

SUPER T-HANGAR FINANCIAL STUDY





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EXECUTIVE SUMMARY

This Study assesses the financial implications and feasibility of the Truckee Tahoe Airport District (TTAD or “the District”) developing new Super T-hangars at the Truckee Tahoe Airport (TRK or “the Airport”). This Study will use pro forma analyses to evaluate the financial implications of developing new Super T-hangars at TRK.

The Airport and TTAD have been contacted by aircraft owners interested in leasing new hangars. This Study will evaluate the current waitlist and define the market for the hangars and recommend a preferred hangar size and layout.

The Super T-hangar site will be evaluated on a location that is shown as future hangars on the approved airport layout plan (ALP) (FAA Pen and Ink approval, March 13, 2019). The ALP shows two rows of future hangars at the west end of the building area, south of the approach end of Runway 11, and west of the executive hangar rows N and P, which were constructed in 2018.

The financial feasibility and project potential cash flows associated with development options are evaluated in this Study. TTAD has provided financial data and construction and maintenance costs for other hangars at TRK. This Study will not make a recommendation on if TTAD should, or should not, build or finance the proposed Super T-hangars. The data herein is meant to be used by TTAD to decide on whether to pursue a development option or not.

This Study documents demand for hangars, cost estimates for site preparation and construction, provides future cash-flow pro forma projections over 40 years, and is organized as follows.

- Data Collection and Market Assessment
- Cost Estimates
- Pro Forma Projections
- Risk Assessment and Mitigation
- Appendix A – Construction Cost Assumptions
- Appendix B – Pro Forma Assumptions
- Appendix C – Pro Forma Tables
- Appendix D – Airport Rent Study



PRO FORMA PARAMETERS

This Study details pro forma projections for Super T-Hangar development as described in **Table 1** below. The pro forma projections consider a 40-year window, beginning the year that the hangars are constructed. Construction cost, estimated at \$5.4 million dollars, is the same for each scenario considered. Cash flows are discounted to present value (net capital expenses) using TTAD's weighted average cost of capital, one percent, to facilitate comparison between the development scenarios.

Three lease rate structure principles are considered. The first lease rate structure applies the existing lease rates at TRK, or the current rate. The current rate principle is based on the current price per square foot rate that TTAD charges for T-hangars and escalated annually using the Western Consumer Price Index 2009 to 2019 annual average of 1.9 percent. This practice is consistent with other TTAD leases.

The second lease rate structure, known as cost recovery, sets lease rates so that the cost of investment and maintenance is recovered over 40 years. The goal of the cost recovery method is for TTAD to provide a service and only recover what it spends. It is not intended to generate revenue beyond what is needed for construction and maintenance. The third lease rate structure is the market rate derived from an Airport Rent Study produced by AMCG for Super T-hangars. This full Study is provided in **Appendix D**.

Five scenarios are considered in this analysis. The first two assess TTAD financing the hangars with cash at time of construction. One applies the current lease rate and the other applies the cost recovery lease rate. The other two assess TTAD financing some or all of the cost of construction, and then charging the current lease rate. The effective interest rate for financing is 3.5 percent in both scenarios. The fifth scenario assumes TTAD financing the hangars with cash at time of construction and setting the lease rate at the market rate as determined by the Airport Rent Study.

Table 1 lists the four pro forma scenarios with the different variables: the lease rate principle (current lease rate or cost recovery) and if the hangars are paid for by TTAD at time of construction or financed through a bond.

Table 1: Pro Forma Scenarios

Pro Forma Scenario	Lease Rate Principle	Initial Investment
1	Current Lease Rate	TTAD funds 100%
2	Cost Recovery	TTAD funds 100%
3	Current Lease Rate	Bond Financing (50%)
4	Current Lease Rate	Bond Financing (100%)
5	Market Rate	TTAD funds 100%



Summary of Findings

A summary of the pro forma projections with lease rates and net present value of investment (NPV) is shown in **Table 2**. Should TTAD choose to move ahead with Super T-hangar development, **the best scenario from a financial perspective is for TTAD to construct the hangars using cash and sets the lease rate using a market rate lease principle.**

Table 2: Pro Forma Summary, Base Scenarios

Scenario	Lease Rate Principle	Initial Investment		Initial Lease Rate (Year 1) ¹ per square foot per month / year	Investment NPV	Internal Rate of Return	Full Table (Appendix C)
1	Current Rate	TTAD funds 100%	\$5,357,800	\$0.3979 \$4.775	-\$1,736,975	-0.70%	Table C1
2	Cost Recovery	TTAD funds 100%	\$5,357,800	\$0.5273 \$6.3271	\$0	1.00%	Table C2
3	Current Rate	Bond Financing (50%)	\$2,678,900	\$0.3979 \$4.775	-\$2,379,233	-1.77%	Table C3
4	Current Rate	Bond Financing (100%)	\$0	\$0.3979 \$4.775	-\$3,181,816	-3.37%	Table C4
5	Market Rate	TTAD funds 100%	\$5,357,800	\$0.5378 \$6.454	\$97,629	1.08%	Table C5

Source: Mead & Hunt

¹ Year 1 is considered the year of occupancy at which point revenues are generated. This assumes that occupation will occur one year from project acceptance and accounts for construction time. Year 0 is the base rate and considers 2019-2020 rental rates. This rate was increased for Year 1 and for each year thereafter by 1.9 percent, consistent with the average CPI rate increase taken by TTAD Board.

Each pro forma considers a 40-year window for revenues, based on the average lifespan of a Super T-hangar. The pro forma for each scenario includes a Year 0 where the initial investment is made for site preparation and construction, but no revenue is generated. Year 1 represents when the hangars are complete and revenues from rent may be charged. The pro forma assume an annual average occupancy rate of 95 percent. Lower occupancy rates will reduce TTAD's return on investment in each scenario.



Table 2 shows a summary of the five base pro forma scenarios, with lease rates, NPV and the internal rate of return of the investment. Scenario 1 *Current Rate, TTAD Funds 100%* assumes TTAD has the capital necessary to finance hangar construction and will not finance through debt. The current lease rate principle is based on the price per square foot used by TTAD for T-hangars in 2019, \$0.3905 square foot per month. This increases to \$0.3979 square foot per month for Year 1, the first year available for TTAD to receive rent after construction. This lease rate is increased by 1.9 percent annually to reflect the Western Consumer Price Index annual growth. This escalation practice matches how TTAD typically increases lease rates.

The cost recovery lease rate principle in Scenario 2 *Cost Recovery, TTAD Funds 100%* projects the return on investment is near zero, and the lease rate is set to cover expenses and not make a profit. The cost recovery lease rate would need to start at \$0.5273 per square foot per month in Year 1 (after construction) and escalate at 1.9 percent per year over the 40-year period. The cost recovery principle shows the minimum rental rate for TTAD to break even on the hangar investment over 40 years.

Using the current lease rate principle, Scenario 1 projects that TTAD could lose up to \$1.74 million dollars on construction and ongoing maintenance of the Super T-hangars. This is because the cost of building and maintaining the hangars exceeds the revenue potential of renting them at the current lease rate. The current lease rate needs to be raised by 32.5 percent for TTAD to break even, as illustrated in Scenario 2.

Scenarios 3 and 4 reduce the initial capital investment shown in Scenarios 1 and 2 through issuing debt; however, the 20-year repayment period, combined with the operating and maintenance expenses, means that the revenue generated does not cover the costs until Year 21. The revenue generated from Year 21 to Year 40, using the current lease rate adjusted for inflation, does not cover the cost of the investment; therefore, the NPV of Scenario 3 is -\$2.4 million and the NPV of Scenario 4 is -\$3.2 million. The TTAD weighted average cost of capital is so low that it makes issuing debt (Scenarios 3 and 4) less favorable than using cash (Scenarios 1 and 2).

Scenario 5 considers the market rate based from the Airport Rent Study. This scenario sets the lease rate to the market rate and assumes TTAD will fund the total amount of the initial investment. The market rate rent is set at \$0.5378 square foot per month in Year 1. This is escalated at a rate of 1.9 percent every year for the 40-year term. The NPV of Scenario 5 is \$97,629, which means this scenario covers the cost of the Super T-hangar construction and operations and performs better than the current rental rate used in Scenario 1 and the cost recover rental rate used in Scenario 2.

Pro Forma: A financial statement showing potential or expected income, costs, assets, or liabilities, in relation to a planned capital investment.

Current Rate: Uses existing lease rates for comparable facilities at TRK.

Cost Recovery Rate: Identifies what should be charged in order to recoup investment and maintenance costs. The goal in cost recovery is that the District is trying to provide a service, and only recover what it spends.

Market Rate: Identifies what should be charged based on a survey of comparable airports that offer similar facilities and assumes that the District will set lease rates to a level that matches the perceived value of aircraft storage to the tenants.

Year 1 Rates: Year 1 is considered the year of occupancy at which point revenues are generated. This assumes that occupation will occur one year from project acceptance and accounts for construction time. Year 0 is the base rate and considers 2019-2020 rental rates. This rate was increased for Year 1 and for each year thereafter by 1.9 percent, consistent with the average CPI rate increase taken by TTAD Board.



OTHER FINDINGS

The hangar waitlist shows demand for hangars at TRK. Construction of additional hangars do not guarantee additional operations at TRK. However, additional hangars and operations are anticipated as part of the 2015 Airport Master Plan (AMP) and Airport Layout Plan (ALP). The 2015 Demand Drivers Study confirmed assumptions made in the AMP on what drives operations at TRK: the economic climate and proximity to Truckee and the Lake Tahoe Area. The Demand Drivers Study also confirmed that additional hangars may increase traffic at TRK, however building hangars does not guarantee more operations.

Guiding Principles:

It is not the intention of this Study to advocate whether TTAD should construct hangars or not, but rather present pro forma financial projections, with hangar size demand analysis, operational impacts and development costs. This Study and analysis are intended to be informative.

There is potential community benefits that include fewer overflights due to aircraft repositioning, and additional economic impact associated with spending by owners of new aircraft being based at TRK, or spending by owners of existing based aircraft that are now at the Airport and in the community more frequently. TRK management indicates that 20 waitlist individuals and aircraft currently operate at TRK.

Proprietary Exclusive Rights

Cost estimates only are provided for TTAD to construct and lease the hangars. Scenarios were not developed for TTAD to prepare the site and issue a ground lease. In this scenario, the lessee would be responsible for building and maintaining the hangar, and TTAD would lose some control over the building.

If TTAD constructs and leases the hangars, the District is exercising their proprietary exclusive right (a right granted to airport sponsors by the FAA) to develop and provide aircraft storage, TTAD has more control of aircraft storage unit supply (number of aircraft storage units) and pricing (aircraft storage rent) in this instance.

Without exercising the proprietary exclusive right, TTAD must provide a reasonable opportunity for parties interested in developing commercial and non-commercial aircraft storage units. This includes establishment of minimum standards and an application evaluation process. If there is land available and parties willing to meet the minimum standards and pay the established land rental rates, denial of such applications would be problematic for TTAD from an airport sponsor assurance compliance standpoint.



MARKET ASSESSMENT

Prior to cost estimation and pro forma analysis, an assessment of hangar demand was performed to determine the size and specification of the hangars. The review of current lease rates at TRK and a profile of hangar lease rates at comparable airports allowed comparison and helped determine the lease rate for the hangars to be used in the pro forma projections.

WAITLIST REVIEW AND HANGAR DEMAND

During the initial stages of this Study, TTAD management indicated that demand persists for hangars at TRK, and that this Study should focus on a hangar size that currently does not exist at TRK: a “Super T-hangar” that would ideally house large turboprop aircraft, specifically PC-12 aircraft models that comprise a significant portion of the waitlist.

TTAD management indicated that T-hangars would be preferred over box hangars for this Study, and specifically requested a Super T-hangar for these reasons:

- **Size:** With nested T-hangars, more units may be constructed to fit in a row as opposed to box hangars.
- **Cost:** There is demand from aircraft owners to rent a T-hangar, as opposed to a box hangar. A T-hangar offers less space available for rent and less wasted space that is being leased than a box hangar.
- **Supply:** TRK currently lacks T-hangar facilities with similar dimensions of a Super T-hangar. Of the 197 T-hangars, three have doors greater than 55 feet. Most T-hangar doors at TRK are between 36 and 50 feet wide:
 - ◆ 129 “small” T-hangars with doors between 36 and 42 feet
 - ◆ 57 “medium” T-hangars with doors between 43.5 and 45 feet
 - ◆ 11 “large” T-hangars with a 48-foot door or wider.

TRK Hangar Wait List

The current hangar waitlist is used to develop a projection for demand and aircraft fleet mix, and to determine a design aircraft along with the correlating specifications and dimensions for the hangars in this Study. **Table 3** presents the hangar waitlist for aircraft requesting large T-hangars and box hangars at TRK, as of October 1, 2019, showing aircraft wingspan, height, and length. This also shows a margin added to these dimensions plus a standard hangar model number that aircraft will fit into from Erect-A-Tube, a national hangar manufacturer.

**Table 3: Runway 2 Preliminary Analysis Constants**

No. of Aircraft	Aircraft Model	Aircraft Dimensions ¹			Wingspan +5'	Length +5'	Hangar Model ²
		Wingspan	Height	Length			
2	Beechcraft A-36 Bonanza	33.5	8.6	27.5	38.5	32.5	N51-42
1	Beechcraft King Air 200	54.5	14.8	43.8	59.5	48.8	N72-60
1	Beechcraft T-6	33.4	10.7	33.3	38.4	38.3	N60-45
1	Cessna Citation 501	47.1	14.3	43.5	52.1	48.5	N72-60
2	Cessna Mustang 510	43.2	13.4	40.6	48.2	45.6	N72-60
1	Cessna Sovereign 680	72.1	20.3	63.5	77.1	68.5	Box
1	Cessna 310	35.0	10.5	27.0	40.0	32.0	N51-42
1	Cessna 421	41.1	11.4	36.4	46.1	41.4	N60-48
1	Cessna Citation II	51.7	14.9	47.2	56.7	52.2	Box
1	Cessna Citation-CJ4	50.8	15.4	53.3	55.8	58.3	Box
1	Cessna Citation-CJ3	53.3	15.2	50.2	58.3	55.2	Box
1	Embraer Phenom 300	53.2	16.4	52.2	58.2	57.2	Box
1	Quest Kodiak	45.0	15.3	32.2	50.0	37.2	N72-60
3	Piper Meridian [PA46-350P]	43.0	11.3	29.5	48.0	34.5	N60-45
11	PC-12	53.4	14.0	47.3	58.4	52.3	Box
1	Piper Chieftain [PA31-350]	40.7	13.0	34.6	45.7	39.6	N60-45
4	SOCATA TBM	42.1	14.3	35.2	47.1	40.2	N72-60
2	Cirrus Vision Jet	38.7	10.9	30.9	43.7	35.9	N60-45

Notes:

1 Aircraft dimension source: FAA Aircraft Characteristics Database, October 5, 2018

2 Hangar model source: Erect-A-Tube

Source: TTAD Executive hangar waitlist.

The waitlist shows a range of aircraft sizes that require different hangars. Notably, the PC-12 does not fit into a standard T-hangar size due to its length. Performance of an alternative analysis that was shared with TTAD management helped to determine which hangar model to use to calculate costs and for the pro forma analysis. Three different sizes of hangars were analyzed.

- The largest standard T-hangar (N72-60)
- A custom Super T-hangar that will accommodate PC-12s
- Box hangars (estimated at 60 feet by 60 feet) that will accommodate PC-12s and most aircraft on the waitlist.

Super T-Hangar (N72-60)

Pros:

- This model is a standard size that is offered by multiple hangar manufacturers.
- Twenty aircraft on the waitlist will fit into this model. This includes all aircraft that will fit in a smaller T-hangar (those with an N model in **Table 3** above).
- When constructed, this full hangar structure will provide the smallest building footprint of the three alternatives.
- This model is the least expensive option to construct per unit.



Cons:

- This model does not fit the PC-12 or other larger aircraft on the waitlist.

Custom Super T-Hangar (for the PC12)

Pros:

- This model will accommodate the PC-12.
- Thirty-one aircraft on the waitlist will fit into this model. This includes the PC-12 and all aircraft that will fit in a smaller T-hangar (those with an N model in **Table 3** above).

Cons:

- It was determined this custom model would be more expensive in order of magnitude compared to the N72-60. Based on more material required (steel, walls, a larger roof), this model would be more expensive to construct, possibly as expensive as the box hangar alternative.
- This is a custom design. During analysis, some hangar manufacturers were not willing to offer cost estimates on this custom hangar. If TTAD were to act on moving ahead with the custom hangar, it may be difficult to find manufacturers willing to design and construct the desired building. Most manufacturers recommended box hangars over this custom model.
- When constructed, this custom hangar structure with 12 units will have a larger building footprint than the N72-60 model footprint with 12 units.

Box Hangars (estimated at 60 feet by 60 feet)

Pros:

- This model will accommodate all aircraft on the waitlist, except the Cessna Sovereign 680.
- Box hangars are generally considered a better long-term investment for airports, based on industry practices.

Cons:

- It was determined this custom model would be more expensive to build in order of magnitude compared to the N72-60.
- When constructed, the full hangar structure with a similar footprint will only accommodate 8 units. Constructing 12 units will require an additional row of hangars, resulting in a greater footprint.
- Constructing 12 hangars with an additional row would require more sitework and pavement. The additional sitework costs make this the most expensive option.



