

**Proposed Hamilton Community Park**

**Final Report**

**August 1999**

*Prepared for:*

The City of Novato, California

Department of Parks, Recreation & Community Services

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# Hamilton Community Park

## Final Report

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## **Executive Summary**

### **Overview of the Project**

As a result of the Hamilton Community Facilities Implementation Study Phase I effort it was determined that additional study was needed to more comprehensively investigate alternatives for the development of the Community Park at Hamilton as part of the Hamilton Community Facilities Implementation Plan Phase II study effort.

BSA Architects, Carducci & Associates, The Sports Management Group and CSW/Stuber Stroeh, who did the Phase I study work, were chosen to prepare this report along with a constraints map, a conceptual plan, a preliminary estimate of capital costs and a preliminary estimate of potential revenue and operating costs needed for the development of the proposed 81-acre Community Park including Landfill 26 and the adjacent abandoned ammunition bunkers.

The consultant team was directed to analyze the following issues:

- Parking and vehicular, bicycle and pedestrian circulation including access to the Bay Trail
- Special event parking management
- Significance and constraints of Landfill 26 in regard to park facilities
- Impacts of the proposed community park on the proposed Hamilton Meadows residential project
- Protection of the sensitive resources in the adjacent wildlife refuges on Ammo and Reservoir Hills
- A transition zone between the active recreation and open space areas
- Potential reuse of the existing ammunition bunkers
- Assessment of potential special events, golf driving range and a roller hockey center

The consultant team solicited input from the Army, City Staff and potential user groups and interested individuals through a series of public Steering Committee Meetings. The Novato City Council approved the Steering Committee members.

As a result of the consultant team's analysis and input from the Army, City Staff and the Steering Committee, a Conceptual Plan was prepared as a "blueprint" for a complementary mixture of recreation uses that balances development with resource protection and provides an opportunity to create a unique community park for Novato.

### **Recommended Next Steps**

1. Prepare a Citywide Parks & Recreation Master Plan that has a broad view of recreation facilities in Novato and coordinate community and neighborhood facilities.
2. Determine priorities for the Hamilton Community Park and other Hamilton community recreation facilities.
3. Search for public funding and private concessionaires who are interested in building and operating facilities at Hamilton.
4. Continue efforts to coordinate with adjacent projects such as other Hamilton recreation facilities, the Park Road, the Hamilton Meadows, the Landfill 26 closure, the Hamilton Wetlands, the Bay Trail, Commissary Triangle, North Hamilton Parkway and other Hamilton projects.
5. There is a gravity sanitary sewer line that runs parallel with North Hamilton Parkway, along the west side of the railroad. It is at or near capacity. Further research will be needed to see if the Community Park could use this system.
6. Comply with and fulfill the mitigation measures attached to the Memorandum of Agreement #2976 and specified in the Environmental Assessment dated June 1997, for the conveyance of the Phase II Parcel. These National Environmental Policy Act (NEPA) mitigation measures are related to the safety of the existing bunkers, air quality during construction, access control, protection of sensitive biological communities and the development and implementation of a natural resource management plan.

## **Project Location**

The Hamilton Army Air Field is located on the western edge of San Pablo Bay in the City of Novato, in Marin County, approximately 25 miles north of San Francisco. The Community Park is located in the northern portion of the Hamilton Reuse Area and the northern portion of the area identified as the Phase II GSA Parcel.

The area of study identified as the Community Park for this report includes approximately 81 acres and is immediately adjacent to Ammo Hill to the north and Reservoir Hill to the south. The study area includes the 26-acre Landfill 26 and its 23-acre buffer, the 25-acre abandoned Army ammunition bunkers and adjacent area, a 4-acre parcel west of Pacheco Creek and a 3-acre parcel east of Pacheco Creek.

The Community Park is accessed by vehicle via the proposed North Hamilton Parkway, via Nave Drive, via U.S. Highway 101 by using the Hamilton Field or Bel Marin Keys exits.

## **Relationship to Other Projects and Plans**

### **Hamilton Army Air Field**

The U.S. Army Air Corps first established the Hamilton Army Air Field in 1932 as a bombardment training post and headquarters of the 1<sup>st</sup> Wing of the Air force. Historically, up to 40,000 officers comprised the population at Hamilton. Hamilton Air Force Base played a critical role in national air defense during World War II.

The post was reorganized after World War II and became Hamilton Air Force Base. Hamilton Air Force Base was decommissioned as an active facility and made available for disposal in 1974.

### **Defense Base Closure and Realignment Act of 1988**

The Defense Base Closure and Realignment Act of 1988 (BRAC I, Public Law 100-526) required closure and disposal of various military properties and facilities still in military ownership, including Hamilton Army Air Field.

### **Hamilton Master Plan Significance (October 15, 1993 and revised May 1994 and January 1998)**

The Hamilton Master Plan, which was approved by the City of Novato, provides a master plan for an approximately 414-acre planned community which encompasses the Hamilton Community Park and provides for a mixture of land uses including, offices, retail/office, residences, other recreation facilities, transportation corridors, open space and preservation of sensitive resource areas.

The Hamilton Army Airfield Reuse Plan was approved in October 1995 and revised in November 1996 by the Hamilton Reuse Planning Authority. The City of Novato acts on behalf of the Hamilton Reuse Planning Authority.

### **Landfill 26**

Landfill 26 is a 26-acre landfill that has an adjoining 23-acre buffer area. The 49-acre landfill and buffer provide the most contiguous piece of land for the Community Park. Because of the development restrictions, which will be part of the covenant that will likely convey the land to the City of Novato, its use as a recreation facility is very limited.

Its most significant limitations include:

- The at-grade permanent markers, probes, survey monuments, risers, and wells that must be protected;
- no alteration of the finish grade elevation of the landfill cap can occur, and
- no excavation in the landfill cap be deeper than 12".

After landfill closure, it is expected that the City of Novato will take title to Landfill 26.

#### **Memorandum of Agreement #2976 (MOA)**

The Memorandum of Agreement #2976 is an agreement between the City of Novato and United States of America signed in 1997. It provides for the conveyance of the "Phase II Parcel" which includes Ammo Hill, Reservoir Hill and two parcels identified as 800A and 800B. The Phase II Parcel includes the 81-acre Community Park including Landfill 26 and the existing bunkers. The Memorandum of Agreement requires the City of Novato to comply with and fulfill the mitigation measures specified in the Environmental Assessment dated June 1997, for the conveyance of the Phase II Parcel. These National Environmental Policy Act mitigation measures are related to the safety of the existing bunkers, air quality during construction, access control, protection of sensitive biological communities and the development and implementation of a natural resource management plan.

#### **City of Novato General Plan**

The City of Novato General Plan (City of Novato Community Development Department, 1996) designates the entire former Hamilton Army Air Field as the Hamilton Reuse Area, which is subject to a broad range of goals, policies and criteria for reuse. The General Plan identifies the Community Park area and adjacent hills and Pacheco Creek as Open Space. It also identifies the use of an approximate 60-acre area for future active recreational playfields. Areas east of the park are identified as an historic bayfront area. Ammo and Reservoir Hills are identified as scenic hills and ridges and potential open space areas. The General Plan also shows the Bay Trail alignment east of the park. The Conceptual Plan for the Community Park is consistent with the General Plan Policies and Programs.

#### **Hamilton Field Community Recreation Facilities Implementation Plan Phase I**

The Hamilton Field Community Recreation Facilities Implementation Plan was presented to the Novato City Council in January 1998. It identified the Hamilton recreation facilities as an incredible opportunity for the City of Novato to provide community recreation programs in a unique natural and historic setting. The plan recommended approximately \$29 million in capital improvements in order to make the use of the facilities feasible for the recommended purposes and also recommended a Phase II study of which this report is a result of.

#### **Hamilton Wetland Restoration Plan**

The Hamilton Wetland Restoration Project is proposed east of the Community Park. As described in the *Hamilton Wetland Restoration Plan EIR/EIS*, (August 4, 1998), the Hamilton Wetland Restoration Plan was proposed by the California State Coastal Conservancy, San Francisco Bay Conservation Plan and Development Commission and the U.S. Army Corps of Engineers to restore tidal marsh habitat and reestablish important ecological functions at a 900-acre site located within the San Francisco Bay Estuary and including the Hamilton Army Airfield Parcel.

#### **The Bay Trail**

The Bay Trail is a network of multi-use pathways circling San Francisco and San Pablo Bays. It will encompass a 400-mile route through all nine Bay Area counties and 42 shoreline cities. The Trail offers walkers, runners, cyclists, nature lovers and hikers, young and old access to the Bay.

#### **The Landfill 26 Flood Diversion Berm**

In August 1998, a berm was built on the western edge of the buffer around Landfill 26. This berm was constructed to prevent floodwaters from the adjacent Pacheco Creek from ponding directly against the Landfill 26 cap. The berm changes the local and natural drainage pattern by preventing overflow from Pacheco Creek from flowing into the Landfill 26 drainage system and into the HAAF Airfield panhandle. With the addition of the berm, flows that would otherwise have separated from Pacheco Creek in a moderate to large flood (10 year event or larger) now flow in the direction of the creek channel and into Ignacio Reservoir.



### **Remedial Action Plan for the Phase II Sale Area**

IT Corporation prepared an Interim Remedial Action Plan for the 800-B and Ammo Hill parcels, U.S. General Services Administration (GSA) Phase II Sale Area, at the Hamilton Army Air Field on behalf of the U.S. Army Corps of Engineers, Sacramento District, under the Total Environmental Restoration Contract. The interim remedial action report has been prepared to address soil, sediment, and groundwater contamination identified at 12 locations within the GSA Phase II Sale Area 800-B and Ammo Hill Parcels.

### **Proposed Hamilton Meadows**

The proposed Hamilton Meadows is a 235-unit residential subdivision proposed by Shea Homes to be located south of the Landfill 26 buffer. The Shea Homes proposal is presently under the consideration of the City of Novato for a Development Plan, Master Plan Amendment, and Tentative Map.

### **Commissary Site**

The Commissary site is a Navy-owned parcel between Christmas Tree Hill, State Access Road and the proposed North Hamilton Parkway. It is being considered for reuse by the City of Novato, the Marin College District and as a shelter for the homeless.

## **Ad Hoc Steering Committee Planning Process**

### **The Ad Hoc Steering Committee Purpose**

As the City of Novato was working towards acquiring land at Hamilton for the future Community Park, the City saw tremendous potential for the park. The City wanted to identify a diverse mix of potential uses. In order to assist the City with the planning of the park, the City Council choose and invited 25 different groups to serve on an Ad Hoc Steering Committee for the purpose of identifying potential uses of the future park.

## **Project Design Criteria**

Several diverse factors contributed to the design criteria for the Community Park including the following:

- Hamilton Master Plan
- Memorandum of Agreement #2976 between City of Novato and the Army
- NEPA Mitigation Measures
- Landfill 26 Restrictions and Design Criteria for Modifications to Landfill 26 from the Army Corps of Engineers
- Draft Remedial Action Plan
- Flooding
- Easements
- Regulatory Requirements
- Top Ten Park Use Ideas from the Ad Hoc Steering Committee

### **Regulatory Approvals and Comments**

The Community Park improvements will likely require CEQA review, regulatory review and approval by numerous regulatory bodies. Many agencies and organizations would likely review and comment on the proposed park improvements:

## **Description of the Conceptual Plan**

### **“Island” Theme**

The park is divided into four “islands” in response to the natural site boundaries and to provide a comfortable organization and identity for the activity areas. The Landfill 26 is identified as “The Great Meadow” because it is dominated by a grass landscape that can serve multiple purposes. “Adventure Island” is a waterfront destination for exciting social activities requiring user fees. “Sports Court Island” is

a destination adjacent to the Pacheco Creek buffer and near the park entrance for intense sport court games such as basketball, skating and volleyball that may be a healthy setting for young people to socially interact. "Community Park Drive" is a dramatic long and narrow space adjacent to the Pacheco Creek buffer that serves as the park entry drive and provides the sense of a park-like landscape.

#### **Access Control Plan**

All design recommendations include a transition and a boundary between the active use areas and the open space.

#### **Vehicular Access and Parking**

The Community Park is accessed by vehicle via the proposed North Hamilton Parkway, via Nave Drive, via U.S. Highway 101 by using the Hamilton Field or Bel Marin Keys exits. An internal park road system allows for vehicular access to off-street parking areas. Approximately 700 off-street parking spaces are provided. Each island has an appropriate amount of parking and drop-off areas conveniently located adjacent to activity areas.

#### **Special Event Parking Management**

The Community Park can accommodate special events in three areas: The south edge of the Great Meadow in the landfill buffer, west of the Great Meadow in the landfill buffer and in the Adventure Island area. Parking for special events will require special permits. Depending on the size of the event and coordination with property owners, the following options for parking management can be considered:

#### **Utility Infrastructure Plan**

The current project titled Hamilton Field Phase 2, Stage Two is providing the North Hamilton Parkway. There is a water main and joint trench (gas, telephone, cable TV and electric) stubbed at this location. There is no sanitary stub.

There is a sanitary gravity line that runs parallel with North Hamilton Parkway, along the west side of the railroad now. It is at or near capacity. Further research will be needed to see if the Community Park could use this system.

The Hamilton Meadows subdivision is going to use a pump station for its sanitary sewer system. The Community Park may be able to utilize this station.

#### **Park Lighting**

The park facilities most likely to be used at night should be lighted. Lighting should be carefully specified and arranged to provide minimal light intrusion on adjacent residential and wildlife areas. Lighted areas should be provided as follows:

- Roadway and parking lot lighting for safe use by park users during the evening hours to meet criteria provided by the City of Novato Police Department.
- Sports lighting on the Great Meadow to the extent that is feasible due to the limitation of the 12" foundation depth on the landfill.
- Sports lighting for the tennis courts.
- Sports lighting of the sports courts
- Activity lighting for Adventure Island.

#### ***The Great Meadow***

Landfill 26 and Buffer Improvements: Provide approximately 20 acres of irrigated multipurpose turf fields for active recreation including tournament play. The presence of the existing landfill surface structures greatly limits the layout of play fields and requires the provisions adequate clearance of padded surfaces on the surface structures for player safety. The buffer improvements provide a forested canopy as a contrast to the open space provided by the meadow. Views to the northeast of the Hamilton Wetlands and agricultural areas are unimpeded.

***Adventure Island***

The Adventure Island provides an opportunity to create fee-based park activity areas that can provide a revenue stream to the project.

***Sports Court Island***

The Sports Court Island provides an opportunity to create youth-based park activity areas that can provide a healthy environment for youth and young adults to play and socialize.

***Park Buildings***

Several Park Buildings were designed as part to the Conceptual Plan. They are developed in a style compatible with the traditional-looking building throughout Hamilton. The buildings serve a variety of functions including gateways, focal points, comfort, refreshment and concession sales and shelter.

**Capital Cost Estimates for the Proposed Future Hamilton Community Park**

All costs shown are in 1999 dollars with allowance for escalation as noted below. Estimates of capital costs are based on the construction costs of similar park facilities prior to 1999. The estimates for environmental review are based on consulting costs of similar studies prior to 1999. Protracted opposition to the Community Park which could require additional studies, legal defense or project delays may add undeterminable costs to the project and are therefore not included in the estimates

**PRELIMINARY ESTIMATE OF CAPITAL COSTS**

| <b>Item</b>   | <b>Item Subtotal</b> |
|---|----------------------|
| A. Community Park Drive (3 Acres)                             | \$338,575            |
| B. The Great Meadow (Landfill 26 And Buffer) (49 Acres)       | \$5,021,850          |
| C. Adventure Island (25 Acres)                                | \$5,530,350          |
| D. Sports Court Island (4 Acres)                              | \$1,285,650          |
| <b>Subtotal A-D</b>   | <b>\$12,176,425</b>  |
| Layout, Mobilization & Bonds (5%)                             | \$608,821            |
| Design & Engineering (10%)                                    | \$1,217,643          |
| City Project Development & Administration (15%)               | \$1,826,464          |
| Design Contingency (10%)                                      | \$1,217,643          |
| Environmental Review (CEQA/NEPA Studies)                      | \$800,000            |
| <b>TOTAL A-D plus "Soft Costs"</b>                            | <b>\$17,848,995</b>  |
| Cost Escalation (7 years at 5% per year)                      | \$4,261,749          |
| <b>TOTAL</b>  | <b>\$22,108,744</b>  |
| <b>Cost per acre \$17,850,000/81 acres \$220,000 per acre</b> |                      |

**Estimates of Operations Revenue and Expenses (as compiled by The Sports Management Group)**

The following is summary of the estimates of operations revenue and expenses as compiled by The Sport Management Group. Refer to the Hamilton Community Park Expense and Revenue Analysis for an explanation of their detailed analysis.

| <b>PRELIMINARY ESTIMATE OF COST RECOVERY POTENTIAL</b> |              |                |             |
|--|--------------|----------------|-------------|
|  | <b>Low</b>   | <b>Average</b> | <b>High</b> |
| Probable Annual Expense                                | \$1,717,000  | \$1,814,000    | \$1,911,000 |
| Potential Annual Revenues                              | \$1,364,000  | \$1,526,000    | \$1,688,000 |
|  | <b>Worst</b> | <b>Average</b> | <b>Best</b> |
| Cost Recovery Potential                                | 71%          | 84%            | 98%         |
| Annual Subsidy   | (\$547,000)  | (\$288,000)    | (\$29,000)  |

| <b>REVENUE SUMMARY</b>            |             |             |
|-----------------------------------|-------------|-------------|
| Description                       | <b>Low</b>  | <b>High</b> |
| Adventure Island                  | \$977,000   | \$1,191,000 |
| Sport Court Island                | \$89,000    | \$115,000   |
| The Great Meadow                  | \$194,000   | \$246,000   |
| Hamilton Pond                     | \$111,000   | \$136,000   |
| Total Potential Revenue (rounded) | \$1,364,000 | \$1,688,000 |

| <b>EXPENSE SUMMARY</b>                       |             |             |
|--|-------------|-------------|
| Description                                  | <b>Low</b>  | <b>High</b> |
| Salaries & Benefits                          | \$616,000   | \$664,000   |
| Commodities                                  | \$6,000     | \$9,000     |
| Marketing                                    | \$20,000    | \$25,000    |
| Supplies                                     | \$31,000    | \$40,000    |
| Landscaping, Maintenance, Repair & Utilities | \$1,044,000 | \$1,173,000 |
| Total Potential Revenue (rounded)            | \$1,717,000 | \$1,911,000 |

| <b>POTENTIAL PARTICIPATION SUMMARY</b> |            |             |
|--|------------|-------------|
| Description                            | <b>Low</b> | <b>High</b> |
| Adventure Island                       | 91,000     | 112,000     |
| Sport Court Island                     | 21,000     | 27,000      |
| The Great Meadow                       | 44,000     | 56,000      |
| Hamilton Pond                          | 13,000     | 16,000      |
| Total Potential Participation Figures  | 169,000    | 211,000     |

#### Recommendations Based on Analysis of Operations Expense and Revenues:

- The addition of a golf driving range or a three-hole par 3-4 and 5 golf course would add significant revenue from fees and the sale of food, beverage and merchandise. The likelihood of finding a contractor for the operation of the Golf Center is increased with a driving range.
- Consider a design that would allow fee-based special events, such as children's theater, puppetry, music and other performance-based activities to be held on the Floating Stage. Relocating the entrance of Floating Stage to face Adventure Island would allow controlled access into the area.
- Dog grooming services and pet supplies would add revenues.
- The addition of the following features add significant revenues from fees and the sale of food, beverage and merchandise:
  - Two outdoor climbing walls (24' and 16')
  - Ropes course
  - Carousel
  - Train or car ride
  - Birthday party area

#### Project Funding

There is no funding budgeted for the project. A broad-minded approach to project funding will be necessary to implement the park improvements. Some suggestions for funding provided by the Ad Hoc Steering Committee are listed below:

1. Corporate Sponsorship of Specific Facilities, i.e. Sport court, fields, adventure island
2. User fees for certain park areas, i.e. Batting cages, water play areas, golf center
3. Parking meters/parking lot fee
4. Adopt an area program
5. Sell advertising space on fencing, park benches, trash cans, signage
6. Redevelopment
7. Hamilton Phase II park development fees and recreation/environment donation
8. Minimize City subsidized use of fields, courts, i.e. contracts, group user fees, rentals
9. Create a Friends of Hamilton non profit organization (501c3)
10. Park impact fees from City residential development (approximately \$125,000/year city-wide)
11. Use contract concessionaire to operate food pavilions, run proshop and equipment rental concession.
12. Apply for grants, i.e. Coastal Conservancy Grant for Bay Trail connection study
13. Bonds
14. Solicit for request for proposals from potential park operators/developers
15. Pursue partnerships with private and non-profit organizations.

#### Project Phasing

##### Challenges to Phasing

The lack of park funding to implement and maintain facilities is the most formidable challenge to project phasing. Phasing of improvements may be more expensive than implementing a total project because of the need for incremental and interim improvements and the need to stub underground utilities for future improvements.

The City of Novato is required to implement the mitigation measures for the Phase II Parcel. These National Environmental Policy Act mitigation measures are related to the safety of the existing bunkers, air quality during construction, access control, protection of sensitive biological communities and the development and implementation of a natural resource management plan. These mitigation measures would most likely take precedence over implementation of other park facilities

### **Phasing Approach and Options**

Coordinate with the projects that develop adjacent to the Community Park and encourage those projects to assist with improvements on the park property. The construction of the Community Park Drive by the Army is a good example of the benefits of such coordination.

The design of the park is segregated into four distinct islands that can be implemented independently of each other as long as basic improvements such as roads, utilities and required mitigation measures are in place.

Implementation of the Community Park Drive to Park Circle and some necessary underground utilities are an obvious first phase. Bay Trail improvements, the Dog Park, and some simple multi-use paths would provide logical access to the park and make it available as an open space resource and expose people to the beauty and the potential of the parkland.

Vehicular access to the Great Meadow and the Adventure Island branch from Park Circle. The Great Meadow can slowly be improved for multiple uses. The Adventure Island improvements can be delayed until a concession operator is found for building and operating Adventure Island. After the bunkers are removed, the area could be redeveloped as an interim golf driving range that would provide a revenue stream to the City.

The Sports Court Island can be implemented separately from the Great Meadow and the Adventure Island. The Pacheco Creek restoration, nature trail and seasonal wetland improvements can be implemented separately from the other park improvements.

The tennis courts and supporting road and parking could be implemented separately from Adventure Island

## **Introduction**

### **Overview of the Project**

As a result of the Hamilton Community Facilities Implementation Study Phase I effort it was determined that additional study was needed to more comprehensively investigate alternatives for the development of the Community Park at Hamilton as part of the Hamilton Community Facilities Implementation Plan Phase II study effort.

BSA Architects, Carducci & Associates, The Sports Management Group and CSW/Stuber Stroeh, who did the Phase I study work, were chosen to prepare this report along with a constraints map, a conceptual plan, a preliminary estimate of capital costs and a preliminary estimate of potential revenue and operating costs needed for the development of the proposed 81-acre Community Park including Landfill 26 and the adjacent abandoned ammunition bunkers.

The consultant team was directed to analyze the following issues:

- Parking and vehicular, bicycle and pedestrian circulation including access to the Bay Trail
- Special event parking management
- Significance and constraints of Landfill 26 in regard to park facilities
- Impacts of the proposed community park on the proposed Hamilton Meadows residential project
- Protection of the sensitive resources in the adjacent wildlife refuges on Ammo and Reservoir Hills
- A transition zone between the active recreation and open space areas
- Potential reuse of the existing ammunition bunkers
- Assessment of potential special events, golf driving range and a roller hockey center

The consultant team solicited input from the Army, City Staff and potential user groups and interested individuals through a series of public Steering Committee Meetings. The Novato City Council approved the Steering Committee members.

As a result of the consultant team's analysis and input from the Army, City Staff and the Steering Committee, a Conceptual Plan was prepared as a "blueprint" for a complementary mixture of recreation uses that balances development with resource protection and provides an opportunity to create a unique community park for Novato.

### **Recommended Next Steps**

1. Prepare a Citywide Parks & Recreation Master Plan that has a broad view of recreation facilities in Novato and coordinate community and neighborhood facilities.
2. Determine priorities for the Hamilton Community Park and other Hamilton community recreation facilities.
3. Search for public funding and private concessionaires who are interested in building and operating facilities at Hamilton.
4. Continue efforts to coordinate with adjacent projects such as other Hamilton recreation facilities, the Park Road, the Hamilton Meadows, the Landfill 26 closure, the Hamilton Wetlands, the Bay Trail, Commissary Triangle, North Hamilton Parkway and other Hamilton projects.
5. There is a gravity sanitary sewer line that runs parallel with North Hamilton Parkway, along the west side of the railroad. It is at or near capacity. Further research will be needed to see if the Community Park could use this system.
6. Comply with and fulfill the mitigation measures attached to the Memorandum of Agreement #2976 and specified in the Environmental Assessment dated June 1997, for the conveyance of the Phase II Parcel. These National Environmental Policy Act (NEPA) mitigation measures are related to the safety of the existing bunkers, air quality during construction, access control, protection of sensitive biological communities and the development and implementation of a natural resource management plan.

## **Project Location**

The Hamilton Army Air Field is located on the western edge of San Pablo Bay in the City of Novato, in Marin County, approximately 25 miles north of San Francisco. The Community Park is located in the northern portion of the Hamilton Reuse Area and the northern portion of the area identified as the Phase II GSA Parcel.

The area of study identified as the Community Park for this report includes approximately 81 acres and is immediately adjacent to Ammo Hill to the north and Reservoir Hill to the south. The study area includes the 26-acre Landfill 26 and its 23-acre buffer, the 25-acre abandoned Army ammunition bunkers and adjacent area, a 4-acre parcel west of Pacheco Creek and a 3-acre parcel east of Pacheco Creek.

The Community Park has the following approximate neighboring land uses:

- North: Pacheco Creek, the Bel Marin Keys Industrial Park and Ammo Hill.
- East: The proposed Bay Trail, the proposed and approximate 900-acre Hamilton Wetlands, Reservoir Hill and the proposed 235-unit Hamilton Meadows Subdivision.
- South: The proposed Hamilton Meadows Subdivision, the Northwestern Pacific Railroad (NWPRR) right-of-way, a high voltage electrical line transmission corridor, the proposed North Hamilton Parkway and the existing Commissary site.
- West: The Northwestern Pacific Railroad (NWPRR) right-of-way, a high voltage electrical line transmission corridor, the proposed North Hamilton Parkway, Christmas Tree Hill, Nave Drive and U.S. Highway 101, the Marriott Hotel, the Marin Airporter and other proposed commercial development, Pacheco Creek and the Los Robles Mobile Home Park.

The Community Park is accessed by vehicle via the proposed North Hamilton Parkway, via Nave Drive, via U.S. Highway 101 by using the Hamilton Field or Bel Marin Keys exits.

## **Relationship to Other Projects and Plans**

### **Hamilton Army Air Field**

The U.S. Army Air Corps first established the Hamilton Army Air Field in 1932 as a bombardment training post and headquarters of the 1<sup>st</sup> Wing of the Air force, one of only three wings in the nation. The post was built on agricultural land adjacent to San Pablo Bay near the City of Novato. Conceived at a time when aviation was rapidly developing, the bombardment base was assigned the mission of defending the entire western United States, a role it retained until 1940. Historically, up to 40,000 officers comprised the population at Hamilton. Hamilton Air Force Base played a critical role in national air defense during World War II.

The post was reorganized after World War II and became Hamilton Air Force Base. Through the 1960s, the base served as a training post and alert facility for the Air Defense Command. By the end of the Vietnam War, Air Force missions were changing and the strategic value of the Hamilton Air Force Base as an interceptor base was in question. Hamilton Air Force Base was decommissioned as an active facility and made available for disposal in 1974.

### **Defense Base Closure and Realignment Act of 1988**

The Defense Base Closure and Realignment Act of 1988 (BRAC I, Public Law 100-526) required closure and disposal of various military properties and facilities still in military ownership, including Hamilton Army Air Field.

### **Hamilton Master Plan Significance (October 15, 1993 and revised May 1994 and January 1998)**

The Hamilton Master Plan, which was approved by the City of Novato, provides a master plan for an approximately 414-acre planned community which encompasses the Hamilton Community Park and



provides for a mixture of land uses including, offices, retail/office, residences, other recreation facilities, transportation corridors, open space and preservation of sensitive resource areas.

The Hamilton Army Airfield Reuse Plan was approved in October 1995 and revised in November 1996 by the Hamilton Reuse Planning Authority. The City of Novato acts on behalf of the Hamilton Reuse Planning Authority.

The Hamilton Master Plan area properties were transferred from the Army to the New Hamilton Partnership through a series of conveyances. Phase I of the Master Plan Project generally includes the area south of the Main Gate Road. Implementation of Phase I commenced in July 1995 and is currently under construction. Buildout of Phase I is expected in 2000. Phase II of the Master Plan Project generally includes the area north of the Main Gate Road. Implementation of Phase II commenced in August 1997 and buildout is expected in 2001.

#### **Landfill 26**

Landfill 26 is a 26-acre landfill that has an adjoining 23-acre buffer area. The 49-acre landfill and buffer provide the most contiguous piece of land for the Community Park. Because of the development restrictions, which will be part of the covenant that will likely convey the land to the City of Novato, its use as a recreation facility is very limited.

Its most significant limitations include:

- The at-grade permanent markers, probes, survey monuments, risers, and wells that must be protected;
- no alteration of the finish grade elevation of the landfill cap can occur, and
- no excavation in the landfill cap be deeper than 12”.

After landfill closure, it is expected that the City of Novato will take title to Landfill 26.

#### **The History of Landfill 26**

Before being filled, the site was a natural meadow. Before it was a meadow, it was a marsh. The bedrock is very shallow below the natural grade. Pacheco Creek flowed through the meadow. The area was part of an agricultural area, known as Marin Meadows, until the 1930s. In 1932 Marin County sold the land to the federal government for the establishment of an Army airfield. The Army used Landfill 26 (L26) as a municipal dump from the 1940s to the 1970s. The deepest part of the landfill is about 12 feet. L26 was a large and complex environmental site that warranted a deliberate approach due to the eventual residential development that will occur nearby at Hamilton.

In the 1980s Woodward Clyde Consultants did an investigation of the conditions. In 1989 a Record of Decision was made by the federal government to stabilize the refuse. In 1992 the landfill was reevaluated. The master developer also worked with the City of Novato to prepare the Hamilton Reuse Plan. In 1992 an Explanation of Significant Differences was prepared which required the remedy at the site from stabilization of the waste to capping and groundwater containment.

In 1993 and 1994, Phase 1 and Phase 2 improvements were made to the landfill including adding wells, a drainage system, a treatment plant, an impervious membrane, and a Resource Conservation Recovery Act (RCRA) cap. In 1995, evaluation of the groundwater monitoring results indicated that pollution concentrations were low and were not moving beyond the landfill boundary. In 1996 the treatment plant was made inactive and monitoring continued. The Army plans to seek official “closure” from the regulatory agencies and move the landfill into a monitoring and maintenance period, commonly referred to as the “post-closure maintenance period”. This process is scheduled to be complete in 1999.

