Staff Report

FINDINGS OF AIRPORT USER MEETINGS
-AMES TERMINAL BUILDING PROJECT-

December 18, 2012

BACKGROUND:

On August 14, 2012, Staff presented a report to City Council summarizing potential funding sources for the new Terminal Building at the Ames Municipal Airport. The report concluded with a recommended to first hold public meetings to solicit feedback/input from various airport user groups as to the space needs of a new Terminal Building before identifying a funding strategy. These meetings would be used to develop a conceptual design along with a more accurate project cost.

The meetings focus on these themes; "How is the airport being used and/or not used today, and why?", "What are the future planning/programming needs in order to grow the Airport as a 'Gateway' to the community", and "What opportunities or interest exist for public/private partnership in order to meet our goals?".

OUTCOMES OF AIRPORT USER MEETINGS:

Over the course of the last several months Staff setup several large-group, small-group, and one-on-one meetings with the following user groups; Iowa State University (ISU), Private Hangar Owners, Corporate Jets, Business Charters, Light Sport – Recreational, Glider Club Members, Frequent Itinerant/Visitor Flights, and Ames Chamber and Visitor Convention Bureau.

One of the largest group of users was from ISU; these meetings were split amongst those departments who currently, or are interested in, using the Airport. This list included The ISU President's Office, ISU Research Park, ISU Athletics, ISU Facilities Planning & Management, ISU Foundation, ISU Business & Finance, and ISU Student Affairs.

Throughout this process ISU has shown a particularly high interest in the new Terminal Building and the Airport as a whole. During their meetings several key improvements were discussed by ISU Staff in order to meet the growing needs of the university; especially those improvements that will support the planned expansion of the ISU Research Park, which was identified as a high priority goal of ISU's current President, Steven Leath. Their feedback can be broken down into landside (buildings/facilities/services) and airside (runway/taxiways/navigation aids) needs.

Starting with the landside issues most, if not all, users felt the existing terminal building lacked the look and character visitors would expect from the Ames community – as a

metropolitan area, home of leading research/manufacturing industries, or the site of a major state university. **Suggestions that were offered focused on having a more modern feel with modern amenities while maintain a relaxing and inviting atmosphere.** One person suggested that the new terminal building needs to showcase Ames, emphasizing the "Town & Gown" relationship, and that Ames is a national/global leader in Science and Research. This perspective seems to coincide with the City Council's desire of making the airport a gateway to the community.

A majority of the feedback also focused on the use of the current building and how there is a significant lack of up-to-date pilot facilities. Many users commented on how important it will be to make the new terminal building a place that is inviting to pilots. The feedback emphasized the perspective that the pilots play a critical role in deciding whether to land at the Ames Airport verses surrounding airports. This is because pilots schedule the flight plans and are bound by various insurance requirements. These requirements can make or break a pilot's ability to land in Ames, especially during times of inclement weather.

Another critical issue that was brought to the attention of Staff was that the new terminal building needs to have overnight covered storage for aircraft through an attached hangar space. Business/Charter Aircraft represent a significant investment and cost to their owners; providing protection from weather such as snow, ice, hail and high-winds, as well as overnight security for these aircraft, as one user stated, "Shows that [the City] cares and appreciates them as a customer of the Ames Airport."

The previous report to City Council on Airport Funding emphasized that "airside" improvements (i.e. Runway, Taxiways, Air Nav-aids), once they are approved by the FAA, are eligible for 90% Federal assistance. It was noted that a terminal building does not qualify under this category. In all likelihood, the City should count on only $450,000 ($150,000 for each of the next three years) from Federal funds for a terminal/hanger building. This funding situation will be significant when developing a funding strategy for the identified Airport improvements and approaching potential funding partners.

