Conditions and Needs Assessment

Dillingham Airport
Master Plan Update

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List of Acronyms

AASP	Alaska Aviation System Plan
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
AIAS	Alaska International Airport System
AIP	Airport Improvement Program
ALP	Airport Layout Plan
AMP	Airport Master Plan
AOA	Airport Operations Area
APEB	Aviation Project Evaluation Board
ARC	Airport Reference Code
ARFF	Aircraft Rescue and Fire Fighting
ARPM	American Rescue Plan Match
ASDA	Accelerate Stop Distance Available
AST	Alaska State Troopers
ATO	Air Traffic Organization

AWOS	Automated Weather Observing System
CFR	Code of Federal Regulations
CLNC	Clearance
DCRA	Division of Community and Regional Affairs
DLG	Dillingham Airport
DME	Distance Measuring Equipment
DNR	Department of Natural Resources
DOT&PF	Department of Transportation and Public Facilities
DWPA	Drinking Water Protection Area
EAS	Essential Air Service
EO	Executive Order
EPA	United States Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FSS	Flight Service Station
FFY	Federal Fiscal Year
FY	Fiscal Year
USFWS	United States Fish and Wildlife Services
GA	General Aviation
GIS	Geographic Information Systems
GPS	Global Positioning System
LDA	Landing Distance Available
LOC	Localizer
NAVAID	Navigational Aid
NBD	Non-Directional Beacon
NPI	Non-Precision Instrument
NPIAS	National Plan of Integrated Airport Systems
ODALs	Omni-Directional Approach Lights
PAPI	Precision Approach Path Indicator
PCI	Pavement Condition Index
PFAS	Per- and polyfluoroalkyl substances
PM	Particulate Matter
RCRA	Resource Conservation and Recovery Act
REIL	Runway End Identifier Lights
RNAV	Area Navigation
RPZ	Runway Protection Zone
RW	Runway
SAWS	Stand Alone Weather Sensors
SEF	State Equipment Fleet
SFY	State Fiscal Year
SIDA	Security Identification Display Area
SREB	Snow Removal Equipment Building
SWPPP	Stormwater Pollution Prevention Plan
TAF	Terminal Area Forecast
TORA	Takeoff Run Available
TODA	Takeoff Distance Available
TSA	Transportation Security Administration
TW	Taxiway

USDI	United States Department of the Interior
VASI	Visual Approach Path Indicator
VGSI	Visual Glide Slope Indicator
VOR	Very High Frequency Omnidirectional Range
WELTS	Well Log Tracking System

Introduction

The intent of this Conditions and Needs Assessment is to inventory and describe the existing conditions at Dillingham Airport (DLG), identify current issues, and discuss the broader community context. This report supports the Dillingham Airport Master Plan (AMP) update and will inform future airport development. Key topics include:

- Community and Airport Background
- Inventory and Description of Existing Facilities
    - Airfield, airspace, commercial passenger terminal, general aviation, cargo, and support facilities; airport access, circulation, and parking, utilities
- Issues Identification
- Existing Recycling and Waste Minimization Plans
- Regional Setting and Land Use
- Environmental Setting
- Socioeconomic Conditions
- Historical Aviation Activity
- Financial Data
    - Airport business model, operating revenues and expenses, capital funding

Background

Community Profile

Dillingham has a highly integrated population of Alaska Natives and non-Natives. Historically, the area around Dillingham was inhabited by both Yup'ik and Athabascans and became a trade center when Russians erected the Alexandrovski Redoubt Post in 1818. Local Native groups and Natives from the Kuskokwim Region, the Alaska Peninsula, and Cook Inlet mixed together as they came to visit or live at the post. The community was known as Nushagak by 1837, when a Russian Orthodox mission was established. In 1884, the first salmon cannery in the Bristol Bay region was built by Arctic Packing Co., east of the site of modern-day Dillingham. Ten more canneries were established within the next seventeen years. The Dillingham town site was first surveyed in 1947. Dillingham was incorporated in 1963 and is a first class city.[1]

Commercial fishing, fish processing, cold storage, and support of the fishing industry are the primary regional economic activities, producing half of the world's sockeye salmon supply each summer. In 2018, the region saw a harvest of 152 million pounds of sockeye. After processing, this harvest was valued at $688 million. Dillingham's role as the regional center for government and services helps to stabilize seasonal employment. Many residents depend on subsistence activities. Some residents trap beaver, otter, mink, lynx, and fox for supplemental income. Salmon, grayling, pike, moose, caribou, and berries are also locally harvested.

[1] Alaska Community Database Online, DCRA, Accessed June 2020.

Location and Regional Setting

The City of Dillingham is located on the northwest shoreline of Wood River where it meets the Nushagak River at the far north end of Nushagak Bay in northern Bristol Bay (Figure 1). The city encompasses 33.6 sq. miles of land and 2.1 sq. miles of water. Dillingham is the transportation, economic, and public service hub for the Bristol Bay region and can only be reached by air or sea, making the airport and port vitally important for the livelihoods of Dillingham-area residents. Nearby communities, including New Stuyahok, King Salmon, Togiak, Koliganek, Ekwok, and Manokotak, regularly rely on Dillingham and DLG for meeting transportation and other public service needs. Dillingham's economy relies heavily on the commercial fishing industry and use of its ports and airport for the export of salmon and seafood from Bristol Bay.

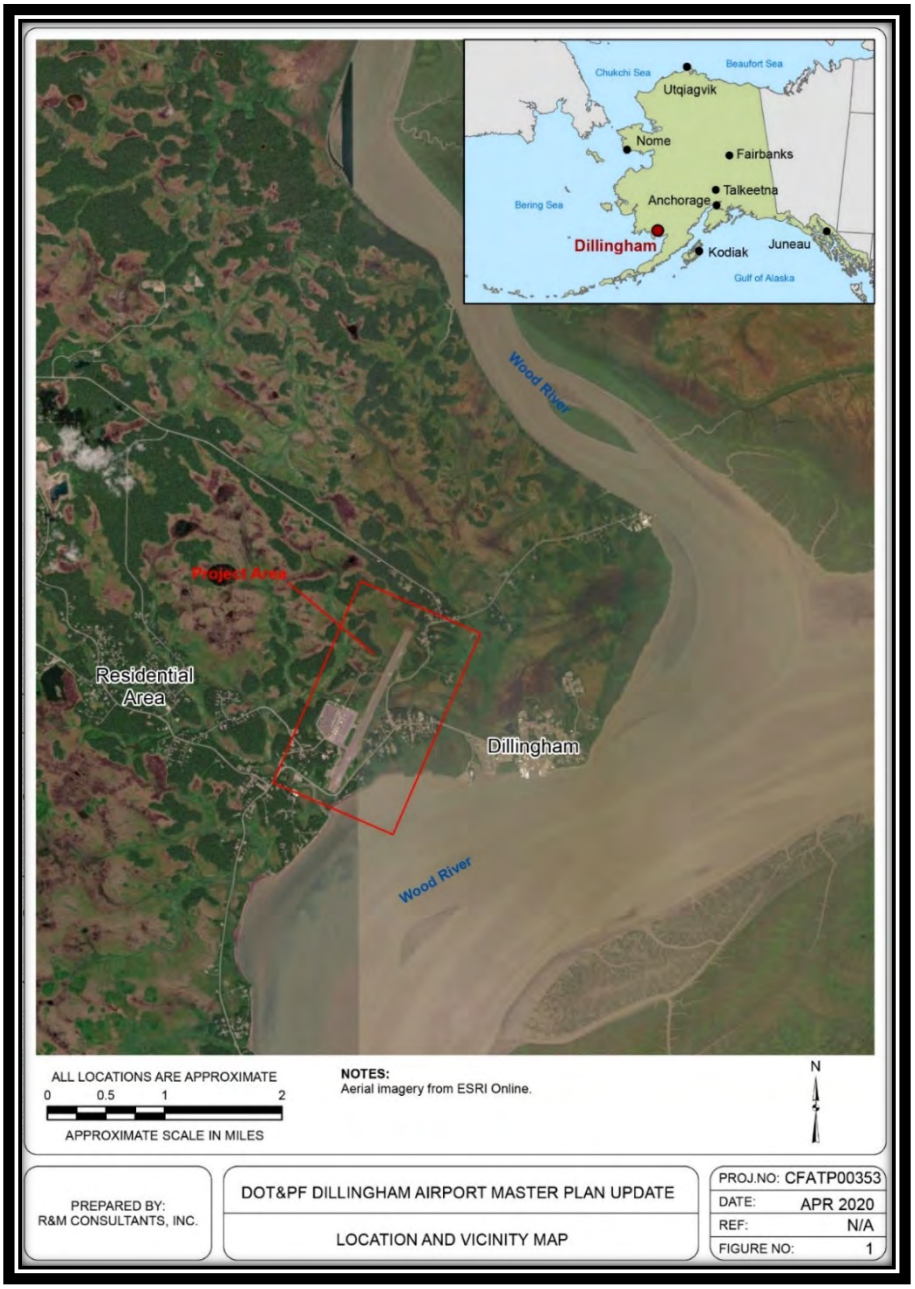


Figure 1: DLG Location & Vicinity Map

Dillingham Airport Background and History

DLG was built in the 1950s. Initial construction consisted of a 3,750-foot-long, gravel-surfaced runway and access road. Through the 1960s and 1970s, additional land was acquired, the runway was lengthened, and aprons, facilities, roads, and utilities were added. The runway was paved in 1980.

DLG sits on 635.36 acres of airport property owned by the Alaska Department of Transportation & Public Facilities (DOT&PF) Central Region.[2] DOT&PF leases land to air carriers and aviation-related businesses, which have made tenant improvements such as buildings, utilities, and parking areas.

An AMP was completed in 1985, with planned improvements including the Terminal Apron expansion and the gravel-surfaced general aviation apron being built on the west side of the airport. In 2005, another AMP was completed. Significant capital improvement projects, acquisitions, and assessments funded by the AIP since the 2005 AMP include:

Table 1: Airport Improvement Program (AIP) Capital Improvements Since 2005 AMP[3]

AIP Number	Capital Improvement	Obligated	Closed	Total Cost
3-02-0200-052-2005	Rehabilitate Runway 1-19 (Maintenance) (RE RW IM)	8/30/2005	6/9/2010	$80,000
3-02-0200-055-2006	Acquire Snow Removal Equipment Deicer truck (4,000-gal) (ST EQ SN)	8/17/2006	7/9/2013	$173,661
3-02-0200-056-2006	Rehabilitate Runway 1-19 (Maintenance) (RE RW IM)	6/30/2006	2/27/2012	$89,633
3-02-0200-065-2008	Acquire Snow Removal Equipment; Acquire SRE: DLG—Tractor Truck for pull broom w/ attachments (ST EQ SN)	6/16/2008	2/5/2014	$200,000
3-02-0078-011-2009	Construct Sand and Chemical Storage Building; Construct 3-Bay Sand and Chemical Storage Building (ST BD SN)	8/20/2009	3/10/2016	$2,747,361
3-02-0200-069-2009	Rehabilitate Runway 1-19 (Various Surface Maintenance) (RE RW IM)	8/20/2009	12/19/2014	$85,120
3-02-0200-071-2009	Acquire Snow Removal Equipment; Acquire SRE (Central Region): Snow Blower w/ attachments; Dozer w/ attachments	9/17/2009	10/28/2013	$150,873
3-02-0200-072-2009	Acquire Safety and/or Security Equipment; Acquire Water Rescue Equipment (SA EQ RF)	9/24/2009	11/12/2014	$67,145
3-02-0078-012-2010	Rehabilitate Apron (LOC) (RE AP IM); Rehabilitate Taxiway (LOC) (RE TW IM)	3/30/2010 3/30/2010	3/10/2015 3/10/2015	$5,586,886 $2,107,386
3-02-0200-073-2010	Rehabilitate Runway 1-19 (Various Surface Maintenance) (RE RW IM)	3/12/2010	12/9/2015	$96,840
3-02-0078-013-2012	Construct Runway Safety Area 1-19 (SA RW SF)	8/29/2012	5/23/2017	$17,183,668

[2] State of Alaska Department of Law Title Opinion, dated June 16, 2003.
[3] "Airport Improvement Program (AIP) FY 1982 – FY 2019", Federal Aviation Administration, Alaskan Region Airports Division.

AIP Number	Capital Improvement	Obligated	Closed	Total Cost
3-02-0200-085-2012	Wildlife Hazard Assessments (PL PL WH)	8/28/2012	10/12/2017	$106,461
3-02-0078-014-2013	Construct Runway Safety Area 1-19, Phase 2 (SA RW SF)	7/30/2013	5/26/2017	$2,004,615
3-02-0078-015-2013	Acquire Aircraft Rescue & Fire Fighting Vehicle (3,000-gal ARFF truck) (SQ EQ RF)	9/19/2013	3/29/2018	$660,881
3-02-0200-093-2013	Rehabilitate Runway 1-19 (Surface Preservation Maintenance) (RE RW IM)	9/18/2013		$180,600
3-02-0200-094-2013	Acquire Snow Removal Equipment; Acquire SRE (Runway Broom) (ST EQ SN)	9/19/2013	3/12/2018	$448,026
3-02-0200-095-2014	Remove Obstructions (+08J) (SA OT OB)	9/22/2014		$278,437
3-02-0200-097-2014	Acquire Snow Removal Equipment (+08J); Acquire SRE (Plow) (ST EQ SN)	9/19/2014		$667,168
3-02-0200-098-2014	Rehabilitate Runway 1-19 (+08J) Various Surface Preservation Maintenance (RE RW IM)	9/19/2014		$312,350
3-02-0078-016-2017	Rehabilitate Runway 1-19 (RE RW IM)	7/11/2017		$9,572,170
3-02-0200-113-2017	Acquire Interactive Training System, Various 139 Airports (OT EQ MS)	9/21/2017		$11,443
3-02-0200-118-2017	Rehabilitate Runway 1-19, Various Surface Preservation Maintenance; Re-marking Runway 1-19 and Taxiways A, B, and C, and Terminal Apron (RE RW IM)	9/21/2017		$137,694
3-02-0078-017-2018	Update Airport Master Plan Study (PL PL MA)	8/2/2018		$468,750
3-02-0078-018-2018	Install Perimeter Fencing required by 49 CFR 1542, Install fencing and access-controlled gates (SA EQ SE)	9/19/2018		$2,864,074
3-02-0200-125-2019	Rehabilitate Runway 1-19, Various SPM, Taxiways A, B, and C, and Terminal Apron (RE RW IM)	9/27/2019		$165,543

The Federal Aviation Administration (FAA) classifies Dillingham Airport within the National Plan of Integrated Airport System (NPIAS)[4] as a non-hub, primary commercial service airport, which is regulated under Title 14 Code of Federal Regulations (CFR) Part 139. A commercial service airport is a publicly-owned airport that receives scheduled passenger service and has at least 2,500 passenger boardings each year. Commercial service airports, like DLG, that enplane more than 10,000 annual passengers are primary airports. An airport is defined as an air traffic hub if it enplanes at least 0.05% of the passengers in the nation; if under 0.05%, the airport is non-hub.

[4] National Plan of Integrated Airport System (NPIAS), Federal Aviation Administration, Accessed June 2020, https://www.faa.gov/airports/planning_capacity/npias/.

Currently, Fairbanks International Airport is a small air traffic hub, and Ted Stevens Anchorage International Airport is a medium air traffic hub. Since the 2005 DLG AMP was completed, Juneau International Airport's hub status changed from small to non-hub. There are no large air traffic hubs in Alaska.

In Alaska, Part 139 certification is required for airports serving scheduled and unscheduled operations for aircraft with more than 30 passenger seats and scheduled operations for aircraft with more than 9 seats but less than 31 seats. Dillingham is classified as a regional airport by the Alaska Aviation System Plan (AASP) and is a Part 139 airport.[5] A regional airport supports regional economies by connecting communities to statewide and interstate markets.

As a Part 139, Category III airport, DLG is subject to airport security requirements and Transportation Security Administration (TSA) oversight under 49 CFR Part 1542 – Airport Security. Security requirements include perimeter fencing, terminal screening, and Airport Operations Area (AOA) and Security Identification Display Area (SIDA) badging.

Role in the Community and Regional Infrastructure

With no roads in or out of the region and limited marine cargo service, DLG provides vital air passenger and cargo services to the region. Passenger travel and air freight are highly seasonal with commercial and sport fishing in the summer months, which places a large demand on services.

Air transportation between Dillingham and Anchorage and to surrounding villages is necessary for a variety of reasons, including medical appointments, meetings, business, education, sports, and visits to family and friends. The ability to fly between communities creates a network that allows the region to function and thrive.

Health care professionals at the regional hospital and the public health department recognize the essential service of medevac flights from surrounding villages to Dillingham and, if further medical attention is needed, from Dillingham to Anchorage. Air travel is vital to the connectivity of the region's health care system. With clinics in every village in the Bristol Bay Area Health Corporation service area, medical, behavioral health, and dental teams must travel by air to provide direct care. Air travel is also required for staff training and delivery of prescription drugs and medical equipment. Regional travel is provided by numerous small local carriers.

State and federal agencies, such as the Alaska State Troopers (AST), Department of Fish & Game (ADF&G), and the U.S. Fish and Wildlife Service (USFWS), fly extensively to carry out their mandates. AST, the principal law enforcement agency serving the region, and other agencies use local commercial operators extensively, although AST also operates their own aircraft stationed at DLG. Prisoners are transported by air from regional villages to Dillingham and Anchorage. ADF&G brings seasonal data technicians and freight into the region by air. Those technicians then fly out to remote rivers and lakes by floatplane to collect data used to manage the multi-million-dollar Bristol Bay sockeye salmon fishery. ADF&G also flies aerial surveys with fixed wing and rotary aircraft to count herring and salmon in regional bays, rivers, and lakes. The Togiak National Wildlife Refuge has a hangar at DLG; staff use their aircraft to conduct biological surveys, as well as patrol and visit local villages. Dillingham is also a bypass

[5] Alaska Aviation System Plan, State of Alaska Department of Transportation and Public Facilities, Accessed June 2020, https://internal.alaskaasp.com/Facilities/Default.aspx?tab=general&id=51&siteid=50153.*A.

mail hub, serving the communities of Aleknagik, Clarks Point, Ekwok, Koliganek, Manokotak, New Stuyahok, and Twin Hills.[6]

[6] "Southwest Alaska Transportation Plan Update," Alaska Department of Transportation & Public Facilities, 2016.

Inventory of Existing Facilities

This section describes existing airside and landside facilities serving the operational needs at DLG.

Figure 2: DLG Project Area

Airfield/Airspace

Airport Reference Code

The Airport Reference Code (ARC) for DLG is currently C-III, with the Boeing 737-700 as the critical aircraft. The FAA developed the ARC to determine airport design criteria based on the airport's critical aircraft.[7] The ARC is composed of two elements, the Aircraft Approach Category (AAC) and the Airplane Design Group (ADG). AAC "C" indicates that the approach speed for DLG's critical aircraft is 121-140 knots. ADG "III" indicates that the critical aircraft wingspan is 79-117 feet. See the DLG Aviation Forecast Report of this master plan for more information, including the forecasted ARC change to C-IV by 2040, with the Lockheed L- 100 as the critical aircraft.

Runways[8]

DLG has one paved runway used for all the airport's aircraft operations, designated 1-19.

Table 2: Runway 1-19

Runway	1-19
Dimensions	6,400 ft. x 150 ft.
Surface Type	Grooved Asphalt
Marking Type	Non-Precision Instrument
Marking Condition	Good
Runway End 01 Elevation	76.6 ft.
Runway End 19 Elevation	65 ft.
Approach Visibility Minimum	1 Statute Mile
Pavement Condition Index (PCI)	99.34[9,10]
Pavement Class Number	54/F/C/X/T[11]

[7] "Critical aircraft" is the most demanding aircraft (in terms of approach speed and wingspan) that conducts at least 500 annual operations at the airport (AC 150/5000-17).
[8] "Dillingham," Alaska Aviation Information Directory, Alaska Department of Transportation & Public Facilities, accessed April 15, 2020.
[9] Alaska Airport Pavement Inspection Report, May 24, 2018.
[10] General pavement recommendation: 85-100 Do Nothing/Preventative Maintenance.
[11] The PCN is a five-part code that describes a piece of pavement. This code explains the pavement's load-carrying capacity, whether it is rigid or flexible, the strength of the pavement's subgrade, the maximum tire pressure that can be supported, and whether the first number of the code was determined using a technical evaluation or physical testing.

The runway pavement load rating is as follows[12]:

Table 3: Runway 1-19 Pavement Load Rating

Single Wheel	116,000 pounds
Double Wheel	186,000 pounds
Double Tandem	300,000 pounds
Dual Double Tandem	726,000 pounds

Lighting, Approach Aids, and Navaids[13]

Dillingham Airport has non-precision instrument (NPI) approaches. Both runways have RNAV (GPS) approaches. Additionally, Runway 01 also has a very high frequency omnidirectional Range (VOR) approach; and Runway 19 has a localizer approach. Visibility minimums one statute mile. Approaches plates are printed in the Alaska U.S. Terminal Procedures Publication for the following four approach procedures[14]:

- RNAV (GPS) RWY 01
- RNAV (GPS) RWY 19
- LOC RWY 19
- VOR RWY 01

There are various visual and navigational aids (NAVAIDs) in place at the airport. NAVAIDs and equipment consist of: VOR, DME, non-directional beacon, rotating beacon, direction finding antenna, localizer, precision approach path indicator (PAPI), visual approach path indicator (VASI), wind cones/segmented circle, Stand Alone Weather Sensors (SAWS), Omni-Directional Approach Lights (ODALS), and an automated weather observing system (AWOS). There is an FAA flight service station at the airport.

Table 4: Runway 1-19 Lighting & Approach Aids

Edge Intensity	High
Runway Mark Type Condition	NPI-G/NPI-G
Visual Glide Slope Indicator (VGSI)	PAPI, RW 1 / VASI, RW 19
Visual Glide Path Angle	3/3
Runway End Identifier Lights (REIL)	YES, RW 19
Approach Lights	ODALS, RW 19

Table 5: Runway 1-19 Navaids

Type	ID	Name	Frequency	Hours	Distance	Bearing
NDB	BTS	Wood River	429 MHz	24	3 nm	26°
VOR/DME	DLG	Dillingham	116.4 MHz	24	3.4 nm	25.5°

[12] "Dillingham," Alaska Aviation Database, Alaska Aviation System Plan, Alaska Department of Transportation & Public Facilities, accessed April 15, 2020.
[13] Ibid.
[14] "DLG Dillingham," IFP Information Gateway Search, Federal Aviation Administration, Accessed June 8, 2021, https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/application/?event=procedure.results&nasrId=DLG#searchResultsTop.

Figure 3: ODALS North of RW 19

Figure 4: ODALS North of RW 19, Close-up

Figure 5: Localizer South of RW 01

Obstruction Data[15]

Table 6 provides obstruction information at DLG.

