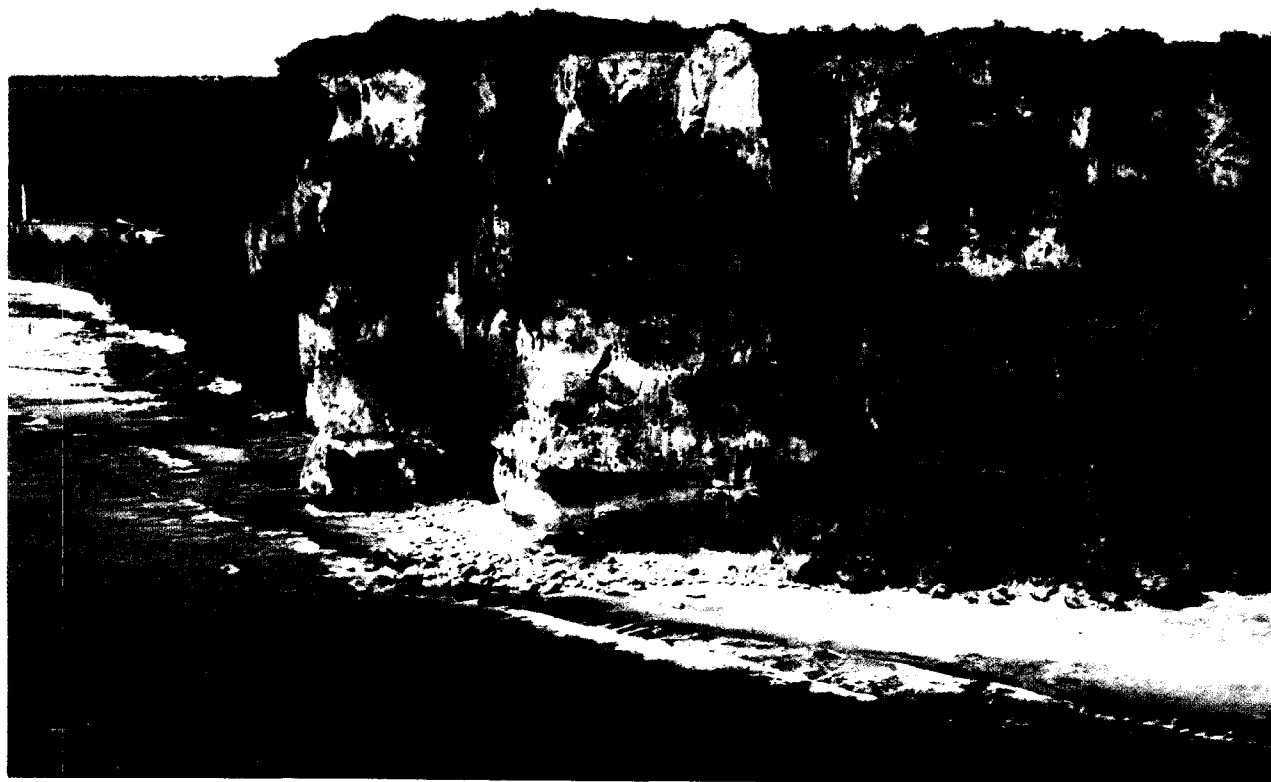


W.P.



PROPOSAL FOR ZONING OF RELEASABLE MILITARY LANDS

COASTAL ZONE INFORMATION CENTER

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1982

**GUAM COASTAL MANAGEMENT PROGRAM
BUREAU OF PLANNING**

PROPOSAL FOR ZONING OF RELEASABLE MILITARY LANDS

Guam Coastal Management Program
Bureau of Planning

August 1982

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SECTION ONE: GENERAL INFORMATION

INTRODUCTION

Historically, a large portion of the land on Guam has been under military control. Land has been acquired whenever the need was determined by agencies of the Department of Defense. Executive Orders 11954 and 11724 require the Department of Defense to periodically review Federal land-holding to ensure optimum use. In compliance with these Executive Orders, the Guam Land Use Plan was prepared in 1977 by the Department of the Navy in cooperation with the Department of the Air Force.

One of the results of this effort was that 5,180 acres of military lands on Guam were identified as "releasable".* GovGuam has subsequently undertaken the initiative to acquire this land through two separate procedures as specified in the Local Use of Federal Lands plan. The first is through special federal legislation which would, if adopted, turn over all surplus military lands to GovGuam. The second procedure is to pursue the General Services Administration's application process which requires the submittal of a specific proposal, by site, with accompanying justification. GovGuam is vigorously pursuing the application process and is optimistic in regard to the acquisition of major portions of these surplus lands.

It is conceivable, however, that the General Services Administration may reject certain GovGuam applications, with the possible result being that those lands would then go up for competitive bid. There are also some releasable military lands that will not be used by GovGuam. With this in mind, it is advisable for the Government of Guam to zone releasable land before it can be purchased by private developers in order to assure that its eventual use will be compatible with Guam's overall land use objectives.

*DOD is restudying areas originally identified as releasable. Although this study proposes to zone all releasable areas, proposed zones will not be applicable to areas retained by DOD after their re-evaluation.

Releasable federal lands should be zoned in accordance with generally accepted land use practices in which optimum use of land is pursued. A zoning effort should also take into account the balancing of both public and private needs, for existing as well as for reasonably foreseeable conditions. In addition, a proposal should also make a concerted effort to zone land in a manner that is compatible with existing surrounding uses.

In November 1981, a Proposal for Zoning of Releasable Federal Lands was developed. Copies of the draft proposal were sent to GSA, local military commands as well as Government of Guam agencies for review. Comments received from most of these agencies were incorporated in this final proposal.

FORMAT

The following zoning proposal is composed of three sections. The first provides general background material for the zoning effort. This discussion also contains a justification for a new zone for open space, which is followed by a proposed legislative amendment to the zoning code for creation of this new zone. The second section contains the actual zoning proposals, along with 1) general site description, 2) considerations, and 3) rationale for each specific site. The final section contains general site location maps which are provided for illustrative and orientative purposes.

SCOPE

This zoning proposal is confined to the remaining 4,129 acres of land that the federal government has identified as being releasable. The situation is unique in that, currently this property is devoid of zoning. Therefore, the releasable lands can be zoned without many of the constraints normally associated with previously zoned land and private ownership.

This unusual situation lends itself well to the establishment of Open Space zoning. This is in contrast to difficulties that must be addressed in open space zoning of private property, such as the question of "taking" of land without sufficient compensation. A zoning code change to establish an Open Space Zone is advocated by this proposal as a viable zoning option available to achieve Guam's land use objectives for certain unique and environmentally sensitive releasable federal lands. This open space zone is considered a specific need of this proposal and it is not envisioned that this new zone will be applicable to private lands.

METHODOLOGY

Before assigning a proposed zone, it was necessary to undertake the following reviews and tasks:

- 1) Review of existing surrounding zoning and uses;
- 2) Review of surrounding federal uses and federally identified restrictions;
- 3) Study of aerial photography and topographic maps;
- 4) Field Surveys (on-site inspections);
- 5) Review of proposed land use districting guidelines;
- 6) Study of the findings of GovGuam agencies in regard to specific site analysis;
- 7) Review of vacant land or zoned use availability within the general areas of specific sites.

After completing these efforts, each site was evaluated in light of this information as well as the perceived public and private needs. Judgement is an essential element in the process, especially in regards to the subject of projected development pressures. The Agricultural Zone was used in some areas in which it was felt that development pressure was not sufficient at this time, to zone the land for a higher use. The Open Space Zone was selectively used for land that was determined to be of prime importance to the people of Guam. Areas were designated Open Space in order to preserve unique or historical sites and to protect environmentally sensitive areas.

RELATIONSHIP TO GSA APPLICATION PROCESS

In GovGuam's application to GSA, specific uses or projects have been identified for most of the releasable lands. These proposed uses along with justification and support material, have been or will be forwarded to GSA for consideration. The following zoning proposal is considered secondary to that application process, although the projects are compatible with the proposed zones.

REQUIREMENTS TO ESTABLISH OPEN SPACE ZONE

As previously stated, there is a need to amend the Guam Zoning Code to include a new zone designating Open Space. The existing zoning code does not contain a zone recognizing public lands, recreation, conservation or open space areas. There are additional shortcomings of the existing code that should be addressed in the near future. However, there is an immediate requirement to institute a zone to meet the special needs for zoning releasable federal lands. Among the lands to be released is a substantial portion that should be held for the benefit of the general public. There are areas that contain:

- historical sites
- existing or potential recreational sites
- critical habitats for endangered plant and animal species,
- pristine areas
- areas of natural beauty and exceptional vistas
- watersheds

An Open Space Zone which would be broad enough in scope to encompass the above mentioned uses should be instituted. Those areas designated in this proposal to be zoned Open Space are considered to be at their "optimum" use if preserved for public use or as a cultural legacy for future generations.

