Midpeninsula Regional Open Space District

# Memorandum

DATE: August 27, 2025

MEMO TO: Board of Directors

THROUGH: Ana Ruiz, General Manager

FROM: Alex Harker – Capital Project Manager III

SUBJECT: Highway 35 Multi-use Trail Crossing and Parking Area - 65% Design

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## Summary

The following memo outlines design updates for the Highway 35 Multi-use Trail Crossing and Parking Area Project and how they refine and improve upon the original concept design and are responsive to the Board-approved Staging/Parking Area and Trailhead Design Standard Guidelines.

## Conceptual Design Consistency Review

On November 8, 2023, the Board of Directors (Board) reviewed and approved a conceptual plan for the Highway 35 Multi-use Trail Crossing and Parking Area Project (Project) (R-23-137, Minutes) (Attachment 1, page 1) in Purisima Creek Redwoods Open Space Preserve (Preserve). Following approval of the conceptual plan, a contract was awarded to CSW/ST2 Inc., (Consultant) for detailed design and engineering services (R-24-36, Minutes). The design is now at a 65% design development level (Attachment 1, page 2). Overall, the design of the parking area is consistent in the key elements of the project footprint, project layout and site program as approved by the Board.

## Staging/Parking Area and Trailhead Design Standard Guidelines Consistency Review

On July 24, 2024, (R-24-98, Minutes), the Board approved the Staging/Parking Area and Trailhead Design Standard Guidelines (Guidelines) as a framework for ensuring appropriate open space and natural/rural aesthetic character and design elements are integrated into District preserve staging/parking areas and trailheads (Attachment 2). In response to the Guidelines, staff developed a design guideline consistency checklist (Checklist) for internal review to ensure compliance. The Checklist is intended to create a consistent review cycle for all District projects in an effective and efficient manner. Staff have reviewed the current Project design against the Checklist (including the recent design refinements described below) and have found it consistent with the Guidelines. The Checklist covers the entire Guidelines document. As an example of

how this checklist is used, the detailed analysis of this Project for consistency with the *Value Statements* of the Guidelines is included in Attachment 3.

**Recent Design Refinements**

During internal reviews of the Project in relation to the Board-approved conceptual design and Guidelines, staff identified the following refinements that are necessary for project implementation and/or to further promote ecologically sensitive access to District preserves:

Minor Reduction to the Parking Stall Count

The original Board-approved concept plan shows seventy-four (74) standard parking stalls within the parking area and three (3) shoulder parking spaces along Highway 35, for a total of seventy-seven (77) standard parking spaces (plus two equestrian spaces). The revised plan will accommodate sixty-eight (68) standard parking stalls within the parking area and three (3) shoulder parking spaces along Highway 35, for a total of seventy-one (71) standard parking spaces (plus 2 equestrian spaces). The slight decrease in parking stalls was a result of refining the siting of the parking area within the existing topography. The conceptual design's parking count was not reflective of the extent of grading needed. Since that time, detailed grading and further site analysis have been carried out, resulting in a slight reduction in usable space, particularly for the second (lower) terrace of standard parking spaces. The concept plan showed two (2) equestrian parking spaces, and the revised plan does as well.

Sense-of-place Enhancement

The glade-like character of the site is preserved by the open parking terraces stepping down westerly towards the forest. In the proposed parking area, planted slopes will have larger shrubs downslope so as to not obstruct the view out towards the forest. The one exception will be intentional screening in front of the employee residence for privacy.

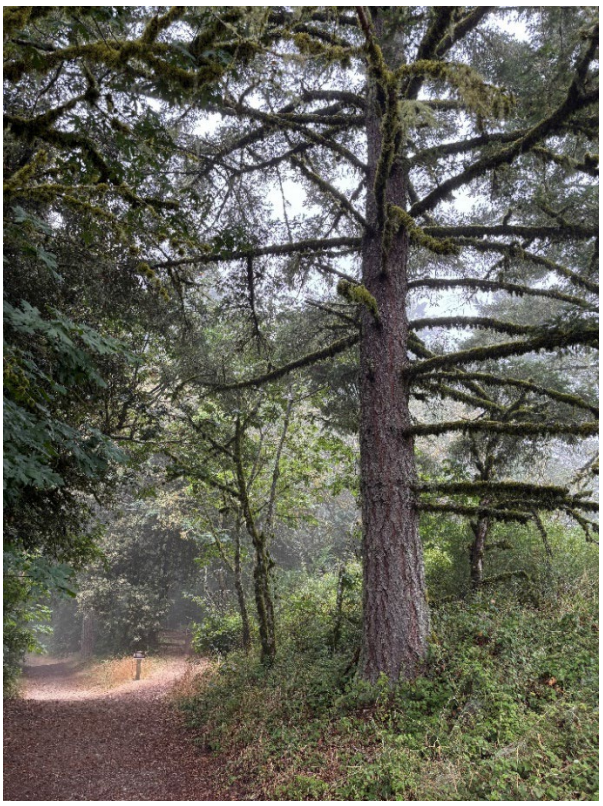
A bioretention area serves as necessary stormwater management infrastructure that also enhances the glade-like character of the site at its lowest point. This bioretention increases the visibility of the natural drainage patterns on site, flowing across an annual grassland and into the bioretention area. In large storm events, the bioretention will overflow and release excess stormwater into natural drainage channels in the Preserve.

This site is also in the native range for the Kings Mountain manzanita (*Arctostaphylos regismontana),* a rare, native California shrub, specifically endemic to the Santa Cruz Mountains. The revised plan shows this manzanita being planted onsite with an interpretive sign to identify it and its connection to the site's natural history. This manzanita provides an opportunity to showcase the sites unique biological attributes.


*The glade-like character of the site with the vista into the forest. The experience of being in a clearing looking out towards the forest will be preserved with the parking area design. The lowest point of the parking area limit-of-work will be a vegetated bioretention area, highlighting the sites' natural drainage pattern.*

Trailhead Form and Function

The trailhead has been refined since the conceptual plan to serve programmatic functions and to create an entry into the preserve. Boulders excavated onsite will be used to soften the edges of the hardscape and create a visual transition into the preserve. In addition to enhancing the visitor experience, the trailhead design integrates the functionality required by District maintenance vehicles and emergency vehicle access. The necessary turning radii clearances and road width requirements informed the dimensions of the space and vehicular gate placement. The gate and road can accommodate CalFire truck access and the minimum required width of 16 feet. The existing trail alignment is narrower beyond the proposed parking area, but can be widened as needed as part of a separate project.




*To the left: Douglas fir at the trailhead, indicative of the mixed redwood conifer redwood forest where this parking area is situated. To the right: Existing boulders onsite within the limit of work will be excavated during construction for use at the trailhead.*

Additional Tree Removal

The conceptual design plan showed three (3) trees to be removed. Further site analysis concluded that an additional five (5) trees will need to be removed, for a total of eight (8) trees. The reasons for this include:

- A follow up tree inventory that revealed additional trees beyond those on the survey. Those trees are within the conceptual design footprint and could not be preserved without significant changes to the Project design.
- Re-grading necessary for the slope down to the equestrian parking spaces.
- Carving out additional space for the trailhead, amenities, and bioretention area.

Of the five (5) additional trees to be removed, two (2) are a non-native Prunus species, two (2) are below the threshold of being a significant tree, only one (1) is a native, significant size tree, a big leaf maple with an 18" diameter trunk. Tree removal impacts, along with other project impacts will be evaluated during the California Environmental Quality Act (CEQA) review process and mitigation will most likely be achieved through the reforestation efforts as part of the Irish Ridge Restoration Project in this Preserve.

Transportation Demand Management Integration

A transit-demand-management consultant, Parametrix, was retained by the District to draft a report on the Purisima Multimodal Access Implementation Project. On December 11, 2024, the Board approved inclusion of shuttle and parking management concepts for Purisima (R-24-155, Minutes) into the CEQA project description for conducting the required environmental review as

part of the Purisima Comprehensive Use and Management Plan (CUMP). While the initial shuttle pilot program will focus on lower Purisima, refinements were made to the concept plan to accommodate the potential future shuttle and other parking management recommendations at this parking area.

A drop-off at the trailhead was dimensioned to fit a shuttle in addition to standard size vehicles. Having the passenger side of the shuttle open onto the trailhead rather than the road required reversing the parking area ingress/egress previously shown on the conceptual plan. Maintaining the existing ingress/egress (as shown on the conceptual plan) and having the passengers exit the righthand side of the shuttle was not possible due to the turning radius and flow-of-traffic requirements. As part of the conceptual design work, a traffic study confirmed adequate line-of-site for both the ingress and egress routes as well as for the Highway 35 crossing. An additional traffic study was performed for this ingress/egress reversal that confirmed the feasibility of this approach.

Parametrix's report also suggested the identification of potential future carpool/reservation parking, and the lower terrace of standard parking stalls was identified as a separate area that could have its own signage for that programmatic use. The report recommended the use of a real-time parking counter. A parking counter is not currently included in the Project, but the parking area is being designed so that it has the electrical capacity to support a parking counter system such as the one currently in use at Rancho San Antonio Preserve.

In addition to the above transit demand management interventions, San Mateo County has determined that the project will need to follow the 2022 California Greenbook Electrical Vehicle (EV) space requirements. EV chargers also support the goals of the Board-approved Climate Action Plan (R-10-10, Minutes). The Project will implement 4 EV charging spaces and 17 EV capable spaces for a parking area this size per San Mateo County and California Greenbook requirements.

**Next Steps**

The project is now going through CEQA as part of the Purisima Comprehensive Use and Management Plan. With CEQA certification anticipated in summer 2026, construction is scheduled to start in 2028. Any significant changes to the current design would be additional work for the Consultant and could potentially delay the project timeline.

**Attachments:**

1. Site Plans
2. Staging/Parking Area and Trailhead Design Standard Guidelines
3. Sample Staging/Parking Area and Trailhead Design Standard Guidelines Checklist – Values Statements section

**Attachment 1 - Preferred Conceptual Design Option**

# HWY 35 MULTI-USE TRAIL CROSSING AND PARKING AREA PREFERRED CONCEPT PLAN

## PURISIMA CREEK REDWOODS OPEN SPACE PRESERVE

## NORTH RIDGE PARKING LOT

*Not to scale*


| PARKING AREA TOTALS | EXISTING | | A.1 | | A.2 | | B.1 | | B.2 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Cars* | *Equest.* | *Cars* | *Equest.* | *Cars* | *Equest.* | *Cars* | *Equest.* | *Cars* | *Equest.* |
| EXISTING LOT + UPPER EXPANSION AREA | 26 or 41 | 2 or 0 | 50 | 4 | 74 | 0 | 41 | 4 | 61 | 0 |
| LOWER EXPANSION AREA | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| HWY 35 SHOULDER | 10 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 |
| **TOTAL** | **36 or 51** | **2 or 0** | **53** | **4** | **77** | **2** | **44** | **4** | **64** | **2** |
| **IMPERVIOUS AREA** | 17,490 sf | | 25,000 sf | | 39,500 sf | | 22,500 sf | | 34,750 sf | |

