



KNOX COUNTY REGIONAL AIRPORT

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****Manager's Report**** April 2020

Dear Commissioners,

I am pleased to report the following progress for the Knox County Regional Airport for the month of April.

COVID19 Status/update:

The airport is still alive and doing well. With a grim outlook in my last update, I'm happy to report that we are weathering the storm. Although there are some pains associated with the pandemic, all of our businesses are still in business with only the highest hopes for the future. To my knowledge, no airport business partners have been forced to cut their staffing levels, and if anything, are just delaying bringing on a full staff until the state is open for business again. The impact is still being felt differently with each partner, but I have included the impact of each business since my last update, below:

- **Downeast Air:** Unchanged. Traditionally, this part of spring is slow for business. They are still able to rent hangar space, fuel aircraft, and keep their employees employed.
- **Avis/Budget Group / Packard Partners:** Business is still slow, and there are approximately 80 cars unrented, on property. They have reduced their hours, but are still open daily.
- **Beyond the Moon Gift Shop:** Having been approved by the commissioners at the last meeting, the gift shop is busy gathering artisans and possibly planning for a June 1st grand opening.
- **The Salty Owl:** The Café has begun offering curbside pickup on Taco Tuesday's and Saturday as a way to ease into the new season, having a newborn at home. They are anxiously waiting being able to fully open the restaurant and hire staff to assist.
- **The Owls Head Transportation Museum** is still closed until further notice. There are no show cancellations that I am aware of, but no additional information is available.
- **Penobscot Island Air:** PIA was hit the hardest of all of the airport businesses. Their business model required them to transport passengers (resident and

seasonal) to survive. Ridership is still down, primarily because a large portion of their business is taking vacationers to the islands. With the mandatory 2-week quarantine in place, people just aren't coming yet. They sought and were granted relief under the CARES Act for the Paycheck Protection Act funds.

- **Cape Air:** Cape Air has recently started requiring passengers to wear a mask on all of their flights. Flights are still flying as planned, and projected to grow from 3 flights a day to 4 flights a day, May 21st. They have blocked out the 2 seats immediately behind the pilots to protect their employees for the time being, but once things get in to full swing, they anticipate unblocking those 2 seats.
- **Transportation Security Administration (TSA):** Unchanged. The TSA made minor staffing adjustments to adapt to the reduced number of passengers. They are operating with a smaller than normal crew without compromising the quality of service they usually provide. Employees affected are being compensated by admin time for time they are not working at the airport.

The Airport's county-employee staff has for the most part, returned to their normal duties. Vicki Davis is the only employee still working from home, accomplishing administrative projects. We have ordered her an airport owned computer so she will be able to access her work computer. That purchase will enable her to start billing customers for parking, continue her file organization efforts, and attend to the other administrative tasks that she's not able to accomplish without access to her filing system.

Airport Project Updates:

Planned Projects: The airport project season is still projected to go off without a hitch. The following projects are slated to begin with our 2020 Airport Improvement Program (AIP) funding:

1. **Hangar Development Area:** Phase 1 is still in the planning stage, delayed by wetland impact redesigns. Although the FAA funded portion isn't changing, the layout of hangar positioning is still in flux.
2. **Drainage exploration:** Due to the amount of vegetation surrounding the drainage ditches, critters constantly use that vegetation to create dams and block the flow of water from the airfield. We had intended to complete the work ourselves to help offset county expenses, but due to the COVID19 virus, those plans have been put on hold. We intend to instead, hire a local contractor to complete the project for less than \$250,000. That **will keep the FAA funding local within the community**, instead of sending it potentially to an out of state firm bidding for the work.
3. **CARES Act projects:** With the unanticipated CARES Act funding, 11 additional projects are possible for FY2020. Please see attached. What is not included in the CARES Act project list, are projects that we can accomplish with our \$2,067,000 Operation Grant. Those projects include Broadband access for abutting communities, walking trails, parks, and various boundary landscaping projects.

Airport Revenue Updates:

CARES Act funding: The airport will be able to benefit from the CARES Act relief bill. Based on FY 2018 enplanements, each airport will receive a portion of nearly \$10 Billion dollars. With approximately 17,500 enplanements in 2018, the airport was awarded \$17.9 Million dollars in relief, with the funding being 100% federal share. There would be no local match needed. We have been awarded our \$2,067,000 operational grant (attached).

Avis Budget Group: NO UPDATE. There has been an ongoing misapplication of contractual obligations from Avis/Budget which resulted in an underpayment to the County in the amount of \$29,000. Negotiations are currently underway to clear up the discrepancy.

Gift Shop: The Beyond the Moon gift shop will be up and running by the time the stay at home orders are lifted and we will see no reduction of revenue from the space. With a higher rental rate, projections indicate that the airport will receive additional revenue from the retail space.