#### **Memorandum of Agreement #2976 (MOA)**

The Memorandum of Agreement #2976 is an agreement between the City of Novato and United States of America signed in 1997. It provides for the conveyance of the “Phase II Parcel” which includes Ammo Hill, Reservoir Hill and two parcels identified as 800A and 800B. The Phase II Parcel includes the 81-acre Community Park including Landfill 26 and the existing bunkers. The Memorandum of Agreement requires

the City of Novato to comply with and fulfill the mitigation measures specified in the Environmental Assessment dated June 1997, for the conveyance of the Phase II Parcel. These National Environmental Policy Act mitigation measures are related to the safety of the existing bunkers, air quality during construction, access control, protection of sensitive biological communities and the development and implementation of a natural resource management plan.

#### **City of Novato General Plan**

The City of Novato General Plan (City of Novato Community Development Department, 1996) designates the entire former Hamilton Army Air Field as the Hamilton Reuse Area, which is subject to a broad range of goals, policies and criteria for reuse. The General Plan identifies the Community Park area and adjacent hills and Pacheco Creek as Open Space. It also identifies the use of an approximate 60-acre area for future active recreational playfields. Areas east of the park are identified as an historic bayfront area. Ammo and Reservoir Hills are identified as scenic hills and ridges and potential open space areas. The General Plan also shows the Bay Trail alignment east of the park. The Conceptual Plan for the Community Park is consistent with the following General Plan Policies and Programs:

- EN Program 45.3 Identify locations for additional community parks.
- EN Policy 47: Develop and rehabilitate appropriate parks and recreation facilities of Hamilton Field that become City-owned.
- EN Program 50.5 Work with the Marin County Open Space District and the Association Bay Area Governments to implement the trail system described in the Marin Countywide Plan and the Bay Trail.

#### **Hamilton Field Community Recreation Facilities Implementation Plan Phase I**

The Hamilton Field Community Recreation Facilities Implementation Plan was presented to the Novato City Council in January 1998. It identified the Hamilton recreation facilities as an incredible opportunity for the City of Novato to provide community recreation programs in a unique natural and historic setting. The plan recommended approximately \$29 million in capital improvements in order to make the use of the facilities feasible for the recommended purposes and also recommended a Phase II study of which this report is a result of.

The Phase I planning effort focused on:

1. Assessment of the existing conditions.
2. Develop a program of activities to potentially be offered at Hamilton.
3. Develop an overall implementation plan.
4. Study the potential for adaptive reuse of each of the existing recreation facilities.
5. Prepare a construction and project cost analysis.
6. Conduct a revenue and operation cost analysis.
7. Recommendations.
8. Review of proposed infrastructure improvements.
9. Approach to parking and accessibility.
10. Site utility systems.

#### **Studies of Individual Buildings**

1. Officer's Club (Hamilton Community Center)
2. Pool, Cabana and Bathhouse (Hamilton Aquatics Center)
3. Gym and Bowling Alley (Hamilton Fitness Center)
4. Racquetball Courts
5. Bachelor Officer's Quarters (Hamilton Arts Center or Bed and Breakfast Inn)
6. Cinema (Hamilton Community Meeting Hall or South Novato Branch Library)

#### **Studies of Park Areas Identified for Phase II Planning Efforts**

1. Hamilton Community Park
2. Amphitheater Park

### **Hamilton Wetland Restoration Plan**

The Hamilton Wetland Restoration Project is proposed east of the Community Park. As described in the *Hamilton Wetland Restoration Plan EIR/EIS*, (August 4, 1998), the Hamilton Wetland Restoration Plan was proposed by the California State Coastal Conservancy, San Francisco Bay Conservation Plan and Development Commission and the U.S. Army Corps of Engineers to restore tidal marsh habitat and reestablish important ecological functions at a 900-acre site located within the San Francisco Bay Estuary and including the Hamilton Army Airfield Parcel. The objectives of this Project include ensuring a no net loss of wetland habitat at the Hamilton Army Airfield parcel. The U.S. Army anticipates transfer of the Airfield Parcel to the Coastal Conservancy by the year 2000. A condition of this transfer is remediation of contamination at the site. As a result, the Airfield Parcel is undergoing investigation and remediation of contaminated areas. All sites known to be contaminated will be remediated by the U.S. Army to levels that meet federal, state and local regulations and protect human health and the environment, and shall be certified to be clean by proper authorities before the area is transferred, sold or reused.

### **The Bay Trail**

The Bay Trail is a network of multi-use pathways circling San Francisco and San Pablo Bays. It will encompass a 400-mile route through all nine Bay Area counties and 42 shoreline cities. The Trail offers walkers, runners, cyclists, nature lovers and hikers, young and old access to the Bay.

### **The Landfill 26 Flood Diversion Berm**

In August 1998, a berm was built on the western edge of the buffer around Landfill 26. This berm was constructed to prevent floodwaters from the adjacent Pacheco Creek from ponding directly against the Landfill 26 cap. The berm changes the local and natural drainage pattern by preventing overflow from Pacheco Creek from flowing into the Landfill 26 drainage system and into the HAAF Airfield panhandle. With the addition of the berm, flows that would otherwise have separated from Pacheco Creek in a moderate to large flood (10 year event or larger) now flow in the direction of the creek channel and into Ignacio Reservoir.

A study prepared by the engineering firm of Philip Williams & Associates in November 1998 assesses the effects of the Landfill 26 berm on 10 year and 100-year flooding. The primary areas of concern for flooding are residential and commercial areas west of the Ignacio Reservoir (Pacheco Pond) near the mouths of Arroyo San Jose and Pacheco Creek. The re-direction of Pacheco Creek overflows from the Landfill 26 drainage system into Ignacio Reservoir has the potential to exacerbate existing flooding through two mechanisms. First, water surface elevations in lower Pacheco Creek near the Los Robles Mobile Home park increase in response to the increase in Pacheco Creek flow rates (the channel now carries the overflow that was previously diverted). Second, flood levels in Ignacio Reservoir increase in response to the increased volume of total inflow. Ignacio Reservoir flooding, in turn, affects Pacheco Creek and Arroyo San Jose water levels through backwater effects.

The results of the Philip Williams analysis show that the addition of the Landfill 26 berm redirected a maximum of approximately 15% of the Pacheco Creek 10 year peak flood flow (70 cubic feet per second (cfs) out of 470 cfs) and 25 % of the 100 year peak flood flow (195 cfs out of 770 cfs). Higher Pacheco Creek flow rates result in approximately a 0.1-foot increase in 100-year peak flood elevation at the Los Robles Mobile Home Park. Higher flow volumes into Ignacio Reservoir result in less than a 0.1 foot increase in peak flood elevations in Ignacio Reservoir and Arroyo San Jose (0.1 foot is the precision of the flood modeling).

According to hydrologic and hydraulic modeling conducted for this study, peak flood elevations in Ignacio Reservoir are 6.5 feet and 7.1 feet National Geodetic Vertical Datum (NGVD) for the 10 year and 100 year flood events, respectively. The addition of the Landfill 26 berm increases the duration of maximum flooding and elevates flood levels before and after the flood peak by up to 0.1 foot, for both the 10-year and 100-year events. The backwater effect from this increase causes water levels to be raised slightly in the downstream portions of Pacheco Creek and Arroyo San Jose. The backwater effect is limited to approximately the lower 1825 feet of Pacheco Creek and 2000 feet of Arroyo San Jose.

Increases in Ignacio Reservoir, Pacheco Creek and Arroyo San Jose water levels resulting from addition of the berm could be reduced to zero by breaching the berm during any flood larger than a 10-year event. This would allow Pacheco Creek overflows to enter the Landfill 26 drainage system. Flood modeling shows that a 40-foot wide breach at the northern end of the berm would effectively eliminate flood impacts associated with the berm. This approach would be an interim measure until regional flood management improvements are implemented as part of a proposed conversion of the HAAF airfield to tidal and seasonal wetlands.

#### **Remedial Action Plan for the Phase II Sale Area**

IT Corporation prepared an Interim Remedial Action Plan for the 800-B and Ammo Hill parcels, U.S. General Services Administration (GSA) Phase II Sale Area, at the Hamilton Army Air Field on behalf of the U.S. Army Corps of Engineers, Sacramento District, under the Total Environmental Restoration Contract. The Remedial Action Plan was prepared in accordance with the California Environmental Protection Agency's guidance as provided in the *Departments of Toxic Substances Control Remedial Action Plan Policy* (DTSC, 1995) and complies with the provisions of the California Health and Safety Code Section 25356.1.

The GSA Phase II Sale Area will be sold to the City of Novato. The 260-acre GSA Phase II Sale Area has been divided into four parcels: 800-A Parcel (22 acres), 800-B Parcel (16 acres), Women's Air Force Hill Parcel (60 acres), and Ammo Hill Parcel (170 acres). The Women's Air Force Hill Parcel was transferred. The 800-A Parcel was investigated in June through December of 1996, and the results of that investigation recommended no further action prior to transfer. The *Preliminary Assessment Report for Hamilton Army Airfield GSA Phase II Sale Area* (IT, 1996a) recommended that several locations within the 800-B Parcel and Ammo Hill Parcel be further investigated prior to transfer.

A site investigation of the 800-B and Ammo Hill Parcels was conducted in 1997, and the results of that investigation were summarized in the *Site Investigation Report for 800-B and Ammo Hill Parcels, GSA Phase II Sale Area, Hamilton Army Airfield, Novato, California* (IT, 1998a). The interim remedial action report has been prepared to address soil, sediment, and groundwater contamination identified at 12 locations within the GSA Phase II Sale Area 800-B and Ammo Hill Parcels.

#### **Proposed Hamilton Meadows**

The proposed Hamilton Meadows is a 235-unit residential subdivision proposed by Shea Homes to be located south of the Landfill 26 buffer. The Shea Homes proposal is presently under the consideration of the City of Novato for a Development Plan, Master Plan Amendment, and Tentative Map.

The Shea Homes Subdivision at Hamilton Field incorporates the Phase II areas designated by the Hamilton Field Master Plan for 250 new homes as well as the area designated for 19 single family lots below Chapel Hill. The proposal includes 208 lots north of North Hamilton Parkway and 27 lots on the property adjacent to Chapel Hill. The total proposed number of units, 235, is well below the overall density approved for these sites in the Master Plan which was 269 units. These homes will be situated in three distinct neighborhoods, two on the north side of North Hamilton Parkway, and one at the foot of Chapel Hill. The proposed lots range from 4,000 to 4,250 square feet and will offer single-family homes architecturally consistent with Hamilton Field at a range of prices to new buyers.

The Community Park development and Hamilton Meadows are likely to impact each other in regards to the following:

- **Perimeter Fencing:** The Hamilton Meadows project proposes a "good-neighbor" fence along the property line that divides the landfill buffer from Hamilton Meadows.
- **Perimeter Landscaping:** The Community Park project proposes a park road, off-street parking and tree planting in the landfill buffer as a buffer between Hamilton Meadows and park activity areas.
- **Access between the park and Hamilton Meadows:** The Hamilton Meadows project proposes two 50-foot wide lighted parcels for pedestrian/bicycle/disabled access between the landfill buffer and Hamilton Meadows.

- **Hamilton Meadows Off-site Grading:** The City of Novato Parks, Recreation and Community Services Department should review and comment during the design review process on the off-site grading that faces the proposed Community Park. The grading should be developed and landscaped in a manner compatible with the proposed park development. The grading may have a direct impact on the Dog Park.
- **Hamilton Meadows Off-site Storm Drainage:** The City of Novato Parks and Recreation Department should coordinate the development of the Hamilton Meadows off-site storm drainage improvements that are draining across the proposed park with the improvements for the proposed Community Park Drive that may be developed in the near future by the Army.
- **Park Sanitary Sewer Connection:** Several reviewers of the park conceptual plan informally agreed that a sanitary sewer connection to Hamilton Meadows is a critical issue for the park development. CSW/Stuber Stroeh, the City of Novato Engineering staff, the Novato Sanitary District staff and several other people have informally suggested that the park will require a sanitary sewer service connection at the Hamilton Meadows subdivision. Perhaps the Sanitary Sewer Pump Station Manhole in Parcel 'A' and the force main can be designed to accommodate future park sanitary sewer drainage. The sanitary sewer demand for the park has not been determined, however it may be wise to determine if the 4" force main shown in the Hamilton Meadows Utility Plan can accommodate additional capacity or if the line will have to be larger to accommodate the park sanitary flows. Most of the proposed park sanitary flow will be from park restrooms/concessions and sinks at picnic areas. The proposed Water Park at Adventure Island may likely have a significant sanitary sewer demand. The City staff should work closely with the Hamilton Meadows engineers to coordinate sanitary sewer service for the future park.

#### **Commissary Site**

The Commissary site is a Navy-owned parcel between Christmas Tree Hill, State Access Road and the proposed North Hamilton Parkway. It is being considered for reuse by the City of Novato, the Marin College District and as a shelter for the homeless.

### **Ad Hoc Steering Committee Planning Process**

#### **The Ad Hoc Steering Committee Purpose**

As the City of Novato was working towards acquiring land at Hamilton for the future Community Park, the City saw tremendous potential for the park. The City wanted to identify a diverse mix of potential uses. In order to assist the City with the planning of the park, the City Council choose and invited over 30 individuals to serve on an Ad Hoc Steering Committee for the purpose of identifying potential uses of the future park.

#### **The Steering Committee Composition**

The Committee was composed of representatives from a variety of special-interest groups who worked together with City staff and the consultant team at publicly noticed workshops. The following affiliations were invited to serve on the Ad Hoc Steering Committee:

- Novato Parks and Recreation Commission
- Novato Civic Arts Commission
- Novato Youth Commission
- Barker Pacific Group/Orion Partners, Ltd.
- Coastal Conservancy
- College of Marin
- DOGBONE
- Hamilton Child Care Center
- Homeward Bound of Marin
- Lanham Village Homeowners Association
- Marin Conservation League
- North Bay Children's Center

- Novato Bobby Sox
- Novato Chamber of Commerce
- Novato Community Players
- Novato Historical Guild
- Novato Lacrosse Club
- Novato Little League
- Novato Mother's Club
- Novato Music Association
- Novato Tennis Club
- Novato Unified School District
- Novato Youth Soccer
- Skate Park Task Force
- U. S. Coast Guard

**Steering Committee Meetings:**

Six meetings were publicly noticed and conducted as two-hour long interactive workshops. Each meeting had a special focus noted as follows:

1. February 25, 1999 – Committee Orientation; Overview of project constraints and brainstorm session of park potential, prioritization of brainstorm results and development of funding ideas
2. February 27, 1999 – Site Visit and Project Overview for orientation of existing conditions and scale of project
3. Special Topic Meetings:
  - March 15, 1999: Seniors and Teens Park Use Ideas & Needs; development of project vision, use programming and Top Ten Ideas
  - March 29, 1999: Youth, Family and Special Populations; and development of three schemes
  - April 19, 1999: Sports and Community Groups/Events; and review and evaluation of three schemes
  - June 14, 1999: Businesses, Non Profits, and Service Clubs; and review and evaluation of Conceptual Plan, estimated capital and operating costs

**Project Related Informational Meetings:**

1. City Cross-Department Internal Review and Property Owner Review – May 17, 1999
2. Parks, Recreation and Community Services Department Review – May 20, 1999
3. State Coastal Conservancy Review and Coordination Meeting – May 20, 1999

**Other Public Meetings:**

1. Joint Meeting of the City of Novato, Parks and Recreation and Civic Arts Commission– June 17, 1999.
2. Novato City Council Review and Comment – tentatively August 1999.

**Goals and Objectives of the Steering Committee**

The goal of the Committee was to identify a wide mix of possible uses, creating both passive and active recreation areas and facilities, and to identify entrepreneurial ways to develop and operate the park so that it will be a cost-recovering operation.

The work of the Committee focused on meeting the following objectives:

- Ideal: Park Design and Proposed Uses reflect a cost recovering operation.
- Provide a preferred plan and 2-3 Design/Use Options for consideration by various City Commissions and City Council.
- Have received Public Input on Steering Committee recommendations during the workshop process.
- Design includes amenities that accommodates large-scale events, including parking management.
- Incorporate ways to ensure adequate protection for adjacent wildlife refuges.

- All design recommendations include a transition and a boundary between the active use areas and the open space.
- Provide a Bay Trail spur connection that complements park uses.
- Consider feasibility of commercial operations to complement other park uses, i.e. golf driving range, volleyball/basketball café, etc.
- Consider parking and parking management for daily uses and large-scale events.

## **Project Description**

### **Project Design Criteria**

#### **Hamilton Master Plan**

- Bicycle and pedestrian links should connect North Hamilton Parkway to the park.
- The park improvements should meet the requirements of Section 9-20 of the Novato Municipal Code.
- The Community Park should have two distinct portions;
  - The southern portion is envisioned to be the cornerstone of the Hamilton community's active recreation facilities and may include competition baseball and soccer facilities.
  - The northern portion will be an opportunity to interpret the natural resources of Hamilton and serve as a buffer between sensitive natural resources and the active recreation uses.
- Pacheco Creek will be enhanced to provide a restored riparian and wildlife habitat. A 150-foot wide buffer zone will be provided on both sides of the creek to protect wildlife habitat from intrusion and provide for flood control, aesthetic quality and passive recreation. A recreational trail may be developed along one side of the creek.
- The following provisions will protect the natural resources adjacent to the Community Park:
  - The Ammo Hill area should be viewed as open space/wildlife refuge, with very limited human contact.
  - The Reservoir Hill area should be viewed as open space/wildlife habitat.
  - A 50-foot wide buffer of open space at the northwesterly side of Reservoir Hill.
  - A 300-foot wide buffer of open space around Ammo Hill.
  - A 300-foot wide wildlife corridor link between Ammo Hill and Reservoir Hill.
  - A transition zone with native plant materials between the active sports portion of the Community Park and the open space areas.
  - A management plan for the open space area.

#### **Significance of the Memorandum of Agreement #2976 between City of Novato and the Army**

- The use of the land that is conveyed to the City is limited to the following uses: school, classroom, or other educational purposes or as a public park or recreation area.
- The City must complete a metes and bounds description of the property acceptable to the Army.

#### **Required NEPA Mitigation Measures**

- The city shall demolish the unoccupied ammunition bunkers, other abandoned and unoccupied structures or implement safety proofing measures sufficient to ensure the health and safety of the public.
- Implement Bay Area Air Quality Control Measures for control of construction emissions of PM-10.
- Develop and implement a permanent access control plan to specifically prevent damage to natural resources from human trespass, vehicles, vandalism and dumping.
- Minimize the potential effects of any development on sensitive biological communities and resources on the Phase II Parcel. The city shall ensure creation of a permanent protective zone or zones that encompasses the wetlands and riparian forest, their watersheds, and sufficient uplands to support the continued hydrologic and biological functions of the wetlands. Activities that would adversely affect, directly or indirectly, sensitive biological communities and resources shall be prohibited within the protective zone or zones.
- The city shall develop and implement a permanent natural resource management and monitoring program for natural resource areas to be retained within the Phase II Parcel. The program shall include annual monitoring, identification of responsible parties and sufficient funding to ensure that the program is perpetual. The program shall be coordinated with other appropriate resource agencies and other project activities in natural areas, such as habitat restoration and enhancement, and fuels management.



## **Landfill 26 Restrictions and Design Criteria for Modifications to Landfill 26 from the Army Corps of Engineers**

- The Army may request to decommission the water treatment plant at some point in the future. This may occur as soon as five or ten years from 1999 and would make the treatment plant available for other uses. (Construction Drawings for the treatment plant are shown on the Plans for Landfill 26, Phase 1 dated July 1992.) The treatment plant was never put into service, as designed, to treat landfill effluent, since it was not needed. The 1996 action by the Regional Water Board (RWQCB) revised the Waste Discharge Requirement (WDR) and allowed the treatment plant to not be operated. In 1999 the Army may seek permission to "mothball" the treatment plant to better preserve the equipment within the not-operating plant. The formal decommissioning of the treatment plant, the physical removal of all equipment—including the building itself may occur within five or ten years. It is possible that if the Army is permitted to mothball the plant in 1999, a good part of the building could be made available to the City, maybe on a lease basis, for office/grounds maintenance use.
- The bunkers must be investigated for their suitability for reuse. (No drawings for these structures are available.)
- The soil cap is expected to settle between 5 and 30 inches. The Army is responsible to correct future settlement. The most settlement may occur in the center of the landfill. (Figures 3-5 and 3-6 of the Remedial Action Plan prepared in July 1993 show patterns of expected minimum and maximum settlement.)
- Subsequent use should not create conditions where water could stand on the cap.
- The finish and subsurface grades of the landfill shall remain undisturbed. No alterations of the existing earthwork and drainage patterns may occur within the landfill.
- The permanent markers, probes, survey monuments, risers, and wells must be protected.
- There is an existing v-ditch and drainage pattern around the perimeter of the landfill and buffer, which must remain.
- An approximately 200-foot wide buffer that is a minimum of 175-foot wide must surround the landfill. The 175-foot wide buffer should be measured from the centerline of the existing v-ditch that surrounds the landfill. This minimum width may decrease to a 150-foot buffer along where the Hamilton Meadows is planned south of Landfill 26 pending resolution among the developer, the Army and the City.
- The landfill must have a loop road around the complete perimeter for maintenance access. The road may also serve other uses.
- There is an 8-10-foot high flood control berm on the west edge of the buffer, which must remain. The top of the berm may be used as a trail or bike path. The berm was not designed to support large vehicles.
- There are three contaminated sites within the buffer that should not be excavated or otherwise be disturbed. No trees may be placed in the contaminated areas.
- The subdivision south of the landfill shall not be located within the buffer.
- There may be a need for a future pump station north of the landfill and buffer.
- There shall be no proposed jurisdictional wetlands within the landfill or buffer.
- The side slopes of the buffer that are part of the cap or that contain contaminants may be filled upon but not cut into. The existing drainage pattern is to be preserved with no additional surface water routed to the LF 26 drainage system.
- No parking areas, roads, buildings, shrubs or trees may be placed on the landfill. Parking areas, roads, buildings and trees may be placed on the buffer in the areas that do not contain contaminants. With proper precautions, it would be acceptable to place roads and buildings on contaminated areas. In fact, this will be necessary at the Quartermaster's Storage Yard area on the southeast-side of the landfill
- Avoid placing utilities on the landfill. Irrigation and electrical utilities on the landfill are acceptable if no deeper than 12 inches.
- Foundations on the landfill may not exceed 12 inches below finish grade.
- The landfill membrane must not be damaged.
- Improvements on the landfill should be predominately recreation turf with allowances for adequate buffers between play areas and the wells, which protrude through the surfaces of the landfill.
- The soil bearing capacity of the landfill and the buffer areas are unknown and should be investigated.

- A boundary survey for the landfill should be provided.
- West of the landfill area, is an area that floods, including the easternmost bunkers.

#### **Draft Remedial Action Plan Significance**

The Ammo Hill Parcel I (GSA PH II Sale Parcel) is approximately 260 acres and includes Ammo Hill, the bunkers, Pacheco Creek, and Reservoir Hill. It excludes Landfill 26. The Army is responsible for implementing the remediation before conveyance of the land.

The Draft Remedial Action Plan, dated June 1998, recommends several actions to treat the soil adjacent to Landfill 26, including the following:

- Encapsulation of the Quartermaster's Salvage Yard area.
- Encapsulation of the former underground storage tank and storm drains at former Building 783 that is east of the bunkers.
- Excavation of the storm drain lines north of the existing bunkers.
- Excavation of the suspected skeet range surface soils south of the landfill buffer. The November Final Draft Remedial Action Plan requires no cleanup of suspected skeet range surface soils in the area south of the bunkers and north of Pacheco Creek.
- Sediment removal in the Pacheco Creek channel.
- Excavation of storm drains, service pit and aboveground storage tank at former Building 799.
- The June 1998 Draft Remedial Action Plan does not address the former underground storage tank at the former Building 750. (Brad Call of the Army Corps of Engineers informed us that the November 1998, Final Draft does address this.)
- On page 4-5 the Draft Remedial Action Plan considered that the open space and public areas will be unlikely places for large-scale agriculture and private gardens and therefore not a likely pathway for potential exposure of humans to contaminants by ingestion of food. Based on this, we suggest that the City exclude community gardens as a program element of the park. Because of risks of contaminants in the soil, if a dog park is considered, it should be carefully located away from areas of concern.

#### **Flood Significance**

According to the Environmental Assessment of the Phase II Sale Parcel, the entire floodplain below elevation of 7 mean sea level is subject to 100-year flooding (EIP Associates, 1992).

West of the landfill area, there is an area that is subject to inundation during a 100-year flood event, including the easternmost bunkers. This flooding will also be likely after the Hamilton Wetlands are restored east of the landfill. The westernmost bunkers, above elevation 12.00, may not flood. These flood patterns should remain undisturbed. A representative from CH2Mhill suggested that two feet below the top of the diversion berm would be the approximate limit of a 100-year flood event. (Refer to *Figure 7, Assessment of the Impacts of the Landfill 26 Berm on the Local Regional Flood Elevations* by Philip Williams & Associates, November 1998. And also *Section 5 of HAAF Landfill 26 Perimeter Grading and Drainage Modifications Alternative Analysis* by CH2Mhill, April 1998.)

#### **Easements**

There are two utility easements on the Community Park property which could potentially affect the development of the park.

There is an existing easement for the Novato Sanitary District that runs approximately parallel to the east side of Pacheco Creek. This easement contains an underground sanitary sewer force main that flows to the north.

To the west of Pacheco Creek and partially parallel to the railroad right-of-way is an 80-foot wide electrical transmission line easement. The easement contains towers and high-voltage electrical transmission lines.

Any improvements within these utility easements are subject to the review by the utility providers and will likely be considered as encroachments and subject to potential disturbance by the utility providers in the event they need to repair, improve and maintain their utilities within the easement.

### **Regulatory Approvals and Comments**

The Community Park improvements will likely require CEQA review, regulatory review and approval by the following regulatory bodies:

- Novato City Council
- U. S. Army Corps of Engineers for wetland protection
- U. S. Army for Landfill 26 restrictions
- U. S. Environmental Protection Agency
- U. S. Fish and Wildlife Service
- Bay Area Air Quality Management District
- California Department of Fish & Game
- California Environmental Protection Agency
- California Regional Water Quality Control Board
- State Clearing House for CEQA review and notifications
- State Department of Health, Toxic Substances Control Division
- State of California Office and Planning and Research

*Marin Co. Environ Health  
& Safety*

The following agencies and organizations would likely review and comment on the proposed park improvements:

- Association of Bay Area Governments
- Barker Pacific Group/Orion Partners, Ltd.
- Bay Conservation and Development Commission
- Bay Trail
- Bel Marin Keys Community Facilities District
- California Department of Transportation
- California Coastal Conservancy
- College of Marin
- County of Marin
- County of Marin Local Agency Formation Commission
- DOGBONE
- Golden Gate Bridge Highway & Transportation District
- Hamilton Child Care Center
- Hamilton homeowners associations
- Homeward Bound of Marin
- Lanham Village Homeowners Association
- Marin Chapter of the Audubon Society
- Marin Conservation League
- North Bay Children's Center
- Novato Bobby Sox
- Novato Chamber of Commerce
- Novato Civic Arts Commission
- Novato Community Players
- Novato City Departments
- Novato Fire protection District
- Novato Historical Guild
- Novato Lacrosse Club
- Novato Little League
- Novato Mother's Club
- Novato Music Association
- Novato Parks and Recreation Commission

- Novato Sanitary District
- Novato Tennis Club
- Novato Unified School District
- Novato Youth Commission
- Novato Youth Soccer
- Pacific Gas and Electric Company
- Shea Homes
- Skate Park Task Force
- U. S. Coast Guard

### **Top Ten Park Use Ideas from the Ad Hoc Steering Committee**

1. Gathering Place
  - Sitting and Watching Others
  - Socializing
  - Sunset/Sunrise Viewing
  - Pond as Centerpiece/Toy Boats
  - Food and Drink Concession
2. Multi-Use Fields
  - Soccer/Lacrosse/Cricket/Bobbie Sox/Baseball/Softball/Volleyball/Special Events
3. Court Facilities
  - Tennis/Basketball/Roller Hockey
  - Volleyball Cafe
4. Play Areas
  - Tot Lot
  - Playground
  - Kiddie Track/Gas Station
5. Water Play Features
  - Play Fountain
  - "Mushrooms"
6. Adventure Activities
  - Rock Climbing
  - Ropes
  - Team Building Area
7. Batting Cages/Golf Academy
  - Revenue Generators
8. Passive Uses
  - Horseshoes/Shuffleboard
9. Walk/Hike/Bike/Skate Paths
  - Outdoor Fitness
  - View Wildlife
  - Connect to Bay Trail
10. Natural Areas
  - Wildflowers
  - Ecology Walk

## **Description of the Conceptual Plan**

### **“Island” Theme**

The park is divided into four “islands” in response to the natural site boundaries and to provide a comfortable organization and identity for the activity areas. The Landfill 26 is identified as “The Great Meadow” because it is dominated by a grass landscape that can serve multiple purposes. “Adventure Island” is a waterfront destination for exciting social activities requiring user fees. “Sports Court Island” is a destination adjacent to the Pacheco Creek buffer and near the park entrance for intense sport court games such as basketball, skating and volleyball that may be a healthy setting for young people to socially interact. “Community Park Drive” is a dramatic long and narrow space adjacent to the Pacheco Creek buffer that serves as the park entry drive and provides the sense of a park-like landscape.

### **Access Control Plan**

All design recommendations include a transition and a boundary between the active use areas and the open space. There is a 300-foot wide wildlife buffer around Ammo Hill. A continuous fence surrounds Ammo Hill. The single park entrance for vehicles is securable with a gate. Pedestrian entrances into the park are securable with bollards to prevent unauthorized vehicular access. At the Great Meadow, the Landfill buffer overlaps the wildlife buffer and the buffers are used primarily for drainage and open space. At the Adventure Island, the wildlife buffer has proposed seasonal wetlands and is used primarily for drainage, open space and wildlife habitat. Between the Ammo Hill wildlife buffer and Adventure Island is a five-acre pond that limits access to Ammo Hill and provides a physical separation between the active and passive uses. The activities on the west end of Adventure Island, which are closest to Pacheco Creek and the existing riparian forest, are passive picnic areas. There is a 150-foot-wide creek setback on both sides of Pacheco Creek that is designated as open space and a place for flooding, creek restoration, seasonal wetland enhancements and nature interpretation. A “good-neighbor fence” is proposed by Shea Hones at the edge of the Hamilton Meadows Subdivision to control access between the park and Hamilton Meadows. Shea Hones is also proposing two corridors for pedestrian and bicycle access between the park and Hamilton Meadows. The existing Water Treatment Plant is locked and fenced. Roads and parking areas within the park and bridges that cross Pacheco Creek will be edged by barriers to prevent vehicles from off-road driving. Vehicles will be prohibited from access to the Landfill. Multi-use Trails within the wildlife buffers are minimal.

