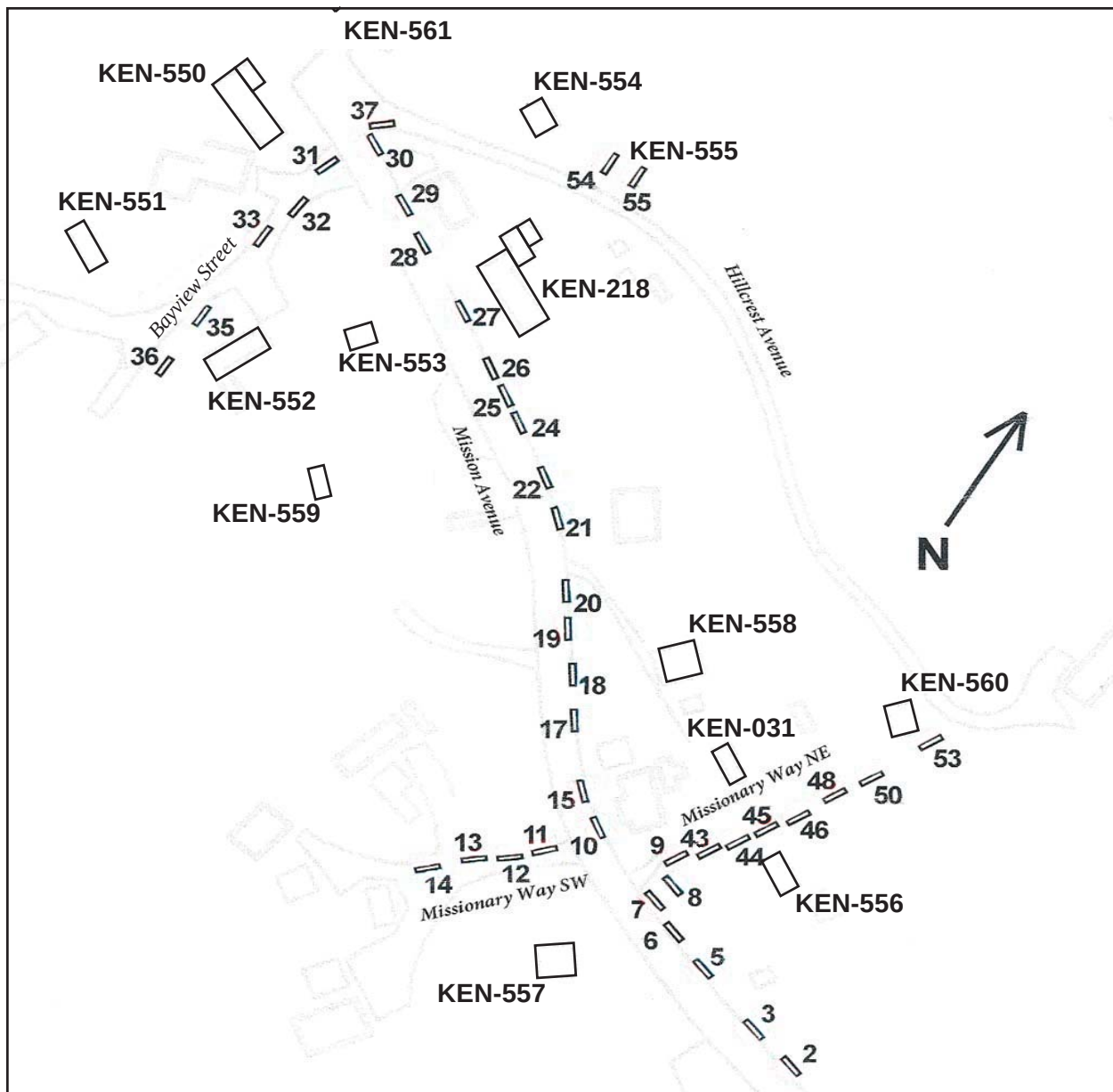


Archaeological Testing at Old Ninilchik, Kenai Peninsula, Alaska, for Water Main Installation



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Archaeological Survey Cultural Resource Inventory Historic Building Evaluation Archival and Oral History Research



Inside cover: Old Ninilchik's streets are not aligned with cardinal directions, and a map superimposed with street names, trench numbers, and AHRs sites will be useful to the reader. KEN-561 is off the map.

Front cover: A photograph taken by Ninilchik schoolteacher Alyce E. Anderson between 1911 and 1918 shows much of the project area, looking west down Hillcrest Avenue at lower mid-right towards its intersection with Mission Avenue and Bayview Street. From left to right at image midpoint are: the log cabin moved slightly south to become part of the current Steve and Monica Vanek residence (KEN-552); a log cabin (KEN-551) moved out of the village between 2010 and 2012; a small log cabin with a distinctive gabled roof extension (KEN-559), now moved southeast to another village lot; the large frame building (KEN-550) still in place and once used as a post office and dance hall; a large almost flat-roofed building owned and operated by Michael Oskolkoff as a store and dance hall; the hewn log cabin (KEN-561), partly hidden behind the Oskolkoff store) built by John Astergin in 1903 and used by Oskolkoff as a warehouse; and the dark-painted frame building or "Red House" (KEN-554) serving as the Oskolkoff home. Slightly closer to the photographer from the last-mentioned building (KEN-554) is a dark area representing one of the root cellar roofs comprising KEN-555, and between the two numbered sites is a linear feature that originates in the draw at far right and continues to the downslope side of Hillcrest Avenue; it may represent a water line or a trail or both. Left of lower center in the image is a composite building with different roof lines, which is the current Ninilchik store (KEN-218) as it appeared then. The three little cabins on the spit were said to have all washed up the Ninilchik River in a storm-driven tidal surge decades ago; they were retrieved, reset with their gable ends facing the Inlet, and served as rental cabins until recently (the author stayed in them in 2007 to facilitate an unrelated field project). They were removed between 2010 and 2012. Behind KEN-561 is one of two historic footbridges across the Ninilchik River.

Archaeological Testing at Old Ninilchik, Kenai Peninsula, Alaska, for Water Main Installation

by

Charles M. Mobley

with an appendix by
Linda Finn Yarborough

2013

Abstract

In October of 2012 Charles M. Mobley & Associates (CMM&A) conducted archaeological testing along water main alignments to be built in Old Ninilchik on the Kenai Peninsula, under Alaska Field Archaeology Permit 2012-28. ADNRS's Village Safe Water Program engaged Michael L. Foster & Associates to assist with the engineering and permitting of the project, and they in turn contracted CMM&A to do the archaeological investigations. Old Ninilchik constitutes the Ninilchik Historic District (KEN-032), which is suggested by documentation on file at the Alaska Office of History and Archaeology to be eligible to the National Register of Historic Places for both architectural and archaeological values. The period of significance is 1830-1930.

A total of 32 archaeological trenches were dug with a machine, and another nine were dug by hand with shovels and trowels. Organic horizons and/or coal ash lenses believed to reflect former land surfaces were found in well over half the 41 trenches, and artifacts dating to the early portion of the period of significance were found in more than 20 trenches.

Archaeological deposits contributing to the historic district were detected in the southeast end of old Ninilchik as well as the northwest end. The middle third of Mission Avenue revealed little in the way of artifacts, though the buried organic horizon continued there. Two root cellars and a third buried one (KEN-555) upslope from Hillcrest Avenue near the northwest part of the road are contributing elements to the historic district; a revised plan for the water main will place the pipe in the middle of the existing roadbed and avoid disturbing those archaeological features.

Construction of the water main in the remainder of the project footprint will disturb archaeological deposits contributing to the historic district, and the historic district is eligible to the National Register, so the project will have an effect on historic properties. Two artifact-rich buried historic midden deposits were uncovered – one in the southeast half of Mission Avenue (in Trench 10), and one near the south end of Bayview Street (in Trench 35) – and each appeared to extend laterally in one or more directions. Lesser artifact densities were found buried in nearby trenches. A gravel feature was uncovered in Trench 46 up Missionary Way NE, and the excavations suggest that the undeveloped ROW has the potential for undisturbed archaeological deposits from the period of significance. No features thought to represent building footprints were uncovered except for the buried root cellar.

To mitigate the effects, an archaeological monitor during construction is recommended for most of the 2,200' of water main to be built in the historic district, consisting of: each end of Mission Avenue, both upper and lower Missionary Way, most of Bayview Street, and the lower 100' of Hillcrest Avenue. The portion to be excluded from monitoring is the central portion of Mission Avenue, and most of Hillcrest Avenue. If delays during construction (while archaeological information is being extracted by the monitor) are not acceptable, then mitigation along Missionary Way NE and SW could take the form of data recovery excavation prior to construction. The depth of road fill elsewhere in the APE makes archaeological data recovery less of an option there compared to monitoring.

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Introduction

In the old village of Ninilchik (KEN-032), on the Kenai Peninsula, Village Safe Water (VSW) under the Alaska Department of Environmental Conservation (ADEC) plans to construct a new water distribution system and individual septic systems. Contracted to supervise the project is Michael L. Foster & Associates (MLFA), with Holly Morris as assistant project manager. Charles M. Mobley & Associates (CMM&A) has been contracted to MLFA to assist with cultural resource compliance for the project, beginning with an archaeological survey for potential well locations seven years ago (Mobley 2006).

VSW, the Alaska State Historic Preservation Officer (SHPO), and MLFA agreed in August 2010 that the project warranted archaeological testing prior to construction, to determine the presence or absence of surface or buried cultural resources potentially eligible to the National Register of Historic Places. CMM&A prepared an Archaeological Testing Plan (ATP) in October 2010 (Mobley 2010), which was subsequently approved by the SHPO and VSW. The ATP was implemented by CMM&A in early October 2012. A debriefing letter was submitted on October 12, and an interim report was submitted on March 11, 2013. This document constitutes the final report of archaeological testing and presents the testing results, a consideration of National Register eligibility, and recommendations for mitigation.

This introduction provides a natural and cultural historical context for this current study. Following the introduction is a summary of the ATP, after which the general results of the

archaeological testing are presented. Five features discovered in the five separate trenches are discussed in a separate chapter, followed by a chapter discussing the contents of the remaining trenches. The conclusion summarizes the significance of the features and artifacts, discusses them in terms of the Ninilchik's historic district (KEN-032), and makes suggestions for mitigation. A bibliography follows the conclusions. Appendices present additional information including an analysis of the bones by Linda F. Yarborough, and an inventory of old Ninilchik's buildings.

Natural Environment

Ninilchik is located at the mouth of the Ninilchik River, a short watercourse that drains into Cook Inlet between Kasilof and Anchor Point (Figure 1). The region is part of the Kenai lowlands, a land of flat benches, low hills, ridges, streams, muskegs, and lakes formed in glacial outwash of Tertiary age (Bennett 1918:32-33). Along most of Cook Inlet the Kenai lowlands end abruptly in 200' gravel and sand cliffs overlooking wave-swept beaches (Rieger et al. 1962:1). Several elements favorable to human settlement come together where the Ninilchik River's incised channel and floodplain meet Cook Inlet, including a few acres of fertile floodplain soils, a navigable creek providing shelter from Cook Inlet, and a gradually inclined approach to the beach. Old Ninilchik's soil is classified in the Moose River Series (Hinton 1971:20), consisting of poorly drained sand, silt, gravel, and loam.



Figure 1. Ninilchik is located on the Kenai Peninsula, where the Ninilchik River enters Cook Inlet.

The Moose River....soils occur mainly along the Ninilchik River and the lower course of Deep Creek....They consist of stratified sandy and gravelly material, and they have a high water table. These soils are flooded during spring thaws or during long periods of rainfall....The Moose River soils have, on the surface, a thick mat of organic material over olive-gray silt loam 2 to 5 inches thick. Below the silt loam, to depth of 30 to 42 inches, is mottled dark-gray to dark greenish-gray stratified sand and silt loam. It is underlain by very gravelly sand.

Hinton (1971:20)

Ninilchik's weather is generally like that elsewhere in Cook Inlet — a maritime/continental climate with average summer temperatures in the high 50s (°F) and average winter temperatures in the low 10s (°F); annual precipitation is about 15", of which less than half falls as snow (Municipality of Anchorage 1982). The vegetation of Ninilchik is also typical of Cook Inlet in general, with grasses, shrubs, and other ground-covering flora growing in meadows and muskegs, with a canopy of black, white, and Sitka spruce, Kenai birch, quaking aspen, balsam poplar, and black cottonwood (Henning 1977:142-143; Russell 1991:11).

Land animals in the Ninilchik vicinity — extrapolated from the larger Cook Inlet region — include moose, wolf, coyote, fox, black and brown bear, mink, marten, land otter, weasel, squirrel, snowshoe hare, porcupine, and rodents (Henning 1977:127-134). Waterfowl are common on inland lakes and tidal marshes during certain seasons. All five species of Pacific salmon enter Cook Inlet and pass Ninilchik to spawn (Alaska Department of Fish and Game 1978). Marine mammals such as beluga whales and seals populate Cook Inlet, and several

species of shellfish including razor clams are available in the southern portion of Cook Inlet where saltwater overwhelms the regions freshwater contribution to the waterbody (Reger and Mobley 2008:200).

Cultural Environment

Cook Inlet was sparsely populated, if at all, during Alaska's early prehistoric period. Radiocarbon dates indicating people on the Kenai Peninsula as early as 3,500 years ago come from site SEW-214 at the junction of the Kenai and Russian Rivers (Holmes et al. 1985:248). Other sites have been found that lack radiocarbon dates but have artifacts like microblades, microblade cores, and burins that are considered thousands of years old in Alaska (Reger 1981, 1996; Reger and Pipkin 1996).

Extensive human settlement of the Kenai Peninsula took place about 3,000 years ago, when cultural ties were with the people of Kachemak Bay and Kodiak Island. They may have spoken Yupik (Boraas 2001). Use of oil lamps, a chipped-stone tool technology, and manufacture of notched-pebble net weights are

Traits diagnostic of this Late Prehistoric [Dena'ina] period on the central Kenai Peninsula include grooved splitting adzes or narrow chisel-like adzes, marine shells, interior hearths with no structure restricting the spread of the ashes, and large numbers of fire-cracked rocks (Reger 1998:166-167). Less common are copper artifacts (points and pins, probably from exposed Copper River ore deposits), ground slate points with flattened-diamond cross-sections, multi-roomed house pits, and entry tunnels attached to houses.

Mobley et al. 2003:12

characteristic of the “Kachemak” people, who expanded up the Kasilof and Kenai Rivers and persisted from about 900 B.C. to A.D. 1000 (Reger and Boraas 1996).

Kachemak sites on the upper Kenai Peninsula seem to have been abandoned by A.D. 1000, and later archaeological evidence indicates occupation by new people — Athabaskan Indians from the Alaska interior, whose descendants became the historic Dena’ina encountered by Vancouver and who live in the vicinity today (Reger 1998:169). In addition to certain tool types and technologies characterizing the prehistoric Dena’ina, multi-roomed house pits and round 3’-10’ diameter depressions — the remains of subterranean cache pits for storing frozen fish through the winter — are usually scattered across their sites.

The mouth of the Ninilchik River is typical of the sorts of places preferred by both Kachemak and Dena’ina prehistoric groups, but no such sites or features have been recorded specifically at old Ninilchik. In her field notes Frederica de Laguna (1930:78-79) wrote about an archaeological site on a fox farm south of the Ninilchik River that may have contained house depressions. The AHRS form for Ninilchik (KEN-032) refers to “caches” and “house pits of aboriginal population,” but it isn’t clear whether standing log caches or cache pits were meant,

nor whether prehistoric or historic house pits were suggested. The University of Alaska Museum was queried as to whether they held collections from KEN-032, and the response was no. So while it is likely that the mouth of Ninilchik River saw prehistoric use, no firm evidence of it has yet been found.

For centuries the Dena’ina lived a subsistence life-style in settlements of up to a dozen multi-roomed semi-subterranean houses, developing a shared cultural fabric that encompassed the whole upper Cook Inlet watershed. When Russian traders established three posts on the western Kenai Peninsula, between 1787 and 1798, they encountered Dena’ina Athabaskans. Russian activity at Kasilof, Kenai, and English Bay was resented by the local Natives, and fighting between the two was frequent. After a particularly successful Dena’ina attack on Russian traders in 1797 (Boraas 2002), the Russian presence on the Kenai Peninsula was reduced to two small trading posts at English Bay and Kenai.

In 1847 the Russian-American Company established a retirement community at Ninilchik for aging employees (and their Native families) who couldn’t or wouldn’t return to their original European home (Arndt 1996). Several Russian men and their Native families moved to the mouth of the Ninilchik River and

A small herd of cattle has been maintained at Ninilchik for generations. There are now about 25 head of cattle, mostly cows, at this little village that are said to be the progeny of a herd that was brought to Alaska by the Russians more than a hundred years ago. These are not large cattle, but they are said to be good milkers. Bennett (1918:108)

Ninilchik is quite a thriving Native village today. Simon Kosnikoff who owns a fox ranch a few minutes walk from town on the south side of the river has found many old relics on his place. There are shells in the ground and many old holes which may be house pits. Mr. Johnson, Anchorage, obtained a lamp from a Native at Ninilchik which is peculiar in having such a thick bottom that it is like a stand.

Frederica de Laguna (1930:78-79)



Alyce E. Anderson, Alyce E. Anderson Collection, Anchorage Museum 1990.003.010

Figure 2. Skiffs approach two shallow-draft launches in Cook Inlet near Ninilchik, approximately 1911-1918. The boat on the left hails from Valdez; the Swan on the right hails from Knik.

built homes, including Grigorii Kvasnikoff and his large Alutiiq family from Kodiak (Jackinsky 2002:154). Most of the families residing at Ninilchik for subsequent generations were Kvasnikoff descendants and considered themselves to be of Alutiiq Native ancestry (Leman 1993), but their settlement was successful and “on the whole, by the turn of the twentieth century Dena’ina country became a cultural and ethnic ‘middle ground’ where ‘Kenaitz,’ Aleut, Sugpiaq, Russian, American, and Scandinavian elements merged with each other” (Znamenski 2003:13-14). When jurisdiction of Alaska passed from Russian to American hands in 1867, Ninilchik was a small coastal subsistence community with limited ties to the commercial world.

The community lived in relative isolation for decades (Russell 1991:10). Cook Inlet saw an occasional saltery operation during the late

Russian and early American periods, but commercial fishing had little impact until 1882, when the equipment from Alaska’s first cannery (built at Sitka in 1878) was installed in a new facility constructed at the mouth of the Kasilof River (MacDonald 1951:72). Supporting Cook Inlet’s fishing, mining, and fur industries were goods and services offered by the Alaska Commercial Company, which in the late 1800s had stores at Kenai, Knik, Tyonek, and Seldovia (Oswalt 2006). Canneries were built at Kenai in 1888, 1897, 1912, and 1917, and another was built at Seldovia in 1911 (MacDonald 1951:72-76).

But Ninilchik was handicapped in that “large steamers cannot land at places like Ninilchik” (Bennett 1918:49). North of Ninilchik large boulders on the otherwise relatively flat bottom make coastal navigation dangerous close to shore, according to the Alaska Coast Pilot



Alyce E. Anderson, Alyce E. Anderson Collection, Anchorage Museum 1990.003.005

Figure 3. Juanita Anderson, daughter of Ninilchik's early school teacher Alyce Anderson, taught at Seldovia and wrote a Ninilchik history.

(U.S. Coast and Geodetic Survey 1916:93), and Cook Inlet's shallow-draft boats (Figure 2) negotiated their way into the relative safety of the Ninilchik River's mouth only at high tide. The

Alaska Coast Pilot in 1916 described Ninilchik as "a small Native settlement with a Greek church at the mouth of a small stream" (U.S. Coast and Geodetic Survey 1916:93).

Ninilchik was host to the North Coast Packing Company cannery from 1922 until 1938, and a smaller plant was operated at Deep Creek from 1925 to 1932 (MacDonald 1951:78). The cash economy from commercial fishing was supplemented by subsistence pursuits including gardening (Figure 3). The Russian Orthodox church in the bottomland near the river was replaced by a larger church on the north bluff overlooking the village by 1904. In 1913, after teaching two years in the small log cabin that had served as the Russian Orthodox church school, Alyce Anderson and her daughter Juanita supervised construction of a territorial schoolhouse on the north bluff a few hundred feet west of the new church (Figures 4-5). The community was relatively self-sufficient due to its isolation, with transportation being primarily by boat in the summer and by dog team in the winter. At that time, according to Juanita Anderson (n.d.), the furthest any residents had



Alyce E. Anderson, Alyce E. Anderson Collection, Anchorage Museum 1990.003.004

Figure 4. Territorial schoolteacher Alyce E. Anderson holds a housecat in the shelter of a log cabin then serving as the Ninilchik school, about 1911.



Alyce E. Anderson, Alyce E. Anderson Collection, Anchorage Museum 1990.003.006

Figure 5. A large frame school building built in 1913 on the north bluff west of the Russian Orthodox church served Ninilchik until the Sterling Highway location was developed as a school in 1951. View is northwest; a second wing extending northwest is hidden from view.

traveled in their lifetime was “Kenai, or maybe Seldovia or Port Graham.”

The Sterling Highway was completed in 1950 between Seward and Homer (Lahndt 2002:136); that and the 1951 opening of Ninilchik’s new school along the highway marked a new era in village life (Jackinsky 2002:156). A small boat harbor begun in 1960 was expanded in the early 1970s (U.S. Army Corps of Engineers 1973). Today most visitors to the Kenai Peninsula experience Ninilchik as little more than a few commercial buildings on the Sterling Highway, with a cluster of homes visible at the mouth of the river and a picturesque Russian Orthodox church on the bluff overlooking the village. Now the oil and gas industry and tourism — especially sport fishing — have joined commercial fishing as the drivers in the western Kenai Peninsula’s economy.

Past Land Use in the APE

Pertinent Russian American Company (RAC) documents translated by Katherine Arndt

(1996) allowed her to reconstruct Ninilchik’s early settlement history, and this summary draws on her work as well as a short account of Ninilchik by Juanita Anderson (n.d.) and the transcript of a 1976 taped interview with Ed Jackinsky. In 1841 the RAC constructed a three-family dwelling, a bathhouse, and a cowshed at the mouth of the Ninilchik River, intending them as the nucleus for a retirement community to house aged workers and their families. Two families displaced by the RAC’s relinquishment of Fort Ross in California were sent to the site in the spring of the following year, but illness in one family shortly forced a move to Sitka, and the consequent loneliness on the part of the remaining family soon led them to relocate to the RAC’s Nikolaevsk fort at Kenai. During subsequent years the RAC successfully established small retirement colonies at Afognak and Spruce Island near Kodiak, while the Ninilchik buildings stood empty. Exactly where these buildings were located is unknown.

An earlier RAC reconnaissance had identified five places on the east shore of Cook

Prior to 1911 the only school that Ninilchik had was the Russian school in which the priest from Kenai would teach the church rituals and give instruction in reading the Slavonic Church service and no doubt some elementary Russian....In 1911...the residents of Ninilchik were urged to create a school district under the Nelson Act....Prior to the creation of the Nelson schools the only schools in Alaska outside of incorporated towns were what was then known as "The Bureau of Indian Schools," for Indians only, though an occasional white child attended them. The Nelson School was for white children....

My mother, Alyce E. Anderson, was in Seattle in late September when Governor Hoggat wired asking her to proceed to Ninilchik to open the first school there (she had opened the Unga school in May 1909, that was the first Nelson School)...She was delayed for several weeks in Seward awaiting the monthly trip of the mail boat to the Westward. She arrived in Seldovia only to learn that it was late in the season and there would be no boats going up the Inlet even as far as Ninilchik. Several days later the "Alaska" (gas-boat) captained by Bill Murphy came down the Inlet to Seldovia for supplies to be taken to Kenai, and he agreed to put mother off at Ninilchik....After being on the gas boat almost 24 hours, she was landed at Ninilchik....Most of the population spoke only Russian...people barely left their own community and except for a few Russians from Russia and two or three others, no one had been farther away than Kenai, or maybe Seldovia or Port Graham. The Russian School was rented for the school, and a two room cabin was made available for the teacher to live in....

The only mail to arrive at Ninilchik during the winter was brought by Mr. Woodwind from Homer once a month. During the cold winter months he traveled along the beach most of the way with the dog team, later in the spring with a two wheel cart, traveling at low tide, and sometimes with a dory and Evinrude (outboard) engine....

The need for a school house and teacher was imperative, and....the windowless school house on the bluff above Ninilchik was built. It consisted of a wing for a teacher's residence, a very small bed-room, and small kitchen but with a nice long living room (somewhat narrow) with a wonderful view out over the Inlet. The kitchen opened into the school room proper, and behind the class room was a long narrow room extending across the rear of the school house proper. This was for manual training, and all of the boys in school the year following were given an opportunity to learn how to use tools and to construct useful things. The girls were taught sewing.

Chris Buschmann, General Superintendent of what was then the Northwest Fisheries, and who was a brother of August and Eigel Buschmann, well-known in the salmon industry of Alaska and whose father, Peter Buschmann, for whom Petersburg is named, was approached about taking the entire supplies for the new school north. The sailing vessel "St. Paul" was used....[He] agreed to take the supplies north to Kenai free of charge, and ...discharged it to scows which were then towed to Ninilchik and unloaded on the beach....The lumber was taken up the hill as was coal in later years by windlass....The building was occupied...the Spring or Fall of 1913 or maybe the Spring of 1914.

Mother taught at Ninilchik 8 years, I think. 1911-1912; 1912-1913; 1913-1914; 1914-1915; 1915-1916; 1916-1917; 1917-1918; 1918-1919.

Juanita Anderson (n.d.), describing construction of Ninilchik's first territorial school.

Inlet suitable for small retirement colonies (taken into consideration were agricultural potential and existing Native use). With the potential to support four to six families, Ninilchik was considered the best of the five, and from 1847 to 1851 the site was recolonized. The retirees were Grigorii Kvasnikov and his family of nine arriving in 1847, “Lutheran Finn” Iakov Knage or Knagin and his family of four also arriving in 1847, Yakut Petr Osipov and his family of three arriving in 1850, Ivan Andreev and his family of four arriving in 1851, and Leontii Ostrogin and his family of five also arriving in 1851. In 1856 Ioann Komkov retired as manager of the RAC’s Nikolaevsk enterprise at Kenai and settled at Ninilchik with his family of five. Whereas the years from 1847 to 1856 had been devoted to erecting buildings and developing subsistence gardens, the RAC’s new coal mining enterprise at English Bay created a new economic opportunity as Ninilchik’s gardeners were encouraged to grow produce to feed the miners. After the arrival of Dmitrii Daryn or Dar’in with his family of two in 1858, and the solitary addition of Ioann Iakovlev in 1861, the RAC sent no more retirees or their families to Ninilchik.

By then, Ninilchik was essentially a “Creole” community, meaning the inhabitants were at least half Native, as the only Russian-born retiree still alive was Dmitrii Daryn. During the first decade of the American Period, from 1867 to 1876, the village maintained a population of about 35 individuals. In 1876 six new families and two single men settled at Ninilchik, adding about 25 people to the community, but many of them left four years later and by 1881 the village was back down to 40 people. Scholar Kathy Arndt knows of no map of Ninilchik from the 1800s, according to comments she made to Charles M. Mobley. An online search of the

American Commercial Company archives, which incorporate those of the Northern Commercial Company that purchased the Russian American Company’s assets in 1867-68, indicates that no Ninilchik assets were inventoried as part of the sale. Early descriptions of the village are lacking.

When jurisdiction of Alaska passed from Russian to American hands in 1867, Ninilchik was a small coastal subsistence community with limited ties to the commercial world (Russell 1991:10). For decades thereafter the village maintained a subsistence economy, including livestock (Bennett 1918:108), and remained relatively isolated. In 1904 Lascy (1904:77) described Ninilchik’s economy as one of “cattle raising, fishing, and trapping.”

The Russian Orthodox Church had a significant presence at Ninilchik, and in 1904 federal surveyor Albert Lascy (1904) surveyed USS 367 to include three church tracts (Figure 6) with occupancy claims “prior to 1900.” Tract C contained the old Russian Orthodox church, which Lascy described as “a substantial log building” measuring 20’x40’ and surrounded by a picket fence. “Owing to occasional overflows, caused by melting snow in the spring time, the natives are building a new and larger church on Tract A,” Lascy (1904:85) reported. According to the AHRS form for KEN-046, the old church has been in service since 1846. Tract A already contained the “new church” (KEN-046), which Lascy referred to as “a substantial log building,” and he drew the tract boundary to include a fenced cemetery east of the church. In between the two church tracts, just north of the old church, Lascy surveyed the old Russian schoolhouse (KEN-031)—another “substantial log building”—as Tract B, mentioning that the lot was partly fenced (Figure 6).

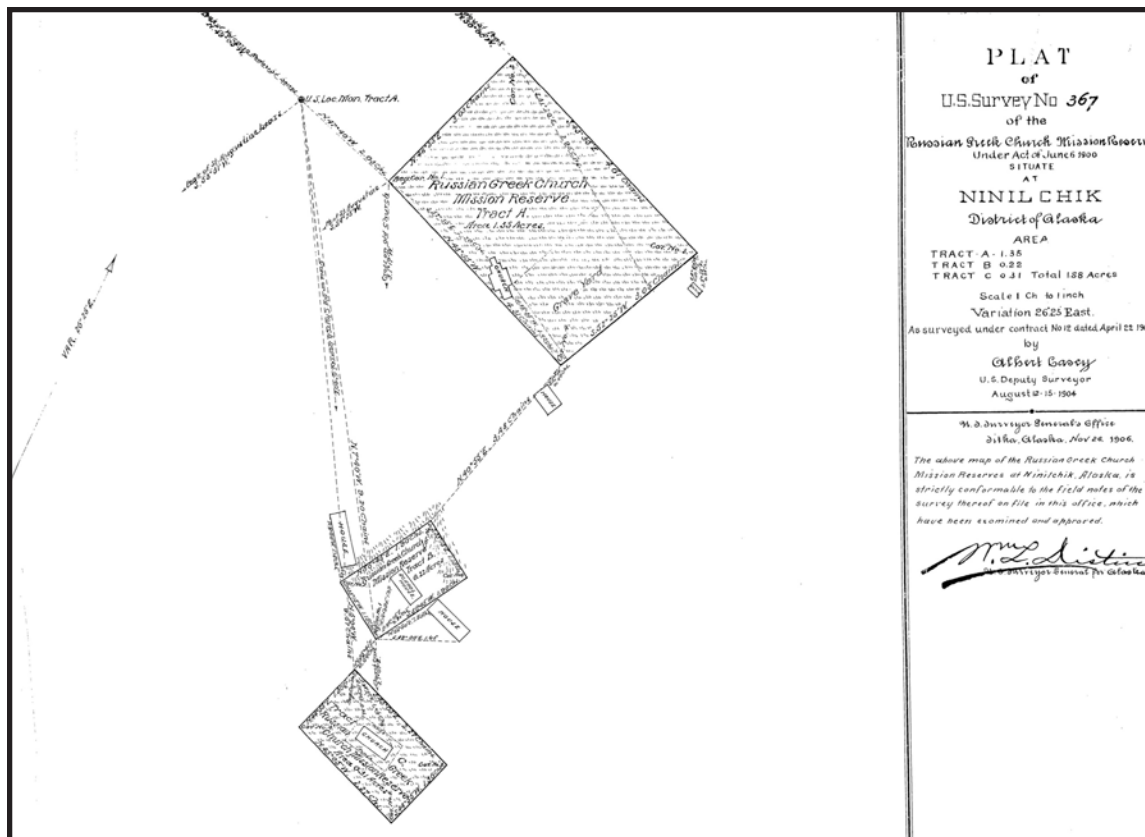


Figure 6. In 1904 federal surveyor Albert Lascy plotted three tracts containing the old Russian Orthodox church, the school, and the new church and cemetery at Ninilchik. North is at the top.

Except for the old church, Lascy (1904) didn't report building dimensions. He did, however, plot four buildings in addition to the two churches and schoolhouse, and he made several vague observations about nearby dwellings and fences. Two of the buildings consisted of a small cabin just outside the northeast corner of the new church lot (Tract A), and a house just outside the new church's southeast corner. Two other buildings consisted of a house on either side — to the east and west — of the schoolhouse. In his notes Lascy (1904)

I've been here 26 years. The [Leo] Steik house used to be here. They had 17 children. It was pretty big.

When we got here in 1984 this was just a cracker box. It was 16'x20', with a ceiling, but we tore it out and added a loft. The rental cabin had been a banya — a Russian steam bath. We built it. There was no running water.

The little green house has dovetailed notched logs under it. They tore down an add-on but left the old part. Nadia [Oskolkoff] died about 4 to 5 years ago.

They took the Jackinsky cabin apart and put it back together, but they shifted the axis 180 degrees. I don't know why they took it apart.

All the houses had root cellars in the side of the hill, so they wouldn't get water in them. They were made out of wood.

Ninilchik resident Deanna Smith, talking with Charles M. Mobley, September 24, 2010

I was born and raised in Ninilchik. They started the highway the year I graduated. The flat roofed building belonged to Fr. Mike Oskolkoff — they had a store in it. They made ice cream, and they had some real nice dances there. Behind that was their house (the red house). Hillcrest Avenue we called the CCC road - because the CCC built it. We had a nice footbridge to the spit. We'd meet people on the bridge, and lean against the railing - like Seldovia before urban renewal. It was a fun place. Everybody went to the same church, school, post office -- lots of visiting! We played kick-the-can, hide-and-seek, hopscotch, red-light/green-light. When I was a girl the guys played pool and poker in the newer frame part of the store, to the west. It was their recreation hall. [In the frame building (KEN-550)] they had dances upstairs - I think Harry Leman lived below. Harry and his wife. At one time they ran a post office out of the building - I took care of it for a week. That was in the mid-1940s. It was in the northwest corner. Before that the post office was in a little building on the spit, where the camping is now, north of the little cabins. The airline would come in about every two weeks — it landed right on the spit. It was a red-and-white plane. We'd yell "Woodley! Woodley!" That was the name of the airline.

People used to have root cellars. We had one up the hill, but I didn't like it. Everybody in the village had cows. I remember them being dark red. They wandered around, so you had to fence your garden. Potatoes mainly. Onions, carrots, beets, rutabaga, cabbage, turnips. We used to have Petrowski turnips, delicious, yellow — like little apples. But you can't get the seed anymore. We used to make prost.kocia - yogurt. Mom would pour the milk into tin cans, took the cream off the top, then eventually we would get cottage cheese.

My husband cleaned out the old Russian school and we sold the stuff to make a little money for the church. Ninilchik resident Mae Demidoff, talking with Charles M. Mobley, September 24, 2010

made reference to “fenced lots and houses” adjoining the schoolhouse lot (Tract B) on the east and west sides, the same north of the old church lot (Tract C), and a “fenced lot and shaks” west of the old church.

Log cabin construction prevailed at Ninilchik at the beginning of the 1900s, according to Lascy (1904), and his field notes indicate that the area around the old ROC church and school was occupied by houses and fenced gardens (fencing was necessary to keep out the cattle, which roamed free). By the end of first decade, however, change was evident at Ninilchik. The first territorial school was established in 1911 with the arrival of schoolteacher Alyce E. Anderson, marking a significant acculturative

shift symbolized by the suppression of Russian language in class. Classes were taught in a log cabin the first year (Figure 4), until a new 20'x30' school was built on the bluff west of the new ROC church in 1913 (Jackinsky 2010).

Alyce Anderson was not only Ninilchik's first public schoolteacher, she was one of the village's early photographers, as well. Her photographs of Ninilchik (on file at the Anchorage Museum at Rasmuson Center as B1990.003 — the Alyce E. Anderson collection, and made available for this project courtesy of great-granddaughter Leslie Anderson) show frame construction among the many log cabins between 1911 and 1918. Though there were a few buildings on the spit including a trio of small



Alyce E. Anderson, Alyce E. Anderson Collection, Anchorage Museum 1990.003.003

Figure 7. By the time Alyce Anderson was photographing Ninilchik (1911-1918), the village's architecture was a combination of log and frame buildings.

cabins, most development was on the north side of the river at the base of the bluff (Figures 7-9). A narrow road angling up the north bluff, out of the village and past the new church along what is now called Hillcrest Avenue (Figure 9), was referred to as the "CCC Road" according to Mae Demidoff. Small log cabins formed a rough alignment mostly north of what is now Mission Avenue, situated above the river's flooding (Figure 8). The gentler portion of the slope below the church bluff (on both sides of Hillcrest

Avenue), with its advantageous solar exposure, was used primarily for gardening (Figure 9). Root cellars were built into the same slope, adjacent to the gardens. At least two commercial buildings were in use along the slough, and the building pattern there was oriented to the slough, the spit, and the inlet beyond (Figure 7). In contrast, the land use pattern of the remainder of the village was one of parallel zones trending up the north bluff to the church: first the flood zone of the river, then a series of log cabins



Alyce E. Anderson, Alyce E. Anderson Collection, Anchorage Museum 1990.003.007

Figure 8. In this view east (1911-1918), log cabins are strung out on the hillside, upslope of what would become Mission Avenue.



Alyce E. Anderson, Alyce E. Anderson Collection, Anchorage Museum 1990.003.002

Figure 9. By the period 1911-1918 Ninilchik, here viewed west from the cemetery, had “streets” corresponding to today’s Hillcrest Avenue (right of center) and Bayview Street (left of center). Seven of the buildings shown here were still standing in Ninilchik in 2010.

(Figure 8), then gardens, then Hillcrest Avenue (Figure 9), then the steeper slope with gardens and root cellars, and the church and territorial school at the top of the bluff (Figure 7).

Photographs of Ninilchik between 1918 and the 1940s are evidently rare and were not consulted, but images are available thereafter.

Archival photographs from the decade between 1940 and 1950 show the village building composition shifting to that of today (Figures 10-17). At the beginning of World War II most of the villagers could trace their roots back several generations to the Russian Era, and electricity and running water were lacking. A long

All of the people lived right there in the village, nobody lived out in the woods or along the road. There was no road. In the summertime we’d ride by boat....And the season traveling by boat is from April to November and then the Inlet starts freezing up, cold weather you know. It’s pretty hard traveling so in the winter the people more or less stayed around here... In the wintertime when the beach was frozen we’d go by dog team or walked...We didn’t have much fresh stuff in the winter....you got your food from the garden; cabbage, carrots, potatoes. Of course, we went out to the woods to get our meat....They went out and picked berries [for] preserves and jellies and jams....Cranberries, blueberries...

Some of them had summer jobs - fishing. You worked out in the cannery or they went out and fished. There were no jobs in the wintertime. There was a cannery or several canneries in the village around the creek down there...you bought all your supplies there....there was three at one time....[We wore] sweatshirts and blue jeans...you got them from the canneries [or] Sears & Roebuck, Monkey Wards, mail order houses.

They had dances every now and then.not the jitterbug, no, no, that was too wild! They played the guitar, accordion, fiddle, and mouth organ.

Edward Jackinsky, from the transcript of a 1975 interview taped by Natalie Dimmick for the Future Homemakers of America, on file at the Alaska State Library, Juneau



J.N. Trelford, FAA Collection; Anchorage Museum, B86.28.92.8168top

Figure 10. By 1950 Ninilchik had an airstrip (foreground; view southeast). A delapidated foot bridge crosses the river left of the windsock. In view are buildings KEN-561, KEN-550, and KEN-552.



Sidney H. Hamilton, Sidney Hamilton Collection; Anchorage Museum, Gift of Emily Turner, B76.82.179

Figure 11. From a favored camera station on the bluff overlooking Ninilchik to the north, Ninilchik in 1952 was a quiet village with houses and gardens on either side of Mission Avenue.



Steve McCutcheon, McCutcheon Collection; Anchorage Museum, B90.14.5.TV.131.19

Figure 12. A 1954 aerial view looking north shows much of the project area and at least six root cellars along Hillcrest Avenue. The second foot trail from the right up to Hillcrest Avenue, fainter than the easternmost example, roughly follows the Missionary Way NE right-of-way.

footbridge struck southeast from the village to cross the river, and another striking east-west continued across the river to connect the spit with the end of Mission Avenue (Figure 8-10). A bridge for vehicle traffic connecting to the Sterling Highway was in place at the present location at least by 1950, according to archival photographs. A drivable gravel track connected Seward and Homer by 1941, though the journey took more than a day (Jensen n.d.).

Beginning in the 1940s Ninilchik had a post office (Orth 1967:691), operating for a time out of a large frame building (still standing as KEN-550) on the west side of town (Figure 10) that also housed a dance hall and pool hall.

In 1941 a large 44'x54' school building was completed near the 1913 building (Figure 5), but it burned down the following year, and the older school was reoccupied until a modern facility opened fronting the newly constructed Sterling Highway in 1951 (Jackinsky 2002:156). By 1950 the sand spit protecting the mouth of the Ninilchik River had been graded for use as an airstrip (Figure 10), and the community was served by two airline companies with scheduled flights several times weekly (Day 1950:5). Photographs from the 1950s show the community layout much as it is now, but with more log cabins and gardens (Figures 11-14).



Figure 13. A 1951 panorama (continued next page) of old Ninilchik shows the village layout to be much like that of 2013, though building construction and demolition is apparent.



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Figure 14. Truck styles suggest this view dates to the late 1950s, showing the junction of Mission Avenue, Bayview Street, and Hillcrest Avenue.



Figure 13 (continued). The 1951 panorama shows two large hillside gardens at the southeast end of the old village. Note schoolhouse just left of the church on the skyline.



Steve McCutcheon, McCutcheon Collection; Anchorage Museum, B90.14.5.TV.131.23

Figure 15. A 1961 view looking northwest (compare to Figure 11) shows that a few buildings had been removed during the preceding decade, but the village layout remained the same.



Figure 16. In 2012, perforated steel “Marston Mat” from the 1950s airstrip on the beach could still be seen in old Ninilchik.

With improving road access to Anchorage and Homer, as well as implementation of an extensive federal homesteading program on the Kenai Peninsula, the uplands around Ninilchik were developed for residential, agricultural, and commercial purposes during the latter decades of the 1900s. The community of closely related families at the mouth of the

Ninilchik River became “old Ninilchik.” A small boat harbor built in 1961 sank about two and a half feet during the 1964 earthquake; it was expanded either in 1967 (tpub n.d.) or the early 1970s (U.S. Army Corps of Engineers 1973). The airstrip on the spit was still in place in 1959 according to DOT&PF maps, but eventually it was judged unsafe and the area returned to other uses. Scattered pieces of “Marston Mat” (the interlocking perforated-steel plates developed for military landing strips during World War II) can still be found in the village (Figure 16).

