Truckee Tahoe Airport
Master Plan
Scope of Services

October 15, 2012

This document includes a Scope of Services for the preparation of a Master Plan for Truckee Tahoe Airport (TRK), Truckee, California. Reference documents used to prepare this scope of services include: Request for Statements of Qualifications (RFQ), Master Plan Study (Truckee Tahoe Airport District, April 2012), Statement of Qualifications (SOQ, Mead & Hunt, May 2012), and Advisory Circular (AC) 150/5070-6B, Airport Master Plans (May 2007).

This Scope of Services is organized into three sections: Project Understanding, Scope Elements, and Additional Services. The Project Understanding section documents the Airport owner's goals for this process, the circumstances surrounding the need for an update to the current Master Plan and the required areas of emphasis. The Scope Elements section details the major work elements and specific tasks to be completed in pursuit of the goals of the Master Plan. The Additional Services section may be applied to potential additional services deemed necessary by the Truckee Tahoe Airport District (TTAD) to further support the project's objectives.

Project Understanding

The current airport master plan was completed in 1998. Since that time, the TTAD has purchased several on and off-airport properties to further support its aviation service directives and have completed other projects. The plan needs to be updated to reflect changes that have occurred locally and nationally so as to maintain a realistic vision of the future. The types of activity have and will continue to change over time and the plan needs to reflect the community's current vision for the future consistent with the TTAD's strategic plan, other guiding documents, and data/research conducted since the last plan was completed. This section identifies the primary areas of emphasis and planning assumptions that Mead & Hunt, Inc. (MEAD & HUNT) will emphasize or otherwise use in conducting the master plan work. These items represent MEAD & HUNT's understanding of the project goals established by the TTAD, TRK's owner and operator.

- **Community-Focus**— The planning process will include a significant community outreach effort that will be heavily concentrated at project initiation. The goal is to seek input from the entire community comprising the TTAD, near and far from the airport. Emphasis will be to inform all communities that a master plan is taking place, the role TTAD and the airport has both globally and specifically, and to solicit input about how to further improve the services TTAD provides. The feedback obtained during this initial phase will be used to guide the study and decision-making processes. Beyond the initial effort, coordination will continue through a steering committee and social media will be used as a communication tool. There will be a final meeting to at/near the end of the project to provide an overview of the plan and how the community visioning process was incorporated.

- **Technical Analysis Work Expectations**—The master plan process included in this scope of services will be guided by FAA AC 150/5070-6B, *Master Plan,* input from the community during the project initiation phase, and through collaboration with a steering committee. The work elements and tasks identified in this Scope of Services and the associated fee for completing that work is based on a set of assumptions. The major assumptions are identified as follows:

    - ***Existing Available Data—*** Analysis will first be conducted using existing available data only. MEAD & HUNT will coordinate with a steering committee, airport management, and TTAD in determining if additional information is needed in order to derive or support a plan conclusion. Acquisition of data determined to be necessary may be acquired as an additional service to this agreement or entirely separate, at the discretion of the TTAD.

    - ***FAA Approval of Aviation Forecasts—*** MEAD & HUNT is assuming that the master plan forecasts will be submitted to FAA for approval and that the level of coordination will be limited to a draft submission, response to comments, and final submission. MEAD & HUNT does not anticipate any points of contention during the approval process on the basis that we anticipate the master plan forecast results to be within the general approval guidelines used by the FAA's Airport District Office (ADO) staff. FAA uses its own Terminal Area Forecast (TAF) as a frame of reference for approval at the local, Airport District Office (ADO)-level. Generally, master plan forecasts that differ by more than 10% of the TAF could require additional coordination with FAA staff at the ADO, the region, and potentially the national headquarters (Washington DC). It is noted that the TAF predicts flat-line growth for TRK for both based aircraft and aircraft operations. This is common at airports similar to TRK as aviation activity has declined over the past 20 years and the TAF is usually based on historic growth rates when there is growth and zero-growth when activity has been declining. Relative to the demand forecasts, MEAD & HUNT anticipates the most significant change over time will be dominated by evolutionary changes in the types of airplanes and activity and that total activity will closely approximate the FAA's projection of flat-growth for the next two decades.

    - ***Range of Alternatives to Analyze—*** A major cost-driver to any master plan is the number of alternatives to be identified and the degree to which they are to be evaluated in support of a recommendation and/or decision. The supporting information needed to reach a decision as well as the plan decisions themselves are owner/operator driven. This Scope Elements of the next section assume that MEAD & HUNT will collaborate to identify and then screen up four preliminary alternatives involving some combination of changes to the runway/taxiway system and building area development patterns. Through further collaboration, two finalist alternatives will be selected for more thorough comparative analysis using criteria jointly derived from the study participants to select a preferred alternative that will ultimately be incorporated into the Airport Layout Plan (ALP) for FAA approval.

    - ***Environmental Documentation/ Analysis—*** The RFQ included an environmental overview in the list of services to be provided. This scope of services includes the preparation of noise contours and alternatives analysis intended to reduce or better distribute noise exposure. Other analyses (e.g., wetland, cultural, historic and biological resource evaluations) will be

limited to available published data. The master plan will identify the regulatory processes needed for plan adoption and project implementation.

