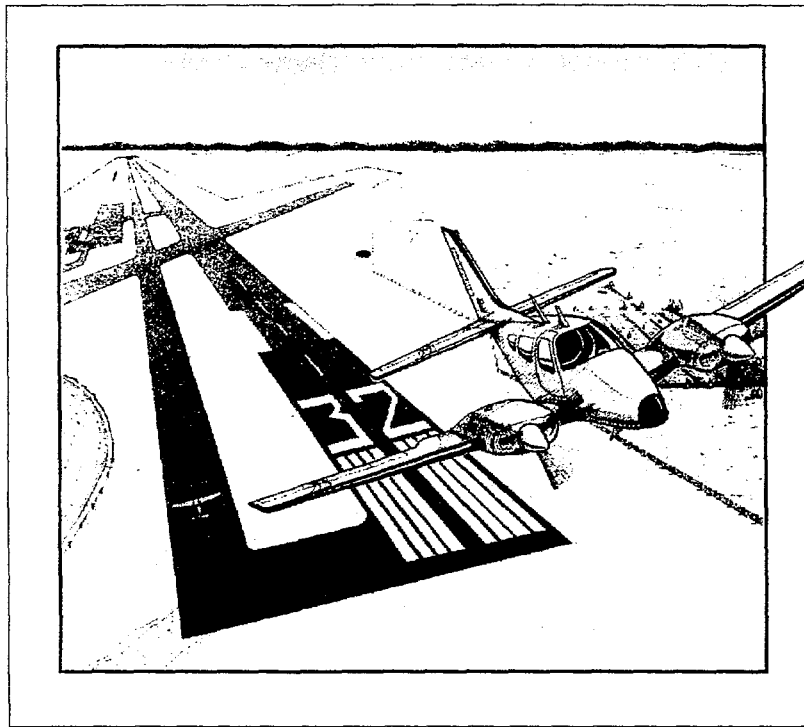


Chapter Five
DEVELOPMENT ALTERNATIVES



Chapter Five

DEVELOPMENT ALTERNATIVES

Once the facilities needed for the planning period have been identified, the next step in the master planning process is to evaluate the various ways those facilities can be provided. The possible combinations of alternatives are many, so some intuitive judgment must be used to identify those alternatives which have the greatest potential and practicality.

Four major functional areas were considered in the development alternatives at St. Johns Industrial Air Park. These include the following:

- Airfield
- General Aviation Terminal Area
- Industrial Park
- Aviation Reserve Areas

In addition, the utilization of the remaining airport property to provide revenue support

for the airport, and benefit the economic development and well-being of the St. Johns area were also considered. Each functional area of the airport will influence the development and operation of the others. Therefore, all areas have been examined both individually, and collectively to ensure the final plan is functional and cost effective.

When analyzing various alternatives for development, consideration should also be given to a "do nothing" or "no build" alternative. All of the alternatives are evaluated using aviation, engineering, and environmental factors to determine which alternatives will most effectively fulfill the local aviation needs. Further discussion of environmental factors will follow in Chapter 6. With this information, as well as the input and direction of the Planning Advisory Committee, a final airport

development concept evolved. The final airport concept was then refined into a realistic and achievable development program.

DO NOTHING ALTERNATIVE

This alternative involves maintaining the airport in its present condition and not developing the recommended facilities. The runways would not be lengthened and additional lighting systems would not be installed. Terminal facilities would remain as they are and eventually become unserviceable due to deterioration.

"Do Nothing" Evaluation

The major impact of this alternative would obviously be the continuation of the limitations on the use of the St. Johns Industrial Air Park. The Do Nothing Alternative would limit existing users to the current facilities and could serve as a disincentive for use by larger corporate aircraft. The advantage to this alternative is no additional outlays for capital improvements, and little change in the costs for maintenance and operations.

The Do Nothing Alternative would also constrain the capabilities of St. Johns Industrial Air Park to accommodate future aviation demands. The demands for airport facilities and services in the St. Johns area are strong. Particularly with the remote character of the region, the facility requirements indicated in the previous chapter become increasingly important.

A decision to do nothing would eliminate a portion of the economic potential of the airport, and also detract from the potential of the entire White Mountain Region.

Businesses requiring the use of, and services for, their aircraft could look elsewhere, thereby possibly affecting future employment in the region. Potential businesses that are airport-related or require regular air transportation would be limited to those businesses that utilize smaller aircraft, thereby eliminating many potential major employers.

St. Johns Industrial Air Park has the capacity and the potential market to help attract development and employment to the area. To choose the Do Nothing alternative would restrict this potential from being maximized and would restrict the economic growth of St. Johns and Apache County.

AIRPORT DEVELOPMENT ALTERNATIVES

The previous chapter identified both the airside and landside facilities necessary to satisfy forecast demands through the planning period. The overall objective is to produce a balanced airside and landside complex to serve forecast aviation demands. However, prior to defining and evaluating specific alternatives, development objectives for the evaluation should be identified.

The City of St. Johns provides the overall guidance for the operation and development of St. Johns Industrial Air Park. It is the responsibility of city government to market, develop, and operate the airport for the betterment of the City of St. Johns and the White Mountain area. This responsibility is best served when city and airport management focus on the following objectives:

- ◆ Provide the maximum amount of air service possible for the community.
- ◆ Operate the airport as an attractive, efficient, safe, and environmentally compatible facility.
- ◆ Market and develop the airport facilities and available land as economic development opportunities.

