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Subject: Cameron Park Airport (O61) Airport Layout Plan Update, Narrative Report w/AGIS Survey Scope and Fee Proposal

To: Mr. Zimlich

Cameron Park Airport (“O61” or “the Airport”) is a public-use general aviation airport serving Cameron Park and the surrounding El Dorado County community. The Airport’s current Airport Layout Plan (ALP) dates back to 2001 and no longer provides an up-to-date representation of existing airport facilities, current design standards, and the Airport’s anticipated development needs. Since preparation of the existing ALP, Federal Aviation Administration (FAA) airport design criteria, airspace requirements, and geospatial data standards have evolved significantly. The FAA has therefore identified the need for Cameron Park Airport to update its ALP to document current conditions and establish a current, FAA-accepted planning framework to guide future airport improvements and support continued eligibility for federal funding.

The proposed ALP Update will include preparation of an updated ALP drawing set, supporting Narrative Report, and FAA-compliant Airport Geographic Information System (AGIS) survey and data collection. A key focus of the effort will be documenting and evaluating the Airport’s existing non-standard conditions and associated Modifications to Standards (MOS), including the existing runway width relative to the Airport’s critical aircraft and airspace penetrations associated with existing buildings and residences surrounding the Airport. The ALP Update will evaluate these conditions against current FAA criteria, identify potential measures to address or mitigate non-standard conditions where practicable, and document those conditions that may need to remain and require continued or updated FAA approval. The resulting ALP, Narrative Report, and AGIS data will provide the Airport and FAA with an accurate depiction of existing conditions, clearly identify airport design and airspace constraints, and establish a defensible basis for future airport development and capital investment. A detailed Scope of Services is provided herein for further review.

DETAILED SCOPE OF SERVICES

Kimley-Horn and Associates, Inc. (“KHA” or “Consultant”) will provide professional airport planning services to support the Airport Layout Plan (ALP) Update with Narrative Report and associated Airport Geographic Information System (AGIS) Survey (“Project”) for O61. This effort includes preparing an updated ALP drawing set and narrative report documentation consistent with Federal Aviation Administration (FAA) requirements, completing the AGIS data collection and submission to the FAA, and

assisting the Cameron Park Airport District (“CPAD” or “Client” or “Sponsor”) with FAA coordination and review throughout the project.

Project Summary: The most current Airport Layout Plan Update for O61 was completed in 2001. The purpose of this Project is to document changes that have occurred since the prior planning effort and to support the long-term operation of O61 by establishing an updated framework to guide development decisions on and around the Airport while meeting applicable FAA design standards. This update will provide CPAD and its stakeholders with a comprehensive, organized plan for developing Airport facilities over the next 20 years. The goals of this process are to ensure that aviation needs are met in a feasible, safe, and fiscally responsible manner. Specific objectives within this ALP Update Scope of Services include:

- Obtain new aerial mapping and FAA Airport Geographic Information System (AGIS) safety-critical data, including airfield coordinates and elevations, navigation aid locations, and airspace obstacle information.
- Prepare an updated, reasonable forecast of aviation activity and user demand for O61 that is reviewed and approved by the FAA.
- Update the Airport’s Exhibit ‘A’ to meet FAA SOP 3.00 for *FAA Review of Exhibit ‘A’ Airport Property Inventory Maps* standards.
- Develop a realistic and comprehensive Airport development plan that considers the Airport environs, satisfies future aviation needs, enhances safety, and conforms to current FAA standards, orders, and advisory criteria to the extent practicable.

The ALP Update will be prepared in close coordination with the FAA and the California Department of Transportation (Caltrans) Division of Aeronautics and will conform to applicable agency guidance available at the time of contract execution, including:

- FAA Advisory Circular 150/5300-13B, Change 1, *Airport Design*
- FAA Advisory Circular 150/5070-6B, Change 2, *Airport Master Plans*
- FAA Advisory Circular 150/5000-17, *Critical Aircraft and Regular Use Determination*
- FAA Advisory Circular 150/5325-4B, *Runway Length Requirements for Airport Design*
- FAA Advisory Circular 150/5300-16B, *General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey*
- FAA Advisory Circular 150/5300-17C, *Standards for Using Remote Sensing Technologies in Airport Surveys*
- FAA Advisory Circular 150/5300-18B, Change 1, *General Guidance and Specifications for Aeronautical Surveys: Airport Survey Data Collection and Geographic Information System Standards*
- FAA Airports Division (ARP) Standard Operating Procedures (SOPs)
- FAA Order 5100.38, *Airport Improvement Program (AIP) Handbook*
- Other FAA Advisory Circulars, Orders, and Regulations applicable to this project
- Applicable Caltrans Division of Aeronautics regulations and requirements

Other documents that will be referenced to complete this task include:

- El Dorado County General Plan, Transportation and Circulation Element (amended August 2019)
- El Dorado County Regional Transportation Plan 2025-2045 (adopted 2025)
- El Dorado County Airport Land Use Compatibility Plan (adopted 2012)

Any updates to the above guidance during the ALP Update process will be discussed with the Client, the Consultant, and the FAA to determine the appropriate application to this project. KHA will complete the scope of services in eleven (11) Tasks as follows and as more specifically described in the Detailed Scope of Services.

Task 1.0 - Project Initiation

Task 2.0 - Project Management and Administration

Task 3.0 - Stakeholder and Public Involvement Program

Task 4.0 - Aerial Photography, Planimetric Mapping, and AGIS Data Development

Task 5.0 - Inventory of Existing Conditions

Task 6.0 - Aviation Activity Forecasts

Task 7.0 - Facility Requirements

Task 8.0 - Alternatives Analysis and Recommended Development Plan

Task 9.0 - Implementation Plan

Task 10.0 - Airport Layout Plan Drawing Set

Task 11.0 - Final Documents – Submittal and Approval

KHA shall complete the following tasks associated with this Scope of Services:

1.0 Project Initiation:

This effort includes the coordination necessary to define the project objectives, develop and finalize the Scope of Services, and execute the required contract agreements. The Consultant will work closely with CPAD to establish the context and purpose of the Project. This includes developing an understanding of the District's vision for O61, its role within the national, state, and regional aviation system, and any specific guiding principles, goals, or priorities CPAD has for O61. Based on this early coordination, the Consultant will prepare a draft Scope of Services and submit it to CPAD and the FAA for review. One additional teleconference may be conducted to resolve comments. Following the incorporation of Airport District and FAA feedback, the Consultant will prepare the final Scope of Services and a preliminary fee estimate for the District's use in obtaining an Independent Fee Estimate (IFE). A preliminary project schedule will also be developed. Upon completion of these steps, the Consultant and CPAD will negotiate and execute all appropriate prime and subcontract agreements.

Deliverables:

- Draft Scope of Services for CPAD and FAA review/IFE materials
- Final Scope of Services

2.0 Project Management and Administration:

Appropriate direction and project management will be provided in the development of the Project as each task is undertaken and completed. This includes the following meetings:

- Project kick-off meeting between the Consultant and Airport District; to be held virtually and attended by up to three (3) consultant team members scheduled for one hour.
- As needed internal team meetings (up to 60) to review task status and schedule and discuss client and FAA coordination; meetings are anticipated to be a half (.5) hour in duration attended by the PM and up to two (2) other consultant team members.
- Monthly project status and coordination virtual meetings between CPAD and Consultant (up to 18); meetings are anticipated to be one (1) hour in duration attended by the PM and up to two (2) other consultant team members.
- Preparation of invoices and project status reports (as reasonably appropriate) that will be submitted with monthly invoices.

Deliverables:

- Monthly invoices
- Monthly project status reports (as appropriate)
- Meeting Agenda and Summary

3.0 Stakeholder and Public Involvement Program

This task includes stakeholder, agency, and public engagement programs that will be performed throughout the course of the Project. To reduce costs associated with this effort, multiple in-person meetings will be scheduled for the same trip, preferably on the same or concurrent days to the extent practicable and indicated below.

3.1. Airport Advisory Committee (AAC) Meeting:

The Consultant will prepare and present a summary of the study findings for the Airport Advisory Committee (AAC) at up to three (3) in-person meetings. These meetings will be used to discuss the purpose and scope of the study and review high-level input and study findings, review the alternatives, and present the Recommended Development Plan. It is anticipated that these meetings will be attended by two (2) Consultant team members.

3.2. Agency Coordination:

The Consultant will meet with FAA staff throughout the study, up to four (4) meetings, to coordinate the study findings and ALP's review and approval. It is anticipated that these meetings will be held virtually with three (3) Consultant team members attending the meetings. These coordination meetings will be used to facilitate the approval of the forecasts, discuss alternatives, or review the ALP to potentially speed up the FAA's review and approval. One call is planned with Caltrans to facilitate input and discussion of key ALP elements.

Deliverables:

- AAC meeting slide decks (up to three)
- AAC meeting agendas (as needed)
- FAA coordination meeting materials (slides or discussion packets, as needed)
- Caltrans coordination call materials (as needed)

4.0 Aerial Photography, Planimetric Mapping, and AGIS Data Development

The data collected within this effort is intended to meet the FAA's requirements as specified in Table 2-1 of AC 150/5300-18B for Airport Layout Plans (ALPs) and Instrument Procedure Design. The project will include an airport airspace analysis for existing Runways 10L/28R and 10R/28L, as well as the ultimate runway configurations identified through this Project. The GIS data will be supplied to CPAD for their use in a shapefile format. Full scope for this Task is available in **Attachment 1**.

Deliverables:

- FAA-compliant GIS data package meeting AC 150/5300-18B Table 2-1 requirements
- GIS data files delivered to CPAD for their use (shapefile format)

5.0 Inventory of Existing Conditions

The purpose of this task is to assemble and organize relative information and data pertaining to the Airport and its environs that have changed since the last ALP was completed in 2001. This information will be used throughout all phases of the Project.

