

LA-UR-01-5308

**Decontamination and Decommissioning
of Buildings 1, 2, and 40
at Technical Area 33**

Historic Building Survey Report No. 195

Los Alamos National Laboratory

**August 30, 2001
Survey No. 861**

Prepared for the Department of Energy,
National Nuclear Security Administration
Los Alamos Area Office

prepared by

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Introduction

The following information has been prepared as part of a notification of potential adverse effect to three historic Los Alamos National Laboratory (LANL) properties located on Department of Energy land at Technical Area (TA) 33: TA-33-1, TA-33-2, and TA-33-40. The proposed decontamination and decommissioning (D&D) action is part of LANL's routine phasing out of aging and vacant buildings and will result in the demolition of all three properties. The D&D activities will adversely affect the attributes that make these buildings eligible for the National Register of Historic Places under Criterion A. Work processes carried out at TA-33 supported Cold War weapon component testing activities from 1948 to 1972. TA-33-1 (laboratory and office) and TA-33-2 (shop and laboratory) were built from 1947 to 1948 and are located in "Area 6" of TA-33. TA-33-40 (the Saw Building) was built in 1951 in the "Main Site" area.

This report is intended to provide the background information necessary to initiate the Section 106 consultation process; additional documentation will follow when a treatment plan is developed and final mitigation measures are determined. This report contains a description of the proposed action, historical background information, property descriptions, building integrity and contamination information, and recommendations for National Register of Historic Places eligibility. Maps are contained in Appendix A and New Mexico Historic Building Survey Forms, photographs, and building drawings are contained in Appendix B.

The State Historic Preservation Officer (SHPO) is requested to concur with the eligibility determinations contained in this report and to concur that the proposed D&D action will adversely affect buildings TA-33-1, TA-33-2, and TA-33-40.

Project Description

The three buildings are excess LANL property and are scheduled for clean up and eventual demolition. As part of the Department of Energy's mission statement, LANL is responsible for "... cleaning up inactive sites and facilities so that no unacceptable risk to the public or environment remains" (U.S. Department of Energy 1994). The removal of these buildings will be a continuation of LANL's D&D efforts and will also minimize the threat of wildfire by reducing the volume of potentially combustible material at TA-33. Associated utilities will also be removed during the D&D activities.

In July 2001, a historic building survey was conducted by Ken Towery, Ares Corporation; John Ronquillo, Sigma Science Inc.; and Alysia McLain, Kari Garcia, and Ellen McGehee, Environment, Safety, and Health Division, Ecology Group (ESH-20), LANL. The building survey was accomplished by first conducting a field visit to TA-33. New Mexico Historic Building Survey Forms were completed and photographs were taken (Appendix B). Records research at LANL was also carried out, and existing drawings were compiled for the buildings (Appendix B).

Historical Background

TA-33 (General Site Information)

TA-33, or Hot Point (HP) Site, was initially developed in 1947 for the Laboratory's weapons testing group, M-3, as a substitute test site for experiments that were being conducted at Trinity Site in southern New Mexico. These tests used conventional high explosives as well as uranium, beryllium, and polonium radiation sources. Experiments were conducted primarily to verify designs of nuclear weapons components called initiators and were performed in underground chambers and on surface firing pads. Additional tests were carried out at firing sites equipped with large guns that fired projectiles into earthen berms. This testing ended at TA-33 by 1972. Building TA-33-86, a high-pressure tritium facility, was in operation at TA-33 from 1955 until 1990. In later years, much of this area was obtained for offices, laboratories, and storage space for the Hot Dry Rock experiments being conducted at the Fenton Hill site in the Jemez Mountains and for the International Technologies Group, which engages in electronics design and fabrication (Los Alamos National Laboratory 1992).

Early History – Initiator Testing Group

In 1945, Group M-3 (later W-3) was formed under the leadership of D.P. McMillan to study weapons initiators. An initiator is a device used in nuclear weapons that supplies a source of neutrons that will quickly enhance the chain reaction at exactly the right moment (Los Alamos National Laboratory 1993). Basic initiator designs had already been developed during the war years at Los Alamos. Post-World War II (WWII) work related to refinements of design and to the specific study of the timing of initiators. From 1945 to 1947 a variety of development and testing locations were used by Group M-3, including Sandia Canyon (formerly TA-20), TA-21 (DP East), P-Site (now part of TA-16), and the Trinity Site near Alamogordo, New Mexico. In November of 1947, a site visit was made to the proposed area for a local initiator test site. In early 1948, TA-33 was "accepted" for start up and the first phase of construction at Area 6 was completed. Area 1 (present day East Site) was also operational (Los Alamos National Laboratory Archives).

Area 1/East Site

East Site (formerly known as Area 1) is a firing site located at the easternmost point of a mesa overlooking White Rock Canyon of the Rio Grande (Los Alamos National Laboratory 1992). After the end of WWII, two bomb designs were being developed for use in the United States stockpile: a plutonium "implosion" device and a uranium "gun-type" device. The implosion design used shaped high explosives to compress a subcritical mass of plutonium-239. The symmetrical compression would increase the density of the fissionable material and cause a critical reaction (Los Alamos National Laboratory 1995). Area 1 was an early test site used to conduct underground tests on implosion-type initiators. The tests were designed to be one-time events and a new pit facility was to be dug for each test. Typically, an octagonal pit structure and its associated entrance shaft would be constructed underground. Neutron counters and the initiator experimental apparatus would be placed in the reinforced concrete pit, or "chamber," and electronic cables would be routed from the pit structure to a distant control room. A portable

elevator building would be placed over the shaft until just before the test was ready to be run. Completed test data were received by instrumentation in the control room in TA-33-1 via the electronic cables (Los Alamos National Laboratory Archives). Buildings TA-33-1 and TA-33-2 were originally designed to be portable so that they could be moved to a new location at the completion of each underground test. These buildings were built on skids along with buildings TA-33-3 (Elevator Building) and TA-33-5 (Guard House). At East Site, the construction of Chamber #1 (original HP-4) was completed January 21, 1948, and tested April 14, 1948 (Figure 1). Another underground chamber (Chamber #2) was completed October 8, 1948, and tested in December of the same year. This area was reactivated for the testing of gun-type initiators in 1955 (Los Alamos National Laboratory 1992; Los Alamos National Laboratory Archives).

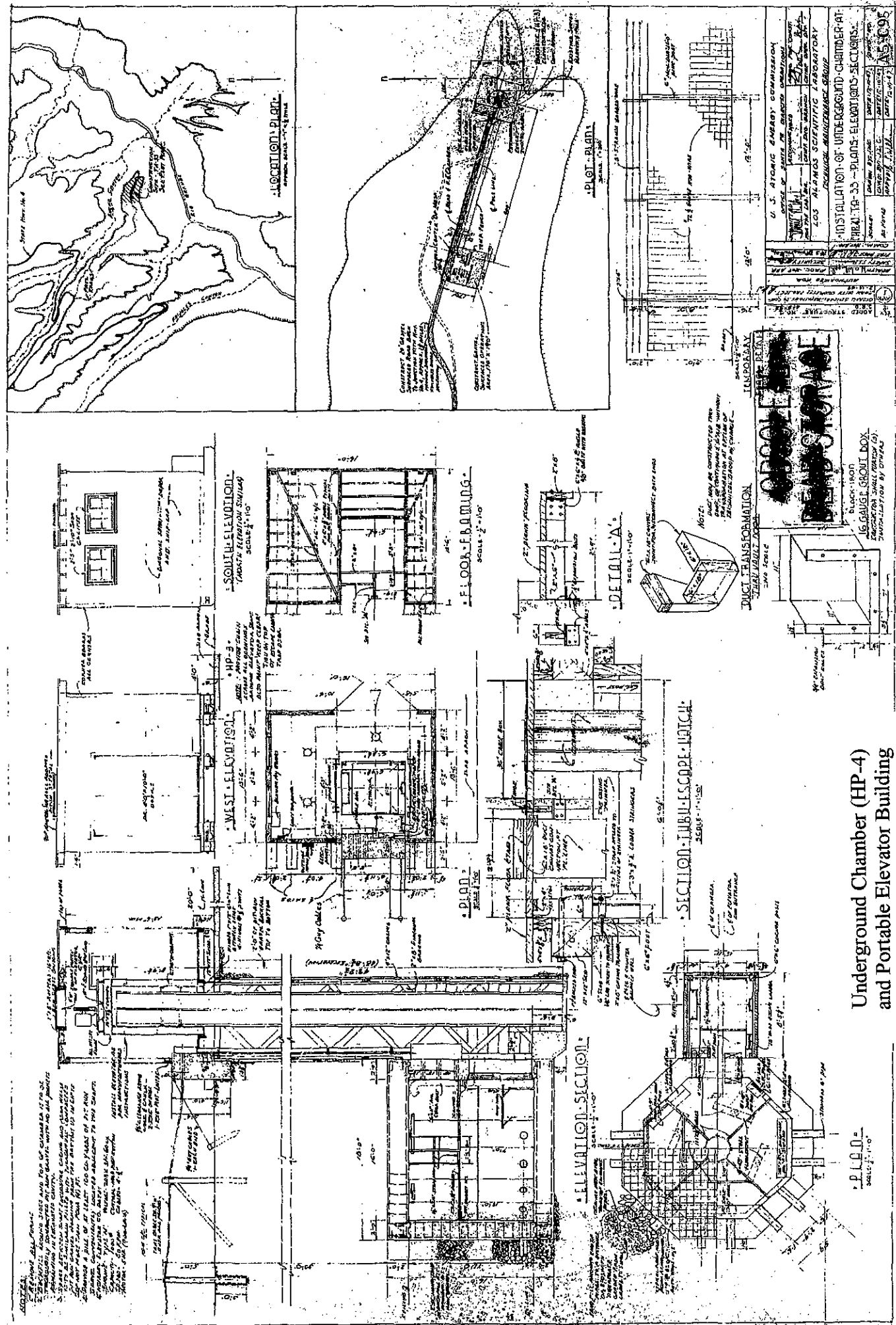
Area 6

Area 6 was developed in 1948 for initiator experiments and work focused on the testing of initiators used in gun devices. The gun device was conceptually simple and involved shooting one subcritical mass of uranium-235 into another at sufficient speed to avoid pre-detonation. Together, the two subcritical masses form a supercritical mass that releases a tremendous amount of nuclear energy (Hoddeson *et al.* 1997).

Area 6 was an active firing site with two firing areas. One was located near TA-33-16, a steel "Butler" building. This firing area consisted of a concrete shot pad where a large-bore gun was mounted. Projectiles were fired at targets placed in front of barricades or shot into catcher boxes built of timbers and filled with soil, wood chips, and vermiculite. Projectiles fired into catcher boxes were recovered and sectioned. Compressed air or high explosives were used to fire the guns. The second firing area was located 100 ft southwest of TA-16-33 and consisted of a shot pad and two wooden barricades (Los Alamos National Laboratory 1992). Figure 2 shows the remains of this firing area.

TA-33-1 and TA-33-2 were moved to Area 6 in late 1948 or early 1949 to support the Elsie Program (a gun-type device). TA-33-16, formerly building 6, was completed in March of 1949 and originally housed an air gun. At this time, the program to test implosion initiators moved from Area 1 to South Site, another firing site at TA-33. Both types of initiator testing continued at Area 6 and South Site during the 1950s. At Area 6, TA-33-1 was used as an office and laboratory space before the Main Site administrative center at TA-33 was fully developed. TA-33-2 was used as shop, warehouse, and laboratory (Los Alamos National Laboratory Archives).

In 1951, Area 6 was renovated to support another experimental program. Priorities included constructing another gun area and a saw building. A second phase was to remodel the old Butler building at Area 6 (TA-33-16) and add electronic control room equipment (Los Alamos National Laboratory Archives). This new phase of construction in the general area of Area 6 included the construction of TA-33-19, TA-33-20, and TA-33-40 (the Saw Building) and led to the development of Main Site. Work at Area 6 diminished in importance as additional gun program testing was carried out at East Site (old Area 1) in the mid-1950s. By 1955, shots were discontinued at Area 6. In 1956, TA-33-16 was being used to make and machine laminating material. TA-33-1 housed experiments to make niobate crystals, and TA-33-2 was being used as a shop (Los Alamos National Laboratory 1992).



Underground Chamber (HP-4)
and Portable Elevator Building
1947

Figure 1

U. S. ATOMIC ENERGY COMMISSION
OFFICE OF STATE PLANNING AND DEVELOPMENT
LOS ALAMOS SCIENTIFIC LABORATORY
GENERAL MAINTENANCE GROUP

INSTALLATION OF UNDERGROUND CHAMBERS -
PLANS - ELEVATIONS - SECTIONS -

PROJECT: HP-4
DRAWN BY: J. W. COOPER
CHECKED BY: J. W. COOPER
DATE: 10/10/47

SCALE: 1/16" = 1'-0"

FIG. NO. 1

U. S. ATOMIC ENERGY COMMISSION
OFFICE OF STATE PLANNING AND DEVELOPMENT
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INSTALLATION OF UNDERGROUND CHAMBERS -
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FIG. NO. 1



Figure 2. Shot Pad (foreground), Barricades, and TA-33-16 (background)

Main Site

The buildings at Main Site were constructed over a 13-year period (1949 to 1962) and, ultimately, Main Site became the administrative center for TA-33. Key facilities include TA-33-19 (Office and Laboratory Building), TA-33-20 (Warehouse Building), TA-33-39 (Shop Building), TA-33-86 (Gas Handling Facility), and TA-33-114 (Office and Laboratory Building). Construction styles vary widely from a metal Quonset hut to cinder block buildings, reinforced concrete buildings, and other metal and wood buildings.

TA-33-40, built at Main Site in 1951, was used to saw open experimental casings related to initiator research and development. The use of the slit saw was critical in determining the results of the various initiator tests. In 1953, TA-33-40 was moved to its present location to make room for a new facility. This new Gas Handling Facility (TA-33-86) was completed in 1955, the same year that D.P. McMillan, W-3's original group leader, left the initiator testing group to pursue other research at Los Alamos. He was replaced by J.E. Dougherty (Los Alamos National Laboratory 1992; Los Alamos National Laboratory Archives).

Property Descriptions

(Complete architectural descriptions are contained in the historic building survey forms located in Appendix B.)

Building Identification and Numbering

The buildings discussed in this report are identified using the current LANL system of placing the TA prefix before each building number. Historically, however, the "HP" prefix (for Hot Point Site) was used before each building number and some of the drawings included in this report may use the old system of building identification. For example, TA-33-40 is the same building as HP-40.

Originally, buildings and structures at TA-33 were numbered in the order of their construction. At some point, the buildings were renumbered. Buildings HP-1 and HP-2 at Area 6 retained their original numbers (TA-33-1 and TA-33-2) but building 6 at Area 6 became TA-33-16. Buildings 1 and 2 at Main Site were renumbered TA-33-19 and TA-33-20. There was some confusion about this latter renumbering because both TA-33-1 and the new TA-33-19 (formerly building 1) are both laboratory buildings. Additionally, TA-33-2 and the new TA-33-20 (formerly building 2) are both warehouses. Careful scrutiny of the drawings, area maps, and records helped to clarify this confusing situation. For example, TA-33-19 is much larger and more complex in layout than TA-33-1.

Buildings TA-33-1 and TA-33-2

TA-33-1 and TA-33-2 were both constructed by R.E. McKee between December 12, 1947, and January 21, 1948, and are primarily associated with initiator testing at Area 6. However, they were originally constructed for use at Area 1 (now East Site) and were moved to their present site at Area 6 sometime between July of 1948 and January of 1949 (Los Alamos National Laboratory 1992; Los Alamos National Laboratory Drawings A5-C162 and ENG4-R45). The relocation of these two buildings from East Site corresponds to the completion of an underground initiator test at Chamber #2 in late 1948.

TA-33-1 (HP-1), Portable Laboratory and Office Building

TA-33-1 was originally designed as a laboratory and office space. This small building (450 gross ft²) is of wood frame construction, has a pitched roof, and has painted wood siding on its exterior. The roof is composed of rolled asphalt over wood framing and is in an advanced state of deterioration. The building was designed to be portable and sits on wooden skids. A laboratory sink and workbench are the only notable equipment remaining in the building. Overall, TA-33-1 is in fair condition although it is suffering from the effects of time and from exposure to the elements.

TA-33-1 was used at Area 6 as an office and laboratory building in support of the initiator testing program until 1955 when gun testing programs were moved to East Site. TA-33-1 was used after 1955 for the production of niobate crystals. It is likely that active work in this building

ceased before the end of the initiator testing program in 1972. TA-33-1 is currently empty and was last used for general storage.

TA-33-2 (HP-2), Portable Warehouse Building

TA-33-2 was originally designed to be a portable warehouse. Over the years, it also was used as a shop and laboratory space in support of TA-33's initiator testing program. TA-33-2 is a one-story building and is approximately 450 gross ft² in size. Like TA-33-1, it is of wood frame construction, sits on wooden skids, has a pitched roof, and has painted wood siding on its exterior. The roof is composed of rolled asphalt over wood framing and is in fair condition. The exterior of the building is deteriorating and is generally in poor condition.

After 1955, when testing activities moved to East Site, TA-33-2 continued to be used in its capacity as a shop. As was the case with building TA-33-1, active work in this building was probably discontinued before the end of the initiator testing program. It was last used for general storage.

TA-33-40 (HP-40), Saw Building

TA-33-40 was built by the Zia Company between February 12, 1951, and March 23, 1951. It is a windowless, one-story building of approximately 335 gross ft². TA-33-40 is of wood frame construction and has a slightly pitched, shed-type roof. The building was constructed at Main Site to house saw operations previously being conducted in building TA-33-16 at Area 6 (Los Alamos National Laboratory Engineering Documents Lab Job #755).

TA-33-40 originally housed a 24" saw with self-contained coolant. This slit saw was used to open steel and uranium (both depleted and natural) projectiles containing polonium and beryllium after they were retrieved from initiator experiments (Los Alamos National Laboratory 1992). In 1953, TA-33-40 was relocated northeast of building TA-33-39 at Main Site to make room for the Gas Handling Facility, TA-33-86. Heating, plumbing, and electrical alterations, including room exhaust modifications were made to accommodate the relocation. At its new location, a sand bag barricade was situated approximately 4 feet from the building around the east, north, and west elevations (Los Alamos National Laboratory Drawing ENG-C2956). This barricade was constructed to shield a nearby road from possible shrapnel (Los Alamos National Laboratory Engineering Documents Lab Job # 1362). TA-33-40 continued to be used as a saw building at its new location until 1972 when W-3 operations ended. The building was last used as a general storage area.

Integrity Issues, Moved Properties, and Potential for Contamination

Integrity

The LANL Cultural Resources Management Team has developed four integrity codes to assess potentially eligible properties. The integrity requirements for properties eligible under Criterion A are less stringent than for those properties eligible under Criterion C. A historically significant property with a level 3 integrity could still be eligible, especially if an element of historical

uniqueness is involved. Properties eligible under Criterion C should have no lower than a level 2 integrity. Level 4 integrity properties are not eligible for the Register.

1. Excellent Integrity - the property is still closely associated with its primary context and retains integrity of location, design, setting, workmanship, materials, feeling, and association. Little or no remodeling has occurred to the property and all remodeling is in keeping with its associated historic context/significant use period.
2. Good Integrity - the property's interior and exterior retain historic feeling and character but most of the original equipment may be gone. The property may have had minor remodeling.
3. Fair Integrity - a property in this category should retain original location, setting, association, and exterior design. All associated interior machinery/equipment may be absent but the essential question is "Is this property still recognizable to a contemporary of the building's historic period?"
4. Poor Integrity - the property has no connection with the historically significant setting, feeling, and context. Major changes to the property have occurred. The property would be unrecognizable to a contemporary.

Based on the initial field visits, it appears that most of the original equipment has been removed from the three buildings discussed in this report. Other than this loss of interior integrity, the buildings and structures have not been significantly modified since their period of significance. TA-33-1, TA-33-2, and TA-33-40 are all in fair physical condition with some deterioration due to the passage of time and lack of upkeep. The buildings retain original location, setting, association, and exterior design and would be recognizable to someone who worked at TA-33 between 1948 and 1972. These three buildings have level 3 integrity.

Moved Properties

Buildings TA-33-1 and TA-33-2 were designed to be portable and were moved from their original locations at East Site to their present locations. Additionally, it is likely that they were moved at least once while at East Site in conjunction with the construction and use of the second underground test at Chamber #2. At Main Site, building TA-33-40 was moved in order to accommodate the construction of the Gas Handling Facility, TA-33-86. None of the Saw Building's original functions were affected by this move and it continued to operate at Main Site until the end of TA-33's initiator testing program in 1972. The fact that all three buildings were moved has no bearing on their eligibility status. TA-33-1 and TA-33-2 were designed to be portable and being moved supported their original function. TA-33-40 was moved only a short distance and continued to function as originally designed.

Contamination

Based on the nature of the activities conducted at TA-33, possible site-wide contaminants include depleted and enriched uranium, beryllium, high explosives residues, deuterium, and

tritium. Minor contaminants associated with former operations include plutonium, cadmium, silver, lead, mercury, and solvents (Los Alamos National Laboratory 1992).

TA-33-1 and TA-33-2

In the general area of Area 6, potential contaminants include barium, lead, uranium, beryllium, and high explosives. Additionally, contaminants from the area of building TA-33-1 may include volatile organics and photoprocessing chemicals (Los Alamos National Laboratory 1992).

