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2017

ALASKA'S CONSTRUCTION SPENDING FORECAST

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THE ASSOCIATED GENERAL CONTRACTORS OF ALASKA
SKILL · RESPONSIBILITY · INTEGRITY

CIP FUND
Building Alaska's Future

Dear Alaskans,

The Construction Industry Progress Fund (CIPF) and the Associated General Contractors of Alaska (AGC), proudly offer the Alaska Construction Spending Forecast as a guideline to construction activity and its effect on the 49th State in the year ahead.

Under a special arrangement with the Institute of Social and Economic Research (ISER) at the University of Alaska Anchorage, Scott Goldsmith and Pamela Cravez have again compiled and written the Forecast. The forecast reviews construction activity, projects and spending by both the public and private sectors for 2016.

CIPF and AGC are proud to make this publication available annually and are confident it provides useful information for many of you.

We recognize in these times of economic uncertainty there is a likelihood of reduced construction activity, and some of this information contained herein may change.

The construction trade is Alaska's third largest industry, paying the second highest wages, employing over 16,000 workers and contributes $6.5 billion to Alaska's economy. The construction industry reflects the pulse of the economy, and when it is vigorous so is the state's economy. Therefore, it is imperative to keep building and repairing necessary infrastructure laying the groundwork for the future.

AGC is a non-profit, full service construction association for commercial and industrial contractors, subcontractors and associates. CIPF is organized to advance the interests of the construction industry throughout the State of Alaska through a management and labor partnership.

Michael I. Shaw
CIPF Chairman

CIP FUND
Building Alaska's Future

2017 Alaska Construction Spending

		Change
TOTAL	**$6,463,000,000**	**-10%**
TOTAL EXCLUDING OIL & GAS	**$4,033,000,000**	**-7%**
PRIVATE	**$4,008,000,000**	**-9%**
Oil & Gas	$ 2,430,000,000	-15%
PRIVATE EXCLUDING OIL & GAS	**$ 1,578,000,000**	**2%**
Mining	$ 187,000,000	4%
Other Basic	$ 130,000,000	14%
Utilities*	$ 498,000,000	-1%
Hospitals/Health Care*	$ 336,000,000	55%
Other Commercial	$ 150,000,000	-19%
Residential	$ 277,000,000	-21%
PUBLIC	**$2,455,000,000**	**-12%**
National Defense	$ 635,000,000	15%
Highways and Roads	$ 629,000,000	-4%
Airports, Ports, and Harbors	$ 370,000,000	-15%
Alaska Railroad	$ 22,000,000	-15%
Education	$ 212,000,000	-48%
Other Federal	$ 255,000,000	-8%
Other State and Local	$ 322,000,000	-33%

* Many projects in these categories are supported by public funds.
Source: Institute of Social and Economic Research, UAA.
Percent change based on revised 2016 estimates.

Overview

The total value of construction spending "on the street" in Alaska in 2017 will be $6.5 billion, down 10% from 2016.[1, 2,3]

Oil and gas sector spending will fall 15% to $2.4 billion, from $2.9 billion last year.

All other construction spending will be $4.0 billion, a decline of 7% from $4.3 billion last year.

Private spending, excluding oil and gas, will be about $1.6 billion, up 2% from last year—while **public spending** will decline 12% to $2.5 billion.

Wage and salary employment in the construction industry, which dropped by 8.5% in 2016 to 16.2 thousand, will drop another 7.4% in 2017 to 15 thousand, the lowest level in more than a decade.[4]

In 2016 the Alaska economy slipped into a recession that is expected to continue at least through 2017. Total wage and salary employment fell in 2016 by 6.8 thousand, about 2%. This year it is anticipated the decline will be 7.5 thousand, or 2.3%, which will return the economy to the 2010 level.[5] Weakness in the economy is also reflected in a net outmigration of population over the last four years.

[1] Our revised projection for 2016 was $7.2 billion, lower than the original estimate of $7.3. This revision is primarily the result of lower than anticipated oil and gas spending in 2016.

[2] We define construction spending broadly to include not only the construction industry as defined by the U.S. Department of Commerce and the Alaska Department of Labor, but also other activities. Specifically, our construction-spending figure encompasses all the spending associated with construction occupations (including repair and renovation), regardless of the type of business where the spending occurs. For example, we include the capital budget of the oil and gas and mining industries in our figure, except for large, identifiable equipment purchases such as new oil tankers. Furthermore, we account for construction activity in government (like the carpenter who works for the school district) and other private industries. The value of construction is the most comprehensive measure of construction activity across the entire economy.

