



# City of Homer

[www.cityofhomer-ak.gov](http://www.cityofhomer-ak.gov)

Office of the City Manager

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## Memorandum 15-161

TO: Mayor Wythe and Homer City Council  
FROM: Katie Koester, City Manager  
DATE: September 23, 2015  
SUBJECT: Strategic Doing: Deep Water Dock

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At the last strategic doing work session Council received an update on the status of the Deep Water Dock feasibility study. Preliminary reports indicate that the expansion as originally envisioned may not be the most feasible project in the near term. The consultants found in their interviews with customers and potential customers at the Deep Water Dock the need for improved traffic flow for freight and a secure staging area. Public Works Director Meyer and Port and Harbor Director Hawkins came up with the attached proposal to use the \$1 million legislative appropriation that the City received 6 years ago towards the goal of expanding freight capabilities at the Deep Water Dock. It is important that this project a) lays necessary groundwork for any future expansion project and b) delivers a tangible and useful product with the funds available. The goal is to have these funds encumbered soon after the first of the year. Project description is attached.

R&M Consultants has also worked with the Public Works Director and Port and Harbor Director on preparing the attached brochure to send to customers and potential customers highlighting the assets of the City of Homer Port and Harbor. This brochure will be distributed to everyone on the interview list and available for staff and Council when promoting the Port of Homer.

ENC:

Deep Water Dock Uplands Improvements Scope of Work and Map  
Business begins where the land ends brochure

**Scope of Work**  
**Homer Deep Water Dock Expansion - Phase 1**  
**Design and Construction - Access, Security & Laydown/Storage Area Improvements**

Background: The City is completing a feasibility study that will identify potential Deep Water Dock Expansion alternatives that are economically justified. It is apparent that under any proposed expansion plan access, security & laydown/storage improvements are needed (including the no-build option).

This project will enhance cargo-handling facilities at Homer’s Deep Water Dock. The project supports the dock’s capability to handle freight delivery to the Kenai Peninsula, staging for barge freight service to the Lake and Peninsula Borough, and meet the needs of future resource development projects.

Additionally, these improvements to the Deep Water Dock will support freight and cargo movements across the dock, and improve the efficiency and security for users of the dock, and the safety of other Spit users (including recreational users, tourists, businesses, and the general public).

Proposed Scope of Work: (see attached map for locations of the dock and proposed improvements)

*Design:* The design of these improvements (see below) will include 10%, 35%, 95% design deliverables (plans, specs and cost estimate). Federal, state and local regulatory and environmental permits will be obtained. The public will be involved through meetings at the Harbor Commission and the City Council. Bid documents will be prepared, competitive bids will be solicited in accordance with grant conditions and City procurement policies.

*Construction:* The following improvements will be constructed:

Task 1 - Laydown Area Improvements Currently, there is no secure laydown areas (areas dedicated to staging freight/cargo in preparation for loading across the Deep Water Dock onto ships and barges). An existing gravel area immediately adjacent to the Deep Water Dock approach trestle will be fenced, gated and paved. Drainage improvements will be installed. Lighting will be provided, as well as security cameras installed.

Task 2 – Storage Area Improvements Currently, there is no secure storage areas (areas dedicated to storing freight/cargo after it has been unloaded from the Deep Water). An existing concrete pad near the Deep Water Dock approach trestle will be fenced and gated. Drainage outfall piping improvements will be completed. Lighting will be provided, as well as security cameras installed.

Task 3 – Access Road Improvements The existing gravel access road Outer Dock Road) will be paved, creating a one-way couplet (incoming and outgoing cargo will be separated from each other and the general Freight Dock Road traffic (including recreational small boat harbor users, tourists, businesses, and the general public). This will improve efficiency of the operations associated with the Deep Water Dock and improve safety in this congested area of the Homer Spit.

