



Alaska District

U.S. Army Corps of Engineers

Alaska District MILCON Construction Market Analysis





Market Analysis

The Alaska District Army Corps of Engineers performed a Market Analysis to address concerns relative to the construction industry within the State of Alaska.

The study centered on the resource requirements necessary to meet the needs of the MILCON program in Alaska for the period 2003 through 2009





Study Focus

Specific concerns related to the anticipated rise in the elemental cost of construction were reviewed and evaluated.

These concerns include:

- **Contactor Availability,**
- **Labor Resources,**
- **Materials,**
- **Equipment, and**
- **Transportation**





Contractor Base

The Market Analysis of Alaska's construction industry indicates that an adequate contractor base exists to accommodate the Alaska District's MILCON projects.

The research indicated that there are an estimated 380 prime contractors state wide.

- 225 in Anchorage,**
- 75 in Fairbanks, and**
- 80 in other areas of the state.**



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Labor Resources

Local skilled labor within the State of Alaska will likely be insufficient to handle the workforce requirements of Alaska's combined Public, Private and Military sectors.

The State of Alaska has a skilled workforce of approximately 19,000 workers, with seasonal highs of 21,000 and lows of 13,000 statewide.

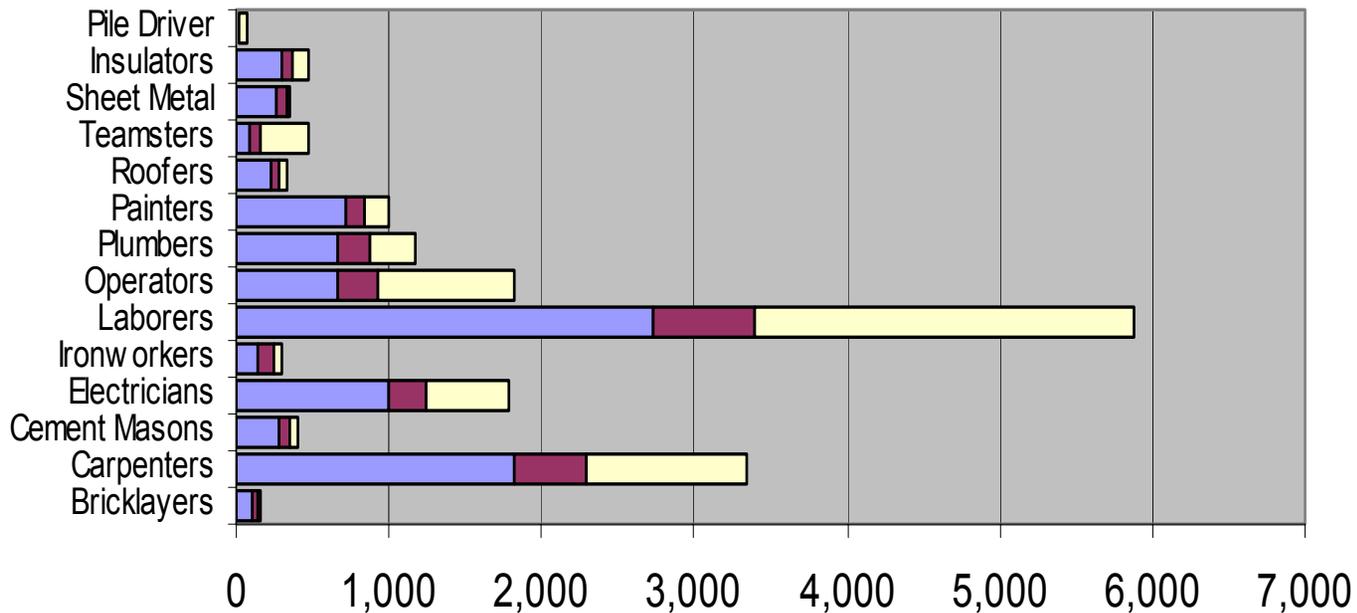




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Labor Resources

Alaska Construction Labor Resources



Construction Workers by Trade



US Army Corps of Engineers®



Labor Resources

The current Alaskan labor market has an average construction workweek estimated at 50 hour per week. As the construction market becomes more saturated, contractors and owners will have to provide incentives to attract the labor resources. Common incentives include, but are not limited to, 50 to 70 hour workweeks, living expenses, and boarding.