After consultation with TTAD management on the pros and cons for each type of hangar, the standard Super T-hangar (N72-60 model type) was selected for the conceptual site layout and cost estimates for this Study. The reasons for using this model are:

- This original intention of this Study was to run the pro forma analysis on costs for this hangar type.
- This model can house 20 aircraft on the executive waitlist plus all aircraft on the separate T-hangar waitlist.
- There are no hangars at TRK that fit this design profile. There is a need for large T-hangars that will accommodate aircraft with wingspans between 45 and 58 feet, whose aircraft owners prefer to house in a T-hangar as opposed to a more expensive box hangar.
- The N72-60 model provides TTAD more flexibility in accommodating piston and turboprop aircraft of various sizes.
- Eleven current executive hangar tenants could move into the proposed Super T-hangars, creating vacancies in larger executive hangars. These vacancies may accommodate the PC-12 or other aircraft on the waitlist.
- A row of box hangars will not offer the quantity of hangars on the same footprint as 12 N72-60 units.
- For purposes of this Study, TTAD management prefers to recommend T-hangars over box hangars at this time.

The dimensions for the proposed hangar units are provided in **Table 4**.

Table 4: Hangar Dimension Table

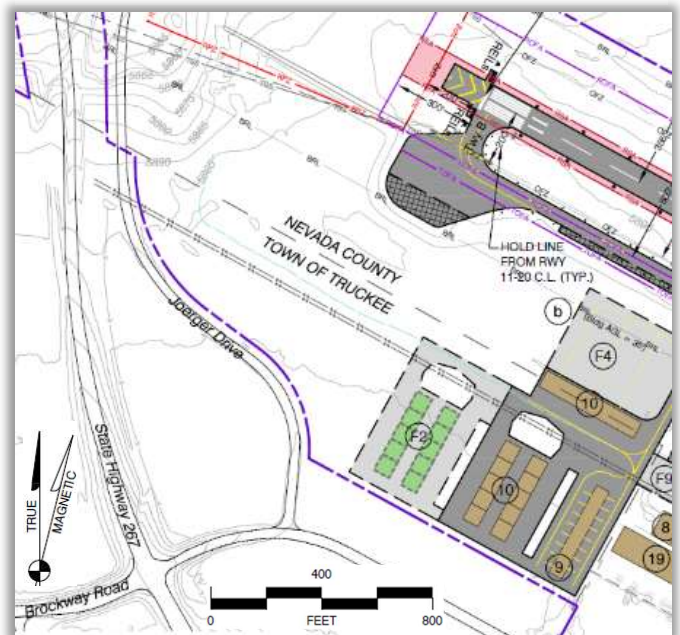
Hangar Feature	Dimension
Clear door width	59.5 feet
Door clear height	16.0 feet
Wing box depth	24.0 feet
Tail box depth	24.0 feet
Tail box width	24.0 feet
Clear bay depth	48.0 feet
Overall unit area	2,160 square feet
Nested building width (12 units) ¹	72.0 feet
Overall building length (12 units) ¹	390.0 feet

Note:

¹ Total building width and length include both endcaps.

Source: Mead & Hunt and Erect-A-Tube

Figure 1: Approved ALP with Future Hangar Area



Source: TRK ALP, March 2019

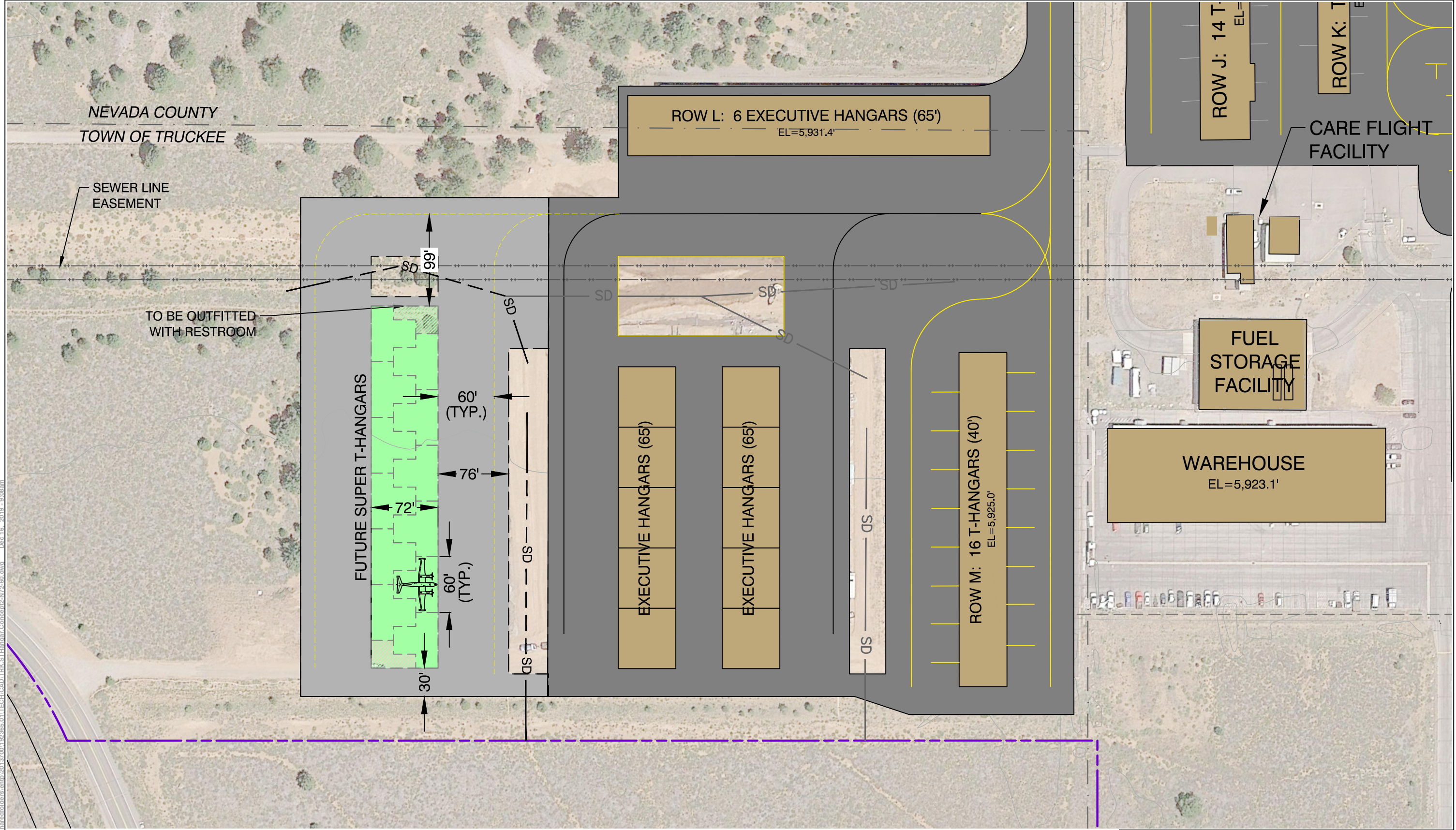
CONCEPTUAL SUPER T-HANGAR SITE LAYOUT

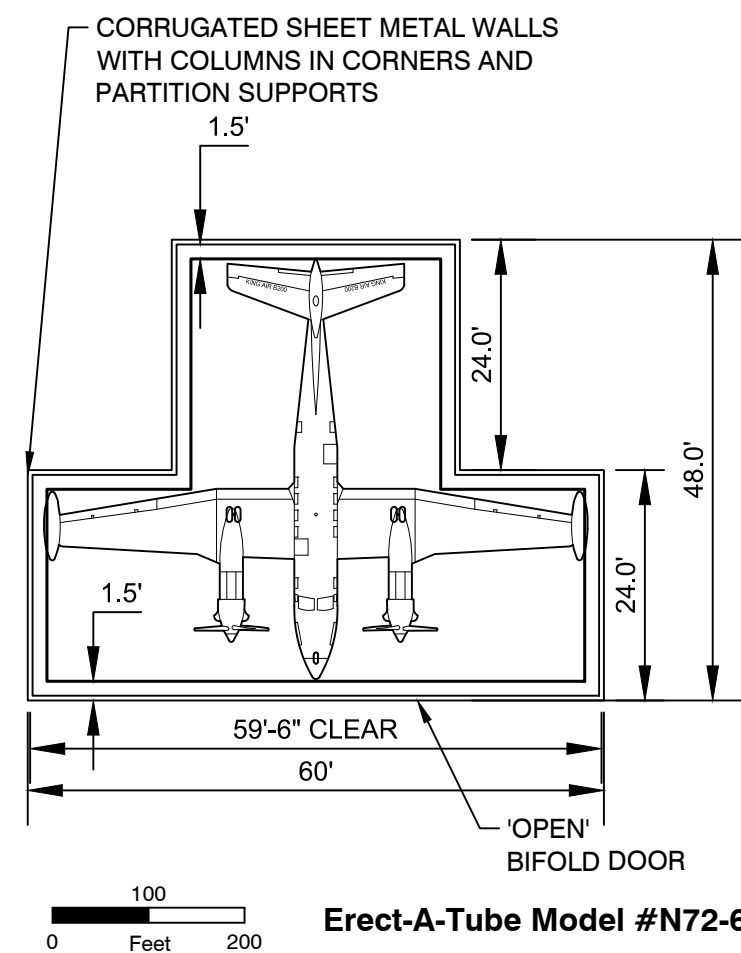
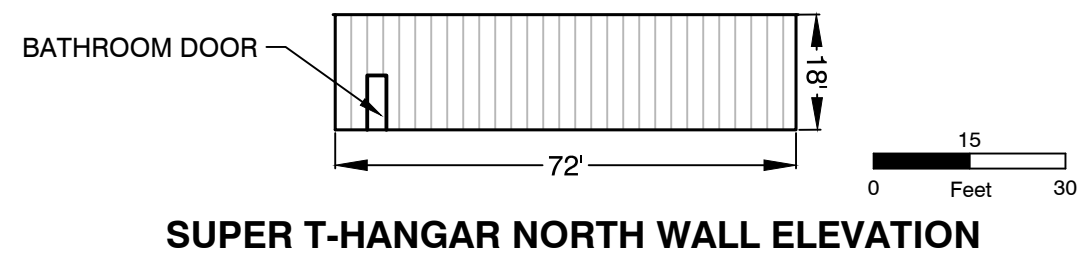
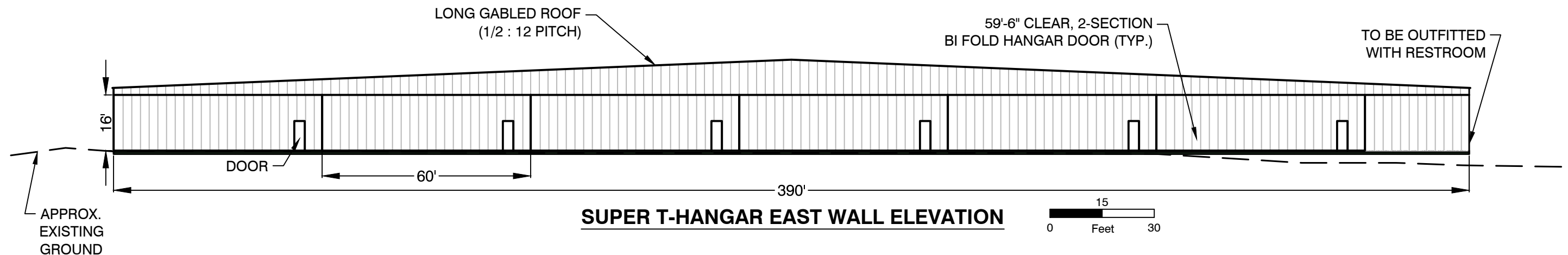
The Super T-hangar site is proposed on a location that is shown as future hangars on the approved Airport Layout Plan (ALP). This ALP was last approved by the FAA as a Pen-and-Ink approval on March 13, 2019. The ALP shows two rows of future hangars at the west end of the building area, south of the approach end of Runway 11, and west of the executive hangar rows N and P, which were constructed in 2018. An inset of the ALP and this area of future hangars (F2) is shown in **Figure 1**.



A conceptual Super T-hangar site layout is detailed in **Figure 2**, and elevation and detailed unit plan in **Figure 3**. Among the features of this site:

- The site is west of the last hangar development, executive hangar rows N and P.
- The hangar structure includes 12 nested Super T-hangars (model N72-60). One end cap is outfitted with bathroom facilities, and another endcap is to be used for storage. This equals a total building footprint of 28,080 square feet.
- The taxilane extends to the west, and an additional two access taxilanes run north and south to provide access to each Super T-hangar. This equals a total pavement footprint of approximately 98,000 square feet.
- This site maintains the executive hangar row setback from the property line that runs parallel to Soaring Way, with a 30-foot paved area in between for service vehicles.
- The hangar building is built as far north as possible to not cover the sewer line easement that runs east and west.
- The area between the north hangar wall and the taxilane centerline (99 feet) provides greater than airplane design group 2 clearance of taxilane centerline to fixed or movable objects.
- The site features a permeable island to allow for rain and snow runoff and drainage. This size of this island is equal to the grass area east of executive hangar rows N and P.
- Future sewer lines are indicated to show where these will likely be required to allow for drainage to the west and south. These are conceptual and mirror the drainage plan from the executive hangar rows.
- The Super T-hangar layout is conceptual for planning purposes and developed with best site data available. This is not intended for engineering design or construction. For all design associated with sitework and hangars, a full survey and geotechnical investigation should be completed prior to design.





SUPER T-HANGAR DETAIL

NOTE: The Super T-hangar layout plan and profile is conceptual for planning purposes and developed with best site data available. This is not intended for engineering design or construction. For all design associated with sitework and hangars a full survey and geotechnical should be completed prior to design.



Conceptual Super T-Hangar Plan
Truckee-Tahoe Airport

FIGURE 3



TRK HANGAR RATES

As of December 1, 2019, there were 197 T-hangars at TRK. The rental rate for each T-hangar is \$0.3905 per square foot. The average T-hangar size is 1,200 square feet. This rate is subject to an annual adjustment by TTAD based on the Western Consumer Price Index (CPI), if deemed necessary. In addition to the lease rate, there is a flat \$20 per month electricity charge plus an annual county Possessory Tax. Nevada and Placer Counties charge hangar tenants the Possessory Tax, from which TRK does not collect or receive revenue.

Table 5 shows lease rates for executive and T-hangars from the past five years. Historical rates and revenue can be used to compare the pro forma projections for the proposed hangar row.

Table 5: Historical Hangar Lease Rates

Year ¹	T-Hangars ²	Executive Hangars ²
2019-2020	\$0.3905	\$0.4701
2018-2019	\$0.3806	\$0.4582
2017-2018	\$0.3688	\$0.4440
2016-2017	\$0.3616	\$0.4353
2015-2016	\$0.3580	\$0.4310

Notes:

1 The hangar rate is set by TTAD Board and begins on September 1 for each year.

2 The lease rate is price per square foot, per month.

Source: TTAD.

TTAD offers three lease discount incentives for aircraft owners. The Fly Quiet program rewards aircraft that do not operate during night

hours, offering a discount up to \$0.04 per square foot per month. Under the Home Base program, using TRK as the primary base for an aircraft also reduces the rate by \$0.04 per square foot per month. A lump sum payment of annual rent will also reduce the lease rate \$0.01 per square foot per month. The current discounts associated with the Fly Quiet and Home Base programs were not included in the pro forma projections. These programs exist because of and are “funded” by the revenues associated with the TTAD property tax revenues.

AIRPORT RENT STUDY

In conjunction with this Study, a separate Airport Rent Study (**Appendix D**) was produced by AMCG that shows analysis of rent for similar Super T-hangars at airports across the county. This also includes AMCG's opinion of market rent for Super T-hangars specifically at TRK. This rate is \$1,140 per unit per month (\$0.5278 per square foot per month) and used in pro forma Scenario 5. The rental rate summary from the Airport Rent Study is shown in **Figure 4** below, with the escalation adjustments for access and condition.

Figure 4: Super T-Hangar Rent Summary

Proposed Super T-Hangar Conclusions Summary								
Number of Units	Base Rental Rate		Adjustments			Calculated Result	Market Rent Opinion	
	pu/mo	psf/mo	Access	Amenities	Condition		pu/mo	psf/mo
12	\$950.00	\$0.4398	5%	5%	10%	\$1,140.00	\$1,140.00	\$0.5278

Source: AMCG, Airport Rent Summary, December 2019

The market rate for new Super-T hangar derived from the Airport Rent Study and this should not be compared with the base rate for existing Super-T hangars. TTAD does not currently have a different rental rate for different aged T-hangars. The Executive hangars are currently the only hangars that have a different rental rate determined on the age of the hangar.



OPERATIONAL IMPACT ASSESSMENT

Additional hangars may impact operations at TRK. TTAD is conscious about how aircraft activity affects residents and the Truckee area through overflight and noise. This section is meant to help explain the impacts of constructing new hangars will have on operations. This section is qualitative as no metric exists that will determine how many operations will be generated from constructing one hangar.

Findings from the 2015 Demand Drivers Study that relate hangar availability to operations, a summary of 2015 AMP forecasts, and the operations impact of new hangars are presented.

2015 Demand Drivers Study

The 2015 Demand Drivers Study identified two primary elements that drive operations at TRK: proximity to the Truckee-Tahoe Area, and the overall economic health of the region and nation. Since the location of the Airport does not change, the variable demand driver is the economy. It is assumed that operations to TRK will continue to grow modestly as long the economy remains healthy.

The 2015 Demand Drivers Study analyzed aviation and non-aviation variables that correlate to changes in aviation activity at TRK. Findings from the 2015 Demand Drivers Study that relate to hangars, based aircraft, and operations follow.