TA-33-40

LANL records indicate that a fan was installed in the roof of TA-33-40 because uranium fumes were emanating from saw operations. The cutting operation produced fumes and dust and a filter system was installed to keep dust from settling on the slit-saw operator. Loss of uranium ranged from 1 to 2 lbs. per week. Contamination could still remain in the vicinity of the TA-33-40 because the building's floor drain ran downhill several feet without a sump or holdup and effluents were allowed to leach into the ground (Los Alamos National Laboratory 1992; Los Alamos National Laboratory Archives).

National Register Eligibility Recommendations

Based on the information gathered during this building survey, TA-33-1, TA-33-2, and TA-33-40 are eligible for nomination to the National Register of Historic Places under Criterion A. Although these three buildings do not possess a high level of interior integrity, they still maintain significant historical integrity. TA-33-1, TA-33-2, and TA-33-40 are all at least 50 years old and retain the key elements of original location, setting, association, feeling, and exterior design. The main period of significance for these buildings covers the years between 1948 and 1972. The activities conducted in these buildings directly contributed to Cold War weapons research and development at Los Alamos. Specifically, all three buildings supported the initiator testing program at TA-33—testing both gun-type and implosion initiator designs. TA-33-1 once served as the first laboratory and office space at TA-33. TA-33-2, although primarily used as a support building, was occasionally used as a laboratory. The Saw Building, TA-33-40, was a significant processing building that was in use until the initiator testing program ended in the early 1970s. The building housed a slit saw that was used to cut open experimental casings to access important test data.

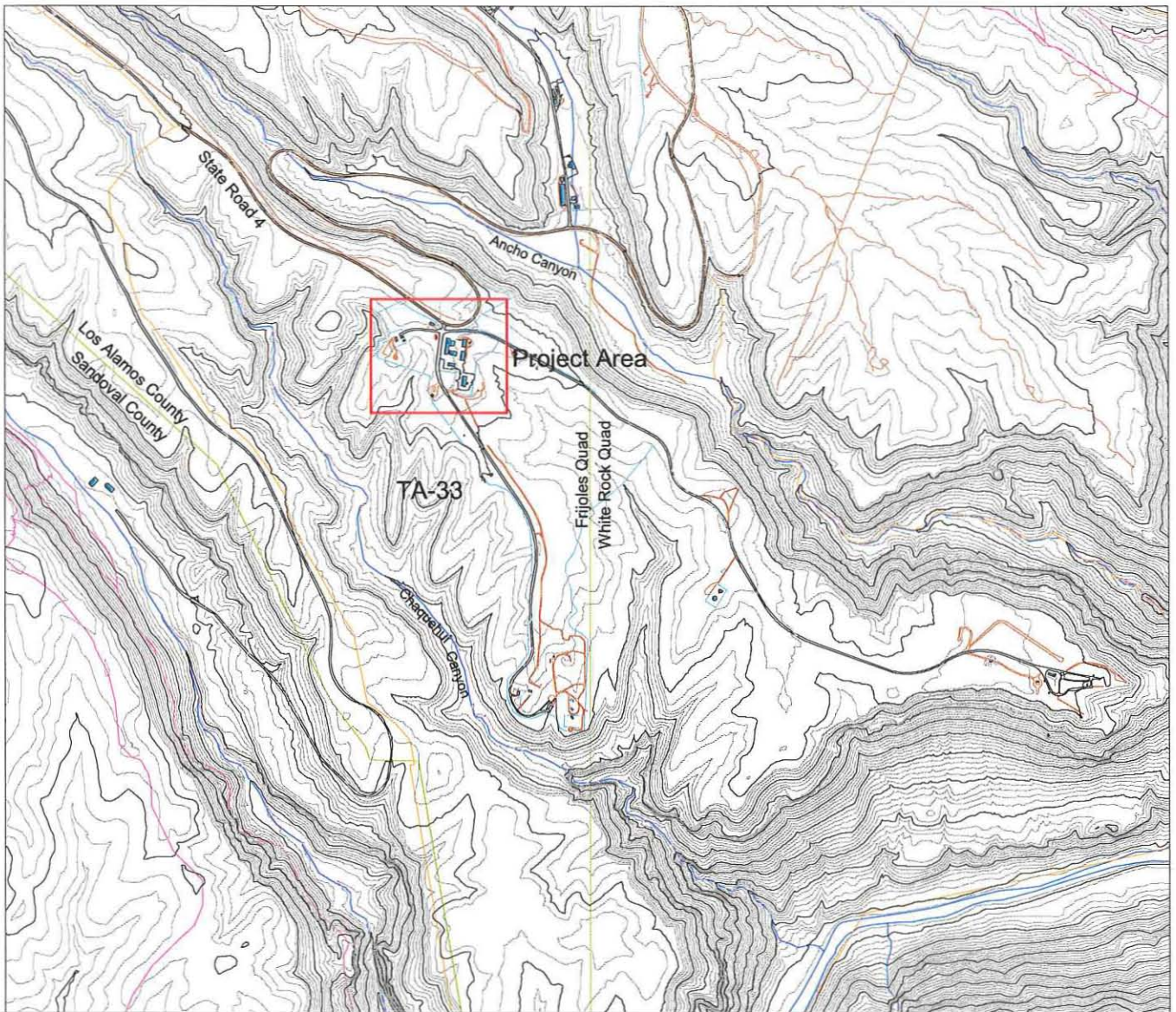
The SHPO is requested to concur with the eligibility determinations contained in this report and to concur that the proposed D&D action will adversely affect buildings TA-33-1, TA-33-2, and TA-33-40.

As a result of this historic building survey, this project complies with the National Historic Preservation Act of 1966 (as amended).

References Cited

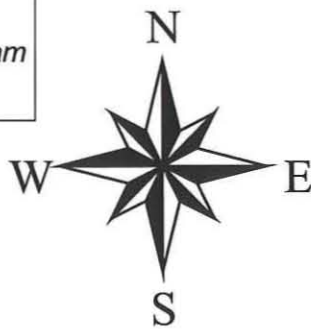
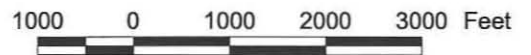
- Hoddeson, Lillian, Paul W. Henriksen, Roger A. Meade, and Catherine Westfall
1997 *Critical Assembly; A Technical History of Los Alamos during the Oppenheimer Years, 1943-1945*. Cambridge University Press, Cambridge, UK. Copyrighted by the U.S. Department of Energy, 1993. First published 1993, reprinted 1995 and 1997, and digitally printed 1998.
- Los Alamos National Laboratory
1992 *RFI Work Plan for Operable Unit 1122: Environmental Restoration Program*, LA-UR-92925, Los Alamos National Laboratory, Los Alamos, New Mexico.
- 1993 *Los Alamos: Beginnings of an Era 1943-1945*. Los Alamos Historical Society, Los Alamos, New Mexico.
- 1995 *Dateline: Los Alamos, Special Issue, LALP -95-2-6&7*. Los Alamos National Laboratory, Los Alamos, New Mexico.
- Los Alamos National Laboratory Archives
Information acquired from the LANL Archives, TA-21-1001, Roger Meade, LANL Archivist. Files accessed include "Group M-3 and Group W-3 Monthly Progress Reports" and other general LANL organizational chart information on file at the archives.
- Los Alamos National Laboratory Drawings A5-C162 and ENG4-R45
Drawings on file at Facility and Waste Operations Division (FWO), Los Alamos National Laboratory, Los Alamos, New Mexico.
- Los Alamos National Laboratory Drawing ENG-C2956
Drawing on file at Facility and Waste Operations Division (FWO), Los Alamos National Laboratory, Los Alamos, New Mexico.
- Los Alamos National Laboratory Engineering Documents, Lab Job #755
Correspondence dated 1/22/51, on file at Facility and Waste Operations Division (FWO), Los Alamos National Laboratory, Los Alamos, New Mexico.
- Los Alamos National Laboratory Engineering Documents, Lab Job # 1362
Correspondence dated 11/52, 12/52, and 3/53, on file at Facility and Waste Operations Division (FWO), Los Alamos National Laboratory, Los Alamos, New Mexico.
- U.S. Department of Energy
1994 *Environmental Restoration and Waste Management Five-Year Plan, Fiscal Years 1994-1998*. DOE/S-00097P, U.S. Department of Energy, Washington, D.C.

Appendix A
Maps



Los Alamos
National Laboratory
 Cultural Resources Management Team
 ESH-20 Ecology Group

1:24000

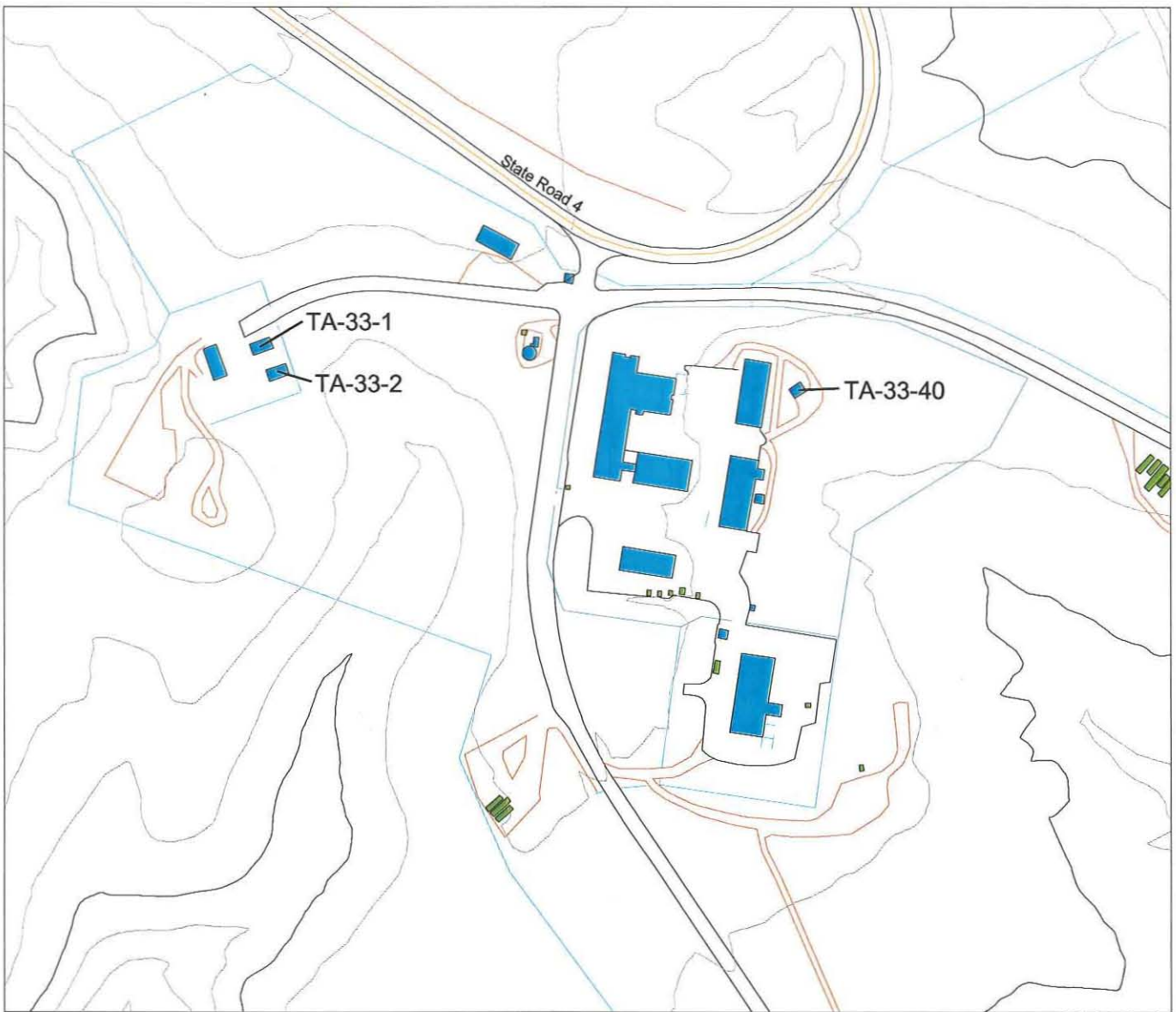


**Decontamination and
 Decommissioning of
 TA-33-1, -2, and -40**

TA-33

- 20 Foot Contours
- 100 Foot Contours
- Techarea
- Drainage
- Township, Section, Range
- USGS 7.5 Minute Quad
- Trails
- Roads
- Roaddirt
- Parkpave
- Parkdirt
- Infence
- Secfence
- Permbldg
- Tmrbldg
- Ugrbldg

Map 1



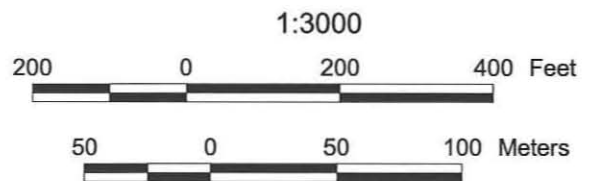
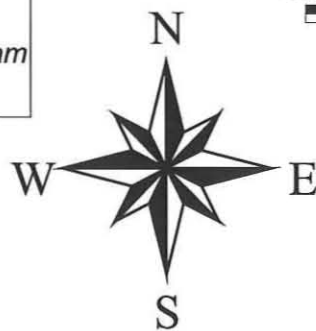
Frijoles Quad

Los Alamos National Laboratory

*Cultural Resources Management Team
ESH-20 Ecology Group*

Decontamination and Decommissioning of TA-33-1, -2, and -40

TA-33



- 20 Foot Contours
- 100 Foot Contours
- Techarea
- Drainage
- Township, Section, Range
- USGS 7.5 Minute Quad
- Trails
- Roads
- Road/dirt
- Park/pave
- Park/dirt
- Indfence
- Secfence
- Perm bldg
- Tmp bldg
- Ugr bldg

Map 2

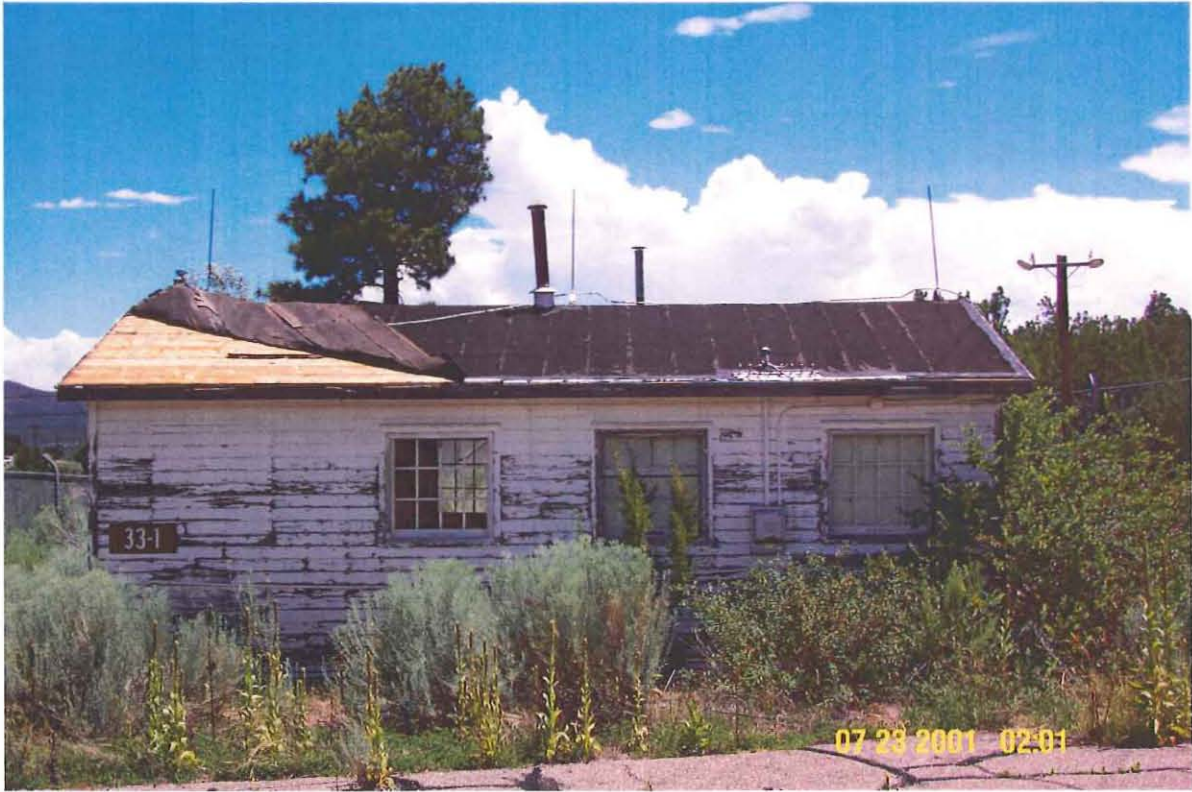
Appendix B
New Mexico Historic Building Survey Forms, Photographs, and Drawings

NEW MEXICO HISTORIC BUILDING INVENTORY FORM

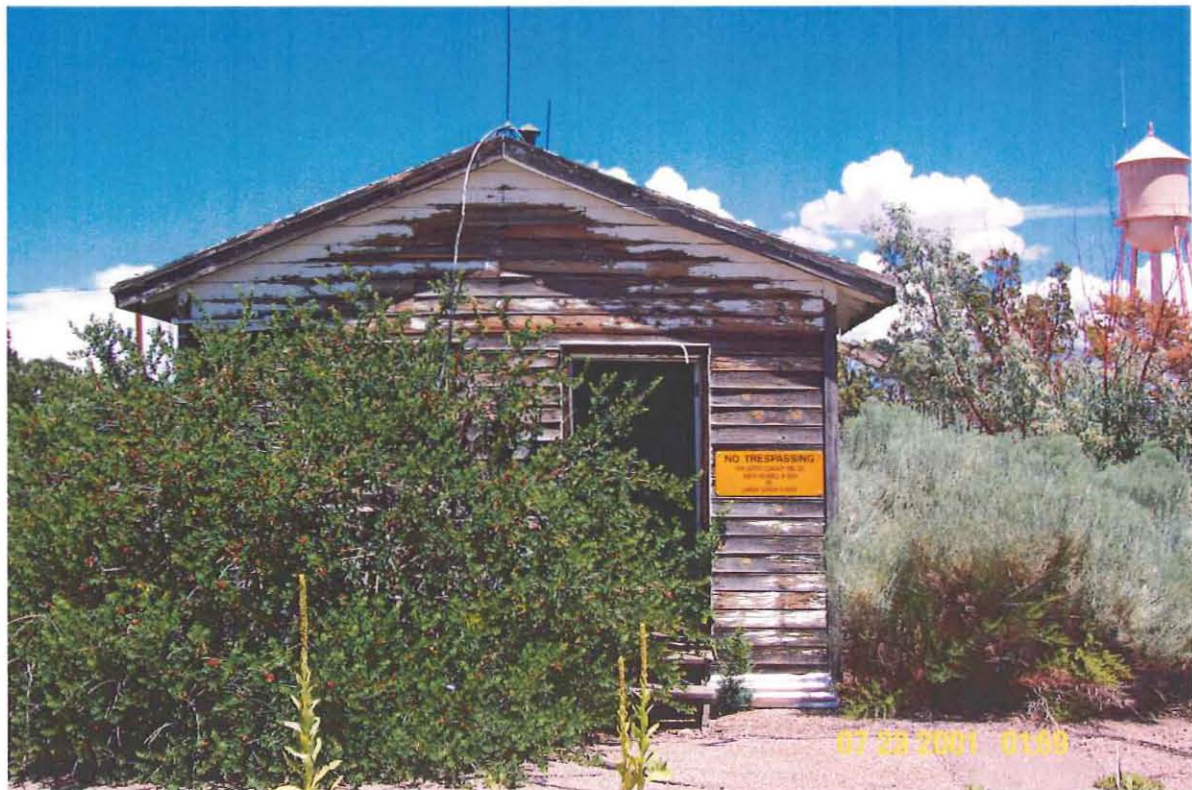
Building threatened? Yes		Surveyed date 7/29/2001 by J. Ronquillo and Ken Towery		County Los Alamos		ID no. TA-33-1		
Field map n/a			Number UTM reference: Easting 386334 Northing 3960494 Zone 13					
Location description Technical Area (TA) 33, HP (Hot Point) Site, Area 6				City/town Los Alamos Land grant/reservation n/a				
Building name TA-33-1 Original name TA-33-1 (HP-1), Portable Laboratory			Legal description USGS Frijoles 7.5 Series tnsp 19N range 6E sec Unplatted					
Camera name SBSP		Negative nos. 51 - 56		Location of neg. LANL, ESH-20		Date of construction _____ estimate 12/2/1947 to 1/21/48 actual source Facility & Waste Operations Division (FWO) records (LANL)		
Style TA-33-1 is a wood frame building with a gable roof. (see below for more information)		Foundation material Concrete slab and wooden skids Wall material/surface The exterior surface is covered with wood siding. The interior walls consist of gypsum board.		Use <u>Present</u> residential ✓ other According to the MOADS database, TA-33-1 is currently being used for general storage. <u>historic</u> residential ✓ other TA-33-1 was originally used as a laboratory to support early initiator experiments.			Condition _____ excellent _____ good <u>X</u> fair <u>X</u> deteriorating	
Degree of remodeling <u>X</u> minor _____ moderate _____ major describe: In 1948, a sink and C.W. (cold water?) supply were added to TA-33-1. The raceway, breakers, outlets, and water lines were replaced in 1957 as part of upgrades to the toilet facilities. The interior walls were modified at some time with the addition of 1" rigid insulation under 5/8" gypsum board.								
Surroundings Developed Laboratory Technical Area 33		Relationship to surroundings <u>X</u> similar _____ not similar			District potential _____ yes <u>X</u> no			
Significance <u>X</u> Eligible _____ of interest _____ none if not eligible, why?		Associated building? <u>X</u> yes What type? Laboratory and shop buildings If inventoried, list ID nos. TA-33-2 and TA-33-16			Associated drawings (Photos and copies of the drawings are on following pages.) A5-C96 Installation of Underground Chamber at TA-33, Plan, Sections, Details December 10, 1947 SK No. ENG 4-513 Install Sink and C.W. Supply In HQ Bldg. HP-1, TA-33 February 16, 1948			

