

Final
MASTER PLAN AND DESIGN
DEVELOPMENT REPORT
LOCKE-PADDON WETLAND PARK



Monterey Peninsula Regional Park District

Prepared by:
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August 2005



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Authority

On September 16, 2004, the Monterey Peninsula Regional Park District entered into agreement with Purkiss-Rose-RSI to furnish park planning and landscape architectural services for the enlargement and enhancement of Locke-Paddon Wetland Park in the City of Marina. This service involved the preparation of a Master Plan and a Design Development Report for this park site.

Purpose

The Design Development Report (DDR) is an association of planning functions composed specifically to meet the needs of the public agency in processing the initial design of a park area or special facility. Its purpose is to establish a concept plan that depicts the recommended development of a specific site and/or special facility and to establish a realistic phasing program that fulfills primary needs and is as consistent as possible with financing resources.

The plan is prepared in a graphic form that allows the citizen, administrator, board member and elected official to participate effectively in the decisions on scope, function, priorities, and design concepts. The Design Development Report presents concepts of use; describes functional aspects of the design; investigates methods of implementation; describes potential environmental impacts; and promotes community understanding and support for the program.



Locke-Paddon Park

marina
state
beach



Background

The town of Marina was laid out in 1913 by William Locke-Paddon after he purchased 1500 acres from the David Jacks family of Monterey notoriety. Mr. Locke-Paddon was a very successful real estate speculator that specialized in buying small family farms throughout Northern California and then subdividing and marketing them as “Locke-Paddon Colonies.”

The large tract of coastal prairie that he purchased from the Jacks family was subdivided into 300 five acre parcels that sold for \$75 each. To help “sell” Marina, Mr. Locke-Paddon persuaded the Southern Pacific Railroad to put in a “flag-stop” to accommodate travelers, and prospective buyers, from the San Francisco area. The town was incorporated in 1975 and soon after began looking for projects to enhance the City’s character.

The Park District was also recently formed (1972) and was actively seeking cooperative open space projects within peninsula cities. A very noticeable characteristic of the City was its six vernal ponds. In 1986 a partnership was created between the Regional Park District, the City and the Coastal Conservancy to acquire the lands around KIDD pond – so named for the tall towers owned by the station of the same called letters.

Prior to any acquisitions, a pond enhancement plan was adopted which gave direction for the pond’s future development and protection. Once adopted, the District’s first purchase was the 12 acre Walton/KIDD parcel. By 1991 five of the six parcels were publicly owned and the park was dedicated as Locke-Paddon Wetland Community Park in honor of the City’s founder. The City also approved plans for a much needed library in the park. Acquisition of the last remaining private parcel, known as the Isakson Property has recently been completed. This effort which will complete a long 15 year effort that will also begin the final phase of its original goal – its enhancement and restoration as critical coastal wetland habitat.

In 1994 a comprehensive Vernal Pond Management Plan was adopted by the City that reaffirmed the unique wetland nature of the park as wildlife habitat.



Pond south end of project



Newly acquired Isakson property

Methodology

The provision of park and recreation facilities is a people-oriented program and successful implementation requires public support and involvement. Obviously, decisions cannot always meet the specific desires of all segments of the community. The basic nature of public recreation recognizes that people have varied interests and skills involving a wide spectrum of activities. Since the primary purpose of local parks is to accommodate many of these activities, it is incumbent on government to mitigate, as much as possible, all possible impacts on the site.

In an effort to generate public input and to ally the Locke-Paddon Wetland Park community with the overall recreation needs, a number of meetings were held. The first meeting was held on November 8th, 2004, at the Monterey Peninsula Regional Park District office and included representatives of the City, Locke-Paddon Improvement Committee, and other stakeholders. A brief history of the park site was described as well as the recreational needs/deficiencies that face the Park. Based on recommendations identified in the two previously adopted pond plans and input from the meeting, two conceptual Master Plans were developed and prepared.

The second meeting for community input was on January 19th, 2005, at the adjacent Holiday Inn Express conference room. Again, the project background was described with the two conceptual Master Plans proposals. The audience was divided into separate tables where participants expressed their concerns and ideas, which were noted.

The consensus was that conceptual Master Plan B, with some revisions, seemed to best meet community needs. From conceptual Master Plan B a proposed final Master Plan was developed for the Park District's approval.

A draft Master Plan was presented to the Monterey Regional Park District Board at their June 13, 2005, Board Meeting at Marina City Hall. There were some minor adjustments suggested by the Board. The public input expressed by attendees was supportive of the Master Plan. Ongoing maintenance responsibilities were a concern voiced by the public and Board members.

The draft Master Plan and Design Development Report was transmitted to the City of Marina Council members and presented for their information and input at their public meeting on July 19, 2005.

The final Master Plan and Design Development Report was presented to the MPRPD Board of Directors at their August 1, 2005 meeting.

Site Description

Locke-Paddon Wetland Park is located on the northwest corner of Reservation Road and Del Monte Boulevard in the City of Marina. The prominent site has a gradual elevation rise to the north to Seaside Circle. The site is bordered to the east by Del Monte Boulevard and the Southern Pacific Railroad line right-of-way, the south and west by Reservation Road, and the north by Seaside Avenue. The 23-acre park has been recently expanded on its east border by the acquisition of an additional 10 acres along the Southern Pacific Railroad right-of-way.



Isakson Property

There is significant vegetation within the site. Large Monterey Cypress provided a windscreen to the newly acquired property. Existing Park improvements have brought forth new landscape areas, including trees, shrubs and irrigation. A large mitigation area is centrally located in the park. A small constructed amphitheater, concrete picnic benches, trash receptacles are found throughout the park. A restroom facility is located on the northwest corner of the site near the intersection of Seaside Circle and Reservation Road.



Existing Improvements

The major feature of the park is the existing wetland pond at the toe of the gradual grassland slopes, which is freshwater and perennial. Water levels are maintained in winter through inflows of storm and groundwater. The pond is shallow with very little topographic variation, this results in a low diversity of vegetation and wildlife habitat types within and adjacent to the pond. The pond catches run off from the near-by shopping center on Reservation Road, which attributes to the pond's less than desirable water quality.



Homeless camp at Northeast end of site

A major concern within the park includes the control of homeless encampments on the corner of Del Monte Blvd. and Reservation Rd. in the willow understory. The large population of domestic geese and ducks within the pond has concerned the community and visitors with their aggressiveness, foul smell, and negative impact on water quality.



Future Library Site

RECREATION AREA
-VOLLEYBALL
-BOCCE BALL
-HORSESHOES

SMALL HEAD POND WITH
STREAM TO LARGE LAKE

EXISTING PARKING AND RESTROOM
FACILITY TO REMAIN

INTERPRETIVE EDUCATION AREA

PEDESTRIAN FOOT BRIDGES OVER STREAMS

EXISTING AMPHITHEATER TO REMAIN

EXISTING PATHWAY TO REMAIN

EXISTING MITIGATION AREA TO REMAIN

6' WIDE IMPROVED ADA COMPLIANT
FOOT PATH

EXTENT OF RADIO TOWER GROUNDING WIRES
(300' RADIUS)

LAKE OBSERVATION PLATFORM

10' WIDE MEANDERING SHARED
BIKE AND FOOT PATH

EXISTING LAKE WATER LINE

10' WIDE IMPROVED ADA COMPLIANT
BIKE AND FOOT PATH AROUND LAKE
PERIMETER

BENCHES AND TRASH RECEPTACLES
ALONG PATHWAY

LOW PROFILE
LIGHTING FIXTURE

ELEVATED OBSERVATION DECK AND WALK

CLEAN/PRUNE EXISTING WILLOW TREES
PROVIDE MORE VISIBILITY AND
SECURITY TO LAKE FROM INTERSECTION

LIBRARY PARKING STALLS FOR
62 CARS AND 8 DISABLED STALLS

LIBRARY BUILDING BY OTHERS

TOTLOT

DROP OFF ACCESS AND TWO
DISABLED STALLS

FUTURE ACCESS TO DIMAGGIO PARK

EXISTING TREE LINE/MASSING TO REMAIN
PRUNE AS NEEDED

BIKE RACK

TOTLOT AND PICNIC AREA

LARGE HEAD POND

GROUP PICNIC SHELTER WITH TABLES AND
BARBECUES

MEANDERING STREAM

PICNIC AREA

RIPARIAN HABITAT ALONG CREEK

LARGE OPEN GREENSWARD

INFORMAL STAGE

LANDSCAPE BERMS

Monterey Peninsula Regional Park District **Locke-Paddon Wetland Park** *Final Master Plan* August 2005

ENHANCED ENTRY MONUMENT SIGN AT CORNER



Development Concept

Design Overview

As a community park, Locke-Paddon Wetland Park is intended to serve a variety of recreation and educational needs associated with the greater Marina community. In developing the Master Plan for the park, there were several existing uses and conditions that affected the final design of the Master Plan.

One of the biggest constraints of the Park are the two existing radio towers. Although they can be a very good landmark for locating the park while driving on near-by Highway 1, their subsurface impact on park development is significant. Any improvements within a 300' radius of the towers must be above grade, due to the sub-surface grounding wires of the towers. Proposed improvements, including the library, have stayed clear of the grounding wires.

Existing Park improvements at the corner of Reservation Road and Seaside Avenue will remain as part of the Master Plan design, which include the restroom building and terraced landscape border. The 18-space parking lot will also remain to conveniently accommodate park visitors to the site.

The existing pond is essential to the park and is retained in the Master Plan *as is*. A suggestion would be for the pond to have an aeration system added, which can be implemented with the addition of artificial streams with head ponds. Habitat recommendations include removal of non-indigenous plant species and the thinning of the overgrown willows on the eastern end of the pond to help keep that portion of the park open, and thinning of the overgrowth and encroachment of cattails within the pond.

Library

The future home of the City of Marina Library is adjacent to the park site at the end of Seaside Avenue. Every effort will be made to integrate the development of the library with the surrounding park. Coordination will be vital in the planning for the park and library.



Radio Towers



Existing Improvements



Library and parking

Open Play Areas

The recently acquired 10-acre property provides an opportunity for new open space play areas. It is proposed that the area be bermed to provide a visual and sound buffer from the proposed visitor rail service project planned for the abandoned Union Pacific railroad right-of-way. The berm could also act as an informal amphitheater for an outdoor performance area. Improvements to this area could also include irregular groupings of trees as well as keeping most of the remaining Monterey Cypress trees, which currently form a visual landscape screen and separates the new 10-acre property from the rest of the park. A drop-off area will provide two convenient accessible parking stalls for visitors with special needs and provide a drop-off location for the large picnic shelter area.



Picnic/open play area w/ pavilion

Large Picnic Shelter

A large group picnic shelter is proposed in the open play area. Improvements may include a concrete slab under the shelter to house picnic tables, large barbecue grills and sinks. The large berm around the shelter will act as a wind break. A large informal grouping of trees surrounding the shelter will provide a sense of enclosure from the surrounding play area.

Lake, Pond and Streams

The Lake is recommended to remain “as is”, with some minor clean-up, removal of exotic plant species and thinning of willows and cattails. Two re-circulating streams and head ponds are included in the proposed park design for a number of reasons. They will not only take advantage of the natural grade changes and water collection aspect of the site, but they will add interest and another educational habitat type to the park. They will also provide an aeration system for the pond, which will have a beneficial effect on the currently high bacteria count. The stream sources will begin at the two head ponds as proposed for the recently acquired 10-acre property. They are directed toward the lake via constructed, lined streambeds that meander south along internal pathways into the lake, and allowing for the possibility of riffling cascades. The existing and proposed pedestrian trails will be bridged at the streams crossings. To further enhance the educational and habitat character of the proposed streams, it is suggested that they be bordered with typical riparian trees, shrubs and perennials. Research and related materials would also be found at the library to provide a cooperative educational experience to all park visitors.



Large Head Pond & Stream/Riparian Habitat.

Play Areas

Two passive play areas are proposed on the site; one associated with the group picnic area on the recently acquired 10-acre property; the other overlooking the head pond near the Library building to the north of the site. Both are conveniently located near activity areas and are accessible by walkways, which tie into the overall circulation system of the park. Both play areas are defined by a concrete curb, which contains rubberized surfacing or wood chips and acts as a mow strip for maintenance ease.