- Based aircraft at TRK perform in line with national trends; however, growth in based aircraft is limited by the availability of hangars and parking spaces – meaning that there is not much change in based aircraft levels from year to year.
- Aircraft operations at TRK perform in line with national trends, suggesting that demand is driven by factors impacting the region and the County, not only the local level. If people are flying and they want to go somewhere near TRK, then they choose to operate at TRK.
- Long-term economic downturn or decline of the tourist industry in the region will have a greater impact on activity levels at TRK than instrument procedures and aircraft storage facilities.
- According to the Demand Drivers Study, jet and turboprop aircraft will utilize TRK whether based there or not. If not based, they may choose to reposition to other airports with storage, which can increase operations at TRK.
- According to current users, facilities that may increase traffic at TRK include better instrument procedures, aircraft deicing services or availability of a hangar for deicing, and cheaper fuel.

Existing tenants and operators at TRK were surveyed for the 2015 Demand Drivers Study, and findings that relate to hangar demand are listed below.

- Operators were also asked about their desire for hangars at TRK. The survey found that 17 of the based aircraft respondents are on the TTAD-maintained wait list for aircraft storage. This may indicate that current users of TRK will operate here, even when their preferred type of aircraft storage is not available.
- Survey responses in the 2015 Demand Drivers Study show that changes to pricing and service availability could increase or decrease their use of the Airport.



2015 Airport Master Plan

The 2015 AMP forecasts shows operations by all aircraft steadily increasing from the base year of 2012 to 2025. A comparison of the AMP forecasts and actual operations by aircraft, from 2015 through 2018 is presented in **Table 6**.

Table 6: Historical Hangar Lease Rates

Year	Total Actual Aircraft Operations ¹	Annual Growth Rate	2015 AMP Forecasts ²	AMP Forecast Annual Growth Rate
2013	21,618	N/A	26,801	N/A
2014	22,764	5.3%	27,133	1.2%
2015	27,613	21.3%	27,464	1.2%
2016	32,524	17.8%	27,817	1.3%
2017	33,580	3.2%	28,170	1.3%
2018	34,847	3.8%	28,523	1.3%
2019	36,379	4.4%	28,876	1.2%
2020	N/A	N/A	29,229	1.2%

Notes:

1 Source: TTAD Operations and Community Comment Report. Total operations do not include touch and go operations.

2 Source: 2015 Airport Master Plan.

Data in **Table 6** above shows actual operations outpacing the 2015 AMP forecasts. Total operations at TRK in 2018 have already passed the 2015 AMP projection for 2025 of 31,139 operations by all aircraft. This growth in operations has also outpaced U.S. gross domestic product, which has averaged 2.5 percent growth over the past five years.

No individual hangar units were constructed between 2013 and 2017. Therefore, growth in operations during this period is independent of hangar development. The executive hangar rows N and P were built in 2018, and the growth in operations in 2018 was similar to that in 2017, but significantly less than the previous three years. Although a small sample size, this may indicate these hangars did not have a significant impact on operations.

The 2015 AMP shows moderate growth in based aircraft and future hangar development. Based aircraft directly correlate with hangars built. Future hangars are shown on the ALP of record and are part of the development plan in the approved 2015 AMP.



Operational Impact

There are two possible scenarios for gauging operational impact associated with hangar development. The first is that existing operators at TRK prefer to base their aircraft in a hangar, but no hangar sizes are available to accommodate their aircraft. For instance, these operators currently use an overnight or short-term use hangar, or park on an apron when visiting TRK. The second is that the new hangars will be occupied by entirely new operators at TRK.

Should new hangars be occupied by aircraft already operating at TRK, aircraft operations are not expected to be significantly impacted by hangar development. If the proposed hangars are occupied by new operators, it is possible that TRK will experience an increase in aircraft operations.

Under both scenarios, though, there is an assumption that some users of TRK fly in and out of TRK because it is the most convenient airport for them, and reposition their aircraft to another airport while they spend time in the area. This effectively doubles operations because these aircraft takeoff and land on their repositioning flights – something that would not occur if these tenants had access to aircraft storage.

Airport management indicated there are some operators that do not utilize TRK due to the lack of hangar space, primarily during winter. With additional hangar space, operators will have the option to store aircraft at TRK as opposed to a nearby airport during the winter. Overall, it is difficult to determine the precise traffic impact at TRK after constructing new hangars, but it is likely that new hangars would increase operations. However, management does estimate that most aircraft looking to fill the proposed hangars are already operating at TRK.



COST ESTIMATES

Site prep, construction, pavement maintenance and operating cost estimates were prepared for the Super T-Hangars to use in the pro forma projections. The operating and life-cycle costs will provide TTAD with estimates for the complete cost of developing the additional hangars beyond the initial investment in construction. Expected life-cycle costs (including upkeep, building maintenance and pavement maintenance) are calculated and later applied to future cash flow projections. Environmental documentation and potential impact costs are not included in the estimates.

SUPER T-HANGAR DEVELOPMENT COSTS

Cost estimates include initial capital costs associated with site preparation (grading, utilities, and pavement), hangar construction, and account for local requirements such as snow load and TTAD policies.

Sitework Estimates

Costs for preliminary site work include earthwork, pavement for taxiways and aprons, and utility connections. Cost estimates for site preparation were primarily derived from unit costs from the construction of executive hangar rows N and P. The unit costs were adjusted to 2019 dollars, and quantities based on the preliminary site concept layout were applied to these unit costs.

Electrical, gas, sewer, water will be provided to supply one bathroom at the end cap plus storm water drainage, the required fire suppression, and electrical in each hangar unit. Cost estimates are provided for utility extensions from executive hangar rows N and P to the east.

The sitework costs were vetted with TRK management prior to inclusion in this Study. TRK provided as-built construction documents for executive hangar rows N and P, and analysts used the general site elevations and terrain to gauge earthwork and site prep. However, with this being a conceptual layout and design, these initial costs are still an estimate, so full site survey and geotechnical investigation should be completed prior to full site design. Without this data, unknowns such as exact building specifications, potential subgrade issues, and forces of nature may affect the final sitework cost.

Hangar Construction Estimates

Hangar construction costs include the foundation system, the rigid frame hangar, building erection, electrical and lighting, fire suppression, and one bathroom.

Costs for the foundation, building erection, electrical, fire suppression, and the bathroom were derived from unit costs from the construction of executive hangar rows N and P. This data was supplemented with recent construction costs at similar hangar facilities, applied to the conceptual site layout quantities, and adjusted to 2019 dollars.

For the rigid frame hangar structure, a proposal was solicited from a national hangar vendor with experience in designing and constructing hangars in climates similar to TRK. Each individual Super T-hangar unit is equipped with bi-fold doors and supplied with electrical service only.



Table 7 details the cost estimate for sitework and building construction with line item descriptions for major construction components. Soft costs such as design and construction administration are included in the estimates. For the following cost estimate tables, line item explanations and assumptions are provided in **Appendix A**.

Table 7: Sitework and Hangar Construction Cost Estimate

HANGAR SITE – SITEWORK, UTILITIES, STRUCTURE		ENGINEER'S ESTIMATE		
Description	Unit	Estimated Quantity	Unit Cost	Extension
<u>SITWORK</u>				
Mobilization	LS	1	\$211,000	\$211,000
Erosion Control and Storm Water Pollution Prevention Plan (SWPPP) Maintenance	LS	1	\$35,000	\$35,000
Earthwork and Site Preparation	LS	1	\$217,000	\$217,000
Subbase Course (12" P-154)	TON	6,810	\$50	\$340,500
Aggregate Base Rock (10" P-209)	TON	5,670	\$60	\$340,200
Asphalt Concrete (4" P-401)	TON	2,560	\$165	\$422,400
Prime Coat	TON	5	\$1,000	\$5,000
Drainage	LS	1	\$85,000	\$85,000
Water (Fire and Domestic)	LS	1	\$90,000	\$90,000
Sewer	LS	1	\$60,000	\$60,000
Site Electrical	LS	1	\$78,000	\$78,000
Marking	SF	840	\$ 5	\$4,200
Hydroseeding	ACRE	3	\$4,000	\$12,000
SITWORK SUBTOTAL¹ =				\$1,900,300
<u>HANGAR FOUNDATION AND BUILDING</u>				
Mobilization	LS	1	\$133,000	\$133,000
Rigid Frame Building & Foundation (72'x±390')	LS	1	\$2,519,000	\$2,519,000
Fire Sprinkler Design & Install	LS	1	\$100,000	\$100,000
Bathroom	LS	1	\$50,000	\$50,000
BUILDING SUBTOTAL¹ =				\$2,802,000
TOTAL¹ =				\$4,702,300
<u>SOFT COSTS AND ADMINISTRATION²</u>				
			Site Survey	\$7,500
			Site Geotechnical	\$15,000
			SWPPP	\$30,000
			Site and Hangar Design	\$290,000
			Material Testing	\$30,000
			Construction Admin/Observation	\$283,000
GRAND TOTAL¹ =				\$5,357,800

Note:

¹ These costs are based on similar facilities and quantity costs from the Executive Hangar Row construction package, and a proposal was solicited from a national hangar vendor. Site layout is conceptual. Full site survey and geotech should be completed prior to full site design.

Source: Mead & Hunt.



The proposal from the vendor included the following major components of the hangar structure:

- All primary steel components.
- Electric bi-fold doors (59.5 feet x 16.0 feet), operators and appurtenances.
- Long-gabled roof design with water/snow shedding off onto the short walls.
- Applicable building code information. Structural design based on the 2016 California Building Code.
- 190 pounds per square foot (PSF) ground snow load, 159.6 PSF roof snow load, 4 PSF collateral load.
- Roof sheeting.
- Silicone polyester color finish on exterior walls and hangar doors.
- Full-height interior partitions to section off hangars.
- Roof, exterior wall, and bi-fold door insulation.

Other site specifications include the following:

- A single community bathroom for the row at the north end.
- Fire suppression – sprinkler system required.
- Each unit to have a separate electrical meter (220 volt / 40 amp).
- Storm water runoff. There is an existing retention basin nearby that accommodates runoff and drains to the south.

According to the Airport's minimum standards, aircraft washing is prohibited inside the hangar. Therefore, no storm drain with an oil/water separator was included in the cost specifications.

Specific items for the structure not included in this vendor's proposal include paint, permits and inspections, taxes, and minor hardware. An additional 30 percent of the building cost was added to the cost estimate in **Table 7** to account for these items. Soft costs are added on after site prep and building costs and include:

- Site Survey – Topographical survey of site, surrounding area, and utilities.
- Site Geotechnical – Borings and analysis of existing soil conditions with recommendations for pavement and foundation sections.
- SWPPP – Development and implementation of Storm Water Pollution Prevention Plan.
- Site and Hangar Design – Analysis and design of the site including layout, pavement, drainage, markings, utilities and the development of Construction Plans and Specifications.
- Material Testing – Testing of materials to be (or already) installed to confirm they meet the required specifications.
- Construction Admin/Observation – Reviewing material submittals, daily observation of construction activities, providing on site clarification, and documenting.



PAVEMENT MAINTENANCE COSTS

To maintain the integrity and useful life of pavement, it is recommended that pavement be rehabilitated within five years after construction, and every five years thereafter. Typically, the useful life of pavement is reached at 20 years. At this time, a new pavement surface should be constructed and any vulnerable areas that have developed should be repaired. Pavement maintenance costs are based on unit costs for the Executive Hangar Row, supplemented with data from similar projects in Northern California, and adjusted to 2019 dollars.

Pavement Rehabilitation

Slurry seal (without sand) is the preferred rehabilitation method for apron and taxiway pavements. **Table 8** shows the cost estimates for pavement rehabilitation. The cost estimates use 2019 dollars for slurry seal unit cost in Northern California, assumed to be approximately \$6.00 per square yard. Soft costs such as design and construction administration are included in the estimates.

These costs are presented in 2019 dollars and are only associated with the new taxiways and apron associated with the proposed Super T-hangars. The rehabilitation cost will be applied to the 40-year pro forma with inflation escalation in 5-year increments, except for year 20 when the cost for pavement reconstruction will be applied. FAA funding may be available for taxiway rehabilitation. For each pro forma scenario, pavement rehabilitation costs are included with 60 percent reimbursement through the FAA.

Table 8: Pavement Rehabilitation Costs

HANGAR SITE – PAVEMENT REHABILITATION		ENGINEER'S ESTIMATE		
Description	Unit	Estimated Quantity	Unit Cost	Extension
<u>SITWORK</u>				
Mobilization	LS	1	\$8,000.00	\$8,000
Crack Seal	LS	1	\$5,000.00	\$5,000
Slurry Seal	SY	11,000	\$6.00	\$66,000
Yellow & White Taxiway Pavement Marking	SF	840	\$9.00	\$7,560
REHABILITATION SUBTOTAL¹ =				\$86,560
<u>SOFT COSTS AND ADMINISTRATION</u>				
Site Design				\$18,000
Construction Admin/Observation				\$9,000
REHABILITATION TOTAL¹ =				\$113,560

Note:

1 These costs are based on similar facilities and quantity costs from the Executive Hangar Row construction package. Site layout is conceptual. Full site survey and geotech should be completed prior to full site design.

Source: Mead & Hunt.

Pavement Reconstruction

Table 9 details the cost estimate for reconstruction and assumes a complete rebuild of the taxiways and apron to the subgrade. Reconstruction includes removing the old pavement section by milling and stockpiling, subgrade preparation, and then rebuilding the structural section using some of the blended pavement millings, when possible. Estimates also include soft costs such as design and construction administration.



Pavement reconstruction is scheduled for year 20 in the pro forma scenarios. These costs are presented in 2019 dollars and are only associated with the new taxilanes and apron associated with the proposed Super T-hangars. FAA funding may be available for taxilane reconstruction. For each pro forma scenario, pavement reconstruction costs are included with 60 percent reimbursement through the FAA.

Table 9: Pavement Reconstruction Costs

HANGAR SITE – PAVEMENT REHABILITATION		ENGINEER'S ESTIMATE		
Description	Unit	Estimated Quantity	Unit Cost	Extension
<u>SITEWORK</u>				
Mobilization	LS	1	\$85,000.00	\$85,000
Milling and Stockpile	SY	11000	\$7.50	\$82,500
Base Recompectation & Grading	SY	11,000	\$3.50	\$38,500
Aggregate Base	CY	3,000	\$100.00	\$300,000
Asphalt Concrete	TON	2,600	\$165.00	\$429,000
Yellow & White Taxiway Pavement Marking	SF	840	\$9.00	\$7,560
RECONSTRUCTION SUBTOTAL¹ =				\$942,560
<u>SOFT COSTS AND ADMINISTRATION</u>				
			Site Survey	\$7,500
			Site Geotechnical	\$10,000
			SWPPP	\$30,000
			Site Design	\$114,000
			Material Testing	\$20,000
			Construction Admin/Observation	\$57,000
RECONSTRUCTION TOTAL¹ =				\$1,181,060

Note:

1 These costs are based on similar facilities and quantity costs from the Executive Hangar Row construction package. Site layout is conceptual. Full site survey and geotech should be completed prior to full site design.

Source: Mead & Hunt.

OPERATING AND MAINTENANCE COSTS

For this Study, TTAD management recommended that similar operations and maintenance costs from the 2016 Executive Hangar Study be used. These costs were adjusted for 2019 dollars and account for the change in hangar type and building size. **Table 10** shows the operating and maintenance costs for the Super T-hangars in 2019 dollars. These are applied to each pro forma scenario in the year specified and adjusted for future inflation.

**Table 10: Operating and Maintenance Costs**

Maintenance Type	Amount ¹	Years Applied	Examples
Routine Maintenance and Operation	\$3,500	Annual	Regular maintenance such as hardware, paint, and snow removal
Major Maintenance	\$15,000	Year 10	Roof maintenance, siding, electrical
	\$220,000	Year 15	Major roof and/or door maintenance
	\$15,000	Year 20	Roof maintenance, siding, electrical
	\$220,000	Year 25	Major roof and/or door maintenance
	\$15,000	Year 30	Roof maintenance, siding, electrical
	\$15,000	Year 35	Roof maintenance, siding, electrical

Notes:

1 These costs are based on similar facilities and quantity costs from the Executive Hangar Row construction package. Site layout is conceptual. Full site survey and geotech should be completed prior to full site design. Figures shown in 2019 dollars. See pro forma scenarios for dollar amount in year applied with inflation adjustment.

Source: Mead & Hunt.

SCHEDULE

If TTAD chooses to build hangars during any construction season, it is recommended TTAD initiate the process by August or September of the previous year. This schedule should provide the necessary time for site and building design, building permits, and bid advertisement and selection. This recommendation assumes that site preparation would begin in May or June of the next year (following TTAD approval), and likely take five months. Actual hangar construction will take less time and can be completed in the autumn of the same year.

PREVAILING WAGE RATE

Cost estimates for sitework and hangar construction were developed that do not use the prevailing wage rate for labor. The labor cost for sitework and hangar construction line items were separated from material costs. Each line item has a different labor percentage associated with it. These percentages were derived from a schedule of values from a similar hangar project that was recently constructed in California.

Once the labor amount was separated from the line item material cost, labor was reduced by 24.5 percent. This figure is based on RSMeans labor rate for open union (average per line item) versus labor rate for open shop. RSMeans is a construction industry standard guide providing construction cost data with regional and local costs.

When applying the non-prevailing labor wage for sitework and hangar construction in **Table 7** above, a cost reduction of \$388,000 is calculated. This results in the total project with non-prevailing wage labor totaling approximately \$4,970,000. This estimate for non-prevailing wages is an estimate and subjective.

