

# **State of Alaska FY2021 Governor's Operating Budget**

## **Department of Transportation/Public Facilities Design, Engineering and Construction Results Delivery Unit Budget Summary**

**Design, Engineering and Construction Results Delivery Unit**

**Contribution to Department's Mission**

Improve the transportation system in Alaska and protect the health and safety of the people of Alaska by developing transportation and public facilities projects and constructing safe, environmentally sound, reliable, and cost-effective highways, airports, harbors, docks, and buildings.

**Core Services**

- Develop capital improvement projects (CIP) from the planning stage to final preparation of plans, specifications and estimates for construction advertising including survey, preliminary design, environmental, traffic and safety, materials, right-of-way, utilities, and design elements.
- Provide technical assistance during construction.
- Complete and maintain airport master plans, airport layout plans, and airport certification documents.
- Complete traffic studies and accident analysis.
- Conduct hydrological studies, materials testing, and surveying.
- Process utility, right-of-way, and traffic permits.
- Acquire and vacate right-of-way as required to support the department's mission.
- Conduct active public involvement and issue resolution efforts throughout the project development process.
- Review projects for constructability.
- Provide bidding support services.
- Administer construction contracts.
- Provide support for emergency/disaster response when damages to transportation infrastructure require contractor repairs.
- Oversee construction projects.
- Close out projects.
- Administer state and federal transportation-related grants.

**Major RDU Accomplishments in 2019**

- Delivered a program of bid-ready designs and contract documents.
- Completed roadway, runway, bridge, traffic signal, taxiway, lighting, environmental, and safety improvements in Anchorage, Eagle River, Soldotna, Kenai, Bethel, Talkeetna, and Wasilla.
- Completed Anchorage area pedestrian improvement projects.
- Completed the Seward Highway Dimond to Dowling reconstruction project.
- Completed Williamsport – Pile Bay Bridge replacement.
- Completed Abbott Road reconstruction phase II.
- Complete C Street 40<sup>th</sup> to Minnesota pavement preservation.
- Completed multiple emergency repairs within days of the November 30, 2018 earthquake.
- Successfully awarded and began construction on two Construction Manager General Contractor projects (Tok Cutoff and Kivalina), worth a combined \$82,000.0.
- Integrated all design and construction staff into team structures to provide services across organizational boundaries/budget components and work cross-functionally to deliver products and focused priorities.
- Relinquished four roadways and accomplished three roadway trades to/with local governments.
- Responded to the November 30, 2018 earthquake, including program management and design of emergency and permanent repair project. Provided earthquake response and bridge strike detour guidance with zero injury detours and re-openings. Managing damage at over 225 locations to determine appropriate repair and grouping them into approximately 15-20 design projects to be reconstructed by 2022. Representative projects include: Emergency Embankment and Drainage Repairs; Glenn Highway at Mirror Lake, Glenn/Parks Interchange; Seward Highway Mile Post (MP) 50; Mat-Su Borough Road Repairs, and Knik River Road MP 10.5.
- Delivered plans and specifications for 37 bridges (one new bridge; four replacements; seven rehabilitations; twenty-five for preservation).
- Completed geotechnical investigations for design of 13 bridges, one pedestrian path bridge, two airport projects, and three highway projects.

- Completed approximately 505 routine, 60 fracture critical, 15 underwater, and 15 low water, 25 hydraulic/scour, and 10 special bridge inspections in conformance with FHWA bridge inspection mandates.
- Completed 15 rural airport pavement condition inspections per Federal Aviation Administration certification requirements.
- Adopted Alaska Standard Plans Manual in response to Architects, Engineers, and Land Surveyors Board requirements.
- Managed Highway Safety Improvement Program that obligated almost \$120,000.0 in federal fiscal year 2019.
- Held two Governor's Tribal Advisory Council Transportation Subcommittee meetings with Tribal representatives, transportation funding partners, and other state agencies.
- Updated the department's Transportation Asset Management Plan to be compliant with all federal regulations. The plan was certified by FHWA on August 26, 2019.