The Salty Owl: The café will begin paying for its utility costs this quarter and will plan on shutting off power to the restaurant for the winter months. That will significantly reduce the airport's electricity costs.

Landing Fees: Due to the unanticipated funding from the CARES Act, charging landing fees would be considered unreasonable. We will delay the implementation of the landing fee program for at least four years.

Solar Development: We are still seeking to establish a solar development on unused airport property. With the CARES Act funding, the airport would be able to own the facility outright, and provide free energy to all county owned facilities, plus generate a few hundred thousand dollars in airport revenue.

The airport is in a great position to start offsetting county expenses through its possible future investments. Today, without any other grant, the airport will operate for the next 4 years without local taxpayer investment. We will become a vital financial resource for not only the County, but for the surrounding towns. Thank you for your continued support.

Very truly yours,


Jeremy Shaw
Airport Manager

Cape Air Enplanements

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
2013	421	397	463	524	506	718	977	1190	810	673	395	340	7,414
2014	312	288	355	396	531	683	870	1157	817	632	363	387	6,791
2015	321	227	393	375	457	599	1064	1167	754	608	439	349	6,753
2016	362	337	399	423	467	678	1160	1271	732	619	402	355	7,205
2017	418	288	385	386	453	597	1176	1241	740	578	454	372	7,088
2018	288	257	332	419	547	739	1014	1136	798	587	403	363	6,883
2019	344	269	384	358	471	658	1057	1155	792	619	418	383	6,908
2020	316	321	164	18									

Penobscot Island Air Enplanements

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
2013	238	203	257	560	251	725	957	1308	940	873	466	313	7,091
2014	305	221	208	281	504	684	1114	1676	920	723	487	445	7,568
2015	356	161	216	433	579	823	1222	1275	1212	1000	631	410	8,318
2016	448	296	382	570	788	968	1480	2019	1349	1301	985	607	11,193
2017	595	351	446	542	655	1108	1337	1577	971	856	780	619	9,837
2018	465	312	379	477	881	1046	1317	1534	1084	1019	524	514	9.552
2019	512	497	576	572	1125	1044	1847	1808	1320	858	767	475	11,401
2020	728	631	178	130									

Aircraft Movements

[illegible]



NOTICE OF GRANT AWARD

Title:	Knox County Regional: CARES Act Funds
DOT Agency Disbursing Funds:	Federal Aviation Administration
Project Name/Number:	Knox County Regional
Award Recipient	County of Knox
City/Country/State	Rockland,Knox, ME
Place of Performance	Knox County Regional
State Congressional District	1
Entitle Amount	\$ 0.00
Discretionary Amount	\$ 0.00
Total Grant Amount	\$ 2,067,000.00
DOT Regional Office/Telephone Number	Gail Lattrell (781)238-7615

Description:
CARES Act Funds

- This grant will provide federal funding for the Knox County Regional Airport associated with Rockland, Maine.
- This grant is being funded as part of the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) of 2020. An intent to fund this grant was previously announced by the Secretary of Transportation on April 14, 2020.
- This grant provides economic relief funds for any purpose for which airport revenue may be lawfully used.
- Knox County Regional Airport is a nonhub primary airport associated with Rockland, Maine. The local point of contact is Mr. Andrew Hart, Knox County Administrator, Knox County. Mr. Andrew Hart may be reached at (207) 594-4131.
- Following this grant announcement, FAA will notify the sponsor of the allocation. A grant offer will be issued subsequently for this grant as finally formulated.

Should you have any questions, please contact the Office of Governmental Affairs (202)366-4573.