In attempting to meet these objectives, development of facilities should be undertaken in such a manner as to minimize operational constraints. Flexibility in airport development is essential to assure adequate capacity and minimize financial commitments until market potential is realized.

Airport development alternatives usually focus on airside development and landside development. The proposed airside improvements are significant in terms of runway development. However, other airside development items are merely improvements to existing facilities. The various ways the recommended runway length may be provided and the consequences of building a 7,200-foot long runway will be examined in detail. The recommended landside improvements are minor and presented in such a manner that they can be integrated with any of the airside alternatives.

AIRSIDE ALTERNATIVES

Airside facilities, by their very nature, are the focal point of the airport complex. Because of their role as the point of transition between air operations and ground operations, and the fact that they physically dominate airport land use,

airside requirements are the most critical factors in the identification of reasonable airport development alternatives. The development of airside alternatives examined various ways that the recommended airside facilities could be provided. The various airside alternatives attempted to maximize the utilization of existing facilities, and provide maximum runway length within reasonable topographic, engineering environmental and development cost constraints.

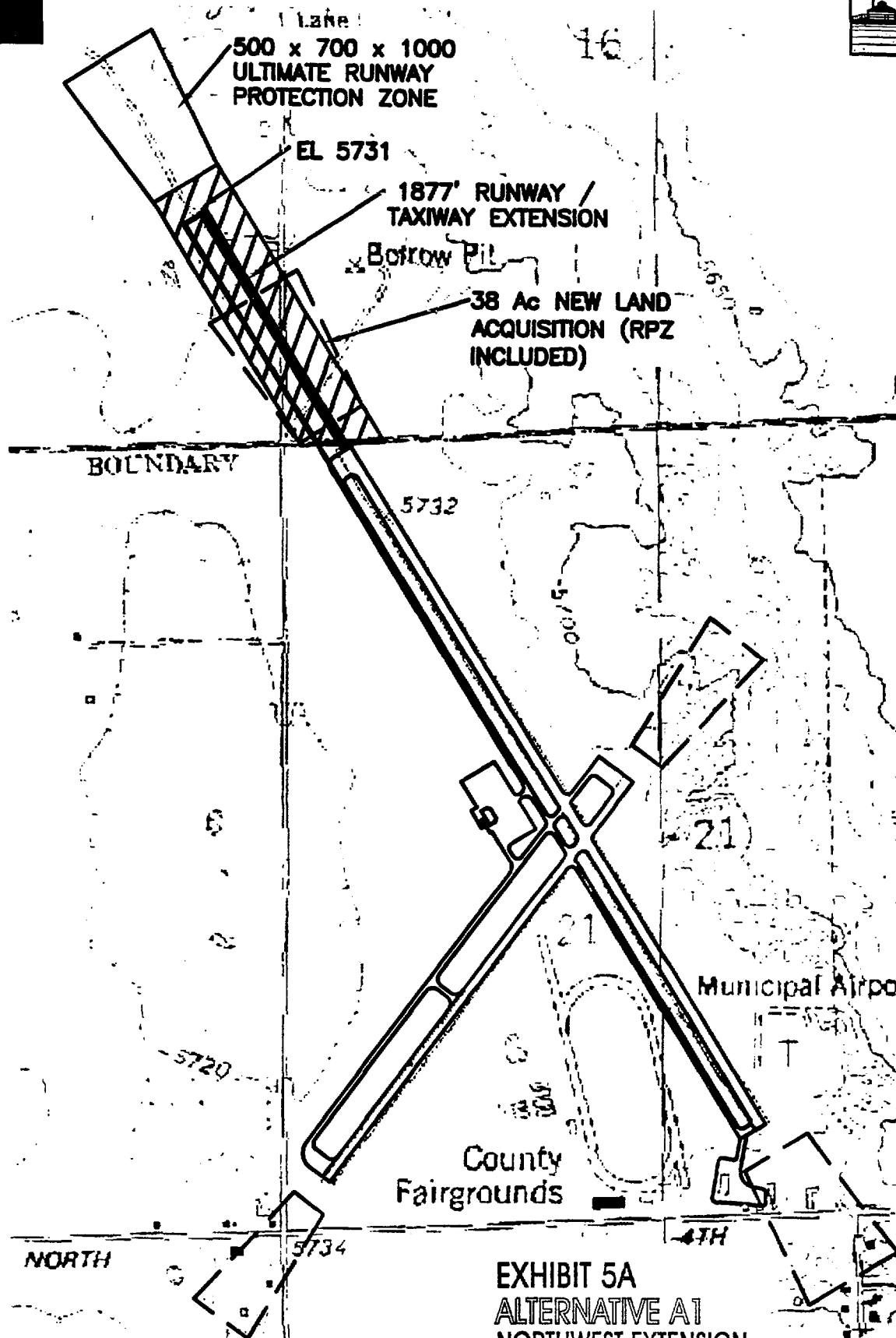
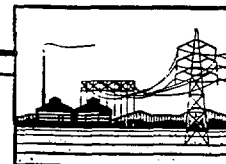
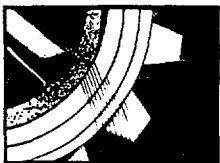
Identification of Preliminary Development Concepts