Schedule:

|                             |                    |
|-----------------------------|--------------------|
| Begin Design .....          | September 30, 2015 |
| Design Complete .....       | February 15, 2016  |
| Bid Opening.....            | March 30, 2016     |
| Construction Complete ..... | September 30, 2016 |





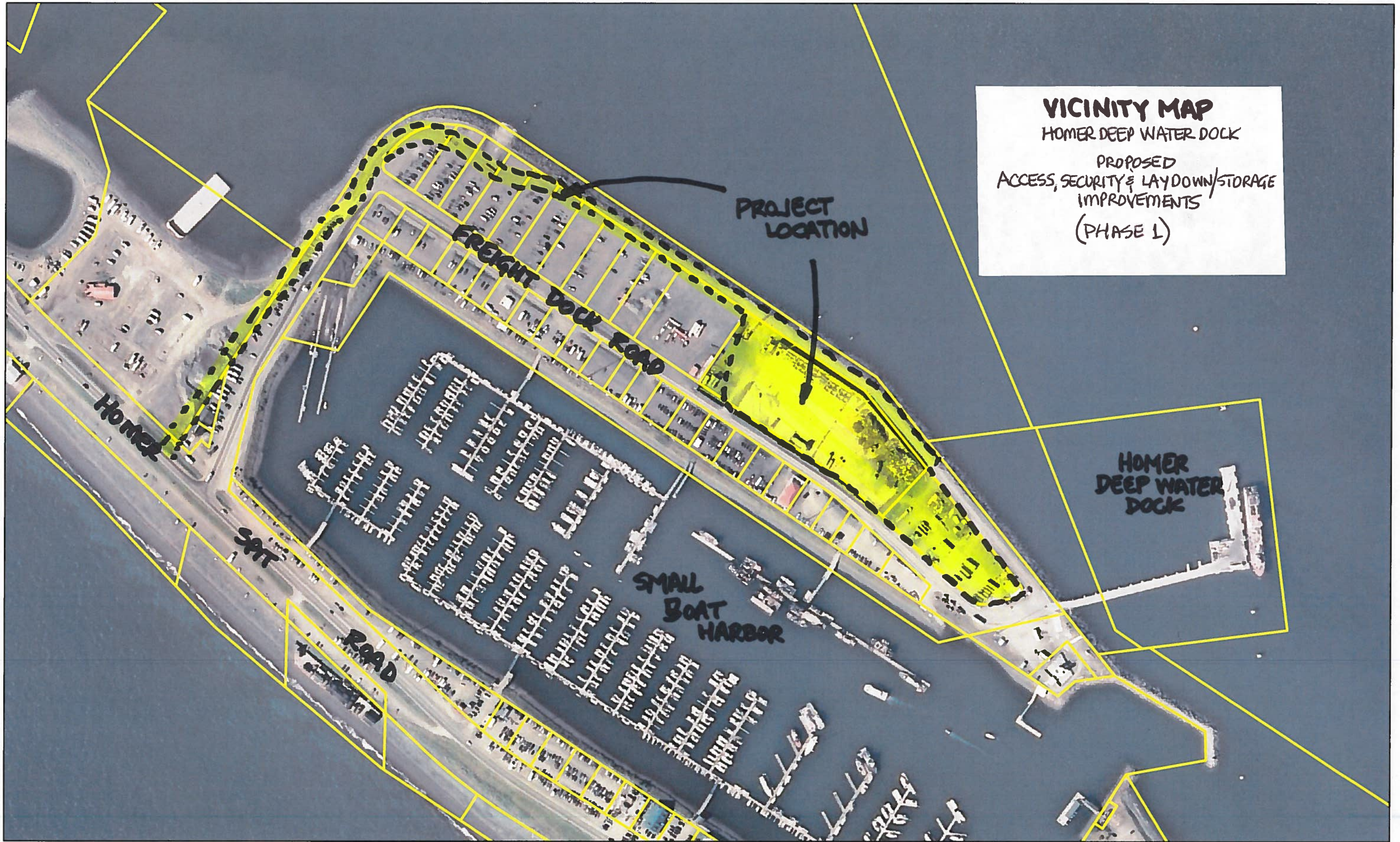
HOMER DEEP WATER DOCK EXPANSION  
 ACCESS, SECURITY & LAYDOWN/STORAGE IMPROVEMENTS  
**LEGEND**  
 TASK 1 - LAYDOWN AREA  
 TASK 2 - STORAGE AREA  
 TASK 3 - ACCESS ROAD  
 (PHASE 1)



**CITY OF HOMER**  
 DEPT. OF PUBLIC WORKS  
 3575 HEATH ST.  
 HOMER, AK 99603-7833  
 (907) 235-3170 Fax: (907) 235-3145