Table 6: Runway 1-19 Obstacles

FAR 77 Category	**C/C**
Controlling Obstacle	Trees
Height Above Runway End	85’
Distance from Runway End	1,700’
Obstruction Clearance Slope	50:1 / 17:1

Aprons[16]

DLG has two aprons for aircraft parking: The Terminal Apron and the General Aviation (GA) Apron.

Table 7: DLG Aprons

Apron Name	Dimensions	PCI	General Pavement Recommendation
Terminal Apron	1,680 ft. x 470 ft.	90	85-100 Do Nothing/Preventative Maintenance[17]
GA Apron	1,300 ft. x 400 ft.	N/A	N/A, unpaved (recycled asphalt surfaced)[18]

Lease lots east of Airport Road extend approximately 200 feet over the Terminal Apron. All aircraft access RW 1-19 via the Terminal Apron. This includes GA aircraft, since Taxiway C connects the GA Apron to the Terminal Apron.

The east edge of the Terminal Apron, between taxiways A and B, is used as a large aircraft parking area. Transient aircraft, such as corporate jets, use the north end of the Terminal Apron for parking, with space at the northwest corner generally reserved for medevac aircraft. Aircraft parking space at the north end often fills up during the busiest part of the summer, and additional transient aircraft must then park along the east edge of the Terminal Apron.

The GA Apron is located west of Airport Road and has hangars along the east and west edges. 74 tie-downs are noted. The south end of the GA Apron is available for transient GA aircraft, and there is a section east of Block 700 noted for summer transient parking.[19] Tie-downs can be added to meet demand and are removed in the winter for snow clearing. See “General Aviation Facilities” below for more information.

Taxiways[20]

Runway 1-19 is accessible from the Terminal Apron by taxiways A and B. Taxiway C provides access from the GA Apron to the Terminal Apron. DLG does not have a full-length parallel taxiway. Consequently, it is often necessary for airplanes to taxi a long distance on the runway and turn around before taking off on

[15] “Dillingham,” 5010 Airport Master Record, FAA, accessed April 15, 2020.
[16] Ibid.
[17] Alaska Airport Pavement Inspection Report, May 24, 2018.
[18] Ibid.
[19] Dillingham Airport Land Occupancy, September 26, 2019.
[20] Ibid.

Runway 19 and after landing on Runway 01, which delays operations during busy times and increases the potential for runway incursions. Runway 1-19 also does not meet line-of-sight requirements, and alternatives for addressing this should be evaluated.

Table 8: DLG Taxiways

Taxiway Name	Dimensions	PCI	General Pavement Recommendation
Taxiway A	50 ft. x 365 ft.	93.02	85-100 Do Nothing/Preventative Maintenance[21]
Taxiway B	50 ft. x 365 ft.	96.82	85-100 Do Nothing/Preventative Maintenance[22]
Taxiway C	50 ft. x 1,750 ft.	82.00	70-84 Preventative Maintenance[23]

Services/Navcom[24]

Table 9 provides information on various services available at DLG.

Table 9: DLG Aeronautical Services & Facilities

Services	
Fuel Type	100LLA
Air Frame Repair	Minor
Power Plant Repair	Minor
Bottled Oxygen Type	None
Bulk Oxygen Type	None
Transient Storage	Tie-Down
Other Service	Cargo
Facilities	
UNICOM Frequencies	N/A
Wind Indicator	Yes
Segmented Circle	Yes
Control Tower	N/A
Tie-In FSS	Yes
Tie-In FSS Name	Dillingham
Airport to FSS Phone Number	907-842-5275
Tie-In FSS Toll Free Number	907-842-5275
FSS Attendance Schedule	
Months	All
Days	All
Hours	0800-1830

[21] Alaska Airport Pavement Inspection Report, May 24, 2018.
[22] Ibid.
[23] Ibid.
[24] "Dillingham," Alaska Aviation Database, Alaska Aviation System Plan, Alaska Department of Transportation & Public Facilities, accessed April 15, 2020.

Commercial Passenger Terminal Facilities

There is currently no joint-use terminal building used by all carriers; however, the Alaska Airlines/Ravn Alaska terminal building is used for most of the commercial passenger service at DLG. Other carriers utilize their own facilities, as available.

Figure 6: Alaska Airlines/Ravn Air Terminal Building Exterior

There is a single gate and baggage claim area at the Alaska Airlines/Ravn Alaska terminal building. The ticketing area has five kiosks. The waiting area is not physically separated from the gate for security purposes, although TSA personnel are present. There are no restaurants, concession areas, or vending machines at the airport. Restroom facilities are unreliable and inadequately sized to meet needs during the busier summer months.

Figure 7: Baggage Claim Area, Alaska Airlines/Ravn Air Terminal Building

Figure 8: Ticketing Area, Alaska Airlines/Ravn Air Terminal Building

Figure 9: Waiting Area, Alaska Airlines/Ravn Air Terminal Building

General Aviation Facilities

Table 10, below, shows the documented number and types of based aircraft, all of which use the GA Apron. Around June, tie-downs can become fully occupied, creating the need to stake additional tie-downs.

Based Aircraft[25]

Table 10: DLG Based Aircraft (2020)

Aircraft Type	Count
Single Engine GA	52
Multi Engine GA	6
Jet Engine GA	N/A
Helicopters GA	1
Gliders Operational	N/A
Military Operational	N/A
Ultralights	N/A

There are 11 lease lots directly abutting the GA Apron, seven on the west end and four on the east end. Hangars and buildings are maintained by their respective tenants and are in various states of repair.

Electrical service at the GA Apron is available at the perimeter lease lots. Interior tie downs do not have electricity access, and many pilots bring their own generators. Maintenance staff have shared concerns that expanding electricity access to the interior of the GA Apron would make winter maintenance more difficult.

Flight Schools
Approximately five years ago, more formalized flight instruction was available. While this is no longer the case, there are generally still one or two pilots who offer instruction at any given time.

Aircraft Maintenance Facilities
Air carriers with hangars at DLG have access to licensed aviation mechanics to service their aircraft, who may be onsite or flown in. Those mechanics may also provide contract maintenance services for other air carriers and pilots, depending on whether the mechanic is licensed as part of the air carrier or as an individual.

There are currently no independent aircraft maintenance facilities at DLG. While there have been some freelance mechanics who provide onsite aircraft maintenance services from their vehicles, those services are intermittent. Stakeholder comments indicated that there could be sufficient demand for an independent aviation mechanic to establish a business there.

[25] "Dillingham," Alaska Aviation Database, Alaska Aviation System Plan, Alaska Department of Transportation & Public Facilities, accessed April 15, 2020.

Cargo Facilities

There are three primary facilities that handle cargo movement at DLG:

1. Alaska Cargo Services, used primarily by Northern Air Cargo, Lynden Air Cargo, and Ryan Air
2. Alaska Pride Air, used primarily by ACE Air Cargo and Everts Air Cargo
3. Alaska Airlines, used primarily by Alaska Air Cargo

Each facility abuts the Terminal Apron for ease of access to RW 1-19. See the Aviation Activity section below for information about cargo operations.

Figure 10: Freight Delivery at DLG

Support Facilities

See Appendix B: Airport Layout Plan for detailed facility locations.

Flight Service Station (FSS)
DLG is a non-towered airport and uses a Flight Service Station (FSS). Since the 2005 AMP update, the FSS was relocated from the Grant Aviation Building to northwest of the Terminal Apron, next to the transient aircraft parking area. The FSS is staffed by FAA personnel who are responsible for weather and airport condition reporting, airport traffic advisories, emergency services to aircraft in distress, aeronautical notice dissemination, search and rescue notifications, and flight planning assistance. The FSS also has remotely operated weather cameras that provide real-time pictures of the airport. FSS hours of operation are 0800 to 1830 every day.

Figure 11: Flight Service Station

Aircraft Rescue and Fire Fighting (ARFF) and Airport Maintenance

DOT&PF operates and maintains DLG. The combined ARFF and Snow Removal Equipment Building (SREB) is located directly south of Taxiway C, between the access road and GA apron. This building has six bays and also houses DOT&PF's administrative space.

Figure 12: ARFF/SERB

DOT&PF's combined maintenance garage and chemical storage building is located west of the ARFF/SREB and south of Taxiway C. The sand storage building is located south of the chemical storage building.

Fuel Storage

Table 11 shows each airport tenant's fuel storage at DLG, broken out by fuel type and amount.

Table 11: Fuel Storage at DLG

Company	Container Size (Gal)	Fuel Type
Alaska Airlines	1000	Heating Oil
Alaska Cargo Services	2000	Avgas 100LL Double Wall
	5000	Jet-A Mobile
	500	Heating Oil
	3000	Jet-A Mobile
	4000	Jet-A Mobile
Alaska Island Air	240	Avgas 100LL Mobile
	55	Heating Oil
Alaska Pride Air	2000	Heating Oil
	5000	Avgas 100LL Fireguard
	100	Unleaded Fuel
	200	Heating Oil
Antler Aviation and Wildlife Services	500	Avgas 100LL Mobile
Bay Air	500	Heating Oil
Bristol Bay Air	500	Avgas 100LL Mobile
	55	Heating Oil
DOT&PF	4000	Diesel Fuel Fireguard
	2000	Diesel Fuel Fireguard
	2000	Heating Fuel Fireguard
	1000	Heating Oil Double Wall
	3000	Heating Oil Double Wall
FAA	2000	Heating Oil
Freshwater Adventures	2000	Avgas 100LL Fireguard
	1100	Heating Fuel
	300	Heating Oil
Grant Aviation Hangar	1000	Heating Oil
	2800	Jet-A Mobile
Mulchatna Air	2000	Avgas 100LL Fireguard
	1000	Heating Oil
Seventh Day Adventists	220	Heating Oil
Shannons Air Taxi	500	Avgas 100LL Mobile
	300	Heating Oil
Starflite Air	1500	Heating Oil
	2000	Jet-A Mobile
Togiak National Wildlife Refuge	1000	Avgas 100LL
	550	Heating Fuel
Tucker Aviation	1000	Avgas 100LL Mobile
	500	Heating Oil
	500	Unleaded Fuel
Van Air	500	Avgas 100LL

Access, Circulation, and Parking

Dillingham Airport is located approximately four miles from Dillingham's city center, near the junctions of Kanakanak Road, Aleknagik Lake Road, and Wood River Road. Kanakanak Road provides primary access to the airport property.

Within airport boundaries, all airport terminal and tenant access is provided via Airport Road and West Airport Road. West Airport Road goes around the west side of the GA Apron, connecting to North Airport Boundary Road to provide access to two residences northwest of DLG.

The strip of land east of Airport Road, adjacent to the buildings by the Terminal Apron, has been identified as a parking area. This parking strip is an earth and gravel area that lies between the various buildings and Airport Road. Tenants, employees, and patrons park adjacent to the various buildings whenever space is available.

Separate vehicle parking for general aviation is not available. Pilots park personal vehicles in the airplane's tie-down spot while flying. The long-term parking area is approximately 0.3 miles southwest from the Alaska Airlines/Ravn Air terminal building. Two overhead lights have been added since the previous Airport Master Plan update, but the area is otherwise unsecured. Several junk vehicles have been abandoned in the long-term parking lot. While DOT&PF requires vehicle owners to move their vehicles from the long-term parking after 30 days, enforcement remains a challenge. Removing the abandoned vehicles would improve the security and operationality of the parking lot.

Figure 13: Long Term Parking Lot at DLG

Car Rental Service

Beaver Creek Auto Rentals (1.7 miles from DLG) and D&J Rentals (two miles from DLG) provide car rental service. Both provide pick-up and drop-off service at the airport. There may be demand for rental vehicles at the airport, if protected space were available.

Utilities

The following section discusses the range of available utilities at DLG.

Water
While the City of Dillingham has a community water system that draws ground water, there are no municipal water system hook-ups extended to DLG. Tenants are responsible for providing water to their lease lots by drilling wells or storing water in tanks. The State of Alaska Department of Natural Resources' (DNR) Well Log Tracking System (WELTS) notes the presence of three wells on DLG property[26]:

- USDI Fish & Wildlife Services: 100-foot well below ground surface
- Southwest Air: 80-foot well below ground surface
- Yute: 60-foot well below ground surface

Aeronautical survey and planimetric field survey data from previous years provided greater well location specificity than Alaska DNR's WELTS map; it is assumed that the surveys provide more reliable location data. The 2020 DLG Land Occupancy figures indicate an additional well location between the maintenance garage and sand storage facility, with water lines connecting to fire hydrants.

Sanitary Sewer
DLG has access to the City of Dillingham's wastewater service via an underground connection to the east of Runway 1-19. The sewer line is pressurized between the pump station at DLG and a catch basin at the east end of Runway 1-19. There is a gravity line extending southwest from the pump station parallel to Airport Road.

Heating Fuel
DLG tenants generally use heating oil furnaces and have heating oil tanks on their lease lots. DOT&PF uses heating oil in all buildings with the exception of the electrical equipment building, which uses a small electric heater.

Natural gas is not supplied to DLG.

Electric & Communications
Nushagak Electric & Telephone Cooperative provides electricity, telephone, and internet service to DLG. The connections to DLG originate from an underground line east of Runway 1-19. The electric line extends west beyond Airport Road, encompassing the north and most of the west perimeter of the GA Apron, and roughly parallel to Airport Road to provide connections for lease lots. The telecom line extends to the northwest corner of the Terminal Apron then runs southwest along Airport Road.

The Flight Service Station (FSS) and ARFF/SREB building also have a backup generator available.

Stormwater Drainage
A storm drain, culverts, and ditches facilitate stormwater drainage at DLG. The storm drain and catch basins run parallel to Airport Road on the east side. The first intake is at the driveway between

[26] "Well Log Tracking System (WELTS)," Alaska Department of Natural Resources, Division of Mining Land & Water, Accessed April 30, 2021, https://dnr.alaska.gov/welts/#show-welts-intro-template.

Freshwater Adventures and Alaska Airlines, with water running north and draining into a ditch from an open outfall at the north side of Taxiway C.

Culverts are placed throughout DLG property, including beneath RW 1-19, Taxiways A and B, and the various vehicle accesses.

Deicing
DOT&PF personnel provide deicing services, although some commercial carriers deice their own aircraft. Liquid urea and solid potassium acetate pellets are used in deicing.

Waste Disposal
Facility trash is emptied when full into on-site dumpsters. The dumpsters are serviced weekly by Dillingham Waste Management. Oil pads used to clean oil spills are either burned or thrown in the trash, once dry.

Used batteries and light bulbs are stored inside within labeled plastic containers and disposed of at the local landfill once per year. Used battery containers are labeled with an accumulation start date. State Equipment Fleet (SEF) staff remove and replace all vehicle and equipment batteries, recycling them if possible.

Used aerosol cans were determined by the United States Environmental Protection Agency (EPA) to be a universal waste as of December 2020. Since DLG is a Very Small Quantity Generator under the Resource Conservation and Recovery Act (RCRA), its empty aerosol cans can be treated as household hazardous waste instead. As such, they are stored in a labeled container (no accumulation start date required) and are taken to the local landfill once per year, when the landfill accepts household hazardous waste.

Solvents are not stored at DLG. There is a separate SEF facility off-site that does all the vehicle maintenance and has a solvent tank for cleaning tools and parts.

Human waste facilities are connected to the sewer line at DLG, which is part of the City of Dillingham domestic wastewater sewer system. Wastewater in the ARFF/SREF building, warm storage building, and chemical storage building passes through oil-water separators. The oil-water separators are cleaned out annually, and waste is taken to an approved disposal facility. Water from the oil-water separators is connected to the City of Dillingham domestic waste water sewer system. Sewage and wastewater are treated at the Dillingham Wastewater Treatment System.

Used oil from vehicle maintenance is burned by the SEF facility in their used oil burner.

Road and airfield paint utilized at the airport is waterborne. The paint is stored in plastic disposable totes. Once empty, the totes are crushed and disposed of at the landfill. Previously, DOT&PF had a contract with a paint manufacturer that provided storage totes for paint recycling.

Issues Identification

The following table presents airport issues identified through public and stakeholder engagement and a May 18, 2021 site visit performed by R&M and DOT&PF Planning. See Appendix A: Site Visit Summary.

Table 12: Airport Issues

Category	Issue	Source	Notes
Alaska Airlines/Ravn Air Terminal Building	The passenger waiting area and baggage claim area are not big enough to support the number of passengers during busy times.	Public comments, site visit, stakeholder interviews	A larger, shared terminal was suggested in public comments and stakeholder interviews.
	There is no separation between the passenger waiting area and the gate for security purposes.	Public comments, site visit	
	Restroom facilities are not reliable.	Public comments, site visit, stakeholder interviews	
Amenities	There is no concession space or any vending machines.	Public comments, site visit, stakeholder interviews	One public comment described how nursing mothers are unable to get clean water for baby formula. Another comment described how people often have to wait several hours for connecting flights and do not have reliable access to food unless they bring it with them. The Twin Dragon restaurant was closed in July 2021.
Equipment	Glide slope antenna is needed to upgrade to a precision approach using an instrument landing system.	Previous AMP	A precision approach and decreased visibility minimums would increase FAR Part 77 surface dimensions and decrease slopes. Additional obstruction clearing would likely be required to clear the airspace based on FAA determination.
	One ODAL is not functioning north of RW 1-19.	Stakeholder interviews	The airport manager has reported this to FAA for several years.
	It can be very foggy in the winter; a precision approach system would be helpful.	Stakeholder comments	

Category	Issue	Source	Notes
	Taxiway & runway lighting was last updated in 2003 and needs replacement. The system is nearing failure, with greatly reduced resistance readings, likely due to water inundating the system.	Stakeholder interviews; DOT&PF testing (2019)	It needs to first be determined whether there will be a RW shift, and if so, whether to provide a temporary fix beforehand and then a permanent upgrade following the RW shift, or wait for the shift to do any lighting replacement.
	A thaw wire is needed at the RW End 19 culvert.	Stakeholder interviews, site visit	
	The badging computer station needs to be updated.	Site visit, stakeholder interviews	
	AWOS: proximity to trees is potentially affecting wind direction accuracy. Clearing is needed within 500 feet	Site visit	Wind sensor must be above surrounding tree top elevations per FAA Order JO 6560.20C
Environmental	Presence of PFAS in aquifer on site.	Stakeholder interviews	
Facilities: Condition	The RSA dimensions for RW 1-19 do not meet standards.	Stakeholder interviews	
	There is no clear line of sight between the ends of RW 1-19.	Stakeholder interviews	
	The long-term parking area is not fenced, and theft and vandalism are an issue.	Public comments, site visit	Long-term parking has not been relocated closer to the airport largely due to post-9-11 restrictions.
	Junk vehicles have been left in the long-term parking area beyond the 30-day limit.	Site visit	See Figure 15.
	The gates added in 2019 using sensors can malfunction in the winter; the camera lens frosts over.	Stakeholder interviews	There have been complaints by medevac providers over the time-delayed gate opening.
	The Terminal Apron has grading issues. The Terminal Apron holds water near the north end, west of Taxiway B. There is ponding north of Taxiway B, near the Terminal Apron.	Stakeholder interviews	
	The ARFF/SRE building's roof is in poor condition.	CIMP Inspection	Roofing materials are in poor condition; there are visible signs of leaks.

Category	Issue	Source	Notes
	All lighting has degraded (bad connections, insulation, wiring and transformers). Testing 12.2.2019, Runway ohm resistance reading is 14 ohms and 6.6 megaohms. Taxiway ohm resistance reading is 12 ohms and 0.028 megaohms. According to Item L-108, paragraph 108-3.10 c., "the insulation resistance to ground of all non-grounded series circuits is not less than 2,000 megaohms". The insulation is indicating it is degrading.	CIMP Inspection	Runway lighting is approximately 18 years old.
	Fencing surrounding several areas of RW 1-19 is difficult to access for repairs. Much of the land is wet and not suitable for vehicles, and there is a steep slope at the southeast area beyond the runway. The fence is sloping in several areas.	Site visit, CIMP Inspection	Possibility for a combination of relocating certain fence areas and constructing an interior perimeter access road. See Figures 16 and 17.
	Several of the smaller culverts at airport access points are in a state of significant disrepair.	Site visit	See Figure 19.
Facilities: Capacity	A Parallel taxiway to RW 1-19 is needed to improve operational efficiency. Pilots currently taxi on the runway before taking off.	Previous AMP, public comments, site visit, stakeholder interviews	
	Commercial and GA operations use the same runway, which can cause delays during busy periods; several GA pilots have stated a preference for a gravel runway. Some pilots with tundra tires on their aircraft use the gravel surface in the RSA adjacent to RW 1-19 to land.	Public comments, stakeholder interviews, site visit	During the site visit, there was a small aircraft that used the gravel surface instead of RW 1-19 to land.

Category	Issue	Source	Notes
	Short-term parking on/near the aprons is regularly full and can be difficult for pedestrians and drivers to safely navigate, especially in the summer.	Public comments	
	There are not enough lease lots to meet current demand.	Public comments	There is a discrepancy between this comment and DOT&PF Leasing (see comment in Operations category), which states a lack of demand for lease lots.
	There are not enough hangars available to meet demand. DOT&PF Statewide Aviation and Leasing encourages project development to include T-hangars.	Public comments	One comment described how pilots must store their plane in King Salmon or other locations over the winter since there isn't available hangar space.
	The Terminal Apron does not have sufficient space to accommodate transient aircraft during busy times. There may be a need to extend the apron north.	Site visit, stakeholder interviews	The ground north of the Terminal Apron is difficult to construct on (wetlands). Extending the apron may also require extending the airport access road to "Lorraine's Road" to access the apron area. If so, traffic control would be needed to halt vehicle traffic for ARFF activities or aircraft taxiing between the GA Apron and runway. It would be difficult for the ARFF truck to make the 90-degree turn, and it may be necessary to move the ARFF truck bay to the north end of the ARFF building, adding an easterly door and ramp.
	Large areas of tundra are buckling northwest of the RW end 19 RSA due to the constructed embankment. The size of the disturbance ranges from a few inches to over four feet.	Site visit	See Figure 14.
Land Use	Object Free Area is not clear of obstructions.	Stakeholder interviews	
	The Evergreen Cemetery is within the RSA. There is likely public opposition to relocating the cemetery.	Public comments, site visit, stakeholder interviews	See Figure 18.