Any public works projects need to follow Department of Industrial Relations requirements, which include certified payroll to reporting. To ensure FAA AIP labor compliance with federal and state regulations and compliance with the Airport's grant assurances, Mead & Hunt recommends that TTAD does not initiate construction that involves non-prevailing wage labor.



PRO FORMA PROJECTIONS

A pro forma forecast analyzes the outcome for the TTAD planned capital investment in determining possible finance options for constructing and maintaining 12 Super T-hangars. The pro forma analyses show how variable the returns can be depending on which scenario is implemented and what principle drives the lease rate. It also indicates which lease rate principle is most appropriate for each development scenario. These results are explained in more detail below. Five scenarios were analyzed to determine the financial forecast for TTAD.

- TTAD Funds, Existing Lease Rate
- TTAD Funds, Cost Recovery
- Existing Lease Rate with 50 percent financing
- Existing Lease Rate with 100 percent financing
- Market Lease Rate

Each pro forma considers a 40-year window for revenues. This is based on the average lifespan of T-hangars before major structural maintenance is required. Discussions with Airport management indicated that most T-hangars at TRK were built 40 years ago and with proper maintenance, these facilities are in relatively good condition. Therefore, a 40-year window for each pro forma scenario was determined to be appropriate. The 40-year pro forma include major maintenance projects such as improvements to the roof, doors and siding. The pro forma for each scenario includes a Year 0 where the initial investment is made for site preparation and construction, but no revenue is generated. Year 1 represents when the hangars are complete and revenues from rent may be charged, at a rate that is increased with the average CPI inflation rate as TTAD regularly practices. Each pro forma scenario assumes an annual average occupancy rate of 95 percent. Lower occupancy rates will reduce the return on investment in each scenario.

The pro forma is estimated by calculating the amount of income minus the expenses for the Super T-hangar project. Proforma income is calculated using the lease rate per square foot multiplied by the hangar size (2,160 square feet). This is then applied to the quantity of 12 hangars for a total area of 25,920 square feet of leasable space. The proforma calculations do not include the endcap areas used for storage and a restroom. Proforma expenses are based on what TTAD pays for similar facilities (adjusted for facility size). Revenues and expenses are both adjusted for inflation using the method described in the next paragraph. Future cash flows are discounted to present value using TTAD's weighted average cost of capital, which is one percent.

Inflation adjustment uses the average annual rate of inflation from the Western Consumer Price Index (CPI) from 2009 to 2019, which was 1.9 percent. The CPI is conducted in a 12-month period (January to December), so a complete data set is not available for the year 2019.



TTAD FUNDS HANGAR CONSTRUCTION

The first two pro forma scenarios assess TTAD financing the hangars with cash at time of construction. This assumes TTAD has the capital necessary and will not finance through debt.

Scenario 1: Existing Lease Rate

The existing lease rate analysis uses TTAD's current lease rate of \$0.3905 per square foot, (adjusted for inflation to \$0.3979 for Year 1). This serves as the baseline for examining the financial capabilities of TTAD based on the financial statements and determined cash flows. existing lease rate scenario is determined to have an NPV of -\$1,736,975 with an Internal Rate of Return of -0.70 percent.

Scenario 2: Cost Recovery

The cost recovery analysis is the expenditure recovered for the initial investment to build and maintain the Super T-hangars. The cost recovery method is used to determine what the hangar rent would need to be per square foot for TTAD to recover the cost for the capital investment over the 40-year time period. The baseline rent per square foot must be at least \$0.5273 in Year 1 to achieve a NPV of zero over 40 years.

BOND FINANCING

The bond financing scenarios assume that TTAD would finance the investment through debt with a bond to cover the construction of the Super T-hangars. The difference between the two bond scenarios is the percent of overall construction costs that will be financed. The bond financing pro forma use the current lease rate (\$0.3905 per square foot, adjusted for inflation to \$0.3979 for Year 1). The bond parameters include a 20-year loan term with an interest rate of 3.5 percent in both scenarios.

Scenario 3: Existing Lease Rate with 50 Percent Financing

This scenario assumes that TTAD will fund the initial investment with 50 percent capital investment and the remaining 50 percent through bond debt. The total amount financed is \$2,678,900. This will result in an annual loan payment of \$188,490 included in the non-operating expenses, which decreases the annual cash flow. As a result of the decrease in annual cash flow for nearly 20 years, the NPV of the investment is -\$2,379,233 with an IRR of -1.77 percent. Positive cash flow is generated starting in Year 21 but pavement maintenance expenses produce negative cash flows in Year 25, 30, and Year 35. This means that of the 40 years assessed in the proforma, only 48 percent of the period produce positive cash flows, hence the negative NPV.

Scenario 4: Existing Lease Rate with 100 Percent Financing

This scenario assumes that TTAD will fund the initial investment with 100 percent bond debt and no cash. The bond parameters will stay the same as the Existing Lease Rate with 50 Percent Financing scenario. This will result in a yearly loan payment of \$376,981, which will be included in the non-operating expenses, decreasing the annual cash flow. As a result of the decrease in annual cash flow for nearly 20 years, the NPV of the investment is -\$3,181,816 with an IRR of -3.37 percent. Similar to Scenario 3, only 48 percent of the 40 year period produce positive cashflows.



MARKET RATE

The Market Rate Scenario considers the rate determined as part of the Airport Rent Study. This Study is available in full in **Appendix D**. The Market Rate Scenario assumes TTAD financing the hangars with cash at time of construction and setting the lease rate at the market rate.

Scenario 5: Market Rate

The Market Rate lease rate is set to \$0.5378 square foot per month for Year 1. This is escalated at rate of 1.9 percent every year for the 40-year term. The market rate value scenario NPV is \$97,629 with an IRR of 1.08 percent.

PRO FORMA SUMMARY

Detailed pro forma for each scenario are included in **Appendix C**. A summary of the four base scenarios is included in **Table 11**, with NPV and IRR.

Table 11: Pro Forma Summary, Base Scenarios

Scenario	Lease Rate Principle	Initial Investment		Initial Lease Rate (Year 1) ¹ per square foot per month / year	Investment NPV	Internal Rate of Return	Full Table (Appendix C)
1	Current Rate	TTAD funds 100%	\$5,357,800	\$0.3979 \$4.775	-\$1,736,975	-0.70%	Table C1
2	Cost Recovery	TTAD funds 100%	\$5,357,800	\$0.5273 \$6.3279	\$0	1.00%	Table C2
3	Current Rate	Bond Financing (50%)	\$2,678,900	\$0.3979 \$4.775	-\$2,379,233	-1.77%	Table C3
4	Current Rate	Bond Financing (100%)	\$0	\$0.3979 \$4.775	-\$3,181,816	-3.37%	Table C4
5	Market Rate	TTAD funds 100%	\$5,357,800	\$0.5378 \$6.454	\$97,629	1.08%	Table C5

Source: Mead & Hunt

1 Year 1 is considered the year of occupancy at which point revenues are generated. This assumes that occupation will occur one year from project acceptance and accounts for construction time. Year 0 is the base rate and considers 2019-2020 rental rates. This rate was increased for Year 1 and for each year thereafter by 1.9 percent, consistent with the average CPI rate increase taken by TTAD Board.

Scenarios 1, 3, and 4 produce a negative NPV because the current lease rate and market lease rates are not high enough to offset the costs of new construction. This is regardless of whether TTAD pays cash or finances the Super T-hangar. Generally, a 3.5 percent rate of interest on the bond should be considered favorable, but it is not sufficient to provide a positive return given the current lease rate. Adjusting the lease rate, as done in Scenario 2, can help TTAD break even. Further upward adjustment as done in Scenario 5 could even produce a profit. The risk in further upward adjustment lies in whether tenant demand will materialize at a higher lease rate. The cost recovery rate is 2 percent lower than the estimated market rate for this type of facility. Tenants may look at other airports and older hangar buildings with lower lease rates if they determine that the price for the new Super T-hangars is too high. Vacancy, particularly if it is prolonged, will negatively impact the financial performance of the Super T-hangar investment.



While this assessment finds that Super T-hangars at TTAD's current lease rates are not a particularly attractive investment, it is worth mentioning that increasing the number of based aircraft at TRK will have other positive effects on airport finances. Based users will purchase fuel and other services provided by TTAD staff. Their presence will support maintenance and service businesses on the airfield who in turn pay rent to TTAD. While the hangars may be a net loss on their own, it is important to keep these ancillary impacts in mind.

RISK ASSESSMENT AND MITIGATION

Risk assessment on Super T-hangar construction would look at what might happen to the expected return on investment if demand does not materialize as expected. The pro forma uses a 95 percent occupancy, which is considered high but reasonable given the waiting list for aircraft storage at TRK. Factors that could negatively affect occupancy include aircraft owners electing to store their aircraft at other airports and electing to store them in other facilities at TRK if they became available. Unique to Scenario 2, an increase in rental price may negatively impact demand as aircraft owners look for lower cost options. If this were to occur, TTAD would need to raise rents even more to break even, which could further depress demand. A risk of a downturn with the economy may also impact the demand for hangars, typically for the smallest hangars.

A traditional method for evaluating the risk of lower than expected demand is a Monte Carlo simulation, which would run thousands of trials with different levels of occupancy to determine what the most likely returns would be if demand was less than expected. Given that three of the five scenarios, not considering the NPV of Scenario 2, Cost Recovery, produced negative NPVs, it has been determined that Monte Carlo should not be run at this time. An average vacancy rate of no more than 6.3 percent is required throughout the life of the building for TRK to recover the costs in Scenario 5 - Market Rate. An average vacancy rate higher than 6.3 percent would result in a negative NPV. Therefore, the NPVs presented should be considered "best case" with high demand and actual returns could be lower.

SUPER T-HANGAR FINANCIAL STUDY

Appendices

- A: Construction Cost Assumptions
- B: Pro Forma Assumptions
- C: Pro Forma Tables
- D: AMCG Airport Rent Study



APPENDIX A

CONSTRUCTION COST ASSUMPTIONS

Sitework construction cost assumptions used in **Cost Estimates Section**:

Mobilization: This is calculated as being 12.5 percent of total sitework costs.

Erosion Control and Storm Water Pollution Prevention Plan Maintenance (SWPPP): Assumes for implementing and maintaining the required SWPPP Best Management Practices during construction period and beyond.

Earthwork and Site Preparation: Assumes excavation, over-excavation, and re-compaction on the entire site area of the upper 24 inches of existing subgrade at \$40 per cubic yard for moisture conditioning and compaction. No cost was estimated for additional subgrade preparation for poor soils conditions, which might require cement or lime treatment or geotextile fabric.

Subbase Course: An aggregate rock layer of 12 inches to further increase the structural integrity of the pavement. Often derived from recycled asphalt.

Aggregate Base rock: Assumed to be 10 inches thick on entire site except for the 72-foot-by-390-foot building footprint and conforms to CalTrans standards.

Asphalt Concrete: Assumed to be 4 inches thick on the apron in front of the hangars and conform to CalTrans standards and Federal Aviation Administration recommendations.

Prime Coat: Surface treatment to prepare media to bond with asphalt.

Drainage: Extend the existing storm drain system along the north end of the hangars and collect drainage in those areas. Add an additional system on the “island” area that drains to the south, as was completed in the neighboring hangar development.

Water (Fire and Domestic): Extended 12-inch main and 8-inch fire line by 320 feet from nearest connection at north end of Executive Hangars rows. Assumes connection fees, one hydrant, and appurtenances.

Sanitary Sewer: Extended 6-inch sanitary sewer pipe by 320 feet from nearest connection at north end of Executive Hangars rows. Assumes new manhole, cleanout, and connection to existing line.

Site Electrical: Costs for the site assumes transformer pad, bollards, pull box, meter panels and utility coordination. Receptacles and lighting in the individual hangars are covered under hangar building and foundation.

Marking: Assumes 6-inch-wide yellow stripe along taxi lane north of new hangars as well as parallel along each side.

Hydroseeding: A combination of seed, mulch fertilizer, and healthy soil amendments applied to disturbed soils at project completion to promote seed germination and turn development for site stabilization.



Hangar Foundation and Building cost assumptions used in **Cost Estimates Section:**

Mobilization: This is calculated being 5 percent of total building and erection costs.

Rigid Frame Hangar Building and Foundation: Includes the hangar building estimate from a national hangar manufacturer, plus the concrete foundation system, building erection, lighting and receptacles. An additional 30 percent markup of the building cost was added to this to account for items. The items not included in this vendor's proposal were paint, permits and inspections, taxes, and minor hardware.

Fire Sprinkler Design and Install: Designed to conform to California Building Code standards.

Bathroom: One bathroom will be installed at the north end pocket.

Soft costs associated with site and hangar construction used in **Cost Estimates Section:**

Site Survey: Topographical survey of site, surrounding area, and utilities.

Site Geotechnical: Borings and analysis of existing soil conditions with recommendations for pavement and foundation sections.

SWPPP: Development and implementation of the plan.

Site and Hangar Design: Analysis and design of the site including layout, pavement, drainage, markings, utilities, and the development of construction plans and specifications.

Material Testing: Testing of materials to be (or already) installed to confirm they meet the required specifications.

Construction Administration and Observation: Reviewing material submittals, daily observation of construction activities, providing on site clarification, and documenting.



APPENDIX B

PRO FORMA ASSUMPTIONS

Assumptions and the detailed pro forma for each scenario with assumptions used for the development of the projected financial performance statements in the **Pro Forma Section**.

Revenues

The rentable square footage used for the 12 proposed Super T-hangars is 2,340 square feet each, for a total of 28,080 square feet.

According to TTAD's direction, the monthly/annual rate per square foot (psf) for the current rent analysis was based on the 2019 rate of \$0.391/\$4.692 psf for existing T-hangars at TRK. This rate was increased for Year 1 and for each year thereafter by 1.9 percent, consistent with the average CPI rate taken for each year beginning in 2009 and ending in 2019.

The monthly/annual rate psf for the cost recovery analysis resulted in a Year 1 rate of \$0.783/\$9.369 psf. This rate was increased for Year 1 and for each year thereafter by 1.9 percent, consistent with the average CPI rate taken for each year beginning in 2009 and ending in 2019.

The current discounts associated with the Fly Quiet and Home Base programs were not included in the pro forma projections. These programs exist because of and are "funded" by the revenues associated with the TTAD property tax revenues and these are considered more of a rebate than a discount. Further, to make an apples-to-apples comparison between the two options, the same rebate/discount could not be used for the land rental options as this would, in essence, create negative revenue at the current rebate/discount levels.

Regardless of the source of financing for the development of aircraft storage units (e.g., internal funding or external financing), the revenues generated by the rental of aircraft storage units are considered airport revenues. Therefore, the monies must only be used for capital and operating expenses of the airport. This includes any financing costs associated with developing the aircraft storage units and maintenance costs associated with operating the aircraft storage units. TTAD may not spend money generated from hangar rents for non-aviation purposes.

The revenues are reduced by an average 5 percent vacancy rate over the life of the hangars.

Expenses

Management – In addition to the direct expenses included in this analysis, TTAD would incur indirect administrative and/or legal expenses associated with managing the waiting list, various hangar agreements, and facility maintenance. This is calculated at 4 percent of annual gross revenues.

Bank/Credit Card Fees – According to TTAD, a significant majority of current hangar tenants pay by credit card. Therefore, credit card fees were applied to annual gross revenues at a rate of 2.25 percent.

Facility Maintenance (Routine) – Routine facility maintenance expenses utilized in the pro forma projections are consistent with the facility maintenance expenses for other T-hangar rows at TRK, including Mike row. This expense for year zero is \$2,000, based on information provided by TTAD. This rate was increased for Year 1 and for each year thereafter by 1.9 percent, consistent with the average CPI rate taken for each year beginning in 2009 and ending in 2019.



Facility Maintenance (Major) – Major facility maintenance expenses utilized in the pro forma projections are consistent with the amount and timing of historical and projected major facility maintenance expenses for existing hangars (based on information provided by TTAD). Dollar figures for major facility maintenance are presented in Table 10 above and adjusted for inflation.

Pavement Maintenance – The pavement maintenance expenses (amount and timing) utilized in the pro forma projections are associated with the taxiway/apron area to be developed. Dollar figures for future pavement maintenance are presented in Tables 8 and 9 above and adjusted for inflation.

Insurance – Only property insurance was included in the analysis. It is assumed that liability insurance expenses of the TTAD will not increase with the addition of new Super T-hangars. The property insurance rate utilized in the pro forma projections is consistent with the property insurance for other hangars rows at TRK. This rate was increased for Year 1 and for each year thereafter by 1.9 percent, consistent with the average CPI rate taken for each year beginning in 2009 and ending in 2019.

Utilities – Expenses include those associated with bathroom services, fire suppression, external lighting and sewer. Electric to the individual units is not included, since individual electric meters will be used in the new hangars, and payment will be the responsibility of the lessee. These costs are not included in the utility expense. This rate was increased for Year 1 and for each year thereafter by 1.9 percent, consistent with the average CPI rate taken for each year beginning in 2009 and ending in 2019.

Non-Operating Revenues (Expenses)

Depreciation – The reduction of the value of the hangar building over time. This is set at 39 years as determined by U.S. Tax Code for hangar buildings.

Airport Improvement Program (AIP) Grants- The pavement maintenance reimbursement is included in the non-operating expenses with a 60 percent reimbursement through FAA.

