

**PHASE III DATA RECOVERY AT CA-KER-4446H, -4447H, -4448H, & -4449H,
MOJAVE, KERN COUNTY, CALIFORNIA**

Prepared for:

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25 February 2007

TRANSMITTAL

To: Lutz Klingmann, Golden Queen Mining Co.

From: Dave Whitley, 805-524-3620

RE: Phase III Archaeological Report

Enclosed please ^{find} a bound and unbound copy of our Phase III salvage excavation report. Following CEQA, the completed work has mitigated any potential adverse impacts to these sites that might result from development. No additional archaeological work is required at these locations. Also following CEQA, however, we have recommended that an archaeological monitor be present during any topsoil grading that may occur at these site locations. The reason for this involves the potential for historical burials to be present somewhere within the sites. On the other hand, if the site areas are used for spoils or tailing storage, no monitoring should be required.

Please call if you have any questions.



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Management Summary

A Phase III data recovery program was conducted at four historical (Euro-American) sites on Soledad Mountain, near Mojave, Kern County, California. These sites are CA-KER-4446H, "Cobble City," CA-KER-4447H, the Wegmen complex, CA-KER-4448H, the Karma Mine and Mill, and CA-KER-4449H, the Queen Esther Mill. The data recovery program included background historical research, subsurface (salvage) archaeological excavations, along with architectural recording of standing structures. CA-KER-4446H was an occupation area inhabited primarily between 1903 and 1910 by the employees of the Queen Esther Mine, who built make-shift structures using local fieldstones and mud as mortar. According to census records, the site was primarily occupied by immigrants from Italy and Slovenia; it was known by local residents as "Little Italy." CA-KER-4447H, in contrast, was occupied by employees of the Karma Mine living in kit-built board and batten cabins, again primarily between 1903 and 1910. The development and use of both CA-KER-4448H and -4449H, the Karma and Queen Esther Mines, respectively, occurred between 1896 and 1910.

The Phase III data recovery combined with the earlier Phase II study of these sites has resulted in the acquisition of scientifically consequential information from and about these sites. Following CEQA, this has served to completely and adequately any adverse impacts that may occur to these four sites due to the development and use of the study area. No additional archaeological work is recommended at these locales.

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PHASE III DATA RECOVERY AT CA-KER-4446H, -4447H, -4448H, & -4449H, MOJAVE, KERN COUNTY, CALIFORNIA

1.0 INTRODUCTION

1.1 Introduction

At the request of the Golden Queen Mining Company, LTD., a Phase III archaeological data recovery (salvage excavation) was conducted on four historical (Euro-American) sites located on Soledad Mountain, Mojave, Kern County, California (Figure 1)—a location known as the Golden Queen study area. These sites are CA-KER-4446H ("Cobble City"), CA-KER-4447H ("Wegmen complex"), CA-KER-4448H ("Karma Mine and Mill") and CA-KER-4449H ("Queen Esther Mill"). This project was conducted by W&S Consultants, Simi Valley, California, with the fieldwork directed by David S. Whitley, Ph.D., and Joseph M. Simon, and the lab work directed by Tamara K. Whitley, M.A. Architectural documentation was completed by George Koteles, AIA, and Leonard Ridder, AIA. This project was designed to yield sufficient scientific and architectural data to completely and adequately mitigate adverse impacts to these sites, resulting from any development of the study area, following the California Environmental Quality Act, Law and Guidelines, as amended. It followed recommendations resulting from an earlier Phase II test excavation and determination of significance at these and other Soledad Mountain sites (W&S Consultants 1995c).

The following section of this chapter provides a brief background to this project. The subsequent chapter is a summary of the field techniques employed during the Phase III excavations. Next we turn to a summary of the results for each site. We then present the artifact assemblage recovered from the Phase III work on Soledad Mountain, and their archaeological implications.

1.2 Background to the Study

The four sites considering in this Phase III study are located on the northwestern side of Soledad Mountain, which is a northern extension of the Rosamond Hills located about five miles south of the town of Mojave, in southeastern Kern County, California. All four sites fall within Section 6, Township 10 North, Range 12 West, with an average site elevation of approximately 3000 feet a.s.l. Environmentally speaking, the northern side of Soledad Mountain is an area of relatively steep terrain, which dips from south to north. This area is currently covered by a creosote scrub plant community, with zones of bare rock and historical mine tailings also common.

Archaeological work on Soledad Mountain began with a Phase I survey project (see W&S Consultants 1995a, 1995b). This resulted in the discovery and recording of nine archaeological sites, all of which are historical (Euro-American) in nature, and each of which resulted from the mining activities on the mountain. These nine sites were described at the time of discovery as follows:

CA-KER-4446H - This is a large residential area that we believe was associated with the Queen Esther Mine and Mill, and labeled "Cobble City". It dates primarily from about 1904 to 1910, although a small amount of Depression era use is evident at this locale.

CA-KER-4447H - This site is the Wegmen homestead. It includes a series of features and habitation structures associated with the Karma Mine and Mill, which date from about 1903 to 1904. However, portions of the site were occupied continuously into the 1990s.

CA-KER-4448H - This is the Karma Mine and Mill, which was in operation from 1903 to 1909. The mill structure, however, burned in 1947.

CA-KER-4449H - Adjacent to the Karma Mill, this is the Queen Esther Mill, which was operated from 1903 to 1910. This mill structure burned circa 1998.

CA-KER-4450H - This site is the Echo Mill, located towards the northwestern extreme of Soledad Mountain. It ran from 1903 to 1905, when it was dismantled and abandoned.

CA-KER-4451H - This is the Golden Queen Mine and Mill, which was constructed during the 1930s and dismantled about 1950.

CA-KER-4452H - The site consists of a series of mining features on the Silver Queen claim, which consist of a small cluster of Depression era and later mining remains. The Silver Queen was operated as part of the Depression era Golden Queen Mine activities.

CA-KER-4453H - This site consists of mining features on the Gypsy Starlight claim. These comprise a small group of ore chutes and ramps dating from the Depression era.

CA-KER-4454H - This is a large site consisting of miscellaneous mining features on the western side of Soledad Mountain, largely but not entirely within the area of the Bobtail group claims. Four features within this larger site fall within the current study area; they consist of one probable turn-of-the-century cobble structure, and three Depression era or later mining features related to the Soledad Extension Mine.

Phase II test excavations and determinations of significance were conducted at these sites subsequently (W&S Consultants 1995c). This involved recording, mapping, surface collection, and limited subsurface testing, and was intended to obtain sufficient data to adequately characterize the nature and extent of each

site, including age, function, size, presence or absence of subsurface deposits and integrity.

The results of the Phase II test and recommendations for each site may be summarized as follows:

Site CA-KER-4446H (Cobble City) is a large residential area that was constructed and initially occupied in the first decade of the twentieth century. The inhabitation of the site primarily occurred between 1903 and about 1910; however, a small degree of later occupation, dating to the Depression era and perhaps slightly later, was localized in the northeastern section of the site. The initial occupation appears to have been associated with the Queen Esther Mine and Mill. Documentary and oral history sources indicate that the site largely contained a group of male immigrant miners from Slovenia and Italy; it was referred to as "Little Italy" by local residents of Soledad Mountain. In terms of architecture, the site is dominated by cobble walled structures, cobble foundations for wooden cabins, and leveled tent pads. All of these features now lack architectural integrity, with many of them threatened with complete destruction due to the natural down-slope movement of mill tailings from the Queen Esther Mill. However, the site nonetheless had the potential to contribute to our scientific understanding of a poorly documented period of Kern County history. We recommended that a Phase III data recovery (salvage excavation) be conducted at this site, to collect and preserve the scientific information contained therein.

Site CA-KER-4447H (Wegmen complex) is a residential complex that was first occupied in 1903, with use and inhabitation continuing into the early 1990s. In particular, the inhabitation of the site can be characterized in terms of three trends: initial construction and intensive occupation from about 1903 to 1910; a second period of intensive occupation in many but not all of the structural remains during the Depression era; and a continuous occupation, from 1903 into

the 1990s, in the northwestern portion of the site. Architecturally speaking, the site differs from the previous site in that it largely consists/consisted of wood cabins; that is, purchased building materials rather than locally available fieldstone cobbles and tents. One of these wood cabins is still standing, although in a very poor state of preservation; two other cabins are in the process of collapse. Sources indicate that the site was associated with the Karma Mill, and that many of the structures were built by the mining company for its employees. With the exception of the standing cabin and a standing privy, the architectural features at the site lack integrity. However, the site still contained features and archaeological remains, especially on its southern and eastern sides, with scientific information useful for the reconstruction of early twentieth century mining patterns in the Mojave Desert. We recommended that a Phase III Data Recovery (salvage excavation and architectural recording) be conducted as mitigation of adverse impacts at this site.

Site CA-KER-4448H (Karma Mine) is a mine structure complex that was constructed in 1903, aspects of which have been used sporadically into the 1980s. The mill structure itself burned in 1947, currently consisting solely of foundational remains, and therefore is completely lacking in integrity. However, the original hoist house and head frame are still standing and, though used at various times in the past (and stripped of their original machine works), nonetheless maintain their architectural integrity, while a few archaeological features on the site (e.g., assay office dump) contain information useful for the reconstruction of early mining practices and patterns. We recommended that any potential adverse impacts to this site be mitigated by a Phase III Data Recovery (architectural recording and salvage excavation).

Site CA-KER-4449H (Queen Esther Mill) was built in 1903 and used until 1910, at which point it was shut down and never re-opened or re-used, although much of the site appears to have been salvaged for re-use elsewhere at some point in the past. In 1995 it consisted of a (barely) standing mill structure, a wooden

building that was in the process of collapsing and could only be entered at significant peril, and various related features. Architecturally speaking, the site lacked integrity; however, a few archaeological features on the site (e.g., assay dump, machine shop dump) contained scientific information useful for the reconstruction of poorly documented aspects of turn of the century mining history. We recommended that a Phase III Data Recovery program (architectural recording and salvage excavation) be conducted at this site to mitigate any potential adverse impacts to it.

Site CA-KER-4450H (Echo Mill) was constructed in 1903 and dismantled and apparently carted away in 1906. Extant archaeological remains at the site were limited to the foundational remnants of the mill, a heavily disturbed assay dump, a privy pit, and a very low-density scatter of related debris. Intensive mapping and recording of the mill remnants and excavations at the dump and privy resulted in the acquisition of scientifically consequential information from and about this site. Following CEQA, this served to completely and adequately mitigate any adverse impacts that might result from development. No additional work was recommended for this site.

Site CA-KER-4451H (Golden Queen Mill) is a large mill site that was constructed in 1935 and dismantled about 1950, and which is well documented in published historical references and existing unpublished documents (including a complete set of working plans for the mill; cf. W&S Consultants 1995c). The site currently consists of concrete building foundations, and concrete and wood ore chute remains and related features. These lack integrity, and do not contain scientific information of archaeological or historical interest. They therefore do not meet the criteria of importance as outlined in CEQA, and no additional archaeological work was recommended for this site.

Phase II studies at site CA-KER-4452H (Silver Queen Mine) determined that this locale is a small post-World War II mining complex which post-dates the

operation of the Golden Queen Mine and Mill. It therefore either does not meet, or minimally meets, the age criterion for consideration as a cultural resource. In either case, it is lacking in integrity and does not contain information of archeological or historical interest. We recommended that no additional archaeological work at this site.

Site CA-KER-4453H (Gypsy Starlight) is a small cluster of wooden ore chutes and related mine features that date to the Depression era, and whose use was related to the operation of the Golden Queen Mine and Mill. The features at this site are either fully collapsed or in the process of collapsing, and therefore lack integrity. Furthermore, this site does not contain information of archaeological or historical importance. We recommended no additional archaeological work at this locale.

The CA-KER-4454H (Bobtail) site consists of a large area containing dispersed but unrelated mining features of different ages, such as stopes, adits and ore chutes. Four mining features from the site were located within the Golden Queen study area and were evaluated during the Phase II program. These consisted of an undated cobble wall, a Depression era concrete pad, a Depression era or later wooden ore chute, and a small modern head frame. These features are either lacking in integrity and/or do not contain information of archaeological or historical interest. We recommended no additional archaeological work at CA-KER-4454H.

Previous archaeological work on Soledad Mountain, in summary, identified four historical sites with architectural integrity and/or that contained information that had the potential to contribute to our understanding of Kern County mining history. These sites are CA-KER-4446H (Cobble City), -4447H (Wegmen Complex), -4448H (Karma Mine), and -4449H (Queen Esther Mill). These were found to primarily consist of standing architecture, or (more commonly) remnants of structures, with associated surface artifact scatters. Subsurface

archaeological deposits were rare, in contrast, as a result of both the youthfulness of the sites, and the nature of the geomorphological setting.

The Phase III data recovery was therefore directed at augmenting the archaeological data collected from these sites during the Phase II test excavations, in order to obtain a sample sufficient to constitute scientifically consequential information from and about these sites. The Phase II study had resulted in the mapping and collection of the majority of the temporally and functionally diagnostic artifacts on the surfaces of the sites. It had also included mapping all of the surface structural features. Phase III fieldwork accordingly emphasized two principal tasks. The first was the excavation of identified subsurface archaeological deposits. These primarily consisted of privies. Further, fieldwork at these locations emphasized contexts known or assumed to represent the initial—1903 to 1910—occupation of Soledad Mountain, rather than the remnants of Depression era occupation that had been identified during the Phase II test (and which are common throughout the Mojave Desert region). Second, architectural documentation was also completed at two of the sites, as discussed subsequently.

1.21 Historical Summary

Considerable background to this region and the sites, per se, has been provided in the reports resulting from the earlier Phase I and II work within the Golden Queen study area (see W&S Consultants 1995a, 1995b, 1995c). We summarize briefly here the pertinent aspects of these detailed background studies, which concern the mining history of this portion of the Mojave Desert. This history has been outlined in then-contemporary and more recent publications, with Brown (1915), Clark (1970), Hensher and Vredenburg (1991), Miller and Miller (1976), Settle (1963, 1967), Settle and Settle (1984), Starr (1988), Troxel and Morton (1962), Tucker (1923, 1935), Tucker and Sampson (1933), and Tucker, Sampson and Oakeshott (1949) constituting the primary sources. The mining

history of this area, summarized below, has been synthesized from these and other unpublished sources and documents.

The first recorded mining activity in the region occurred on March 8, 1894, when W.W. Bowers found gold on a promontory south of Mojave, then known as Little Buttes (subsequently changed to Bower's Hill and now Standard Hill). His first claim was the famous Exposed Treasure mine, which he brought into operation shortly thereafter, shipping ore worth \$60/ton. By 1896 a camp had sprung up around this site (Hensher and Vredenburg 1991). The Exposed Treasure discovery apparently spurred local interest in prospecting as, later in 1894, Ezra M. Hamilton discovered gold in the Rosamond Hills, to the south, at a location that would eventually become known as Tropic (Settle 1963, 1967).

Mining activities within the Golden Queen study area were apparently stimulated by the Exposed Treasure discovery, and can be divided generally into three periods. The first, stretching from 1894 to about 1910, was an era of prospecting and the development of a series of early properties and mills (Tucker 1935). The three primary mines in operation during this period were the Karma, Queen Esther and Echo, each of which had their own mills, with lesser amounts of mining at the Eagle Group and Bobtail claims, both of which fall outside of the Golden Queen study area, and neither of which had mills during this period. Activity was minimal from about 1922 to the start of the Depression when, like many mining regions in the west, numerous small-scale mining efforts were started. According to Tucker (speaking of the Mojave mining district as a whole, which included the Tropic area 17 miles to the south and Standard Hill to the north), about 50 to 70 leasers worked old mines from 1931 to 1934, hauling their ore to the Tropic for milling (Tucker 1935). Activity accelerated dramatically during the mid-1930s on Soledad Mountain, however, when the Mojave Mining District was revived by the discovery of the Silver Queen vein, leading subsequently to the establishment of the Golden Queen mine and mill. This represented the second primary period of mining within the study area, with the

Golden Queen building a major cyanide plant, and consolidating a number of the earlier claims and patents. Depression era mining terminated in 1942 with the official closure of all gold mines by the War Production Board. The final period of activity has occurred in recent years, during which time a limited amount of mining has been conducted on different claims on Soledad Mountain.

Queen Esther

The Queen Esther mine and mill appear to represent the first mining activity on Soledad Mountain, with Troxel and Morton (1962) claiming that the mine was first discovered in 1894; like all properties within the study area, however, existing documents at the Kern County Hall of Records only begin about 1900, so the initial date of the claim is unknown.

What is certain is that the mine was originally called the Thomson and Boyle, for its first owners Henry D. Thomson and J.L. Boyle, but its name was relatively quickly changed to the Queen Esther. A partner with Thomson and Boyle in the mine and mill was Harvey S. Mudd, of the Pomona colleges fame, who most likely was the financial partner who funded the mill construction.

Initial work at the mine, which is located on the north face of Soledad Mountain, yielded small tonnages of high grade shipping ore. A 1901 account in the *Mining and Science Press* (2/2/1901) states that ore ran at \$180/ton. In 1903 a mill was constructed on site. According to a period account in this same weekly (*Mining and Science Press*, 4/11/1903), a 100-tons roller mill was put in, apparently with a cyanide plant. This was increased to 150 tons in 1904 (Troxel and Morton 1962), but not without difficulties: *Mining and Science Press* reported on 11/14/1903 that "The Queen Esther mill at Mojave is shut down on account of the breaking of some machinery."

A period account of the Queen Esther mill in operation was published by Margaret Troili in the *Overland Monthly* in 1908. She stated:

[H]ere on the steep slope the big mills shook as they devoured the gold ore. Cottages of lumber and stone trailed down the slope; some sat squarely on the level, but the mills lorded over it all. Inside the mill, the shaking seizes one, and a cloak of dust whirls around and refuses to settle. In the engine room, vast power is created, vast work is done. It makes me wonder at man - the big wheels whirling, nice parts doing their work with precise regularity, tremendous beltings rushing up through the timbers and making a great roar and tumult up there, rushing down again like a demon, seizing the great wheels for a frolic, and oozing upward like a never-ending brown genius from a little bottle. (Troili 1908:401)

Troili's references to the cottages and the mills in plural concern a nearby residential area and the adjacent Karma mill, respectively, which are discussed subsequently.

The Queen Esther was shut down in 1910, by which time 286 tons of ore had been mined. No accurate production figures for the mine exist, though it is estimated to have produced millions of dollars worth of gold (Troxel and Morton 1962). The Queen Esther was consolidated with the Golden Queen mine in 1935, with its veins apparently worked and perhaps some of its tailings rerun at the Golden Queen mill. The original Golden Queen mill, however, was apparently never used after 1910, and was probably dismantled some time after it closed.

Karma Mine

The Karma mine, immediately due east of the Queen Esther, was apparently also first discovered in 1896 and was quickly put into operation, with ore averaging 7 ounces of silver/ton alone during the first seven years of its production (Troxel and Morton 1962). Putatively by 1899 a large boarding house and bunk house had been built for mine employees, "and cabins sprouted like wildflowers along the slopes" (Hensher and Vredenburg 1991:55) below the mine. According to Mrs. Grace Wegmen Meehl (personal communication, 1995), the Karma Mining Company spared no expense in housing its employees, and

built a number of well-made wooden buildings for their use, some of which are still (barely) standing.

According to period accounts of the Karma published in the *Mining and Science Press* (2/2/1901), by early 1901 "the shaft is down 280 feet. Four hundred feet of drifting is completed". Due to increasing lower yielding ore, construction of a mill was begun in 1903 but, like most such undertakings, things did not go as smoothly as optimistically predicted. Again, the *Mining and Science Press* tells us on August 29, 1903, that the "Machinery for the Karma mill, near Mojave, is on the ground and building will begin Sept. 1. More men will be put into the mine". Almost two months later (10/17/1903), the same source stated: "The Karma M[in]e Co. at Mojave has bought a second-hand 10-stamp mill and will add to it 10-stamps more. J. Gerner is president and superintendent". And one month later (11/14/1903) the *Mining and Science Press* reported that "J. Gerner, superintendent of the Karma M. Co., says the mill will be in operation this month". Other records indicate that the 20-stamp mill was finally in operation sometime in 1904. This was effective until 1909, when the mine and mill were shut-down due to poor recovery (Troxell and Morton 1962). The mill was apparently never reopened, and the stamps and stamp boxes are still on site (see below).

The mine was reactivated following World War I when the US Smelting and Mining Company at Kennett agreed to purchase low-grade ore with high silica content. As is clear, the mill itself was not reactivated. Ore shipped from the Karma to Kennett between 1917 and 1926 averaged between 5 and 9 ounces of silver/ton (Troxell and Morton 1962). The mill building of the Karma Mine was still standing until 1947, when a fire was accidentally started by visiting teenagers, which burned it down (Mrs. Meehl, personal communication, 1995).

In 1926 the Karma was purchased by E.L. Wegmen, becoming part of the Wegmen Group (consisting of the Karma, Eureka and Grace Groups). Engelbert (Bert) Louis Wegmen was born on February 10, 1873, in Oedding, Germany, and

moved to the U.S. with his family when he was seven years old. Due to a case of malaria, he moved out west as an adult, arriving in the Mojave area on November 11, 1903. Having worked with steam engines back east, he was hired to work in the steam plant at the Karma mill. Initially the lack of housing on the hill forced him to live in a lean-to attached to the superintendent's house (Mrs. Grace Wegmen Meehl, personal communication, 1995). But with small cabins appearing on the north slope of Soledad Mountain, built by the company and providing homes for men with families, he was able to send for his wife and two children, who arrived on May 25, 1904. Subsequently, he and his wife had three more children, all of whom were born on Soledad Mountain, including Grace Eleanor Wegmen Meehl. In addition to his work at the mill, Wegmen was apparently active in the development of a school at Soledad City, serving as the clerk of the school board for many years (ibid; Settle and Settle 1984; see below).

Exposure to the Karma mill apparently strongly motivated Wegmen to pursue mining, as it subsequently became his career. When the Karma mill shut down in 1909, Wegmen stayed on as a guardian, according to his statement of occupation in the 1910 census (W & S Consultants 1995a). Thereafter he continued his own mining pursuits, eventually becoming involved with the Exposed Treasure Mine, on Standard Hill, and the Randsburg mines, where he served as superintendent (Settle and Settle 1984). In the 1920s and 1930s, however, he used the assay office of the Karma Mine (located near the hoist house) to run samples from Randsburg (Mrs. Meehl, personal communication, 1995). He maintained his residence within the study area throughout his life, however, with his wife living at the Wegmen home into the 1950s, and other family members occupying the homestead into the 1990s.

Following the acquisition of the Karma mine and mill, Wegmen began mining operations. In 1933, he patented the Karma property (Kern County Hall of Records M.S. #6140), thereby strengthening his claim to the property. According

to Settle and Settle, however, the processing of the ore was conducted off site: "Ore was sledded down the hillsides to ore-bins from which bulk and sacked ore was shipped by gondola car-loads to smelters" (1984:91), with the ore shipped to the Golden Queen mill, one-half mile west from 1937 to 1941. In 1951 a new small vein was discovered. From the 27 tons of ore extracted from this operation, 10 ounces of gold, seven ounces of silver, 251 pounds of lead and 40 pounds of copper were extracted. This played-out relatively quickly so that, by 1958, the only mining activity at the site was a two man cross-cutting operation (Troxel and Morton 1962). Clark (1970) estimated that the Wegmen Group as a whole produced around \$100,000 in total during the life of its operation.

Echo Mine

The Echo mine and mill, located on the northwestern side of Soledad Mountain, was first discovered during the 1890s, and was worked until about 1905 by the Echo Mining Company, producing about \$200,000 in ore (Troxel and Morton 1962). As with the Queen Esther and Karma, a stamp mill was constructed at the Echo in 1903, a process that apparently went fairly smoothly, judging from period accounts. According to the *Mining and Science Press* of March 7, 1903, "The 10-stamp mill building at the Echo Mine, 5 miles from Mojave, will be completed by March 10. Development of the mine is in progress". One month later, the same source reported that "The 10-stamp mill of the Echo Mine Company of Los Angeles, Cal, 5 miles west of the village of Mojave, is running steadily on good ore. A cyanide plant is being built to work the tailings direct, there being no intermediate concentration, all the ore being oxidized" (*Mining and Science Press*, 4/11/1903). Later in the year the *Mining and Science Press* stated that "The Echo M. Co. at Mojave propose to add a centrifugal or rotary mill to its 10-stamp mill. Superintendent J. Keith reports opening a rich shoot in the mine carrying horn silver and black sulfide of silver. G.H. Hooper is president and manager" (10/17/03). Finally, of November 3, 1903, the *Mining and Science Press* reported that "J. Frank Walters, of Los Angeles, has bought the Echo Mine at Mojave, and will soon resume working the mine and the mill with A.M. Peck as

superintendent. The Bobtail mine has been purchased by the same company. The new group consists of 17 claims and has a 20-stamp mill and cyanide plant".

The implications of the above reports seem to be that the Echo mine and mill were operating quite smoothly, with consideration being given to expansion. In less than a one month period, however, the mine and mill apparently shut down, and were purchased by a new outfit, with the mill doubled in capacity during this same period. Records at the Kern County Hall of Records indicate, in fact, that the mine experienced 11 deed changes between 1902 and 1906, suggesting that purchase and resale were a common process at the Echo.

According to Troxel and Morton (1962), the mine closed around 1905, with the mill dismantled in 1906. Carroll Allen is listed as owner from 1906 to November, 1910, at which time it was purchased by George McBryant, who was listed as a mine watchman in the 1910 census (W & S Consultants 1995a). McBryant apparently lost the mine for unpaid property taxes the next year (Kern County Hall of Records Tax Deed #256-8).

The Echo mine was idle except for minor activity until 1935 when, with the discovery of the Silver Queen, the Mojave Mining District was revitalized. Subsequently, it was incorporated into the Golden Queen Group (Troxel and Morton 1962).

Golden Queen

The Golden Queen mine has its origin in 1933, when George Holmes discovered the Silver Queen vein, high on the north slope of Soledad Mountain. This discovery revitalized the Mojave Mining District generally, with approximately \$300,000 removed from the mine between 1933 and 1935. In this later year, Holmes and his partners sold their mining interests to the Gold Fields American Development Company, a subsidiary of the English company Gold Fields of South Africa Mining Corporation, for the sum of \$3.5 million. The resulting

Golden Queen Mining Company represented a consolidation of a series of groups on Soledad Mountain, including the Silver Queen, Queen Esther, Echo, Gray Eagle and Soledad Extension properties (Tucker 1935; Troxell and Morton 1962). A state of the art mill and cyanide plant was also built in 1935, starting in operation in October of that year.

According to a period account (Tucker 1935), the main haulage tunnel at the Golden Queen held 30-pound rails supporting 12 Westinghouse Electric two-ton locomotives and cars. Mine equipment included three Imperial-type Ingersoll-Rand compressors, a blacksmith shop and a machine shop. The mill and cyanide plant ran 24 hours per day with a 350 tons/day capacity. It had 700 tons coarse ore bins, primary and secondary gyratory crushers, Marcy ball mills, Dorr classifiers, and then a series of Dorr agitator and thickener tanks, with Oliver drum filters at the end to dewater the slimes (ibid:478). Two hundred men were employed at that time: 150 on construction, and 50 on mine development.

By mid-1937, it is estimated that the mine was producing 300 tons of ore per day. Between 1936 and 1942, approximately one half-million tons of ore were processed, yielding \$6 million in gold and silver. Increased mining costs after the war prevented its reopening. The mill was dismantled about 1950, and it burned sometime subsequently. However, minor activity continued into the 1950s, and the total production for the mine has been estimated at about \$10 million (Troxel and Morton 1962).

This figure has been grossly confirmed through the acquisition of copies of the original accounting ledger sheets for the mine and mill. Based on records for 64 months dating between early 1936 and June 1941 (i.e., for less than the total period of production), the actual receipts for gold bullion sold by the Golden Queen Mining Company totaled \$7,867,782, thereby averaging about \$123,000/month. However, these records indicate that the mill was processing and purchasing a considerable amount of ore from other mines during this period

(including, according to various sources, the Wegmen mines). Custom milling apparently accounted for \$2,200,736 of the Golden Queen's bullion sales, representing fully 29% of the total for the 64 months. Where all of this ore originated is unknown, especially given that the Elephant-Eagle Mill was also operating on Soledad Mountain at this same time.

"Cobble City"

In addition to the mines and mill, per se, the historical records also indicate the development of a residential settlement on Soledad Mountain, which has been referred to above. In two documents (one historical and one recent) this is referred to as "Soledad City". However, it needs be noted that Mrs. Grace Wegmen Meehl, who was born, raised and lived on the Wegmen property for most of her life, had never heard the term "Soledad City" used while she lived there (personal communication, 1995), so this is apparently a slight misnomer; in an effort to avoid introducing additional ambiguity into the historical record, we have referred to this residential area as "Cobble City", reflecting the primary building material there employed.

Regardless of toponym, this residential area is described very briefly in a few reports as consisting of a series of wood and stone cabins on the side of the mountain, which first started to develop around the Karma mine in about 1899 (e.g., Troili 1908; Settle and Settle 1984; Hensher and Vredenburg 1991). An oral history of the Wegmen family also indicates that it included a school; apparently, the local population of children was sufficient to keep this school open until just a few years before the opening of the Golden Queen mine in the mid-1930s. According to Mrs. Meehl (personal communication, 1995), who went through the tenth grade at this school, it was originally located near the Queen Esther Mill, but was moved downslope around 1910 to a building on the north side of Silver Queen Road, north of the Golden Queen study area, which was recently bulldozed. Attendance averaged about 15 students in this one-room school, although it had been as high as approximately 25 when the mines were

in operation. In order to keep the attendance up, and therefore continue to qualify for state funding, children were also brought in from Vreda, the nearby rail siding near the intersection of what are now Silver Queen Road and Highway 14. Furthermore, Mr. Engelbert Wegmen, who was on the school board, always insured that the teacher hired for the school herself had a family of children to boost enrollment.

According to the 1910 census (see W&S Consultants 1995a), the total population living on Soledad Mountain at that time was 95 individuals, the majority of which were unmarried males, but also including a significant number of women and children. Note that this total represents the period after the closing of the Karma and Echo mines; at a minimum, therefore, it probably does not represent the local population peak, which presumably would have occurred around 1904 - 1905. According to Mrs. Meehl (personal communication, 1995), family tradition maintained that the population was as high as 200 people at the peak of mining activities around 1905, which seems entirely plausible, given the 1910 census figures. Subsequently, the population dropped dramatically, with very few people living here in the 1920s and 1930s; sometimes it was limited to only two or three family groups homesteading on the mountainside.

The majority of the adult males, not too surprisingly, list their occupations in the census as "quartz miners". A series of other occupations—almost all mining camp related—are also represented, including waitress and housekeeper, presumably at the boarding house and dining hall for the unmarried miners. As regards ethnicity, a significant number of the miners originated in Slovenia, Eastern Europe. Probably reflecting the local mining slang of the time, almost all of the Slovenian miners are listed as having the first name of "Mike". Another significant ethnic group represented are Italians. According to Mrs. Meehl (personal communication, 1995), the residential area centered in a series of cobble structures down-slope from the Queen Esther Mill was known as "Little Italy", in recognition of the ethnicity of the inhabitants of this area. Although

greater written documentation would be helpful, the 1910 census nonetheless indicates a considerable amount concerning the size, socioeconomic breakdown, and ethnicity of the population associated with the early historical mining within the study area.

Judging from the historical records and Mrs. Meehl's recollections, the residential area on the mountainside can be divided into two areas: on the northeastern side of the Golden Queen study area there were a series of wood frame cabins and structures built by the Karma Mining Company; this area eventually became the Wegmen homestead. Towards the west, and essentially north and west of the Queen Esther Mill, was "Little Italy", the cobble structures built by the miners working for the Queen Esther Mine. These self-made structures reflected the Queen Esther corporate policy of "extreme frugality", as described by Mrs. Meehl (personal communication, 1995).

Based on an examination and analysis of 1903 and 1904 photos, presented elsewhere (see W & S Consultants 1995a), it is clear that the oldest habitation area on the mountain is on the northeastern side of the study area; that is, the eastern structures within the Wegmen complex. The row of wooden cabins extending downhill from the Karma Mill and "Little Italy", in contrast, post-date this initial settlement by at least a few months, if not about a year, and clearly were not in place before 1903. The majority of the habitation on Soledad Mountain, then fell within a fairly narrow time span of less than a decade, running from 1903 to 1910, albeit Depression era and modern habitation has contributed an overlay on these early twentieth century remains.

2.0 FIELD METHODS

2.1 Introduction

Phase III archaeological fieldwork at the four sites within the Golden Queen study area on Soledad Mountain was intended to, first, augment the existing artifact collections obtained during the earlier Phase II test (W&S Consultants 1995c) in order to obtain an artifact sample that resulted in data redundancy; that is, sufficient in size and diversity to fully represent that nature and range of variation of the archaeological record present at the four sites and, following CEQA, thereby mitigate adverse impacts to the sites. Second, architectural documentation consisting of scale drawings and renderings, and representative photography, was completed at the standing structures, in order to provide a complete record of each structure.

As noted previously (see also W&S Consultants 1995c), the sites on Soledad Mountain primarily consist of surface scatters of artifacts intermingled within standing architecture and, most commonly, structural remains in various stages of collapse. Phase II work at the sites resulted in the mapping and collection of the majority of the temporally and functionally diagnostic surface artifacts on the sites. Phase III archaeological fieldwork, therefore, emphasized the few subsurface deposits that were present within the sites. These were principally privy pits, but they also included a few room floors, where roof collapse and wind-blown dust had buried the original living surfaces.

Procedures followed in the collection of the archaeological data included mapping and surface collecting at certain features, and the excavation of thirty 1x1 m pits.

2.2 Mapping and Surface Collection

Surface collection emphasized previously identified features, where additional surface data was thought useful to obtain. Mapping involved the use of a surveyor's chain, 50 and 10 meter tapes, and a Brunton compass. Surface collection was primarily restricted to functionally and especially temporally diagnostic artifacts.

2.3 Subsurface Excavations

Subsurface excavation involved the hand excavation of 1x1 meter test pits. These were dug with mattock and trowel in arbitrary 10 centimeter levels. Spoils from each of these levels were screened through one-eighth inch mesh. All artifacts/archaeological indicators were collected and bagged by unit and level. Excavation was continued through two culturally sterile levels (i.e., 20 centimeters), or until decomposing bedrock was encountered.

The following allocation of subsurface pits, per site, was originally made based on the conditions at each locale, with the larger number of units reflecting conditions more favorable for subsurface deposition:

CA-KER-4446H (Cobble City) - 14 units;
CA-KER-4447H (Wegmen) - 10 units;
CA-KER-4448H (Karma) - 2 unit; and
CA-KER-4449H (Queen Esther) - 4 units.

The total planned excavation sample size was then 30 meters square.

Note however that special conditions pertained at CA-KER-4448H, the Karma Mine. This involved the build-up of substantial quantities of dirt within the remnants of the assay office at this location. Initially a "standard" 1x1m

excavation unit was placed within this feature. This established that a wood floor underlay the aeolian soil at about 3 – 4 inches (circa 10 cm) depth and that this thin deposit contained a substantial quantity of artifacts. Instead of continuing with standard excavation within this feature—the primary extant feature at this site—two 2x2 m sized collection units were demarcated and collected, using "surface scrapes" of this deposit. This effectively yielded the complete recovery of archaeological remains from this feature but resulted in a substantially larger subsurface sample at this site: five square meters as opposed to just two.

In order to accommodate this change, the excavation sample was reduced by two units at CA-KER-4446H, Cobble City; one unit at CA-KER-4447H, Wegmen; and two units at CA-KER-4449H, Queen Esther. Total recovered excavation sample for the project was then still 30 meters square.

2.4 Architectural Documentation

Because three of the sites contained standing structures, a program of architectural documentation was also conducted. This involved measuring and rendering each of the designated structures per federal HABS/HAER standards, along with photographic recording of significant architectural elements. This was completed by George Koteles, AIA, and Leonard Ridder, AIA, both of whom are professional architects, each with over 40 years of experience.

Note that we had originally intended for architectural documentation of the following structural features:

CA-KER-4447H, Wegmen complex:

Feature A, standing cabin

Feature D, standing wooden privy

CA-KER-4448H, Karma Mine:

Feature 1, Headframe, hoist house and shaft head

CA-KER-4449H, Queen Esther Mill:

Feature 1, Mill structure.

By the time of the fieldwork, the mill structure at CA-KER-4449H had deteriorated to the degree that it was no longer safe to enter and record, partly due to age, partly as a result of historical scavenging of many of its structural components for re-use elsewhere, and at least somewhat due to very poor original design and construction. The presence of an ore bin and large iron jaw crusher at the top—hauling level—of the old wooden structure made it particularly dangerous; the structure essentially was in a state of imminent collapse. For reasons of health and safety, it could not then be safely entered or documented. It burned down shortly after the fieldwork, apparently as a result of vandalism.

The architectural recording, as a result, was limited to work at CA-KER-4447H and -4448H.

3.0 FIELD RESULTS

3.1 Introduction

The results of the archaeological fieldwork at the four sites are summarized below. The artifact assemblages recovered during this fieldwork are discussed in the next chapter. The architectural documentation at CA-KER-4447H, the Wegmen complex, and CA-KER-4448H, the Karma Mine, is provided in Appendix A to this report.

3.2 CA-KER-4446H (Cobble City)

The Phase II test at this site resulted in the recording of 53 surface features at this site: 31 structures/building foundations; 12 privies; four leveled pads/terraces; and four dumps/tin can scatters (Figures 3 – 25). The distribution of these features is illustrated in Figure 2. As is apparent in this map, the site covers an area established at 215 meters N-2 by 154 meters E-W, or 33,110 meters square.

Phase III data recovery focused on three room structures and four privies. Based on the Phase II test results, each of these was believed to contain subsurface deposits. In the case of the room structures, this deposition had occurred largely as a result of roof collapse. The results, on a feature-by-feature basis, are as follows:

Structure C1 (Figure 4) - This feature is a small, three-walled single room structure made from mud mortared cobbles, measuring 12 feet N-S by 11 feet E-W, and located in the northwestern portion of the site. It is unclear whether these walls served as a windbreak for a tent, or if the upper portions of the walls were

made of now missing wood, although the first seems more likely. A rectangular terrace or pad is located in front (E) of the opening to the structure, with a rock and dirt berm forming its southern (up slope) edge and a single coarse cobble edging forming the northern sides of the terrace. A considerable quantity of debris is present in front (E) of this structure, stretching towards Feature A1; again, it is unclear whether this represents down-slope movement from structures higher up on the slope, or a true, in place dump. However, this material is early twentieth century in age.

Units #5, 6, 8, 9 and 10 were placed within this structure in order to obtain more information about it from the sealed "living surfaces" that resulted partly from roof fall and in part from natural downslope colluviation and aeolian deposition. Unit #5 extended to a depth of 30 cm; the remaining pits had cultural materials to only 10 cm depth. Soils were uniformly silty rocky colluvium that was Munsell 7.5 YR 6/6, reddish yellow.

Structure D1 (Figure 5) - This structure is close to identical in form, and is located near to, Structure C1, although slightly larger in size; in this case 13 by 12 feet. Again, it consists of a three walled, mud mortared single room, opening to the east and fronted by a long rectangular terrace that is edged by a single coarse of fieldstone cobbles, containing associated artifacts of the same age. The proximity of these two structures on the northwestern end of the site, and the fact that they are so similar in form and age, argues that they were built by the same individual and/or served some purpose slightly different than the other structures on the site.

Units #7 and 11 were excavated in this structure. Unit #7 had artifacts to 10 cm depth; Unit #11 was culturally sterile. Soils were identical to those found within Structure C1.

Structure J1 Complex (Figures 12 and 13) - J1, located at the southwestern side of the site, is the most complex arrangement of rooms at Cobble City. Depending upon how one classifies a "room", it contains between five and eight separate room units (e.g., enclosed room versus alcove), and appears to have developed from a rather haphazard accretion of abutting walls and rooms, rather than through a single planned construction event. The rooms range from two adjoining, 12 by 12 foot rooms, to a large low walled room, about 20 by 25 feet in size, to a kitchen area that is 12 by 20 feet in dimension. Generally, the walls of this complex are made of mud mortared cobbles; the northernmost room in this complex, which apparently is the kitchen area, has also had its interior walls plastered and whitewashed, and has a built-in shelf unit, made of wooden crates, set-into the southern wall. An accumulation of ash, charcoal and calcined bone in the southwestern corner of this room suggests that a stove or hearth was once placed in this spot; most likely a metal wood-burning stove. (In fact, a four burner, sheet metal stove is located in the southernmost of the rooms that comprise J1; whether or not this was used in the kitchen area or instead where it currently rests is, of course, unknown). Four of the rooms maintain portions of their collapsed roofs, consisting of wood beams, corrugated metal and flattened cans. Given the density of the rooms at this location, it is not surprising that three privies are located immediately nearby. Artifacts associated with this complex are early twentieth century in age.

As shown in Figure 5, two small privy pits are located near to this structure (to the south and east respectively). A row of three more substantial appearing pits is located about 25 m to the northeast (designated privies 2a, 2b and 3). Excavation included the privy immediately east of the structure itself: Unit #1, designated privy J1. Unit #2 was placed over privy J2a, while Unit #3 was placed on privy J3 (see Figure 2). The depth of these was 50, 10 and 20 cm, respectively. Soils were uniformly sandy rocky colluvium, and are Munsell 7.5 YR 5/4, brown.

A fourth unit (#12) was also placed in the approximate middle of the south room of the structure complex itself. This contained artifacts to 30 cm depth. Soils were silty rocky colluvium that was Munsell 7.5 YR 6/6, reddish yellow.

Structure L1 (Figure 14) - This is a large terraced pad, located towards the western side of the site. It measures 30 feet N-S by 36 feet E-W, is not edged, but nonetheless is clear in form because it required leveling the slope, and cutting into the up-slope, southern side. Two privies are located at the eastern corners of this pad, both of which are cobble edged depressions. The northern of these still has a standing southern wall, which consists of the wood frame of a slant roof structure that was 64 inches high to the east, 52 inches high on the west, and 55 inches wide; clearly, the door to this privy was on the east. A scatter of wood and tin privy parts are located near the SE privy. A low-density scatter of early twentieth century artifacts is present on the pad, including a series of Car Hearts brand metal overall buttons. The size of this feature and the presence of two privies here suggest that it was more than simply a tent pad. The absence of any other structural remains suggests that a freestanding wooden structure may have once been present at this spot; that is, one on a wooden foundation. According to Mrs. Grace Meehl (personal communication, 1995), who was born and raised on Soledad Mountain, a number of wooden buildings were moved off the mountain to the town of Mojave when the mines closed. It is possible that such pertains in the case here.

Unit #4 was placed in the privy at the northeast corner of this structure. Artifacts were present to 60 cm depth in this unit. Soils were uniformly sandy rocky colluvium, and are Munsell 7.5 YR 5/4, brown.

3.3 CA-KER-4447H (Wegmen complex)

A total of 30 features were originally mapped and recorded at the Wegmen site complex (W&S Consultants 1995c; see Figures 26 - 41). The Wegmen and

Meehl houses, and associated shop and ranch outbuildings, as well as the Reymart-Fraction head frame, were in use into the 1990s, are not archaeological in nature nor sufficiently intact architecturally to be considered significant, and were not further considered during the fieldwork. The remaining 27 features include 15 structures/pads, nine privies and three dumps. These cover an area that measures 250 meters N-S by 185 meters E-W, or 46,250 meters square (Figure 26). However, the site area is in fact elliptical rather than square, so total site area is probably almost one-half less than the calculated figure. Furthermore, the archaeological features on it are localized and dispersed, so the large majority this site area is actually devoid of archaeological remains.

We discuss the features sampled during the Phase III excavations, and the results of this fieldwork, below. In each case at this site excavation occurred within privy pits.

Structure A (Figures 27 - 29) - This building is a standing three room, gable sided wooden cabin, located near the southern end of the site (see Architectural Documentation, Appendix A). It is unframed board and batten construction with tongue and groove interior wall paneling. The floors are tongue and groove planks, and the foundation is wooden pins and rock piers, with board and batten skirting. The roof is shake on the north side, and corrugated metal on the south, suggesting that the structure was re-roofed at some point. A porch surrounds the cabin on three sides (N, S and E), with wooden steps leading to the porch and front door on the north side. It appears that an addition was appended to the west wall at some time; however, this has collapsed so its dimensions are unclear. The three rooms include a 7 by 12 feet living room and bedroom of the same dimensions, and a 6 by 12 feet kitchen/bathroom. A closet and small pantry are also present. All of the windows and other finishing features of the cabin are exactly the same dimensions, with features such as stove pipe holes appearing to be precut, suggesting that the cabin may have been

prefabricated. The south wall of the structure is currently collapsing. At the time of the fieldwork, the cabin was filled with a series of wood and wire mesh cots.

Structure A represents one of a line of five such cabins that were built in 1904 by the Karma Mining Company to house their employees (see photos in W&S Consultants 1995a). According to Mrs. Meehl (personal communication), portions of the Wegmen family lived in various of these cabins during her youth, so they were occupied at least into the 1930s. Furthermore, the Wegmen house, per se, is an extensively remodeled example of one of these cabins. However, Structure A is the last remaining cabin still in its original architectural condition.

Three privies are located west/northwest of Structure A. One of these was excavated during the Phase II test. Because of the size of the test units employed during that project (0.25 x 0.25 m in size), this privy could only be excavated to 1 m depth, which was not the limit of the depth of the feature. The remaining two privies accordingly were excavated during the Phase III project using 1x1 m pits. Unit #1 was placed in the northernmost of the privies. This extended to 150 cm depth, with cultural materials present throughout all levels. As in the Phase II test pit, the top ~40 cm of Unit #1 had minimal materials and a considerable quantity of rocks, probably representing sidewall slumping and infilling, with the amount of cultural debris picking up dramatically below that depth. Soil density and color also changed at that level, with a lens of ash and organic material evident in the sidewall. The matrix soil is primarily rocky, sandy silt, Munsell 7.5 YR 5/4, brown, with the ash lens 7.5 YR 4/2, dark brown. Unit #2 was placed in the southernmost of the three privies; soil conditions were essentially identical here to the other two pits. Artifacts in this case extended to 140 cm depth.

Structure H (Figures 32 and 33) - This is a collapsing one room, wooden cabin located on the eastern side of the site. It measures 12 feet E-W by 13 feet N-S, and is wood frame with a gable front. The exterior wall is horizontal board

and batten and the interior wall is vertical board and batten, with an intermediate tar-paper moisture barrier. The foundation consists of an unmortared cobble wall around the exterior of the cabin walls; that is, the cobble walls served as footings rather than a foundation, per se. The cabin has no floor; instead, sheet linoleum was placed directly on top of dirt. The west and north walls have windows; the south wall has collapsed and the east wall, with the doorway, is collapsing, so the status of these walls vis-a-vis windows is unclear. The structure of course has no roof, although roof beams have fallen onto the floor. A metal and porcelain sink is located in the northeast corner of the structure, with a gray water drain leading to the outside; no other evidence of plumbing was noted. Artifacts associated with this structure include a mix of early twentieth century and Depression era remains. However, it is clear that this structure was constructed circa 1903 (see photos in W&S Consultants 1995a) and, like the other structures in this portion of the site, reflects the earliest habitation evidence on Soledad Mountain.

A privy pit was located northeast of Structure H. Unit #9 was placed in this pit. Reflecting the higher bedrock of this portion of the site, artifacts extended to only 30 cm depth. Soils were rocky, sandy silt, and Munsell 7.5 YR 5/4, brown.

Structures N2, N3 and N4 (Figures 37 and 38) - Structures N2, N3 and N4 are adjacent terraced pads, located on the eastern side of the site. N2 measures 27 feet N-S by 24 feet E-W, and is cobble edged, with a cobble retaining wall along its south (up-slope) side. It contains a small cobble wall, shaped like the letter "F" when viewed from the north, along its western side. This is made of mud-mortared cobbles, and is two feet wide and four feet high. The function of this wall is unknown; although it creates a small three-walled room, the size of this "room" (five by six feet) seems too small for habitation, but may have contained a short bed.

Structure N3 is located five feet north of N2. It is a cobble edged pad measuring 20 feet N-S by 18 feet E-W. A small rock edged privy depression is located in its SW corner. Structure N4, located 45 feet W of N2, is a 36 feet (N-S) by 32 feet (E-W) terraced pad, and also contains a cobble edged privy depression. Vegetation was thick on these pads, and few artifacts could be seen. We did notice a "POWELL" cast iron, rebuildable truck muffler associated with the pads, which is Depression era in age.

Unit #5 was placed in the rock edged depression on the SW corner of Structure N3. This extended to only 10 cm depth and consisted of rocky colluvium that was Munsell 7.5 YR 6/6, reddish yellow. This was a shallow privy but it nonetheless contained a significant quantity of faunal remains.

Unit #6 was placed in the cobble-edged depression in Structure N4. It also extended to only 10 cm depth with soils that were rocky colluvium that was Munsell 7.5 YR 6/6, reddish yellow. It contained very few archaeological specimens and, though a privy, appears to have been minimally used, perhaps signaling a short period of occupation for this pad.

Structure N5 (Figures 38 and 39) - This structure consists of two abutting rooms made from unmortared cobble walls that are two feet thick and 3.5 feet high, located on the east side of the Wegmen complex. Overall, the structure measures 12 by 12 feet. The larger room, which is a three-walled room opening to the east, measures eight feet N-S by 12 feet E-W. The smaller room opens to the north, appears to have four walls, and measures four feet N-S by eight feet E-W. Part of a sheet metal stove and some (modern) roofing metal were noticed associated with this structure.

