



CITY OPEN SPACE

GUIDELINES

CITY OF RANCHO CORDOVA

ADOPTED
NOVEMBER 18, 2013



1 . INTRODUCTION AND OVERVIEW

The City of Rancho Cordova is committed to creating a vibrant and diverse community for residents and visitors alike. Residents have consistently rated open space, parks, and trails, among the most important amenities within the community and these Open Space Guidelines will ensure the development of open space amenities within Rancho Cordova.

Given the demand for new homes regionally, and trends toward more affordable homes, the City will likely develop in a form that is more dense than historic regional suburban patterns. While this provides a variety of environmental and social benefits, the higher density urban form creates a greater demand and need for park and open space amenities as private backyards begin to transition to more shared community spaces. Rancho Cordova envisions a linked open space system comprised of parks, natural areas and trail systems that will provide a pattern of continuous interconnected open space that is closely intertwined with urban uses at multiple points.

The City of Rancho Cordova recognizes the burden that park and open space requirements can place upon a given development project. In addition to the City's Open Space standard described herein, a new development would be required to provide traditional park facilities and possibly be required to set aside additional lands for mitigation or preserve purposes. Acknowledging that this obligation is not small, the City Open Space Guidelines integrate with other facility requirements (parks, drainage, environmental preserves, etc.) to maximize community benefits and minimize additional costs to developers. These Guidelines promote meaningful green spaces within a project in order to connect to an overall circulation system of pedestrian amenities. It is anticipated that by creating a cohesive Open Space Plan for all development projects that the quality of life for future residents will be increased, which in turn, effectively raises the value of properties within the City.

2. FOCUS AND APPROACH OF THE CITY OPEN SPACE GUIDELINES

This document establishes the framework for a comprehensive open space network with specific details for City open space amenities. The overall network of open lands of Rancho Cordova can be divided into three general categories: 1) City Open Space (Community Places and Green Infrastructure); 2) Protected Areas and Mitigation Lands; and 3) Parks and Recreation.

City Open Space

City Open Space refers to lands other than traditional parklands that are developed and improved (versus left primarily in a natural state), are accessible to the public and are maintained by the City. These lands include "**Community Places**", such as neighborhood greens, community gardens, public plazas, etc., and "**Green Infrastructure**" such as trail systems, detention basin facilities, greenstreets, etc. as described further in these Guidelines. City Open Space lands are the sole subject of these Design Guidelines.

Protected Areas and Mitigation Lands

Protected areas and mitigation lands are properties set aside specifically for the preservation of plant life and/or wildlife and associated habitats, such as wetlands and vernal pool preserves. For the purposes of these Guidelines, protected areas and mitigation lands are not considered City Open Space, as described above, as they are not developed, accessible to the public or maintained by the City. However, the City will typically seek the siting of publicly accessible trails outside of and along the edges of such preserves.

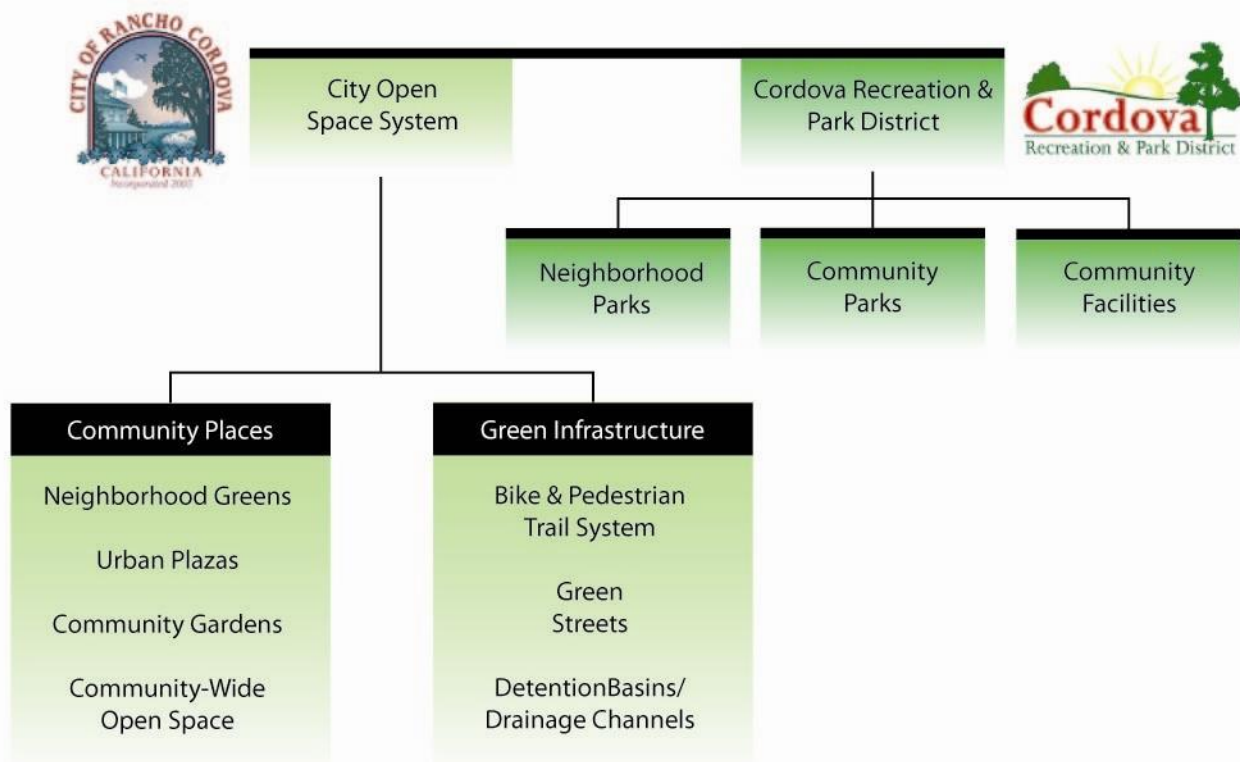
CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

Parks and Recreation

Traditional park and recreation land is an important community resource that serves the recreational needs of community residents. Parks and recreation facilities vary and include neighborhood and community parks and may include special recreation facilities such as an aquatic center and sports field and are maintained by Cordova Recreation and Park District. For the purpose of these Guidelines, traditional park and recreation lands are not considered City Open Space as they are programmed and maintained by Cordova Recreation and Park District.

These Open Space Guidelines do not define park requirements. However, the open space system will provide connections between parks and will enhance the traditional park system within the City. While all open space and park lands within Rancho Cordova serve important functions, these Guidelines specifically address City Open Space, and do not address Natural Areas and Mitigation Lands nor Parks and Recreation.