Ninilchik’s two footbridges are now gone, and major flooding from storms — notably in 1967 and 2002 — has scoured the river channel (Figures 17, 21). Today most visitors to the Kenai Peninsula experience Ninilchik as little more than a few commercial buildings on the Sterling Highway, with a cluster of homes (representing the old village) at the mouth of the



Kenai Peninsula Borough

Figure 17. In 2002 the Ninilchik River jumped its banks, cut the bridge to the village, and tore out a long section of the road to the spit. View is east.

AHRS Sites and Buildings Prior to 2010	
KEN-032	Ninilchik Historic District (includes all of the following AHRS properties)
KEN-031	Old Russian Orthodox Church schoolhouse
KEN-046	Russian Orthodox Church
KEN-060	Creole Cabin
KEN-218	Rose Ninilchik Village Store
New AHRS Sites and Buildings Recorded in 2010	
KEN-550	dance hall
KEN-551	log building
KEN-552	Leman cabin
KEN-553	Chaika's Roost
KEN-554	Red House
KEN-555	two side-by-side root cellars
KEN-556	Nadia's house
KEN-557	Jackinsky cabin
KEN-558	house
KEN-559	restless cabin
KEN-560	cabin
KEN-561	KEN-060 (inadvertently double-numbered)

Table 1. Properties in the Alaska Heritage Resource Survey (AHRS) system recorded prior to the 2010 ATP, and properties assigned numbers in 2010 (see Appendix).

river and a picturesque Russian Orthodox church overlooking the village from the north bluff. In recent decades tourism and oil/gas exploration and development have joined commercial fishing as the drivers in the area's contemporary economy.

Previous Investigations

Archaeological investigations in the Ninilchik vicinity began with Frederica de Laguna's wide-ranging 1930 survey of Cook Inlet (de Laguna 1975), but she recorded little about Ninilchik beyond a few comments in her field notes (de Laguna 1930:78-79). George B. Schaller excavated parts of two multi-room houses near Ninilchik in 1955 (Schaller 1957), but the work produced little information. Gibson

and Mischler (1982) reported a fox farm near the Sterling Highway bridge over the Ninilchik River while inspecting the proposed State recreation site, but the find was not assigned an AHRS number. Cultural resource compliance surveys of the last 30 years are responsible for most archaeological sites recorded from Kenai to Homer (Mobley et al. 2003:5-8), particularly studies for oil and gas pads and pipelines.

The resulting archaeological and architectural sites entered into the statewide Alaska Heritage Resource Survey (AHRS) inventory on the western Kenai Peninsula in the last three decades have included few near Ninilchik. A single multi-room house depression with several smaller depressions (KEN-158), likely representing a traditional Dena'ina residence, is located on the river bluff upstream.

Otherwise traditional Native archaeological features known in the immediate Ninilchik vicinity are limited to those mentioned by de Laguna (1930:78-79) and the house pits and caches mentioned in the AHRS form for the old village of Ninilchik (KEN-032) — all of which are currently unconfirmed.

Old Ninilchik village was designated as KEN-032 (Ninilchik Historic District) to include not only old Russian-American period buildings but house depressions and foundations and cache pit depressions, according to the digitized AHRS form. Of the six references cited on the AHRS form, copies of only three are known to exist, and none contain such detailed description. The original hand-printed AHRS card dated 1976 is a bit more descriptive, reporting not only standing buildings but “a few surface remains of Russian-Creole Era, and area is chock full of caches, house pits of aboriginal population.”

The old village of Ninilchik (KEN-032) contains, in addition to those unconfirmed archaeological features, several old buildings (Table 1). Prior to the preparation of the Archaeological Testing Plan (ATP) for this current water project, KEN-032 subsumed four buildings entered into the AHRS system. The old Russian Orthodox school house (KEN-031) is a small log cabin that was in place at least by 1904 (Lascy 1904), and is said to have been built in 1896 (Jackinsky 2010). The current

Russian Orthodox church (KEN-046) was built on the bluff overlooking the old village around 1901, according to the AHRS form. The church is on the National Register of Historic Places as part of a multiple-property nomination for all of Alaska’s historic Russian Orthodox churches. The Ninilchik village store (KEN-218) on Mission Avenue is a composite building containing construction dating to the 1880s, 1890s, 1910, late 1920s, and 1970s, according to the AHRS form. A log cabin (KEN-060) by the river at the northwest end of Mission Avenue was built around 1903, according to the AHRS form. When a National Register nomination for the Ninilchik historic district (KEN-032) was prepared in the early 1970s and circulated to the community for review and comment, conflicting public response tabled the idea.

In 2010 more buildings were assigned AHRS numbers as part of this project, in order to help organize archaeological information and develop the ATP. Access to the Anderson photograph collection in mid-2012 further helped to describe and date those buildings. A total of 12 new AHRS numbers were assigned at old Ninilchik to include a mix of frame and log buildings, of which several are nearly a century old. Appendix A of this volume is a photographic catalog of the AHRS sites comprising KEN-032 — old Ninilchik, with revised and expanded descriptions.

Archaeological Testing Plan

An Archaeological Testing Plan (ATP) was completed for the Ninilchik water main project in 2010. That document assembled background information about Ninilchik, discussed the scope of the proposed undertaking, estimated the archaeological potential of the project area, and proposed means to test the project area for its archaeological potential. This chapter is based upon the ATP, and presents the information largely as it was conveyed in that document.

Area of Potential Effect

The Area of Potential Effect (APE) was addressed in a set of plans prepared by MLFA dated October of 2010. Most of the project construction will take place on the north side of the river in the current residential area; work on the south side of the river consists of a water main running under the road to the beach, a water treatment building, and a well (Figures 18-19). The water main alignments have been defined within the village on the north side of the river (Figure 20), but the locations of the water service alignments are only generally known, and the locations of the individual septic tanks and drainfields have not yet been defined. The well

and water treatment building site, on Block 7/ Lots 4, 5 and 6, was surveyed for archaeology in 2006 with nothing found (Mobley 2006).

Water mains will be buried 10' below ground surface, requiring mechanical disturbance down to a depth of 12', with the exception of the tunneling beneath the river (which will require deeper excavation). Old sewer and water lines encountered during construction will be removed. The project calls for construction of: 3,300' of new water main (of which about two-thirds are in the old village and one-third is under the road on the south side of the river), 11 water main valve stations, and 19 water hydrants. The water services will range from 50' to 100' long for qualifying parcels. For parcels that do not meet funding agency eligibility requirements, stub-outs for service lines will be installed at adjacent water mains (VSW data indicate that, of 21 parcels within the project area, residential structures on 15 parcels are eligible for VSW-funded water service lines, while the number eligible for new or replacement septic systems is unknown). For the septic tanks and drain fields it was assumed that construction will not disturb depths beyond 12'.

The new village water mains will be constructed mostly within existing street ROWs:



Figure 18. The project area encompasses most of the old village of Ninilchik as well as a portion of the beach access road southeast of the river. Cook Inlet is at upper left; the Sterling Highway winds through the image from lower left to mid-right.

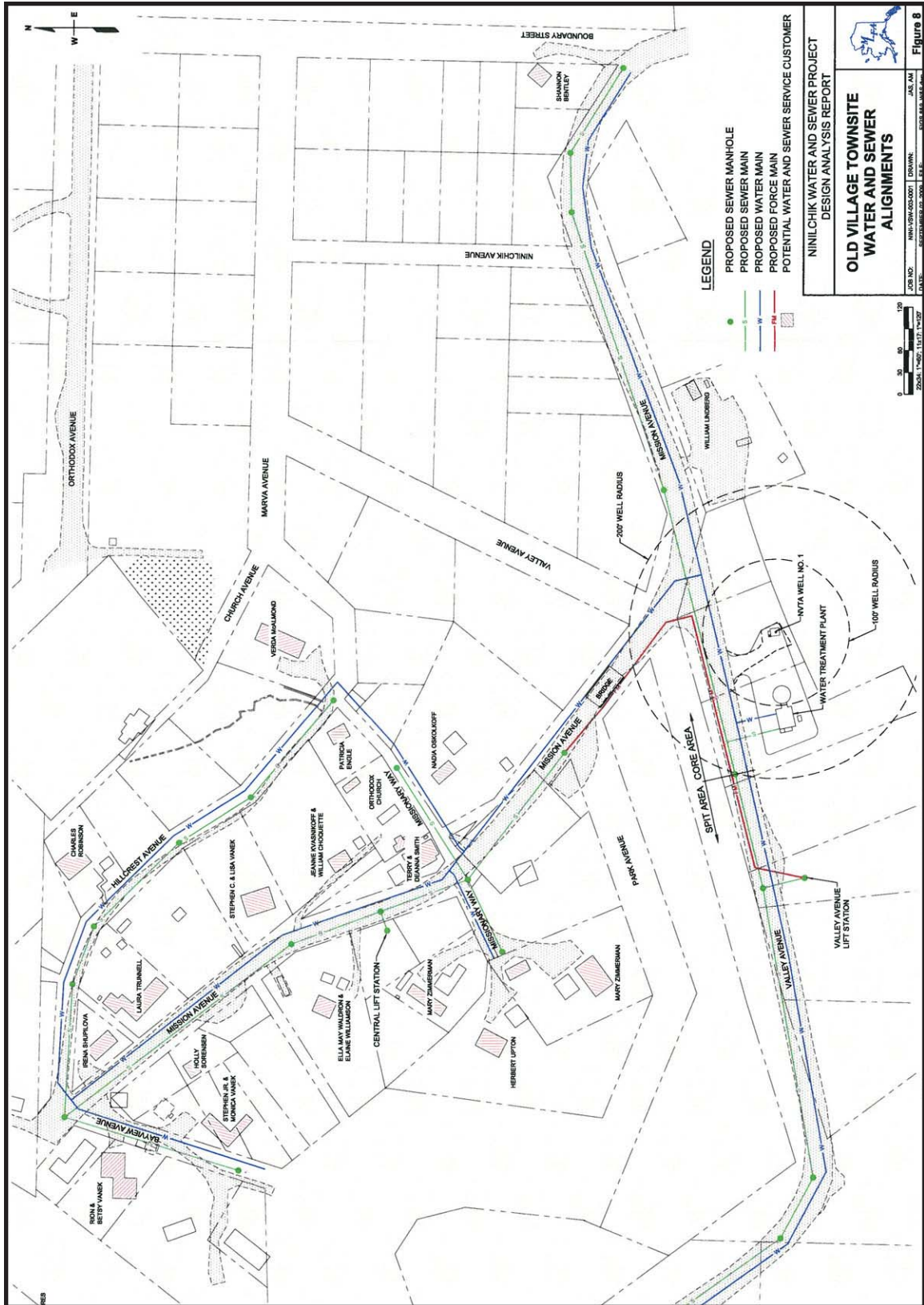


Figure 19. From the beach road the water main crosses the river and branches into four main alignments serving 21 private units.

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Mission Avenue — the main street, Hillcrest Avenue angling up the hillside to the rim of the north bluff, Bayview Street to the southwest of Mission Avenue's terminus (basically the driveway for the Steve Vanek and Teague Vanek parcels), and Missionary Way SW — another driveway that serves several parcels (Figure 20). Missionary Way NE is a platted access but the upper slope is too steep to have ever been so used except as a foot trail (Figure 12), and the lower slope has been residential at least since 1904. Plans for the water main installation indicate a proposed route actually 10' south of the platted ROW, requiring acquisition of an easement on private (Russian Orthodox Church) property. The width of excavations for the water mains are expected to be up to 10', with wider disturbances at hydrants, stub-outs, and service lines, and the excavations are anticipated to occur anywhere within the road prism and possibly outside it.

To summarize, the APE for the project is partly defined, with proposed locations for the water main but not services or septic systems. Most of the water main is to be under existing streets, but some will be beside existing streets and some may enter private lots. All of the water services connecting individual houses to the water main will cross private lots. The onsite sewer systems, each consisting of a septic tank, drainfield, and sewer pipe, will be constructed within an unknown number of private lots.

Information Sources

The ATP was prepared using archival resources, oral history, and on-site observation. Archival material — particularly old photographs and maps of the village — was sought from the Pratt Museum in Homer, University of Alaska-

Anchorage Archives, and on-line catalogs including the University of Alaska-Fairbanks and the Alaska State Library in Juneau. Especially useful were the collections of the Anchorage Museum at Rasmuson Center, as well as the original plan for USS 367 — the three Russian Orthodox church tracts, made in 1903. The Anchorage Museum's images of Ninilchik taken between 1911 and 1918 in the Alyce E. Anderson Collection (B1990.003) were not initially available for research purposes because the museum did not know where the prints came from and had no accession information on file. With the aid of National Park Service historian John Branson an heir of Alyce Anderson was found — great-granddaughter Leslie Anderson of Boston — who graciously gave the museum permission to make the images available for use in this current Ninilchik study. As some of the oldest images of historic Ninilchik the photos are an invaluable resource to confirm some of Ninilchik's old building dates, century-old building layout, and historic land-use in the APE.

Oral history efforts included one taped interview and several interviews recorded in notebooks. The taped interview — with Loren Leman about his childhood in Ninilchik — was conducted on August 31, 2010 (University of Alaska-Fairbanks tape #H2010-31). Other Ninilchik residents were interviewed on September 24 and 25, 2010. Ninilchik elder Mae Demidoff was born and raised in Ninilchik and talked with Charles M. Mobley as he took notes. Current Ninilchik homeowners Monica Vanek and Deanne Smith both discussed building locations and other subjects with Mobley, though in their view their two decades of residency made them inferior informants. It's true that some of their information regarding such things as former building locations is secondhand,

but many of their comments (artifacts found in the garden, etc.) constitute primary data, and handwritten notes were taken on their interviews. Ninilchik elder Betty Porter, age 80 and now of Kenai, briefly discussed Ninilchik history by telephone with Charles M. Mobley. Other knowledgeable sources were consulted during the 2012 testing, but this chapter focuses on the information assembled for the 2010 ATP.

A brief 2010 on-site observation combined archaeological reconnaissance with historic building inventory, and involved both photography and surface scrutiny. Two large soil exposures beside the waterline ROW were inspected for cultural material. Artifacts were found, photographed, and left in place (or turned over to the owner, in one instance), and no test pits were excavated. All but the steep segment where the ROW goes up the bluff along Missionary Way was walked, and the route was photographed. The photography attempted to use the same camera stations as those of historic photographs; the often-used bluff edge just off the Sterling Highway southeast of the village has grown up in tall alders to obscure the view, so a saw was employed to recreate the image in 2010. Most of the buildings in the old village were photographed, particularly those along the ROW, and AHRS numbers were obtained for a dozen (Table 1). The result is a characterization of past land use in the APE.

Archaeological Potential

The three lines of investigation — archival research, oral history, and on-site observation — were used to plan archaeological testing of the APE for Ninilchik's proposed water main. None of the three sources of information was exhausted, but sufficient data were acquired

to characterize the APE in terms of its archaeological potential. Factors taken into account include aspects of the natural environment such as elevation and slope. Others are cultural, such as the village's road construction techniques and the degree to which they may have disturbed or preserved intact archaeological deposits.

The Floodzone

The reach of the 2002 flood illustrates why the inhabitants of old Ninilchik have limited village development to the same footprint for many decades (Figures 20-21), and the current distribution of buildings just skirts the 2002 flood crest mark. That may not always have been the case, and the shift from the old ROC church site south of Mission Avenue to the site on the hill in 1903-04 was prompted by spring flood risk, according to Lascy (1904:85). A detailed analysis of the erosional/depositional cycle and its effects on the archaeological potential of the river's flood zone is beyond the scope of work; it is suggested here that historic use could have included buildings (especially if on pilings) as well as boat moorage, garbage disposal, conceivably outhouses, and more — though the severity of annual flooding lessens the potential for discovery of intact deposits. The APE lies in the floodplain where it crosses the Ninilchik River.

The South Valley Wall

The mouth of the Ninilchik River is characterized by a meandering watercourse with little floodplain, an outflow bent 90° north for almost half a mile by a substantial sand spit, and abrupt 100' valley walls that intersect the Inlet-



Figure 21. The 2002 flood damaged the bridge over the Ninilchik River and removed much of the road to the spit downstream, delineating the environmental zone in which past land users would likely not have constructed permanent buildings.

facing bluff at right angles to form a pair of prominent points overlooking Ninilchik village from the north and south. The north and south bluff are far from the APE and not now of concern, though the south point — a state campground — was surveyed for archaeology in 2006 (with no discoveries) as part of the earlier work for this project when potential water well sites were being evaluated (Mobley 2006:8-12). The slope below, on the south side of the river valley, is steep, wet, and covered in alders; archaeological survey there for the preferred well site and pump house revealed no cultural resources (Mobley 2006:6-7). Some of the water main — that to be installed under the road south of the river between the pump house and halfway to the Sterling Highway (Figure 20) — lies at the base of the south valley wall next to the restored river bank (Figure 22).

The North Valley Wall

The north valley wall is not as steep as the south bluff, and its south-facing slope was vegetated in 2010 in grass and shrubs as in 1904 (Lascy 1904). Hillcrest Avenue is carved into the slope, leading up from Mission Avenue and angling southeast to surmount the bluff before cutting sharply northwest towards the church (Figures 20, 23-24). Residential development has been mostly limited to the lowermost part of the scarp where it shifts to a gentler slope, and photographs from the 1940s and 1950s show that the north valley wall was a special use area devoted to root cellars. Deanna Smith stated that the hillside was selected so that the cellars would stay dry, and every family had one, according to elders Mae Demidoff and Loren Leman. At least six are visible in historic

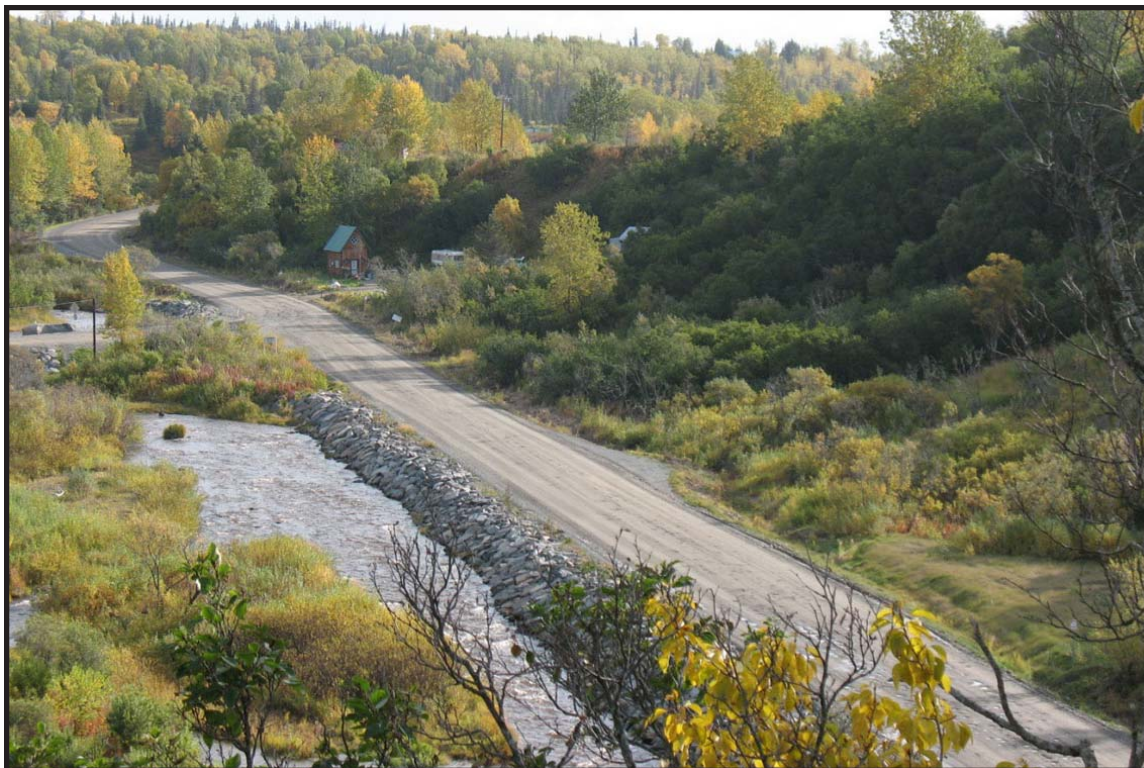


Figure 22. The water main south of the river runs beneath an engineered gravel road (upper left) between the Sterling Highway turn-off and the spit. In this 2007 view east, the new well and water treatment plant site is at the base of the bluff in the center of the image, new construction is upstream and adjacent to the new well and water treatment plant, the village bridge approach is at far left, and at upper left the road climbs towards the Sterling Highway. Compare with Figure 21.

photographs, and Ms. Demidoff was able to identify the location of her family's cellar. Two examples were recorded together as KEN-555 during the 2010 reconnaissance. Other cellars were dug into the hillside above and below Hillcrest Avenue. The APE involves burying a water main beneath the length of Hillcrest Avenue as it strikes up the north valley wall, before angling abruptly south at the top to traverse down the vegetated slope between the old Russian Orthodox school (KEN-031) and the Nadia Oskolkoff house (KEN-556) to connect with Mission Avenue (Figure 20).

The Residential Zone

The APE includes the residential zone of old Ninilchik village on the north side of the

river. The water main also travels beneath the road on the south side of the river, at the base of the south valley wall (Figure 22). On the south side of the river are two houses: one downslope near the Sterling Highway about 100' from the proposed water main, and a large log cabin constructed over the last couple years in a large cut made upslope from the road and waterline ROW (Figure 22). The road bed on the south side of the river is an engineered cut/fill feature with a wide disturbance swath, and there the potential for the water main construction prism to jeopardize intact cultural deposits of historic or older age is low.

The north side of the river contains the old Ninilchik village, where the archaeological potential is high. Topographically the area's usable space (excluding the barrier spit) is limited



Figure 23. The view northwest down Hillcrest Avenue shows many of the village's older buildings, and has been a favored camera station for a century (see Figures 9 and 14).



Figure 24. The water main up Hillcrest Avenue (here looking southeast) will be installed beneath the street. At left is “the red house” or KEN-554, and hidden in the weeds right of center are the two root cellars or KEN-555.

by the arc of the river and its flood zone on three sides, with the base of the north bluff defining the fourth side to form a habitable district of less than 10 acres. The federal surveyor in 1904 mapped four buildings in the vicinity of the APE, making general comments about Native houses and fenced gardens located north and west of the old ROC church, and east and west of the old ROC school (Figures 6, 25-27).

The 1911-1918 Anderson photographs show Bayview Street in the same location as it is now (Figure 9), passing by the prominent two-story frame building (KEN-550) in the same location as 2012. Hillcrest Avenue angled up the north bluff in the same location as it does today. Small log cabins and fences were strung out at the base of the slope along the north side of what is now Mission Avenue (Figure 8), where Lascy (1904) described Native houses and gardens (Figure 6).

Comparison of photographs from the 1950s (Figures 10-14) with those in the 1911-1918 Anderson collection (Figures 7-9) show how the addition and removal of buildings did little to alter the village layout. The town site survey of 1950 (USS 3036) shows over a dozen lots averaging about one-third of an acre in size laid out along the contour in two rows from Mission Avenue north to Hillcrest Avenue and from Hillcrest Avenue upslope to the rim of the bluff — abutting the “new” Russian Orthodox church lot (Tract A) overlooking the village (Figure 28). The lot pattern on the south side of Mission Avenue is more varied, with two clusters of smaller lots. One cluster is west of the old Russian Orthodox church lot (Tract C) where Lascy (1904) reported Native houses and gardens, and the other cluster is further northwest and includes three very narrow lots (Figure 28); in both cases the suggestion is that the surveyor

was accommodating the spacing of existing dwellings and associated gardens.

The 1950s photographs (Figures 10-14) show the orderly row of six lots between Mission Avenue and Hillcrest Avenue with their upslope halves uniformly put to fenced garden — the same pattern as that in 1911-1918 (Figures 4, 7-9). Outhouses are still located along the contour that marks the midpoint of those lots, and archival photographs indicate a century of such use. Wood privies are still in place on the south side of Mission Avenue, also, so the below-ground portions of such features could be present anywhere. The residential pattern in the 1950s was one of small simple rectangular houses on either side of Mission Avenue, most with their eve ends facing the street (Figures 10-14).

The riverbank on the northwest side of the village held the frame building variously used as a dancehall and post office (KEN-550). It also held the footbridge crossing the river to the spit and beyond to the cannery, and across the intersection was the still-standing store (KEN-218) and a large flat-roofed building owned and operated by Michael Oskolkoff as a store and dancehall, so this was the commercial zone that faced the village’s primary historic approach — Cook Inlet and the mouth of the Ninilchik River. The records of the Russian American Company (Arndt 1996) don’t mention a store during the Ninilchik colony’s early decades, and the finding index for the Alaska Commercial Company archives (which typically has entries for the stores and inventories transferred from the RAC to the Northern Commercial Company in 1867-68) doesn’t mention Ninilchik (Oswalt 2006). Nonetheless, commercial activity in the 1800s was likely focused in the same area.

As part of the 2010 onsite observations Charles M. Mobley talked with local individuals



Figure 25. From the Mission Avenue and Valley Avenue intersection (the road to the spit, at left), the water main passes by the old Russian Orthodox church site (Tract C). The former church building and fence site are superimposed from Figure 6 to show the overlap on the road ROW.

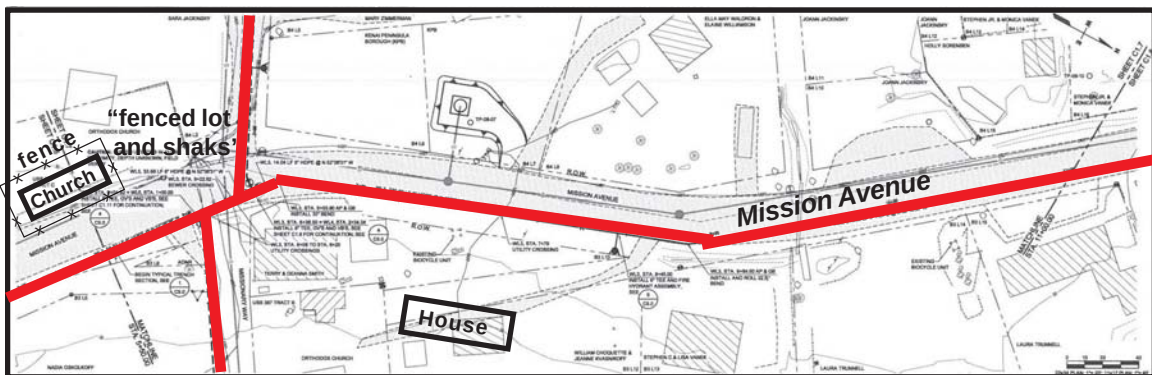


Figure 26. The water main branches as it enters old Ninilchik village to travel down Mission Avenue and along Missionary Way (at left) in both directions. Plotted are buildings surveyed in 1904 as part of USS 367, from Figure 6. Lascy's (1904) settlement comments are also plotted.

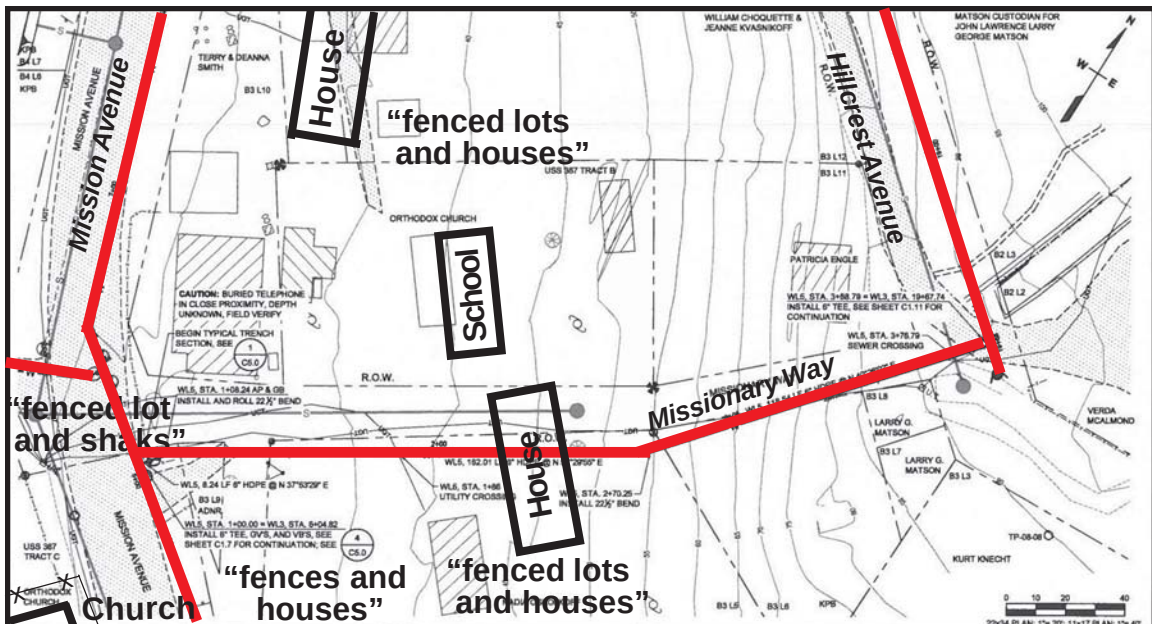


Figure 27. The water main going northeast along Missionary Way cuts through the site of a house plotted in 1904 on USS 367. Lascy's (1904) settlement comments (Figure 6) are also plotted. Note the degree of overlap between the Russian Orthodox church's log cabin school as surveyed in 1904 (in bold) compared to its position as surveyed in 2010.

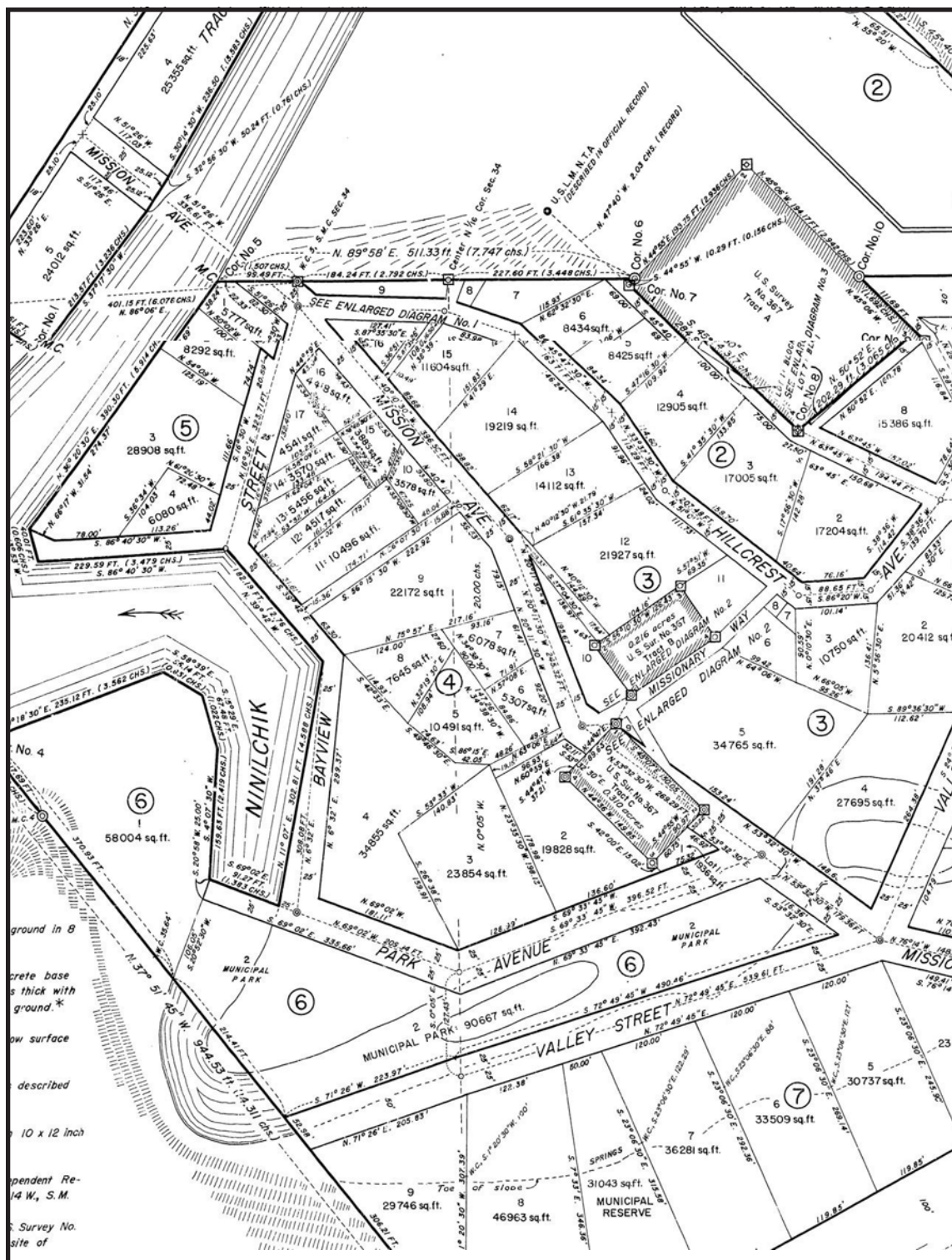


Figure 28. The 1950 plat for USS 3036 -- the Ninilchik townsite -- shows the three Russian Orthodox church tracts forming USS 367 as well as new lots accommodating the community's existing dwellings and traditional use. North is at the top.

about whether they'd found artifacts while gardening (not much, they replied, though Monica Vanek identified one ceramic pattern

she'd noticed as identical to one found by Mobley (2008:43) at Seldovia), and with permission he inspected a significant exposure



Figure 29. Recent grading around the new site for an old cabin -- KEN-553 -- revealed historic artifacts during a brief 2010 field inspection to help prepare the Archaeological Testing Plan.

used by Monica Vanek as a garden area and adjoining an area recently leveled to install an old log cabin (KEN-553). Most of the leveled area had mechanically spread topsoil in a sheet no more than one foot thick (Figure 29). It contained artifacts including bottle and window glass, white-glazed ceramics, a large square nail, two leather boot parts (a sole with ferrous brads and an upper scrap with cuprous eyes), and the stem fragment from a white kaolin pipe (Figure 30). Immediately southeast of the newly installed cabin and leveled area the ground drops down a foot or so and has an irregular surface, and there two sherds of “flow blue” transfer-printed ceramics were found (Figure 30). The distinctive ware — also found during archaeological investigations for the Seldovia sewer and water improvements (Mobley 2008:43) — was “introduced about 1835 and...[was] popular in

various forms throughout the nineteenth century” (Majewski and O’Brien 1987:145).

The portions of the APE transecting the residential neighborhood of old Ninilchik are: Mission Avenue from where it leaves the river bridge northwest to its current terminus at the river again, Bayview Avenue, the northwest end of Hillcrest Avenue before the street gains much elevation, Missionary Way southwest of Mission Avenue, and at least the lower two-thirds of Missionary Way northeast of Mission Avenue (Figure 20). Missionary Way is platted but no road exists except for the lowest 60’ connecting with Mission Avenue (Figures 31-32). That short stretch is used as a driveway by resident Deanna Smith, and it arcs counterclockwise past the Russian Orthodox church school to feed into Mission Avenue further west; it is said to be “the old road,” and consists of two narrow tire tracks of exposed gravel (Figure 33).



Figure 30. Historic artifacts observed (but not collected) in the vicinity of KEN-553 in 2010 included the sole and upper leather scrap of a boot, a square nail, glass, the stem of a kaolin pipe (above the glass), and ceramics including two pieces of “flow blue” dating from the mid to late 1800s.

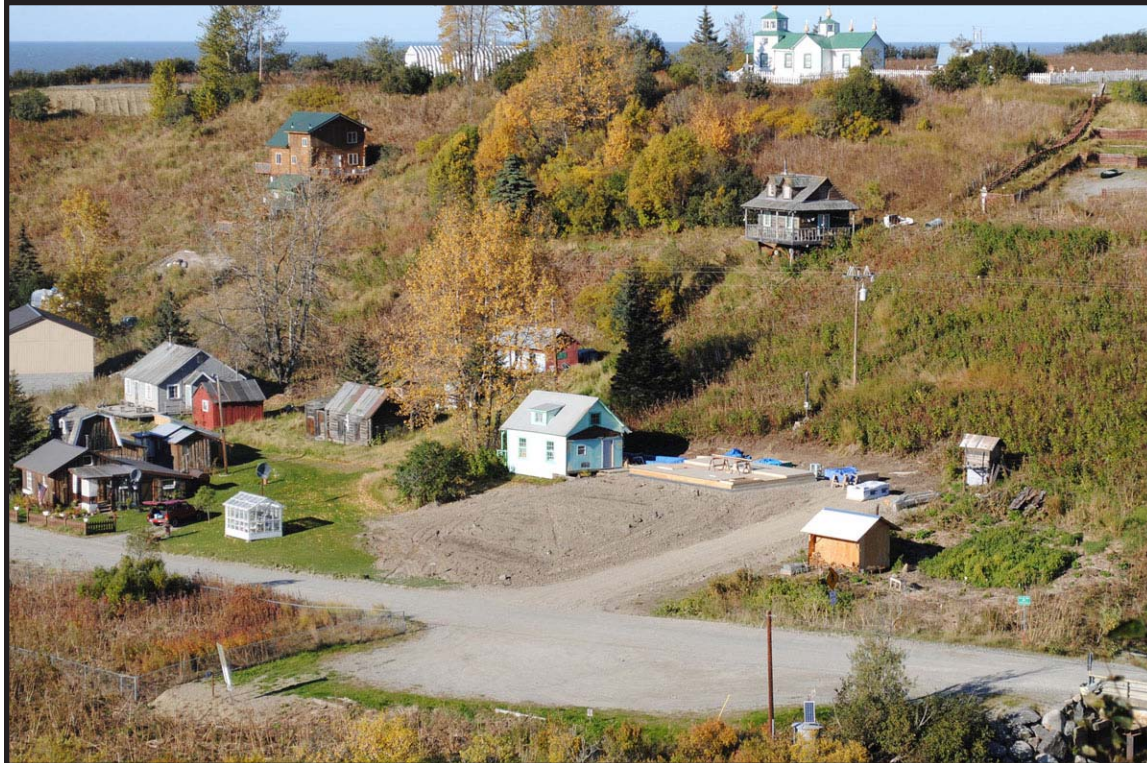


Figure 31. The water main will run under Mission Avenue in the foreground, with a line leaving at a right angle by the small greenhouse at left and traveling up the slope to the right of the twin-dormered cabin (KEN-560, at upper right) to intersect the Hillcrest Avenue segment. View is to the north.



Figure 32. The water main up Missionary Way will lead upslope from the lower left striking up the short driveway, between the old Russian Orthodox schoolhouse (KEN-031, left of center) and the house at right (KEN-556).

Road and Street Construction Techniques

Most of the water main is to be installed along or beneath existing road ROWs — generally along one side so that when a sewer main is installed at some future date the required 10' separation can be kept between the two. The APE and its road segments have different engineering and cut/fill characteristics which bear on their relative archaeological potential. On the south side of the river the road between the new pump station to the village bridge and further northeast was destroyed by flooding in 2002 and has been reconstructed (Figure 22), so that section's subsurface deposits are recent. From there up to the Sterling Highway intersection the road is cut into the slope and highly engineered with a deep cut/fill profile, and the wide roadbed is considered disturbed to a depth of at least six

feet. The section of Mission Avenue immediately on both sides of the village bridge is also highly engineered with considerable fill to address the annual flooding hazard.

The remainder of Mission Avenue going northwest from the bridge has little in the way of ditches and at most a culvert or two, and the elevation of the roadbed is only about two feet higher than the surrounding terrain. Until at least 1961 Mission Avenue was the only graveled road (Figure 15). Construction apparently involved a veneer of gravel fill (Figures 34-35), and one local individual stated that the maintenance regimen involved little more than occasional loads of gravel spread from the back of a dump truck. Thus the probability for former land surfaces buried intact beneath Mission Avenue was considered high. The same was thought true of the Bayview Street (Figure 36)



Figure 33. This graveled track (at left, looking northwest) was once publicly traveled before the route was realigned through the old church lot (Tract C) as Mission Avenue. KEN-031 is at right.



Figure 34. Mission Avenue, here looking northwest, appears to be mostly gravel fill over what was thought to be possibly a former land surface.



Figure 35. The southwest (downslope) side of Mission Avenue, here looking southeast, has an irregular surface with vegetation and fence remnants indicating garden use.

and SW Missionary Way sections (the NE Missionary Way section doesn't contain a road within its ROW).

Hillcrest Avenue is a narrow lane that angles up the north scarp of the valley to the Russian Orthodox church (Figures 23-24). The CCC or Alaska Road Commission are said to have built the road, depending on the local resident consulted, but a wagon track was clearly in place there by 1911-1918 (Figure 9). The street was also used by villagers to reach their root cellars and gardens, with archival photographs showing at several root cellars clustered at each end (Figures 12, 15). The same photographs show a timber crib retaining wall on the upslope side of the road as it approaches the rim of the bluff, and a long wood rail garden fence on the downslope edge of the street as it loses elevation towards the northwest. Hillcrest Avenue's subsurface was not

characterized in the ATP but its location was considered to have been relatively stable for the last century (Figure 37).

The 1998-1999 VSW Sewer Project

In 1999 VSW completed construction of new sewer mains with stub-outs to adjacent parcels, two BioCycle systems, an ultraviolet (UV) treatment plant, and a drainfield, all in the old village of Ninilchik. Post-construction attempts to obtain required state and borough permits and land-use agreements were unsuccessful, however, and the system was not put into service (except for the two BioCycle systems). Consequently any sewer lines encountered during the proposed water line construction will be removed.

Section 106 consultation was not part of VSW's 1999 sewer project effort, and no



Figure 36. Bayview Street, here looking north, will be trenched for installation of the water main. Its surface appearance suggested historic development of the street was minimal.