NOVEMBER 8, 2023

# Attachment 1 - 65% Design


TREE TO BE REMOVED

DISTRICT SIGNAGE

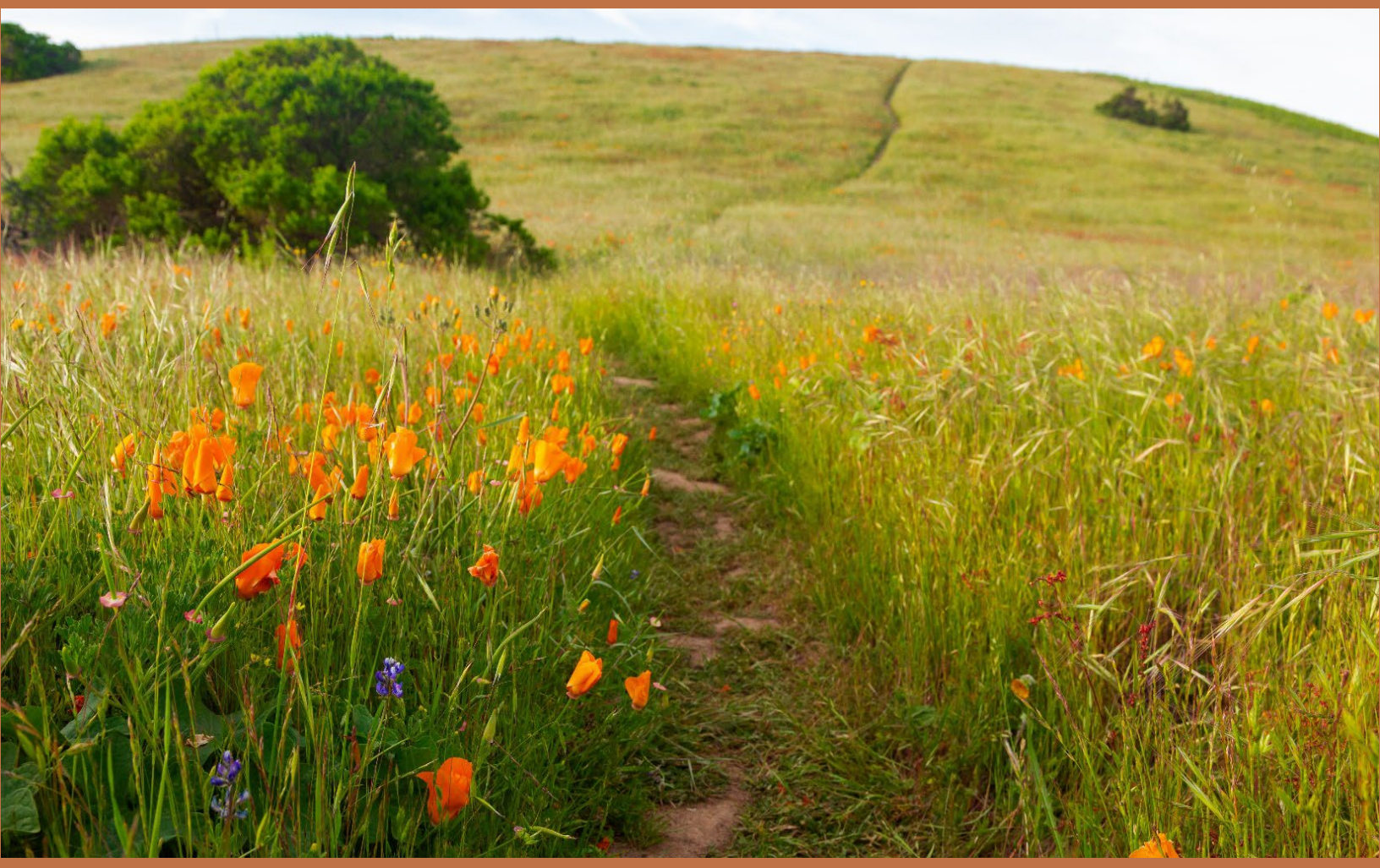
**HIGHWAY 35 MULTI-USE TRAIL CROSSING AND PARKING AREA**

ATTACHMENT 2

Midpeninsula Regional Open Space District

# Staging/Parking Area and Trailhead Design Guidelines

July 24, 2024



# Staging/Parking Area and Trailhead Design Guidelines

## Approved by the Midpeninsula Regional Open Space District Board
## July 24, 2024

The Midpeninsula Regional Open Space District (Midpen) mission is:

***"To acquire and preserve a regional greenbelt of open space land in perpetuity, protect and restore the natural environment, and provide opportunities for ecologically sensitive public enjoyment and education."***

Within the Coastside Protection Area, the mission expands:

***"To acquire and preserve in perpetuity open space land and agricultural land of regional significance, protect and restore the natural environment, preserve rural character, encourage viable agricultural use of land resources and provide opportunities for ecologically sensitive public enjoyment and education."***

The Vision Plan Goals approved by the Board of Directors in 2014 encompass:

- ***Outdoor Recreation and Healthy Living.*** Provide accessible open space lands for recreation and outdoor exercise in nature.
- ***Cultural and Scenic Landscape Preservation***. Conserve the area's scenery and rich history; provide places for escape and quiet enjoyment.
- ***Healthy Nature.*** Take care of the land, air, water and soil so that plants and animals thrive and people can receive nature's benefits.
- ***Connecting with Nature and Each Other.*** Provide opportunities for people to learn about and appreciate the natural environment and to connect with nature and each other.
- ***Viable Working Lands.*** Provide viable working lands that reflect our agricultural heritage and provide food and jobs.

Prepared by:

CSW|ST2

121 Park Place, Richmond, CA 94801

www.cswst2.com

Photo Credits: Top: Russian Ridge (Wing Yung), Bottom (left to right): Russian Ridge (Doug McConnell), Rancho San Antonio (Karl Gohl), Purisima Creek Redwoods (Mike Kahn)

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# INTRODUCTION

***"...to try to save for everyone, for the hostile and indifferent as well as the committed, some of the health that flows down across the green ridges from the Skyline, and some of the beauty and refreshment of spirit that are still available to any resident of the valley who has a moment, and the wit, to lift up his eyes unto the hills."***

Wallace Stegner

With over 70,000 acres of connected public open space, Midpeninsula Regional Open Space District's (Midpen) preserves contain diverse and scenic landscapes, from bay wetlands to redwood forests and coastal grasslands, hosting an incredible diversity of life. Midpen's role and responsibilities center on its commitment to the preservation and restoration of these open spaces across the Santa Cruz Mountains.

Midpen's mission is to acquire and preserve a regional greenbelt of open space land in perpetuity, to protect and restore the natural environment, and to provide opportunities for ecologically sensitive public enjoyment and education. On the San Mateo County Coastside, that mission expands to include acquiring and preserving agricultural land of regional significance, to preserve rural character, and to encourage viable agricultural use of land resources. Midpen undertakes its work based on the missions under the guidance of the overarching Basic Policy[1] and other specific policies, such as Resource Management[2] and Agricultural policies[3], the 2014 Vision Plan[4], and the priorities establish by Measure AA[5].

Parking is a key component of public access to Midpen preserves. A parking area serves as a gateway to the preserve and provides visitors with a transition zone between the urban/suburban areas of the greater Bay Area and the preserves' natural open spaces. Parking areas are many visitors' first interface with Midpen's preserves, as such they establish the Midpen identity. Midpen historically provided relatively small gravel parking areas at trailheads. As visitation has grown and more trails have opened for public access, the demand for more and larger parking areas has increased. The passage of Measure AA in 2014 provided needed resources to allow Midpen to shift part of its focus toward expanding public access opportunities across its 27 open space preserves, including adding new parking areas and expanding existing parking areas to better accommodate visitation levels.

***Midpen's Basic Policy defines Open Space as land area that is allowed to remain in or return to its natural state. Open space lands:***

***Protect areas of scenic beauty and preserves natural habitats necessary to sustain plant and animal life, especially native and endangered species.***

***Offer opportunities to the public for education, recreation, and renewal of spirit.***

***Enhance public safety by preventing development of areas prone to landslides, earthquake damage, flooding, and wildland fires.***

***Establish boundaries for urban growth, provides a respite from urban living, and enhances regional quality of life.***

In the last 15 years, environmental and ADA regulations, as well as engineering standards, have increased. For example, new environmental regulations have necessitated the addition of engineering and design elements to address requirements pertaining to stormwater management under the National Pollution Discharge Elimination System (NPDES). More recently, Midpen has begun to incorporate transportation demand management (TDM) strategies into parking area designs by including new elements such as carpool lots and real-time parking information systems to manage parking demand. These various factors and requirements have affected the aesthetics of Midpen parking areas and have raised the Board of Directors' (Board) interest in defining these Staging/Parking Area and Trailhead Design Guidelines ***to ensure that new and future parking designs incorporate a natural and/or rural open space character reflective of Midpen's values and mission while meeting the practical requirements of visitor parking.***

***Midpen's parking areas serve as transistional experiences for visitors as they move from the outside context to the unique preserve environments.***

Midpen's parking areas are the public's first interface with *opportunities for ecologically sensitive enjoyment and education* in Midpen's preserves. Parking areas also present a challenge between the practicalities and needs of vehicle-based public access and the desire to promote the environmental sensitivities inherent in preserving, protecting, and restoring natural and agricultural lands. With thoughtful and purposeful design, parking areas can successfully highlight Midpen's mission and values while meeting the technical and regulatory requirements of visitor parking.

## MIDPEN PUBLIC ACCESS PLANNING PROCESS

Similar to other work undertaken by Midpen, the development of new public access facilities is consistent with Midpen's foundational *Basic Policy*[7] which guides the provision of public access to open space lands for ecologically sensitive and low-intensity recreational uses and upholds Midpen's commitment to maximize open space preservation and resource protection efforts. Additionally, the design of these facilities is guided by other Board approved policies and planning documents that include Resource Management Policies, Service Plan for the San Mateo Coastside Protection Area[6], Open Space Use and Management Planning Process Policy[7], Improvements on District Lands Policy[8], Good Neighbor Policy[9] and others.

From the onset of a public access project, Midpen applies the Board-approved Open Space Use and Management Planning Process[2], which states:

> *"[Midpen] lands are managed to promote the continued preservation of their natural, historical and cultural resources, and at the same time provide compatible public recreation, environmental education, and agricultural use where possible." The policy further states "…the [planning] process encompasses an ongoing comprehensive approach to management, designed to respond to the dynamic changes of the District's environmental resources and public needs."*

Prior to initiating design of a parking and trailhead staging area, Midpen conducts a site planning process to select and evaluate a "contextually and environmentally appropriate" location. As mentioned in the Basic Policy, the site planning process considers a variety of factors, including but not limited to topography, geologic features, hydrology, soils, vegetation, natural resources such as biological, cultural, tribal cultural and historic resources, climate and adjacent land uses of the site. The goal of site planning is to create an ecologically sensitive development footprint that avoids and minimizes impacts on the natural environment while optimizing the aesthetic values of the site and surrounding natural setting.

## USING THE GUIDELINES

The Midpen Staging/Parking Area and Trailhead Design Guidelines (Guidelines) are in alignment with and complement existing Midpen policies and guidelines that guide public access projects. The Guidelines focus on providing a framework for ensuring appropriate open space and natural/rural aesthetic character and design elements are integrated into Midpen preserve parking and trailhead staging area. These Guidelines are intended to apply throughout the design process—during the conceptual site location feasibility study phase and throughout the development of design and construction plans. They provide a shared understanding of Midpen's expectations to staff and design consultants. They also serve as a tool for the Board to use in evaluating and approving proposed parking area design plans.

***The Midpen Parking Area Design Guidelines are a framework to guide the design and evaluation of new parking area projects.***

The Guidelines comprise the following sections, which work together to support the development of parking area designs reflective of the sense of place in alignment with Midpen's mission and identity:

- **Values:** Expresses Midpen's values in relation to parking area design, these guidelines knit together ecologically and biologically sensitive public access with the functional requirements of parking.
- **Approach:** Describes a design approach that respects and complements the land's physical, visual, and cultural integrity, these guidelines highlight a sense of place.
- **Elements:** Describes a set of guidelines for the design of parking area elements, ensuring a consistent visitor experience across Midpen preserves.

The Staging/Parking Area and Trailhead Design Guidelines are intended to be referenced and integrated in every phase of the design process, where changes can take place throughout design, construction, and in the long-term upkeep and maintenance of a facility, with greater focus on guidelines most relevant to the work at hand. The quick reference guide below provides an overview of the use of the guidelines, with the following sections outlining more detailed considerations for each phase.