GUAM ZONING CODE AMENDMENT

The following additions to Government Code, Title XVIII, Zoning Law would provide for the establishment of an Open Space Zone. It is therefore submitted for consideration.

Chapter II

§ 17050 Zones

"O" Open Space Zone

Chapter III

§ 17112 - "O" Open Space Zone

(a) Use Permitted

1. Conservation; pristine area protection
2. Active and passive recreation
3. Buffer areas between incompatible uses
4. Biological research areas

(b) Conditional Use

1. Utility easements
2. Cattle grazing
3. Access roads
4. Water resources development

(c) Open Space Zone changes or variances must be approved by Legislative Action.

OPEN SPACE AND GSA APPLICATION DISCUSSION

The overall objective of the Open Space Zone proposed by this zoning effort is to preserve or protect selected lands that have been determined, because of their environmental characteristics, to be extremely important to the people of Guam for both current as well as future generations. It should be pointed out that this land use control mechanism is not a covert action to obtain federal releasable land. This Open Space Zone is simply the correct legal procedure for the Government of Guam to use in order to control development on these identified lands in the event that they are acquired by private interests.

This zoning proposal has made every effort to be fair and reasonable in assigning zoning to federal releasable lands. This zoning is considered to be at its current highest and best use. The Open Space Zone has been assigned on a highly selective basis and is likewise considered to be at its highest and best use.

While the Open Space Zone will serve the above stated objectives, it would be preferable if the land was in public ownership. One of the reasons for this is that zoning is not static and is therefore vulnerable to zone changes and variances. Considering this, the objective would be better served if the Federal government were to acknowledge the need for Open Space Zone as identified in the proposal, while transferring ownership of identified open space land to the Government of Guam through the GSA application process. This process, along with its use restrictions, would assure that this land is saved for public recreation, parks and conservation purposes.

INTRODUCTION AND LEGEND

The following section provides proposed land use zones for each of the identified military lands. Some sites have been grouped solely for mapping purposes based on their close proximity to each other. Discussions of the sites are broken down into three subcategories, which are:

1. General Site Description: This is a physical description of the subject site. It includes natural conditions such as: geology, topography and vegetation, as well as man-made conditions such as buildings, facilities, etc. These conditions are basic in considering the development potential of the land.

2. Considerations: This includes specific aspects or concerns which affect the site in question. Subjects discussed in this subcategory might include: federal restrictions, surrounding development or existing zoning, flora and fauna, unique habitats, historic sites or hazardous conditions.

3. Rationale: The preceding discussions are used as the basis for arriving at the justification for the proposed zone.

The zoning designations on these maps correspond to the following legend.

ZONES

	- AGRICULTURAL
	- SINGLE FAMILY, DWELLING
	- MULTIPLE DWELLING
	- COMMERCIAL
	- LIGHT INDUSTRIAL
	- OPEN SPACE

SOUTH FINEGAYAN (462 Acres)

SOUTH FINEGAYAN, WEST SECTION - Open Space

General Site Descriptions: This site is a forested limestone plateau with a steep cliffline along the western portion. The geology of the area is mariana limestone, which is composed of various coral origin materials.

Considerations: This land contains concentrations of several species of endangered birds and mammals, including the White-Throated Ground Dove, White-Tailed Tropic Bird, Rufous-Fronted Fantail and Marianas Fruit Bat. It also contains species of unique and medicinal plants that are dwindling in number (i.e., *Maytenus thompsonii*, *Blechnum brownei*, and *Colubrina asistrica*). This area also includes the Hilaan Historic Site which consists of an unexcavated ancient Chamorro village.

Rationale: This site has been designated Open Space on the basis of its existing and potential use as a public and tourist natural attraction as well as a recreation site. This limited use should also provide a relatively undisturbed habitat for the unique, threatened and endangered species of plant and animal life.

SOUTH FINEGAYAN, EAST SECTION - Low Density Residential

General Site Description: This land is part of the limestone plateau covered primarily by scrub and grass. The terrain is primarily flat and ranges from level to gentle slopes.

Considerations: This area is within a Noise 2 Zone (NAS AGANA AICUZ).

Rationale: This site is zoned Low Density Residential because of the suitable terrain, availability of utilities and ready access to Route 3. Although this is an Air Traffic Noise Zone, the general site conditions, development pressures and the direction of past and present growth patterns, make this zoning desirable and outweigh the noise zone considerations which can be mitigated by requiring sound insulation on housing constructed here.

TANGUISSON POWER PLANT, NAVCAMS BEACH, ANDERSEN HARMON ANNEX AND CAMP EDUSA (1,626 Acres)

TANGUISSON POWER PLANT, NAVCAMS BEACH (Two Lover's Point Area) - Open Space

General Site Description: There are a variety of geologic and floral conditions on this large segment of land. The Tanguisson Power Plant, NAVCAMS Beach area (Tanguisson and Hilaan Beaches) is composed of sand beaches backed by coconut-pandanus strand vegetation, and comprises approximately 15 percent of the land area of this site. The remainder is comprised almost equally of limestone forest and savannah-type vegetation and is located on a plateau. The beach area is separated from the plateau area by steep cliffline. An operational sewage treatment plant and Puntan Dos Amantes Park are situated on the plateau portion.

Considerations: Those considerations for South Finegayan, west section are applicable to this property. Additionally, there is a 17 acre developed recreational area in place at Tanguisson (NCS Beach) with park area, sheltered picnic tables, barbeque pits and restrooms in place. This site is in the Andersen Air Force Base AICUZ, a Noise 2 Zone and the Department of Defense has recommended release of the beach area only when approved by the Department of the Interior to GovGuam for park purposes. The Tanguisson Power Plant is operational and is expected to continue functioning into the foreseeable future. The sewage treatment plant requires buffering from future residential development in order to reduce future conflicts, i.e., residential complaints.

Rationale: This site has been designated Open Space and especially if it were combined with the South Finegayan Site, this total area would help substantially to fulfill Guam's present and future recreational needs, both active and passive. This zoning would also preserve those areas that need protection from developmental encroachment; the limestone forest and Puntan Dos Amantes in particular. The area typifies those environmental characteristics that must be set aside for the benefit of both present and future generations.

ANDERSEN HARMON ANNEX AND NORTHERN SECTION OF CAMP EDUSA - Low Density Residential

This area is a continuation of the Low Density Residential Zone for South Finegayan.

CAMP EDUSA - Commercial

General Site Description: This land is flat and covered with only sparse, scrub vegetation such as tangantangan and light grasses. It is bordered on two sides by major roads and along the North and Northeast edge by gas pipelines. A thin strip of heavier vegetation (Ifil, Coconut, Pandanus), runs along the pipeline edge of the property.

Considerations: The land can be easily developed because of the well drained, level terrain and limestone geology. This site should be considered prime land because of these considerations combined with its access to both Routes 1 and 3. This area is in a Noise 2 Zone and Department of Defense has stated they want to retain easement to the POL pipeline.

Rationale: Because of the present and projected growth rate of this area, (Dededo and Yigo), present sparsity of local commercial property for such a large residential population, strategic location, access and developability, this area should be used as a major concentrated commercial node. This would help to eliminate the pressures for objectionable commercial strip zoning, which by its very nature and lack of parking, inevitably becomes blighted and a drain on governmental resources.

HARMON QUARRY AND POL ANNEX (39 Acres)

HARMON QUARRY AND POL ANNEX - Agriculture

General Site Conditions: This area is predominantly an open pit limestone quarry.

Considerations: The area is in Noise 2 & 3 Zones. The Department of Defense has also recommended that release of this site be subject to the Government of Guam drainage easement.

Rationale: The only foreseeable use for the area is the continuation of the extraction function which is a conditional use under the Agriculture Zone.

ANDERSEN SOUTH (395 Acres)

ANDERSEN SOUTH - Agriculture

General Site Description: This site is composed of limestone soils sloping gradually toward the cliff-line. The vegetation is primarily scrub, tangantangan and grasses, with a small limestone forest in the northern section.

