

8 IMPLEMENTATION PLAN

8.1 Introduction

This section aims to develop a strategic implementation plan of the recommended improvements identified in this Master Plan Update over the 20-year planning period. The chapter presents the proposed phasing plan, quantities, Rough Order of Magnitude (ROM) cost estimates, and identifies potential funding opportunities for each project outlined in the preferred development concept.

This Implementation Plan intends to provide general financial guidance to the City and Borough of Juneau for making policy decisions regarding the recommended development of the airport over the 20-year development period.

8.2 Proposed Project Phasing

Based on the facility requirements, conversations held with the airport staff and TAC, it is essential to stage the proposed improvements to provide realistic assumptions regarding the funding available for the proposed projects. Each project was placed into one of three general project phasing periods based on the ease of implementation, cost, permitting, commercial development, and logic of project sequencing. The objective was to establish an efficient project development and implementation order that meets the airport expansion needs and demand. Below are the project phasing periods used for this purpose.

- Short-Term Development Period – Projects anticipated to be implemented within years 0 to 5 of the airport plan (2024-2028),
- Mid-Term Development Period – Projects anticipated to be implemented between years 6 to 10 of the plan (2029-2033).
- Long-Term Development Period – Projects anticipated to be implemented between years 11 to 20 of the plan (2034-2043).

Although this study charts a course for planned development, it must be emphasized that the planning and development of an airport is a continuous process. The rehabilitation of existing facilities and the development of new facilities must be predicated on sustained demand, which justifies the costs of improvements.

The airport's current Capital Improvement Program (CIP) includes additional projects beyond those proposed in this Master Plan Update. **Table 8-1** integrates the Master Plan proposed projects and those on the current CIP provided by the airport.

As mentioned before, the projects have been segregated into three periods: Short-Term Development Period (2024-2028), Mid-Term Development Period (2029-2033), and Long-Term Development Period (2034-2043). Additionally, some of the listed projects are anticipated to occur beyond the 20-year planning period.

Table 8-1: Capital Improvement Program - Phasing Plan

Project Number	Description	Implementation Year
Short Term Planning Period (2026-2030)		
1	Replace ARFF truck (2003) 1,500 Gallons	2024
2	Planning Master Plan/ALP	2024
3	Acquire ARFF Wetland Rescue Vehicle	2025
4	Acquire Snow Removal Equipment	2025
5	Runway 26 MALSR - Design	2026
6	E-1 Ramp - Design	2026
7	Acquire Snow Removal Equipment.	2026
8	ADA Elevator Access Departure Lounge Ground Load Gate 6 - Construct	2026
9	Safety Area Grade; RW Shoulder/NAVAIDs - Construct	2026
10	Terminal Area Plan	2026
11	Acquire Zero Emissions Vehicles (ZEV)	2026
12	Runway and Movement Areas Remarketing (5 Years, Year 1)	2026
13	Reconstruct E-1 Ramp	2027
14	Runway 26 MALSR - Construct	2027
15	Conversion Runway 8-26 to 9-27 - MAGVAR - Design	2027
16	Runway and Movement Areas Remarketing (5 Years, Year 2)	2027
17	Departure Lounge and Security Area Improvements - Design	2027
18	Outbound Baggage Belt Improvements - Design	2027
19	Channel Flying Property Acquisition (FAA compliance)	2027
20	Camera/Surveillance Equipment	2027
21	Runway Edge Light Replacement and VASI upgrade to PAPI	2027
22	Replace Trash Compactors/Pads	2027
23	Construction of Air Cargo Terminal (Northeast)	2028
24	Northeast Apron Rehabilitation and Reconfiguration	2028
25	Snow Melt Pad	2028
26	Expansion of Departure Lounge	2028
27	Security Checkpoint Capacity Improvements	2028

Table 8-1: Capital Improvement Program - Phasing Plan

Project Number	Description	Implementation Year
28	Conversion RWY 8/26 to 9/27 MAGVAR - Construct	2028
29	Runway and Movement Areas Remarketing (5 Years, Year 3)	2028
30	Outbound Baggage Belt Improvements - Construct	2028
31	Shell Simmons Dr and Yandukin Dr Terminal Road Upgrade - Design	2028
32	Multi-Modal Feasibility Plan	2028
33	Jordan Creek Culvert at Runway 8-26 Repair	2029
Mid-Term Planning Period (2030-2034)		
34	Passenger Boarding Bridge Gate 6 Design	2029
35	Passenger Boarding Bridge Gate 6 Install	2029
36	Runway and Movement Areas Remarketing (5 Years, Year 4)	2029
37	Shell Simmons Dr and Yandukin Dr Terminal Road Upgrade - Construct	2029
38	Design Fuel Farm Access Rd (airside fence - RSA phase)	2029
39	Runway Rehabilitation - Design	2029
40	Acquire Snow Removal Equipment	2030
41	Emergency Vehicle Access Road (EVAR) Extension - Design	2030
42	Remaining NEDA/TL /F-1 Rehab/Environmental - Design	2030
43	Runway and Movement Areas Remarketing (5 Years, Year 5)	2030
44	Fuel Farm Access Rd - Construct	2030
45	Runway Rehabilitation - Construct	2030
46	Site-Prep Northeast Hangar and Support Facilities (19,900+10,680 SF)	2030
47	Design & Reconstruct Alex Holden Way, Cessna and Renshaw	2030
48	NE Development Area Sewer Infrastructure	2030
49	Phase 4 SREB (remainder of maintenance shop) Non-FAA Eligible	2030
50	Demolition of Existing Maintenance Shop	2030
51	ARFF Truck Replacement (2016) 3,000 gallons	2030
52	Planning and Design of Terminal Expansion	2030
53	Snow Removal Equipment Acquisition 2030	2030
54	Replace Bag Claim (2030)	2030

Table 8-1: Capital Improvement Program - Phasing Plan

Project Number	Description	Implementation Year
55	Construct Emergency Vehicle Access Road (EVAR) extension 2031	2031
56	Planning and Design Parking Garage	2032
57	Design of Taxiway H1 Extension	2032
58	Extension of Taxiway H1	2033
59	Site-Prep for Box Hangar (4 / 60' x 60') Northwest	2033
Long-Term Planning Period (2034-2043)		
60	Airport Master Plan Update	2034
61	Replace Outbound Baggage Belt (2034)	2034
62	PBB Gate 2 Replacement	2035
63	Site-Prep for Box Hangar (2 / 60' x 60') Northwest	2035
64	Parking Garage/Relocate Rental Cars for Terminal Expansion	2035
65	Main Apron /Gate Rehabilitation	2036
66	Decommission of Airfield Lighting Regulator Vault (ALRV)	2036
67	NE/NW Apron Rehabilitation	2036
68	Terminal Apron New Parking Positions (Gate 7)	2036
69	Landside Access Roads Pavement Rehabilitation	2036
70	Passenger Terminal Expansion Construction	2037
71	Site-Prep Northeast Hangar Facilities (10,000 SF)	2037
72	Construct T-hangar (5 units)	2037
73	Snow Removal Equipment Acquisition	2037
74	Passenger Boarding Bridge Install (Gate 7)	2038
75	Site-Prep Aviation Related Facilities - Northeast (15,000 SF)	2038
76	Northwest New Taxilane	2038
77	ARFF Truck Replacement (2024) 1,500 gallons	2039
78	Site-Prep for Box Hangar (60' x 60') 3 units - Northwest	2039
79	Relocation of AWOS	2040
80	Design and Environmental - East End Access Road	2041
81	Construct East End Access Road	2042
82	Site -Prep Construction of Helicopter Facilities (Northeast)	2042

Table 8-1: Capital Improvement Program - Phasing Plan		
Project Number	Description	Implementation Year
83	PBB Gate 5 Replacement	2042
84	Taxiway Rehabilitation	2042
85	Site-Prep for MRO and Supporting Facilities	2042
86	Construct T-hangar (4 units)	2042
87	Construct New Eastern Apron, Site-prep for Box Hangars (18,000 SF) 5 Units	2043
88	Relocate/Construct FAA ATCT	2043
Beyond 20-Year Planning Period (2044 +)		
89	Terminal Rehabilitation / Extend 2045	2044
90	Design Taxiway C Reconfiguration (RIM)	2045
91	Construct TWY C (RIM)	2045
92	Design Runway and Parallel Taxiway Extension	2046
93	Design Taxiway F Extension	2046
94	Runway Shift/Extension	2047
95	Taxiway B and G Relocation	2047
96	Taxiway F Extension	2048
97	Main Apron /Gate Rehab (2044)	2048