Tot lot near Library

Play equipment is recommended to include modern state-of-the-art play structures with slides, ladders, bridges, transitions, lookout platforms, balance beams, climbing apparatuses, and various play panels. Improvements will be designed for ADA compliant access.

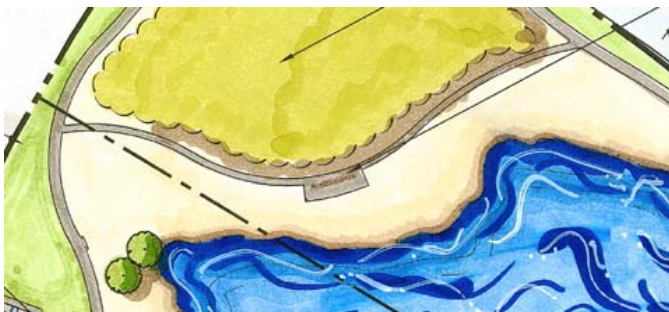
Large Informal Amphitheater

The grass slope and berming in the open play area on the east side of the park along the railroad right-of-way is intended to act as a sound and visual buffer and as an informal amphitheater for community events. A stage area is recommended for the foot of the slope and would be back-dropped by the lake.



Informal Amphitheater

Trails and foot paths



A 10' wide ADA compliant bike path will replace the existing path along the south-west perimeter of the lake and connect the

existing Monterey Bay Coastal Trail along Del Monte Boulevard with the existing parking area on Seaside Avenue. The path will also connect with other existing and proposed trails to provide access around the complete perimeter of the lake. It is also suggested that the trail system be enhanced with benches, trash receptacles, interpretive displays, and exercise stations. Thinning of the willow trees on the southern edge of lake will create an opportunity to provide an observation deck to view the lake. The observation deck could incorporate a seating area and trash receptacles. Two other observational platforms are suggested for the northern part of the lake and could include benches, interpretive panels, and trash receptacles. In addition to concrete walks, there may be opportunities for elevated or floating decks to provide pedestrian access over high water areas or across the lake. In considering these deck systems, there are agency concerns regarding



Southern Park entry



Trails adjacent to Reservation Road

construction costs, maintenance requirements, habitat impact, as well as safety and liability. These access options will be further considered during design development when more specific topographic and drainage information is available. All other existing and proposed trails are recommended to be ADA compliant with a medium broom finished concrete surface.

Signage

An elevated new park sign is recommended at the corner of Reservation Road and Del Monte Blvd. The new identification signage should incorporate recycled materials. Directional signage and facility identification signs are recommended where necessary to direct park users to the appropriate parking and activity areas. Signs should also identify the restroom facilities and handicapped parking spaces, where applicable. Interpretive kiosks, panel displays, and signage should be placed adjacent to the walkways and at interpretive/education areas for effective use.



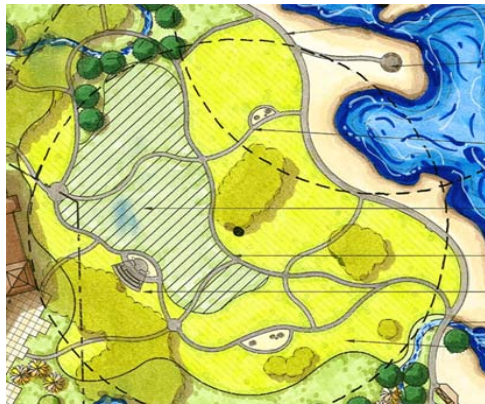
Existing Park Signage



Existing Amphitheater

Interpretive Educational Area

A large portion of the existing park site is recommended as an interpretive education area with a series of ADA compliant trails looping throughout the park. The intent of the interpretive area is to provide environmental education opportunities to park visitors. Each area will be defined by the trail system. These educational areas should primarily consist of plant communities indigenous to the Marina site and, where appropriate and useful for environmental



educational purposes, to Monterey County. The area includes the existing amphitheater with suggested minor aesthetic changes, and the existing Holiday Inn Express mitigation area. The individual picnic tables and trash receptacles scattered along the edge of these trails should be consolidated and

located in the passive play area of the recently acquired 10-acre property. Concrete slabs are recommended under tables to minimize maintenance requirements. Turn-out areas with rock features along the trails can provide a resting place as well as a chance for informal interpretive and social interaction without obstructing walkers.



Interpretive turn-out with rock outcropping



Existing Mitigation Area

Landscaping

Proposed planting is intended to define and buffer the activity areas from each other. Plantings can be used to direct views and circulation through the park site. In proposed turf areas trees should be located at least 20 feet apart to allow efficient mowing with large mowers. Concrete mow strips should be used to delineate between turf and planting areas for maintenance ease. Plant species should be selected to reflect the indigenous plants of the area and to minimize maintenance requirements. Trees are recommended to provide wind deflection in activity areas. To preserve existing trees that are notable specimens, pruning, thinning, and removal should be done under direction of a certified arborist.

It is recommended that the entire site be covered by an automatic sprinkler system designed to provide adequate irrigation for the different types of landscape planting. Low precipitation heads should be used to minimize water runoff, particularly in steep areas.

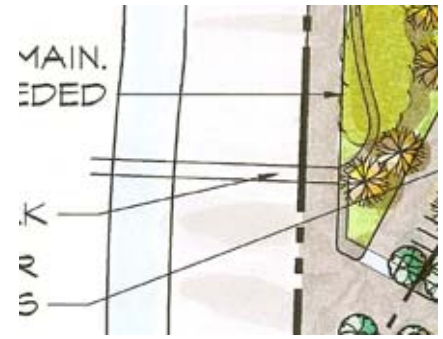
Rotary type sprinklers could be used in the proposed large maintained turf areas. Impact type sprinklers are appropriate in areas where groundcover planting is proposed. Elevated heads should be protected from damage caused by users and maintenance equipment. In addition to low-volume heads, various water conservation methods should be used to maximize efficiency of the irrigation system.

Parking

The parking has been proposed as convenient to activity areas as possible. Access to all parking areas is off of Seaside Avenue only. The parking area located near the group picnic area is for handicapped parking only. A drop-off has been incorporated in that area to provide access for loading and unloading equipment, supplies or visitors as needed. The road can also serve public safety and maintenance vehicle access to the play area. The existing parking area on the northwest can accommodate 17 cars and has a single accessible space. The remaining library parking area can accommodate an additional 62 cars and eight ADA accessible spaces. All parking areas are recommended to be composed of asphalt with striping, tree planting, curb and gutters, and accessible sidewalks and ramps.

Future Park Connections

With the proximity of Locke-Paddon Wetland Park to Vince Dimaggio Park, there was public interest to provide a connection between these two facilities. The Union Pacific Rail line could be a major factor in this design if it is re-activated in the future. Though there is an existing sidewalk along the eastern side of Del Monte Boulevard and a crosswalk at Reservation Road, any future design considerations might include a pedestrian overpass linking the two parks.



Proposed connection to Dimaggio Park

Possible Environmental Impacts

This preliminary evaluation of environmental conditions and possible impacts has been made without the benefit of thorough scientific assessments or testing techniques. These preliminary findings are based on visual inspection of the site; comparison with similar projects; and a working knowledge of the CEQA process. The primary intent is to identify critical impacts early in the design program so that solutions reflect both environmental concerns and functional criteria.

Aesthetics

The transition from vacant land to high quality landscaping recreational amenities not yet present in the community is direct, major and extremely beneficial. The proposed park improvements will contribute to the recreational, social and aesthetic character of the City of Marina area as a whole, and will substantially improve the aesthetic quality of the immediate neighborhood.

Noise

Negative impacts are minimal. During construction there may be significant, though temporary, increases in noise levels. The new uses and intensities capable for this site based on the proposed new recreation improvements will increase current internal noise levels. However, proposed plantings and berms within the site will significantly buffer new noise impacts by acting as an acoustical shield, particularly when planted. The relatively low impact of the rest of the site should cause no significant noise problems, no more than what is currently on the existing site. Control of construction noise will be by enforcement of construction specifications and inspection. Noise generated from park maintenance equipment can be controlled by adequate muffler devices and work scheduling. Program scheduling will control organized activities and the noise they generate.

Light and glare

Any installed security lighting should be low profile and directed downward with a minimal amount of light spill or glare, and be an energy efficient, high intensity discharge type. The particular types should be selected for color and control of light distribution pattern. Mitigation measures could include:

- (1) shielding the light sources where necessary;
- (2) controlling the lighting systems by timers for limited use; and
- (3) designing security lighting to a minimal level to eliminate dark spots in the park without glare.

Traffic and Parking

The generation of additional traffic (vehicular, bicycle and pedestrian) will be experienced on the northern edge of the site along Seaside Avenue. No vehicular access is allowed anywhere on the site except at the entrances off Seaside Avenue. The amount and intensity of traffic will be primarily a function of the proposed new library and secondarily related to the proposed park improvements but will need to be quantified nonetheless.

Water Usage

The park will be designed to conserve water resources wherever possible. Native indigenous plant species are generally drought tolerant and the proposed turf area can be planted with a drought resistant grass. The irrigation system can be automatically controlled allowing specific water conserving adjustment in various areas (according to the plant species and particular microclimate). Low volume irrigation heads can reduce runoff, particularly on slopes. Rain and moisture sensors can also be used to monitor and control the irrigation system.

Water from the lake will be re-circulated through the proposed stream system and should be considered to supply the irrigation system.

The existing water well on the newly acquired Isakson property will be investigated as a potential source of water for lake replenishment and irrigation.

Cost Analysis

The Design Development Report is a planning product that provides required information to establish a realistic program of implementation. Not only does it determine an accurate scope of proposed development, it must also provide detailed estimates of construction costs.

Construction costs can be projected quite accurately after the establishment of scope and the adoption of reasonable standards of development. Cost projections are based on tested costing information, including comparisons with similar projects or facilities that have been constructed during the past six month period. Estimates do not include future inflation factors and they must be updated according to schedule of accomplishment.

The attached *Opinion of Probable Construction Cost* table identifies typical costs associated with the types of development improvements contemplated in the plan for a park with the size and scope of development proposed for Locke-Paddon Wetland Park. The costs are significant because the plan is ambitious and has as an outcome a park that will be highly attractive, easily accessible, user friendly, diverse in its micro-environments, and educationally provocative. It must also be noted that the park has seen very little improvement or maintenance funding over its nearly 20-years of existence. The proposed recreational, landscape, and habitat improvements will create a high-caliber park that will be much used and appreciated by the community as well as be a source of civic and agency pride as the landscape and uses mature. The investment may seem substantial but is typical of an urban open space park this size.

The costs are anticipated to be phased over time with the initial improvements related to turf and landscape enhancements and recreational amenities to improve the appearance of the park and attract more use by the community. Further phases will address accessibility and habitat enhancements as funds become available. By phasing the construction costs, there is the opportunity for capital campaigns that have specific goals and tangible items. Phasing also helps spread the costs over time and not encumber the Park District's budget or the community's ability to generate cost-sharing funds.