Category	Issue	Source	Notes
	The proximity of the airport to residential neighborhoods is a concern if RW 1-19 or the RSA are lengthened or expanded, especially past the north end of the RSA.	Public comments	
	The current airport location has limited opportunities for expansion. Several comments included total relocation.	Public comments, stakeholder interviews	
Operations	West Airport Road is close enough to the GA Apron and Taxiway C that snow clearing at the apron and taxiway puts the snow onto the road.	Stakeholder interviews	
	Current M&O staffing levels are near capacity to maintain existing facilities. New facilities would either require additional staff or, in the case of lease lot improvements, delegating responsibility to tenants.	Stakeholder interviews	
	It has been difficult finding skilled electricians do properly conduct repairs.	Stakeholder interviews	The possibility of sending electricians from Ted Stevens International Airport to rural airports was discussed.
	Industrial and toxic waste is barged out, but there is no regular service for this.	Stakeholder interviews	
	There are three vacant lease lots, and no inquiries about lease lots in months.	DOT&PF Leasing	
Utilities	Some transformers have partially sunk into the ditches, increasing exposure to water-related hazards and maintenance issues.	Site visit, stakeholder interviews	It is the Nushagak Electric & Telephone Cooperative's responsibility to maintain the transformers.
	There is a low point southwest of the pump station (gravity line) which causes regular backups.	Public comments, stakeholder interviews	
	Lack of access to potable water. There is no connection to the city water system, and PFAS were discovered in nearby well testing.	Public comments, site visit, stakeholder interviews	

Figure 14: Surface Irregularities in the Tundra Surrounding the Airport Embankment

Figure 15: Abandoned Vehicle in Long-Term Parking Lot

Figure 16: Saturated Land, RW 1 End Looking Southeast

Figure 17: RSA Embankment Slope, RW 1 End Looking Southeast

Figure 18: Evergreen Cemetery

Figure 19: Culvert by GA Apron Access Point

Recycling and Solid Waste Minimization

The DLG Stormwater Pollution Prevention Plan (SWPPP) details recycling activities and best management practices. At DLG, used vehicle and equipment batteries are recycled by SEF.

The Dillingham Landfill recycles aluminum cans, electronics, fluorescent bulbs, glass, refrigerators and freezers, scrap metal and appliances, tires, and vehicles. The feasibility of solid waste recycling for DLG beyond what is available at the Dillingham Landfill is limited due to the small community size as well as the distance and lack of a road connection to larger recycling facilities.

To minimize solid waste generation, DOT&PF staff break down, flatten, and/or crush urea bags, empty boxes, and empty, dry paint totes. Staff also reuse some metal paint tote cages for crack sealant and paint gun strainer bags.

Land Ownership and Use

DLG property is entirely within the Dillingham city limits. DOT&PF owns the DLG property and maintains jurisdiction over its operations. A large proportion of the developable land in the City of Dillingham that is accessible by road is held as Native allotments. Other major landowners include Choggiung Limited, the City of Dillingham, and the State of Alaska (Figure 20).

DLG is located near Dillingham's three major roads: Kanakanak Road, Wood River Road, and Aleknagik Lake Road. Kanakanak Road crosses airport property south and southeast of the runway, and a portion of Wood River Road enters airport property southeast of the runway and north of Kanakanak Road. These road corridors contain the majority of Dillingham's residential development. The airport property is surrounded by residential development on all sides except the northeast.

The locations of existing residential properties and the Evergreen Cemetery present possible land use conflicts with airport property. Two residents are located adjacent to the northwest airport property boundary. Access to the residential property is from Airport Road connecting to West Airport Road and North Airport Road, around the general aviation (GA) apron. This may result in difficult public access control along these roads and on airport property. Additionally, a residence encroaches onto airport property east of the runway, north of Kanakanak Road.

The Evergreen Cemetery is located east of the runway on a knoll above the runway elevation, fully within airport property boundaries. The cemetery is still in use. It encroaches on the east side of the RSA which, according to FAA standards, should be cleared around the airfield. Both the adjacent residential uses and the culturally sensitive Evergreen Cemetery may affect the safe operation of the airport or limit its expansion.

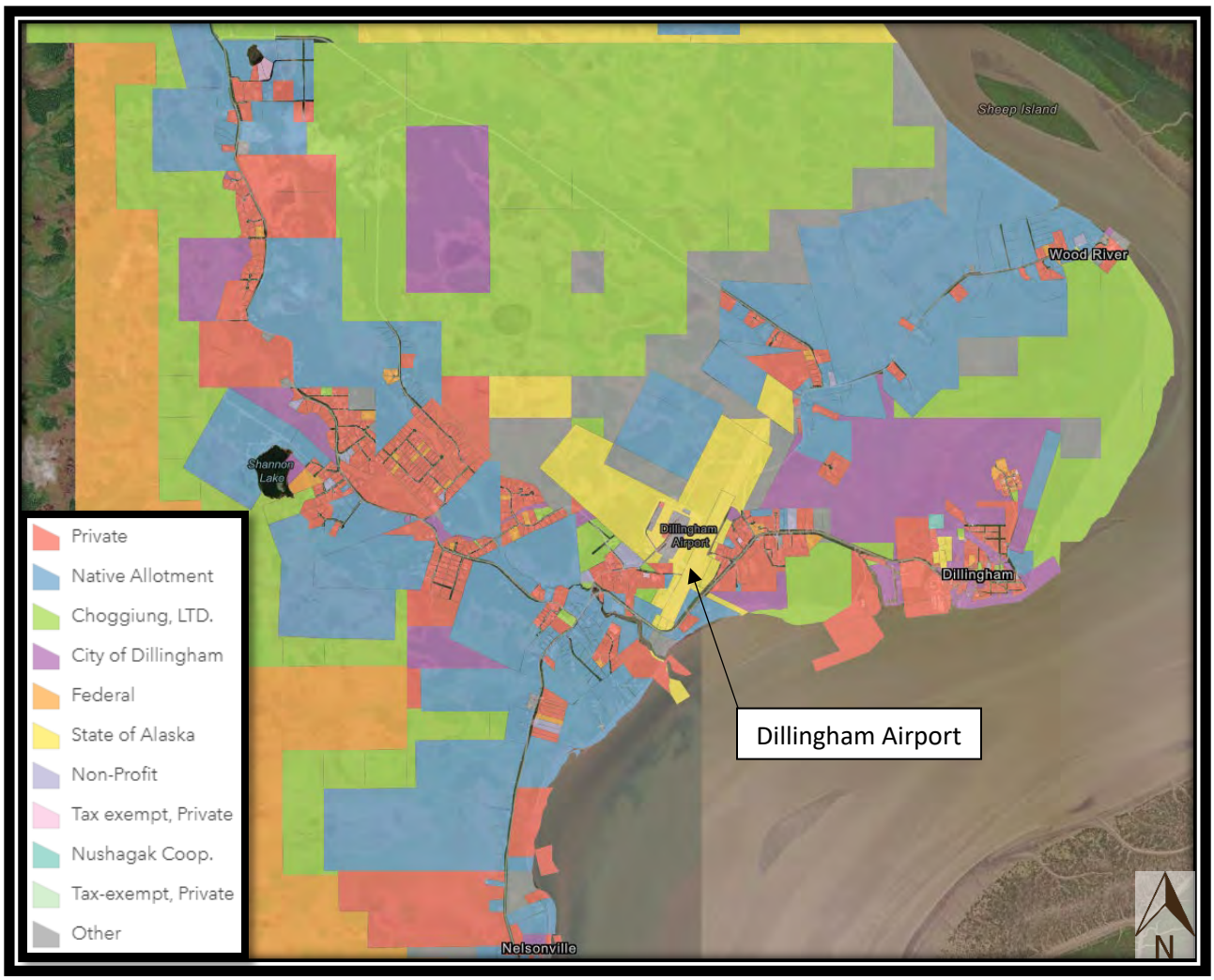


Figure 20: City of Dillingham Land Ownership Map. Source: City of Dillingham Parcels (2021 GIS)

Airport land uses can be classified as either aeronautical (uses directly related to or involved with the operation of aircraft) or non-aeronautical. Non-aeronautical land uses are any airport land use, business, service, or function that is not involved with or directly related to the operation of aircraft. Almost all current land uses on DLG are aeronautical uses, with only the Evergreen Cemetery, long-term parking lot, and an area along the northeast edge of the airport boundary designated as non-aeronautical. The Twin Dragon restaurant (previously hosted on a lot leased by private air operator Grant Aviation, Inc.) was another aeronautical use, but it closed in July 2021. Airport access roads, current lease lot tenants, and airport facilities all are directly for transportation activities, or support aeronautical activities.

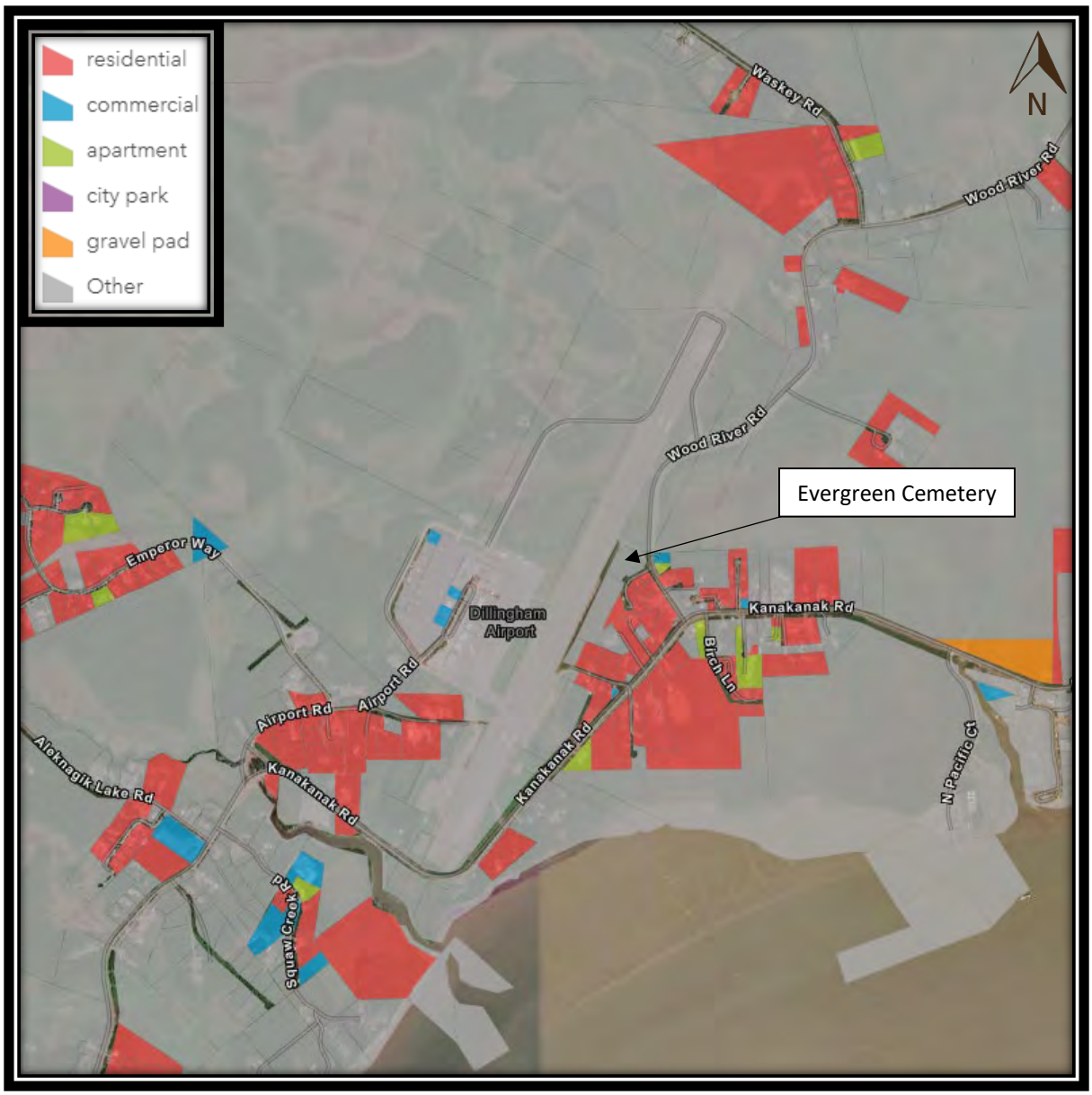


Figure 21: Current Land Use Near DLG. Source: City of Dillingham Parcels (2021 GIS)

Airport Layout Plan (2016)

The 2016 Airport Layout Plan (ALP) includes a Land Use Plan. The Land Use Plan designates areas on and adjacent to airport property for uses based on the ultimate layout identified in the ALP. Aeronautical use areas include aviation use, revenue support, avigation hazard easement, and aviation reserve. Non-aeronautical use areas include non-aviation, commercial mixed use, residential, and no airport interest.

Aviation use areas contain aeronautical facilities and support facilities, including the runway, runway protection zones (RPZs), terminal apron, taxiways, and general aviation apron. Avigation hazard easements are identified south of Runway 1-19 within and around the south RPZs, south of Kanakanak Road, and east of the runway where the Evergreen Cemetery is located. The Land Use Plan recommends acquisition of property north of the Runway 19 end for RPZ protection, expanding airport property and

aviation use area, to contain the existing RPZ within airport property, and to accommodate the ultimate runway length and location. All existing lease lots at DLG are within revenue support designated areas.

A significant portion of DLG property is designated as aviation reserve. This area is west of the building restriction line, GA Apron, and existing lease lots. Aviation reserve areas intend to protect or preserve airport land for future expansion of aviation facilities. Based on the orientation and shape of the airport property boundary and the aviation reserve area in the 2016 ALP Land Use Plan, it is assumed the area was reserved for the potential addition of a crosswind runway; however, the ultimate layout does not include a crosswind runway or any aviation facility expansion into this area. Previous versions of the ALP do show the ultimate development of a crosswind runway in this area. A review of available wind data from 2011 to 2020 supports a crosswind runway sized to accommodate category A-I and B-I aircraft (Table 13). The main runway does not achieve 95% coverage for the allowable crosswind component (10.5 knots) for small aircraft.

Table 13: Wind Data

RW	Crosswind Component:	10.5 kt	13 kt	16 kt
RDC:		A-I/B-I	A-II/B-II	A-III/B-III/C-I through D-III
11/29	ALL WEATHER	90.86%	95.07%	98.26%
11/29	IFR	91.72%	95.45%	98.50%
11/29	VFR	90.57%	94.92%	98.19%

There is a small area south of the General Aviation Apron and west of Airport Road that is categorized for non-aviation revenue. A portion of that area is currently being used as a vehicle parking lot. A second non-aviation revenue area is identified east of Runway 1-19 and west of the existing airport fence and building restriction line that is accessible from Wood River Road. Beyond airport boundaries, the Land Use Plan identifies the commercial mixed-use area where Dillingham residents live and work.

City of Dillingham Land Use Planning

The City of Dillingham Comprehensive Plan was adopted in 2010. It serves as the guiding document for future land development and management in Dillingham, according to community-defined needs and interests. It includes a Land Use Designation Map that outlines the locations of current uses, the general expectations about locations of future development, and includes eight general land use designations (Figure 22).

DLG is classified as Public Lands and Institutions, “PF,” which includes airports. Land surrounding DLG primarily has the Residential Focus designation. This permits low-density, residential use with options for home-based and other businesses compatible with a predominately residential area. Additionally, an area southwest of the northern half of the DLG runway is identified as Commercial Mixed Use on the Land Use Designation Map. This district allows commercial and retail services, with an option for secondary uses including residential. Both the residential and commercial mixed uses reflect a continuation of the current pattern of residential uses adjacent to the DLG property boundary.

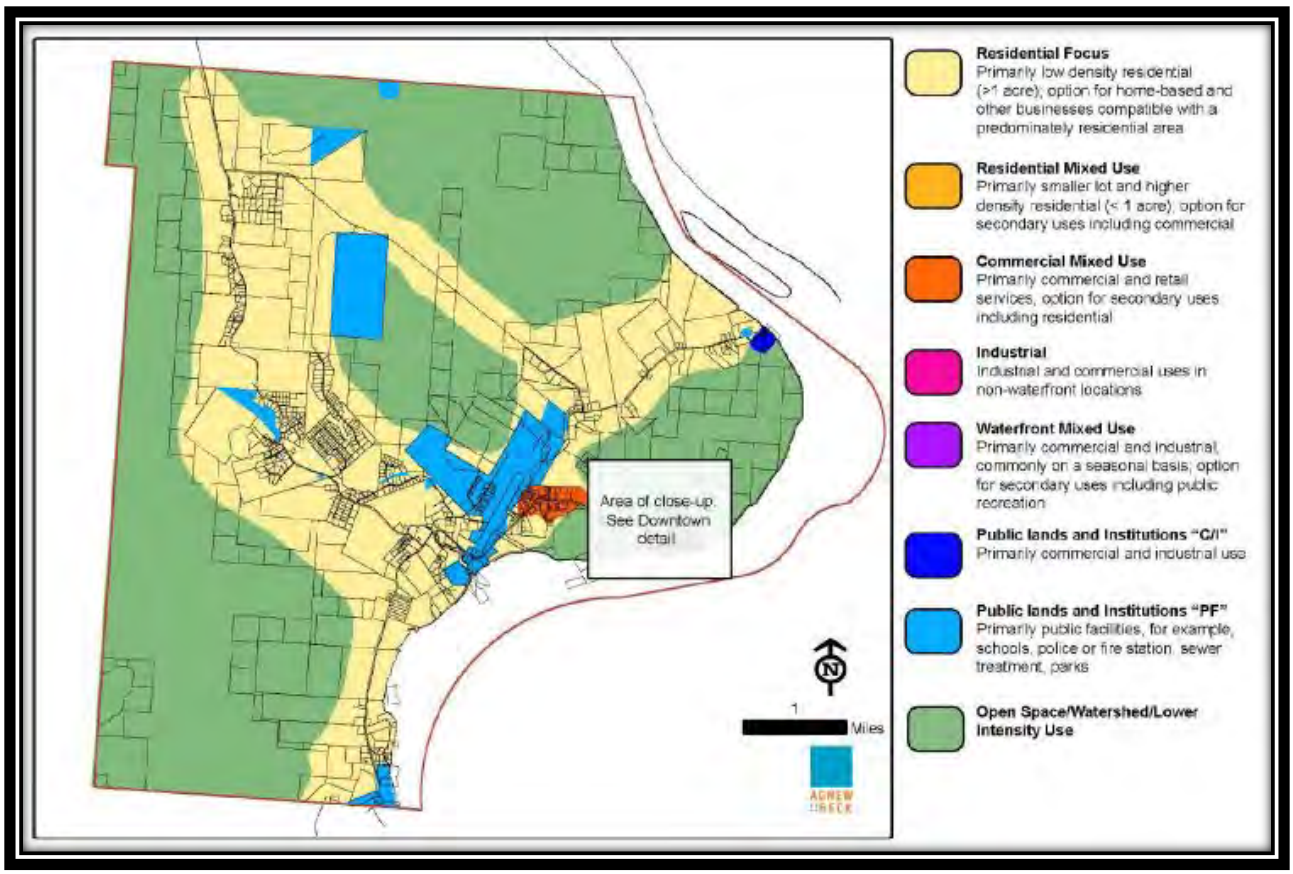


Figure 22: Land Use Designations, City of Dillingham Comprehensive Plan (2010)

Environmental Conditions

The environmental section provides an overview of environmental conditions at Dillingham Airport (DLG), potential environmental impacts of airport development alternatives, and probable permitting requirements.

The Dillingham area occupies outwash plains, low moraines, a few choppy moraine hills, and many muskegs, lakes, and streams. Rolling terraces and moraines primarily have white spruce, paper birch, or black spruce trees and contain well-drained soils without permafrost. The soil consists of silty volcanic ash over very gravelly glacial drift. Slight depressions with sedges and mosses typically have very poorly drained fibrous organic soils with permafrost. Swales in terraces and moraines contain poorly drained silty soils with permafrost. Beneath a thick, peaty mat is mottled gray silt loam. The vegetation associated with this soil is primarily tussocks, mosses, low shrubs, and scattered patches of black spruce.

The following resource categories were considered for the airport property and nearby surrounding parcels. The current aquatic and terrestrial conditions of these categories are described based on available public data and documents.

Aquatic Conditions

Air Quality
Air quality is not monitored in Dillingham, and DLG is not in a non-attainment or maintenance area for air quality. Note that common air quality issues in rural communities are from dust (PM_{10}) due to the number of unpaved roads and driveways, and wood smoke ($PM_{2.5}$) from home heating. There are a number of unpaved roads and driveways in the area around DLG increasing PM_{10} pollution after snow has melted.

Anadromous/Resident Fish Streams
Squaw Creek runs southwest of DLG and is an anadromous stream supporting chinook, chum, coho, pink, and sockeye salmon; and rainbow smelt. The Nushagak River runs south of DLG and is an anadromous stream supporting chinook, chum, coho, pink, and sockeye salmon, Arctic char, and whitefish.

Floodplain and Regulatory Floodway [EO 11988]
The FEMA Flood Map Service Center was consulted for floodplain data; however, no digital data is available for the two flood maps containing DLG (0200410016B & 0200410017B). The U.S. Army Corps of Engineers Floodplain Mapping did not show the presence of a floodplain near DLG.

Habitat-Endangered/Threatened Aquatic Species
Endangered aquatic species with ranges including the area around Dillingham are the blue whale, fin whale, gray whale, humpback whale, Northern Pacific right whale, and sei whale. Ringed seals are the only listed threatened aquatic species.

Navigable Waters
Nushagak River is navigable from the mouth of the river to the village of Koliganek. Wood River is navigable for 24 miles starting from the mouth.

Water Quality
DLG is not connected to the City of Dillingham's community water system. The DNR's Well Log Tracking System notes three wells at DLG: a 100-foot well (U.S. Fish and Wildlife Services), an 80-foot well (Yute), and a 60-foot well (Southwest Air). Water quality data for these wells is not available.

Several drinking water protection area (DWPA) zones originating from wells outside of DLG property are shown overlapping DLG property (Figure 23 and Table 14). Spills and other sources of pollutants originating at DLG could affect water quality within these protection areas.

The Statewide PFAS site reported that ADEC collected ten samples from drinking water wells within and adjacent to DLG property and detected perfluoroalkyl and poly-fluoroalkyl substances (PFAS). Perooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), and perfluorobutane sulfonate (PFBS) were detected in groundwater at the Holy Rosary Church public water system (AK2263018) at a combined concentration of 185.5 ng/L, but the other sites did not indicate concentrations above DEC action levels.

