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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 has again compiled and written the "Forecast." The Forecast reviews construction activity, projects and spending by both the public and private sectors for 2019.

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

The total value of construction spending in Alaska in 2019 will be higher for the second year in a row. We are pleased to present the positive news that the research has indicated for the next year.

	LASKA ONSTRUCT PENDING	ION change
TOTAL	\$7,224,000,000	10%
TOTAL EXCLUDING EARTHQUAKE	\$7,024,000,000	8%
TOTAL EXCLUDING PETROLEUM	\$4,494,000,000	9%
TOTAL EXCLUDING BOTH	\$4,294,000,000	5%
PRIVATE	\$4,412,000,000	9%
Petroleum	\$2,730,000,000	13%
PRIVATE EXCLUDING PETROLEUM	\$1,682,000,000	2%
Mining	\$ 265,000,000	18%
Other Basic	\$ 95,000,000	-14%
Utilities*	\$ 459,000,000	2%
Hospitals/Health Care*	\$ 283,000,000	3%
Other Commercial	\$ 255,000,000	-4%
Residential	\$ 325,000,000	-
PUBLIC	\$ 2,612,000,000	7%
National Defense	\$ 710,000,000	13%
PUBLIC EXCLUDING NAT. DEFENSE	\$ 1,902,000,000	5%
Highways and Roads	\$ 682,000,000	6%
Airports, Ports and Harbors	\$ 424,000,000	3%
Education	\$ 248,000,000	6%
Other Federal	\$ 185,000,000	3%
Other State and Local	\$ 363,000,000	5%
Earthquake	\$ 200,000,000	-

*Many projects in these categories are supported by public funds. Source: Institute of Social and Economic Research, UAA. Percent change based on revised 2018 estimates. The construction trade is Alaska's third largest industry, paying the second highest wages, employing over 16,000 workers and contributing \$6.5 billion to the Alaska 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 for the future, thus laying the groundwork for better times ahead.

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.



Larry Bell CIPF Chairman

OVERVIEW

The total value of construction spending "on the street" in Alaska in 2019 will be higher for the second year in a row at \$7.2 billion, up 10% from 2018.^{1,2,3}

Excluding the spending attributable to the 2018 earthquake, spending will be \$7 billion, up 8% from last year.

The increase is primarily due to an increase in **Petroleum** spending which will grow 13% to \$2.7 billion and **National Defense** spending which will also grow 13% to \$.7 billion.

Most other sectors will also see a modest increase in spending in 2019. Private spending excluding petroleum will increase 2% to \$1.7 billion and public spending excluding national defense will increase 5% to \$1.9 billion.

The growth in petroleum spending is attributable to several factors including many recent large discoveries on the North Slope, technological advances driving down the cost of development, positive federal and state policies towards the industry, and a higher oil price. Spending in future years should continue to increase. A temporarily high level of national defense spending is due to two projects at the military bases near Fairbanks. One is the missile defense installation at Clear and Greely and the other is the preparation for the arrival of two F-35 squadrons at Eielson. High national defense spending after this year will depend on the approval of new projects like the Moose Creek Dam in Fairbanks.

Other private spending growth will come from the mining industry where several larger mines have expansion projects underway. Spending will be cautious elsewhere as the economy continues to recover from the recession. Total Alaska employment is forecast to

 $^1\mbox{Our}$ revised projection for 2018 was \$6.6 billion, slightly higher than the original estimate of \$6.5.

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.



Rotor Blade Install, AVEC Saint Mary's and Bethel Wind Sites, STG, Inc.

increase slowly in 2019 (.4%) after 3 years of contraction, but state population experienced a second year of decline in 2018. And as the state legislature begins to consider the fiscal year 2020 budget, a \$1.6 billion deficit is forecast. Without a clear plan to deal with this deficit and the longer-term fiscal gap facing the state, private investors will remain cautious.

Public spending excluding national defense—federal, state, and local—will be stable or slightly increase this year. Federal funding for some programs like highway construction tends to increase each year by a fixed percentage. The state capital budget was a little larger in fiscal year 2019 than the year before, and local government spending which tends to be for basic infrastructure like fire stations and water and sewer upgrades is generally stable from year to year.