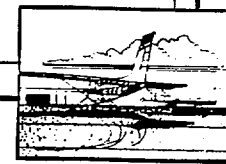
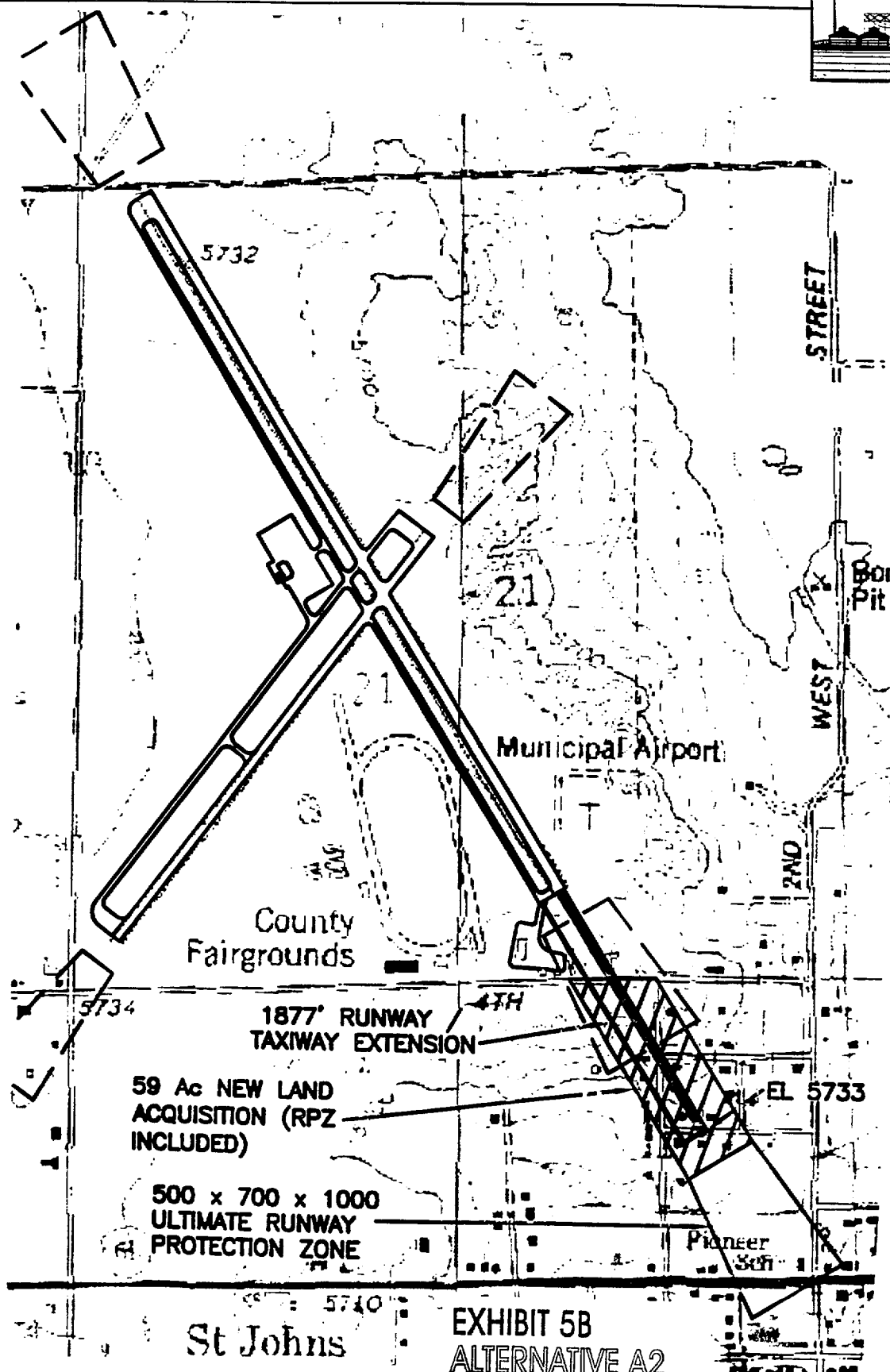
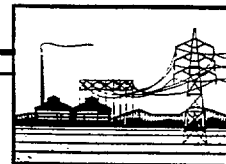
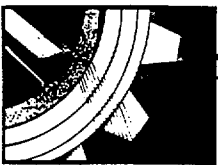
St. Johns Industrial Air Park requires relatively few airside improvements in order to meet the recommended build out configuration. Given the existing runway system and the recommended standard runway length of 7,200 feet, three preliminary airfield development concepts were identified:

- ◆ Extend Runway 14-32 to 7,200 feet from its current 5,323 feet.
- ◆ Extend Runway 3-21 to 7,200 feet and widen to 75 feet from its current dimensions of 3,400 feet by 60 feet.
- ◆ Construct a new realigned runway with dimensions of 7,200 feet by 60 feet.

Preliminary Evaluation of Concepts

Evaluation of the three preliminary development concepts was undertaken to assess whether there were any "fatal flaws" that would eliminate a development concept from further study. While the first two concepts (extend one of the existing runways) were considered feasible, the





third concept (new realigned runway) was eliminated from further analysis. This concept was dismissed since a new runway was considered to have two fatal flaws: 1) too costly, and 2) lost valuable investment in the existing airfield.

A new realigned 7,200-foot runway would also require the acquisition of a large portion of the adjoining sections (north and east). Even with the land acquisition, topography would remain a significant concern with any of the possible runway alignments.

A new 7,200-foot runway would also be advantageous than developing a new airport, but would retain some of the undesirable characteristics of the existing airport such as adverse consequences associated with airspace obstructions, traffic patterns, and overflights of residential areas.

The relaxed runway length standard will be incorporated into the plans for St. John's Industrial Air Park. The relaxed development standards will apply to the primary runway only and all other development will be planned to meet the higher FAA standards of Aircraft Design Group II.