[3] "On the street" is a measure of the level of activity anticipated during the year. It differs from a measure of new contracts, because many projects span more than a single year.

[4] Alaska Department of Labor

[5] Alaska Department of Labor

The economic decline has been the result of the precipitous drop in the price of oil that began in the second half of 2014, after it had reached a high of $110 per barrel. By early 2015 it had fallen below $50, and after moving higher for a few months it plunged again over the next year to a low close to $25 in the spring of 2016. However, since then the price has again moved up, and it has been fluctuating around $50 as the new year begins.

The outlook for the price remains unclear as the world oil market struggles to balance slowly growing demand with uncertainty about future supply. Because of the importance of petroleum to the Alaska economy, this uncertainty surrounding world oil (and gas) markets is a source of concern about the underlying strength of the economy in the future.

The drop in oil prices was first reflected in a decline in employment in the oil patch, and then last year—as the decline in the oil patch accelerated—construction and state government employment also started to fall. This year employment is expected to be lower in almost all sectors and regions of the state. But the decline in construction activity will be somewhat less than it was last year, for several reasons.

First, federal spending will be higher because of increased spending for national defense. Federal spending not related to defense, mostly consisting of grants to the state for transportation (roads, harbors, the railroad, and the ferry system) and sanitation projects, and to non-profits for health facilities and housing. It is not sensitive to the price of oil and tends to be stable from year to year.

Second, although state government spending will be lower, particularly for education, there will still be state money on the street. The drop in oil prices has resulted in huge state general fund deficits since fiscal year 2014, and the capital budget—excluding federal grants—has fallen to less than $200 million in the last three years, down from more than $2 billion in 2013. But because it takes considerable time for appropriated funds to become cash on the street, there is still money in the pipeline—although less than last year.

Third, private spending excluding oil and gas will be marginally higher, mostly due to construction related to health care. Strength in that sector will offset declines in residential and commercial construction, both of which will be lower because of the weakness in the overall economy and uncertainty about the state government's ability to deal with the deficit.

Fourth, the decline in activity in the oil patch will be less than last year. Reductions in spending last year brought the level close to a "bare minimum" to maintain production from existing fields. A large share of activity for developing new reserves in existing and new fields was postponed. But now, as the oil price is showing signs of some recovery, some of those postponed projects could be resumed.

Shemya Eareckson Air Station Roof Repair, Rain Proof Roofing

As in past years, some firms are reluctant to reveal their investment plans, because they don't want to alert competitors; and, some have not completed their 2017 planning. Large projects often span two or more years, so estimating cash on the street in any year is always difficult—because the construction pipeline never flows in a completely predictable fashion. Tracing the path of federal spending coming into Alaska without double counting is also a challenge, and because of the complexity of the state capital budget, it is always difficult to follow all the flows of state money into the economy.

We are confident in the overall pattern of the forecast—but as always, we can expect some surprises as the year progresses.

