

AIRPORT MASTER PLAN SCOPE

Coffman Associates

Airport Consultants
www.coffmanassociates.com

COPY

November 7, 2001

Mr. Bruce Ehly
TxDOT - AVIATION DIVISION
150 E. Riverside Drive
5th Floor, South Tower
Austin, Texas 78704

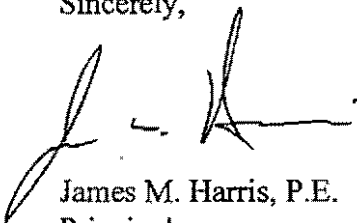
RE: Addison Airport - Master Plan Update Scope of Services and Cost Summary

Dear Bruce:

As requested, enclosed please find "*final*" copies of the Addison Airport Master Plan Update Scope of Services (Attachment B) and Cost Summary (Attachment E). Mike Dmyterko is preparing the Project Schedule (Attachment C) and will be forwarding to you under separate cover. It is my understanding that you will assemble copies of the final Agreements for execution.

In the meantime, if you have any questions or need additional information, please do not hesitate to give me a call.

Sincerely,



James M. Harris, P.E.
Principal

Enclosures

c. Jim Pierce - Town of Addison
Mike Dymterko - Coffman Associates
File #01-MP-15-01

Kansas City • Phoenix

**ATTACHMENT B
SCOPE OF SERVICES**

**ADDISON AIRPORT
ADDISON, TEXAS
AIRPORT MASTER PLAN UPDATE
TxDOT CSJ No. 0018ADDON**

The Addison Airport Master Plan Update Scope of Services has been prepared to provide a detailed element and task description of the study efforts. The objective of the Airport Master Plan Update is to provide the Town of Addison (Sponsor), community, and public officials with proper guidance for future development of the airport. The Airport Master Plan Update will be prepared in accordance with Federal Aviation Administration (FAA) *Advisory Circular 150/5070-6A, Airport Master Plans*, and other appropriate orders and advisory circulars. Consultant shall provide the Sponsor professional planning services in all phases of the Project to which this Agreement applies as hereinafter provided. These services will include serving as the Sponsor's professional planning representative for the project, providing professional planning consultation and advice incidental thereto, and attending conferences and meetings with the Agent (Texas Department of Transportation - Aviation Division), FAA, Sponsor, and other interested parties as needed to review available data and to clarify and define the requirements of the Project. The Planning Advisory Committee (PAC) which has been established for the F.A.R. Part 150 Noise Compatibility Study will also serve as the PAC for the Master Plan Study. Following is the detailed "Scope of Services" for the preparation of the Airport Master Plan. Written authorization to proceed with the Project will be issued by the Agent.

BASIC SERVICES

ELEMENT 1 - INVENTORY

Task 1.1 - Prepare Workbooks

Description: Notebooks will be provided to the PAC for use during the study. A standard three-ring notebook will be used with a format designed to allow working papers to be inserted as the study progresses.

Responsibilities:

Consultant: Design and print workbooks for the committee.

Sponsor: Review and comment prior to distribution.

Product: Workbooks in sufficient number to meet study requirements. Fifty (50) copies are budgeted.

Task 1.2. - Prepare Study Initiation Brochures

Description: Coordinate with the F.A.R. Part 150 in producing one thousand (1,000) Study Initiation Brochures for general distribution to the public and interested parties. The brochure will be designed in color and will provide an overview of the important elements in Part 150 and Airport Master Planning, goals and objectives of the study.

Responsibilities:

Consultant: Information pertinent to Airport Master Plan Update will be included with the F.A.R. Part 150 study initiation brochures.

Sponsor: Review and approve for distribution.

Product: Up to One Thousand (1,000) Study Initiation Brochures (printed under the Part 150 contract).

Task 1.3 - Attend Kick-off Meeting

Description: Attend a kickoff meeting with the Agent and the Sponsor and other interested parties to present and discuss schedule, technical approach, and salient issues as pertains to the Project.

Responsibilities:

Consultant: Coffman Associates representatives will attend kick-off meeting to discuss issues, schedule and technical approach.

Sponsor: Attend kick-off meeting.

Product: Present and discuss schedule, technical approach, and planning issues.

Task 1.4 - Identify Airport Planning Issues Through On-Site Investigation

Conduct an on-site inventory of the Addison Airport. The investigation will include interviews with Town staff, airport staff, airport businesses, air traffic control, and other airport tenants. The inventory will also include the collection of all materials relevant to the master plan study including documents and on-site facility inspections. This task will develop an inventory of existing facilities and their current condition, including but not limited to:

- a. Runways, taxiways, aprons, and related lighting, marking, signage, and NAVAIDS.
- b. General aviation and other terminal buildings and areas by function.
- c. Aviation fuel and aircraft servicing systems.
- d. Utilities, including water, gas, electric, telephone, drainage, and sewage.
- e. Automobile access to the airport, auto circulation, and parking

Other information to be obtained includes:

- Existing and planned or proposed land uses both on and immediately adjacent to airport property, including height hazard and compatible land use zoning.
- Compile information on the use of the airspace and how air traffic is managed.
- Determine historical meteorological data, including wind direction and velocity, annual ceiling and visibility conditions, temperature, and precipitation.

The purpose of this element is to not only obtain a thorough understanding of the airport and its environs, but to also identify any pertinent issues which will need to be addressed in later parts of the study.

Responsibilities:

Consultant: Coffman Associates will obtain all relevant existing documents, perform on-site inspection of facilities, conduct interviews with local officials.

Sponsor: Assist Consultants with collection of data, including coordinating any necessary interviews with tenants. Assist Consultant with identification of relevant land use control documents.

Product: Data on airport facilities, operations, airspace and air traffic control, population and economy for input to later tasks.