User feedback also included airside issues. Users recognized the connection between landside and airside facilities so that as the Ames Airport grows so will the size and type of aircraft. **Therefore, there was an expression of support by some to lengthen Runway 01/19 in a range from 7,500 to 8,000 foot from its current length of 5,900 feet.** It was heard in all of the meetings that one of the biggest impediments to aircraft landing at Ames is when the runways are "contaminated" by various weather conditions there is a need for greater distances to land an aircraft. **Assuming adequate funding sources can be identified, a realistic time line for implementation of the improvements would be, at least, 8 years.**

While the input was meant to focus on capital improvements, the conversations did at times gravitate towards services, such as winter maintenance. **All the users voiced the desire for enhanced winter maintenance activities above what is currently being**

provided, specifically in the form of covered storage for the de-icing and for equipment based at the airport for de-icing of the runways. These concerns stem from pilots' insurance requirements related to breaking-action and the existing runway length. Other services that were identified as critical to the success of this project is having on-site service staff certified in the maintenance/repair of Jet Aircraft.

IDENTIFIED AIRPORT IMPROVEMENTS (BUDGET LEVEL COSTS):

Landside Facilities

Beginning with the Landside facilities, this report contains two conceptual layouts (for budgeting purposes only) created by Architectural Alliance of Minneapolis, MN for a new **Terminal Building** showing an **Attached Hangar**. Each concept identifies the relative space needs based upon user feedback. The main difference between these two concepts is the quality of the terminal space along with the location and function of the hangar space.

The Architect has put together a draft Building Program showing the minimum to ideal range of square-footages for each respective use along with three average cost ranges for construction (costs were derived from actual airport terminal projects similar in scale/scope to Ames):

Quality Level	Terminal Building	Hangar
Type A – "Gateway"	$434.00 / sf	---
Type B – "Quality Residential/Commercial"	$300.00 / sf	---
Type C – "Enhanced Industrial"	$250.00 / sf	$150 / sf
Type D – "Industrial" (pre-fab)	---	$100 / sf

Based upon feedback from the Airport User Meetings the anticipated range in square-footage for the new Terminal Building is from 5,885 to 7,290; the attached hangar is expected to be 12,000 square-feet (100' x 120'). This equates to the following estimated project costs:

Quality Level	Terminal Building	
	5,885 sf (min.)	7,290 sf (ideal)
Type A – "Gateway"	$2,554,090	$3,163,860
Type B – "Quality Residential/Commercial"	$1,765,500	$2,187,000
Type C – "Enhanced Industrial"	$1,471,250	$1,822,500
	Hangar	
Type C – "Enhanced Industrial"	$1,800,000	
Type D – "Industrial" (pre-fab)	$1,200,000	

It should be noted that the size of the Terminal Building, the attached Hangar, and their associated construction costs, are only to illustrate current market value for this type of improvement. These numbers are to facilitate a discussion regarding the ultimate scale and scope for this project. **Using this information, the City Council can provide direction to Staff as to what level of project they feel best matches the**

community's goal for the reconstruction of the Airport Terminal Building as well as the corresponding level of financial commitment that can be supported.

Airside Facilities
The main Airside facility identified in the user conversations involves a runway extension of approach 01 (to the south) to approximately 7,500 to 8,000 feet. This project will include several required steps per FAA requirements. It will also include an Environmental Assessment and Land Acquisition prior to construction.

Below are the steps with estimated total costs for each required phase (*all steps shown are eligible 90% Federal Funds except for the Runway Extension Justification):

Project Description	Step 1	Step 2	Step 3	Step 4	Step 5
Masterplan Update	$166,000				
Runway Extension Justification*	$4,000				
Environmental Assessment		$100,000			
Land Acquisition			$788,000		
Runway 01/19 Ext. Design & Grading				$1,095,000	
Road Relocation (S. Riverside)				$719,600	
Runway 01/19 Paving					$3,588,000
Estimated Local Match =	**$20,600**	**$10,000**	**$78,800**	**$181,510**	**$358,800**

It is difficult to predict the amount of time that will be needed to complete this project. The completion schedule will be impacted by the need for such items as environmental clearance or condemnation, if required.