Refinement of Runway Alternatives

At this point in the analysis, two runway development concepts remain which meet the 7,200-foot length requirement. The 7,200-foot length is required, as presented in Chapter 4, to accommodate 100 percent of the small aircraft fleet (12,500 pounds or less).

The two development concepts were refined and identified as Alternative A, "Extend Runway 14-32," and Alternative B, "Extend Runway 3-21." These two alternatives were then further refined and divided into more specific alternatives identified as A1 and A2 for Runway 14-32 and B1 and B2 for Runway 3-21. These alternatives are described here.

Alternative A

Alternative A examines the potential of extending Runway 14-32 to 7,200 feet in length. Runway 14-32 is currently the primary runway and is already the longer and wider of the two runways. It has existing Medium Intensity Runway Edge Lighting (MIRL) and visual approach aids. However, based on the available wind data, Runway 14-32 has the lesser wind coverage (89.8% @ 15 MPH).

The goal of Alternative A can be accomplished in two ways shown in Exhibits 5A and 5B. Extending Runway 14-32 to 7,200 feet in length would require adding 1,877 feet on one end or the other.

- *Alternative A1* examined a 1,877-foot extension of the runway and Taxiway B to the northwest.
- *Alternative A2* examined a 1,877-foot extension of the runway and Taxiway A to the southeast.

Partially extending both runway ends was considered, however eliminated from the study as impacts were magnified.

Alternative B

Alternative B examines the potential of extending Runway 3-21 to 7,200 feet in length. Runway 3-21 is currently designated the crosswind runway and is only 3,400 feet long and 60 feet wide, and would require a much longer extension in order to get to the desired 7,200 feet in length. This runway has the better crosswind coverage (96.7% @ 15 MPH) of the two and would serve better as the primary runway on that basis. However, the existing length and width currently relegate it to the lesser use role of a crosswind runway.

As illustrated in Exhibits 5C and 5D, the goal of Alternative B can be accomplished in two ways. The extension of Runway 3-21 would require adding 3,800 feet to one end or the other to achieve 7,200 feet in length.

- *Alternative B1* examined a runway extension to the northeast
- *Alternative B2* examined an extension to the southwest.

Partially extending both runway ends was considered, however eliminated from the study as impacts were magnified.

Evaluation of Airside Alternatives

Numerous constraints exist that would need to be overcome in order to extend either runway in either direction. Overcoming these constraints involves both objective and subjective evaluations of feasibility and practicality.

Evaluation criteria used included the following:

- ◆ Aviation Factors: Airspace, Wind Coverage, Traffic Patterns, and Runway Visibility Zone
- ◆ Engineering Factors: Land Acquisition (acres), Runway Elevation Differential, and Earth Work
- ◆ Environmental Factors: Noise, Land Use Compatibility, Traffic/Circulation and Resident Relocation
- ◆ Costs: Land Acquisition, Resident Relocation, Earth Work, Paving, Lighting, and Fencing

Aviation and environmental factors were measured/rated with a plus (+) for improvement, a negative (-) for negative impact (-), and a zero (0) for neutral or no impact. Engineering factors and costs used more quantitative figures (acreage, cubic yards, dollars, etc.). Following the evaluation of each alternative under these of criteria, an overall ranking was given between 1 and 4.

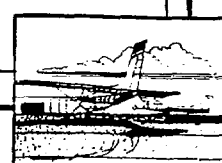
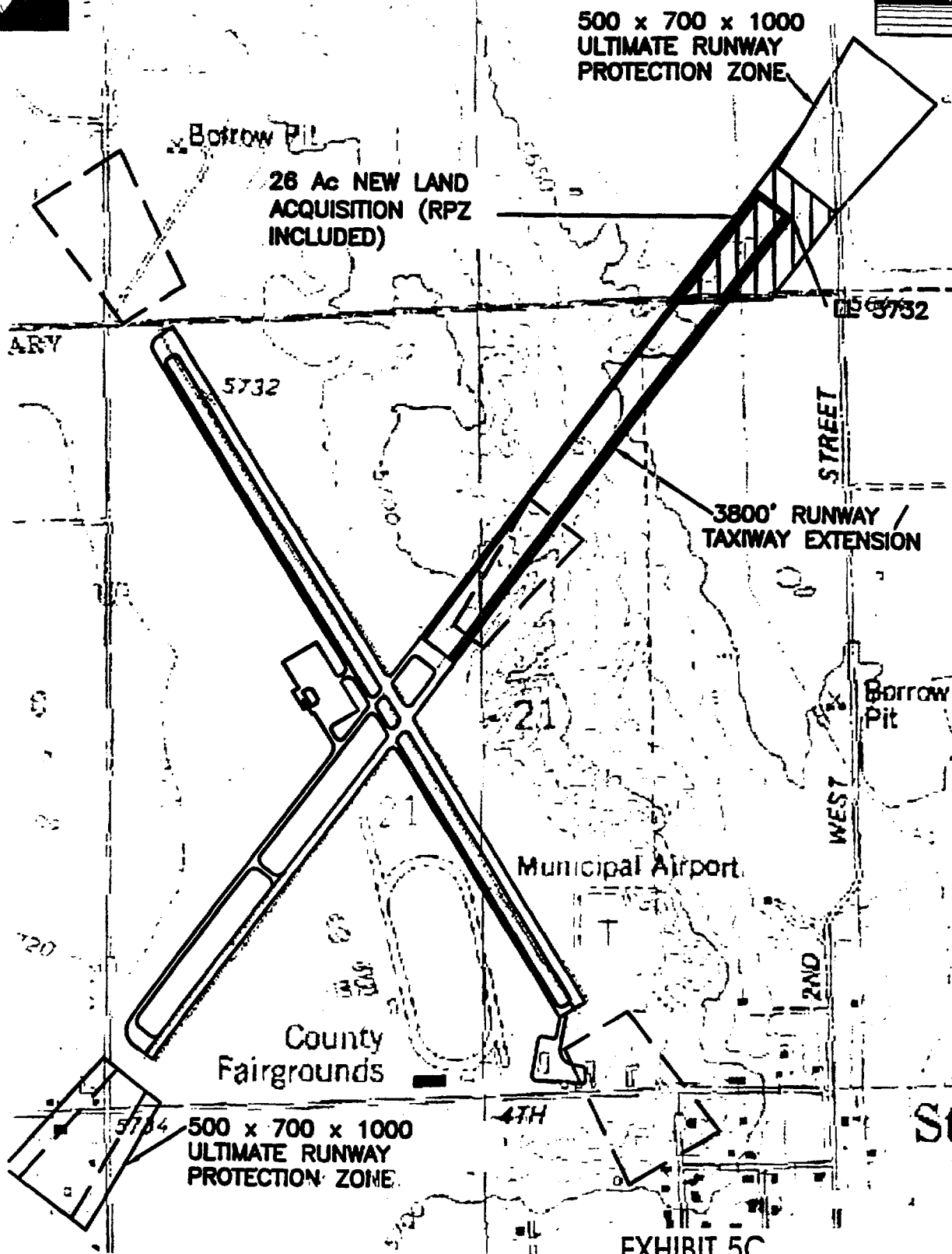
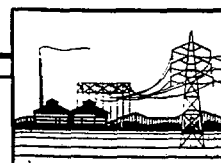
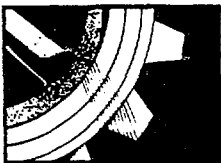
It should be noted that several of the evaluation criteria may be mutually exclusive; that is attaining one goal can only be achieved at the expense of another, and that "trade-offs" are inherent in the analysis of these alternatives.