KNOX COUNTY REGIONAL AIRPORT (RKD) **SUMMARY OF PRIORITIZED PROPOSED AIRPORT IMPROVEMENTS** **As of May 4, 2020**

Priority	Description & Reference	Type	Timing	Planning Level Cost Opinion
1	Construct Hangar for Lease to Part 135 Operator	Development	Complete in 2020	\$1,910,000
2	Acquire Airport Maintenance Equipment	Operation & Maintenance	Complete in 2020	\$2,162,000
3	Electric Vehicle Charging Stations for Terminal	Operation & Maintenance	Complete in 2020	\$200,000
4	HVAC Upgrade for Terminal Building	Operation & Maintenance	Complete in 2020	\$500,000
5	Security System Upgrade for Terminal Building	Operation & Maintenance	Complete in 2020	\$125,000
6	Crack Sealing and Pavement Markings	Operation & Maintenance	Complete in 2020	\$310,000
7	Pavement Management Program	Operation & Maintenance	Complete in 2020	\$55,000
8	Airspace Survey for Obstruction Removal	Operation & Maintenance	Complete in 2020	\$100,000
9	Convert Existing Airfield Lighting to LED	Operation & Maintenance	Complete in 2020	\$350,000
10	Obstruction Removal	Operation & Maintenance	Complete in 2020	\$250,000
11	Renovate Airport Owned Crew House	Operation & Maintenance	Complete in 2020	\$500,000
12	Construct 2 MW Solar Installation	Development	Complete in 2021	\$2,000,000
13	Rehabilitate Terminal Apron - Phase 2	Operation & Maintenance	Complete in 2021	\$3,831,000
14	Overlay Runway 3-21	Operation & Maintenance	Complete in 2021	\$1,881,000
15	Replace Airport Security Gates & Wood Screening Fence	Operation & Maintenance	Complete in 2021	\$625,000
16	Runway 13 Safety Area Grading	Operation & Maintenance	Complete in 2021	\$255,000
17	Rehabilitate Taxiway C and Flying Club Area	Operation & Maintenance	Complete in 2021	\$1,550,000
18	Construct Hangar Taxiway - Phase 2	Development	Complete in 2021*	\$800,000
19	Overlay Aircraft Parking Apron	Operation & Maintenance	Complete in 2022	\$1,887,000
20	Construct Drainage Improvements	Operation & Maintenance	Complete in 2022**	\$1,000,000

*To be funded with FY 2021 AIP Entitlement Funds

**To be funded with FY 2022 AIP Entitlement Funds

CARES Act Op Grant	\$2,067,000
CARES Act Dev Grant	\$15,883,825
AIP Entitlements (3 yr)	\$3,300,000
Airport Revenue (2 yr)	\$1,300,000

Revenue Total	\$22,550,825
Projects Total	\$20,291,000
Contingency	\$2,259,825



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Summary of Proposed Airport Improvements

As of May 4, 2020

No. 1: Construct Hangar for Lease to Part 135 Operator

Description: Construct an Airport owned hangar to lease to the Part 135 operator who provides commercial air service to the Knox County region including the islands surrounding Penobscot Bay.

Planning Level Cost Opinion: \$1,910,000

Justification: The current Part 135 operator at RKD does not have adequate facilities in the terminal area to accommodate their operations. They currently operate out of 2 small wood buildings located adjacent to the terminal apron. Their hangar space and fueling facilities are located across the airfield in the general aviation hangar area. Their commercial operations to the island communities continue to grow, and a new terminal hangar facility is needed to accommodate their current and future operations.

Background: A new terminal hangar to facilitate the Airport's Part 135 operator has been in the planning stages for the past few years, but it has not moved forward because of funding limitations and other priorities at the Airport. The construction of a heated storage hangar for aircraft and other vehicles, along with office space, restroom facilities and a lobby area will allow the Part 135 operator to provide their scheduled airline services and charter services in a more efficient manner. The new hangar will also generate substantial lease revenue for the Airport.

Timing: Design and Permitting are underway, Construction to be complete in 2020.

No. 2: Acquire Airport Maintenance Equipment

Description: Acquire snow removal equipment (SRE), mowing equipment, and other airport maintenance equipment as described in the *Round 1 Equipment Request List* attached herewith.

Planning Level Cost Opinion: \$2,162,000

Justification: New SRE and other equipment is required to properly maintain the Airport in accordance with current FAA safety standards, and to generate additional Airport revenue by providing force account work on future airport improvement projects.

Background: The existing snow removal front end loader, 1-ton dump truck, and mowing tractor are all outdated and will need to be replaced in the near-future. Additional mowing equipment including a stump grinder and wood-chipper will allow the Airport maintenance staff to properly maintain the airfield free from vegetation obstructions in a more efficient manner, which will enhance safety and reduce labor costs. Additional equipment such as a mini-excavator, scissor lift and man lift will allow Airport maintenance staff to perform maintenance tasks in-house at a lower cost than hiring contractors. Hydroseeding equipment and an office trailer will allow the Airport to generate additional revenue by providing force account work on future projects. A survey drone will allow the Airport to inspect the perimeter fence more efficiently which will also enhance safety and reduce labor costs. More detailed background is provided in the *Round 1 Equipment Request List* attached herewith.

Timing: Equipment to be acquired in 2020.

No. 3: Electric Vehicle Charging Stations for Terminal

Description: Provide electric vehicle (EV) charging stations in the terminal building parking lot.

Planning Level Cost Opinion: \$200,000

Justification: There are currently no EV charging stations at the Airport. Three (3) new EV charging stations are proposed in the airport terminal parking lot to accommodate up to six (6) electric vehicles.