Job Name: Monterey Peninsula Regional Park District
Job Number: Locke-Paddon Wetland Park
 04-158
Date: June 3, 2005

Purkiss Rose-RSI
 801 N. Harbor Blvd.
 Fullerton, CA 92832
 Tel. (714) 871-3638
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OPINION OF PROBABLE CONSTRUCTION COST

NO.	EST. QTY.	UNIT	DESCRIPTION	UNIT COST	ITEM COST	TOTAL
1	255,900	S.F.	Site clearing and grubbing	\$ 0.05	\$ 12,795.00	
2	255,900	S.F.	Rough Grading	\$ 0.30	\$ 76,770.00	
3	255,900	S.F.	Finish Grading	\$ 0.15	\$ 38,385.00	
4	54,745	S.F.	Enhanced Mitigation Area	\$ 0.10	\$ 5,474.50	
5	141,940	S.F.	Interpretive Education Area	\$ 0.15	\$ 21,291.00	
6	174,326	S.F.	Lakeside	\$ 0.25	\$ 43,581.50	
7	62,600	S.F.	Asphalt concrete paving	\$ 2.50	\$ 156,500.00	
8	91,095	S.F.	Reinforced concrete paving	\$ 4.50	\$ 409,927.50	
9	1,020	L.F.	Concrete mowbands	\$ 15.00	\$ 15,300.00	
10	1,315	L.F.	Stream feature	\$ 100.00	\$ 131,500.00	
11	1	L.S.	Lakes/Ponds w/ liners & pump	\$ 125,000.00	\$ 125,000.00	
12	7,820	S.F.	Rubberized surfacing at Tot lot	\$ 14.00	\$ 109,480.00	
13	1	L.S.	Totlot w/ shade shelter	\$ 100,000.00	\$ 100,000.00	
14	1	L.S.	Large pavilion/shade shelter	\$ 45,000.00	\$ 45,000.00	
15	1	L.S.	Outdoor stage	\$ 15,000.00	\$ 15,000.00	
16	1	L.S.	Site Amenities (Picnic tables, BBQ's, Benches, Bike Rack, Trash Receptacles, etc)	\$ 50,000.00	\$ 50,000.00	
17	5	EA.	Foot bridges	\$ 7,000.00	\$ 35,000.00	
18	418,550	S.F.	Turf	\$ 0.50	\$ 209,275.00	
19	165	EA.	Trees	\$ 300.00	\$ 49,500.00	
20	560,490	S.F.	Irrigation	\$ 0.15	\$ 84,073.50	
21	1	L.S.	Park wayfinding signage	\$ 10,000.00	\$ 10,000.00	
22	1	L.S.	Entry Monument signage	\$ 10,000.00	\$ 10,000.00	
23	1	L.S.	Large Pond Aeration system	\$ 45,000.00	\$ 45,000.00	
			SUB-TOTAL			\$ 1,798,853.00
			10% CONTINGENCY			\$ 179,885.30
			TOTAL			\$ 1,978,738.30

Purkiss Rose-RSI has no control over the cost of labor, materials, equipment or the contractor's methods of determining costs. These opinions of probable costs represent our best judgement as design professionals familiar with the construction industry and public works contracts. Purkiss Rose-RSI cannot and does not guarantee that proposals, bids or construction costs will not vary from our opinion of probable construction costs. Opinion of Probable Cost shall not be used as a bid form or for any bidding purposes.

Ref: 02-24-04

Maintenance Program

The intent for the majority of this park is to maintain a more naturalistic character that fits and compliments the existing pond, existing vegetation and existing park amenities. The majority of the site is open space and is intended to be covered with drought tolerant and/or native plant materials that require minimal maintenance and moderate supplemental water. Maintenance in the more naturalistic areas will involve periodic checking and adjustment of the irrigation system to insure adequate coverage with the automatically controlled system; control of weeds and eradication of invasive exotic species such as Kikuya and Bermuda grass and Castor Bean; and litter removal as necessary.

Tree trimming should be limited to removal of deadwood and thinning as necessary to promote a strong and balanced limb structure that can withstand the prevailing winds. Similarly, shrub pruning will be minimal, with species selected that have low profiles and require little supplemental care.

The expansion area is intended to provide an open maintained turf area for more active informal play or gatherings associated with the library and group picnic shelter. The turf will be fescue type and will require regular weekly mowing, daily irrigation and supplemental periodic feeding.

The existing main pond will require litter removal as necessary and an annual removal of encroaching cat tails and willows to maintain open water and a definitive shoreline. Some removal of algae may be necessary depending on the success of the improved circulation and aeration enhancements that may be implemented.

The aeration and pumping system associated with the ponds water quality improvement program will require a regular maintenance inspection to insure that the system is properly working. We would expect that this would be every two weeks or monthly as the particular site circumstances warrant.

Maintenance of the restroom, play area, picnic facilities, parking areas, trash receptacles and paths would be on a weekly basis similar to the maintenance schedule for any community park.

A sample maintenance specification has been included in the Appendix with detailed descriptions of maintenance services to be performed.

Appendix

DATE **November 8th, 2004**

MEETING MINUTES:

PROJECT: Locke-Paddon Wetland Park, City of Marina

**DATE OF
MEETING:** November 4th, 2004

LOCATION: Monterey Peninsula Regional Park District Office

PRESENT: See attached sign-in sheet

DISTRIBUTION: Tim Jenson, MPRPD

PURPOSE: Concerns and Constraints Meeting

JOB STATUS: Preliminary

Notes

- **Library**
 - 28,000 sq. ft.- waiting for finalization agreement between County and City....almost enough money.
 - Bus to route along street for drop off to Library
 - Parking at Library could be below City of Marina standards. Possibility?
 - Mitigation of Library to be address later?
- **Connection to Dimaggio Park**
 - City would like to see a thought put into connecting Dimaggio Park and Locke-Paddon, possible pedestrian bridge over street and railroad tracks.
- **Radio towers**
 - Water level to not exceed height of concrete platforms
 - No cutting near towers, ground wires. (See plans for radii around tower) Filling OK
- **Pond**
 - Clay bottom of lake to not be penetrated. No drainage/percolation on pond.
 - Water/ drainage from adjacent streets (north) run into pond. No outlet in pond.
 - South end of pond typically floods out. 1" of rain could yield 6"-12" more elevation in pond.

- Pond needs aeration - high bacteria count! No fountains or spraying. Possible solar pumps?
 - Environment of pond!! Main focus. Trimming of Tule, aeration of pond.
 - According to Dept. of Fish and Game, fishing is legal on site. Possible catch and release program.
 - Ducks a large problem of pollutants in pond. Discouragement of feeding of ducks.
- **Stream**
- Possible Stream from Library site to pond. Interpretive education? Stream habitat? Plant communities?
 - Possible route from Library to existing “duck pond” to main pond
 - environmental studies on site by school kids, groups, or classes. Then head to library for study, materials, reports, and information.
- **Amphitheater**
- Needs podium/stage to be more viable resource for park
 - Currently only seats 60 people (maximum) & hardly ever used.
 - Possible integration of stream into Amphitheater area
 - Use it for library lectures/outdoor education
- **Misc.**
- Cutting of willows may have environmental impact on pond
 - Clear access from pond to Marina State Beach. (Signage?)
 - Group picnic area/s on site
 - “Pier like” over looks on site for viewing of lake over water.
 - Site is cold and windy. Wind from the south. (State beach area)
 - Possible “green area” or open green space for large events and passive recreation
 - Public access from parking area for library. (School kids to north migrate in that direction to north of site.
 - Indiscrete lighting at north end of pond.
 - Public access at north end of pond
 - Public access on Street is very bad (current condition)
 - Possible trail loop around pond
 - Could be future light rail train on tracks

LOCKE-PADDON WETLAND PARK

11/4/04

	Name	Agency/Company	Phone Number
1	Robert Echavarria	Purkiss-Rose-RSI	(714)871-3638
2	Steve Lang	Purkiss-Rose-RSI	(714)871-3638
3	Gary Wilmot	Locke-Paddon Improvement Committee	(831)384-3361
4	Gary Cramblett	City of Marina	(831)884-1242
5	Charles Johnson	City of Marina	(831)884-1218
6	Lenore Masterson	Library Commission	(831)883-3968
7	Joe Donofrio	MPRPD	(831)372-3196 x4
8	Tim Jenson	Monterey Co. Planng.	(831)372-3196 x2
9	Bart Bruno	MPD/MHIE	(831)384-4081

DATE **January 26th , 2005**

MEETING MINUTES:

PROJECT: Locke-Paddon Wetland Park

**DATE OF
MEETING:** January 18th, 2005

LOCATION: Holiday Inn Express - City of Marina - Monterey Peninsula Regional Park
District

PRESENT: See attached sign-in sheet

DISTRIBUTION: Joe Donofrio, MPRPD
Tim Jenson, MPRPD

PURPOSE: Community Input Meeting

JOB STATUS: Preliminary

Notes -

1.0 - Table 1 Input notes

1.1 - Marina Arts Council has initiated contact with the Monterey Bay Aquarium to plan for interpretive nature trails.

1.2 - Bikes on trails especially those near or connecting to existing bike paths.

1.3 - Placement of benches along trails. Possible "Memory Benches"

1.4 - Places to lock bikes, where they could be locked, if they are denied certain trail access, or at library entrance, etc.

1.5 - Ensure long term plan to avoid contamination of pond/lake/stream/nature areas from runoff of library and parking lots.

1.6 - Stage coach history - interpretive sites

1.7 - Long term funding for all facilities and nature areas

1.8 - Insectarium (only 1 in N. America) educate people to role of insects

1.9 - "Revolving"/changing exhibit areas

1.10 - Open Sky/Air Convention center - joint hotel use

1.11 - Support for litter pick-up & coordination with Marina Public Safety for homeless camp removal

1.12 - Sculpture garden, art in the park

1.13 - Bronze plaque interpretive signage for plants & animals, links to Native American cultural history.

2.0 - Table 2 Input notes

2.1 - Park & library both used at same time - could be conflict for parking. Look at Marina Landing shopping center for shared parking.

2.2 - Is the Holiday Inn mitigation being “maintained”? Why is it brown and property unsightly?

2.3 - Loop trail good idea with fitness course links

2.4 - Pier style walkways going over some areas of the pond tying in to walkways but the boardwalk over the pond can be in smaller areas then currently designed.

2.5 - Like idea of aeration of pond - needs to be sustainable.

2.6 - Foul Fowls - look at study done by CSUMB student. Stop feeding ducks - use Lake El Estero as example.

2.7 - Water level/table needs to be studied to establish path elevations and location of observation platforms.

2.8 - Long term stability of pathways relative to water levels & erosion

2.9 - ADA compliance to allow handicap accessibility

2.10 - Need to reduce intrusive aquatic plant material - look at indigenous plant communities in Moss Landing

2.11 - Consider link to Vince Dimaggio Park

2.12 - Build on interpretive plant identification by consideration of botanical garden/arboretum

2.13 - Expand trail loop to east side of railroad tracks linked to Tree Commissions tree planting.

2.14 - Wind - for outdoor use can be harsh

2.15 - Build on amphitheater/outdoor performance area in adjacent new land where there are no limits to the number of people

2.16 - Build on international/multi-cultural heritage of Marina using different languages in interpretive signage.

3.0 - Table 3 Input notes

3.1 - Negotiate to remove the towers - offer the tower leasees alternate options; see what it would cost to break the lease.

3.2 - Minimal invasiveness in wetland (ie. Not “army corps of engineers)

3.3 - Repair and maintain wider path along Reservation Road and or ask City to have property owners across the street build sidewalks for large amount of pedestrian traffic.

3.4 - Replace unattractive and uncomfortable concrete picnic tables with wood.

3.5 - What can be done with the “weeds” and ugly rope fence around “mitigation” area? Get rid of fence, plant other native plants!

