Figure 50. <i>Ilex x altaclerensis</i> 'Lawsoniana' Lawsoniana Altaclara holly Zone 7 Width: 10 ft Pyramidal habit; untoothed leaves with yellow centers and green margins; female plants with red berries. Takes well to shearing.	 Figure 51. <i>Kalmia latifolia</i> Mountain laurel Zone 4 Width: 15 ft Open form with age; leaves 2.5–5 in. long and elliptical; flowers 5-sided; red or pink bloom; sun to full shade; prefers acidic sites. WA state native
 Figure 52. <i>Rhododendron macrophyllum</i> Pacific rhododendron Zone 6 Width: 15 ft Rounded habit; large, oblong leaves; large rose-purple flower clusters in late spring/summer; acid soil loving; shade tolerant; Washington State flower. WA state native	 Figure 53. <i>Myrica californica</i> Pacific wax myrtle Zone 7 Width: 20 ft An extremely vigorous shrub that could exceed 30 ft at maturity; 4-in.-long, narrow leaves; yellow flowers produce purple berries for the birds. WA state native	 Figure 54. <i>Photinia fraseri</i> Fraser Photinia Zone 7 Width: 15 ft Very vigorous upright habit; brilliant red new growth fades to glossy green; white flowers in umbels; no fruit; ensure good sunlight and air exposure, hedge plant.	 Figure 55. <i>Viburnum burkwoodii</i> Burkwood viburnum Zone 5 Width: 5 ft Forms a rounded mound to 10 ft; 2.5-in. white flower heads in April (often called snowball viburnum); black berries in fall; partial shade; can be sheared.

Photo 48 by John Ruter, University of Georgia, Bugwood.org; Photos 49–55 by Charles Brun, WSU



Shorter Deciduous Shrubs for Hedges

The lower-growing deciduous shrubs listed in Table 8 are often used for lining walkways and feature seasonal interest. Many produce attractive flowers and fruits, as well as bold fall color, such as the black chokeberry and American cranberry bush.

Shorter deciduous shrubs are best when densely planted to facilitate hedgerow closure. These smaller shrubs can also be planted at the base of taller trees or shrubs to increase hedge density, which can provide a noise buffer or wildlife habitat (NRCS

2011). If low shrubs are used in this way, care must be taken to ensure plant sun and shade requirements are met. For example, Goldfinger shrubby cinquefoil requires full sun, therefore, if used at the base of taller plants, the low growers must be oriented toward a southern exposure. If full sun is not possible, the selection should include plants with shade and part-shade tolerance, such as the black chokecherry, Caucasian daphne, or sweetspire.

When flowers or fruit are desired and pruning is needed, prune according to season of bloom. If flowering occurs before June, prune immediately after flowering because

next year's flower buds begin to form at this time. Plants with flowers that bloom after June can be pruned in late winter, before growth starts. These plants flower on current-year wood.

Plants with unique form are best left unsheared, although many species will tolerate shearing. Snow Mound spirea is such a plant. Shearing it can be done to create a more formal structure, but in doing so will reduce flowering and restrict the fluid motion of the arching stems. For more information on hedge pruning, see *An Illustrated Guide to Pruning* (Gilman 2006) in Further Reading.