A summary of the evaluation results are presented in *Table 5.1* and described in detail the following sections.

Alternative A1 Evaluation

Natural Grades and Drainage

Extending Runway 14-32 to the northwest, previously shown in *Exhibit 5A*, Alternative A1, would run roughly perpendicular to the natural grade. The natural grade drains to the northeast into the Little Colorado River.



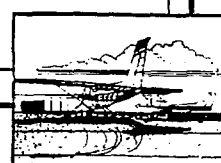
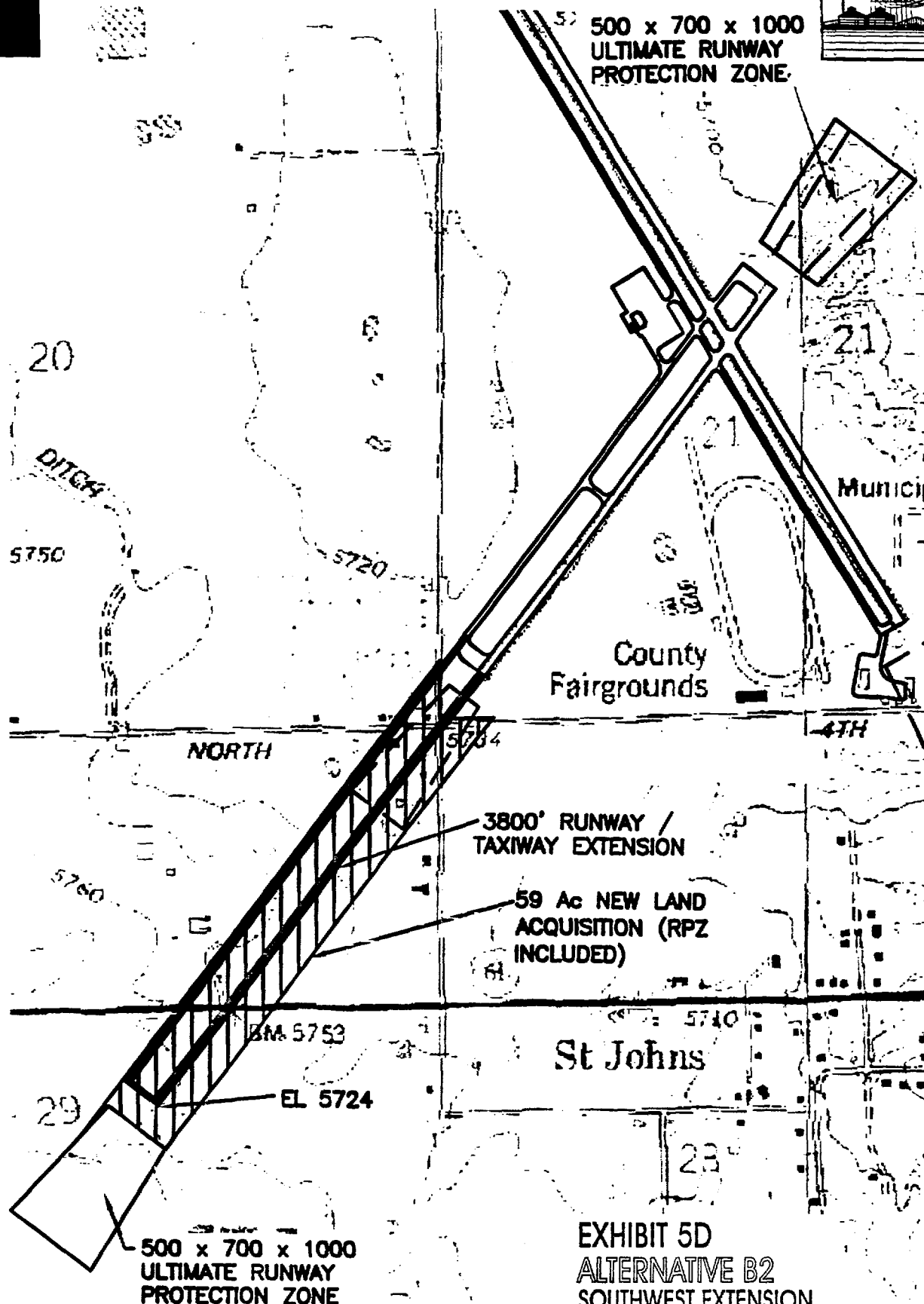
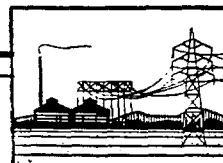
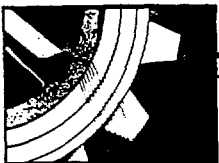