- **Documentation Deliverables—** Most of the major Scope Elements outlined in the next section include the preparation of a "white paper" that will summarize the work completed and results that can support overall plan decision-making. There are two primary plan deliverables: Decision Document and Airport Layout Plan drawing set. The Decision Document will be in an executive summary format that will summarize the plan's objectives, establish the airport/TTAD's vision for the future, and provide the rationale behind that vision that broadly summarize the various working papers produced. The ALP drawing set is an engineering-type plan-set depicting the phased evolution of the airport as identified in the Decision Document using FAA-prescribed standards and checklists.

- **Project Schedule—** Although the estimated cost to complete the master plan is based primarily on the amount of work to be done, schedule also has a significant influence. The fee estimate is based on a 13-month completion schedule for the work elements defined in the next section of this Scope of Services. If additional services are subsequently added, the schedule would likely need to be extended. For example, the time needed to prepare and circulate a CEQA-document and subsequently adopt the master plan could require an additional 6 months or more, depending on the vision established by the master plan. Much of the time needed for approval and adoption is non-active time needed for agency reviews or for legally required notification and publication periods.

Scope Elements

This section outlines the major work elements to be undertaken as part of this study and the individual tasks to be undertaken to complete each. The scope elements are identified as follows:

1.0 Study Design
2.0 Project Management
3.0 Community / Stakeholder Outreach
4.0 Facility and Policy Inventory
5.0 Aviation Demand Forecasts
6.0 Facility Requirements
7.0 Alternatives Analysis
8.0 Implementation Plan
9.0 Documentation

ELEMENT 1.0 – STUDY DESIGN

***Prerequisite*:** Consultant selection.

Objective: To negotiate and finalize a scope of work, fee estimate, and project schedule that meet the primary objectives established by the TTAD.

It is important at the onset of the planning process to define a detailed scope of services and project schedule to guide the project. The design includes development of a comprehensive scope of services, definition of effort necessary to accomplish the work scope and the preparation of a realistic work effort and cost estimates for completing the work. It also serves to organize the project team, which includes Mead & Hunt, Inc., its teaming partners, specialty consultants (if any), and TTAD.

Cost Assumptions:

Preparation time for two (2) draft and one (1) final iteration of the work scope, fee estimate, and schedule. A significant amount of the coordination between MEAD & HUNT and Airport Management will utilize telephone calls (8 assumed) and electronic mail correspondence. Hardcopy agreements to consist of two (2) paper copies of the Final Approved version of the SOW, fee estimate, project schedule, and two (2) copies of the executed contract for FAA and TTAD records. Non-labor expenses include telephone, printing, and shipping expenses.

Two in-person meetings between Airport Management and the Consultant will occur following review of the initial draft [conducted September 14 and October 11, 2012]. The meetings were conducted at Truckee Tahoe Airport during mutual participation at an aviation conference held in South Lake Tahoe and in Berkeley during an aviation seminar also involving mutual participation. Significant information was also obtained following Mead & Hunt's selection at the July 26 Board Meeting.

Deliverables:

Electronic delivery of two draft work scopes and two draft fee estimates. Two (2) paper copies of the Final Approved version of the SOW, fee estimate, project schedule, and the executed contract.

ELEMENT 2.0 – PROJECT MANAGEMENT

***Prerequisite*:** Approval of the master plan scope of work, fee, schedule, and contract by TTAD Board. Execution of the contract and, if required, formal notice to proceed (NTP).

Objective: To manage the day-to-day activities of the project team and to coordinate the work with TTAD point-of-contact (Kevin Smith).

The project management element is a critical ongoing element that will continue throughout the duration of the project.

Cost Assumptions: Work tasks include:

- Developing a work plan including QA/QC review schedules, risk identification, and risk response.
- Coordinating and launching consultant activities: 3 milestones.
- Coordinating work activities with key project participants including: airport management, TTAD Board, consultant team, FAA, etc.

- Perform monthly administrative tasks: invoicing/budget monitoring, processing of sub-consultant invoices, preparing status reports, and closing out the project.
- 13-month project schedule.

Deliverables:

- Project work wlan—delivered to consultant team at project kickoff.
- Milestone plans (3)—modified work plans that launch the next major phase of activities.
- Monthly status report memorandums (13 months)
- Monthly invoice processing (prime and sub-consultant) (13 months)

ELEMENT 3.0 – COMMUNITY / STAKEHOLDER OUTREACH

***Prerequisite*:** Approval of the master plan scope of work, fee, schedule, and contract by TTAD Board. Execution of the contract and, if required, formal notice to proceed (NTP).

***Objective*:** To engage the communities and stakeholders comprising the entire district, near and far relative to the airport with the purpose of educating about the services provided and collaborating about the future needs that may be incorporated into the master plan visioning process.

