



West Side Gardens Treatment Plan
Alcatraz Island October 2008

BACKGROUND AND PLANNING CONTEXT

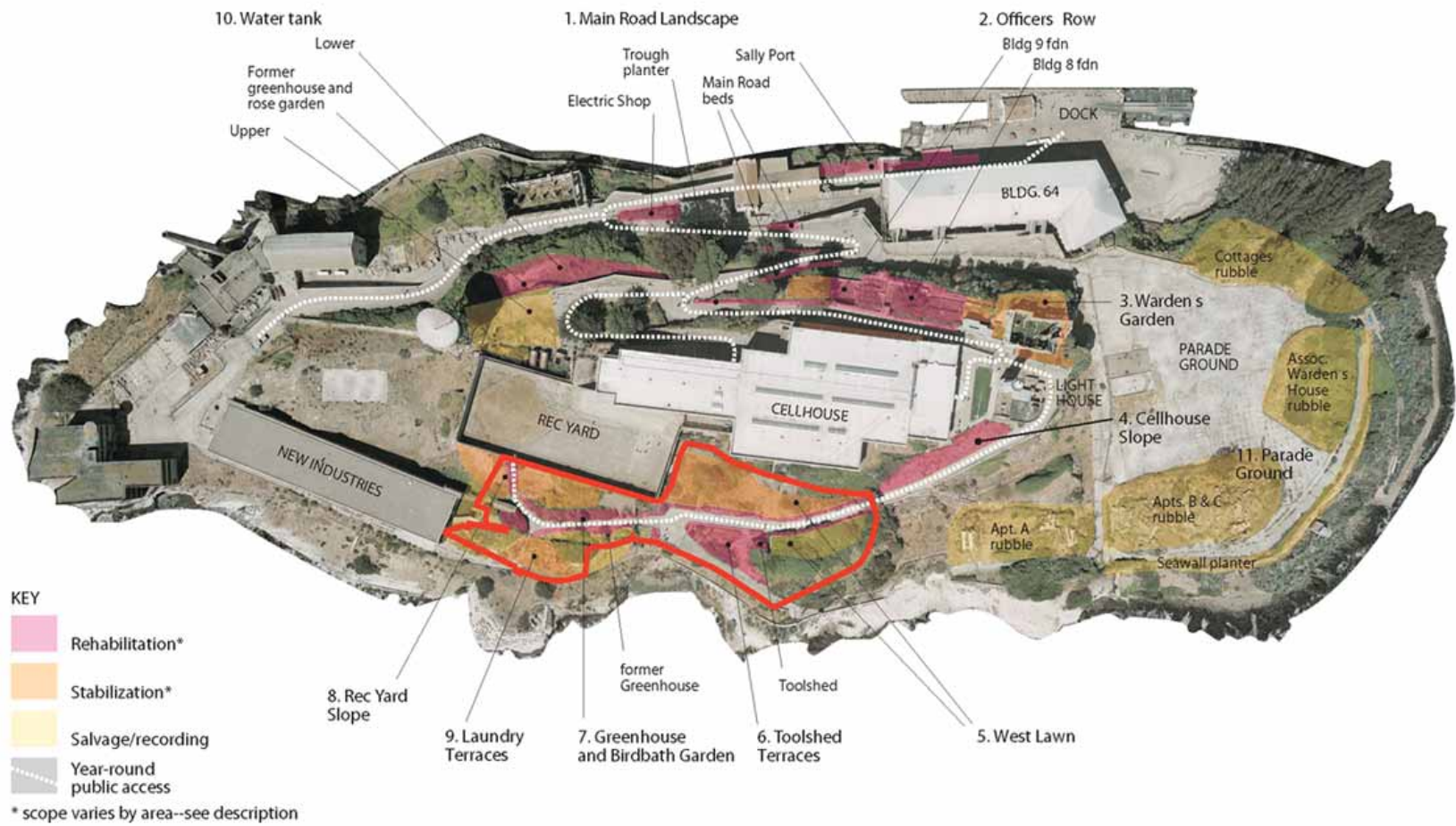
The Alcatraz cultural landscape is recognized as a significant contributing element to the Alcatraz National Historic Landmark (NHL). Gardens were an important part of the island's cultural landscape from the Civil War to the closing of the federal prison in 1963. After decades of abandonment, however, the gardens became wild and overgrown and no longer provided a sense of the rich, flowering landscape that residents once experienced.

Planning for preservation of the Alcatraz cultural landscape began in 1992 with a survey of the surviving garden plants (Lutsko Associates). That same year, the National Park Service (NPS) prepared a draft cultural landscape study and the *Alcatraz Development Concept Plan*, both of which recommended preservation of the historic gardens. In 1998, the Olmsted Center prepared landscape stabilization and maintenance recommendations for selected areas, including the West Side Gardens, and in 2003, the Garden Conservancy and the Golden Gate National Parks Conservancy established a volunteer garden crew to begin stabilization work.

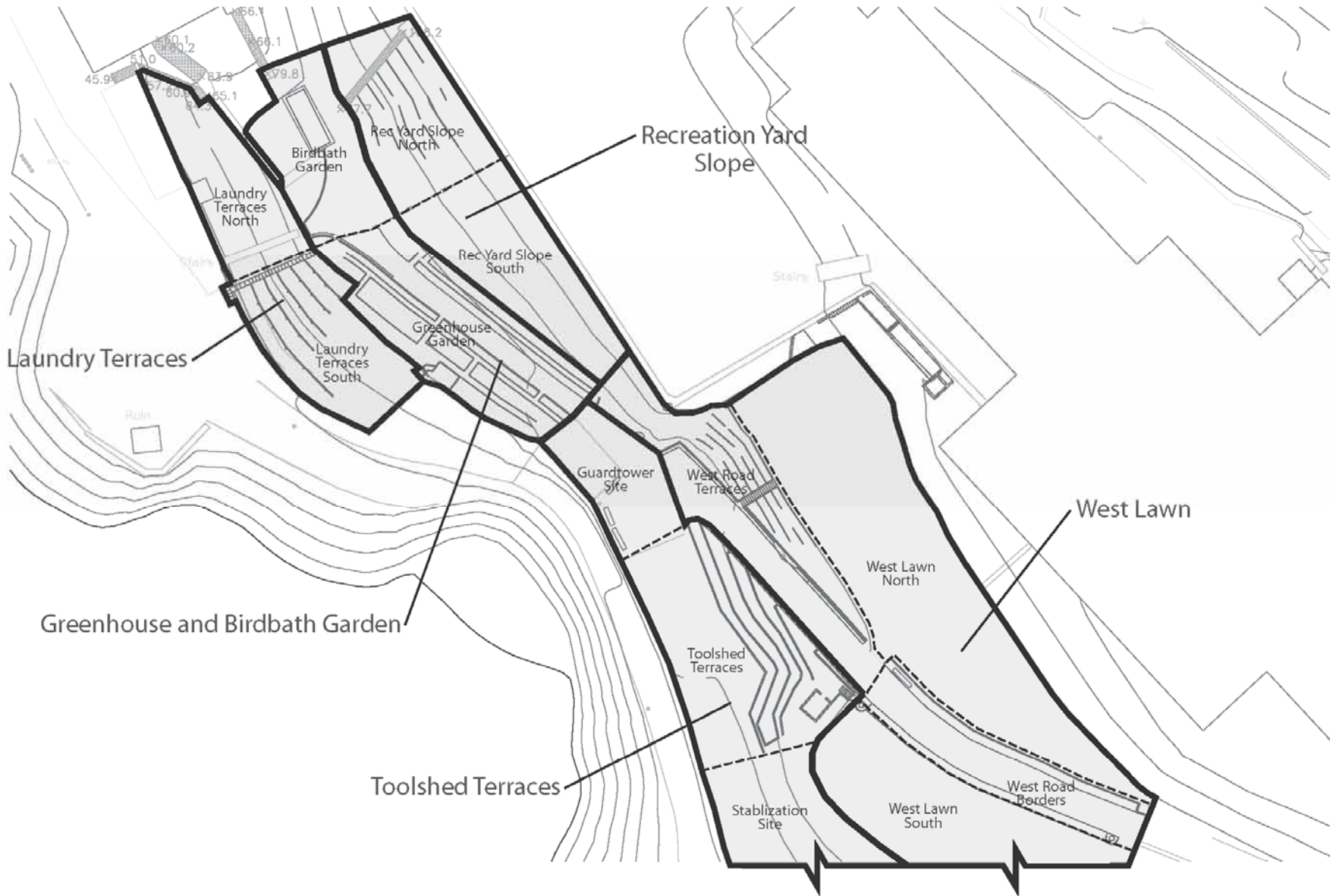
In 2005 the Garden Conservancy and Parks Conservancy completed a NPS Cultural Landscape Inventory for the island. Park cultural resources staff and the garden project team then identified preservation strategies for key garden areas. These strategies are guiding development of detailed treatment plans, which will be incorporated into the upcoming Alcatraz Cultural Landscape Report. To date, treatment plans have been approved and implemented in four garden areas: the Main Road Landscape (approved fall 2005 and largely completed by spring 2006), Officers' Row (approved fall 2006 and largely completed by spring 2007), Rose Garden (approved fall 2007; work in progress) and Cellhouse Slope (approved 2008; work in progress). This treatment plan describes proposed preservation work in the West Side Gardens, which is planned to begin in the fall of 2008.



The Toolshed Terraces bursting with color in the spring
[Roy Eisenhardt]



Preservation Concept Alcatraz Historic Gardens



Laundry Terraces

Greenhouse and Birdbath Garden

Toolshed Terraces

Recreation Yard Slope

West Lawn

GARDEN AREAS

ALCATRAZ WEST SIDE GARDENS



WEST SIDE GARDENS

The West Side Gardens cover approximately 50,500 square feet on both sides of West Road—an area roughly bounded on the east by the cellhouse, on the south by cliffs meeting West Road, on the west by the old lower road to the Parade Ground, and on the north by the New Industries Building. This area is divided into garden zones and subzones named according to their use during the height of garden development in the penitentiary era. The main zones are the West Lawn (including West Lawn North and South, West Road Borders, West Road Terraces), the Toolshed Terraces (including Terraces, Guardtower Site, Hillside), the Greenhouse Garden (including Greenhouse Garden and Birdbath Garden), the Recreation Yard Slope (North and South), and the Laundry Terraces (North and South).

HISTORY

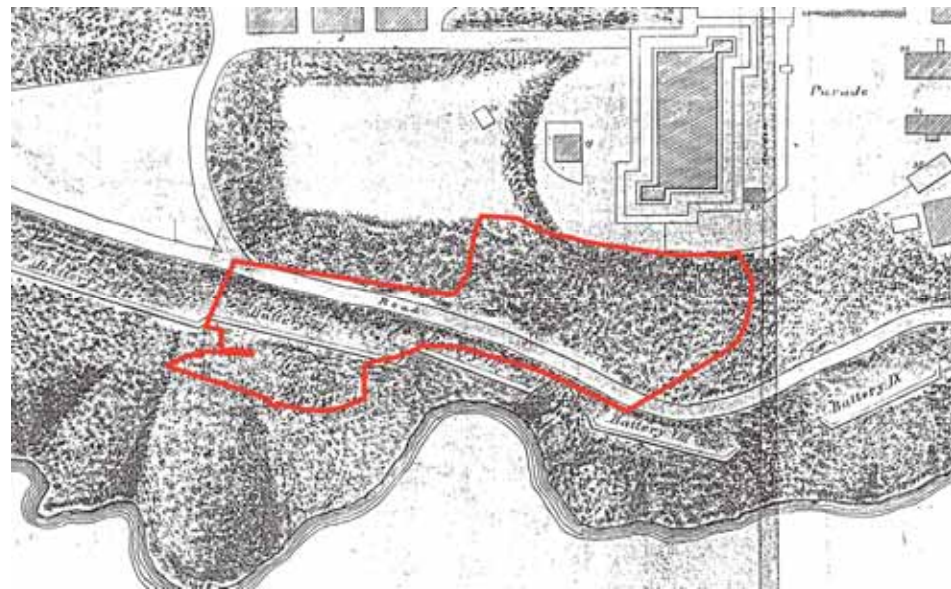
US Military Defense Era: 1847–1907

The first development on Alcatraz occurred in the 1850s with the construction of the lighthouse, citadel, and masonry fortifications. During this time, the eastern slopes of the island were cut and graded for construction of the main switchback road to the island summit. The road ended at the citadel and lighthouse. By 1859, fortifications (masonry batteries) had been built on the lower slopes of the island's west side. Building the batteries required leveling linear areas as well as smaller areas to accommodate support buildings and structures.