		<p>SK No. ENG 4-522 Lighting For TA-33 Area 1 February 25, 1948</p> <p>A5-C162 Underground Chamber No. 2 (HP-6) TA-33, Plot Plan and Details July 24, 1948</p> <p>ENG 4-R45 Topo and Plot Plan, TA-33 January 27, 1949</p> <p>ENG-C18787 (sheet 1 of 1) Toilet Facilities Bldg. HP-1, TA-33 January 17, 1957</p> <p>ENG-R3017 (sheet 1 of 1) Portable Laboratory Floor Plan June 19, 1964</p> <p>Size 450 gross ft² (406 net ft²)</p>
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<p>Architectural features TA-33-1 is a free standing, one-story building of approximately 450 gross square feet. It is of wood frame construction, has a pitched roof, and has painted wood siding on the exterior. The roof is composed of rolled asphalt over wood framing and is in an advanced state of deterioration. The building was designed to be portable and sits on wooden skids. On the west elevation, there is one pedestrian door and one hopper-type window with single pane glass. The window has twelve individual panes of clear glass and appears to be of original construction. There are similar windows on the south (4), east (2), and north (3) elevations. The interior walls are in a bad state of deterioration and appear to have been modified at some time with the addition of 1" rigid insulation under 5/8" gypsum board. Today the building stands empty. A laboratory sink and workbench are the only notable equipment remaining in the building. Overall, TA-33-1 is in fair condition although it is suffering from the effects of time and from exposure to the elements.</p>	<p>Comments Built by R.E. McKee. The history of this building is closely linked with that of TA-33-2. Both buildings were moved to Area 6 from Area 1 (now East Site) sometime between July of 1948 and January of 1949.</p> <p>Associated historic theme Cold War Nuclear Weapons Research and Development (specifically initiator testing)</p> <p>Property type: Laboratory/Processing</p> <p>Contamination history Possible hazardous or radioactive materials used in or near the building include barium, lead, uranium, beryllium, high explosives, volatile organics, and photoprocessing chemicals.</p> <p>Integrity Fair</p> <p>Eligibility: Eligible under Criterion A</p>
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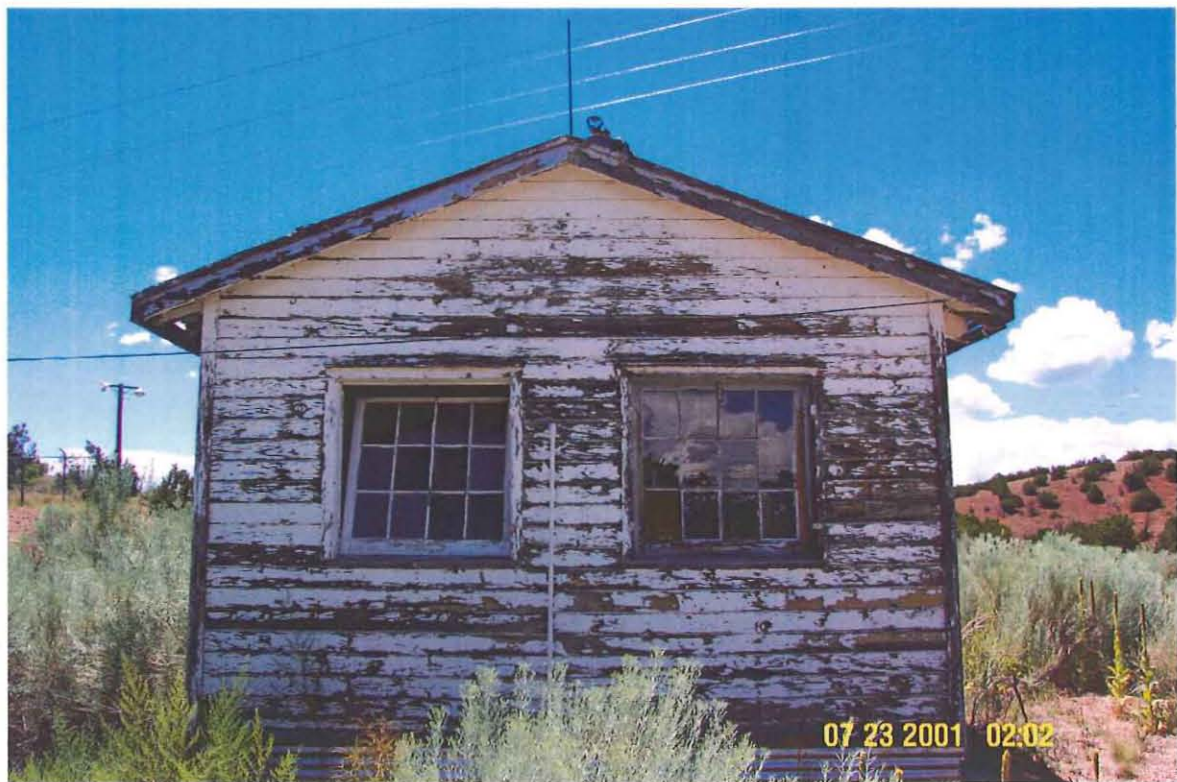
TA-33-1 North Elevation



TA-33-1 West Elevation



TA-33-1 South Elevation



TA-33-1 East Elevation



TA-33-1 Interior looking East



TA-33-1 Interior looking West

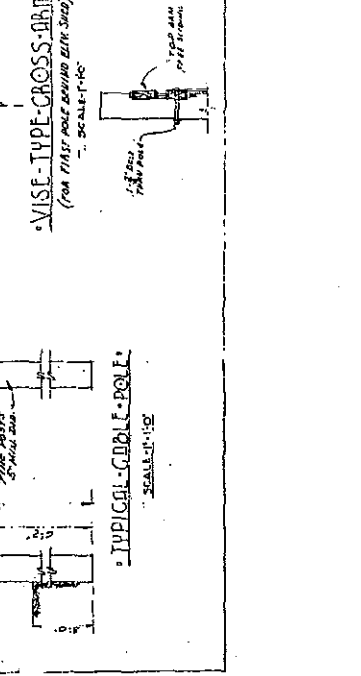
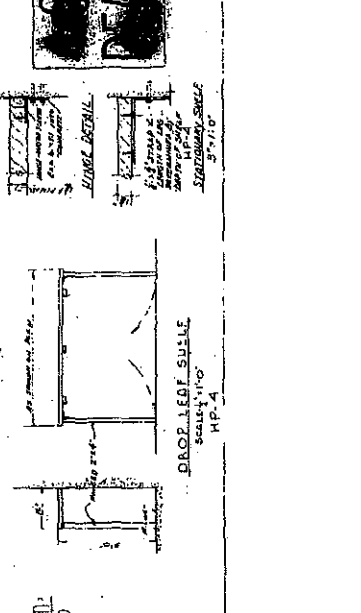
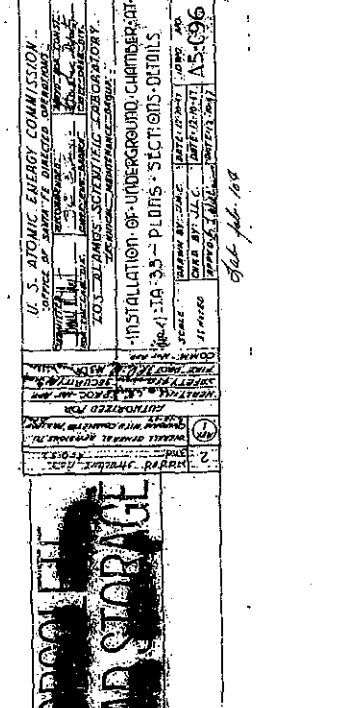
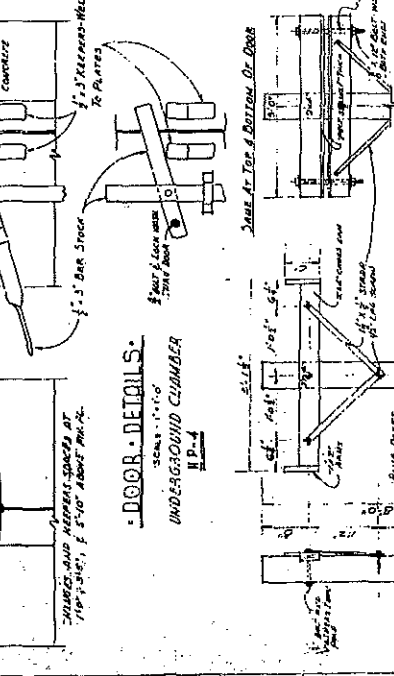
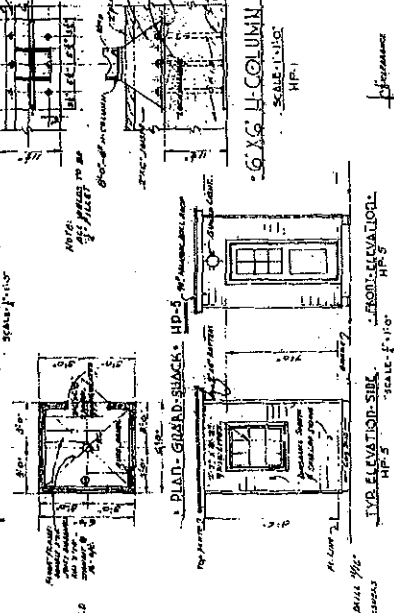
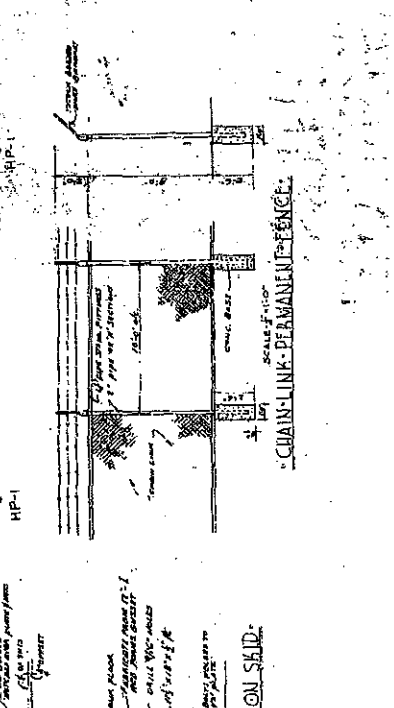
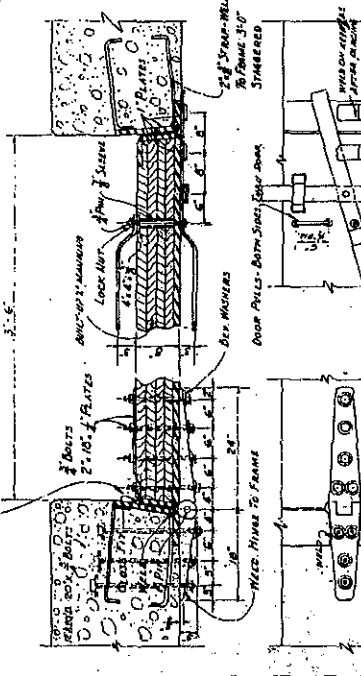
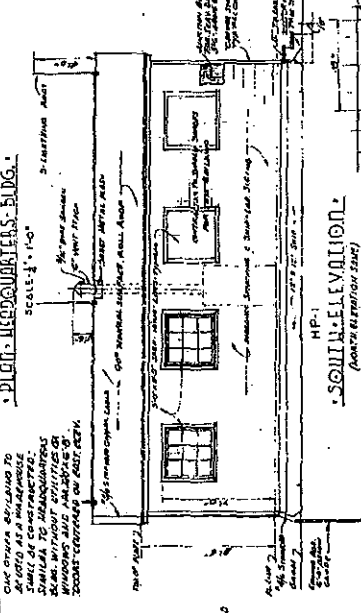
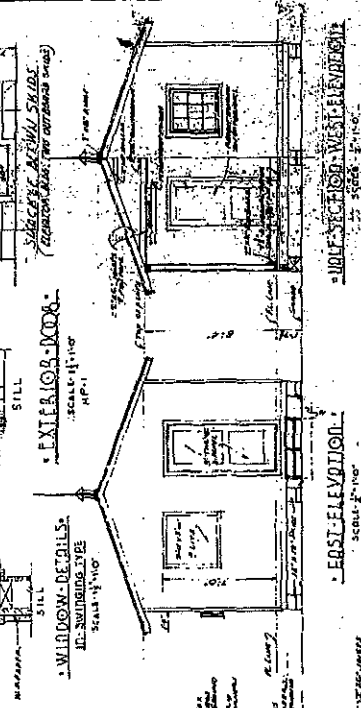
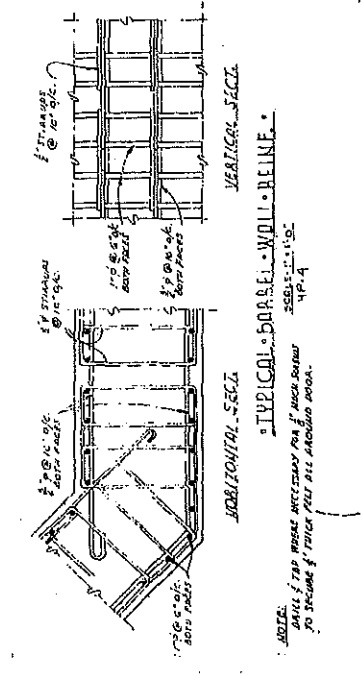
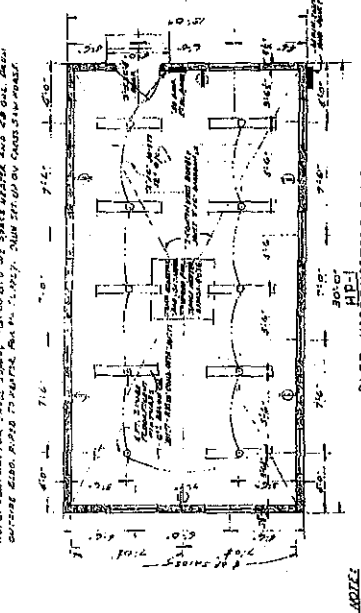
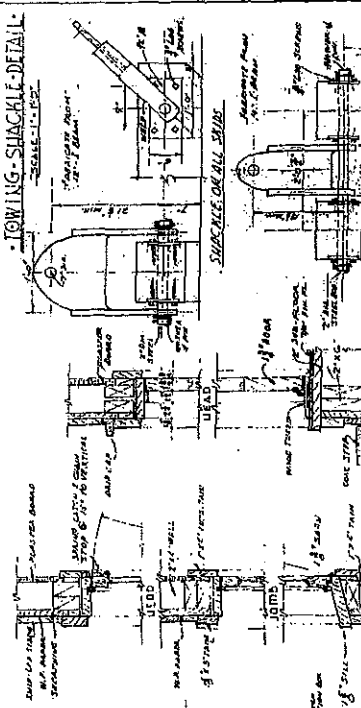
U.S. ATOMIC ENERGY COMMISSION
 OFFICE OF SAFETY DIRECTED OPERATIONS
 X-10 PLANT, SAFETY BUILDING
 INSTALLATION OF UNDERGROUND CHAMBER AT
 X-10 PLANT, SAFETY BUILDING
 SCALE: 1/4" = 1'-0"

AS-096
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 DATE: [Date]

ADDITIONAL
 READ STORAGE

SCALE: 1/4" = 1'-0"

9/26/48



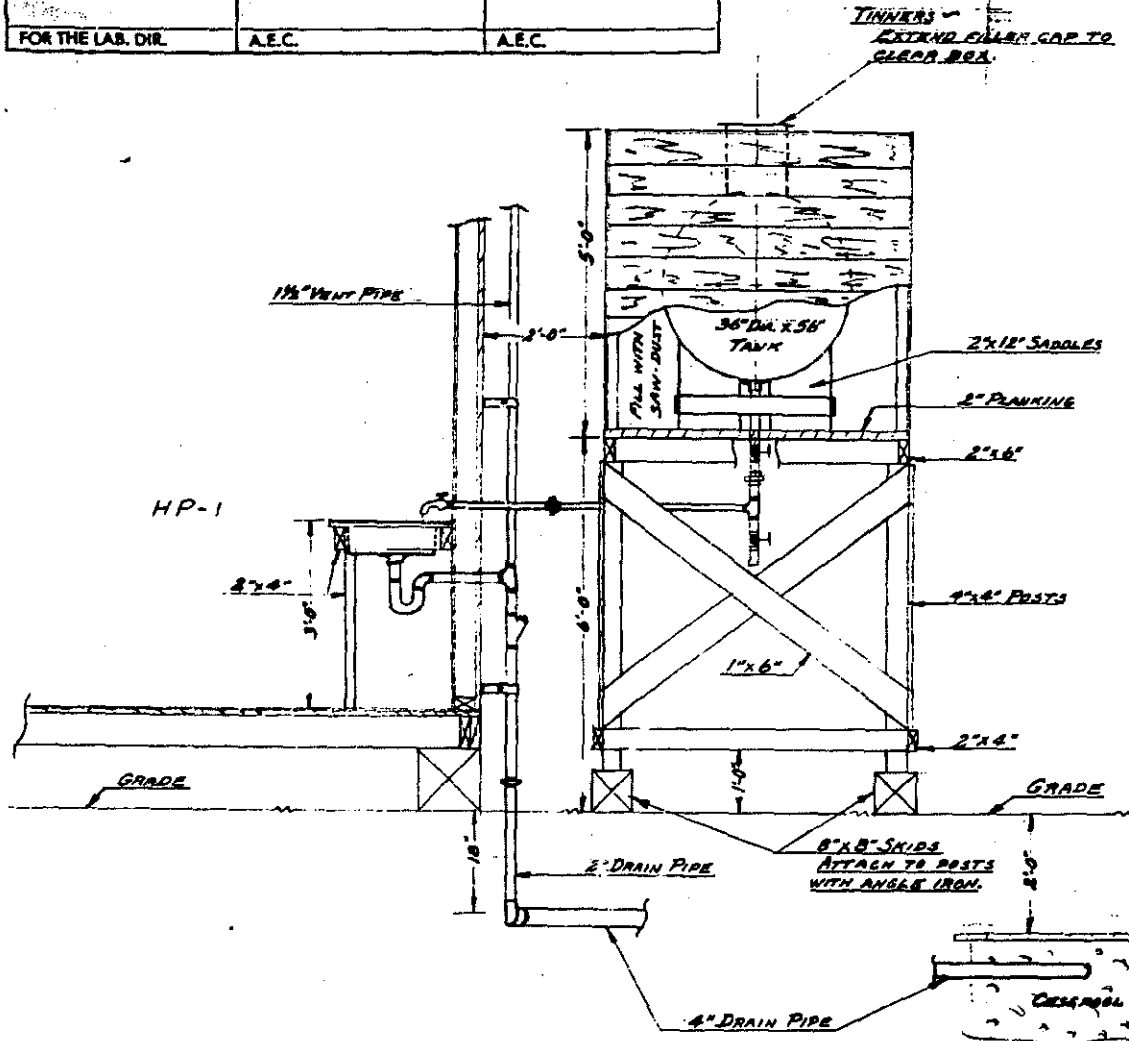
NOTE: CONSULT WITH ARCHITECT FOR DETAILS OF SPACE HEATING AND AIR COND. SYSTEMS. SEE ARCHITECT'S DRAWINGS FOR DETAILS OF SPACE HEATING AND AIR COND. SYSTEMS.

NOTE: ONE OTHER ELEVATION TO BE DRAWN AS NECESSARY. SIMILAR TO HEADQUARTERS BLDG. WITHOUT CHANGES OR ADDITIONS. CHECK WITH ARCHITECT FOR DETAILS.

SCALE: 1/4" = 1'-0"

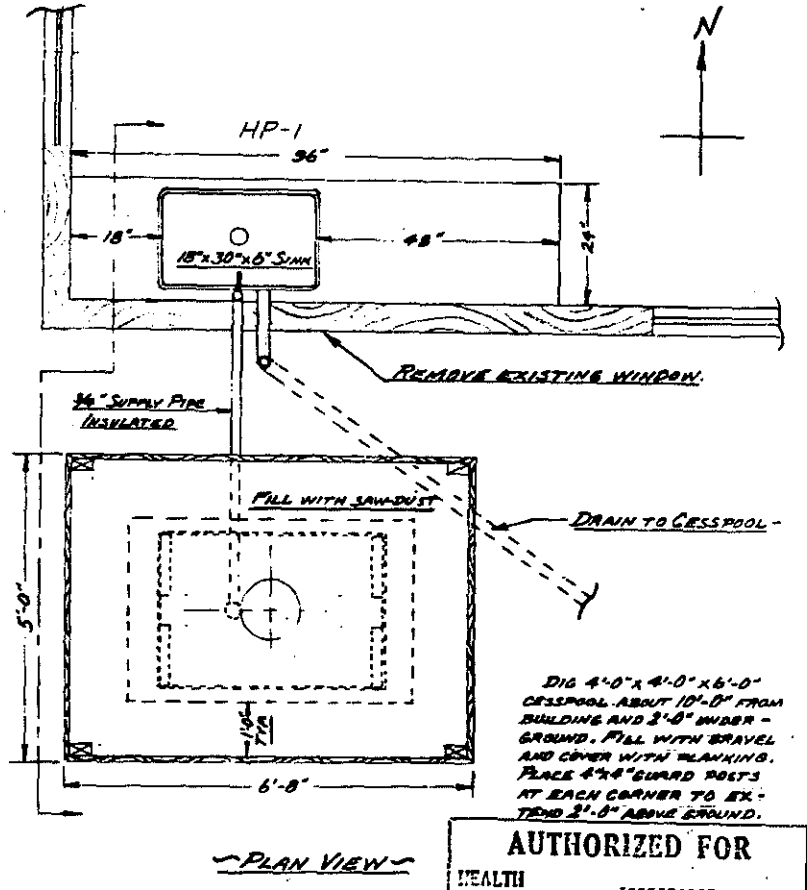
SCALE: 1/4" = 1'-0"

RECORD DRAWING--AS BUILT CONSTRUCTION		
SUBMITTED:	RECOMMENDED:	APPROVED:
FOR THE LAB. DIR.	A.E.C.	A.E.C.