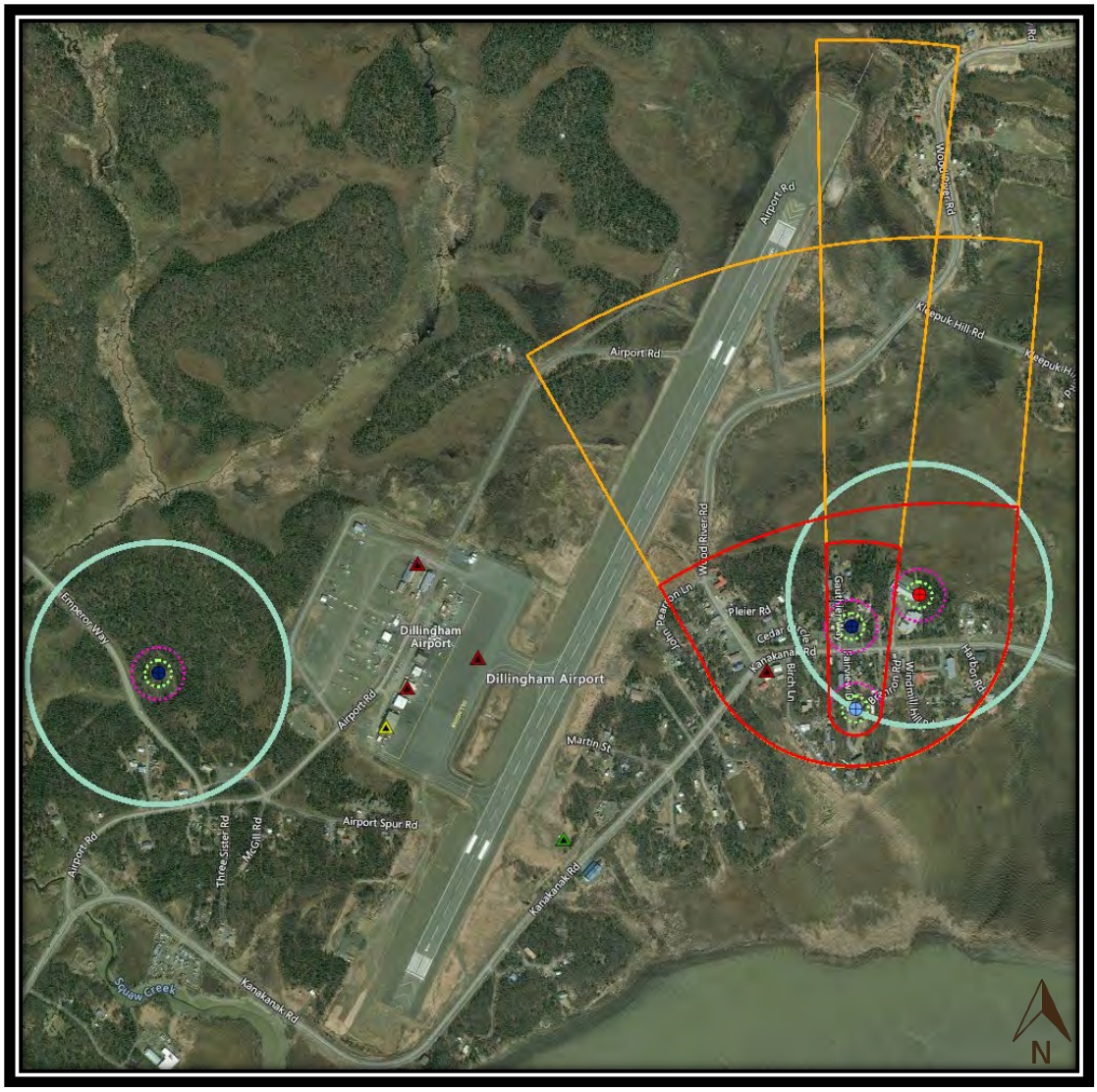


Figure 23: ADEC Drinking Water Protection Area Mapper

Table 14: Drinking Water Protection Area Mapper Legend

Map Object	Notes	Symbol
Community Water System	N/A	
Non-Transient Non-Community Water System	N/A	
Non-Community Water System	N/A	
Zone A	Groundwater: Several months' time-of-travel; or immediate watershed	
Zone B	Groundwater: Two years' time-of-travel; adjacent watershed	
Provisional	Temporary Drinking Water Protection Area in place until full delineation can be completed. 1,000-foot radius around public water system source.	

Wetlands

The USFWS National Wetlands Inventory indicates the presence of extensive wetlands at DLG and the surrounding area (Figure 24). The primary wetland and riparian types are freshwater forested/shrub wetland, freshwater emergent wetland, and riverine.

Figure 24: National Wetlands Inventory Map

Terrestrial Conditions

Contaminated Areas

The Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Database[27] shows contaminated sites on DLG property (Table 15 and Figure 25).

[27] https://dec.alaska.gov/spar/csp/.

Table 15: DLG Contaminated Sites & Status

Site Name	Site Status	Symbol
ADOT&PF Dillingham Airport Maintenance Facility	Active	
ADOT&PF Dillingham Airport Sitewide PFAS	Active	
PenAir Hangar - Dillingham	Active	
Yute Air Terminal Dillingham	Cleanup Complete – Institutional Controls	

Figure 25: DLG Contaminated Areas Map

The ADEC Division of Spill Prevention and Response's PPR SPILLS Database lists recorded spills at DLG. Recent spills and their status are shown in the following table.

Table 16: DLG Recorded Spills

Spill Number	Spill Name	Spill Date	Facility Name	Status
19269918602	Dillingham Airstrip 5gal aviation gas	7/5/19	DLG on Tarmac	Case Closed, No Further Action
19269902801	Bristol Alliance Fuels 5-10gal LL Aviation Fuel	1/28/19	DLG	Case Closed, No Further Action
17269902801	16gal hydraulic spill DOT Dillingham Airport	1/28/17	DLG on Tarmac	Case Closed, No Further Action

Terrestrial and Avian Habitat-Endangered/Threatened Species:
Endangered avian species with ranges including Dillingham are the Steller's eider, short-tailed albatross, and Kittlitz's murrelet. No terrestrial species are listed.

Invasive Species [EO 13751]
There are no known invasive species in the vicinity of DLG.

Migratory Birds and Eagle Nests:
Bald eagles are noted as a bird of concern in Dillingham. They are not endangered but are protected by the Bald and Golden Eagle Protection Act and state regulations. If bald eagle nests are detected within the primary (330 feet) or secondary (660 feet) protection zones stated in the 2007 Bald Eagle Management Guidelines, clearing guidelines should be followed. USFWS recommends avoiding clearing at DLG between March 1 and August 31 for eagles, and land disturbance and vegetation clearing in forested, woodland, shrub and open areas should be avoided between May 1 and July 15. The window for seabird colonies is May 10 to September 15. USFWS supplements this by noting that raptors may nest two or more months earlier than other birds, Canada geese and swans begin nesting April 20, and black scoter may nest through August 10.

Cultural Considerations

Historic Properties, Archaeological and Cultural Resources:
There are no known historic properties or archaeological or cultural resources on DLG property. The Evergreen Cemetery is located within the OFA. Project alternatives must address potential impacts to the Evergreen Cemetery.

State Refuges, National Wildlife Refuges, and Sanctuaries:
There are no state refuges, national wildlife refuges, or sanctuaries in the vicinity of DLG.

Socioeconomic Conditions

Dillingham airport largely serves residents in the Dillingham Census Area, and the wider regions of Bristol Bay Borough and Lake and Peninsula Borough.

Population

Ten communities are in the Dillingham Census Area totaling 4,887 residents in 2019. Population has been stable in recent years, fluctuating between approximately 4,850 and 5,060 residents since the 2010 census. The largest community is Dillingham (population: 2,327), followed by Togiak (873), Manokotak (483), and New Stuyahok (476), and Aleknagik (208). Clark's Point, Ekwok, Koliganek, Portage Creek, and Twin Hills each have populations under 200.

In 2019, the Bristol Bay Borough, located southeast of DLG, was home to 869 residents. Current population levels are about 15% lower than the peak of 1,023 residents in 2011. Out of the three communities, the largest is Naknek (488), followed by King Salmon (301) and South Naknek (80).

The Lake and Peninsula Borough, located south and east of DLG, has also seen relatively stable population levels over the past decade. The 2019 population of 1,622 is comparable to the 2010 census of 1,631 residents. The largest of the 18 communities is Port Alsworth (226), followed by Newhalen (211), and Levelok (157).

Table 17: Population Counts, Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough, 2010-2019[28]

Year	Dillingham Census Area	Bristol Bay Borough	Lake and Peninsula Borough
2010	4,847	997	1,631
2011	4,935	1,023	1,677
2012	4,978	983	1,679
2013	5,025	933	1,700
2014	5,063	943	1,687
2015	5,008	887	1,676
2016	4,958	875	1,642
2017	4,925	892	1,724
2018	5,007	877	1,658
2019	4,887	869	1,622

Population in the Dillingham Census Area has trended higher since the 1970s. Current population levels are slightly lower than the peak observed in 2000 at about 5,000 residents.

After formation of the Bristol Bay Borough in 1962 (the state's first borough), the 1970 census recorded 1,147 residents. Population of 1,410 residents in 1990 represented the peak; by 2010, the population had fallen by 29% (997 residents).

Population in the Lake and Peninsula Borough peaked in 2000 at 1,823 residents before declining about 11% to 1,631 in 2010.

[28] Alaska Department of Labor and Workforce Development

Table 18: Population Counts, Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough, by 1960-2010 Census Year[29]

Census Year	Dillingham Census Area	Bristol Bay Borough	Lake and Peninsula Borough
1970	3,892	1,147	n/a
1980	3,232	1,094	1,384
1990	4,012	1,410	1,668
2000	4,922	1,258	1,823
2010	4,847	997	1,631

Demographics

The majority of residents of Dillingham Census Area and Lake and Peninsula Borough identify as American Indian/Alaska Native alone or in combination with other races (78.5% and 71.6%, respectively), followed by White alone or in combination with other races (23.3% and 27.9%, respectively). The majority of residents in the Bristol Bay Borough identify as white alone or in combination with other races (63.7%), followed by American Indian / Alaska Native (41.3%).

Table 19: Population by Race, Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough, Percent of Population, 2014-2018 5-Year Estimates[30]

Race (Alone or in Combination)	Dillingham Census Area	Bristol Bay Borough	Lake and Peninsula Borough
American Indian or Alaska Native	78.5	41.3	71.6
White	23.3	63.7	27.9
Asian	2.3	1.6	4.4
Black or African American	2.0	0.9	0.7
Native Hawaiian or Pacific Islander	0.4	0.7	1.5
Some Other Race	0.7	0.9	0.1

In Dillingham Census Area, about 27% of the population are under age 15 (2019); this portion of the population in similar in the Lake and Peninsula Borough (26%). In Bristol Bay Borough, residents under age 15 represented 17% of the population. Dillingham Census Area and Lake and Peninsula Borough population age 65 and older represented 10% and 11%, respectively. In Bristol Bay, residents age 65 and older made up 14.2% of the population.

[29] Alaska Department of Labor and Workforce Development.
[30] Alaska Department of Labor and Workforce Development.

Table 20: Population by Age Cohort, Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough, 2019[31]

Age	Dillingham Census Area	Bristol Bay Borough	Lake and Peninsula Borough
0-4	9.1%	6.6%	9.6%
5-9	9.7%	5.8%	8.2%
10-14	8.5%	4.5%	7.8%
15-19	6.9%	6.4%	6.4%
20-24	6.8%	4.7%	5.7%
25-29	8.4%	6.8%	7.4%
30-34	6.6%	8.2%	8.3%
35-39	6.2%	5.3%	7.6%
40-44	4.0%	4.8%	5.3%
45-49	4.5%	6.6%	3.6%
50-54	5.8%	4.7%	5.5%
55-59	6.7%	10.8%	7.6%
60-64	6.8%	10.8%	6.6%
65-69	4.2%	6.8%	5.1%
70-74	2.2%	2.8%	2.2%
75-79	1.8%	2.4%	1.4%
80-84	1.1%	1.3%	1.1%
85-89	0.4%	0.7%	0.6%
90+	0.2%	0.1%	0.1%

Males make up most of the population in Dillingham Census Area (51.7%), Bristol Bay Borough (59.1%), and Lake and Peninsula Borough (51.6%).

Table 21: Current Population by Sex, Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough, 2014-2018 5-Year Estimates[32]

Sex	Dillingham Census Area	Bristol Bay Borough	Lake and Peninsula Borough
Male	51.7%	59.1%	51.6%
Female	48.3%	40.9%	48.4%

The median annual household income was $58,750 in Dillingham Census Area, $84,688 in Bristol Bay Borough, and $46,406 in Lake and Peninsula Borough. Persons living below the poverty level represented 17.2% of the Dillingham Census Area population, 5.8% of the Bristol Bay Borough population, and 15.9% of the Lake and Peninsula Borough population.

[31] Alaska Department of Labor and Workforce Development.
[32] Alaska Department of Labor and Workforce Development.

Table 22: Income and Poverty, Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough, 2014-2018 5-Year Estimates[33]

Income/Poverty Indicator	Dillingham Census Area	Bristol Bay Borough	Lake and Peninsula Borough
Median Household Income:	$58,750	$84,688	$46,406
Mean Household Income	$72,873	$99,525	$60,837
Median Family Income:	$59,519	$98,475	$48,984
Mean Family Income	$75,930	$105,765	$66,199
Persons Below Poverty (% of population)	17.2%	5.8%	15.9%

Employment and Economy

Dillingham Census Area had an annual average of 2,600 jobs in 2018. Employment in Bristol Bay Borough totaled 1,314 jobs, and 1,004 jobs in Lake and Peninsula Borough.[34] The economic base of the region is highly seasonal and predominantly driven by the harvest and processing of Bristol Bay salmon. Employment rises in the summer, often ten times larger than in the winter, driven primarily by fishing. Other summer seasonal employment includes construction, mineral exploration, and other activities.

The City of Dillingham is the center of economic, transportation, government, public and social services in the area.

The public sector is a key employer for the region, accounting for about 29% in Dillingham Census Area, 17% of employment in Bristol Bay Borough, and 44% in Lake and Peninsula Borough. Local government is the largest component of the region's public sector, followed by state and federal employment.

Educational and health services is another key sector. While sector data are withheld for Bristol Bay Borough and Lake and Peninsula Borough (due to confidentiality concerns), the sector contributes nearly a quarter of total employment in the Dillingham Census Area. Employment in the sector includes a variety of outpatient, nursing and residential care, and social assistance organizations with Kanakanak Hospital in Dillingham (operated by the Bristol Bay Area Health Corporation) supporting most employment.

Retail businesses serve residents year-round or seasonally in the summer to support the busy summer months. Of the three regions, retail employment in the Dillingham Census Area is the highest at 201 jobs.

The region's leisure and hospitality sector is composed primarily of accommodations, restaurants, and bars. In addition to businesses located in hub communities of Dillingham or King Salmon, the sector includes employment at sport fishing lodges.

A variety of other sectors contribute to employment in the region, including professional & business services, transportation & warehousing, financial activities, and information, among others.

[33] Alaska Department of Labor and Workforce Development.
[34] These employment figures do not include the self-employed, such as fishermen.

Table 23: Employment by Sector in Number of Jobs, Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough, 2018[35]

	Dillingham Census Area	Bristol Bay Borough	Lake and Peninsula Borough
Educational & Health Services	628	*	*
Local Government	620	158	394
Retail	201	*	30
Leisure & Hospitality	92	120	123
State Government	85	24	6
Transportation & Warehousing	74	85	118
Federal Government	44	46	44
Professional & Business Services	29	28	10
Construction	*	*	38
Other	1,455	853	241
Total	**2,600**	**1,314**	**1,004**

* indicates withheld data.

Commercial Fishing Activity

In the Dillingham Census Area, resident commercial permit holders have fluctuated slightly between 2012 and 2019 (high of 621 in 2012 and a low of 595 in 2015). Active permits (number of permit holders who fished) ranged between 407 (2016) 419 (2014).

In the Bristol Bay Borough, resident commercial permit holder levels are stable (fluctuating between 148 and 157) between 2012 and 2018; active permits ranged from 126 (2017) and 142 (2014).

In the Lake and Peninsula Borough, the number of resident commercial permit holders has fallen from 140 in 2012 to 121 in 2018; active permits also fell from 114 in 2012 to 72 in 2018.

[35] Alaska Department of Labor and Workforce Development.

Table 24: Residents' Commercial Fishing Participation and Earnings, Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough, 2012-2018[36]

	Number of Permit Holders	Number of Permit Holders that Fished	Estimated Gross Earnings ($million)[37]
Dillingham Census Area			
2012	615	412	$13.7
2013	621	418	*$16.0*
2014	609	419	$20.3
2015	595	411	*$10.9*
2016	600	407	*$20.1*
2017	599	415	$28.8
2018	604	416	*$33.3*
Bristol Bay Borough			
2012	155	128	*$6.1*
2013	157	137	$5.8
2014	154	142	*$10.8*
2015	153	141	*$5.4*
2016	154	138	*$6.8*
2017	152	126	$8.3
2018	148	131	$9.7
Lake and Peninsula Borough			
2012	140	114	$12.7
2013	135	108	$19.6
2014	124	104	$9.3
2015	126	106	$8.3
2016	124	104	$10.5
2017	129	112	$14.3
2018	121	72	$5.0

In the Dillingham Census Area, there are three onshore fish processing facilities and several floating facilities east of Dillingham in Nushagak Bay and several more near Togiak and in different locations within the Bristol Bay Borough and the Lake and Peninsula Borough.

Historical Aviation Activity

The following section discusses recent historical aviation activity at DLG.

General Aviation and Military Operations

The FAA publishes a forecast of aviation activity for U.S. airports called the Terminal Area Forecast (TAF). The TAF dataset for DLG shows that 10,986 general aviation operations and 11 military operations occurred in 2019; however, some caution should be exercised in use of these data. The primary purpose

[36] Commercial Fisheries Entry Commission.
[37] Italicized values exclude confidential data.

of the TAF is to establish and predict budget and manning levels for the Air Traffic Organization (ATO), which is primarily related to towered airports. Forecasts are less detailed at airports with fewer than 100,000 annual enplanements, and DLG is a non-towered airport with fewer than 100,000 enplanements. Additionally, the general aviation and military operations data have not been updated in the TAF since 2007.

Air Cargo

Following a period of weak or negative reported growth rates for freight volumes from 2010 to 2013, volumes increased significantly afterward, with the period between 2016 and 2018 showing the largest total volume increases. The primary explanatory factor for the decline earlier in the decade is the Great Recession that followed the 2008 Financial Crisis.

Additionally, while incoming freight volumes were higher than outgoing volumes between 2010 and 2016, outgoing freight volumes overtook incoming volumes between 2017 and 2019 (Figure 26).

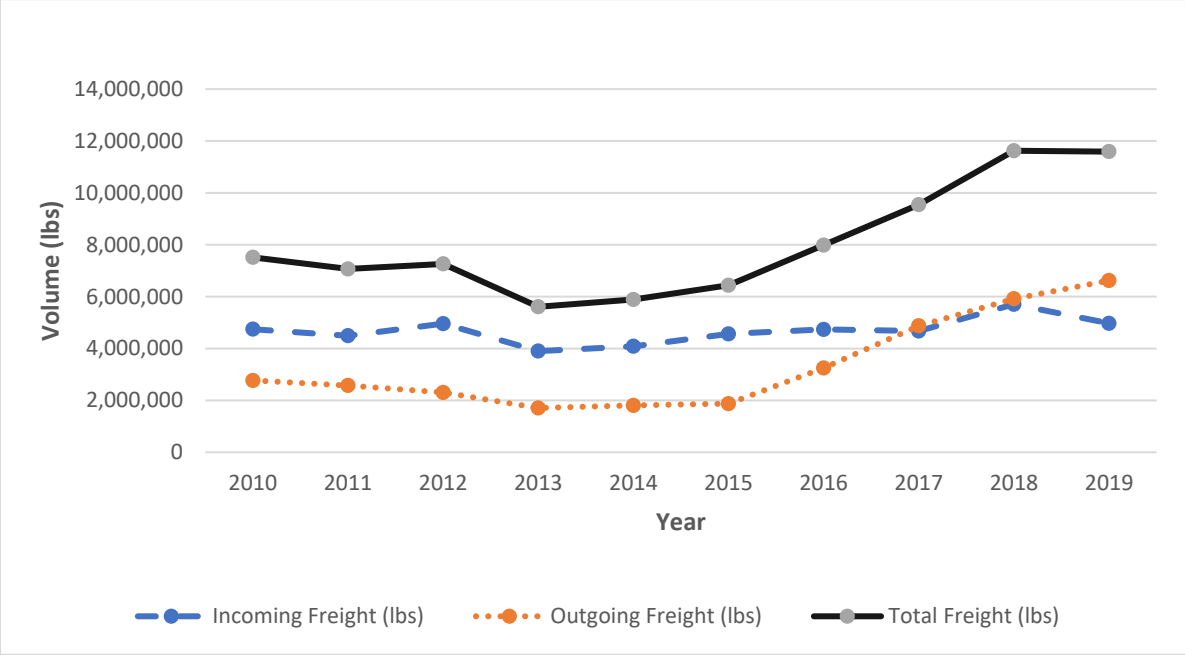


Figure 26: DLG Total Freight Summary, 2010-2019[38]

Reported mail volumes have continued to decrease annually from the period between 2010 to 2018, with 2015 and 2017 experiencing the largest annual decreases (-14.20% and -17.47% respectively), (Figure 27).

[38] Bureau of Transportation Statistics: T-100 Domestic Segment, 2010-2019.

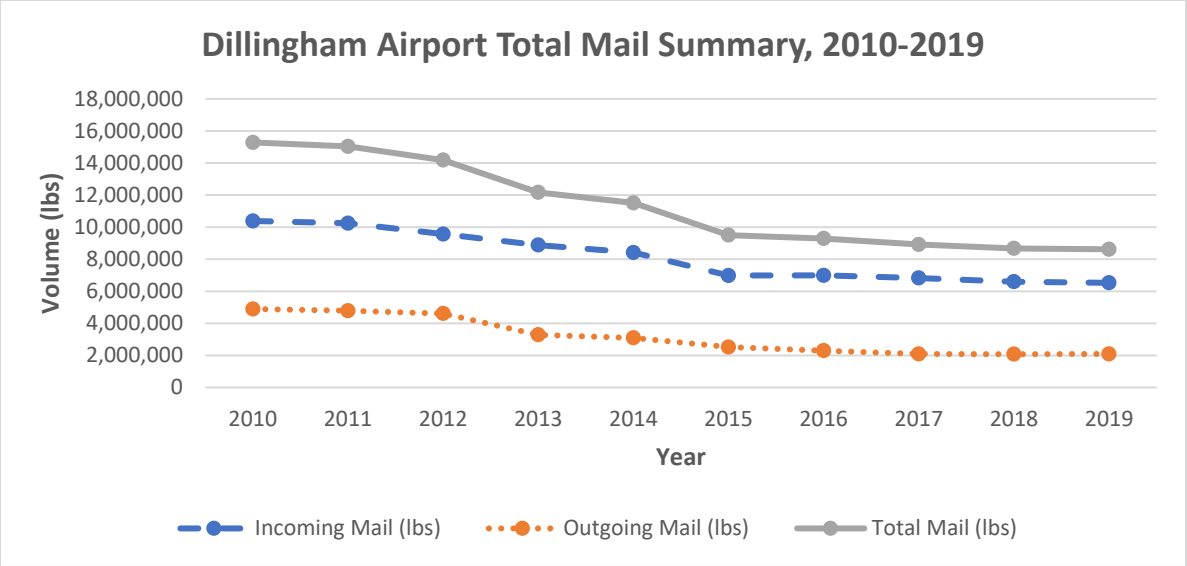


Figure 27: DLG Mail Summary, 2010-2019

Passenger Volumes

Figure 28 shows commercial passenger volumes at DLG from 2010 to 2019, as reported by air carriers who filed with the Bureau of Transportation Statistics (BTS). The BTS T-100 dataset records operations and enplanement data for U.S. airports. Reliability of this data source is affected by the fact that passenger activity is not consistently reported by all air carriers; passenger volumes may be higher than are reported in the T-100 dataset.