4.0 - Table 4 Input notes

4.1 - Parking and lighting near picnic

4.2 - Native botanical garden

4.3 - Replace existing bridge

4.4 - Need parking (not at library)

4.5 - Enhanced corner at Del Monte and Reservation Road

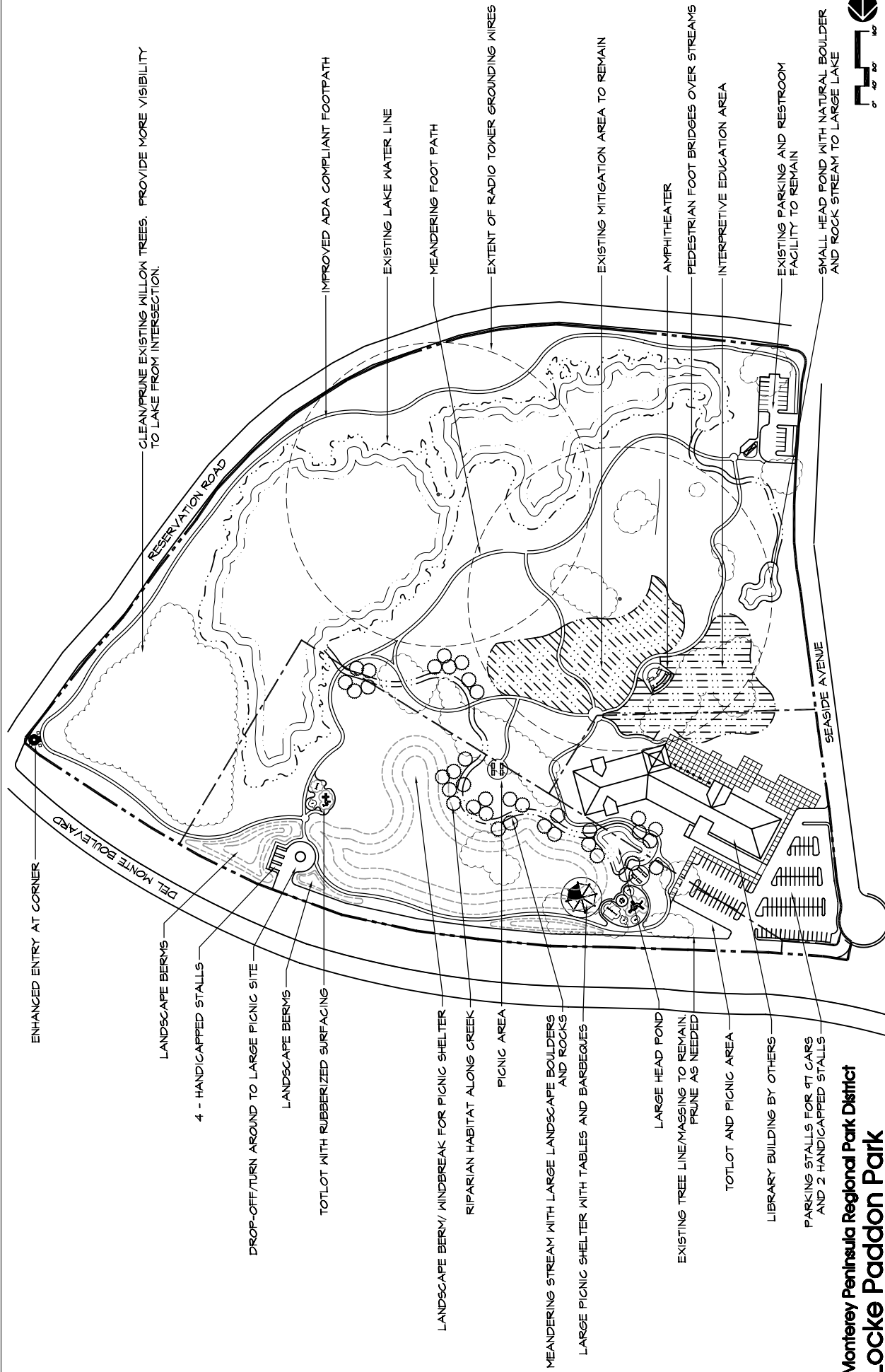
4.6 - Need some paved bicycle paths, loop trail around lake

4.7 - Stream good idea

- 4.8 - Fishing? From overlooks and/or bridges
- 4.9 - Dog clean up bags
- 4.10 - Bus services
- 4.11 - A sense of place
- 4.12 - Dislike Library, cement in mitigation area, willows in lake, turf,
- 4.13 - more restrooms closer to amenities
- 4.14 - Maintenance building?
- 4.15 - Nighttime security lighting?

5.0 - Table 5 Input notes

- 5.1 - Cover existing amphitheater area
- 5.2 - Cut 8,000 sq. ft. off of library
- 5.3 - Combine interpretive center within the library
- 5.4 - Allow for Café type lease area on corner or within library - apply ½ cent sales tax for Master Plan area to provide funding for maintenance and/or library staffing.
- 5.5 - Make trails in Master Plan that would provide for and facilitate linkage of Locke Paddon Park trail to future pedestrian infrastructure outside the park
- 5.6 - add bicycle racks
- 5.7 - Lessen the structural emphasis (less Sq. Ft.) in library - Focus on park/open space as much as possible.
- 5.8 - Durability of improvements
- 5.9 - Explore shared parking agreements with nearby properties (i.e. courthouse)
- 5.10 - How much water is available? Long term costs and supply for irrigation and stream (quantity, pump costs, etc.)
- 5.11 - Short/long term impacts of improved areas onto wetlands. (nitrates, invasive, foot traffic)
- 5.12 - Exercise stations along path
- 5.13 - Be mindful of graffiti
- 5.14 - Limit lighting - don't make this Wal-mart -will too much lighting make it unfriendly for wildlife.
- 5.15 - Clear entrance to access points

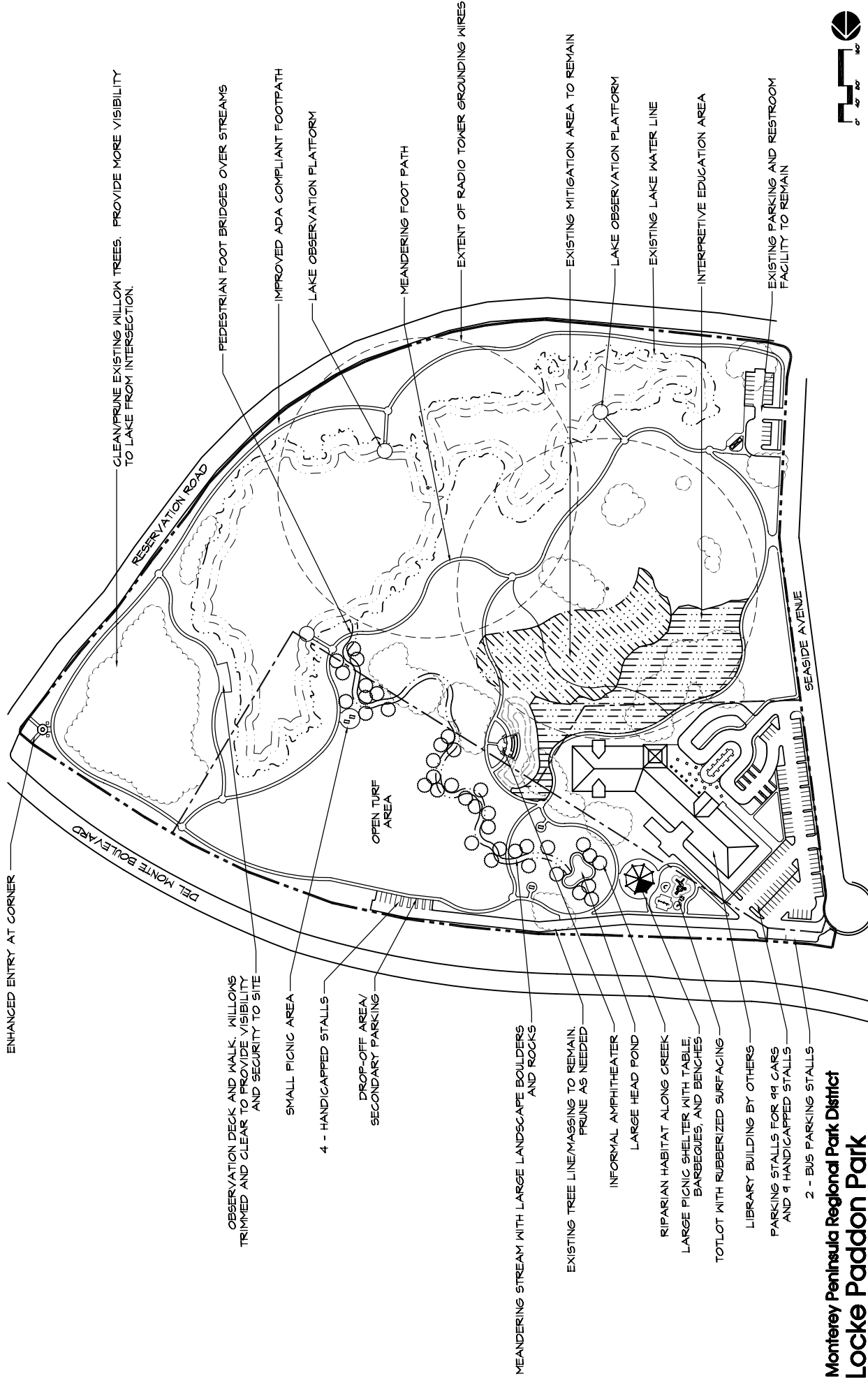


Monterey Peninsula Regional Park District Locke Paddon Park

Concept Plan - 'A'
DATE 01/18/05



markiss-rose-rsi
Landscape Architecture
Planning and Design
1000 Highway 1
San Francisco, CA 94107
(415) 774-1000



SECTION 02449

LANDSCAPE MAINTENANCE SPECIFICATIONS

SECTION 02449 – LANDSCAPE MAINTENANCE

I. GENERAL

A. Scope of Work:

Notwithstanding the requirements of these specifications, it is the intent of this document to ensure that the landscape, plant life, irrigation system and site be maintained in a healthy vigorous growth and well-groomed state at all times.

Contractor performance shall present a professional image, a high standard of quality and technical competence. The Contractor's prime responsibility will be to integrate innovative and progressive elements of high landscape maintenance standards and the objectives as set forth in the specification. The requirements and specifications of this document do not supersede any other applicable standards for public works contracts. Where there are differences, the more stringent shall apply, and the City shall be notified of any necessary changes to the specific operations and materials.

II. MATERIALS

All materials and subsequent change orders used shall conform to the specifications, or as approved in writing by the City. The original job specifications are available at the City.

III. SUBMITTALS

- A.** As required by Law, the Contractor must submit to the County Agricultural Commissioner's office, a monthly record of all Disease Control, Insecticides, Rodenticides and Herbicides used on the project.
- B.** Soils test shall be performed on an as needed basis. All soil sampling locations shall be approved by the City's Representative, with results submitted to the City. Soils testing shall be done by an approved soils agronomic testing firm at the Contractor's expense.
- C.** Any substituted products or equipment being used which do not conform to the original contract area working drawings, job specification or as specified herein shall be approved by the City in writing prior to use or installation.

IV. GENERAL MAINTENANCE CARE AND PROCEDURES

- A.** All necessary licenses, permits and/or approvals shall be obtained by the contractor from the City.
- B.** The Contractor shall furnish all labor, materials, equipment, tools, office with telephone, equipment storage and service facilities.
- C.** The Contractor shall refer to the Special Conditions contained herein for Weekly Maintenance Review procedures and Yearly Maintenance Scheduled Work Notification requirements.

V. Safety

All work performed under this contract shall be performed in such a manner as to provide maximum safety to the public and comply with all safety standards required by CAL-OSHA. The City reserves the right to issue restraint or cease and desist orders to the Contractor when unsafe or harmful acts are observed or reported relative to the performance of the work under this contract.

- A. Reporting Safety Hazards, Damage or Malfunction:**

It shall be the Contractor's responsibility to inspect daily all contract areas and identify any conditions(s) that renders any areas within this contract unsafe, as well as unsafe practices occurring thereon and report any deficiencies immediately to the City Representative.

1. Notify the City immediately of any unusual and hazardous conditions in the contract area including, but not limited to, restroom plumbing, sewer backups, fallen branches, or any item that creates a hazard or prevents the public's use of the parks/facilities.
2. Notify City within one (1) hour of malfunctioning facilities or conditions that may break, malfunction or interrupt the public's use of the parks/facilities.
3. All playground and sports equipment shall be inspected for vandalism, safety and serviceability daily.
4. Inspect all hardscape playing surface areas for safety hazards, including tripping hazards, holes, or other conditions daily.
5. Contractor shall be responsible to report any unsafe conditions observed for all structures and fixtures, including but not limited to:
 - a. Light standards and fixtures
 - b. Walls, fences, gates
 - c. Trash dumpsters
 - d. Signage
 - e. Graffiti
 - f. Buildings
 - g. Water Features
 - h. Play Areas
 - i. Volleyball nets and posts

B. Walks, Stairways, and Hardscape Areas:

Care shall be taken so that maintenance does not inhibit or endanger pedestrians utilizing walks, stairways, and hardscape areas. This work should be scheduled to coincide with mowing or other landscape work in the area. Adequate safety procedures should be followed including signing and roping off areas as necessary. Should work be disrupting to the public or regular traffic flow, it shall be rescheduled to a more convenient time.

C. Work Site:

The Contractor shall maintain all contract areas free of hazards to persons and/or property resulting from their operations.