### **Vehicular Access and Parking**

The Community Park is accessed by vehicle via the proposed North Hamilton Parkway, via Nave Drive, via U.S. Highway 101 by using the Hamilton Field or Bel Marin Keys exits. An internal park road system allows for vehicular access to off-street parking areas. Approximately 700 off-street parking spaces are provided. Each island has an appropriate amount of parking and drop-off areas conveniently located adjacent to activity areas.

### **Special Event Parking Management**

The Community Park can accommodate special events in three areas: The south edge of the Great Meadow in the landfill buffer, west of the Great Meadow in the landfill buffer and in the Adventure Island area. Parking for special events will require special permits. Depending on the size of the event and coordination with property owners, the following options for parking management can be considered:

- Park onsite in the 700 off-street spaces
- Park at the Hangar parking lots and provide a shuttle service
- Park in the Bel Marin Keys Industrial Park and provide a shuttle service and allow access via the Pacheco Creek pedestrian bridge
- Park at Commissary triangle
- Park at the Marriott commercial center
- Park at the Vintage Oaks Shopping Center and provide a shuttle service
- Park at Park & Ride lots along the U.S. Highway 101 corridor and provide a shuttle service

### **Pedestrian/ Service/ Bicycle/Disabled Access and Circulation**

Systems of 10 feet wide paved multi-use paths provide for a comfortable circulation system for walkers, joggers, cyclists, and people with disabilities, skaters, and park maintenance. As park use expands the multi-use paths can be widened to accommodate additional capacity.

### **Utility Infrastructure Plan**

All utilities should be located underground and be consistent with the Hamilton Design Guidelines. The alignment of the utilities should essentially follow the park road system that serves each island. Additional water and electrical utilities should be provided in underground vaults for the special event areas. The current project titled Hamilton Field Phase 2; Stage Two is providing the North Hamilton Parkway. There is a water main and joint trench (gas, telephone, cable TV and electric) stubbed at this location. There is no sanitary stub.

#### **Sanitary Sewer:**

There is a gravity line that runs parallel with North Hamilton Parkway, along the west side of the railroad now. It is at or near capacity. Further research will be needed to see if the Community Park could use this system.

The Hamilton Meadows subdivision is going to use a pump station for its sanitary sewer system. The Community Park may be able to utilize this station.

If the above scenarios do not work, the Community Park will need a pump station.

#### **Water:**

The water stub provided is a 16" main and should be adequate for the Community Park.

#### **Joint Trench:**

There is a primary stub being provided. This stub should be adequate for the Community Park.

#### **Storm Drain:**

The storm drain system would most likely utilize Pacheco Creek for outfall.

### **Utility Design Criteria**

#### **Sanitary:**

- 6" mainline (minimum)
- 4" lateral (minimum)
- 0.6% minimum slope on mainline
- 1.25% minimum slope on lateral
- Manhole every 350'
- Unisex or separate-sex restrooms to serve each activity area located within convenient walking distances from park activity areas.

#### **Joint Trench:**

Based on design. Needs to be provided to users requiring power.

#### **Water:**

- 8" mainlines, less for laterals, depending on design
- Hydrants: 500' maximum spacing

#### **Storm Drain:**

- 15" line minimum within right-of-way
- 8" branch (depends of design)

### **Park Lighting**

The park facilities most likely to be used at night should be lighted. Lighting should be carefully specified and arranged to provide minimal light intrusion on adjacent residential and wildlife areas. Lighted areas should be provided as follows:

- Roadway and parking lot lighting for safe use by park users during the evening hours to meet criteria provided by the City of Novato Police Department.
- Sports lighting on the Great Meadow to the extent that is feasible due to the limitation of the 12" foundation depth on the landfill.
- Sports lighting for the tennis courts.
- Sports lighting of the sports courts
- Activity lighting for Adventure Island.

### ***The Great Meadow***

**Landfill 26 and Buffer Improvements:** Provide approximately 20 acres of irrigated multipurpose turf fields for active recreation including tournament play. The presence of the existing landfill surface structures greatly limits the layout of play fields and requires the provisions adequate clearance of padded surfaces on the surface structures for player safety. The buffer improvements provide a forested canopy as a contrast to the open space provided by the meadow. Views to the northeast of the Hamilton Wetlands and agricultural areas are unimpeded.

**Park Circle:** Provides an arrival area for park guests and a decision-point for choosing an island destination. It includes a roundabout similar to other traffic intersections at Hamilton, palm trees and a park entry gate in a style and materials similar to the Hamilton Main Gate.

**Wildlife Buffer:** A 300-foot-wide wildlife buffer is shown around Ammo Hill as required by the Hamilton Master Plan. Activity near the buffer is mostly limited to passive activities.

**Ammo Hill Perimeter:** The existing fence is to be maintained where standing. Part of the fence is to be repaired and part relocated to allow limited access around the Landfill.

**Residential Buffer:** The Community Park project proposes a park road, off-street parking and tree planting in the landfill buffer as a buffer between Hamilton Meadows and park activity areas.

**Multi-use Ball Fields:** The irrigated lawn area provides for three soccer fields and additional soccer field overlapping three ball diamonds. Special footings will be required for the backstops and sideline fencing due to the 12" maximum depth allowed for foundations.

**Putting Greens and Golf Center:** Are provided as a positive revenue stream to the park. The alignment may change depending on future study and suggestions of golf academy operators. The addition of a driving range and food services would provide a significant revenue source.

**Art Meadow:** Provided as a passive area adjacent to the sensitive wildlife resources and as an opportunity to include cultural arts in the project.

**Grass Volleyball:** Provided as an informal irrigated turf area that can be used for organized and informal lawn games, picnics and special events. The area is adjacent to a picnic plaza and a pavilion with restrooms and a concession.

**Sculpture Garden:** Provided as a passive area adjacent to Hamilton Meadows residential subdivision and as an opportunity to include cultural arts in the project.

**Batting Cages:** Provided as a positive revenue stream to the park, provide a center for informal family activity and support the adjacent ball diamonds. The enclosed cages provide a barrier between the active recreation area and the adjacent wildlife buffer and are adjacent to tot lot, a picnic plaza and a pavilion with a restroom and concession facility.

Bioswales: are provided for inexpensive perimeter drainage around the Landfill and as a barrier between active recreation areas and the wildlife buffer.

Dog Park: Provide within an approximate one-acre fenced area adjacent to the Hamilton Meadows residential subdivision and the Water Treatment Plant.

Corporation Yard: The existing and relatively new 4,000 square-foot Water Treatment Plant and yard may become available for use as a corporation yard. It includes a restroom and has a warehouse-like high bay floor plan. It will require new utility services when the Hamilton Meadows project truncates the existing overhead and underground utilities that currently serve the treatment plant.

Encapsulated Waste at Quartermaster's Storage Yard: an asphalt parking area covers the encapsulated waste, southeast of the landfill, identified in the Draft Remedial Action Plan. It should not have tree planting within the area of encapsulated waste.

Bay Trail Trailhead: Provided at the eastern terminus of Community Park Drive for Bay Trail access.

Hamilton Wetlands: Will require access via the Community Park Drive. The Army has indicated that it will build the first phase of Community Park Drive to serve as access to the Hamilton Wetlands. This is an approximately 14-acre area of City-owned property between the Great Meadow and the proposed Hamilton Wetlands. This area should remain undeveloped because it is part of the wildlife corridor that connects Ammo Hill to Reservoir Hill. It should be considered as a site for wetland mitigation if the project requires wetland mitigation or it is desirable to use the land as a wetland mitigation land bank for other projects.

Sunrise Terrace: Provides a passive area at the northern termini of the multi-use trails. It provides an eastern view and a view across the proposed Hamilton Wetlands.

Special Events: Can be accommodated in two places. In the volleyball meadow and adjacent parking area south of the Landfill and in the buffer west of the Landfill. Additional water and electrical utilities should be provided in underground vaults for these special event areas.

#### *Adventure Island*

The Adventure Island provides an opportunity to create fee-based park activity areas that can provide a revenue stream to the project. Adventure Island is envisioned as a family destination for a broad range of age groups from toddlers to adults. The Adventure Island will provide a high level of well-maintained guest services and generate revenue based on admission fees, rentals, supervised activities and food sales.

Hamilton Pond: Provides a five-acre pond to provide access to naturalistic water as a passive recreation resource. It provides a park-like aesthetic setting and opportunities for limited boating, fishing and wildlife viewing. Human contact with the pond will be prohibited except for incidental contact according to State of California and Marin County health regulations.

Wedding Pavilion/Band Stand: Provided as a traditional park-like focal point on a waterfront setting. Will provide a revenue stream to the project and is a setting for weddings, parties, performances and special events.

Amphitheater Hill: Provided on the east side of the pond as a setting for performances, child play and outdoor education.

Water Play Area: Includes a Park Pavilion/Café for conveniences, services and refreshments. The fountain/plaza is for child play and multiple uses (such as outdoor dining, special events or a place to sit) when the fountain is turned off and the plaza is available. This element provides for safe human contact with water as a response to the hot Novato summer climate.

Tot Lot: Provides for child play as a centerpiece of family activity.



**Adventure Play Area:** Provides a place for child and adult adventure play including a kiddie track and possibly a ropes course.

**Group Picnic Area:** Provides picnic facilities for organized groups up to 300 people. Includes a small stage and space for outdoor food preparation and dining.

**Sunset Hill Picnic Area:** Provides a quiet place on a hill adjacent to the existing riparian forest for passive family picnics, viewing sunsets and playing in the archaeological dig play area.

**Picnic Restroom:** pavilion with comfort and concession facilities is provided between the two picnic areas.

**The Black Forest:** The undisturbed thick riparian forest serves as a naturalistic backdrop for the western edge of Adventure Island.

**Tennis Center:** Four lighted tennis courts are provided in two banks for games, tournaments and lessons. A tennis pavilion with comfort and concession facilities is provided.

**Bioswales:** Are provided for inexpensive storm drainage around the tennis courts and parking area.

**Seasonal Wetlands:** are shown as opportunities to mitigate wetlands impacted by park development and provide opportunities for wildlife enhancements. Areas adjacent to the Pacheco Creek may be either seasonal wetlands or restored riparian forest.

**Special Events:** Can be staged in the Adventure Island area as a complement to the two areas for special events at the Great Meadow.

### ***Sports Court Island***

The Sports Court Island provides an opportunity to create youth-based park activity areas that can provide a healthy environment for youth and young adults to play and socialize.

**Basketball Courts:** Four full-size lighted outdoor basketball courts for socializing, games, tournaments and lessons.

**Roller Hockey Court:** One fence, outdoor lighted concrete National Hockey League dimensioned court with dashboards and spectator areas.

**Sand Volleyball Courts:** Two lighted outdoor sand regulation courts for socializing, games, tournaments and lessons.

**Skate Park:** One fenced lighted outdoor concrete court for socializing, games, tournaments and lessons.

**Picnic Area:** Are informally arranged along the Pacheco Creek buffer.

**Pacheco Creek Restoration:** is shown as an opportunity to mitigate wetlands impacted by park development and provide opportunities for wildlife enhancements. Areas adjacent to the Pacheco Creek may be either seasonal wetlands or restored riparian forest.

**Sports Pavilion & Restroom pavilion** with comfort and concession facilities is provided.

### ***Park Buildings***

Several Park Buildings were designed as part of the Conceptual Plan. They are developed in a style compatible with the traditional-looking building throughout Hamilton. The buildings serve a variety of functions including gateways, focal points, comfort, refreshment and concession sales and shelter. Some of the typical buildings and structures are listed below:

Park Entry Gate  
Adventure Island Entry Gate  
Wedding Pavilion/Band Stand  
Park Pavilion/Café  
Typical Restroom/Concession  
Picnic Pavilion  
Golf Center  
Shade Structure at Tot Lot  
Dog Park Shade Trellis  
Typical Shade Trellis  
Ballpark Pavilion  
Sports Court Pavilion  
Tennis Pavilion  
Volleyball Pavilion

## **Description of Alternatives**

### **Scheme 1 Water Theme**

Alternative 1 is similar to the Conceptual Plan. It maximizes water as a park setting. It has a large pond that defines the Adventure Island. It includes the Great Meadow and Sports Court Island themes that are in the Conceptual Plan. The significant difference between it and the Conceptual Plan is that the Adventure Island and pond in the Conceptual Plan are smaller and create less impacts on natural resources than Alternative 1.

### **Scheme 2 Sports Theme**

Alternative 2 maximizes sporting activities as the focus of the park. The ball diamonds are placed adjacent to a pond in the area of the existing bunkers in a cloverleaf pattern to facilitate tournaments. The Landfill is a multipurpose meadow that accommodates seven soccer fields as well as volleyball, putting greens and passive activities. The landfill buffer west of the landfill is used for sports courts. An eight-court tennis center is placed in the triangular parcel west and south of Pacheco Creek.

### **Scheme 3 Nature Theme**

Alternative 3, the Nature Scheme, provides the least expensive and least environmental impacts of the schemes. It is a response to allowing the existing systems in place to succeed with the least amount of human interaction. The landfill is a meadow of naturalized or irrigated grasses for multiple purposes like lawn games and informal picnics. The bunkers are removed and the seasonal wetlands and hydrological patterns on the site area enhanced to support a pond, seasonal wetlands and a riparian forest adjacent to Pacheco Creek. A Nature Center and Art Park are placed in the triangular parcel west and south of Pacheco Creek.

### **Items Considered and Not Incorporated**

The Committee considered several other uses and decided not to pursue their incorporation into the schemes including the following:

- Golf driving range and supporting food services
- More extensive golf academy

- Internet farm or video arcade
- Indoor facilities
- Proximity to U.S. 101 may support operation of regional recreational facilities
- Disc golf

### Capital Cost Estimates for the Proposed Future Hamilton Community Park

All costs shown are in 1999 dollars with allowance for escalation as noted below. Estimates of capital costs are based on the construction costs of similar park facilities prior to 1999. The estimates for environmental review are based on consulting costs of similar studies prior to 1999. Protracted opposition to the Community Park which could require additional studies, legal defense or project delays may add undeterminable costs to the project and are therefore not included in the estimates.

#### PRELIMINARY ESTIMATE OF CAPITAL COSTS

| Item  | Item Subtotal       |
|---|---------------------|
| A. Community Park Drive (3 Acres)                             | \$338,575           |
| B. The Great Meadow (Landfill 26 And Buffer) (49 Acres)       | \$5,021,850         |
| C. Adventure Island (25 Acres)                                | \$5,530,350         |
| D. Sports Court Island (4 Acres)                              | \$1,285,650         |
| <b>Subtotal A-D</b>   | <b>\$12,176,425</b> |
| Layout, Mobilization & Bonds (5%)                             | \$608,821           |
| Design & Engineering (10%)                                    | \$1,217,643         |
| City Project Development & Administration (15%)               | \$1,826,464         |
| Design Contingency (10%)                                      | \$1,217,643         |
| Environmental Review (CEQA/NEPA Studies)                      | \$800,000           |
| <b>TOTAL A-D plus "Soft Costs"</b>                            | <b>\$17,848,995</b> |
| Cost Escalation (7 years at 5% per year)                      | \$4,261,749         |
| <b>TOTAL</b>  | <b>\$22,108,744</b> |
| <b>Cost per acre \$17,850,000/81 acres \$220,000 per acre</b> |                     |

**Estimates of Operations Revenue and Expenses (as compiled by The Sports Management Group)**

The following is summary of the estimates of operations revenue and expenses as compiled by The Sport Management Group. Refer to the Hamilton Community Park Expense and Revenue Analysis for an explanation of their detailed analysis.

| <b>PRELIMINARY ESTIMATE OF COST RECOVERY POTENTIAL</b> |              |                |             |
|--|--------------|----------------|-------------|
|  | <b>Low</b>   | <b>Average</b> | <b>High</b> |
| Probable Annual Expense                                | \$1,717,000  | \$1,814,000    | \$1,911,000 |
| Potential Annual Revenues                              | \$1,364,000  | \$1,526,000    | \$1,688,000 |
|  | <b>Worst</b> | <b>Average</b> | <b>Best</b> |
| Cost Recovery Potential                                | 71%          | 84%            | 98%         |
| Annual Subsidy   | (\$547,000)  | (\$288,000)    | (\$29,000)  |

| <b>REVENUE SUMMARY</b>            |             |             |
|-----------------------------------|-------------|-------------|
| Description                       | <b>Low</b>  | <b>High</b> |
| Adventure Island                  | \$977,000   | \$1,191,000 |
| Sport Court Island                | \$89,000    | \$115,000   |
| The Great Meadow                  | \$194,000   | \$246,000   |
| Hamilton Pond                     | \$111,000   | \$136,000   |
| Total Potential Revenue (rounded) | \$1,364,000 | \$1,688,000 |

| <b>EXPENSE SUMMARY</b>                       |             |             |
|--|-------------|-------------|
| Description                                  | <b>Low</b>  | <b>High</b> |
| Salaries & Benefits                          | \$616,000   | \$664,000   |
| Commodities                                  | \$6,000     | \$9,000     |
| Marketing                                    | \$20,000    | \$25,000    |
| Supplies                                     | \$31,000    | \$40,000    |
| Landscaping, Maintenance, Repair & Utilities | \$1,044,000 | \$1,173,000 |
| Total Potential Revenue (rounded)            | \$1,717,000 | \$1,911,000 |

| <b>POTENTIAL PARTICIPATION SUMMARY</b> |            |             |
|--|------------|-------------|
| Description                            | <b>Low</b> | <b>High</b> |
| Adventure Island                       | 91,000     | 112,000     |
| Sport Court Island                     | 21,000     | 27,000      |
| The Great Meadow                       | 44,000     | 56,000      |
| Hamilton Pond                          | 13,000     | 16,000      |
| Total Potential Participation Figures  | 169,000    | 211,000     |

**Recommendations Based on Analysis of Operations Expense and Revenues:**

- The addition of a golf driving range or a three-hole par 3-4 and 5 golf course would add significant revenue from fees and the sale of food, beverage and merchandise. The likelihood of finding a contractor for the operation of the Golf Center is increased with a driving range.
- Consider a design that would allow fee-based special events, such as children's theater, puppetry, music and other performance-based activities to be held on the Floating Stage. Relocating the entrance of Floating Stage to face Adventure Island would allow controlled access into the area.
- Dog grooming services and pet supplies would add revenues.
- The addition of the following features add significant revenues from fees and the sale of food, beverage and merchandise:
  - Two outdoor climbing walls (24' and 16')
  - Ropes course
  - Carousel
  - Train or car ride
  - Birthday party area

## **Conceptual Plan Implementation**

### **City Council Review & Comments**

The Novato City Council should review and file the project with no action except to advise the City Staff on next steps.

### **Demolition of Existing Bunkers**

The City of Novato is required to demolish or safety-proof the abandoned ammunition bunkers within the GSA Phase II Parcel. The Army may be willing to assist with the removal of the bunkers. The committee did not favor reuse of the bunkers. The City should investigate the safety and feasibility of the bunker material, such as the concrete rubble, being recycled for road base or used for levee or pond revetment.

### **Future Studies**

Feasibility Study

CEQA Review

Traffic Study

Hydrology Study and Wetland Delineation

Noise Study

Biological Study

Resource Management Program

### **Coordination with Adjacent Projects**

Continue efforts to coordinate with adjacent projects such as other Hamilton recreation facilities, the park road, the Hamilton Meadows, the Landfill closure, the Hamilton Wetlands, the Bay Trail, Commissary Triangle, North Hamilton Parkway and other Hamilton projects.

### **Project Funding**

There is no funding budgeted for the project. A broad-minded approach to project funding will be necessary to implement the park improvements. Some suggestions for funding provided by the Ad Hoc Steering Committee are listed below:

1. Corporate Sponsorship of Specific Facilities, i.e. Sport court, fields, adventure island
2. User fees for certain park areas, i.e. Batting cages, water play areas, golf center
3. Parking meters/parking lot fee
4. Adopt an area program
5. Sell advertising space on fencing, park benches, trash cans, signage
6. Redevelopment
7. Hamilton Phase II park development fees and recreation/environment donation
8. Minimize City subsidized use of fields, courts, i.e. contracts, group user fees, rentals
9. Create a Friends of Hamilton non profit organization (501c3)
10. Park impact fees from City residential development (approximately \$125,000/year city-wide)
11. Use contract concessionaire to operate food pavilions, run proshop and equipment rental concession.
12. Apply for grants, i.e. Coastal Conservancy Grant for Bay Trail connection study

13. Bonds
14. Solicit for request for proposals from potential park operators/developers
15. Pursue partnerships with private and non-profit organizations.

## **Project Phasing**

### **Challenges to Phasing**

As Hamilton reaches buildout, people will expect community recreation facilities at the Community Park. The lack of park funding to implement and maintain facilities is the most formidable challenge to project phasing. Phasing of improvements may be more expensive than implementing a total project because of the need for incremental and interim improvements and the need to stub underground utilities for future improvements.

The City of Novato is required to implement the mitigation measures for the Phase II Parcel. These National Environmental Policy Act mitigation measures are related to the safety of the existing bunkers, air quality during construction, access control, protection of sensitive biological communities and the development and implementation of a natural resource management plan. These mitigation measures would most likely take precedence over implementation of other park facilities

### **Phasing Approach and Options**

Coordinate with the projects that develop adjacent to the Community Park and encourage those projects to assist with improvements on the park property. The construction of the Community Park Drive by the Army is a good example of the benefits of such coordination.

The design of the park is segregated into four distinct islands that can be implemented independently of each other as long as basic improvements such as roads, utilities and required mitigation measures are in place.

Implementation of the Community Park Drive to Park Circle and some necessary underground utilities are an obvious first phase. Bay Trail improvements, the Dog Park, and some simple multi-use paths would provide logical access to the park and make it available as an open space resource and expose people to the beauty and the potential of the parkland.

Vehicular access to the Great Meadow and the Adventure Island branch from Park Circle. The Great Meadow can slowly be improved for multiple uses. The Adventure Island improvements can be delayed until a concession operator is found for building and operating Adventure Island. After the bunkers are removed, the area could be redeveloped as an interim golf driving range that would provide a revenue stream to the City.

The Sports Court Island can be implemented separately from the Great Meadow and the Adventure Island. The Pacheco Creek restoration, nature trail and seasonal wetland improvements can be implemented separately from the other park improvements.

The tennis courts and supporting road and parking could be implemented separately from Adventure Island

### **Access Control Plan**

The City of Novato is required to develop and implement an access control plan to protect the natural resources within the GSA Phase II Parcel from damage. The Conceptual Plan shows a fence around Ammo Hill. A schematic diagram showing access control is shown in the Supplemental Exhibits of this report. A fence may also be required around Reservoir Hill.

### **Natural Resource Management and Monitoring Program**

The City of Novato is required to develop and implement a Natural Resource Management and Monitoring Program for the natural resources within the GSA Phase II Parcel. The program shall describe the desired conditions, annual monitoring methods and criteria for deviations and be carried out in perpetuity. The program should be coordinated with other restoration enhancements and fuels management efforts and be coordinated with federal, state, county and other resource agencies.



**Refer to Supplemental Exhibits for the following:**

**List of Figures**

Phase II GSA Sale Parcel Vicinity Map  
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***Park Buildings***

Park Entry Gate  
Adventure Island Entry Gate  
Wedding Pavilion/Band Stand  
Park Pavilion/Café  
Typical Restroom/Concession  
Picnic Pavilion  
Golf Center  
Shade Structure at Tot Lot

**Appendices**

**Bibliography**

**Capital Cost Estimates**

**Estimates of Operations Revenue and Expenditures (See TSMG Report)**

**Steering Committee Input**

File Name: BSA2-98/Report/Reports

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**Proposed Hamilton Community Park**

**Final Report  
Supplemental Exhibits**

**August 1999**

*Prepared for:*

The City of Novato, California

Department of Parks, Recreation & Community Services

*Prepared by:*

BSA Architects

Carducci & Associates, Inc.

The Sports Management Group



# **Hamilton Community Park Final Report**

**August 1999**

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Phase II GSA Sale Parcel Vicinity Map  
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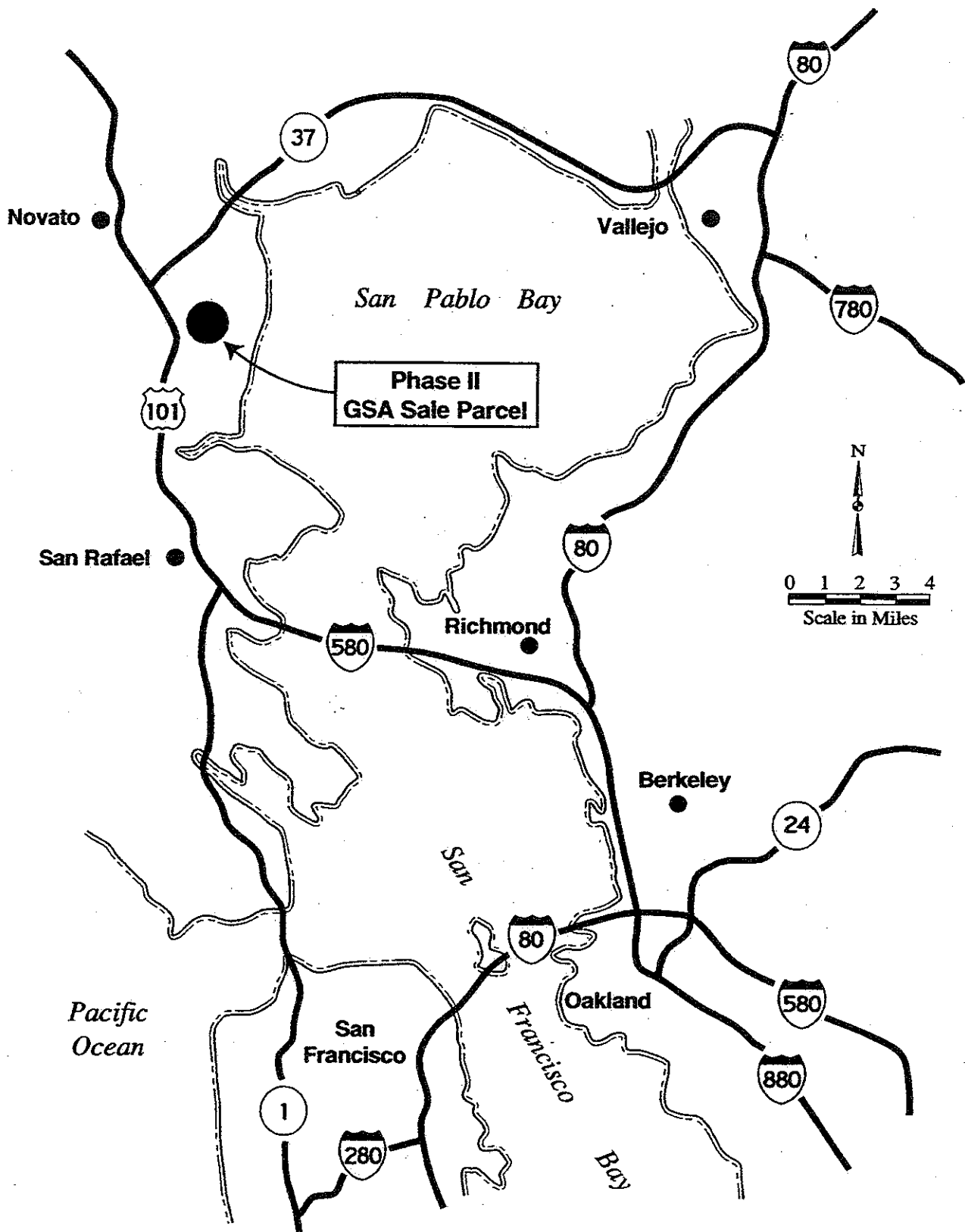
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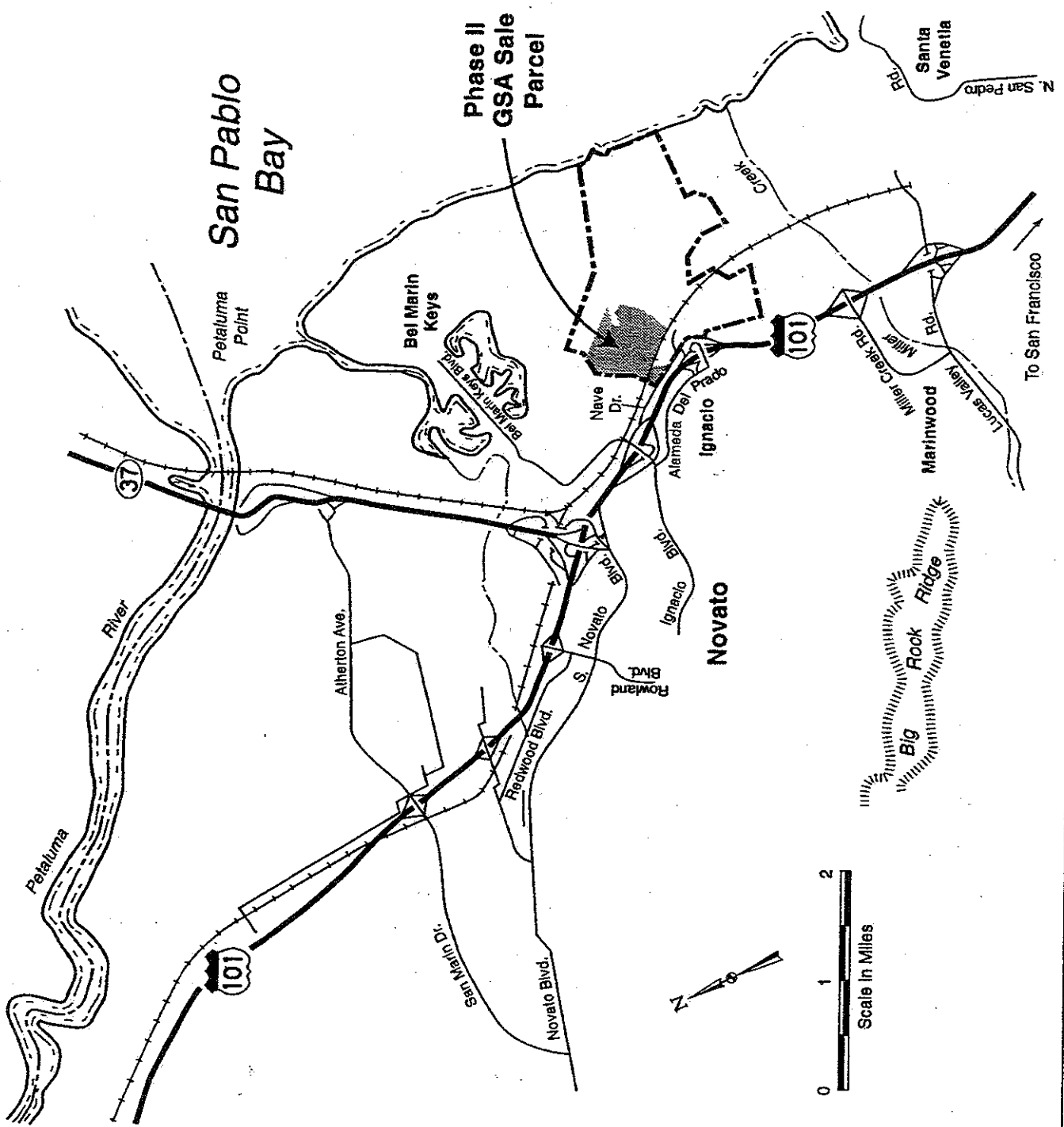
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**Figure 2-1**  
**Phase II GSA Sale Parcel Vicinity Map**