City of Rancho Cordova Parks and Open Space Components



3. VISION, GOALS, POLICIES AND GUIDING PRINCIPALS

VISION

The VISION for the City of Rancho Cordova Open Space Design Guidelines is to provide a framework for the design of open space, with a focus on how open space facilities and amenities should be provided in newly developing and re-developing portions of the community. These Guidelines address how Community Places and Green Infrastructure will be incorporated within community and neighborhood design to create livable, functional, sustainable and aesthetic communities that stand the test of time.

GOAL 1

Create a variety of human-scaled Community Places for residents and visitors to Rancho Cordova to meet, socialize, recreate and enjoy nature in convenient and accessible locations throughout communities.

GOAL 2

Provide an inviting and attractive Circulation System for pedestrians and bicyclists that is designed to promote linkages for residents to neighborhoods and destinations within communities and throughout the City.

GOAL 3

Design open space features in a way that provides maximum benefits to residents but is also sensitive to costs and efficiencies for the provision of lands, improvements and on-going maintenance of open space features and related community infrastructure.

4. CITY OPEN SPACE COMPONENTS DEFINED

City Open Space is comprised of two distinct categories called **Community Places** and **Green Infrastructure**. A notable distinction between these two types of City Open Space is that a specific number of acres of Community Places are required for a given population to meet a “measurable standard”; while Green Infrastructure is required to meet a “functional standard” such as enhancing pedestrian/bicycle and neighborhood connectivity, or enhancing drainage basin design to promote recreational and aesthetic features in the community.

4.1 Community Places

com mu ni ty [kuh-myoo-ni-tee]—noun

1. a social group of any size whose members reside in a specific locality, share government, and often have a common cultural and/or historical heritage.

place [pleys]—noun

1. a specific region or area.
2. an open space, or square, as in a city or town

Community Places are defined as “the places where people or groups will meet and gather.” These Guidelines specifically address places that are developed (or improved) and are accessible to the public but are not traditional active recreational park lands.

Community Places function as attractive “destinations” within a neighborhood or community that provide spaces for people to gather and socialize or relax and commune with nature. Community Places are typically located separate from active park lands and differ from traditional parks in that they serve a smaller, local population and provide flexible space for un-programmed activities. Locations for Community Places may vary; among many possible locations they could be located at the center of a residential neighborhood, at the edge of a natural area, or within a commercial area. Community Places are intended to stimulate synergy and cohesiveness within a neighborhood or area and to create opportunities for people to gather and recreate.

Below are some suggested types of land uses that, depending on design and amenities, may meet the Policy, Goal and Vision requirements set forth above for Community Places; other options may exist and should be considered on a project-by-project basis.

- Neighborhood Greens
- Urban Plazas / Town Greens
- Community Gardens / Rose Gardens / Display Gardens
- Water Resources / Streams / Ponds / Lakes
- Designated Places within Pedestrian Paseos
- Private Recreation Facilities (considered on a case-by-case basis)
- Community-Wide Open Space Facilities / Outdoor Amphitheatres

4.2 Green Infrastructure

green [green]—adjective

1. *environmentally sound or beneficial.*

in fra struc ture [in-fruh-struhk-cher]—noun

1. *the basic, underlying framework or features of a system or organization.*

2. *the fundamental facilities and systems serving a country, city, or area, and transportation and communication systems, water, sewer and drainage facilities, power plants, schools, etc..*

Green Infrastructure is defined as the underlying functional features of an organized community; herein specifically addressing methods of improving pedestrian/bicycle mobility and neighborhood connectivity, enhancing multi-function drainage facilities and utility easements, and designing pedestrian-friendly streetsystems.

Green Infrastructure refers to methods by which a “functional” feature of a neighborhood or community, such as regional and local trail systems, is enhanced to make the feature more aesthetically pleasing and therefore a more attractive circulation choice for use by pedestrians and bicyclists. Green Infrastructure also refers to the creation of “Green Streets” which are streets with enhanced pedestrian amenities such as wider sidewalks, angled parking, curb-side landscape strips and median refuge areas that increase pedestrian safety and therefore increase use by pedestrians.

Below are some suggested types of features that, depending on design and amenities, may contribute to meeting the Policy, Goals and Vision requirements set forth for Green Infrastructure; other options may exist and should be considered on a project-by-project basis.

- Pedestrian & Bike Trail System
- Trail Nodes and Trailheads
- Pedestrian Paseos (mid-block cut-thru streets or between-building enhanced passageways)
- Utility Easements (with trail in a naturalized setting)
- Green Streets (pedestrian-amenitized collector streets w/ traffic calming)
- Enhanced Local Residential Streets (with landscaped parkways & separated sidewalks)
- Enhanced detention basins / water quality features / drainage ways (with landform grading, naturalized vegetation, trail, etc.)

5. IMPLEMENTATION OF OPEN SPACE GUIDELINES

These Guidelines will be implemented primarily through the review of applications for development proposals. Compliance with these Guidelines will **typically** be addressed at the initial entitlement stage of Specific Plan review. The City will also consult these Guidelines as it undertakes the design of public improvements that interface with open space such as drainage infrastructure, City-sponsored transportation projects, and local and regional trail projects.

5.1 Standard of Compliance

As noted above, the City open space system is comprised of two basic categories of features: Community Places and Green Infrastructure. In processing development proposals, the City shall review the project's Open Space Plan and apply the following standard of review:

Community Places:

- Total acreage of lands qualifying as Community Places shall equal one (1) acre of land per 1,000 residents; and
- Of land required as Community Places, at least one-half shall be provided as small, stand-alone public spaces (Neighborhood Greens or Urban Plazas/Town Greens); and
- Land constituting Community Places shall be improved generally consistent with standards provided herein, accepting that unique conditions within projects may dictate alternative design solutions.

Green Infrastructure:

- Green Infrastructure lands shall include a public access component and typically shall contribute to non-vehicular circulation within the proposed project; and
- No specific amount of land is required to meet the Green Infrastructure requirements; and
- Specific project features shall be designed generally consistent with standards herein, accepting that unique project circumstance may dictate alternative design solutions.

5.2 Applying Standard of Compliance to a Project

As described in detail throughout these guidelines, City Open Space is intended to provide a cohesive recreation and circulation system throughout a project's development foot print. City Open Space is intended to be the connecting tissue for the community, offering both places to meet and recreate, as well as routes to move comfortably on foot or bicycle. It is intended to capture the spaces in between parks, residential lots, and restricted mitigation lands, creating a cohesive development that will be highly valued by future residents. It is not intended to be an excessive burden, but neither is it intended to be a collection of remainder sites that are unsuitable for development. Following these guidelines ensures that project features will be designed together to achieve the desired trails, parks, and other circulation within a given project.