D. Street Closures, Detours, Barricades:

If work is to be conducted in the public right-of-way, the Contractor shall adhere to all safety rules, using cones, signboards, or other required safety equipment, and obtain all necessary permits and approvals per Work Area Traffic Control Handbook requirements (WATCH book).

If the Contractor fails to provide and install any of the signs or traffic control devices required hereby or ordered by the City staff, staff may cause such signs or traffic control devices to be placed by others, charge the costs therefore against the Contractor, and deduct the same from the next progress payment.

E. Safety Equipment:

All required and recommended safety devices for all power equipment shall be maintained at all times. Failure to maintain safety devices will result in the temporary interruption of work as directed by the City.

VI. PESTICIDE USE AND SAFETY

All materials shall be in strict accordance and applied within the EPA regulations and the California Food and Agricultural Code.

A. General Requirements

The application of pesticides and other chemicals used on the contract areas shall be recorded and submitted monthly to the County Agricultural Commissioner's Office and City. Contractor shall be responsible for accurately maintaining all pesticide application records.

1. There shall be no application of a pesticide without approval by the City.
2. Application of all pesticides shall be only by a properly State Licensed Pest Control Operator.
3. Non-restricted chemicals shall be used whenever possible to perform pesticide control in landscape areas.
4. All restricted pesticides and/or chemicals to be used for pest control shall be approved by the City's Representative prior to use. A written recommendation of the proposed restricted chemicals to be used shall be prepared by a licensed California Pest Control Advisor, and accompanied with a Notice of intent Form to apply restricted/non-restricted materials. A written recommendation shall contain all specified information required for the application of restricted pesticides. The Contractor shall pay for and obtain all recommendations.

B. Application of Pesticides

1. **Timing:** Pesticides shall be applied at times which limit the possibility of contamination from climatic or other factors and the proper life cycle of the pests. Early morning application shall be used when possible to avoid contamination from drift. Applicator shall monitor forecast weather conditions to avoid making application prior to inclement weather to eliminate potential runoff of treated areas.

Irrigation water applied after treatment shall be reduced to eliminate runoff. When water is required to increase pesticide efficiency, it shall be applied in quantities in which each area is capable of receiving without excessive runoff.

2. **Handling of Pesticides:** Care shall be taken in transferring and mixing pesticides to prevent contaminating areas outside the target area. Application methods shall be used which ensure that materials are confined to the target area. Spray tanks containing leftover materials shall not be drained on the site to prevent any contamination. Disposal of pesticides and tank rinsing materials shall be within the guidelines established in the California Food and Agricultural Code or EPA Regulations.
3. **Equipment and Methods:** Spray equipment shall be in good operating condition, quality and designed to efficiently apply materials to the target area. Drift will

be minimized by avoiding high pressure applications and using water soluble drift agents.

4. **Selection of Materials:** Pesticides shall be selected from those materials which characteristically have the lowest residual persistence. Use of emulsifiable concentrates shall be used when possible to limit windblown particles. The use of adjuvants will be to increase pesticide efficiency, thereby reducing the total amount of technical material required to gain control.
5. **Substitutions:** Wherever a specific type of material is specified, no substitutions shall be allowed without the written consent of the City's Representative.
6. **Certification of Materials:** All materials shall be delivered on the site in original unopened containers. Materials shall be subject to inspection prior to mixing by the City's Representative.

VII. WEED CONTROL

The Contractor shall be responsible for providing a continuous weeding program for all contract areas. Weeding shall be on a weekly basis and shall include "any undesirable or misplaced plant".

A. Turf:

The use of any chemicals for weed control shall be done by a State Licensed Pest Control Operator who shall follow all guidelines governing his license.

1. A continual chemical program shall be adopted for control of broadleaf and noxious weeds.
2. All chemicals shall be applied in accordance with regulations of State Agricultural Department.
3. Use extreme caution when using selective weed killers not to damage other plants.
4. During the months of March and September a broadleaf grass pre-emergent shall be applied to all turf areas (cool season grasses only).
5. City approval must be obtained prior to spraying any herbicide and all spraying shall be done at a time when there is no wind. At first indication of Crabgrass infestation, spray affected areas with an approved spray. Apply Crabgrass killer only on cool days when lawns are in a moist condition. Removal of all weeds shall be a continuous program. Noxious weeds shall not be permitted to grow within the areas assigned as part of this contract, and shall be completely removed and bare turf areas re-sodded. Crabgrass shall not be allowed to become established in any landscape areas maintained by Contractor. Contractor shall apply a Crabgrass pre-emergence herbicide to all turf areas between January 15th and February 15th.

B. Ground Cover:

Weeds shall be removed completely on a weekly basis, chemically or manually. Weeds may be controlled with pre-emergent herbicides, preferably, but may also be controlled with post-emergent herbicides, and/or by hand pulling.

All ground cover shall be inspected weekly for weed growth. Weeds shall not be allowed to remain growing for longer than one (1) week without complete removal to include roots, rhizomes and stolons. Bermudagrass or other noxious weeds shall not be allowed to become established in any ground cover areas. Cultivating of ground cover areas shall be held to

minimum and cultivated only as necessary to remove weeds. Excessive cultivation may result in root damage to ground covers and shrubs.

C. Trees:

All trees in ground cover areas shall have open soil maintained immediately around the base of the trunk. Keep this area free of weeds and avoid frequent soil cultivation which destroys shallow roots. Tree wells shall be free of weeds at all times.

D. Shrubs:

Weeds shall be removed from beds weekly, chemically or manually. Bermudagrass and other noxious weeds shall not be allowed to become established.

E. Walkways, Paved Surfaces and Hardscape Areas:

Contractor shall be responsible for controlling weeds by mechanical or chemical means, growing in cracks, curb and gutter, or expansion joints and areas contiguous to the contract areas as required.

VIII. TURF CARE

Lawns shall be maintained to be in the healthiest growing condition possible. Supply the necessary services as follows:

A. Maintenance Schedules:

Scheduling of mowing and turf care maintenance time shall be submitted to the City for approval. Work schedules for mowing, aeration and dethatching operations shall be changed as determined by the City's Representative to accommodate public use by various user groups and recreations activities.

B. Mowing:

Turf in this contract shall be mowed with power propelled mowers equipped to mow all collect clippings in one operation. Rotary movers shall be used to mow tall fescue or other cool-season turf areas. Reel mowers equipped with rollers will be required to mow Bermudagrass areas. The City's Representative may in some instances allow mowing without the attached collection device, providing the machine is equipped with approved safety features.

Labor and materials shall be provided by the Contractor for re-seeding or re-sodding to any failing turf areas as becomes necessary due to contractor neglect.

Care shall be exercised during the mowing operation to prevent damage to trees and other physical obstacles located within the turf areas. Do not mow wet areas. Alternate mowing patterns whenever possible to prevent wheel ruts. If ruts are made, Contractor will make repairs at his own expense.

All trash, litter and debris shall be removed from the landscape prior to mowing.

The Contractor shall not interfere with the public use of the premises and shall conduct its operations as to offer the least possible obstruction and inconvenience to the public or disruption to the peace and quiet of the areas within which the services are performed.

1. **Cool Season Grass:** Turf shall be mowed (maintained) with rotary type mowers at a height of three inches (3") during Spring, Summer and Fall. In the Winter turf areas shall be mowed at a height of two inches (2"). All turf areas shall be cut

at a regular weekly intervals. The turf should never be cut more than one-third (1/3) of the top growth or approximately three-quarter inch (3/4") at any one mowing. Avoid Scalping.

2. **Open Turf Fields:** Mow turf areas 52 weeks per year on a regular schedule to be approved by the City. The schedule shall provide that all turf areas will be mowed once per week. Mowing of turf at each park facility, shall be completed in one operation. Care should be given to mow without compactions of turf.

C. Edging and Trimming:

Turf edges adjacent to walks, curbs, paving mow strips, walls, fences, poles, valve boxes, buildings, shrub areas and other physical obstructions shall be trimmed weekly in the Spring, Summer and Fall seasons and as needed for a neat appearance during the Winter months.

1. Grass shall be neatly trimmed away from sprinkler heads to ensure proper coverage and operation. Trim turf immediately adjacent to sprinkler heads, as directed by the City's representative and under no circumstances remove an area larger than the head diameter. Trimming around sprinkler heads or cutouts in the turf area with an edger will not be permitted. Weed or turf killer shall not be used.
2. "Weed Eaters" or similar equipment shall not be used around trees or shrubs. All trimming or edging around trees and shrubs shall be accomplished by spraying an eight inch (8") minimum width not to exceed twelve inches (12") maximum width area around the plant with an herbicide per manufacturer's application rate.

D. Equipment Cleaning:

To help prevent contamination of turf areas, thoroughly "wash off" all equipment that was used at another site prior to mowing or edging any areas on the site.

E. Equipment Condition:

Machinery and equipment used by the Contractor shall be clean and well maintained at all times to ensure proper operation under this Agreement.

All mowing and trimming equipment shall be in proper adjusted and blades shall be maintained in a sharp manner. The reel blade adjustment shall provide a uniform level cut without ridges or depressions. Mowers shall be maintained to provide a smooth even cut without tearing of the leaf blade. Always keep mowers and edgers sharp, so as to cut the tips not tear them off. Torn grass blades which have a brown "haze appearance" are not acceptable. All equipment shall be subject to inspection and approval by the City's Representative.

F. Clipping Disposal:

All grass clippings shall be collected and removed from turf areas at the site(s) and disposed off site in an approved manner prior to the completion of the day's mowing operations or the end of the day, whichever occurs first. Curbs, gutters, sidewalks, etc., shall be cleaned after each edging by blowers, vacuum or other approved methods. Refer to Section XVII "Walks and Hardscape Care", of this specification.

G. Watering Turf:

Water shall be applied as frequently as needed (as weather conditions require) to maintain proper growth and replenish soil moisture below the root zone. All applications of water

should be in the evening or early morning hours, so as not to interfere with public use of the contract areas. If an area appears stressed during the day, a light application of water should be applied at that time. It is the Contractor's responsibility to apply the water evenly. In the event of automatic irrigation disruption or operation of manual irrigation systems, the Contractor shall hand water lawn and ground cover areas a minimum of twice per week in the Winter and four(4) times per week in the Summer. Water runoff across pavement surfaces and into gutters shall be avoided. All turf areas requiring irrigation shall be accomplished no later than 6:00 a.m.

H. Fertilization:

Lawns shall be fertilized four (4) times annually. Fertilize one (1) time per year during the month of January using an ammonium nitrate fertilizer, 33-0-0, at the rate of five pounds (5 lbs.) per 1,000 square feet, or approved equivalent program. A "complete fertilizer" with an analysis of 16-6-8, at the rate of six pounds (6 lbs.) per 1,000 square feet shall be used three (3) times per year, during the months of April, July and October, or approved equivalent program.

1. All fertilization shall be included with the landscape maintenance of each contract area. The Contractor shall supply and transport all required fertilizers as a part of his cost included in the bid to the City.

I. Aeration:

All turf areas shall be aerated by removing half inch (1/2") diameter by three inches (3") deep cores with an aerator machine at not more than six inch (6") spacing. Aerate compacted or stressed areas as required to increase water penetration and reduce runoff. Contractor shall flag all irrigation sprinkler components prior to commencement of work. Cores shall be removed and dumped in an approved manner after completion of aeration. In addition, the tops of all mounds and localized compacted dry spots shall again be aerated between the intervals above as necessary. All damaged areas larger than four inches (4"x4") shall be seeded on an as needed basis at no additional cost to the City.

1. **Parks:** Aerify park sites turf once (1) per year between the months of February and March.

J. Dethatch:

1. All turf areas shall be dethatched once per year between September and October.
2. Dethatching shall be accomplished by use of a "vertical cut type" dethatch machine approved by the City's Representative.
3. Contractor shall flag all sprinkler components prior to dethatching.
4. All thatch and debris shall be immediately removed upon completion.