The redesign of these fortifications began in 1868 when prisoners started cutting back and leveling the steep slopes to widen the batteries and add soil in front of them. The slopes were covered with sod or planted with clover, alfalfa, or barley, but due to the difficulty in maintaining the plants, they likely did not last long. This work was suspended in 1876 and never finished. By 1879, a secondary road was built



1863, showing masonry batteries and citadel



1879, showing lower road extending to west side, earthen batteries, and citadel

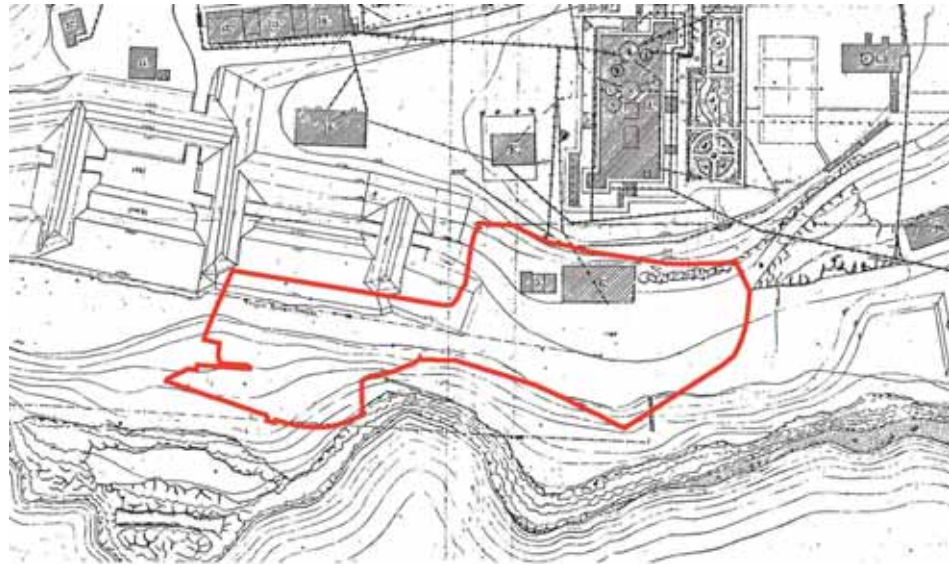
that continued around the south end of the island to the west side (this is the site of today's lower road at the edge of the current Parade Ground that intersects with West Road at the base of the Toolshed Terraces).

In the 1880s the Army excavated a large flat area on either side of West Road, now referred to as the West Lawn. By 1894 the Army built a stable and accessory building (Bldgs #6 and #5, 1894 map). Also by this year, the current West Road was built from the lighthouse to the West Lawn along the base of the Cellhouse Slope; it connected with the lower road at the north end of the Toolshed Terraces and also continued north to access batteries on the northwest side of the island (in 1902 a quarry was established at the current New Industries Building site). By 1905 a carriage house and corral had also been built near the stable in the West Lawn area.

There is no record of any planted gardens on the west side during this era. [Source for this section: *Alcatraz Island Cultural Landscapes Inventory*, 2005 and historic maps.]

The significant features of the West Side Gardens site during the military defense period include:

- Batteries (no longer extant, portions buried)
- West Road extending to northwest section of island; lower road branching off West Road at Toolshed Terraces and heading south to Parade Ground.
- 1880s wooden buildings: stable, laborers' quarters and laundresses' quarters (no longer extant)
- 1890s stable (no longer extant)
- 1900s carriage house and corral (no longer extant)



1894, showing batteries, stable, and citadel



1905-1907, showing batteries, stable, corral, and carriage house

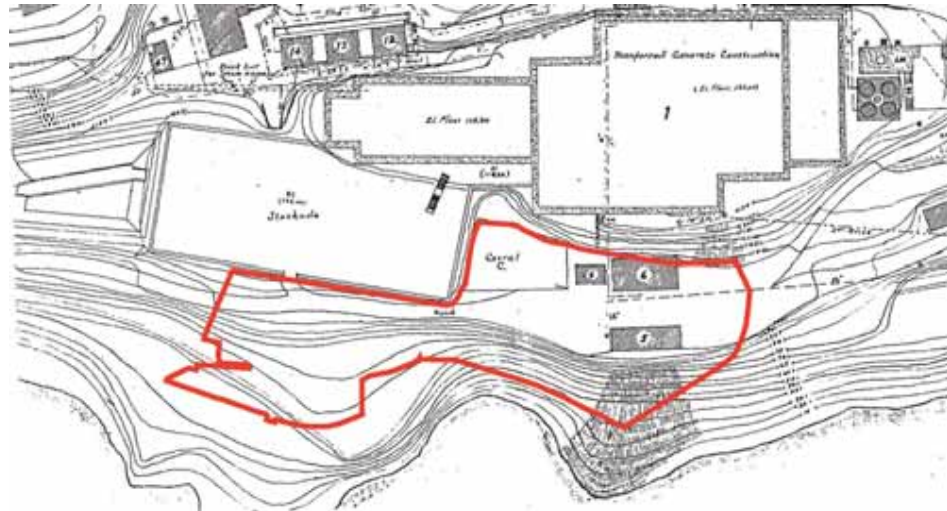
Military Prison Era: 1907–1933

The Army officially ended Alcatraz's use as a fortification in 1907, and designated it as a military prison. In 1912, the Army completed the new prison building to replace the citadel. When the cellhouse was built the two 1870s batteries located below and west of the new cellhouse were filled in to create a level area for the recreation yard. The high walls of the cellhouse and recreation yard dominated the west side.

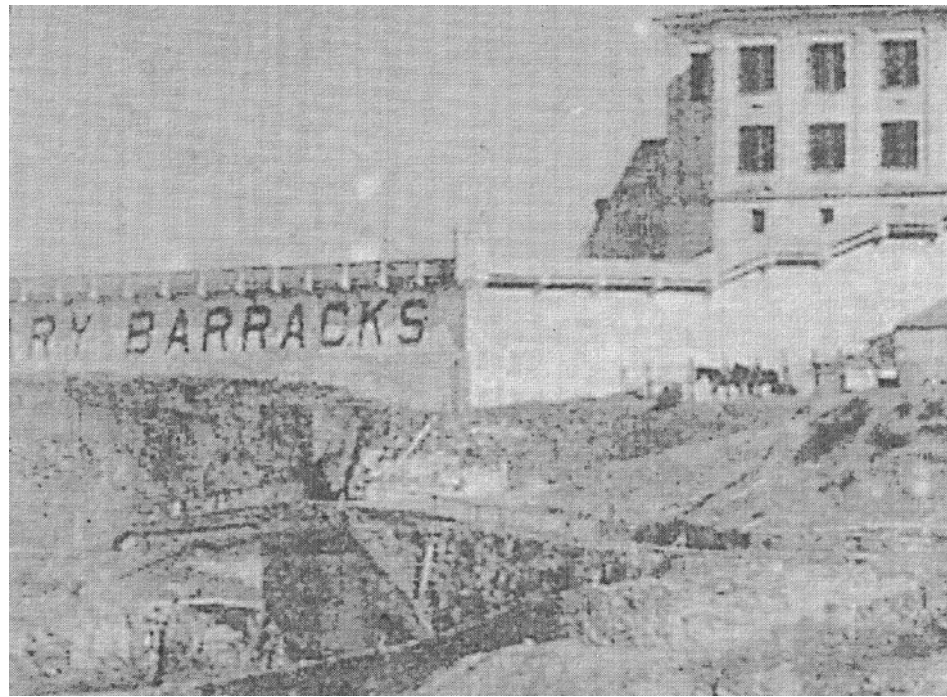
Shortly after the cellhouse was built, the corral was relocated to the north of the stable. The 1928 map shows stairs up to the corral in their current location on the West Road Terraces. Stairs are also shown on this map in their current location in the Laundry Terraces (leading down to the incinerator). The 1928 map also shows retaining walls at the base of the Toolshed Terraces and Laundry Terraces. In 1929 a cleaning plant (Building 84) was built on the old quarry site, now the site of the New Industries Building, which was built in 1940.

By 1933, the Army had removed the wooden buildings remaining in the West Lawn area and planted grass. The 1933 map shows the lawn, a cistern at the top of the slope against the cellhouse exterior, a retaining wall at the base of the Toolshed Terraces and Laundry Terraces, and a low wall on either side of West Road, above the Toolshed Terraces and below the West Road Terraces. These walls were likely built by inmates, who were not restricted to certain locations on the island, and the retaining walls were built of rock rubble and concrete masonry. The Army also built a simple irrigation system on the West Side that used the recycled water from the prison showers to irrigate the West Lawn and other areas. The water drained into the cistern above the West Lawn.

The Army also made attempts to plant the island's barren slopes, including some of the slopes on the west side. Planting with sod, grass, and clover was



1909, showing new cellhouse and recreation yard. Stable (6), corral, and carriage house (5) remain.



1912–1920, showing stable below recreation yard

not successful because of the climate, but other plants (*Agave*, ivy, and ice plant) survived. Although there is not much photo documentation, it appears that the slopes immediately west of the cellhouse and recreation yard were planted. The extent to which the terraces were planted is not known.

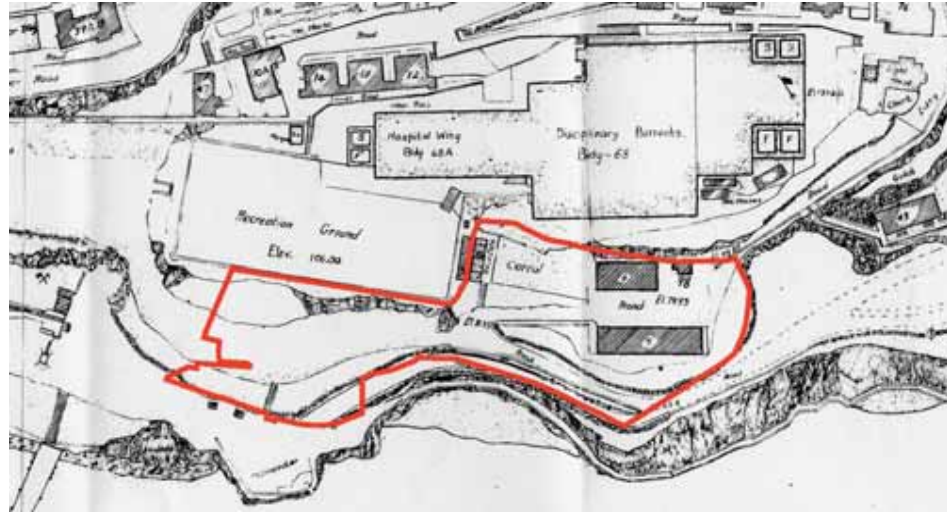
Fred Reichel, the secretary to Warden Johnston from January 1934 to August 1941, wrote in a letter (undated) to *California Horticulture* about his arrival to Alcatraz:

When I first came to Alcatraz in the early days of its transfer from the Army in 1934, I was very much impressed by the thousands of hours of hard labor which had gone into its beatification....One of the banks was bristling with those inaccurate time keepers—the century plants—and there were blankets of lavender-flowered *Mesembryanthemum* which for many springs had brightened the landscape.

During the military prison era, prisoners had access to most areas of the island for work details. The "Post Gardener Detail Instructions" from 1930 direct the crew of six prison gardeners to report to the greenhouse in the Rose Garden without any guard. Their overseer's role, among others, was to personally distribute flowers to families.