Considerations: Among the plant life of the area are several species that are seldom found on Guam today, such as Indian Mulberry, Love-in-a-Mist and Crow's Foot Grass, as well as plants used medicinally by residents, such as Canavalia maritima and Randia cochichinesis. Additionally, this area provides habitats for endangered bird and mammal species such as Guam Rail and Marianas Fruit Bat.

Rationale: This site has been designated Agriculture despite the environmental considerations mentioned above.

While aspects of this site (types of flora and fauna) might suggest a stronger conservation designation, it is felt that this site does not, in toto, meet the stringent criteria of the Open Space designation. To designate this area for Open Space would weaken the attempt to conserve more critical habitat and would go against the intent of the Open Space designation.

NAVCAMS WESTPAC BARRIGADA AND ANDERSEN BARRIGADA ANNEX

NAVCAMS WESTPAC BARRIGADA NORTH - Agriculture (385 Acres)

General Site Description: This site is generally flat and is composed of Chacha-Saipan and Guam clay. Vegetation on this land is restricted to tall grasses. This site currently is the prime Naval radio transmitter facility on Guam and has numerous related antennas, which are to be removed before the property is released.

Considerations: This land contains the Battle of Barrigada Historic Site and has been identified as a habitat for the Guam Rail. This area has historically been utilized for farming and livestock grazing.

Rationale: Because of the limited availability of suitable farm and pasture land on Guam, and the proven suitability of this land for these purposes, this land has been designated Agriculture.

ANDERSEN BARRIGADA ANNEX AND NAVCAMS WESTPAC SOUTH - Open Space (314 Acres)

General Site Description: This area has been identified as having karst topography. The soil instability has resulted in numerous sinkholes. The overlying soil is Guam clay. This site is divided into two distinct areas by vegetation type. The western section is gently sloping and covered by low grasses. The eastern section is slightly more flattened and covered by a thick coconut and pandanus forest.

Considerations: The extent of ground instability for this site has not been determined and it is therefore inadvisable to zone this land for any type of construction at this time. At present time, this area is in an RFI-free Zone and an EMR Zone, which restricts the area's potential for residential development. The entire area has been identified as habitat for the Guam Rail. This land has been used in the past for agriculture (livestock grazing and banana plantations).

Rationale: This site has been designated Open Space primarily because of instability of the area and the absence of soil engineering studies. The lack of current development pressures and environmental concerns lend support to this designation.

NAS AGANA AND ACEORP MAUI TUNNEL

NAS AGANA - No Zone

Rationale: This land has already been released to the Guam Airport Authority and is currently being utilized as part of the new airport terminal and parking lot. Because there is not a potential for future land use conflicts, as airport use is the only feasible use in this area, this property requires no zoning.

ACEORP MAUI TUNNEL - Light Industrial (3 Acres)

General Site Description: The major portion of this property is flat and cleared. The eastern most portion slopes upward into the NAS cliffline and is overgrown with tangantangan and other scrub vegetation.

Considerations: This property is surrounded by a mixture of uses that include: residential, commercial, light-industrial and a military facility. A variety of land uses for this property are possible.

Rationale: The property access to Marine Drive is to a large extent, blocked by the Naval Telephone Exchange reducing its utility for commercial purposes. Because of the present mixture of land usage, any zone proposed would present possible conflict. However, Light-Industrial is deemed the most logical use and is in conformance with adjacent zoning, and would provide more area in which to expand this “growth potential” activity, thus helping to broaden Guam’s economic base.

ASAN ANNEX AND NIMITZ HILL

ASAN ANNEX - Low Density Residential (19 Acres)

General Site Description: A major portion of this property formerly contained military buildings and paved parking areas. The buildings have since been removed and the area is now overgrown with light scrub. There are some flooding and drainage problems along the west boundary. The area is readily accessible to Route 1.

Considerations: As previously mentioned, there are flooding and drainage problems along the west edge of this property. Urban renewal projects by the Army Corps of Engineers are currently under-way to reduce those problems.

This parcel is currently leased to the Government of Guam for a proposed elementary school site.

Rationale: Because of site conditions, topography, accessibility to utilities and roadway, and growth patterns and pressures in the area, this property has been designated for low density residential development. The proposed zoning will not impact the existing lease for an elementary school site. School are allowable use within low density residential areas as established by the zoning code.

NIMITZ HILL - Open Space (370 Acres)

General Site Description: The terrain of this parcel is rolling hills to moderately steep sloping. There is sparse vegetation, primarily grasses and scrub brush with large areas of exposed Truncated Latosol (Agat Clay) soil. This area is a part of the Fonte River watershed.

Considerations: The erosive quality of this land as part of the Fonte River Watershed, contributes to localized flooding in the Maina and Agana Heights area, as well as siltation along the reef at Adelup Point. There are high power lines across the northern portion of this property and gas pipelines across the southern portion. Access to most of this property is considered poor.

Rationale: This site has been designated Open Space and a tree planting project should be initiated in order to reduce the down-stream negative effects and to reduce the soil erosion problems in this area. It is conceivable that small sections of this site could be developed low density residential, however, without detailed surveying and a drainage study, it is not possible to advance this land use at this time.

AGANA REGIONAL MEDICAL CENTER, AGANA POWER PLANT AND AGANA SPRINGS (32.3 Acres)

NAVAL REGIONAL MEDICAL CENTER - Commercial (1.3 Acres)

General Site Description: This 1.3 acre site is composed predominantly of steep slope with the exception of a small level area on which the existing inactive incinerator and parking area are located.

Considerations: Because of the steep terrain, this site has only limited development potential. The surrounding area is zoned primarily residential with limited commercial. The Government of Guam has submitted an application to GSA to acquire the parcel for recreational use.

Rationale: This land has been zoned Commercial because it is felt that the direct access to Route 7, sparcity of developable land, and the limited existing commercial use in the area. This zoning will not affect the application to acquire the land for recreational area. Recreation is an allowable use within commercial zones.

AGANA POWER PLANT - Multiple Dwelling (6 Acres)

General Site Descriptions - This site is presently occupied by an active power plant transformer and related facilities.

Considerations: The Guam Power Authority expects to continue the operation of this plant. The plant is surrounded by R-1 and R-2 Zoning.

Rationale: Because of its expected continued use as a power plant, there is little expectation for redevelopment on this site in the near future. However, the land has been zoned Multiple Dwelling zone to conform with existing adjacent zoning. This site should not continue in its Heavy Industrial use beyond the lifespan of the existing facility.

AGANA SPRINGS - Open Space (25 Acres)

General Site Description: This site has steep sloping ground with heavy vegetation. The western corner however, contains a level area in which a freshwater spring is located. Surrounding the spring is a swampy forest area.

Considerations: This is one of only a few, natural freshwater springs on island and is used for freshwater biological studies by the Guam Educational System

Rationale: This area has been designated Open Space to conserve the surrounding area and to protect this natural resource for possible future use. Its uniqueness and value as an educational field lab should be preserved.

NAVAL MAGAZINE

NAVAL MAGAZINE, N.W. - Agriculture (138 Acres)

General Site Description: This is a moderately hilly area of Agat-Asan-Atate soil with savannah grasses and scrub vegetation.

Considerations: A large tract of land (APRA HARBOR COMPLEX I) just north of this site has been designated in these proposals for low density residential, thereby reducing the pressure for residentially zoned land. This site displays a potential for erosion problems.

Rationale: This site has been designated Agriculture to reflect the reduced demand for residential land and allow agricultural development which up to now, has been restricted because of terrain limitations in the general area. The Department of Agriculture should approve farming plans to ensure that erosion is controlled.

NAVAL MAGAZINE, N.E. - Open Space (130 Acres)

General Site Description: This is a very hilly to steep area of Agat-Asan Clays with rock outcrops. Vegetation is almost totally savannah with occasional pockets of ravine forest.

Considerations: There is no identifiable development pressure for this site. This land is inappropriate for agricultural use because of topography (steep sloping) and rock-laden soils. This area also exhibits a potential susceptibility for erosion.

Rationale: It is in the best interest of the public to designate this site Open Space in order to protect the land from degradation of soil and vegetation, and to preserve the aesthetic quality of this site's panoramic vistas.

APRA HARBOR COMPLEX I

RIZAL BEACH - Open Space (23 Acres)

General Site Description: The site is an existing, open access, beach recreation facility.

Considerations: This site has exceptional recreational facilities which include the beach restrooms, a barbeque pit and sheltered picnic tables. Facilities such as this are limited in this area of Guam and should be protected for public use.

Rationale: Open Space zoning has been designated for this site to ensure continuation of the existing use.