Figure 37. As viewed to the northwest in 2010, old Ninilchik village still shows the same general settlement pattern it had in the 1950s.

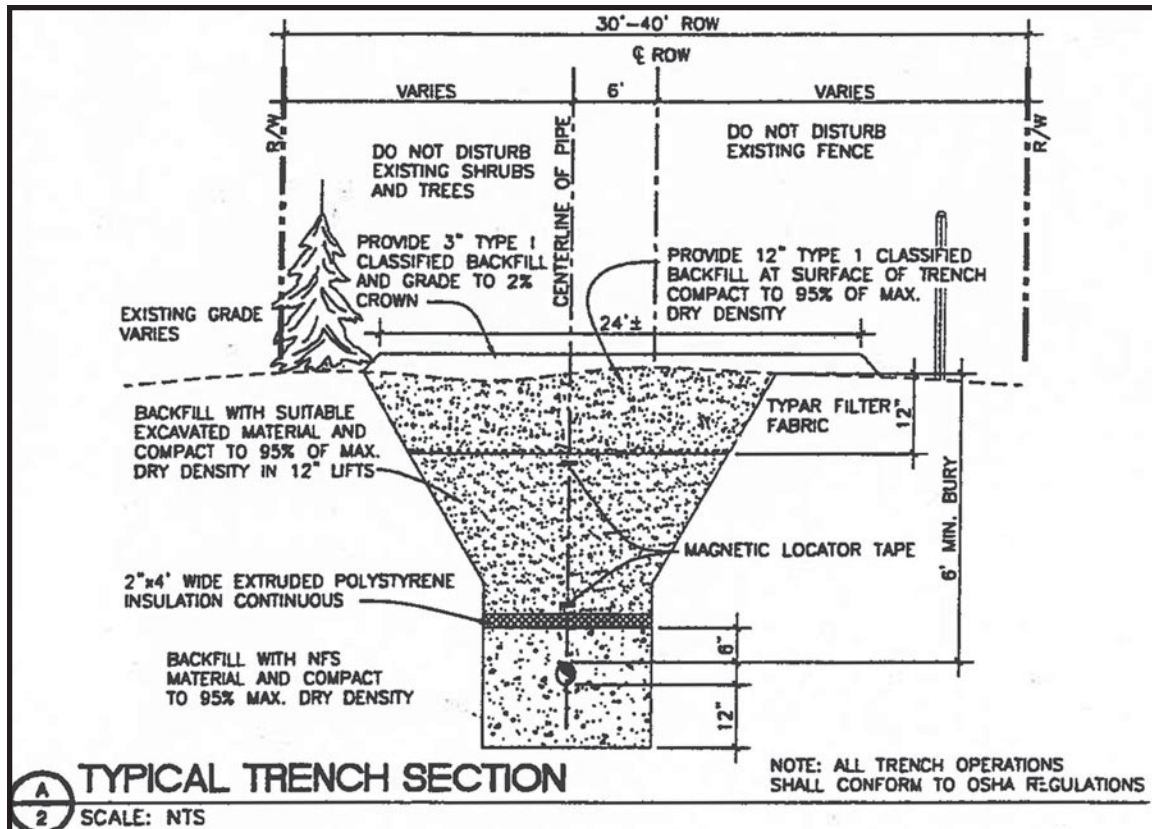


Figure 38. VSW's 1999 sewer project in old Ninilchik village removed a large swathe of the street ROW, with a typical cross-section shown here, usually offset on one side of the street so a future water line could be buried on the other side and still maintain a minimum 10' separation. In the above schematic, the proposed water main excavation would encompass the right portion of the ROW, and thus the APE would likely contain disturbed deposits on the sewer side and potentially undisturbed deposits on the opposite side.

archaeological or architectural inventory was done in association with the construction. Information is lacking about what cultural resources, if any, were disturbed by the project. As-built drawings prepared for the sewer project by William J. Nelson & Associates in 2002 were copied to the current project plans drawn by MLFA, and were useful for identifying disturbed areas within the APE. The sewer lines were installed in Mission Avenue between Missionary Way and Bayview Street, and in Bayview Street. BioCycle units are located on the Deanna Smith parcel (Block 3, Lot 10), and the Laura Trunnel parcel (Block 3, Lot 14). The UV treatment system, consisting of a building and two septic

tanks, is located in Bayview Street near the Rion and Betsy Vanek house. The 50'x100' drainfield is located in Bayview Street between the Ninilchik River and the Steve and Monica Vanek house (Figure 19).

The sewer project as-builts were useful for estimating the area and depth of prior disturbance in the APE (since both utilities roughly share the same ROW). The typical trench section shows sewer pipe buried at least six feet below ground surface in a trench that went down at least one foot deeper than the pipe (Figure 38). The bottom of the trench is shown as eight feet wide, sloped to approximately 20' wide at the ground surface,

within a ROW varying between 30' and 40' wide. Each BioCycle unit required excavation of a hole eight feet deep and (though no plan is provided in the 2002 as-builts) an estimated 10'x12' in area. Excavations for the UV building and two septic tanks required excavation of a hole six feet deep and at least 15'x60' hugging the west portion of the Bayview Street ROW, while the 10'x50' drainfield likely required a somewhat larger excavation that was — like the UV system — positioned to occupy the west portion of the ROW.

The 1999 sewer mains were mostly buried along one side of each street, no doubt to allow for eventual water main installation on the other side of the road and help maintain the minimum horizontal separation (10') required between the two pipes by state building code. The sewer mains were run along the south side of Mission Avenue, the east side of Missionary Way SW, the middle of Missionary Way NE, in and upslope from Hillcrest Avenue, and along the east edge of Bayview Street. The “typical trench section” (Figure 38) with a tapered trench 20'-wide at the top wasn't confirmed in the as-builts and is pretty wide for burial depths in the range of only 8', so the average disturbance width was thought to be potentially less.

Regardless, the 10' minimum separation between sewer and water mains means that the centerline for the water main trench will be near the edge of the sewer trench disturbance. A maximum 1999 sewer trench width of 20' as specified in the drawings, within a ROW varying between 30' and 40' wide, means that earlier project removed between 50%-67% of the ROW. Consequently, the water main trench will likely encounter soils disturbed by prior sewer main installation on one side, and potentially undisturbed soils on the other side. In the case

of the UV system and drainfield on Bayview Street, both are on the other side (west) of the sewer main from the proposed water main alignment, so their disturbance footprint is not expected to intrude on the APE for the water main (though the sewer main will).

Summary of Archaeological Potential

The three sources of information — archival, oral history, and on-site observation — allowed characterization of the APE's archaeological potential in the ATP (Figure 39). That portion of the APE on the south side of the Ninilchik River is of low potential for buried archaeological remains because: a) the water main is to be buried beneath the road, b) the road is engineered with significant cut/fill profiles, c) the lower part of the road is in the river's active flood plain and washed out completely in 2002, and d) the upper part towards the Sterling Highway traverses a significant slope.

The north side of the river is where the village has always been, and it contains the portion of the APE that has potential for archaeological remains (Figure 37). The potential for buried archaeological remains under Hillcrest Avenue was judged moderate due to the known root cellar use along the north slope and lack of larger dwellings or dwelling scars appearing in 1950s photographs.

Mission Avenue, Bayview Street, and Missionary Way SW were judged moderate to high for the potential of buried land surfaces that could contain archaeological remains, given the historic land use and the appearance of mostly gravel fill (and no cutting) forming the road.

Missionary Way NE was judged to be of high potential for containing buried archaeological remains, because: a) Lascy in

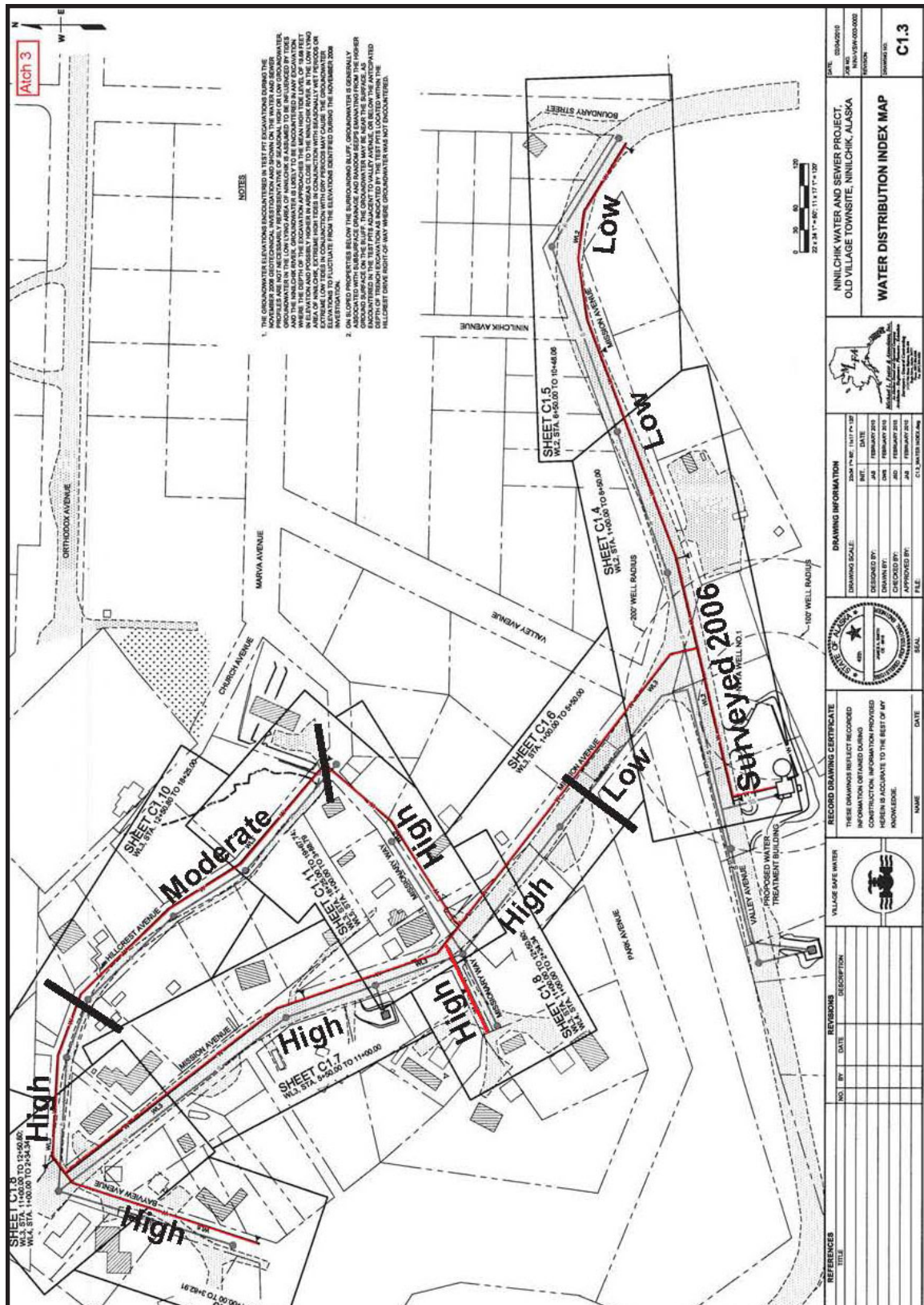


Figure 39. The APE has variable potential for containing archaeological deposits. Oral history, archival sources, and on-site observations were used to develop characterizations of archaeological potential in the ATP.

1904 mentioned houses and fenced gardens in the vicinity, b) he even plotted one now-gone house that will be transected by the ROW, and c) the area was shielded from the main street and thus outhouses were maintained in the vicinity during the 1950s.

The trenches dug for the 1999 sewer main removed between half and two-thirds of the street ROWs and probably disturbed part of what will be the water main excavation prism (the APE), but as described above the remainders are judged to be of moderate to high potential. Road development in the old village does not appear to have involved much excavation, but rather fill over the existing land surface. The 2010 plans also show buried telephone lines throughout the village; if these were installed using the typical machine, then the disturbance pattern will be approximately three feet deep and about one foot wide.

The locations of the septic systems are not known and weren't addressed by the ATP, but it was predicted that they will be installed in areas of high archaeological potential.

Cultural Materials and Their Significance

Ninilchik (KEN-032) has the potential to hold buried evidence of prehistoric habitation. The original AHRS card's mention of Ninilchik being "chock full of caches, [and?] house pits of aboriginal population" is ambiguous; by the time the ATP research was completed in 2010 it seemed unlikely remnants of traditional Kachemak or Dena'ina house features would have survived 160 years of intensive use — especially gardening — in such a confined space. Such remains, if present, could include midden deposits, semi-subterranean house pits and cache pits, Kachemak human remains (Dena'ina

traditionally cremated their dead), fire-cracked rock scatters, and isolated artifacts.

Historic cultural remains could include evidence of dwellings, storage sheds and wood or coal sheds, root cellars, trash deposits including ash disposal areas, outhouse holes, fence stubs, isolated artifacts, and remnants of boats. The range of potential historic artifact types at Ninilchik is probably comparable to that found at Seldovia for a deposit dating from the late 1800s to the late 1920s (Mobley 2008). Ninilchik also has the potential for yielding earlier artifacts reflecting the Russian Era. Given the Russian Orthodox influence from the settlement's founding, it is unlikely that human interments of historic age would be present within the village outside the cemetery. Buildings were of log and thus limited in one dimension to about 20' wide (the old Russian Orthodox church — likely the village's biggest 19th century building — measured 20'x40'), and most of the log buildings in the 1911-1918 photographs (Figures 4, 7-9) appear to be about 16'x20' — about the size of the old Russian Orthodox school building. It is estimated from the photographs and maps, and experience, that privy holes are a maximum six feet square (more commonly 4'x4'), and root cellar disturbances are a maximum 8'x12'. Historic trash deposits could be deposited as a sheet of varying thickness over the entire site, or in discrete surface or subsurface dumps, or both.

The National Register significance of old Ninilchik (KEN-032) was addressed in an abbreviated fashion in a National Register nomination form prepared in the early 1970s and filed at the Alaska Office of History and Archaeology. The intention was apparently to include buildings and archaeological features in the district, but no formal determination of eligibility was made.

Goals and Methods of the Testing

The primary goal of the archaeological testing as specified in the ATP was to determine whether archaeological deposits of National Register eligibility are present in the APE. Needed was a sample of subsurface cultural deposits and features that could be quantitatively and qualitatively extrapolated to the APE as a whole. The focus of testing was to be on portions of the APE judged of high potential, with lesser attention to that portion of Hillcrest Avenue judged of moderate potential. The ATP proposed that no archaeological testing be done on the ROW segments judged of low probability for buried archaeological resources.

The anticipated size and distribution of buried features informed the testing interval proposed in the ATP. Privy holes (which are typically rich in archaeological information), root cellars, and building foundations were anticipated components of Ninilchik's archaeology. Desired was a testing pattern and interval likely to uncover such features, if present. To obtain a representative sample a statistically defensible approach is to devote more effort searching the low potential areas and less to the high potential.

The approach instead was to spread the trenches out to sample the entire APE considered high or moderate archaeological potential, to increase the representativeness of the sample. It was proposed that a backhoe trench interval of about 50-60' apart be applied to Mission Avenue, Bayview Street, and Missionary Way SW, all of which have some degree of gravel fill as a surface. Backhoe trenches were to be approximately 3' wide, 6' deep, and 12' long, placed alternately on opposing sides of the water main centerline where possible to expand coverage. It was recognized that the proposed

archaeological testing pattern (Figures 40-46) could miss a 16'x20' building foundation no matter how the long axis was aligned, and even more conceivable was that such a testing interval could miss outhouse holes, but it was expected that the interval would yield a sample that could be cautiously extrapolated to the whole. In contrast to the 50'-60' interval for the three high-potential streets, a greater interval was proposed for moderate-potential Hillcrest Avenue. Most of the Hillcrest Avenue testing was to be done at the low end of the slope, where the relief lessens and two known root cellars (KEN-555) are located.

The gravel road fill on Mission Avenue, Bayview Street, and Missionary Way SW prompted use of mechanically assisted archaeological testing, using a backhoe with a toothless bucket at the direction of the field archaeologist, to penetrate the fill in search of intact deposits beneath. If old intact land surfaces were uncovered, excavations were to switch to hand techniques (shovel, trowel, selective screening, etc.) as needed. Standard professional excavation techniques were to be used, with trenches plotted on project plans.

Testing along Missionary Way NE was to be done by hand except for the southwest 30'. It was singled-out for hand-excavation because: a) it transects an area likely to hold outhouse holes; b) it is located in an area known to have had houses and actually crosses one house location (Figure 27); and c) it appears to be the least disturbed of all the APE components. Trenches were to be dug by hand either parallel or perpendicular to the ROW as the circumstances recommended, with the intention of broadly sampling the potential swathe that could be disturbed during construction.

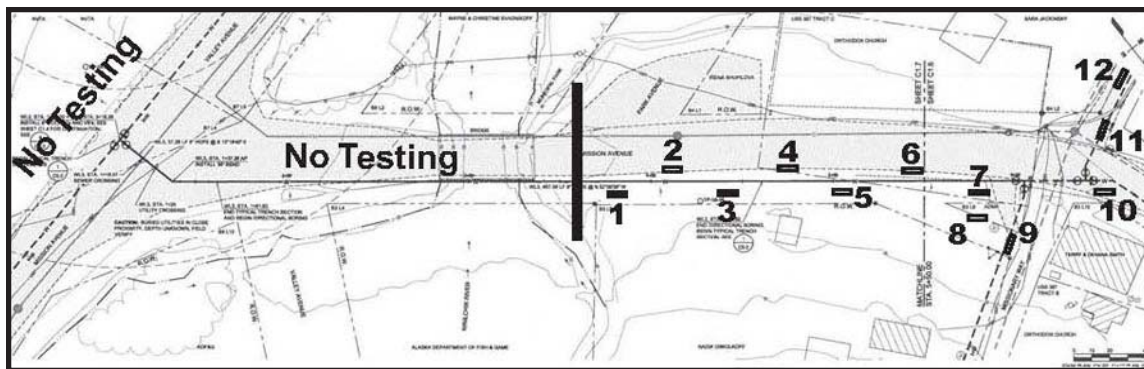


Figure 40. The excavation numbering system began with mechanically dug trenches at the southeast end of Mission Avenue, as set out in the ATP. No testing was proposed along the bridge abutment due to an apparent lack of soil integrity.

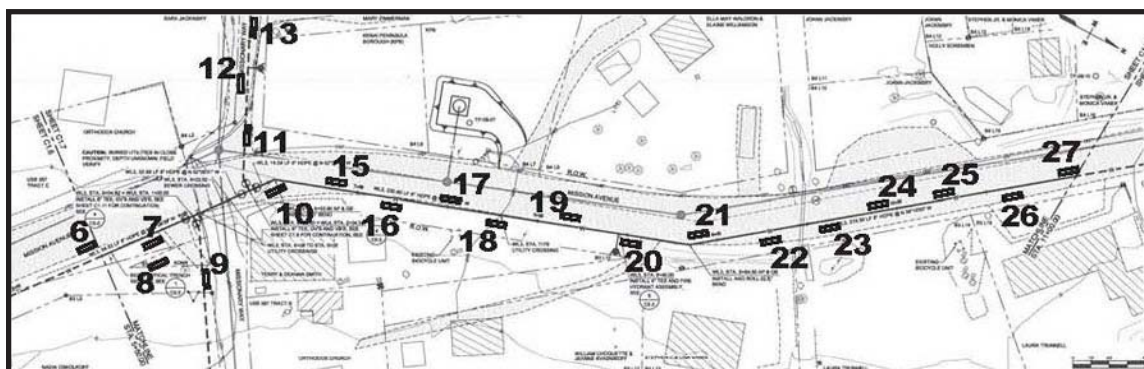


Figure 41. Mechanically dug trenches (6-27) were proposed continuing along the middle portion of Mission Avenue.

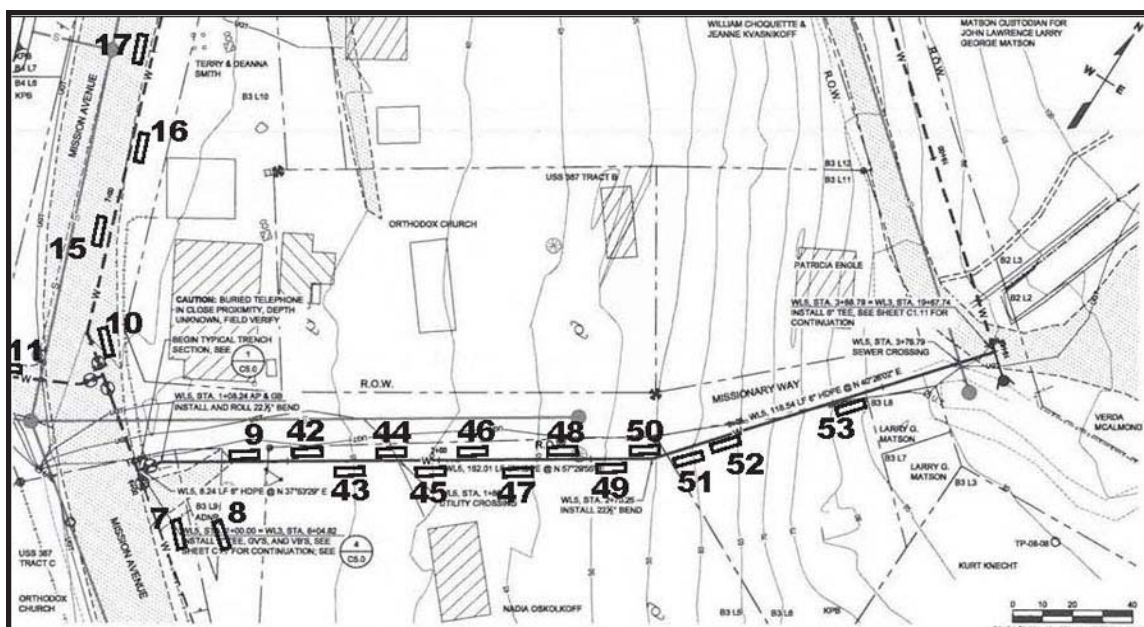


Figure 42. Hand-dug trenches 42-53 were proposed along Missionary Way NE, where the ROW doesn't actually have a road within it.

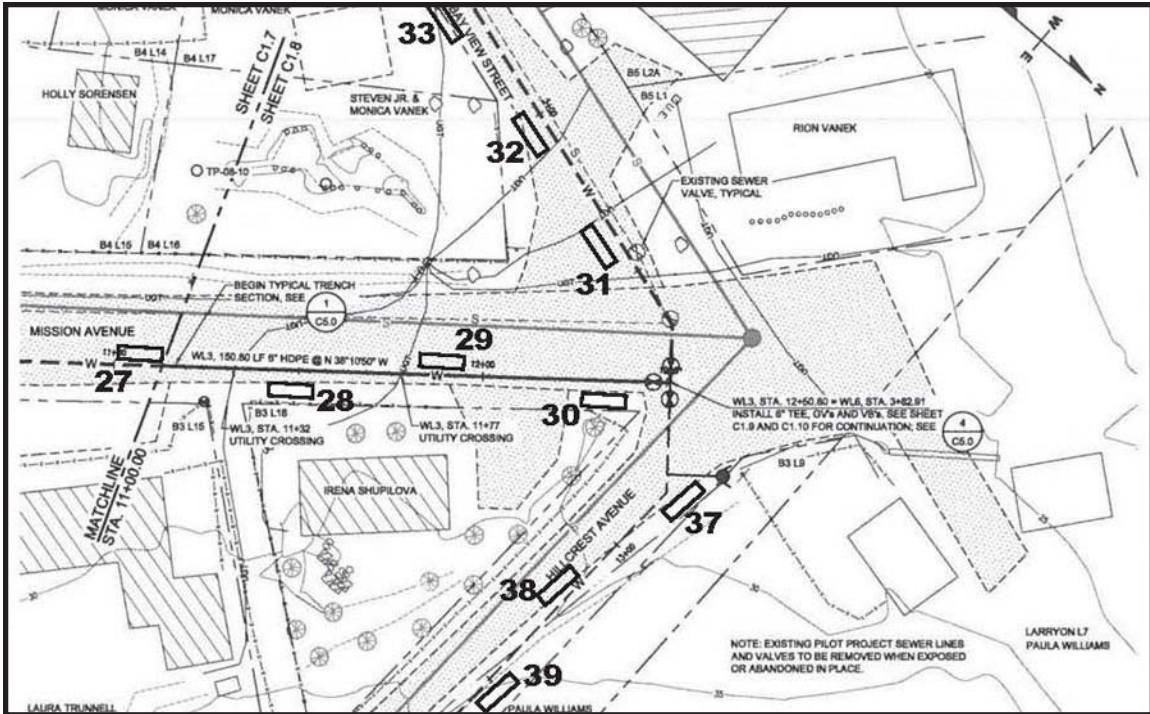


Figure 43. At the northwest end of Mission Avenue the mechanical testing was to extend south down Bayview Street and east up Hillcrest Avenue.

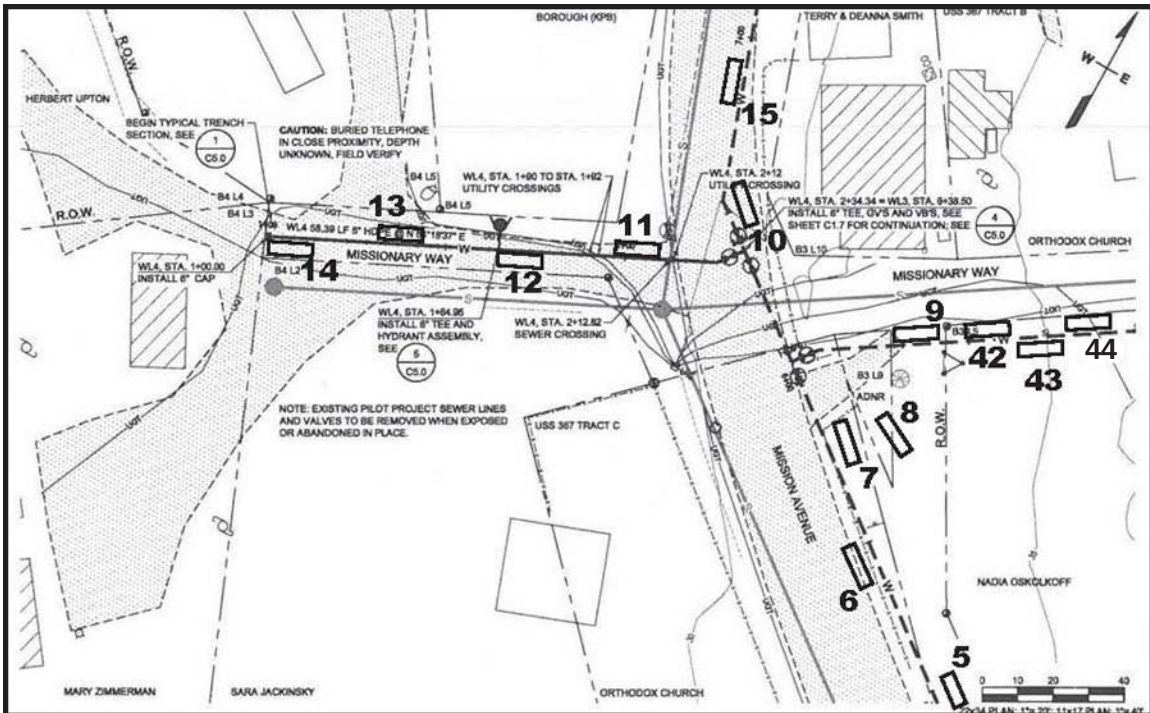


Figure 44. The short water main under Missionary Way SW was to receive four test trenches (11-14) with a backhoe.

The outline of the testing interval presented in the ATP (Figures 40-46) was schematic, realizing that the exact placement of trenches would vary according to the placement of buried telephone lines, driveways, microtopography, etc.

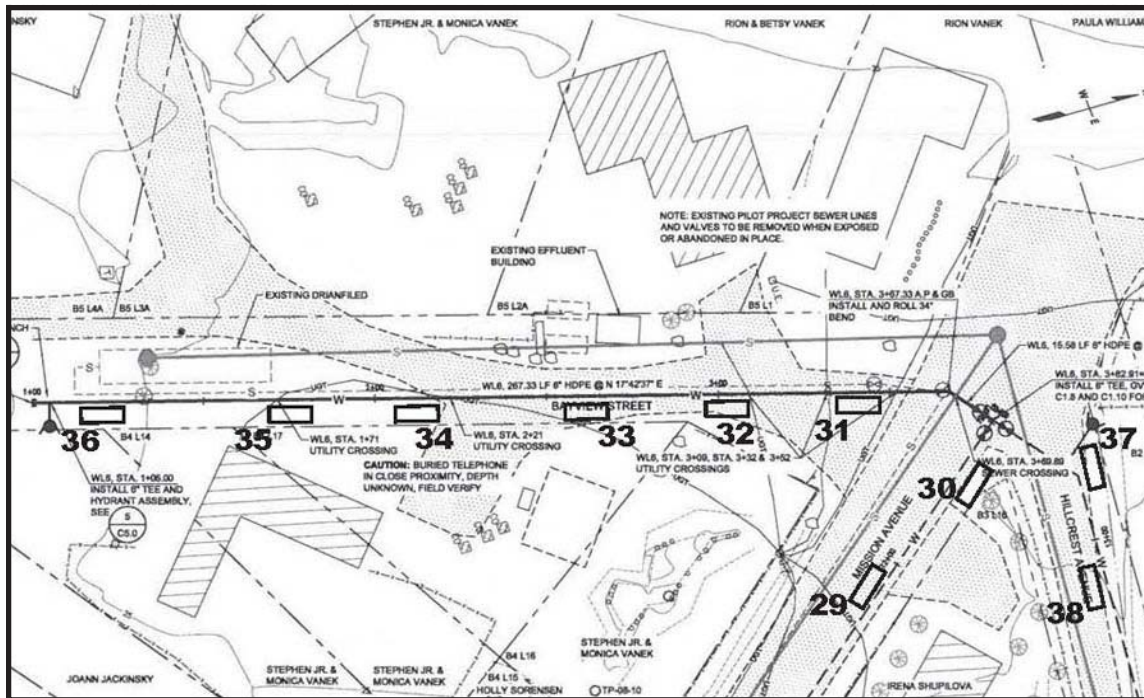


Figure 45. Bayview Street was proposed to receive six mechanically excavated trenches (31-36).

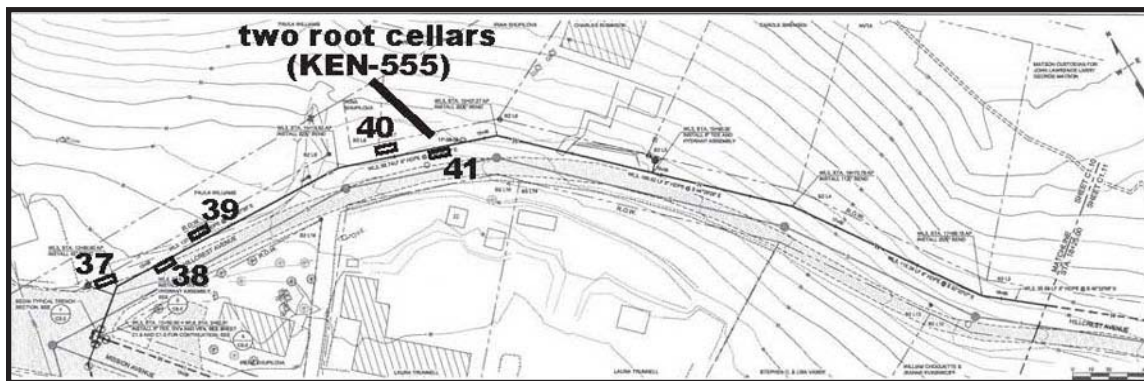


Figure 46. The ATP proposed that the west end of Hillcrest Avenue receive five mechanically dug trenches.

The results of the archaeological testing were to be analyzed to broadly consider culture-historical matters, determine the resource's significance, and evaluate its National Register eligibility.

Protocols for Discovery of Human Remains

Procedures to be followed when human remains are discovered have been worked out by state and federal agencies for prior projects

across the state of Alaska, resulting in a relatively stable protocol that has been formalized in numerous Memorandums of Agreement (MOAs). For the Ninilchik project the protocols (see sidebar) were adapted from a 2006 MOA signed by the USDA, SHPO, and Advisory Council on Historic Preservation for water and sewer improvements in Kotzebue. The archaeology differs between the two places, but the protocols are similarly applicable.

a) Any and all human remains discovered during archaeological testing shall at all times be treated with dignity and respect. Excavation will immediately stop in the vicinity of the discovery and the grave, remains, and any associated materials will be protected from further disturbance;

b) Following discovery of human remains, the Project Archaeologist will immediately notify MLFA and the Alaska State Troopers Criminal Investigation Bureau, the Ninilchik Village Tribe, Alaska SHPO, and DEC Village Safe Water. If the remains are believed to be less than 100 years old, the Project Archaeologist will also immediately notify the State Medical Examiner;

c) If the remains appear to be recent in the archaeologist's judgment, DEC Village Safe Water will defer to the opinion of the Alaska State Troopers and the Alaska Medical Examiner for determination of whether the remains are of a forensic nature and/or subject to criminal investigation;

d) If the racial identity of any human remains is in question, an anthropologist experienced in the analysis of human remains shall examine them within 30 days.

e) Native remains will be treated according to the general terms of the Native American Graves Protection and Repatriation Act (NAGPRA) whether or not NAGPRA applies;

f) Non-Native remains will be treated to the same general procedure, with every attempt made by DEC Village Safe Water to identify the deceased and to identify, locate, and inform descendants. If no descendants can be located it will be the responsibility of DEC Village Safe Water to obtain a Burial Transit Permit from the Alaska State Bureau of Vital Statistics and reinter the remains in a local cemetery;

g) If human remains are discovered during archaeological testing, work will be suspended until the Alaska State Troopers and SHPO can be consulted.

Protocols in the event human remains are uncovered.

Artifact Curation

The Kenai Peninsula Borough and State of Alaska are the landowners of the city streets within the project area (with the addition of easements), while the individual landowners receiving septic systems and water services own the remainder. Consequently there are potentially different owners of recovered artifacts. A master artifact inventory was proposed to identify collected specimens by owner, so that specimens could be returned to their owner once the collection was analyzed and suitably

photographed. The Kenai Peninsula Borough and State of Alaska are to designate a professional curation facility with adequate storage, conservation, security, and public and scientific access capabilities for their collections.

The ATP stated that artifacts are to be cataloged, photographed and analyzed as appropriate, and delivered to MLFA for subsequent transmittal to the owners. Copies of original field documentation and photographs are to be kept on file at the office of the Project Archaeologist. Upon completion of the project, documentation will accompany artifacts

transferred to owners and to any designated curation facility, with copies to the Alaska SHPO if desired.

Proposed Schedule

The ATP was written in 2010 when imminent construction was anticipated, but in fact construction was significantly delayed and the archaeological testing didn't take place until late 2012. Archaeological testing is seasonally limited to the period when neither snow nor frozen ground impede excavation, which at Ninilchik means approximately May 15 to October 31. Balancing excavation rates, recording rates, and crew size, the ATP proposed a backhoe-testing crew and a shovel-testing crew operating simultaneously. It was envisioned that the equipment and operator would be most efficiently deployed if several backhoe trenches were opened sequentially, with one senior archaeologist monitoring the trench being excavated and an assistant following behind to hand-dig if buried land surfaces were encountered. At a rate of 2 hours per mechanically tested trench and a 10-hour day, the 41 proposed backhoe tests were estimated to take eight days of machine and operator time, and a crew consisting of one senior archaeologist and one assistant for those eight days.

The 12 hand-dug trenches along Missionary Way, each about two feet wide and 10-12' long, were expected to require one senior archaeologist and two assistants for eight 12-hour days. Since the intention was to obtain a wide geographic sample with which to characterize subsurface cultural deposits, horizontal expansion of trenches to reveal features (beyond that necessary to characterize their form and function) was not anticipated.

The amount and nature of cultural material to be encountered in the testing was unknown, and therefore the effort, time, and budget needed to address analysis of the artifacts and other collections (possibly soils, faunal material, or radiocarbon dating samples) were considered estimates subject to revision. At the rate of one per trench the maximum number of features anticipated in 41 mechanically-dug holes and 12 hand-dug holes is 53, and it was estimated that one-fourth of the test trenches might contain cultural features for a total of 13. The background research suggested that the number of artifacts could range from zero to thousands, from prehistoric as well as historic traditions, and it was estimated that 300 artifacts worthy of collection might be retrieved for analysis and curation, and that many would date to the late Russian-American and early U.S.-American periods. If Russian-American ceramics or beads formed a major fraction of the collection then the services of a specialist to assist in the artifact analysis was a contingency.

A report of the archaeological testing must be prepared and submitted to AOHA as a condition of the Archaeological Field Permit (required for work on the State-owned portion of the APE), as well as the Section 106 process. To meet the Secretary of the Interior's Standards and Guidelines the report must include: project description, natural and cultural background, methods and goals, results of fieldwork, description and analysis of recovered materials, specialized analyses such as radiocarbon dating results if needed, and a summary of the project. The ATP recognized that a stand-alone report was expected, but that if mitigation efforts were subsequently required, the results of the testing phase could be combined with the results of the mitigation to form one comprehensive report.

Summary of Archaeological Testing Plan

The APE and its constituent water main alignments can be divided into about one-third of the total on the south side of the river warranting no archaeological testing, and the remainder consisting of Mission Avenue, Bayview Street, Hillcrest Avenue, and Missionary Way — comprising the old Ninilchik village (KEN-032) — that does warrant testing. Missionary Way consists of two parts; one is the segment turning southwest towards the river — actually a driveway serving several households radiating from its terminus. The other Missionary Way (NE) segment turns northeast through backyards that have never been roaded and between two historic buildings — the Russian Orthodox church school (KEN-031) and the Nadia Oskolkoff house (KEN-556), both of which were plotted on USS 367 in 1904 (Lascy 1904). The proposed water main transects a third, intervening building site also plotted on the 1904 survey (Figure 27), which now in 2010 looks like an untended yard just upslope from Deanna Smith’s mown lawn (Figure 32).

The archaeological potential is suggested to be high under Mission Avenue, Bayview Street, and Missionary Way NE and SW, and it is suggested to be moderate to low under most of Hillcrest Avenue and somewhat higher at the northwest end. The 1999 VSW sewer project

probably removed between half and two-thirds of the street ROWs, but the archaeological potential of the remainder is likely retained. Proposed here is a program of mechanically assisted (backhoe) testing to penetrate the surface in and along the roadway for the APE along Mission Avenue, Hillcrest Avenue, Bayview Street, and Missionary Way SW, and a second program of extended shovel testing along much of Missionary Way NE. It was anticipated that cultural remains going back as far as 1841 could be encountered, including remains of building foundations, outhouse holes, garbage dumps, and other domestic features.

Collections were anticipated to be similar in character to those from Seldovia (Mobley 2008) with an added Russian American Company component, though the potential quantity of such material was only estimated. Because several landowners are involved, segregation of collections by excavation unit and landowner was anticipated, to expedite their return.

The archaeological testing was intended to obtain information on the presence or absence of National Register-eligible cultural remains in the APE. The results were to be incorporated into the Section 106 review process — through this final report — to determine if there is an effect on historic properties and whether mitigation measures are warranted.

Results

The ATP was implemented by CMM&A in early October of 2012, again contracted to MLFA. The crew traveled to Ninilchik on September 30, worked in the field from October 1 through October 8, and traveled back to Anchorage and beyond on October 9. The archaeological crew consisted of Charles M. Mobley, Ottar Mobley, Solyra Sepulveda, Risa J. Carlson, Signe Englert, Shona Pierce, and Sarah Lyne, along with local laborers Guy Watkins, Travis Schmitz, and Jake Sines. Local resident Andy Mathewes was contracted by MLFA to provide and operate a Bobcat excavator with a toothless bucket to dig the mechanical trenches (Figure 47). MLFA's Greg Cvitash helped position test trenches among the utilities and property lines. Visitors included MLFA's Holly Morris and AOHA's Dan Thompson.

A two-unit vacation rental at the northwest end of Mission Avenue, inside the acute angle made with Hillcrest Avenue, made a comfortable and convenient field camp (Figure 48). A nearby canvas "clam-cleaning shack" on Mission Avenue was rented to stage field gear, and a garage on Mission Avenue was rented to serve as a washing station and field laboratory

(Figure 49). An office and a photography station were set up in one apartment (Figure 50), so that all the artifacts could be photographed in bag lots before the crew left the field.

The 2012 investigations included, besides the archaeological testing, limited oral history and archival research. The results of all three are presented in this chapter, reserving specific description of features and artifacts for following chapters.

Mechanically Excavated Trenches

The ATP estimated that 41 backhoe trenches could be inserted along Mission Avenue, Bayview Street, and Missionary Way SW, but interference with surface or buried features precluded excavation of Trenches 1, 4, 16, 23, and 38-42 (Figures 51-57). Consequently the road alignments were able to accommodate 32 trenches dug with the machine. In 16 of those trenches a dark organic layer was found buried beneath the road fill (Figure 47), and in another eight a layer of coal ash was found, in either case representing a former land surface (Table 2). In the remaining eight trenches (Trenches 2, 6, 7, 9, 26, 32, 33, and 36) it



Figure 47. A Bobcat excavator with a toothless bucket, operated by local resident Andy Mathewes, provided good subsurface visibility and artifact recovery. Note buried organic zone here in Trench 9, looking southwest across Deanna Smith's yard.