**Figure 4-5**  
**Project Study Area**

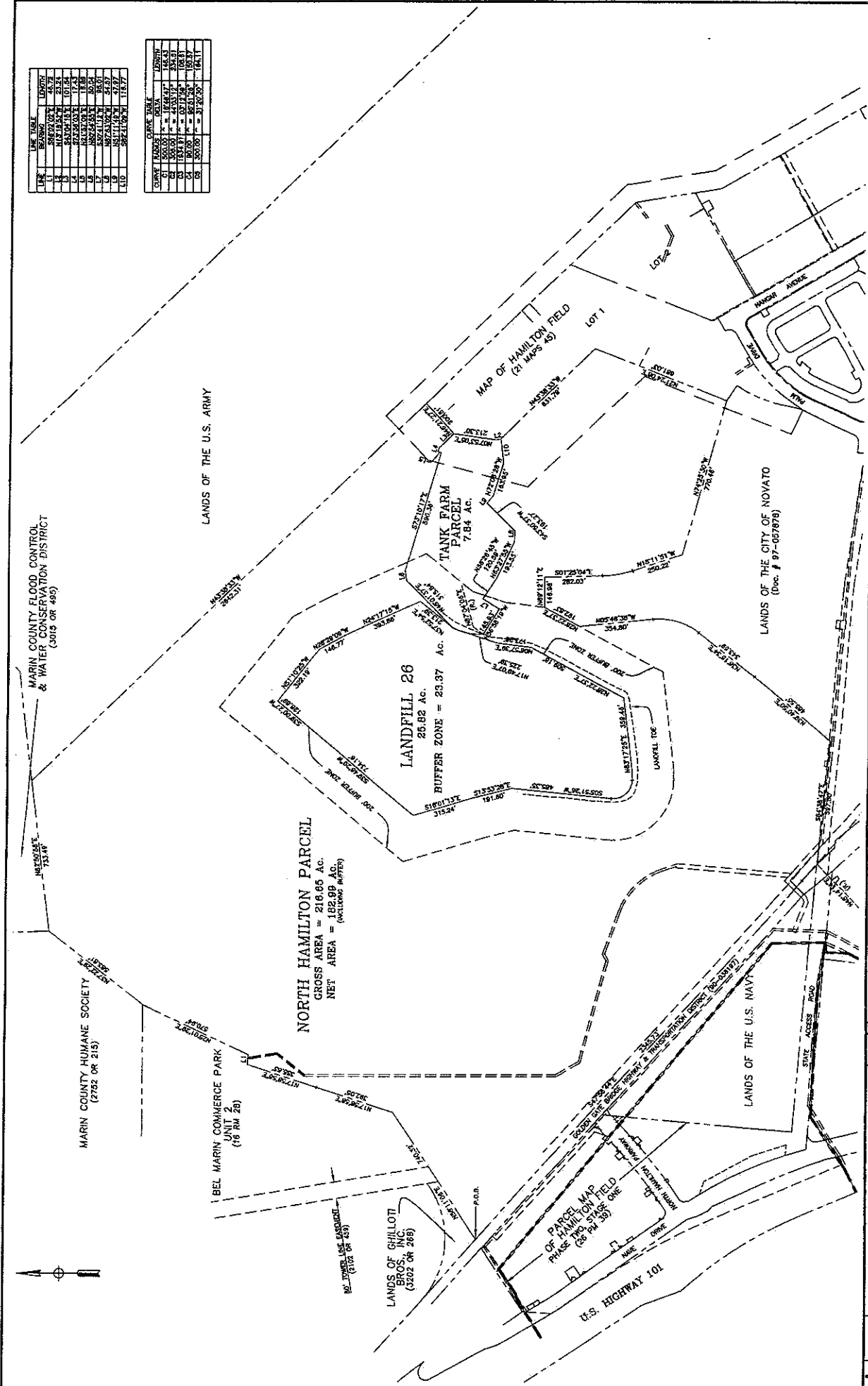
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**LINE TABLE**

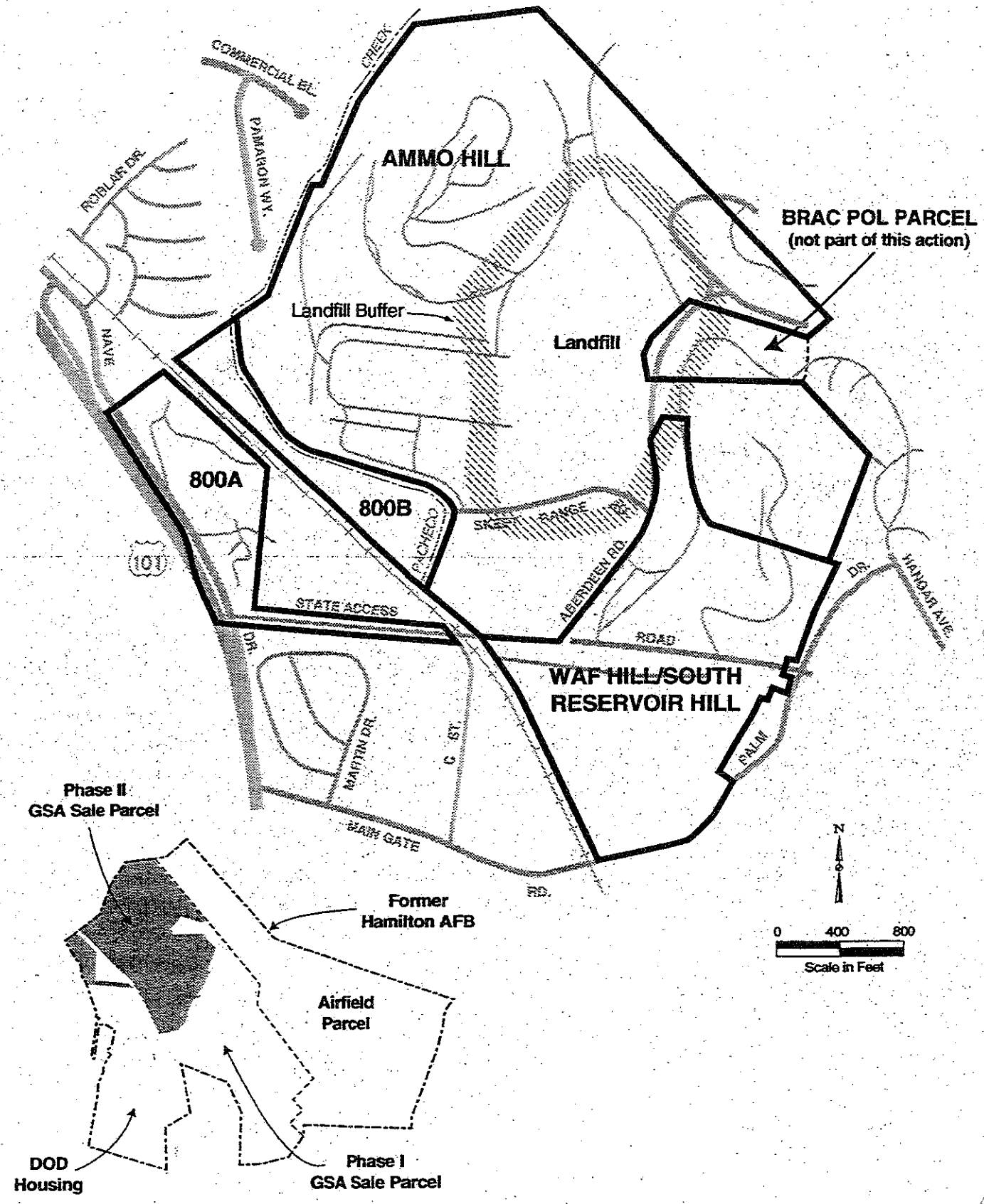
| LINE | BEARING        | LENGTH |
|------|----------------|--------|
| L1   | S88°02'00"W    | 45.78  |
| L2   | N73°15'00"E    | 101.54 |
| L3   | S72°55'00"E    | 17.43  |
| L4   | N72°55'00"E    | 17.43  |
| L5   | N73°15'00"E    | 101.54 |
| L6   | S88°02'00"W    | 45.78  |
| L7   | S87°43'00"W    | 54.57  |
| L8   | S87°11'45"W    | 77.97  |
| L9   | S86°11'42.31"W | 110.77 |

**CURVE TABLE**

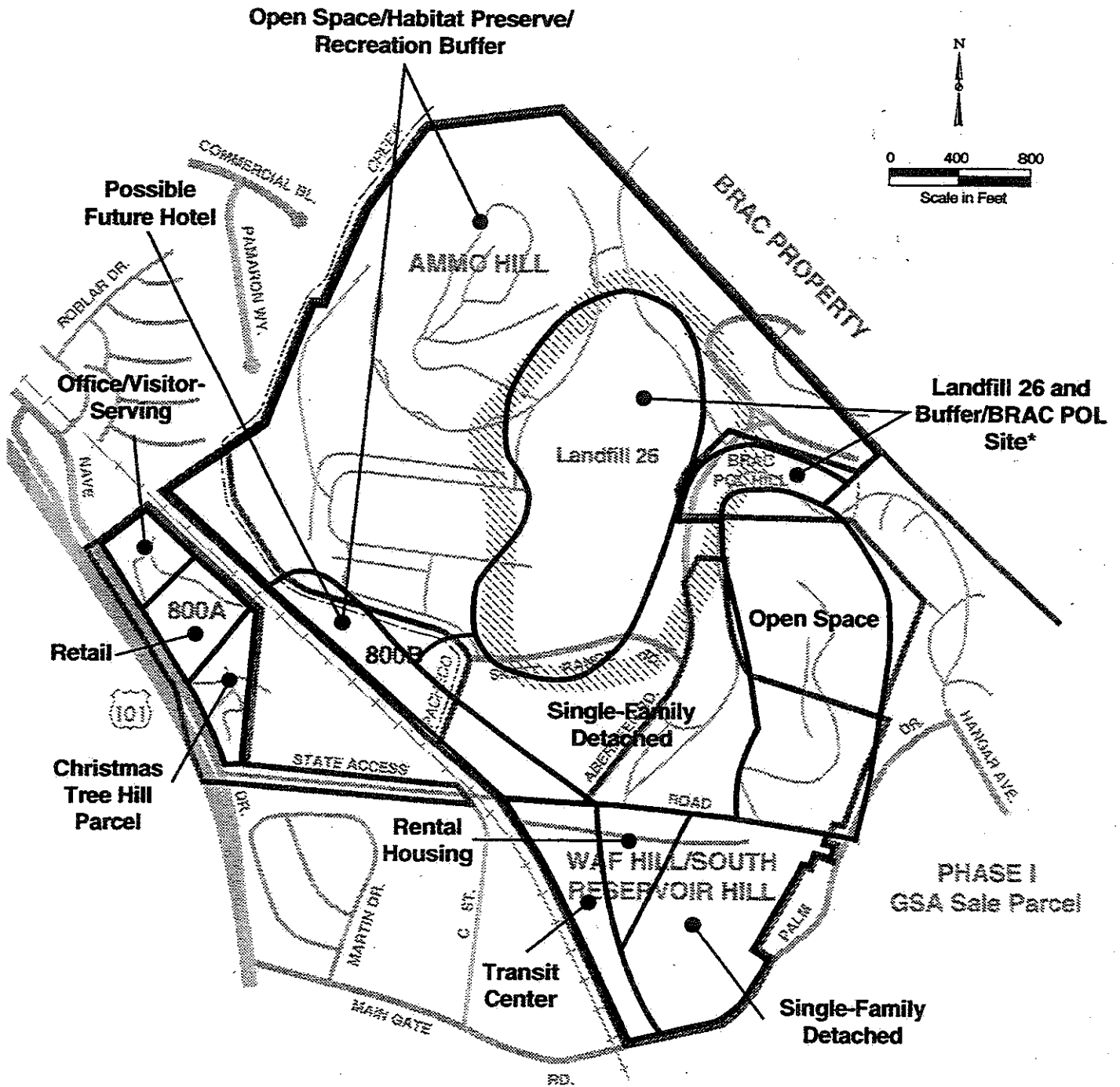
| CURVE | RADIUS | CHORD   | ANGLE  | LENGTH |
|-------|--------|---------|--------|--------|
| C1    | 500.00 | 14.8427 | 164.43 |        |
| C2    | 500.00 | 24.0517 | 254.93 |        |
| C3    | 100.00 | 2.9174  | 16.93  |        |
| C4    | 100.00 | 5.8348  | 33.87  |        |
| C5    | 500.00 | 27.8270 | 164.11 |        |



|  |  |                 |  |                                    |
|--|--|-----------------|--|------------------------------------|
| DRAWN BY: JCS  |  | CHECKED BY: JCS |  | DATE: JUNE 1, 1989                 |
| SCALE: 1"=200'   |  | PROJECT: C1     |  | DESCRIPTION: NORTH HAMILTON PARCEL |
| <p><b>CSW [St]<sup>2</sup> CSW/STUBER-STROEH ENGINEERING GROUP, INC. CONSULTING ENGINEERS</b><br/>         780 Delong Ave., Novato, CA 94945-3246<br/>         (415) 892-4763 FAX (415) 892-4502</p> |  |                 |  |                                    |
| <p>PREPARED UNDER THE DIRECTION OF: _____ EXP. _____</p>   |  |                 |  |                                    |
| <p>CITY OF NOVATO MARIN COUNTY CALIFORNIA</p>  |  |                 |  |                                    |



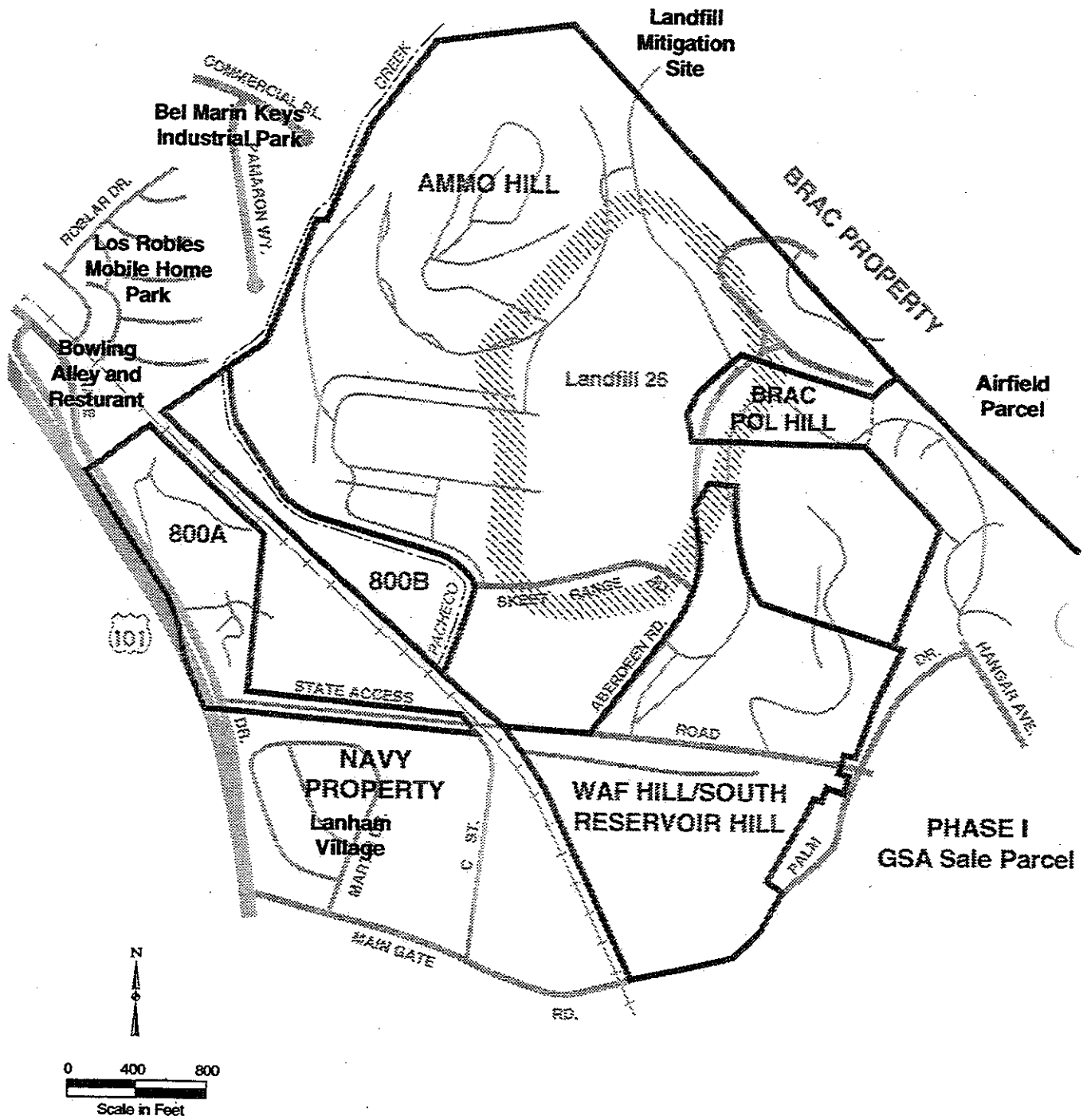
**Figure 1-1**  
**Phase II GSA Sale Parcel**



\*Landfill 26 and buffer: north = open space; south = recreation BRAC POL site: open space/habitat preserve.

**Figure 1-3**  
**New Hamilton Partnership Master Plan (Phase II)**

**Proposed Master Plan  
Development Area  
(Agriculture)**



**Figure 4-1  
Land Uses on the Phase II GSA Sale Parcel and Adjacent Lands**

# LEGEND

## Land Use Designation

- OS Open Space
- GC General Commercial (maximum floor area ratio (FAR) is 0.4)
- NC Neighborhood Commercial (maximum FAR is 0.4 with an increase of 0.6 if housing is included, provided the difference between FAR 0.4 and 0.6 is used for housing)
- CF Community Facilities (maximum FAR is 0.4)
- R1 Low Density Residential (1.1 to 5.0 dwelling units per acre)
- R10 Medium Density Residential Multiple Family Residential (10.1 to 20.0 dwelling units per acre)
- R5 Medium Density Residential (5.0 to 10.0 dwelling units per acre)
- L10 Light Industrial/Office (maximum FAR is 0.4)

## Zoning

- A-60 Agriculture
- R-P Planned Residential
- P-C Planned Community
- C-1 Retail Business
- M-P Planned Industrial

APPROXIMATE LIMITS OF LANDFILL 26 BUFFER ZONE

Approximate Limit of Landfill 26 CAP

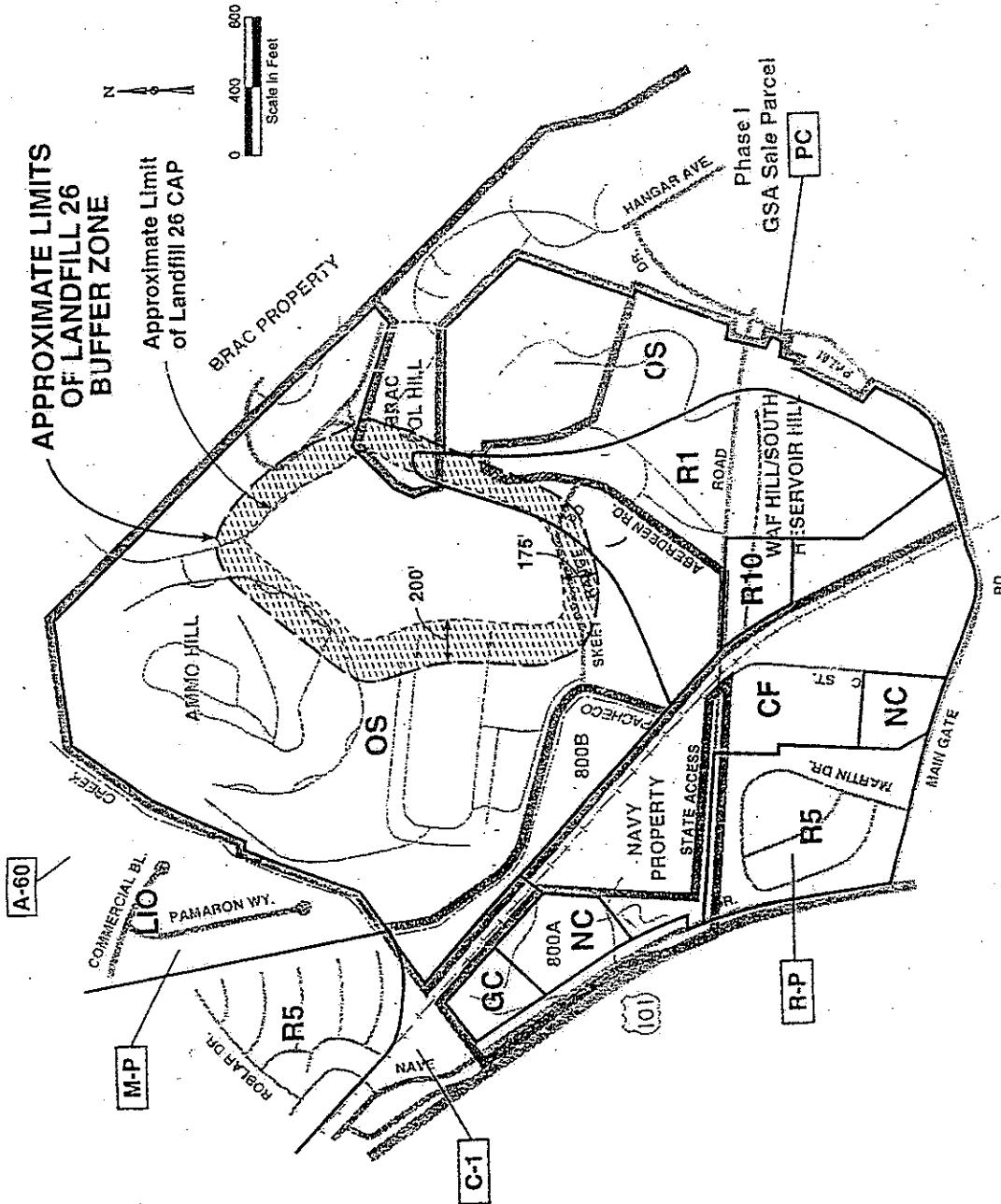


Figure 1-4  
Land Use And Zoning Designations  
Hamilton Army Airfield  
Navato, California

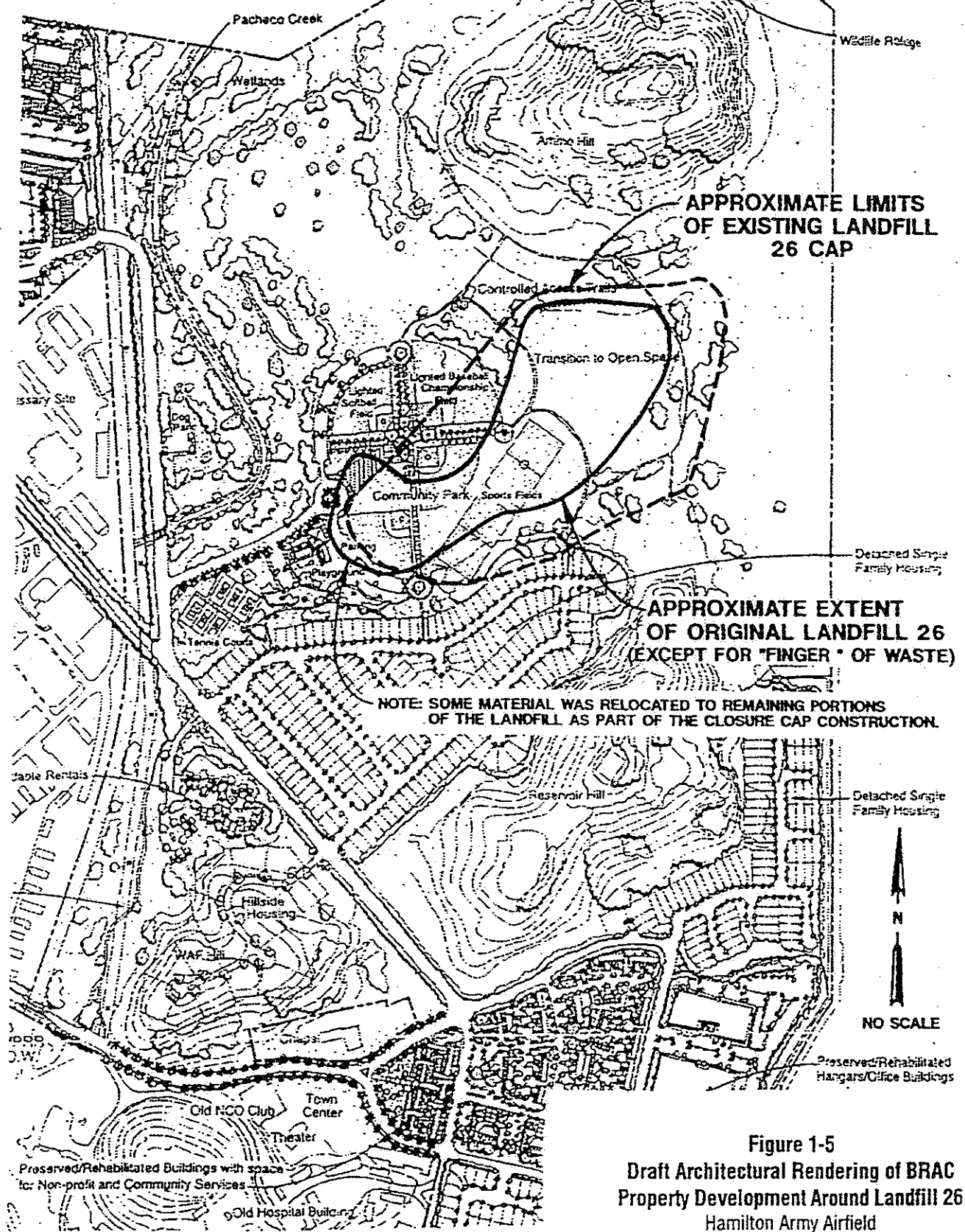
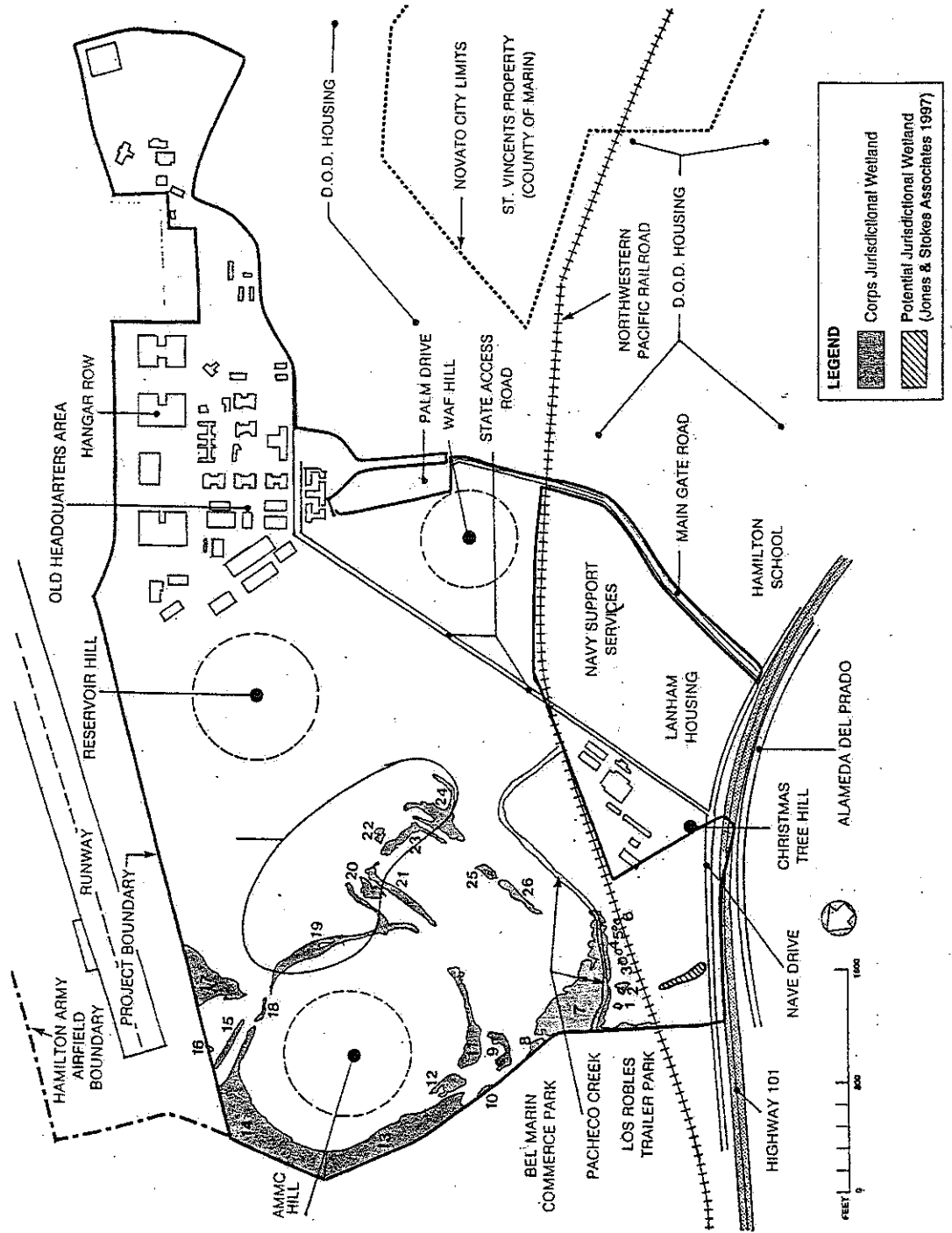


Figure 1-5  
 Draft Architectural Rendering of BRAC  
 Property Development Around Landfill 26  
 Hamilton Army Airfield  
 Navato, California