Task 1.5 - Obtain Elevations for Airport Obstruction Analysis

Obtain elevations of ground and structures within the vicinity of the airport. This task will require the compilation of data provided by the North Central Texas Council of Governments (NCTCOG) mapping project and/or any other available sources to develop an understanding of obstructions which could influence approach procedures at Addison Airport. The area of analysis will be limited to the Federal Aviation Regulation (F.A.R.) Part 77 Imaginary Surfaces applicable to the Addison Airport

Responsibilities:

Consultant: Coffman Associates will obtain NCTCOG mapping data from the Town of Addison and ready it for further analysis.

Sponsor: Obtain mapping information from the NCTCOG for the area described above.

Product: Data on obstructions in the area of the airport for input to later tasks.

Task 1.6 - Conduct After Hours Operational Count

Description: To assist in the determination of aircraft operations when the tower is closed, conduct observations of aircraft activity at Addison Airport. During observation periods, aircraft takeoffs and landings will be logged by the following types:

- Small aircraft (less than 12,500 pounds)
 - ⇒ single engine piston
 - ⇒ twin engine piston
 - ⇒ turboprop
 - ⇒ jet
 - ⇒ helicopter

- Large aircraft (over 12,500 pounds)
 - ⇒ piston
 - ⇒ turboprop
 - ⇒ business jet
 - ⇒ commercial jet
 - ⇒ helicopter

*al Devant
can't use tower
Tower personnel not interested
Tell by sound
Need this info for forecasts*

In addition, jet aircraft will be logged by N-number, make, and model for future referral and survey. Up to one week of activity will be observed for periods between the hours when the airport traffic control (ATC) is closed. The observation periods will be designed to encompass weekends as well as weekdays to obtain a representation of the aircraft mix for use in later Elements. The observation period will correspond to the period of time as the F.A.R. Part 150 Study aircraft noise measurements and radar flight tracking.

Responsibilities:

Consultant: Obtain from sponsor's sources the observation of operational activity after the tower is closed at Addison Airport.

Sponsor: Provide consultant with operational counts through observed activity.

Product: Adequate observations of operational aircraft operations and aircraft mix tabulated for use in estimating existing and future operational mix and to assist in determining critical aircraft. This information will also be utilized in developing an estimate of nighttime operations for input to the F.A.R. Part 150 noise analysis.

Task 1.7 - Inventory Financial and Administrative Data

Description: Gather documents which affect the financial management of airport operations and capital development to confirm the structure, constraints, requirements and opportunities for financing the Master Plan capital improvement program. The documents gathered and preliminarily reviewed will be used to complete subsequent tasks of the Financial Analysis in Element 6. Interview key Town and airport management officials to identify the legal documents and

agreements that affect financial management of the Addison Airport. Gather the following documents along with any additional documents identified during the interview and review on a preliminary basis.

- Historical, detailed (account-by-account) financial statements and audit reports for the past year.
- Detailed (account-by-account) year-to-date financial statements for the current year with budget remaining amounts.
- Most recent operating and capital budgets.
- Fixed asset schedules showing description, date of acquisition, cost, annual depreciation, estimated useful life and funding sources.
- Current capital improvement and major maintenance programs.
- Official statements for debt issues related to airport facilities, if any.
- Rates and charges schedules and calculation work sheets.
- Lease log with lessee name, private use or type of business, term, lease amount and square footage.
- FBO lease agreements.
- Hangar lease agreements.
- Aviation use land leases.
- Commercial/Industrial non-aviation use leases.
- Other Airport lease, concession, use and privilege agreements.
- FAA, state and local grant records.
- Monthly historical aviation activity statistics for the three most recent past years and the current year-to-date including aircraft operations (take-offs and landings), fuel flowage gallons and any air cargo statistics by air carrier.

Responsibilities:

Consultant: Assemble data based on latest information available.

Sponsor: Assist in collection of data.

Product: Input to later analysis.

Task 1.9 - Working Paper No. 1, Inventory

Description: Assemble information from work efforts in Element 1, and organize these findings into a working paper describing existing conditions in the airport area. This working paper will represent a draft version of Chapter One of the Airport Master Plan Update.

Responsibilities:

Consultant: Coffman Associates is responsible for completing the narrative and graphics for the working paper and distribution to the PAC and Sponsor. This working paper will be sent approximately ten (10) days prior to the PAC meeting via U.S. priority mail.

Sponsor: Review and comment.

Product: A working paper covering the items outlined in the inventory element. Fifty (50) copies will be printed for distribution to the PAC and Sponsor.

ELEMENT 2 - AVIATION FORECASTS

Task 2.1 - Develop Elements to Supplement Aviation Demand Forecasts

Description: Element 3 of the F.A.R. Part 150 contract contains the majority of forecasting components required for the master plan. This task will provide additional forecasting elements necessary for development of the Airport Master Plan Update. The analysis will include surveying airport operators (eg. based aircraft owners, airport businesses, and transient operators), and development of airport peak operations analysis. The purpose of the survey is to obtain numbers and types of aircraft based at the airport, number and type of operations performed by based and transient aircraft operators, and facility preferences to be used in developing facility requirements under Task 3. Peak operations forecasts are key in determining airport capacity and landside facility development.

Responsibilities:

Consultant: Coffman Associates will be responsible for producing, distributing, and analyzing airport tenant, business, and transient user surveys. analyses in this task. The consultant will also provide an operational peaking forecast.

Sponsor: Provide consultant with address list of airport businesses, tenants, and other individuals operating at the airport. The sponsor will also be asked to place transient surveys at airport businesses to be returned to the consultant for analysis.

Product: A detailed analysis from airport surveys and airport peaking operations.

Task 2.2 - Working Paper No. 2, Aviation Forecasts

Description: Develop a working paper summarizing the results of all tasks in this element. This paper will contain the results from the airport survey and peak operations forecasts. This working paper will represent a draft version of Chapter Two of the Noise Exposure Maps document.