5.1. Data Collection:

The information will be collected through desktop research and review of previous studies and plans (if applicable), in addition to a formal Request for Information (RFI) sent directly to the airport manager or other designated individual on the airport manager's behalf. This task will maximize the use of readily available information provided by CPAD and from other reliable sources. Materials may include previous planning efforts, transportation studies, market assessments, pavement management programs, business plans, wildlife hazard studies, aerial survey and GIS data, land use and zoning data, environmental documentation, economic impact studies, 10-year history of all FAA airport grants, or other reports as appropriate. Where possible, CPAD will provide electronic copies of existing studies for the Consultant's reference and use as early in the process as possible.

5.2. Airport Inventory:

The inventory will identify and generally describe the existing Airport facilities with a focus on the facilities and services that have changed since the last planning study.

The following items will be reviewed at a high level to verify the most current data is still valid:

- **Airport Role:** Identify the role that the Airport plays within the National, State, and regional systems.
- **Airfield:** Runway, taxiways, and holding apron configurations including published dimensions, pavement strength, maintenance history, Pavement Condition Index (PCI), Pavement Condition Number (PCN), perimeter fencing and access control, airfield lighting, marking and signage, visual and navigational aids. No additional field studies or geotechnical analysis is accounted for in this task.
- **Land Holdings:** A review of the Airport's current Property Map Exhibit A will be conducted with CPAD staff to confirm information on the Airport boundary and property interests (i.e., fee-simple, easement, rights-of-way) are accurately reflected. This effort will not include a Title Report search.

- **General Aviation Facilities:** The quantity, type, and general condition of hangars, transient aircraft parking aprons, vehicle parking spaces, tie-down positions, fixed base operators, terminals, flight schools, and general aviation services will be inventoried using existing available data sources. Data related to the facility type, capacity, current occupancy, and tenant lease uses will be identified as information is available.
- **Ancillary/Support Facilities:** Fuel storage, equipment storage facilities, adjacent emergency response facilities, and Airport administration and maintenance facilities will be inventoried. Existing capacities including number of fuel tanks, types of fuel, and available equipment and adequacy of storage tanks based on existing and forecasted aviation demand will be determined. Any other types of businesses and building sizes on the Airport will be identified. It will also be important to obtain information on the number of gallons of fuel sold, by type, over the past five years for use in subsequent efforts.
- **Vehicle Access and Parking:** High level access and parking will be reviewed in terms of the condition and adequacy to reach public and tenant parking facilities.
- **Approach Capability Inventory:** Existing instrument approach capabilities and local area airspace will be reviewed with an emphasis on instrument procedures and minimums, noise abatement measures, and traffic patterns. Information to be provided by the Airport on runway utilization, potential for improved minimums, air traffic control procedural changes, and any potential improved minimums or FAA navigational aid improvements that may be in process.
- **Noise Contours:** A review of any existing noise contours associated with either runway will be conducted. Pending the outcome of the revised forecasts and development alternatives, creation of new noise contours for future runway configurations may be required.
- **Environmental Considerations:** cursory-level inventory of the environmental conditions on and near the Airport through the use of existing reports, maps, studies, environmental documents, and the internet. Intended to collect information to be used in evaluating the alternatives.
- **Recycling, Reuse, and Waste Reduction Program:** Review of the existing program will be reviewed for any updates. Changes to the existing program will be noted, if applicable.

Areas expected to be revised based on most current data available and summarized within this task include:

- **Aviation Activity:** All current aviation activities related to aircraft operations (local, itinerant, military, etc.) and based aircraft will be collected. Updates will be carried forward for use in the Forecasts of Aviation Activity task (Task 6.0).
- **Weather Data:** Wind data from the NOAA National Climatic Data Center records including those from the Airport's Automated Weather Observing System (AWOS) will be compiled to generate updated wind roses for the Airport for "all-weather", "instrument meteorological conditions", and "visual meteorological conditions."

- **Socioeconomic Data:** The Consultant will obtain available statistical data on historical and forecasted socioeconomic factors for the Cameron Park Community, El Dorado County, and State of California. These factors will include employment, income, and population.

5.3. *Environmental Inventory:*

This task is intended to be a cursory-level inventory of the environmental conditions on and near the Airport. Through the use of existing reports, maps, studies, environmental documents, and the internet, the Airport's environmental setting and key environmental resources that could potentially be affected by development will be described. No specific field inspections, biological assessments, computer modeling, quantitative studies, or any other technical analysis is accounted for in this effort. The following will be addressed to the extent that information is readily available:

- Federal and State inventories of endangered and threatened species
- State inventories of historic and archaeological sites
- Vicinity Land Use and Zoning
- Water resources including coastal zones, flood plains, wetlands, wild and scenic rivers, and waters of the U.S.
- Section 4(f) resources (e.g., public parks)
- Hazardous materials sites (e.g., RCRA, CERCLA, UST/AST)
- Wildlife hazard attractants or concerns
- Cameron Park or Airport environmental or sustainability studies, plans, programs, policies or initiatives

This information will be consolidated into a general environmental inventory narrative, and corresponding environmental resource maps reflecting an area within approximately 1.5 miles of the Airport's center point, will be prepared to briefly describe the existing environmental and community resources in the airport environs. This information will be used in the preparation and evaluation of alternative development scenarios. This scope of work does not include detailed environmental impact determination or development of mitigation measures. Further environmental effort will be required for associated approvals of future development.

5.4. *Draft Inventory Chapter:*

The Consultant will prepare a draft chapter describing the study goals, overall purpose of the Project, and high-level summary of the findings of the inventory effort in a tabular format. The draft will be submitted electronically to CPAD for one round of review and comment. The information in this chapter will be used in subsequent tasks of the Project and will ultimately become a chapter of the final ALP Narrative report.

Deliverables:

- Draft Inventory Chapter (PDF format) for one round of CPAD review and comment

6.0 Aviation Activity Forecasts

This forecasting effort will identify aviation demand that is anticipated to occur over a 20-year planning period using acceptable forecasting analysis techniques consistent with FAA guidance including *Forecasting Aviation Activity by Airport* (July 2001) and *Guidance on Review and Approval of Local Aviation Forecasts* (June 2008).

6.1. ***Aircraft and Activity Data and Existing Forecasts Review***

Readily available historical and existing air traffic data for the Airport will be assembled. Sources to obtain aviation related activity will include FAA databases such as the National Based Aircraft Inventory Database, Terminal Area Forecast (TAF), Air Traffic Activity Data System (ATADS), Traffic Flow Management System Counts (TFMSC), and other resources such as previous Airport studies and records.

The Consultant will conduct a review for validity of existing forecasts of aviation demand as they pertain to O61. These forecasts include the 2025 FAA Terminal Area Forecasts (TAF) and any previous forecasts developed for O61.

It is recognized that data available from the FAA's www.basedaircraft.com varies significantly from data on file regarding hangar leases and based aircraft. These discrepancies will be discussed in the inventory and coordinated with FAA to ensure FAA's concurrence with the base data that is used for the O61 forecasts.

6.2. ***Development of Aviation Activity Forecasts***

Aviation activity forecasts specific to O61 will be developed for the short-term (0-5 years), intermediate-term (6-10 years), and long-term (11-20 years) utilizing 2025 as the baseline for the following categories:

- Based aircraft and fleet mix
- Annual operations (local vs. itinerant)
- Annual military operations (local vs. itinerant)
- Annual operations by aircraft type
- Annual instrument approach procedures (IAPs)
- Peak month, day, and hourly operations

Up to three forecasting methodologies and techniques will be employed. Potential methodologies may include, but will not be limited, to:

- Regression analysis
- Trend analysis and extrapolation
- Socioeconomic factor comparison
- Market share analysis
- Comparison to similar type or nearby airports

The recommended forecasts of aviation demand will be submitted to the FAA as outlined in **Task 6.4** for review and approval utilizing FAA guidelines contained in *Forecasting Aviation Activity by Airport*, including preparation of table templates included in Appendices B and C.

Additionally, this forecasting effort will include the selection and recommendation of a design aircraft to be used in subsequent facility planning evaluation. This determination will be made consistent with the FAA's AC 150/5000-17, *Critical Aircraft and Regular Use Determination*.

6.3. Draft Forecast Chapter

The Consultant will prepare a draft chapter describing the means, methods, assumptions, and results of the activity forecasting effort. The draft will be submitted in electronic PDF format to CPAD for one round of review and comment. The information in this working paper will be used in subsequent tasks of the Project and will ultimately become a chapter of the final ALP Narrative report.

6.4. FAA Coordination and Forecast Approval

The recommended forecasts of aviation demand for O61 will be coordinated with, and submitted to, the FAA for review and approval as follows:

- After review by CPAD, the Consultant will submit the draft Forecasts Chapter to the CPAD for submission to the FAA for their formal review and approval. The submission will include preparation of a letter, as well as the FAA's comparison templates in accordance with FAA guidelines contained in *Forecasting Aviation Activity by Airport*.
- Additional coordination with the FAA may be required if the forecasts are outside of the allowed variance from the Terminal Area Forecast (TAF).

Deliverables:

- Draft Aviation Activity Forecasts Chapter (PDF format) for one round of CPAD review and comment
- Formal memorandum submitted to the FAA including the Draft Forecasts chapter (PDF format) for review and approval

7.0 Facility Requirements

This task will utilize the findings of the previous tasks described herein to identify the Airport facility and infrastructure improvements needed to meet projected levels of demand, current FAA airfield design standards, and the strategic goals established by CPAD. This will effectively be a "gap analysis" to identify recommended Airport improvements over the 20-year planning horizon.

7.1. Facility Requirements Comparison and Needs

The Consultant will evaluate existing conditions and needs at O61 to identify any changes or modifications related to FAA design standards, airfield requirements, aircraft storage and support facilities, and airspace protection requirements since the publication of the 2001 ALP. Findings will be summarized in tabular format, noting differences or additions from the previous study.