Unit #4 was placed in a rock-lined pit located a few feet west of the structure. This extended to 30 cm depth and appears to have a privy used for a

short period. Soils were rocky colluvium that was Munsell 7.5 YR 6/6, reddish yellow.

Structure O (Figure 39) - Also located on the east side of the site, this is a small three walled structure with associated can scatter and privy. The walled structure opens to the east, measures 15 feet N-S by 19 feet E-W and has unmortared cobble walls that are 20 inches high and two feet wide. The can scatter is circa five by 15 feet in size, and consists of hole-in-top cans and some ceramics; it is located immediately behind (W) of the structure. A small cobble edged privy is located immediately SW of the structure, within the can scatter.

Two additional privy pits were located on the east side of the structure and were excavated during the Phase III fieldwork. Unit #7 was placed in the northern of these two features. It was dug to bedrock at 20 cm. Cultural materials were present throughout the two levels of the pit. Soils were rocky colluvium, Munsell 7.5 YR 4/4, brown. Unit #8 was placed in the southern of the two observable pits. It too extended only to 20 cm depth, with soil conditions identical to those in Unit #7.

Importantly, however, Unit #7 contained what was essentially a bone dump holding a massive number of fragments of animal bone—two orders of magnitude more animal bone than found at any other location on Soledad Mountain. Our interpretation of this privy is that it also served as a de facto garbage pit for Structure O. Further, given the slightly unusual form of this structure (three-walled, opening to the east) combined with the adjacent can scatter, we infer that the structure served as a communal kitchen and dining area for the Wegmen site occupants.

3.4 CA-KER-4448H (Karma Mine and Mill)

As noted previously, the Karma Mill was burned in 1947, leaving only foundations and occasional artifacts. However, the original hoist house and some related structures are still standing, resulting in a series of industrial features and remains at this site (Figures 42 - 51). These cover an area measuring 135 meters N-S by 85 meters E-W, or 11,475 meters square.

Phase III fieldwork concentrated on one of the features associated with the still-standing hoist house. The hoist house and related features are located near the haulage level adit at the top (S or up-slope end) of the site. Indeed, these features are sufficiently intact that they were used in the 1980s for a movie set, albeit the set constructors felt it necessary to paint the hoist house, to make it look "old". This portion of the site has three main components: the hoist-house itself; the mine head frame and ore chute; and a series of outbuildings SE of the hoist house.

The hoist-house (Figures 43 and 44; see also Appendix A, Architectural Documentation) is a wood frame, board and batten, gable front building measuring 24 feet N-S by 40 feet E-W. Existing photos indicate it was built around 1903 (see W&S Consultants 1995a). It is divided into three rooms. On the west is a machine room, which still contains a water pump and engine dating from the Depression era use of this structure by Engelbert Wegmen (Mrs. Meehl, personal communication, 1995). The central portion of the building is the hoist room proper, which contains a series of concrete hoist stanchions, and ports through which cables would run to the head frame. On the east is a small workroom. This eastern room was modified shortly after its construction to accommodate the turning radius of a narrow gauge line coming out of a haulage level adit immediately SE of the building. This required knocking-out the NE corner of the building, and supporting the roof line with an internal truss (Figure 44b).

The head frame (Figure 45) is a wooden two-post frame with back braces, which abut the hoist house to the north. As such, it is relatively lightweight, and was not constructed to carry major loads (cf. Peele 1941). In keeping with this fact, it contains only a single hoisting-head sheave, or pulley, and appears to have been a front lift system. It sits over a vertical shaft that contains a lightweight metal cage.

A ramp and an ore chute are located immediately north of the head frame. Although this likely incorporates scavenged material from the original trestle to the mill, it is nonetheless primarily modern: portions of the chute are made of used telephone poles, and an electrical Pacific jaw crusher (model KH-1, serial number 490) has been placed on a brick and concrete foundation, which is inscribed "8/13/80 BOB & MARIA BAILEY". Immediately SE of the hoist house is a blacksmith shop within a collapsing sheet metal structure (Figure 46). This appears to be Depression era in age. To the SE of the blacksmith shop is the haulage level adit.

Immediately to the east of this adit is a concrete and metal structure of mixed age, measuring 18 by 19 feet (Figure 47). It appears to represent a sheet metal fronted building (Figure 47a), probably dating from the Depression era, which was added on to an earlier and smaller concrete structure (Figure 47b): among other things, the sheet metal building blocks off a small storage room in the concrete structure. Concrete assay scale pedestals and the remnants of fume hoods are present in the eastern side of this compound structure, where a front metal-sided room opens onto the back concrete walled room. According to Mrs. Meehl (personal communication, 1995), her father Engelbert Wegmen ran assays from the Randsburg mines in these rooms during her childhood (presumably during the 1920s and 1930s), and there is assay debris present in these rooms.

Phase III fieldwork at the Karma Mine concentrated on this two-room assay office building, with all units placed in the back (concrete) room, the original assay office. Unit #1, 1x1 m in size, was located immediately adjacent to a test pit placed in this feature during the Phase II test (W&S Consultants 1995c). Phase III Unit #1 only extended to 10 cm depth, at which point a wood board floor was encountered. The soil in the unit is aeolian sand, Munsell 7.5 YR 6/4, light brown. Larger "surface scrape" units were then staked in the room, in order to recover all of the artifacts present. These were 2x2 m in size, and were designated A (on the west) and B (on the east side of the room). Because of the density of remains, artifacts were collected by 1x1 m quadrants in Surface Scrape Unit A.

3.5 CA-KER-4449H (Queen Esther Mill)

The Queen Esther Mill (Figures 52 - 55) is located immediately west of the Karma. It extends north to south approximately 140 meters, and has a maximum E-W extent of 125 meters. This, however, creates an L-shaped area, with the majority of the archaeological features concentrated at the southern end. The features at this site are either dismantled, collapsing, or are being inundated by the down-slope movement of mill tailings which, because of the slope at this locale, is moving both north and eastwards, into the lower portions of the mill complex.

Based partly on health and safety concerns, and in part by evidence concerning the location of subsurface deposits obtained during the earlier Phase II test, fieldwork for the Phase III data recovery concentrated on the assay dump. The assay office area more generally consists of three partially standing wooden structures located north of the mill. Two of these are within about 200 feet of the mill building; the third is about four hundred feet down-slope. It is completely enveloped by mill tailings, with only portions of its roof showing. It appears to have been gabled, with a sheet metal roof, and to have measured 18 feet N-S by 12 feet E-W. Its foundation consisted of wood flooring resting on wood pins.

Two 4" riveted iron water pipes, originating at the two tanks at the northernmost end of Cobble City, pass on either side of this fallen building; one heading for the Karma Mil, and the other towards the Queen Esther. There are also a series of riveted metal buckets, filled with tar, associated with the structure.

The two uphill structures are also being covered with tailings, though they are somewhat more intact. The best preserved of these is the southernmost wood frame structure. This is the Queen Esther assay office (Figure 55a), which is an unframed board and batten cabin of four rooms. It originally measured 20 by 20 feet in size, and appears to have been a gable front structure opening to the east but, because it is collapsing and filling with tailings, it is impossible to be certain. It sits on an unmortared cobble foundation.

The muffle furnace for the assaying operation is still standing in the northwest room of this cabin, which has lost its north wall. The muffle furnace is made with Denver Clay Company fire-bricks, is 44 inches wide by four feet deep, and is 18.5 feet high to the top of the stack. A small scatter of assay debris is located immediately outside of this room (presumably there was a window in the missing wall). A slightly dispersed by more substantial assay dump is located east of the structure, essentially at an arm's throw from the front door of the building.

Units #1 and #2 were both placed in this last assay dump area. Both were dug into sterile sand, encountered at 30 cm. However, cultural materials were found in the top 20 cm of each unit, reflecting the presence of a thin, localized subsurface deposit at this location. Soils in the two units were silty sand derived from tailings, Munsell 7.5 YR 7/6, reddish yellow.

3.6 Summary

Fieldwork conditions during the Phase III data recovery fully confirmed those described and inferred based on the Phase II test (see W&S Consultants 1995c).

The sites in general terms are primarily surface artifact scatters. Subsurface archaeological deposits were restricted to in-filled rooms, where roof-fall and wall collapse combined with aeolian sands created shallow deposits; dumps that have received down-slope colluvial deposition, including the downward creep of mine tailing deposits; and privies. Given the rocky and shallow nature of the soil on the sites, the privies at Cobble City and the Wegmen complex were themselves generally very shallow; typically they were less than 40 cm in maximum depth. The only exception to this pattern involved the southwestern side of the Wegmen site, where a band of deep colluvium allowed the original excavation of privies to about 1.5 m depth. That this was exceptional was demonstrated by privies on the east side of this same site, which likewise were only 20 or 30 cm deep, thereby equivalent to those at Cobble City.

One result of this circumstance is the probability that (with the exception of the deep privies near Structure A at the Wegmen complex) the privies were only used for relatively short periods, first. Second, it is then also likely that new privies were fairly regularly excavated around the living areas, as older ones became filled. This may explain the apparent concentration of these features around certain of the structures, as described above.

4.0

ARTIFACT ASSEMBLAGE

4.1 Introduction

A total of 11,049 artifacts and archaeological specimens were recovered during the III project, and washed, processed and analyzed in the lab. In this chapter we discuss the laboratory procedures used to process and analyze this assemblage, summarize the recovered collection from the four sites, and then consider some of their implications with respect to understanding the history of mining in the Mojave Desert region.

4.2 Laboratory and Analytical Procedures

Following the completion of the Phase III fieldwork on Soledad Mountain, the recovered artifact assemblages were taken to the W&S Consultants' laboratory for washing, processing and analysis. After each specimen was washed and labeled, metrical and typological analyses were performed. We provide proveniences, measurements and weights for the various artifacts, as appropriate, in the site catalog for the project (Table 1) included in this report.

Typological analysis of the recovered assemblage emphasized the ultimate function of the artifacts. It began by categorizing each artifact by major material class (metal, ceramic, glass, leather, bone), and then certain key functional classes, such as assay debris and buttons. Within certain of the material classes we also identified mode of manufacture, particularly with reference to glass, but also including nails and cans. Manufacturing technology is of particular importance in historical analyses because it often provides clues to chronological placement. For example, significant changes in the manufacturing techniques for glass bottles, metal nails and tinned cans occurred during the nineteenth century. These are key indicators of an artifact's age. Subsequently, functional

identification within these classes was undertaken. Because the sites are Euro-American historical resources, functional interpretations could be partly based on a general knowledge of historical material culture use, as well as published typologies and analyses.

With regard to glass artifacts, we have employed Wilson's (1981; based on Herskovitz's [1978]) typology and identification of bottle forms and functions, along with neck forms and types. We also note that in the glass analysis that follows we use the color term "lavender" to refer to bottle coloration that has altered from clear due to the inclusion of manganese as a de-coloring and clarifying agent; this is sometimes referred to as "amethyst" glass. This process was followed from approximately 1880 to 1916, and thus it serves as a general temporal indicator. We use the term "purple", however, to apply to glass that was intentionally manufactured with this darker hue. For tinned cans, we consulted the period official standards and measurements published by Rock (1987).

The function of the four sites considered in this study was well understood prior to the Phase III fieldwork: documentary evidence and the earlier Phase II test results indicated clearly that Cobble City and the Wegmen Complex served as habitation areas whereas the Karma Mine and Queen Esther Mill were industrial/mining sites (see W&S Consultants 1995c). Previous research also provided a clear understanding of the age of the sites, with the primary use of all four occurring during the first decade of the 20th century, and some subsidiary use of portions of the sites during the Depression era. Given the connections between the four recorded sites—with Cobble City for example serving as the residential area for Queen Esther and the Wegmen complex serving the same purpose for the Karma—it was clear that they more properly represented part of a larger archaeological locality rather than discrete, clerically-designated sites. Emphasis during the Phase III excavation and artifact analysis then turned to additional matters; specifically, indicators of socio-economic status and ethnicity, along with dietary patterns, especially as revealed by the excavations in the

privies, for the locality as a whole. Note in this regard that 12 of the 1x1 m pits were placed in privies, four at Cobble City and eight at Wegmen; another unit at Wegmen was placed in what was initially assumed to be a privy but proved to be a kitchen garbage dump pit. Hence we conclude by considering in some detail the assemblages recovered from the privies from these two sites as a unit of analysis, along with living floors from Cobble City (8 excavation units).

We begin then with a summary by artifact class for the four sites as a whole. Individual proveniences are included in the artifact catalog (Table 1).

4.3 Metal Artifacts

Metal artifacts from the Phase III fieldwork are summarized in Table 2. A total of 4358 specimens is included in this table, representing fully 39% of the recovered artifact assemblage as a whole. Note that the majority of these are quite fragmentary, especially with respect to tinned cans. These constituted the large majority by far of the metal assemblage.

By count, 3115 portions of tinned cans were recovered, representing 71.5% of the metal total. Unfortunately most of these were too fragmentary for even the most rudimentary identification (for example, sanitary seal versus hole-in-top). This results from the context of the recovered specimens, from privy pits rather than found in open-air dumps. Privies represent corrosive contexts that are not conducive to the preservation of metal objects. Combined with the high potential "garbage factor" for tinned cans—where a single tinned can could reduce to dozens of fragments of rusty metal—it is impossible to estimate the immediate significance of the above count. Based on impressions from the surface remains mapped and collected during the Phase II test (W&S Consultants 1995c), tinned cans were not as common on Soledad Mountain as at many other Depression era sites.

As a result, we were only able to identify one sanitary seal can and 30 hole-in-top cans. Depending upon type of can and material canned, hole-in-top cans are generally pre-Depression era in age. The sanitary seal manufacturing technique, in contrast, was introduced into California in 1911 but did not become prevalent until about 1940. Although not conclusive, the greater proportion of identifiable hole-in-top cans supports the early 20th century as the primary age assignment for the locality as a whole.

Machine-made wire nails were the second most common metal artifact recovered, with 654 examples representing 15% of all the metal specimens. Machine-made wire nails were first made circa 1850 but did not become common until about 1880-1890. Only 18 (<1%) hand-hewn nails were recovered; these were fragmentary and some of these may have been square farrier nails (which are still used today). The relatively large number of machine-made wire nails reflects two, and possibly three, facts. First, a number of wooden cabins/structures were originally present within the locality and these are the sources for many of the nails. Second, much of the construction employed store-bought dry-goods rather than hand-made hardware, resulting from the corporate nature of the mines and purchasing patterns associated with them. Third, however, large numbers of wire nails are also present in Cobble City, where they were presumably used for constructing wooden roof supports and other structural elements within cobble-walled structures. Whether the use of machine-made nails in this context reflects the occupants' access to and ability to purchase this hardware, or pilferage from the mine supplies, is unclear, though the latter is possible.

Only two other types of metal artifacts contributed even 1% towards the metal objects total. These are fragments of window screen (78 or ~2%), and wallpaper disks (52, 1.2%). These last implements are used (with nails) for affixing tarring paper—as a moisture or vapor seal—to wooden walls; alternatively, these could be used for stabilizing roofing paper. Although this would be an unconventional,

it would be effective in an area of high winds and low precipitation—such as the Mojave Desert. The window screen, on the other hand, is fragmentary and, for this fact, its significance is somewhat ambiguous. Like the tinned can fragments, do these 78 pieces of window screen represent 78 different screened windows, indicating that screening was common, or instead 78 fragments of a single screen, which would imply that screening was rare and potentially valuable? In this case the proveniences for the window screen fragments are limited to just a few locations, suggesting that only a few windows were screened.

Notably, window screen fragments and wallpaper disks were both common at Structure C1 at Cobble City. Although this was a large structure, primarily made from locally available (and free) fieldstones, portions of it were clearly screened and insulated. The investment of this effort in the construction of this seemingly extremely vernacular building suggests relatively long-term occupation.

The remaining metal artifacts represent a kind of potpourri of hardware and dry-goods, with no class contributing even 1% to the total. In descending order of frequency, these include:

- Wire fragments – 43
- Boot/shoe eyelets – 23
- Snap fragments - 20
- Hand-hewn nails – 18
- Wood screws – 14
- .22 caliber shells – 6
- Fence staple – 5
- Crown cork bottle stopper – 5
- Hutchisen wire bottle stopper – 4
- Buckle fragments – 4
- Railroad spikes – 4
- Bolts – 3
- Crown bottle tops – 3
- Safety pins – 3
- Metal nuts – 3
- Metal hook – 3
- Metal strap fragment – 3
- Key can opener – 3

The Hutchisen bottle stopper wire fragments, first, were made from 1879 to the early 1900s (Polak 1994:23), confirming another time the age of the locality. The Crown metal and cork bottle stopper, second, has been in use since 1891 to the present (ibid.), again fitting the chronological pattern.

Third, two of the gun cartridges have makers' marks. A .22 caliber cartridge has "UMC .22 S&W" while a .12 gauge shotgun has "UMC Co. NO. 12 MAJESTIC." In both cases these indicate the Union Metallic Cartridge Company. This was formed in 1867 and was in operation as "UMC" until 1912, when it was purchased by the Remington Arms Company (and became "UMC Remington"). Although ammunition can have a long shelf-life before use, these cartridges were produced before 1912, further fitting the primary age of the locality.

Fourth, a number of metal buttons were recovered during the Phase III study at Soledad Mountain. These are discussed below in detail, in combination with buttons made of other materials, inasmuch as buttons may be diagnostic both of the kinds of clothing worn and chronology of the site.

The garter clasp and corset stay, fifth, support the earlier inference for female inhabitation of the locality (ibid; see also discussion below). This garter clasp is inscribed with "Velvet Grip 12-13-92 & 12-31-95." The last dates presumably are patent dates. A near identical garter clasp was recovered during the Phase II test. This was embossed "Velvet Grip, Boston Garter, Pat. 12-13-92, c. 12-31-95", indicating general turn of century age. We have recovered other examples of this same garter clasp at other turn of the century sites in southern California (e.g., W & S Consultants 1993:69), so it was apparently commonly employed in women's undergarments. But somewhat unexpectedly, the Phase III example was recovered from the Queen Esther Mill.

Note however that, while we equate garters with women's undergarments today, men also employed garter clasps for hose (i.e., sock) supports during turn of the century times. Although these examples do appear to have been women's items, some caution should be exercised in inferring gender differences based on these few items alone.

Finally, evidence for lighting was collected in two forms: a light bulb base, from the Queen Esther Mill, and portions of two kerosene lantern bases. Both of these last two artifacts were recovered from Cobble City. Based on this evidence, electricity apparently was available at the mines and mills, but perhaps not at the workers' housing area, as also discussed below.

4.4 Ceramic Artifacts

We identified the ceramics by ware (whiteware, porcelain, earthenware) in Table 3. Note that, for analytical purposes, we have combined whiteware, creamware and ironstone, because "ironstone" was a commercial rather than technical designation that overlapped both whiteware and creamware (cf. DeBolt 1988).

A total of 437 pieces of ceramics were recovered from the four sites. This represents slightly less than 4% of the recovered artifact assemblage as a whole. The breakdown of the ceramic assemblage is as follows:

- whiteware – 148, 34%;
- porcelain – dinnerware – 21, 5%;
 electrical fixtures – 5, 1%;
- earthenware – assay-related 227, 52%;
 crockery – 25, 6%; and
 pipe – 11, 2.5%.

The high proportion of assay-related ceramics (unglazed fire-clay cupules and crucibles) in this assemblage reflects the excavation conducted at the assay dump at the Queen Esther Mill. These ceramics include 20 and 30 gms crucibles marked BATTERSEA, and 20 gms crucibles marked DENVER FIRE CLAY COMPANY. The first mark is from the Battersea Works in England. We discuss these artifacts as part of a larger assay-related artifact assemblage below.

Other earthenware originated in two forms. First and most common were fragments of one or more large crockpots. These had a pale cream outer slip on the body and dark brown rim glaze, and may have been used for a variety of storage purposes, including for food, chemical supplies or even drinking water. The other earthenware consisted of fragments of a water or sewer pipe.

The whiteware assemblage represents a miscellany of mostly dinnerware: plates primarily and shallow bowls, with little evidence for cups, saucers or serving vessels. Most of this appears to be "hotel ware," meaning minimally decorated, utilitarian dinnerware, made for commercial operations (such as restaurants and boarding houses) and, most likely, originally sold in large lots.

Five different identifiable makers' marks were present on specific examples of whiteware. By far the most common are fragments of and variations on Knowles, Taylor and Knowles marks (abbreviated as "K.T. & K."). This was an East Liverpool, Ohio, pottery factory that was in operation from 1870 to 1929 (Gates and Ormerod 1982; Praetzellis et al. 1983; DeBolt 1988). "K.T. & K. GRANITE" was identifiable on two specimens. This dates specifically from 1890 to 1907 (Praetzellis et al. 1983:47). Another has "SEMI over VITREO[US] over K.T.&K. CO." This is hotel ware that dates to about 1904 (Gates and Ormerod 1982:127).

Two other sherds also originated in East Liverpool, Ohio. The first is "HOMER L[AUGHLIN]... over HOTEL over CHINA." This is a Homer Laughlin mark dating

from circa 1901 to circa 1915 (Gates and Ormerod 1982:135). The second is "...[DR]ESDEN over[HOT]EL CHINA over ...[WA]RRENTED." This represents the Dresden Pottery Works, which was in operation from 1875 to 1927, under three separate companies (Gates and Ormerod 1982:311). This particular mark was used when the works were owned by the Potters Cooperative Company, and dates from circa 1900 to circa 1910 (DeBolt 1988:27).

Two whiteware fragments had English makers' marks. A dish fragment had a partial Thomas Hughes mark: "THOS. HUGHES...ENGL...". This was a Staffordshire, England, pottery factory that operated from 1860 to 1894 (Godden 1991:339). A whiteware bowl had the mark "ROYAL SEMI-PORCELAIN over JOHNSON BROS. ENGLAND". This is from a Hanley, England, factory that started in 1883; this mark dates to circa 1900 (Godden 1991:355).

As a general rule, most of the whiteware was undecorated, reflecting its utilitarian nature. Only three fragments had transfer pattern designs. These included a brown, a black, and a green floral print pattern.

Examples of porcelain were less common and less uniform in size, form and decoration, suggesting that their presence on the sites was idiosyncratic; that is, that these were individual pieces of dinnerware and ceramics, rather than portions of sets or services. They include five sherds with a raised or molded dot pattern; three with pink outer glaze; one example with a pink transfer pattern; another with a pink and yellow hand-painted design; and a small vase fragment with a pale pink exterior wash. Three pieces of porcelain were fragments of tea-cups.

The final examples of porcelain were electrical insulators. These were primarily recovered at the Karma Mine but one example was found at Cobble City. Whether this reflects the fact that portions of this occupation area had electricity

or not is uncertain. The mines certainly were electrified of course, and a power line may have run through Cobble City even if its occupants themselves lacked power. Most likely, this insulator fragment was coincidental to the life-ways at Cobble City, which appears to have been lighted not with electricity but with kerosene lanterns.

Overall the utilitarian and repetitive nature of the ceramic dinnerware, especially the emphasis on "hotel ware," suggests that many of the miners were eating at communal kitchens or boarding-house like arrangements. Evidence from the dietary remains, discussed subsequently, supports this inference.

4.5 Glass Artifacts

Glass artifacts and fragments are listed and described in Table 4. These totaled 2360 specimens, the large majority of which are small and unidentifiable bottle fragments. The glass total represents 21% of the recovered artifact assemblage as a whole, making glass fragments the third most common artifact material on Soledad Mountain, following metal.

Only a single whole bottle was found during the Phase III study. This is a clear salad dressing bottle. It is molded with a screw top and metal cap. Embossed on the body is: "E.R. DURKEE & CO. SALAD DRESSING NEW YORK." The base contains the following embossed inscription: "BOTTLE PATENTED APRIL 11, 1871."

Eugene R. Durkee was a New York state druggist who began selling spices and extracts in the 1850s from Buffalo. He was in Brooklyn by 1870 and was one of the first to register a trademark. He sold various spices and extracts, salad dressing, chili sauce and a variety of other products, including bird-seed. His salad dressing factory was located in Elmhurst, N.Y., and this product was widely distributed (e.g., see Wilson 1981:90). The screw top lid was introduced circa

1900, placing this specimen squarely within the primary time of occupation of Soledad Mountain.

We classified the remaining identifiable bottle fragments first by body shape and lip finish, following Wilson (1981:110-111; cf. Herskovitz 1978), along with color. A total of 137 specimens could be classified in this fashion; that is, slightly less than 6% of the total glass assemblage could be classified, attesting to the very fragmentary nature of the specimens.

Per the Wilson typology, the following kinds of bottle types and forms could be identified within the Phase III Soledad Mountain assemblage:

Champagne – Type b lip – 13 dark green; Type b body – 5 dark green;
Brandy – Type c lip – 3 lavender, 1 dark green, 3 clear, 3 amber;
Beer – Type d lip – 9 amber; 3 light green;
Patent/extract – Type g lip – 2 clear; 5 amber; 8 lavender; 2 light green;
Crown top – Type k lip – 4 clear; 6 amber; 2 bright green; 3 light green; 1 dark green;
French Barrel mustard bottle – Type ff body – 1 lavender; 2 light green;
"Blake" bottle – Type r body – 1 lavender;
Double bead – Type f lip – 4 lavender; 8 dark green; 1 amber; 1 light green; 1 clear;
Club sauce – Type l lip – 2 dark green;
Wide mouth patent/extract – Type h lip – 1 blue; 1 clear; 1 light green;
Packing jar – Type l body, type j lip – 1 light green; 1 clear;
Oblong tooth powder – Type s body – 2 clear; and
Soda water – Type h body – 2 amber; 4 light green.

A series of additional recognizable glass types were identified that are not included in the Wilson (1981) typology; not all of these are bottles, per se. These are as follows:

Jug-type neck with handle & screw-top (Clorox jug) – 2 amber – Note that the screw top Clorox jug was introduced in 1940, making this a recent fragment;

Square "gin" bottle – 3 light green (2 bases, 1 body fragment);

Threaded jar/bottle rim – 10 clear; 2 light green; 2 amber;

Milk bottle fragment – 1 clear;

Ornate toilet bottle fragments – 1 clear; 2 lavender;

Medium bottle-stopper – 1 clear; 1 lavender (embossed; see below);

Ink-bottle fragments – 2 clear;

Pipette fragment – 2 clear;

Spherical atomizer – 1 lavender (embossed; see below); and

Medicine dropper – 1 clear.

As this classification illustrates, about 29% of the identifiable bottles are alcohol containers. The remainder is a variety of food, drink and medicine containers, with a few specialized items (ink-bottles, toilet bottle, pipette), mostly related to the industrial/commercial activities on the Soledad Mountain.

The glass assemblage included 39 examples of fragments with maker's marks or other identifying information. Almost all of this was embossed; only some of these marks can be tied to known makers or products, partly because so many of the examples are very fragmentary, resulting in partial marks.

We tabulated this information based on glass color and position on the body, as follows:

Amber bottle base-marks:

- "P.D. & Co. over 10 over 19";
- "SPRUA...around "WH...SAC and LIQUOR";

- "WF & S" over "T1" over "MIL..." – Wisconsin Glass Co., Milwaukee (Wilson 1981:124);

- "Pat. D Aug. 24. 1886" over "2" in center;

- "PUREX" on base and neck fragment with "CLOROX" – This is a bleach container;

- "R. & Co. 32" over "I P G Co." in diamond over "3095" – This is the Illinois Pacific Glass Company which was in operation from 1902 to 1925 in San Francisco, and had glass works in southern California for shorter periods;

- "UG. 24" over "10" over "... 1886";

- "8" (2 examples);

- "MANUFACTU..." over "THE LIQU...CHIC..."; and

- "Aug. 2498".

Amber body fragments:

- "...E WH...FRANCISCO"; and

- "CONTENTS 110" with "X" on base.

Clear bottle base-marks:

- "A Winarich..." over "USA" on rectangular base – Most likely a food jar;

- "...IAMOND..." over "...MADE IN..." in circle, on rectangular base – Similarly a food container;

- "BEST FOODS" over "REGISTERED" – Another food jar;

- "Libby's" in octagonal base – Again a food jar;

- "Liquor Bottle" in center of embossed cross-hatched pattern around rim;

- "Chili Powder" on rectangular body; and

- "Table Products Co., Los Angeles, 118.41" – also likely a food container.

Clear bottle body fragments:

- "Sweet Relish" decal on screw top bottle – This is likely Depression era in age;

- "GORDON'S DRY GIN" over "ENGLAND" – The origin and nature of this bottle fragment is self-evident;

- "Gooderham and Worts – Limited" over "Toronto" over "Registered" – This was a large Canadian maker of beer and whiskeys that was in operation from about 1837 to 1926, when it was acquired by the Hiram Walker Company;

- "LISTERINE" – a toiletry item, Listerine was invented in 1879 as a surgical antiseptic and was first used by dentists in 1895 for dental care. It became the first over-the-counter mouthwash sold in the US in 1914, but was also used, around the turn of the century, in a concentrated form as a floor cleaner and (putative) cure for gonorrhea;

- "E.R. DURKEE & CO., SALAD DRESSING NEW YORK" on body;
"BOTTLE PATENTED APRIL 11, 1871" on base; whole bottle (see discussion above);

Lavender body fragments:

- "Shasta Water Co.";

- CURTIS BROTHERS CO., PRESERVERS, ROCHESTER" in a circle with 4 stars – Likely a preserve or condiment;

Lavender medium bottle-stopper:

- "CANAD..." over "SEPT..."

Light green bottle base-marks:

- "R & CO" over "23" – This is the maker's mark for the Reed Company, in operation in Massillon, OH, from 1881 to 1904;

- "A.B. Co." over "A6" – A.B. Co. was the American Bottle Company. This operated from 1905 to 1929 in Chicago and Toledo, OH, but whose primary period of manufacture was from 1905 to 1916;

- "A.B. Co." over "18";

- "A.B. Co." over "J4";

- "A.B. Co." (2 examples); and

- "WT & Co." (2 examples) – Whitehall and Tatum Company from Millville, NJ, in operation from 1857 to 1901.

Lavender spherical atomizer: molded with two seams; "fill to this line" on one side; "The tube of this atomizer is made of one piece, pat. May 8th_1894". Screw-on lip.

White milk glass fragments:

- "POND'S" on base of jar with screw-on lid – A cold cream;
- "FIRE KING" over "OVEN WARE" over "MADE IN USA", on base of milk glass cooking bowl fragment; and
- "...THE CU..." on jar base.

Although we cannot be certain, the amber bottles were most likely liquor (beer especially, but also potentially whiskey). Regardless, five of the marks are clearly from liquor bottles. Note however that dark green liquor bottles (wine, champagne, brandy) are rarely marked, because of the pontils on their bases. Hence liquor is likely under-represented in the embossed glass assemblage, but is common in the assemblage otherwise, as suggested by the classification based on the Wilson (1981) body and lip typology, above. When the Wilson bottle classification is combined with the information obtained from makers' marks, liquor bottles predominate the assemblage as a whole.

Based on embossed marks, eight of the fragments are from food jars, including well-known, long-lived national brands like Libby's and Best Foods. There are also at least three examples of toiletry bottles and a miscellany of other kinds of bottles and jars.

Overall, the glass assemblage is notable for three tendencies: first, the glass is almost entirely bottle glass; little window glass was recovered, and this was limited to the Wegmen site. Windows in structures on Soledad Mountain either mostly lacked window glass or, if they were glassed, this was removed when the structures were abandoned. Second, liquor bottles were the predominant bottles

on Soledad Mountain. This likely reflects the fact that, based on the 1910 census, most of the inhabitants of the locality was either single, or were present without their wives (W&S Consultants 1995a). Third, the types of other food bottles and jars recovered, and the nature of their contents, were diverse in kind and relatively uncommon in number. That is, the sum of these three points is that liquor was the primary ready-to-consume comestible imported onto Soledad Mountain. (Likewise, as addressed in the Phase II study [W&S Consultants 1995c] canned goods were present though in relatively restricted numbers). Foodstuffs certainly also were brought in but, judging from the artifact assemblage, these were predominantly dry goods and meats.

4.6 Buttons

Buttons are useful artifacts because they provide clues to the types of clothing worn by the inhabitants of a site, and because they may be time sensitive (cf. Albert and Kent 1949; Kirk 1976). Buttons and other clothing stays (pants rivets) found during the Phase III excavations at Soledad Mountain are summarized in Table 5. A total of 106 of these artifacts were recovered; this represents just under 1% of the artifact assemblage as a whole.

The most common button type recovered during the Phase III excavations is the tabular metal-stem button that was used for overalls and dungarees. A total of 45 of these were found, representing over 42% of all the buttons. Fourteen of the metal-stem fasteners are embossed Carhartts overall buttons, one example of which is illustrated by Albert and Kent (1949:391, Figure 12). According to these last authors, the Carhartt's overall buttons were produced by the Scoville Manufacturing Company in Waterbury, Connecticut. Scoville was apparently one of the largest, and the oldest, overall button manufacturer in the country, having first started producing these types of buttons as early as the 1820s (Kirk 1976:405). Carhartts work clothing more generally was manufactured in San

Francisco, starting circa 1890, and is still produced today. Similar overall buttons were recovered during the Phase II test excavation (W&S Consultants 1995c).

Other overall buttons included 16 plain brass buttons and seven with embossed maker (or model) designs. These include two that are marked Stronghold, two with The Newport, and one each embossed with Head Light, Red Seal, Cones Boss, and Howard. Stronghold was the first overall and dungaree maker in Los Angeles, opening circa 1895 and closing about 1945. The other marks are unidentified. Single Stronghold and Cones Boss buttons were also recovered during the Phase II test (ibid).

Iron metal-stem pants buttons were limited to seven examples. All of these are marked Levi-Strauss, a famous San Francisco company that opened in 1873, when it patented the use of brass rivets as seam reinforcements. Eight of the 27 copper pants rivets recovered during the Phase III excavations likewise are marked Levi-Strauss; the remainder are unmarked.

Shell was used for 23 (~22% of the total) of the buttons. These all appear to be shirt-sized. They include 13 four-hole flat, seven two-hole flat and two stemmed buttons, with one unidentifiable shell button fragment.

The remaining seven buttons were made with miscellaneous materials. Four were milk glass, three of which were four-hole flat and the fourth was an unidentifiable fragment. Two were made of wood, one of which was four-hole and the other of which was too fragmentary to type. Finally, a single four-hole bone button was recovered.

The Phase III button assemblage is similar to that found during the Phase II test. Both are dominated by examples from men's work clothes, appropriately enough for a mining camp. However, sewn-on non-work clothes buttons can be easily reattached if they fall-off. Overall and metal pant fly buttons, in contrast, are

commonly attached in a fashion analogous to riveting, and cannot easily be reattached once they have pulled through the cloth. Thus, such buttons may be more readily discarded than non-work clothes buttons, which could be reused or recycled. With this fact in mind, it then warrants mention that while the Carhartt's brand overalls may at first glance appear to be the most common brand used by the occupants of the site, it is also possible that this brand simply represents the overalls with the worst button attachments.

4.7 Leather and Miscellaneous Artifacts

Leather and miscellaneous artifacts—primarily but not exclusively cloth fragments—recovered during the Phase III excavations at Soledad Mountain are summarized in Table 6, which lists 174 of these specimens (1.6% of the total artifact assemblage). A total of 63 of these are leather. These include 18 glove and 26 shoe fragments. Three of the last are from a large (man's size) shoe or boot; one is from a small shoe (woman's or child's size). The remaining 22 shoe/boot fragments are otherwise unidentifiable as to type or size.

One hundred-five of the items listed in Table 6 are cloth fragments. The vast majority of this is fine-weave cotton (97 fragments), presumably originating in pants, shirts, dresses, undergarments and similar clothing items. Two specimens are coarse-weave cotton, including an overall fragment with a buckle and Carhartt's embossed buttons (see discussion above). Examples of wool are limited to five fragments. Three whalebone corset stays were also recovered along with three fragments of a canvas fire hose.

Table 6 further includes 284 miscellaneous specimens made of wood, cork, rubber, paper and related kinds of materials (2.6% of the recovered artifact assemblage total). The large majority of this miscellaneous assemblage consists of wood fragments. With only one exception these are architectural in origin, in the sense that they are board fragments from decayed structures, primarily privy

walls and roofs. The exception is a carved (turned) bottle stopper made of wood. These could be used with a variety of kinds of bottles but probably most commonly were used for water canteens, because of their durability. Remnants of four bottle corks were also recovered. These almost certainly originated in liquor bottles.

Tar-paper (including roofing paper) was also very common. We recovered 109 fragments of this material but it is important to note that, in one instance, this just represents a sampling of a large amount of this material that had in-filled a privy and accounted for the majority of an excavation unit level. (Almost certainly, this was the remnant of the privy roof collapse). This artifact class too then is architectural in origin.

Seventeen fragments of rubber-made products were identified in the miscellaneous artifact assemblage. The majority of these (12 of 17 or 71%) were fragments of the same tire. The other specimens included three tubing fragments, a test tube stopper and an O-ring. The first four of these, at least, reflect the fact that the assay offices including working chemical labs.

The remaining miscellaneous artifacts included a few fragments of newspaper, plastic and unidentified materials.

4.8 Subsistence Remains

Faunal remains reflect the dietary preferences and subsistence practices of a site's inhabitants, and can serve as a useful indicator of the socio-economic position of these same inhabitants, or different groups of inhabitants within a site. Despite the potential importance of this kind of information, only a very small sample of direct dietary remains (35 specimens) was recovered during the Phase II test (W&S Consultants 1995c). This itself was a result of the nature of the sampling undertaken during that previous study, which emphasized surface

collection and limited testing. One goal of the Phase III data recovery was the acquisition of a larger sample of direct dietary remains (that is, beyond the indirect evidence provided by glass and tinned can containers). These commonly are found at historical sites in privies—features that not only served as latrines, but also as small dumps.

The Phase III sample included a number of privies containing dietary remains, as expected. Even more fortuitously, Structure O at CA-KER-4447H, the Wegmen complex, proved to be a kitchen area, and its privies contained a fairly massive quantity of bone fragments—clearly they also served as kitchen dumps. Whereas the entirety of the Phase II faunal sample weighed 333 gms (3/4s of a pound), the animal bone associated with Structure O alone weighed 2.9 kilograms (almost 6.5 pounds).

Table 7 lists the Phase III sample of faunal and other dietary remains. This totals 3155 specimens, or essentially two orders of magnitude more specimens, by count, than were recovered during the Phase II test. This represents fully 28.6% of the recovered artifacts assemblage as a whole, making faunal remains the second most common artifact class on Soledad Mountain. The vast majority of this bone assemblage—99%—consists of fragments of large mammal long bones (3123 by count, 3476.2 gms by weight). Many of these fragments exhibit saw-cut marks, demonstrating intentional butchering. These all appear to be bovid in origin and, from the perspective of butchering and cooking, the long bones of cows are generally lacking in much meat. These are, in other words, usually “tough” cuts that are close to the bone and, accordingly, are not considered choice cuts. They are best suited for stews, soups and similar dishes, which of course themselves are optimal for feeding large numbers of people at minimum expense.

Twelve small rabbit bones were recovered from a single privy provenience during the Phase II test, suggesting that this was consumed rather than inadvertently

deposited through natural processes on the site (W&S Consultants 1995c). But during the Phase III fieldwork, only a single small mammal bone was recovered and this appeared to be "modern" in origin (i.e., introduced into the archaeological deposit through natural processes). The sum of the evidence is a clear indication that locally available natural resources were at best only occasionally obtained by the site's inhabitants. When obtained, meat protein was limited to a single source, beef, and this invariably involved cheaper cuts of meat.

Two other kinds of direct dietary remains were recovered during the Phase III fieldwork. These are, first, 10 fragments of eggshells. (Note that, due to the very fragile nature of these remains, we tabulated all eggshell fragments from a single provenience—i.e., unit level—as a single example of egg. Given the small weight of these fragments, this seemed the most accurate means for tabulating this crumbling material, as in no case was there enough eggshell to suggest more than a single egg.)

Notably, most of the eggshells were found at CA-KER-4446H, Cobble City, with three found in the south room of Structure J1. The small quantity of eggshells, overall, suggests that they were not regularly consumed on site. Further, the sporadic distribution of them suggests that they were probably occasionally employed as ingredients in other foods (pancakes, cakes, etc.), rather than eaten alone.

The next and last type of direct dietary remain consists of 10 fruit pits, demonstrating that hard-stone fruits were at least occasionally available to the site residents. Again, with only one exception—from Structure O at CA-KER-4447H, the Wegmen complex, where a single fruit pit was recovered—all of the fruit pits originated in Cobble City. Eight of them in fact were found in a single provenience, the Structure C1 floor (Unit #9), suggesting that they represent a single meal (or, more likely, used in the creation of a single dish, such as cobbler or pie). This last circumstance speaks to the fact that they were an apparent

rarity on Soledad Mountain, notwithstanding the possibility that fruit pits are a relatively innocuous kind of waste, might have been spit-out somewhat randomly, and hence would be under-represented in the archaeological record.

Regardless of this last possibility, the direct dietary remains from Soledad Mountain combined with the evidence from food and drink containers point to a relatively unvaried, monotonous and relatively low-cost diet. Somewhat surprisingly, the dietary remains from Cobble City, presumably where the lowest paid inhabitants lived, were slightly more varied than those from the Wegmen complex. As noted previously, the difference in housing in these two areas appears to reflect the "extreme frugality" of the Queen Esther mine owners, shown by the make-shift construction using locally available field stone at Cobble City, versus the relative luxury of the wood frame structures provided to the Karma Mine personnel, as a result of an apparently more beneficent corporate policy. Further, Cobble City was predominated by southern and eastern European immigrants whereas the Wegmen complex appears to have had more American-born and northern European occupants. The difference in dietary remains thus would seem to run counter these other two factors. Admittedly, however, the differences are quite small, quantitatively speaking, and may simply reflect sampling factors.

4.9 Assay Artifacts

The final category of archaeological remains recovered during the Phase III excavations consists of assay debris, all of which originates in the Karma Mill and assay office area and the Queen Esther Mine assay dump. A total of 175 specimens (1.6% of the total) falling in this category are included in Table 9. Note that another 227 specimens of assaying crucibles and cupules ("cupels") are also included among the ceramics (Table 3). In sum, both classes of assay artifacts represent 3.6% of the total artifact assemblage recovered from Soledad Mountain.

As noted above, the crucibles and cupules primarily originated in the Queen Esther Mine assay dump. Although not all are marked, two impressed marks occur on some of the 20 and 30 gm crucibles. The first of these is BATTERSEA. This is from the Morgan Crucible Works, sometimes called the Patent Plumbago Crucible Works, first formed in 1856 and located until 1970 in Battersea, a suburb of London, England. Battersea assaying ceramics were widely traded internationally, and are common at mining sites in western North America, including at turn of the century sites. The second mark is the DENVER FIRE CLAY COMPANY, sometimes given as just DFC. This was formed in 1873 in Denver, Colorado. Despite its name, the company specialized in selling assayers' and chemists' supplies of various kinds, produced by different manufacturers, including balances, metal sieves, furnaces—including the muffle furnace in the Queen Esther assay office—and, of course, assaying ceramics. The company went out of business shortly after World War II. Its Denver headquarters building is on the National Register of Historic Places, and has recently been converted into loft condominiums.

The assay ceramics were then imported, from long distances. This reflects the fact that the production of high-fire assay ceramics was substantially more complicated than other kinds of fire clay products (such as fireplace or even kiln bricks).

The remaining assaying artifacts consist of three classes of material. The first is whole and fragmentary doré buttons, of which 33 were recovered, weighing 33.6 grams. The second class consists of cupule slag fragments. Forty-four examples of this material were found, totaling 174.6 gm. The final class consists of slag and brick oven lining fragments, 98 examples of which were recovered, weighing 1608.4 gm.

As noted above, the Karma assay office was used into the 1920s and 1930s by Engelbert Wegmen, who ran assays for the Randsburg mines. The assay debris from that location, thus, likely represents activities that post-date the main occupation and exploitation of Soledad Mountain.

4.10 Analytical Considerations

As noted above, the Phase II and III excavations at Soledad Mountain, combined with documentary and other evidence, demonstrated conclusively the age and function of the sites on Soledad Mountain. CA-KER-4448H (Karma) and -4449H (Queen Esther) were mining and milling facilities whose primary use dated between 1899 and 1910. CA-KER-4446H (Cobble City) and -4447H (Wegmen complex), in contrast, are habitation areas whose primary occupation occurred between 1903 and 1910. Following other recent studies of Mojave Desert historical mining sites (e.g., Swope 1993; Barnes 2002), we turn finally then away from concerns with site chronology and function alone to the socio-economic status of the site's inhabitants.

Documentary and other evidence suggests that a division in occupation existed between CA-KER-4446H and -4447H, with employees of the putatively more beneficent Karma Mine occupying the Wegmen complex with its board and batten cabins—probably pre-cut kits that were ordered from a catalog supplier—versus the make-shift nature of the cobble structures at Cobble City, whose occupants worked for the more penurious Queen Esther Mine. Further, the 1910 census combined with oral history and other accounts (see W&S Consultants 1995c) suggest that an additional social division existed between these two occupation sites. Cobble City was referred to as "Little Italy" and many of its occupants were apparently immigrants from Italy and Slovenia. The Karma Mine and thus the Wegmen complex, in contrast, appear to have emphasized American-born and northern European employees. One possible implication of this circumstance is that the recently arrived southern and eastern European

immigrants, just getting established in the country, were willing to work for lower wages and/or under worse conditions than the Karma employees.

A possible indication of this social/ethnic division on Soledad Mountain was hypothesized based on the Phase II test results (*ibid*), which primarily derived from surface collection data. This involved patterns of alcohol consumption. The occupants of Cobble City appeared to emphasize the consumption of wine, brandy and champagne, judging from surface finds, whereas beer and whiskey appeared to be more common at the Wegmen complex. One goal of the Phase III study was to test this initial inference. Second, we hoped to identify other patterns of artifact deposition and use that might be indicative of the socio-economic status of the occupants of the two sites, as indicated by their consumption patterns. The systematic samples obtained from the Phase III excavations of privies provide controlled data that enables us to investigate these two analytical concerns.

We have in the following analyses exclusively used the Phase III excavation data from privy contexts because this data is uniformly derived from 1x1 m test pits, thereby providing standardized individual sample unit sizes. (Note that 25x25 cm units were employed during the Phase II test, hence the data from this earlier excavation is not immediately comparable, quantitatively-speaking, and was not employed in this analysis, for that reason.)

First with respect to the use of alcohol, the systematic sample derived from the privy pits clarifies the hypothesized pattern suggested by the Phase II data, indicating that alcohol consumption was patterned, but not in exactly the fashion that was initially believed. The glass assemblage demonstrates that the Wegmen inhabitants consumed all types of alcohol (wine, beer, brandy, champagne and grain-spirits or hard-liquor). The systematic sample from Cobble City, in contrast, includes only beer and brandy bottles, and less of them in total numbers.

Differences in alcohol consumption then did exist between the two resident groups. But this does not appear to have reflected ethnicity, as originally assumed, so much as economic position. The occupants of the Wegmen complex were apparently able to acquire a range of different alcoholic beverages, whereas the Cobble City residents were restricted to the less expensive drinks.

This raises the second issue more directly, which concerns the socio-economic status of the two resident groups on Soledad Mountain. In order to address this issue, we quantified certain of the remains from each of the privies excavated during the project. Note in this regard that we assume, for purposes of analysis, that privy use itself followed more-or-less standard patterns; that is, that any given privy on average could accommodate the same approximate number of users, for the same approximate total length of usage—regardless of whether this was one month or one year in time, and likewise without regard to whether this represented use by two or twenty individuals during this period. Our concern in this case specifically involves the fact that privies were used not simply as latrines, but equally as trash dumps. We can then look to the average trash contents of the privies, as a whole, from Cobble City versus the Wegmen complex, as indicators of aspects of socio-economic status and patterns of day-to-day consumption on the two sites.

We quantified the total weight of metal, glass and faunal remains from each of the privies in order to derive estimates of total consumption of three classes of consumer goods: tinned can products, based on "miscellaneous metal fragments" (i.e., metal excluding identifiable non-can artifacts); fragmentary and whole bottle and jar glass; and animal bone. These tabulations in other words approximate an average for the consumption of canned foods, bottled foods and drinks, and beef on the two sites—again assuming that privy use itself followed somewhat standard rates of use.

The results of this quantification for CA-KER-4446H, Cobble City, are as follows:

	<u>Unit #1:</u>	<u>Unit #2:</u>	<u>Unit #3:</u>	<u>Unit #4:</u>
Metal:	630.5 gm	52.2	289.7	569.2
Glass:	858.4	367.0	632.4	56.9
Bone:	1.5	34.2	0	94.9

For CA-KER-4447H, the Wegmen complex, equivalent tabulations are:

	<u>Unit #1:</u>	<u>Unit #2:</u>	<u>Unit #3:</u>	<u>Unit #4:</u>
Metal:	1300.1	3145.9	110.0	26.8
Glass:	3069.6	5951.5	119.6	3.6
Bone:	507.4	185.9	698.0	0

	<u>Unit #5:</u>	<u>Unit #6:</u>	<u>Unit #7:</u>	<u>Unit #8:</u>
Metal:	1658.9	87.4	963.7	0
Glass:	451.5	0	274.2	2.2
Bone:	23.9	1.2	1917.4	178.8

	<u>Unit #9:</u>
Metal:	2473.7
Glass:	552.8
Bone:	2.8

Note that, in the cases of Units #1 and 2 at Wegmen, we tabulated only the archaeological material below 40 cm in depth. This level appears to represent the upper limit of the early historical use of these privies, with more recent materials above this depth.