Following a period of declining reported passenger activity from 2010 to 2013 and 2014 to 2015, the total reported passengers have continued to increase for the period between 2015 and 2019, with the most significant annual growth in 2018 (10.60%).

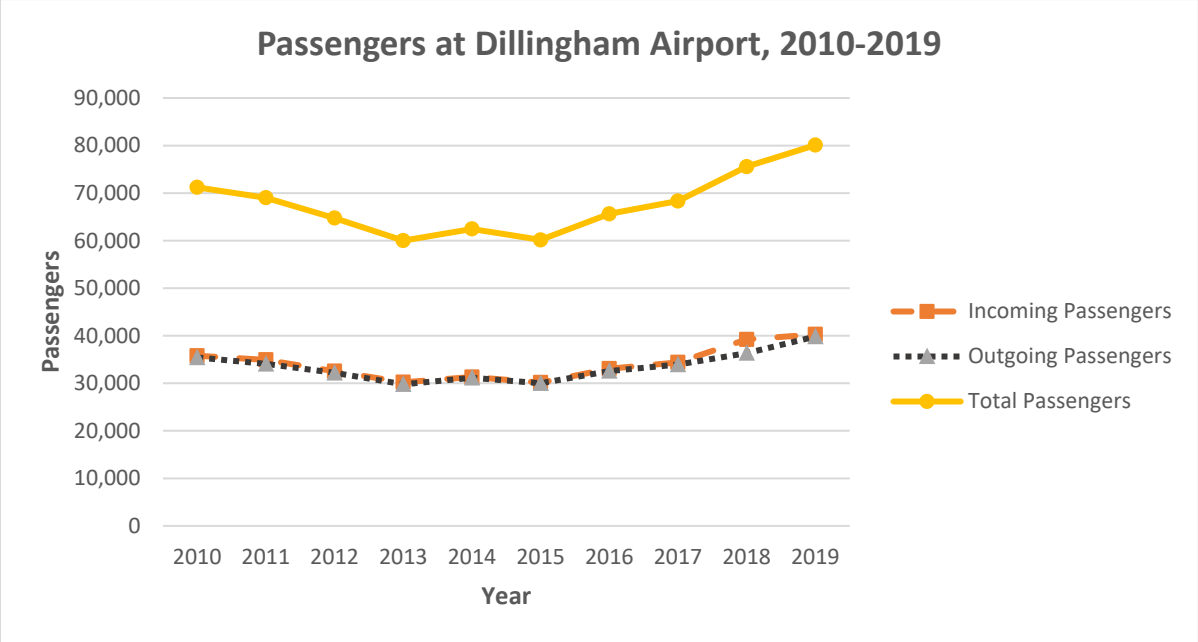


Figure 28: Total Passengers at DLG, 2010-2019

Financial Data

Airport Business Model

DLG is state-owned and managed, subject to capital allocations from federal funding administered (and partially matched with state funds) by DOT&PF. DLG typically operates at a large financial deficit. For example, according to financial data provided by DLG, 2020 revenue totaled $12,680 while operating expenses were $976,138.

Operating Revenues and Expenses

From fiscal years (FY) 2018-2020, leasing made up a large portion of revenues, ranging from 43% of total revenue in FY2018 to 75% in FY2020. Annual revenue (FY2017-FY2020) also included charges for services, such as badge fees, finger printing, and security, ranging from 12% in FY2020 to 62% in FY2017. Revenues for inter-agency activities were highest in FY 2017 (30%) and FY 2018 (30%).

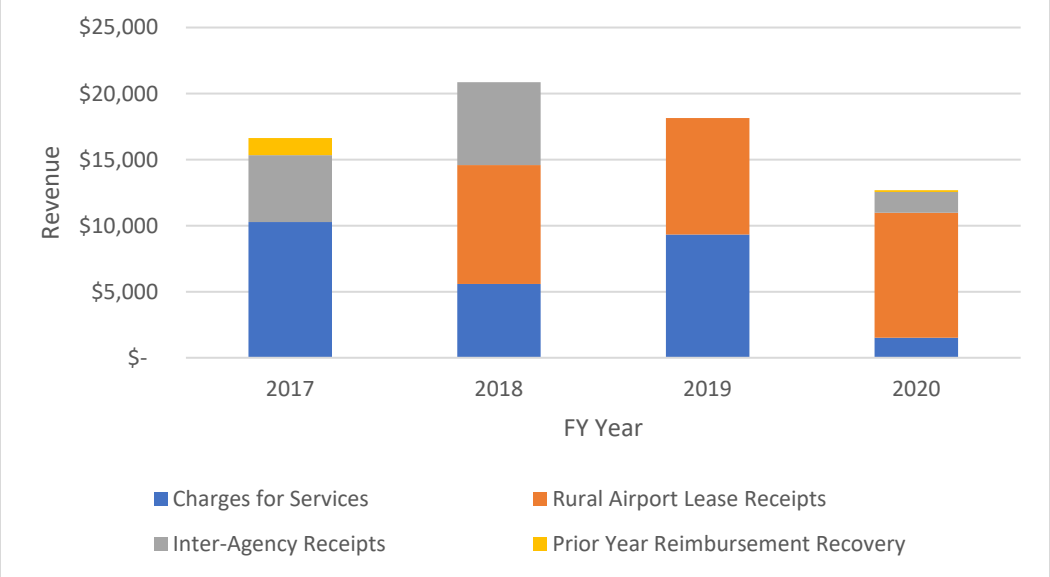


Figure 29: DLG Revenues by Type of Source, Fiscal Years 2017-2020

Personnel expenses are the highest portion of operational costs, averaging 53% of total expenses (or $546,650) between FY2017 and FY2020. Maintenance costs averaged 19% (or $195,985). The decrease by 32% of total expenditures between FY 2018 and FY 2019 was due to significant reductions in personnel, maintenance, and “other expense” categories. No expenditures related to debt service were reported.

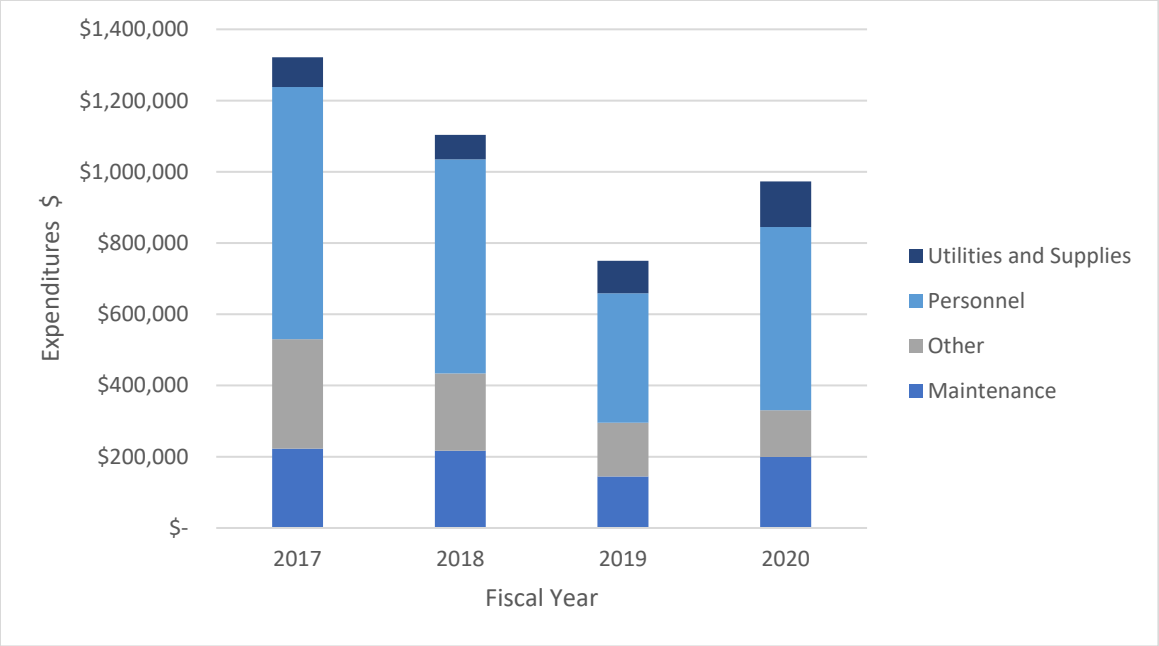


Figure 30: DLG Budgetary Expenditure by Category, Fiscal Years 2017-2020

Capital Funding

Federal Aviation Administration – Airport Improvement Program

Established in 1982, the FAA Airport Improvement Program (AIP) is the primary Federal funding source for national airport infrastructure development. Categories of AIP-eligible projects include: airport planning, airport development, land acquisition, and noise abatement program implementation. Airports listed in the current NPIAS are eligible for AIP funding.

Funding is distributed through entitlement grants and discretionary grants. Entitlement grants are apportioned based on a formula related to passenger and cargo traffic. DLG is listed in the NPIAS and is eligible for Passenger Entitlement Grants. Grant levels per passenger are based on the total appropriate AIP funding, with grant amounts increasing if total appropriations are above $3.2 billion. In FY2019, the AIP awarded $3.32 billion in entitlement and discretionary grants. DOT&PF is allowed to pool its entitlement funding for projects in Alaska's rural airport system, which includes DLG. In the past five years, DLG received $468,750 in AIP funds to update the Airport Master Plan Study (2018), $2,864,074 to install perimeter fencing and access-controlled gates (2018), and $9,572,170 to rehabilitate runways (2017).[39]

Airports with more than one million pounds of landed air cargo annually are eligible for Cargo Entitlement Grants. With less than one million pounds of landed air cargo, DLG does not qualify for Cargo Entitlement Grants.

States are additionally apportioned 18.5% of available AIP funding less the total nonprimary entitlements. Alaska airports are apportioned a supplemental entitlement grant which is either $10.7

[39] FAA, AIP Grants Awarded by State, FY2016-2020 (https://www.faa.gov/airports/aip/grant_histories/)

million or $21.3 million depending on total Federal AIP availability.[40] In FFY2019, Alaska's state supplemental apportionment totaled $34.0 million.[41] AIP funding above entitlement grant distributions is apportioned as discretionary grants.

Grant recipients, referred to as sponsors, are generally public or private entities owning a public-use airport, including state governments. The State of Alaska DOT&PF receives the majority of AIP funding for Alaska airports because of the large number of airports that are owned by the state. As the owner of DLG, the State of Alaska acts is airport's AIP sponsor.

AIP funding requires a sponsor match based on airport classification (size) and Essential Air Service (EAS) status.[42] In state fiscal year (SFY) 2019 and 2021, annual federal AIP funding to the Alaska Rural Airport Program was $140 million with $11.1 million in state matching funds.[43] Additional AIP funding is used for projects within the Alaska International Airport System (AIAS) and is not available for Rural Airport Program projects. The Federal Coronavirus Aid, Relief, and Economic Security (CARES) Act increased AIP grant funding to 100% of project cost, removing the sponsor match requirement for FFY2020.[44] In FY2021, the sponsor match shifted to the American Rescue Plan Match (ARPM).

Alaska AIP Spending Plan

DOT&PF maintains a list of needed projects and scores projects based on criteria identified by the Aviation Project Evaluation Board (APEB). These "project nominations" are then reviewed and scored by the APEB, which ranks projects and creates an AIP Spending Plan, outlining state priorities for AIP funding. In Alaska, airfield improvements are ranked based on 16 criteria (Table 25).

Table 25: Airfield Criteria

• Safety	• Aviation alternatives
• Health and quality of life	• Community transportation alternatives
• Economic benefits	• Runway length
• Community support	• Runway surface conditions
• Community maintenance/operations contribution	• Aviation hazards
• Local capital contribution	• Erosion/flooding
• Maintenance and operations priority	• Cost effectiveness
• Security/certification	• Other factors

Airport building evaluation is based on seven weighted criteria (Table 26).

[40] Federal Aviation Administration, Office of Airports. *Federal AIP Handbook*. https://www.faa.gov/airports/aip/aip_handbook/?Chapter=4.
[41] https://www.faa.gov/airports/aip/aip_supplemental_appropriation/2019/media/FY-2019-Regular-AIP-and-Supplemental-Funding-by-State.pdf
[42] The majority of rural airport projects in Alaska require a 6.25% sponsor match. Federal Aviation Administration, Office of Airports. Federal AIP Handbook. https://www.faa.gov/airports/aip/aip_handbook/?Chapter=4
[43] State of Alaska, Office of Management and Budget.
[44] Federal Aviation Administration, Airports. *2020 CARES Act Grants*. https://www.faa.gov/airports/cares_act/#:~:text=The%20CARES%20Act%20provides%20funds,percentage%20of%20the%20project%20costs.

Table 26: Building Criteria

• Structure safety	• Airfield Safety
• Need for building improvements	• Land ownership
• Airport project conditions	• Other factors not previously considered
• Weather conditions	•

Equipment evaluation is based on eight weighted criteria (Table 27).

Table 27: Equipment Criteria

• Equipment Age	• Equipment operational safety
• Hours or miles	• Existing equipment inventory
• Mechanical or operating condition	• Equipment options in the event of equipment failure
• Changes in airfield conditions and needs	• Other factors not evaluated

Appendix A: Site Visit Summary

DLG SITE VISIT SUMMARY

Dillingham Airport Master Plan Update

Date: May 18, 2021 |

Location: Dillingham Airport, Dillingham, AK |

Attendees

Name	Role	Organization
Jessica Wuttke-Campoamor	Agency Project Manager	DOT&PF
Van Le, AICP	Consultant Project Manager	R&M Consultants, Inc.
Matt Majoros, PE	Project Engineer	R&M Consultants, Inc.
Ben Coleman, AICP	Planner	R&M Consultants, Inc.

Summary

Jessica, Van, Matt, and Ben chartered a flight from Anchorage to Dillingham Airport (DLG) to meet with John Taylor, DOT&PF's DLG manager, and examine airport conditions in support of the Airport Master Plan (AMP) update.

Upon arrival, the attendees interviewed John to (1) get his perspective on existing conditions, (2) solicit airport needs, and (3) discuss potential solutions to address as project alternatives. The topics discussed and key information gained were:

Facility/Feature	Comments
Hangars (quantity, type, use)	- Hangars on lease lots are not DOT-maintained.
Aircraft tie-downs	- Occupied tie-downs can max out, especially around June. - Permanent power sources available at some perimeter tie-downs, but not interior tie-downs. Many pilots bring their own generator and wouldn't want to pay the electricity cost of having a permanent connection. There have been no inquiries from pilots. - Better to keep on the perimeter—interior sources could make winter maintenance more difficult.
Flight schools	- There are currently one or two people who provide flight lessons. - Typically, not very busy
Pilot shop(s)/ aviation maintenance areas	- Bay Air and Freshwater provide maintenance services. Alaska Pride Air is known as the unofficial "chop shop." - There could be sufficient demand for a designated space for a mechanic to set up shop. - Used to be a mobile mechanic working out of van.
Terminal buildings	- Need for improvements, but only if additional maintenance capacity is added. - New gates in 2019
Aircraft parking/ apron area	- Space for medevac aircraft usually reserved next to FSS building. - The northern end of the main apron is often fully occupied by corporate jets in the summer. More space for transient aircraft parking is needed. Possibility to extend the main apron north for hangar or tie down space, but the ground is difficult to construct on (wetlands). - Main apron has grading issues. - DOT&PF Statewide Maintenance pushing for T-hangars
Non-aeronautical uses	- Existing demand for more restaurant/concession space, or at least vending machines.

	- D&J rentals provides car rental service, but is off airport property. There may be demand for car rental service at the airport, if there was a protected space. - Issues with stolen gas in long-term parking area; many Facebook complaints. o Possibility to garnish PFDs to incentivize owners to remove vehicles before 30-day limit.
Air cargo buildings & freight support functions	- Icicle Seafoods may look into cold storage - Peter Pan did not express the same level of interest
Aircraft fuel storage	- Table of fuel storage at DLG provided. - Airport requirement for quarterly inspections for sellers
Airport maintenance facilities & equipment	- If a gravel strip is built for General Aviation (GA) aircraft, another grater will be needed. - Sand storage facility is 30 years old and the doors often break—past useful life for CIP project. - Firefighting & snow removal equipment listed in AASP. - Snowblowing north side of TW C and GA Apron blows snow onto parallel road to the north.
Airport administrative areas & FAA facilities	- Update badging computer station.

Airport lighting system	- Taxiway & runway lighting was updated 2003 and in bad shape.
	  o 10-year useful life per FAA
	- Need to decide whether to provide temporary fix (approx. $1M) before runway shift (if that is the preferred alternative) then a permanent upgrade afterward, or wait until after a shift project to do any lighting updates.
	  o FAA may not pay for lighting twice.
	- Difficulty finding skilled electricians who do repairs properly. Possibility of sending Anchorage electricians to help service rural airports.

Runway & taxiways	- TW A repaved and TW B crack sealed recently. - Ponding north of TW B near main apron. - Thaw wires are useful in culverts; Add thaw wire to RW 19 end culvert. - Discussed possibility of gravel GA runway (either crosswind or parallel). - Parallel taxiway necessary to improve operational efficiency.
Visual & navigational aids	- Is VASI going away? - AWOS: proximity to trees is affecting wind direction accuracy. Needs clearing within 500 feet. - Upgrade recently on AWOS. - Possibility for precision approach system? (Very foggy in the winter). - Incorporate into RSA practicability study—updating NAVAIDs - FAA to get rid of ODALS? Broken for two years. - Visibility ceiling minimum 500 feet
Utility availability	- The sewer system is sinking in one area, causing regular backups. - Electricity meets current needs, and DLG staff and FSS have backup generators. - Transformers have sunk into the ditch and need to be reconstructed. Nushagak Electric & Telephone's responsibility. - No natural gas lines. - Connection to city water system needed; mitigates potable water issue from wells, especially with prior (and potential future) spills. PFAS in water.
Industrial, toxic, and solid waste, generation, & disposal system	- Barged out, but service is not regular (arrives at DLG, but difficult to dispense with). - Renee will provide additional information.
Recycling & solid waste minimization plans	- Renee will provide additional information.

Fencing, gates, access to airport property	- Discussed possibility of unsecured GA side (if gravel RW is built) and secured commercial side. - Gates: not working properly when photo lens was covered in frost. - Medevac complaints over time-delayed gate opening (~30 seconds). - Interior perimeter road would be useful due to prevalence of wetlands—some fence areas not accessible by vehicle.
Deicing	- Urea-based; liquid and solid (pellets) used.
Airport & non-airport conflicts	- One building encroachment - Wood River Road: utilities already shifted, but road needs to be realined.

Following the interview, John escorted the project team around DLG to observe and document airport facility conditions. Key observations not previously discussed included:

- Much of the fencing is difficult to access due to the presence of water and/or the steep grades south and southeast of Runway 1-19.
- Presence of heaving land beyond the settling runway embankment to the north and west of Runway 1-19.
- Wind blowing across gravel area north of Runway 1-19 has created visible heaving.
- Significant culvert disrepair west in several locations west of GA apron.
- Year-round water flow through east-west culverts under Runway 1-19.
- Several junk cars in long term parking.

Appendix B: Airport Layout Plan (2016)

U.S. Department
of Transportation
**Federal Aviation
Administration**

Alaskan Region Airports Division

222 W. 7th Avenue, #14
Anchorage, Alaska 99513-7587
Tel. (907) 271-5438 / Fax (907) 271-2851

October 6, 2016

Jessica Wuttke
ADOT&PF Central Region
P.O. Box 196900
Anchorage, AK 99513-7587

Dear Ms. Wuttke:

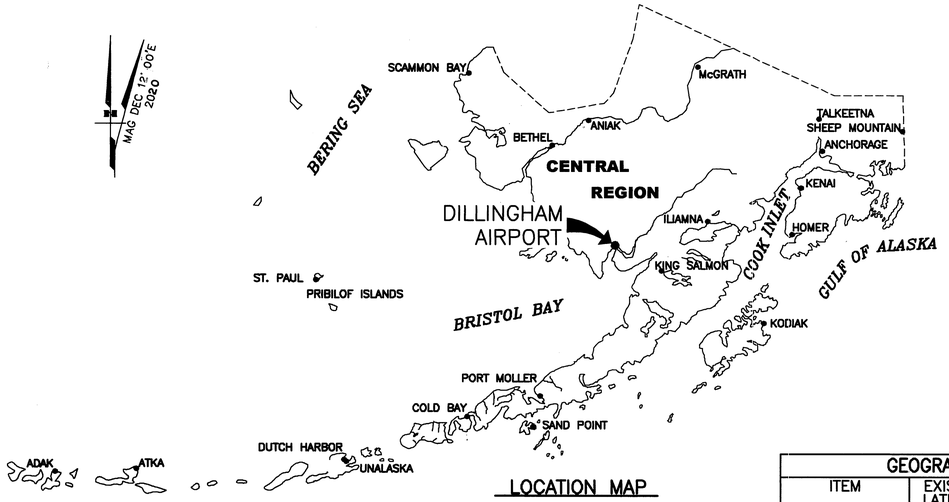
Dillingham Airport
Dillingham, Alaska
As-Built Airport Layout Plan (September 2016)
(Original ALP Airspace #2012-AAL-68-NRA)

We have completed our review of the Dillingham Airport As-Built Airport Layout Plan (ALP) dated September 2016, and find it acceptable for documenting the existing conditions of the airport.

