



# Conceptual Area Development Plan

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## Conceptual Area Development Plan

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## Executive Summary

Jackson Hole Airport (JAC) was established by the town of Jackson, Wyoming in the 1930's. In 1943, the Airport was declared a national monument and was merged with the Grand Teton National Park in 1950. Being the only airport within the United States to be located in a National Park, JAC is unique in that it has to meet both Federal Aviation Administration requirements and specific requirements that have been agreed upon and ratified with the National Park Service (NPS). In 1967, the Town of Jackson and County of Teton created the Jackson Hole Airport Board, a joint powers board, to operate the airport. In 1982, the Secretary of Interior recognized the Airport Board as the sole proprietor of the airport.

Jackson Hole Airport's location within the Grand Teton National Park presents unique challenges for meeting the evolving needs of the aviation users and businesses. This focused study provides a Conceptual Area Development Plan that identifies a preferred development strategy which most efficiently utilizes the space available for future commercial aircraft operations, general aviation operations, Airport Rescue and Firefighting and Snow Removal operations, Rental Car Service Facility and other facilities such as parking for airport users and rental cars within the provisions of the 1983 NPS Use Agreement.

Study elements included an evaluation of existing conditions and facilities, review of existing aviation and auto parking forecasts, development of concepts and preliminary costing of the initial development phase. The study scope included a series of meetings with key stakeholders to identify and refine concepts. Criteria identified for the valuation of concepts included:

- Maintain and/or improve safety
- Provide for highest and best use of the space available for development
- Uphold environmental standards

As part of the Conceptual Area Plan for the Jackson Hole Airport, an evaluation of existing facilities was conducted. The purpose of collecting information on the existing airport facilities was:

- To determine the approximate age, use, and condition of the existing facilities
- To understand any challenges the Airport or other users encounter in maintaining the existing facilities
- To discuss with the Airport and other users which facilities are in critical need of replacement and which facilities can be preserved for some time as the Conceptual Area Plan is developed
- To evaluate current leases in order to determine lease expiration dates of various facilities

The focus of this facility evaluation was within the Development Sub-Zone that has been agreed upon and ratified by the Airport and the NPS. The Development Sub-Zone lies on the southeast portion of the airport property and encompasses approximately 30.5 acres. The Existing Facilities Evaluation that was performed as part of the Conceptual Area Development Plan for the existing Development Sub-Zone provided valuable information regarding existing and future needs of the airport.

The majority of the existing facilities that are located within the Development Sub-Zone are in need of repair, renovations, or replacement. The exception to this is the existing terminal building, the majority of which was constructed as a new building between 2010 and 2014 and the offices/garages associated with Hangar 4 which were constructed around 2006. These facilities have many more years of useful life, especially with proper maintenance. The existing wastewater treatment facility was completed in 2013 and is in good condition. Currently an Environmental Assessment is underway to evaluate alternatives that will supplement or improve the ability to treat wastewater at the airport.

The existing pavement areas within the Development Sub-Zone vary in regards to their condition. The areas which include the main parking lot north of the existing fuel farm, the access road to the Fixed Base Operator (FBO) and the FBO parking lot are in relatively good condition, not exhibiting significant signs of distress or deterioration. These areas can provide several more years of use with proper maintenance. However, the areas of pavement around the existing rental car Quick Turn Around (QTA) facilities and to the south as well as pavement on the east side of the existing T-Hangars, is showing significant deterioration and distress through surface cracking and pavement failures. The pavement located around the QTAs did have a 1-1/2" asphalt overlay performed within the last several years which improved the pavement surface. However, this overlay did not repair the underlying structural issues. Because of this, it is recommended that the pavement in this area should be replaced. The pavement located on the east side of the existing T-Hangars may have a few more years of use, however, it would be best to replace the pavement in this area within the next 5 years.

A number of sources were used to document recent aviation activity trends at JAC:

- Jackson Hole Airport Records
- FAA Air Traffic Activity Data System (ATADS) – activity data counts by air traffic controllers
- FAA Traffic Flow Management System Counts (TFMSC) – data compiled from flight plans and contacts with Salt Lake Center
- FAA and U.S. Department of Transportation Bureau of Transportation Statistics – air carrier passenger enplanements

Key points regarding airline service at JAC that were taken into consideration:

- Each of the JAC is an origin & destination (O&D) airport - i.e. there is no connecting service.
- Summer is the strongest traffic season, with a smaller winter peak.
- Visitors to Grand Teton and Yellowstone National Parks generate a large share of airline passengers.
- The runway length (6,300') and the field elevation (6,450' MSL) limit the amount of payload airlines can carry.

The forecasts analyzed air service trends, as well as general aviation activity. While specific numbers varied, the general conclusions were:

- Air service will continue to grow at JAC, although it will remain an O&D (vs. connecting) market
- Air carrier and corporate traffic will continue to fluctuate seasonally
- No significant changes are anticipated in the national parks, however the growth trend of visitors to the park is expected to continue.

- The local and regional economy will experience steady growth
- Small General Aviation (piston) aircraft activity will decline or remain steady
- Corporate and air taxi aircraft activity will increase.

Using updated information from the rental car companies as well as public and employee parking data from the 2012 Rental Car and Parking Master Plan, the forecast on the following has been developed for use in this Conceptual Area Development Plan:

Incremental Auto Parking Forecasts					
Parking Type	2015 Activity	2020 Forecast	2030 Forecast	2040 Forecast	Existing Spaces
<b>Public Parking</b>					
Typical ( <i>Outside of peak</i> )	285 spaces	300 spaces	331 spaces	366 spaces	317 spaces
Peak ( <i>Christmas/Spring Break</i> )	386 spaces	406 spaces	448 spaces	495 spaces	241* spaces
<b>Rental Car (Ready and Return)</b>					
Typical ( <i>outside of peaks</i> )	440 spaces	440 spaces	440 spaces	440 spaces	356 spaces
Peak ( <i>Summer/Christmas/Spring Break</i> )	440 spaces	440 spaces	440 spaces	440 spaces	356 spaces
<b>Employee</b>	128 spaces	135 spaces	149 spaces	164 spaces	176 spaces
<b>Rental Car (Overflow/Staging)</b>					
Peak ( <i>Summer</i> )	547 cars	623 cars	794 cars	992 cars	650 cars <sup>#</sup>
Other ( <i>Christmas/Spring Break</i> )	390 cars	454 cars	597 cars	764 cars	650 cars <sup>#</sup>

\* Approximately 76 public spaces on the east edge of the main lot are lost during the winter season for snow removal

<sup>#</sup> Not well suited for pedestrian/public use

As was done in the 2012 Rental Car and Parking Master Plan, this information was developed into parking space requirements for the three peak times identified; Christmas and Spring Break for public parking and Summer for Rental Car Parking. The three incremental auto parking forecasts above for 2020, 2030, and 2040 are reflected in the body of this report.

In September of 2015, the town of Jackson, WY and Teton County adopted an Integrated Transportation Plan (ITP) which endeavors to meet future transportation demand through the use of alternative modes. The Integrated Transportation Plan would likely have a positive affect by reducing employee and public vehicle traffic. It is estimated that if the plan provided regular service to/from the airport, approximately 80% of employees and 25% of the public would use this service.

In addition, there is a current study on the existing intersection/roundabout that is located at the entrance to the parking area at JAC. Jviation, Inc. will coordinate with the airport and consultants working on this study and will make any required updates to the conceptual plans suggested in this Conceptual Area Development Plan based upon the outcome of the intersection/roundabout study.

In order to provide options that met the intent of the Conceptual Area Development Plan to maintain the highest and best use of the limited are within the Development Sub-Zone and best meet the future

needs of the airport, several meetings were held with various stakeholders in order to discuss development concepts, as follows:

- JAC Staff
- Jackson Hole Aviation (current FBO)
- National Park Service
- Rental Car Companies
- JAC Airport Board, General Aviation (GA) Sub-committee

There are a total of 4 conceptual development plans and these are fully described in the report. These plans propose improvements to assist the airport in planning the future of the Development Sub-Zone. The conceptual development plans are phased, as follows:

- 1 to 5 Years
- 5 to 15 Years
- 15 to 25 Years
- 25 Years and Beyond

The gradual approach used for the conceptual improvements within the Development Sub-Zone will allow the airport to incrementally decide when improvements should occur, based upon future activity at the airport. **Figure D-4** portrays the Conceptual Area Development Plan for 25 Years and Beyond.

During the process of developing the conceptual plans for JAC, it was recognized just how space constrained the airport was in attempting to meet the forecast activity. Although these plans represent a large improvement over existing conditions today, the realization is that due to the constraints that the airport has, developing the airport to fully meet future activity may not be possible.

As part of the Conceptual Area Plan Development, Rough Order of Magnitude (ROM) cost estimates are to be provided for work that is proposed to take place in years 1 to 5 of the plan. These projects are considered the most critical within the Development Sub-Zone, and therefore, most likely to occur as proposed in the development plan. Below are the Rough Order of Magnitude cost estimates for these proposed projects:

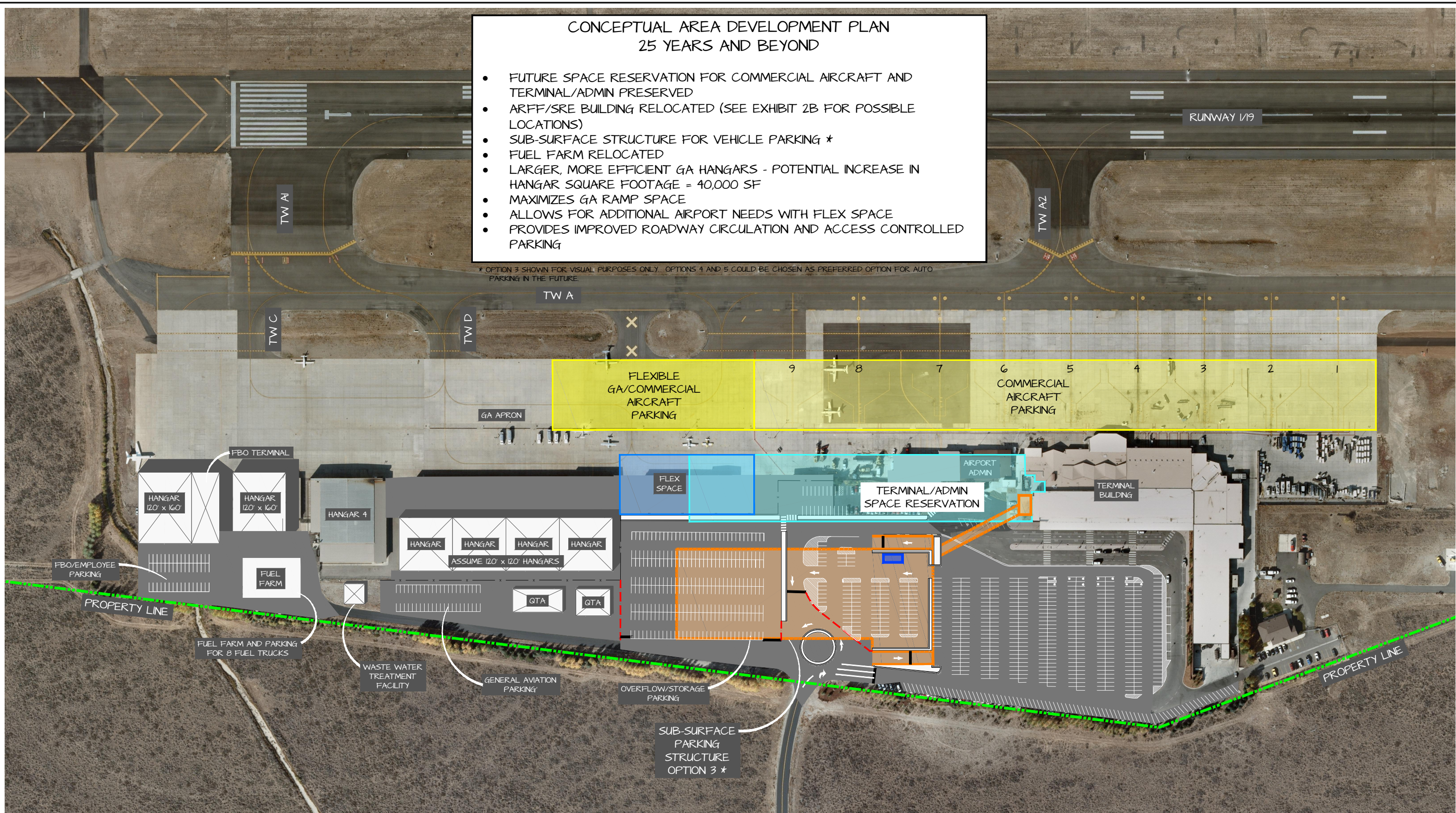
Conceptual Area Development Plan 1-5 Years ROM Cost Estimate	
Proposed Capital Project	Estimated Cost
Rental Car QTA Design/Construction	\$7,000,000
Existing Rental Car QTA Removal	\$750,000
Overflow/Storage Parking Lot Design/Construction	\$500,000
Fuel Farm Design/Construction	\$5,500,000
FBO/Employee Parking Lot Design/Construction	\$750,000
<b>Total Estimated Costs</b>	<b>\$14,500,000</b>



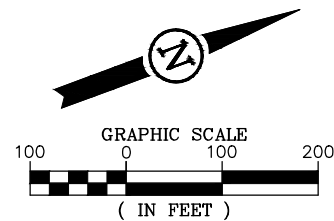
## CONCEPTUAL AREA DEVELOPMENT PLAN 25 YEARS AND BEYOND

- FUTURE SPACE RESERVATION FOR COMMERCIAL AIRCRAFT AND TERMINAL/ADMIN PRESERVED
- ARFF/SRE BUILDING RELOCATED (SEE EXHIBIT 2B FOR POSSIBLE LOCATIONS)
- SUB-SURFACE STRUCTURE FOR VEHICLE PARKING \*
- FUEL FARM RELOCATED
- LARGER, MORE EFFICIENT GA HANGARS - POTENTIAL INCREASE IN HANGAR SQUARE FOOTAGE = 40,000 SF
- MAXIMIZES GA RAMP SPACE
- ALLOWS FOR ADDITIONAL AIRPORT NEEDS WITH FLEX SPACE
- PROVIDES IMPROVED ROADWAY CIRCULATION AND ACCESS CONTROLLED PARKING

\* OPTION 3 SHOWN FOR VISUAL PURPOSES ONLY. OPTIONS 4 AND 5 COULD BE CHOSEN AS PREFERRED OPTION FOR AUTO PARKING IN THE FUTURE.



\* OPTION 3 SHOWN FOR VISUAL PURPOSES ONLY. OPTIONS 4 AND 5 COULD BE CHOSEN AS PREFERRED OPTION FOR AUTO PARKING IN THE FUTURE.



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**JACKSON HOLE AIRPORT**

JACKSON, WYOMING

CONCEPTUAL AREA DEVELOPMENT PLAN  
25 YEARS AND BEYOND

DATE: DECEMBER 16, 2015

EXHIBIT D-4



## Chapter I: Study Overview

### General Airport Information

Jackson Hole Airport (JAC) was established by the town of Jackson, Wyoming in the 1930's. In 1943, the Airport was declared a national monument and was merged with the Grand Teton National Park in 1950. Being the only airport within the United States to be located in a National Park, JAC is unique in that it has to meet both Federal Aviation Administration requirements and specific requirements that have been agreed upon and ratified with the National Park Service (NPS). In 1967, the Town of Jackson and County of Teton created the Jackson Hole Airport Board, a joint powers board, to operate the airport. In 1982, the Secretary of Interior recognized the Airport Board as the sole proprietor of the airport.

JAC is located in northwest Wyoming at the foot of the Teton Mountains, approximately 10 miles north of the Town of Jackson. The Airport is located within the southern edge of the Grand Teton National Park and approximately 35 miles south of Yellowstone National Park. The airport sits within the Snake River Valley on a 542 acre parcel that is leased from the United States Department of Interior by Jackson Hole Airport Board. The airport is located at 6,541 feet above mean sea level (MSL) with steep and mountainous surrounding terrain. JAC is included in the National Plan of Integrated Airport Systems (NPIAS), allowing it to be eligible for Federal Airport Improvement (AIP) funding. The Airport is classified as a Primary, Non-Hub Commercial Service Airport and is the only airport in the U.S. located within the boundaries of a National Park.

JAC has one runway which is 6,300 feet long and 150 feet wide. The Airport is classified as a category C-III airport, which means it can accommodate aircraft with wingspans of up to 118 feet. Commercial aircraft that typically fly into JAC include Boeing 757, Boeing 737, Bombardier CRJ-700, and Airbus A319/A320. Commercial service is provided seasonally by American Airlines, Delta Airlines, SkyWest Airlines, and United Airlines. Direct flights are offered to such cities as Denver, Salt Lake City, Dallas/Ft. Worth, Minneapolis, Chicago, Atlanta, San Francisco, Houston, and Los Angeles. General Aviation (GA) aircraft includes everything from small, piston and turboprop aircraft to large, corporate jets, such as Gulfstream G500 and G650 and Bombardier Global 5000 and 6000.

In 2014, JAC had 308,509 passenger enplanements<sup>1</sup>, which accounted for approximately 60% of all annual passenger enplanements in the State of Wyoming. The majority of these enplanements occurred during the busy summer and winter tourist seasons. The Airport serves the town of Jackson, which is a gateway to both the Grand Teton and Yellowstone National Parks. Approximately 10% of summertime visitors to these destinations arrived via commercial airlines serving JAC.

### Study Overview

Jackson Hole Airport's location within the Grand Teton National Park presents unique challenges for meeting the evolving needs of the aviation users and businesses. The original Use Agreement between the NPS and the Jackson Hole Airport Board in 1983 identified the Development Subzone which

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<sup>1</sup> FAA Air Carrier Activity Information System (ACAIS) FY 2014

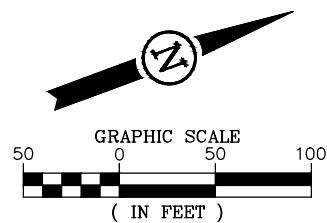
gave the Board the latitude to develop airport facilities needed to meet existing and future aviation needs within that zone, subject to height and aesthetic limits. In 2013 the Use Agreement was extended and no additional restrictions were placed within the subzone. The Conceptual Area Development Plan's goal is to determine the highest and best use of the limited space within the Development Sub-Zone, while at the same time finding a balance to accommodate the future needs of commercial service and general aviation activity on the airport. **Exhibit I-1** outlines the location of the Development Sub-Zone on the airport.

This focused study provides a Conceptual Area Development Plan that identifies a preferred development strategy which most efficiently utilizes the space available for future commercial aircraft operations, general aviation operations, Airport Rescue and Firefighting and Snow Removal operations, Rental Car Service Facility and other facilities such as parking for airport users and rental cars within the provisions of the Use Agreement. The Plan will include a space reservation for future expansion of the existing Airline Passenger Terminal facility as identified in previous airport studies. Additionally, the Plan documents the existing facilities and infrastructure and considers the expected life cycle of each facility. Existing conditions have been compared to an estimate of demand for hangars, apron, and automobile parking with the resulting development and redevelopment strategy identified to meet the needs. Rough Order of Magnitude costing is included the first phase of the development plan.