TRIANGLE PROPERTY - Commercial (5 Acres)

General Site Description: This property is flat and level covered with tangantangan and other scrub vegetation. It is bordered on all three sides by major roadways.

Considerations: There are no physical limitations or surrounding usage conflicts associated with this property. It is easily accessible via major traffic arteries on all sides and possesses an aesthetically pleasing view of Rizal Beach and the Philippine Sea along its western border.

Rationale: The excellent location of this property, coupled with ease of developability, access to the transportation network and aesthetic quality, make this a valuable property. This area of the island is projected to continue to grow substantially with residential development and Rizal Beach is utilized now as a major recreation area. This property's location in regards to this growth and its developability in conjunction with the present limited commercial activity in the area, create the need and rationale for zoning this land Commercial.

AGAT AREA - Low Density Residential (83 Acres)

General Site Description: This area is hilly terrain covered with scrub vegetation (sword grass, small ironwood trees and tangantangan). It is adjacent to Low Density Residential development along the western edge.

Considerations: Other than a small area northwest of this property that is zoned M-1, the major surrounding land is either zoned R-1 or unused military land. The R-1 zoned land immediately adjacent to this property is the Hyundai Subdivision.

Rationale: There is considerable demand for residential land in the Agat area due to population growth, terrain limitations throughout this section of the island, and the presence of the Territorial Seashore Park which limits expansion south. Based on the residential needs of the area and the compatibility of this use, this site has been designated Low Density Residential.

APRA HEIGHTS - Agriculture (40 Acres)

General Site Description: This site is hilly with Agale-Asan-Atate clay soil and scrub vegetation consisting of sword grass and tangantangan. The area is traversed by a small, intermittent stream. This property is in close proximity to the GORCO Oil Refinery and storage area.

Considerations - Soil exposure and lack of vegetation in many spots throughout this property, point out the result of, and give evidence to the erosive characteristics of this land. The possibility of developing this land for residential purposes is negated by the terrain, erosion and hazard potential of the nearby oil storage area.

Rationale: At the present time low-intensity agriculture represents the only legitimate use of this land. However, discrimination should be used against crop selection in order to prevent any further erosion to this land, and agricultural plans should be cleared by the Department of Agriculture as further insurance against topsoil loss.

APRA HARBOR COMPLEX II

INTERSECTION OF ROUTES I AND II - Commercial (6 Acres)

General Site Description: This property along the east side of Route 1 in Piti was previously a warehouse site. While the buildings are no longer present, there is evidence of paving remaining, now overgrown with thickets of tangantangan, high grasses and stands of Albizia falateria. High powerlines run through this property. Route 6 intersects Route 1, a very short distance from the site.

Considerations: This property has limited development potential, especially residential and recreation because of the presence and configuration of high voltage power lines. The Albizia falateria trees add greatly to the overall aesthetic quality of the area and efforts should be made to protect them.

Rationale: The position of this land in relation to Routes 1, 11 and 6, along with the projected growth of and access to the Commercial Port, make this a potentially valuable piece of land. There is, at present, very little commercial activity in the area. Commercial zoning for this land not only serves the best interest of the area residents, but would be a necessity in area expansion.

FRESHWATER AREA (Masso Reservoir) - Open Space (28 Acres)

General Site Description: This area is hilly rough terrain with thick vegetation. The focal point of this property is the Masso Reservoir.

Considerations: Freshwater ponds or lakes are extremely limited on Guam, with Masso Reservoir representing one of the best examples. The terrain in this area precludes development of either residential or commercial. The pond area of the reservoir is currently being restocked in anticipation that this area will be utilized for freshwater fishing.

Rationale: Because of the limited development potential and the opportunity for creating a unique recreational area, this land has been zoned Open Space.

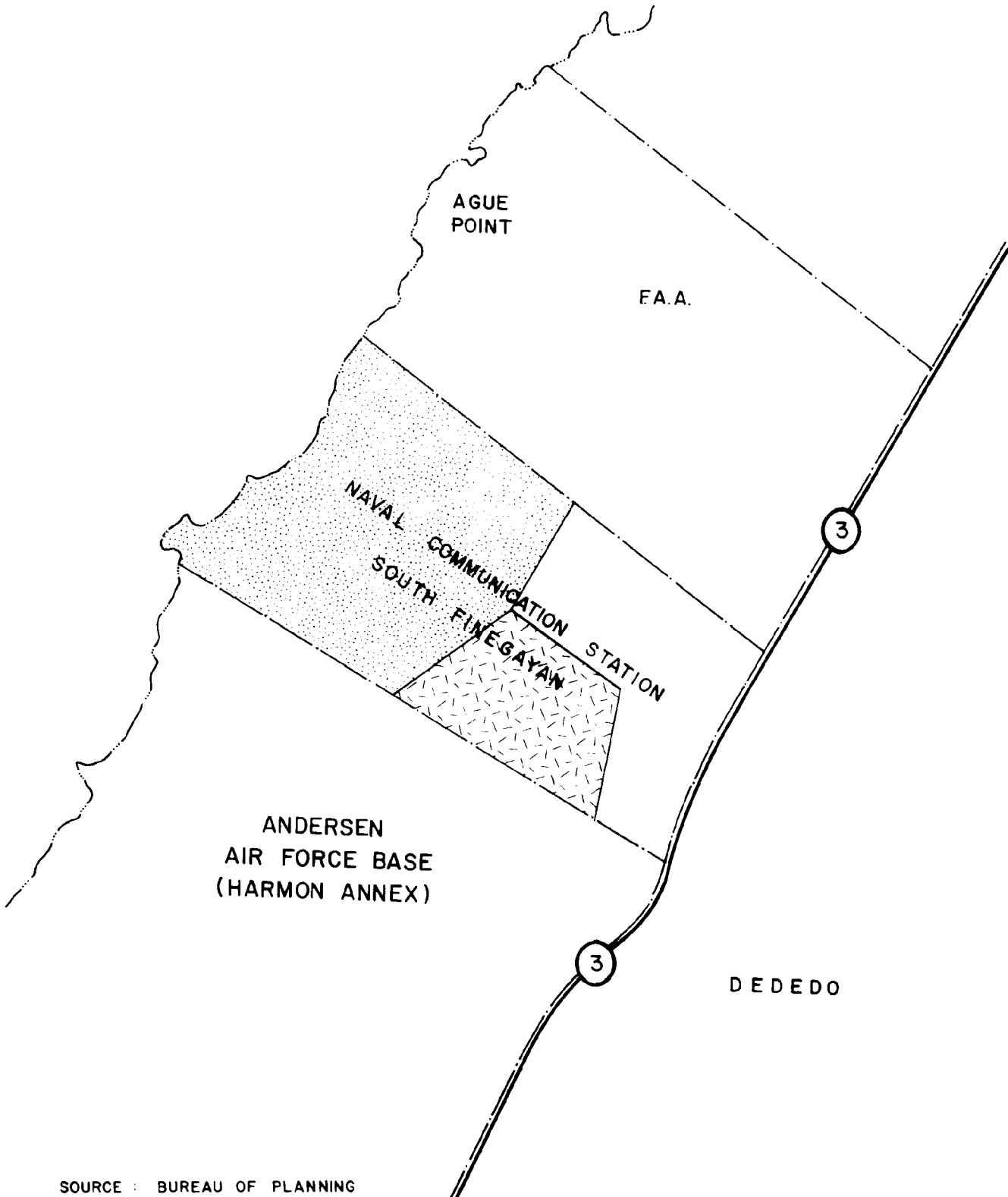
South Naval Station - Open Space (35 Acres)

General Site Description: This site gradually slopes up from swamp to an upland forestry area. The western portion of the site which is composed of swamp and tidal areas contains extensive stands of mangroves of several varieties. As the gradient increases vegetation changes to large stands of bamboo, tangantangan, and various native trees.

Considerations: This site represents the largest concentration of mangroves on Guam. The area provides a habitat for oysters, clams, crabs, monitor lizards as well as various sea and shore birds. The site also appears to have some historical significance as a brief field inspection was able to identify old fish ponds and extensive remains of pottery.