Table 8. Broadleaf Deciduous Under 4 ft at Maturity

 Figure 56. <i>Aronia melanocarpa</i> Black chokeberry Zone 3 Width: 5 ft A sucker-forming shrub; serrated, glossy green summer leaves turn red in the fall; white flowers yield pea-sized, glossy black berries in the fall.	 Figure 57. <i>Cornus sericea</i> 'Kelsey' Kelsey dogwood Zone 2 Width: 3 ft Globe shaped; oblong leaves; white flat-topped flower clusters; fall foliage bronze-purple.	 Figure 58. <i>Daphne caucasica</i> Caucasian daphne Zone 4 Width: 5 ft Globe shape to 4 in.; small pale green leaves; fragrant white flowers in June; sporadically later; shade loving.	 Figure 59. <i>Fothergilla gardenii</i> Dwarf Fothergilla Zone 5 Width: 4 ft Mounding shape; bluish-green foliage all summer; green-white bottle-bush-like flowers in April–May; red fall foliage.
 Figure 60. <i>Hydrangea serrata</i> 'Bluebird' Bluebird lacecap hydrangea Zone 6 Width: 4 ft Rounded form; sea-blue, sterile florets surround a cluster of rich blue, fertile flowers; reddish fall foliage.	 Figure 61. <i>Itea virginica</i> Sweetspire Zone 5 Width: 6 ft A round ball shrub with 3–6 in. white drooping flower clusters in June; likes partial shade; red leaf color in fall; pollinator friendly.	 Figure 62. <i>Potentilla fruticosa</i> 'Goldfinger' Goldfinger shrubby cinquefoil Zone 3 Width: 4 ft Dense, rounded shrub bearing bright yellow flowers all summer long; very drought tolerant; no pests; best in full sun. WA state native	 Figure 63. <i>Spiraea nipponica</i> 'Snow Mound' Snow Mound spirea Zone 4 Width: 4 ft Arching stems on this round ball shrub; 1-in.-diameter white flowers smother the branches in the spring; multiple plants for hedge.

Photos 56–63 by Charles Brun, WSU



Medium Height Deciduous Shrubs for Screens and Hedges

Deciduous shrubs of medium height are versatile due to the wide variety of plant characteristics in this category. Table 9 lists some commonly used and widely available choices hardy to most regions in Washington State. They can be lightly sheared for a more formal look or left to natural form, depending on the space available and landscape design.

Careful plant selection is crucial to ensure proper size, form, and

characteristics appropriate to a location. For example, a plant with a natural fountain shape, like Natchez mockorange, will need more room to spread if maintained in its natural form, rather than as a hedge pruned to a formal shape.

All the selections listed here are highly attractive to native pollinators. The chokeberry, beautyberry, and red twig dogwood all produce berries that are attractive to wildlife. The moderate size of plants in this category make them good screens for privacy and for hiding unsightly areas, without

blocking distant vistas.

It may be necessary to occasionally rejuvenate the plant. To do so, remove dead, damaged, or diseased branches, in addition to wayward (too long) and crossover branches, suckers, and sprouts. For plants such as red twig dogwood, cutting back all stems to 9 inches from the ground can stimulate new, bright red twig growth, providing year-round interest. Some species respond better than others to pruning, so know your plant. See Further Reading for *An Illustrated Guide to Pruning* (Gillman 2006).

Table 9. Broadleaf Deciduous 5 ft to 10 ft at Maturity

 Figure 64. <i>Aronia arbutifolia</i> 'Brilliantissima' Brilliant Red chokeberry  Zone 5 Width: 8 ft Sucker-forming, round; elliptic leaves; green morphing to red; bright red fruit lasts into winter.	 Figure 65. <i>Callicarpa bodinieri</i> Bodinler beautyberry  Zone 6 Width: 6 ft Upright, bushy form; ovate leaves 2.5–5 in. long; purple flowers give rise to small purple berries in the fall.	 Figure 66. <i>Cornus alba</i> 'Elegantissima' Variegated dogwood  Zone 3 Width: 6 ft Mounding habit to 6 ft; striking bicolor foliage; could be sheared for a hedge if desired.	 Figure 67. <i>Cornus sericea</i> Red twig dogwood  Zone 3 Width: 12 ft Fast-growing thicket shape to 10 ft; green summer foliage gives rise to reddish purple in the fall; lovely red twigs in the winter; white fruits attract song birds; generally not sheared. WA state native
 Figure 68. <i>Enkianthus campanulatus</i> Redvein Enkianthus  Zone 4 Width: 6 ft Upright narrow form; leaves at ends of branches; green in summer turning to red in fall; egg-shaped fruit.	 Figure 69. <i>Philadelphus virginialis</i> 'Natchez' Natchez flowering mock orange  Zone 4 Width: 8 ft Fast growing to 8 ft; upright fountain shape; 2-in. fragrant white flowers in the spring cover the bush; mass plant for screening.	 Figure 70. <i>Ribes sanguineum</i> Red flowering currant  Zone 5 Width: 5 ft Northwest native to 10 ft; upright habit bearing 3-in.-long, white or pink flower clusters; red fall berries for the birds; best not sheared.	 Figure 71. <i>Viburnum trilobum</i> American cranberry bush  Zone 2 Width: 6 ft Slender upright form; 3-lobed leaves; green in summer; red in fall; white flowers yield red berries.