Responsibilities:

Consultant: Coffman Associates will prepare the working paper and all related graphics and distribute to PAC members and the Sponsor. This working paper will be sent approximately ten (10) days prior to the PAC meeting via U.S. priority mail.

Sponsor/TxDOT//FAA: Review and concur with aviation forecasts.

Product: A working paper covering Element 3. Up to fifty (50) copies will be printed for distribution to the PAC and the Sponsor.

ELEMENT 3 - FACILITY REQUIREMENTS

The purpose of this study element is to convert basic capacity needs into types and quantities of actual physical facilities required to meet short, intermediate, and long term forecast demands in aviation activity, and if necessary, to identify short-term corrective strategies for problems that demand immediate attention.

Task 3.1 - Determine Airfield Capacity and Delay

Description: Using the FAA's airfield capacity/delay model, estimate current and future levels of airfield capacity and delay for Addison Airport. These analyses will be based on the existing airfield configuration, aviation demand forecasts, and an analysis of airspace capacity potential and constraints.

Responsibilities:

Consultant: Calculate existing and future airfield capacity and delay.

Sponsor: Review.

Product: Estimate of both existing and future airfield capacity as well as delays to be expected.

Task 3.2. - Determine Critical Aircraft

Description: Using the results of the operational activity observations (Task 1.6), user survey (Task 2.1), and the aviation demand forecasts (Task 2.1), identify specific aircraft that have the potential to be examined as critical aircraft (at least 250 annual operations) for runway length (both takeoffs and landings), weight (pavement strength), or approach speed and wingspan (ARC). This is anticipated to involve a refined breakdown of the operational aircraft mix to identify business and commercial jet aircraft operations, by aircraft model and trip length.

Responsibilities:

Consultant: Determine potential critical aircraft at Addison Airport.

Sponsor: Review.

Product: Identification of critical aircraft for use in determining various facility requirements.

Task 3.3 - Determine Critical Runway Length and Design Standards

Description: Using the potential critical aircraft identified in Task 3.2, determine the critical runway length and other runway design standards for Addison Airport. The runway length analysis will examine the landing and takeoff length requirements at the mean maximum temperature of the hottest month and for landing in wet and slippery conditions of various types of jet aircraft that frequent the airport on a regular basis. The analysis will also take into account the trip length and typical payload of the aircraft. FAA runway length design software, as well as runway length tables for specific aircraft, will be consulted. Other design standards will be determined in accordance with *FAA Advisory Circular 150/5300-13, Airport Design*, through Change 6. The adequacy of the existing runway in meeting the design standards will be evaluated.

Responsibilities:

Consultant: Identify runway length and design standards the runway.

Sponsor: Review.

Product: Description of the critical runway lengths and other runway design standards required to meet aviation demands at the airport through the planning period.

Task 3.4 - Analyze Airport Obstructions

Description: Using mapping information obtained in Task 1.5, develop a detailed three dimensional map of obstructions in the vicinity of the airport. The analysis will present critical obstructions to the existing runway and those which could limit other runway options (Element 4.1).

Responsibilities:

Consultant: Identify obstructions.

Sponsor: Review.

Product: Develop a three dimensional depiction of structures in the vicinity of the airport.

Task 3.5 - Prepare Other Airfield Facility Requirements

Description: Using relevant information from other tasks, determine and prepare a preliminary list of other airfield facility requirements needed to meet projected demands for the airport for current and future conditions. Facility requirements to meet aviation demand for the airfield will include (but not be limited to) taxiways, lighting, navigational aids (including the capability of Global Positioning System [GPS] technology), marking and signage. These facility requirements will be developed in the form of gross areas and basic units and will be compared to those that presently exist to identify the future development items needed to maintain adequate service, function and operations of the airport.

Responsibilities:

Consultant: Identify other specific airfield facility needs for the airport.

Sponsor: Review.

Product: Detailed description of all airfield facilities required to meet aviation demands at the airport through the planning period.

Task 3.6 - Prepare Landside Facility Requirements

Description: Using current FAA and TxDOT planning criteria, develop a set of facility requirements addressing the landside facilities necessary to support the airfield and its related activity. Requirements for facilities such as fuel storage, aircraft rescue and firefighting facilities (ARFF), airport administration, maintenance, air taxi, and general aviation terminal facilities, FBO areas, apron areas, hangars and revenue support facilities will be developed under this task.

Responsibilities:

Consultant: Identify specific landside area facility needs for the airport.

Sponsor: Review.

Product: Detailed description of facility requirements necessary for landside development to support forecast aviation demand at the airport through the planning period.

Task 3.7 - Prepare Facility Requirements Working Paper

Description: Organize background information, analysis, and findings of the facility requirements work effort and prepare a detailed working paper for the master plan in narrative and graphical format. Up to 50 copies of the working paper will be prepared for distribution.

Responsibilities:

Consultant: Develop complete graphics and narrative for the working paper. Responsible for the distribution of the working paper to the PAC members. This working paper will be sent approximately ten (10) days prior to the PAC meeting via U.S. priority mail.

Sponsor: Review. Coordinate with the Consultant as necessary.

Product: Fifty (50) copies of the working paper for the master plan covering the items outlined in the Facility Requirements element.

ELEMENT 4 - AIRPORT ALTERNATIVES

Using the Facility Requirements determined under the previous element, alternative development scenarios for Addison Airport will be identified. These scenarios must take into account the development needs of the airport to meet projected aviation demand levels as determined in the forecasting element and meet airfield, general aviation area, revenue support area and terminal area capacity needs established under the facility requirements element.