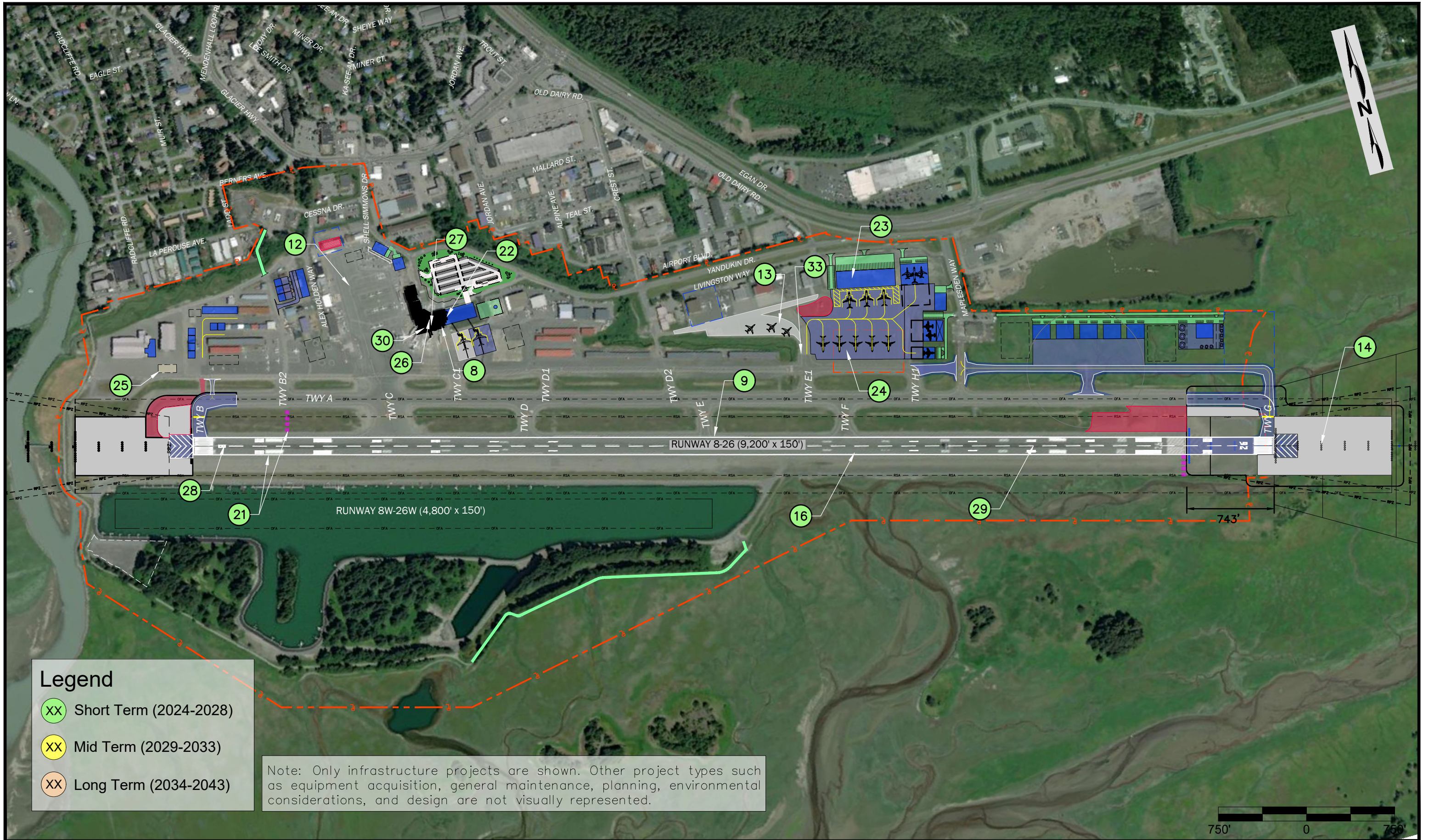
Source: Michael Baker International, Inc. 2025

It is essential to highlight that the projects presented in Table 8-1 should follow the NEPA requirements as described in Chapter 7. By the time of its implementation, environmental actions and studies should be conducted based on the project's potential impacts, determining the NEPA course of action (Catex, EA, or EIS).

In addition, it is considered that additional land should be acquired to accommodate the runway shift/extension project. The acquisition efforts should start early in the project planning process. The proposed land to be acquired is shown in the ALP.

Figures 8-1 through 8-3 illustrate the locations of the infrastructure projects included in CIP. Projects related to equipment acquisition, general maintenance, planning, environmental considerations, and design are not visually represented.