Financial Performance

Cash Flow Analysis – The initial development cost of the 12 proposed Super T-hangars, including the taxiway/apron, was estimated by Mead & Hunt at \$5,357,800. No FAA or State grant monies are included in analysis for construction or maintenance of the hangars, taxiway, apron, or other sitework. The Cash Flow Analysis includes the development cost and the operating income over the 40-year study period.

Internal Rate of Return (IRR) – The IRR is a metric used in capital budgeting measuring the profitability of potential investments. IRR is a discount rate that makes the net present value of all cash flows from a particular project equal to zero.

Net Present Value (NPV) – NPV is the difference between the present value of cash inflows and the present value of cash outflows associated with a potential investment. NPV is used in capital budgeting to analyze the profitability of a potential investment.

Bond Financing

The bond parameters include a 20-year loan term with an interest rate of 3.5 percent in both scenarios.



Scenario 1, Current Rate, TTAD funds 100%

	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	Year
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Period
																					Operating Revenues
	\$ 0.5798	\$ 0.5908	\$ 0.6020	\$ 0.6135	\$ 0.6251	\$ 0.6370	\$ 0.6491	\$ 0.6615	\$ 0.6740	\$ 0.6868	\$ 0.6999	\$ 0.7132	\$ 0.7267	\$ 0.7405	\$ 0.7546	\$ 0.7689	\$ 0.7835	\$ 0.7984	\$ 0.8136	\$ 0.8291	Rent/ SF Escalation per Month
	\$ 180,341	\$ 183,768	\$ 187,259	\$ 190,817	\$ 194,443	\$ 198,137	\$ 201,902	\$ 205,738	\$ 209,647	\$ 213,630	\$ 217,689	\$ 221,825	\$ 226,040	\$ 230,335	\$ 234,711	\$ 239,171	\$ 243,715	\$ 248,345	\$ 253,064	\$ 257,872	Gross Super T-hangar Rent
	\$ (9,017)	\$ (9,188)	\$ (9,363)	\$ (9,541)	\$ (9,722)	\$ (9,907)	\$ (10,095)	\$ (10,287)	\$ (10,482)	\$ (10,682)	\$ (10,884)	\$ (11,091)	\$ (11,302)	\$ (11,517)	\$ (11,736)	\$ (11,959)	\$ (12,186)	\$ (12,417)	\$ (12,653)	\$ (12,894)	Vacancy 5%
	\$ 171,324	\$ 174,579	\$ 177,896	\$ 181,276	\$ 184,721	\$ 188,230	\$ 191,807	\$ 195,451	\$ 199,165	\$ 202,949	\$ 206,805	\$ 210,734	\$ 214,738	\$ 218,818	\$ 222,976	\$ 227,212	\$ 231,529	\$ 235,928	\$ 240,411	\$ 244,979	Net Super T-hangar Rent
	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	Depreciation (Non-cash)
	\$ 33,945	\$ 37,200	\$ 40,517	\$ 43,897	\$ 47,341	\$ 50,851	\$ 54,427	\$ 58,072	\$ 61,785	\$ 65,569	\$ 69,425	\$ 73,355	\$ 77,359	\$ 81,439	\$ 85,596	\$ 89,833	\$ 94,150	\$ 98,549	\$ 103,031	\$ 244,979	Operating Revenue Total
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Operating Expenses
	\$ (6,853)	\$ (6,983)	\$ (7,116)	\$ (7,251)	\$ (7,389)	\$ (7,529)	\$ (7,672)	\$ (7,818)	\$ (7,967)	\$ (8,118)	\$ (8,272)	\$ (8,429)	\$ (8,590)	\$ (8,753)	\$ (8,919)	\$ (9,088)	\$ (9,261)	\$ (9,437)	\$ (9,616)	\$ (9,799)	Management (4%)
	\$ (3,855)	\$ (3,928)	\$ (4,003)	\$ (4,079)	\$ (4,156)	\$ (4,235)	\$ (4,316)	\$ (4,398)	\$ (4,481)	\$ (4,566)	\$ (4,653)	\$ (4,742)	\$ (4,832)	\$ (4,923)	\$ (5,017)	\$ (5,112)	\$ (5,209)	\$ (5,308)	\$ (5,409)	\$ (5,512)	Bank/Credit Card Fees (2.25%)
	\$ (5,197)	\$ (5,295)	\$ (5,396)	\$ (5,499)	\$ (5,603)	\$ (5,709)	\$ (5,818)	\$ (5,929)	\$ (6,041)	\$ (6,156)	\$ (6,273)	\$ (6,392)	\$ (6,514)	\$ (6,637)	\$ (6,763)	\$ (6,892)	\$ (7,023)	\$ (7,156)	\$ (7,292)	\$ (7,431)	Facility Maintenance Routine
					\$ (352,190)					\$ (26,383)						\$ (29,537)					Facility Maintenance - Periodic
					\$ (181,794.18)					\$ (199,733.50)					\$ (219,443)						Pavement Maintenance
	\$ (3,513)	\$ (3,580)	\$ (3,648)	\$ (3,717)	\$ (3,788)	\$ (3,860)	\$ (3,933)	\$ (4,008)	\$ (4,084)	\$ (4,161)	\$ (4,240)	\$ (4,321)	\$ (4,403)	\$ (4,487)	\$ (4,572)	\$ (4,659)	\$ (4,747)	\$ (4,838)	\$ (4,930)	\$ (5,023)	Insurance
	\$ (1,485)	\$ (1,513)	\$ (1,542)	\$ (1,571)	\$ (1,601)	\$ (1,631)	\$ (1,662)	\$ (1,694)	\$ (1,726)	\$ (1,759)	\$ (1,792)	\$ (1,826)	\$ (1,861)	\$ (1,896)	\$ (1,932)	\$ (1,969)	\$ (2,007)	\$ (2,045)	\$ (2,083)	\$ (2,123)	Utilities
	\$ (20,902)	\$ (21,299)	\$ (21,704)	\$ (22,116)	\$ (556,521)	\$ (22,965)	\$ (23,401)	\$ (23,846)	\$ (24,299)	\$ (250,877)	\$ (25,231)	\$ (25,710)	\$ (26,199)	\$ (26,697)	\$ (246,647)	\$ (57,257)	\$ (28,247)	\$ (28,784)	\$ (29,331)	\$ (29,888)	Operating Expense Total
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Operating Income
	\$ 13,043	\$ 15,901	\$ 18,813	\$ 21,781	\$ (509,180)	\$ 27,886	\$ 31,026	\$ 34,226	\$ 37,486	\$ (185,307)	\$ 44,194	\$ 47,644	\$ 51,160	\$ 54,742	\$ (161,051)	\$ 32,575	\$ 65,902	\$ 69,765	\$ 73,700	\$ 215,090	Operating Income Total
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Non Operating Expenses
	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379		Depreciation
	\$ -	\$ -	\$ -	\$ -	\$ 109,077	\$ -	\$ -	\$ -	\$ -	\$ 119,840	\$ -	\$ -	\$ -	\$ -	\$ 131,666	\$ -	\$ -	\$ -	\$ -	\$ -	AIP Grants
																					Misc. (Interest, Bond, etc.)
	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 246,456	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 257,220	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 269,045	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ -	Non Operating Expense Total
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Cash Flow
																					Capital Investment
	\$ 150,422	\$ 153,280	\$ 156,192	\$ 159,160	\$ (262,724)	\$ 165,266	\$ 168,406	\$ 171,605	\$ 174,866	\$ 71,912	\$ 181,574	\$ 185,024	\$ 188,539	\$ 192,121	\$ 107,995	\$ 169,955	\$ 203,282	\$ 207,144	\$ 211,080	\$ 215,090	Annual Cash Flow
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	IRR,NPV
																					Internal Rate of Return
																					Net Present Value- 30 years



Scenario 2, Cost Recovery, TTAD funds 100%

2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	Year
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Period
Operating Revenues																				
\$ 0.7683	\$ 0.7829	\$ 0.7977	\$ 0.8129	\$ 0.8283	\$ 0.8441	\$ 0.8601	\$ 0.8765	\$ 0.8931	\$ 0.9101	\$ 0.9274	\$ 0.9450	\$ 0.9629	\$ 0.9812	\$ 0.9999	\$ 1.0189	\$ 1.0382	\$ 1.0580	\$ 1.0781	\$ 1.0985	Rent/ SF Escalation per Month
\$ 238,960	\$ 243,500	\$ 248,127	\$ 252,841	\$ 257,645	\$ 262,541	\$ 267,529	\$ 272,612	\$ 277,792	\$ 283,070	\$ 288,448	\$ 293,928	\$ 299,513	\$ 305,204	\$ 311,003	\$ 316,912	\$ 322,933	\$ 329,069	\$ 335,321	\$ 341,692	Gross Super T-hangar Rent
\$ (11,948)	\$ (12,175)	\$ (12,406)	\$ (12,642)	\$ (12,882)	\$ (13,127)	\$ (13,376)	\$ (13,631)	\$ (13,890)	\$ (14,153)	\$ (14,422)	\$ (14,696)	\$ (14,976)	\$ (15,260)	\$ (15,550)	\$ (15,846)	\$ (16,147)	\$ (16,453)	\$ (16,766)	\$ (17,085)	Vacancy 5%
\$ 227,012	\$ 231,325	\$ 235,721	\$ 240,199	\$ 244,763	\$ 249,414	\$ 254,152	\$ 258,981	\$ 263,902	\$ 268,916	\$ 274,026	\$ 279,232	\$ 284,537	\$ 289,944	\$ 295,453	\$ 301,066	\$ 306,786	\$ 312,615	\$ 318,555	\$ 324,608	Net Super T-hangar Rent
\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	Depreciation (Non-cash)
\$ 89,633	\$ 93,946	\$ 98,341	\$ 102,820	\$ 107,384	\$ 112,034	\$ 116,773	\$ 121,602	\$ 126,523	\$ 131,537	\$ 136,646	\$ 141,853	\$ 147,158	\$ 152,564	\$ 158,073	\$ 163,687	\$ 169,407	\$ 175,236	\$ 181,176	\$ 324,608	Operating Revenue Total
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Operating Expenses
\$ (9,080)	\$ (9,253)	\$ (9,429)	\$ (9,608)	\$ (9,791)	\$ (9,977)	\$ (10,166)	\$ (10,359)	\$ (10,556)	\$ (10,757)	\$ (10,961)	\$ (11,169)	\$ (11,381)	\$ (11,598)	\$ (11,818)	\$ (12,043)	\$ (12,271)	\$ (12,505)	\$ (12,742)	\$ (12,984)	Management (4%)
\$ (5,108)	\$ (5,205)	\$ (5,304)	\$ (5,404)	\$ (5,507)	\$ (5,612)	\$ (5,718)	\$ (5,827)	\$ (5,938)	\$ (6,051)	\$ (6,166)	\$ (6,283)	\$ (6,402)	\$ (6,524)	\$ (6,648)	\$ (6,774)	\$ (6,903)	\$ (7,034)	\$ (7,167)	\$ (7,304)	Bank/Credit Card Fees (2.25%)
\$ (5,197)	\$ (5,295)	\$ (5,396)	\$ (5,499)	\$ (5,603)	\$ (5,709)	\$ (5,818)	\$ (5,929)	\$ (6,041)	\$ (6,156)	\$ (6,273)	\$ (6,392)	\$ (6,514)	\$ (6,637)	\$ (6,763)	\$ (6,892)	\$ (7,023)	\$ (7,156)	\$ (7,292)	\$ (7,431)	Facility Maintenance Routine
				\$ (352,190)					\$ (26,383)						\$ 28,986					Facility Maintenance - Periodic
				\$ (181,794)					\$ (199,733)						\$ (219,443)					Pavement Maintenance
\$ (3,513)	\$ (3,580)	\$ (3,648)	\$ (3,717)	\$ (3,788)	\$ (3,860)	\$ (3,933)	\$ (4,008)	\$ (4,084)	\$ (4,161)	\$ (4,240)	\$ (4,321)	\$ (4,403)	\$ (4,487)	\$ (4,572)	\$ (4,659)	\$ (4,747)	\$ (4,838)	\$ (4,930)	\$ (5,023)	Insurance
\$ (1,485)	\$ (1,513)	\$ (1,542)	\$ (1,571)	\$ (1,601)	\$ (1,631)	\$ (1,662)	\$ (1,694)	\$ (1,726)	\$ (1,759)	\$ (1,792)	\$ (1,826)	\$ (1,861)	\$ (1,896)	\$ (1,932)	\$ (1,969)	\$ (2,007)	\$ (2,045)	\$ (2,083)	\$ (2,123)	Utilities
\$ (24,383)	\$ (24,846)	\$ (25,318)	\$ (25,799)	\$ (560,274)	\$ (26,789)	\$ (27,298)	\$ (27,816)	\$ (28,345)	\$ (254,999)	\$ (29,432)	\$ (29,991)	\$ (30,561)	\$ (31,142)	\$ (222,191)	\$ (32,337)	\$ (32,951)	\$ (33,577)	\$ (34,215)	\$ (34,865)	Operating Expense Total
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Operating Income
\$ 65,250	\$ 69,100	\$ 73,023	\$ 77,021	\$ (452,890)	\$ 85,245	\$ 89,475	\$ 93,786	\$ 98,178	\$ (123,463)	\$ 107,214	\$ 111,861	\$ 116,597	\$ 121,422	\$ (64,118)	\$ 131,350	\$ 136,456	\$ 141,659	\$ 146,961	\$ 289,743	Operating Income Total
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Non Operating Expenses
\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	Depreciation
\$ -	\$ -	\$ -	\$ -	\$ 109,077	\$ -	\$ -	\$ -	\$ -	\$ 119,840	\$ -	\$ -	\$ -	\$ -	\$ 131,666	\$ -	\$ -	\$ -	\$ -	\$ -	AIP Grants
\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 246,456	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 257,220	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 269,045	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ -	Misc. (Interest, Bond, etc.)
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Non Operating Expense Total
Cash Flow																				
Capital Investment																				
\$ 202,630	\$ 206,480	\$ 210,403	\$ 214,400	\$ (206,434)	\$ 222,625	\$ 226,855	\$ 231,165	\$ 235,557	\$ 133,757	\$ 244,593	\$ 249,241	\$ 253,976	\$ 258,802	\$ 204,928	\$ 268,730	\$ 273,835	\$ 279,038	\$ 284,340	\$ 289,743	Annual Cash Flow
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	IRR,NPV
Internal Rate of Return																				
Net Present Value- 30 years																				

APPENDIX C

February 10, 2020



PRO FORMA TABLE C3
Scenario 3, Current Lease Rate, Bond Financing (50%)