Specific focus areas based on input from the CPAD will include:

- Documenting and evaluating the Airport's existing non-standard conditions and associated Modifications to Standards (MOS)

- Evaluation of existing runway width relative to the Airport's Existing and Future critical aircraft
- Airspace analysis associated with buildings and residences surrounding the Airport

7.2. Draft Facility Requirements Chapter:

The Consultant will prepare a draft chapter describing various analyses and resultant Airport facility requirements needed to meet projected activity levels, FAA design standards, and CPAD's strategic goals. The draft will be submitted in electronic PDF format to CPAD for one round of review and comment. The information in this chapter will be used in subsequent tasks of the Project and will ultimately become a chapter of the final ALP Narrative report.

Deliverables:

- Draft Facility Requirements Chapter (PDF format) for one round of CPAD review and comment

8.0 Alternatives Analysis and Recommended Development Plan

Alternative development concepts will be derived that satisfy FAA and Caltrans safety and design standards to the extent practicable and feasible and that accommodate the requirements for airside, storage, and support facilities. A range of reasonable and feasible alternatives will be considered for further evaluation. Alternatives that may be considered but are dismissed from further consideration will also be briefly discussed and the basis for their elimination noted. The evaluation of alternatives will result in the recommended development plan that will form the basis of the ALP and airport capital development program.

8.1. Alternatives Evaluation:

The Consultant will formulate up to three (3) preliminary development alternatives that will address needed development throughout the planning horizon and beyond as identified in the facility requirements in Task 7. Schematic concept drawings and narrative descriptions will be provided for each concept, as appropriate.

Each of the alternatives will be weighed against a set of up to four evaluation criteria that reflect the overarching design and management objectives of the Airport and the Project. This will assist in identifying which alternatives provide the greatest benefit with the least impact, which ultimately will inform Airport leadership's selection of the preferred alternative.

Generally, facility improvements may be categorized as those that require in-depth alternatives analyses and those that do not. Some improvements do not offer alternatives as the conditions or needs should be met and there are no other options to achieving the improvement. These improvements may have limited complexity and therefore do not require a full analysis. For the purposes of this ALP Update, select facility requirements will be identified as "no analysis" alternatives.

8.2. Recommended Development Plan:

CPAD will assist with the evaluation and selection of the individual development concepts from Tasks 8.1 that best meet the established vision and strategic goals for O61. At this point, the preferred concepts will be combined and refined as necessary to maximize operational efficiency and development flexibility. Areas of airport land that are not encumbered by either man-made or natural constraints and available for temporary or permanent non-aeronautical development

will be identified. The resulting recommended development plan (RDP) will become the basis for the remainder of the Project's planning process.

8.3. Draft Alternatives Chapter:

The Consultant will prepare a chapter that will document the analysis in tabular, narrative, and graphic format describing the evaluation of development alternatives and the identification of the recommended development plan. The draft will be submitted electronically to CPAD for one round review and comment. The information in this working paper will be used in subsequent tasks of the Project and will ultimately become a chapter of the final ALP Narrative report.

Deliverables:

- Draft Alternatives Chapter (PDF format) for one round of CPAD review and comment
- Draft Recommended Development Plan Drawing

9.0 Implementation Plan

Based on the outcome of Task 8, an implementation plan that provides the financial requirements to meet the proposed recommended development plan over the course of the planning period will be created.

9.1. CIP Project Identification:

Potential follow-on planning and design needs, land acquisition, and capital development projects that make up the recommended development plan will be identified and become the basis for the Project's draft Capital Improvement Program (CIP). The CIP will also include:

- Planning level opinion of probable cost estimate for each project in the CIP
- Phasing organized into 0 to 5-year (near-term), 6 to 10-year (intermediate-term) and 11 to 20-year (long-term) phases.

Opinions of probable costs are intended to be used for planning purposes only and will not be the result of detailed engineering design and analysis. CPAD shall reevaluate opinions of probable costs prior requesting project funding.

9.2. Draft Capital Improvement Program (CIP):

A draft Airport CIP will be prepared that incorporates the phased projects and cost estimates from the previous tasks with other projects (e.g., equipment acquisitions, facility maintenance) that may already be programmed in CPAD's official working CIP. This effort includes identifying anticipated funding sources and their respective participation in terms of the FAA, Caltrans, and other state, local, and third-party funding partners. This effort focuses on providing a financial planning tool for the short-term horizon following the completion of the Project, acknowledging that recommended projects beyond that time frame may be more speculative in nature.

9.3. Draft Implementation Chapter:

The Consultant will prepare a draft chapter that will document the analysis in tabular, narrative, and graphic format. The draft will be submitted electronically to CPAD for one round review and comment. The information in this chapter will become a chapter of the final ALP Narrative report.

Deliverables:

- Draft Implementation Plan Chapter (PDF format) for one round of CPAD review and comment

10.0 Airport Layout Plan Drawing Set

An updated ALP drawing set for O61 that reflects the recommended development plan resulting from this Project will be prepared. The ALP set will be produced in both digital (CAD and PDF) and hard copy versions. The new aerial survey and imagery obtained under Task 4 will form the basis of the ALP Drawing Set. Other sources of information used in the preparation of the ALP drawing set will include the data developed as a part of the GIS task of this study, previous ALP, the previous airport master plan, USGS mapping, existing available property information from Cameron Park, local and regional government mapping, FAA databases, and other secondary sources as appropriate.

The drawing set will be prepared consistent with FAA Standard Operating Procedure (SOP) 2.00 and 3.00 "Checklist for Review and Approval of Airport Layout Plans." The FAA SOP checklists will be completed by the Consultant and used to guide the development and quality control review of the various ALP drawings. The checklists will also be submitted to the FAA at each stage of the ALP review process. The ALP drawing set will be first be provided to CPAD, followed by submissions to the FAA and Caltrans, in both electronic and hard copy formats as required for the multi-level review and approval processes. The drawing set will include the following sheets which are briefly described in the following tasks:

10.1. *Title Sheet:*

This sheet will include applicable information such as the name and location of the Airport and sponsor, location and vicinity maps, an index of drawings contained within the set and the date of the set.

10.2. *Airport Data Sheet:*

The ALP drawing sheet will depict existing physical features of the Airport, along with existing and proposed airport facilities and applicable FAA safety and design standards. Property boundaries, terrain and development immediately adjacent to the Airport will also be shown. This sheet will contain signature blocks for CPAD and FAA approval.

This sheet will also include data/tabular information to supplement information of existing and future conditions that are graphically displayed and noted on the ALP drawing. This information includes such items as general airport information, airfield and runway classifications, navigational aids and approach capabilities, weather and wind coverage, declared distances and operational limitations, and any conditions on the Airport that do not meet current FAA standards (and the planned disposition of any non-standard conditions). It is assumed that the data tables cannot be accommodated on the ALP Drawing Sheet and a separate sheet will be created.

10.3. *Terminal Area Plan Sheets 1 and 2*

This sheet includes a close up (1" = 100-foot scale) view of the area of the terminal building and adjacent ramp areas.

10.4. *Airport Airspace Drawing:*

The airport airspace sheet will provide a large-scale view of the extents of the existing and future 14 CFR Part 77 Imaginary Surfaces. The base mapping for this drawing is typically U.S. Geographical Survey (USGS) Topographic Quadrangle Maps. Objects identified as obstacles to the Part 77 surfaces, through the previous airspace analysis task or noted on readily available FAA resources, will be depicted and documented in tabular form and their recommended disposition will also be noted on a separate sheet.

10.5. *Inner Portion of the Approach Surface Drawings:*

The inner portion of the approach surfaces drawings for Runway 13/31 will provide a close-in, plan and profile view of the Part 77 Approach Surfaces (to an elevation of approximately 100 feet above the runway end) for each runway end at O61. The area depicted off of each runway end approximately corresponds with the Runway Protection Zones (RPZs). The base mapping for this drawing will be the aerial imagery and topographic survey obtained under Task 4 of this Project. Objects identified as obstacles to the Part 77 surfaces, through the previous airspace analysis task or noted on readily available FAA resources, will be depicted and documented in tabular form along with their recommended disposition. It is assumed one sheet per a runway end for a total of four (2) sheets.

10.6. *Runway Departure Surface Drawings:*

While FAA departure surface requirements (as detailed in AC 150/5300-13B) only apply to designated instrument departure runways, the FAA recommends that they be evaluated for all runway ends, particularly those that serve turbine powered aircraft. For those reasons, an analysis will be prepared and documented in a runway departure surface drawing for each runway. The base mapping for this drawing will be the aerial imagery and topographic survey obtained under Task 4 of this Study. Significant objects within the departure surface limits, as identifiable within the collected AGIS mapping, will be documented in tabular form along with their recommended disposition. It is assumed one sheet per a runway end for a total of four (2) sheets.

10.7. *Land Use Drawing:*

The on-airport land use drawing will depict on-airport land uses by aviation related use categories (e.g., Airport Operations Area, general aviation area, aviation related development, airport revenue support, public works/utilities, recreational/community, preservation, etc.). Existing and any future Airport boundaries will be identified.

The drawing will include off-airport land use and zoning for the area around the Airport, extending to include land within the 65 CNEL noise contours (not anticipated to be greater than 1.5 miles from the Airport center point), if applicable. Off-airport land uses will be depicted by generalized categories (e.g., agriculture, residential, institutional, recreational, industrial, and commercial, etc.).

10.8. *Airport Property Map Exhibit "A":*

The Airport Property Map Exhibit "A" will be updated to reflect changes since the last revision and to incorporate the recommended development plan associated with this Project. Updates will include recent acquisitions or transfers of property interests, significant airfield improvements, proposed land or easement acquisitions, potential land release opportunities, and any updates to established or proposed airport access or through-the-fence (TTF) agreements.

10.9. *Preliminary Draft ALP Drawing Set:*

Once a draft version of each of the preceding ALP sheets have been prepared, a complete preliminary draft ALP drawing set will be submitted to CPAD for review. Upon resolution of comments, the draft set will then be submitted to the FAA and Caltrans for a preliminary review. At this point, an in-person meeting with appropriate CPAD, FAA, and Caltrans personnel will be held (included in Task 3.3) to ensure a mutual understanding of the recommended development plan and resolve any technical ALP issues in advance of uploading the ALP to the FAA's Obstruction

Evaluation/Airport Airspace Analysis (OE/AAA) website and concurrent FAA “line of business” review (refer to Task 11.2).

