ADEC File No.

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Alaska Department of Environmental Conservation

Reuse & Redevelopment Initiative

Brownfield Assessment

Property Assessment and Cleanup Plan

Buckner Building

Whittier, Alaska

Submitted to:
Department of Environmental Conservation
Reuse and Redevelopment Program

By:
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EXECUTIVE SUMMARY

This Property Assessment and Cleanup Plan (PACP) was prepared for the Buckner Building in Whittier, Alaska (the Property), by Shannon & Wilson, Inc. under contract to the Alaska Department of Environmental Conservation (DEC). The overall purpose is to develop a professional opinion as to the presence of recognized environmental conditions (RECs), as defined by ASTM International (ASTM) Standard E 1527-13, and otherwise identify environmental hindrances which could limit future beneficial reuse of the site. This document is intended to support planning for corrective action which may be required prior to reuse and/or redevelopment of the Property.

The PACP effort consisted of compiling information to document current and historical uses and activities at the Property. Sources reviewed included historical aerial photographs, federal and state databases, public utility records, and interviews with City of Whittier representatives and others knowledgeable about the Property. Two limited site reconnaissance investigations were conducted to obtain additional information about potential environmental concerns.

Recognized Environmental Conditions

A REC is the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. This assessment revealed no evidence of RECs in connection with the Property or adjacent properties except for the following:

<u>On-Site Recognized Environmental Conditions</u>

According to architectural drawings, a 2,500 gallon gasoline underground storage tank (UST) was installed on the south side of the Buckner Building, between Sections B and C. It is unknown if the UST is still present on the Property. Additionally, exterior piping was observed near the northwest corner of Section C and near the northeast corner of the building at Section G. The exterior piping may be associated with a UST(s). In our experience, it is common for petroleum products to be present in soils in the vicinity of USTs, due to both known and unknown or undocumented releases over time.

A black, oily substance was observed beneath the oil-filled switches in the basement electrical distribution rooms. Based on our current understanding of the switches, the oil may contain polychlorinated biphenyls (PCBs). In addition, light ballasts likely containing PCBs were observed dangling from the ceiling throughout the structure. There is a potential that PCBs from the switches and light ballasts have impacted the building's floor and have the potential to enter floor drains. PCBs are regulated under the Toxic Substances Control Act (TSCA) and DEC contaminated site regulations.

We understand the structure's floor drains and sumps discharge to Passage Canal. There is a potential that hazardous building materials suspected in the building (i.e. asbestos-containing materials [ACM] and PCBs) and petroleum could enter the wastewater system through the floor drains and sumps and impact Passage Canal.

ACM and lead-containing materials are likely present on the exterior of the Buckner Building. There is a potential that flaking, weathered lead-based paint could impact the Property's exterior surface soil. Additionally, because windows and doors are not weather tight, ACM in the building that dries out and becomes airborne could transport asbestos outside the building. Furthermore, ACM is suspected in multiple materials within the Buckner Building. We conclude that regardless of whether the structure is demolished or renovated, abatement will be necessary for reuse and redevelopment. Due to the extensive volume and level of damage to the ACM, we recommend that access to the building be limited to certified asbestos workers wearing suitable personal protective equipment. ACM is a regulated hazardous air pollutant under the Clean Air Act, and is therefore subject to federal regulation as a hazardous substance.

Ammunition fragments are present at the target line of the former rifle ranges in the basement of the Buckner Building. Because these fragments likely contain lead, it is our experience that both the target line sand and spent ammunition fragments are solid wastes subject to hazardous waste regulation under the Resource Conservation and Recovery Act (RCRA).

Three empty 55-gallon drums were observed in Section B and one empty 55-gallon drum was observed in Section G of the structure. In addition, multiple 5-gallon buckets with unknown contents were observed. The drums were not labeled and the nature of the containers' current and/or former contents is unknown. Evidence of leaks and/or spills was not observed during our September and October 2014 site visits, although the drums were damaged (i.e. had holes, were corroded and showed signs of potential freeze/thaw damage) and may have leaked their contents resulting in impact to the Property. Note that a comprehensive waste inventory was outside the scope of this PACP.

Other Environmental Conditions

Other Environmental Conditions include known, suspected, or potential sources of hazardous substances or petroleum products that are not considered RECs due to (a) the absence of a confirmed release or other material threat, (b) insufficient information to sufficiently evaluate the condition, (c) de minimis conditions that are not expected to be subject to regulatory action or (d) exclusion from the ASTM definition of hazardous material (e.g. ACM). No Other Environmental Conditions were identified on the Property except for the following:

- Six elevators provide access to the building's eight floors. Due to safety concerns, the bases of the elevator shafts were not assessed. If the bases are not finished with cement, there is a potential that hydraulic and/or other maintenance fluid could impact the Property's soil and/or groundwater.

- Based on observations during our September and October 2014 site visits, and aerial photograph review, the Property has been used to store unused and/or discarded materials that may be classified as solid waste per state and federal regulations. Among the miscellaneous items observed throughout the Property, sources of potential contamination include but are not limited to chemical containers, aerosol cans, tires, vehicles, construction materials, scrap metal, and discarded equipment.
- Off-site fill has been deposited on the Property. Imported fill material may be a concern if contaminants are present within the material.
- Extensive mold was observed on the walls and floors of the structure, most notably in the basement, ground floor, and first floor.
- Evidence of a former fuel-fired emergency generator was observed in Section A in the room adjoining the electrical distribution room. A hydrocarbon odor was noted in the emergency generator room and surface staining was observed on the concrete pad that the generator was presumably mounted, on suggesting previous hydrocarbon release(s).
- A dry cleaning facility previously operated in the eastern portion of the first floor. No evidence of chemicals or chemical storage areas was observed in the former dry cleaning or laundry rooms but chemicals were likely used and could have impacted the structure and/or surrounding ground.
- A loading dock constructed from possible creosote treated railroad ties is located near the southern corner of the building. It is possible that creosote logs may have impacted the soil on the Property.
- Mr. Mark Lynch, City Manager, speculated that above ground and/or underground storage tanks used for heating fuel may have been used on the Property
- Other hazardous materials that may be present in the building include lead-containing, mercury-containing, petroleum products, and ozone depleting substances.

The Buckner Building has been deemed a historic building and is eligible for inclusion on the National Register of Historic Properties. Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies take into account the effects of activities on historic properties. A Section 106 evaluation will be needed to determine if removal of hazardous materials will adversely affect the building.

Because there are potential source areas that have not been investigated (i.e. exterior piping of unknown origin and purpose, current status of the 2,500-gallon UST, PCB content in switch oil, etc.), we recommend additional site characterization in addition to remediation for the Property. The rough order of magnitude (ROM) cost of site characterization and remediation is estimated at $9,000,000. Note that over 90 percent of the ROM cost is for ACM abatement. Due to the level of uncertainty in volume of hazardous building materials and other data gaps, we recommend a planning contingency of 50 percent.

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ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
AAC	Alaska Administrative Code
ACD	Alaska Community Database
ACM	Asbestos-containing material
ADNR	Alaska Department of Natural Resources
ARRC	Alaska Railroad Corporation
AST	Aboveground Storage Tank
ASTM	American Society for Testing of Materials International
BLM	Bureau of Land Management
BTEX	Benzene, toluene, ethylbenzene, and xylenes
CAB	Cement Asbestos Board
CERCLIS	Comprehensive Environmental Response Compensation and
CFR	Code of Federal Regulations
COC	Contaminant of Concern
CORRACTs	TSD Facilities Subject to Corrective Action
Cy	Cubic Yards
DBA	DEC Brownfields Assessment
DEC	Alaska Department of Environmental Conservation
DOD	Department of Defense
DOI	Department of Interior
DRO	Diesel Range Organics
EHS	EHS Alaska, Inc.
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
GRO	Gasoline Range Organics
GSA	Government Services Administration
HAZWOPER	Hazardous Waste Operations and Emergency Response
HBM	Hazardous Building Materials
HVAC	Heating, ventilation, and air conditioning
IDW	Investigation Derived Waste
kVA	Kilovolt-amps
LUST	Leaking Underground Storage Tank
NESHAP	National Emission Standards for Hazardous Air Pollutants

ACRONYMS AND ABBREVIATIONS (continued)

NHPA	National Historic Preservation Act
NTP	Notice to Proceed
NONCORRACTS	TSD Facilities Not Subject to Corrective Action
NPL	National Priorities List
NWI	National Wetlands Inventory
PACP	Property Assessment and Cleanup Plan
PAH	Polynuclear Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyls
POL	Petroleum, oil, and lubricants
PPE	Personal Protective Equipment
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
ROM	Rough Order Magnitude
RRO	Residual Range Organics
SHPO	State Historic Preservation Office
TCLP	Toxicity Characteristic Leaching Procedure
TSD	Treatment, Storage, and Disposal
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
WELTS	Well Log Tracking System

PROPERTY ASSESSMENT AND CLEANUP PLAN
BUCKNER BUILDING
WHITTIER, ALASKA

1.0 INTRODUCTION

This Property Assessment and Cleanup Plan (PACP) was prepared by Shannon & Wilson, Inc. (Shannon & Wilson) for the Buckner Building in Whittier, Alaska (the Property). The City of Whittier was awarded an Alaska Department of Environmental Conservation (DEC) Brownfield Assessment (DBA) in 2014 for assessment of the Property. Figure 1 provides an overview of the Whittier vicinity. The DBA request is provided in Appendix A.

1.1 Purpose and Objectives

The overall purpose is to develop a professional opinion as to the presence of recognized environmental conditions (RECs), as defined by ASTM International (ASTM) Standard E 1527-13, and otherwise identify environmental hindrances which could limit future beneficial reuse of the site. This document is intended to assist the City of Whittier in determining corrective action that may be necessary to make a decision to return the Buckner Building to beneficial use or to demolish the structure, and/or to protect public safety and human health.

1.2 Scope of Services

Although this PACP is prepared for the DEC, a primary objective is that it will be of use to the City of Whittier in support planning for corrective action which may be required to reuse and/or redevelop the Property. The work was performed for the DEC Division of Spill Prevention and Response under Term Contract 18-8036-03. The scope of work was based on the DEC's May 22, 2014 request for proposal and performed in material accordance with Shannon & Wilson's June 2, 2014 proposal. Authorization to proceed with the PACP effort was provided by the DEC in the form of Notice to Proceed (NTP) 18-8036-03-023, dated July 21, 2014. The NTP was modified in consultation with the DEC project manager on October 17, 2014 to include a second site visit to further investigate a fuel storage tank, transformers, and boilers not identified during the initial site visit.

The work for this project included three primary tasks: (1) conducting a stakeholder scoping and planning meeting; (2) performing a property assessment and hazardous building materials assessment; and (3) preparing the PACP document with recommendations for corrective action and associated remedial costs.

The property assessment included a compilation of information to document current and historical uses and activities at the Buckner Building and adjacent parcels. Two limited field investigations were conducted to evaluate potential or suspected environmental conditions that could pose a threat to human health or the environment or hinder the safe redevelopment of the Buckner Building. The hazardous buildings materials assessment included a visual inspection of the Buckner Building and was subcontracted to EHS-Alaska, Inc. (EHS) of Eagle River, Alaska

2.0 COMMUNITY OVERVIEW

A brief history of Whittier is included in the on-line Alaska Community Database (ACD). A port and railroad terminus were constructed by the U.S. Army for transporting fuel and other supplies to Alaska during World War II. In 1943, a railroad spur and two tunnels provided access to Whittier and the Whittier Port became the entrance for soldiers into Alaska. The Whittier Port was an active Army facility until 1960. In June 1966 the Port of Whittier was turned over to the General Services Administration (GSA) for release from Department of Defense (DOD) ownership.

Whittier is presently a second-class city in the Valdez-Cordova census area and was incorporated in 1969. Whittier is accessible by road, rail, the state ferry, boat, and air. Since 2000, the Anton Anderson Memorial Tunnel has provided road connection from the Seward Highway via the Portage Glacier Highway. Air travel is supported by a state-owned gravel airstrip and a city-owned seaplane dock. Whittier is a year-round ice-free port and is a major hub for marine activity and freight transfer from barges servicing south-central Alaska.

2.1 Location, Climate, and Geologic Setting

Whittier is located at the head of Passage Canal, a fjord in Prince William Sound, on the northeast shore of the Kenai Peninsula. Whittier is approximately 58 miles southeast of Anchorage.

The Whittier townsite lies on a fan-shaped delta on the south side of Passage Canal. The delta is bordered by Whittier Creek on the west, a mountain range on the east, and Passage Canal to the north. The city limits encompass a total of 17 square miles, including the townsite delta, the west delta near the Anton Anderson Memorial Tunnel, and undeveloped land eastward to Shotgun Cove.

The climate of Whittier is dominated by a strong marine influence. Average annual precipitation is 197 inches and average annual snowfall is 241 inches. According to ACD records, average daily temperatures during summer months range from around 49 degrees Fahrenheit (°F) to 63 °F and winter temperatures average between 17 °F to 28 °F.

The local geology in Whittier is dominated by the Chugach Terrane. The Chugach Terrane parallels the southern coast of the Gulf of Alaska from Kodiak Island across the Kenai Peninsula and to Baranof Island in southeast Alaska. The Chugach Terrane is an accretionary wedge that formed during the Mesozoic Age and was completely attached to Alaska by the late Cretaceous Period. It consists of two major sections, the McHugh Complex on the landward side and the younger Valdez Group on the seaward side. The predominant rock types found throughout the project area are a part of the Valdez Group and consist of a flysch assemblage, mainly metamorphosed shales and sandstones of the early Cretaceous Period, and slate and greywacke. These rocks are from a marine sedimentary facies and generally show strong foliation planes. Isolated areas of felsic intrusive rocks, such as granite, are also scattered through this group, particularly along the north side of Passage Canal.

Massive ice sheets and extensive Pleistocene glaciation once buried the region and provided the processes by which Passage Canal was carved as ice flowed into Passage Canal from the southwest over Portage Pass and from the northeast from Learnard Glacier. The metamorphosed bedrock in the area is locally overlain by unconsolidated Quaternary deposits consisting of glacial moraine, reworked outwash and stream gravel. Recent Quaternary deposits include thin layers of reworked glacial drift, stream alluvium adjacent to major drainages, and muskeg in low-lying basins.

2.2 Community Demographic Data

According to the 2010 United States Census Bureau, 220 people reside in Whittier year-round. According to the ACD, the Alaska Department of Labor data for 2014 estimates a population of 234. Note that during the peak of military activities in the mid-1950s, the population was over

1,300. In 2010 the median age in Whittier was 48. The ACD reports 9.8 percent unemployment rate, with 14 percent of the residents living below the poverty level. 144 of the 280 housing units in Whittier were occupied, with the majority of Whittier's population residing in Begich Tower. According to the ACD, approximately 72 percent of the Whittier population is caucasian.

2.3 Community Resources and Infrastructure

2.3.1 Water and Sewer

Current

The City of Whittier provides drinking water and wastewater disposal services to the majority of Whittier. Three wells are located in the townsite delta and range in depth between 70 and 80 feet deep. The City stores drinking water in a one million gallon underground concrete reservoir installed by the US Army in the 1950s. The approximate location of the reservoir is shown on Figure 2. In 1995, the City of Whittier lined the storage tank with polypropylene to stop leakage. Also in 1995, the City of Whittier constructed a chlorination facility west of the Buckner Building, beyond Eshamey Loop at the location shown on Figure 3. According to the DEC, the City's water quality does not require chlorine treatment at this time.

The sewer system for the Whittier townsite consists of a wastewater collection system and a primary treatment facility. Five lift stations, sewer mains, force mains, septic tanks, and outfall make up the current municipal sewer system. Primary treatment is performed in six 50,000-gallon concrete septic tanks located near Depot Road. Treated effluent is then disposed through a deep-water discharge pipe into Passage Canal.

Historical

According to the State of Alaska Well Log Tracking System (WELTS), three wells were installed in Whittier in 1948, generally coinciding with the US Army's infrastructure development. Although not confirmed, it is assumed that these wells provided drinking water to the Buckner Building.

According to Mr. Scott Korbe, City of Whittier Public Works Director, the Buckner Building wastewater system and storm drain system were connected to the Whittier townsite's wastewater collection system that discharged to Passage Canal. Mr. Korbe stated that the wastewater and storm water collection system associate with the Buckner Building has not been decommissioned.

2.3.2 Energy Supply

Current

Electrical service to Whittier is provided by Chugach Electric Associate and natural gas service is provided by ENSTAR Natural Gas Company. The petroleum, oil, and lubricants (POL) line that formerly transported fuel from the DOD tank farm in Whittier to Anchorage was refitted by ENSTAR in 1997 to make natural gas service available to communities along Turnagain Arm including Whittier.

Historical

Historically, steam generator and power houses supplied steam and electricity, respectively, to both the Buckner Building and the Hodge Building (present day Begich Towers), located approximately 1,650 feet southwest of the Property, via underground utilidors. The approximate locations of the heat and power houses are shown on Figure 2. It is likely that structures in the Whittier townsite used and presumably stored petroleum in aboveground and/or underground storage tanks prior to the availability of natural gas services.

2.3.3 Solid Waste

Since 1994, the City of Whittier has contracted with Waste Management of Alaska (or its predecessors) to transport refuse from Whittier to the Anchorage Regional Landfill. According to the DEC's Solid Waste Management Disposal Site List and site reconnaissance observations, there are no known current or former solid waste disposal facilities within 0.5 mile of the Property. Because there are no known solid waste disposal facilities in the Whittier area, it is assumed that prior to 1994, refuse was transported outside of the community for disposal.

2.3.4 Current Construction or Infrastructure Projects

For the past five years, the City of Whittier has been improving Shotgun Cove Road to provide better access to the Emerald Cove area, and it is anticipated that construction and/or improvements to the road will continue for the next five years. If future re-use of the Property involves either partial or complete demolition of the Buckner Building, it is possible that concrete material from the building could be crushed and recycled as roadbed fill material and would allow for cost sharing between the two municipal projects.

2.4 Community Involvement

This section discusses stakeholder interests in community redevelopment of the Property.

2.4.1 Stakeholder Meeting Summary

A telephonic meeting was held on August 21, 2014 with DEC representative Grant Lidren; City of Whittier mayor Dan Blair; Sue Cogswell, executive director of Prince William Sound Economic Development District; Ted Spencer, director of the Prince William Sound Museum; and Shannon & Wilson representatives Tim Terry and Jennifer Simmons. Topics discussed included scope and project objectives, anticipated land uses, Property boundary determination, and project schedule. The shareholders concurred that the structural integrity of the building and presence of hazardous building materials are the primary concerns for future redevelopment.

2.4.2 Proposed Community Development and Land Reuse

The reuse plans for the structure are not clear, but the City acknowledged that any future activity at the Property will require some level of environmental assessment to target specific follow up work, either prior to demolition or prior to renovation.

According to the DBA request (Appendix A), the City of Whittier would like to see the Property redeveloped to provide economic benefit for the City and its residents. The DBA request states that some community members are in favor of demolishing the Buckner Building. Demolishing the building would provide "much needed City-owned land" and would remove the physical and chemical hazards associated with the building. Other community members are in favor of restoring the structure to a useful purpose. Proposed future uses include additional residential housing, a community center, a museum, an indoor recreational facility, a command and control emergency management facility, and commercial offices. Another proposed alternative includes demolishing a portion of the structure while remodeling another section in a phased approach which would lessen the immediate financial impact of the project.

According to the DBA request, the City of Whittier recognizes the Buckner Building as a "dangerous hazard to the public health" and that it "presents an ongoing liability to current and previous owners." The City concluded that to effectively protect the public, the site must be remediated.

2.4.3 Interviews and Input

Mr. Ted Spencer, curator of the Prince William Sound Museum and community history activist, was interviewed on September 16, 2014. According to Mr. Spencer, the Whittier Port was used by the US Army beginning in the 1940s. The Buckner Building was completed in 1953 and served as the main headquarters of the Army community. In 1960, the Army base was de-activated and according to Mr. Spencer, all wood and ancillary structures were razed and concrete structures (including the Buckner Building) were "mothballed." In 1969, the City of Whittier became a fourth class city and in 1973 purchased the remaining concrete structures including the Buckner Building. According to Mr. Spencer, in the late 1970s, the Buckner Building was sold to a private entity. Private owners reportedly had plans to use the Property as a high security prison, a resort, or a residential complex. According to Mr. Spencer, the majority of the Property's vandalism occurred while the Property was privately owned in the late 1980s and early 1990s.

City of Whittier representatives Mr. Mark Lynch, City Manager, and Mr. Scott Korbe, Director of Public Works, were interviewed on October 22, 2014. According to both Mr. Lynch and Korbe, the Property does not have its own private drinking water well. Mr. Korbe stated that although municipal water services are available, the Property is not currently connected to municipal water. Mr. Korbe believes the Property is connected to municipal sewer services. Both Mr. Lynch and Mr. Korbe stated that asbestos is likely present in the Buckner Building. Mr. Lynch speculated that above ground and/or underground storage tanks used for heating fuel may have been used on the Property. The completed questionnaires are included in Appendix B.

Mr. Pete Hydel was interviewed on January 16, 2015. Mr. Hydel is a former Alaska State Trooper and owned a charter service in Whittier from 1988 to 2011. In 1970, while working as a state trooper, Mr. Hydel was tasked with preparing a feasibility study to determine whether the Buckner Building could be used as the State's maximum security prison. At the time of his assessment, the GSA was in the process of releasing the Property and the Buckner Building was fully operational. The feasibility study concluded that the Property could be used as a maximum security prison; however, this use was not approved by the legislature. Mr. Pete Zamarello was the first private owner of the Property, and according to Mr. Hydel, Mr. Zamarello stripped all valuables from the Buckner Building. Mr. Hydel speculated that a former power plant located at the current Lynden rail yard may have supplied steam and/or electricity to the Buckner Building. The approximate location of the former power plant is shown on Figure 2.

Multiple attempts were made to contact Mr. Pete Zamarello. However, Mr. Zamarello passed during 2014 and was not interviewed.

3.0 SITE OVERVIEW

The Property is located in the northeast ¼ of the northwest ¼ of Section 24, Township 8 North, Range 4 East, Seward Meridian, Alaska, as referenced by the United States Geological Society (USGS) Seward D-5 SE quadrangle. As shown on Figure 3, the Buckner Building is located between Blackstone Road and Eshamey Loop, south of Passage Canal. The Property's structure comprises seven floors (six aboveground floors and a basement), has a footprint of approximately 60,000 square feet with 273,660 square feet of floor space, and is founded mainly on bedrock. As shown on Figure 3, a vacant structure and the Whittier Manor residential condominiums are located northwest and north of the Property, respectively, beyond Blackstone Road. A municipal-owned water chlorination building is located southwest of the Property, across Eshamey Loop. A vegetated hillside is located south and east of the Property, across Eshamey Loop. Both Blackstone Road and Eshamey Loop are unpaved.

Photo 1: Buckner Building in Whittier, Alaska; looking southeast. (September 8, 2014)

3.1 Subsurface Conditions

Site specific subsurface characterization was outside the scope of this PACP. Based on geotechnical studies conducted in the vicinity of the Buckner Building, the native soil consists of glacial moraine deposits of sand and gravel, alluvial deposits of complexly interbedded sands and gravels, and re-worked moraine and alluvial materials. Bedrock is typically encountered between 0 and 6 feet below ground surface and consists of graphitic schist to phyllite (metamorphosed shale).

The direction of groundwater flow is assumed to be to the north toward Passage Canal.

3.2 Current Use

The Buckner Building is currently vacant and abandoned. Chain-link fencing and plywood panels are affixed to most ground level windows and doors to discourage site access.

3.3 Historical Use

Construction of the Buckner Building began in 1949 and was occupied in 1954. In addition to providing barracks for over 1,000 offices and personnel, the Buckner Building also included: a hospital, theater, bowling alley, jail, church, bakery, barber shop, laundry and dry cleaning facility, library, two rifle ranges, radio and television stations, commissary, multiple cafeterias and kitchens, and personnel clubs. The last formal use of the Buckner Building is not known, but is believed to be in the early 1960s.

A review of historical aerial photographs provided additional insight into the historical use of the site and surrounding parcels. The photographs that are included in this report are from 1958, 1989, and 2011 and are included in Appendix C as Figures C-1 through C-3, respectively. Each photograph is enlarged to an approximate scale of 1 inch equals 100 feet and the approximate Property boundary is shown in red on the figures for reference. Although not chosen to print, aerial photographs from 1950, 1973, 1964, 1982, 1992, and 1998 were also reviewed.

The partially constructed Buckner Building is visible in the aerial photograph from 1950. Blackstone Road and Eshamey Loop are visible around the Property's perimeter and appear to be unpaved. A vegetated hillside is present northeast, east, and south of the Property. Vegetation has been cleared on a parcel west and downslope of the Property, beyond Blackstone Road,

The 1958 aerial photograph is included as Figure C-1. A structure is present north of the Property, beyond Blackstone Road, and appears to be the same size and configuration of the present day Whittier Manor Condominiums. Northwest of the Property, beyond Blackstone Road, a rectangular piece of land has been cleared of vegetation and appears to be used as an unpaved parking area. The remaining parcels appear similar to the 1950 aerial photograph.

In the May 1964, May 1973, and August 1982 photos appear similar to the 1958 aerial photograph with a few exceptions. In the 1982 photo, two vehicles, two trailers, and two connex storage containers are visible near the southern portion of the Buckner Building. Additional unidentifiable debris is visible in the vicinity of the vehicles and trailers. The remaining parcels appear similar to the 1958 aerial photograph.

The May 20, 1989 aerial photograph is included as Figure C-2. Additional unidentified materials are visible near the south corner of the Buckner Building and what appear to be vehicles or trailers are visible between sections of the southcentral portion of the Building. Two vehicles are parked along the southern end of Eshamey Loop.

Additional vehicles are visible northwest of the Property, beyond Blackstone Road. What appears to be a storage shed and unidentifiable materials are present near the southwest corner of the Whittier Manor Condominiums. East of the Property, Shotgun Cove Road is visible and is unpaved. The remaining parcels appear similar to the 1982 aerial photograph.

In general, the May 1992 and September 1998 aerial photographs appear similar to the 1989 photo with a few exceptions. In the 1998 photo, a single-story rectangular structure is visible west of the Property, beyond Eshamey Loop. The overall size and configuration appears similar to the City of Whittier's chlorination building. The remaining parcels appear similar to the 1989 aerial photograph.

The September 29, 2011 aerial photograph is included as Figure C-3. Vehicles and debris are no longer visible on the Property. A rectangular structure, connex storage container, and vehicle are present on the parcel northwest of the Property, beyond Blackstone Road. Soil stockpiles, a connex storage container, and unidentifiable debris are visible west of the Whittier Manor Condominiums. East of the Property, Shotgun Cove Road appears to have been expanded to two lanes and remains unpaved. A concrete pad, multiple connex storage containers, and debris are visible on the unpaved lot west of the Property, beyond Blackstone Road. In general, the Property and surrounding parcels appear much as they did during the September 8 and October 22, 2014 site visits.

3.4 Public Ownership Documents

The Bureau of Land Management (BLM) Public Land Order database and the Alaska Department of Natural Resources (ADNR) Recorders Office databases were reviewed on September 12, 2014 to gather historical information about the Property ownership. The current Property owner is the City of Whittier. A summary of the ownership documents beginning in 1943 is listed below, with copies included in Appendix D:

- On June 21, 1943, the Department of Defense (DOD) acquires the Port of Whittier from the Department of the Interior (DOI) by use permit. Note this document was not accessible and is therefore not included in Appendix D.

- 1946. DOD relinquishes ownership of the Port of Whittier to the DOI. Note this document was not accessible and is therefore not included in Appendix D.
- Public Land Order 587 dated May 1949. DOD re-acquires 389 acres of the Port of Whittier from the DOI. Note this document was not accessible and is therefore not included in Appendix D.
- Plat Map recorded August 14, 1974 (74-3). The Property is platted as Block 7, City of Whittier Subdivision Phase Two. The City of Whittier is the Property owner.
- Plat Map recorded October 22, 1974 (74-4). The Property is platted as Block 7, City of Whittier Subdivision Phase Two. The City of Whittier is the Property owner.
- Plat Map recorded December 14, 1977 (77-280). The Property is platted as Block 7, City of Whittier Subdivision Phase Two. The City of Whittier is the Property owner.
- Plat Map recorded November 13, 1978 (78-224). The Property is platted as Block 7, City of Whittier Subdivision Phase Two. CBS Realty is the Property owner.
- Quit Claim Deed recorded June 4, 1998. The Property is conveyed from CBS Real Estate Co., Inc. to Prince William Resort, LLC.
- Statutory Warranty Deed recorded December 9, 2003. Prince William Resort, LLC. conveys an undivided 26 percent interest in the Property to Gregory Ellis.
- Statutory Warranty Deed recorded January 20, 2010. Prince William Resort, LLC. conveys an undivided 26 percent interest in the Property to R. Gregory Ellis.
- Quit Claim Deed recorded February 19, 2010. R. Gregory Ellis conveys his undivided 26 percent interest in the Property to Prince William Resort, LLC.
- Statutory Warranty Deed recorded February 24, 2010. Prince William Resort, LLC. conveys an undivided 26 percent interest in the Property to R. Gregory Ellis.
- Judgment and Decree of Foreclosure recorded June 16, 2011. The Property is transferred from Prince William Sound Resort, Gregory Ellis, and Kathryn Hahne to the City of Whittier. Note this document is not included in Appendix D.

3.5 Records Review

This PACP included a review of federal and state database records for pertinent information regarding the environmental condition within the project area and adjacent parcels. Data were also requested from local utilities. Environmental database records are included as Appendix E and are located on the compact disk (CD) affixed to the back cover of the report.

3.5.1 Federal Records Sources

The National Priorities List (NPL) specifies those properties assigned the Environmental Protection Agency's (EPA) highest cleanup priority. The EPA website was reviewed on August 21, 2014 for NPL sites in Alaska. There are currently no listed NPL sites in the Whittier area.

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is also compiled by the EPA and includes sites the EPA has investigated or is currently investigating for potential hazardous substance contamination for possible inclusion on the NPL. According to the CERCLIS list, viewed on August 21, 2014 and March 10, 2015, there are no CERCLIS sites in the Whittier area.

Whittier does not appear on the EPA Brownfield Assessment, Cleanup, and Revolving Loan Fund Grantees list which was viewed on August 21, 2014 and March 10, 2015. However, according to the DEC Contaminated Sites database, in 2014 the Buckner Building was selected for a Brownfield Assessment to gather information to focus future assement and/or remedial action.

According to the EPA Region 10 report viewed on August 21, 2014 and March 10, 2015 (dated February 24, 2014) there are no active Resource Conservation and Recovery Act (RCRA) treatment, storage, or disposal (TSD) facilities within Whittier. Additionally, there are no listed hazardous materials TSD facilities in the Whittier area.

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. As of March 17, 2015, this register does not show cultural resource sites or cultural resource districts in the Whittier area. However, according to the ADNR State Historic Preservation Office (SHPO), the structure is eligible for inclusion on the National Register of Historic Properties (see Section 3.5.2 for further discussion).

According to the National Wetlands Inventory (NWI) online map viewed on September 17, 2014 and March 10, 2015, designated wetlands are not located on the Buckner Building property. According to the NWI map, freshwater pond wetlands are located approximately 100 feet northwest of the Property, beyond Blackstone Road.

According to the US Fish and Wildlife Service (USFWS), 21 threatened and/or endangered animal species and one endangered plant species exist in Alaska. Five animal species are considered endangered by the Alaska Department of Fish and Game, Division of

Wildlife Conservation. According to the USFWS database viewed on September 17, 2014 and March 10, 2015, these federal and state listed species are not found in the Whittier area with the exception of the Humpback Whale and Right Whale. These endangered whales are migratory species whose critical habitat includes waters around Whittier.

The Emergency Response Notification System (ERNS) lists report hazardous substance releases in reportable quantities. There are no ERNS incidents reported for the Property.

3.5.2 State Records Sources

According to the ADNR SHPO contacted on March 19, 2015, the Buckner Building has been deemed a historic building and is eligible for inclusion on the National Register of Historic Properties. Section 106 requires federal agencies take into account the effects of activities on historic properties. A Section 106 National Historic Preservation Act (NHPA) evaluation will be needed to determine if additional assessment and remedial activities will adversely affect the building's status as a historical structure. According to the ADNR SHPO office, there are multiple cultural resource sites or cultural resource districts in the Whittier area. An assessment of the cultural resource sites in Whittier was outside the scope of this PACP and would require submitting the SHPO Section 106 review request form to the ADNR. Note that according to the City of Whittier website, the city itself is a historical area, established by the US Army during World War II.

The State Landfill/Solid Waste Disposal Site List was reviewed on September 17, 2014 and March 10, 2015. According to the DEC's Solid Waste Management database, no current or former landfills or solid waste disposal sites are identified within 0.5 mile of the Property.

The ADEC Spills List was reviewed on September 17, 2014 and March 10, 2015 for information regarding spills on the Property. The list does not identify release events on the Property.

Registered Underground Storage Tank Database

The DEC registered Underground Storage Tank (UST) records, available on the DEC website, were viewed on August 21, 2014 and March 16, 2015. The Property is not a registered UST site. Two registered UST sites are identified within 0.25 mile of the Property. Information regarding the UST sites listed on the database is summarized in Table 1.

The closest UST site is the Alaska Railroad Corporation (ARRC) property located approximately 300 feet north of the Property. According to the UST database, one 10,000-gallon heating oil UST was removed from the ground and three additional USTs (one 10,000-gallon heating oil UST, one 2,500-gallon diesel UST, and one 2,500-gallon gasoline UST) are permanently out of use. The next closest listed UST site is the City of Whittier Maintenance Shop located on Whittier Street approximately 1,200 feet west of the Property. According to the DEC UST database, two 5,000-gallon tanks, one diesel and one gasoline, and two 1,000-gallon diesel tanks were removed from the ground.

Leaking Underground Storage Tank (LUST) Database

The DEC's Leaking Underground Storage Tank (LUST) database was reviewed on September 18, 2014 and March 16, 2015 for information regarding LUST sites within 0.5 mile of the Property. DEC records do not identify the Property as a LUST site. According to the DEC LUST database, four registered LUST sites are present within 0.5 mile of the Property. A summary of the sites are included in Table 2. Of the four LUST sites within 0.5 mile of the Property, the following is a synopsis of the nearest active LUST site.

The closest LUST site is located approximately 300 feet north of the Property. The ARRC Whittier Rail Yard was added to the DEC LUST database in 1992 after soil contamination was documented following the removal of a 2,500-gallon gasoline UST. Approximately 270 cubic yards (cy) of soil were excavated during the UST removal. Analytical soil samples collected from the base of the excavation contained concentrations of gasoline range organics (GRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX) exceeding the most stringent DEC Method Two cleanup levels. In 2010, three soil borings were advanced in the former UST location. At least one of the soil samples contained GRO and BTEX concentrations exceeding the most stringent DEC Method Two cleanup levels. Three additional soil borings were advanced in 2012 and completed as groundwater monitoring wells. Although analytical soil samples did not contain target analyte concentrations exceeding the most stringent DEC Method Two cleanup levels, a hydrocarbon sheen and odor were noted. An analytical groundwater sample collected from one of the three wells contained diesel range organics (DRO) concentrations that exceeded the DEC Table C cleanup level. Analytical groundwater samples collected in December 2012 and in 2013 did not contain target analyte concentrations greater than DEC Table C cleanups levels. This site is not retained as a REC because it is topographically downgradient of the Property.

The remaining LUST sites are located 1,520 feet or more from the Property. Based on our experience it is unlikely that these remaining sites will impact the Property based on considerations of distance to the Property and typical release, fate, and transport mechanisms.

Contaminated Sites Database

The DEC's Contaminated Sites database was reviewed on September 18, 2014 and March 16, 2015 for listed sites within 1 mile of the Property. Ten contaminated sites were identified within 1 mile of the Property, including the subject Property. Information regarding the contaminated sites is summarized in Table 3. Of the 10 contaminated sites within 1 mile of the Property, the following is a synopsis of the Property, the nearest listed contaminated site, and the nearest active contaminated site.

DEC records identify the Property as a contaminated site. The Property was added to the database in September 2005 when the DEC received a Brownfields Assessment Request. A second request was submitted in 2013, and according to the database, in 2014 the site was selected for a Brownfields Assessment to help gather information to focus future action by the current owner.