1 inch = 200 feet





**VICINITY MAP**  
 HOMER DEEP WATER DOCK  
 PROPOSED  
 ACCESS, SECURITY & LAYDOWN/STORAGE  
 IMPROVEMENTS  
 (PHASE I)

PROJECT  
 LOCATION

FREIGHT DOCK ROAD

SMALL  
 BOAT  
 HARBOR

HOMER  
 DEEP WATER  
 DOCK



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1 inch = 300 feet





DEEP WATER &  
PIONEER DOCKS  
MARINE SUPPORT

**BUSINESS BEGINS  
WHERE LAND ENDS.**



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**Public Works Department**  
Carey Meyer  
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& Stevedore Company**  
Wayne Barrowcliff  
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wayneb@northstarak.com

**Homer Marine Trades Association**  
www.homermarinetrades.com





# HOMER SHIPPING FACILITIES AND CAPABILITIES

The City of Homer is where the land meets the sea and the marine industry meets marine capabilities, including two docks, water service, fueling, moorage services, large vessel amenities, vessel repair and more. Furthermore, the potential for expansion offers Homer's marine industry the opportunity to increase marine services. With the ability to advance marine commerce, promote industrial growth, offer safe and innovative marine technology and stimulate economic development, the City of Homer is fully prepared to service your shipping needs.

If you are interested in anchoring in the City of Homer, please contact the following:

#### Homer Harbormaster

Bryan Hawkins  
(907) 235-3160  
bhawkins@ci.homer.ak.us

#### Public Works Department

Carey Meyer  
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#### North Star Terminal & Stevedore Company

Wayne Barrowcliff  
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#### Homer Marine Trades Association

www.homermarinetrades.com

## HOMER HARBOR

Boasting two docks, Pioneer Dock and the Deep Water Dock, as well as a small boat harbor, Homer has ample capacity to provide harbor services to the companies and industries that drive Alaska's economy.

- Ice-free Operations
- Marine Commerce
- Support Services
- Moorage Services
- Water and Sewer Service
- Fueling
- Laydown/Staging Areas

A map with the locations of these facilities can be found on pages 6 and 7.

## DEEP WATER DOCK

To reduce costs and meet estimated growth in marine trade, the City of Homer is in the process of completing a Deep Water Dock expansion feasibility study. The current Deep Water Dock supports the berthing of most of the commercial and industrial vessel landings in Homer Harbor. The dozen or so cruise ships that visit Homer each year berth at this dock. Security is provided with fencing, gate and guard shack (level of security meets 33 CFR 105 requirements for a regulated facility).

#### Features:

- Front face of the existing Deep Water Dock is 340' long.
- Water depth at the front face is 40' (at MLLW).
- Vessels can also berth on the backside of the dock where the berthing length is 240'.
- 240' of the dock face has a working width of 38'.
- The remaining 100' has a 112' wide working dock width.
- Water can be supplied to vessels berthing at this dock.
- A five-ton crane is available on the dock to service the backside dock face.

Two breasting dolphins and a mooring buoy lay south of the dock and a breasting dolphin and mooring buoy north of the dock will accommodate the berthing of an 800' vessel (65,000 displacement tons). A single 525' long trestle (22' working width) provides access to the dock face.

### HOMER DOCK SPECIFICATIONS

|                   | Deep Water Dock | Pioneer Dock |
|-------------------|-----------------|--------------|
| Length            | 340'            | 468'         |
| Width             | 38'             | 38'          |
| Max vessel length | 800'            | 750'         |
| Live Load         | 250 psf         | 500 psf      |

## PIONEER DOCK

Pioneer Dock provides berthing for the Coast Guard vessel "Hickory" and the Alaska State Ferry's "M/V Tustumena" and "M/V Kennicott." The dock is designed to provide roll-on and roll-off capabilities. The use of the dock by the USCG and ADOT/PF limits, to some extent, access to the face of the dock. Berthing of other vessels requires coordination with the primary users of the dock. Fuel barges also use this dock to deliver fuel to the Petro Marine fuel tank farm near the end of Homer Spit.

#### Features:

- Pioneer Dock face is 468' long.
- The working dock width is 38'.
- Water depth at the face is 40' (at MLLW).
- Dock has a "U" shaped configuration with two trestles.
- The east trestle is 294' long and has a working width of 28'.
- The west trestle is 378' long and has a working width of 26'.
- Dock is designed to support a uniform live load of 500 psf.
- Dock can support an AASHTO HS25-44 truck.
- Dock can support a 45 ton fork lift.
- Dock can support a 140 ton truck crane.
- Allowable fender energy is 233 ft-kips per fender.
- Maximum allowable dolphin line pull is 70 tons.