The significant features of the West Side Gardens site during the military period include:

- Batteries (no longer extant)
- West Road and lower road
- Carriage house, stable, and corral (no longer extant)
- Concrete stairs in West Road Terraces and Laundry Terraces
- West Lawn
- Cistern next to cellhouse
- Retaining walls in Toolshed Terraces and Laundry Terraces
- Low wall on either side of West Road, above Toolshed Terraces and below West Road Terraces



1928, showing cellhouse, recreation yard, stable (6), corral, and carriage house (5)



1933, showing West Lawn and cistern

Federal Prison Era: 1933–1963

Alcatraz transferred to the federal Bureau of Prisons (BOP) in 1933. It was during this period, mostly in the 1940s, that the West Side Gardens developed under the care of select inmate gardeners. Few prisoners had gardening privileges; this was in contrast to the military era when prisoners had access to the whole island. During the federal prison era, security fencing was installed to restrict the prisoners to a few locations: the prison, the utility building at the northwest end of the island, and the laundry shops adjacent to the power plant. (The north end of the island was enclosed with metal fencing—beginning at the incinerator and around to the powerhouse.)

The Bureau of Prisons built a guardtower (with a catwalk to the recreation yard) in 1934 at the south end of the area now known as the Greenhouse Garden. The guardtower made the west side an easily supervised worksite for inmate gardeners. Other structures built on the west side during this period included the recreation yard stairs (1934), metal detectors at the base of the recreation yard stairs, and later during this period, the metal detector building. The prison built the New Industries Building in 1940.

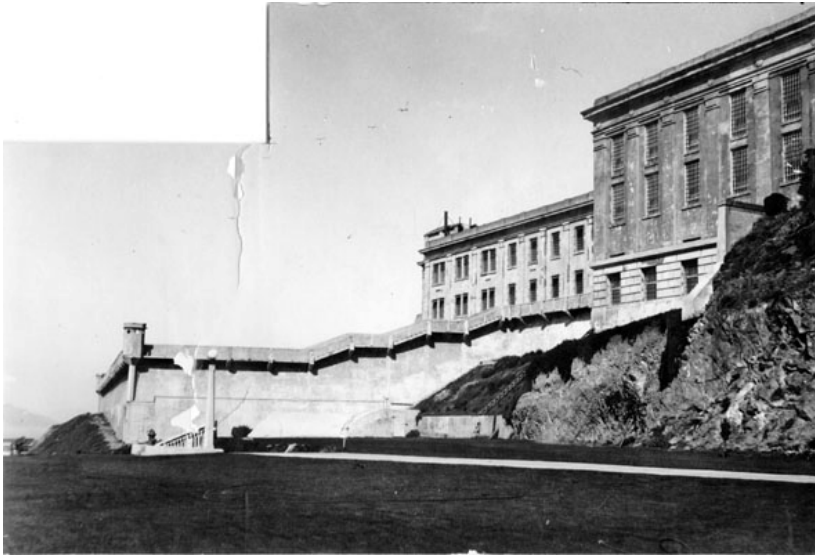
Letters and transcripts of interviews with Fred Reichel, the secretary to Warden Johnston from January 1934 to August 1941, are the major source of West Side garden history during the penitentiary era. Reichel had a personal interest in the gardens and oversaw their development while he was on Alcatraz. In a 1978 letter to NPS, he noted, “We inherited a beautiful island from the Army, for they had a big crew under the supervision of one Sergeant.” But Reichel notes in his letter that he realized “it would be impossible to maintain all that glory” because the BOP’s new high-security inmates were confined to fenced areas west of the cellhouse, within view of the guardtowers. Reichel began at Alcatraz by maintaining the eastside gardens in his free time before moving to the west side.



1930–1934 [SF Library], West Side, before recreation yard stairs were built



Mid 1930s, recreation yard and laundry terraces stairs



1933, West Lawn [San Francisco Library]



1934, West Road as it approaches the West Lawn



1934, Greenhouse Garden site, showing recreation yard stairs and guard tower [San Francisco Library]



1939, looking north from the recreation yard slope before New Industries Building is built

Mediterranean Species Planted: Although he was not an experienced gardener, Reichel's interest in horticulture led him to veteran Southern California growers Kate Sessions (an influential horticulturist in San Diego) and Hugh Evans (a nurseryman in Los Angeles), who sent him plants that might survive with little water or maintenance. He used the Rose Garden greenhouse to propagate succulents for the west side—"These I started in boxes of sand to get them in shape to do battle with conditions on the west side of the island...between Miss Sessions' generosity and what I was able to raise on bricks in the greenhouse, we soon had a corner on the *Mesembryanthemum* market in the north..." (NPS, 1978).

Reichel planted *Echium fastuosum*, which naturalized from one plant he secured from Hugh Evans of Los Angeles in the late forties. He says he also planted various succulents, which thrived, particularly those from the Canary Islands. "Some knowledgeable soul [in the military era] had planted a dwarf *Aeonium* which in September looked dead but always burst out each summer in rosettes of golden splendor."

Inmates Recruited: After the prison was up and running, Reichel succeeded in getting an inmate assigned to the West Lawn. In Reichel's interviews, he said that because there was "a really capable and dedicated gardener available for the West Lawn, a great deal of attention was given to that area."

Prisoner Dick Franseen (#387, 1937-1948) was one of Reichel's first successful gardeners, who worked in the West Side Gardens before being promoted to the Rose Garden. Reichel gave him plants, seed catalogs, and advice, and wrote to him after leaving the island in 1941.

Franseen was a lifelong friend of another gardener, Elliott Michener (#578, 1941-1950), and passed the gardening information on to him. Michener received



Elliot Michener



Dick Franseen



John Giles



1940s, inmate gardeners [Joseph H. Simpson]

the gardening assignment because he had initially been assigned to retrieve softballs hit over the recreation yard wall. Michener worked on the west side—primarily inside the fences, at the Recreation Yard Slope, Greenhouse Garden, and Lower Terraces—for eight years (1941 to 1949) and became the primary gardener, choosing plants and laying out the planting beds.

In 1949, after Michener was transferred to work at the warden’s house for his last two years on Alcatraz, Jack Giles (#250, famous for his 1945 escape attempt) took over responsibility for the West Side Gardens. Michener knew Giles from 1926 when they, with Franseen, were at the Oregon State Penitentiary.

Recreation Yard Slope and Birdbath Garden:

This area, all the way down the steps to the Laundry Terraces, was surrounded by security fencing. It was the most visible area to the prisoners, who filed down the recreation yard stairs every day to the industries complex.

The Recreation Yard Slope was one of the first areas where Elliot Michener worked. After receiving permission from one of the corrections officers, Michener took on a two-year project of improving the beds on the slope and in the greenhouse area. When he began, the soil was only four to five inches deep but he broke it up to a depth of two and a half feet and then added thousands of pails of garbage to compost into more soil for plantings.

Right: ca. 1942–44, prisoners walk down the recreation yard steps and through the Birdbath Garden [Joseph H. Simpson]

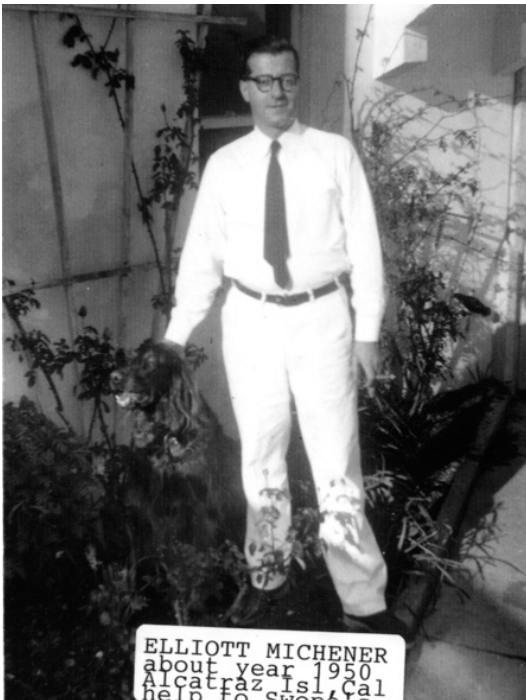
Far right: ca. 1942–44, Recreation Yard Slope with Birdbath Garden in foreground [Joseph H. Simpson]



In Reichel's letter to *California Horticulture*, he says:

When this successful gardener [apparently Michener] talked to his friend on the incinerator detail inside the gates, he interested him in salvaging all sorts of goodies from the garbage and soon he, too, was on my plants list and the slope leading up the recreation yard developed some color, some of which was snatched off by home-going laborers to brighten up their living quarters.

Michener said in his 1995 interview that one of his concerns for the slope was to plant "*Mesembryanthemum*, so that all the hillside would be the same—pink laced with *Oxalis*." He planted the base of the slope with Iceland poppies, stock, and snapdragon that he got from Dick Franseen, and also planted beds of *Delphinium*, *Chrysanthemum*, *Dahlias*, and *Iris*. He also said in his interview that he planted the fig trees and made a birdbath that he installed at the base of the slope.



ca. 1941-46, Birdbath Garden at base of recreation yard steps [Joseph H. Simp-



1940s, Birdbath Garden at base of recreation yard steps [Joseph H. Simpson]

Greenhouse Gardens and Laundry Terraces:

The Greenhouse Garden area and Laundry Terraces South were separated from the rest of the west side by a chainlink fence on either side (much of it still in place) so that the prisoners could work here and still be contained. The prisoners transformed this area into cutting beds filled with trees, flowers, gravel garden paths (with concrete edging), and a greenhouse. The road in this location, connecting West Road and the recreation yard steps, was narrow and covered in gravel at this time. Like the Greenhouse Garden, the Laundry Terraces below were intensively planted with displays of flowers. The northern end of the Laundry Terraces were planted with *Agave* and *Pelargonium*. Inmates walked through the Laundry Terraces on a daily basis via the stairway between the metal detectors and the industries complex.

There is not much documentation on the greenhouse. It was built in the 1940s by Elliot Michener when the Greenhouse Garden was established. About the greenhouse, Michener said in his interview:

I could go in there and stay in there, the guard at the top could see me in here. I had some work benches and with flats of flowers or seeds on them. ..Some of [the] pieces were cut for me down at the wood shop but it was all second-hand glass from old windows they had taken out someplace and took it all up, cleaned it up, put it in... There used to be another greenhouse down by the incinerator.



Clockwise from top left: 1940s, inmate in Greenhouse Garden; 1940s, Greenhouse Garden from guardtower; 1940s, Greenhouse Garden; 1950s, slope behind Greenhouse Garden with greenhouse visible [1940s photos by Joseph H. Simpson]





Clockwise from top right: ca. 1941–46, Laundry Terraces South [Joseph H. Simpson]; ca. 1960, Laundry Terraces North [Stucker]; 1950s, *Agave* and *Pelargonium* on Laundry Terraces North; 1940s; Greenhouse Garden at bottom of Recreation Yard Slope; 1950s, Greenhouse Garden in bloom



Toolshed Terraces: The Army had built a retaining wall at the bottom of this slope. Inmate gardeners expanded the retaining walls (built with rock and concrete rubble) up the hill so that there were six terraces. Inmates also built a small potting shed on the top of the Toolshed Terraces from old windows salvaged by Captain Weinhold and other salvaged materials. The inmates planted the terraces with a combination of colorful annuals and perennials.



Clockwise from top right: 1940s, Toolshed Terraces, [Joseph H. Simpson]; 1950s, Toolshed Terraces from guardtower [William Long, Jr.]; ca. 1960, West Road and Toolshed Terraces [Fischetti, GOGA]; 1950s, Toolshed Terraces



West Lawn: The federal prison maintained the West Lawn by watering and mowing. The inmates also installed concrete edging about three feet from either side of the road for a planting border that was filled with flowering shrubs and perennials. In addition, the West Road Terraces were planted with a profusion of colorful flowering shrubs.



Clockwise from upper right: 1940s, West Lawn after border is planted; ca. 1946 West Road Terraces, [GOGA]; ca. 1960, West Road, West Lawn and Toolshed Terraces from guard tower.