Maintenance Issues
The final issue relates to enhancing winter maintenance. Currently the Ames Airport spends in the range of $30,000 to $60,000 annually depending on the severity of the winter experienced. This cost is based upon a competitive bidding process where a private contractor provides rates for each piece of equipment in order to meet the City's requirements. Each winter storm event is then billed according to the time it takes to properly clear the airport surfaces of snow. At this time, our contract does not include any type of ice control. The potential additional cost for increasing these services is highlighted below.

- <u>De-icing Runways</u>
  Typical materials such as sand and salt cannot be used under any circumstance for they would cause potentially serious damage to an aircraft. Therefore, we have to use Biodegradable Potassium Acetate (meeting FAA approved specifications) for deicing our runways. Each application of this material would take approximately 800 to 2,400 gallons. Cost could be minimized through anti-icing techniques which would take around 400 gallons per application. This equates to a cost range of $4,300 up to $25,500 per winter event involving icing. Similar to roadway maintenance, staff would track weather radar and choose the more cost effective option of "pre-wetting" the runway pavements to prevent ice buildup.

De-icing planes:
Current market pricing for de-icing fluid, most common form is Type I Propylene Glycol (PG), runs around $8 to $12 per dilute gallon. This equates to approximately $2,400 to $3,600 per business class of plane, 50 ft to 80 ft wingspan, which would most likely require deicing.

STAFF COMMENTS:

Airport user feedback indicates that there is a desire 1) for an Airport Terminal that will serve as an important gateway to the community, 2) for an Airport Terminal that will provide pilot amenities and aviation customer services, 3) for an extension of the Runway 01/19 to promote/facilitate the ongoing growth and use of the Airport, and 4) for improved service for winter maintenance of the runways.

Direction is needed from the City Council regarding the CIP which currently reflects a terminal project to be built in 2013/14 at a cost of $2,000,000 financed with $200,000 from Local Option Sales Tax funds and $1,800,000 from FAA grant funds. As indicated previously in the report, the level of funding from the FAA is not realistic.

With the new cost information provided in this report, the City Council must decide on the magnitude of the terminal project that should now be reflected in the CIP. The costs could range from $1,471,250 (for a "enhanced industrial" facility) to as much as $4,963,860 (for an "ideal" sized "gateway" terminal building) coupled with an "enhanced industrial" hangar.

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CITY OF ames

Ames Municipal Airport

New Executive Terminal Concept

Preliminary Program & Costs, December 18, 2012

Program elements	Square footage requirements, Basic	Ideal
Passenger Lounge, 40-50 people	900	***1,300***
Conference Room, 6-8 people	250	***400***
Coffee Bar	100	100
Lobby	600	600
Reception	200	200
Car rental	75	75
Airport Administration	550	550
Kitchenette	80	80
Line Room	220	220
Business Center	150	150
Training	600	***800***
Public Toilet Rooms	375	375
Pilot Lounge, with flight plan/weather station	400	***600***
Pilot toilet/Shower Room	100	100
Nap Room	120	120
Pilot Kitchenette/Storage	40	40
Mechanical, Electrical/Comm. Rooms Storage/Janitor Room	200	***300***
Circulation	700	***1,000***
Subtotal	*5,660*	*7,010*
Envelope /Structure	225	***280***
Total	**5,885**	**7,290**

schematic program/layout

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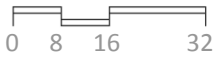
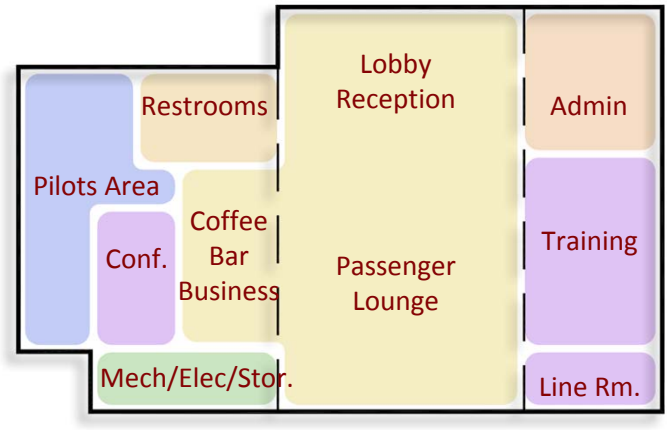
Program elements