Background: The existing airport terminal facility was constructed in 2010. With funding from the FAA's Voluntary Airport Low Emissions (VALE) program, many high efficiency and low emissions features were incorporated into the terminal facility design. However, this project pre-dated the prevalent use of electric vehicles so EV charging stations were not incorporated into the design. With the growing use of electric vehicles, EV charging stations are needed for the Airport to encourage the use of electric vehicles in accordance with the low emissions objectives established by the Airport.

Timing: Completion in 2020.

No. 4: Heating, Ventilation, and Air Conditioning (HVAC) Upgrade for Terminal

Description: Provide upgrades and replacement of the existing HVAC system in the Airport Terminal Building.

Planning Level Cost Opinion: \$500,000

Justification: The existing HVAC system sensors, controls and computer system are outdated, costly to maintain and do not function as intended.

Background: The existing HVAC system was installed when the existing Airport Terminal Building was originally constructed in 2010, and it does not function as needed to adequately control the heating and cooling of the building. Failure of the components and the inability to maintain and replace the outdated parts and equipment makes the replacement of the HVAC system an immediate priority. Complete replacement of the sensors, indicators, actuators, final control elements, other apparatus, accessories, computers and software is necessary to allow Airport personnel properly control the mechanical systems of the terminal building.

Timing: Completion in 2020.

No. 5: Security System Upgrade for Terminal

Description: Provide upgrades and replacement of existing outdated security equipment.

Planning Level Cost Opinion: \$125,000

Justification: The security system improvements are necessary for the safety and security of property and personnel on the Airport.

Background: The existing security system was installed with the existing Airport terminal building was originally construction in 2010 and significant upgrades are needed to accommodate current technology. New security cameras throughout the terminal building are needed along with upgrades to the security control system to allow remove access by mobile phone or tablet. Upgrades to the existing outdated control sensors within the terminal building are also needed.

Timing: Completion in 2020.

No. 6: **Crack Sealing and Pavement Markings**

Description: Provide crack sealing on existing airfield pavements including repairs to larger cracks.
Repaint the existing pavement markings on airfield pavements.

Planning Level Cost Opinion: **\$310,000**

Justification: Crack sealing and new pavement markings will extend the life of the pavement, enhance visibility, and maintain safe operating conditions for aircraft.

Background: Due to funding limitations, the Airport has not been able to keep up with maintenance of the pavement cracks and pavement markings over the past few years. The current conditions of the pavement cracks allow water to migrate into the base and subbase materials in several areas which is detrimental to the pavement conditions. The existing pavement markings are also faded in most areas of the airfield including the main runway and full-length parallel taxiway. New crack sealing is needed to maintain the pavement conditions, reduce differential frost heaving, and prevent premature deterioration of the pavement. New pavement markings are needed to enhance visibility and comply with current FAA safety standards.

Timing: Completion in 2020.

No. 7: **Pavement Management Program**

Description: Prepare a Pavement Management Program (PMP) in accordance with the current version of FAA Advisory Circular (AC) 150/5380-7.

Planning Level Cost Opinion: **\$55,000**

Justification: In order to continue to receive funding for pavement maintenance, rehabilitation and reconstruction through the Airport Improvement Program (AIP), a PMP is required.

Background: A PMP has not been prepared for RKD and is required by current FAA/AIP standards. In addition, the PMP will help the Airport make cost-effective decisions regarding pavement maintenance and rehabilitation. This will help extend the life of airport pavements and maximize the use of future AIP funds.

Timing: Completion in 2020.

No. 8: Airspace Survey for Obstruction Removal

Description: Conduct an aerial treetop survey and obstruction analysis to determine the location and extent of vegetative obstructions to the various airspace surfaces at the Airport.

Planning Level Cost Opinion: \$100,000

Justification: Current obstruction data is needed so that the Airport can plan and remove vegetative obstructions from protected airspace surfaces and maintain these areas free from obstructions moving forward.

Background: Obstruction data was obtained in 2012 which included an obstruction analysis followed by an airport obstruction removal and lighting project that was constructed in 2014. Since then, recent airport inspections have identified areas where vegetative obstructions currently exist. In order to determine the extent of these current vegetative obstructions and remove them from the applicable airspace surfaces, an updated obstruction survey and obstruction analysis is required.

Timing: Completion in 2020.

No. 9: Convert Existing Airfield Lighting to LED

Description: Provide new LED conversions to existing elevated runway and taxiway edge lights and lighted guidance signs.

Planning Level Cost Opinion: \$350,000

Justification: In order to reduce energy costs and maintenance costs for the Airport, new LED light fixtures to replace the existing incandescent light fixtures are needed.