This element comprises approximately one-third of the total effort outlined in this Scope of Services. The work effort will also be heavily concentrated within the first three months of the project with the goal of educating and collaborating so that the feedback may be incorporated into the technical work or plan decisions that follow. Cost assumptions and deliverables are broken into sub-elements.

- Airport kickoff meeting
- Steering committee establishment, coordination, and meetings
- Project brand and message development
- Design and distribute mailers (2)
- Electronic media
- Support TTAD with media relations
- Questionnaires and survey support
- Community open houses and outreach sessions (6 in two sets plus a wrap up at the airport)
- Outreach white paper (following initial road show)

3.1 Airport Meetings (4)

Objective: To conduct meetings at the airport or within the TTAD in consultation with airport management to accomplish plan objectives. The first meeting will be a kickoff meeting to review the work plan, establish communication frequency and protocols, identify steering committee members, assess branding ideas and initial messaging, initiate outreach strategy and timelines, identify anticipated development alternatives, and gather inventory data. Combined with the steering committee meetings of Task 3.2, the

objective is to conduct in-person meetings about once every other month. The fourth meeting will likely be dedicated to the Board to obtain final feedback and decisions needed to close the project.

Cost Assumptions:

- 3 consultant participants: 2 Mead & Hunt, 1 Freshtracks. Mead & Hunt will travel using vehicle and will require an overnight stay.
- Preparation in advance to include agenda, steering committee composition recommendations, and identification of field information needed.
- Post meeting to include summary notes preparation and electronic distribution and final recommendation for steering committee membership (if required). Note that the steering committee composition is an airport decision.

Deliverables: Agenda (electronic distribution). Attend kickoff and 3 flexible-type as-needed meetings at the Truckee Tahoe Airport. Meeting notes (electronic distribution).

3.2 Steering Committee Establishment, Meetings (3), and Coordination

Objective: To provide interaction between the project consultant team and the committee as the plan progresses over 13 months. When combined with the airport/flexible meetings of Task 3.1, consultant meetings will occur every other month (not counting the initial outreach meetings).

The purpose of the committee is to advise and recommend strategies for achieving maximum dissemination of information and overall support. TTAD Board is the final decision maker regarding airport actions and consultant team tasks comprising the scope, fee, and schedule for the plan's completion.

Cost Assumptions:

- Identification of committee members included in Task 3.1
- Airport to formally invite the members and will be the primary contact initially up to the first steering committee meeting.
- 3 consultant participants to attend 3 steering committee meetings: 2 Mead & Hunt, 1 Freshtracks. Mead & Hunt will travel using company airplane. Overnight stay will not be required.
- Pre and post meeting time to include agenda distribution, handout/presentation development, meeting notes distribution, and schedule/next steps. All meeting materials will be distributed electronically.
- Ongoing communication and coordination efforts using email and telephone / web conferences in addition to the in-person meetings. The coordination efforts on average will equate to approximately an additional one-hour meeting per month by the steering committee members plus prep and post meeting work by the consultants.
- Additional steering committee meetings may be accommodated during the outreach phase of the study (first 3 months) or generally as a part of other airport meetings requiring travel. The costs of these additional meetings included in the other outreach tasks.

Deliverables: Meeting participation (3+). Meeting agendas, materials, and notes (electronic distribution). Ongoing communication via email and telephone equating to one additional meeting per month for 13 months.

3.3 Project Brand and Message Development

Objective: To identify a brand for the master plan process that connects and inspires engagement by a broad range of people. To support the outreach efforts by preparing succinct and compelling points about the airport, the services provided by the TTAD, how the airport benefits and connects with the community and local plans, and an overview of where the airport is today and where it could go.

Cost Assumptions:

- Time to coordinate the final logo, colors, and tag line with airport management with potential input from TTAD Board and Steering Committee.
- Consultant team to initiate a list of potential messages based on airport statistics and activities and electronically disseminate to airport management and steering committee for input.
- Collect input from airport management and steering committee and analyze for initial use in outreach efforts.
- Refine the messaging content and coordinate with airport to identify the major points to use in the outreach efforts. This is an interactive process that may be accomplished through any combination of emails, telephone conference calls, or pre-scheduled meetings.
- Assumes that the effort will build from the work initiated during the SOQ phase.
- The branding and initial messaging content is to be accomplished within three weeks following the client kickoff (Task 3.1).

***Deliverables*:** Brand content including finalized logo, colors, tag lines, and messaging.

3.4 Design and Distribute Mailers

Objective: To maximize outreach and participation by transient land-owners using customary practices that has evolved for the community. Allow maximum opportunity for individuals to pre-plan their involvement at meetings and through other media made available for this master planning process.

***Cost Assumptions*:**

- Consultants to prepare content using branded logos, colors, tag lines, and messaging content developed in Task 3.3.
- Coordination to produce the two mailers will include interactive reviews with airport management and steering committee over a period of 3-6 weeks prior to mailing.
- Content to be provided electronically to airport in Adobe Acrobat file format. Consultant to coordinate with the airport's printer concerning file formatting and layout information.

- Airport to print and distribute mailings using in-house contact information. Each mailing will include approximately 20,000 registered land owners / residents included on the airport's distribution list.