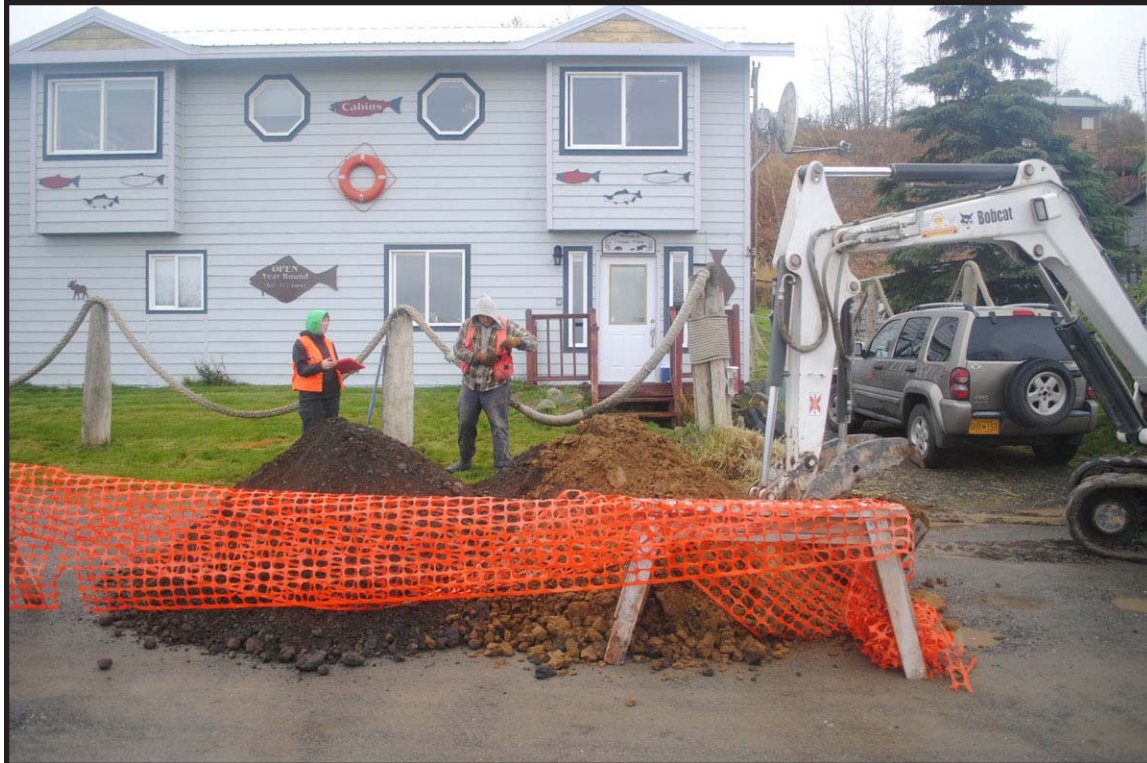


Figure 48. Willie Dixon's two-unit vacation rental (back left, looking northeast), conveniently located inside the corner of the Mission and Hillcrest Avenues intersection, was rented to house the field crew. In the foreground Ottar Mobley and Signe Englert record Trench 28.

appeared that any original land surfaces had been removed prior to burial by road fill (Figure 58).

Three deposits warranting feature status were uncovered with the machine. Trench 3 contained a 12" deposit of organic soil, coal ash, and artifacts buried beneath the almost two feet of soil. Trench 10 contained a thick deposit of coal ash and artifacts in association with a hewn cabin log and a round log of purlin size (excavation shifted from mechanical methods to hand tools after the feature was first revealed. Trench 35 contained a thick deposit of organic soil and artifacts buried more than six feet below the road surface.

Most of the mechanically excavated trenches – 28, or 56% — produced artifacts that were collected, while 14 trenches resulted in no collections (Table 2). In view of the fact that all the hand-dug trenches produced collected artifacts, differential excavation and recovery



Figure 49. Sarah Lyne labels bags in a garage provided by Deanna Smith as an artifact washing station.



Figure 50. Solyra Sepulveda photographed artifacts in bag lots before they were removed from the field.

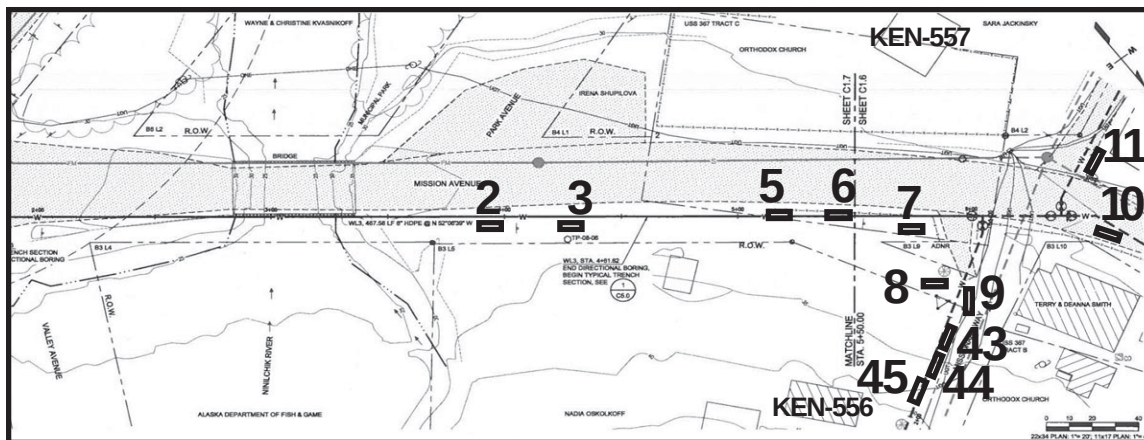


Figure 51. Access and buried utilities prompted omission of Trenches 1 (closest to the bridge at left) and 4 from those mechanically excavated along the far southeast end of Mission Avenue.

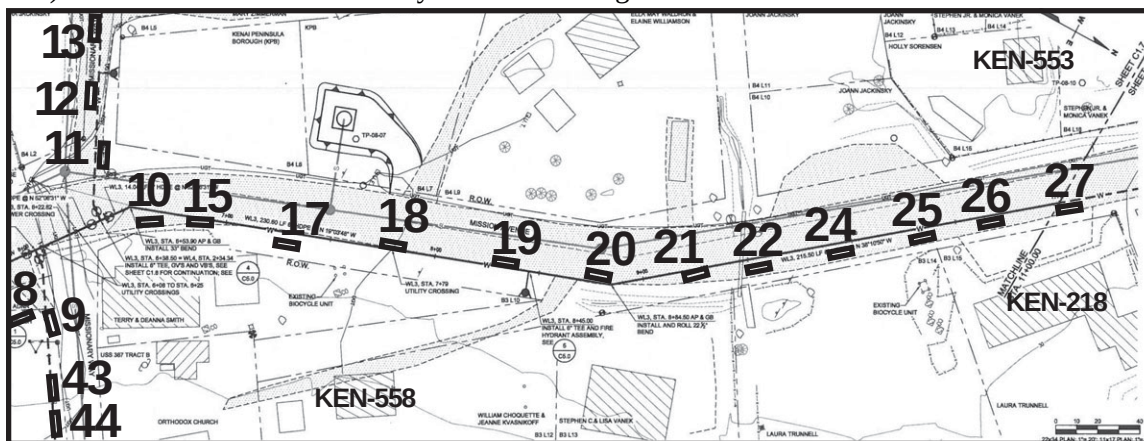


Figure 52. The long central portion of Mission Avenue accommodated all the proposed mechanical test trenches except for Trenches 16 and 23.

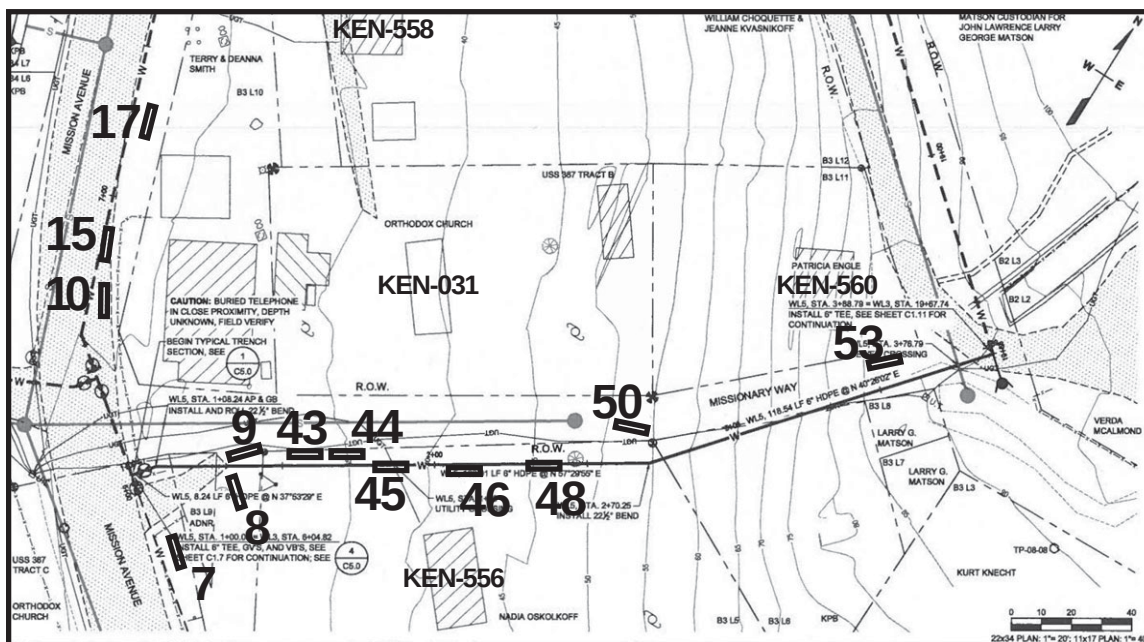


Figure 53. Missionary Way NE is a legal ROW but is not developed (though a trail is evident in 1954 -- see Figure 12). Trenches 43-53 were dug by hand; five (43-46, and 48) were on Russian Orthodox church property.

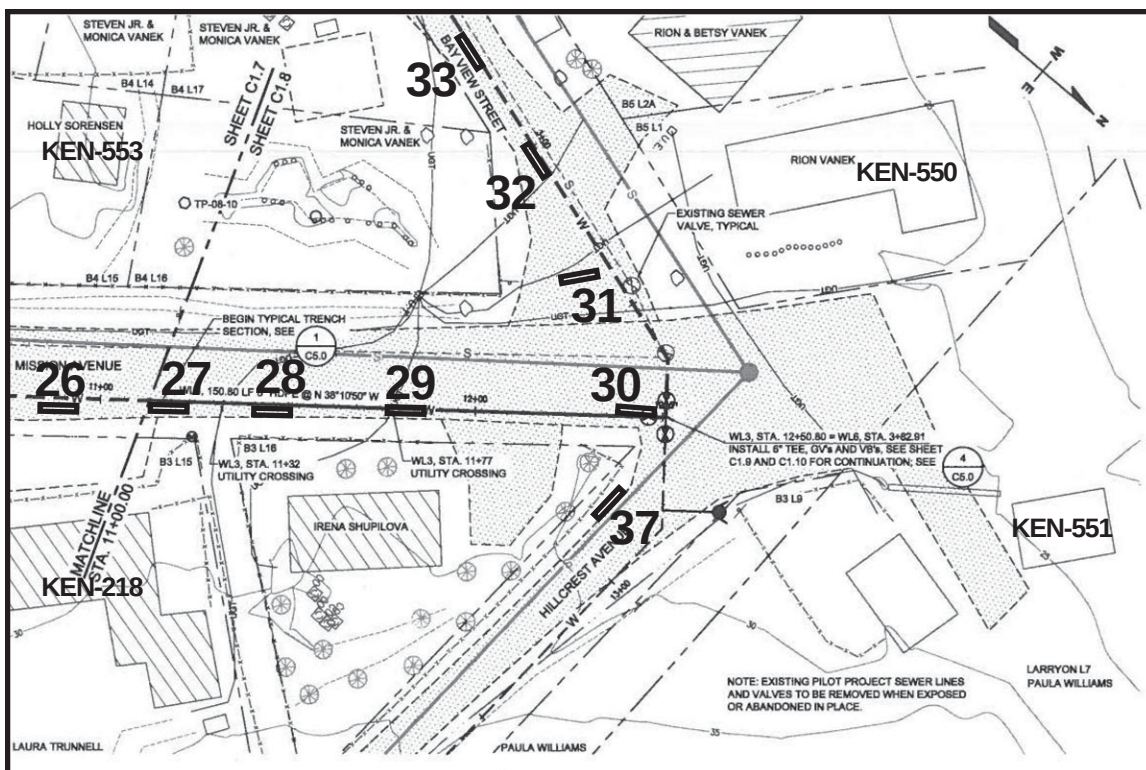


Figure 54. Proposed mechanical trenches at the northwest end of Mission Avenue were all completed as planned, but Trenches 38 and 39 continuing up Hillcrest Avenue were not dug because MLFA's field engineer determined during the work that the pipe trench would be upslope from the road.

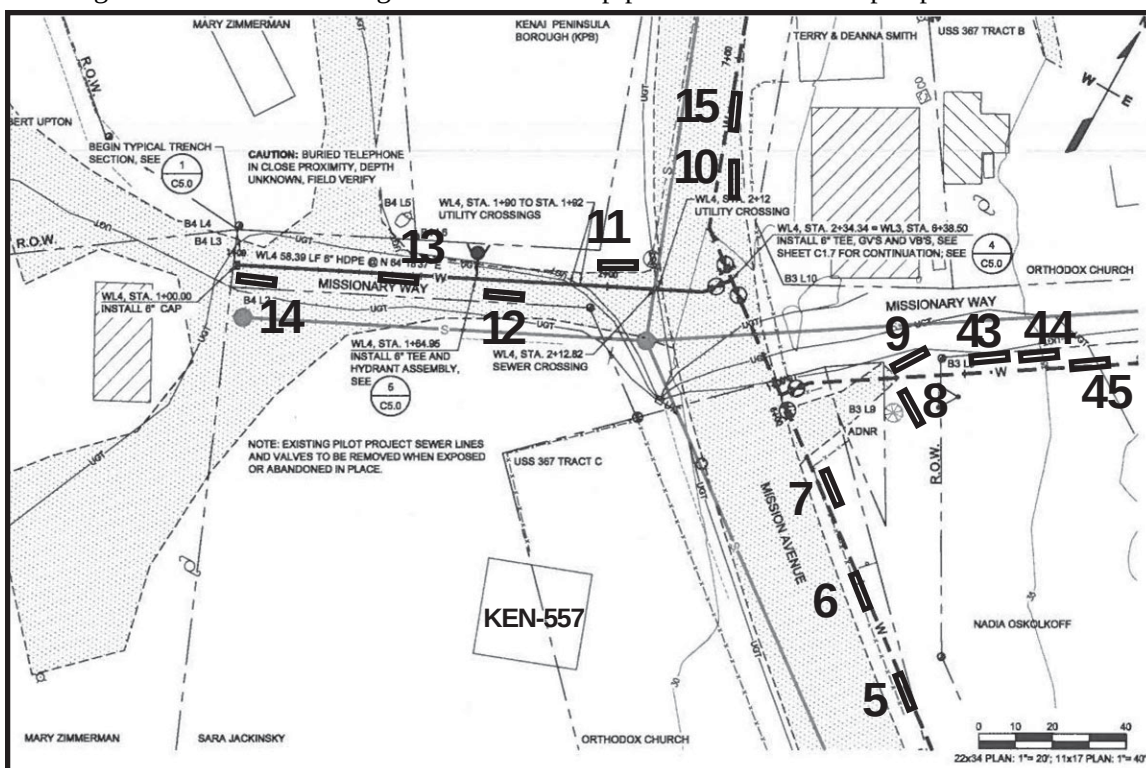


Figure 55. Spaces between buried utilities allowed all four proposed trenches on Missionary Way SW to be excavated, by machine, as planned

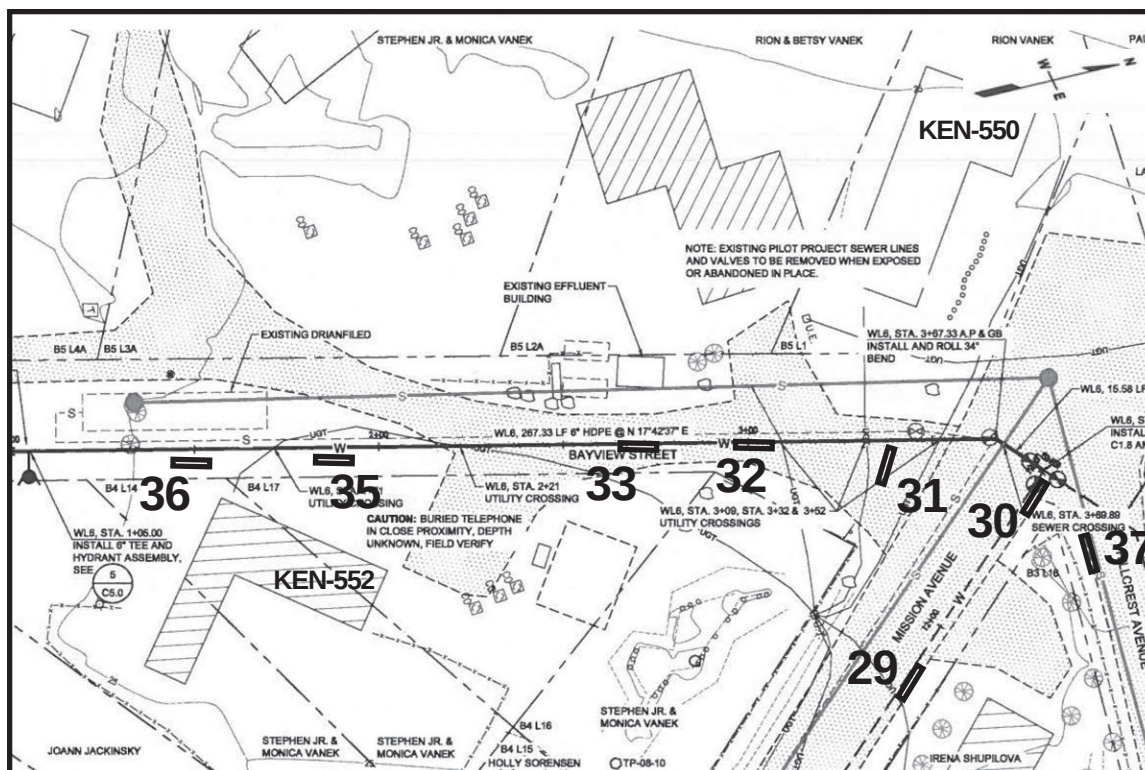


Figure 56. Of the six trenches the ATP proposed for mechanical excavation in Bayview Street, all but Trench 34 fit among the various surface and subsurface impediments.

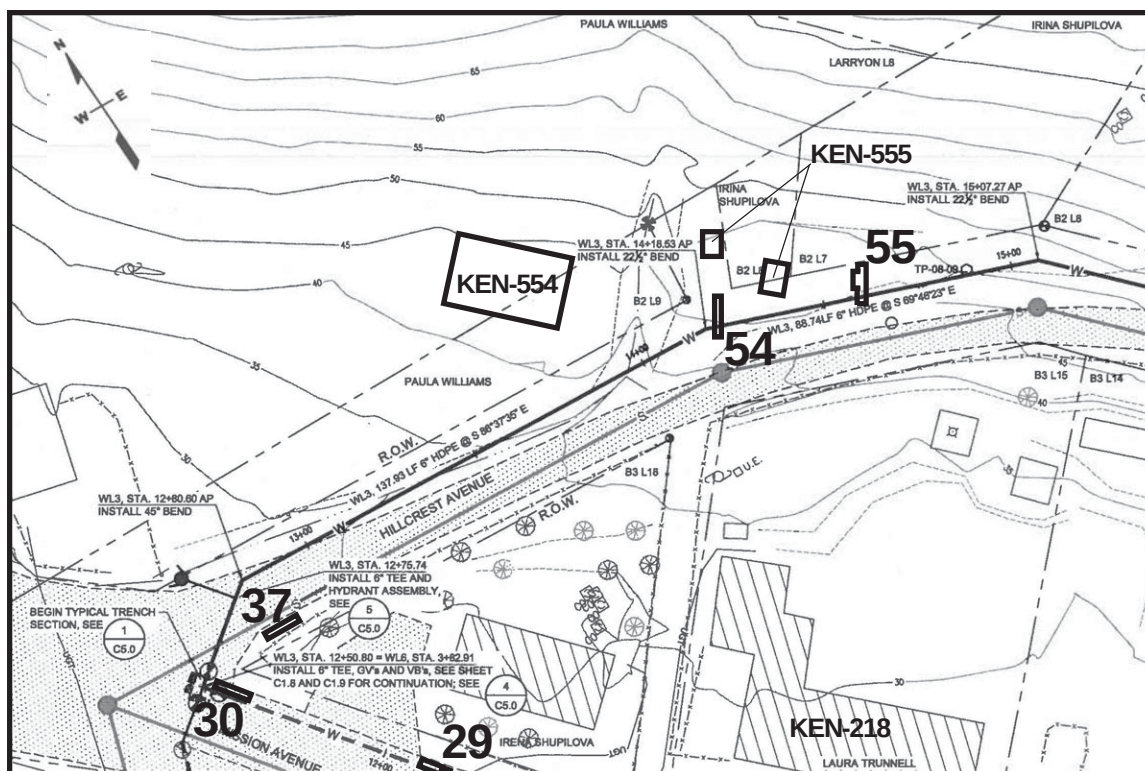


Figure 57. Trenches 38-41 were not mechanically excavated on Hillcrest Avenue because the MLFA engineer indicated that the water main would be placed uphill from the road -- out of bucket reach. Two unplanned trenches (54-55) were dug by hand near two root cellars (KEN-555).

Trench	Buried Land Surface	Artifacts	Bag #s	Features
2	no	bone	115	
3	O & CA	glass, ceramic, bone shell, metal	6,7,8,9,10,12,13,14	midden
5	coal ash	bone, glass, ceramic metal, shell	15	
6	no			
7	no	glass, ceramic, metal wood, shell, rubber	19,21,23,148	
8	organic			
9	no	metal	25	
10	coal ash	glass, ceramic, metal wood, shell, rubber, plastic, fabric, leather	27,31,32,34,35,36,37,40,41, 42,43,46,47,49,50,52,53,54, 55,57,61,62,63,64,65,66,67, 68,71,72,73,74,75,76,78,79, 80,81,83,84,85,93,97,98,101, 106,107,110,112,113,114,116, 117,118,119,120,125,126,127, 128,129,130,131,132,137,138, 139,140,141,142,143,144,145, 146,81a,81b	midden
11	organic	metal, bone, ceramic leather	102,103	
12	O & CA	bone	109	
13	O & CA	bone, ceramic	108	
14	organic	ceramic, metal	111	
15	O & CA	ceramic, bone, fabric, leather, plastic, shell, wood, glass, metal	28,29	
17	organic			
18	organic			
19	organic	bone, ceramic, metal	44	
20	organic			
21	organic			
22	organic			
24	organic			
25	organic			
26				
27	organic	metal, wood	56	
28	organic			
29	organic	bone, ceramic, metal leather	60	
30	organic	ceramic, metal	77	
31	organic			
32	no			

Table 2 (contined next page). Summary of trench contents. Trenches 2-37 were dug with a mechanical excavator; Trenches 43-55 were dug by hand. “Organic” refers to a dark buried soil horizon, “coal ash” refers to the yellowish ash from burning local coal, and “O and CA” refers to both.

Trench	Buried Land Surface	Artifacts	Bag #s	Features
33	no	plastic (composite)	99	
35	O & CA	rubber, bone, ceramic, leather, metal, glass, plastic, fabric, shell	86,88,89,90,91,92	midden
36	no			
37	O & CA	bone, ceramic, glass metal, plastic	69	
43	no	bone, ceramic, metal	45	
44	no	bone, ceramic, metal	30,38,39	
45	O & CA	bone, ceramic, metal	123,124,134,135,136	
46	no	bone, ceramic, metal, shell, plastic	20,26	gravel
48	artifact	bone, ceramic, metal, shell	4,5,11,17,18,24	
50	no	bone, metal, ceramic	1,2,3	
53	no	bone, ceramic, metal, shell	51,58,59,51a,51b	
54	organic	glass	96,104,105	
55	organic	glass, metal	95,121,122	cellar

Table 2 (continued). Summary of trench contents.

techniques likely contributed to the lack of samples from mechanical trenches. Ninilchik had just suffered a severe rainfall that caused groundwater to quickly fill some trenches, potentially obscuring artifacts and features (Figure 59). Of the eight trenches containing no buried former land surface, four produced no collected artifacts while the other four contained only a few recent items (Table 2). Most (11 of 14) of the trenches that produced no artifacts, though, did contain a dark organic strata indicating a buried former land surface.

Hand-dug Trenches

Trenches were dug without mechanical equipment along Missionary Way NE, upslope from Mission Avenue (Figures 60-62), and upslope from the lower end of Hillcrest Avenue near two root cellars (KEN-555) dug into the hillside. Twelve hand-dug trenches (Trenches 42-53) were proposed for this alignment, but

buried utilities and tree roots removed from consideration Trenches 42, 47, and 49, while



Figure 58. Trench 36, off the south end of Bayview Street, revealed successive layers of fill and no organic zone.



Figure 59. Some mechanically dug as well as hand-dug trenches (such as Trench 45, here looking east) were flooded by groundwater. The soil came out of this trench as a slurry.

the steep slope at the top of Missionary Way caused Trenches 51-52 to remain unexcavated (Figure 61). The seven trenches each began with a sod zone rather than fill as with the trenches in the streets. The sod of Trenches 43 and 44 consisted of mowed lawn maintained by Deanna Smith (Figures 32, 62), while the sod of the remaining trenches on up the slope (Trenches 45, 46, 48, 50, and 53) consisted of a looser root mat formed by perennials such as cow parsnip and raspberries (Figure 61). No buried organic horizons were observed in any of the hand-dug trenches; the only organic horizon was the present sod zone. Artifacts were collected from each of the seven trenches dug by hand along upper Missionary Way (Table 2).

Two subsurface features were uncovered using hand equipment. One, in Trench 46, consisted of a buried gravel alignment striking roughly parallel to the slope and aligned

approximately with the north wall of the nearby Nadia Oskolkoff house (KEN-556).

The second feature was a fortuitous discovery. Not specified in the ATP were two trenches (Trenches 54-55) dug by hand near the two root cellars (KEN-555). While the ATP had proposed that mechanical trenches be dug along the lower portion of Hillcrest Avenue, MLFA's Greg Cvitash determined in the field that the alignment as drawn was well upslope of the current roadbed – up a steep cut bank that precluded use of the mechanical excavator contracted for the project (that plan was later changed). It was for this reason that mechanical trenches 38-41 were not excavated. Instead, newly designated Trench 54 was dug by hand on the slope between Hillcrest Avenue's upslope edge and the westernmost root cellar, to evaluate the stratigraphy and potential for cultural deposits. A second trench, Trench 55, was then dug by



Figure 60. Trench 50 was dug by hand up Missionary Way NE, here looking south.

hand further northeast on the slope and east of the easternmost root cellar. Both trenches resulted in the recovery of subsurface artifacts, and Trench 55 came down on a wood feature that was further revealed by expanding the excavation. The nailed planks (inferred to be a buried root cellar) became the fifth and final feature assignment for the project.

Stratigraphy

The soil stratigraphy observed in test trenches was variable across the study area, but natural soils all reflected the Moose River Series as defined by Hinton (1971:20). Most trenches excavated by hand up Missionary Way NE, as well as the two dug by the root cellars upslope of Hillcrest Avenue, revealed a brown organic soil beneath a thick sod zone together forming one horizon, overlying a yellowish-grey soil with



Figure 61. Upslope from Trench 50 (foreground, looking northeast) the grade steepened, and consequently Trenches 51-52 were not dug.



Figure 62. Trench 43 (here looking northeast) was dug through Deanna Smith's yard, in the lower part of Missionary Way NE.

higher silt content. These trenches (44-55) contained what might appear to be the most natural, undisturbed soils, but historic photographs show the areas to have been in cultivation.

Trenches 2-9 at the southeast end of Mission Avenue were mostly excavated in lawns maintained by Deanna Smith or the Russian Orthodox church (Figure 47), and had thicker sod likely due to topsoil added in recent decades for landscaping between private property and the road ROW. Several contained a buried land surface indicated by a lens of dark carbonaceous soil or coal ash — sometimes containing artifacts (Table 2).

Buried lenses of dark organic soil and/or coal ash were also observed in mechanically excavated trenches from the central portion of Mission Avenue to the northwest end. Most of the trenches were positioned in the northeast edge of the road and thus the first soil layer consisted of thick gravel fill. The organic lens was typically found below the gravel fill. Sometimes it contained artifacts, but in this section more often it did not. The deeper reach of the machine, compared to hand-tools, allowed excavation into underlying sediments consisting of gray-brown silty soils interspersed with orangish soil containing clay and bright yellow-grey volcanic ash deposits.

The stratigraphy of the five trenches dug along Bayview Street was variable, with Trench 31 displaying the pattern shown elsewhere on Mission Avenue — thick gravel road fill over a thin layer of grey clay, followed by a thin dark organic soil, and a basal zone consisting of at least 40 cm of orange clayey soil. Trench 35 had the surface appearance of a lush grass yard; below that was gravel fill overlying a thick water-saturated organic deposit containing many artifacts and given feature status. The other three

trenches (Figure 56) contained successive layers of gravel fill.

Each of the four trenches mechanically excavated on Missionary Way SW contained a buried organic lens, and two contained coal ash.

Artifact Recovery

Methods for recovering artifacts varied depending on excavation circumstances, as per the ATP. Trenches dug by hand were first removed of their sod with a flat-edged shovel, and the sod was then chopped to determine if artifacts were present within (the degree of chopping was tempered by whether the sod was to be replaced in a yard). The underlying organic zone was then shovel-skimmed and sifted through 1/4" mesh to recover artifacts. Sifting stopped when the recovery rate dropped to zero, and shovel-skimming resumed without the screen. Shovel-skimming and screening in the mechanically dug trenches was to occur in the event that artifact content warranted such treatment, which occurred with the discovery of a thick and deep midden in Trench 10.

Provenience information was taken in metric units, so stratigraphic profiles and artifact depths are presented in this report accordingly. The reason for using the metric system is to maintain the standard international archaeological convention, realizing that the engineering specifications and some of the historic architectural and tool dimensions were constructed in English units, instead. English units are used in this report when they apply to something that was likely made in those units; otherwise the metric system is used.

Specimens were retained for washing, identification, and tabulation, with the intention of culling the collection to only specimens passing the University of Alaska-Fairbanks Museum



Figure 63. Local resident Laura Trunnell stands with a hand-made tool -- likely a seal flenser -- she found while digging near the Ninilchik store.

thresholds for long-term curation. Objects found and collected were of metal, ceramic, wood, glass, shell, plastic, leather, rubber, and fabric. A few large and heavy metal objects were photographed, measured, and backfilled in their trench of origin. The collections were dried, but no special conservation techniques were applied to any materials. Artifacts are classified and discussed in subsequent chapters. Identification of historic ceramics was aided by the comments of AOHA archaeologist Dan Thompson, who inspected all the specimens.

Faunal Recovery

Bones were recovered from 18 of the 41 trenches excavated (Table 2). The collection of 160 specimens was analyzed by Linda F. Yarborough through a contract between Charles M. Mobley & Associates and Cultural Resource

Consultants, and is included in unabridged form as Appendix B.

Oral History and Archival Research

The focus of the 2012 investigation was on obtaining archaeological information; archival and oral history information was obtained incidentally. Images from the Alyce E. Anderson collection were invaluable in visualizing Ninilchik's 1911-1918 layout. Passers-by in their vehicles stopped to convey information to various members of the crew, usually having something to do with local land use. Never was it possible to capture and explore such comments in depth under the excavation circumstances. Longer conversations were possible with individuals residing in homes along the streets investigated, including Steve Vanek, Deanna Smith, and Laura Trunnell (Figure 63). The owner of the vacation rental, Willie Dixon, provided comments about the artifacts he uncovered about 10 years ago when he redeveloped the lot and built the current building.

Summary of Results

Oral history and archival research were secondary to the archaeological testing in 2012. Seven of the 11 trenches proposed for hand-tool excavation along Missionary Way NE were excavated, and two more not anticipated in the ATP were dug near the two root cellars upslope from Hillcrest Avenue. All but nine of the 41 trenches proposed in the ATP were successfully positioned and excavated. The toothless bucket on the backhoe provided good soil exposure and was sensitive to artifacts, leading to a satisfactory subsurface exploration and information broadly distributed across the study area. Five features were uncovered.

Features

Five trenches contained cultural deposits warranting feature status: Trenches 3, 10, 35, 46, and 55. The features were not given numbers, but are discussed by trench number.

Trench 3

Trench 3 was dug with the mechanical excavator near the bridge, at the southeast end of Mission Avenue (Figure 51). The surface vegetation consisted of grass and weeds (Figure 64), and the thick sod mat and underlying organic soil supporting it were continuous across the trench in thicknesses of 15-30 cm (Figure 65). Beneath that, only in the northwest half of the trench, was an artifact-bearing coal ash measuring 15 cm thick. Below the midden and extending across the entire trench was a 20-cm layer of dark organic soil also containing a few artifacts, underlain by at least 50 cm of greyish-brown soil lacking artifacts.

Artifacts recovered from the midden in Trench 3 included specimens of bottle glass, metal, bone, shell, and ceramic. The two dozen ceramic specimens represented at least five vessels including: 13 sherds of a whiteware bowl, seven bowl sherds of yellowish-tan glazed stoneware (dating approximately to the 1920s; another specimen was found in the organic soil underlying the midden deposit), one piece of a bone porcelain cup handle, one whiteware sherd from a teacup, another whiteware sherd with a Blue Willow transfer print, and a large sherd from a whiteware cup or sugar bowl with an orange hand-painted rim (Figure 66). One of the whiteware bowl sherds carries part of a maker's mark "C.B.P. Co." above "MADE IN USA" in turn above "China"; an internet search did not determine the manufacturer.

The metal collection of 29 specimens contained both ferrous (iron or steel) and cuprous (copper or brass) items, with the



Figure 64. Trench 3 was dug with the excavator in the vegetated portion of the ROW. Ottar Mobley measures a midden deposit found in the northwest half of the trench in this view west.

dominant artifacts being rusty metal cans — several in sardine-tin size and several with triangular punctures indicating use of a “church-key” type opener. The collection also included a small scrap of copper, a small metal disk, a couple nails, a twisted loop of wire, a length of steel pipe threaded at one end, and a buffalo nickel with an unreadable date (Figure 67).

Eight whole bottles and seven bottle bases were recovered from the midden in Trench 3 (Figure 68). The sample included four amber thin-walled “stubby” bottles embossed “NO DEPOSIT NO RETURN” AND “NOT TO BE REFILLED” (Figure 69:a-c), a Karo syrup bottle base (Figure 69:k), a small screw-top bottle with a plastic cap and the archaic ounce

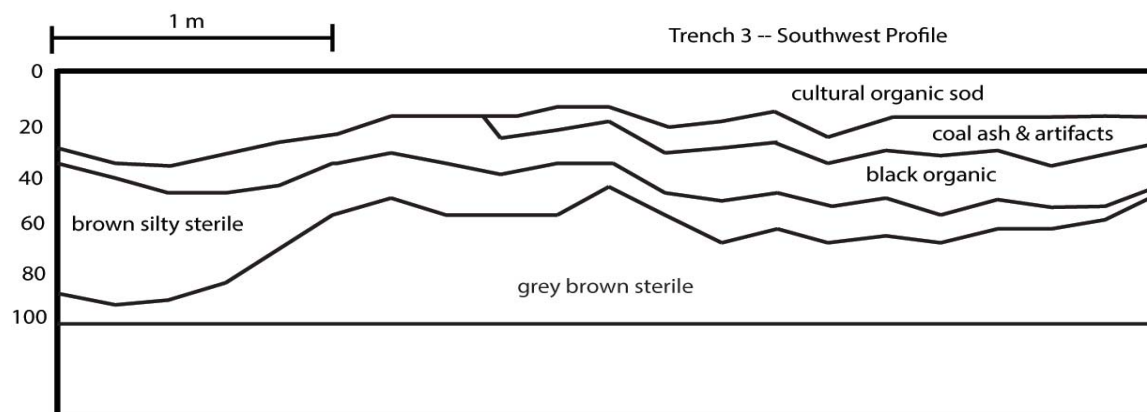


Figure 65. Trench 3 contained a buried ash deposit, containing artifacts, that appeared in only half the trench. A dark organic horizon beneath the feature and extending across the whole unit represents a buried land surface.

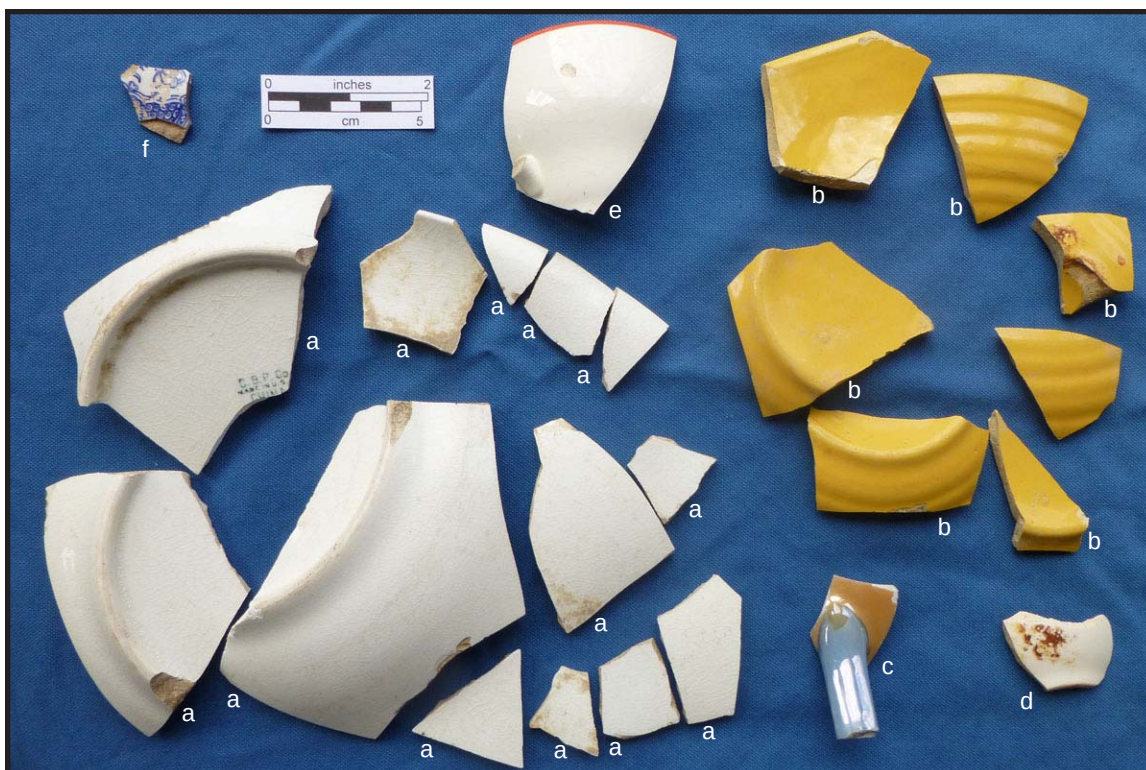


Figure 66. Ceramics from the midden feature in Trench 3 consisted of 13 pieces from a whiteware bowl (a), seven pieces of a yellowish tan glazed stoneware bowl (b), one teacup handle sherd of bone porcelain (c), one whiteware sherd from a teacup (d), a whiteware cup sherd with an orange hand-painted rim (e), and a single sherd of Blue Willow transfer print (f).

symbol and “i” embossed on the shoulder to indicate a volume of one ounce (Figure 69:g), a thick clear fluted soda bottle embossed with “GOLD BOND PRODUCTS CO. DENISON, IOWA” and around the base “4168 EG28” (Figure 69:i) and a hexagonal Evenflo brand baby bottle (Figure 69:d; accompanied by a rubber gasket and two plastic lids). Bottle manufacturers operated for different periods of the last century and their manufacturing codes and other embossing on the specimens help date the midden deposition. Glass companies included (see Table 3): Owens-Illinois Glass (Figure 69:e,g,k,m), Northwestern Glass (Figure 69:a-c), Thatcher Glass (Figure 69:l,n), and Hazel-Atlas Glass (Figure 69:f,h,j). One foil-and-paper label was recovered with the words “RAINIER Brewing and Malting Co. Seattle,” though the bottle from which it came was not.

Trench 3’s feature also contained broken bottle glass and glassware. These included five shards from a white glass plate with a single green



Figure 67. A buffalo nickel with the date worn off was found in the Trench 3 midden.



Figure 68. Eight whole bottles and seven bases were recovered from the midden feature in Trench 3. Letters correspond to those in Figure 69. Note plastic lids for baby bottle.

rim line, a piece of a white glass jar, clear shards from a fluted bottle like an old catsup container, the bottom of a small clear drinking glass (with manganese patina), and shards from a thick clear serving plate with a textured pattern formed by

round raised bubbles each seven mm in diameter (and ornate glass carrying lugs). No window or lamp globe glass specimens were recovered.

Small samples of shell and bone were recovered from the Trench 3 midden. Of the

Material	Time-Sensitive Aspect	Date Range
plastic	Nixon thimble	1946
metal	buffalo nickel	1913-1938
ceramic	yellowish-tan stoneware	1920s
ceramic	blue willow transfer print	1840s-late 1800s
bottle	“Duraglas” trademark	1940s-1970s
bottle	diamond/oval/I marks	1940-today
bottle	NW mark	1931-1973+
bottle	Thatcher mark	1949-1985 (one 1952 date code)
bottle	Hazel-Atlas mark	1902-1964
bottle	“Evenflo” trademark	1920-today
bottle	“Gold Bond Products Co., Denison, Iowa”	by 1948 - likely 1960s
bottle	thin-walled “stubbie”	1960-1970s

Table 3. Items from the Trench 3 midden with chronological information. Source for Thatcher Glass was Lockhart et al. (2007:9); for Evenflo it was the company’s webpage; for Gold Bond it was several internet webpages, and the other bottles’ date ranges were derived from the webpage myinsulators.com.