~ ELEVATION VIEW ~

FURNISH LADDER FOR ACCESS TO FILLER CAP.



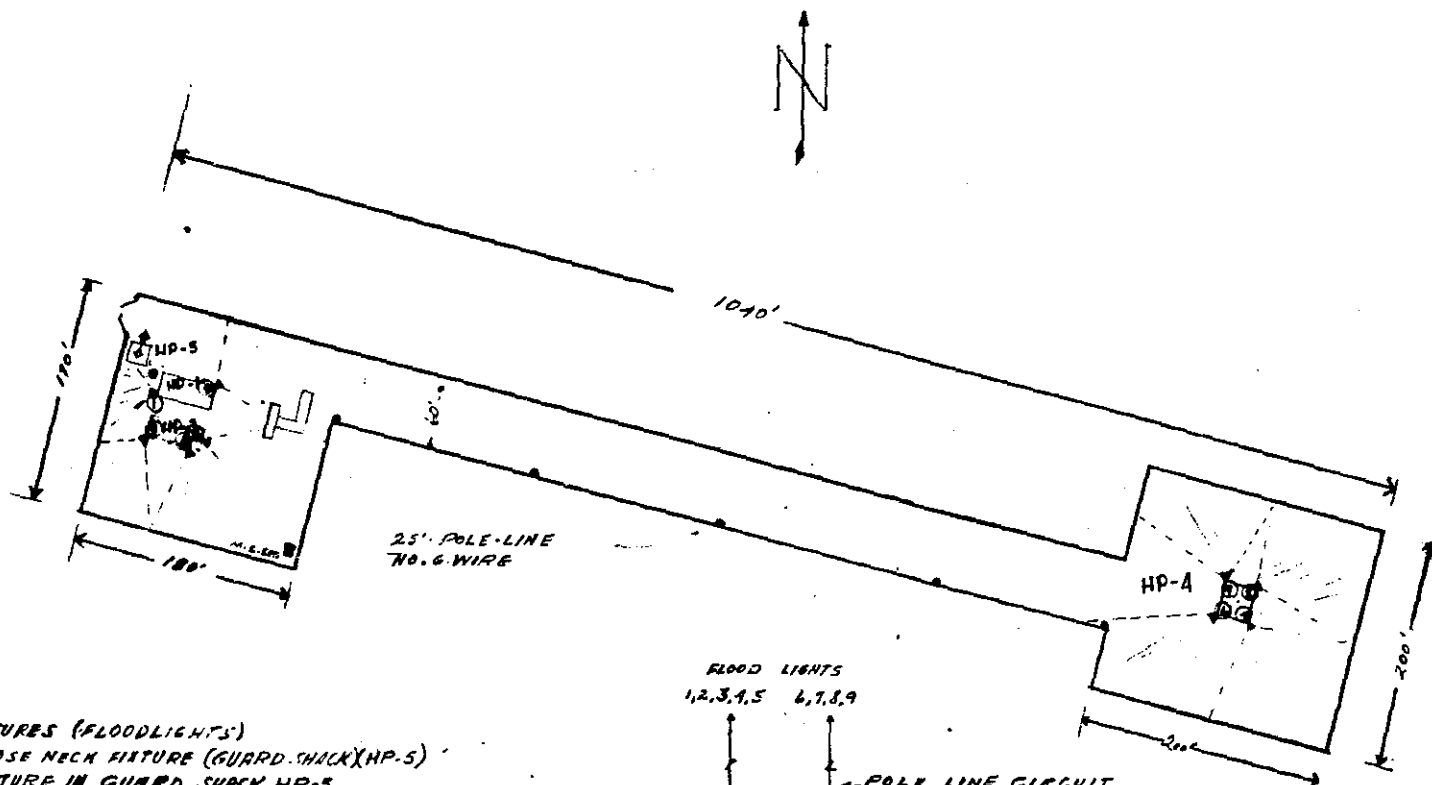
~ PLAN VIEW ~

DIG 4'-0" x 4'-0" x 6'-0" CESSPOOL ABOUT 10'-0" FROM BUILDING AND 3'-0" UNDER GROUND. FILL WITH BRANVEL AND COVER WITH PLANKING. PLACE 4"x4" GUARD POSTS AT EACH CORNER TO EXTEND 2'-0" ABOVE GROUND.

AUTHORIZED FOR	
HEALTH	_____
SAFETY	_____
ENV. PROT.	_____
PROCUREMENT	_____
COMMUNICATIONS	_____
SECURITY	_____
_____	_____

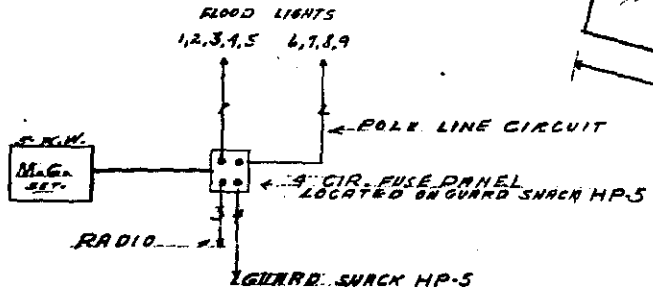
Reqs. no revision, as built
 (3) Added SIFUCI. Nos. 34, 35, 36
 (1) WAS ASM. 43 (REV. 8-5-50)

INSTALL. - SINK & C.W. SUPPLY IN H ₂ BLDG. - TA-33		JO. 151678	GR. M-6
SCALE	H.V.P.	2-16-48	
APPROV.	DATE	2-16-48	
FINANCE GROUP		SKETCH No. ENG 4-513	



- ▲. 300 W FIXTURES (FLOODLIGHTS)
- ◆. 200 W GOOSE NECK FIXTURE (GUARD SHACK HP-5)
- ◇. 200 W FIXTURE IN GUARD SHACK HP-5
- . 5 K.W. M.G. SET.

LOAD - CIR. NO. 1	1500 WATTS
" CIR. NO. 2	1200 "
" " NO. 3	500
" " NO. 4	400
TOTAL LOAD	3600 - WATTS

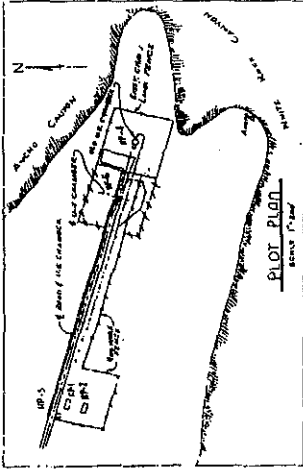
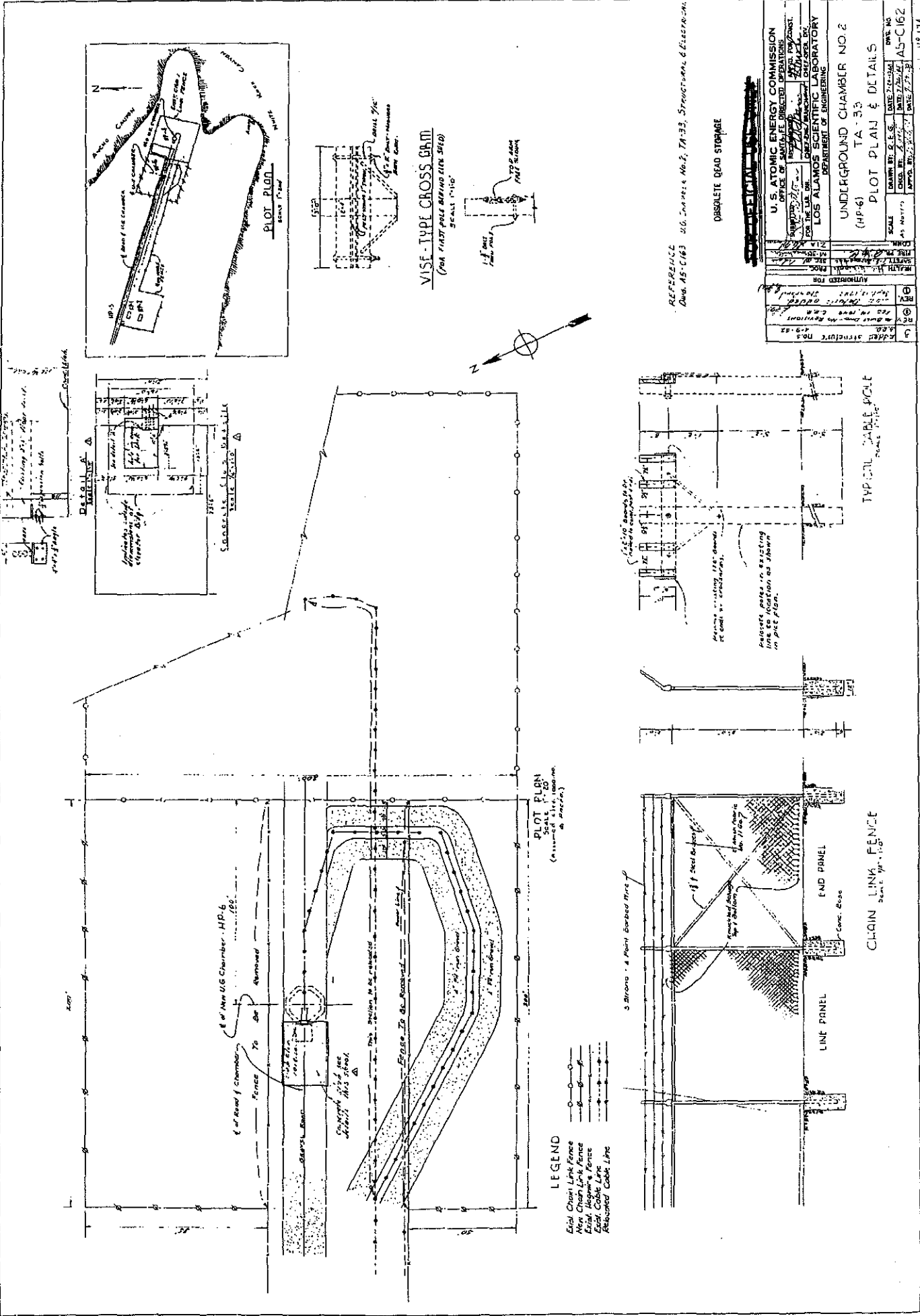


AUTHORIZED FOR	
HEALTH	_____
SAFETY	✓ TEE
FIRE PROT.	✓ P.R.R. by E.H.
PROGRAMMING	_____
COMMUNICATIONS	_____
SECURITY	✓ M-3 [Signature]

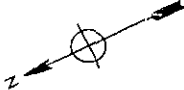
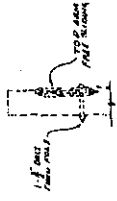
①/1/43 - Required no revision, as built status. No.
 (2) revised title - 380 - 4-2-52
 (3) WAS ASM-451 (REV 8-5-50) C.M.H.

RECORD DRAWING-AS BUILT CONSTRUCTION		
SUBMITTED:	RECOMMENDED:	APPROVED:
FOR THE LAB. DIR.	A.E.C.	A.E.C.

LIGHTING FOR T.A. 33-AREA 1		JO. 153927	SECURITY
SCALE	DWG. Clark	A 2-25-48	MAINTENANCE GROUP
X	CKD. [Signature]	DATE 9-4-48	
	APPVD. [Signature]	DA E	
			SKETCH NO. ENG-4-822

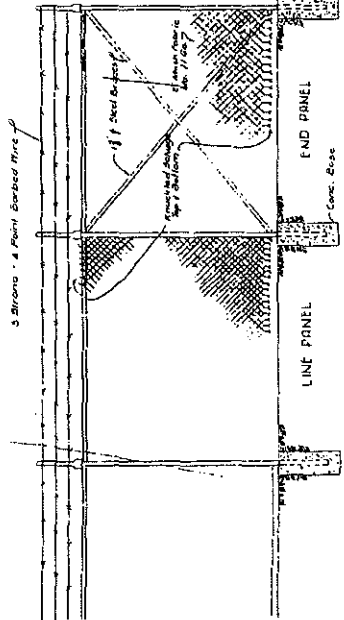


VISE-TYPE CROSS ARM
(FOR STEEL POLE BEARING STEEL WIRE)

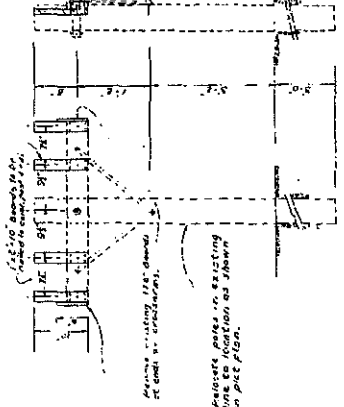


PLOT PLAN
Scale 1/80
(Assumed wire, insulators & anchors)

- End Chain Link Fence
- Chain Link Fence
- Aluminized Steel Wire Fence
- High-tensile Steel Wire Fence
- Rebarbed Cable Line



CHAIN LINK FENCE
Scale 1/16

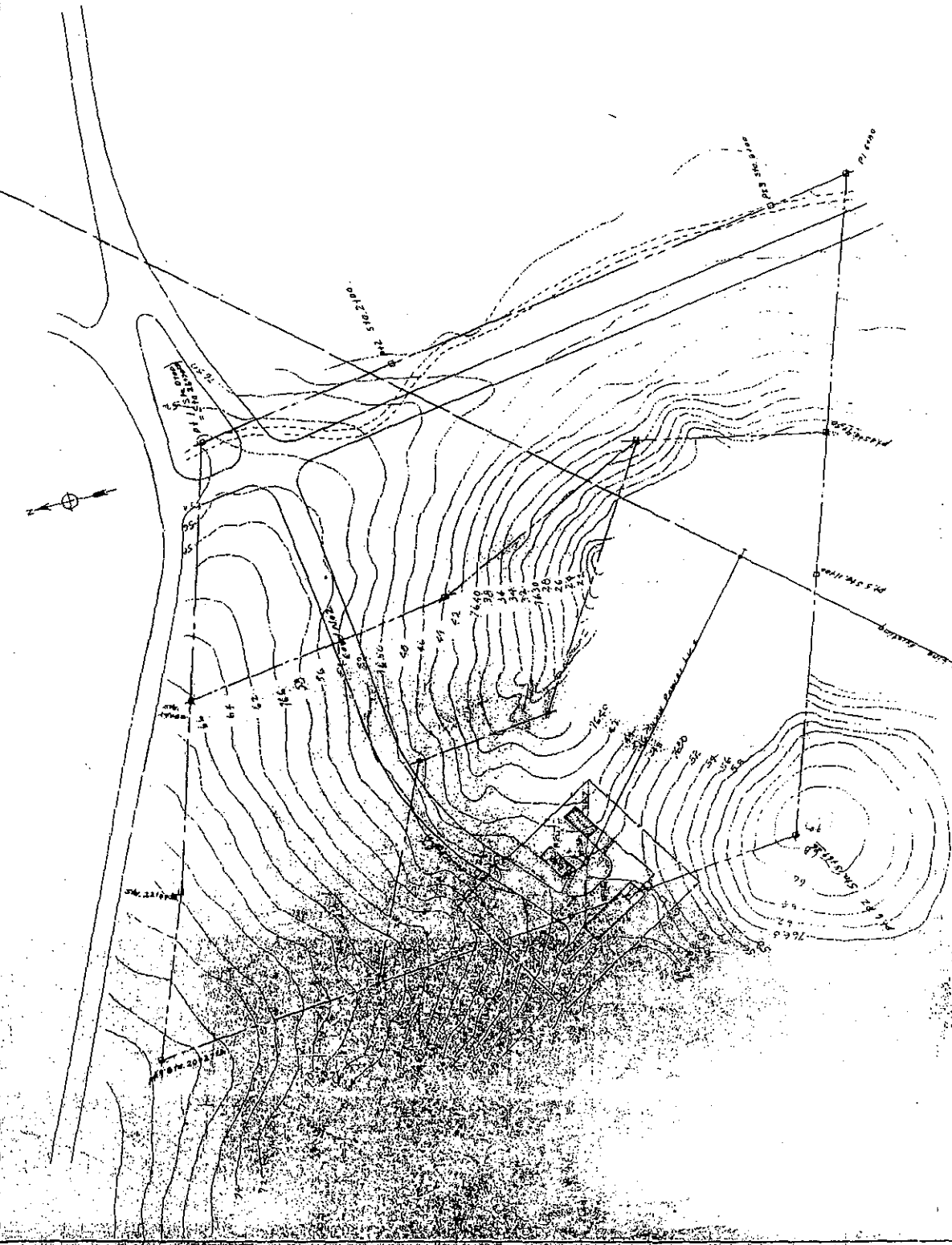


TYPICAL CABLE POLE
Scale 1/16

REFERENCE
Draw. AS-C163 U.G. Chamber No. 2, TA-33, STRUCTURAL & ELECTRICAL

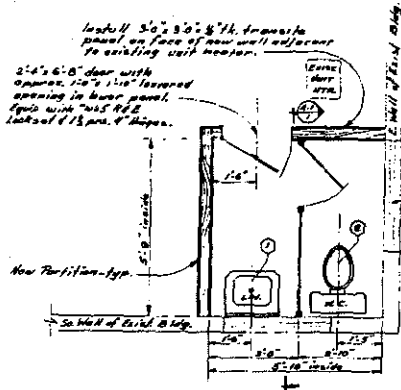
DISASSEMBLE DEAD STORAGE

U.S. ATOMIC ENERGY COMMISSION OFFICE OF SANITARY OPERATIONS FOR THE LOS ALAMOS SCIENTIFIC LABORATORY DEPARTMENT OF ENGINEERING			
PROJECT NO. 44-100-100		DRAWING NO. AS-C162	
SCALE 1/80		DATE 7-27-52	
UNDERGROUND CHAMBER NO. 2 (HP-6) PLOT PLAN & DETAILS			
DESIGNED BY	CHECKED BY	DATE	NO.
DRW	AS	7/27/52	AS-C162
APPROVED FOR		DATE	
AS		7/27/52	
U.S. ATOMIC ENERGY COMMISSION OFFICE OF SANITARY OPERATIONS FOR THE LOS ALAMOS SCIENTIFIC LABORATORY DEPARTMENT OF ENGINEERING			
APPROVED FOR	DATE	NO.	
AS	7/27/52	AS-C162	

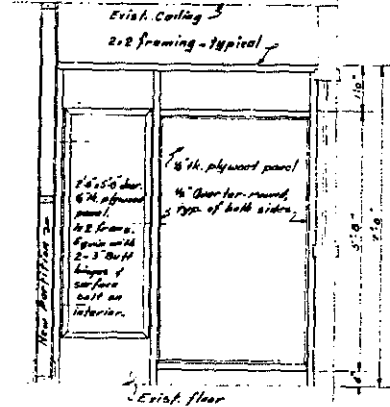


AUTHORIZED BY:	LOS ALAMOS SCIENTIFIC LABORATORY DEPARTMENT OF CIVIL ENGINEERING - CONSTRUCTION & MAINTENANCE GROUP
TITLE:	TOPO & PLOT PLAN
DRAWN BY:	T.A. 33
CHECKED BY:	[Blank]
DATE:	11/11/64
SCALE:	1" = 100'
PROJECT NO.:	[Blank]
DRAWING NO.:	ENGR-1445

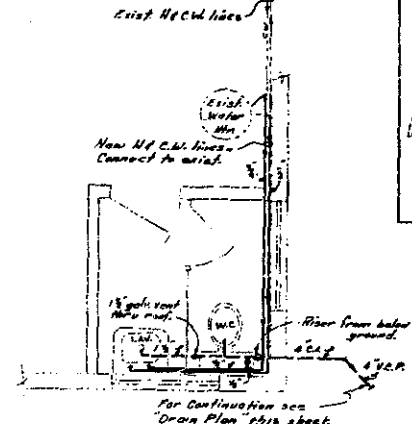
PERICAL-606-0107



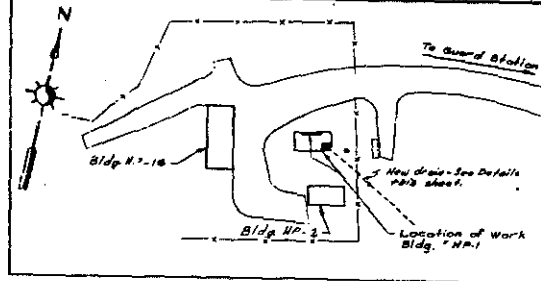
PARTIAL PLAN - BLDG HP-1
Scale 1/4" = 1'-0"



SECTION
Scale 1/4" = 1'-0"



PIPING PLAN
Scale



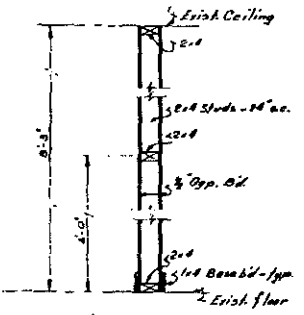
LOCATION PLAN
BLDG. 1 - AREA 6 - TA-33

QTY.	SYMBOL	DESCRIPTION	QTY. NO.	MFG. REF.
1	1	Low fog, white porcelain, enamel with fastets & 1 1/2" A. Trap.	70	To be furnished by L.A.S. Co. on Job
1	2	Water Closet, Wellworth, close-coupled, vitreous china.	R-3705	Water Co.
1	3	Septic Tank, 500 gal., & Connections, Commercial Standard.	65 004	Watling Tank Perry, N.Y.
10-12	4	Electrical Raceway, nominal size 3/4" complete with fittings & cover plates.		Shaw-Walsh Co. Modesto, Calif.
16	5	Grounding Type, Duplex Conn. Outlets	58 62	Harvey Hubbell, Inc.
1	6	30 amp. Swire outlet & cap	9344/9338	
1	7	15 amp. Circuit Breaker.	0411	Wainman Elec. Co.
1	8	30 amp. Circuit Breaker.	0411	
2	9	20 amp. Circuit Breaker.	0411	
10-12	10	3 conductor, 1/2" wire, rubber covered flexible cable		Gen'l Elec. Co.
3	11	Surface Cover & 3/4" x 1/2" dia. box.	8370	Knoblock Elec. Co.
3	12	Rubber finger-grip cap, 3/4" wire	5275	Hubbell.