EXHIBIT 5D
ALTERNATIVE B2
SOUTHWEST EXTENSION
OF RUNWAY 3-21

There are no natural (topographic) features such as washes which would require extraordinary measures in order for the runway improvements to be constructed. The difference in elevation between the existing runway end and the natural grade at the ultimate runway end location is approximately 17 feet. This alignment would produce the least amount of grading required in order to more fully develop Runway 14-32. This alternative would require approximately 250,000 cubic yards of earth fill to build the runway and taxiway improvements.

Roadway Access

Alternative A1, previously shown in Exhibit 5A, would extend Runway 14-32 northwest 1,877 feet, across two existing roads which would need to be terminated or relocated. Thirteenth West and Fifteenth North streets provide needed local access to residential properties and thoroughfare access to streets leading to other areas of the community. Local access to remaining residential properties could be maintained, however, it may not be feasible to maintain existing through traffic routes.

Land Use

Providing the desired runway length to the northwest would impact several residential properties. These properties are primarily large lot residences with livestock facilities. Approximately four to seven properties would be largely or completely acquired for Runway and Taxiway Safety Areas, and Runway Protection Zone (RPZ) purposes.

The residents of the properties to be acquired would need to be relocated as part of the acquisition and development process.

The property that would be acquired also lies beyond the existing St. Johns municipal boundary in an unincorporated portion of Apache County. The City would need to annex this property in order to preserve zoning jurisdiction or coordinate zoning, land use, public service and utility issues with the County.

Obstructions

The FAR Part 77 airspace surfaces associated with the extended Runway 14-32 to the northwest would be free of any obstructions. The terrain gradually slopes away from the runway northward, and all buildings in the area would be removed to make room for the proposed runway improvements and safety areas. No other manmade or natural obstructions have been identified that would penetrate any of the airspace surfaces.

Runway Protection Zones

The Runway Protection Zone (RPZ) that would be associated with the extended runway to the northwest lies in an undeveloped area. The RPZ would not require any demolition but would require acquisition of property. The terrain within the RPZ is suitable for this purpose and would need little improvement other than perimeter fencing.

Costs

The aviation factors associated with Alternative A1 are somewhat favorable and the environmental factors are considered second best. Alternative A1 is the least costly to develop at more than \$1.6 million. This alternative also produces the next to the least community disruption in terms of property acquisition and resident relocation.

Alternative A2 Evaluation

Natural Grading and Drainage

The extension of these facilities are generally in the same direction and parallel to the ridge line. However, further to the southeast, there is a fairly steep topographic depression into which the runway extension would extend. The difference in elevation between the existing end of the runway and the ground where the runway threshold would be is approximately 53 feet. This alignment would require more than one million cubic yards of earth fill, more than four times that required for Alternative A1.

Roadway Access

Extending the runway as proposed in Alternative A2, would cross three to four local streets and impact four city blocks of residential and commercial development. Portions of Second North, Third North and Fourth North, as well as Fourth West would be closed for runway and taxiway improvements. These roads are the only local streets that provide through traffic between Second West and Thirteenth West, north of U.S. Highway 180. These closures would create a significant disruption of local traffic south of the airport.

Land Use

Extending Runway 14-32 southeast would affect at least 12 residential and commercial properties south of Fourth North Street. These properties are primarily small to medium size lots with single family homes. There is a feedlot at the southwest corner of Fourth North and Fourth West streets and the City Maintenance Yard would also be displaced in this alternative.

Obstructions

Due to the amount terrain drops off to the southeast, and the removal of all buildings in the runway and taxiway safety areas, the FAR Part 77 surfaces would be free of any manmade or natural obstructions. The absence of any obstructions to air navigation would ensure the safety of approaches and the ability to meet minimum instrument approach criteria.

Runway Protection Zones

The RPZ associated with the southeast extension of Runway 14-32 would encompass government office space and residential properties. The RPZ would also cross U.S. Highway 180 and a portion of a school yard. The RPZ should be clear of these buildings and playground and the presence of the highway is less than desirable. Removing these incompatible uses within the RPZ would impose a significant disruption in community services and structure.

Costs

The aviation factors associated with Alternative A2 are less favorable than other alternatives and the environmental factors are very unfavorable. The estimated construction costs for Alternative A2 are slightly more than \$2.7 million, the next to least expensive.