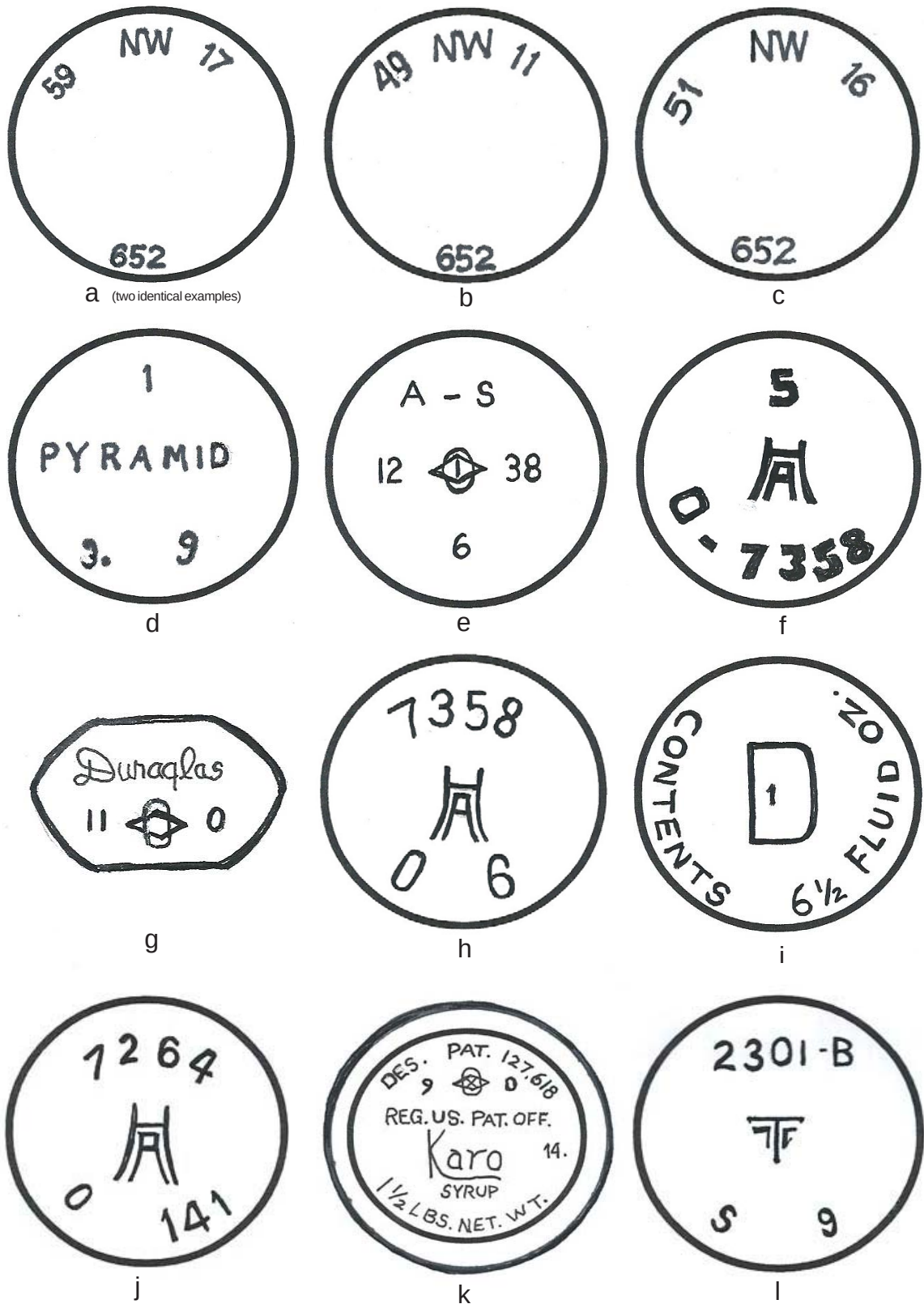


Figure 69. Trench 3's midden feature produced 14 whole bottles and one bottle base. Base illustrations are not to scale.

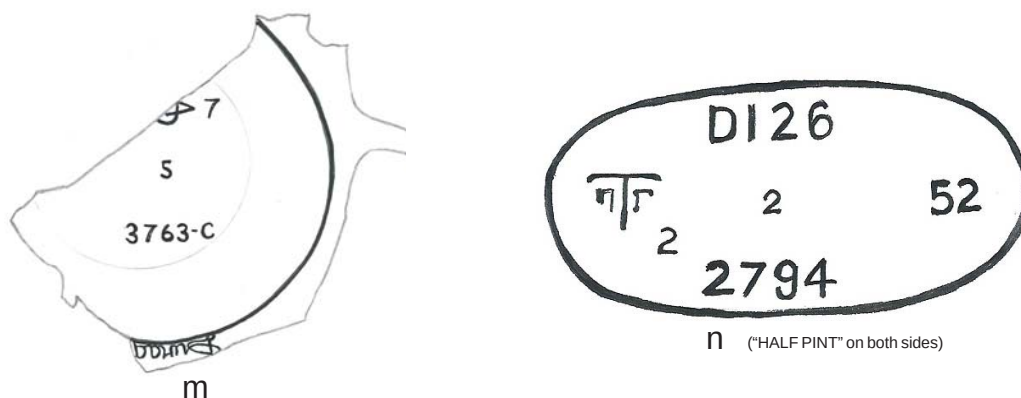


Figure 69 (continued).

seven-piece faunal assemblage only chicken bone was identifiable to species; the rest was not identifiable. Three of the bones were sawn. An eighth bone identified as cow was retained from the organic zone underlying the feature. The seven shells collected consisted of cockle, razor clam, and one butter clam.

The Trench 3 midden produced one of the more novel items of the testing project, consisting of a white plastic thimble with a political message (Figure 70). It said “NIXON for CONGRESS/Put the Needle in the P.A.C.”

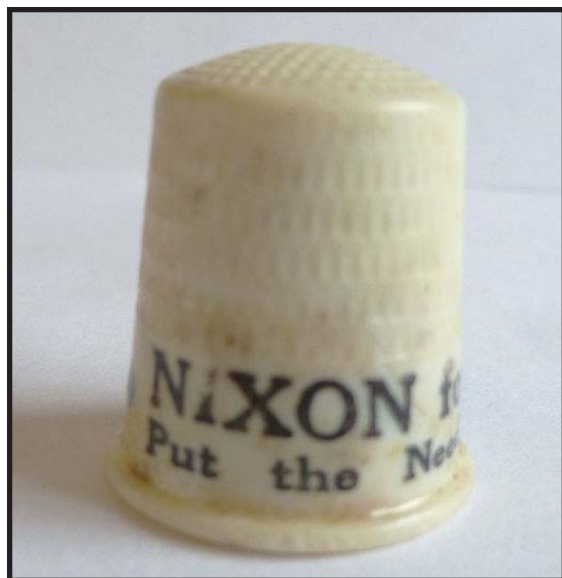


Figure 70. Trench 3 produced a plastic thimble from Richard Nixon’s 1946 congressional race in the Whittier, California, district.

Richard M. Nixon successfully ran in California for the House of Representatives in 1946 when the Republican Party was unable to convince General George S. Patton to run for the office. According to the online Wikipedia entry, Nixon was running against a popular Democratic incumbent and used as a campaign strategy the deliberate confusion of one Communist political action committee (PAC) with a more popular PAC supporting his opponent. The thimble with the slogan was an attempt to woo female voters; another internet entry (advertising an identical item for sale) states that 25,000 were distributed within Nixon’s voting district (Whittier, California).

In summary, the Trench 3 midden deposit was a 15-cm thick deposit of coal ash and artifacts dumped on the existing ground surface in a discrete pile. The artifacts consisted of domestic trash reflecting a household that included an infant and a woman (whether the discarded Nixon thimble reflects an embracing, apathetic, or disdainful attitude towards the Republican Party on the part of the household is beyond conjecture). Items useful for estimating the date of the midden deposit include a buffalo nickel, the Nixon thimble, and several ceramic and bottle specimens (Table 3), suggesting that



Figure 71. Trench 10 was begun with the mechanical excavator until an historic midden was revealed, at which point hand tools were used. Risa Carlson, Ottar Mobley, and Signe Englert here measure the stratigraphy upon completing the excavation. View is southeast.

the deposit dates from the early 1950s to the early 1960s (Table 3). An exception is the 19th century manufacturing date for the blue willow ware.

Trench 10

Trench 10 was begun with the mechanical excavator in the southeast portion of Mission Avenue, in the roadbed fronting Deanna Smith's picket fence (Figure 71). When an artifact-bearing deposit of coal and coal ash was revealed, excavation switched to hand tools, and the trench remained under excavation for five more days. Main elements of the feature in Trench 10 were a thick organic deposit across the entire unit, stratified lenses of coal and coal ash within that organic deposit, two building timbers, and many artifacts (Figure 72). Despite efforts to minimize entry of rainwater draining

down along the edges of Mission Avenue, the bottom of the trench was wet most of the time (Figure 73).

The trench measured approximately 4.0 m long and 1.0 m wide, and was excavated to a depth of 1.1 m below the existing road surface. The stratigraphy consisted of four main layers, the first being 60 cm of compacted road fill overlying the second layer of about 20 cm of mottled brown organic soil, coal, and coal ash containing building material and numerous cultural artifacts. The third layer consisted of 20-30 cm of organic soil containing artifacts and displaying alternating lenses of coal and coal ash. Finally, at a depth of 110 cm, sterile mottled yellow-grey sand was uncovered and excavation was terminated.

The thick cultural deposit in Trench 10 is viewed as one feature with microstratigraphy indicating sequential discard events. Beginning

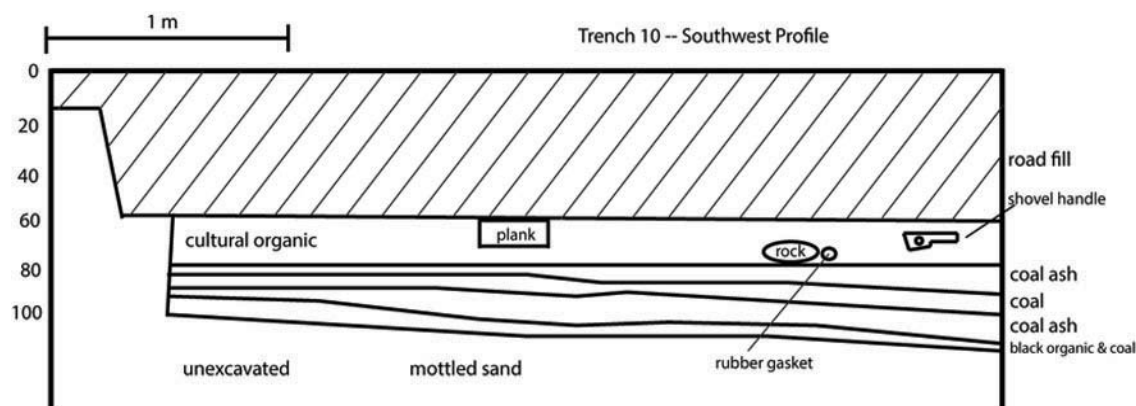


Figure 72. The mechanical excavator removed road fill from Trench 10, whereupon digging with hand tools took over. Artifacts were recovered throughout the underlying soils until sterile sand was encountered.

from bottom to top and oldest to youngest, the basal sand is considered to be a natural stream or beach deposit overlain by a thin organic soil — containing coal — likely representing a former land surface. The alternating lenses of coal and coal ash above that likely reflect repeated discard of domestic coal ash on that

former land surface, filling in a slight depression to the west (Figure 72). Then the soil shifts from discrete lenses of coal and coal ash mixed with organic soil and artifacts to a more homogenous soil still containing coal, coal ash, organic soil and artifacts with the addition of two wood building logs. The coal ash is a yellowish gray



Figure 73. The alternating lenses of coal and coal ash, as well as the hewn plank and round log (purlin?) show clearly in this view of the southwest profile of Trench 10.



Figure 74. Thirty-seven of the whiteware sherds from the Trench 10 midden were molded. Note spatters of tar.

with a consistency ranging from chalk slurry to gritty sand, which is a function of the purity of the local coal cobbles burned. The contact between the organic soil and the underlying lenses of ash and coal is relatively level compared to the dip of the lenses, suggesting that a cultural leveling may have taken place before deposition of the overlying strata, but all of the underlying microstrata continue parallel across the entire trench (Figure 72).

Wood Timbers

Two wood items classed as building timbers were found in a horizontal position within the organic soil immediately underlying the gravel fill of the roadbed (Figure 73). A wood timber hewn to a rectangular cross-section measuring 9"x6" extended across the trench and into both sidewalls, so the ends of the thick plank were not revealed; it was left in the trench when

backfilled. The round pole measured 5" in diameter and had a uniform barkless appearance suggesting it was smoothed after peeling, though no tool marks could be discerned. It was underneath the hewn log but not touching, and extended into the northeast trench wall but not the southwest (Figure 73).

Artifacts

Over half the artifact collection from the project came from the midden in Trench 10. The collection consisted of bone, ceramic, glass, metal, wood, shell, paper, linoleum, fabric, leather, and rubber, representing many functions.

Ceramics

Ceramics comprised much of the collected material, with 213 sherds — well over half the ceramics recovered from all the trenches

Paste	Treatment	Sherd Count
Whiteware	undifferentiated	83
	molded	41
	yellow-glazed	3
	decaled	14
	decaled rim border only	12
	decaled & molded	1
	decaled, transfer-printed, & molded	2
	transfer-printed	1
	“flow” blue	1
	yellow & black overprint	1
	blue-slipped	1
	decaled, black hand-painted	1
Porcelain	undifferentiated	28
	Chinese undifferentiated	4
	Chinese blue willow	2
	Russian hand-painted	1
	Japanese	3
	dog figurine (complete)	1
	burned figurine (fragments)	4
Redware		1
Stoneware		8
Total		213

Table 4. Tabulation of ceramic specimens from the Trench 10 midden feature.

— coming from Trench 10 (Table 4). The most common specimens (83, or 39%) were undifferentiated whitewares with limited diagnostic value; 41 whiteware sherds were from molded vessels (Figure 74). Two or three cups are represented in the molded whiteware sample, as well as one plate. One other molded sherd is also decaled, and two more are decaled and transfer-printed (Figure 75:l-m). Some specimens displayed spatters of tar (Figure 74).

A few transfer-printed sherds were recovered from the Trench 10 midden, and some were on porcelain. Aside from the two molded examples, one other whiteware sherd displayed a transfer print that was a partial maker’s mark in an underglaze black transfer print (Figure 75:o). A second specimen is a whiteware on

which a blue transfer print has bled or “flowed” into the white glaze (Figure 75:i).

Decaled specimens were more common (Figure 75:k,n). Fourteen specimens were recovered with polychrome motifs — mostly floral patterns (including the Tudor Rose pattern), and another dozen rim sherds were recovered with simple decaled border lines. The paste and glaze of some decaled rim sherds suggests they are from some of the same vessels otherwise represented in the decaled category.

Miscellaneous decorated whiteware consist of three yellow-glazed specimens, one light-blue slipped specimen, and a black and yellow pattern (Table 4).

Porcelain ceramic specimens were mostly undifferentiated white sherds, and the sample of 28 equals 13% of the entire ceramic



Figure 75. Decorated ceramics from the Trench 10 midden consisted mostly of porcelain specimens (mostly top half) and decalé specimens (mostly lower half). Porcelain specimens are: a) Chinese blue willow; b) undifferentiated; c) orange-glazed; d) orange-glazed; e) Japanese (cannery-period); f) “cobalt” blue-glazed; g) fine bone porcelain sugar bowl -- possibly English or Japanese; h) dog figurine; and j) Russian hand-painted. Decalé and transfer-printed specimens are: i) “flow-blue” transfer print on white ware; k) decalé; l) decalé and molded; m) decalé, transfer-printed, and molded; n) decalé “Tudor Rose” pattern; o) underglaze black transfer print (makers mark).

collection from the Trench 10 midden. Four more undecorated specimens are of Chinese origin, and two more Chinese specimens are of the blue willow pattern (Figure 75:a). One small sherd with a hand-painted floral pattern is of Russian origin, according to AOHA archaeologist Dan Thompson, and is represented in the Sitka Castle Hill archaeological collection (Thompson 2003), as well as archaeological samples from historic deposits at the Alaskan sites of Kijik (VanStone and Townsend 1970:75-86), Nushagak (VanStone 1972:55-60), and Kolmakovskiiy Redoubt (Oswalt 1980:70-74). Thompson also identified three porcelain sherds as of Japanese manufacture — one in particular being common at Alaska’s late 1800s cannery sites where

Japanese immigrant labor was used (Figure 75:e), rather than being typical of earlier Russian American imports.

Four brittle gray sherds appear to be burned fragments of a porcelain figurine (Figure 76). Two pieces join to make what may be a



Figure 76. Four pieces of a burned porcelain figurine were recovered from the Trench 10 midden.



Figure 77. A porcelain dog with a cheerful expression was recovered from the Trench 10 midden.

bulbous body part, and two others have geometric details suggesting clothing. Another porcelain figurine — this one relatively complete except for surface erosion — depicts a smiling dog (Figure 77). The figurine is hollow and open at the dog's feet.

Two complete and two partial makers' marks were represented in the Trench 10 midden collection (Figure 78). The "TUDOR ROSE" pattern was manufactured by the Homer Laughlin China Company. "MADE IN JAPAN" indicates manufacture and import after 1891. The other two marks are incomplete.

Glass

The glass collection from the Trench 10 midden contained few bottles or bottle bases. The one whole bottle was a tiny clear example with a rectangular body and base and threads



Figure 78. Trench 10's midden produced four manufacturing marks within the ceramic sample. The MADE IN JAPAN indicates manufacture after 1930. Tudor Rose was a pattern produced by the Homer Laughlin Pottery Company.



Figure 79. Bottles and bottle bases with embossed information from the Trench 10 midden numbered five. Clockwise from upper left their corresponding letters in Figure 80 are a,b,c,d,e.

for a screw lid (Figure 79). Three bases were recovered: one from an amber Clorox bottle, a clear round base with the single number “5” embossed on it, and another clear round base fragment with a complex letter/number code (Figure 80). A fifth glass specimen with a small clear base fragment from a globular vessel is embossed along the edge to include “1995.” The Owens-Illinois Glass Company manufactured two of the bottles, including the small one.

Twenty glass shards retained during excavation of the Trench 10 feature are from clear, green, and amber containers and are not diagnostic. One piece of clear and five pieces of greenish-tinted window glass were collected.

Metal

Many metal items were recovered from the midden in Trench 10. The majority were

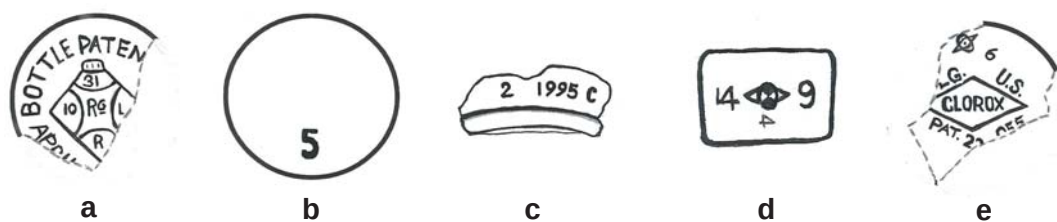


Figure 80. Of the five embossed bottles or bottle base fragments recovered in the Trench 10 midden, two (d-e) were manufactured by Owens-Illinois Glass Company. Not to scale.

Metal Item		Count
Nails	ferrous - round	112
	ferrous - square	3
	cuprous	2
Staples	ferrous	1
Wire	ferrous	27
	cuprous	1
Chain	ferrous	2
Can fragments		130
Stove fragments (cast iron)		21
Tools		2
Miscellaneous		61
Total		362

Table 5. Metal items recovered from the midden feature in Trench 10.

rusty nails, pieces of wire, and fragments of metal food containers or cans, together comprising 75% of the metal collection (Table 5). The nail sample of 117 was dominated by round wire ferrous specimens ranging from small tacks to large 8" spikes, along with three square ferrous examples and two small cuprous tacks. One small ferrous staple was found. A sample of 28 pieces of wire consisted mostly of single ferrous strands between 2" and 8" long; one thin braided

wire is similar to that used to seal electrical meters. One of the longer lengths is twisted as if it had been tied around a 4"-diameter post. One single 30" length of 12-gauge copper wire folded in half was recovered. The two chain artifacts consisted of one 10" length of ferrous wire figure-8 link, and a set of four ferrous single link chains from 26"-36" long ganged together with a single connecting link. The latter extended into the southwest wall of Trench 10 and was cut to



Figure 81. Two large metal items -- a steel rod and a bent steel stake -- were uncovered on the Trench 10 midden, recorded, and then backfilled rather than collected.

retain the excavated portion. Two large steel artifacts — a rod and a bent metal stake (Figure 81) — were recorded from the feature and then backfilled.

The remainder of the metal sample from Trench 10's midden — 61 specimens — reflects broad household discard. It includes items of steel, iron, copper, aluminum and lead. Many specimens are undiagnostic, including 17 lumps of rust, five small scraps of aluminum, one small scrap of copper, one small scrap of lead, and five small scraps of steel. Items with more functional identity include the skewer portion of a stovepipe damper, part of a coil spring for perhaps a thermostat, a harmonica fragment displaying two metal reeds, an aluminum button, a brass valve cap, a steel framing hammer head split in two at the handle eye, a cuprous gasket fragment and another possibly of aluminum, a 1930 Lincoln penny, two small lead disks that could be from lead-headed nails, a steel gear perhaps from a clock, a steel wire latch hook, an aluminum grommet, and another copper or brass grommet. Two metal bottle caps were retained. One sheet steel bracket or perhaps boot buckle was recovered, as well as three large wire rings — one in the shape of a D (perhaps a washtub handle) and two in the shape of an O. The brass base of a 12-gauge Remington-UMC shotgun shell was recovered, as well as a .22 long rifle brass cartridge casing. Also recovered was a round lead ball measuring one cm in diameter (about a .45 caliber) showing three ridges from the barrel rifling, the paired facets from sprue removal during manufacture, and impact marks — the projectile had been fired. A 5" length of copper tubing crimped multiple times around a length of twisted cord or leather strung through it was recovered from the trench. A small rectangular pewter or lead sleeve

marked "MADE IN JAPAN" may be part of an electric meter seal; the other electrical item recovered was a switch box assembly. A spoon with greenish-orange oxidation indicating a cuprous base was collected, along with a rusty steel spoon or fork handle.

Leather

Of the few leather specimens recovered from the Trench 10 midden, most were fragments of footwear (Figure 82). A 6"x1" scrap of leather with stitch holes and a stitched strap fragment with large decorative grommets spaced every 2" along its centerline may be from a purse or other article. The footwear included one right lower from a ladies boot or shoe with a worn-through leather sole and a composite leather and rubber heel. Five other thin leather scraps are also from a shoe or boot, judging from their cuprous eyelets and stitching (Figure 82).

Rubber

Rubber artifacts from the Trench 10 midden were mostly rotten scraps of tan, black, white, and red rubberized fabric. Several pieces had metal snaps, and overall the sample appears to be mostly discarded rubber boots and raingear. One relatively complete child's red-brown rubber boot was recovered, as well as two white scraps that may be parts of a rubber doll. In all, 27 rubber artifacts were collected

Wood

Most wood specimens collected during the 2012 testing came from the Trench 10 midden, and all were small. Abrupt 90° angles and tool marks indicate most specimens were



Figure 82. Most of the leather items recovered from the Trench 10 midden were fragments of shoes or boots, with two possible exceptions at upper right.

sawn, and nails protruded from many. Remnants of dark yellow, light green and orange paint were detected on some. The specimens appear to be bits of used lumber. Some are charred. Also present in the wood collection are chunks of cottonwood bark and strips of birch bark, twigs, and a few unidentified shavings. One small piece of two-ply plywood was noted at the top of the midden. Only two wood tools were represented in the collection: a broom handle with wire wrapped at one end, and a broken keg stave. In all, 101 wood specimens were retrieved from the Trench 10 midden.

Miscellaneous

The Trench 10 midden was the largest feature encountered and was removed using hand tools over several days, resulting in the recovery of small specimens not otherwise noted

in most other trenches. Considered here are not just materials heretofore undescribed but also specific artifact types — like beads — deserving special comment. Fabric and manufactured building materials form much of the sample.

Building materials from the Trench 10 midden, besides the wood and metal discussed already, included scraps of linoleum with a red-and-yellow design on a beige background, small chunks of the pressed-fiber panels known as beaverboard, strips of tarpaper, and small painted pieces of plaster. Fabrics were all tiny rags of either a fine-knit garment like a child's sock-top, or a coarse fabric similar to that of a burlap bag. Some bristles from a straw broom were recovered. A few lumps of unidentified chalky material (one purple — possibly eye shadow) were collected. Plastic or vinyl items included small brittle pieces of a vinyl record, 15" of electrical cord insulation, and a small 4-

hole button. A small 2-hole shell button was found, as was part of a glass thermometer.

A wad of printed paper was collected and pried apart while still wet to determine if any writing was legible. One of the only words of consequence was “love,” in small type, as if from a religious or spiritual treatise.

Eight beads were collected; none are discussed earlier under the heading Glass. Five are identical round opaque orange beads nine mm in diameter (Figure 83). They are misshapen, have air bubbles, and two have closed holes such that they are not stringable. The other three have disproportionately large holes. Either circumstance is grounds for rejection on the part of a bead artisan (since the large-holed beads won’t hang right with properly holed specimens), and the collection likely reflects deliberate discard from culling a wholesale strand of beads. Of the other three beads, one is a pale-green pear-shaped bead about 8 mm x 10 mm in size. Another is a tiny clear hexagonal seed bead. The eighth is a small translucent amber hexagonal bead (Figure 83).

Bones

The Trench 10 midden produced 77 bone specimens, or almost half of the entire project collection. One of the 77 is actually an antler fragment from a *Cervidae* — possibly caribou. One marine mammal bone in the collection was unidentifiable to genus. Other animals represented in the sample are spruce grouse or ptarmigan, moose, cow, and marmot-sized rodent.

Shell

About one pound of shell was retrieved from the Trench 10 midden; most consisted of



Figure 83. Eight beads were recovered from the Trench 10 midden.

small fragments. The specimens were thin and friable, so that the shell count increased as the sample was handled during analysis. An estimated 95% of the collection consists of razor clam shells, with the remainder comprised of butter clams and cockles. A few were burnt.

Dating Trench 10 Deposits

Construction of the Sterling Highway in 1950 and the bridge connecting it with Ninilchik soon thereafter means the midden deposit under the road bed in Trench 10 is earlier than about 1950. The ceramic marked “Made in Japan” indicates manufacture after 1891, but the transfer-printed wares were manufactured earlier and the decal wares were made later. Accordingly, the depositional episodes reflected in Trench 10 are suggested to span the time from the late 1800s to the early 1900s.

Trench 35

Trench 35 was dug mechanically near the south end of Bayview Street (Figure 84),



Figure 84. Trench 35 was dug in the yard of the Steve and Monica Vanek residence, here looking north-northeast. The Ninilchik store (KEN-218) is at upper right.



Figure 85. Water filled Trench 35 as it was being excavated, obscuring much of the stratigraphy and limiting artifact collection to the machine's backdirt pile.. Shown is the west profile.

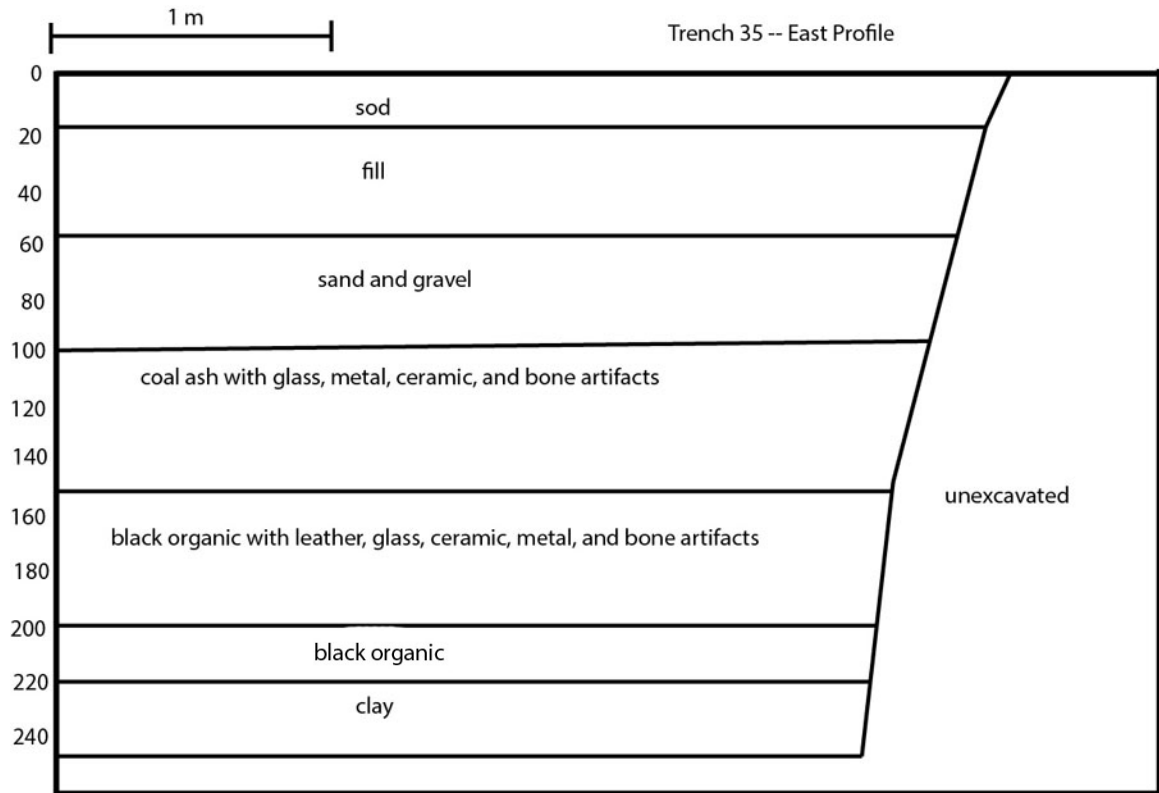


Figure 86. The profile of Trench 35 revealed seven main strata. Vertical scale is in cm.



Figure 87. Ceramics recovered from the cultural deposit in Trench 35 consisted of: a) 11 sherds from a decaled whiteware saucer with molded rim; b) decaled molded whiteware; c) Japanese bone porcelain; d) burned decaled porcelain; e) decaled whiteware.

The river used to freeze-- it was wonderful, skating up the river. Our parents told us not to go down to the mouth, because we'd fall through. Mae Demidoff, talking with Charles M. Mobley, September 24, 2010

within the right-of-way and also within the mown lawn of the adjacent Steve and Monica Vanek residence. Stratified soils were revealed, consisting of seven distinct lenses (Figures 85-86). From top to bottom these consisted of: a sod zone 20 cm thick of planted grass and organic soil; 40 cm of compacted gravel fill; 40 cm of sand and gravel; 50 cm of coal ash with concentrations of artifacts including ferrous fragments, pieces of ceramic (Figure 87), bone, and glass; 50 cm layer of black organic soil containing numerous artifacts, a 20 cm darker organic layer, and finally at least 30 cm of sterile clay representing the bottom of the excavation.

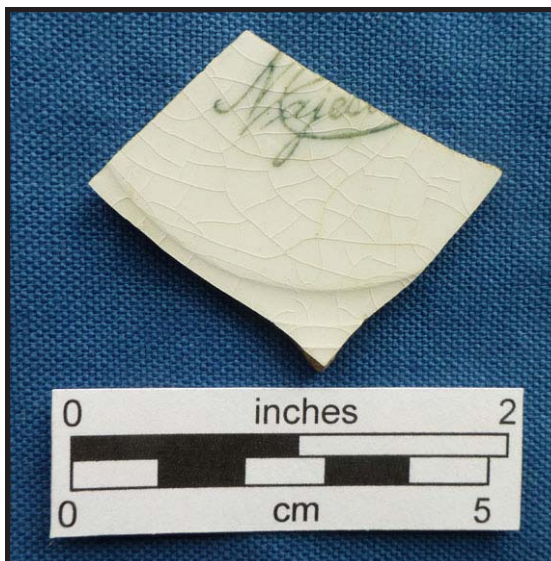


Figure 88. One of the 11 molded and decaled sherds from Trench 35 had a maker's mark.

The trench was flooded with ground water as soon as the bucket reached a depth of 80 cm.

An attempt was made to bail the trench with the machine's bucket, but the inflow was



Figure 89. In addition to nails and other undiagnostic metal artifacts, Trench 35 produced an axe head, an ice skate, and a plated fork.



Figure 90. Glass items recovered from the midden deposits in Trench 35 consisted of a whole glass bottle closed with a glass stopper, a blue and white marble, and a piece of white molded glass.

too fast. Consequently the stratigraphic provenience of artifacts was not recordable except coarsely, and the sample is generally attributed to the deeply buried cultural strata of

Trench 35. The thickness of the artifact-bearing soils and the amount of cultural material in the sample warrants feature status for the deposit.

Artifacts including metal, ceramic, bone, glass, leather, and fabric were retrieved from the back dirt pile as the excavator dumped buckets of slurry from the trench. The ceramic sample consisted of 18 specimens, of which 11 (some cojoining) are from a single decaled whiteware saucer with a molded rim (Figure 87:a). A sherd from the vessel's center displays part of an undeciphered maker's mark (Figure 88). Four sherds from other molded-rim decaled whiteware vessels were recovered, with one decaled whiteware sherd that wasn't molded (Figure 87:b,e). One piece of Japanese bone porcelain was recovered, and another sherd may be the same except burned (Figure 87:c-d).

Metal objects recovered from the buried cultural layers of Trench 35 included tools in

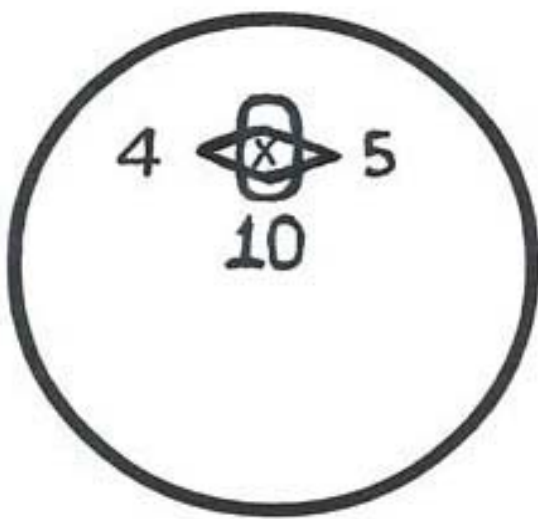


Figure 91. The bottle from Trench 35 was embossed on the base, but the manufacturer was not determined.



Figure 92. The six pieces of leather from the Trench 35 midden represent at least two and likely three different shoes or boots. The sole at lower right may have belonged to the metal ice skate also recovered (Figure 89).

addition to nails and other less diagnostic items. The nail collection totaled 14 — all ferrous and round, along with one staple. Two pieces of ferrous wire were recovered, one of which is likely the bail to a metal container. The lid to a metal can, a wad of colored foil, a galvanized perforated strap with rivets, and a ferrous crank with the remains of a non-ferrous cog at one end were found. Other tools recovered besides the crank were a ferrous ice skate and double-bitted axe, and a table fork that appears to have been plated with copper (Figure 89). The fork has an embossed design on the underside of the stem, but it is indistinct.

Just four glass specimens were collected from the Trench 35 midden, including one whole bottle (Figure 90). The bottle was closed with a glass stopper, and had embossed on the bottom a “diamond/superimposed oval/enclosed X” symbol similar to but not that of the Owens-

Illinois Glass Company (Figure 91). A small blue-and-white marble was recovered, along with a piece of white molded glass — possibly from a decorative serving tray.

Six leather items were recovered from the Trench 35 midden deposit (Figure 92). They consisted of a worn sole, two uppers with brass eyelets at different intervals indicating two



Figure 93. Two rubber boots were recovered from the Trench 35 midden.

different shoes or boots, a tongue, a scrap, and part of a lace.

Two rubber boots — a black one and red one (Figure 93) — were collected along with a 8" fragment of flat rubber strap and a light-tan chunk with a grid pattern that may be the toe reinforcement from another rubber boot.

Bone and shell specimens were both recovered from the Trench 35 deposit. The shell sample consisted of just five razor clam fragments. The bone sample contained 15 specimens, representing a snowshoe hare, moose, and cow. Four of the specimens are sawn rib sections, and a fifth is a rib that has been cut with a knife.

Time-sensitive artifacts from Trench 35 were primarily the decayed ceramics, which date the deposit's contents to the last century -- probably the first half. The origin of the deeply buried organic strata is not clear. Its thickness suggests it may have been mechanically pushed there, but it displays stratified ash and charcoal. The artifacts reflect general household discard, with little in the way of building debris.

Trench 46

Trench 46 was dug with hand tools about 20' from the north corner of the Nadia Oskolkoff house (KEN-556), and revealed a buried gravel feature (Figure 94). Oriented perpendicular to the trench, the feature measured about 40 cm x 30 cm and 60 cm deep (Figures



Figure 94. Trench 46, dug using hand tools 20' northwest of the Nadia Oskolkoff house (KEN-556, behind, here looking southeast), cut across buried gravel aligned with the building's north wall.

95-97). The gravel ranged up to cobble size (Figure 97) and appeared to be of local origin.

Artifacts were recovered from the sod zone and the yellow-grey soil beneath. They included a red scrap of plastic and another of blue, along with a black plastic button. A sawn long bone and several shells — representing at least two cockles — were collected. Metal objects consisted of two can fragments, two unidentified balls of rust, three pieces of a cast-iron stove, a button, a bottle cap, two wads of aluminum foil, and part of a squeeze-tube.

The ceramic collection contained 28 specimens (Figure 98), mostly from the sod zone. Two — both decayed whiteware — were from the underlying yellowish grey zone, but they are from the same decayed vessel that contributed most of the sherds found in the sod zone. That vessel, represented by 21 specimens, displays a faded exterior decayed design in blue

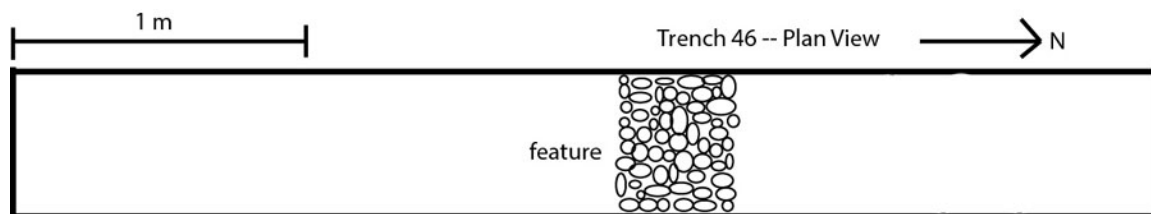


Figure 95. The cobble feature in Trench 46 was aligned perpendicular to the trench axis, and aligned with the north wall of the nearby Nadia Oskolkoff house (KEN-556).



Figure 96. Trench 46 cut across a narrow buried gravel alignment (at center, looking southeast). Note cobbles removed from the feature, at upper right.

making a simple coarse grid pattern with wavy lines (Figure 98:b). Two rim sherds cojoin, and two more sherds cojoin to make most of a handle. The pieces suggest the vessel was a

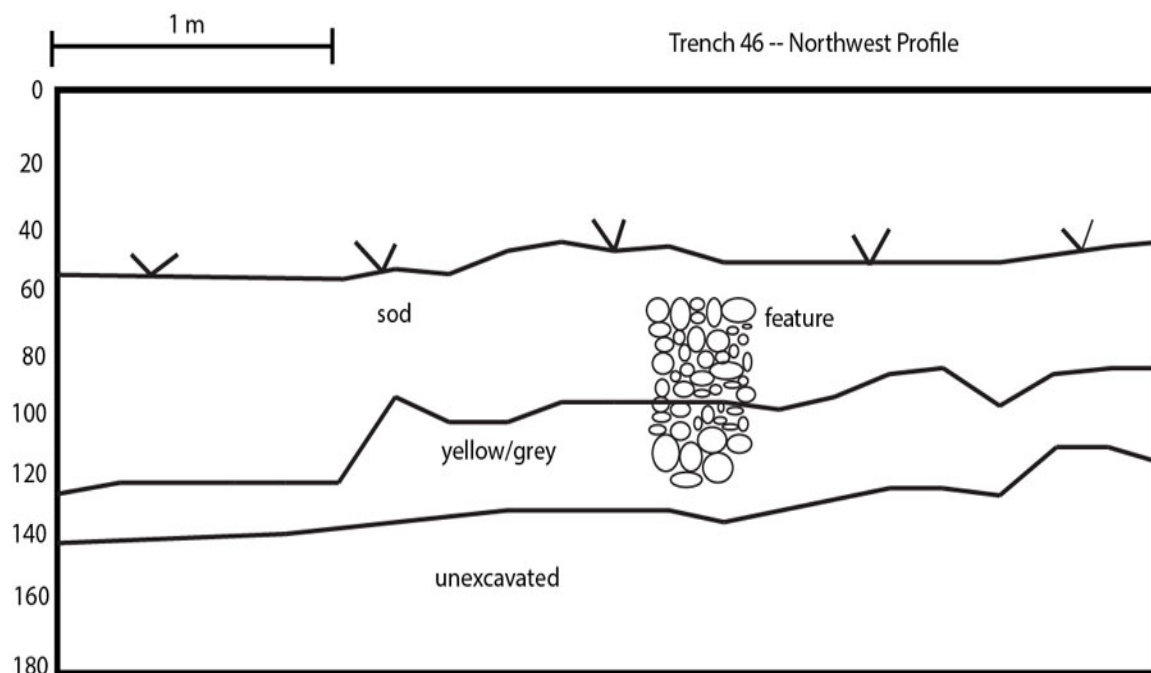


Figure 97. Trench 46's profile shows the cobble feature beginning in the sod zone and continuing down into the the underlying yellow-grey soil.



Figure 98. The ceramic sample from Trench 46 consisted of: a) redware teapot lid fragment; b) many sherds from a decaled whiteware jar or vase; c) part of a child's toy saucer in Japanese porcelain; d) undifferentiated porcelain; e) salt-glazed stoneware; f) molded whiteware; g) brown-glazed whiteware; h) undifferentiated whiteware.

small vase or jar. Other specimens included half the lid to a redware teapot, one sherd of molded whiteware, one sherd of salt-glazed stoneware with blue decoration, one sherd of a child's toy saucer in Japanese porcelain, one brown-glazed whiteware sherd, and two undifferentiated whiteware sherds (Figure 98).