Wage and salary employment

in construction will increase 5.8% to 16.4 thousand.⁴

As in past years, some firms are reluctant to reveal their investment plans, because they don't want to alert competitors; also, some have not completed their 2019 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, some surprises can be expected as the year progresses.

PRIVATELY FINANCED CONSTRUCTION

Petroleum: \$2,730 Million

The level of petroleum related construction spending depends not only on the price of oil but also on the available inventory of prospects, technology, costs, the financial position of the companies, and their long-range development plans.

After climbing for most of the year to a high of \$85 in October (West Coast price of Alaska North Slope Crude), the price of oil fell sharply and ended the year closer to \$60. This has somewhat tempered the optimism generated by the positive move by the federal government to open additional federal lands in Alaska for exploration, the 1002 region of the Arctic National Wildlife Refuge (ANWR).

The inventory of possibilities and prospects has also increased with

a recent series of discoveries in and around the National Petroleum Reserve-Alaska (NPR-A) associated with the Nanushuk formation. This increased interest in the previously overlooked western part of the North Slope has been underscored by the renewed push by the Federal Government to open more of the NPR-A to exploration.

Also on the positive side, the last several years of low oil prices have forced the oil companies to cut costs and the economic break-even price for new production has fallen significantly, increasing the development potential for many prospects. This has largely been the result of the introduction of new technologies for finding oil, more precision directing drilling, and new methods for producing oil like coiled pipe drilling, horizontal drilling, and multi-lateral wells.

Together these factors point to an increase in optimism in the oil patch and increased spending in 2019, although most of it can be attributable to one companyConocoPhillips. ConocoPhillips has announced an increase in their anticipated spending of about 30 percent this year and their largest exploration season in 16 years. This will include the development of the Greater Mooses Tooth 2 field (GMT2) in the NPR-A (\$1 billion), several exploratory wells in the Bear Tooth Unit, work to continue to maximize production in the Kuparuk and Alpine fields, as well as viscous oil. In addition, the nearby Willow prospect is being appraised and it could possibly produce 100 thousand barrels per day (at a development

BP will continue work to maximize production from the giant Prudhoe Bay field through field management but without much actual drilling. This will include conducting a field-wide 3D seismic survey to find small accumulations formerly overlooked.

cost of \$2-\$3 billion).

Exxon will be working to overcome technical problems hampering production at the Point Thomson Unit. ENI (an Italian oil company) will resume work to expand production at their Nikaitchuq field. They also just announced the purchase of the Caelus interest in the Oooguruk Unit increasing the likelihood that development of the fields in that unit will move forward this year.

With the sale of their holding of the Oooguruk Unit, Caelus will be able to concentrate their attention on their Smith Bay prospect. They have no plans for exploration this year, but if it can overcome the significant hurdles associated with its development, this prospect could potentially be another 100 thousand barrels per day.

Hilcorp is the other North Slope



The Dome/Reconstruction – Davis Constructors & Engineers, Inc.



Parks Highway MP 47.5 Bridge – Orion Marine Contractors, Inc.

producer. They will concentrate work this year on the Milne Point field (they also operate Northstar and Endicott) and further develop their plans for the eventual development of the Liberty field (\$1.5 billion to develop).

Oil Search will be drilling two appraisal wells this winter to better assess the Pikka discovery in the Nanushuk formation east of the Colville River. Pikka could potentially produce more than 100 thousand barrels per day.

Among the smaller companies, Great Bear together with three Australian companies, is planning a well to further investigate the southern reach of the Nanushuk formation. Brooks Range Petroleum is moving forward to develop the Mustang field. Glacier Oil and Gas is working on the Badami Unit.

Spending in Cook Inlet will be less this year, as explorers wait for the state repayment of tax credits. Expenditures will again be dominated by Hilcorp, which will be concentrating on new production wells, repairs, workovers, and replacing facilities.

Furie may drill an exploration well in the Kitchen Lights Unit with the reactivated jackup rig now in Seward, Blue Crest Energy will drill a well in the Cosmopolitan Unit, and Glacier Oil and Gas may also be active.