Background: The existing airfield lighting system consists of incandescent light fixtures which vary in age and condition. The existing airfield lighting system is costly to maintain, and the current energy costs to operate the lights are high when compared to the energy costs associated with LED light fixtures. The replacement of the existing incandescent light fixtures with LED light fixtures will reduce maintenance time and costs, reduce energy costs, and provide new uniform lighting over the entire airfield.

Timing: Completion in 2020.

No. 10: **Obstruction Removal**

Description: Remove vegetative obstructions to the protected airspace surrounding the Airport including grubbing and grading to accommodate maintenance operations.

Planning Level Cost Opinion: **\$250,000**

Justification: Recent airport inspections have identified areas on the airfield where vegetative obstructions currently exist. In order to maintain safe operating conditions at the Airport, the removal of these vegetative obstructions must be completed.

Background: The last obstruction removal project was completed in 2014 based on aerial survey data obtained in 2012. Updated aerial survey data is proposed to be obtained along with an updated obstruction analysis as detailed in No. 8 above. Based on the results of the updated obstruction analysis, the removal of vegetative obstructions will be completed. Several areas will be grubbed and graded so that the Airport can maintain these areas free from obstructions moving forward.

Timing: Completion in 2020.

No. 11: **Renovate Airport Owned Crew House**

Description: Provide complete renovations to the existing crew house which is an old residential structure located in Airport terminal area.

Planning Level Cost Opinion: **\$500,000**

Justification: The existing crew house, formerly known as the Airport Manager's house, is primarily used by commercial pilots who operate at RKD. Maintenance to the structure has been deferred for many years due to budget limitations, and the building needs to be completely renovated to provide adequate temporary housing for pilots and crew.

Background: The existing crew house was formerly used for residential housing to accommodate some of the past Airport Managers at RKD. It is now used primarily by commercial pilots and crew that operate at RKD. Temporary lodging is limited and very expensive in the Rockland area, particularly during the summer months. As a result, the existing crew house provides a valuable function to maintaining commercial operations at the Airport. Therefore, maintaining this structure in good condition is very important so that the Airport can service the local commercial operators. The existing crew house is a 1,400 ± SF wood framed structure with a 200 ± SF enclosed porch, and is located just north of the existing Airport Maintenance and Snow Removal Equipment storage facility. The

proposed renovations include a new concrete foundation to replace the existing rock foundation, new heating and cooling systems, new electrical wiring throughout the building, new roofing and siding, new insulation and energy efficient windows, and all new interior and exterior finishes.

Timing: Completion in 2020.

No. 12: Construct 2 Megawatt (MW) Solar Installation

Description: Construct a new 2 MW solar power installation on airport owned property located north of the Owls Head Transportation Museum.

Planning Level Cost Opinion: \$2,000,000

Justification: A new 2 MW solar power system constructed on airport property will produce clean energy for the Knox County region and generate substantial revenue for the Airport.

Background: The Airport currently owns a 78-acre parcel of land located northerly of the Owls Head Transportation Museum. This land is currently undeveloped and due to its location, it is not needed for aeronautical purposes. The construction of a solar power generation system on this parcel of property will provide clean affordable power to the local electric grid, and it will also be a significant source of revenue for the Airport securing its financial stability for many years. The proposed solar installation project also aligns well with the low emissions initiatives established by the Airport.

Timing: Design and Permitting in 2020, Construction complete in 2021.

No. 13: Rehabilitate Terminal Apron – Phase 2

Description: Construct Phase 2 of the terminal apron rehabilitation project.

Planning Level Cost Opinion: \$3,831,000

Justification: The easterly portion of the terminal apron is over 30-years old and in poor condition with severe pavement cracking. Rehabilitation of the apron pavement is necessary to enhance safety and reduce maintenance costs for the Airport.

Background: Most areas of the Phase 2 terminal apron were last rehabilitated in the 1970's and early 1980's. Severe pavement cracking currently exists including longitudinal and transverse cracking, block cracking, and alligator cracking indicative of structural deficiencies within

the pavement box section. This portion of the terminal apron is critical to airport operations since it is located directly adjacent to the terminal buildings, FBO hangars, fueling facilities and other airport terminal facilities. Phase 1 of the terminal apron located just to the west of Phase 2 was rehabilitated in 2019. Given the age and condition of the Phase 2 terminal apron area, and given the subsurface conditions observed during the construction of Phase 1, full-depth reconstruction of the Phase 2 area including new subbase and base materials, subsurface drainage and new asphalt pavement will be required.

Timing: Completion in 2021.

No. 14: **Overlay Runway 3-21**

Description: Construct a bituminous pavement overlay including pavement sawcut grooving and new pavement markings to Runway 3-21.