***Using the Guidelines—Quick Reference***

| | Guideline Section | | |
|---|---|---|---|
| **Phase** | **Values** | **Approach** | **Elements** |
| **Planning/ Feasibility** | ✓ | ✓ | |
| **Conceptual Design** | ✓ | ✓ | |
| **Schematic Design** | ✓ | ✓ | ✓ |
| **Design Development** | ✓ | ✓ | ✓ |
| **Construction Documentation** | ✓ | ✓ | ✓ |
| **Construction** | ✓ | ✓ | ✓ |
| **Maintenance** | ✓ | ✓ | ✓ |

## PLANNING/FEASIBILITY

Midpen planning work sets the foundation for evaluating the feasibility of the parking area site location and programmatic objectives. The site's context, opportunities and constraints are evaluated and considered, as well as any impact avoidance options and mitigation measures and anticipated trade-offs when avoidance is not feasible. Public input is gathered to inform programming, feasibility of the site locations and planning decisions. A range of early alternatives are evaluated and refined by staff and/or consultants, where the Guidelines will be referenced during this phase. Then a series of acceptable alternatives with a range of programming are presented to the Board, often with a preferred alternative presented at that time for their consideration and confirmation.

### Integrating the Staging/Parking Area and Trailhead Design Guidelines

- Include the Staging/Parking Area and Trailhead Design Guidelines by attachment or by reference in all Consultant RFPs and RFQs.
- District staff and the Board test consultant design work against the Values, Approach, and Element guidelines prior to approval.

## DESIGN

Midpen utilizes two design approaches—either Midpen Planning staff work with Midpen Engineering & Construction (EC) staff or Midpen Planning staff work with an outside design and engineering consultant. In both approaches, the Planning & Design team work collaboratively. Site meetings and reconnaissance build a common understanding of the landscape and early design ideas get tested collectively.

Conceptual design explorations tease out the overlay of the program, considering opportunities and constraints of the site. Initial program assumptions may be revisited if the site is not capable of appropriately accommodating Midpen's program. Iterative designs flesh out alternatives, which are tested against the project objectives, the Guidelines, and other policies.

Constructability, cost estimating, and value engineering test the preferred alternative's capability to advance or challenge the design team to search for refinement to the preferred alternative or new alternatives with more potential for success. Once a preferred alternative is refined and approved, significant design work is completed. However, as the design process continues through design development, the Planning & Design team should continue to evaluate decisions against project objectives, Guidelines, and other applicable policies.

***Good design does not rely on particular materials or budgets, but rather on the quality of the design rationale and its response to the project's goals, objectives, and program.***

### Integrating the Staging/Parking Area and Trailhead Design Guidelines

- Include the Staging/Parking Area and Trailhead Design Guidelines by attachment or by reference in all Consultant RFPs and RFQs.
- Once a design consultant is retained, Midpen works with the Consultant to develop and implement an iterative design process that includes Board review and public input to fulfill the Board-approved project objectives. Midpen and the consultant would apply the Guidelines and other applicable policies to attain a design that adheres to the Values, Approach and Element guidelines while also meeting an expected level of durability, working within a Board-approved budget for long term sustainability.
- As design progresses, the Planning & Design team communicates application of the Values and Approach guidelines in conceptual design development and the application of the Elements Guidelines in development of alternatives and refinement of the preferred alternative.

## CONSTRUCTION DOCUMENTATION AND CONSTRUCTION

Midpen's rigorous design process, including adherence to these Guidelines and best practices and environmental protection guidelines, as applicable, ensures that projects enter the Construction Documentation (CD) phase with a design that has been vetted by the Planning & Design team and the Board. It is critical to ensure that the essential project design is fixed as it enters this phase. However, new opportunities and constraints may arise, resulting in changes to the design. If significant revisions are required, they should be vetted against the Guidelines.

There are many important facets of the CD phase. Two are highlighted here: Cost Estimating and Materials. These two facets work in concert through the CD phase design and cost estimating processes. As budgetary concerns inevitably arise, the Planning & Design team should evaluate revisions to the design and its materials against the Values, Approach, and Elements guidelines for both function and aesthetics.

Construction is the culmination of the design and changes to the design will inevitably occur during this phase. The Planning & Design team are encouraged through these Guidelines to take positive advantage of opportunities and constraints which arise and improve on the design. Again, when consequential decisions are required, revisiting the Guidelines can support decision-making in alignment with the project's design rationale.

#### Integrating the Staging/Parking Area and Trailhead Design Guidelines

- Iteratively re-evaluate the evolving design per District Program, Resource Management Policies, Environmental Protection Guidelines, Design Guidelines, and Preliminary Design ideas. The Planning & Design team should circle back on design decisions to ensure project objectives and mitigation measures are being met.

## MAINTENANCE AND OPERATIONS

Maintenance is key to the longevity of the parking area. Minimizing maintenance requirements reduces environmental impacts—the longer a parking area can remain in good repair without having to be rebuilt, the more environmentally sustainable it is. Design of the parking area should adhere to the Values, Approach and Elements Goals and fulfill Midpen's Mission in resource and environmental protection while considering the maintainability and financial sustainability throughout the design phases.

#### Integrating the Staging/Parking Area and Trailhead Design Guidelines

- Lessons-learned during on-going maintenance and operations activities are incorporated into future updates to the Staging/Parking Area and Trailhead Design Guidelines, which is subject to Board review.

## A LIVING DOCUMENT

The Midpen Staging/Parking Area and Trailhead Design Guidelines is a living document to be updated as the guidelines are tested against projects with a range of sizes, sensitivities, and budgets. Updates and revisions that may challenge the Values, Approach and Elements of the Guidelines as initially established will be reviewed and approved by the Board. Lessons-learned from maintenance and operation of Midpen's parking areas, as well as monitoring of parking area impacts on the natural environment, should also inform future updates.

The Guidelines' focus is on the creation of a sense of place, recognizing that this aesthetic design goal is founded on a series of factors and decisions that occur prior to the initiation of planning or design. With increased visitation, Midpen's parking areas may need to increase in size, number, and intensity of use. While the minimalist design approach that Midpen has historically used is still appropriate in some locations, it has become less functional, and costly to maintain at other sites. The Midpen Board and staff will need to consider the desired balance among resources protection, aesthetic, visitor experience, public safety, up-front construction costs, and longer-term maintenance requirements consistent with its mission, overarching Basic Policy and other Board-approved policy and guidelines. On a project-by-project basis, Planning & Design teams should also weigh the site conditions, environmental context, and level of anticipated use with the visitor experience and benefits. Midpen's careful and thoughtful consideration of the Project's goals, anticipated trade-offs and how Midpen fulfills its Mission informs the use of the Design Guidelines and will shape future updates to this document.

# A. VALUES

Built from Midpen's missions, goals, and policies, the Parking Area Values (Values) set the design attitude that underpins all programming and design decisions. The values are intended to be used as high-level criteria for evaluating whether site selection and design choices support Midpen's mission. The following values apply to the design of all parking areas, in all environmental settings and using different design elements and features as outlined in this document.

- **Respect the Natural Landscape and Cultural Setting.** Avoid or limit ecological and biological impacts by focusing on opportunities to utilize principles and methods of land preservation, restoration, and the appreciation of natural and/or rural landscapes while working with the requirements that vehicle-based public access present. Utilize aesthetically appropriate design elements to reflect and complement the surrounding environment.
- **Establish a transition zone.** Place and design parking areas that harmonize with the natural surroundings. Parking areas serve as transitional spaces into the natural environment. Minimize the visual and aesthetic/sensory impacts of parking areas on the land. Design parking areas and trailheads to be visual gateways to the open space preserve that help transition visitors into the natural/rural environment.
- **Exhibit a Sense of Place.** Express a consistent District design ethos across all preserves while highlighting local, environmental, and cultural context and the natural/rural aesthetic character of the preserve and setting. Parking area and trailhead design serves to provide visitors with a visual/experiential understanding of Midpen's values and mission. Seek opportunities to celebrate the unique attributes of the preserve.
- **Address Sustainable Practices.** Design using environmentally sustainable materials, colors, textures and construction practices that reflect and are compatible with the natural setting. Consider financial and staff resource impacts in design choices. Consider durable, low-maintenance design elements to minimize long-term maintenance requirements that complement the Design Guidelines' Values, Approach and Elements statements.

***Values set the design attitude that underpins all programming and design decisions.***

***Values are used as high-level criteria for evaluating whether design choices support Midpen's mission.***

***Values apply to the design of all parking areas, regardless of envionment and the specific design elements.***

# B. APPROACH

An intentional design approach for Midpen parking areas is necessary to ensure an ecologically sensitive aesthetic that establishes a sense of place while meeting the technical and regulatory requirements of these facilities. The Approach Guidelines provide guidance in the design process, establishing an underlying design rationale that supports Midpen's missions, values, and policies. These guidelines are intended to be used throughout the planning, design, and construction phases to guide development and the evaluation of design decisions.

***The Approach Guidelines provide a consistent design rationale across Midpen projects to support the expression of authentic sense of place for each site.***

A collaborative approach to parking area design strives to integrate the knowledge and expertise of the Planning & Design team with the Design Guidelines to facilitate a clear understanding of each project site's programming potential related to parking and public access while guiding site designs that meet Midpen's mission and values. A collaborative and integrated design process is grounded in these design principles:

- Embrace Midpen's mission, values, and standards.
- Investigate, uncover and highlight the site's sense of place.
- Embed Midpen's natural resource management and operations and maintenance policies and practices into the design process.
- Understand site programming and balance it with the site's opportunities and constraints.
- Establish the project's landscape architectural design to subsequently guide the necessary engineering elements.

## TYPOLOGIES

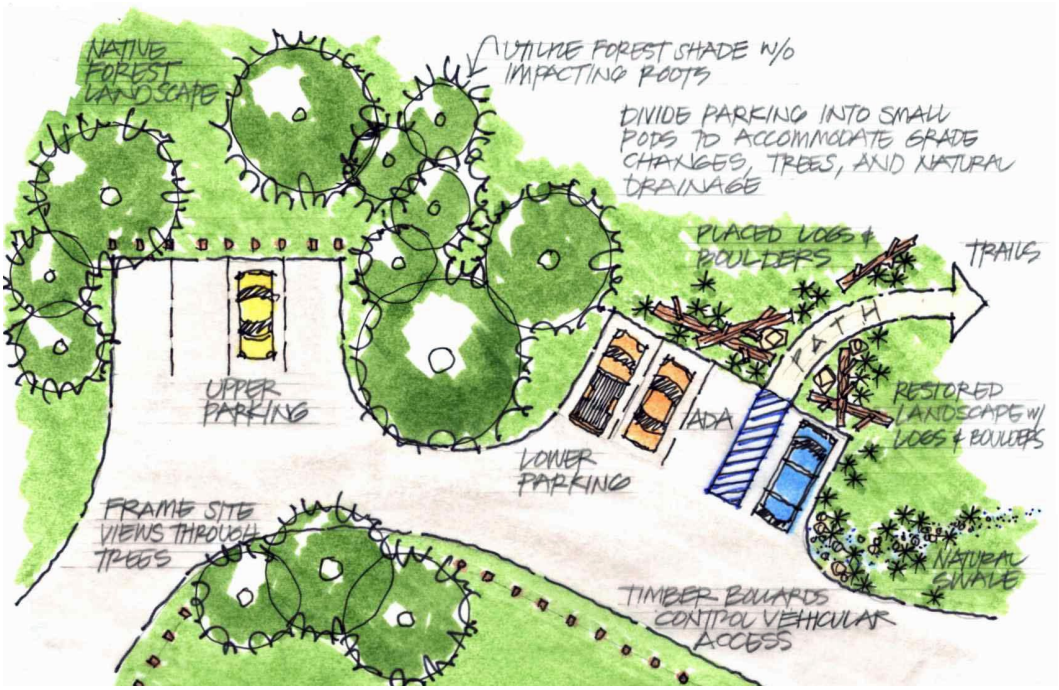
Midpen preserves span east-west across the Peninsula, encompass lands on both the Pacific Coast and San Francisco Bay and include a rich variety of natural ecosystems, cultural landscapes, and working agricultural settings. Development within these ecologically diverse and sensitive settings challenges designers to design parking areas that respect and complement the land's physical, visual, and cultural integrity. Typologies describe general groupings of landscape and cultural character. Typologies are used in the Guidelines to identify general characteristics of preserve landscape types and to create a system for understanding appropriate design considerations to be assessed within each context. They outline design ideas that should be considered to ensure that design respects and complements the land's physical, visual, and cultural integrity.