Alternative B1 Evaluation

Natural Grading and Drainage

Extending Runway 3-21 to the northeast would run almost parallel to the natural fall of the terrain. The change in ground elevation between the existing runway end and the extended runway end is

approximately 92 feet lower. This change in ground elevation would require a very large amount of fill material upon which to construct the proposed runway and taxiway improvements. This alternative would require almost 4.7 million cubic yards of earthwork, the most of any of the alternatives.

Roadway Access

Alternative B1 would extend Runway 3-21 across Fifteenth North Street which is a dirt road at that point. This road could be rerouted around the end of the runway with relatively little disruption of traffic patterns and flow. Additional right-of-way would need to be acquired and grade and utility modifications would likely be necessary. Due to the amount of earth fill required and the close proximity of the runway to Second West Street, it is likely that Second West Street would also need to be rerouted around the end of the runway.

The impacts to existing land use of extending this runway to the northeast are relatively minor. There are no residential, commercial, or industrial activities which would be disturbed by the extension. However, there is a recreational activity which would be impacted by the proposed improvements. The equestrian area and steeplechase course east of the airport would effectively be cut in two with little or no access between the two areas. Additionally, the runway and taxiway and RPZ would extend beyond the municipal boundary of the town into Apache County.

Obstructions

The FAR Part 77 airspace surfaces associated with the extended Runway 3-21 to the northeast are free of any obstructions. The terrain slopes away from

the runway northeastward, and there are no buildings or natural objects in the area which would need be removed to make room for the runway improvements. No manmade or natural obstructions have been identified that would penetrate any of the airspace surfaces.

Runway Protection Zones

The Runway Protection Zone (RPZ) associated with the extended runway to the northeast lies in an undeveloped area. The RPZ would not require any demolition but would require acquisition of property. The terrain within the RPZ is suitable for this purpose and would need little improvement other than fencing. There is a major roadway that would run through the RPZ which is permissible but undesirable. Since the RPZ lies in the county, land use controls such as zoning will require coordination with the Apache County.

Costs

Alternative B1 compares very favorably from the aviation and environmental factors standpoints, but is one of the more challenging from an engineering factors standpoint. The extreme amount of earthwork necessary for this alternative escalates the development costs to more than \$8 million, the most costly of all alternatives.

Alternative B2 Evaluation

Natural Grading and Drainage

Alternative B2 would extend Runway 3-21 approximately 3,800 feet to the southwest. This direction lies on the up slope of the natural grade and would produce an elevation differential of 36 feet between the existing runway end and the proposed

runway end. This grade would result in a runway gradient of slightly less than one percent, which is well within limits for this type of runway. The 36 foot differential would require the second most amount of excavation (1.26 million cubic yards) and would result in rising terrain beyond the runway safety areas.

Roadway Access

Extending Runway 3-21 to the southwest would cross Fourth North and Fifteenth West streets and U.S. Highway 180. Crossing both Fourth North and Fifteenth West streets would create a significant disruption of local traffic and restrict ground access to the airport itself.

Land Use

A southwest extension of Runway 3-21 would impact more than twenty residential properties. These properties would need to be acquired and the homes demolished in order to create the space necessary for runway and taxiway safety areas. The necessary property acquisition would create a significant change in land use and result in a hardship on those households displaced and a nuisance for those homes remaining nearby. The adverse land use impacts would be significant and are considered unacceptable.

Obstructions

The FAR Part 77 airspace surfaces associated with a southwesterly extension of Runway 3-21 appear to be free of any manmade obstructions. However, the terrain slopes upward to the southwest and may result in terrain penetrations to the Approach and/or Transitional Surface. The buildings nearest the end of the runway are far enough away that they would not penetrate the Transitional Surface.

Runway Protection Zones

The Runway Protection Zone (RPZ) associated with the extended runway to the southwest lies in an undeveloped area. The RPZ would not require any demolition but would require acquisition of the property. The terrain within the RPZ is suitable for this purpose and would need little improvement other than fencing.

Costs

Alternative B2 ranked last in Aviation, Engineering and Environmental factors and was the second most expensive in terms of costs without relocating U.S. Highway 180.

Evaluation Conclusions

Following the detailed evaluation process of Alternatives A1, A2, B1 and B2, the City determined that the impacts and costs associated with the full development of these alternatives were unacceptable.

The next apparent step in this process was to consider a runway extension of less than 7,200 feet. While it was determined that a smaller extension to Crosswind Runway 3-21 could significantly reduce impacts associated with the 7,200-foot proposed runway, the extension would still have to be less than the primary runway's length to minimized the impacts to the City's satisfaction. A smaller extension to Runway 14-32 was also addressed, but any extension to either runway end would quickly impose impacts that the City still termed unacceptable.

The effort to find an acceptable runway alternative then turned back to consideration of accommodating less than 100 percent of the small aircraft fleet with less runway length requirement.

As identified in Chapter 4, a runway length of 5,050 feet is required to accommodate 75 percent of the small aircraft fleet. St. Johns Industrial Air Park exceeds this requirement by 270 feet. Therefore, it was determined that the primary runway length would not be extended beyond its current length of 5,323 feet.

Using the guidelines to accommodate 75 percent of the small aircraft fleet, crosswind Runway 3-21 should be planned for a length representing 80 percent of the primary runway length requirement (i.e. 80 percent of 5,050 feet or 4,040). Since a crosswind runway length of 4,040 feet offers the minimized impacts, this length was considered acceptable by the City.