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Period	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Operating Revenues																					
Rent/ SF Escalation per Month	\$ 0.3905	\$ 0.3979	\$ 0.4055	\$ 0.4132	\$ 0.4210	\$ 0.4290	\$ 0.4372	\$ 0.4455	\$ 0.4540	\$ 0.4626	\$ 0.4714	\$ 0.4803	\$ 0.4895	\$ 0.4988	\$ 0.5082	\$ 0.5179	\$ 0.5277	\$ 0.5378	\$ 0.5480	\$ 0.5584	\$ 0.5690
Gross Super T-hangar Rent		\$ 123,769	\$ 126,120	\$ 128,517	\$ 130,959	\$ 133,447	\$ 135,982	\$ 138,566	\$ 141,199	\$ 143,881	\$ 146,615	\$ 149,401	\$ 152,240	\$ 155,132	\$ 158,080	\$ 161,083	\$ 164,144	\$ 167,262	\$ 170,440	\$ 173,679	\$ 176,979
Vacancy 5%		\$ (6,188)	\$ (6,306)	\$ (6,426)	\$ (6,548)	\$ (6,672)	\$ (6,799)	\$ (6,928)	\$ (7,060)	\$ (7,194)	\$ (7,331)	\$ (7,470)	\$ (7,612)	\$ (7,757)	\$ (7,904)	\$ (8,054)	\$ (8,207)	\$ (8,363)	\$ (8,522)	\$ (8,684)	\$ (8,849)
Net Super T-hangar Rent		\$ 117,580	\$ 119,814	\$ 122,091	\$ 124,411	\$ 126,774	\$ 129,183	\$ 131,638	\$ 134,139	\$ 136,687	\$ 139,284	\$ 141,931	\$ 144,628	\$ 147,375	\$ 150,176	\$ 153,029	\$ 155,937	\$ 158,899	\$ 161,918	\$ 164,995	\$ 168,130
Depreciation (Non-cash)		\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)
Operating Revenue Total		\$ (19,799)	\$ (17,565)	\$ (15,289)	\$ (12,969)	\$ (10,605)	\$ (8,196)	\$ (5,742)	\$ (3,241)	\$ (692)	\$ 1,905	\$ 4,551	\$ 7,248	\$ 9,996	\$ 12,796	\$ 15,649	\$ 18,557	\$ 21,520	\$ 24,539	\$ 27,615	\$ 30,750
Operating Expenses	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Management (4%)		\$ (4,703)	\$ (4,793)	\$ (4,884)	\$ (4,976)	\$ (5,071)	\$ (5,167)	\$ (5,266)	\$ (5,366)	\$ (5,467)	\$ (5,571)	\$ (5,677)	\$ (5,785)	\$ (5,895)	\$ (6,007)	\$ (6,121)	\$ (6,237)	\$ (6,356)	\$ (6,477)	\$ (6,600)	\$ (6,725)
Bank/Credit Card Fees (2.25%)		\$ (2,646)	\$ (2,696)	\$ (2,747)	\$ (2,799)	\$ (2,852)	\$ (2,907)	\$ (2,962)	\$ (3,018)	\$ (3,075)	\$ (3,134)	\$ (3,193)	\$ (3,254)	\$ (3,316)	\$ (3,379)	\$ (3,443)	\$ (3,509)	\$ (3,575)	\$ (3,643)	\$ (3,712)	\$ (3,783)
Facility Maintenance Routine		\$ (3,567)	\$ (3,634)	\$ (3,703)	\$ (3,774)	\$ (3,845)	\$ (3,918)	\$ (3,993)	\$ (4,069)	\$ (4,146)	\$ (4,225)	\$ (4,305)	\$ (4,387)	\$ (4,470)	\$ (4,555)	\$ (4,642)	\$ (4,730)	\$ (4,820)	\$ (4,911)	\$ (5,005)	\$ (5,100)
Facility Maintenance - Periodic																					
Pavement Maintenance						\$ (124,766)					\$ (18,106)					\$ (29,177)					\$ (21,856)
Insurance		\$ (2,411)	\$ (2,457)	\$ (2,503)	\$ (2,551)	\$ (2,599)	\$ (2,649)	\$ (2,699)	\$ (2,750)	\$ (2,803)	\$ (2,856)	\$ (2,910)	\$ (2,966)	\$ (3,022)	\$ (3,079)	\$ (3,138)	\$ (3,197)	\$ (3,258)	\$ (3,320)	\$ (3,383)	\$ (3,447)
Utilities		\$ (1,019)	\$ (1,038)	\$ (1,058)	\$ (1,078)	\$ (1,099)	\$ (1,120)	\$ (1,141)	\$ (1,163)	\$ (1,185)	\$ (1,207)	\$ (1,230)	\$ (1,253)	\$ (1,277)	\$ (1,301)	\$ (1,326)	\$ (1,351)	\$ (1,377)	\$ (1,403)	\$ (1,430)	\$ (1,457)
Operating Expense Total		\$ (14,345)	\$ (14,618)	\$ (14,896)	\$ (15,179)	\$ (15,463)	\$ (15,751)	\$ (16,043)	\$ (16,339)	\$ (16,639)	\$ (16,943)	\$ (17,251)	\$ (17,563)	\$ (17,879)	\$ (18,199)	\$ (18,523)	\$ (18,851)	\$ (19,183)	\$ (19,519)	\$ (19,859)	\$ (20,203)
Operating Income	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Operating Income Total		\$ (34,144)	\$ (32,183)	\$ (30,184)	\$ (28,147)	\$ (26,063)	\$ (23,937)	\$ (21,802)	\$ (19,606)	\$ (17,368)	\$ (15,072)	\$ (12,765)	\$ (10,397)	\$ (7,984)	\$ (5,526)	\$ (3,023)	\$ (468)	\$ 2,134	\$ 4,784	\$ 7,485	\$ 10,238
Non-Operating Revenues (Expenses)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Depreciation		\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379
AIP Grants		\$ -	\$ -	\$ -	\$ -	\$ 74,860	\$ -	\$ -	\$ -	\$ -	\$ 82,247	\$ -	\$ -	\$ -	\$ -	\$ 90,363	\$ -	\$ -	\$ -	\$ -	\$ 1,032,540
Misc. (Interest, Bond, etc.)		\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)	\$ (188,490)
Non Operating Revenue (Expense) Total		\$ (51,111)	\$ (51,111)	\$ (51,111)	\$ (51,111)	\$ 23,749	\$ (51,111)	\$ (51,111)	\$ (51,111)	\$ (51,111)	\$ 31,136	\$ (51,111)	\$ (51,111)	\$ (51,111)	\$ (51,111)	\$ 39,252	\$ (51,111)	\$ (51,111)	\$ (51,111)	\$ (51,111)	\$ 981,429
Cash Flow	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Capital Investment	\$ (2,678,900)																				
Annual Cash Flow	\$ (2,678,900)	\$ (85,255)	\$ (83,294)	\$ (81,295)	\$ (79,258)	\$ (127,089)	\$ (75,068)	\$ (72,913)	\$ (70,717)	\$ (68,479)	\$ (139,137)	\$ (63,875)	\$ (61,508)	\$ (59,095)	\$ (56,637)	\$ (143,550)	\$ (51,579)	\$ (48,977)	\$ (46,327)	\$ (43,625)	\$ (751,089)
IRR,NPV	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Internal Rate of Return	-1.77%																				
Net Present Value- 40 years	\$ (2,379,233)																				

2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	Year
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Period
Operating Revenues																				
\$ 0.5798	\$ 0.5908	\$ 0.6020	\$ 0.6135	\$ 0.6251	\$ 0.6370	\$ 0.6491	\$ 0.6615	\$ 0.6740	\$ 0.6868	\$ 0.6999	\$ 0.7132	\$ 0.7267	\$ 0.7405	\$ 0.7546	\$ 0.7689	\$ 0.7835	\$ 0.7984	\$ 0.8136	\$ 0.8291	Rent/ SF Escalation per Month
\$ 180,341	\$ 183,768	\$ 187,259	\$ 190,817	\$ 194,443	\$ 198,137	\$ 201,902	\$ 205,738	\$ 209,647	\$ 213,630	\$ 217,689	\$ 221,825	\$ 226,040	\$ 230,335	\$ 234,711	\$ 239,171	\$ 243,715	\$ 248,345	\$ 253,064	\$ 257,872	Gross Super T-hangar Rent
\$ (9,017)	\$ (9,188)	\$ (9,363)	\$ (9,541)	\$ (9,722)	\$ (9,907)	\$ (10,095)	\$ (10,287)	\$ (10,482)	\$ (10,682)	\$ (10,884)	\$ (11,091)	\$ (11,302)	\$ (11,517)	\$ (11,736)	\$ (11,959)	\$ (12,186)	\$ (12,417)	\$ (12,653)	\$ (12,894)	Vacancy 5%
\$ 171,324	\$ 174,579	\$ 177,896	\$ 181,276	\$ 184,721	\$ 188,230	\$ 191,807	\$ 195,451	\$ 199,165	\$ 202,949	\$ 206,805	\$ 210,734	\$ 214,738	\$ 218,818	\$ 222,976	\$ 227,212	\$ 231,529	\$ 235,928	\$ 240,411	\$ 244,979	Net Super T-hangar Rent
\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	Depreciation (Non-cash)
\$ 33,945	\$ 37,200	\$ 40,517	\$ 43,897	\$ 47,341	\$ 50,851	\$ 54,427	\$ 58,072	\$ 61,785	\$ 65,569	\$ 69,425	\$ 73,355	\$ 77,359	\$ 81,439	\$ 85,596	\$ 89,833	\$ 94,150	\$ 98,549	\$ 103,031	\$ 244,979	Operating Revenue Total
Operating Expenses																				
\$ (6,853)	\$ (6,983)	\$ (7,116)	\$ (7,251)	\$ (7,389)	\$ (7,529)	\$ (7,672)	\$ (7,818)	\$ (7,967)	\$ (8,118)	\$ (8,272)	\$ (8,429)	\$ (8,590)	\$ (8,753)	\$ (8,919)	\$ (9,088)	\$ (9,261)	\$ (9,437)	\$ (9,616)	\$ (9,799)	Management (4%)
\$ (3,855)	\$ (3,928)	\$ (4,003)	\$ (4,079)	\$ (4,156)	\$ (4,235)	\$ (4,316)	\$ (4,398)	\$ (4,481)	\$ (4,566)	\$ (4,653)	\$ (4,742)	\$ (4,832)	\$ (4,923)	\$ (5,017)	\$ (5,112)	\$ (5,209)	\$ (5,308)	\$ (5,409)	\$ (5,512)	Bank/Credit Card Fees (2.25%)
\$ (5,197)	\$ (5,295)	\$ (5,396)	\$ (5,499)	\$ (5,603)	\$ (5,709)	\$ (5,818)	\$ (5,929)	\$ (6,041)	\$ (6,156)	\$ (6,273)	\$ (6,392)	\$ (6,514)	\$ (6,637)	\$ (6,763)	\$ (6,892)	\$ (7,023)	\$ (7,156)	\$ (7,292)	\$ (7,431)	Facility Maintenance Routine
				\$ (352,190)					\$ 26,383					\$ 28,986						Facility Maintenance - Periodic
				\$ (181,794)					\$ (199,733)					\$ (219,443)						Pavement Maintenance
\$ (3,513)	\$ (3,580)	\$ (3,648)	\$ (3,717)	\$ (3,788)	\$ (3,860)	\$ (3,933)	\$ (4,008)	\$ (4,084)	\$ (4,161)	\$ (4,240)	\$ (4,321)	\$ (4,403)	\$ (4,487)	\$ (4,572)	\$ (4,659)	\$ (4,747)	\$ (4,838)	\$ (4,930)	\$ (5,023)	Insurance
\$ (1,485)	\$ (1,513)	\$ (1,542)	\$ (1,571)	\$ (1,601)	\$ (1,631)	\$ (1,662)	\$ (1,694)	\$ (1,726)	\$ (1,759)	\$ (1,792)	\$ (1,826)	\$ (1,861)	\$ (1,896)	\$ (1,932)	\$ (1,969)	\$ (2,007)	\$ (2,045)	\$ (2,083)	\$ (2,123)	Utilities
\$ (20,902)	\$ (21,299)	\$ (21,704)	\$ (22,116)	\$ (22,531)	\$ (22,965)	\$ (23,401)	\$ (23,846)	\$ (24,299)	\$ (24,759)	\$ (25,231)	\$ (25,710)	\$ (26,199)	\$ (26,697)	\$ (27,201)	\$ (27,712)	\$ (28,231)	\$ (28,758)	\$ (29,301)	\$ (29,859)	Operating Expense Total
Operating Income																				
\$ 13,043	\$ 15,901	\$ 18,813	\$ 21,781	\$ (509,180)	\$ 27,886	\$ 31,026	\$ 34,226	\$ 37,486	\$ (132,542)	\$ 44,194	\$ 47,644	\$ 51,160	\$ 54,742	\$ (132,065)	\$ 62,112	\$ 65,902	\$ 69,765	\$ 73,700	\$ 215,090	Operating Income Total
Non Operating Expenses																				
\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	Depreciation
\$ -	\$ -	\$ -	\$ -	\$ 109,077	\$ -	\$ -	\$ -	\$ -	\$ 119,840	\$ -	\$ -	\$ -	\$ -	\$ 131,666	\$ -	\$ -	\$ -	\$ -	\$ -	AIP Grants
\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 246,456	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 257,220	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 269,045	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ -	Non Operating Expense Total
Cash Flow																				
Capital Investment																				
\$ 150,422	\$ 153,280	\$ 156,192	\$ 159,160	\$ (262,724)	\$ 165,266	\$ 168,406	\$ 171,605	\$ 174,866	\$ 124,677	\$ 181,574	\$ 185,024	\$ 188,539	\$ 192,121	\$ 136,981	\$ 199,491	\$ 203,282	\$ 207,144	\$ 211,080	\$ 215,090	Annual Cash Flow
IRR,NPV																				
Internal Rate of Return																				
Net Present Value- 30 years																				



PRO FORMA TABLE C4
Scenario 4, Current Lease Rate, Bond Financing (100%)

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Year
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Period	
Operating Revenues																					
\$ 0.5798	\$ 0.5908	\$ 0.6020	\$ 0.6135	\$ 0.6251	\$ 0.6370	\$ 0.6491	\$ 0.6615	\$ 0.6740	\$ 0.6868	\$ 0.6999	\$ 0.7132	\$ 0.7267	\$ 0.7405	\$ 0.7546	\$ 0.7689	\$ 0.7835	\$ 0.7984	\$ 0.8136	\$ 0.8291	Rent/ SF Escalation per Month	
\$ 180,341	\$ 183,768	\$ 187,259	\$ 190,817	\$ 194,443	\$ 198,137	\$ 201,902	\$ 205,738	\$ 209,647	\$ 213,630	\$ 217,689	\$ 221,825	\$ 226,040	\$ 230,335	\$ 234,711	\$ 239,171	\$ 243,715	\$ 248,345	\$ 253,064	\$ 257,872	Gross Super T-hangar Rent	
\$ (9,017)	\$ (9,188)	\$ (9,363)	\$ (9,541)	\$ (9,722)	\$ (9,907)	\$ (10,095)	\$ (10,287)	\$ (10,482)	\$ (10,682)	\$ (10,884)	\$ (11,091)	\$ (11,302)	\$ (11,517)	\$ (11,736)	\$ (11,959)	\$ (12,186)	\$ (12,417)	\$ (12,653)	\$ (12,894)	Vacancy 5%	
\$ 171,324	\$ 174,579	\$ 177,896	\$ 181,276	\$ 184,721	\$ 188,230	\$ 191,807	\$ 195,451	\$ 199,165	\$ 202,949	\$ 206,805	\$ 210,734	\$ 214,738	\$ 218,818	\$ 222,976	\$ 227,212	\$ 231,529	\$ 235,928	\$ 240,411	\$ 244,979	Net Super T-hangar Rent	
\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	Depreciation (Non-cash)	
\$ 33,945	\$ 37,200	\$ 40,517	\$ 43,897	\$ 47,341	\$ 50,851	\$ 54,427	\$ 58,072	\$ 61,785	\$ 65,569	\$ 69,425	\$ 73,355	\$ 77,359	\$ 81,439	\$ 85,596	\$ 89,833	\$ 94,150	\$ 98,549	\$ 103,031	\$ 244,979	Operating Revenue Total	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Operating Expenses	
\$ (6,853)	\$ (6,983)	\$ (7,116)	\$ (7,251)	\$ (7,389)	\$ (7,529)	\$ (7,672)	\$ (7,818)	\$ (7,967)	\$ (8,118)	\$ (8,272)	\$ (8,429)	\$ (8,590)	\$ (8,753)	\$ (8,919)	\$ (9,088)	\$ (9,261)	\$ (9,437)	\$ (9,616)	\$ (9,799)	Management (4%)	
\$ (3,855)	\$ (3,928)	\$ (4,003)	\$ (4,079)	\$ (4,156)	\$ (4,235)	\$ (4,316)	\$ (4,398)	\$ (4,481)	\$ (4,566)	\$ (4,653)	\$ (4,742)	\$ (4,832)	\$ (4,923)	\$ (5,017)	\$ (5,112)	\$ (5,209)	\$ (5,308)	\$ (5,409)	\$ (5,512)	Bank/Credit Card Fees (2.25%)	
\$ (5,197)	\$ (5,295)	\$ (5,396)	\$ (5,499)	\$ (5,603)	\$ (5,709)	\$ (5,818)	\$ (5,929)	\$ (6,041)	\$ (6,156)	\$ (6,273)	\$ (6,392)	\$ (6,514)	\$ (6,637)	\$ (6,763)	\$ (6,892)	\$ (7,023)	\$ (7,156)	\$ (7,292)	\$ (7,431)	Facility Maintenance Routine	
				\$ (352,190)					\$ (26,383)					\$ (28,986)						Facility Maintenance - Periodic	
				\$ (181,794)					\$ (199,733)					\$ (219,443)						Pavement Maintenance	
\$ (3,513)	\$ (3,580)	\$ (3,648)	\$ (3,717)	\$ (3,788)	\$ (3,860)	\$ (3,933)	\$ (4,008)	\$ (4,084)	\$ (4,161)	\$ (4,240)	\$ (4,321)	\$ (4,403)	\$ (4,487)	\$ (4,572)	\$ (4,659)	\$ (4,747)	\$ (4,838)	\$ (4,930)	\$ (5,023)	Insurance	
\$ (1,485)	\$ (1,513)	\$ (1,542)	\$ (1,571)	\$ (1,601)	\$ (1,631)	\$ (1,662)	\$ (1,694)	\$ (1,726)	\$ (1,759)	\$ (1,792)	\$ (1,826)	\$ (1,861)	\$ (1,896)	\$ (1,932)	\$ (1,969)	\$ (2,007)	\$ (2,045)	\$ (2,083)	\$ (2,123)	Utilities	
\$ (20,902)	\$ (21,299)	\$ (21,704)	\$ (22,116)	\$ (22,536)	\$ (22,965)	\$ (23,401)	\$ (23,846)	\$ (24,299)	\$ (25,087)	\$ (25,231)	\$ (25,710)	\$ (26,199)	\$ (26,697)	\$ (27,205)	\$ (27,721)	\$ (28,247)	\$ (28,784)	\$ (29,331)	\$ (29,888)	Operating Expense Total	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Operating Income	
\$ 13,043	\$ 15,901	\$ 18,813	\$ 21,781	\$ (509,180)	\$ 27,886	\$ 31,026	\$ 34,226	\$ 37,486	\$ (185,307)	\$ 44,194	\$ 47,644	\$ 51,160	\$ 54,742	\$ (190,037)	\$ 62,112	\$ 65,902	\$ 69,765	\$ 73,700	\$ 215,090	Operating Income Total	
21	22	23	24	25	26	27	28	29	30	Non Operating Expenses											
\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	Depreciation	
\$ -	\$ -	\$ -	\$ -	\$ 109,077	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 119,840	\$ -	\$ -	\$ -	\$ -	\$ 131,666	\$ -	\$ -	\$ -	\$ -	AIP Grants	
\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 246,456	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 257,220	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 269,045	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	Misc. (Interest, Bond, etc.)	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Non Operating Expense Total	
Cash Flow																					
Capital Investment																					
\$ 150,422	\$ 153,280	\$ 156,192	\$ 159,160	\$ (262,724)	\$ 165,266	\$ 168,406	\$ 171,605	\$ 174,866	\$ 71,912	\$ 181,574	\$ 185,024	\$ 188,539	\$ 192,121	\$ 79,009	\$ 199,491	\$ 203,282	\$ 207,144	\$ 211,080	\$ 215,090	Annual Cash Flow	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	IRR,NPV	
Internal Rate of Return																					
Net Present Value- 30 years																					