Privately Financed Construction

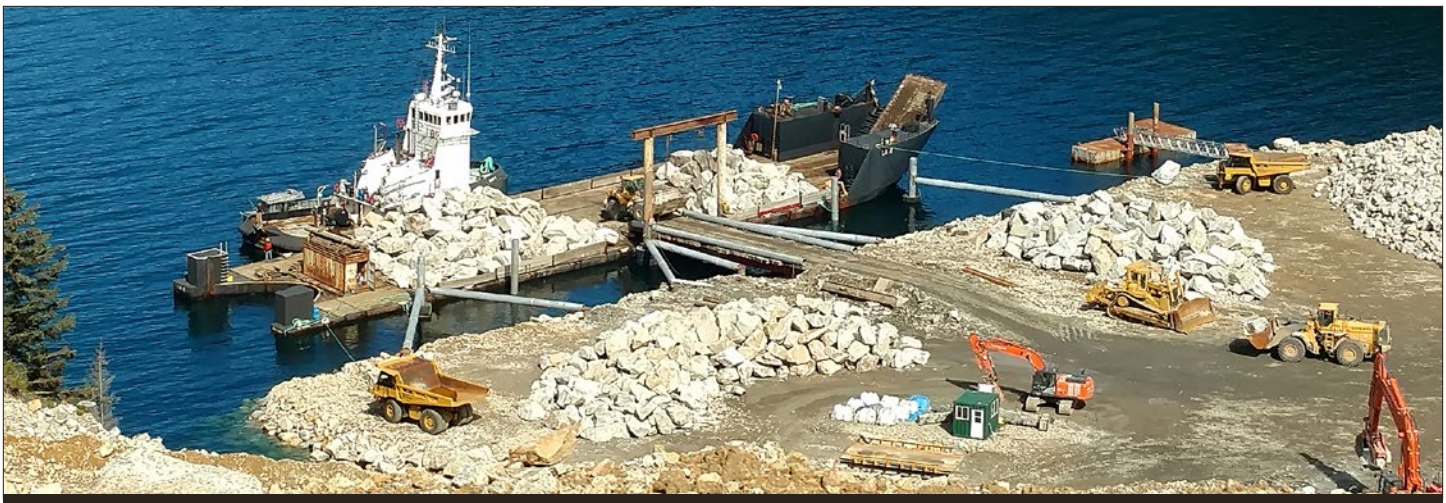
Oil & Gas: $2,430 Million

Construction spending related to oil and gas will be lower for the second year in a row, but the decline will be less than last year.

Oil and gas is always a difficult sector to forecast, because plans can and do change, and because of many factors associated with weather, logistics, the availability of contractors and supplies, the evaluation of work completed, regulatory and environmental challenges, tax policy, and other operational and strategic concerns.

This year is a particular challenge because of the uncertainty surrounding the price of oil.

Consequently, many companies have announced a "wait and see"



St. George Breakwater Storm Repair, Brice Inc.

attitude about moving forward with development projects.

The decline last year resulted from completion of a number of massive one-time projects on the North Slope, as well as the low price of oil.

The large projects completed included Exxon's development of the technically challenging Point Thomson field east of Prudhoe Bay, ConocoPhillips' development of the CD-5 satellite west of the Colville River, and termination of Shell's exploration program offshore in the Chukchi Sea in northwestern Alaska.

The low oil price affected the producers' cash flow, as well as the explorers' ability to attract funds for capital expenditures. The prospect of the lower price continuing had a negative effect on the economics of investments to enhance production.

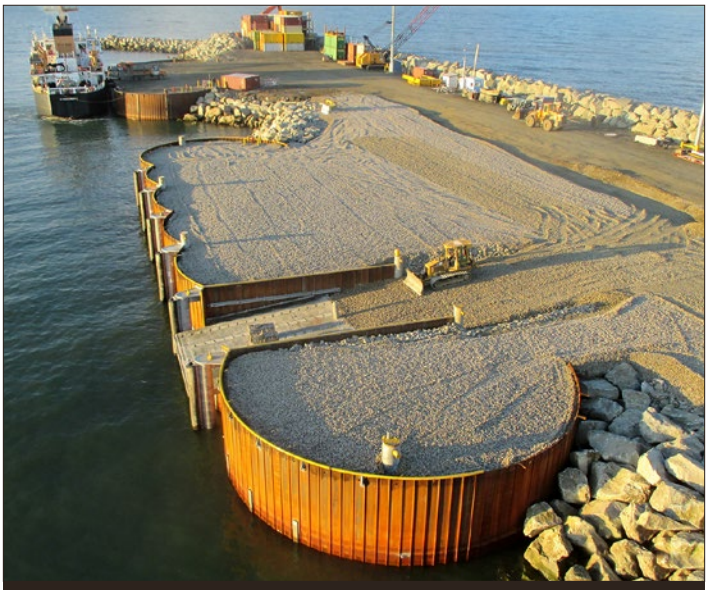
The state government's exploration-credit program was an important, but only partial, offset to the reduced ability of companies to continue their capital expenditure programs.

As the new year begins the price of oil has rebounded from its low level of last year, and forecasts for the coming years are moving higher. At the same time, the low price of the last two years has driven costs down in the oil patch. As a result, activity is beginning to stabilize, and companies will begin to consider expanding their exploration and development programs as the year progresses.

On the North Slope, in spite of cutbacks last year and continued operating losses, the major leaseholders—ConocoPhillips, British Petroleum, and Exxon—will continue to invest in the largest fields at **Prudhoe Bay**[6] and **Kuparuk**,[6] to slow their rates of decline. Some developments have been put on hold and efforts will concentrate on reducing costs.