SOURCE: Gates and Associates,  
 Hamilton Master Plan, October 15, 1993

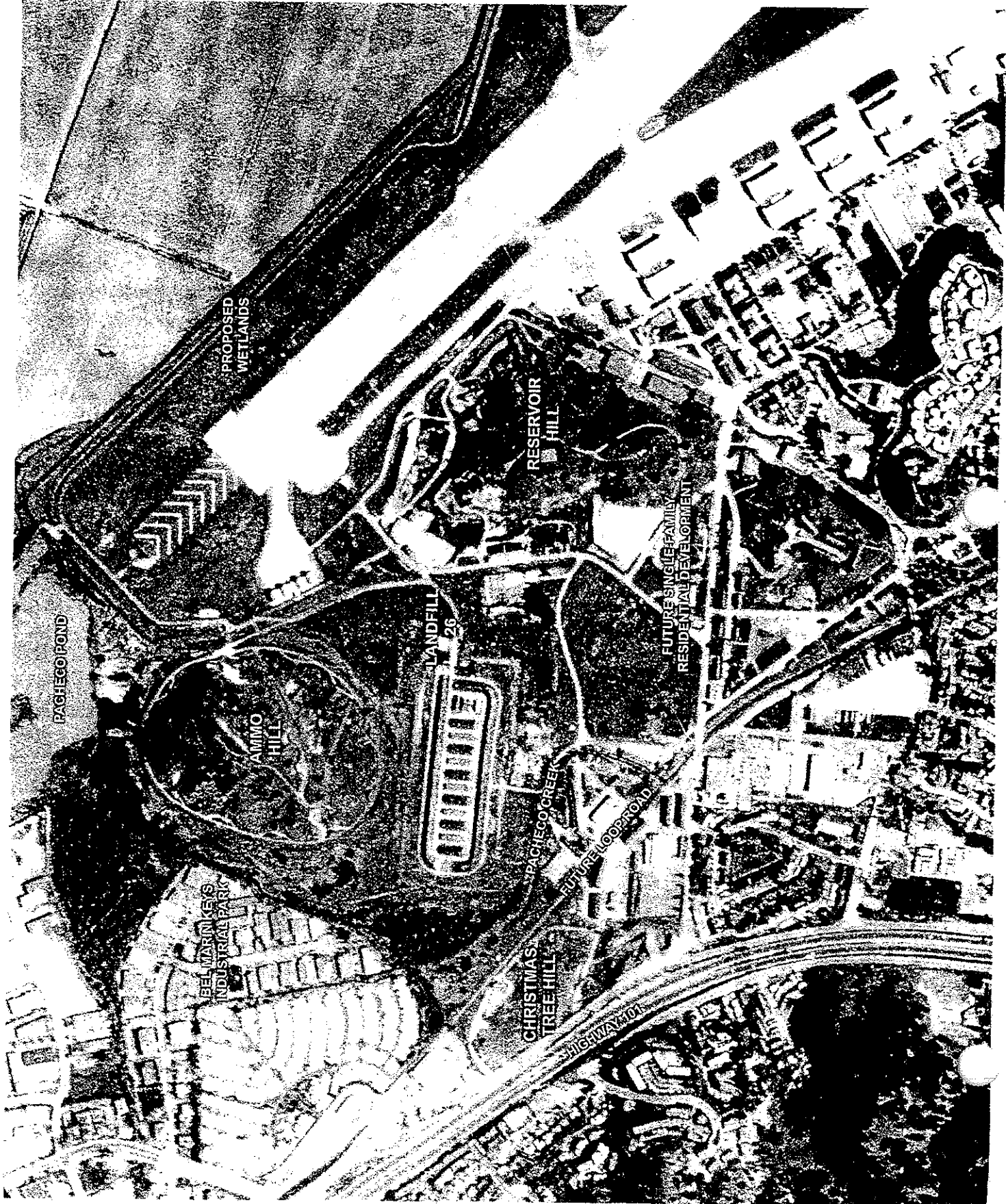


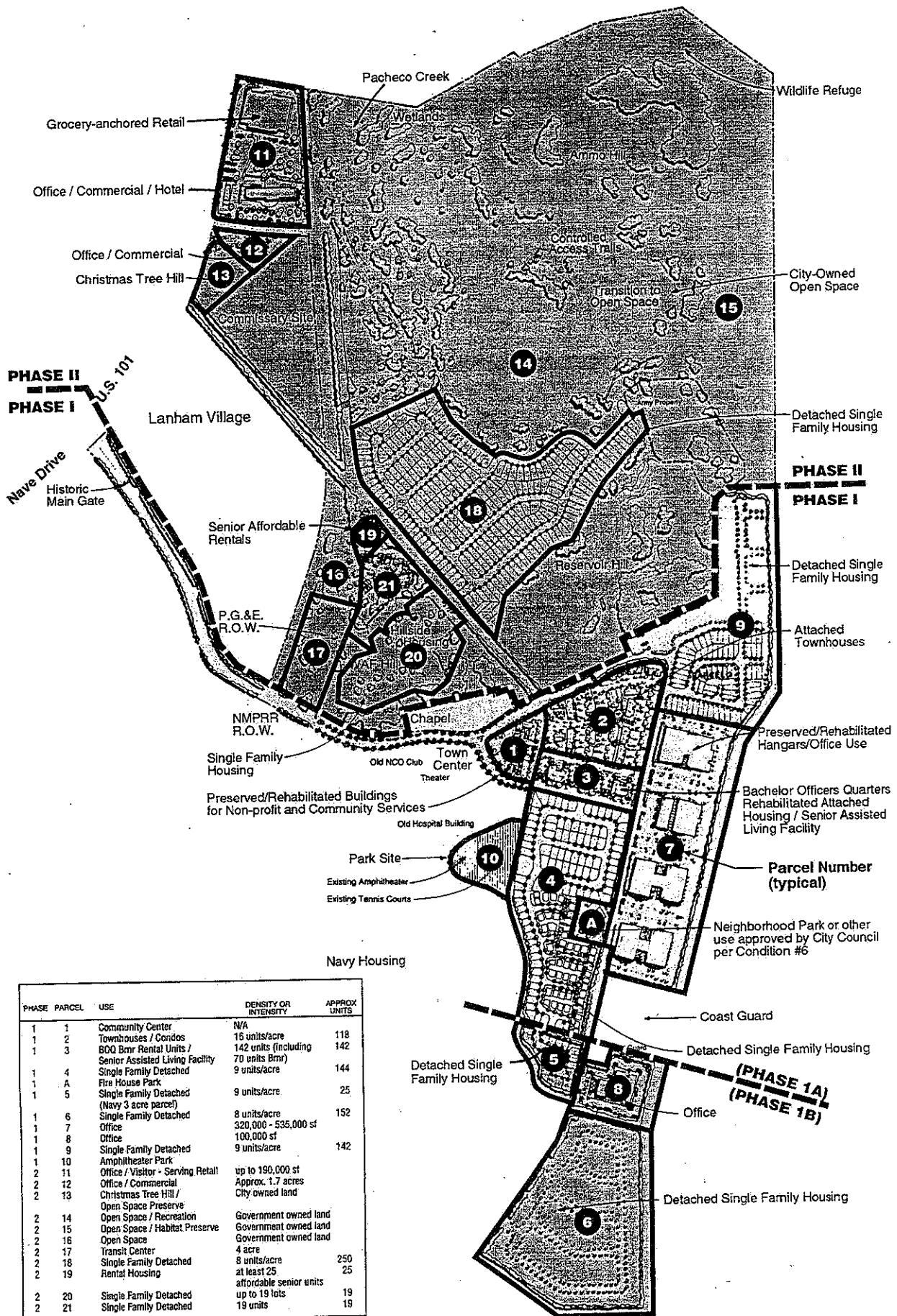
**Figure 4-8**  
**Wetlands Previously Identified in the**  
**Phase II GSA Sale Parcel**



| Site Inventory (Approx. acreage) | 1    | 14    | 15  | 16   | 17   | 18  | 19   | 20  | 21  | 22  | 23  | 24   | 25  | 26  | TOTAL: 23.62 |
|----------------------------------|------|-------|-----|------|------|-----|------|-----|-----|-----|-----|------|-----|-----|--------------|
|                                  | .084 | 5.168 | .38 | .018 | 1.70 | .11 | 1.48 | .34 | .64 | .09 | .45 | 1.10 | .11 | .32 |              |

Source: Based on EIP Associates 1993 and Jones & Stokes Associates 1997 field reconnaissance visit.



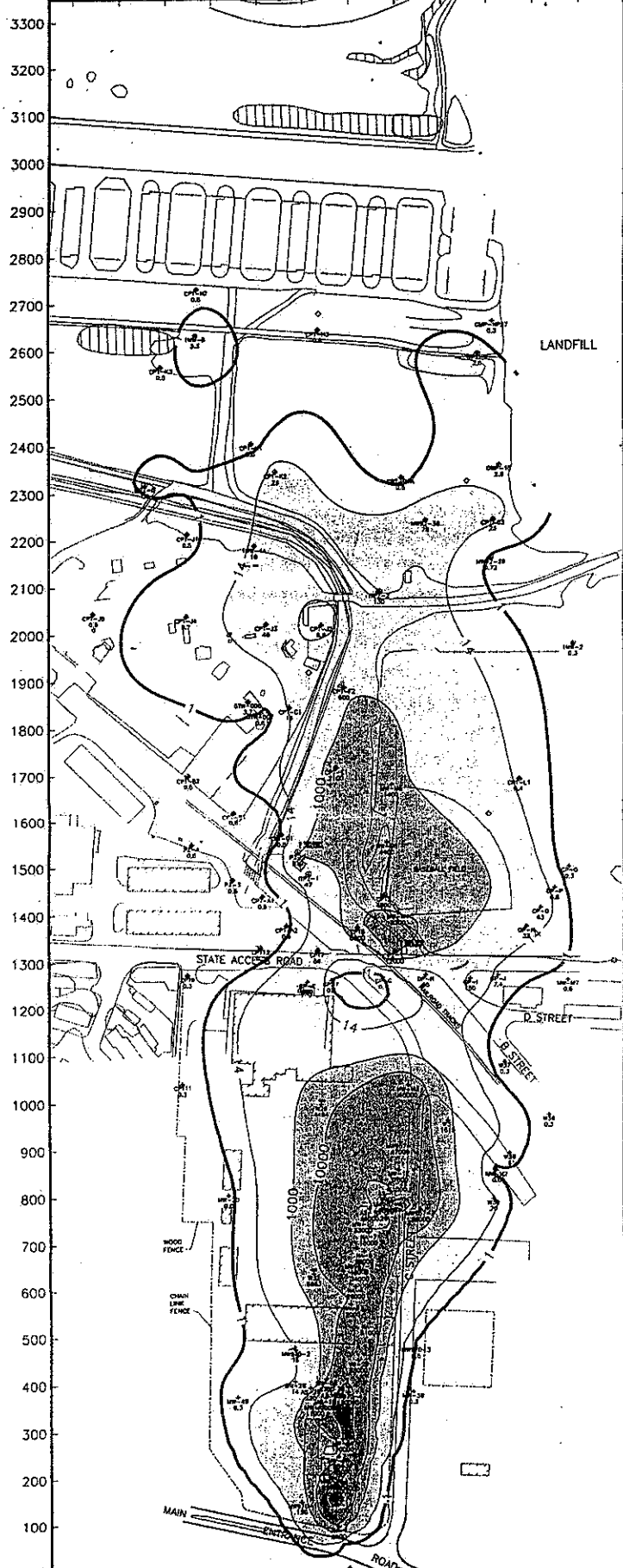


| PHASE | PARCEL | USE  | DENSITY OR INTENSITY                | APPROX UNITS |
|-------|--------|--|-------------------------------------|--------------|
| 1     | 1      | Community Center                                       | N/A                                 |              |
| 1     | 2      | Townhouses / Condos                                    | 16 units/acre                       | 118          |
| 1     | 3      | BOQ Bmr Rental Units / Senior Assisted Living Facility | 142 units (including 70 units Bmr)  | 142          |
| 1     | 4      | Single Family Detached Fire House Park                 | 9 units/acre                        | 144          |
| 1     | 5      | Single Family Detached (Navy 3 acre parcel)            | 9 units/acre                        | 25           |
| 1     | 6      | Single Family Detached                                 | 8 units/acre                        | 152          |
| 1     | 7      | Office   | 320,000 - 535,000 sf                |              |
| 1     | 8      | Office   | 100,000 sf                          |              |
| 1     | 9      | Single Family Detached                                 | 9 units/acre                        | 142          |
| 1     | 10     | Amphitheater Park                                      |                                     |              |
| 2     | 11     | Office / Visitor - Serving Retail                      | up to 190,000 sf                    |              |
| 2     | 12     | Office / Commercial                                    | Approx. 1.7 acres                   |              |
| 2     | 13     | Christmas Tree Hill / Open Space Preserve              | City owned land                     |              |
| 2     | 14     | Open Space / Recreation                                | Government owned land               |              |
| 2     | 15     | Open Space / Habitat Preserve                          | Government owned land               |              |
| 2     | 16     | Open Space   | Government owned land               |              |
| 2     | 17     | Transit Center   | 4 acre                              |              |
| 2     | 18     | Single Family Detached                                 | 8 units/acre                        | 250          |
| 2     | 19     | Rental Housing   | at least 25 affordable senior units | 25           |
| 2     | 20     | Single Family Detached                                 | up to 19 lots                       | 19           |
| 2     | 21     | Single Family Detached                                 | 19 units                            | 19           |

-600 -500 -400 -300 -200 -100 0 100 200 300 400 500 600

3/24/99

Bill-  
741 Pam



————— Isopleth Line  
 \* Monitoring Well Location  
 NA-7 ID  
 15000 Concentration  
 0 100 200  
 FEET

**Figure 3-3**  
**MTBE (ug/L)**  
 Aug. '98  
**DODHF NOVATO**  
**NOVATO, CALIFORNIA**  
 Battelle, Columbus OH  
 Date: 9/25/98  
 Script: MTBE04@algr-rsg.sh

**CONCEPTUAL PLAN**  
**COMMUNITY PARK**  
 CITY OF NOVATO, CA



ARCHITECTS  
 150 S. MARKET STREET  
 SAN FRANCISCO, CA 94102  
 PHONE (415) 774-1523

CLIENTS & ASSOCIATES  
 CITY OF NOVATO  
 1000 W. BAYVIEW AVENUE  
 NOVATO, CA 94947  
 PHONE (415) 895-1000



DATE: 1999

- TITLE:**
1. CONCEPTUAL PLAN
  2. SITE PLAN
  3. LANDSCAPE ARCHITECTURE
  4. CIVIL ENGINEERING
  5. ELECTRICAL ENGINEERING
  6. MECHANICAL ENGINEERING
  7. STRUCTURAL ENGINEERING
  8. ENVIRONMENTAL ENGINEERING
  9. HISTORIC PRESERVATION
  10. ARCHITECTURAL INTERIORS
  11. ARCHITECTURAL EXTERIORS
  12. ARCHITECTURAL RENDERINGS
  13. ARCHITECTURAL MODELING
  14. ARCHITECTURAL CONTRACT ADMINISTRATION
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  27. ARCHITECTURAL LEGISLATION
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  30. ARCHITECTURAL BEST PRACTICES
  31. ARCHITECTURAL RESEARCH
  32. ARCHITECTURAL INNOVATION
  33. ARCHITECTURAL SUSTAINABILITY
  34. ARCHITECTURAL WELL-BEING
  35. ARCHITECTURAL QUALITY
  36. ARCHITECTURAL EXCELLENCE
  37. ARCHITECTURAL LEADERSHIP
  38. ARCHITECTURAL INFLUENCE
  39. ARCHITECTURAL LEGACY
  40. ARCHITECTURAL FUTURE



# CONSTRAINTS MAP

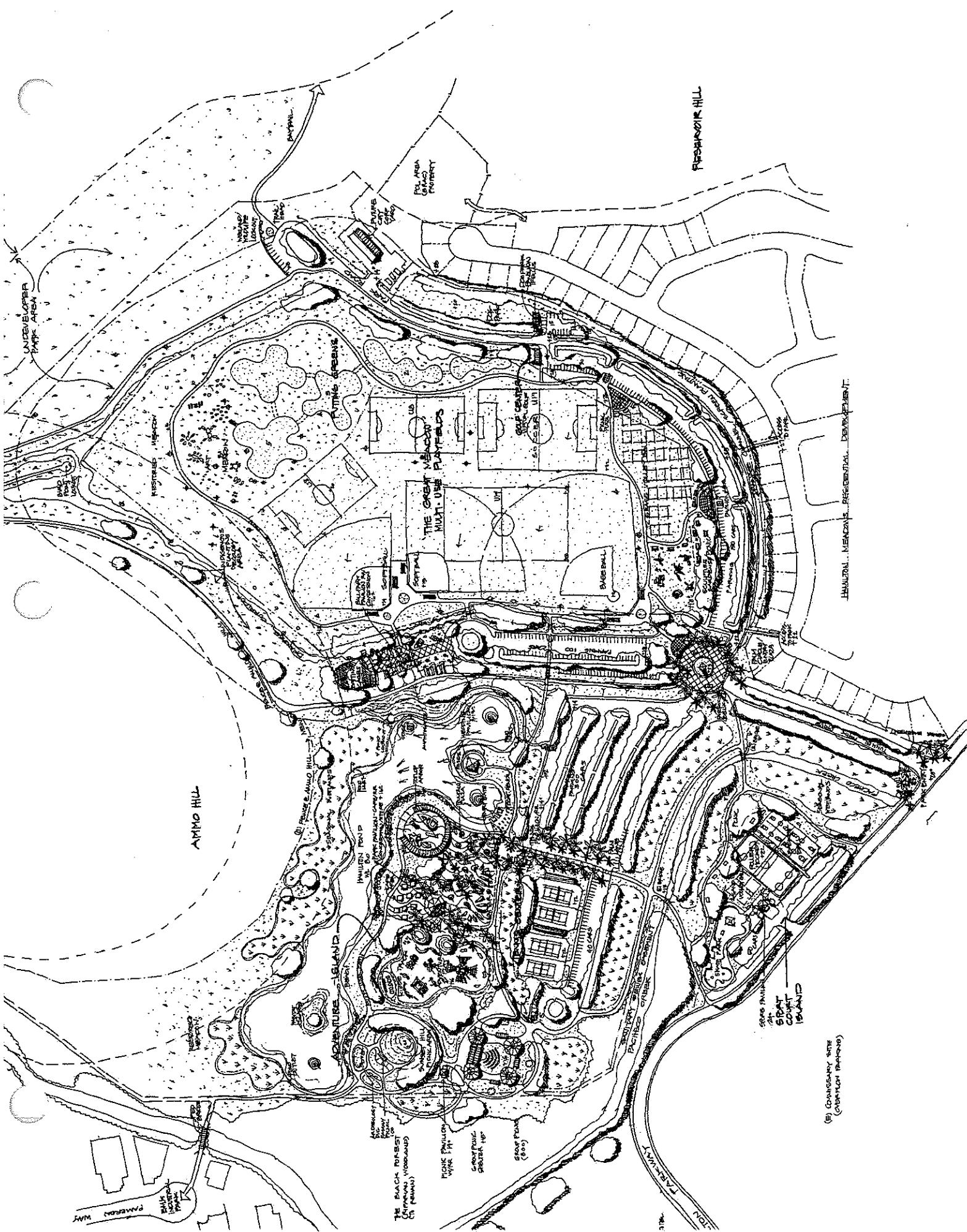
## COMMUNITY PARK

CITY OF NOVATO, CA

ISA  
 INTEGRATIVE SYSTEMS ARCHITECTURE  
 1000 RAVEN HILL DRIVE, SUITE 100  
 NOVATO, CA 94945  
 TEL: (415) 892-1000  
 FAX: (415) 892-1001  
 WWW: WWW.ISA-ARCHITECTS.COM  
 FEBRUARY 1999



- LEGEND**
- 1. FUTURE WETLANDS
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  - 91. FUTURE WETLANDS
  - 92. FUTURE WETLANDS
  - 93. FUTURE WETLANDS
  - 94. FUTURE WETLANDS
  - 95. FUTURE WETLANDS
  - 96. FUTURE WETLANDS
  - 97. FUTURE WETLANDS
  - 98. FUTURE WETLANDS
  - 99. FUTURE WETLANDS
  - 100. FUTURE WETLANDS



UNDEVELOPER PARK AREA

FRESHWATER HILL

THE GREAT MEADOWS  
MULT-USE PLANTATION

HAWAIIAN MEADOWS RESIDENTIAL DEVELOPMENT

AMMO HILL

PANAMA WAY  
PARK  
PARK

THE BACK FOREST  
(WOODLANDS)

PINE PHILLY  
TENNIS

SOFTBALL  
STADIUM

BASEBALL  
FIELD

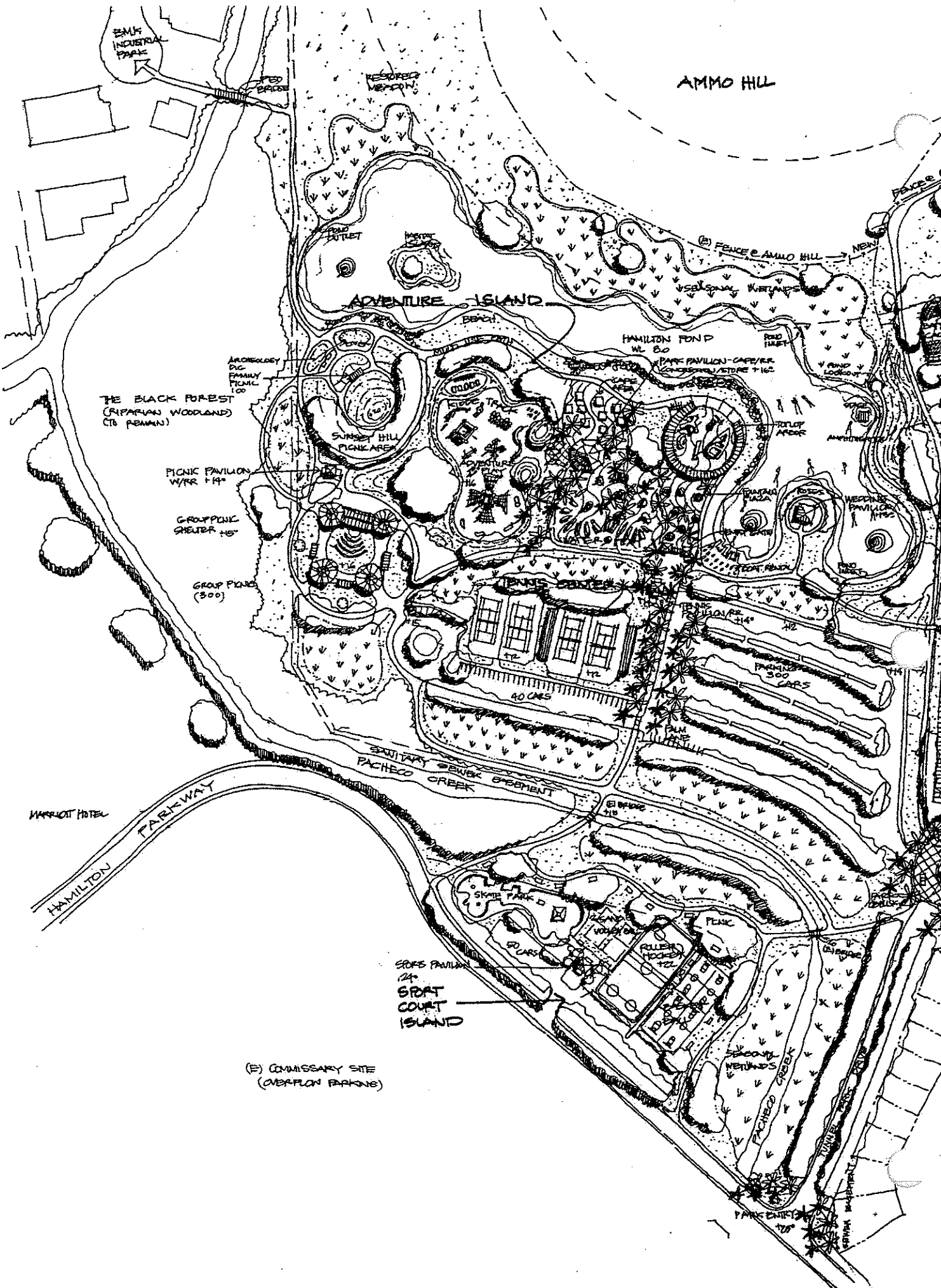
ION PARKWAY

PACIFIC CREEK

SANDY BEACH

SANDY COURT ISLAND

(S) CONSECUTORY EASE  
(CONVEYANCE RIGHTS)



THE BLACK FOREST  
(PAPUAN WOODLAND)  
(15 PEAMAN)

PICNIC PAVILION  
W/FR 144

GROUPING  
SHELTER 157

GROUP PICNIC  
(300)

ADVENTURE ISLAND

AMMO HILL

(E) FENCE @ AMMO HILL → NEW

HAMILTON FOND  
WL 80

PARK PAVILION - CAFE/FR  
(CONCRETE) 120' x 112'

SUNSET HILL  
PICNIC AREAS

TENNIS CENTER

SEWITARY SERVICE BUILDING  
PACHECO CREEK

MARRIOTT HOTEL

HAMILTON PARKWAY

PARKING  
300 CARS

SPORT COURT ISLAND  
24  
50 CARS

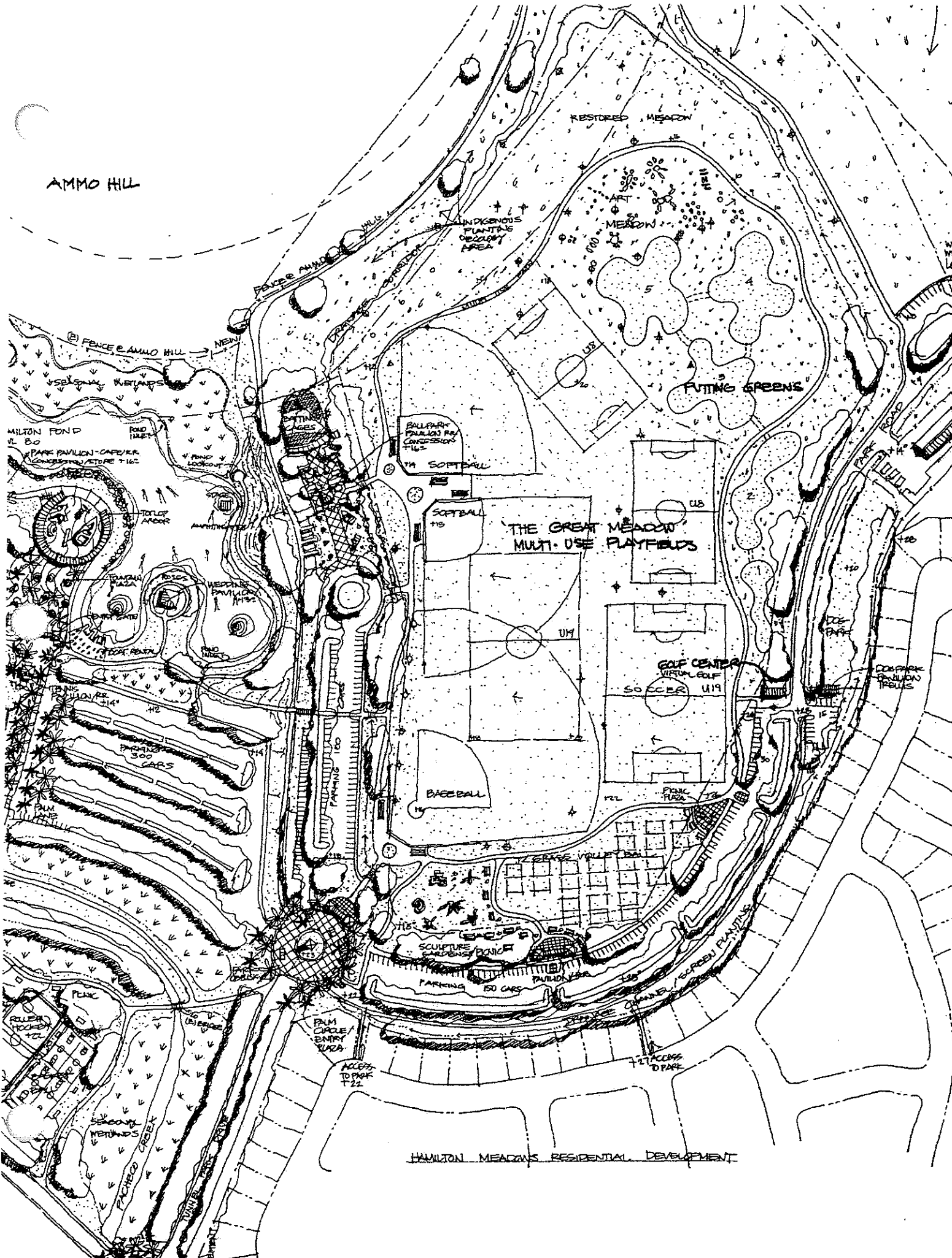
(E) COMMISSARY SITE  
(OVERFLOW PARKING)

PACHECO CREEK

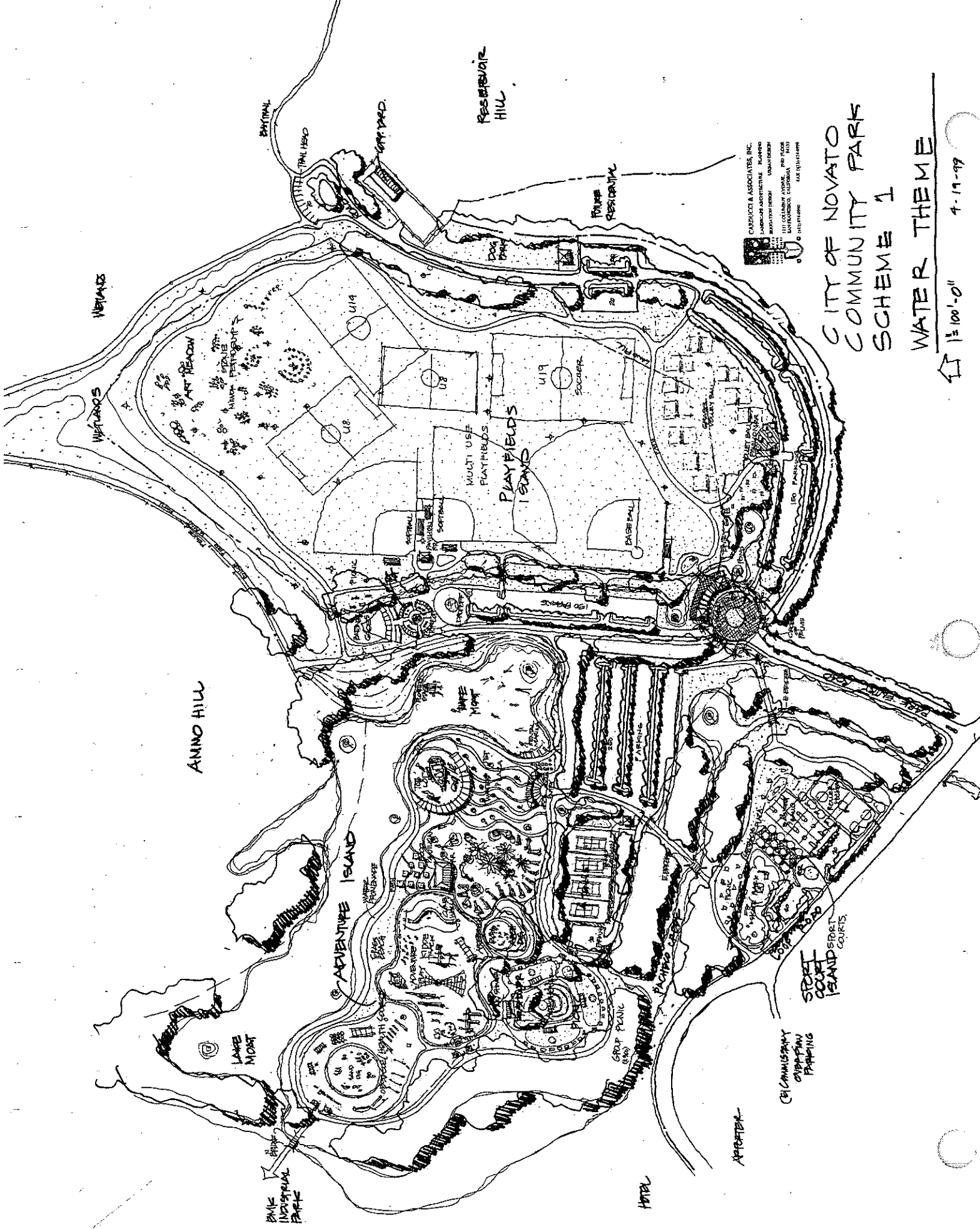
WATER WETLANDS



AMMO HILL



HAMILTON MEADOWS RESIDENTIAL DEVELOPMENT



CADRETTI & ASSOCIATES, INC.  
 LANDSCAPE ARCHITECTS PLANNERS  
 1111 COMMUNITY COLLEGE AVENUE, SUITE 200  
 COLLEGE PARK, CALIFORNIA 94015  
 TEL: (415) 948-8100 FAX: (415) 948-8199