Please attach this letter to the enclosed ALP and retain it in your files for future use

Sincerely,

Pat Zettler, P.E., Lead Engineer
Airports Division

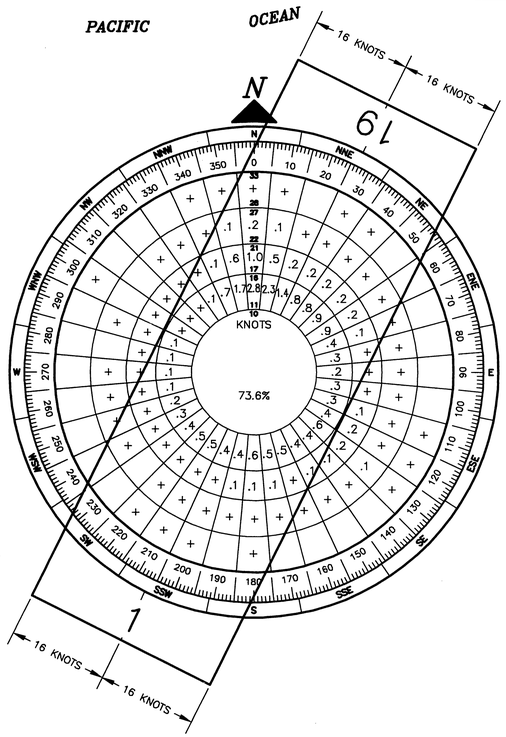


LOCATION MAP

LEGEND		
ITEM	EXISTING	ULTIMATE
AIRPORT REFERENCE POINT (ARP)		
ANTENNA		
BLUFF		
BUILDINGS		
BUILDING RESTRICTION LINE (BRL)		
FENCE		
PAPI		
PROPERTY LINE		
REIL		
ROADWAYS		
ROTATING BEACON		
SHORELINE		
SURVEY MONUMENT		
THRESHOLD MARKERS/LIGHTS		
TOPOGRAPHIC CONTOURS		
TREE (LARGE SINGLE)		
TREELINE		
VASI		
WIND CONE		
WIND CONE AND SEGMENTED CIRCLE		

AIRPORT DATA		
ITEM	EXISTING	ULTIMATE
ICAO IDENTIFIER	PADL	PADL
NATIONAL AIRPORT IDENTIFIER	DLG	DLG
FAA SITE NUMBER	50153.*A	50153.*A
AIRPORT ELEVATION NAVD88	82	84
AIRPORT REFERENCE CODE	C–III	C–III
MEAN MAX. TEMPERATURE, HOTTEST MONTH	62.5'F, JULY	62.5'F, JULY
AIRPORT AND TERMINAL NAVIGATION AIDS	VOR, DME, DF, NDB ROTATING BEACON, LOCALIZER	VOR, DME, DF, NDB ROTATING BEACON, LOCALIZER
TAXIWAY LIGHTING/MARKING	MITL	MITL
OBSTRUCTION SURVEY SOURCE & TYPE	ASCG, 2002, TOPO	ANAPC
MAGNETIC DECLINATION, YEAR, RATE OF CHANGE	12°00'E / 2020	–0°14'(W) / YEAR

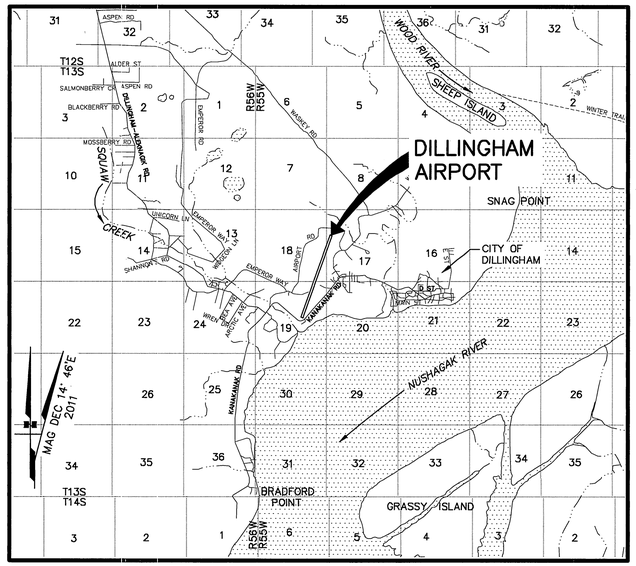
GEOGRAPHIC COORDINATES TABLE				
ITEM	EXISTING LATITUDE	EXISTING LONGITUDE	ULTIMATE LATITUDE	ULTIMATE LONGITUDE
ARP	59°02'40.83"N	158°30'19.84"W	59°02'43.26"N	158°30'20.70"W
THRESHOLD RW 1	59°02'12.62"N	158°30'47.13"W	59°02'13.28"N	158°30'49.69"W
THRESHOLD RW 19	59°03'09.04"N	158°29'52.55"W	59°03'13.24"N	158°29'51.70"W



WIND DATA TABLE				
RUNWAY	10.5 kt	13 kt	16 kt	20 kt
1/19	93.9	97.0	98.9	

SOURCE: WIND STUDY 1992–1999, CONDUCTED BY ENRI, UNIVERSITY OF ALASKA–ANCHORAGE CLIMATE CENTER.

PERIOD: 1992–1999



VICINITY MAP

SEC. 17,18,19,20 T 13 S, R 55 W,
SEWARD MERIDIAN
U.S.G.S. DILLINGHAM (A–7), ALASKA

SCALE IN STATUTE MILES
1 SM .5 SM 0 1 SM 2 SM

RUNWAY 1/19 DATA			
ITEM	EXISTING	EXISTING	ULTIMATE
RUNWAY TYPE UTILITY OR OTHER THAN UTILITY	OTHER THAN UTILITY	OTHER THAN UTILITY	OTHER THAN UTILITY
FAR PART 77 APPROACH CATEGORY (V, NPI, P)	NPI	NPI	NPI
APPROACH SURFACES	34:1	34:1	34:1
VISIBILITY MINIMUM	1 SM	1 SM	1 SM
RUNWAY SURFACE	ASPHALT GROOVED	ASPHALT GROOVED	ASPHALT GROOVED
PAVEMENT STRENGTH SW,DW,DTW,DDTW x1000lbs	S75, T160, TT280	S75, T160, TT280	S75, T160, TT280
AIRCRAFT APPROACH CATEGORY	C	C	C
AIRPLANE DESIGN GROUP	III	III	III
TRUE BEARING	N26°29'43.80"E	N26°29'43.80"E	N26°29'36.60"E
EFFECTIVE GRADE	0.26%	0.26%	0.07%
TOUCHDOWN ELEVATION NAVD88 (ESTIMATED)	81.8 / 81.6	81.8 / 81.6	79.1 / 77.5
RUNWAY DIMENSIONS	150 x 6404	150 x 6400	150 x 6801
RUNWAY SAFETY AREA (RSA) DIMENSIONS	200 x 6893	*350 x 8000	500 x 8001
LENGTH BEYOND RW END	289 / 200	*600 / *1000	**1000 / 1000
RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS–RW 1	1700 x 500 x 1010	1700 x 500 x 1010	1700 x 500 x 1010
RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS–RW 19	1700 x 500 x 1010	1700 x 500 x 1010	1700 x 500 x 1010
RUNWAY OBJECT FREE AREA (ROFA) DIMENSIONS	800 x 8404	800 x 8400	800 x 8801
LENGTH BEYOND RW END OR STOPWAY	1000 / 1000	1000 / 1000	1000 / 1000
RUNWAY OBSTACLE FREE ZONE (ROFZ) DIMENSIONS	400 x 8304	400 x 8300	400 x 8701
LENGTH BEYOND RW END OR STOPWAY	200 / 1700	200 / 1700	200 / 1700
RUNWAY LIGHTING	HIRL	HIRL	HIRL
RUNWAY MARKING TYPE	NON–PRECISION	NON–PRECISION	NON–PRECISION
RUNWAY VISUAL APPROACH AIDS–RW 1	PAPI	PAPI	PAPI
RUNWAY VISUAL APPROACH AIDS–RW 19	VASI, ODALS	VASI ODALS	VASI ODALS

* NEAR–TERM RSA HAS IRREGULAR DIMENSIONS.
** BEYOND THE ASDA

NOTES

~~1. THRESHOLD ELEVATIONS ARE BASED ON 2003 ALP TOPOGRAPHICAL SURVEY DATA. AIRPORT ELEVATIONS SHOWN IN PARENTHESES ARE BASED ON THE 2011 AERONAUTICAL SURVEY DATA, AND DETERMINED IN NAVD88.~~

2. THRESHOLD COORDINATES DETERMINED FROM 2011 AERONAUTICAL SURVEY DATA AND HORIZONTAL VERIFIED, NAD83(2007).

BY	DATE	REVISION
PC	9/2016	AS-BUILT PER AKSAS 59304
PC	1/2014	AS-BUILT PER AKSAS 50928

DRAWING INDEX	
SHT #	TITLE
1	AIRPORT DATA SHEET
2	EXISTING LAYOUT
~~3~~	~~NEAR–TERM LAYOUT~~
~~4~~ 3	ULTIMATE LAYOUT
~~5~~ 4	DECLARED DISTANCES
~~6~~ 5	TERMINAL AREA
~~7~~ 6	EXISTING INNER PORTION OF THE APPROACH SURFACE
~~8~~	~~NEAR–TERM INNER PORTION OF THE APPROACH SURFACE~~
~~9~~ 7	ULTIMATE INNER PORTION OF THE APPROACH SURFACE
~~10~~ 8	AIRPORT AIRSPACE, 14 CFR, PART 77
~~11~~ 9	AIRPORT PROPERTY MAP
~~12~~ 10	LAND USE PLAN

APPROVED: DATE: 6-22-2012
KENNETH M. MORTON, P.E. PRECONSTRUCTION ENGINEER
RECOMMENDED: DATE: 6·21·2012
HARVEY M. DOUTHIT, P.E. DESIGN SECTION CHIEF

AS-BUILT 10-6-16
PJ Zette ARP. AAL

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 7/12/16
FAA AIRSPACE REVIEW NUMBER: 2012-AAL-[illegible]
DATE: 7/12/16
FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN
AIRPORT DATA SHEET

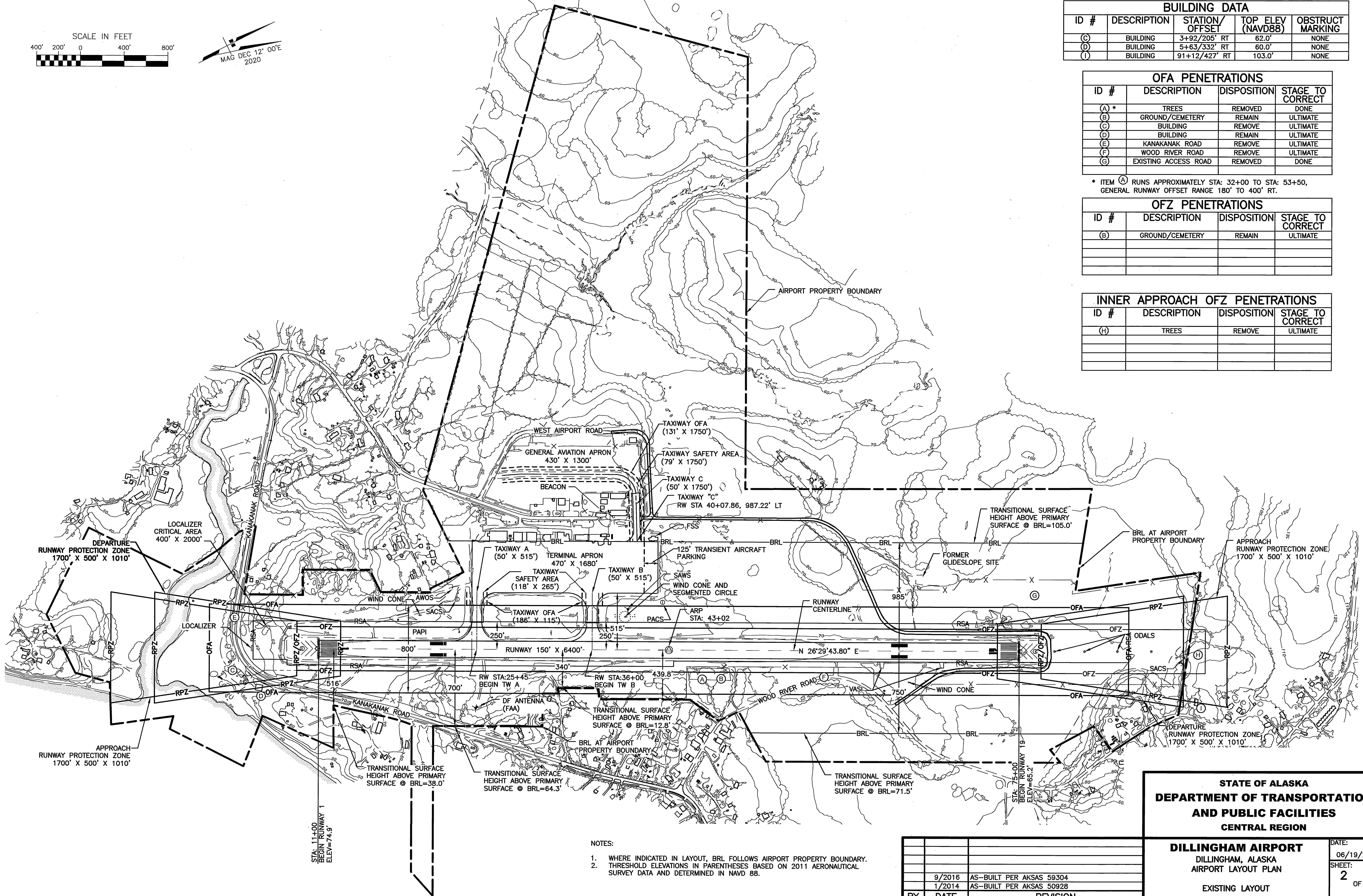
DATE: 06/15/2012
SHEET: 1 OF 10

Date Plotted: 6/18/2012, 2:17 PM
Layout Name: DATA (1)
File Name: P:\Projects\060456\ALP\ALP-DLG.dwg
Designed By: vgiroeschel
Drawn By: bodquinn
Checked By: bhanson
FILE No.: 234-76

Date Plotted: 9/26/2016, 12:54 PM
Layout Name: ELAY(2)
File Name: W:\Projects\Dillingham\ALP - 2016 UPDATE\ALP-D.LG.dwg

Designed By: vgroeschel
Drawn By:
Checked By: bhanson

FILE No.: 234-76



BUILDING DATA

ID #	DESCRIPTION	STATION/ OFFSET	TOP ELEV (NAVD88)	OBSTRUCT MARKING
(C)	BUILDING	3+92/205' RT	62.0'	NONE
(D)	BUILDING	5+63/332' RT	60.0'	NONE
(I)	BUILDING	91+12/427' RT	103.0'	NONE

OFA PENETRATIONS

ID #	DESCRIPTION	DISPOSITION	STAGE TO CORRECT
(A) *	TREES	REMOVED	DONE
(B)	GROUND/CEMETERY	REMAIN	ULTIMATE
(C)	BUILDING	REMOVE	ULTIMATE
(D)	BUILDING	REMAIN	ULTIMATE
(E)	KANAKANAK ROAD	REMOVE	ULTIMATE
(F)	WOOD RIVER ROAD	REMOVE	ULTIMATE
(G)	EXISTING ACCESS ROAD	REMOVED	DONE

* ITEM (A) RUNS APPROXIMATELY STA: 32+00 TO STA: 53+50, GENERAL RUNWAY OFFSET RANGE 180' TO 400' RT.

OFZ PENETRATIONS

ID #	DESCRIPTION	DISPOSITION	STAGE TO CORRECT
(B)	GROUND/CEMETERY	REMAIN	ULTIMATE

INNER APPROACH OFZ PENETRATIONS

ID #	DESCRIPTION	DISPOSITION	STAGE TO CORRECT
(H)	TREES	REMOVE	ULTIMATE

NOTES:

1. WHERE INDICATED IN LAYOUT, BRL FOLLOWS AIRPORT PROPERTY BOUNDARY.
2. THRESHOLD ELEVATIONS IN PARENTHESES BASED ON 2011 AERONAUTICAL SURVEY DATA AND DETERMINED IN NAVD 88.

BY	DATE	REVISION
	9/2016	AS-BUILT PER AKSAS 59304
	1/2014	AS-BUILT PER AKSAS 50928

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

EXISTING LAYOUT

DATE: 06/19/2012
SHEET: 2 OF 10

SCALE IN FEET
400' 200' 0 400' 800'

MAG DEC 12° 00'E
2020

BUILDING DATA				
ID #	DESCRIPTION	STATION/ OFFSET	TOP ELEV (NAVD88)	OBSTRUCT MARKING
(C)	BUILDING	3+92/355' RT	62.0'	NONE

OFA PENETRATIONS			
ID #	DESCRIPTION	DISPOSITION	STAGE TO CORRECT
~~(E)~~	~~KANAKANAK ROAD~~	~~REMOVE~~	~~ULTIMATE~~
(F)	WOOD RIVER ROAD	REMOVE	ULTIMATE
(J)	TREES	REMOVE	ULTIMATE
(K)	BUILDING	REMOVE	ULTIMATE
(L)	BUILDING	REMOVE	ULTIMATE

INNER APPROACH OFZ PENETRATIONS			
ID #	DESCRIPTION	DISPOSITION	STAGE TO CORRECT
(H)	TREES	REMOVE	ULTIMATE

AIRPORT PROPERTY BOUNDARY
TAXIWAY OFA (131' X 1750')
TAXIWAY SAFETY AREA (79' X 1750')
TAXIWAY C (50' X 1750')
TAXIWAY "C" RW STA 40+07.86, 987.22' LT
125' TRANSIENT AIRCRAFT PARKING
RELOCATED SAWS
RELOCATED SEGMENTED CIRCLE & WIND CONE
WEST AIRPORT ROAD
GENERAL AVIATION APRON 430' X 1300'
BEACON
LAND TO BE ACQUIRED
LOCALIZER CRITICAL AREA 400' X 2000'
DEPARTURE RUNWAY PROTECTION ZONE 1700' X 500' X 1010'
KANAKANAK ROAD
LOCALIZER
PARALLEL TAXIWAY
SACS
PAPI
TAXIWAY A (50' X 365')
TERMINAL APRON 470' X 1680'
FSS
TAXIWAY SAFETY AREA (118' X 115')
TAXIWAY B (50' X 365')
PARALLEL TAXIWAY
RUNWAY CENTERLINE
835'
TAXIWAY OFA (186' X 115')
365'
400'
PACS
ARP
RUNWAY 150' X 6801'
N 26°29'36.60" E
400'
500'
800'
490'
849'
RW STA:25+45 BEGIN TW A ELEV=82.6'
RW STA:36+00 BEGIN TW B ELEV=81.2'
DF ANTENNA (FAA)
TRANSITIONAL SURFACE HEIGHT ABOVE PRIMARY SURFACE @ BRL=34.3'
TRANSITIONAL SURFACE HEIGHT ABOVE PRIMARY SURFACE @ BRL=85.6'
BRL AT AIRPORT PROPERTY BOUNDARY
APPROACH RUNWAY PROTECTION ZONE 1700' X 500' X 1010'
STA: 11+00 BEGIN RUNWAY 1 ELEV=80.9'
TRANSITIONAL SURFACE HEIGHT ABOVE PRIMARY SURFACE @ BRL=92.9'
STA: 79+01 BEGIN RUNWAY 19 ELEV=79.5'
RELOCATED FENCE
TRANSITIONAL SURFACE HEIGHT ABOVE PRIMARY SURFACE @ BRL=83.6'
ROAD TO BE CLOSED
RELOCATE ODALS
TO BE REMOVED FROM OFA
RELOCATE VASI OR INSTALL PAPI
WOOD RIVER ROAD
900'
DEPARTURE RUNWAY PROTECTION ZONE 1700' X 500' X 1010'
APPROACH RUNWAY PROTECTION ZONE (1700' X 500' X 1010'
ULTIMATE PROPERTY LINE
RPZ
OFA
OFZ
RSA
BRL

NOTES:

1. WHERE INDICATED IN LAYOUT, BRL FOLLOWS AIRPORT PROPERTY BOUNDARY.

BY	DATE	REVISION
	9/2016	AS-BUILT PER AKSAS 59304
	1/2014	AS-BUILT PER AKSAS 50928

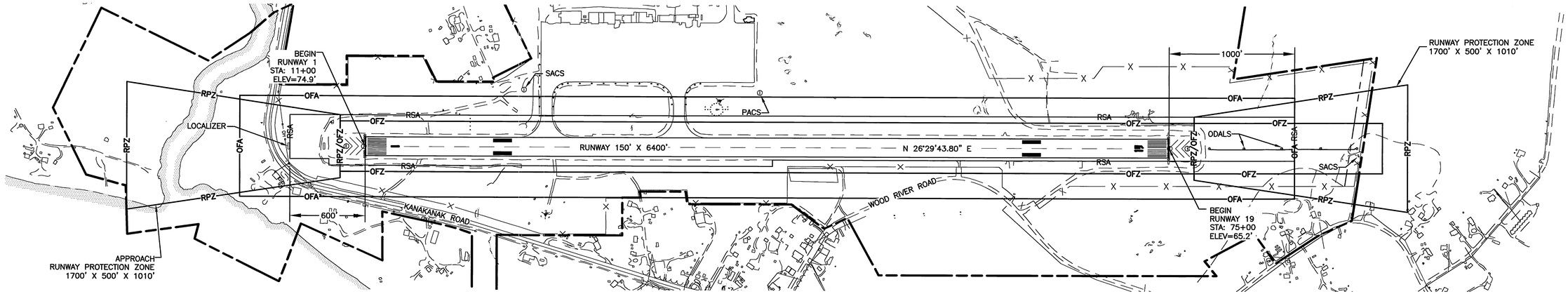
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

ULTIMATE LAYOUT

DATE: 06/19/2012
SHEET: 3 OF 10

Designed By: vgroeschel
Drawn By: LILAY(3)
Checked By: bhanson
FILE No.: 234-76
Date Plotted: 9/28/2016, 12:54 PM
Layout Name: LILAY(3)
File Name: W:\Projects\Dillingham\ALP - 2016 UPDATE\ALP-DL6.dwg



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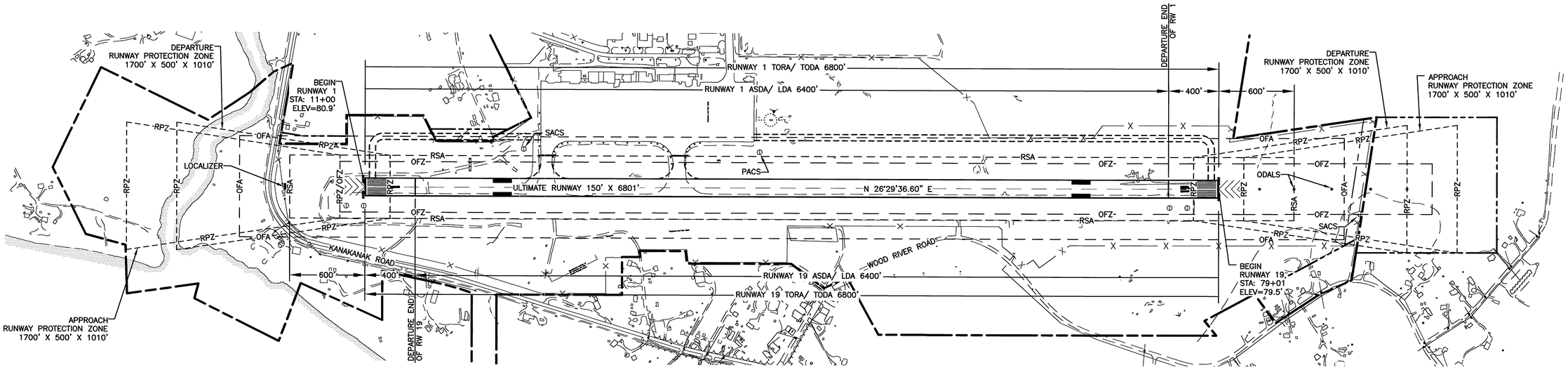