Among the major petroleum companies, only ConocoPhillips has announced that its 2017 capital budget will be about the same as last year. ConocoPhillips operates both Kuparuk and **Alpine**,[6] including the new CD-5 satellite within the boundary of the National Petroleum Reserve Alaska (NPRA), west of the Colville River. In addition, it is developing the Greater Mooses Tooth (GMT-1) prospect in NPRA and expanding viscous oil production at Kuparuk with the North East West Sak (NEWS) project. A second Greater Mooses Tooth prospect (GMT-2) is in the permitting stage.

The Italian firm ENI (Enti Nazionale Idrocarburi) had postponed its two-year program of well drilling to bring the **Nikaitchuq**[6] field into full production, but recently announced it will be resuming work there.



Nome Middle Dock, Orion Marine Contractors, Inc.

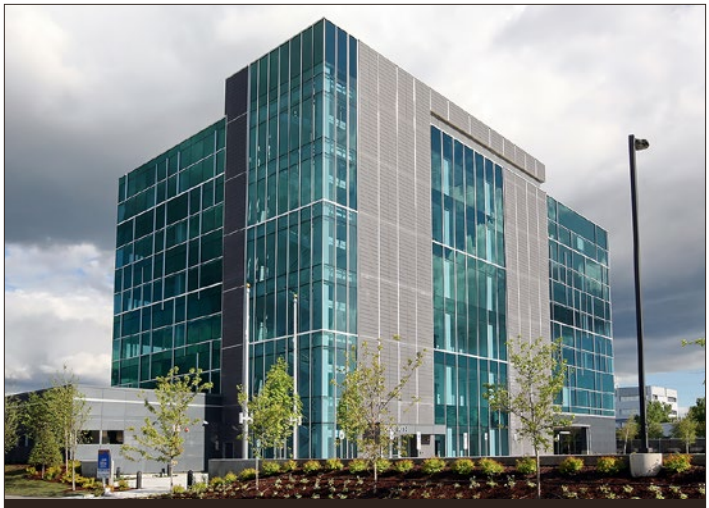


Photo By Danny Daniels

Kuukpik Building, Anchorage, Criterion General, Inc.

Hilcorp will concentrate activity at Northstar, **Milne Point**,[6] and Endicott. In addition, it is working on a plan for development of the Liberty prospect.

Brooks Range Petroleum is moving forward to develop the Mustang field, west of Kuparuk, with financial assistance from AIDEA (Alaska Industrial Development and Export Authority).

Caelus Energy has slowed work on both the **Ooooguruk**[6] and Nuka fields. It has two more years of drilling for total build-out of Oooguruk, and is considering expansion of the offshore island from which the field is accessed.

Other companies active on the North Slope include Arctic Slope Regional Corporation, AEA88, Great Bear, and Linc Petroleum.

A number of other companies, including Chevron, Anadarko, and Nordaq, have interests in various fields on the North Slope but are not operators. Their expenditures are also included in the total.

Three recent announcements of potentially significant new discoveries could bode well for an upswing in capital spending on the North Slope in the coming years, although it is too soon to know. All will require additional work to determine whether they are economically viable. If development were to proceed, any one of them could add 100 thousand barrels per day to production.

Caelus Energy is exploring a prospect at Smith Bay, far to the west of the existing infrastructure on the North Slope. Armstrong (Repsol) is investigating a prospect in the Pikka Unit (Nanushuk), adjacent to the Colville River Unit. It faces some challenging geology. Most recently, ConocoPhillips announced the discovery of a potentially significant field (Willow) in the Greater Mooses Tooth Unit.

In Cook Inlet, activity is more sensitive to the local price of natural gas for space heating and electric power than to oil prices, and the state—through its investment tax credit programs—has also provided a funding source for exploration spending. But because the local gas market is now in balance, and the investment tax credit program is uncertain moving forward, spending in Cook Inlet will be lower this year.

Hilcorp will again be the dominant player as it continues to increase production from new production wells, repairs, workovers, and replacement of infrastructure.

Blue Crest Energy, which purchased the assets of Buccaneer, continues to work on development of the Cosmopolitan field near Deep Creek, from an existing onshore pad.