The sums for all the privies, and privy averages for each class of artifact per site, are as follows:

	<u>Cobble City Sum (4 privies):</u>		<u>Wegmen Sum (9 privies):</u>	
		<u>Average:</u>		<u>Average:</u>
Metal:	1541.6 gm	385.4	9766.5	1085.2
Glass:	1914.7	478.7	10,425.0	1158.3
Bone:	130.6	32.7	3515.4	390.6

The summed figures are of course much higher at the Wegmen site, but only partly because more privies were excavated there. As the averages show, the occupants at the Wegmen site disposed of, and therefore consumed more of, each of the three categories of trash than the residents of Cobble City. Based on these figures, Wegmen occupants used almost three times as many tinned can products, almost two and half times as many bottled goods, and three times as much beef as the residents of Cobble City. Although it is impossible to determine exactly how these figures translate in terms of individual diets or wages, what they imply is obvious: the best mine to work for on Soledad Mountain, circa 1903 to 1910, was the Karma, for its employees were consuming and disposing of between two and three times as much purchased goods as the employees of the Queen Esther.

A miner's life on Soledad Mountain in the first decade of the twentieth century, then, varied considerably depending upon which mine that individual worked at, and thus which company they worked for. To be sure, a miner's life at that time was a hard one, given the nature of the technology available, the kind of work to be performed, and the living conditions in remote camps. But life was much harder for most people at the turn of the century, regardless of whether they lived in remote areas and mined, farmed, built railroads or logged; or even if they resided in cities, toiling at sweat shop-like factories. What the archaeological data from the Phase III excavations at Soledad Mountain then remind us is that substantial variation existed in social and economic conditions in the past, just as exists today, even at a single desert locality like Soledad Mountain where life revolved around a single industry like mining.

The mining history of the Mojave Desert, especially the socio-economic characteristics of this mining history, in this sense incorporated substantial variation that is hidden in historical accounts. Archaeologists too typically characterize mining history in terms of series of discrete periods each of which itself is thought to reflect specific traits and patterns. But the archaeological record on Soledad Mountain, once analyzed, shows something quite different. Even during the beginnings of the corporate period of mining around the turn of the twentieth century, there was substantial variation in the socio-economics of the mines, a fact that was expressed in the day to day lives of the miners.

5.0

SUMMARY AND CONCLUSIONS

5.1 Introduction

A Phase III Data Recovery (salvage excavation) was conducted at four historical (Euro-American) sites within the Golden Queen study area, Soledad Mountain, Kern County, California. These sites are CA-KER-4446H, known as Cobble City; CA-KER-4447H, the Wegmen complex; CA-KER-4448H, the Karma Mine and Mill; and CA-KER-4449H, the Queen Esther Mill. The project included controlled subsurface excavations and the processing and analysis of the recovered artifact collections. This resulted in the recovery of 11,049 historical artifacts and archaeological specimens, approximately 39% of which are metal, 29% dietary remains, 21% glass, and 4% ceramics, with a miscellany of other materials. The Phase III project also included architectural documentation of standing structures at CA-KER-4447H and -4448H, the Wegmen complex and the Karma Mine, completed by George Koteles, AIA, and Leonard Ridder, AIA.

Sites CA-KER-4446H and -4447H are both residential areas that were primarily occupied between 1903 and 1910. The first of these sites, which we have labeled Cobble City, was associated with the Queen Esther Mine. Based on census records and other accounts, it was primarily occupied by Italian and Slovenian immigrant miners. The site consists primarily of a surface scatter of historical artifacts along with very localized subsurface deposits (privy pits), and the remnants of vernacular architecture: mud-mortared cobble structures made by the miners from local field stones. CA-KER-4447H, which we have called the Wegmen complex, consists primarily of the remnants of board and batten cabins built (probably from catalog-purchased kits) by the Karma Mine for its employees, along with a surface scatter of historical artifacts and privies. CA-KER-4448H, the Karma Mine and Mill, was in primary operation from circa 1896 to 1910,

although aspects of its facilities were used sporadically into the Depression era. The mill structure burned in 1947. CA-KER-4449H, the Queen Esther Mill, operated from circa 1896 to 1910, at which point it was abandoned, with many of its components cannibalized subsequently for use elsewhere. Remnants of the mill burned circa 1998.

The analysis of the recovered artifact assemblage was directed at the socio-economics of the occupants of Soledad Mountain. A recorded oral history claims that the ownership of the Queen Esther Mine was extremely frugal, implying that the mine-workers were treated poorly, whereas the Karma Mine provided good accommodations and treated its employees well. A systematic collection of artifacts from the privies at the two sites allowed for an archaeological examination of this recollection, in order to define the socio-economic characteristics of turn of the century life on Soledad Mountain. It involved the comparison of the quantities of three classes of artifacts: tinned cans, drink and food bottles and jars, and beef bones. This demonstrated that, on average, the Karma Mine employees used three times as many tinned canned products and three times as much beef, and about two and half times as many bottled and jarred food and drink products. Karma Mine employees similarly consumed a much wider range of alcoholic beverages, including beer, champagne, brandy and grain spirits, whereas the Queen Esther employees limited their alcohol intake to beer and brandy. The results both confirm the implications of the oral history, and illustrate the fact that the turn of the century mining history of the Mojave Desert region was itself quite variable, in socio-economic terms, even for a relatively narrow time frame at one specific locality.

5.2 Final Recommendations

A Phase III Data Recovery at historical (Euro-American) sites CA-KER-4446H, -4447H, -4448H and -4449H, within the Golden Queen study area, Soledad Mountain, Kern County, California, resulted in the recovery and documentation of

a substantial quantity of archaeological and architectural data. Combined with the earlier artifact assemblage recovered during the Phase II test excavation (W&S Consultants 1995c), this has resulted in the collection of scientifically consequential information from and about these historical cultural resources. Following CEQA, this has served to completely and adequately mitigate any adverse impacts to these sites that might result from the development and use of the study area. Based on this last fact, we recommend no additional archaeological work on this property. Again following CEQA, however, we recommend that an archaeological monitor be present during topsoil grading on these sites.

6.0 CITED REFERENCES

- Albert, L.S. and K. Kent
1949 The Complete Button Book. New York: Doubleday and Company.
- Barnes, J.J.
2002 The Life of Reilly: The Archaeology of an 1880s Silver Mine in Panamint Valley, California. MA thesis, Anthropology, Sonoma State University.
- Brown, G.C.
1915 Kern County. Report XIV of the State Mineralogist, pp.471-511.
- Clark, W.B.
1970 Gold Districts of California. California Division of Mines and Geology, Bulletin 193. Sacramento.
- DeBolt, C.G.
1988 The Dictionary of American Pottery Marks: Whiteware and Porcelain. Charles F. Tuttle, Rutland, Vermont.
- Gates, Jr., W.C. and D.E. Ormerod
1982 The East Liverpool, Ohio, Pottery District: Identification of Manufacturers and Marks. Historical Archaeology 16 (1-2).
- Godden, G.A.
1991 Encyclopedia of British Pottery and Porcelain Marks, revised edition. London: Random House.
- Hensher, A. with L. Vredenburg
1991 Ghost Towns of the Mojave Desert: A Concise and Illustrated Guide. Los Angeles: California Classic Books.
- Herskovitz, R.M.
1978 Fort Bowie Material Culture. Anthropological Papers of the University of Arizona, No. 31. Tucson.
- Kirk, M.A.
1976 Buttons from the San Buenaventura Site, 1975. In The Changing Faces of Main Street: Ventura Mission Archaeological Project, ed. by R.S. Greenwood, pp. 369 - 416. Redevelopment Agency, City of Ventura.
- McDonald, D.

7.0 TABLES

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TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

Cat. #-	Site/Locus*	Unit/Depth	Material	#/Weight	Description
1	SC/A-2	1/0-10	Metal	5/20.9	Misc.
2	(Privy)	1/10-20	Wood	*sampled	Architectural debris
3		1/20-30	Wood	*sampled	Architectural debris
4		1/30-40	Metal	4/13.6	Misc.
5			Wood	*sampled	Architectural debris
6			Glass	1/.3	Button
7		1/40-50	Metal	7/41.1	Misc.
8			Wood	*sampled	Architectural debris
9			Paper	5/0.2	Newspaper fragments
10			Plant material	3/0.4	Fruit pit
11		1/50-60	Metal	17/50.0	Misc.
12			Wood	*sampled	Architectural debris
13			Paper	19/1.8	Newspaper fragments
14		1/60-70	Wood	*sampled	Architectural debris
15			Paper	5/.3	Newspaper fragments
16	SC/A-4	2/0-10	Metal	2/1.0	Misc.
17	(Privy)		Metal	1/2.6	Button
18			Glass	14/41.7	Misc.
19			Glass	1/55.1	Bottle base fragment
20			Glass	1/64.4	Bottle neck fragment
21			Ceramic	1/4.4	Bowl fragment
22		2/10-20	Glass	27/95.8	Misc.
23			Wood	5/13.7	Misc.
24		2/20-30	Metal	20/38.9	Misc.
25			Glass	9/32.2	Misc.
26			Ceramic	1/7.6	Bowl fragment
27			Wood	7/2.4	Misc.
28			Cork	1/.8	Stopper fragment
29		2/30-40	Metal	72/90.2	Misc.
30			Glass	43/213.8	Misc.
31			Glass	1/8.3	Bottle fragment
32			Ceramic	1/37.2	Bowl fragment
33			Ceramic	2/294.3	Bottle fragments
34			Ceramic	2/12.8	Misc.
35			Wood	62/14.7	Misc.
36			Bone	4/2.3	Faunal remains
37			Leather	5/20.5	Glove fragments
38		2/40-50	Metal	196/400.0	Misc.
39			Glass	78/548.2	Misc.
40			Glass	1/45.8	Bottle fragment
41			Glass	1/18.7	Bottle fragment
42			Glass	1/51.5	Bottle fragment
43			Glass	1/18.1	Jar fragment
44			Glass	1/33.8	Bottle fragment
45			Ceramic	1/143.5	Misc.
46			Ceramic	7/236.0	Misc.
47			Wood	47/8.1	Misc.

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

48			Bone	4/2.3	Faunal remains	
49		2/50-60	Metal	72/248.2	Misc.	
50			Glass	26/151.4	Misc.	
51			Glass	1/34.7	Bottle fragment	
52			Ceramic	1/7.4	Cup fragment	
53			Bone	3/2.5	Faunal remains	
54			Cork	2/1.7	Stopper fragments	
55		2/60-70	Metal	81/159.9	Misc.	
56			Glass	36/218.0	Misc.	
57			Glass	7/69.0	Vessel fragment	
58			Ceramic	1/6.1	Misc.	
59			Wood	9/3.1	Misc.	
60			Bone	4/5.9	Faunal remains	
61		2/70-80	Metal	85/724.2	Misc.	
62			Glass	28/110.0	Misc.	
63			Glass	2/29.5	Bottle stopper	
64			Glass	1/14.5	Bottle fragment	
65			Wood	4/1.8	Misc.	
66			Leather	25/12.4	Glove fragments	
67			Cork	1/1.2	Bottle stopper	
68		2/80-90	Metal	207/699.0	Misc.	
69			Glass	68/342.1	Misc.	
70			Glass	7/57.1	Vessel fragment	
71			Glass	1/52.2	Bottle fragment	
72			Glass	5/346.1	Bottle fragments	
73			Ceramic	3/160.8	Misc.	
74			Wood	9/4.9	Misc.	
75			Leather	2/2.1	Glove fragments	
76			Shell	1/.4	Button fragment	
77		2/90-100	Metal	233/379.2	Misc.	
78			Glass	51/414.5	Misc.	
79			Glass	1/347.1	Bottle fragment	
80			Glass	1/36.0	Bottle fragment	
81			Glass	1/56.4	Bottle fragment	
82			Glass	1/8.3	Vessel fragment	
83			Glass	1/4.9	Stopper fragment	
84			Glass	4/65.6	Vessel fragment	
85			Ceramic	3/17.7	Misc.	
86			Ceramic	1/71.7	Assay material	
87			Wood	8/7.9	Misc.	
88			Bone	4/16.1	Faunal remains	
89			Leather	25/11.1	Glove fragments	
90	SC/M	3/0-10	Metal	108/624.8	Misc.	
91	(Dump)		Glass	107/1,247.1	Misc.	
92			Glass	1/196.4	Bottle	
93			Ceramic	10/18.9	Misc.	
94			Wood	11/25.6	Misc.	
95			Bone	2/24.8	Faunal remains	

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

96			Rubber	6/19.0	Misc.	
97			Plant remains	2/5.5	Fruit pits	
98			Shell	1/.8	Button	
99		3/10-20	Metal	38/125.3	Misc.	
100			Glass	62/344.6	Misc.	
101			Ceramic	1/3.0	Misc.	
102			Wood	2/7.2	Misc.	
103			Plant remains	1/7.8	Fruit pit	
104		3/20-30	Metal	20/13.6	Misc.	
105			Glass	5/8.1	Misc.	
106	SC/O	4/0-10	Metal	190/5,104	Misc.	
107	(Privy)		Glass	42/475.9	Misc.	
108			Ceramic	18/382.0	Misc.	
110			Bone	45/73.9	Faunal remains	
111		4/10-20	Metal	57/92.0	Misc.	
112			Glass	36/417.7	Misc.	
113			Glass	1/14.0	Bottle fragment	
114			Ceramic	10/286.5	Misc.	
115			Wood	3/5.4	Misc.	
116			Bone	10/16.3	Faunal remains	
117			Leather	1/.5	Glove fragment	
118	SC/A	Surface	Glass	3/113.4	Misc.	
119			Glass	1/30.4	Bottle fragment	
120			Glass	1/9.8	Bottle fragment	
121			Ceramic	1/127.6	Saucer fragment	
122			Ceramic	1/102.9	Plate fragment	
123			Leather	1/128.7	Shoe fragment	
124			Leather	1/60.8	Shoe fragment	
125			Leather	1/178.4	Shoe fragment	
126	SC/A-2	Surface	Metal	1/71.3	Iron fragment	
127			Metal	1/19.6	Spoon	
128			Glass	1/23.2	Bottle fragment	
129			Glass	1/223.8	Bottle fragment	
130	SC/D	Surface	Glass	2/569.8	Insulators	
131			Ceramic	1/1.1	Misc.	
132	SC/F	Surface	Glass	1/191.3	Bottle fragment	
133			Glass	1/104.9	Bottle fragment	
134			Glass	1/296.8	Bottle fragment	
135			Ceramic	1/237.8	Plate fragment	
136			Ceramic	1/192.3	Saucer fragment	
137			Ceramic	1/73.7	Cup fragment	
138			Ceramic	1/240.7	Plate fragment	
139			Ceramic	1/67.1	Bowl fragment	
140			Ceramic	1/3.1	Fragment w/ mark	
141			Ceramic	1/9.4	Fragment w/ mark	
142			Ceramic	1/1.4	Fragment w/ mark	
143	SC/H	Surface	Metal	1/9.8	Bullet shell	
144			Ceramic	7/61.2	Misc.	

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

145			Ceramic	1/4.8	Fragment w/ mark
146	SC/I	Surface	Metal	1/3.8	Bottle cap
147			Metal	1/89.7	Thermostat
148			Glass	4/304.3	Misc.
149			Ceramic	1/23.8	Misc.
150	SC/O	Surface	Metal	1/10.3	Clock mechanism
151			Glass	1/104.1	Bottle fragment
152			Glass	3/103.9	Misc.
153	SC/Reymert	Surface	Glass	1/115.0	Bottle fragment
154	Echo Mill	1/0-10	Metal	8/43.8	Misc.
155	(Assay dump)		Glass	12/33.3	Misc.
156			Glass	2/66.3	Bottle fragments
157			Ceramic	55/906.3	Assay debris
158			Ceramic	1/150.0	Crucible fragment
159			Slag	11/29.3	Assay debris
160		1/10-20	Metal	7/10.5	Misc.
161			Glass	20/10.4	Misc.
162			Glass	1/.5	Stirring rod fragment
163			Ceramic	52/561.8	Assay debris
164			Ceramic	1/202.8	Crucible fragment
165			Slag	34/47.9	Assay debris
166		1/20-30	Metal	5/31.8	Misc.
167			Glass	14/47.0	Misc.
168			Ceramic	49/704.7	Assay debris
169			Slag	6/7.2	Assay debris
170	Echo Mill	2/0-10	Metal	1/.7	Misc.
171	(Privy)		Glass	16/28.9	Misc.
172			Glass	1/2.6	Bottle fragment
173			Ceramic	1/1.1	Assay debris
174		2/10-20	Glass	20/37.5	Misc.
175			Ceramic	1/3.9	Misc.
176			Slag	10/11.4	Assay debris
177		2/20-30	Metal	3/16.8	Misc.
178			Metal	1/3.6	Bullet cartridge
179			Glass	5/2.5	Misc.
180			Wood	1/2.1	Misc.
181		2/30-40	Metal	6/4.1	Misc.
182			Glass	11/5.1	Misc.
183			Shell	1/.3	Button
184			Slag	1/5.5	Assay debris
185		2/40-50	Metal	2/.9	Misc.
186			Glass	10/5.2	Misc.
187			Ceramic	1/8.2	Assay debris
188	Echo Mill	Surface	Glass	1/124.1	Bottle fragment
189			Glass	1/16.7	Bottle fragment
190			Glass	1/140.1	Bottle fragment
191			Glass	1/124.9	Bottle fragment
192			Glass	2/70.2	Jar fragments

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

193			Glass	1/36.7	Bottle fragment
194			Glass	3/148.0	Misc.
195	Echo/Assay Of	Surface	Glass	1/67.7	Bottle
196			Glass	1/26.8	Bottle fragment
197			Glass	1/27.5	Bottle fragment
198			Glass	1/15.9	Stopper fragment
199			Glass	1/43.5	Bottle fragment
200			Ceramic	3/543.4	Assay debris
201	QER/H-1	1/0-10	Metal	57/285.8	Misc.
202	(Privy)		Glass	35/163.0	Misc.
203			Ceramic	4/10.2	Misc.
204			Wood	12/7.7	Misc.
205			Leather	4/23.4	Misc.
206		1/10-20	Metal	61/100.1	Misc.
207			Glass	12/47.5	Misc.
208			Ceramic	1/1.1	Misc.
209			Wood	4/3.8	Misc.
210			Bone	21/26.7	Faunal remains
211			Leather	19/15.5	Misc.
212		1/20-30	Metal	27/33.0	Misc.
213			Glass	8/17.4	Misc.
214			Wood	5/2.9	Misc.
215			Bone	5/5.2	Faunal remains
216			Leather	18/7.9	Misc.
217	QER/H-1	2/0-10	Metal	31/92.4	Misc.
218	(East rm floor)		Glass	2/2.1	Misc.
219			Wood	28/19.8	Misc.
220			Bone	1/2.9	Faunal remains
221			Shell	1/1.1	Button
222	QER/J-1	3/0-10	Metal	2/232.1	Misc.
223	(Privy)		Glass	9/30.9	Misc.
224		3/10-20	Metal	37/85.9	Misc.
225			Glass	100/311.9	Misc.
226			Glass	1/69.1	Bottle fragment
227			Glass	1/20.2	Molded fragment
228			Wood	10/8.2	Misc.
229			Leather	4/28.4	Shoe fragments
230			Bone	5/23.7	Faunal remains
231			Plant material	2/2.1	Fruit pits
232		3/20-30	Metal	26/22.1	Misc.
233			Glass	14/37.3	Misc.
234	QER/J-1	4/0-10	Glass	3/152.7	Misc.
235	(Kitchen floor)		Bone	1/266.0	Faunal remains
236			Plant remains	2/1.9	Fruit pits
237	QER/M-1	5/0-10	Metal	54/51.2	Misc.
238	(Privy)		Glass	6/12.9	Misc.
239			Wood	5/2.2	Misc.
240			Leather	4/1.3	Misc.

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

241		5/10-20	Metal	26/14.9	Misc.	
242			Glass	13/33.2	Misc.	
243		5/20-30	Metal	42/47.9	Misc.	
244			Glass	2/1.6	Misc.	
245			Leather	17/32.9	Misc.	
246			Metal	3/7.4	Buttons	
247		5/30-40	Metal	38/28.6	Misc.	
248			Leather	3/134.7	Shoe	
249	QER/V	6/surface	Metal	37/75.3	Misc.	
250	(Dump)	6/0-10	Metal	221/236.2	Misc.	
251			Glass	2/9.6	Misc.	
252			Ceramic	1/18.2	Misc.	
253			Fabric	27/3.3	Misc.	
254			Shell	1/.7	Button	
255		6/10-20	Metal	29/31.8	Misc.	
256			Glass	6/64.2	Misc.	
257	QER/V-2	7/0-10	Metal	2/35.4	Misc.	
258	(Pad)		Glass	2/52.4	Misc.	
259	QER/V-3	8/0-10	Metal	7/169.2	Misc.	
260	(Privy)		Wood	6/6.1	Misc.	
261			Bone	3/4.8	Faunal remains	
262		8/10-20	Metal	4/8.7	Misc.	
263		8/20-30	Metal	3/5.4	Misc.	
264			Bone	2/8.7	Faunal remains	
265	QE/Assay D.	1/Surface	Ceramic	93/2000.8	Assay debris	
266			Slag	3/7.6	Assay debris	
267		1/0-10	Ceramic	239/2958.9	Assay debris	
268		1/10-20	Ceramic	52/977.8	Assay debris	
269		Surface	Ceramic	1/68.6	Crucible frag.	
270			Slag	1/47.2	Slag button	
271			Slag	1/30.9	Slag button	
272			Dore	1/76.2	Dore debris	
273	QER/C-1	Surface	Metal	34/334.3	Misc.	
274			Glass	23/897.6	Misc.	
275			Ceramic	16/157.8	Misc.	
276	QER/G-1	Surface	Ceramic	1/63.1	Electrical insulator	
277-S.A. #1	QER/H-1	Surface	Metal	3/6.1	Misc.	
278-S.A. #2			Metal	1/885.7	Stove fragment	
279-S.A. #3			Metal	1/359.8	Coffee pot	
280-S.A. #3			Glass	3/319.0	Misc.	
281	QER/I-1	Surface	Glass	1/33.7	Bottle fragment	
282-S.A. #1	QER/J-1	Surface	Metal	5/31.3	Misc.	
283-S.A. #2			Glass	3/150.9	Misc.	
284-S.A. #3			Metal	3/180.3	Misc.	
285-S.A. #4			Metal	3/56.1	Misc.	
286-S.A. #4			Glass	1/165.6	Bottle base	
287	QER/K-1	Surface	Metal	2/134.0	Misc.	
288			Glass	1/ 324.7	Misc.	

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

289	QER/L-1	Surface	Metal	6/17.0	Buttons
290-S.A. #1	QER/M-1	Surface	Metal	1/164.7	Stove burner
291-S.A. #1			Glass	1/133.2	Glass insulator
292-S.A.#2			Metal	1/2.7	Snap
293-S.A.#2			Glass	1/.5	Misc.
294	QER/N-1	Surface	Glass	14/872.2	Misc. bottle fragments
295			Glass and shell	2/1.7	Buttons
296	QER/O-1	Surface	Glass	2/160.1	Misc.
297	QER/S-2	Surface	Metal	7/65.3	Misc.
298			Glass	14/648.1	Misc.
299	QER/T	Surface	Metal	6/270.2	Misc.
300			Glass	2/119.5	Misc.
301			Ceramic	2/23.6	Misc.
302	QER/U	Surface	Metal	1/4.1	Button
303	QER/V	Surface	Glass	9/599.8	Misc.
304			Ceramic	8/508.4	Misc.
305			Ceramic	1/138.3	Crucible fragment
306	QER/V-1	Surface	Metal	8/78.0	Misc.
307			Glass	6/196.2	Misc.
308			Ceramic	5/28.4	Misc.
309	QER/V-2	Surface	Glass	1/74.7	Jar fragment
310			Ceramic	2/615.2	Plate fragments
311	QER/V-3	Surface	Glass	1/120.6	Bottle fragment
312			Glass	1/1.6	Bottle fragment
313	QER/W	Surface	Metal	4/188.4	Misc.
314	QE/Assay Of.	Surface	Metal	1/307.3	Furnace plate
315	QE/Mill	Surface	Metal	11/723.5	Misc.
316			Glass	19/1830.8	Misc.
317			Ceramic	4/131.0	Misc.
318			Slag	1/31.7	Assay button
319			Shell	2/1.1	Buttons
320	Karma/Assay1	1/0-10	Metal	18/118.6	Misc.
321			Glass	19/108.5	Misc.
322			Ceramic	1/1.4	Misc.
323			Wood	12/11.8	Misc.
324			Slag	13/18.1	Assay debris
325		Workbench	Dore	32/32.4	Assay debris
326			Metal	1/1.2	Funnel
327	Karma/Assay2	Surface	Slag and Dore	2/74.2	Assay buttons
328		Dump-surface	Ceramic	6/669.4	Assay debris
329			Ceramic	1/64.8	Porcelain frag.
330			Slag	2/50.7	Assay buttons
331	Karma/Mill	Surface	Metal	3/590.2	Misc.
332			Glass	3/15.7	Misc.
333	SC/A-4	Surface	Glass	1/1.0	Bead
334	Independant	Surface	Metal	1/174.9	Drill bit
335	QE Mill	Surface	Metal	1/222.3	Drill bit
336	K4693/F2	1/0-10	Metal	1/380.4	Can fragment

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

337	K4693/F4	2/0-10	Glass	24/32.6	Misc. fragments
338	K4693/F4	2/0-10	Metal	2/15.2	Tin fragments, melted
339	K4693/F5	3/0-10	Glass	8/16.3	Misc. fragments
340	K4693/F5	3/0-10	Metal	40/176.1	Misc. nails
341	K4693/F5	3/0-10	Ceramic	2/11.8	Misc. fragments
342	K4693	Surface #1a	Metal	1/63.4	Knife fragment
343	K4693	Surface #1b	Metal	1/10.8	Bullet cartridge
344	K4693	Surface #2	Metal	1/238.8	Rifle barrel
345	K4693	Surface #3	Metal	1/428.3	Pan
346	K4693	Surface #4	Metal	1/0.8	Buckle
347	K4693	Surface #5	Glass	1/2.1	Jar rim
348	K4693	Surface #6	Metal	1/8.9	Shotgun cartridge
349	K4693	Surface #7	Metal	2/5.2	Clothing snaps
350	K4693	Surface #8	Glass	5/368.5	Misc. fragments
351	K4693	Surface #9	Glass	1/40.2	Bottle neck
352	K4693	Surface #10	Glass	1/73.2	Bottle base
353	K4693	Surface #11	Glass	1/75.3	Bottle base
354	K4693	Surface #12	Glass	1/35.2	Bottle fragment
355	K4693	Surface #13	Glass	3/128.2	Misc. fragments
356	K4693	Surface #14	Glass	3/158.8	Misc. fragments
357	K4693	Surface #15	Ceramic	4/75.8	Misc. fragments
358	K4693	Surface #16a	Ceramic	5/68.2	Misc. fragments
359	K4693	Surface #16b	Metal	1/35.8	Bullet cartridge
360	K4693	Surface #17	Ceramic	4/87.2	Misc. fragments
361	K4693	Surface #18a	Glass	4/210.5	Misc. fragments
362	K4693	Surface #18b	Ceramic	14/195.3	Misc. fragments
363	K4693	Surface #18c	Metal	1/15.2	Square nail
364	K4693	Surface #19	Glass	4/225.8	Misc. fragments
365	K4693	Surface #20	Glass	1/295.1	Clear bottle flask
366	K4693	Surface #21	Glass	1/22.8	Bottle base
367	K4695	Surface #1	Ceramic	1/33.5	Whiteware plate fragment
368	K4695	Surface #2	Metal	1/52.0	Herring can
369	K4695	Surface #3	Ceramic	1/15.2	Whiteware dish fragment
370	K4695	Surface #4	Metal	1/52.5	Herring can
371	K4695	Surface #5	Metal	1/51.7	Herring can
372	K4695	Surface #6	Metal	1/1.2	Meat tin
373	K4695	Surface #7	Ceramic	1/9.2	Whiteware bowl/pitcher frag
374	K4695	Surface #8	Ceramic	1/21.2	Whiteware plate fragment
375	K4695	Surface #9	Metal	1/31.6	Meat tin
376	K4695	1/0-10	Metal	19/73.2	Misc. metal frags.
377	K4695	1/0-10	Glass	26/108.2	Misc glass frags.
378	K4695	1/0-10	Ceramic	1/4.1	Whiteware cup rim
379	K4695	1/0-10	Wood	17/457.6	Misc. wood frags.
380	K4695	1/10-20	Metal	4/11.2	Misc. metal frags.
381	K4695	1/10-20	Glass	2/2.8	Window glass frags.
382	K4695	1/10-20	Ceramic	1/8.2	Whiteware vessel rim frag.
383	K4695	1/10-20	Organic	32/1.2	Egg shell fragments

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

		*KEY:			
			SC - CA-KER-4447H (Wegmen)		
			QER - CA-KER-4446H (Cobble City)		
			QE - CA-KER-4449H (Queen Esther Mill)		
			Karma Assay 1 = Upper Assay Building		
			Karma Assay 2 = Lower Assay Dump		
			K4693 = CA-KER-4693H		
			K4693 = CA-KER-4695H		
Phase III Excavations:					
384	K4446/C1	5/0-10	Metal	38/270.2	Misc. metal frags.
385	K4446/C1	5/0-10	Glass	17/87.8	Misc. metal frags.
386	K4446/C1	5/0-10	Bone	1/12.1	Faunal remains
387	K4446/C1	5/10-20	Metal	278/478.9	Misc. metal frags.
388	K4446/C1	5/10-20	Metal	1/35.9	Lamp base
389	K4446/C1	5/10-20	Glass	18/145.8	Misc. frags.
390	K4446/C1	5/10-20	Ceramic	1/13.1	Dish frag.
391	K4446/C1	5/10-20	Bone	9/10.2	Faunal remains
392	K4446/C1	5/10-20	Leather	5/12.2	Shoe frags.
393	K4446/C1	5/20-30	Metal	293/325.1	Misc. metal frags.
394	K4446/C1	5/20-30	Glass	15/51.7	Misc. glass frags.
395	K4446/C1	5/20-30	Glass	1/51.2	Bottle frag.
396	K4446/C1	5/20-30	Glass	1/51.8	Bottle frag.
397	K4446/C1	5/20-30	Bone	1/24.6	Faunal remains
398	K4446/C1	6/0-10	Metal	78/163.4	Misc. metal frags.
399	K4446/C1	6/0-10	Glass	32/71.2	Misc. glass frags.
400	K4446/C1	6/0-10	Glass	2/9.8	Bottle frags.
401	K4446/C1	6/0-10	Ceramic	3/10.2	Porcelain frags.
402	K4446/C1	6/0-10	Misc.	3/2.2	
403	K4446/C1	6/0-10	Bone	1/1.2	Faunal remains
404	K4446/C1	6/0-10	Wood	1/.8	Architectural remains
405	K4446/C1	6/0-10	Shell	5/2.8	Buttons
406	K4446/C1	6/0-10	Shell	1/3.2	Button
407	K4446/C1	6/0-10	Shell	1/.5	Button frag.
408	K4446/C1	6/0-10	Glass	1/1/.3	Button
409	K4446/C1	6/0-10	Wood	1/1.1	button
410	K4446/C1	8/0-10	Metal	112/453.1	Misc. metal frags.
411	K4446/C1	8/0-10	Glass	4/2.2	Metal clothing snaps
412	K4446/C1	8/0-10	Glass	24/52.8	Misc.glass frags.
413	K4446/C1	8/0-10	Ceramic	5/28.2	Misc. frags.
414	K4446/C1	8/0-10	Cork	1/1.6	Bottle stopper
415	K4446/C1	8/0-10	Rubber	2/.4	Non-i.d. frags.
416	K4446/C1	8/0-10	Plant remains	1/.2	Fruit pit frag.
417	K4446/C1	8/0-10	Wood	6/3.9	Architectural frags.
418	K4446/C1	8/0-10	Shell	2/1.3	Buttons
419	K4446/C1	8/0-10	Shell	2/.1	Buttons
420	K4446/C1	8/0-10	Shell	1/.3	Buttons
421	K4446/C1	8/0-10	Shell	1/.9	Button

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

422	K4446/C1	8/0-10	Glass	1/.1	Button frag.	
423	K4446/C1	8/0-10	Wood	2/1.7	Button frags.	
424	K4446/C1	8/0-10	Metal	2/1.5	Button frags.	
425	K4446/C1	8/0-10	Metal	1/1.5	Button	
426	K4446/C1	8/0-10	Metal	3/6.0	Buttons	
427	K4446/C1	8/0-10	Shell	2/1.2	Shells	
428	K4446/C1	9/0-10	Metal	73/144.5	Misc. frags.	
429	K4446/C1	9/0-10	Glass	72/153.7	Misc. frags.	
430	K4446/C1	9/0-10	Ceramic	1/1.8	Porcelain frag.	
431	K4446/C1	9/0-10	Bone	2/2.1	Faunal remains	
432	K4446/C1	9/0-10	Plant remains	8/5.2	Fruit pits	
433	K4446/C1	9/0-10	Wood	12/8.2	Architectural remains	
434	K4446/C1	9/0-10	Fabric	18/2.5	Frag.	
435	K4446/C1	10/0-10	Metal	45/108.5	Misc. frags.	
436	K4446/C1	10/0-10	Glass	32/62.3	Misc. frags.	
437	K4446/C1	10/0-10	Glass	1/4.8	Bottle top frag.	
438	K4446/C1	10/0-10	Ceramic	6/22.2	Misc. frags.	
439	K4446/C1	10/0-10	Metal	1/.9	Button frag.	
440	K4446/C1	10/0-10	Wood	1/.6	Button frag.	
441	K4446/D1	7/0-10	Metal	118/231.8	Misc. frags.	
442	K4446/D1	7/0-10	Wood	27/15.4	Architectural frags.	
443	K4446/D1	7/0-10	Glass	5/23.4	Misc. frags.	
444	K4446/D1	7/0-10	Ceramic	3/25.7	Misc. frags.	
445	K4447/A	1/0-10	Metal	35/103.4	Misc. frags.	
446	K4447/A	1/0-10	Ceramic	4/10.9	Misc. frags.	
447	K4447/A	1/0-10	Ceramic	6/120.0	Misc. frags.	
448	K4447/A	1/0-10	Leather	1/41.3	Shoe frags.	
449	K4447/A	1/0-10	Glass	110/853.9	Misc. frags.	
450	K4447/A	1/10-20	Metal	33/209.2	Misc. frags.	
451	K4447/A	1/10-20	Glass	102/419.0	Misc. frags.	
452	K4447/A	1/10-20	Ceramic	6/42.8	Misc. frags.	
453	K4447/A	1/10-20	Leather	10/27.9	Shoe frags.	
454	K4447/A	1/10-20	Egg shell	1/.2	Food remains	
455	K4447/A	1/10-20	Whale bone	1/.2	Corset stay frag.	
456	K4447/A	1/20-30	Metal	39/132.9	Misc. frags.	
457	K4447/A	1/20-30	Ceramic	7/65.2	Misc. frags.	
458	K4447/A	1/20-30	Glass	99/532.6	Misc. frags.	
459	K4447/A	1/20-30	Leather	1/39.8	Misc. frags.	
460	K4447/A	1/20-30	Bone	1/2.6	Faunal remains	
461	K4447/A	1/30-40	Metal	73/108.1	Misc. frags.	
462	K4447/A	1/30-40	Glass	81/302.3	Misc. frags.	
463	K4447/A	1/30-40	Ceramic	1/.1	Misc. frag.	
464	K4447/A	1/30-40	Leather	3/9.8	Misc. frags.	
465	K4447/A	1/30-40	Bone	1/.8	Faunal remains	
466	K4447/A	1/40-50	Metal	79/65.4	Misc. frags.	
467	K4447/A	1/40-50	Glass	61/189.8	Misc. frags.	
468	K4447/A	1/40-50	Ceramic	4/11.1	Misc. frags.	
469	K4447/A	1/40-50	Shell	1/.8	Button	

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

470	K4447/A	1/40-50	Bone	3/47.8	Faunal remains
471	K4447/A	1/50-60	Metal	62/61.4	Misc. frags.
472	K4447/A	1/50-60	Glass	43/57.9	Misc. frags.
473	K4447/A	1/50-60	Ceramic	6/41.5	Misc. frags.
474	K4447/A	1/50-60	Ceramic	1/278.1	Pipe frag.
475	K4447/A	1/50-60	Rubber(?)	1/.8	Frag.
476	K4447/A	1/60-70	Metal	55/71.1	Misc. frags.
477	K4447/A	1/60-70	Glass	80/191.6	Misc. frags.
478	K4447/A	1/60-70	Glass	1/38.6	Jar lid
479	K4447/A	1/60-70	Ceramic	5/13.6	Misc. frags.
480	K4447/A	1/70-80	Metal	44/65.5	Misc. frags.
481	K4447/A	1/70-80	Metal	1/335.6	Grease gun
482	K4447/A	1/70-80	Glass	30/151.4	Misc. frags.
483	K4447/A	1/70-80	Ceramic	3/3.6	Misc. frags.
484	K4447/A	1/70-80	Bone	1/.6	Faunal remains
485	K4447/A	1/70-80	Fabric	1/.5	Cloth frag.
486	K4447/A	1/80-90	Metal	92/286.9	Misc. frags.
487	K4447/A	1/80-90	Glass	35/67.8	Misc. frags.
488	K4447/A	1/80-90	Ceramic	3/102.6	Misc. frags.
489	K4447/A	1/80-90	Bone	11/11.9	Faunal remains
490	K4447/A	1/90-100	Metal	118/469.8	Misc. frags.
491	K4447/A	1/90-100	Glass	69/345.1	Misc. frags.
492	K4447/A	1/90-100	Glass	1/21.1	Bottle neck with cap
493	K4447/A	1/90-100	Glass	1/172.3	Bottle neck
494	K4447/A	1/90-100	Glass	1/408.1	Bottle
495	K4447/A	1/90-100	Ceramic	3/36.6	Misc. frags.
496	K4447/A	1/90-100	Bone	9/58.9	Faunal remains
497	K4447/A	1/90-100	Egg shell	7/.2	Food remains
498	K4447/A	1/100-110	Metal	155/79.4	Misc. frags.
499	K4447/A	1/100-110	Ceramic	3/226.9	Misc. frags.
500	K4447/A	1/100-110	Bone	12/383.0	Faunal remains
501	K4447/A	1/100-110	Wood	2/6.1	? frag.
502	K4447/A	1/100-110	Glass	64/929.6	Misc. frags.
503	K4447/A	1/100-110	Glass	1/47.1	Bottle frag.
504	K4447/A	1/100-110	Glass	1/26.7	Bottle frag.
505	K4447/A	1/100-110	Glass	1/117.9	Bottle
506	K4447/A	1/110-120	Metal	70/200.6	Misc. frags.
507	K4447/A	1/110-120	Glass	48/294.6	Misc. frags.
508	K4447/A	1/110-120	Glass	1/320.0	Bottle frag.
509	K4447/A	1/110-120	Ceramic	3/47.8	Misc. frags.
510	K4447/A	1/110-120	Bone	2/5.2	Faunal remains
511	K4447/A	1/110-120	Bone	1/.5	Button
512	K4447/A	1/110-120	Egg shell	1/.1	Food remains
513	K4447/A	1/110-120	Whale bone	1/.9	Corset stay frag.
514	K4447/A	1/110-120	Metal	1/4.1	Button
515	K4447/A	2/0-10	Metal	19/65.3	Misc. frags.
516	K4447/A	2/0-10	Glass	87/352.1	Misc. frags.
517	K4447/A	2/0-10	Ceramic	7/22.8	Misc. frags.

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

518	K4447/A	2/10-20	Metal	41/29.1	Misc. frags.	
519	K4447/A	2/10-20	Glass	55/135.7	Misc. frags.	
520	K4447/A	2/10-20	Ceramic	5/32.2	Misc. frags.	
521	K4447/A	2/10-20	Leather	1/.8	Frag.	
522	K4447/A	2/20-30	Metal	10/13.2	Misc. frags.	
523	K4447/A	2/20-30	Glass	17/80.4	Misc. frags.	
524	K4447/A	2/20-30	Ceramic	1/5.5	Frag.	
525	K4447/A	2/20-30	Glass	1/27.5	Ink bottle frag.	
526	K4447/A	2/30-40	Glass	40/221.5	Misc. frags.	
527	K4447/A	2/20-30	Metal	11/22.8	Misc. frags.	
528	K4447/A	2/30-40	Ceramic	2/6.4	Misc. frags.	
529	K4447/A	2/30-40	Whalebone	1/.4	Corset frag.	
530	K4447/A	2/40-50	Glass	32/222.6	Misc. frags.	
531	K4447/A	2/40-50	Ceramic	2/14.2	Misc. frags.	
532	K4447/A	2/50-60	Metal	15/37.2	Misc. frags.	
533	K4447/A	2/50-60	Glass	14/68.1	Misc. frags.	
534	K4447/A	2/50-60	Leather	2/6.4	Shoe frags.	
535	K4447/A	2/40-50	Glass	1/58.2	Bottle frag.	
536	K4447/A	2/60-70	Metal	13/21.8	Misc. frags.	
537	K4447/A	2/60-70	Glass	18/30.6	Misc. frags.	
538	K4447/A	2/60-70	Glass	1/42.4	Bottle frag.	
539	K4447/A	2/60-70	Ceramic	2/7.9	Frag.	
540	K4447/A	2/70-80	Metal	54/108.9	Misc. frags.	
541	K4447/A	2/70-80	Glass	38/184.5	Misc. frags.	
542	K4447/A	2/70-80	Ceramic	7/21.2	Misc. frags.	
543	K4447/A	2/70-80	Bone	1/1.2	Faunal remains	
544	K4447/A	2/80-90	Metal	93/90.6	Misc. frags.	
545	K4447/A	2/80-90	Ceramic	7/31.2	Misc. frags.	
546	K4447/A	2/80-90	Glass	19/60.2	Misc. frags.	
547	K4447/A	2/80-90	Glass	1/28.4	Jar frag.	
548	K4447/A	2/80-90	Glass	1/20.3	Bottle frag.	
549	K4447/A	2/80-90	Leather	1/1.8	Frag.	
550	K4447/A	2/90-100	Metal	66/186.4	Misc. frags.	
551	K4447/A	2/90-100	Glass	39/217.4	Misc. frags.	
552	K4447/A	2/90-100	Ceramic	3/15.3	Misc. frags.	
553	K4447/A	2/90-100	Bone	2/3.2	Faunal remains	
554	K4447/A	2/90-100	Leather	1/.9	Frag.	
555	K4447/A	2/90-100	Rubber	1/3.7	Frag.	
556	K4447/A	2/90-100	Glass	1/1.0	Button	
557	K4447/A	2/90-100	Metal	1/.5	Snap	
558	K4447/A	2/90-100	Wood	15/9.2	Architectural remains	
559	K4447/A	2/90-100	Earthenware	2/461.2	Pipe frags.	
560	K4447/A	2/100-110	Metal	178/768.2	Misc. frags.	
561	K4447/A	2/100-110	Glass	2/1.5	Misc. frags.	
562	K4447/A	2/100-110	Earthenware	4/4.5 lbs.	Pipe frags.	
563	K4447/A	2/100-110	Ceramic	13/95.1	Misc. frags.	
564	K4447/A	2/100-110	Bone	15/21.0	Faunal remains	
565	K4447/A	2/100-110	Leather	7/27.6	Glove frags.	

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

612	K4447/H-N3	5/0-10	Bone	24/23.9	Faunal remains	
613	K4447/H-N3	5/0-10	Ceramic	6/5.4	Misc. frags.	
614	K4447/H-N3	5/0-10	Rubber, plastic	14/30.2	Misc. frags.	
K4447H-H						
615	K4447/H-H	9/0-10	Metal	21/5 lbs.	Misc.	
616	K4447/H-H	9/0-10	Glass	1/130.0	Frag.	
617	K4447/H-H	9/10-20	Metal	8/140.0	Misc. frags.	
618	K4447/H-H	9/10-20	Glass	53/320.9	Misc. frags.	
619	K4447/H-H	9/10-20	Bone	3/2.8	Faunal remains	
620	K4447/H-H	9/10-20	Fabric	8/4.8	Frag.	
621	K4447/H-H	9/10-20	Metal	1/2.6	Button	
622	K4447/H-H	9/10-20	Ceramic	9/52.2	Misc. frags.	
623	K4447/H-H	9/10-20	Ceramic	1/2.8	Frag. with mark.	
649	K4447/H-H	9/20-30	Glass	26/101.9	Misc. frags.	
650	K4447/H-H	9/20-30	Metal	4/65.7	Misc. frags.	
651	K4447/H-H	9/20-30	Ceramic	18.2	Misc. frags.	
652	K4447/H-H	9/20-30	Tar paper	1/6.0	Misc. frags.	
K4447H-O						
624	K4447/H-O	3/0-10	Metal	6/104.8	Misc. frags.	
625	K4447/H-O	3/0-10	Glass	35/118.8	Misc. frags.	
626	K4447/H-O	3/0-10	Ceramic	4/5.8	Misc. frags.	
627	K4447/H-O	3/0-10	Bone	320/603.8	Faunal remains	
628	K4447/H-O	3/0-10	Fruit pit	1/2.2	Food remains	
629	K4447/H-O	3/10-20	Glass	1/.8	Misc. frags.	
630	K4447/H-O	3/10-20	Bone	53/94.2	Faunal remains	
631	K4447/H-O	3/10-20	Metal	1/5.2	Misc. frags.	
632	K4447/H-O	7/0-10	Glass	24/258.6	Misc. frags.	
633	K4447/H-O	7/0-10	Metal	8/405.6	Misc. frags.	
634	K4447/H-O	7/0-10	Ceramic	4/26.6	Misc. frags.	
635	K4447/H-O	7/0-10	Rubber	2/5.2	Misc. frags.	
636	K4447/H-O	7/0-10	Bone	ca. 1,000/1,015.5	Faunal remains	
637	K4447/H-O	7/10-20	Bone	ca. 500/390.5	Faunal remains	
638	K4447/H-O	7/0-10	Ceramic	2/8.6	Misc. frags.	
639	K4447/H-O	7/0-10	Glass	28/15.6	Misc. frags.	
640	K4447/H-O	7/0-10	Ceramic	2/3.2	Misc. frags.	
641	K4447/H-O	7/0-10	Bone	ca. 1,000/511.4	Faunal remains	
642	K4447/H-O	7/0-10	Metal	19/558.1	Misc. frags.	
643	K4447/H-O	7/0-10	Shell	1/4.2	Button	
644	K4447/H-O	8/10-20	Glass	2/2.2	Misc. frags.	
645	K4447/H-O	8/10-20	Bone	87/178.8	Faunal remains	
K4447H-N4						
646	K4447/H-N4	6/0-10	Metal	2/87.4	Misc. frags.	
647	K4447/H-N4	6/0-10	Wood	1/.4	Architectural frag.	
648	K4447/H-N4	6/0-10	Bone	1/1.2	Faunal remains	
K4446H - J-1						
653	K4446/J-1	1/0-10	Metal	153/262.5	Misc. frags.	
654	K4446/J-1	1/0-10	Glass	39/292.2	Misc. frags.	
655	K4446/J-1	1/0-10	Plastic	1/.3	Frag.	

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656	K4446/J-1	1/0-10	Fabric	1/.4	Misc. frags.	
657	K4446/J-1	1/0-10	Shell	10/.8	Buttons	
658	K4446/J-1	1/10-20	Metal	78/169.1	Misc. frags.	
659	K4446/J-1	1/10-20	Glass	38/290.0	Misc. frags.	
660	K4446/J-1	1/10-20	Wood	1/.7	Button	
661	K4446/J-1	1/20-30	Metal	70/103.2	Misc. frags.	
662	K4446/J-1	1/20-30	Glass	7/108.0	Misc. frags.	
663	K4446/J-1	1/20-30	Leather	1/8.2	Frag.	
664	K4446/J-1	1/20-30	Glass	1/1.0	Misc. frags.	
665	K4446/J-1	1/30-40	Metal	29/15.5	Misc. frags.	
666	K4446/J-1	1/30-40	Metal	23/35.8	Misc. frags.	
667	K4446/J-1	1/30-40	Glass	33/143.2	Misc. frags.	
668	K4446/J-1	1/30-40	Fabric	58/3.2	Misc. frags.	
669	K4446/J-1	1/30-40	Ceramic	1/48.6	Frag.	
670	K4446/J-1	1/30-40	Bone	1/1.5	Faunal remains	
671	K4446/J-1	1/40-50	Metal	13/28.2	Misc. frags.	
672	K4446/J-1	1/40-50	Glass	7/24.0	Misc. frags.	
673	K4446/J-1	1/40-50	Metal	5/15.8	Snaps and buckles	
674	K4446/J-1	1/40-50	Fabric	6/2.3	Frag.	
675	K4446/J-1	1/40-50	Shell	2/.4	Buttons	
K4446H - J-2						
676	K4446/J-2	2/0-10	Metal	23/40.7	Misc. frags.	
677	K4446/J-2	2/0-10	Glass	55/352.8	Misc. frags.	
678	K4446/J-2	2/0-10	Bone	9/34.2	Faunal remains	
679	K4446/J-2	2/0-10	Ceramic	26/198.8	Misc. frags.	
680	K4446/J-2	2/0-10	Leather	6/8.7	Frag.	
681	K4446/J-2	2/0-10	Metal	6/11.5	Snaps and buttons.	
682	K4446/J-2	2/0-10	Shell	1/.7	Button	
683	K4446/J-2	2/0-10	Glass	9/14.2	Misc. frags.	
K4446H - J-3						
684	K4446/J-3	3/0-10	Metal	54/228.9	Misc. frags.	
685	K4446/J-3	3/0-10	Glass	18/186.5	Misc. frags.	
686	K4446/J-3	3/0-10	Leather	5/15.2	Misc. frags.	
687	K4446/J-3	3/0-10	Cork	1/2.1	Bottle cork.	
688	K4446/J-3	3/0-10	Metal	8/11.5	Button and snaps.	
689	K4446/J-3	3/10-20	Metal	63/213.8	Misc. frags.	
690	K4446/J-3	3/10-20	Glass	52/445.9	Misc. frags.	
691	K4446/J-3	3/10-20	Fabric	15/9.2	Frag.	
692	K4446/J-3	3/10-20	Metal	16/49.3	Buckle and snaps.	
K4446H - J-1 (south room)						
714	K4446/H/J-1	12/0-10	Metal	26/45.3	Misc. frags.	
715	K4446/H/J-1	12/0-10	Glass	2/1.8	Misc. frags.	
716	K4446/H/J-1	12/0-10	Cork	1/.1	Frag.	
717	K4446/H/J-1	12/0-10	Metal	1/2.2	.22 shell.	
718	K4446/H/J-1	12/0-10	Bone	4/.9	Faunal remains	
719	K4446/H/J-1	12/0-10	Eggshell	2/.1	Food remains	
720	K4446/H/J-1	12/10-20	Metal	17/97.7	Misc. frags.	
721	K4446/H/J-1	12/10-20	Glass	1/61.7	Frag.	

