



Board of Commissioners Work Session Agenda

THURSDAY, APRIL 16, 2020, 4:00 PM

BOCC Meeting Room, 1st Floor

530 E Main St, Aspen, CO 81611

DUE TO COVID-19 OUR BUILDING IS CLOSED. ALL COMMISSIONER MEETINGS WILL BE BROADCAST ON GRASSROOTS TV AND ONLINE STREAMING AT www.pitkincounty.com.

A work-session agenda is structured to give the Board of Commissioners an opportunity to touch base with each other, staff, and invited community members and organizations to discuss and work through issues the County is facing, but not ready to take official action on at a regular board meeting. Work sessions are open to the public (with exception of executive session). However, public input is typically not taken during a work session unless specifically asked for by the Board.

4:00 PM Airport Vision Committee Recommendations

Presentation by ASE Vision Leadership; John Bennett, Meg Haynes, Jackie Francis
ASE Minority Report Presentation, Valerie Braun

BOCC / Vision Committee Discussion

6:00 PM Adjourn

Written public comment can be submitted to info@asevision.com

AGENDA and TIMES ARE SUBJECT TO CHANGE

TO Pitkin County Board of Commissioners

FROM John Bennett, Vision Committee Pilot; Meg Haynes, Vision Committee Copilot; and Jackie Francis, Vision Committee Navigator

DATE April 16, 2020

RE Vision Committee Final Report to BOCC

As you know, in January 2019, you appointed 123 citizens to serve as part of the ASE Vision process and offer advice on the future of the Pitkin County-Aspen Airport (ASE). Some of these citizens represented various neighborhoods, businesses, and civic interests, while others offered general views from around our community. Together, they (we) reflected a wide diversity of perspectives. Our ASE Vision Kick-Off meeting was held in February 2019.

The purpose of the ASE Vision process was to advise the BOCC on how the Pitkin County-Aspen Airport should be modernized to accommodate the community's air service needs and reflect changes in the air service industry, while also remaining true to the character and values of the community. As part of the process, you created five Airport Advisory Groups:

- Airport Vision Committee
- Community Character Working Group
- Technical Working Group
- Airport Experience Working Group
- Focus Group

The four Working Groups concluded their work and presented their findings to the Vision Committee in December 2019. (A link to each working group's recommendation and presentation is included in Appendix A.) The Vision Committee reviewed closely the recommendations of the Working Groups and then conducted considerable additional work of its own to research, digest, thoroughly vet, and formulate its final recommendations.

We are attaching the FINAL REPORT of the Airport Vision Committee.

After holding weekly three-hour meetings throughout the beginning of the year, on March 10, 2020, the Vision Committee voted 20-1 to approve the *Recommendations to Achieve our Community Goals* that form the heart of the Final Report. *On behalf of the Vision Committee, we are pleased to submit it to you today.*

Additional Considerations:

As the Vision Committee's "Pilot, Copilot and Navigator," we offer the following additional thoughts that were discussed by the Vision Committee but whose language was never finalized before our formal meetings ended amid the COVID-19 crisis. While these additional thoughts contain no specific, actionable airport recommendations, we offer them to stimulate community thinking about the realities of uncertainty and some other important issues that were beyond the primary scope of the Committee's work.

1. ACKNOWLEDGING UNCERTAINTY

A. Rapid Technological Change

In January 2020, Wired Magazine ran a story with the headline: BELL AND HUYNDAI SOAR INTO THE AIR TAXI RACE — *Helicopter maker and global manufacturing giant unveil concept for flying urban mobility.*

The article reported separate initiatives by Bell Helicopter and Hyundai to build electric, vertical-takeoff-and-landing (VTOL) air taxis that could eventually revolutionize travel for trips up to 200 miles. Both companies are partnering with Uber. These “personal air vehicles” will work with a “new ground-based infrastructure system that will include an air taxi station called a Hub and a network of electric PBVs—Purpose Built Vehicles—that will shuttle people to and from the air taxis.”

While such recent announcements do not affect the Vision Committee’s current recommendations for our future airport, they do underscore the rapid technological changes that will likely alter the aviation landscape over the next ten to twenty years. The Committee’s Final Report stresses the need to monitor carefully the growth and functionality of our new airport and to make nimble course corrections as needed to achieve our four Core Community Goals. Rapid technological change offers one more reason to remain watchful.

B. Future National Policy Changes

Current federal policy severely limits the ability of states and local communities to regulate aircraft in order to attain important environmental goals. This limitation could possibly change in the not distant future.

As the effects of climate change on the wellbeing of both human society and the natural world become increasingly obvious through fires, floods, storms, disease and drought, federal law may loosen to allow greater community control over the environmental effects of aviation. For example, the federal Clean Air Act of 1970 strictly prohibits the regulation of harmful aircraft pollution: “No State or political subdivision thereof may adopt or attempt to enforce any standard respecting emissions of any air pollutant from any aircraft...”

This counterintuitive language embedded in something called the “Clean Air Act” may soon become viewed as a harmful anachronism that our nation can no longer afford. Were this federal policy to change over the next five to ten years, Pitkin County could find many new tools available for achieving our community’s environmental goals.

2. IMPORTANT ISSUES BEYOND THE SCOPE OF THIS REPORT

A. Regional Growth

Throughout this public process, overarching questions related to regional growth arose frequently. Because such issues deserve their own focus in a community-wide forum, the Vision Committee recommends that the BOCC initiate these discussions in order to provide a compass for future community decisions related to infrastructure and other needs.

B. Valley Transportation

The Committee's Final Report offers a number of recommendations aimed at creating seamless ground connectivity for the airport. The Report also reiterates the Focus Group's statement that "More convenient and easy ground transport would include a mix of public and private modes of transportation to and from the airport. Consideration should be given to a variety of mass transport possibilities including light rail, monorail, gondola and greater utilization of RFTA, if feasible."

Much like regional growth, issues related to upper valley transportation — and especially airport connections to Aspen and Snowmass — arose repeatedly during our deliberations. While ultimate solutions to our upper valley transportation and mobility challenges have been debated for decades and were beyond the scope of this report, we urge the BOCC to reinvigorate this important discussion and to work with other elected bodies and RFTA to identify *and implement* workable solutions.

Our Concluding Thoughts...

We thank the Board of County Commissioners for your support throughout the fifteen months of this ASE Vision process, and we express our deep appreciation to the many dozens of citizen volunteers who worked on this project. Rarely have so many citizens come together to work so hard for so long on such an important community issue. Only a deep love for our valley could motivate this kind of citizen effort.

We also thank the Pitkin County staff for all their stellar support. The Vision Committee could never have finished our work without them. And thanks to the many aviation consultants who provided countless spreadsheets and calculations to answer our endless questions.

We hope that the Vision Committee's Final Report properly reflects the extraordinary qualities of the people and landscape of this remarkable valley that we call home.

John Bennett Meg Haynes Jackie Francis

THE FINAL REPORT OF THE AIRPORT VISION COMMITTEE
— *The Common Ground Recommendations* —

I. EXECUTIVE SUMMARY

Background

In its review of alternatives for the Pitkin County-Aspen Airport (ASE), the Airport Vision Committee explored the core question facing Pitkin County: whether to pursue the airport improvements outlined in the 2018 Environmental Assessment (EA), including the increased runway/taxiway separation required by the FAA for federal funding. Our decision could have been simple and binary. Either recommend proceeding with the measures described in the EA *or* recommend that Pitkin County forgo any significant “airside” improvements and focus primarily on other issues such as terminal improvements or ramp and energy efficiency projects.

Either of those “bookend” choices offered its own advantages and risks, but our research revealed that neither would achieve the Core Community Goals that the four ASE Working Groups and our Committee established for the airport: safety, substantial reductions in airport air pollution, managed growth of airline enplanements, and a substantial reduction in noise. Instead of either bookend option, we recommend a balanced middle-path called the *Common Ground Recommendations*. We believe this path represents creative, out-of-the-box thinking that will appeal to most of our community and truly benefit our valley.

Common Ground Recommendations

The Common Ground Recommendations are a package of interrelated measures all designed to reflect the Community Values and Goals on which we have agreed. Some of these measures would be relatively straightforward for Pitkin County to implement on its own. Others are complex and would require the agreement of the additional airport stakeholders. Some of these would require working with the FAA, others would require negotiations with airlines, and still others would require agreements with the airport’s fixed base operator (FBO).

Because many of the measures contained in our Recommendations are interdependent, we propose that the Board of County Commissioners adopt them together as an integrated package to ensure that they reflect and balance the community values and goals we have identified.

Safeguards to Maintain the Integrity of the Common Ground Recommendations

Our Common Ground Recommendations represent a careful balance between competing airport perspectives. This balance rests directly on our shared community values and goals. The Vision Committee’s decision-making process asked all of us to move outside our comfort zones to seek middle-path solutions that address these shared goals, even if certain aspects of our solutions may have made many of us initially uneasy.

For example, some of us for whom enhancing the visitor experience and ensuring the county’s future economic vitality are especially high priorities may be skeptical of managing growth through the terminal’s seven “flexible gates.” Likewise, some of us for whom protecting our community character and quality of life are primary priorities undoubtedly feel some discomfort with the notion of allowing larger airliners to serve ASE. Our first group may be made more comfortable by assurances that appropriate larger aircraft *will* be able to serve ASE and that seven flexible gates will accommodate today’s level of airline service as well as gradual future growth. For our second

group, the knowledge that any new, larger airliners allowed will emit significantly less greenhouse gas and other emissions, be quieter, and fit within the managed growth constraints of seven flexible gates may be an essential consideration.

To maintain this *critical balance of community assurances*, we recommend that the Pitkin County Commissioners not allow them to be forgotten in future years or changed arbitrarily by future elected officials or County staff. To that end, we recommend the following safeguards:

- A. The Common Ground Recommendations should be adopted by a formal county ordinance or resolution so that it could never be changed without future public hearings and a full community discussion.
- B. The County Commissioners should create a permanent *Airport Advisory Board* of citizen volunteers who represent balanced, diverse viewpoints to advise the County on future airport issues.
- C. The County Commissioners should require the Airport to provide an annual report on progress made toward meeting our Core Community Goals.
- D. The airline agreements necessary to the Common Ground Recommendations should be enforceable through long-term legally binding contracts.

Negotiation Time Period and Possible Alternate Recommendation

The Common Ground Recommendations' major strength lies in the fact that their targeted goals — reduced greenhouse gas and other emissions, managed growth, and less noise — already appeal to many Pitkin County citizens. The Recommendations' inherent challenge, however, is that some of its most important measures rely on stakeholder negotiations and agreements that may or may not be attainable.

We recommend that the County should test quickly whether those measures that require negotiation are attainable. Specifically, we suggest that the County engage immediately in discussions with the three airlines that serve Aspen today. (Based on our research, we can suggest a negotiation approach.) We also propose that the County Commissioners set a fixed time period for these initial negotiations — perhaps 60-90 days.

After these negotiations, the BOCC should reconvene our Committee for no more than 14 days to evaluate the success of the negotiations and make an alternate airport recommendation if necessary. Were such an alternate recommendation needed, our Vision Committee process could be as simple as a single meeting with a new vote to recommend either of the original "bookend" options to replace the Common Ground Recommendations. Of course, we might well end up in a split vote that produced both a new majority recommendation and a minority report.

In implementing the Common Ground Recommendations, the Vision Committee urges the County to follow an incremental decision-making model that is flexible, adaptable, and focused always on attaining our Core Community Goals. For example, over time, the number of terminal gates we're recommending might turn out to be either too low or too high to meet our goal of approximately

.8% annual airline enplanement growth while also providing a comfortable traveler experience. In such a case, we recommend that the County meet with its Airport Advisory Board to agree on the appropriate course correction. Because accurately foretelling the future is impossible, this kind of adaptability will be essential to successfully achieving our airport and community goals.

In addition, we recognize that our .8% enplanement growth goal is both aspirational and approximate. Federal law limits our ability to set exact enplanement limits, but we urge using our limited tools as best we can. The intent of this approximate target is to serve our travelers and maintain economic vitality, while guarding against either a cruise ship syndrome that could overwhelm our airport with waves of people or out-of-control overall enplanement growth that might threaten our valley's long-term quality of life for residents and visitors.

Likewise, our goals for lowering greenhouse gas and other emissions and also substantially reducing noise will undoubtedly require course corrections of their own over future years. Great new ideas for accomplishing these goals will no doubt arise, and some that we've recommended may require replacement or improvement.

Flexibility, adaptability, and skillful course corrections as needed will be essential to ensure the success of our future airport, reflect our character and values, provide a great traveler experience, and attain our long-term Core Community Goals.

II. ASE VISION COMMUNITY VALUES SUMMARY

Safety in the Air and on the Ground

Adaptable, Flexible, Future-Proof

- Ability to serve aircraft of the future
- Ability to adapt to future uses.
Preserve space for future.

Environmental Responsibility. Address:

- Noise Pollution
- Air Pollution
- Carbon emissions – aspire to net carbon neutrality
- Light Pollution
- Sustainability – energy efficiency
- Respect wildlife habitat, open space and natural surroundings

Community Character – Reflect local culture and values

- Connection to place: It should *feel like* Aspen and Pitkin County
- Unique mountain airport feeling – unpretentious
- Tell Aspen story: reflect culture, mining heritage, skiing, ranching, etc.
- Retain rural and small-town feel
- “Small is important” “Don’t build it too big”
- “Reasonable growth” “Modest expansion”
- Control growth through number of gates, etc.
- “Just Big Enough” “Right-Sized”

Economic Vitality

- Adaptable to the economic sustainability of our resort
- Convenience: More direct flights
- More carriers and competition
- Take valley growth into consideration

Warm and Welcoming

- Friendly and personable for both

residents and visitors

- Comfortable with excellent food & drink amenities
- Guest-friendly for stranded passengers and peak crowds.
- Stress free
- Improved, but not so different from today. Still welcoming.
- Views of mountains
- A practical airport: Better waiting rooms and employee areas
- Convenient access to/from airport

Design Excellence

- Unique – Distinctive – Great architecture
- Should look like Aspen – Small is important – Small but beautiful
- Incorporate mountain surroundings
- Awe-inspiring views
- It should be surprising!