Furie is continuing to develop the Kitchen Lights offshore field, using

[6] Bold-face type shows the current largest producing fields on the North Slope.

a new monopod platform. It has plans for two new wells this year.

Other lease owners and operators in Cook Inlet—including the Municipality of Anchorage—will continue to spend on investments to optimize production.

Elsewhere in the state, Doyon regional corporation will continue exploration work at its site near Nenana, and Ahtna regional corporation will also be looking for gas for the local market, at a site near Glennallen.

Mining: $187 Million

Spending by the mining industry—on exploration and development,[7] as well as maintaining and upgrading existing mines—will be about the same as last year, thanks partially to a slight uptick in mineral prices.

Spending by the six major mines currently in operation will be a bit higher than last year, as producers make new investments to increase efficiency and to develop new prospects for future production, to extend the life of the mines. Examples include a dry-stack tailing storage facility at Greens Creek and extensive exploratory drilling at Pogo and Kensington.

Spending for drilling and other site work will be low again this year at the three world-scale mine projects currently under various stages of review for potential future development (Donlin Creek, Pebble, and Livengood).

Numerous smaller projects across the state, such as the Nova Copper prospect in the western Brooks Ranges, are also seeing an uptick in activity.

Other Basic Industries: $130 Million

Other basic industries—tourism, seafood, air cargo, and timber—will see higher spending this year. These industries benefit from lower oil prices because they are closely linked to the strength of the national economy.

The higher spending will largely be the result of a multi-year Alaska Airlines program of investments to upgrade its facilities in Alaska. That program includes a new hangar in Anchorage and upgrades to terminal facilities at several other locations around the state.

The number of tourists visiting the state continues to grow, and each year several new hotels are constructed in Anchorage and Fairbanks as well as in smaller communities.

Although 2016 was the second difficult year for the inshore part of the seafood industry, several small capital projects have been announced for this year.

Utilities: $498 Million[8]

Utility spending will be about the same as last year. Large cutbacks by the telecom industry will be offset by some growth in renewable electrical energy projects.

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AS&G Concrete Storage Facility, Roger Hickel Contracting, Inc.

Unalaska Pyramid Water Treatment Plant, Eklutna Services, Inc.

A number of large-scale conventional electric generation plants were completed in recent years, and no new plants are under construction or planned for the next few years. Most electric utility spending will be for normal maintenance of facilities.

Permitting was obtained last year for development of the Sweetwater hydroelectric project outside Juneau. When complete it will also include a district-heating project to provide space heating for that community.

Phase 2 of the Fire Island wind project, offshore from Anchorage, will be underway as well.

There also continue to be numerous smaller scale renewable energy projects across the state, with funding assistance through the Renewable Energy programs of the state and federal governments.

No significant expenditures related to gas utilities are projected, as development of the gas distribution system for Fairbanks awaits final negotiations regarding a gas supply.

Telecommunications spending will be lower this year due to uncertainties about the health of the economy and resolution of the state's fiscal problems. Telecommunications spending in Alaska benefits from funds generated by the Universal Service Funds, that channel revenues collected from services provided in other locations to help pay for needs in Alaska.

Hospitals & Health Care: $336 million

The demand for health care continues to grow as the Alaska population ages, and with that comes growth in hospitals and other facilities. Spending this year will be considerably higher than last year, primarily due to federally funded facilities to provide services to the Alaska Native community.

The largest project is the new Yukon Kuskokwim Health Corporation hospital and outpatient clinic in Bethel. Southcentral Foundation also has a large expansion underway, including a children's clinic in Anchorage and renovation of other facilities in Southcentral Alaska. The other regional Native hospitals will also continue to invest in facility upgrades. The Alaska Native Medical Center (ANMC) hospital campus in Anchorage will also likely see a couple of new buildings this year.

Most other public and private hospitals continue to expand and renovate in response to growing demands. The largest such project this year will be on the Kenai Peninsula.

[7] Excluding exploration and development costs associated with environmental studies, community outreach, and engineering.

[8] Although we include utilities and hospitals/health care spending in private spending, there is also a significant amount of public spending for some projects in these categories.

© Ken Graham Photography.com

Creekview Plaza 49, Anchorage, UNIT COMPANY

Other Commercial: $150 Million

Commercial construction spending consists primarily of office buildings, banks, retail space, and warehousing.[9] The level of spending from year to year can be influenced by a few projects, like large office buildings or shopping malls, as well as the current and projected health of the economy.

