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460.01 General

This chapter discusses the integration of landscape architecture at WSF terminal facilities. There can be many approaches to the design of site landscape elements and their materials. Beyond meeting functional and code requirements and maintenance considerations, it is important that they integrate with the surrounding context, the terminal buildings, and each other. The landscape elements, together with the terminal buildings, set an aesthetic tone and character for the terminal. Site landscape elements include: pedestrian pavement/hardscape, landscaping (existing vegetation, soils, irrigation, and plantings), site lighting, and site furnishings. [Exhibit 460-1](#) shows the Edmonds Ferry Terminal, which was incorporated into the surroundings of an adjacent city park. Making use of existing landscaping and native features is a low cost and low maintenance method to make the ferry terminals more aesthetically pleasing to the public.



Edmonds Terminal Incorporated into Surrounding Landscape
Exhibit 460-1

Consider the following goals in landscape design:

- Providing safe, inviting, accessible routes to and through the site by both vehicular and pedestrian traffic.
- Enhancing views of the terminal from various vantage points.
- Providing low maintenance, high durability materials, furnishings and plantings.

- Providing function within the terminal in the form of lighting and site furnishings.
- Protecting the environment through reduction of impervious area, habitat enhancement, stormwater treatment, erosion control, etc.
- Connecting the terminal to the surrounding community. For additional information, see the following chapters:

Chapter	Subject
300	Accessibility
320	Environmental Considerations
340	Civil
470	Public Art
530	Parking
560	Site Utilities
570	Signage and Wayfinding
580	Sustainability/Low Impact Development

460.02 References

Unless otherwise noted, any code, standard, or other publication referenced herein refers to the latest edition of said document.

(1) Federal/State Laws and Codes

International Building Code (IBC), International Code Council

(2) Design Guidance

[28 CFR Part 35](#) *Nondiscrimination on the Basis of Disability in State and Local Government Services*

[Design Manual](#) M 22-01

[RCW 43.17.200](#) *Allocation of moneys for acquisition of works of art – Expenditures by arts commission - Conditions*

[Roadside Classification Plan](#) M 25-31

[Roadside Manual](#) M 25-30

[Standard Plans](#) M 21-01

[Standard Specifications](#) M 41-10

460.03 Design Considerations

(1) Accessibility

Wherever pedestrian facilities are intended to be a part of a transportation facility, [28 CFR Part 35](#) requires that those pedestrian facilities meet ADA guidelines. Federal regulations require that all new construction, reconstruction, or alteration of existing transportation facilities be designed and constructed to be accessible and useable by those with disabilities and that existing facilities be retrofitted to be accessible. Design pedestrian facilities to accommodate all types of pedestrians, including children, adults, the elderly, and persons with mobility, sensory, or cognitive disabilities. Refer to [Chapter 300](#) for accessibility requirements.

(2) *Environmental Considerations*

Refer to [Chapter 320](#) for general environmental requirements and design guidance. Refer to the project NEPA/SEPA documentation for project-specific environmental impacts and mitigation.

460.04 Pedestrian Pavement / Hardscape:

(1) *General*

Provide pedestrian pavements throughout the site that is safe, slip resistant, and accessible. Design pedestrian pavements using guidance in the [Roadside Manual](#) M 25-30, the [Design Manual](#) M 22-01, and the [Standard Plans](#) M 21-01. Additionally, design pedestrian surfaces to comply with ADA standards. Refer to [Chapter 300](#) for guidelines.

Consider the use of pervious pavement to reduce stormwater runoff. Refer to [Chapter 580](#) for information on pervious pavement design.

Where cast in place concrete is specified in pedestrian areas, ensure that concrete, reinforcement, scoring and jointing comply with WSDOT and ADA standards. Refer to the [Design Manual](#) Section 1510.05 for additional guidance.

(2) *Terminal Pedestrian Entry Plazas*

Pedestrian pavement materials and patterning in the terminal entry plazas serve to set the vocabulary of the rest of the site's pavement. Create a community space through the use of color and scoring as patterns in the hardscape. Provide the highest level of intricacy in pavement materials and patterning immediate to entries to help distinguish them from and, in conjunction with plantings and site furnishings, support their clear and immediate identification. Design scoring and jointing patterns in response to adjacent architecture and anticipated pedestrian traffic flows as well as site amenities. Design pavement in the terminal pedestrian entry plazas for occasional vehicle access, where applicable. Where vehicular access is needed for WSF or emergency and service vehicles, consider the use of removable bollards. Design removable bollards in accordance with the [Standard Plans](#) M 21-01 and the WSDOT [Design Manual](#) M 22-01.