CITY OF NOVATO  
 COMMUNITY PARK  
 SCHEME 1

WATER THEME

1/8" = 1'-0" 4-19-99

WETLANDS

RESERVOIR HILL

ANIMO HILL

ADVENTURE ISLAND

PLAYFIELDS

SECRET COURT ISLAND

LAKE MONT

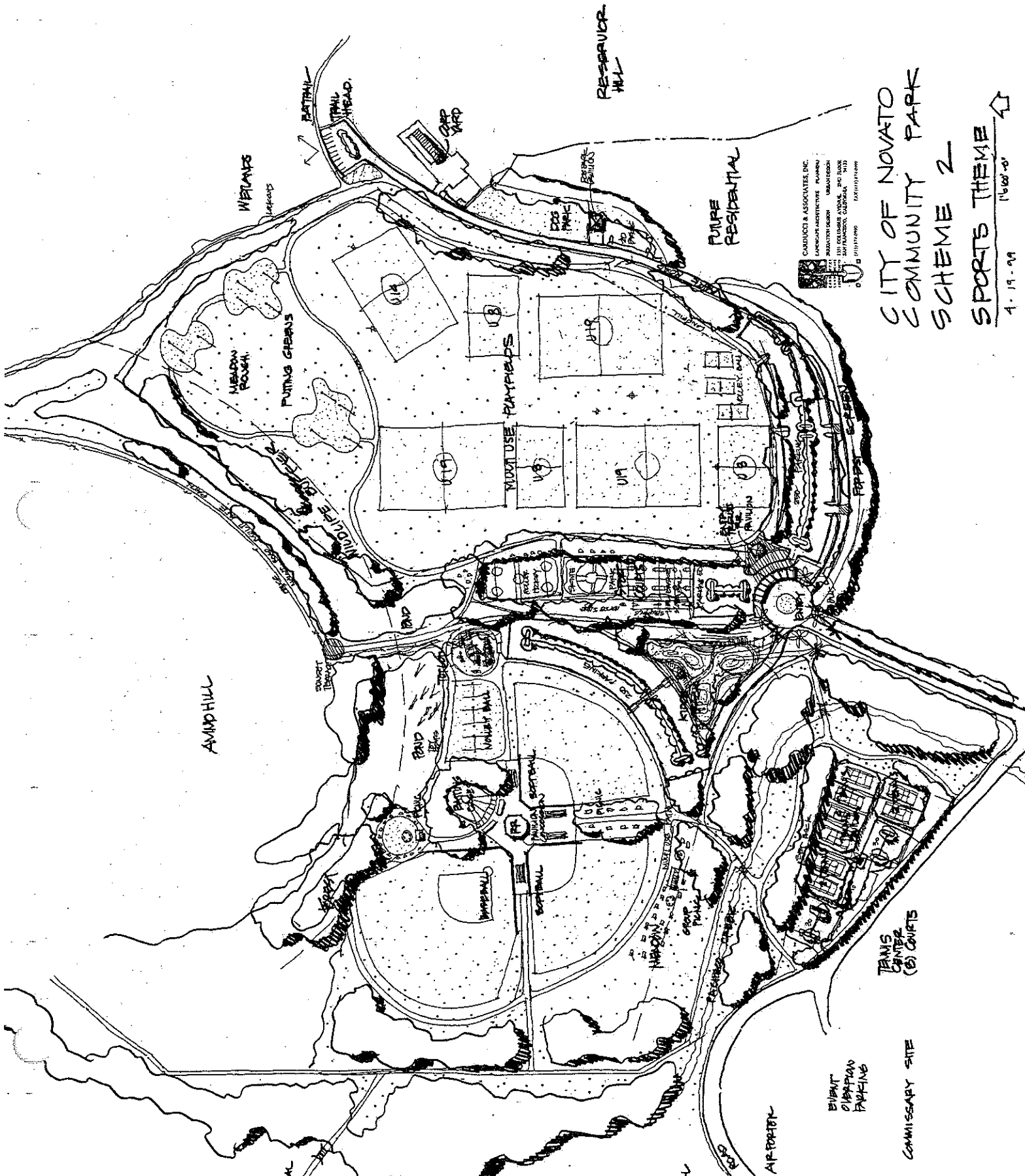
BANK INDUSTRIAL PARK

HAYL

APPROX


CE/COMMUNITY CENTER/FLEX PLAYING

SECRET COURTS



CARLUCCI & ASSOCIATES, INC.  
 LANDSCAPE ARCHITECTURE PLANNING  
 1000 UNIVERSITY AVENUE SUITE 200  
 SAN FRANCISCO, CALIFORNIA 94133  
 TEL: (415) 774-2900 FAX: (415) 774-2900

CITY OF NOVATO  
 COMMUNITY PARK  
 SCHEME 2

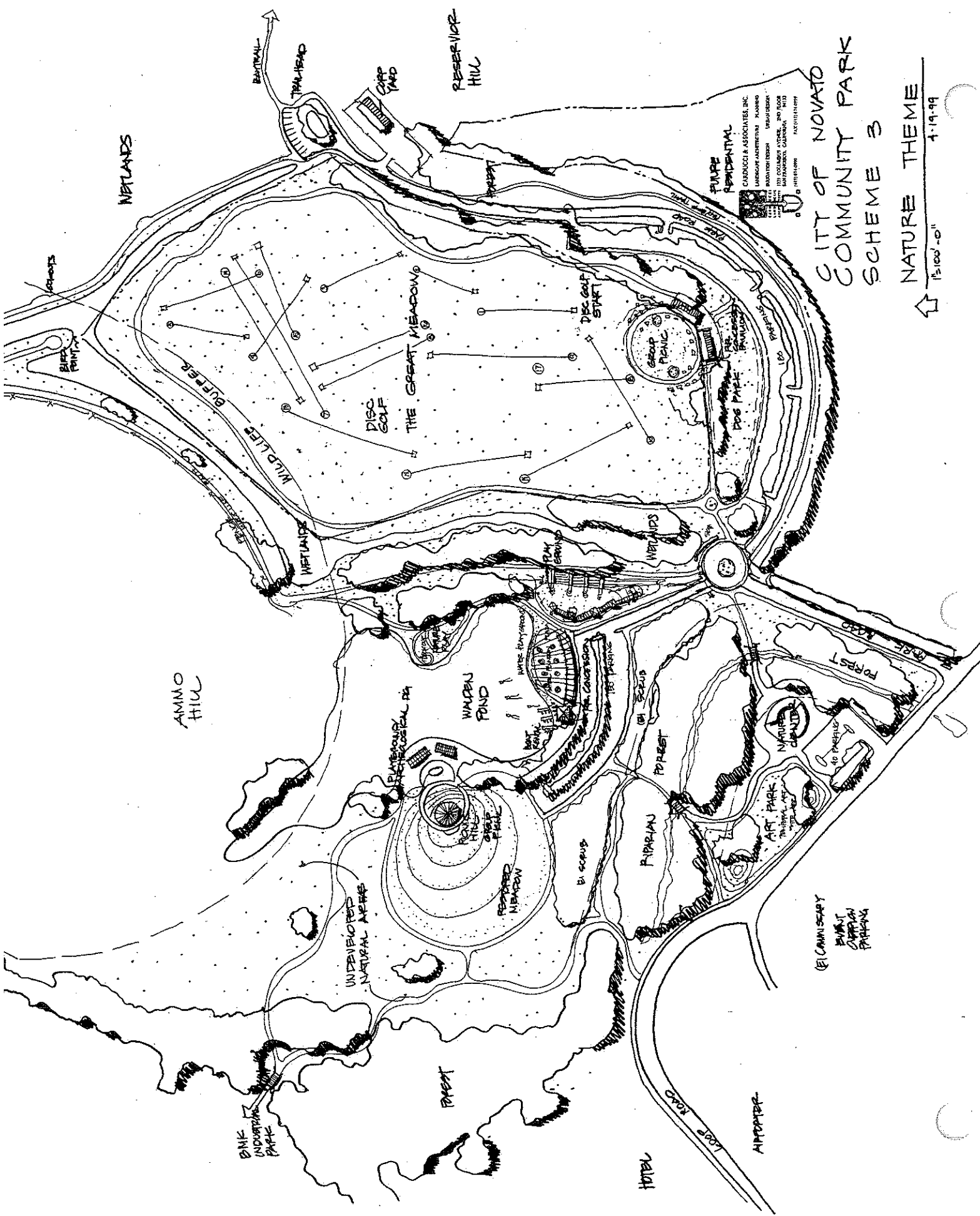
SPORTS THEME   
 4.19.99 1608-01

TENNIS CENTER (B) COURTS

EVENT CLUBHOUSE PARKING

COMMISSARY SITE

AIR PORTON



CADWELL & ASSOCIATES, INC.  
 LANDSCAPE ARCHITECTURE PLANNING  
 1000 COLLEGE AVENUE, 3RD FLOOR  
 SAN FRANCISCO, CALIFORNIA 94115  
 TEL: (415) 774-1100  
 FAX: (415) 774-1101

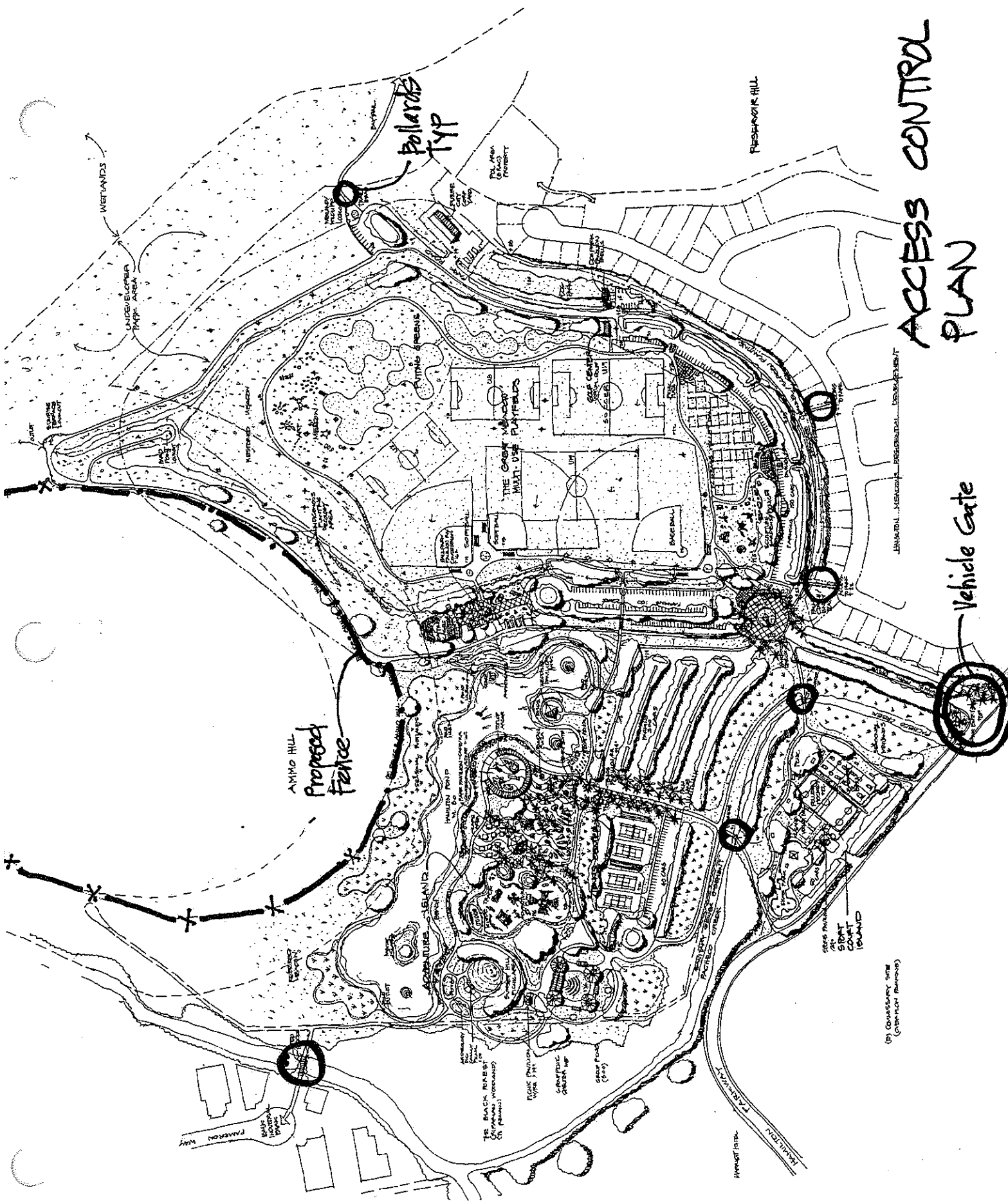
CITY OF NOVATO  
 COMMUNITY PARK  
 SCHEME 3

NATURE THEME  
 1/5, 100' = 0"  
 4-19-99

(E) CANINE SCARY  
 BARK  
 SHOUT  
 SHOUTING  
 PARKING

# ACCESS CONTROL PLAN

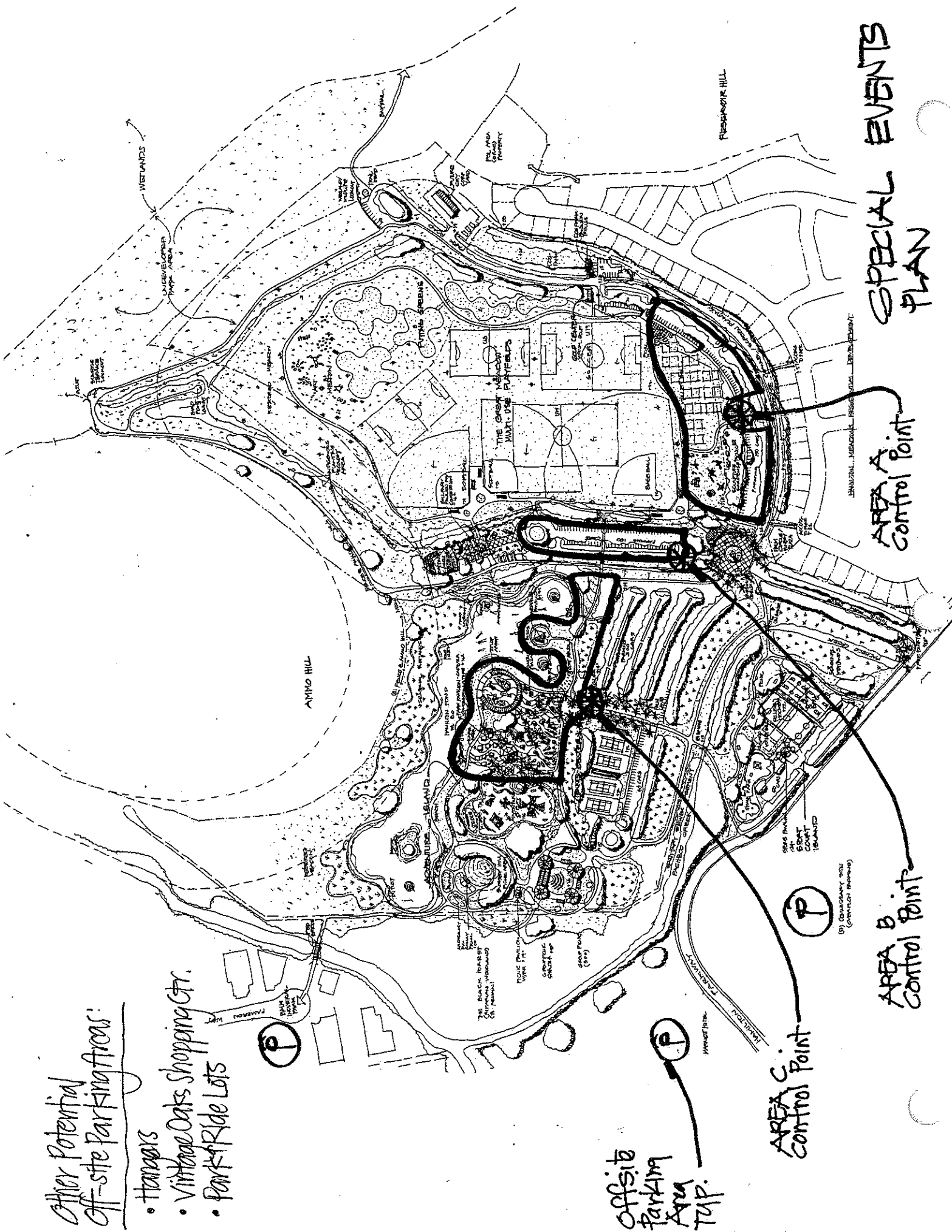
Vehicle Gate



(S) Gateway Site (Gibson & Partners)

Other Potential Off-site Parking Areas:

- Harbors
- Vintage Oaks Shopping Ctr.
- Park & Ride Lots



SPECIAL EVENTS PLAN

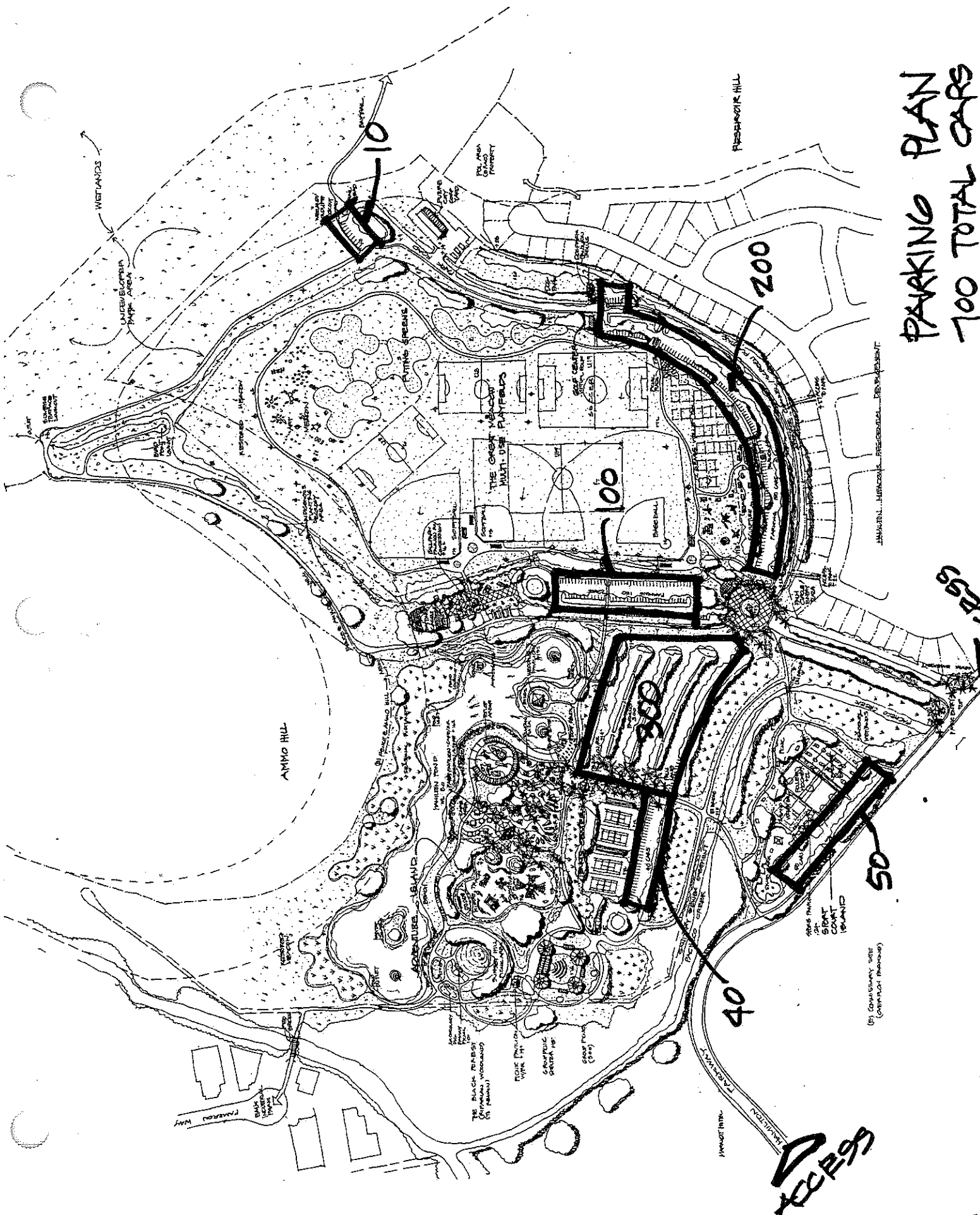
AREA A Control Point

AREA B Control Point

AREA C Control Point

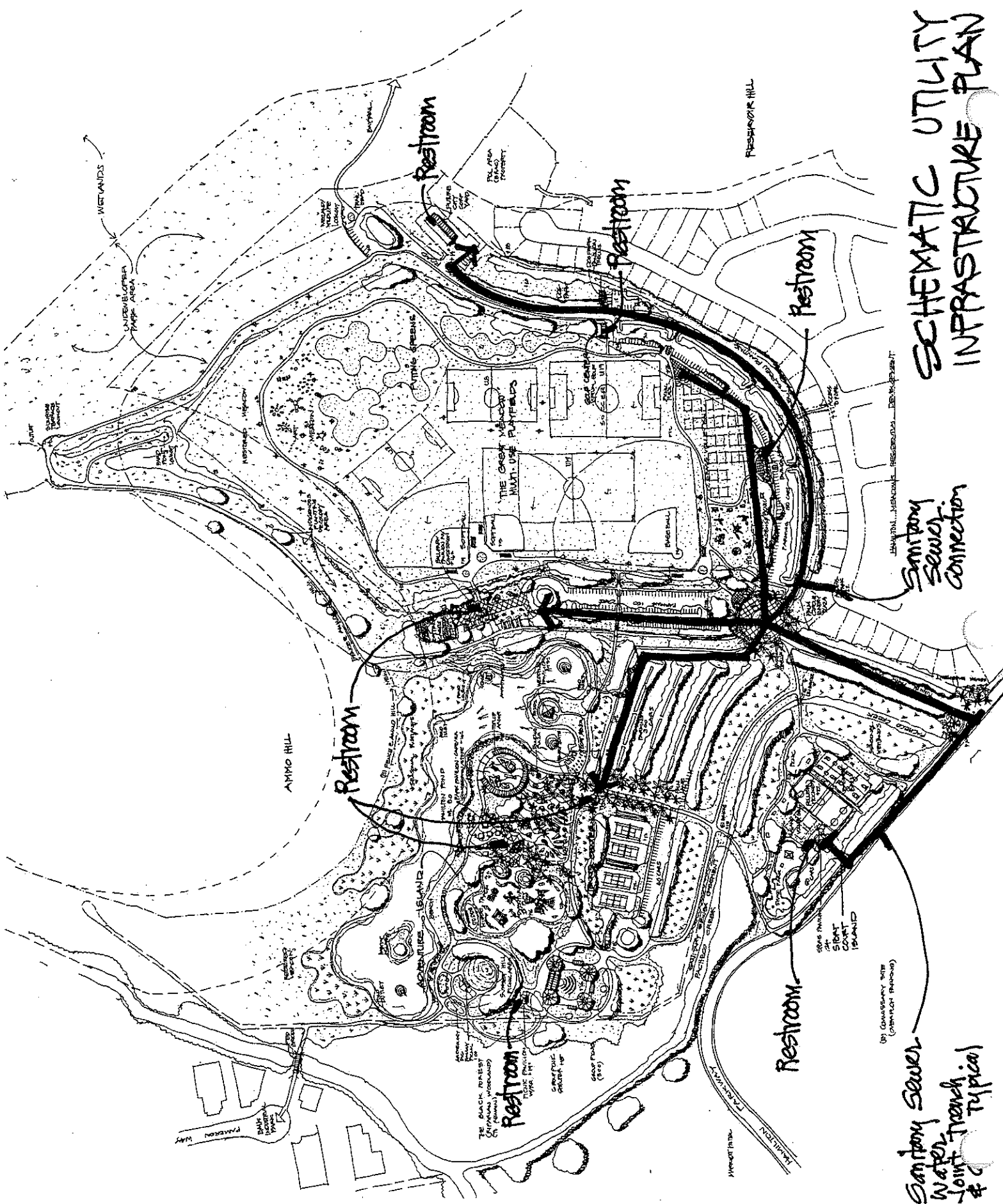
offsite parking Area TOP.

(P) (Optional site (optional seating))



**PARKING PLAN**  
**700 TOTAL CARS**

**SCS**



# SCHEMATIC UTILITY INFRASTRUCTURE PLAN

Sanitary Sewer  
Sanitary Water  
Joint Trench  
# 2

UP CONNECTION WITH  
(SUBMITTAL REQUIRED)

Restroom

Restroom

Restroom

Restroom

Restroom

Restroom

WETLANDS

CENTRAL RESORT  
TRAP - AREA

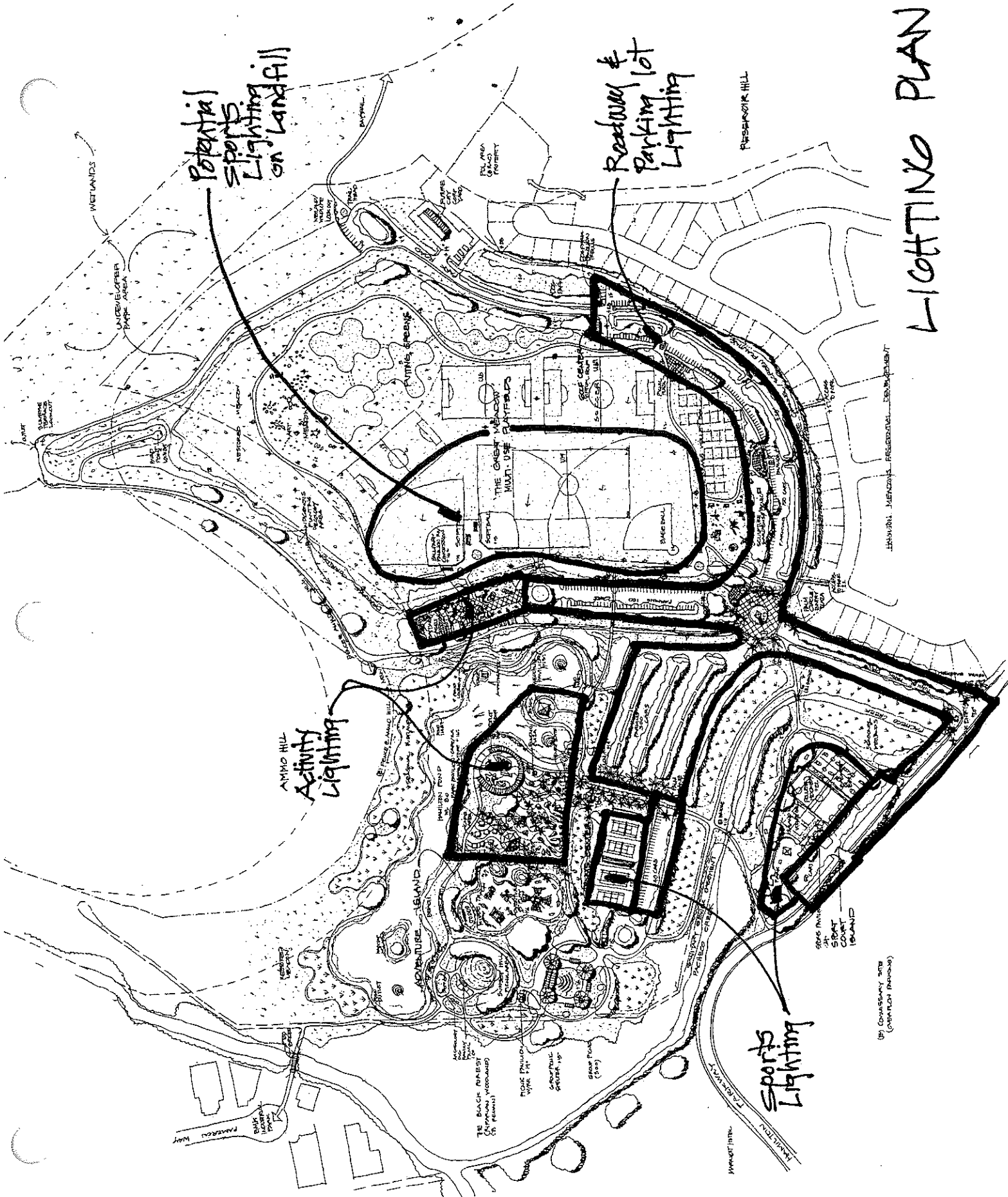
AMMO HILL

RESTROOM HILL

50' x 50' HOLE IN  
SLOTT  
CONCRETE  
ISLAND

Sanitary Sewer  
Sanitary Water  
Joint Trench  
# 2





POTENTIAL  
SPORTS  
LIGHTING  
ON LANDFILL

ROADWAY &  
PARKING LOT  
LIGHTING

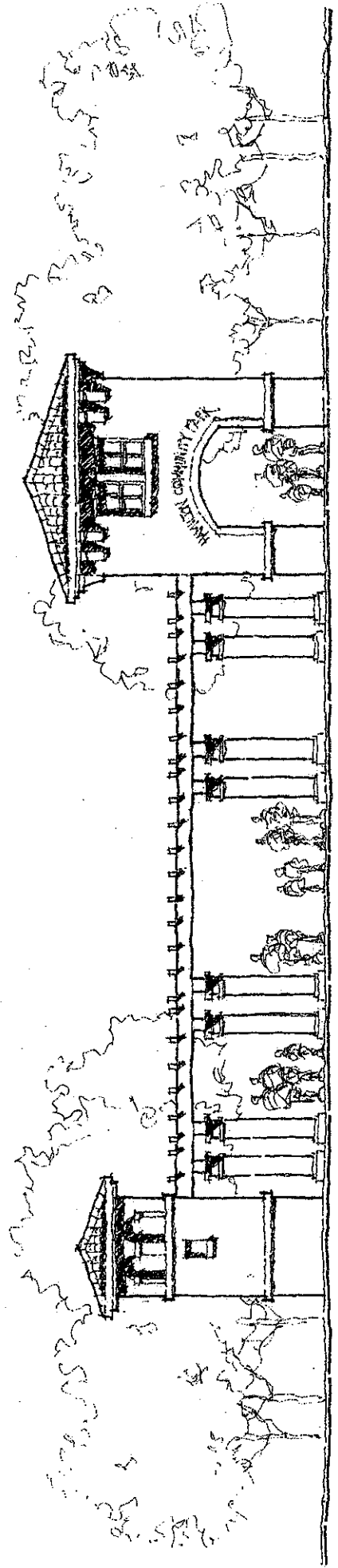
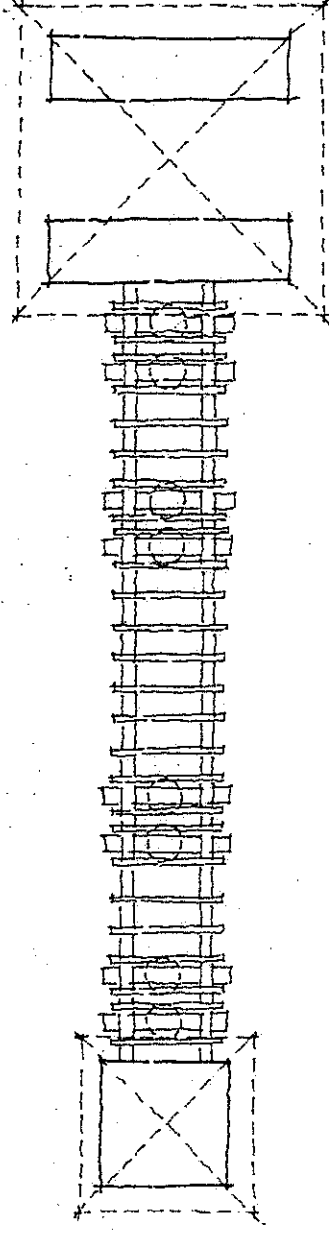
AMMO HILL  
ACTIVITY  
LIGHTING