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

722	K4446/H/J-1	12/10-20	Tar paper, etc.	100/30.8	Misc. frags.
723	K4446/H/J-1	12/10-20	Bone	2/2.8	Faunal remains
724	K4446/H/J-1	12/10-20	Eggshell	1/.1	Food remains
725	K4446/H/J-1	12/10-20	Brass	1/.9	Button
726	K4446/H/J-1	12/10-20	Shell	1/1.0	Button
727	K4446/H/J-1	12/20-30	Metal	77/107.5	Misc. frags.
728	K4446/H/J-1	12/20-30	Glass	3/2.8	Frag.
729	K4446/H/J-1	12/20-30	Bone	1/2.6	Faunal remains
730	K4446/H/J-1	12/20-30	Eggshell	1/.1	Food remains
K4446H - L-1					
783	K4446/H/L-1	4/0-10	Metal	28/194.2	Misc. frags.
784	K4446/H/L-1	4/0-10	Glass	26/21.5	Misc. frags.
785	K4446/H/L-1	4/10-20	Metal	14/66.0	Misc. frags.
786	K4446/H/L-1	4/10-20	Glass	9/8.3	Misc. frags.
787	K4446/H/L-1	4/10-20	Ceramic	1/1.8	Frag.
788	K4446/H/L-1	4/20-30	Metal	9/40.3	Misc. frags.
789	K4446/H/L-1	4/20-30	Glass	6/12.7	Misc. frags.
790	K4446/H/L-1	4/20-30	Shell	1/.1	Misc. frags.
791	K4446/H/L-1	4/30-40	Metal	9/46.3	Misc. frags.
792	K4446/H/L-1	4/30-40	Leather	3/6.3	? frags.
793	K4446/H/L-1	4/30-40	Metal	2/6.5	Buttons.
794	K4446/H/L-1	4/40-50	Metal	38/96.3	Misc. frags.
795	K4446/H/L-1	4/40-50	Glass	4/14.4	Misc. frags.
796	K4446/H/L-1	4/40-50	Bone	21/94.9	Faunal remains
698	K4446/H/L-1	4/40-50	Leather	1/6.6	? frag.
699	K4446/H/L-1	4/40-50	Fabric	5/1.5	Frags.
700	K4446/H/L-1	4/50-60	Metal	9/121.6	Misc. frags.
701	K4446/H/L-1	4/50-60	Bone	4/61.5	Faunal remains
702	K4446/H/L-1	4/50-60	Shell	2/.8	Buttons.
K4449H - Queen Esther Mill					
693	K4449/H	1/0-10	Metal	11/90.8	Misc. frags.
694	K4449/H	1/0-10	Glass	28/48.2	Misc. frags.
695	K4449/H	2/0-10	Metal	219/448.9	Misc. frags.
696	K4449/H	2/0-10	Glass	21/101.2	Misc. frags.
769	K4449/H	2/0-10	Ceramic	1/30.3	Crucible frag.
770	K4449/H	2/0-10	Canvas	3/6.4	Hose frag.
771	K4449/H	2/0-10	Wood	3/10.4	Misc. frags.
772	K4449/H	2/0-10	Metal	2/10.8	Buckle and button.
K4448H - Karma Mill, upper assay office					
773	K4448/H	1/0-10	Glass	1/1.8	Misc. frags.
774	K4448/H	1/0-10	Dore	33/33.6	Assay buttons
775	K4448/H	1/0-10	Ceramic	1/31.3	Cupule.
776	K4448/H	portal tunnel- surface		1/215.8	Newspaper frags
777	K4448/H	1/0-10	Ceramic	1/261.0	Crucible frag.
778	K4448/H	1/0-10	Slag	120/182.8	Frags.
779	K4448/H	1/0-10	Ceramic	13/123.5	Misc. frags.
780	K4448/H	1/0-10	Eggshell	1/.1	Faunal remains
781	K4448/H	1/0-10	Rubber	1/3.8	Test tube stopper

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN

782	K4448/H	1/0-10	Metal	50/434.8	Misc. frags.
697	K4448/H	1/0-10	Glass	78/269.8	Misc. frags.
Surface Collection					
Cobble City					
703			Glass	1/27.4	Frag.
704			Metal	1/9.4	Watch rim
705			Iron	1/457.3	Horse shoe
706			Tin	1/101.0	Lamp piece
707			Metal	1/10.7	Shotgun cartridge
708			Metal	1/.7	Button
709			Ceramic	1/61.9	Frag.
710					
Wegmen					
711			Ceramic	1/40.3	Insulator
712			Ceramic	1/167.7	Frag.
713			Ceramic	1/46.2	Frag.
Queen Esther mill					
731	S.A. 1		Newspaper	1/79.4	Frag.
732	S.A. 2		Fabric, metal	12/88.5	Clothing frags.
733	S.A. 3		Shell	2/1.4	Buttons
734	S.A. 4		Glass	1/7.6	Bottle frag.
735			Ceramic	68/20 lbs.	Crucible frags.
Karma assay office B					
736			Brick, slag	6/898.6	Oven frags.
737			Ceramic	2/260.6	Insulator
738			Slag	2/28.8	Frag.
739			Ceramic	3/89.6	Cupule frags.
740			Metal, ceramic	1/74.1	Light frag.
741			Ceramic	2/8.2	Frag.
Karma assay office A					
Surface outside of unit					
742			Ceramic	17/10 lbs.	Crucible frags.
743			Ceramic	35/1434.4	Cupule frags.
744			Glass	3/27.9	Frag.
745			Slag	1/21.1	Frag.
N.E. Quad.					
746			Metal	2/66.9	Misc. frags.
747			Glass	9/21.4	Misc. frags.
748			Ceramic	24/1021.2	Crucible frags.
749			Ceramic	5/131.2	Cupule frags.
750			Slag	15/34.7	Frag.
751			Brick, slag	8/179.8	Oven debris
S.W. Quad.					
752			Ceramic	14/425.9	Cupule frags.
753			Ceramic	21/1945.6	Crucible frags.
754			Slag	8/21.2	Frag.
755			Glass	1/7.6	Frag.
756			Ceramic	1/.8	Frag.

TABLE 1: ARTIFACT CATALOG, SOLEDAD MOUNTAIN[illegible]

TABLE 2: METAL ARTIFACTS

Catalog #	#/wt (gms)	Description				
(Site/Feature)						
SC/Wegman						
SC/A-2 (Unit 1)						
1	5/20.9	Wire cut nails.				
4	4/13.6	Wire cut nails.				
7	7/41.7	Wire cut nails.				
10	17/50.0	Wire cut nails.				
SC/A-4 (Unit 2)						
16	2/1.0	Misc. non-i.d.				
24	20/38.9	4 wire cut nails, 1 bicycle spoke, 16 can fragments.				
29	72/90.2	5 wire cut nails, 5 wire fragments, 2 pieces foil, 2 metal bands, ? i.d., 54 can fragments, 4 non-i.d.				
38	196/400.0	2 wire cut nails, 1 eyelet, 1 champagne bottle wire cork cover, 185 can fragments, 7 non-i.d.				
49	72/248.2	2 wire nails, 1 hand-hewn nail, 2 wire fragments, 67 can fragments, 1 non-i.d.				
55	81/159.9	6 wire cut nails, 3 wire fragments, 68 can fragments, 3 non-i.d.				
61	85/729.2	2 large wire cut nails, 1 large metal band, 1 metal fruit jar type lid, 78 can fragments				
68	207/699.0	5 wire cut nails, 5 wire fragments, 2 eyelets, 1 bullet cartridge marked with an "E P" on the base, 1 piece foil, 190 can fragments, 3 non-i.d.				
77	233/379.2	4 wire cut nails, 4 wire fragments, 220 can fragments, 5 non-i.d.				
SC/M (Unit 3)						
90	108/624.8	21 wire cut nails, 3 pieces wire, 7 rectangular tobacco tin fragments, 2 key type can openers, 2 washers, 1 small metal ring, 1 piece decorative cast-iron- decorative, 2 jar lids, 1 piece of a lock mechanism, 2 hole-in-top milk cans (6.0x6.5x6.5), 1 ? i.d. hole-in-top can (10.8x7.8x7.5), 3 pieces foil, 1 non-i.d. metal band				
99	38/25.3	2 wire cut nails, 1 eyelet, 1 flat handle, 1 screw, 33 can fragments				
104	20/13.6	19 can fragments, 1 fence staple				
106	190/5104.0	18 wire cut nails, 1 large nut, 1 rivet, 2 crimped bottle caps, 25 pieces wire mesh screen, 5 pieces wire, 63 hole-in-top cans: 31- 11.0x7.5x7.5, 5- 11.5x10.0x10.0, 2- 10.0x8.0x1.0, 25- ? dimensions, 75 non-i.d. can fragments				
111	57/92.0	7 wire cut nails, 8 pieces screen, 42 can fragments				
SC/A-2 (Surface)						
126	1/71.3	Ornate, cast-iron door hinge fragment				
127	1/19.6	Spoon, mark on back of handle- "WI" over "VI"				
SC/H (Surface)						
143	1/9.8	Bullet cartridge with mark on base- "W.R.A.Co., 32 W.8."				
SC/I (Surface)						
146	1/3.8	Bottle top with mark- a star surrounded by lettering, largely illegible, "....Angeles S...."				
147	1/89.7	Thermostat cover with thermometer				
SC/O (Surface)						
150	1/10.3	Small cogged wheel- clock mechanism				

TABLE 2: METAL ARTIFACTS

Echo Mill (Unit 1)						
154	8/43.8	1 hand-hewn nail, 1 washer, 6 misc. non-i.d. fragments				
160	7/10.5	Misc. non-i.d.				
166	5/31.8	Misc. non-i.d.				
170	1/.7	Misc. non-i.d.				
177	3/16.8	1 wire cut nail, 2 non-i.d.				
178	1/3.6	Bullet cartridge with mark- "U.M.C. S H .38 LONG."				
181	6/4.1	Misc. non-i.d.				
185	2/.9	Misc. non-i.d.				
QER/Cobble City						
QER/H-1 (Unit 1)						
201	57/285.8	18 wire cut nails, 37 can fragments, 2 shotgun shell cartridges				
206	61/100.1	16 wire cut nails, 5 screw fragments, 1 piece wire, 3 eyelets, 38 can fragments				
212	27/33.0	5 wire cut nails, 2 pieces window screen, 20 can fragments				
QER/H-1 (Unit 2)						
217	31/92.4	25 wire cut nails, 9 can fragments				
QER/J-1 (Unit 3)						
222	2/232.1	2 hole-in-top cans				
224	37/85.9	2 wire cut nails, 2 wire fragments, 1 button, 31 can fragments, 1 non-i.d.				
232	26/22.1	3 pieces screen, 23 can fragments				
QER/M-1 (Unit 5)						
237	54/51.2	2 pieces screen, 1 eyelet, 52 can fragments				
241	26/14.9	26 can fragments				
243	42/47.9	42 can fragments				
246	3/7.4	Buttons				
247	38/28.6	38 can fragments				
QER/V (Unit 6)						
249	37/75.3	Can fragments				
250	221/236.2	32 pieces screen, 187 can fragments				
255	29/31.8	Can fragments				
QER/V-2 (Unit 7)						
257	2/35.4	2 large wire cut nails				
QER/V-3 (Unit 8)						
259	7/169.2	7 fragments of a large "paint-type" can				
262	4/8.7	3 wire cut nails, 1 can fragment				
263	3/5.4	1 hand-hewn nail, 1 snap fragment, 1 buckle fragment				
QER/C-1 (surface)						
273	34/334.3	6 pieces of clockwork mechanism, 2 wire cut nails pushed through metal discs - roofing nails, 1 garter-holder ("Velvet Grip, Boston Garter, Pat. 12-13-92, c. 12-31-95"), 1 button, 2 jar lids ("Genuine Boyd Cap for Mason Jars" with a crescent moon and star in the center), 1 cosmetic jar lid with mark- "Mrs. Nellie(?) Harrison, San Francisco, Cal." around edge with a woman's profile in the center over "Dermatologist", 1 jar lid with mark- "Schilling's Best, 16 oz.", 1 champagne cork holder, 1 crimped bottle cap, 1 cast-iron hinge fragment, 1 electrical object (? i.d.), 2 corset stays, 1 kitchen knife, 2 ledger hook stays, 6 non-i.d.				

TABLE 2: METAL ARTIFACTS

QER/H-1 (surface)					
277	3/6.1	2 buttons, 1 cover-all bib clip			
278	1/885.7	Ornate cast-iron stove leg			
279	1/359.8	Coffee pot			
QER/J-1 (surface)					
282	5/31.3	1 screw-on bottle top, 1 pocket watch cover, 3 buttons			
284	3/180.3	1 ? i.d. ornate cast-iron fragment, 1 pulley, 1 conveyor belt clip			
285	3/56.1	3 conveyor belt clips			
QER/K-1 (surface)					
287	2/134.0	2 chest latches			
QER/L-1 (surface)					
289	6/17.0	Buttons			
QER/M-1 (surface)					
290	1/164.7	Stove burner, kerosene			
292	1/2.7	Clothing snap			
QER/S-2 (surface)					
297	7/65.3	2 pocket watch parts, 1 with inscribed markings- "Mfg. by the Ansonia Clock Co., New York, U.S. of America, Pat. April 17, 1888", 2 fragments of an engineering scale, 2 washers, 1 bullet cartridge with mark-"W.R.A. Co. 32 W.C.F."			
QER/T (surface)					
299	6/270.2	1 electrical lamp socket, 2 auto spark plugs (metal and porcelain), 1 faucet key, 1 large fence staple, 2 buttons			
QER/U (surface)					
302	1/4.1	Button			
QER/V-1 (surface)					
306	8/98.0	3 crimped bottle caps, 1 champagne cork holder, 1 rectangular cap, 1 salt and pepper top, 1 bent thick wire handle, 1 coiled wire spring			
QER/W (surface)					
313	4/188.9	2 washers, 1 safety pin, 1 cast-iron ? i.d. object			
Q.E. Assay Office (surface)					
314	1/307.7	Muffel furnace cast-iron plate with mark, "Pat June 16 1886"			
Q.E. Mill (surface)					
315	11/723.5	7 buttons, 2 electrical light-bulb sockets, 1 canteen, 1 bullet cartridge with mark "U.M.C. 32 S&W"			
Karma Assay 1 (Unit 1)					
320	18/118.6	4 wire cut nails, 1 large screw, 1 large nut, 1 buckle fragment, 11 can fragments			
326	1/1.2	Small funnel			
Karma Mill (surface)					
331	3/590.2	1 large hand-hewn metal bar, a large hand-hewn nail, 1 bullet cartridge with mark- "U.S.C. Co. Gov."			
Independant (surface)					
334	1/174.9	Lubricated chisel type drill bit			
Q.E. Mill (surface)					
335	1/222.3	Lubricated star type drill bit			
K4693/H					
336	1/380.4	Fragment of can cut into band.			
338	2/15.2	Tin fragments; melted.			

TABLE 2: METAL ARTIFACTS

340	40/176.1	22 large (8 cm) & 10 small (4 cm) wire cut nails; 2 wire cut tacks (1.2 cm); 1 square cut nail; 1 wire fragment; 4 misc. flat pieces of metal.
342	1/63.4	Tableware knife handle/tang broken at base of blade; 11.4x1.7x0.4 cm.
343	1/10.8	Rifle cartridge, stamped "W.R.A. Co." over "90 W.C.F."
344	1/238.8	Rifle barrel, flattened and split, with threads present at one end; total length - 36.8 cm; approx. diameter - 1.5 cm.
345	1/428.3	Tin metal "pan" made out of metal canteen, with cork hole covered w/ soldered patch. (Dimensions 25.6x25.2x6.4).
346	1/0.8	Strap buckle/adjustor for light clothing
348	1/8.9	Shotgun shell cartridge, stamped w/ "1901" over "No. 12" over "REPEATER".
349	2/5.2	2 small clothing snaps
359	1/35.8	Rifle cartridge w/ stamp "W.R.A. Co." over "44 W.C.F."
363	1/15.2	Fragment of hand-made square nail
K4695/H		
368	1/52.0	Tin herring can; rectangular (15.0x4.8x2.1) w/ key opener; stamped "KIPPERED HERRING" over "PACKED IN NORWAY".
370	1/52.5	Tin herring can; identical to #368.
371	1/51.7	Tin herring can; identical to #368.
372	1/1.2	Base of small rectangular tin can; stamped "BRASIL" over "INSPECCIONADO" over "7" over "S.I.E."; probably a meat tin. (8.0x6.4x1.9)
375	1/31.6	Base of small rectangular tin; stamped in circular pattern "Y A O"; (8.0x5.8x2.0).
376	19/73.2	Misc. metal objects: 7 wire cut nails; 8 can frags.; 1 sanitary seal can base; 1 frag. door hardware; 1 crown bottle top; 1 frag. lead pipe; 1 shotgun shell cartridge stamped 'SEARS" over "12 Ga" over "SPORTLOAD".
380	4/11.2	Misc. metal objects: 2 tacks; 1 wood screw; 1 spring-loaded hinge.
PHASE 3 SALVAGE EXCAVATIONS		
K4446/C-1		
384	38/270.2	Misc. metal objects: 30 can frags.- 4 welded; 3 window screen frags.; 1 crimped bottle top; 4 wire frags.
387	278/478.9	Misc. metal objects: 227 can frags.; 18 wire frags.; large wire-cut nail; 25 window screen frags.
388	1/35.9	Tin kerosine lamp base- stamped with a floral decorative pattern
393	293/325.1	Misc. metal objects: 272 can frags.; 2 large wire-cut nails; 13 wire frags.; 1 tin wallpaper disc.
398	78/163.4	Misc. metal frags.: 7 can frags.; 2 shoe eyelets; 1 coiled spring; 17 wallpaper discs; 48 wire-cut nails; 3 wire frags.; 2 safety pins.
410	112/453.1	Misc. metal frags.: 89 wire-cut nails; 5 hand-hewn nails; 2 frags. of a metal angled brace; 13 wallpaper disc; 1 fence staple; 1 shoe eyelet; 1 metal hook fragment; 1 straight pin.
411	4/2.2	Metal snaps.
428	73/144.5	17 wallpaper discs (1 square); 1 metal spool; 1 small metal star with central perforation; 48 wire-cut nails; 1 hand-hewn nail; 6 can frags.
435	45/108.5	43 wire-cut nails; 1 can rim frag.; 1 wallpaper disc. frag.
441	118/231.8	92 can frags.; 1 wire frag.; 25 wire-cut nails.

TABLE 2: METAL ARTIFACTS

445	35/103.4	13 wire-cut nails; 18 can frags.; 1 wire frag.; 1 corset stay frag.; 1 rivet frag.; 1 snap frag.
450	33/209.2	1 metal grill frag.; 12 wire-cut nails; 18 can frags.; 1 wire frag.; 1 metal snap.
456	39/132.9	Misc. metal frags.: 4 pieces wire, 14 wire-cut nails, 1 screw, 20 can frags. including 1 sanitary seal top.
461	73/108.1	Misc. metal frags.: 5 wire-cut nails; 2 square nails; 1 screw; 1 rivet with a small floral design; 1 shoe hook; 1 "push-in" circular metal container top.
466	79/65.4	Misc. metal frags.: 6 shoe eyelets; 5 wire cut-nails; 1 screw; 1 metal rim from a jar lid; 66 can frags.
471	62/61.4	Misc. metal frags.: 6 wire-cut nails; 1 screw; 1 .22 shell; 1 pc. wire from a Hutchison bottle stopper (1879-early 1900's; Polak p. 23); 57 can frags.
476	55/71.1	Misc. metal frags.: 6 wire-cut nails; 1 piece wire from a Hutchison bottle stopper; 1 wallpaper disc; 46 can frags.; 1 "steel wool" type material frag.
480	44/65.5	Misc. metal frags.: 6 wire-cut nails, 38 can frags.
481	1/335.6	Grease gun.
486	92/286.9	Misc. metal frags.: 3 wire-cut nails; 5 square-nail frags.; 1 metal and cork bottle cap; 83 can frags.
490	118/469.8	Misc. metal frags.; 118 can frags.; 1 cork and metal bottle cap ("Crown" cork closure, 1891-present: Polak p. 23); 2 wire-cut nails; 2 square-nails; 1 wire Hutchison stopper frag.; 1 hook or chain frag.
498	155/79.4	Misc. metal frags.: 141 can frags.; 3 cork and metal Crown caps; 3 wire-cut nails; 1 square-nail; 1 small hinge frag.; 1 large metal cap (?); 1 set of clock gears; 1 frag. of "steel wool".
506	70/200.6	Misc. metal frags.: 67 can frags., including the base of a large hole-in-top type can; 2 large wire-cut nails; 1 piece thick wire.
514	1/4.1	Stem button with Carhartt's logo- cable car, heart and "the brand" embossed.
515	19/65.3	Misc. frags.: 13 can frags.
518	4/29.1	Misc. frags.: 40 can frags.; 1 wire-cut nail
522	10/13.2	Misc. frags.: 9 can frags.; 1 crimped bottle cap.
527	11/22.8	Misc. frags.: 10 can frags.; 1 wire-cut nail.
532	15/37.8	Misc. frags.: 11 can frags.; 3 wire-cut nails; 1 wallpaper disc.
536	13/21.8	Misc. frags.: 10 can frags.; 3 wire-cut nails.
540	54/108.9	Misc. frags.: 45 can frags.; 8 wire-cut nails; key-type can opener with can strip wrapped around it.
544	93/90.6	Misc. frags.: 92 can frags.; 1 wire-cut nail.
550	66/186.4	Misc. frags.: 55 can frags.; 5 wire-cut nails; 4 wire frags.; 1 wire frag. with a forked end; 1 pc. laminated metal strap.
560	2/250.8	Spoked wheel rim and hub with a narrow rim; baby buggy or bicycle type.
561	178/768.2	Misc. frags.: 168 can frags.; 6 wire-cut nails; 1 pc. wire; 3 large shoe eyelets.
571	182/483.2	Misc. frags.: 170 can frags.; 7 wire-cut nails; 1 pc. thick wire; 2 pcs. bottle cap wire; 1 shoe eyelet; 1 staple.
579	175/437.2	Misc. frags.: 170 can frags.; 3 wire-cut nails; 1 overall strap hook; 1 wire fra
584	310/504.8	Can frags.
590	78/148.2	Misc. frags.: 76 can frags.; 1 wire-cut nail frag.; 1 metal strap.
598	73/136.6	Can frags.
601	1/9.6	Wire frags.

TABLE 2: METAL ARTIFACTS

603	4/16.7	Misc. frags.: 3 wire-cut nails; 1 can frags.		
606	23/7.6	Misc. frags.: 3 wire-cut nails; window screen frags.		
609	93/1,658.9	Misc. frags.: 1 tobacco tin; 2 harmonica frags.; 2 can frags.; 1 screw-top; 1 fork; 1 wallpaper disc.; 1 crown top; 2 can keys; 4 .22 shells; 58 wire-cut nails; 1 razor blade; 2 hand-hewn nails; 1 chain link; 4 railroad spikes; 3 fence staples; 1 "Colgate" shaving cream tube; 1 brass snuff box; 5 non-i.d. metal frags; 8 sanitary seal cans and frags.; thermometer register frag.		
K4447/H-H				
615	21/6 lbs.	21 hole-in-top cans.		
617	8/140.0	Misc. frags.: 6 can frags.; 1 wire-cut nail; 1 rectangular tin (ciggarete?).		
650	4/65.7	1 large wire-cut nail; 2 can frags.; 1 square nut.		
K4447/H-O				
624	6/104.8	Misc. frags.: 5 can frags.; 1 wire-cut nail.		
631	1/5.2	Wire-cut nail.		
633	8/405.6	7 cans, hole-in-top; 1 shoe eyelet.		
642	19/558.1	Misc. frags.: 16 cans and frags., some sanitary seal; 1 rectangular can; 2 wire-cut nails.		
K4447/H-N-4				
646	2/87.4	1 hole-in-top can; can frags.		
K4447/J-1				
653	153/262.5	150 can frags.; 2 shoe eyes; 1 snap frag.		
658	78/169.1	75 can frags.; 2 wire-cut nails; 1 buckle frag; 1 snap.		
661	70/108.0	64 can frags.; 5 snaps; 1 wire-cut nail.		
665	29/15.5	18 can frags.; 4 small screw frags.; 1 tack; 6 shoe eyelets.		
671	13/28.2	11 can frags.; 2 screen frags.		
K4447/J-2				
676	23/40.7	16 can frags.; 2 wire-cut nails; 1 screen frag.; 1 square nut; 2 eyelets; 1 piece foil.		
K4447/J-3				
684	54/228.9	54 can frags.; 2 wire-cut nails.		
689	63/213.8	60 can frags.; 2 wire-cut nails; 1 wire frag.; 1 hole-in-top can.		
692	16/49.3	3 buckle frags.; 13 snaps.		
K4449/H- Q.E. Mill.				
693	11/90.8	5 wire-cut nails; 1 hand-hewn nail; 4 misc. tin frags.; light bulb base frag.		
695	219/448.9	95 wire-cut nails; 9 screen pieces; 3 pieces wire; 1 large square nut, 7 misc.		
772	2/10.8	Garter clasp, "VELVET GRIP, 12-13-92 & 12-31-95"; frag. of a Carhartt stem button.		
K4448/H- Karma Mill				
782	50/434.8	Misc. frags.: test tube holder; key; pencil eraser holder; safety pin; window blind bracket; electrical wire; bolt and washer; 2 bolts; 5 wood screws; 18 wire-cut nails; 1 washer; brass burner mesh; wall-paper disc; .22 lead; metal strap; hook; wire; squeeze tube frag.; 11 misc. non-i.d. frags.		
K4446/H-L-1				
783	28/194.2	23 wire-cut nails; 5 can frags.		
785	14/66.0	8 wire-cut nails; 5 can frags.; 1 shoe eyelet.		
788	9/40.3	7 wire-cut nails; 2 can frags.		
791	9/46.3	5 wire-cut nails; 4 can frags.		

TABLE 2: METAL ARTIFACTS

[illegible]

TABLE 3: CERAMIC ARTIFACTS

Catalog #	#/wt (gms)	Description				
(Site/Feature)						
SC/Wegmen						
SC/A-4						
21	1/4.4	Creamware bowl fragment with a scalloped edge.				
26	1/7.6	Creamware bowl fragment, base.				
32	1/37.2	Creamware bowl fragment with portion of mark- "...N", over an arrow.				
33	2/294.3	Fragments of an earthenware crock with a handle at the neck, like that commonly used for whiskey; dark brown glaze with an unglazed ring around the shoulder.				
34	2/12.8	Creamware fragments.				
45	7/236.0	5 pieces of creamware fragments; 2 pieces of earthenware crock, probably associated with cat. #33.				
46	1/143.5	Ironstone fragment with mark- "K.T.&K." (Knowles, Taylor, Knowles) - Mark used after 1905 (DeBolt 1988).				
52	1/7.4	Whiteware cup fragment with a gold transfer print pattern along the interior rim.				
58	1/6.1	Creamware fragment				
73	3/160.8	1 whiteware cup fragment; 2 earthenware fragments with brown glaze (probably part of #33).				
85	3/17.7	1 whiteware cup fragment, 1 creamware cup fragment, 1 crock fragment.				
SC/M						
93	10/18.9	7 pieces whiteware, 3 with floral transfer print, 1 with a green glaze; 2 pieces of porcelain cups, 1 with a red transfer print, 1 with an iridescent blue band; 1 piece of a porcelain insulator.				
SC/O						
101	1/3.0	Creamware fragment				
108	18/382.0	15 ironstone fragments; 3 brown-glazed earthenware crock fragments.				
114	10/286.5	6 pieces, thick-walled ironstone, 1 yellow glazed creamware, 1 white porcelain fragment, 2 fragments of brown glazed earthenware.				
SC/O						
121	1/127.6	Ironstone saucer fragment with mark- "K.T.&K." under "Semi-vitreous", dates to post 1905 (Praetzelis et. al. 1983).				
122	1/102.9	Ironstone plate fragment with a mark- "K.T.&K." over "s-v" over "China", dates to 1890-1910 (Praetzelis et. al. 1983)				
SC/D						
131	1/1.1	Porcelain fragment with a blue transfer print design.				
SC/F						
135	1/237.8	Ironstone plate fragment with a mark- "K.T.&K." over "China", dates to 1890-1910 (Gates and Ormerod 1982:125).				
136	1/192.3	Ironstone saucer fragment with a stamped mark- illegible.				
137	4/73.7	4 whiteware cup fragments with red transfer print pattern covering the exterior.				
138	1/240.7	Ironstone plate fragment with scalloped rim and mark- "Ironstone China" over a rampant lion and horse, over "J.&G. Meakin, Hanley. England", dates to 1875-1883 (Praetzelis et. al. 1983:57).				
139	1/67.1	Ironstone bowl fragment with mark- "Semi-Vitreous" over "K.T.&K.", dates to 1890-1910 (Praetzelis et. al. 1983).				

TABLE 3: CERAMIC ARTIFACTS

140	1/3.1	Ironstone plate fragment with mark- rampant lion and horse under "Ironstone", dates to 1891-1925. W.H. Grindley & Co., England, (Praetzellis et. al. 1983:41)
141	1/9.4	Ironstone plate fragment with mark- "Warranted" over a crest with a pediment over a shield; from the D.E. McNichol Pottery Co., dating to 1892-1910 (Gates and Ormerod 1982:186).
142	1/1.4	Small ironstone fragment with portion of mark- similar to mark used by Knowles, Taylor and Knowles from 1890-1907 (Gates and Ormerod 1982:119).
SC/H		
144	7/61.2	4 pieces of shallow creamware bowl with a transfer print pattern on the interior in black of leaves and flowers; 1 piece of whiteware with a raised pattern along the rim (plate fragment); 1 piece of a creamware bowl (large size) with raised pattern on exterior and cream and green glaze; electrical insulator fragment of white porcelain.
145	1/4.8	Small fragment of whiteware with a portion of a mark- "HOP" over "Semi-porcelain" over a portion of a design which includes the top of a crown
SC/I		
149	1/23.8	Ironstone bowl fragment, white with a green patterned glaze on the exterior and a scalloped rim.
Echo Mill		
175	1/3.9	Creamware fragment
Cobble City		
4-1		
203	4/10.2	4 pieces creamware- green, white and blue striped pattern on exterior, white interior (painted glaze)
208	1/1.1	Piece of glazed creamware with pattern similar to #203.
252	1/18.2	Ironstone plate fragment, no mark.
C-1		
275	16/157.8	5 pieces of whiteware with a floral transfer print; 6 pieces porcelain, 2 w/ a dark-green transfer print, 1 with a handpainted orange stripe, also 1 tiny "doll-sized" plate fragment; 6 pieces creamware and ironstone, 3 with marks- 1 "Societe Ceramique Muistricht" surrounding a rampant lion over "Made in Holland", 1 "K.T.&K." mark dating to 1890-1907 (Praetzellis, et. al. 1983:47), 1 with an "A.J. Wilkenson" mark, dating to 1885-1896 (Praetzellis et. al. 1983:80); 2 pieces brown glazed earthenware.
G-1		
276	1/63.1	Porcelain electrical insulator fragment.
T		
301	2/23.6	1 porcelain spark plug fragment, 1 porcelain electrical insulator fragment.
V		
304	8/508.4	5 pieces ironstone, 1 with ornate, multicolored transfer print around the rim with the fragment of a stamped mark- a crown over "C.P.C.", from the Crown Pottery Co., Evansville, Indiana, dating to ca. 1910 (DeBolt 1988:25), this crown pattern was limited to dinnerware, 1 with "K.T.&K." over three lines (one with "s-v") over "China" dating to 1905-1929 (Praetzellis et. al. 1983:49); 1 piece porcelain with a floral transfer print; 2 pcs earthenware with buff glaze, 1 stamped with a mark- "Macomb Stone..." in a circle with

TABLE 3: CERAMIC ARTIFACTS

		part of a "2".			
V-1					
308	5/28.4	2 pieces whiteware, both with raised pattern of dots along the external rim; 3 pieces porcelain, 2 hand-painted with a "Chinese" house pattern in multi-colors, 1 with a floral transfer print.			
V-2					
310	2/615.2	2 fragments of a creamware plate with a blue glaze.			
312	1/1.6	Dental partial plate.			
Queen Esther Mill					
317	4/131.0	3 pieces of a porcelain electrical insulator; 1 fragment of a scorifier.			
Karma Assay 1					
322	1/1.4	Piece of thin-walled porcelain.			
Karma Assay 2					
329	1/64.8	Fragment of an unknown object, a cup-like form with small perforations through a middle plate; hand-painted in a floral pattern with gold highlights.			
K4693H					
341	2/11.8	2 whiteware fragments, probably from plates. One with mark of "ROYAL IRONSTO[NE]" over standing Victorian Royal Arms, attributed to Charles Meaken Company from Burslem and Hanley, Staffordshire, England. This mark dates from 1876-1889 (Praetzelis et al 1983:55).			
357	4/75.8	4 misc. whiteware plate fragments; 3 having scalloped rim w/molded "feather" design on rim.			
358	5/68.2	3 whiteware plate fragments equivalent to scalloped fragments at #357; 1 whiteware cup (?) fragment with green transfer print of leaf pattern on exterior; 1 fragment of porcelain dish (?) w/ scalloped edge & hand-painted gold shell-pattern on rim.			
360	4/87.2	3 whiteware fragments w/ scalloped rim & green floral transfer print; 1 fragment of porcelain w/ handpainted gold & opaline design.			
362	14/195.3	Misc. porcelain fragments, 3 w/ multi-color floral transfer print; 11 w/ blue Chinese transfer pattern, from cups & plates.			
K4695H					
367	1/33.5	Whiteware plate frag w/ pink floral transfer print.			
369	1/15.2	Whiteware dish frag w/ gold trim along rim.			
373	1/9.2	Whiteware bowl/pitcher frag w/ fluted rim & blue rim design.			
374	1/21.4	Whiteware plate frag w/silver double-linear rim design.			
378	1/4.1	Whiteware cup rim fragment.			
382	1/8.2	Whiteware vessel rim frag.; same vessel as #374.			
PHASE 3 SALVAGE EXCAVATIONS					
K4446/C-1					
390	1/13.1	Whiteware plate frag.			
401	3/10.2	Porcelin with pink outer glaze.			
413	5/28.2	Misc. frags.- 1 whiteware; 4 porcelain, 3 with a raised dot pattern on the exterior.			
430	1/1.8	Porcelin fragment with a molded pattern and a pink transfer design.			

TABLE 3: CERAMIC ARTIFACTS

438	6/22.2	Misc. frags.- 3 pieces whiteware; 3 porcelin, 2 with a molded dot pattern.
444	3/25.7	Earthenware frags., probably from an assay crucible.
446	4/10.9	Porcelin frags. from a small vase; white with a pale pink wash on the exterior surface.
447	6/120.0	Misc. frags.: 3 frags. of a large earthenware crock, 2 with a pale cream slip glaze and a rim frag. with a dark brown glaze; 3 pieces whiteware plate frags.
452	6/42.8	Misc. frags.: 5 pieces whiteware, including 1 with a makers mark, "....GRANIT....", (there are a number of marks with GRANITE in them and not possible to tell which one this is a part of); 1 piece porcelin with a pink tint on the exterior.
457	7/65.2	Misc. frags.: 5 pieces whiteware, 1 with an identifiable mark- "K.T.& K. GRANITE" 1890-1907, from Praetzellis, et. al., 1983, p. 47); 2 pieces earthenware crock frags., 1 with a cream glaze, 1 with dark brown.
563	1/.1	Small whiteware frag.
468	4/11.1	Whiteware frags.
473	6/41.5	Misc. frags.: 4 pieces whiteware; 2 earthenware crock frags., both glazed- 1 cream, 1 brown.
474	1/278.1	Earthenware pipe frag.
479	5/13.6	Misc. whiteware frags.
483	3/3.6	Misc. whiteware frags.
488	3/102.6	Misc. frags.: 2 pieces whiteware; 1 piece earthenware crock frag. with a brown glaze.
495	3/36.6	Misc. whiteware frags.
499	3/226.9	Misc. frags.: 1 whiteware; 2 brown glazed earthenware.
509	3/47.8	3 pieces whiteware, 1 with a brown transfer print pattern.
517	7/22.8	Whiteware frags., 1 with a brown transfer print, 1 with a ? i.d.maker's mark.
520	5/32.2	3 whiteware frags., 1 with a green floral transfer print; 2 earthenware frags., 1 with cream glaze, 1 with brown.
524	1/5.5	Whiteware frag.
528	2/6.4	Whiteware frags.
531	2/14.2	Misc. frags.: 1 whiteware; 1 earthenware frag. with cream glaze.
539	2/7.9	Whiteware frags.
542	7/21.2	Misc. frags.: 6 whiteware; 1 earthenware with brown glaze.
545	7/31.2	Misc. frags.: 6 whiteware frags., 1 with a black transfer print; 2 pcs. earthenware, 1 with cream glaze, 1 with brown glaze.
552	6/285.8	Misc. frags.: Whiteware: 2 pcs. from the same shallow bowl which has a portion of a "K.T.&K." mark; 1 from a deep basin or bowl.
559	2/461.2	Earthenware pipe frag.
563	13/95.1	Whiteware frags.; 1 with frag. of a "K.T.&K." mark.
573	14/1417.5	Misc. frags.: 9pcs. of a large straight-sided crock with a cream glaze; 5 whiteware frags., incl. 1 of a thick-walled cup.
576	9/5 lbs.	Sewer pipe frags.
583	4/151.6	Misc. frags.: Whiteware frags., incl. 2 from a fluted "tureen" type large bowl.
586	3/134.6	Misc. frags.: 2 whiteware frags., incl. 1 cup handle; 1 earthenware stem-type top, brown glaze.
592	4/38.0	Whiteware frags.
597	2/18.5	Whiteware frags.
600	2/69.1	Whiteware frags.

TABLE 3: CERAMIC ARTIFACTS

752	14/425.9	Cupules, used.				
753	21/425.9	Crucibles: 3 "BATTERSEA, 20 gms."; 4 "BATTERSEA, 30 gms."; 14 misc.				
756	1/.8	Porcelain frag. with green and yellow hand-painting.				
Karma Assay Office A- N.W. quad						
757	28/1321.4	Crucibles:1 "BATTERSEA, 20 gms.";1 "BATTERSEA, 30 gms.";26 misc. frags.				
758	4/145.3	Cupules, used.				
Karma Assay Office A- S.E. quad						
764	25/1355.1	Crucibles:3 "BATTERSEA, 20 gms.";1 "BATTERSEA, 30 gms.";21 misc. frags.				
765	6/122.8	Used cupules				

TABLE 4: GLASS ARTIFACTS

Catalog #	#/wt (gms)	Description			
(Site/Feature)					
SC/Wegman					
SC/A-4					
18	14/41.7	Misc. fragments- 6 clear, 2 amber, 1 blue, 5 lavender.			
19	1/55.1	Amber bottle-base fragment w/ portion of a mark- a "9" and a "2" with an oval enclosing a diamond in between.			
20	1/64.4	Dark green bottle neck fragment, type b (Champagne).			
22	27/95.8	Misc. fragments-10 clear, 7 dark green, 1 blue, 9 lavender.			
25	9/32.2	Misc.fragments- 3 clear, 3 dark green, 1 milk, 3 lavender.			
30	43/143.2	Misc. fragments- 19 clear, 2 dark green, 10 amber, 2 blue, 1 milk, 9 lavender			
31	1/8.3	Pale lavender molded bottle shoulder fragment; vessel appears to have been rectangular with fluting on the short sides.			
39	78/548.2	Misc. fragments- 26 clear, 11 dark green, 15 amber, 14 light green, 1 blue, 13 lavender			
40	1/45.8	Lavender French barrel mustard bottle (type ff) fragment (Wilson 1981:110).			
41	1/18.7	Amber bottle base with mark- "P.D.&Co." over "10" over "19".			
42	1/51.5	Pale lavender bottle neck fragment, "Blake" style (type r).			
43	1/18.1	Milk glass cosmetic jar.			
44	1/33.8	Amber beer bottle shoulder fragment.			
50	26/151.4	Misc. fragments- 8 clear, 7 dark green, 3 amber, 5 light green, 1 milk, 2 lavender.			
51	1/34.7	Lavender bottle neck- type c (Brandy).			
56	36/218.0	Misc. fragments- 15 clear (including 1 piece window glass), 9 dark green, 2 amber, 5 light green, 4 blue, 4 lavender.			
57	7/69.0	Clear, molded glass fragments, very thick and flat with a cut-glass pattern of starbursts; unknown vessel shape or type.			
62	28/110.0	Misc. fragments- 16 clear, 2 dark green, 7 amber, 1 light green, 1 blue, 1 lavender.			
63	2/29.5	Clear bottle stopper, medicine bottle type.			
64	1/14.5	Small clear glass rectangular bottle fragment with portion of a mark molded onto the base- ".....IAMONO.....", on the outer portion of a circle, over ".....MADE IN.....", also in a circle.			
69	69/342.1	Misc. fragments- 6 clear (1 window), 9 dark green, 17 amber, 23 light green, 1 blue, 13 lavender.			
70	7/57.1	Clear, molded glass, probably part of #57.			
71	1/52.2	Amber bottle base fragment with portion of a molded mark- "SPRUA...." around "WH....", "SAC....", and "LIQUOR.....".			
72	5/346.1	Clear rectangular bottle fragments with molded lettering on the side- "Gordon's Dry Gin", "England".			
78	51/414.5	Misc. fragments- 9 clear, 8 amber, 5 dark green, 12 light green, 7 lavender.			
79	1/347.1	Lavender, thick walled bottle neck fragment with molded lettering around the sides at the base- "Shasta Water Co."; molded- 2 seams.			
80	1/36.0	Lavender bottle base.			
81	1/56.4	Lavender bottle neck, type c (Brandy).			
82	1/8.3	Clear thin-walled drinking vessel with incised rim.			
83	1/4.9	Lavender glass bottle-stopper fragment; molded lettering on top of flat disc-shaped handle- "Canad.....", and "...SEPT....".			

TABLE 4: GLASS ARTIFACTS

84	4/65.6	Thick, molded clear glass fragments, probably associated with vessel #57.
91	107/1,247.1	Misc. fragments- 47 clear (including 22 pieces from screw top vessels), 7 dark green, 29 amber, 9 light green, 6 blue, 2 milk, 5 lavender, 2 clear with blue paint on the exterior, 1 with small blue stars.
SC/M		
92	1/196.4	Clear, molded glass screw-top bottle with printed lettering on the side (decal)- "Sweet Relish"; rough outline of label is similar to that used by the Heinz Co.
100	62/344.6	Misc. fragments- 42 clear (including one Ball jar fragment), 2 dark green, 5 amber, 5 light green, 5 blue, 1 milk with red painted lettering (illegible).
105	5/8.1	Misc. fragments- 5 clear.
SC/O		
107	42/475.9	Misc. fragments-15 clear, 6 dark green, 14 amber, 6 light green, 14 lavender.
112	36/417.7	Misc. fragments- 11 clear, 5 dark green, 12 amber, 3 light green, 5 lavender.
113	1/14.0	Amber bottle neck, type g (Patent/extract); molded, with seam running up neck and onto side of lip.
SC/A		
118	3/113.4	Misc. fragments- 2 lavender, 1 milk- fragment of a flat lid of a cosmetic jar.
119	1/30.4	Light green bottle neck, type d (Beer).
120	1/9.8	Dark green bottle neck, type c (Brandy).
SC/A-2		
128	1/23.2	Light green base fragment with portion of a molded mark- "A.B.Co.".
129	1/223.8	Light green fragment of a square shaped bottle with a portion of a molded mark- "GORDON'S DRY GIN, ENGLAND".
SC/D		
130	2/569.8	2 light green electrical insulator fragments, one with a molded mark- "Hemingway".
SC/F		
132	1/191.3	Clear, octagonal bottle base with molded mark- "Libby's" on side.
133	1/104.9	Clear, rectangular bottle base with molded mark on bottom- "A Winarich....", and "USA".
134	1/296.8	Amber beer bottle type neck; molded with 2 seams and mark on bottom- "W F & S", "T 1", "MIL".
SC/I		
148	4/303.3	Misc. fragments with marks- 1 clear jar/bottle base with "Best Foods", above "Registered"; 1 light green bottle base with "AB" and "S?"; also 1 amber jug type bottle with handle at neck and screw on top; milk glass jar base with molded mark- "Menley-James, New York, London, Made in USA".
SC/O		
151	1/104.1	Clear bottle base with molded mark on base, printed in reverse- "No. 77, Pat. in U.S., Dec. 22 1803, July 17 1808, E2".
152	3/103.9	Purple bottle base, bottle would have been ovoid in profile; light blue jar rim, screw top; small fragment of clear glass with "....INGHA....", molded onto side of vessel.
SC/Raymert		
153	1/115.0	Dark green bottle neck fragment type b (Champagne).

TABLE 4: GLASS ARTIFACTS

Echo Mill		
155	12/33.3	Misc. fragments- 6 clear (4 thin-walled vessel, 2 window), 5 dark green, 1 lavender.
156	2/66.3	Fragments of a lavender rectangular Blake (type r) bottle.
161	20/10.4	Misc. fragments- 20 clear (12 thin-walled vessel, 8 window).
162	1/.5	Fragment of a clear glass chemical stirring rod.
167	14/47.0	Misc. fragments- 7 clear (3 vessel fragments, 4 window), 3 dark green, 4 lavender.
171	16/28.9	Misc. fragments- 10 clear, 6 amber.
172	1/2.6	Clear bottle neck with Crown type top.
174	20/37.5	Misc. fragments- 6 clear, 6 amber, 8 lavender.
179	5/2.5	Misc. fragments- clear.
182	11/5.1	Misc. fragments- 9 clear, 2 amber.
188	1/124.1	Clear bottle neck, type c (Brandy), with a metal collar around the neck below the lip; with raised markings- "Gooderham and Worts - Limited", over "Toronto", "Registered".
189	1/116.7	Large, thick-walled amber bottle neck with type i (Oil) top.
190	1/140.1	Clear bottle base, molded (2 seams), with molded mark "Gooderham & Worts", "Toronto Canada, Limited".
191	1/124.9	Clear bottle base with cross-hatched pattern around rim, "Liquor Bottle" mark in center.
192	2/70.2	Bright green jar/bottle fragments, one is from a vessel lid with a knob-type top, both are molded.
193	1/36.7	Small, rectangular bottle base with molded lettering on side- "Chili Powder".
194	3/148.0	Light green bottle fragments- 1 neck, type l (Club sauce); 1 base fragment, 1 base fragment with "R&CO" over "23".
Echo assay		
195	1/67.7	Purple glass spherical atomizer; molded (2 seams), with lettering- "Fill to this line", on one side, and on the other- "The tube of this atomizer is made of one piece, pat. May 8th - 1894"; screw on type lip.
196	1/26.8	Amber bottle neck, type g (Patent/extract).
197	1/27.5	Lavender bottle neck, type f (Double bead).
198	1/15.9	Clear, molded medicine-type bottle stopper handle top, flat, round shape.
199	1/43.5	Lavender bottle base with molded "398" on bottom.
Cobble City		
H-1		
202	35/285.8	Misc. fragments- 6 clear, 19 dark green, 1 amber, 1 light green, 8 lavender.
207	12/47.5	Misc. fragments- 3 clear, 5 dark green, 2 light green, 2 lavender.
213	8/17.4	Misc. fragments- 2 clear, 1 dark green, 1 amber, 4 light green.
218	2/2.1	Misc. fragments- 2 amber.
J-1		
223	9/30.9	Misc. fragments- 8 dark green, 1 blue.
225	100/311.9	Misc. fragments- 9 clear, 34 dark green, 10 amber, 5 light green, 28 blue, 4 lavender.
226	1/69.1	Dark green bottle neck type b (Champagne).
227	1/20.2	Clear, molded glass fragment with cross-hatched design, ? type vessel.
233	14/37.3	Misc. fragments- 2 clear, 3 dark green, 2 amber, 5 blue, 2 lavender.