Preferred Airside Alternatives

Based on the evaluation process and conclusions, the following represents the preferred airside development alternatives:

- ◆ Runway 14-32 remains at its current dimensions of 5,323 feet by 75 feet, serving 75 percent of the small B-II aircraft fleet.
- ◆ Runway 3-21 will be extended from its current length of 3,400 to a total length of 4,040 feet and will be widened from 60 feet to 75 feet to accommodate up to small B-II aircraft during crosswind conditions. Parallel Taxiway A will also be extended.

Nevertheless, based on the factors of airfield development cost, airport compatibility and the resulting operations efficiency, capacity and capabilities of the airport, it is the recommendation of the

consultant that only those airfield development items that can be accomplished economically and reasonable should be programmed for the long term development of St. John's Industrial Air Park.

LANDSIDE ALTERNATIVES

Landside facilities include hangars, aircraft parking apron, auto parking, and fuel storage. As presented in Chapter 4, St. Johns Industrial Air Park has adequate apron, auto parking and fuel storage facilities to accommodate aviation demand through the year 2015, but has a shortage of hangar space to meet demand.

Identification of Preliminary Development Concepts

The landside alternatives addressed the hangar space shortfall by examining possible areas for hangar development.

In order to centralize landside development, two development areas were considered for development adjacent to the existing terminal area. These two areas were identified as preliminary development concepts for landside facilities to include:

- ◆ Hangar development on the north side of the existing terminal building
- ◆ Hangar development on the south side of the existing terminal building

Preliminary Evaluation of Concepts

While the north side has ample space for development behind the building restriction line to accommodate demand through 2015 and beyond, the south side is much more

constrained. The north side has primary runway frontage with better access to the existing apron than the south side. Development on the south side would also be adjacent to the fuel storage facility where fuel delivery trucks need access.

This location could also constrain future expansion of the fuel storage facility beyond the 20-year planning period. While there is room for limited hangar development on the south side, it does not offer the optimal arrangement that the north side offers. Therefore, the south side development concept was eliminated from further study.

Refinement of Landside Alternatives

With the elimination of one of the two landside development concepts, this left one landside development concept for refinement and consideration as a development alternative. As identified in Chapter 4, the required landside development includes the construction of two 10-unit T-hangars and a new FBO/maintenance hangar.

Evaluation of Landside Alternatives

As previously discussed, landside development proposed to the north of the existing terminal area will accommodate hangar demand beyond 2015. There are no other landside alternatives considered feasible that would complement the existing airside configuration.

Preferred Landside Alternative

The preferred landside development will provide 20 additional aircraft storage spaces in the two proposed T-hangars as well as additional space in the proposed

FBO/maintenance hangar in the current terminal area.

This development will be combined with the preferred airside development alternative and reflected on the Airport Layout Plan.

NEW AIRPORT ALTERNATIVE

The objective of providing a 7,200 foot runway at St. John's Industrial Park has many challenges associated with it. These challenges are significant and produce serious adverse consequences. The measures and costs necessary to meet these challenges will be extensive and impractical or unfeasible.

Through the previous evaluations, it has been determined that it is not economically feasible to pursue significant increases in runway length at this airport site. If it should become significantly more imperative for a longer runway at some point in the future, it is recommended that consideration be given to possibility of developing a new airport at a new site.

A new airport site at a new site would not be constrained by existing roadways, residential properties, and extreme terrain limitations, not the County Fairgrounds, equestrian park, cemetery, and city maintenance yard. A new airport site presumably could be found that would permit full development of at least one runway long enough to meet FAA development standards.

Table 5.1
Summary of Airside Alternatives Evaluation

Evaluation Criteria	A1	A2	B1	B2
Aviation Factors				
Airspace	+	+	+	-
Wind Coverage	0	0	+	-
Traffic Patterns	+	-	+	-
Runway Visibility	-	-	+	-
Overall Ranking	2	3	1	4
Engineering Factors				
Land Acquisition (acres)	38	30	26	59
Runway Elevation Differential	-17	-53	-92	36
Earth Work (Million CY)	0.25	1.05	4.68	1.26
Overall Ranking	1	2	3	4
Environmental Factors				
Noise	+	-	+	-
Land Use Compatibility	-	-	+	-
Traffic/Circulation	-	-	-	-
Resident Relocation	-	-	0	-
Overall Ranking	2	3	1	4
Costs				
Land Acquisition	95,000	75,000	65,000	147,500
Resident Relocation	120,000	240,000	0	400,000
Earth Work	312,500	1,312,500	5,850,000	1,575,000
Paving	936,311	936,311	1,888,889	1,888,889
Lighting	93,850	93,850	190,000	190,000
Fencing	70,000	55,000	107,000	97,000
Total Cost	1,627,661	2,712,661	8,100,889	4,298,389
Overall Ranking	1	2	4	3

Notes: Improvement (+), Negative Impact (-), Neutral (0)

SUMMARY

The recommendations contained in this chapter for the airside and landside development are graphically illustrated in Table 5.1 and presented in Chapter 6, Airport Plans

Due to the constraints surrounding the airport site, the full development of each of the four alternatives was rejected. However, there may be some opportunity for less than full development or to accept a lesser standard of development.

The future development of St. Johns Industrial Air Park should be agreed upon, not only by those who administer and use the airport, but also by those who may be affected by its operations. Therefore the final decision on how the airport will develop will be made within the community.

The application of FAA airport design standards and their recommendations contained in this chapter will evolve into the recommended Airport Layout Plan (ALP) which will illustrate the ultimate development of the St. Johns Industrial Air Park. Further discussion of environmental impacts follow in Chapter 6, Environmental Evaluation.