K. Insect, Disease and Pest Control:

The Contractor shall regularly inspect all landscape areas for presence of disease, insect or rodent infestation. The Contractor shall advise the City within four (4) days if disease, insect or rodent infestation is found; a State Licensed Agricultural Pest Control Advisor shall identify the disease, insect or rodent and specify control measures to be taken using legally approved materials and methods, and upon written approval of the City, the Contractor shall implement the approved control measures. The use of chemicals for insect and disease control shall be done by a State Licensed Pest Control Operator who shall follow all guidelines governing his license.

1. The Contractor shall provide complete and continuous control of all plant pests or diseases. The Contractor shall select and supply proper materials and personnel to comply with all City, County, State and Federal Regulations or Laws.
2. Contractor will assume responsibility for use of all chemical controls. Pests and diseases to include, but not be limited to all insects, mites, other invertebrates, pathogens, nematodes, and vertebrates. Chemical controls to include necessary use of herbicides and plant growth regulations. Pests may be controlled by mechanical means as well as chemical.
3. Extreme caution shall be used when spraying insecticides and fungicides. Only spray when there is no wind. City approval must be obtained prior to spraying any insecticides or fungicides, 48 hours in advance.
4. Approved control measures shall be continued until the disease, insect or rodent is controlled to the satisfaction of the City. The Contractor shall utilize all safeguards necessary during disease, insect or rodent control operations to ensure safety of the public and the employees of the Contractor.

L. Rodent Control:

When rodent infestation becomes evident, the Contractor shall at once proceed to exterminate and destroy the rodents by poisoning, gassing, trapping or other appropriate means.

1. **Poisoning:** To poison rodents, use a grain treated with an anticoagulant substance placed in bait stations. Bait must be checked daily and made available at all times. Six (6) or seven (7) consecutive feedings are usually necessary. All dead rodents shall be properly disposed off-site.
2. **Trapping:** May be done in any season by the use of an approved rodent trap. All dead rodents shall be properly disposed off-site.
3. **Fumigation:** There are several types of toxic gasses available some of which require a special permit from the Orange County Agriculture Commissioner. Fumigation is most effective in the Spring or when soil moisture is high. Fumigation is not effective during periods of hibernation or aestivation since the burrows are plugged with soil.

Rodent control (poisoning or fumigation) as noted above, shall be done per the specifications of a State Licensed Agricultural Pest Control Advisor and shall be done under the direct supervision of a State Licensed Pest Control Operator who shall follow guidelines governing his license.

IX. GROUND COVER CARE

Ground cover beds shall be maintained in an attractive condition at all times. All ground cover shall be inspected weekly and all debris including leaves branches, paper, bottles, etc. shall be removed daily. Supply the necessary services as follows:

A. Edging and Trimming:

"Weed Eaters" shall not be used to edge ground cover unless approved by the City's Representative. All ground covers shall be pruned, sheared or thinned neatly away from shrubs, trees, walks, curbs, header boards, etc. Ground covers shall not be trimmed vertically unless approved by the City and shall be thinned out, as needed, to avoid matting and to achieve an overall even appearance. Keep ground cover trimmed back from all

controller units, valve boxes, quick couplers or other appurtenances. Ground cover shall be trimmed six inches (6") back from the buildings, walls, fixtures, signs, shrubs, etc.

Remove ground cover from all above ground structures unless the City directs the allowance of ground cover growth over wall tops, curbs, etc. to prevent graffiti or for aesthetic reasons.

Ground covers are to be neatly trimmed away from sprinkler heads to ensure proper coverage and operation. Trim ground covers away from sprinkler heads by tapering away from head. Holes shall not be cut into ground cover areas. As ground covers grow in height, risers may need to be extended to properly clear top of ground covers.

B. Watering:

Be cautious not to over water shrub and ground cove areas. Water enough to ensure moisture penetrations throughout the root zone to a depth of proximately eight inches (8"). Program irrigation systems to maintain a precipitation of one-half inch (1/2") per week during the growing season. During prolonged rainy periods discontinue irrigation sequences. Ponding of water will not be allowed and should be avoided at all times.

C. Fertilization:

Vigorous growth and good color must be maintained at all times. Any non-native ground cover beds shall be fertilized two (2) times per year, or as directed. Fertilize during the months of April and October using a "complete fertilizer" with an analysis of 16-6-8 at the rate of six pounds (6 lbs.) per 1,000 square feet, or approved equivalent program. When soils tests indicate deficiency, the soil laboratory's recommendations shall be followed. Also refer to the Yearly Landscape Maintenance Schedule.

D. Pest and Rodent Control:

1. **Snails and Slugs:** Treat for snails and slugs as needed. Treatment shall be as approved by the City and may vary from one project areas to another. In general, broadcast and approved granule, pellet or meal at the recommended rate of three (3) times a year minimum; Spring, late Summer and Winter and/or spray an approved insecticide as needed for complete snail and slug control based upon a program designed by a State Licensed Pest Control Operator.
2. **Rodent and Pest Control:** Refer to Section VIII, "Rodent Control", of this specification for approved methods of spray control.
3. **Insecticide and Fungus Control:** Refer to Section VIII, "Insect, Disease and Pest Control", of this specification for approved methods of spray control.

E. Plant Material Replacement:

Following acceptance of contract areas, it shall be the Contractor's responsibility to maintain all plant material in a satisfactory manner and to replace, at Contractor's expense, dead or severely damaged plant material with equal size and quality materials at City's direction. The Contractor, after notification of City's authorization, shall remove and replace, at no cost to the City, any tree, shrub, turf or ground cover which is damaged or lost due to Contractor or his employees' negligence through improper use of horticultural practices, pesticides, watering, failure to control rodents and insects or improper use of equipment.

Any ground cover, tree and/or shrub that appears to have more than one-half (1/2) of its foliage in a declining state shall be brought to the City's attention immediately. Check plant for root over-watering or drainage problems and repair the problem prior to

replacement. Replacement plants shall be of a size condition and variety acceptable to the City. The Contractor shall pay for all replacement plants, including materials, transportation and labor unless the City determines that the plant was lost due to an "Acts of God", damaged by others, or as a result of an event without control or negligence by the Contractor.

X. TREE CARE

All trees shall be checked monthly for any damage, special water needs, etc. and treated as necessary. Undesirable conditions shall be eliminated per accepted landscape maintenance practices. The Contractor shall maintain all trees, whether specifically mentioned or not, in a healthy condition at all times.

The Contractor is responsible for maintenance pruning of trees to a height of fourteen feet (14') above the ground. All trees will be trimmed at least once a year and palms will be trimmed as needed throughout the year.

A. Pruning:

Pruning shall be performed as an on-going operation by the Contractor, and shall be done under the direction of the City's Representative. Prune trees to select and develop permanent branches that have a smaller diameter than the trunk or branch to which they are attached. Remove all dead, diseased or damaged growth; eliminate narrow V-shaped branch forks. Reduce topping and wind damage by removing crossover branching and by thinning out crowns. Prune to control growth within the trees' space limitation, to maintain a natural form and to allow head clearance. Prune two sample trees of each genus and species under the direction of the City's Representative for approval and control purposes, prior to proceeding with balance of tree pruning work.

1. **Young Tree Pruning:** Lower branches shall remain in a "tipped back" or pinched condition, leaving as much foliage as possible to promote caliper trunk growth. Stripping of lower branches will not be allowed. Lower branches shall be cut flush with the trunk only when the tree is able to stand without support.
2. **Evergreen Tree Pruning:** Evergreen trees (trees that are not deciduous) can be pruned or thinned at any time when necessary. Prune for appearance and safety and remove dead or broken branches. Prune especially during the months of September and October to prepare the trees for the windy season. For safety reasons remove any part that may become a hazard by falling.
 - a. **Pines:** Pines shall not be pruned except as corrective or preventative maintenance. Removal of lower branches for turf maintenance is allowable, but in no case shall branches be removed to expose more than 2' of the trunk.
3. **Deciduous Tree Pruning:** The pruning of deciduous trees shall be done during the dormant season, December, January and February except for blooming trees which will be pruned after blooming. However, if a tree becomes damaged or constitutes a health or safety hazard, it shall be pruned at any time as required. All pruning cuts shall be made flush with the trunk, lateral branches or buds. "Stubbing" of branches will not be allowed.

B. Staking and Guying:

Tree stakes, ties and guys shall be checked at least monthly and adjusted as needed. Tree ties shall be inspected to prevent bark wounds caused by abrasion and ties shall be adjusted to prevent girdling. Before any stakes are removed, remove tree ties and allow the tree to remain without support for a period of time to observe structural stability of

the tree. The tree must retain its upright position and this position must be held regardless of moisture content of the soil. Remove tree stakes only when tree has proven to be structurally stable. Any restaking shall be done with originally specified materials. Stakes shall not be placed closer than eight inches (8") from trunk of tree. Guying will, over time, stretch or loosen. Adjust as needed to retain a taut position, until such time when guying is removed. Any tree that is damaged due to improper staking or tying shall be replaced at the Contractor's expense. Replace broken stakes and damaged guys as required. Damaged trees shall be staked within twenty-four (24) hours of identification of damage by Contractor, City or the public's notification to Contractor. Replacement stakes or new staking shall be completed within five (5) days. (Labor only, materials will be paid for by the City as "Extra Work" materials.)

C. Tree Guards:

Newly planted trees in turf areas shall be inspected at the base of the trunk for tree guards weekly. Contractor shall report any missing tree guards to the City immediately. Tree guards shall only be removed as directed by the City's Representative.

D. Watering Basins:

Watering basins shall be properly maintained on all trees, shrubs, and vines to ensure adequate water penetration. Failure of the irrigation systems to provide enough deep moisture will not alleviate the Contractor from providing adequate moisture to any material. Rake out water basins only as directed by the City's Representative.

E. Fertilization:

All trees shall be deep-fed or vertical mulched as needed or determined by the City's Representative by means of one inch (1") diameter holes drilled two feet (2') deep at six foot (6') intervals around the drip line and filled with 12-12-6 commercial fertilizer, or approved equivalent program.

F. Pest Control:

All trees should be inspected regularly for disease, fungus or insect infestation and sprayed accordingly as needed. Upon notification by City, Contractor shall provide labor, equipment and materials to spray pesticides in the manner specified by a State Licensed Pest Control Advisor and the City.

G. Clearance and Visibility:

Prune trees to allow necessary clearance for the safety of pedestrian traffic, vehicle circulation and signage, etc. Prune trees along sidewalks to allow ten feet (10') clearance for pedestrians and fourteen feet (14') above curb and gutters for vehicular traffic, and two feet (2') from all walls and structures or as directed by the City's Representative.

H. Plant Replacement:

Refer to Section IX, "Plant Material Replacement", of this Specification.

XI. SHRUB AND VINE CARE

All shrubbery shall be checked weekly for any breakage or damage, special watering needs, etc., and treated as necessary. All undesirable conditions shall be eliminated per accepted landscape maintenance practices. All shrubs shall be maintained in a healthy vigorous condition. Remove all spent flowers, flower spikes, all leaves and debris, soot and accumulated dirt from plant areas.

A. Pruning:

Pruning shall be performed as an on-going operation, and shall be done under the direction of the City's Representative, not allowing plants to develop stray, undesirable growth. Trimming, pruning, thinning and training are functions to be done as needed to maintain a pleasing appearance. Any shrub under stress should be trimmed to reduce evaporation. All pruning shall be done to a naturalistic shape, not hedged into geometric forms. The design intent is to have naturalistic shrub masses not individual shrub forms or standards. Accomplish pruning by selectively removing woody stems from inside shrubs on an as needed basis as directed by the City's Representative. Excessive pruning or stubbing back will not be permitted. Top shrubs only when necessary for appearance and after interior selective branch pruning has been completed or as directed by the City's Representative. Shrubs shall be pruned and thinned using hand-held shrub pruners. Hedge shears and clippers shall only be used if approved, in writing, by City's Representative.

B. Watering:

Refer to Section IX, "Watering", of this specification for watering in ground cover and shrub areas. Maintain a watering basin around all shrubs and vines on slope areas to insure adequate water penetration. Rake out basins only as directed by the City's Representative.

C. Fertilization:

Shrubs located in ground cover areas will not require additional fertilizing. See Section IX, "Fertilization", for fertilization application in ground cover areas.

D. Pest Control:

Check all plant material in landscaped areas weekly and apply pesticides at the first sign of infestation.