TABLE 4: GLASS ARTIFACTS

234	3/152.7	Misc. fragments- 2 clear, 1 dark green champagne-type b bottle base.
M-1		
238	6/12.9	Misc. fragments- 2 clear, 2 dark green, 2 amber.
242	13/33.2	Misc. fragments- 10 dark green, 3 amber.
244	2/1.6	Misc. fragments- 2 amber.
V		
251	2/9.6	Misc. fragments- 1 clear, 1 dark green.
256	6/64.2	Misc. fragments- 3 clear, 2 light green, 1 milk.
V-2		
258	2/52.4	Misc. fragments- 1 light green, 1 lavender.
C-1		
274	23/897.6	Misc. bottle fragments- 10 pieces amber, including four necks- 3 type d, 1 type g (Patent/extract), 4 lavender, including 2 type g (Patent/extract) necks and one type c (Brandy); 1 dark green, type f (Double bead); 6 light green necks, 1 with type g, 2 type d(Beer), 1 base with molded mark- "Pat. Aug. 22. 05"; 1 clear neck, type i (Oil); 1 blue neck, type h (Wide mouth patent/extract).
H-1		
280	3/319.0	Bottle neck fragments- 2 dark green, 1 type l, 1 type b; 1 clear, type c.
I-1		
281	1/33.7	Lavender bottle neck, type g.
J-1		
283	3/150.9	Bottle neck fragments- 2 dark green type l and type b; 1 amber type k.
286	1/165.6	Amber bottle base fragment with molded mark- "Southern Cal., Los Angeles", around rim, "Wine Co." in center.
K-1		
288	1/324.7	Light green base with molded mark- "A.B.Co., A 6".
M-1		
291	1/133.2	Electrical insulator
N-1		
294	14/872.2	Bottle neck fragments- 5 dark green type b, 4 type f; 1 lavender type f, on a molded rectangular bottle; 2 clear, 1 type k, 1 type c; 1 blue type h; also 1 light green base with molded mark- "A.B.Co. 18".
O-1		
296	2/160.1	Misc.vessel fragments- 1 amber bottle base with molded mark- "Pat. D Aug. 24. 1886" around rim, "2" in center; 1 ink bottle with 4 mold seams, bottle type mm.
S-2		
298	14/648.1	Misc. bottle neck fragments- 2 bright green with type k neck; 3 amber with 1 type f, 2 screw-on tops, one being a jug-type with a small handle on the neck; 1 clear with a painted green exterior and screw top; 8 clear, 7 screw-ons and one with a metal crimped top.
T		
300	2/119.5	Misc. vessel fragments- 1 clear bottle neck type k; 1 milk glass bowl fragment with a gold rim, molded mark on base- "Fire King, Oven Ware, Made in U.S.A.".
V		
303	9/599.8	Misc. vessel fragments- 1 clear jar/bottle base, "Table Products Co., Los

TABLE 4: GLASS ARTIFACTS

		Angeles, 118 41"; 3 amber bases, 2 marked with "PUREX"; a small amber bottle neck with "Clorox" molded around neck; also a small amber square dropper bottle with a screw-on rubber handled glass dropper in place; 1 light-blue small rectangular bottle fragment; 2 pieces of a dark blue glass plate.
V-1		
307	6/196.2	Misc. vessel fragments- 2 clear bottle necks, 1 type k, 1 type h; 2 clear small rectangular bases; 2 lavender necks, both type g.
V-2		
309	1/74.7	Milk glass cosmetic jar with screw-on top, "Pond's" molded onto the base.
V-3		
311	1/120.6	Light green bottle base with mark- "A.B.Co., J 4".
Queen Esther Mill		
316	19/1,830.8	Misc. vessel fragments- 2 amber bases with marks, 1 with "R&Co., 32", 1 with "I P G Co." in a diamond over "3095"; 1 amber type d bottle neck, 2 fragments from a thin-walled vessel with "Uricsol" molded onto the side; 2 lavender bottle necks, 1 type f, 1 type g; 1 blue base; 11 light green pieces including 2 large vessel bases with "W T & Co.", molded onto the bottom, also 2 standard sized bases, "A.B.Co." molded onto one, also 2 necks, 1 type h, 1 type f, also 2 pieces of glass chemical tubing, in addition to 3 fragments of a large chemist's type jar (type h top).
Karma/Assay		
321	19/100.5	Misc. fragments, all clear- 1 screw-on type jar piece, 4 pieces window glass, 14 pieces of a thin-walled vessel, ? i.d.
Karma/Mill		
332	3/15.7	Light green glass tubing fragments- laboratory equipment.
SC/A-4		
333	1/1.0	Milk glass bead.
K4693H		
337	24/32.6	Misc. fragments, 8 - dark green, 2 - amber, 7 -light green, 4 -clear, 2 - purple, & 1 - white.
339	8/16.3	8 fragments of amber glass
347	1/2.1	Jar rim fragment, light green. Plain rim w/ molded narrow collar: probably part of thread for screw-on top.
350	5/368.5	Amber bottle bases; 2 w/ "8" molded onto bottom; 1 w/ "...UG.24" over "10" over "...1886".
351	1/40.2	Amber bottle neck with seams on both sides. Corresponds to Wilson's (1981) Type A beer bottle.
352	1/73.2	Light green bottle base.
353	1/75.3	Amber bottle base.
354	1/35.2	Amber bottle fragment; 1 side seamed w/ molded lettering but too small to discern.
355	3/128.2	Misc. bottle fragments, including one body frag with molded "...R...RYE..."; 1 plain amber base; 1 light green base; and a small flat-sided flask.
356	3/156.8	Misc. bottle fragments, all light green, including 2 bases, and 1 neck corresponding to Wilson's (1981) Type i packing jar.
361	4/210.5	Amber bottle fragments, including 2 plain bases & 1 body fragment with molded lettering "MANUFACTU..., THE LIQU....CHIC...".

TABLE 4: GLASS ARTIFACTS

364	4/225.8	1 dark green bottle base fragment; 1 clear oval flask base fragment; 2 light green neck fragments, including 1 w/ screw threads
365	1/295.1	Clear glass liquor flask with pewter screw-on cap.
366	1/22.8	Small, square purple bottle base w/ molded lettering on base: "...SCHIL..."
K4695H		
377	26/108.2	Misc. glass frags: 20 pcs window glass; 3 vessel frags incl. 1 plate base; 3 green glass bottle frags.
381	2/2.8	2 pcs. window glass.
PHASE 3 SALVAGE EXCAVATIONS		
K4446H - C-1		
385	17/87.8	Misc. glass frags.: 5 pieces drk. grn.; 3 lt. grn.; 2 purple; 6 amber; 1 blue.
389	18/145.8	Misc. glass frags.: 1 drk. grn.; 1 lt. grn.; 9 amber; 4 clr.- 3 with an incised linear pattern.
394	15/51.7	Misc. glass frags.: 2 lt. grn.; 4 clr.; 6 ambr.; 2 prpl.; 1 blu.
395	1/51.2	Lavender bottle body frag. with molded mark- "CURTIC BROTHERS CO., PRESERVERS, ROCHESTER.", four stars precede Curtic; all within a circle.
396	1/51.8	Amber bottle neck, type c, "brandy" (Wilson p.111).
399	32/71.2	Misc. frags.: 3 lt.grn.; 10 drk. grn.; 13 clr.; 2 prpl.; 4 ambr.
400	2/9.8	2 frags. of an amber bottle lip, type d ("beer", Wilson p. 111).
412	24/52.8	Misc. frags. : 17 lt. grn.; 1 ambr.; 4 clr.; 2 prpl.
429	72/153.7	Misc. frags.: 23 drk. grn.; 2 lt. grn.; 25 ambr.; 22 clr.- all are thin and appear to be from a small medicine bottle.
436	32/62.3	Misc. frags.: 23 clear; 2 amber; 7 drk. prpl.
437	1/4.8	Frag. of a medicine bottle with molded lettering, printed backwards- "...81 .T..."; looks like part of a date, "18--".
K4446H-structure D-1		
443	5/23.4	Misc. frags.: 4 lt. grn.; 1 ambr.
K4447H - A		
449	48/352.8	Misc. frags.: 20 drk. grn. incl. 5 type b bottle bases (champagne; Wilson, p. 110); 10 lt. grn. frags., 4 with molded lettering indicating they come from a Gordon's gin bottle; 2 bright green neck and lip frags. (seam lines to top of lip- looks like a modern soda bottle, Polak p. 23); 16 ambr., including 1 neck/lip frag, type d (beer), and 1 neck/lip frag. type a (perscription); 45 clear, 1 with traces of black printed lettering (indecipherable); 14 prpl.; 2 clr. shoulder/neck/lip frags. bottle type s (Oblong tooth powder, Wilson p. 109), and 1 small screw top bottle with metal top in place; 3 white which includes 1 cosmetic jar lid; 1 pc. blu.
451	102/419.0	Misc. frags.: 35 ambr., including 2 screw top bottle frags. (> 1924, Polak p. 23); 3 drk. grn.; 22 lavender, including 1 fluted toilet bottle body frag.; 5 lt. grn.; 32 clear, including 1 medicine bottle type lip/neck; 4 blu.
458	99/532.6	Misc. frags.: 18 amber; 10 drk. grn., incl. 1 bottle/lip, type f (dbl. bead, Wilson, p 111); 3 lt. grn., incl. 1 bottle base with a molded mark, "AB M10"; 1 bright grn.; 51 clear including some window and misc. vessel frags., also a frag. of a thick glass platter, and a med. bottle stopper;

TABLE 4: GLASS ARTIFACTS

		15 lavender, including an oval-shaped molded cologne-type bottle base; 2 blu.
462	81/302.3	Misc. frags.: 13 amber; 2 drk. grn.; 10 lt grn., including 1 bottle, neck and shoulder (type k, Crown, Wilson, p. 111) with seams to just below the lip (1860-1880, Polak p. 19); 1 bright grn.; 25 clr., including 1 med. med. bottle
467	61/189.8	Misc. frags.: 13 amber; 11 drk. grn., including 1 neck, type b (Wilson, p. 111); 16 clr.; 19 lavender; 2 blu.
472	43/57.9	Misc. frags.: 8 amber; 9 drk. grn. (including 1 neck with a type b lip); 8 lt grn.; 7 clr.; 7 clr.; 9 lavender; 2 blu.
477	80/191.6	Misc. frags.: 8 ambr.; 8 drk. grn.; 6 lt. grn.; 28 clr.; 27 lavender; 3 blu.
478	1/38.6	White milk glass cosmetic jar lid.
482	30/151.4	Misc. frags.: 5 ambr. (body frag. with molded lettering, "...E WH...,... FRANCISCO"); 5 drk. grn.; 1 lt. grn.; 16 clr., including 1 thick, ornate, molded frag. of a bowl or plate; 3 blu.
487	35/67.8	Misc. frags.: 11 amber; 5 drk grn.; 4 lavender, including the base of a small rectangular cologne-type bottle; 4 lt.grn.; 10 clr.; 1 blu.
491	69/345.1	Misc. frags.: 4 ambr.; 10 drk. grn.; 11 lt. grn.; 20 clr.; 4 lt prpl.
492	1/21.1	Type k (crown) bottle lip frag. with an intact crimped metal and cork, amber. bottle cap ("Crown" cap).
493	1/172.3	Amber type k (Crown) type bottle neck and shoulder with seams ending below the lip (1860-1880, Polak 1994: 19).
494	1/408.1	Nearly complete amber beer bottle with Crown type lip. Seam visible to the top of the lip indicating manufacture by automation (1900-) with "AB, 25" molded on base.
502	64/929.6	Misc. frags.: 9 ambr.; 8 drk.grn.; 9 lt. grn.; 28 clr., including 2 pieces thick walled cut glass frags. from a large bowl and a body frag. from a "LISTERINE" bottle; 3 lt.prpl., including the molded base of an ornate toiletry jar; 6 white; 1 blu. small medicine bottle neck.
503	1/47.1	Amber "soda water" type neck (type h body) and frag. (Wilson, p. 110).
504	1/26.7	Clr. "packing type lip frag. (type j; Wilson, p. 110).
505	1/117.9	Lt. grn. "crown" type topped bottle with seams to the top of the lip.
507	48/294.6	Misc. frags.: 16 ambr., including 1 bottle base with "68" molded onto the bottom; 3 drk. grn.; 20 lt. grn., including 2 square gin bottle bases; 9 lt. prpl.; 1 clr. screw-top jar rim; 2 blu.
508	1/320.0	Amber bottle body and neck; "CONTENTS 110" molded around base of the body, 2 seams on the body, "X" molded onto the base; type h ("soda water") shape.
516	87/352.1	Misc. frags.: 9 ambr.; 10 drk. grn.; 22 lavender; 26 clr. vessel frags., 9 clr. pcs. window glass frags.; 11 lt.grn., incl. 1 bottle lip, ? type- thick snl. applied lip ca. 1" thick and 2 frags. of a "barrel" type jar (type ff).
519	55/135.7	Misc. frags.: 7 ambr.; 3 drk. grn.; 7 clr. window glass, 13 clr. vessel glass; 2 lt. grn.; 22 lavender; 1 blu.
523	17/80.4	Misc. frags.: 6 ambr.; 1 drk. grn.; 5 lavender; 1 clr. vessel frag.; 4 window.
525	1/27.5	Ink bottle frag.
526	40/221.5	Misc. frags.: 11 ambr.; 4 drk. grn.; 6 lt. grn.; 3 lavender; 5 clr. vessel; 11 clr. window.
533	14/68.1	Misc. frags.: 1 drk. grn.; 5 clr. vessel frags.; 1 clr. window; 4 lavender; 2 lt. grn.; 1 blu.
535	1/58.2	Bottle frag.: neck and lip with intact glass and cork stopper; lavender,

TABLE 4: GLASS ARTIFACTS

		Seams on neck end below lip; type c ("brandy") lip (Wilson, p. 111).
537	18/30.6	Misc. frags.: 3 ambr.; 2 drk. grn.; 5 clr. vessel frags.; 2 clr. window; 2 lavender; 3 lt grn.
538	1/42.2	Bottle frag.; lt. grn.; neck/lip frag. with seam ending below rim of lip (1860-1880, Polak, p. 19; g, "patent/extract" or i "oil" type lip, Wilson P. 111).
541	38/184.5	Misc. frags.: 3 ambr.; 2 ddrk.grn.; 11 clr., incl. frag. of a lrg. cut glass vessel; 12 lavender; 1 blu.
546	19/60.2	Misc. frags.: 1 ambr.; 1 drk. grn.; 4 clr. vessel, 1 window; 12 lavender.
547	1/28.4	Milk glass jar with molded lettering on the base "...THE CU..."; with a narrow, thickened lip.
548	1/20.3	Lavender jar or bottle frag.; seams end below lip which is a recessed rim over a raised dbl.-lined collar that has the appearance of being cast or lathed.
551	39/217.4	Misc. frags.: 4 ambr.; 7 drk. grn.; 5 lt grn.; 7 lt. prpl.; 14 clr., incl. 3 pcs. of a thin walled vessel and 1 frag. of a threaded jar rim; 2 pieces window.
570	99/4 lbs.	Misc. frags.: 14 dark green; 16 amber, incl. 1 "crown" type lip/neck (type k), 1 patent/med. type g lip/neck frag.; 23 clear. incl. 2 large bases and 1 rectangular bottle body base; 6 clear window glass; 2 frags. of a clr.thick cut glass vessel; 8 lavender; 28 lt. grn., incl. 3 soda bottle frags. incl. 1 with wire from an Hutchison stopper; 25 Gordon's Gin bottle frags.; 3 blu.; 2 white.
572	83/3 lbs.	Misc. frags.: 9 ambr.; 10 drk. grn., incl. 1 dbl.-bead neck/lip with intact cork, and 1 "crown" top w/ frag. of Hutchison wire closure; 22 lt. grn., incl. a soda type k top with intact Hutchison wire and cork closure; 18 lt. prpl., incl. misc. bases- 2 oval, 1 rectangular; 15 clr., incl. 1 pat./med. lip frag.; 3 window; 2 blu.; 2 white; 2 clr. with red and black painted lines.
580	45/471.6	Misc. frags.: 8 ambr., incl. 2 "brandy" type lip frags.; 6 drk. grn.; 6 lt. grn.; 7 lavender; 17 clr., incl. 1 med./patent lip frag. and a rectangular med. bottle type frag.; 1 pc. window glass.
585	42/472.8	Misc. frags.: 6 ambr.; 6 drk. grn.; 6 lt. grn.; 7 lavender; 10 clr.; 2 clr. window 4 blue; 1 bright grn.
589	1/306.4	Clear condiment bottle, complete; Mold made with metal and cork screw top; Molded printing, "E.R. DURKEE & CO. SALAD DRESSING NEW YORK", along the side of the body; on base, "BOTTLE PATENTED APRIL 11, 1871"; 17 cm. in length, 6 cm. in diam.
591	27/392.5	Misc. frags.: 3 drk. grn., incl. 1 dbl. bead lip; 2 ambr., incl. 1 patent/med. lip; 3 lavender, incl. 1 patent/med. lip; 8 lt. grn.; 8 clr., incl. 1 milk bottle lip frag.; 3 pcs. window glass.
594	10/157.8	Misc. frags.: 2 amber; 5 lt. grn.; 2 clr., incl. 1 med./patent lip; 1 blue.
599	6/42.2	Misc. frags.: 1 amber; 4 clr.
K4447H - N-5		
602	4/9.2	4 clear frags.
604	2/25.6	2 clear frags. of a straight-sided bottle.
607	1/1.2	Clear frag.
K4447H - N-3		
610	115/451.5	Misc. frags.: 1 amber screw-top bottle frag.; 6 lt.grn.; 108 clr.
K4447H - O		
625	35/118.8	Misc. frags.: 7 amber; 4 drk. grn.; 24 clr.
629	1/.8	Clr. frag.
639	28/15.6	27 clr., incl. 1 screw-top jar frag.; 1 lavender.

TABLE 4: GLASS ARTIFACTS

644	2/2.2	Clr. frags.			
K4447H - H					
616	1/130.0	Amber bottle base frag.			
618	53/320.9	Misc. frags.: 1 drk. grn.; 22 ambr.; 25 clr.; 4 lavender, incl. 1 dbl.-bead type lip/neck of a flat-sided molded bottle; 1 blue.			
649	26/101.9	Misc. frags.: 6 amber, 20 clr.			
K4446H - J-1					
654	39/292.2	Misc. frags.: 23 amber; 10 drk. grn.; 6 clr.			
659	38/290.0	Misc. frags.: 16 amber; 11 drk. grn.; 10 clr.			
662	7/108.0	Misc. frags.: 3 amber; 1 drk. grn.; 4 clr., incl. bottle neck with a dbl.-bead applied lip onto molded neck.			
667	33/143.2	Misc. frags.: 23 ambr; 4 drk. grn.; 3 clr.			
672	7/24.0	Misc. frags.: 6 ambr.; 1 drk. grn.			
715	2/1.8	Misc. frags.: 1lt. prpl.; 1clr. (lt. bulb).			
721	1/61.7	Amber bottle base frag.			
728	3/2.8	Clr. frags.			
K4446H - J-2					
677	55/352.8	Misc. frags.: 5 ambr.; 13 drk. grn.; 21 clr.; 24 lavender; 9 lt. grn.			
683	9/14.2	Misc. frags.: 4 drk. grn.; 5 lavender.			
K4446H - J-3					
685	18/186.5	Misc. frags.: 8 amber; 8 drk. grn.; 2 clr.			
690	52/445.9	Misc. frags.: 14 amber; 4 drk. grn.; 34 clr., including fluted toiletry type bottle frag.			
K4449H- Queen Esther Mill					
694	28/48.2	Misc. frags.; 9 window frags.; 19 clr., including a pipette frag.			
696	21/101.2	Misc. frags.: 6 lt. prpl.; 7 clr. bottle; 7 window; 1 drk. grn.			
K4448H- Karma Mill, upper assay office					
773	1/1.8	Misc. frags.: Clr. glass medicine dropper frag.			
697	78/269.8	Misc. frags.: 44 clr., incl. 2 pcs. window; 14 amber; 1 lavender; 13 lt. bulb frags.; 1 clr. glass pipette; 5 milk glass frags.			
K4446H - L-1					
784	26/21.5	Misc. frags.: 7 drk. grn.; 10 clr.; 5 lavender; 3 blue.			
786	9/8.3	Misc. frags.: 6 clr.; 1 drk.grn.; 2 blue.			
789	6/12.7	Misc. frags.: 2 lavender; 4 clr.			
795	4/14.4	Misc. frags.: 1 drk. grn.; 3 clr.			
SURFACE COLLECTION					
Cobble City					
703	27.4	Amber bottle base frag.; molded "Aug. 24 98" on bottom.			
Q.E. Mill					
734	7.6	Drk. grn. bottle neck with intact cork; no seams, type b, "Champagne" (Wilson p.111).			
Karma Assay A- outside unit					
744	3/27.9	Lavender glass funnel frags.			
Karma Assay A- N.E. quad					
747	9/21.4	Misc. frags.: 1 ambr.; 1 clr.; 4 window; 3 lt.bulb.			
Karma Assay A- S.W. quad					
755	1/7.6	1thick lt. grn. frag.			

TABLE 4: GLASS ARTIFACTS

Karma Assay A- N.W. quad						
762	1/.8	Clr. vessel frag.				
Karma Assay A- S.E. quad						
768	6/61.2	Misc. frags.: 2 clr. vessel; 3 lt. bulb; 1 window.				

TABLE 5: BUTTONS

Catalog #	#/wt (gms)	Description			
(Site/Feature)					
SC/Wegmen					
SC/A-2 (Unit 1)					
6	1/3	Milk glass with four-perforations.			
SC/A-4 (Unit 2)					
17	1/2.6	Metal stemmed with no mark.			
76	1/4	Fragment of a mother-of pearl button, ? type			
SC/M (Unit 3)					
98	1/.8	Small shell button with two perforations			
Cobble City					
J-1 (Unit 3)					
224	1/2.8	Metal stemmed with no mark.			
M-1 (Unit 5)					
246	1/2.8	Stemmed, metal, with mark- "Head light"			
C-1 (surface)					
273	1/2.5	Stemmed, metal, with mark- "Red Seal" within a sunburst design.			
H-1 (surface)					
277	1/2.1	Stemmed, metal, with no mark.			
J-1 (surface)					
282	3/7.9	3 stemmed, metal, with marks- 1 "Levi-Strauss Co.", 2 "Carhartt's".			
L-1 (surface)					
289	6/17.0	6 stemmed, metal, with marks- 2 "Levi-Strauss Co.", 4 "Carhartt's".			
M-1 (surface)					
293	1/.5	Milk glass with four perforations			
N-1 (surface)					
295	2/1.7	1 Milk glass with four perforations; 1 mother-of-pearl with 2 perforations.			
T (surface)					
299	2/3.9	1 stemmed, metal, no mark, 1 flat metal with a wire loop at back.			
U (surface)					
302	1/4.1	Large brass(?) button with wire loop at back, with a rope and anchor design.			
Queen Esther Mill (surface)					
315	7/19.8	6 metal stemmed with marks- 1 "Strong Hold", 1 "Cone's Boss" with lantern design, 3 "Levi-Strauss Co.", 1 heart-shaped with a cablecar design under "Union Made" (Carhartt's), also 1 rivet with "L.S.&Co. , S.F.".			
319	2/1.1	2 mother-of-pearl, one with two perforations, one with four.			
PHASE 3 SALVAGE EXCAVATION					
K4446H - C-1					
398	3/2.2	2 metal shoe eyelets; 2 safety pins.			
405	5/2.8	Shell with 4 perf.'s w/in a recessed circle; ca. 1.0 cm. diam.			
406	1/3.2	Shell with 2 perf.'s in center of raised disc.; incised line around rim; 2.5 cm. in diam.			
407	1/.5	Shell stem-button frag.			
408	1/.3	Small milk glass with 4 perf.'s.			
409	1/1.1	Wood frag. with 4 perf.'s.			

TABLE 5: BUTTONS

410	2/2.1	1 metal shoe eyelet; 1 metal straight pin.		
411	4/2.2	4 metal snaps.		
419	2/.1	Small shell with 2 perf.'s, .7 diam.		
420	1/.3	Shell, 2 perf.'s, 1.0 diam.		
421	1/.9	Shell stem button; cone shaped with a single perf. through base.		
422	1/.1	Milk glass frag.		
423	2/1.7	Wood frags.		
424	2/1.5	Metal stem button tops with a "thistle" design.		
425	1/1.5	Metal stem button with wire attachment.		
426	3/6.0	Metal- all embossed: 1 with "HOWARD"; 2 with "THE NEWPORT".		
439	1/.9	Metal stem button frag.		
445	2/6.2	1 metal rivet frag.; 1 snap frag.		
450	1/.4	1 metal snap.		
461	2/2.2	1 rivet with a small floral design; 1 shoe hook.		
469	1/.8	Shell with 4 perf.'s.		
556	1/1.0	Milk glass button; 4 perf.'s; 1.0 diam.		
557	1/.5	Metal snap.		
561	3/3.3	3 large shoe eyelets.		
567	1/.5	Bone buttons; 4 perf.'s.		
571	1/.5	1 metal shoe eyelet.		
605	1/2.5	Metal stem button.		
K4447H - H				
621	1/2.6	Metal stem button.		
K4447H - O				
633	1/.4	1 metal shoe eyelet.		
643	1/4.2	Shell button with 4 perforations; 1cm. diam.		
K4446H - J-1				
653	3/2.5	2 metal shoe eyes; 1 metal snap.		
657	10/.8	Shell button, 4 perf.'s, 1 cm. diam.; frags. of another.		
658	2/5.2	1 metal buckle frag; 1 snap.		
660	1/.7	Wood, 4-perf.'s; 1.5 diam.		
661	5/2.2	5 metal snaps.		
664	1/1.0	Milk glass, 4 perf.'s, 2 cm. diam., radiating lines around the rim.		
665	6/2.6	6 metal snaps.		
666	23/35.8	5 metal stem buttons, 18 metal snaps, some with black fabric.		
673	5/15.8	4 metal snaps, 1 metal shoe eyelet, 1 coverall buckle frag. with "HEAVY DUTY" marked on it.		
675	2/.7	Shell buttons, 1.0 and .7 diam., 2 and 4 perfs.		
K4446H - J-2				
681	6/11.5	2 metal stem buttons, 1 with "LEVI-STRAUSS & CO., S.F., CA.; 4 snaps, all with "L.S.&Co., S.F.".		
682	1/.7	Shell, 4 perf.'s, 2.2 diam.		
K4446H - J-3				
688	8/11.5	4 metal stem buttons, 4 metal snaps, all with Levi-Strauss.		
692	16/40.3	3 metal buckles; 13 snaps.		
K4449H- Q.E. Mill				
772	2/10.8	Metal garter clasp with "BOSTON GARTER, VELVET GRIP, 12-13-92 & 12-31-95; and frag. of a CARHARTT metal stem button.		

TABLE 5: BUTTONS

K4446H - L-1		
790	1/.1	Shell button, 2 perf.'s, 1 cm.diam.
793	2/6.5	Unmarked metal stem buttons.
702	2/.8	Shell button, 1 cm. diam., 2 and 4 perforations.
K4446H - J-1 south room		
725	1/.9	Brass stem button
726	1/1.0	Shell button, 1.5 diam., 4 perforations.
SURFACE COLLECTION		
Cobble City		
708	1/.7	Metal stem button frag. with "STRONGHOLD B.N.&L." with a central design of a locomotive.
Queen Esther Mill		
732	12/88.5	Misc. fabric clothing frags. with 3 metal strap holders and 6 metal CARHARTT'S stem buttons (appear to be portions of a pair of overalls).
733	2/1.4	Shell buttons; 1.0 diam; 2 and 4 perforations.
MISCELLANEOUS		
427	2/1.2	Small whelk-type shells, unperforated.

TABLE 11: LEATHER ARTIFACTS

Catalog #	#/wt (gms)	Description			
(Site/Feature)					
SC/Wegmen					
SC/A-4 (Unit 2)					
66	25/12.4	Glove fragments			
75	2/2.1	Glove fragments			
89	25/11.1	Glove fragments			
SC/A (surface)					
123	1/128.7	Fragment of a small sized shoe sole.			
124	1/60.8	Fragment of a small sized shoe, a woman's or child's.			
125	1/178.4	Upper portion of a boot, a lace-up type with hooks up the front and eyelets at the top; size and style correspond to that common to men at the turn-of-the-century.			
Cobble City					
H-1 (Unit 1)					
205	4/23.4	Non-i.d. fragments			
211	19/15.5	Non-i.d. fragments			
216	18/7.9	Non-i.d. fragments			
J-1 (Unit 3)					
229	4/28.4	Shoe fragments of ? type.			
M-1 (Unit 5)					
240	4/1.3	Non-i.d. fragments			
245	17/32.9	Shoe fragments of ? type.			
248	3/134.7	Fragments of a small shoe, probably a woman's.			
PHASE 3 SALVAGE EXCAVATION					
K4446H - C-1 (structure)					
392	5/12.2	Shoe fragments- ? type; some with eyelets.			
434	18/2.5	Fabric- black fragments, finely woven, shirt or dress type.			
448	1/41.3	Shoe heel, had been secured to the sole with nails; flat style but small in size- child's or women's.			
453	10/27.9	Shoe fragments of ? type.			
455	1/.2	Whalebone corset stay frag.			
459	1/39.8	Men's shoe heel, nailed through sole.			
464	3/9.8	Frag., ? i.d.; 1 may be from a glove.			
485	1/.5	Fabric frag., non-i.d. type			
513	1/.9	Whalebone corset frag.			
521	1/.8	Frag., ? i.d., glove?			
534	2/6.4	Shoe frags., ? type, 1 with a metal eyelet.			
549	1/1.8	Thin leather frag., ? i.d.			
554	1/.9	Frag., ? i.d.			
565	7/27.6	Glove frags.			
574	8/17.8	Glove frags.			
578	1/190.6	Man's boot frag.			
582	7/7.6	Frag., ? i.d.			
588	1/2.2	Whalebone corset frag.			

TABLE 11: LEATHER ARTIFACTS

K4446H - J-1					
656	1/.4	Fabric, thick canvas type.			
663	1/8.2	Thick leather shoe frag.			
668	58/3.2	Black fabric, fine weave.			
770	3/6.4	Canvas fire hose frags.			
674	6/2.3	Black fabric, fine weave.			
K4446H - J-2					
680	6/8.7	non-i.d. leather frag.			
K4446H - J-3					
686	5/15.2	Shoe frags.			
691	15/9.2	Black fabric frags.			
K4446H - L-1					
792	3/6.3	non-i.d. leather frags.			
698	1/6.6	non-i.d. leather frags.			
699	5/1.5	Black wool fabric frags.			
SURFACE COLLECTION					
732	88.5	Fabric overall frags. with 3 metal strap holders and 6 Carhartt's stem buttons.			
MISCELLANEOUS PLASTIC, RUBBER, CORK, PAPER AND WOOD					
K4446H - C-1 (structure)					
414	1/1.6	Bottle cork			
415	2/.4	Rubber- small bright pink frags.			
417	6/3.9	Wood- architectural fragments.			
423	2/1.7	Wood- architectural fragments.			
433	12/8.2	Wood- architectural fragments.			
442	27/15.4	Wood- architectural fragments.			
K4447H - A					
475	1/.8	Rubber-like pink tube fragment.			
555	1/3.7	Rubber- small ring fragment.			
558	15/9.2	Wood- architectural fragments.			
566	1/.5	Cork bottleneck-liner fragment.			
569	1/5.1	Architectural fragments.			
595	1/1.3	? i.d. paper fragments.			
K4447H - N-5					
608	1/.8	Wood- architectural fragments.			
K4447H - N-3					
611	78/62.4	Wood- architectural fragments.			
614	14/30.2	Misc. fragments: rubber tire fragments; plastic lid; plastic comb frag.			
K4447H - H					
620	8/4.8	Asphalt and paper- tar paper?			
652	1/6.0	Tarpaper fragment- sampled only due to extensive presence within unit.			
K4447H - O					
635	2/5.2	? i.d. fragment.			
K4447H - N-4					
647	1/.4	Wood- architectural fragment.			

TABLE 11: LEATHER ARTIFACTS

[illegible]

TABLE 12: FAUNAL REMAINS

Catalog #	#/wt (gms)	Description			
(Site/Feature)					
SC/Wegmen					
SC/A-4 (Unit 2, privy)					
36	4/2.3	4 large mammal longbone fragments, probably bovid, 1 with a saw cut.			
48	4/2.3	4 large mammal fragments (probably bovid); 1 medium sized mammal, immature longbone fragment, burned.			
53	3/2.5	3 large mammal longbone fragments (probably bovid), 1 with saw cut.			
60	4/5.9	3 large mammal longbone fragments; 1 artiodactyl (deer/sheep/goat) juvenile metapodial fragment.			
88	4/16.1	3 large mammal longbone fragments, 1 large mammal skull fragment			
SC/M (Unit 3, dump)					
95	2/24.8	2 large mammal longbone fragments, including 1 O-bone.			
SC/O (Unit 4, privy)					
110	45/73.9	45 large mammal longbone fragments, including shaft pieces and articular ends, all highly weathered.			
116	10/16.3	2 large mammal longbone fragments; 8 non-i.d. fragments, all highly weathered.			
Cobble City					
H-1 (Unit 1, privy)					
210	21/26.7	9 large mammal (15.5), 12 small mammal (11.2) - rabbit?			
215	5/5.2	5 large mammal longbone fragments.			
H-1 (Unit 2, kitchen)					
220	1/2.9	1 large mammal			
J-1 (Unit 3, privy)					
230	5/23.7	5 large mammal longbone fragments, 2 saw-cut.			
235	1/266.0	1 large mammal distal humerus fragment, probably bovid.			
V-3 (Unit 8, privy)					
264	2/8.7	2 large mammal longbone shaft fragments			
PHASE 3 SALVAGE EXCAVATIONS					
KER-4446H - C-1					
386	1/12.1	Large mammal frags.- non-i.d. type.			
391	9/10.2	Large mammal frags.- non-i.d. type.			
397	1/24.6	Large mammal frags.- non-i.d. type.			
403	1/1.2	Small mammal- probably modern.			
416	1/.2	Small fruit pit frag.			
431	2/1.2	Faunal remains- non-i.d.			
432	8/5.2	Fruit pits			
454	1/.2	Eggshell fragments			
470	3/47.8	Large mammal longbone fragments.			
496	9/58.9	Saw-cut large mammal longbone fragments.			
500	12/38.3	Saw-cut large mammal longbone fragments.			
510	2/5.2	Faunal remains- non-i.d.			
512	1/.1	Eggshell fragments.			
543	1/1.2	Large mammal frags.- non-i.d.			

TABLE 12: FAUNAL REMAINS

[illegible]

TABLE 8: ASSAY DEBRIS

Catalog #	#/wt (gms)	Description			
Echo Mill - assay dump excavation and surface collection					
157	55/906.3	47 crucible fragments, 8 cupule fragments			
159	11/29.3	Slag button fragments.			
163	52/561.8	44 crucible fragments, 8 cupule fragments			
164	1/202.8	Crucible fragment with stamped mark on bottom- "Denver Clay Co", over "20"			
165	34/47.9	Slag button fragments.			
168	49/704.7	42 crucible fragments, 7 cupule fragments			
169	6/6.7	Slag button fragments.			
173	1/1.1	Crucible fragment			
176	10/11.4	Slag button fragments.			
184	1/5.5	Slag button fragments.			
187	1/8.2	Crucible fragment			
200	3/543.4	Crucibles, 2 with stamped marks on the bottom- "Denver Fire Clay", "20".			
Queen Esther Mill - assay excavation					
265	93/2,000.8	11 crucible fragments, 3 with embossed marks- "BATTERSEA WORKS", "ENGLAND", "20 Grams"; 1 with a stamped mark- "Denver Fire Clay Co", over "30".			
266	3/7.6	Slag button fragments.			
267	239/2,958.9	7 crucible fragments, 49 cupules and fragments.			
268	52/977.8	3 crucible fragments, 49 cupules and fragments.			
269	1/68.6	Crucible with slag button in place.			
270	1/47.2	Complete slag button.			
271	1/30.9	Complete slag button.			
272	1/76.2	Dore' "bar" composed of accumulated run-off from beneath floor boards.			
Queen Esther Mill - assay office area					
317	1/210.2	Scorifier fragment.			
318	1/31.7	Complete slag button.			
Cobble City - V					
305	1/138.3	Crucible fragment with embossed mark- "BATTERSEA WORKS", "ENGLAND", "20 Grams".			
Karma Mill - upper Karma assay office (Unit 1)					
324	13/18.1	Slag button fragments.			
325	32/32.4	Dore' buttons.			
Karma Mill - lower assay surface scatter					
327	2/74.2	Slag and Dore' button fragments.			
328	6/669.4	3 crucibles, 1 with embossed mark- "BATTERSEA WORKS", "ENGLAND", "30 Grams", and 3 cupules.			
330	2/50.7	2 complete slag buttons.			
PHASE 3 SALVAGE EXCAVATION					
K4448H - Karma Mill - upper assay office					
774	33/33.6	Dore button frags.			
777	1/261.0	Ceramic crucible frag.			
778	120/182.8	Cupule slag frags.			

TABLE 8: ASSAY DEBRIS[illegible]

8.0 FIGURES

List of Figures

- 1 - Site Locations
- 2 - Cobble City site map
- 3 - Features A1 & B1
- 4 - Feature C1
- 5 - Feature D1
- 6 - Feature E1
- 7 - Features F1 & K1
- 8 - Feature G1
- 9 - H1 complex
- 10 - Photo of H1
- 11 - Feature I1
- 12 - Feature J1
- 13 - Photo of J1
- 14 - Feature L1
- 15 - Feature M1
- 16 - Feature N1
- 17 - Features R & S2
- 18 - Feature S
- 19 - Feature T
- 20 - Feature U
- 21 - Photo of U
- 22 - Photo of U
- 23 - Feature V2
- 24 - Feature V3
- 25 - Features W & X
- 26 - Wegmen map
- 27 - Structure A
- 28 - Structure A photo
- 29 - Structure A photo
- 30 - Structure A2
- 31 - Structure B photo
- 32 - Structure H
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- 34 - Structure I
- 35 - Structures I & K photos
- 36 - Structure I
- 37 - Structures N2 & N3
- 38 - Structures N2 & N5 photos
- 39 - Structures N5 & O
- 40 - Structures P & X11
- 41 - F dump photo

List of Figures, Cont'd

- 42 - Karma & Queen Esther map
- 43 - Hoist house plan
- 44- Hoist house photos
- 45 - Head frame photo
- 46 - Blacksmith & assay dump photos
- 47 - Assay photos
- 48 - Mill plan
- 49 - Mill photos
- 50 - Stamp photos
- 51 - Stamp photos
- 52 - Queen Esther map
- 53 - Mill photos
- 54 - Mill photos
- 55 - Mill photos

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KEY TO FIGURE 2: FEATURES AT CA-KER-4446H (Cobble City)

Map Designation	Feature
1	Structure G1, NE corner
2	J1 privy & excavation unit
3	Structure I1, NE corner
4	Structure J1, NE corner
5	Structure H1, NE corner
6	H1 privy & excavation unit
7	Structure K1, NE corner
8	J3 privy
9	J2a privy
10	J2b privy
11	L1 privy
12	Structure M1, NE corner
13	M1 privy & excavation unit
14	O1 privy
15	V2 pad, NE corner
16	V3 pad, NE corner
17	Structure V3, NE corner
18	V1 pad, NE corner
19	V dump & excavation unit
20	Structure T, NW corner
21	Structure U, NW corner
22	Structure S, NW corner
23	Structure R, NW corner
24	Structure S2, NW corner
25	V4 privy
26	(deleted)
27	Structure F1, NE corner
28	Structure E1, NE corner
29	Structure W, NE corner
30	Structure X, NE corner
31	Structure D1, NE corner
32	Structure C1, NE corner
33	Structure A1, NW corner
34	E water tank, S side, center
35	Structure B1, NW corner

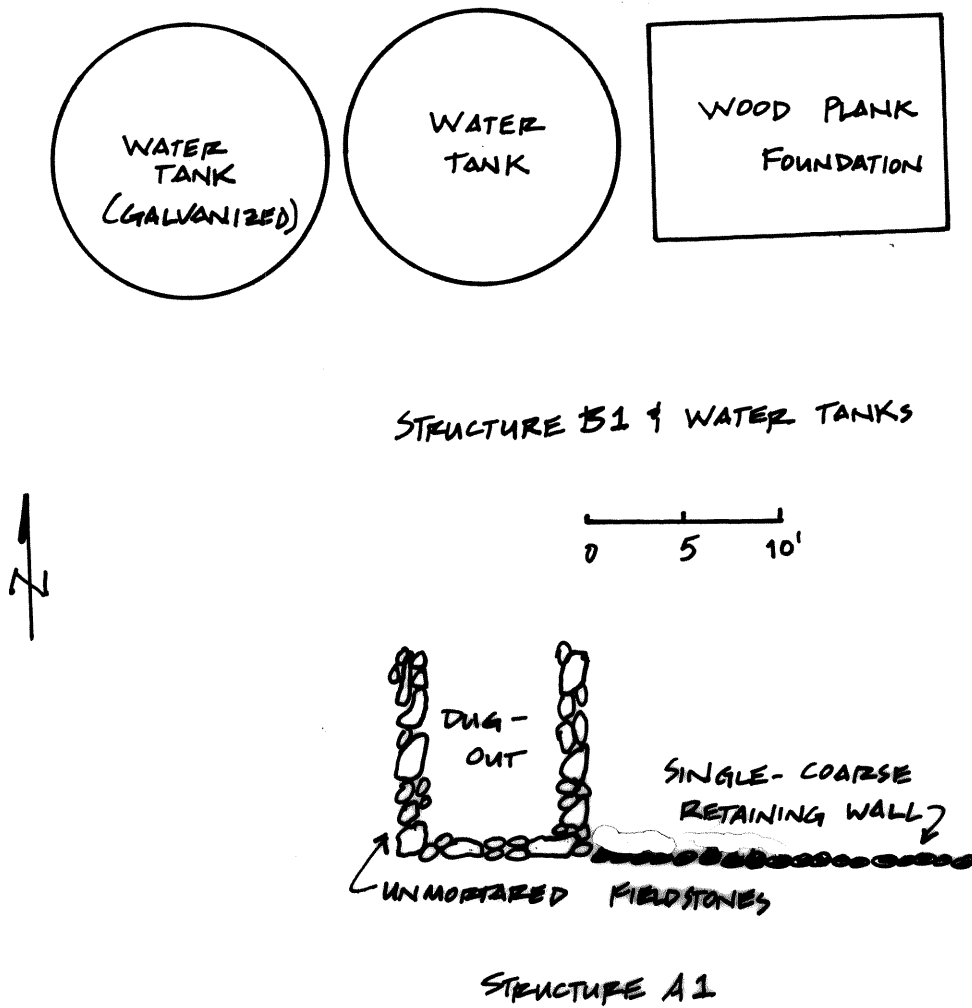


FIGURE 3: Features A1 and B1 at CA-KER-4446H, Cobble City.

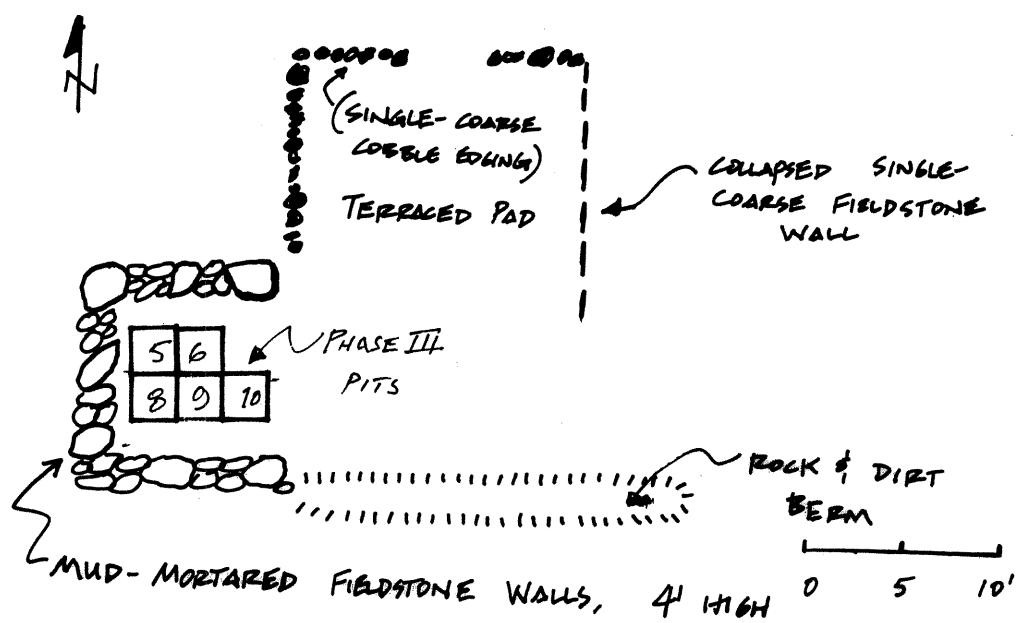


FIGURE 4: Feature C1 at CA-KER-4446H, Cobble City.

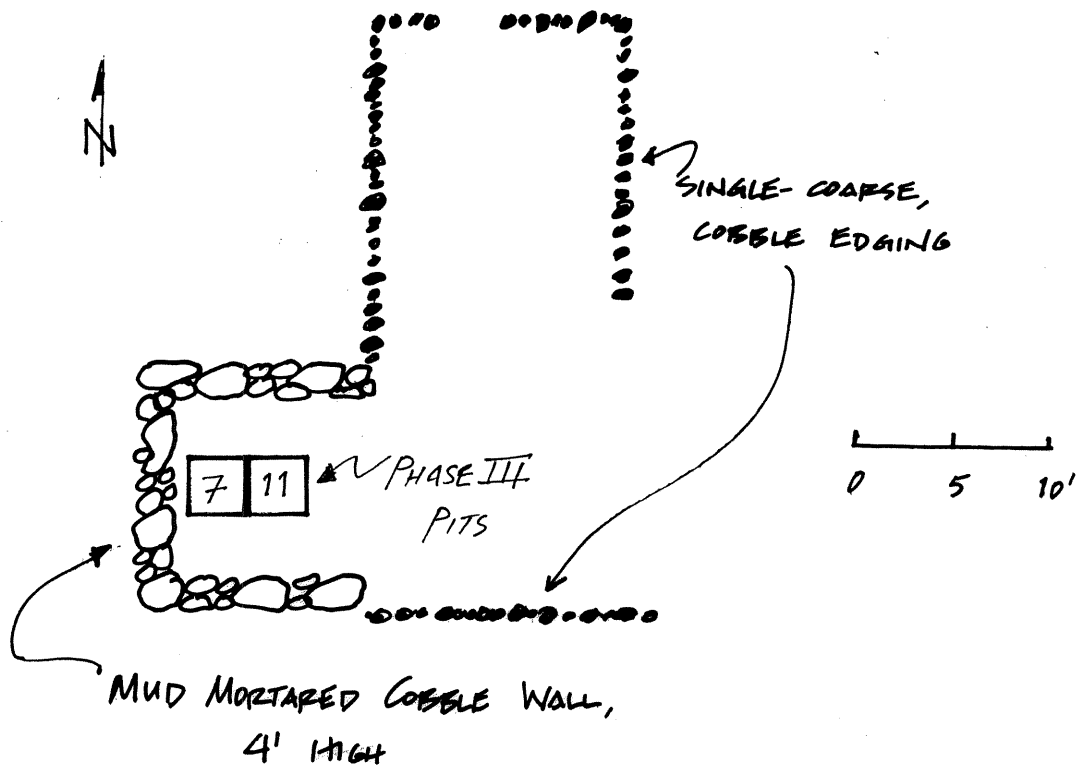


FIGURE 5: Feature D1 at CA-KER-4446H, Cobble City.

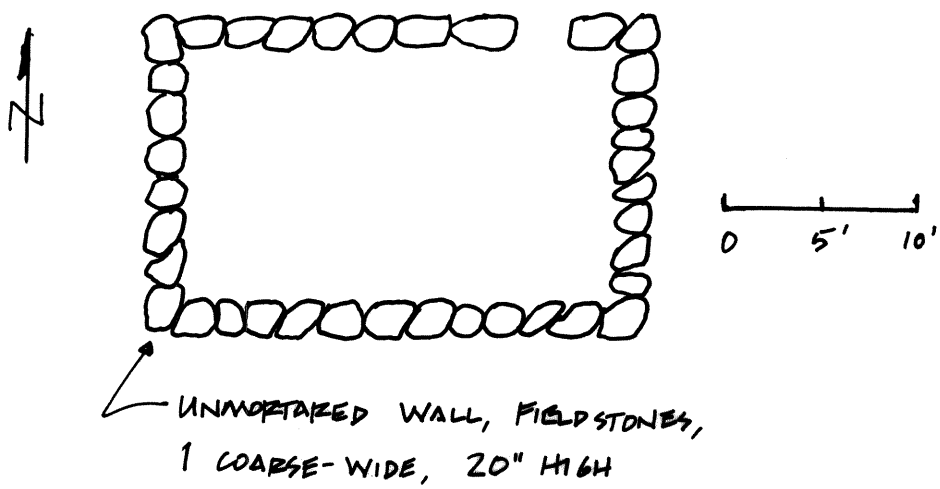


FIGURE 6: Feature E1 at CA-KER-4446H, Cobble City.