Task 4.1 - Identify Potential Airfield Alternatives

Description: On the basis of the airfield facility requirements established in preceding elements, formulate airfield development alternatives. These alternatives will be based on concepts for development within existing airport boundaries or with the expansion of airport boundaries which show all necessary development during the planning period and beyond. This analysis will also consider obstructions within the vicinity of the airport as detailed in Tasks 1.5 and 3.4. Specific alternatives will be addressed with relation to the runway length and design standards. These will include:

- Runway and safety area extensions.
- Potential for developing a new west side runway.
- Re-using pavements which are now displaced thresholds.
- Development of west side parallel taxiway for use as runway when primary runway is closed.

Responsibilities:

Consultant: Develop airfield development options for the airport.

Sponsor: Review.

Product: A series of development options, each of which meets the forecast airfield facility demands.

Task 4.2 - Identify Potential Landside Alternatives

Description: Based on the landside facility requirements determined under the previous element, formulate preliminary development alternatives. These alternatives will be based on concepts for development within or beyond existing airport boundaries which show all necessary development during the planning period and beyond.

Responsibilities:

Consultant: Develop landside development options for the airport.

Sponsor: Review.

Product: A series of landside alternatives which fulfill the facility requirements to meet forecast demand levels.

Task 4.3 - Determine Preliminary Runway Development Costs

Description: Using labor and materials price data from recent construction projects at the airport, in the local community and the region, prepare preliminary cost estimates for each runway development alternative.

Responsibilities:

Consultant: Develop cost estimates for various alternatives.

Sponsor: Provide the Consultant unit costs from previous construction projects.

Product: Preliminary development cost estimates for airport development alternatives.

Task 4.4 - Prepare Alternatives Noise Analysis

Description: Prepare a comparative analysis of the potential noise exposure for each of the on-airport runway alternatives. Noise exposure contours will be developed for the existing baseline condition, and the long term condition. Noise exposure contours will also be developed for up to three (3) alternative scenarios. The most current version of the FAA Integrated Noise Model (INM) will be used to produce noise contours for mapping onto a base map of the area.

Responsibilities:

Consultant: Generate noise exposure contours.

Sponsor: Review.

Product: DNL contours for existing and future baseline conditions. DNL contours for up to three runway development alternative scenarios.

Task 4.5 - Alternatives Evaluation

Description: Utilizing the information developed above, prepare a detailed comparative evaluation and the supporting rationale that systematically eliminates those alternatives with the least potential and establishes a single recommended program for development of the airport facilities. The analysis will consider safety, functional efficiency, operational costs, as well as the development costs and environmental considerations. This evaluation will be presented to Town Staff, airport administration, the PAC, TxDOT, and the FAA, and the public for input prior to making a final concept recommendation.

Responsibilities:

Consultant: Evaluate the alternatives formulated for the airfield and landside facilities.

Sponsor: Review.

Product: Alternatives evaluation for determining recommended airport concept.

Task 4.6 - Prepare Alternatives Working Paper

Description: A working paper describing the various airfield and landside development alternatives will be prepared for the master plan for submission to the PAC for review and comment. The working paper will detail the analysis involved in the assessment of the alternatives and outline the advantages and disadvantages of each to enable the logical and systematic evaluation of each alternative concept. Up to 50 copies of the working paper will be prepared for distribution.

Responsibilities:

Consultant: Develop complete graphics and narrative for the working paper. Responsible for the distribution of the working paper to the PAC members. This working paper will be sent approximately ten (10) days prior to the PAC meeting via U.S. priority mail.

Sponsor: Review. Coordinate with the Consultant as necessary.

Product: Fifty (50) copies of the working paper for the master plan covering the items outlined in the Airport Alternatives element.

ELEMENT 5 - ENVIRONMENTAL CONDITIONS

Task 5.1 - Conduct Environmental Inventory

Description: Collect and review information on the baseline environmental conditions and concerns for Addison Airport and its immediate environs. The reconnaissance will be limited to conditions relevant to evaluation of "footprint" impacts (e.g., wetlands) because assessment of potential operational issues (e.g., surface aircraft noise) will depend upon information to be developed later in the Master Plan process, once aviation activity forecasts are available. The evaluation will be performed in accordance with FAA Orders 5050.4A and 1050.1D. Factors to be reviewed include but are not limited to:

- a. Noise sensitive receptors near the airport.
- b. Sensitive biota, including wildlife and endangered species
- c. Section 4f lands, prime farmland, and protected habitat, such as wetlands
- d. Historical and archeological sites
- e. Areas susceptible to air or water pollution by airport construction activities
- f. Potential water resources impacts, including flood hazard

- g. Possible displacement of residences, farms, or businesses

The environmental conditions will be derived from existing reports, and coordination with federal and state agencies. The intent of this task is not to assess environmental impacts, but to inventory potential environmental sensitivities.

Responsibilities:

Consultant: Coordinate with appropriate environmental agencies and assemble baseline data.

Sponsor: Provide and/or assist in collection of data.

Product: Input to later analysis.

Task 5.2 - Prepare Environmental Overview Working Paper

Description: A working paper will be developed detailing the environmental concerns which may require additional environmental analysis.

Responsibilities:

Consultant: Develop narrative and graphics for the working paper. Responsible for distribution of the working paper to the PAC members. This working paper will be sent approximately ten (10) days prior to the PAC meeting via U.S. priority mail.

Sponsor: Review. Coordinate with the Consultant as necessary.

Product: Fifty (50) copies of the working paper for the master plan covering the items outlined in the Environmental Overview element.

ELEMENT 6 - AIRPORT PLANS

The purpose of this study element is to update the set of Airport Layout Plans for Addison Airport. All plans are prepared in a format that is readily acceptable to TxDOT and the FAA and can be utilized by the Town of Addison staff in carrying out implementation. Blackline prints (22" x 34") will be provided as necessary for Town of Addison, TxDOT, and FAA review. The AutoCAD drawings file (on a CD) will be delivered at the completion of this project to the Town of Addison. A reproducible vellum will be provided upon completion of the final plan. A narrative is also included in the report to better describe the intended functions of the proposed development items.