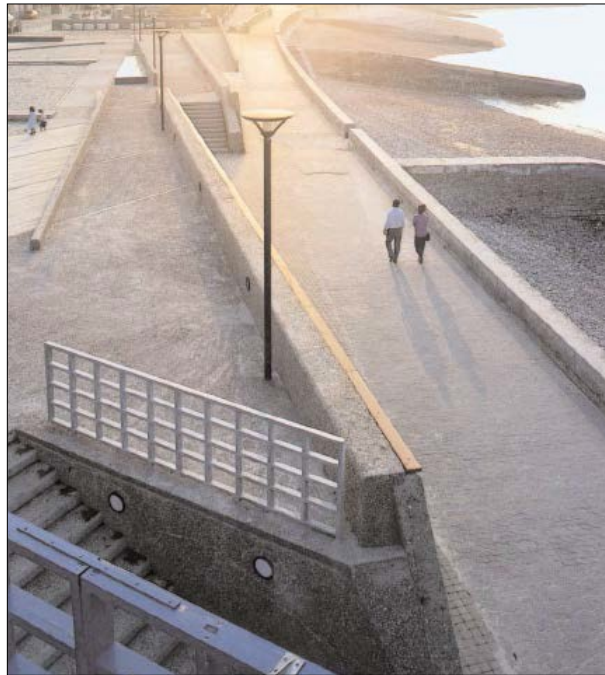
Example Terminal Entry Plazas
Exhibit 460-2

(3) **Vehicle Holding, Parking, and Curbside Drop-off Areas**

In areas where vehicles will be in close proximity to pedestrians - such as vehicle holding, parking, and curbside drop-off areas - use pavement materials or patterning to clearly indicate the hierarchy of pedestrian and vehicular spaces. Demarcate pedestrian only zones and designated pedestrian crossing zones. Provide well defined pedestrian walkways in parking lots and multi-modal stations from parking to building, ferry loading, transit centers, and commuter rail. Also consider the impacts of vegetation on a driver's sight distance where pedestrians and vehicles may interact. Avoid planting vegetation that may obscure a driver's vision at locations where vehicles are likely to cross a pedestrian's path. Provide clear and accessible walkways to concessions, restrooms, and pet areas. Refer to [Chapter 340](#) for vehicular paving design criteria.

(4) **Waterfront Promenades**

Provide for maximum pedestrian accessibility along the waterfront without negatively impacting operations. Consider providing grade separation, where promenades cross the ferry loading and unloading zones. Design promenade pavement, where feasible, for occasional vehicle access.



Example Waterfront Promenade
Exhibit 460-3

460.05 Landscaping

(1) **General**

Landscaping can serve numerous functions at a terminal facility. These may include, but are not limited to: creating a visual esthetic (providing scale, color, texture, framed views, etc.); enhancing habitat; reducing impervious area; providing stormwater treatment; protecting facilities from sun and wind; screening parking and other unsightly areas; and blending the terminal with the surrounding community.

Landscaping at most WSF terminals is minimal due to the inherent maintenance requirements (irrigation, pruning, mowing, leaf cleanup, etc) and the limited availability of staff to perform said maintenance. Due to the increasing emphasis on environmental considerations, the implementation of landscaping is becoming more important. It is essential that the landscape architect coordinate closely with Terminal Facility Engineers Office or Terminal Maintenance Office on the design of all landscaping features to ensure that they are maintainable.

Design landscaped areas throughout the site for low maintenance with a plant palette consisting of native and adaptive species requiring relatively limited care and providing habitat enhancement wherever possible. Native species provide a relatively simple, wild aesthetic and a visual connection to the surrounding area. Utilize plant species size and form to provide pedestrian and urban scale. Design landscaping to promote open views for personal safety.

Consider the use of planters, especially where space is limited and/or the facilities are located on piers over the water. When designing with planters, take into account such factors as drainage, freeze protection, irrigation, and general exposure to the elements including sun, wind, and rain.