APPENDIX C

February 10, 2020



PRO FORMA TABLE C5
Scenario 5, Market Rate, TTAD funds 100%

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Period	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Operating Revenues																					
Rent/ SF Escalation per Month	\$ 0.5278	\$ 0.5378	\$ 0.5480	\$ 0.5585	\$ 0.5691	\$ 0.5799	\$ 0.5909	\$ 0.6021	\$ 0.6136	\$ 0.6252	\$ 0.6371	\$ 0.6492	\$ 0.6615	\$ 0.6741	\$ 0.6869	\$ 0.7000	\$ 0.7133	\$ 0.7268	\$ 0.7406	\$ 0.7547	\$ 0.7690
Gross Super T-hangar Rent		\$ 167,286	\$ 170,465	\$ 173,703	\$ 177,004	\$ 180,367	\$ 183,794	\$ 187,286	\$ 190,844	\$ 194,470	\$ 198,165	\$ 201,930	\$ 205,767	\$ 209,677	\$ 213,660	\$ 217,720	\$ 221,857	\$ 226,072	\$ 230,367	\$ 234,744	\$ 239,204
Vacancy 5%		\$ (8,364)	\$ (8,523)	\$ (8,685)	\$ (8,850)	\$ (9,018)	\$ (9,190)	\$ (9,364)	\$ (9,542)	\$ (9,724)	\$ (9,908)	\$ (10,097)	\$ (10,288)	\$ (10,484)	\$ (10,683)	\$ (10,886)	\$ (11,093)	\$ (11,304)	\$ (11,518)	\$ (11,737)	\$ (11,960)
Net Super T-hangar Rent		\$ 158,922	\$ 161,941	\$ 165,018	\$ 168,154	\$ 171,348	\$ 174,604	\$ 177,922	\$ 181,302	\$ 184,747	\$ 188,257	\$ 191,834	\$ 195,479	\$ 199,193	\$ 202,977	\$ 206,834	\$ 210,764	\$ 214,768	\$ 218,849	\$ 223,007	\$ 227,244
Depreciation (Non-cash)		\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)
Operating Revenue Total		\$ 21,542	\$ 24,562	\$ 27,639	\$ 30,774	\$ 33,969	\$ 37,225	\$ 40,542	\$ 43,923	\$ 47,367	\$ 50,877	\$ 54,454	\$ 58,099	\$ 61,813	\$ 65,598	\$ 69,455	\$ 73,384	\$ 77,389	\$ 81,470	\$ 85,628	\$ 89,865
Operating Expenses	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Management (4%)		\$ (6,357)	\$ (6,478)	\$ (6,601)	\$ (6,726)	\$ (6,854)	\$ (6,984)	\$ (7,117)	\$ (7,252)	\$ (7,390)	\$ (7,530)	\$ (7,673)	\$ (7,819)	\$ (7,968)	\$ (8,119)	\$ (8,273)	\$ (8,431)	\$ (8,591)	\$ (8,754)	\$ (8,920)	\$ (9,090)
Bank/Credit Card Fees (2.25%)		\$ (3,576)	\$ (3,644)	\$ (3,713)	\$ (3,783)	\$ (3,855)	\$ (3,929)	\$ (4,003)	\$ (4,079)	\$ (4,157)	\$ (4,236)	\$ (4,316)	\$ (4,398)	\$ (4,482)	\$ (4,567)	\$ (4,654)	\$ (4,742)	\$ (4,832)	\$ (4,924)	\$ (5,018)	\$ (5,113)
Facility Maintenance Routine		\$ (3,567)	\$ (3,634)	\$ (3,703)	\$ (3,774)	\$ (3,845)	\$ (3,918)	\$ (3,993)	\$ (4,069)	\$ (4,146)	\$ (4,225)	\$ (4,305)	\$ (4,387)	\$ (4,470)	\$ (4,555)	\$ (4,642)	\$ (4,730)	\$ (4,820)	\$ (4,911)	\$ (5,005)	\$ (5,100)
Facility Maintenance - Periodic											\$ (18,106)					\$ (29,177)					\$ (21,856)
Pavement Maintenance						\$ (124,766)					\$ (137,078)					\$ (150,605)					\$ (1,720,900.03)
Insurance		\$ (2,411)	\$ (2,457)	\$ (2,503)	\$ (2,551)	\$ (2,599)	\$ (2,649)	\$ (2,699)	\$ (2,750)	\$ (2,803)	\$ (2,856)	\$ (2,910)	\$ (2,966)	\$ (3,022)	\$ (3,079)	\$ (3,138)	\$ (3,197)	\$ (3,258)	\$ (3,320)	\$ (3,383)	\$ (3,447)
Utilities		\$ (1,019)	\$ (1,038)	\$ (1,058)	\$ (1,141)	\$ (1,099)	\$ (1,120)	\$ (1,141)	\$ (1,163)	\$ (1,185)	\$ (1,207)	\$ (1,230)	\$ (1,253)	\$ (1,277)	\$ (1,301)	\$ (1,326)	\$ (1,351)	\$ (1,377)	\$ (1,403)	\$ (1,430)	\$ (1,457)
Operating Expense Total		\$ (16,929)	\$ (17,251)	\$ (17,578)	\$ (17,912)	\$ (183,019)	\$ (18,600)	\$ (18,953)	\$ (19,313)	\$ (19,680)	\$ (175,238)	\$ (20,435)	\$ (20,823)	\$ (21,219)	\$ (21,622)	\$ (201,814)	\$ (22,452)	\$ (22,878)	\$ (23,313)	\$ (23,756)	\$ (1,766,963)
Operating Income	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Operating Income Total		\$ 4,613	\$ 7,311	\$ 10,060	\$ 12,862	\$ (109,050)	\$ 18,625	\$ 21,589	\$ 24,609	\$ 27,687	\$ (124,361)	\$ 34,019	\$ 37,276	\$ 40,594	\$ 43,976	\$ (132,360)	\$ 50,933	\$ 54,511	\$ 58,157	\$ 61,872	\$ (1,677,099)
Non-Operating Revenues (Expenses)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Depreciation		\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379
AIP Grants		\$ -	\$ -	\$ -	\$ -	\$ 74,860	\$ -	\$ -	\$ -	\$ -	\$ 82,247	\$ -	\$ -	\$ -	\$ -	\$ 90,363	\$ -	\$ -	\$ -	\$ -	\$ 1,032,540
Misc. (Interest, Bond, etc.)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non Operating Revenue (Expense) Total		\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 212,239	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 219,626	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 227,742	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 1,169,920
Cash Flow	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Capital Investment	\$ (5,357,800)																				
Annual Cash Flow	\$ (5,357,800)	\$ 141,993	\$ 144,691	\$ 147,440	\$ 150,241	\$ 103,189	\$ 156,004	\$ 158,969	\$ 161,989	\$ 165,067	\$ 95,265	\$ 171,399	\$ 174,655	\$ 177,974	\$ 181,355	\$ 95,383	\$ 188,312	\$ 191,890	\$ 195,536	\$ 199,251	\$ (507,179)
IRR,NPV	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Internal Rate of Return	1.08%																				
Net Present Value- 40 years	\$ 97,629																				

2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	Year
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Period
																				Operating Revenues
\$ 0.7837	\$ 0.7985	\$ 0.8137	\$ 0.8292	\$ 0.8449	\$ 0.8610	\$ 0.8773	\$ 0.8940	\$ 0.9110	\$ 0.9283	\$ 0.9460	\$ 0.9639	\$ 0.9822	\$ 1.0009	\$ 1.0199	\$ 1.0393	\$ 1.0590	\$ 1.0792	\$ 1.0997	\$ 1.1206	Rent/ SF Escalation per Month
\$ 243,749	\$ 248,381	\$ 253,100	\$ 257,909	\$ 262,809	\$ 267,802	\$ 272,891	\$ 278,076	\$ 283,359	\$ 288,743	\$ 294,229	\$ 299,819	\$ 305,516	\$ 311,321	\$ 317,236	\$ 323,263	\$ 329,405	\$ 335,664	\$ 342,042	\$ 348,540	Gross Super T-hangar Rent
\$ (12,187)	\$ (12,419)	\$ (12,655)	\$ (12,895)	\$ (13,140)	\$ (13,390)	\$ (13,645)	\$ (13,904)	\$ (14,168)	\$ (14,437)	\$ (14,711)	\$ (14,991)	\$ (15,276)	\$ (15,566)	\$ (15,862)	\$ (16,163)	\$ (16,470)	\$ (16,783)	\$ (17,102)	\$ (17,427)	Vacancy 5%
\$ 231,562	\$ 235,962	\$ 240,445	\$ 245,013	\$ 249,669	\$ 254,412	\$ 259,246	\$ 264,172	\$ 269,191	\$ 274,306	\$ 279,517	\$ 284,828	\$ 290,240	\$ 295,755	\$ 301,374	\$ 307,100	\$ 312,935	\$ 318,881	\$ 324,939	\$ 331,113	Net Super T-hangar Rent
\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	\$ (137,379)	Depreciation (Non-cash)
\$ 94,182	\$ 98,582	\$ 103,065	\$ 107,634	\$ 112,289	\$ 117,033	\$ 121,867	\$ 126,792	\$ 131,812	\$ 136,926	\$ 142,138	\$ 147,449	\$ 152,861	\$ 158,375	\$ 163,994	\$ 169,721	\$ 175,555	\$ 181,501	\$ 187,560	\$ 331,113	Operating Revenue Total
																				Operating Expenses
\$ (9,262)	\$ (9,438)	\$ (9,618)	\$ (9,801)	\$ (9,987)	\$ (10,176)	\$ (10,370)	\$ (10,567)	\$ (10,768)	\$ (10,972)	\$ (11,181)	\$ (11,393)	\$ (11,610)	\$ (11,830)	\$ (12,055)	\$ (12,284)	\$ (12,517)	\$ (12,755)	\$ (12,998)	\$ (13,245)	Management (4%)
\$ (5,210)	\$ (5,309)	\$ (5,410)	\$ (5,513)	\$ (5,618)	\$ (5,724)	\$ (5,833)	\$ (5,944)	\$ (6,057)	\$ (6,172)	\$ (6,289)	\$ (6,409)	\$ (6,530)	\$ (6,654)	\$ (6,781)	\$ (6,910)	\$ (7,041)	\$ (7,175)	\$ (7,311)	\$ (7,450)	Bank/Credit Card Fees (2.25%)
\$ (5,197)	\$ (5,295)	\$ (5,396)	\$ (5,499)	\$ (5,603)	\$ (5,709)	\$ (5,818)	\$ (5,929)	\$ (6,041)	\$ (6,156)	\$ (6,273)	\$ (6,392)	\$ (6,514)	\$ (6,637)	\$ (6,763)	\$ (6,892)	\$ (7,023)	\$ (7,156)	\$ (7,292)	\$ (7,431)	Facility Maintenance Routine
				\$ (352,190)					\$ (26,383)					\$ (28,986)						Facility Maintenance - Periodic
				\$ (181,794)					\$ (199,733)					\$ (219,443)						Pavement Maintenance
\$ (3,513)	\$ (3,580)	\$ (3,648)	\$ (3,717)	\$ (3,788)	\$ (3,860)	\$ (3,933)	\$ (4,008)	\$ (4,084)	\$ (4,161)	\$ (4,240)	\$ (4,321)	\$ (4,403)	\$ (4,487)	\$ (4,572)	\$ (4,659)	\$ (4,747)	\$ (4,838)	\$ (4,930)	\$ (5,023)	Insurance
\$ (1,485)	\$ (1,513)	\$ (1,542)	\$ (1,571)	\$ (1,601)	\$ (1,631)	\$ (1,662)	\$ (1,694)	\$ (1,726)	\$ (1,759)	\$ (1,792)	\$ (1,826)	\$ (1,861)	\$ (1,896)	\$ (1,932)	\$ (1,969)	\$ (2,007)	\$ (2,045)	\$ (2,083)	\$ (2,123)	Utilities
\$ (24,667)	\$ (25,136)	\$ (25,613)	\$ (26,100)	\$ (26,580)	\$ (27,101)	\$ (27,616)	\$ (28,141)	\$ (28,675)	\$ (29,215)	\$ (29,755)	\$ (30,341)	\$ (30,918)	\$ (31,505)	\$ (280,533)	\$ (32,714)	\$ (33,335)	\$ (33,969)	\$ (34,614)	\$ (35,272)	Operating Expense Total
																				Operating Income
\$ 69,515	\$ 73,446	\$ 77,452	\$ 81,534	\$ (448,291)	\$ 89,932	\$ 94,251	\$ 98,652	\$ 103,136	\$ (118,410)	\$ 112,363	\$ 117,108	\$ 121,943	\$ 126,870	\$ (116,538)	\$ 137,007	\$ 142,220	\$ 147,533	\$ 152,946	\$ 295,842	Operating Income Total
																				Non Operating Expenses
\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	Depreciation
\$ -	\$ -	\$ -	\$ -	\$ 109,077	\$ -	\$ -	\$ -	\$ -	\$ 119,840	\$ -	\$ -	\$ -	\$ -	\$ 131,666	\$ -	\$ -	\$ -	\$ -	\$ -	AIP Grants
																				Misc. (Interest, Bond, etc.)
\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 246,456	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 257,220	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ 269,045	\$ 137,379	\$ 137,379	\$ 137,379	\$ 137,379	\$ -	Non Operating Expense Total
																				Cash Flow
\$ 206,895	\$ 210,826	\$ 214,832	\$ 218,913	\$ (201,835)	\$ 227,311	\$ 231,630	\$ 236,031	\$ 240,516	\$ 138,809	\$ 249,742	\$ 254,487	\$ 259,322	\$ 264,249	\$ 152,507	\$ 274,386	\$ 279,600	\$ 284,912	\$ 290,325	\$ 295,842	Capital Investment
																				Annual Cash Flow
																				IRR,NPV
																				Internal Rate of Return
																				Net Present Value- 30 years



Aviation Management
Consulting Group

Airport Rent Study Summary

Mead & Hunt

Truckee Tahoe Airport

PROPOSED SUPER T-HANGARS

February 11, 2020

I.	AIRPORT RENT STUDY SUMMARY	1
A.	Scope of Work.....	1
B.	Market Rent Defined	1
C.	Project Approach.....	1
D.	Key Underlying Assumptions	2
E.	Proposed Super T-Hangar Overview	3
F.	Study Findings	4
G.	Rental Rate Conclusion	5
H.	Rental Rate Summary	6
II.	APPENDIX.....	7
A.	Definitions	7
B.	Limiting Conditions.....	7

I. AIRPORT RENT STUDY SUMMARY**A. Scope of Work**

This Airport Rent Study Summary conveys Aviation Management Consulting Group's (AMCG's) opinion of market rent for the proposed Super T-Hangars at the Truckee Tahoe Airport (Airport) which, upon development, will be available for lease from the Truckee Tahoe Airport District (District).

B. Market Rent Defined

Market rent is defined as the most probable rent which a property should bring in a competitive and open market (i.e., willing lessor and willing lessee) reflecting the terms and conditions of a specified lease agreement, including the rental adjustment mechanisms, permitted uses, use restrictions, expense obligations, term, concessions, renewal and purchase options, and tenant improvements.

AMCG understands, as outlined in the Airport's *General Aviation Leasing/Rents and Fees Policy*, rental rates are adjusted on annual basis based on the change in the Airport Economic Index (AEI). The AEI is a composite index of five variables: number of based aircraft, number of air taxi operations, general aviation itinerant operations, general aviation fuel volumes, and Consumer Price Index.

C. Project Approach

To achieve the scope of work, AMCG completed the following work plan:

1. developed a profile of the Airport;
2. identified comparable, resort destination, and competitive airports utilizing the profile of the Airport;
3. obtained rental rates (and related information) for aeronautical uses from the Airport and identified airports;
4. analyzed the data obtained from the Airport and identified airports;
5. analyzed national and regional data; and
6. developed an opinion of market rent for the proposed Super T-Hangars based on the preceding analysis in conjunction with Limiting Conditions outlined in the Appendix.

In drawing opinions of market rent for the proposed Super T-Hangars, consideration was given to those factors that typically affect market rents for aeronautical properties (e.g., property use, attributes, restrictions, limitations, etc.). Beyond this, AMCG's opinion of market rent for the proposed Super T-Hangars has been formed based on a comparative analysis of current rents for aeronautical properties at national, regional, comparable, resort destination, competitive airports, and the Airport. It is noteworthy that the rental rates currently being charged at the Airport were not included in the national, regional, comparable, resort destination, or competitive market rents but were utilized as a point of reference to derive the opinion of market rent conveyed in this summary report.

Market rents for off-airport, non-aeronautical properties were not utilized as this approach is highly problematic due to the different types of land use. The adjustment between off-airport, non-aeronautical properties and aeronautical-use properties would have to reflect the fact that these uses do not exhibit the same bundle of rights. It is very difficult, if not impossible, to determine the adjustment applied to unencumbered off-airport, non-aeronautical rental rates to reflect the constraints imposed by the Federal Aviation Administration (FAA), the airport owner/operator, and/or others pertaining to the development and/or use of aeronautical properties.

When rendering an opinion of market rents for aeronautical-use properties, the cost of the real property (land and/or improvements) and desired rates of return are not typically considered unless analyzing new or proposed improvements. While these factors may be considered when rendering an opinion of market rents for off-airport, non-aeronautical properties or may be considered by real estate investors, these factors are not generally consistent with the realities of the prevailing market for aeronautical-use properties. However, consistent with the scope of work, AMCG's opinion of market rent was not based on the cost of real property or desired rates of return.