***Typologies are not mutually exclusive. A single parking area may sit within a context that is both coastal and agricultural.***

***Where multiple typologies apply, the proposed design should be assessed against the design considerations of all applicable typologies.***

Typologies are not mutually exclusive. A single parking area may sit within a context that is both coastal and agricultural. Where multiple typologies apply, the proposed design should be assessed against the design considerations of all applicable typologies.

## FORESTED SITES



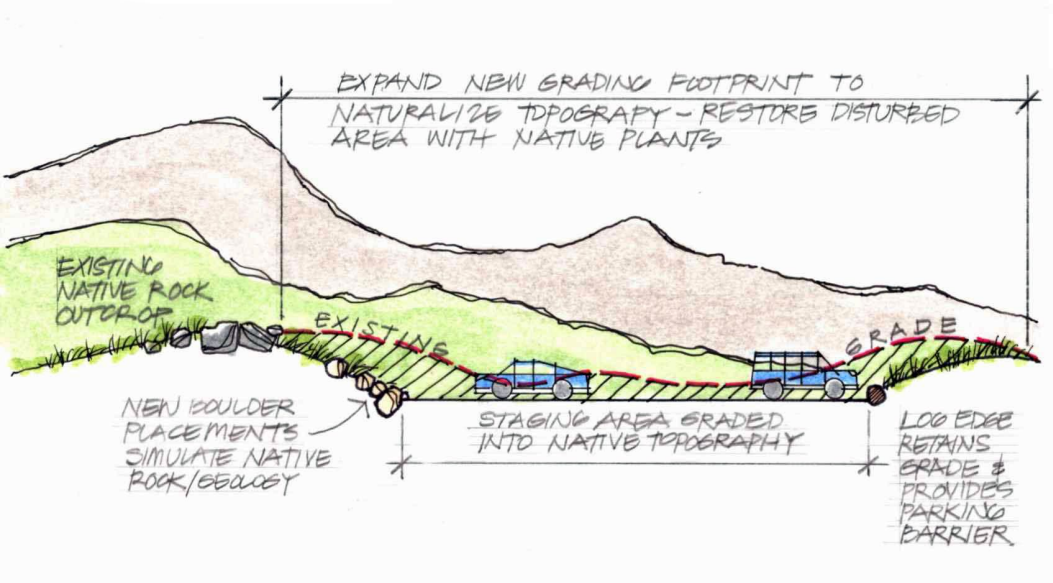

***1. Forested Site Parking Area Design Considerations***

Midpen preserves include a wide variety of forest types. This typology is intended to cover all types of forest, recognizing that these ecosystems share characteristics—enclosed, shady, sheltered from the wind. Forests typically provide opportunities to screen views of the parking area from inside the preserve, with varying levels of opportunity to capture views outward. Key challenges shaping parking area design in forested areas include minimizing impacts to existing trees while creating defensibility from fire. In forested site contexts, consider the following guidelines:

- Areas in which forest health has been impacted by human disturbances, such as areas with invasive plant species and compacted soils from old infrastructure, require greater resources to enhance the forest. These sites should be considered before locating site development in other forest sites.
- Consider the tree removal requirements for creating fire breaks when selecting parking areas and laying out parking on a site. Avoid and/or minimize tree removal of native trees greater than 24 inches at breast height.
- Consider breaking parking areas into smaller pods to minimize impacts to existing trees and habitat and design parking around groupings of trees to retain larger, native trees intact thus minimizing ecological and biological disturbance.

- Ensure that forest soils can sustain compactions and/or paving related to new parking areas. To the extent practicable, limit excavation and importation of engineered fill or structural measures to support parking development.
- Consider framing views through trees both into and out of the parking areas.
- Where possible, design trail connections from parking area trailheads to interior trails in a meandering manner that naturalistically follows tree groupings and other forest features, celebrating the natural characteristics of the landscape.
- Restrict construction within the tree canopy and root structure of trees.
- Trees which remain should be protected in a structurally secure and appropriate manner. The safety of parking area users with regards to potential future tree and limb fall should be considered.
- Balance the need to remove trees for parking facilities with the need to screen parking and resource protection and management goals.
- Tree removal and pruning should be done by skilled arborists under Midpen observation, during the correct season to prevent spreading of disease and pests and to avoid disturbances of nesting birds, etc.
- Utilize existing trees to shade vehicles and visitors where feasible without damaging root systems or creating tree fall safety concerns. Trees that provide shade in parking areas can improve the visitor experience by keeping these areas cooler during hotter weather.
- Repurpose downed tree trunks as placed logs for habitat structures and to re-naturalize disturbed sites within their native watershed.
- Use tree trunks and cut trunk rounds as site furnishings—seating, barriers and bollards, and edging—within their native watershed.
- For site furnishings and finishes, use dark natural colors and native textures to the greatest extent possible, including redwood and Douglas fir materials, logs, and duff.

## OPEN SITES



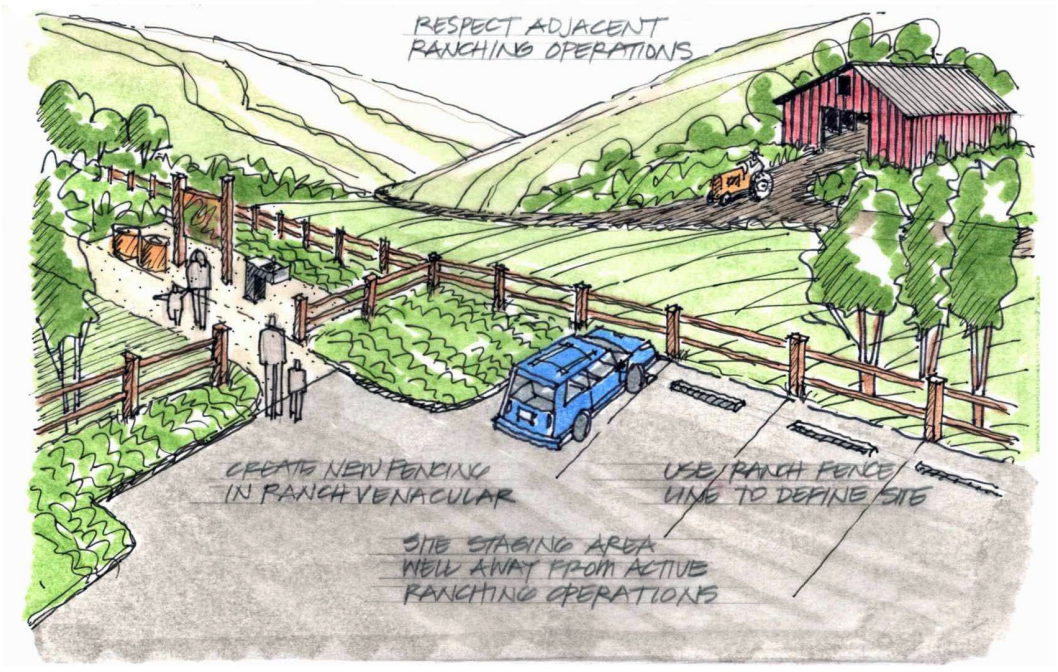

***2. Open Site Parking Area Design Considerations***

The open sites typology includes several ecosystems: grasslands, chaparral, coast, and bay lands. These ecosystems share many characteristics—exposed, windswept, foggy, and sunny settings with low to medium height shrubs or grasses. Trees are typically limited. These typically exposed landscapes have high visual sensitivity and little to no shade. These settings require special care in siting and grading to screen views of parking areas from adjacent land-uses, roadways, and trails. In open site contexts, consider the following guidelines:

- Use topography, grading, and road and parking alignment to screen parking in strictly grassland landscapes. Use grading sparingly in favor of other design considerations. Avoiding introducing trees within open grasslands is important to retain the integrity of open grassland views. In both chaparral and oak woodland settings, shrubs and trees may be considered for screens that mimic the distribution of the existing native vegetation. In other locations, seek topographic or geologic features, such as rock outcroppings, to shield parking from view and integrate it into native landforms. Nestle parking and roads down into existing contours and landscape. Avoid siting on visually exposed ridge lines.
- Grasslands are particularly vulnerable and have decreased in area compared to other habitat types in the Peninsula Watershed. Avoid fragmenting to minimize habitat loss.

- Take particular care in designing pathways for movement and circulation — providing pathways that offer visual interest and pathways that allow visitors to arrive at desired destination points. Grasslands are particularly vulnerable to pedestrian and cyclist access off trails. Where necessary use subtle barrier strategies to guide pedestrian and cyclist access to avoid the creation of informal pathways that damage the resources.
- Take advantage of native topography to lay out parking without creating unnatural topographic grading or over-steepened berms. Where significant cut or fill slopes appear required, consider increasing the scope of grading to allow designers to blend new parking grades into the native topography in a naturalistic manner.
- Explore use of natural low stone, rusticated poured-in place concrete or dry stack natural boulder walls consistent with the terrain, where appropriate and advantageous, to grade parking features into the existing topography and screen it from adjacent area and viewsheds.
- Avoid adding non-essential perching features such as fences, shelters, or posts which give raptors an unnatural hunting advantage.

## AGRICULTURAL SITES

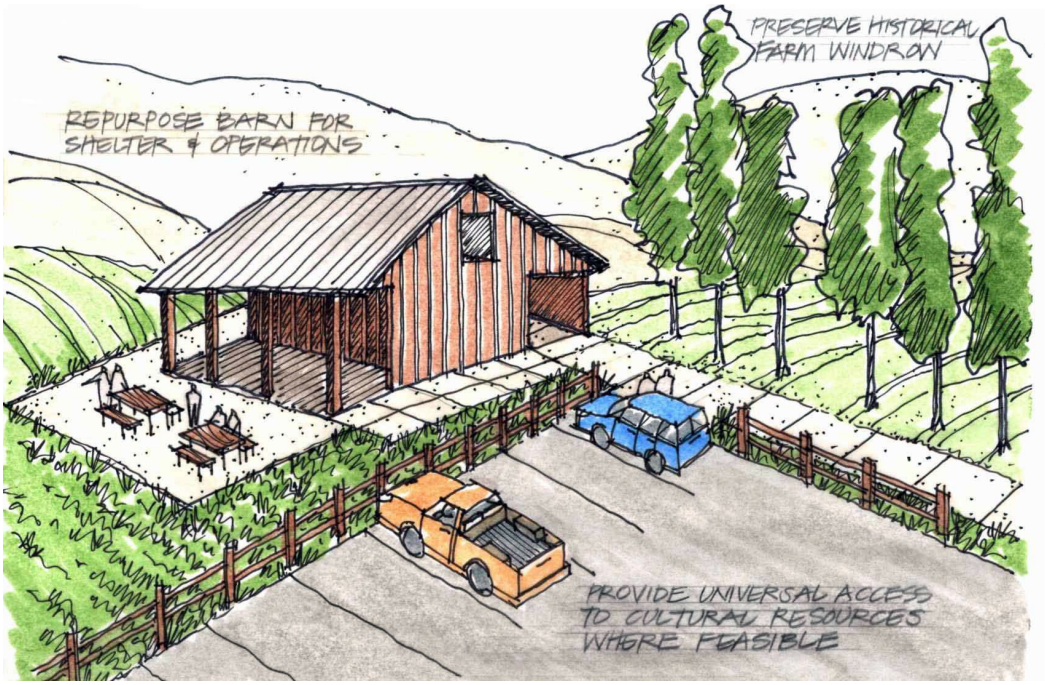



***3. Agricultural Site Parking Area Design Considerations***

With the expansion of Midpen's boundaries to include the San Mateo County coast, working agricultural lands are now included in Midpen's preserves. In these areas, Midpen's mission includes preserving and fostering existing and potential agricultural operations. Where parking areas are sited in the vicinity of agricultural operations, care must be taken to minimize conflicts with existing operations and impacts to lands suitable for agricultural production. In agricultural site contexts, consider the following guidelines:

- Consult with adjacent agricultural landowners and lease-holders to ensure that the proposed parking access and programming are compatible with on-going farming and ranching operations.
- Ensure that working farms and ranches maintain their use footprint, access roads, corrals, fencing, and structures and that new parking and access does not hinder agricultural operations.
- Work with the site plan of working farms to maintain or improve functionality, legibility, and aesthetics, while supporting opportunities for interpretation.
- Preserve, protect, and enhance scenic viewsheds both to and from agricultural settings.
- Evaluate how agricultural infrastructure may also be used in an aesthetic way. Consider both built infrastructure and remnant historic site features, such as agricultural rural-style fencing, gates, and siloes to help identify the agricultural setting, as well as natural infrastructure such as hedgerows.