The study scope included a series of meetings with key stakeholders to identify and refine concepts. Criteria identified for the valuation of concepts included:

- Maintain and/or improve safety
- Provide for highest and best use of the space available for development
- Uphold environmental standards

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**JH JACKSON HOLE AIRPORT**

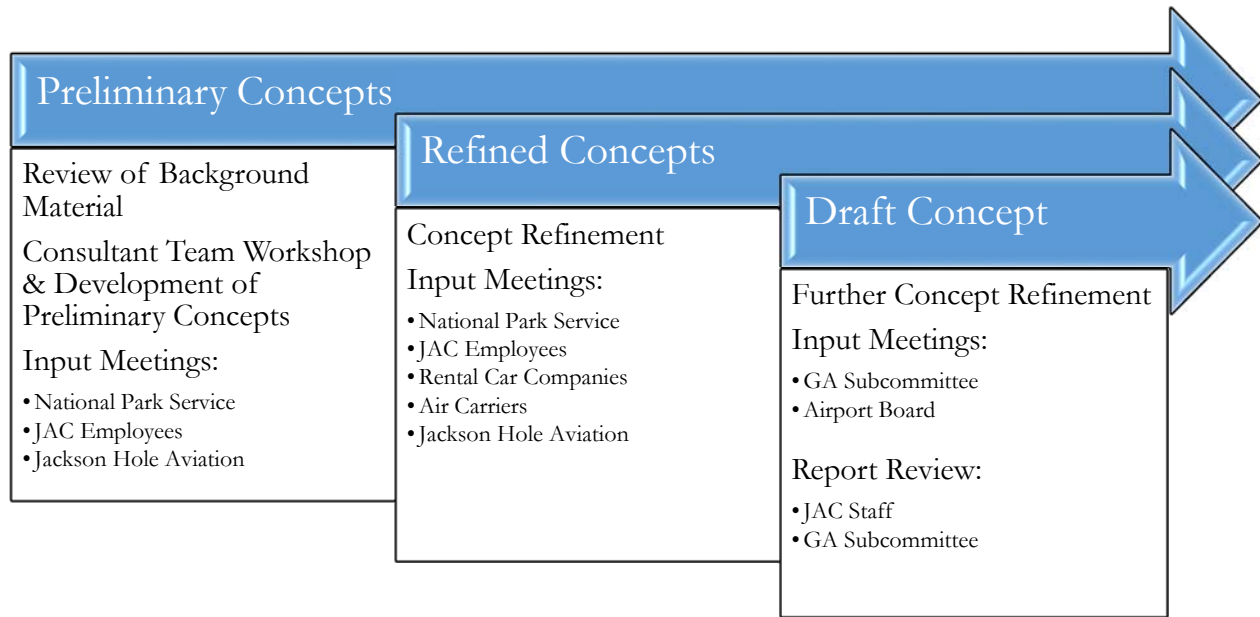
JACKSON, WYOMING

CONCEPTUAL AREA DEVELOPMENT PLAN  
DEVELOPMENT SUB-ZONE

DATE: DECEMBER 16, 2015

EXHIBIT I-1





Over the course of the study process, input from stakeholders was gathered. Participants were asked a series of questions to ensure that the concepts built upon successes and addressed deficiencies. The following themes were documented as follows:

#### **NPS**

- Terminal is introduction to the Park
- Consistent architecture/themes/colors to support sense of plan
- Themed approach for everything south of the parking circle (less of an industrial feel)
- Sees JAC as an essential/critical link for visitors
- Willing to consider relocation of Airport Rescue and Firefighting (ARFF) facility outside of development zone
- Minimize visual impact to surrounding environment

#### **FBO**

- Preference for development of larger hangars
- Wants to improve entry (everything south of roundabout)
- Supports development of design guidelines
- Fuel farm upgrading needed
- May need to reopen access taxiway to ramp with additional commercial parking
- Wants to salvage large aircraft storage hangar, willing remove/replace maintenance building & GA terminal
- Need to develop accompanying snow plan with development

#### **JAC Staff**

- Facility needed for ARFF training
- Old Very High Frequency Omnidirectional Range (VOR) site elevation needs to be considered
- Structured parking desired
- Fuel farm & car wash facilities should be relocated



- Consider off-site storage for Snow Removal Equipment (SRE)
- T hangars are obsolete
- Commercial traffic flow is problematic
- Extended walkway for additional commercial spots impact passenger experience
- Pave islands between ramp and Taxiway A
- Hydrant fueling system should be considered
- Reconstruct GA ramps for grades to improve surface drainage and maximize hangar efficiency
- Terminal themed buildings (design guidelines)
- Develop transit center
- Rental car drop off system in general parking lane creates safety issue
- Locate parking garage to the south

The input gathered was essential in developing concepts that met the study criteria, addressed key concerns of stakeholders and provided strategic solutions that can be systematically phased over time based on funding availability.

Pursuant to the Scope of Work, this report serves as the required documentation for submittal to the Jackson Hole Airport Board for review and consideration.



## Chapter II: Existing Facilities Evaluation

### Introduction

A critical part of proposing improvements as part of the Conceptual Area Plan is to understand the condition of existing infrastructure and facilities at JAC. This evaluation provides an overview of existing facilities on the airport in an effort to determine appropriate improvements in the short-term and beyond at JAC.

### Existing Facilities Conditions

As part of the Conceptual Area Plan for the Jackson Hole Airport, an evaluation of existing facilities was conducted. The purpose of collecting information on the existing airport facilities was:

- To determine the approximate age, use, and condition of the existing facilities
- To understand any challenges the Airport or other users encounter in maintaining the existing facilities
- To discuss with the Airport and other users which facilities are in critical need of replacement and which facilities can be preserved for some time as the Conceptual Area Plan is developed
- To evaluate current leases in order to determine lease expiration dates of various facilities

The focus of this facility evaluation was within the Development Sub-Zone that has been agreed upon and ratified by the Airport and the National Park Service. The Development Sub-Zone lies on the southeast portion of the airport property and encompasses approximately 30.5 acres. Within the Development Sub-Zone are the majority of the facilities critical to the Airport's daily operations. These facilities include the passenger Terminal Building, Airport Administration offices, ARFF and SRE equipment staging and storage, Rental Car facilities, FBO facilities and hangars, and aircraft fuel and glycol storage.

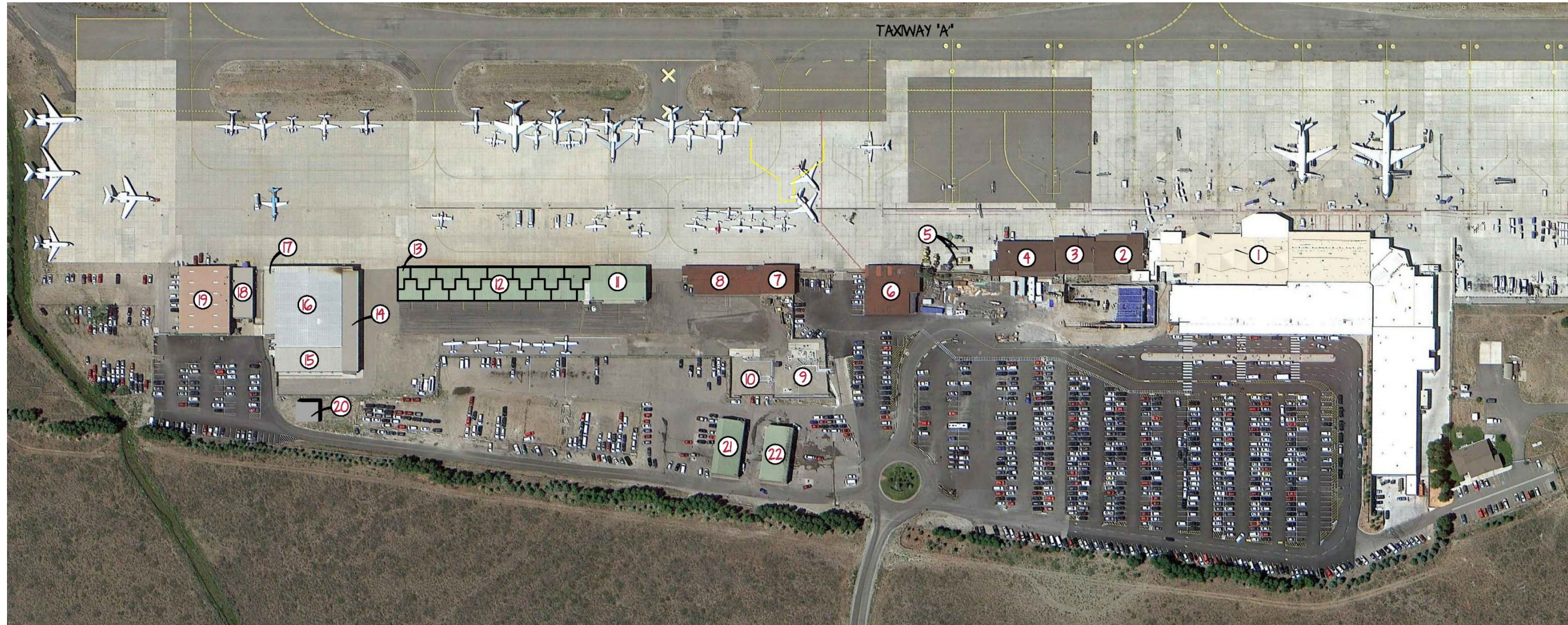
A site visit was made to the Jackson Hole Airport on June 25, 2015 in order to perform the existing facility evaluation. Airport staff provided an escorted tour of the existing facilities within the Development Sub-Zone. Information on the approximate age, the current use, and the challenges of maintaining the existing facilities was provided by Airport staff.

Meetings with other airport users, such as Jackson Hole Aviation, the current FBO, were also conducted. These meetings provided insight from the Airport and other user's perspectives on which facilities were in critical need of replacement and which facilities could remain in use for a longer period of time. **Figure II-1** shows the map that was used in order to number and evaluate the existing facilities within the Development Sub-Zone.

In addition to the Existing Facilities Evaluation Map, a more descriptive spreadsheet matrix was completed for each of the facilities identified in the Development Sub-Zone. This information can be found **Table II-1**.



Figure II-1 Existing Facilities Evaluation Map





## Existing Facilities

The existing facilities identified within the Development Sub-Zone were numbered 1-22 and are identified as follows:

- |                           |                            |                                    |
|---------------------------|----------------------------|------------------------------------|
| 1) Passenger Terminal     | 9) North Fuel Farm         | 17) FBO Administration             |
| 2) Airport Administration | 10) South Fuel Farm        | 18) FBO Terminal                   |
| 3) SRE Storage            | 11) Hangar 3               | 19) Hangar 5                       |
| 4) ARFF                   | 12) Nested T-Hangars       | 20) Waste Water Treatment Facility |
| 5) Glycol Tanks           | 13) Storage                | 21) Rental Car QTA                 |
| 6) Hangar 1               | 14) Leased Offices/Garages | 22) Rental Car QTA                 |
| 7) SRE Storage            | 15) Fuel Truck Garages     |                                    |
| 8) Hangar 2               | 16) Hangar 4               |                                    |



Table II-1 Existing Facilities Condition Matrix

 <b>JACKSON HOLE AIRPORT</b> <span style="float: right;">  </span>									
Jackson Hole Airport Jackson Hole, Wyoming June 25, 2015									
EXISTING FACILITIES CONDITIONS									
Number	Tenant / User	Function	Number of Airplanes (Occupied/Available)	Square Footage (Approx.)	Condition (Scale of 1 to 5, 1 = Bad, 5 = Excellent)	Year Constructed/ Remodeled (Approx.)	Construction Type (Metal, CMU, Wood, etc.)	Lease Term Expiration	OTHER COMMENTS / NOTES (ANYTHING OTHER THAN AIRPLANES?):
1	Passenger Terminal	Commercial Passengers / Security / Baggage System	N/A	116,000	5	2010 - 2014	Wood/Metal	N/A	The majority of the Passenger Terminal has been built in the last 4 years. A small portion of the original building was left remaining secure boarding and airline offices
2	Airport Administration	Airport Management and Administration	N/A	6,270	3	1984 / 2003	Wood	N/A	Needs new siding and HVAC system
3	Airport Operations	SRE Storage	N/A	4,620	3	1984	Wood	N/A	Needs new siding and HVAC system
4	Airport Rescue and Firefighting	Rescue and Firefighting staging and equipment	N/A	6,770	3	1984	Wood	N/A	Needs new siding and HVAC system. Installed new 500 gallon Oil/Water Separator
5	Glycol Tanks (Above Ground)	Glycol Storage	N/A	N/A	3		Steel Tanks	N/A	Would like to place new glycol storage tanks underground to provide more surface area.
6	Airport Operations	SRE Storage	N/A	8,345	1	1975	Wood/Metal	N/A	Building has multiple deficiencies and needs to be replaced. Roof is continually being repaired for leaks.
7	Airport Operations	SRE Storage	N/A	3,310	1	1977	Wood/Metal	N/A	Building has multiple deficiencies and needs to be replaced. Hangar doors have had multiple failures.
8	FBO	Storage, occasional single engine aircraft	N/A	6,550	1	1977	Wood/Metal	6/30/2015	Building has multiple deficiencies and needs to be replaced. Hangar doors have had multiple failures.
9	FBO	Jet A, Avgas, Diesel Fuel	N/A	12,500	2	2005	2-20K Jet A, 1-10K Avgas, 1 Gas/Diesel underground tanks	6/30/2015	Fuel pumps are deficient. Currently 242 gpm is max, need 350 gpm to keep up with demand.
10	FBO	Jet A	N/A	5,900	2	1990	3-12K Jet A underground tanks	7/31/2017	Fuel pumps are deficient. Currently 180 gpm is max, need 350 gpm to keep up with demand. Capacity is inadequate.
11	FBO	Storage, occasional aircraft	N/A	6,450	2	1980	Metal	6/30/2015	Building has multiple deficiencies. Hangar door to be replaced.
12	FBO	14-unit nested T-Hangars for aircraft storage	1 per unit	1,373 per unit	2	1980	Metal		Hangars have multiple deficiencies and need to be replaced. Hangar doors have had multiple failures. Surface runoff drains toward hangars.
13	FBO / Federal Express	Storage	N/A	685	2	1980	Metal		Building has multiple deficiencies and needs to be replaced. Surface runoff drains toward building.
14	FBO	Leased Offices / Garages	N/A	5,230 office 5,230 garage	5	2006	Metal	4/30/2018	Building space was added on to original Hangar 4 built in 1990. Structure is in good condition overall with garages on ground floor and office space above the garages.
15	FBO	Climate controlled garage for fuel trucks	N/A	5,110	5	2006	Metal	4/30/2018	Building space was added on to original Hangar 4 built in 1990. Structure is in good condition overall with stalls to park six fuel trucks in the climate controlled garages.
16	FBO	Aircraft Hangar	5-6 depending on aircraft size	17,800	4	1990	Metal	4/30/2018	Hangar building is in good shape considering its age of 25 years. No major issues with the building.
17	FBO	FBO Administration / Garages	N/A	2,350 office 2,350 garage	5	2006	Metal	4/30/2018	Building space was added on to original Hangar 4 built in 1990. Structure is in good condition overall with garages on ground floor and FBO Administration offices above the garages.
18	FBO	FBO Terminal	N/A	3,760	4	1990	Metal / Concrete Panel	4/30/2018	FBO Terminal is in good shape considering its age of 25 years. No major issues with the building. May need some interior upgrading and is a little small in size.
19	FBO	Aircraft Maintenance Hangar	3 depending on aircraft size	10,800	4	1990	Metal	4/30/2018	Hangar building is in good shape considering its age of 25 years. No major issues with the building.
20	Waste Water Treatment Facility	Process and Treat Wastewater	N/A	xxx?	5	2013	xxx?	N/A	Although the Wastewater Treatment Plant building is only two years old, challenges in the performance of the equipment in treating the wastewater have occurred.
21	Rental Car - Avis	Rental Car Wash / Quick Turn Around	N/A	4,870	1	1975	Metal	4/30/2016	The QTA facilities are in very bad shape and in need of replacement in the near future.
22	Rental Car - Enterprise/Hertz	Rental Car Wash / Quick Turn Around	N/A	4,870	1	1975	Metal	4/30/2016	The QTA facilities are in very bad shape and in need of replacement in the near future.



## Existing Pavement Conditions

In addition to the existing facilities at JAC, the pavement within the Development Sub-zone was also evaluated. The purpose of this assessment was to determine the condition of the existing pavement in order to determine a reasonable timeline in order to propose improvements to the pavement. The determined condition of the pavement areas was based upon observed surface conditions and not an extensive investigation. The areas of pavement within the Development Sub-zone were divided up into four sections, as follows:

- Section 1 – Includes the main parking lot, terminal roadways, and employee lots north of the existing fuel farm
- Section 2 – Includes the FBO parking lot and access road
- Section 3 – Includes the rental parking areas around the existing rental car QTA facilities
- Section 4 – Includes that GA aircraft parking area to the east of the existing T-hangars

**Figure II-2** shows the approximate areas of the pavement Sections described above as well as historical information about each area.

In general, the main parking lot, terminal roadways, and employee parking lots north of the existing fuel farm (Section 1) are in relatively good condition. Portions of these areas have been recently constructed or rehabilitated and regularly maintained with fog seal and crack seal. There were some isolated cracks in the asphalt within these areas, but nothing to suggest any type of pavement deterioration occurring. The pavement in this area can likely last another 10 plus years with continued maintenance.

The FBO parking lot and access road (Section 2) are also in relatively good condition. It appears that these have been maintained acceptably and no signs of significant deterioration were observed. The pavement in this area can likely last another 10 plus years with continued maintenance.

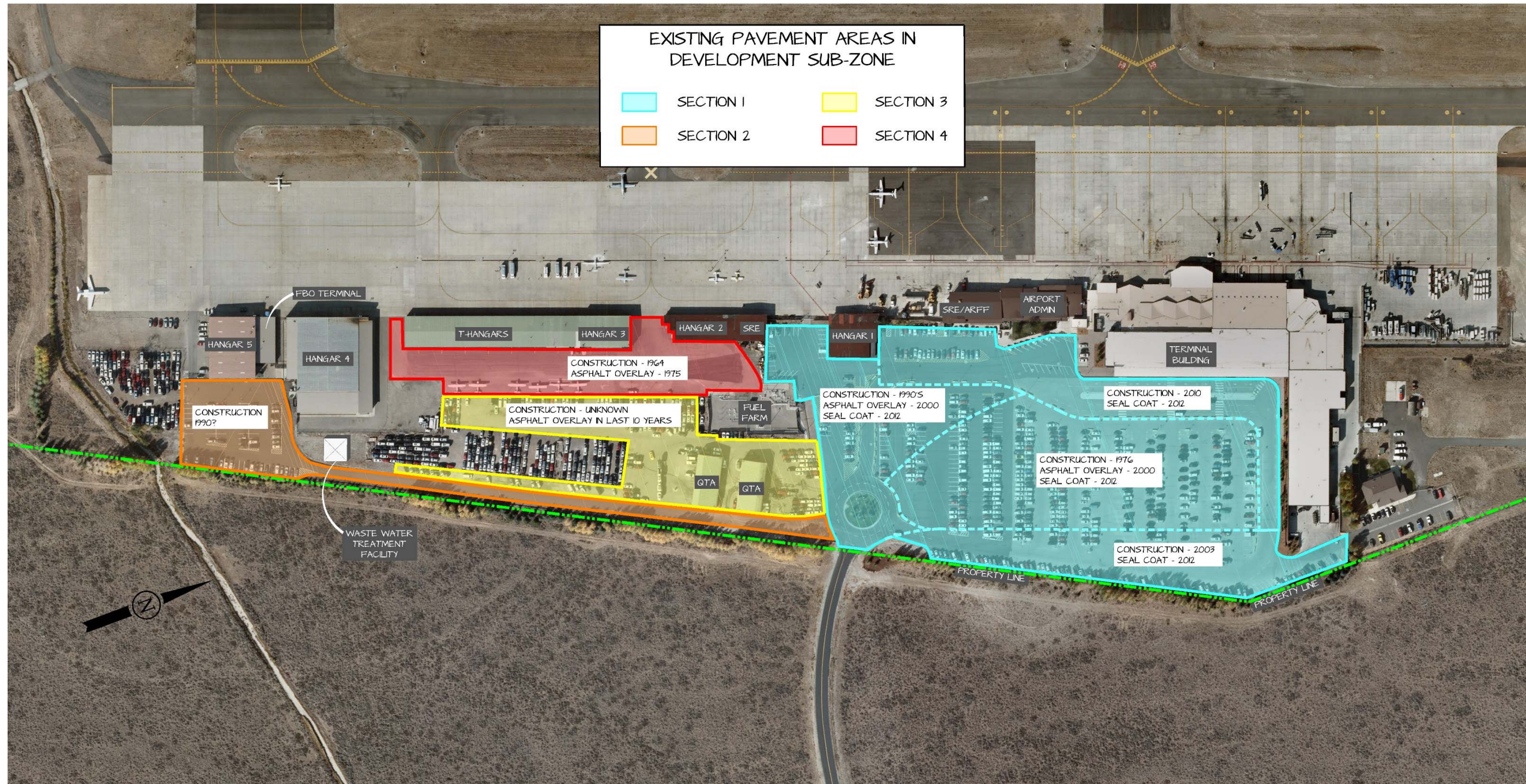
The pavement areas around the existing rental car QTA facilities and just to the south (Section 3) are exhibiting signs of severe deterioration. There are significant cracks and potholes throughout the asphalt pavement areas along with concrete islands around the QTA facilities. The pavement around the QTAs did have a 1-1/2" asphalt overlay performed within the last several years which improved the pavement surface. However, this overlay did not repair the underlying structural issues. Because of this, it is recommended that the pavement in this area should be replaced.