The next closest DEC-listed contaminated site is the Whittier power plant UST and utilidor site. The pipeline extends from Delong Dock to the Whittier Small Boat Harbor. The former fuel tank was located 1,125 feet northeast of the Property, and at its closest point, the pipeline is approximately 350 feet northwest of the Property. According to the DEC database, a 1.5-million gallon field-constructed UST was installed in blasted bedrock in the 1940s. The UST supplied No. 6 fuel oil (Bunker C fuel) to the power plant approximately 200 feet west of the UST. The approximate locations of the former power plant and UST are shown on Figure 2. The UST was removed in 1998 and approximately 120 cy of DRO-impacted bedding material were transported off site for thermal treatment. According to the database, the utilidor that connected the UST to the power plant contained several hundred feet of asbestos-insulated pipe that had deteriorated and mixed with soil. In 2003, approximately 300 tons of impacted material were disposed off-site. The concrete utilidor was reportedly cleaned and left in place. Associated pipelines were abandoned in place. Three groundwater monitoring wells were installed in 2004 and a fourth monitoring well was installed in 2007. Analytical groundwater results from the 2004 sampling event contained DRO concentrations greater than the DEC Table C cleanup level; target analyte concentrations measured during the 2007 event were less than DEC Table C cleanup levels. In September 2010, the DEC issued a cleanup complete with

institutional controls determination. This site is not retained as a REC because it is topographically downgradient of the Property.

The closest active contaminated site is located approximately 1,850 feet southwest of the Property. The Whittier School Tanks site was added to the DEC Contaminated Sites database in 2005 after soil contamination was documented following the removal of two heating oil tanks. Approximately 107 cy of DRO-impacted soil were excavated and treated off site. Analytical soil samples collected from the base of the excavation contained DRO concentrations exceeding the DEC Method Two cleanup level. According to the DEC database, the potential impact to groundwater has not been assessed. This site is not retained as a REC due to its distance from the Property and because it is topographically downgradient of the Buckner Building.

The remaining contaminated sites are located 700 feet or more from the Property. Based on our experience it is unlikely that these remaining sites will impact the Property based on considerations of distance to the Property and typical release, fate, and transport mechanisms.

3.5.3 Local Agency / Utilities

According to ENSTAR natural gas records, natural gas services were available to the City of Whittier in 1997-1998. It is assumed that prior to natural gas services, heat and power were supplied by either the power plant discussed above or individual aboveground storage tanks (ASTs) or USTs. ENSTAR records indicate that the Property is not connected to natural gas service.

According to the City of Whittier Public Works Department, water and wastewater services were generally available to the Whittier townsite since its original development in the late 1940s and early 1950s. The Property is not connected to municipal water service.

3.6 Adjoining Property Use

A vacant structure and residential condominiums are located northwest and north of the Property, respectively, beyond Blackstone Road. A municipal-owned water chlorination building is located southwest of the Property, across Eshamey Loop. A vegetated hillside is located south and east of the Property, across Eshamey Loop.

3.7 1951 Construction Plans

On August 21, 2014, Shannon & Wilson received partial construction plans including architectural and structural drawings titled "Composite Bachelor Housing, Service and Recreation Center, Whittier, Alaska" by John W. Maloney, dated January 1951. On September 23, 2014, Shannon & Wilson received additional mechanical and electrical drawings from the U.S. Army Corp of Engineers (USACE). A complete set of plans is provided as Appendix F and is located on the CD affixed to the back cover of the report.

Shannon & Wilson reviewed the plans to identify potential indicators of potential environmental concern (i.e. dry cleaning facilities, mechanical rooms, chemical storage area and tanks, etc.) Significant findings from the drawing review were further investigated during the site reconnaissance and are discussed in Section 4.0.

4.0 SITE RECONNAISANCE

A Shannon & Wilson representative (Jennifer Simmons) accompanied by EHS representatives (Martin Schwan and Travis Juliussen) visited the Property on September 8, 2014 to conduct an interior and exterior visual assessment of potential environmental concern indicators on the Property. A second site reconnaissance was conducted on October 22, 2014 to further investigate a fuel storage tank, transformers, and boilers identified in the second set of drawings from the USACE. During the October 22, 2014 site visit, Ms. Simmons was accompanied by EHS representative Robert French, P.E.

4.1 Methodology

The general methodology was to visually assess the Property for potential environmental concerns. Specifically, the site visit targeted amenity spaces that may have used, produced, or stored petroleum products and/or hazardous materials, including possible on-site fueling systems, heating oil and/or electrical generators and associated fuel tanks, electrical transformers, dry cleaning facility, and wastewater disposal facilities. The site visit was guided by the 1951 construction plans provided in Appendix F. Note that due to the vast size of the building, a complete assessment of all areas was not conducted.

Site conditions were documented with a digital camera and field notes. In addition, video documentation was recorded using a hand-held camcorder. The videos entailed narrated, slow-pan shots of the interior and exterior of the Property and are included on the CD affixed to the back cover of the report.

4.2 Field Observations

Significant findings from our site reconnaissance activities are described below. A site plan detailing key interior and exterior features of the Property is included as Figure 4. A copy of the field notes is included in Appendix G (on CD affixed to the back cover of the report) and selected site photographs are included in Appendix H.

4.2.1 Interior Evaluation

The Buckner Building was constructed with reinforced concrete foundation, walls, supporting columns and beams. Several stairwells and elevator shafts provide access to the building's seven floors (Photos H-1 and H-2). The Buckner Building was constructed in seven sections (Sections A through G as shown on Figure 4) which are separated by 8-inch "crumple" joints (Photo H-3). In general, the basement, ground floor, first floor, and penthouse were used for services and recreation (i.e. mechanical, utility, and storage rooms; post office; commissary; rifle ranges; mess halls and kitchens; laundry and dry cleaning facilities; and bowling alley, etc.) and the remaining floors were generally used as living quarters and lounges.

In general, the Buckner Building is in a state of disrepair and is characterized by disintegrating wallboard (where still intact), peeling interior paint, dangling light fixtures and overhead piping, exposed elevator shafts, and refuse scattered throughout the structure. Mold and extensive graffiti were observed on the interior walls. Valuables have been stripped from the building by former owners and/or vandals (Photo H-4). Most windows and doors are broken and/or missing exposing the interior of the structure to wind, rain, and snow further deteriorating the building. Shards of glass on the floor and in some window frames pose risk to site visitors and trespassers. In general, floors throughout the structure are covered with a debris slurry and refuse which precluded a visual assessment to identify potential floor drains and surface stains.

Stalactites of mineral deposits were observed throughout the basement, ground, and first floors of the building. At times, the stalactites were over 20 inches long and tended to form along the structural concrete beams.

Basement

The western portion of the basement (Sections A through C) contains multiple classrooms, battalion storage, radio equipment and mechanical rooms, a bowling alley (Photo H-5), and restrooms. Evidence of a former fuel-fired emergency generator was observed in Section A in the room adjoining the electrical distribution room at the location shown on Figure 4. A hydrocarbon odor was noted in the emergency generator room and surface staining was observed on the concrete pad that the generator was presumably mounted on (Photo H-6). The emergency generator has been removed, but associated cooling pipes and the muffler remain intact (Photo H-7). The muffler exhaust fumes were conveyed to the rooftop via a stairwell pipe (Photo H-8). Note that an obvious fuel source was not observed during the September or October 2014 site visits, but may have been connected to the exterior 2,500-gallon gasoline UST, although the piping, if present, was not readily identified.

The electrical distribution center contains the main distribution panels, individual panels that distribute electricity to individual rooms (Photo H-9), and an air-cooled 500 kilovolt-ampere (kVA) electrical transformer. Representative transformer plates suspected of containing ACMs are shown in Photo H-10. Often the transformer plates were disassembled and discarded on the floor (Photo H-11). Remnants of what appear to be oil-filled switches are also located in the electrical distribution room and likely allowed for the building's power to be switched from off-site generated power to power generated from the Property's backup generator. As shown in Photo 2, it appears as though the oil-filled switches have been removed. A black, viscous oily substance was observed beneath the former switches (Photo H-12). According to Mr. French, it is possible that the oily substance contains polychlorinated biphenyls (PCBs) and the transformer plates likely contain asbestos.

Photo 2: One of two 500 kVA electrical transformers located in the basement. October 22, 2014.

The mechanical room is located east of the electrical distribution room. What appear to be two 5,000-gallon hot water tanks are located in the mechanical room. It is likely that heating coils were present in each tank and were removed by former owners/vandals (Photo H-13). Fourteen-inch drawdown steam lines were observed entering the basement and likely connected the Property to the off-site steam generation and power plant. According to Mr. French, what is likely a pressure reducing station and condensate return system are located in the northern portion of the mechanical room (Photo H-14). Nearly all of the piping in the mechanical room is insulated with suspected asbestos-containing material (ACM). At the time of our site visits, the mechanical room floor and sump located in the northwest corner of the room (Photo H-15) contained standing water.

Photo 3: Two hot water tanks observed in the basement. Note the white insulation on the pipes likely contains asbestos. October 22, 2014.

The eastern portion of the basement (Sections D through G) contains the former pastry and bread bakeries (Photo H-16) and associated food storage and cooling rooms, a jail, multiple restrooms, and general storage rooms for supplies, tools, and weapons. Photo H-17 shows the presumed bakery and kitchen exhaust components. A second electrical distribution room, similar to the one described above, is located in Section E at the location shown on Figure 4. It appears as though the oil-filled switches may be intact at this location (Photo H-18) and it is possible that the oil contains PCBs. A black, viscous oily substance was observed beneath the presumed switches.

Two rifle ranges are located in the eastern portion of the basement spanning sections D through G as shown on Figure 4. Projectile fragments were observed in the target line sand during each of our September 8 and October 22, 2014 site visits (Photo H-19). Because these fragments likely contain lead, it is our experience that both the target-line sand and spent ammunition fragments are subject wastes subject to hazardous waste regulation under RCRA.

Ground Floor

The western portion of the ground floor (Sections A through C) contains the former post office, beauty and barber shops, bank, exchange store, lower theater, and storage rooms. The eastern portion of the ground floor (Sections D through G) contains the former kitchen, mess halls, offices, restrooms, and storage rooms. Water was observed dripping from the ceiling in multiple ground floor rooms. In addition, many of the ground floor rooms contained standing water and/or moss (Photo H-20). Other vegetation including tree branches were also observed inside the structure. Mold and extensive graffiti were observed on the interior walls. As shown in Photo 4, light ballasts were often observed dangling from the ceiling and may contain PCBs. The interior walls, where intact, were constructed with suspected ACM containing plaster and wallboard.

Photo 4: Representative ground floor room, Section C. October 22, 2014.

Three empty 55-gallon drums were observed in Section B and one empty 55-gallon drum was observed in Section G (Photo H-21) at the approximate locations shown on Figure 4. The drums were not labeled and the nature of the drums is unknown. Evidence of leaks and/or spills was not observed during our September and October 2014 site visits, although the drums were damaged (i.e., had holes, were corroded and showed signs of potential freeze/thaw damage). Extensive debris on the floor precluded a visual assessment of the floor surface.

What appears to be a load-out chute was observed near the juncture of Sections A and C on the west side of the structure (Photo H-22).

Note that multiple support columns throughout the structure showed evidence of concrete spalling. A representative ground floor structural column is shown in Photo H-23.

First Floor

The western portion of the first floor (Sections A through C) contains the former kitchen and café, laundry and drying rooms, the upper portion of the theater, library, hobby shop, private

bedrooms, a squad room, and lounge. Eight 5-gallon buckets of an adhesive compound were observed in the former kitchen (Photo H-24).

The eastern portion of the first floor (Sections D through G) contains four squad rooms, a day room, and laundry and drying rooms. No evidence of chemicals or chemical storage areas was observed in the laundry rooms during our September and October 2014 site visits but chemicals were likely used and could have impacted the structure and/or surrounding ground.

Mold and extensive graffiti were observed on the interior walls. Similar to the basement, light ballasts were often observed dangling from the ceiling and may contain PCBs. The interior walls, where intact, were constructed with suspected ACM containing plaster and wallboard.

Second Floor

The western portion of the second floor (Sections A through C) was largely used for medical purposes. A former dental operating room, multiple exam and treatment rooms, pharmacy, laboratory, and x-ray rooms, operating room, and recovery rooms were all located on the second floor in addition to private bedrooms. Note that medical equipment and medical waste (i.e. sharps) were not observed during our September and October 2014 site visits. In general, the eastern portion of the second floor was used as general living quarters and included private bedrooms and four squad rooms. Light ballasts were often observed affixed to the ceiling and may contain PCBs. The interior walls, where intact, were constructed with suspected ACM containing plaster and wallboard.

Third and Fourth Floors

In general, the third and fourth floors were used as general living quarters. A bar, lounge, and game rooms were located in the western portion of the third floor. Most common walls seperating private bedrooms have been destroyed exposing insulation, electrical wiring, and nails. A representative third floor hallway is shown in Photo H-25. An exposed elevator shaft was observed on the third floor as shown in Photo H-26.

Photo 5: Representative second floor living quarters. September 8, 2014.

Penthouse

The fan rooms (Photo H-27) and elevator platforms (Photo H-28) are located in the eastern and western penthouses. No evidence of hazardous materials was observed in the penthouses. Note that due to safety concerns, the base of the elevator shafts was not assessed.

4.2.2 Exterior Evaluation

In general, ground floor windows on the north side of the building have been secured with plywood or chain-link fencing to deter trespassers from entering the building; however not all openings on the south side of the structure are secured.

A 2-inch vent pipe presumably associated with the 2,500-gallon gasoline UST was observed on the south side of the structure between Sections B and C at the location shown on Figure 4. Note due to heavy vegetation, mounded soil, and various debris (Photo H-29), other evidence of the UST (i.e. fill pipe) was not observed during our October 22, 2014 site visit. However, it is possible that the fill pipe has been removed.

Photo 6: Vent pipe between Sections B and C; looking north. October 22, 2014.

A 6-inch pipe protruding from the ground surface was observed near the northeast corner of the building at Section G (Photo H-30) and a 2-inch pipe was observed near the northwest corner of Section C (Photo H-31). The approximate locations of the observed pipes are shown on Figure 4. The origin and purpose of the pipes is unknown. Based on our experience, the 6-inch pipe at Section G is not representative of typical UST piping configurations and may not be associated with a UST. However, it is possible that this uncharacteristic piping is associated with an undocumented UST. In our experience, based on the size, location, and construction of the 2-inch pipe observed near the northwest corner of Section C, this pipe may be associated with an undocumented UST.

A discarded dock and other debris including, but not limited to, sinks, glass, scrap metal, and construction material/waste were observed on the south side of the structure between Sections B and C. According to Mr. Korbe, the dock was formerly used by the City of Whittier. Additional debris consisting mostly of soil and concrete rubble was observed on the south side of the building between Sections C and E and E and G (Photo H-32). According to Mr. Korbe, the material was generated during Blackstone Road and Shotgun Cove Road improvements and is only temporarily stored on the Property.

Photo 7: Discarded dock observed between Sections B and C; looking southwest. September 8, 2014.

In addition to the dock and construction debris, additional discarded debris such as tires (Photo H-33), pieces of a street sweeping machine (Photo H-34), general construction debris (Photo H-35), potentially creosote-treated railroad ties (Photo H-36), and litter were observed on the south side of the building.

4.2.3 Surrounding Properties Evaluation

A vacant structure and residential condominiums are located northwest and north of the Property, respectively, beyond Blackstone Road. The nature of the vacant structure is unknown. No obvious indications of a release of petroleum substances or other hazardous substances were observed on either parcel during our September 8 and October 22, 2014 site visits.

A vegetated hillside is located south and east of the Property, across Eshamey Loop.

A municipal-owned water chlorination building is located southwest of the Property, across Eshamey Loop. Although constructed in 1995, the chlorination facility has never been operational because the City of Whittier


Photo 8: Exterior of the municipality-owned chlorination building; looking west. September 8, 2014.

elects to not treat their drinking water. Photo H-37 shows the interior of the chlorination facility.

5.0 HAZARDOUS BUILDING MATERIALS SURVEY

Shannon & Wilson subcontracted EHS to conduct a visual hazardous building materials survey. EHS performed the survey of the Buckner Building during the September 8 and October 22, 2014 site visits. The interior and exterior of the structure were visually inspected to identify hazardous building materials. EHS's findings are reported in their November 12, 2014 report titled *Hazardous Materials Assessment, Buckner Building, Whittier, Alaska*, included as Appendix I.

5.1 Asbestos-Containing Materials

The following is a list of materials that are suspected or assumed to be ACM. Note this assessment is based exclusively on visual observations; analytical samples were not collected.

- Joint compound in gypsum wallboard systems on the ceiling and walls;
- Plaster wall and ceiling systems (may include different types of plaster such as standard, water resistant and acoustic plasters);
- Cement asbestos board (CAB) along the corridors, bathrooms, and wainscot;
- Perforated asbestos cement panels in acoustical systems;
- Cement asbestos partitions;
- Various colors of floor tiles and mastics;
- Sheet vinyl stair treads and risers and mastics;
- Cove base and cove base mastic;
- Hard and chalky insulation at pipe valves and fittings on piping insulated on the runs with fiberglass;
- Hard and chalky insulation on steam, condensate, hot water, and exhaust generator piping;
- "Aircell" insulation on piping runs, mostly domestic piping;
- High temperature wiring insulation;
- Tarry sound lining in clock speaker and ceiling boxes;
- Fire doors and non-fire door insulation;
- Built-up roofing materials, mastics, sealants, and patching compounds of roofing and flashing;
- Remnants of roof patch tars at older roof-mounted exhaust fans;

- Smoothing compound used on exposed concrete walls and columns;
- Exterior tarry damp-proofing at foundation and tunnels;
- Sink undercoatings on stainless steel sinks;
- Acoustical ceiling tiles;
- Mastic ceiling tiles;
- White and silver cloth flex connectors at fans and air handling units;
- Black mastic at duct insulation pins and other fan systems;
- Black tarry coating in filter housing of HVAC units;
- Flange gaskets and valve packing at piping and mechanical equipment;
- Sealants at windows, doors, other penetrations, and window glazing compounds;
- Waterproofing membrane between two-inch thick cement floor and 4-inch thick concrete slab; other mastics to miscellaneous trim, mirrors, etc.;
- Other materials associated with utility tunnels or buried utilities; and
- Elevator brake shoes.

According to EHS, the ACM likely includes both chrysotile and amosite. EHS noted that during the on-site evaluations, most of the ACM in the Buckner Building was severely damaged, not intact, and the building components and all surfaces were contaminated with asbestos. EHS also noted that some ACM was so severely damaged that the majority of the material appears as a slurry of debris on the floor. What appeared to be a ground floor "load out" debris chute was observed and it appears as though some vinyl asbestos floor tiles and acoustical ceiling tiles have been removed.

Due to the extensive volume and level of damage to the ACM, EHS recommends that access to the building be limited to certified asbestos workers wearing suitable personal protective equipment. In addition, EHS recommends that openings to the building that are accessible without ladders be thoroughly secured, and posted with asbestos and lead warning signs. Because windows and doors are not weather tight, EHS recognizes that if the asbestos in the building dries out and becomes airborne, there is a potential that winds could distribute asbestos outside the building.

Federal and the State of Alaska regulations (29 Code of Federal Regulations [CFR] 1926.1101 and 8 Alaska Administrative Code [AAC] Chapter 61) have promulgated regulations requiring testing for airborne asbestos fibers, establishing allowable exposure limits for workers potentially exposed to airborne asbestos fibers, and setting worker certification and protection requirements.

In addition, EPA regulations, under the National Emission Standard for Hazardous Air Pollutants (NESHAP) established procedures for handling ACM during asbestos removal and disposal. These regulations require the owner or the owner's contractor to notify the EPA of asbestos removal operations and to establish responsibility for the removal, transportation, and disposal of asbestos.

The disposal of asbestos waste is regulated by the EPA, the DEC, and the disposal site operator. Waste being transported to the disposal site must be sealed in leak-tight containers prior to disposal and must be accompanied by a waste management plan, disposal permits, and waste manifests.

Note this PACP is not intended to identify all requirements for ACM abatement and/or disposal. Prior to conducting abatement activities, a separate waste management plan will be needed.

5.2 Lead-Containing Materials

A limited visual inspection was conducted by EHS to identify lead-containing materials. Materials observed in the building that potentially contain lead are listed below. Note that analytical samples were not collected.

- Glaze on ceramic wall and floor tiles;
- Solder on copper piping and at sheet metal roof flashing;
- Poured sealants at bell and spigot joints;
- Lead acid batteries in emergency lights;
- Painted interior and exterior surfaces including hand rails, doors, and garage doors;
- Interior and exterior painted ducting and piping;
- Interior and exterior painted windows and door frames;
- Lead-containing dust in and on architectural, structural, mechanical, and electrical components; and
- Ammunition fragments and target line sand in the basement firing ranges.

In accordance with safe work practices, Federal and the State of Alaska regulations (29 CFR 1926.62 and 8 AAC Chapter 61) require lead-trained personnel, personal protective procedures, and air monitoring at work sites where employees may be exposed to lead until exposure levels can be verified and site-specific safe work practices are established.

In accordance with EPA regulations, construction or demolition debris that contains lead, or lead-containing paint requires toxicity characteristic leaching procedure (TCLP) testing to determine if the waste must be treated as hazardous waste.

Note this PACP is not intended to identify all requirements for the removal of lead-containing materials and/or disposal. Prior to conducting abatement activities, a separate waste management plan will be needed.

5.3 PCB-Containing Materials

A limited visual inspection was conducted by the EHS field inspector to identify PCB-containing materials. Materials observed in the building that potentially contain PCBs are listed below. Note that analytical samples were not collected.

- Fluorescent lights with PCB-containing ballasts;
- High-intensity discharge lights with PCB-containing ballasts;
- Exterior caulking;
- Oil in electrical switches and on floor of electrical distribution rooms; and
- Paints, sealants, and other building materials.

In accordance with safe work practices, Federal and the State of Alaska regulations (40 CFR Part 761) workers required to remove, transport, dispose, or handle PCB-containing wastes or PCB-contaminated equipment must be trained and certified as required by the US Department of Labor (29 CFR 1910.120) and 8 AAC 61.

Note this PACP is not intended to identify all requirements for the removal of PCB-containing materials and/or disposal. Prior to conducting abatement activities, a separate waste management plan will be needed.

5.4 Other Hazardous Materials

Other hazardous materials that may be present in the building include mercury-containing lamps, mercury-containing thermostats and switches, smoke detectors (may contain radioactive tritium), refrigerators or other items with ozone depleting substances (e.g. Freon), hydraulic elevator fluids (may contain petroleum products) and brakes (may contain asbestos), and paints and sealants (may contain PCBs).

Mercury and mercury-containing products or waste are considered hazardous waste if TCLP testing confirms the mercury content to be greater than the EPA regulatory level. EHS notes that typically, mercury from fluorescent lights, thermostats, and thermometers is removed by an abatement contractor and recycled in accordance with EPA Universal Waste Standard, 40 CFR 273.

6.0 EFFECTS OF THE 1964 GREAT EARTHQUAKE

On March 27, 1964, an earthquake of magnitude 9.2 occurred in Prince William Sound and was centered approximately 33 miles northeast of Whittier. The earthquake lasted approximately 4.5 minutes and is the most powerful recorded earthquake in United States history. The following describes the effects of the 1964 earthquake on the Buckner Building and associated power plant.

Structural damage to the Buckner Building was "not significant" (Kachadooran, 1965) to "almost negligible; the majority of the damage was to nonstructural items" (Belanger, 1973). There was reportedly damage to a stairwell at the east end of the structure and construction joints in exterior walls showed evidence of movement as "each joint was clearly visible and had fresh mortar spalls" (Mikroudis, G.K. and Mueller, P., no date). Two 10-inch water lines that supplied water to the power plant and other structures in Whittier from the water reservoir ruptured during the earthquake. In addition, one condensate return line was broken. In total, the power plant was off-line for about 6 hours until the condensate return line could be bypassed.

Exterior cracks were observed during our October 22, 2014 site visit (Photos H-38 and H-39) and may be attributable to the 1964 earthquake.

7.0 ENVIRONMENTAL REVIEW AND SUMMARY OF FINDINGS

Significant findings from our historical aerial photograph, federal and state database searches, review of public utility services, interviews with project stakeholders, and site reconnaissance efforts are described below.

7.1 Historical Environmental Review

Records of reported spills, cleanup activities, or corrective actions at the Buckner Building were not found during our research.

7.2 Potential and Identified Sources

The following is a list of the potential and identified sources of contamination.

- Stored fuel for the former generator is identified as a potential source of contamination at the Property. As shown on Figure 4, a 2,500-gallon gasoline UST was presumably used to fuel the basement emergency generator. A presumed vent pipe for the UST was observed during our October 22, 2014 site visit. The current status of the UST is unknown and it is not known if fuel was released from the tank or piping, or if fuel remains in the tank. There is a potential that petroleum has leaked from the UST vessel and/or piping. The extent of impact associated with the potential leak may be reduced by the fact that the UST was likely installed over bedrock, although the bedrock may be fractured. There is also potential for near-surface contamination resulting from spills while filling the tank. The UST may also present a physical hazard if it has not been properly closed in place and collapses due to corrosion. Based on field observations, it appears likely that imported soil and debris has been placed over the top of the UST. Note that additional piping was observed protruding from the ground surface near the northwest corner of Section C and near the northeast corner of the building at Section G, at the approximate locations shown on Figure 4. The nature of the piping is unknown and may indicate the presence of another tank(s).
- Ammunition fragments presumed to contain lead are present on the floor and target line sand of the former rifle ranges in the basement of the Buckner Building in Sections D and G.
- Based on our current understanding of equipment in the electrical distribution rooms, it is possible that the oil in the oil-filled switches contains PCBs. Based on our current estimates, less than 3-gallons (total) of oil may remain in the electrical distribution rooms. In addition, light ballasts, paints, and sealants throughout the structure may also contain PCBs.
- We understand the structure's floor drains and sumps discharge to Passage Canal. There is a potential that hazardous materials (i.e. ACMs, petroleum products, solvents, lead, mercury from lamps, etc.) could enter the waste or storm water system through floor drains and sumps and impact Passage Canal.
- Hazardous building materials, including ACM, lead-based paint, PCBs, mercury, and other hazardous materials are suspected in the structure. Flaking, weathered paint and caulking may release lead and PCBs into the environment, and weathered or damaged ACM may release asbestos into the environment.
- Note that due to safety concerns, the base of the elevator shafts were not assessed. If the bases are not finished with cement, there is a potential that hydraulic and/or other maintenance fluid could impact the Property's soil and/or groundwater.

- Mold was observed in the structure, most notably inside the structure, most notably in the basement, ground floor, and first floor walls.
- Three empty 55-gallon drums were observed in Section B and one empty 55-gallon drum was observed in Section G. The drums were not labeled and the nature of the drums is unknown. Evidence of leaks and/or spills was not observed during our September and October 2014 site visits, although the drums were damaged (i.e. had holes, were corroded and showed signs of potential freeze/thaw damage). In addition, multiple 5-gallon buckets with contents were observed on the Property. The contents of the buckets are unknown although multiple buckets were labeled as containing adhesive.
- Evidence of a former fuel-fired emergency generator was observed in Section A in the room adjoining the electrical distribution room at the location shown on Figure 4. A hydrocarbon odor was noted in the emergency generator room and surface staining was observed on the concrete pad that the generator was presumably mounted on.

7.3 Data Gaps

Analytical sampling was not performed during this PACP effort. The presence and/or concentration of petroleum products, lead, PCBs, mercury or other hazardous materials in building materials or in near surface soil, groundwater, wastewater, or storm water has not been conclusively established. The potential impact to the Property from discarded items stored on the Property has also not been assessed.

8.0 RECOMMENDED ACTIONS AND OPINIONS

Our recommendations for the identified and potential sources are outlined below. These recommendations are based on the assumption that the desired re-use for the Property will require either demolition or renovation or a combination of both. In addition to the source-specific recommendations, we also recommend performing a Section 106 evaluation to determine if removal of hazardous materials will adversely affect the building, and performing a structural analysis of the building to determine if renovation is a viable option. These entities will need to consider appropriate health, safety, and permitting procedures in scoping and conducting their work.

In addition, we recommend obtaining an EPA identification number for waste disposal in advance of generating investigation derived waste that may require disposal at specialized permitted facilities.

8.1 Site Characterization for Data Gaps

The recommended remedial actions presented in Section 8.3 are based on limited site data. During the course of our assessment, we identified the following needs to evaluate data gaps.

- Perform an in-place closure assessment for the 2,500-gallon gasoline UST and the UST(s) potentially associated with the exterior piping observed protruding from the ground surface near the northwest corner of Section C and near the northeast corner of the building at Section G.
    - Excavate soil from the top of the UST to expose ports or fittings and assess if product remains or if the vessel has been filled with inert material.
    - Excavate two test pits to a depth below the bottom of the tank. If contamination is encountered (based on field screening) and the UST has not been filled with inert material, stop test pit excavation and remove the tank from the ground for decommissioning.
    - Collect field screening and analytical soil samples in accordance with DEC regulations and submit analytical samples for GRO, BTEX, and lead analysis.
- Collect a profile sample of the suspected PCB-containing oil in the electrical distribution rooms.
- Characterize the water discharged from the Property to the municipality's wastewater treatment facility and to Passage Canal.
- Characterize the near surface soil around the building's perimeter for potential impact from hazardous building materials (HBM), including ACM, lead-based paint, PCBs, mercury, and other hazardous materials suspected in the structure (e.g. dry cleaning solvents, petroleum, etc.).
    - Advance shallow hand borings to approximately 1 foot bgs around the perimeter of the structure to evaluate potential soil contamination. At a minimum, we recommend advancing hand borings at the load-out chute, near the exterior piping at Section C, and above the presumed UST between Sections B and C. Additional hand borings should be advanced at spatially representative locations around the building's perimeter and should focus on areas where COCs are likely to accumulate.
    - Collect samples from near surface soil and field screen for lead using an X-ray fluorescence gun. Submit analytical soil samples for asbestos, lead, TCLP lead, mercury, PCB, solvents, and petroleum hydrocarbon analysis.

8.2 Remedial Strategy

The remedial actions discussed below include removing and/or further investigating known or potential hazards and other approaches may be considered. For example, the building may be renovated for re-use after abating the HBM. The building may also be demolished if allowable under Section 106 with demolition wastes disposed locally after removing the HBM. This option might become financially viable if an inexpensive source of qualified labor becomes available, such as using the structure for a regional lead and asbestos abatement training class, and a local disposal site is permitted.

8.2.1 Hazardous Building Materials Abatement

Prior to implementing other interior or exterior remediation, we recommend removing HBM. Removed HBM will require disposal in an appropriately-permitted landfill or disposal site for each waste type. We anticipate that a hazardous waste management program will also need to be developed prior to initiating abatement.

8.2.2 Impacted Soil Management Strategies

Due to shallow bedrock, it is not anticipated that soil contamination, if encountered, will be vertically extensive. Therefore, in-situ soil remediation alternatives were not evaluated as possible soil management strategies. If during the site characterization activities COC concentrations exceeding DEC cleanup levels are encountered in soil, we recommend impacted soil removal. Soil removal and treatment is relatively expensive initially, but highly effective. Removed soil will require treatment or disposal in an approved landfill or disposal site.

For soil potentially impacted by lead, asbestos, PCB, solvents, and/or other regulated non-petroleum contaminants, we recommend disposal at an off-site permitted landfill. Encapsulating the material (such as in concrete) is a potential option. Biodegradation is not an option for soil containing lead, asbestos, or PCBs.

8.2.3 Impacted Water Management Strategies

Due to shallow bedrock, it is not anticipated that groundwater contamination from petroleum hydrocarbons will be encountered. However, it is possible that the bedrock is fractured allowing perched groundwater to enter fractures and discharge to streams and/or Passage Canal. Furthermore, there is a potential that water entering the Property's drains and

sumps may be impacted with asbestos and/or other HBM. For groundwater potentially impacted by COC contamination, we recommend removing the sources of the COCs.

8.2.4 Other Materials Management

Other materials that may be generated include non-HBM, empty 55-gallon drums, 5-gallon buckets, a decommissioned UST(s) and associated piping, and investigation-derived waste. Non-HBM could potentially be disposed in a DEC-permitted landfill. Investigation-derived waste may include sampling supplies and decontamination water. Sampling supplies not typically hazardous may be disposed in a municipal solid waste landfill.

We recommend disposing the discarded dock, concrete, and soil stored on the eastern side of the structure at disposal facilities.

8.3 Recommended Remedial Action by Source

Because there are potential source areas that have not been investigated we are recommending additional site characterization for the Property. Until further investigated, we assume primary contaminants of concern (COCs) include asbestos, lead, PCBs, mercury, and petroleum hydrocarbons.

8.3.1 Hazardous Building Materials

We assume that regardless of whether the Buckner Building is demolished or renovated, abatement will need to take place. The abatement phase entails removing ACM, lead based paint, PCB ballasts, mercury lamps and switches, Freon, and other items identified by EHS during their HBM inspection.

As an interim measure to mitigate risk associated with HBM the following engineering controls should be put in place:

- Secure all building openings accessible without a ladder.
- Apply institutional controls to maintain site barriers and notify potential site users or purchasers of known environmental conditions.

For cost estimating purposes, we assume that HBM abatement will likely cost at least $8.5 million. Note that this rough order magnitude (ROM) cost is based on limited information regarding HBM volume and does not include costs to remove hazardous materials from utilidors.

8.3.2 Impacted Surface Soil

If asbestos and/or lead concentrations exceed regulatory cleanup levels are documented during site characterization activities, we recommend excavating 4 to 6 inches of soil from a 3- to 4-foot wide strip around the perimeter of the building where COCs are likely to accumulate. The soil should be placed in shipping containers for disposal. Note that we do not anticipate widespread mercury or petroleum hydrocarbon contamination.

8.3.3 UST(s)

It is possible that the 2,500-gallon gasoline UST shown on the construction plans has been closed in place. Our proposed approach is to perform an in-place closure assessment on the UST, and if contamination is present, remove the tank from the ground.

- If contamination is encountered within the top 5 feet of soil or at the depth necessary to remove the UST, excavate impacted soil and transport it off site for disposal. Backfill the excavation with clean fill material.
- Transport IDW to a permitted disposal facility.

8.3.4 Exterior Piping of Unknown Origin and Use

It is possible that the exterior piping observed protruding from the ground surface near the northwest corner of Section C and near the northeast corner of the building at Section G is associated with a UST(s). Our proposed approach is to perform a limited investigation, and if a UST is present, remove the tank from the ground.

- Excavate soil adjacent to the piping to determine the piping's origin. If the piping connects to a UST, follow the same procedures in Sections 8.1 and 8.3.3. If the piping is found to connect to the building, backfill the excavation and end investigation.

8.3.5 Oil-Filled Electrical Switches

Based on our current understanding of oil-filled electrical switches, there is a potential that the black, oily substance beneath the electrical switches in both electrical distribution rooms contains PCBs. We estimate that less than 3-gallons (total) of oil may remain in the electrical distribution rooms.

- Determine disposal options based on the results of profile sample.
- Remove and containerize PCB oil.
- Dispose of approximately 3 gallons of PCB oil.

8.3.6 Rifle Range Target Line

Based on September 8, and October 22, 2014, observations, spent bullets/lead fragments are present on the floor and in target-line soil of the former rifle ranges in the basement of the Buckner Building. Because these fragments likely contain lead, it is our experience that both the sand and spent ammunition fragments are subject wastes subject to hazardous waste regulation under RCRA.

- Separate sand from the ammunition fragments by screening. Recycle pure lead and test remaining sand.
- Wipe test the floor to determine potential lead impact outside the sand trap.
- Ship sand to an appropriately permitted landfill based on lead concentrations or stabilize and take to Anchorage Regional Landfill as non-hazardous waste.

8.3.7 Other Sources

At least four empty 55-gallon drums and eight 5-gallon buckets of an adhesive compound were observed during our September and October site visits. Our proposed approach is to remove and dispose the drums the buckets.

- Remove and containerize empty 55-gallon drums and 5-gallon buckets with contents.
- Clean petroleum-stained concrete pad in emergency generator room. Alternatively, remove the concrete pad and dispose at an appropriately permitted disposal facility.
- Ship material to a permitted landfill.

8.4 Community Resources

The City of Whittier owns earth-moving equipment, including a backhoe, excavator, and dump truck, which may be available to conduct site characterization/remedial actions at the Buckner Building. The presence and availability of laborers and equipment operators with the qualifications required for work on contaminated sites has not been determined. HAZWOPER-trained and state-certified asbestos and lead workers will likely need to be brought in to Whittier to perform remediation and disposal work.