- Passenger Lounge, 40-50 people
- Conference Room, 6-8 people
- Coffee Bar
- Lobby
- Reception
- Car rental
- Airport Administration
- Kitchenette
- Line Room
- Business Center
- Training
- Public Toilet Rooms
- Pilot Lounge, with flight plan/weather station
- Pilot toilet/Shower Room
- Nap Room
- Pilot Kitchenette/Storage
- Mechanical, Electrical/Comm. Rooms Storage/Janitor Room
- Circulation





+- 6,500 s.f.

schematic layout / existing

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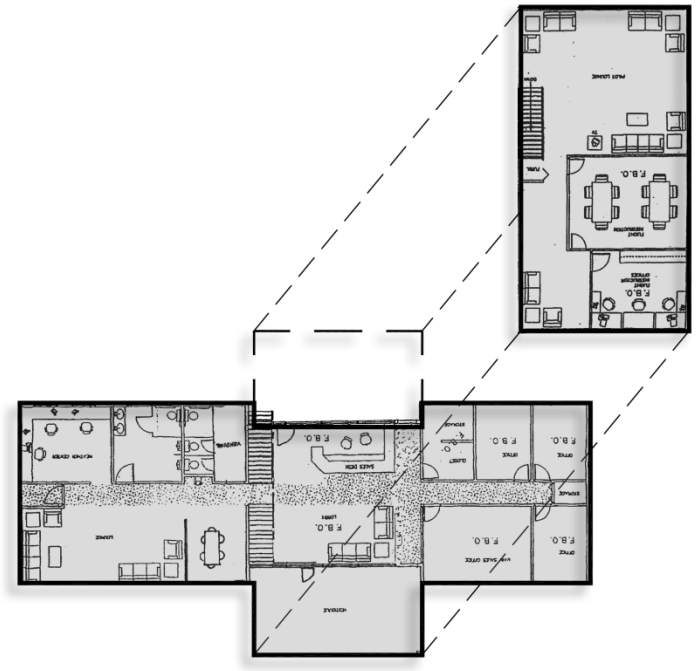

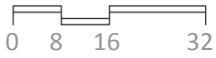

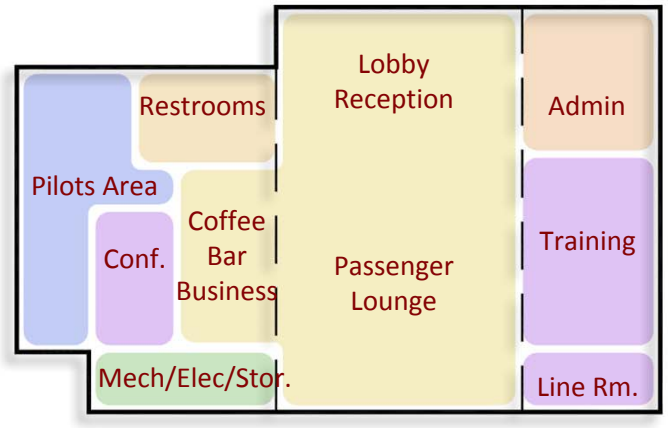

existing +- 4,600 s.f.