E. Clearance and Visibility:

Where shrubs occur in close proximity to sidewalks, curbs, roadways and parked cars, prune to allow movement without interference from branches and foliage. Prune shrubbery to allow necessary clearance for the safety of pedestrian traffic, vehicle circulation, signage, etc., and a minimum of two feet (2') from walls and structures or as directed by the City's Representative.

F. Plant Replacement:

Refer to Section IX, "Plant Material Replacement", of this specification.

XII. IRRIGATION SYSTEMS CARE

The Contractor will receive all irrigation systems in a sound working order at the beginning of contract. If any system is found to be otherwise at the start of work, the City shall be notified immediately and necessary repairs will be at no cost to the Contractor. At the close of the contract period, all irrigation systems will be checked by the City's Representative, and all irrigation systems shall be returned to the City in a satisfactory condition. Any faulty portion shall be repaired or replaced by the Contractor at not cost to the City.

A. Irrigation Repair and Operation:

1. Irrigation system components damaged as a result of Contractor's neglect shall be repaired or replaced by the Contractor at no cost to the City. Normal wear and tear of systems, vandalism, accidental breakage by others, or so-called "Acts of

God", are conditions under which the Contractor is not directly responsible and repairs shall be paid for by the City. The Contractor shall notify the City's Representative the same day of discovery of damage to irrigation system components caused by vandalism, "Acts of God", vehicular damage, theft or mysterious damages that do not result from the performance of the work by the Contractor. Upon receipt of the City's written authorization, repair of said damage as soon as possible after discovery, billing the City for the cost of such repair on the subsequent monthly billing statement. Failure to report any damages will constitute Contractor making repairs at his own expense. Any replacement of irrigation system component under this sub-paragraph A shall be original equipment types where known. Any substitutions for replacement equipment shall be approved, in writing, from the City's Representative prior to doing work.

2. Irrigation shall be done by the use of automatic sprinkler systems, where available and operable; however, failure of the existing irrigation system to provide full and proper coverage shall not relieve the Contractor of the responsibility to provide adequate irrigation with full and proper coverage to all areas in the work site.
3. Any damages to public or private property resulting from excessive irrigation water or runoff shall be charged against the contract payment unless immediate repairs are made by the Contractor to the satisfaction of the City.
4. The Contractor shall keep controller and valve boxes clear of solids and debris and maintain the irrigation system including the replacement, repair, adjustment, raise or lower, straighten, and any other operation required for the continued proper operation of the system from the water meter throughout the work site. Repair or replacement includes, but is not limited to: sprinkler system laterals (piping), sprinkler mains (pressure lines), sprinkler control valves, sprinkler controllers, sprinkler heads, sprinkler caps, sprinkler head risers, valve covers, boxes and lids, including electrical pull boxes and lids, valve sleeves, quick coupler valves and hose bibs, etc.
5. All irrigation repairs shall be made within 24 hours or prior to the next irrigation cycle. All repairs shall be made in accordance with City of Orange Standard Irrigation Specifications.
6. Contractor shall maintain an adequate stock of medium and high usage items for repair of all irrigation systems.

B. Monitoring Systems:

1. The Contractor shall inspect the irrigation systems for broken and clogged heads, malfunctioning or leaking valves, or any other condition which hampers the correct operation of the system. Authorization must be obtained from the City before proceeding with work not covered under normal maintenance work and the malfunctioning sprinkler system area shall be irrigated by a portable irrigation method until all authorized repairs have been completed to the City's satisfaction. Each irrigation controller(s) and system shall be checked weekly for proper water scheduling and coverage. The Contractor shall clean and adjust sprinkler heads as needed for proper coverage. Each system shall be manually operated at the irrigation controller and observed on a monthly basis. Make all necessary adjustments to heads which throw onto roadways, walks, windows, park facilities or out of intended area of coverage.
2. The Contractor shall turn off irrigation systems during periods of rainfall and times when suspension of irrigation is desirable to conserve while remaining within guidelines to good horticulturally acceptable maintenance practices.

3. One man shall have responsibility of operating and knowing the irrigation system and his duties shall be to adjust controllers, observe the effectiveness of the irrigation systems and make minor adjustments and repairs to systems.

C. Coverage/Application Rate:

Generally, watering shall be done at night, between the hours of 11:00 p.m. and 6:00 a.m., unless otherwise directed by the City. The Contractor shall operate systems and irrigation heads as seasonal conditions require. During extremely hot weather, over-extended holiday periods and during or following breakdown of systems, the Contractor shall provide adequate personnel and materials as required to adequately water all landscaped areas. When breakdowns or malfunctions exist, the Contractor shall water manually by whatever means necessary to maintain all plant material in a healthy condition. Dry conditions shall not be permitted to develop.

D. Tests:

The Contractor shall test the soil in turf and ground cover areas and around trees and shrubs monthly or as necessary with soil probes to determine that the proper amount of water is being applied at all times. This information shall be used to adjust watering times on the controller and supplemental hand or deep watering as necessary. The Contractor shall make the soil probe available at all monthly walk-through inspections.

E. Systems Maintenance:

Once a year during the month of March, the Contractor shall clean valve boxes, remove intruding soil and replace gravel as originally specified. Once a month, the Contractor shall wipe down the equipment in the controller cabinet to remove all dirt and dust. All covered electrical connections shall be sprayed with compressed air (i.e., inside controller). All exposed electrical connections shall be sprayed with silicone (i.e., terminal strips).

F. Maintenance Work Not Included:

Testing, certification and service of the backflow prevention device(s) shall be done by others. However, it shall be the Maintenance Contractor's responsibility to notify the City should a malfunction occur.

XIII. SURFACE DRAINAGE FACILITIES

- A. All surface drainage devices such as concrete 'V' ditches, bench drains, swales, inlets, and other surface drains shall be inspected monthly or more often as necessary and kept free of all algae, debris, vegetation, soil, etc., which would preclude their proper, intended function.
- B. All landscape drainage devices shall be routinely inspected and flushed of all foreign matter in order to maintain their proper, intended functioning.

XIV. SECURITY LIGHTING FACILITIES

- A. The lamp surfaces of all security lights shall be routinely wiped clean of silt, dust and residue which diminishes their intended illumination. All replacement of lamps or equipment, repairs or adjustments shall be in accordance with City approved plans and specifications.
- B. Once a month during the first week of the month, a night inspection shall be performed on all non-functioning light identified for repair and/or bulb replacement.

XV. GROUNDS MAINTENANCE CARE

A. General Maintenance:

The Contractor shall provide grounds maintenance.

1. All areas shall be inspected daily and maintained in a neat, clean, and safe condition at all times.
2. All broken glass and sharp objects shall be removed daily.
3. All animal feces or other materials detrimental to human health shall be removed from the park areas daily.
4. Decomposed granite areas shall be kept level at grade at all times, free of weeds, trash and debris.

B. Barbecue Grills:

All barbecue grills shall be emptied of all ashes twice weekly, every Monday and Friday.

C. Drinking Fountains:

All drinking fountains shall be kept clean and operational at all times.

D. Park Amenities:

Benches, picnic tables and play equipment shall be cleaned weekly or more often as needed.

E. Trash/Litter Collection and Disposal:

The Contractor shall inspect all parks prior to 11:00 a.m. at least two (2) times per week, removing all litter from turf, planters, sandlots, walkways, parking lots, receptacles and dumpster enclosures.

1. Trash, litter, and other debris from the park site as well as trash and litter blown by the wind or deposited by persons passing by or visiting the Contract Areas shall be collected. All paper, trash, cans, bottles, etc., shall not be dumped on-site in trash dumpsters at contract areas, but should be disposed of in a legal manner at the Contractor's expense off site.
2. The Contractor shall respond within an hour during regular working hours to the City's direction regarding litter pick-up. If refuse or litter is not removed during daily site visit, said litter or debris will be considered an emergency and removed immediately upon notification by the City. Failure of said removal may result in deduction of payment for that date or week.
3. Leaves, grass clippings, branches, weeds and any other landscape debris accumulated from the landscape areas shall be disposed of off-site the same day the debris is accumulated.

F. Trash Containers:

Trash containers provided by the City shall be inspected two (2) times per week and emptied as often as required and washed after emptying (when necessary) to be determined by the City's Representative. Contractor shall provide approved plastic liners (40" x 48" x .74

minimum or approved equivalent) for all trash containers at Contractor's own expense. Trash liners shall be changed two (2) times per week or more often as required.

G. Tree Wells:

Trash, leaves and debris shall be removed from tree wells weekly.

H. Greenwaste/Land Diversion Program:

The Contractor shall comply with any adopted City programs for waste reduction/recycling effective during the period of the Contract.

XVI. WALKS AND HARDSCAPE CARE

A. General:

During each site visit all concrete and asphalt playing surfaces, driveways, parking lots, sidewalks, and picnic slab areas shall be checked and cleaned. Work shall be scheduled so as to not interfere with normal playing activity.

1. All contract areas shall be inspected daily and maintained in a neat, clean, and safe condition at all times. Leaves, branches and other debris shall be collected and removed from contract areas.
2. All contract areas shall be swept weekly or more often as required to remove all deposits of silt and/or sand and glass.
3. Expansion joints and cracks shall be kept free of weeds at all times.

B. Sweeping, Vacuuming and Blowing Off Walks and Stairways:

All walks and stairways shall be kept clean at all times; they shall be swept or vacuumed weekly or more often if necessary.

1. All walk and stairways shall be kept free of debris, leaves and other debris from the landscape Areas as well as trash and litter blown by the wind or deposited by persons passing by or visiting the site. Debris shall be collected two (2) times per week. All paper, trash, etc. should be dumped off site in a legal manner at the Contractor's expense.
2. All walks and stairways shall be kept free of dirt, leaves and other debris from the maintenance operations as well as trash and litter blown by the wind or deposited by persons passing by or visiting the site. Debris shall be collected two (2) times per week. All paper, trash, etc., shall be dumped off site in a legal manner by the Contractor.
3. Work shall be coordinated with mowing or other maintenance work on the area. All gutters within the maintenance area shall be kept clean of grass clippings and miscellaneous trash. All grass clippings shall be removed (not scattered) from gutters the same day mowing and edging take place.

C. Dog Droppings:

Shall be removed when found during maintenance operations. Walks shall be hosed off after droppings are removed.

D. Hosing Off Walks and Stairways:

In general, all walkways and stairways shall be hosed off as required by the City in place of sweeping concrete as described above. Care shall be taken so that this does not inhibit or endanger pedestrians utilizing walks and stairways. This work should be scheduled to coincide with mowing or other maintenance work in the area.

E. Street Clean-Up:

Street sweeping is maintained under a separate contract and is not a part of this maintenance work. The Contractor shall, however, remove and disposed of off site, at an approved dump site, all grass clippings and miscellaneous debris or trash blown into the parking lot and streets by the wind or deposited by persons passing by or visiting the site. Grass clippings shall be cleaned from gutters the same day mowing takes place.

XVII. SAND COURT CARE

A. General:

These areas shall include tot lots, play areas, volleyball courts, horseshoe pits, etc.

1. All tot lot areas shall be raked to remove leaves and debris two (2) times per week.
2. Sand in play areas must be kept clean and maintained for safe playing. Each sandlot shall have trash and glass removed and depressions filled in weekly and rototilled quarterly.

All sand areas shall be rototilled to the maximum depth that will allow complete loosening of the sand but will not cause lower base materials to be mixed in with the sand. After rototilling, all areas shall be raked level.

3. Sand around the edge of sand lots shall be swept, using a hand broom, and the sand shall be put back in the sand lot. Use of blowers will not be allowed.
4. On Monday and Friday of each week all sand areas shall be raked level and kept free of any foreign debris.
5. All sand areas shall be maintained weed free.
6. Sand shall be replenished as necessary to maintain optimum level in each area, generally six inches (6") below the top of the concrete curbing but dependent upon play equipment footing and final level shall be determined by the City's Representative. Replacement sand shall be washed plaster sand or approved equivalent at no extra cost to the City.
7. In the event of inclement weather if at anytime the sand court areas become flooded and there is standing water, it will be the Contractor's responsibility to remove water immediately.