## CULTURAL SITES




***4. Cultural Site Parking Area Design Considerations***

The Cultural Typology applies to Midpen lands, which have been touched by history. First by Indigenous people and later by European settlers. These lands have a special place in Midpen as they offer us a physical connection to our past.

Cultural resources range in type from historical artifacts to fallow agricultural settings and remnant structures of former ranches and farms. Additionally, tribal cultural resources may also be found in these sites, where they would require protection and consultation with the indigenous tribes. This condition makes them inherently sensitive to visitation. These landscapes have high visual sensitivity. Designing in this typology requires a high level of site and historical understanding and sensitivity.

In cultural site contexts, consider the following guidelines:

- Investigate the Cultural Resource data and consult with tribal representatives when considering development in areas culturally significant to tribes within Midpen's jurisdictional boundary.
- In consultation with the tribes, develop and implement measures to avoid impacts to and protect tribal cultural resources in high sensitivity areas.
- Retain key elements of the cultural "footprints" of historical activities and/or reflect the cultural history in the construction materials used.
- Minimize subsurface grading and disturbance to preserve archeological resources.
- If onsite archeological or cultural resources are deemed appropriate for visitor access, consider locating sensitively designed parking areas to provide universal accessibility to the resources.
- Protect views to, and from, cultural/historic resources.
- Consider adaptive reuse of unused existing features, such as locating parking accessible to a formerly used barn or outbuilding. If existing buildings have cultural value but are not used in agricultural operations, consider utilizing these structures as sites for new maintenance, storage, signage, and restroom programming.
- Plan for and accommodate setbacks from scenic corridors and historic resources.
- Restrooms and other accessory structures for new parking areas should echo the design vocabulary of extant buildings.
- Existing features should be utilized to facilitate efficient movement through the site by both visiting vehicles and pedestrians.
- Limit new planting. When deemed necessary, use locally-native species in layouts that reflect historically significant plantings such as vernacular wind breaks, and farmyard shade trees. Review Resource Management Policy documents for specific recommendations.

## INCLUSIVE DESIGN

In upholding its commitment to provide opportunities for ecologically sensitive public enjoyment and education, Midpen strives to ensure that these opportunities are accessible to people with a wide range of lived experiences. Recognizing that everyone navigates differently, parking areas should be designed to be inclusive, minimizing barriers to people with a range of physical, intellectual, cultural, and linguistic perspectives. In addition, observe the following guidelines:

- Design paths of travel for all users, regardless of physical, cognitive, or mental ability, rather than providing separate routes.
- Consider legibility in designing circulation patterns and locating site features such as restrooms and trailheads. Visitors with a wide range of abilities and perspectives should be able to understand how to move through the site.
- Meet or exceed all applicable codes for accessibility, including signage, pavement surfacing, slopes, and site amenities. Identify supporting elements that are not specifically required by codes (i.e. sign post material) and consider alternatives for these elements that satisfy the design guidelines.
- All site features and functions should be adjacent to ADA parking to reduce the need for lengthy accessible routes of travel, ramps and sloped walks.
- Accessible path of travel should be included in all parking and trailhead areas. Provide access to viewpoints, restrooms, signage, and trails (where feasible).
- Provide all weather surfacing in pavement or engineer and stabilize aggregate surface for the complete ADA path of travel.

## VIEWSHEDS

Framing views into the preserve is key to designing parking areas that establish a sense of place. Views illuminate the special landscape characteristics of the immediate project site and the distant landscape context. Screening views of functional parking area elements also supports a sense of place and the visitor experience. Consider the following guidelines:

- Capture views of topography, geology, vegetation, water, and sky.
- Highlight special natural and cultural site features, such as rock outcroppings, iconic or significant trees, orchards, corrals, agricultural buildings, residences and accessory structures or bridges, all of which identify a sense of place.
- Parking areas should be screened from Scenic Corridors. Respect the visual intrusion of the parking area or viewpoint on adjacent and distant lands within the project viewshed.
- If the parking area can also serve as a viewpoint, take advantage of that opportunity, and combine both functions into the parking area.
- If a viewpoint is separated from the parking/trailhead area, ensure legible and universal access between parking and viewpoint. Strive to access the viewpoint from the trail or from the entry road (as a pull-out).

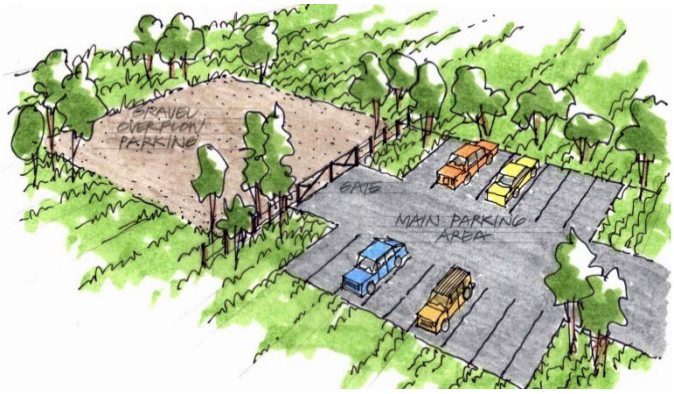
- Consider short duration stopping for visitors at viewpoints and avoid creating long-term parking stalls.
- When appropriate, provide wayfinding and interpretive/educational exhibits at the viewpoints to enhance user understanding of the landscape character, ecology, and history.

## SITING AND LAYOUT

Midpen locates parking areas to minimize impacts while achieving programmatic needs. Parking layouts should also be driven by site opportunities and constraints rather than programmatic needs alone. Development of parking areas that exhibit a sense of place in alignment with Midpen's missions requires exploration of creative parking layouts which are visually and environmentally sensitive to the preserve's natural resources. Observe the following guidelines:

- Consider siting parking areas on the outer edges of preserves and close to areas of existing circulation and/or development such as access roads, highways, property lines to non-open space lands.
- Efficient parking layouts should be pursued to the extent feasible, but not as a matter of course nor to the detriment of the natural resources.
- Consider breaking single large parking areas into smaller, discrete clusters to screen parking, accommodate topographic variation, natural features, native vegetation and drainage.
- Consider breaking up parking into daily core area and special event overflow areas where practicable.
- One-way and two-way parking layouts should be explored along with 90 degree and angled parking stall configurations.
- Parking stall counts and layouts shall meet or exceed regulatory requirements for ADA van stalls and ADA stalls.
- Ensure accessible path of travel is included in all parking areas, linking ADA stalls to trailheads, viewpoints, restrooms, and site features.
- Separate pedestrian path of travel from circulation for automobiles if feasible.
- Consider phased implementation of parking pods to allow for near-term flexibility and to accommodate unforeseen future pressures on parking demand.


***5. Integrate parking areas into site context.***




***6. Consider the use of parking pods for overflow areas and to accommodate future phases of construction.***

### TURNAROUND/DROP-OFF, EMERGENCY VEHICLE AND TRANSIT

- Parking layouts should strive for easy drive-through and exit, especially where heavy parking demand necessitates queuing for parking.
- Provide turnarounds or drive through layouts for Emergency Vehicle (Fire and Medical) access to parking and trailheads.
- Turnarounds enhance parking circulation, queuing, and drop-off functions, including transit and ADA parking. Dead-end parking layouts should be avoided whenever feasible.
- Pedestrian and ADA drop-off areas should be considered in all parking area layouts. Consider transit drop-off areas as appropriate. Drop off areas should be located adjacent to ADA parking and trailhead staging areas.

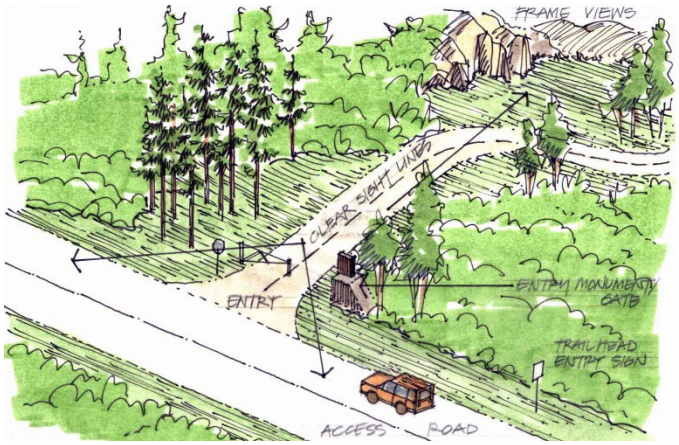
### EQUESTRIAN PARKING

- When provided, equestrian trailer parking shall meet current accepted standards for layout, stall size, and orientation. Consultation with local equestrian groups is strongly encouraged. For example, equestrians prefer to ride in pairs or groups, such that there should be minimum of two trailer parking spaces rather than only one trailer space.
- Provide pull-through parking layouts wherever feasible. Only in constrained site should parallel or reverse parking stalls be considered. Equine parking requires more space than vehicular parking and may not be suitable for all parking areas.
- Separate equestrian parking from parking and circulation for automobile, pedestrian, and bicycle users when feasible.
- Equestrian parking shall include consideration of the transporting and handling of horses and ensure ample space is provided for each truck and trailer. Design should accommodate at minimum a 50-foot truck and trailer with room to off load and tie horses. Horse tie up can be to the side if there is no fencing alongside exterior parking spaces. While the standard minimum width for equestrian spaces is 16 feet, consider providing 18-foot wide spaces, where feasible, to allow the flexibility to re-stripe as standard vehicle spaces if needs change.
- Provide separate equestrian trail route between equestrian parking and the multi-use trail system to the extent feasible. Consider equine-friendly surfacing materials for parking and trail routes. Minimize the use of vertical curbs at edges.

## ENTRY ROADS

The entry road experience should immerse the visitor in the native landscape, creating a procession from the public access road to the parking area that complements the surrounding preserve and is safe, intuitive, and functional. Observe the following guidelines:

- Align and grade the entry road into the landscape to achieve a harmonious connection between the entry road and the natural topography and vegetation.
- Preserve native vegetation, and topographic features of interest, especially mature native trees.
- Avoid significant cut and fill slopes unless restoration to natural-looking contours and vegetation can be achieved.




***7. Design to immerse the visitor in the natural landscape.***

- Consider siting entry roads on the outer edges of preserves and close to areas of existing circulation and development, such as access roads, highways, property lines to non-open space lands.
- Use appropriate entry markers that are visible from the entry road to identify entry/exit points and wayfinding.
- Follow best practices for pedestrian, bicyclists, and driver safety, including ensuring adequate line-of-sight and advanced driveway approach warning signs.