ULTIMATE

SCALE IN FEET
400' 200' 0 400' 800'

MAG DEC 12° 00'E
2020

NOTES:

1. ULTIMATE PROFILE INCLUDES RUNWAY CENTERLINE SHIFT 150-FT NORTHWEST, WITH DECLARED DISTANCES.

BY	DATE	REVISION
	9/2016	AS-BUILT PER AKSAS 59304

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

DECLARED DISTANCES

DATE: 06/19/2012
SHEET: 4 OF 10

FILE No.: 234-76

Designed By:	vgroeschel
Drawn By:	
Checked By:	bhanson

Date Plotted: 9/26/2016, 12:53 PM
Layout Name: DECD(4)
File Name: W:\Projects\Dillingham\ALP - 2016 UPDATE\ALP-DLG.dwg

BUILDING DATA

ID #	DESCRIPTION	STATION/ OFFSET	TOP ELEV (NAVD88)	OBSTRUCT MARKING
(1)	ALASKA PRIDE AIR, LLC	45+72/972' LT	111.9'	NONE
(2)	LESTER & JILL BINGHAM	47+58/976' LT	104.4'	NONE
(3)	ALASKA AIRLINES AND PENAIR	48+73/975' LT	104.2'	NONE
(4)	PENINSULA AIRWAYS INC.	50+00/985' LT	100.9'	NONE
(5)	STARFLITE INC.	51+81/976' LT	105.8'	NONE
(6)	GRANT AVIATION, FSS, TWIN DRAGON RESTAURANT	53+44/995' LT	104.0'	NONE
(7)	AIRCRAFT CONSULTANTS & SERVICES, INC	55+47/1029' LT	106.1'	NONE
(8)	ALASKA ISLAND AIR, INC	49+21/1303' LT	N/A	NONE
(9)	BRISTOL BAY AIR SERVICES, INC	50+84/1350' LT	N/A	NONE
(10)	U.S. FISH & WILDLIFE SERVICES	51+59/1315' LT	N/A	NONE
(11)	TUCKER AVIATION	52+91/1308' LT	N/A	NONE
(12)	CITY OF DILLINGHAM	55+31/1279' LT	N/A	NONE
(13)	CONCRETE SLAB	55+46/1327' LT	N/A	NONE
(14)	SAND STORAGE	55+51/1384' LT	N/A	NONE
(15)	ARFF/SREB	56+87/1220' LT	91.1'	NONE
(16)	FSS	59+95/1075' LT	N/A	NONE
(17)	PRIVATE BUILDING (TO BE ACQUIRED/ REMOVED)	36+91/368 LT	105.0'	NONE
(18)	PRIVATE BUILDING (TO BE ACQUIRED/ REMOVED)	38+56/376 LT	103.0'	NONE
(19)	MULCHATNA AIR	39+35/1884 LT	N/A	NONE
(20)	CHEMICAL STORAGE BULIDING	39+03/1375 LT	106.3'	NONE

SCALE IN FEET
100' 50' 0 100' 200'

MAG DEC 12° 00'E
2020

WEST AIRPORT ROAD

M & O RESERVE | M & O RESERVE | ADVENTIST WORLD AVIATION | SHANNON'S AIR TAXI | VAN AIR | BAY AIR, INC | (19)

AIRCRAFT PARKING AREA

RW STA 30+15.00
1800.00' LT

RW STA 29+42.41
1594.85' LT
ANGLE POINT

255'

GENERAL AVIATION APRON
430' x 1300'

TAXIWAY OFA
(131' X 1750')

TAXIWAY SAFETY AREA
(79' X 1750')

RW STA 40+15.00
1800.00' LT

TOFA
TSA
131'
TSA
TOFA

RADIUS=189.0'

RW STA 27+73.17
1581.35' LT

RW STA 30+27.61
1425.00' LT

RW STA 35+07.61
1425.00' LT

RW STA 38+20.38
1594.84' LT

RW STA 39+31.71
1425.26' LT

RW STA 39+94.73
1422.94' LT

AIRCRAFT PARKING AREA

SAND STORAGE

(14) (20) (13) (12) (15) (9) (10) (11) (8)

TAXIWAY C
(50' X 1750')

(1) (2) (3) (4) (5) (6) (7) (16)

BRL

RW STA 28+29.47
835.00' LT

RW STA 28+29.47
785.00' LT

RW STA 29+79.47
785.00' LT

RW STA 25+29.47
835.00' LT

RW STA 31+30.00
785.00' LT

RW STA 32+30.00
785.00' LT

TERMINAL APRON
470' X 1680'

RW STA 34+30.00
785.00' LT

RW STA 36+60.00
835.00' LT

RW STA 36+20.00
785.00' LT

RW STA 39+40.00
835.00' LT

RW STA 40+07.86
987.22' LT

TRANSIENT AIRCRAFT PARKING AREA

ULTIMATE LOCATION FOR SAWS & SEGMENTED CIRCLE WIND CONE

125'

EXISTING AWOS TO BE RELOCATED

TOFA
TSA
OFA (ULTIMATE)
(18) (17)
TSA
TOFA

RSA (ULTIMATE)
OFZ (ULTIMATE)

EXISTING WIND CONE TO BE RELOCATED

EXISTING PAPI TO BE RELOCATED

TAXIWAY A
TAXIWAY B
TAXIWAY C

EXISTING CULVERT

BY	DATE	REVISION
	9/2016	AS-BUILT PER AKSAS 59304
	1/2014	AS-BUILT PER AKSAS 50928

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

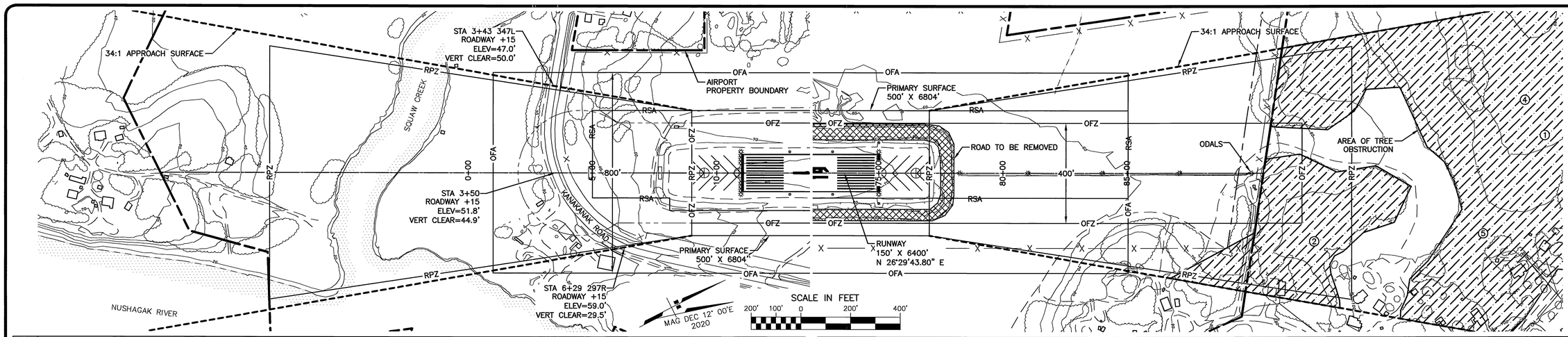
TERMINAL AREA

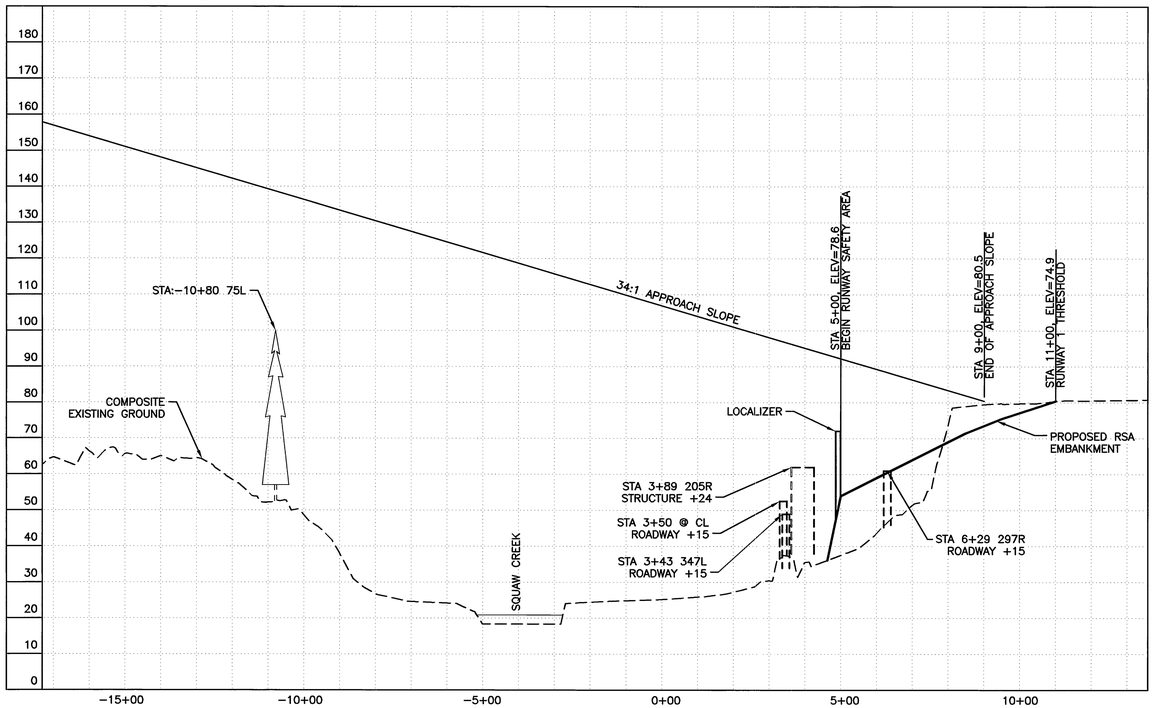
DATE: 06/19/2012
SHEET: 5 OF 10

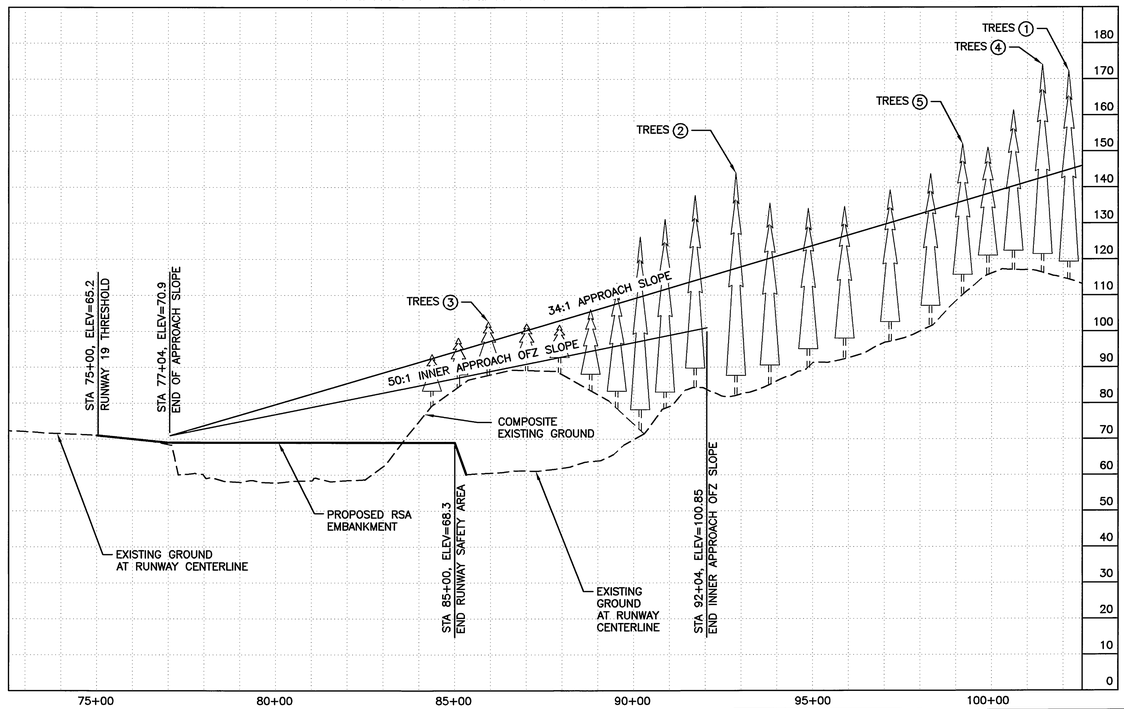
FILE No.: 234-76

Designed By: vgroeschel
Drawn By:
Checked By: bhanson

Date Plotted: 9/26/2016, 12:45 PM
Layout Name: TERMINAL(5)
File Name: W:\Projects\Dillingham\ALP - 2016 UPDATE\ALP-DLG.dwg







SCALE IN FEET
200' 100' 0 200' 400'

HORIZONTAL TO VERTICAL RATIO 1:10

RUNWAY 1

PART 77 SURFACE OBSTRUCTION TABLE (INNER PORTION RW 1)

ID #	DESCRIPTION	STATION/ OFFSET	ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATION	DISPOSITION	STAGE TO CORRECT
	NONE							

NOTE: REFER TO THE AIRPORT AIRSPACE DRAWING FOR PENETRATIONS OF THE OUTER APPROACH SURFACES.

1. THE CONTROLLING OBSTRUCTION FOR RUNWAY 1 IS A GROUP OF TREES AT STA:–10+80 75L ELEVATION IS 100.0'. THE OBSTRUCTION CLEARANCE SLOPE IS ESTABLISHED AS 102:1 PER FAA AC 150/5200–35, SECTION 4, DATA ELEMENT NUMBER 57.
2. THERE ARE NO OBJECT PENETRATIONS IN THE RUNWAY THRESHOLD SITING SURFACE OF RUNWAY 1, AS DEFINED IN FAA AC 150/5300–13, CHG 18, APPENDIX 2, TABLE A2–1, LINE 3.

RUNWAY 19

PART 77 SURFACE OBSTRUCTION TABLE (INNER PORTION RW 19)

ID #	DESCRIPTION	STATION/ OFFSET	ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATION	DISPOSITION	STAGE TO CORRECT
① *	TREES	102+17/150L	172.7'	APPROACH	144.8'	27.9'	REMOVE	ULTIMATE
② *	TREES	92+89/273R	144.0'	APPROACH	117.5'	26.5'	REMOVE	ULTIMATE
④	TREES	85+48/251R	174'	APPROACH	142.5'	31.5'	REMOVE	ULTIMATE
⑤	TREES	99+69/242R	154.9'	APPROACH	137.5'	17.4'	REMOVE	ULTIMATE

* HIGHEST FEATURE IN A LARGE AREA OF TERRAIN AND VEGETATIVE PENETRATION.
NOTE: REFER TO THE AIRPORT AIRSPACE DRAWING FOR PENETRATIONS OF THE OUTER APPROACH SURFACES.

1. THE CONTROLLING OBSTRUCTION FOR RUNWAY 19 IS ITEM 2, ABOVE. THE OBSTRUCTION CLEARANCE SLOPE IS ESTABLISHED AS 21.7:1 PER FAA AC 150/5200–35, SECTION 4, DATA ELEMENT NUMBER 57.
2. THERE ARE NO OBJECT PENETRATIONS IN THE RUNWAY THRESHOLD SITING SURFACE OF RUNWAY 19, AS DEFINED IN FAA AC 150/5300–13, CHG 18, APPENDIX 2, TABLE A2–1, LINE 3.

BY	DATE	REVISION
	9/2016	AS–BUILT PER AKSAS 59304

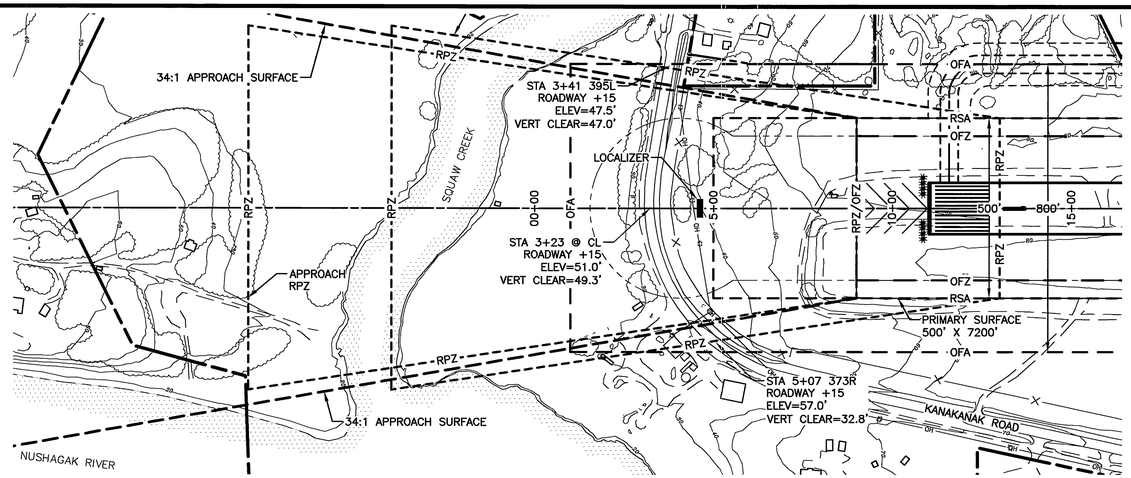
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

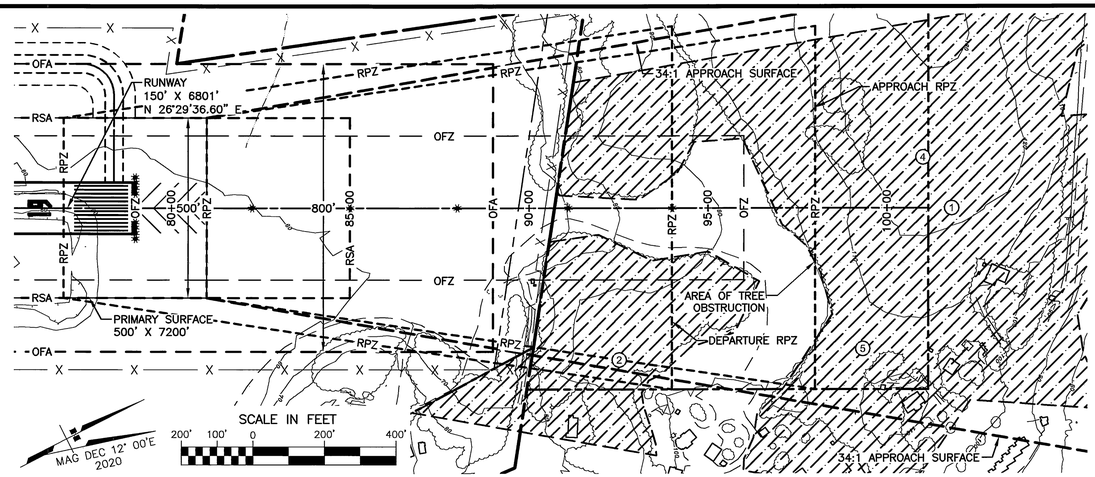
DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

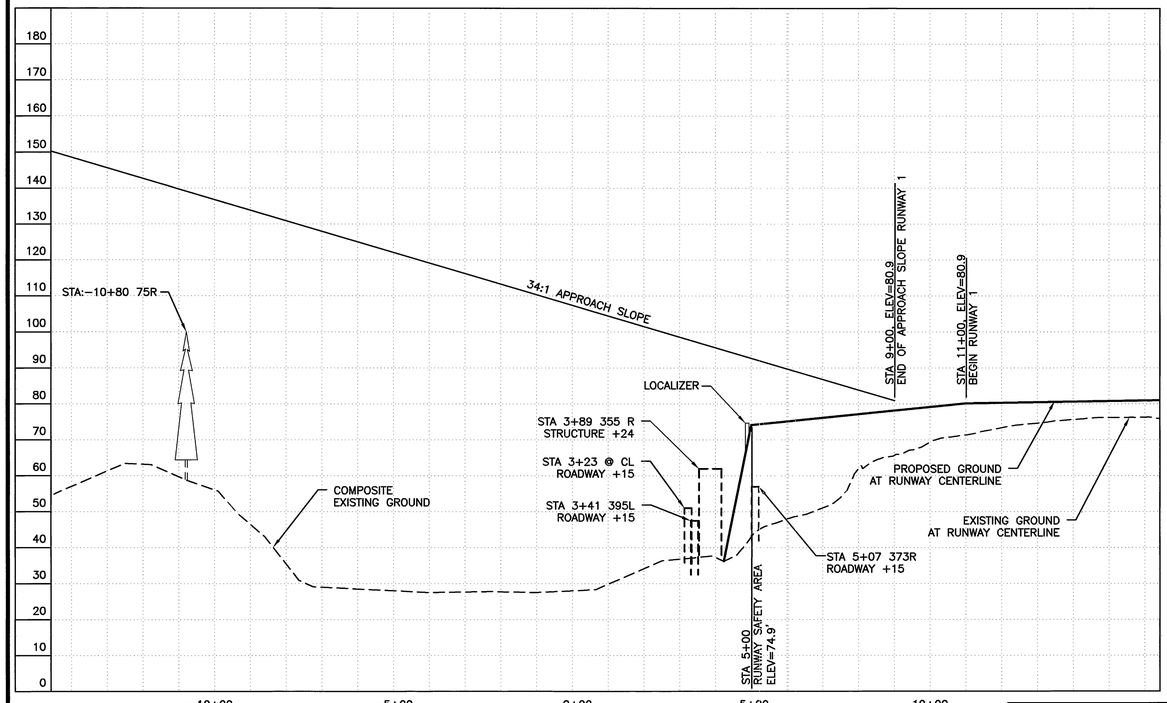
EXISTING INNER PORTION
OF THE APPROACH SURFACE

DATE: 06/19/2012
SHEET: 6 OF 10

Date Plotted: 9/26/2016, 12:38 PM
Layout Name: SHEET 6
File Name: W:\Projects\Dillingham\ALP – 2016 UPDATE\ALP–DLG.dwg
Designed By: cgrassechiel
Drawn By:
Checked By: bhanson
FILE No.: 234–76





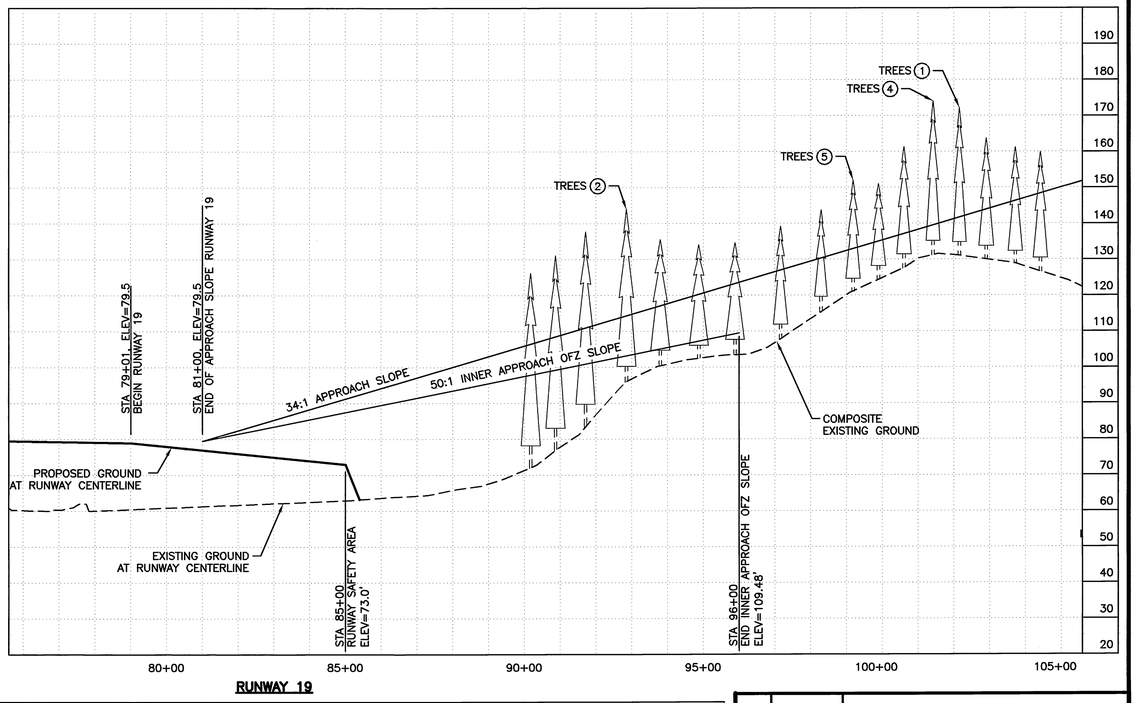


RUNWAY 1

PART 77 SURFACE OBSTRUCTION TABLE (INNER PORTION RW 1)								
ID #	DESCRIPTION	STATION/ OFFSET	ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATION	DISPOSITION	STAGE TO CORRECT
	NONE							

NOTE: REFER TO THE AIRPORT AIRSPACE DRAWING FOR PENETRATIONS OF THE OUTER APPROACH SURFACES.