Deliverables: Two mailers electronically delivered to airports printer.

3.5 Electronic Media

Objective: To provide up-to-date and interactive opportunities for the community to stay informed and involved as the plan progresses. Enable timely response to emerging "grass-roots" issues affecting the successful outcome of the new plan.

Cost Assumptions:

- Consultant to host the project web page on its server. Airport to provide a web link from the airport's site.
- Consultant will develop a project web site to include information such as: goals/objectives of the plan, summary of findings, downloadable reports, meeting announcements, frequently asked questions, etc. The web pages to be hosted on the consultant's server will utilize branded content developed in Task 3.3. A comment form may also be provided from the web link, links to other pages such as Facebook, and sign-in capability to receive E-News reports concerning the project.
- Consultant to prepare Facebook content and to evolve the "look" of the site based on the amount of activity and the customization policies of Facebook.
- Web page and initial Facebook page content to be determined interactively between the consultant, airport management, and steering committee over three weeks following the branding/messaging work of Task 3.3. Interaction may include emails, telephone or web-enabled conferencing, or pre-scheduled meetings.
- Consultant will review Facebook posts weekly; responding using agreed-upon protocols.
- Consultant will prepare E-News blasts to individuals who have signed up for this service and on the Facebook page every other month (e.g., September, November, January, etc.).
- The web updates will occur at major milestones, with the announcement of time-critical information, or the posting of vetted downloadable reports and summary information.
- Includes web hosting and RSS sign-in subscription fees paid by the consultant.

Deliverables: Project web page, web page hosting (13 months), RSS subscription (13 months), Facebook page monitored weekly, web page updates (at major milestones: 3), E-News blasts (6).

3.6 Support TTAD with Media Relations and Publicity

Objective: To support TTAD with training in media relations and design adds to be published in Sierra Sun and Moonshine Inc for community meetings.

Cost Assumptions:

- Provide training to TTAD who might relate information to media during the study process.
- Design 4 ads for Sierra Sun and Moonshine Inc for Community Meetings.
- Cost to run the adds to be paid by the airport. 10 weeks of placement anticipated.

Deliverables: Staff training to TTAD staff. Design of two adds in local newspapers.

3.7 Questionnaires and Survey Support

Objective: To obtain feedback by asking specific questions of different groups affiliated with the airport. The information obtained may be insightful for concentrating planning resources during the study or to airport management beyond the study.

Cost Assumptions:

- Several survey types are expected: airport management, tenant businesses, (e.g., FBO), based aircraft tenants, regular users, and transient users, input into a refreshed GODE survey being done independent of this study by the airport, community surveys to be circulated at community meetings, and periodic surveys using Facebook or survey monkey on the master plan web page.
- Costs are drive largely by determining which groups should be surveyed and what questions to ask. Consultant will lead the effort based on experience at other airport and through interaction with airport management and steering committee via email, telephone or web-conference, or through pre-scheduled in-person meetings.
- Consultant will analyze the results of the survey responses received and prepare a summary of the data obtained.
- Interaction with airport management and steering committee will determine how this information will guide the planning process.
- Airport will print and distribute surveys.
- Assumes that the team will undertake no more than 3 printed surveys to large groups (not including GODBE survey support).

Deliverables: Up to 3 printed surveys. Input to GODBE survey (note GODBE being undertaken separate from the master plan).

3.8 Community Open Houses and Outreach Sessions

Objective: To solicit input from the major neighborhoods within the airport district focusing on the specific needs and information required by these areas. To increase opportunity for one-on-one interaction given a large area and seasonal residency patterns.

Cost Assumptions:

- 6 Open House sessions within various district neighborhoods and 1 “wrap up” meeting at the airport to summarize the findings of the initial outreach phase.
- Community Open Houses are envisioned to occur in two sets during January and February 2013 with the wrap-up meeting in March (depending on project start). Each meeting set will include 3 meetings in different neighborhoods within the district. The meetings will likely be held in the evening and potentially on a weekend.
- 4 consultant participants: 2 Mead & Hunt, 1 Freshtracks, and 1 Bridgenet. Each meeting requires one overnight stay for 3 of the participants.
- The downtime between meetings will be available for less formal coffee shop meetings, or presentations to specific groups (e.g., Chamber of Commerce).
- Preparation to include setup, staffing, visual aids, handouts, and community overview/understanding.
- Post meeting time includes compiling and summarizing the notes taken by airport and consultant attendant staff and written comments / questionnaires provided by community attendees.
- The airport or steering committee may facilitate additional coffee shop meetings or organizational presentations to occur during the same day as a steering committee meeting that would otherwise be utilized to conduct project related work (or additional steering committee meetings).
- Venue, refreshments and video/audio support to be provided by the airport as needed.
- Consultant will provide up to 20 mounted boards and 15 easels to support an informational style meeting format.

Deliverables: Participation in 7 Community meetings. Participation in additional meetings during downtime as available.

3.9 Outreach White Paper

Objective: To summarize the information obtained during the initial outreach activities to incorporate into the strategy for the technical work that will follow.