Capabilities also include two breasting dolphins and a mooring dolphin, which lay south of the dock, and can accommodate the berthing of a 750' vessel (80,000 displacement tons).



## ADDITIONAL HARBOR AMENITIES

The City of Homer has ample capacity for the marine industry with support facilities that provide the logistical capabilities necessary for efficient service, including:

- Large vessel services.
- Laydown/staging area.
- Fueling capabilities.
- Water availability.
- Sewage collection.
- Vessel maintenance and repair.
- Small boat harbor.
- Fish dock (with 8 public access cranes).
- Associated ice plant (200-ton storage, 100-ton per day food grade flake production).
- A 5-lane load and launch ramp.
- A wood grid.
- A steel grid.
- Barge loading ramp.

### Large Vessel Services

Anchorage for large vessels is available in the protected waters of Kachemak Bay (east of Homer Spit) – the Port of Refuge for the lower Cook Inlet.

### Small Boat Harbor

The 49-acre Small Boat Harbor basin offers:

- 920 reserve slips (accommodating up to 85' boats).
- 6,000' of transient moorage (accommodating up to 150' LOA).
- Water available to most slips and transient moorage.
- Power available to large vessel transient moorage.
- Commercial barge ramp (can serve a 50' x 160' barge).

### Barge Basin

English Bay Native Corporation operates a barge basin and offers:

- 280' sheet pile dock.
- Storage yard.
- Heliport and heated storage facilities on the spit.

Additionally, North Star Stevedores operate out of this facility and provide support to marine activities (line handling, material loading/off-loading, etc.) at their site and at the City of Homer Harbor facilities. Equipment that is available at this facility includes a 140-ton truck crane and a 31-ton forklift.

### Laydown/Staging Area Capabilities

Lay-down/Staging areas available on Homer Spit are substantial. The city owns 15 acres of property suitable for this purpose. Additionally, the English Bay Native Corporation facility has over 30 acres of land suitable for laydown and staging operations. Additional storage facilities are available off the spit.

### Fueling Capabilities

Petro Marine operates a fuel tank farm at the end of the spit with the capacity to store 2 million gallons of number two diesel, gasoline, aviation gas and jet diesel. The Petro Marine facility also stockpiles commercial quantities of marine lubrication products.

Vessels can take on fuel at Pioneer Dock at a rate of 250 gallons gpm (15,000 gph). Currently, vessels at the Deep Water Dock can be fueled by truck. The planned expansion of the Deep Water Dock will provide for fueling capabilities similar to those currently provided at Pioneer Dock.

### Water Availability

The City of Homer operates a membrane ultra-filtration water treatment plant that can produce 2 million gallons per day. A 12-18" water transmission main delivers drinking water to the harbor facilities. A 750,000 gallon water storage tank is located at the end of the spit.

Currently, the City of Homer can deliver drinking water to a vessel, at either dock, at a rate of 1,500 gallons per minute (or 1 million-1.5 million gallons per day). With relatively minor additions at the water treatment plant, a long-term customer could be in a position to receive 2.5 million-3 million gallons of water per day.

### Sewage Collection Capability

Currently, the City of Homer provides sanitary sewer service to all facilities on Homer Spit. Pioneer Dock is the only location where vessels can discharge wastewater. The planned expansion of the Deep Water Dock will provide for wastewater discharges at this facility. Homer's sewer treatment plant and the wastewater collection system that serves Homer Spit have reserve capacity to accept and treat an additional 500,000 gallons per day.

### Vessel Maintenance and Repair

Large shallow draft vessels are hauled out utilizing pneumatic air bags for repair and maintenance on a gravel pad just north of the fishing hole. A strong and vibrant marine trades industry exists in Homer (welders, electricians, communications, etc.) to support vessel repair work and routine maintenance.

In-water repair and inspections can be accommodated at either of the two docks.

### Other Marine Support Facilities

Three major trucking companies operate out of Homer- Carlile, Lynden and Air Land. Kachemak Gear Shed provides commercial retail support to the marine industry.