SPORTS  
LIGHTING

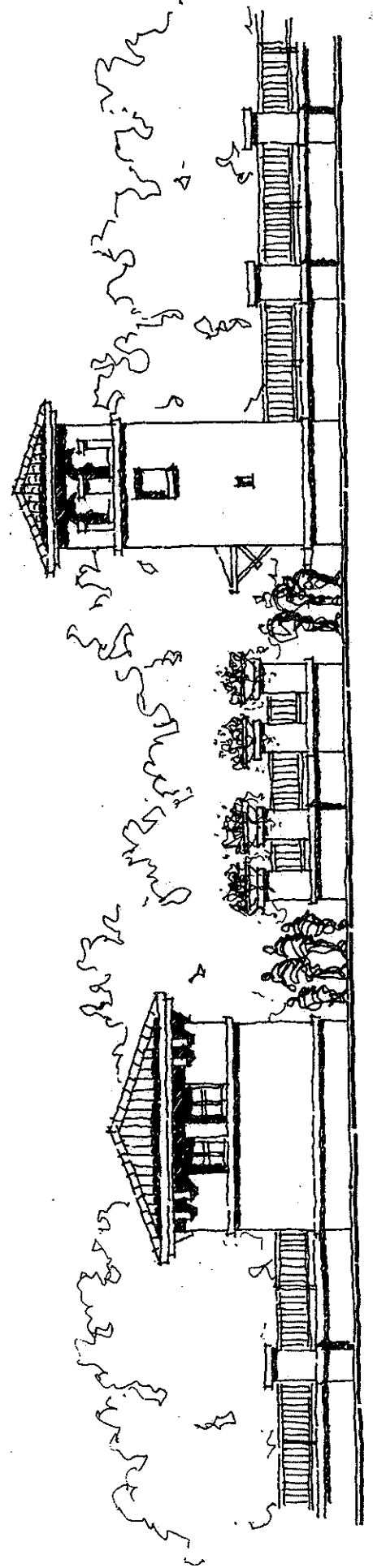
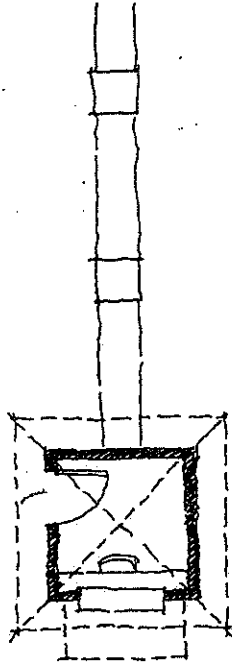
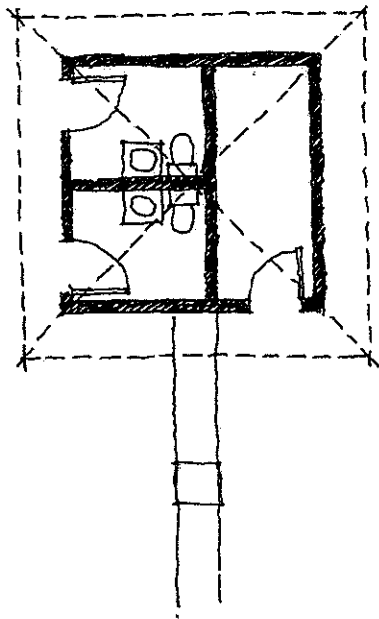
# LIGHTING PLAN

INSTRUMENT PREPARED BY

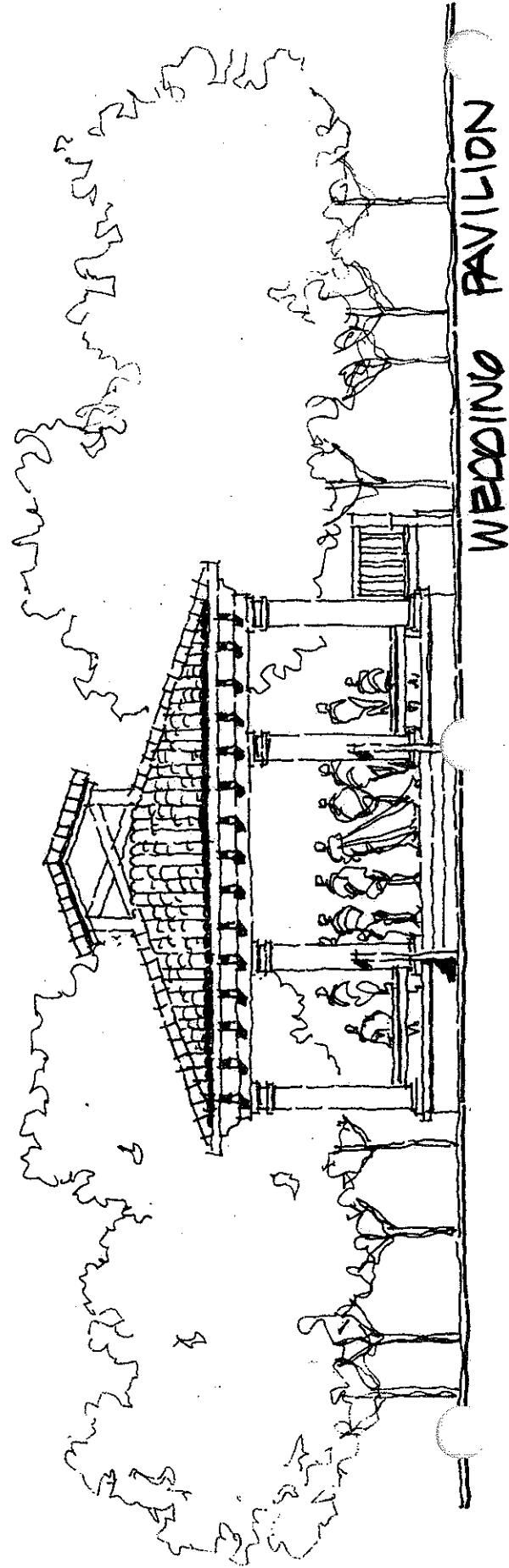
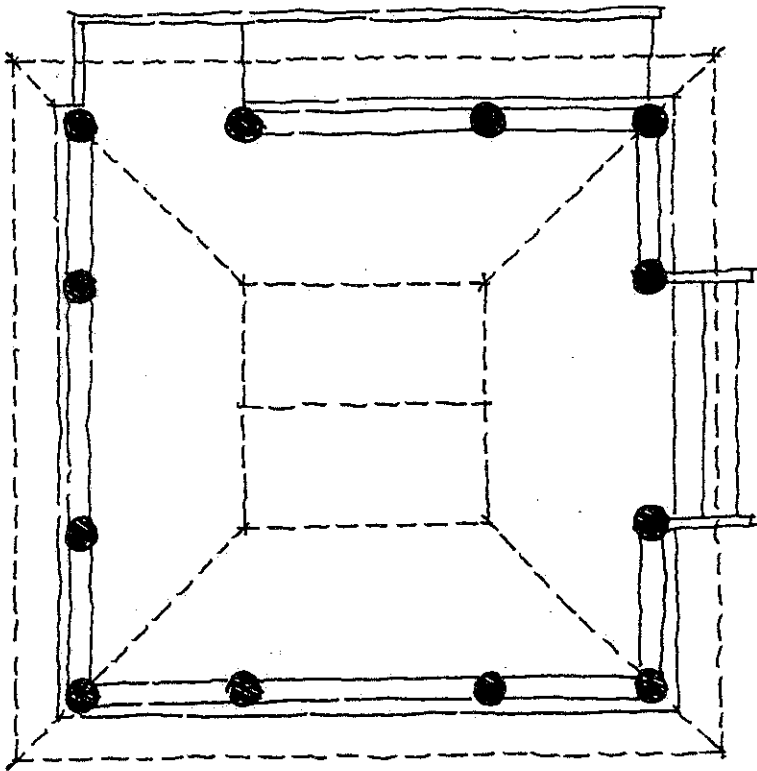
BY CONSULTANT AND  
(OVERLAP RANGE)

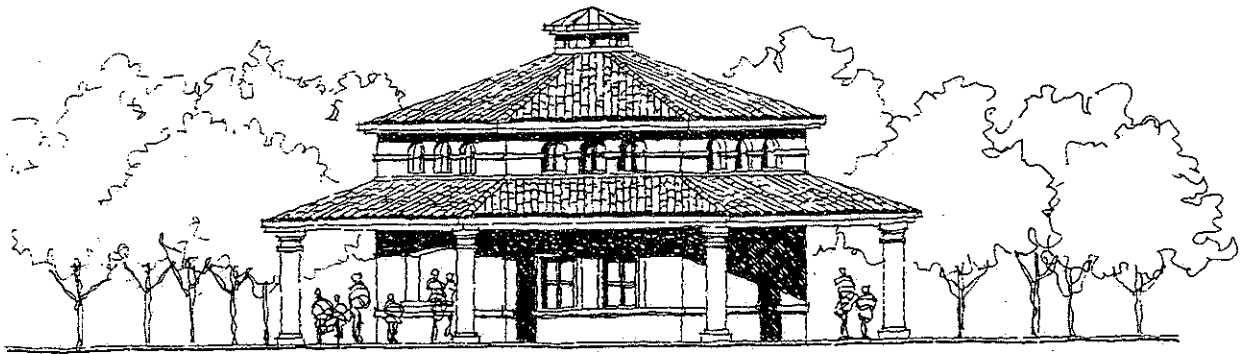
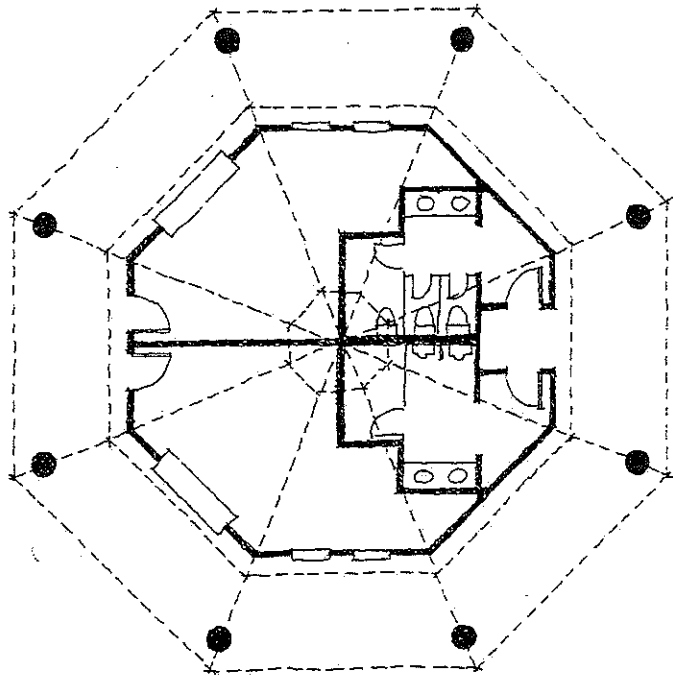


PARK ENTRY GATE

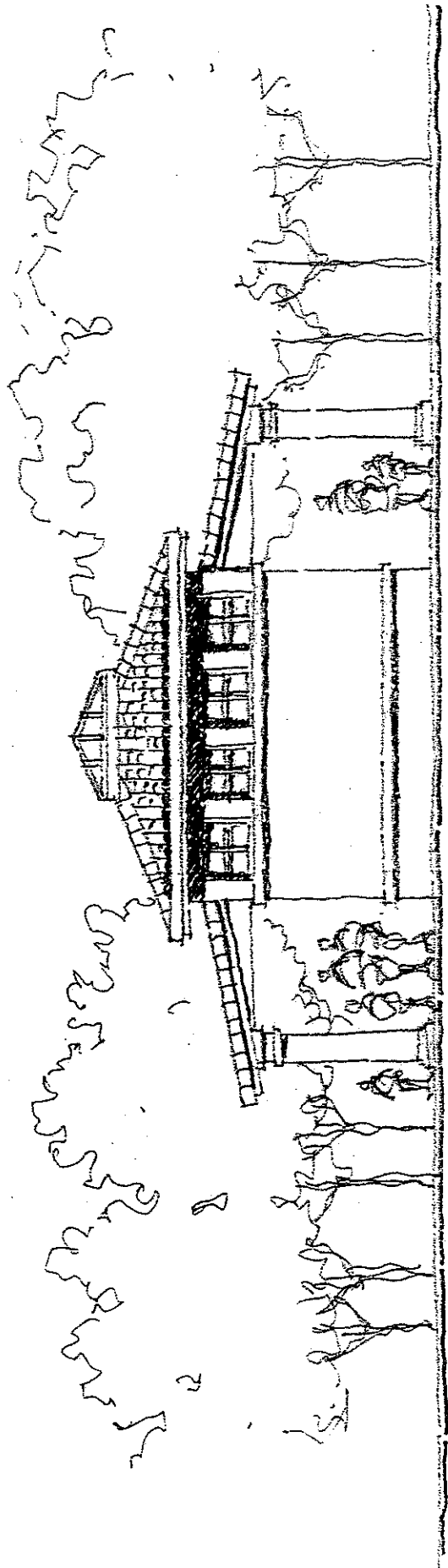
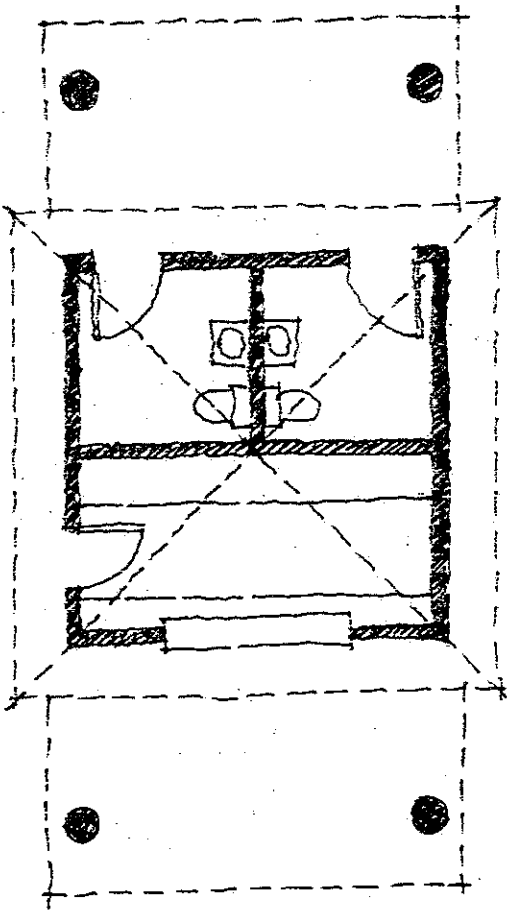


ADVENTURE ISLAND ENTRY GATE

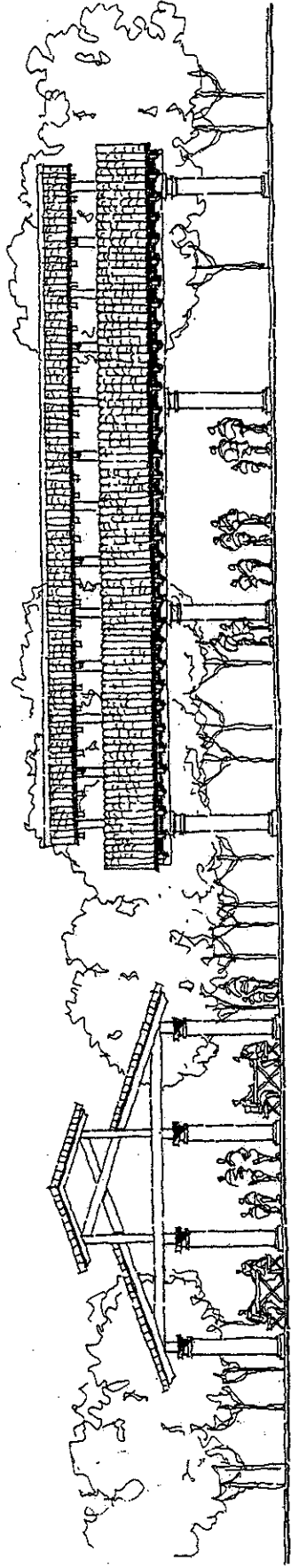
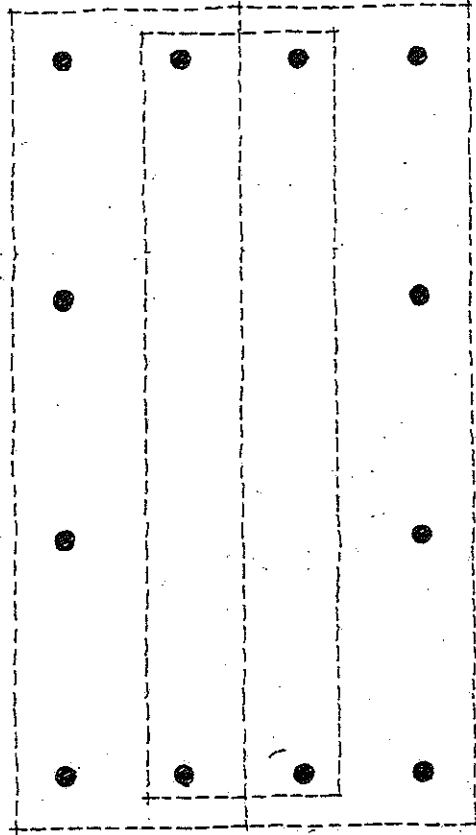




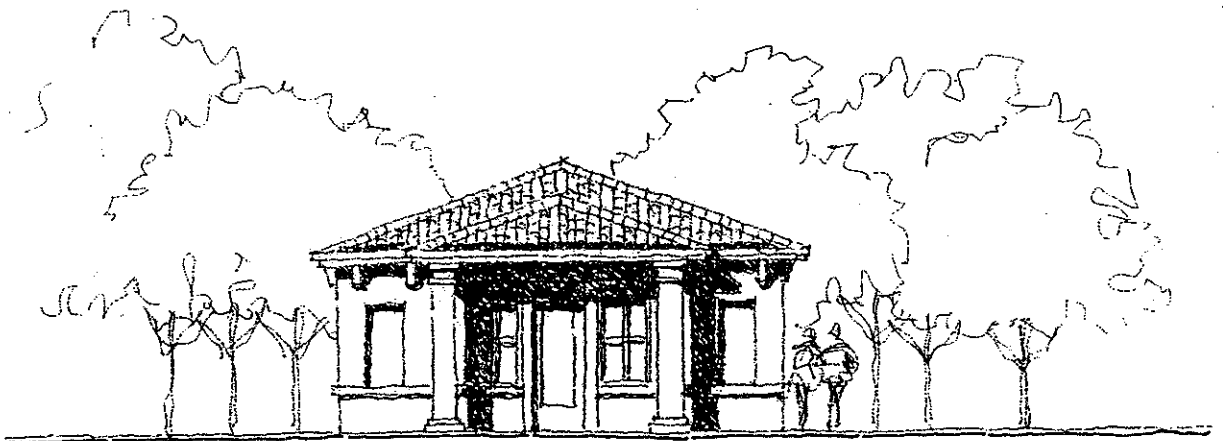
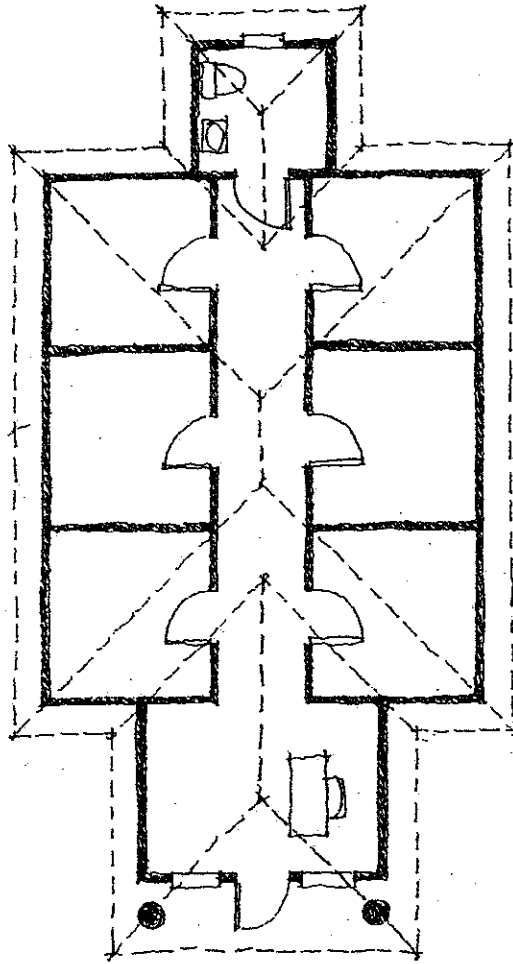
PARK PAVILION/CAFE



TYPICAL REST ROOM / CONCESSION

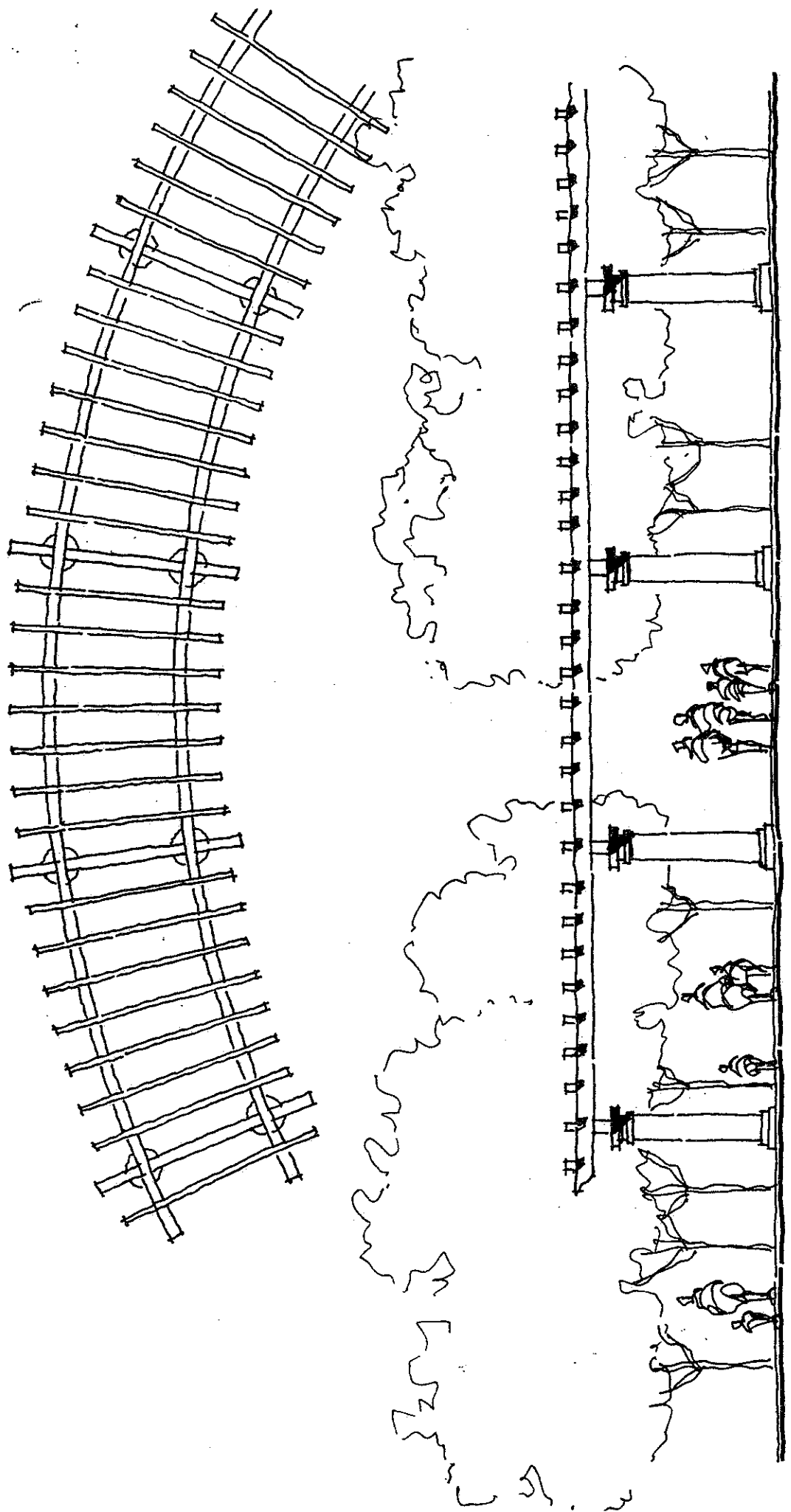


PICNIC PAVILION



GOLF CENTER





SHADE STRUCTURE @ TOT LOT

**Hamilton Community Park  
Final Report**

**August 1999**

**Appendices**

**Bibliography**

**Capital Cost Estimates**

**Steering Committee Input**

**Exhibit A from Memorandum of Agreement #2976**

File Name: BSA2-98/Report/List of Appendices

C

C

C

# Hamilton Community Park Final Report

August 1999

## Bibliography

Cap Sub-drainage Piping System and Outlets  
US Army Corps of Engineers  
Omaha District  
Plans For Landfill #26 Phase II  
Sheets G-09, G-10

Contaminated Area at Building 750  
(5,000 Gal. Underground Fuel Oil Tank)  
IT Corporation  
Tank Removal Project  
Contract DACA 45-86-C-0140

Contaminated Area at Building 783  
(Tank B01)  
IT Corporation  
Tank Removal Project  
Contract DACA 45-86-C-0140

V-Ditch at Landfill  
Ch2mHill for the Department of the Army  
Landfill Grading/Drainage Adjustments  
Sheets C-5, C-6

Extraction Well, Settlement Monument, Gas Monitoring Probe, Observation Riser, and Monitoring Well  
Locations  
US Army Corps of Engineers  
Land Use Restrictions and Maintenance Requirements for Conditional-Use Permit  
Appendix C  
Pages C-6 to C-11

Contaminated Area at Quarter Masters Yard  
Ch2mHill for the Department of the Army, Landfill Grading/Drainage Adjustments  
Sheet C-5

Suspected Contaminated Area at Quarter Masters Yard  
Remedial Action Plan  
Contract No. DACW 05-95-D-0001  
June 1998  
Fig. 7-1 Page 7-2

Skeet Range Contaminated Soil  
Remedial Action Plan  
Contract No. DACW 05-95-D-0001  
June 1998  
Fig. 7-1 Page 7-2, Fig 3-14 Page 3-44

Expected Minimum and Maximum Landfill Settlement  
U.S. Army Corps of Engineers  
Final Design Analysis, Hamilton AFB,  
Remedial Action, Landfill 26, Phase II Vol. 1, July 1993

Wildlife Corridors  
Hamilton Master Plan  
Novato, California  
Oct. 15 1993

Expected Flood Impact  
Assessment of The Impacts of The Landfill 26 Berm on Local And Regional Flood Elevations  
Philip Williams & Associates, Ltd.  
Nov. 20 1998

Proposed Subdivision and Coinciding Edge of Landfill Buffer  
Hamilton Field Revised Tentative Map - Phase II  
Lot 4 And Open Space, Sheet 3  
Oct. 1993 (With Revisions Through 10/23/96)

And

Hamilton Meadows Proposed Tentative Map  
April 1999

And

Proposed Text on Landfill 26 Buffer Zone to be Included in Closure Report from the Department of the  
Army  
May 1999

*Hamilton Wetland Restoration Plan EIR/EIS, (August 4, 1998)*  
Jones & Stokes Associates, Inc. Draft

File Name: BSA2-98/Report/Bibliography

**PRELIMINARY ESTIMATE OF CAPITAL COSTS**

Hamilton Community Park  
 Conceptual Plan  
 Novato, California

Carducci & Associates, Inc.  
 1331 Columbus Avenue, 2nd Floor  
 San Francisco, CA 94133  
 7/21/99

1999 dollars with allowance for escalation as noted in item E.