Cost Assumptions:

- Time to prepare a brief report summarizing the outreach feedback received, electronically distribute to airport management and steering committee, and review/refine the interpretations using email, telephone or web-conferencing, or pre-planned meetings.
- The information will be used to support the final “wrap up” meeting to be held at the airport at the conclusion of the initial outreach phase of the master plan study.
- Coordinate revisions with airport management and steering committee following the airport “wrap up” session.
- Consultant will distribute working and final versions of the white paper electronically to airport management and the steering committee.

Deliverables: Draft white paper detailing input received following the 6 community meetings. Coordination and interpretation to support the "wrap up meeting". Final revisions following the "wrap up" meeting for use in guiding the subsequent study phases.

ELEMENT 4.0 – FACILITY AND POLICY INVENTORY

***Prerequisite*:** Approval of the master plan scope of work, fee, schedule, and contract by TTAD Board. Execution of the contract and, if required, formal notice to proceed (NTP).

***Objective*:** To collect a broad range of data necessary to update the baseline conditions established by the previous master plan (1998) including changes to the area's profile and socioeconomic conditions, weather/climatic setting, physical changes to the airport such as new facilities or property acquisitions/transfers, and changes to policy that might influence the plan or airport activity.

Cost Assumptions:

- Review airport "guiding documents" contained in RFQ and develop list of items that will carry over or otherwise accounted for in the airport master plan.
- Develop regional and socio-economic profile for the area from information/resources provided by steering committee and other readily available plans and statistics (e.g., National Weather Service, town and community plans / websites, tourist and business organizations, Department of Labor, etc.) Information will be summarized in a 1-page table.
- Obtain information about the airspace setting, constraints, published instrument procedures, and voluntary/customary procedures.
- Obtain information about the major facilities from the previous airport master plan and other airport resources, as appropriate. Update through questionnaires / conversations with airport management / staff. Incorporate information obtained during walking survey at to be conducted during the project kickoff meeting.
- Purchase 10-year wind data from the National Climatic Data Center (NCDC) or obtain from the airport, if available. Information will be used in the inventory as part of the regional profile and airport operational overview and in the facility requirements to document crosswind capability.
- Update the electronic basemap files (ALP base map and property boundary) with as-built engineering and/or property metes and bounds to be provided by the airport. Note that the basemap will be compiled from multiple source files. Airport to provide funding and federal grant numbers for properties purchased with federal or other grant assurance requirements
- Obtain, review, and summarize into a one-page table, the environmental setting and known constraints. Previously completed airport-specific environmental reports and investigations will be provided by the airport. Readily available sources such as wetland maps, flood plain maps, soil-types will be obtained by the consultant. If able with the information provided, prepare a graphic depicting these environmental resources and incorporate into the basemap drawing files.
- Coordinate with airport management in obtaining missing information determined necessary for establishing the baseline conditions for the master plan.

- Obtain the airport's pavement maintenance plan (PMP) from the airport. Summarize pavement conditions for use in updating the CIP for routine maintenance. Information will be summarized in a graphic and/or table.
- Obtain land use information from the current Airport Land Use Compatibility Plan for the airport and update with new information provided by the airport, if needed. Summarize land uses around the airport in a graphic and/or table.
- Obtain off-airport aviation facility information from the TTAD and summarize. Prepare a location map to identify these new or planned facilities.
- Obtain an inventory of security resources (fences, gates, cameras) and operational procedures from the airport for discussion with steering committee and airport management. Incorporate into the inventory documentation as appropriate.
- Prepare a draft inventory working paper for airport and steering committee review. Update with information provided during the internal review. Draft and final white paper will be electronically distributed to the steering committee and airport management.
- Facility and policy inventory to be completed within 60 days following notice to proceed.

Deliverables: Draft and final white paper summarizing the baseline conditions of the area and the aviation facilities. Updated basemap files for preparation of report graphics, meeting visuals, and plan drawing sets.

ELEMENT 5.0 – AVIATION FORECASTS

***Prerequisite*:** Approval of the master plan scope of work, fee, schedule, and contract by TTAD Board. Execution of the contract and, if required, formal notice to proceed (NTP).

Objective: To establish a realistic range of the types of aviation activity to be accommodated by the airport over the next 20-year period and select a preferred forecast as one basis for recommending future facilities based on capacity. The purpose of the forecast is to establish a future vision, not to recommend a year-by-year development plan.

FAA reviews and approves airport master plan forecasts by comparing the master plan projections with those of the FAA's own Terminal Area Forecast (TAF). If the master plan projections are within a moderate range of the TAF projections (e.g., 10% in 10 years), then approval is reasonably assured. Significantly more coordination is required to approve master plan forecasts that fall outside of the standard approving guidelines. To facilitate FAA review and approval, it has become standard practice to submit a comparison with the FAA TAF using a standardized spreadsheet developed by the FAA. Therefore, the consultant will produce master plan forecasts to the same level of detail to facilitate TAF comparison. The aviation activity projections will be conducted in accordance with AC 150/5070-6B and using supplementary guidance provided by the FAA's Office of Aviation Policy and Plans. Baseline activity levels and projections of short-term (5-year), intermediate (5 to 10 year), and long-term (10 to 30+) activity levels will be developed. Generally, short-term forecasts are for up to five years and are used to justify near-term development and can be used to support operational planning and environmental

improvement programs. Medium-term forecasts (6-to-10 year time frame) are typically used in planning capital improvements, while long-term forecasts (beyond 10 years) are helpful in general concept planning. Specific work tasks associated with this element are included in the work tasks that follow.