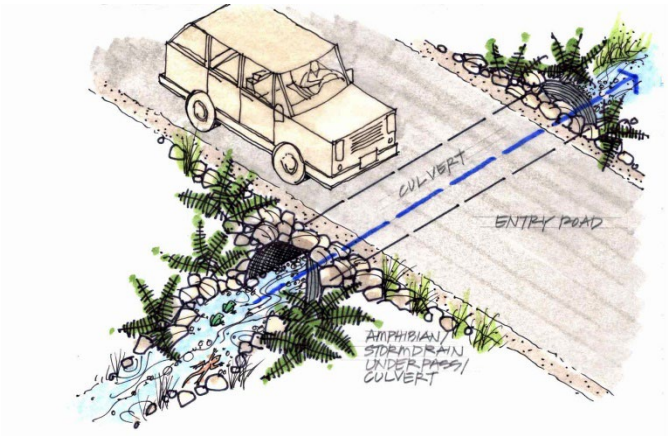
## TRAILHEADS

Parking area design should consider trailheads as an integral element of parking and circulation design. Observe the following guidelines:

- Provide a gathering area at the trailhead which is off set from the trail and provides a staging area for individuals and groups. Where anticipated visitation levels warrant, provide restrooms, seating, bike racks, and boot brushes. Provide bike brushes where bikes are allowed and dog waste receptacles at trailheads where on-leash dogs are permitted.
- Display signage for trail wayfinding, interpretation, and regulatory notices.
- Design pathway to accommodate hikers, runners, cyclists, and equestrians as appropriate and consistent with the Trail Use Guidelines.[10] Pathway edging should be limited to sustainable materials, wood, timbers, placed logs, weathered steel, and stone.

### HABITAT CONNECTIVITY

Entry roads and parking areas should be sited and designed to consider wildlife movement and safety as well as ecologically and biologically sensitive areas. In addition to routing entry roads and siting parking along preserve edges rather than bisecting habitat lands and laying out shorter entry roads to keep vehicle and parking impacts closer to existing access roads and highways, consider the following guidelines:




*8. Design to reduce impacts to wildlife.*

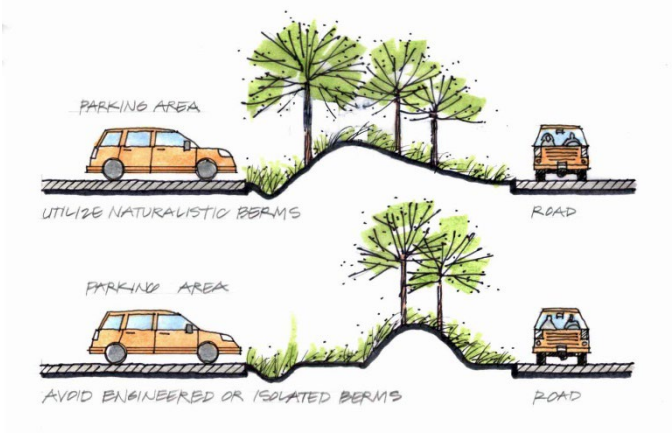
- Utilize wildlife-friendly fencing for migration routes and movement. Consider use of non-permeable or directional fencing where appropriate to minimize conflicts between vehicles and wildlife.
- Create culvert crossings for small mammals and amphibians, and avoid interrupting habitat connectivity where appropriate. Ensure that usability and maintenance are considered in the design.
- Utilize wheel stops with gaps to allow for newt movement across paved areas.

## GRADING

Due to the preserves' visual and ecological sensitivity, proper grading is critical to developing parking areas that align with Midpen's vision, avoiding an overly engineered or urban character. Prior to designing the preliminary grading plan, carefully select a relatively flat site that requires the least amount of grading. Then identify significant natural site features: small cliffs, rock outcrops, mature trees, gnarled snag or trunk, swale, or cultural features, which should be preserved and highlighted. Grading plans, from the conceptual design stage through to construction, should observe the following guidelines:

- Respect the natural topography of the site, working with topography to the extent feasible.
- Locate parking in areas with soils and drainage which are advantageous to parking area development and that avoid or minimize impacts to the natural setting, biological and cultural resources, etc. Avoid poorly drained or erodible soils or bedrock that would create construction challenges and expenses. Avoid slopes that exceed the soil type's maximum angle of repose to avoid erosion, typically a maximum of 3:1 run to rise ratio.
- Minimize site impacts, overall grading footprint, large and/or steep cut and fill slopes, and unnatural post-construction topographic grading conditions. Strive for a net zero cut/fill where feasible.
- Integrate grading into the native landscape character and topography. Final grading shall exhibit a naturalized condition, able to be restored to the pre-construction landscape condition.

- Where appropriate (e.g., annual grasslands) consider expanding the envelope of the topographic grading limits to re-naturalize the parking area grading back into the native topography and then restore the landscape.
- Avoid large and/or tall retaining walls or rockeries. Where necessary, consider terracing and breaking up the linear distance of walls into smaller more organic retaining structures. Where terracing is necessary, use natural rock or materials consistent with the site's current or prior uses.
- Avoid unnatural grading measures which highlight an engineered approach. Steep cut and fill slopes are problematic sites for restoration. Abrupt, awkward, and isolated "berms" of soil look unnatural in the landscape and should be avoided. Vary the shape and height of berms to achieve a more naturalistic look.




***9. Create naturalistic berm forms to integrate with the surrounding landscape.***

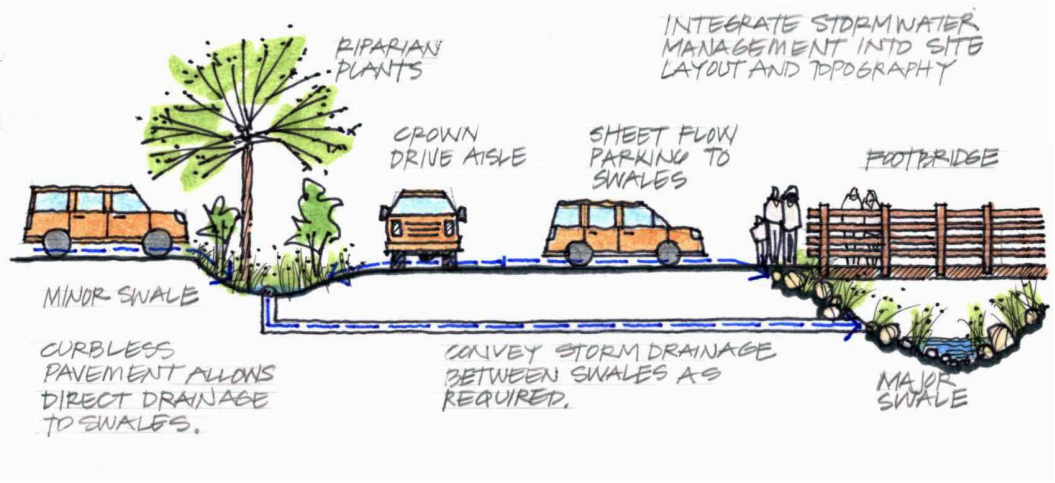
- When large cuts and fills are unavoidable, utilize walls (rustic board-formed concrete or stone), boulder outcrops, timbers, and placed logs to blend grading into the native undisturbed site condition.
- Where a significant grade change occurs, consider grading the parking into discrete terraces with native landscape or natural feature buffers between the terraces taking up the change in elevation.
- Grading should seek to minimize the project footprint while minimizing visual and environmental impacts. Where the cut and fill required to achieve a naturalistic form is large, consider reassessing site location feasibility.

## DRAINAGE

Drainage should be approached as a natural occurrence integral to the site rather than a problem to be solved solely in functional and regulatory terms. Site assessment should include mapping of site drainage patterns and saturated soil areas, as well as both regulatory and non-regulatory drainage and water features such as swales, wetlands, creeks, ponds. Perform rainy season and rain event day site visits to ascertain actual site drainage patterns and implications. If rainy season reconnaissance is not feasible, rely on Midpen direction for rainy season and empirical site data. Observe the following guidelines:

- Assess subterranean drainage, springs, weeps, and saturated soils and avoid them and or plan for dewatering of site areas in parking plan.
- Provide a setback buffered with native vegetation from all creeks, ponds, and other riparian ways.
- Ensure existing and anticipated (post construction) site drainage is accommodated, and parking facilities are sited in appropriate locations and soils.

- Consider Low Impact Development (LID) measures when addressing site drainage and regulatory imperatives.
- Avoid altering or disturbing native site drainage patterns to the extent feasible. When unavoidable, ensure geomorphic analysis is completed for site to guide drainage engineering decisions.
- To the extent feasible, utilize naturalized, open swales to accommodate site drainage. Integrate swales into the overall topographic concept for the site.
- Where piped conveyance of site drainage through drain structures, culverts, and detention ponds is required, integrate catchment and conveyance systems into natural swale systems.
- Comply with applicable C.3 Stormwater measures, such as avoiding drainage and runoff into riparian ways, but do not limit stormwater design to regulatory imperatives. Ensure drainage design and C.3 compliance is integrated holistically into the parking site and landscape.




***10. Integrate stormwater systems into site grading.***

## COLOR AND TEXTURE

The plants, rocks, and soils in Midpen's forested preserves make up a color palette of muted, olive, and dark evergreen trees and shrubs. Open grasslands morph from bright green in winter and spring to a tawny golden brown in summer and a dun color in fall. Forests of broadleaf and coniferous trees have fine to medium leaf and needle texture. Rock is typically a mottled grey-brown and can be lichen and moss covered. Soil is variable but is typically clayey. When dry it exhibits a light tone from warm grey to sienna and umber.

All elements of parking area design should harmonize with the colors, textures, and materials found in the environment surrounding the site. In addition:

- Avoid bright primary colors except as required for regulatory signage and striping for ADA parking unless regulatory exemptions are allowed.

- Complement native landscape color and texture by using native materials. When native materials are not available or feasible, use complementary imported materials (aggregate and boulders for instance) which most closely match native materials.

## MATERIALS

Materials selection requires alignment of design character with the site's visual and ecological context. Balancing durability and maintenance considerations in addition to up-front and long-term cost, while a consideration, are not intended to compromise the design goals otherwise set forth in the Design Guidelines. While the appropriate balance of these elements will be determined by the parking area's specific program, the following guidelines should be considered on all sites:

- Identify and consider materials which are sustainable, durable, and environmentally responsive. Consider long-term costs and perform Life Cycle cost analyses (including maintenance and replacement) to determine which materials best suit the project.
- Identify and consider sustainable materials which can stand up to the rigors of Midpen's open space lands environments from salt spray coastal settings to exposed high elevation mountains.
- Use pressure treated wood consistent with Midpen Details and Specification Guidelines[11] and only where necessary to achieve sustainability and maintenance objectives.
- Use wood which can weather naturally, blend into the landscape, and reduce maintenance. Painted wood should be used sparingly.
- Weathering (Corten type) and galvanized steel should be used for metal elements. These materials, though fabricated, present the most authentic and natural of the metals and metal finishes. On or near saltwater shoreline environments, ensure corrosion resistant fasteners and brackets are used.
- If using man-made or machine-fabricated materials, select rusticated or matte finishes to avoid reflection and glare and to best complement the natural setting.
- Uncoated materials allowed to weather naturally are preferred. Where appropriate, durable powder coated surfaces can be considered.