### **Key RDU Challenges**

- Fully transitioning the department to an asset/performance management culture.
- Experiencing increased time in obtaining property value appraisals and resulting capital project delivery due to the reducing numbers of certified/licensed appraiser qualified to perform this work. These appraisals are necessary for obtaining right-of-way property interests when projects expand existing infrastructure onto adjoining property.
- Increased volume and complexity of utility relocations continues to exceed both the department's and utility companies' ability to deliver, resulting in delays to construction despite increased coordination and effort.
- Implementation of AASHTOWare.
- Retention of key quality assurance staff and senior project managers.
- Developing skillset in newly hired project engineers.
- Continuing high rate of staff turnover.

### **Significant Changes in Results to be Delivered in FY2021**

- Implement Asset Management Plan throughout the department for continued use of Federal Highway Funds.
- Final implementation of the new pavement, equipment, and maintenance management systems.
- Continue implementation of AASHTOWare Project (transportation project design and management software) to gain efficiencies by employing e-Construction technologies.

<b>Contact Information</b>
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**Design, Engineering and Construction  
RDU Financial Summary by Component**

*All dollars shown in thousands*

	FY2019 Actuals				FY2020 Management Plan				FY2021 Governor			
	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds
<b>Formula Expenditures</b> None.												
<b>Non-Formula Expenditures</b>												
SW Design & Engineering Svcs	63.2	10,040.6	0.0	10,103.8	59.1	12,543.7	0.0	12,602.8	1,236.7	15,175.8	0.0	16,412.5
Central Design & Eng Svcs	550.1	20,939.2	0.0	21,489.3	673.0	23,052.8	0.0	23,725.8	679.1	23,300.7	0.0	23,979.8
Northern Design & Eng Svcs	341.4	15,862.5	0.0	16,203.9	258.3	17,218.1	0.0	17,476.4	259.8	17,399.1	0.0	17,658.9
Southcoast Design & Eng Svcs	306.1	9,577.4	0.0	9,883.5	332.1	10,911.9	0.0	11,244.0	334.3	10,500.0	0.0	10,834.3
Central Construction & CIP	97.7	24,037.3	0.0	24,135.0	97.7	21,767.1	0.0	21,864.8	97.7	22,019.3	0.0	22,117.0
Northern Construction & CIP	163.2	20,307.1	0.0	20,470.3	160.2	17,323.1	0.0	17,483.3	160.2	18,087.2	0.0	18,247.4
Southcoast Region Construction	57.8	5,624.8	0.0	5,682.6	55.7	7,386.7	0.0	7,442.4	55.7	7,480.3	0.0	7,536.0
<b>Totals</b>	<b>1,579.5</b>	<b>106,388.9</b>	<b>0.0</b>	<b>107,968.4</b>	<b>1,636.1</b>	<b>110,203.4</b>	<b>0.0</b>	<b>111,839.5</b>	<b>2,823.5</b>	<b>113,962.4</b>	<b>0.0</b>	<b>116,785.9</b>

**Design, Engineering and Construction**  
**Summary of RDU Budget Changes by Component**  
**From FY2020 Management Plan to FY2021 Governor**

*All dollars shown in thousands*

	<u>Unrestricted Gen (UGF)</u>	<u>Designated Gen (DGF)</u>	<u>Other Funds</u>	<u>Federal Funds</u>	<u>Total Funds</u>
<b>FY2020 Management Plan</b>	731.1	905.0	110,203.4	0.0	111,839.5
<b>Adjustments which continue current level of service:</b>					
-SW Design & Engineering Svcs	863.2	314.4	3,665.7	0.0	4,843.3
-Central Design & Eng Svcs	0.0	6.1	247.9	0.0	254.0
-Northern Design & Eng Svcs	0.1	1.4	181.0	0.0	182.5
-Southcoast Design & Eng Svcs	0.0	2.2	-243.9	0.0	-241.7
-Central Construction & CIP	0.0	0.0	252.2	0.0	252.2
-Northern Construction & CIP	0.0	0.0	764.1	0.0	764.1
-Southcoast Region Construction	0.0	0.0	93.6	0.0	93.6
<b>Proposed budget decreases:</b>					
-SW Design & Engineering Svcs	0.0	0.0	-1,033.6	0.0	-1,033.6
-Southcoast Design & Eng Svcs	0.0	0.0	-168.0	0.0	-168.0
<b>FY2021 Governor</b>	<b>1,594.4</b>	<b>1,229.1</b>	<b>113,962.4</b>	<b>0.0</b>	<b>116,785.9</b>