Deliverables:

- Draft Airport Layout Plan Drawing Set (PDF and CAD/DWG format) for one round of CPAD review and comment
- Draft FAA SOP 2.00 and 3.00 Checklists (ALP review and approval)

11.0 Final Documents – Submittal and Approval

This task entails the preparation, review, approval and production of the final ALP Narrative report and Airport Layout Plan drawing set.

11.1. Draft Airport Layout Plan Update Narrative Report:

Upon review of all working papers and the incorporation of appropriate revisions, a draft-final report will be prepared. The draft document will be submitted in hard copy and electronic PDF format to CPAD for one round of review and comment. Upon review and response to comments received from CPAD, the document will be submitted to the FAA in electronic format for one round of review and comment. Caltrans will be provided the opportunity to conduct a review and provide comments to CPAD as well.

11.2. ALP Drawing Set Submittal, Final Approval, and Production:

Following resolution of comments on the preliminary draft ALP set, a revised draft ALP set will be submitted to the FAA and Caltrans. As required by SOP 2.0, *Standard Procedure for FAA Review and Approval of Airport Layout Plans* (ALPs) dated October 1, 2013, the draft ALP and corresponding “review checklist” will be uploaded by the Consultant on behalf of CPAD to the FAA’s OE/AAA online system in PDF format.

The FAA Airports Division and other lines of business within the OE/AAA system will conduct their review. Agency comments will be consolidated by the responsible FAA project manager and forwarded to CPAD as a final FAA comment letter which will include an “airspace determination” addressing any potential impacts to navigable airspace.

Upon resolution of agency comments, the ALP set will be ready for the CPAD’s final approval and/or adoption. It is assumed that the ALP set will be signed electronically and hard copies will not need to be provided to the FAA. Upon receipt of final signatures two (2) hard copies of the full ALP Drawing Set will be provided to CPAD for their records.

11.3. Final Airport Layout Plan Update Narrative Report:

Upon resolution of comments on the draft report and draft ALP drawing set, a final ALP Update Narrative report will be printed. Three (3) hard copies of the final report will be provided. In addition, the electronic files in PDF format of the report and ALP drawing set will be provided to CPAD.

Deliverables:

- Final ALP Update Narrative Report (PDF format) for one round of FAA and Caltrans review
- Final ALP Drawing Set (PDF and CAD/DWG file format) for one round of FAA and Caltrans review

- Completed FAA SOP 2.00 and 3.00 Checklist (ALP review and approval)

Assumptions and Clarifications:

The following assumptions and clarifications establish the foundational conditions under which this Project will be completed and define the parameters that guide the scope, level of effort, and expectations for project delivery.

- The ALP Update is a planning-level effort intended to document existing conditions, evaluate reasonable development alternatives, and prepare an FAA-compliant ALP Drawing Set and Narrative.
- All analyses, inventories, and evaluations will rely on readily available data, existing studies, CPAD-provided materials, and information obtained through stakeholder coordination. No new field investigations, surveys, geotechnical work, or environmental studies are included unless specifically noted.
- The Consultant will prepare draft and final deliverables for one round of CPAD review and comment at each major milestone.
- FAA and Caltrans reviews will be supported through preparation of required submittal materials; however, final approval timelines are controlled by the reviewing agencies.
- All meetings identified in the scope are assumed to be virtual unless otherwise specified, and in-person meetings will be coordinated to minimize travel costs.
- It is assumed that the Airport District staff will present the project at any CPAD meetings. It is assumed that the Consultant team will not be responsible for preparation of meeting materials nor will the Consultant team present at any CPAD meeting.
- The ALP Drawing Set will be prepared in accordance with FAA SOP 2.00 and 3.00 using the aerial survey and AGIS data collected under this Study. No hard copies will be supplied to either the FAA or Caltrans – electronic submittals only will be provided unless otherwise requested by the FAA and/or Caltrans. No airport property boundary survey will be performed as the Consultant will use available parcel data.
- The ALP Update will not require formal adoption by elected bodies unless directed by the CPAD; Consultant support for such actions is not included.
- All deliverables will be provided in PDF format, with Word and CAD files supplied where specifically identified.
- No specific field inspections, biological assessments, computer modeling, quantitative studies, or any other technical analysis are accounted for in the environmental inventory effort.

Exceptions:

Any other services, including but not limited to, the following are not included in this Agreement.

- Environmental documentation or clearance, including NEPA, CEQA, biological surveys, cultural resource studies, noise studies beyond those specified, or any technical environmental modeling.
- New field surveys, including topographic, boundary, geotechnical, pavement condition assessments, or metes-and-bounds property surveys.

- Engineering design, cost estimating, construction documents, or detailed infrastructure planning beyond conceptual layouts.
- Airspace studies beyond the planning-level analyses included in the AGIS task (e.g., TERPS evaluations, instrument procedure design, or detailed obstruction mitigation planning).
- Preparation of Airport District or other governing body materials, presentations, or attendance at public hearings unless specifically identified.
- Economic, financial, or business planning analyses, including rate and fee studies, revenue modeling, or detailed market assessments.
- Real estate or legal services, including title searches, appraisal support, or preparation of property acquisition or land release documentation beyond the Exhibit A update.
- Additional rounds of review, revisions, or meetings beyond those explicitly included in the scope.
- Printing of additional hard copies of reports or drawing sets beyond the quantities specified.
- Any services not specifically provided for in the above scope, as well as any changes in the scope the Client requests, will be considered additional services and will be performed at our then current hourly rates.

Sponsor's Responsibilities

1. Supply the Consultant with all relevant existing records, reports, studies, drawings, surveys, environmental documents, and other materials in the CPAD's possession that may inform you about the completion of the Project.
2. Ensure the Consultant and its subconsultants have reasonable access to airport property, facilities, and staff necessary to complete the work.
3. Attend scheduled meetings, workshops, and coordination calls; provide timely review and consolidated comments on draft deliverables within two (2) weeks of receipt unless otherwise agreed.
4. Provide formal review and approval of pre-design studies, preliminary deliverables, draft ALP drawings, draft narrative chapters, and final documents as required.
5. CPAD will assist with distributing public meeting notices, posting materials to the Airport website, and coordinating with local stakeholders and advisory bodies.
6. CPAD will provide prompt decisions on key planning issues, preferred alternatives, policy considerations, and other matters necessary to advance the Project.
7. While the Consultant will prepare materials for FAA and Caltrans review, CPAD will serve as the official project sponsor and will be responsible for formal communications, approvals, and submissions required by agency procedures unless otherwise delegated.
8. Perform additional responsibilities as detailed in contract terms and conditions.
9. KHA and its Subconsultants shall be entitled to rely upon the accuracy and completeness of all surveys, reports and information furnished by the Client.

Schedule

KHA agrees that services provided under this scope of services will be completed within eighteen months (18) months of receiving an executed contract and Notice-to-Proceed from the CPAD.

Fee and Expenses

Kimley-Horn will perform the services in Tasks 1.0 – 11.0 on a labor fee plus expense basis with the maximum labor fee shown below.

PROJECT FEE SUMMARY

TASK NUMBER	DESCRIPTION	FEE	TYPE
1.0	Project Initiation	\$4,308	Hourly, Not-to-Exceed
2.0	Project Management and Administration	\$24,719	Hourly, Not-to-Exceed
3.0	Stakeholder and Public Involvement Program	\$29,765	Hourly, Not-to-Exceed
4.0	Aerial Photography, Planimetric Mapping and AGIS Data Development	\$837	Hourly, Not-to-Exceed
5.0	Inventory of Existing Conditions	\$26,382	Hourly, Not-to-Exceed
6.0	Aviation Activity Forecasts	\$24,282	Hourly, Not-to-Exceed
7.0	Facility Requirements	\$17,856	Hourly, Not-to-Exceed
8.0	Alternatives Analysis and Recommended Development Plan	\$28,341	Hourly, Not-to-Exceed
9.0	Implementation Plan	\$27,921	Hourly, Not-to-Exceed
10.0	Airport Layout Plan Drawing Set	\$34,205	Hourly, Not-to-Exceed
11.0	Final Documents – Submittal and Approval	\$40,474	Hourly, Not-to-Exceed
	Subtotal	\$259,091	
	Expenses	\$133,176	
	TOTAL PROJECT	\$392,267	

Kimley-Horn will not exceed the total maximum labor fee shown without authorization from the Client. However, Kimley-Horn reserves the right to reallocate amounts among tasks as necessary.

Labor fee will be billed on an hourly basis according to our then-current rates. Direct reimbursable expenses such as express delivery services, air travel, and other direct expenses will be billed at 1.15 times cost. A percentage of labor fee will be added to each invoice to cover certain other expenses as to these tasks such as in-house reproduction, postage, supplies, digital data storage and security, and local mileage. Administrative time related to the Project may be billed hourly. All permitting, application, and similar Project fees will be paid directly by the Client. Should the Client request Kimley-Horn to advance any such Project fees on the Client's behalf, an invoice for such fees, with a fifteen percent (15%) markup, will be immediately issued to and paid by the Client.

Payment will be due within 30 days of your receipt of the invoice and should include the invoice number and Kimley-Horn Project number.



Closure

In addition to the matters set forth herein, our Agreement shall include and be subject to, and only to, the attached Standard Provisions, which are incorporated by reference. As used in the Standard Provisions, "Kimley-Horn" shall refer to Kimley-Horn and Associates, Inc., and "Client" shall refer to Cameron Park Airport District.

Kimley-Horn, in an effort to expedite invoices and reduce paper waste, submits invoices via email in a PDF. We can also provide a paper copy via regular mail if requested. Please include the invoice number and Kimley-Horn Project number with all payments. Please provide the following information:

____ Please email all invoices to _____
____ Please copy _____

To proceed with the services, please have an authorized person sign this Agreement below and return to us. We will commence services only after we have received a fully-executed agreement. Fees and times stated in this Agreement are valid for sixty (60) days after the date of this letter.