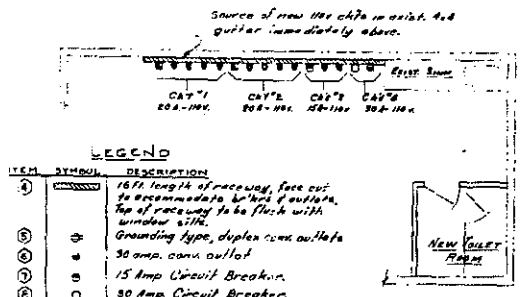
GENERAL NOTES

1. New water lines are to be galvanized pipe with globe valves installed adjacent to fixtures. Hot water line only is to be insulated.
2. Existing electric heater along north building wall is to be removed & salvaged by direction of Eng. & Field engineer. Remove access breakers from grid, add gutters to allow for installation of new raceway. New outlets & breakers are to be equally spaced along length of raceway.
3. The entire electrical installation is to be made in accordance with the current rules of the N.E.C.
4. New raceway, breakers & outlets shall be banded to the exist. building grounding system.
5. All wire shall be #12 AWG, Type TW except for the 30 amp. circuit which shall be wired with #10 AWG, Type TW.
6. Paint interior of exist. window area within new toilet room with one coat of flat white. Paint all new construction to match existing adjacent walls.
7. Equal approved substitutions may be made for any or all items in the List of Equipment.

OFFICIAL USE ONLY



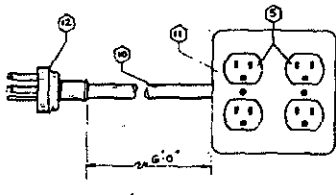
NEW PARTITION TYPICAL SECTION
Scale 1/4" = 1'-0"



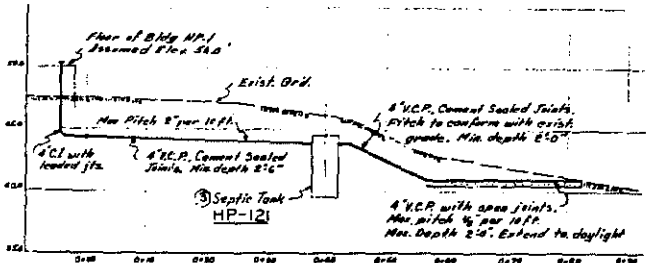
LEGEND

SYMBOL	DESCRIPTION
①	16 ft. length of raceway, face cut to accommodate 1/2" hot & outlet. Top of raceway to be flush with window sill.
②	Grounding type, duplex conn. outlets
③	30 amp. conn. outlet
④	15 Amp Circuit Breaker.
⑤	30 Amp Circuit Breaker.
⑥	20 Amp Circuit Breaker.

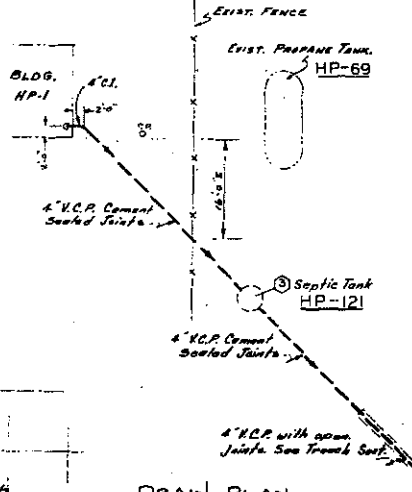
PARTIAL PLAN - BLDG HP-1
showing Electrical installation.
Not to Scale



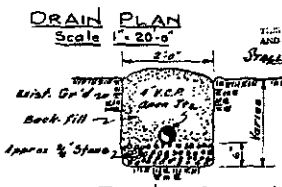
EXTENSION CORD 3 REQUIRED
Not to Scale



DRAIN PROFILE
Scale



TRENCH SECTION
Not to Scale



DRAIN PLAN
Scale 1/4" = 2'-0"

NO.	DATE	DESCRIPTION	BY	CHKD.

LOG ALAMO SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA - LOS ALAMOS, NEW MEXICO

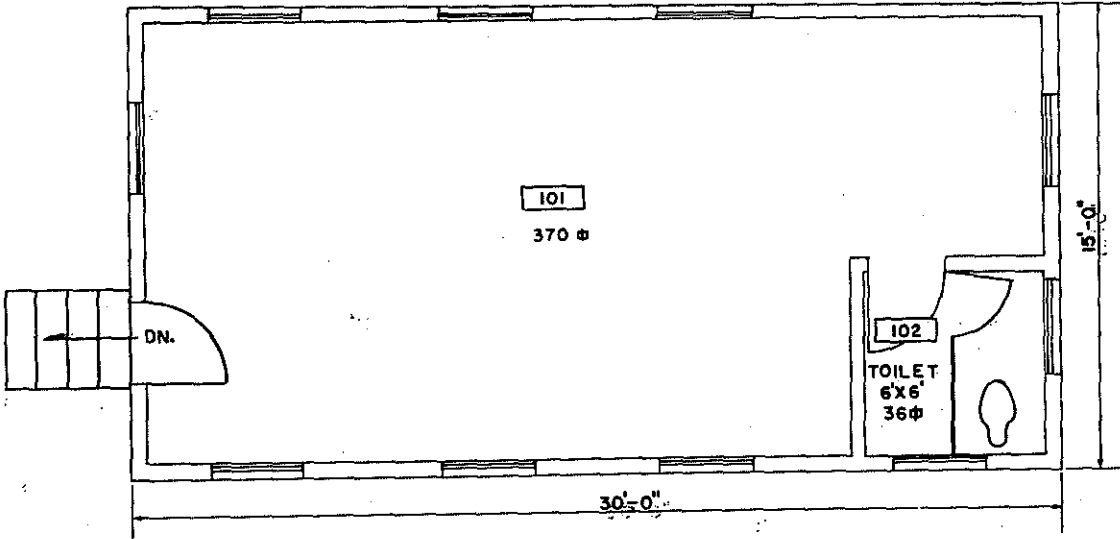
TOILET FACILITIES
Bldg HP-1 TA-33

APPROVED FOR: [Signature]
DATE: Jan 17, 1957
BY: E.B. Johnson
NOTED: [Signature]

ENG-C 16787

S. A. NO. _____ LAB. JOB NO. 1952

NO.	DATE	REVISIONS	BY	CHKD	GRP LDR	ENG D.O.
1	8-16-65	REVISED TO STATUS OF 8-12-65	DRK	15	BER	13



TOTAL SQ. FT. 408

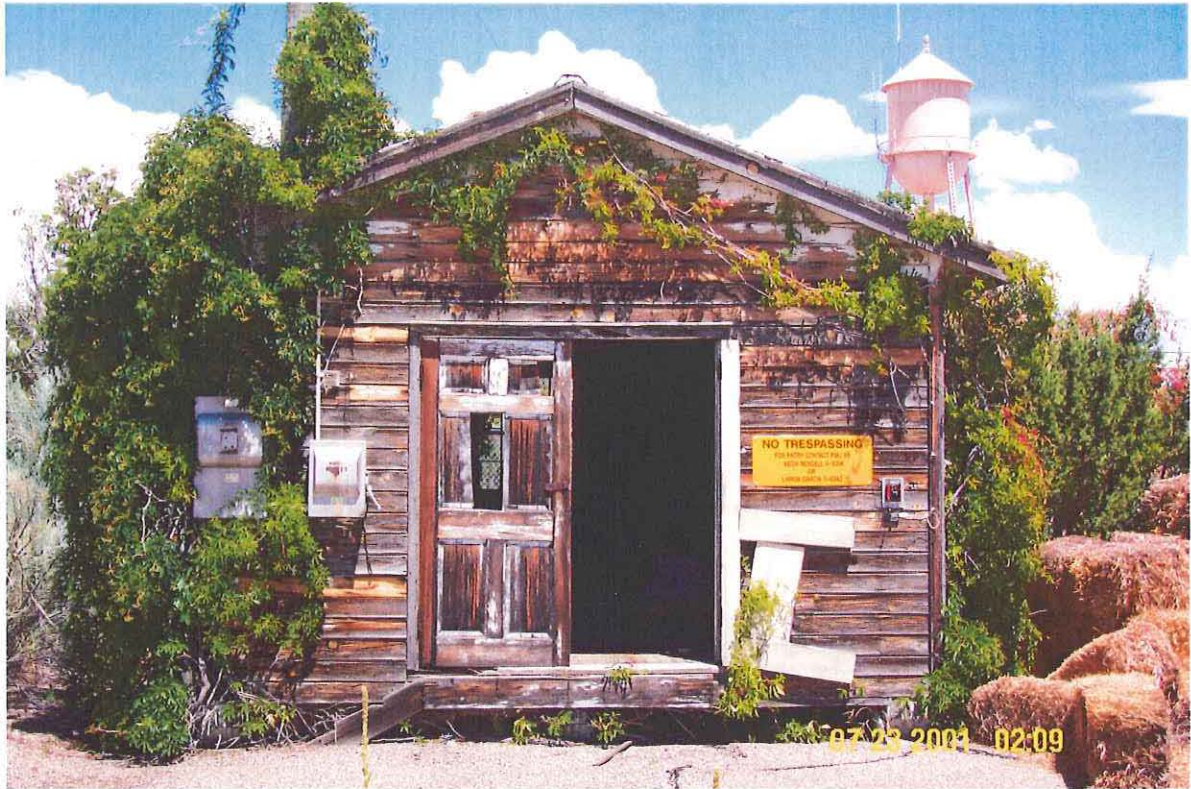
REV.	DATE	REVISION	BY	CHKD	APR
2	6-8-64	REVISED TO STATUS OF 6-8-64	DRK	15	13
UNIVERSITY OF CALIFORNIA Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87543					
FACILITIES ENGINEERING DIVISION					
PORTABLE LABORATORY FLOOR PLAN					SEC. CLASSIFICATION
BLDG. HP-1					CLASS. 11
TA-33					REVIEWED <i>[Signature]</i>
					DATE 6-11-64
DESIGNED	<i>[Signature]</i>	RECOMMENDED	<i>[Signature]</i>	APPROVED	
CHECKED	<i>[Signature]</i>	DATE	6-19-64	SHEET NO.	1 OF 1
				DRAWING NO. ENG-R3017	

REC'D... LOGGED... TO VAULT *[Signature]*

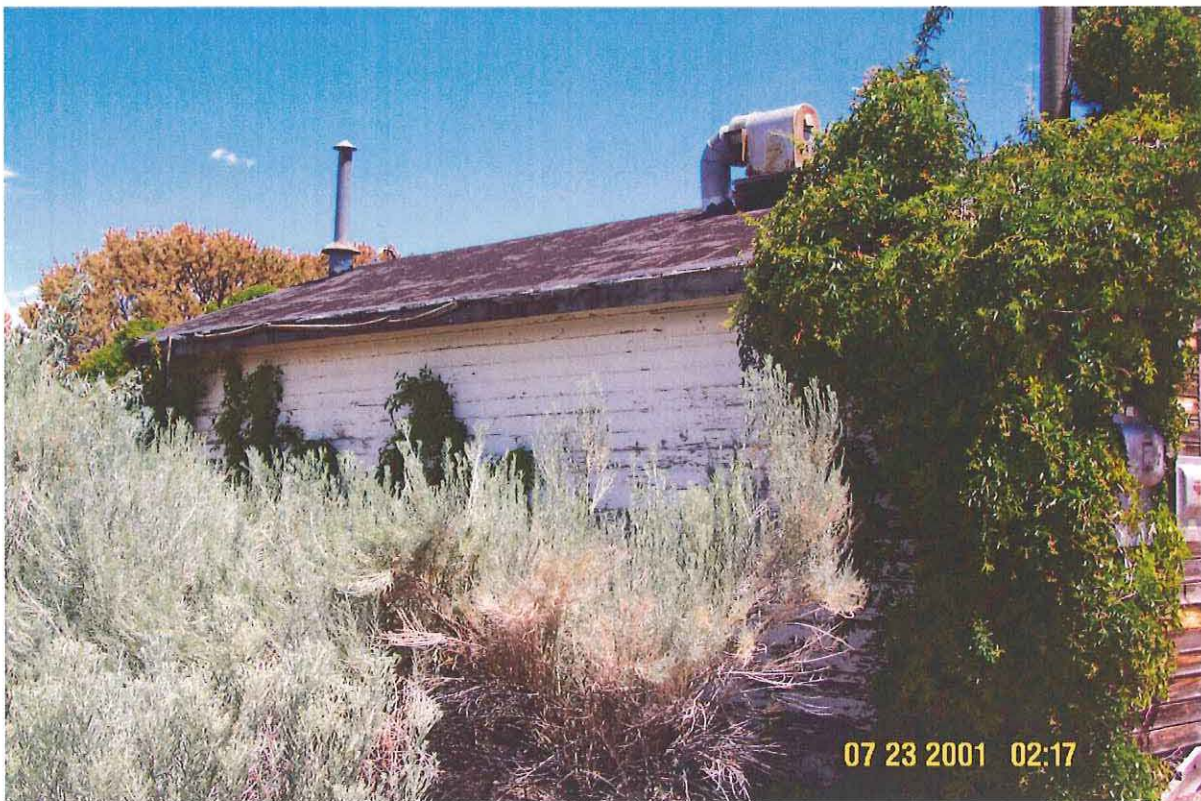
NEW MEXICO HISTORIC BUILDING INVENTORY FORM

Building threatened? yes		Surveyed date <u>7/29/2001</u> by <u>J. Ronquillo and Ken Towery</u>		County <u>Los Alamos</u>		ID no. <u>TA-33-2</u>					
Field map <u>n/a</u>			Number			UTM reference: Easting <u>386341</u> Northing <u>3960482</u> Zone <u>13</u>					
Location description <u>Technical Area (TA) 33, HP (Hot Point) Site, Area 6</u>				City/town <u>Los Alamos</u>				Land grant/reservation <u>n/a</u>			
Building name <u>TA-33-2 Original name TA-33-2 (HP-2) Portable Warehouse</u>				Legal description <u>USGS Frijoles 7.5 Series</u> tmsp <u>19N</u> range <u>6E</u> sec <u>Unplatted</u>							
Camera name <u>SBSP</u>		Negative nos. <u>57 - 63</u>		Location of neg. <u>LANL, ESH-20</u>		Date of construction _____ estimate <u>12/2/1947 to 1/21/48</u> actual source <u>Facility & Waste Operations Division (FWO) records (LANL)</u>					
Style <u>TA-33-2 is a wood frame building with a gable roof. (see below for more information)</u>		Foundation material <u>Partial concrete slab on grade and wooden skids</u>		Use <u>Present</u> residential ✓ other <u>According to the MOADS database TA-33-2 is currently being used for general storage.</u>				Condition _____ excellent _____ good <u><input checked="" type="checkbox"/></u> fair <u><input checked="" type="checkbox"/></u> deteriorating			
		Wall material/surface <u>The exterior walls are covered with wood siding. The interior walls consist of either sheet rock or asbestos board material.</u>		historic residential ✓ other <u>TA-33-2 was originally used as a warehouse, shop, and occasional laboratory in support of early initiator experiments.</u>							
Degree of remodeling <u><input checked="" type="checkbox"/></u> minor _____ moderate _____ major Describe: <u>There is no evidence of remodeling at TA-33-2.</u>											
Surroundings <u>Developed Laboratory Technical Area 33</u>			Relationship to surroundings <u><input checked="" type="checkbox"/></u> similar _____ not similar			District potential _____ yes <u><input checked="" type="checkbox"/></u> no					
			Associated building? <u><input checked="" type="checkbox"/></u> yes What type? <u>Laboratory buildings</u> If inventoried, list ID nos. <u>TA-33-1 and TA-33-16</u>			Associated drawings (Photos and copies of the drawings are on following pages.) <u>A5-C162</u> <u>Underground Chamber No. 2 (HP-6)</u> <u>TA-33, Plot Plan and Details</u> <u>July 24, 1948</u> <u>ENG 4-R45</u> <u>Topo and Plot Plan, TA-33</u> <u>January 27, 1949</u> <u>ENG-R3018 (sheet 1 of 1)</u>					

		<p>Portable Warehouse Floor Plan Bldg. HP-2, TA-33 June 18, 1964</p> <p>Size 450 gross ft² (406 net ft²)</p>
<p>Architectural features TA-33-2 is a free standing, one-story building of approximately 450 gross square feet. It is of wood frame construction, has a pitched roof, and has painted wood siding on the exterior. The roof is composed of rolled asphalt over wood framing and is in fair condition. The building was designed to be portable and sits on wooden skids. Currently, a portion of the floor is a concrete slab sitting on grade. On the west elevation, there is a wood-paneled, double door and one hopper-type window with single pane glass. The window has sixteen individual panes of clear glass and appears to be of original construction. The exterior of the building is deteriorating and is generally in poor condition. The interior walls appear to be original and are composed of wood framing and either sheet rock or asbestos board material. There is an asphalt drive and parking area west of the building.</p>		<p>Comments Built by R.E. McKee. The history of this building is closely linked with that of TA-33-1. Both buildings were moved to Area 6 from Area 1 (now East Site) sometime between July of 1948 and January of 1949.</p> <p>Associated historic theme Cold War Nuclear Weapons Research and Development (specifically initiator testing)</p> <p>Property type Support and Laboratory/Processing</p> <p>Contamination history Possible hazardous or radioactive materials used in or near the building include barium, lead, uranium, beryllium, and high explosives.</p> <p>Integrity Fair</p> <p>Eligibility Eligible under Criterion A</p>