The pavement that is located on the east side of the FBO T-hangars (Section 4) is used for parking/storage of small GA aircraft. The existing pavement in this area shows significant signs of deterioration and surface cracking. This area does not appear to have had any maintenance performed on the pavement in recent years. Due to its use of mainly storage/parking for small GA aircraft, the pavement may have a few more years of use in it, but should be considered for rehabilitation or reconstruction within the next 5 years.





Figure II-2 Existing Pavement Areas





## Conclusions

The Existing Facilities Evaluation that was performed as part of the Conceptual Area Development Plan for the existing Development Sub-Zone provided valuable information regarding existing and future needs of the airport.

The majority of the existing facilities that are located within the Development Sub-Zone are in need of repair, renovations, or replacement. The exception to this is the existing terminal building, the majority of which was constructed as a new building between 2010 and 2014 and the offices/garages associated with Hangar 4 which were constructed around 2006. These facilities have many more years of useful life, especially with proper maintenance. The existing wastewater treatment facility was completed in 2013 and is in good condition. Currently an Environmental Assessment is underway to evaluate alternatives that supplement or improve the ability to treat wastewater at the airport.

Hangars 4 and 5 and the FBO Terminal, which are owned and operated by Jackson Hole Aviation, are in relatively good condition considering the fact that these buildings are 25 years old. The hangars appear to have been well maintained and serve their purpose well of aircraft maintenance and storage facilities. The FBO terminal is limited in size and may need some interior upgrades and renovations in the near future. The FBO indicated a potential need for a new hangar and FBO terminal to replace the existing Hangar 5 and associated FBO terminal.

The remaining buildings within the Development Sub-Zone are all at least 30 years old. Of these, only the Airport Administration Offices have had recent renovations, which occurred in 2003. All of the buildings that are 30 years or older are showing signs of fatigue and deterioration. The rental car QTA facilities are in critical need of replacement as they are over 40 years old and no longer operationally efficient. The buildings from Hangar 1 to the south, including Hangar 1, SRE Storage building, Hangars 2 and 3, and the nested T-Hangars are over 35 years old and have multiple deficiencies, including hangar door failure, roof leaks, and drainage infiltration from the surrounding paved areas. These buildings should be replaced as soon as practical. The existing Airport Administrative Offices, SRE Storage, and ARFF staging and equipment storage buildings, located at the south end of the existing terminal building, are over 30 years of age. These buildings are in need of improvements such as new siding and heating, ventilation and air conditioning (HVAC) systems. These facilities may have several more years of use if maintained properly. However, it may be advantageous to replace these buildings to take advantage of efficiencies that exist in new construction, which would lower operating costs overall.

The North and South Fuel Farms are 10 and 25 years old respectively. These facilities are lacking in capacity and available flow rate. The FBO has stated that 350 gallons per minute (gpm) of fuel delivery from the fuel storage tanks to the fuel delivery trucks would meet its need. However, the north fuel farm is limited to 242 gpm and the south fuel farm is limited to 180 gpm of fuel delivery. The limits of the fuel farm has an impact on the ability for the fuel trucks to fuel departing aircraft in a timely manner, resulting in delays of aircraft operations, particularly on peak holidays and tourist seasons. Although some additional fuel storage tanks may be added to the fuel farms and modifications to the existing system can be performed to improve the fuel delivery flow rate, it would be more advantageous for the airport to construct a new fuel farm at a location where it would have minimal



impact on future airport development within the Sub-Zone and would be less visible to the flying public as they enter and exit the airport.

Finally, the existing pavement areas within the Development Sub-Zone vary in regards to their condition. The areas identified as Sections 1 and 2, which included the main parking lot north of the existing fuel farm, the access road to the FBO and the FBO parking lot are in relatively good condition, not exhibiting significant signs of distress or deterioration. These areas can provide several more years of use with proper maintenance. However, the areas identified as section 3 and 4, which include pavement around the existing rental car QTAs and to the south as well as pavement on the east side of the existing T-Hangars, is showing significant deterioration and distress through surface cracking and pavement failures. The pavement located in Section 3 is recommended to be replaced, as the pavement in this area is in the worst condition of any on the airport. The pavement in Section 4 may have a few more years of use, however, it would be best to replace the pavement in this area within the next 5 years.

## Chapter III: Forecast Summary and Demand

### Introduction

This task consisted of reviewing existing activity forecasts and supplementing forecasts, in order to accurately define current trends at Jackson Hole Airport. The forecasts summarize the aviation demand that is reasonably expected during the planning period (2015-2040).

### Recent Aviation Activity Trends at JAC

A number of sources were used to document recent aviation activity trends at JAC:

- Jackson Hole Airport Records
- FAA Air Traffic Activity Data System (ATADS) – activity data counts by air traffic controllers
- FAA Traffic Flow Management System Counts (TFMSC) – data compiled from flight plans and contacts with Salt Lake Center
- FAA and U.S. Department of Transportation Bureau of Transportation Statistics – air carrier passenger enplanements

Recent activity trends are discussed below in relation to each segment/type of activity that occurs at JAC. The exception is military activity – in CY 2014 military operations represented less than 1% of total operations, and are anticipated to remain at that level throughout the forecast period.

### Passenger Enplanements

Jackson Hole Airport receives scheduled passenger service from a number of airlines and their regional partners (**Tables III-1 & III-2**):

**Table III-1 Non-Stop Destinations by Airline**

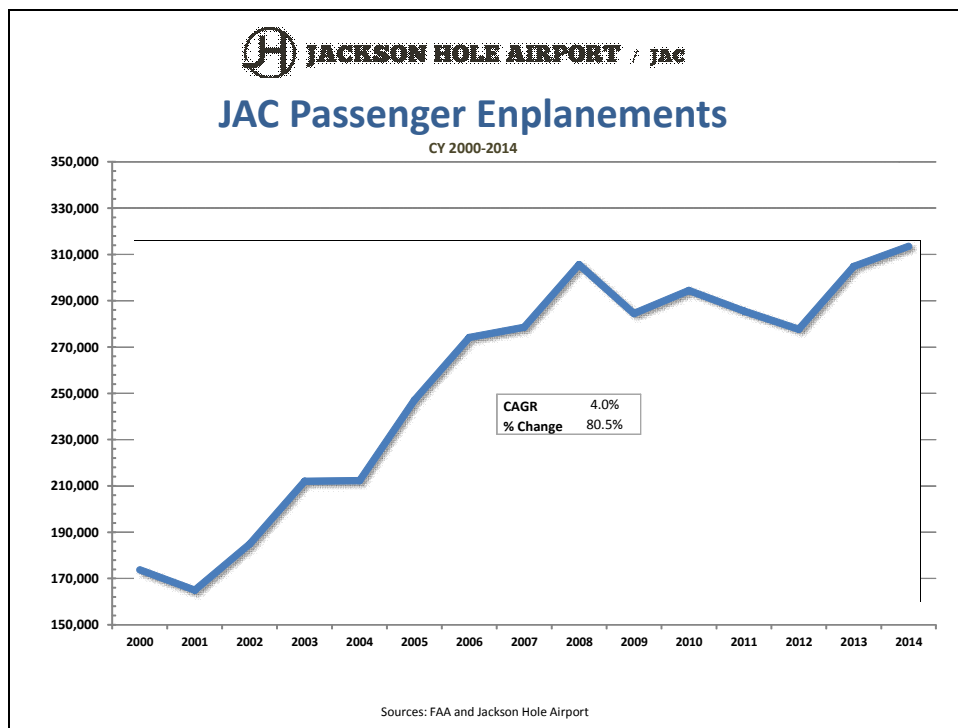
Non-Stop Destinations	
American Airlines	<b>Winter Season:</b> Chicago-O'Hare, Dallas/Fort Worth, Los Angeles (start Dec. 17, 2015) <b>Summer Season:</b> Chicago-O'Hare, Dallas/Fort Worth, Los Angeles (start June 6, 2015)
Delta Air Lines	<b>Winter Season:</b> Atlanta, Minneapolis/St. Paul, New York–JFK, Salt Lake City <b>Summer Season:</b> Atlanta, Minneapolis, Salt Lake City, Los Angeles (start June 6, 2015)
Delta Connection	<b>Year Round:</b> Salt Lake City <b>Winter Season:</b> Los Angeles, Seattle/Tacoma
United Airlines	<b>Winter Season:</b> Chicago-O'Hare, Denver, Houston-Intercontinental, Newark, Washington-Dulles <b>Summer Season:</b> Chicago-O'Hare, Denver, Houston, San Francisco (start May 1, 2015)
United Express	<b>Year Round:</b> Denver <b>Winter Season:</b> Houston-Intercontinental, Los Angeles, San Francisco <b>Summer Season:</b> Los Angeles

**Table III-2 JAC Market Share By Airline**

Airline	JAC Market Share - 2015	
	Summer	Winter
United	34.86%	33.31%
Delta	26.48%	25.51%
SkyWest	24.23%	25.07%
American	12.05%	10.64%
Frontier	1.54%	5.09%
Other	0.84%	0.39%

Source: U.S. Bureau of Transportation Statistics (BTS)

Scheduled carrier passenger enplanements increased by 80.5% between 2000 and 2014 (**Chart III-1**). Enplanements declined in 2011 and 2012, in part due to the impact of the economic recession, but have since rebounded in 2013 and 2014.

**Chart III-1 JAC Passenger Enplanements**


Key points regarding airline service at JAC:

- JAC is an origin & destination (O&D) airport - i.e. there is no significant connecting service.
- Summer is the strongest traffic season, with a smaller winter peak, although most future growth is anticipated during the winter season.
- Visitors to Grand Teton and Yellowstone National Parks generate a large share of airline passengers.
- The runway length (6,300') and the field elevation (6,450' MSL) limit the amount of payload airlines can carry.

## Air Carrier Operations

The FAA defines air carrier as an aircraft with seating capacity of more than 60 seats, or a maximum payload capacity of more than 18,000 pounds, that carries passengers or cargo for hire or compensation. Aircraft that are counted as air carrier by FAA include the Boeing B-737-700, Airbus A-319/320, CRJ-700, ERJ-170/190/195. Smaller 35 and 50-seat regional jets such as the ERJ-135/145, D-H Dash 8-100, etc., are counted by FAA as ‘Air Taxi’ operations (discussed below).

Between C.Y. 2001 and 2014, air carrier aircraft operations<sup>1</sup> at Jackson Hole Airport increased by approximately 200%. In addition to accommodating growing passenger demand, another reason for the growth in air carrier operations was due to the industry-wide shift to larger regional jets such as the CRJ-700, that are counted as air carrier aircraft operations by FAA, combined with the airline’s decreasing use of 35 and 50-seat RJs such as the ERJ-135/145 and CRJ-200.

## Air Taxi Operations

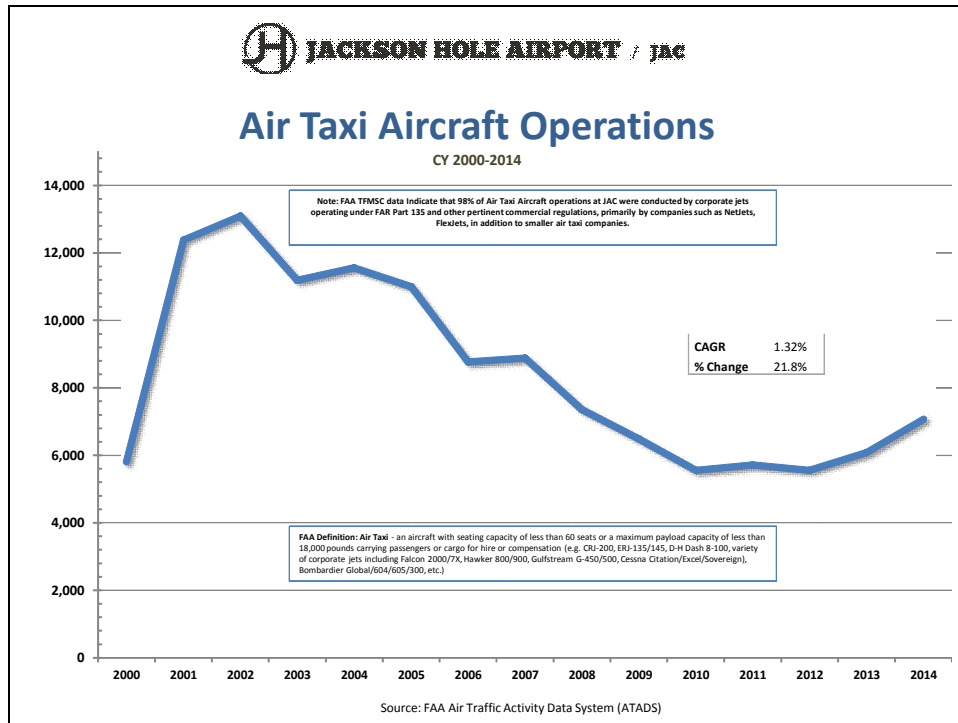
The FAA defines ‘air taxi’ as an aircraft with seating capacity of less than 60 seats, or a maximum payload capacity of less than 18,000 pounds, carrying passengers or cargo for hire or compensation (e.g. ERJ-135/145, D-H Dash 8-100, as well as a variety of corporate jets including Falcon 2000/7X, Hawker 800/900, Gulfstream G-450/500, Cessna Citation/Excel/Sovereign), Bombardier Global/604/605/300, etc.

Data compiled by FAA’s Traffic Flow Management System Counts (TFMSC) indicates that approximately 98% of air taxi operations are conducted by corporate jets operating under FAR Part 135 and other pertinent commercial regulations. As noted previously, there are extremely few scheduled operations by 50-seat RJs at JAC. Air taxi operations declined between 2002 and 2012 as airlines decreased use of 50-seat RJs and shifted to larger RJs which are counted as air carriers. Air taxi operations increased in 2013 and 2014 as the economy improved and charter activity by NetJets, Flexjets, and similar firms, increased (**Chart III-2**).

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<sup>1</sup> Takeoffs and landings. Source: FAA’s Air Traffic Activity Data System - ATADS

Chart III-2 JAC Air Taxi Operations



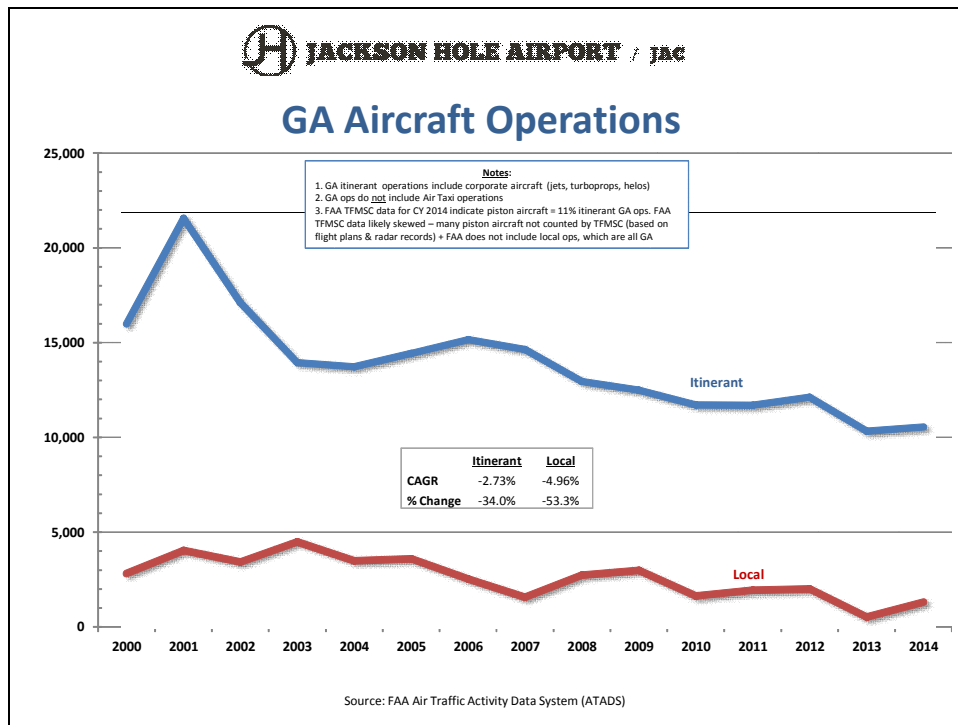
## General Aviation Operations

General aviation operations include small privately owned aircraft, primarily piston-engine airplanes used for pleasure/discretionary flying, as well as large corporate jets including Gulfstream G-550s and Canadair Global Challengers. Piston-engine traffic has moved in a different direction compared to corporate/turbine aircraft. Based on data compiled by tower controllers at towered airports throughout FAA's Northwest Mountain Region, the number of GA operations declined by 27.4% between 2000 and 2014.

At Jackson Hole Airport, GA operations declined by 36.9% between 2000 and 2014 (**Chart III-3**). Local (training) GA operations declined by 53.3% over that period (source: FAA ATADS). The FAA projects that on the national level, the number of active piston-engine aircraft will increase by only 0.4% over 20 years (2015-2035).



Chart III-3 JAC General Aviation Operations



## Corporate Aircraft Operations

Corporate aircraft operations are those conducted in turbine powered aircraft. They are often listed as business jet operations. Privately-owned and operated corporate (business) aircraft are counted by air traffic controllers as general aviation operations. In CY 2014, business jet operations represented approximately 78.6% of total GA operations at JAC.

As noted above, corporate aircraft are also used for charter/on-demand commercial service but are counted by air traffic controllers as air taxi operations even though they operate the same airplanes, park on the same ramps on the airport, and use the same FBO facilities as privately owned corporate jets. Aircraft activity by type of aircraft are derived from flight plan data and contacts with radar approach control (in the case of Jackson Hole Airport that is Salt Lake Center).