To ensure proper set up of your projects so that we can get started, please complete and return with the signed copy of this Agreement the attached Request for Information. Failure to supply this information could result in delay in starting work on this Project.

We appreciate the opportunity to provide these services. Please contact me if you have any questions.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Signed:

Christopher C. Hacker, ENV SP, ACE
Project Manager
SW14

Zachary Tait, P.E.
Senior Associate
P.E. No.: C82940

CAMERON PARK AIRPORT DISTRICT:

Joseph Zimlich, District and Airport Manager

SIGNED: _____

PRINTED NAME: _____

Client's Federal Tax ID: _____

TITLE: _____

Client's Business License No.: _____

DATE: _____

Client's Street Address: _____

Attachment A – AGIS Detailed Scope of Work *(Martinez Geospatial)*

Attachment B – Standard Provisions



A GEOSPATIAL SERVICE PROVIDER

Scope and Fee Proposal

Survey, Photogrammetry & Airports-GIS Services

Cameron Park Airport (O61)

09/15/2026

PROJECT SUMMARY

CLIENT	Kimley-Horn
CLIENT CONTACT	Chris Hacker
CLIENT ADDRESS	2046 W. Riverview Auto Drive, Suite 400 Mesa, AZ 85201
PROJECT LOCATION	Cameron Park Airport (O61) Cameron Park, California

Martinez Geospatial, Inc. (MTZ) will provide **KIMLEY-HORN** with Survey, Photogrammetry & Airports-GIS services in support of an **Airport Layout Plan** at **Cameron Park Airport (O61)**.

This scope includes tasks required to comply with FAA Airports-GIS program standards. All survey and photogrammetry work will be accomplished in accordance with the following Advisory Circulars:

AC-150/5300-16B (16B)

AC-150/5300-17C (17C)

AC-150/5300-18B (18B)

The FAA Airports-GIS objective for this project is to collect and submit *Safety-Critical* data for the airport. Furthermore, base-mapping (planimetric & topographic data) collected in support of the Airport Layout Plan will be formatted and submitted to FAA Airports-GIS. Specifically, acquisition of data will include an Obstruction Survey/Airport Airspace Analysis, NAVAID inventory & survey, Runway Ends & Profiles survey, and collection (through remote-sensing) of planimetric & topographic data.

MTZ will fulfill the data collection, formatting, and delivery requirements of the FAA Airports-GIS program. In general, MTZ's approach to fulfilling the GIS requirements will be accomplishing those required tasks as outlined in **Table 2-1 (Survey Requirements Matrix)** of **18B, Column "Airport Layout Plan."**

MTZ will make maximum use of existing data within the ADIP Portal for O61, including Obstacle Data with FAA-assigned Identifiers.

PROJECT SPECIFICATIONS

STATE	CALIFORNIA
COUNTY	EL DORADO
PROJECT TYPE	AVIATION (AIRPORTS-GIS INCLUDED)
COORDINATE SYSTEM	CALIFORNIA STATE PLANE – ZONE II
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88 (GEOID18)
FIELD-SURVEY PROVIDED BY	FLIGHTLINE GEOMATICS
MAPPING SCALE	1"=100' & 2' CONTOURS
MAPPING FORMATS REQUIRED	STANDARD CAD w/ DTM and AIRPORTS-GIS
ORTHO RES & PHOTO FORMAT	0.5' GSD, TIF & SID FORMAT

PROJECT AREA DEFINITION

The total project area consists of three components:

AREA A	Planimetric & Topographic Mapping Limit - This area defines the limit for the compilation of planimetric & topographic base-mapping.
AREA B	Part 77/OCS Airspace Analysis Limits - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined by FAR Part 77 and AC-150/5300-13B.
AREA C	Airports-GIS Airspace Analysis Limits - Horizontal Limits of the applicable Obstruction Identification Surfaces (OIS) as defined in AC-150/5300-18B.

PROJECT TASKS

Project Planning/Project Management/FAA Airports-GIS Coordination/Field-Survey Coordination

MTZ will assist KIMLEY-HORN in developing, submitting, and gaining approval of the "Statement of Work" for the project through the **FAA Airports District Office** and the **FAA's Airport Data Information Portal (ADIP)**. MTZ will also develop, submit, and gain approval of the Aerial Photography Acquisition Report / 3D Stereo Imagery.

MTZ will provide coordination as necessary with the FAA ADO and FAA Airports-GIS headquarters and will complete all required submissions to AGIS, under the supervision/approval of KIMLEY-HORN.

Aerial Imagery Acquisition

New color aerial imagery will be captured for all areas outlined in the **PROJECT AREA DEFINITION** section of this scope utilizing a digital photogrammetric camera. The aerial imagery acquisition flight mission will be executed in accordance with all guidelines and specifications within FAA AC 150/5300-17C.

The aerial imagery acquisition flight mission will consist of a single "block" of imagery, as specified below:

IMAGERY RESOLUTION	PURPOSE/USE
10cm	The coverage limit for this imagery is the horizontal extents of AREA A, AREA B & AREA C . This imagery will be utilized for all photogrammetric data collection. Ortho-imagery will also be generated for this area at a resolution of 0.50' GSD.

Upon completion of the flight mission, the imagery will be reviewed through in-house Quality Assurance procedures for photogrammetric acceptability and compliance with AC 150/5300-17C requirements.

Establish Geodetic Control / Temporary Control (Field-Survey)

Temporary Geodetic Control methodology will be utilized for this project. As required by FAA, at least two Temporary Control Marks will be established on the airfield through NGS OPUS. Two independent 4-hour sessions are required per survey mark. Once established, the Temporary Control Marks will serve as the basis of the geodetic control network for the survey project.

Survey Imagery Photo Control (Field Survey)

Photo-identifiable control points and/or artificial targets will be selected/set and surveyed for use as ground control for aero-triangulation of the new aerial imagery. Imagery control points will be spread throughout the aerial imagery project-area in a geometric pattern conducive to favorable aerotriangulation results. Each imagery control point will be surveyed using RTK survey methods. Imagery Control will be surveyed (properly tied to NSRS) and documented in accordance with AC-150/5300-17C and FAA Airports-GIS requirements. Ground Control data and documentation will be submitted to FAA Airports-GIS along with the Aerial Photography Acquisition Report. It is anticipated that **24** imagery control points will be required. Per FAA requirements, in addition to the imagery control points, an additional **6** Independent Checkpoints will be surveyed and processed through NGS OPUS.

Aero Triangulation

The newly acquired digital aerial imagery will be imported onto a digital photogrammetric workstation where it will be oriented with field-surveyed ground control. This procedure will establish both horizontal and vertical control for orienting individual photogrammetric models. This orientation will be accomplished using Soft Copy Aerial Triangulation methods.

Create Digital Ortho Imagery

Digital orthophotos will be produced to meet the needs of KIMLEY-HORN and the Airport as well as to comply with the requirements of the FAA Airports-GIS program and AC 150/5300-17C. One set of orthophotos will be produced. Orthophotos will cover the following defined areas and meet the following specifications:

RESOLUTION	COVERAGE LIMIT
0.50' GSD	AREA C (see attached exhibit)

Runway Surveys (Field Survey)

Field Surveyors will accomplish survey of runway 13/31 at O61; survey tasks will include survey of runway-end-points/thresholds and runway-profiles. For each runway-end-point/threshold a monument will be set, surveyed, and documented in accordance with AC-150/5300-18B. Runway-centerline profiles and will be surveyed utilizing mobile-RTK methodology; final profile data will be extracted at 50-foot stations for FAA Airports-GIS submission. Runway survey data will be utilized for the Obstruction Surveys/Airport Airspace Analysis task. Furthermore, MTZ will identify Airport Reference Point, Airport Elevation, High & Low Elevations of each Runway, and Touchdown Zone Elevations for each runway utilizing the newly surveyed Runway Data. Runway survey data will also be properly formatted by MTZ and reported in both the FAA Airports-GIS deliverable and the CAD base-map deliverable.

NAVAID Surveys (Field Survey)

Records show a single NAVAID installed at O61 (Pulsating VASI). This NAVAID will be surveyed and documented in accordance with AC-150/5300-18B. NAVAID survey data will be properly formatted by MTZ and reported in the FAA Airports-GIS deliverable.

Airport Airspace Analysis/Obstruction Surveys

18B/AGIS

An Airport Airspace Analysis will be performed in accordance with AC 150/5300-18B. This task will be performed in order to comply with the requirements of the FAA Airports-GIS Program for projects involving Airport Layout Plans. All available existing obstacle data for O61 will be obtained & downloaded from ADIP; existing obstacle data (relevant to the AGIS Airspace Analysis) will be validated or updated as necessary and incorporated into this project. Existing obstacle data will be reported back to FAA through ADIP, identifiable by assigned FAA-Obstacle-ID. The Airport Airspace Analysis will meet the following specifications:

RUNWAY	AGIS ANALYSIS TYPE
13/31	Runways-With-Vertical-Guidance

Formatting of final reported 18B/AGIS obstacles will adhere to the specifications of AC 150/5300-18B, Chapter 5 *Airport Data Features*.

Part 77/Obstacle Clearance Surface (OCS)

An FAR Part 77 and an OCS Obstruction Survey will be performed for all runway ends. Utilizing the digital 3D stereo imagery, the prescribed Part 77 & OCS Obstruction-Identification-Surfaces will be examined and analyzed to identify natural and manmade objects penetrating the surfaces. OCS Surfaces will be based on the requirements of AC-150/5300-13B (Tables 3-2, 3-3, 3-4, and 3-5)

The Part 77 Obstruction Survey will meet the following specifications:

RUNWAY	PART 77 ANALYSIS TYPE
13/31	Visual-Utility (AV)

The OCS Obstruction Survey will meet the following specifications (OCS Numbers are taken from AC-13B, Tables 3-2, 3-3, 3-4, and 3-5).