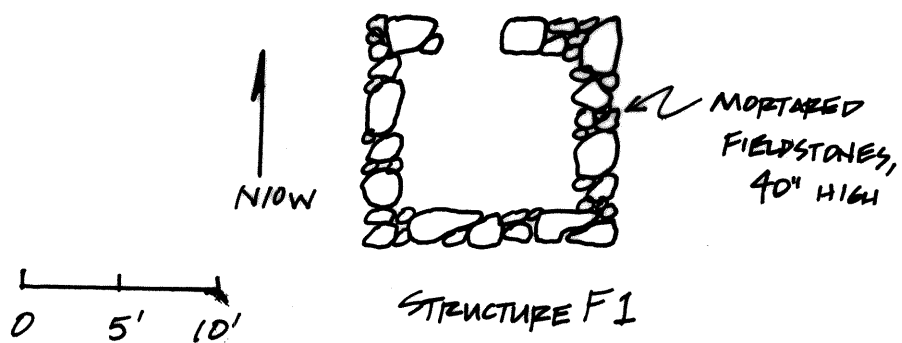
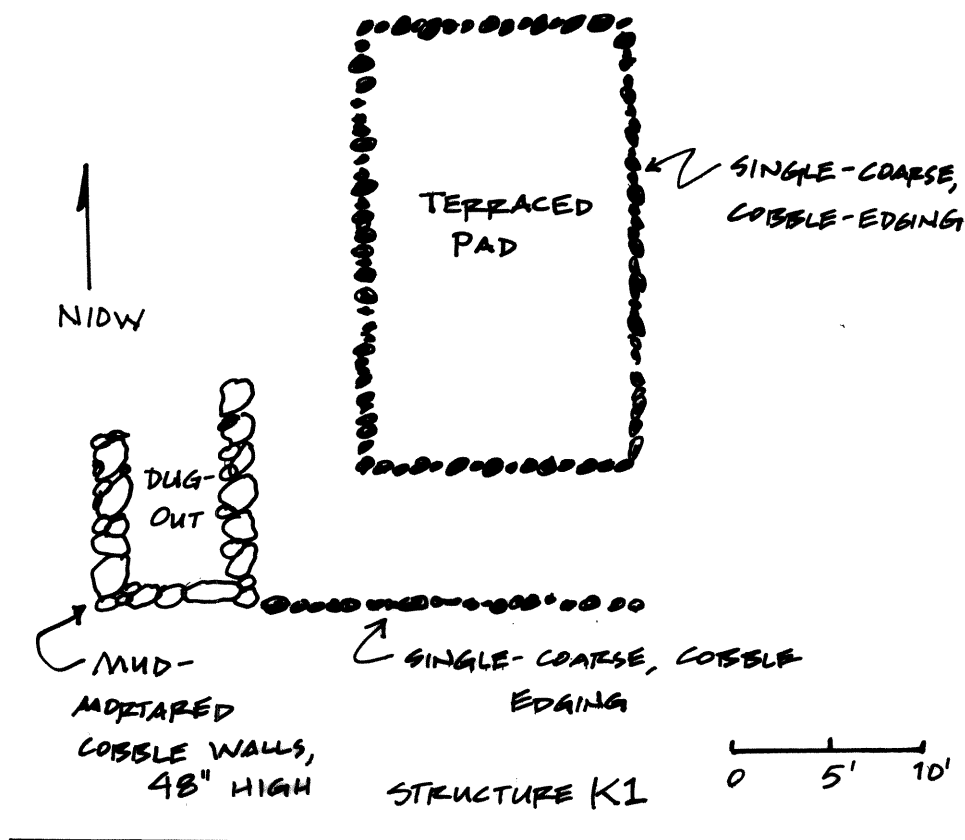


FIGURE 7: Features F1 and K1 at CA-KER-4446H, Cobble City.

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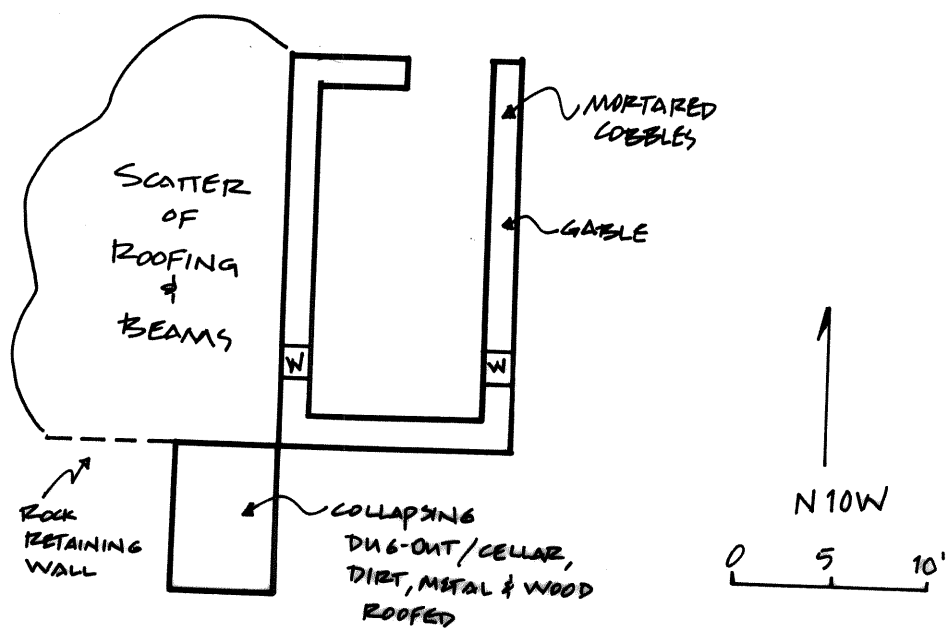


FIGURE 11: Feature 11 at CA-KER-4446H, Cobble City.

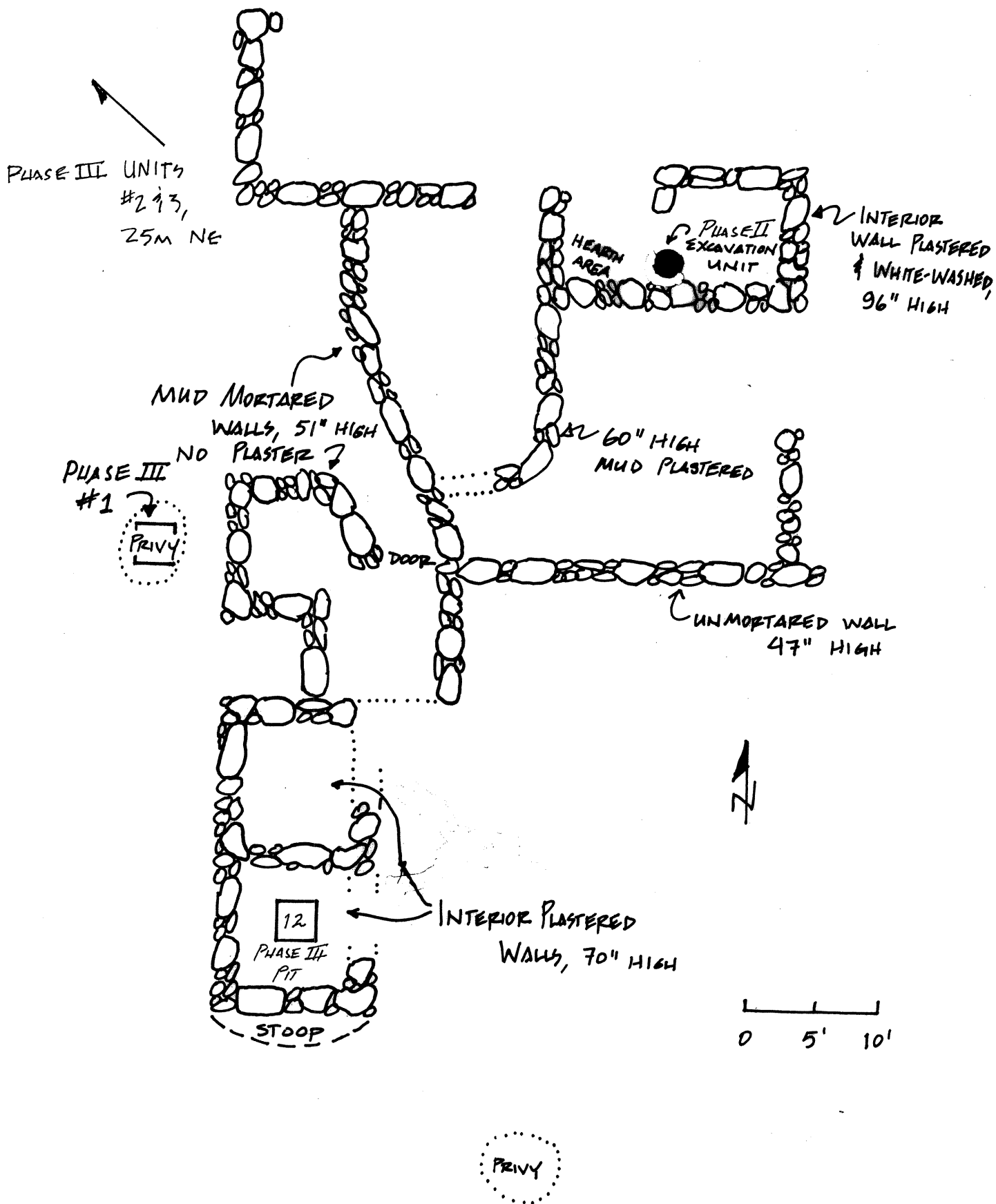


FIGURE 12: Feature J1 complex at CA-KER-4446H, Cobble City.

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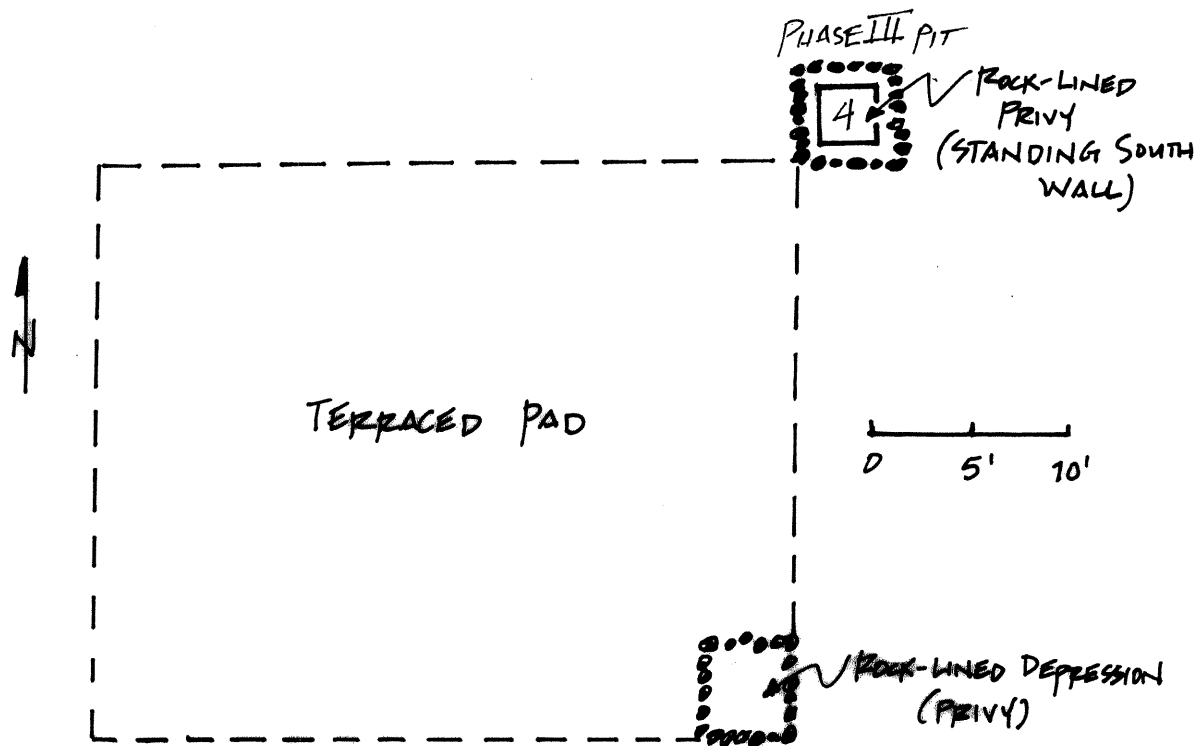


FIGURE 14: Pad L1 at CA-KER-4446H, Cobble City.

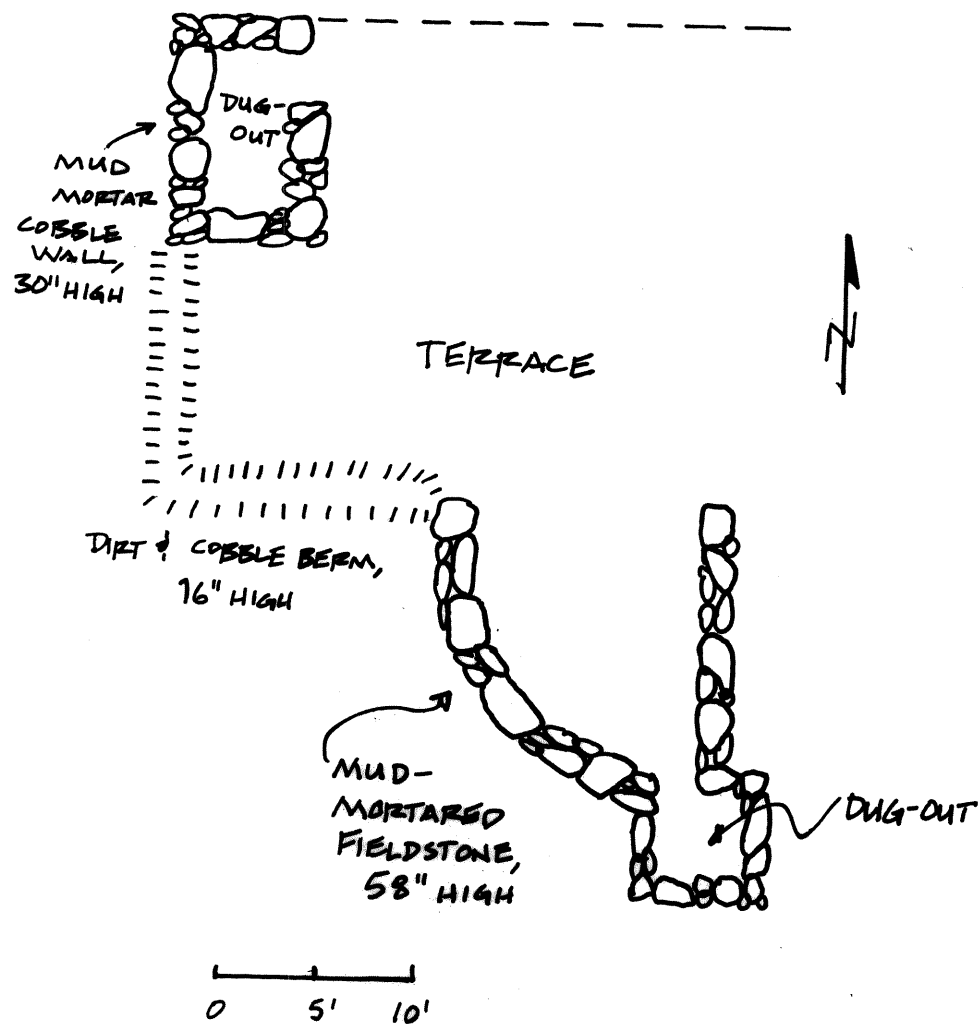


FIGURE 15: Feature M1 at CA-KER-4446H, Cobble City.

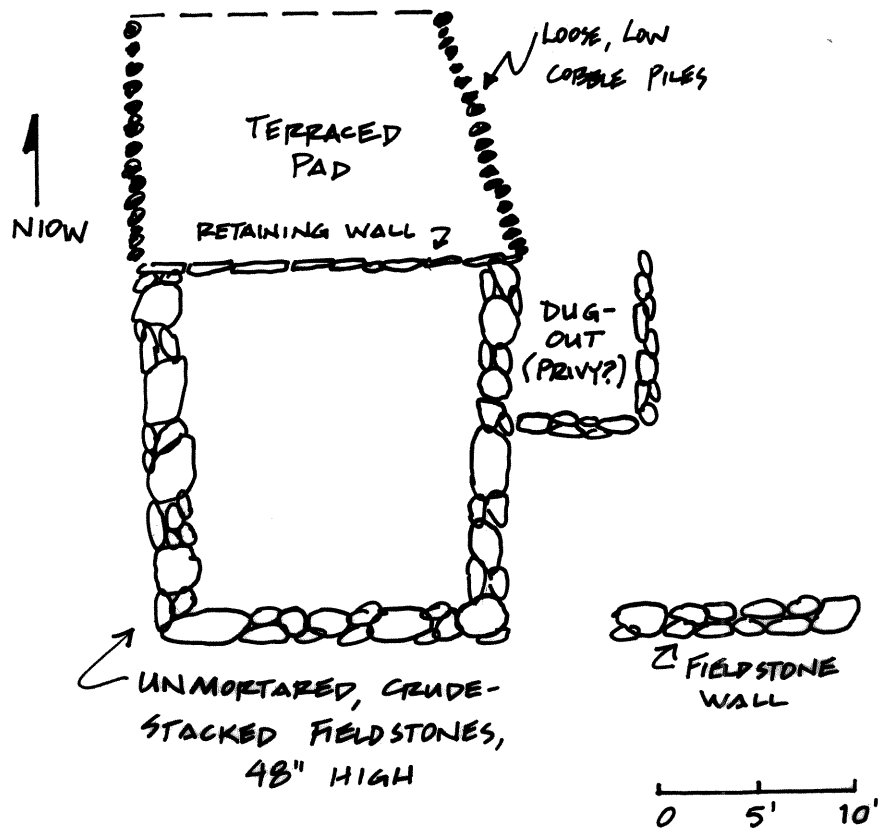


FIGURE 16: Feature N1 at CA-KER-4446H, Cobble City.

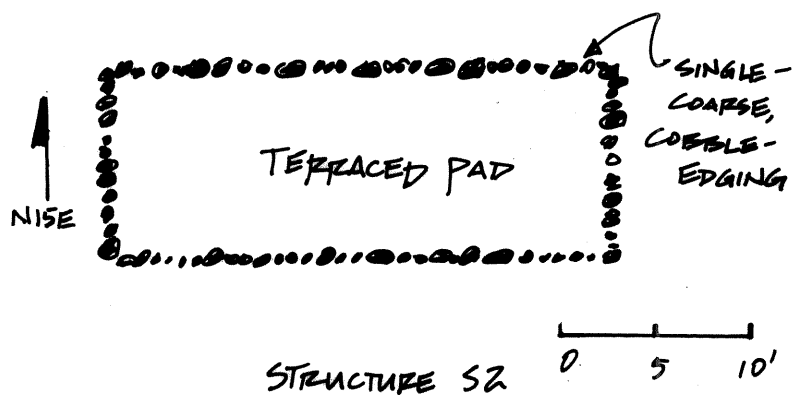
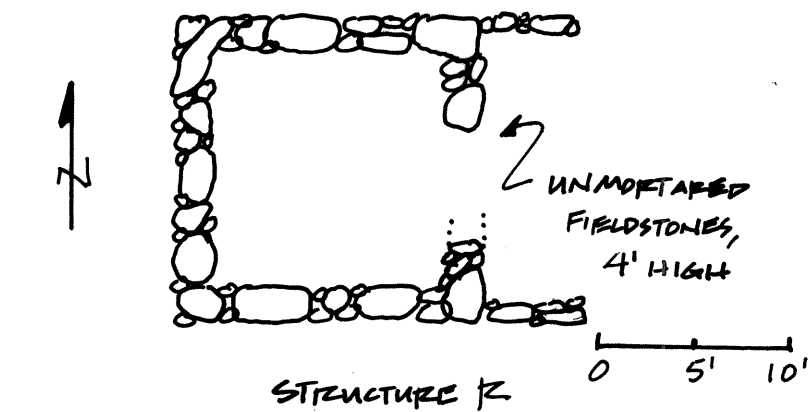


FIGURE 17: Features R and S2 at CA-KER-4446H, Cobble City.

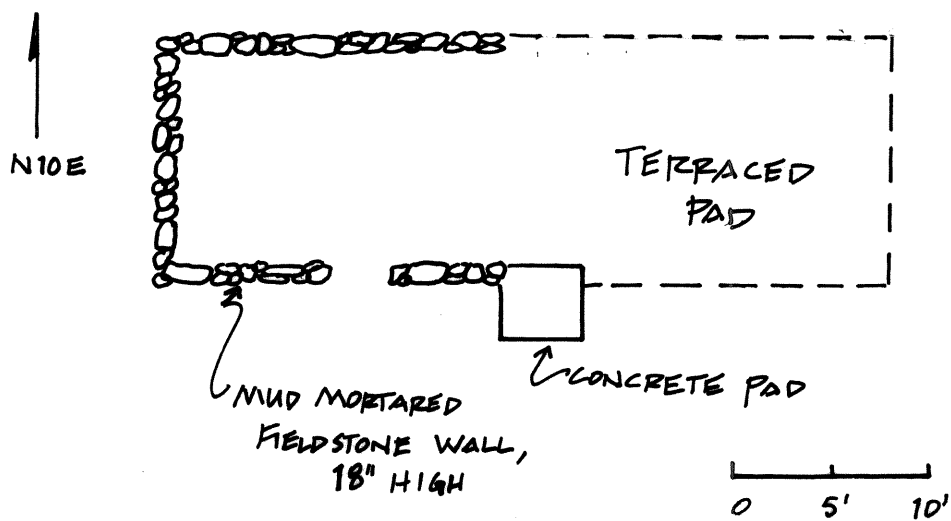


FIGURE 18: Feature S at CA-KER-4446H, Cobble City.

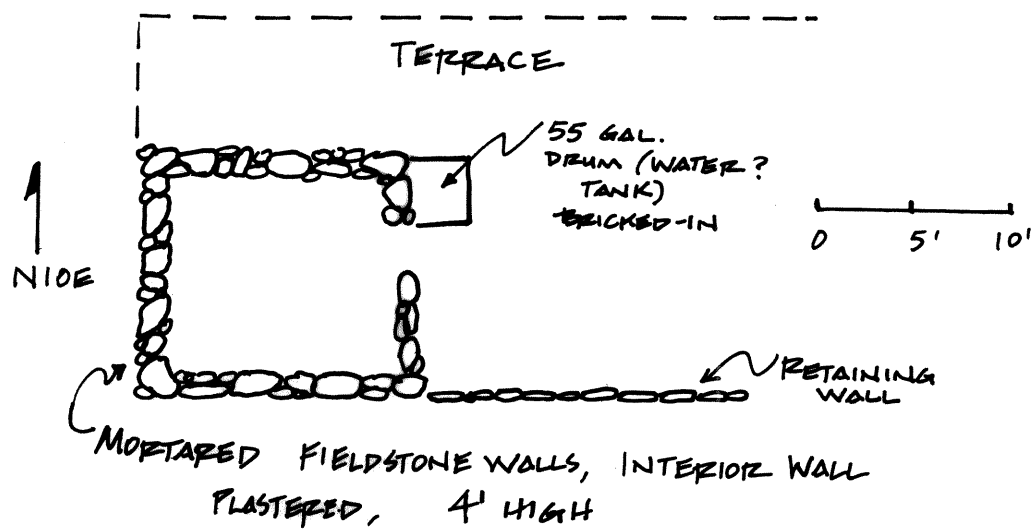


FIGURE 19: Feature T at CA-KER-4446H, Cobble City.

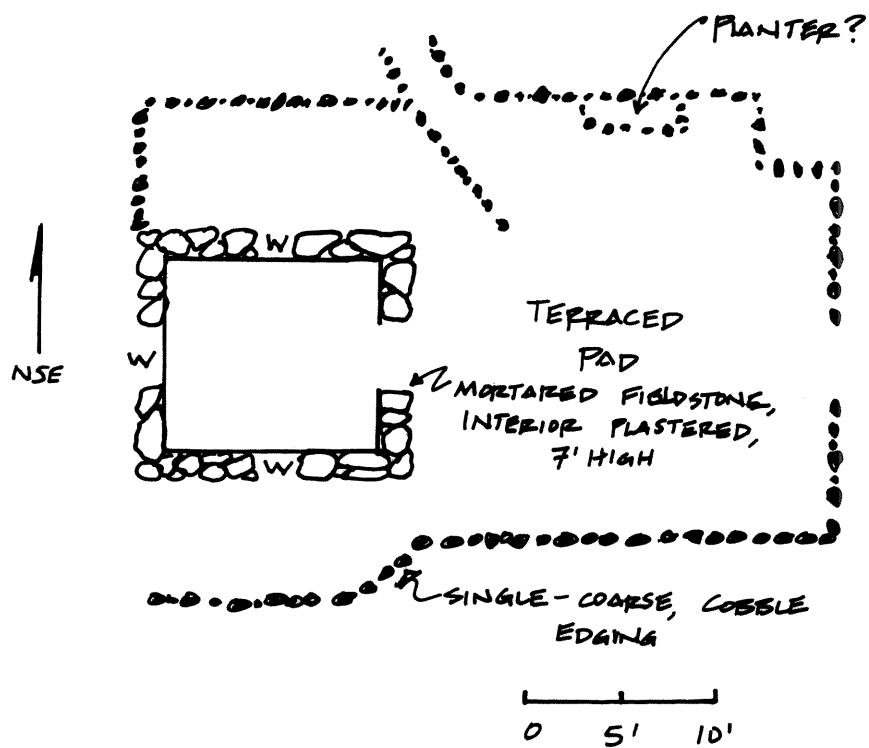


FIGURE 20: Feature U at CA-KER-4446H, Cobble City.

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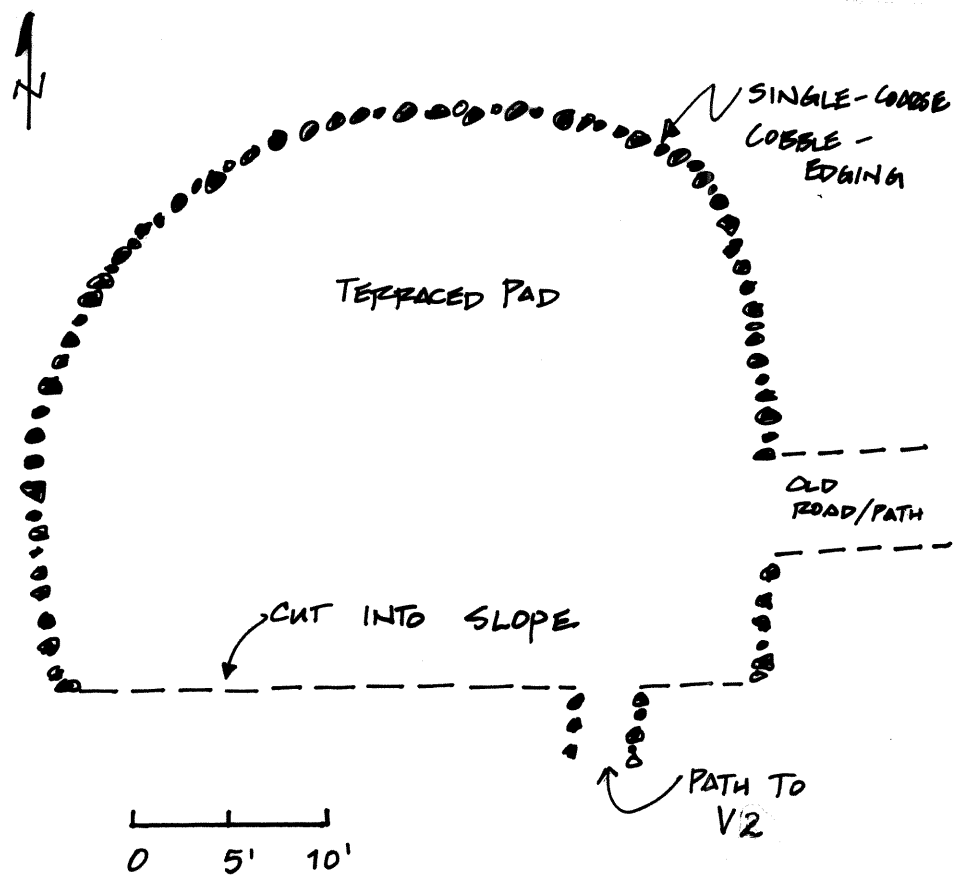


FIGURE 22: Feature 22 at CA-KER-4446H, Cobble City.

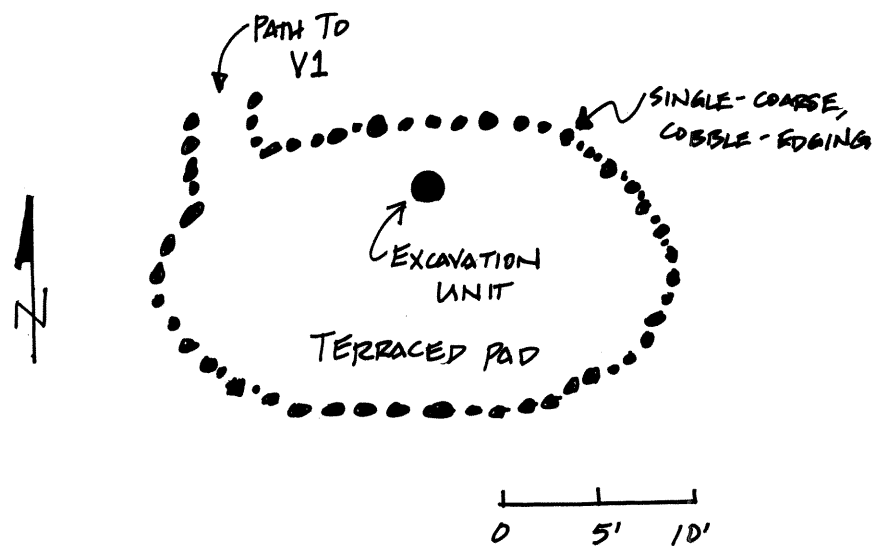


FIGURE 23: Pad V2 at CA-KER-4446H, Cobble City.

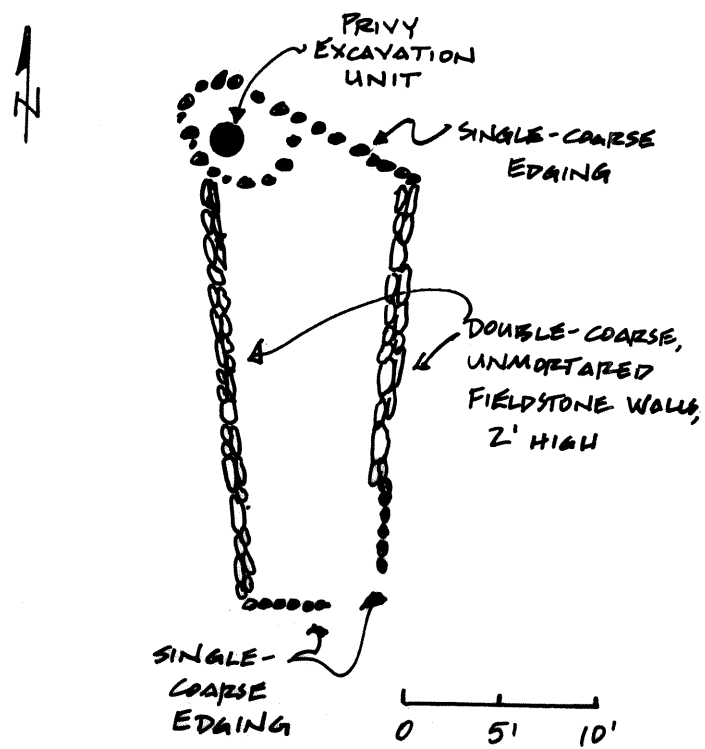


FIGURE 24: Feature V3 at CA-KER-4446H, Cobble City.

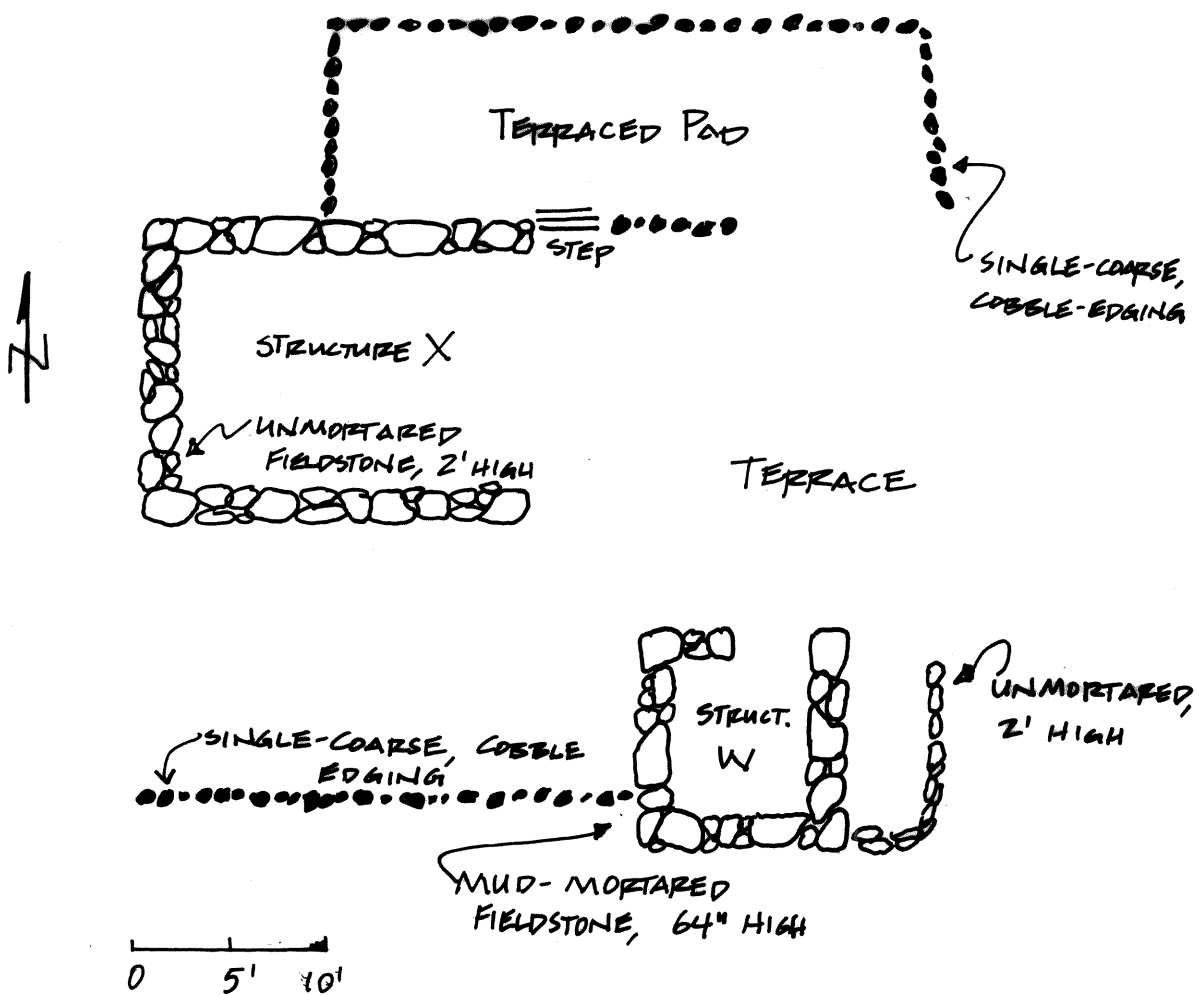


FIGURE 25: Features X and W at CA-KER-4446H, Cobble City.

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KEY TO FIGURE 26: FEATURES AT CA-KER-4447H (Wegmen)

Map Designation	Feature
1	Structure C (Wegmen house), NE corner
2	Survey marker
3	Structure A, NE corner
4	Privy D, NE corner
5	Dump F, S side
6	Reymart-Fraction head frame, NW side
7	Privy L, NW corner
8	Structure O privy & excavation unit
9	Structure O, NW corner
10	N4 privy
11	Structure N5, SE corner
12	Structure N3, SW corner
13	Structure N2, SW corner
14	Structure N, Sw corner
15	Dump M excavation unit
16	Structure K, NW corner
17	Dump M2
18	Wood-framed hole, SE corner
19	Structure I, NW corner
20	Structure J, SE corner
21	Structure H, NW corner
22	Structure A2, NE corner
23	Structure B, NE corner
24	A4 privy & excavation unit

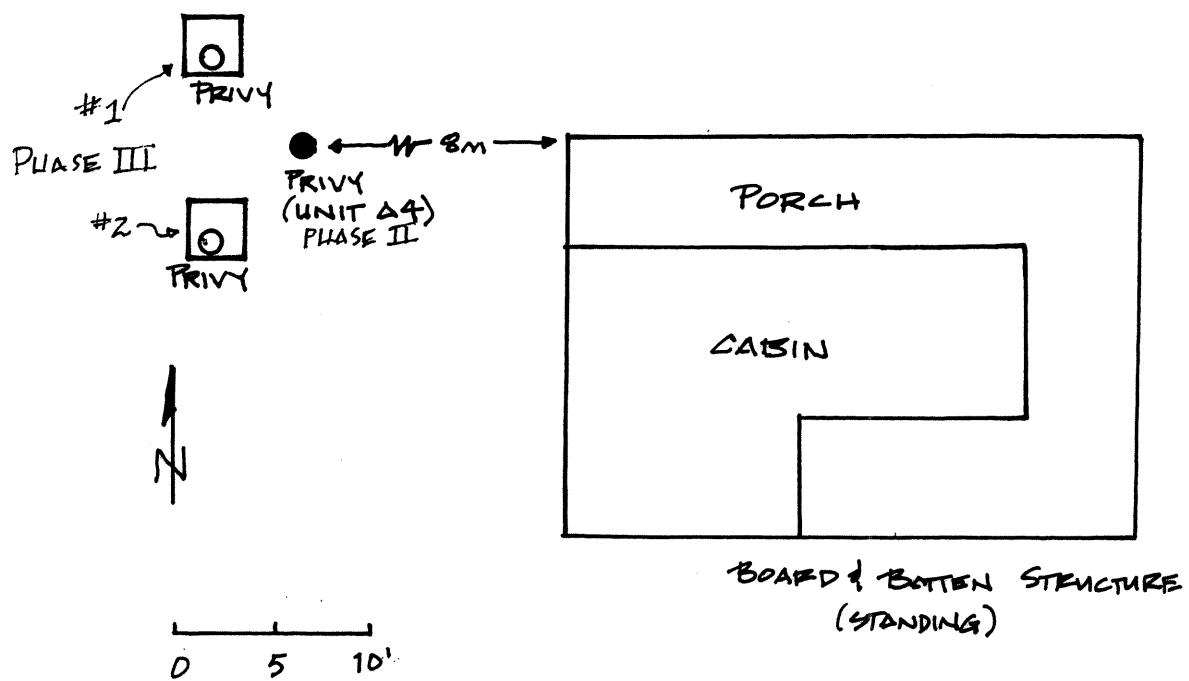


FIGURE 27: Structure A at CA-KER-4447H, Wegmen complex.

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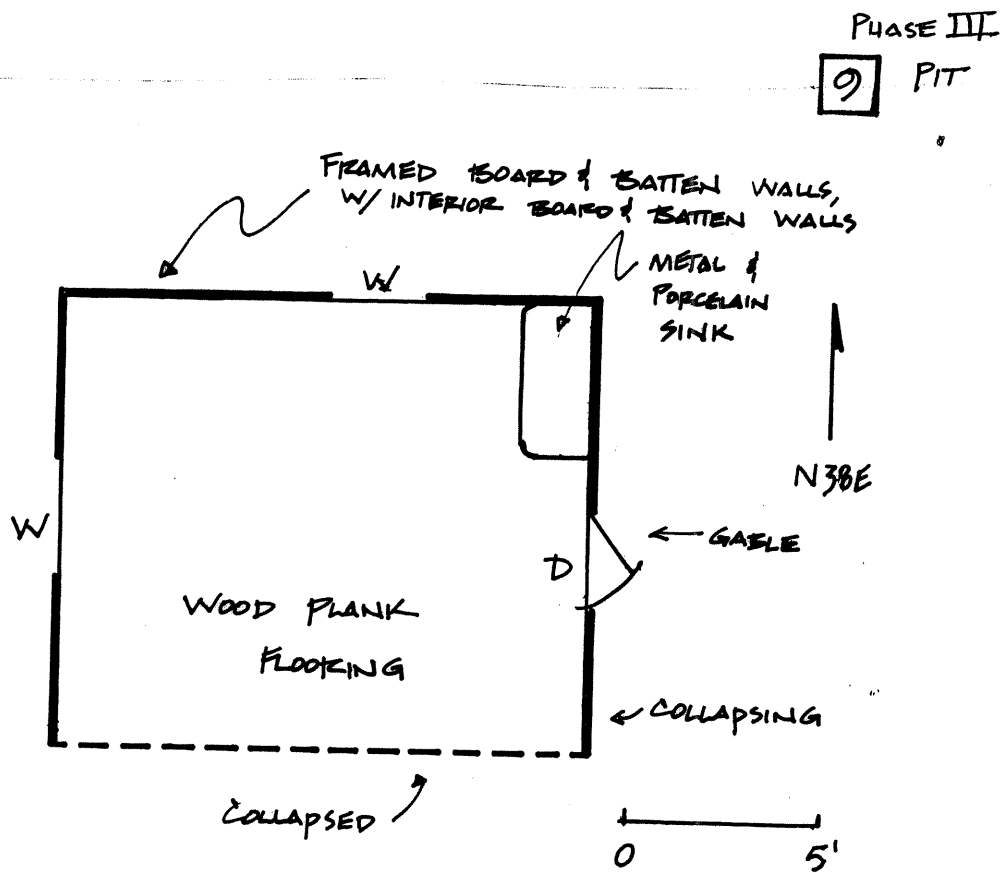


FIGURE 32: Structure H at CA-KER-4447H, Wegmen complex.

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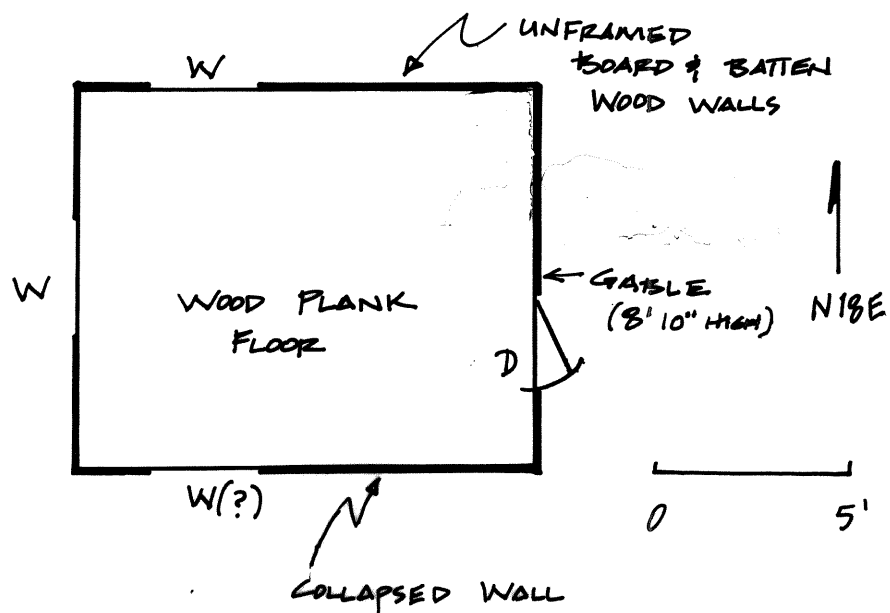


FIGURE 34: Structure I at CA-KER-4447H, Wegmen complex.

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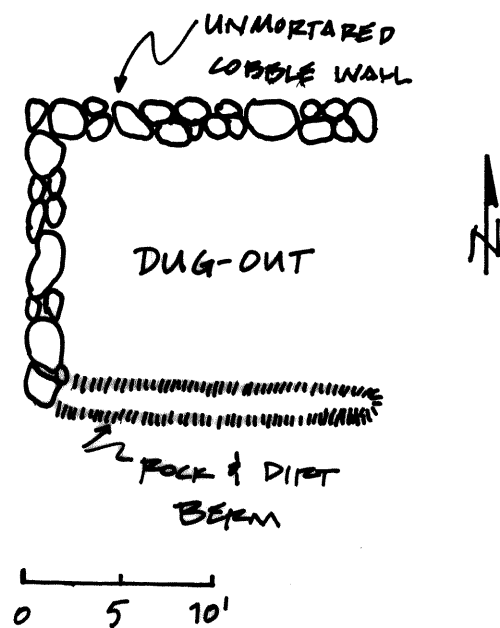


FIGURE 36: Structure L at CA-KER-4447H, Wegmen complex.

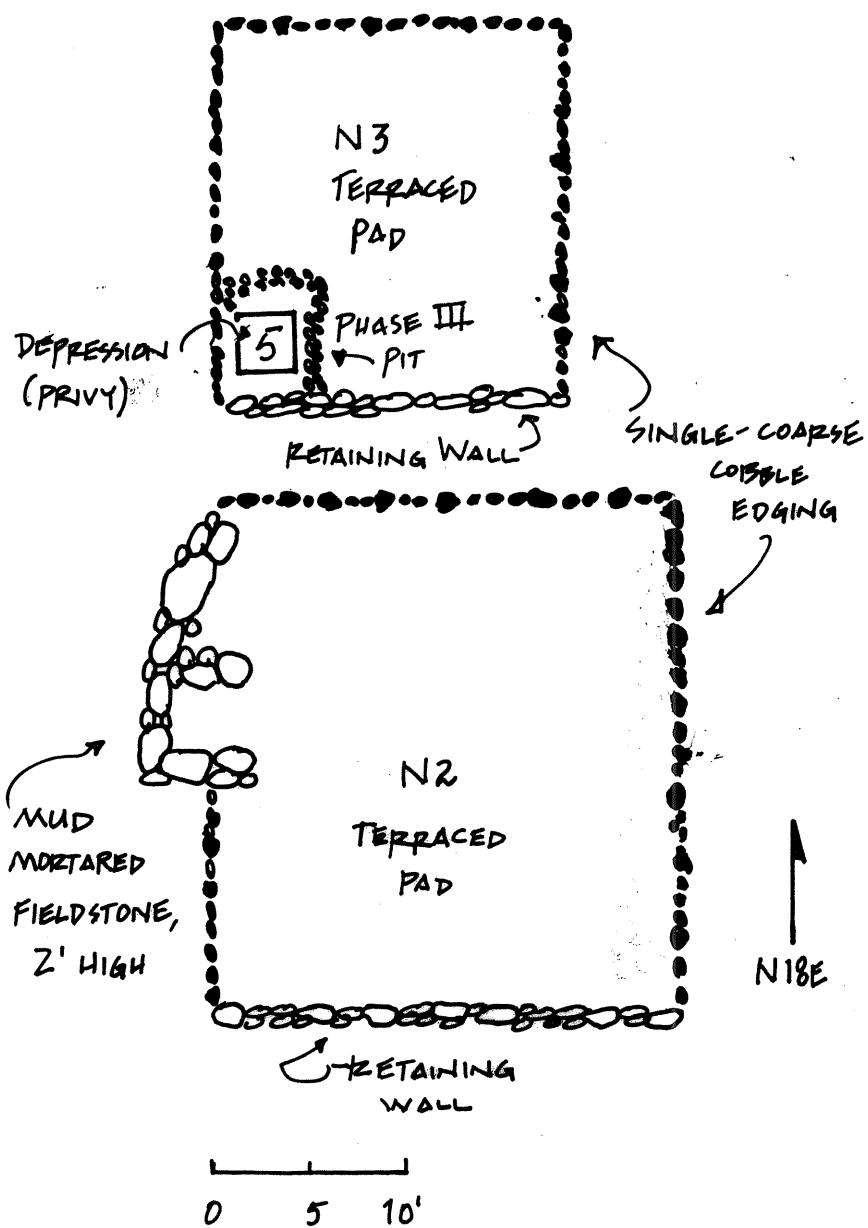


FIGURE 37: N2 and N3 complex at CA-KER-4447H, Wegmen complex.