Elsewhere in the state, Doyon regional corporation will continue to explore for gas at its site near Nenana, and Ahtna regional corporation may be looking for gas

⁵Excluding exploration and development costs associated with environmental studies, community outreach and engineering.

⁶ Although we include utilities and hospitals/health care spending in private spending, there is a significant amount of public spending for some projects in these categories. for the local market at a site near Glennallen.

Refining, manufacturing, and pipeline related expenditures will concentrate on repair and maintenance of existing facilities.

Mining: \$265 Million

Spending by the mining industry on exploration and development⁵, can be divided into operating mines, large mines in various stages of development, and prospects in various stages of exploration. The level of spending is heavily influenced by the current and projected world prices of zinc, copper, lead, silver and gold. This determines both the funds available for investment and the economic viability of these investments. In addition, total expenditures can be influenced by one or more large individual investments to extend an existing mine or to move ahead with a new large scale mine.

Mining spending will be higher this year despite an anticipated slowdown in the world economy and consequently the demand for minerals.

The increase is largely because three of the six major operating mines are expanding. The new owners of Pogo have announced plans to expand their operations, the Red Dog Mine has two new prospects under development and the Fort Knox Mine is expanding into the Gilmore prospect to extend the life of the mine to 2030.

None of the larger prospects in various stages of development will be moving forward to the construction stage this year. Livengood continues to re-evaluate its design and await a higher gold price. Donlin Gold will likely decide this year whether to move forward. Pebble is still in the permitting stage. Prospects in the Upper Kobuk mineral district are still under evaluation. The Bokan rare metals project could begin construction in 2020.

Although a small part of the total, spending on other smaller mines and prospects across the state will be higher due to increasing interest from global mining investors.

Other Basic Industries: \$95 Million

Cruise traffic, the primary way tourists visit Alaska, increased 7 percent in 2018 and is projected to grow an unprecedented 17 percent 2019. This will continue to put pressure on hotel space in the main tourist destinations. Anchorage, the largest market, saw a sharp increase in hotel space in 2018 so new construction this year will be slower. But in the rest of the state many new hotels will probably be built. In addition, growth in facilities in more remote locations will continue.

The new Alaska Airlines hanger facility in Anchorage is now complete but work continues on its \$100 million program to upgrade facilities at other locations across the state. This year work will be centered at Nome, Bethel, Petersburg, Wrangell, Barrow, Gustavus, and Deadhorse.

Each year the inshore seafood processors invest a modest amount in replacement and expansion of their facilities. We anticipate no change from past years.

There are no announcements of significant spending on capital projects by the timber industry.

Utilities: \$459 Million⁶

Electric utilities spend a large amount each year on routine maintenance and upgrade of equipment and variation from year to year tends to be associated with construction of large new generating plants or hydroelectric facilities. Spending this year will be marginally less than last year. No large new generating plants are under construction this year (the plant at Clear Air Force Base is included in National Defense spending) and the most significant hydroelectric project is the expansion of Bradley Lake. Numerous smaller projects have funding from the federal and state (Alaska Energy Authority) sources for system upgrades, small hydro projects, and bulk fuel storage. A large private hydroelectric project proposed for Juneau (Sweetheart Lake) is still awaiting final approval.

The project to extend natural gas to the Fairbanks area is slowly moving forward. This year will see the construction of a large LNG storage tank in Fairbanks. Consequently, spending in this sector will be higher than last year. However, the source and



Juneau Snow Removal Equipment Building - F&W Construction Company, Inc.

transport method for supplying the tank and ultimately the Fairbanks market with LNG is still yet to be determined. Therefore, the buildout of the distribution (Interior Gas Utility) system will not occur this year.

Telecommunications (phone and internet) service continues to expand and upgrade across the state but spending will be marginally lower this year. This is because a reduction in federal support for Rural Health Care payments used to cover the cost of service provision to rural health centers has reduced the cash flow of the major

telecommunications providers.