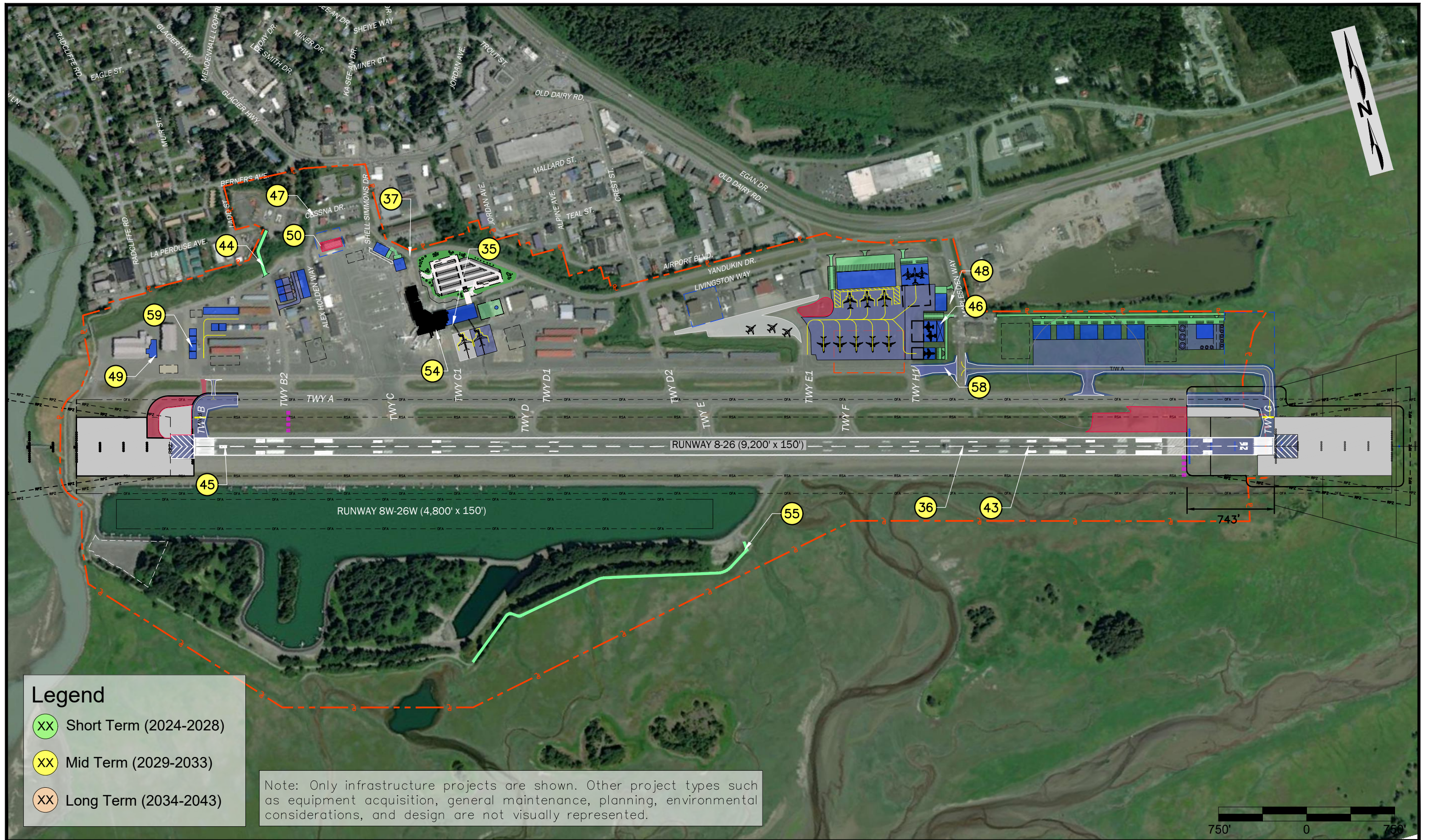
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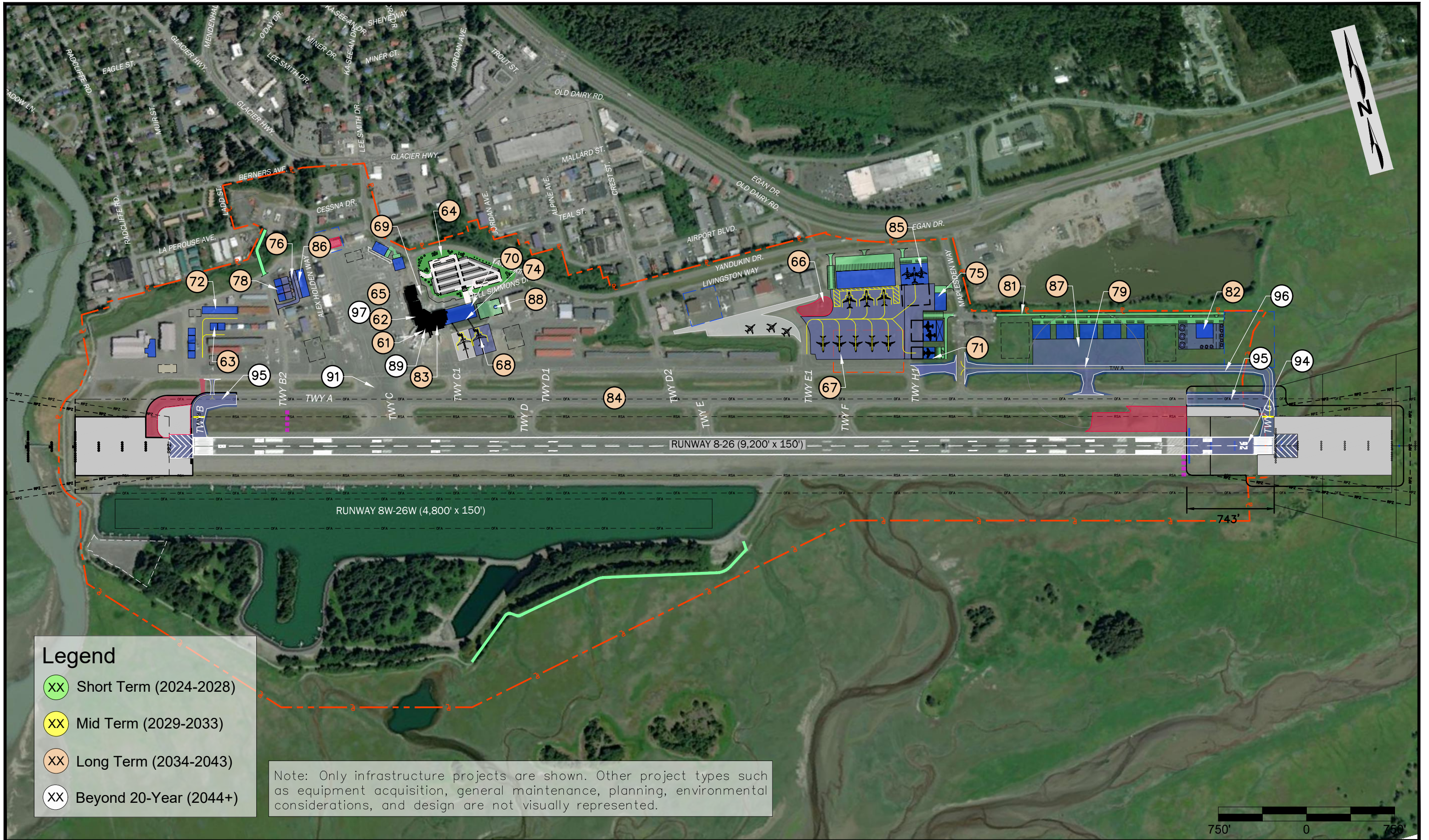


Legend

- XX Short Term (2024-2028)
- XX Mid Term (2029-2033)
- XX Long Term (2034-2043)

Note: Only infrastructure projects are shown. Other project types such as equipment acquisition, general maintenance, planning, environmental considerations, and design are not visually represented.





8.3 Cost Estimates

Probable construction costs are estimated for the proposed Master Plan projects outlined in the preferred development concept. The order of magnitude cost estimates associated with the proposed projects are presented in 2025 dollars and include estimated engineering fees and contingencies; however, these costs have also been escalated to account for inflation. The US inflation rate has averaged around 3 percent over the last 10 years²; however, as reported by the DOT&PF, Alaska projects' construction costs have increased significantly over the past years. During the past decade, construction costs in Alaska have shifted from experiencing moderate increases to undergoing significant inflation. In the mid-2010s, inflation was low (often 1–2 percent annually), keeping construction costs relatively stable. However, starting around 2018–2019, costs began rising due to higher oil prices and a strengthening construction market. The COVID-19 pandemic (2020) then caused supply-chain disruptions that significantly accelerated cost inflation.

The Bureau of Labor Statistics (BLS) in its Consumer Price Index (CPI) data for the Alaska Region indicates that inflation was generally below 2 percent throughout most of the 2010s, followed by an increase to between 7 and 12 percent in 2022. By 2024–2025, it declined to approximately 2 percent or lower. This pattern is consistent with national trends. Construction inflation has been higher than consumer inflation during this period.

In addition, several key factors impact the Alaska construction cost, including logistics and remote access, labor and contractor availability, and short construction seasons. Additionally, an analysis by NOAA and the University of Alaska indicates that warming temperatures and changing environmental conditions have an impact on infrastructure costs due to permafrost thaw, coastal erosion, extreme weather, and shorter winters. Those climate-related factors are increasing construction costs in Alaska. Contingencies for geotechnical and environmental challenges should also be included in the estimation beyond normal inflation.

Due to a higher-risk condition, project costs have been escalated by 5 percent per year to account for inflation. As time goes by, the values should be reviewed to better determine if any project cost adjustments have occurred. Although the costs for construction projects are highly variable due to the fluctuating cost of materials (e.g., asphalt, steel, and energy production), a reasonable estimate of future costs can be calculated by adjusting the costs by the appropriate Consumer Price Index (CPI) inflation factor.

For planning purposes, the following engineering fees and contingency percentages are added to the base construction cost as applicable.

- 15% Contingency
- 10% Engineering Design
- 10% Construction Phase Professional Services
- 5% Utility Relocations

The projections should be used for planning purposes only and do not imply that funding will be available. Each year indicates the initiation of design and/or environmental efforts, and it

² US Bureau of Labor Statistics – Databases, Tables and Calculators 2015-2025 Consumer Price Index

is assumed that construction will be undertaken either in the same year or the following year.

8.4 Sources of Funding

Large-scale development projects at an airport are typically beyond the normal annual budget capacity and cannot be supported solely with self-generated funds. In these situations, it is not uncommon for an airport to seek funding from outside sources. These sources can offer funding for projects directly or be combined to achieve the required funding level. In certain instances, funding sources are subject to annual or lifetime limits, as is the case with Federal Aviation Administration (FAA) entitlements. When faced with an annual cap, airports frequently manage projects in annual phases and seek grants to secure the required funding. Most sources do not guarantee funding, and applicable projects must compete against one another. Funding sources for this Implementation Plan were analyzed and summarized from various governing bodies, including the Federal Government, State Government, Local Government, and through activity at JNU. These potential funding sources include:

- Federal Government:
 - FAA Airport Improvement Program
 - Infrastructure Investment and Jobs Act
 - FAA Passenger Facility Charges
- State Government:
- Local Funding
- Private Development and Public/Private Partnerships

Depending on the characteristics of each project, JNU has the opportunity to access funding from both governmental agencies and through negotiations with current and future tenants for projects that will directly benefit the tenants' operations, in accordance with the rules and regulations associated with each funding source.

The potential funding sources for this Implementation Plan were analyzed and are described in the following sections. The listed possible funding sources are not all-encompassing, as grant programs tend to open and close due to government funding availability. Therefore, it is recommended that when JNU is prepared to begin the initial planning for any project listed, it should be coordinated with the sponsoring department to discuss the project's justification and benefits, particularly if intended grants are involved.