8.5 Rough Order of Magnitude Cost Estimate

The rough order of magnitude (ROM) cost estimate presented in Appendix J was developed for the site characterization tasks outlined in Section 8.1 and the remedial actions outlined in Section 8.3, and is based on estimates and assumptions made from limited observation data. For cost estimating purposes, the following assumptions were made:

- Site characterization tasks outline in Section 8.1.
- Costs for building demolition are not included.
- ACM abatement costs assume the following estimated quantities:
    - 850 cy gypsum wallboard
    - 78 cy CAB wainscot and partitions
    - 730 cy piping insulation
    - 76 cy floor tiles and mastics
    - 18,000 linear feet wiring insulation
    - 48,430 square feet roofing materials, mastics, sealants, and patches
    - 32,000 linear feet of piping insulation in utilidors
    - 10,200 square feet of ACM impacted rock, sand, and gravel in utilidors
- Structural analysis is limited to determining if the building in its present state is structurally competent for reuse. Costs associated with the restoration of structural deficiencies (if identified) are not included.
- The waste handling contractor is responsible for transporting and disposing impacted media identified during remediation activities. For cost planning purposes, we assume the following estimated quantities:
    - 80 cy non-RCRA petroleum impacted soil
    - 3 gallons of PCB mineral oil
    - 12 cy RCRA lead-impacted soil
    - 175 cy non-RCRA lead and asbestos-impacted soil
    - 4 empty 55-gallon drums
    - 1 pallet of 5-gallon buckets with contents

With these assumptions, our rough order of magnitude cost estimate is $9,000,000. Note that this work may not be sufficient to bring the structure to a usable condition.

The intent of this rough order of magnitude cost estimate is to provide preliminary costs associated with site cleanup activities. These cleanup activities are limited to the tasks and assumptions outlined above, and are based on limited observations to date. Following completion of each task, it may be necessary to modify the project scope and associated costs as

site-specific information is acquired. Additional undocumented areas of impacted soil and/or groundwater may be present at the site. Based on the level of uncertainty in volume of HBM and other data gaps, a contingency of 50 percent is appropriate for planning purposes (e.g., $4,500,000).

9.0 CONCLUSIONS

As part of this PACP we have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of the Buckner Building in Whittier, Alaska. Any exceptions to, or deletions from, this practice are described in Section 11.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Property except for the following:

Recognized Environmental Conditions

A REC is the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. This assessment revealed no evidence of RECs in connection with the Property or adjacent properties except for the following:

On-Site Recognized Environmental Conditions

According to architectural drawings, a 2,500 gallon gasoline UST was installed on the south side of the Buckner Building, between Sections B and C. It is unknown if the UST is still present on the Property. Additionally, exterior piping was observed near the northwest corner of Section C and near the northeast corner of the building at Section G. The exterior piping may be associated with a UST(s). In our experience, it is common for petroleum products to be present in soils in the vicinity of USTs, due to both known and unknown or undocumented releases over time.

A black, oily substance was observed beneath the oil-filled switches in the basement electrical distribution rooms. Based on our current understanding of the switches, the oil may contain PCBs. In addition, light ballasts likely containing PCBs were observed dangling from the ceiling throughout the structure. There is a potential that PCBs from the switches and light ballasts have impacted the building's floor and have the potential to enter floor drains. PCBs are regulated under the Toxic Substances Control Act (TSCA) and DEC contaminated site regulations.

We understand the structure's floor drains and sumps discharge to Passage Canal. There is a potential that HBM suspected in the building (i.e. ACM, PCBs, lead-containing materials, etc.) and petroleum could enter the wastewater system through the floor drains and sumps and impact Passage Canal.

ACM and lead-containing materials are likely present on the exterior of the Buckner Building. There is a potential that flaking, weathered lead-based paint could impact the Property's exterior surface soil. Additionally, because windows and doors are not weather tight, ACM in the building that dries out and becomes airborne could transport asbestos outside the building. Furthermore, ACM is suspected in multiple materials within the Buckner Building. We conclude that regardless of whether the structure is demolished or renovated, abatement will be necessary for reuse and redevelopment. Due to the extensive volume and level of damage to the ACM, we recommend that access to the building be limited to certified asbestos workers wearing suitable personal protective equipment. ACM is a regulated hazardous air pollutant under the Clean Air Act, and is therefore subject to federal regulation as a hazardous substance.

Ammunition fragments are present at the target line of the former rifle ranges in the basement of the Buckner Building. Because these fragments likely contain lead, it is our experience that both the target line sand and spent ammunition fragments are solid wastes subject to hazardous waste regulation under RCRA.

Three empty 55-gallon drums were observed in Section B and one empty 55-gallon drum was observed in Section G of the structure. In addition, multiple 5-gallon buckets with unknown contents were observed. The drums were not labeled and the nature of the containers' current and/or former contents is unknown. Evidence of leaks and/or spills was not observed during our September and October 2014 site visits, although the drums were damaged (i.e. had holes, were corroded and showed signs of potential freeze/thaw damage) and may have leaked their contents resulting in impact to the Property. Note that a comprehensive waste inventory was outside the scope of this PACP.

Other Environmental Conditions

Other Environmental Conditions include known, suspected, or potential sources of hazardous substances or petroleum products that are not considered RECs due to (a) the absence of a confirmed release or other material threat, (b) insufficient information to sufficiently evaluate the condition, (c) de minimis conditions that are not expected to be subject to regulatory action or (d) exclusion from the ASTM definition of hazardous material (e.g. ACM). No Other Environmental Conditions were identified on the Property except for the following:

- Based on observations during our September and October 2014 site visits, and aerial photograph review, the Property has been used to store unused and/or discarded materials that may be classified as solid waste per state and federal regulations. Among the miscellaneous items observed throughout the Property, sources of potential contamination include but are not limited to chemical containers, aerosol cans, tires, vehicles, construction materials, scrap metal, and discarded equipment.
- Six elevators provide access to the building's eight floors. Due to safety concerns, the bases of the elevator shafts were not assessed. If the bases are not finished with cement, there is a potential that hydraulic and/or other maintenance fluid could impact the Property's soil and/or groundwater.
- Off-site fill has been deposited on the Property. Imported fill material may be a concern if contaminants are present within the material.
- Extensive mold was observed on the walls and floors of the structure, most notably in the basement, ground floor, and first floor.
- Evidence of a former fuel-fired emergency generator was observed in Section A in the room adjoining the electrical distribution room. A hydrocarbon odor was noted in the emergency generator room and surface staining was observed on the concrete pad that the generator was presumably mounted, on suggesting previous hydrocarbon release(s).
- A dry cleaning facility previously operated in the eastern portion of the first floor. No evidence of chemicals or chemical storage areas was observed in the former dry cleaning or laundry rooms but chemicals were likely used and could have impacted the structure and/or surrounding ground.
- A loading dock constructed from possible creosote treated railroad ties is located near the southern corner of the building. It is possible that creosote logs may have impacted the soil on the Property.
- Mr. Mark Lynch, City Manager, speculated that above ground and/or underground storage tanks used for heating fuel may have been used on the Property
- Other hazardous materials that may be present in the building include lead-containing, mercury-containing, petroleum products, and ozone depleting substances.

The Buckner Building has been deemed a historic building and is eligible for inclusion on the National Register of Historic Properties. Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies take into account the effects of activities on historic properties. A Section 106 evaluation will be needed to determine if removal of hazardous materials will adversely affect the building.

Because there are potential source areas that have not been investigated (i.e. exterior piping of unknown origin and purpose, current status of the 2,500-gallon UST, PCB content in switch oil, etc.), we recommend additional site characterization in addition to remediation for the Property. The rough order of magnitude (ROM) cost of site characterization and remediation is estimated at $9,000,000. Note that over 90 percent of the ROM cost is for ACM abatement. Due to the level of uncertainty in volume of hazardous building materials and other data gaps, we recommend a planning contingency of 50 percent.

10.0 PERSONNEL QUALIFICATIONS

This PACP was prepared by Ms. Jennifer Simmons under the direct supervision of Mr. Tim Terry, C.P.G., and Mr. Matthew Hemry, P.E. Ms. Simmons, an Environmental Scientist IV, received a B.S. in Geology from the University of Arizona. Project Manager, Mr. Terry received a B.S. in Engineering Geology from the University of California at Los Angeles (UCLA) in 1983. Mr. Hemry, Vice President, received a B.S. in Engineering Sciences from Dartmouth College in 1990 and a M.S. in Environmental Engineering from Duke University in 1992. These individuals have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property, and they have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. Shannon & Wilson declares that, to the best of our professional knowledge and belief, Ms. Simmons, Mr. Terry, and Mr. Hemry meet the definition of "Environmental Professional" as defined in 40 CFR 312.10.

11.0 LIMITATIONS AND EXCEPTIONS

The following elements constitute deviations, exceptions, and/or data gaps, with respect to the standard requirements of ASTM E 1527-13 Phase I Environmental Assessments. In our opinion, none of these considerations impacts our ability to identify recognized environmental conditions at the subject property.

- The DEC List of Contaminated Sites is assumed to be equivalent to a hazardous waste sites list and includes voluntary cleanup sites.

- Tribal lists of environmental concerns were not reviewed. The tribal lists are identified as "standard environmental sources" in ASTM Section 8.2.1. To our knowledge, such databases do not exist for the State of Alaska.
- All of the Standard Historical Sources listed in ASTM Section 8.3.4 were not researched because they were not reasonably ascertainable and likely to be useful. For example, fire insurance maps, local street directories, building department records, and property tax files were not researched.
- Note that due to the vast size of the Buckner Building, a complete assessment of the entire building was not practical. Also, note that during our September and October 2014 site visits, the structure did not have an electrical source and the building was evaluated with a flashlight.

12.0 CLOSURE

This report was prepared for the exclusive use of our clients and their representatives in the study of this site. The findings we have presented within this report are based on the limited research and field observations that we conducted. Our observations were limited to areas that were readily, and no analytical samples were collected. Therefore, our findings should not be construed as definite conclusions regarding the site's environmental condition and other undocumented source(s) may be present. As a result, our limited research and observations can only provide you with our professional judgment as to the environmental characteristics of this site, and in no way guarantees that an agency or its staff will reach the same conclusions as Shannon & Wilson, Inc. The data presented in this report should be considered representative of the time of our site assessment. Changes in site conditions can occur with time, due to natural forces or human activity. In addition, changes in government codes, regulations, or laws may occur. Because of such changes beyond our control, our observations and interpretations may need to be revised. Shannon & Wilson has prepared the attachments in Appendix K, "Important Information About Your Geotechnical/Environmental Report," to assist you and others in understanding the use and limitations of our reports.

Copies of documents that may be relied upon by our client are limited to the printed copies (also known as hard copies) that are signed or sealed by Shannon & Wilson with a wet, blue ink signature. Files provided in electronic media format are furnished solely for the convenience of the client. Any conclusion or information obtained or derived from such electronic files shall be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, or you question the authenticity of the report please contact the undersigned.

We appreciate this opportunity to be of service. Please contact the undersigned at (907) 561-2120 with questions or comments concerning the contents of this report.

Sincerely,

SHANNON & WILSON, INC.

Jennifer Simmons
Environmental Scientist

Matthew Hemry, P.E.
Vice President

13.0 REFERENCES

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TABLE 1
REGISTERED UNDERGROUND STORAGE TANKS WITHIN A 0.25-MILE RADIUS

Facility Name	Facility ID	Street Address	Owner Name	Tank ID	Tank Status	Tank Capacity (gallons)	Tank Contents	Approximate Distance from Property
Alaska Railroad Corp (ARRC)	1190	Marine Fuel Float	Alaska Railroad Corporation (ARRC)	1	Tank Removed from Ground	10,000	Heating Oil	300 feet north
				2	Permanently Out of Use	10,000	Heating Oil	
				3	Permanently Out of Use	2,500	Diesel	
				4	Permanently Out of Use	2,500	Gasoline	
City of Whittier	2363	Whittier Street Maintenance Shop	City of Whittier	1	Tank Removed from Ground	5,000	Diesel	1,200 feet west
				2	Tank Removed from Ground	5,000	Gasoline	
				3	Tank Removed from Ground	1,000	Diesel	
				4	Tank Removed from Ground	1,000	Diesel	

TABLE 2
LEAKING UNDERGROUND STORAGE TANK SITES WITHIN A 0.5-MILE RADIUS

Facility Name	Street Address	Status	Office File ID*	Approximate Distance From Property
Alaska Railroad Corporation (ARRC) Whittier Rail Yard	Whittier	Active	2114.26.005	300 feet north
Alaska Department of Transportation & Public Facilities (ADOT&PF) Whittier Ferry Terminal	Whittier Ferry Terminal	Cleanup Complete	2114.26.006	1,520 feet northwest
Main Bay Hatchery	PO Box 769	Cleanup Complete	2114.26.004	1,530 feet west
Begich Towers	100 Kenai Street	Active	2114.26.002	1,650 feet southwest

Notes:
* The Office File ID is the ADEC file number.

TABLE 3
CONTAMINATED SITES WITHIN A 1.0-MILE RADIUS

Facility Name and Street Address	Office File ID~	Status/Priority	Problem, as listed by ADEC*	Approximate Distance From Property
Buckner Building Blackstone Road	2114.57.003	Active	The Buckner building was constructed in 1953 as the principal living quarters for the United States Army. Currently abandoned (2013), nearly all items of value have been stripped for salvage or destroyed by vandalism. The 273,660 square foot building, was historically the largest structure in Alaska. The 1964 earthquake caused major structural damage to the Buckner Building. The reuse plans for the structure are not clear, but it has been determined that any activity will require some level of environmental assessment to target specific follow up work, either prior to demolition or prior to renovation. The site was selected for a brownfield assessment to help collect important information to focus future actions by the City of Whittier.	Property
Whittier Powerplant, UST and Utilidor 480 Feet east of Anchor Inn	2114.38.010	Cleanup Complete-Institutional Controls	1.5-million gallon field constructed UST to supply a power plant constructed in the 1940s was constructed into blasted bedrock. Tank was removed in the fall of 1998. 120 cubic yards of DRO impacted bedding material was transported for thermal treatment. Three pipelines between the tank and the powerplant and dock are currently under investigation (spring 2000). File 2114.38.002, formerly named Whittier Utilidor Removal, has been merged with this file.	350 feet northwest
United States Forest Service Whittier Fire Hall/Admin Building Whittier Street, Southeast Corner	2114.38.012	Cleanup Complete	Peeling lead-based paint has contaminated between 6 and 20 cubic yards of soil around the building. Building is scheduled to be demolished in 2005.	700 feet west
Whittier Incinerator & Impound Yard Depot Road, Near Old Powerplant	2114.38.001	Cleanup Complete	Soil sampling done by VECO reported detection of petroleum products and low levels of PCBs. Lots 1, 2 and 3, Block 11, City of Whittier Subdivision. Main file contains documents regarding and/or referencing the Gilman Subdivision, the Water Improvement System and Pipeline activity.	900 feet northeast

~ The Office File ID is the ADEC file identification number

* Narrative taken directly from ADEC summary statement in the on-line database. This summary may not fully describe the nature of the environmental concern and/or potential risk to human health, safety, welfare, or the environment

TABLE 3
CONTAMINATED SITES WITHIN A 1.0-MILE RADIUS

Facility Name and Street Address	Office File ID~	Status/Priority	Problem, as listed by ADEC*	Approximate Distance From Property
Whittier School Tanks Portage Street or 1 Windy Lane	2114.38.015	Active	Two heating oil tanks were to be removed under a contract for the school district. One tank had rainbow sheening on the runoff starting from the fill pipe when arrived on site for removal. 107 tons of soil was excavated and taken to ASR. Soil sampling from the excavation shows that DRO levels were above ADEC cleanup levels-up to 5500 mg/kg in the remaining soil. Groundwater not yet characterized. Site is upgradient from Begich Towers site.	1,850 feet southwest
Port of Whittier (FUDS - small boat harbor) Whittier Small Boat Harbor	2114.38.017	Active	Approximately 10 million gallons of diesel fuel spilled from ruptured above ground storage tanks as a result of the 1964 earthquake. The fuel caught fire. However, diesel contaminated the surrounding area. Subsequent expansion of the small boat harbor may have removed some of the contamination. The city has plans to further expand the small boat harbor. Unocal is a potential RP - they owned over half of the tank farm that failed. Unocal has not been officially brought on board as an RP as of the summer of 1999. As of the summer of 1999 the harbor expansion is planned to extend into the bay rather than inland. DOT will be paving the harbor parking area in the summer of 2000 and upgrading the storm sewers in the area. All but two of the wells that were installed during the Golder and COE studies have been destroyed or can't be located. Application received by DEC for a DEC Brownfield Assessment in 2005. Ranking did not place it in the top 6 sites that were designated for funding for an assessment. Brownfield tracking file created, for cross-reference: 2114.57.002. Whittier city manager reapplied for brownfield assistance successfully in 2006. Changed focus to Whittier area wide assessment, to include Head of Passage Canal and Small Boat Harbor areas. New Brownfield file (previous numbers reassigned) is 2114.57.005.	1,900 feet northwest

~ The Office File ID is the ADEC file identification number

* Narrative taken directly from ADEC summary statement in the on-line database. This summary may not fully describe the nature of the environmental concern and/or potential risk to human health, safety, welfare, or the environment

TABLE 3
CONTAMINATED SITES WITHIN A 1.0-MILE RADIUS

Facility Name and Street Address	Office File ID~	Status/Priority	Problem, as listed by ADEC*	Approximate Distance From Property
Alaska Railroad Corporation Old Creosote Plant 100 feet east of Whittier Creek and 250 feet south of canal near railroad tracks	2114.38.008	Cleanup Complete-Institutional Controls	The property was historically leased to Koppers Company, V.C. Mohan, Alaska Pollution Control, and a private individual from 1959 to 1982 and consisted of two buildings and six above ground storage tanks (ASTs) with a combined capacity of 432,000 gallons. The property was used as a creosote plant to treat wood for 1 year and for fuel storage for 20 years. These activities resulted in onsite DRO and PAH soil contamination. The extent of soil contamination at the old creosote plant location was determined to be 5 to 15 feet below ground surface based off soil and groundwater sampling from 1982 to 2012. This site was capped with gravel in 2000 for its current use as a parking lot. Based off site characterization activities and its current use as a parking lot, ADEC has determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment. No further remedial action will be required as long as the site is in compliance with established institutional controls. Files exist in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) filing system. Environmental Protection Agency (EPA) ID# AKD980664635. (Note: in 2000, there was an additional contaminated area encountered 800 feet south of the Creosote Plant adjacent to Whittier Creek at the upper parking lot. Two Locomotives, scrap metal, old railroad ties, and contaminated soil was encountered at the area during the construction of the parking lot. An excavation groundwater sample collected from 5 to 6 feet bgs contained detectable concentrations of contaminants, but below default groundwater cleanup levels. It appears no confirmation soil samples were collected. ADEC approved the soil to be transported to Alaska Soil Recycling for thermal remediation. The area was then capped and partially graded with clean fill. Update 11/6/13, reportedly, work is planned for September 2014 at the Upper parking lot to level the area to grade.)	2,390 feet west

~ The Office File ID is the ADEC file identification number

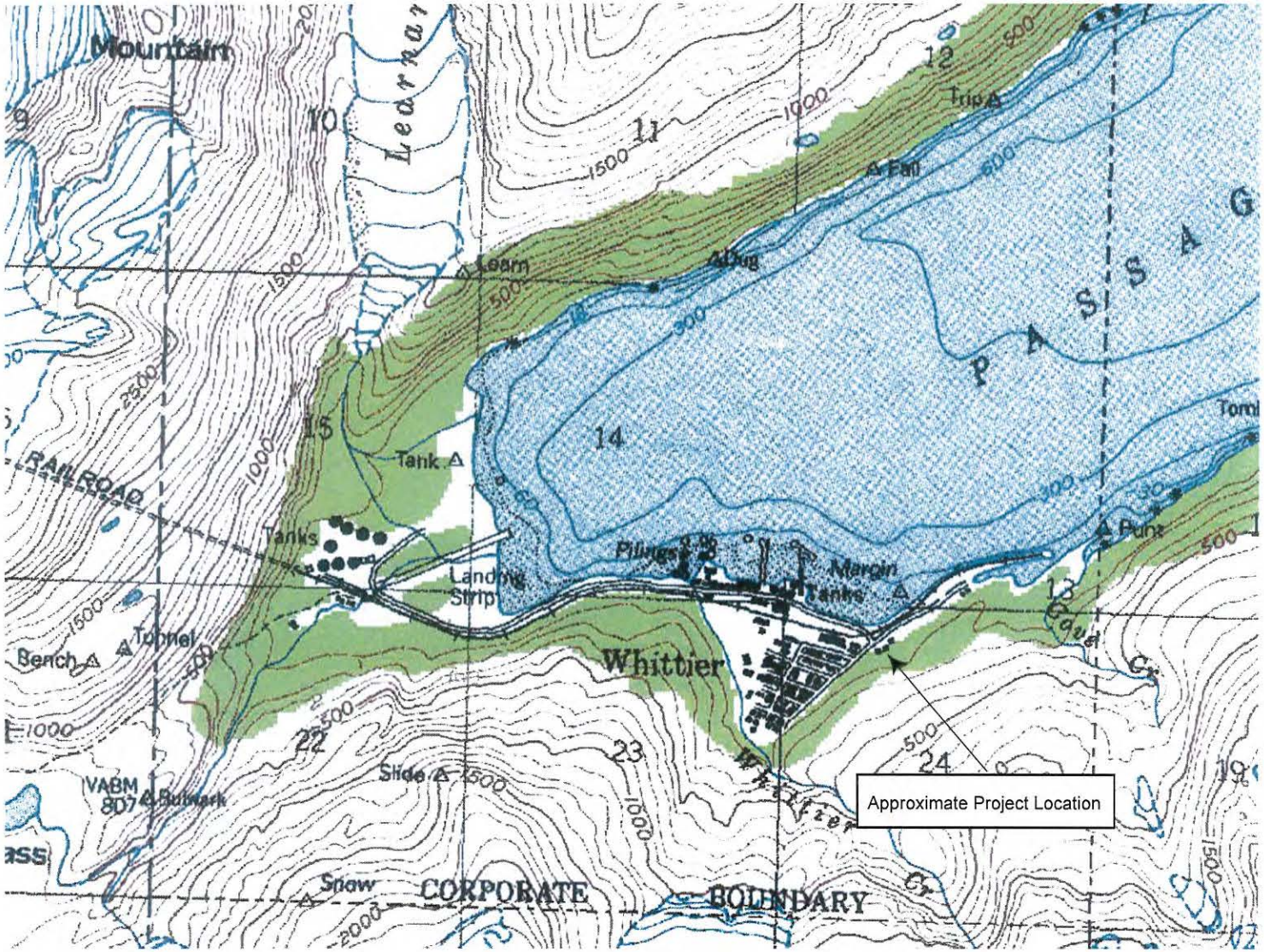
* Narrative taken directly from ADEC summary statement in the on-line database. This summary may not fully describe the nature of the environmental concern and/or potential risk to human health, safety, welfare, or the environment

TABLE 3
CONTAMINATED SITES WITHIN A 1.0-MILE RADIUS

Facility Name and Street Address	Office File ID~	Status/Priority	Problem, as listed by ADEC*	Approximate Distance From Property
Whittier Inn at Whittier Harbor Loop near Boat Harbor	2114.38.013	Active	Contaminated soil and water discovered in a smear zone at the waterline of the adjacent marine environment (small boat harbor) during excavation for a foundation for a new hotel. Contamination is reportedly historic and consists of a zone of Bunker C along the rip-rap reinforced waterline. The source of the contamination is reportedly a tank farm located off-property. Land owners are City of Whittier and the Alaska Railroad.	3,280 feet west/northwest

~ The Office File ID is the ADEC file identification number

* Narrative taken directly from ADEC summary statement in the on-line database. This summary may not fully describe the nature of the environmental concern and/or potential risk to human health, safety, welfare, or the environment



Elevation in Feet
Contour Interval 100 Feet
Taken from Seward D-5 SE
U.S. Geological Survey Quadrangle

0 0.5 Mile 1.0 Mile
APPROXIMATE SCALE IN FEET

N

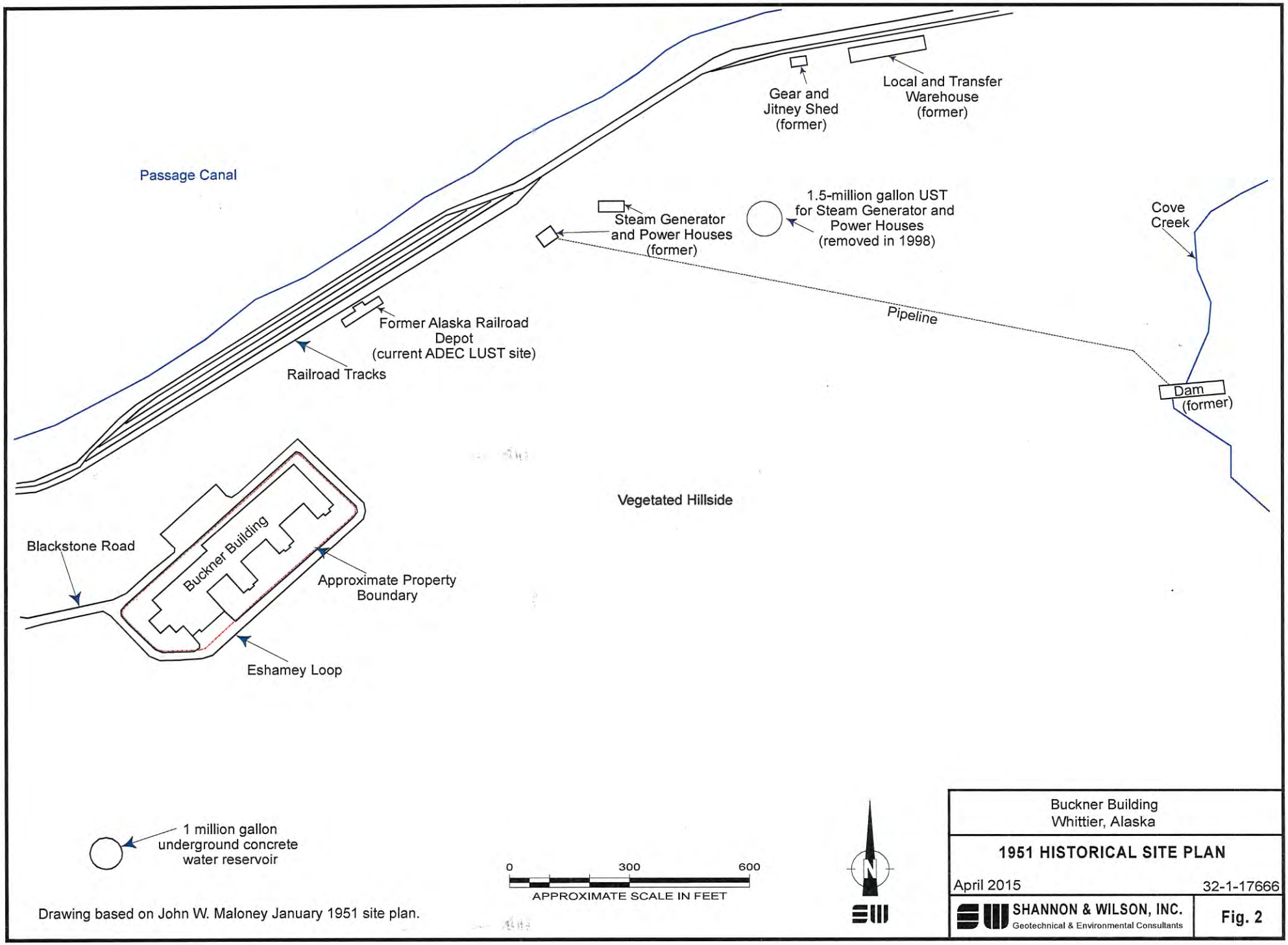
Buckner Building PACP
Whittier, Alaska

VICINITY MAP

April 2015 32-1-17666

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

Fig. 1



Drawing based on John W. Maloney January 1951 site plan.

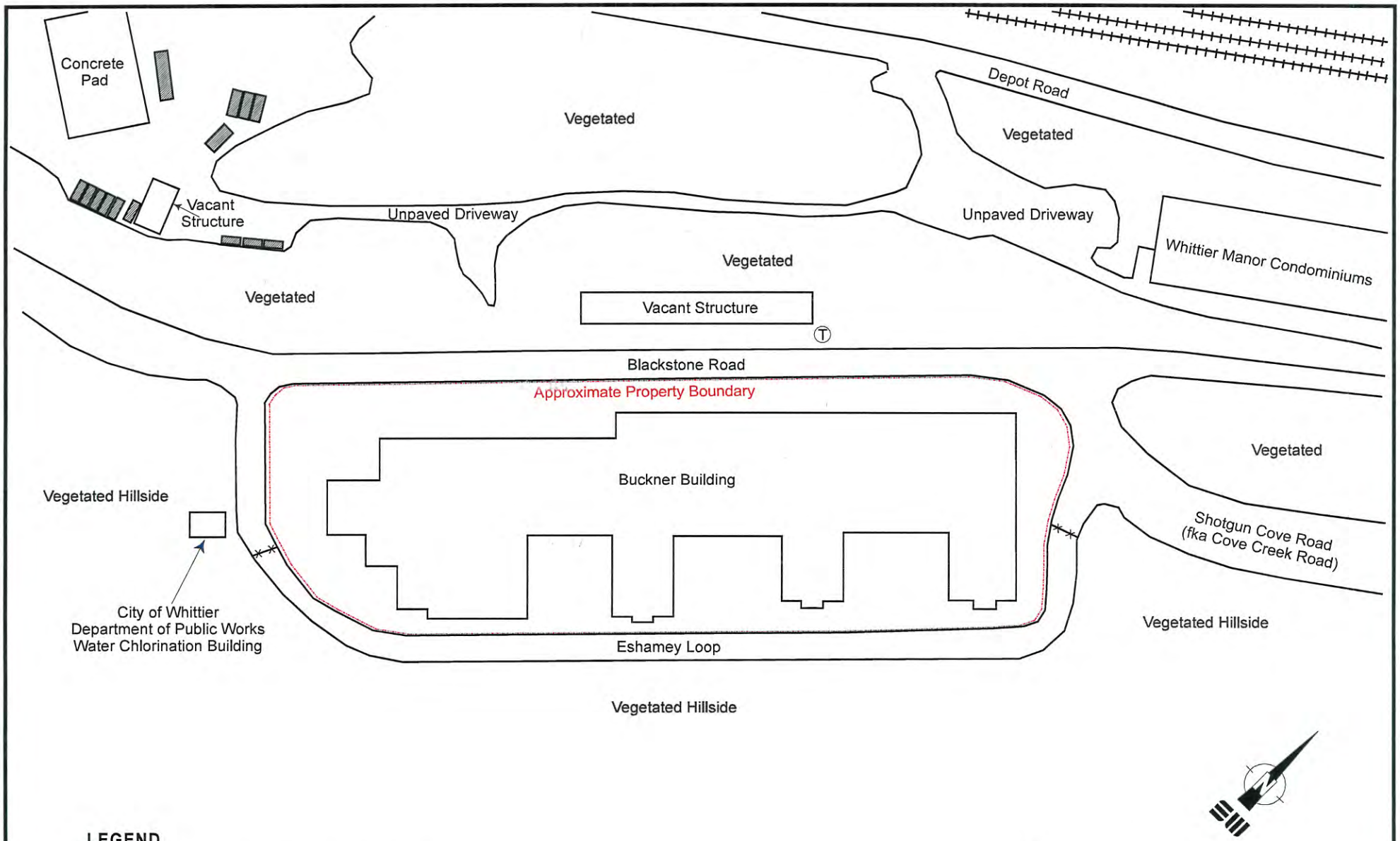
Buckner Building
Whittier, Alaska

1951 HISTORICAL SITE PLAN

April 2015 32-1-17666

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

Fig. 2



LEGEND

- Ⓣ Approximate location of pole-mounted transformer
- Approximate location of access gate
- Approximate location of connex storage container
- Approximate location of railroad tracks

0 100 200

APPROXIMATE SCALE IN FEET

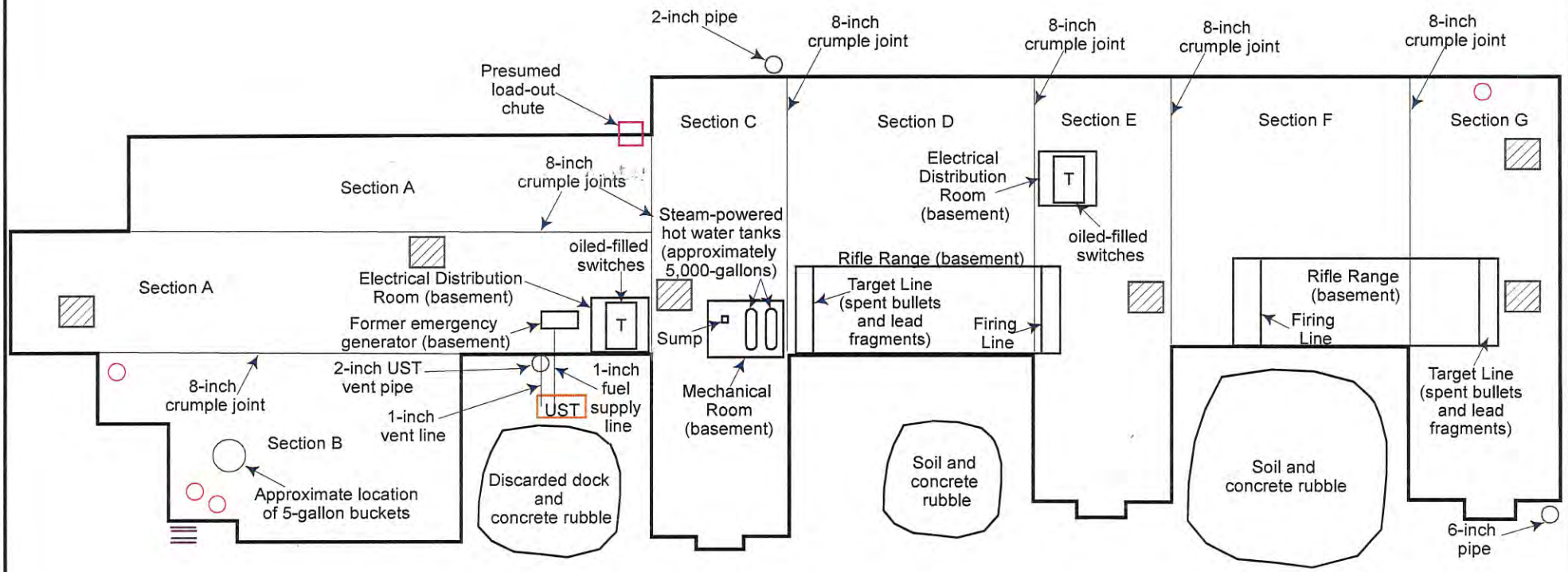
Buckner Building
Whittier, Alaska

SITE PLAN - OVERVIEW

April 2015 32-1-17666

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

Fig. 3



LEGEND

UST — Approximate location of 2,500-gallon gasoline UST (see Photos 6 and 7).

T — Approximate location 500 kVA electical transformer observed during Shannon & Wilson's September 8 and October 22, 2014 site visits (see Photos 2, H-10, H-11, H-12, and H-18).

Approximate location of empty 55-gallon drum observed on the ground floor during Shannon & Wilson's September 8 and October 22, 2014 site visits (see Photo H-21).

Approximate location of exterior piping observed during Shannon & Wilson's September 8 and October 22, 2014 site visits (See Photos H-30 and H-31).

Approximate location of elevator.

Approximate location of potentially creosote-treated railroad ties observed during Shannon & Wilson's September 8 and October 22, 2014 site visits.

0 50 100

APPROXIMATE SCALE IN FEET

Buckner Building
Whittier, Alaska

SITE PLAN - DETAILED

February 2015 32-1-17666

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

Fig. 4

APPENDIX A

DEC BROWNFIELD ASSESSMENT OR CLEANUP REQUEST FORM

DEC's Reuse & Redevelopment Program

DEC Brownfield Assessment or Cleanup Request Form – 2013

General Requirements: For this year's DEC Brownfield Assessment and Cleanup (DBAC) requests, we suggest submitting a site that has had prior assessment activities and now requires further site characterization or cleanup. **The site should also be one for which the community has solid reuse or redevelopment plans and for which they have explored funding opportunities for the intended reuse.** For a list of previous DEC Brownfield Assessment project sites in your area, please contact us.

The deadline for receipt of requests is February 28, 2013.

Site Name: Buckner Building

Submitted by: City of Whittier

A. THRESHOLD CRITERIA: The following must be TRUE:

1. This site **IS NOT** federally or state owned.

2. To our knowledge, this site or facility **HAS NOT** received funding for remediation from the Leaking Underground Storage Tank (LUST) Trust Fund.