(not including basement)

+- 6,500 s.f.

schematic layout – with hangar

variation 1

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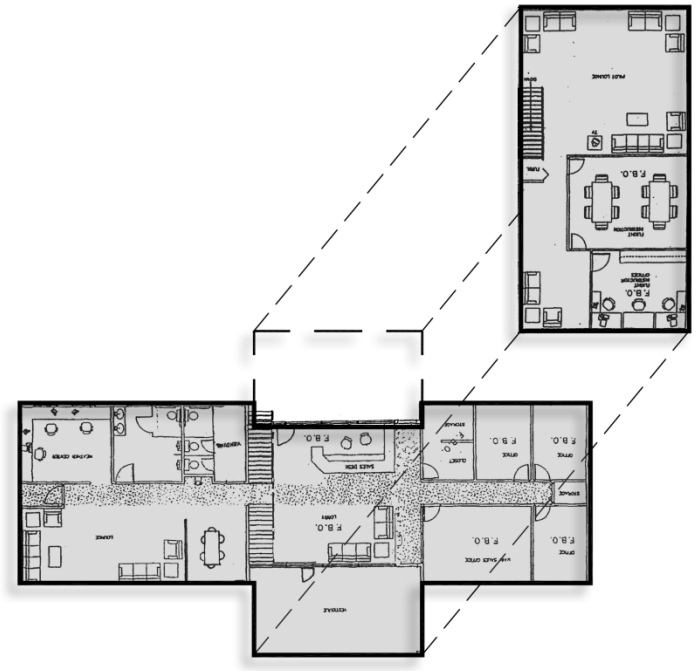
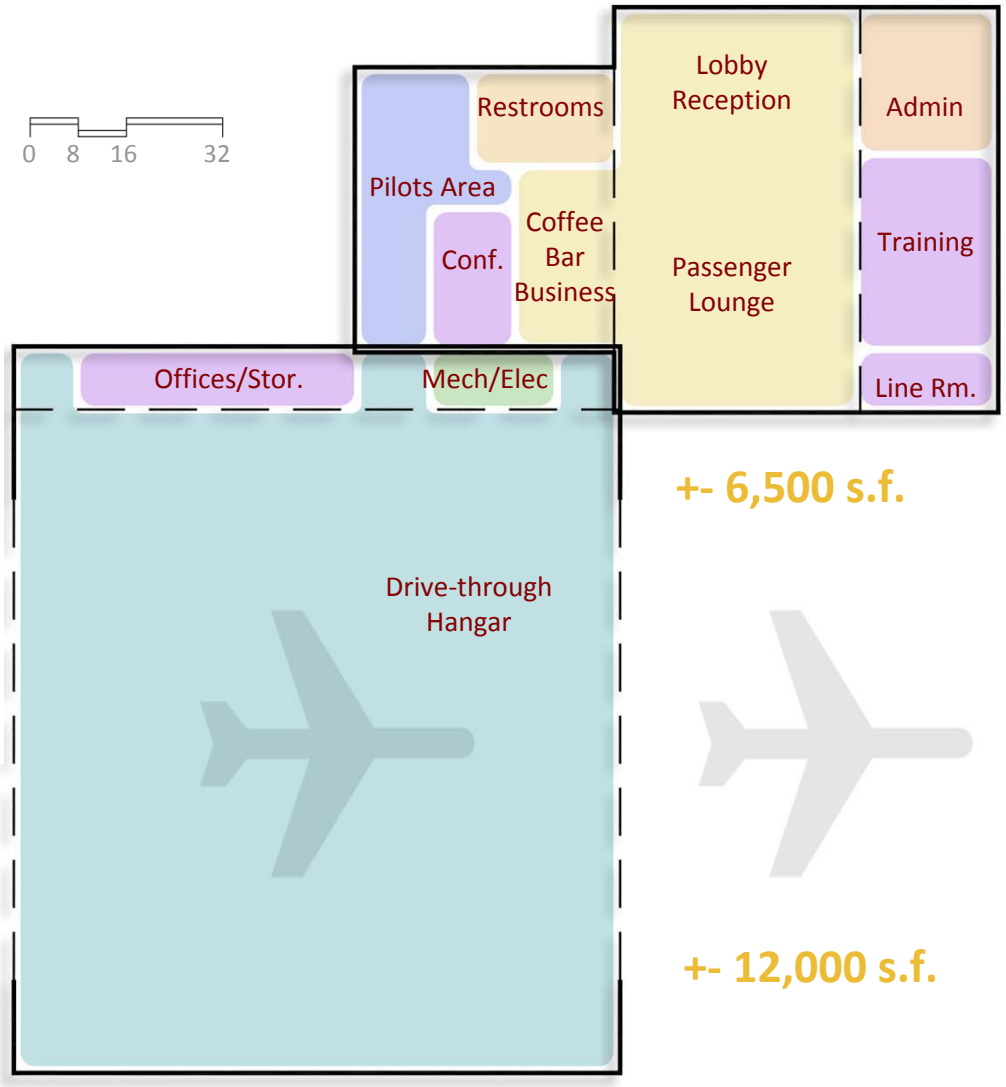