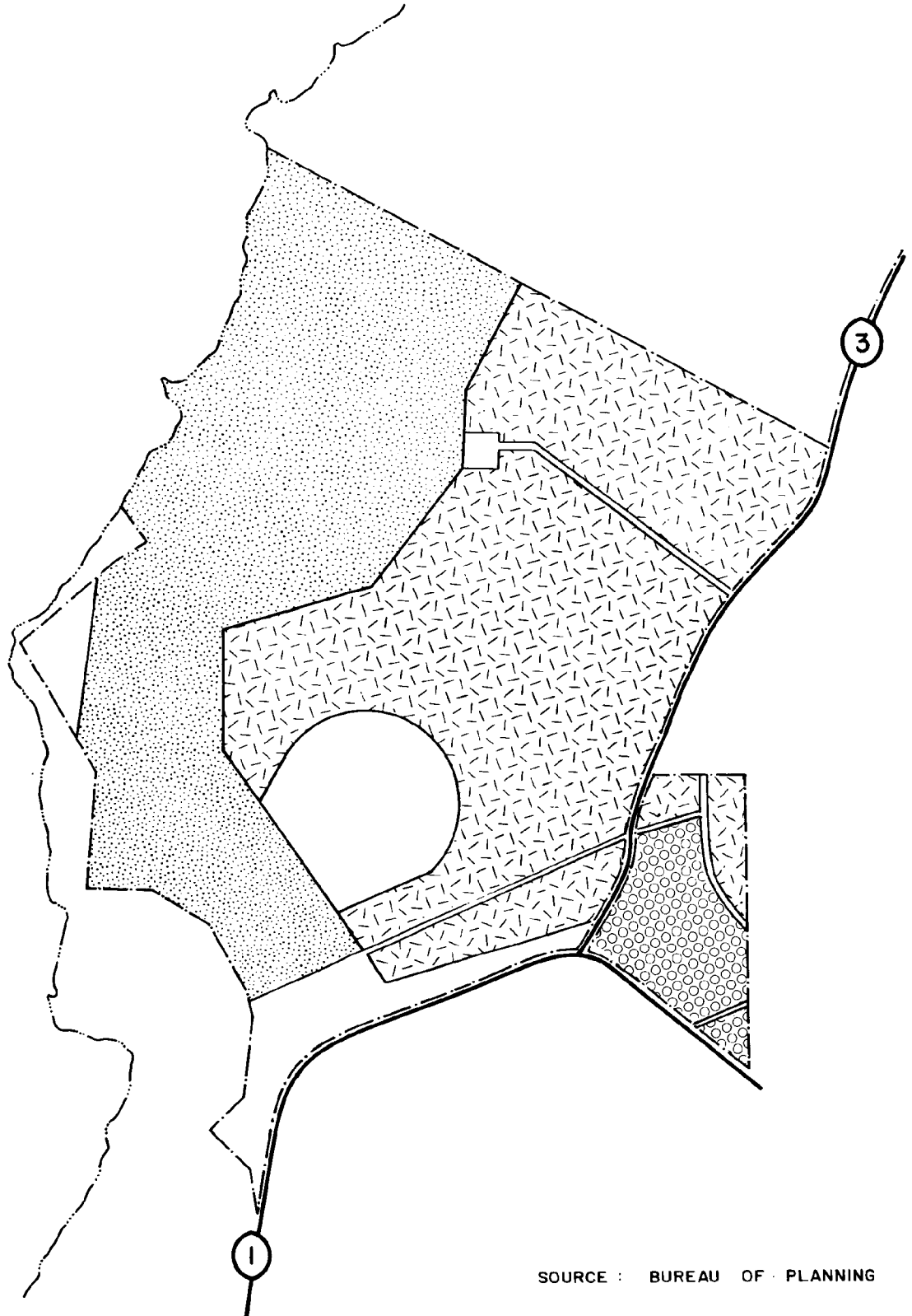
Rationale: This site is truly a unique environment on Guam providing habitat for a great number of plant and animal species. There is a need to more fully investigate the historical importance of the area. This site would be beneficial as an outdoor laboratory to the University of Guam because of its unique qualities. There is a definite need to protect this site and has therefore been designated open space.