## VEGETATION, SOILS, AND FIRE MANAGEMENT

The vegetation in Midpen's preserves are key elements of their sense of place, as well as their ecological function and health. Parking area design should preserve and protect existing native site vegetation to the extent feasible and restore impacted areas with locally native species. Special consideration should also be given to preserving native soils and minimizing import of off-site soils as they may contain pathogens that could impact native species. The following guidelines should be considered on all sites:

- Avoid impacts to rare species habitat, including potential hydrological impacts.
- Avoid improvements or public uses on existing prime agricultural lands and Unique Farmlands or Farmlands of Statewide Importance as shown on Farmland Mapping and Monitoring Program of the California Resources Agency within the San Mateo Coastside Protection Area, as per the Service Plan (Guideline G.3.2).
- Explore parking layout alternatives that incorporate existing native vegetation.
- Restore disturbed parking area sites with locally native species. No listed invasive species shall be used at any time. Plant material brought in from the outside should be tested to ensure they do not bring pathogens or other detrimental elements into the native habitat.
- Ensure invasive species are removed from the site as part of a comprehensive vegetation management program. Manage invasive species through Midpen's existing Integrated Pest Management Program and pre and post construction mitigation measures.
- All infrastructure should avoid special soils, such as serpentine.
- Balance screening the visual impact of parking areas with the need to ensure public safety through sightlines, defensible space, and fire wise practices.
- Soils shall be limited to on-site soils carefully stockpiled and screened for re-use on-site.
- Avoid the importation of soils (other than engineered fill). If deemed necessary, imported soils shall be procured in a manner to limit the risk of invasive species and pathogens.
- Only certified weed-free straw shall be used. Mulch produced on site may be used.
- Consider tree fall safety when preserving existing trees or planting new trees in areas being restored.
- Integrate standardized and Midpen-adopted Fire Management Strategies and Fire Wise Vegetation Management into the parking area layout, planting, and maintenance program.

# C. ELEMENTS

Design Element guidelines shape decisions at the core of the design process. While these guidelines generally apply to the design of all parking areas, regardless of typology, the specific project program will determine which design elements should be considered. At project initiation, an assessment of the relevant design elements should be performed. This assessment should be revisited at key design milestones to ensure that all relevant guidelines are being considered.

***General Guidelines shape design decisions at every step of the process.***

***General Guidelines apply to the design of all parking areas, regardless of environment.***

## SURFACING

Midpen historically installed simple parking facilities with gravel surfacing and minimal detailing. This understated approach created parking areas with a naturalistic rusticity that is visually complementary to the surrounding landscapes. Increased visitation, cost considerations and maintenance requirements have warranted consideration of a broader range of surfacing alternatives. High-use parking areas and parking areas that are close to the urban/suburban interface, may be appropriately hard paved, while for small and remote parking areas, dirt or gravel surfacing may be appropriate. Surface material selection should take into consideration Midpen's design ethos as well as site and project specific concerns such as visual, environmental, and water quality impacts, sustainability and life-cycle costs, and maintenance expectations. Rather than identifying specific surfacing recommendations, these guidelines outline considerations in the selection of the primary surfacing options.

### GRAVEL

Crushed aggregate (gravel) is the common surfacing material for older Midpen parking areas, which has established Midpen's rustic, naturalistic parking design aesthetic. Gravel should continue to be considered for certain parking areas where this aesthetic is desired and the maintenance demands are accepted as one of the costs. However, gravel creates a significant maintenance burden for staff. Surface drainage, rutting and potholing are the key maintenance issues. Gravel lots require annual pothole repair, as well as re-grading, adding rock, and compacting every 1-3 years. Gravel is not an ADA accessible surface and must be combined with paved ADA stalls and route of travel to accommodate essential ADA access. The color is typically a light cool grey tone but can be specified from different quarries with slight tonal variations.

Gravel is most appropriate for smaller informal access points, as well as for "overflow parking" areas and any areas where future phased parking expansions are planned. As the base course for asphalt and concrete paving, gravel can also serve as an intermediate surfacing for any parking project where either budget or changing parking demands indicate a need for phased construction.

### STABILIZED AGGREGATE

A combination of fine to medium aggregates with an environmentally-friendly stabilizing agent, stabilized aggregate paving systems can receive integral color/tone to blend this surface into diverse landscape settings. It has a high aesthetic appeal and has been used successfully in pedestrian, light service vehicle, and parking situations. Its long-term stability and durability under vehicular traffic would need to be proven prior to specifying for Midpen parking areas.

### CHIP SEAL

Chip sealing is a rustic and slightly lower cost paving alternative to asphalt. It is a transitional paving treatment between gravel and asphalt. It is common in rural areas, and on lower traffic roads, but has been used on highways. Its application process can be varied depending on the subsurface and surface conditions it is being applied to but it typically involves a base layer of gravel, a secondary layer of asphalt, and finally a layer of loose aggregate. This is laid up in lifts and rolled to stabilize.

Advantages of chip seal include its rusticated look, lower cost than typical asphalt, and good traction due to rough surface texture—when swept clear of loose aggregate. It does not need asphalt sealant and the surface can be readily repaired. Disadvantages include a shorter life-span and loose aggregate that can be an issue for road cyclists.

### ASPHALT

Asphalt is the standard for paved open space and trailhead parking areas. It is cost effective, relatively easy to repair, and durable over a longer term than gravel or chip seal. Asphalt is not as durable as concrete.

Though it is initially dark charcoal or black in tone, asphalt weathers to a light grey over time. Asphalt can be colored to give a more natural and neutral color. Asphalt is slightly more informal and forgiving underfoot than concrete.

### CONCRETE

Concrete is a highly durable and long lasting paving alternative. Finished concrete can be perceived as a more urban material. Careful detailing and the use of rustic barriers and wheel-stops can mitigate the urban aesthetic. Concrete's neutral, light grey tone can complement natural settings, with the grey tones varying widely with

the specific mix. In addition to toning down the darkness of concrete with varying quantities of lampblack additive, concrete can be readily colored with additives.

Concrete has several advantages as a pavement. Its durability, longevity and lack of regular maintenance can be a long-term cost savings.

Concrete is, however, more expensive than asphalt, chip seal, or gravel. While maintenance is less than asphalt through its lifespan, when concrete degrades it has to be replaced or carefully resurfaced.

### PERMEABLE PAVEMENTS

Asphalt and concrete are available in permeable installations, offering stormwater and water quality benefits, reducing runoff volumes and trapping sediments in the permeable pavement section. Permeable pavements can also offer aesthetic benefits. Their porous, open graded aggregate, textural surface can be perceived as more natural than traditional pavements.

Permeable pavers can be installed in the full parking area or just sections of a parking area, such as parking stalls. They can also be used to delineate parking stalls by using pavers for the parking space and a strip of concrete between the stalls to act as striping. This approach may have limited application due to cost considerations.

Permeable pavements are more expensive than traditional pavements but this additional cost may be offset by water management benefits. Cost considerations include:

- A more expensive, engineered, aggregate base course and an underdrain system. Underdrain systems may not be feasible in all Midpen locations due to the presence of clay soils or challenges in connecting to bioretention system.
- Regular maintenance requiring specialized equipment to vacuum sediment from the pavement section.

### COLOR AND TEXTURE IN SURFACING

Given the dramatic natural beauty of Midpen's landscapes, it is a challenge to use artificial color and texture to harmonize paved surfaces with the landscape. Colored pavements are more appropriately used in refined, urban settings. Adding color or texture to pavements for aesthetic ends should generally be avoided in natural open space environments. Instead, use materials in their essential colors and textures.

When considering colored pavement there should be a deliberate effort to avoid creating a refined, urban finish. The goal should not be to draw attention to the paving, but instead create an elegant functional pavement and then allow it to fade into the landscape. When considering color pavement additives, it is critical to perform a complete series of alternative color and tone mock-ups on-site and at scale. Mock-ups are critical to determining if colored pavements offer the intended outcome and are consistent with the natural color palette of Midpen's landscape.

As with colored paving, smooth surfaces connote an urban sensibility. Bringing texture to paving is more challenging and expensive than color. Asphalt cannot be readily textured but concrete can to some degree. Concrete can be finished with a roughened surface which both creates an anti-skid effect and a more rustic appearance. If achieving a more rustic texture is a project goal, the only solution (beyond using gravel) may be to consider using permeable paving with its open graded aggregate texture.

In concrete, score and expansion joints can create some minor texture across large surface. In parking areas, jointing can be installed to align with and delineate stalls and drive lanes. Avoid using scoring for decorative purposes.

## STRIPING

Parking stall striping is key to pedestrian safety—delineating areas reserved for cars in order to minimize conflicts between pedestrians and vehicles. While standard approaches to parking stall striping can be perceived as incompatible with the desired design character, striping is essential to efficient and safe parking areas. Standard of practice in California is a four-inch white stripe to delineate parking stalls. This practice creates visual contrast that is readily accessible to, and understood by, people of all abilities and diverse backgrounds. Use of other colors and patterns may be confusing to visitors, creating a potentially unwelcome or exclusive experience. Consider the following guidelines:

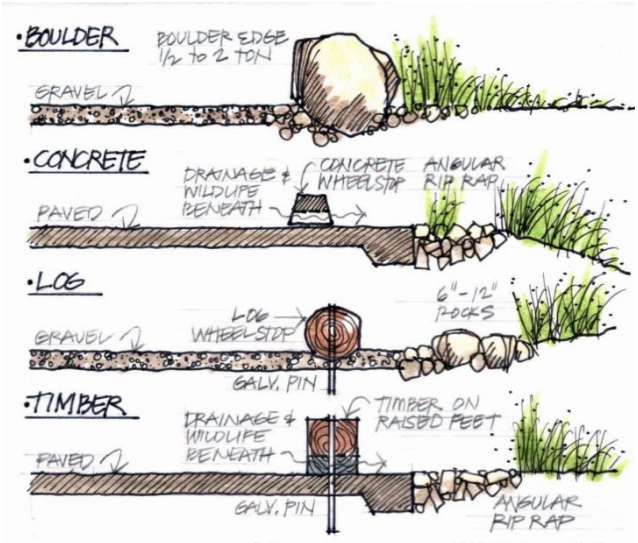
- Striping with standard traffic stripe paint is necessary to comply with uniform industry safety standards
- Use standard white and the code-required blue on ADA aisles/symbols. Avoid using red or bright yellow striping except where required to meet codes and emergency vehicle access requirements.

- Non-standard colored or patterned striping is not recommended. To achieve a more subtle striping effect, consider delaying the typical re-striping schedule and allowing striping to weather naturally.

## SHOULDERS, EDGE RESTRAINTS, WHEEL STOPS

Parking area shoulders have to accommodate and address the structural integrity of pavements, pedestrian, cyclist, and equestrian use, fire safety, and maintenance. Observe the following guidelines:

- Utilize natural treatments and or materials for shoulders and edge restraints.
- Consider wheel stops in materials which complement the natural setting and meet Midpen maintenance needs.
- Wheel stops shall not hinder the movement of amphibians crossing parking areas.

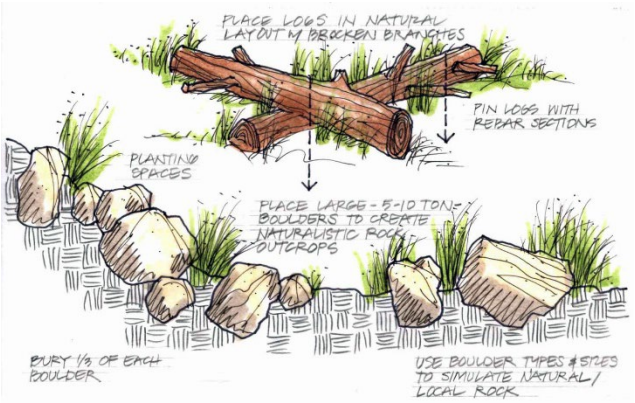



***11. Utilize natural materials and treatments in wheel stops, shoulders and edge restraints.***

## BOULDERS, AGGREGATE, LOGS, TIMBERS

Boulders, aggregate, logs, and timbers shall be locally sourced and chosen to complement existing materials found on the site or in the regional landscape.

- Limit use of aggregate. Where used, aggregate should be locally-sourced and selected to complement tone and texture of native aggregate and boulder stone to the extent feasible.
- Select boulders either from site excavations or carefully vetted off-site locations. Ensure any imported boulders will match or complement the native rock on the site.
- Place boulders on sites which display boulders in the native landscape.
- Placed boulders should be used where appropriate to enhance grading and restoration efforts.