3. The Applicant/Organization requesting this service **IS NOT directly** responsible for causing the potential contamination.

4. The Owner of the property is not directly responsible for causing the potential contamination, **OR** the Owner has no financial capacity to properly address the assessment or cleanup of the site.

5. There is a documented reuse or redevelopment plan for the site that is described in this request. (Documented means that it is in a resolution, business plan, or economic development plan, or that funding for reuse is actively being sought and can be documented).

If any of the above statements is NOT TRUE, your site is probably not eligible for brownfield services. If you have questions or concerns, please call us to discuss them.

B. UNRANKED CRITERIA

1. To the best of your knowledge, is the Owner of the property in question:

☐ Private XX☐ City/Public ☐ Native Corp. ☐ Tribe

2. Known or suspected contaminant(s) at the site (check one):

☐ Hazardous Substances ☐ Petroleum Only XX ☐ Hazardous Substances and Petroleum

3. Is this site currently listed on DEC's *Contaminated Sites* database?

☐ Yes XX☐ No If Yes, please list the DEC file number here:

4. Is this site referred to by any other name?

☐ Yes XX☐ No ☐ Unknown If Yes, please provide name(s) here:

C. RANKING CRITERIA

The following ranking criteria will be used to prioritize and select one to three projects for our fiscal year 2014 funding (FY14 begins July 1, 2013). The number of sites selected depends on our actual FY14 funding amount. The project must provide a definite benefit to the community, and we must be able to cover the needed scope of work with our available funding. Each of these questions must have a response in order for your request to be considered.

1. Project Summary

Explain *in your own words* what you are hoping to gain through this effort; i.e., what would you like to see *in place* of the site for which you are requesting assessment or cleanup, and how will this project help you achieve your goals for the site?

The Buckner Building was constructed by the U. S Military. The federal government disposed of the property and it ultimately had numerous owners. The most recent private owners forfeited the building to the City of Whittier on property tax foreclosure. The City is now the reluctant owner and needs to do something with this property. Some residents are in favor of demolition of this building, an act which would provide for removal of its hazards, and for much needed City owned vacant land, which is in extremely short supply in Whittier. Other citizens are in favor of restoring the structure to some useful purpose.

There are several obstacles to either of these approaches. One is the building's sheer size. Either demolition or refurbishment of such a large structure would be a huge task, which would be accompanied by a huge price tag. This fact has given rise to a third approach, which would be to demolish part of the structure and refurbish part, in a phased approach which would lessen the immediate financial impact of the project.

The first obstacle to all of these approaches is the fact that the building is known to contain asbestos and lead paint. What is not currently known is to what extent these and potential other contaminant substances exist within the facility. The City of Whittier desires assistance from the Brownfield program in order to provide for assessment of the structure and to provide for planning activities which would prepare the way forward for this project.

Regardless of the fate of this structure, it is the City's desire to see this property re-developed for the benefit of the City and its residents, and to provide for economic development to the maximum extent possible.

2. Applicant/Owner

a. Applicant - Who is applying for this service? Provide the name and address of the **organization** applying for the DBAC service, the name of the contact person, email, telephone, and fax numbers. If Applicant is Village IGAP staff OR Tribal Response Program staff, please provide the **name of your EPA Project Officer**.

City of Whittier
P.O. Box 608
Whittier Alaska 99693
Contact: Tom Bolen – City Manager
Tel. 907 472-2327 ex.103
Fax: 907 472-2404
Email: citymanager@whittieralaska.gov

b. Property Owner - The owner of the property must allow DEC access to the site. If the applicant is different from the owner, attach *written consent* for access from the owner. (*Note: the applicant must be able to secure access for DEC and its contractors to conduct the assessment or cleanup.*)

City of Whittier is the property owner and the applicant and guarantees ADEC access to the site.

3. Project Team

We ask that you form a project team (three or more individuals or organizations) to ensure continuity beyond this effort and coordination for success of the overall project. Attach a letter of support from each team member. (Team members may include: city or village government representatives, city or tribal council members, village or regional corporation representatives, environmental managers, elders or other community leaders, local non-profit or community development organizations, and other interested parties.) List team members, the organizations they represent, and their contact information below.

Team Members:

Tom Bolen, The City of Whittier 907-472-2327 citymanager@whittieralaska.gov

Sue Cogswell, Coordinator, Prince William Sound Economic Development District (This group has pledged their support through a resolution- which is attached- They have not identified themselves as a "Team Member" per se). (907) 222-2440, pwsedd@gci.net

Ted Spencer, Community History Activist who has interest in historic preservation. Ted is also the Curator of the local Museum in Whittier, which is run by a non-profit corporation. 619-277-1824, wingsoveralaska@gmail.com

4. Site Information

a. Current Site Condition and Use - Provide the common name of the site, address, approximate acreage, zoning, and types of buildings. Please attach a site map or aerial photograph showing the site's location in the community and adjacent land use. Identify on the map or aerial photo any areas of known or suspected contamination (for Question 5). Identify approximate property boundaries.

The Buckner Building is in a state of overt disrepair and is suffering from heavy damage to the interior components of the building. Virtually all the windows and doors have been broken out due to vandalism, exposing the interior to the elements of wind rain ice & snow. Interior walls are water damaged, broken through and/or covered with graffiti. Plumbing fixtures and tiles have been smashed, water pipes broken, electrical fixtures damaged or stolen, broken glass shattered lumber and other dangerous materials characterize the scene in the lower levels. Some of these conditions are also evident in other areas of the building. Extensive water damage mold and other vegetation permeate the lower levels of the building. There is a lot of debris associated with the vandalism scattered about, especially on the lower levels. There are specific dangerous areas such as open elevator shafts unmarked unlit and unimpeded. While it has been rumored for years that the building contains hazardous levels of asbestos, solvents and lead paint these reports have never been verified and require a professional assessment in order to determine the levels of these hazards. The lead paint presence is safely presumed based on the age of the structure, and asbestos pipe insulation has been physically observed, although not formerly tested and verified.

The basic building frame is mostly steel reinforced concrete with some areas containing non load bearing concrete masonry block walls. For the most part the concrete shell of the building is intact as are the stairwells and roof. There is substantial evidence of mold on the outside surfaces of the building along with extensive graffiti.

The building is currently in an abandoned state with the exception of bears rumored to be wintering in the basement levels. Security fencing is currently being installed to keep the curious public out of harm's way.

b. Historical Site Use - Describe, to the best of your ability, the previous known uses of the site, and when the different activities occurred. Summarize any historic or cultural significance of the property. Identify <u>when</u> and <u>how</u> the site became or may have become contaminated, with what substance(s), and where any contamination is likely to be found.

The 6 story Buckner Building was constructed to completion in 1953. The construction was due in part as a reaction to the events of the Korean War and the Cold War. At the time of its completion it was considered to be the largest building in Alaska and was designed to house a garrison of 1000 troops stationed at the Whittier Army Port. With a square footage of 273,660 square feet there was ample room for many amenities causing the building to be dubbed the "City Within a Building". These amenities spaces included not only huge dormitories but also a massive consolidated mess hall, 340 seat theater, gun firing range, bank, post office, barber shop, commissary, post exchange, craft shop, snack bar, Officer's Club, bowling alley, library, Serviceman's Club, hospital and dental clinic, laundry & dry-cleaning facility, bakery, classrooms, radio & TV station, oversized stairwells, elevators and extensive office space. Tunnels connected the building to other buildings on the base making it unnecessary for personnel to be exposed to the harsh conditions of Whittier's winter. It was truly an amazing military structure for its day.

The building construction was begun in 1950 and was designed under contract by the John W. Mahoney Architects and Engineering firm located in Seattle. The construction was under the management and supervision of the U.S. Army Corps of Engineers. The Buckner was built 100 feet above sea level and sits on a foundation of solid bedrock. The Buckner Building was designed with steel reinforced poured concrete wall and was intended to be semi bombproof. The building withstood the 9.4 Great Alaskan Earthquake of 1964 with no discernible damage.

The Buckner Building was named in honor of General Simon B. Buckner, who led the effort to build up Alaska's military defenses prior to and during World War II. Under his leadership American forces successfully defended Alaska from Japanese invasion and repelled the Japanese military occupation of Attu and Kiska in the Aleutian Islands. Gen Buckner was killed in battle during the Battle of Okinawa on June 18, 1945 and was the highest ranking American officer to be lost in the Pacific War.

With the evolution of the ICBM nuclear missile capability the necessity to station a large troop presence at the Whittier Army Port diminished and the military withdrew from the port and put the port facilities up for public lease. The Buckner Building was mothballed around 1960. In 1969 Whittier was chartered as a 4th class city by the State of Alaska opening the door to a resident civilian administration. In 1972 the City of Whittier purchased 97 acres of land containing 7 Cold War era capital buildings, the Buckner Building among them. Unattended, the Buckner Building began its slow decline and was ravaged by intensive vandalism. The breaking of the windows and doors led the way of destruction exposing the interior to the harsh climate of Whittier. Interior destruction of walls and fixtures also was perpetrated by the vandals all of which has led to the possible exposure of hazardous materials.

The various city governments sold the Buckner Building to various private interests, all of whom had dreams of developing the massive structure into a commercial enterprise. At one point in time (1979) the Buckner Building was owned by the famous Alaskan realtor Pete Zamarello dba C.B.S. Real Estate. He paid $125,000 according to his remembrances. His ambitions included turning the massive space into condominiums and later made a bid to convert the building into a state prison. When that deal fell through he claims he gave the building away.

In November of 2012 the ownership of the Buckner Building was returned to the City of Whittier due to unpaid property taxes by the most recent private owners.

c. Reason for Concern - What is the reason for concern? Please discuss community concerns in general, and identify any specific problems if possible.

The current condition of the Buckner Building constitutes a dangerous hazard to the public health and safety and presents an ongoing liability to current and previous owners. There is a potential that hazardous materials may be leaching into the soil, groundwater, or by runoff, into the waters of Prince William Sound. Although the City is currently acting to secure the site, previous owners have also made attempts to secure the building, with these attempts ultimately failing. To effectively protect the public, the site must ne remediated.

5. Project Scoping Information

a. Findings from Past Environmental Assessments - Has the site had previous assessment activities?

☒ No ☐ DBA ☐ Targeted Brownfield Assessment (TBA) ☐ Other_____

Please describe any previous environmental work that you are aware of, such as site assessments or cleanup activities. It will be important that we have all documents and information if not already available in our files. Please attach copies of executive summaries or summary and conclusions sections from any past reports. (If a DBAC service is approved for your project, complete copies of previous reports must be made available if not already in DEC files.)

b. Project Need - Describe to the best of your ability what your project team believes are the needed environmental assessment or cleanup activities, and what result you would like to see from this project. Include any constraints as to when this work must be completed (e.g., to meet construction timeline, property transaction pending, etc.).

Whittier is a small community with a small year-round population (approximately 175). The City of Whittier does not have the technical expertise nor the financial means to take on this assessment and remediation activity. It is presumed that the presence of these hazards has been an obstacle to the numerous prior attempts to "re-vitalize" this structure. Assessment, planning, and remediation efforts are the key elements to ant forward progress to re-develop this site.

Project activities will likely be limited to late spring/summer/early fall timeframe as Whittier's winter weather would prohibit activity given current conditions at the site.

There are no other immediate project timeline constraints.

6. Community Planning and Reuse

a. Reuse or Redevelopment Plans - It is critical that any brownfield project have an *end use* in mind that the requested assessment/cleanup effort will clearly help make possible. Please describe the reuse or redevelopment plan that this proposed work is meant to facilitate. Reuse goals can include: new construction, redevelopment using existing infrastructure, creation of recreation areas, preservation of green space, enhancement of sustainable subsistence habitat, etc.

Specific future uses of the project site are uncertain at this time, since certain elements of the feasibility issue are as yet to be determine. It is important to understand the physical reality f Whittier. Whittier is situated on an alluvial fan, notched into the mountain side on the south side of Passage Canal, which is, in effect a fiord. The deep water channel is bordered by steep mountains for most of its length. There is a limited amount of developable land within the Whittier City limits. Over 85% of this land is owned by the Alaska Railroad Corporation, and as such has limitations for development. The Buckner Building property represents the City of Whittier's most immediate opportunity for development of City owned land. The anticipation is that re-development would be comprised of mixed use, including residential, commercial, and municipal uses.

b. Documentation of Reuse Planning - Please attach any documentation referencing resolutions, business planning, community planning, a proposal for grant funding, or loan applications, that helps support the vision for the reuse or redevelopment of the property in question. Examples may include documentation of public meetings been held specifically to discuss the reuse interests in the site, or a resolution passed by the city or tribal council showing support for the redevelopment.

c. Other Community Plans or Projects - It is helpful to know if other work is being planned or underway in your community that may help assist in this effort, such as available equipment or other resources. Describe any other community projects that may be scheduled or pending, such as: water and sewer upgrades, a new landfill, road or airport construction, a new school or addition, fuel-storage tank farm upgrades or relocations, new housing, or construction/refurbishment/relocation of other facilities.

Ongoing work is being conducted in the construction of the Shotgun Cove Road, a segment of which runs adjacent to the Buckner Building site. This road project has been ongoing for the last 5 years and should continue for at least another 5 years. If demolition or partial demolition is to be involved in the Buckner Building project, it is possible that the concrete could be crushed and re-cycled as road bed fill material. This would amount to a cost sharing between the two projects.

7. Public Involvement

a. Public Benefit - Referring to 6(a) above, briefly describe how your proposed reuse or redevelopment plans for the property will provide a benefit to the public. Why is this important to your community? Some things to consider: creation of jobs, preservation of historically or culturally significant property, location for community activities or educational purposes, preservation of subsistence habitat, reuse or recycling of materials or infrastructure, cost savings to the community, or increased property values.

At present the Buckner Building site could be considered a public nuisance, a blight and a hazard to the general public. The site is unusable in a community that suffers from an extreme shortage of land for development, home construction and commercial enterprise. Effecting a hazardous materials assessment of this Cold War property would be the first step in determining the future use of this property. A subsequent cleanup would remediate the site and eradicate potential environmental threats to the surrounding recreational lands and waters of the Prince William Sound region.

Public meetings have long documented the community's desire to have a number of community features, including additional residential property, a community center, a larger museum, indoor recreational facilities, and a command and control emergency management facility that would be located at an elevation well above tsunami zone. As a town which serves as a destination port for the cruise ship industry, Whittier also needs a sheltering facility capable of housing very large groups. The project site has many potential uses which will benefit the community.

Detailed planning has not yet taken place due to obstacles referenced above in paragraph 1, Project Summary.

b. Community Support and Resources - Is the community strongly supportive of this project? Our contractors doing assessment or cleanup work often require local assistance with site visits, setting up interviews with people knowledgeable about the site, lodging, excavation equipment, and local transportation. Describe the community's support for this work *and* any local resources or individuals that are available to assist with the DBAC project work being requested.

Yes

Whittier has several transportation modes into the community by road and rail from Anchorage.

The community has sufficient food and lodging capabilities for any assessment team personnel.

There are several private contractors operating in Whittier, and many, many other resources of any kind necessary only an hour away in the Anchorage metropolitan area.

The City of Whittier and the Alaska Railroad as well as private contractors all have an array of heavy equipment positioned within the community.

Non-winter months are a busy time of year in Whittier and the availability of labor force from Whittier is substantially used up by the cruise industry, the commercial fishing industry, and the tourism industry. There may be a need to rely on a labor force from outside of Whittier, depending on project labor demands. With Anchorage being only an hour away, this should not be a problem.

c. Community Resources for Other Phases of the Revitalization Project - Does the community have financial or other resources for other phases of the project, such as equipment, labor, in-kind services, or funding for cleanup or new construction? Will this DBAC be used to leverage other funding or services for the project? If so, please describe.

The assessment and clean-up funding will be used to leverage other funding. The City will pursue public/ private partnerships to advance redevelopment ideas. Our federal congressional delegation has pledged to assist us in our efforts to deal with the Buckner Building. The City is uncertain at this time what that support will be. Our delegation believes, as does the City, that although the federal government has divested itself of the property years ago, it should still share in its disposition at this time.

DISCLAIMER (FINE PRINT)

The selection of a site for a DBAC in no way implies that DEC accepts liability for any contamination that may exist at the site, nor is DEC responsible for any necessary cleanup of hazardous substances that may be found at the site. Liability for contamination on a property is specifically addressed in Alaska Statute (AS) 46.03.822, which outlines those who are liable for the release of a hazardous substance. The general liability categories include: (1) those with an ownership interest in the property; (2) those in control of the substance at the time of the release; or (3) those who arrange for disposal or transport of the substance.

Brownfield work focuses on clarifying environmental concerns associated with property for which there is no known viable responsible party. By applying for a DEC Brownfield Assessment or Cleanup, it should be clear to all parties associated with a request that the work requested of DEC is designed to identify, clarify, and in some cases, remediate environmental hindrances that currently impede the continued use, proposed use, redevelopment, or sale of a property. Work conducted by DEC may result in identifying a property as a contaminated site, and require the site be listed on DEC's *Contaminated Sites Database*. With listing comes the requirement of potentially responsible and liable parties to address cleanup of contamination in accordance with regulatory requirements.

Submit Completed Forms by February 28, 2013, to:

By email: Sonja.Benson@alaska.gov or
By fax: (907) 451-2155 c/o Sonja Benson

Or by regular mail:

DEC Brownfield Assessments
c/o Sonja Benson
Alaska Department of Environmental Conservation
610 University Avenue
Fairbanks, Alaska 99709

If you have questions, call Sonja Benson at (907) 451-2156, Melinda Brunner at (907) 451-5174, or John Carnahan at (907) 451-2166.

DBAC Request Submittal Checklist

Before submitting your DBAC request form, please check the following items:

1) Did you answer each question? Yes ✓

2) Did you attach a letter from the property owner granting access to the site, if the owner is different from the applicant, as described in Question 2.b? N/A

3) Did you attach a letter of support from each team member for Question 3? Yes ✓

4) Did you attach a site map or aerial photograph of the site with the information requested in Question 4.a shown? Yes ✓

5) Did you attach executive summaries or summary and conclusions sections from any past environmental reports about the site, as described in Question 5? N/A ✓

6) Did you attach documentation of the reuse or redevelopment plans the community has for the site, as described in Question 6.a? ✓

BROWNFIELD APPLIACTION

INDEX OF ATTACHMENTS

CITY OF WHITTIER, ALASKA
RESOLUTION #38-2013

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WHITTIER ALASKA, SUPPORTING THE CITY'S APPLICATION TO THE BROWNFIELD PROGRAM FOR TECHNICAL ASSISTANCE AND PLANNING, AND FOR RELATED PURPOSES.

WHEREAS, the City of Whittier is the municipal government for Whittier, Alaska; and

WHEREAS, the City, through property tax foreclosure, has become the owner of the Buckner Building and property; and

WHEREAS, due to its dilapidated condition, the Buckner Building represents a serious liability to the City; and

WHEREAS, the City desires to minimize its risk and to make use of this property through some re-development effort, yet to be defined or determined; and

WHEREAS, the presence of hazardous substances in the Buckner Building or on the property present an obstacle to any plan for re-development; and

WHEREAS, the federal Brownfield program, administered through the Environmental Protection Agency (EPA) has grant opportunities for applicants to acquire technical assistance in assessing properties for the presence of hazardous substances and for planning of remediation activities; and

WHEREAS, the City is in need of this type of expertise in order to advance redevelopment plans for the Buckner Building property;

NOW THEREFORE BE IT RESOLVED; the City Council supports the City of Whittier's application for Brownfield program assistance.

PASSED AND APPROVED by a duly constituted quorum of the Whittier City Council on this 15th day of October, 2013.

Introduced by: Thomas Bolen, City Manager
Introduction Date: October 15, 2013

ATTEST:

Brenda Krol
Brenda Krol
City Clerk

Daniel Blair
Daniel Blair
Vice Mayor / Acting Mayor

Ayes: 7
Nays: 0
Absent: 0
Abstain: 0

1

prince william sound
ECONOMIC DEVELOPMENT DISTRICT

Chenega Bay
Cordova
Tatitlek
Valdez
Whittier

RESOLUTION 13-04

A RESOLUTION supporting the City of Whittier's plan to apply for a Brownfield grant to survey the Buckner Building in Whittier, Alaska, and to assist the City of Whittier in creating a plan to re-develop this project.

WHEREAS, the Buckner Building, a former U. S. military structure in Whittier has become property of the City of Whittier through a tax foreclosure proceeding, and

WHEREAS, the Buckner Building, is currently a community eyesore, as well as a liability for the City, presenting significant health and safety risks to the curious public; and

WHEREAS, the City of Whittier desires to explore options for re-development of this property but is hampered by the presence of hazardous materials which were left there by the U. S. government; and

WHEREAS, in the event that structural weaknesses and/or the cost to renovate are insurmountable, a plan for demolition could be established, and the entire building removed, allowing the property to be re-developed with new structures; and

WHEREAS, the City of Whittier recognizes a third option which combines the first two, utilizing partial demolition and partial renovation of the structure to re-develop the property, which would still require assessment and removal of hazardous materials;

NOW, THEREFORE, the directors of Prince William Sound Economic Development District, pledge their support for this Brownfield application to assess contaminants in the Buckner Building.

PASSED and APPROVED by a duly constituted quorum of Prince William Sound Economic Development District on October 3, 2013.

Dave Denger, President

Marilynn Heddell, Secretary

ARDOR

ALASKA REGIONAL DEVELOPMENT ORGANIZATION
2207 Spenard Rd., Suite 207 • Anchorage, Alaska 99503 Phone (907) 222-2440 • FAX (907) 222-2411 • Cell (907) 229-7672 • Email: pwsedd@gci.net

2

Prince William Sound Museum
100 Whittier Street Anchor Inn Hotel
Whittier, Alaska 99693

September 21, 2013

To:
Tom Bolen , City Manager
City of Whittier
Whittier, Alaska 99693

Dear Tom,

We are submitting this letter in support of the City of Whittier's Buckner Building Project. Now that the ownership of the structure has been transferred to the city we understand that steps will now be taken to evaluate the true status of the buildings integrity. Once this evaluation has been completed, community plans of action can be taken with regards to the Buckner Building's future and possible renovation.

As museum director and historian I've spent the last decade interfacing with the thousands of people from all over the world who visit Whittier. The number one attraction in town is the Buckner Building. The presence of the building represents an era of Whittier's vital participation in the Cold War in Alaska. It is the namesake of one of Alaska's most famous military figures during World War II in Alaska. At the time of its construction it considered one of the largest buildings in Alaska and was second in U.S. military building construction only to the Pentagon. The structure was a key project in mammoth building construction in Whittier during the Cold War. The finished construction was euphemistically referred to as the "Palaces in the Wilderness".

Today the Buckner Building has fallen into a state of disrepair to the point where it can only be considered a public hazard and liability. We are happy to see that the initial steps are being taken to address the future of the building and applaud your vision and leadership. If we can assist in anyway please don't hesitate to call on us.

Sincerely,

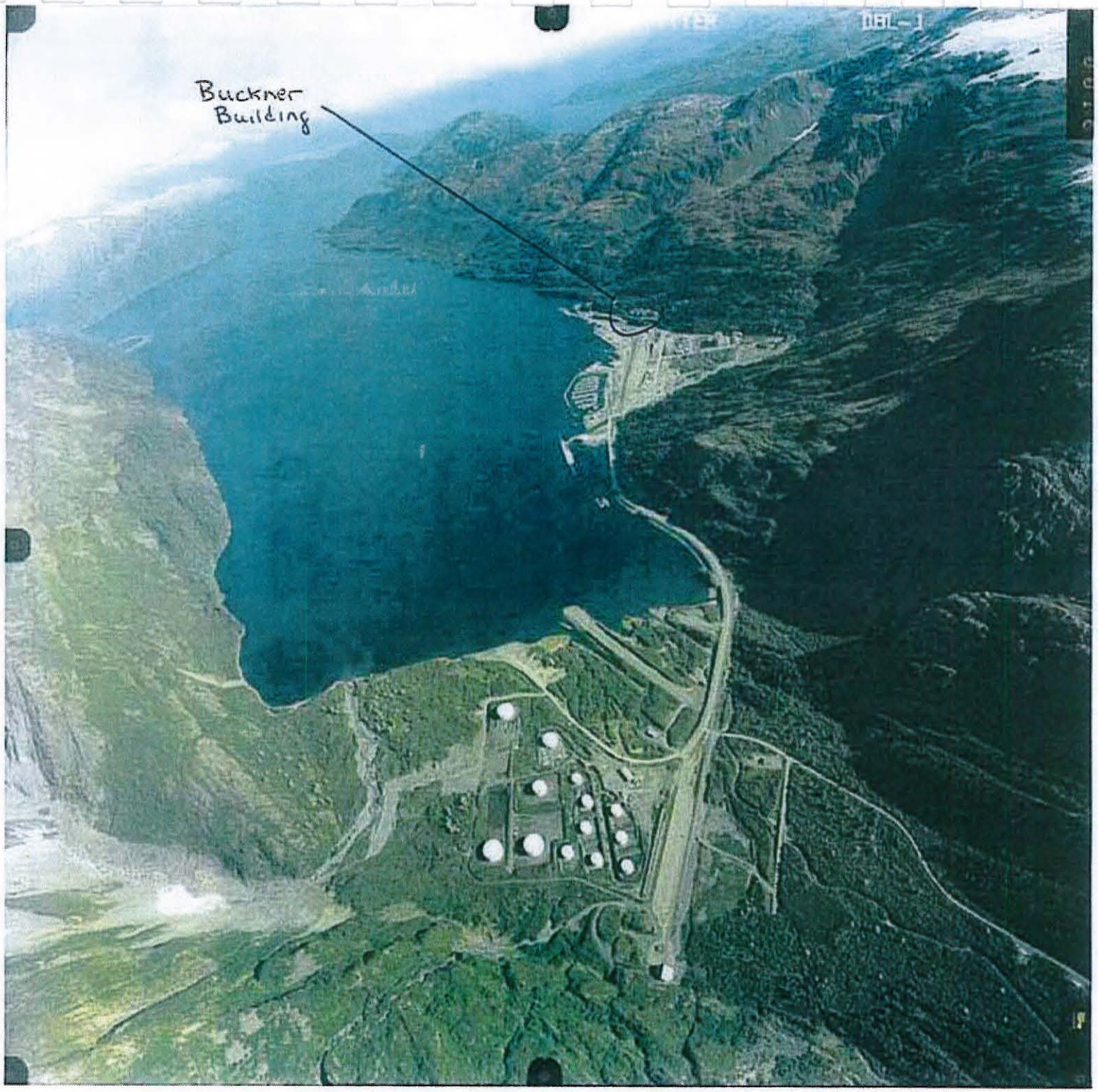
Ted M Spencer

Ted Spencer, executive director

3

WHITTIER SITE MAP

5




6
Buckner Bldg

There is considerable wind that whips in from the mountain passes, with an occasional gale which might reach 90 mile an hour proportions. The winter season carries most of the heavy winds.

Annual snowfall has averaged 264 inches over the last few years. Snow depths on the level in the port area of from 10 to 12 feet are not uncommon and snow removal is normally a 24 hour a day job from late October to early April.

Rainfall averages approximately 174 inches a year. During periods of sunny weather, this is one of the most beautiful spots in the world.

CONNECTIONS TO THE UNITED STATES

Connections to the United States are good in Alaska. If you are one of those who envision travel by dog sled for days in order to get anywhere in the territory it is time to dispel such thoughts from your mind. The Alaska Railroad links most of the cities from Fairbanks south, and a network of automobile roads connects them with the Alcan Highway and with each other. Train service between Whittier and Anchorage connect port-based personnel with the major airlines to all parts of the world. In an emergency, priority can be gained on the commercial airlines so that any large city in the United States can be reached within 24 to 36 hours. For an ordinary leave, two or three days notice will usually assure space to travel to the same places in the same time.

A travel bureau in Anchorage has representatives to assist residents of the Port in making travel plans and reservations.

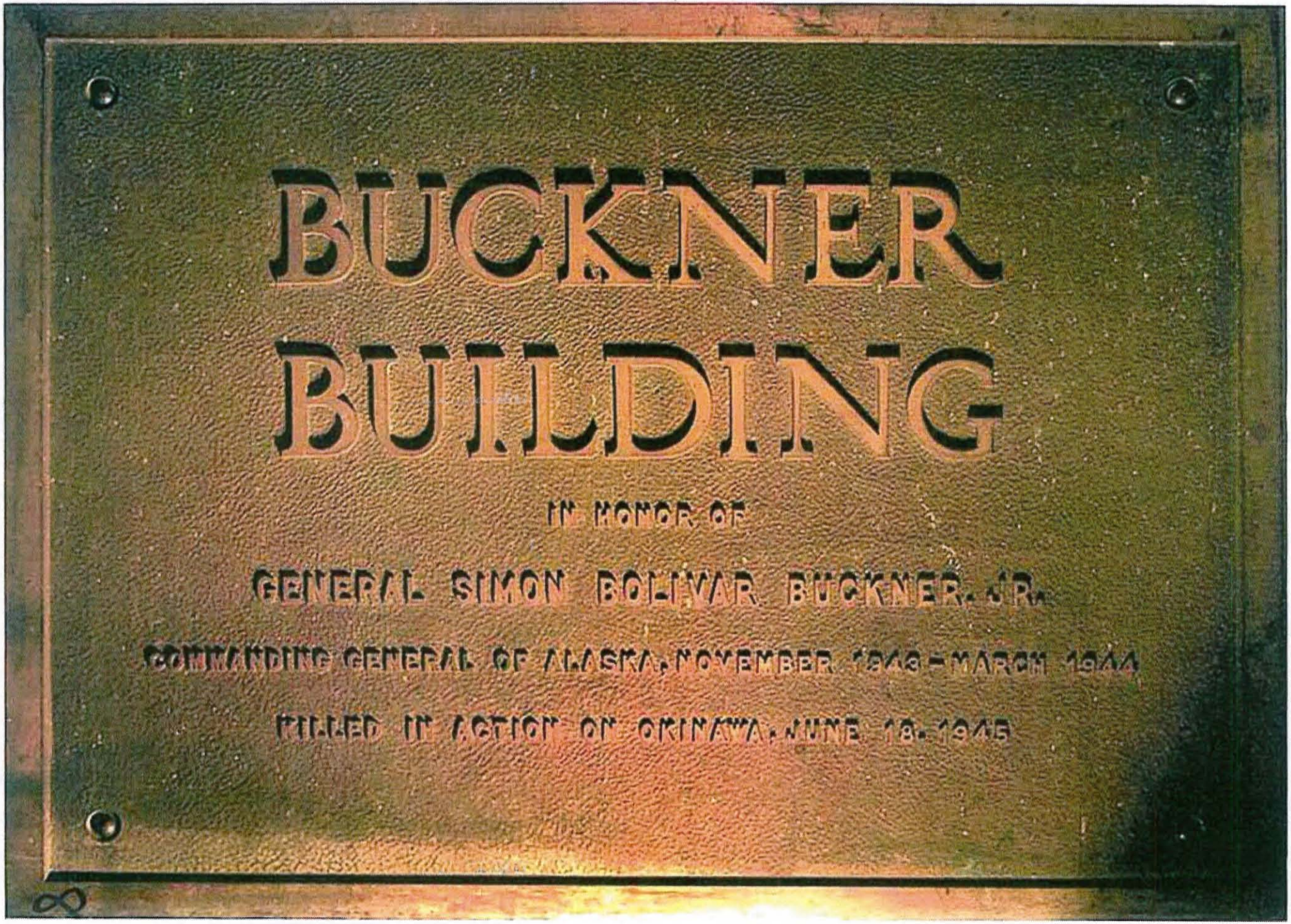
MATS flights are readily available for emergency leave purposes for the military in addition to the commercial facilities outlined above.

Train schedules are arranged to give Whittier patrons maximum time in Anchorage for business and relaxation. A shopper's special leaves Whittier once each week at 0830 hours and leaves Anchorage to return at 2000 hours. The train makes four round trips per week. Liberal one day pass policies allow servicemen as well as dependents to take advantage of this train.

HOUSING AND SERVICE FACILITIES

The Buckner Building above was completed in 1953 and provides housing for all troops without dependents, both officer and enlisted. It also houses most of the services and indoor entertainment rooms of the post including the Consolidated Mess Hall, 340 seat theater, 1000 inch firing range, bank, post office, barber shop, commissary, post exchange, craft shop, snack bar, Officers' Club, bowling alley, library, Service Club, medical and dental facilities, company orderly rooms, supply rooms, Quartermaster Sales Store, laundry and dry cleaning offices, radio and TV stations, bakery, Education Center, and the offices necessary to the operation of all these services. It has been called a "city within a building". The building itself is six stories high on the front and five in the rear, being literally scooped out of the side of a mountain, and is serviced by three elevators. It faces the harbor and is built on a rock foundation the level of which is approximately 100 feet above the pier.

The Consolidated Mess Hall features four place tables, an ultra modern kitchen, a serving line that works from both ends, and plenty of good food


BUCKNER
BUILDING
IN MONOR OF
GENERAL SIMON BOLIVAR BUCKNER, JR.
COMMANDING GENERAL OF ALASKA, NOVEMBER 1943 - MARCH 1944
KILLED IN ACTION ON OKINAWA, JUNE 18, 1945


10


12


13


14


15


Asbestos pipe insulation
16

17

THE CITY OF WHITTIER
Gateway to Western Prince William Sound
P.O. Box 608 • Whittier, Alaska 99693 • (907) 472-2327 • Fax (907) 472-2404

BUCKNER BUILDING TENTATIVE RE-DEVELOPMENT PLAN

1. Install perimeter security fencing to reduce liability.	Fall 2013
2. Apply for Brownfield Program assistance (assessment) and planning activities.	Winter 2013
3. Conduct environmental assessment and develop remediation Plan	Summer 2014
4. Perform remediation	Summer 2015
5. Perform structural analysis (consultant report)	Fall 2015
6. Make decision to restore or to demolish or both	Winter 2015
7. Begin draft of re-development plan in detail	Spring 2016
8. Identify funding partners and funding strategy	Summer 2016
9. Seek City Planning Commission and City Council approval of re-development plan	Fall 2016
10. Begin re-development activities	Summer 2017

Tom Bolan
City Manager

APPENDIX B

PHASE I ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRES

SHANNON & WILSON
PHASE I ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR SUBJECT PROPERTY

The purpose of this Environmental Assessment is to acquire sufficient information to develop a professional opinion as to the presence of petroleum hydrocarbon/hazardous substances on or near the subject property that may affect this site. This questionnaire should be completed to the fullest extent possible during an interview with the owner or the owner's representative conducted by an environmental assessor.

Date of Visit: October 22, 2014 Interviewer (if applicable): Jim Simmons

Project Name/Project Number: ADEC Buckner Building PACP 32-1-17666

Legal Description/Site Address: Buckner Building

City Whittier State AK Zip 99693

Property Owner(s): City of Whittier

Owner Representative(s) Interviewed: Mark Lynch - City Manager

Length of Time Familiar with Site: ~4 months

Phone: (907) 472-2330

Previous Ownership:
Please provide the following information regarding the history of past ownership of the property.

	Owner	Dates From - To	Type of Business
1.	City of Whittier		
2.	Private entities		
3.	Military		
4.			
5.			
6.			

Please answer the following questions to the best of your knowledge. Circle the best answer and provide additional information if known.

1) Have you ever had an environmental audit or assessment completed on any of your businesses or properties?

Yes no (don't know)

2) Did any other structures exist on this property before the present structures were built?

Yes (no) don't know

3) Are there any as-built plans of the subject property?

(Yes) no don't know

4) Are any of the existing structures on the property built prior to 1978?

(Yes) no don't know

5) Is there asbestos in buildings located on the property?

(Yes) to his knowledge no don't know

6) Is there any evidence that the properties have seen previous commercial or industrial activities?

(Yes) military owned by private entities that intended commercial use no don't know

7) Does this property have its own water well?

Yes no (don't know) supplied by city water

8) Does this property have a septic system and leachfield?

Yes no (don't know)

9) Does this property have natural gas?

Yes no (don't know)

10) Prior to having natural gas, did this property use an above ground storage tank or an underground storage tank to store heating fuel? If not, what heat source was used before natural gas was available?

Yes no (don't know)

suspect yes

11) Does the site contain above ground or buried fuel or chemical storage tanks? If yes, list which authorities the tanks were registered with, the tank capacities, the age of the tanks, the tank contents, and whether any problems such as vapors or soil contamination have been encountered.

Yes no (don't know)

Registered with: EPA ADEC Other

Capacity of Tanks _____gallons; Tank contains_____

Age of tank is _____years;

Any problems?_____

12) Have there been any excavations on the property?