Photos 64–71 by Charles Brun, WSU



Tall Deciduous Trees and Shrubs for Screens and Hedges

Tall deciduous plants make excellent screens and hedges for large properties. They can be planted in groups or combined with other species, like conifers. For these large-growing plants, spacing is important at planting timing. Plants left to grow in natural form should be spaced farther apart than those that will be formally pruned.

Table 10 lists plants that will do

well in most areas of Washington State. These plants possess varying characteristics for assorted uses. For example, the hornbeam, European filbert, and beech have been used as hedges for centuries throughout Europe for just such landscape elements. The Star magnolia has beautiful spring blooms and can take light shearing. The Staghorn sumac should not be sheared.

If a formal look is desired for any of these selections, it is best to start structural pruning early and develop

a dense hedge slowly overtime. Extreme cuts after plants have grown too large can cause stress and become problematic. When shearing, be sure to leave the bottom of the plant slightly wider than the top, so sun can reach the entire plant. Otherwise, the lower portion of the hedge will become bare and woody. For natural form plants like lilacs, occasional removal of old large stems will encourage strong new growth. More information on pruning can be found in the Further Reading section.

Table 10. Broadleaf Deciduous over 10 ft at Maturity

 Figure 72. <i>Carpinus betulus</i> 'Frans Fontaine' European hornbeam Zone 4 Width: 8 ft Columnar shape to 40 ft; summer green foliage; golden yellow in fall; multiple plants for hedging; takes to shearing.	 Figure 73. <i>Corylus avellana</i> European filbert Zone 4 Width: 12 ft Fast-growing shrub/tree from 12–20 ft tall and wide; suckers profusely, making a dense hedge; trees bear tasty edible hazelnuts in October.	 Figure 74. <i>Fagus sylvatica</i> 'Purple Fountain' European purple beech Zone 4 Width: 15 ft Growing to 25 ft in height, this purple-leafed spire makes a great accent species; multiple plants would make a hedge.	 Figure 75. <i>Magnolia liliiflora</i> Lily magnolia Zone 5 Width: 15 ft Sprawling, multi-stemmed; green foliage; purple-white spring flowers stand erect and appear before leaves.
 Figure 76. <i>Magnolia stellata</i> 'Royal Star' Star magnolia  Zone 5 Width: 12 ft Dense, oval shrub/ small tree to 20 ft. Early spring fragrant white flowers; dense foliage; mass plant for hedges; no shearing.	 Figure 77. <i>Rhus typhina</i> Staghorn sumac  Zone 3 Width: 20 ft Open-spreading habit; velvety stems bear compound leaves that are dark green in summer, yellow-orange in the fall. WA state native	 Figure 78. <i>Staphylea trifolia</i> American bladdernut  Zone 3 Width: 15 ft Fast-growing, suckering shrub with compound 3-part leaves; bell-shaped, showy white flowers in April and May; fruit 1 to 2 in. long, egg-shaped capsules in the fall.	 Figure 79. <i>Syringa vulgaris</i> Common lilac  Zone 3 Width: 10 ft Vigorous shrub 1 to 5 ft; irregular shape; spring flowers in multiple colors with good fragrance; many cultivars; best in full sun; mass plant for a hedge; best not sheared.