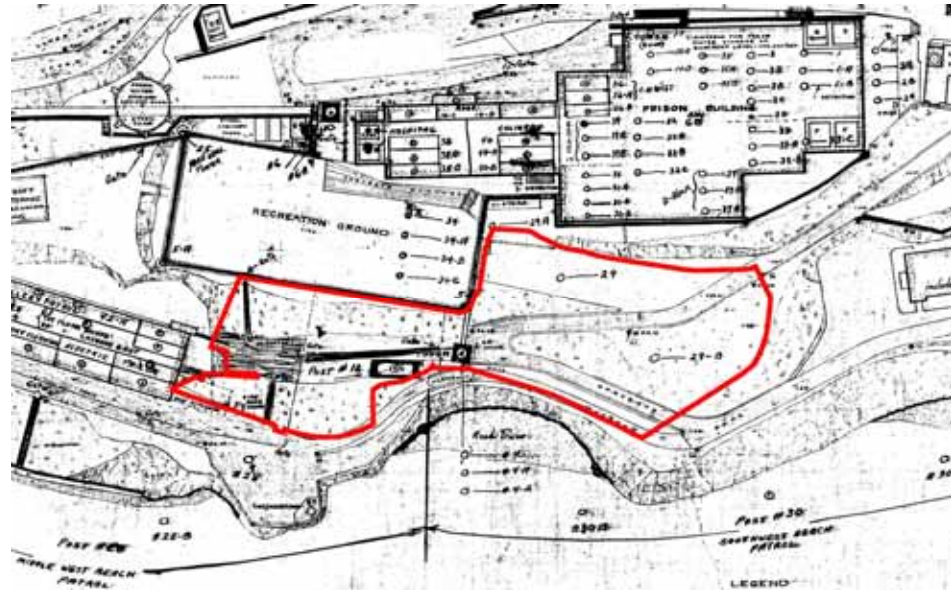


Most of the photographs of the West Side Gardens were taken during the 1940s. It appears that the West Side Gardens were not maintained at the same level during the last years before the prison closed in 1963. A few photos taken from the guard tower in 1960 show the Toolshed Terraces and West Lawn but the plants do not appear to be as extensive as they were in the 1940s. In Reichel's interview, he said:

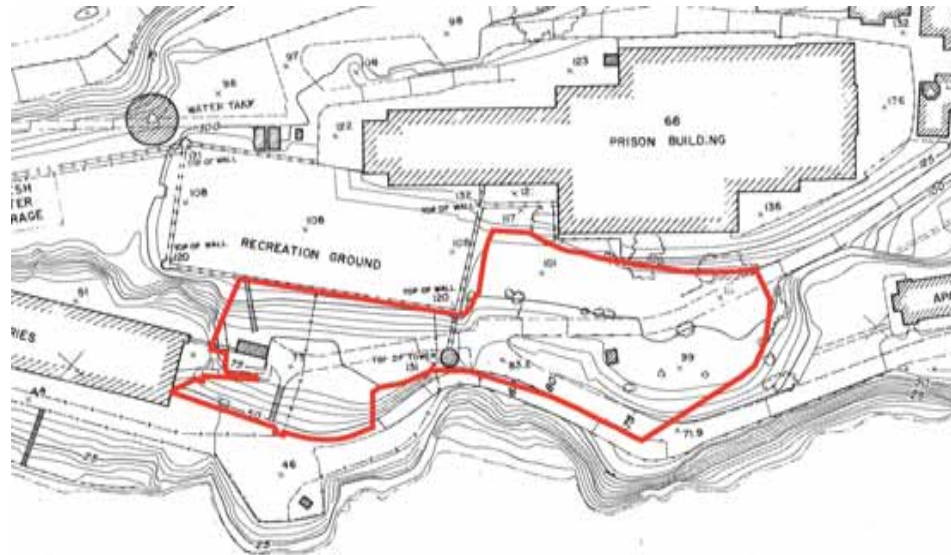
Somehow along the years [the *Mesembryanthemum*] disappeared, victims of neglect or perhaps they walked off the island when the water supply was curtailed at the time the Army gave up Angel Island and the Bureau of Prisons had to arrange for its own water supply. However, a great deal of other plants on the West Lawn were kept alive by the settling tanks of outfall from the showers, a system devised by the Army...

The significant features and characteristics of the West Side Gardens during the federal prison period include:

- West Road and lower road
- West Lawn (North and South)
- Concrete stairs in West Road Terraces and Laundry Terraces
- Cistern next to cellhouse
- Low wall on either side of West Road, above Toolshed Terraces and below West Road Terraces
- Guard tower
- Chainlink security fencing
- Recreation Yard Slope stairs (with concrete/ wooden handrails)
- Toolshed Terraces and Laundry Terraces retaining walls
- West Road planting bed edging
- Greenhouse
- Metal detectors
- Metal detector building
- Firehouse shed at base of Laundry Terraces
- Birdbath and pathways in Greenhouse Garden



1942, showing guard tower, greenhouse, and recreation yard slope steps



1961, showing guard tower, metal detector building, toolshed, and fences

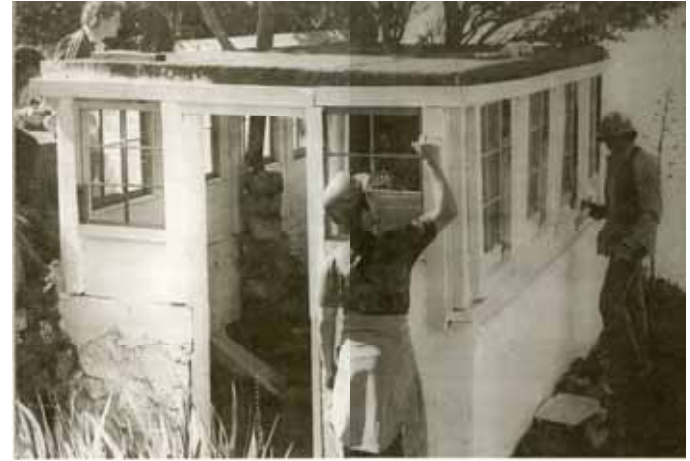
Public Lands Era: 1963–Present

After the prison closed in 1963, the gardens were abandoned. There is no record of whether the West Side Gardens were used during the Alcatraz Indian Occupation.

After the island came under NPS management in 1972, there was little disturbance to the West Side Gardens. Photos from the 1970s show that extensive *Drosanthemum*, *Pelargonium*, roses, and other flowering species still remained in the former gardens.

About 1980, much of the 1930s federal prison security fencing was removed on the west side of the island because it was a hazard to nesting birds. The toolshed was repaired and rebuilt by the NPS, probably in the 1980s.

By 1992, the Lutsko Associates plant inventory noted that the west side had the greatest number and diversity of garden plants on the island, although invasives and weeds were threatening their survival. After garden volunteers began clearing overgrowth in 2004 and updated the inventory in 2005, it was apparent that a number of garden plants and species had succumbed, and the more aggressive species were taking over many areas.



Clockwise from top left: 1970s, Toolshed Terraces, [Mindy Manville]; 1980s, rebuilding the toolshed; 1976, West Side aerial showing *Drosanthemum* and *Pelargonium* [Stucker]; 2003, Toolshed Terraces before stabilization



EXISTING CONDITIONS

West Lawn: The West Lawn North area, east of the road, is defined by the steep slope below the cell-house on the east, by the wall of the recreation yard and the chainlink fence on the north, and by West Road on the west and south. Today the former lawn inland of the road is a weedy field, and concrete edgings on either side of the road remain to mark the former flower borders. The West Road Terraces, below West Lawn North, are filled with *Aeonium*, *Acanthus*, *Pelargonium*, and other hardy plants. The West Lawn South area, to the west side of West Road is defined by the road on the east and steep rocky slopes on the other sides. The West Lawn on the bay side of the road has disappeared under a thicket of fig, mirror plant, and other escaped garden plants (including *Albizia*, blackberry, *Cotoneaster*, and ivy) that shelter nesting night herons, snowy egrets, and buffer waterbird colonies on the cliffs below. In the fall of 2004, volunteers cut back overgrown vegetation along the road and uncovered portions of the masonry unit border.



Clockwise from top left: The border east of West Road in the West Lawn North area, summer; west of West Road in the West Lawn South area, cordoned off during nesting season, summer; West Lawn North, east of West Road, summer; looking down West Road, summer





West Road Terraces in early spring



North end of West Road Terraces, showing retaining wall, summer



Dilapidated retaining wall and spilling dirt at West Road Terraces, summer



Northernmost bank of West Road Terraces, summer

Toolshed Terraces: This area includes both the triangular-shaped area west of West Road as well as the former guardtower site, closed off by a pipe-railing barrier. The rock rubble and concrete masonry terrace walls in the Toolshed Terraces form six terraces. The walls vary in length and are crumbling and need repair in places. The toolshed, built during the federal prison era, was rebuilt by the National Park Service in the 1980s but is in poor condition. *Aeonium*, roses, *Echium*, and *Chasmanthe* are dominant plants in the terraces.

Staff and volunteers clean up the terrace vegetation in winter, but during the nesting season they are prohibited from accessing the terraces. Attempts to re-establish historic plants lost since 1992 have failed without some maintenance in the spring and summer growing season. Dead vegetation that builds up from spring through fall smothers other garden plant species, and makes the area unrecognizable as a garden area for much of the year.



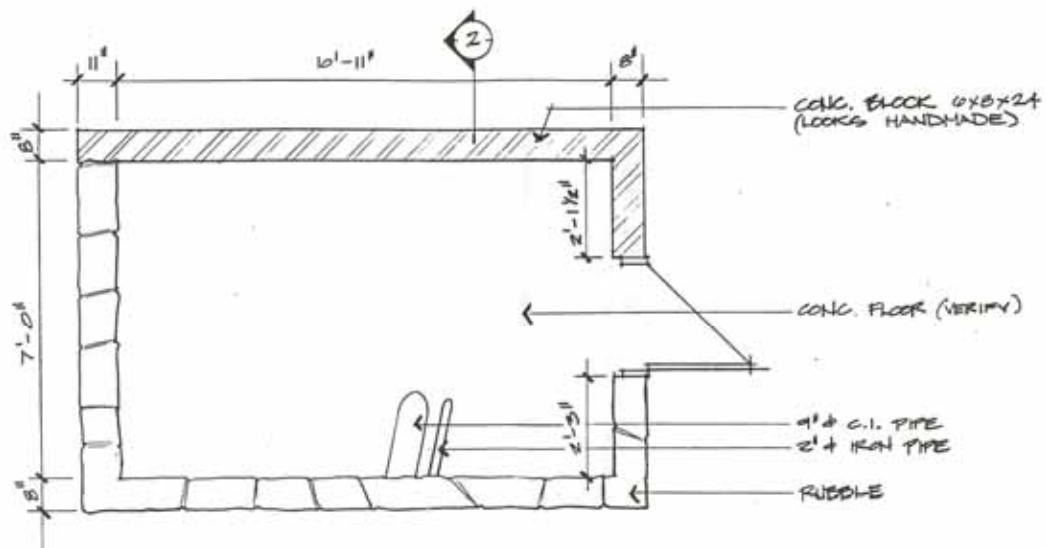
Toolshed Terraces in spring. Invasive *Chasmanthe* (orange flowers) dominates.



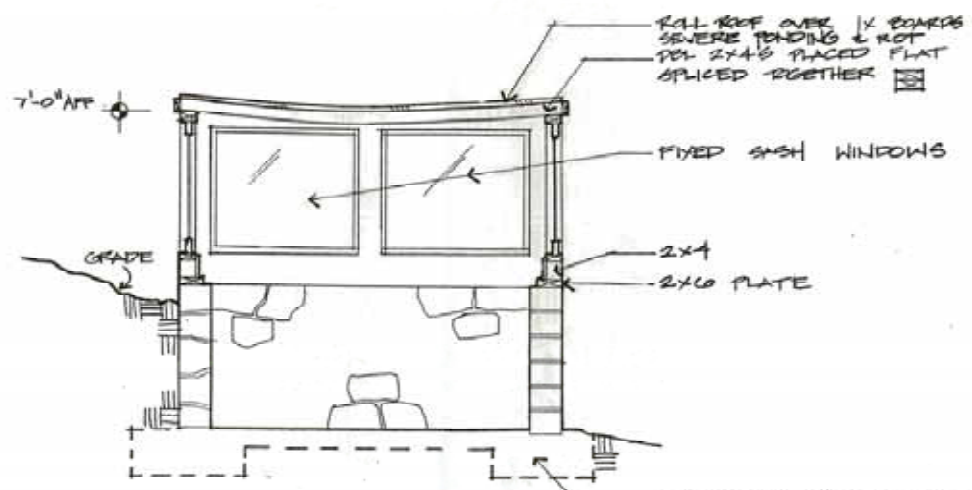
Guardtower site north of Toolshed Terraces, summer



Chainlink fence and gate blocking access to road beneath Toolshed Terraces, summer



1 TOOL SHED - EXISTING PLAN
 $\frac{1}{2}" = 1'-0"$



2 TOOL SHED - SECTION
 $\frac{1}{2}" = 1'-0"$

Toolshed plan and section prepared by NPS



Concrete steps to toolshed from West Road



Looking up at toolshed



Toolshed from West Road

Greenhouse Garden: This area is on both sides of the road in the fenced-in area south of the metal detector building. The planting beds located on the west side of the road were divided into sections using bricks and rock in concrete.