8.5 Federal Funding

8.5.1 FAA Airport Improvement Program (AIP)

Federal funding for airports is coordinated through the FAA. AIP funding is generated through taxes on passenger tickets and aviation fuel and is typically prioritized to enhance safety, security, capacity, and mitigate noise. The Airport Improvement Program “provides grants to public agencies – and, in some cases, to private owners and entities – for the planning and development of public-use airports that are included in the National Plan of Integrated

Airport Systems (NPIAS).”³ The two main categories of AIP funding managed by the FAA are entitlements and discretionary funding.

Entitlement sub-categories are based on passenger enplanements, cargo entitlement, non-primary entitlement, state apportionment funds, and Alaska Supplemental. It is estimated that about two-thirds of AIP’s annual funds are allocated to airports via entitlement grants.⁴

Discretionary funding comprises the remaining one-third of AIP’s annual funds and is allocated to specific projects based on their overall importance and priority. AIP grants are designated to be used for eligible capital projects, equipment, and certain types of planning and environmental studies. They cannot be used for airport operating expenses or for debt financing.

Accepting these grants from the FAA includes the acceptance of certain obligations and conditions associated with the FAA’s Grant Assurances. According to the FAA, these obligations generally include operating and maintaining the airport in a safe and serviceable condition, not granting exclusive rights, mitigating hazards to airspace, and using airport revenue properly.

As of the 2025-2029 NPIAS report, the FAA classified JNU as a Commercial Service Primary Non-hub airport, meaning the airport is a publicly owned airport with at least 2,500 annual enplanements and scheduled air carrier service receiving less than 0.05 percent but more than 10,000 of the US commercial enplanements. As a non-hub airport, JNU also fulfills the principal role of a community airport, providing a means for private general aviation flying, linking the community with the national airport system, and making other unique contributions. JNU is a vital facility for the community, supporting medevac flights, emergency response, and essential freight delivery. It enables rapid medical transport, serves as a staging area during natural disasters, and ensures the flow of food, medicine, and supplies to Juneau and the nearby regions, especially when other transport options are limited.

The CIP identifies recommended projects and associated cost estimates for the 20-year planning period at JNU. FAA Order 5100.38D, *Airport Improvement Program (AIP) Handbook*, sets forth the official policy and procedures to be used in the administration of AIP grants. **Table 8-2** lists typical examples of eligible and ineligible AIP projects.

FAA Order 5100.38D, Change 1, also indicates that, pursuant to 49 USC §47109(b), eligible AIP projects at Non-hub Commercial Airports in Alaska have an increased federal share, with the FAA covering 93.75 percent of the project costs and the sponsor responsible for 6.25 percent.

According to the FAA, for FY 2025, JNU had 440,279 total enplanements, resulting in \$3,069,451 in entitlements.⁵

³ <https://www.faa.gov/airports/aip>

⁴ Evaluating the formulation of the National Plan of Integrated Airport Systems (NPIAS)

⁵ https://www.faa.gov/airports/aip/grantapportion_data

Table 8-2: Examples of Eligible vs. Ineligible AIP Projects

Eligible Projects	Ineligible Projects
Runway construction/rehabilitation	Maintenance equipment and vehicles
Taxiway construction/rehabilitation	Office and office equipment
Apron construction/rehabilitation	Fuel farms*
Airfield lighting	Landscaping
Airfield signage	Artworks
Airfield drainage	Aircraft hangars*
Land acquisition	Industrial Park development
Weather observation stations (AWOS)	Marketing plans
NAVAIDs such as REILs and PAPIs	Training
Planning studies	Improvements for commercial enterprises
Environmental studies	Maintenance or repairs of buildings
Safety area improvements	
Airport layout plans (ALPs)	
Access roads only located on airport property	
Removing, lowering, moving, marking, and lighting hazards	
Glycol Recovery Trucks/Glycol Vacuum Trucks**	

Source: FAA AIP Overview, FAA website.

*May be eligible. Contact your local Airport District or Regional Office for more information.

**To be eligible, the vehicles must be owned and operated by the airport and meet the Buy American Preference specified in the AIP grant. Contact your local Airport District or Regional Office for more information.

In addition, the following must also apply for FAA to consider a project for AIP funding:

The project sponsorship requirements have been met.

The project is reasonably consistent with the plans of planning agencies for the development of the area in which the airport is located.

Sufficient funds are available for the portion of the project not paid for by the Federal Government.

The project will be completed without undue delay.

The airport location is included in the current version of the NPIAS.

The project involves more than \$25,000 in AIP funds.

The project is depicted on a current airport layout plan approved by FAA. All safety issues have been addressed.

In addition to the entitlements, JNU can apply for discretionary funding. The FAA awards approximately \$1.5 billion in discretionary grants each fiscal year. Through the FAA's long-standing iterative, competitive grant process, the FAA identifies eligible applicants in the NPIAS and compiles potentially eligible projects through the 3-year Airports Capital Improvement Plan (ACIP) based on project ranking and other factors.

Airports located in Alaska have special provisions for supplemental discretionary funding provided by the FAA, which expands eligibility under the AIP. These provisions are because aviation is essential for connecting communities and delivering services due to the state's geography and limited road access.

On May 20, 2025, the FAA released the Reauthorization Program Guidance Letter (R-PGL) 25-08: *Alaska and Other Noncontiguous States and Territories*. The document explains and implements provisions in the FAA Reauthorization Act of 2024 (the 2024 Act) (P.L. 118-63), which amends and expands AIP funding eligibility for various project costs in Alaska and other non-contiguous states and territories.

The letter addressed the following specific provisions:

- Don Young Alaska Aviation Safety Initiative,
 - Focuses on aviation safety improvements in remote and underserved areas
 - Allows AIP funds to be used at “covered airports.”
- Runway Projects in Alaska:
 - The FAA is prohibited from restricting AIP funding for runway extensions or improvements at eligible Alaska airports.
 - Ensures flexibility for runway lengthening and safety area enhancements.
- Fuel Infrastructure for Snow Removal Equipment in Alaska
 - Grants exceptions to standard FAA AIP Handbook rules for Alaska.
 - Allows more flexible project eligibility and cost coverage.
- AIP Handbook Exceptions for the State of Alaska
 - Grants exceptions to standard FAA AIP Handbook rules for Alaska.
 - Allows more flexible project eligibility and cost coverage.

8.5.2 Infrastructure Investment and Jobs Act

The Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure and Investment Jobs Act (Bipartisan Infrastructure Law or BIL), was enacted and signed into law on November 15, 2021. The IIJA authorizes up to \$108 billion for public transportation – the largest federal investment in public transportation in the nation’s history. The purpose of the IIJA legislation is to advance public transportation in America’s communities through four key priorities: safety, modernization, climate, and equity. The IIJA includes approximately \$25 billion for the National Airspace System; approximately \$5 billion is for improvements to FAA-owned facilities and equipment and the FAA’s Office of Airports (ARP) will administer the remaining \$20 billion in grant funds for airport infrastructure, terminal development, including multimodal terminal development, including on-airport rail access projects, and airport-owned airport traffic control towers.⁶ However, the IIJA has distributed these funds over the five-year period from FY 2022 through FY 2026.

The \$20 billion in grant funds for airports have been distributed among two different programs: Airport Infrastructure Grants (AIG) and the Airport Terminal Program (ATP)

The Airport Infrastructure Grants (AIG) program provides \$14.5 billion in funding over five years starting in FY 2022. This includes up to \$2.39 billion for primary airports and up to \$500 million for non-primary airports. These funds can be invested in runways, taxiways, safety and sustainability projects, as well as terminal, airport transit connections, and roadway projects. The sponsor’s match is the same as for the sponsor’s AIP grants.

⁶ <https://www.faa.gov/faq/q-01-how-does-infrastructure-investment-and-jobs-act-iija-benefit-airports>

Nearly \$12 billion in AIG funding has been made available to airports nationwide. For JNU, \$13.7 million has been allocated for fiscal years 2022-2025.

The Airport Terminal Program (ATP) provides approximately \$4.85 billion (\$970 million annually). Airports can compete for ATP grants to be used for justified terminal development projects as defined under 49 USC §7102(28), including multi-modal terminal development and on-airport rail access projects. The sponsor matches 20 percent for large- and medium-hub airports and 5 percent for small-hub, non-hub, and non-primary airports.

From 2022 to 2025, only four airports in Alaska have been awarded funds through the ATP: Fairbanks International Airport (FAI), Ted Stevens Anchorage International Airport (ANC), Ketchikan International Airport (KTN), and Sitka Rocky Gutierrez (SIT).