5.3 Open Space Planning at the Master Plan Level

Within the review of development projects, the City will require a discussion of how the project complies with these guidelines, including a comprehensive map, diagram, narrative, or combination thereof. Within the Master Plan/Specific Plan review process, the project documents should identify, to the extent feasible, the following items:

- Identification of lands that are to be dedicated to comply with the City's Open Space Guidelines.
- General descriptions of the amenities to be provided within City Open Space.
- Conceptual improvements that will enhance Green Infrastructure within the project.
- As part of a project finance plan or similar document, identify conceptual funding strategies for the improvement and maintenance of City Open Space.
- Typical development standards for City Open Space, such as open space corridor widths, improved trail widths.
- A table demonstrating how the project conforms with park and open space land obligations.

5.4 Open Space Design at the Project Level

The City recognizes that certain aspects and design of Open Space amenities will not occur until specific road alignments and lot patterns are established – typically occurring at the tentative map level. Whether processed concurrently with a master plan document (specific plan) or as a subsequent review/entitlement, the City will require submittal and approval of concepts for open space amenities within the review of project tentative maps. Within the tentative map review process, the Open Space Plan shall identify, at a minimum, the following items:

- Specific locations for all lands that contribute to compliance with the City Open Space Guidelines.
- Identification of amenities included in required Community Open Space.
- Specific funding mechanism(s) through which open space improvements will be constructed.
- Identification of responsible parties for maintenance and operation of City Open Space.
- Conceptual site plan(s) for City Open Space, including conceptual landscape plan(s), preliminary plant list(s) and general irrigation approaches.
- A table demonstrating how the project conforms with park and open space land obligations.

5.5 City Open Space Design Principles

The following guidelines and specific design elements define a distinct character for the City's Open Spaces. The intent of these guidelines is to provide direction when the City reviews development applications or seeks to construct City sponsored facilities. These guidelines should be reviewed in conjunction with Rancho Cordova's General Plan, Design Guidelines, Pedestrian and Bicycle Master Plans, and any specific plans and/or other governing documents associated with the project.

In addition to the more detailed guidance for Community Places and Green Infrastructure that follow, there are various Guiding Principles that apply across all types of open space.

- Maximize the visual and functional benefits of City Open Space by locating elements close to homes, centers, parks, and other developments.

CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

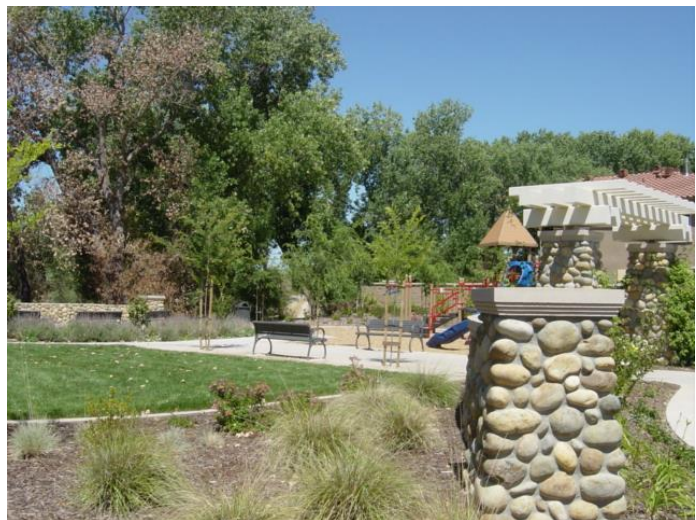
- Accommodate both the physically fit and individuals with less mobility (seniors, young families, etc.). Walking routes and placement of amenities must consider and provide for the needs of users with disabilities.
- Quick and easy access to City Open Space should occur within 0.2 -0.4 miles of most or all homes within a proposed project.
- Paving materials, landscapes and amenities should vary with settings, with higher levels of finish and amenities in urban settings and lower levels of amenities and more drought tolerant landscapes in naturalized areas.
- City Open Space should incorporate unified site amenities such as street furniture, lighting, signage and way-finding elements, drinking fountains, picnic tables, trash receptacles and bicycle racks.
- Use of native plants or plant species that are drought tolerant and provide habitat suitable for native species should be given priority and utilized where appropriate. Plant materials should be grouped according to light and water requirements. Plant material should include trees, turf, shrubs and/or groundcover as appropriate for the area and the design of the open space.
- Automatic irrigation systems should be utilized and meet the City of Rancho Cordova's specifications. Irrigation backflow preventers, valve boxes, and utility boxes should be located in screened areas away from open turf.
- Retain existing significant trees and/or features wherever possible.
- Electrical and water service should be provided for efficient maintenance as needed.
- City standard curb & gutter should be utilized and detached sidewalks should be utilized for larger open spaces. Vehicular access barriers should be utilized where necessary.
- Promote safety and security by providing adequate lighting and allowing visual and physical connection between the open space and adjacent land uses.
- Placement should be designed to address linkages between higher densities, destinations and features.

6. COMMUNITY PLACES DESIGN GUIDELINES

Community Places will be provided in a variety of types and scales, ranging in size from the local Neighborhood Green up to Community-Wide Open Space. This diversity in size and programming of Community Places is intended to provide broad benefits and recreational opportunities to the entire community, regardless of age, family circumstances or personal interests. The following design guidance will be used to evaluate development projects. Consistency with these guidelines must be achieved in order for the Community Place to be attributed to the project's minimum open space requirements. Should another type of Community Place be included in a project, an equivalent level of design standard is expected and will be determined on a project-by-project basis.

6.1 Neighborhood Greens

The most commonly-occurring type of Community Place is a Neighborhood Green. Neighborhood Greens are small-scale urban and suburban open spaces. They generally serve as places to meet, gather, socialize, commune with nature or otherwise participate in passive recreation activities. Neighborhood Greens provide a restful place to relax and unwind or to walk and talk. These areas offer seating opportunities and could have a small children's play area.



Neighborhood Greens are typically small developed and landscaped areas generally within residential neighborhoods in new development areas. They may be comprised of various features and should vary determined on the project and community opportunities. Neighborhood Greens provide publicly accessible landscaped spaces in an urban or suburban setting, outside of traditional, programmed park lands. In some areas they may be located and designed to serve dual uses, such as a node or gateway plaza, where a space is designed to facilitate direct access for neighbors from one area or neighborhood to another but also allows space for people to linger and mingle. These areas provide close destinations for neighbors to meet and socialize. Neighborhood Greens may also serve as access points to a commercial area, greenway or trail network.

Design Guidelines

- Location of Open Space should be coordinated with traditional parks within the community master planning process to enhance local service areas to families within close proximity.
- Neighborhood Greens vary in size and typically range from one-half to 2 acres in size.
- Locations should consider users within a four-block radius so residents can walk to Neighborhood Greens without crossing a major street.
- Walkable locations away from parks are preferred to provide varied open spaces for under-served neighborhoods.
- Create a sense of entry for the Neighborhood Green through the use of trees, entry features, special paving materials and the mass of adjacent building elements near the

CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

open space. Varied surface materials are encouraged and hard-surfaced areas should be provided next to play lots or as widened portions of pathways.