RUNWAY	OCS ANALYSIS TYPE
13/31	OCS 2 (<i>Visual, Small Aircraft w/ approach speed $\geq$ 50kts</i>)

Part 77/OCS Collection Criteria

The obstruction-identification-surfaces, defined in the previous section, will be digitally referenced with the 3D Stereo Imagery. Utilizing the 3D imagery, trained technicians will visually examine all surfaces and collect X-Y-Z point data for objects meeting collection criteria. Collected data will then be mathematically analyzed against the surfaces using custom processes to produce a final dataset. Multiple Quality-Assurance processes are performed for obstruction data through the project life cycle to ensure accuracy and completeness. Data will be collected to fulfill the following criteria:

- 1) A single X-Y-Z point will be collected / analyzed for any manmade or natural object penetrating a surface. The point will be placed on the highest point of the object. The X-Y location will correspond to the horizontal position of the highest portion of the object, not necessarily the geometric center or middle of the object.
- 2) Occasionally with Obstruction Surveys, large group of trees or terrain (obstruction area) are found to penetrate a surface and it is not feasible or possible to collect each individual penetration. In these cases, the obstruction area will be outlined with a bounding polygon in order to represent the horizontal extents of the area. A grid will then be overlaid on the obstructing area. Within each grid sector, the highest object will be collected. Within the primary surface, the transitional surface, and approach surface, 100-foot grid spacing will be used. 200-foot grid spacing will be used within the horizontal surface. Within the conical surface, 500-foot grid spacing will be used.

Deliverable Format for Part 77 and AC-13B OCS Obstacle Data

DELIVERABLE	DESCRIPTION
Shapefile and CAD File	These files will contain the following pieces of data: 1) Obstruction Surface Linework 2) Obstruction X-Y-Z Points 3) Obstruction Area Polygon (if applicable) 4) Obstruction Area Grid (if applicable)
Attributes will be included in the Shapefile as Object Data. For the CAD version, attributes will be provided in Spreadsheet Format and can be cross-referenced with the CAD file by Object Number.	Shapefiles will contain the following pieces of object data: • Object type • Northing / Easting / Elevation (MSL) • Latitude/Longitude • AGL Height (as able, for penetrating objects only) • Height-Above-Runway-End • Height-Above-Touchdown-Zone • Height-Above-Airport-Elevation • Distance-to-Runway-End • Distance-From-Runway-Centerline (and direction) • Penetration Value (if applicable) • Surface Affected & Slope (if applicable)

Planimetric & Topographic Mapping Compilation

Utilizing the aerotriangulated digital imagery, photographic stereo pairs will be oriented and compiled on digital photogrammetric workstations within **AREA A**. Mapping data will be compiled meeting the following specifications:

PLANIMETRIC DATA SCALE	1"=100' SCALE (CLASS II STANDARDS)
TOPOGRAPHIC DATA SCALE	2' CONTOUR INTERVAL (CLASS II STANDARDS)

MAPPING DELIVERABLE	FORMAT
PLANIMETRIC FILE	AUTOCAD (Other formats available upon request)
CONTOUR FILE	AUTOCAD (Other formats available upon request)
DIGITAL-TERRAIN-MODEL FILE	AUTOCAD (Other formats available upon request)

The CAD products defined above will be delivered directly to **KIMLEY-HORN** for incorporation into ALP drawings.

Planimetric Features will include (but are not limited to):

- **Building Outlines**
- **Airfield Pavement (Aprons, Taxiways, Runways)**
- **Airfield Paint Markings**
- **Airfield Signs**
- **Airfield Lights**
- **Roadways/Railways/Bridges**
- **Parking Lots**
- **Sidewalks**
- **Towers/Antennas**
- **Utilities (Above-Ground & Identifiable in Imagery)**

Mapping Edit and GIS Formatting

In addition to generating mapping data in CAD formats, all collected data will be edited and formatted in the appropriate AGIS format. In terms of GIS-attributes, MTZ will be responsible for populating all geospatial-related and/or critical attributes required for upload. In general terms, the final AGIS file created by MTZ will include both Safety-Critical and Non-Safety-Critical Data. This includes the following:

SAFETY-CRITICAL

Airspace

AC-18B Feature	AC-18B Section
Obstacle	5.5.2
Obstruction Area (if applicable)	5.5.3
Obstruction ID Surface	5.5.4

Runway

AC-18B Feature	AC-18B Section
Runway End	5.4.26
Runway Profile Points	5.8.6
Centerline Perpendicular Points	5.8.3
Touchdown Zone Elevation	5.8.7
Airport Elevation	5.8.2

NAVAIDs

AC-18B Feature	AC-18B Section
Navigational Aids	All Applicable - Group 5.10

NON-SAFETY-CRITICAL

Planimetric

AC-18B Feature	AC-18B Section
Airfield	All Applicable - Group 5.4
Manmade Structures	All Applicable - Group 5.10
Surface Transportation	All Applicable - Group 5.13
Utilities	All Applicable – Group 5.14

Topographic

AC-18B Feature	AC-18B Section
Elevation Contour	5.8.10

Cadastral

AC-18B Feature	AC-18B Section
Airport Boundary	5.6.1
Airport Parcel	5.6.2
Easements/Rights of Ways	5.6.4

NOTE – For the AGIS submission, Cadastral data will be taken from the Exhibit A & Boundary Survey. This scope/fee does not include completion of the Boundary Survey or preparation of an Exhibit A.

Final GIS data will meet the following specifications:

GIS DATA-MODEL UTILIZED	FAA Airports-GIS (AC 150/5300-18B, Chapter 5)
GIS DELIVERY FORMAT	ArcGIS Shapefile

Airports-GIS Data Submission and Final Reporting

All data will be formatted into compliant Airports-GIS format and prepared for submission. Prior to submission, the survey-files will be tested using the FAA's survey-file-test tool in order to ensure acceptability. A "Final Report" will be generated in accordance with Advisory Circular 150/5300-18B and submitted with the final project file. MTZ will coordinate with KIMLEY-HORN prior to uploading the final submission to AGIS. Following submission, MTZ will periodically follow up with KIMLEY-HORN until the final submission receives approval by NGS. Project close-out will also consist of ensuring receipt and acceptance of the obstruction survey and digital mapping data by KIMLEY-HORN, the FAA and NGS.

DELIVERABLE SUMMARY
1) Statement of Work Report (for FAA Airports-GIS approval)
2) Aerial Photography Acquisition Report (for FAA Airports-GIS approval)
3) Part 77, Obstacle-Clearance-Surface Obstruction/Penetration Data
4) Airfield Base-map (Planimetric & Topographic Mapping Data)
5) Digital Ortho Imagery (0.50' Resolution)
6) FAA Airports-GIS Shapefiles, consisting of: A) Safety Critical Data (Runway and Airport Airspace Analysis Data) B) Non-Safety Critical Data (Planimetric & Topographic Mapping and Cadastral Data)
7) Final Report (for FAA Airports-GIS approval)

FEE SCHEDULE

It is understood that compensation for this project will be on a **LUMP SUM** basis. MTZ will invoice KIMLEY-HORN monthly based on percent-complete of each category below. The following is a proposed fee schedule based on major production processes/work category:

TASK	FEE
Project Planning/Project Management	\$9,542.66
Production Management	\$3,546.08
Imagery Acquisition (Flight Mission)	\$6,200.00
Aerotriangulation	\$8,880.75
Orthophoto Production (0.50' GSD)	\$10,179.10
Planimetric/Topographic Mapping	\$11,404.35
Airspace Analysis/Obstruction Survey (Airports-GIS, Part 77, OCS Obstacle Data)	\$19,588.13
Mapping Edit, GIS Formatting / FAA Compliance (Mapping & Obstruction Survey)	\$5,835.16
Field-Survey Services (Flightline Geomatics)	\$42,250.00
TOTAL	\$117,426.23

AREA A - Planimetric & Topographic Mapping



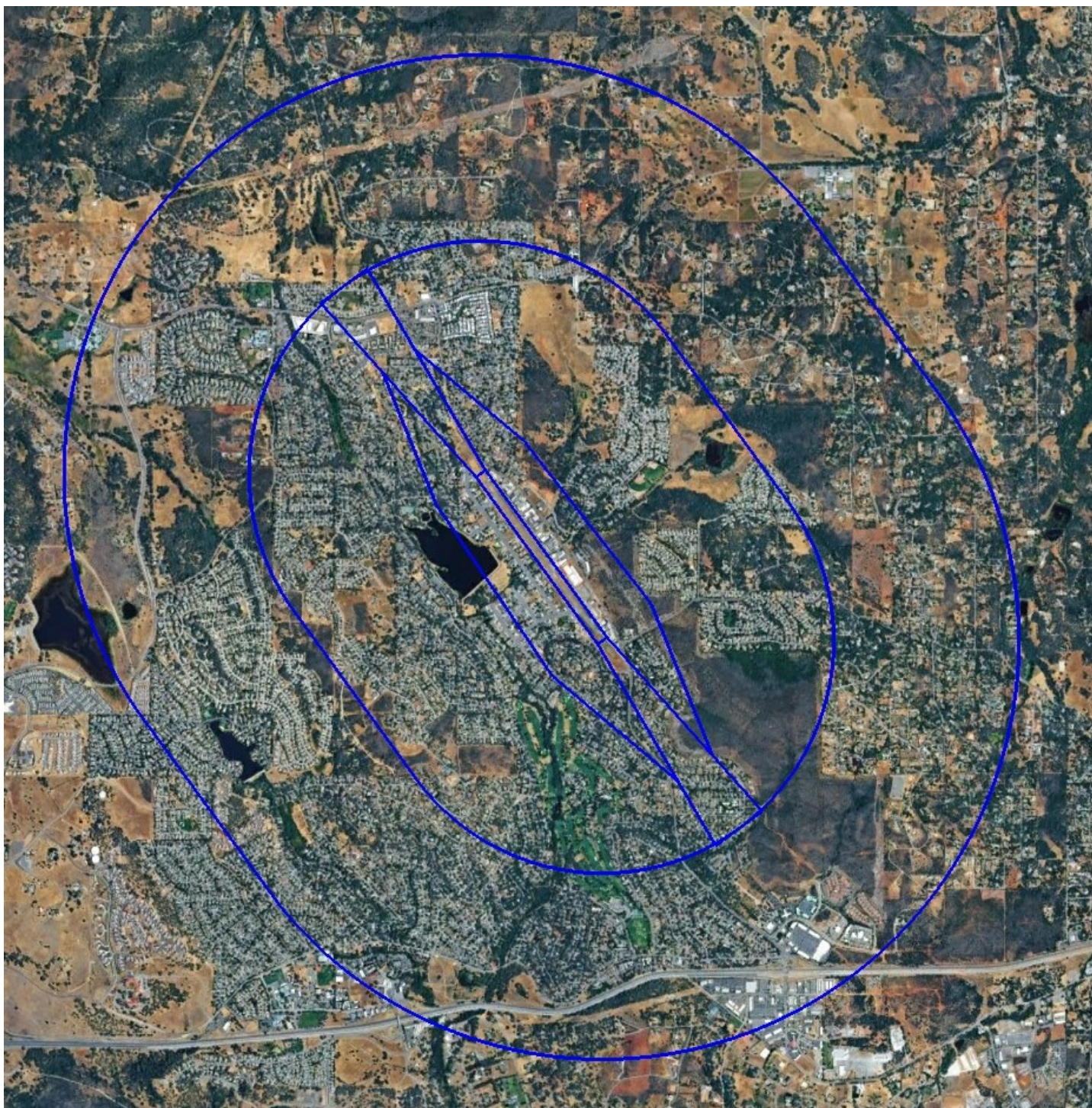
Red Polygon - Planimetric & Topographic Mapping Limit