At the start of 2017 vacancy rates in Anchorage, the largest commercial market, were continuing a slow upward trend that started last year. That is expected to continue as the economy continues to contract through the year. Still, vacancy rates are below national averages, and the commercial market should continue to be stable.

But the contraction of the economy, combined with uncertainty about the state's fiscal future, should slow the pace of new commercial construction again this year.

No new large retail or office projects have been announced. The largest single project is a new warehouse in south Anchorage.

Residential: $277 Million

The residential market softened considerably last year, with new construction falling off throughout the state, except in the Matanuska-Susitna Borough (Mat-Su) where both employment and population continued to grow.

That statewide trend toward softening will continue because of the continued economic decline and net outmigration of population with the exception of the Mat-Su Borough.

Projects with public funding will be less sensitive to these economic trends.

The age of the housing stock, and the aging of the population, are both also boosting residential spending. Because a large share of the stock was put in place 30 years ago, the demand for renovations is growing. And both the senior and millennial populations are growing, increasing the demand for smaller housing units.

Publicly Financed Construction

National Defense: $635 Million

Defense spending will be up significantly for the second year in a row, as large projects get underway at Eielson, Fort Greely and Clear, buoyed by the largest military construction budget in any state.

The Corps of Engineers budget for MILCON (military spending for facilities on bases) at Eielson Air Force Base outside Fairbanks will be driven by large projects to get the base ready for the two F-35 squadrons that will be stationed there in 2020. These include a central heat and power plant and a dormitory.

The first phase of a $1 billion expansion for missile defense at Fort Greely outside Fairbanks and Clear Air Force Station near Nenana will also be underway this year. This program will add 14 interceptor missiles to the defense system at Fort Greely over the next several years, and also add the Long Range Discrimination Radar at Clear.

New aircraft hangars will be added at Joint Base Elmendorf Richardson (JBER) in Anchorage.

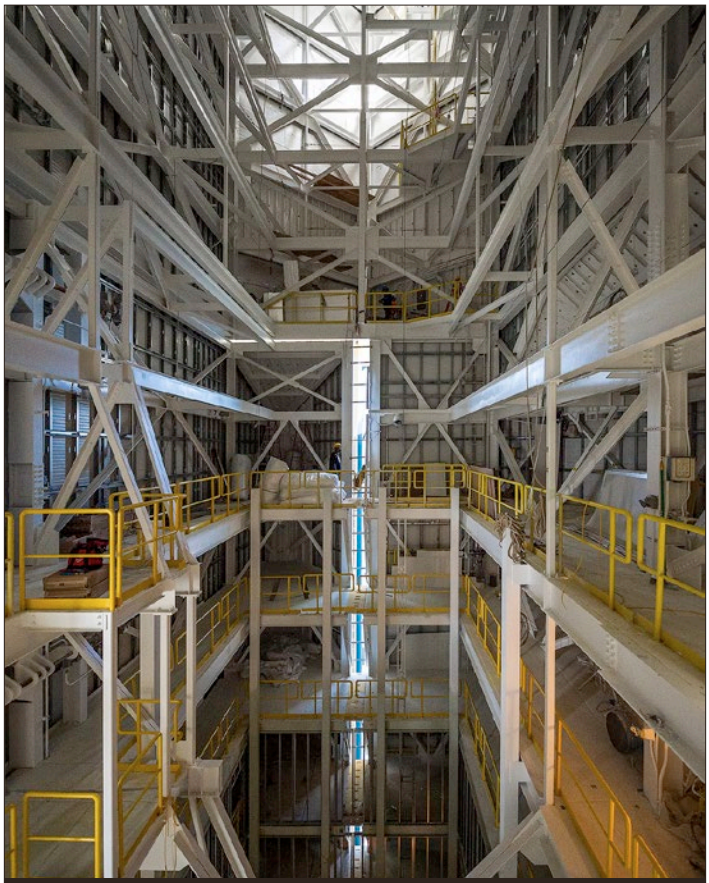
Spending on the civilian and other interagency programs of the Corps of Engineers will also be substantially higher than in past years. This spending typically funds Corps of Engineer projects for other federal agencies like NOAA, FAA, and the BLM, as well as projects done in cooperation with Alaska communities, in particular harbor improvements.