8.5.3 Passenger Facility Charges

Airports controlled by public agencies may participate in the FAA Passenger Facility Charge (PFC) program, in which airports collect fees up to \$4.50 per eligible passenger to fund FAA-approved projects that enhance safety, security, or capacity, reduce noise, or increase air carrier competition. PFC revenues may be used to pay all or part of FAA-approved project costs; pay debt service and financing costs associated with bond issuance in addition to AIP funds; and as AIP matching funds. **Table 8-3** presents some examples of eligible and ineligible projects. PFCs are collected by air carriers at the time of ticket sale and remitted to the airport, with carriers retaining a fee of \$0.11 per PFC collected.

For airports classified as large or medium primary hubs that collect a PFC, passenger entitlement funds are reduced based on the level of approved PFCs. JNU is designated as a non-hub airport, and the airport's passenger entitlement grants would not be subject to this reduction.

The PFC approved for JNU from August 2001 to September 2026 is \$4.50 (less carrier retention). Since its last approval in August, JNU has received approximately \$26 million on PFC as of December 31, 2024.

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Table 8-3: Examples of Eligible vs. Ineligible – PFC		
Category	Examples of Eligible Projects	Examples of Ineligible Projects
Runways & Taxiways	Runway extensions; Taxiway rehabilitation; Pavement upgrades	Routine maintenance not tied to capacity or safety improvements
Terminals	Terminal expansion; Gate additions; Baggage handling system upgrades	Retail or concession space improvements
Noise Mitigation	Residential soundproofing; School insulation programs	Projects not directly tied to aircraft noise mitigation
Security Enhancements	Access control systems; Baggage screening equipment	General law enforcement equipment not specific to airport security
Ground Access	On-airport rail systems; Access roads within airport boundaries	Off-airport roads or transit systems not directly connected to airport operations
Airfield Lighting & Signage	LED lighting upgrades; Improved airfield signage	Decorative lighting or signage not related to safety or operations
Capacity & Competition	New gates to support new entrants; Apron expansions	Airline-specific facilities not available for common use
Debt Service	Repayment of bonds for eligible projects	Debt for ineligible or non-approved projects

Source: Passenger Facility Charge (PFC) Program - compiled by Michael Baker International Inc.

8.6 State Funding

8.6.1 Alaska State General Funds Match

The Alaska State General Funds are used to encourage local government support for public transportation by matching local funds, and to provide needed match support for effective statewide participation in federal discretionary grant programs⁷.

Funding for JNU typically comes through the State’s Capital Budget for infrastructure projects and the Operating Budget for maintenance and operations, based on the Alaska Statewide Long-Range Transportation Plan.

While not part of the Alaska International Airport System and not a handler of international cargo, it serves as a critical transportation link, as Juneau does not have roadways that connect to other parts of Alaska or North America.

For large projects, in the past, the state has provided funding by matching 50 percent of the local responsibility. For example, on two large JNU Capital Improvement Projects (\$85 million for Runway Safety Area construction and \$26 million for Runway Rehab Project

⁷https://dot.alaska.gov/stwdplng/transit/asgf_projects.shtml#:~:text=The%20Alaska%20State%20General%20Funds,prior%20to%20a%20final%20decision.

construction), federal sources funded 93 percent, with the state and local governments each contributing 3.5 percent.

The Snow Removal Equipment Facility (SREF) project was approximately \$22 million and was funded with \$17 million from the federal government, \$3.5 million from the state, and \$2 million from local sources. (Local funds included repaying close to \$2 million to the FAA.)⁸

Since obtaining funds from the state is uncertain and depends on the project and state support, for the CIP effort, state funding will not be considered.

8.7 Local Funding

Local airport owners and sponsors, such as counties, cities, and/or airport authorities, are frequently responsible for costs associated with airport development projects that remain after federal and state shares have been applied. In cases where outside funding is not enough to cover the total project cost, or if a project does not apply to any funding sources, the airport sponsor may provide the local share from its annual cash flow or available cash reserves. Additionally, it is desired that airports generate enough revenue to cover their operating expenses and the local match for federal grants.

Airport revenue is generated by airport rates and fees, which are structured to ensure the airport is as financially self-sustaining as possible, while ensuring fair and reasonable rates⁹. The Juneau International Airport is a municipally owned facility operated as an enterprise of the City and Borough of Juneau (CBJ). The airport is governed by a board consisting of seven members, who are appointed by the CBJ Assembly. In March 2024, the Board approved an amendment to adopt a new Title 7, Chapter 10 of the Administrative Code, which outlines the policies, rates, and fees applicable to JNU.

The following activities are the revenue generators for JNU

- Fuel Flowage Fees
- Landing fees
- Air Carrier Terminal Leases (Counter, Offices, Baggage Claim, Storage, Departure Lounge, Passenger Boarding Bridge)
- Aircraft Parking Fees
- Land Lease Rates
- Rental Car Lot
- Commercial Vehicle Access Fee
- Boundary Crossing Fee
- International Passenger Processing Fee
- Employee Parking Fee
- Concession Fees
- Governmental Agency Rental Rates

⁸ Economic Impact of the Juneau International Airport 2017.

⁹ Juneau International Airport, Rates and Fees Regulation 07/01/2024

- Airport Reimbursable costs
- Badging and Fingerprints fees
- Airline Fee for Airport Security Screening
- Lease action filing fee

8.7.1 Public Private Partnerships / Third-Party Development

Public Private Partnerships are “arrangements, typically medium to long term, between the public and private sectors whereby some of the services that fall under the responsibilities of the public sector are provided by the private sector, with clear agreement on shared objectives for delivery of public infrastructure and/or public services.” These arrangements provide airports with an opportunity to develop projects crucial to their growth, without absorbing the financial burden of construction and operational costs.

However, these arrangements also require airports to work closely with outside operators and could potentially result in less airport involvement during certain capital development projects. Many airports use private or third-party investment when a private business or other organization will primarily use the planned improvements. Such projects are not ordinarily eligible for federal funding. Projects of this kind typically include hangars, fixed based operator facilities (FBO), fuel storage, exclusive aircraft parking aprons, industrial aviation use facilities, non-aviation office/commercial/industrial developments, and other similar projects. Private development proposals are considered on a case-by-case basis. Often, airport funds are required for infrastructure, preliminary site work, and site access to facilitate privately developed projects on airport property.

Some projects proposed in the Master Plan involve the development of private use facilities such as box hangars. In those cases, the funding plan considers that the airport's responsibility is limited to preparing sites for third-party development. Consequently, the total cost of these developments remains undetermined, as it will depend on the developer's selected design and will be their responsibility.

8.8 Funding Plan

As part of the Master Plan Update process, a comprehensive list of Master Plan recommended development projects, as well as those previously identified by the airport, is presented in **Table 8-3**. This list includes the cost estimate and the development phasing plan.

The costs of projects not proposed in this Master Plan update, but originally included in the airport CIP, have not been revalidated or escalated. The estimated cost was provided by JNU staff and incorporated into the CIP. Additionally, the potential source of funding for these projects has remained unchanged as proposed by the Sponsor.

Table 8-3 outlines a proposed funding strategy, breaking down the projects into the three timelines previously detailed in **Section 8-2: Short-Term Funding (2024-2028)**, **Mid-Term Funding (2029-2033)**, and **Long-Term Funding (2034-2043)**. In addition, some projects beyond the 20-year planning period have been identified. It is essential to note that this strategy does not include a financial feasibility analysis; the intent is to provide a roadmap for the airport and the City and Borough of Juneau regarding potential sources of funding that can be utilized for project development.

The projections should be used for planning purposes only and do not imply that funding will be available. Each year indicates the initiation of design and/or environmental efforts, and it is assumed that construction will be undertaken either in the same year or the following year.

It is recommended that the proposed strategy serve as the foundation for a more comprehensive planning session when developing the airport's annual Airport Capital Improvement Plan (ACIP) submission to the FAA.