Efficiency – an airport that works well

- Well planned. Better functionality than today
- Incorporate new technology
- Efficient in service, time, operations
- In design, give commercial passengers priority over private planes
- Reliable gateway for visitors

Preserve High Quality of Life

- Neighbor Friendly
- Mitigate noise.
- Maintain curfew

Convenient & Easy Ground Transportation

- Multi-modal transit options
- Seamless connectivity to transit

III. Core Community Goals for the Pitkin County-Aspen Airport

1. Safety
2. Reduce greenhouse gas and other pollutant emissions by **at least 30%**
3. Manage the growth of airline enplanements to be consistent with approximately **.8%** growth per year
4. Reduce noise by **at least 30%**

Notes to the Goals:

Emissions Reduction Goal: This 30% goal includes both the emissions from the airport itself and from the aircraft flying to and from ASE.

Managed Growth Goal: The .8% compound growth rate is an aspirational goal. The Committee recognizes that airport growth cannot be “tuned” to any precise number, but the goal represents a commitment to a reasonable level of managed growth. In addition, the Committee believes that airline operations should be emphasized over nonairline ops (e.g., general aviation/air taxi operations). Since non-airline operations amount to approximately 75% of total airport operations, their growth, too, should be managed.

Noise Reduction Goal: This goal applies to noise both on and around our airport.

Timeframe: The emissions and noise reduction goals should be attained by **2030**.

IV. Key Findings

1. Safety

Challenging Airport. Two national pilot surveys have named Aspen-Pitkin County Airport (ASE) as the most challenging commercial airport in the U.S. Over the last four decades, there have been over 40 accidents, all involving private, non-airline aircraft, that caused substantial damage or the complete loss of the aircraft in the vicinity of ASE. ASE's challenges arise from factors like the airport's altitude, its surrounding mountains, its sloping runway that requires most aircraft to land to the south and takeoff to the north, wind currents, etc.

Runway/Taxiway Separation. Today the FAA classifies ASE as a non-standard "Airport Design Group-III" airport because it does not meet the 400-foot required safety separation between the runway and the taxiway. For safety reasons, the FAA specifies that ASE, and all Group III airports, should have 400 feet of separation between the centerlines of our runway and taxiway and runway widened to 150'. The FAA has allowed the current separation, which is 320 feet, under a 1999 "modification to standards"; but the FAA is trying to eliminate such modifications to standards wherever possible to have consistent national safety standards. After these changes ASE would still have unavoidable modifications to standards such as sloped runway

Pilot Training. Airline pilots undergo extensive training in the Aspen Airport's special challenges before they are certified to fly in or out of ASE. Airline pilots are also required to have FAA approval to fly the special instrument procedures used primarily by the commercial carriers. GA are not required to have the same level of training as airline pilots to fly into ASE. GA Pilots require no additional training for flying into ASE during daylight hours. However in order to land or take off at night, all pilots (GA and commercial) are required to have prior FAA approval.

Community Emergency Resources. While the FAA believes that increasing our runway/centerline separation to 400' would make our airport safer, some County residents fear that opening our airport to all capable Group III aircraft would invite large future planes with potentially twice the passengers of today's CRJ-700. This, they argue, could create a serious safety issue over the imbalance between the number of passengers on a single plane and our community's off-airport emergency resources, such as the Aspen Valley Hospital's 25 beds, our limited local ambulance capacity, etc.

ASE and Pitkin County currently surpass Aircraft Rescue and Fire Fighting (ARFF) standards for current ASE aircraft and also future ADG-III planes that could potentially serve ASE if the airfield were changed to full ADG-III standards. ASE trains to "worst case" scenarios and assumes up to 150 casualties, which would cover the range of ADG-III aircraft with the performance capabilities to operate at ASE. That number of injuries, however, would exceed the capacity of the Roaring Fork Valley's hospitals and require mass transportation to more distant facilities.

2. The Airport, Community Character and Our Economy

Community Character. Protecting the County's rural character and quality of life is extremely important. Much of our uniqueness and success has arisen from the "Aspen Idea," the notion of a community nourishing the mind, body and spirit of its citizens through music, culture, art, intellectual stimulation, and physical activity in nature. In the words of the ASE Vision Community Character Working Group: "The 2000 AAMP states 'recommendations on Economic Sustainability that endeavor to make our community *better without getting bigger*.' We rely on economic harvests of character, vibrant culture and active lifestyle, clean air, quiet (compared to the rest of the world), open lands, and preserved history... Maintaining character makes money as well as improving our quality of life. It is also conducive to both our physical and mental health. It's profitable to protect the goose that provides these golden eggs." In a similar vein, the Airport Experience Working Group recommended that "to preserve our high quality of life," ASE should "maintain our existing level of air service, plan for small growth increases, implement the highest environmental standards and provide the best guest experience."

Economic and Societal Benefits. Locals, visitors and businesses all depend on the Pitkin County-Aspen Airport. It is essential to maintaining our local economic vitality, and many jobs depend on it. It is also an important piece of infrastructure for locals traveling to and from our valley. Maintaining affordable air access is critical to our local quality of life.

New Terminal. The current terminal is woefully inadequate to serve today's travelers, employees and aircraft operations at a reasonable level of service.

3. Airport Connectivity

Connectivity. In the words of the Focus Group, "More convenient and easy ground transport would include a mix of public and private modes of transportation to and from the airport. Consideration should be given to a variety of mass transport possibilities including light rail, monorail, gondola and greater utilization of RFTA, if feasible."

4. Environmental Issues

Greenhouse Gas Emissions. Pitkin County was one of the first airports in the US to prepare a total airport-related emissions inventory that captured the emissions of Greenhouse Gas (GHG) sources by ownership and/or control. In 2017, total airport-related emissions were 81,566 tons of carbon dioxide (CO₂), representing approximately 5% of GHG emissions for all emitters in Pitkin County. Of the airport emissions, only ~2% were under the ownership and/or control of Pitkin County. The other 98% were under the ownership/control of airlines and tenants. Aircraft emissions reflect ~89% of total airport related emissions. The quantity of Jet A fuel dispensed at the airport (a rough proxy for aircraft greenhouse gas emissions) increased by 40% between 2014 and 2017.

Local Air Quality. In addition to Greenhouse Gas Emissions, the Community Character Working Group also identified concerns about airport impacts on local air quality. Aviation emissions

typically represent less than 5% of a region's criteria pollutants, which are indicators of local air quality. ASE has collected emission inventories with criteria pollutants in 2008, 2012 and 2015, with forecasts for 2023, 2028 and 2033 and can be used to establish baselines for our local measures.

New VS Old Aircraft. Newer commercial and private aircraft are generally more fuel efficient and quieter than older aircraft. For example, because it is newer, more fuel efficient and larger, the Airbus A220-100 emits 51% less CO₂ per-passenger than the CRJ-700 during a landing and takeoff (LTO) cycle. The Airbus A220-300 emits 60% less CO₂ per passenger than the CRJ-700 during LTO. In terms of flyover noise level, the A220 is 3.6 decibels quieter than the CRJ. Similarly, on the General Aviation side, a new Gulfstream 650 is 3 decibels quieter than the Gulfstream 4. (For reference, 3 decibels represent 50% less sound pressure.) (See Appendix for detailed aircraft noise data.) *Direct Flights.* When compared with a two-segment flight requiring a stopover, a direct nonstop flight will emit less greenhouse gas and other forms of air pollution.

Nonstop Flights. The ability to operate nonstop flights to cities outside the range of current aircraft serving ASE could reduce GHG emissions significantly. In a detailed comparison completed by American Airlines on Miami/ASE and New York/ASE trips, the fuel burn per passenger was reduced by 20% and 31% respectively when flown nonstop compared to the current required 1-stop routing through a hub (Dallas and Chicago). The major emissions differences between the nonstop and 1-stop routing are primarily the fuel burned on the 2nd takeoff cycle, taxiing on the ground at the hub, and flight time in normal arrival and departure routing procedures.

Noise. The Community values its quiet rural areas as well as less noise within the urban growth boundary where the airport is located. The County adopted one of the first "Fly Quiet/Fly Clean" programs in the country and now has over a decade of data collected daily on-site at a location in Woody Creek and field measurements taken twice per year. The goal of the Aspen/Pitkin County Fly Quiet program is to influence pilots to fly as quietly as possible in and around ASE. Monitoring, collecting, and analyzing comprehensive amounts of operational and noise data helps highlight both airport trends and individual aircraft performance to better understand specific noise abatement issues. Reduced use of accessory power units and fossil fuel powered ground equipment will reduce noise and emissions on the ground.

5. Aircraft

Status of Bombardier CRJ-700. The CRJ-700 – which United, American and Delta use today to serve Aspen – was last delivered in North America in 2011. The current average age of a CRJ-700 is 15-16 years, and this type of small regional jet is generally replaced by more cost-effective models after around 20 years. As of January 2020, United has 18-19 CRJ-700's remaining in its fleet, and Delta has approximately 12. American has more and is the largest user of the CRJ-700. Since aircraft become more expensive to maintain as they age, and older planes are less fuel-efficient, it is our finding that airlines are likely to retire the CRJ-700 by or around the end of decade. As of January 2020, United, American and Delta are retiring the CRJ-700 more quickly than anticipated.

Airline Fleet Forecast. In their 2019 "Fleet Forecast," the airlines serving ASE identify three Group III

aircraft that they expect will replace the CRJ-700 when it retires: the Embraer E-175, the Airbus A-319, and the Airbus A-220-100.

Status of Embraer E-175. If ASE retains its current 95' wingspan restriction, the Embraer E-175 could become the only regional commercial jet aircraft with more than 50 passengers capable of landing in Aspen after the current Bombardier CRJ-700 retires. Because the E-175 is heavier than the CRJ-700 and lacks sufficient power to serve ASE year-round with a full load of passengers and fuel, it would have to carry fewer passengers than the CRJ-700, be limited to a shorter range, and serve fewer destinations. This is why the E-175, despite being one of the most popular regional airliners today, has not been used for ASE. The E-175 is also a noisier and more polluting aircraft than the CRJ-700.

Status of Mitsubishi SpaceJet M-100. The wingspan of the planned Mitsubishi SpaceJet M-100 is intended to be under 95', so it may be able to land in Aspen. The aircraft is currently in design development with production of its first prototype yet to begin. Mitsubishi says that it will deliver the M-100 in the mid-2020's. In January 2020, Mitsubishi announced that delivery of the M-90 (the M-100's larger sibling now in flight-testing) would be delayed until late 2021 or early 2022. The M-90's delivery had previously been scheduled for summer 2020, and the new delay means that the plane is now eight to nine years behind schedule. Given the difficulty that Mitsubishi has had building and certifying the M-90, it is difficult to know when the M-100 will actually be flying commercially in the U.S. Once the M-100 is built and certified it would still have to be evaluated to confirm that its performance allows it to land safely at the Aspen Airport.

Status of Airbus A220-100. A new airliner, the A220 was designed by Bombardier and sold to Airbus. Delta Airlines introduced it in the U.S. in 2019 and has 29 in service. In Delta's configuration, the plane seats 109 passengers, which is 33 more than the CRJ-700, but only 9 more than the BA-146 that served the Aspen Airport for close to 20 years. The A220 is capable of serving ASE, but its wingspan is wider than 95', so the FAA would not currently permit it to land here under normal airport operations. The A220-100 is listed in ASE's Aviation Activity Forecast ("Fleet Forecast") as a plane the airlines would like to use seasonally for future ASE service were it allowed to land here.

Scope limitations. Only two aircraft currently are flying for United, Delta and American within the 50 to 76 passenger "scope clause" – the CRJ-700 and the E-175. Per scope limitations, for any new aircraft delivered to an airline, another aircraft within the scope must be retired, meaning as airlines order new E-175s, either CRJ-700s or older E-175s must be removed from their fleets.

Status of 737s. While not included in the airlines' Fleet Forecast of planes likely to be used for ASE, the Boeing 737 has been a concern to many county residents because of its size and potential impact on our valley. Some 737 models, such as the 737-700 and the 737-MAX 8, would be unlikely to land commercially at ASE because of their significant performance constraints, making it unlikely they could operate profitably. The Boeing 737-700 does have the performance capabilities to operate safely at ASE, but it is no longer in production and is starting to be phased out of carrier fleets. One model that could theoretically serve ASE is the 737-MAX 7. However, it has not been ordered by any of the three carriers that serve ASE and the only airline to place 737-Max 7 orders in the country has delayed them indefinitely. The 737-MAX 7 would seat 138 to 153 passengers.

Emissions and noise data for the MAX 7 are not yet available.

Future GA (non-airline) Aircraft Technology: In the words of the Technical Working Group, “GA Aircraft that have wingspans larger than 95 feet are relatively rare and all of them are very new designs with the most efficient engines and quietest operation of any of the ADG III GA planes.”

Future Aircraft Design. According to Amory Lovins and others who study the evolution of aircraft technology, future commercial aircraft are likely to have wider wings and lower landing speeds than today’s planes. They are also likely to be more fuel efficient, less polluting and quieter.

Electric Aircraft. Hybrid electric and eventually all-electric airliners are on the horizon, but ones that could serve Aspen are likely still 10-15 years away and are likely initially to be 10 to 15 passengers in size. Fully electric aircraft carrying 75 passengers to the destinations currently served by ASE are farther in the future. Small electric propeller planes and vertical-takeoff-and-landing (VTOL) electric “on-demand” air taxis may be available sooner. With many companies investing heavily in electric aviation, the technology is evolving rapidly. The biggest current challenge is the ratio of battery capacity to weight.

6. Airport Decision Making

Airside Decision Making. The County has relatively little control over the “airside” of airport operations: the runway, taxiway, landing and takeoff procedures, etc. Under federal law, the County cannot “unjustly discriminate” in favor of one type of aircraft over another.

Landside Decision Making. As the Airport Operator, Pitkin County has substantial control over the terminal in terms of its size, design, commercial services, tenants, boarding gates, and ramp (aircraft parking) space to help attain the community goals identified by the Vision Committee. It can establish landing fees to help fund airport operations and improvements.

Negotiation with Airport Stakeholders. The County may be able to negotiate the terms of agreements with airlines serving ASE and with the airport’s Fixed Based Operator (FBO) in order to help attain community goals.

7. Airport Service Level and Existing Flight Operations

Existing Airline Service. ASE Vision participants generally felt that our existing airline service level is important to our community. In the words of the Airport Experience Working Group, “the existing airport passenger service (number of carriers, direct flight destinations, and passenger volume) fits the needs of the community and should be maintained to allow for diversity and vitality. ...The group acknowledged that .8% growth (in annual commercial enplanements) is expected and should be planned for, but not immediately built to. Our goal is to maintain the current level of air passenger service and prepare for future growth.”