- Distinguish areas by a special design feature, for example a tree variety, amenity, etc., to give area a special character.
- Provide interior trail loops to connect pedestrian & bike routes within the Neighborhood Greens that connect to the surrounding neighborhood.
- Multi-purpose tables and shade structures may be incorporated for larger Neighborhood Greens.

6.2 Urban Plazas / Town Greens

Urban Plazas/Town Greens are a type of Community Place that provides for congregation, socializing and community events/activities. It is anticipated that Village Centers and Town Centers will incorporate plazas and outdoor café seating, within both retail oriented and office commercial uses. In cases where a development project provides an expanded public gathering space and either dedicates land to the City or enters into agreements allowing public use (City supported events), the City will consider appropriate credit against the developer's Community Places obligation.

It is anticipated that urban plazas that are designated as City Open Space will integrate seamlessly with surrounding development – it should not be obvious where private property meets public space. The specific amenities included within Urban Plazas/Town Greens will be determined on a site-by-site basis by the developer and the City. Typical amenities will likely include outdoor seating, trash receptacles and bicycle parking. Additionally, it is expected that urban plazas and town greens will include features of interest, such as fountains, art work, engaging landscaping or other unique structures/treatments. Urban Plazas typically incorporate mainly hardscape areas with some, formal landscaping in planter boxes or other structured areas. Comparatively, a Town Green would typically incorporate more green areas such as a lawns or other extensive landscaping with some limited hardscape, resulting in a softer feel.

Design Guidelines



an interesting setting.

- Provide convenient and pleasant street, pedestrian and bicycle connections through greenstreets, paseos and other innovative circulation facilities to neighboring uses.
- Central location – Urban plazas should be mini town centers that compliment surrounding uses as both a draw for visitors and as a place to relax and socialize.

- Integrate plazas within surrounding urban uses to compliment and support surrounding commercial development.
- Provide a setting for events sponsored by the City or community organizations.
- Provide a level of quality in improvements that will be both inviting and will hold up over time.
- Be predominantly hardscape, with features that will create

6.3 Community Gardens / Rose Gardens / Display Gardens

Community Gardens/Rose Gardens/Display Gardens may include a variety of activities, including gardening beds for residents, rose gardens and display gardens/arboretums. Community Gardens may be considered Community Places where the garden meets certain minimum levels of function and improvements. In order for a community garden to be considered as satisfying Community Places obligations, the garden must include physical improvements planters, irrigation systems, seating and perimeter landscaping. It is generally appropriate for Community Gardens to include a gathering place that supports group meetings to discuss gardening activities, programs and practices. The scale of Community Gardens will be determined within individual project reviews, with the intent that the combination of project Open Space features will serve a broad range of community activities.

Design Guidelines

- Provide a highly functional facility that supports individual gardeners on relatively small garden plots. Automatic irrigation systems, spaces to conduct garden maintenance and other key gardening needs should be addressed.
- Uses within a Community Garden should be scaled to meet functional needs, with successful examples within the region to provide guidance on design and programming.
- Create an attractive and inviting facility through the inclusion of raised planters, seating areas, meeting and gathering sites, and well-designed gates/entries.
- Provide convenient and pleasant street, pedestrian and bicycle connections from adjacent areas. Locations for community-wide open space sites must be carefully considered to maximize community benefits and minimize impacts on adjacent land.
- Key factors in siting Community Gardens include:
 - Visibility – Community Gardens should be open and visible from within neighborhoods, but do not necessarily require a high level of community visibility.
 - Access – Typically, Community Gardens will have somewhat limited access from key locations and will be surrounded by low fences, with clearly delineated gates/entries.



6.4 Water Resources / Streams / Ponds / Lakes

Water resources such as streams, ponds, and lakes may incorporate valuable open space amenities, contributing to a project's overall open space strategy. However, only a portion of a Water Resource would contribute to a project's Community Place requirement. In looking to satisfy this requirement with a Water Resource amenity, a developer would need to incorporate a meaningful, useable space adjacent to the Water Resource such as a designated lakeside picnic area or designated viewing deck on a stream bank. Only the land area associated with a designated recreation area (including landscaped areas surrounding amenities) would

CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

contribute to a project's Community Place requirement. These areas would be furnished with appropriate seating and possibly tables, bike racks, or other amenities appropriate to the location. These areas would be incorporated into the project's overall pedestrian circulation system and would therefore, be easily accessible for pedestrians of all types and bicyclists.

Design Guidelines

- Provide a useable area near a Water Resource that provides gathering and viewing spots for residents.
- Such areas shall include seating, tables, and other amenities as appropriate to encourage users to gather near the Water Resource
- No such area shall be designed to detract from the viewshed created by the Water Resource.
- Water Resources set aside for preservation or mitigation requirements should remain as natural as possible.
- Any designated Community Place associated with a Water Resource shall be designed with respect to the mitigation or preservation requirements of the respective agreements regulating the resource.

6.5 Designated Place within Pedestrian Paseos

A Designated Place within Pedestrian Paseos is a type of Community Place that provides for congregation, resting, picnicking, or other static activity within the Paseo system itself. A



Designated Place would be located appropriately within the trails system, easily accessible to pedestrians and other users within the trail system, and identifiable as a specific place to meet up or picnic during an outing. It is a destination or enclave within a paseo. Designated Places would likely require additional land area beyond the width of the paseo itself and be furnished with picnic tables, benches, or other amenities to encourage planned or impromptu gatherings within the paseo segment. Paseos that do

not include a Designated Place as described in this section still provide a valuable contribution to a project's Green Infrastructure requirement and are regulated in Section 7 of these guidelines.

Design Guidelines

- A Designated Place within a Pedestrian Paseo shall be of adequate size, beyond the paseo corridor itself, to create a unique, distinguishable stopping place.
- Provide seating, tables, and other amenities to allow the Designated Place to be recognized as a marker for consistent users of the paseo corridor.
- Incorporate unique landscaping or signage to further distinguish the Place.

6.6 Private Recreation Facilities

Private Home Owners Association (HOA) owned and operated recreation facilities may also be considered Community Places and count toward the measurable standard for Community Places as part of a larger Open Space plan. While Private HOA Facilities may be considered for Open Space credit, it is not the intent of these Guidelines to satisfy the Community Places acreage allocation solely through privately owned facilities. Private HOA Facilities will be considered on a case-by-case basis as a part of the overall Open Space Plan for a given project.