Hospitals & Health Care: \$283 Million

Hospital and other health care facility spending is driven by growth and aging of the population, federal and state health care policy, changes in health care related need, and technological advances in the industry. Although the Alaska population has been stable over the last 5 years, the senior population (65+) has continued to grow at 5 percent annually (about 4 thousand each year), increasing the demand for age related services both within and outside hospitals. At the same time the need for mental health and addiction related services has been rapidly increasing. These growing demands however are running up against continuously rising prices and this is resulting in new trends in service delivery methods away from the traditional hospital and fee for service settings.

Health care spending in Alaska still tends to be dominated by increases in demand and will

be about the same as last year as funding from federal and other sources continues to be available. The ongoing construction of the new hospital and related facilities in Bethel by the Yukon Kuskokwim Health Corporation (YKHC) will be the largest project. Mat-Su Regional, Central Peninsula (Soldotna) and Norton Sound Health Corporation (NSHC) also have major projects.

Concerns about high costs are resulting in the continued movement of service delivery away from large hospitals toward smaller facilities and the "retailization" of care. Some vacant retail spaces have even been re-purposed for health care.

Other Commercial: \$255 Million

Commercial construction spending consists primarily of office buildings, retail space, and warehousing.⁷ The level of spending from year to year depends on the current and projected health of the overall economy, but is also influenced by a few large projects, like an office tower or warehouse.

We expect statewide commercial construction to be slightly less than last year, primarily because of continued weakness of the economy. For example, the vacancy rate for office space in Anchorage was 14 percent at the end of 2018. The strongest local markets will be in the Mat-Su Borough and the Greater Fairbanks area. The Mat-Su economy has been the most resilient during the current recession and its population continues to grow. The Fairbanks area is preparing for the arrival of an estimated 5 thousand people when two F-35 squadrons are deployed there in 2020.

Among the larger new projects



WHS Gym & Auditorium HVAC - Roger Hickel Contracting, Inc.



Gary Paxton Industrial Park - Turnagain Marine Construction

being developed are the restructured Transit Center in downtown Anchorage and a midtown development at Tudor and Elmore as well as a large mall in Wasilla (Sun Mountain). These will all be mixed use developments (MUD) that incorporate office and retail space with residential units. As such, they will stage for completion over more than one year.

The weakening demand for retail space due to the increase in e-commerce is a continuing concern. In response, some existing vacant space is being "repurposed" for other uses.

Residential: \$325 Million

Residential construction spending tends to follow population trends although the changing composition of the population is also important. In addition, the composition and quality of the existing stock has an influence as does the cost of housing, primarily reflected in the mortgage interest rate.

Although the economy has been in a recession for the last 3 years and the state population has not increased in the last 5, spending will differ among the largest markets in Alaska in 2019 and overall spending will be at the same level as last year.

Spending in Anchorage will continue to decline this year both because population in the largest market has now declined for 5 years (nearly 6 thousand). New units will increasingly target older Alaskans and millennials who prefer smaller living spaces. This will include more senior housing and more units in mixed use developments (MUD).

The Mat-Su Borough will continue to be the strongest market because it has continued to grow through most of the recession and it keeps adding population each year.

The greater Fairbanks area will see a sharp increase in residential spending this year in preparation for the population influx anticipated when the two F-35 squadrons are deployed in 2020 at Eielson Air Force Base.

A continuing concern is poor quality of housing in rural parts of the state. The federal Native American Housing Assistance Self Determination Act (NAHASDA) provides grants each year to Native Corporations throughout the state (including urban areas) to upgrade the quality of the housing stock. The annual appropriation for this program tends to be stable.

PUBLICLY FINANCED CONSTRUCTION

National Defense: \$710 Million

Most of the national defense

⁷ 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 detail about those types of spending. Commercial estimates back to 2014 have been revised for the 2019 report.

budget is channeled through the Corps of Engineers and fluctuates from year to year based on the needs of the various programs it funds. Military spending for facilities on bases (MILCON) tends to be the largest program but missile defense work has also been important. The other Corps of Engineers programs tend to be smaller and more stable.

Spending this year will be considerably higher due to expansion of the budget for missile defense.