The Greenhouse Garden and the slopes up to the recreation yard became overgrown after the prison closed but volunteers have removed the overgrowth in the flat area and also uncovered the foundation of the former greenhouse. The garden pathways, edgings and greenhouse foundation are largely intact.



East Greenhouse Garden, spring



Left to right: Southern entrance to Greenhouse Garden, summer; west Greenhouse Garden with exposed edgings, winter; west Greenhouse Garden with dead vegetation, summer; west Greenhouse Garden, with *Acanthus* and *Chasmanthe*, spring.

Recreation Yard Slope: This slope is on either side of the stairs (which climb from 77 to 108 feet in elevation) leading up from the metal detector building to the recreation yard. The stairway is open year round to visitors.

The slope continues to erode, and temporary board retaining walls, installed by the National Park Service, are failing. *Aloe* and *Drosanthemum* are the most common plant on the slope, and are threatened by aggressive honeysuckle.

At the bottom of the slope, adjacent to the walkway, are three level beds called the Birdbath Garden—the area at the base of the slope is filled mostly with *Acanthus* and *Chasmanthe*.



Recreation Yard Slope and retaining wall at base, summer



Deteriorated retaining wall at base of recreation yard stairs, summer



Birdbath Garden and metal detector building from recreation yard stairs, summer

Laundry Terraces: Access to these terraces is closed to visitors for safety and wildlife-protection reasons and there is no staff access during nesting season. The historic stairs that go directly down the Laundry Terraces from the Birdbath Garden are permanently closed. Access is instead by the walkway next to the metal detector building, which leads to the New Industries Building. Before the ramp to the New Industries Building, concrete stairs descend to a level area below the terraces. The terraces are south of this point, and there are six retaining walls built for the terraces, just below the Greenhouse Garden.

Some of the terraces below the greenhouse foundation have collapsed, and the concrete block terrace walls and stairs need repair. If the NPS reopens the New Industries Building, visitors may have access to the walkway above Laundry Terraces North and would have views into this area.



Walkway to the New Industries Building, summer



Blocked access to Laundry Terraces stairs, summer



Ramp to New Industries Building and stairs to base of Laundry Terraces, summer



Laundry Terraces, spring

Spatial Organization

The West Side Gardens are on both sides of West Road, and are visible to the public, with the exception of the Laundry Terraces, which can only be viewed from a publicly inaccessible area below the Greenhouse Garden. The West Side Gardens topography generally slopes down from the cellhouse to the bay; some of the gardens are at higher elevations above the road, some at lower elevations below the road, and some are at the same elevation as the road. At the site of the old guardtower, which is fenced, West Road narrows to a walking path as it passes through the Greenhouse Garden.

Access

Access to the West Side Gardens is either by West Road, which leads to the west side of the island from the lighthouse, or by the recreation yard stairs, which can be accessed from the prison and recreation yard. Visitors experience the gardens from West Road and the Recreation Yard Slope stairs. Access to the lower road below the Toolshed Terraces gardens is blocked by a chainlink gate and access to the Laundry Terraces is also blocked at the metal detector building. Restricted access is for safety and to protect the nesting waterbirds.

Topography

The lowest elevation of the West Side Gardens is 50 feet, at the base of the Laundry Terraces, and the highest elevation is 130 feet, at the cellhouse above the West Lawn. Most of the West Lawn and the Greenhouse Garden areas are level but the Toolshed Terraces, Laundry Terraces, and Recreation Yard Slope are relatively steep grades.

Views and Vistas

The views from the West Side Gardens are extraordinary. The panorama out over the bay includes the



Views of Golden Gate Bridge and Marin Headlands



View to San Francisco

San Francisco skyline, the Golden Gate Bridge, and the mountains of Marin County. Many visitors walk to the west side to experience the views of the Golden Gate. The overlook near the guardtower site is a popular photo site and is also used for viewing the bird colonies below.

Natural Systems and Features

The West Side Gardens are directly exposed to the wind and fog blowing in from the Golden Gate. The weather on this side of the island is often windy and cold. All of the garden areas are altered landscapes, which have been regraded from the original landscape. The vegetation was either planted or naturalized here, and is hardy enough to have withstood the severe weather over many decades. The cliff faces and roadway below are home to the island's largest colonies of waterbirds.

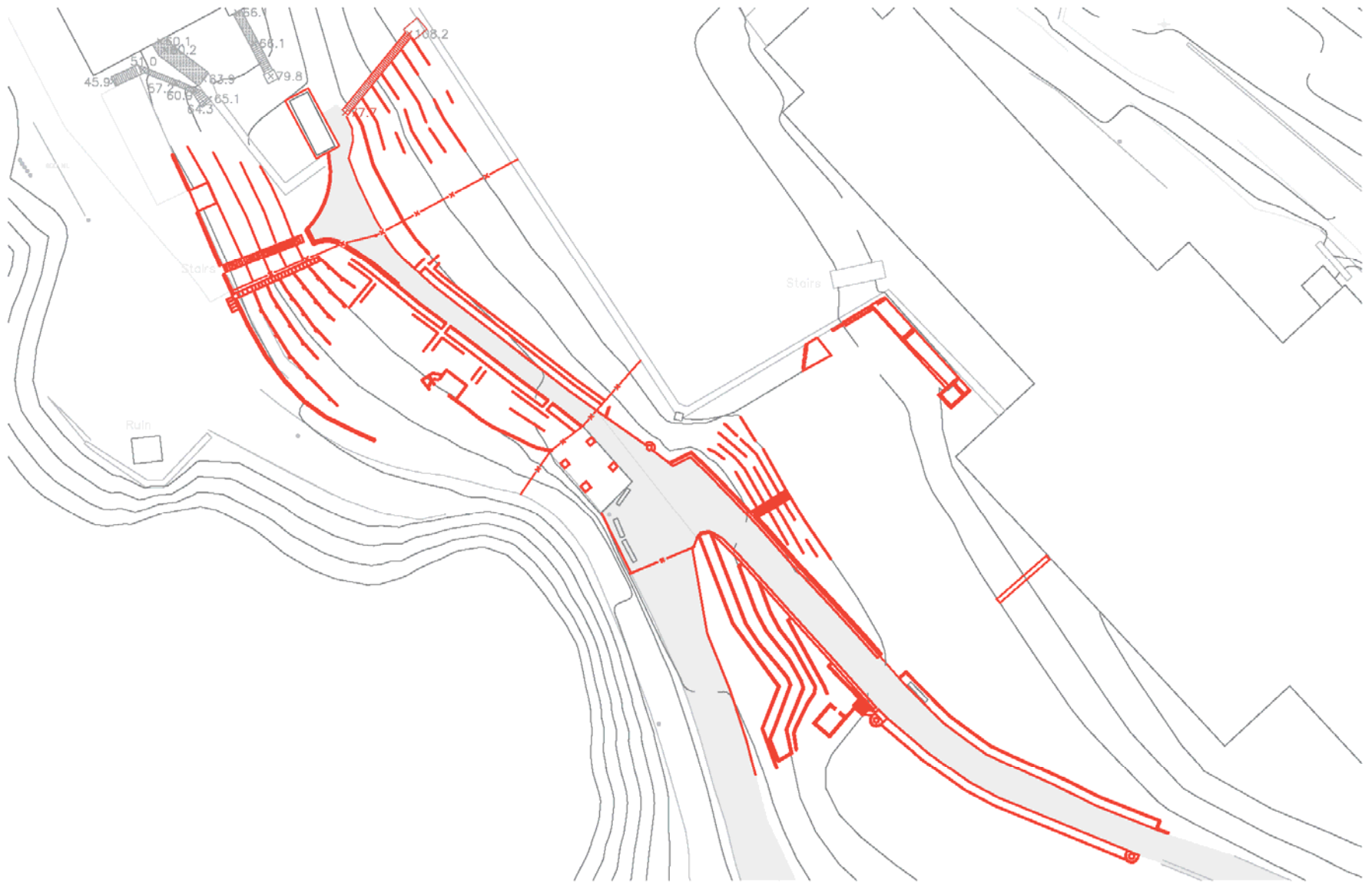
Built Features

The primary built feature in the West Side Gardens is West Road, which bisects the gardens. This road is open year-round to visitors. The following summarizes the built features in each garden area:

- **West Lawn:** Masonry borders (for planting beds) are about three feet from the edges of West Road. On the West Road Terraces, a concrete retaining wall lines West Road, varying in height. It has collapsed in some of the low spots and dirt is spilling on to the road. Four non-historic wood retaining walls sit between the West Road and West Lawn, and concrete steps connect the road and the West Lawn. The historic cistern, a concrete pit, is adjacent to the cellhouse.
- **Toolshed Terraces:** An 18-inch-high and 15.5-inch-wide concrete wall lines West Road above the Toolshed Terraces. Five rock rubble and concrete masonry dry-stacked retaining walls step down the slope on the west side of the

road; they are crumbling and need repair in places. A toolshed, originally built about 1941 and rebuilt in the 1980s, is at the top of the slope near the road and is in need of rebuilding. It is 12'5" by 8'4" and seven feet in height, and built into the grade on one side. The three-foot-high base is concrete block. The top four feet has wooden sash windows but the glass is missing from several windows. There are about six concrete steps from the road to the toolhouse. A chainlink fence and gate block access to the lower road below the Toolshed Terraces. The concrete footings from the guardtower are still in place at the guardtower site. This site has a pipe-railing barricade around two sides to restrict access. A NPS bench is installed just outside this area on the pavement.

- **Greenhouse Garden:** The garden pathways, brick and concrete edgings, and foundation of the greenhouse are largely intact. The historic chainlink fence and gate are still in place at the southern entrance. At the northern entrance, the historic chainlink fence and half the gate are intact on the west side of the road. The paved road through the site has curbs on both sides. A NPS wire rope fence has been installed on the west side of the road along the curb.
- **Recreation Yard Slope:** Concrete stairs lead up to the recreation yard but are in deteriorating condition. A pipe-railing handrail has replaced the wooden handrail. A concrete block retaining wall is at the base of the slope and is in poor condition with the mortar missing between the concrete blocks. Temporary wood board retaining walls have been installed by the NPS at six different levels and are in poor condition. The metal detector building sits at the base of the slope. The paved area is lined by concrete edging. The NPS has installed a bench as well as safety railing and



SCALE IN FEET
 0 5 10 20 30



EXISTING STRUCTURES
 ALCATRAZ WEST SIDE GARDENS

temporary stanchions and has placed two garbage cans at the base of the recreation yard stairs. Fragments of the birdbath were found, recorded, and stored.

- **Laundry Terraces:** A walkway next to the metal detector building (blocked by a stanchion) leads to the New Industries Building and then dilapidated concrete stairs descend to a level area below the terraces. The terraces are comprised of six retaining walls, just below the Greenhouse Garden, as well as concrete steps leading up to the paved area at the base of the Recreation Yard Slope. A historic shed and chainlink fence remnant are at the base of the terraces. Part of the Laundry Terraces below the greenhouse foundation has collapsed, and the concrete-block terrace walls and stairs need repair.

Utilities

There are no utilities in the West Side Gardens. A water line extends only to the beginning of West Road past the lighthouse where a water line cuts across the cellhouse slope and ends at the slope's northern side. The historic cistern adjacent to the cellhouse has not been used since the gardens were maintained during the federal prison era.