Task 6.1 - Airport Layout Drawing

Description: Using the results of the alternatives analysis developed under the preceding element, and *FAA AC 150/5300-13, Airport Design*, Change 6, Appendix 7, Section 2 an Airport Layout Drawing (ALD) will be prepared utilizing AutoCAD Software. The ALD will reflect updated physical features, wind data tabulation, location of airfield facilities (runway, taxiways, nav aids) and

existing general aviation development. Development of ultimate airfield facilities, including runway(s), taxiways and navigational aids, property and runway protection zone boundaries, and revenue support areas, will also be shown. Guidelines for the preparation of an ALD as defined by TxDOT and the FAA Southwestern Region will be followed.

Responsibilities:

Consultant: Prepare the Airport Layout Drawing for the airport.

Sponsor: Review.

Product: An updated ALD for the airport which meets federal guidelines.

Task 6.2 - Prepare Landside Facility Drawing(s)

Description: Prepare a landside facility drawing for the airport reflecting recommended development in the landside areas as resulting from the recommendations of this study. The landside facility drawing will be updated in accordance with *FAA AC 150/5300-13, Airport Design*, Change 6, Appendix 7, Section 5. These drawing will also depict through-the-fence properties.

Responsibilities:

Consultant: Prepare landside facility drawing for the airport.

Sponsor: Review.

Product: Updated plans reflecting the development of the landside areas at the airport.

Task 6.3 - F.A.R. Part 77 Airspace and Inner Approach Surface Drawings

Description: Prepare F.A.R. Part 77 airport airspace and the inner portion of the approach surface drawings in accordance with *FAA AC 150/5300-13, Airport Design*, Change 6, Appendix 7, Sections 3 and 4. Obstruction information will be obtained from the analysis provided for in Task 3.4, the existing approach plans ,and the current Airport Obstruction (OC) chart.

Responsibilities:

Consultant: Prepare the F.A.R. Part 77 airspace and inner approach surface drawings for the airport.

Sponsor: Review.

Product: Airspace and inner approach surface drawings for the airport which meet federal guidelines.

Task 6.4 - Exhibit A - Airport Property Map

Description: Prepare an airport property map, incorporating the existing development. This map will include the appropriate graphics and information to indicate the type of acquisition (i.e. federal funds, surplus property, local funds only, etc.) of various land areas within the airport's boundaries. Details will be limited to the depiction of existing facilities (i.e. runways, taxiways, runway protection zones, and terminal facilities) which justify the retention of airport property. This work effort will produce a new "Exhibit A - Property Map." This task will not include the acquisition of new boundary surveys, as they will be provided by the sponsor and/or TxDOT. The Property Map will be updated in conformance with the standards of *AC 150/5300-13, Airport Design, Change 6*, Appendix 7, Section 7.

Responsibilities:

Consultant: Prepare airport property map for the airport.

Sponsor: Provide appropriate data and review property map.

Product: Airport Property Map for the airport.

Task 6.5 - Prepare Airport Land Use Drawing

Description: The Airport Land Use Drawing will be prepared in accordance with *FAA AC 150/5300-13, Airport Design, Change 5, Appendix 7, Section 6*. The on- and off-airport land uses will be depicted by general use categories. The long range noise exposure contours from the recommended alternative will be superimposed. Off-airport coverage will include all land uses within the 65 DNL contour as well as immediately adjacent land uses on all sides of the airport.

Responsibilities:

Consultant: Prepare airport land use drawing for the airport

Sponsor: Review.

Product: Airport Land Use Drawing.

Task 6.6 - Prepare Airport Plans Working Paper

Description: Using the results of the preceding tasks in this element, prepare a set of reproducible drawings to reflect the airport layout concepts as defined in Element 4. In addition, reduced plans will be printed and included in the final report. The drawings will form the basis of a working paper which will describe in narrative form the proposed development and its preliminary scheduling. Up to 50 copies of the working paper for the master plan will be prepared for distribution.

Responsibilities:

- Consultant:* Develop complete graphics and narrative for the working paper. Responsible for the distribution of the working paper to the PAC members. This working paper will be sent approximately ten (10) days prior to the PAC meeting via U.S. priority mail.
- Sponsor:* Review. Coordinate with Consultant as necessary.
- Product:* Thirty (50) copies of the working paper for the master plan covering the items outlined in the Airport Plans element. This working paper will become a chapter in the final report.

ELEMENT 7 - FINANCIAL MANAGEMENT PROGRAM

The purpose of this study element is to establish a strategic financial management program to provide airport development requirements necessary to meet aviation activity demands during the planning period at the airport. This will include developing schedules, a Capital Improvement Program, and Financial Implementation Plan.

Task 7.1 - Prepare Airport Development Cost Estimates

Description: Based upon the previous evaluations and technical meetings, refine the airport development cost estimates to reflect the revised requirements and schedule of development associated with the recommended airport concepts for the airport.

Responsibilities:

- Consultant:* Refine all development costs.
- Sponsor:* Review.
- Product:* Cost estimates for the improvements proposed as a part of the selected master plan concepts.

Task 7.2 - Capital Improvement Program Analysis

Description: Prepare a preliminary financial analysis of up to three capital improvement program (CIP) alternative scenarios. This preliminary evaluation includes considering Addison Airport's overall capability to fund the CIP and finance Airport operations. The analysis will identify potential funding sources that are practical alternatives for financing the capital development projects. This preliminary analysis will include the following steps:

- Review financial and legal information gathered during the inventory of financial information related to financial condition, airport policies, administrative regulations, grant

status, and airport user agreements which affect the financial feasibility of implementing the capital improvement program.