TA-33-2 West Elevation



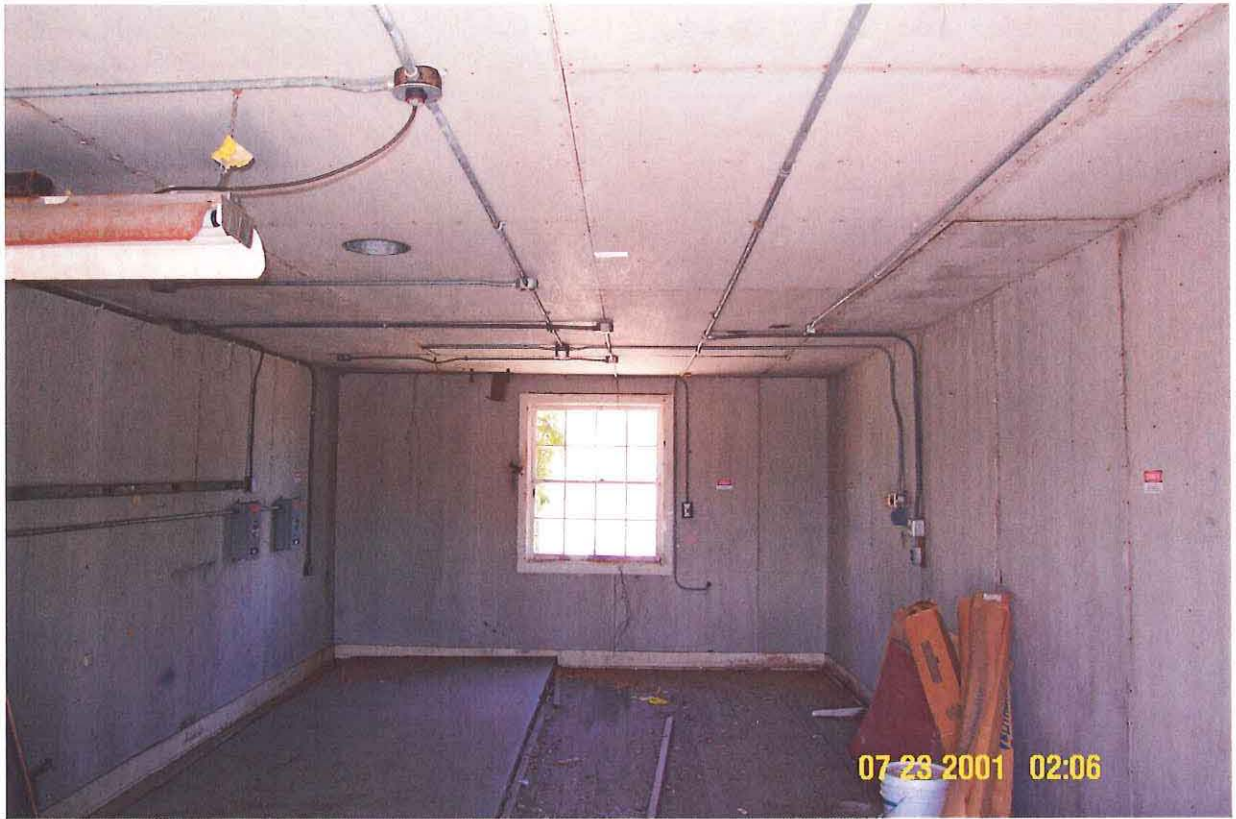
TA-33-2 North Elevation



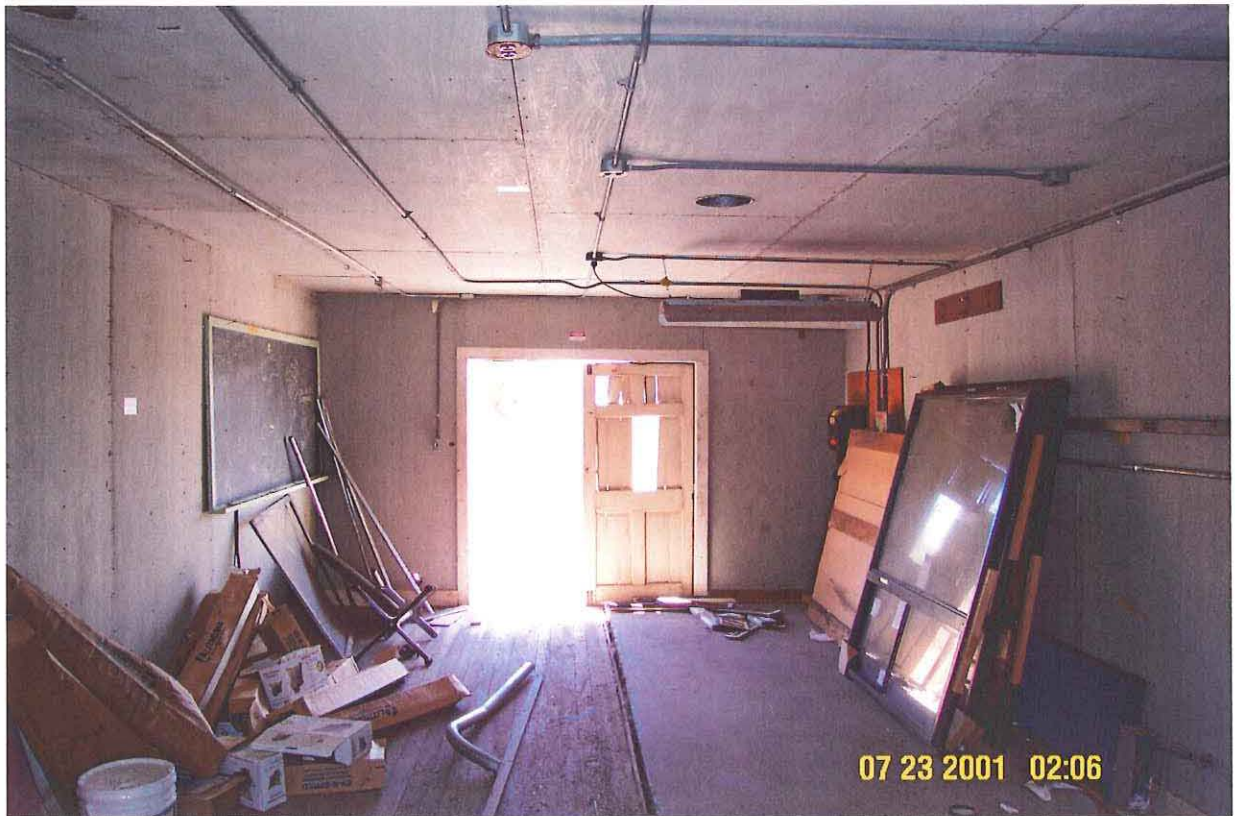
TA-33-2 East Elevation



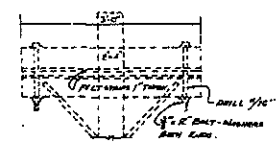
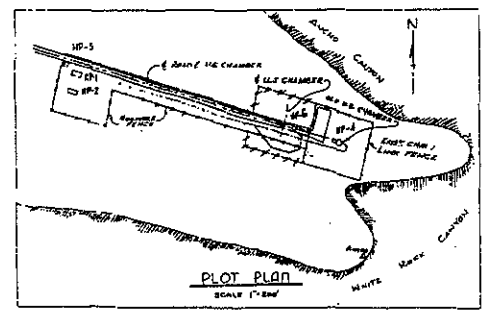
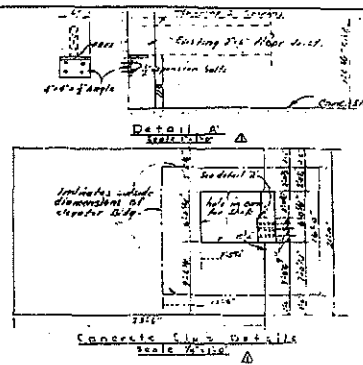
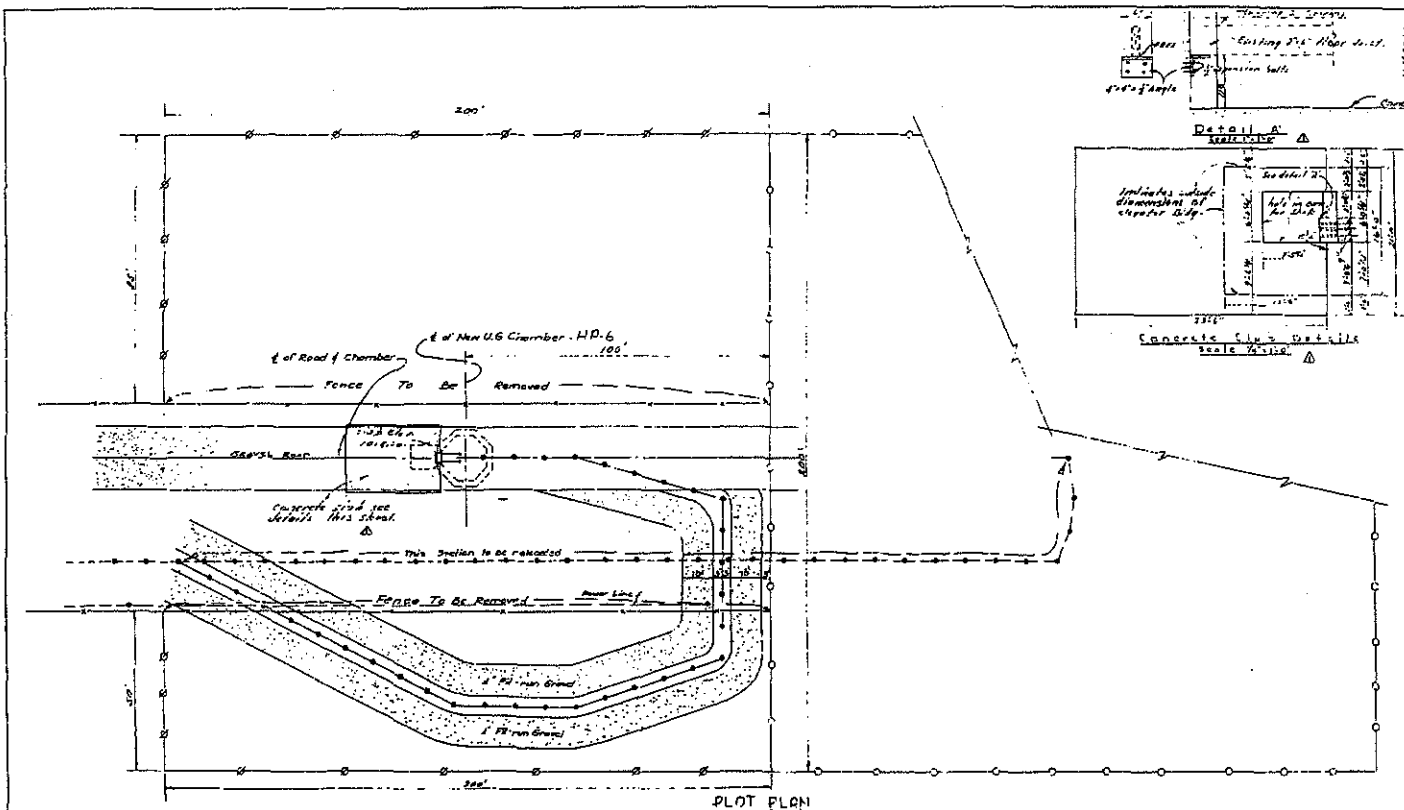
TA-33-2 South Elevation



TA-33-2 Interior looking East



TA-33-2 Interior looking West

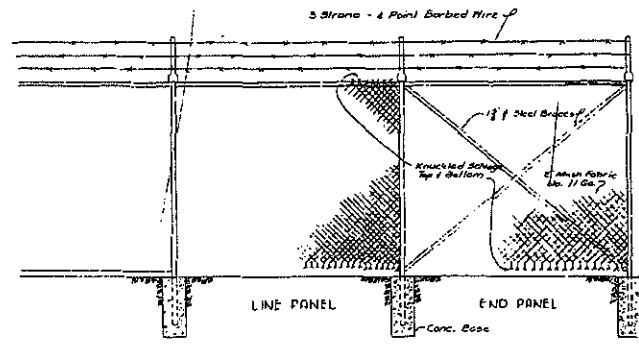


VISE-TYPE CROSS ARM
(FOR FIRST POLE BEHIND ELEM SHEET)
SCALE 1/4"=1'-0"

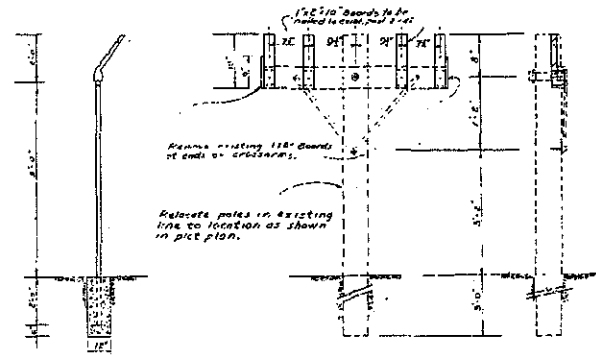


- LEGEND**
- Exist. Chain Link Fence
 - New Chain Link Fence
 - Exist. Hoopir's Fence
 - Exist. Cable Line
 - Relocated Cable Line

PLOT PLAN
Scale 1"=20'
(Assumed elev. 1000.00)
▲ Anchor



CHAIN LINK FENCE
Scale 1/4"=1'-0"



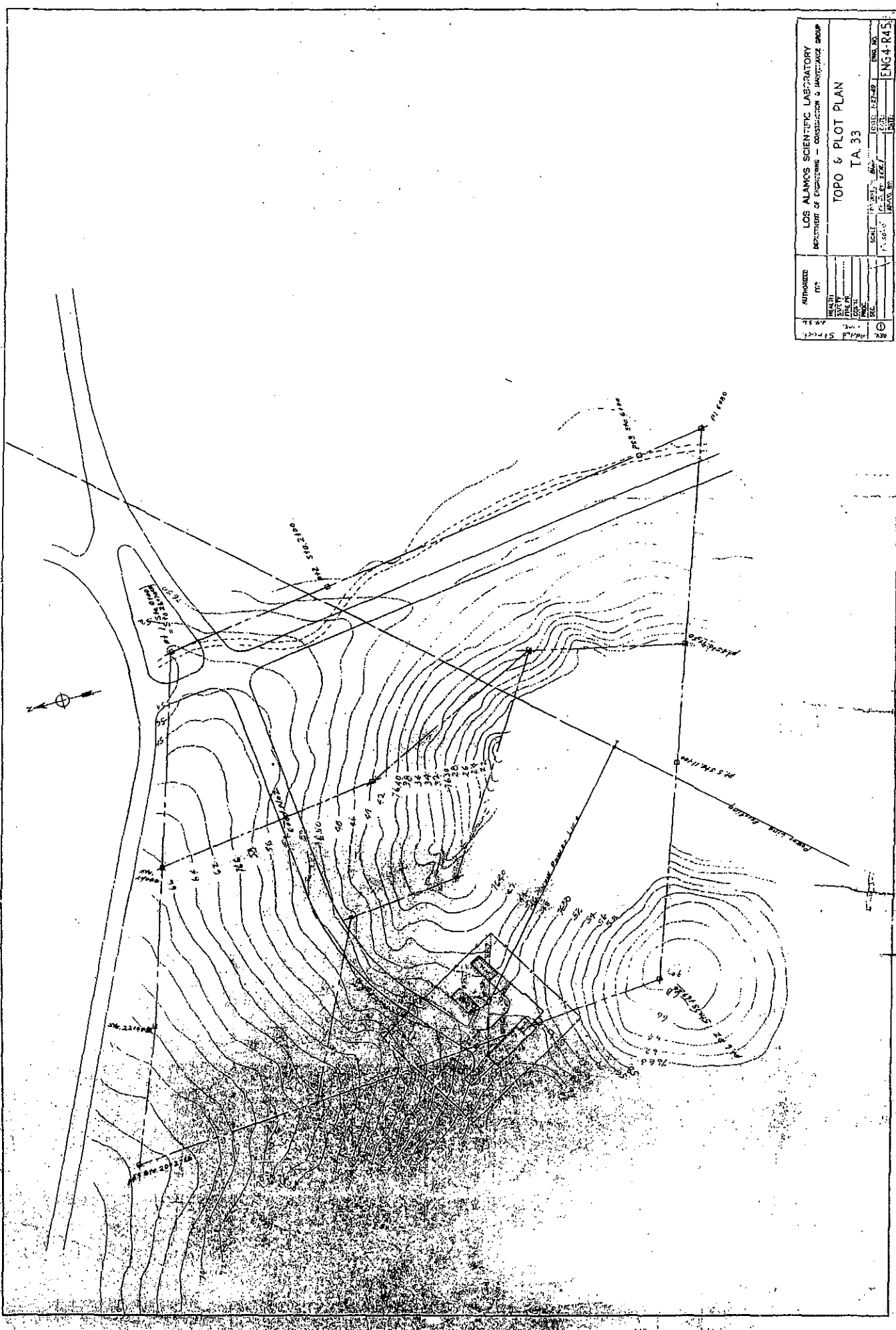
TYPICAL CABLE POLE
Scale 1/4"=1'-0"

REFERENCE
Draw. AS-C163 U.G. CHAMBER No. 2, TA-33, STRUCTURAL & ELECTRICAL

OBsolete DEAD STORAGE

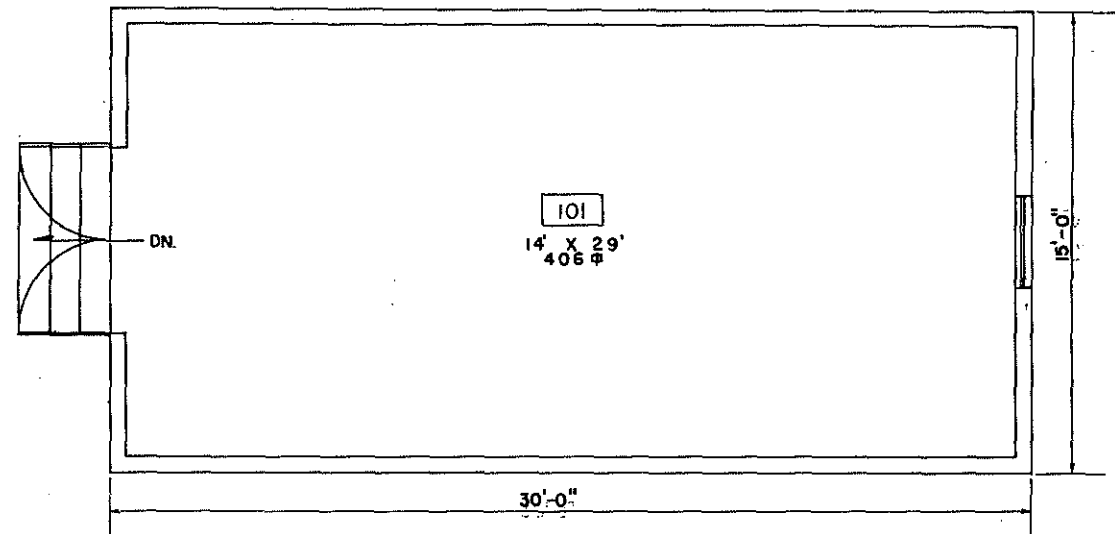
FOR OFFICIAL USE ONLY

U. S. ATOMIC ENERGY COMMISSION OFFICE OF SANTA FE DIRECTED OPERATIONS	
APPROVED: [Signature]	APPROVED FOR CONST. [Signature]
FOR THE LAB. DIR. [Signature]	CHIEF ENG. [Signature]
LOS ALAMOS SCIENTIFIC LABORATORY DEPARTMENT OF ENGINEERING	
UNDERGROUND CHAMBER NO. 2 (HP-6) TA-33 PLOT PLAN & DETAILS	
SCALE: 1/4"=1'-0"	DRAWN BY: S. E. G. DATE: 7-24-54
CHKD. BY: [Signature]	DATE: 7-26-54
APPRD. BY: [Signature]	DATE: 7-27-54
PWC. NO. AS-C162	



AUTHORIZED BY: _____ TITLE: _____ DATE: _____ DRAWN BY: _____ CHECKED BY: _____ SCALE: _____ PROJECT NO.: _____ SHEET NO.: _____ TOTAL SHEETS: _____		LOS ALAMOS SCIENTIFIC LABORATORY DEPARTMENT OF ENGINEERING - CONSTRUCTION & MAINTENANCE GROUP TOPO & PLOT PLAN TA. 33 DATE: 12-27-49 DRAWN BY: _____ CHECKED BY: _____ SCALE: _____ PROJECT NO.: _____ SHEET NO.: _____ TOTAL SHEETS: _____ ENG-4-R45
--	--	--

REC'D/LOGGED/TO VAULT/26/64



TOTAL SQ. FT. 406

REV.	DATE	REVISION	BY	CHK. APP.
6-8-64		REVISED TO STATUS OF 5-8-64	HMM	AP
UNIVERSITY OF CALIFORNIA Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545				
FACILITIES ENGINEERING DIVISION				
PORTABLE WAREHOUSE			SEC. CLASSIFICATION	
FLOOR PLAN			CLASS. <i>U</i>	
BLDG. HP-2			REVIEWER <i>Chadwick</i>	DATE <i>6-11-64</i>
TA-33			APPROVED <i>[Signature]</i>	
DESIGNED <i>[Signature]</i>	DATE	SHEET NO.	DRAWING NO.	
BREMER	6-18-64	1 OF 1	ENG-R3018	
CHECKER <i>[Signature]</i>				