Historic cistern adjacent to cellhouse

Archaeology*

Alcatraz has been substantially transformed at least three distinct times between the 1850s and the 1970s. The land uses of each of these eras altered the topography, structures, layout, and functional uses of the island. It is expected that the island contains archeological resources in the form of substantial buried structures, foundations, and artifactual features and deposits.

Until recently, there were few formal archeological investigations on Alcatraz. Artifacts in the park collection have emerged from relatively haphazard and undocumented discoveries made by park staff and volunteers and remain poorly provenienced. There were no inventoried archeological sites or features on the island until 1985 when research was conducted to inform the rehabilitation of the landing wharf, followed by monitoring stabilization of the warden's house in 1995. The park is currently conducting a survey to inventory the areas sensitive to archeological site and feature discoveries on the island, and approximately 24 locations have been identified for additional study.

For recommendations on considerations for archaeological resources when implementing the treatment plan, see the "Proposed Treatment" section.

* First two paragraphs prepared by Leo Barker, Park Archeologist, Golden Gate National Recreation Area .

Vegetation

All of the plants presently in the West Side Gardens have either survived without water or maintenance for many decades or have naturalized since the prison closed. Many of the plants that survived from the prison years are thriving, such as *Aeonium*, *Pelargonium*, fig, artichoke, and roses. Other introduced plants that have naturalized and spread through the island landscape occur here in abundance, including *Chasmanthe floribunda*.

A plant inventory was completed in 1992 and updated in 2005. Also, beginning in 2004, volunteers began removing overgrowth. In the Toolshed Terraces, *Pelargonium 'Brilliant'* and *Narcissus* along the road edge have been replaced in kind (both died out since the 1992 inventory).

Many of the plants from the historic era no longer exist on the site, particularly the annuals that were planted in the Toolshed Terraces and the Greenhouse Garden. Plants died from lack of regular water and care; others died of disease or old age, from periods of freeze and drought, or from being buried in overgrowth.

Below is a list of the existing plants, not including invasives, in the West Side Garden areas:

Toolshed Terraces

Acanthus mollis
Aeonium arborescens
Chasmanthe floribunda
Crassula ovata
Cynara cardunculus
Echium candicans
Iris spuria
Metrosideros excelsus
Narcissus
Pelargonium 'Alphonse Ricard'
Pelargonium 'Brilliant'
Rosa 'Felicite et Perpetue'
Rosa 'Russeliana'
Rosa wichuraiana
Zantedeschia aethiopica

West Road Terraces

Acanthus mollis
Aeonium
Aloe sladeniana
Aloe
Baccharis pilularis
Chasmanthe floribunda
Coprosma repens
Crassula ovata
Echium candicans
Pelargonium 'Prince Bismarck'
Rosa wichuraiana
Sedum dendroideum praeltum
Tropaeolum majus

West Road Borders

Coprosma repens
Iris spuria
Metrosideros excelsus
Narcissus
Oxalis corymbosa (pink oxalis)
Pelargonium 'Brilliant'



A profusion of blooming plants in the Toolshed Terraces, spring

Greenhouse Garden

Aeonium arborescens
Acanthus mollis
Agapanthus praecox-orientalis
Agave americana
Amaryllis belladonna
Chasmanthe floribunda
Coprosma repens
Drosanthemum floribunda
Echium candicans
Ficus carica
Fuchsia 'Rose of Castile'
Juglans
Kniphofia uvaria
Lonicera japonica
Lupinus arboreus
Malus (apple)
Pelargonium 'Alphonse Ricard'
Pelargonium 'Prince Bismarck'
Rosa 'Excelsa'
Rosa 'Felicite et Perpetue'
Tropaeolum majus
Watsonia
Zantedeschia aethiopica

Birdbath Garden

Acanthus mollis
Chasmanthe floribunda
Ficus carica
Ligustrum japonicum

Recreation Yard Slope

Acanthus mollis
Aloe sladeniana
Chasmanthe floribunda
Drosanthemum floribunda
Pelargonium 'San Antonio'
Pelargonium 'Prince Bismarck'
Rosa spp.

Laundry Terraces

Agave americana
Chasmanthe floribunda
Cynara cardunculus

Fuchsia 'Rose of Castile'
Pelargonium (pink)
Rosa 'Felicite et Perpetue'
Tropaeolum majus



Aeonium, *Crassula*, and *Chasmanthe* in West Road Terraces



Artichoke in Toolshed Terraces



Drosanthemum in Greenhouse Garden



Ficus carica on West Road Garden



Echium candicans on West Road Terraces



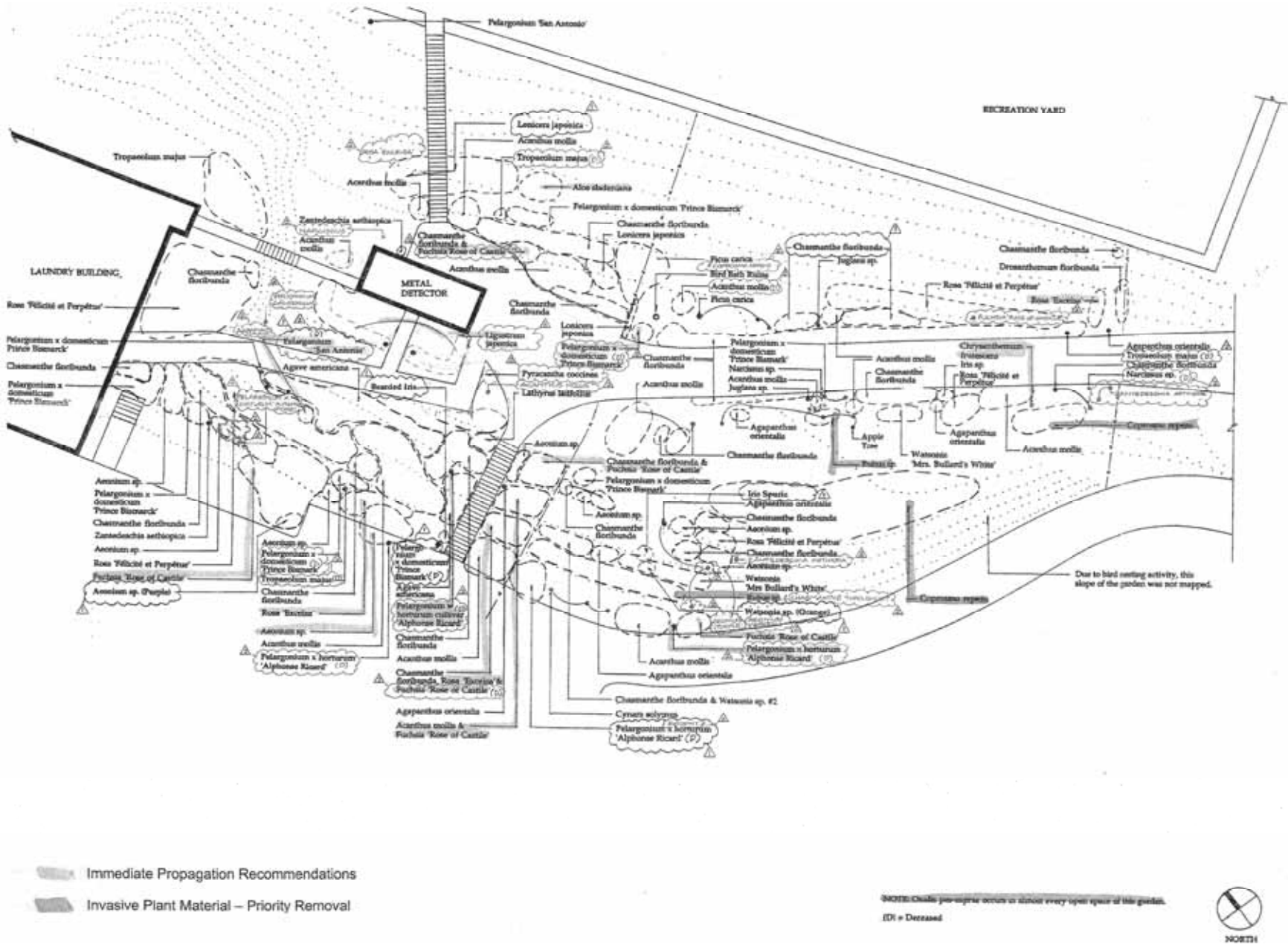
Aeonium, *Acanthus*, and *Agave* in Laundry Terraces



Aeonium arborescens in Toolshed Terraces



Pelargonium at the guardtower site



Existing Vegetation: Greenhouse Garden, Laundry Terraces, and Recreation Yard Slope May 1992 (Lutsko Associates) with 1-05 Updates

ANALYSIS AND APPROACH

The West Side Gardens were striking features of the Alcatraz landscape in the federal penitentiary years. After over 40 years of abandonment, they retain much of their original form and a number of their original plants. They are significant to the island's historic landscape in several ways.

Inmate gardens and gardeners: The West Side Gardens were the only island landscape made exclusively by and for inmates of the federal penitentiary. The path between the recreation yard and laundry or shops was the only area outside the prison walls that most inmates could experience, and the inmate gardeners filled the planting beds within sight of that route with color and detail. The gardens were also personal expressions of inmates such as Elliott Michener, Dick Franseen, and John Giles, and reflected their growth, motivations and means of coping with their lives as prisoners. They found gardening to be a way to free their minds, at least, from prison life. Fred Reichel recalled of Franseen, "I finally got him to admit to me that he didn't know he was in prison anymore" while working with his plants. And Michener said, "The hillside provided a refuge from the disturbances of the prison, the work a release, and it became an obsession. This one thing I would do well." Both Franseen and Michener went on to work in horticulture after parole.

Plant survivors and escapees: Even in the wind, salt air, and drought of the west side, the gardens are still filled with ornamental plants that display brilliant flowers, lush foliage, and even fruit. Many of these were introduced to the island by Fred Reichel in the 1930s; he collected them from pioneering California horticulturists who themselves had collected them from Mediterranean climates around the world. Because these species managed to survive through decades without any care, they demonstrate how well-adapted plants can be used to reduce maintenance and water use in landscapes and gardens.

Landscape experience: In the penitentiary years, the brief walk outside the cellhouse to work in the laundry building was probably a welcome relief from the noise, confinement, and drabness inside the walls. Today the contrast remains striking, although now it is a relief from the grim stories inside the crowded cellhouse. Visitors can still follow the inmates' path through the recreation yard, down the stairs, and into the sudden quiet of the birdbath and greenhouse garden. Not only is this a unique experience in the public landscape of the island, but it is similar in many ways to the prisoners' experience of fifty years ago and enriches the visitor's understanding of the place.



The Birdbath Garden as painted by prisoner George Heck, 1951 [GGNRA Park Archives]

Preservation Approach

Stabilization and rehabilitation of the West Side Gardens is necessary to preserve these unique historic gardens, to let visitors experience a landscape similar to that of the prison years, and to demonstrate sustainable gardening principles to be applied today.

Improvements in the West Side Gardens will meet the overall management goals for the Alcatraz

historic gardens that were developed by the park's cultural resources staff and the project team in February 2005. These goals are to:

- Protect and enhance NHL resources by recapturing a sense of the historic landscape.
- Support interpretive themes by demonstrating: 1) everyday life on Alcatraz for staff and inmates, 2) historic island beautification efforts (in both the military and federal prison periods), 3) gardening as an activity that crossed social lines, and 4) principles of sustainable gardening through use of well-adapted plant species.
- Enhance the visitor experience by offering visitors a greater range of experiences and settings, and by improving the safety, attractiveness, and interest of the landscape.
- Ensure that improvements are sustainable and can be maintained over time given the limited labor, resources, materials, and funds.

PROPOSED TREATMENT

The primary elements of the West Side Gardens project are to:

- Re-establish the 1940s to 1950s look of the historic gardens that were the most intensively planted—the Greenhouse Garden, Birdbath Garden, and planting borders along West Road.
- Supplement plantings in areas where survivor plants have thrived—the Toolshed and West Road Terraces. Increase diversity and create a lush, textured, and colorful palette year-round.
- Stabilize the Recreation Yard Slope and re-establish *Drosanthemum* where possible.
- Maintain the West Lawn North as an open field.
- Stabilize, repair, and replace deteriorated structures where needed, primarily garden terrace retaining walls and the toolshed.
- Improve the ability to maintain and view the Toolshed Terraces by relocating the visitor barrier down the road. Extend safety railing on the west side of the road to the relocated barrier.
- Use appropriate historic island plants, reintroductions of historic species, and appropriate substitutes when historic species that were once used are no longer sustainable.
- Control invasive and aggressive plants by pruning, thinning, and removal to halt damage to structures and loss of plant diversity.
- Use limited supplemental irrigation. Use stored rainwater and gray water when possible.
- Support interpretation so that this part of the island's history can be shared with the public.