- Review the aviation forecast and the proposed development concept. Review development costs and facility requirement schedules to consider possible revisions in the development scope and timing.
- Develop summary level financial projections of funding sources, funding requirements and other information to provide the basis for assessing preliminary financial plans of the CIP alternatives. Revenue and capital funding projections will be compared with operating & maintenance expense and capital expenditure projections to identify a balanced approach for developing and funding the program.

Responsibilities:

Consultant: Develop capital improvement program scenarios and perform preliminary financial analysis.

Sponsor: Provide input and review.

Product: A recommended Capital Improvement Program with financing schedules which indicate whether the potential sources of funding will be reasonably available in the amounts and time frame required to support the CIP.

Task 7.3 - Financial Implementation Plan

Description: Prepare a detailed financial plan for implementation of the Master Plan. The Financial Implementation Plan resulting from this task will present reasonable guidelines for matching projected financial resources with financial needs on a project by project basis, and will include the following steps:

- Develop projection of operating & maintenance expenses – review historical O&M expenses and identify trends and anticipated increases/decreases. Review the potential effect of the selected CIP on projected O&M expenses. Interview Town of Addison management to develop appropriate O&M projection assumptions and to identify other anticipated changes.
- Develop projection of operating revenues – review historical revenues (including concessions, parking, car rentals, general aviation fees, FBO activities, fuel flowage, hangar leases, commercial/industrial and other leases) and determine trends for future projections. Interview Town of Addison management to develop appropriate revenue assumptions.
- Develop projection of capital improvement expenditures – review the selected CIP project list with construction cost estimates, escalation rates and scheduling of expenditures to determine the annual need for capital funding. Interview Town of Addison management and review the proposed Master Plan to develop appropriate projection assumptions.

- Determine funding sources for the financial plan and develop projection for financing the CIP – review the summary of potential funding sources developed in the Preliminary Financial Analysis task (including federal and state grants, economic development funds, debt funding, net revenues, bank financing, Town subsidies and other sources) with Town of Addison and airport management and determine sources to be used for financing the program. Develop projection of capital financing based on the annual amount and availability of funds. Interview Town of Addison and airport management to develop appropriate projection assumptions.

Responsibilities:

Consultant: Prepare a Financial Implementation Plan suitable for the Master Plan.

Sponsor: Provide input and review.

Product: Detailed Financial Implementation Plan.

Task 7.4 - Economic Benefit Analysis

Description: Utilizing surveys and current Airport Economic Impact Models, identify and measure the impacts of economic activity related to the Addison Airport. The three primary impact indicators: (a) employment, (b) payroll, and (c) economic activity (operating expenses or expenditures by firms and government agencies). In addition, the study will measure the induced (or multiplier) effects of the primary impacts, using the Regional Input-Output Multiplier System (RIMS II) developed by the U.S. Department of Commerce. The following categories of economic impact will be analyzed:

- ▶ Direct impacts of suppliers of aviation services.
 - Airport concessionaires
 - Ground transportation
 - Air cargo and courier
 - Government agencies
 - Fixed base operators
 - General aviation aircraft owners
 - Helicopter services
- ▶ Direct impacts of aviation manufacturing firms or other major aviation-related employers on or nearby the airport.
- ▶ Indirect impacts of aviation from expenditures by travelers and tourists that arrive in the area by air.
- ▶ Impacts of aviation on the various sectors of the local economy not necessarily involved in air transport, due to multiplier effects as aviation dollars are spent and re-spent.
- ▶ Estimate of tax revenues created by aviation activity.

Responsibilities:

- Consultant:*** Conduct a detailed analysis of the economic benefit of the Addison Airport.
- Sponsor:*** Assist the Consultant in obtaining the data necessary to conduct the economic analysis.
- Product:*** Detailed Economic Benefit Analysis report and PowerPoint color presentation on CD-ROM.

Task 7.5 - Prepare Financial Program Working Paper

Description: Prepare a detailed financial working paper which outlines the overall airport capital improvement program for the selected airport master plan concept. Organize narrative and graphical presentations of the information in this working paper to allow for a final review and adjustment of the overall master plan concept. Up to 50 copies of the working paper for the master plan will be prepared for distribution.

Responsibilities:

- Consultant:*** Develop complete graphics and narrative for the working paper. Responsible for the distribution of the working paper to the PAC members. This working paper will be sent approximately ten (10) days prior to the PAC meeting via U.S. priority mail.
- Sponsor:*** Review. Coordinate with Consultant as necessary.
- Product:*** Fifty (50) copies of the working paper for the master plan covering the items outlined in the Financial Program element. This working paper will become a chapter in the final report.

ELEMENT 8 - PUBLIC COORDINATION AND COMMUNICATION

Task 8.1 - Planning Advisory Committee (PAC) Meetings

Description: The Consultant and Sponsor will meet with the PAC to review working papers, to discuss study findings, and to identify issues deserving further study. Comments received during these meetings will be considered and evaluated and where appropriate additional analysis will be conducted in order to respond to those comments in the revised working papers. Graphic displays and handout materials will be prepared as needed to facilitate the meetings. Four (4) PAC meetings have been budgeted. These meetings will be held in conjunction with the F.A.R. Part 150 PAC meetings.

At various points in the study, representatives of different interest groups serving on the PAC may be called together to meet as ad hoc "subcommittees". (These groups may include, for example, citizen and neighborhood representatives, airport users, or local land use planners.) These meetings

will be convened when in-depth discussion of issues particularly relevant to those interest groups is needed. These meetings will be held during the trips for the PAC meetings. It is anticipated that meetings with the citizens and neighborhood subcommittee will be held during each PAC meeting trip.

Responsibilities:

Consultant: Distribute meeting notices to PAC. Provide presentations and necessary graphics at the meetings. Prepare summary minutes.

Sponsor: Arrange for meeting room. Coordinate jointly with Consultant.

Product: Four (4) PAC Meetings with summary minutes.