Photos 72–79 by Charles Brun, WSU



References

- Bassuk, N., D.F. Curtis, B.Z. Marranca, and B. Neal. 2009. Recommended Urban Trees: Site Assessment and Tree Selection for Stress Tolerance. Urban Horticulture Institute, Department of Horticulture, Cornell University. <http://www.hort.cornell.edu/uhi/outreach/recurbtree/pdfs/~recurbtrees.pdf>.
- Brand, M. 2015. Plant Database. University of Connecticut, College of Agriculture, Health and Natural Resources. <http://www.hort.uconn.edu/plants/index.php>.
- Breen, M. 2015. Landscape Plants: Images, Identification, and Information. Oregon State University, Department of Horticulture. <http://oregonstate.edu/dept/ldplants/>.
- Brun, C. 2015. NorthWest Plants Database System. Washington State University. <http://pnwplants.wsu.edu/>.
- Cox, R.A., and J.E. Klett. 2005. Evergreen Trees. *Colorado State University Extension Publication* 7.403. <http://www.ext.colostate.edu/pubs/garden/07403.html>.
- Detweiler, A.J. 2006. Fire-Resistant Plants for Home Landscapes. *Pacific Northwest Extension Publication* PNW 590. Oregon State University, Washington State University, University of Idaho. <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20921/%2apnw590.pdf>.
- Detweiler, A.J. 2008. Selecting Native Plants for Home Landscapes in Central Oregon. *Oregon State University Extension Publication* EC 1623-E. <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/19858/ec1623-e.pdf>.
- Dwyer, J.F., E.G. McPherson, H.W. Schroeder, and R.A. Rowntree. 1992. Assessing the Benefits and Costs of the Urban Forest. *Journal of Arboriculture* 18(5): 227–234. <http://joa.isa-arbor.com/request.asp?JournalID=1&ArticleID=2515&Type=2>.
- Fare, D., and W. Clatterbuck. Evergreen Trees for Screens and Hedges in the Landscape. 2009. *University of Tennessee Extension Publication* SP517. <https://utextension.tennessee.edu/publications/Documents/SP517.pdf>.
- Firewise Communities Program. 2014. Firewise Toolkit. <http://firewise.org/wildfire-preparedness/firewise-toolkit.aspx>.
- Gilman, E.F., and R.J. Black. 2005. Pruning Landscape Trees and Shrubs. *University of Florida Extension Publication* CIR853. <http://collier.ifas.ufl.edu/CommHort/CommHortPubs/gilman%20BlackPruning%20LS%20Trees%20%20Shrubs.pdf>.
- Hansen, G., and E. Alvarez. 2013. Landscape Design: Aesthetic Characteristics of Plants. *University of Florida Extension Publication* ENH1172. <http://edis.ifas.ufl.edu/ep433>.
- Hansen, W. 2012. The Wild Garden: Hansen's Northwest Native Plant Database. http://www.nwplants.com/business/catalog/rho_mac.html.
- Klett, J.E., and R. Ford. 2011. Hedges. *Colorado State University Extension Publication* 7.208. <http://www.ext.colostate.edu/pubs/garden/07208.html>.
- Kuhns, M. 2012. Windbreak Benefits and Design. NR/FF/005 Revised. *Utah State University Extension Publication* NR/FF/005 (Revised). http://extension.usu.edu/files/publications/publication/NR_FF_005.pdf.
- Kuhns, M. 2015. Tree Browser. Utah State University. <http://treebrowser.org/>.
- Leigh, M. 2005. Grow Your Own Native Landscape: A Guide to Identifying, Propagating, and Landscaping with Western Washington Native Plants. *Washington State University Extension Publication* MISC0273. <https://pubs.wsu.edu/ItemDetail.aspx?ProductID=14399&SeriesCode=&CategoryID=&Keyword=MISC0273>.
- Love, S., K. Noble, and R. Wimpfheimer. 2009. Selecting, Planting, and Caring for Trees, Shrubs, and Vines. *University of Idaho Extension Publication* 680. <http://www.cals.uidaho.edu/edComm/detail.asp?IDnum=1497>.
- Maleike, R., M. Ophardt, and S. Collman. 2014. Winter Injury of Landscape Plants in the Pacific Northwest. In *Pacific Northwest Plant Disease Management Handbook*, edited by J.W. Pscheidt, and C.M. Ocamb. Corvallis, OR: Oregon State University. <http://pnwhandbooks.org/plantdisease/pathogen-articles/nonpathogenic-phenomena/winter-injury-landscape-plants-pacific-northwest>.
- Mason, S. 2013. Avoiding the Top Four Landscape Mistakes. *The Homeowners Column Newsletter*. University of Illinois Extension. <http://web.extension.illinois.edu/cfiv/homeowners/100312.html>.
- McConnell, D., R. Mahoney, W. Colt, and A. Partridge. 1998. How to Prune Coniferous Evergreen Trees. *University of Idaho Extension Publication* 644. <http://www.cals.uidaho.edu/edcomm/pdf/bul/bul0644.pdf>.
- McMahan, L. 2008. Gardening with Oregon Native Plants West of the Cascades. *Oregon State University Extension Publication* EC 1577. <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/19399/ec1577introduction.pdf?sequence=6>.
- McPherson, E.G. 1988. Functions of Buffer Plantings in Urban Environments. *Agriculture, Ecosystems & Environment* 22/23: 281–289. <http://www.sciencedirect.com/science/article/pii/0167880988900266>.
- Nowak, D.J. 2006. Institutionalizing Urban Forestry as a “Biotechnology” to Improve Environmental Quality. *Urban Forestry and Urban Greening* 5(2): 93–100. http://www.fs.fed.us/ne/newtown_square/publications/other_publishers/OCR/ne_2006_nowak002.pdf.