Private HOA Facilities may include, but are not limited to, HOA clubhouses and other facilities that provide meeting rooms, gyms, pools, picnic facilities and recreation grounds. These facilities provide benefits to residents similar to other parks and recreation facilities and in some cases provide facilities such as kitchen and dining facilities for neighborhood functions. These facilities serve as activity centers for neighborhoods and create places for people to gather and socialize, becoming the social and recreational nucleus for a single neighborhood or for multiple adjoining neighborhoods.

6.7 Community-Wide Open Space Facilities / Outdoor Amphitheaters

Community-Wide Open Space provides sites for large facilities that typically serve residents of more than one development project. These amenities or facilities will enable interaction on a large scale and will serve as major gathering places for the residents of Rancho Cordova. Community-wide Open Space facilities will vary and will be considered on a case-by-case basis. In some cases, Community-Wide Open Space from multiple projects may be consolidated into a single project to provide a location for a large community facility.



The shape, size and location of land dedicated to Community-Wide Open Space will be decided during the review of a development application (typically at Specific Plan level) and the configuration and size of a Community-Wide site will vary based on the purpose and function of the facility. Uses that would fall into the category of Community-Wide Open Space would include large outdoor amphitheaters, private (non-CRPD) sports complexes or other significant community gathering places. Due to the scale of these facilities, not all development projects will include community-wide open space facilities; therefore, the City will consider in-lieu contributions or transfer of this obligation between projects to meet this obligation as determined appropriate by the City. A long-term maintenance strategy will be required that

CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

includes identifying adequate funding mechanisms, outlining developer improvement requirements and responsibilities and timing for basic improvements.

Design Guidelines

- Design should encourage people to gather and socialize and should include diverse landscaping to provide a comfortable and safe setting.
- Provide convenient and pleasant street, pedestrian and bicycle connections from adjacent areas. Locations for community-wide open space sites must be carefully considered to maximize community benefits and minimize impacts on adjacent land.
- Key factors in siting Community-wide Facilities include:
 - Visibility - Generally sites should be prominent and highly visible within the community.
 - Access - When siting facilities that accommodate major events, easy access from major roadways is typically required.
 - Compatibility - When Communitywide facilities are anticipated to generate high noise levels or night glare, the site design and location should minimize or avoid negative impacts on sensitive land uses.

7. GREEN INFRASTRUCTURE DESIGN GUIDELINES

Guidelines for Green Infrastructure define an open space system focused primarily on pedestrian and bicycle mobility with streets, open space corridors and enhanced drainage features that are attractive assets to the community. These Guidelines supplement the City of Rancho Cordova General Plan, Design Guidelines and Pedestrian and Bicycle Master Plans. These spaces serve as linking networks between regional facilities and neighborhood activity centers. Additionally, the Green Infrastructure open space guidelines define how conventional public facilities should be enhanced to provide recreational and aesthetic community benefits. Specific components of the Green Infrastructure circulation system include trails and greenways, trailheads and nodes, paseos, greenstreets, detention and retention basins, and utility corridors.

The character and design of Green Infrastructure will be influenced by the surrounding land uses and landscapes of the local context. For example, green infrastructure adjacent to habitat preserves and/or natural areas will have naturalized, drought tolerant plantings and be designed for low-maintenance.

The City requires that Green Infrastructure components be included in all new projects and that these components meet functional and aesthetic design expectations, but does not require a specific amount of Green Infrastructure land per 1,000 residents.

7.1 Trails and Greenways

Trails and associated greenways provide a network of connections between open space areas and developed areas. The trail system should be designed to accommodate jogging, walking, biking, hiking and skating.



Trails can be classified into Primary, Secondary and Local/Neighborhood Trails.

- **Primary trails** have a regional significance and usually connect to destinations outside a given project. Primary trails are also identified within the City's Bicycle Master Plan. Primary trails are 16' in overall width (12' of asphalt pavement with a 2' shoulder on each side) and typically are located

within a corridor of at least 50 feet in width, with larger widths up to 100 feet being encouraged. However, corridors of less than 50 feet in width may be acceptable based upon unique opportunities and constraints within a given development project.

- **Secondary trails** feed into the primary trails and provide connections between the significant corridors (trailheads, entry points, places of interest) and local trails. Secondary

CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

trails are 14' in overall width (10' of asphalt pavement with a 2' shoulder on each side) and typically are located within a corridor of at least 35 feet in width, with larger widths being encouraged.

- **Local or neighborhood trails** are usually feeder trails and/or neighborhood sidewalks and provide connections to the secondary and primary trails. Local/neighborhood trails vary in size, design and construction material and typically provide an 8' wide hard surface with 2' shoulders on each side. Trail width may be reduced to 6' in some circumstances, such as a detached sidewalk located adjacent to a road.

7.1.1 Primary, Secondary and Local/Neighborhood Trails

Primary trails form the backbone of the City's pedestrian and bicycle trail system and typically extend beyond a project's boundaries. Secondary trails provide major connection corridors and routes to the City's primary trail system. When secondary trails extend into areas of urban development, the orientation of adjacent structures becomes an important consideration. Safety on these trails will be enhanced by facing building entries and windows toward the trail to increase visual access and create a localized sense of ownership over the trail corridor. Primary and secondary trail corridors should include a shared-use path and buffer area with landscaping appropriate to the setting and adjoining land uses.

Local or neighborhood trails provide the final trail connection into an individual neighborhood. Typically, neighborhood trails will be used most often by pedestrians, but should be designed to accommodate occasional bicyclists, especially very young bicyclists. Neighborhood trails may sometimes be relatively short, providing a connection from a street or activity center to either a primary or secondary trail. Neighborhoods and residential front and side yards should be oriented toward neighborhood trails wherever possible. Neighborhood trail corridors will vary in width and landscaping depending on the setting for the trail.



Trails should be located along wetland preserves and open space areas wherever possible. Wetland preserve edges offer great opportunities for uninterrupted trail segments that allow pedestrians and bicyclists to commune with nature. Landscaping along these trails should be sensitive and appropriate to the surrounding area and should include drought-tolerant species. Landscape and irrigation may be utilized in the areas between the trail and the developed area however, the preserve-side of the trail should be somewhat naturalized. If irrigated areas are to be provided on the preserve-side of the trail then plant materials should be water-efficient and native to the area, planted into maintenance-efficient groupings, and drip irrigated with "abandon-able" irrigation systems so that once the plant material is established the irrigation may be abandoned. Care should be given to select plant types that are fire-retardant and non-invasive species.

Design Guidelines

- Trail corridor widths should vary based on the adjacent land uses and intended design speed of the trail corridor. Trail corridors with developed areas on both sides of the

corridor should generally be wider than trail corridors next to habitat preserves or parklands. Trail corridors located adjacent to a park, open space or natural protected area may be reduced if determined appropriate by the City.