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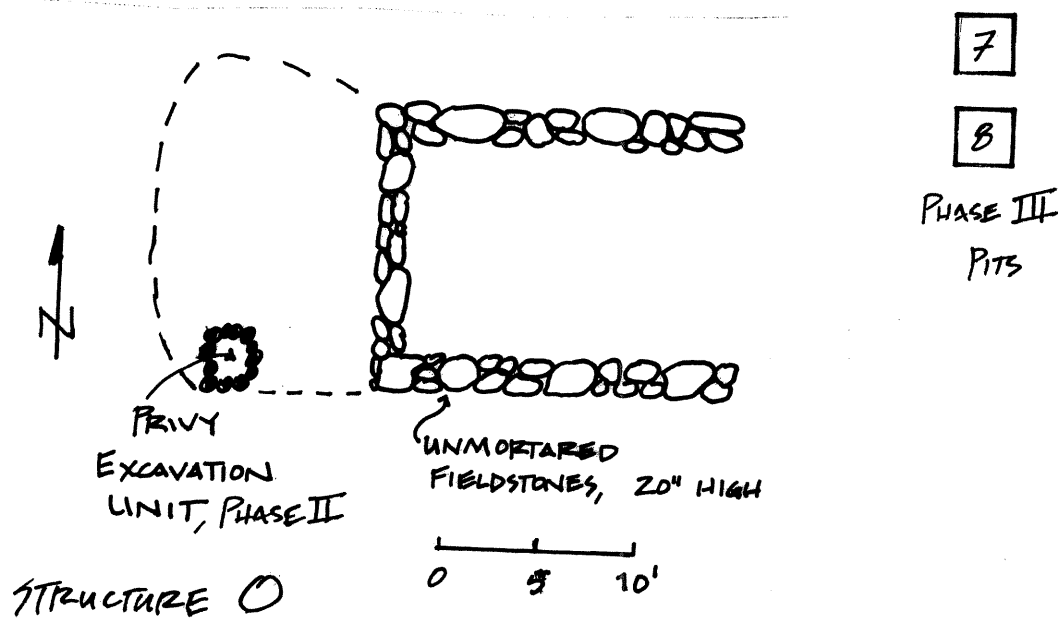
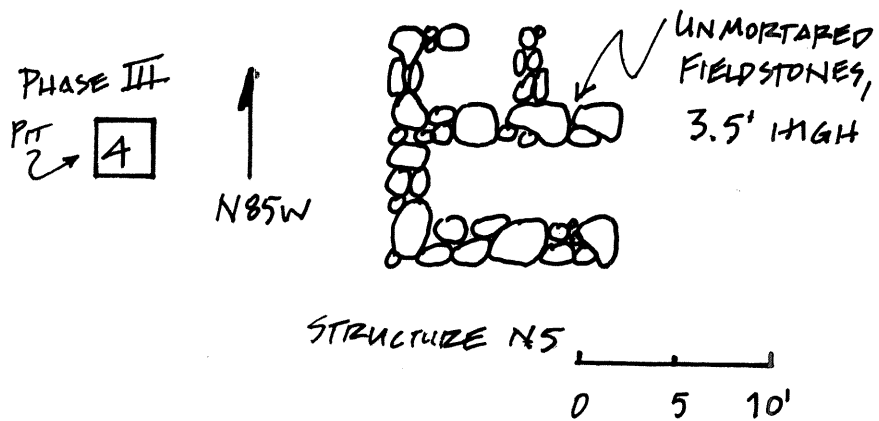
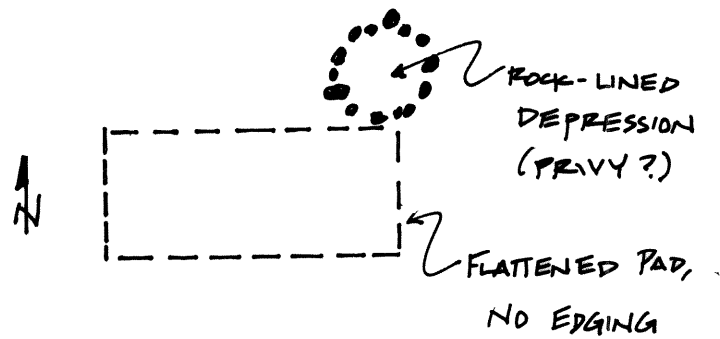
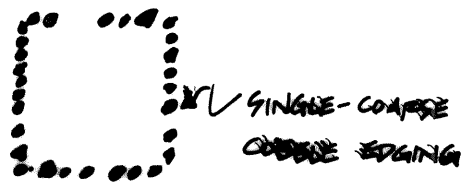
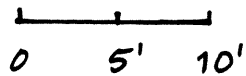


FIGURE 39: Structures N5 and O at CA-KER-4447H, Wegmen complex.



STRUCTURE X11



STRUCTURE P

FIGURE 40: Structures P and X11 at CA-KER-4447H, Wegmen complex.

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**TABLE 3: FEATURES AT KARMA AND QUEEN ESTHER MILLS
(CA-KER-4448H & 4449H)**

Feature #	Description	Comments
KARMA MILL & MINE		
1	Headframe, Hoist house, Haulage adit, etc	Early 20th century + later additions
2	Ore chute & jaw crusher	Modern
3	Assay office	Early 20th century
4	Stamp mill area	Foundation & stamps only; Early 20th century
5	Assay office	Sheet metal & concrete building
6	Blacksmith shop	Sheet metal building
7	Tank area	
QUEEN ESTHER MINE & MILL		
1	Mill structure	Collapsing
2	Assay lab	Wood frame filling with tailings
3	Wood structure	Collapsed
4	Wood structure	Buried by tailings
5	Tank foundation	
6	Dump & Asphalt work area	Tar barrels and piles
7	Ore haulage ramp	Depression era

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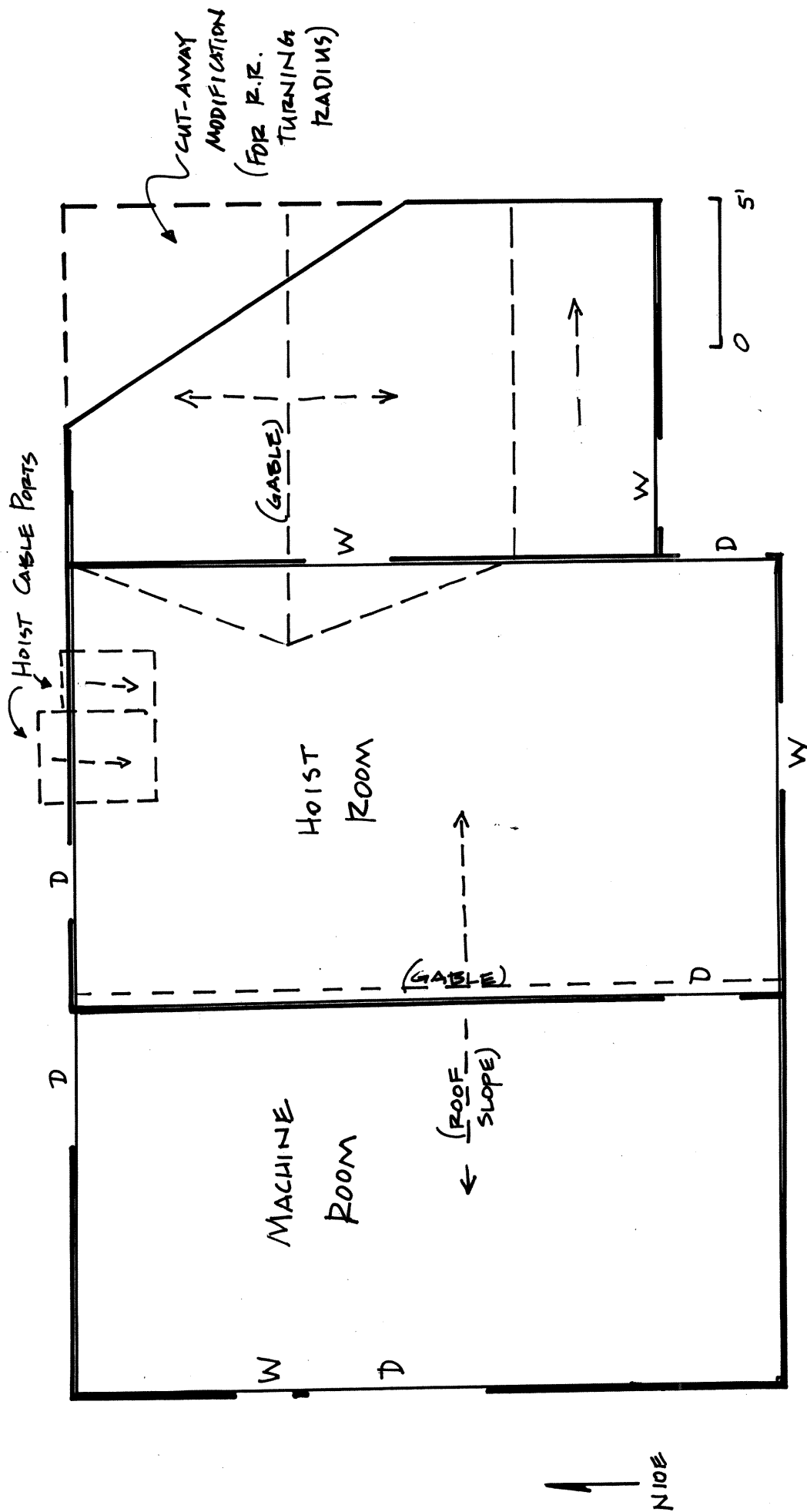


FIGURE 43: Plan of Hoist house at the Karma site, CA-KER-4448H.

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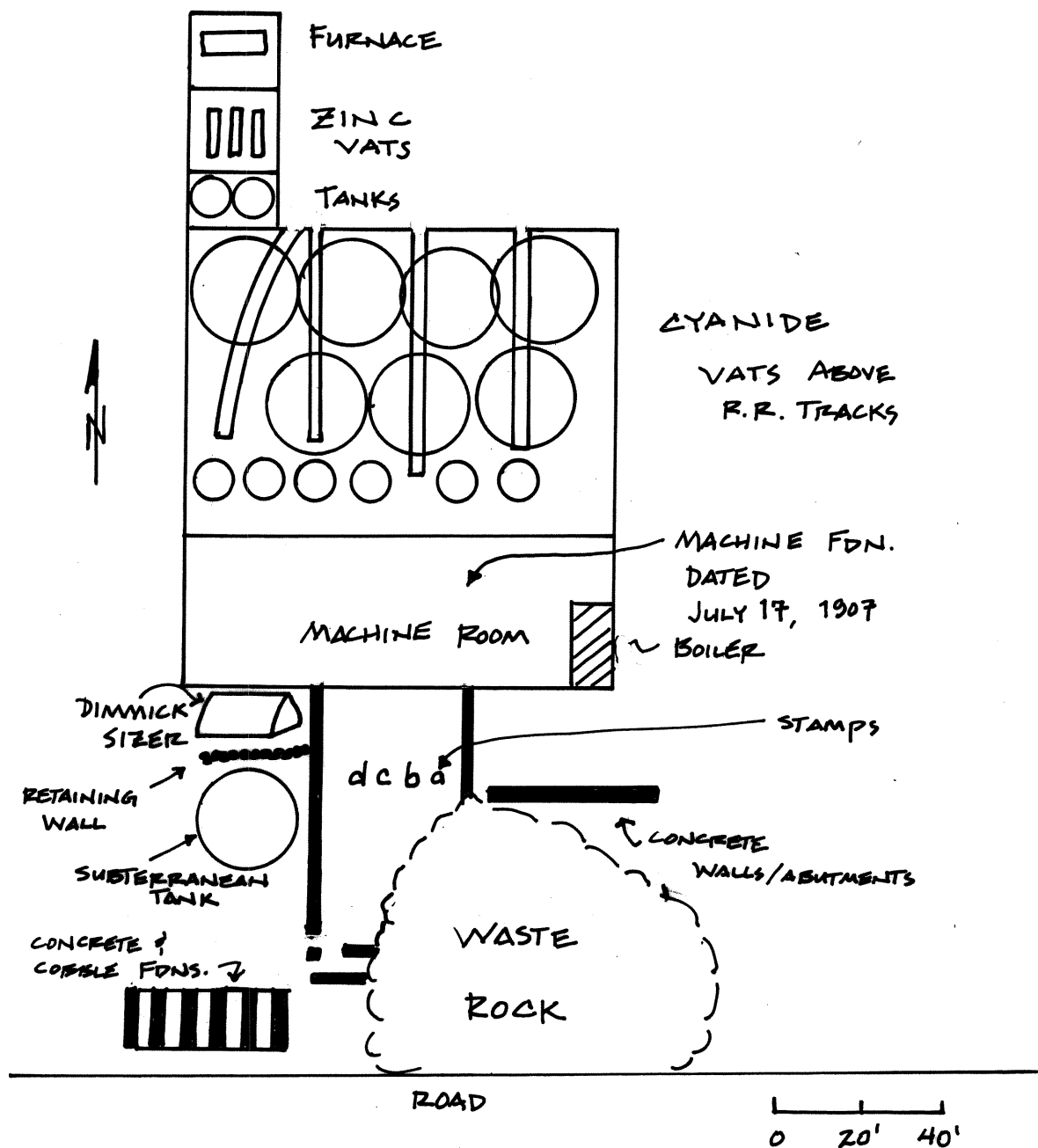


FIGURE 48 - Karma site, plan of extant mill foundations. a - d = stamps and batteries.

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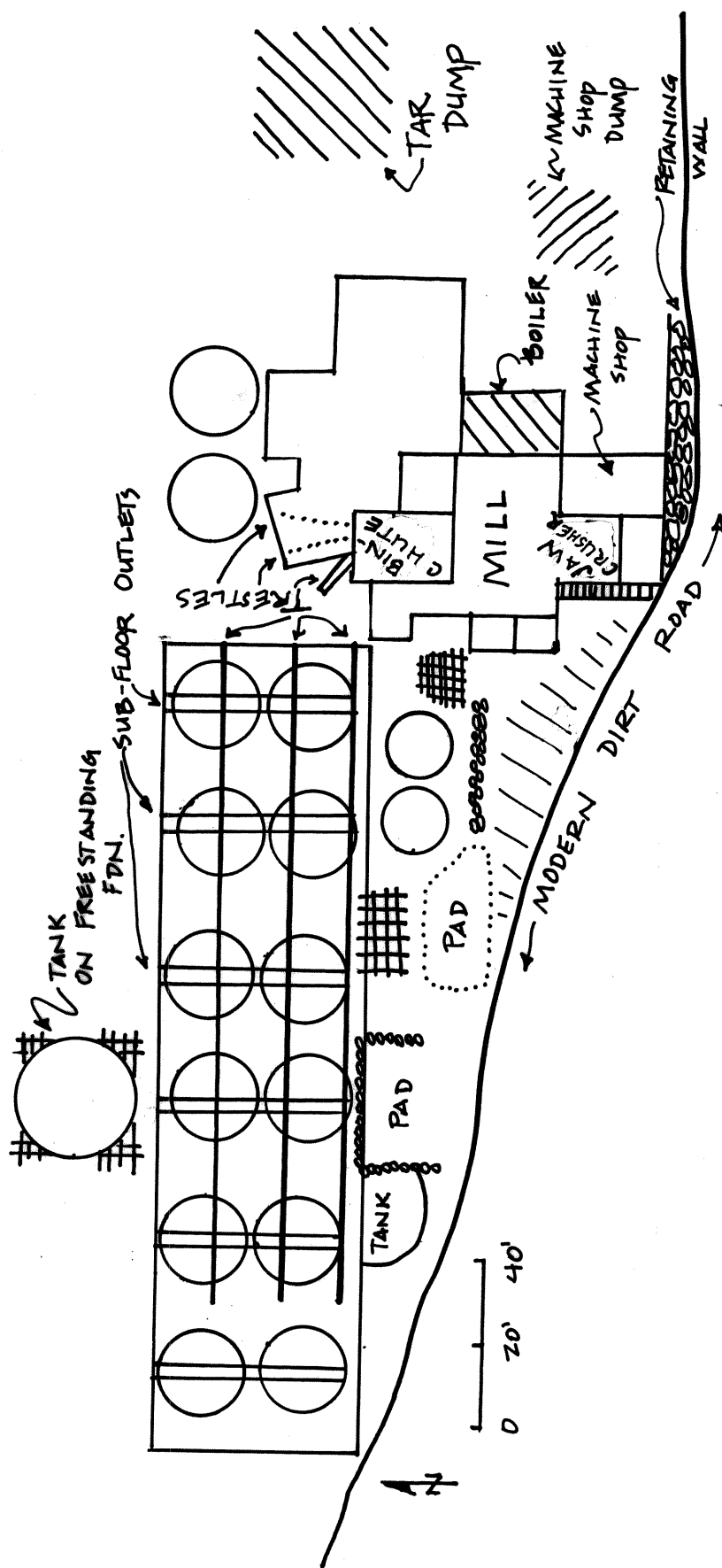


FIGURE 52: Plan of the extant remains of the Queen Esther Mill, CA-KER-4449H.

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9.0

APPENDIX A

ARCHITECTURAL DOCUMENTATION

CA-KER-4448H, Karma Mine

&

CA-KER-4447H, Wegmen Complex

**George Koteles, AIA
and Leonard Ridder, AIA**

MEASURED DRAWINGS

KARMA MINE

CA-KER-4448H

HEAD FRAME

HOIST HOUSE

SHAFT HEAD

WEGMAN COMPLEX

CA-KER-4447H

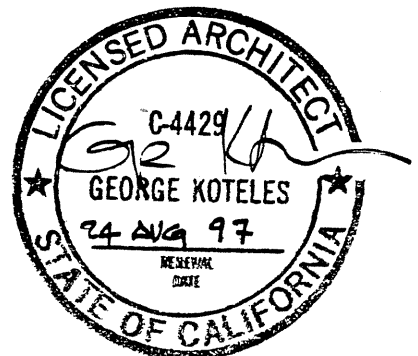
RESIDENCE

PRIVY

PREPARED BY:

GEORGE KOTELES, ARCHITECT

LEONARD RIDDER



22 October 1996

THE KARMA MINE
CA-KER-4448H

COMMENTS ON THE FINDINGS DURING THE DEVELOPMENT OF THE MEASURED DRAWINGS

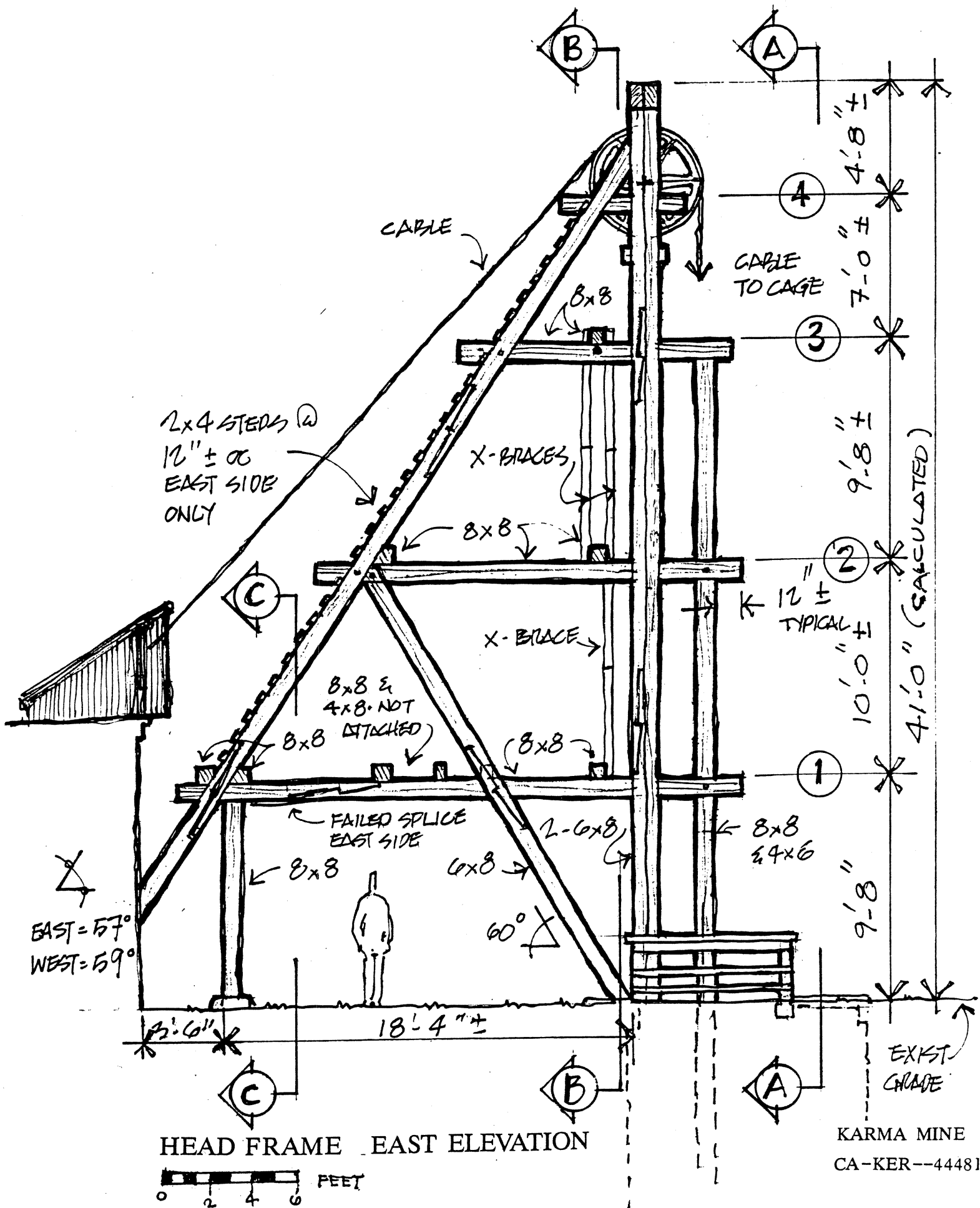
HEAD FRAME

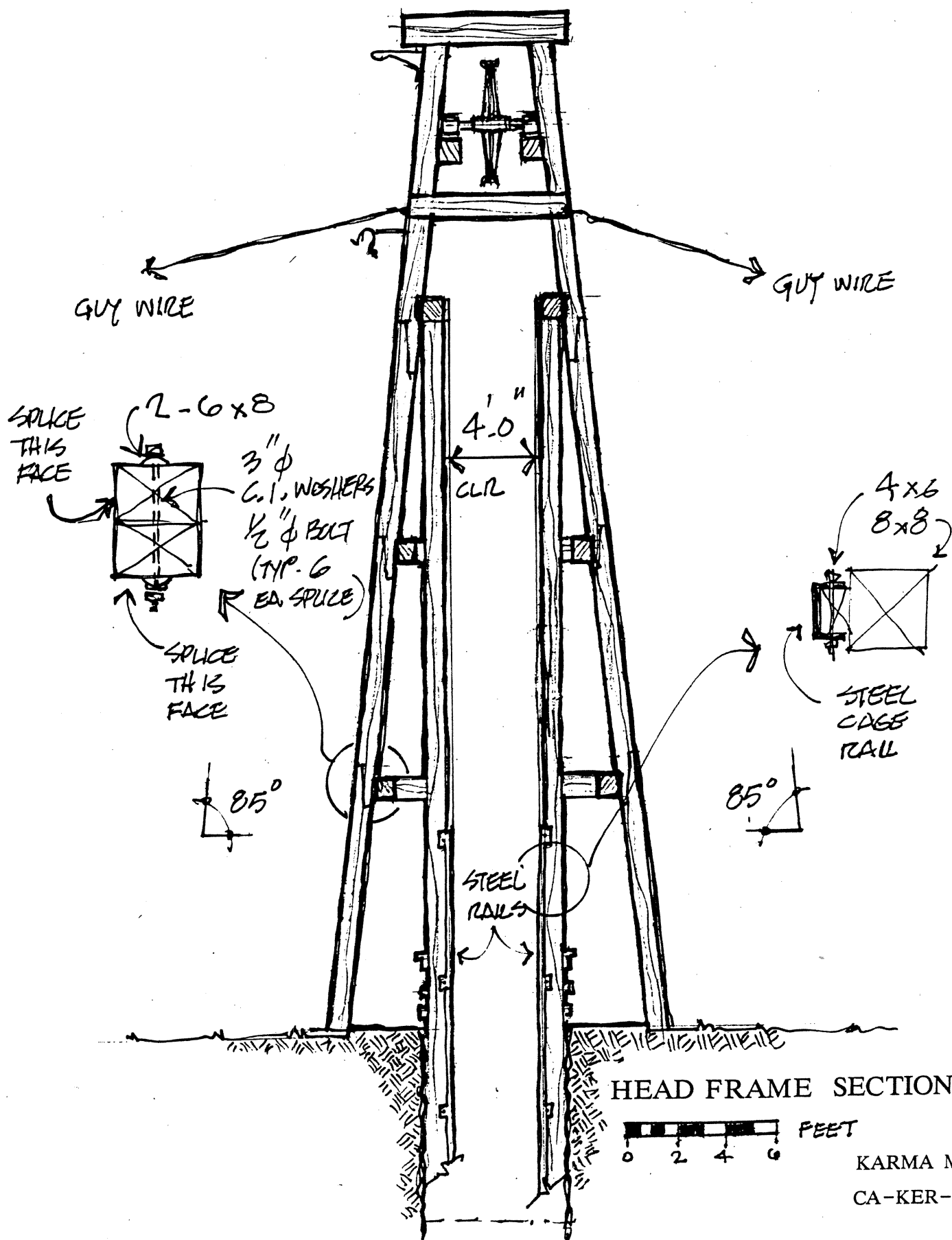
It is conjectured that the head frame was a prefabricated element, fabricated at some unknown sawmill, transported to the site & modified to fit the existing site conditions.

This conclusion is based on the following:

1. The splice joints are all of a very precise cut & of an identical size - a very difficult process to be achieved in the field with this precision.
2. At the splice, there is a gap between the elements - the intent of the vertical offset is to act as a pressure joint element between the members. This gap indicates that the total length of the composite member was "stretched" to fit the field conditions.
See photographs, pages 6, 7 & 10.
3. At the vertical connection indicated as Section C, Level 1, note the infill of shims at the top of the vertical member on both the East & West sides. Again a field condition modification.
See photographs pages 6,7 & 8.

The failed splice in the Easterly horizontal member at Level 1, we surmise, can be attributed to the loose 8 x 8 & 4 x 8 indicated on the "Head Frame East Elevation" drawing being used as a lifting point for some item that exceeded the design load allowable for the horizontal member. In the design parameters, this member is only meant to be a tension-compression member.
See photographs page 9.

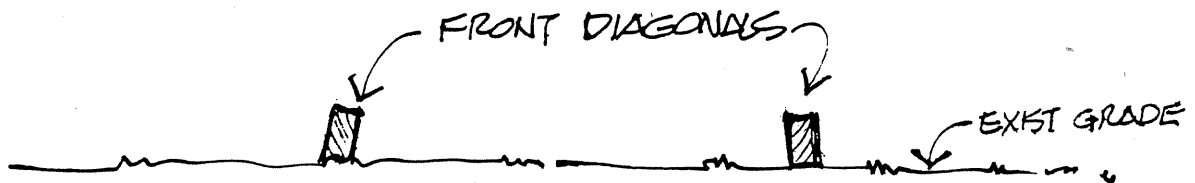
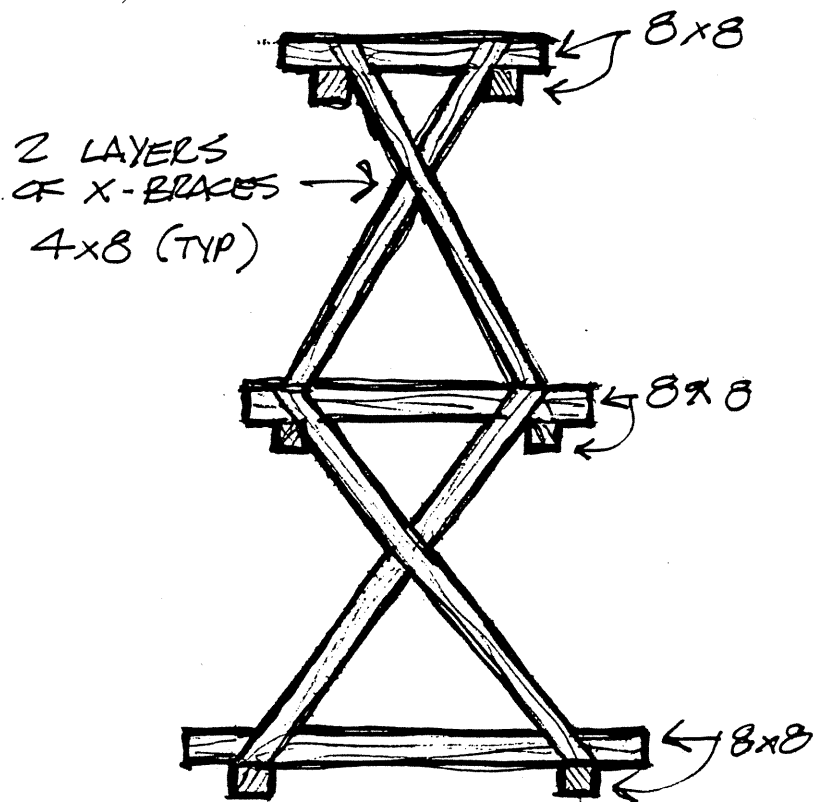
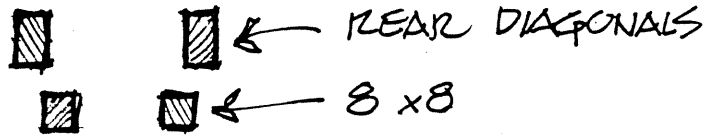




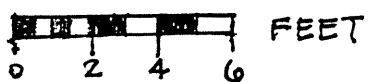
HEAD FRAME SECTION (A)

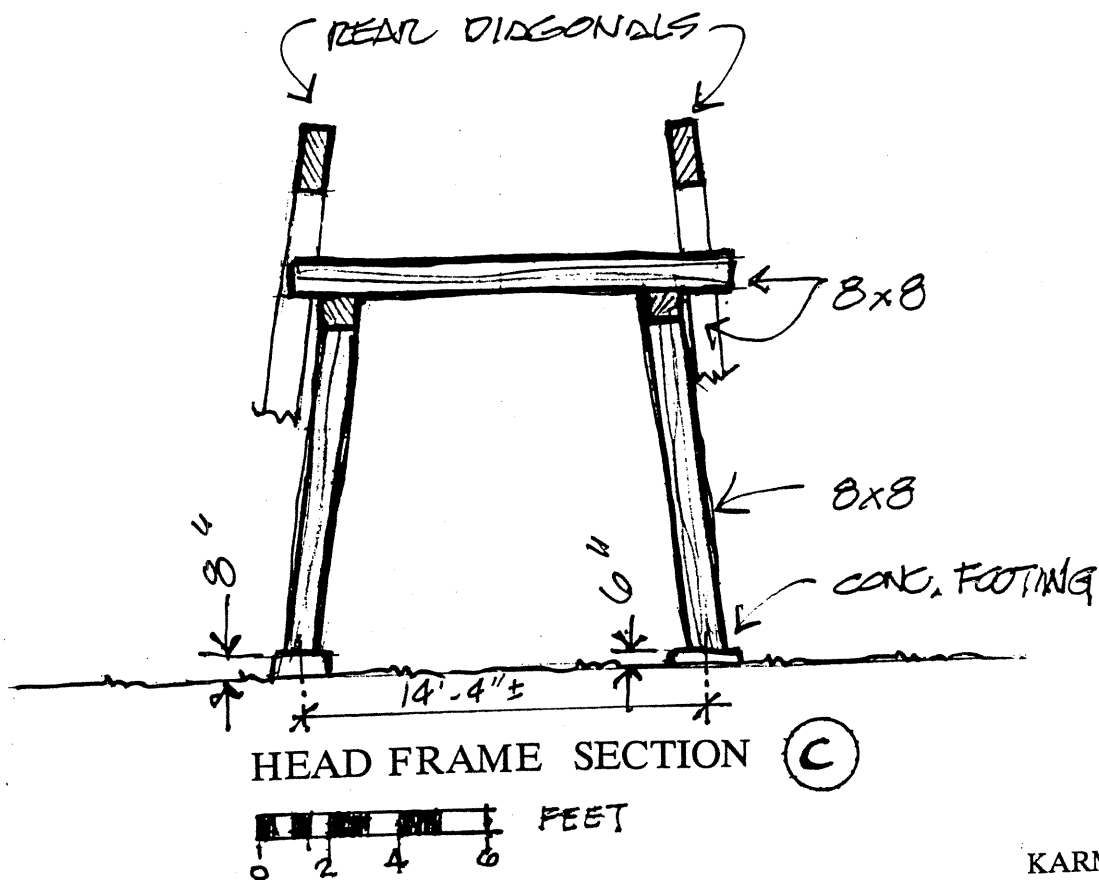
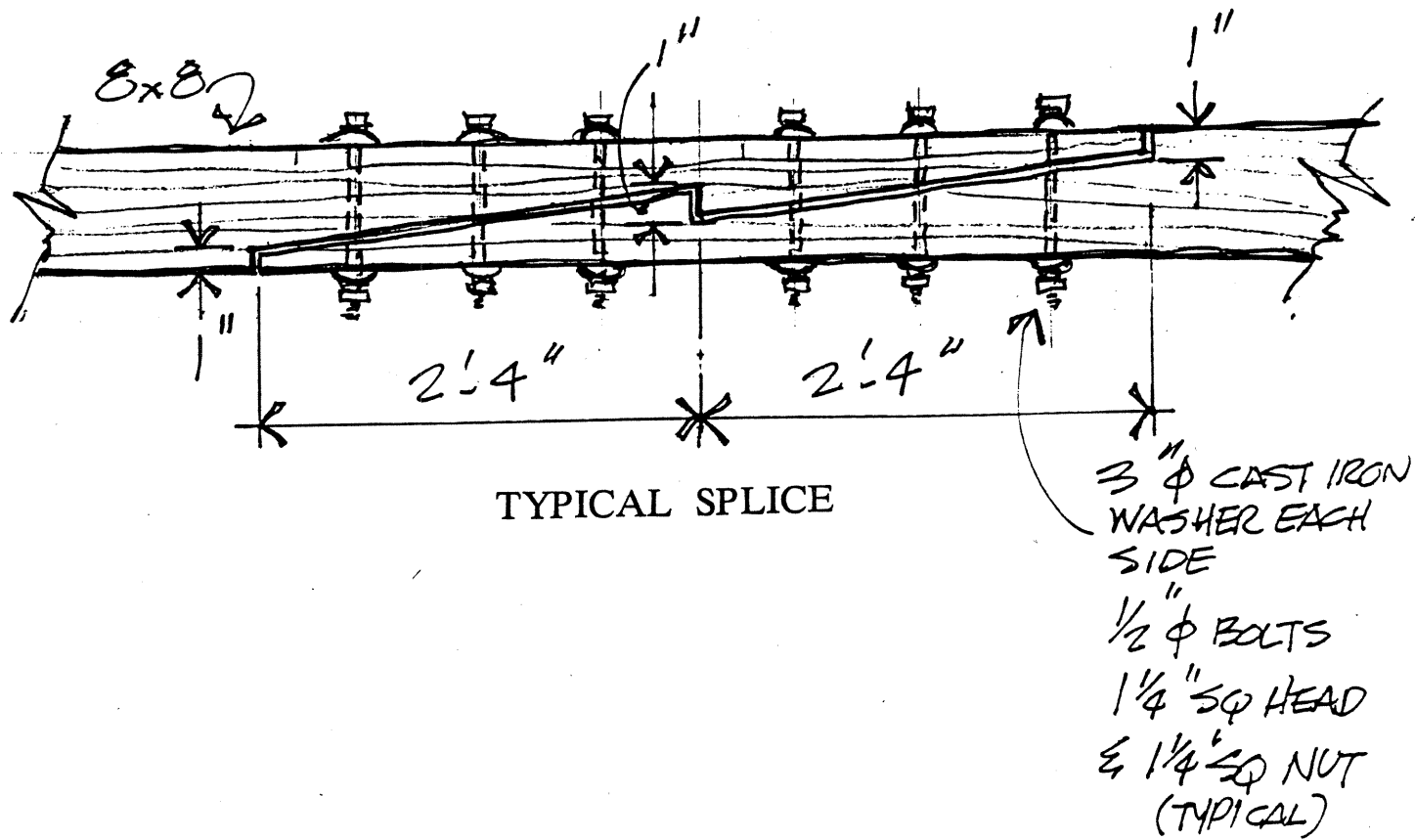
0 2 4 6 FEET

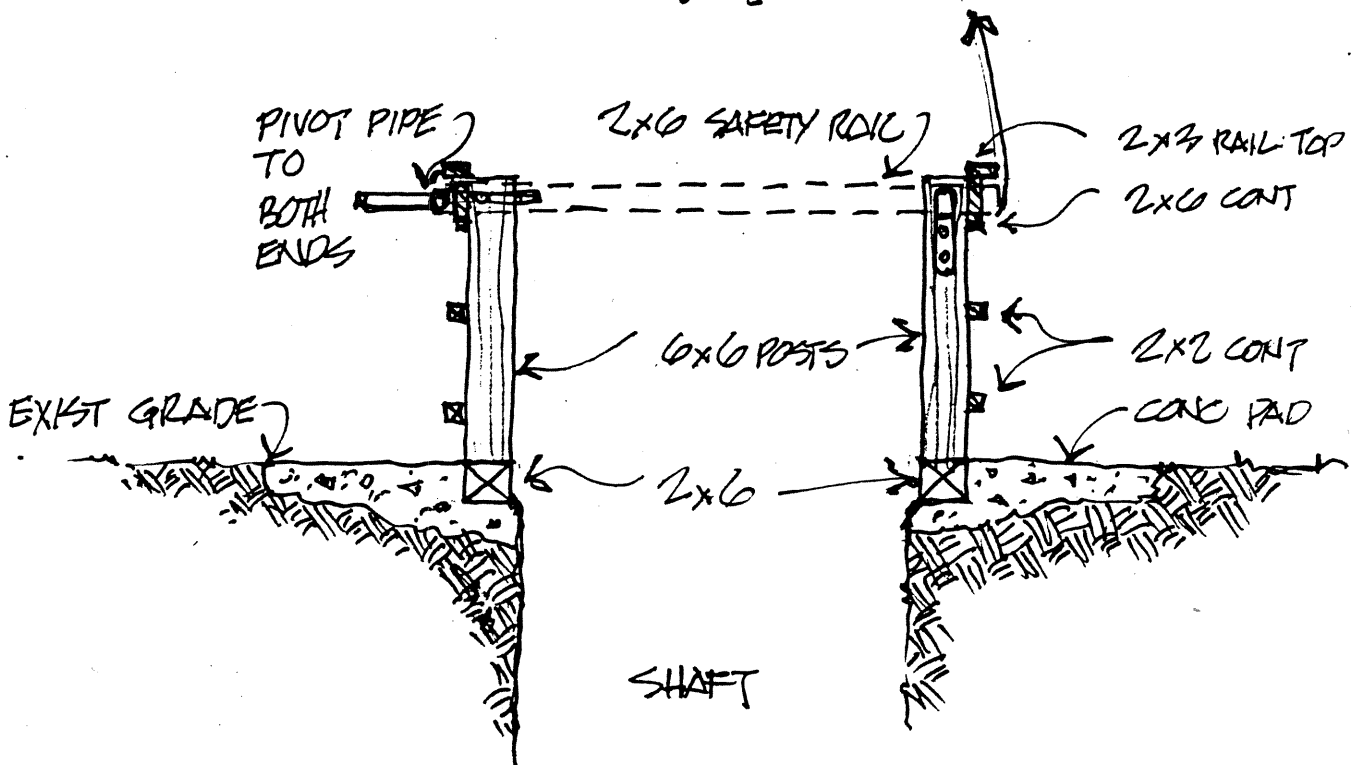
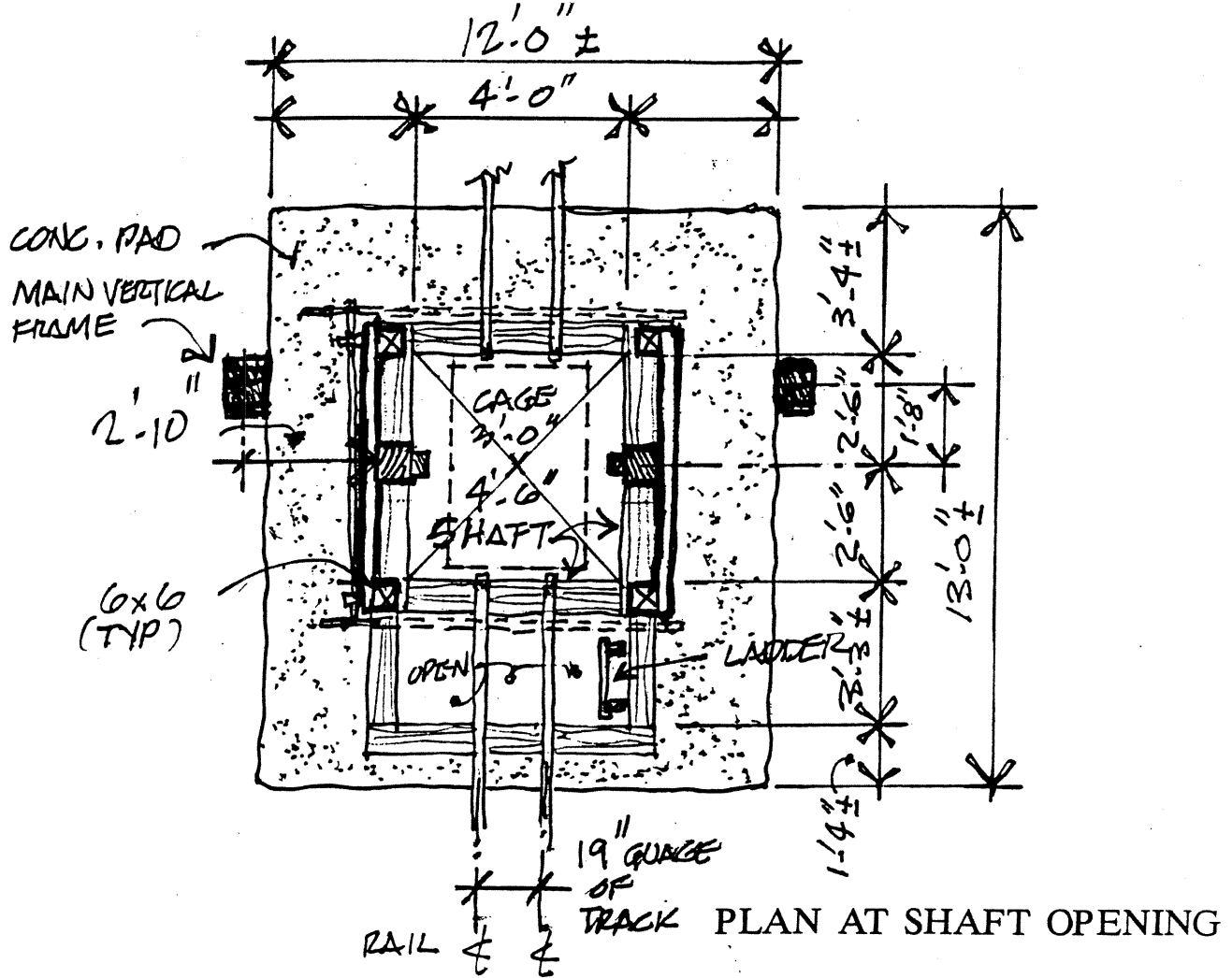
KARMA MINE
CA-KER--4448E



HEAD FRAME SECTION (B)







SECTION

SHAFT HEAD

KARMA MINE

CA-KER--4448H

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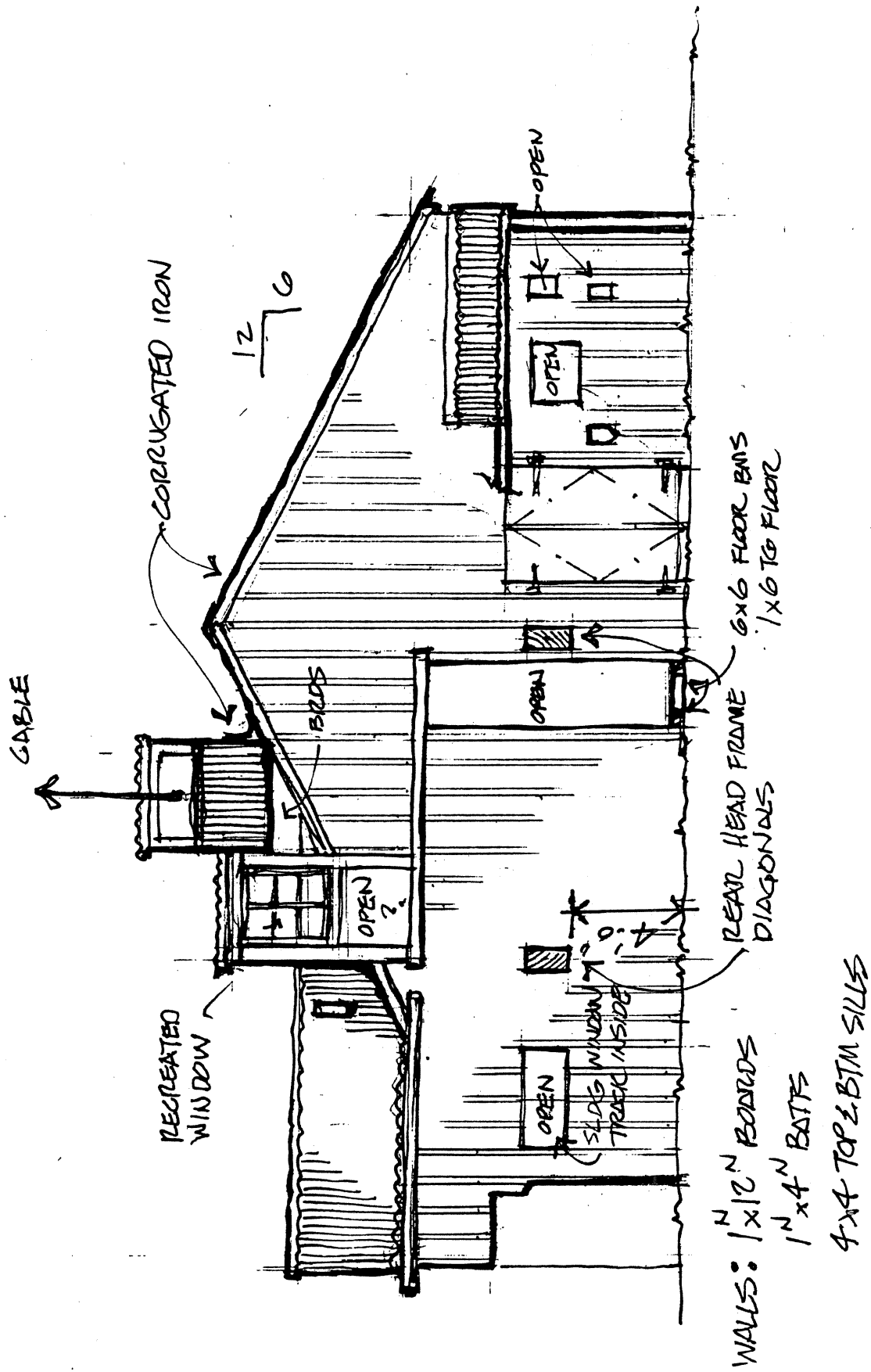
KARMA MINE
CA-KER-4448H

HOIST HOUSE

Of particular interest is the field modification at the Northeast corner of the structure. At some time, when the ore cart rail from the east horizontal mine tunnel was added, the rail radius required the "notch" into the corner of the existing building. No real engineered support for the existing roof structure was added, yet the "field engineered" construction has proved to be sound in actuality, if not in principle.

The building is constructed of a single wall system of 1" net by 12" net rough sawn boards, 1" net by 4" net battens at the exterior joints, without any consistent additional vertical structural members, a 4" net by 4" net bottom & top sill plates.

The roof system is of roof trusses composed of 2" net by 4" net members, with the trusses spaced at 24" on centers, 1" net by 6" net spaced roof sheathing & a corrugated metal roof.