1. THE CONTROLLING OBSTRUCTION FOR RUNWAY 1 IS A GROUP OF TREES AT STA:-10+80 75R ELEVATION IS 100.0'. THE OBSTRUCTION CLEARANCE SLOPE IS ESTABLISHED AS 102:1 PER FAA AC 150/5200-35, SECTION 4, DATA ELEMENT NUMBER 57.
2. THERE ARE NO OBJECT PENETRATIONS IN THE RUNWAY THRESHOLD SITING SURFACE OF RUNWAY 1, AS DEFINED IN FAA AC 150/5300-13, CHG 14, APPENDIX 2, TABLE A2-1, LINE 3.



RUNWAY 19

RW19 THRESHOLD SITING SURFACE OBSTRUCTION TABLE								
ID #	DESCRIPTION	STATION/ OFFSET	ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATION	DISPOSITION	STAGE TO CORRECT
(2)	TREES	92+89/423R	144.0'	THRESHOLD SITING	139.0'	4.0'	REMOVE	ULTIMATE

PART 77 SURFACE OBSTRUCTION TABLE (INNER PORTION RW 19)								
ID #	DESCRIPTION	STATION/ OFFSET	ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATION	DISPOSITION	STAGE TO CORRECT
(1) *	TREES	102+17/@ CL	172.7'	APPROACH	141.8'	30.9'	REMOVE	ULTIMATE
(2) *	TREES	92+89/423R	144.0'	APPROACH	114.5'	39.5'	REMOVE	ULTIMATE
(4)	TREES	101+37/141L	174.0'	APPROACH	139.4'	34.6'	REMOVE	ULTIMATE
(5)	TREES	99+69/392R	154.9'	APPROACH	139.5'	20.4'	REMOVE	ULTIMATE

NOTE: REFER TO THE AIRPORT AIRSPACE DRAWING FOR PENETRATIONS OF THE OUTER APPROACH SURFACES.

1. THE CONTROLLING OBSTRUCTION FOR RUNWAY 19 IS ITEM 2, ABOVE. THE OBSTRUCTION CLEARANCE SLOPE IS ESTABLISHED AS 18.4:1 PER FAA AC 150/5200-35, SECTION 4, DATA ELEMENT NUMBER 57.
2. THE TABLE ABOVE LISTS OBJECT PENETRATION IN THE RUNWAY THRESHOLD SITING SURFACE OF RUNWAY 19, AS DEFINED IN FAA AC 150/5300-13, CHG 15, APPENDIX 2, TABLE A2-1, LINE 3.

BY	DATE	REVISION
	9/2016	AS-BUILT PER AKSAS 59304

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

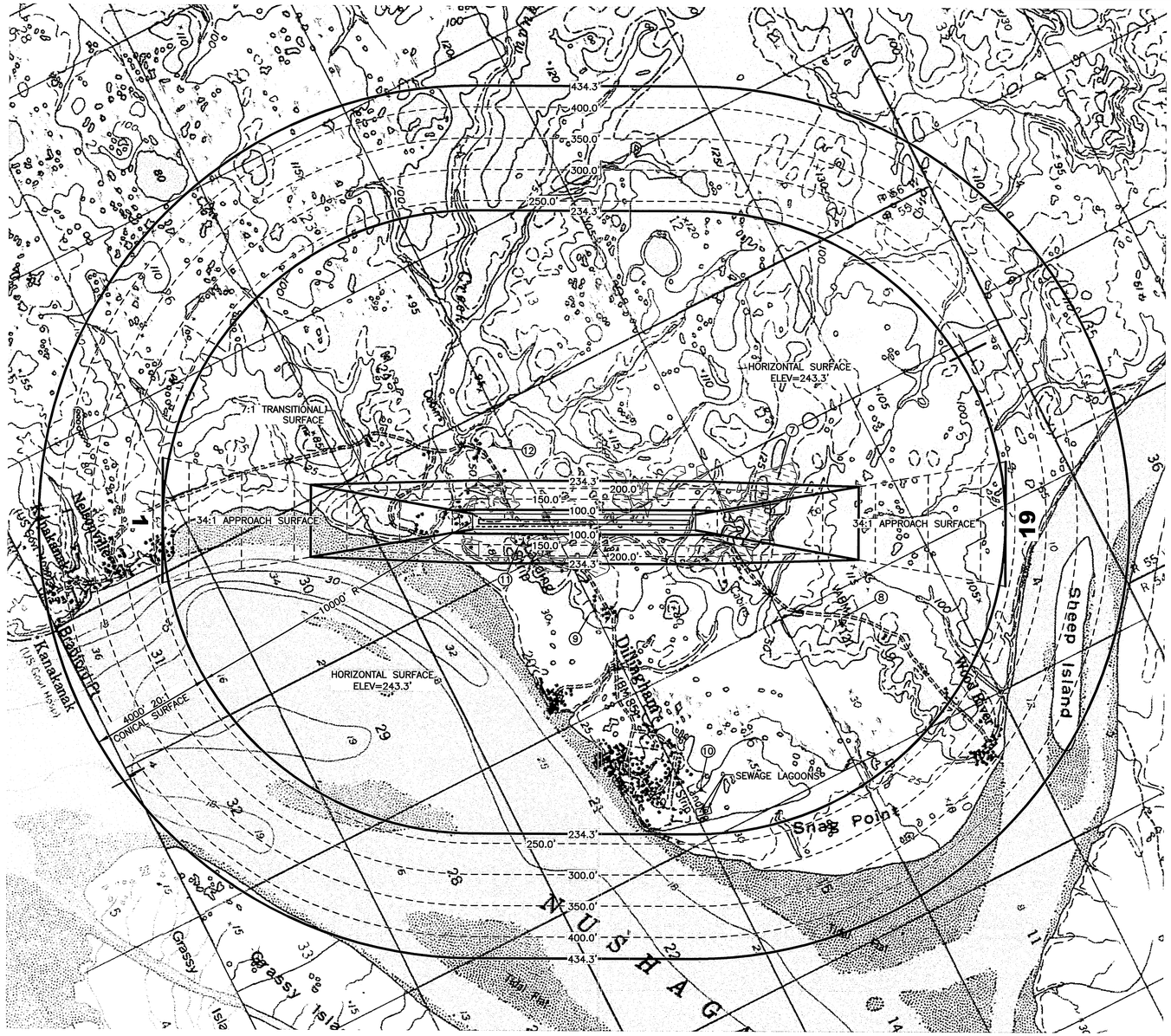
DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

ULTIMATE INNER PORTION OF THE APPROACH SURFACE

DATE: 06/19/2012
SHEET: 7 OF 10

Designed By: vgroeschel
Drawn By:
Checked By: bhanson
FILE No.: 234-76

Data Plotted: 9/28/2016, 12:32 PM
Layout Name: UAPP (7)
File Name: W:\Projects\Dillingham\ALP - 2016 UPDATE\ALP-DLG.dwg



PART 77 SURFACE OBSTRUCTION TABLE (OUTER PORTION RW 1/19)								
ID #	DESCRIPTION	STATION/ OFFSET	ELEVATION	SURFACE PENETRATED	SURFACE ELEVATION	AMOUNT PENETRATION	DISPOSTION	STAGE TO CORRECT
(7)*	TREES	107+05/1390 L	252.0'	HORIZONTAL	243.3'	8.7'	REMOVE	ULTIMATE
(8)	ANTENNA	128+23/3223 R	287.0'	HORIZONTAL	243.3'	43.7'	REMAIN	ULTIMATE
(9)	ANTENNA	48+64/2830 R	255.0'	HORIZONTAL	243.3'	11.7'	REMAIN	ULTIMATE
(10)	ANTENNA	83+07/8570 R	422.0'	HORIZONTAL	243.3'	178.7'	REMAIN	ULTIMATE
(11)	ANTENNA	25+42/685 R	196.0'	TRANSITIONAL	149.0'	47.0'	REMAIN	ULTIMATE
(12)	ANTENNA	15+62/2480 L	268.0'	HORIZONTAL	243.3'	24.7'	REMAIN	ULTIMATE

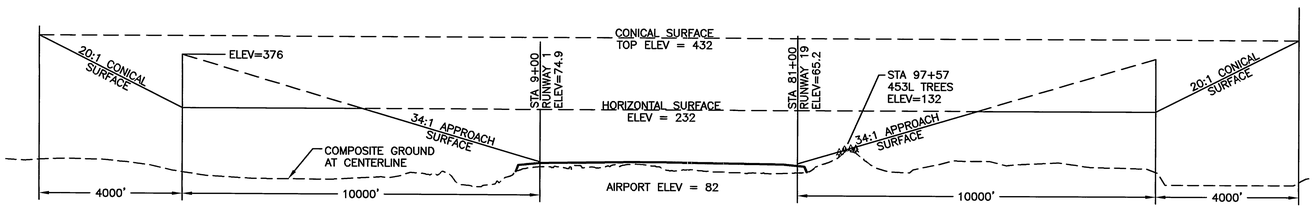
* HIGHEST FEATURE IN A LARGE AREA OF TERRAIN PENETRATION. REFER TO HATCHED AREAS ON MAP.

NOTES

1. AIRPORT ELEVATION IS 82'.
2. ALL CONTOURS ARE IN FEET. BASEMAP DATA IS PROVIDED FROM 2003 ALP SURVEY DATA.
3. PRIMARY SURFACE WIDTH IS 500'.
4. REFER TO INNER PORTION OF THE APPROACH SURFACE DRAWING FOR CLOSE-IN OBSTRUCTIONS.
5. PART 77 SURFACES BASED ON ULTIMATE AIRPORT LAYOUT.
6. APPROACH SURFACES ARE 34:1 BEGINNING AT 200 FEET BEYOND THE THRESHOLDS.
7. LANDFILL IS LOCATED APPROXIMATELY 3.8 MILES (20,064 FEET) NORTHWEST OF RUNWAY 19.
8. THERE ARE NO KNOWN ORDINANCES OR STATUTES IN EFFECT THAT SPECIFY HEIGHT RESTRICTIONS.
9. SEWAGE LAGOON IS LOCATED APPROXIMATELY 1.73 MILES (9,175 FEET) NORTHEAST OF RUNWAY 19.

MAG DEC 12° 00'E
2020

SCALE IN FEET
2000' 1000' 0 2000' 4000'
HORIZONTAL TO VERTICAL RATIO 1:10



RUNWAY 1/19 PROFILE

BY	DATE	REVISION
	9/2016	AS-BUILT PER AKSAS 59304

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

AIRPORT AIRSPACE
14 CFR, PART 77

DATE: 06/19/2012
SHEET: 8 OF 10

Designed By:	vgroeschel
Drawn By:	
Checked By:	bhinton
FILE No: 234-76	

Date Plotted:	9/16/2016, 11:22 AM
Layout Name:	P77 (8)
File Name:	W:\Projects\Dillingham\ALP - 2016 UPDATE\ALP-DLG.dwg

FILE No.: 234-76

Designed By:	vgroeschel	
Drawn By:		
Checked By:		bhanson

Date Plotted:	9/26/2016, 11:16 AM
Layout Name:	PROP (9)
File Name:	W:\Projects\Dillingham\ALP - 2016 UPDATE\ALP-DLG.dwg

LEGEND

- AIRPORT PROPERTY BOUNDARY
- PARCEL BOUNDARY
- AVIGATION EASEMENT TO BE ACQUIRED
- ① MONUMENT
- AVIGATION HAZARD EASEMENT

NOTES:

1. THE INFORMATION PROVIDED IS BASED ON THE DOT & PF AIRPORT PROPERTY PLAN DATED 12/11/2003.
2. PERMIT, AVIGATION AND HAZARD EASEMENT AND RIGHT OF WAY RESERVED TO STATE OF ALASKA WITHIN U.S. PATENT NO. 50-72-0404, DATED MAY 2, 1972, RECORDED ON OCTOBER 22, 1974 IN THE BRISTOL BAY RECORDING DISTRICT IN BOOK VIIII, ON PAGES 281 THROUGH 283.
3. WHERE INDICATED IN LAYOUT, BRL FOLLOWS AIRPORT PROPERTY BOUNDARY.

PROPERTY STATUS

ID #	INTEREST	GRANTOR	GRANTEE	PARCEL SIZE (ACRES)	DATE ACQUIRED	RECORDED DOC NO.	ACQUIRED AIP NO.
1	FEE SIMPLE	USA, BLM	STATE OF ALASKA	55.7 ac ±	07/01/53	PAT. 1139790	
2,A	FEE SIMPLE 50-85-0054	USA, BLM	STATE OF ALASKA	6.89 ac ±	11/07/84	BK 29 PG 27	
2,B	FEE SIMPLE-Patent 50-85-0054	USA, BLM	STATE OF ALASKA	7.35 ac ±	11/07/84	BK 29 PG 27	
2,C	A & H EASEMENT & ROW	RALPH SORENSEN	STATE OF ALASKA, DOT/PF	4.45 ac ±	3/01/85	BK 29 PG 412	
2,D	FEE SIMPLE 50-85-0054	USA, BLM	STATE OF ALASKA	1.62 ac ±	11/07/84	BK 29 PG 27	
2,E-1	FEE SIMPLE	RALPH SORENSEN	STATE OF ALASKA, DOT/PF	5.19 ac ±	5/20/85	BK 29 PG 756	
2,E-2	FEE SIMPLE	RALPH SORENSEN	STATE OF ALASKA, DOT/PF	0.0003 ac ±	5/20/85	BK 29 PG 756	
2,F-1	FEE SIMPLE	RALPH SORENSEN	STATE OF ALASKA, DOT/PF	1.93 ac ±	5/20/85	BK 29 PG 756	
2,F-2	A & H EASEMENT & AIR RIGHTS	BIA FOR RALPH SORENSEN ET. AL.	STATE OF ALASKA, DOT/PF	3.71 ac ±	7/19/85	BK 30 PG 076	
2G	FEE SIMPLE	BERNARD J WHEELER, JR	STATE OF ALASKA, DOT/PF	2.15 ac ±	8/02/85	BK 30 PG 035	
2H	FEE SIMPLE	USA, BLM	STATE OF ALASKA	2.66 ac ±	11/07/84	BK 29 PG 27	
2I	A & H EASEMENT & AIR RIGHTS	BIA FOR KATIE TIMMERMAN	STATE OF ALASKA, DOT/PF	1.68 ac ±	2/20/85	BK 29 PG 407	
2J	FEE SIMPLE	KATIE TIMMERMAN	STATE OF ALASKA, DOT/PF	1.50 ac ±	1/15/85	BK 29 PG 182	
2K	ROAD ROW	MISC OWNERS	STATE OF ALASKA, DOT/PF	6.30 ac ±	2/27/76	PLAT 81-12 BBRD	
3	FEE SIMPLE	USA, BLM	STATE OF ALASKA	401.9 ac ±	6/29/81	BK 24 PG 350	
4,A	FEE SIMPLE	R. ARMSTRONG, ET AL	STATE OF ALASKA, DOT/PF	4.84 ac ±	6/18/82	BK 25 PG 627	
4,B	FEE SIMPLE	MARTIN JOHNSON	STATE OF ALASKA, DOT/PF	1.14 ac ±	1/11/82	BK 25 PG 29	
4,C	FEE SIMPLE	CHOGGIUNG LTD.	STATE OF ALASKA, DOT/PF	0.25 ac ±	4/06/93	BK 40 PG 336	
4,D	FEE SIMPLE	HEIRS OF MICKEY LOPEZ	STATE OF ALASKA, DOT/PF	0.53 ac ±	11/21/84	2011-000266-0	
5,A	FEE SIMPLE	USA, BLM 50-85-0054	STATE OF ALASKA, DOT/PF	6.89 ac ±	11/07/84	BK 29 PG 27	
5,B	FEE SIMPLE	NELS J ANDERSON	STATE OF ALASKA, DOT/PF	0.87 ac ±	9/12/85	BK 30 PG 264	
5,C	A & H EASEMENT & AIR RIGHTS	BIA FOR NELS J ANDERSON	STATE OF ALASKA, DOT/PF	1.29 ac ±	9/27/85	BK 30 PG 763	
7*	A & H EASEMENT & ROW	USA, BLM	MYRON S. MORAN	23.7 ac ±	5/02/72	BK 21 PG 274	
8,A**	FEE SIMPLE	CHOGGIUNG LTD.	STATE OF ALASKA, DOT/PF	20.9 ac ±	8/03/84	BK 25 PG 535	
8,B**	FEE SIMPLE	CHOGGIUNG LTD.	STATE OF ALASKA, DOT/PF	41.7 ac ±	8/03/84	BK 25 PG 535	
8,C	FEE SIMPLE	NELS JOHNSON	STATE OF ALASKA, DOT/PF	31.1 ac ±	9/02/82	BK 25 PG 700	
8,D	A & H EASEMENT & ROW	BIA FOR NELS JOHNSON	STATE OF ALASKA, DOT/PF	4.92 ac ±	9/02/82	BK 25 PG 702	
9	A & H EASEMENT & ROW	CHOGGIUNG LTD.	STATE OF ALASKA, DOT/PF	3.13 ac ±	5/09/81	BK 40 PG 342	
10	FEE SIMPLE	KUZAKIN, ROEHL, ET AL	STATE OF ALASKA, DOT/PF	2.31 ac ±	9/09/85	BK 30 PG 191-251	
11	A & H EASEMENT & ROW	S OF A, DNR ADL 207091	STATE OF ALASKA, DOT/PF	18.8 ac ±	10/17/84	BK 28 PG 940	

* SEE NOTE 2

SCALE IN FEET
400' 200' 0 400' 800'

MAG DEC 12° 00'E 2020

AIRPORT PROPERTY BOUNDARY
WEST AIRPORT ROAD
GENERAL AVIATION APRON
TERMINAL APRON
LOCALIZER
KANAKANAK ROAD
SQUAW CREEK
NUSHAGAK RIVER
ULTIMATE RUNWAY 1/19 CENTERLINE
RUNWAY 150' X 6801'
N 26°29'36.60" E
BRL FOLLOWS PROPERTY BOUNDARY
BRL FOLLOWS PROPERTY BOUNDARY
100' EASEMENT FOR ROAD RIGHT-OF PER DEED
ODALS
WOOD RIVER ROAD
CEMETERY USS 3643 LOT 18
COR 10 USS 3710
USS 3643
USS 4973
LOT 2
LOT 3

BY	DATE	REVISION
	9/2016	AS-BUILT PER AKSAS 59304
	1/2014	AS-BUILT PER AKSAS 50928

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

AIRPORT PROPERTY MAP

DATE: 06/19/2012
SHEET: 9 OF 10

MAG DEC 12° 00'E
2020

SCALE IN FEET
400' 200' 0 400' 800'

PROPERTY LEGEND

- AVIATION USE
- REVENUE SUPPORT AREA
- NON–AVIATION REVENUE AREA
- RESIDENTIAL AREA
- AVIGATION HAZARD EASEMENT
- NO AIRPORT INTEREST
- EXISTING PROPERTY BOUNDARY
- FUTURE AVIGATION EASEMENT
- AVIATION RESERVE
- COMMERCIAL MIXED USE

OPEN SPACE (UNCLASSIFIED)

GENERAL AVIATION APRON

TERMINAL APRON

TO BE ACQUIRED

TO BE ACQUIRED

TO BE ACQUIRED

KANAYANAK ROAD

PUBLIC ROAD TO BE CLOSED WITH GATE

835.0'

ULTIMATE RUNWAY

EXISTING RUNWAY

900.0'

WOOD RIVER ROAD

CEMETERY

PUBLIC ROAD TO BE CLOSED WITH GATE

NUSHAGAK RIVER

BRL

RPZ

OFA

RPZ/OFZ

Designed By:	vgroeschel
Drawn By:	
Checked By:	bhanson
FILE No.: 234–76	

Date Plotted:	9/26/2016, 10:30 AM
Layout Name:	LAND USE (10)
File Name:	W:\Projects\Dillingham\ALP – 2016 UPDATE\ALP–DLG.dwg

BY	DATE	REVISION
	9/2016	AS–BUILT PER AKSAS 59304
	1/2014	AS–BUILT PER AKSAS 50928

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

DILLINGHAM AIRPORT
DILLINGHAM, ALASKA
AIRPORT LAYOUT PLAN

LAND USE PLAN

DATE: 06/19/2012

SHEET: 10 OF 10