Yes no (don't know)

If yes, explain:_____

13) Has off-site fill ever been deposited on the site?

(Yes) no don't know

If yes, explain: gravel stored- road project

14) Have any areas of the site been treated with petroleum products or other chemicals for dust control?

Yes no (don't know)

If yes, areas treated:_____

15) Does the site contain any 55 gallon drums or other containers?

Yes no (don't know)

Contents of drums:_____

16) Is there any cause to believe that any operation or equipment on or around the facility has been the cause of a spill or release of hazardous waste? Is there any evidence of a hazardous substance release such as stained ground areas, drums, transformers, trash, general disrepair, chemicals, areas where plants refuse to grow, or other indications of hazardous substance contamination?

Yes no (don't know)

If yes, nature?_____

17) Has the property been used at any time to your knowledge for the treatment, storage or disposal of hazardous substances or for illegal dumping?

Yes not large scale discarded materials no don't know

18) Have any unusual conditions such as containerized wastes, surface staining, filling activities, etc., ever been observed on surrounding properties?

Yes no don't know

19) Do railroad facilities cross or border the site?

Yes no don't know

20) Have there been any industrial accidents in the vicinity?

Yes no don't know

21) Are any creeks or other drainage ways located on or around the site?

Yes not no don't know

22) Do you use or have you used Polychlorinated Biphenyls (PCBs) in any activities, or are there any PCBs located on the properties in question? (PCBs are commonly found in electrical transformers, fluorescent light fixtures, and in used oils from electrical components).

Yes no City of Whittier don't know

23) Are you aware of any activities on this property or any surrounding properties (including the present or proposed uses) which indicate potential environmental risk?

Yes no don't know

24) Within a quarter mile radius of this property, do any of the following exist?

a) A current or former landfill?

Yes no don't know

b) Any property suspected of hazardous substance contamination?

Yes no don't know

c) Any waste discharges to surface water?

Yes no don't know

25) Indicate if any of the following uses, stores, transports, generates or disposes of any hazardous substance.

a) Property owner's business? harbor → waste oil burner

Yes no don't know

b) All related businesses?

Yes no don't know

c) All tenant's businesses?

Yes no don't know

d) Neighboring properties?

Yes no don't know

26) Have you or any previous owner ever been issued a hazardous waste generator's identification number for the property or have a permit for treatment, storage or disposal of hazardous materials?

Yes no don't know

27) Please state all licenses and permits which you, your business, or any tenant possesses or is required to have for treatment, storage or disposal of hazardous materials or relating to environmental law matters, including any pending applications?

Licenses: —

28) Are you or any of your property currently, ever have been, or are anticipated to be, the subject of a letter of non-compliance, administrative, legal enforcement, or any other action or actions by any federal, state, or local government agency relating to environmental laws, permits, orders, or other requirements?

Yes no don't know

If yes, please describe: —

SHANNON & WILSON
PHASE I ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR SUBJECT PROPERTY

The purpose of this Environmental Assessment is to acquire sufficient information to develop a professional opinion as to the presence of petroleum hydrocarbon/hazardous substances on or near the subject property that may affect this site. This questionnaire should be completed to the fullest extent possible during an interview with the owner or the owner's representative conducted by an environmental assessor.

Date of Visit: October 22, 2019 Interviewer (if applicable): Jennifer Simmons

Project Name/Project Number: ADEC Buckner Building PACP 32-1-17664

Legal Description/Site Address: Buckner Building

City Whittier State AK Zip 99693

Property Owner(s): City of Whittier

Owner Representative(s) Interviewed: Scott Korbe

Length of Time Familiar with Site: 6 yrs

Phone: (907) 290-2019

Previous Ownership:
Please provide the following information regarding the history of past ownership of the property.

	Owner	Dates From - To	Type of Business
1.			
2.			
3.			
4.			
5.			
6.			

storm drains never decommissioned
leaching material if any going straight to passage canal

Please answer the following questions to the best of your knowledge. Circle the best answer and provide additional information if known.

1) Have you ever had an environmental audit or assessment completed on any of your businesses or properties?

Yes (no) don't know

2) Did any other structures exist on this property before the present structures were built?

Yes no (don't know)

3) Are there any as-built plans of the subject property?

Yes guess yes no don't know

4) Are any of the existing structures on the property built prior to 1978?

Yes no (don't know)

5) Is there asbestos in buildings located on the property?

Yes guess yes no don't know

6) Is there any evidence that the properties have seen previous commercial or industrial activities?

Yes no (don't know)

7) Does this property have its own water well?

Yes (no) not connected to water don't know

8) Does this property have a septic system and leachfield?

Yes (no) municipal sewer don't know

9) Does this property have natural gas?

Yes (no) don't know

10) Prior to having natural gas, did this property use an above ground storage tank or an underground storage tank to store heating fuel? If not, what heat source was used before natural gas was available?

Yes (no) don't know

winter heater = doesn't

central steam line to Burner / Heritage

shotgun cove rd improvements - soil

11) Does the site contain above ground or buried fuel or chemical storage tanks? If yes, list which authorities the tanks were registered with, the tank capacities, the age of the tanks, the tank contents, and whether any problems such as vapors or soil contamination have been encountered.

Yes no don't know

Registered with: EPA ADEC Other

Capacity of Tanks _____gallons; Tank contains_____

Age of tank is _____years;

Any problems?_____

12) Have there been any excavations on the property?

Yes no don't know

If yes, explain:_____

13) Has off-site fill ever been deposited on the site?

Yes no don't know

If yes, explain:_____

14) Have any areas of the site been treated with petroleum products or other chemicals for dust control?

Yes no don't know

If yes, areas treated:_____

15) Does the site contain any 55 gallon drums or other containers?

Yes no don't know

Contents of drums:_____

16) Is there any cause to believe that any operation or equipment on or around the facility has been the cause of a spill or release of hazardous waste? Is there any evidence of a hazardous substance release such as stained ground areas, drums, transformers, trash, general disrepair, chemicals, areas where plants refuse to grow, or other indications of hazardous substance contamination?

Yes no don't know

If yes, nature?_____

17) Has the property been used at any time to your knowledge for the treatment, storage or disposal of hazardous substances or for illegal dumping?

Yes no don't know

18) Have any unusual conditions such as containerized wastes, surface staining, filling activities, etc., ever been observed on surrounding properties?

Yes no don't know

19) Do railroad facilities cross or border the site?

Yes no don't know

20) Have there been any industrial accidents in the vicinity?

Yes no don't know

21) Are any creeks or other drainage ways located on or around the site?

Yes no don't know

22) Do you use or have you used Polychlorinated Biphenyls (PCBs) in any activities, or are there any PCBs located on the properties in question? (PCBs are commonly found in electrical transformers, fluorescent light fixtures, and in used oils from electrical components).

Yes no don't know

23) Are you aware of any activities on this property or any surrounding properties (including the present or proposed uses) which indicate potential environmental risk?

Yes no don't know

24) Within a quarter mile radius of this property, do any of the following exist?

a) A current or former landfill?

Yes no don't know

b) Any property suspected of hazardous substance contamination?

Yes no don't know

c) Any waste discharges to surface water?

Yes no don't know

25) Indicate if any of the following uses, stores, transports, generates or disposes of any hazardous substance.

a) Property owner's business?

Yes no don't know

b) All related businesses?

Yes no don't know

c) All tenant's businesses?

Yes no don't know

d) Neighboring properties?

Yes no don't know

26) Have you or any previous owner ever been issued a hazardous waste generator's identification number for the propeity or have a permit for treatment, storage or disposal of hazardous materials?

Yes no don't know

27) Please state all licenses and permits which you, your business, or any tenant possesses or is required to have for treatment, storage or disposal of hazardous materials or relating to environmental law matters, including any pending applications?

Licenses:_____

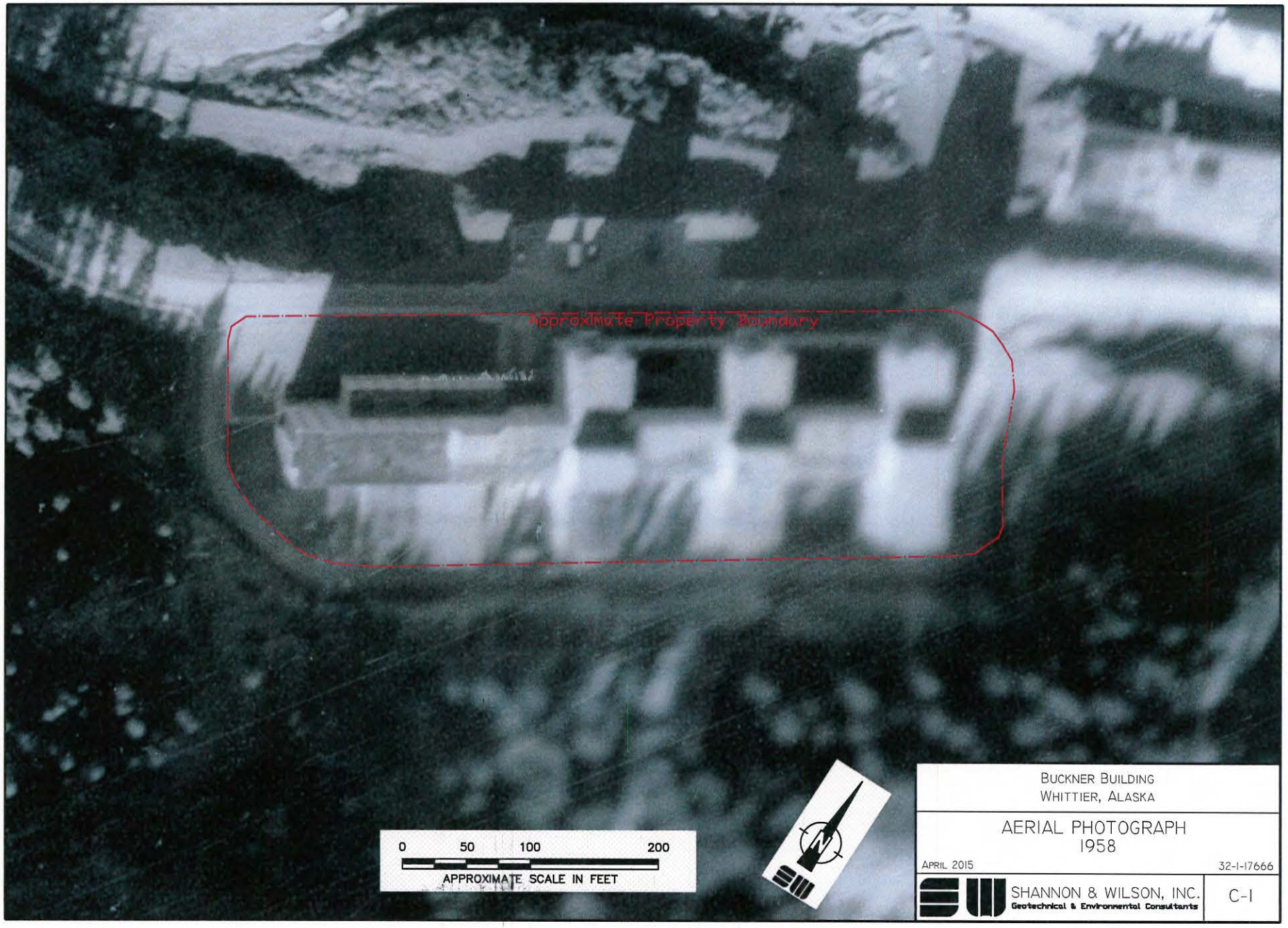
28) Are you or any of your property currently, ever have been, or are anticipated to be, the subject of a letter of non-compliance, administrative, legal enforcement, or any other action or actions by any federal, state, or local government agency relating to environmental laws, permits, orders, or other requirements?

Yes no don't know

If yes, please describe:_____

APPENDIX C

HISTORICAL AERIAL PHOTOS



BUCKNER BUILDING
WHITTIER, ALASKA

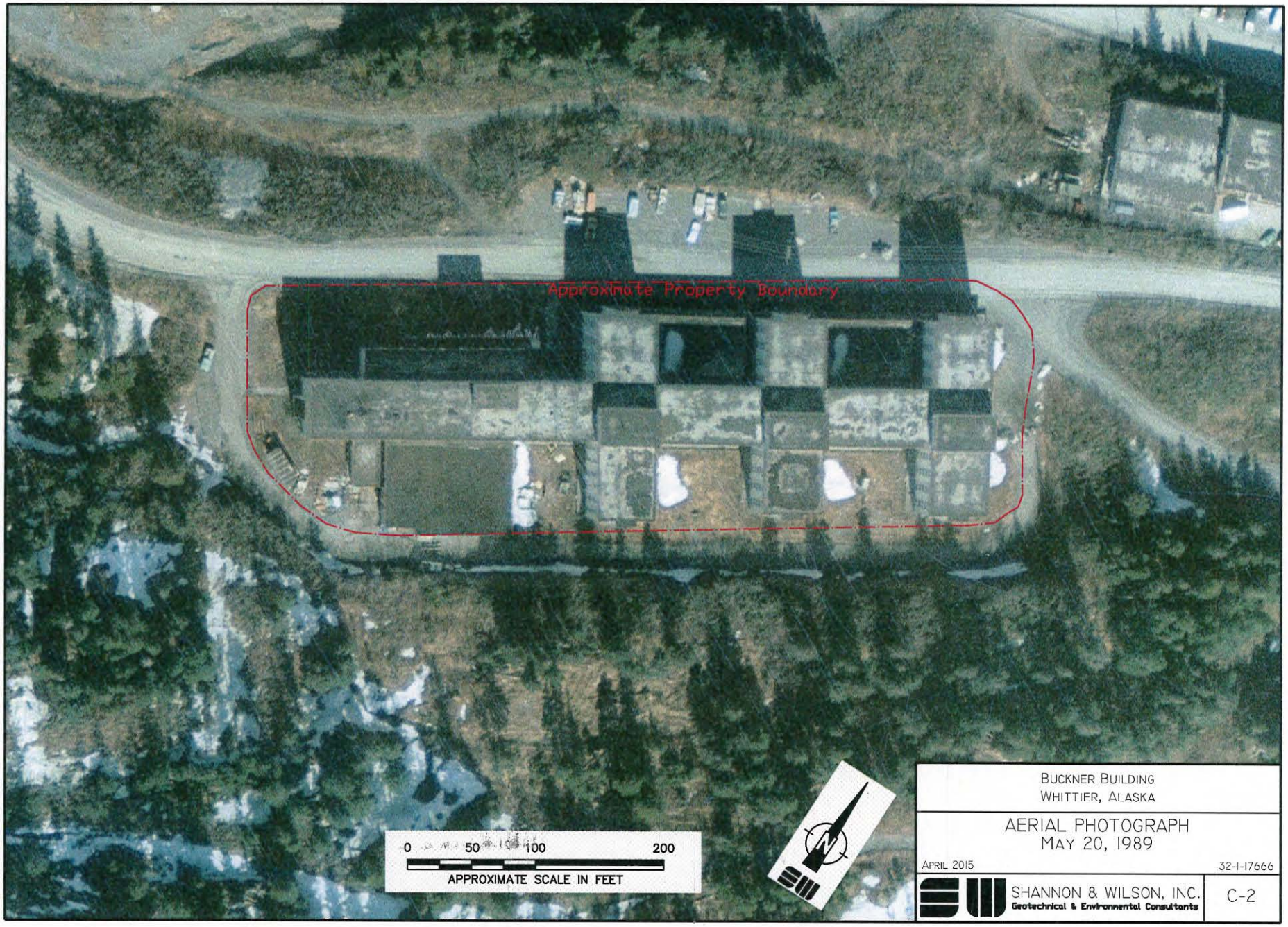
AERIAL PHOTOGRAPH
1958

APRIL 2015

32-1-17666

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

C-1



BUCKNER BUILDING
WHITTIER, ALASKA

AERIAL PHOTOGRAPH
MAY 20, 1989

APRIL 2015

32-1-17666

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

C-2

BUCKNER BUILDING
WHITTIER, ALASKA

AERIAL PHOTOGRAPH
SEPTEMBER 29, 2011

APRIL 2015

32-1-17666

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

C-3

APPENDIX D

OWNERSHIP RECORDS

LEGAL DESCRIPTION

BEGINNING AT CORNER NO.5 OF U.S. SURVEY NO 2559 WHICH IS COMMON TO THE SOUTHEAST CORNER OF LOT 10, BLOCK 5 CITY OF WHITTIER SUBDIVISION PHASE ONE AND THE SOUTHWEST CORNER OF LOT 1, BLOCK 6 CITY OF WHITTIER SUBDIVISION PHASE TWO AND THE TRUE POINT OF BEGINNING, THENCE;

N00°13'15"E FOR A DISTANCE OF 71.00 FT., THENCE;

PASSING THROUGH A CURVE CONVEX TO THE SOUTH HAVING A RADIUS OF 384.27 FT. FOR A DISTANCE OF 108.89 FT., THENCE;

N51°24'32"E FOR A DISTANCE OF 364.59 FT. TO CORNER '5' OF CITY OF WHITTIER SUBDIVISION PHASE ONE, THENCE;

N76°29'00"E FOR A DISTANCE OF 42.18 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 1426.27 FT., THENCE;
N34°21'00"W FOR A DISTANCE OF 193.00 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 130.72 FT., THENCE;
S34°21'00"E FOR A DISTANCE OF 243.00 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 25.00 FT., THENCE;
S34°21'00"E FOR A DISTANCE OF 40.79 FT., THENCE;
N52°10'22"E FOR A DISTANCE OF 211.29 FT., THENCE;
N02°57'00"W FOR A DISTANCE OF 146.70 FT., THENCE;
N55°16'00"E FOR A DISTANCE OF 73.53 FT., THENCE;
N75°29'10"E FOR A DISTANCE OF 266.27 FT., THENCE;
S67°35'07"E FOR A DISTANCE OF 93.68 FT., THENCE;
N63°44'18"E FOR A DISTANCE OF 251.66 FT., THENCE;
S75°25'18"E FOR A DISTANCE OF 62.53 FT., THENCE;

ALONG THE LINE OF MEAN HIGH WATER S13°14'18"W FOR A DISTANCE OF 1371.1 FT., THENCE;

S55°58'17"E FOR A DISTANCE OF 121.53 FT., THENCE;
N60°16'01"E FOR A DISTANCE OF 531.60 FT., THENCE;
N46°32'18"E FOR A DISTANCE OF 412.48 FT., THENCE;
N50°38'56"E FOR A DISTANCE OF 905.71 FT., THENCE;
S19°37'59"W FOR A DISTANCE OF 126.88 FT., THENCE;
S38°37'30"W FOR A DISTANCE OF 263.40 FT., THENCE;
S39°32'14"W FOR A DISTANCE OF 499.95 FT., THENCE;
S07°11'09"W FOR A DISTANCE OF 197.54 FT., THENCE;
S60°30'18"E FOR A DISTANCE OF 85.65 FT., THENCE;
N47°31'43"E FOR A DISTANCE OF 213.80 FT., THENCE;
N05°35'54"W FOR A DISTANCE OF 118.29 FT., THENCE;
N52°21'21"E FOR A DISTANCE OF 155.14 FT., THENCE;

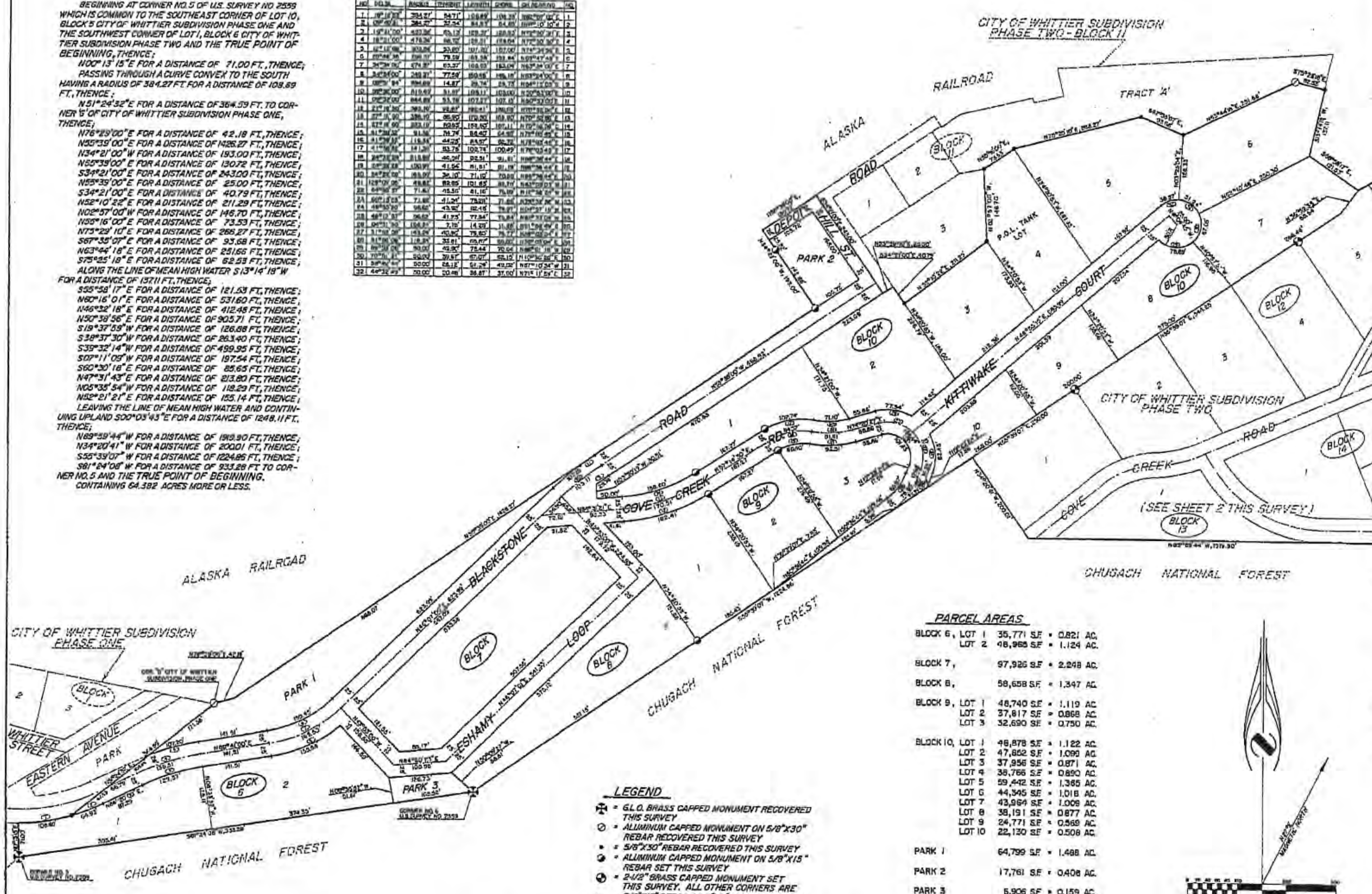
LEAVING THE LINE OF MEAN HIGH WATER AND CONTINUING UPLAND S00°03'43"E FOR A DISTANCE OF 1248.11 FT., THENCE;

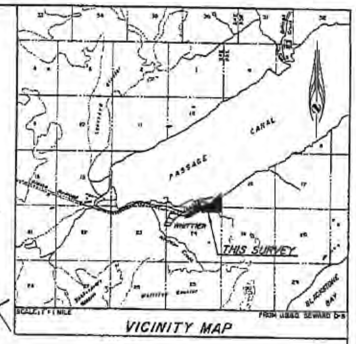
N89°59'44"W FOR A DISTANCE OF 1919.90 FT., THENCE;
N34°20'41"W FOR A DISTANCE OF 200.01 FT., THENCE;
S55°39'07"W FOR A DISTANCE OF 1224.86 FT., THENCE;
S81°24'08"W FOR A DISTANCE OF 933.28 FT. TO CORNER NO.5 AND THE TRUE POINT OF BEGINNING.

CONTAINING 64.382 ACRES MORE OR LESS.

CURVE DIMENSION TABLE

NO.	DELTA	RADIUS	TANGENT	LENGTH	CHORD	CH. BEARING	NO.
1	[illegible]	384.27'	54.71'	108.89'	[illegible]	[illegible]	1
2	[illegible]	384.27'	32.54'	[illegible]	[illegible]	[illegible]	2
3	19°21'00"	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4
5	[illegible]	[illegible]	[illegible]	[illegible]	107.00'	[illegible]	5
6	[illegible]	[illegible]	79.09'	[illegible]	[illegible]	[illegible]	6
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7
8	34°24'00"	[illegible]	77.59'	[illegible]	[illegible]	[illegible]	8
9	[illegible]	[illegible]	14.87'	[illegible]	[illegible]	[illegible]	9
10	[illegible]	[illegible]	[illegible]	[illegible]	103.00'	[illegible]	10
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16
17	[illegible]	[illegible]	93.75'	102.74'	100.49'	[illegible]	17
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18
19	[illegible]	[illegible]	41.54'	[illegible]	[illegible]	[illegible]	19
20	[illegible]	[illegible]	[illegible]	71.10'	[illegible]	[illegible]	20
21	[illegible]	[illegible]	[illegible]	101.65'	[illegible]	[illegible]	21
22	[illegible]	71.67'	[illegible]	81.16'	[illegible]	[illegible]	22
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24
25	[illegible]	[illegible]	41.75'	77.84'	[illegible]	[illegible]	25
26	[illegible]	[illegible]	7.15'	14.29'	[illegible]	[illegible]	26
27	[illegible]	[illegible]	[illegible]	75.60'	[illegible]	[illegible]	27
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28
29	[illegible]	50.00'	[illegible]	75.44	70.04	[illegible]	29
30	[illegible]	50.00'	[illegible]	[illegible]	52.15'	[illegible]	30
31	[illegible]	50.00'	[illegible]	[illegible]	49.02'	N87°10'34"W	31
32	44°32'49"	50.00'	20.48'	38.87'	37.00'	[illegible]	32





VICINITY MAP

CERTIFICATE OF OWNERSHIP & DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON. WE HEREBY APPROVE THIS PLAT AND DEDICATE TO THE PUBLIC ALL EASEMENTS FOR PUBLIC UTILITIES, STREETS, ALLEYS, THOROUGHFARES, PARKS AND OTHER PUBLIC AREAS SHOWN HEREON.

DATE: August 10, 1974

Bennie M. Barker

CITY OF WHITTIER
BY BENNIE BARKER, MAYOR
WHITTIER, ALASKA 99502

NOTARY'S ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS 10th DAY OF August, 1974.

Carol A. Anderson
NOTARY FOR ALASKA

MY COMMISSION EXPIRES

PLAT APPROVAL

PLAT APPROVED BY THE PLANNING COMMISSION OF THE CITY OF WHITTIER THIS 10th DAY OF August, 1974.

AUTHORIZED OFFICIAL

SURVEYOR'S CERTIFICATE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE MONUMENTS SHOWN THEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE CORRECT.

R.L. Button 8/10/74

R.L. BUTTON - 1192-S
REGISTERED LAND SURVEYOR

DATE

PARCEL AREAS

BLOCK 6,	LOT 1	35,771 S.F.	0.821 AC.
	LOT 2	48,965 S.F.	1.124 AC.
BLOCK 7,		97,926 S.F.	2.248 AC.
BLOCK 8,		58,658 S.F.	1.347 AC.
BLOCK 9,	LOT 1	48,740 S.F.	1.119 AC.
	LOT 2	37,817 S.F.	0.868 AC.
	LOT 3	32,690 S.F.	0.750 AC.
BLOCK 10,	LOT 1	48,878 S.F.	1.122 AC.
	LOT 2	47,862 S.F.	1.099 AC.
	LOT 3	37,956 S.F.	0.871 AC.
	LOT 4	38,766 S.F.	0.890 AC.
	LOT 5	59,442 S.F.	1.365 AC.
	LOT 6	44,345 S.F.	1.018 AC.
	LOT 7	43,964 S.F.	1.009 AC.
	LOT 8	38,191 S.F.	0.877 AC.
	LOT 9	24,771 S.F.	0.569 AC.
	LOT 10	22,130 S.F.	0.508 AC.
PARK 1		64,799 S.F.	1.488 AC.
PARK 2		17,761 S.F.	0.408 AC.
PARK 3		5,906 S.F.	0.159 AC.

LEGEND

- = G.L.O. BRASS CAPPED MONUMENT RECOVERED THIS SURVEY
- = ALUMINUM CAPPED MONUMENT ON 5/8"X30" REBAR RECOVERED THIS SURVEY
- = 5/8"X30" REBAR RECOVERED THIS SURVEY
- = ALUMINUM CAPPED MONUMENT ON 5/8"X15" REBAR SET THIS SURVEY
- = 2-1/2" BRASS CAPPED MONUMENT SET THIS SURVEY. ALL OTHER CORNERS ARE 5/8"X15" REBAR OR 2"X2" WOOD HUB & TACK.

SCALE IN FEET

74-3
RECORDED-FILED 7:54
Whittier REC. DIST.
DATE August 14 1974
TIME 1:30 P M
Requested by R.L. Button

CITY OF WHITTIER SUBDIVISION

PHASE TWO

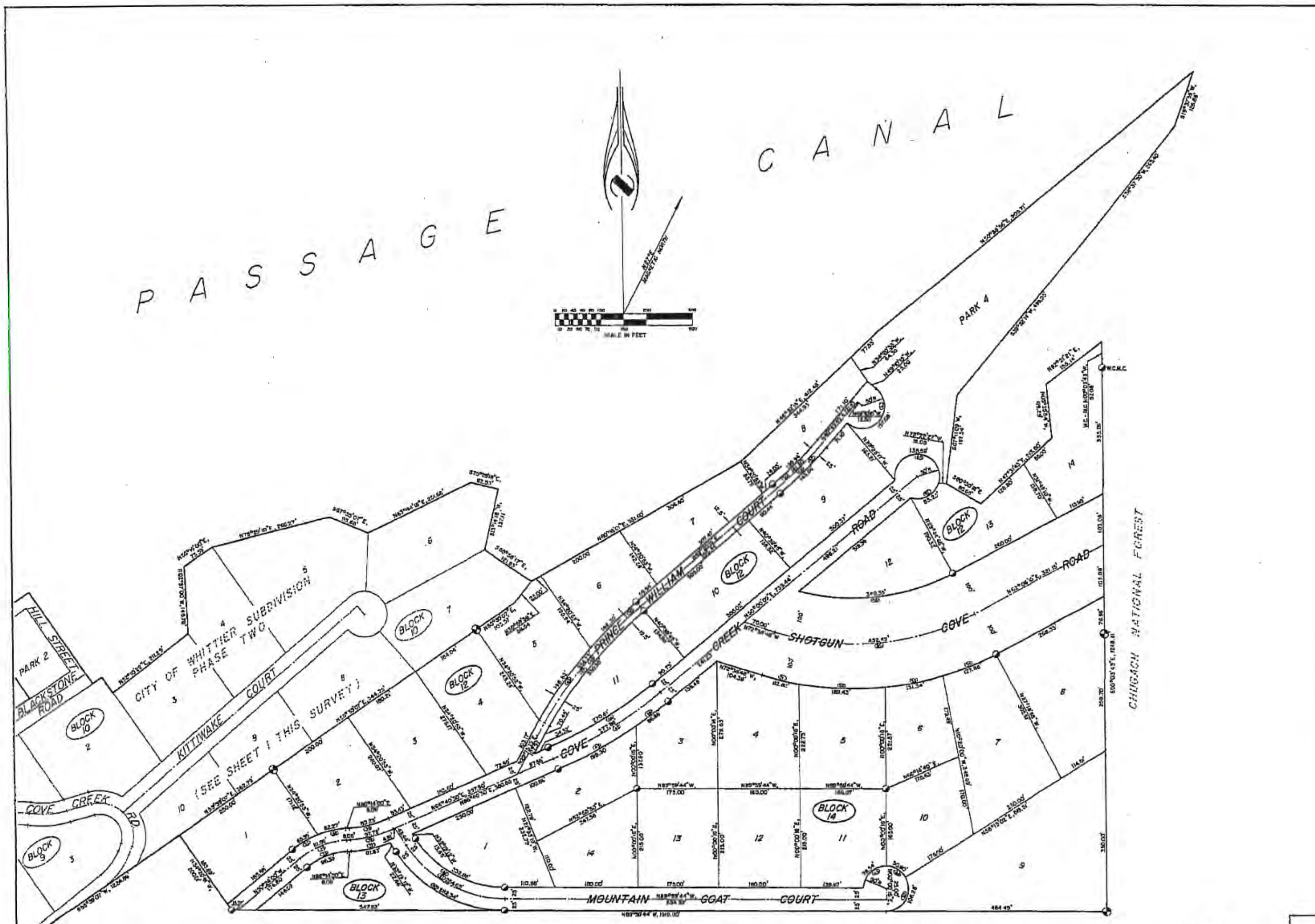
CONTAINING 64.382 ACRES

A PLAT OF
CITY OF WHITTIER SUBDIVISION
PHASE TWO

A RESUBDIVISION OF A PORTION OF U.S. SURVEY NO. 2559 AND A SUBDIVISION OF LANDS WITHIN SECTIONS 13 & 24, T.8N., R.4E., S.M., ALASKA

CUTLER & BUTTON, J.V.
ENGINEERS & SURVEYORS
ANCHORAGE, ALASKA

DRAWN: SERVA DRAFTING SERVICE (WMH)	DATE: AUGUST 5, 1974
SCALE: 1" = 100'	SHEET 1 OF 2



CHUGACH NATIONAL FOREST

CITY OF WHITTIER SUBDIVISION

PHASE TWO

CONTAINING 64.382 ACRES

PARCEL AREAS

BLOCK 12,	LOT 1	43,275 S.F.	= 0.993 AC.
	LOT 2	42,105 S.F.	= 0.967 AC.
	LOT 3	46,426 S.F.	= 1.066 AC.
	LOT 4	44,809 S.F.	= 1.029 AC.
	LOT 5	38,704 S.F.	= 0.889 AC.
	LOT 6	32,655 S.F.	= 0.750 AC.
	LOT 7	34,545 S.F.	= 0.793 AC.
	LOT 8	26,125 S.F.	= 0.600 AC.
	LOT 9	43,967 S.F.	= 1.009 AC.
	LOT 10	41,709 S.F.	= 0.958 AC.
	LOT 11	36,158 S.F.	= 0.830 AC.
	LOT 12	37,218 S.F.	= 0.854 AC.
	LOT 13	37,439 S.F.	= 0.859 AC.
	LOT 14	41,468 S.F.	= 0.952 AC.
BLOCK 13,		39,303 S.F.	= 0.902 AC.
BLOCK 14,	LOT 1	40,579 S.F.	= 0.932 AC.
	LOT 2	31,754 S.F.	= 0.729 AC.
	LOT 3	36,203 S.F.	= 0.831 AC.
	LOT 4	45,416 S.F.	= 1.043 AC.
	LOT 5	41,621 S.F.	= 0.955 AC.
	LOT 6	29,278 S.F.	= 0.672 AC.
	LOT 7	56,583 S.F.	= 1.299 AC.
	LOT 8	57,386 S.F.	= 1.317 AC.
	LOT 9	94,232 S.F.	= 2.163 AC.
	LOT 10	33,811 S.F.	= 0.776 AC.
	LOT 11	38,600 S.F.	= 0.886 AC.
	LOT 12	38,700 S.F.	= 0.888 AC.
	LOT 13	37,625 S.F.	= 0.864 AC.
	LOT 14	32,903 S.F.	= 0.755 AC.
PARK 4		159,598 S.F.	= 3.664 AC.