SOUTH FINEGAYAN



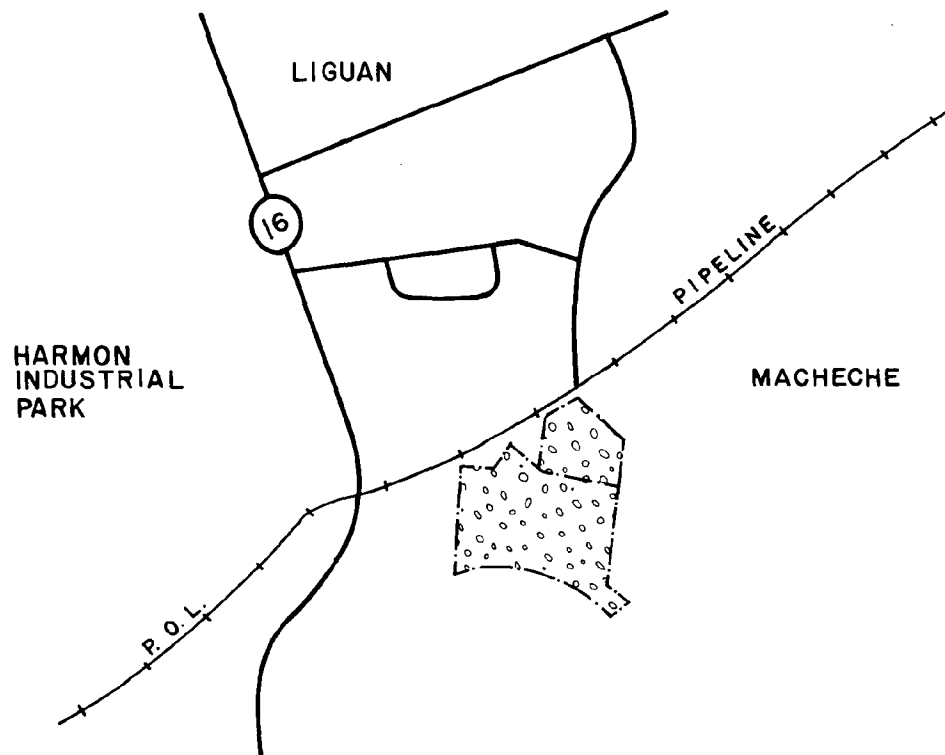
SOURCE : BUREAU OF PLANNING

**TANGUISSON POWER PLANT, NAVCAMS BEACH,
ANDERSEN HARMON ANNEX and CAMP EDUSA**



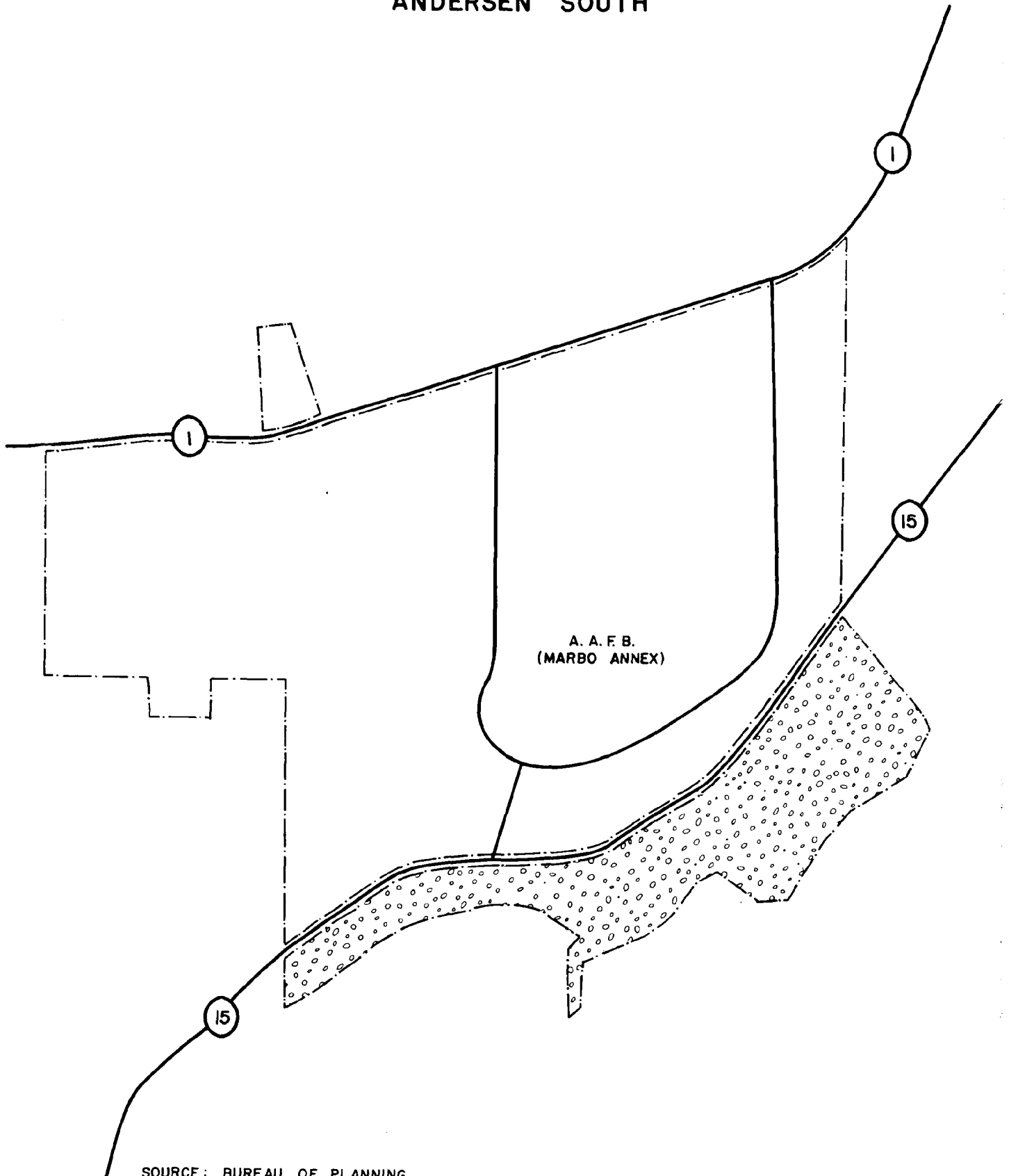
SOURCE : BUREAU OF PLANNING

HARMON QUARRY and POL ANNEX

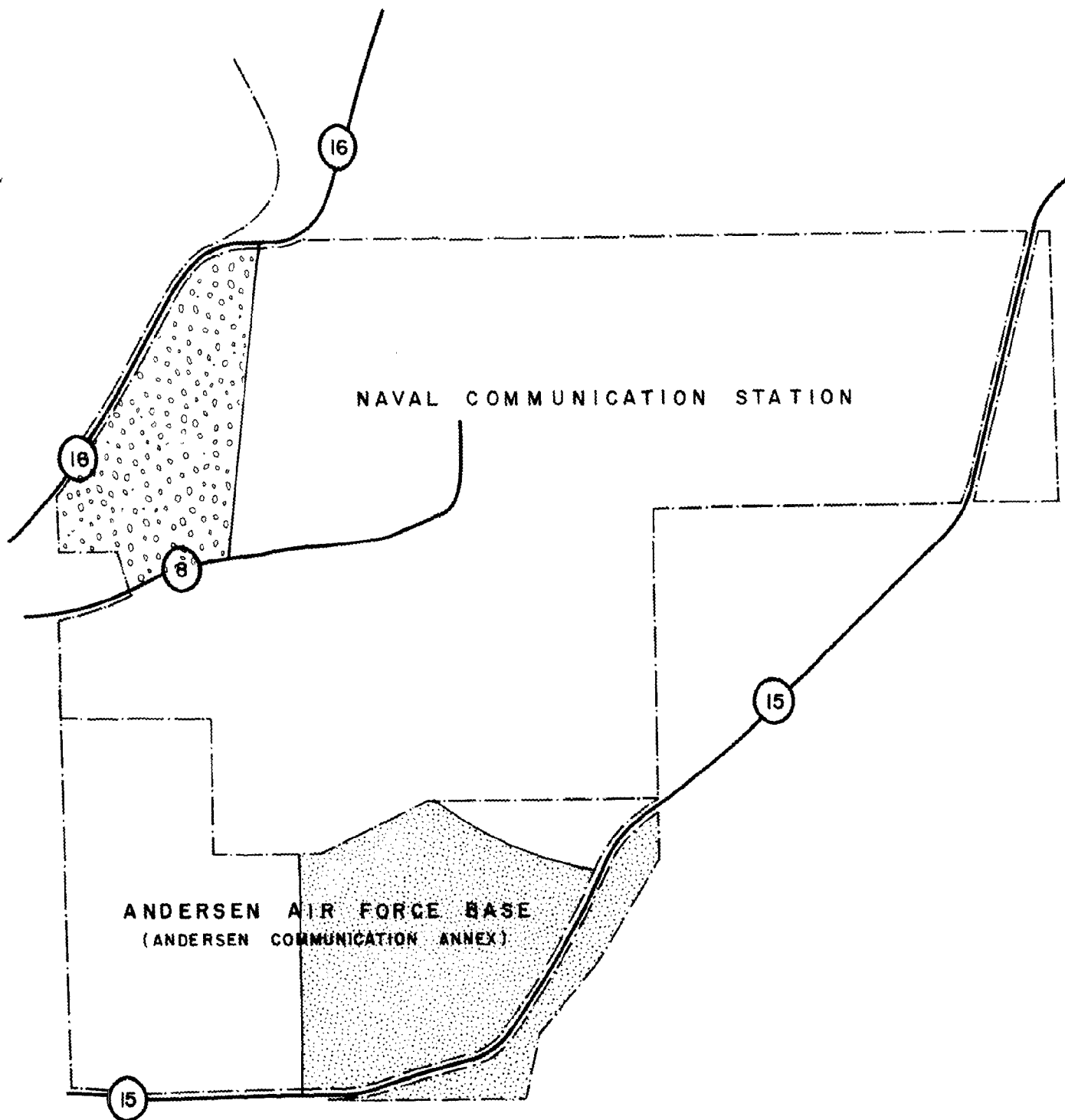