The environmental program budget of the Corps of Engineers, including FUDS (Formerly Used Defense Sites), will be lower than in past years. This program includes cleanup of hazardous substances and contaminants at former defense sites, as well as on current Army and Air Force installations.

Transportation—Highways and Roads: $629 Million

Spending on highways and roads tends to be stable and predictable, and 2017 is no exception, with spending expected to be only slightly lower than last year.

A majority of funding for highways (including the Marine Highway System) comes as grants from the federal government under a program known as the Fixing America's Surface Transportation Act (FAST Act),



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Kodiak Launch Complex, Alaska Aerospace Corp., Davis Constructors & Engineers, Inc.

[9] Our commercial construction figure is not comparable to the published value of commercial building permits reported by Anchorage and other communities. Municipal reports of the value of construction permits may include government-funded construction, which we capture elsewhere in this report. We have also excluded hospitals, utilities, and hotels from commercial construction, so we can provide more separate detail about those types of spending.

which became law at the end of 2015. This program requires a state match for receipt of the federal funds. Some federal funds also go directly to Alaska Native tribal organizations for transportation projects.

In addition, the state augments federal funds for highway and road construction with an annual capital appropriation to the Department of Transportation and Public Facilities.

Also, in some years the state Department of Commerce, Community, and Economic Development (DCCED) disburses grants to local governments for road construction, but little has been appropriated for grants through DCCED since 2013.

Finally, the state also periodically sells general obligation bonds to support road construction and other infrastructure projects.

State-funded capital appropriations for transportation have been falling as the state budget has contracted. However, it takes considerable time for transportation appropriations to become cash on the street, so state funds from past capital budgets and bond sales are still contributing to current spending. The governor has recently proposed postponing several projects funded by past state appropriations and bonds, but these cutbacks will not significantly reduce the total amount spent this year.

State funds will pay for major projects throughout the state, such as the Glenn Highway and Muldoon Road Interchange project in Anchorage, and reconstruction work on the Dalton, Parks, and Seward highways. Spending will also go toward upgrades of the Alaska State Ferry facilities.

Local governments also spend on road construction and maintenance. Anchorage has a small bond issue for road construction each year, and other communities also bond for road improvements on a regular basis.

Photo By Danny Daniels

West Dowling Road Improvement, Anchorage, Granite Construction Co.

Transportation—Airports, Ports, & Harbors: $370 Million

Spending on airports also tends to be stable and predictable because federal funds, mainly from the Federal Aviation Administration's AIP (Airport Improvement Program), provide the bulk of funding for airport improvements both at the large international airports in Anchorage and Fairbanks and the many smaller state-owned airports across Alaska. That funding is augmented by revenue bonds and other local sources. Spending on airport projects throughout the state in 2017 will be almost the same as last year.

Spending related to ports and harbors will be slightly lower this year. Work on the redevelopment of the Port of Anchorage has not gotten underway, and there will be no money to continue development of the Point MacKenzie rail extension for the port across from Anchorage, in the Mat-Su Borough.

Spending from a combination of federal funding, state general funds, the transportation bond package, tourist-related fees, and local sources will be combined to underwrite port and harbor projects throughout the state, including significant activity at Skagway, Valdez, Juneau, and Haines.

Alaska Railroad: $22 Million

The core capital construction program for modernizing and upgrading the Alaska Railroad will continue at a slightly lower level than last year. This is funded through a combination of federal grants, cash flow, and revenue bonds. The railroad is waiting for funding from the state to move forward on the PTC (Positive Train Control) system, mandated by the federal government.

Education: $212 Million

Because education capital spending comes mostly from state government, it will be much lower this year than in the past.

Direct state funding of rural schools will be less this year, as the new schools mandated by the Kasayulie case head toward completion. A school at Nightmute is under construction and one at Kwethluk will be finished this year. Only the Kivalina school is still waiting to move forward. Funding for new projects has not been included in the state capital budget.

The legislature in 2015 imposed a five-year moratorium on the decades-old practice of reimbursing municipalities for a share of the debt they incurred to build new and repair existing schools. That change has more than doubled the price of new schools for urban school districts. This year the local school districts are using only the last of the funds from debt incurred before the moratorium, augmented by local funding to do renovation and repair work.

The school that recently burned in Bethel may be replaced using funds from the insurance policy.