Cost Assumptions:

- Review of previous forecasts and studies— Review and summarize the most current FAA Terminal Area Forecast (TAF) for the airport, the National Plan of Integrated Airport Systems (NPIAS), regional forecasts and system plans of aviation activity, State/local projections, previous master plan projections, and available records of historic activity. The information will ultimately be compiled in the forecast white paper for each of the two major primary forecasting sections: based aircraft and operations. (e.g., enplanements, based aircraft, etc.).
- Establish airport role— the airport's role will be identified and documented according to current federal, state, and local system plans as well as the airport's strategic plan, and input from the steering committee. Feedback from the community outreach efforts will be included to highlight any changing trends in the airport/TTAD's future purpose.
- Coordinate factors influencing demand with airport and steering committee— The consultant will apply professional experience and specific research related to local and national trends to summarize the primary factors expected to influence demand at TRK. These factors will be finalized through coordination with the steering committee via an iterative process involving email, telephone or web-conferencing, or pre-planned in-person meetings.
- Prepare forecast methodology— The consultant will summarize the forecasting methodology to be applied for input from the airport management and steering committee. This iterative coordination will be conducted using email, telephone or web-conference meetings, or through pre-planned in-person meetings. Primary focus will be on two areas: based aircraft and aircraft operations.
    - Based aircraft forecasts will be generated for total growth of the based aircraft fleet and broken down into aircraft classifications (turbo-jet, turbo-prop, multi-engine piston, single engine piston, and helicopter). The classifications and mix of aircraft is expected to change over time.
    - Operations will be forecast in terms of local versus itinerant operations and then by aircraft classification.
- Conduct independent analysis— Using the forecasting guidance included in FAA Advisory Circular (AC) 150/5070-6b, consultant will analyze historic activity against several variables to determine the degree of correlation. The various projection-types may include: time-trend analysis as well as population and socio-economic data regressions. The degree of correlation may be determined mathematically or assumed.
- Summary and recommendation— The results of all of the forecasts are summarized and compared to establish the forecast range. A recommended forecast will be documented based on professional judgment and collaborative input received from the steering committee. A comparison with the current FAA Terminal Area Forecast (TAF) will be included in this section.

- Submission to FAA for review and comment. Prepare a letter transmitting the forecast white paper to the FAA asking for approval and providing TAF comparison to as a means of facilitating the process.
- Consultant will review and respond to FAA written comments with proposed changes and obtain concurrence on the proposed changes and submit a revised white paper to the FAA for approval. The cost for completing this work is based on a draft forecast submission that is within the general approving criteria used by the FAA and that FAA comments resulting from their review are clarification and/or editorial in nature. The expectation is that forecasts will be approved without further coordination with regional or national headquarters branches of the FAA or multiple draft submissions of the forecast white paper.
- Consultant will print, bind, and ship the draft and final white papers to the airport for dissemination either to the FAA ADO office or to the Airport for shipment to the ADO (depending on FAA protocol). It is expected that Mead & Hunt will draft the cover letters, which may be edited by TTAD and then reproduced on TTAD's letterhead to formally transmit the forecasts reports and approval request.
- Draft forecast report to be completed within 120 days following notice to proceed. FAA review, coordination, and approval to be completed within 90 days following draft submission to FAA.

Deliverables: Memorandum to steering committee describing airport role, demand influences, and forecast methodology. Draft Forecast Report for FAA/TTAD review and comment. Final Forecast Report for approval by the FAA.

ELEMENT 6.0 – FACILITY REQUIREMENTS

***Prerequisite*:** Completion of Inventory (Element 4.0) and Aviation Forecasts (Element 5.0).

***Objective*:** To identify the quantity and types of facilities that may be necessary in the short, intermediate, and long-term.

The analysis to be conducted for this element includes all facilities potentially needed over a 20-year planning horizon. Factors influencing the analysis and recommendation include, but is not necessarily limited to: condition, design, and potential replacement/upgrade needs of existing facilities; new services or functions that can be accommodated; anticipated future demands for facilities and services relative to current capacity; increasing the level of flexibility to accommodate unanticipated future conditions; strategic / business plan policies established by the TTAD, input received from the community that enhance the value of the airport or aviation service support throughout the district; and enhancements that are socio-economically beneficial to the area and that provide additional sources of revenue. On airport facilities are generally evaluated in order of the following: airside facilities (e.g., runway, taxiways, navigational aids, etc), aviation building areas (e.g., hangars, apron, gate access, and vehicle parking), and landside facilities (e.g., non-aviation uses). The facility needs will focus primarily on aviation facilities and the approximate timing broken into near-term (within the first five years), interim (within the second five years), and long term (beyond 10 years). The long-term is to approximate a 20-year vision and is most typically used to establish a logical sequence of development over a long-term planning cycle rather and not a year-by-year development schedule.