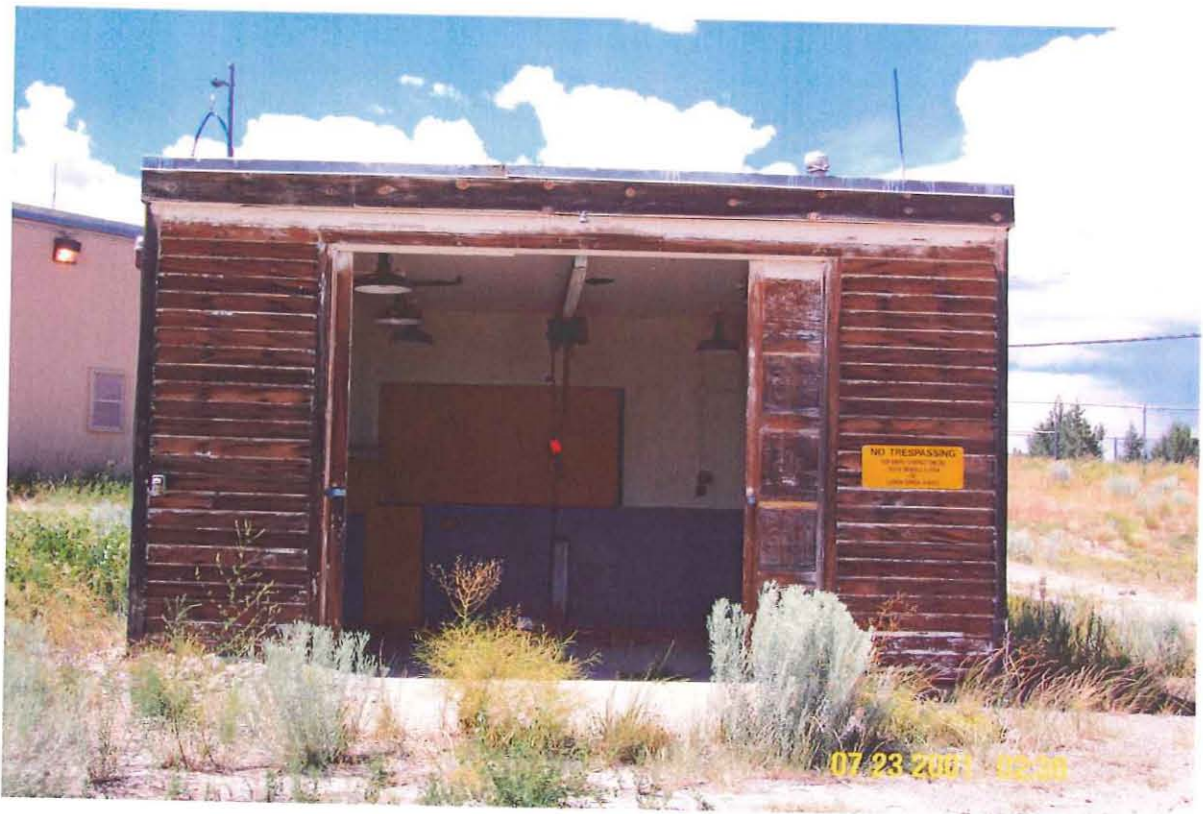
REC'D LOGGED TO VAULT/26/64

NEW MEXICO HISTORIC BUILDING INVENTORY FORM

Building threatened? yes	Surveyed date <u>7/29/2001</u> by <u>J. Ronquillo and Ken Towery</u>	County <u>Los Alamos</u>	ID no. <u>TA-33-40</u>
Field map n/a	Number	UTM reference: Easting <u>386582</u> Northing <u>3960472</u> Zone <u>13</u>	
Location description <u>Technical Area (TA) 33, HP (Hot Point) Site, Main Site</u>		City/town <u>Los Alamos</u>	Land grant/reservation <u>n/a</u>
Building name <u>TA-33-40 Original name TA-33-40 (HP-40) Saw Building</u>		Legal description <u>USGS Frijoles 7.5 Series</u> tmsp <u>19N</u> range <u>6E</u> sec <u>Unplatted</u>	
Camera name <u>SBSP</u>	Negative nos. <u>64 - 69</u>	Location of neg. <u>LANL, ESH-20</u>	Date of construction _____ estimate <u>2/12/51 to 3/23/1951</u> actual source <u>Facility & Waste Operations Division (FWO) records (LANL).</u>
Style <u>TA-33-40 is a wood frame building with a slanted or shed roof. (see below for more information)</u>	Foundation material <u>Reinforced concrete slab</u> Wall material/surface <u>The exterior walls are constructed of wood siding while the interior wall surface is finished with masonite panels</u>	Use <u>Present</u> residential <u>✓</u> other <u>According to the MOADS database TA-33-40 is currently being used for general storage.</u> <u>historic</u> residential <u>✓</u> other <u>TA-33-40 originally housed a slit saw and was called "the Saw Building."</u>	Condition _____ excellent _____ good <u>X</u> fair _____ deteriorating
Degree of remodeling <u>X</u> minor _____ moderate _____ major describe: <u>TA-33-40 was relocated northeast of building TA-33-39 in 1953 to make room for the Gas Handling Facility, TA-33-86. Heating, plumbing and electrical alterations, including room exhaust modifications were made to accommodate the relocation. A sand bag barricade was constructed around the building to shield a nearby road from possible shrapnel.</u>			
Surroundings <u>Developed Laboratory Technical Area 33</u>	Relationship to surroundings <u>X</u> similar _____ not similar	district potential _____ yes <u>X</u> no	
Significance <u>X</u> Eligible _____ of interest _____ none if not eligible, why?	Associated building? <u>X</u> yes -What type? <u>Industrial laboratory and office buildings</u> If inventoried, list ID nos. <u>TA-33-86, TA-33-19, TA-33-114, and other buildings at the Main Site area of TA-33.</u>	Associated drawings (Photos and copies of the drawings are on following pages.) <u>ENG-C1156 (sheet 1 of 3) Saw Bldg. HP-40, TA-33 Plot Plan & Details December 19, 1950</u> <u>ENG-C1157 (sheet 2 of 3) Saw Building, HP-40, TA-33 Architectural Plan & Details Heating & Plumbing January 20, 1951</u>	

		<p>ENG-C1158 (sheet 3 of 3) Saw Building, HP-40, TA-33 Electrical Plan & Section January 20, 1951</p> <p>ENG-C2955 (sheet 1 of 5) Relocation of Bldg. #40 Plot Plan Bldg. HP-40, TA-33 February 4, 1953</p> <p>ENG-C2956 (sheet 2 of 5) Relocation of Bldg. #40 Foundation Plan & Sections Bldg. HP-40, TA-33 February 4, 1953</p> <p>ENG-C2957 (sheet 3 of 5) Relocation of Bldg. #40 Room Exhaust Modifications- Mech. Details Bldg. HP-40 (Saw Bldg.) TA-33 February 17, 1953</p> <p>ENG-C2958 (sheet 4 of 5) Relocation of Bldg. #40 Electrical-Plans- Dets.- Notes Bldg. HP-40, TA-33 February 4, 1953</p> <p>ENG-C2959 (sheet 5 of 5) Relocation of Bldg. 40 Electrical-Plot Plan- Notes Bldg. HP-40, TA-33 February 4, 1953</p> <p>ENG-R3034 (sheet 1 of 1) Saw Building Floor Plan Bldg. HP-40, TA-33 June 18, 1964</p> <p>Size 335 gross ft² (285 net ft²)</p>
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<p>Architectural features TA-33-40 is a free standing, windowless, one-story building of approximately 335 gross square feet. It is of wood frame construction and has a slightly pitched, shed-type "built up" roof. The building's exterior is ship-lapped, tongue and groove wood siding that has been painted. TA-33-40 sits on a reinforced concrete slab that ramps to the east of the building. It also has a sliding sectional wood door. The interior walls and ceiling are finished in masonite panels. There are five overhead pendant lights, a corner wall heater, and an overhead hoist inside the building. TA-33-40 originally housed a 24" saw with self-contained coolant.</p> <p>According to drawing ENG-C2956, a sand bag barricade was situated approximately 4 feet from the building around the east, north and west elevations.</p>	<p>Comments Built by the Zia Company. This building was relocated within the Main Site area in 1953 but its original function did not change. A slit saw in the building was used to saw open steel and uranium projectiles after they were retrieved from initiator experiments.</p> <p>Associated historic theme Cold War Nuclear Weapons Research and Development (specifically initiator testing)</p> <p>Property type Laboratory/Processing</p> <p>Contamination history Possible hazardous or radioactive materials used in or near the building include uranium and beryllium. LANL records indicate that a fan was installed in the roof of TA-33-40 because uranium fumes were emanating from saw operations.</p> <p>Integrity Fair</p> <p>Eligibility Eligible under Criterion A</p>
--	--



TA-33-40 South Elevation and Interior



TA-33-40 East Elevation



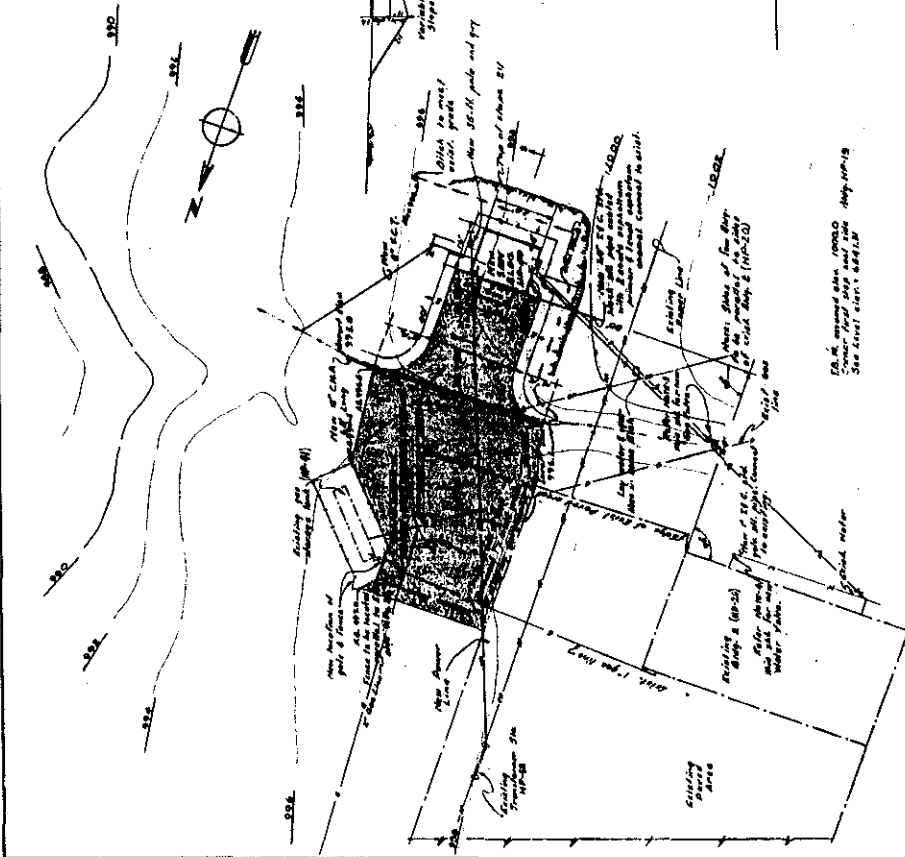
TA-33-40 North Elevation



TA-33-40 West Elevation

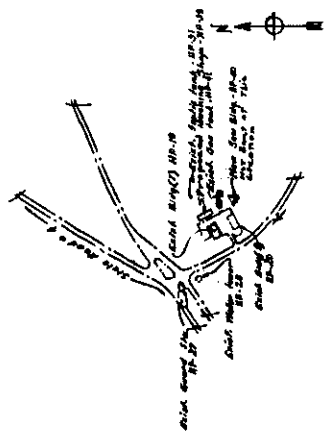


TA-33-40 Interior Sliding Section Door
looking southeast

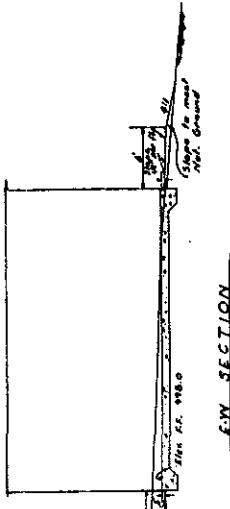


PLOT PLAN
Scale: 1/4"

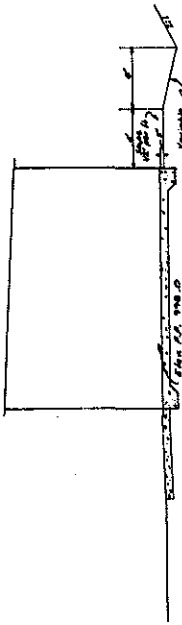
1. All proposed structures shall be constructed in accordance with the specifications and standards of the U.S. Atomic Energy Commission, Office of Health, Safety and Environment, Washington, D.C.



LOCATION PLAN
Scale: 1/8"



E-W SECTION
Scale: 1/4"



N-S SECTION
Scale: 1/4"



TYPICAL ROAD SECTION
Scale: 3/8"

1. All proposed structures shall be constructed in accordance with the specifications and standards of the U.S. Atomic Energy Commission, Office of Health, Safety and Environment, Washington, D.C.

NOTES:

1. Test for Gas Line: Compressed air at 15 psi. for 2 hrs. with no leaks.
2. Test for Water Line: Compressed air at 100 psi. for 2 hrs. with no leaks.
3. Foundation: All foundations shall be constructed with concrete.
4. Electrical: All electrical wiring shall be installed in accordance with the National Electrical Code (NEC).
5. Plumbing: All plumbing shall be installed in accordance with the Uniform Plumbing Code (UPC).
6. Fire: All fire protection shall be installed in accordance with the National Fire Protection Association (NFPA) standards.
7. Safety: All safety equipment shall be installed in accordance with the relevant standards.
8. Materials: All materials shall be of the highest quality and shall be approved by the U.S. Atomic Energy Commission.
9. Workmanship: All workmanship shall be of the highest quality and shall be approved by the U.S. Atomic Energy Commission.

THIS DRAWING AND THE INFORMATION CONTAINED THEREIN ARE UNCLASSIFIED DATE 05/15/00 BY 60322 UCBAW/STP

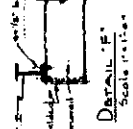
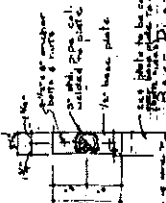
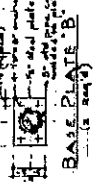
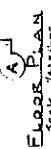
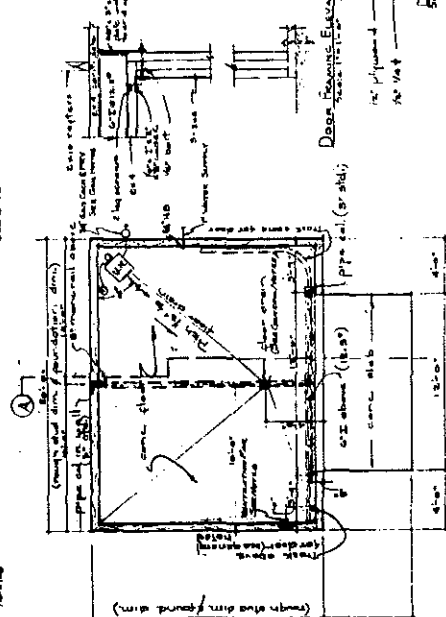
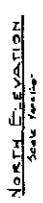
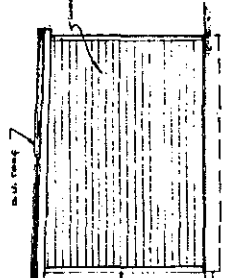
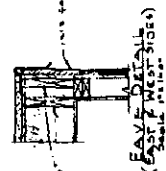
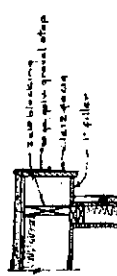
OFFICIAL USE ONLY

VERIFIED UNCLASSIFIED
PUBLICLY RELEASABLE
LANL Classification Group
Accession No. 42601

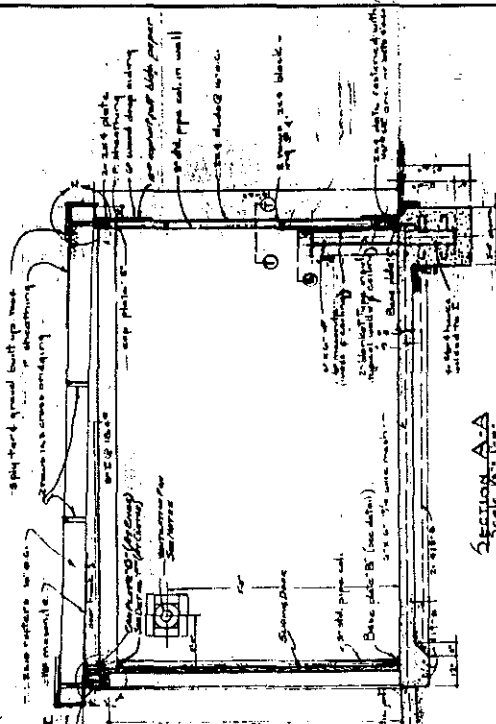
REVISION	DATE	BY	DESCRIPTION
1	12/15/58	J. W. BAKER	PRELIMINARY
2	12/15/58	J. W. BAKER	REVISED

RECORD DRAWING - AS BUILT CONSTRUCTION	
SUBMITTED	APPROVED
DATE	DATE
BY	
FOR	
U. S. ATOMIC ENERGY COMMISSION	
OFFICE OF HEALTH, SAFETY AND ENVIRONMENT	
WASHINGTON, D. C.	
SAWYER ALDREY, JR. HP-10	
PLOT PLAN & DETAILS	
FOR INFORMATION OF LABORATORY OPERATIONS & MAINTENANCE	
DATE: 12/15/58	
BY: J. W. BAKER	
FOR: J. W. BAKER	
PROJECT: HP-10	
DRAWING NO.: HP-10-100	
SCALE: 1/4"	
SHEET NO.: 1 OF 1	

BAR INDEX

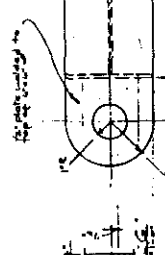


Section A-A
Scale 1/4\"/>



General Notes:
1. Allowance for door frame to be made.
2. Allowance for door frame to be made.
3. Allowance for door frame to be made.
4. Allowance for door frame to be made.
5. Allowance for door frame to be made.
6. Allowance for door frame to be made.
7. Allowance for door frame to be made.
8. Allowance for door frame to be made.
9. Allowance for door frame to be made.
10. Allowance for door frame to be made.

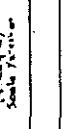
Door Jamb Details
Scale 1/4\"/>



VIEW H-H
Scale 1/4\"/>



Door Detail
Scale 1/4\"/>

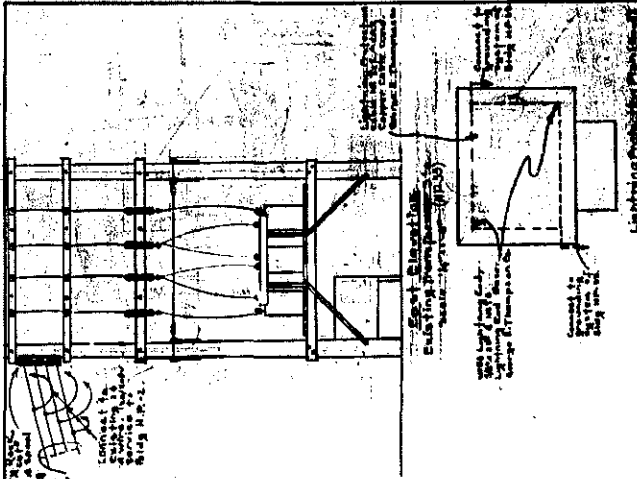


VERIFIED UNCLASSIFIED
PUBLICLY RELEASABLE
UNAL Classification Group
Date: 9/24/01

OFFICIAL USE ONLY

U.S. ATOMIC ENERGY COMMISSION
SAVING BEHAVIOR GROUP
ARCHITECTURAL PLAN & DETAILS
HEATING & PLUMBING

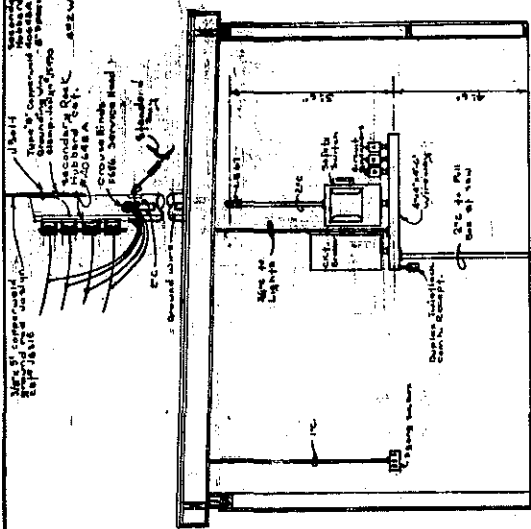
NO.	DESCRIPTION	DATE	BY	CHK'D
1
2
3



General Notes:

- The complete electrical installation shall be installed in accordance with the current code of the jurisdiction.
- All ceiling numbers are given for reference only. Substitutions shall be made providing the same wattage is maintained from the originating department.
- Number refer to sheets where the equipment is located. Heating & Cooling for 16' x 16' as made by Signifier, Model 2.
- The contractor shall thoroughly check all materials and equipment to be installed. For damage to equipment, the contractor shall be responsible for repairs or substitution.
- All conductors shall be installed in a metal of approved type and shall be protected by a metal conduit or raceway.
- All conductors shall be installed in a metal of approved type and shall be protected by a metal conduit or raceway.