MILCON spending will again center on the construction of facilities in preparation for the deployment of two squadrons (48 planes) of F-35 aircraft to Eielson Air Force Base near Fairbanks in 2020. Construction of these facilities, at a total cost of \$500 million, will continue this year at a slightly lower level than in 2018. Some of the larger elements of the "bed-down" are a flight simulator, new maintenance buildings, aircraft weather shelters, new utilidor, as well as renovation of many existing structures. Construction activity will continue into next year. Large projects are also under construction at Joint Base Elmendorf-Richardson (JBER) in Anchorage and Fort Wainwright in Fairbanks.

Missile Defense work will be split between Clear near Nenana and Fort Greely near Delta Junction outside Fairbanks.

Most activity will take place at Clear--the location of the Long-Range Discriminating Radar (LRDR) facility for tracking missiles. The largest projects will be the beginning of work on a backup power plant and the



UAF Engineering Learning and Innovation Facility Custom Floor - Davis Constructors & Engineers, Inc.

construction of a new maintenance facility. These large projects will not be completed until 2020.

Fort Greely--the location of missile silos for the missile interceptor base—will see less construction activity this year. Congress recently approved the addition of another field of missile silos at Fort Greely, but construction will not start this year.

Corps of Engineers spending also includes sustainment, restoration, and modernization (SRM) work at all of the military bases.

Corps of Engineers non-military spending is in three program categories—civilian, interagency, and environmental. The level of spending for these programs will be like previous years.

A large share of civilian program work involves the dredging and maintenance of harbors. Interagency projects include work for the Coast Guard, NOAA, FAA, and the BLM.

The environmental program



Salamatof Boardwalk and Fishing Piers - Ahtna Environmental, Inc.

budget of the Corps of Engineers, including Formerly Used Defense Sites (FUDS), varies from year to year. This program includes cleanup of hazardous substances and contaminants at former defense sites, as well as on current Army and Air Force installations.

Looking beyond this year, although F-35 construction work will begin to wind down, spending for Missile Defense will continue to be strong. And new projects, like the extension of the runway at JBER and reconstruction of the Moose Creek Dam at Fairbanks will ensure a strong national defense budget after this year.

Transportation-Highways & Roads: \$682 Million

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), which became law at the end of 2015. This law 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) distributes 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 as well as other infrastructure projects. The most recent bond package was approved in 2012.

It can take 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 level of spending this year will be a little higher than last due to an increase in federal funds. Also contributing to the increase is the re-obligation and repurposing of some previously unexpended funds.

These funds will pay for major road construction on the state highways as well as projects within larger communities throughout the state.

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.

Transportation-Airports, Ports, Harbors, Ferry and Railroad \$424 Million

Federal funds, mainly from the Federal Aviation Administration's



Campion Road Beaver Creek Culvert Replacement - Cruz Construction, Inc.

Airport Improvement Program (AIP), provide the bulk of funding for airport improvements both at the large international airports in Anchorage and Fairbanks and the other 252 state-owned smaller airports across the state in the Rural Airport System. This continues to be a stable source of funding that is augmented by other federal programs, International Airport revenue bonds and other sources. A runway improvement project is underway in Anchorage while the bulk of spending will be at other airports scattered throughout the states. Spending will be about the same as last year.

There are 476 public and private ports and harbors in Alaska, including those along the river systems. Private facilities are

often associated with and supported by the seafood or tourism sectors. Many of the public facilities are locally owned. Maintenance, upgrades, and new facilities often require funding from the state (Municipal Harbor Facility Grant Fund, tourism related fees, and other sources), the federal government, local government, and other sources. The largest project currently underway is a small share of the required work to redevelop the Port of Anchorage. Most other ports and harbors have more modest capital programs this year except for Emmonak, on the Yukon River, that is undertaking a federally funded dock construction.

The Alaska Marine Highway

System receives funding under the FAST Act for the construction of ferry docks and other facilities. The Alaska Railroad's capital budget will be the same as last year, funded through a combination of federal grants, cash flow, and revenue bonds. The railroad is moving forward with the Positive Train Control (PTC) system, mandated by the federal government. There will be no work on the Port McKenzie Rail Extension this year.

Education: \$248 Million

Spending for education—both K-12 and University of Alaska--comes mostly from state government, and it will be



Farmers Loop Resurfacing and Farmers Loop Signal Interconnect - Colaska, Inc. - Exclusive Paving

marginally higher this year due to an increase in direct state funding for rural and urban schools.