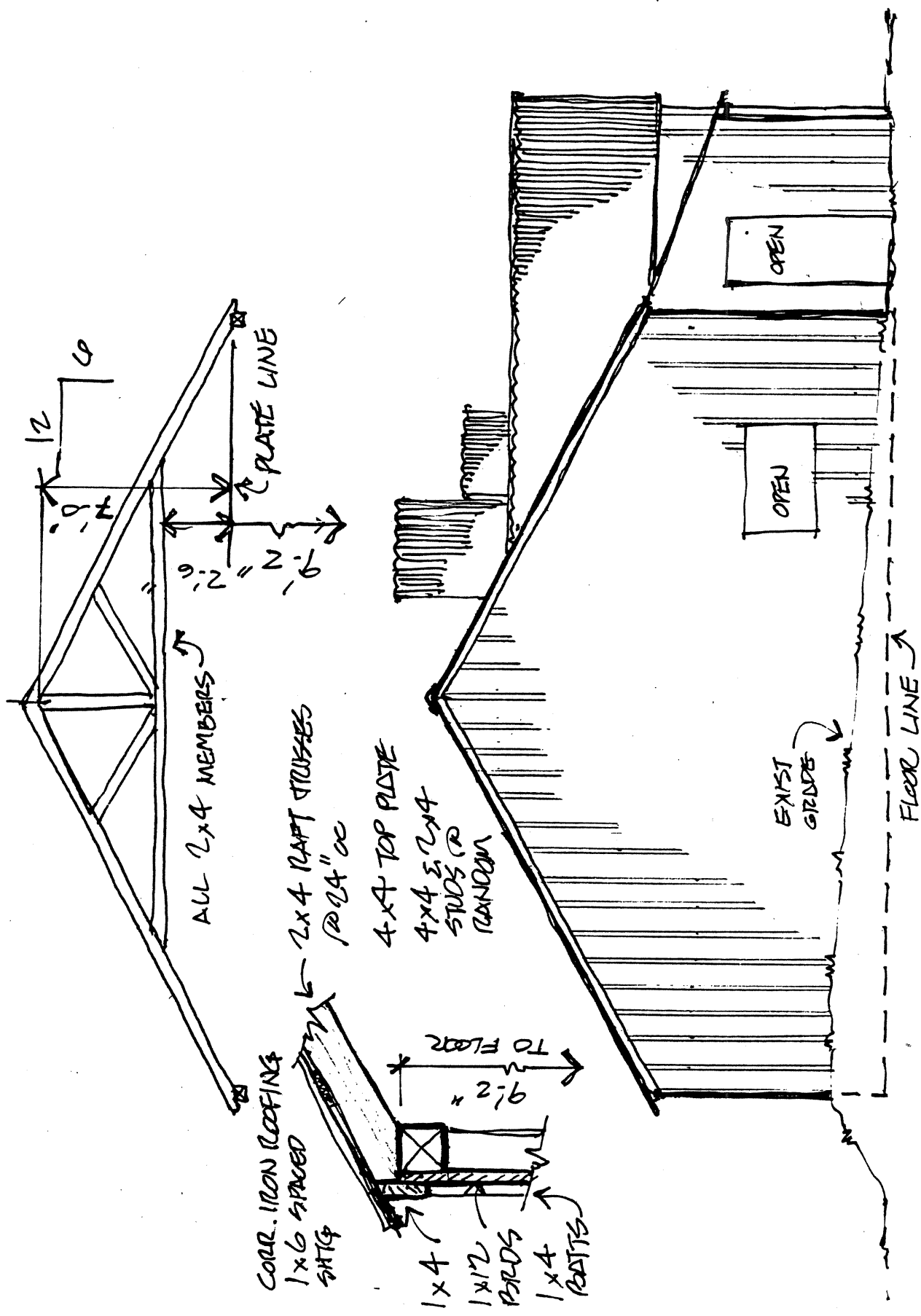
NORTH ELEVATION



HOIST HOUSE

KARMA MINE

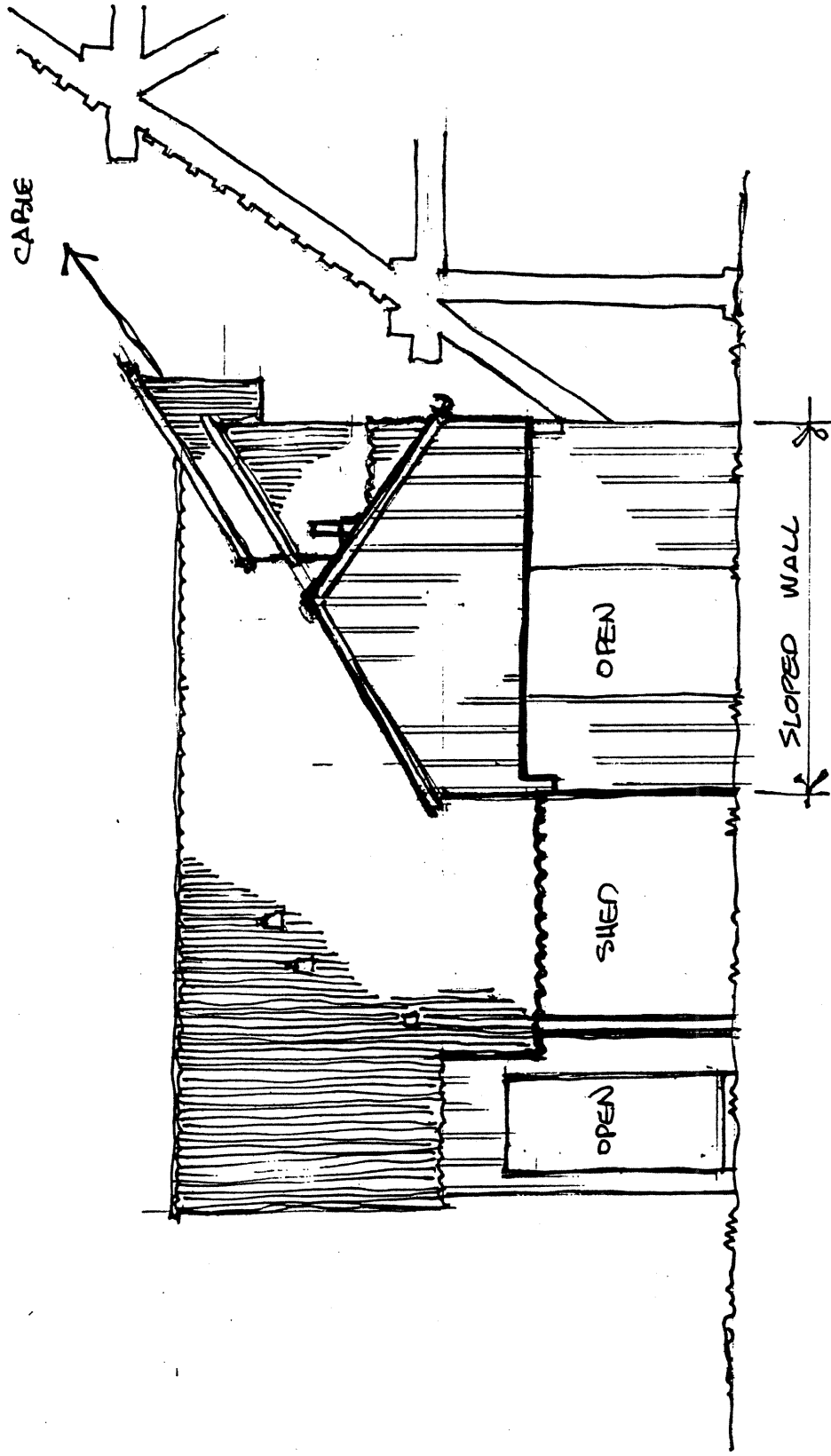
CA-KER--4448 H



SOUTH ELEVATION



HOIST HOUSE
 KARMA MINE
 CA-KER--4448H



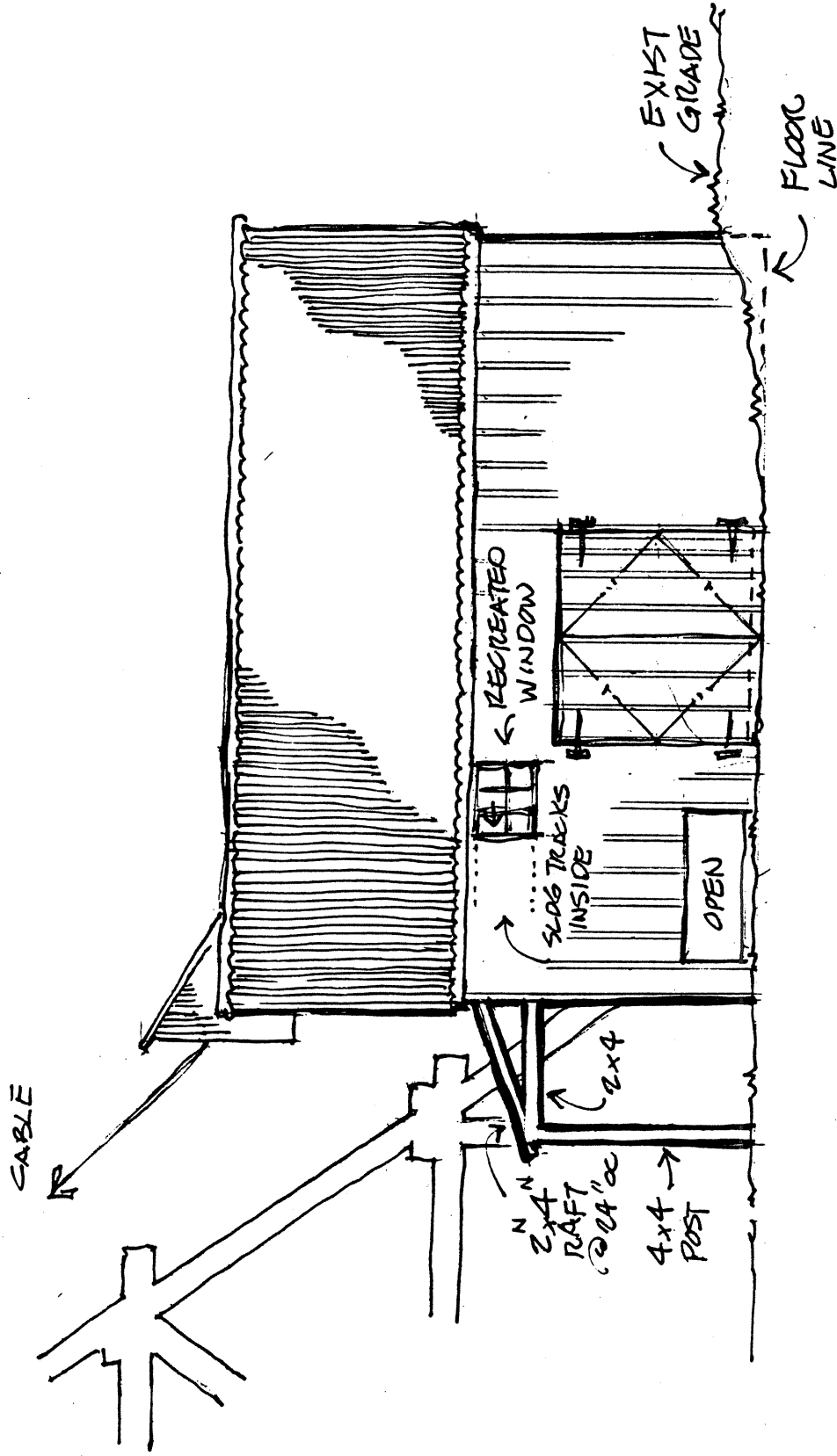
EAST ELEVATION



HOIST HOUSE

KARMA MINE

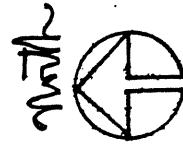
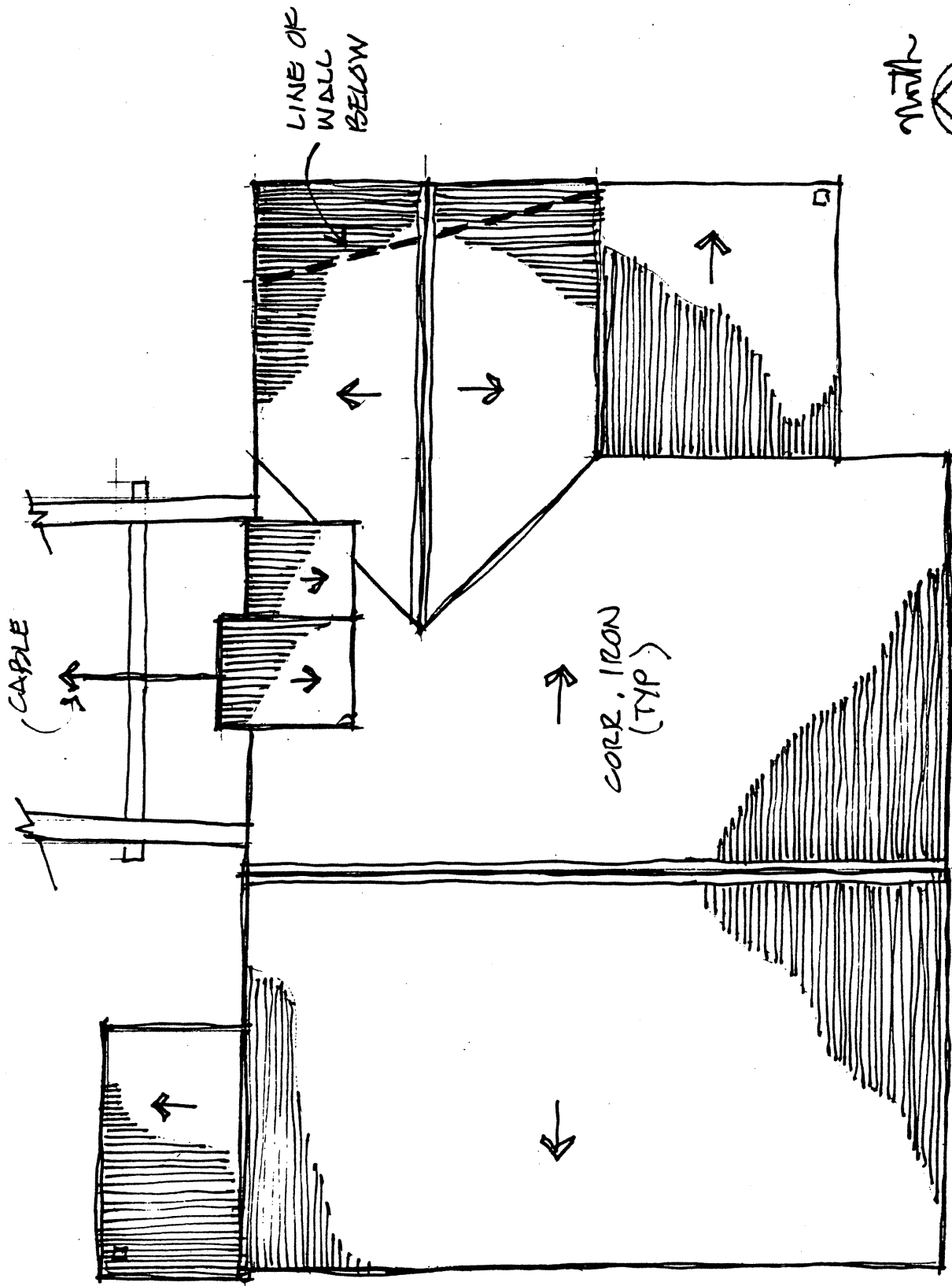
CA-KER---4448 II



WEST ELEVATION



HOIST HOUSE
KARMA MINE
CA-KER--4448H



HOIST HOUSE

KARMA MINE

CA-KER--444811

ROOF PLAN



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WEGMAN COMPLEX
CA-KER-4447H

RESIDENCE

From field analysis, it is assumed that the basic 2 room element could have been a prefabricated building.

The members in this element are sized as "net" sized members - that is measuring a full dimensional size, ie: 2" by 4", as opposed to the size of the elements in the additions measured as nominal lumber sizes, ie: 1 5/8" by 3 1/2".

The missing portions & additions are indicated on the documentation by "best means" analysis of the existing debris piles. The existing debris has been greatly disturbed, with we surmise missing elements that would have made establishment of the actual outlines of the additions more precise & complete.

Of particular interest is the method of the attachment of the wall paper to the interiors of the residence.

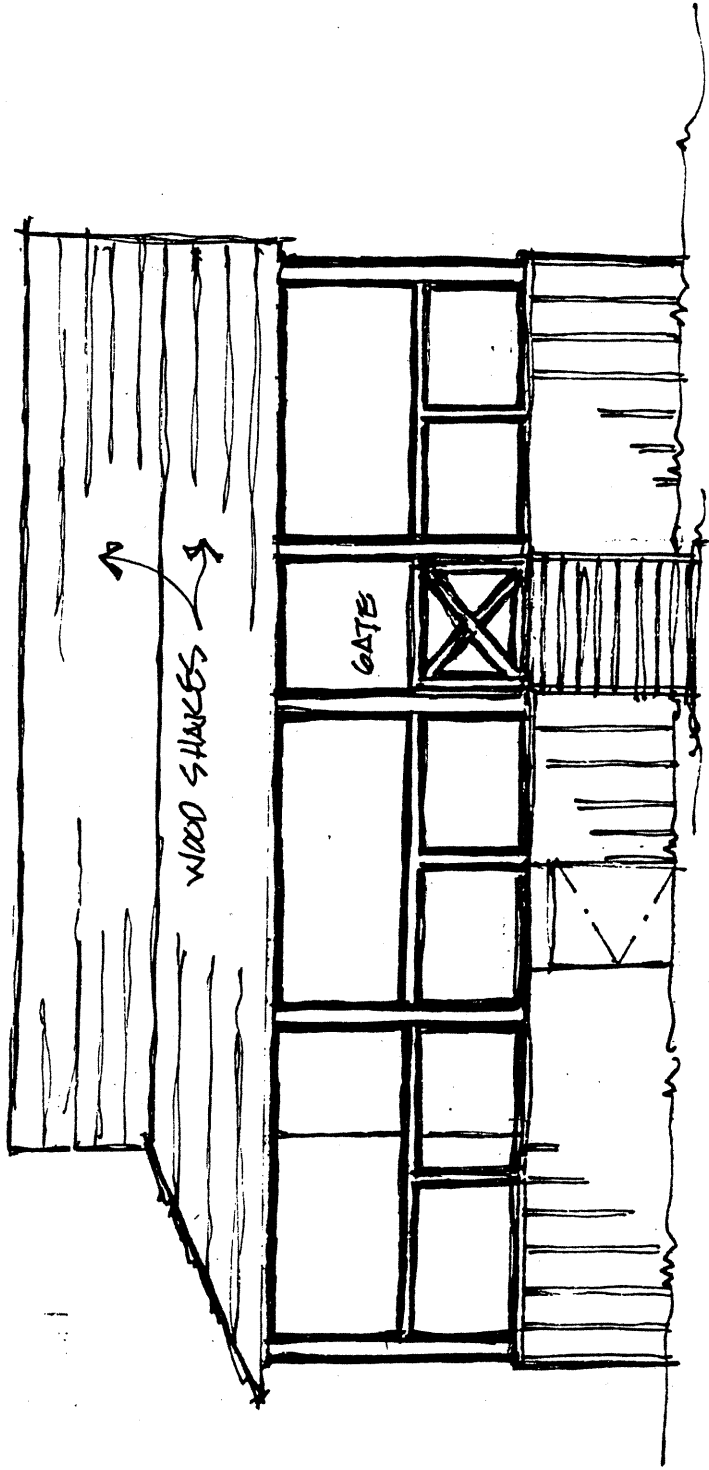
With the single wall construction providing a rather porous exterior wall & the rough finish of the materials, the use of the "buttons to fasten the paper was utilized. Ingeniously, when the installer ran out of "buttons", additional units were fabricated from Hills Bros Coffee cans. See photographs pages 6 & 7.

THE PRIVY

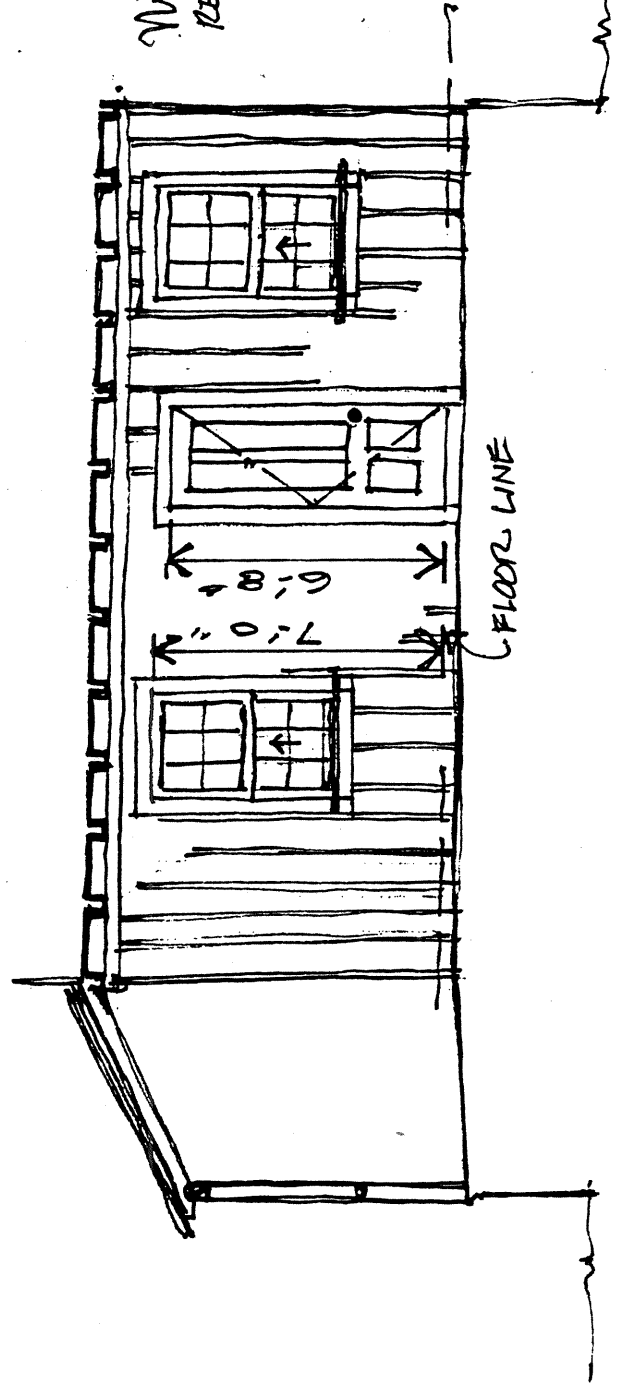
Of particular interest, in this structure, is the exceptional finish of the seats in both chambers. They are composed of a single 1" thick by 20" wide board, smoothly finished on both the upper & lower surfaces, with the openings carefully radiused, again on both the upper & lower surfaces.

We surmise, as the balance of the structure is composed of rough cut lumber, that these seats were a premanufactured, purchased items.

by George Koteles, Architect



NORTH ELEVATION



NOTE: ALL WINDOWS
RECREATED FROM DEBRIS

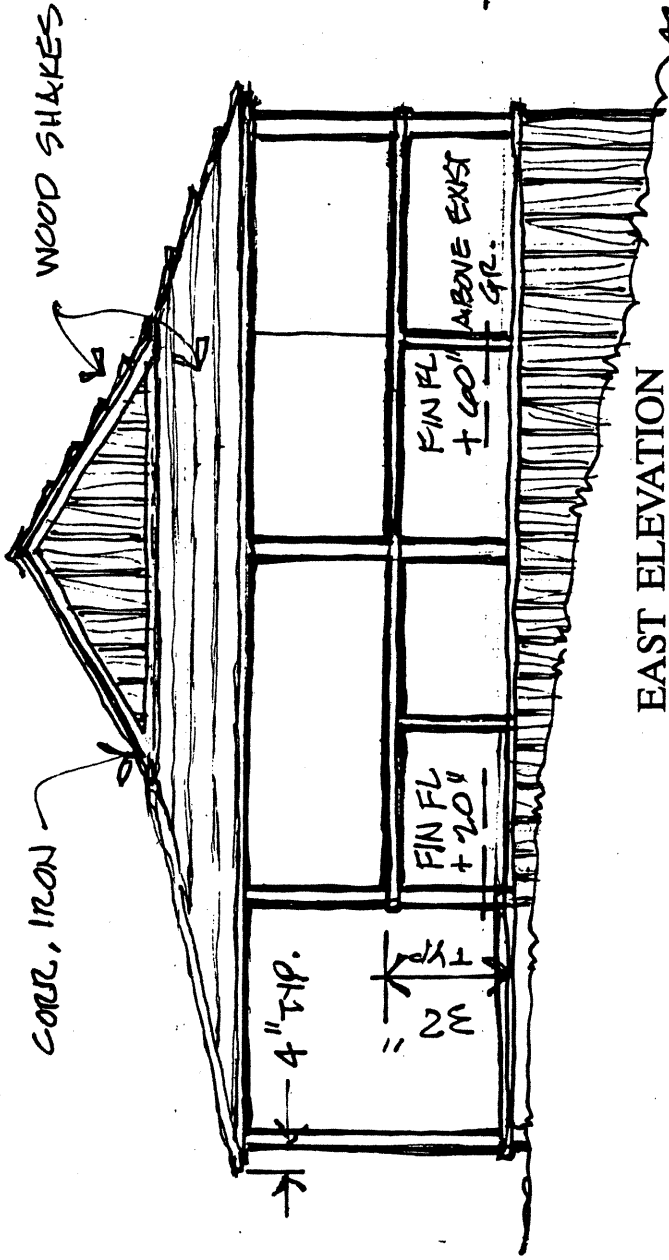


RESIDENCE

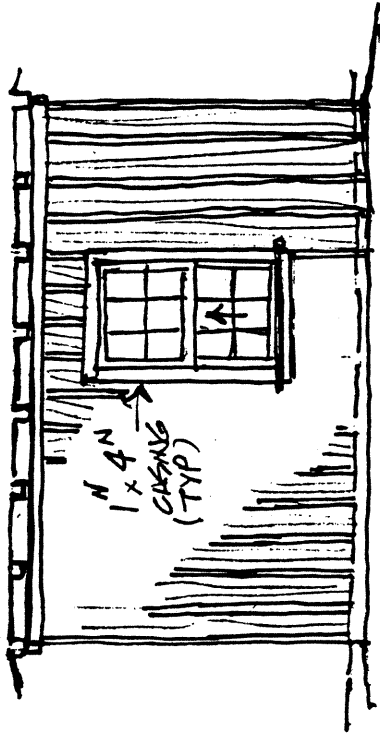
WALL BEYOND

WEGMAN COMPLEX

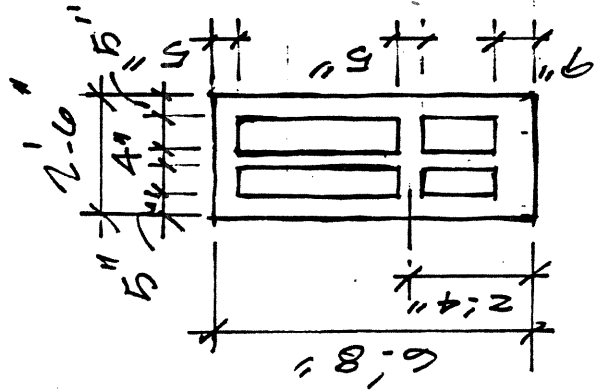
STRUCTURE A CA-KER-4447H



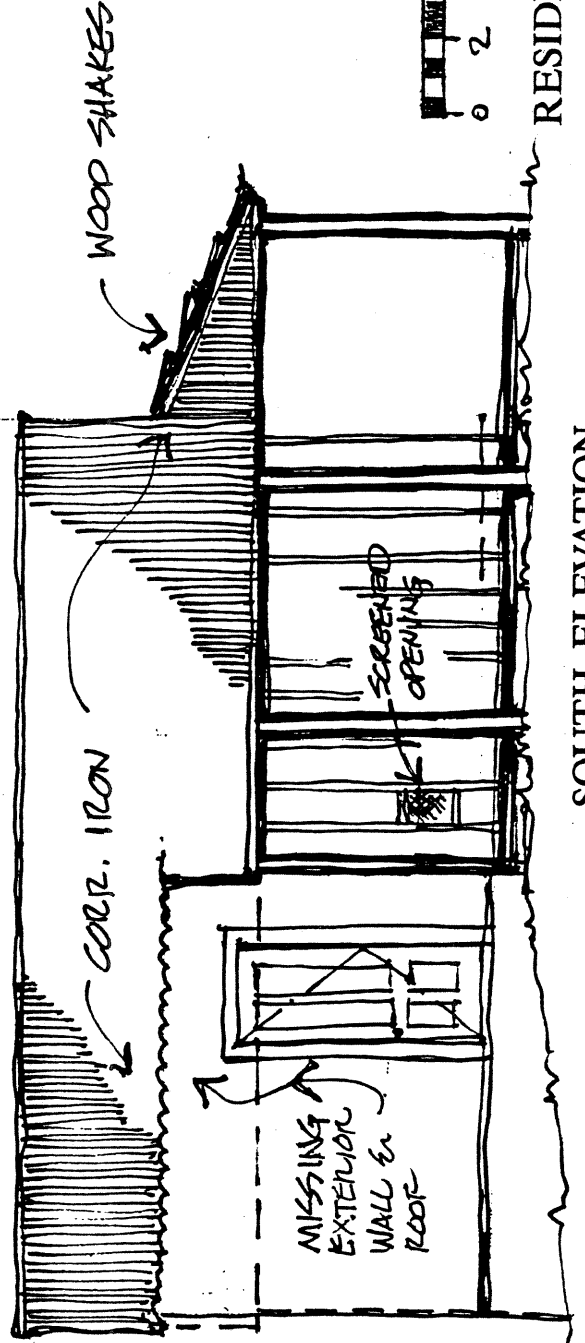
EAST ELEVATION



WALL BEYOND



TYPICAL DOOR
NOT TO SCALE

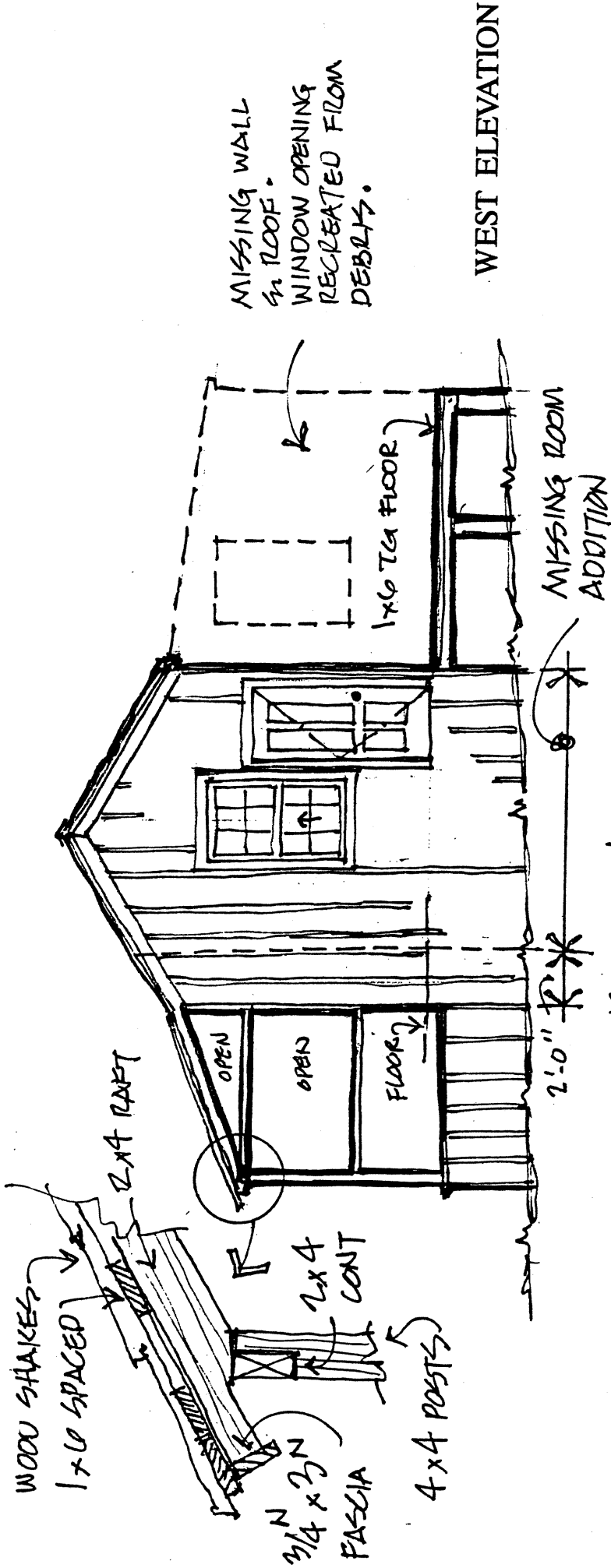


SOUTH ELEVATION

RESIDENCE

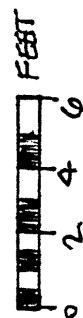
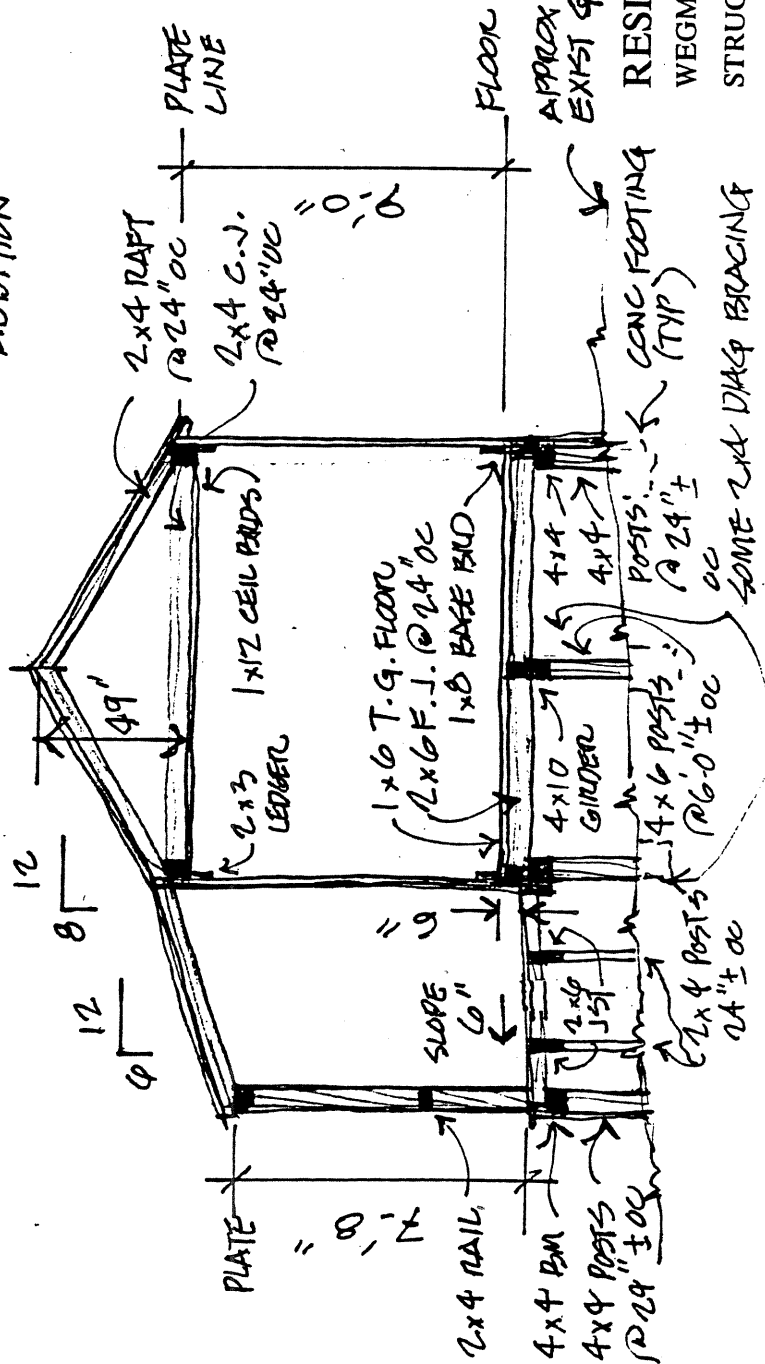
WEGMAN COMPLEX

STRUCTURE A CA-KED-AAA711



WEST ELEVATION

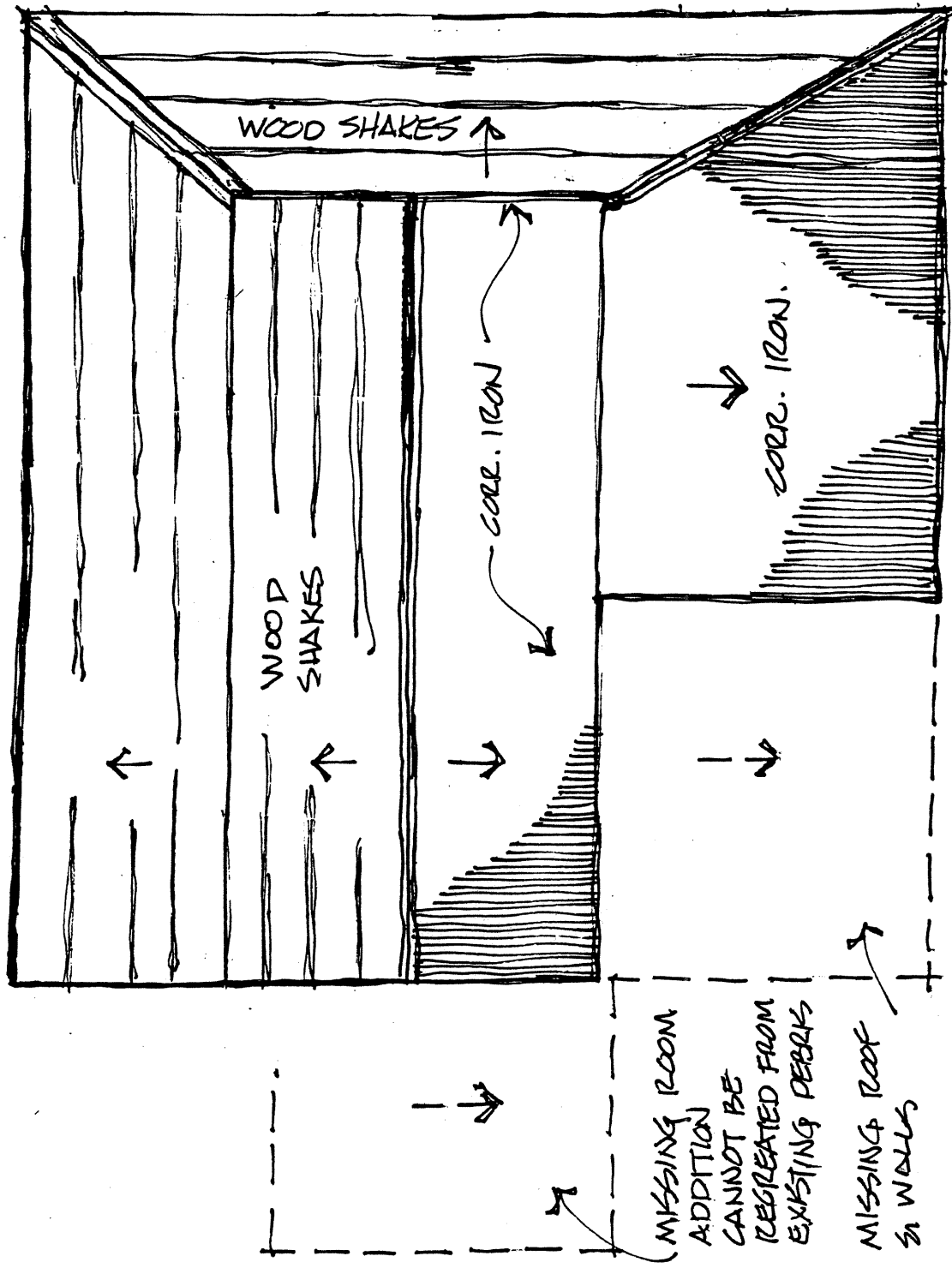
SECTION



RESIDENCE

WEGMAN COMPLEX

STRUCTURE A CA-KER-4447H



RESIDENCE
 WEGMAN COMPLEX
 STRUCTURE A CA-KER-444711
 ROOF PLAN

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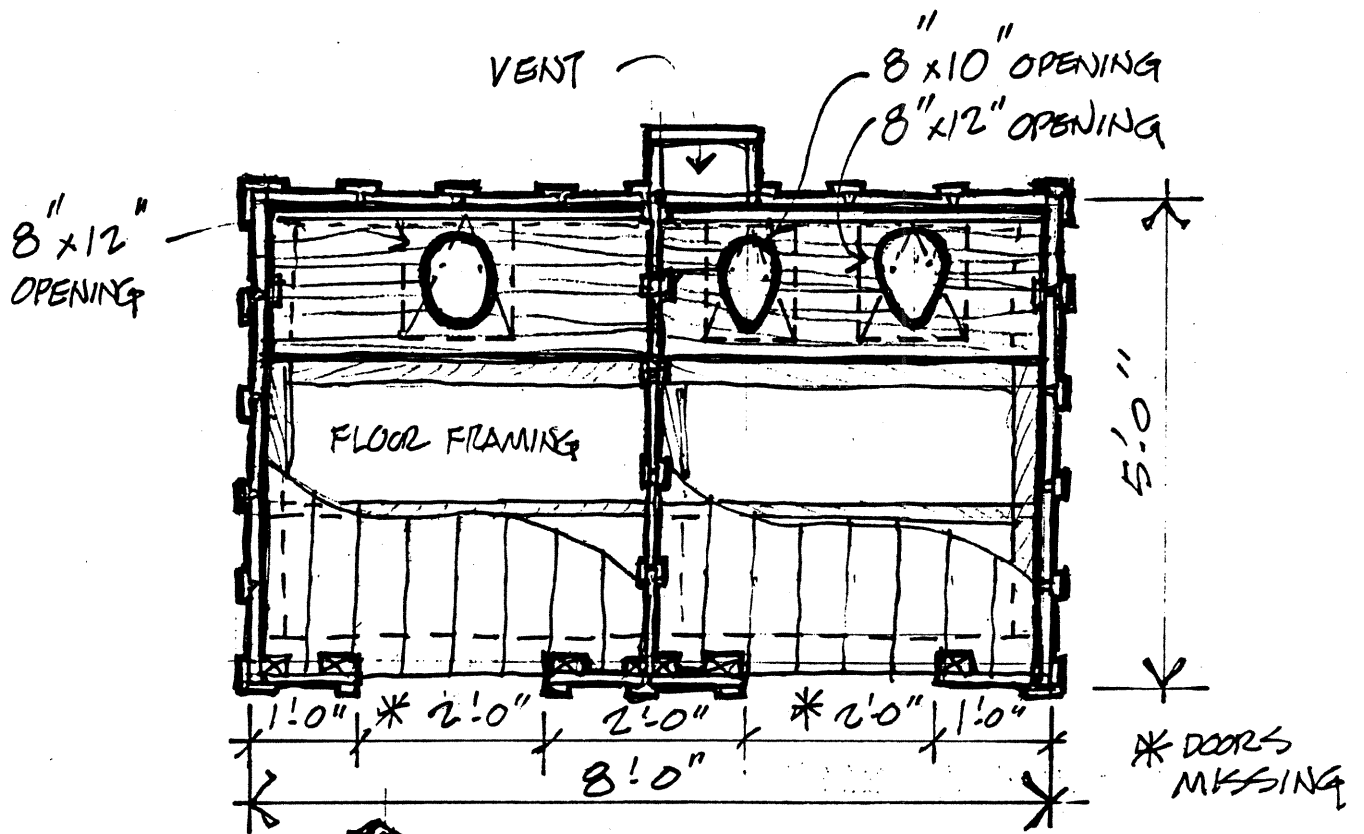
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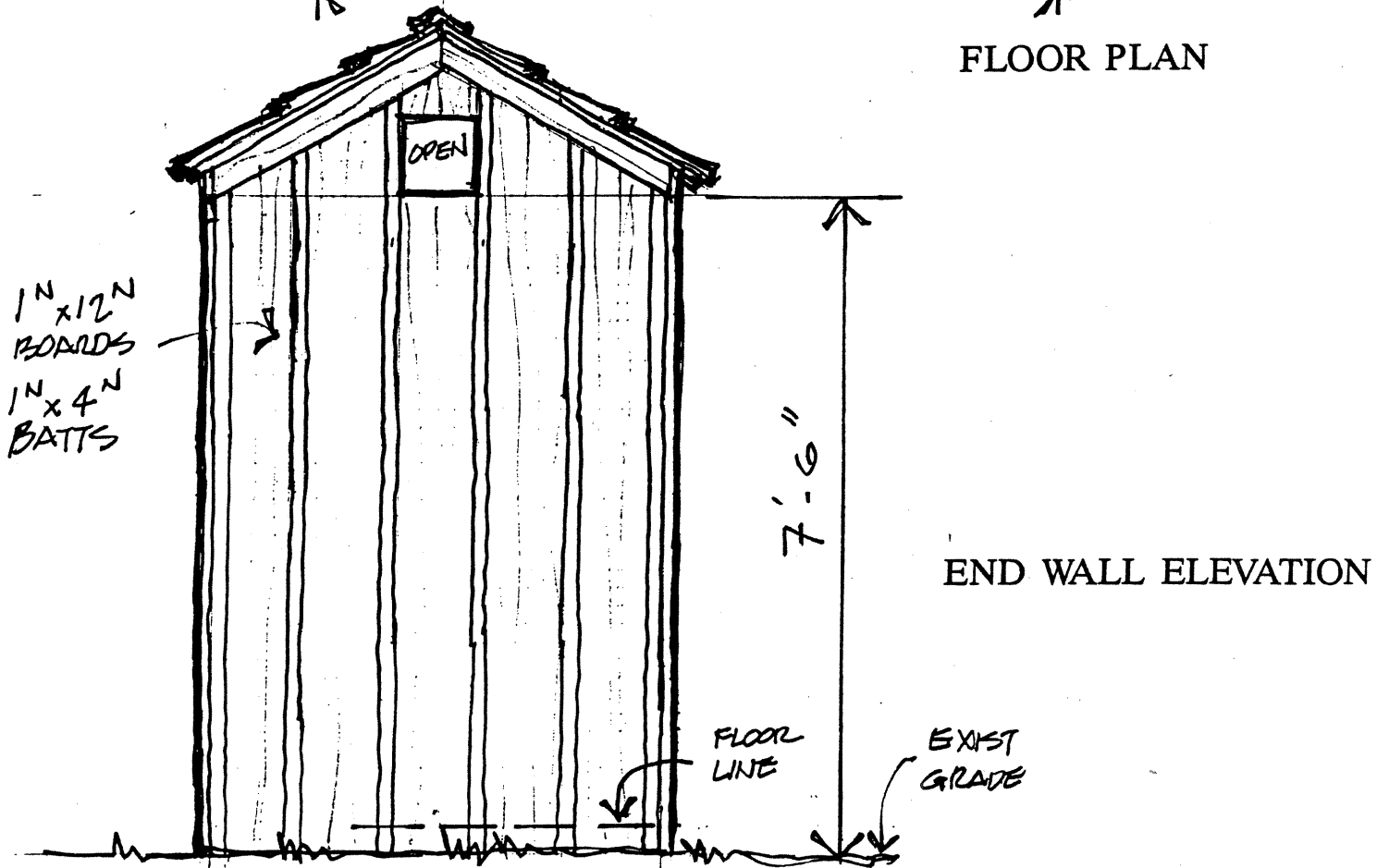
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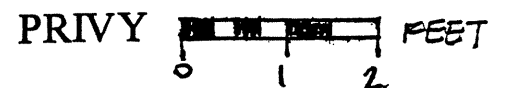
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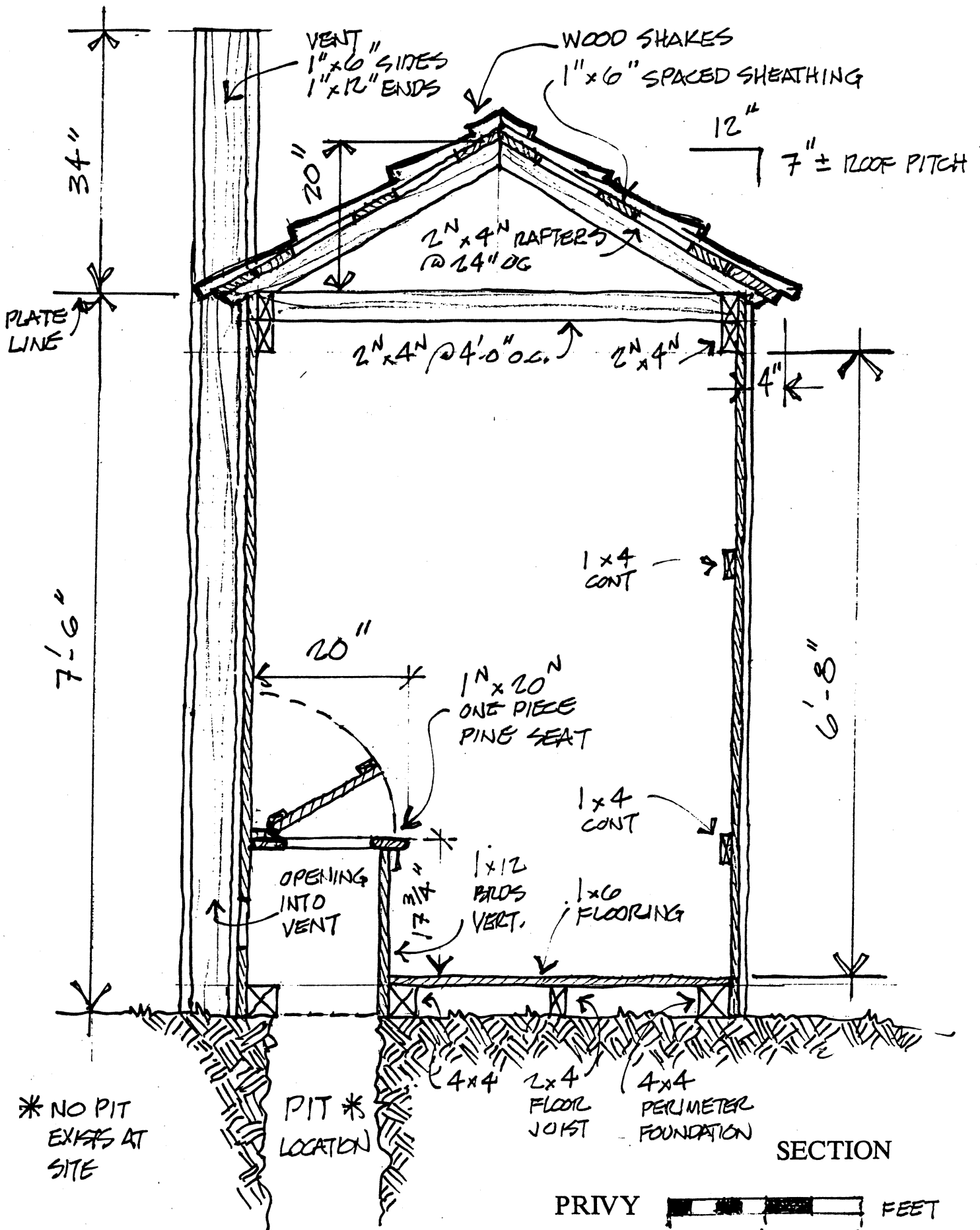
FLOOR PLAN



END WALL ELEVATION



WEGMAN COMPLEX
CA-KER-4447H



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