Flight Operations. In general, airlines represent roughly only one-fourth of ASE flight operations

(landings and takeoffs). General aviation (private planes and fractional ownership business planes) and air taxis (e.g., NetJets) represent the other three-fourths. In 2018, ASE had a total of approximately 43,000 flight operations, including airlines, general aviation and air taxis. Since 2000, total annual operations at ASE have been relatively flat.

Pitkin County Curfew. The County Commissioners established a noise curfew at the Aspen Pitkin County Airport in 1979. The curfew was subsequently codified by Congressional Act in 1994. No aircraft operations are permitted between 11PM and 7AM, with certain limited exceptions. No aircraft departures are permitted after 10:30PM also with limited exceptions. All aircraft operations must comply with Part 36 Stage III noise regulations. The continuation of the curfew is dependent with the airport complying with the Congressional Act and enforcing the curfew in a non-discriminatory manner. Any increase in the restrictions of the existing curfew would require an act of Congress and would likely risk the renewed examination of the curfew by the FAA and the basis for the establishment of the curfew. Such an event would risk the continued viability of the curfew.

8. Funding for Airport Operations and Improvements

Grants and Other Revenue Sources. Federal discretionary grants could cover up to 90% of the cost of possible new airfield improvements, such as increasing the centerline separation of the runway and taxiway. County funds would be needed to build a new terminal. Airport tenants, such as airlines and the fixed base operator, could cover the costs of certain improvements related to their operations – this is subject to negotiation. As the airport operator, the County also has the ability to charge landing fees and rental fees to help offset airport expenses.

FAA Grant Uncertainty. The FAA has suggested that all discretionary grants would be conditioned on the Airport increasing the centerline separation of its runway and taxiway. ASE would continue to receive its entitlement grant each year but it is not enough to maintain the airport in its current condition. In a 9/13/2018 email, the FAA wrote, “The Agency will not invest Federal grant funding for a facility that will limit access to certain types, kinds, or classes of aircraft. The Agency has the expectation that at the conclusion of the project, the Airport will be able to accommodate the full range of group III aircraft.” This refers to increasing the Airport’s runway/taxiway centerline separation to 400’ and the “full range” of Design Group III aircraft that would then be able to land. Without FAA discretionary grants, Pitkin County would have to seek additional funding sources for annual airport expenses.

Phasing of Airport Construction. Airport improvements will require phasing to ensure the airport remains operational during busy seasons. The scope of the project will likely also require phasing to be economically feasible and align with the availability of both local funding and federal grants. Phasing for a project approved in the EA would be a minimum of 5 years.

County Enterprise Fund. The Aspen-Pitkin County Airport is a County Enterprise Fund. An enterprise fund, per the Colorado Constitution, is a self-supporting government-owned business for which the primary source of revenue is from fees and charges derived from airport activities. Enterprise funds are authorized to issue their own revenue bonds and may receive no more than

10% of annual revenue in grants from other Colorado state and local governments combined. There is no limit on the amount of federal grants that may be accepted by the Pitkin County Airport Enterprise Fund.

Airline Financial Interests. United, American and Delta airlines offer commercial service to ASE because it is profitable for them to do so. In the August 12, 2019 ASE Vision meeting, representatives from both United and American reiterated their strong desire to continue serving ASE with good commercial service to and from their hubs allowing passengers to access their global networks.

9. The Complex Core Issues Facing the Pitkin County-Aspen Airport

The FAA would like ASE to increase its runway/taxiway centerline separation from 320' to 400'. Doing so would change the airport's current modification to standard which currently limits wingspan to 95' and would address the most important safety issue identified by the FAA. This change allow most or all Group III aircraft to land in Aspen as long as their aeronautical performance allowed them to do so.

Some who support ASE becoming a full Group III airport believe this would guarantee that other airliners would be able serve our airport after the current CRJ-700 retires. Others fear that becoming a full Group III airport would invite much larger aircraft and result in a "cruise ship syndrome" that would irrevocably harm our community character, rural quality of life, and appeal as a unique destination resort.

If ASE were to become a full Group III airport, some of the new aircraft most likely to serve the airport would meet our community goals (reduction in noise, reduction in emissions and managed growth). The Airbus A220-100, for example, has only 9 more seats than the BA-146 that once served Aspen. The A220-100 emits substantially fewer greenhouse gas emissions than today's CRJ-700 and is also significantly quieter. In addition, the A220-100 is listed on the Fleet Forecast of planes that today's airlines say they'd like to bring to Aspen in the future.

On the other hand, another plane likely to serve a full Group III ASE is the Airbus A319-100. This aircraft is older, larger and heavier than the A220-100. In its landing and takeoff cycle, the A319 emits twice as much greenhouse gas per passenger as the A220-100. In fact, it emits more CO₂ per passenger than today's CRJ-700. The A319 currently in use is also noisier than either the CRJ-700 or the A220-100. And the A319, too, is on the Fleet Forecast list of planes the airlines would like to use for future Aspen service.

If we were to leave the airport as it is, we would run a distinct risk that no commercial jet airliner in the 50-76 seat range adequate for ASE's current level of service and passenger enplanements would be available to serve ASE when the CRJ-700 retires. We would also jeopardize FAA discretionary funding for the airport, and we would lose any chance of attaining our community air pollution emission goals, our noise reduction goal, or our commitment to managed growth (~.8% per year) of commercial airline enplanements. Although, in theory, the Embraer E-175 could replace the CRJ-700, the E-175 is noisier, would have fewer seats due to performance issues, and

would require more flights to move the same number of passengers. Its shorter range would also eliminate some cities served by today's CRJ-700.

In short, if we improved our airport to full Group III status, we would open the door to certain planes like the A220-100 that emit less greenhouse gas and other air pollutants, are quieter, and could attain our managed growth goal — but we would also invite larger, more polluting and noisier aircraft like the A319.

These types of complex issues lie at the heart of why the Pitkin County-Aspen Airport has been such a source of seemingly endless community discussion for so long a time.

V. RECOMMENDATIONS TO ACHIEVE OUR COMMUNITY GOALS

("The Common Ground Recommendations")

RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
1. Maximize the Safety of Our Airport <u>Intent</u> Early on, the ASE Vision participants recognized "safety in the air and on the ground" as the number one priority for our community. The County and Airport should prioritize investments in policies, procedures and technology that minimize the risk of crashes, accidents, and hazardous materials spills by establishing and maintaining best practices and the highest standards. <u>How Achieved</u> • Work with non-airline pilots and insurance providers to encourage and provide training and safety resources related to the unique characteristics and challenges of flying into ASE • Work with FAA on implementing NEXTGEN program which includes safe clearances, enhanced efficiency, and precision approaches • Work with FAA to enhance safety by increasing the separation between aircraft. (This may reduce flow rate during peak periods)					Safety in the air and on the ground	

RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
2. Maximize the Sustainability of our New Airport <u>Intent</u> Environmental responsibility is a cornerstone of our community and should also be a cornerstone of our Airport. It should be integrated into the Airport's culture for both commercial and GA operations and passengers – a part of the Airport's core mission. We encourage the County to fully explore federal, state and local policies to incentivize and accommodate aviation innovation in clean emissions and work with partners to stay on the leading edge of environmental sustainability. To meet our community value of environmental sustainability, our citizens set a goal of aggressively reducing greenhouse gas and other pollution emissions. The Vision Committee recommends that the County establish baselines for emissions and seek every opportunity in both new construction and deconstruction to reduce its emissions while pursuing the highest level of environmental stewardship in design and materials. <u>How Achieved</u> • Design all facilities to <i>Net Zero</i> • Implement short and long-term energy efficiency measures available for airfield and facilities, including but not limited to LED lighting and on-site renewables such as solar and geothermal • Electrify the airfield for both GA and commercial operations, including but not limited to: (a) ground support equipment (b) ground power (APUs) (c) air tempering units (d) Reduce APU idling similar to town idling-ordinance (e) Provide electrical hook-ups to eliminate APU usage		✓	✓	✓	Environmental Responsibility Community Character Design Excellence Efficiency – an airport that works well	

- Establish the most accurate emissions baseline possible as a starting point. Implement strategies to reduce emissions by at least 30% as soon as possible, but no later than 2030. - Employ both modeling and local monitoring to track GHG and criteria pollutants, such as volatile organic compounds (VOCs) and particulates. - Reduce overall use of aviation leaded fuel - Create financial incentives through things like landing fees and fuel prices by allocating airport costs from excessive GHG emissions to the aircraft operations that create those costs and, thus, rewarding aircraft operators that meet the airport emission goals. Examples: (a) Carbon landing fee to fund on-site solar farm, biofuel and other green initiatives. Work with FAA to achieve federal and local GHG goals. (b) Implement Carbon offset program, but only to <i>complement</i> - not replace - onsite carbon reduction innovations. Prioritize offset that are local and within the community. Ensure that they are real, permanent, verifiable, incremental and implemented <i>in addition to</i> business-as-usual, ongoing practices. - Incorporate biofuels that genuinely reduce the overall carbon footprint - Build an airport solar farm and install solar panels on terminal, FBO and other roof structures. - Use berms and sound walls to mitigate noise impacts. Use landscaping to enhance the visual appearance of berms and walls - Maintain and strictly enforce the curfew - Incentivize quieter planes - Emphasize public transport (aviation and ground) as a “first-choice” solution for all users.					Environmental Responsibility Community Character Design Excellence Efficiency – an airport that works well	
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Emphasize access to public ground transportation to and from the airport over other single occupancy vehicle such as car rentals						
RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
3. Seamless Ground Connectivity <u>Intent</u> Convenient, easy ground transportation will help reduce air pollution emissions through multi-modal transit, seamless connectivity and a reduction of overall number of vehicle trips to and from the airport. The Airport should act as an important multi-modal transport center that ensures a mix of public and private transportation. The County should improve and prioritize the accessibility and convenience of public transportation but also recognize that that transit alone will not fully address connectivity needs. Many passengers will continue to arrive at the Airport by car, and the Airport needs to maintain accessibility for all travelers. <u>How Achieved</u> - Infrastructure encourages electric ground transportation - Increase utilization of RFTA - Develop airport-specific circulator(s) with luggage capacity connecting to Ruby Park and Brush Creek. - Improve baggage transport options for all traveling public to and from the terminal - Provide internal and external wayfinding to promote transportation modes into town - Encourage multi-passenger and ride-sharing opportunities in hotel shuttles, taxis and TNCs / ride hailing (Uber/Lyft), reducing reliance on single-occupancy vehicle trips to and from the airport - Explore aerial and/or rail connections between the Airport, Aspen and Snowmass. Maintain future space for them			✓	✓	Environmental Responsibility Convenient and Easy Ground Transportation	👍

RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
4. Improve Airline Service Reliability <u>Intent</u> Wherever possible, design infrastructure and operations to facilitate airline service <u>How Achieved</u> • Work with FAA to institute a Reservation System for commercial and GA operations during peak periods to protect airline schedules • Consider a Peak Period GA Pricing Program (if reservation system isn't sufficient) • East side taxiway design and moving GA to the north allows airliners to queue up more quickly for take offs • Request BOCC seek further actions that other airports may have implemented		✓			Safety in the air and on the ground Economic Vitality Community Character	👍
5. Non-Airline Reserved Parking (Ramp Space) <u>Intent</u> Redesign non-airline reserve parking to pursue all four community goals. <u>How Achieved</u> • Reconfigure GA ramp space to move large GA and Air Taxi to north end of the airport away from noise-sensitive residential areas • Implement International Civil Aviation Organization (ICAO) spacing standards. Avoid crowded "aircraft carrier parking". • County requires aircraft to plug in and minimize APU use. If County can't require plugin, County should subsidize to incentivize plug in use. • Provide electrical and tempered air hook-ups at each parking space	✓	✓	✓	✓	Safety in the air and on the ground Environmental Responsibility Community Character High quality of life	👍

• Maintain current number of aircraft parking spots to avoid increases in “drop and go’s”. County should add non-airline parking spaces incrementally and measure impacts before adding additional space to reduce drop-and-go’s. • Analyze if the addition of hangars would reduce drop-and-go’s.						
6. FBO reflects Community Values <u>Intent</u> Build a new FBO terminal and facilities that reflects community values and goals <u>How Achieved</u> • Require FBO to convey community character, values and culture in the same way as the commercial terminal when a new GA terminal is constructed. • FBO should be net zero. • Include the voluntary noise abatement into any design RFP			✓	✓	Community Character Warm and Welcoming	

RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
7. Build New Terminal <u>Intent</u> ASE should not feel like a typical “anywhere” airport. Our terminal should integrate the Aspen Experience into its design and layout, helping to orient travelers to our community’s unique history, special pace, character, and values. Its design should help reduce whatever tensions may have accompanied them. The terminal should be an iconic and innovative building that is recognized immediately as “Aspen’s Airport,” unique and appropriate to a town that has hosted internationally renowned design conferences. And the County should provide a positive, healthy and safe work environment for airport staff. Our terminal should be flexible, “right sized and just big enough.” It should reflect our community character and be comfortable, efficient, net zero, and beautifully designed. To accommodate our values and goals and provide an efficient, well-functioning facility, we envision the new terminal will be in the range of approximately 75K to 90K square feet. <u>How Achieved</u> • Build terminal spaces that can handle peak capacity but not feel built for peak capacity. • Meet best practices for travelers and employees, including sterile spaces, pet areas, re-composure areas, overflow area for luggage needs, and operational efficiency. • Expand curbside check-in and provide space for automated kiosks • Create spaces that are peaceful with comfortable, appealing dwell time. • Design terminal around arts and culture that reflect our	✓	✓	✓		Adaptable, flexible and future proof Environmental Responsibility Community Character Warm and welcoming Design Excellence Efficiency – an airport that works well Adaptable, flexible and future proof Environmental Responsibility Community	

community. - Locally source programming, food, engagement, education from local institutions. - Sponsor exhibits, not ads, to reflect a cultural experience. Sell character. - Welcome booth and information desk should be visible and accessible - Accommodate all levels of mobility - Integrate helpful technology but don't let it dominate the visitor experience	✓	✓	✓		Character Warm and welcoming Design Excellence Efficiency – an airport that works well	
8. Enhance the Traveler and Staff Experience <u>Intent</u> We believe the airport should create an airport experience that reflects our community character that is warm, welcoming, caring and efficient both today and far into the future. Our airport should be memorable and outstanding. <u>How Achieved:</u> - Implement traveler satisfaction survey - Develop coordinated strategy for greeting and delivering visitors to Aspen whose flights are diverted and end up arriving by ground transportation after the Airport is closed. - County will monitor gate utilization during regular and irregular operations and the impacts on staff - Design of new terminal shall improve traveler and staff experience and provide sufficient surge capacity for irregular operations - Emphasize ease of information, efficiency, comfort and service to our airline traveling public. - Have architecture that is based on the Aspen Idea and is both memorable and outstanding that reflects our unique history and vision of the future - Emphasize our place in the natural world and foster a sense of respect, appreciation and responsibility to the environment					Adaptable, flexible and future-proof Warm and Welcoming Design Excellence Economic Vitality Community Character High quality of life	

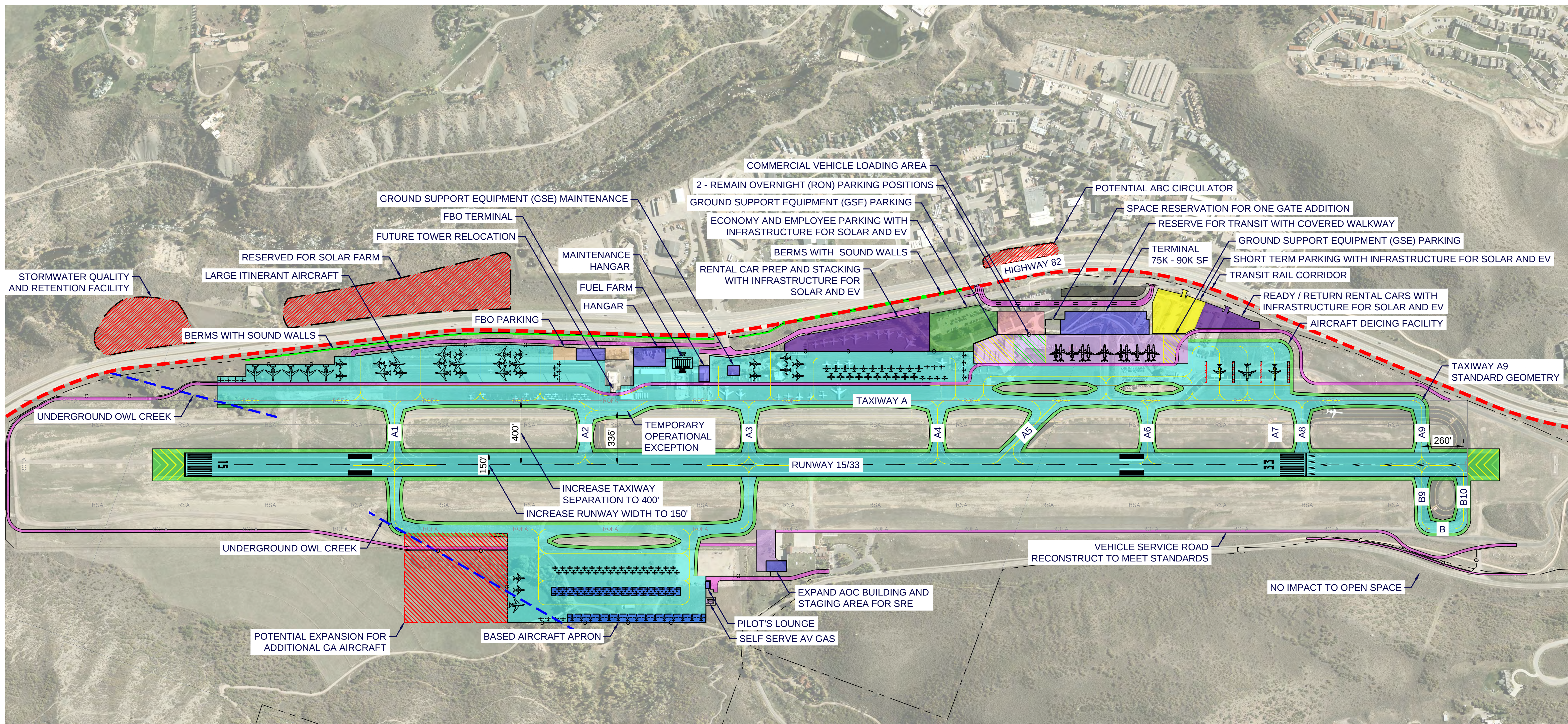
RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
9. Open-air Jetways <u>Intent</u> Design as part of flexible gates Include jetway electrical connections and conditioned air to replace APUs. Open air and/or glass enclosed jetways with windows and/or natural ventilation balance community character with sustainability and maintains the experience of feeling fresh air. <u>How Achieved</u> - Maintain the visibility of the natural environment - Jetways for electrical hookups and accessibility County has the authority without federal funds	✓	✓	✓	✓	Safety in the air and on the ground Environmental Responsibility Community Character Design Excellence	👍
10. Provide 7 Gates with Comfortable Waiting Spaces <u>Intent</u> Accommodate current service levels, improve the traveler experience, and manage future enplanement growth to the approximate 0.8% long-range target. <u>How Achieved</u> 7 gates slightly flattens out the schedule to reflect community values and goals and presents a reasonable constraint to long-range market demands without impacting current market needs - Design terminal and ramp with sufficient space to add an 8th gate quickly if necessary for safe and efficient airport operations while considering the 0.8% growth target - Permit an 8th gate only if approved by BOCC resolution or ordinance after public hearings and input - Comfortable gate seating to accommodate every person on the aircraft		✓	✓		Community Character Economic Vitality Warm and Welcoming Efficiency – an airport that works well Adaptable, Flexible, Future-Proof Economic Vitality	👍

11. Flexible gates <u>Intent</u> Avoid the “cruise ship” effect of excessive crowds arriving at once. Accommodate current and future service levels without disrupting the traveler or employee experience by limiting the number of aircraft that can operate from the terminal at any one time. <u>How Achieved</u> • Provide 7 gates for regional aircraft but fewer for larger aircraft. Gates “flex” down for larger aircraft, thus keeping total enplanement/deplanements at approximately the same level, regardless of aircraft size. • Create a special arrival-only process to facilitate rapid deplaning of flights delayed by weather events and arriving together.		✓	✓		Economic Vitality Adaptable, flexible and future-proof Efficiency – an airport that works well Preserve high quality of life Design Excellence	
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RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
12. Reconfigure the airfield to accommodate ADG III aircraft with wingspans greater than 95'...AS LONG AS Airlines agree that.... Their greenhouse gas and other emissions are significantly lower than the CRJ-700 They are quieter than the CRJ-700 They have no more than 110% to 120% of the number of seats of the BAE-146 (100 passengers) that previously served Aspen Airlines' "fleet forecast" includes only planes weighing less than 140,000 lbs. (MTOW). Design runway, taxiway and ramp to this weight limit. <u>Intent</u> Create a safer, quieter and less polluting airport for the future. Accommodate aircraft of the future which are expected to be quieter, less polluting and have wider wingspans. <u>How Achieved</u> • Separate the runway from the taxiway by 400' between centerlines • Widen the runway to 150' • Negotiation with airlines • Include the voluntary noise restriction • Reconvene Vision Committee for no more than 14 days to evaluate the success of stakeholder negotiations and make an alternate airport recommendation if necessary	✓	✓	✓	✓	Safety in the air and on the ground Environmental Responsibility Adaptable, flexible and future-proof Economic vitality Efficiency Community Character	

RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
13. Leave the runway where it is <u>Intent</u> Leaving runway reduces closure time by 50% (one 4-month summer closure vs 2) Reduce construction cost by approximately \$40 M. Overlay vs demolition and rebuild saves carbon footprint (embodied carbon). Eliminates concern about shifting runway toward Shale Bluffs <u>How Achieved</u> • Work with FAA • Requires future relocation of tower. Operating exception for GA aircraft movements until tower is relocated or alternative options (cameras or virtual tower) are implemented. • Move deicing pads to the east and relocate of surface vehicle parking to the north. • GA parking on the west side will be required to maintain same number of GA/Air Taxi parking spaces. Future ramp expansion space to be reserved based on “drop and go” analysis	✓		✓	✓	Safety in the air and on the ground Environmental Responsibility	👍
14. Construction Phasing <u>Intent</u> Terminal improvements, airfield improvements and new aircraft should be synced appropriately to minimize community disruption. We urge the BOCC to carefully consider the order of improvements.		✓			Community Character Quality of Life Efficiency – an airport that works well	👍

RECOMMENDATIONS	SAFETY	MANAGED GROWTH 0.8% AIRLINE ENPLANEMENTS	AT LEAST 30% EMISSIONS REDUCTIONS	AT LEAST 30% NOISE REDUCTION	VALUES REFLECTED	DECISION STATUS
15. Common Ground Recommendation Airport Map The attached Common Ground Recommendation airport map offers a visual depiction of the design ideas, values and goals taken together. The map depicts the CGR as the environmental choice for our community that reflects safety, environmental sustainability and convenience as our top priorities. We invite the BOCC to come back to this committee if there are substantive changes.	✓	✓	✓	✓	Safety in the air and on the ground Adaptable, flexible and future-proof Environmental Responsibility Warm and Welcoming Design Excellence Economic Vitality Community Character Efficiency Convenient and Easy Ground Transportation High quality of life	👍



COMMON GROUND RECOMMENDATIONS

VI. Summary of the Common Ground Vision

This is how we hope the Common Ground Recommendations will benefit different parts of our community...

Adjacent neighbors (AABC, Buttermilk, Burlingame, etc.) — *We hope you will experience:*

- A safer airport
- An airport that's quieter in the air *and* on the ground
- Breathing easier – Fewer toxic emissions
- Improved ground connectivity

Why do we hope for these results?

- Increased spacing between arriving airplanes
- Moving non-airline parking to the north and west
- Establishing non-airline reserved parking and creating adequate, safe spacing between parked planes
- Quiet and clean electrical plug-ins to reduce auxiliary power units (APUs)
- Providing berms and sound walls
- The larger new airliners serving ASE are all quieter
- Larger airliners eventually mean fewer peak airline flights
- Establishing baselines for local emissions monitoring and noise modeling
- New airport circulator for ground transportation

Flight Path neighbors (Woody Creek, Twinning Flats, Brush Creek Village, Aspen Village, W/J, Starwood, etc.) — *We hope you will experience:*

- Quieter skies
- Breathing easier – fewer toxic emissions
- Reduced aircraft operations during peak periods making airspace safer

Why do we hope for these results?

- Increased spacing between arriving airplanes
- The larger new airliners serving ASE are all quieter
- Larger airliners eventually mean fewer peak airline flights
- GA (private plane) Reservation system
- Peak period GA pricing program
- Establishing baselines for local emissions monitoring and noise modeling
- Maintaining the ASE curfew

Airline Travelers — *We hope you will experience:*

- The greatest safety possible
- Improved airline service reliability
- A warm, welcoming and efficient terminal
- A vastly improved experience of arriving and departing
- A unique, engaging terminal that reflects our community character
- Improved ground connectivity

Why do we hope for these results?

- Widening the runway. Greater spacing for arriving aircraft.
- GA reservation system, Peak period pricing, moving itinerant non-airline aircraft to the north (farther from residential areas)
- More comfortable airliners and waiting rooms
- Open-air or glassed-in jet bridges with natural ventilation
- Surge capacity to accommodate delayed flights when they arrive
- A uniquely designed terminal reflecting the Aspen Idea and local community character
- Terminal wayfinding for transportation options
- Airport circulator and buses that accommodate travelers with baggage

The Community at large — *We hope you will experience:*

- A Safer Airport
- The Realization of Our Community Goals: Lower Emissions, Reduced Noise, Managed Growth
- An Airport that Maintains Our Economic Vitality and Welcomes Our Visitors
- An Airport that Improves Our Environmental Responsibility and Sustainability

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Appendix A

WORKING GROUP FINAL REPORTS

For a full detailed list of background materials and presentations, visit ASEVision.com

Community Character Working Group

[Final Report](#)

[Additional Document from the CCWG reviewing the TWG report through the lens of the CCWG report](#)

Technical Working Group

[Final Report](#)

Airport Experience Working Group

[Final Report](#)

Focus Group

[Final Report](#)

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Appendix B

MINORITY REPORT

ASEvision Committee Recommendations Submitted by Valerie Braun, ASEvision Committee Member April 16, 2020

I am the “minority of one” with regard to the vote taken by the vision committee on the recommendations for the redevelopment of the Aspen/Pitkin County Airport (ASE). However, I know that I am **not** the “minority of one” within the entirety of the appointed community committee who studied the airport for more than a year. I am also positive I am **not** a “minority of one” within the Roaring Fork Valley community. There is great concern in our valley with regard to the expansion of the airport and the impacts that expansion will have on our environment, life style, economy, tourism, health and well-being. I have attended every single meeting of the ASEvision committee, all the whole group meetings, and all but one of the Technical Working Group meetings. As we worked through this process I felt it was my responsibility to represent the Woody Creek Caucus area. I have lived in the exact same location in Woody Creek for more than 47 years. No one 47 years ago could possibly have thought ASE would evolve into the third busiest airport in the State of Colorado. No one could have predicted the explosion of privately-owned jet aircraft or the exponential growth in charter, air taxi and fractional ownership options.

We have learned that commercial aviation (airline transportation) is one quarter of the total number of operations that occur at ASE. Three quarters of the operations are private, charter, or air taxi known as General Aviation (GA). We have learned that Pitkin County as the operator of the airport has substantial governance over commercial operations such as the terminal, concessions, amenities such as rental cars and other ground transportation. As the operator of the airport the County can and has by ordinance established wingspan and weight restrictions that apply to all aircraft operations at the airport. The County continues to enforce the curfew on operations at ASE that was established by an Act of Congress.

The Federal Aviation Administration (FAA) has oversight of the management of operations on the airside. The FAA controls arrivals and departures, spacing between operations, and determines when weather is a controlling factor over operations. The FAA certifies pilots for use of special approach and night operations. The FAA also dictates that there cannot be discrimination between commercial and general aviation operations which has led to there not being priority given to commercial aviation at ASE. The FAA also assesses airports to approve any changes such as new terminals, additional or changes to runways and taxiways, geographic accessibility, and impacts to surrounding areas. We have learned that the FAA has **not** threatened to remove the Modification of Standards ASE currently operates under. They have warned they would not necessarily award grants for ADG III improvements. However, they haven’t said they won’t fund such projects. I am quite confident that the influential GA clientele that operates in Aspen and the airlines would not stand for anything except excellent conditions on our current airside configuration. We have also learned that communities can and have been able to influence decisions made by the FAA.

When the ASEvision committee met in March to vote on the findings and recommendations to the

Board of County Commissioners (BOCC), I stated in my comments prior to the vote that I agree and support about 80% of the document.

*I agree that operating a safe airport is our number one concern. Although there has not been a commercial aircraft crash in over forty years (one ground incident with no injuries but damage to the aircraft), there have been over forty GA crashes with significant injuries and loss of life, property and aircraft damage. I agree with the recommendations under this goal.

*I agree with designing an airport that is as environmentally responsible and with as few impacts on the valley as possible. The redeveloped airport should maintain and enforce the curfew and there should be an emphasis on public transportation.

*I agree that we should design an airport with an infrastructure that supports airline operations. Our current situation is unconscionable. The behind the scenes work areas do not support the health and safety of the ASE workforce. The arrival and departure gates need to be highly functional for the moving of passengers quickly and safely. The baggage system needs to be efficient.

*I agree that there should be provision for an adequate number of non-airline reserved ramp space parking spots to help limit the number of "stop and drop" operations where GA aircraft bring passengers to ASE and have to leave rather than park and wait until those passengers are ready to leave.

*I support the intent of the Fixed Base Operation reflecting the community character, values, culture, and environmental goals of the new terminal and other facilities.

*I **absolutely** support building a new terminal and redeveloping all the support facilities to meet our community character, values, cultural, and environmental goals.

*I encourage within the design phase of the redevelopment of the airport consideration of the enhancing of the traveler experience. The architecture, interior design, exterior landscaping should reflect who we are as a community.

*I will be interested to see a design for an open-air jetway. If such a thing is possible I am not opposed. However, what I do think is critically important is that we have jetways that are American with Disabilities Act (ADA) compliant and safe for all with regard to ice buildup, railings, etc.

*The new terminal will provide much more comfortable waiting space and prevent situations, when there are weather or mechanical delays, of overcrowding in the terminal. It is intolerable to force passengers outside the terminal because of fire laws.

*I am in favor of the flexible gate recommendation. No matter what is decided with regard to the runway expansion, there will be a long-term transitional period between commercial aircraft with 75' wingspans (CRJ 700) to 95' wingspans or beyond. The economic impacts of our current national health emergency cannot be predicted. We may not even need 7 gates for some time. I believe it prudent to build 7 gates with the possibility of an 8th gate to keep the new terminal viable for as long as possible.

*I believe it is absolutely imperative that an Aspen Airport Community Advisory Board be created to bridge communication between Pitkin County, Airport Management, and the citizens of Pitkin County. This board can continue the work of the ASEvision committee providing the BOCC with in depth

information, studied and discussed to support the decision making necessary as operators of ASE.

The issues that caused me to not be able to support the recommendation of the ASEvision Committee with regard to redevelopment of the airport are:

Transportation/Connectivity

*Although direction on transportation issues was not a specific charge from the BOCC with regard to the redevelopment of ASE, it is inconceivable that the size and scope of the ASE redevelopment project would not have huge impacts on what is already an intolerable traffic situation on Highway 82. The airport is literally the first pinch point heading up the valley on the highway. The first shovel of dirt will set off major disruptions. Add to that, the proposed housing development on the lumber yard site right across the street from the airport and proposed student housing development by Colorado Mountain College at the AABC and there will be thousands more vehicles entering and exiting the highway right at the pinch point. The highway continues to narrow as one approaches Maroon Creek Bridge and significantly narrows again on the Castle Creek Bridge, then come the “S” curves. It is clear that the brain-bashing work of redesigning the Entrance to Aspen must be accomplished in order for the airport to be expanded. The trip from ASE to Aspen and to the Town of Snowmass Village CANNOT take longer than the flight to Aspen. I believe there should have been a very strong statement included in the recommendation that a major “master re-planning” of our transportation system must commence.

The ASEvision committee did spend significant time discussing the “connectivity” of ASE to Aspen and Snowmass Village. Whether it is separate lanes from the highway for ground transport, gondolas, or an underground train, moving visitors and residents alike must be part of the overall redesign of the transportation system in the Upper Roaring Fork Valley. If connectivity is to be conveyance via parallel lanes to the highway the vehicles used must be enticing, comfortable, with proper stowage for luggage, sports equipment, etc. There should be concierge help loading and unloading. If Aspen and Snowmass Village hotel shuttles didn’t have to go to the airport to pick up guests but rather assemble at a location central in each town and the trip was comfortable, quick, and at no charge there would be little resistance for the public to use it.

The Runway/Taxiway Conundrum

When the FAA 2018 Environmental Assessment (EA) was delivered to the community, it set off alarm bells throughout the valley. The EA proposal was to shift the runway 80’ towards Owl Creek Road, build a 150’ wide runway, strengthen the runway to 150,000 lbs. and expand the current distance between the runway and the taxiway center lines from 320’ to 400’. This along with some other improvements would move ASE from an Airplane Design Group III (ADG III) with Modifications of Standards to a fully compliant ADG III airport. The widening of the airport runway and separation between the runway and taxiway would allow significantly larger aircraft to operate at ASE. At the time, the perfect aircraft noted was the Boeing 737 Max. Obviously, the 737 Max has been completely removed from service all over the world while it is being investigated and retooled due to two devastating accidents that killed hundreds of passengers and is no longer being considered, but other aircraft were studied and the one most favored was the Airbus 220-100 which can carry approximately 125 passengers. The EA also approved a new terminal up to approximately 145,000 sq. feet.

The committee was told over and over again by consultants used by the County that there would not be a SCOPE compliant (76 seat) aircraft with a wingspan under 95' (our current maximum) ever built again. The CRJ 700 which has been the only commercial aircraft servicing ASE for years (and has been a reliable aircraft) would be retired in just a few years and no longer available. However, during the last year it became clear to many that there, in fact, may well be aircraft coming in the near future that would be SCOPE compliant and under the 95' wingspan limit at ASE. Mitsubishi is developing a narrow body, 76 seat, 91'4" wingspan, under 100,000 lbs. aircraft they are referring to as the M-100 or the SpaceJet. It will provide three levels of service, has luggage bin space for carry-on luggage, be more energy efficient, quieter and have fewer emissions.

It would be governing malpractice to not take the time to get information about this aircraft for a number of reasons. A team from Mitsubishi would be able to share all the technical specifications, performance specifications, and production information. Also, Mitsubishi bought Bombardier, the manufacturer of the CRJ 700 and now owns the CRJ 700 program. They will be able to reassure the community that the CRJ 700 program will be maintained and operational until the SpaceJet is flying. The team from Mitsubishi is prepared for hard questions and the ASEvision committee and the Technical Working Group should be able to participate in this presentation as the members of these two committees have considerable background knowledge at this point.

Why is it such a big deal to keep larger commercial aircraft out the ASE? Because if we widen and strengthen the runway and create more separation between runway and taxiway we will be unable to exclude any GA aircraft that is considered an ADG III aircraft which includes 737s converted for private use and Gulfstream 650s. Although the GS650 is a newer more efficient, quieter big airplane, it takes up so much space due to its wingspan that these aircraft will not be able to park at ASE and will be stopping and dropping. Expanding the airside of the airport may not be necessary. There may be a great alternative to the CRJ 700 that will keep the current restrictions viable and keep big GA aircraft out of the ASE airspace. It's the control factor!

Many members of the ASEvision committee and working groups believe we need bigger jets so there can be more direct flights to Aspen from additional cities. They also say that with bigger aircraft there can be a reduction in the number of flights from the current service cities. This is a fair discussion topic. I asked John Kinney for data regarding the number of operations (arrivals and departures). He provided me with a chart that reports the number of operations per week starting the Christmas/New Year/Winter Break period starting December 30, 2018 through the week of December 30 through January 5, 2020. I think everyone would agree that the 2018-2019 ski season was wonderful. Early snow provided strong reservations throughout the winter. We did have extensive damage due to avalanches in the Castle and Maroon Creek Valleys. We didn't have any fires in 2019, there was a glorious Food and Wine event, Ideas Festival, Music Festival, Dance Festival, and JAS aspen concerts. The summer of 2019 weather was great, the fall was the most spectacular in years. The national, state, and local economies were extremely strong. This time frame has to be considered a prime example of the best four seasons in the Aspen area.

I used the data provided and analyzed airport use by comparing the number of commercial operations from the peak week of December 30, 2018 to January 6, 2019 which was a total (arrivals and departures) of 620 operations. The next week, January 7, 2019 to January 13, 2019 there was a total of 390 operations which is a 37% decline in the total from one week to the next. The rest of January and the first week of February were at a similar number of operations. Then the two weeks that surrounded

Presidents' Weekend and through March saw less of a decline as compared to the peak week, between a 27% and 33% decline. I highlighted in Orange the busiest weeks of the winter using the break point of 30% or less decline from the peak week. You can see in April and May the decline from the peak week range from 69% to 83%. In June, July and August the decline from the peak week range from 53% to 65%. September, October and November the decline from the peak week range from 69% (Labor Day weekend) to 85% decline from the peak week. The three weeks in December prior to the December 23, 2019 through January 5, 2020 Christmas/New Year/Winter Break, the decline ranges from 72% to 37% from the peak week. There is an explanation for at least some of the fewer operations between the two Christmas, New Year, Winter Breaks. Because of severe safety problems with too many travelers in the airport when weather or mechanical problems caused delays and cancellations, John Kinney asked the airlines to scale back the number of operations during this last ski season.

Weekly Number of Scheduled Commercial Flights 2019 (Monday-Sunday)

Dec 30, 2018-Jan 6, 2019	Arr-310 Dep-310	Total-620---Peak Week	
Jan. 7, 2019 -Jan 13	Arr-194 Dep-196	Total-390- 37% decline from peak	
Jan. 14-Jan 20	Arr-192 Dep-191	Total-383-38% decline	
Jan. 21-Jan 27	Arr-198 Dep-199	Total-397-42% decline	
Jan 28-Feb 3	Arr-193 Dep-193	Total-386-37% decline	
Feb 4-Feb 10	Arr-192 Dep-192	Total-384-38% decline	
Feb 11-Feb 17	Arr-208 Dep-205	Total-413-33% decline	
Feb 18-Feb 24	Arr-215 Dep-215	Total-430-30% decline	
Feb 25-Mar 3	Arr-215 Dep-215	Total-430-30% decline	
Mar 4-Mar 10	Arr-219 Dep-220	Total-439-29% decline	
Mar 11-Mar 17	Arr-226 Dep-226	Total-452-27% decline	
Mar 18-Mar 24	Arr-227 Dep-227	Total-454-27% decline	
Mar 25-Mar 31	Arr-222 Dep-226	Total-448-33% decline	
Apr 1-Apr 7	Arr-93	Dep-93	Total-186-69% decline
Apr 8-Apr 14	Arr-55	Dep-55	Total-110-83% decline
Apr 15-Apr 21	Arr-55	Dep-55	Total-110-83% decline
Apr 22-Apr 28	Arr-55	Dep-55	Total-110-83% decline
Apr 29-May 5	Arr-55	Dep-55	Total-110-83% decline
May 6-May 12	Arr-55	Dep-55	Total-110-83% decline
May 13-May 19	Arr-55	Dep-55	Total-110-83% decline
May 20-May 26	Arr-54	Dep-54	Total-108-83% decline
May 27-Jun 2	Arr-55	Dep-55	Total-110-83% decline
Jun 3- Jun 9	Arr-107 Dep-105	Total-212-65% decline	
Jun 10-Jun 16	Arr-142 Dep-142	Total-284-57% decline	
Jun 17-Jun 23	Arr-142 Dep-142	Total-284-57% decline	
Jun 24-Jun 30	Arr-142 Dep-142	Total-284-57% decline	
Jul 1-Jul 7	Arr-139 Dep-139	Total-278-55% decline	

Jul 3-Jul 14	Arr-142	Dep-142	Total-284-53% decline
Jul 15-Jul 21	Arr-142	Dep-142	Total-284-53% decline
Jul 22-Jul 28	Arr-141	Dep-142	Total-283-53% decline
Jul 29-Aug 4	Arr-139	Dep-142	Total-281-53% decline
Aug 5-Aug 11	Arr-142	Dep-142	Total-284-53% decline
Aug 12-Aug 18	Arr-142	Dep-142	Total-284-53% decline
Aug 19-Aug 25	Arr-118	Dep-118	Total-236-62% decline
Aug 26-Sep 1	Arr-112	Dep-113	Total-225-64% decline
Sep 2-Sep 8	Arr-94	Dep-94	Total-188-69% decline
Sep 9-Sep 15	Arr-91	Dep-92	Total-183-70% decline
Sep 16-Sep 22	Arr-92	Dep-92	Total-184-70% decline
Sep 23-Sep 29	Arr-92	Dep-92	Total-184-70% decline
Sep 30-Oct 6	Arr-79	Dep-80	Total-159-74% decline
Oct 7-Oct 13	Arr-63	Dep-63	Total-126-80% decline
Oct 14-Oct 20	Arr-63	Dep-63	Total-126-80% decline
Oct 21-Oct 27	Arr-60	Dep-61	Total-121-80% decline
Oct 28-Nov 3	Arr-45	Dep-45	Total-90- 85% decline
Nov 4-Nov 10	Arr-45	Dep-45	Total-90- 85% decline
Nov 11-Nov 17	Arr-45	Dep-45	Total-90- 85% decline
Nov 18-Nov 24	Arr-48	Dep-48	Total-96- 85% decline
Nov 25-Dec 1	Arr-56	Dep-56	Total-112-82% decline
Dec 2-Dec 8	Arr-85	Dep-85	Total-179-72% decline
Dec 9-Dec 15	Arr-99	Dep-99	Total-198-67% decline
Dec 16-Dec 22	Arr-193	Dep-186	Total-379-37% decline
Dec 23-Dec 29	Arr-249	Dep-249	Total-498-20% decline
Dec 30-Jan 5, 2020	Arr-261	Dep-261	Total-522-15% decline

I present this chart as what I think is an illustration that it is very unlikely that the airlines would run a mainline aircraft like the Airbus 220-100 very many weeks during the year. The market demand is just not there. Any reduction in number of flights because of bigger aircraft would only occur during these limited weeks. It is true that a direct route from Newark, Boston, or maybe even Charlotte might be popular, but at the expense of allowing bigger GA planes? Is that worth it? Through more than an entire year of study the ASEvision committee never once heard concerns expressed about there not being enough seats on airplanes. We never heard from the lodging, restaurant, or retail communities that visitors were complaining they couldn't get to Aspen. There is also the issue of traveler demands for frequent flight options. There is little chance of a significant change in the number of routes by the airlines.

It is important to remember that commercial operations at ASE account for only one quarter of the total operations at the airport. If we were able to do an analysis of all GA operations by week for a year it would be stunning how many more weeks were "GA peak weeks" throughout the year. You don't have to have the actual statistics to know when there isn't a centimeter of more parking space for the GA

side. An example of this would be the week of July 4, 2019. I came before the BOCC to report that several days that week there were hours and hours each day when there was never a quiet moment. I did my own tallying and observed several hours on several days that there were more than 32 operations per hour. There were times from my house that there were four aircraft (two on approach and two departures) visually observed between Woody Creek and the airport. That is a tremendous amount of aircraft noise.

When the idea of leaving the runway in its current location (no shifting) became the eventual recommendation by the ASEvision committee, I thought this was an ideal way to be able to “pause” on a final decision on whether to widen and strengthen the runway. It is a bit of breathing room to determine the efficacy of the M-100 or any other potential CRJ 700 replacement aircraft and with the current CoVid issues it gives the County time to determine if this project should even be considered in the near or distant future. Work could still begin on the planning and design for the new terminal and improvements of all the facilities, including the FBO if the BOCC approves that portion of the project to proceed, even with a pause on the decision on the runway.

Finally, in 1995 there was a County-wide vote taken specifically relating to allowing bigger jets to operate in Aspen. It was more than a two to one vote against that kind of expansion. An Act of Congress made permanent the 11:00pm to 7:00am operations curfew. The citizens of the Upper Roaring Fork Valley saw this as a way to protect our way of life; the environment, slow growth, protect the ethos of Aspen, keeping Aspen a special place. On a recent trip to Innsbruck, Austria I witnessed what can happen to a beautiful valley surrounded by skiing that decided to allow bigger aircraft to operate at their airport. The result has been the ruining of the valley, constant echoing airplane noise that can be heard from the tops of ski areas, the historical old town, and in hotel rooms. They have no curfew and the noise never stops. There is an unmistakable haze that rests over the valley during the winter due to weather inversions.

The ASEvision committee recommendations include the following statement: “Flexibility, adaptability, and skillful course corrections as needed will be essential to ensure the success of our future airport, reflect our character and values, provide a great traveler experience, and attain our long-term Core community Goals.” I believe we can make ASE a world class, destination resort airport that will be talked about around the world. It will be unique, efficient, a happy place to work. It will be easy to get to or leave from, bags will come quickly to the claim area, there will be good food to eat, and beautiful things to look at and learn about. It won’t smell so awful at Buttermilk or the North 40 or the CMC building, the noise won’t reverberate in the valley from Woody Creek all the way down to Old Snowmass. Travelers will say “now that Aspen has a new airport it really is a perfect place to visit” and residents will say that the quality of their lives has improved and the effect on the environment will be so limited we will be able to be proud of our accomplishment.

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Appendix C

VISION COMMITTEE COMMENTS

On March 10, 2020, the Vision Committee approved the Final Report's "Recommendations to Achieve Our Community Goals" (aka the "Common Ground Recommendations") by a vote of 20-1. The Committee also asked its leadership team – John Bennett, Meg Haynes and Jackie Francis – to draft some final non-airport-recommendation language for the Final Report on extrinsic issues and to circulate that language for members' review via email. The leadership team did that by drafting a brief history of the ASE Vision process, a short statement about future uncertainty, and a short section identifying topics outside the scope of the Committee's report. It then circulated those new sections to Committee members for their comments.

Because of both the calendar and the COVID-19 crisis, the Committee was unable to complete its review of the three new sections by email, so they never became part of the Final Report. Instead, the Final Report contains only those sections that the Committee reviewed and approved at or before its final March 10 meeting. (Those approved and included Final Report sections are: The Executive Summary, Community Values, Core Community Goals, Key Findings, Common Ground Recommendations ("Recommendations to Achieve Our Community Goals"), Map of the Common Ground Recommendations, and Summary of the Common Ground Vision).

Although the Committee ran out of time to agree on editing changes to the three new sections and therefore did not include them in its Final Report, circulation of those new sections prompted a number of email comments. Some of those comments pertained to the new sections, while others related to other sections of the Final Report, which had already been reviewed and approved by the full Vision Committee. In the interest of transparency, all Committee member comments made after March 10 are included in this Appendix.

Richard Arnold (see attached)

Valerie Braun (see attached)

Andrew Doremus

I give it my thumbs up.

Thomas Fridstein

I have completed my review and have only one comment: I thought we were going to show on the map a possible future taxiway on the west allowing GA to get to the south end of the runway without crossing the runway. Other than that I think it is an excellent, well written and logical report.

Mike Kaplan

The document looks great Kara, thanks for resending and for all the work, lots of comments and discussion to incorporate.

Jackie Merrill

I have no comments after re reading the whole thing! PS - Having just seen a slide show on the Space Jet, I have a just sent a strong message to all BOCC plus to Jon urging that Mitsubishi get a proper hearing!!!!!!! Why was this denied!!!!?????

Tom Melberg

It was my impression we recommended the terminal would be built first although the report leaves it up to the BOCC (which is their prerogative) and we only advise. However, not having the terminal built first seems to put the cart before the horse.

FAA grant uncertainty claims that a full range of Group III aircraft is a condition....hopefully our recommendation to the BOCC to negotiate this down to a limited carbon footprint requirement is met

Airport connectivity to and from Aspen should be a mandated requirement before any improvements go forward at the Airport. The paragraph concerning this important and long overdue problem is weak and without substance. I still believe continuing the 4 lane to a Cemetery Lane/Holden-Marolt intercept lot should be included with rail/gondola,etc ideas put forward in the draft.

In light of the Mitsubishi progress of developing an aircraft that would alleviate the need for changing our 95 foot wingspan limitation and Mitsubishi's vested ownership/guardian of the CRJ 700 lifespan I believe it is inherent for the BOCC and the community to hear their presentation. Our country and county is facing serious financial consequences now and down the road from the COVID 19 pandemic and the community needs to have a discussion as to whether the closing down of the runway for a summer during another recession/depression is rational if Mitsubishi has an another option for us to consider.

The first sentence in the last paragraph on page 14 is very opinionated and draconian in my mind and I question if it is true.

The last sentence page 15 should also include 737 language.

The American (?) Airlines investigation of direct flights from NYC and Miami should also include Boston and Newark as these cities were included in the study. I believe the community should be given all of the facts in order to evaluate the potential impacts. I am still concerned of having extended direct flights from the east coast is a growth generator in spite of our efforts to minimize growth through flex gates for the airlines know how to maximize their business in ways we might not of considered.

With all of my comments being stated, I do want to acknowledge the tremendous amount of work put into this exercise by folks who love Aspen/Snowmass/Roaring Fork Valley as much as I do and are so much more smarter than I am. I am humbled in your presence and thankful I was a small part of the process. I especially want to thank John, Meg and Jackie for moderating the ASEVision.

Part B from Tom Melberg

I find it ironic that if the runway is widened we are going to increase the number of private aircraft that can fly into Aspen in spite of the fact private aircraft accounts for 75% of our landings and takeoffs. Seems we are enhancing a problem rather than solving one.

More importantly, the proposed expansion of the Pitkin County Airport will be the largest construction project the county has undertaken and quite possibly the most impactful. During this time of uncertainty and social distancing I think the democratic process is being compromised way too much in not giving the community the ability to gather together to express their voices. Virtual conferencing is one thing but impact of citizens voicing their opinions in person adds a whole different dimension to the dialogue. I would suggest it is not so urgent of an agenda item for the BOCC to discuss at a later date once the uncertainty of the pandemic is eliminated in order to discuss the pros and cons of our report.

Roger Nicholson

Looks very acceptable to me.

Richard R. Arnold
31 Stagecoach Drive
Carbondale, Co 81623

April 4, 2021

Mr. John Bennet
Aspen Airport Vision Committee

Dear John,

I want to offer information on airport safety at ASE. First, I will give a little background information. I have been a commercial pilot and flight instructor since 1975. I owned and operated Tailwinds Aviation at ASE. We flew Part 135 charters and taught many people to fly. I was the Aspen airport manager in the late 80's. I was also the Telluride airport manager for 4 years after that.

During my time in Aspen I spent 20 years on Mountain Rescue Aspen and was very involved in over 20 aircraft accidents in the Aspen area. I personally participated in many body recoveries. My experience has given me an in depth understanding of the difficulties associated with aviation in our area, especially the geological and weather hazards of flying in mountainous terrain.

I write to ask that any commercial airline personnel be required to do a review and analysis of the potential for unexpected problems that might occur in the following approach and landing situation: Go Round: With the wind from the west at 12 to 15 miles per hour and the aircraft cleared to land on runway 15. For example, the wind is 330 at 15, the weather is very marginal with minimum visibility. The aircraft loses an engine and tries to go around. At minimums the aircraft will have to do a low level left turn. Can the aircraft accomplish this in the Aspen Valley. I sincerely doubt it can.

The demand for more flights and bigger aircraft in the future is evident. Still, we cannot avoid the reality that we are a dangerous airport in marginal weather. Thus, we must have the airlines demonstrate to us and the FAA the performance of any and all aircraft operating here. As you know, the airlines have to have FAA approval for the pilots and aircraft to operate at any airport. So my request is

that the airport authority look closely at the safety issues inherent at ASE in marginal weather. I would like to see a short publication, "How to Fly into Aspen Airport" for public pilots. We have many local pilots who could help with this document.

I also think that it is a very bad idea to allow housing across Highway 82 from the airport at 1000' from the runway for obvious reasons.

You and your team have done a very important Vision Committee program. Thanks for all that you have done to advocate for the safety of ASE.

Richard R. Arnold

Cc: PCBC

**THE FINAL REPORT OF THE AIRPORT VISION
COMMITTEE — *The Common Ground*
Recommendations —**

Draft
03.30.2020

Response
from Valerie
Braun
4/3/2020

INTRODUCTION

In January of 2019, the Pitkin County Board of County Commissioners (BOCC) appointed 123 citizens to serve as part of the ASE Vision process and offer advice on the future of the Pitkin County-Aspen Airport (ASE). Some of these citizens represented various neighborhoods, businesses, and civic interests, while others offered general views from around our community. Together, they reflected a wide diversity of perspectives. The ASE Vision Kick-Off meeting was held in February 2019.

The purpose of the ASE Vision process was to advise the BOCC on how the Pitkin County-Aspen Airport should be modernized to accommodate the community's air service needs and reflect changes in the air service industry, while also remaining true to the character and values of the community. As part of the process, the BOCC formally appointed 123 community members to five Airport Advisory Groups:

- Airport Vision Committee
- Community Character Working Group
- Technical Working Group
- Airport Experience Working Group
- Focus Group

The four Working Groups concluded their work and presented their findings to the Vision Committee in December 2019. The Vision Committee reviewed closely the recommendations of the Working Groups and then conducted considerable additional work of its own to research, digest, thoroughly vet, **an offered briefing directly from Mitsubishi with regard to the M-100 aircraft taht is SCOPE compliant and under 95' wingspan, therefore would be able to operate on the ASE current airfield configuration has NOT as yet been held.** and formulate its final recommendations. After holding weekly three-hour meetings throughout the beginning of the year, the Vision Committee completed this Final Report and forwarded it to the BOCC.

On March 10, 2020, the Vision Committee voted 20-1 to approve the *Recommendations to Achieve our Community Goals* that form the heart of this Final Report.

II. EXECUTIVE SUMMARY

Background In its review of alternatives for the Pitkin County-Aspen Airport (ASE), the Airport Vision Committee explored the core question facing Pitkin County: whether to pursue the airport improvements outlined in the 2018 Environmental Assessment (EA), including the increased runway/taxiway separation required by the FAA for federal funding. Our decision could have been simple and binary. Either recommend proceeding with the measures described in the EA or recommend that Pitkin County forgo any significant “airside” improvements and focus primarily on other issues such as terminal improvements or ramp and energy efficiency projects.

Either of those “bookend” choices offered its own advantages and risks, but our research revealed that neither would achieve the Core Community Goals that the four ASE Working Groups and our Committee established for the airport: safety, substantial reductions in airport air pollution, managed growth of airline enplanements, and a substantial reduction in noise. Instead of either bookend option, we recommend a balanced middle-path called the *Common Ground Recommendations*. We believe this path represents creative, out-of-the-box thinking that will appeal to most of our community and truly benefit our valley.

Common Ground Recommendations The Common Ground Recommendations are a package of interrelated measures all designed to reflect the Community Values and Goals on which we have agreed. Some of these measures would be relatively straightforward for Pitkin County to implement on its own. Others are complex and would require the agreement of the additional airport stakeholders. Some of these would require working with the FAA, others would require negotiations with airlines, and still others would require agreements with the airport’s fixed base operator (FBO).

Because many of the measures contained in our Recommendations are interdependent, we propose that the Board of County Commissioners adopt them together as an integrated package to ensure that they reflect and balance the community values and goals we have identified.

Safeguards to Maintain the Integrity of the Common Ground Recommendations Our Common Ground Recommendations represent a careful balance between competing airport perspectives. This balance rests directly on our shared community values and goals. The Vision Committee’s decision-making process asked all of us to move outside our comfort zones to seek middle-path solutions that address these shared goals, even if certain aspects of our solutions may have made many of us initially uneasy.

For example, some of us for whom enhancing the visitor experience and ensuring the county’s future economic vitality are especially high priorities may be skeptical of managing growth through the terminal’s seven “flexible gates.” Likewise, some of us for whom protecting our community character and quality of life are primary priorities undoubtedly feel

some discomfort with the notion of allowing larger airliners to serve ASE. **ISSUE: There is so little control over the General Aviation operational side, limiting wingspan is essentially the only tool to save the valley from 20 or more years of Stage Three private aircraft that is in the inventory of GA use at ASE.** Our first group may be made more comfortable by assurances that appropriate larger aircraft *will* be able to serve ASE and that seven flexible gates will accommodate today's level of airline service as well as gradual future growth. For our second

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group, the knowledge that any new, larger airliners allowed will emit significantly less greenhouse gas and other emissions, be quieter, and fit within the managed growth constraints of seven flexible gates may be an essential consideration.

To maintain this *critical balance of community assurances*, we recommend that the Pitkin County Commissioners not allow them to be forgotten in future years or changed arbitrarily by future elected officials or County staff. To that end, we recommend the following safeguards:

- A. The Common Ground Recommendations should be adopted by a formal county ordinance or resolution so that it could never be changed without future public hearings and a full community discussion.
- B. The County Commissioners should create a permanent *Airport Advisory Board* of citizen volunteers who represent balanced, diverse viewpoints to advise the County on future airport issues.
- C. The County Commissioners should require the Airport to provide an annual report on progress made toward meeting our Core Community Goals.
- D. The airline agreements necessary to the Common Ground Recommendations should be enforceable through long-term legally binding contracts.

Negotiation Time Period and Possible Alternate Recommendation The Common Ground Recommendations' major strength lies in the fact that their targeted goals — reduced greenhouse gas and other emissions, managed growth, and less noise — already appeal to many Pitkin County citizens. The Recommendations' inherent challenge, however, is that some of its most important measures rely on stakeholder negotiations and agreements that may or may not be attainable.

A17

We recommend that the County should test quickly whether those measures that require negotiation are attainable. Specifically, we suggest that the County engage immediately in discussions with the three airlines that serve Aspen today. (Based on our research, we can suggest a negotiation approach.) We also propose that the County Commissioners set a fixed time period for these initial negotiations — perhaps 60-90 days.

After these negotiations, the BOCC should reconvene our Committee for no more than 14 days to evaluate the success of the negotiations and make an alternate airport recommendation if necessary. Were such an alternate recommendation needed, our Vision Committee process could be as simple as a single meeting with a new vote to recommend either of the original “bookend” options to replace the Common Ground Recommendations. Of course, we might well end up in a split vote that produced both a new majority recommendation and a minority report.

In implementing the Common Ground Recommendations, the Vision Committee urges the County to follow an incremental decision-making model that is flexible, adaptable, and focused always on attaining our Core Community Goals. For example, over time, the number of terminal gates we’re recommending might turn out to be either too low or too high to meet our goal of approximately

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.8% annual airline enplanement growth while also providing a comfortable traveler experience. In such a case, we recommend that the County meet with its Airport Advisory Board to agree on the appropriate course correction. Because accurately foretelling the future is impossible, this kind of adaptability will be essential to successfully achieving our airport and community goals.

In addition, we recognize that our .8% enplanement growth goal is both aspirational and approximate. Federal law limits our ability to set exact enplanement limits, but we urge using our limited tools as best we can. The intent of this approximate target is to serve our travelers and maintain economic vitality, while guarding against either a cruise ship syndrome that could overwhelm our airport with waves of people or out-of-control overall enplanement growth that might threaten our valley’s long-term quality of life for residents and visitors.

Likewise, our goals for lowering greenhouse gas and other emissions and also substantially reducing noise will undoubtedly require course corrections of their own over future years. Great new ideas for accomplishing these goals will no doubt arise, and some that we’ve recommended may require replacement or improvement.

Flexibility, adaptability, and skillful course corrections as needed will be essential to ensure the success of our future airport, reflect our character and values, provide a great traveler experience, and attain our long-term Core Community Goals.

III. ASE VISION COMMUNITY VALUES SUMMARY

Safety in the Air and on the Ground

Adaptable, Flexible, Future-Proof

- Ability to serve aircraft of the future
- Ability to adapt to future uses. Preserve space for future.

Environmental Responsibility. Address:

- Noise Pollution
- Air Pollution
- Carbon emissions – aspire to net carbon neutrality
- Light Pollution
- Sustainability – energy efficiency
- Respect wildlife habitat, open space and natural surroundings

Community Character – Reflect local culture and values

- Connection to place: It should *feel like* Aspen and Pitkin County
- Unique mountain airport feeling – unpretentious
- Tell Aspen story: reflect culture, mining heritage, skiing, ranching, etc.
- Retain rural and small-town feel
- “Small is important” “Don’t build it too big”
- “Reasonable growth” “Modest expansion”
- Control growth through number of gates, etc.
- “*Just Big Enough*” “*Right-Sized*”

Economic Vitality

- Adaptable to the economic sustainability of our resort
- Convenience: More direct flights
- More carriers and competition
 - Take valley growth into consideration **Warm and Welcoming**
- Friendly and personable for both residents and visitors
- Comfortable with excellent food & drink amenities
- Guest-friendly for stranded passengers and peak crowds.
- Stress free

- Improved, but not so different from today. Still welcoming.
- Views of mountains
- A practical airport: Better waiting rooms and employee areas
- Convenient access to/from airport

Design Excellence

- Unique – Distinctive – Great architecture
- Should look like Aspen – Small is important – Small but beautiful
- Incorporate mountain surroundings
- Awe-inspiring views
- It should be surprising!

Efficiency – an airport that works well

- Well planned. Better functionality than today
- Incorporate new technology
- Efficient in service, time, operations
- In design, give commercial passengers priority over private planes
- Reliable gateway for visitors

Preserve High Quality of Life

- Neighbor Friendly
- Mitigate noise.
- Maintain curfew

Convenient & Easy Ground Transportation

- Multi-modal transit options
- Seamless connectivity to transit

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IV. Core Community Goals for the Pitkin County-Aspen Airport

1.

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Safety

2. Reduce greenhouse gas and other pollutant emissions by **at least 30%**

3. Manage the growth of airline enplanements to be consistent with

approximately **.8%** growth per year

4. Reduce noise by **at least 30%**

Notes to the Goals:

Emissions Reduction Goal: This 30% goal includes both the emissions from the airport itself and from the aircraft flying to and from ASE.

Managed Growth Goal: The .8% compound growth rate is an aspirational goal. The Committee recognizes that airport growth cannot be “tuned” to any precise number, but the goal represents a commitment to a reasonable level of managed growth. In addition, the Committee believes that airline operations should be emphasized over nonairline ops (e.g., general aviation/air taxi operations). Since non-airline operations amount to approximately 75% of total airport operations, their growth, too, should be managed.

Noise Reduction Goal: This goal applies to noise both on and around our airport.

Timeframe: The emissions and noise reduction goals should be attained by **2030**.

V. Key

Findings 1. Safety

Challenging Airport. Two national pilot surveys have named Aspen-Pitkin County Airport (ASE) as the most challenging commercial airport in the U.S. Over the last four decades, there have been over 40 accidents, all involving private, non-airline aircraft, that caused substantial damage or the complete loss of the aircraft in the vicinity of ASE. **This should include “and significant loss of life.** ASE’s challenges arise from factors like the airport’s altitude, its surrounding mountains, its sloping runway that requires most aircraft to land to the south and takeoff to the north, wind currents, etc.

Runway/Taxiway Separation. Today the FAA classifies ASE as a non-standard “Airport Design Group-III” airport because it does not meet the 400-foot required safety separation between the runway and the taxiway. For safety reasons, the FAA specifies that ASE, and all Group III airports, should have 400 feet of separation between the centerlines of our runway and taxiway and runway widened to 150’. The FAA has allowed the current separation, which is 320 feet, under a 1999 “modification to standards”; but the FAA is trying to eliminate such modifications to standards wherever possible to have consistent national safety standards. After these changes ASE would still have unavoidable modifications to standards such as sloped runway **We need to be honest here....There is NO threat from the FAA to remove our current modification of standard. I have emails from John Bauer from the FAA that confirms this.**

Pilot Training. Airline pilots undergo extensive training in the Aspen Airport’s special challenges before they are certified to fly in or out of ASE. Airline pilots are also required to have FAA approval to fly the special instrument procedures used primarily by the commercial carriers. GA are not required to have the same level of training as airline pilots to fly into ASE. GA Pilots require no additional training for flying into ASE during daylight hours. However in order to land or take off at night, all pilots (GA and commercial) are required to have prior FAA approval.

Community Emergency Resources. While the FAA believes that increasing our runway/centerline separation to 400’ would make our airport safer, some County residents fear that opening our airport to all capable Group III aircraft would invite large future planes with potentially twice the passengers of today’s CRJ-700. This, they argue, could create a serious safety issue over the imbalance between the number of passengers on a single plane and our community’s off-airport emergency resources, such as the Aspen Valley Hospital’s 25 beds, our limited local ambulance capacity, etc.

ASE and Pitkin County currently surpass Aircraft Rescue and Fire Fighting (ARFF) standards for current ASE aircraft and also future ADG-III planes that could potentially serve ASE if the airfield were changed to full ADG-III standards. ASE trains to “worst case” scenarios and assumes up to 150 casualties, which would cover the range of ADG-III aircraft with the performance capabilities to operate at ASE. That number of injuries,

however, would exceed the capacity of the Roaring Fork Valley's hospitals and require mass transportation to more distant facilities.

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2. The Airport, Community Character and Our Economy

Community Character. Protecting the County's rural character and quality of life is extremely important. Much of our uniqueness and success has arisen from the "Aspen Idea," the notion of a community nourishing the mind, body and spirit of its citizens through music, culture, art, intellectual stimulation, and physical activity in nature. In the words of the ASE Vision Community Character Working Group: "The 2000 AAMP states 'recommendations on Economic Sustainability that endeavor to make our community *better without getting bigger*.' We rely on economic harvests of character, vibrant culture and active lifestyle, clean air, quiet (compared to the rest of the world), open lands, and preserved history... Maintaining character makes money as well as improving our quality of life. It is also conducive to both our physical and mental health. It's profitable to protect the goose that provides these golden eggs." In a similar vein, the Airport Experience Working Group recommended that "to preserve our high quality of life," ASE should "maintain our existing level of air service, plan for small growth increases, implement the highest environmental standards and provide the best guest experience."

Economic and Societal Benefits. Locals, visitors and businesses all depend on the Pitkin County- Aspen Airport. It is essential to maintaining our local economic vitality, and many jobs depend on it. It is also an important piece of infrastructure for locals traveling to and from our valley. Maintaining affordable air access is critical to our local quality of life.

New Terminal. The current terminal is woefully inadequate to serve today's travelers, employees and aircraft operations at a reasonable level of service.

3. Airport Connectivity

Connectivity. In the words of the Focus Group, "More convenient and easy ground transport would include a mix of public and private modes of transportation to and from the airport. Consideration should be given to a variety of mass transport possibilities including light rail, monorail, gondola and greater utilization of RFTA, if feasible." **This is an extremely weak and inadequate statement. At least move some form of the final paragraph under Important Issues Beyond the Scope of this report to emphasize that**

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although not the charge of the ASEvision committee, the committee nonetheless feels the valley transportation issues must be addressed so an expansion at the airport will not further devolve the disaster faced every morning and evening on Highway 82.

4. Environmental Issues

Greenhouse Gas Emissions. Pitkin County was one of the first airports in the US to prepare a total airport-related emissions inventory that captured the emissions of Greenhouse Gas (GHG) sources by ownership and/or control. In 2017, total airport-related emissions were 81,566 tons of carbon dioxide (CO₂), representing approximately 5% of GHG emissions for all emitters in Pitkin County. Of the airport emissions, only ~2% were under the ownership and/or control of Pitkin County. The other 98% were under the ownership/control of airlines and tenants. Aircraft emissions reflect ~89% of total airport related emissions. The quantity of Jet A fuel dispensed at the airport (a rough proxy for aircraft greenhouse gas emissions) increased by 40% between 2014 and 2017.

Local Air Quality. In addition to Greenhouse Gas Emissions, the Community Character Working Group also identified concerns about airport impacts on local air quality. Aviation emissions

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typically represent less than 5% of a region's criteria pollutants, which are indicators of local air quality. ASE has collected emission inventories with criteria pollutants in 2008, 2012 and 2015, with forecasts for 2023, 2028 and 2033 and can be used to establish baselines for our local measures.

New VS Old Aircraft. Newer commercial and private aircraft are generally more fuel efficient and quieter than older aircraft. For example, because it is newer, more fuel efficient and larger, the Airbus A220-100 emits 51% less CO₂ per-passenger than the CRJ-700 during a landing and takeoff (LTO) cycle. The Airbus A220-300 emits 60% less CO₂ per passenger than the CRJ-700 during LTO. Using the "per passenger method is completely misleading. The divisor for the A220-100 is 75% of 146 seats while the divisor for the CRJ700 is 75% of 76 seats. Of course, the 220-100 looks better. In terms of flyover noise level, the A220 is 3.6 decibels quieter than the CRJ. Similarly, on the General Aviation side, a new Gulfstream 650 is 3 decibels quieter than the Gulfstream 4. (For reference, 3 decibels represent 50% less sound pressure.) (See Appendix for detailed aircraft noise data.) *Direct Flights.* When compared with a two-segment flight requiring a stopover, a direct nonstop flight will emit less greenhouse gas and other forms of air pollution.

Nonstop Flights. The ability to operate nonstop flights to cities outside the range of current aircraft serving ASE could reduce GHG emissions significantly. In a detailed comparison completed by American Airlines on Miami/ASE and New York/ASE trips, the fuel burn per passenger was reduced by 20% and 31% respectively when flown nonstop compared to

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the current required 1-stop routing through a hub (Dallas and Chicago). The major emissions differences between the nonstop and 1-stop routing are primarily the fuel burned on the 2nd takeoff cycle, taxiing on the ground at the hub, and flight time in normal arrival and departure routing procedures. Opening up direct flights from more deeparture cities will more than fill any reduction in the frequency from, as an example Denver, that larger seating capacity airliners might create.

Noise. The Community values its quiet rural areas as well as less noise within the urban growth boundary where the airport is located. The County adopted one of the first “Fly Quiet/Fly Clean” programs in the country and now has over a decade of data collected daily on-site at a location in Woody Creek and field measurements taken twice per year. The goal of the Aspen/Pitkin County Fly Quiet program is to influence pilots to fly as quietly as possible in and around ASE. Monitoring, collecting, and analyzing comprehensive amounts of operational and noise data helps highlight both airport trends and individual aircraft performance to better understand specific noise abatement issues. Reduced use of accessory power units and fossil fuel powered ground equipment will reduce noise and emissions on the ground.

5. Aircraft

Status of Bombardier CRJ-700. The CRJ-700 – which United, American and Delta use today to serve Aspen – was last delivered in North America in 2011. The current average age of a CRJ-700 is 15-16 years, and this type of small regional jet is generally replaced by more cost-effective models after around 20 years. As of January 2020, United has 18-19 CRJ-700's remaining in its fleet, and Delta has approximately 12. American has more and is the largest user of the CRJ-700. Since aircraft become more expensive to maintain as they age, and older planes are less fuel-efficient, it is our finding that airlines are likely to retire the CRJ-700 by or around the end of decade. As of January 2020, United, American and Delta are retiring the CRJ-700 more quickly than anticipated. Hearing directly from Mitsubishi regarding the lifespan of the CRJ700 is critical since Mitsubishi now owns the CRJ program. This could be accomplished by allowing the offered briefing from Mitsubishi.

Airline Fleet Forecast. In their 2019 “Fleet Forecast,” the airlines serving ASE identify three Group III

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aircraft that they expect will replace the CRJ-700 when it retires: the Embraer E-175, the Airbus A- 319, and the Airbus A-220-100.

Status of Embraer E-175. If ASE retains its current 95' wingspan restriction, the Embraer E-175 could become the only regional commercial jet aircraft with more than 50 passengers capable of landing in Aspen after the current Bombardier CRJ-700 retires. Because the E-175 is heavier than the CRJ-700 and lacks sufficient power to serve ASE year-round with a full load of passengers and fuel, it would have to carry fewer

passengers than the CRJ-700, be limited to a shorter range, and serve fewer destinations. This is why the E-175, despite being one of the most popular regional airliners today, has not been used for ASE. The E-175 is also a noisier and more polluting aircraft than the CRJ-700.

Status of Mitsubishi SpaceJet M-100. The wingspan of the planned Mitsubishi SpaceJet M-100 is intended to be under 95', so it may be able to land in Aspen. The aircraft is currently in design development with production of its first prototype yet to begin. Mitsubishi says that it will deliver the M-100 in the mid-2020's. In January 2020, Mitsubishi announced that delivery of the M-90 (the M-100's larger sibling now in flight-testing) would be delayed until late 2021 or early 2022. The M-90's delivery had previously been scheduled for summer 2020, and the new delay means that the plane is now eight to nine years behind schedule. Given the difficulty that Mitsubishi has had building and certifying the M-90, it is difficult to know when the M-100 will actually be flying commercially in the U.S. Once the M-100 is built and certified it would still have to be evaluated to confirm that its performance allows it to land safely at the Aspen Airport. **Again, let's hear the briefing directly from Mitsubishi rather than just accepting the assessment of others. The M-100 was designed with the Aspen airport in mind. It would be terrible to make a decision on the runway expansion with complete knowledge of all possibilities.**

Status of Airbus A220-100. A new airliner, the A220 was designed by Bombardier and sold to Airbus. Delta Airlines introduced it in the U.S. in 2019 and has 29 in service. In Delta's configuration, the plane seats 109 passengers, which is 33 more than the CRJ-700, but only 9 more than the BA-146 that served the Aspen Airport for close to 20 years. The A220 is capable of serving ASE, but its wingspan is wider than 95', so the FAA would not currently permit it to land here under normal airport operations. The A220-100 is listed in ASE's Aviation Activity Forecast ("Fleet Forecast") as a plane the airlines would like to use seasonally for future ASE service were it allowed to land here.

Scope limitations. Only two aircraft currently are flying for United, Delta and American within the 50 to 76 passenger "scope clause" – the CRJ-700 and the E-175. Per scope limitations, for any new aircraft delivered to an airline, another aircraft within the scope must be retired, meaning as airlines order new E-175s, either CRJ-700s or older E-175s must be removed from their fleets.

Status of 737s. While not included in the airlines' Fleet Forecast of planes likely to be used for ASE, the Boeing 737 has been a concern to many county residents because of its size and potential impact on our valley. Some 737 models, such as the 737-700 and the 737-MAX 8, would be unlikely to land commercially at ASE because of their significant performance constraints, making it unlikely they could operate profitably. The Boeing 737-700 does have the performance capabilities to operate safely at ASE, but it is no longer in production and is starting to be phased out of carrier fleets. One model that could theoretically serve ASE is the 737-MAX 7. However, it has not been ordered by any of the three carriers that serve ASE and the only airline to place 737-Max 7 orders in the country has delayed them indefinitely. The 737-MAX 7 would seat 138 to 153 passengers.

Emissions and noise data for the MAX 7 are not yet available.

Future GA (non-airline) Aircraft Technology: In the words of the Technical Working Group, “GA Aircraft that have wingspans larger than 95 feet are relatively rare and all of them are very new designs with the most efficient engines and quietest operation of any of the ADG III GA planes.” **What about converted 737s in private use???????**

Future Aircraft Design. According to Amory Lovins and others who study the evolution of aircraft technology, future commercial aircraft are likely to have wider wings and lower landing speeds than today’s planes. They are also likely to be more fuel efficient, less polluting and quieter.

Electric Aircraft. Hybrid electric and eventually all-electric airliners are on the horizon, but ones that could serve Aspen are likely still 10-15 years away and are likely initially to be 10 to 15 passengers in size. Fully electric aircraft carrying 75 passengers to the destinations currently served by ASE are farther in the future. Small electric propeller planes and vertical-takeoff-and-landing (VTOL) electric “on-demand” air taxis may be available sooner. With many companies investing heavily in electric aviation, the technology is evolving rapidly. The biggest current challenge is the ratio of battery capacity to weight.

6. Airport Decision Making

Airside Decision Making. The County has relatively little control over the “airside” of airport operations: the runway, taxiway, landing and takeoff procedures, etc. Under federal law, the County cannot “unjustly discriminate” in favor of one type of aircraft over another.

Landside Decision Making. As the Airport Operator, Pitkin County has substantial control over the terminal in terms of its size, design, commercial services, tenants, boarding gates, and ramp (aircraft parking) space to help attain the community goals identified by the Vision Committee. It can establish landing fees to help fund airport operations and improvements.

Negotiation with Airport Stakeholders. The County may be able to negotiate the terms of agreements with airlines serving ASE and with the airport’s Fixed Based Operator (FBO) in order to help attain community goals.

7. Airport Service Level and Existing Flight Operations

Existing Airline Service. ASE Vision participants generally felt that our existing airline service level is important to our community. In the words of the Airport Experience Working

Group, “the existing airport passenger service (number of carriers, direct flight destinations, and passenger volume) fits the needs of the community and should be maintained to allow for diversity and vitality. ...The group acknowledged that .8% growth (in annual commercial enplanements) is expected and should be planned for, but not immediately built to. Our goal is to maintain the current level of air passenger service and prepare for future growth.” It’s important to make clear in this section that the ASEvision committee never heard that the current level of seating capacity was inhibiting anyone from getting to Aspen. In other words, the current level of service is more than adequate.

Flight Operations. In general, airlines represent roughly only one-fourth of ASE flight operations

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(landings and takeoffs). General aviation (private planes and fractional ownership business planes) and air taxis (e.g., NetJets) represent the other three-fourths. In 2018, ASE had a total of approximately 43,000 flight operations, including airlines, general aviation and air taxis. COMMERCIAL FLIGHT OPERATIONS FOR 2018 WERE 13,722 (ARRIVALS AND DEPARTURES) MEANING THERE WERE APPROXIMATELY 30,000 GENERAL AVIATION OPERATIONS AND FOR 2019 THERE WERE COMMERCIAL 13,709 (ARRIVALS AND DEPARTURES). I DON'T HAVE AN OVERALL FIGURE FOR ALL OPS IN 2019. THAT SHOULD BE ADDED. Since 2000, total annual operations at ASE have been relatively flat. KIMLEY HORN PROVIDED DATA ON A CHART DATED 6/3/19 ON ANNUAL GROWTH COMMERCIAL OPERATIONS OF: 2016- 17.3%, 2017-1 3.6%, 2018- 31.0%, 2019 WAS APPROXIMATELY THE SAME NUMBER OF OPERATIONS AS 2018. THERE ACTUALLY WAS QUITE A VARIATION IN GROWTH BETWEEN 2008 AND 2019. SOME OF THAT WAS OBVIOUSLY RELATED TO THE 2008 RECESSION, BUT TO SAY ANNUAL OPERATIONS HAVE BEEN RELATIVELY FLAT SEEMS MISLEADING.

Pitkin County Curfew. The County Commissioners established a noise curfew at the Aspen Pitkin County Airport in 1979. The curfew was subsequently codified by Congressional Act in 1994. No aircraft operations are permitted between 11PM and 7AM, with certain limited exceptions. No aircraft departures are permitted after 10:30PM also with limited exceptions. All aircraft operations must comply with Part 36 Stage III noise regulations. The continuation of the curfew is dependent with the airport complying with the Congressional Act and enforcing the curfew in a non- discriminatory manner. Any increase in the restrictions of the existing curfew would require an act of Congress and would likely risk the renewed examination of the curfew by the FAA and the basis for the establishment of the curfew. Such an event would risk the continued viability of the curfew.

8. Funding for Airport Operations and Improvements

Grants and Other Revenue Sources. Federal discretionary grants could cover up to 90% of the cost of possible new airfield improvements, such as increasing the centerline

separation of the runway and taxiway. County funds would be needed to build a new terminal. Airport tenants, such as airlines and the fixed base operator, could cover the costs of certain improvements related to their operations – this is subject to negotiation. As the airport operator, the County also has the ability to charge landing fees and rental fees to help offset airport expenses.

FAA Grant Uncertainty. The FAA has suggested that all discretionary grants would be conditioned on the Airport increasing the centerline separation of its runway and taxiway. ASE would continue to receive its entitlement grant each year but it is not enough to maintain the airport in its current condition. In a 9/13/2018 email, the FAA wrote, “The Agency will not invest Federal grant funding for a facility that will limit access to certain types, kinds, or classes of aircraft. The Agency has the expectation that at the conclusion of the project, the Airport will be able to accommodate the full range of group III aircraft.” This refers to increasing the Airport’s runway/taxiway centerline separation to 400’ and the “full range” of Design Group III aircraft that would then be able to land. Without FAA discretionary grants, Pitkin County would have to seek additional funding sources for annual airport expenses. **Let’s be real. The influential GA operators and owners would NEVER stand for any deterioration in the quality of the airside at ASE. Airlines would be the same. There is no danger that the FAA would “abandon ASE with regard to safety and improvement funding.**

Phasing of Airport Construction. Airport improvements will require phasing to ensure the airport remains operational during busy seasons. The scope of the project will likely also require phasing to be economically feasible and align with the availability of both local funding and federal grants. Phasing for a project approved in the EA would be a minimum of 5 years.

County Enterprise Fund. The Aspen-Pitkin County Airport is a County Enterprise Fund. An enterprise fund, per the Colorado Constitution, is a self-supporting government-owned business for which the primary source of revenue is from fees and charges derived from airport activities. Enterprise funds are authorized to issue their own revenue bonds and may receive no more than

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10% of annual revenue in grants from other Colorado state and local governments combined. There is no limit on the amount of federal grants that may be accepted by the Pitkin County Airport Enterprise Fund.

Airline Financial Interests. United, American and Delta airlines offer commercial service to ASE because it is profitable for them to do so. In the August 12, 2019 ASE Vision meeting, representatives from both United and American reiterated their strong desire to continue serving ASE with good commercial service to and from their hubs allowing passengers to access their global networks.

9. The Complex Core Issues Facing the Pitkin County-Aspen

Airport

The FAA would like ASE to increase its runway/taxiway centerline separation from 320' to 400'. Doing so would change the airport's current modification to standard which currently limits wingspan to 95' and would address the most important safety issue identified by the FAA. This change allow most or all Group III aircraft to land in Aspen as long as their aeronautical performance allowed them to do so.

Some who support ASE becoming a full Group III airport believe this would guarantee that other airliners would be able serve our airport after the current CRJ-700 retires. Others fear that becoming a full Group III airport would invite much larger aircraft and result in a "cruise ship syndrome" that would irrevocably harm our community character, rural quality of life, and appeal as a unique destination resort.

If ASE were to become a full Group III airport, some of the new aircraft most likely to serve the airport would meet our community goals (reduction in noise, reduction in emissions and managed growth). The Airbus A220-100, for example, has only 9 more seats than the BA-146 that once served Aspen. The A220-100 emits substantially fewer greenhouse gas emissions than today's CRJ-700 and is also significantly quieter. In addition, the A220-100 is listed on the Fleet Forecast of planes that today's airlines say they'd like to bring to Aspen in the future. **Comparing the era of the BA-146 to now is misleading. There were significantly fewer flights and routes to Aspen**

On the other hand, another plane likely to serve a full Group III ASE is the Airbus A319-100. This aircraft is older, larger and heavier than the A220-100. In its landing and takeoff cycle, the A319 emits twice as much greenhouse gas per passenger as the A220-100. In fact, it emits more CO2 per passenger than today's CRJ-700. The A319 currently in use is also noisier than either the CRJ-700 or the A220-100. And the A319, too, is on the Fleet Forecast list of planes the airlines would like to use for future Aspen service.

If we were to leave the airport as it is, we would run a distinct risk that no commercial jet airliner in the 50-76 seat range adequate for ASE's current level of service and passenger enplanements would be available to serve ASE when the CRJ-700 retires. **We better do our own assessment of the possibility of the M-100 before we say this.** We would also jeopardize FAA discretionary funding for the airport, and we would lose any chance of attaining our community air pollution emission goals, our noise reduction goal, or our commitment to managed growth (~.8% per year) of commercial airline enplanements. Although, in theory, the Embraer E-175 could replace the CRJ-700, the E-175 is noisier, would have fewer seats due to performance issues, and

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would require more flights to move the same number of passengers. Its shorter range would also eliminate some cities served by today's CRJ-700.

In short, if we improved our airport to full Group III status, we would open the door to certain planes like the A220-100 that emit less greenhouse gas and other air pollutants,

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are quieter, and could attain our managed growth goal — but we would also invite larger, more polluting and noisier aircraft like the A319.

These types of complex issues lie at the heart of why the Pitkin County-Aspen Airport has been such a source of seemingly endless community discussion for so long a time.