CURVE DIMENSION TABLE

NO	DELTA	RADIUS	TANGENT	LENGTH	CHORD	CH.BEARING	NO
33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	33
34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	34
35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35
36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	36
37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	37
38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	38
39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	39
40	[illegible]	[illegible]	[illegible]	[illegible]	270.07'	[illegible]	40
41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41
42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	42
43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	43
44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	44
45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	45
46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	46
47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	47
48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	48
49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	49
50	[illegible]	[illegible]	[illegible]	[illegible]	142.17'	[illegible]	50
51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	51
52	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	52
53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	53
54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	54
55	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	55
56	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	56
57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	57
58	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	58
59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59
60	[illegible]	50.00'	[illegible]	[illegible]	100.00'	[illegible]	60
61	[illegible]	50.00'	[illegible]	[illegible]	[illegible]	[illegible]	61
62	[illegible]	50.00'	[illegible]	[illegible]	[illegible]	[illegible]	62
63	[illegible]	50.00'	[illegible]	[illegible]	[illegible]	[illegible]	63
64	[illegible]	50.00'	[illegible]	[illegible]	[illegible]	[illegible]	64
65	90°00'00"	50.00'	50.00'	78.54'	70.71'	[illegible]	65

STATE OF ALASKA

74-3

RECORDED-FILED 7[50]
Whittier REC. DIST.
DATE August 14 1974
TIME 1:20 P.M.
Requested by J.V. Button

A PLAT OF

CITY OF WHITTIER SUBDIVISION
PHASE TWO

A RESUBDIVISION OF A PORTION OF U.S. SURVEY NO. 2559 AND A SUBDIVISION OF LANDS WITHIN SECTIONS 13 & 24, T.8N., R.4E., S.M., ALASKA

CUTLER & BUTTON, J.V.
ENGINEERS & SURVEYORS
ANCHORAGE, ALASKA

DRAWN SERVICE DRAFTING SERVICE (WWN) | DATE AUGUST 5, 1974
SCALE 1" = 100' | SHEET 2 OF 3

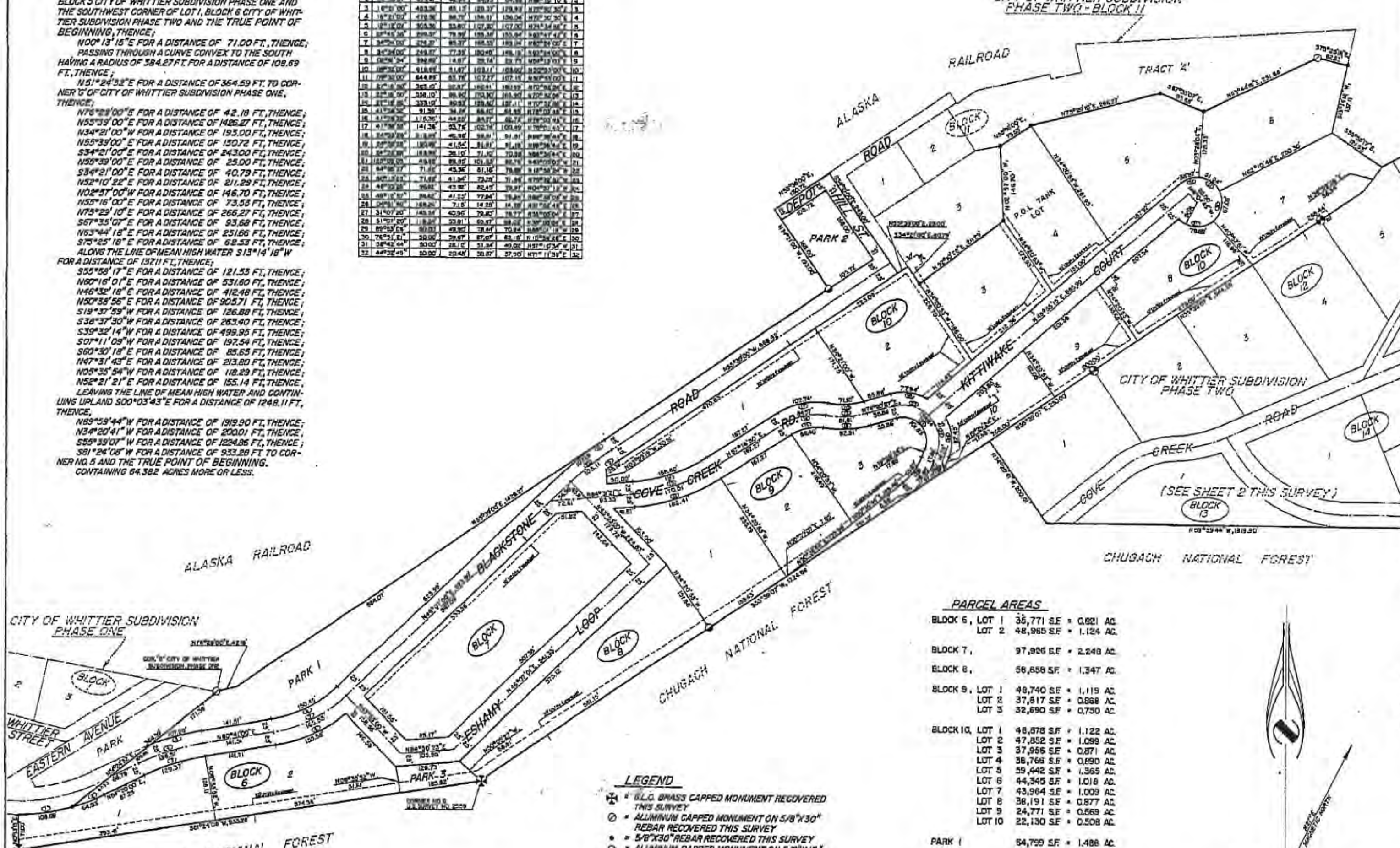
LEGAL DESCRIPTION

BEGINNING AT CORNER NO. 5 OF U.S. SURVEY NO. 2559 WHICH IS COMMON TO THE SOUTHEAST CORNER OF LOT 10, BLOCK 5 CITY OF WHITTIER SUBDIVISION PHASE ONE AND THE SOUTHWEST CORNER OF LOT 1, BLOCK 6 CITY OF WHITTIER SUBDIVISION PHASE TWO AND THE TRUE POINT OF BEGINNING, THENCE;

N00° 13' 15"E FOR A DISTANCE OF 71.00 FT., THENCE;
PASSING THROUGH A CURVE CONVEX TO THE SOUTH HAVING A RADIUS OF 384.27 FT. FOR A DISTANCE OF 108.69 FT., THENCE;
N51°24'32"E FOR A DISTANCE OF 354.59 FT. TO CORNER 'G' OF CITY OF WHITTIER SUBDIVISION PHASE ONE, THENCE;
N76°29'00"E FOR A DISTANCE OF 42.18 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 1426.27 FT., THENCE;
N34°21'00"W FOR A DISTANCE OF 193.00 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 150.72 FT., THENCE;
S34°21'00"E FOR A DISTANCE OF 243.00 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 25.00 FT., THENCE;
S34°21'00"E FOR A DISTANCE OF 40.79 FT., THENCE;
N52°10'22"E FOR A DISTANCE OF 211.29 FT., THENCE;
N02°57'00"W FOR A DISTANCE OF 146.70 FT., THENCE;
N55°16'00"E FOR A DISTANCE OF 73.53 FT., THENCE;
N75°29'10"E FOR A DISTANCE OF 266.27 FT., THENCE;
S67°35'07"E FOR A DISTANCE OF 93.68 FT., THENCE;
N63°44'18"E FOR A DISTANCE OF 251.66 FT., THENCE;
S75°25'18"E FOR A DISTANCE OF 62.53 FT., THENCE;
ALONG THE LINE OF MEAN HIGH WATER S13°14'18"W FOR A DISTANCE OF 137.11 FT., THENCE;
S55°58'17"E FOR A DISTANCE OF 121.53 FT., THENCE;
N60°16'01"E FOR A DISTANCE OF 531.60 FT., THENCE;
N46°32'18"E FOR A DISTANCE OF 412.48 FT., THENCE;
N50°38'56"E FOR A DISTANCE OF 905.71 FT., THENCE;
S19°37'59"W FOR A DISTANCE OF 126.88 FT., THENCE;
S38°37'30"W FOR A DISTANCE OF 263.40 FT., THENCE;
S39°32'14"W FOR A DISTANCE OF 499.95 FT., THENCE;
S07°11'09"W FOR A DISTANCE OF 197.54 FT., THENCE;
S60°30'18"E FOR A DISTANCE OF 85.65 FT., THENCE;
N47°31'43"E FOR A DISTANCE OF 213.80 FT., THENCE;
N05°35'54"W FOR A DISTANCE OF 118.29 FT., THENCE;
N52°21'21"E FOR A DISTANCE OF 155.14 FT., THENCE,
LEAVING THE LINE OF MEAN HIGH WATER AND CONTINUING UPLAND S00°03'43"E FOR A DISTANCE OF 1248.11 FT., THENCE,
N89°59'44"W FOR A DISTANCE OF 1919.90 FT., THENCE;
N34°20'41"W FOR A DISTANCE OF 200.01 FT., THENCE;
S55°39'07"W FOR A DISTANCE OF 1224.86 FT., THENCE;
S81°24'08"W FOR A DISTANCE OF 933.28 FT. TO CORNER NO. 5 AND THE TRUE POINT OF BEGINNING.
CONTAINING 64.382 ACRES MORE OR LESS.

CURVE DIMENSION TABLE

NO.	DELTA	RADIUS	TANGENT	LENGTH	CHORD	CH. BEARING	NO.
1	16°15'33"	384.27'	54.71'	108.69'	108.33'	[illegible]	1
2	09°40'51"	384.27'	32.52'	64.93'	64.85'	N56°10'10"E	2
3	16°21'00"	403.36'	[illegible]	120.37'	[illegible]	N77°30'30"E	3
4	16°21'00"	[illegible]	[illegible]	[illegible]	130.04'	N77°30'30"E	4
5	12°12'00"	[illegible]	53.80'	107.20'	107.00'	[illegible]	5
6	[illegible]	[illegible]	79.99'	155.38'	[illegible]	[illegible]	6
7	34°24'00"	[illegible]	85.37'	168.55'	[illegible]	[illegible]	7
8	34°24'00"	249.27'	77.33'	[illegible]	[illegible]	[illegible]	8
9	[illegible]	[illegible]	14.87'	29.74'	[illegible]	[illegible]	9
10	[illegible]	[illegible]	51.87'	103.11'	[illegible]	[illegible]	10
11	09°32'00"	644.89'	53.76'	107.27'	107.15'	[illegible]	11
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12
13	[illegible]	358.10'	[illegible]	[illegible]	[illegible]	[illegible]	13
14	[illegible]	333.10'	[illegible]	[illegible]	137.11'	[illegible]	14
15	[illegible]	91.58'	[illegible]	[illegible]	[illegible]	[illegible]	15
16	[illegible]	116.26'	[illegible]	[illegible]	[illegible]	[illegible]	16
17	[illegible]	141.38'	53.76'	102.74'	100.49'	[illegible]	17
18	[illegible]	[illegible]	45.98'	[illegible]	[illegible]	[illegible]	18
19	[illegible]	[illegible]	41.54'	81.81'	81.19'	[illegible]	19
20	[illegible]	[illegible]	36.10'	71.10'	70.58'	[illegible]	20
21	[illegible]	[illegible]	[illegible]	101.83'	[illegible]	[illegible]	21
22	[illegible]	[illegible]	45.36'	81.16'	[illegible]	[illegible]	22
23	[illegible]	[illegible]	41.34'	75.25'	[illegible]	[illegible]	23
24	[illegible]	[illegible]	43.92'	82.45'	[illegible]	[illegible]	24
25	[illegible]	[illegible]	41.22'	77.94'	[illegible]	[illegible]	25
26	[illegible]	[illegible]	7.15'	14.28'	[illegible]	[illegible]	26
27	31°07'20"	[illegible]	40.96'	79.80'	[illegible]	[illegible]	27
28	31°07'20"	[illegible]	33.01'	[illegible]	[illegible]	[illegible]	28
29	[illegible]	50.00'	49.92'	78.44'	70.64'	[illegible]	29
30	76°31'21"	50.00'	39.67'	67.07'	62.16'	[illegible]	30
31	58°42'44"	50.00'	28.12'	51.24'	49.02'	[illegible]	31
32	44°32'45"	50.00'	20.48'	38.87'	37.90'	[illegible]	32



PARCEL AREAS

BLOCK 6,	LOT 1	35,771 S.F.	0.821 AC.
	LOT 2	48,965 S.F.	1.124 AC.
BLOCK 7,		97,606 S.F.	2.240 AC.
BLOCK 8,		58,658 S.F.	1.347 AC.
BLOCK 9,	LOT 1	48,740 S.F.	1.119 AC.
	LOT 2	37,817 S.F.	0.868 AC.
	LOT 3	32,690 S.F.	0.750 AC.
BLOCK 10,	LOT 1	48,878 S.F.	1.122 AC.
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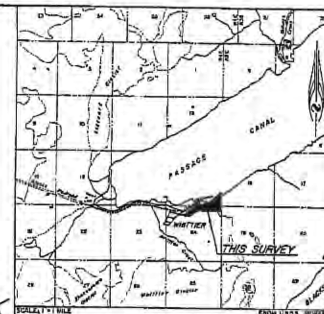
	LOT 3	37,956 S.F.	0.871 AC.
	LOT 4	38,766 S.F.	0.890 AC.
	LOT 5	59,442 S.F.	1.365 AC.
	LOT 6	44,345 S.F.	1.018 AC.
	LOT 7	43,964 S.F.	1.009 AC.
	LOT 8	38,191 S.F.	0.877 AC.
	LOT 9	24,771 S.F.	0.569 AC.
	LOT 10	22,130 S.F.	0.508 AC.
PARK 1		64,799 S.F.	1.488 AC.
PARK 2		17,761 S.F.	0.408 AC.
PARK 3		6,906 S.F.	0.159 AC.

LEGEND

- B.L.O. BRASS CAPPED MONUMENT RECOVERED THIS SURVEY
- ALUMINUM CAPPED MONUMENT ON 5/8"X30" REBAR RECOVERED THIS SURVEY
- 5/8"X30" REBAR RECOVERED THIS SURVEY
- ALUMINUM CAPPED MONUMENT ON 5/8"X15" REBAR SET THIS SURVEY
- 2-1/2" BRASS CAPPED MONUMENT SET THIS SURVEY. ALL OTHER CORNERS ARE 5/8"X15" REBAR OR 2"X2" WOOD HUB & TACK.



VICINITY MAP

CERTIFICATE OF OWNERSHIP & DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON. WE HEREBY APPROVE THIS PLAT AND DEDICATE TO THE PUBLIC ALL EASEMENTS FOR PUBLIC UTILITIES, STREETS, ALLEYS, THOROUGHFARES, PARKS AND OTHER PUBLIC AREAS SHOWN HEREON.

DATE: August 10 1974

CITY OF WHITTIER
BY BENNIE BARKER, MAYOR
WHITTIER, ALASKA 99502

NOTARY'S ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS 10th DAY OF August, 1974.

NOTARY FOR ALASKA — MY COMMISSION EXPIRES

PLAT APPROVAL

PLAT APPROVED BY THE PLANNING COMMISSION OF THE CITY OF WHITTIER THIS 10th DAY OF August, 1974.

AUTHORIZED OFFICIAL

SURVEYOR'S CERTIFICATE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE MONUMENTS SHOWN THEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE CORRECT.

8/10/74

R.L. BUTTON - 1192-S
REGISTERED LAND SURVEYOR — DATE

74-4
FILED 7.50
Whittier
10-22 74
3:20 P.M.
City of Whittier

74-3

ADDED UTILITY EASEMENTS	10/15/74
REVISION	DATE

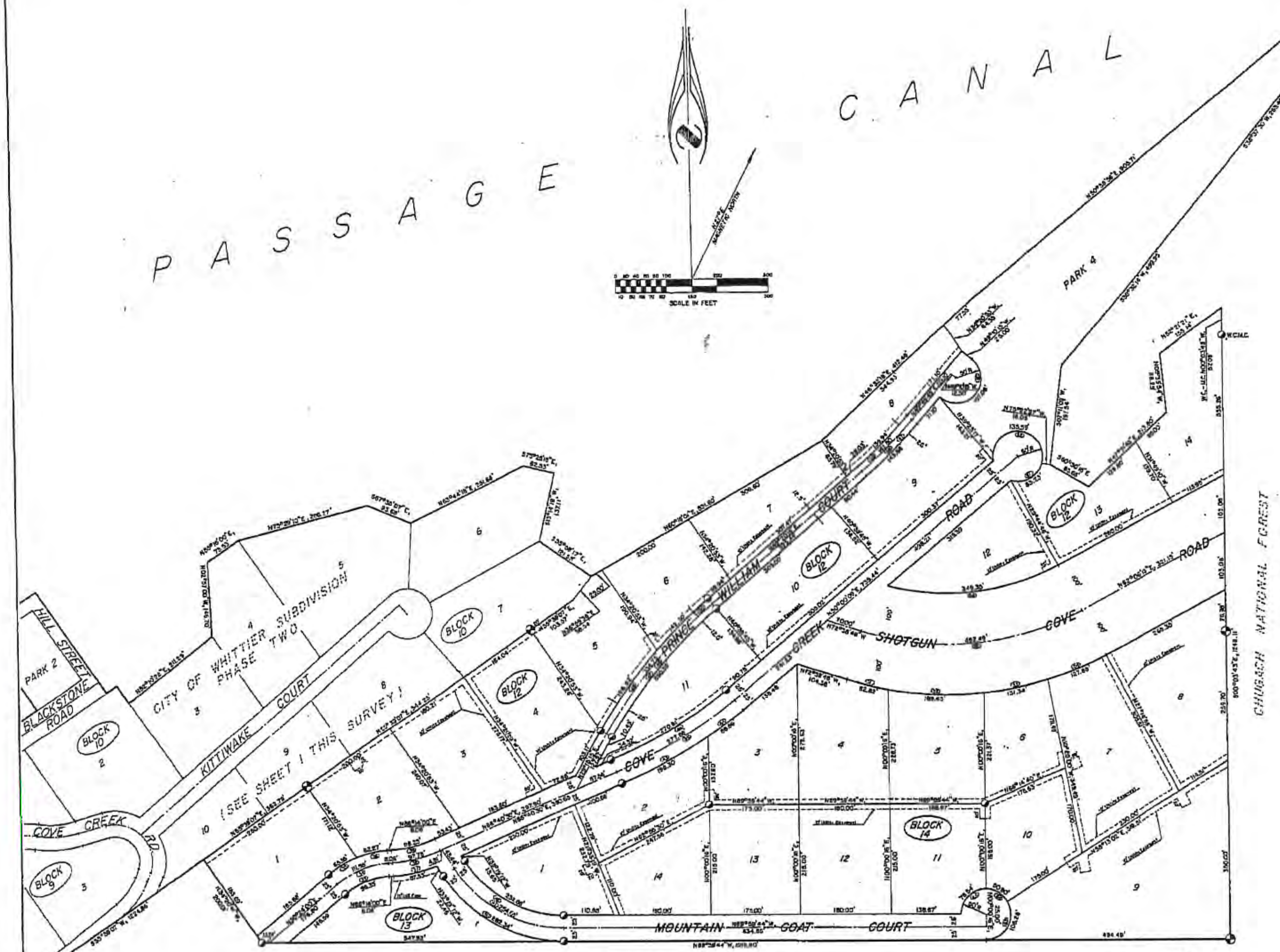
A PLAT OF
CITY OF WHITTIER SUBDIVISION
PHASE TWO

A RESUBDIVISION OF A PORTION OF U.S. SURVEY NO. 2559 AND A SUBDIVISION OF LANDS WITHIN PROTRACTED SECTIONS 13 & 24, T.8N., R.4E., S.M., ALASKA

CUTLER & BUTTON, J.V.
ENGINEERS & SURVEYORS
ANCHORAGE, ALASKA

SCALE 1" = 100' — DATE AUGUST 5, 1974 — SHEET 1 OF 2

CITY OF WHITTIER SUBDIVISION
PHASE TWO
CONTAINING 64.382 ACRES



CHUGACH NATIONAL FOREST

CITY OF WHITTIER SUBDIVISION

PHASE TWO

CONTAINING 64.382 ACRES

74-4
FILED 7:50
Whittier
10-22 74
3:20 P.M.
City of Whittier

74-3
RECORDED-FILED

PARCEL AREAS

BLOCK 12,	LOT 1	43,275 S.F.	= 0.993 AC.
	LOT 2	42,105 S.F.	= 0.967 AC.
	LOT 3	46,426 S.F.	= 1.066 AC.
	LOT 4	44,809 S.F.	= 1.029 AC.
	LOT 5	38,704 S.F.	= 0.889 AC.
	LOT 6	32,653 S.F.	= 0.750 AC.
	LOT 7	34,545 S.F.	= 0.793 AC.
	LOT 8	26,125 S.F.	= 0.600 AC.
	LOT 9	43,967 S.F.	= 1.009 AC.
	LOT 10	41,709 S.F.	= 0.958 AC.
	LOT 11	36,158 S.F.	= 0.830 AC.
	LOT 12	37,218 S.F.	= 0.854 AC.
	LOT 13	37,439 S.F.	= 0.859 AC.
	LOT 14	41,466 S.F.	= 0.952 AC.
BLOCK 13,		39,303 S.F.	= 0.902 AC.
BLOCK 14,	LOT 1	40,579 S.F.	= 0.932 AC.
	LOT 2	31,754 S.F.	= 0.729 AC.
	LOT 3	36,203 S.F.	= 0.831 AC.
	LOT 4	45,416 S.F.	= 1.043 AC.
	LOT 5	41,621 S.F.	= 0.955 AC.
	LOT 6	29,278 S.F.	= 0.672 AC.
	LOT 7	56,583 S.F.	= 1.299 AC.
	LOT 8	57,386 S.F.	= 1.317 AC.
	LOT 9	94,232 S.F.	= 2.163 AC.
	LOT 10	33,611 S.F.	= 0.776 AC.
	LOT 11	38,600 S.F.	= 0.886 AC.
	LOT 12	38,700 S.F.	= 0.888 AC.
	LOT 13	37,625 S.F.	= 0.864 AC.
	LOT 14	32,903 S.F.	= 0.755 AC.
PARK 4		159,598 S.F.	= 3.664 AC.

CURVE DIMENSION TABLE

NO.	DELTA	RADIUS	TANGENT	LENGTH	CHORD	CH.BEARING	NO.
33	33°30'02"	104.00'	49.61'	98.35'	94.78'	N60°19'00"E	33
34	33°30'02"	179.00'	[illegible]	111.68'	110.17'	N60°19'00"E	34
35	[illegible]	204.00'	[illegible]	[illegible]	[illegible]	[illegible]	35
36	[illegible]	204.00'	[illegible]	[illegible]	[illegible]	[illegible]	36
37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	37
38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	38
39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	39
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40
41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41
42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	42
43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	43
44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	44
45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	45
46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	46
47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	47
48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	48
49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	49
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	50
51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	51
52	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	52
53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	53
54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	54
55	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	55
56	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	56
57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	57
58	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	58
59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59
60	180°00'00"	30.00'	[illegible]	[illegible]	[illegible]	[illegible]	60
61	[illegible]	30.00'	[illegible]	[illegible]	[illegible]	[illegible]	61
62	[illegible]	30.00'	[illegible]	[illegible]	[illegible]	[illegible]	62
63	[illegible]	30.00'	[illegible]	[illegible]	[illegible]	[illegible]	63
64	[illegible]	30.00'	[illegible]	[illegible]	[illegible]	[illegible]	64
65	90°00'00"	50.00'	50.00'	[illegible]	70.71'	[illegible]	65

A PLAT OF
CITY OF WHITTIER SUBDIVISION
PHASE TWO

A RESUBDIVISION OF A PORTION OF U.S. SURVEY NO. 2559 AND A SUBDIVISION OF LANDS WITHIN PROTRACTED SECTIONS 13 & 24, T8N., R4E., S.M., ALASKA

CUTLER & BUTTON, J.V.
ENGINEERS & SURVEYORS
ANCHORAGE, ALASKA

DRAWN: SERVA DRAFTING SERVICE (WRN) | DATE: AUGUST 5, 1974
SCALE: 1" = 100' | SHEET 2 OF 2

R. L. BUTTON
REGISTERED LAND SURVEYOR
519 W. 8TH AVE., ROOM 209
ANCHORAGE, ALASKA 99501
PHONE (907) 279-6200

October 22, 1974

State Of Alaska
Anchorage District Recorder's Office
944 West Fifth Avenue
Anchorage, Alaska 99501

Re: Plat of City of Whittier Subdivision
Phase Two

TO WHOM IT MAY CONCERN:

Be advised that on October 15, 1974, that Chugach Electric Association utility easements were added to the above referenced plat.

At the time of original filing on August 14, 1974 the City of Whittier was the sole owner of subject subdivision. As of this date, the City of Whittier continues to be the sole owner, therefore all public dedications remain the same.

R. L. Button

R. L. Button, L.S.

74-4

~~RECORDED~~-FILED 7.50
Whittier REC. DIST.
DATE 10-22, 1974
TIME 3:20 P.M.
Requested by City of Whittier
Address

CITY OF WHITTIER SUBDIVISION

PHASE TWO

CONTAINING 64.382 ACRES

LEGAL DESCRIPTION

BEGINNING AT CORNER NO. 5 OF U.S. SURVEY NO. 2559 WHICH IS COMMON TO THE SOUTHEAST CORNER OF LOT 10, BLOCK 5 CITY OF WHITTIER SUBDIVISION PHASE ONE AND THE SOUTHWEST CORNER OF LOT 1, BLOCK 6 CITY OF WHITTIER SUBDIVISION PHASE TWO AND THE TRUE POINT OF BEGINNING, THENCE;

N00°13'15"E FOR A DISTANCE OF 71.00 FT., THENCE;

PASSING THROUGH A CURVE CONVEX TO THE SOUTH HAVING A RADIUS OF 384.27 FT. FOR A DISTANCE OF 108.69 FT., THENCE;

N51°24'32"E FOR A DISTANCE OF 364.59 FT. TO CORNER 'B' OF CITY OF WHITTIER SUBDIVISION PHASE ONE, THENCE;

N76°29'00"E FOR A DISTANCE OF 42.18 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 1426.27 FT., THENCE;
N34°21'00"W FOR A DISTANCE OF 193.00 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 130.72 FT., THENCE;
S34°21'00"E FOR A DISTANCE OF 243.00 FT., THENCE;
N55°39'00"E FOR A DISTANCE OF 25.00 FT., THENCE;
S34°21'00"E FOR A DISTANCE OF 40.79 FT., THENCE;
N52°10'22"E FOR A DISTANCE OF 211.29 FT., THENCE;
N02°57'00"W FOR A DISTANCE OF 146.70 FT., THENCE;
N55°16'00"E FOR A DISTANCE OF 73.53 FT., THENCE;
N75°29'10"E FOR A DISTANCE OF 266.27 FT., THENCE;
S67°35'07"E FOR A DISTANCE OF 93.68 FT., THENCE;
N63°44'16"E FOR A DISTANCE OF 251.66 FT., THENCE;
S75°25'18"E FOR A DISTANCE OF 62.53 FT., THENCE;

ALONG THE LINE OF MEAN HIGH WATER S13°14'16"W FOR A DISTANCE OF 137.11 FT., THENCE;

S55°58'17"E FOR A DISTANCE OF 121.53 FT., THENCE;
N60°16'01"E FOR A DISTANCE OF 531.60 FT., THENCE;
N46°32'18"E FOR A DISTANCE OF 412.48 FT., THENCE;
N50°38'56"E FOR A DISTANCE OF 905.71 FT., THENCE;
S19°37'59"W FOR A DISTANCE OF 126.88 FT., THENCE;
S38°37'30"W FOR A DISTANCE OF 263.40 FT., THENCE;
S39°32'14"W FOR A DISTANCE OF 499.95 FT., THENCE;
S07°11'09"W FOR A DISTANCE OF 197.54 FT., THENCE;
S60°30'16"E FOR A DISTANCE OF 85.65 FT., THENCE;
N47°31'43"E FOR A DISTANCE OF 213.80 FT., THENCE;
N08°35'34"W FOR A DISTANCE OF 118.29 FT., THENCE;
N32°21'21"E FOR A DISTANCE OF 155.14 FT., THENCE;

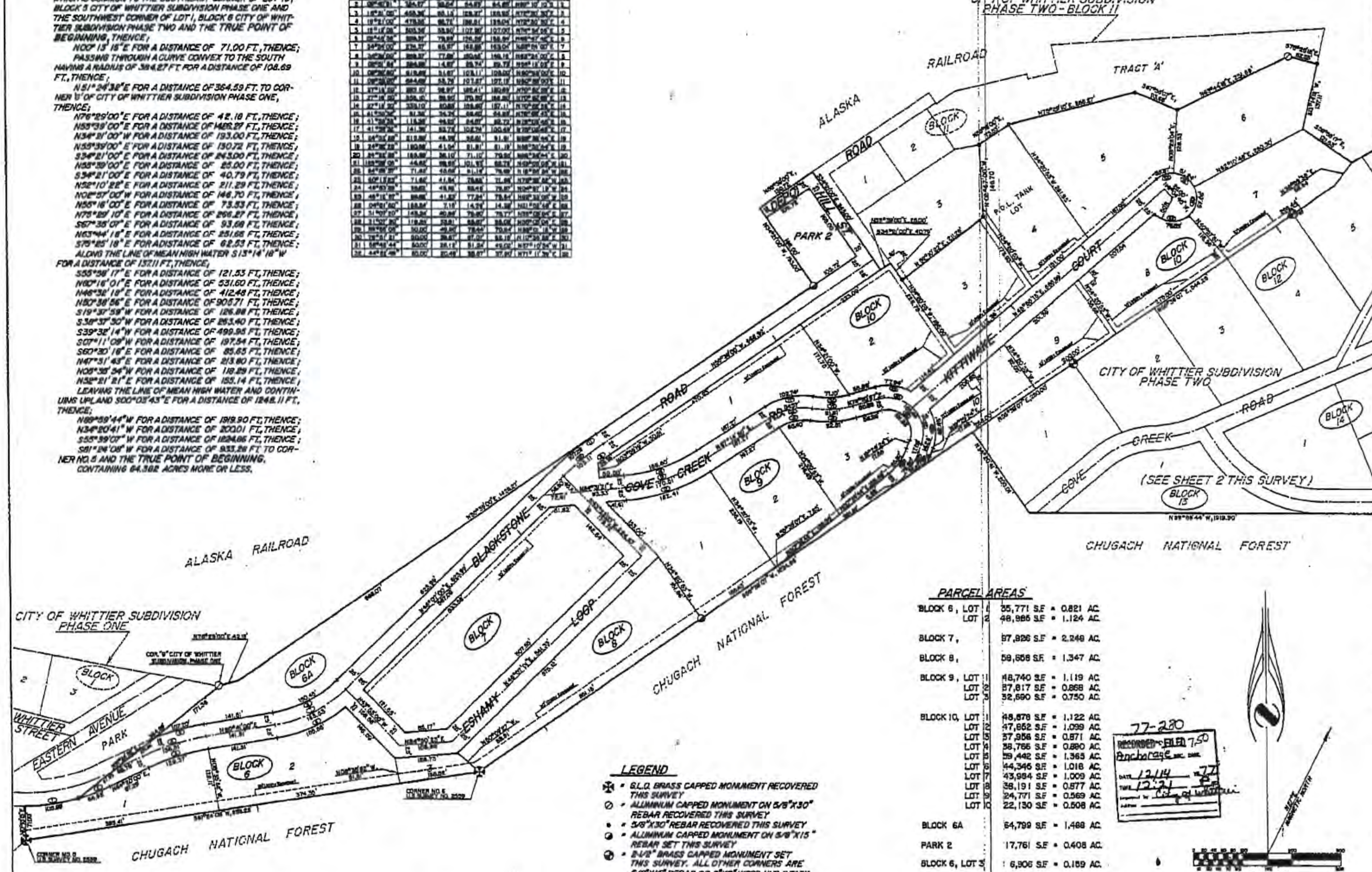
LEAVING THE LINE OF MEAN HIGH WATER AND CONTINUING UPLAND S00°03'43"E FOR A DISTANCE OF 1248.11 FT., THENCE;

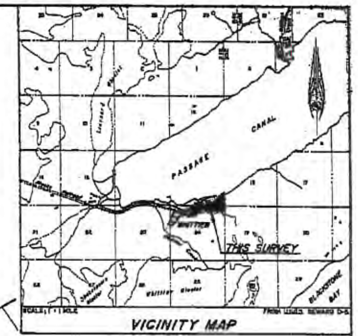
N89°59'44"W FOR A DISTANCE OF 1919.90 FT., THENCE;
N34°20'41"W FOR A DISTANCE OF 200.01 FT., THENCE;
S55°39'07"W FOR A DISTANCE OF 1824.66 FT., THENCE;
S81°24'08"W FOR A DISTANCE OF 933.28 FT. TO CORNER NO. 5 AND THE TRUE POINT OF BEGINNING.

CONTAINING 64.382 ACRES MORE OR LESS.

CURVE DIMENSION TABLE

NO.	DELTA	RADIUS	TANGENT	LENGTH	CHORD	CH. BEARING	NO.
1	[illegible]	384.27'	[illegible]	108.69'	[illegible]	[illegible]	1
2	[illegible]	384.27'	[illegible]	[illegible]	[illegible]	[illegible]	2
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28
29	[illegible]	30.00'	[illegible]	[illegible]	[illegible]	[illegible]	29
30	[illegible]	50.00'	[illegible]	[illegible]	[illegible]	[illegible]	30
31	[illegible]	50.00'	28.12'	51.84'	49.02'	N37°10'34"W	31
32	[illegible]	50.00'	[illegible]	[illegible]	[illegible]	[illegible]	32





VICINITY MAP

PARCEL AREAS

BLOCK 6,	LOT 1	35,771 S.F. = 0.821 AC.
	LOT 2	48,986 S.F. = 1.124 AC.
BLOCK 7,		97,926 S.F. = 2.249 AC.
BLOCK 8,		58,668 S.F. = 1.347 AC.
BLOCK 9,	LOT 1	48,740 S.F. = 1.119 AC.
	LOT 2	37,817 S.F. = 0.868 AC.
	LOT 3	32,690 S.F. = 0.750 AC.
BLOCK 10,	LOT 1	48,878 S.F. = 1.122 AC.
	LOT 2	47,852 S.F. = 1.099 AC.
	LOT 3	37,956 S.F. = 0.871 AC.
	LOT 4	38,766 S.F. = 0.890 AC.
	LOT 5	59,442 S.F. = 1.365 AC.
	LOT 6	44,346 S.F. = 1.018 AC.
	LOT 7	43,984 S.F. = 1.009 AC.
	LOT 8	38,191 S.F. = 0.877 AC.
	LOT 9	24,771 S.F. = 0.569 AC.
	LOT 10	22,130 S.F. = 0.508 AC.
BLOCK 6A		64,799 S.F. = 1.488 AC.
PARK 2		17,761 S.F. = 0.408 AC.
BLOCK 6, LOT 3		6,906 S.F. = 0.159 AC.

LEGEND

- G.L.O. BRASS CAPPED MONUMENT RECOVERED THIS SURVEY
- ALUMINUM CAPPED MONUMENT ON 5/8"X30" REBAR RECOVERED THIS SURVEY
- 5/8"X30" REBAR RECOVERED THIS SURVEY
- ALUMINUM CAPPED MONUMENT ON 5/8"X15" REBAR SET THIS SURVEY
- 2-1/2" BRASS CAPPED MONUMENT SET THIS SURVEY. ALL OTHER CORNERS ARE 5/8"X15" REBAR OR 2"X2" WOOD HUB & TACK.

77-230
RECORDED-FILED 7.50 Anchorage REC. DIST.
DATE 12/14 77
TIME 12:21 P
Requested by City of Whittier

74-4
RECORDED-FILED 7.50 Whittier
10-22 74
3:30 P
City of Whittier

74-3
RECORDED-FILED
Whittier

CERTIFICATE OF OWNERSHIP & DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON. WE HEREBY APPROVE THIS PLAT AND DEDICATE TO THE PUBLIC ALL EASEMENTS FOR PUBLIC UTILITIES, STREETS, ALLEYS, THOROUGHFARES, PARKS AND OTHER PUBLIC AREAS SHOWN HEREON.

DATE, August 10, 1974

Bennie M. Barker

CITY OF WHITTIER
BY BENNIE BARKER, MAYOR
WHITTIER, ALASKA 99602

NOTARY'S ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS 10th DAY OF August, 1974.

Carol J. Anderson
NOTARY FOR ALASKA

MY COMMISSION EXPIRES

PLAT APPROVAL

PLAT APPROVED BY THE PLANNING COMMISSION OF CITY OF WHITTIER THIS 10th DAY OF August 1974.

AUTHORIZED OFFICIAL

SURVEYOR'S CERTIFICATE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE MONUMENTS SHOWN THEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE CORRECT.