Planning Level Cost Opinion: \$1,881,000

Justification: The existing Runway 3-21 pavement is 16-years old and is beginning to exhibit widespread cracking along the pavement surface. Furthermore, the existing Runway 3-21 pavement is not grooved which can result in safety concerns for jet aircraft due to reduced tire friction coefficients on wet pavement. In order to extend the life of the pavement and enhance safety, particularly for the higher performance aircraft that utilize Runway 3-21, an asphalt pavement overlay with pavement sawcut grooving is needed.

Background: A partial-depth reconstruction of Runway 3-21 was completed in 2004 which also included several drainage improvements including new perimeter underdrains. Although the runway pavement has performed well over the past 16 years, widespread cracking is occurring which is typical of pavement of this age in this region. Most of the cracking is low to medium severity longitudinal cracking along the pavement lanes. A partial depth milling and asphalt pavement overlay, with pavement sawcut grooving and new pavement markings will significantly increase the life of the pavement and enhance safety by eliminating the potential for standing water on the pavement surface. The project will also significantly reduce maintenance costs for the Airport associated with crack sealing.

Timing: Completion in 2021.

No. 15: **Replace Airport Security Gates & Wood Screening Fence**

Description: Replace or upgrade existing airport security gates with automated security gates. Also replace the existing wood screening fence with new chain link security fencing with privacy slats.

Planning Level Cost Opinion: **\$625,000**

Justification: The existing security gate system at the Airport does not function properly in many areas which compromises safety and security at the Airport. In addition, the existing wood screening fencing that was installed in 2005 around the fuel farm is in poor conditions and should be replaced.

Background: There are approximately 17 existing security gates surrounding the airfield that need to be replaced or upgraded to provide adequate security for airport facilities. Most of these gates were installed under various projects over the past 15 years and have suffered from frost movement or other damage that make them difficult and costly to maintain. In addition, the existing wood screening fence surrounding the fuel farm that was constructed 15 years ago has also suffered from frost movement and is in poor condition. To resolve these safety and security concerns, a new more uniform security gate system is needed along with new chain link fencing with privacy slats around the fuel farm area.

Timing: Completion in 2021.

No. 16: **Runway 13 Safety Area Grading**

Description: Re-grade portions of the future 400' wide by 1,000' long safety area in the approach end of Runway 13.

Planning Level Cost Opinion: **\$255,000**

Justification: The Airport Reference Code (ARC) at the Knox County Regional Airport is proposed to increase from B-II to C-II. As a result, the Runway Safety Area (RSA) is proposed to expand from 300' wide by 600' long, to 400' wide by 1,000' long at each runway end. The existing RSA in the approach end of Runway 13 currently meets FAA standards for the existing 300' by 600' RSA. However, when the RSA expands to 400' by 1,000', some of the areas will not meet FAA safety standards with regards to grade and smoothness. Therefore, re-grading portions of the future RSA is needed to accommodate a C-II ARC.

Background: A 400-foot runway extension was constructed to the approach end of Runway 13 in 2017. As part of that project, the airport perimeter fence and field lighting panel for the FAA approach lights were relocated to accommodate the future RSA dimensions for a C-II ARC. However, there are some areas within the future RSA that currently exceed the 5% maximum slope requirement and/or are too rough to meet the smoothness requirements of the current FAA standards. In order to provide a future RSA that meets current FAA safety standards, re-grading of the outer portions of the proposed RSA is required in some areas.

Timing: Completion in 2021.

No. 17: **Rehabilitate Taxiway C and Flying Club Area**

Description: Construct a bituminous pavement overlay of Taxiway C and rehabilitation of the bituminous pavement for the Knox County Flying Club hangars.

Planning Level Cost Opinion: \$1,550,000

Justification: The existing Taxiway C pavement is 15-years old and is beginning to exhibit some medium to high severity cracks in some areas of the pavement surface. Furthermore, the pavement around the Flying Club hangars is much older in most areas and is in poor condition with widespread cracking including significant alligator cracking in some areas. Rehabilitation of this pavement is necessary to provide safe access to the hangars and facilitate maintenance of these paved areas by Airport personnel.

Background: Taxiway C including the Flying Club access road were last rehabilitated in 2005. However, this 2005 project did not include the rehabilitation of the pavement surrounding the Flying Club hangars. Severe pavement cracking currently exists including longitudinal and transverse cracking, block cracking, and alligator cracking which is indicative of structural deficiencies within the pavement box section. This general aviation hangar area is critical to maintain as it supports the local general aviation community and generates substantial lease revenue for the Airport. This area also includes the fuel farm for the Part 135 operator at RKD. Given the age and condition of the various pavements, a partial depth milling with an asphalt pavement overlay is anticipated for Taxiway C, whereas a partial depth reconstruction is anticipated for the Flying Club hangar area. These improvements will significantly increase the life of the Taxiway C pavement, enhance safety and better facilitate maintenance operations for the Flying Club hangar pavement. The project will also significantly reduce maintenance costs for the Airport associated with crack sealing and crack repairs.