Task 8.2 - Local Coordination and City Council Briefing Meetings

Description: Meet with and give presentations to the Sponsor or other local groups as directed by the Sponsor. Meetings are expected to involve status reports on the study and presentations of final recommendations. Three (3) local coordination meetings and three (3) City Council briefing trips have been budgeted during the study. It has been assumed that these meetings would be held on trips other than the planned PAC meetings.

Responsibilities:

Consultant: Provide presentations and necessary graphics at the meetings. Prepare summary minutes as appropriate.

Sponsor: Coordinate jointly with Consultant.

Product: Three (3) local coordination meeting and three (3) City Council briefing trips.

Task 8.3 - Public Information Workshops

Description: The working papers prepared for the Airport Master Plan Update Study will be presented to the general public at public information workshops. The workshops will be held after the PAC meetings (on the same days). Four workshops have been budgeted.

Notification of the workshops will be accomplished using press releases, newspaper advertising, and direct mailings to interested citizens, neighborhood associations, and other groups in the area that may have an interest in the Airport Master Plan Update Study.

Responsibilities:

Consultant: Prepare press releases for Sponsor. Prepare mock-ups of newspaper advertisements. Prepare direct mail meeting announcements as directed. Provide

facilitation, technical presentations, and related graphics for the meetings. Prepare summary minutes of meetings.

Sponsor: Provide names for mailing list. Review, approve, and send press releases to local media. Approve mock-ups of meeting advertisements. Arrange and pay for placement of ads in local newspapers. Arrange and pay for meeting room. Mail flyers announcing meetings to people on mailing list.

Product: News releases, meeting advertisements, display boards and charts, direct mail flyers, four (4) sets of public information workshops, summary minutes.

Task 8.4 – Draft Final Master Plan Report

Description: Upon completion of a review of all draft working papers, a draft final document incorporating the appropriate revisions will be printed. Up to 50 copies of the draft final plan will be submitted.

Responsibilities:

Consultant: Prepare and print 50 copies of the draft final master plan report.

Sponsor: Coordinate distribution of draft final report to appropriate Town of Addison officials and provide final comments.

Product: Draft Final Master Plan Report (50 copies).

Task 8.5 – Final Master Plan Report

Description: Upon completion of a review of the "Draft" Final Master Plan Report and the incorporation of appropriate revisions, a final master plan report will be printed. Fifty (50) copies of the final plan will be submitted. The finals will include twenty (20) comb bound reports, twenty (20) compact disc copies, and ten (10) three ring bound reports. In addition, one reproducible set of Airport Plans will be provided to the town.

Responsibilities:

Consultant: Prepare and print 50 copies of the final master plan report.

Sponsor: Coordinate distribution of final report to appropriate Town, County, state, and federal officials.

Product: Final Master Plan Report (50 copies). Twenty comb bound, twenty compact discs, and ten three ring bound reports. Reproducible set of Airport Plans.

Task 8.6 - Airport Master Plan Summary Brochure

Description: Prepare narrative and graphics for a brochure summarizing the updated Airport Master Plan. The brochure will summarize the study process, forecasts, and the recommendations of the plan. It will include a summary of capital costs required to meet proposed development. The brochure will be printed in full color and will not exceed eight pages. It will be designed for widespread distribution to the public.

Responsibilities:

- Consultant: Design, write, and print a summary report.
- Sponsor: Review and distribute.
- Product: One thousand (1,000) copies of summary brochure.

Task 8.7 - Economic Benefit Analysis Summary Brochure

Description: Prepare narrative and graphics for a brochure summarizing the Economic Benefit Study. The brochure will summarize the analysis and findings of the Study. The brochure will be printed in full color and will not exceed eight pages. It will be designed for widespread distribution to the public.

Responsibilities:

- Consultant: Design, write, and print a summary report.
- Sponsor: Review and distribute.
- Product: One thousand (1,000) copies of summary brochure.

SPECIAL SERVICES

ELEMENT 9 - PAVEMENT STRENGTH ANALYSIS

The purpose of this study element is to establish the strength of various pavement sections at the Addison Airport.

Task 9.1 - Pavement Strength Analysis

Description: This task consists of coring and evaluating several pavement sections at the Addison Airport. The pavement corings will be tested and evaluated in accordance with applicable ASTM and FAA standards. Up to 32 corings will be obtained. Seven (7) on the Runway, eight (8) on the parallel taxiway, and seventeen (17) at other apron and taxilane locations. The 32 cores will be tested for compressive strength and eight (8) companion cores will be tested for tensile strength.

Results of both the compressive and tensile strength tests will be used to evaluate the flexural strength of the pavement at each location. The flexural strength for single wheel loads (SWL, dual wheel loads (DWL), and dual tandem wheel loads (DTWL) will be calculated for each location. A letter style report will be prepared and included in an appendix to the master plan report which will address 1.) Thickness and brief visual description of each core; 2.) Compressive and tensile strength test results; and 3.) Pavement strength for SWL, DWL, and DTWL at each location.

Responsibilities:

- Consultant: Conduct pavement corings, evaluate corings, and prepare a pavement strength analysis report.
- Sponsor: Review. Coordinate with Consultant as necessary. Provide airport access to the pavement testing firm and coordinate runway closures for testing.
- Product: Pavement strength analysis report for inclusion as an appendix to the master plan report.