PROJECT NO.	DATE	BY	CHECKED
U. S. ATOMIC ENERGY COMMISSION	LOS ALAMOS NEW MEXICO	JA-33	JA-33
SAN BUILDING - LP-40			
ELECTRICAL PLAN & SECTION			
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
U. S. ATOMIC ENERGY COMMISSION	LOS ALAMOS NEW MEXICO	JA-33	JA-33
U. S. ATOMIC ENERGY COMMISSION LOS ALAMOS NEW MEXICO			
JA-33			

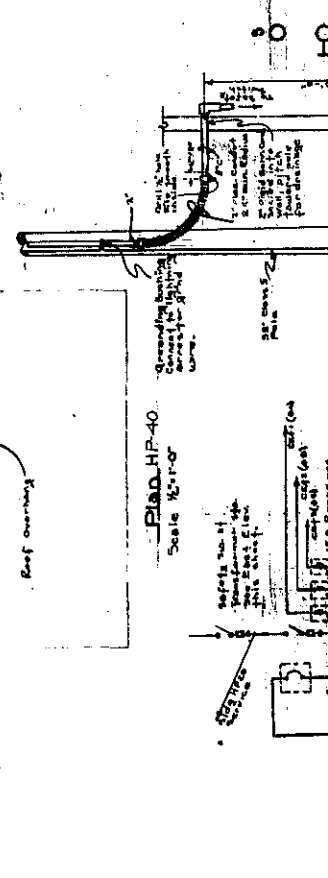
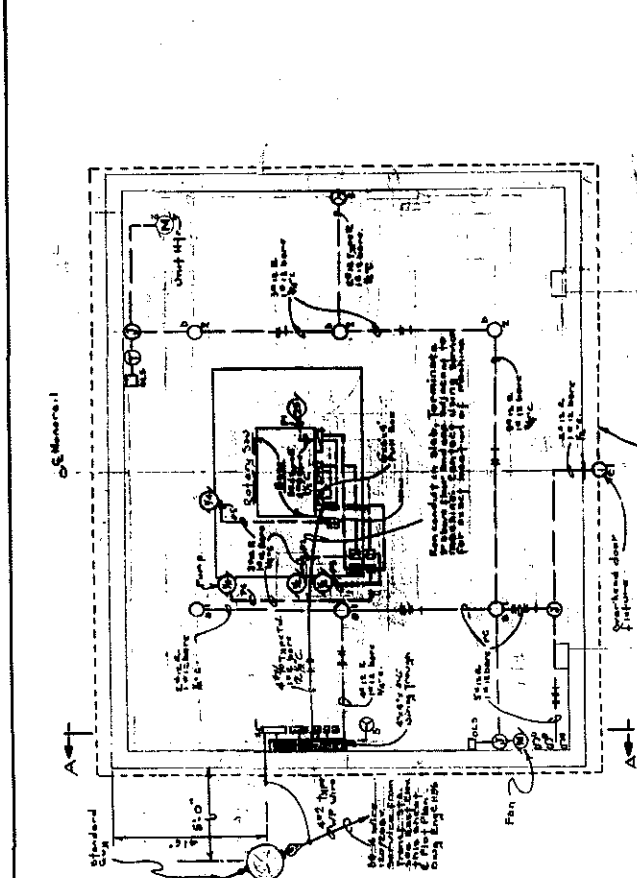


Section A-A HP-40
Scale 1/8" = 1'-0"

General Notes:

- The complete electrical installation shall be installed in accordance with the current code of the jurisdiction.
- All ceiling numbers are given for reference only. Substitutions shall be made providing the same wattage is maintained from the originating department.
- Number refer to sheets where the equipment is located. Heating & Cooling for 16' x 16' as made by Signifier, Model 2.
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PROJECT NO.	DATE	BY	CHECKED
U. S. ATOMIC ENERGY COMMISSION	LOS ALAMOS NEW MEXICO	JA-33	JA-33
SAN BUILDING - LP-40			
ELECTRICAL PLAN & SECTION			
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
U. S. ATOMIC ENERGY COMMISSION	LOS ALAMOS NEW MEXICO	JA-33	JA-33
U. S. ATOMIC ENERGY COMMISSION LOS ALAMOS NEW MEXICO			
JA-33			



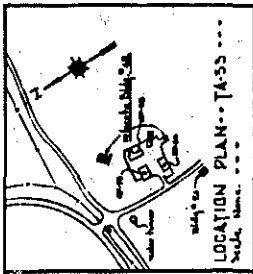
Official Use Only

One Line Wiring Diagram

RECORDED IN THE ARCHIVES OF THE U. S. ATOMIC ENERGY COMMISSION

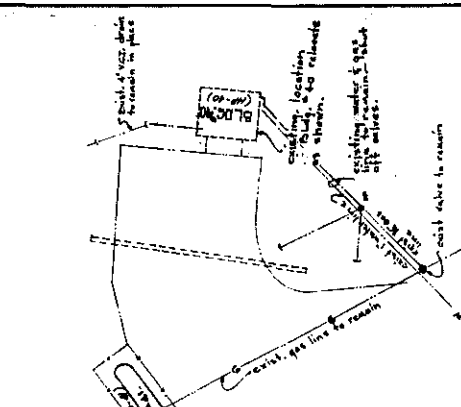
U. S. ATOMIC ENERGY COMMISSION
LOS ALAMOS NEW MEXICO

JA-33



GENERAL NOTES ---

1. New water & gas lines to be laid out as indicated on this plan. All water & gas lines to be laid out in accordance with the specifications of the City of Los Angeles.
2. All new water & gas lines to be laid out in accordance with the specifications of the City of Los Angeles.
3. All new water & gas lines to be laid out in accordance with the specifications of the City of Los Angeles.
4. All new water & gas lines to be laid out in accordance with the specifications of the City of Los Angeles.
5. All new water & gas lines to be laid out in accordance with the specifications of the City of Los Angeles.
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8. All new water & gas lines to be laid out in accordance with the specifications of the City of Los Angeles.
9. All new water & gas lines to be laid out in accordance with the specifications of the City of Los Angeles.
10. All new water & gas lines to be laid out in accordance with the specifications of the City of Los Angeles.



LOG ALAMOS SCIENTIFIC LABORATORY UNIVERSITY OF CALIFORNIA CHEMICAL ENGINEERING DEPARTMENT LOS ALAMOS, N.M.	
RELOCATION OF BLOC # 20 PLOT PLAN BLOC # HP-40 JA-55	ENG-C 2985 1" = 50'-0" 1" = 50'-0" 1" = 50'-0"

DWG. INDEX

Dwg # Title
 101-2985 PLOT PLAN
 101-2985 FOUNDATION PLAN & DETAILS
 101-2985 ROOF PLAN & DETAILS
 101-2985 ELEC. PLAN & DETAILS
 101-2985 MECH. PLAN & DETAILS
 101-2985 PIPING PLAN & DETAILS

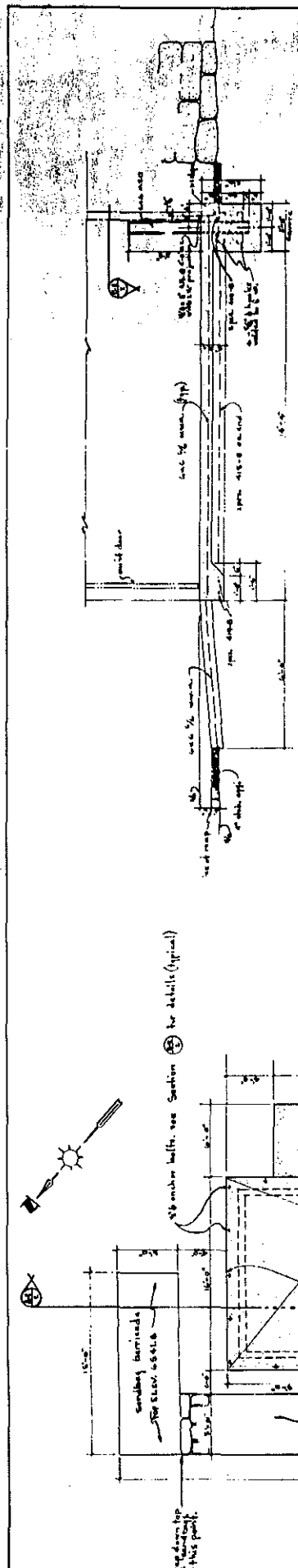
RECORD DRAWING-AS BUILT CONSTRUCTION

SUBMITTED: _____
 RECOMMENDED: _____
 APPROVED: _____

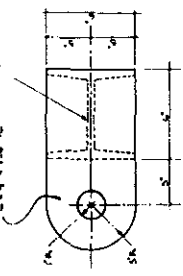
FOR THE USE OF: _____
 DATE: _____

PLOT PLAN ---
 Scale 1" = 50'-0"

STATE HIGHWAY



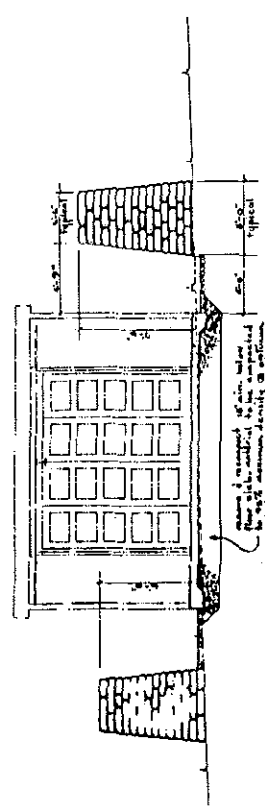
SECTION 32
Scale 1/4" = 1'-0"



SECTION 33
Scale 1/4" = 1'-0"

BAR INDEX			
Bar Identification	Type	Qty	Use
410-B	3/4"	10	4
410-C	3/4"	10	4

FOUNDATION PLAN
Scale 1/4" = 1'-0"



SECTION 34
Scale 1/4" = 1'-0"

GENERAL NOTES:

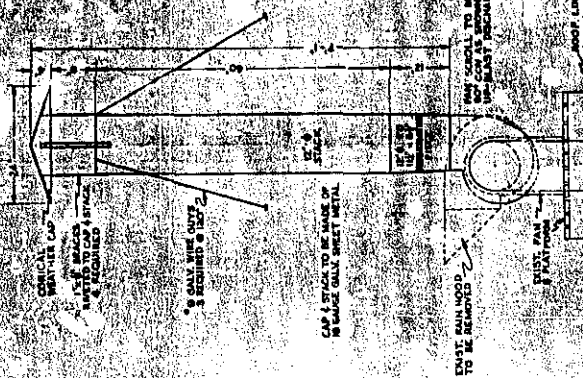
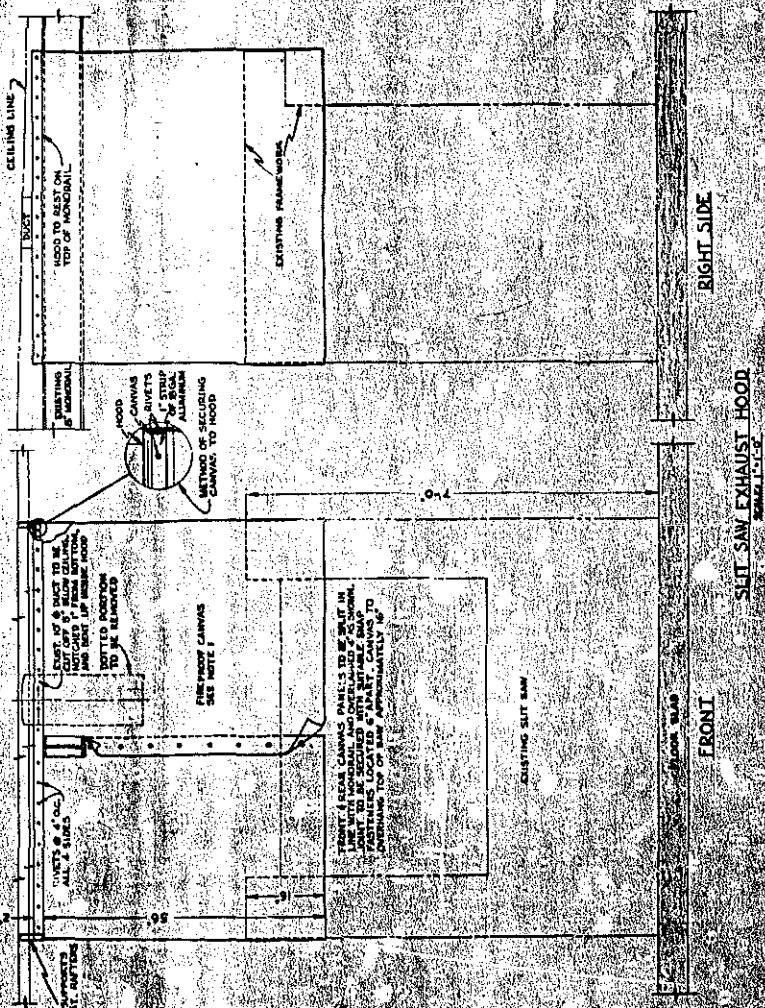
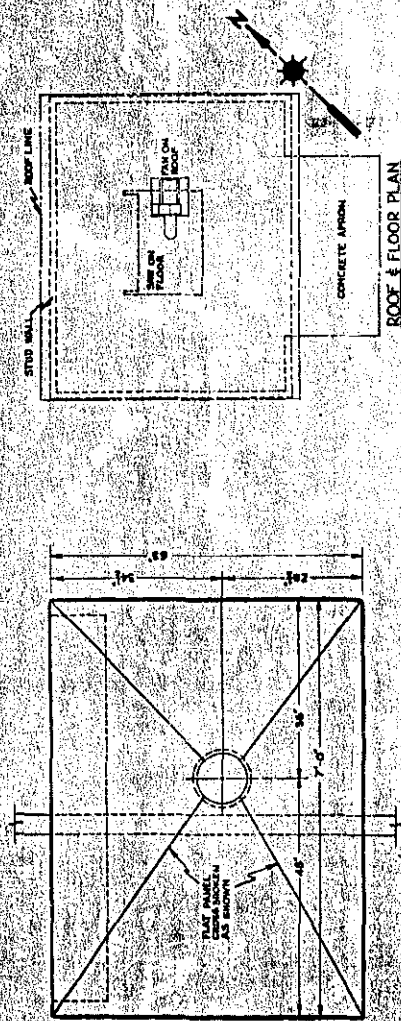
- All concrete to be class "A" mean 4000 psi.
- Reinforcing steel to be class "A" steel.
- Formwork to be 2" thick, with 1/2" clearances, with 1/2" minimum edge.
- Joint bags to be filled with clay loam, with a minimum particle size of 1/4".

RECORD DRAWING - AS BUILT CONSTRUCTION	
REVISION	DATE

7-Sheet
Stephens Field Building
Bldg. & Power Construction

LOG ALABAMA SCIENTIFIC LABORATORY
RELOCATION OF BLDG. #40
FOUNDATION PLAN & SECTIONS
BLDG. #40
AREA 40
DATE 11-2-53
ENGINEER ENG-C-2956

NOTES
 1. FIREPROOF CANVASS TO BE MADE BY RETIRED SMITH
 COMPANY, 349 ELLIOTT ST., BUFFALO, N.Y., OR APPROVED EQUAL.
 2. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE APPROXIMATE.



NEW EXHAUST STACK - EAST SIDE
 SCALE 1/8" = 1'-0"

SECOND DRAWING - AS BUILT CONSTRUCTION
 PROJECT NO. 100-100000000
 SHEET NO. 100-100000000

NO.	DATE	BY	CHKD.
1	10/20/57	J. J. J.	J. J. J.
2			
3			
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100 ALABAMA SCIENTIFIC LABORATORY
 UNIVERSITY OF CALIFORNIA
 LABORATORY OF CHEMISTRY
 400 UNIVERSITY AVENUE
 BERKELEY, CALIF. 94720

RELOCATION OF BLDG. # 40
 ROOM EXHAUST MODIFICATIONS - INITIALS
 BLDG. 40 (SAW BLDG.) IA 53

DATE: 10/20/57
 DRAWN BY: J. J. J.
 CHECKED BY: J. J. J.

SHOW THESE DETAILS TO THE CONTRACTOR

SCOPE OF WORK

1. The entire installation to be made in accordance with the current rules of the N.E.C.
2. All raceway and the frames and accessories of all meters, switches, switches and other electrical equipment to be electrically grounded.
3. All branch circuits to be identified by single or individual colors in accordance with the National Electrical Code.
4. Conduct race cable to suit equipment and building structure.
5. Work done in exterior walls of buildings, for electrical conduit, to be sealed.
6. Connected equipment to be suitably grounded.

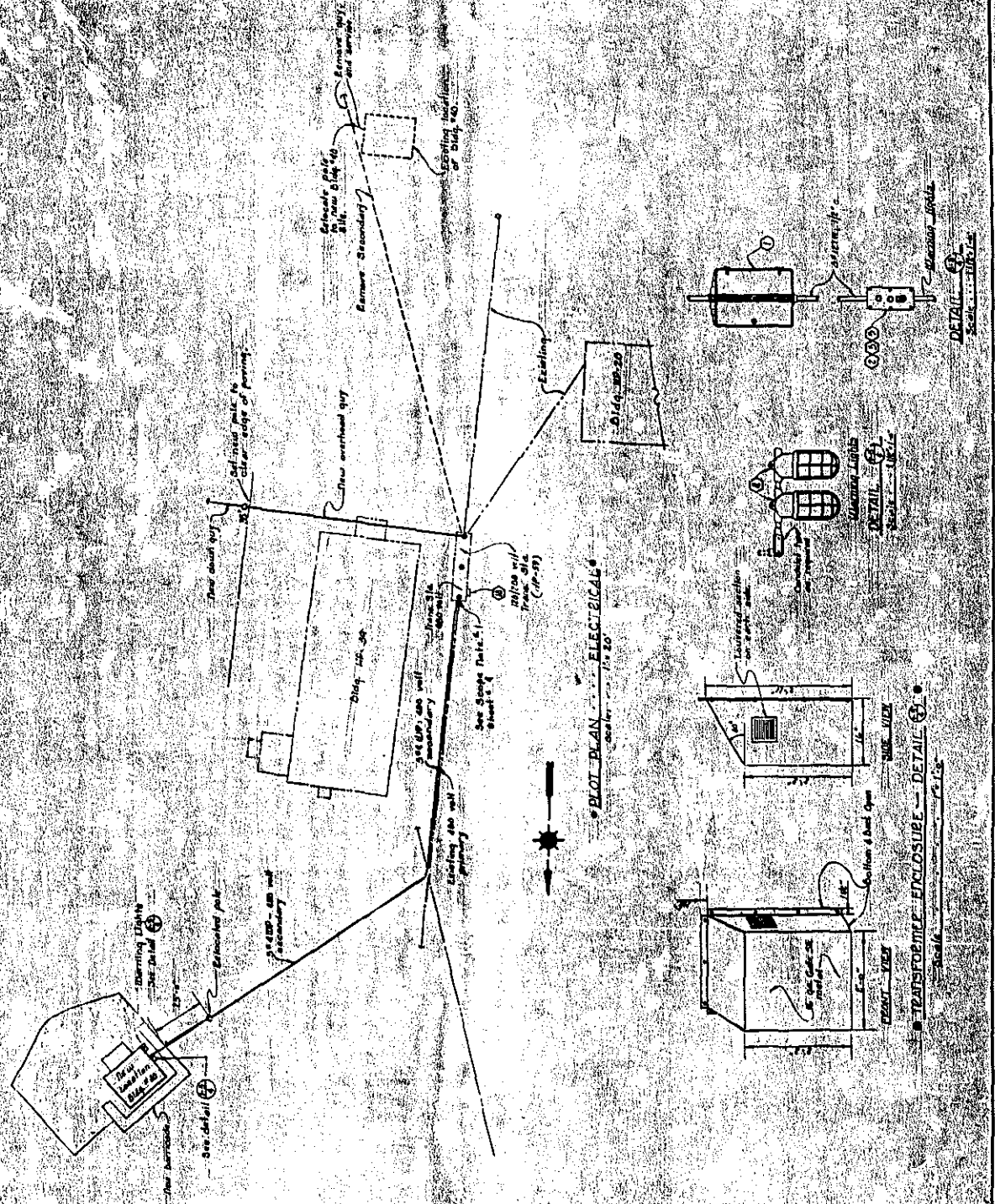
GENERAL NOTES

1. The entire installation to be made in accordance with the current rules of the N.E.C.
2. All raceway and the frames and accessories of all meters, switches, switches and other electrical equipment to be electrically grounded.
3. All branch circuits to be identified by single or individual colors in accordance with the National Electrical Code.
4. Conduct race cable to suit equipment and building structure.
5. Work done in exterior walls of buildings, for electrical conduit, to be sealed.
6. Connected equipment to be suitably grounded.

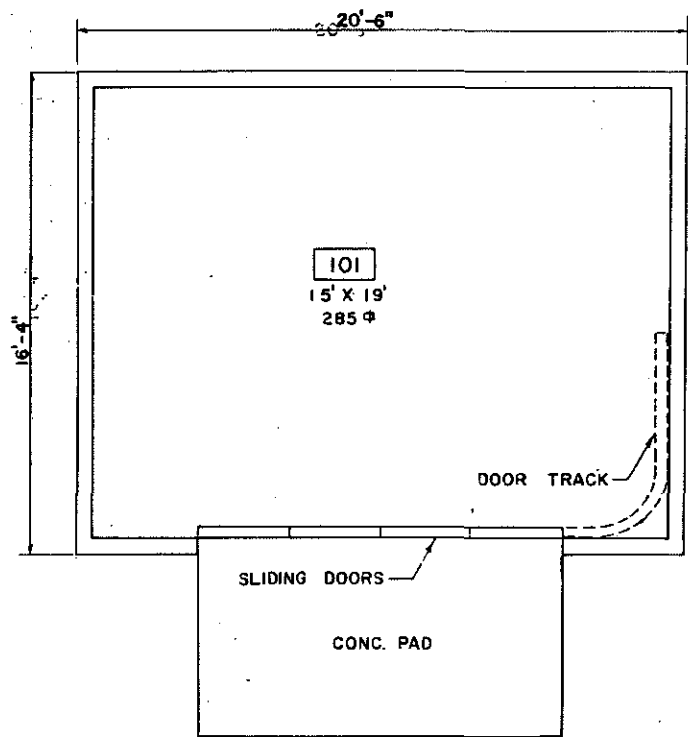
RECORD DRAWING - AS BUILT CONSTRUCTION

NO.	DATE	BY	CHKD.

RELOCATION OF DEEG-40
ELECTRICAL - D-1011-10-20
DATE: 10-20-20
BY: [Signature]
CHKD.: [Signature]



REC'D *Not* LOGGED *Not* TO VAULT *Not*



TOTAL SQ. FT. 285

REV. DATE		REVISION		BY	CHK. APPR.
1 6-8-64		REVISED TO STATUS OF 6-8-64		HBN	DP
UNIVERSITY OF CALIFORNIA Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico, 87543					
FACILITIES ENGINEERING DIVISION					
SAW BUILDING FLOOR PLAN				SEC. CLASSIFICATION	
BLDG. HP-40				CLASS. <i>U</i>	
TA-33				REVIEWER <i>Bremer</i>	
DATE 6-18-64				DATE <i>6-18-64</i>	
DRAWN BY BREMER		DATE 6-18-64		SHEET NO. 1 of 1	
CHECKED <i>Humble</i> HBN		DATE 6-18-64		DRAWING NO. ENG-R3034	

REC'D LOGGED TO VAULT *Not*