- Pscheidt, J., and C. Ocamb. 2014. Pacific Northwest Plant Disease Management Handbook. Corvallis, OR: Oregon State University. <http://pnwhandbooks.org/plantdisease>.
- Relf, D., and B. Appleton. 2015. Selecting Landscape Plants: Conifers. *Virginia Cooperative Extension Publication* 426-605. <http://pubs.ext.vt.edu/426/426-605/426-605.html>.
- Rhodus, T. 2015. OSU Pocket Gardener. Ohio State University. <http://hvp.osu.edu/pocketgardener/>.
- Russ, K., and B. Polomski. 1999. Foundation Plantings. *Clemson Cooperative Extension Publication* HGIC 1702. <http://www.clemson.edu/extension/hgic/plants/other/landscaping/hgic1702.html>.
- Straight, R., and J. Brandle. 2007. Windbreak Density: Rules of Thumb for Design. USDA National Agroforestry Center. Agroforestry Notes. AF Note-36. <http://nac.unl.edu/documents/agroforestrynotes/an36w03.pdf>.
- Strine, J. 2004. Windbreaks for Kansas. Kansas Forest Service. *Kansas State University Publication* MF2120. <http://www.ksre.ksu.edu/bookstore/pubs/MF2120.pdf>.
- USDA–Agricultural Research Service. 2014. Plant Hardiness Zone Maps. <http://planthardiness.ars.usda.gov/PHZMWeb/>.
- USDA, Natural Resources Conservation Service. 2010. Conservation Practice Standard Code 422, Hedgerow Planting. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_024519.pdf.
- USDA, Natural Resources Conservation Service. 2011. Conservation Practice Standard Code 380, Windbreak/Shelterbelt Establishment. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046943.pdf.
- USDA, Natural Resources Conservation Service. 2014. Plants Database: Introduced, Invasive, and Noxious Plants. <http://plants.usda.gov/java/noxiousDriver>.
- Vaughan, M., E. Mader, J. Guisse, J. Goldenetz-Dollar, B. Borders, K. Pendergrass, J. Williams, A. Young-Mathew, and G. Ellen. 2013. Conservation Cover (327) for Pollinators: Western Oregon and Washington. The Xerces Society for Invertebrate Conservation. http://www.xerces.org/wp-content/uploads/2013/01/InstallGuideJob-Sheet_WORandWA_CnsrvCvr.pdf.
- Walton, C., and B. Cregg. 2008. On the Straight and Narrow. *Conifer Corner Newsletter*. Michigan State University Horticulture Department. http://migarden.msu.edu/uploads/files/straight_narrow_conifers_apr08.pdf.
- Webb, J. 2011. Beyond Butterflies: Gardening for Native Pollinators. *University of Georgia Extension Publication* B1349. <http://extension.uga.edu/publications/displayPDF.cfm?number=B1349>.
- Wright, B., and K. Stuhr. 2002. Windbreaks: An Agroforestry Practice. Agroforestry Notes (USDA-NAC). 3-1-2002. University of Nebraska-Lincoln. <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1024&context=agroforestnotes>.
- University of Georgia Cooperative Extension University of Georgia Cooperative Extension Wright, B., and K. Stuhr. 2002. Windbreaks: An Agroforestry Practice. Agroforestry Note–25. University of Nebraska-Lincoln. <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1024&context=agroforestnotes>.
- Further Reading**