In summary, the feature in Trench 46 consisted of a defined gravel deposit dug through the sod zone and into the underlying yellowish-grey soil. It is aligned with the northeast wall of the Nadia Oskolkoff house (KEN-556) just 20' away, and likely continues in that direction as well as in the opposite direction (southwest). The gravel alignment's function is unknown; it could be bedding for a now abandoned and removed pipe, but the inferred strike of the feature runs along the contour — not conducive to drainage. The feature could represent a sidewalk, but the

gravel is thicker than necessary and not as wide as usually desired. Though artifacts were recovered in the trench from the two strata containing the gravel feature, the association between the feature and specimens is unclear. Both the feature and the artifacts lack specific diagnostic elements to date the feature, but in general the ceramics indicate a 1900s origin.

Trench 55

Trench 55 was excavated upslope from Hillcrest Avenue, near the two abandoned root cellars with the AHRs number of KEN-555 (Figures 99-102). Excavation there was not anticipated in the ATP, but the decision was made in the field in consultation with MLFA and SHPO to test near the two known features when it was learned that the water main was to be placed



Figure 99. One of the two root cellars comprising KEN-555 still has a gabled portion showing, over the dug-out portion beneath.

not in the road but rather upslope from it. The trench produced a few artifacts including chickenwire in the sod zone, and then descended into an underlying yellowish-grey soil. That soil contained artifacts and a wood feature, and



Figure 100. The second root cellar comprising KEN-555 retains no superstructure, and is represented now only by a rectangular depression with remnants of corner posts and plank cribbing. A 1954 aerial photograph (Figure 12) shows it to have had a gable superstructure like the other.

excavation was expanded with an adjacent 1.2-m square to reveal more (Figures 103-104).

Vertical 4"x4" posts with 1" thick boards nailed to one side, now collapsed, appear identical to the subsurface wood cribbing used for the two nearby root cellars (Figures 100, 102). Over one meter of colluvium had slid down over the feature to completely obscure it from the surface – there was no surface depression whatsoever (Figure 105). Just a few days before the October, 2012, fieldwork exceptionally heavy rains caused the bluff just around the corner to the northwest to fail catastrophically, covering up the paved road with tree-covered slump blocks at least six feet thick (Figure 106), and this makes it much easier to envision how even modest soil creep could completely bury an historic root cellar near the base of the hillside.

The feature was not all uncovered, and boards continued into the wall of the trench. The

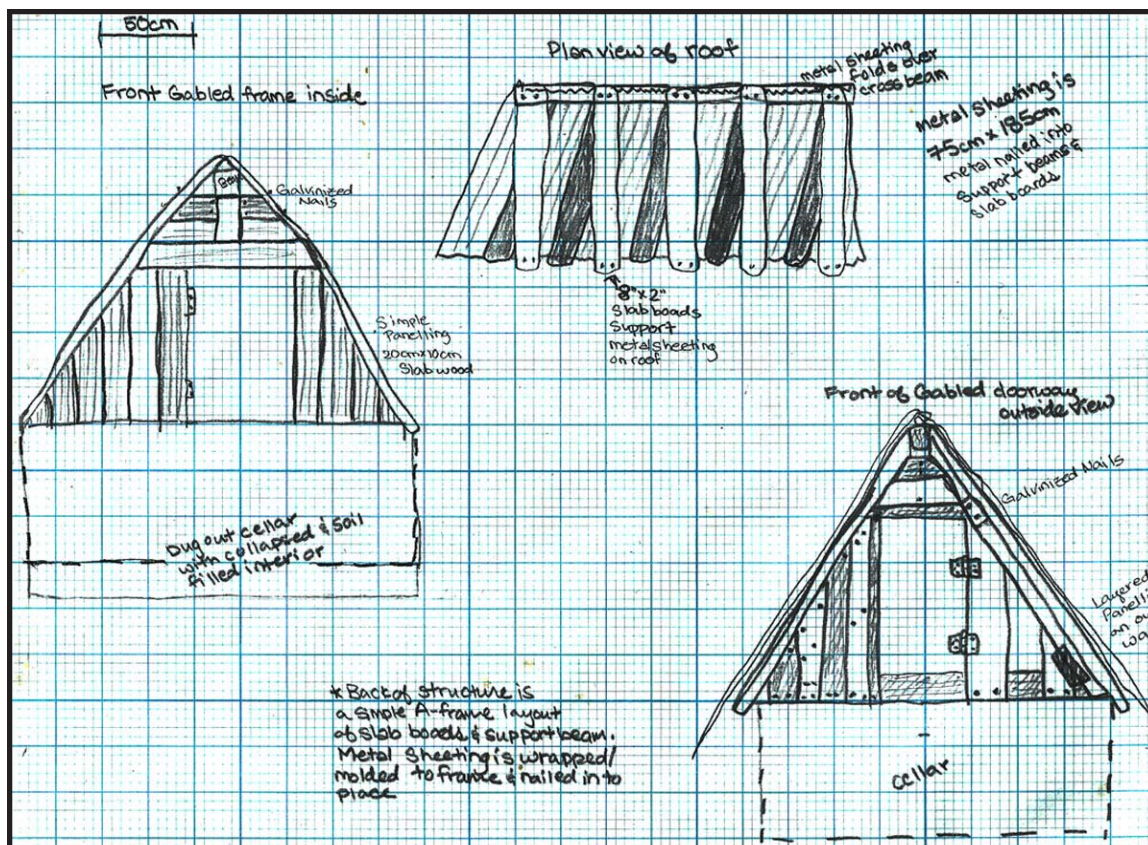


Figure 101. A field sketch by archaeologist Shona Pierce shows the construction of the more intact root cellar of KEN-555, with a gable roof extending to the ground over a rectangular depression.

length in the completely revealed axis was about two meters or seven feet (Figure 104), pointing uphill/downhill, with less than 20" (0.5 m) showing in the opposite axis. Vertically the

feature appeared compressed, with about 10" or 30 cm of thickness. Several large rusty round nails protruded from the boards. Though planks were found on both sides of the vertical 4"x4"

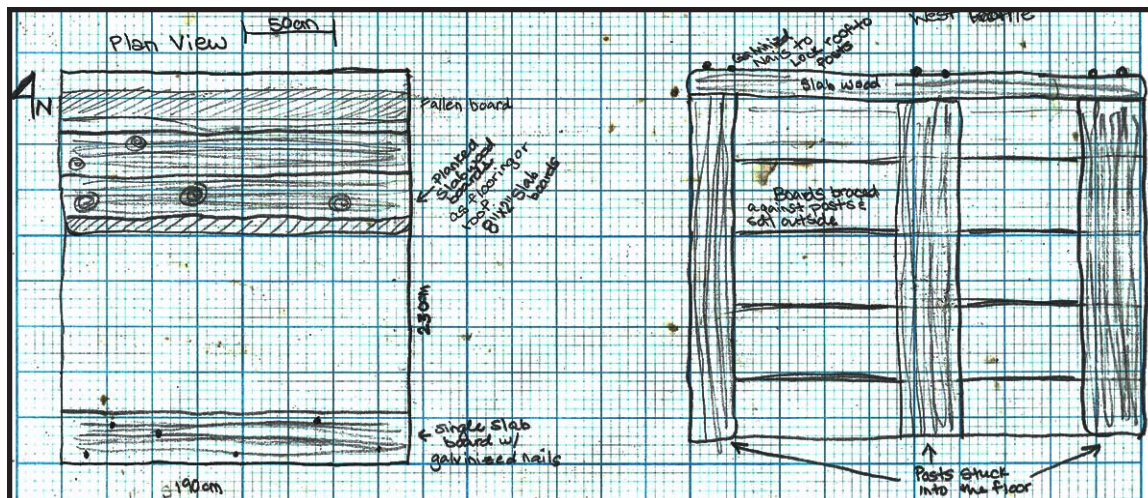


Figure 102. Pierce's field drawing of the second root cellar of KEN-555 shows it to have had a floor or platform at ground level (left), between the gable and the dug-out portion. At right the vertical post (inside, facing cellar interior) and horizontal plank cribbing (outside, facing the soil) pattern is drawn.

post stubs, the remnants west of the posts were lower and nailed to the posts, while the boards east of the posts were loose and higher in the feature. This is in keeping with the feature as the remains of a root cellar, structurally similar to others observed along Ninilchik's hillside in having corner posts within a rectangular hole and plank or slab-wood cribbing nailed to the exterior so the compression of the soil would push them against the posts (Figures 100, 102). The interior of the feature would be east extending into the trench wall, and thus its contents, if any, remain unexcavated.

No artifacts were recovered from what would be inside the wood feature in Trench 55, and the possible association of other artifacts found in the trench — except perhaps for nails — is not evident. The sample consisted of seven rusty round nails, one rusty staple, 14 rusty can fragments, one unidentifiable ferrous lump, and six shards of glass including five from bottles and one from white dining ware (Figure 107).

The age of the buried root cellar is not known. It is not discernable in the 1954 aerial photograph (Figure 12), or the 1911-1918



Figure 103. The Trench 55 feature consisted of two vertical 4"x4" post stubs and several planks buried beneath soil slumped from above.

images (Figure 9). The amount of soil slumped over the feature does not necessarily imply antiquity since the bluff above is prone to catastrophic failure; it could have gone from a

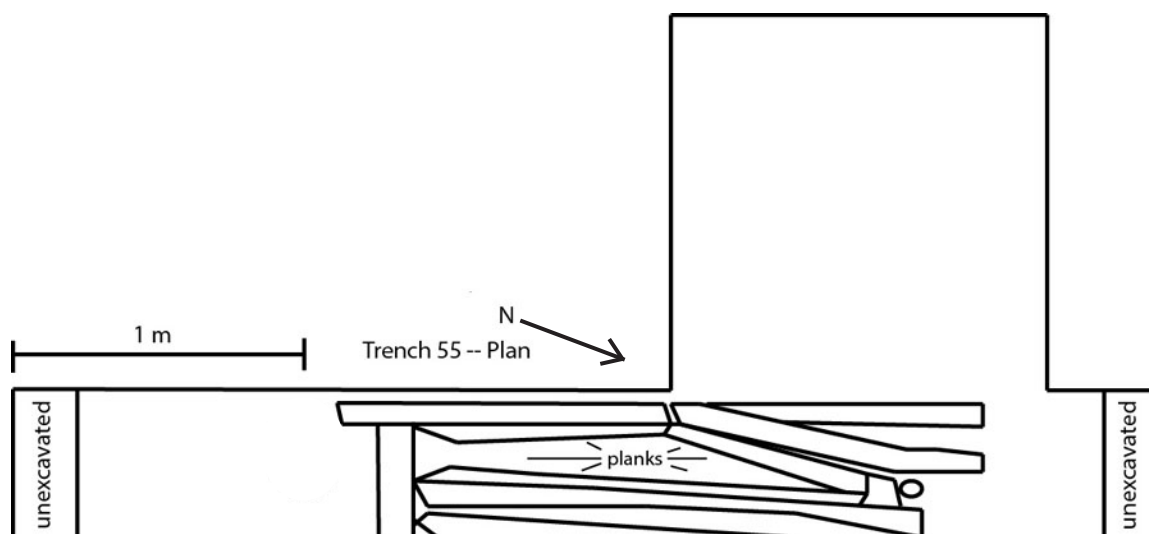


Figure 104. The feature in Trench 55 consisted of jumbled planks and broken posts along with the nails that once attached them. A 1.2-meter square dug adjacent to the trench allowed better access to the feature but did not reveal any more of it.

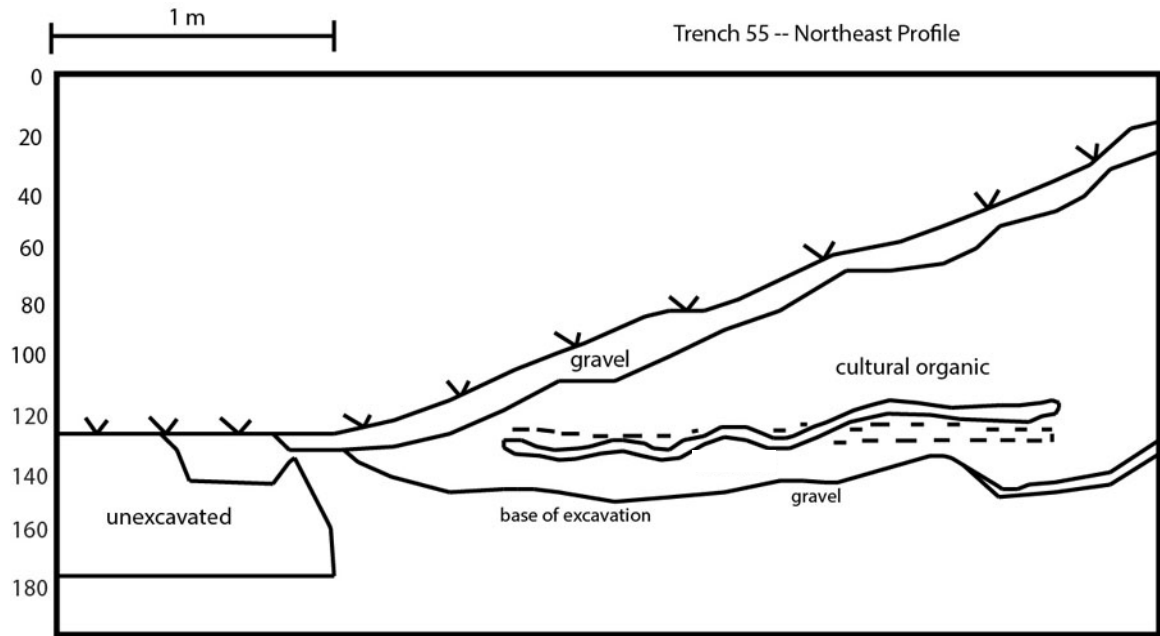


Figure 105. The board feature in Trench 55 was roughly horizontal in the trench's southwest profile (dashed line), with a twist that appeared in the northeast profile (solid polygon), and appears to have been buried by soils slumped from above.

functioning root cellar to a buried feature sheared off the superstructure down to the plank overnight. Such an event would likely have floor separating it from the subterranean portion.



Figure 106. Days before the October, 2012, excavations, heavy rainfall caused the bluff to slump across the road down the river to the northwest, illustrating the process that likely buried the Trench 55 feature.



Figure 107. Artifacts recovered from the organic soil horizon in Trench 55 consisted of non-diagnostic round nails, can fragments, and glass shards.

Information is insufficient to suggest whether that was the case, or whether the cellar was abandoned and slowly covered over the years.

It is suggested that the buried cellar predates the two still visible examples in place by 1911-1918 — likely dating it to the 1800s.

Other Trench Contents

Artifact (or bone)-bearing deposits were found in 22 other trenches besides the five that were given feature status (Table 2). Some of these were minor occurrences: two cow or moose bone fragments from Trench 2 and another from Trench 12; one piece of a cast-iron stove from Trench 9; and a plastic bag from Trench 33 containing one small Avon *Persian Wood* perfume sample bottle and a nickel chain with a small shell pendant (Figure 108). A cursory internet search indicates the Avon Persian Wood perfume was introduced in 1956, this one dram bottle was from a set of six Avon fragrance varieties labeled “For Demonstration Use Only.” The necklace is interesting in that it seems the shell selected for the pendant is a local whelk.

Other collections were made from trench deposits that bordered on feature status and yielded interesting specimens. Each of the hand-dug trenches up Missionary Way NE yielded artifacts, but most of the mechanically excavated trenches along the middle section of Mission Avenue did not. Some of the artifact samples from the non-feature trenches have diagnostic value, and some do not. Discussed in this chapter are the contents of those trenches, in chronological order.

Trench 5

Trench 5 was dug with the machine near the southeast end of Mission Avenue (Figure 51), in a thickly sodded zone between the roadbed and the yard of the new Russian Orthodox church rectory, just northwest of the rectory’s driveway (Figure 109). The organic soil supporting the sod appeared to have been recently introduced as part of the rectory landscaping. Beneath that was a heterogeneous layer varying from 15-30 cm thick formed by a grey sandy soil with pockets of darker organic



Figure 108. Trench 33 yielded a plastic bag containing a 1 dram fragrance vial and a chain with a shell pendant -- possibly a local whelk.



Figure 109. Trench 5 was dug with the machine (left) in the thickly sodded roadside in front of the new Russian Orthodox church rectory, near the southeast end of Mission Avenue.

soil (likely derived from the overlying sod zone) and pockets of coal ash. Excavation was terminated in an underlying grey-tan soil that contained no cultural material (Figure 110).

Specimens of bone, shell, metal, glass, and ceramics were recovered from Trench 5, all encountered in the heterogeneous zone mixed

with the coal ash. The bone consisted of one large long bone fragment from either a cow or a moose; the shell consisted of six pieces of razor clam and one butter clam fragment. The metal consisted of a single cast iron stove fragment, and the glass was a single piece of a milk-glass Pond's cold cream jar.

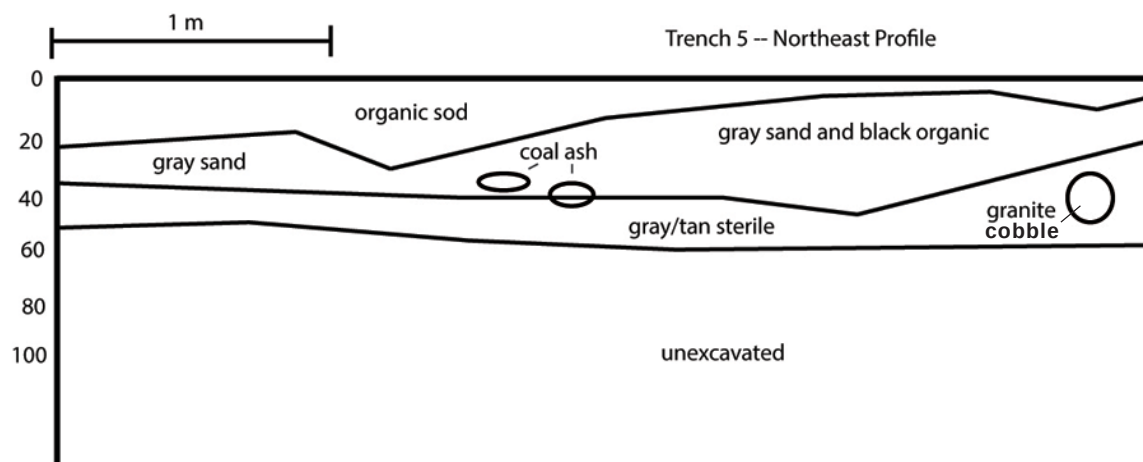


Figure 110. Trench 5's artifact-bearing deposit was a heterogenous layer of gray sand and dark organic soil with two pockets of coal ash.

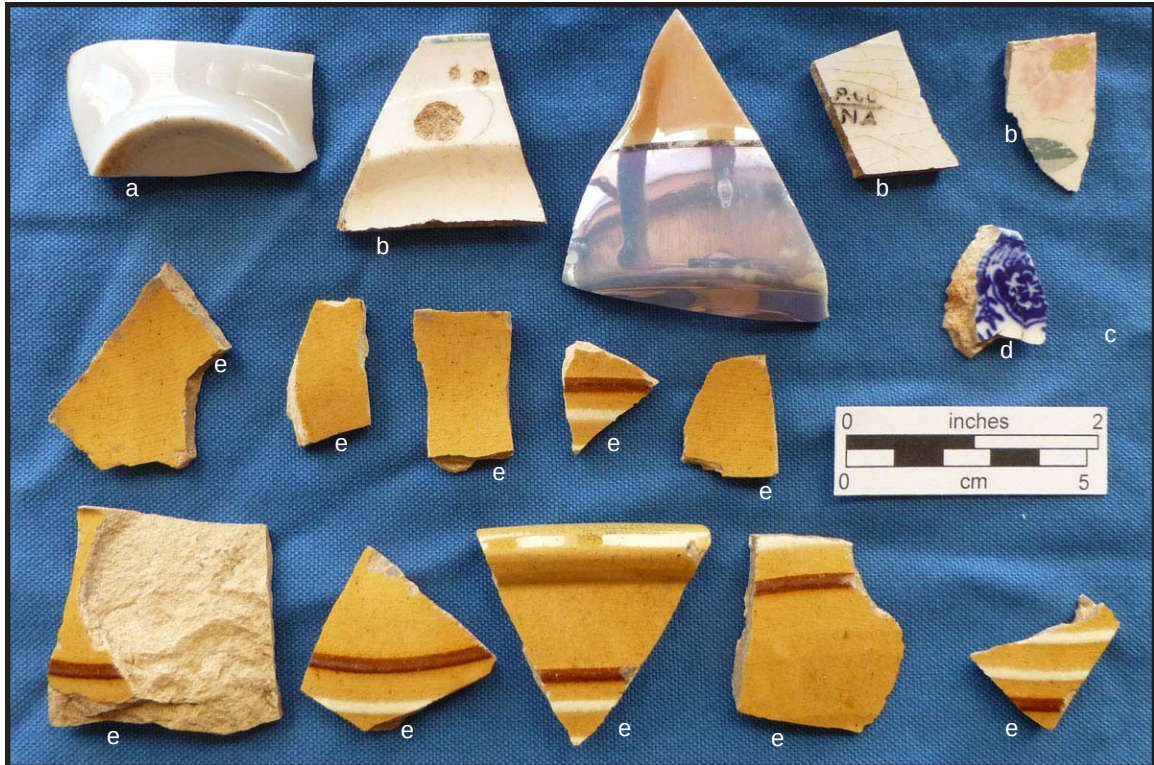


Figure 111. Ceramics from Trench 5 consisted of: a) undifferentiated porcelain; b) decaled whiteware; c) bone porcelain; d) blue willow whiteware; e) glazed brownware.

The ceramic sample from Trench 5 consisted of 16 specimens (Figure 111). Ten of the sherds are from a single vessel — a brown-glazed brownware bowl with brown and yellow annular decoration. One piece of a small undifferentiated porcelain bowl base was found, along with a piece of glazed bone porcelain. Four decaled whiteware sherds were found, including one blue willow pattern. One of the other three has a partial maker's mark. Enough is legible to determine that it said "CHINA" and was manufactured by "___P.Co."

The collection from Trench 5 reflects general household discard. The mixed appearance of the soil from which it came suggests that the deposit has been disturbed — perhaps by recent landscaping for the Russian Orthodox rectory; the material did not appear to be in primary depositional context. The Ponds milk glass jar fragment suggests a general date of early 1900s, the glazed brownware saw

manufacture in the late 1800s, and the blue willow whiteware dates roughly to the last half of the 19th century.

Trench 7

Trench 7 was dug with the mechanical excavator near the southeast end of Mission Avenue (Figure 51), by Deanna Smith's greenhouse (Figure 112). As with adjacent trenches, the topmost layer was an organic soil likely introduced as part of recent landscaping, and supported a lush lawn. Beneath that across most of the trench was a mottled reddish brown soil that may also have been part of the landscaping process, and below that was a grey silty soil in which the trench was terminated. In the northwest end of Trench 7 an area of loose soil was encountered that began with a small pocket of coal ash and descended into a jumble of recent artifacts. These included: two 12"



Figure 112. The northwest end of Trench 7 contained a disturbed zone with recent artifacts.

rubber sewer gaskets; a large rusty nail and an oil filter; a board; pieces of thin amber beer bottle

glass; pieces of thin clear bottle glass, one rusty Budweiser can with a pop-top opener, and three rusty soda cans with pop-top openers (Figure 114). Dr. Pepper, Pepsi, and Shasta Black Cherry were the brands represented in the soda can sample.

The artifacts from Trench 7 represent a deliberately discarded concentration probably deposited between 20 and 40 years ago; it was not given feature status. The rim sherd from a decaled whiteware plate (Figure 115), found near Trench 7 after it was backfilled, is out of keeping with the excavated sample and matches a rim sherd from Trench 15 (See Figure 129).

Trench 11

Trench 11 was mechanically excavated on Missionary Way SW at its junction with Mission Avenue (Figures 55, 116). The trench was short due to nearby buried utilities, and displayed a simple stratigraphy with fill over a

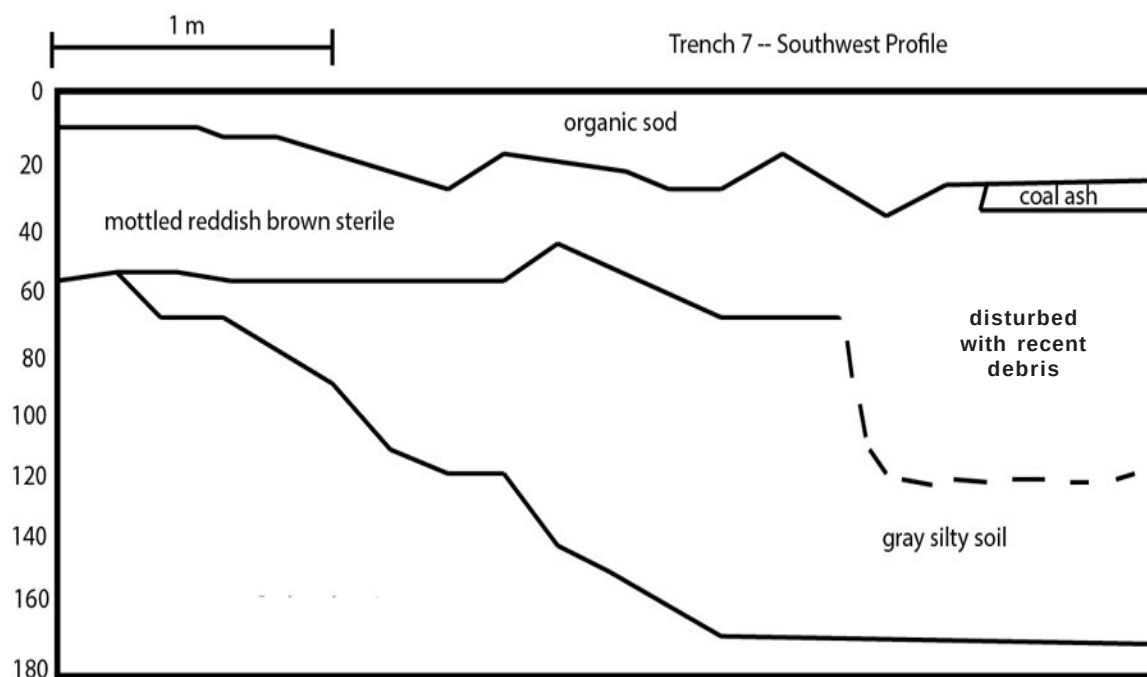


Figure 113. The disturbed zone in Trench 7 was covered by a thick sod mat and a small pocket of coal ash.



Figure 114. Artifacts from Trench 7 consisted of recent items, including two rubber sewer gaskets, a piece of wood, a nail, an oil filter, clear and amber bottle glass, and four soda cans.

dark organic stratum containing cultural material (Figure 117).

Bone and artifacts of metal, ceramic, leather, and glass were collected. The metal consisted of a cast-iron stove fragment, some small lumps of rust, a chrome trim-strip from a vehicle, a rusty O-ring 2 1/2" in diameter, an unreadable foil bottle label, and a crushed aluminum Pepsi Light can. The four glass shards retained represented at least one clear bottle and one clear amber bottle — both thin-walled (Figure 118). Four pieces of leather consist of two heel pieces with remains of rusty boot nails,

one wrinkled scrap, and one thick rectangular strip with slots for a belt — of the sort one might



Figure 115. A decal whiteware rim sherd was found in the backdirt of Trench 7, out of keeping with the remainder of the trench collection.



Figure 116. Four trenches (11 through 14) were excavated by machine among the buried utilities and property lines shown here painted on the ground in this view southwest down Missionary Way SW. Trench 11 was dug at extreme lower right.

use as a pad for a rifle sling (Figure 118).

Nine ceramic specimens were collected from Trench 11 (Figure 119). Two were from a

yellow-glazed vessel with thick walls, with an annular pattern in brown. Five sherds of thin porcelain are from a single vessel — a plate,

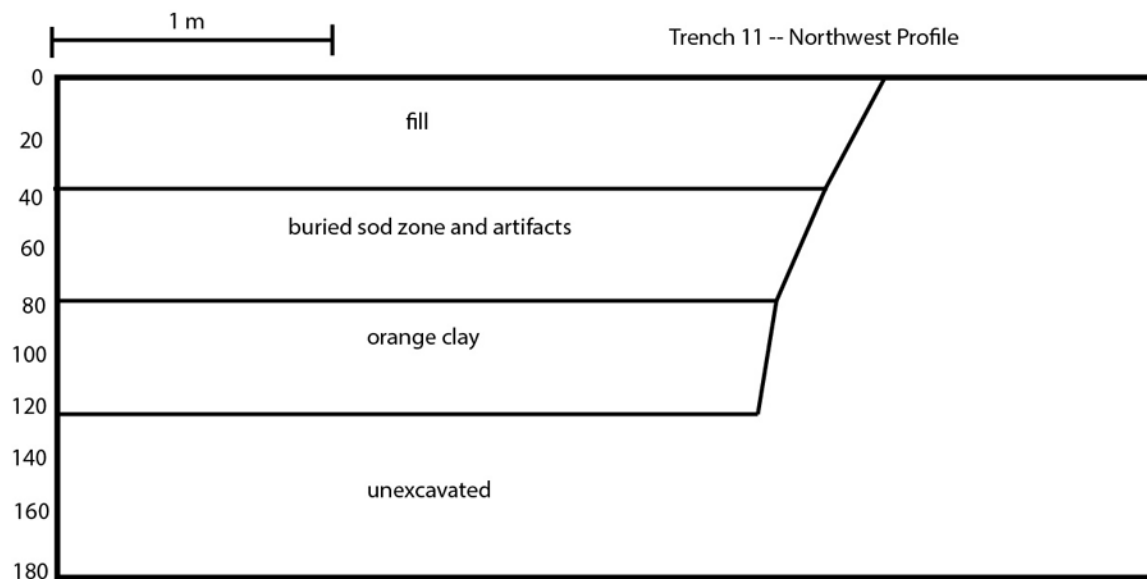


Figure 117. Trench 11 was short due to nearby buried utilities, and displayed a simple stratigraphy with fill over a dark organic stratum containing cultural material.



Figure 118. Trench 11 produced three unidentified bones, four pieces of leather, four pieces of bottle glass, lumps of rust (other metal objects are not illustrated), and nine ceramic sherds.

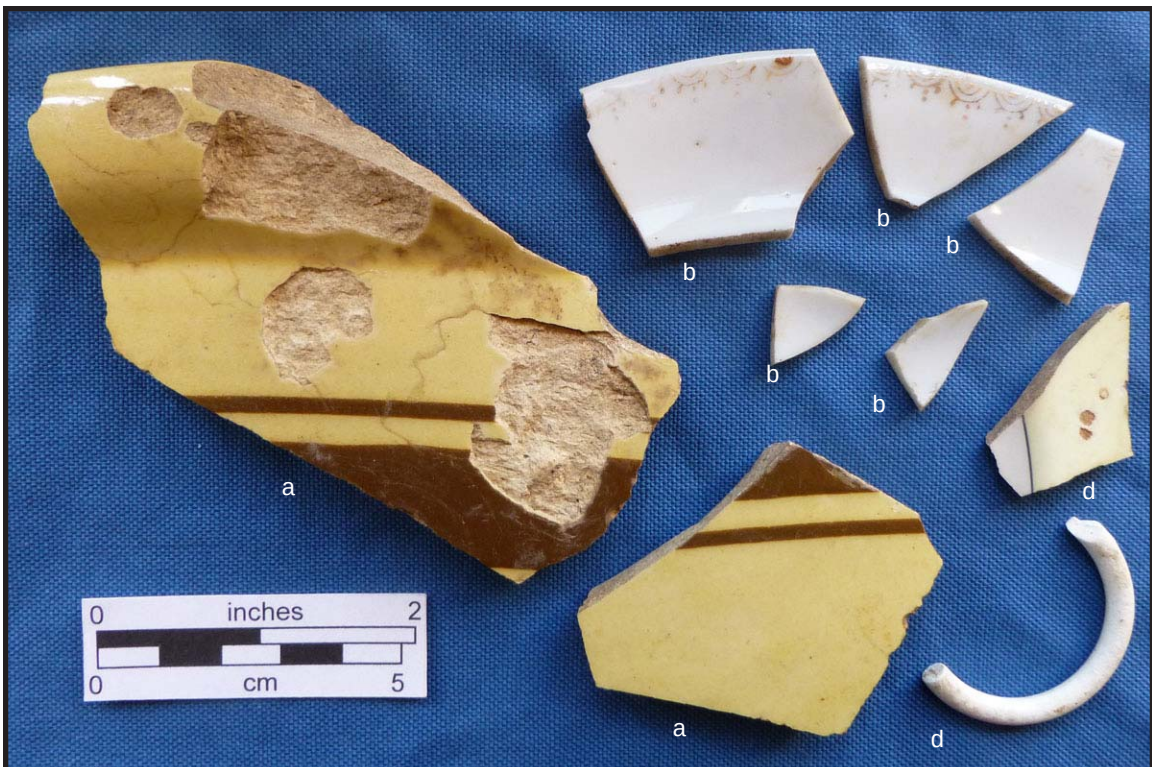


Figure 119. The ceramics from Trench 11 consisted of: a) brown annular pattern on yellow glaze; b) porcelain (same vessel -- a plate); c) decal whiteware; d) porcelain.



Figure 120. Trench 13 was dug with the excavator along Missionary Way SW.

and three rim sherds display a simple rim pattern. One decal whiteware from a plate, and a thin looped specimen that may be the handle to a teacup, complete the sample.

The material from Trench 11 reflects general household discard, with no building material noted except for possibly the metal strap

and O-ring. The ceramic sample would simply suggest a late 1800s or early 1900s date. However, the chrome vehicle part and bottle glass are more recent.

Trench 13

Trench 13 was dug along Missionary Way SW, using the excavator, amid several intersecting property lines and buried utilities. Consequently the trench was short (Figures 120-121). The stratigraphy consisted of six distinct lenses. Uppermost was 20 cm of compacted fill, overlying 20 cm of sand and gravel. Below that was a 10-cm thick layer of dark organic soil with artifacts and pockets of coal ash, overlying 25 cm of light tan silt. Neither that silt, nor the 20 cm of brown silt and gravel below it, nor the 30 cm of gravel below that, contained artifacts or cultural features. Excavation was terminated in the basal gravel.

A few artifacts were recovered — all from the 10-cm organic layer sandwiched between overlying fill and underlying sterile silt and gravel. The metal sample consisted of a rusty lump that could be a stove part, and a short rusty bar with a curve that is likely the cast-iron

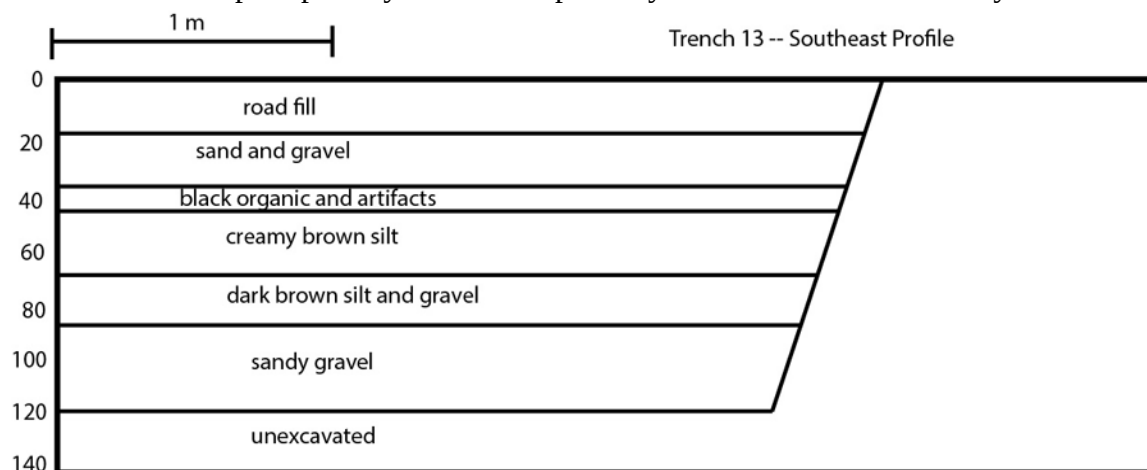


Figure 121. Six strata were observed in Trench 13, which was short because of interfering buried utilities.

tool used to lift the round burner plate out of the top of a wood or coal stove when it is hot (the end of the tool inserts into a small socket in the plate for removal). A single long bone fragment was recovered, and a single ceramic specimen. The pottery is whiteware with a light blue underglaze transfer print on both the interior and exterior (Figure 122); AOHA archaeologist Dan Thompson commented that in Alaska such specimens tend to be of Russian association.

The stratigraphy in Trench 13 indicates a buried land surface subsequently covered with fill. The cultural evidence is meager, and no more than household discard is suggested by the coal ash and artifacts. The single piece of pottery was manufactured between 1818 and 1867 (Samford 1997:20) and likely reflects Ninilchik's Russian period history.

Trench 14

Trench 14 was dug with the machine southwest of Trench 13, on Missionary Way SW (Figure 55), where the residents' driveways come together (Figure 116). The stratigraphy consisted of four distinct layers, beginning with about 50 cm of compacted fill forming the

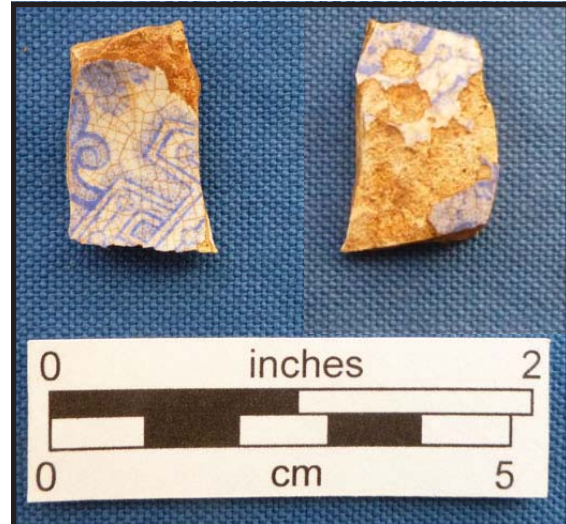


Figure 122. Trench 13 contained a light blue transfer-printed whiteware of likely Russian period origin. Both sides are shown.

existing driving surface (Figure 123). Abruptly below the gravel road fill was a dark 20-cm thick organic stratum containing artifacts, followed by 20 cm of dark brown sandy silt, and then grey silt in which digging was terminated. Water began collecting in the hole before it was finished (Figure 124).

Metal and ceramic artifacts were the only materials recovered from the organic stratum in Trench 14. The metal consisted of two rusty wire nails, and the pottery consisted of a single undecorated whiteware sherd. These are not

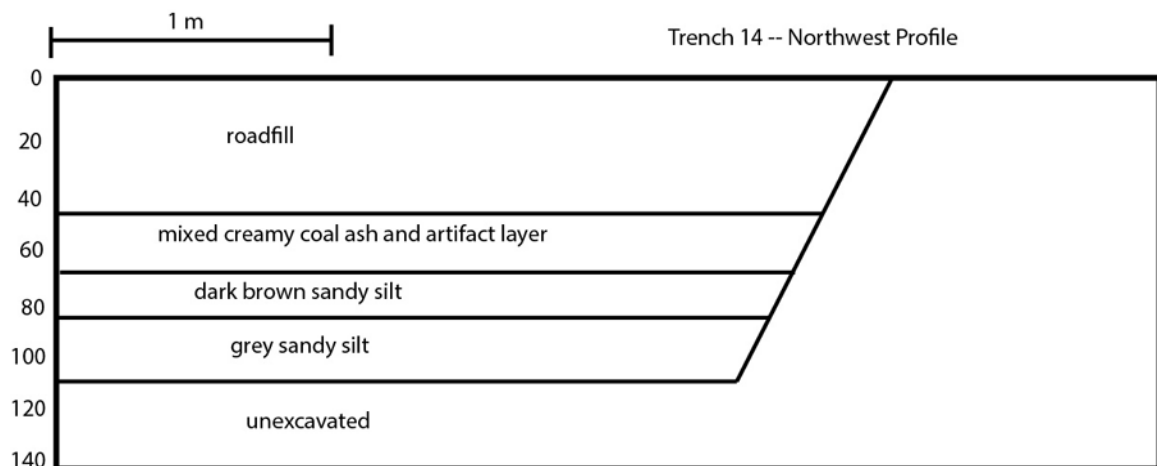


Figure 123. The profile of Trench 14, excavated with the machine on Missionary Way SW, showed four distinct strata.



Figure 124. The side of Trench 14 shows a dark former land surface compressed between road fill above and mottled but undisturbed soils below.

sufficient to date the material with precision. Though the underlying and overlying stratigraphy in Trench 13 does not exactly mimic that of Trench 14, 40' away, the organic zone in the two is taken to represent the same former land surface.



Figure 125. Trench 15 was dug in the roadway of Mission Avenue, in front of Deanna Smith's picket fence. View is southwest.

Trench 15

Trench 15 was dug with the excavator on Mission Avenue just northwest of Trench 10 (Figure 52), in the roadbed outside of Deanna Smith's picket fence (Figure 125). Below 80 cm of compacted road fill (Figure 127) was found a 20 cm layer of coal ash with artifacts followed by a 20 cm black organic soil also containing artifacts (Figures 126-129). Below that was 10 cm of grey silt, then an



Figure 126. One of two bags of artifacts retrieved from Trench 15 contained a Velvet tobacco can.

orange clay in which excavation was terminated. The stratigraphy was comparable to that of nearby Trench 10 including the midden feature, except that it contained no building logs, was not as thick, and contained far fewer artifacts. Though the cultural deposits in Trench 15 likely reflect the same depositional sequence as Trench 10, they were not given feature status.

Artifacts from Trench 15 were of ceramic, metal, glass, wood, and fabric, with bone and shell. The bone consisted of seven specimens; one was from a sea mammal, and one was likely cow. Four are sawn. The shell consisted of a single razor clam fragment.