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Table 8-4: CIP - Potential Funding Sources

Project Number	Description	2025 Cost	Implementation Year	Actual Cost (5% Inflation)	Federal	PFC	Local	Third Party
Short-Term Planning Period (2025-2029)								
1	Replace ARFF truck (2003) 1,500 Gallons	\$1,070,116	2024	\$1,070,116	\$-	\$-	\$1,070,116	\$-
2	Planning Master Plan/ALP	\$972,671	2024	\$972,671	\$911,879	\$60,792	\$-	\$-
3	Acquire ARFF Wetland Rescue Vehicle	\$320,200	2025	\$320,200	\$300,200	\$-	\$20,000	\$-
4	Acquire Snow Removal Equipment	\$1,097,875	2025	\$1,097,875	\$1,037,875	\$-	\$60,000	\$-
5	Runway 26 MALSR - Design	\$900,000	2026	\$900,000	\$855,000	\$-	\$45,000	\$-
6	E-1 Ramp - Design	\$750,000	2026	\$750,000	\$712,500	\$-	\$37,500	\$-
7	Acquire Snow Removal Equipment.	\$6,000,000	2026	\$6,000,000	\$5,625,000	\$375,000	\$-	\$-
8	ADA Elevator Access Departure Lounge Ground Load Gate 6 - Construct	\$2,500,000	2026	\$2,500,000	\$2,375,000	\$-	\$125,000	\$-
9	Safety Area Grade; RW Shoulder/NAVAIDs - Construct	\$3,300,000	2026	\$3,300,000	\$3,135,000	\$165,000	\$-	\$-
10	Terminal Area Plan	\$800,000	2026	\$800,000	\$760,000	\$40,000	\$-	\$-
11	Acquire Zero Emissions Vehicles (ZEV)	\$445,000	2026	\$445,000	\$422,750	\$-	\$22,250	\$-
12	Runway and Movement Areas Remarking (5 Years, Year 1)	\$250,000	2026	\$250,000	\$237,500	\$-	\$12,500	\$-
13	Reconstruct E-1 Ramp	\$6,000,000	2027	\$6,000,000	\$5,625,000	\$-	\$375,000	\$-
14	Runway 26 MALSR - Construct	\$6,700,000	2027	\$6,700,000	\$6,365,000	\$335,000	\$-	\$-
15	Conversion Runway 8-26 to 9-27 - MAGVAR - Design	\$400,000	2027	\$400,000	\$375,000	\$-	\$25,000	\$-
16	Runway and Movement Areas Remarking (5 Years, Year 2)	\$250,000	2027	\$250,000	\$237,500	\$1	\$12,500	\$-
17	Departure Lounge and Security Area Improvements - Design	\$800,000	2027	\$800,000	\$750,000	\$50,000	\$-	\$-
18	Outbound Baggage Belt Improvements - Design	\$100,000	2027	\$100,000	\$95,000	\$5,000	\$-	\$-
19	Channel Flying Property Acquisition (FAA compliance)	\$3,000,000	2027	\$3,000,000	\$2,812,500	\$-	\$187,500	\$-
20	Camera/Surveillance Equipment	\$50,000	2027	\$50,000	\$-	\$-	\$50,000	\$-
21	Runway Edge Light Replacement and VASI Upgrade to PAPI	\$4,544,708	2027	\$4,544,708	\$4,260,663	\$284,044	\$-	\$-
22	Replace Trash Compactors/Pads	\$350,000	2027	\$350,000	\$-	\$-	\$350,000	\$-
23	Construction of Air Cargo Terminal (Northeast)	\$15,310,848	2028	\$17,724,221	\$-	\$1,772,422	\$-	\$15,951,799
24	Northeast Apron Rehabilitation and Reconfiguration	\$10,675,719	2028	\$12,358,479	\$11,586,074	\$-	\$772,405	\$-
25	Snow Melt Pad	\$977,324	2028	\$1,131,375	\$-	\$-	\$1,131,375	\$-
26	Expansion of Departure Lounge	\$3,879,876	2028	\$4,491,441	\$4,210,726	\$280,715	\$-	\$-
27	Security Checkpoint Capacity Improvements	\$5,988,312	2028	\$6,932,219	\$6,498,956	\$433,264	\$-	\$-
28	Conversion RWY 8/26 to 9/27 MAGVAR - Construct	\$800,000	2028	\$800,000	\$750,000	\$50,000	\$-	\$-
29	Runway and Movement Areas Remarking (5 Years, Year 3)	\$250,000	2028	\$250,000	\$237,500	\$12,500	\$-	\$-
30	Outbound Baggage Belt Improvements - Construct	\$2,000,000	2028	\$2,000,000	\$1,875,000	\$-	\$125,000	\$-
31	Shell Simmons Dr and Yandukin Dr Terminal Road Upgrade - Design	\$1,000,000	2028	\$1,000,000	\$937,500	\$62,500	\$-	\$-

Table 8-4: CIP - Potential Funding Sources

Project Number	Description	2025 Cost	Implementation Year	Actual Cost (5% Inflation)	Federal	PFC	Local	Third Party
32	Multi-Modal Feasibility Plan	\$500,000	2028	\$500,000	\$-	\$-	\$500,000	\$-
33	Jordan Creek Culvert at Runway 8-26 Repair	\$3,581,621	2029	\$3,581,621	\$-	\$-	\$3,581,621	\$-
Total Short-Term				\$91,369,926	\$62,989,123	\$3,926,238	\$8,502,767	\$15,951,799
Mid-Term Planning Period (2029-2033)								
33	Passenger Boarding Bridge Gate 6 Design	\$400,000	2029	\$400,000	\$375,000	\$25,000	\$-	\$-
34	Passenger Boarding Bridge Gate 6 Install	\$9,105,762	2029	\$9,105,762	\$8,195,186	\$910,576	\$-	\$-
35	Runway and Movement Areas Remarking (5 Years, Year 4)	\$250,000	2029	\$250,000	\$237,500	\$12,500	\$-	\$-
36	Shell Simmons Dr and Yandukin Dr Terminal Road Upgrade - Construct	\$10,000,000	2029	\$10,000,000	\$9,375,000	\$625,000	\$-	\$-
37	Design Fuel Farm Access Rd (airside fence - RSA phase)	\$500,000	2029	\$500,000	\$-	\$-	\$500,000	\$-
38	Runway Rehabilitation - Design	\$3,000,000	2029	\$3,000,000	\$2,812,500	\$-	\$187,500	\$-
39	Acquire Snow Removal Equipment	\$6,000,000	2030	\$6,000,000	\$5,625,000	\$-	\$375,000	\$-
40	Emergency Vehicle Access Road (EVAR) Extension - Design	\$750,000	2030	\$750,000	\$703,125	\$-	\$46,875	\$-
41	Remaining NEDA/TL / F-1 Rehabilitation/Environmental - Design	\$1,000,000	2030	\$1,000,000	\$937,500	\$-	\$62,500	\$-
42	Runway and Movement Areas Remarking (5 Years, Year 5)	\$250,000	2030	\$250,000	\$237,500	\$-	\$12,500	\$-
43	Fuel Farm Access Rd - Construct	\$2,155,672	2030	\$2,155,672	\$-	\$-	\$2,155,672	\$-
44	Runway Rehab - Construct	\$30,000,000	2030	\$30,000,000	\$28,125,000	\$-	\$1,875,000	\$-
45	Site-Prep Northeast Hangar and Support Facilities (19,900+10,680 SF)	\$807,767	2030	\$1,030,938	\$-	\$-	\$1,030,938	\$-
46	Design & Reconstruct Alex Holden Way, Cessna and Renshaw	\$2,200,000	2030	\$2,200,000	\$-	\$-	\$2,200,000	\$-
47	NE Development Area Sewer Infrastructure	\$300,000	2030	\$382,884	\$-	\$-	\$382,884	\$-
48	Phase 4 SREB (remainder of maintenance shop) Non-FAA Eligible.	\$12,300,000	2030	\$12,300,000	\$-	\$-	\$12,300,000	\$-
49	Demolition of Existing Maintenance Shop	\$73,356	2030	\$93,622	\$-	\$-	\$93,622	\$-
50	ARFF Truck Replacement (2016) 3,000 gallons	\$2,000,000	2030	\$2,000,000	\$1,875,000	\$-	\$125,000	\$-
51	Planning and Design of Terminal Expansion	\$897,000	2030	\$1,144,825	\$1,073,273	\$71,552	\$-	\$-
52	Snow Removal Equipment Acquisition 2030	\$5,000,000	2030	\$5,000,000	\$4,687,500	\$-	\$312,500	\$-
53	Replace Bag Claim (2030)	\$4,000,000	2030	\$5,105,126	\$4,786,056	\$319,070	\$-	\$-
54	Emergency Vehicle Access Road (EVAR) Extension - Construction	\$3,000,000	2031	\$4,020,287	\$3,769,019	\$-	\$251,268	\$-
55	Planning and Design Parking Garage	\$485,300	2032	\$682,866	\$640,187	\$42,679	\$-	\$-
56	Design of Taxiway H1 Extension	\$300,000	2032	\$422,130	\$395,747	\$-	\$26,383	\$-
57	Extension of Taxiway H1	\$1,766,832	2033	\$2,610,415	\$2,447,264	\$-	\$163,151	\$-
58	Site-Prep for Box Hangar (4 / 60' x 60') Northwest	\$430,913	2033	\$636,655			\$636,655	\$-
Total Mid-Term				\$101,041,182	\$76,297,356	\$2,006,377	\$22,737,448	\$-
Long-Term Planning Period (2034-2043)								