- Trail corridor security will be enhanced by facing building entries and windows toward the trail to increase visual access to the trail and to create a localized sense of ownership over the trail corridor.
- Primary and secondary trail corridors should include a shared-use path and buffer area with landscaping appropriate to the setting and adjacent uses.
- Primary trail corridors of 40' in width are considered the minimum and widths over 50' are encouraged. Corridor widths may be reduced below 40' on a case-by-case basis where specific opportunities and/or constraints support such reductions.
- Secondary Trail corridors of 30' in width are considered the minimum, wider widths are encouraged.
- Neighborhood trail widths will vary from 6' minimum concrete sidewalks located near roads to 8' wide asphalt pavement with 2' decomposed granite or gravel shoulders on each side.
- Native and/or drought-tolerant plant species and drip irrigation are encouraged where trails are located along resource-protected lands. Where trails are located along developed lands, the landscaping may reflect similar character as adjacent land uses.
- Grade separated crossings are preferred where major roads intersect primary trails. Where at-grade crossings occur, careful design solutions are required to ensure safe and comfortable pedestrian crossings.
- Railings and edge protections may be utilized to serve as a barrier and to protect path users from hazardous situations.
- Primary trails should accommodate pedestrians, bicyclists and persons with disabilities, promoting usage by all facets of the community.
- Primary trails should be located above high water flow elevation where possible, however they may be located in areas that flood including at grade separated crossings of roads. Bridges should be considered for crossings of low flow channels. Trail surface should be concrete where primary trails are subject to regular inundation (below 25 year flood elevation).
- Trail corridors should include signage elements such as trailheads, directional, regulatory, courtesy and distance signs.
- Careful placement of trees should be considered in order to provide shade at regular intervals, and view corridors and views of significant features.
- Plant materials must maintain clear sight distances at trailheads and staging areas, and planted areas should be designed to discourage negative activities and promote safety for trail users.

7.1.2 Trailheads and Nodes

Trailheads are the point at which a trail begins. Trailheads are typically small open space areas located at the access point to a trail from an adjacent neighborhood. Trailheads often contain rest stops for trail users with benches, trash receptacles, signage, and other way-finding elements such as maps to assist trail users. Trailheads act as mini-destinations and provide access locations to the network of City Open Space.



Nodes are widened areas along trails and typically occur where primary and secondary trails intersect and where rest stops are planned for trail users. Nodes offer expanded areas along trails for rest, socializing, observing nature and other activities and create variety along the open space trail system. Because nodes function as points of natural interaction between people, design should consider amenities such as street furnishings and appropriate lighting.

The level of improvements at trailheads and nodes varies with the setting and typically they will be compatible with the character of the adjacent land uses.

In some instances, larger areas may be set aside as open space along the trail network. Depending on size, amenities and function (i.e. serving as a gathering place along the trail), such areas may meet the design criteria for Pedestrian Paseos described in Section 5.5 above and be credited against obligations for Community Places Open Space.

Design Guidelines

- Trailheads should be located approximately every ½ mile, as appropriate due to site constraints, development opportunities and intended use of the trail and should be provided at all major entries to primary and secondary trails.
- Nodes should be located approximately every ¼ to ½ mile along trails, as appropriate due to site constraints, development opportunities and intended use of the trail and should be located at all major trail intersections and other areas as needed for rest stops.
- Subdivision layout should take into account the trail system and minor trail access points should be encouraged to be located at the ends of cul-de-sacs or along streets where appropriate and necessary to maximize convenient trail connections through a residential subdivision.
- Design to maximize the safety and security of trail users while being un-obtrusive to adjoining properties. Trailheads and nodes should be sited to maximize viewing opportunities to natural areas and protected areas and should generally be viewable from adjacent properties to maximize security for users.
- Trailheads and nodes should be sized according to hierarchy of expected use and will vary in size according to site constraints, design opportunities, adjacent development, and individual location on the trail system. Major trailheads and nodes will be larger (3,000 to 10,000sf.) with more site amenities and landscaping and minor trailheads and nodes may be smaller (up to 3,000sf.) with limited site amenities (trail signage) and, in some cases, no formal landscaping.
- Site amenities such as benches and shade trees should be provided at all trailheads and nodes. Bicycle racks, drinking fountains, picnic tables and restroom facilities may be provided at major trailheads and nodes.
- Signage and way-finding elements should be used at all trailheads and nodes. Signature plantings and design elements may be used to distinguish trailheads and nodes.

CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

- Well-marked road crossing zones for pedestrians and bicyclists to access trailheads and nodes should be provided at all intersections of trails and major streets.
- The design of trailheads and nodes should consider the needs of all trail users, including families with small children, seniors, bicycle commuters and persons with disabilities.

7.2 Pedestrian Paseos

Pedestrian paseos serve as non-vehicular connection corridors and are generally found within urban and suburban commercial and residential areas. Paseos serve as direct 'short-cut' connectors between parking facilities, commercial and multi-family street frontage, and residential street blocks to popular, heavily-utilized neighborhood destinations like parks, schools, shopping centers and transit stations. Paseos may be either publicly or privately owned and maintained, and are intended for general public use. Paseos will vary in scale and amenities based on location, use and pedestrian demand. Commercial area paseos are also regulated by Chapter 23.772 of the City's Zoning Code.



Paseos are intended to facilitate quick and easy pedestrian travel, thereby encouraging walking through neighborhoods and to adjacent uses for short daily local trips. In neighborhoods, paseos are intended to move people easily through mid-block connections; they are not intended to create spaces where neighbors will linger or congregate. Design of adjacent homesites should encourage the location of windows for viewing the paseos, thereby enhancing security and providing visual ownership of the paseo, while maintaining the security and privacy for the residents. In some cases, paseos may provide key links to the backbone City trail system, connecting the network of primary and secondary trails. In such cases paseos may provide critical connections to the trail system and therefore become wider and involve a higher level of improvements and amenities.



In commercial areas, paseos will be designed to encourage people to congregate by providing benches or architectural features. Storefronts are encouraged to front onto paseos and cafes or restaurants may provide outdoor seating within paseos thereby creating a lively experience for the users. In some cases, paseos may be sized and amenitized to serve as plazas or gathering locations, with enhanced paving and landscaping, shade structures, etc. and in this case become a Community Place rather than a simple pedestrian paseo. Design criteria for

CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

these types of Designated Place within Pedestrian Paseos are described in Section 6.5 above.

Paseos should be incorporated into new public or private developments where pedestrian connectivity to a neighborhood activity center would be greatly enhanced. For example, a public area that exists within the interior of a residential block should be connected to the surrounding street frontage by a paseo. Paseos are encouraged where pedestrians are required to walk far out of their way on public streets in order to reach nearby activity centers or public facilities.

Paseo width should be enough to create an attractive, inviting space. Appropriate paseo widths will depend on a number of factors, including physical site constraints, level and type of pedestrian activity in the area, and the intended use of the paseo. The size, bulk, scale, and height of surrounding development will also be a factor in determining the width of pedestrian paseos.