| Item  | Quantity | Unit | Cost     | Total     | Item Subtotal      |
|---|----------|------|----------|-----------|--------------------|
| <b>A. COMMUNITY PARK DRIVE</b>                      |          |      |          |           |                    |
| 1. Finish Grading                                   |          |      |          |           |                    |
| a. Finish Grading                                   | 3        | acre | \$2,500  | \$7,500   |                    |
| b. Sedimentation Control                            | 1,500    | lf   | \$5      | \$7,500   |                    |
| 2. Primary Utility Service                          |          |      |          |           |                    |
| a. Sanitary Sewer (6")                              | 650      | lf   | \$32     | \$20,800  |                    |
| b. Sanitary Sewer Manholes (350' oc)                | 3        | ea   | \$2,000  | \$6,000   |                    |
| c. Sanitary Sewer Lift Station                      | 1        | ea   | \$20,000 | \$20,000  |                    |
| d. Water (8")                                       | 650      | lf   | \$45     | \$29,250  |                    |
| e. Fire Hydrants (500' oc)                          | 2        | ea   | \$2,400  | \$4,800   |                    |
| f. Electrical & Lighting                            |          |      |          |           |                    |
| i. Primary Service                                  | 1        | ls   | \$20,000 | \$20,000  |                    |
| ii. Roadway Lighting                                | 3        | ea   | \$3,000  | \$9,000   |                    |
| iii. Path Lighting                                  | 2        | ea   | \$2,000  | \$4,000   |                    |
| g. Joint Trench                                     | 650      | lf   | \$35     | \$22,750  |                    |
| h. Storm Drain (15" diameter)                       | 200      | lf   | \$25     | \$5,000   |                    |
| i. Drop Inlets                                      | 2        | ea   | \$1,800  | \$3,600   |                    |
| j. Outlet at Creek                                  | 1        | ea   | \$1,800  | \$1,800   |                    |
| k. Storm Drain Filter                               | 1        | ea   | \$10,000 | \$10,000  |                    |
|   |          |      |          |           | <b>2. Subtotal</b> |
|   |          |      |          |           | <b>\$157,000</b>   |
| 3. Asphalt Concrete Paving                          |          |      |          |           |                    |
| a. Multi-use Path (10' wide)                        | 650      | lf   | \$30.00  | \$19,500  |                    |
| b. Tunnel Road (2 Lane)                             | 650      | lf   | \$75     | \$48,750  |                    |
| c. Tunnel Road (Additional 2 Lanes)                 | 650      | lf   | \$75     | \$48,750  |                    |
|   |          |      |          |           | <b>3. Subtotal</b> |
|   |          |      |          |           | <b>\$117,000</b>   |
| 4. Planting & Irrigation                            |          |      |          |           |                    |
| a. Trees, 15 gal.                                   | 65       | ea   | \$125    | \$8,125   |                    |
| b. Bubbler Irrigation for Trees                     | 65       | ea   | \$50     | \$3,250   |                    |
| c. Non-irrigated Meadow Grasses                     | 65,000   | sf   | \$0.25   | \$16,250  |                    |
|   |          |      |          |           | <b>4. Subtotal</b> |
|   |          |      |          |           | <b>\$27,625</b>    |
| 5. Park Signs                                       | 2        | ea   | \$5,000  | \$10,000  |                    |
| 6. Park Security Gates                              | 2        | ea   | \$5,000  | \$10,000  |                    |
| 7. Maintenance (90 Days)                            | 65,000   | ls   | \$0.03   | \$1,950   |                    |
|   |          |      |          |           | <b>A. Subtotal</b> |
|   |          |      |          |           | <b>\$338,575</b>   |
| <b>B. THE GREAT MEADOW (Landfill 26 and Buffer)</b> |          |      |          |           |                    |
| 1. Finish Grading                                   |          |      |          |           |                    |
| a. Finish Grading                                   | 40       | acre | \$2,500  | \$100,000 |                    |
| b. Sedimentation Control                            | 5,000    | lf   | \$5      | \$25,000  |                    |
| 2. Secondary Utility Service (South Buffer)         |          |      |          |           |                    |
| a. Sanitary Sewer (6")                              | 2,150    | lf   | \$32     | \$68,800  |                    |
| b. Sanitary Sewer Manholes (350' oc)                | 6        | ea   | \$2,000  | \$12,000  |                    |
| c. Water (8")                                       | 2,150    | ea   | \$45     | \$100,000 |                    |
| d. Fire Hydrants (500' oc)                          | 5        | lf   | \$2,400  | \$12,000  |                    |
| e. Electrical & Lighting                            |          |      |          |           |                    |
| i. Primary Service                                  | 1        | ea   | \$20,000 | \$20,000  |                    |
| ii. Roadway Lighting                                | 10       | ls   | \$3,000  | \$30,000  |                    |
| iii. Path Lighting                                  | 12       | ea   | \$2,000  | \$24,000  |                    |
| f. Joint Trench                                     | 2,150    | ea   | \$35     | \$75,250  |                    |
| g. Storm Drain (15" diameter)                       | 300      | lf   | \$25     | \$7,500   |                    |
| h. Bioswales Parallel to Aberdeen Road              | 4,600    | lf   | \$3      | \$13,800  |                    |
| i. Headwalls  | 2        | ea   | \$1,800  | \$3,600   |                    |
|   |          |      |          |           | <b>2. Subtotal</b> |
|   |          |      |          |           | <b>\$366,950</b>   |
| 3. Secondary Utility Service (West Buffer)          |          |      |          |           |                    |

**PRELIMINARY ESTIMATE OF CAPITAL COSTS**

**Hamilton Community Park  
Conceptual Plan  
Novato, California**

**Carducci & Associates, Inc.**  
1331 Columbus Avenue, 2nd Floor  
San Francisco, CA 94133  
7/21/99

1999 dollars with allowance for escalation as noted in item E.

| Item  | Quantity | Unit | Cost      | Total     | Item Subtotal       |
|---|----------|------|-----------|-----------|---------------------|
| a. Sanitary Sewer (6")  | 900      | lf   | \$32      | \$28,800  |                     |
| b. Sanitary Sewer Manholes (350' oc)  | 2        | ea   | \$2,000   | \$4,000   |                     |
| c. Water (8")   | 900      | lf   | \$45      | \$40,500  |                     |
| d. Fire Hydrants (500' oc)  | 2        | ea   | \$2,400   | \$4,800   |                     |
| e. Electrical & Lighting  |          |      |           |           |                     |
| i. Secondary Service  | 1        | ls   | \$20,000  | \$20,000  |                     |
| ii. Parking Lot Lighting  | 3        | ea   | \$3,000   | \$9,000   |                     |
| iii. Path Lighting  | 6        | ea   | \$2,000   | \$12,000  |                     |
| f. Joint Trench   | 900      | lf   | \$35      | \$31,500  |                     |
| g. Bioswale Parallel to West Parking  | 1,200    | lf   | \$3       | \$3,600   |                     |
|   |          |      |           |           | <b>3. Subtotal</b>  |
|   |          |      |           |           | <b>\$154,200</b>    |
| 4. Vehicular Paving   |          |      |           |           |                     |
| a. Parking Spaces (South Buffer)  | 180      | cars | \$1,000   | \$180,000 |                     |
| b. Parking Spaces (Golf/Dog Park)   | 40       | cars | \$1,000   | \$40,000  |                     |
| c. Parking Spaces (Trailhead)   | 10       | cars | \$1,000   | \$10,000  |                     |
| d. Parking Spaces (West Buffer)   | 80       | cars | \$1,000   | \$80,000  |                     |
| e. Aberdeen Road (\$3.00/sf)  | 2,300    | lf   | \$75      | \$172,500 |                     |
| f. Secondary Road (West Buffer) (\$3.00/sf)                                     | 700      | lf   | \$75      | \$52,500  |                     |
| g. Park Circle  | 18,000   | sf   | \$8       | \$144,000 |                     |
|   |          |      |           |           | <b>4. Subtotal</b>  |
|   |          |      |           |           | <b>\$679,000</b>    |
| 5. Park Obelisk/Directional Signs   | 1        | ea   | \$1,000   | \$1,000   |                     |
| 6. Special Paving in Pedestrian Areas   | 12,000   | sf   | \$6       | \$72,000  |                     |
| 7. Multi-use Paths (10' wide)   | 13,000   | lf   | \$30      | \$390,000 |                     |
| 8. Baseball/Softball Infields, Site Furnishings & Fencing with Special Footings | 3        | ea   | \$75,000  | \$225,000 |                     |
| 9. Safety Cushions for Monitoring Wells   | 1        | ea   | \$10,000  | \$10,000  |                     |
| 10. Park Entry Gate (\$200/sf)  | 1        | ea   | \$150,000 | \$150,000 |                     |
| 11. Picnic/Volleyball Pavilion (2 WC)   | 1        | ea   | \$200,000 | \$200,000 |                     |
| 12. Golf Center   |          |      |           |           |                     |
| a. Virtual Golf Pavilion w/ Restroom (1 WC)                                     | 1        | ea   | \$250,000 | \$250,000 |                     |
| b. Putting Greens   | 64,000   | sf   | \$1       | \$64,000  |                     |
| 13. Dog Park  |          |      |           |           |                     |
| a. Dog Park Pavilion  | 1        | ea   | \$1,000   | \$1,000   |                     |
| b. Irrigated Meadow Grasses   | 45,000   | sf   | \$0.50    | \$22,500  |                     |
| c. Fencing (2 sides, 4' high)   | 500      | lf   | \$15      | \$7,500   |                     |
| 14. Fence at Ammo Hill (6' high)  | 2,000    | lf   | \$20      | \$40,000  |                     |
| 15. Educational Exhibits  | 1        | ls   | \$10,000  | \$10,000  |                     |
| 16. Bioswales in North and East Buffer  | 4,000    | lf   | \$3       | \$12,000  |                     |
| 17. Planting & Irrigation   |          |      |           |           |                     |
| a. Trees, 24" box   | 50       | ea   | \$250     | \$12,500  |                     |
| b. Trees, 15 gal  | 240      | ea   | \$125     | \$30,000  |                     |
| c. Turf & Irrigation  | 850,000  | sf   | \$1       | \$850,000 |                     |
| d. Bubbler Irrigation for Trees   | 300      | ea   | \$50      | \$15,000  |                     |
| e. Palm Trees   | 10       | ea   | \$2,500   | \$25,000  |                     |
|   |          |      |           |           | <b>17. Subtotal</b> |
|   |          |      |           |           | <b>\$932,500</b>    |
| 18. Batting Cages   | 1        | ea   | \$150,000 | \$150,000 |                     |

**PRELIMINARY ESTIMATE OF CAPITAL COSTS**

Hamilton Community Park  
 Conceptual Plan  
 Novato, California

Carducci & Associates, Inc.  
 1331 Columbus Avenue, 2nd Floor  
 San Francisco, CA 94133  
 7/21/99

1999 dollars with allowance for escalation as noted in item E.

| Item  | Quantity | Unit | Cost      | Total     | Item Subtotal       |
|---|----------|------|-----------|-----------|---------------------|
| 19. Tot Lot                                       | 1        | ea   | \$75,000  | \$75,000  |                     |
| 20. Bioswale Play Area                            | 1        | ea   | \$25,000  | \$25,000  |                     |
| 21. Picnic Plaza (20,000 sf)                      | 1        | ea   | \$50,000  | \$50,000  |                     |
| 22. Pedestrian Bridges (Pre-engineered)           | 3        | ea   | \$30,000  | \$90,000  |                     |
| 23. Special Events Utility Service (South Buffer) |          |      |           |           |                     |
| a. Utility Connection @ 30' oc                    | 75       | ea   | \$2,500   | \$187,500 |                     |
| b. Sanitary Sewer (4")                            | 800      | lf   | \$27      | \$21,600  |                     |
| c. Water (4")                                     | 800      | lf   | \$27      | \$21,600  |                     |
| d. Electrical Service                             | 1        | ls   | \$20,000  | \$20,000  |                     |
| e. Joint Trench                                   | 800      | lf   | \$35      | \$28,000  |                     |
|   |          |      |           |           | <b>23. Subtotal</b> |
|   |          |      |           |           | <b>\$278,700</b>    |
| 24. Special Events Utility Service (West Buffer)  |          |      |           |           |                     |
| a. Utility Connection @ 30' oc                    | 30       | ea   | \$2,500   | \$75,000  |                     |
| b. Electrical Service                             | 1        | ls   | \$20,000  | \$20,000  |                     |
| 25. Art Meadow & Sculpture Garden                 |          |      |           |           |                     |
| a. Allowance                                      | 2        | ea   | \$10,000  | \$20,000  |                     |
| 26. Sports Lighting                               |          |      |           |           |                     |
| a. Allowance                                      | 1        | ea   | \$500,000 | \$500,000 |                     |
| 27. Maintenance (90 Days)                         | 850,000  | sf   | \$0.03    | \$25,500  |                     |
|   |          |      |           |           | <b>B. Subtotal</b>  |
|   |          |      |           |           | <b>\$5,021,850</b>  |
| <b>C. ADVENTURE ISLAND (25 acres)</b>             |          |      |           |           |                     |
| 1. Earthwork                                      |          |      |           |           |                     |
| a. Earthwork                                      | 25       | acre | \$5,000   | \$125,000 |                     |
| b. Sedimentation Control                          | 4,000    | lf   | \$5       | \$20,000  |                     |
| 2. Finish Grading                                 | 25       | acre | \$2,500   | \$62,500  |                     |
| 3. Secondary Utility Service                      |          |      |           |           |                     |
| a. Sanitary Sewer (6")                            | 1,700    | lf   | \$32      | \$54,400  |                     |
| b. Sanitary Sewer Manholes (350' oc)              | 5        | ea   | \$2,000   | \$10,000  |                     |
| c. Sanitary Sewer Lift Station                    | 1        | ea   | \$300,000 | \$300,000 |                     |
| d. Water (8")                                     | 1,700    | lf   | \$45      | \$76,500  |                     |
| e. Fire Hydrants (500' oc)                        | 4        | ea   | \$1,000   | \$4,000   |                     |
| f. Electrical & Lighting                          |          |      |           |           |                     |
| i. Secondary Service                              | 1        | ls   | \$20,000  | \$20,000  |                     |
| ii. Parking Lot Lighting                          | 3        | ea   | \$3,000   | \$9,000   |                     |
| iii. Path Lighting                                | 50       | ea   | \$2,000   | \$100,000 |                     |
| g. Joint Trench                                   | 1,700    | lf   | \$35      | \$59,500  |                     |
| h. Bioswales                                      | 750      | lf   | \$3       | \$2,250   |                     |
| i. Seasonal Wetlands                              | 75,000   | sf   | \$3       | \$225,000 |                     |
| j. Storm Drain (15" diameter)                     | 200      | lf   | \$30      | \$6,000   |                     |
| k. Headwalls                                      | 4        | ea   | \$1,800   | \$7,200   |                     |
|   |          |      |           |           | <b>3. Subtotal</b>  |
|   |          |      |           |           | <b>\$873,850</b>    |
| 4. Vehicular Paving                               |          |      |           |           |                     |
| a. Parking Spaces (Main Lot)                      | 300      | cars | \$1,000   | \$300,000 |                     |
| b. Parking Spaces (Tennis/Group Picnic)           | 40       | cars | \$1,000   | \$40,000  |                     |
| c. Secondary Road (To Group Picnic)               | 500      | lf   | \$75      | \$37,500  |                     |
|   |          |      |           |           | <b>4. Subtotal</b>  |
|   |          |      |           |           | <b>\$377,500</b>    |



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7/21/99

1999 dollars with allowance for escalation as noted in item E.

| Item  | Quantity | Unit | Cost      | Total     | Item Subtotal       |
|---|----------|------|-----------|-----------|---------------------|
| 5. Special Paving   | 10,000   | sf   | \$6       | \$60,000  |                     |
| 6. Multi-use Paths (10' wide)   | 10,000   | lf   | \$20      | \$200,000 |                     |
| 7. Water Play Area  |          |      |           |           |                     |
| a. Water Play Area  | 10,000   | sf   | \$25      | \$250,000 |                     |
| b. Interactive Fountain Plaza   | 10,000   | sf   | \$25      | \$250,000 |                     |
| 8. Tot Lot  | 1        | ea   | \$150,000 | \$150,000 |                     |
| 9. Tot Lot Arbor  | 3,000    | sf   | \$25      | \$75,000  |                     |
| 10. Food Court  | 15,000   | sf   | \$8       | \$120,000 |                     |
| 11. Adventure Play Area W/ Kiddy Track                                  | 50,000   | sf   | \$5       | \$250,000 |                     |
| 12. Sunset Hill Picnic Area   | 65,000   | sf   | \$3       | \$195,000 |                     |
| 13. Group Picnic Area   |          |      |           |           |                     |
| a. Group Picnic Area  | 75,000   | sf   | \$3       | \$225,000 |                     |
| b. Group Picnic Structure   | 1        | ea   | \$150,000 | \$150,000 |                     |
| c. Shade Structure and Kitchen  | 3        | ea   | \$35,000  | \$105,000 |                     |
| d. Picnic Pavilion w/ Restroom (2WC)                                    | 1        | ea   | \$75,000  | \$75,000  |                     |
|   |          |      |           |           | <b>13. Subtotal</b> |
|   |          |      |           |           | <b>\$555,000</b>    |
| 14. Site Furnishings (50 sets of tables and Chairs)                     | 50       | ea   | \$1,000   | \$50,000  |                     |
| 15. Hamilton Pond   |          |      |           |           |                     |
| a. Pond Construction  | 5        | ac   | \$50,000  | \$250,000 |                     |
| b. Filtration & Circulation System                                      | 1        | ea   | \$100,000 | \$100,000 |                     |
| c. Pond Edge (Clean Conc. Rubble)                                       | 4,000    | lf   | \$25      | \$100,000 |                     |
| d. Boat Dock  | 1        | ea   | \$50,000  | \$50,000  |                     |
| e. Floating Stage (20'x40')   | 1        | ea   | \$25,000  | \$25,000  |                     |
| f. Grass Beach  | 7,500    | sf   | \$3       | \$22,500  |                     |
| g. Pond Inlet Structure   | 600      | lf   | \$30      | \$18,000  |                     |
| h. Pond Outlet Structure  | 300      | lf   | \$30      | \$9,000   |                     |
| i. Seasonal Wetlands Adjacent to Pond                                   | 90,000   | sf   | \$1       | \$90,000  |                     |
|   |          |      |           |           | <b>15. Subtotal</b> |
|   |          |      |           |           | <b>\$664,500</b>    |
| 16. Planting & Irrigation   |          |      |           |           |                     |
| a. Tree, 24" box  | 20       | ea   | \$250     | \$5,000   |                     |
| b. Tree, 15 gal   | 160      | ea   | \$125     | \$20,000  |                     |
| c. Bubbler Irrigation for Trees   | 200      | ea   | \$50      | \$10,000  |                     |
| d. Planting & Irrigation  | 220,000  | sf   | \$1       | \$220,000 |                     |
| e. Palm Trees   | 20       | ea   | \$2,500   | \$50,000  |                     |
| f. Seasonal Wetlands South of Island                                    | 110,000  | sf   | \$1       | \$110,000 |                     |
|   |          |      |           |           | <b>16. Subtotal</b> |
|   |          |      |           |           | <b>\$415,000</b>    |
| 17. Perimeter Fence at Adventure Island                                 | 2,600    | lf   | \$25      | \$65,000  |                     |
| 18. Wedding Pavilion/Band Stand (1,225 sf)                              | 1        | ea   | \$75,000  | \$75,000  |                     |
| 19. Park Pavilion (1,050 sf) w/ Restroom (6WC)                          | 1        | ea   | \$200,000 | \$200,000 |                     |
| 20. Educational Exhibits  | 1        | ls   | \$10,000  | \$10,000  |                     |
| 21. Pacheco Creek Bridge (Pre-engineered)<br>(Emergency Vehicle Access) | 1        | ea   | \$100,000 | \$100,000 |                     |

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7/21/95

1999 dollars with allowance for escalation as noted in item E.

| Item  | Quantity | Unit | Cost      | Total     | Item Subtotal       |
|---|----------|------|-----------|-----------|---------------------|
| 21. Special Events Utility Service                  |          |      |           |           |                     |
| a. Utility Connection @ 30' oc                      | 30       | ea   | \$2,500   | \$75,000  |                     |
| b. Electrical Service                               | 1        | ls   | \$20,000  | \$20,000  |                     |
| 22. Tennis Center                                   |          |      |           |           |                     |
| a. Lighted Tennis Courts                            | 4        | ea   | \$45,000  | \$180,000 |                     |
| b. Tennis Pavilion w/ Restroom (2WC)                | 1        | ea   | \$75,000  | \$75,000  |                     |
| c. Bleachers  | 2,000    | sf   | \$5       | \$10,000  |                     |
| d. Perimeter Paving                                 | 7,000    | sf   | \$3       | \$21,000  |                     |
|   |          |      |           |           | <b>22. Subtotal</b> |
|   |          |      |           |           | <b>\$286,000</b>    |
| 23. Maintenance (90 Days)                           | 200,000  | sf   | \$0.03    | \$6,000   |                     |
|   |          |      |           |           | <b>C. Subtotal</b>  |
|   |          |      |           |           | <b>\$5,530,350</b>  |
| <b>D. SPORTS COURT ISLAND (4.0 acres)</b>           |          |      |           |           |                     |
| 1. Earthwork  |          |      |           |           |                     |
| a. Earthwork, Clearing and Grubbing                 | 4        | acre | \$5,000   | \$20,000  |                     |
| b. Sedimentation Control                            | 2,200    | lf   | \$5       | \$11,000  |                     |
| 2. Finish Grading                                   | 4        | acre | \$2,500   | \$10,000  |                     |
| 3. Secondary Utility Service                        |          |      |           |           |                     |
| a. Sanitary Sewer (6")                              | 100      | lf   | \$32      | \$3,200   |                     |
| b. Sanitary Sewer Manholes (350' oc)                | 1        | ea   | \$2,000   | \$2,000   |                     |
| c. Water (8")                                       | 100      | lf   | \$45      | \$4,500   |                     |
| d. Fire Hydrants (500' oc)                          | 1        | ea   | \$1,000   | \$1,000   |                     |
| e. Electrical & Lighting                            |          |      |           |           |                     |
| i. Secondary Service                                | 1        | ls   | \$20,000  | \$20,000  |                     |
| ii. Parking Lot Lighting                            | 3        | ea   | \$3,000   | \$9,000   |                     |
| iii. Path Lighting                                  | 12       | ea   | \$2,000   | \$24,000  |                     |
| iv. Sports Lighting                                 | 24       | ea   | \$2,000   | \$48,000  |                     |
| f. Joint Trench                                     | 100      | lf   | \$35      | \$3,500   |                     |
|   |          |      |           |           | <b>3. Subtotal</b>  |
|   |          |      |           |           | <b>\$115,200</b>    |
| 4. Vehicular Paving                                 |          |      |           |           |                     |
| a. Parking Spaces                                   | 50       | cars | \$1,000   | \$50,000  |                     |
| 5. Special Paving                                   | 4,000    | sf   | \$6.00    | \$24,000  |                     |
| 6. Multi-use Paths (10' wide)                       | 3,000    | lf   | \$20.00   | \$60,000  |                     |
| 7. Sports Courts                                    |          |      |           |           |                     |
| a. Sand Volleyball Court                            | 2        | ea   | \$10,000  | \$20,000  |                     |
| b. Roller Hockey Court                              | 1        | ea   | \$250,000 | \$250,000 |                     |
| c. Basketball Courts                                | 4        | ea   | \$25,000  | \$100,000 |                     |
| d. Sports Pavilion (2WC)                            | 1        | ea   | \$75,000  | \$75,000  |                     |
| e. Skate Park                                       | 1        | ea   | \$185,000 | \$185,000 |                     |
| f. Pedestrian Bridge (Pre-engineered) (if required) | 2        | ea   | \$30,000  | \$60,000  |                     |
|   |          |      |           |           | <b>7. Subtotal</b>  |
|   |          |      |           |           | <b>\$690,000</b>    |
| 8. Planting & Irrigation                            |          |      |           |           |                     |
| a. Tree, 24" box                                    | 20       | ea   | \$250     | \$5,000   |                     |
| b. Tree, 15 gal                                     | 60       | ea   | \$125     | \$7,500   |                     |
| c. Bubbler Irrigation for Trees                     | 85       | ea   | \$50      | \$4,250   |                     |
| d. Planting & Irrigation                            | 65,000   | sf   | \$1       | \$65,000  |                     |
| e. Palm Trees                                       | 5        | ea   | \$2,500   | \$12,500  |                     |
| f. Creek Restoration                                | 120,000  | sf   | \$1       | \$120,000 |                     |
| g. Seasonal Wetlands Adjacent to Creek              | 80,000   | sf   | \$1       | \$80,000  |                     |
|   |          |      |           |           | <b>8. Subtotal</b>  |
|   |          |      |           |           | <b>\$294,250</b>    |

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| Item   | Quantity | Unit | Cost      | Total               | Item Subtotal |
|--|----------|------|-----------|---------------------|---------------|
| 9. Site Furnishings  | 1        | ls   | \$10,000  | \$10,000            |               |
| 10. Maintenance (90 Days)                                      | 40,000   | sf   | \$0.03    | \$1,200             |               |
| <b>D. Subtotal</b>   |          |      |           | <b>\$1,285,650</b>  |               |
| <b>Subtotal A-D</b>  |          |      |           | <b>\$12,176,425</b> |               |
| <b>Layout, Mobilization &amp; Bonds (5%)</b>                   |          |      |           | <b>\$608,821</b>    |               |
| <b>Design &amp; Engineering (10%)</b>                          |          |      |           | <b>\$1,217,643</b>  |               |
| <b>City Project Development &amp; Administration (15%)</b>     |          |      |           | <b>\$1,826,464</b>  |               |
| <b>Design Contingency (10%)</b>                                |          |      |           | <b>\$1,217,643</b>  |               |
| <b>Environmental Review (CEQA/NEPA Studies) See list below</b> |          |      |           | <b>\$800,000</b>    |               |
| <b>TOTAL</b>   |          |      |           | <b>\$17,846,995</b> |               |
| <b>E. Escalation</b>   |          |      |           |                     |               |
| A-D Cost Escalation Year 1 (5%)                                |          |      |           | \$608,821           |               |
| A-D Cost Escalation Year 2 (5%)                                |          |      |           | \$608,821           |               |
| A-D Cost Escalation Year 3 (5%)                                |          |      |           | \$608,821           |               |
| A-D Cost Escalation Year 4 (5%)                                |          |      |           | \$608,821           |               |
| A-D Cost Escalation Year 5 (5%)                                |          |      |           | \$608,821           |               |
| A-D Cost Escalation Year 6 (5%)                                |          |      |           | \$608,821           |               |
| A-D Cost Escalation Year 7 (5%)                                |          |      |           | \$608,821           |               |
| <b>ESCALATION TOTAL</b>  |          |      |           | <b>\$4,261,749</b>  |               |
| <b>TOTAL + ESCALATION (7 years) TOTAL</b>                      |          |      |           | <b>\$22,108,744</b> |               |
| Cost per acre = \$17,850,000/81 acres = \$220,000 per acre     |          |      |           |                     |               |
| <b>F. Environmental Review (CEQA/NEPA Studies)</b>             |          |      |           |                     |               |
| 1. Initial Study   | 1        | ls   | \$20,000  | \$20,000            |               |
| 2. Hydrology Study   | 1        | ls   | \$25,000  | \$25,000            |               |
| 3. Biological Study  | 1        | ls   | \$20,000  | \$20,000            |               |
| 4. Wetland Delineation   | 1        | ls   | \$10,000  | \$10,000            |               |
| 5. Traffic Study   | 1        | ls   | \$20,000  | \$20,000            |               |
| 6. Noise Study   | 1        | ls   | \$10,000  | \$10,000            |               |
| 7. Archaeological Study  | 1        | ls   | \$5,000   | \$5,000             |               |
| 8. Resource Management Plan                                    | 1        | ls   | \$50,000  | \$50,000            |               |
| 9. Environmental Impact Report                                 | 1        | ls   | \$150,000 | \$150,000           |               |
| 10. Creek Restoration Plan                                     | 1        | ls   | \$20,000  | \$20,000            |               |
| 11. Wetland Mitigation Plan                                    | 1        | ls   | \$40,000  | \$40,000            |               |
| 12. Geotechnical Report  | 1        | ls   | \$40,000  | \$40,000            |               |
| 13. CEQA/NEPA Contingency                                      | 1        | ls   | \$350,000 | \$350,000           |               |
| 14. Feasibility Study  | 1        | ls   | \$40,000  | \$40,000            |               |
| <b>E. Subtotal</b>   |          |      |           | <b>\$800,000</b>    |               |
| <b>G. ADD ALTERNATIVES</b>                                     |          |      |           |                     |               |
| 1. Golf Driving Range  |          |      |           |                     |               |
| a. Fine Grading  | 15       | ac   | \$2,500   | \$37,500            |               |
| b. Perimeter fence   | 2,700    | ea   | \$50      | \$135,000           |               |
| c. Perimeter poles   | 60       | ea   | \$5,000   | \$300,000           |               |
| d. Planting & Irrigation                                       | 550,000  | sf   | \$1       | \$550,000           |               |
| e. Building  | 2,000    | sf   | \$200     | \$400,000           |               |
| f. Electrical & Lighting                                       |          |      |           |                     |               |
| i. Secondary service   | 1        | ls   | \$20,000  | \$20,000            |               |
| ii. Range lighting   | 1        | ea   | \$500,000 | \$500,000           |               |

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| Item                     | Quantity | Unit | Cost      | Total     | Item Subtotal                  |
|--------------------------|----------|------|-----------|-----------|--------------------------------|
| iii. Path lighting       | 5        | ea   | \$2,000   | \$10,000  |                                |
| g. Tees                  | 25       | ea   | \$2,000   | \$50,000  |                                |
| h. Equipment             | 1        | ea   | \$50,000  | \$50,000  |                                |
| i. Miscellaneous         | 1        | ea   | \$100,000 | \$100,000 |                                |
| j. Storage Building      | 1,500    | sf   | \$50      | \$75,000  |                                |
|                          |          |      |           |           | <b>1. Subtotal \$2,227,500</b> |
| 2. Carousel              |          |      |           |           |                                |
| a. Fine Grading          | 2        | ac   | \$2,500   | \$5,000   |                                |
| b. 40' diameter carousel | 1        | ea   | \$300,000 | \$300,000 |                                |
| c. Concrete pad & paving | 10,000   | sf   | \$6       | \$60,000  |                                |
| d. Perimeter fencing     | 500      | lf   | \$30      | \$15,000  |                                |
| e. Building              | 1        | ea   | \$200,000 | \$200,000 |                                |
| f. Electrical & Lighting |          |      |           |           |                                |
| i. Secondary service     | 1        | ls   | \$10,000  | \$10,000  |                                |
| ii. Path lighting        | 10       | ea   | \$2,000   | \$20,000  |                                |
| g. Miscellaneous         | 1        | ea   | \$50,000  | \$50,000  |                                |
|                          |          |      |           |           | <b>2. Subtotal \$660,000</b>   |
| 3. 3-Hole Golf Center    |          |      |           |           |                                |
| a. Per hole cost         | 3        | ea   | \$100,000 | \$300,000 |                                |
| b. Building/ restroom    | 1,000    | sf   | \$200     | \$200,000 |                                |
| c. Miscellaneous         | 1        | ea   | \$50,000  | \$50,000  |                                |
|                          |          |      |           |           | <b>3. Subtotal \$550,000</b>   |