- Dirr, M.A. 2009. Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses. Champaign, IL: Stipes Publishing L.L.C.
- Dirr, M.A. 2011. *Dirr's Encyclopedia of Trees and Shrubs* (1st edition). Portland: Timber Press Inc.
- Firewise Home and Landscape. 2014. <http://firewise.org/wildfire-preparedness/be-firewise/home-and-landscape.aspx>.
- Gilman, E. 2012. An Illustrated Guide to Pruning. 3rd Edition. DelmarCengage Learning, Albany, NY. <http://www.amazon.com/Illustrated-Guide-Pruning-Edward-Gilman/dp/111130730X>.
- Kruckeberg, A. R. 2012. Gardening with Native Plants of the Pacific Northwest. Seattle: University of Washington Press.
- Plants for Pollinators Sources**
- Association Master Beekeeper Certification Committee. Research Paper #1. <http://wasba.org/wp/wp-content/uploads/2012/11/Forage-for-Honey-Bees-Franclyn-Heinecke.pdf>.
- The British Beekeepers Association. 2011. Pollen and Nectar Rich Plants for your Garden by Season. http://www.bbka.org.uk/files/library/pollen_&_nectar_rich_plants_for_your_garden_by_season_june_2011_for_website_1310045511.pdf.
- Center for Urban Ecology. 2013. Plants for Pollinators. University of Minnesota. <http://cues.cfans.umn.edu/old/pollinators/plants.html>.
- Heinecke, F. 2011. Knowing the Neighborhood for Bees: Information and Resources for New Beekeepers to Use to Assess the Forage Area for Stationary, Year-Round Hives. Washington State Beekeepers Association. <http://wasba.org/wp/wp-content/uploads/2012/11/Forage-for-Honey-Bees-Franclyn-Heinecke.pdf>.
- Ogle, D., P. Pavsek, R. Fleenor, M. Stannard, T. Dring, J. Cane, K. Fullen, L. St. John, and D. Tilley. 2011. Plants for Pollinators in the Inland Northwest. Boise, ID/Spokane, WA: USDA–Natural Resources Conservation Service Technical Note, Plant Material No. 2B. http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/idpmstn10799.pdf.
- Shepard, M. Plants for Native Bees in North America, Invertebrate Conservation Fact Sheet. Xerces Society. http://offices.ext.vt.edu/chesterfield/programs/anr/Pollinators/Xerces_general_plant_fact_sheet.pdf.





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Recommended Sources for Plant Selection, Sizing, Spacing, and Orientation *Preliminary v. 1*

Manual of Woody Landscape Plants: *Their Identification, Ornamental Characteristics, Culture, Propagation, and Uses*

Sixth Edition

by Michael A. Dirr, PhD

The New Sunset Western Garden Book: *The Ultimate Gardening Guide*

Ninth Edition

by The Editors of Sunset

Tree & Shrub Gardening for Washington and Oregon

by Alison Beck & Marianne Binetti

Pacific Northwest Plants- website

by WSU Clark County Extension

<http://pnwplants.wsu.edu/>

Selecting Plants for Screens and Hedges

by Washington State University Extension

Charles A. Brun, Regional Horticulture Specialist, College of Agricultural, Human, and Natural Resource Sciences.

Paula Dinius, Urban Horticulturist, WSU Chelan County.

<https://pubs.extension.wsu.edu/selecting-plants-for-screens-and-hedges-home-garden-series>