existing +- 4,600 s.f.

(not including basement)



schematic layout – with hangar

variation 1

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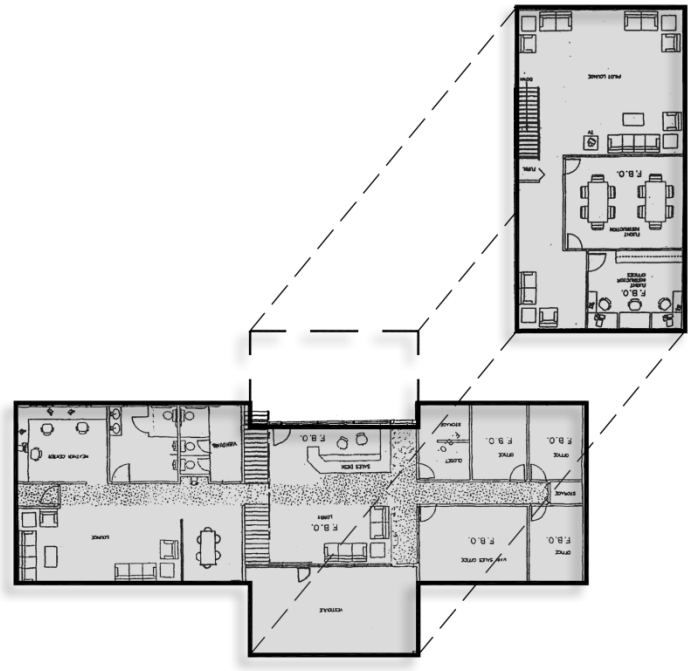
ARCHITECTURAL ALLIANCE



0 8 16 32

Restrooms
Lobby Reception
Admin
Pilots Area
Conf.
Coffee Bar Business
Passenger Lounge
Training
Offices/Stor.
Mech/Elec
Line Rm.
Drive-through Hangar

+- 6,500 s.f.

existing +- 4,600 s.f.

(not including basement)

+- 12,000 s.f.