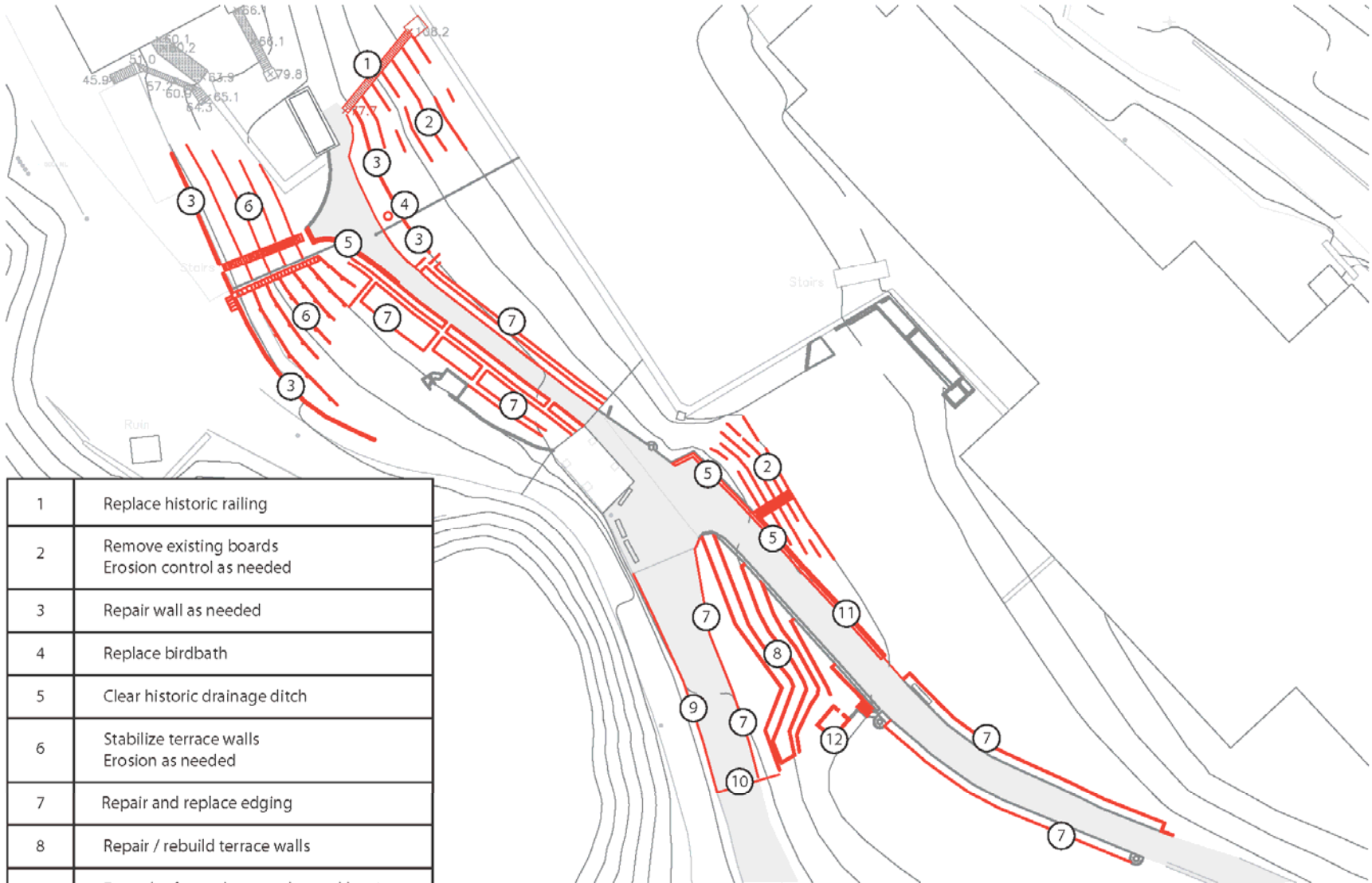
Rendering of replanted Greenhouse Garden [Ryan Jones]



A	New plantings, some plants retained Structural repairs Year-round maintenance Regular irrigation
B	Supplement existing palette with new plantings Structural repairs Year-round maintenance Minimal irrigation
C	Supplement existing palette with new plantings Minimal structural repair Seasonal as-needed maintenance Irrigate only to establish planting
D	Minimal supplemental plantings Stabilize deteriorating structures As-needed maintenance Irrigate only to establish planting
E	Potential future supplemental planting Stabilize deteriorating structures Seasonal as-needed maintenance No irrigation
F	Garden Margins - Maintenance by NPS



TREATMENT ZONES
ALCATRAZ WEST SIDE GARDENS



1	Replace historic railing
2	Remove existing boards Erosion control as needed
3	Repair wall as needed
4	Replace birdbath
5	Clear historic drainage ditch
6	Stabilize terrace walls Erosion as needed
7	Repair and replace edging
8	Repair / rebuild terrace walls
9	Extend safety railing to relocated barrier
10	Relocate visitor barrier
11	Repair wall and curb
12	Rebuild toolshed



STRUCTURAL IMPROVEMENTS
ALCATRAZ WEST SIDE GARDENS

West Lawn: Because of the sensitive waterbird colonies in this area, treatment will be limited to replanting the historic flowering borders on West Road, maintenance of the flat area east of the road (West Lawn North) as an open field, and plantings in the West Road Terraces.

- **West Road Borders:** The three-foot-wide bed within the historic edging of West Road will be kept clear of invasives (trunks of large plants will remain). Trees and shrubs will be pruned selectively to discourage branching/resprouting into the roadway and to encourage thick screening growth behind the border. The edging will be repaired and replaced as needed. The road beds will be planted with flowering perennials, shrubs, bulbs, and succulents to look similar to the garden border in the 1940s and 1950s.
- **West Lawn North:** The former lawn area north of the road will be kept clear of brush and weeds will be mowed (in January or when cleared by a park biologist). Grasses will be encouraged to create a meadow. An appropriate native wildflower mix will be sown. At the south end of the lawn, the historic *Metrosideros excelsus* and the *Cotoneaster* will be cared for as needed.
- **West Road Terraces:** Flowering perennials, shrubs, and succulents will be planted to supplement existing plantings and stabilize the slope in the southern section of the West Road Terraces. More *Pelargonium* will be added to reflect the pattern in historic photos. The wall and curb below the terraces will be repaired and the drainage ditch at the edge of the road cleared. The terraces will receive year-round maintenance with minimal irrigation.
- **West Lawn South:** The area south of the road, which is now overgrown, is not considered a garden area and will continue to be managed by the NPS for wildlife habitat values.

Toolshed Terraces: When the Bureau of Prisons stopped maintaining these terraces, well-adapted plants survived and spread. Photos from the 1970s and 1980s show more color and plant diversity than at present. Aggressive plants like *Chasmanthe* continue to increase, choking out less aggressive plants during the growing season when there is no access for maintenance.

The treatment will emphasize survivor plants but will create more plant diversity—the result will be a lush, textured, and colorful look to reinforce that this is a former garden area.

- **Toolshed Terraces:** The toolshed will be repaired and rebuilt for potting or tool storage. The rubble/concrete retaining walls (mostly dry-laid) will be repaired/rebuilt. The plantings will be supplemented with “survivor plants”—flowering perennials, shrubs, succulents, and artichoke. *Pelargonium* will be added to reflect the pattern in historic photos. The visitor barrier at the base of the Toolshed Terraces will be relocated approximately 90 feet down the road so that visitors can view the terraces; the safety railing on the west side of the road will be extended to the relocated barrier. The terraces will receive year-round maintenance with minimal irrigation. The *Metrosideros*, *Agave*, and shrubs on the slope south of the terraces will be maintained as screening for waterbird colonies.
- **Guardtower Site:** Existing *Acanthus*, *Pelargonium* ‘*Prince Bismarck*’, *Echium*, and *Aeonium* will be maintained. The area will be kept free of weeds (the bases of the guardtower will be kept exposed) and some supplemental planting will occur. The site will receive as-needed maintenance and irrigation only for establishment.

Greenhouse and Birdbath Gardens: The historic Greenhouse and Birdbath gardens were cottage-style plantings. The Greenhouse Garden had rectilinear pathways that gave the garden structure and provided access to each bed. Only the foundation of the greenhouse remains. The gardens contained informal plantings with colors that varied with the annuals in bloom that season. Though limited today by lack of water, rebuilding of this landscape will bring back a sense of the colorful cottage-style cutting gardens created and enjoyed by the inmates. Maintenance and replanting will also enhance vegetative buffers for nesting waterbirds.

- The historic beds, paths, edgings, walls, and greenhouse foundations will be stabilized, repaired, preserved, and replaced where missing.
- Bright masses of flowers will be planted in cutting-like beds with a variety and intensity of blooms. Alcatraz-adapted species will be used to emulate the scale, color, and massing from historic photos.
- The ivy and *Coprosma* west of the Greenhouse Garden will be retained to provide a wind block and to screen the view of the Brandt's cormorant colony below. A safety barrier and warning sign will be installed at the bluff behind the greenhouse beds.
- The vegetation east of the Greenhouse Garden will be maintained. The fig tree will be pruned for health—this involves removing the shoots at the tree base and removing the honeysuckle covering the back portions of the tree. The honeysuckle will be controlled on the historic fencing.
- The birdbath will be replaced using evidence from fragments and historic photos.

- The historic drainage ditch on the west side of the Greenhouse Garden path will be cleared.
- The gardens will receive focused year-round maintenance and supplemental irrigation.

Recreation Yard Slope: In the Army and federal prison era, the slope was planted with *Drosanthemum*. Some remains on the slope but it no longer has the uniform cover seen historically. Because the slope is eroding and difficult to work on, treatment will focus on stabilization and propagation of remaining plants.

- The slope will be weeded and the existing plants propagated.
- The existing historic plants on the slope will be planted for erosion control and augmented with historic species as needed next to the recreation yard steps.
- Non-historic temporary wood retaining walls will be removed if possible.
- The pipe handrailing will be replaced with a wood railing similar to the historic railing. Historic concrete posts will be reused if possible.
- The retaining wall at the base of the slope will be repaired.
- Measures will be explored to discourage gull nesting next to the stairs.
- The slope will receive as-needed maintenance only and will be irrigated only for establishment.

Laundry Terraces: Like the Greenhouse Garden, the Laundry Terraces were heavily planted with flowering plants during the federal prison era. Treatment of the Laundry Terraces will be limited to stabilization and propagation of plants for use elsewhere on the island. If the New Industries Building is opened to the public, it may become appropriate to supplement the plantings, similar to the Toolshed Terraces.

- Maintenance of plantings will continue during non-birdnesting season.
- Terrace walls will be stabilized and repaired when it becomes necessary.
- Maintenance will occur on a seasonal, as-needed basis; the terraces will not be irrigated.

Garden Plantings

Following are lists of proposed plants for each of the garden areas. The lists will evolve to both reflect successes and failures in the unique island conditions and include new plants that are suggested or become available. All plants on the list, including future additions, will meet one of the following criteria:

- Historic plants (i.e. available in the period from 1847 through the 1950s) that are currently in the garden. They will be divided and transplanted as appropriate.
- Historic plants remaining elsewhere on the island. These plants will be propagated or divided from existing specimens and stands.
- Historic plants identified in period photos, documents, or past plant inventories, but no longer surviving on the island. Species to be reintroduced must fit current maintenance and cultural conditions.

- Substitute plants similar in type, form, scale, and color to an historic plant, but better adapted to current growing conditions. Ideally, substitute species should have been available to local gardeners between 1847 and the 1950s. In some cases, substitutes will be modern varieties developed to fight a disease or pest. In most cases, perennials will be used where annuals were historically planted.