Landscaping Planters at the Seattle Ferry Terminal
Exhibit 460-4

Landscaping work is comprised of the following: protection of existing valued vegetation; preparation of site soils for planting; installation of irrigation (as required); planting and permanent erosion control.

(a) Existing Vegetation

When designing new terminals, protection of existing site vegetation can provide a valuable resource for purposes of ecology, facility function, and aesthetics. Wherever possible, restrict lay down areas to areas that will receive pavement or buildings in order to maintain the structure of the existing soils.

(b) Soil Preparation

Specify planting soil subgrade be scarified prior to the installation and integration of topsoil. Soil preparation in all planting areas is to be specified by Washington State Ferries. Specify structural soils under parking and pedestrian pavement.

(c) Irrigation System

Provide an automatic, water-conserving permanent irrigation system, as required, for survival of landscaping. Consider the use of a drip irrigation system where appropriate for the given site conditions. Whenever possible, select plant species that do not require irrigation for survival.

(d) Plantings

Provide plantings consisting of predominately native species in naturally occurring plant communities, designed to enhance the facility, and provide habitat value, seasonal interest and low maintenance. Specify plant species that are drought and disease resistant. Unless otherwise noted here or required by environmental permitting, provide plantings per WSDOT Roadside Classification Plan guidelines for Semiurban to Urban, Treatment Level 2.



Example Plantings
Exhibit 460-5

(e) Permanent Erosion Control:

Design terminal landscaping that incorporates permanent erosion control measures. Involve the WSDOT Regional Landscape Architect to determine appropriate grass seed mix design. Minimize areas that may cause increased stormwater runoff velocities. Refer to the WSDOT Design Manual and the WSDOT HRM for additional guidelines for permanent erosion control.

(2) Terminal Entrance

Utilize landscaping at the terminal entrance to provide a clear and welcoming experience and to help establish a sense of arrival by framing views of both the entry and its signage. Consider plantings that provide seasonal color and texture with plant masses – including trees, shrubs and groundcover – scaled appropriate to vehicle traffic and the design speed of the adjacent roadways. Incorporate trees and lower plantings to partially screen roadway and parking lot views from adjacent uses. Design landscaping in compliance with WSDOT clear zone and setback requirements ([Design Manual Section 500.05](#)) on WSDOT right-of-way. Refer to [Section 500.05\(4\)](#) for clear zone requirements within the WSF terminal boundaries.

(3) Terminal Pedestrian Entry Plazas

Consider providing landscaping at the edges of plazas comprised of native and adaptive evergreen and deciduous trees, low shrubs and groundcovers. Trees may be used to: frame the plazas; buffer the plazas from adjacent vehicular access routes and parking lots; provide screening; provide shade and protection from the wind; and contribute to the terminal's character. Utilize plantings within the plazas to provide color, soften the buildings, and generally help support a pedestrian scaled experience.

Specify shrubs with an ultimate maximum height of 36 inches and locate such that their ultimate maximum width does not exceed bed edges by more than 12 inches. Specify trees with an ultimate maximum height of 40 feet (unless further restricted by the local jurisdiction), a maximum width of 20 feet, and a non invasive root system.

(4) Vehicle Holding Area

Vehicle holding lanes located off highway right of way are typically subject to the local jurisdiction's landscaping requirements for parking lots and developments. WSF's preferred landscaping within the vehicle holding area consists of resilient low shrubs, ornamental grasses and vines. When possible, limit landscaping in the vehicle holding area to lower plantings around the perimeter and a pet area. Landscaping within or between vehicle holding lanes is undesirable due to its impact on the efficiency of WSF's sorting and loading operations.

(5) Parking and Curbside Drop-off

Consider landscaping parking areas to help screen views of vehicles in the parking lot, to provide shade, and to help reduce the apparent size and amount of impervious surface. Provide landscaping and screening of the perimeter using deciduous trees and planting beds. To protect view corridors, specify tree species that grow less than 30 feet high in waterfront areas, and less than 40 feet high elsewhere unless further restricted by the local jurisdiction. Specify trees have a minimum of 2.5-inch caliper at planting. Design planting beds to be a minimum of 5 feet wide.