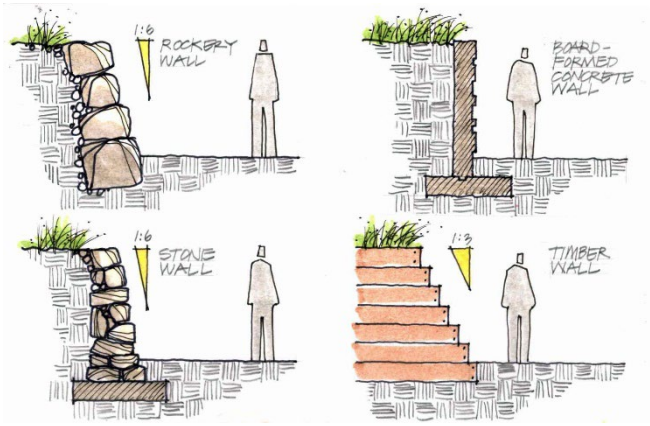



***12. Use locally-sourced materials that complement material found onsite.***

## WALLS AND ROCKERIES

When topography and grading necessitate use of retaining walls, ensure that these features harmonize with the landscape context.

- Use natural materials and concrete.
- When using concrete provide an authentic board-formed or raw-formed concrete without sack finishing. Avoid faux finishes and coloration of concrete walls.
- Do not use segmental concrete block walls or concrete masonry unit walls.
- Stone walls can be rusticated informal dry stacked walls or outcroppings or fitted (mortared or dry stacked) stone walls or mortared veneer over concrete masonry units.




***13. Design retaining walls to complement the landscape context.***

- Rockeries and rock outcroppings should be used deliberately and artistically to harmonize with indigenous stone outcrops.
- Timber and log retaining should be considered where congruous with the site environment.

## RESTROOMS

Parking area restrooms should be coordinated with Midpen staff to ensure compliance with standards. Where appropriate, shelters and buildings should be coordinated with restrooms to ensure all built elements are of the same or complementary architectural style, material, and color. Observe the following guidelines:

- Ensure that restrooms are functional and subservient to the landscape and are not architectural features.
- Use of stock or custom restroom units depends on site character and project programming.
- Locate restrooms for universal accessibility, user safety and observation (defensible space), legibility, and maintenance operations and access.
- Consider prevailing winds and downwind drift of vault toilet fumes. Use passively venting vault systems. Avoid active fan systems unless required.
- Do not place vault restrooms in or immediately adjacent to trailhead gathering areas where toilet odors will impact visitor experience. Provide sense of separation for restrooms, while ensuring user safety through visibility and accessibility.
- In sensitive landscape settings, consider cladding restrooms or creating custom board-form finishes, textures, on precast concrete buildings to integrate the buildings into landscape.

- Use natural concrete color or colored concrete complementary to the surrounding landscape context. Finish all surfaces with graffiti-resistant sealants or assume Midpen shall paint out graffiti with standard paint color.

## FURNISHINGS

Midpen's parking areas are typically designed with modest visitor amenities. Where the program calls for elements such as bike parking, trash/recycling receptacles, dog waste stations, and drinking water, the following guidelines should be considered:

- Provide furnishings at parking areas that are appropriate to the use and access of the site.
- Ensure furnishings complement the natural surroundings of the site. In remote, rustic settings provide rustic seating of locally sourced cut logs or boulders. For more developed settings consider providing Midpen standard benches.
- Utilize stout, bold furniture elements which can stand the test of time, weather, and heavy public use with a minimum of maintenance. Avoid improper use of composite woods in furnishings.
- Use natural wood, galvanized and weathered steel, concrete, and stone for furnishings.
- Avoid painting furnishings—provide furnishings in natural finishes that are allowed to weather to a rustic patina. Where an applied finished is appropriate, use a durable powder-coated finish.
- Ensure furnishings meet the essential functional needs in an elegant and thoughtful design and layout. Avoid specifying furnishings or creating furnishing layouts which draw undue attention from the landscape.
- Include wheelchair companion seating areas per ADA at all benches and seating features.
- Provide bike brushes at trailheads and parking areas and encourage users to brush off bikes before and after their rides to discourage the transmission of invasive weedy species to Preserve landscapes.
- Bike racks should match the current Midpen standard.

## BICYCLE PARKING

Bicycle parking should be considered in all preserves and designed to accommodate current levels of visitation while considering potential future expansion. Refer to the multimodal access plan, if available, to understand whether visitors are arriving at the trailhead on bicycles or arriving by car and unloading to ride out onto the trails. The provision of bicycle parking should observe the following guidelines:

- Consider designing for an initially modest level of bike parking and expand facilities if the level of use is not accommodated by the initial bike parking installation.
- Integrate bike parking into the overall site layout. Ensure cyclists have a safe, functional, and legible route from the local access road to the bike parking. Limit conflicts with other users, including hikers, equestrians, and ADA users.
- Bike parking should be located in high visibility areas that visitors and Midpen staff can surveil from patrol vehicles.
- Locate bike parking near restrooms to allow cyclists to secure bikes while using the facility.

## EQUESTRIAN AMENITIES

Equestrian amenities should be considered where there is designated equestrian parking or equestrian use is common. Where amenities are to be provided, consider the following:

- Hitching post or rails should follow standard practice for equestrian staging areas. Ensure proper separation between hitching areas to avoid conflicts between equestrians and their horses.
- Mounting steps should follow standard practice for height and should be a material complementary the specific site context and conditions.
- Potable water or spigot to provide potable water may be provided without trough. Troughs are less desirable due to the difficulty of maintaining clean water.
- Reliable untreated spring water sources may be used if no potable water source is available, but they should be signed 'non-potable'.
- Provide legible, functional, and safe trail access and circulation for equestrians which limits conflicts with hikers, dogs, and cyclists.

## FENCING, GATES, SCREENS, BARRIERS,

Fencing, gates, screens, and barriers should be used sparingly and strategically to achieve functional objectives not aesthetics. Where required, they should complement the landscape setting. They should be visually subservient to the landscape except in Agricultural or Cultural landscape typologies where fencing is integral to the purpose and setting.

- Provide fencing elements only when required to restrict vehicular or pedestrian traffic or for livestock or equestrian exclusion.
- Fencing elements shall consist of natural woods and metal.
- All should incorporate wildlife friendly practices and allow for movement of wildlife.

- Coordinate fencing with adjacent land-uses and owners especially where livestock are present.
- Use fencing or low restoration barriers (low post and cable) to protect new restoration areas and to guide pedestrian and cyclist circulation.
- Use boulders, monolithic timber bollards, and wood post and rail barriers to restrict vehicular, pedestrian, cyclist, and equestrian access.
- Provide appropriate deer fencing to support establishment of new plantings.
- Provide entry gates (steel, manual or automated as required) at all parking facilities.

## SIGNAGE

Follow Midpen's comprehensive signage program for staging/parking and trailhead areas while addressing the particular signage needs of the individual site. Midpen's signage program includes a Sign Manual12 and a Sign Committee overseeing signage implementation. The Sign Committee is comprised of field representatives from the Skyline and Foothills field offices; staff from Public Affairs, Visitor Services' Interpretation and Education Programs, GIS; and the Sign Coordinators (from Planning). Consider the following guidelines:

- Use a minimalist approach to signage to avoid creating visual clutter that distracts from the essential character of the landscape.
- Sign frames should be considered in both metal and wood, as appropriate to complement the specific site context and conditions, in alignment with the guidance provided in the Materials guidelines.

## PARKING TECHNOLOGY

Electric vehicle parking and transportation demand management (TDM) technology are evolving design elements in Midpen's parking area projects. For example, some Midpen preserves are located in Counties that require EV charging stations. Parking technology has also been identified in the Midpen Climate Action Plan as strategies for promoting green modes of transportation. Midpen will need to develop and regularly refined relevant guidelines as the technology advances and its use within the preserves is defined. Maintaining a harmonious design character is the key challenge when integrating technology developed for urban settings into the natural environment of Midpen's preserves. Minimizing visual and spatial impacts will be key.

Initial considerations include:

- Selecting compact equipment.
- Utilizing neutral colors that are compatible with the site's context. In shady sites, black or grey equipment structure may be appropriate, while tans and browns may be more appropriate in open grasslands.

- Locating public facing equipment out of scenic views and away from entry sightlines. Screen supporting equipment and installations from view.
- Where local jurisdictions may require EV parking stations, consider accommodations for locating future charging station installations, including sufficient available power or ability to provide power at a later date.
- Consider infrastructure, site layout, and other accommodations that support parking demand management solutions and/or green modes of transportation where and when appropriate.

## LITERATURE CITED


1. Basic Policy
2. Resource Management Policies
3. Agriculture Policies
4. 2014 Vision Plan
5. Measure AA Priorities
6. Service Plan for the San Mateo Coastside Protection Area
7. Open Space Use and Management Planning Process Policy
8. Improvements on District Lands Policy
9. Good Neighbor Policy
10. Trail Use Guidelines
11. Details and Specifications Guidelines (Midpen internal document, available upon request)
12. Sign Manual (Midpen internal document, available upon request)

# Midpeninsula Regional Open Space District | Design Consistency Checklist

## Design Guidelines Consistency

| Element | Description | Consistent? | Discussion (As Needed) |
|---|---|---|---|
| **Values** | | | |
| **Respect the Natural Landscape and Cultural Setting** | Avoid or limit ecological and biological impacts by focusing on opportunities to utilize principles and methods of land preservation, restoration, and the appreciation of natural and/or rural landscapes while working with the requirements that vehicle-based public access present. Utilize aesthetically appropriate design elements to reflect and complement the surrounding environment. | Yes | Situating the parking area to limit earthwork was another driving factor in the design of the parking area to minimize ecological and aesthetic impacts. |
| **Establish a Transition Zone** | Place and design parking areas that harmonize with the natural surroundings. Parking areas serve as transitional spaces into the natural environment. Minimize the visual and aesthetic/sensory impacts of parking areas on the land. Design parking areas and trailheads to be visual gateways to the open space preserve that help transition visitors into the natural/rural environment. | Yes | The adjacency of the site to highway 35 minimizes the parking area's reach into the preserve, thereby avoiding fragmentation of landscape within the preserve. The site is a gradient, from forest to scattered woodland to a grassy clearing. The trailhead is then a gateway for visitors back into the forest. There is a large existing douglas fir tree framing trail, indicative of the parking area's location within a mixed conifer redwood forest. |
| **Exhibit a Sense of Place** | Express a consistent District design ethos across all preserves while highlighting local, environmental, and cultural context and the natural/rural aesthetic character of the preserve and setting. Parking area and trailhead design serves to provide visitors with a visual/experiential understanding of Midpen's values and mission. Seek opportunities to celebrate the unique attributes of the preserve. | Yes | The site is located along a scenic highway and the view of parking area from highway is in keeping with that aesthetic as much of the parking is screened by trees. Additional screening of the parking area is topographical, as the parking area terraced is downslope of the highway. Both proposed Purisima parking areas have the approach of utilizing terracing to minimize visual impact of the development. Gradient, celebrating different plant communities and landscape types within the parking area. Amplifying the glade-like character of this existing clearing in the middle of the forest as a place for refuge and light. Stone outcroppings within the footprint of the area to be developed will be removed and reused onsite. There will be usage and interpretation of a rare manzanita endemic to the site. |
| **Address Sustainable Practices** | Design using environmentally sustainable materials, colors, textures and construction practices that reflect and are compatible with the natural setting. Consider financial and staff resource impacts in design choices. Consider durable, low-maintenance design elements to minimize long-term maintenance requirements that complement the Design Guidelines' Values, Approach and Elements statements. | Yes | Material selections take into account financial and staff resources in addition to aesthetic considerations. A mix of carefully chosen materials provide some variety in terms of texture and color so as not to have a monotonous expanse. These materials vary in color and texture but in a way that is cohesive and naturalistic/rural in character. |