ATTACHMENT E
COST SUMMARY
Addison Airport
Prepared By Coffman Associates, Inc.
November 7, 2001

ELEMENT/TASK	Principal/ Project Manager	Professional	Support	Expenses	Subconsultant	TOTAL
	\$1,290	\$850	\$500			
<u>BASIC SERVICES</u>						
Element 1 - Inventory						
1.1 Prepare Workbooks	0	0	2	\$500	\$0	\$1,500
1.2 Prepare Study Initiation Brochures	0	1	2	\$0	\$0	\$1,850
1.3 Attend Kick-off Meeting	1	0	0	\$750	\$500 (1)	\$2,540
1.4 Identify Issues/On-site Investigation	1	5	0	\$2,000	\$0	\$7,540
1.5 Obtain Obstruction Elevation Survey	0	2	2	\$500	\$0	\$3,200
1.6 Conduct After Hours Operational Count	0	1	0	\$0	\$0	\$850
1.8 Inventory Financial and Administrative Data	0	2	0	\$0	\$0	\$1,700
1.9 Prepare Working Paper, Inventory	1	4	5	\$940	\$1,000 (1)	\$9,130
Subtotal - Element 1	3	15	11	\$4,690	\$1,500	\$28,310
Element 2 - Aviation Forecasts						
2.1 Develop Elements to Supplement Aviation Demand Forecasts	0	3	1	\$1,050	\$0	\$4,100
2.2 Prepare Working Paper, Forecasts	1	2	3	\$940	\$1,000 (1)	\$6,430
Subtotal - Element 2	1	5	4	\$1,990	\$1,000	\$10,530
Element 3 - Facility Requirements						
3.1 Determine Airfield Capacity and Delay	0	1	0	\$0	\$0	\$850
3.2 Determine Critical Aircraft	0	2	0	\$0	\$0	\$1,700
3.3 Determine Critical Runway Length and Design Standards	0	2	0	\$0	\$0	\$1,700
3.4 Analyze Airport Obstructions	0	5	5	\$0	\$0	\$6,750
3.5 Prepare Other Airfield Facility Requirements	0	2	0	\$0	\$0	\$1,700
3.6 Prepare Landside Facility Requirements	0	2	0	\$0	\$0	\$1,700
3.7 Prepare Working Paper, Facility Requirements	1	4	4	\$940	\$1,000 (1)	\$8,630
Subtotal - Element 3	1	18	9	\$940	\$1,000	\$23,030
Element 4 - Airport Alternatives						
4.1 Identify Potential Airfield Alternatives	0	2	0	\$0	\$0	\$1,700
4.2 Identify Potential Landside Alternatives	0	2	0	\$0	\$0	\$1,700
4.3 Determine Preliminary Runway Development Costs	0	1	0	\$0	\$0	\$850
4.4 Prepare Alternatives Noise Analysis	0	3	2	\$0	\$0	\$3,550
4.5 Alternatives Evaluation	0	2	1	\$0	\$0	\$2,200
4.6 Prepare Working Paper, Airport Alternatives	1	4	5	\$940	\$1,000 (1)	\$9,130
Subtotal - Element 4	1	14	8	\$940	\$1,000	\$19,130
Element 5 - Environmental Overview						
5.1 Conduct Environmental Inventory	0	5	2	\$500	\$0	\$5,750
5.2 Prepare Working Paper, Environmental Overview	1	4	5	\$940	\$1,000 (1)	\$9,130
Subtotal - Element 5	1	9	7	\$1,440	\$1,000	\$14,880
Element 6 - Airport Plans						
6.1 Airport Layout Drawing	0	2	10	\$500	\$0	\$7,200
6.2 Landside Facility Drawing	0	1	5	\$0	\$0	\$3,350
6.3 Airspace and Inner Approach Surface Drawings	0	1	3	\$0	\$0	\$2,350
6.4 Exhibit A - Airport Property Map	0	1	2	\$0	\$0	\$1,850
6.5 Airport Land Use Drawing	0	1	2	\$0	\$0	\$1,850
6.6 Prepare Working Paper, Airport Plans	1	3	5	\$940	\$1,000 (1)	\$8,280
Subtotal - Element 6	1	9	27	\$1,440	\$1,000	\$24,880

Element 7 - Financial Management Program

7.1	Prepare Airport Development Cost Estimates	0	2	0	\$0	\$0	\$1,700
7.2	Capital Improvement Program Analysis	0	2	0	\$0	\$0	\$1,700
7.3	Financial Implementation Plan	0	3	0	\$0	\$0	\$2,550
7.4	Economic Benefit Analysis	0	0	0	\$0	\$14,200 (2)	\$14,200
7.5	Prepare Working Paper, Financial Plan	1	4	5	\$940	\$1,000 (1)	\$9,130
Subtotal - Element 7		1	11	5	\$940	\$15,200	\$29,280

Element 8 - Public Coordination and Communication

8.1	Planning Advisory Committee (PAC) Meetings	0	6	0	\$4,500	\$0	\$9,600
8.2	Local Coordination and City Council Briefing Meetings	5	6	1	\$4,670	\$3,000 (1)	\$19,720
8.3	Public Information Workshops	0	4	2	\$2,000	\$0	\$6,400
8.4	Prepare Draft Final Master Plan Report	1	4	5	\$4,000	\$1,000 (1)	\$12,190
8.5	Prepare Final Master Plan Report	0	2	5	\$4,000	\$0	\$8,200
8.6	Master Plan Summary Brochure	0	2	4	\$1,000	\$1,000 (1)	\$5,700
8.7	Economic Benefit Summary Brochure	0	2	4	\$1,000	\$1,000 (1)	\$5,700
Subtotal - Element 8		6	26	21	\$21,170	\$6,000	\$67,510

TOTAL BASIC SERVICES		15	107	92	\$33,550	\$27,700	\$217,550
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SPECIAL SERVICES**Element 9 - Pavement Strength Analysis**

9.1	Pavement Strength Analysis	0	1	0	\$500	\$11,100 (3)	\$12,450
Subtotal - Element 9		0	1	0	\$500	\$11,100	\$12,450

TOTAL SPECIAL SERVICES		0	1	0	\$500	\$11,100	\$12,450
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PROJECT TOTAL (BASIC AND SPECIAL SERVICES)		15	108	92	\$34,050	\$38,800	\$230,000
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(1) Liz Oliphant

(2) Dr. Lee McPheters

(3) Reed Engineering Group