The once high Alaskan wage has leveled out and is now reflective of the base national burdened wage of \$40/hour for typical construction work.





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Construction Materials

Local Alaskan suppliers typically stock materials sufficient to support the local economy but these resources are not adequate to sustain major construction projects.

The majority of the construction materials for large construction projects come from the lower 48.





Construction Equipment

The availability of construction equipment appears to be more than adequate to support the Alaskan construction industry throughout the study period.

However, based on the Market Analysis the number of skilled equipment operators within the state will likely be inadequate to handle the quantity of construction projects anticipated over the next several years.





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Transportation

Transportation to convey material from the lower 48 and abroad to Alaskan ports appears to be adequate to support the anticipated construction work effort.

Transportation costs make up a substantial percentage of the overall construction material cost.





Transportation Costs

A typical construction market basket shipped from the lower 48 will increase the material cost by as much as 100 percent.

Cost to transport good from the lower 48 to:

- **Anchorage – add 33 percent**
- **Fairbanks – add 44 percent**

2002 Transportation Cost from Seattle - Percent of Market Basket

	Juneau	Anchorage	Fairbanks	Nome	Bethel	Barrow
2002	0.21	0.33	0.44	0.71	0.83	1.04
Average*	0.22	0.36	0.45	0.88	0.82	1.10

* Average percent of Market Baseket for the years 1997 through 200



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MILCON

MILCON in Alaska represents about 13 percent of the construction market for the study period.

Percent of Market	2003-2009	2003	2004	2005	2006	2007	2008	2009
Public	48.2%	46.6%	52.1%	49.4%	46.7%	46.2%	46.8%	49.5%
Private	38.8%	37.3%	26.3%	31.7%	37.3%	46.7%	45.1%	49.9%
MILCON	13.0%	16.0%	21.6%	18.9%	16.0%	7.1%	8.2%	0.6%





Alaska Construction

Of the \$20.7 billion of anticipated construction projects in Alaska during the study period, 2003 through 2009, approximately

- **\$10 billion will come from the Public sector,**
- **\$8 billion from the Private sector, and**
- **\$2.7 billion from MILCON projects**
(Army Corps, Air Force, Coast Guard, and FUDs.)
- **Additional military construction projects not included in the analysis will add to the Alaska construction burden.**
(Air Force and National Missile Defense Projects)





What Makes Alaska Different

Differences in construction methods and construction costs between Alaska and the lower 48.

- **Building size**
- **Site condition**
- **Infrastructure**
- **Indirect Costs**
- **Logistics**
- **Snow & cold**
- **Masonry**
- **Other**

Local area contractors were the key to helping identify many of the aspects of construction that are unique to Alaska.





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What Makes Alaska Different

Other MILCON locations may have weather, seismic, and other characteristics similar to Alaska; however, few if any need to consider all these impacts in relation to the cost of a single construction project.





Area Cost Factor

The Area Cost Factors (ACF) defined by the Huntsville Army Corps of Engineers are a key element of all Alaska MILCON projects.

However, the ACF

- Does not provide for overtime labor expense,**
- Does not provide for large seasonal variations in productivity, and**
- Was intended for use on projects in the \$5-7 million cost range for the lower 48 and the \$7-12 million dollar cost range for the Alaska District.**





Area Cost Factor

Additionally, the cost ratios of 63 percent for materials and 35 percent for labor used in the ACF model may not always be appropriate for Alaskan MILCON projects.

For example, a dormitory could have a ratio of 53 percent materials to 42 percent labor, while a high explosive magazine could have a ratio of 38 percent materials to 52 percent labor.



Conclusion

The Alaska District is faced with a very competitive construction environment for the next several years.

As the construction market becomes more saturated the contractors and owners will have to provide more incentives to draw the labor resources to their projects.





Conclusion

Project parametric cost estimates should be scrutinized to the fullest extent practical.

Projects with an estimated cost of more than \$7-12 million should have a Sensitivity Analysis developed for the project.

A Critical Path Analysis and Schedule need to be developed to aid the management of the Alaska District's MILCON projects.