Table 8-4: CIP - Potential Funding Sources

Project Number	Description	2025 Cost	Implementation Year	Actual Cost (5% Inflation)	Federal	PFC	Local	Third Party
59	Airport Master Plan Update	\$1,200,000	2034	\$1,861,594	\$1,745,244	\$116,350	\$-	\$-
60	Replace Outbound Baggage Belt (2034)	\$4,000,000	2034	\$4,000,000	\$3,750,000	\$250,000	\$-	\$-
61	PBB Gate 2 Replacement	\$3,500,000	2035	\$3,500,000	\$3,281,250	\$218,750	\$-	\$-
62	Site-Prep for Box Hangar (2 / 60' x 60') Northwest	\$112,653	2035	\$183,500	\$-	\$-	\$183,500	\$-
63	Parking Garage/Relocate Rental Cars for Terminal Expansion	\$170,777,667	2035	\$278,178,823	\$260,792,647	\$17,386,176	\$-	\$-
64	Main Apron /Gate Rehabilitation	\$25,000,000	2036	\$25,000,000	\$23,437,500	\$-	\$1,562,500	\$-
65	Decommission of Airfield Lighting Regulator Vault (ALRV)	\$2,000,000	2036	\$3,420,679	\$3,206,886	\$-	\$213,792	\$-
66	NE/NW Apron Rehabilitation	\$25,000,000	2036	\$25,000,000	\$23,437,500	\$-	\$1,562,500	\$-
67	Terminal Apron New Parking Positions (Gate 7)	\$999,443	2036	\$1,709,387	\$1,602,551	\$106,837	\$-	\$-
68	Landside Access Roads Pavement Rehabilitation	\$15,000,000	2036	\$15,000,000	\$14,062,500	\$-	\$937,500	\$-
69	Passenger Terminal Expansion Construction	\$107,420,494	2037	\$192,911,773	\$180,854,787	\$12,056,986	\$-	\$-
70	Site-Prep Northeast Hangar Facilities (10,000 SF)	\$415,804	2037	\$746,725	\$-	\$-	\$746,725	\$-
71	Construct T-hangar (5 units)	\$1,316,362	2037	\$2,363,997	\$-	\$-	\$2,363,997	\$-
72	Snow Removal Equipment Acquisition	\$7,000,000	2037	\$7,000,000	\$6,562,500	\$437,500	\$-	\$-
73	Passenger Boarding Bridge Install (Gate 7)	\$5,729,170	2038	\$10,803,205	\$10,128,005	\$675,200	\$-	\$-
74	Site-Prep Aviation Related Facilities - Northeast (15,000 SF)	\$224,811	2038	\$423,914	\$-	\$-	\$423,914	\$-
75	Northwest New Taxilane	\$399,194	2038	\$752,739	\$705,693	\$-	\$47,046	\$-
76	ARFF Truck Replacement (2024) 1,500 gallons	\$2,200,000	2039	\$2,200,000	\$2,062,500	\$-	\$137,500	\$-
77	Site-Prep for Box Hangar (60' x 60') 3 units - Northwest	\$421,144	2039	\$833,837	\$-	\$-	\$833,837	\$-
78	Relocation of AWOS	\$1,145,936	2040	\$2,382,318	\$2,233,423	\$-	\$148,895	\$-
79	Design and Environmental - East End Access Road	\$500,000	2041	\$1,091,437	\$1,023,222	\$-	\$68,215	\$-
80	Construct East End access road	\$1,437,428	2042	\$3,294,612	\$3,088,698	\$-	\$205,913	\$-
81	Site -Prep Construction of Helicopter Facilities (Northeast)	\$2,640,148	2042	\$6,051,269	\$-	\$-	\$6,051,269	\$-
82	PBB Gate 5 Replacement	\$3,500,000	2042	\$3,500,000	\$3,281,250	\$218,750	\$-	\$-
83	Taxiway Rehab	\$30,000,000	2042	\$30,000,000	\$28,125,000	\$-	\$1,875,000	\$-
84	Site-Prep for MRO and Supporting Facilities	\$927,403	2042	\$2,125,625	\$-	\$-	\$2,125,625	\$-
85	Construct T-hangar (4 units)	\$1,658,760	2042	\$3,801,908	\$-	\$-	\$3,801,908	\$-
86	New Eastern Apron, Site-prep Box Hangars (18,000 SF) 5 Units	\$10,729,615	2043	\$25,822,098	\$24,208,217	\$-	\$1,613,881	\$-
87	Relocate/Construct FAA ATCT	\$50,000,000	2043	\$50,000,000	\$50,000,000	\$-	\$-	\$-
			Total Long-Term	\$703,959,441	\$647,589,374	\$31,466,549	\$24,903,518	\$-
Beyond 20-Year Planning Period (2044+)								
88	Terminal Rehabilitation / Extend 2045	\$40,000,000	2044	\$40,000,000	\$36,000,000	\$-	\$4,000,000	\$-
89	Design Taxiway C Reconfiguration (RIM)	\$750,000	2045	\$750,000	\$675,000	\$-	\$75,000	\$-

Table 8-4: CIP - Potential Funding Sources

Project Number	Description	2025 Cost	Implementation Year	Actual Cost (5% Inflation)	Federal	PFC	Local	Third Party
90	Construct Taxiway C (RIM)	\$5,000,000	2045	\$5,000,000	\$4,500,000	\$-	\$500,000	\$-
91	Design Runway and Parallel Taxiway Extension	\$750,000	2046	\$2,089,472	\$1,880,525	\$-	\$208,947	\$-
92	Design Taxiway F Extension	\$750,000	2046	\$2,089,472	\$1,880,525	\$-	\$208,947	\$-
93	Runway Shift/Extension	\$42,030,953	2047	\$122,951,497	\$110,656,347	\$-	\$12,295,150	\$-
94	Taxiway B and G Relocation	\$14,521,481	2047	\$42,479,119	\$38,231,207	\$-	\$4,247,912	\$-
95	Taxiway F Extension	\$13,963,772	2048	\$42,890,058	\$38,601,052	\$-	\$4,289,006	\$-
96	Main Apron /Gate Rehabilitation (2044)	\$25,000,000	2048	\$25,000,000	\$22,500,000	\$-	\$2,500,000	\$-
Total 2044+				\$283,249,617	\$254,924,655	\$-	\$28,324,962	\$-
TOTAL				\$1,179,620,165	\$1,041,800,509	\$37,399,164	\$84,468,694	\$15,951,799

9 AIRPORT LAYOUT PLANS

9.1 Introduction

The purpose of an approved Airport Layout Plan (ALP) is to serve as the blueprint for future airport development. One condition of accepting and utilizing grant funding for airport improvement projects is to maintain an updated ALP. For the Juneau International Airport (JNU), the updated development recommendations presented in this study are pictorially summarized in the ALP drawing set and include the preferred concepts for airfield development, terminal area development, northwest area development, northeast area development, and other reserved areas for non-aviation use. The ALP drawing set represents a scaled, graphic presentation of the airport's 20-year development program, thereby providing the airport with a feasible improvement plan that would increase the capability and safety of aircraft operations, promote compatibility with existing and proposed developments, and further upgrade the airport to effectively serve the anticipated demands of general aviation, corporate, and recreational aircraft traffic. The drawings depict the recommendations of this study with regard to aviation development for the short, intermediate, and long-term planning periods.

The dimensional information provided in the drawings demonstrates compliance with minimum airport design standards established by federal, state, and local authorities. The ALP Drawing Set was developed in accordance with the guidance outlined in Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B, *Airport Master Plans* (Change 2), AC 150/5300-13B, *Airport Design* (Change 1), FAA ARP Standard Operating Procedure (SOP) 2.0, *Standard Operating Procedure for FAA Review and Approval of Airport Layout Plans* and other supporting circulars and orders.