The proposed plants for the West Side Garden areas are:

West Road Border

Agapanthus
Aloe striata
Amaryllis belladonna
Iris (bearded, Ruth Bancroft collection)
Centranthus ruber
Chrysanthemum maximum 'Snow Lady'
Cotyledon orbiculata (green, white, blue)
Crassula
Heuchera maxima
Hydrangea
Pelargonium 'Brilliant'
Pelargonium 'Prince Bismarck'
Sedum (yellow)
Zantedeschia



Centranthus ruber



Amaryllis belladonna

Toolshed and West Road Terraces

Aeonium (purple)
Agave parryi
Aloe campen
Aloe distans
Aloe juvenna
Aloe plicatilis
Aloe spinosissima
Aloe striata
Artichoke
Carpenteria
Echeveria imbricate
Euphorbia horrida
Centranthus ruber (mauve, red, and white)
Euryops pectinatus 'Viridis'
Fremontedendron
Gasteria carinata
Lavatera
Narcissus
Pelargonium 'Alphonse Ricard'
Pelargonium 'Brilliant'
Pelargonium 'Prince Bismarck'
Pittosporum
Romenya coulteri
Sedum dendroideum

Greenhouse Garden

Achillea (*A. x kellereri*, *A. millefolium*)
Achillea tomentosa 'Primrose Beauty'
Agapanthus praecox orientalis
Agave attenuata
Amaryllis belladonna
Bidens
Chrysanthemum maximum 'Snow Lady'
Consolida ajacis
Coreopsis verticillata 'Moonbeam'
Cosmos bipinnatus (white, pink)
Dianthus plumaris
Digitalis purpurea
Echeveria agavoides
Echeveria imbricata
Echinacea purpurea 'White Lustre'
Helianthemum nummularium
Helichrysum bracteatum

Heliotropium arborescens
Heuchera sanguinea
Kniphofia uvaria
Lavatera trimestris
Malva moschata
Matthiola incana
Narcissus
Osteospermum (from Terrace 7)
Papaver atlanticum, *P. nudicaule*
Pelargonium 'Prince Bismarck'
Scabiosa columbaria (lavender)
Watsonia



Digitalis purpurea



Pelargonium 'Prince Bismarck'



Heliotropium arborescens



Artichoke

Birdbath Garden

Achillea tomentosa 'Primrose Beauty'
Antirrhinum majus (dwarf yellow, orange)
Bidens
Brachycome multifida
Buddleia davidii
Centaurea cyanus
Chrysanthemum maximum 'Snow Lady'
Crocasmia crocosmiiflora (yellow)
Erysimum species
Eschscholzia californica
Ficus carica
Gaillardia x grandiflora (warm apricot with red center and red), G. 'Summer's Kiss'
Gladiolus (peach, pink)
Lavatera trimestris
Malva moschata
Narcissus
Osteospermum (peach)
Pelargonium 'Prince Bismarck'
Scabiosa columbaria (lavender)
Veronica 'Sunny Border Blue'
Watsonia

Recreation Yard Slope

Aloe
Aloe striata
Aloe spinosissima
Drosanthemum
Echeveria pulvinata
Pelargonium 'Prince Bismarck'



Drosanthemum

Management Considerations

The upcoming Cultural Landscape Report for Alcatraz will develop a detailed strategy for preservation of the historic landscape, including vegetation management for wildlife and cultural values. However, current vegetation management on the west side is guided by the *Bird Conservation and Management Strategy for Historic Alcatraz Island* (December 2005), which identifies most of the area seaward of West Road as closed to access during bird nesting season. The effect of these restrictions varies by garden site.

Four historic garden areas fall within the seasonal closure zone—the Greenhouse Garden, Toolshed Terraces, Laundry Terraces, and West Lawn (South). At present, garden crews are allowed access only from mid-September through January. This plan proposes fine-tuning of the closure zone boundaries to allow more effective stabilization and rehabilitation of key garden areas while maintaining or enhancing wildlife values.

Greenhouse Garden: In the 1940s Elliott Michener's garden beds flanked the existing walkway between the greenhouse and the toe of the Recreation Yard Slope. Although crews clear the beds west of the walkway every fall, the seasonal closure prevents control of invasives during the growing season. Because it is a key recommendation of this plan to re-establish the character of Michener's 1940s to 1950s Greenhouse Garden, year-round staff access to the beds around the greenhouse will be critical. Existing shrubs surrounding the greenhouse garden will be managed to buffer nesting sites.

Toolshed Terraces: After the prison closure, the once manicured terraces were taken over by a diverse group of planted and naturalized Mediterranean garden species, as shown in 1970s photos. However, *Chasmanthe*, roses, and the more

aggressive spreading plants are now the dominant species. Their dead leaves smother adjacent plants during the summer, and their overgrown roots heave the terrace walls and cause erosion. Year-round staff access to the terraces is needed to control the aggressive species and to establish plants that will expand the species mix and extend bloom season. In addition, staff will need access to the rebuilt toolshed. Existing trees and shrubs west and south of the toolshed and terraces will be maintained as a buffer and habitat. This plan proposes to provide increased staff access to the terraces by relocating the fence across the lower road, which would have the added benefit of providing a view of the terraces from below, and improving opportunities to view the bird colonies below the cliffs.

Laundry Terraces: No access change is proposed for this area. The terraces below the Greenhouse Garden will remain closed, with yearly control of invasives. Structures will be monitored for damage from erosion and spreading roots, and needed repairs will be done in non-nesting season. At-risk historic plants will be propagated for planting elsewhere on the island. This approach may be re-examined if the Laundry Building becomes accessible to the public.

West Lawn (South): No access change is proposed for this area. After the prison closure, the south (seaward) half of the West Lawn disappeared under overgrown shrubs and fig trees, and it will continue to be managed as nesting habitat and a buffer from West Road activity.

Interpretation and Access

Visitors walk on West Road year-round. A visit to the West Side in late winter and spring is especially enjoyable when vivid, blooming plants create an impressive foreground in this striking island setting. After this treatment plan is implemented, the planted-out West Side Gardens will be even

more captivating. Currently, a wayside installed on the east side of the road at the West Lawn informs visitors about the gardens. Also, recently begun garden docent tours take visitors to the West Side to talk about the gardens. The tours currently do not take visitors to the Lower Terraces. The following summarizes plans for interpretation:

- Guided gardens tours will take visitors to the West Side Gardens to talk about the garden history and the plants, as well as sustainable gardening.
- The current wayside at the West Lawn will be replaced with one that focuses on the West Side Gardens (and the large wayside that introduces the gardens will be installed on the island's east side above the Rose Garden). Smaller waysides will be placed on the fence in front of the Toolshed Terraces and in front of the Greenhouse Garden. The Toolshed Terraces wayside will discuss survivor plants and the Greenhouse Garden wayside will discuss the history of the garden as a prisoners' garden.



Toolshed Terraces in the spring

Invasive Vegetation Control and Removal

Invasive vegetation needs to be controlled year-round. Without access to the garden areas year-round, control of invasives becomes difficult. For example, false garlic in the Greenhouse Garden grows from bulbs and the vegetation is only visible during the spring and summer when they go to seed. With access restricted during the nesting season from February to September, it is impossible to control this invasive. Roundup control of the blackberry is most effective when applied during the growing season, when the area is currently closed.

The garden team will:

- Continue to remove weeds and invasive species, including *Lonicera japonica* (honeysuckle), *Rubus discolor* (Himalayan blackberry), *Oxalis pes-caprae*, *Hedra helix* (ivy), and *Nothoscordum inodorum* (false garlic). The Greenhouse Garden contains all of these weeds and the Birdbath Garden contains honeysuckle and oxalis. The Toolshed Terraces contain honeysuckle, blackberry, and *Oxalis*.
- Assess tree condition and safety hazards. Use approved herbicides and other controls to remove plants that are damaging walls, stairs, and railings.



Archeological Protocol*

Based on work conducted to date, work in the gardens should cause no adverse effect to archeological remains as long as individuals working in the area have received a briefing by the park archeologist on treatment of discoveries to ensure that significant finds are immediately protected and reported, and isolated artifacts are properly documented and submitted for accession to the park collection.

Recommendations for an archaeological protocol:

- Provide a schedule when substantial work will be occurring in the site area;
- Ensure that key staff working in the site area attend a briefing that outlines archeological issues and protocols;
- Use an NPS Archeological Field Collection form and submit all artifact discoveries to John Cantwell, park ranger, for periodic analyses and incorporation into the park record and/or collections;
- Clearly highlight the locational area on the field form's site map where an artifact was found to ensure relative provenience control;
- Immediately notify the park archeologist (Leo Barker, (415-725-0273) of the discovery of concentrations of artifacts or visible pits, structural remains, or other unexpected findings. Stop work in the vicinity of the finding until a management treatment can be reasonably determined.

* Prepared by Leo Barker, Park Archeologist, Golden Gate National Recreation Area, September 13, 2006.

Schedule of Activities to Implement Treatment Plan: Fall 2008 - Spring 2009

October

- Remove vegetation from West Road Borders, Toolshed Terraces, West Road Terraces, Greenhouse Garden, and Birdbath Garden; clear fig of honeysuckle overgrowth in Birdbath Garden (this is routine stabilization, done every year at this time)
- Remove honeysuckle from *Aloe* on Recreation Yard Slope (part of yearly stabilization)
- Amend soil along West Road, Greenhouse Garden, and Birdbath Garden
- Selectively remove *Chasmanthe* and *Acanthus* from Toolshed Terraces, West Road Terraces, Greenhouse Garden, and Birdbath Garden
- Prune rose hedge in Greenhouse Garden
- Install safety barricades at back of Greenhouse Garden
- Repair and replace edgings of West Road Borders

November

- Begin purchasing plant material
- Begin repair of Toolshed Terraces and toolshed
- Repair edgings of pathways in Greenhouse Garden
- Amend soil in Greenhouse Garden
- Begin planting West Road Borders
- Stabilize West Road Terraces
- Begin supplemental planting of West Road Terraces
- Install supplemental planting at Guardtower Site
- Stabilize Recreation Yard Slope, repair retaining wall at bottom of slope, and repair curbing in front of Birdbath Garden
- Remove vegetation from Laundry Terraces
- Propagate *Drosanthemum* on Recreation Yard Slope

December

- Finish planting West Road Borders
- Finish planting West Road Terraces
- Plant Greenhouse Garden
- Plant Birdbath Garden
- Finish repairs of toolshed and Toolshed Terraces
- Amend soil in Toolshed Terraces
- Begin supplemental planting of Toolshed Terraces

January

- Prune fig tree in Greenhouse Garden
- Replicate birdbath and install
- Finish planting Toolshed Terraces
- Relocate visitor barrier and install extended safety railing to bottom of Toolshed Terraces (this would need to be done prior to beginning of nesting season or wait until Sept 09)
- Stabilize Laundry Terraces: remove selected *Agaves* that are infringing on historical terraces, repairs as needed, document conditions
- Control invasive plants

February

- Finish all plantings
- Control invasive plants

March

- Repair West Road drainage ditches
- Replace historic railing on recreation yard steps
- Record "As-Planted Drawings"

WEST SIDE GARDENS MAINTENANCE TIMELINE

Ranking	Garden Areas	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	
A	Birdbath Gardens	Weeding	→											
	Greenhouse Garden	Pruning	→											
	West Road Borders	Propagating	→											
	*care while egrets are nesting	Applying vegetative deterrents	→											
		Planting	→											
		Grooming plants	→											
						Watering	→							
B	Toolshed Terraces	Supplemental planting	→											
	West road terraces	Grooming plants	→											
		Applying vegetative deterrents	→											
		Weeding	→											
		Control invasives	→											
						Watering	→							
C	West Lawn	Cut lawn									Apply veg. deterrents			
	Rec Yard Slope	Apply vegetative deterrents	→							Control invasives	→			
		Control invasives	→											
		Supplemental plantings									Supplemental plants			
D	Guard tower site	Control invasives	→											
	Metal detector	Prune cultivated garden plants	→											
		Remove plant debris	→											
E	Laundry Terraces	Inspect/Repair garden infrastructure									Inspect/Repair infrastr.	→		
		Apply vegetative deterrents	→							Remove plant debris	→			
											Control invasives	→		