R.L. Button 8/10/74
R.L. BUTTON - 1192-S DATE
REGISTERED LAND SURVEYOR

REVISION	DATE
CHANGE PARK 1 TO BLOCK 6A, CHANGE PARK 3 TO BLOCK 6, LOT 3.	12/14/77
ADDED UTILITY EASEMENTS	10/15/74

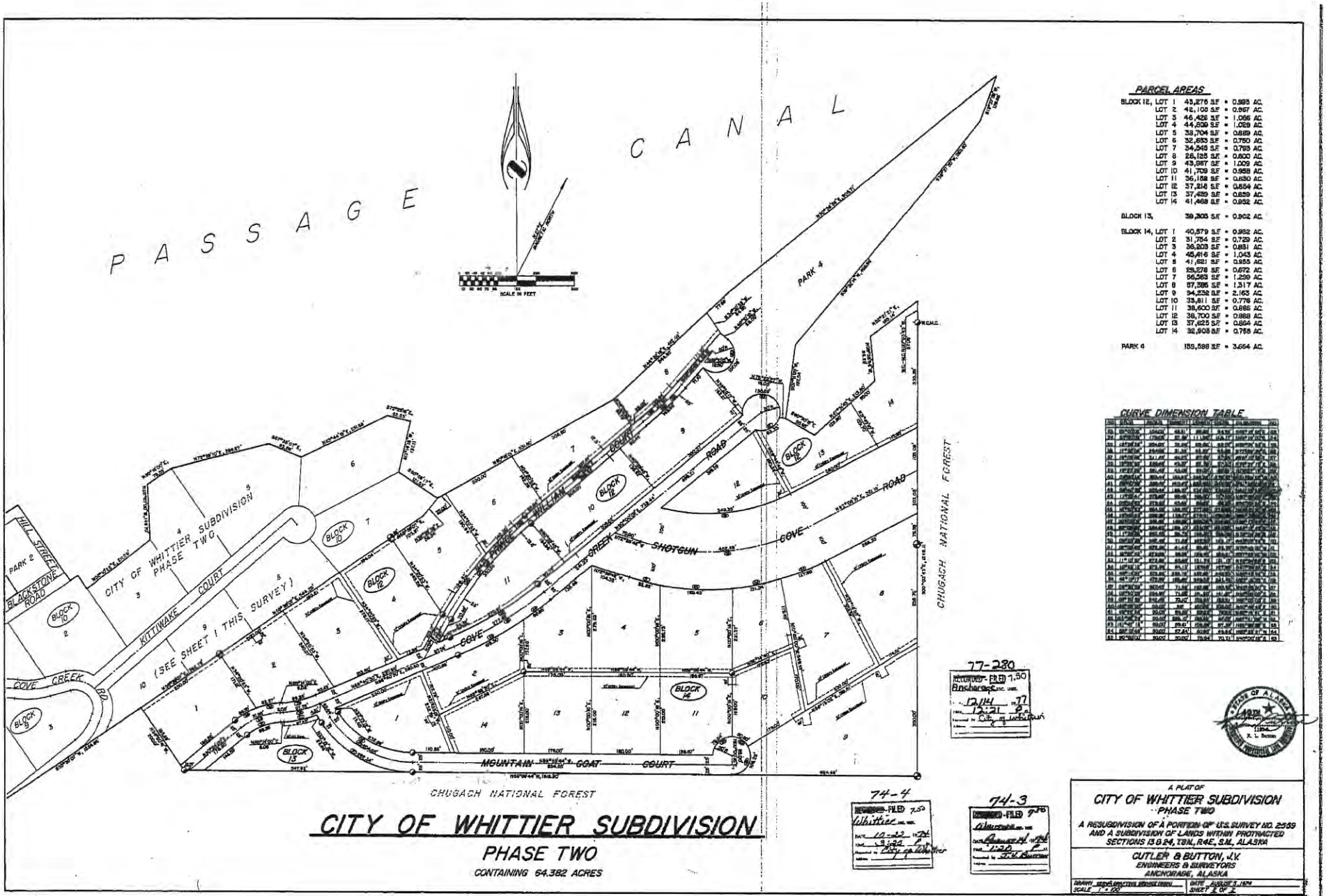
A PLAT OF
CITY OF WHITTIER SUBDIVISION
PHASE TWO

A RESUBDIVISION OF A PORTION OF U.S. SURVEY NO. 2559 AND A SUBDIVISION OF LANDS WITHIN PROTRACTED SECTIONS 13 & 24, T.8N., R.4E., S.M., ALASKA

CUTLER & BUTTON, J.V.
ENGINEERS & SURVEYORS
ANCHORAGE, ALASKA

SCALE 1" = 100' | DATE AUGUST 5, 1974 | SHEET 1 OF 2

1976-355



PARCEL AREAS

BLOCK 12,	LOT 1	43,276 S.F.	= 0.993 AC.
	LOT 2	42,100 S.F.	= 0.967 AC.
	LOT 3	46,428 S.F.	= 1.066 AC.
	LOT 4	44,539 S.F.	= 1.023 AC.
	LOT 5	39,704 S.F.	= 0.889 AC.
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BLOCK 13,		39,305 S.F.	= 0.902 AC.
BLOCK 14,	LOT 1	40,579 S.F.	= 0.932 AC.
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	LOT 6	29,578 S.F.	= 0.672 AC.
	LOT 7	56,563 S.F.	= 1.299 AC.
	LOT 8	57,386 S.F.	= 1.317 AC.
	LOT 9	94,232 S.F.	= 2.163 AC.
	LOT 10	33,811 S.F.	= 0.776 AC.
	LOT 11	38,600 S.F.	= 0.886 AC.
	LOT 12	38,700 S.F.	= 0.888 AC.
	LOT 13	37,625 S.F.	= 0.864 AC.
	LOT 14	32,908 S.F.	= 0.755 AC.
PARK 4		159,588 S.F.	= 3.664 AC.

CURVE DIMENSION TABLE

77-280
Anchorage FILED 7:30
12/14 77
12:21 P.M.

74-4
Whittier FILED 7:50
10-22 74
3:00 P.M.

74-3
Anchorage FILED 9:00
August 14 1974
1:00 P.M.

CITY OF WHITTIER SUBDIVISION

PHASE TWO

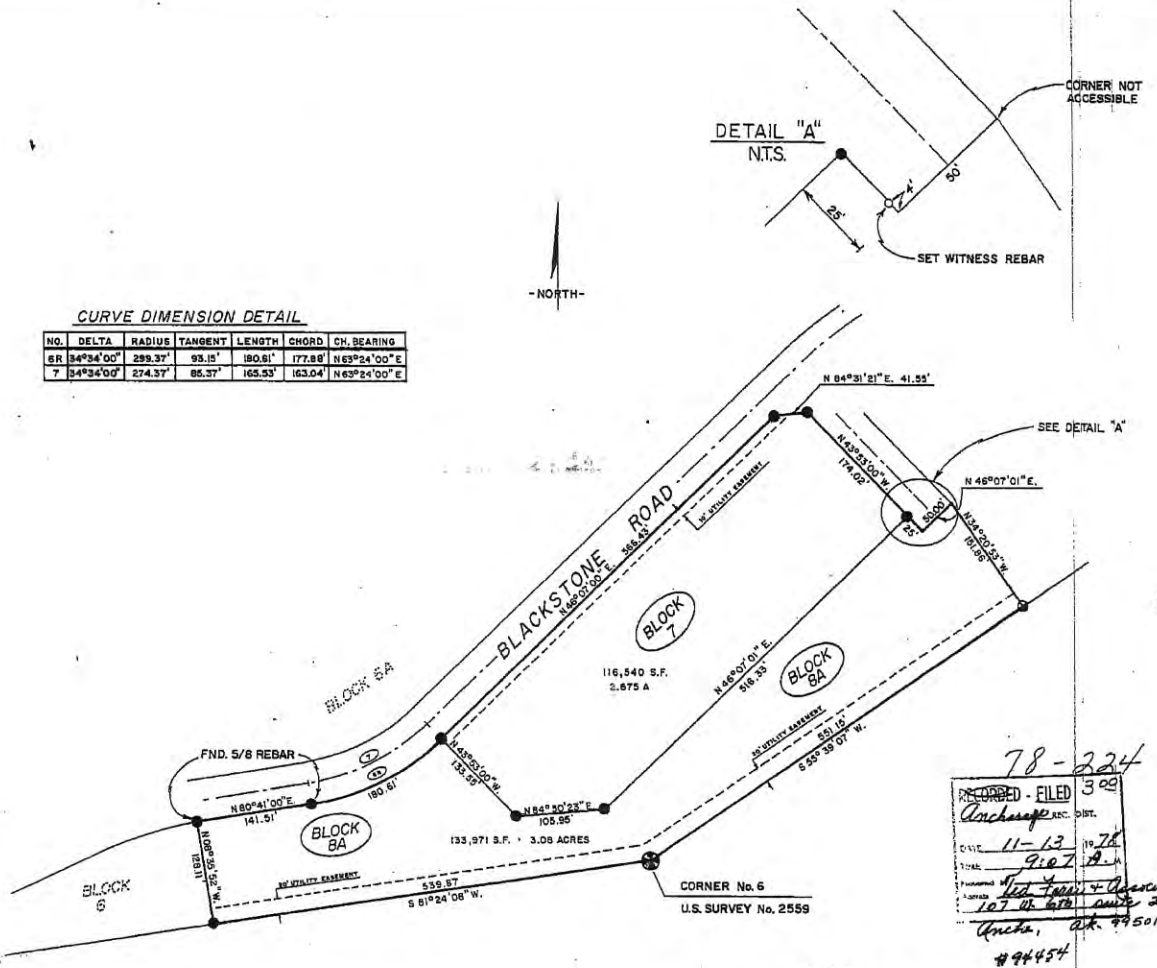
CONTAINING 64.382 ACRES

A PLAT OF
CITY OF WHITTIER SUBDIVISION
PHASE TWO
A RESUBDIVISION OF A PORTION OF U.S. SURVEY NO. 2539
AND A SUBDIVISION OF LANDS WITHIN PROTRACTED
SECTIONS 13 & 24, T8N., R4E., S.M., ALASKA

CUTLER & BUTTON, I.V.
ENGINEERS & SURVEYORS
ANCHORAGE, ALASKA

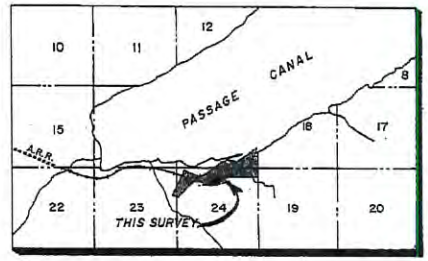
SCALE 1" = 100' | DATE AUGUST 5, 1974 | SHEET 2 OF 2

1976-356



CURVE DIMENSION DETAIL

NO.	DELTA	RADIUS	TANGENT	LENGTH	CHORD	CH. BEARING
6R	34°34'00"	299.37'	93.15'	180.61'	177.88'	N 63°24'00" E
7	34°34'00"	274.37'	85.37'	165.53'	163.04'	N 63°24'00" E



VICINITY MAP

1" = 1 MILE

I(we), hereby certify that I am (we are) the owner(s) of the property described hereon. I (we) hereby dedicate to the public all easements for public utilities, streets, alleys, parks, thoroughfares and other public areas shown hereon.

By _____ Nov. 3. 78.

CBS REALTY
171 Muldoon Rd.
Suite 11A 99504

78-324

RECORDED - FILED
Anchorage REC. DIST.
DATE 11-13 19 78
TIME 9:07 A.M.
REQUESTED Ted Forsi & Associates
ADDRESS 107 W. 6th suite 205
Ancha, Ak. 99501
#94454

NOTARY ACKNOWLEDGEMENT

Subscribed and sworn to before me this 3 day of November 1978.

August 16, 1981
My Commission Expires

Machonne D. Forsi
Notary Public

STATE OF ALASKA
NOTARY PUBLIC
MACHONNE FORSI
My Commission Expires August 16, 1981

LEGEND

DESCRIPTION	FOUND	SET THIS SURVEY
3" Aluminum Cap Monument	●	●
5/8" Diameter Reinforcing Bar	◉	○
GLO Brass Cap Monument	✚	

SURVEYOR'S CERTIFICATE

I, GEORGE SCHWADERER, professional land surveyor, hereby certify that the replat of Block 6, Lots 2 and 3, Block 7, and Block 8 is a true and correct representation of lands actually surveyed and that the distances and bearings are shown correctly and that all permanent exterior control monuments and lot corners have been set and staked.

STATE OF ALASKA
49TH
G. C. Schwaderer
NO. 3097-S
REGISTERED PROFESSIONAL LAND SURVEYOR

PLAT APPROVAL

Plat approved by the City of Whittier this 3RD day of NOVEMBER 1978.

Cecil Ziegler
Mayor

A PLAT OF
BLOCK 7 & BLOCK 8A

CITY OF WHITTIER SUBDIVISION
PHASE TWO

A REPLAT OF BLOCK 6, LOT 2, PARK 3, BLOCK 7 AND BLOCK 8

TED FORSI & ASSOCIATES
ENGINEERING ···· PLANNING ····· SURVEYING
107 WEST SIXTH AVENUE, SUITE 205, ANCH., AK.

SCALE: 1"= 100'	DATE: MARCH '78	DRAWN BY: JE

BK 3264 PG 673

033646

ANCHORAGE
RECORDING DISTRICT

15cc 1998 JN -4 PM 2:56

REQUESTED BY
Prince William Resrt

QUIT CLAIM DEED

The Grantor: CBS REAL ESTATE CO., INC.
4240 Old Seward Hwy Suite A-16
Anchorage, Alaska 99503
whether one or more, in consideration of ONE HUNDRED dollars ($100.00), and other good and valuable consideration, in hand paid, conveys and quitclaims to:

PRINCE WILLIAM RESORT LLC, An Alaska Limited Liability Company
3705 Arctic Blvd. Suite 1124 Anchorage, Alaska 99503
Grantee, whether one or more, all interest which the Grantor has, if any, in the following real property:

BLOCK 7, WHITTIER SUBDV. 2.

Situate in the city of Whitter, Alaska.

Buyer accepts the building in the condition that exists and assumes full responsibility.

Situate in the Anchorage Recording District of the 3rd Judicial District of the State of Alaska.

CBS REAL ESTATE CO., INC.

Peter Zamarello, GRANTOR PRES.

STATE OF ALASKA)
) ss
3rd JUDICIAL DISTRICT)

I CERTIFY that Peter Zamarello, President of CBS Real Estate Co., Inc. He did appear before me and sign the above Quitclaim Deed freely and voluntarily for the stated purposes and reasons set forth therein on this 3rd day of June, 1998.

Notary Public in Alaska
My Commission Expires 01-25-2000

* Return to Prince William Resort LLC
at 3705 Arctic Blvd. Suite 1124
Anchorage, Alaska 99503

2003-127526-0
Recording Dist: 301 - Anchorage
12/9/2003 12:26 PM Pages: 1 of 5

ALASKA

*STATUTORY WARRANTY DEED

STEWART
55393

CC

The Grantor, PRINCE WILLIAM RESORT, LLC, an Alaska Limited Liability Company, of 3705 Arctic Blvd. #1124, Anchorage Alaska 99503, pursuant to *Sec. 34.15.030, Alaska Statutes, for and in consideration of the sum of Ten Dollars ($10.00), lawful money of the United States of America, and other valuable consideration in hand paid, and as part of an IRC Section 1031 Tax Deferred Exchange, the receipt and sufficiency of which is hereby acknowledged, does hereby grant, convey and warrant to Grantee, R. GREGORY E. ELLIS, a unmarried man, of 17624 15th Avenue #104A, Mill Creek, WA 98012, the following described real property, together with all tenements, hereditaments and appurtenances located in the Anchorage Recording District, Third Judicial District, State of Alaska:

An undivided 26% interest in Lot Seven (7), CITY OF WHITTIER SUBDIVISION, PHASE TWO, according to the official plat thereof, filed under Plat No. 78-224, in the records of the Anchorage Recording District, Third Judicial District, State of Alaska.

SUBJECT to reservations and exceptions as contained in the United States Patent and/or in Acts authorizing the issuance thereof, which Patent was recorded September 10, 1973, in Whittier Book 2 at Page 488; real property taxes, if any due; easements, covenants and notes as shown on the plat of said subdivision; and easements of record; and

*** Addendum Attached hereto

INITIAL HERE

FURTHER SUBJECT to that certain Deed of Trust, including terms and provisions thereof, dated March 10, 2000, executed by PRINCE WILLIAM RESORT, LLC an Alaska Limited Liability Company, Trustor, to STEWART PACIFIC RIM TITLE OF ALASKA, Trustee, for the benefit of BANEX CAPITAL, LLC, to secure the payment of the sum of $371,000.00 and interest, recorded March 13, 2000, in Book 3605 at Page 871, the obligations of which Deed of Trust and the Promissory Note which it secures the Grantee does NOT agree to assume and pay, but merely takes possession subject thereto, and Grantor agrees to

RBB

Return to: Grantee

FRANCIS J. NOSEK, JR., A Professional Corporation
310 K Street, Suite 601, Anchorage, Alaska 99501
(907) 274-2602

continue to pay and discharge same and to hold Grantee harmless therefrom.

DATED this 18 day of November, 2003.

PRINCE WILLIAM RESORT, LLC

By _____
George Lamoureaux, Member

By _____
Max Lamoureaux, Member

By _____
Bruce Brunett, Member

_____
R. GREGORY E. ELLIS

STATE OF WASHINGTON)
) ss.
COUNTY OF)

THIS IS TO CERTIFY that on the _____ day of _____, 2003, before me the undersigned Notary Public personally appeared GEORGE LAMOUREAUX, Member of PRINCE WILLIAM RESORT, LLC, who is known to me and to me known to be the person named in and who executed the above and foregoing, and he acknowledged to me that he signed the same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal.

_____
Notary Public in and for Washington
My Commission expires: _____

STATE OF ALASKA)
) ss.
THIRD JUDICIAL DISTRICT)

THIS IS TO CERTIFY that on the 18 day of November 2003, before me the undersigned Notary Public personally appeared MAX LAMOUREAUX and BRUCE BRUNETT, Members of PRINCE

continue to pay and discharge same and to hold Grantee harmless therefrom.

DATED this 19th day of November, 2003.

PRINCE WILLIAM RESORT, LLC

By _____
George Lamoureaux, Member

By _____
Max Lamoureaux, Member

By _____
Bruce Brunett, Member

_____
R. GREGORY R. ELLIS

STATE OF WASHINGTON)
) ss.
COUNTY OF Snohomish)

THIS IS TO CERTIFY that on the 19th day of November, 2003, before me the undersigned Notary Public personally appeared GEORGE LAMOUREAUX, Member of PRINCE WILLIAM RESORT, LLC, who is known to me and to me known to be the person named in and who executed the above and foregoing, and he acknowledged to me that he signed the same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal.

S. SHAWN TACEY NOTARY PUBLIC STATE OF WASHINGTON 6-15-06

_____
Notary Public in and for Washington
My Commission expires: 6-15-06

STATE OF ALASKA)
) ss.
THIRD JUDICIAL DISTRICT)

THIS IS TO CERTIFY that on the _____ day of _____, 2003, before me the undersigned Notary Public personally appeared MAX LAMOUREAUX and BRUCE BRUNETT, Members of PRINCE

WILLIAM RESORT, LLC, who are known to me and to me known to be the persons named in and who executed the above and foregoing, and they acknowledged to me that they signed the same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal.

Notary Public in and for Alaska
My Commission expires: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF Snohomish)

THIS IS TO CERTIFY that on the 19th day of November, 2003, before me the undersigned Notary Public personally appeared R. GREGORY E. ELLIS, who is known to me and to me known to be the person named in and who executed the above and foregoing, and he acknowledged to me that he signed the same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal.

S. SHAWN TACEY NOTARY PUBLIC 6-15-06 STATE OF WASHINGTON

Notary Public in and for Washington
My Commission expires: 6-15-06

Addendum to Warranty Deed

Further Subject to that certain Deed of Trust, including terms and provisions thereof dated April 23, 1999 executed by Prince William Resort, LLC, and Alaska Limited Liability Company, Trustor to Pacific Rim Title Insurance Agency, Trustee for the benefit of Robert M. Platek, to secure the payment of the sum of $50,000.00, and interest, together with any other amounts due thereunder, recorded may 14, 1999 in Book 3472 at Page 68, he obligations of which Deed of Trust and the Promissory Note and Modification thereto, which it secures that Grantee does NOT agree to assume and pay, but merely takes possession subject thereto, and Grantor agrees to continue to pay and discharge same and to hold Grantee harmless therefrom.

CC

ALASKA

2010-002943-0
Recording Dist: 301 - Anchorage
1/20/2010 9:17 AM Pages: 1 of 2

76484 - STEWART

STATUTORY WARRANTY DEED

This deed is being recorded to correct the missing notary signature and stamp of the original deed recorded December 9, 2003 at Serial Number 2003-127526-0

The Grantor(s): PRINCE WILLIAM RESORT, LLC, an Alaska Limited Liability Company, whose address is: 3705 Arc tic Blvd., #1123, Anchorage, AK 99503

for and in consideration of the sum of ten dollars ($10.00), lawful money of the United States, and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged , do hereby GRANT, CONVEY and WARRANT to:

The Grantee(s): R. Gregory E. Ellis, a unmarried man whose address is: 17624 15th Avenue, #104A, Mill Creek, WA 98012

the following described real property, together with all tenements, hereditaments, and appurtenances located in the Anchorage Recording District, Third Judicial District, State of Alaska:

An undivided 26% interest in Lot Seven (7), CITY OF WHITTIER SUBDIVISION, PHASE TWO, according to the official plat thereof, filed under Plat No. 78-224, in the records of the Anchorage Recording District, Third Judicial District, State of Alaska.

SUBJECT to reservations and exceptions as contained in the United States Patent and/or in Acts authorizing the issuance thereof, which Patent was recorded September 10, 1973, in Whittier Book 2 at Paged 488; real property taxes, if any due; easements, covenants and notes as shown on the plat of said subdivision; and easements of record; and

*** Addendum Attached hereto

FURTHER SUBJECT to reservation and exceptions in U.S. Patent and otherwise of record, real property taxes, in any due, notes on plat, and covenants and restrictions of records.

DATED this 18th day of January, 2010.

Grantor:

Max Lamoureaux, Member

Bruce Brunett, Member

M.C. LOONEY NOTARY PUBLIC STATE OF ALASKA My commission expires Nov. 6, 2013

STATE OF Alaska

The foregoing instrument was acknowledged before me this 18 day of January, 2010 by Max Lamoureaux.
WITNESS my hand and official seal.

M C Looney
Notary Public in and for Alaska

M.C. LOONEY NOTARY PUBLIC STATE OF ALASKA My commission expires Nov. 6, 2013

The foregoing instrument was acknowledged before me this 19 day of January, 2010 by Bruce Brunett
WITNESS my hand and official seal.

M C Looney
Notary Public in and for Alaska

FURTHER SUBJECT to that certain Deed of Trust, including terms and provisions thereof, dated March 10,2000, executed by PRINCE WILLIAM RESORT, LLC an Alaska Limited Liability Company, Trustor, to STEWART PACIFIC RIM TITLE OF ALASKA, Trustee, for the benefit of BANEX CAPITAL, LLC to secure the payment of the sum of $371,000.00 and interest, recorded March 13, 2000, in Book 3605 at Page 871, the obligations of which Deed of Trust and the Promissory Note which it secures the Grantee does NOT AGREE TO ASSUME AND PAY, BUT MERELY TAKES POSSESSION SUBJECT THERETO, AND Grantor agrees to continue to pay and discharge same and to hold Grantee harmless therefrom.

FURTHER SUBJECT to that certain Deed of Trust, including terms and provisions thereof, dated April 23, 1999 executed by Prince William Resort, LLC a Alaska Limited Liability Company, Trustor to Pacific Rim Title Insurance Agency, Trustee for the benefit together with any other amounts due thereunder, recorded May 14, 1999 in Book 3472 at Page 66, the obligations of which Deed of Trust and the Promissory Note and Modification thereto, which it secures that Grantee does NOT agree to assume and pay but merely takes possession subject thereto, and Grantor agrees t continue to pay and discharge same and to hold Grantee harmless therefrom.

After Recording return to:
Stewart Title of Alaska
2601 Denali Street
Anchorage, AK 99503

ALASKA

2010-007884-0
Recording Dist: 301 - Anchorage
2/19/2010 9:45 AM Pages: 1 of 2

AFTER RECORDING MAIL TO:

Westgate Business Services, LLC
10515 20th Street SE, Suite 100
Everett, WA 98205

STEWART 710484

QUIT CLAIM DEED

GRANTOR(S):	R. GREGORY E. ELLIS - whose address is 10515 20th St ste 100 Everett WA 98205
GRANTEE(S):	PRINCE WILLIAM RESORT, LLC - whose address is 3705 Artic Blvd #1124 Anchorage, AK 99503
LEGAL DESCRIPTION:	SEE ATTACHED EXHIBIT A
PROPERTY TAX ACCOUNT NO(S):	110197

The Grantor, R. GREGORY E. ELLIS, for and in consideration of Ten and No/100 Dollars ($10.00) conveys and forever quit claims all right, title, and interest of his twenty six percent (26%) of ownership of the real property described herein, to PRINCE WILLIAM RESORT, LLC, the following described real estate, records of the Anchorage recording district, third judicial district, State of Alaska:

SEE ATTACHED EXHIBIT "A"

Dated: August 3, 2009

R. Gregory E. Ellis

STATE OF WASHINGTON)
) ss.
COUNTY OF SNOHOMISH)

I certify that I know or have satisfactory evidence **R. Gregory E. Ellis** is the person who appeared before me, and that said person acknowledged signing this instrument as his free and voluntary act for the uses and purposes mentioned in the instrument.

SUBSCRIBED AND SWORN to before me this 3rd day of August, 2009.

AMANDA H. MINER
STATE OF WASHINGTON
NOTARY --•-- PUBLIC
My Commission Expires 12-27-09

(printed name): Amanda H. Miner
NOTARY PUBLIC in and for the State of Washington, residing at Mill Creek
My Commission expires: 12/27/2009

EXHIBIT A
Legal Description

BLOCK 7, CITY OF WHITTIER SUBDIVISION, PHASE TWO, ACCORDING TO THE OFFICIAL PLAT THEREOF, FILED UNDER PLAT NO. 78-224, RECORDS OF THE ANCHORAGE RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.

Cc

ALASKA

2010-008665-0

Recording Dist: 301 - Anchorage
2/24/2010 9:13 AM Pages: 1 of 3

STEWART 710484

DOCUMENT TITLE: Statutory Warranty Deed

DOCUMENT DATE: 02/23/2010

Re-recording to correct legal description

To be recorded in the
Anchorage Recording District

THIS COVER SHEET HAS BEEN ADDED TO THIS DOCUMENT TO PROVIDE SPACE FOR RECORDING DATA. THIS COVER SHEET APPEARS AS THE FIRST PAGE OF THE DOCUMENT IN THE OFFICIAL PUBLIC RECORD AND IS TO BE CONSIDERED PART OF THE OFFICIAL DOCUMENT.

DO NOT DETACH

CC

ALASKA

2010-002943-0
Recording Dist: 301 - Anchorage
1/20/2010 9:17 AM Pages: 1 of 2

[redacted]

76484 STEWART

STATUTORY WARRANTY DEED

This deed is being recorded to correct the missing notary signature and stamp of the original deed recorded December 9, 2003 at Serial Number 2003-127526-0

The Grantor(s): PRINCE WILLIAM RESORT, LLC, an Alaska Limited Liability Company, whose address is: 3705 Arc tic Blvd., #1123, Anchorage, AK 99503

for and in consideration of the sum of ten dollars ($10.00), lawful money of the United States, and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged , do hereby GRANT, CONVEY and WARRANT to:

The Grantee(s): R. Gregory E. Ellis, a unmarried man whose address is: 17624 15th Avenue, #104A, Mill Creek, WA 98012

the following described real property, together with all tenements, hereditaments, and appurtenances located in the Anchorage Recording District, Third Judicial District, State of Alaska:

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SUBJECT to reservations and exceptions as contained in the United States Patent and/or in Acts authorizing the issuance thereof, which Patent was recorded September 10, 1973, in Whittier Book 2 at Paged 488; real property taxes, if any due; easements, covenants and notes as shown on the plat of said subdivision; and easements of record; and

*** Addendum Attached hereto

FURTHER SUBJECT to reservation and exceptions in U.S. Patent and otherwise of record, real property taxes, in any due, notes on plat, and covenants and restrictions of records.

DATED this 18th day of January, 2010.

Grantor:

Max Lamoureaux, Member

Bruce Brunett, Member

M.C. LOONEY NOTARY PUBLIC STATE OF ALASKA My commission expires Nov. 8, 2013

STATE OF Alaska

The foregoing instrument was acknowledged before me this 18 day of January, 2010 by Max Lamoureaux.
WITNESS my hand and official seal.

M C Looney
Notary Public in and for Alaska

M.C. LOONEY NOTARY PUBLIC STATE OF ALASKA My commission expires Nov. 8, 2013

The foregoing instrument was acknowledged before me this 19 day of January, 2010 by Bruce Brunett
WITNESS my hand and official seal.

M C Looney
Notary Public in and for Alaska

FURTHER SUBJECT to that certain Deed of Trust, including terms and provisions thereof, dated March 10,2000, executed by PRINCE WILLIAM RESORT, LLC an Alaska Limited Liability Company, Trustor, to STEWART PACIFIC RIM TITLE OF ALASKA, Trustee, for the benefit of BANEX CAPITAL, LLC to secure the payment of the sum of $371,000.00 and interest, recorded March 13, 2000, in Book 3605 at Page 871, the obligations of which Deed of Trust and the Promissory Note which it secures the Grantee does NOT AGREE TO ASSUME AND PAY, BUT MERELY TAKES POSSESSION SUBJECT THERETO, AND Grantor agrees to continue to pay and discharge same and to hold Grantee harmless therefrom.

FURTHER SUBJECT to that certain Deed of Trust, including terms and provisions thereof, dated April 23, 1999 executed by Prince William Resort, LLC a Alaska Limited Liability Company, Trustor to Pacific Rim Title Insurance Agency, Trustee for the benefit together with any other amounts due thereunder, recorded May 14, 1999 in Book 3472 at Page 66, the obligations of which Deed of Trust and the Promissory Note and Modification thereto, which it secures that Grantee does NOT agree to assume and pay but merely takes possession subject thereto, and Grantor agrees t continue to pay and discharge same and to hold Grantee harmless therefrom.

After Recording return to:
Stewart Title of Alaska
2601 Denali Street
Anchorage, AK 99503

APPENDIX E

ENVIRONMENTAL RECORDS SOURCE INFORMATION

(See CD affixed to the back cover of the report)

APPENDIX F

1951 CONSTRUCTION PLANS

(See CD affixed to the back cover of the report)

APPENDIX G

FIELD NOTES

(See CD affixed to the back cover of the report)

APPENDIX H

SITE PHOTOGRAPHS

Photo H-1: Exterior of Buckner Building with exterior stairwells highlighted by arrows; looking southwest. (September 8, 2014)

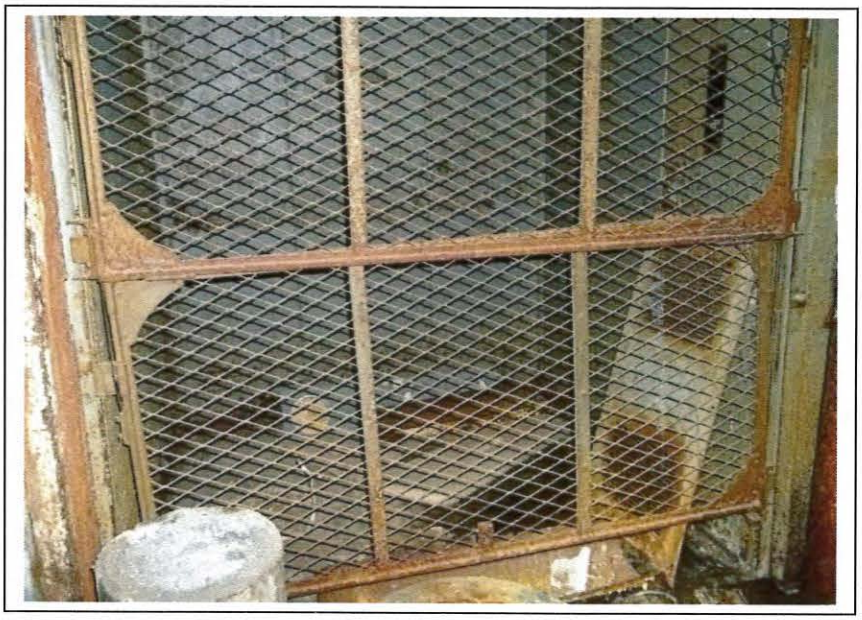

Photo H-2: Representative elevator. Note not all elevators had protective doors blocking the elevator shaft. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-1 AND H-2	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-1

Photo H-3: Representative 8-inch "crumple" joint that separates the Buckner Building's seven structural sections. (September 8, 2014)

Photo H-4: Former owners and/or vandals have removed most valuables from the structure. In the photo above, the floor and ceiling tiles have been removed. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-3 AND H-4	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-2

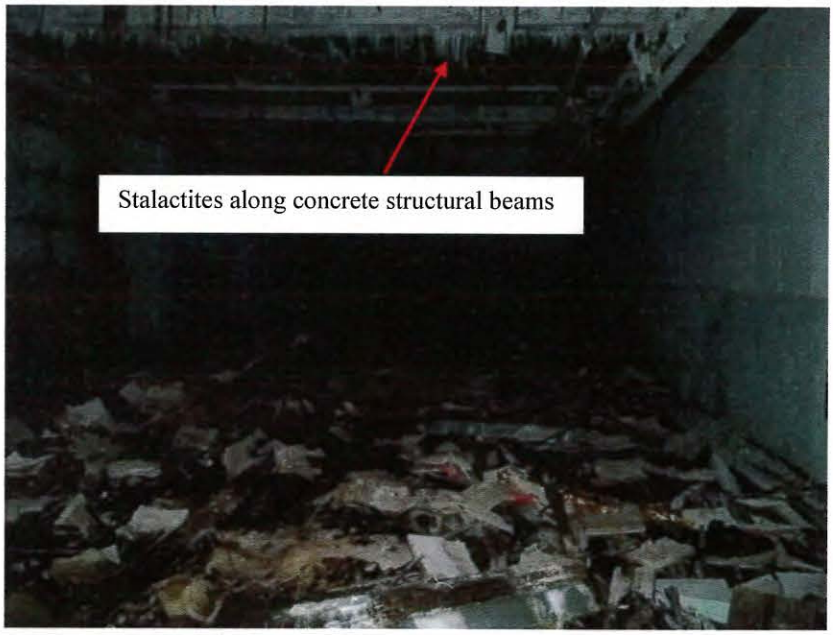

Photo H-5: Former bowling alley located in the basement of the Buckner Building. Presumed ACM-containing ceiling and wall tiles litter the floor of the former bowling alley. (September 8, 2014)

Photo H-6: Presumed concrete pad for the former generator in Section A of the basement of the Buckner Building. Note the surface stains on the concrete pad. (September 8, 2014)

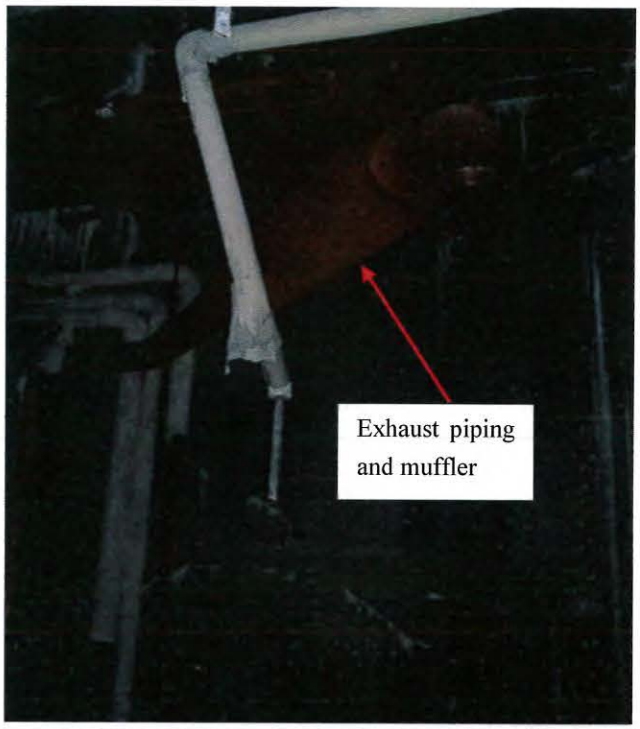

Photo H-7: Presumed muffler and exhaust piping for the former generator. The white piping insulation is suspected of containing asbestos. (September 8, 2014)