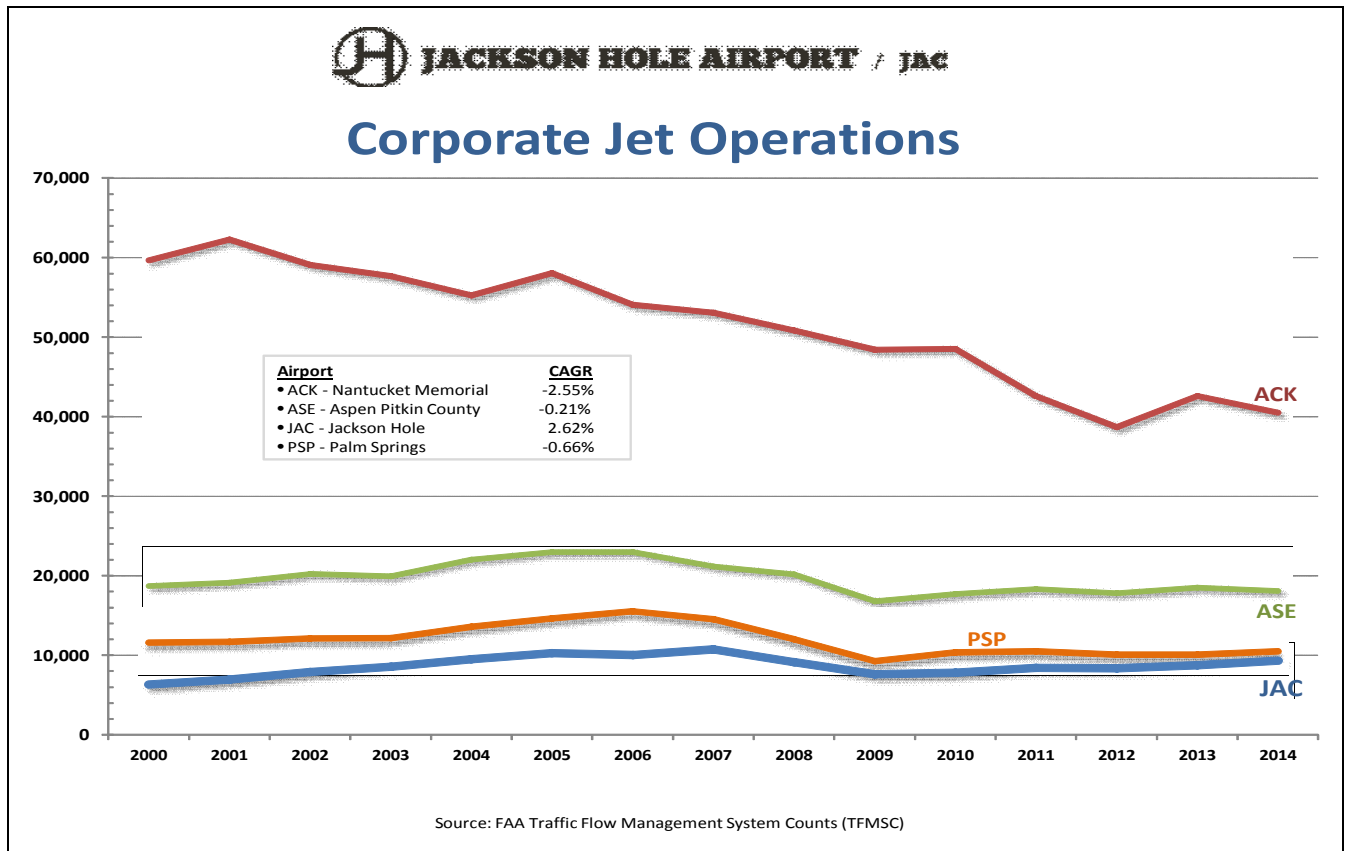
**Chart III-4A** shows that business jet operations at JAC increased between 2000 and 2008, dropped in 2008-2009, then began a steady rebound in 2010 that continued through 2014. However, business jet operations in 2014 have not rebounded to the level experienced in 2007. Business jet operations at other resort destinations (Nantucket, MA, Palm Springs, CA, and Aspen, CO) were also tracked over the same period (**Chart III-4B**). While JAC has fewer corporate jet operations compared to the other resort destinations, the overall trend in corporate activity has been steadier, with less decline experienced during the recession of 2008-2010.



### Chart III-4A JAC Business Jet Operations



### Chart III-4B JAC Corporate Jet Operations



## Seasonal Activity Trends

Both air carrier and corporate activity show consistent peak activity in the summer months, with a smaller peak in the winter months. The shoulder seasons (spring and fall) generally experience the least amount of air traffic. Given that a large percent of air passengers fly in to visit the national parks and other outdoor activities in the region, those seasonal peaks are anticipated to continue throughout the planning period.

## Previous Forecasts

A number of forecasts of aviation activity have been prepared for JAC since 2010:

- ➔ FAA Terminal Area Forecast (TAF), issued Jan. 2015
- ➔ FAR Part 150 Noise & Land Use Study, 2014/2015
- ➔ Air Service Internal Modeling, 2015
- ➔ Jackson Hole Airport Operational Enhancement Study, 2011
- ➔ National Park Service, Final Environmental Impact Statement (FEIS), Jackson Hole Airport Agreement Extension, Sept. 2010

In addition to those listed above, two other forecasts were analyzed:

- ➔ FAA Aerospace Forecasts, FY 2015-2035, which projected air carrier and GA activity on the national level.
- ➔ Corporate Aircraft Market Forecast, 2014-2033, prepared by Bombardier.

## Forecast Conclusions

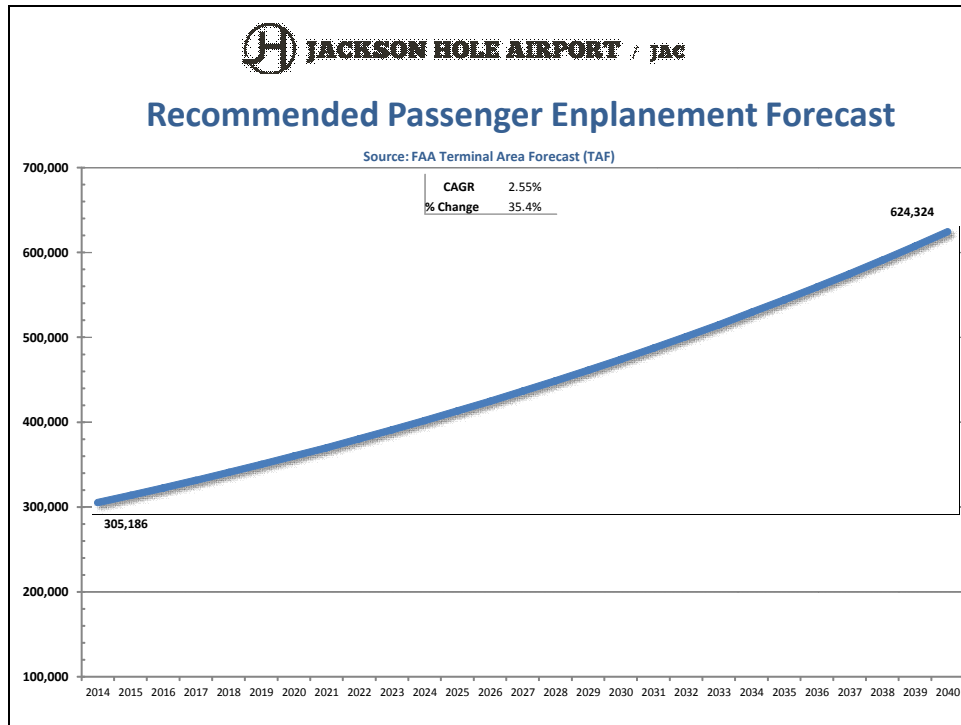
Each of the forecasts analyzed air service trends, as well as general aviation activity. While specific numbers varied, the general conclusions were:

- Air service will continue to grow at JAC, and it will remain an O&D (vs. connecting) market
- Air carrier and corporate traffic will continue to fluctuate seasonally
- No significant changes are anticipated in the national parks, however the growth trend of visitors to the park is expected to continue.
- The local and regional economy will experience steady growth
- Small GA (piston) aircraft activity will decline or remain steady
- Corporate and air taxi aircraft activity will increase.

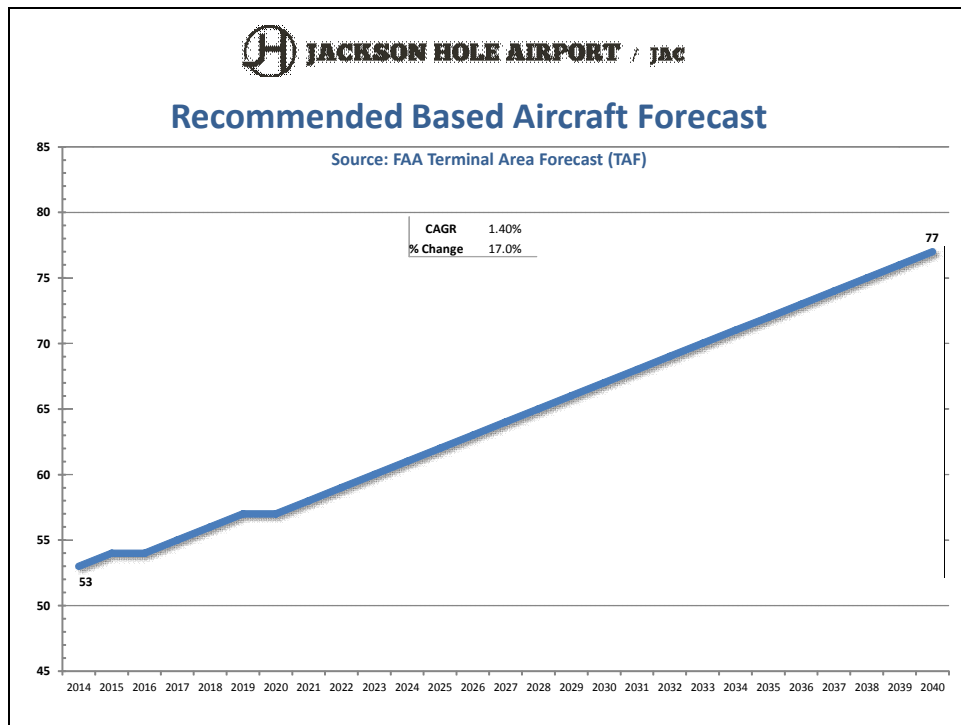
**Charts III-5A and III-5B** summarize the recommended forecasts.



### Chart III-5A JAC Recommended Passenger Enplanement Forecast



### Chart III-5B JAC Recommended Based Aircraft Forecast



## Chapter IV: Auto Parking Forecast Activity and Summary

### Introduction

This task consisted of verifying the data from the existing Rental Car and Parking Master Plan that was completed in 2012 for public and rental car activity in order to project future vehicle activity at JAC and develop vehicle parking concepts based upon the results.

### Recent Auto Parking studies at JAC

In 2012, JAC completed a Rental Car and Parking Master Plan that forecasted auto parking activity at the airport to 2032. Since 2012, there have been no additional auto parking studies or data collected. The result of the 2012 study forecast for auto parking is as follows:

20-Year Auto Parking Forecasts		
Parking Type	2012 Activity	2032 Forecast
<b>Public Parking</b>		
Typical ( <i>90% - outside of peak</i> )	275 spaces	340 spaces
Peak ( <i>Christmas</i> )	373 spaces	460 spaces
<b>Rental Car (Ready and Return)</b>		
Typical ( <i>outside of peak</i> )	190 spaces	190 spaces
Peak ( <i>Summer</i> )	440 spaces	440 spaces
<b>Employee</b>	120 spaces	170 spaces
<b>Rental Car (Overflow/Staging)</b>		
Peak Only ( <i>Summer</i> )	500 cars	600 cars

It should be noted that existing rental car overflow/staging parking areas are located on unpaved or badly deteriorated paved areas on the airport and are not well suited for public/pedestrian use. In addition, the existing rental car overflow/staging areas are generally unstriped, with the maximum amount of vehicles that can be stored in an area nose to tail.

This forecast information was then developed into parking space requirements for the two peak times identified; Christmas for public parking and summer for Rental Car Parking as shown below:

2032 Parking Space Requirements		
Parking Type	Public Peak (Christmas)	Rental Car Peak (Summer)
Public Parking	460 spaces	340 spaces
Rental Car Parking	190 spaces	440 spaces
Employee	170 spaces	170 spaces
<b>Total Parking Spaces</b>	<b>820 spaces</b>	<b>950 spaces</b>
Rental Car (Overflow/Staging)	0 cars	600 cars

As identified from the auto parking activity forecast above, the Rental Car Peak during the summer puts the highest demand upon the airport for parking spaces. In addition, the demand for rental cars during the remainder of the year outside of the summer peak is reduced to the point that overflow/staging parking areas are not required or are very limited.

## Updated Auto Parking Forecast at JAC

During the Conceptual Area Development Plan for JAC, data from the 2012 Rental Car and Parking Master Plan was analyzed for accuracy with current trends at JAC. In addition, discussions were held with Rental Car Companies to update rental car activity at JAC. Through this evaluation and discussions that were held, there were some modifications made to the data from the 2012 Rental Car and Parking Master Plan.

One of the clarifications that has been included in this updated forecast is that there are three peaks or time frames throughout the year in which the auto activity puts stress on the existing parking availability at JAC. These peak times include the summer tourist season, holiday/Christmas season, and Spring Break. During these peak times, the rental car companies need to have the ability to store/stage vehicles at the airport. Another change that was implemented through discussions with rental car companies was the increase of rental car volume at the airport during peak times from what was shown in the 2012 study. This resulted in an overall greater amount of auto activity at the airport during peak times. One final change that occurred was that the rental car companies wanted to keep the same rental car/ready spaces available during peak and off-peak times. This request would keep public and rental car parking areas consistent and eliminate potential confusion that flex parking (using certain areas for both public and rental car parking, depending on demand) would create.

When the numbers for the rental car companies were updated, a compounded annual growth rate (CAGR) of 1.5% was used to forecast activity out to 2040. This is less than the 2.55% CAGR forecasted for passenger enplanements out to 2040 due to the fact that a portion of the enplanements will be local residents who do not need a rental car. In addition, the proposed improvements to public transit within the area will encourage some visitors to forego the use of a rental car (see section Potential Effect of Integrated Transit Plan). Finally, some of the visitors, such as those who are visiting the area and are picked up by a local resident, use a taxi, or are part of tour groups who will use tour bus services when they are in the area will have no need for a rental car.

The data that was used for public parking and employee parking from the 2012 Rental Car and Parking Master Plan was found to be reasonable and consistent with current activity, so these values were used as a basis for this updated forecast. The projected CAGR for public parking in the 2012 study was 1.00%. With the limited potential for significant population growth in the area, proposed improvements to the public transit, this number seemed rational and was applied the updated forecast as well. The projected CAGR for employee parking in the 2012 study was 1.60%. Due to the continuation of more automated services at airports and proposed improvements to public transit this growth rate was revised to 1.00% for this updated forecast. The auto parking forecast produced for the Conceptual Area Development Plan extends to 2040. In addition, current auto parking activity in



2015 as well as incremental forecasts in 2020 and 2030 has been developed in order to provide the airport with a conceptual plan for when auto parking facilities may need to be expanded. Using updated information from the rental car companies as well as public and employee parking data from the 2012 Rental Car and Parking Master Plan, the forecast on the following page has been developed for use in this Conceptual Area Development Plan:

Incremental Auto Parking Forecasts					
Parking Type	2015 Activity	2020 Forecast	2030 Forecast	2040 Forecast	Existing Spaces
<b>Public Parking</b>					
Typical ( <i>Outside of peak</i> )	285 spaces	300 spaces	331 spaces	366 spaces	317 spaces
Peak ( <i>Christmas/Spring Break</i> )	386 spaces	406 spaces	448 spaces	495 spaces	241* spaces
<b>Rental Car (Ready and Return)</b>					
Typical ( <i>outside of peaks</i> )	440 spaces	440 spaces	440 spaces	440 spaces	356 spaces
Peak ( <i>Summer/Christmas/Spring Break</i> )	440 spaces	440 spaces	440 spaces	440 spaces	356 spaces
<b>Employee</b>	128 spaces	135 spaces	149 spaces	164 spaces	176 spaces
<b>Rental Car (Overflow/Staging)</b>					
Peak ( <i>Summer</i> )	547 cars	623 cars	794 cars	992 cars	650 cars#
Other ( <i>Christmas/Spring Break</i> )	390 cars	454 cars	597 cars	764 cars	650 cars#

\* Approximately 76 public spaces on the east edge of the main lot are lost during the winter season for snow removal

# Not well suited for pedestrian/public use

As was done in the 2012 Rental Car and Parking Master Plan, this information was developed into parking space requirements for the three peak times identified; Christmas and Spring Break for public parking and Summer for Rental Car Parking. The three incremental auto parking forecasts above for 2020, 2030, and 2040 are reflected in the following tables:

2020 Parking Space Requirements			
Parking Type	Public Peak (Christmas/Spring Break)	Rental Car Peak (Summer)	Existing Spaces
Public Parking	406 spaces	300 spaces	317/241* spaces
Rental Car Parking (Ready/Return)	440 spaces	440 spaces	356 spaces
Employee	135 spaces	135 spaces	176 spaces
<b>Total Parking Spaces</b>	<b>981 spaces</b>	<b>875 spaces</b>	<b>849 spaces</b>
Overflow/Staging	454 cars	623 cars	650 cars#

\* Approximately 76 public spaces on the east edge of the main lot are lost during the winter season for snow removal

# Not well suited for pedestrian/public use

2030 Parking Space Requirements			
Parking Type	Public Peak (Christmas/Spring Break)	Rental Car Peak (Summer)	Existing Spaces
Public Parking	448 spaces	331 spaces	317/241* spaces
Rental Car Parking	440 spaces	440 spaces	356 spaces
Employee	149 spaces	149 spaces	176 spaces
<b>Total Parking Spaces</b>	<b>1,037 spaces</b>	<b>920 spaces</b>	<b>849 spaces</b>
Overflow/Staging	597 cars	794 cars	650 cars <sup>#</sup>

\* Approximately 76 public spaces on the east edge of the main lot are lost during the winter season for snow removal

# Not well suited for pedestrian/public use

2040 Parking Space Requirements			
Parking Type	Public Peak (Christmas/spring Break)	Rental Car Peak (Summer)	Existing Spaces
Public Parking	495 spaces	366 spaces	317/241* spaces
Rental Car Parking	440 spaces	440 spaces	356 spaces
Employee	164 spaces	164 spaces	176 spaces
<b>Total Parking Spaces</b>	<b>1,099 spaces</b>	<b>970 spaces</b>	<b>849 spaces</b>
Overflow/Staging	764 cars	992 cars	650 cars <sup>#</sup>

\* Approximately 76 public spaces on the east edge of the main lot are lost during the winter season for snow removal

# Not well suited for pedestrian/public use

After all of the data collected for the auto parking activity at the airport, there are a couple of items that are apparent. The first is that during the public peak (Christmas/Spring Break), the activity is highest for paved parking spaces. The other is that the need for rental car overflow/staging is highest during the summer rental car peak.

## Potential Effect of Integrated Transportation Plan

In September of 2015, the town of Jackson, WY and Teton County adopted an Integrated Transportation Plan (ITP) which endeavors to meet future transportation demand through the use of alternative modes. The ITP goal, over a 20 year period, is to increase ridership on bus transit fourfold, from 0.9 million to 3.6 million<sup>1</sup>. The transportation plan will focus on making transit a viable option for commuters and workers, residents of Jackson and surrounding communities, and visitors to Teton Village and Grant Teton National Park. In addition, the Town of Jackson and Teton County will make investments to improve the pedestrian and bicycle infrastructure in the towns, villages, and rural neighborhoods in order to encourage more walking and biking by residents and visitors.

Many communities and destinations throughout the United States are looking for ways to encourage the use of alternative modes of transportation, and the Town of Jackson and Teton County are no

<sup>1</sup> <http://www.tetonwyo.org/compplan/LDRUpdate/ITP/JacksonTeton%20ITP%20September2015.pdf>, page 6, Table 1-1





exception. During the ski season, the Ride2Fly program, which offers free parking at the town parking garage for up to fourteen days with shuttle service to the airport for a minimal charge has proven to be a preferred option for many residents when flying out of Jackson Hole Airport. The success of this program shows that, if provided with the facilities and dependable service, many residents will choose to ride public transit. It is also reasonable to believe that a significant amount of employees who commute to work daily, including those who work at the airport, would choose to take public transit if the facilities and service was provided. The Integrated Transportation Plan would likely have a positive affect by reducing employee and public vehicle traffic. It is estimated that if the plan provided regular service to/from the airport, approximately 80% of employees and 25% of the public would use this service.