Timing: Completion in 2021.

No. 18: Construct Hangar Taxiway – Phase 2

Description: Construct Phase 2 of the Hangar Taxiway to accommodate additional private hangar development at the Airport.

Planning Level Cost Opinion: \$800,000

Justification: There is currently a demand for additional private hangar development that exceeds the Airport's ability to develop space for hangar construction. There are currently no available spaces at the Airport for hangars to be constructed so the Hangar Taxiway is needed.

Background: A new 1,300-foot long taxiway is proposed to accommodate the construction of private hangars. There is an immediate demand to construct several individual and multi-unit hangars at the Airport. Phase 1 of the Hangar Taxiway is proposed to be constructed in 2020 using the Airport's AIP entitlement funds. Phase 1 is approximately 450' long and will accommodate approximately eight (8) new individual hangars. Phase 2 will be approximately 850' long and will accommodate approximately four (4) new individual hangars and three (3) new multi-unit hangars for smaller aircraft. A small parking lot will also be constructed in Phase 2 to accommodate hangar tenants. The construction of new private hangars will also generate substantial lease revenue for the Airport.

Timing: Construction complete in 2021 using AIP entitlement funds.

No. 19: Overlay Aircraft Parking Apron

Description: Construct a bituminous pavement overlay to the westerly portion of the aircraft parking apron including new aircraft tie-down anchors, new fuel resistant sealcoating and new pavement markings.

Planning Level Cost Opinion: \$1,887,000

Justification: The existing westerly aircraft parking apron pavement is 17-years old and is beginning to exhibit widespread cracking along the pavement surface. Differential frost heaving of some of the aircraft tie-down anchors is also occurring which causes problems during snowplowing operations. In order to extend the life of the pavement, enhance safety, and facilitate maintenance operations, an asphalt pavement overlay is needed.

Background: The westerly portion of the aircraft parking apron was originally constructed in 2003 with all new subbase and base materials, new asphalt pavement with two (2) portland cement concrete hard stands, and numerous surface and subsurface drainage improvements. Given the age of this pavement, widespread cracking is occurring which primarily consists of longitudinal cracking along the pavement lanes. A partial depth milling and asphalt pavement overlay, with replacement of the existing tie-down anchors, new fuel resistant sealcoating, and new pavement markings will significantly increase the life of the pavement, enhance safety, better facilitate snow plowing operations. The project will also significantly reduce maintenance costs for the Airport associated with crack sealing.

Timing: Completion in 2022.

No. 20: **Construct Drainage Improvements**

Description: Construct improvements to the existing stormwater drainage system at the Airport.

Planning Level Cost Opinion: **\$1,000,000**

Justification: The existing primary stormwater drainage system was constructed in the 1940's and is no longer effective in removing stormwater from surrounding airport facilities. Stormwater backs-up into the existing subbase materials in some areas which increases the risk of differential frost heaving and premature deterioration of the pavement. Periodic standing water also creates wildlife hazard concerns.

Background: The construction of drainage improvements has been in the planning stages for approximately 10 years but has not moved forward because of funding limitations and other priorities at the Airport. A drainage investigation is proposed to be completed in 2020 using the Airport's AIP entitlement funds. The drainage investigation will include visual inspections of the open drainage channels and stormwater structures, and video inspections of enclosed drainage pipes. Limited improvements to the existing drainage channels will also be constructed in 2020 subject to limitations of available AIP entitlement funds. The construction of drainage improvements including upgrades to existing drainage pipes will be competed based on the results of the 2020 drainage investigation project.

Timing: Completion in 2022 using AIP entitlement funds.



KNOX COUNTY REGIONAL AIRPORT

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**** Equipment Request List****

Replacing Snow Removal Loader (\$600,000 estimate; including trade-in) (indoor storage)

The Knox County Airport is seeking to replace its John Deere 744J Loader and snow attachments. Not eligible for AIP funding replacement, the development grant would allow us to replace the more than 10 year old machine. We would also request the new JRB system quick connect attachments. Snowblower, Snow Blade, and Broom.

NEW Snow Removal Tractor (\$350,000 estimate) (indoor storage)

The airport has no process for clearing the Glide Slope Antenna pad if there is a large snow storm that hinders the antenna. With a tracked vehicle with low ground pressure and a large Grouser snow blade, we would be able to keep our critical aviation infrastructure operational in any condition.

NEW Stump Grinder (\$45,000 estimate) (outside storage)

The airport comprises of 730 acres of land, with a large portion of that wooded. As we attempt to clear all of the obstructions identified on our 5010, we need a way grind up stump were able to remove. Grinding down the stumps would allow us to maintain the areas with brush cutting deck, and reduce future obstructions.