D. Key Underlying Assumptions

The market rent opinion conveyed in this Airport Rent Study Summary is based on the lessee having full and continued access to the Airport's airside and landside infrastructure. Additionally, the analysis was based on an evaluation of modified gross lease rates¹ (as applicable to the proposed Super T-Hangars).

Market rents are driven by the amount a willing buyer (lessee) pays to a willing seller (lessor). To the extent that local economic factors affect rental rates at the national, regional, comparable, resort destination, and competitive airports, these economic factors will be reflected in the rental rate conclusions. To derive the market rent opinion for the proposed Super T-Hangars, AMCG has identified and analyzed (on a comparative basis) the rents being charged and paid for similar properties (by component) at a cross-section of airports that are considered most comparable to the Airport.

AMCG recognizes that there are differences between the Airport and the comparable airports. Some of the comparable airports exhibit superior characteristics and some exhibit inferior characteristics. In an effort to identify airports that were considered most comparable to the Airport and to draw conclusions that reflect the conditions at the Airport, the comparable airports were compared with the Airport using a number of aeronautical activity and infrastructure indicators.

¹ Modified gross lease rates, by definition, occur when the lessor pays for a portion of maintenance, utilities, insurance, and/or taxes associated with the subject property.

It is AMCG's experience that aeronautical activity and infrastructure indicators at airports typically run parallel to local market (economic) indicators. Therefore, it is reasonable to assume that the airports identified as being comparable to the Airport (based on the selection criteria) will be located in markets that have economic and demographic characteristics that are similar to the subject market. As such, a separate analysis of local market (economic) indicators at comparable airports was not deemed necessary in this case.

E. Proposed Super T-Hangar Overview

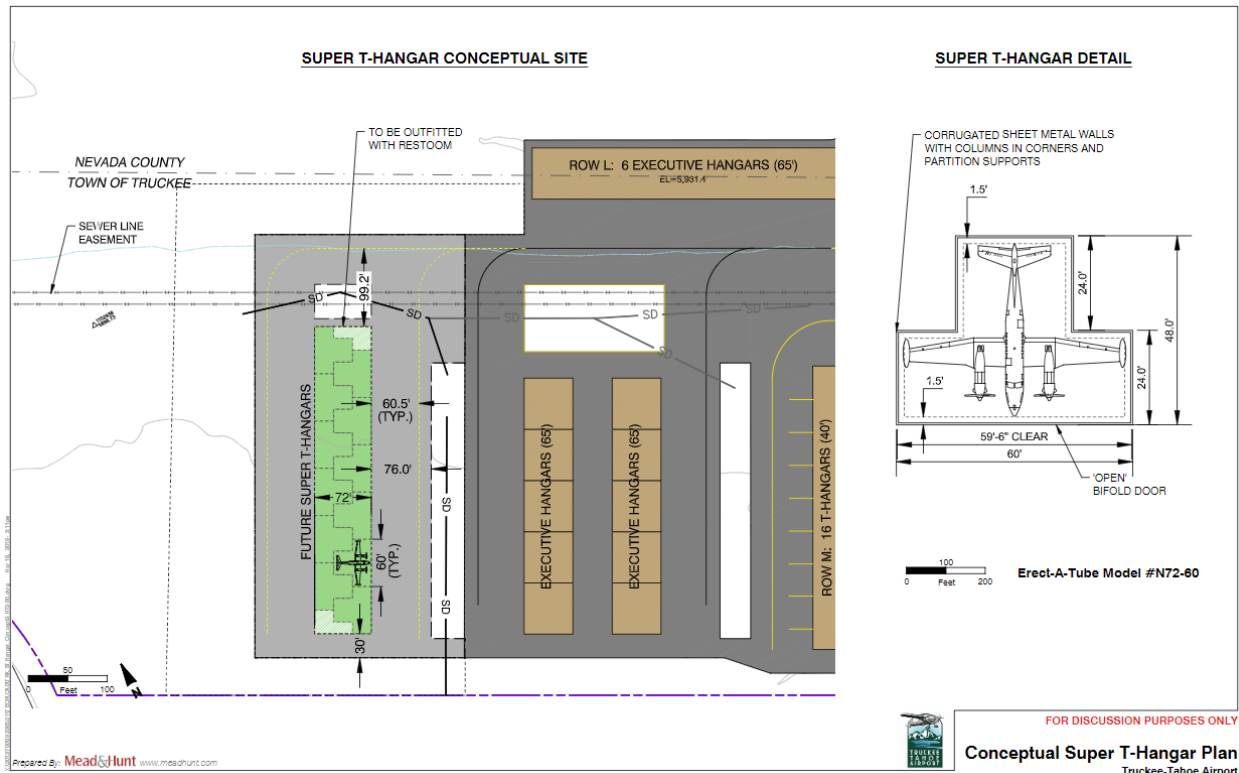
Super T-Hangars (or Extra Large T-Hangars) by definition, are typically greater than 2,000 square feet with a door width of 55 feet and greater and can accommodate most cabin class turbine-powered aircraft (e.g., King Air 200 and 350; Citation 550; Pilatus PC-12; etc.). AMCG understands the proposed hangar development will consist of one row of 12 units as follows:

Table 1 – Proposed Super T-Hangar Summary

Proposed Super T-Hangar Summary					
Size (SF)	Door		Access	Amenities	Condition
Per Unit	Width (FT)	Height (FT)			
2,160 +/-	60	16	Good	Good	New/Excellent

It is AMCG's understanding the proposed Super T-Hangars will be fully divided, have a metal exterior, steel frame internal structure compliant with snow load requirements, concrete floor, and bi-fold doors. The hangars will also have lighting and electrical service. Figure 1 depicts a building site plan of the proposed Super T-Hangars prepared by Mead & Hunt.

Figure 1 – Proposed Super T-Hangar Site Plan



F. Study Findings

In order to derive an opinion of market rent for the proposed Super T-Hangars, information and data from similar properties at the Airport and comparable, resort destination, and competitive airports was analyzed. In addition, rents obtained from more than 550 airports located throughout the United States were analyzed as well as rents obtained from more than 90 airports in the FAA Western-Pacific Region (consisting of Arizona, California, Hawaii, and Nevada)² were analyzed.

Table 2 provides a summary and statistical analysis of the findings for Super T-Hangars at national, regional, comparable, resort destination, and competitive airports.

Table 2 – Super T-Hangar (or Extra Large T-Hangar) Data Summary

Super T-Hangar (or Extra Large T-Hangar) Data Summary							
Data Points	Component	Minimum	Maximum	Mean	Standard Deviation	Median	Range
16	National Airports	\$155.75	\$2,574.00	\$1,020.08	\$799.22	\$753.50	\$2,418.25
11	Regional Airports	\$240.00	\$2,574.00	\$1,194.86	\$899.29	\$774.00	\$2,334.00
0	Comparable Airports	N/A	N/A	N/A	N/A	N/A	N/A
0	Resort Destination Airports	N/A	N/A	N/A	N/A	N/A	N/A
0	Competitive Airports	N/A	N/A	N/A	N/A	N/A	N/A

Rental rates are “per unit per month” (pu/mo)

² While American Samoa, Commonwealth of the Northern Mariana Islands, and Guam are included in the FAA Western-Pacific Region, rents from airports in these territories were not included or analyzed.

As outlined in Table 2, rental rates and related information were not available for Super T-Hangar from comparable, resort destination, or competitive airports due to the uniqueness of this property. Typically, aircraft that can be accommodated in a Super T-Hangar are accommodated in an Executive Hangar³ which provides the tenant and airport move flexibility.

As such and in addition to the above findings, information and data for Large T-Hangars⁴ and Executive Hangars was also considered due to the ability of these hangars to accommodate similar aircraft types. Table 3 and Table 4 outline a summary and statistical analysis of the findings for Large T-Hangars and Executive Hangar at national, regional, comparable, resort destination, and competitive airports.

Table 3 – Large T-Hangar Data Summary

Large T-Hangar Data Summary							
Data Points	Component	Minimum	Maximum	Mean	Standard Deviation	Median	Range
103	National Airports	\$110.00	\$884.21	\$426.93	\$174.07	\$400.00	\$774.21
37	Regional Airports	\$200.00	\$775.00	\$467.84	\$147.96	\$440.50	\$575.00
3	Comparable Airports	\$390.00	\$700.00	\$503.00	\$171.22	\$419.00	\$310.00
3	Resort Destination Airports	\$335.00	\$637.00	\$527.00	\$166.87	\$609.00	\$302.00
6	Competitive Airports	\$335.00	\$637.00	\$508.50	\$122.63	\$532.50	\$302.00

Rental rates are “per unit per month” (pu/mo)

Table 4 – Executive Hangar Data Summary

Executive Hangar Data Summary							
Data Points	Component	Minimum	Maximum	Mean	Standard Deviation	Median	Range
239	National Airports	\$0.004	\$0.71	\$0.25	\$0.15	\$0.24	\$0.70
115	Regional Airports	\$0.01	\$0.71	\$0.28	\$0.14	\$0.27	\$0.69
4	Comparable Airports	\$0.10	\$0.40	\$0.29	\$0.14	\$0.34	\$0.30
21	Resort Destination Airports	\$0.14	\$0.52	\$0.30	\$0.11	\$0.29	\$0.37
7	Competitive Airports	\$0.28	\$0.52	\$0.40	\$0.08	\$0.41	\$0.24

Rental rates are “per square foot per month” (psf/mo)

G. Rental Rate Conclusion

The conclusion of AMCG's opinion of market rent is based on the analysis of the proposed Super T-Hangars and the rent being charged for similar properties at the Airport and national, regional, comparable, resort destination, and competitive airports. The market rental rate conclusions are conveyed on a “per unit per month” (pu/mo) basis.

Based on analyzing all available data, a base rental rate of \$950.00 pu/mo (\$0.4398 psf/mo) was derived.

³ Executive Hangar is a square or rectangular-shaped hangar designed to accommodate the proprietary aircraft operations of a single company or individual. Executive hangars (ranging in size from 50 feet by 50 feet to upwards of 100 feet by 100 feet) are typically larger than T-Hangars, smaller than Community Hangars, and may have associated shop, office, and storage areas.

⁴ Large T-Hangars typically range from 1,300 square feet up to 2,000 square feet with a door width ranging from 45 feet up to 55 feet and a door height which can accommodate most multi-engine piston-powered aircraft and similarly sized turbine-powered aircraft (e.g., Cessna 421, King Air 90, Piper Cheyenne, Piper Malibu, etc.).

Utilizing the base rental rate and predicated on adjustments for access, amenities, and condition, the estimated rental rate conclusions are outlined in Table 5.

Table 5 – Proposed Super T-Hangar Conclusions Summary

Proposed Super T-Hangar Conclusions Summary								
Number of Units	Base Rental Rate		Adjustments			Calculated Result	Market Rent Opinion	
	pu/mo	psf/mo	Access	Amenities	Condition		pu/mo	psf/mo
12	\$950.00	\$0.4398	5%	5%	10%	\$1,140.00	\$1,140.00	\$0.5278

H. Rental Rate Summary

As conveyed in Table 6, the total rent (on an annual basis for the proposed Super T-Hangars), which is based on the market rent opinion, would be \$164,160.

Table 6 – Rental Rate Summary

Rental Rate Summary				
Component	Number of Units	Market Rent Opinion		Total Annual Rent
		pu/mo	psf/mo	
Proposed Super T-Hangar	12	\$1,140.00	\$0.5278	\$164,160

II. APPENDIX

A. Definitions

- Executive Hangar – A square or rectangular-shaped hangar designed to accommodate the proprietary aircraft operations of a single company or individual. Executive Hangars (ranging in size from 50 feet by 50 feet to upwards of 100 feet by 100 feet) are typically larger than T-Hangars, smaller than Community Hangars, and may have associated shop, office, and storage areas.
- Median – Value wherein half of the data points in the number series are below while half of the data points in the number series are above.
- Minimum – Minimum value present in the data range.
- Maximum – Maximum value present in the data range.
- Mean – Arithmetic average of all data in the data range.
- Range – Mathematical difference between the maximum and minimum values of the data range.
- Standard Deviation – Statistical method designed to mathematically measure the variability in a set of data points. The calculated figure for standard deviation is indicative of the relative distance between the mean and every data point. For a normally distributed data range, approximately 68% of the data points would fall within one standard deviation of the mean, as illustrated by a normal bell curve. Similarly, approximately 95% of the data points would fall within two standard deviations, while approximately 99.7% of the data points would fall within three standard deviations of the mean. Assuming the data points from the airports are representative of the population and the population follows a normal bell curve, the calculated standard deviation values would illustrate the relative variability in data points (i.e., how close these data points are to the mean).
- T-Hangar - A hangar that typically has the capacity to store only one aircraft, usually not larger than a cabin class multi-engine aircraft. This type of hangar derives its name from its shape (in the form of a “T”) which increases the efficiency of the design so as to accommodate the wing span and the tail section of an aircraft. T-hangars may be stand-alone structures or they may be combined and “nested” so that the tail sections of the “T” configuration interlock to form a single congruous structure.
 - Large T-Hangar - Typically range from 1,300 square feet up to 2,000 square feet with a door width ranging from 45 feet up to 55 feet and a door height which can accommodate most multi-engine piston-powered aircraft and similarly sized turbine-powered aircraft (e.g., Cessna 421, King Air 90, Piper Cheyenne, Piper Malibu, etc.).
 - Super T-Hangar (or Extra Large T-Hangar) - Typically more than 2,000 square feet with a door width of 55 feet and greater and a door height which can accommodate most cabin class turbine-powered aircraft (e.g., King Air 200 and 350; Citation 550; Pilatus PC-12; etc.).

B. Limiting Conditions

This report is subject to the following conditions and to other specific and limiting conditions as described by Aviation Management Consulting Group, Inc. (AMCG) in this report.

1. AMCG assumes no responsibility for matters legal in nature affecting the proposed Super T-Hangars, nor does AMCG render any opinion as to the title of the proposed Super T-Hangars, which are assumed will be good and marketable. The proposed Super T-Hangars have been analyzed as though free and clear and held under responsible ownership and competent management.
2. Information, estimates, and opinions furnished to AMCG and contained in this report were obtained from sources considered to be reliable and are believed to be true and correct. However, AMCG assumes no responsibility for their accuracy.
3. Although dimensions were taken from a source considered reliable, this should not be construed as a survey. A licensed engineer or surveyor should verify the exact size and legal description.
4. Sketches presented in this report may show approximate dimensions and are included to assist the reader in visualizing the proposed Super T-Hangars. AMCG assumes no responsibility for the accuracy and will not conduct a survey of the proposed Super T-Hangars.

5. Unless noted in this report, the rental rate opinions do not include contributory value of any personal property, furniture, fixtures, equipment, or on-going business value.
6. It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the proposed Super T-Hangars and that there is no encroachment or trespass unless noted in this report.
7. This report is prepared for the sole, exclusive use of the client and Airport. No third parties are authorized to rely on this report without the prior written consent of AMCG, the client, and the Airport.
8. It is assumed that all applicable zoning and use regulations will be complied with unless non-conformity was stated, defined, and considered in this report.
9. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or federal government or private entity or organization will be obtained or renewed for any use on which the rental rate conclusions are based.
10. Full compliance with all applicable federal, state, and local environmental regulations and laws is assumed unless noncompliance is stated, defined, and considered in this report.
11. In this assignment, the existence of potentially hazardous material, gases, toxic waste, and mold, which may or may not be present on the proposed site, nor does AMCG have any knowledge of the existence of such materials on the proposed site. To AMCG's knowledge, the presence of potentially hazardous waste, materials, or gases has not been detected, or if detected, it has been determined that the amount or level is considered to be safe according to standards established by the Environmental Protection Agency (EPA). However, AMCG is not qualified to detect such substances and does not make any guarantees or warranties that the proposed site has been tested for the presence of potentially hazardous waste, gases, toxic waste, or mold and, if tested, that the tests were conducted pursuant to EPA-approved procedures. The existence of any potentially hazardous waste, gases, toxic waste, or mold may have an effect on the rental rate conclusions.
12. The American with Disabilities Act (ADA) became effective January 26, 1992. AMCG has not made a specific compliance survey and analysis of the proposed site or design to determine whether or not the proposed site or design are in conformity with the various detailed analysis of the requirements of the ADA. It is possible that a compliance survey of the proposed Super T-Hangars together with a detailed analysis of the requirements of the ADA could reveal that the proposed Super T-Hangars are not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative impact on the market rent conclusion. Since AMCG has no direct evidence relating to this issue, possible noncompliance with the requirements of the ADA was not considered in the rental rate conclusions.
13. AMCG assumes there are no hidden or unapparent conditions of the proposed site or subsoil that would render the proposed Super T-Hangars more or less valuable. AMCG assumes no responsibility for such conditions or for engineering that might be required to discover such factors.
14. No requirements shall be made of AMCG to give testimony or appear in court by reason of this report, unless arrangements have been made previously. If any courtroom or administrative testimony is required in connection with this report, additional fees and expenses shall be charged for those services.
15. Possession of this report, or copy hereof, does not carry with it the right of publication nor may it be used for any purpose whatsoever by any entity but the client without the prior written consent of AMCG and the client.
16. Neither all nor any part of the contents of this report shall be disseminated to the public through advertising media or public means of communication without the prior written consent of AMCG and the client.

SUPER T-HANGAR FINANCIAL STUDY