*Velvet, America's Smoothest Smoke,
Burns Cool and Sweet in Pipe or Cigarette
Label on Velvet tobacco can from Trench 10*

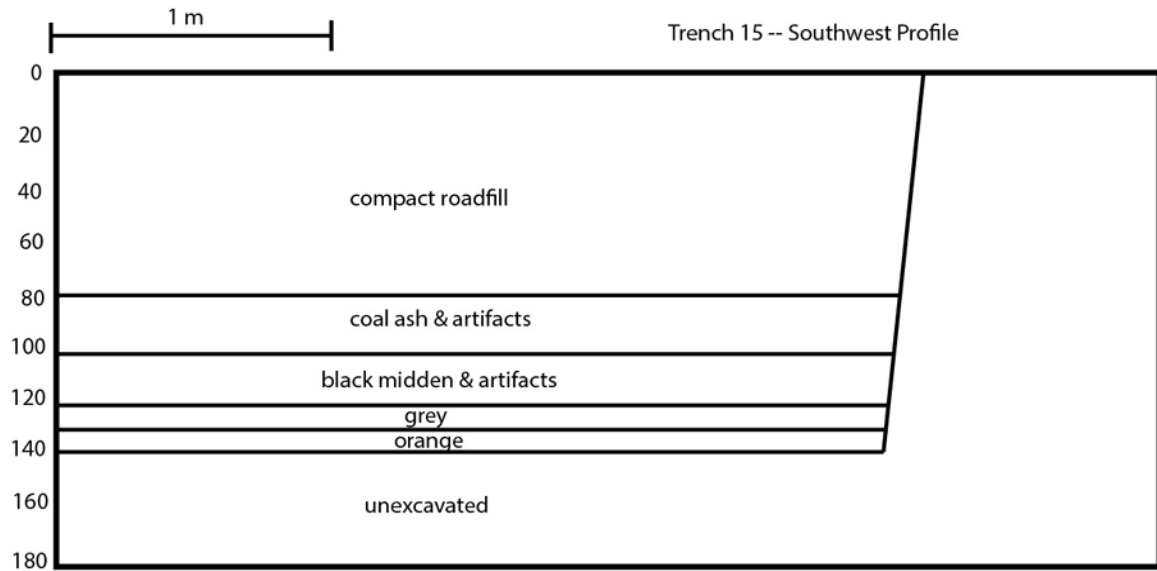


Figure 127. The stratigraphy of Trench 15 was similar to that of nearby Trench 10, except that it had no building logs, was not as thick, and contained fewer artifacts.

The metal sample contained rusty can fragments including most of a tobacco can, a large rusty wire nail and three smaller ones (one galvanized), a rusty wire that is likely the trigger to a standard wood-based rat trap, a small cuprous rod, and some bits of aluminum foil (Figures 126, 128). The pocket-sized tobacco can is a standard flip-top container painted dark red with cream-white lettering — Velvet brand.

Of six pieces of glass, five are bottle shards — four clear and one amber. One of the clear specimens is a bottle base fragment lacking

embossing and displaying some iridescence. The sixth specimen is a piece of green-tinted window glass.

The one leather specimen is the end of a thick strap suitable for luggage, with a snap at the torn end and a slot for a button or toggle at the other. Another single item forming the sole entry in its material class is a length of plastic insulation from electrical wire (Figure 128).

Three pieces of pottery were found in Trench 15 (Figure 129). All were rim sherds. One piece of blue willow ware porcelain came



Figure 128. The second bag of artifacts from Trench 15 contained glass, ceramic, bone, metal, shell, plastic, and fabric.



Figure 129. The pottery found in Trench 15 consisted of: a) willow ware porcelain; b) decayed whiteware; c) Japanese porcelain.

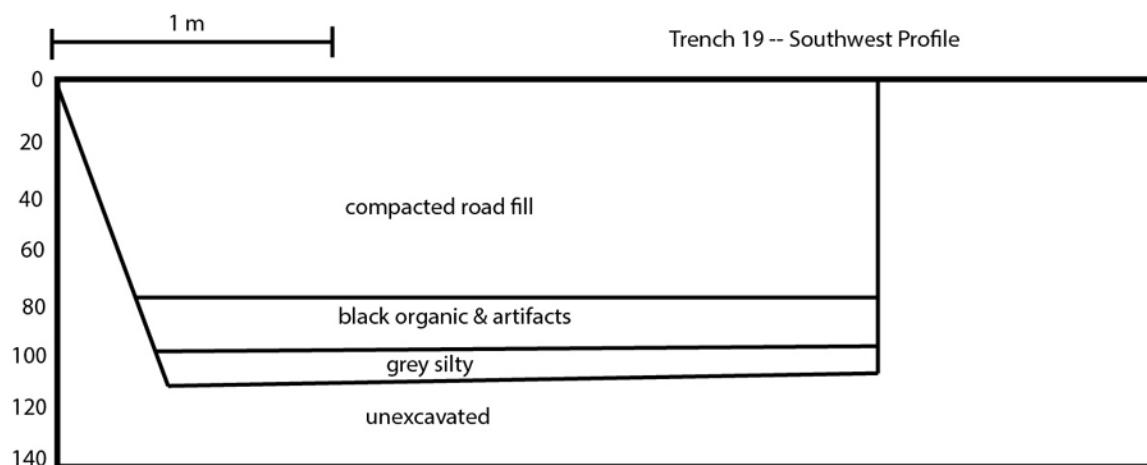


Figure 130. Trench 19 deposits consisted of a thick layer of compacted road fill overlying a dark organic deposit containing artifacts and interpreted as a buried former ground surface.

from a small globular vessel with a flared rim, and has a whimsical houseboat design. The fragment of a small bowl with an interior design is likely Japanese porcelain. One whiteware with a repetitive flower motif decal around its exterior rim is from a bowl or large cup, and matches a sherd from Trench 7 (Figure 115).

The cultural deposit in Trench 15 is considered contemporaneous with the midden feature in Trench 10. Differences between the two trenches could be interpreted as a function of slightly different discard activity (Trench 15 lacks building material like that found in Trench 10). Or the two trenches may have sampled



Figure 131. Below the thick road bed fill exposed in Trench 19 was an organic soil containing artifacts.

the inside and outside of a building. More likely Trench 10 is nearer the center of a focused discard area, while Trench 15 is further away.

Trench 19

Trench 19 was dug near the midpoint of Mission Avenue (Figure 52), with the excavator. Beneath a thick layer of road fill was a dark organic layer containing artifacts, interpreted as a buried former land surface (Figures 130-131).

Though trenches on either side of it produced no artifacts, Trench 19 yielded metal, ceramic, and bone specimens. The bone consisted of two specimens, one of which is likely cow. The metal consisted of a large rusty wire nail and a short rusty metal dowel. Pottery consisted of a single whiteware sherd with a light-blue underglaze transfer print (Figure 132).

The dark organic artifact-bearing stratum in Trench 19 is considered to be a former land surface buried by fill for construction of Mission Avenue. The artifact collection has only the piece of pottery as a potential chronological indicator, with a manufacturing date of between 1818 and 1867 (Samford 1997:20).



Figure 132. Trench 19 produced one sherd of pottery -- a whiteware sherd with a light-blue underglaze transfer print.

Trench 27

Trench 27 was dug with the excavator near the northwest end of Mission Avenue, in front of the Ninilchik store (KEN-218). Beneath a thick layer of road fill was a suite of three thin strata formed of dark organic soil and coal ash (Figures 133-134). Beneath that was a thin culturally sterile grey silt, and then an orange silty clay in which excavation was halted.

Despite the organic zone with microstratigraphy in Trench 27, the only artifacts it produced were a rusty wire nail and a chunk of 1"x6" board; and the deposit is not dated.

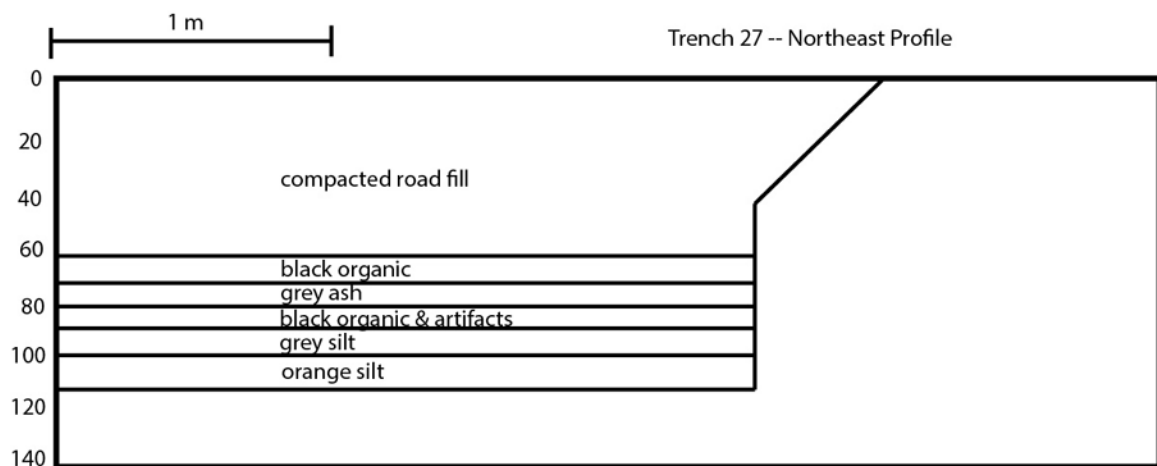


Figure 133. Trench 27 displayed thin layers of dark organic soil, ash, and artifacts buried beneath road fill brought in to build Mission Avenue.



Figure 134. Buried beneath the road fill in Trench 27, in front of the Ninilchik store (KEN-218), was a series of three compressed lenses of organic soil and ash containing artifacts.



Figure 135. Trench 29, here looking southeast, was located near the intersection of Mission Avenue and Hillcrest Avenue.

Trench 29

Trench 29 was located near the northwest end of Mission Avenue (Figures 54, 135). Below a thick layer of road fill was a dark organic stratum containing artifacts, overlying a thin grey silt or clay followed by an orange clay in which excavation was terminated (Figure 136).

Bone and artifacts of ceramic, metal, and leather were recovered. The bone sample consisted of two large fragments, one of which was likely moose. The metal consisted of a single rusty wire nail, and the leather consisted of one shoe sole fragment. The single ceramic specimen was of undifferentiated whiteware.

The dark organic layer in Trench 29 is interpreted as a former land surface buried by road fill, while the artifacts indicate no specific date and no activity beyond domestic discard.

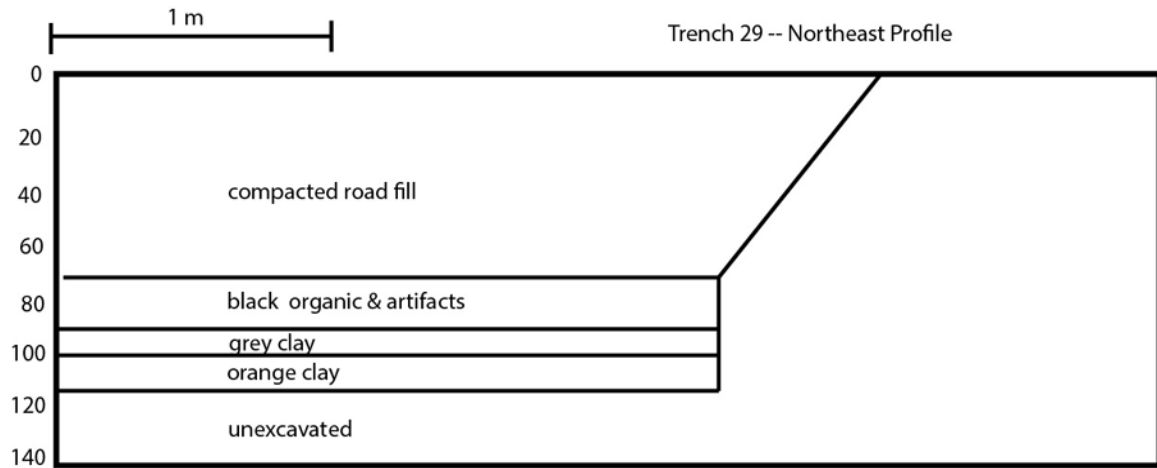


Figure 136. Trench 29 revealed a dark organic horizon containing artifacts, buried beneath a thick layer of road fill.

Trench 30

Two trenches were dug with the mechanical excavator on either side of the apex of Mission and Hillcrest Avenues' intersection (Figure 54). Trench 30 was on Mission Avenue, in the road surface (Figure 137). The uppermost

stratum consisted of a thick layer of compacted road fill forming the current surface of Mission Avenue (Figure 138). Below that was a layer of sand and gravel up to cobble size with noticeably less compaction below the first 10 cm. That loose gravel lay directly on a dark organic soil containing artifacts. Below that was the



Figure 137. Trench 30 (here looking southeast) was dug with the machine at the northwest end of Mission Avenue

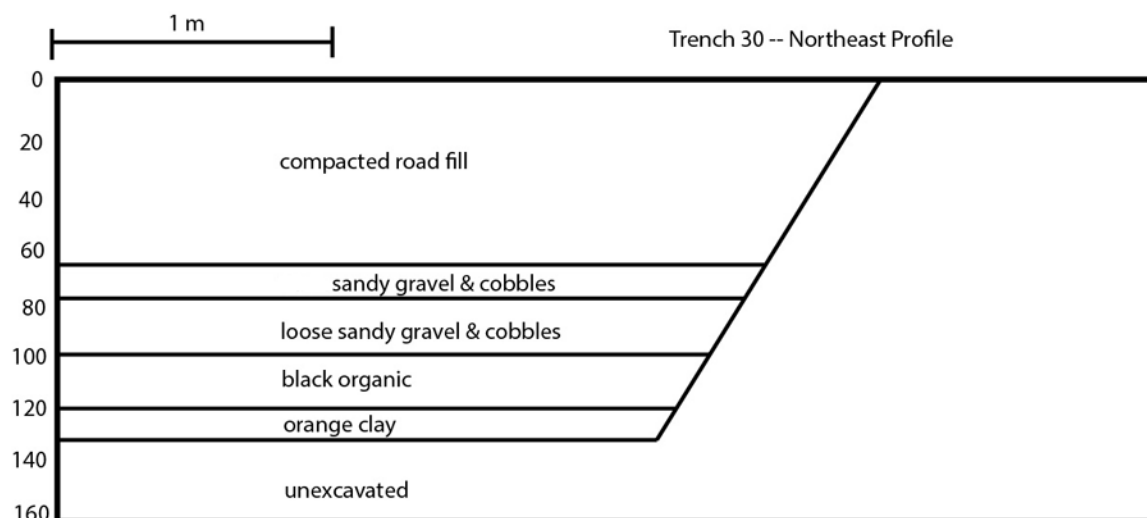


Figure 138. Trench 30 displayed a dark organic zone sandwiched between undisturbed orange clay below and loose gravel and compacted road fill above.

culturally sterile orange clay that formed the basal stratum in most of the trenches excavated.

Two artifacts were retrieved from the dark stratum: a sherd of undifferentiated porcelain, and a brass casing from a centerfire cartridge. Though the specimen is damaged (Figure 139), the rim and headstamp are intact and the letters “WRA CO” and “.30 G 1906” are legible, indicating manufacture by Winchester Repeating Arms Company. Internet sources indicate the caliber was the precursor to the .30-06; since Winchester began manufacturing the .30-06 cartridge for military use during World War I, the specimen likely dates between 1906

and about 1918 (the company went out of business in 1932).

The organic soil in Trench 30 is interpreted as a former land surface. The loose sand and gravel above it likely represents one of the village’s oldest improved road surfaces. The manufacturing date of the cartridge, though general, suggests that the deposit dates to the first half of the twentieth century; the loose gravel road surface above it is thus later.

Trench 37

Trench 37 was dug with the mechanical excavator at the apex of Hillcrest Avenue’s junction with Mission Avenue (Figures 54, 140). The trench was placed in the road fill of Hillcrest Avenue, through a veneer of topsoil recently landscaped to support a thick lawn (Figure 140). Beneath the thin sod zone was gravel fill for the road, overlying a cultural deposit containing stratified lenses of coal ash and dark organic soils (Figures 141-142). Beneath that was a grey and brown mottled soil, and below that was the basal orange clay in which the trench was



Figure 139. Recovered from Trench 30 was a Winchester .30 G 1906 cartridge -- precursor to the .30-06 caliber.



Figure 140. Trench 37 (lower center) was dug with the machine at the beginning of Hillcrest Avenue (center, looking east); the edge of Trench 30's backdirt is visible at lower right.



Figure 141. Beneath the road bed of Hillcrest Avenue (here covered with a thin veneer of landscaped sod), in Trench 37, was a dark organic layer containing artifacts.

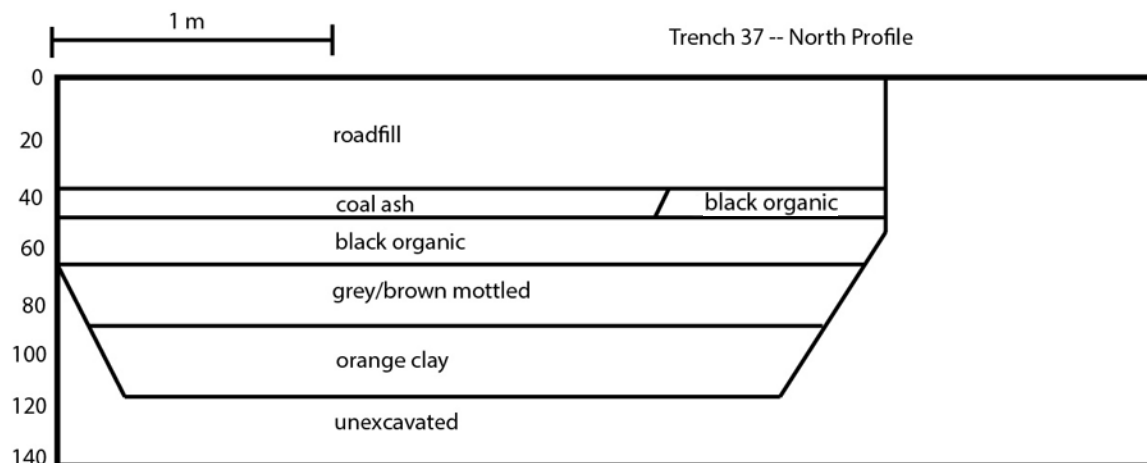


Figure 142. Excavation of Trench 37 showed the fill for Hillcrest Avenue overlying a cultural deposit of stratified coal ash and dark organic soil.

terminated. Along the contour the stratigraphy appeared parallel and level (Figure 142), but in the opposite axis the strata dipped downward slightly to mimic the surface slope. Coal ash appeared near the top of the organic deposit in the west two-thirds of the unit. Soils in the

organic layer were not homogenous and appeared to have been mechanically jumbled.

Artifacts recovered from the organic deposit included amber beer bottle glass, clear bottle glass, plastic, string, metal can fragments, coal clinkers, and part of a foil label (Figure 143).



Figure 143. Artifacts from Trench 37's organic deposit consisted of recent items including amber bottle glass, metal can fragments, plastic, foil labels, and coal clinkers.

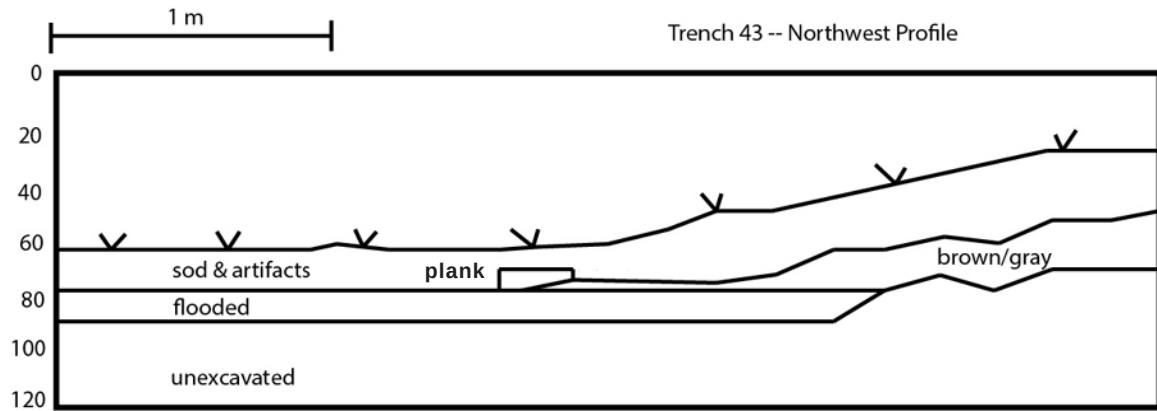


Figure 144. Trench 33 was dug using hand tools on Missionary Way NE, revealing an artifact-bearing sod zone.

All the specimens would be considered modern. The evidence indicates that Trench 37 penetrated an area disturbed by recent landscaping, either for the road or the adjacent lot, or both.

Trench 43

Trench 43 was located on Missionary Way NE, in Deanna Smith's mowed yard (Figure 144). Hand tools were used to remove first a thick artifact-bearing sod zone, overlying a grey-brown soil without artifacts. A 2"x8" plank fragment was transected by the trench at the base of the sod zone. Groundwater soon filled the trench and it was terminated in the grey-brown soil.

One small unidentifiable bone fragment was retrieved from Trench 43, as well as metal and ceramic artifacts. The metal consisted of two rusty wire nails, an unidentified lump of rust, a lead net weight, and a round textured cuprous container lid -- maybe part of a snuff container (Figure 145). The lump of rust has two barbs protruding from it.

The ceramics consisted of four sherds: one undifferentiated whiteware, two molded whiteware, and one porcelain rim sherd (Figure

146). AOHA archaeologist Dan Thompson recognized the porecelain specimen as a ware also found at the agency's excavations at Castle Hill in Sitka -- for some time the headquarters of the Russian American Company in Alaska, and believes it to be likely of Chinese origin and dating to around the 1850s (Thompson 2003).

The contents of Trench 43 suggest no more than general household discard, except for the net weight -- a fishing item useful in either a commercial or subsistence context. The wire nails are a post-1890s artifact, while the porcelain sherd may be a half-century earlier. Their occurrence in the thick sod zone suggests that the vicinity's depositional history has been one of slow surface accumulation.



Figure 145. Metal objects from Trench 43 consisted of two rusty wire nails, an unidentified rusty object with two barbs, a cuprous lid to a round container, and a lead net weight.



Figure 146. The four pieces of pottery from Trench 43 consisted of: a) undifferentiated whiteware; b) molded whiteware; c) porcelain -- likely Chinese.

Trench 44

Trench 44 was dug with hand tools upslope from Trench 43, on the Missionary Way

NE right-of-way (Figure 53). The vegetation was an un-mowed version of the lawn at Trench 43, and like Trench 43 groundwater filled the trench as it was being excavated. The sod zone

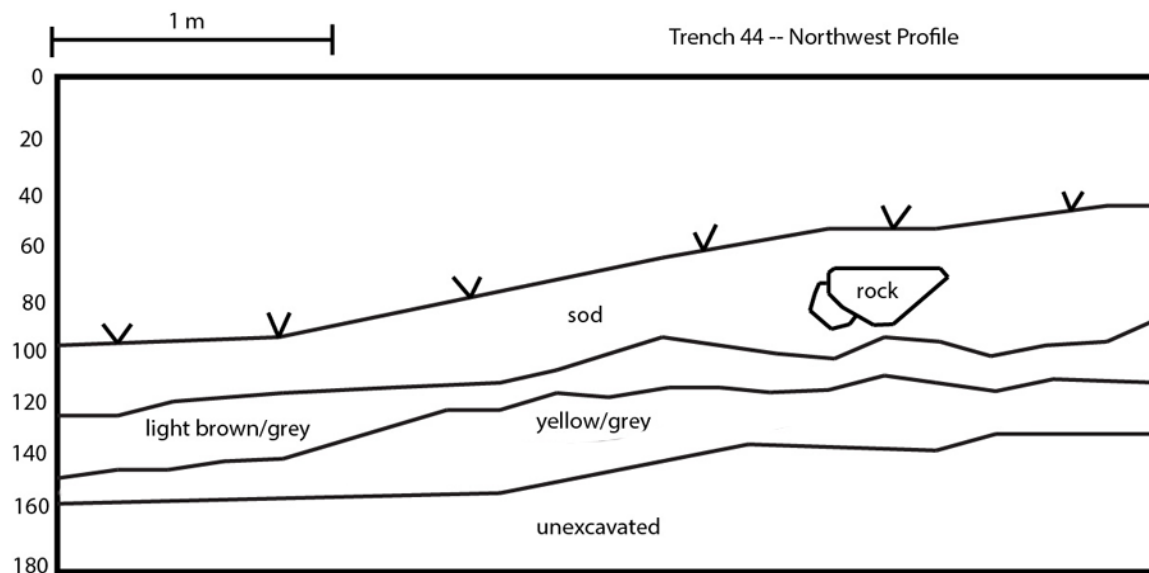


Figure 147. The stratigraphy of Trench 44 consisted of a thick artifact-bearing sod zone overlying a light brown and grey mottled soil.



Figure 148. Ceramics from Trench 44 consisted of: a) undifferentiated whiteware; b) undifferentiated porcelain; c) handpainted underglaze polychrome whiteware; d) underglaze transfer-printed porcelain.

was a thick mat of roots in an organic soil, and contained artifacts as well as two large cobbles. Below the sod zone was a mottled grey and light brown soil, and underlying that was a yellowish grey silt (Figure 147).

Bone as well as artifacts of metal and ceramic were recovered. The bone sample was comprised of three specimens, one of them identified as likely cow. The metal sample held four cast iron stove fragments and 13 rusty nails of various sizes. Three of the nails are square, of which one is complete and measures 4" long; the others are fragments with larger heads and shanks and were likely longer than 4" when complete.

The ceramic sample contained 14 specimens, of which 10 were undifferentiated whiteware and one was undifferentiated porcelain (Figure 148). One porcelain sherd

has its exterior decorated with a green underglaze transfer print. Two sherds are from an underglaze handpainted whiteware vessel with a thick and somewhat crude polychrome design identified as "Gaudy Dutch" by AOHA archaeologist Dan Thompson.

Trench 44's stratigraphy and artifact content is similar to Trench 43's and suggests slow accumulation of household debris. Archaeological excavations at Kolmakovskiy Redoubt and on the Nushagak River in western Alaska have produced the Gaudy Dutch ware in contexts dating from the mid to late 1800s (VanStone 1970; VanStone and Townsend 1970:75-86; Oswalt 1980:70-74). The three large square nails, two sherds, and lack of recent material indicates deposition in the last half of the nineteenth century.

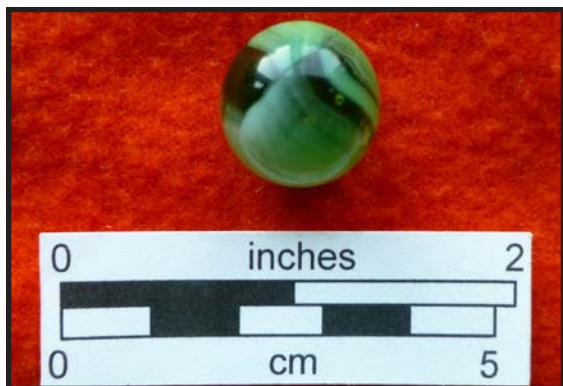


Figure 149. A green glass marble was recovered from Trench 45.

Trench 45

Trench 45 was excavated using hand tools on Missionary Way NE, upslope from Trench 44 at the base of a cottonwood tree (Figure 53). Groundwater flooded the trench as soon as the sod was removed, and -- since it was on a slope and had some pressure -- drained out the lower end as a grey slurry (Figure 59).

There was no indication that the stratigraphy was different than that encountered in the hand-dug trenches on either side, downslope or upslope (Trenches 44 and 46), but the oozing soil prohibited good characterizations or profiles.

Nonetheless, an artifact sample was recovered from Trench 45, as well as a bone sample. The bones consisted of five specimens, including one likely cow bone, one likely moose bone, and one marmot bone. The artifacts were of metal, glass, and ceramic, with the metal sample including: a large rusty eye-bolt, a cast-iron stove fragment, a rusty square nail, three lumps of rust, and a brass grommet such as those found on modern tarps. The glass sample was a single item -- a green glass marble (Figure 149).

The ceramic sample from Trench 45 contained 24 undifferentiated whiteware specimens (Figure 150). Three instances of cojoining rimsherds represented two plates and



Figure 150. Ceramics from Trench 45 consisted of: a) undifferentiated whiteware; b) decayed whiteware; c) blue transfer-printed whiteware; d) undifferentiated porcelain.



Figure 151. Most of a transfer-printed serving plate was recovered from Trench 45 -- the Persian Rose pattern manufactured by W. Baker and Company.

a thick bowl, and three specimens were simply glazed potlids removed from larger specimens. A single plate rimsherd with a brown decaled rim, a tiny whiteware sherd with a blue transfer print, and two undifferentiated porcelain specimens were also recovered. The most impressive component of the ceramic sample is, however, a collection of sherds likely from one vessel -- a brown transfer-printed serving plate in the Persian Rose pattern by W. Baker and Company (Figure 151).

As with the nearby hand-dug trenches on Missionary Way NE, Trench 45's contents reflect household discard, but the water inflow didn't allow stratigraphic inferences. W. Baker and Company was in business from 1839 to 1932 (the company added "Ltd" to their manufacturing mark in 1893, but unfortunately that time-diagnostic portion of the symbol is missing from the specimen); the pattern name

was not typically included on the vessel until after 1860 (Godden 1991:51). The popularity of the central floral patterns typified by Persian Rose peaked from 1891 to 1908 (Samford 1997:24). The square nail is compatible with a later 1800s date.

Trench 48

Trench 48 was located on Missionary Way NE, upslope from Trench 46 (Trench 47 was not excavated). Its slope was greater than the preceding trenches to the southwest (Figures 152-153). The trench was dug with hand tools through a thick sod zone supporting fireweed, cow parsnip, nettles, and other plants. The sod

Persian Rose, a flow pattern by W. Baker and Company (1839-1932), shows the soft blurring typical of the flowing process.

Samford (1997:22).



Figure 152. Trench 48 (here looking west) was dug with hand tools up Missionary Way NE. The old Russian Orthodox church school (KEN-031) is at upper left.

zone contained bone and artifacts, as did the underlying yellowish-grey silty soil below (Figure 153). Excavation was terminated in that silty soil when artifacts were no longer encountered;

the impression was that the specimens were derived from the overlying organic sod zone.

The bone sample contained four specimens, including an unidentified bird bone,

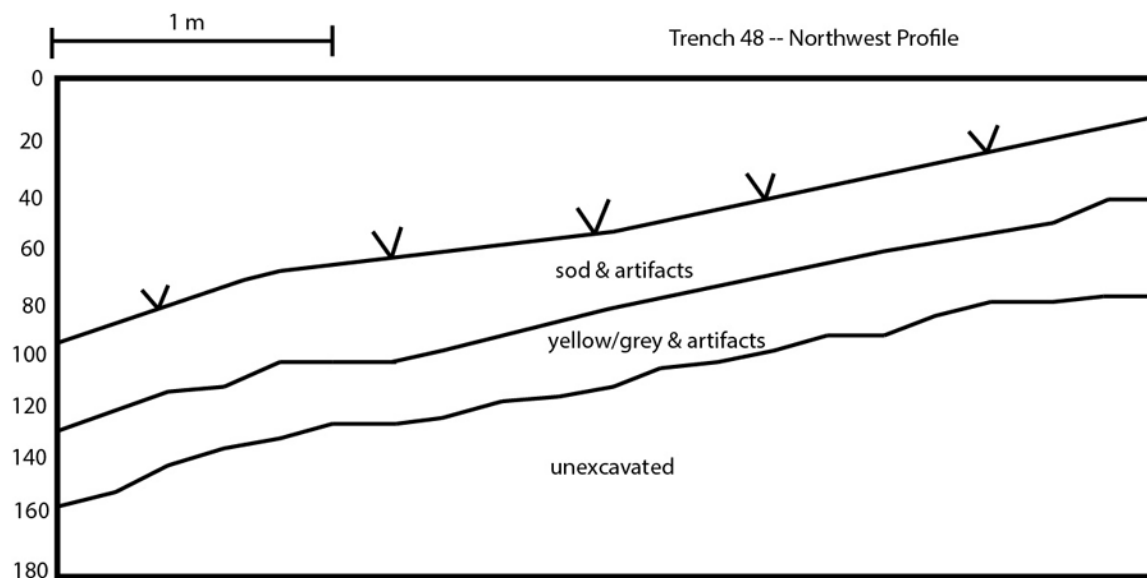


Figure 153. Trench 48 was dug on the slope of Missionary Way NE, revealing two soils with artifacts.

and a large fragment likely to be that of a cow. An unidentified shell fragment was also retrieved.

Metal and ceramic artifacts were collected from the surface, the sod zone, and the basal soil below. From the surface came a single sherd of undifferentiated whiteware, and a brass cartridge casing (Figure 154). The headstamp says “WRA Co” and “40-82 WCF,” indicating manufacture by the Winchester Repeating Arms Company. The single artifact found in the basal yellowish-grey silt was an undifferentiated whiteware sherd. The remainder of the collection came from the sod zone, and included a 7” length of 4 3/8”-diameter steel pipe (likely a sleeve for a stovepipe), a single-mantle Coleman-style lantern, the bit for a jackhammer, five small cast iron stove fragments, and a brass rivet. Ten pieces of pottery were collected from the sod zone in addition to the one specimen from the basal soil (Figure 155). Six are



Figure 154. A brass cartridge casing was found on the surface of Trench 48.

undifferentiated whiteware, while a seventh has a red decaled band around the interior of its rim. One bright whiteware sherd with an underglaze green handpainted pattern was found, along with part of a brown-glazed earthenware vessel that AOH archaeologist Dan Thompson identified as a Chinese water jar similar to specimens found at Castle Hill in Sitka -- a site from which



Figure 155. Ceramics from Trench 48 consisted of: a) brown-glazed Chinese earthenware water jar; b) undifferentiated whiteware; c) decaled whiteware; d) handpainted underglaze whiteware.



Figure 156. Trench 50 (looking southwest down Missionary Way NE) was excavated using hand tools. The cabin at upper right is KEN-031.

archaeological investigation has extracted an 1804-1867 type collection for the Russian American period (Thompson 2003).

Trench 48 reflects household debris, and the depositional process likely involved slow accumulation from sequential discard and soils eroded from upslope. The excavations did not encounter recent trash; the youngest-appearing specimens were the lantern and the jackhammer bit. The single cartridge casing from Trench 48 is useful for dating because most firearms and their cartridges have known manufacturing periods; an unreferenced comment on the internet gave a manufacturing period of 1886-1947 for the caliber, but since the Winchester Repeating Arms Company went out of business in 1932 the suggested date range for the Ninilchik specimen would be 1886-1932. The ceramics are in keeping with that date range also, with the Chinese water jar possibly being of earlier manufacture.

Trench 50

Trench 50 continued the series of hand-dug trenches up Missionary Way NE, though it was the first trench dug in the project schedule

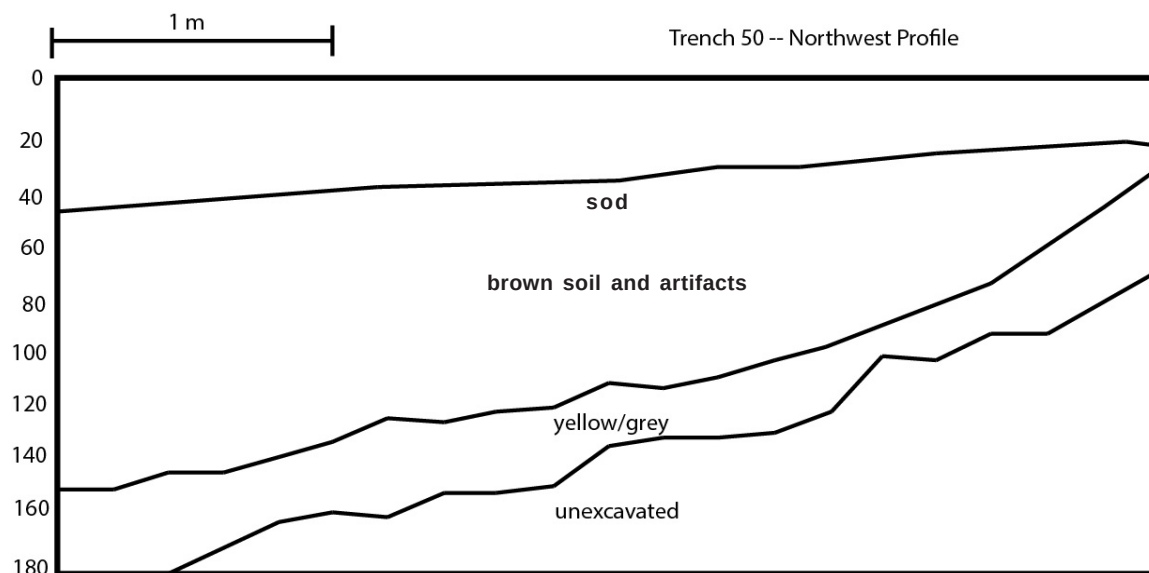


Figure 157. Trench 50's uppermost soil contained artifacts and pinched-out upslope -- possibly relating to a buried utility line later found and marked just a few inches more in that direction (northeast).

(Figures 60-61, 156). The area was vegetated in raspberries, cow parsnip, and fireweed, and beneath the sod was a brown soil containing artifacts (Figure 157). The stratum got much thicker downslope compared to upslope; a few days later a utility employee located a forgotten buried line just a few inches upslope from the trench edge (utility locates had been done prior to the start of the project), and perhaps the burial of that line years ago contributed to the stratigraphy visible in Trench 50.

Artifacts were recovered from Trench 50, but they were minimal. Retrieved from the surface were two bones -- both sawn and likely cow, with the smaller of the two wedged into the marrow cavity of the other. One small wad of rusty wire was collected, and three pieces of pottery. Two sherds were of undifferentiated whiteware, and the third is whiteware with a light-blue underglaze transfer print, suggested by Dan Thompson to be a Spode/Copeland pattern distributed by the Hudson's Bay Company after 1836 (Sussman 1979). According to Berry (1981), imports of Hudson's Bay Company goods into the United States were prohibited after 1850, so Alaska's 1867 date of entry into U.S. hands likely provides a terminal date for the ware's introduction into Alaska and Ninilchik.

Trench 50's stratigraphy is truncated upslope and comparatively thick downslope, suggesting soil has been pushed down the grade from above. It could have been from recent utilities excavations, or from historic activities such as excavation or maintenance of a nearby root cellar. If such a process took place, then the artifacts in the upper portion of the cultural stratum have been secondarily deposited. The small blue-patterned sherd (Figure 158) dates to the 1800s but doesn't necessarily date the trench's cultural depositional sequence.



Figure 158. Trench 50 produced a tiny sherd of light-blue underglaze transfer print on whiteware, a mid-1800s ware.

Trench 53

Trench 53 was dug using hand tools at the top of Missionary Way NE, where it joins Hillcrest Avenue (Figure 159). Below a dark thick organic sod was a yellow-brown soil, below which was a yellow-grey soil in which excavation was terminated (Figure 160). Chickenwire encountered in the northeast half of the trench was oriented parallel to Hillcrest Avenue and may have been part of a garden fence in its original location; it was not collected.

Bone, shell, and artifacts were retrieved from Trench 53. All four bone specimens were identified: duck or goose, ptarmigan, likely cow,



Figure 159. Trench 53 (backfilled, right of center, looking south) was dug using hand tools at the top of Missionary Way NE. Hillcrest Avenue is at the back of the photographer; log cabin KEN-560 is immediately to the right, out of the image.

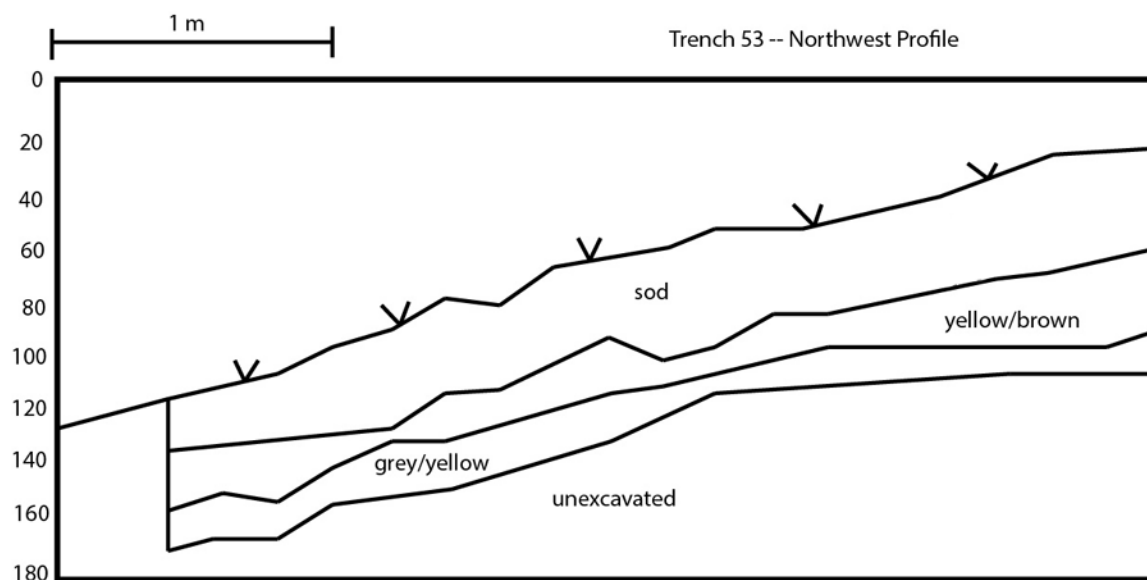


Figure 160. Trench 53 was at the top of Missionary Way NE, sloping south-southwest from its junction with Hillcrest Avenue.

and likely moose. The shell sample was formed by ten razor clam shells, four butter clam shells, and some unidentified fragments. The artifacts were of ceramic and metal, with the ceramic item being a single sherd of undifferentiated whiteware. The metal collection contained several wads of wire, four rusty wire nails, a rusty turn-key for an apparatus that had a mainspring -- like an alarm clock, and the metal reed assembly to a harmonica (Figure 161).