## CITY INFRASTRUCTURE

The City of Homer's marine industry is not limited to its sea and docking amenities.

On land, Homer has the necessary services for transportation, medical assistance, safety and staff assistance to ensure all needs, expected or unexpected, are met.

### Airport

Homer Airport is operated by the State of Alaska. The terminal is operated by the City of Homer. A 6,700 linear foot paved runway, heliport, tie-down areas, leased hangers and a full range of aviation support facilities are available.

### Hospital

Homer is served by the South Peninsula Hospital. South Peninsula Hospital is a full-service hospital that provides a wide range of general and specialty services. The newly constructed and remodeled areas of the hospital provide first-rate services in a state-of-the-art facility. This home-like, healing environment, combined with the best in medical expertise and technology allows patients to receive the comprehensive care they need close to home.

### Police/Fire

The City of Homer provides police and fire protection for the community. Homer Public Works operates and maintains water mains, fire hydrants and water storage tanks on the spit to support firefighting activities should they be necessary.

### Port/Harbor Staffing

The port and harbor is staffed year round, 24/7 by harbor officers who stand by on VHF Channel 16.



# HOMER HARBOR

DEEP WATER DOCK | PIONEER DOCK | MARINE SUPPORT



*“The robust list of capabilities, as well as the potential the Deep Water Dock expansion has to offer, will ease movement of goods in the marine industry in the Cook Inlet Region.”*

Laydown Areas  
 Homer Spit North Star Marine Terminal  
 Sheet Pile Dock

Boat Repair Site

Laydown Area

Deep Water Dock

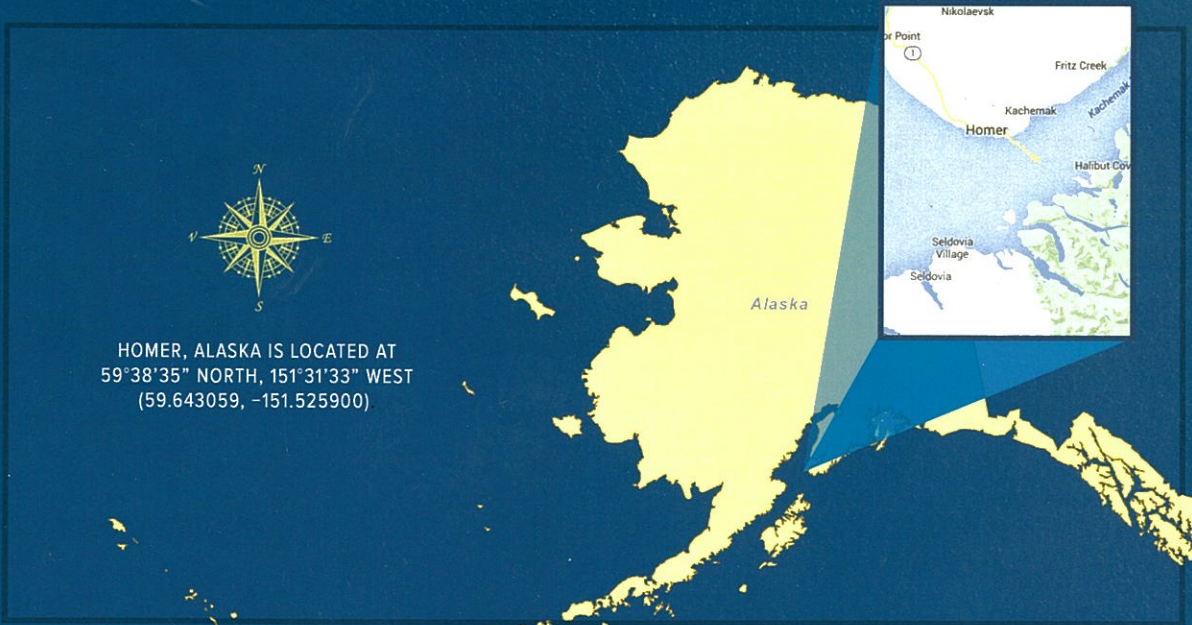
Kachemack Bay offers anchorage for large vessels

Homer Harbor

Pioneer Dock

Petro Marine Fuel Tank Farm

Small Boat Harbor



HOMER, ALASKA IS LOCATED AT  
 59°38'35" NORTH, 151°31'33" WEST  
 (59.643059, -151.525900)