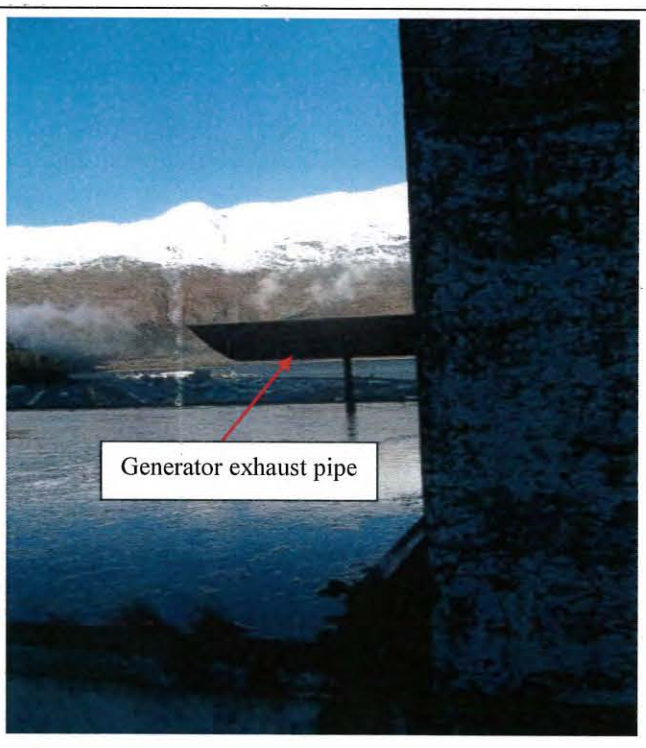

Photo H-8: The exhaust from the basement-level generator was conveyed to the rooftop via a pipe in the stairwell; looking west. (October 22, 2014)

Photo H-9: Distribution panels in the Section A electrical distribution room. (September 8, 2014)

Photo H-10: Representative transformer plates in the Section A electrical distribution room. The transformer plates are suspected of containing asbestos. (October 22, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-9 AND H-10	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-5

Photo H-11: Most transformer plates have been disassembled and discarded on the floor. Note the white spots on the transformer plates are minerals deposits that have dripped from overhead stalactites. (October 22, 2014)

Photo H-12: A black, viscous, oily substance was observed beneath the former oil-filled switches in the Section A electrical distribution room (shown on Figure 4). The oil is suspected of containing PCBs. (October 22, 2014)

Buckner Building
Whittier, Alaska

PHOTOS H-11 AND H-12

April 2015 32-1-17666

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

Photo H-13: Each of the two approximately 5,000-gallon tanks in the basement mechanical room are empty. It is presumed that the tanks were formerly used as hot water tanks. (October 22, 2014)

Photo H-14: Pressure reducing system and condensate return lines in the basement mechanical room. Note the white piping insulation is suspected of containing asbestos. (October 22, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-13 AND H-14	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-7

Photo H-15: The mechanical room sump contained standing water during each of our 2014 site visits. Note the floor is covered by a presumed asbestos slurry. (September 8, 2014)

Photo H-16: Former basement pastry and bread bakery. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-15 AND H-16	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-8

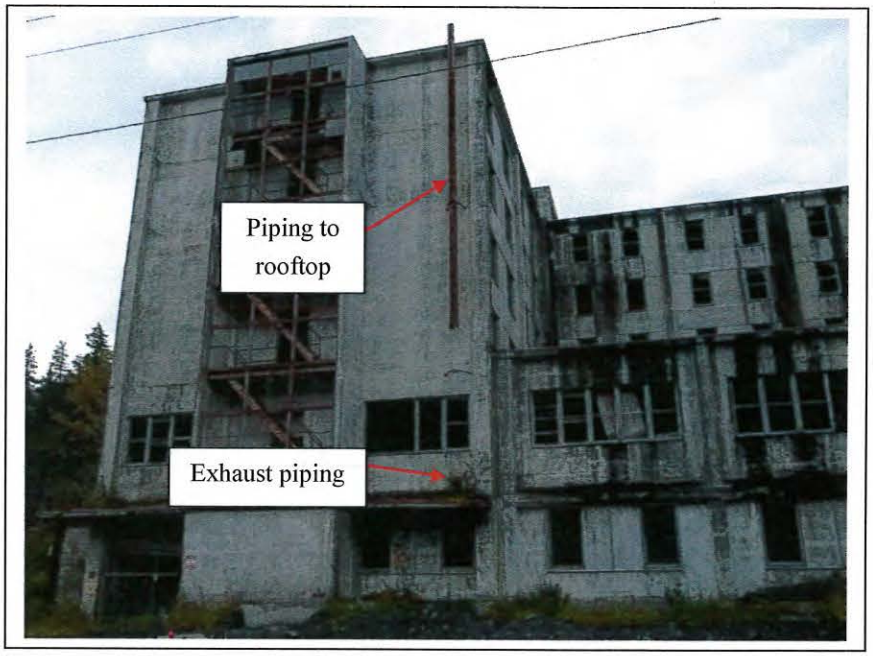

Photo H-17: Presumed bakery and kitchen exhaust piping; looking southeast. (September 8, 2014)

Photo H-18: It is presumed that the oil-filled switches remain intact behind the gray panel; electrical distribution room in Section E of the basement. (October 22, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-17 AND H-18	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-9

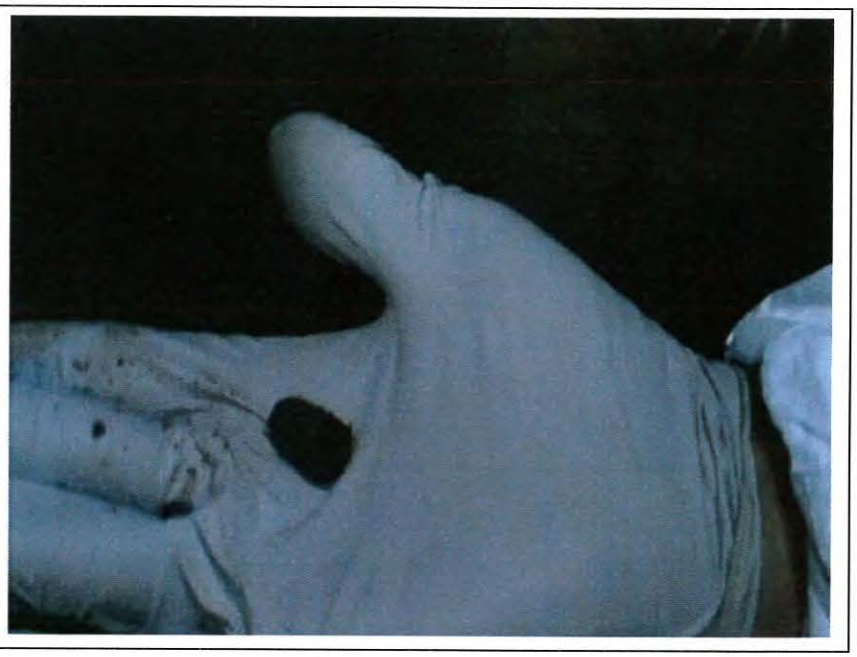

Photo H-19: Lead fragments from spent bullets were observed in the target line sand of the basement rifle ranges. (October 22, 2014)

Photo H-20: Representative floor of a ground floor room covered with moss and other litter/debris. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-19 AND H-20	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-10

Photo H-21: One empty 55-gallon drum was observed in the ground floor unit of Section G. (October 22, 2014)

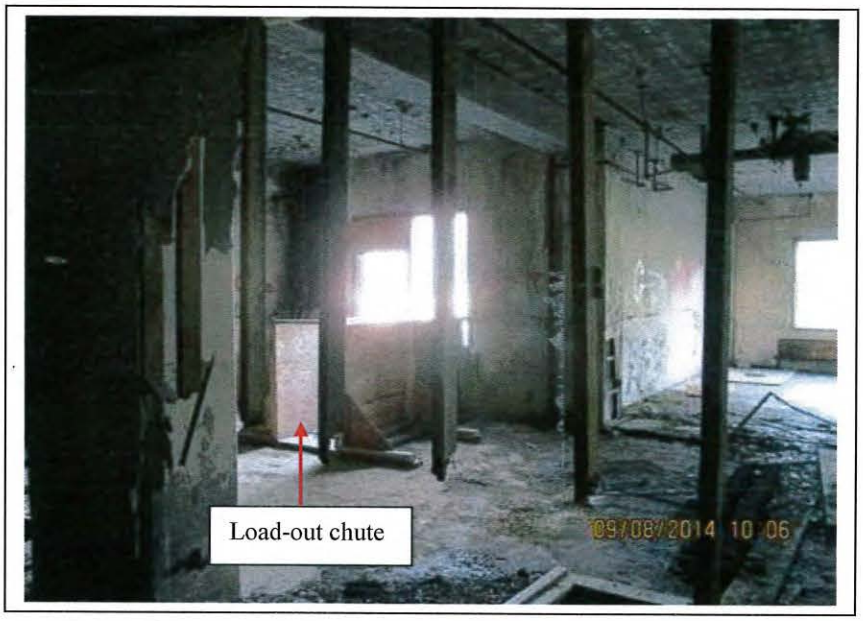

Photo H-22: What appears to be a load-out chute was observed on the ground floor level near the juncture of Sections A and C. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-21 AND H-22	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-11

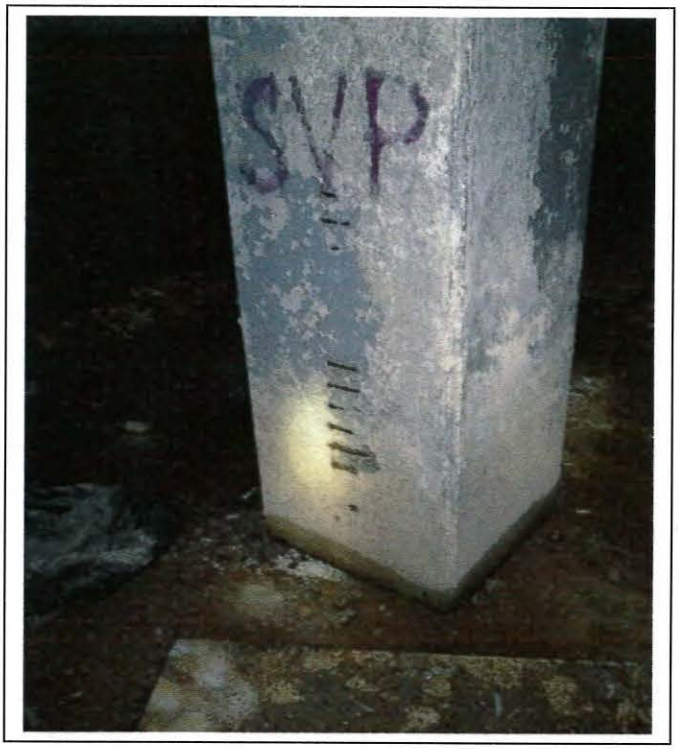

Photo H-23: Representative ground-floor structural column. Note that the concrete has spalled exposing the rebar.
(October 22, 2014)

Photo H-24: Five-gallon buckets of the adhesive "DAP." Note the buckets were full of a solid black material.
(September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-23 AND H-24	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-12

Photo H-25: Representative third floor hallway. Wallboard and ceiling tiles are suspected of containing asbestos. (September 8, 2014)

Photo H-26: Third floor elevator shaft without safety barricade or gate. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-25 AND H-26	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-13

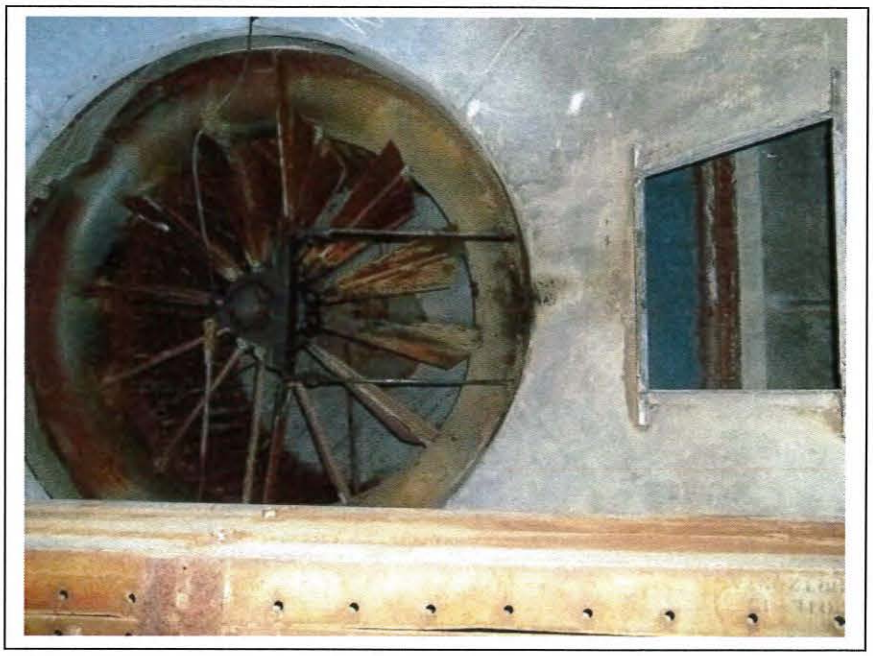

Photo H-27: Penthouse fan room. (October 22, 2014)

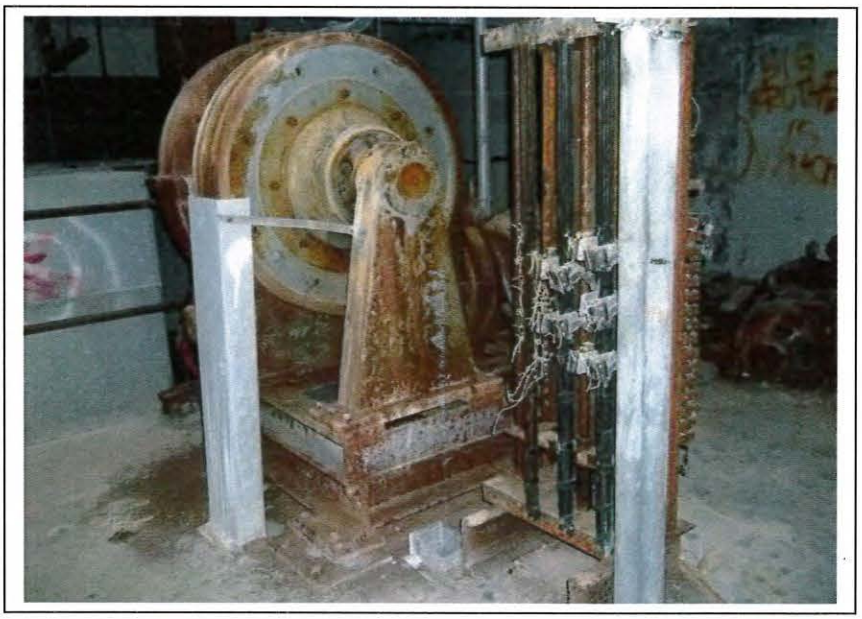

Photo H-28: Penthouse elevator platform. (October 22, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-27 AND H-28	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-14

Photo H-29: Debris observed between Sections B and C; looking north. (October 22, 2014)

Photo H-30: Six-inch pipe observed near the northeast corner of the structure; looking northwest. (October 22, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-29 AND H-30	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-15

Photo H-31: Two-inch pipe observed near the northwest corner of Section C; looking southeast. Note that based on the size, location, and construction of the pipe, the pipe may be a vent pipe associated with an undocumented UST. (September 8, 2014)

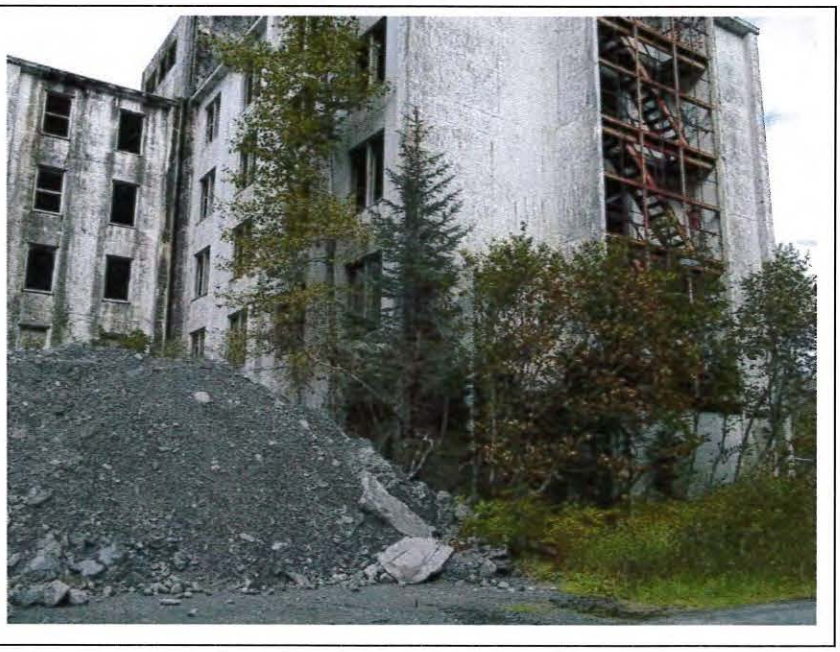

Photo H-32: Soil, asphalt, and concrete rubble stockpile observed between Sections E and G; looking north. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-31 AND H-32	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-16

Photo H-33: Tire and litter observed along the north side of Eshamey Loop, adjacent to north side of the Buckner Building; looking northwest. (September 8, 2014)

Photo H-34: Discarded materials observed between Sections E and G; looking west. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-33 AND H-34	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-17

Photo H-35: Pallets and general construction debris observed between the Buckner Building and Eshamey Loop; looking northeast. (October 22, 2014)

Photo H-36: Potentially creosote-treated railroad ties and litter observed near the southeast corner of the Buckner Building; looking northeast. (September 8, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-35 AND H-36	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-18

Photo H-37: Interior of the municipal-owned water chlorination building. (October 22, 2014)

Photo H-38: Exterior crack observed in Section B; looking south from fourth floor Section A. (October 22, 2014)

Buckner Building Whittier, Alaska	
PHOTOS H-37 AND H-38	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-19

Photo H-39: Many exterior cracks appeared to form at individual floor levels; looking southeast. (October 22, 2014)

Buckner Building Whittier, Alaska	
PHOTO H-39	
April 2015	32-1-17666
SHANNON & WILSON, INC. Geotechnical & Environmental Consultants	H-20

APPENDIX I

EHS-ALASKA HAZARDOUS BUILDING MATERIALS SURVEY REPORT

HAZARDOUS MATERIALS ASSESSMENT BUCKNER BUILDING WHITTIER, ALASKA

Prepared for:

SHANNON & WILSON, INC.

Reported Date

November 12, 2014

EHS-ALASKA, INC.
ENGINEERING, HEALTH & SAFETY CONSULTANTS
11901 BUSINESS BLVD., SUITE 208
EAGLE RIVER, ALASKA 99577-7701

HAZARDOUS MATERIALS NARRATIVE

A BUILDING DESCRIPTION

Construction of the 273,660 square foot "city under one roof" known as the Buckner Building, was started in 1949 and completed in 1954. The former U.S. military building, located in Whittier, Alaska, was abandoned by the military in 1960 when the Whittier Army Port was closed and continues to be vacant. The six story building was constructed to house 1,000 officers and enlisted personnel and includes all of the amenities found in a city, including a hospital, a church, a radio and TV station, a theater, a bowling alley, a bank, a barber shop, a club, a jail, administration offices, ordinance storage and firing range, recreational areas and sleeping rooms, and many storage rooms. There are seven building sections which are separated by seismic "crumple joints." There are even reports of tunnels leading from the building to other parts of Whittier. A separate chlorination facility, constructed in 1995 is located about 70 feet to the SW for the city water utility, but the City of Whittier decided not to implement its use. The city does use and maintain for water service a million gallon water storage reservoir located behind the Buckner Building up on the side of the mountain.

The Buckner building has deteriorated extensively and has been further damaged by vandals; it absolutely should not be entered without full personal protective equipment. Numerous exposed and hidden dangers are present and the building should be secured against unlawful entry. Attempts to secure the ground level from vagrants was noticeable on the front and both "short" sides but the back side was not secured even though a perimeter chain-link fencing was in place.

The Buckner building was constructed of reinforced concrete in the foundation, walls and floors, and supporting columns and beams. There are seven sections separated by 8" seismic "crumple joints" and several stairwells and elevator shafts which were designed to resist lateral forces. Interior partitions are concrete masonry units (CMU) and wood framing with gypsum wallboard systems (GWB) and plaster.

The building was heated by steam supplied by a separate power plant located approximately 1,000 feet NE towards the port. The power plant was demolished at an unknown date and underground piping may be present between the power plant and the Buckner building as well as between the power plant and the former Hodge Building which is currently a residential condo complex called the Begich Towers. The heat and domestic piping in the Buckner Building has asbestos-containing insulation, as does other systems like roof drain piping and generator exhaust piping.

B. ASBESTOS-CONTAINING MATERIALS

EHS-Alaska Inc. performed a walk-thru assessment on September 8, 2014. The following is a list of materials that are known or assumed to be asbestos-containing materials.

1. Joint compound in gypsum wallboard systems on the ceilings and walls.
2. Plaster wall and ceiling systems – may include different types of plaster such as standard, water resistant and acoustic plasters.
3. Cement asbestos board (CAB) "Glasweld" along the corridors, bathrooms and room wainscots.
4. Perforated asbestos cement panels in acoustical systems.
5. Cement asbestos partitions.
6. Various colors of floor tiles and mastics.
7. Sheet vinyl stair treads and risers and mastics.
8. Cove base and cove base mastic.
9. Hard and chalky "Hard Fittings" insulation at pipe valves and fittings on piping insulated on the runs with fiberglass.
10. Hard and chalky "Mag" insulation on steam, condensate, hot water and exhaust generator piping.
11. "Aircell" insulation on piping runs, mostly domestic water piping.
12. High temperature wiring insulation.

13. Tarry sound lining in clock/speaker and ceiling boxes.
14. Fire doors and non-fire door insulation.
15. Built-up roofing materials, mastics, sealants and patching compounds of roofing and flashing.
16. Remnants of roofing patch tars at older roof mounted exhaust fans.
17. "Sacking" or smoothing compound used on exposed concrete walls and columns.
18. Exterior tarry damp-proofing at foundation and tunnels.
19. Sink undercoatings on stainless steel sinks.
20. Acoustical ceiling tiles.
21. Mastic of ceiling tiles.
22. White and silver cloth flex connectors at fans and air handling units.
23. Black mastic at duct insulation pins and other fan systems.
24. Black tarry coating in filter housing of ventilation and HVAC units.
25. Flange gaskets and valve packing at piping and mechanical equipment.
26. Sealants at windows, doors, other penetrations, and window glazing compounds.
27. Waterproofing membrane between 2" thick cement floor and 4" thick concrete slab.
28. Other mastics to miscellaneous trim, mirrors, etc.
29. Other materials associated with utility tunnels or buried utilities.
30. Elevator brake shoes.

C. LEAD-CONTAINING MATERIALS

Lead-containing materials assumed to be present in the buildings are listed below.

1. Lead in the glazing of ceramic wall and floor tiles.
2. Lead in solder on copper piping and at sheet metal roof flashings.
3. Poured lead sealants at bell and spigot joints.
4. Lead acid batteries in emergency lights.
5. Painted interior and exterior surfaces.
6. Painted structural and miscellaneous steel.
7. Painted handrails, ducting and piping throughout.
8. Painted windows, garage door, doors and door frames.
9. Lead-containing dust in and on architectural, structural, mechanical, and electrical components.

D. PCB-CONTAINING MATERIALS

PCB-containing materials assumed to be present in the building are listed below:

1. Older fluorescent lights with PCB-containing ballasts.
2. Older HID lights with PCB-containing ballasts.
3. PCB "oil bath" electrical switches.
4. Some older paints, sealants and other building materials may contain measurable amounts of PCB's. PCB use in paints and sealants was supposed to have been discontinued in 1979. These and other similar solid materials that contain PCB's are much less likely to leach PCB's into wastewater, and the EPA has classified these solid materials that contain more than 50 ppm as "PCB Bulk Product Wastes". The EPA regulations allow the disposal of "PCB Bulk Product Wastes" at any concentrations at landfills which are not permitted as hazardous waste landfills, but local landfills may have more restrictive policies on what materials they will accept. No sampling of "Bulk Products" was authorized for this project. Paints and Sealants that may contain measurable amounts of PCB's may be affected by this project.

E. OTHER HAZARDOUS MATERIALS

Other hazardous materials that are assumed in the building include mercury containing lamps, mercury containing thermostats and switches, smoke detectors, refrigerators or other items with ozone depleting substances, hydraulic elevator fluids and brakes, paints and sealants.

F. ESTIMATED HAZARDOUS MATERIALS QUANTITIES

A "rough order of magnitude" estimate of quantities of the major asbestos-containing materials are listed in TABLE F. The original construction drawings were reviewed for materials known to or assumed to be asbestos-containing materials (ACM). During the on-site evaluation on September 8, 2014, it was obvious that most of the ACM in the Buckner building was severely damaged and not intact, and the building components and all surfaces were contaminated with asbestos. Materials like pipe insulation, vinyl asbestos tile, perforated cement asbestos board, and acoustic ceiling tile with ACM mastic were damaged to the point where the majority of the material appears as a slurry of debris on the floor. Some of the ACM also appeared to have been removed such as the VAT and acoustical ceiling tiles in areas of the ground floor where a remnant of a "load-out" debris chute was observed. Because of the existing conditions, it was decided to report the quantity in terms of volume as opposed to square footage or linear footage, except for the roofing and wiring. Large discrepancies may exist between the amounts listed and actual amounts of wastes generated because these quantities do not include framing members, duct work, piping and other mechanical items, conduit, light fixtures and other electrical items. Not all hazardous materials are listed such as ACM sealants, lead in paints and glazing, mercury in fluorescent lamps, PCB ballast. Fluorescent light fixtures were noted but their bulbs were not intact and it should be assumed that all debris is also contaminated with mercury. Prior to any future asbestos abatement, a more thorough survey should be conducted and the quantities further evaluated. The following TABLE F summarizes the main asbestos-containing materials that have been identified in the Buckner Building in Whittier, Alaska.

TABLE F Estimated Quantities of Asbestos-Containing Materials, Buckner Building, Whittier, AK

MATERIAL	TYPE	ESTIMATED VOLUME (CUBIC YARDS)
Gypsum wallboard systems on the ceilings and walls, gypsum wallboard plaster	Chrysotile	850 Cubic Yards
Cement asbestos board (CAB) wainscots & partitions	Chrysotile	78 Cubic Yards
Hard and chalky "Mag" insulation at pipe valves and fittings, runs, roof drain bowls and piping, "Aircell" insulation on piping runs	Chrysotile and Amosite	730 Cubic Yards
Various colors of floor tiles and mastics	Chrysotile	76 Cubic Yards
High temperature wiring insulation	Chrysotile	18,000 Linear Feet
Built-up roofing materials, mastics, sealants and patching compounds of roofing and flashing	Chrysotile	48,430 Square Feet

MATERIAL	TYPE	ESTIMATED VOLUME (CUBIC YARDS)
Piping in "Utilidors" carved out of bedrock beneath perimeter of building with "Mag" and "Aircell" insulation on piping contaminated rock, sand & gravel of "utilidor" walls & floors	Chrysotile and Amosite	32,000 Linear Feet of piping 10,200 Square Feet of planar area of rough rock, sand and gravel walls and floors
PCB contaminated asbestos debris	Chrysotile, Amosite and PCBs	TBD

G. Estimation of Abatement Cost

Four asbestos abatement companies submitted responses to our inquiry for approximate abatement cost. The "bids" ranged from $3.37 million to $8.5 million. When the low bidder was told their bid was the lowest, they said in that case they would not want the job. The responders were not told about the "utilidors" which would most certainly increase the overall cost of the abatement. The "bids" were based on limited information and actual costs may be significantly higher.

H. REGULATIONS

The Federal Occupational Safety and Health Administration (29 CFR 1926.1101) and the State of Alaska Department of Labor (8 AAC 61) have promulgated regulations requiring testing for airborne asbestos fibers; setting allowable exposure limits for workers potentially exposed to airborne asbestos fibers; establishing contamination controls, work practices, and medical surveillance; and setting worker certification and protection requirements. These regulations apply to all workplace activities involving asbestos.

The EPA regulations, issued as Title 40 of the Code of Federal Regulations, Part 61 (40 CFR 61) under the National Emission Standards for Hazardous Air Pollutants (NESHAP) established procedures for handling ACM during asbestos removal and waste disposal. These regulations required an owner (or the owner's contractor) to notify the EPA of asbestos removal operations and to establish responsibility for the removal, transportation, and disposal of asbestos.

The disposal of asbestos waste is regulated by the EPA, the Alaska Department of Environmental Conservation, and the disposal site operator. Wastes being transported to the disposal site must be sealed in leak tight containers prior to disposal and must be accompanied by disposal permits and waste manifests.

Federal OSHA (29 CFR 1926.62) and the State of Alaska (8 AAC Chapter 61) have promulgated regulations that apply to all construction work where employees may be exposed to lead. The disturbance of any surfaces painted with lead-containing paint requires lead-trained personnel, personnel protective procedures, and air monitoring until exposure levels can be determined. If initial monitoring verifies that the work practices being used are not exposing workers, monitoring and protection procedures may be relaxed.

The EPA requires that actual construction or demolition debris that contains lead or lead-containing paint or other heavy metals be tested using the TCLP test to determine if the waste must be treated as hazardous waste. All federal, state and local standards regulating lead and lead-containing wastes should be followed during the demolition of this building.

The EPA has promulgated regulations (40 CFR Part 761) that cover the proper handling and disposal of PCB-containing equipment. All construction workers who are required to remove or handle PCB-containing or PCB-contaminated equipment or to transport or dispose of PCB wastes shall be trained and certified as required by the U.S. Department of Labor (29 CFR 1910.120) and the State of Alaska Department of Labor (8 AAC 61).

Mercury and mercury-containing products are considered hazardous waste if TCLP testing of the waste for mercury confirms the mercury content to be greater than the EPA criteria of 0.2 mg/l. Typically mercury from fluorescent lights, thermostats, and thermometers is removed and recycled in accordance with the EPA Universal Waste Standard, 40 CFR 273.

H. SUMMARY AND RECOMMENDATIONS

Asbestos and other hazardous materials identified are known to be present in the Buckner Building and will likely have an impact on potential renovations or demolition. The hazardous materials noted above were also noted to be scattered as debris outside of the Buckner Building. The exact extent of the required removal or disturbance of these materials will depend on the chosen renewal option, and will be further developed as the design progresses.

EHS-Alaska did not conduct any sampling of asbestos in the Buckner Building as part of this walk-through, but basically every surface in the building either is an asbestos-containing material, or is contaminated with asbestos. That assumption is based on the time of construction, because it was constructed by the military, on our experience in sampling thousands of similar materials, and because there were a lot of materials where the asbestos concentration was high enough so that an experienced asbestos building inspector can see the asbestos with the naked eye.

The extent of the damage to the asbestos-containing materials is so extensive and severe, that it is our recommendation that access to the building be limited to certified asbestos workers wearing suitable Personal Protective Equipment. The openings to the building at the time that we visited were not sufficiently secured to prevent illegal trespass, and we would recommend that at least the openings that are accessible without ladders be thoroughly secured, and posted with asbestos and lead warning signs. If the asbestos dries out in the building, the high winds common in Whittier could also distribute asbestos outside of the building, because of the lack of weather tight covers over the windows and doors.

APPENDIX J

ROUGH ORDER OF MAGNITUDE COST ESTIMATE

TABLE J-1 - ROUGH ORDER OF MAGNITUDE COST ESTIMATE

Plans Preparation (Work Plan, Hazardous Waste Management Plan, and Health and Safety Plan)	
Environmental Consultant	$25,000
Structural Analysis	$15,000
Section 106 Evaluation	$90,000
Hazardous Building Materials Abatement	
Abatement Contractor (costs to remove ACM, lead based paint, PCB ballasts, mercury lamps and switches, Freon, and other items identified by EHS during their 2014 HBM inspection.)	$8,500,000
Additional Characterization	
Local Contractor and Equipment (HAZWOPER Trained)	$20,000
Environmental Consultant	$20,000
Laboratory Testing	$10,000
Remedial Action	
Local Contractor and Equipment (HAZWOPER Trained)	$20,000
Environmental Consultant	$30,000
Laboratory Testing	$5,000
Waste Handling Contractor (transports and disposes IDW generated during remediation activities outlined in Sections 8.3.2 through 8.3.7)	$195,000
Report	
Environmental Consultant	$30,000
TOTAL	$8,960,000
Contingency (50%)	$4,480,000
Rough Order of Magnitude Cost Estimate	$13,440,000

APPENDIX K

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL SITE REPORT

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Attachment to Report: 32-1-17666

Dated: April 2015

To: ADEC

Re: Property Assessment and Cleanup Plan, Buckner Building, Whittier, Alaska

Important Information About Your Environmental Site Assessment/Evaluation Report

ENVIRONMENTAL SITE ASSESSMENTS/EVALUATIONS ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

This report was prepared to meet the needs you specified with respect to your specific site and your risk management preferences. Unless indicated otherwise, we prepared your report expressly for you and for the purposes you indicated. No one other than you should use this report for any purpose without first conferring with us. No one is authorized to use this report for any purpose other than that originally contemplated without our prior written consent.

The findings and conclusions documented in this site assessment/evaluation have been prepared for specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in this area. The conclusions presented are based on interpretation of information currently available to us and are made within the operational scope, budget, and schedule constraints of this project. No warranty, express or implied, is made.

OUR REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

Our environmental site assessment is based on several factors and may include (but not be limited to): reviewing public documents to chronicle site ownership for the past 30, 40, or more years; investigating the site's regulatory history to learn about permits granted or citations issued; determining prior uses of the site and those adjacent to it; reviewing available topographic and real estate maps, historical aerial photos, geologic information, and hydrologic data; reviewing readily available published information about surface and subsurface conditions; reviewing federal and state lists of known and potentially contaminated sites; evaluating the potential for naturally occurring hazards; and interviewing public officials, owners/operators, and/or adjacent owners with respect to local concerns and environmental conditions.

Except as noted within the text of the report, no sampling or quantitative laboratory testing was performed by us as part of this site assessment. Where such analyses were conducted by an outside laboratory, Shannon & Wilson relied upon the data provided and did not conduct an independent evaluation regarding the reliability of the data.

CONDITIONS CAN CHANGE.

Site conditions, both surface and subsurface, may be affected as a result of natural processes or human influence. An environmental site assessment/evaluation is based on conditions that existed at the time of the evaluation. Because so many aspects of a historical review rely on third party information, most consultants will refuse to certify (warrant) that a site is free of contaminants, as it is impossible to know with absolute certainty if such a condition exists. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas that showed no signs of contamination at the time they were studied.

Unless your consultant indicates otherwise, your report should not be construed to represent geotechnical subsurface conditions at or adjacent to the site and does not provide sufficient information for construction-related activities. Your report also should not be used following floods, earthquakes, or other acts of nature; if the size or configuration of the site is altered; if the location of the site is modified; or if there is a change of ownership and/or use of the property.

INCIDENTAL DAMAGE MAY OCCUR DURING SAMPLING ACTIVITIES.

Incidental damage to a facility may occur during sampling activities. Asbestos and lead-based paint sampling often require destructive sampling of pipe insulation, floor tile, walls, doors, ceiling tile, roofing, and other building materials. Shannon & Wilson does not provide for paint repair. Limited repair of asbestos sample locations are provided. However, Shannon & Wilson neither warranties repairs made by our field personnel, nor are we held liable for injuries or damages as a result of those repairs. If you desire a specific form of repair, such as those provided by a licensed roofing contractor, you need to request the specific repair at the time of the proposal. The owner is responsible for repair methods that are not specified in the proposal.

READ RESPONSIBILITY CLAUSES CAREFULLY.

Environmental site assessments/evaluations are less exact than other design disciplines because they are based extensively on judgment and opinion, and there may not have been any (or very limited) investigation of actual subsurface conditions. Wholly unwarranted claims have been lodged against consultants. To limit this exposure, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses may appear in this report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

Consultants cannot accept responsibility for problems that may develop if they are not consulted after factors considered in their reports have changed, or conditions at the site have changed. Therefore, it is incumbent upon you to notify your consultant of any factors that may have changed prior to submission of the final assessment/evaluation.

An assessment/evaluation of a site helps reduce your risk, but does not eliminate it. Even the most rigorous professional assessment may fail to identify all existing conditions.

ONE OF THE OBLIGATIONS OF YOUR CONSULTANT IS TO PROTECT THE SAFETY, HEALTH, PROPERTY, AND WELFARE OF THE PUBLIC.

If our environmental site assessment/evaluation discloses the existence of conditions that may endanger the safety, health, property, or welfare of the public, we may be obligated under rules of professional conduct, statutory law, or common law to notify you and others of these conditions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland