Mead & Hunt

Submittal of Qualifications

Truckee Tahoe Airport– Master Plan Project

December 3, 2021

EXPERIENCE EXCEPTIONAL

December 3, 2021

Kevin Smith, General Manager
Truckee Tahoe Airport District
10356 Truckee Airport Road
Truckee, CA 96161

Subject: Submittal of Qualifications for Airport Master Plan Project – Update and Refresh of Current 2015 Master Plan for Truckee Tahoe Airport (TRK)

Dear Mr. Smith and Members of the Selection Committee,

The world of aviation is rapidly evolving. Satellite-based instrument flight procedures, sustainable aviation fuels, and airport electrification offer a future that is less taxing on the environment and less intrusive on the lives of those who live and work near airports. Mead & Hunt, along with our partners HMMH, FlightTech Engineering, and East River PR, look forward to continuing our partnership with you as you prepare your vision for the coming decades.

The Mead & Hunt Team includes staff with years of experience working with the Truckee Tahoe Airport District (TTAD) and those who are new to TTAD, bringing their highly relevant experience to offer a fresh perspective on your challenges. Together, this Team will deliver your Master Plan on time, within budget, and in line with your vision for the future. Our approach is highly collaborative and will empower your stakeholders to guide the future of TRK.

Local Understanding

Mead & Hunt has provided planning services to TTAD over much of the past decade; we know the Airport, your staff, and your community. Project Manager Bradley Musinski has led the majority of these projects. We have developed relationships with TTAD staff and regularly attend TTAD Board meetings, both virtually and in-person. Through our work, and that of our partners, we have developed a strong understanding of the interests and concerns of neighborhoods surrounding TRK. This knowledge will directly translate to our stakeholder engagement plan, and we will customize our approach by neighborhood to maximize participation. Every company on our Team has completed at least one project in Truckee, and East River PR is based in Truckee with 14 local employees.

The Blend of Familiarity and Fresh Perspective

The project Team was selected to provide a mix of TRK experience and new ideas. Your timeline and challenges require both, and we are confident that this Team will exceed the expectations of TTAD and your stakeholders. Our experience at other mountain airports, described in this proposal, offers a source of inspiration for your challenges. Our approach to your Plan is to pair our extensive knowledge of your existing facilities, constraints and community, with experts in our company who can screen the potential third runway from operational, financial, community and environmental perspectives. Using screening criteria around these elements allows our Team to analyze your future needs with sustainability in mind.

The Mead & Hunt Team is truly excited to support TTAD and TRK in charting a course for its future. We look forward to the next chapter.

Sincerely,
Mead & Hunt, Inc.

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Executive Summary

THE Mead & Hunt TEAM

The Mead & Hunt Team understands the commitment required to successfully complete a draft Master Plan (the Plan) by June 2022. The Team put forward for this Plan has the depth and familiarity with TRK to meet your deadlines without compromising quality or innovation. This familiarity is balanced by a cadre of staff that are new to TRK and will address each challenge with a fresh look and a new perspective. We will work collaboratively with our partners, HMMH, East River PR, and Flight Tech Engineering, to prepare a Plan that meets the needs of TTAD, your community, and your other stakeholders. The result will be a Plan that can be completed according to your schedule, within your budget, and that incorporates historical perspective with national best practices in airport planning, outreach, integration with the NEPA process and sustainability.

Our approach blends existing knowledge with fresh ideas and national best practices from similar airports. This will provide creative solutions that are delivered on-schedule and within budget.

Key challenges facing TRK include physical limitations, community expectations, and building FAA support for your vision. Terrain, vegetation, and surrounding communities affect development options. Environmental stewardship and being a good neighbor are paramount, as is planning with an eye for potential NEPA documentation. Key Team members for this Plan have worked on airport planning studies at similar mountain and resort airports. They understand how to mitigate terrain challenges, how to avoid development that will affect areas sensitive to noise and disturbance, and how to work with communities that surround airports to produce planning materials with the input and support of affected stakeholders.

CORE TEAM

The core project Team will lead the preparation and delivery of the Plan. The Team was assembled to include a mix of individuals, some with institutional knowledge of the Airport, and others with relevant experience at other airports in mountain resort communities. The intended result is a Team that builds on lessons learned while applying a fresh perspective and new ideas to your opportunities and challenges. An organizational chart is on Page 22 and full resumes start on Page 24, with these individuals establishing your core team.

Project Manager Bradley Musinski has worked with you for a decade. He understands your challenges, knows your stakeholders, and has proven his ability to help you arrive at creative solutions year after year.

Deputy Project Manager Kate Andrus is new to TRK, but she comes with extensive experience providing planning and environmental solutions to similar airports, such as Aspen/Pitkin County Airport and Jackson Hole Airport.

Coordination Lead Katie Shaffer has lived in Truckee for much of her life, and she runs East River PR here in town. She is the perfect choice to lead stakeholder coordination and outreach efforts due to her years of work in, and with, the community.

PROJECT UNDERSTANDING

Your Master Plan will include the following.

- A comprehensive **public outreach program** that will engage and empower TRK tenants and area residents to share their vision for the future of the Airport with TTAD. Stakeholder feedback will be incorporated into the alternatives review process, so that the preferred alternatives carried forward to the implementation plan and airport layout plan reflect the feedback from the community.
- An **evaluation of TRK's role** in the community, state, and national airspace system based on interaction and feedback from the community.
- A **review of the 2015 Master Plan**, the 2021 Forecast update, and other studies TTAD has completed since the 2015 Master Plan. These include the ADS-B integration project, the pavement management plan, the Air Traffic Control Tower installation, and upgrades to local aviation service provider facilities.
- An **update of the 2015 Facility Requirements chapter**, with a focus on current FAA design standards that have changed since completion of the 2015 Plan. The FAA may publish additional updates to their airport design standards during this project. Since Mead & Hunt has reviewed a draft version of these standards, we are prepared if they are released during this project.
- An **update of the 2015 Alternatives chapter** with solutions to balance TRK's impact on the community while providing facilities for safe and efficient operations. The alternatives analysis will engage the TTAD community and citizens through the public outreach. A new screening process will be devised – one that TTAD and the community agree upon – to evaluate alternative development strengths and weaknesses. The preferred alternative will be the one that best aligns with the vision that of the future of the Airport.
- Incorporation of **sustainable and resilient** elements throughout the document. This analysis will feature heavily in the Facility Requirements and Alternatives chapters as Sustainable Screening criteria, and costs associated with sustainable and resilient recommendations will be included in the capital improvement program. A separate chapter highlighting specific projects and practices that will lead to a more sustainable airport will be prepared.
- Preparation of an **Environmental Assessment Roadmap**. It is understood that the Plan will consider substantial changes to the airfield, which will require analysis pursuant to the National Environmental Policy Act (NEPA) prior to project implementation. Preparation for the ensuing NEPA project during planning will reduce NEPA expenses, help build FAA support, and prepare TTAD for the path to project implementation.
- An **update of the 2015 Adoption and Implementation chapter** with a revised phasing plan and cost estimates. The updates will incorporate current material prices, FAA required design elements, and available funding sources.
- An **update of the 2021 Airport Layout Plan** with the preferred alternative and new noise contours. This is a critical item for obtaining future FAA funding and support for capital projects.

COMMUNITY OUTREACH AND COORDINATION

Your community was experiencing strong growth through 2021, and the influx of remote workers from the cities to your region on a more permanent basis has further accentuated pressure on infrastructure and services. The Airport's role – the facilities, airfield geometry, and aircraft served – will be examined and assessed during this Plan. After review of the Inventory and Forecasts, and consultation with TTAD, the future role of TRK may be better defined and then presented to the community during outreach workshops. During outreach, the community will be asked to provide input on the Airport's role and what the future disposition of TRK may entail.

The future Airport role will help determine the airport facility requirements and shape the alternatives analysis. Requirements will reflect the needs to meet the established Airport role. Alternative analysis will provide options on how to serve aircraft operators, provide services and facilities, airfield geometry, and annoyance mitigation measures to meet this role for the next 10 years and beyond. A detailed outreach plan is provided on Pages 11-12.

ALTERNATIVE ANALYSIS AND ENVIRONMENTAL SCREENING

Mead & Hunt proposes an alternative screening approach to proposed changes to the airfield to meet your goals of minimizing overflight and noise exposure, providing a safe aeronautical setting by avoiding terrain, and maximizing airport property. We like to call these Sustainable Screening Criteria. This process will include operational, environmental, financial, and social considerations, and alternatives for a particular improvement will be evaluated against each other, and a no-build option, using the same criteria. This is the process for alternative development:

1. Prepare a constraints map for the improvement being evaluated. This will likely include FAA design standards and areas where it would be cost-prohibitive to build. This will produce an area where construction may occur.
2. Document known areas of environmental sensitivity that fall within the potential construction area. If the alternative will affect property outside of the airport (such as a runway), then sensitive areas, terrain, and other obstructions will be included in the analysis.
3. Develop initial alternatives that fit within the potential construction area. Document how they affect sensitive areas, and how they align with the vision for the future of the airport. This information will be shared with stakeholders, using a matrix similar to **Figure 1** and maps, and feedback will be solicited.
4. If a clear favorite exists after the first three steps, it will become the preferred alternative. If there is not a clear favorite, the alternatives that were supported by TTAD and the stakeholders will be refined, updated, and further input will be solicited.
5. Once a preferred alternative is identified, it will be carried forward to the capital plan and ALP.

Future Aircraft Technologies

Electrification of aircraft, ground vehicles and advanced air mobility (AAM) technology concepts have become reality in just a few short years. The Airport Industry is rapidly evolving as well to prepare and build for the electric future. Mead & Hunt works with developers, manufacturers, airports, and communities to integrate electric aircraft as a safe and sustainable component of the aviation system. The Plan will include an assessment of how TRK can accommodate infrastructure that supports electric aircraft and sustainable aviation fuels. Refer to Page 9 for more information.

Figure 1: Example Alternative Evaluation Matrix

Evaluation Criteria	Metric(s)	No Build	Alternative 1	Alternative 2	Alternative 3
Effect on Airfield Capacity	Change in Annual Service Volume	5.00	3.00	6.00	8.00
Effect on Airfield Utility	Change in Runway Length, Width	5.00	4.00	7.00	8.00
Estimated Construction Cost and Complexity	Construction Cost, Duration	10.00	3.00	5.00	6.00
Effect on Existing Flight Paths and Noise Exposure	Net Change in Homes in Noise Contour	5.00	8.00	6.00	4.00
Effect of Future Flight Paths and Noise Exposure	Net Change in Homes in Noise Contour	5.00	7.00	5.00	3.00
Effect on Environmentally Sensitive Areas	Net Acreage or Square Footage of Impact	5.00	3.00	5.00	8.00
Conformance with Stakeholder Vision for TRK	1 = Does Not Align, 5 = Somewhat Aligns, 10 = Totally Aligns	2.00	8.00	7.00	6.00
Stakeholder Feedback	1 = Negative Feedback, 5 = Neutral Feedback, 10 = Positive Feedback	5.00	6.00	7.00	6.00
Total		**5.25**	**5.25**	**6.00**	**6.13**

Scoring: 1 = Least Beneficial, 5 = Neutral, 10 = Most Beneficial

AIRSPACE ANALYSIS

The Mead & Hunt Team will conduct a feasibility study of possible Instrument Approach Procedures (IAPs) and Departure Procedures (DPs) to future a runway based on current Terminal Instrument Procedures (TERPS) criteria, Part 77, Visual Surface (both 20:1 and 34:1) penetrations, and Vertical Guidance Surface (VGS) penetrations. In assessing the possible IAPs and DPs, Flight Tech will employ the entire array of Performance Based Navigation (PBN) specifications utilizing GPS satellite technology to include both Area Navigation (RNAV) and Required Navigation Performance (RNP) solutions. These solutions will also support TRK's current and evolving integration of ADS-B resources into its operations. Any procedures proposed for future runways will aim to serve the fleet and future roll of the Airport.

During this alternative assessment process, the Mead & Hunt Team will coordinate with Airport staff, TTAD Members, the local Air Traffic Control Tower (ATCT), and Oakland Air Route Traffic Control Center (ARTCC). The goal of the runway alternatives assessments is to identify final runway configurations that most ideally support our goals of minimizing overflight and noise exposure, providing a safe aeronautical setting by avoiding terrain, and maximizing airport property.

ADS-B Review and ATCT Coordination

ADS-B is a new technology that tracks aircraft operations. The data will be reviewed to find patterns on overflight.

We will communicate with ATCT staff on practices that are acceptable to suggest or guide aircraft on arrival and departure tracks that minimize overflight and annoyance.

NOISE ANALYSIS

Noise is a particular concern at mountain airports because airports often sit lower than the houses and businesses around them, and aircraft are channeled into specific flight corridors to avoid terrain. Mead & Hunt and HMMH have subject matter experts in airport noise modeling and the communication around noise challenges. These individuals can share the results of complex noise models using language and graphics that are approachable and understandable.

Three sets of noise exposure contours will be produced and presented on graphics in the report and on the ALP:

1. Existing noise exposure contours for the forecast base year,
2. Forecast year noise exposure contours with the preferred alternative, and
3. Forecast year noise exposure contours with a "no-build" scenario.

As part of the alternative screening process, we propose the Number Above analysis. The Number Above analysis provides a total for the number of aircraft events above a specific decibel level, at a point on the ground, on a given day. This will be shown graphically during the preliminary and refined alternative screening process. The Number Above analysis has proven to be an effective way to graphically illustrate noise events to the public in palatable terms. Our Team also understands that the communities surrounding TRK have seen Time Above analysis graphics during the 2015 Master Plan process. This analysis may also be provided in addition to the Number Above analysis.

SUSTAINABILITY

In addition to integrating sustainability foundationally as part of the Sustainable Screening Criteria, sustainability recommendations will also be included for the preferred alternatives. This may include selection of construction materials, construction methods, and items that may increase the useful life of an improvement. The four lenses of airport sustainability will be considered: Social, Environmental, Operational, and Financial. A separate chapter will document overall sustainability recommendations for the Airport, which will go beyond capital projects and include recommendations that improve sustainability of the Airport's operations and business practices. Several staff on the Mead & Hunt Team, including Kate Andrus, Lauren Rasmussen, and Jen Wolchansky, are experienced airport sustainability professionals. With both Kate and Lauren in leadership roles on this project, sustainability will feature prevalently throughout the document. More information on Mead & Hunt's Sustainability experience can be found on Page 8.

Should TTAD wish to explore some elements of sustainability in more detail, potential add-on services to this Plan could include:

- Energy and Water Use Audits
- A Waste and Recycling Plan
- A Diversity, Equity, and Inclusion Plan
- Envision or other sustainability certifications for projects
- Support in research on and application for grant funding

IMPLEMENTATION, AIRPORT LAYOUT PLAN (ALP) AND FAA SUPPORT

The Mead & Hunt Team will review the 2021 ALP and integrate the preferred alternative layout, future development, any property acquisition, revised wind roses, and the new noise contours. We will also re-verify the ALP meets FAA standards as determined by current checklists and advisory circulars. Mead & Hunt coordinates closely with FAA Headquarters on policy changes, and we will be prepared should the FAA update either the airfield design advisory circular or the standard operating procedure for ALPs.

FAA financial participation in your preferred alternative and capital improvement program relies heavily on their belief that the projects are timely, necessary, and justified. It is easy for this supporting information to get lost in a planning document, which creates additional work in the years that follow the Master Plan when the FAA begins to question the need for projects. To address this challenge, the capital plan will also include a step-by-step implementation guide for your capital project, with components as follows.

- **Phasing and Cost Estimates:** These are the core of any airport capital plan. Projects will be broken into logical phases based on affordability and need. Natural breaks in development will give TTAD the opportunity to evaluate the effectiveness of the capital plan without having to fully build certain improvements. This allows assumptions to be updated before more time and money are spent.
- **Justification Summary:** In addition to describing the capital project, the Plan will include information on why the project is justified. This will follow FAA prioritization criteria to best position the project for funding and call attention to the AIP-eligible elements.
- **Trigger Points:** Each capital project has a trigger point. This may be an operation need, the need to replace a facility nearing the end of its useful life, or the need to meet a demand from airport users. The specific trigger points, and the year that they are expected to occur will be identified.
- **Funding Plan:** FAA AIP entitlement funds generally do not cover all the costs associated with larger improvement projects. If TTAD needs to petition for FAA AIP discretionary funding, state funding, local funding (e.g. bonds and TTAD cash reserves), and private funding (e.g. public/private partnerships), this will be defined in the capital plan.
- **Environmental Roadmap:** Airport projects generally require NEPA and CEQA, whether it is a categorical exclusion, an environmental assessment, or an environmental impact statement. The Environmental analysis that is done as part of this Plan will identify the expected level of complexity associated with environmental permitting, and the capital plan will include a schedule and budget for completing environmental documentation prior to initiating design. Because we plan to front load some of the analyses around key resource categories (such as noise), we will understand potential challenges to the NEPA next steps and can create a detailed roadmap for TRK to navigate future regulatory processes.

The Implementation Plan and ALP are generally the two most used documents after a Master Plan is completed. Preparing these documents using the procedure described above is intended to keep them useful and relevant long after the Master Plan is complete.

PROJECT MANAGEMENT AND COMMUNICATION

Effective project management and communication will be crucial to successfully deliver the Master Plan Update according to schedule and budget. The Mead & Hunt team will provide weekly status reports to TRK staff and the Ad Hoc committee. Calls between the Mead & Hunt team and the Ad Hoc committee will allow us to provide project updates, share ideas, and discuss next steps.

SCHEDULE AND BUDGET

Mead & Hunt understands the urgency of this project and the goal to have a draft report complete by June 2022. With staff already familiar with the Airport, previous projects, and the third runway concept, we can hit the ground running with a kick-off in early January 2022. We propose a total fee of $402,000 to complete this project as outlined in our Project Understanding. More detail on the schedule and fee, with task breakdowns is included on Page 35.

Required Experience

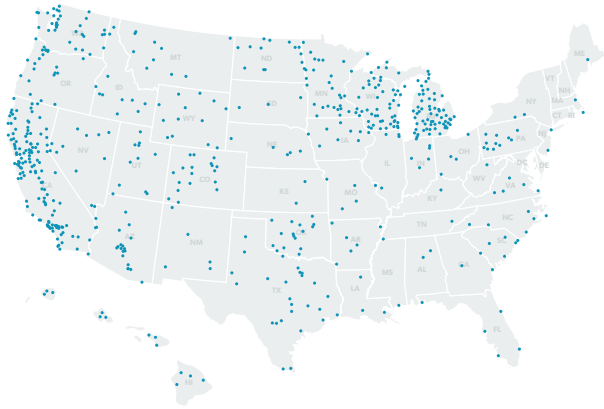
THE Mead & Hunt TEAM

3 Required Experience

FIRM DESCRIPTION

Mead & Hunt is an employee-owned firm with more than 900 planners, engineers, architects, scientists, and support staff in offices nationwide. Mead & Hunt is one of the fastest growing architectural, engineering and planning firms in the nation. For several consecutive years, ***Engineering News Record*** has ranked Mead & Hunt as a "Top 500 A/E design firm" and a "Top 25 in Airports" firm. We have over 200 aviation staff nationwide, with 18 in our Santa Rosa (Windsor) office, seven in Sacramento, and 14 in Denver.

Mead & Hunt Team Relevant Project Experience



Our multidiscipline personnel are experienced professionals able to provide top-of-the-line planning, environmental, and sustainability experience to support your most challenging projects. Mead & Hunt is highly qualified, dedicated and fully involved in undertaking your projects while keeping your values in mind.

DIVERSITY AND INCLUSION

Mead & Hunt is committed to creating, fostering, and preserving a culture of diversity, inclusion and belonging. The collective sum of the individual differences, life experiences, knowledge, inventiveness, innovation, self-expression, unique capabilities, and talent that our employees invest in their work represents a significant part of not only our culture, but our reputation and company's achievement as well. We embrace all the differences, both visible and invisible, our employees bring to the firm; combined, everyone's uniqueness makes us a stronger company.

We pride ourselves on foresight and innovation. We recognize that our growth in the industry is dependent upon the inclusion of a diverse team to capture targeted, contemporary approaches. We invest human and financial resources to build adept teams and engage relevant technologies that provide optimized outcomes for our clients. Our company makes strides to enhance accountability for our policies and work products, remove all barriers to equitable access to opportunities, and place increased attention on our clients' unique circumstances in their airports and the surrounding communities.

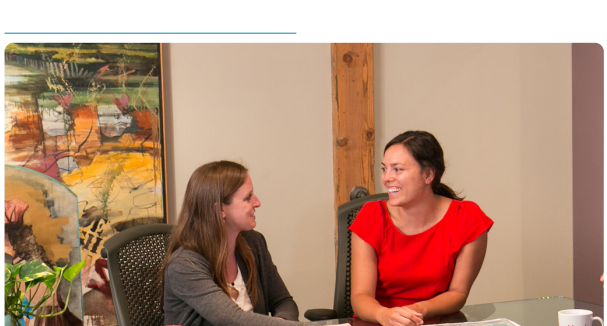
INNOVATION

Mead & Hunt can provide unique, innovative solutions for each of your projects. It is our practice to incorporate sustainable design elements into each of our projects, whether renovation or new construction. We have experience reviewing existing system components and identifying areas for energy improvements, to help decrease long-term operating and maintenance costs. We also know that financial sustainability, in terms of developing revenue-generating properties in an effort to promote a self-sustaining business model, is important to you. We have been successful in this area and can assist in making your airport more sustainable.

3 Required Experience
AVIATION SERVICES

SUSTAINABILITY SERVICES AND EXPERIENCE

Sustainability in the aviation industry is critically important for balancing economic, environmental, and social considerations. At Mead & Hunt, our professionals integrate sustainability concepts into planning to improve an airport's operational efficiency, while protecting the environment, stimulating economic growth and supporting airport users, employees, and communities.

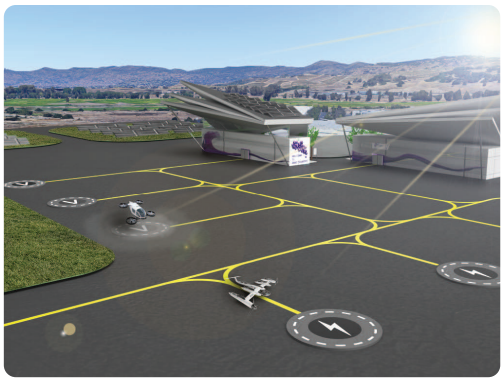


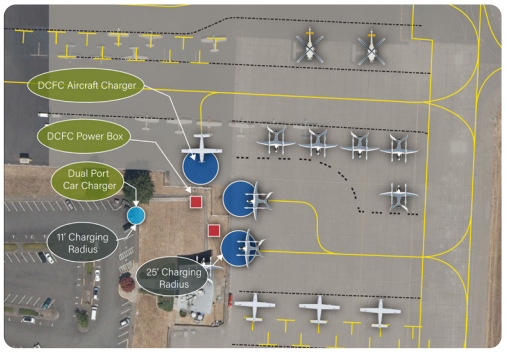
Mead & Hunt's sustainability specialists offer a wide range of services, including the developing Airport Sustainability Management Plans and Master Plans, energy efficiency programs, greenhouse gas reduction initiatives and public awareness activities. Our sustainability staff includes engineers, architects, planners and environmental specialists, many of whom are LEED certified and/or Envision Sustainability Professionals.

Aviation sustainability represents resiliency over time – resulting in airports that can survive changes because they are intimately connected to healthy economic, social and environmental systems. Sustainability makes good business sense, and Mead & Hunt. is armed with a team to make airports succeed into the future.

Our aviation-related sustainability planning expertise includes:

- Sustainable Master Plans
- Sustainability Management Plans
- Energy Efficiency Programs
- Greenhouse Gas Analysis
- Voluntary Airport Low Emissions Program (VALE)
- Statewide Sustainability Programs
- LEED Projects
- Envision Projects
- Sustainability Public Engagement
- Electrification Plans
- Climate Action Plans
- Fleet analyses
- Waste Management Planning
- Diversity and Inclusion Action Planning





FUTURE AIRCRAFT TECHNOLOGIES

Electrification of aircraft and ground vehicles has gone from concept to reality in just a few short years. True to form, the Airport Industry has kept step as it prepares, plans, and builds for the electric future.

Electric aircraft, including conventional planes with electric motors and electric vertical takeoff and landing (eVTOL) aircraft, can operate at a cost and efficiency unimaginable a decade ago. This segment of aviation will affect everything from flight training to package delivery and commercial passenger transport. Facility needs vary from rooftops to runways, but all require electricity supply and a way to transfer people and products between the aircraft and the ground.

Mead & Hunt works with developers, manufacturers, airports, and communities to integrate electric aircraft as a safe and sustainable component of the aviation system and multimodal urban transportation network. We monitor regulations and stay abreast of manufacturer improvements to help airports position for opportunities in the world of electronification as they arise. To meet the demands of this new era of aviation infrastructure planning and development, we continually assess airports' energy and facility needs. Coupled with sustainable aviation fuels and more efficient aircraft design, the electrification is a cornerstone of the aviation industry's mission to be carbon neutral by 2050.

The Plan will also include an assessment of how TRK can accommodate charging infrastructure and space for sustainable aviation fuels. Alternatives will evaluate how the support infrastructure for electric aircraft can be accommodated on the airfield, and needs will be included in the capital plan.

Mead & Hunt provides a wide array of services to help our airport partners navigate the rapid evolution of electrification and AAM:

- Stakeholder coordination and outreach
- Zoning and land use compatibility analysis
- Airport and surface transportation planning
- Economic impact and financial analysis
- Electrical utility demand assessment and forecasting
- On-site power generation and storage planning and design
- Environmental analysis and permitting
- Civil, electrical, and structural engineering
- Architectural design for vertiports and support facilities
- Construction administration and commissioning

3 Required Experience
SUBCONSULTANTS

east river PR
DIGITAL + INTEGRATED MARKETING

East River PR will assist with public involvement. ERPR is a California-certified DBE.

East River PR (ERPR) was founded in 2012 by longtime Truckee resident, Katie Shafer. She leads a talented team of communications professionals delivering a range of services to a diverse set of clients. ERPR advises clients on matters regarding strategic positioning, public affairs and brand building. They pride themselves on developing compelling messaging combined with professionally designed collateral to create meaningful impact for our clients. They take an integrated approach to reach targeted audiences, secure editorial coverage, build brand recognition and raise client profiles.

Their areas of expertise include public outreach, media relations, crisis communication, corporate positioning, consensus building, digital marketing, brand identity and creative services. They have built over 50 websites to date and provide expert website audit and SEO services. ERPR employs a team that builds websites on the WIX, Webflow and Wordpress platforms. They also have a team that specializes in social media strategy, email marketing and survey execution, optimization and analytics.

hmmh

HMMH will perform noise analysis. HMMH is a California-certified DBE.

HMMH provides expert assistance on the full spectrum of environmental and planning services to the aviation industry. To date, they have provided expertise to more than 200 airports worldwide. HMMH's noise and vibration capabilities range from basic assessments of noise exposure to detailed, innovative technical analyses of unique airport problems. HMMH is a leader in developing noise and land use compatibility plans under Title 14, Code of Federal Regulations (CFR) Part 150 and 161, in the design, specification, and installation of airport Noise and Operations Monitoring Systems (NOMS), in acoustical testing for airport sound insulation programs, and in conducting airport ground noise studies. The firm also tackles the tough challenges of Environmental Assessments (EAs), Environmental Impact Statements (EISs). In addition, HMMH provides comprehensive sound insulation solutions and ground-run-up enclosure designs. HMMH also provides emissions modeling and VALE project funding assistance to airports.

Flight Tech
Engineering

Flight Tech will provide airspace analysis.

Flight Tech Engineering is an FAA authorized third-party Navigation Service Provider with considerable experience in the field of Instrument Flight Procedure (IFP) design, airspace evaluation, airport construction project management, airline coordination, and aeronautical data management. Flight Tech has demonstrated expertise in delivering innovative and collaborative solutions to both aircraft and airport operators and their stakeholders. With fixed-wing and rotorcraft instrument procedure design experience, Flight Tech staff also have extensive airline flight operations backgrounds allowing us to provide accurate feasibility and impact assessments for airport and infrastructure-related projects. With client engagements ranging from large international airport hubs to private CFR Part 91 owner/operators, their commitment is delivering solutions that meet client goals and objectives.

By virtue of their FAA Letters of Authorization (LOAs), Flight Tech can not only design, implement, and flight validate IFPs, but maintain those procedures for clients as well. With core competencies in Obstacle Evaluation/Airport Airspace Analysis (OE/AAA) and United States Terminal Instrument Procedures (TERPS), Flight Tech also possesses proven skill with multiple Instrument Procedure Design Software (IPDS) platforms including the FAA's TARGETS design tool.

3 Required Experience

STAKEHOLDER ENGAGEMENT EXPERIENCE AND METHODOLOGY

TTAD's core values include commitment to the community and the environment. Behind every successful project is a successful public involvement process. Transparency and a willingness to communicate and discuss the issues are critical. The Mead & Hunt team will develop a detailed stakeholder coordination and outreach program with TTAD during scoping.

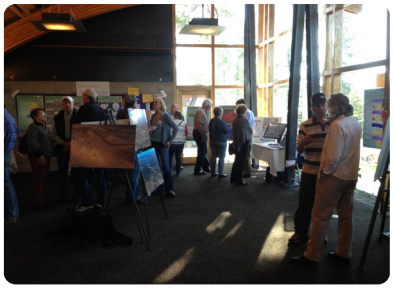
Mead & Hunt and East River PR (ERPR) will provide a combined outreach approach. ERPR is comprised of local, skilled communication professionals who bring thorough knowledge of Truckee and Tahoe Basin dynamics and a powerful relationship network. ERPR understands who the constituents are and how neighborhoods play an important role in project success. The Mead & Hunt Team will utilize best practices in our work to reach target audiences and will implement proven public outreach tactics in the most effective ways possible.

The Mead & Hunt Team's approach will be collaborative and research-based, incorporating valuable feedback that is gathered in-person and virtually. We will implement a circular and inclusive process of communication to listen, monitor, and work closely with a diverse cross-section of the regional population. Our stakeholder outreach list is thorough to include the wide range of constituents within the TTAD's boundaries.

Our goal is to have people feel heard from various interest groups and different neighborhoods, thereby gaining buy-in and support for the Master Plan. We will serve in the role of consensus builder, identifying hot button topics which will spur discussions and guide resolutions to planning questions.

To accomplish these goals, we will strategically and methodically create key messaging that resonates with the community, evolving as necessary to align with the incoming feedback. Our approach will be thoughtful and relevant, whether for a new runway, what the Airport should become in the next 10 to 15 years, or what TTAD's constituents do not want to see the Airport become. Engaging stakeholders with visually appealing, inclusive dialogue, meaningful messaging, and compelling pieces of collateral (a project website, newsletters, surveys, etc.) will be paramount.

All public workshops will be promoted throughout TTAD's boundaries. We will utilize every regional outlet and channel available to provide maximum attendance. Some of these channels include: Sierra Sun, KTKE-FM, Moonshine Ink, Tahoe Weekly, numerous HOA newsletters, organization newsletters, County and Town newsletters, Truckee's Mayor Anna Klovstad's weekly ENews, Truckee Big Life weekly update, and West Shore Association updates. We can also target neighborhood homeowners via a mailed postcard campaign.



We can reach and engage unrepresented community segments using tactics that were successfully implemented for other projects, where our work required us to reach and engage Latino residents who reside in certain pocket neighborhoods in Truckee or Kings Beach. Additionally, we utilize a robust HOA list that includes dozens of contacts within the entirety of TTAD's boundaries, and we can expertly implement an email and text messaging program if desired. We reach and engage with constituents on the channels on which they are active.

Mead & Hunt will supplement ERPR's local knowledge with outreach tactics specific to airports. Mead & Hunt has led outreach for various airport planning projects that involved changes to the runway layout, including Pullman (PUW), Pueblo (PUB), Redmond (RDM), and San Luis Obispo (SBP).

Other recent airport master plan outreach led by Mead & Hunt was a part of the Lake Elmo, Minnesota Airport Runway Relocation Environmental Assessment. There were initial concerns that changes to runways would result in larger aircraft using the airport. Mead & Hunt worked closely with stakeholders and staff to develop and execute a robust, transparent engagement program

Specifically, we understand noise and overflight will be a major factor in this Plan. Noise is a challenging subject, and our team will present comprehensive noise modeling with our understanding of the neighborhoods. We will present more than just the hard metrics but the perception of noise, as well.

Our sincerest hope is that the COVID-19 pandemic is behind us when the Master Plan begins in 2022; however, if the need to pivot from in-person meetings to digital engagement arises, our team has successfully adapted to socially distanced engagement over the past 18 months. We recommend the Plan includes at least one virtual engagement event to reach a larger audience. Whether the pandemic is behind us or not, the ways we gather feedback and communicate with constituents has changed; it is imperative we make online engagement inviting and easy. We will use online tools, such as Zoom, Microsoft Teams, YouTube, a project website, and social media to engage with stakeholders if in-person meetings are not possible. Virtual engagement tools would also include live polling to facilitate discussions, and a post meeting online survey distributed to meeting participants and to those who have opted in to receive Master Plan project updates.

3 Required Experience
GUIDANCE AND REFERENCE DOCUMENT EXPERIENCE

FAA PLANNING EXPERIENCE AND GUIDANCE

Mead & Hunt has been planning and developing airports with the FAA for over 80 years. Our Team for this project has decades of experience with the San Francisco Airports District Office (ADO), the Western Pacific Region, and FAA Headquarters. This experience gives our Team a thorough understanding of FAA policies and processes. We understand the importance of providing airport planning and engineering design that comply with appropriate FAA Advisory Circulars (ACs), orders, and regulations. A selection of recent experience with the San Francisco ADO is below.

Project	Year	Staff
Truckee (TRK) Airport Layout Plan	2021	Musinski, Hooper, Song, Armstrong
Sonoma County (STS) Airport Layout Plan	2021	Musinski, Hooper, Song
San Luis Obispo (SBP) Strategic Plan	2021	Hooper, Andrus, Wolchansky
California State Aviation System Plan	2021	Hooper, Andrus, Wolchansky, Armstrong
Napa (APC) Runway Rehabilitation	2019	Radovanovich, Faucher
Humboldt (ACV) Airport Layout Plan	2018	Musinski, Faucher, Thompson
Yuba (MYV) Airport Layout Plan	2017	Musinski, Faucher

This is a selection of Mead & Hunt's experience. A full list can be provided on request.

Through our relationships with the Airport Consultants Council (ACC), Mead & Hunt has participated in reviewing and commenting on FAA updates to various ACs: AC 150/5070-6B *Airport Master Plans*, AC 150/5300-10H, *Standard Specifications for Construction of Airports*, and AC 150/5320-6F, *Airport Pavement Design and Evaluation*. We are also familiar with the FAA's new guidance on ALP preparation and approval, including FAA Standard Operating Procedures (SOP) checklists 2.00 and 3.00.

Mead & Hunt will also follow the status of the next draft of the Airport Design Advisory Circular, AC 150/5300-13B (Draft AC-13B). FAA AC 150/5300-13 was released in 2012 (updated in 2014 with 13A-Change 1) and contained broad changes to airfield design standards. Draft AC-13B was released for comment in 2020 and proposes changes to airfield design, primarily in regards to taxiway widths and separation standards. We have reviewed Draft AC-13B and have provided comments to the FAA. Mead & Hunt will provide updates to TTAD on the status of 13B and consult with the Ad Hoc committee on updated guidance and how to apply these changes to requirements and alternatives.

LOCAL DOCUMENTS AND GUIDANCE

Mead & Hunt will review state guidance, such as the California Airport Land Use Planning Handbook. Mead & Hunt will also review the local planning documents and guidance from neighboring municipalities and districts. These will be summarized on how each pertains to the Airport and integrated into alternative analysis where applicable. As an example, proposed alternatives that effect adjacent off-airport property will be vetted against the TTAD Land Management Plan and the 2016 Airport Trails Master Plan to review consistency. The Noise and Annoyance Handbook will be reviewed when screening any proposed alterations to flight patterns.

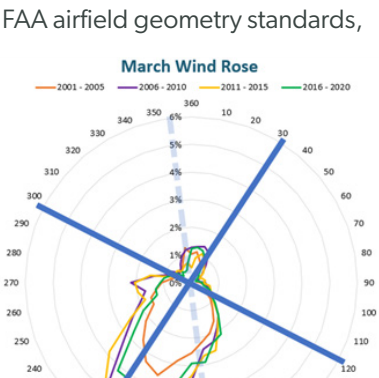
3 Required Experience
RELEVANT EXPERIENCE OF THE FIRM

CURRENT TRK PROJECT EXPERIENCE

Mead & Hunt has been involved with ongoing analysis on the conceptual third runway since the 2015 Master Plan. In 2020, we worked with TTAD to develop the Alternative Runway Preliminary Analysis report. This analysis reevaluated the alternative from the 2015 Master Plan in the context of the latest FAA airfield geometry standards, explored the likelihood of FAA support and approval, and provided a summary of the process to fully evaluate this runway with the potential for construction.

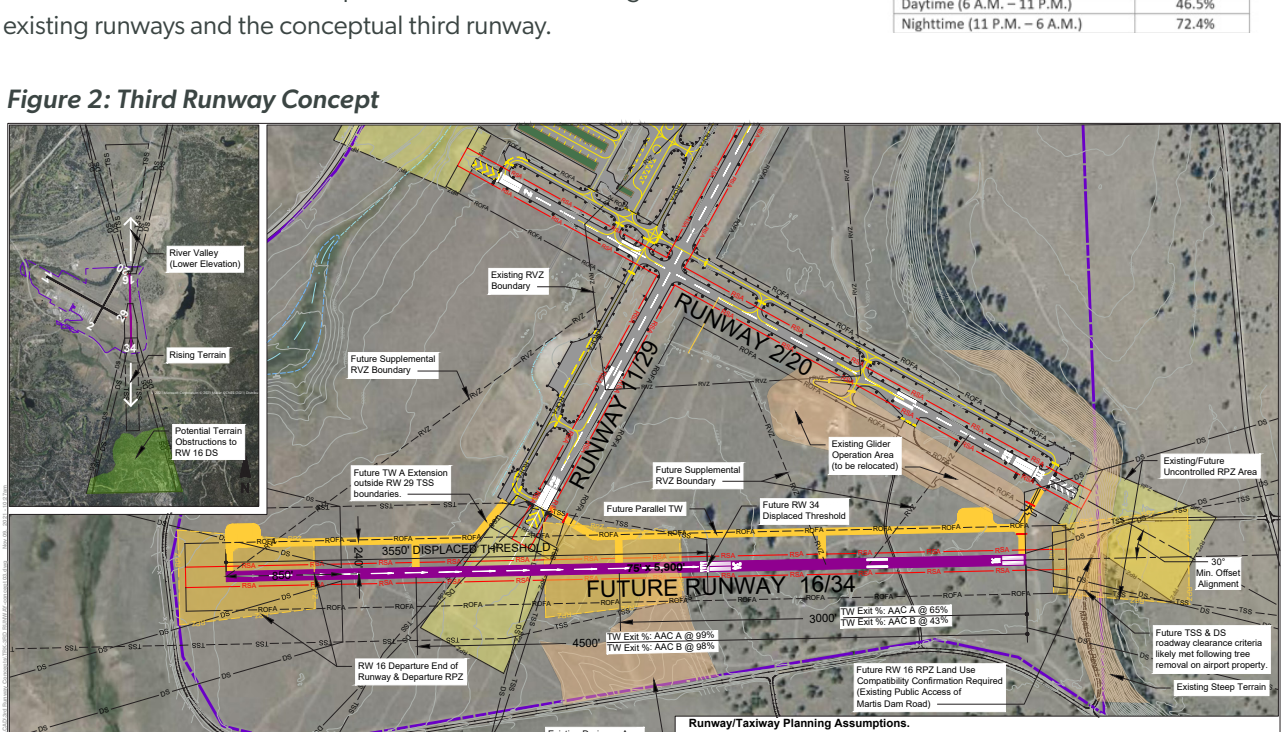
In 2021, Mead & Hunt continued to support TTAD in advancing the third runway concept. This included layouts that illustrate how pavement for a third runway would likely be designed and how this intersects with existing infrastructure. **Figure 2** shows a third runway concept with design surfaces and airspace surfaces.

Mead & Hunt also recently developed a Wind Analysis study that documents wind data over the past 20 years at TRK. This data is illustrated to show historical wind directions and speeds in relation to the alignments of the existing runways and the conceptual third runway.



March (2001-2020) Calm Wind Percentages	
Full Day (24 Hour)	57.1%
Daytime (6 A.M. – 11 P.M.)	46.5%
Nighttime (11 P.M. – 6 A.M.)	72.4%

Figure 2: Third Runway Concept



PAST TRK PROJECT EXPERIENCE

Some of our best experience is the experience we have at your Airport. We have enjoyed working with TTAD and TRK staff over the years and providing creative solutions on many projects, including the ones below.

2020 Super T-Hangar Financial Analysis

This study analyzed the financial implications of TTAD developing new, large T-hangars through proforma cash-flow projections.

2020 Obstruction Mitigation Plan

The Obstruction Mitigation Plan used data from the 2018 Airports Geographic Information System (AGIS) Survey to identify airspace obstructions. Obstructions were prioritized for removal based on surface penetration. Phase 1 (plan and detailed airspace analysis) was completed 2019 with Phase 2 (ground survey to identify specific trees to cut) completed in 2020.

2019 Hangar 2 Concept and Budget Report

The Concept and Budget Report (CBR) established a conceptual location, layout, and cost estimates to reconstruct Hangar 2, which collapsed due to the weight of accumulated snow in 2015. The CBR included multiple design alternatives.

2019 PAPI Feasibility & Siting Analysis

This study evaluated the viability of installing a Precision Approach Path Indicator (PAPI) on Runways 2, 11, and 29.

2019 Wildlife Hazard Site Visit and Preliminary Report

This project included a week-long site visit and field study to determine what level of hazard analysis would be required by the FAA. The data obtained during the visit was documented in the Wildlife Hazard Site Visit Report.

2018 AGIS Survey

The AGIS survey acquired information critical to flight procedure development. The data was also used to manage tree growth near TRK, protecting approach and departure corridors.

2018 Preliminary Air Traffic Control Tower Analysis

The Preliminary ATCT Analysis determined the required height for a permanent ATCT in the location of the temporary tower and provided rough order of magnitude cost estimates for construction.

2016 Demand Drivers Study

The Demand Drivers Study investigated which variables correlated with changes in aviation activity at TRK. Analysis included factors that were in and out of the control of TTAD. The core question for this study was: Does the presence of certain airport infrastructure, improvements, and aviation products, services, pricing, and facilities encourage aircraft operators to utilize TRK when they might otherwise choose other airports in the region or not come to the area at all?

2016 Airspace Study and Public Outreach

The project team held multiple outreach events to solicit feedback on possible changes to flight procedures in and out of TRK.

2015 Executive Hangar Financial Analysis

This study evaluated the financial implications of different hangar development strategies. The project team prepared pro forma financial projections and presented the results to TTAD. This information guided TTAD decisions about hangar development.

Planning, Environmental, and Sustainability Support Services (2006-2021)

Aspen/ Pitkin County Airport

ASPEN, CO

With local attractions such as the Maroon Bells, Independence Pass, four ski areas, and the Aspen Institute, this central Colorado Rocky Mountain community is always bustling with activity. Aspen/ Pitkin County Airport (ASE) utilizes primarily "contra-flow" operations (departing traffic initially flows into the arriving traffic stream). Contra-flow operations are required primarily due to terrain and aircraft performance considerations. It is situated within sight of all four ski mountains and has had a history of unique environmental and noise challenges.

Because ASE is located at the narrow end of a high mountain valley, the airport is hemmed in by terrain features, a state highway into town that is a scenic corridor and surrounding commercial and residential development. Limited developable space for landside facilities, as well as a non-standard airfield conditions, result in challenging planning and environmental considerations. The Mead & Hunt Team have completed the following projects over the years:

- Fly Green/Fly Quiet Program (focusing on noise and emission reductions) (2021)
- Environmental Assessment for terminal relocation and runway shift (2018)
- Support on climate action planning and integration with Aspen and Pitkin County plans (2017)
- Three Airport Master Plan Updates (Sustainable Master Plan in 2012)
- Development of a Sustainable Construction Management Plan (2012)
- Environmental Assessment for a runway extension (2008)
- Aircraft parking study (2007)
- Runway extension supplemental planning study (2006)
- Greenhouse gas emission inventories (about every three years since 2006 to present)

RELEVANCE TO TRK MASTER PLAN UPDATE

- **Application of best practices in sustainability and environmental stewardship**
- **Public outreach and coordination in a community with a population less than 30,000**
- **Evaluation of flight procedures, noise exposure, and airport development**
- **Charting the path from planning to environmental analysis**
- **Planning and environmental analysis at an airport in a mountainous area**

FEATURES

- **Mead & Hunt Office of Performance:** Denver, CO
  Disciplines Performed at office: Planning, Sustainability, Environmental
- **Mead & Hunt Office of Performance:** Tulsa, OK
  Disciplines Performed at office: Planning, Sustainability, Environmental

CONTACT
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Airport Master Plan (Ongoing)

Mead & Hunt is leading the Airport Master Plan update at Pueblo Memorial Airport (PUB), located east of the Rocky Mountain front range in south-central Colorado, Pueblo. The primary component of the PUB Master Plan process involved the evaluation of airfield capacity to accommodate an additional runway. Mead & Hunt performed an in-depth analysis of the existing airfield configuration and determined that additional runway capacity would be needed by the end of the planning period. Mead & Hunt, PUB staff and ATCT personnel evaluated five preliminary runway locations. Further analysis used the RunwaySimulator computer model to quantify the capacity enhancements. Refined alternative locations provided similar capacity enhancements, had similar environmental impacts, and reduced or eliminated wake turbulence concerns for small training aircraft operating in the same airspace as larger commercial service, GA, and military aircraft. The preferred alternative is a third parallel runway location that maximizes capacity, meets long-range goals, and fulfills the community's desire of accommodating continued economic development.

Mead & Hunt engaged stakeholders, gathering input from community leaders and the public, and building FAA support, through an extensive outreach and communications plan. The formation of a Study Advisory Committee provided feedback that guided the Master Plan process. Of the six Study Committee meetings and two public open houses conducted, Mead & Hunt used the Teams virtual platform for five of the meetings and one open house due to COVID-19. Additionally, Mead & Hunt used PUB's website, subscriptions to the City's Aviation News Flash email list, and social media platforms to disseminate information, publish working papers, provide meeting notices, and submit feedback.

Mead & Hunt coordinated early with the FAA for PUB capacity enhancements. This included justifying the use of the new runway to the FAA, and that this new runway would increasing capacity and be available to all users at PUB.

FEATURES

- **Mead & Hunt Office of Performance:** Denver, CO
  Disciplines Performed at office: Planning
- **Mead & Hunt Office of Performance:** Tulsa, OK
  Disciplines Performed at office: Planning

Pueblo Memorial Airport

PUEBLO, CO

RELEVANCE TO TRK MASTER PLAN UPDATE

- **Evaluation of alternatives for a new runway**
- **Implementation of a detailed public communications plan**
- **Coordination with FAA**
- **Analysis of general aviation operations and facilities**

Greg Pedrosa, Director of Aviation
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CONTACT

Runway Realignment Program (Ongoing)

For a decade, Mead & Hunt has supported the Pullman-Moscow Regional Airport with planning, environmental, permitting, design, construction administration and program management for a $154 million runway realignment program. Mead & Hunt developed a two phased airport master plan and environmental assessment, which resulted in a preferred alternative to rotate the runway 5.5 degrees, provide new taxiway infrastructure, and implement a new instrument approach procedure.

The runway realignment was necessary to bring the airport into compliance with FAA design standards and improve all-weather reliability. Implementing the preferred alternative required the management of several technical challenges, which included moving nearly eight million cubic yards of earth, channeling a creek through a 3,000-foot box culvert while maintaining flood plain conveyance and capacity, and acquiring land for new runway construction and approach protection.

After completing the Master Plan and Environmental Assessment, Mead & Hunt was selected in 2015 to continue into the engineering design phase and began construction of the realigned runway. As part of the design, Mead & Hunt devised a program to balance the timeline of finances with constructibility and phasing, since the new realigned runway was built next to the existing runway with minimal disruption to operations and businesses. This resulted in the project – from planning to design to construction – operating more efficiently; the quality of construction was not compromised due to small work areas or short construction windows; and hazards to operations, the public, and airport tenants were mitigated without extensive airfield closures. The result is a new 7,100-foot runway and parallel taxiway, a new Instrument Landing System with CAT-I capability, and a site that accommodates future improvements and continued implementation of their airport master plan. This project has thus far been on-schedule and within budget.

Pullman-Moscow Regional Airport

PULLMAN, WA

RELEVANCE TO TRK MASTER PLAN UPDATE

- **Planning and alternative analysis leading to environmental analysis**
- **Evaluation of alternatives for a realigned runway**
- **Stakeholder coordination and outreach**
- **Detailed funding and implementation plan**

FEATURES

- **Mead & Hunt Office of Performance:** Portland, OR
  Disciplines Performed at office: Planning, Environmental, Design
- **Mead & Hunt Office of Performance:** Denver, CO
  Disciplines Performed at office: Environmental, Design

CONTACT
Tony Bean, AAE, Executive Director
509-338-3223
tony.bean@pullman-wa.gov

Planning, Environmental, and Sustainability Services (Ongoing)

Jackson Hole Airport

JACKSON, WY

The Jackson Hole Airport is the only commercial airport in the United States located entirely within a National Park. As such, the airport must be vigilant about environmental concerns and noise impacts to nearby wildlife and park visitors. Mead & Hunt led planning, environmental, and sustainability work at Jackson Hole Airport to address the complex issues surrounding this mountain resort and national park-based airport, with significant general aviation activity. All projects include close coordination with vital stakeholders, including the National Park service. Mead & Hunt has completed several projects at this Jackson Hole Airport.

On-Call Environmental and Sustainability Planning (Ongoing): Mead & Hunt has provided additional environmental and sustainability planning services including sustainability management plan development, waste management planning and toolkit development, goal setting and tracking, greenhouse gas emissions inventories, carbon reduction and offsetting strategies, PFAS strategy and support, fly quiet programs, among others.

Part 150 Noise Compatibility Study (2018): The airport is located in an environmentally sensitive area where airport noise and aircraft overflight are critical community issues. The first Part 150 study resulted in a use agreement between the National Park Service and the airport board. The study and recommendations were controversial but led to a noise reduction program that has successfully reduced noise levels both in the Park and the surrounding area. In addition, seasonal ongoing noise monitoring was implemented to ensure maintenance of the noise reduction program.

Focused Master Plan (2010): This Focused Master Plan was undertaken in response to the unusual frequency of runway excursion incidents. This focused on improving the safety of aircraft operations while minimizing or avoiding environmental impacts. The study's purpose was to identify operational challenges that contribute to runway excursions. These challenges include Jackson's high-density altitude, runway length, mountainous terrain, winter weather, mix of air traffic, noise abatement procedures, and runway lighting. Particular focus was given to landing risk factors, as all of the airport's runway excursions had been associated with landings. This analysis was complemented by a detailed inventory of airside systems, operator and airport staff procedures, and the airport operating environment, to identify facilities and operations enhancement constraints and opportunities. The study also benchmarked facilities and operations at other airports with similarly challenging operating environments to identify best practices and runway excursion mitigation strategies.

FEATURES

- **Mead & Hunt Office of Performance:** Denver, CO
  Disciplines Performed at office: Planning, Sustainability, Environmental
- **Mead & Hunt Office of Performance:** Santa Rosa, CA
  Disciplines Performed at office: Planning

RELEVANCE TO TRK MASTER PLAN UPDATE

- **Mountain airport with environmental and sustainability concerns**
- **Challenges with general aviation growth, especially with significant growth in GA operations during COVID**
- **Complex stakeholder coordination in a community with less than 30,000 people**
- **Understanding of local requirements and processes**

CONTACT
Jim Elwood, Director of Aviation
307-733-7682
jim.elwood@jhairport.org

Airport Master Plan (2018)

This update evaluated the airport's needs over a 20-year planning horizon for airfield, airspace, terminal area, and landside facilities. The goal was to document the orderly development of airport facilities essential to meeting city needs, in accordance with FAA standards, and in a manner complementary with community interests. The plan resulted in a long-term development strategy envisioned by the city, reflective of the updated airport capital improvement program, and graphically depicted by the airport layout plan drawings. The approved plan allowed the city to satisfy FAA assurances, and seek project funding eligible under the respective federal and state airport aid program.

Redmond Municipal Airport

REDMOND, OR

Changes to the Redmond community reinforced the need for a new master plan to examine growth projections and future facility needs. The airport is centrally-located in Central Oregon, an area that has been experiencing unprecedented growth in population and business interests. The region's physical location on the east side of the Cascade Mountains contributes to the favorable weather experienced year-round. This is a major factor in the attractiveness to both young families and those looking to retire. These growth patterns were evaluated in the Plan and included in all facility design and analysis for the airport's 20-year plan.

As a strategic visioning process, the Plan was structured to be responsive to airport needs while being inclusive of broader community considerations. This approach built stakeholder support for Plan recommendations and facilitated acceptance. The Plan's public involvement program was targeted to engage key airport stakeholders (city and county elected officials, community leaders, on- and off-airport stakeholders), address comments, and actively encourage public participation. This project was completed on-schedule and within budget.

RELEVANCE TO TRK MASTER PLAN UPDATE

- **Evaluation of runway alternatives and flight procedures**
- **Coordination and outreach with a rapidly growing community**
- **Coordination with FAA to justify approval and funding**

FEATURES

- **Mead & Hunt Office of Performance:** Portland, OR
  Disciplines Performed at office: Planning, Environmental
- **Mead & Hunt Office of Performance:** Santa Rosa, CA
  Disciplines Performed at office: Planning

CONTACT

Fred LeLacheur, Airport Engineer
541-504-3087
fred.lelacheur@flyrdm.com

Planning and Environmental Services (Ongoing)

Friedman Memorial Airport

HAILEY, ID

Located in the scenic Wood River Valley, Friedman Memorial Airport (SUN) accommodates commercial and general aviation activity for South Central Idaho and the Sun Valley Resort area. The airport faces constraints at its existing site, including non-compliance with FAA design standards; contra-flow operations, mountainous terrain that limits aircraft approaches and departures; and a small property footprint. The airport sponsor and FAA studied the limitations of the current airport site and concluded a replacement airport in a less constrained location would better serve the community's needs. Due to its location in a built-up urban environment, many support relocating the airport. Meanwhile, others in the community contend the proposed site would be too inconvenient to the resort area or negatively affect the local economy and environment. For these reasons, airport planning issues are controversial and community outreach is vital. In 2011, the FAA suspended further work on the replacement airport. Following the suspension, six modifications of airport design standards (MOS) were approved by FAA for the existing site, which imposed restrictions on aircraft types and operating procedures. Implementation of the MOSs required removing or reconfiguring numerous airport facilities.

- **Airport Master Plan (2017):** Renewed focus on the existing site led the airport sponsor to update its Master Plan. The Master Plan analyzed current and forecasted operations and facilities to further evaluate the feasibility of the existing airport site. The Plan follows a "dual path" approach focused on satisfying user needs, whether at the existing site or a replacement site. We identified operational thresholds and other potential future events that may indicate the practicality of either significantly reconfiguring the existing site or relocating the airport within the next 20 years. Such thresholds include aircraft fleet transitions, MOS invalidation, peak operations and enplanement increases, and encroachment of incompatible land uses on the airport periphery. The project resulted in a recommended 20-year conceptual development plan for the existing site, re-evaluation of the most technically feasible replacement sites, and financial analysis for both site scenarios.
- **Environmental Assessment – Property Acquisition (Ongoing)**

RELEVANCE TO TRK MASTER PLAN UPDATE

- **Evaluation of runway and flight procedure alternatives at an airport in a mountainous area**
- **Extensive public engagement in a community with a population less than 30,000**
- **Coordination with the FAA at the local, regional, and national level**
- **Financial feasibility analysis**

FEATURES

- **Mead & Hunt Office of Performance:** Denver, CO
  Discipline Performed at office: Planning, Environmental, Design, Sustainability
- **Mead & Hunt Office of Performance:** Portland, OR
  Discipline Performed at office: Planning, Environmental
- **Mead & Hunt Office of Performance:** Minneapolis, MN
  Discipline Performed at office: Planning

CONTACT

Chris Pomeroy, Airport Manager
208-788-4956 x106
chris@iflysun.com

3 Required Experience

ASSIGNED STAFF – ORGANIZATIONAL CHART

TRUCKEE TAHOE AIRPORT

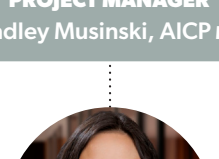
PROJECT TEAM

MH Mead & Hunt
HM HMMH
FTE Flight Tech Engineering
ER East River PR

Task leaders/key personnel are denoted with "✈".

PROJECT MANAGER
Bradley Musinski, AICP **MH**

PRINCIPAL-IN-CHARGE
Jon Faucher, PE, PMP **MH**



DEPUTY PROJECT MANAGER
Kate Andrus, AICP, LEED GA **MH**

QUALITY CONTROL
Mitch Hooper, MBA **MH**

Environmental Analysis

ALTERNATIVE SCREENING
— Lauren Rasmussen **MH** ✈

SUSTAINABILITY
— Jen Wolchansky, AICP, ENV SP **MH**

CEQA & GIS
— Marieke Armstrong **MH**

Noise Analysis

MODELING & CONTOURS
— Gene Reindel **HM** ✈

AIRCRAFT OPERATIONS & FLEET MIX
— Patricia Song **MH**

Airside Planning

PLANNING LEAD
— Ryan Hayes, CM **MH** ✈

AIRFIELD GEOMETRY ANALYSIS
— Cody Fussell **MH**

PHASING & IMPLEMENTATION
— Ryan Dittoe, AAE **MH**

ENGINEERING FEASIBILITY & COST ESTIMATES
— Alex Radovanovich, PE **MH**

Public Coordination

PUBLIC OUTREACH MEETINGS
— Katie Shaffer **ER** ✈

AIRPORT OUTREACH
— Maranda Thompson **MH**

Landside Analysis

NON-AVIATION LAND USE
— Dustin Wolff, AICP **MH**

Airspace Analysis

INSTRUMENT PROCEDURES FEASIBILITY
— Alec Seybold, CM **FTE** ✈

3 Required Experience

KEY PERSONNEL AVAILABILITY AND PROXIMITY OF OFFICES

Our Team has a proven track record meeting schedules, responding to unanticipated changes, and fast-track critical tasks. We provide the support our clients' need, which could include information or analytical needs requested by TRK, the FAA San Francisco ADO, elected officials, and other stakeholders. With each request, we will provide a quick and quality response. The Mead & Hunt Team is committed to providing this level of responsiveness and customer service.

Most work for the Master Plan Update will be accomplished by aviation planners from the Mead & Hunt office in Santa Rosa (Windsor), California. Since Mead & Hunt is a nationwide company, subject matter experts in other offices will be highly involved in this Plan to provide novel perspectives and ideas. Staff from our Sacramento, Denver, Chicago, Ontario, Portland, and Tulsa offices will support technical analysis, solutions, administration, and production.

Bradley has successfully delivered planning projects for you since 2012, and the entire project Team is committed to continuing this legacy. Workload fluctuates throughout the course of a Master Plan, and Bradley will maintain a project schedule to keep staff apprised of when they will be needed. **At no point will our capacity and availability be a challenge. Providing responsive customer service is important to us, and we provide a Team that is committed to supporting your goals and initiatives.**

KEY PERSONNEL	CONCURRENT PROJECTS	PROJECTED AVAILABILITY
Bradley Musinski	CHS Terminal Plan, STS Planning On-Call	50%
Kate Andrus	JAC On-Call, DEN On-Call	40%
Mitch Hooper	LGB Advanced Air Mobility Planning, RDD Strategic Plan	30%
Ryan Hayes	AGS Terminal Area Plan, SUN Terminal Area Plan	50%
Lauren Rasmussen	HDN On-call Planning/Environmental, SUN Terminal Area Plan	40%
Katie Shaffer (ERPR)	Tahoe Regional Planning Agency State Route 89 Trail Feasibility Study, KingsBarn Realty Capital redevelopment project, Kings Beach	40%
Gene Reindel (HMMH)	MSN Part 150, CLT and LAX community roundtables	30%
Alec Seybold (FTE)	SUN Airspace Optimization Project, JAC Departure Procedure Assessment, ORF Runway Rehabilitation Planning	40%

Bradley Musinski, AICP

Project Manager

Bradley is an accomplished project manager with over 15 years aviation planning experience at airports all over the country. Bradley has managed many planning projects at TRK since his work on the 2015 Airport Master Plan. He regularly attends TTAD Board meetings, and understands TTAD's mission to provide safe, functional, and sustainable facilities while reducing impact on those that live and work near the Airport. Bradley has contributed to previous TTAD outreach projects that addressed overflight and annoyance.

Bradley has extensive experience leading diverse teams of planners, environmental specialists, engineers, and other specialists. He has recent experience leading other planning projects to success with the FAA San Francisco Airports District Office, including a 2021 project at Sonoma County Airport (STS). Bradley has extensive experience in alternatives analysis and a thorough understanding of FAA design standards for airfield geometry and airspace analysis. His familiarity with the Truckee-Tahoe Region, TRK, the FAA San Francisco ADO, and your stakeholders position him, and the rest of the Mead & Hunt Team, for success on this project.

EDUCATION

- BS, Urban and Regional Planning, Michigan State University

REGISTRATIONS

- American Institute of Certified Planners (AICP)

AVAILABILITY FOR THIS PROJECT

- 50%

RELATED PROJECTS

Airport Layout Plan Update, Charles M. Schulz – Sonoma County Airport (STS) – Santa Rosa, CA
Bradley was project manager for a comprehensive ALP update. This project studied correcting airfield geometry to eliminate confusing geometry, relocating general aviation facilities, updating operations forecasts, noise analysis, and environmental review.
Relevance to TRK: Complex pavement geometry was leading to runway incursions, and corrections looked at new FAA guidance on taxiway standards. Much of the airfield contains wetlands and other environmentally sensitive areas; therefore, extensive environmental analysis of the proposed alternatives was performed. This project required regular coordination with the FAA San Francisco ADO on design alternatives and looked at noise analysis and realigning an instrument flight procedure.

Airport Master Plan, Reno-Tahoe International Airport (RNO) – Reno, NV
Bradley was lead planner for the RNO Master Plan. The master plan was comprehensive and looked at pavement design, airspace analysis, and relocating airfield facilities to accommodate terminal expansion. Bradley was instrumental in producing an ALP that was approved by the FAA.
Relevance to TRK: The RNO Master Plan included an extensive stakeholder coordination and outreach program. Much like Mead & Hunt's proposal for the TRK Master Plan, the RNO proposal included a local outreach partner with strong ties to the community. This allowed the Mead & Hunt Team to focus on analysis and presentation while the local experts handled the messaging and communication. This division of roles led to man successful engagement events, and strong community support for planning outcomes.

Kate Andrus, AICP, LEED GA

- MA, Journalism and Mass Communication, with a focus in science writing, University of Colorado – Boulder
- BA, Environmental, Population and Organismic Biology, University of Colorado – Boulder
- Certificate in Environmental and Science Policy

REGISTRATIONS

- American Institute of Certified Planners (AICP)
- LEED Green Associate (GA)

AVAILABILITY FOR THIS PROJECT

- 40%

Deputy Project Manager

Kate has extensive experience as a senior environmental planner and project manager on projects of all sizes. She leads Mead & Hunt's sustainability planning practice, and she creatively finding ways to maximize sustainability through initiatives that meet the "triple bottom line" of financial, environmental, and social considerations, within the context of complex airport operations.

Kate is the Master Plan's Deputy Project Manager. In this role, she is responsible for running the Team of specialists shown on the organizational chart. She will see that Master Plan documents are accessible, approachable, and accurate. While she is new to Truckee, she has extensive experience working at airports in noise-sensitive mountain communities. Her experience working on outreach and stakeholder integration into the planning process will be reflected in this Master Plan.

RELATED PROJECTS

On-Call Environmental Services, Aspen/Pitkin County Airport (ASE) – Aspen, CO

Kate managed this contract to perform environmental on call services relating to NEPA documentation, sustainability planning, noise and fly quiet reporting, and environmental compliance. Multiple environmental assessments were prepared under this contract.

Relevance to TRK: ASE sits in a highly noise and environmentally sensitive community, which features well defined summer and winter peaks. The Airport receives a considerable amount of business aviation traffic. Kate's experience working with the Airport's neighbors and stakeholders will be applied to this Master Plan.

Jackson Hole Airport On-Call Environmental Support, Jackson Hole Airport (JAC) – Jackson, WY

Kate and her team have provided a wide range of environmental services during this contract. The Airport sits inside of a national park and has highly restrictive regulations that govern its operation. The community is generally supportive of the Airport; however, every development project features a considerable level of stakeholder coordination and outreach to proactively address the community's concerns.

Relevance to TRK: JAC is a mountain destination airport, and a key lifeline for residents and visitors to the area. In order for the Airport to be successful, it must coexist with the natural and manmade environment that surrounds it. Kate will take lessons learned from years working at JAC and apply them to the challenges and opportunities facing TRK.

Jon Faucher, PE, PMP

Principal-In-Charge

With 29 years of experience in project and program management, planning, design, and construction administration at airports nationwide, Jon is one of our most knowledgeable aviation staff members. As the principal-in-charge for your project, Jon will see that appropriate staff and resources are available.

EDUCATION

- BS, Construction Administration, University of Wisconsin

REGISTRATION

- Licensed Professional Engineer – Wisconsin
- Project Management Professional (PMP) – Project Management Institute
- Licensed Private Pilot

AVAILABILITY FOR THIS PROJECT

- 10%

RELATED PROJECTS

Airport Runway Development Program, Pullman-Moscow Regional Airport (PUW) – Pullman, WA

The PUW runway program is one of Mead & Hunt's biggest aviation success stories. The project ream started with a Master Plan, and led the project through environmental, financing, design, and into construction. The resulting project has dramatically improved air service access for the communities served by the Airport. Jon was instrumental in providing oversight for the project, working with elected officials, and making staff available to keep the project advancing.

Relevance to TRK: Runway development is highly strategic. Everything from justification and permitting to funding and design, must be thought through to minimize delays, cost overruns, and project-stalling uncertainties. Jon's experience at PUW can be applied to the TRK runway planning to guide whatever projects emerge from the Master Plan to completion.

Airport Master Plan, Reno-Tahoe International Airport (RNO) – Reno, NV

Jon served as principal-in-charge for the nearby RNO Master Plan. His role on this project included Airport and FAA coordination, meeting with stakeholders, and leading a team of technical specialists to deliver the Master Plan analyses.

Relevance to TRK: In addition to geographic proximity, Jon's work on RNO is one of many examples where he was called on as the Principal-in-Charge to help the project team identify the right staff to meet the Airport's needs. Jon's hands-on approach enabled quick resolutions to staffing challenges which kept the project moving forward and minimized disruptions.

Mitch Hooper, MBA

Quality Control

Mitch manages Mead & Hunt's West Coast Aviation Planning practice and is a senior aviation planner with nearly two decades of airport planning experience. Mitch has worked with TTAD throughout his career and is highly familiar with the challenges and opportunities facing TRK. From tenant and community relations to hangar and runway development, Mitch has been close to all of Mead & Hunt's work at TRK. This familiarity will be applied to document review and directing technical resources, producing a Master Plan that presents the Airport's development vision in a clear, concise manner that supports stakeholder buy-in and FAA financial participation.

EDUCATION

- MBA, University of Oregon
- Certificate, Airport Financial Management, IATA Training and Development Institute
- BS, Urban Planning, Specializing in Transportation Planning and Geographic Information Systems, Arizona State University

AVAILABILITY FOR THIS PROJECT

- 30%

RELATED PROJECTS

Airport Master Plan, Bend Municipal Airport (BDN) – Bend, OR
Mitch provided technical review and quality control services for the BDN Master Plan. Key areas of focus for this plan included development of an airport traffic control tower (ATCT), and construction of a parallel runway to help relive capacity challenges.
Relevance to TRK: BDN is a mountain resort community and has experienced substantial population growth in the past decade. The Airport has robust general aviation activity. Justification for the ATCT and new runway required strong analytical review and extensive FAA coordination. Mitch held a similar role on this project to what he will hold on the TRK Master Plan.

Airport Master Plan, Coeur d'Alene Airport (COE) – Coeur d'Alene, ID
Mitch was the project manager and lead planner for the COE Master Plan. Key focus areas included evaluating the airports runway configuration, developing a wide array of aeronautical facilities to support general aviation and the U.S. Forest Service, and building support for the Airport's goals with the multiple jurisdictions that surround COE.
Relevance to TRK: The COE Master Plan focused heavily on runway development and relations with neighboring communities. Lessons learned during the outreach and coordination efforts can be directly applied to this Master Plan.

Airport Master Plan, Redmond Municipal Airport (RDM) – Redmond, OR
Mitch was the project manager and lead planner for the RDM Master Plan. This project included evaluation of the Airport's crosswind runway and development planning for runway improvements, general aviation development, and continued growth of the U.S. Forest Service base at the Airport.
Relevance to TRK: The airfield planning for RDM required creative analysis of runway use, wind patterns, and overflight. Mitch and his team worked with data, operators, the Airport, the surrounding City and County, and the FAA to develop an airfield improvement plan that met the Airport's needs and minimized undue negative impacts on those who live and work around RDM.

Lauren Rasmussen

Environmental Lead | Alternative Screening

Lauren is an airport environmental and airport planner with over 14 years of experience. Her educational and professional background provide her with a robust skillset for developing and evaluating airport infrastructure improvements from an environmental perspective. She has worked on master plans, environmental documents, and design projects, which means she understands how to move ideas from concept to reality while satisfying regulatory requirements and meeting stakeholder needs. Lauren's role on the TRK Master Plan is to develop an evaluation framework for the improvement alternatives and to then perform the necessary analysis. Her work will provide airport stakeholders with a clear, non-biased presentation of the opportunities and challenges associated with each improvement alternative.

EDUCATION

- Master's, Urban and Regional Planning, University of Colorado
- MS, Historic Preservation, University of Colorado
- BS, Environment, Textiles and Design, University of Wisconsin

AVAILABILITY FOR THIS PROJECT

- 40%

RELATED PROJECTS

Terminal Area Plan, Ketchikan International Airport (KTN) – Ketchikan, AK

Lauren was the environmental lead for the this plan that studied the terminal building and adjacent facilities. With no roadway access, access is from a ferry system across the Tongass Narrows from the airport to the Town of Ketchikan.

Relevance to TRK: Like TRK, mountainous terrain limits overflight corridors and consolidated flight paths. Noise exposure varies in the community with some neighborhoods exposed more than others. Communication with stakeholders and the community were key to this project.

Part 150 Noise Compatibility Study Update, San Diego International Airport (SAN) – San Diego, CA

Lauren was one of the lead planners on the Part 150 update. As a busy airport in an urban area, the Airport is subject to a substantial amount of public attention. The project team needed to provide the Airport's stakeholders with a fair and unbiased analysis of the airport's noise, perform significant public outreach, and provide technical expertise to public discussions.

Relevance to TRK: Many of the stakeholder that live and work near SAN are located at an elevation higher than the airfield, which heightens the perception that aircraft are flying near their home or business. Lessons learned about community outreach, listening sessions, and simple presentation of technical data can be applied to the TRK Master Plan.

Ryan Hayes, CM

Airside Planning Lead

Ryan is one of Mead & Hunt's most experienced airport planners, and prior to this he worked for McAllen International Airport and the Nebraska Department of Aeronautics. Ryan has significant experience with planning studies for airports in the mountain resort areas in Colorado, Wyoming, and Alaska's Inside Passage. Ryan is very well-versed technically, analytical in his approach, and creative in his thought process. He has experience leading diverse teams of technical experts and presenting complex information in a way that is accessible to a broader audience.

Ryan's role on this project is to lead planning analysis. He represents a fresh set of eyes for the challenges and opportunities facing TTAD; however, he is highly experienced, qualified, and has worked at airports in similar mountain resort communities across the west coast. Paired with Mead & Hunt's planners who have decades of experience at TRK, Ryan and his team will provide new solutions to old challenges while maintaining the interests of the Airport's stakeholders and neighbors.

EDUCATION

- MPA, Specialization in Aviation Administration, University of Nebraska
- BS, Public Administration, University of Nebraska

REGISTRATION

- American Association of Airport Executives, Certified Member (CM)

AVAILABILITY FOR THIS PROJECT

- 50%

RELATED PROJECTS

Terminal Area Plan, Ketchikan International Airport (KTN) – Ketchikan, AK

Ryan led the study of the terminal building and surrounding facilities at KTN. This Airport has no roadway access and instead operates a ferry system across the Tongass Narrows from the airport to the Town of Ketchikan.

Relevance to TRK: Like TRK, Ketchikan experiences strong summer and winter tourism peaks. The mountainous terrain surrounding the Airport funnels aircraft into consolidated flight paths, that can expose certain parts of the community to noise. Stakeholder coordination and outreach were key to this project.

Airport Master Plan Update, Pueblo Memorial Airport (PUB) – Pueblo, CO

Ryan is project manager for this Update that evaluated airfield capacity to accommodate an additional runway, with in-depth analysis of the existing airfield configuration and determined that additional runway capacity would be required.

Relevance to TRK: The Update evaluated alternative runways, required coordination with ATCT personnel and coordination with the FAA to garner support and funding, and implemented a detailed public communications plan.

east river PR
DIGITAL + INTEGRATED MARKETING

Katie Shaffer

Public Coordination Lead | Public Outreach Meetings

Katie Shaffer is CEO and founder of East River PR. She brings several decades of experience in publishing, marketing, writing and public relations to a diverse range of clients. She has extensive experience executing effective public outreach campaigns and community relations initiatives over the past 20 years. She is well-connected in the region and leads a team of 15 marketing professionals who help deliver expert communications services to clients.

Katie is a member of the Public Relations Society of America (PRSA), Sierra Nevada Chapter. She earned a PRSA Silver Spike Award of Excellence in recognition of superior professional achievement & performance for leading a PR campaign for a local luxury lifestyle firm and for executing a highly successful public outreach campaign for a Lake of the Pines (Auburn area) public outreach project.

EDUCATION

- Information Sciences Graduate Program Certificate, Denver University
- BA, English, Ohio Wesleyan University

AVAILABILITY FOR THIS PROJECT

- 40%

RELATED PROJECTS

State Rout 89 Trail Feasibility Study, Tahoe Regional Planning Agency – West Shore Lake Tahoe, CA

Katie serves as lead strategist for this trail study project. Key areas of focus include stakeholder identification, branding, website creation, oversight of virtual webinars and small neighborhood meetings utilizing real-time polling functions and executing post-meeting surveys and analytics. A direct mail campaign reaching homeowners in targeted neighborhoods, an email marketing program and a PR media blitz are other strategies in place.

Relevance to TRK: Many of the stakeholders for the SR 89 Trail Study are TTAD constituents. ERPR has a keen knowledge of the region and a comprehensive stakeholder list that includes dozens of entity contact information. Their work on this project is similar to the work they would execute for the TRK Master Plan.

Tahoe Outreach Liaison, Caltrans District 3 – Lake Tahoe Basin, CA

Katie served in the lead role of a seven-year contract to execute an educational awareness campaign directed at Lake Tahoe Basin residents and visitors. Through numerous channels and initiatives, the ERPR team reached target audiences with updates on road construction projects and expected traffic delays. Our work resulted in better local understanding about the reasons behind the projects including bridge retrofitting, water quality improvement projects, road widening for bike lane installations and more.

Relevance to TRK: The success of Katie's work was due to her knowledge of who the local stakeholders are, where key opportunities exist, and her firm's ability to expertly execute awareness campaigns. Again this work has similarities to what ERPR would implement for the TRK Master Plan.

Gene Reindel

Noise Analysis Lead | Modeling & Contours

As Vice President in HMMH's Aviation Environmental Services Group, Gene oversees a wide range of aviation noise consulting projects, offers industry experience to those projects, and provides technical support to airport community noise forums throughout the U.S. His professional experience includes environmental projects, including NEPA and state equivalents in California, Oregon, and Washington; Airport Noise Compatibility Planning studies (Part 150); Airport Noise and Access Restriction projects (Part 161); airport ground noise studies, and residential sound insulation projects. He is often involved in preparing for and directing major field measurement programs and advising on the acquisition and analysis of data. Gene is a trained facilitator and leads public outreach programs associated with controversial noise studies and programs.

EDUCATION

- ME. Acoustics, Pennsylvania State University
- BS, Physics Engineering, Pacific Lutheran University

AVAILABILITY FOR THIS PROJECT

- 30%

RELATED PROJECTS

Comprehensive Noise Consulting Support, Westchester County Airport – Westchester County, NY

Gene is the Principal-in-Charge providing comprehensive airport noise-related consulting services to Westchester County, New York, the operator of Westchester County Airport, since 1984. HMMH has provided the County with a diverse range of assistance

Relevance to TRK: As part of the 2019 historical noise contour and flight path review, HMMH prepared a Number Above grid evaluation that shows the number of events above 60 dB grids to show the community the airport understood their noise environment. While the low numbers of operations were not as expected by some community members, they were unable to offer contention of the results and ended up agreeing that it represented their noise environment from aircraft operations. This is the same type of analysis we are proposing for TRK to not only explain the existing noise environment, but also future noise environment with a new runway.

Noise Consulting Services, Van Nuys Airport – Van Nuys, CA

Gene serves as the Principal-in-Charge providing on-call noise consulting services to Los Angeles World Airports (LAWA) as the owner and operator of Van Nuys Airport (VNY). Over the many years, HMMH has assisted with a Noise and Access Restriction (14 CFR Part 161) study, determined the percentage of Stage 2 and Stage 3 aircraft in their fleet periodically, updated the VNY Noise Exposure Map per 14 CFR Part 150 and most recently completed a departure noise analysis to determine the quietest departure procedure for the communities surrounding VNY.

Relevance to TRK: To determine the quietest departure procedure, HMMH used the Single Event Noise Exposure Level (SENEL) metric along with the equivalent sound level metric (Leq) to compare several departure profiles to the standard AEDT departure profile. They developed difference grids for both metrics finding the most useful was the Leq difference grids that showed the areas of increase and decrease noise using colored shading to easily see the areas of change. This is similar to recommending the Number Above grid evaluation at TRK as it will clearly show areas of increase and decrease in the number of aircraft operations that people may find objectionable.

Alec Seybold, CM

Airspace Analysis Lead | Instrument Procedures Feasibility

Alec works at airports located in mountainous areas to support both the airport and aircraft operators to find safe and efficient solutions to infrastructure, geospatial airspace, and flight procedure challenges. He has assisted with airport planning, design, and construction management teams to determine preferred runway alternatives while considering instrument procedure design aspects, obstacle clearance, and aircraft performance limitations. He has a background of success in directing complex projects from concept to fully operational status.

EDUCATION

- BS, Aviation Management & Technology, Metropolitan State University of Denver

CERTIFICATIONS

- American Association of Airport Executives, certified member (CM)

AVAILABILITY FOR THIS PROJECT

- 40%

RELATED PROJECTS

Special Instrument Approach Assessment, Friedman Memorial Airport – Hailey, ID

Tasked with improving all-weather access to a challenging runway environment with Opposite Direction Operations (ODO), FTE worked with the airport authority and a Part 121 air carrier to assess the feasibility a new Special Instrument approach tailored to a specific aircraft. The new procedure utilizes Performance Based Navigation concepts that were specific to the unique FMS technology capabilities of the target aircraft. The resulting approach concept introduced enhanced levels of precision and vertical guidance that were previously not available for the current public approaches. FTE successfully completed the study by evaluating the new procedure concept in simulator and in-flight to validate and ensure flyability. The approach procedures are now approved and in use today.

Relevance to TRK: Mountainous terrain limits overflight corridors and consolidates flight paths at SUN. Developing new instrument procedures with enhanced levels of precision and vertical guidance improved safety and operational efficiency at the airport. Alternative runway alignment concepts at TRK may consider ODO similar to operations and procedures at SUN.

Special Approach Development & Implementation, Telluride Regional Airport – Telluride, CO

Following a major runway improvement project, Flight Tech was tasked by the airport authority to assess the feasibility of expanding the current Localizer RWY 09 approach to add CAT C minimums and to analyze instrument procedure improvements to RWY 27. FTE completed an environmental CATEX, consulted with Part 121 & 135 stakeholders, held numerous meetings with the FAA, and proposed new instrument approach options. Upon review of the options, the airport board commissioned FTE to implement a new CAT C – Special Localizer approach. This new procedure was approved by the FAA and activated for private use in 2017.

Relevance to TRK: Alec coordinated with the FAA on instrument approach capabilities, which will be required with alternative runway feasibility at TRK. This early coordination led to FAA approval of new procedures. Alec also performed environmental analysis and participated in stakeholder outreach at Telluride, as proposed for this Update.