schematic layout – with hangar

variation 2

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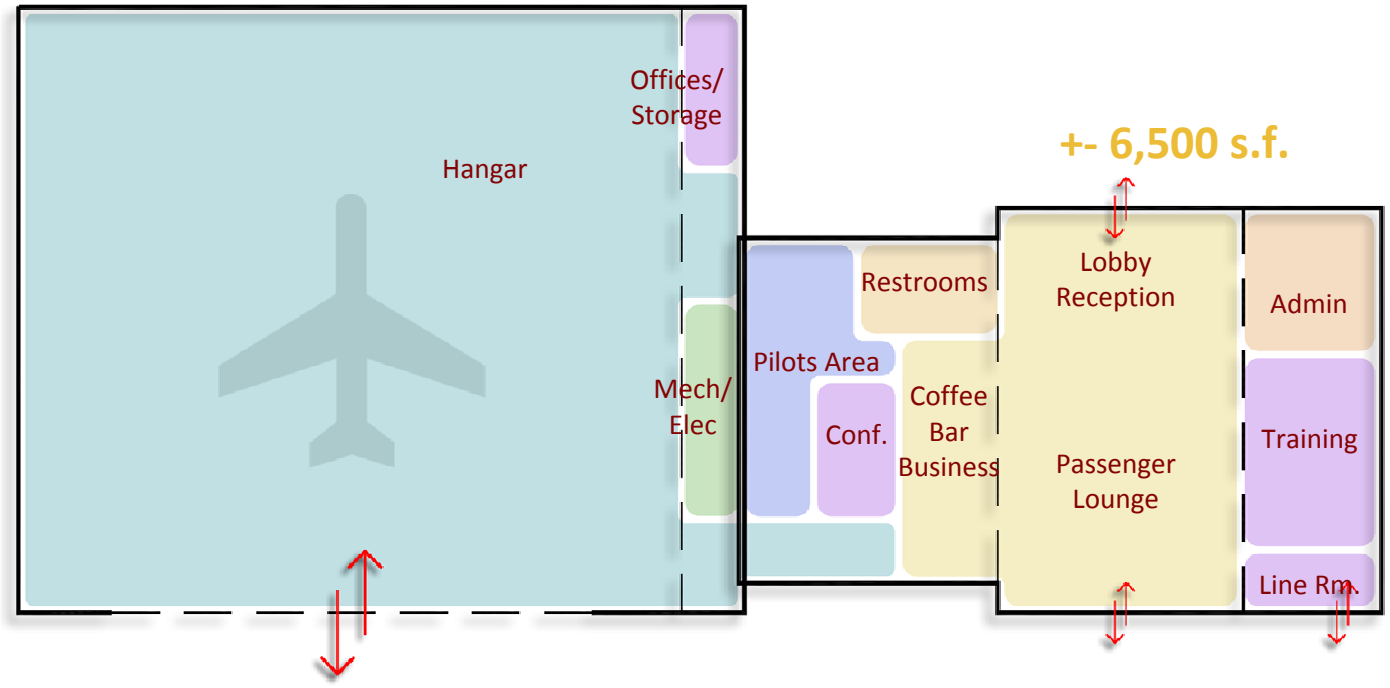
0 8 16 32

+- 12,000 s.f.



schematic architectural levels examples

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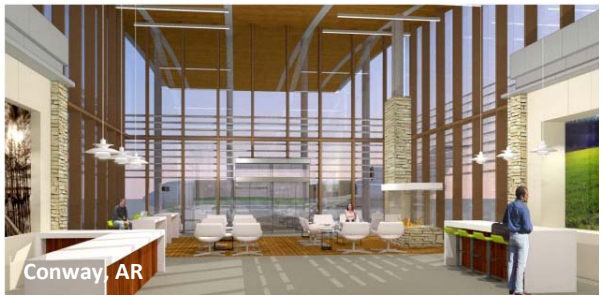
A "Gateway"


Colorado Springs, CO


Signature Executive Terminal


Conway, AR


St. Cloud, MN


Conway, AR


Conway, AR

schematic architectural levels examples

BOLTON & MENK, INC.
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B "Quality Residential/Commercial"