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



AREA B - Part 77/OCS Airspace Analysis



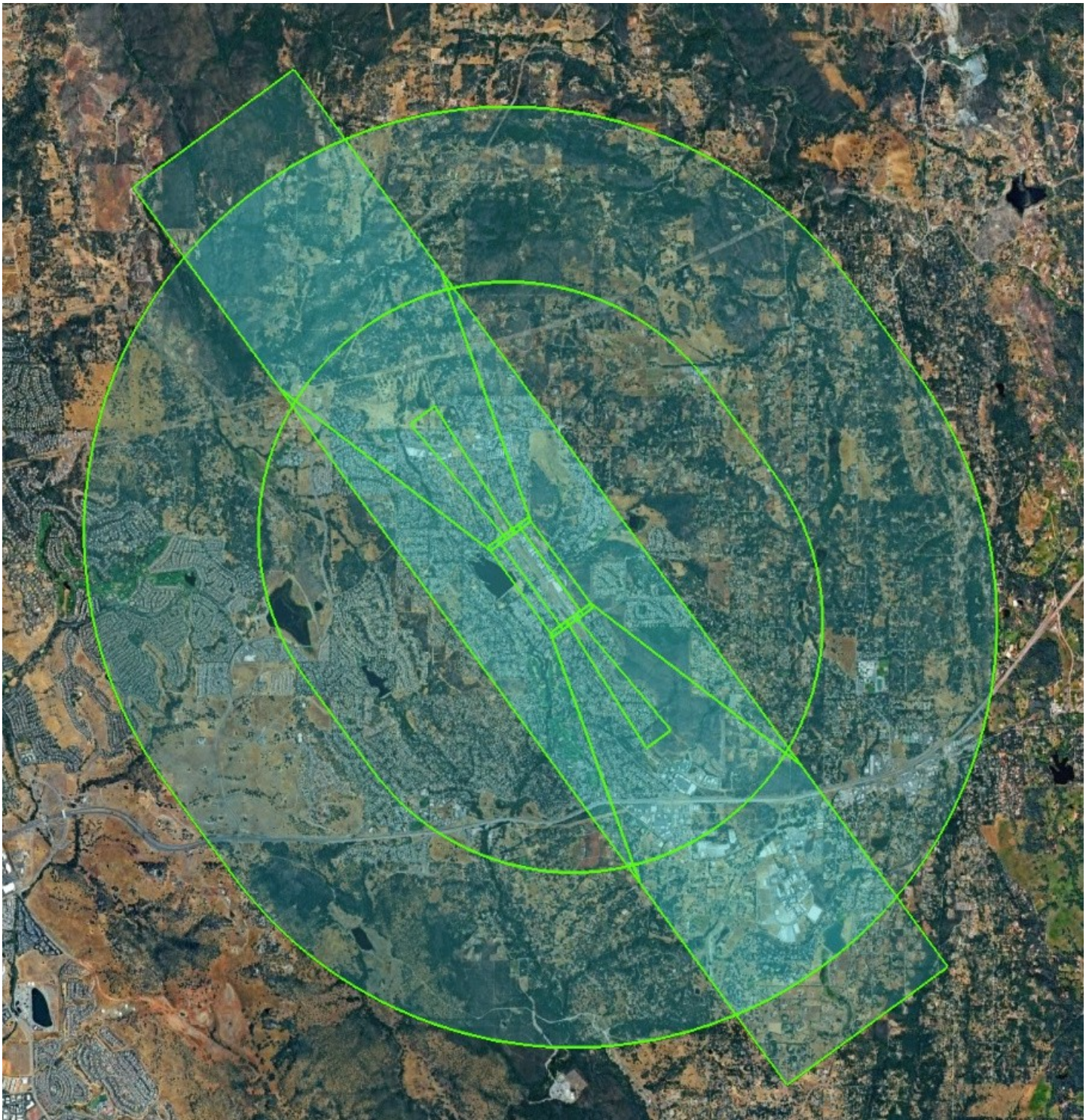
Blue Polygons - Part 77 Obstruction Surfaces



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



AREA C - Airports-GIS Airspace Analysis



Green Polygons - 18B/Airports-GIS Obstruction Identification Surfaces (VG)
Cyan Shaded Area - 0.50' GSD Ortho Imagery Coverage



MTZ | Martinez Geospatial
2915 Waters Road Suite 100
Eagan, Minnesota 55121
Tel: 651.686.8424 Fax: 651.686.8389



KIMLEY-HORN AND ASSOCIATES, INC.**STANDARD PROVISIONS**

- 1) Kimley-Horn's Scope of Services and Additional Services. Kimley-Horn will perform only the services specifically described in this Agreement ("Services"). Any services that are not set forth in the scope of Services described herein will constitute additional services ("Additional Services"). If requested by the Client and agreed to by Kimley-Horn, Kimley-Horn will perform Additional Services, which shall be governed by these provisions. Unless otherwise agreed to in writing, the Client shall pay Kimley-Horn for any Additional Services an amount based upon Kimley-Horn's then-current hourly rates plus an amount to cover certain direct expenses including in-house reproduction, postage, supplies, digital data storage and security, and local mileage. Other direct expenses will be billed at 1.15 times cost.
- 2) Client's Responsibilities. In addition to other responsibilities herein or imposed by law, the Client shall:
 - a. Designate in writing a person to act as its representative, such person having complete authority to transmit instructions, receive information, and make or interpret the Client's decisions.
 - b. Provide all information and criteria as to the Client's requirements, objectives, and expectations for the Project and all standards of development, design, or construction.
 - c. Provide Kimley-Horn all available studies, plans, or other documents pertaining to the Project, such as surveys, engineering data, environmental information, etc., all of which Kimley-Horn may rely upon.
 - d. Arrange for access to the site and other property as required for Kimley-Horn to provide its Services.
 - e. Review all documents or reports presented by Kimley-Horn and communicate decisions pertaining thereto within a reasonable time so as not to delay Kimley-Horn.
 - f. Furnish approvals and permits from governmental authorities having jurisdiction over the Project and approvals and consents from other parties as may be necessary.
 - g. Obtain any independent accounting, legal, insurance, cost estimating, and feasibility services required by Client.
 - h. Give prompt written notice to Kimley-Horn whenever the Client becomes aware of any development that affects Kimley-Horn's Services or any defect or noncompliance in any aspect of the Project.
- 3) Period of Services. Unless otherwise stated herein, Kimley-Horn will begin work after receipt of a properly executed copy of this Agreement. This Agreement assumes conditions permitting continuous and orderly progress through completion of the Services. Times for performance shall be extended as necessary for delays or suspensions due to circumstances that Kimley-Horn does not control. If such delay or suspension extends for more than six months, Kimley-Horn's compensation shall be renegotiated.
- 4) Method of Payment. Client shall pay Kimley-Horn as follows:
 - a. Invoices will be submitted periodically for Services performed and expenses incurred. Invoices are due and payable upon presentation. Client shall pay Kimley-Horn a time price differential of one and one-half percent (1.5%) of the outstanding amount of each invoice that is overdue for more than 30 days. The Client shall also pay any applicable sales tax. All retainers will be held by Kimley-Horn and applied against the final invoice. If the Client fails to make any payment due under this or any other agreement within 30 days after presentation, Kimley-Horn may, after giving notice to the Client, suspend services and withhold deliverables until all amounts due are paid, and may commence legal proceedings including filing liens to secure payment.
 - b. The Client will remit all payments electronically to:



Account Name: KIMLEY-HORN AND ASSOCIATES, INC.

Bank Name and Address: WELLS FARGO BANK, N.A., SAN FRANCISCO, CA 94104

Account Number: 2073089159554

ABA#: 121000248

- c. The Client will send the Project number, invoice number, and other remittance information by e-mail to payments@kimley-horn.com at the time of payment.
- d. If the Client relies on payment or proceeds from a third party to pay Kimley-Horn and Client does not pay Kimley-Horn's invoice within 60 days of receipt, Kimley-Horn may communicate directly with such third party to secure payment.
- e. If the Client objects to an invoice, it must advise Kimley-Horn in writing giving its reasons within 14 days of receipt of the invoice or the Client's objections will be waived, and the invoice shall conclusively be deemed due and owing. If the Client objects to only a portion of the invoice, payment for all other portions remains due.
- f. If Kimley-Horn initiates legal proceedings to collect payment, it shall recover, in addition to all amounts due, its reasonable attorneys' fees, reasonable experts' fees, and other expenses related to the proceedings.