Jen Wolchansky, AICP, ENV SP

Environmental Support | Sustainability

Jen has over 15 years of experience working on environmental and sustainability planning projects. She has prepared and managed master plans, environmental planning documents, sustainability plans and Part 150 Noise Studies.

Role: Jen's role on the TRK Master Plan is to lead review of alternatives from a noise and environmental perspective, and to incorporate sustainable evaluation criteria into the planning process. Her experience working at mountain airports in Colorado and Wyoming, and on runway programs nationwide, are particularly relevant to this Master Plan.

EDUCATION

- MA, Geography, University of Colorado
- BS, Environmental Sciences, The George Washington University

AVAILABILITY FOR THIS PROJECT

- 60%

Patricia Song

Noise Analysis Support | Aircraft Operations & Fleet Mix

Patricia is an airport planner and leads Mead & Hunt's data analysis and modeling initiatives. She focuses on developing aviation demand forecasts and noise modeling utilizing the FAA Aviation Environmental Design Tool (AEDT).

Role: Patricia is highly familiar with the users of TRK, having prepared the demand forecasts for the Airport Layout Plan Update in 2021. She will use this information to provide fleet mix information for the design of improvement alternatives, and for use in noise modeling. She will support noise modeling efforts through her experience with AEDT and provide a bridge between noise modeling partner HMMH and the rest of the planning team.

EDUCATION

- MS, Environmental Science and Management, University of California – Santa Barbara
- BS, Environmental Systems, University of California – San Diego

AVAILABILITY FOR THIS PROJECT

- 70%

Marieke Armstrong

Environmental Support | CEQA & GIS

Marieke has nearly three decades of experience providing regulatory analysis, agency coordination, and environmental document preparation to support airport development projects. She is one of Mead & Hunt's geospatial analysis leaders and has worked with TTAD for several years on your tree management program.

Role: Marieke will support NEPA and CEQA analyses and provide geospatial analysis services for the TRK Master Plan. Her extensive experience working with regulatory agencies in California and on the federal level will guide analysis of improvement alternatives.

EDUCATION

- MS, Environmental Science, Indiana University
- BS, Ecology, Behavior, and Evolution, University of California – San Diego

AVAILABILITY FOR THIS PROJECT

- 60%

Cody Fussell

Airside Planning Support | Airfield Geometry Analysis

Cody has planned airports for nearly three decades and has worked on projects from coast to coast. He specializes in analyzing challenging airfield geometry and developing solutions that meet FAA standards and achieve operational efficiency goals. He recently completed a Master Plan for Seattle's Boeing Field, which involved solving complex geometry challenges on a space-constrained airfield. Cody and his team brought in the stakeholders and tenants to develop a solution that met FAA criteria.

Role: Cody will focus on evaluating the potential third runway, integrating it with the existing airfield and airspace. His national experience will be used to identify similar case studies and develop a solution that will work for TRK.

EDUCATION

- BLA, Landscape Architecture, Oklahoma State University
- BS, Landscape Architecture, Oklahoma State University

AVAILABILITY FOR THIS PROJECT

- 60%

Ryan Ditto, AAE

Airside Planning Support | Phasing & Implementation

Ryan is an aviation planner with five years of experience. Prior to joining Mead & Hunt, he worked for the Sacramento County Department of Airports, which manages Sacramento International, Mather, Sacramento Executive, and Franklin Field. This experience gives him a broad perspective on challenges affecting commercial service and general aviation airports. While at the County, Ryan worked closely with Kevin Smith to achieve his Accredited Airport Executive (AAE) designation.

Role: Ryan will support the airport planning team to prepare Master Plan alternatives. His experience at Sacramento County gives him perspective on what it takes to move projects from planning to implementation.

EDUCATION

- MS, City and Regional Planning, The Ohio State University,
- BS, City and Regional Planning, The Ohio State University

AVAILABILITY FOR THIS PROJECT

- 60%

Alex Radovanovich, PE

Airside Planning Support | Feasibility and Cost Estimates

Alex's experience includes the design of pavement sections, surface grading, stormwater drainage, airfield electrical systems, pavement marking layout, and phasing plans. Alex has also served as a full-time construction observer, which has provided him with the insight to prepare plans and specifications that are constructible. He routinely works with Mead & Hunts airport planners to evaluate proposed improvements from a constructability perspective.

Role: Alex will provide engineering support services for the TRK Master Plan. He is a licensed professional engineer in California and has a strong track record of runway improvement projects at airports like Napa County (APC) and Camarillo (CMA).

EDUCATION

- BS, Civil Engineering, Arizona State University

AVAILABILITY FOR THIS PROJECT

- 40%

Maranda Thompson

Public Coordination Support | Airport Outreach

Maranda has worked on airport planning projects in California for two decades. She is regarded as an expert in airport land use compatibility planning and stakeholder inclusion. She has worked with TTAD on multiple planning projects and had a key role in the outreach efforts related to proposed changes to the flight procedures in and out of TRK.

Role: Maranda's years of experience working with TTAD will be used to support stakeholder communication and outreach. She understands the communities that surround the Airport, and will lend her aviation outreach perspective to the stakeholder coordination team.

EDUCATION

- BA, Double Major, Environmental Planning and Economics, Sonoma State University – California

AVAILABILITY FOR THIS PROJECT

- 50%

Dustin Wolff, AICP

Landside Analysis | Non-Aviation Land Use

Dustin has more than 24 years of experience working on roadway planning at airports. He has developed and implemented numerous public participation and community involvement programs that include education and outreach. He has prior experience working with TTAD and the Town of Truckee on the TRK Airport Layout Plan and the Truckee Regional Park Master Plan. Dustin's expertise includes a focus on including sustainable transportation technologies, such as electric vehicles, ride share, and mass transit, into airport planning projects.

Role: Dustin will lead analysis of roadway access and parking as part of the Master Plan. His experience working with the Town of Truckee will lend itself to developing solutions that are acceptable to TTAD and its neighbors.

EDUCATION

- Master of Urban Planning, University of Wisconsin – Milwaukee, Wisconsin
- BA, History, University of Wisconsin – Milwaukee, Wisconsin

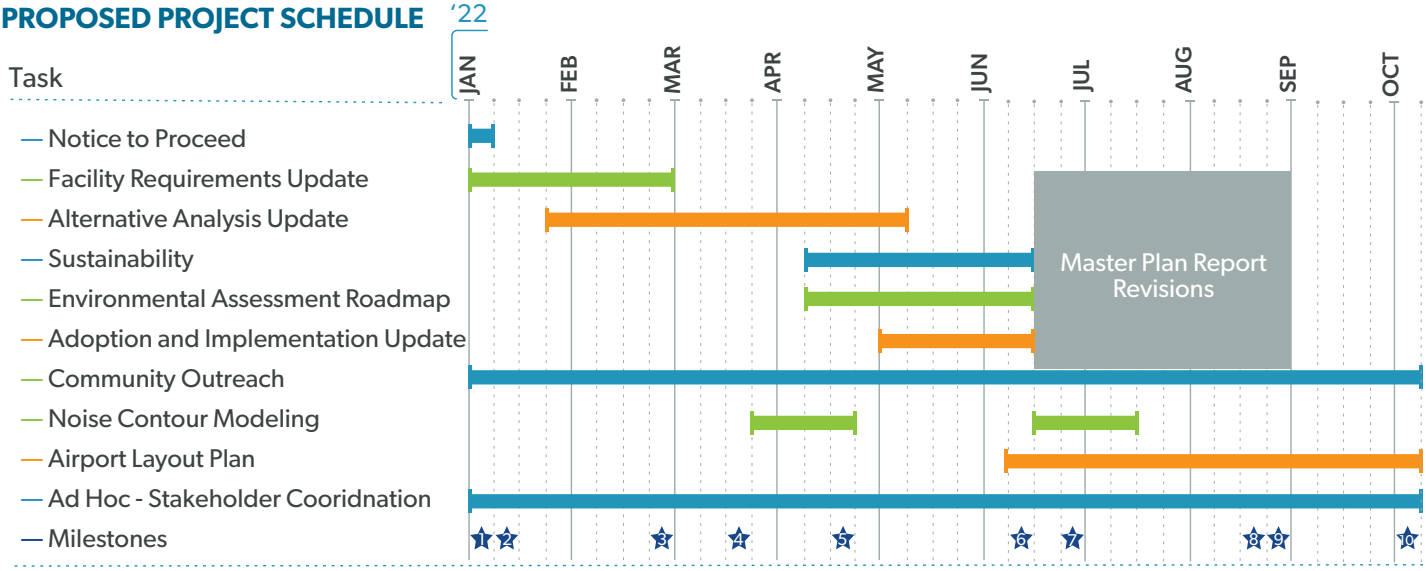
AVAILABILITY FOR THIS PROJECT

- 30%

Appendix

SCHEDULE AND BUDGET

PROPOSED PROJECT SCHEDULE



Milestones Key

1. Project Kickoff with TTAD and Ad Hoc Committee
2. Community Outreach Begins – Advertisements for workshops, website setup, and strategy
3. Facility Requirements and Preliminary Alternatives Review with Ad Hoc Committee
4. Community Workshops (3) and Virtual Meetings
5. Refined Alternative Review with Ad Hoc Committee
6. Draft Report Submitted to TTAD
7. Draft Report Review with TTAD and Ad Hoc Committee
8. Draft ALP Submitted to TTAD
9. Final Report Submitted to TTAD
10. Final ALP Submitted to TTAD

MASTER PLAN UPDATE COST PROPOSAL

The cost proposal estimate shows labor and expenses per task based on our experience performing similar projects and the project understanding in pages 2-6. Master plan costs are highly influenced by the level of detail at which elements are explored. This proposal includes thorough analysis of alternatives and public outreach because we understand their importance to you. A line-item fee estimate with itemized expenses and sub-consultant breakouts is available upon request.

	Task	Cost
1	Project Management	$23,000
2	Public Outreach Program	$101,000
3	Facilities Requirements	$17,000
4	Alternatives Analysis	$122,000
4	Environmental Assessment Roadmap	$21,000
6	Sustainability	$25,000
7	Adoption and Implementation	$17,000
8	Noise Contour Modeling	$38,000
9	Airport Layout Plan	$25,000
10	Final Documentation	$13,000
	TOTAL	**$402,000**

SUPPLEMENTAL FEES

The Mead & Hunt Team can further customize our proposal to meet your expectations and needs. In addition to the base fee for this proposal, Mead & Hunt offers the following supplemental tasks to consider for this Master Plan Update. These items may be needed to complement alternative analysis, address unknown variables, or address studies not stated in the RFQ. These items are estimated and negotiable if TTAD wishes to include as part of the Master Plan Update. Specifically, the biological and cultural reports are cost dependent based on coverage area and endangered species habitat.

Task	Item	Purpose/Notes	Estimated Fee
Airspace Analysis	Preliminary Alt Analysis	Airspace assessment: TERP IAP/DP, Visual and VGS surfaces	$5,000 per alt
	Outreach Attendance	Presentation material and attendance at public workshops	$13,000
Outreach	Public Notifications	Direct mailer and/or text messaging services	Varies by target area size
Environmental Roadmap	Biological Evaluation	Assuming no impacts to ESA species[1]	$35,000
	Biological Assessment	Assuming impacts to ESA species1	$65,000
	Cultural Reports	For archeologically sensitive areas, shovel testing throughout the project area and a technical report. Cost depends on coverage area.	$30,000
Land Use	Parking Study	Assessment of the existing parking lot system at the airport and provide recommendations for improved security, operations, layouts, and service.	$45,000

[1] Based on USFWS Information for Planning and Consultation data, three Endangered Species Act-listed species are potentially found in the area: Sierra Nevada Yellow-legged frog, Lahontan Cutthroat Trout, Monarch Butterfly, but likely no critical habitat.

Mead & Hunt

EXPERIENCE EXCEPTIONAL