The largest projects include new rural schools under construction at Tuntutuliak and Atmautluak as well as renovation projects at Shishmaref and Aniak. Construction of the school at Kivalina will not go forward. Direct state funding will also include many other renovation and upgrade projects in other rural and urban areas.

The legislative moratorium continues the policy of reimbursing municipalities for a share of the debt they incur when building new schools. That has more than doubled the price of new schools for urban school districts. This extra cost, combined with the absence of population growth, has meant no urban districts are building new schools.

Funding for schools also comes from the proceeds of local bonds in urban areas like Anchorage, Mat-Su, and the North Slope Borough. This source of funds is relatively stable and pays mostly for renovations and upgrades to existing facilities.

There will be little University of Alaska construction spending on buildings on any of the main campuses or rural facilities this year.

Other Federal: \$270 Million

Other Federal: \$185 Million The largest categories of federal construction spending in Alaska are transportation grants (highways and airports), national defense, and Native housing-the Native American Housing Assistance and Self-Determination Act (NAHASDA).⁸ Smaller programs provide funding to the state, local governments, and non-profits for a wide range of construction projects. Federal construction spending also directly supports federal programs in the state. The total amount of this spending tends to be stable from year to year but will be marginally higher in 2019 due to special appropriations

⁸ NAHASDA spending has been moved to the Residential section of this report starting in 2019. for village relocation forced by climate change.

Most federal money (Environmental Protection Agency and the Indian Health Service) channeled through state government not related to transportation will be for the Village Safe Water program for rural sanitation. Smaller grants support some housing programs, armories and veterans' facilities, and other activities.

The federal government also provides construction assistance to Alaska tribes, non-profit organizations, and local

governments across the state.⁹ Aside from housing grants, Alaska Native tribes and non-profit corporations receive economic development assistance primarily from the Departments of Agriculture, Commerce, and Interior. Local governments also receive development assistance through programs within these departments.

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 the National Oceanic and Atmospheric Administration (NOAA) also provides funding for construction each year.

Other State & Local: \$310 Million

State capital spending excluding transportation (roads, airports, ports, and the railroad), education, health, and energy includes projects like building construction and replacements, maintenance facilities, warehouses, etc. When revenues are sufficient it also includes grants to local governments for a wide variety of projects.

In recent years funds have not been available for local government capital grants, the capital budget was marginally

⁹ 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: Tudor Road – Minnesota to E. 36th, Pavement Preservation, Quality Asphalt Paving



Mt. Edgdecumbe High School Aquatic Center - Cornerstone General Contractors, Inc.

higher last year to fund a very small portion of an outstanding deferred maintenance requirement estimated at more than \$1 billion (excluding the University of Alaska and the road system).

Local government capital spending, excluding roads. schools, and public health facilities, are typically for things like libraries, civic centers, fire stations, and recreational buildings. They also include water, sewer, wastewater, and solid waste facilities. They are financed from general funds and bonds as well as enterprise funds, direct federal grants, and foundations.

This spending tends to be stable, but we expect it to be marginally higher this year as the economy continues to rebound and as Fairbanks prepares for the population increase associated with the deployment of 2 squadrons of F-35 jets to Eielson Air Force Base.

NOVEMBER 30, 2018 EARTHQUAKE

The total cost to repair facilities damaged by the Anchorage earthquake will not be known for several months as structural assessments and aftershocks continue. Damage to school buildings in Anchorage and the Mat-Su Borough has been estimated at more than \$50 million and the cost to repair roads may be another \$50 million in 2019. Less information is available about the total damage to other buildings (public and private), other parts of the transportation system, utilities, and Joint Base Elmendorf-Richardson (JBER).

A preliminary estimate of \$200 million for additional spending to repair earthquake damage includes an assumption that some reconstruction will divert funds from already scheduled projects.

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 2018 was about 15 thousand workers, with average annual pay of \$76 thousand, exceeded only by petroleum and mining. 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 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.



2013 Scammon Bay Airport Flood Permanent Repairs - Brice, Inc.