Such expenses shall include the cost, at Kimley-Horn's normal hourly billing rates, of the time devoted to such proceedings by its employees.

- g. The Client agrees that the payment to Kimley-Horn is not subject to any contingency or condition. Kimley-Horn may negotiate payment of any check tendered by the Client, even if the words "in full satisfaction" or words intended to have similar effect appear on the check without such negotiation being an accord and satisfaction of any disputed debt and without prejudicing any right of Kimley-Horn to collect additional amounts from the Client.

5) Use of Deliverables. All documents, data, and other deliverables prepared by Kimley-Horn are related exclusively to the Services described in this Agreement and may be used only if the Client has satisfied all of its obligations under this Agreement. They are not intended or represented to be suitable for use or reuse by the Client or others on extensions of this Project or on any other project. Any modifications by the Client to any of Kimley-Horn's deliverables, or any reuse of the deliverables without written authorization by Kimley-Horn will be at the Client's sole risk and without liability to Kimley-Horn, and the Client shall indemnify, defend and hold Kimley-Horn harmless from all claims, damages, losses and expenses, including but not limited to attorneys' fees, resulting therefrom. Kimley-Horn's electronic files and source code remain the property of Kimley-Horn and shall be provided to the Client only if expressly provided for in this Agreement. Any electronic files not containing an electronic seal are provided only for the convenience of the Client and use of them is at the Client's sole risk. In the case of any defects in the electronic files or any discrepancies between them and the hardcopy of the deliverables prepared by Kimley-Horn, the hardcopy shall govern.

6) Intellectual Property. Kimley-Horn may use or develop its proprietary software, patents, copyrights, trademarks, trade secrets, and other intellectual property owned by Kimley-Horn or its affiliates ("Intellectual Property") in the performance of this Agreement. Intellectual Property, for purposes of this section, does not include deliverables specifically created for Client pursuant to the Agreement and use of such deliverables is governed by section 5 of this Agreement. Kimley-Horn maintains all interest in and ownership of its Intellectual Property and conveys no rights in the Intellectual Property to Client, unless otherwise agreed to in writing. Any enhancements of Intellectual Property made during the performance of this Agreement are solely owned by Kimley-Horn and its affiliates. If Kimley-Horn's Services include providing Client with access to or a license for Kimley-Horn's (or its affiliates')

proprietary software or technology, Client agrees to the Terms of Service set forth at <https://www.khtsinc.com/terms-of-Service/> which terms are incorporated herein by reference.

- 7) Opinions of Cost. Because Kimley-Horn does not control the cost of labor, materials, equipment or services furnished by others, methods of determining prices, or competitive bidding or market conditions, any opinions rendered as to costs, including but not limited to the costs of construction and materials, are made solely based on its judgment as a professional familiar with the industry. Kimley-Horn cannot and does not guarantee that proposals, bids or actual costs will not vary from its opinions of cost. If the Client wishes greater assurance as to the amount of any cost, it shall employ an independent cost estimator. Kimley-Horn's services required to bring costs within any limitation established by the Client will be paid for as Additional Services.
- 8) Termination. The obligation to provide further services under this Agreement may be terminated by either party upon seven days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof, or upon thirty days' written notice for the convenience of the terminating party. Kimley-Horn shall be paid for all services rendered and expenses incurred to the effective date of termination, and other reasonable expenses incurred by Kimley-Horn as a result of such termination.
- 9) Standard of Care. The standard of care applicable to Kimley-Horn's Services will be the degree of care and skill ordinarily exercised by consultants performing the same or similar services in the same locality at the time the Services are provided. No warranty, express or implied, is made or intended by Kimley-Horn's performance of services, and it is agreed that Kimley-Horn is not a fiduciary with respect to the Client.
- 10) LIMITATION OF LIABILITY. In recognition of the relative risks and benefits of the Project to the Client and Kimley-Horn, the risks are allocated such that, to the fullest extent allowed by law, and notwithstanding any other provisions of this Agreement or the existence of applicable insurance coverage, that the total liability, in the aggregate, of Kimley-Horn and Kimley-Horn's officers, directors, employees, agents, and subconsultants to the Client or to anyone claiming by, through or under the Client, for any and all claims, losses, costs, attorneys' fees, or damages whatsoever arising out of or in any way related to the services under this Agreement from any causes, including but not limited to, the negligence, professional errors or omissions, strict liability or breach of contract or any warranty, express or implied, of Kimley-Horn or Kimley-Horn's officers, directors, employees, agents, and subconsultants, shall not exceed twice the total compensation received by Kimley-Horn under this Agreement or \$50,000, whichever is greater. An increase to this limitation of liability may be negotiated for additional fee. This Section is intended solely to limit the remedies available to the Client or those claiming by or through the Client, and nothing in this Section shall require the Client to indemnify Kimley-Horn.
- 11) Mutual Waiver of Consequential Damages. In no event shall either party be liable to the other for any consequential, incidental, punitive, or indirect damages including but not limited to loss of income or loss of profits.
- 12) Professional Liability Insurance. Kimley-Horn will maintain a professional liability insurance policy for the services provided by Kimley-Horn during the course of this Agreement.
- 13) Construction Costs. Under no circumstances shall Kimley-Horn be liable for extra costs or other consequences due to changed or unknown conditions or related to the failure of contractors to perform work in accordance with the plans and specifications. Kimley-Horn shall have no liability whatsoever for any costs arising out of the Client's decision to obtain bids or proceed with construction before Kimley-Horn has issued final, fully approved plans and specifications. The Client acknowledges that all preliminary plans are subject to substantial revision until plans are fully approved and all permits obtained.

- 14) **Certifications.** All requests for Kimley-Horn to execute certificates, lender consents, or other third-party reliance letters must be submitted to Kimley-Horn at least 14 days prior to the requested date of execution. Kimley-Horn shall not be required to execute certificates, consents, or third-party reliance letters that are inaccurate, that relate to facts of which Kimley-Horn does not have actual knowledge, or that would cause Kimley-Horn to violate applicable rules of professional responsibility.
- 15) **Dispute Resolution.** All claims arising out of this Agreement or its breach shall be submitted first to mediation in accordance with the American Arbitration Association as a condition precedent to litigation. Any mediation or civil action by Client must be commenced within one year of the accrual of the cause of action asserted but in no event later than allowed by applicable statutes.
- 16) **Hazardous Substances and Conditions.** Kimley-Horn shall not be a custodian, transporter, handler, arranger, contractor, or remediator with respect to hazardous substances and conditions. Kimley-Horn's Services will be limited to analysis, recommendations, and reporting, including, when agreed to, plans and specifications for isolation, removal, or remediation. Kimley-Horn will notify the Client of unanticipated hazardous substances or conditions of which Kimley-Horn actually becomes aware. Kimley-Horn may stop affected portions of its Services until the hazardous substance or condition is eliminated.
- 17) **Construction Phase Services.**
 - a. If Kimley-Horn prepares construction documents and Kimley-Horn is not retained to make periodic site visits, the Client assumes all responsibility for interpretation of the documents and for construction observation, and the Client waives any claims against Kimley-Horn in any way connected thereto.
 - b. Kimley-Horn shall have no responsibility for any contractor's means, methods, techniques, equipment choice and usage, equipment maintenance and inspection, sequence, schedule, safety programs, or safety practices, nor shall Kimley-Horn have any authority or responsibility to stop or direct the work of any contractor. Kimley-Horn's visits will be for the purpose of observing construction and reporting to the Client whether the contractors' work generally conforms to the construction documents prepared by Kimley-Horn. Kimley-Horn neither guarantees the performance of contractors, nor assumes responsibility for any contractor's failure to perform its work in accordance with the contract documents.
 - c. Kimley-Horn is not responsible for any duties assigned to it in the construction contract that are not expressly provided for in this Agreement. The Client agrees that each contract with any contractor shall state that the contractor shall be solely responsible for job site safety and its means and methods; that the contractor shall indemnify the Client and Kimley-Horn for all claims and liability arising out of job site accidents; and that the Client and Kimley-Horn shall be made additional insureds under the contractor's general liability insurance policy.
- 18) **No Third-Party Beneficiaries; Assignment and Subcontracting.** This Agreement gives no rights or benefits to anyone other than the Client and Kimley-Horn, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole benefit of the Client and Kimley-Horn. The Client shall not assign or transfer any rights under or interest in this Agreement, or any claim arising out of the performance of services by Kimley-Horn, without the written consent of Kimley-Horn. Kimley-Horn reserves the right to augment its staff with subconsultants as it deems appropriate due to project logistics, schedules, or market conditions. If Kimley-Horn exercises this right, Kimley-Horn will maintain the agreed-upon billing rates for services identified in the contract, regardless of whether the services are provided by in-house employees, contract employees, or independent subconsultants.
- 19) **Confidentiality.** The Client consents to the use and dissemination by Kimley-Horn of photographs of the Project and to the use by Kimley-Horn of facts, data and information obtained by Kimley-Horn in the performance of its Services. If, however, any facts, data or information are specifically identified



in writing by the Client as confidential, Kimley-Horn shall use reasonable care to maintain the confidentiality of that material.

- 20) Miscellaneous Provisions. This Agreement is to be governed by the law of the State of California. This Agreement contains the entire and fully integrated agreement between the parties and supersedes all prior and contemporaneous negotiations, representations, agreements, or understandings, whether written or oral. Except as provided in Section 1, this Agreement can be supplemented or amended only by a written document executed by both parties. Any conflicting or additional terms on any purchase order issued by the Client shall be void and are hereby expressly rejected by Kimley-Horn. If Client requires Kimley-Horn to register with or use an online vendor portal for payment or any other purpose, any terms included in the registration or use of the online vendor portal that are inconsistent or in addition to these terms shall be void and shall have no effect on Kimley-Horn or this Agreement. Any provision in this Agreement that is unenforceable shall be ineffective to the extent of such unenforceability without invalidating the remaining provisions. The non-enforcement of any provision by either party shall not constitute a waiver of that provision nor shall it affect the enforceability of that provision or of the remainder of this Agreement.