Where parking is allowed to overhang the landscaping beds, add an additional 2 feet to the width of the landscape bed. Landscaping should be drought resistant and/or be indigenous species.

Provide drip irrigation as necessary. Coordinate the locations of trees and light poles to ensure minimum required light levels. Refer to the [Roadside Manual Chapter 630](#) for additional guidelines on landscaping in parking areas.

(6) Waterfront Promenades

A promenade along the project shoreline offers a unique experience for walking and seating beside the water's edge. When designing a waterfront promenade, consider locating site amenities to create periodic small informal resting and viewing places (pockets) at select points. Design amenities at the pockets to provide shade, scale and protection from winds as well as frame views out to and from the water. Select plant species for salt tolerance and general shoreline resilience. Provide overlooks at key, feasible locations. Design plantings at the pockets to maintain open view corridors to the water and for personal safety.



Pedestrian Walkways Along the Water
Exhibit 460-6

(7) Bioretention Areas

Design bioretention areas such as bioswales and bioretention cells to incorporate naturalized wetland-type features, planted with native and adaptive water tolerant species. Specify plantings within the bioretention areas which meet the technical requirements for retention and treatment. For personal safety reasons and to maintain water views, provide lower growing species, primarily under 4 feet in height. Consider utilizing native trees, low shrubs and groundcovers to frame larger bioretention areas, help define these areas as distinct spaces, and provide habitat enhancement.



Bioretention Area Near Edmonds Ferry Terminal
Exhibit 460-7

460.06 Lighting

Incorporate vehicular and pedestrian scale lighting throughout the terminal designed to provide personal safety and promote an overall sense of security. Provide the highest level of lighting at entry areas, steps, and vehicular to pedestrian transition zones. For safety and aesthetic reasons, design lighting layout in response to anticipated pedestrian traffic flows as well as to adjacent architecture and amenities including tree grates, bollards, and seating. Clearly illuminate and mark pedestrian corridors outside of buildings. Lighting should be sufficient for security and identification without allowing light to trespass onto adjacent sites. Design lighting along waterfront to minimize impacts to the beach and the water. Prevent light spillage into the water, which can have adverse impacts to aquatic life. Additionally, consider the effects of lighting placement near the berths on night time navigation for captains approaching the dock. Refer to [Section 560.10](#) and the WSDOT *Design Manual* Chapter 1040 Illumination for lighting design criteria.

460.07 Site Furnishings

Support overall site design language, particularly in pedestrian areas, with a repletion of site furnishings. Site furnishings include, but are not limited to: seating, bike racks, trash receptacles, decorative fencing, pedestrian railings, shelters, bollards, and mutt mitt dispensers (in pet area).



Site Furnishings at Edmonds Ferry Terminal
Exhibit 460-8

Consider the following when selecting and incorporating site furnishings:

- Select furnishings of the most durable quality reasonable considering budget.
- Provide seating that accommodates the elderly and disabled and discourages sleeping.
- Locate seating and trash receptacles in parking and passenger drop-off zones, vehicle holding areas, terminal pedestrian entry plazas, and key locations along pedestrian access routes.

- Use curbing and/or bollards to separate pedestrian and pet areas from adjacent vehicular zones.
- Locate bike racks in plaza areas near the passenger terminal building.
- Incorporate pedestrian guard rails along the waterfront, as necessary, to promote public safety. Design and site railings to limit obscuring water and other desirable views. Additionally, design railings to ADA Standards.

460.08 Signage and Informational Kiosks

Design signage and informational kiosks so that features such as size, shape, color, lighting, and contrast are combined to draw attention to the devices; that size, shape, color, and simplicity of message combine to produce a clear meaning; that legibility and size combine with placement to permit adequate time for response; and that uniformity, size, legibility, and reasonableness of the message combine to command respect. Refer to the *Standard Plans* M 21-01, the WSDOT *Sign Fabrication Manual* and Chapter 770 for additional information.

460.09 Public Art

[RCW 43.17.200](#) requires that all state agencies allocate out of moneys appropriated for the original construction of any public building, an amount of one-half of one percent of the appropriation to be expended by the Washington State Arts Commission for the acquisition of works of art. The works of art may be placed on public lands, integral to or attached to a public building or structure. Refer to [Chapter 470](#) for additional guidance and restrictions.