Cost Assumptions:

- Using information obtained through a combination of FAA guidance and design standards, professional judgment, demand / capacity analysis, input provided by aviation users, input provided by airport management, and input received from the community outreach efforts, the consultant will identify on-airport airside facility requirements. Consultant analysis will include the following (according to 5-, 10, and 20-year outlook cycles):
    - Design aircraft and airport reference code selection
    - Wind coverage and runway orientation (all weather and instrument weather conditions)
    - Runway length analysis
    - Sailplane/ glider runway requirements
    - Instrument procedures and air traffic control analysis
    - Compliance with FAA airport design standards
    - Taxiway system standards and efficiency
    - Navigation, weather, and visual aids
    - Airfield Lighting Marking and signage
    - Airfield access and wildlife hazards
    - Assessment of future airside facilities included on current ALP-of-record
    - Community noise exposure considerations
- Consultant to identify aviation-use building areas and potential facility requirements over 5-, 10, and 20-year outlook cycles). The analysis is specific to the following facilities:
    - Based aircraft hangar and apron needs by size of aircraft
    - Transient apron and hangar storage needs by size of aircraft
    - Airplane deicing hangar and/or multi-use building facility
    - Sailplane/ glider storage, staging, and recovery areas
    - Aircraft servicing, maintenance, and support facilities
    - Airport maintenance and support facilities
    - Airfield access gates, vehicle parking, and roadway access.
- Consultant will analyze airport property utilization and identify the potential need for acquiring property in the future based on the airport's strategic vision and/or the need to preserve for aviation use or safety protections and also the potential to identify and release surplus property for potential non-aviation use.
- Consultant to prepare draft white paper and electronically distribute to airport management and steering committee for review and discussion.
- Consultant to obtain input from airport management and the steering committee via an iterative process of email, telephone or web-conferencing, or pre-scheduled in-person meetings. The decisions will be incorporated into the decision document at the conclusion of the study.
- Draft facility requirements report to be completed within 60 days following the submission of the draft forecast report to the FAA (see Element 5.0)

Deliverables: Draft facility requirements white paper electronically delivered to the steering committee and airport management for vetting.

ELEMENT 7.0 – ALTERNATIVES ANALYSIS

***Prerequisite*:** Completion of Facility Requirements (Element 6.0).

***Objective*:** To identify and comparatively analyze long-term airport development scenarios that can accommodate 20-year needs identified in Element 6.0, providing adequate rationale for selecting a preferred alternative that will be carried into subsequent work elements.

This work element assumes that the consultant team will collaborate with airport management, steering committee and others to identify and screen four initial alternatives and then collaborate further to select and comparatively analyze two finalist alternatives, one of which will be further refined, and carried to subsequent planning tasks and ultimately depicted on the ALP. It is assumed that the alternatives will include changes to the runways (e.g., shifting along the runway centerline, changing runway width, and/or changes to runway length) in an effort to better distribute aircraft noise exposure or repetitive exposure on the surrounding communities. In addition, different combinations of aviation and non-aviation building area development patterns are anticipated to be explored. The building area scenarios will be evaluated primarily on their efficient use of property assets, but will also consider potential impacts to operational patterns and noise.

Cost Assumptions:

- Consultant will obtain and review available "white papers" conducted since the last master plan by TTAD, the airport, ACAT, and others since the last master plan was completed to understand and document the attempts to distribute noise and resolve other issues at the airport.
- Collaborate with airport management and steering committee through a combination of pre-planning in-person meetings, email correspondence, and telephone or web-teleconference to identify 4 alternatives for the consultant to develop and screen.
- Consultant will develop the initial 4 alternatives to the extent necessary to screen them and develop summary findings for the purposes of eliminating two of the alternatives. The consultant findings will be discussed and conclusions clarified following further coordination with airport management and the steering committee via email, telephone or web-teleconferencing, or pre-planned in-person meetings. Two alternatives will be selected for further analysis.
- Consultant will prepare planning exhibits to further refine and detail the alternatives and coordinate with airport administration and the steering committee in developing a comparative scoring matrix to support the selection of a preferred alternative. The collaboration will be conducted via email, telephone or web-conference, or via pre-planned in-person meetings.
- Consultant team will lead the scoring analysis with input and collaboration from airport management and the steering committee through a combination of emails, telephone or web-conferences, or pre-planned in-person meetings.
- Consultant team will prepare a draft white paper and distribute electronically to the airport management and steering committee for review and discussion.

- Consultant team will coordinate changes to the draft white paper via a combination of emails, telephone or web-conferences, or pre-planned in-person meetings. The changes will ultimately be incorporated into the master plan decision document.
- Noise contours and impact analysis will be conducted for the two finalist alternatives and will include the development of a detailed report presenting the assumptions and findings and comparison between existing and future noise levels.
- Draft facility requirements report to be completed within 60 days following the submission of the draft facility requirements report (see Element 6.0)

Deliverables: Draft alternatives analysis white paper electronically delivered to the steering committee and airport management for vetting. Draft noise analysis report will also be electronically distributed.