Figure 161. Metal objects from Trench 53 were four wire nails, a turn-key, wire, and the metal reed assembly to a harmonica.

The stratigraphy and collections from Trench 53 suggest no more than household discard, with the wire nails indicating deposition after the 1890s.

Trench 54

Trench 54 was not planned as part of the ATP, but when information was received that the intended water main alignment would strike not under Hillcrest Avenue but rather upslope from it, testing in the vicinity of two root cellars - - KEN-555 -- was conducted. Trench 54 was the first of two exploratory tests dug by hand there (the other, Trench 55, uncovered a buried root cellar and is reported in the Features chapter). The trench was oriented perpendicular to Hillcrest Avenue and trended down the slope (Figure 162). The uppermost stratum below the sod was a brown organic soil containing artifacts that plunged from 20-30 cm thick in the upper half to almost twice that in the lower half (Figure 163). Underlying that organic stratum in the upslope half of the trench was a jumbled layer

of brown and yellow-grey soil overlying a brown organic soil. The underlying stratum was a yellow-grey silt.

Cultural material was found only in the topmost stratum. Chickenwire was encountered embedded in the sod and was not retained; otherwise only bottle glass and one whole bottle were found. The whole bottle was an amber thin-walled “Stubbie” beer bottle made by the Owens-Illinois Glass Company, while two bottle bases indicated manufacture by the Pacific Coast Glass Works and the Anchor Hocking Glass Corporation (Figure 164).

The meaning of Trench 54’s stratigraphy is not clear, and an explanation for the deepening of the cultural deposit is not advanced -- a root cellar? The jumbled appearance of the strata in the upslope half of the trench is in keeping with the dynamic sliding and slumping of bluff soils observed first hand in 2012. An artifact sample containing only bottle glass does not lend much of a functional characterization to the deposit; the chickenwire found in the uppermost soil and the appearance of a rectangular clearing at this



Figure 162. Trench 54 was placed above Hillcrest Avenue next to one of the root cellars comprising KEN-555.

location in archival photographs (see cover) indicates that it was a garden space a century ago. The date ranges of the three bottle bases are: 1920s - present for the Owens Illinois Glass Company; 1937 - present for the Anchor Hocking Glass Corporation; and 1919 - 1930 for the Pacific Coast Glass Works symbol.

Summary

Of the 41 trenches dug by hand or mechanically, five revealed cultural deposits

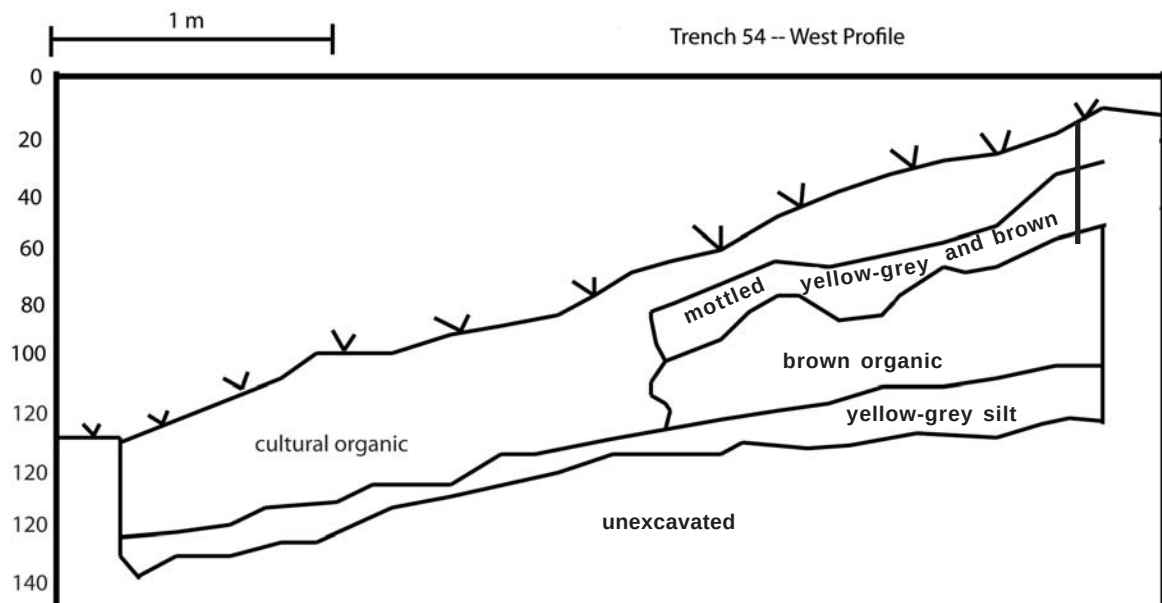


Figure 163. The organic artifact-bearing layer in Trench 54 extended abruptly to a much deeper depth in the downslope half.



Figure 164. Only glass was retrieved from Trench 54, of which there was one whole bottle (left). Manufacturers are (left to right) Owens Illinois, Anchor Hocking, and Pacific Coast Glass.

worthy of feature status and another 18 were deposits and artifacts are congruent with date discussed in this chapter for their artifact content ranges and activities indicated by the features. and potential insights into Ninilchik's history. The

Conclusions

The 2010 Archaeological Testing Plan was implemented in 2012, using a combination of mechanically excavated and hand-dug trenches, resulting in a broadly distributed sample of old Ninilchik's archaeological record. The field investigations focused on testing the water main alignments in those portions of the water project's APE judged of high or moderate potential for archaeological deposits, which was determined to be exclusively the old village; other portions of the project as planned are in areas deemed of low archaeological potential and were not further considered in the ATP. The five features recognized in the trenches, along with the contents of other trenches that did not warrant feature status, provide an indication of the village's archaeological potential.

This chapter first addresses expectations developed in the APE, and the archaeological integrity of the study area. It then briefly discusses insights into Ninilchik's history and culture based on the archaeological evidence. That information is considered in the context of National Register eligibility and the previously defined Ninilchik historic district (KEN-032), which has a period of significance of 1830-1930. The chapter concludes with recommendations for archaeological mitigation.

Comparison with ATP Expectations

The logistical aspects of the testing in October of 2012 presented few surprises, and both the mechanical and hand-tool testing proceeded more or less as planned. Conflicts with buried utilities and driveways prevented mechanical trenching in several places, but the desired geographic breadth of the sample was accomplished. The few trenches slated for handtools that were not in fact dug, due to the steepness of the slope and diminished expectations based on nearby results, were balanced by unplanned Trenches 54 and 55 and the unexpected discovery of the buried root cellar at KEN-555. Groundwater in some percentage of trenches was expected. The rate of trench excavation and recordation was as anticipated.

Based on Lascy's (1904) plat the ATP expected that remains of buildings would be uncovered in the general vicinity of the Mission Avenue junction with Missionary Way NE (Figures 26-27), but no such features were found there or anywhere (excluding the buried cellar at KEN-555). It was hoped that evidence associated with the first Russian American Company building would be found, but that was not the case, either (though circumstantial evidence suggests a likely location).

Trench	Description	Origin	Date Range
3	feature; see Table 3 for details	U.S.A.	early 1950s - early 1960s
5	see text for details		mixed: late 1800s - early 1900s
7	modern debris		1970s-1990s
10	plain molded whiteware		1850s-?
	underglaze black transfer print		1828-?
	burned porcelain doll fragment		approx. 1880s-1920s
	whiteware "Made in Japan"		post-1930
	decal/yellow-black handpainted whiteware		post-1890s
	hand-painted porcelain	Russian	
	blue willow	Chinese	
	blue underglaze		pre-1850s
11	no diagnostics		no date
13	underglaze light blue transfer print	probably Russian	likely mid-1800s
14	no diagnostics		no date
15	porcelain	Japanese	same as Trench 10
	porcelain	Chinese	"
19	light-blue underglaze transfer print		late 1800s-early 1900s
27	no diagnostics		no date
29	no diagnostics		no date
30	WRA .30 G 1906 cartridge casing	U.S.A.	1906-1932
35	bone porcelain	Japanese	no date
37	ceramic light switch fragment		1910-1920s
43	porcelain	probably Chinese	likely 1850s
44	handpainted polychrome whiteware	Dutch	likely 1840s-1850s
45	Baker & Co. Persian Rose brown transfer	U.S.A.	1828 to ?
46	porcelain child's tea cup fragment	Japanese	late 1800s-early 1900s
48	water jug lug	Chinese	mid-1850s
	WRA .40-82 cartridge casing	U.S.A.	1886-1932
50	light-blue underglaze transfer print	probably Russian	late 1800s-early 1900s
53	no diagnostics		no date
54	Pacific Coast Glass Works	U.S.A.	1919-1930
55	(buried root cellar; stratigraphy, archival images)		pre-1910s

Table 6. Estimated dates based on diagnostic items.

Some artifacts are attributable to the Russian American period; others are later (Table 6). Many of the specimens reflect wares likely in service in Ninilchik during the period spanning the late 1800s to the 1930s. A few may date to the first half of the period of significance. The date ranges for the glass bottles are mostly mid- to late-1900s, and no whole bottles dating to the earlier half of the period of significance were found. Other artifacts collected mostly reflect a broad time period. In general, though Russian American period artifacts were found, no feature

could be attributed strictly to that period of Ninilchik's past.

The ATP predicted that discovery of prehistoric artifacts was unlikely given the intensity of historic use within that portion of the APE sampled, and none were found.

Archaeological Integrity Within the APE

A goal of the archaeological testing was to determine how much of the APE contains intact archaeological deposits. The ATP

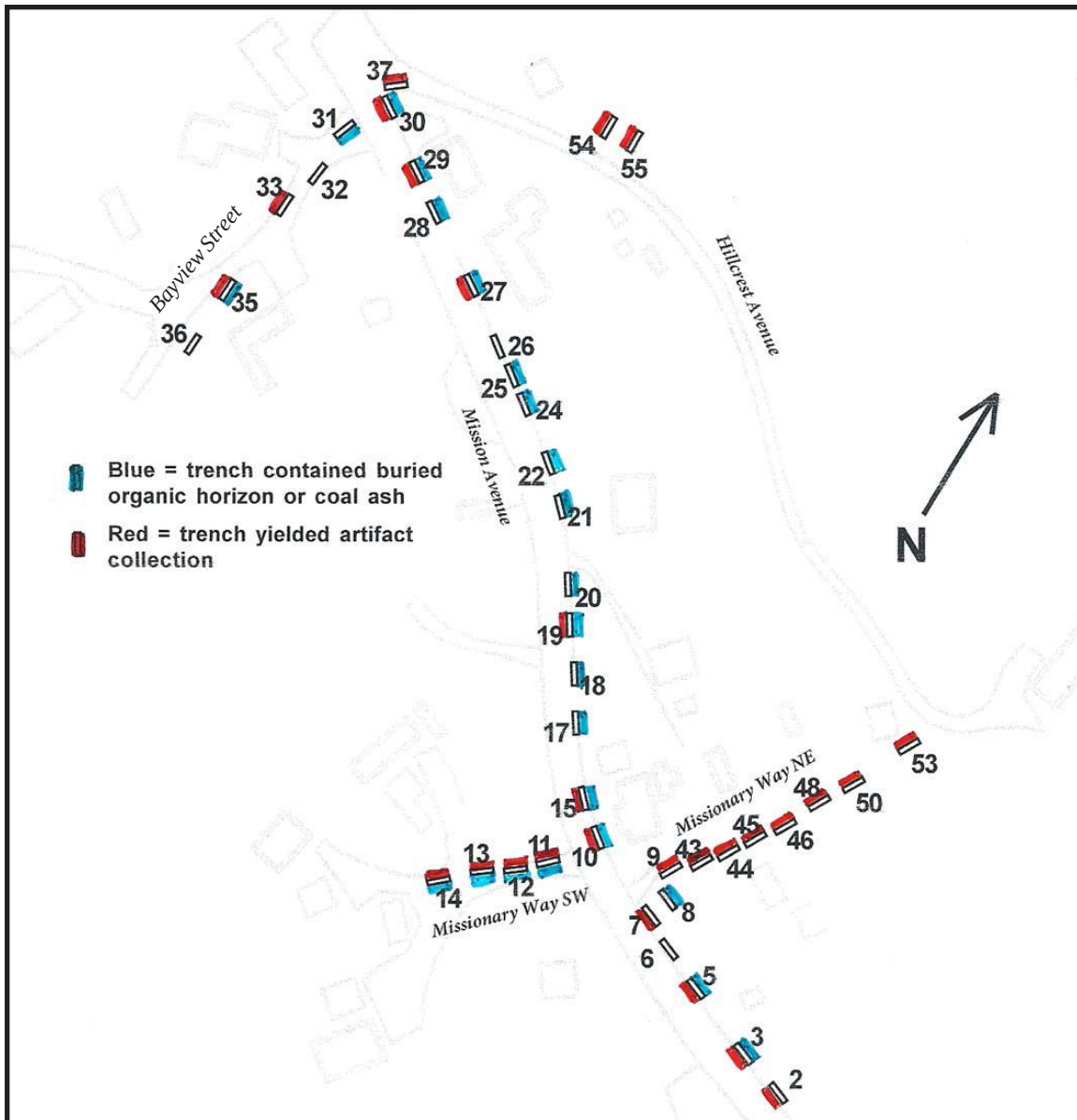


Figure 165. A map of the excavation trenches at old Ninilchik, marked blue for those that revealed a former land surface and red for those that produced artifacts, shows the most productive to have been at the southeast and northwest ends of the project.

discussed the prior disturbance history in old Ninilchik and concluded that “trenches dug for the 1999 sewer main removed between half and two-thirds of the street ROWs and probably disturbed part of what will be the water main excavation prism (the APE).” This statement was not intended to apply to upper Missionary Way (NE), but rather the other street alignments. The 2012 excavations did not test the above premise, which would have required deliberate

placement of trenches in areas thought to have been disturbed.

The 2012 investigations tested outside the supposed 1999 disturbance zone and found a buried former land surface beneath road fill in most of the mechanically excavated trenches, though those along the midsection of Mission Avenue did not produce artifacts (Figure 165). The testing demonstrated that at least along the tested portion of the ROWs the soil surface

beneath the road fill is mostly intact, with interruptions here and there. The 32 mechanically excavated trenches, each measuring about 3'x12' (one by four meters) at the top and tapering down to about 3'x9' at the bottom depth of 5'-6', sampled about 864 square feet. The nine hand-dug trenches were each about 2'x12' without much taper at the ends, for a total of 216 square feet, totaling 1080 square feet inspected in total. The project specifications of a 10'-wide excavation for a distance of 2,200', multiplied by the 1080 square feet archaeologically inspected, yields a statistic of less than 5% of the water main trench tested as part of the 2012 investigations (service lines and septic systems are yet to be addressed in the planning process).

To the 5% removed by archaeological investigation is added a percentage for disturbance by utility installation—here estimated at approximately 15%—yielding an estimated 75% of the 2,200'x10' water main excavation footprint with intact subsurface deposits.

Culture-Historical Insights

The archaeological results come from a series of narrow trenches sampling a small percentage of old Ninilchik, and expansion of the trenches to reveal more of cultural features was avoided except for the buried root cellar discovered in Trench 55. Consequently the degree to which results can be extrapolated to the site as a whole is limited, and the data are best assembled in support of archival and oral history information, which in this case is finer-grained.

To that end Alyce Anderson's photographs illustrate well what the village looked like a century ago (Figures 4, 7-9), and

the land use pattern within old Ninilchik's 13 acres has been discussed in the first two chapters. The village's preferred locations for dwellings, outhouses, and trails are evident from the Anderson photographs, and the pattern was largely continued through the subsequent century. The archaeological evidence from 2012 added little to the visualization of Ninilchik's early infrastructure.

The villagers' discard behavior is not evident from archival photographs or oral history, however, and the archaeological effort affords some insight into that. Household debris was discarded at the edge of the riverbank near the current bridge in the 1950s, according to the contents of Trench 3. Prior to that it appears to have been strewn on the surface and incrementally accumulated in the organic zone underlying the sod, particularly in the southeast part of the village up Missionary Way NE and down Missionary Way SW. The 1904 plat depicts small dwellings in this vicinity as well as the first church, so artifacts recovered here likely represent lost or discarded or abandoned household items that did not travel far from their original place of use—a big community garbage dump would not be expected next to the Russian Orthodox church, in other words. So the thick deposit of coal ash, charcoal, artifacts, bones, and architectural beams found in Trench 10 (continuing into Trench 15) may reflect deliberate demolition of buildings there after services were moved to the new church built on the bluff in 1904.

Though sawn cow bones confirm the observations of Bennett (1918:108; see sidebar on page 4) and Mae Demidoff's comment that "everybody in the village had cows" (see sidebar on page 11), the subsistence life of Ninilchik's villagers that Edward Jackinsky describes in his

Broken pottery vessels -- by-products of food preparation, storage, and consumption -- can find their way into a variety of places, including yards, areas beneath houses, cellars, ditches, abandoned wells and cisterns, and privies....features deliberately excavated for trash containment are rare occurrences.
Majewski and O'Brien (1987:185)

1975 interview (see sidebar on page 13) is also reflected in the archaeological collections. "Eleven specimens identified as moose or likely to be moose" were present in the collection, according to faunal analyst Linda Yarborough, compared to 42 specimens firmly or provisionally classified as cow (Appendix B). Two rifle cartridges, a 12-gauge shotgun cartridge, and a .45 caliber lead bullet were discovered in the excavations. Other animals represented in the faunal collection that may represent subsistence hunting include snowshoe hare, beaver, marmot, sea mammals (possibly beluga whales), duck or goose, spruce grouse or ptarmigan, and possibly caribou. The only evidence of fishing in the Ninilchik archaeological collection was a single lead net weight.

The location of the Russian American Company's first log building and sheds, erected in 1841, was not determined by the archaeological investigations. However, the archaeological results together with the oral history and archival information would suggest that those earliest buildings were probably near the intersection of Mission and Hillcrest Avenues, where Willie Dixon's vacation rental and Laura Trunnell's store are now located. Trenches 27-30 and 37 came closest to testing the suspected location, and the APE transects it.

National Register Eligibility

The Ninilchik Russian Orthodox church (KEN-046) on the bluff was declared eligible to the National Register in 1978 as part of a multiple-property nomination of other historic

churches in the Alaska diocese, but otherwise no cultural properties at old Ninilchik have been evaluated for their integrity or significance. At least a dozen buildings first assigned AHRS numbers in 2010 have been determined older than 100 years based on newly acquired photographs from the Alyce B. Anderson collection, but their evaluation was not part of the scope of work for this project.

All of the area tested is part of old Ninilchik and the Ninilchik Historic District (KEN-032), which is defined in the AHRS inventory on both architectural and archaeological grounds as "a few houses of Russian-American architecture, plus house depressions and cache pits." Nomination to the National Register was begun by the Alaska Office of History and Archaeology but was closed because the process requires concurrence with property owners. That was 40 years ago. These circumstances are taken to mean that the district and study area would currently be considered by AOHA to be determined eligible, though the nomination has not gone forward. The current archaeological investigation is based on the premise that the study area is eligible to the National Register based on Criterion A – being associated with events that have made a significant contribution to the broad pattern of Alaska and Kenai Peninsula history, and Criterion D – having archaeological deposits potentially informing on history and/or prehistory.

The period of significance for the Ninilchik historic district according to the AHRS inventory is 1830-1930. The question to be asked is whether any of the intact archaeological

deposits reflect this period, and the answer as determined from diagnostic artifacts is yes. Artifacts and the features in Trench 10 and Trench 35 include material from the Russian-American period (pre-1867) as well as the post-Russian-American period lasting up to 1930, and other trenches contain similar material in lesser numbers. The 2012 archaeological testing recovered cultural material contributing to the historic district. Artifacts from the period of significance are under the road bed and generally strewn along Missionary Way and Mission Avenue where the two intersect, and at the southwest end of Mission Avenue and parts of Bayview Street.

Recommendations for Mitigation

Archaeological features potentially eligible to the National Register exist within the project APE, and — given that the 2012 testing sampled only five percent of the water main disturbance prism — the existence of other significant features in the APE is statistically likely. Artifacts dating from the older decades of the period of significance were recovered from over a dozen trenches. Their distribution parallels that of the sample overall, the pattern being that most of the trenches along Mission Avenue from Deanna Smith's garage northwest to the store did not produce artifacts. Of the nine trenches from Trench 17 to Trench 26, only one — Trench 19 — yielded artifacts.

Avoidance is recommended for the one buried and two surface root cellars (KEN-555) recorded near the bottom of Hillcrest Avenue. Prior drawings of the intended water line alignment called for placement of the pipe in a trench upslope from the existing road, which would require disturbance of at least the buried

example if not all three. Plans now call for installation of the water line directly below the existing roadbed of Hillcrest Avenue, in which case disturbance of the upslope bank and the root cellars it contains will be avoided. Another set of four root cellars on private property beginning less than 10' east of Trench 53, at the top of Missionary Way NE and thus far lacking an AHRS number, should also be avoided.

Under current plans disturbance to potentially significant archaeological deposits under Missionary Way NE and SW, Mission Avenue, and Bayview Street cannot be avoided. Based on artifact densities, the midden deposits in Trench 10 (along with Trench 15) and Trench 35 hold potential for yielding information satisfying Criterion D as part of the historic district's National Register eligibility. The hand-dug trenches along Missionary Way NE, the mechanically dug trenches along Missionary Way SW, and most of the mechanically dug trenches along Mission Avenue on either side of its intersection with Missionary Way contained artifacts and buried organic or coal ash layers, with some of the artifactual material dating to the early portion of the period of significance. Artifact densities increase towards the southwest end of Mission Avenue and continuing on Bayview Street to Trench 35.

The roadbed of Hillcrest Avenue was not excavated except for its very point of intersection with Mission Avenue at the bottom of the hill. However, the pronounced profile of the upslope and downslope banks, recently cleaned ditches, and antiquity of alignment indicated in archival photographs suggests that the roadbed has been disturbed enough to degrade its archaeological potential.

Artifact densities across old Ninilchik as indicated by the trench results, and the analysis

of 1904 historic building locations from the ATP, form the basis for recommending further archaeological mitigation. The southeast portion of the village sampled by trenches on Missionary Way NE and SW and in both directions from their intersection with Mission Avenue produced artifacts from the period of significance. This area was occupied by several buildings including residences when it was surveyed in 1904. The collections from the trenches on Missionary Way NE, where there has been no road disturbance, are of note for lacking recent material, and the potential for historic outhouse holes in that vicinity remains high despite none being found by the 2012 testing. During the fieldwork an unidentified local individual stopping to observe the excavation of Trench 10 mentioned that his elderly uncle had told him we would “find a lot more stuff” if we moved over to the other (southwest) side of Mission Avenue, implying that the village’s traditional discard pattern was more southwest from where the road was built. The thick artifact-rich midden in Trench 10 attests to the potential for additional excavation and recovery of archaeological information dating to the period of significance.

The northwest portion of the village sampled by trenches at the end of Mission Avenue and along Bayview Street also produced artifacts from the period of significance. Within the greater topography of the Ninilchik River’s mouth – elevated above the river flood level, at the base of the bluff, protected by the barrier spit — this small south-facing area would have been favored by Russian colonists and their families (many of whom were of Alutiq origin and also traditionally favored such places). The owner of the lot immediately inside the intersection of Mission Avenue and Hillcrest Avenue, Willie Dixon, made several statements

to the crew about the volume of historic artifacts he disturbed in developing his current vacation rental property. There was so much interesting material coming out from under the bulldozer blade that he stopped collecting it, he said, and simply pushed it up along both sides of the road intersection to make a V-shaped berm of artifacts with a lawn growing over it. Store owner Laura Trunnell made similar comments regarding historic artifacts uncovered while digging on her store lot next door, and showed us a long wood-handled seal flenser that was found buried there (Figure 63). Another individual showed us an early 1900s silver dollar from the Philippines that she’d found not far from the store. These anecdotal discoveries and the results of the testing indicate that Hillcrest Avenue/northwest Mission Avenue intersection likely holds archaeological information dating to the period of significance.

Therefore, at a minimum, it is recommended that an archaeological monitor be present to recover significant archaeological information that might be revealed during construction of the water main on: a) Mission Avenue from the bridge to Deanna Smith’s garage; b) upper Missionary Way (NE) from Mission Avenue to Hillcrest Avenue; c) lower Missionary Way (SW); d) Mission Avenue from the store to the intersection of Hillcrest Avenue; e) the lowermost 100’ of Hillcrest Avenue; and f) Bayview Street from Mission Avenue to the Trench 35 vicinity (Figure 166). Work areas not recommended for archaeological monitoring are the stretch of Mission Avenue between Deanna Smith’s garage to the store, and Hillcrest Avenue from its uppermost (northeast) end down to about 100’ from its intersection with Mission Avenue. It is further recommended that standard protocols for archaeological

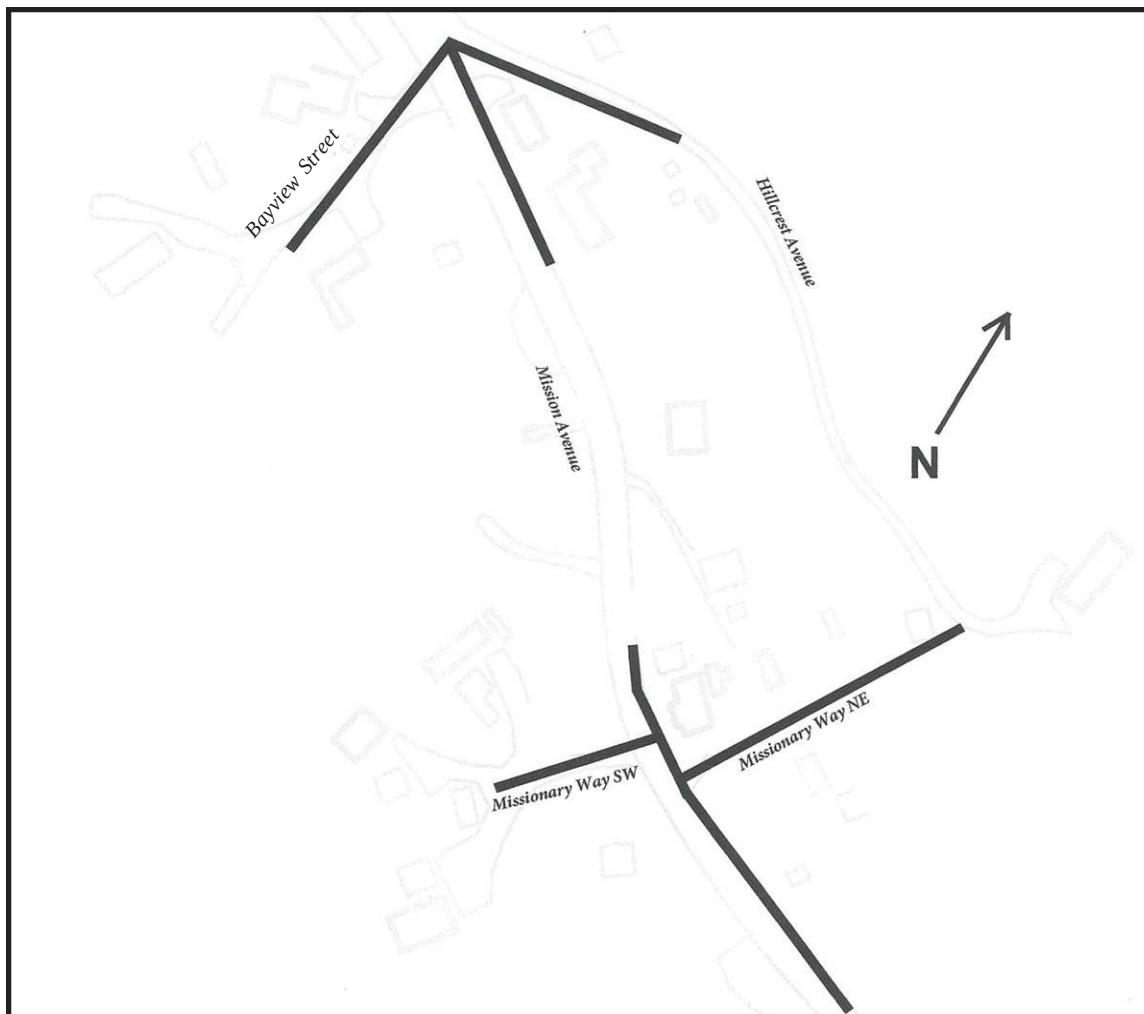


Figure 166. Recommended at a minimum is an archaeological monitor during construction of most of the APE except for the central part of Mission Avenue.

monitoring, in which construction is halted while significant finds are recovered and recorded by the archaeologist, be followed. If the risk of such delays is unacceptable and is to be minimized, then a data-recovery mitigation effort aided by mechanical equipment could efficiently address Missionary Way NE and SW prior to construction. The other portions of the ROW are not so easily addressed in such a manner

because of the thickness of the roadbed, so archaeological monitoring during construction may be the best and only option there.

If cultural resources are revealed during construction on segments for which no monitor is required, it is recommended that work be halted in the vicinity until the SHPO and landowner can be consulted.

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Appendix A: Photographic Catalog of Ninilchik's Old Buildings

A photographic catalog of Ninilchik's old buildings appeared in the Archaeological Testing Plan (Mobley 2010), but additional information acquired since then is added to this version. In particular, the newly accessed Alyce Anderson collection confirms that several buildings were present by 1911-1918, making them at least 95 years old and probably older. The Ninilchik historic district (KEN-032), though not explicitly defined in the statewide Alaska Heritage Resource Survey (AHRS) system, likely includes all the properties listed here except for KEN-553 and KEN-560. Each is illustrated and briefly described in order of its AHRS number. See the map on the inside front cover for building locations within Ninilchik.



KEN-031 -- the Old Russian Orthodox church schoolhouse, looking north, was plotted on Lascy's (1904) plat for USS 367 in approximately the same location and orientation as it is now. Alyce Anderson taught her first two years of public school at Ninilchik (1911-1912, 1912-1913) in the cabin, rented for that purpose from the church.



KEN-046 -- Holy Transfiguration of our Lord Chapel -- the Russian Orthodox church in USS 367, Tract A, looking north, is now a well-maintained building. Villagers had just moved out of the old church and into this new one in 1904, according to Lascy (1904). The AHRS form describes the building as about 20'x50' in size, with a modified cruciform floor plan containing an open porch, two-story vestibule with a square lantern element, nave, and sanctuary.



KEN-218 -- the Frances-Rose store, looking east. According to the AHRS form, the composite building first consisted of a one-story log cabin built by John Astergin in the 1880s, and is also known as the Astergin-Cooper-Churkin-Kraskoff house. Later another one-story log addition with dovetailed joints was built on the east, and then three frame additions -- two two-story -- were built on the west and north. The building is currently home to Laura Trunnell.



KEN-550 -- A large 1.5-story frame building located at the end of Mission Avenue, where the bridge used to go across the creek, shows in a 1911-1918 photograph. At that time a shed-roofed block extended across the entire north wall; a remnant of it remains at far right. At various times the building served as a dance hall, pool hall, and post office. Windows are 6/6 double-sashed wood examples.



KEN-551 -- A cabin with logs hewn square, here looking north-northeast in 2010, shows in the same location in two of Alyce Anderson's 1911-1918 photographs. By 2012 the building had been removed and relocated out of the old village.



KEN-552 -- The log cabin at left has been shifted southwest (to the right) about one building's length and joined to a newer building constructed on-site in about 2000. The older building shows in Alyce Anderson's 1911-1918 photographs. Current residents are Steve and Monica Vanek. According to Ms. Vanek, Butch Leman told her "a bunch of fir logs got lost in the inlet, so Grandpa Leman collected them and made the house of them."



KEN-553 -- This log cabin (here looking northeast) was reportedly moved to Ninilchik from somewhere else and placed on a newly graded site in about 2009-2010. Some residents call it "Chaika's Roost." The sign on the building reportedly says "Vote for Frank Tupper" in Cyrillic.



KEN-554 -- A frame cabin locally referred to as “the Red House” in obvious reference to its paint, here looking north, shows in Alyce Anderson’s 1911-1918 photographs. It was the residence of Mike Oskolkoff, who owned a large flat-roofed commercial building downslope (since demolished) in which he had a store and sometimes held dances, according to Mae Demidoff.



KEN-555 -- A root cellar ruin with a gabled superstructure (visible here) and another without its superstructure 20’ to the west, were recorded in 2010. At least one of the two shows in Alyce Anderson’s 1911-1918 photographs.



KEN-556 -- This green house with 6/6 double-sash windows is remembered as Nadia Oskolkoff's house, and is said to be a log building beneath the milled siding. Lascy (1904) plotted the building on USS 367. Here viewed east, in 2010, the building partly hides the pad for the new Russian Orthodox church rectory at right.



KEN-557 -- Here viewed northwest in 2010, the Jackinsky cabin still displayed numbered logs showing how the building components were numbered, disassembled, and reassembled closer to Mission Avenue with the axis shifted 180 degrees. A 1952 photograph shows the building with the shorter roof facing left, towards the southwest.



KEN-558 -- A frame house just northwest of the old Russian Orthodox church school (KEN-031) shows in a 1952 photograph as well as a 1953 photograph and later images, though an image (UAA-hmc-1019-seriesGb-6-2) posted online and reportedly dated 1952 shows the building absent.



KEN-559 -- This distinctive log cabin has been moved several times, according to Mae Demidoff, who said "I used to wish they'd just give it a rest!" Archival photographs show it near the river between the dance hall (KEN-550) and KEN-551 from at least 1918 to 1961. In this 2010 view it had been moved south of the midpoint of Mission Avenue.



KEN-560 -- This log cabin at the top of Missionary Way is said to have been moved from the Cooper homestead and installed at its present location sometime after 2000.



KEN-561 -- A log cabin on pilings by the river at the north corner of the village, composed of many short hewn logs butted end-to-end, is called the Creole Cabin and was built by John Astergin in about 1903 according to the AHRs form for KEN-060 (the building was inadvertently assigned a second number).

Appendix B:
Faunal Analysis of Bones Excavated during
Archaeological Testing in 2012
for the Ninilchik Water and Sewer Improvements

By

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May 12, 2013

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Introduction

In the fall of 2012 Charles M. Mobley and Associates conducted archaeological testing for water and sewer improvements in the village of Ninilchik on the Kenai Peninsula. The resulting cultural assemblage includes a small faunal assemblage. Charles M. Mobley and Associates contracted with Cultural Resource Consultants LLC to provide taxonomic identification of the animal bones, and a short analysis of cut marks.

Linda Finn Yarborough, assisted by Aubrey L. Morrison, examined a total of 160 bones and bone fragments from 18 trenches for morphological identification to the lowest possible taxon and documentation of cuts marks (Table 1). Specimens were compared to the comparative faunal collection of the Alaska Consortium of Zooarchaeologists (ACZ), located at the archaeological laboratories of the Anthropology Department of the University of Alaska.

Table 1. Specimen quantities by excavation unit.

Trench Number	Stratigraphic Level	Number of specimens
2	1	2
3	2	7
3	3	1
5	2	2
10	2	3
10	3 west	31
10	4 east	34
10	A east	4
10	B west	2
10	Under plank	3
11	2	3
12	2	1
13	2	1
15	2	7
19	2	2
29	2	2
35	2	15
35	Backdirt	1
37	2	4
44	2	3
44	Sod	5
45	1	4
45	2	1
46	2	2
48	1	1
48	5	3
50	1	2
53	1	10
53	2	4

Results of Analysis

The assemblage consists of a total of 20 bird and 140 mammal specimens (Table 2). Only 17 of these were whole bones. The rest ranged in size from small fragments,

some of which were identifiable only to class to larger pieces that were identifiable to general taxa or, in some cases, to species. Almost half of the assemblage, 77 specimens, came from trench 10, near the intersection of Mission Avenue and Missionary Way.

Bird taxa identified include duck or goose (*Anatidae*), spruce grouse and/or ptarmigan (*Tetroninae*), and domestic chicken (*Gallus gallus*). Eight of the 20 bird specimens were identified only to class as *Aves*. One of these is an unidentified ulna from a prefledgling or fledgling.

The rest of the assemblage includes both land and sea mammal remains. The majority of the specimens are land mammal, including moose (*Alces alces*), cow (*Bos taurus*), snowshoe hare (*Lepus americanus*), and rodent fragments the size of beaver and marmot (*Sciuridae* and *Rodentia*). Only five specimens were identifiable as sea mammal, one of which is whale (*Cetacea*), possibly beluga (*Delphinapterus leucas*). Twenty specimens were only identifiable to class as mammal.

Table 2. Specimen Identifications.

Taxon	Number of Identified Specimens	
Aves (bird)		
<i>Anatidae</i> (duck or goose)	1	
<i>Falci pennis canadensis</i> (Spruce grouse)	4	
<i>Tetraoninae</i> (grouse or ptarmigan)	3	
<i>Gallus gallus</i> (chicken)	4	
<i>Aves</i>	8	
Total Aves		20
Mammalia (mammals)		
<i>Alces alces</i> (moose)	5	
<i>Cervidae</i> , likely <i>Alces alces</i>	6	
<i>Cervidae</i>	1	
<i>Bos taurus</i> (cow)	17	
<i>Artiodactyla</i> , likely <i>Bos taurus</i>	25	
<i>Artiodactyla</i> , either <i>Bos taurus</i> or <i>Alces alces</i>	7	
<i>Lepus americanus</i> (snowshoe hare)	1	
<i>Sciuridae</i> (likely <i>Marmota caligata</i> , hoary marmot)	1	
<i>Rodentia</i> (<i>Sciuridae</i> or <i>Castoridae</i>)	1	
<i>Cetacea</i> (possibly <i>Delphinapterus leucas</i>)	1	
Large Land Mammal	21	
Medium Land Mammal	9	
Land Mammal	2	
Sea Mammal	5	
Small to medium mammal	3	
Medium Mammal	3	
Medium to Large Mammal	3	
Large Mammal	9	
Mammal	20	
Total Mammalia		140
Total Number of Specimens	160	

Bird bones were only identified from four trenches:

- trench 3, level 2 (chicken)
- trench 10, level 3 west (*Tetraoninae*), level 4 east (*Tetroninae* and unidentified), and level A east (*Tetraoninae*)
- trench 48, from the screen (unidentified)
- trench 53, level 1 (*Anatidae* and *Tetraoninae*).

Mammal remains were identified from all the trenches, although sea mammal bones were only found in trench 44, sod level (*Cetacea*); trench 15, level 2 (sea mammal), and trench 10, level 3 west (sea mammal).

Eleven specimens identified as moose or likely to be moose were found in six trenches:

- trench 10, levels 4 east and B west
- trench 29, level 2
- trench 35, level 2
- trench 45, level 1
- trench 46, level 2
- trench 53, level 1

The antler fragment only identifiable to *Cervidae* also was from trench 10, level 3 west.

The 42 specimens identified as cow or likely to be cow were found in twelve trenches:

- trench 3, level 3
- trench 10, levels 3 east, 4 west, and “under plank”
- trench 11, level 2
- trench 15, level 2
- trench 19, level 2
- trench 35 level 2
- trench 37, level 2
- trench 44, sod
- trench 45, level 1
- trench 48, level 1
- trench 50, level 1
- trench 53, level 1

Seven bones are likely either moose or cow, but were only identifiable as large land mammal. These came from trenches 5, 10, and 46.

The one bone from a snowshoe hare was identified from trench 35, level 2. The broken *Sciuridae* mandible is from trench 45, level 2; and the broken *Rodentia* tooth from trench 10, level 3 west.

Cut and Broken Bones

Only 13 bones from the assemblage were whole with no cut marks. Of the remainder, 9 had cut marks, but no breaks; 84 were broken, but had no cut marks, and another 54 exhibited both breaks and cut marks. With the exception of one cut medium mammal bone, the small to medium land mammal bone and the bird bones were either whole or broken, but not cut.

Of the 63 specimens with cut marks, 43 were moose, cow, large land mammal or sea mammal bones that had been cut laterally with a saw. This was most likely associated with butchering activities. Lateral cuts are oriented from medial to lateral sides of the bone, or straight across a long bone diaphysis. Longitudinal cuts are oriented from the proximal to distal ends of a bone. The lateral cuts observed in this assemblage were across long bones, including a humerus, a tibia, an ulna, a radius, two metacarpals, a metatarsal; as well as a tarsal, a sacrum, long bone fragments, and ribs.

Other bones that exhibited saw cuts were vertebrae and pieces of pelves. These cuts were also likely associated with butchering activities. Vertebrae were cut irregularly. Some were cut in an anterior to posterior and dorsal to ventral orientation, others had various lateral and dorsal processes removed. Several saw cuts on ribs and long bone segments were diagonal in orientation. Because of the fragmentary nature of some of the bones, the orientation of some saw cuts was not discernible.

Lateral saw cuts on lower leg bones, such as tibia, ulna and radius, and metapodials, may have been associated with preparing a carcass for hanging during the ageing process prior to meat removal. Other saw cuts may have been associated with processing the carcass into sections suitable for cooking, such as cow ribs sawn for short ribs. In a few cases, the bones had been sawn and snapped.

Summary

All of the species identified are consistent with domestic animal husbandry or hunting of wild species during the historic period. The wild species identified would have been available during the nineteenth and twentieth centuries, with the possible exception of moose. The presence of moose on the Kenai Peninsula during the prehistoric period is debated. Biological research suggests that moose may have existed in low densities in late-successional forests on the Kenai Peninsula by the mid-nineteenth century (Hundertmark et al. 1992:17). Moose populations increased

rapidly on the Kenai Peninsula after major forest fires in the late nineteenth and early twentieth centuries.

During the Russian period, cattle were introduced to Kodiak. Although the Rules of the Russian American Company authorized the village head, or toion, keep a cow to provide milk if local conditions allowed, cows were not common in villages (Luehrmann 2008: 90). During the American period, the U.S. Department of Agriculture established an agricultural experiment station at Kenai, north of Ninilchik, in 1899. However, many of the Kenai residents were already raising cattle before that time (U.S. Department of Agriculture 1902: 251).

The majority of the cut marks noted on the bones suggest butchering with a steel saw. The way in which the bones were cut – particularly through vertebrae and lower leg bones – is consistent with historic butchery methods. Some of the cattle mid-rib fragments may be consistent with butchering for short rib (Shulz and Gust 1983:48). However, no other particular cuts of meat are indicated by the assemblage.

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