NEW Bat-Wing Mowing Deck (\$25,000 estimate) (outside storage)

The airport maintains 400+ acres with a 5', 7', and 10' finish mowing decks. It takes forever. With the uncertainty of Maine weather, having a larger mowing deck would cut down dramatically the amount of grass maintenance hours.

NEW Wood Chipper on Tracks (\$200,000 estimate) (outside storage)

The airport has areas of its responsibility that are in marshy or uneven ground. Maintaining the fence line is an extremely difficult task. Trees are constantly falling on the fence, and creating penetration areas for wildlife to enter the secure property. With a mobile wood chipper, we would be able to work our way around the fence, creating a perimeter maintenance path.

NEW Haying Equipment (\$80,000 estimate) (outside storage)

With 700+ acres of grounds, mostly large open area grass fields, and 3 employees, mowing all of it is not possible. 40% of the airport's grounds go to hay length grass for most of the year. The airport has been able to find a local farmer to utilize the hay, but we would like to be able to cut the grass on our own schedule, and bale it. We would like to purchase a cutter, a tedder, and 2 balers. Square and Round.

NEW Hydroseeding Trailer (\$50,000 estimate) (outside storage)

Most projects funded by the Airport Improvement Program have a ground work component. Hydroseeding is usually the final stage of the project. With large projects scheduled to begin, the airport would like to purchase a unit and utilize it for forced account work.

Replacing Airport Truck (Chevy 1-ton) (\$70,000 estimate) (indoor storage)

Our 2009 Chevy dump truck is 11 years old, and cannot serve its intended purpose. It has not worked properly since it was purchased because a design flaw with the placement of the main hydraulic ram.

NEW Tracked Bobcat with attachments (\$100,000 estimate) (indoor storage)

The airport traditionally has to work in close spaces, whether it is along the fence, or between hangars, this machine, with a number of specific attachments could reduce the physicality of the maintenance department's tasks. It could also help the airport do smaller tasks of some AIP projects for forced account work.

NEW Mid-sized Excavator W/ attachments (\$300,000 estimate) (indoor storage)

The airport has 2 projects on the docket that involve cleaning out and repairing our drainage system. Combining both projects, we will use \$1.5 million dollars to fix a problem of lack of maintenance. With a mid-sized excavator, it could be a part of our normal maintenance routine.

NEW Mini-excavator with attachments (\$100,000 estimate) (indoor storage)

Many smaller projects on the airport require a little more than a shovel. The airport routinely rents these smaller excavators to address vegetation, dig holes for lighting, trench, and clear drainage blockages. Attachments requested involve assisting in removing small trees, a hydraulic thumb, and a trenching bucket.

NEW Scissor lift (\$25,000 estimate) (indoor storage)

The maintenance department borrows the FBO's scissor lift on a regular basis to maintain the airfield facilities. We borrow it enough that we should own one.

NEW Office Trailer (\$12,000 estimate) (outside storage)

Consistent with my intention to use the development grant funds to make the airport more sustainable, I have tried to identify areas where the county can benefit from our annual AIP entitlement funds. One of those ideas is the purchase of a mobile office trailer to be rented out to either our engineering consultant, or the contractor who has been awarded an AIP contract. It would pay for itself the first year, and would provide another revenue source for the airport.

NEW Equipment Trailers (\$20,000 total estimate for 3) (outside storage)

The airport is accustomed to borrowing trailers to move equipment around. We would like to purchase a small, medium, and large equipment trailer for transporting equipment.

NEW 85' Man Lift (\$75,000 estimate) (indoor storage)

The airport has several 70' obstruction poles around the airfield, and also large light poles on the terminal that we have no way to service. We routinely hire a contractor to repair lights on both the poles, and lights. We would like to have the capability to maintain it ourselves.

NEW Survey Drone (\$30,000 estimate) (office storage)

Without a perimeter road, we don't have the ability to survey our fence line after a strong storm. Being on the coast, those happen frequently. Having access to a drone would increase our opportunity to identify perimeter fence issues as they arise, instead of waiting for our annual 5-mile trek around the fence hike. It can also be used for survey work, and be instrumental in advertising campaigns.

Replacing Mowing Tractor (\$80,000 Estimate) (indoor storage)

With the purchase of addition mowing resources, we would like to replace our 1970's Case 695, mowing tractor. Long past it's useful lifespan, the current tractor no longer has gauges, air conditioning, or doors that close properly.

Some of these items would be replacements, and would not affect our ability to store everything in our current maintenance facility.

The total requested equipment expenditures to be requested: **\$2,162,000.**