XVIII. DRESS CODE AND APPEARANCE

The Contractor shall be required to provide company uniforms, with company name, approved by the City for personnel assigned to the contract areas. Sufficient changes shall be provided to present a neat and clean appearance of landscape personnel at all times.

The proper uniform includes:

A. Safety Equipment:

All employees, when operating power equipment, shall have the proper safety devices in place such as face shields, ear protectors, eye goggles, dust masks, etc.

B. Shoes:

Safety leather boots, or shoes, in good condition. No sandals or tennis shoes shall be worn on the job. In the event that tennis shoes or sandals are worn, the City's Representative may suspend work for that day.

C. Company Shirts:

Shall be worn by Contractor's personnel at all times.

XIX. EXTRA WORK

The City may, from time to time, need additional landscape maintenance services which shall only be authorized by the City's Representative as stipulated in the contract and upon execution of the contract documents. Extra work shall be performed by the Contractor or by competitive bid option at the discretion of the City.

A. In the event the Contractor is required by the City and agrees to perform extra work, the following procedure shall govern such work:

1. When required by the City, an estimate of cost will be submitted to the Department of Community Services for approval prior to work being done. The Contractor shall maintain records sufficient to distinguish the direct cost of other operations. He shall furnish reports of extra work on forms furnished by the Contractor, itemizing all costs for labor, materials and equipment rental. The report shall include hours worked. The following procedure will govern such extra work.
2. Work will be executed under the direction of the City's Representative on a time and materials basis or an agreed lump sum price depending on the nature of the work.
3. City will issue a work request for such extra work to be performed.
4. Extra work will not be initiated without written authorization, except in emergency call-out situations. Contractor agrees that any services performed which are not authorized by the delegated City's Representative, as stipulated in the contract, may result in non-payment by the City.

B. Extra work may include, but not be limited to, the following:

1. Replacement of plant materials due to failures beyond the Contractor's control.
2. Replacement of worn out damaged sprinkler heads, valves, quick couplers, etc.
3. Additional treatment required for planting or soil as not set forth specifically in this Specification.
4. Remedial landscaping.
5. Repairs or replacements due to vandalism or "Acts of God".

C. Labor costs shall be based on the proposed wage scale for each type of workman.

D. The City's Representative is limited to issuance of orders, directions, notices and instructions, pursuant to the scope of landscape maintenance. The City shall not be

obligated to pay for extra services which are not supported, in writing, by a Field Change Order Form.

- E. Contractor shall submit invoices for Extra Work separate from regular monthly maintenance billing and shall detail: 1) site location, 2) services performed, 3) amount, 4) City's Representative which ordered or authorized services.

XX. WEEKLY MAINTENANCE REVIEW

- A. The City shall inspect the work every week to ensure adequacy of maintenance and methods of performing the work are in compliance with the contract. However, such inspection or failure of City to inspect shall not relieve the Contractor of the duty to provide continuous inspection of the work area.
- B. The Contractor shall meet bi-weekly with the City's Representative to review the Contractor's schedules and performance, resolve problems and perform field inspections as required. Should such inspections find deficient performance or service failure, the liquidated damage clauses of this contract will be enacted.
- C. Bi-weekly maintenance site review meetings followed by a satisfactory completion of any or all punch list items generated thereof is a required prerequisite for payment of monthly invoices.

XXI. REPORTS, SCHEDULES AND FORMS

The Contractor, as part of this agreement, will submit reports and schedules as requested. Failure to submit reports and schedules in a timely manner may result in a delay of monthly payments. Such reports must be detailed, thorough and may include, but not be limited to, the following:

A. Weekly Maintenance Schedule(s):

- 1. Contractor shall provide a weekly maintenance schedule(s) to the City. The schedule(s) shall indicate the frequency of time and days of the week services are to be performed.
- 2. Notification of change in scheduled work must be received by the City at least 48 hours prior to the scheduled time for the work.
- 3. Contractor shall adjust his work schedule to compensate for all special events, holidays and inclement weather.

B. Pesticide Use Reports

C. Hazards Reports

D. Cost information to perform extra work for upgrading specific areas.

E. Suggestions for improving problem areas.

F. All forms and schedule(s) shall be of a format supplied by or approved by the City.

XXII. Unit Price Information

All bidders are required to provide the following unit cost figures. The figures shall be used by the City for adding to or deleting payment deductions due to performance failure from the contracting work. All unit prices shall include labor and material complete installation where required.

A. Labor and Equipment Hourly Rates and Unit Costs

- | | | |
|----|----------------------------------|-----------------|
| 1. | Landscape Maintenance Labor | \$_____per hour |
| 2. | Landscape Maintenance Leadworker | \$_____per hour |
| 3. | Landscape Maintenance Supervisor | \$_____per hour |
| 4. | Irrigation Technician | \$_____per hour |
| 5. | Pest Control Applicator | \$_____per hour |
| 6. | Tree Trimmer | \$_____per hour |
| 7. | Equipment Operator | \$_____per hour |

B. Turf Care

Unit Cost

- | | | |
|----|--------------------|-------------------|
| 1. | Mowing | \$_____/1000 s.f. |
| | | \$_____/Acre |
| 2. | Edge & Trim | \$_____/1000 l.f. |
| 3. | Weed Eat Turf | \$_____/1000 l.f. |
| 4. | Chemical Edge 6" | \$_____/1000 l.f. |
| 5. | Fertilization | \$_____/1000 s.f. |
| | | \$_____/Acre |
| 6. | Aerification | \$_____/1000 s.f. |
| | | \$_____/Acre |
| 7. | Renovation | |
| | Dethatch | \$_____/1000 s.f. |
| | | \$_____/Acre |
| | Dethatch/ Overseed | \$_____/1000 s.f. |
| | | \$_____/Acre |
| 8. | Weed Control | \$_____/1000 s.f. |
| | | \$_____/Acre |
| | | \$_____/Hour |

C. Ground Cover Care

Unit Cost

- | | | |
|----|---------------|-------------------|
| 1. | Edge & Trim | \$_____/1000 s.f. |
| | | \$_____/Acre |
| 2. | Mow/Cut back | \$_____/1000 s.f. |
| | | \$_____/Acre |
| 3. | Fertilization | \$_____/1000 s.f. |
| | | \$_____/Acre |
| 4. | Weed Control | \$_____/1000 s.f. |
| | | \$_____/Acre |
| | | \$_____/Hour |
| 5. | Pest Control | \$_____/1000 s.f. |

\$ _____/Acre
\$ _____/Hour

D. Shrub and Vine Care

Pruning

Unit Cost

1. 1-5 feet \$ _____/Each
6 plus feet \$ _____/Each
2. Fertilization
 - a. Dry formulation placement \$ _____/Each
 - b. Foliar application \$ _____/Each
 - c. Soil injection \$ _____/Each
3. Pest Control \$ _____/Each
\$ _____/Hour

E. Tree Care

Pruning

Unit Cost

1. 1-14 feet \$ _____/Each
2. Fertilization
 - a. Dry formulation placement \$ _____/Each
 - b. Foliar application \$ _____/Each
 - c. Soil injection \$ _____/Each
 - d. Vertical mulching \$ _____/Each
3. Pest Control \$ _____/Each
\$ _____/Hour
4. Tree Staking \$ _____/Each
Tree Guying \$ _____/Each

F. Plant Material and Installation: (Including all Labor and Equipment for Removal, Replacement and Disposal)

Unit Cost

1. Annual Color (4" Container) \$ _____/Each
2. Ground Cover \$ _____/Flat
3. One (1) Gallon
 - Shrub \$ _____/Each
 - Tree \$ _____/Each
4. Five (5) Gallon
 - Shrub \$ _____/Each
 - Tree \$ _____/Each
5. Fifteen (15) Gallon
 - Shrub \$ _____/Each
 - Tree \$ _____/Each
6. 24" Box Tree \$ _____/Each

- | | | |
|-----|-----------------------|-------------------------------------|
| 7. | 36" Box Tree | \$ _____/Each |
| 8. | Seeded Turf/Top Dress | \$ _____/s.f.
\$ _____/1000 s.f. |
| 9. | Sodded Turf | \$ _____/s.f.
\$ _____/1000 s.f. |
| 10. | Stolonized Turf | \$ _____/s.f.
\$ _____/1000 s.f. |
| 11. | Bark Mulch | \$ _____/s.f.
\$ _____/1000 s.f. |

G. Weed Abatement (Labor, equipment, materials)

Unit Cost

- | | | |
|----|---|-------------------------------------|
| 1. | Tractor Drawn Disc | \$ _____/1000 s.f.
\$ _____/Acre |
| 2. | Hand Work | \$ _____/1000 s.f.
\$ _____/Acre |
| 3. | Flail Mowing | \$ _____/1000 s.f.
\$ _____/Acre |
| 4. | Pre-emergent Herbicide (Broad spectrum) | \$ _____/1000 s.f.
\$ _____/Acre |
| 5. | Post-emergent Herbicide (Systemic) | \$ _____/1000 s.f.
\$ _____/Acre |

H. Irrigation Repairs (Including all labor and equipment for removal and disposal)

Unit Cost

- | | | |
|----|---|-------------------------|
| 1. | Remote control valve R & R Rainbird EFB-CP-Series | |
| | 3/4" | \$ _____/Each |
| | 1" | \$ _____/Each |
| | 1 1/4" | \$ _____/Each |
| | 1 1/2" | \$ _____/Each |
| | 2" | \$ _____/Each |
| | 2 1/2" | \$ _____/Each |
| | 3" | \$ _____/Each |
| 2. | Repair lateral PVC lines each | <u>Unit Cost</u> |
| | 1/2" | \$ _____/LF |
| | 3/4" | \$ _____/LF |

	1"	\$ _____/LF
	1 1/4"	\$ _____/LF
	1 1/2"	\$ _____/LF
	2"	\$ _____/LF
	2 1/2"	\$ _____/LF
	3"	\$ _____/LF
	4"	\$ _____/LF
3.	Repair pressure main PVC lines each	<u>Unit Cost</u>
	1/2" (Schedule 40)	\$ _____/LF
	3/4" (Schedule 40)	\$ _____/LF
	1" (Schedule 40)	\$ _____/LF
	1 1/4" (Schedule 40)	\$ _____/LF
	1 1/2" (Schedule 40)	\$ _____/LF
	2" (Class 315)	\$ _____/LF
	2 1/2" (Class 315)	\$ _____/LF
	1 1/2" (Class 315), ring tite	\$ _____/LF
	3" (Class 315)	\$ _____/LF
	3" (Class 315), ring tite	\$ _____/LF
	4" (Class 315)	\$ _____/LF
	4" (Class 315), ring tite	\$ _____/LF
4.	Raise valve boxes, fill soil to grade top and seed	\$ _____/Each
5.	Replace valve box, standard Square 11" x 17"	\$ _____/Each
6.	Replace valve box, round, 9"	\$ _____/Each
7.	Replace sprinklers and required PVC parts	\$ _____/Each
	Hunter I-25	\$ _____/Each
	Hunter I-44	\$ _____/Each
	Rainbird 1806 SAM PRS	\$ _____/Each

Rainbird 1812 SAM PRS	\$_____/Each
Rainbird 41A Rotor	\$_____/Each
Rainbird 47A Rotor	\$_____/Each
Toro 570C-6P	\$_____/Each
Toro 570C-12P	\$_____/Each
Toro 640 Series	\$_____/Each

I. Grounds Maintenance (All extra work and payment deductions due to performance failure shall include labor and material.)

	<u>Description</u>	<u>Unit Cost</u>
1.	Trash Pick Up	\$_____/Hour
2.	Trash Can Liner Replacement	\$_____/Can
3.	Tot/Sandlots	
	Clean/Rake Sand	\$_____/1000 s.f.
	Rototill	\$_____/1000 s.f.
	Add Sand	\$_____/Cubic Yard
4.	Horseshoe Pits	
	Clean/Rake	\$_____/Pit
5.	Picnic Areas	
	Sweep/Blow	\$_____/Picnic Area
	Wash	\$_____/Picnic Area
6.	Picnic Tables/Benches/Bleachers	
	Wash/Clean	\$_____/Each
7.	B.B.Q's	
	Empty/Clean	\$_____/Each

End of Section