The only new large University of Alaska construction project will be the power/heating plant on the Fairbanks campus, which will start construction this year. The new engineering building in Fairbanks will also be completed. Only small projects will be undertaken at the other campuses.

Other Federal: $255 Million

Although the largest categories of federal construction spending in Alaska are for transportation and national defense projects, there are several other sources of federal spending that contribute to construction spending. The largest of these are a series of grants that support housing and safe-water programs in the state—

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West Anchorage High School Addition, Cornerstone General Contractors

and because these grants have been stable over the years, other federal spending has tended to be constant from year to year. It will be marginally lower this year.

Most of the funding for the state-administered Village Safe Water program for rural sanitation comes from federal sources, including the Environmental Protection Agency and the Indian Health Service. With the state contribution, that spending is expected to be constant this year. Other types of federal grants to the state funds buildings like armories and veterans' facilities.

The federal government also provides construction grants to Alaska tribes, non-profit organizations, and local governments across the state.[10] Alaska Native non-profit corporations, housing authorities, and health-care providers receive most of this money. The largest of these programs in Alaska is NAHASDA (the Native American Housing Assistance and Self-Determination Act), which provides assistance for housing construction in Alaska Native communities, through grants to federally recognized tribes and Alaska Native housing authorities statewide.

Some of these funds are funneled through the Denali Commission—a federal-state partnership Congress created in 1998 to more efficiently direct federal capital spending to rural infrastructure needs. But the commission's current budget is quite modest.

Direct procurement by federal agencies like the Department of the Interior (National Park Service, U.S. Fish and Wildlife Service, and Bureau of Land Management), the Postal Service, the Department of Agriculture, and NOAA (the National Oceanic and Atmospheric Administration) also provides funding for construction each year.

Hoonah Berthing Facility, Turnagain Marine Construction

Finally, a small share of federal grants (as well as loans) go directly to local governments or other entities like utilities.

Other State & Local: $322 Million

State and local government capital spending—excluding transportation (roads, ferries, airports, and ports), education, health, and energy—will be down considerably this year, because of less state money. When state capital budgets were large, many projects were funded through grants from the Department of Commerce, Community, and Economic Development to local governments and non-profits throughout the state. But there have been no new appropriations to fund these grants in several years.

The state budget also includes the ongoing state weatherization and home energy rebate programs, which have now been expanded to include commercial buildings. The budget also funds a modest amount of deferred maintenance spread across all state departments.

Local government capital spending, from general funds and bonds as well as enterprise funds, direct federal grants, and foundations, tends to be stable from year to year. A large share of this spending is for water and sewer facilities, but it also includes other construction, such as buildings, libraries, museums, recreational facilities, and solid-waste facilities.

As state grant funding for local projects has fallen off, there has been some increase in direct funding and bonding, but it has not been enough to make up for the loss of the state grants.

What's Driving Spending?

The three primary drivers of construction spending are private basic sector investment (mainly petroleum and mining), federal spending (military and grants to state and local governments and non-profit organizations), and state capital spending (which ultimately depends on petroleum revenues), through the general fund and bond sales.

These large external sources of construction funds also give a general boost to the economy—and thus add to the aggregate demand for new residential, commercial, and private infrastructure spending.

Construction In The Overall Economy

Construction spending is one of the important contributors to overall economic activity in Alaska. Annual wage and salary employment in the construction industry in 2016 was about 16.2 thousand workers, with average annual pay of $82 thousand, second only to mining (including petroleum). But that figure doesn't include the "hidden" construction workers employed in other industries like oil and gas, mining, utilities, and government (force-account workers). In addition, it does not account for the large number of self-employed construction workers—estimated to be about 9 thousand in 2011.

Construction spending generates activity in many other industries that supply inputs to the construction process. These "backward linkages" include, for example, sand and gravel purchases (mining), equipment purchases and leasing (wholesale trade), design and administration (business services), and construction finance and management (finance).

The payrolls and profits from this construction activity support businesses in every community in the state. As this income is spent and circulates through local economies, it generates jobs in businesses as diverse as restaurants, dentist's offices, and furniture stores.

West Dimond Blvd. Roundabout, Anchorage, QAP

[10] Federal spending on health-care projects for the Alaska Native community, funneled to Alaska Native organizations, is included in the Hospital/Health Care section of this report.

Cover Photo: State Library Archives Museum, Juneau, PCL Construction Services