Design Guidelines

- Paseo widths will vary depending on the physical site constraints, development opportunities, adjacent uses, and level and type of pedestrian activity expected.
- In commercial areas, paseos should allow at least 20' between building faces.
- Paseos that link to a primary trail system are encouraged to be 40' minimum in width.
- Traffic calming techniques and signage should be utilized where paseos intersect major roadways.
- Paseos may be landscaped or remain in a naturalized state, depending upon the character of the adjacent land uses.
- Architectural guidelines within paseos include:
 - A safe and pleasant setting should be promoted with architectural elements, including the orientation and architecture of adjacent buildings, to maximize visual access from adjacent buildings into paseos.
 - Public art may be utilized in commercial and multi-family areas to provide visual interest for pedestrians.



- Decorative lighting may be used in commercial area paseos that display adjacent building facades.
- Landscaping elements and site furniture should be located to maximize visibility, safety and security of the paseo and the adjacent uses.

7.3 Greenstreets

Greenstreets are a component of the City's functional open space network, providing attractive pedestrian-friendly streets and routes within urban and suburban neighborhoods. Greenstreets serve as a linkage between the trail system and adjacent neighborhoods. Greenstreets differ from paseos in that greenstreets provide enhanced, pedestrian-friendly public street connections to activity centers while paseos provide connections for pedestrians and bicycles only. Well-designed greenstreets will promote walking within neighborhoods along streets that would otherwise be intimidating due to traffic volumes and speeds.



Greenstreets provide the final connection of the Trails Network through an urban setting into individual neighborhoods. As such, Greenstreets should be incorporated into the street grid of proposed projects to provide convenient access to most homes within a neighborhood and lead to key activity centers within a community.



Green Streets give importance to pedestrian amenities, landscaping, traffic calming and other unique features. They improve pedestrian circulation and provide access to public open space opportunities in medium to high-density areas that may lack such facilities. Effective greenstreets design will buffer pedestrians from fast-moving vehicles with street trees, lights, seating, street furnishings, and in some cases, a line of parked cars. In order to provide this enhanced pedestrian environment, right-of-way beyond the minimum standard is typically required.

Design Guidelines

- Greenstreets are encouraged to provide direct links from neighborhoods to major transit facilities, light rail stations, pedestrian-oriented neighborhood commercial areas, and areas with mixed-use activity etc.
- Greenstreets may be utilized to provide greater park and open space access from adjacent neighborhoods.



- Greenstreets should be designed with a distinct character that will attract pedestrians to create an engaging environment.
- Long, uninterrupted fences and walls should be minimized or avoided on greenstreets.
- Gateways or nodes should be located along greenstreets that place emphasis on creating connection between neighborhoods and adjoining uses.
- Maximize opportunities for trees and landscaping that promote a high quality image.
- Provide an 8' wide minimum landscaping strip between street curb and sidewalk, with shade trees and groundcover plantings.

- On-street parking is encouraged to buffer pedestrians from vehicle traffic.
- Driveways crossing greenstreet sidewalks should be minimized or avoided to reduce pedestrian/vehicle conflicts.
- Building fronts and architectural features should be oriented toward greenstreets. Porches, balconies, plazas and courtyards are encouraged.

7.4 Detention Basins and Drainage Systems

Detention basins and drainage systems provide opportunities for passive recreation while protecting and/or enhancing water resources, water quality, aesthetics and wildlife habitat. While detention basins and drainage systems can provide a variety of recreational and aesthetic benefits, the location and primary purpose of the infrastructure must be carefully designed so that the drainage systems perform the function that they are designed to perform; as such, aesthetic and open space amenities are subordinate benefits.

This type of functional open space may be located along roadsides and/or within drainage corridors, detention and retention basins, and regional utility corridors. The goal of the design of drainage facilities is to avoid the typical 'engineered' look and feel of these spaces and rather promote the space as a somewhat naturalized area that will promote pedestrian activity, recreational opportunities and/or wildlife habitat, while retaining all the functional aspects of the facility.

Drainage facilities should be graded to be more natural in appearance and enhanced with landscapes that are generally drought tolerant and require minimal maintenance. In designing drainage facilities, it is necessary to balance the primary function of the



CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

facility with the secondary benefits sought through these Guidelines. For instance, the primary function of drainage channels is storm water conveyance. Beyond this basic function, drainage channels would be designed and maintained to be visually attractive, may provide opportunities for trails, and be landscaped with naturalized plant materials to enhance wildlife habitat qualities.

Given the critical need for proper drainage functions, and further given the space requirements for drainage facilities as described herein, it will be necessary for the City to review technical data on storm flows and volumes prior to approval of development entitlements. Project applicants will provide City staff with functional data on the drainage system flows and storage volumes, channel and basin dimensions (including general configuration and elevation) and preliminary design of drainage channels, basins and structures prior to finalizing the review of development applications for Specific Plans and Tentative Maps. Such drainage system information should be of sufficient detail so as to allow the City to determine whether the design features described within this section are feasible.

Design Guidelines

- Overall shape of drainage basins should be organic with a "natural" character where possible and straight "engineered-looking" edges should be avoided. Sloped areas of drainage basin shall be designed to prevent erosion and appear natural.
- Terracing, berming and contouring is encouraged to naturalize and enhance the aesthetics of drainage basins. Provide level terraces within levees/banks. Bottom of basins may be contoured with low flow wet areas and mounds.
- Viewing nooks and/or viewing decks and platforms along the edges of drainage basins is encouraged. Ensure that viewing areas are designed in accordance with environmental regulations, ADA Guidelines, and public safety requirements.
- Design drainage facilities to minimize the need for security/safety fencing. Utilize visually permeable fencing of minimal height to address safety issues and to minimize visual impacts where fencing is required.
- Side slopes should vary in steepness and meander at the top of the slope to prevent the look of a rectangular box. Generally, slopes ranging from 3:1 to 8:1 are encouraged. In limited cases, 2:1 or engineered vertical drops may be considered acceptable.
- Drainage facilities should be landscaped with trees, shrubs, and grasses and should incorporate native or naturalized plantings in and adjacent to basins to provide wildlife habitat.
- Drainage channels shall be designed to provide adequate channel volume to allow mature vegetation and to minimize the need for channel maintenance and vegetation clearing.

6.6 Utility Corridors

Utility corridors set aside for existing or future utilities provide opportunities for Green Infrastructure trails and greenways. Where such corridors exist in proposed development, the City generally requires the corridor be improved with trails and a minimal level of naturalized landscaping.

Where the corridor is of significant size and/or is located in a significant place in a project, and if the corridor is highly improved with amenities, then the corridor may be considered for partial credit as a Community Place and should follow direction as listed in Section 6 of these Guidelines.