There are three times during the year in which the town of Jackson and the surrounding areas has an increase in the number of visitors. The summer tourist season sees the largest amount of visitor activity, while the holiday/Christmas season and Spring Break time are also popular times to visit the area. Over the past several years, summer tourist activity has remained relatively steady, with modest increases in number of visitors. It is anticipated that this trend will remain similar for the foreseeable future. Where most of the growth is anticipated is during the winter time, including the holiday/Christmas peak. When consideration is given to the typical visitor during these times of years, there are some factors that will affect the use of public transit.

Visitors who travel to the Jackson area during the winter are primarily coming to ski or enjoy other winter activities. Visitors arrive both by car and via aircraft into the Jackson Hole Airport and spend the majority of time within the proximity of the town of Jackson or Teton Village, with few venturing out to explore the nearby National Parks. It is estimated that the use of public transit by wintertime visitors would be appealing to many since their area of planned travel is limited. However, it should be recognized that those who arrive at the airport bring with them luggage and other personal items (skis, snowboards, etc.). Any public transit service for visitors to/from the airport to the town of Jackson or Teton Village should be equipped to accommodate not only the passenger, but also the luggage and personal items they may bring with them.

During the summer tourist season, the majority of visitors arrive into the area to explore and nearby National Parks. Once again, visitors into the area arrive both by car and via aircraft into the Jackson Hole Airport. Those who arrive by car are likely to prefer using the vehicle as they travel around the area. Some visitors to the area may choose to walk, bike, or take public transit within the Town of Jackson or other communities for short trips (i.e. restaurants, shopping, events) once they arrive at their accommodations. Additionally, there are a number of larger groups that visit who do so through tour companies which use large tour buses. Many of these visitors are from outside of the United States and feel more comfortable traveling in this manner. However, if the plan is to tour the nearby National Parks, it is likely that the majority of visitors would prefer to do this in a personal vehicle. Some of the reasons for this are the fact that they can travel at their own pace, choose where they want to travel, what they want to see, and what they want to do, and carry personal items with them

(food, drinks, backpacks, outdoor gear, toys and other items for children). Much of these preferences could not be accommodated by using public transit.

There will likely continue to be some clientele, whether arriving by automobile or aircraft, who do not want their visit to the area to be determined by public transit schedules and prefer to travel at their own pace. In addition, visitors who own vacation homes in the area will most likely use a personal vehicle during their stay. Business travelers will also likely prefer to use a personal vehicle when traveling to business meetings, meals, or other appointments rather than depending on public transit.

In summary, the proposed Integrated Transportation Plan should have a positive effect in keeping the use of personal vehicles, whether rentals or driven to the Jackson area, at reasonable levels. It may take some time for a program of public transit to become efficient enough that it is considered a reliable alternative, especially for visitors to the area. Public transit has already proven to be a useful means of travel for the local residents as evidenced by the Ride2Fly program. There is reason to believe that improved services would make public transit even more attractive to this demographic. In addition, if public transit services were provided for employees who work at the Jackson Hole Airport, these would likely be highly utilized. Visitors to the Jackson area will likely be more inclined to use public transit during the wintertime, when the majority of people stay within the Town of Jackson and Teton Village. However, the summertime visitors may be less inclined to use public transit as the majority of these guests plan on traveling through the nearby National Parks and often prefer to do this in their own personal vehicle.

### Current Intersection/Roundabout Study

There is a current study on the intersection/existing roundabout that is located at the entrance to the parking area at JAC. Jviation, Inc. will continue to coordinate with the airport and consultants working on this study and will make any required updates to the conceptual plans suggested in this Conceptual Area Development Plan based upon the outcome of the intersection/roundabout study.

## Chapter V: Concept Development

### Introduction

After considering the existing conditions of the buildings/structures and related infrastructure within the Development Sub-Zone and developing forecasts for passenger enplanements and auto parking activity out to 2040, the next task was to develop concepts that would enable JAC to best meet the future airport activity forecasts while at the same time maintaining the highest and best use of the limited area in which improvements could be made. This section of the report will present the proposed concepts that have been developed for the Conceptual Area Development Plan.

### Development Plan Summary

In order to provide options that met the intent of the Conceptual Area Development Plan to maintain the highest and best use of the limited are within the Development Sub-Zone and best meet the future needs of the airport, several meetings were held with various stakeholders in order to discuss development concepts, as follows:

- JAC Staff
- Jackson Hole Aviation (current FBO)
- National Park Service
- Rental Car Companies
- JAC Airport Board, GA Sub-committee

Through these discussions, valuable information was gathered which enabled a refining of the concepts that were presented. The conceptual development plans in this report are the result of the valuable dialogue that occurred with the above mentioned parties.

There are a total of 4 conceptual development plans. These plans propose improvements to assist the airport in planning the future of the Development Sub-Zone. The conceptual development plans are phased, as follows:

- 1 to 5 Years
- 5 to15 Years
- 15 to 25 Years
- 25 Years and Beyond

The gradual approach used for the conceptual improvements within the Development Sub-Zone will allow the airport to incrementally decide when improvements should occur, based upon future activity at the airport. It will also provide the airport with an idea of where space needs to be reserved for future development so that any proposed projects can be located without later having to remove structures constructed during this phased plan. Each plan provides a summary of the developments

along with an existing facility removal schedule and square footage comparison. Also, there is an exhibit that depicts the proposed square footage available for commercial and general aviation aircraft parking ramp following the completion of conceptual improvements within the Development Sub-Zone.

Within the 4 conceptual plans, there are five automobile parking alternatives that provide JAC options to meet the forecasted activity of automobile parking at the airport. These parking layout concepts can be implemented, in whole or in part, by JAC when the forecasted activity warrants such action. The parking layout alternatives were developed to be easily integrated with the overall proposed improvements in the Development Sub-Zone. Additionally, an analysis was performed on the effect of the proposed capital projects on the automobile parking capacity at the airport, based upon forecasted activity. This analysis will provide the airport with a general idea of when the conceptual parking lot option may need to be considered. These parking layout concepts can be implemented, in whole or in part, by JAC when the forecasted activity warrants such action, or when other proposed improvements in the Development Sub-Zone dictate.

This study also evaluated the location of each of the proposed structures within the conceptual development plans and compared them to the maximum building height elevation of 6,442 feet (MSL) that has been agreed upon by JAC and the National Park Service. The result of this evaluation will allow the airport to estimate the overall structure size that can be placed at the proposed locations on the development plans.

During the process of developing the conceptual plans for JAC, it was recognized just how space constrained the airport was in attempting to meet the forecast activity. Although these plans represent a large improvement over existing conditions today, the realization is that due to the constraints that the airport has, developing the airport to fully meet future activity may not be possible.

## Conceptual Area Development Plans

This section will provide a brief description of the conceptual development plans followed by a graphic depiction of each of the plans. The Conceptual Area Development Plans will be considered first followed by the proposed automobile parking modifications.

### **Conceptual Area Development Plan Years 1 to 5**

This plan proposes several improvements within the Development Sub-Zone that are priorities for JAC. The first improvement will construct 2 new rental car QTA facilities. These structures are 40 years old and in critical need of replacement. Once the new QTA facilities are operational, the old QTA buildings and associated infrastructure will be removed and a 132-stall automobile parking lot will be constructed where the buildings were removed.

Next, a new fuel farm will be constructed on the south side of the airport, just to the east side of the existing FBO terminal and Hangar 5. The proposed location of the fuel farm will provide better access for fuel delivery trucks as well as allow for much needed future development where the existing

fuel farm is located. In addition, the new fuel farm will provide improved fuel delivery to the aircraft fueling vehicles which will enable them to meet aircraft needs into the future. Because the new fuel farm is proposed to be constructed where the existing FBO/employee parking lot is located, a new FBO/employee parking lot will be constructed just south of the proposed fuel farm. This parking lot will require installation of a drainage culvert for an existing irrigation ditch on the south end of the airport.

The final proposed improvement will be to restripe the existing parking lot in front of the terminal building. The result will be a loss of 30 employee parking spaces, but a gain of 55 parking spaces in the main parking lot which can be used as the airport decides. Currently, public parking (short-term and long-term) as well as rental car ready/return occupy the main parking lot.

### **Conceptual Area Development Plan Years 5 to 15**

The proposed improvements during years 5 to 15 primarily focus on replacing existing facilities which have met or exceeded their useful life and are severely deteriorating and improving automobile parking. When the new fuel farm that is proposed for construction in years 1 to 5 comes online, the existing fuel farm will be removed. This will provide an area identified as *Flex Space*.

Flex Space is an area which can be used for airport needs such as additional hangars, aircraft parking, or vehicle parking. It is proposed that the Flex Space available by removing the existing fuel farm be used for constructing a 132-stall automobile parking lot adjacent to the existing 132-stall parking lot that was previously constructed in order to replace existing automobile parking areas as the conceptual development plans are implemented. During the 5 to 15 year plan period, consideration should be given to implementing, in whole or part, Parking Lot Layout Options 3, 4, or 5 in order to meet the forecasted auto parking activity at the airport (see Exhibit P-12, “Capital Projects Effect on Available Parking Spaces/Storage”).

Next, a large GA hangar and FBO terminal are proposed to be constructed on the south end of the airport, south of the current FBO terminal and Hangar 5. This hangar will provide additional covered storage for larger corporate jets and the new FBO terminal will replace the existing terminal which was constructed in 1990 and is due for an upgrade.

The existing T-hangars, which are located on the east side of the GA parking ramp, will be removed and replaced by up to three larger hangars to be constructed on the east side of where the T-hangars are currently located. The existing T-hangars are 35 years old and are in poor condition. The size of the new hangars will be determined in the future prior to design of these facilities. An automobile parking lot for the new GA hangars will be constructed on the east side of the hangars, just south of the QTA facilities.

The final proposed improvement during years 15 to 25 would be to construct a new ARFF/SRE facility north of the existing commercial ramp where the VOR antenna was previously located (preferred) or on the west side of the airfield near the Air Traffic Control Tower. The current ARFF

building is located next to the Airport Administration office. This current location of the ARFF presents a safety hazard in that emergency vehicles response route takes them directly onto the commercial ramp where passengers are enplaning or deplaning aircraft. Additionally, both the ARFF and SRE facilities are 35 years or older and in need of replacement. The current facilities are limited in providing the amount of space that is required for both the ARFF and SRE equipment. When the ARFF/SRE facilities are relocated, then Hangars 1, 2 and 3 and the existing ARFF/SRE facilities could be removed, providing additional GA parking ramp area, Ground Service Equipment area, and Flex Space, which can be used for airport needs such as additional hangars, aircraft parking, or vehicle parking.

### **Conceptual Area Development Plan Years 15 to 25**

During years 15 to 25, additional GA aircraft storage will be provided along with auto parking improvements. Existing Hangar 5 along with the old FBO Terminal will be demolished and a new, large aircraft hangar will be constructed on the same site. The existing hangar and FBO Terminal were constructed in 1990 and by this time will be at least 40 years old. The new, large GA hangar will provide additional covered storage for larger GA aircraft. Additionally, a fourth hangar for GA aircraft will be constructed on the north end of the three GA hangars that were constructed during the 5 to 15 year time period. This hangar size will be determined in the future prior to design of the facility.

During the 15-25 year period, the airport should be moving in the direction of full implementation of either Parking Lot Layout Option 3, 4, or 5 with the goal of having one of these options completed by the 25 year mark. This will allow the airport to have automobile parking facilities that will meet the forecasted activity.

Flex Space, which can be used for airport needs such as additional hangars, aircraft parking, or vehicle parking, will still be available between the new GA hangar development and the employee parking area south of the terminal building.

### **Conceptual Area Development Plan 25 Years and Beyond**

The plan illustrates what the future of JAC could be in 25 years. The plan preserves the future Terminal Building/Administration spaces and Flex Space. Additionally, the plan depicts the proposed Parking Lot Layout Option 3, which includes a 2 story sub-surface parking structure. It is possible that Parking Lot Layout Options 4 or 5 rather than Option 3 are ultimately preferred.

Parking Lot Layout Option 4 proposes a parking structure where the 264-stall lot is located, just to the south of the main parking lot. Parking Lot Layout Option 5 proposes off-site parking facilities for rental car storage and employee parking with an employee shuttle to/from the off-site lot and the airport.

The area required in the Development Sub-Zone for Parking Lot Layout Options 3, 4, and 5 is basically the same, with the difference being having a parking structure on-site to accommodate all forecasted automobile activity or having a portion of these vehicles located in an off-site lot. Therefore, there will be no significant difference in area for airside development and landside development with any of these proposed parking lot options.

One alternative that was considered was to relocate the QTA facilities onto a sub-surface level in the proposed parking garage if Parking Lot Layout Option 3 was ultimately constructed. This could allow for covered parking garages to be attached on the east side of the four hangars located just north of Hangar 4. However, after some discussion, locating the QTA's in the parking garage below grade would present difficulties in drainage and humidity control in a mostly enclosed environment. These difficulties could be overcome with innovative design, however, the cost may not warrant such an investment. In addition, the rental car companies seemed to prefer QTA facilities on the surface with access to a parking structure for their vehicles in order to minimize potential issues of having the QTA below ground.

### **Conceptual Area Development Plan Ultimate Ramp Space Allocation**

Following the execution of the Conceptual Area Development Plans, aircraft parking ramp space remaining was analyzed. There are three areas for aircraft parking identified in the future:

- Commercial aircraft parking ramp
- General Aviation aircraft parking ramp
- Flexible General Aviation/Commercial aircraft parking ramp

The analysis concluded that following the proposed development within the Development Sub-Zone, the commercial aircraft parking ramp and GA aircraft parking ramp areas will decrease by approximately 32,000 square feet and 65,000 square feet respectively. The decrease in the commercial ramp area is due to the creation of the Flexible aircraft parking area. The GA aircraft parking area decrease is caused by the creation of the Flexible aircraft parking area and the construction of additional aircraft hangars. The Flexible aircraft parking ramp is approximately 96,300 square feet in size and provides the ability for either GA aircraft or commercial aircraft to utilize this area for parking. The increase in hangar space for GA aircraft use is approximately 40,000 square feet.

The conceptual development plans and the resulting aircraft parking areas within the limited space available, provide the airport with the greatest amount of flexibility in addressing the future of increasing passenger activity at the airport.

### **Conceptual Area Development Plan Existing and Proposed Building Plan and Profile**

This exhibit is provided to show the approximate height of existing and future buildings within the Development Sub-Zone in relation to the structure elevation restriction limit of 6,442 feet above MSL. This information provides information that is valuable for determining the ultimate size of the buildings proposed in the development plans.

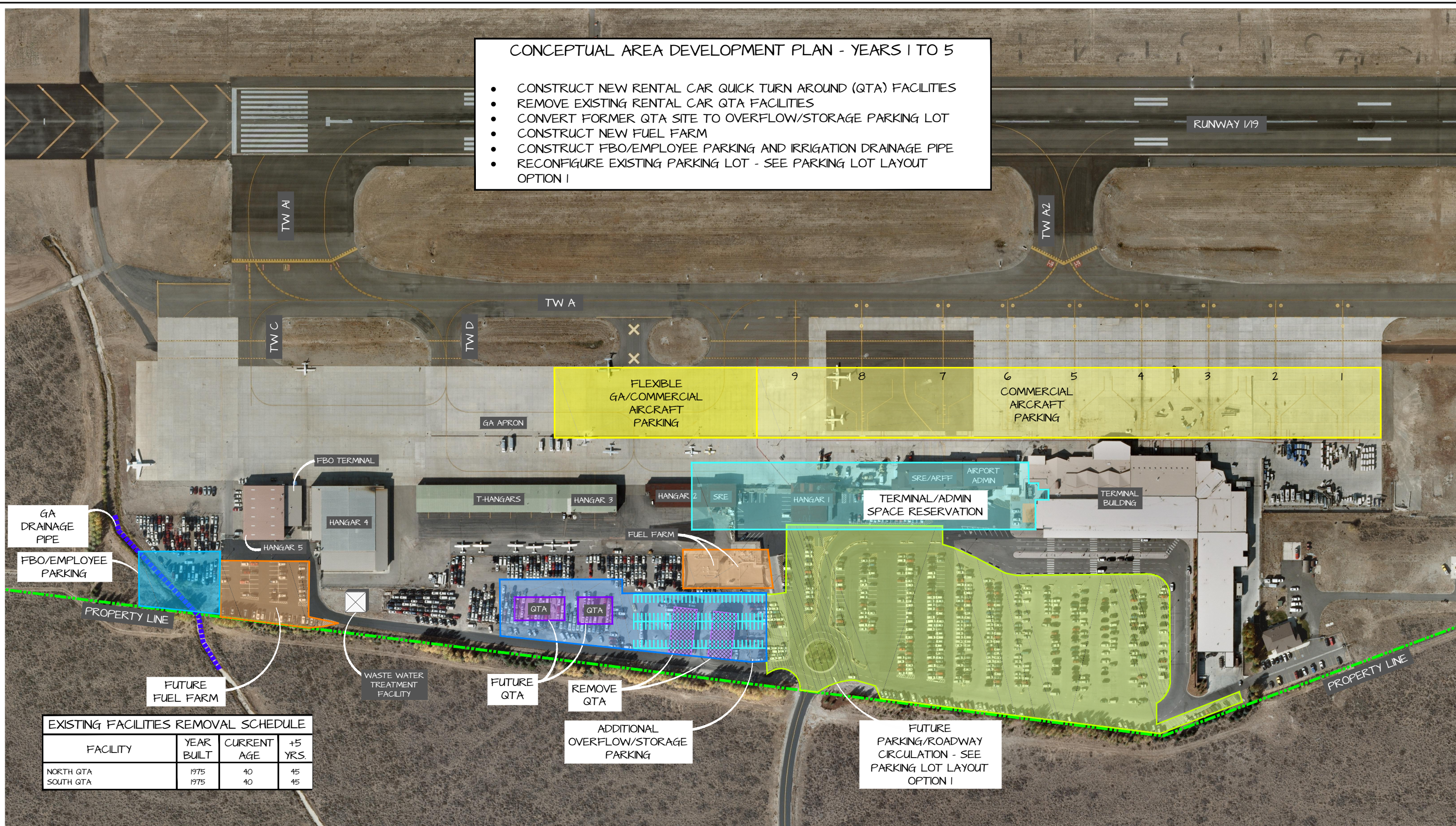
As indicated in the exhibit, the tallest buildings will be constructed on the south end of the airport near the FBO. The height of the buildings decreases the further north they are proposed in the Development Sub-Zone due to the ground level rising in that direction.