SOURCE : BUREAU OF PLANNING

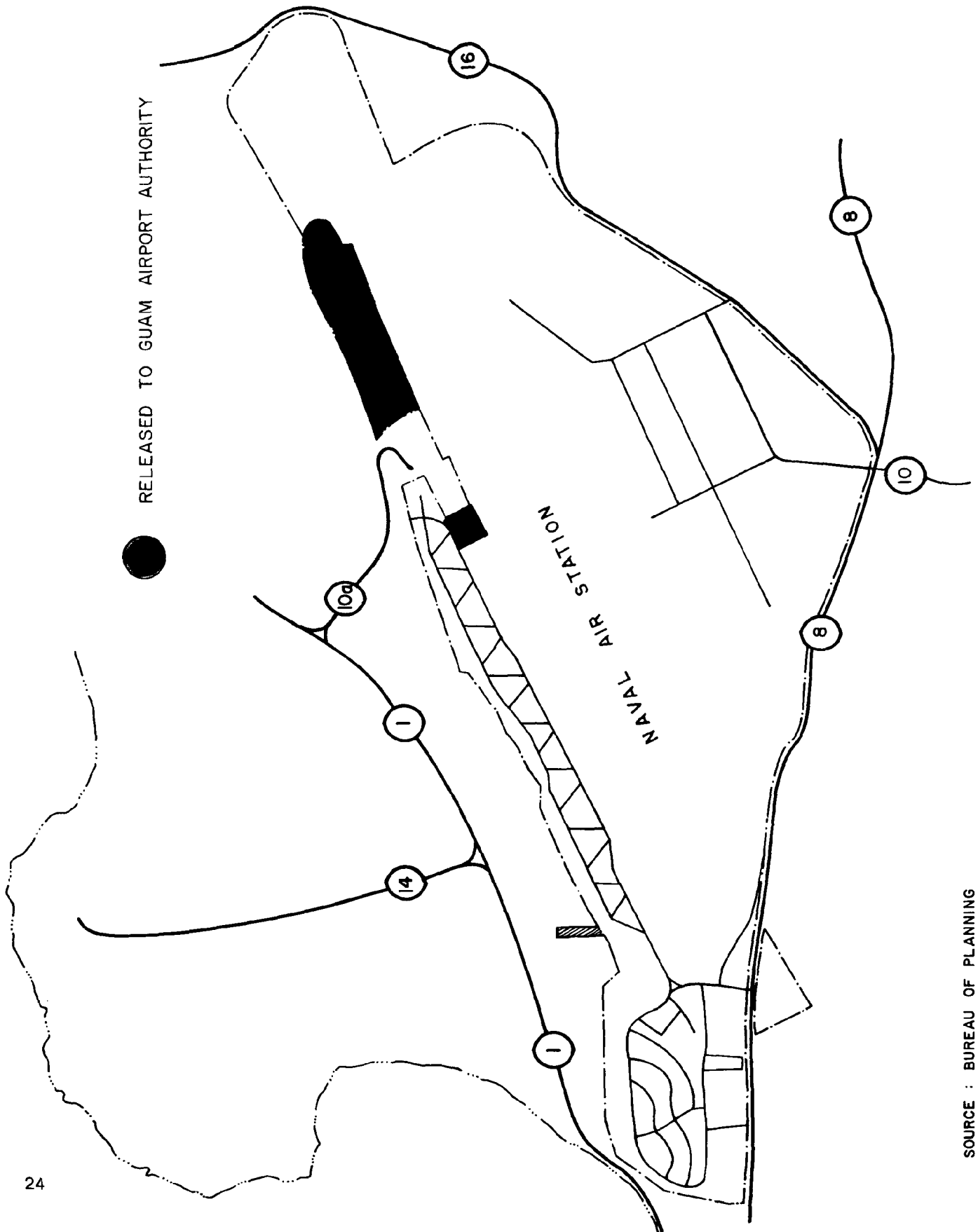
ANDERSEN SOUTH



NAVCAMS WESTPAC BARRIGADA and ANDERSEN BARRIGADA ANNEX

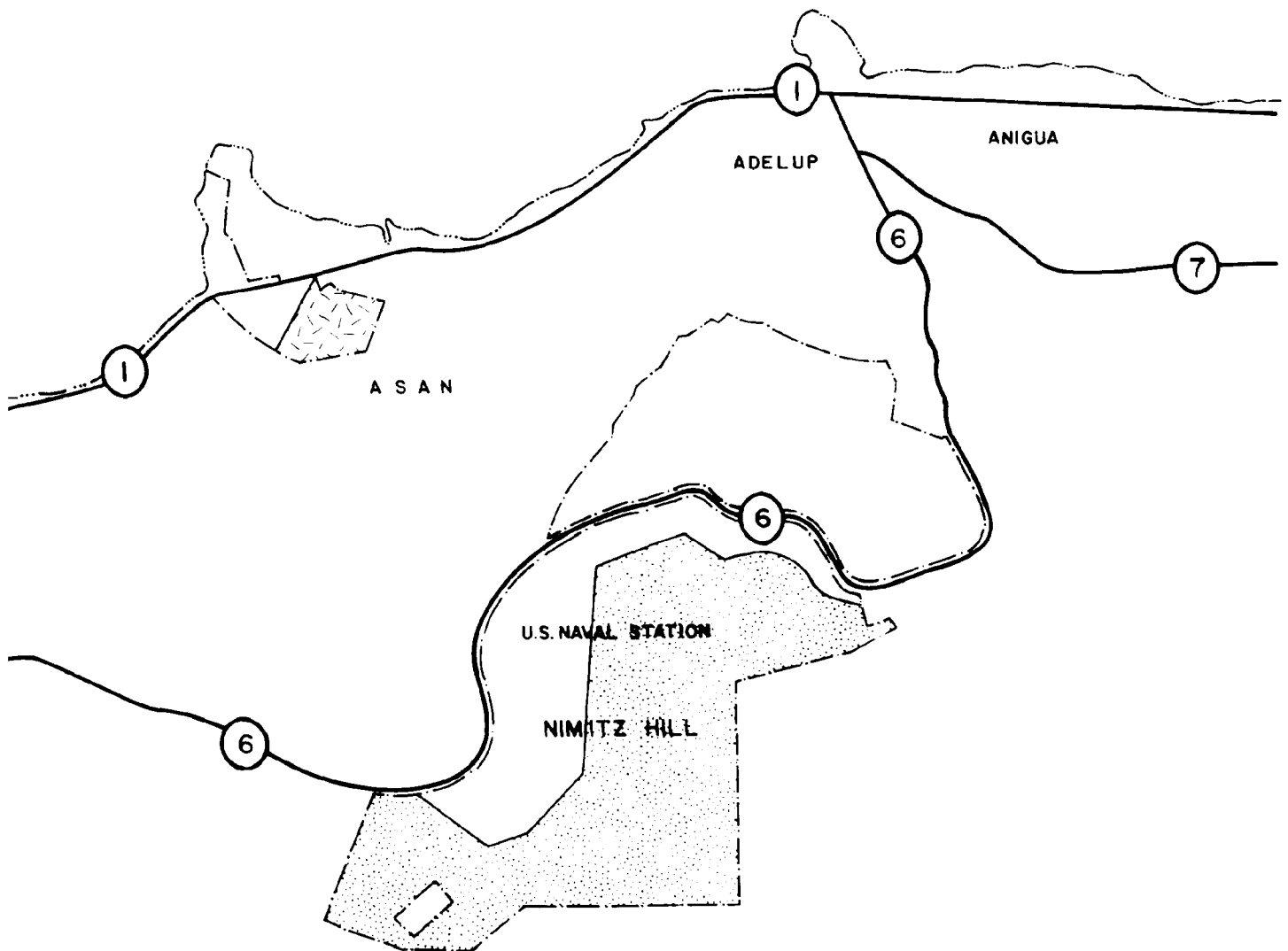


NAS AGANA and ACEORP MAUI TUNNEL



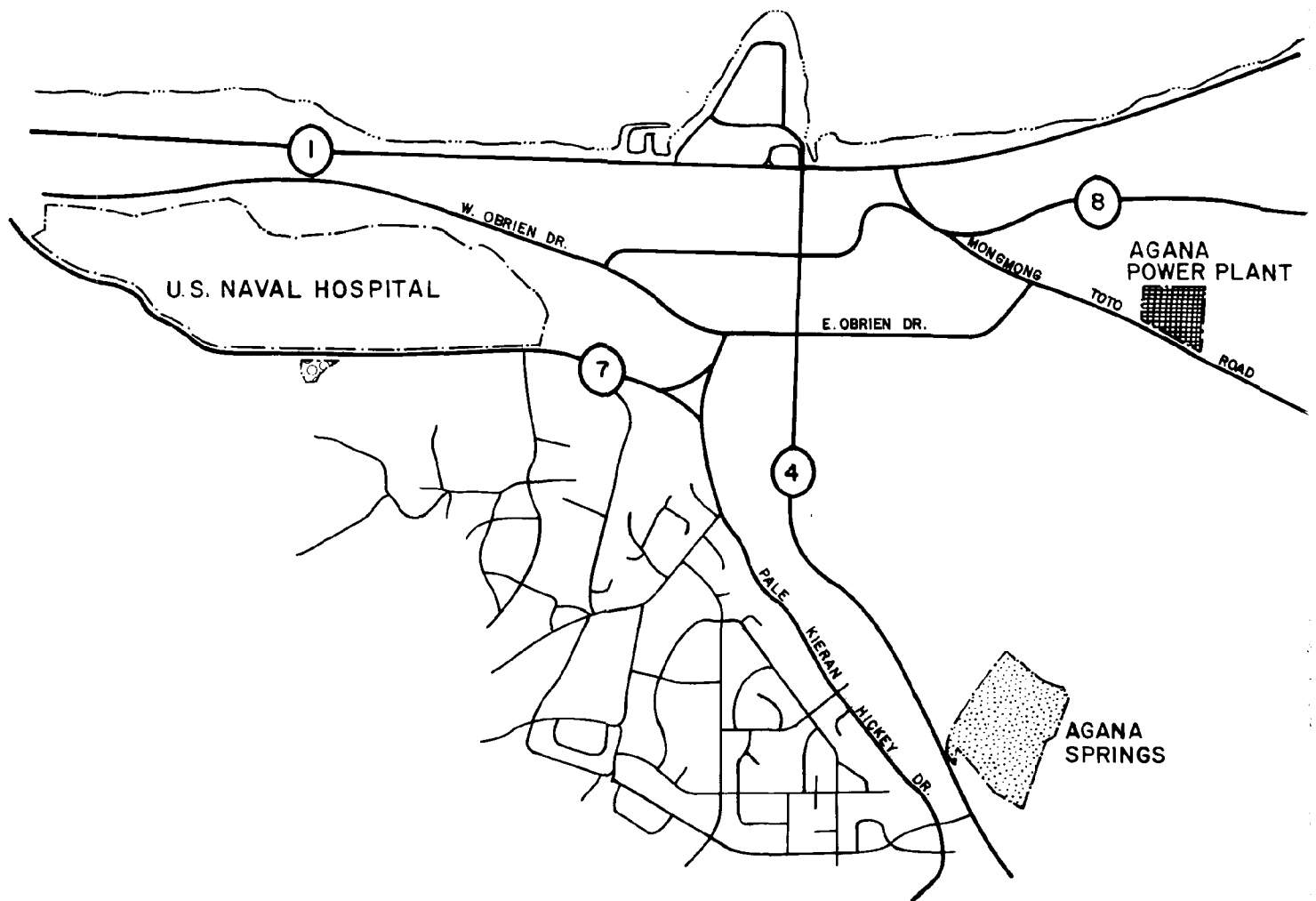
SOURCE : BUREAU OF PLANNING

ASAN ANNEX and NIMITZ HILL