ELEMENT 8.0 – IMPLEMENTATION PLAN

***Prerequisite*:** Completion of Alternatives Analysis (Element 7.0).

***Objective*:** To identify the process by which the plan will be implemented, including: approximate development timelines, project identification, development cost estimates, funding strategy, and environmental review process and steps.

The ALP (Element 9.0) will be developed simultaneously as part of this phase to support final plan refinements. The emphasis is on breaking the total plan vision into individual projects and the approximate implementation times for those projects. Planning level costs will be developed to support this effort and as a check on overall financial feasibility of the entire plan. This element will also outline the steps required for environmental documentation, plan adoption, and any land use compatibility plan change recommendations.

Cost Assumptions:

- Consultant to prepare sketches depicting the short, intermediate, and long range development of the airport.
- Consultant to identify specific projects included in the project phases and develop planning-level costs that will be used to develop the ACIP.
- Consultant to identify the environmental review process, impact categories, and timing (CEQA and NEPA. Consultant will scope CEQA based on plan recommendations and anticipated data needs or impacts.
- Consultant will outline plan adoption and facility implementation process for airport management.
- Consultant will identify how the master plan recommendations might impact the land use compatibility plan and the process that the Nevada County Transportation Commission (NCTC) could undertake to enhance that plan's consistency with the master plan.
- Prepare draft implementation plan white paper (including ACIP), electronically distribute to airport management and steering committee. Obtain feedback via a combination of email, telephone or web-conference, or pre-planned in-person meetings for inclusion in the final decision document.

- Draft implementation plan report to be completed within 60 days following the submission of the draft alternative analysis report (see Element 7.0).

Deliverables: Draft implementation plan white paper (including ACIP).

ELEMENT 9.0 – Documentation (Decision Document and ALP)

***Prerequisite*:** Completion of alternatives analysis (Element 7.0).

***Objective*:** This element addresses the final plan documents for the Master Plan.

The final plan deliverables will represent the formal documentations that will become a matter of public record approvals. Two primary documents include: Master Plan Decision Document and Airport Layout Plan (drawing set). The Decision Document will be prepared in the form of an executive summary to highlight the plan decisions, summarizing the basic rationale behind those decisions. The ALP is a set of engineering-type drawings comprising approximately 10 plan sheets that the FAA will be asked to approve for purposes of administering the AIP grant process. FAA approval does not constitute a commitment by the FAA to fund the projects nor does it constitute an environmental process approval to proceed with development. Approval by the FAA constitutes a finding that the depicted development will not have any adverse operations on air transportation safety.

Cost Assumptions:

- Consultant to prepare draft ALP set in general conformance with applicable ALP checklists being applied by FAA ADO review staff. The sheets are anticipated to consist of the following (some may require more than a single plan sheet to produce): Title Page, Existing Facilities, Airport Layout Plan, Airport Data, Building Area Plan(s), Airspace Plan(s), Runway Profile Plans, and Airport Property Map. Plan preparation will involve the use of readily available data. The drawing set will be electronically transmitted to the airport for printing. The airport will ship two sets to the FAA ADO for review and comment along with the bound white paper reports. Mead & Hunt will print and ship two copies of the compiled technical report and ALP drawing sets.
- Consultant will prepare a draft Decision Document summarizing the findings of the white paper reports and subsequent input collected from airport management and the steering committee. The report will be electronically delivered to the airport for printing and delivery to the TTAD Board for review and comment.
- Review and respond to TTAD Board input (anticipated to be part of a presentation to the Board) and FAA written comments (if any).
- Submit 2 final ALP sets to TTAD for signature and submission to FAA for approval, two printed Decision Documents, and compact disk containing electronic data files to close out the master plan project.
- Draft ALP and Decision Document to be produced within 90 days following the completion of Element 8.0, *Implementation Plan.* FAA and TTAD comments to be provided within 45 days

following Draft Plan submission. Final deliverables to be produced within 30 days following FAA and TTAD comment receipt.

Deliverables: Compiled and bound white paper reports for FAA (2 sets). Two draft ALP drawing sets for FAA review. Two sets of each final deliverable: Decision Document and ALP

Additional Services

TTAD may authorize the completion of additional services deemed necessary to satisfy the overall objectives of the master plan project. The additional work elements to be achieved, costs, and schedule are to be authorized through a fully-executed amendment to this scope of services or as a wholly separate service contract. Additional services may include, but would not specifically be limited to the following:

- Noise monitoring and report
- Additional meetings requiring travel
- Engineering, geotechnical, archaeological, biological, and cultural surveys / field reconnaissance
- Extended aviation forecast coordination or report revisions
- Additional alternatives and/or alternatives refinements and analysis
- Additional “white paper” report revisions and/or coordination
- CEQA documentation / plan adoption support
- Additional report printing / reproduction