CONCEPTUAL AREA DEVELOPMENT PLAN - YEARS 1 TO 5

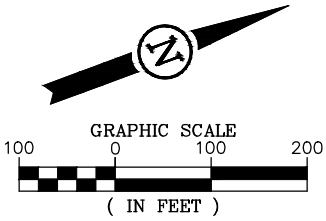
- CONSTRUCT NEW RENTAL CAR QUICK TURN AROUND (QTA) FACILITIES
- REMOVE EXISTING RENTAL CAR QTA FACILITIES
- CONVERT FORMER QTA SITE TO OVERFLOW/STORAGE PARKING LOT
- CONSTRUCT NEW FUEL FARM
- CONSTRUCT FBO/EMPLOYEE PARKING AND IRRIGATION DRAINAGE PIPE
- RECONFIGURE EXISTING PARKING LOT - SEE PARKING LOT LAYOUT OPTION I



EXISTING FACILITIES REMOVAL SCHEDULE

FACILITY	YEAR BUILT	CURRENT AGE	+5 YRS.
NORTH QTA	1975	40	45
SOUTH QTA	1975	40	45

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CONCEPTUAL AREA DEVELOPMENT PLAN  
YEARS 1 TO 5

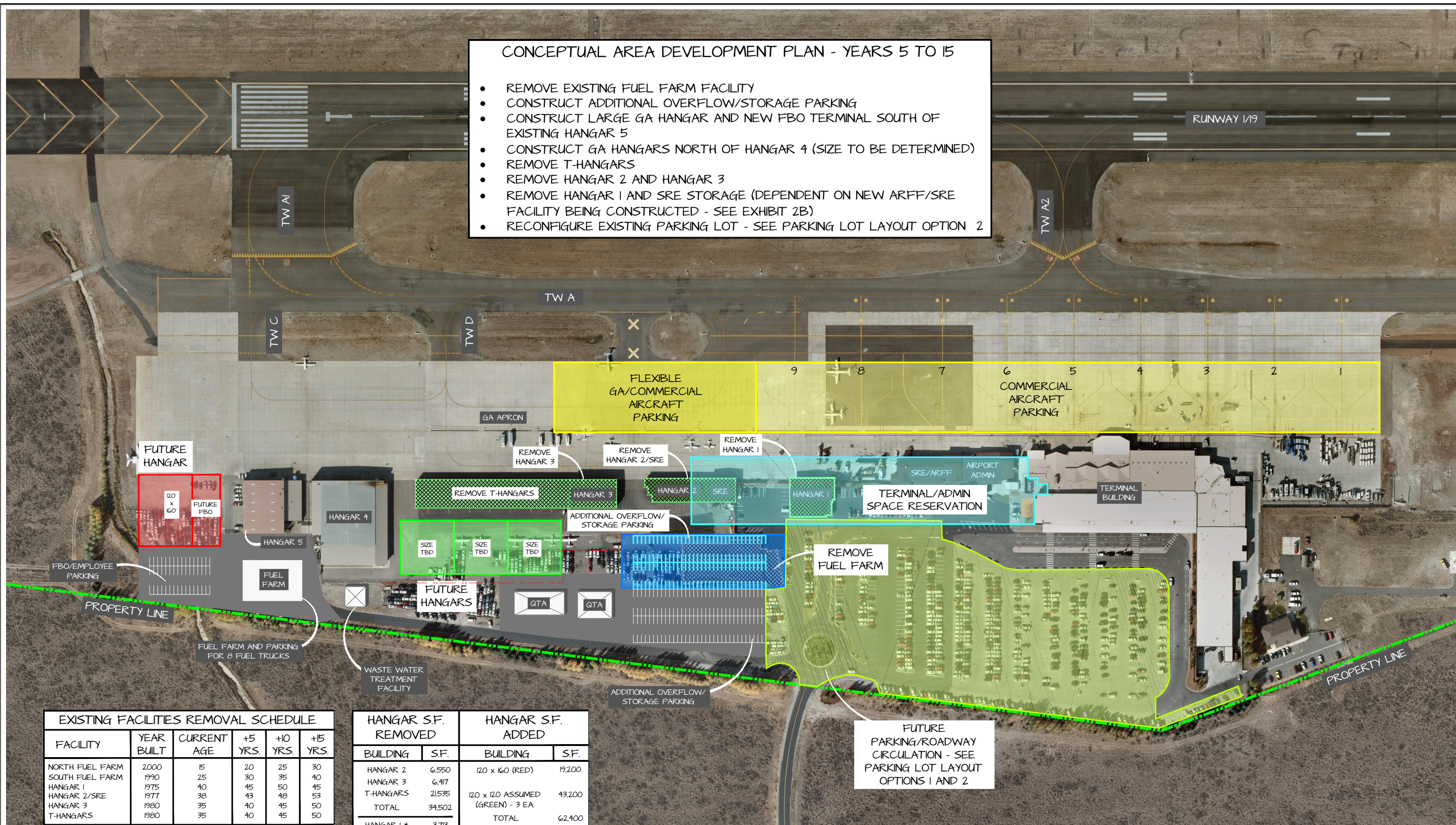
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EXHIBIT D-1



### CONCEPTUAL AREA DEVELOPMENT PLAN - YEARS 5 TO 15

- REMOVE EXISTING FUEL FARM FACILITY
- CONSTRUCT ADDITIONAL OVERFLOW/STORAGE PARKING
- CONSTRUCT LARGE GA HANGAR AND NEW FBO TERMINAL SOUTH OF EXISTING HANGAR 5
- CONSTRUCT GA HANGARS NORTH OF HANGAR 4 (SIZE TO BE DETERMINED)
- REMOVE T-HANGARS
- REMOVE HANGAR 2 AND HANGAR 3
- REMOVE HANGAR 1 AND SRE STORAGE (DEPENDENT ON NEW ARFF/SRE FACILITY BEING CONSTRUCTED - SEE EXHIBIT 2B)
- RECONFIGURE EXISTING PARKING LOT - SEE PARKING LOT LAYOUT OPTION 2

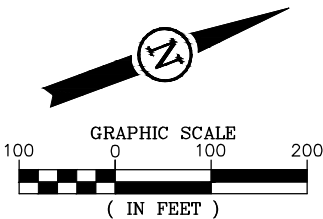


#### EXISTING FACILITIES REMOVAL SCHEDULE

FACILITY	YEAR BUILT	CURRENT AGE	+5 YRS.	+10 YRS.	+15 YRS.
NORTH FUEL FARM	2000	15	20	25	30
SOUTH FUEL FARM	1990	25	30	35	40
HANGAR 1	1975	40	45	50	45
HANGAR 2/SRE	1977	38	43	48	53
HANGAR 3	1980	35	40	45	50
T-HANGARS	1980	35	40	45	50

HANGAR S.F. REMOVED		HANGAR S.F. ADDED	
BUILDING	S.F.	BUILDING	S.F.
HANGAR 2	6,550	120 x 160 (RED)	19,200
HANGAR 3	6,417		
T-HANGARS	21,535	120 x 120 ASSUMED (GREEN) - 3 EA	43,200
<b>TOTAL</b>	<b>34,502</b>	<b>TOTAL</b>	<b>62,400</b>
HANGAR 1 *	3,713		
SRE HANGAR *	3,713		

\* HANGAR 1 AND THE SRE HANGAR WILL BE REMOVED IF THE NEW ARFF/SRE FACILITY IS CONSTRUCTED. THE SQUARE FOOTAGE OF THESE TWO BUILDINGS WILL BE REPLACED IN THE NEW ARFF/SRE FACILITY.



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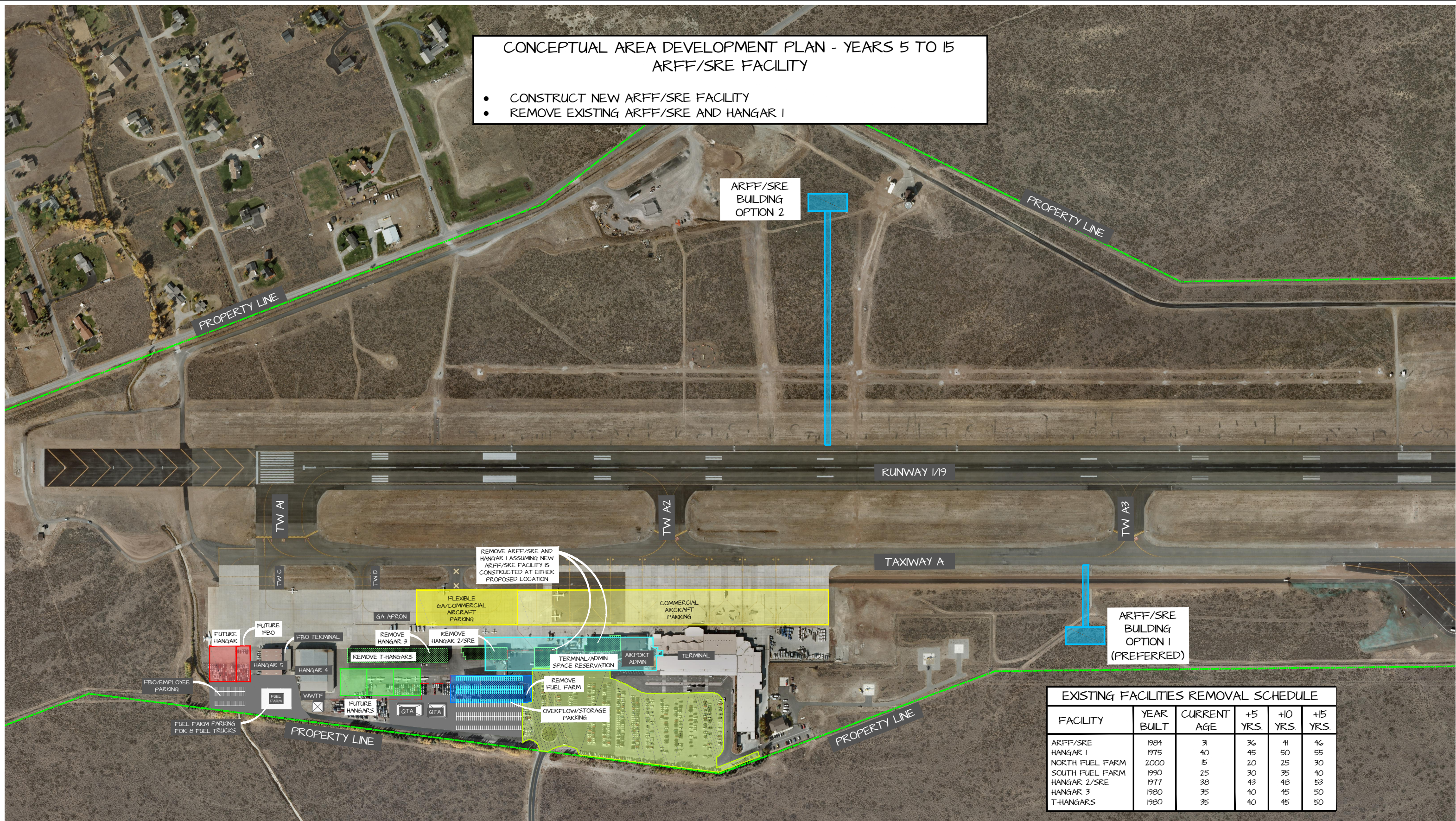
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CONCEPTUAL AREA DEVELOPMENT PLAN  
 YEARS 5 TO 15  
 DATE: DECEMBER 16, 2015  
 EXHIBIT D-2



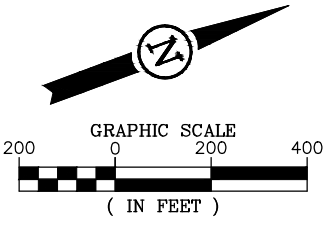
CONCEPTUAL AREA DEVELOPMENT PLAN - YEARS 5 TO 15  
ARFF/SRE FACILITY

- CONSTRUCT NEW ARFF/SRE FACILITY
- REMOVE EXISTING ARFF/SRE AND HANGAR 1



EXISTING FACILITIES REMOVAL SCHEDULE

FACILITY	YEAR BUILT	CURRENT AGE	+5 YRS.	+10 YRS.	+15 YRS.
ARFF/SRE	1984	31	36	41	46
HANGAR 1	1975	40	45	50	55
NORTH FUEL FARM	2000	15	20	25	30
SOUTH FUEL FARM	1990	25	30	35	40
HANGAR 2/SRE	1977	38	43	48	53
HANGAR 3	1980	35	40	45	50
T-HANGARS	1980	35	40	45	50



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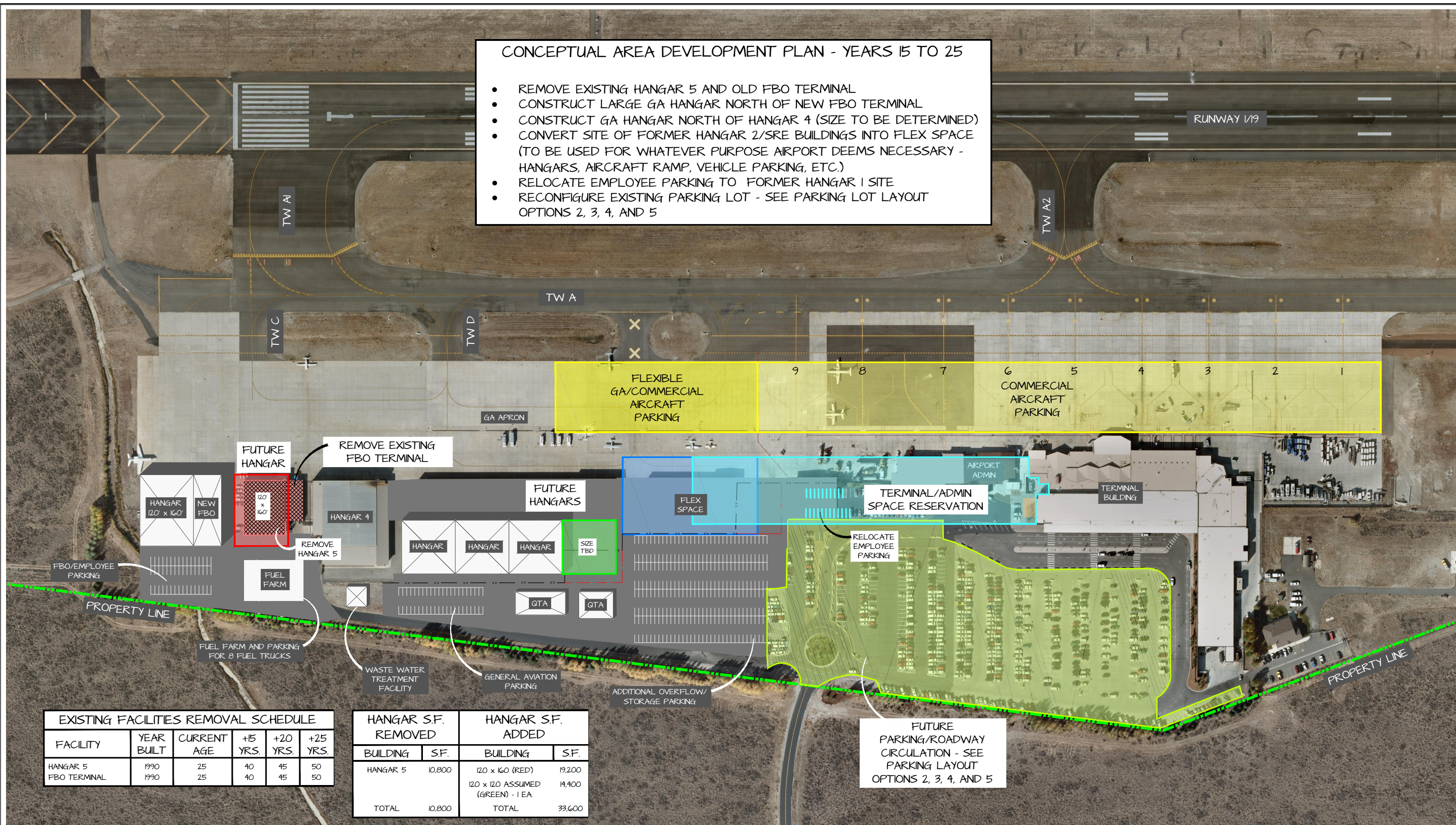
CONCEPTUAL AREA DEVELOPMENT PLAN  
YEARS 5 TO 15 - ARFF/SRE FACILITY  
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EXHIBIT D-2A

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CONCEPTUAL AREA DEVELOPMENT PLAN - YEARS 15 TO 25

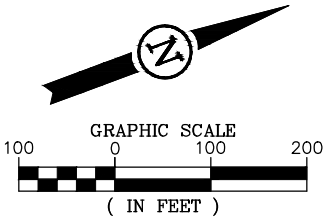
- REMOVE EXISTING HANGAR 5 AND OLD FBO TERMINAL
- CONSTRUCT LARGE GA HANGAR NORTH OF NEW FBO TERMINAL
- CONSTRUCT GA HANGAR NORTH OF HANGAR 4 (SIZE TO BE DETERMINED)
- CONVERT SITE OF FORMER HANGAR 2/SRE BUILDINGS INTO FLEX SPACE (TO BE USED FOR WHATEVER PURPOSE AIRPORT DEEMS NECESSARY - HANGARS, AIRCRAFT RAMP, VEHICLE PARKING, ETC.)
- RELOCATE EMPLOYEE PARKING TO FORMER HANGAR 1 SITE
- RECONFIGURE EXISTING PARKING LOT - SEE PARKING LOT LAYOUT OPTIONS 2, 3, 4, AND 5



EXISTING FACILITIES REMOVAL SCHEDULE

FACILITY	YEAR BUILT	CURRENT AGE	+15 YRS.	+20 YRS.	+25 YRS.
HANGAR 5	1990	25	40	45	50
FBO TERMINAL	1990	25	40	45	50

HANGAR S.F. REMOVED		HANGAR S.F. ADDED	
BUILDING	S.F.	BUILDING	S.F.
HANGAR 5	10,800	120 x 160 (RED)	19,200
		120 x 120 ASSUMED (GREEN) - 1 EA.	14,400
TOTAL	10,800	TOTAL	33,600



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CONCEPTUAL AREA DEVELOPMENT PLAN  
 YEARS 15 TO 25  
 DATE: DECEMBER 16, 2015  
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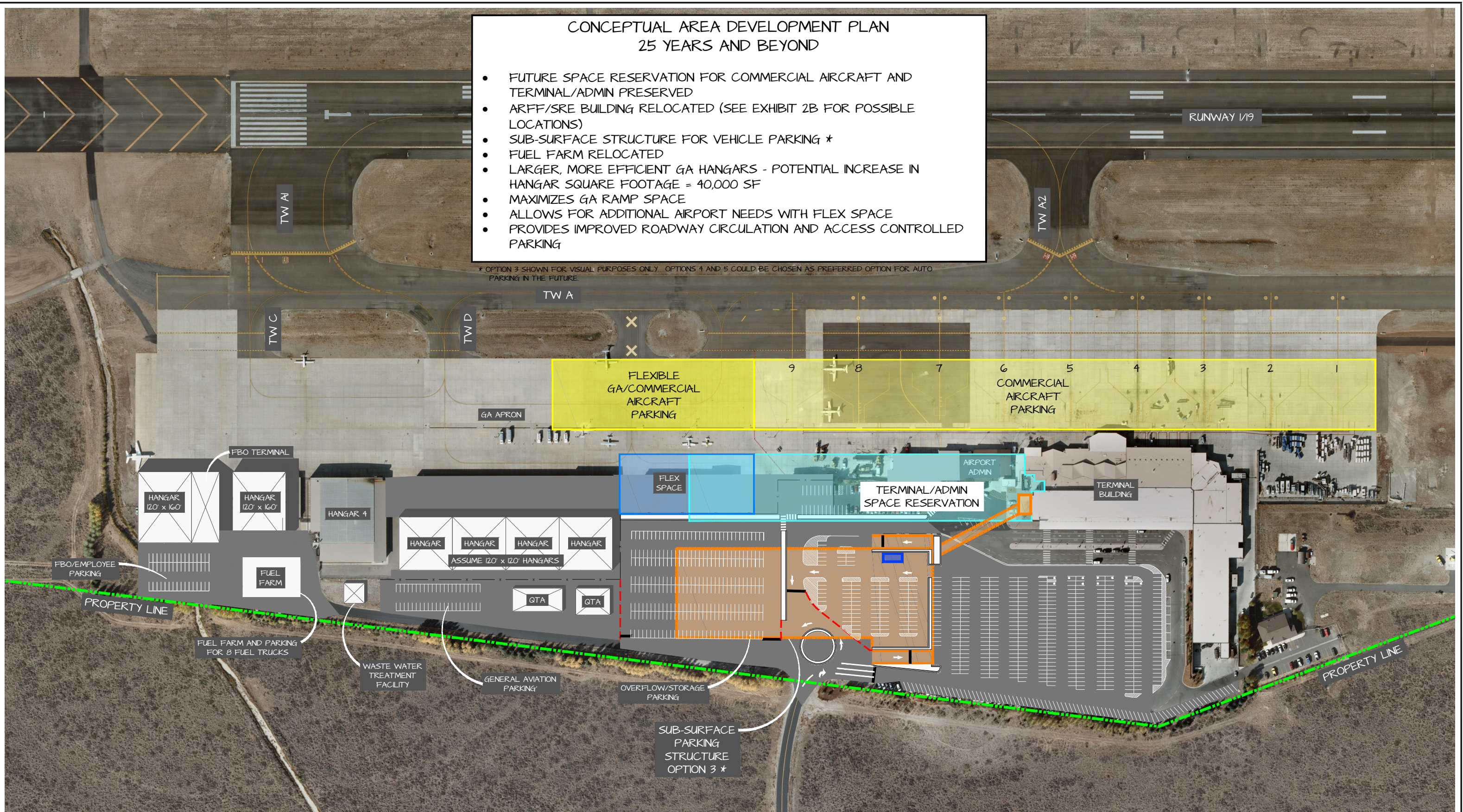




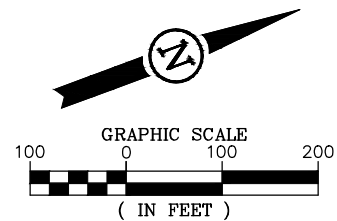
CONCEPTUAL AREA DEVELOPMENT PLAN  
25 YEARS AND BEYOND

- FUTURE SPACE RESERVATION FOR COMMERCIAL AIRCRAFT AND TERMINAL/ADMIN PRESERVED
- ARFF/SRE BUILDING RELOCATED (SEE EXHIBIT 2B FOR POSSIBLE LOCATIONS)
- SUB-SURFACE STRUCTURE FOR VEHICLE PARKING \*
- FUEL FARM RELOCATED
- LARGER, MORE EFFICIENT GA HANGARS - POTENTIAL INCREASE IN HANGAR SQUARE FOOTAGE = 40,000 SF
- MAXIMIZES GA RAMP SPACE
- ALLOWS FOR ADDITIONAL AIRPORT NEEDS WITH FLEX SPACE
- PROVIDES IMPROVED ROADWAY CIRCULATION AND ACCESS CONTROLLED PARKING

\* OPTION 3 SHOWN FOR VISUAL PURPOSES ONLY. OPTIONS 4 AND 5 COULD BE CHOSEN AS PREFERRED OPTION FOR AUTO PARKING IN THE FUTURE.