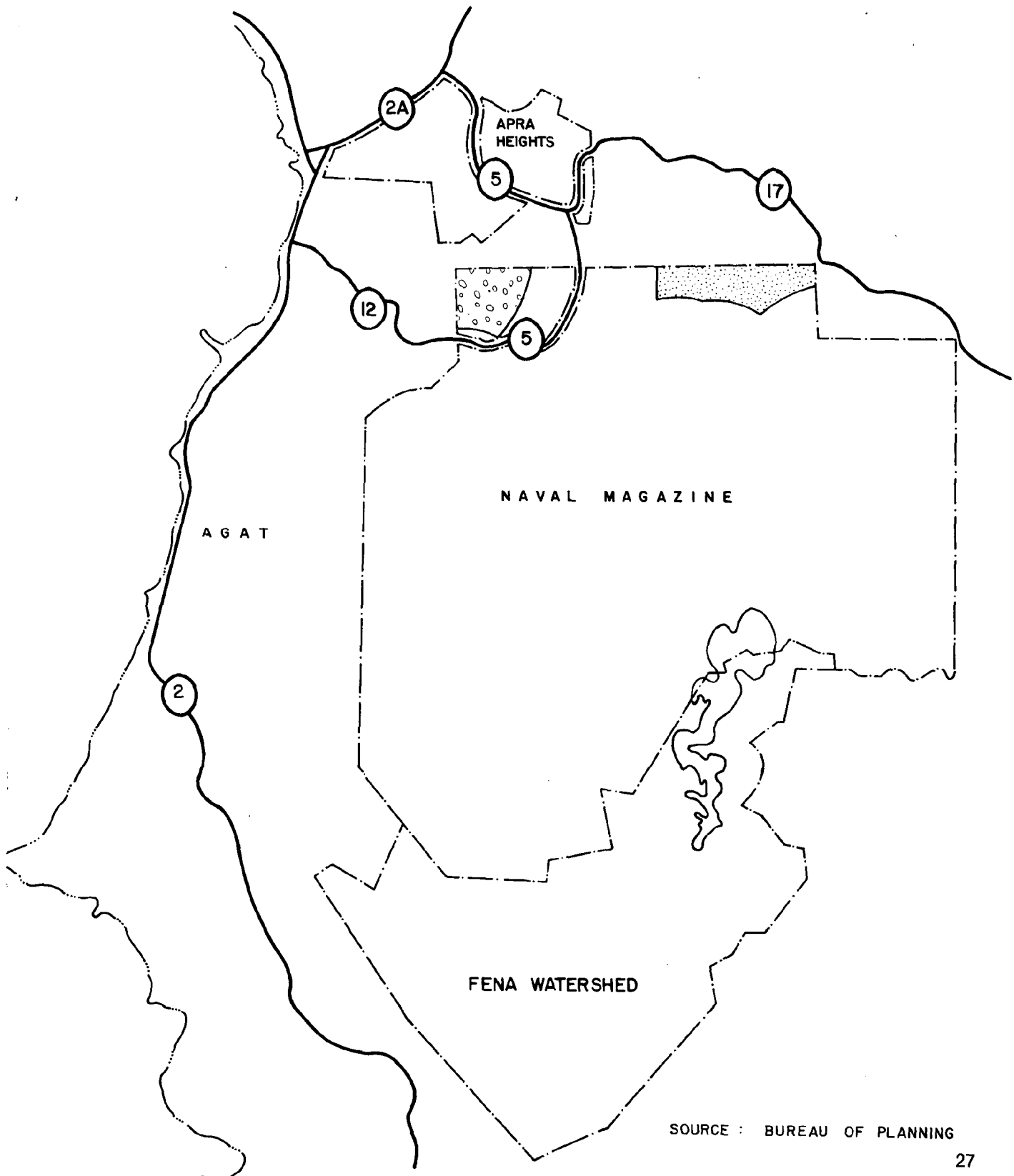
SOURCE : BUREAU OF PLANNING

NAVAL REGIONAL MEDICAL CENTER
AGANA POWER PLANT, and AGANA SPRINGS



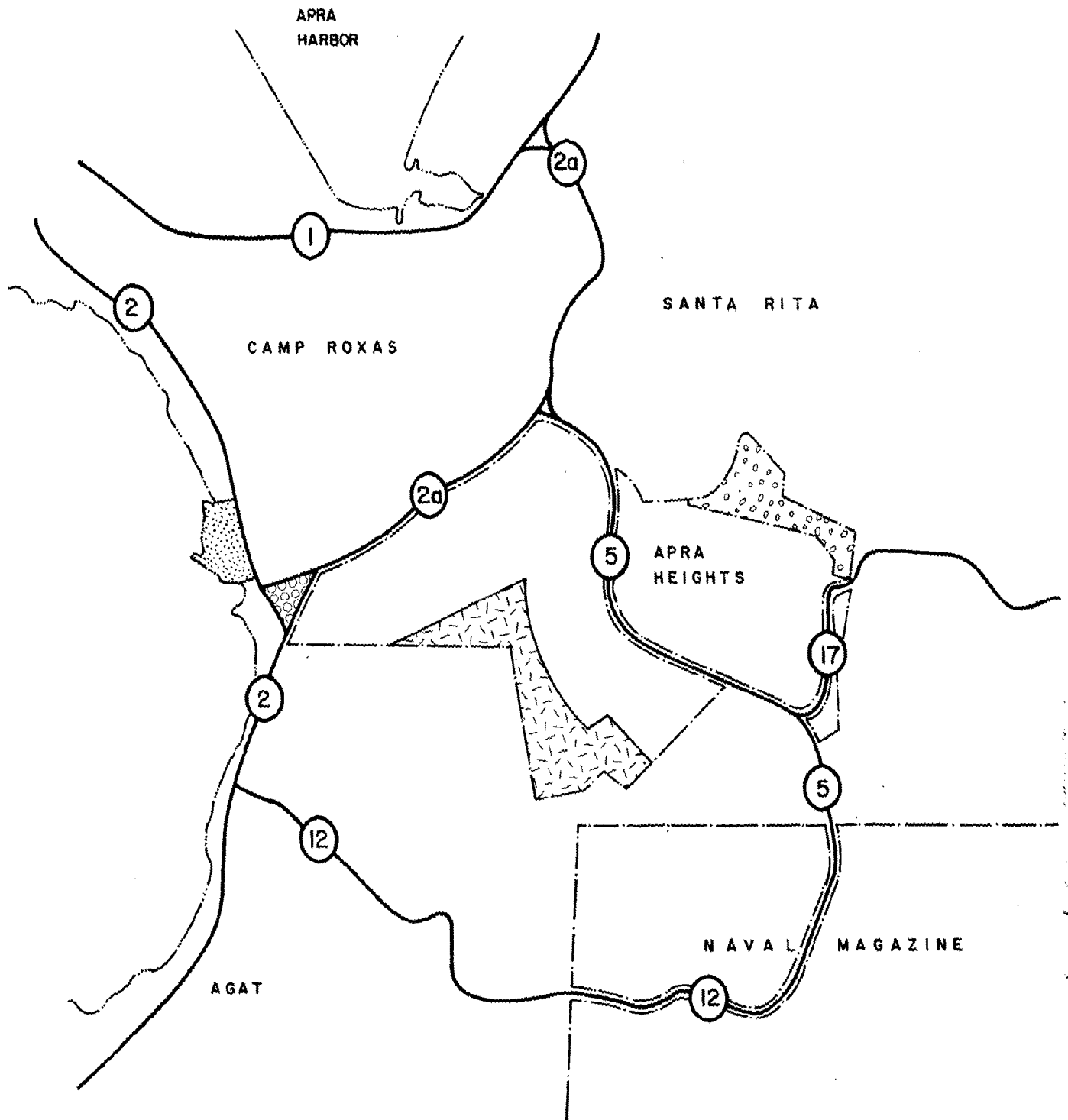
SOURCE : BUREAU OF PLANNING

NAVAL MAGAZINE



SOURCE : BUREAU OF PLANNING

APRA HARBOR COMPLEX I



SOURCE : BUREAU OF PLANNING

APRA HARBOR COMPLEX II