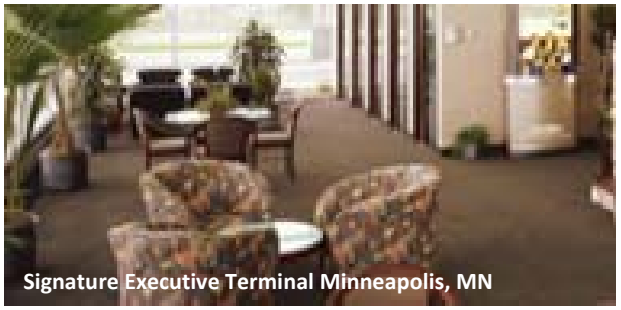

Ottumwa, IA


Pellston, MI

Vail, CO

Vail, CO

Vail, CO


Signature Executive Terminal Minneapolis, MN

schematic architectural levels examples

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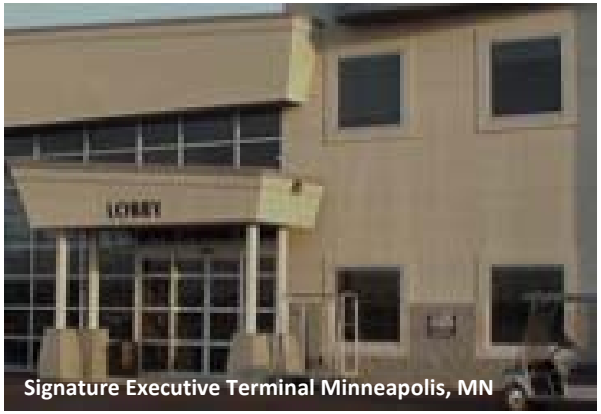
C "Enhanced Industrial"



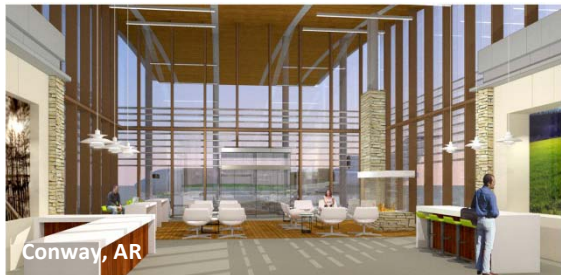
schematic architectural levels

BOLTON & MENK, INC.
ARCHITECTURAL ALLIANCE

A "Gateway"


Colorado Springs, CO


St. Cloud, MN


Conway, AR


Conway, AR

B "Quality Residential/Commercial"


Ottumwa, IA


Vail, CO


Pellston, MI

C "Enhanced Industrial"


Ankeny, IA


Davenport, IA


Signature Executive Terminal Houston, TX

schematic costs - terminal

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Terminal

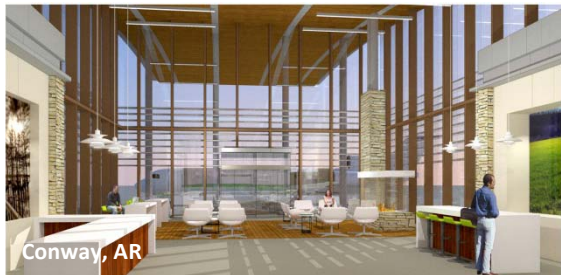
A "Gateway"

Basic 5,885 Ideal 7,290

$2,554,090 - $3,163,860


Colorado Springs, CO


St. Cloud, MN


Conway, AR


Conway, AR

B "Quality Residential/Commercial"

Basic 5,885 Ideal 7,290

$1,765,500 - $2,187,000


Ottumwa, IA


Vail, CO


Pellston, MI

C "Enhanced Industrial"

Basic 5,885 Ideal 7,290

$1,471,250 - $1,822,500


Ankeny, IA


Davenport, IA


Signature Executive Terminal Houston, TX

schematic costs - hangar

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Hangar (+-12,000 s.f.)

C "Enhanced Industrial" (nicer exterior finishes in places for ex.) $1,800,000

D "Industrial" $1,200,000

schematic costs

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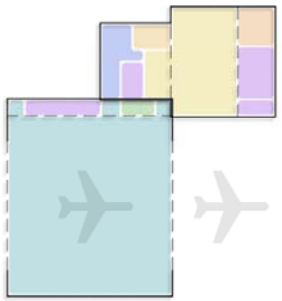
Terminal	Basic 5,885	Ideal 7,290
A "Gateway"	$2,554,090 -	$3,163,860
B "Quality Residential/Commercial"	$1,765,500 -	$2,187,000
C "Enhanced Industrial"	$1,471,250 -	$1,822,500

Hangar (+-12,000 s.f.)		
C "Enhanced Industrial" (nicer exterior finishes in places for ex.)		$1,800,000
D "Industrial"	$1,200,000	

Total Terminal & Hangar		
Min -Max Range	$2,671,250 -	$4,963,860



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CITY OF ames

Ames Municipal Airport

New Executive Terminal Concept

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