\* OPTION 3 SHOWN FOR VISUAL PURPOSES ONLY. OPTIONS 4 AND 5 COULD BE CHOSEN AS PREFERRED OPTION FOR AUTO PARKING IN THE FUTURE.



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CONCEPTUAL AREA DEVELOPMENT PLAN  
25 YEARS AND BEYOND

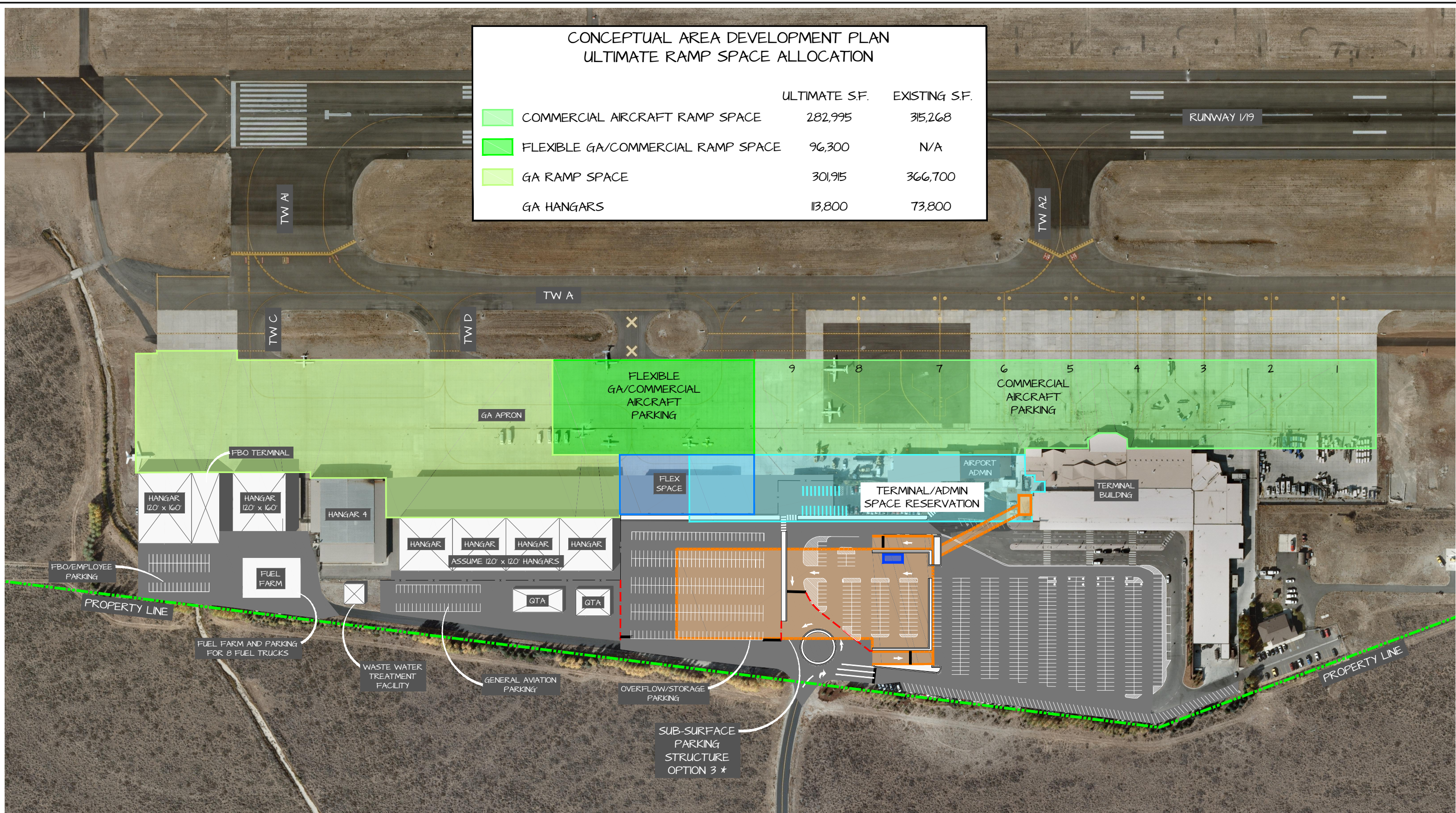
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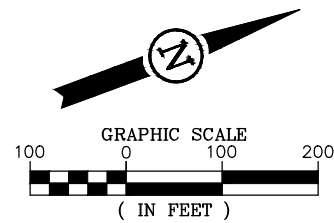


CONCEPTUAL AREA DEVELOPMENT PLAN  
ULTIMATE RAMP SPACE ALLOCATION

	ULTIMATE S.F.	EXISTING S.F.
 COMMERCIAL AIRCRAFT RAMP SPACE	282,995	315,268
 FLEXIBLE GA/COMMERCIAL RAMP SPACE	96,300	N/A
 GA RAMP SPACE	301,915	366,700
GA HANGARS	113,800	73,800



\* OPTION 3 SHOWN FOR VISUAL PURPOSES ONLY. OPTIONS 4 AND 5 COULD BE CHOSEN AS PREFERRED OPTION FOR AUTO PARKING IN THE FUTURE.



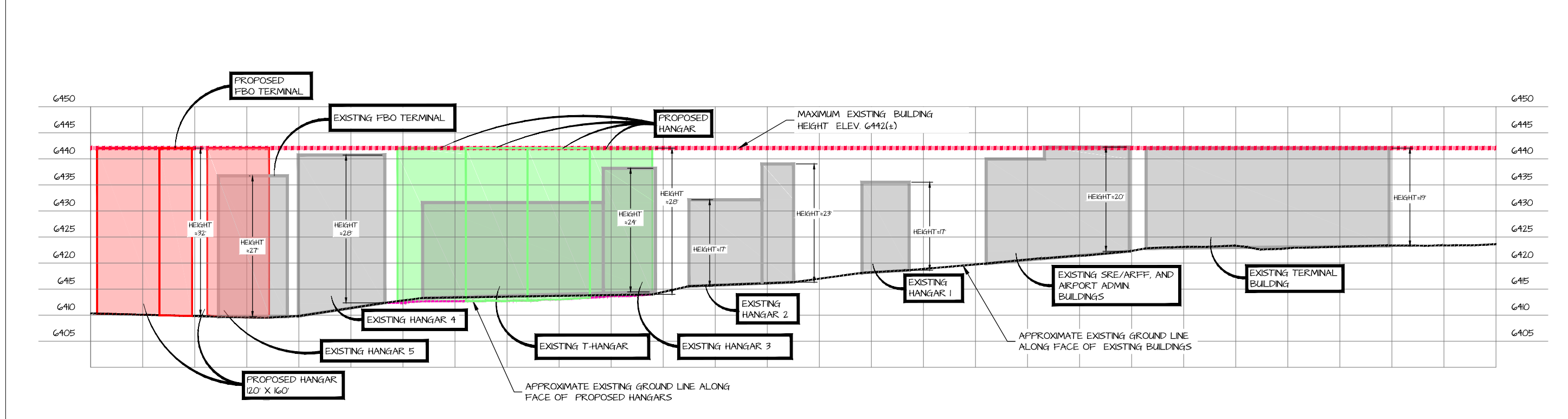
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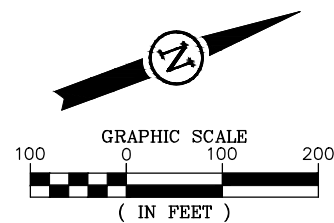
CONCEPTUAL AREA DEVELOPMENT PLAN  
ULTIMATE RAMP SPACE ALLOCATION  
DATE: DECEMBER 16, 2015  
EXHIBIT D-5

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**CONCEPTUAL AREA DEVELOPMENT PLAN**  
**EXISTING AND PROPOSED BUILDING**  
**PLAN AND PROFILE**  
 DATE: DECEMBER 16, 2015 EXHIBIT D-6





## **Conceptual Area Development Plan Overall Existing Parking Conditions**

The airport utilizes a portion of available area within the Development Sub-Zone for automobile parking. Parking areas for public/rental car ready and return, employee, and rental car storage area are identified on this plan.

The public/rental car ready and return parking is located in the main parking lot in front of the terminal building. The employee parking areas are located in areas south of the terminal building and near the FBO facility on the south end of the airport. Rental car storage areas are located around the existing QTA's and to the south up to the waste water treatment facility. There is another rental car storage area on the south end of the airport next to Hangar 5. For the most part, paved parking spaces are provided for public, rental car ready and return, and employees. Unimproved parking, with a combination of deteriorated pavement and non-paved areas are used for rental car storage. Through conversations with the rental car companies, it was determined that for each painted parking stall in a parking lot, the rental car companies can store two (2) vehicles. This is due to the generous size of the parking stalls and the additional drive lane which is typically not needed when rental cars are storing vehicles.

The table on this page shows the current auto parking availability compared to the forecast demand in years 2020, 2030, and 2040 to provide an understanding that existing parking conditions will not support future automobile activity at the airport, therefore improvements and development will be required to meet the future need.

## **Conceptual Area Development Plan Existing Parking Lot Layout**

The majority of parking spaces at JAC are located in the area around the terminal building. This is where the majority of proposed automobile parking improvements within the Conceptual Area Development Plan are proposed to occur. This exhibits provides an idea of how the existing parking spaces in this area are utilized.

The main parking lot in front of the terminal building affords public short term parking in the row on the north end of the lot and public long-term parking on the southern 1/3 of the lot. Rental car ready and return parking spaces make up the middle portion of the lot. There are employee parking spaces located south of the terminal building and main parking lot. Generally, the parking stalls are dimensioned at 20 feet long and 9 feet wide with a 24-foot drive lane between rows.

## **Conceptual Area Development Plan Parking Lot Layout – Option 1**

This parking option reduces employee spaces near the terminal building by 30 spaces. However, the main parking lot is increased by 55 spaces. This would be accomplished by re-striping the existing pavement. Additionally, the site where the existing QTA facilities were located will be replaced by a 132 stall parking lot. The proposed size of the parking stalls in this new parking area are 18 feet long by 9 feet wide with a 24-foot drive lane between rows. This should still provide ample room for parking and maneuvering larger vehicles in this area. The loss of the 30 employee parking spaces near the terminal building will likely require that a portion of the existing parking areas closer to the terminal be used for employee parking or employee carpooling/shuttle service is implemented to reduce the need for employee parking at the airport. The proposed parking plan does not suggest how the airport will utilize the parking areas for public (short-term and long-term) or rental car ready/return.

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This options also provides a pedestrian sidewalk to/from the new 132 stall parking lot to the terminal building. In addition, access for fuel trucks to the fueling pad on the north side of the existing fuel farm will be maintained by keeping the current access route through the parking lot between rows 19 and 20 and then providing a drive lane through the sidewalk to the fuel truck can turn into the fueling pad. The size of the drive lane through the sidewalk will be determined during future design. A Transit Center would be located on site to provide a central location where passengers/employees could access the public transit system.

### **Conceptual Area Development Plan Parking Lot Layout – Option 2**

Option 2 of the conceptual parking lot layout does not propose any changes to the main parking lot in front of the terminal building. The most significant change in this option is the additional 132 stall parking lot that is proposed to be constructed on the site of the existing fuel farm and will abut the existing 132 stall parking lot. A new fuel farm is shown on the south end of the airport near the FBO facility on the Conceptual Area Development Plan Years 1 to 5. When this new fuel farm is fully operational, the existing fuel farm will be removed and is proposed to be replaced with the new automobile parking area. The parking stalls in the new parking lot will match the size of the existing stalls in the 132 stall parking lot, 18 feet long by 9 feet wide, with a 24-foot drive lane between rows. As with Option 1, the proposed parking plan does not suggest how the airport will utilize the parking areas for public (short-term and long-term) or rental car ready/return.

This option also shows that employee spaces near the terminal will be consolidated into one lot following the removal of Hangar 1 (See Conceptual Area Development Plan Years 5-15). This will provide the airport with better defined parking areas as the forecasted automobile activity increases. A Transit Center would be located on site to provide a central location where passengers/employees could access the public transit system.

### **Conceptual Area Development Plan Parking Lot Layout – Option 3**

Parking Lot Layout Option 3 is the first of three options that proposes improvements to the automobile parking in an effort to meet the forecasted auto parking activity through 2040. This layout proposes a two-story subsurface parking structure along with surface parking that will allow the airport to preserve space for the forecasted automobile parking at the airport. A three story subsurface structure was considered, but the depth of such a facility would be getting close to the water table and would likely need to have a water pumping/discharge system included. Therefore, a two-story subsurface facility seemed more reasonable. The proposed structure location and shape will be further refined as the improvements recommended in the intersection/roundabout study are approved.

The southern portion of the main parking lot will be reconfigured in order to provide access to the proposed subsurface parking structure. This reconfiguration will reduce the main parking lot stalls by 128, bringing the total number of parking stalls in the lot to 600. However, this reduction in surface parking stalls is made up within the parking garage as each level below grade will have 321 marked parking stalls. The size of the stalls within the proposed structure are 20 feet long by 9 feet wide with a 24-foot drive lane between rows.

This option also accounts that at some point, the employee parking where the future terminal building is shown expanding to the south will be eliminated. There is enough parking proposed in this option



to allow for on-site employee parking. Another addition to this plan are access/exit gates for controlled parking. Currently, the airport does not have automated parking controls, which can make it difficult for the airport to properly monitor the parking situation at the airport. By installing automated controls, the airport will be able to monitor parking more effectively as well as set up a way to charge a fee for parking at the airport in the future. Such a system may help offset the costs of constructing the subsurface parking structure. A subsurface walkway from the garage to the terminal building would serve as an easy travel corridor between the two facilities and a Transit Center would be located on site to provide a central location where passengers/employees could access the public transit system. As with previous options, the proposed parking plan does not suggest how the airport will utilize the parking areas for public (short-term and long-term) or rental car ready/return.

The greatest challenges in moving forward with Parking Lot Layout Option 3 are the likely the actual phasing of the construction and costs. A current rough estimate of cost for a subsurface parking garage is \$40,000 per stall. Since the proposed footprint of the parking garage is located beneath existing surface parking, how to phase the construction and still provide an acceptable level of service to the flying public with a large portion of the existing parking likely relocated or temporarily moved off-site, will also be a major consideration. Despite these challenges, if this option were implemented, it would allow the airport to be well positioned for the future.

#### **Conceptual Area Development Plan Parking Lot Layout – Option 3 Sub-Surface Parking**

This exhibit depicts the proposed parking stall layout on the subsurface levels of the parking structure.

#### **Conceptual Area Development Plan Parking Lot Layout – Option 4**

Parking Lot Layout Option 4 is the second of three options that proposes improvements to the automobile parking in an effort to meet the forecasted auto parking activity through 2040. The main parking lot in front of the terminal building would remain the same as Parking Lot Layout Option 2, with 728 parking stalls. Each of these stalls would be 20 feet long by 9 feet wide with a 24-foot drive lane between rows. This layout does propose a three-level parking structure on the site of where the 264 stall surface parking lot would be located, just south of the main parking lot. This structure would have one subsurface level, one ground level, and one top level that would be uncovered. The top and subsurface levels would have 265 parking stalls each and the ground level would have 250 parking stalls. The size of the parking stalls within the proposed structure would be 18 feet long by 9 feet wide with a 24-foot drive lane between rows.

This option also accounts that at some point, the employee parking where the future terminal building is shown expanding to the south will be eliminated. There is enough parking proposed in this option to allow for on-site employee parking. A Transit Center would be located on site to provide a central location where passengers/employees could access the public transit system. Although this layout does not show parking controls, these could be easily added when construction occurs to allow the airport to control parking more effectively and charge a fee to use the parking facilities at the airport. Such a system may help offset the costs of constructing the parking structure. As with previous options, the proposed parking plan does not suggest how the airport will utilize the parking areas for public (short-term and long-term) or rental car ready/return.



Although the investment into a parking structure would be costly, it would be less than the structure proposed in Option 3. As discussed in Option 3, the current rough estimate cost for a subsurface parking structure is \$40,000 per stall. Above grade parking structures are roughly \$30,000 per stall, and the roof of the ground level would provide the parking area for the top of the parking structure, thus reducing cost. At the proposed location for the parking structure, there is approximately 26 feet of clearance from ground level (6,416 MSL) to the building restriction elevation of 6,442 above MSL. Assuming a floor to floor height of 15 feet for the parking structure, the ground level parking area may need to be a garden level design (5 feet below ground level) with a vehicle access ramp to/from the FBO access road. This would allow enough clearance to the building restriction elevation from the top level of the parking structure for vehicles and lighting. The subsurface level would be 15 feet below the garden level parking area.

Another aspect of this option that is appealing is the location of the proposed garage would not have a significant impact on the main parking lot during construction. There may be some impacts on the very south of the lot, possibly having to shift the road from the terminal to the airport entrance/exit intersection slightly to the north, but this option would decrease the amount of automobile spaces lost during construction, potentially allowing the airport to be more creative in how they could handle this situations during construction. This parking layout option would allow the airport to be well positioned into the future.

### **Conceptual Area Development Plan Parking Lot Layout – Option 4 Ground and Sub-Surface Parking**

This exhibit depicts the proposed parking stall layout on the ground and sub-surface levels of the parking structure.