The ALP drawing set includes the following individual drawing sheets:

- Title Sheet (Sheet 1)
- Airport Data Sheet (Sheet 2)
- Airport Layout Plan - Existing Conditions (Sheet 3)
- Airport Layout Plan - Ultimate Conditions (Sheet 4)
- Airport Airspace Plan (Sheet 5)
- Inner Portion of the Approach Surface - Runway 8-26 (Sheet 6)
- Inner Portion of the Approach Surface - Runway 8W-26W (Sheet 7)
- Runway Departure Surface - Runway 8-26 (Sheet 8)
- Terminal Area Drawing - Passenger Terminal (Sheet 9)
- Terminal Area Drawing - Northwest (Sheet 10)
- Terminal Area Drawing - Northeast (Sheet 11)
- Land Use Plan (Sheet 12)
- Airport Property Map Exhibit 'A' (Sheet 13)

9.2 Title Sheet (Sheet 1)

The Title Sheet serves as the introduction to the ALP drawing set. It includes the airport name, a location map, and an index of drawings included in the ALP drawing set. Also highlighted on the Title Sheet are the project name, sponsor's name, AIP number, and Aeronautical study number, and FAA approval.

9.3 Airport Data Sheet (Sheet 2)

The Airport Data Sheet summarizes key elements that are depicted in the ALP set such as airport coordinates, runway end elevations, runway high and low points, and true azimuths for each runway. Supplemental tables, as required by the FAA ALP Review Checklist, are depicted on the Airport Data Sheet including the airport data table and runway data table.

9.4 Airport Layout Plan - Existing Conditions (Sheet 3)

The Existing Conditions Drawing depicts all existing facilities at JNU. This drawing provides clearance and dimensional information required to show conformance with applicable FAA design standards as outlined in FAA AC 150/5300-13B, Airport Design (Change 1). The features of the drawing include, but are not limited to the runway, taxiways, lighting, navigational aids, terminal facilities, hangars, other airport buildings, aircraft parking areas, automobile parking, and airport access elements.

9.5 Airport Layout Plan - Ultimate Conditions (Sheet 4)

The Ultimate Conditions Drawing depicts all proposed developments planned over the 20-year planning period and beyond at JNU. These plans are reviewed by and must be approved by JNU, CBJ, and FAA prior to authorizing Federal and state funding for future improvement projects. The Ultimate ALP provides clearance and dimensional information required to show conformance with applicable FAA design standards as outlined in FAA AC 150/5300-13B, Airport Design (change 1). The features of the Ultimate ALP include, but are not limited to the ultimate runway, taxiways, lighting, navigational aids, terminal facilities, hangars, other airport buildings, aircraft parking areas, automobile parking, and airport access elements.

9.6 Airport Airspace Plan (Sheet 5)

Federal Aviation Regulations (FAR) Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace, prescribes airspace standards, which establish criteria for evaluating navigable airspace. Airport imaginary surfaces are established relative to the airport runways and types of approaches they provide. The size of each imaginary surface is based on the runway category with respect to the existing and proposed visual, non-precision, or precision approaches for that runway. The slope and dimensions of the respective approach surfaces are determined by the most demanding, existing or proposed, approach for each runway.

- Primary Surface – A rectangular area symmetrically located about the runway centerline and extending a distance of 200 feet beyond each runway end. Its

elevation is the same as the nearest point along the runway edge. The primary surface is 500 feet wide for Runway 8-26.

- Horizontal Surface – An oval shaped, flat area situated 150 feet above the published airport elevation of 25.3 feet Above Mean Sea Level (AMSL) at JNU. Its dimensions are determined by connecting 5,000-foot arcs starting 200 feet beyond the future runway ends. The horizontal surface elevation for JNU is 175.3 feet AMSL.
- Conical Surface – A sloping area whose inner perimeter conforms to the shape of the horizontal surface. It extends outward for 4,000 feet measured horizontally, and slopes upward at a 20:1 ratio. At JNU, the conical surface extends upward to an elevation of 375.3 feet AMSL.
- Transitional Surface – A sloping area beginning at the edges of the primary and approach surfaces and sloping upward and outward at a ratio of 7:1.
- Approach Surface – This surface begins at the ends of the primary surface and slopes upward at a predetermined ratio while at the same time flaring out horizontally. The width and elevation of the inner ends conform to that of the primary surface, while the slope, length, and outer width are determined by the runway service category and existing or proposed non-precision instrument approach procedures.

FAR Part 77 Obstruction Tables associated with these drawings are included on this sheet.

9.7 Inner Portion of the Approach Surface (Sheet 6 and 7)

The Inner Portion of the Approach Surface Drawings show both plan and profile views of the approach surfaces beyond each runway end. The purpose of these drawings is to locate and document existing objects that represent obstructions to navigable airspace within the existing and proposed approach slopes for each runway. Additionally, the drawings show the ground profile and terrain features along the extended centerline of each runway end.

Any controlling structures, such as roadways, natural ground elevations, and trees, are also shown on the Inner Portion of the Approach Surface Drawings, if applicable. Additionally, fixed objects located along the extended runway centerlines are also illustrated on the sheets to provide an indication of the relative distance to the approach surfaces. As applicable, obstructions to navigable airspace are listed in an obstruction data table along with a recommended action for each obstruction. Obstruction Tables are included on each sheet.

Key dimensional criterion for the runways was based on the Ultimate Runway Design Code (RDC) and shown in **Table 9-1**. The RDC and other runway approach factors are used to determine the physical characteristics of the runways (e.g., length, width, and strength), taxiway widths, and dimensions for the Runway Safety Area (RSA), Runway Object Free Area (ROFA), Building Restriction Line (BRL), clearance areas around navigational aids, etc.

Table 9-1: Ultimate Runway Design Code	
Runway	RDC
8	D-III
26	D-III
8W	A-II
26W	A-II

Source: Michael Baker International, Inc., 2026.

9.8 Runway Departure Surface - Runway 8-26 (Sheet 8)

The Runway Departure Surface Drawing show both plan and profile views of the departure surfaces beyond each runway end. The purpose of these drawings is to locate and document existing objects that represent obstructions to navigable airspace within the existing and proposed departure slopes for each runway. Additionally, the drawing show the ground profile and terrain features along the extended centerline of each runway end.

9.9 Terminal Area Drawing - Passenger Terminal (Sheet 9)

The Terminal Area Drawing presents an enlarged view of the terminal area at JNU and therefore provides additional dimensional details, such as apron areas (existing and proposed) that are not easily visible on the ALP. This drawing denotes the short and long-term developments and improvements within the vicinity of the Terminal Area and also illustrates many of the surrounding landside development recommendations. Existing and proposed automobile access and parking improvements are also included.

9.10 Terminal Area Drawing - Northwest (Sheet 10)

The Terminal Area Drawing Northwest presents an enlarged view of the northwest development area at JNU and therefore provides additional dimensional details, such as apron areas (existing and proposed) that are not easily visible on the ALP. This drawing denotes the short and long-term developments and improvements within the Northwest Area and illustrates many of the surrounding landside development recommendations. Existing and proposed automobile access and parking improvements are also included.

9.11 Terminal Area Drawing - Northeast (Sheet 11)

The Terminal Area Drawing Northeast presents an enlarged view of the northeast development area at JNU and therefore provides additional dimensional details, such as apron areas (existing and proposed) that are not easily visible on the ALP. This drawing denotes the short and long-term developments and improvements within the Northeast Area and illustrates many of the surrounding landside development recommendations. Existing and proposed automobile access and parking improvements are also included.

9.12 Land Use Plan (Sheet 12)

The Land Use Plan designates various sectors of the property for specific uses and shows an aerial view of the land surrounding JNU. The drawing serves to depict existing and planned future land uses both on and off the airport as identified and classified by local government and/or planning agencies.

9.13 Airport Property Map Exhibit 'A' (Sheet 13)

The Airport Property Map (Exhibit 'A') defines the existing and proposed airport boundaries in a graphical form. The purpose of the drawing and associated tables is to identify how property and easements have been acquired in the past as well as to illustrate properties and easements that should be obtained in the future as necessary to accommodate the proposed development plan.

In general, property acquisition was shown when additional land was required to accommodate future development, such as runway and taxiway extensions.

9.14 Summary

The ALP Drawing Set is intended to depict JNU's capital development program in graphical form. Prior to incorporating the developments herein, preliminary plans were presented to the JNU, the Technical Advisory Committee, and to the public for their review and approval. Thus, this plan set accurately reflects the goals and intentions of airport management and the adjacent community throughout the 20-year planning period.