Design Guidelines

- Maintenance roads should be designed as safe and attractive pedestrian and bicycle trails.
- Low-growing trees and plants should be utilized that will not interfere with the utility lines, but at the same time provide shade and an aesthetic and psychological buffer from the utility structures.
- Design should plan for future excavation near existing facilities to minimize impacts on open space improvements due to future infrastructure construction.
- Access points should be located at regular intervals along the corridor to provide convenient access to the trail system.



8. CITY OPEN SPACE MAINTENANCE

8. City Open Space Maintenance

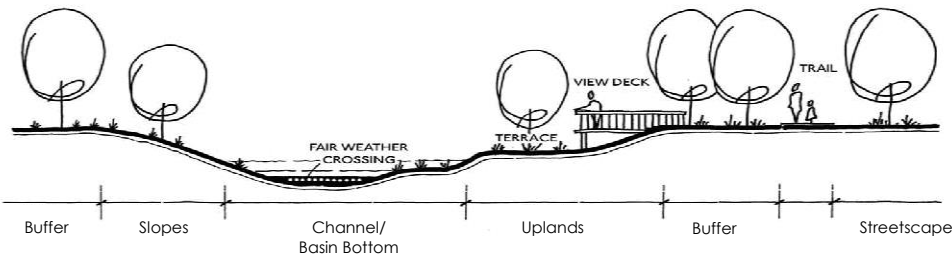
Maintenance of City Open Space is critical to sustaining the quality of the community and the open space amenities described in these Guidelines. The maintenance guidelines that follow specify general maintenance expectations for different types of City Open Space. Funding for such maintenance shall typically be secured through maintenance assessment districts that will be established by the City. Proponents of development projects shall describe the anticipated level of maintenance, funding sources and party responsible for maintaining open space amenities within their development proposals. In order to support project applicants in describing maintenance practices, the open space amenities described in these Guidelines are described below in five categories based upon the level of effort required to maintain the various amenities.

8.1 Nature Preserves

Nature Preserves are established for purposes of protecting wildlife resources as required under various state and federal laws. Maintenance for such lands will typically be determined through agreements between private land owners and the state or federal regulatory agencies that require the preserves. As such, these guidelines do not address maintenance of Nature Preserves.

8.2 Drainage Facilities and Detention Basins

Drainage facilities are among the most complex landscapes from a maintenance perspective. Maintenance requirements for these facilities can range from minimal (litter collection and removal of excess vegetation) to relatively intensive maintenance for perimeter lands that are directly adjacent to roadways. The figure below identifies the general types of land found within and around drainage channel and detention basins.



Channel Bottom and Basin Bottom

Low flow channels and bottom areas of detention basins will be naturalized and will require relatively limited maintenance. Maintenance that is performed in this zone will be focused on ensuring functionality of flood control and drainage. Inspection and maintenance of drainage features, such as inflow and outflow structures, is necessary to ensure these are functioning properly. Specific flood control maintenance practices will be determined by the City's designated flood control maintenance agency.

Naturalized/volunteer trees may be allowed to grow in these areas, as long as drainage facility function is maintained. Design of channels and basins should be adequately sized to allow some tree and vegetation growth without compromising flood control functions. The City's designated flood control maintenance agency is responsible for maintenance in these areas.

Slopes and Uplands

Based upon design, drainage channels and detention basins may provide gentle side slopes and terraced areas that are normally above water levels within the drainage facilities. Required maintenance in these areas will likely include erosion control and maintenance for slope stability, fire abatement, rodent control, removal of large trash if illegally dumped. These areas could include tree plantings and, in such cases, periodic but infrequent maintenance of trees would be required.

8.3 Naturalized Landscapes

It is anticipated that substantial portions of the open space system will be Naturalized Landscapes that will have a relatively low level of improvement and maintenance. Naturalized Landscapes will occur most frequently adjacent to drainage channels, detention basins and nature preserves and may be found within utility corridors. These areas will be planted primarily with drought tolerant and native plants that require limited irrigation and maintenance. Physical improvements will generally be limited to pedestrian and bicycle trails, direction signage and

Naturalized Landscapes will generally include plantings that require a minimum of temporary drip irrigation to allow plantings to become established. When these landscape are adjacent to nature preserve the control of irrigation runoff and minimizing the spread of non-native plants becomes an important priority.

Vegetation management in these areas will be minimal. Tree pruning will typically be limited to removing hazardous limbs and in the event of a down tree, it may be left in place unless it poses a hazard. Ground level vegetation management will focus primarily on reducing fire hazards. Some maintenance of shrub plantings will be required in key locations along the trail corridor network. A low height fence (3' tall) is typically placed in this zone to provide access control and to aid in catching trash and debris. Maintenance of the of the trail surface, typically an asphalt surface with decomposed granite shoulders, will be required.

8.4 Low Maintenance Urban Landscapes

Urban Landscapes include areas that interface directly streets and developed land uses such as homes, schools, parks and commercial development. Within this broader category, Low Maintenance Urban landscapes will often be located on the outer margins and will typically interface with Naturalized Landscape or are found within the network of Primary, Secondary and Local/Neighborhood Trails. Additionally, this level of landscape treatment will often be found associated with trailheads and trail nodes, as well as around constructed waterways, ponds and lakes.

As public activity is heavy along trails, these landscapes will include substantial tree plantings and plantings of shrubs and groundcovers. Plant material should be drought tolerant, with a preference for locally occurring native plant species. This zone may include limited turf, if needed for the intended use of the area. With the increased volume of plant material, maintenance will increase. Additionally, permanent irrigation systems will require on-going inspection and maintenance. Generally, most trailheads and nodes will require landscape and irrigation, surfacing, lighting, in addition to maintenance of other design features and furnishings such as entry focal points, trail kiosks, benches, bicycle racks and other amenities.

8.5 Urban Landscapes

Urban Landscapes require the highest level of maintenance of the various Open Space land types. These lands will support regular and frequent public activity and will often include destination sites where people will congregate. Urban Landscapes include a variety of specific

CITY OF RANCHO CORDOVA OPEN SPACE GUIDELINES

uses, such as: Neighborhood Greens and Urban Plazas; Community Gardens; Private Recreation Facilities; Community-wide Open Space features; and, trail corridors within an urban setting.

Due to the urban setting and the high level of public activity, Urban Landscapes will include many of the most intensively developed features within the Open Space system. Hardscape improvements will be common in Urban Plazas and Neighborhood Greens will often include features such as play structure, shade structures and open turf areas. Trail corridors within the urban setting will include well maintained landscape plantings and may include turf. Lighting will be provided as needed to ensure a sense of security in evenings. Water fountains may be provided in conjunction with rest stops along the Open Space trail network. Urban Plazas and Neighborhood Greens will require both general maintenance and regular cleaning and upkeep to ensure an inviting setting.