### **Conceptual Area Development Plan Parking Lot Layout – Option 5**

Parking Lot Layout Option 5 is the second of third options that proposes improvements to the automobile parking in an effort to meet the forecasted auto parking activity through 2040. This layout proposes maintaining the surface parking at the airport that was proposed in Parking Layout Option 2. The surface parking would include 728 parking stalls in the main parking lot in front of the terminal building. This parking stalls in this lot would be 20 feet long by 9 feet wide and have 24-foot drive lanes between rows. An additional 264 stall parking lot just south of the main lot would provide the remainder of the surface parking in this option. The parking stalls in this lot would be 18 feet long by 9 feet wide with a 24-foot drive lane between rows. The remainder of the forecasted automobile parking at the airport would be contained in an off-site parking lot.

The off-site parking lot would primarily be utilized for rental car storage. Up to 1,000 rental car vehicles would need to be stored at this offsite location in order to meet the expected rental car activity in the future. It is estimated that an area of approximately 5 acres could support the anticipated amount of rental car vehicle storage. It is not likely that this area would be striped for normal vehicle parking as rental storage lots will often maximize that amount of cars parked in a given space. Another portion of this off-site parking area would contain 120 employee parking stalls. These stalls would measure 20 feet long by 9 feet wide with a 24-foot drive lane between rows. The plan would be for employees to park in this off-site lot then utilize a shuttle service which would run to/from the airport in order to provide a regular, dependable service for employees. The area for the off-site employee

parking lot would be approximately 2 acres and would allow for additional employee parking in the future. There would be a small number of dedicated employee parking spots at the airport for employees whose schedule would make it difficult to utilize the off-site parking and shuttle service.

A Transit Center would be located at the airport to provide a central location where passengers/employees could access the public transit system. Although this layout does not show parking controls, these could be easily added in the future to allow the airport to control parking more effectively and charge a fee to use the parking facilities at the airport. Such a system may help offset the costs of purchasing land and construction costs for the off-site parking lot. As with previous options, the proposed parking plan does not suggest how the airport will utilize the parking areas at the airport for public (short-term and long-term) or rental car ready/return.

A positive aspect about this proposed parking option, is it would allow the airport to operate normally, without impact from construction to accommodate forecasted automobile activity since the additional parking area will be off-site. This options would also allow the airport to be well positioned into the future. One challenge of this proposed parking layout option would be locating available land for the off-site parking lot and the cost of purchasing the land. It is estimated that the land cost could be \$1,000,000 per acre and that the land would likely be no closer than 8 miles away from the airport. There would also be additional cost in order to prepare the site for automobile parking/storage use and to construct the required infrastructure. Another drawback to this option is the additional traffic that would be created by rental car companies moving vehicles to/from the airport and the off-site storage location. Particularly during the busy peak times, when there already is a significant amount of vehicle traffic on the roadways, this option would exacerbate the situation. The delays created by traffic during these peak times would increase, making commuting in the area even more challenging and less efficient for the local community and visitors. With an increase in vehicle volume and less efficiency, it is likely that noise and air pollution would also be negatively impacted.

#### **Conceptual Area Development Plan Parking Lot Layout – Option 5 Off-Site Parking**

This exhibit depicts the proposed off-site parking lot layout that would be used for rental car storage and employee parking.

#### **Conceptual Area Development Plan Parking Capital Projects Effect on Available Parking Spaces/Storage**

This exhibit identifies proposed capital projects that are identified in the Conceptual Area Plan Development options that would have a direct impact on available automobile parking at the airport. The projects are identified numerically in the sequence that they are expected to occur based upon the conceptual development plans. Proposed projects which are not anticipated to have an impact on automobile parking are not identified on this plan.

#### **Conceptual Area Development Plan Parking Capital Project Effect on Available Parking Spaces/Storage Table**

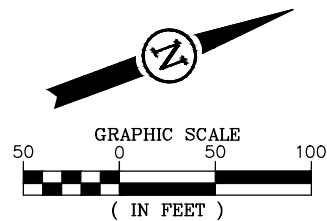
This exhibit summarizes the impact of the proposed capital projects in the Conceptual Area Development Plan drawings on existing parking areas at the airport. The table shows expected summer and winter peak auto parking demands at the airport in various years when the capital projects

could be implemented compared to the auto parking that will be available at the airport. The table identifies a surplus or deficit of auto parking/storage and suggests when the airport might begin to develop the auto parking options that are proposed in the Conceptual Area Development Plan. The proposed years for the capital projects are not firm date but are used for planning purposes only.

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	EXISTING PARKING (SUMMER)	2015 PEAK ACTIVITY (SUMMER)	2020 PEAK ACTIVITY (SUMMER)	2030 PEAK ACTIVITY (SUMMER)	2040 PEAK ACTIVITY (SUMMER)
PUBLIC	317	285	300	331	366
RENTAL CAR READY/RETURN	356	356	440	440	440
EMPLOYEE	176	128	135	149	164
TOTAL	849	769	875	920	970
RENTAL CAR STORAGE	650	631	623	794	992
	EXISTING PARKING (CHRISTMAS/SPRING BREAK)	2015 PEAK ACTIVITY (CHRISTMAS/SPRING BREAK)	2020 PEAK ACTIVITY (CHRISTMAS/SPRING BREAK)	2030 PEAK ACTIVITY (CHRISTMAS/SPRING BREAK)	2040 PEAK ACTIVITY (CHRISTMAS/SPRING BREAK)
PUBLIC	241	386	406	448	495
RENTAL CAR READY/RETURN	356	356	440	440	440
EMPLOYEE	176	128	135	149	164
TOTAL	773	870	981	1,037	1,099
RENTAL CAR STORAGE	650	474	454	597	764



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**JACKSON HOLE AIRPORT**

JACKSON, WYOMING

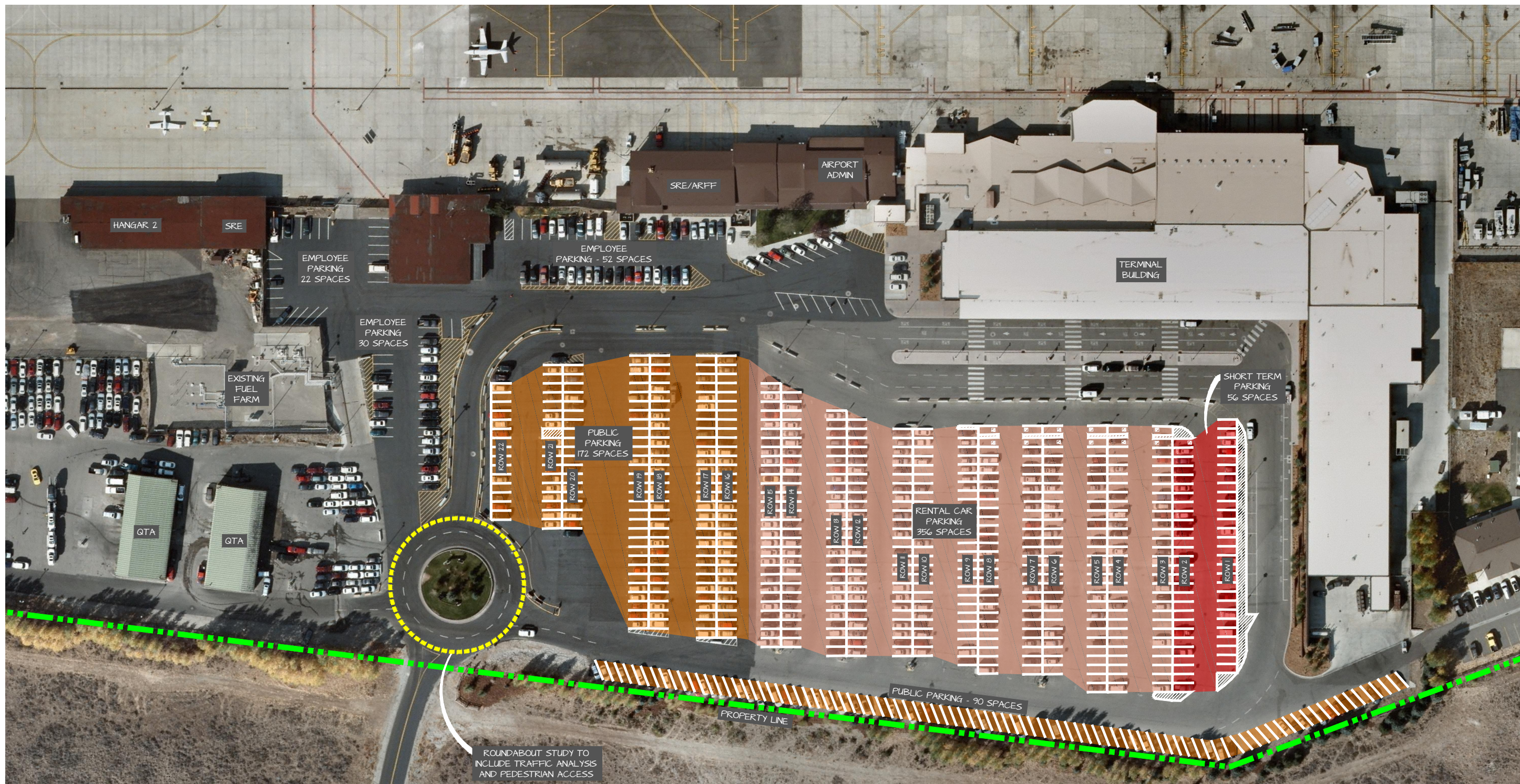
CONCEPTUAL AREA DEVELOPMENT PLAN  
OVERALL EXISTING PARKING CONDITIONS

DATE: DECEMBER 16, 2015

EXHIBIT P-1



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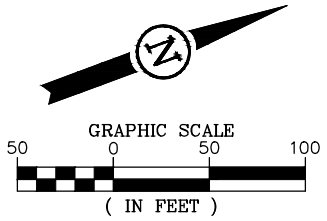


EXISTING PARKING AVAILABLE
PAVED PARKING SPACES (PUBLIC + RENTAL CAR READY/RETURN)
673/597* SPACES
PAVED PARKING SPACES (EMPLOYEE)
176 SPACES (72 AT FBO NOT SHOWN)
RENTAL CAR STORAGE/OVERFLOW (UNIMPROVED)
650 SPACES

\* APPROXIMATELY 76 PUBLIC PARKING SPACES ON THE EAST EDGE OF THE PARKING LOT ARE NOT AVAILABLE DURING WINTER DUE TO SNOW REMOVAL/STORAGE.

LEGEND	
	EXISTING PAVEMENT MARKING

- NOTES:**
- 1) PARKING SPACES ARE SHOWN AS CURRENTLY UTILIZED AT AIRPORT.
  - 2) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.



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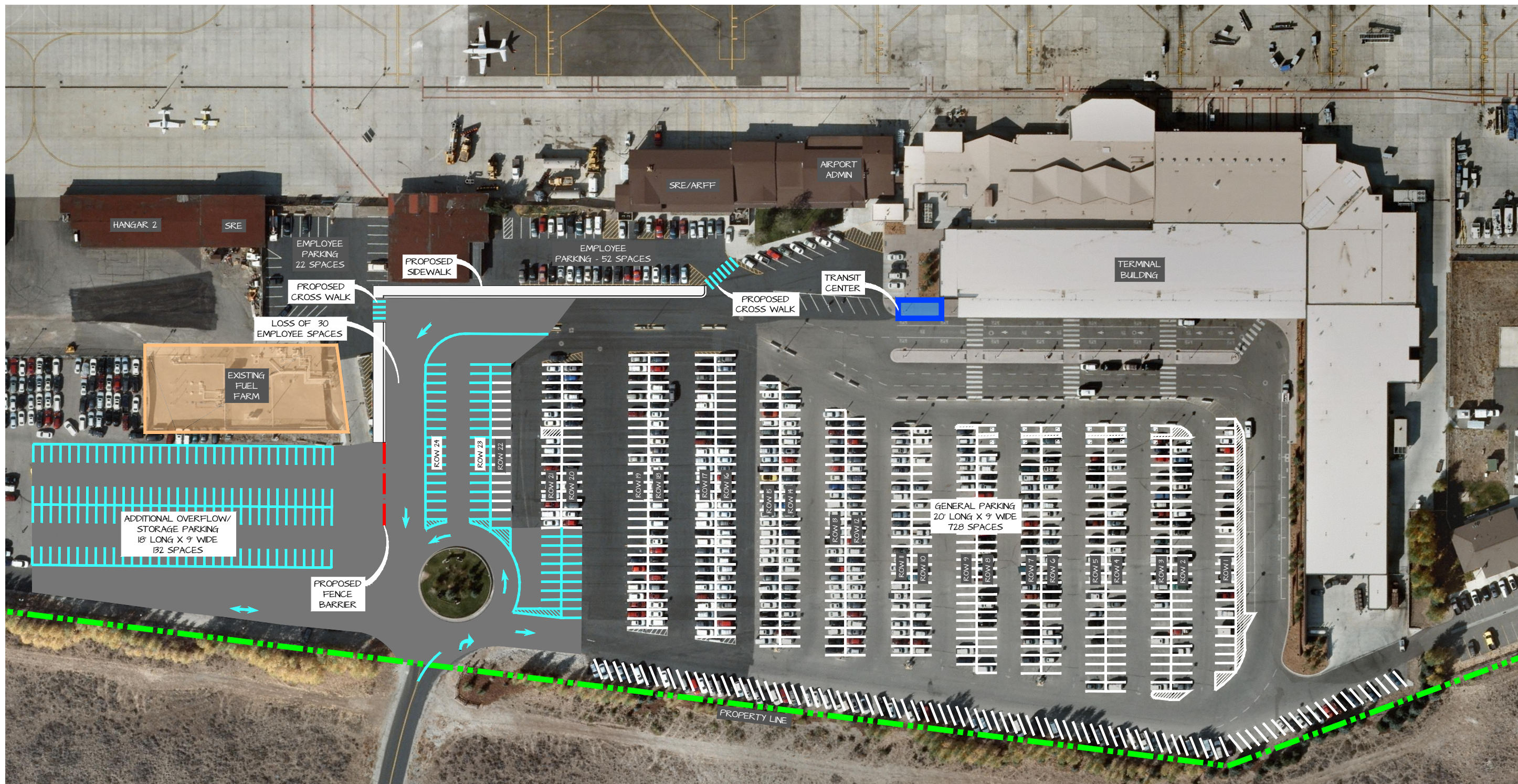
**JACKSON HOLE AIRPORT**  
 JACKSON, WYOMING

**CONCEPTUAL AREA DEVELOPMENT PLAN  
 EXISTING PARKING LOT LAYOUT**  
 DATE: DECEMBER 16, 2015  
 EXHIBIT P-2





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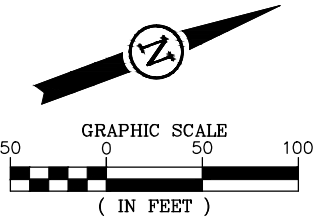


OPTION 1 PARKING AVAILABLE
PAVED PARKING SPACES (PUBLIC + RENTAL CAR READY/RETURN + OVERFLOW/STORAGE)
860/784* SPACES
PAVED PARKING SPACES (EMPLOYEE)
176 SPACES (72 AT FBO NOT SHOWN)
RENTAL CAR STORAGE/OVERFLOW (UNIMPROVED)
420 SPACES

\* APPROXIMATELY 76 PUBLIC PARKING SPACES ON THE EAST EDGE OF THE PARKING LOT ARE NOT AVAILABLE DURING WINTER DUE TO SNOW REMOVAL/STORAGE.

LEGEND	
—	EXISTING PAVEMENT MARKING
—	PROPOSED PAVEMENT MARKING

NOTES:  
 1) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.



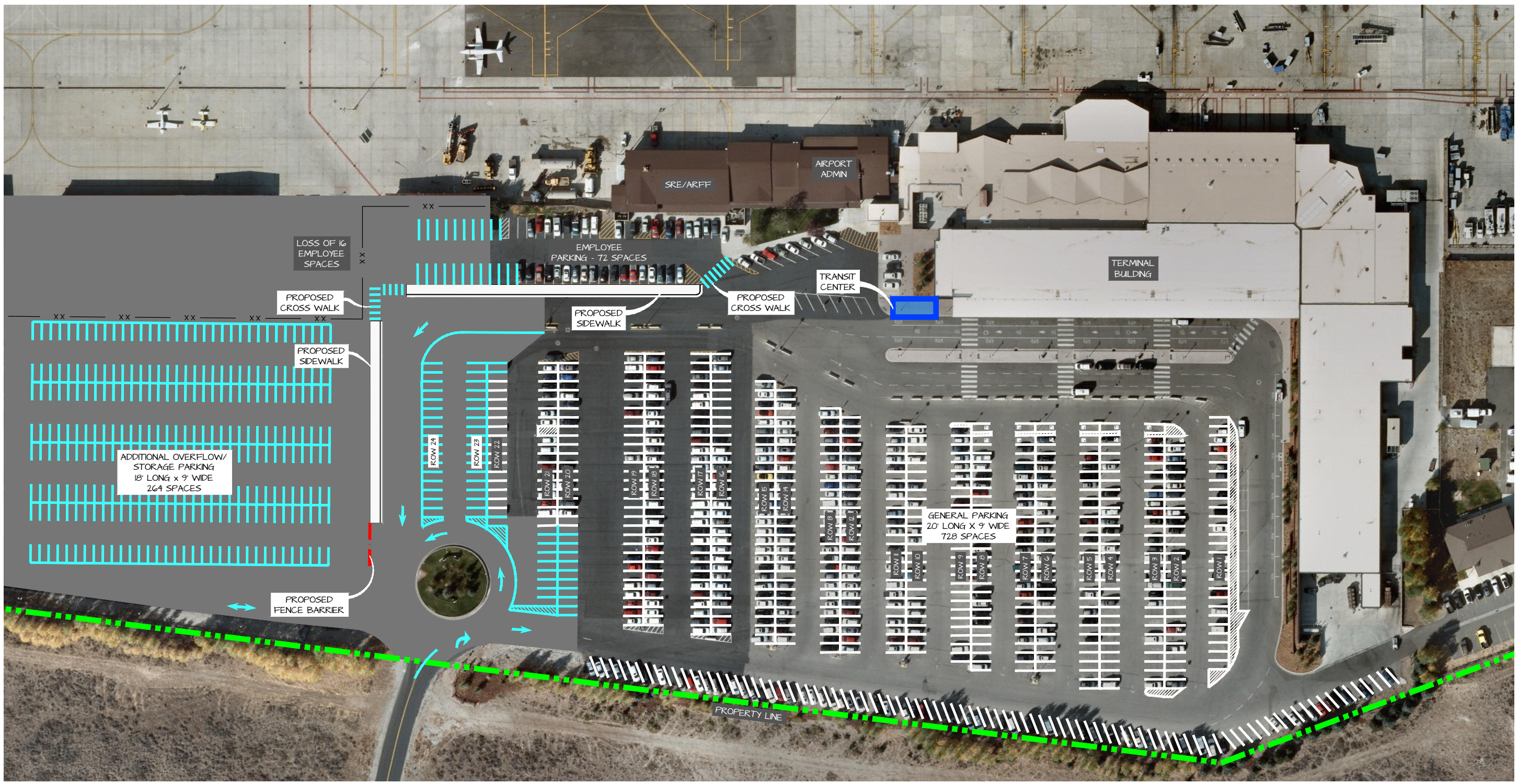
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CONCEPTUAL AREA DEVELOPMENT PLAN  
 PARKING LOT LAYOUT - OPTION 1  
 DATE: DECEMBER 16, 2015 EXHIBIT P-3



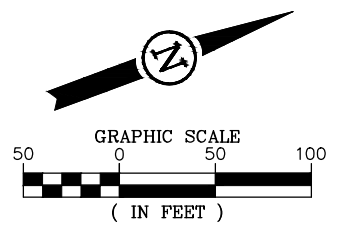
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OPTION 2 PARKING AVAILABLE	
PAVED PARKING SPACES (PUBLIC + RENTAL CAR READY/RETURN + OVERFLOW/STORAGE)	860* SPACES
PAVED PARKING SPACES (EMPLOYEE)	176 SPACES (72 AT FBO NOT SHOWN)
RENTAL CAR STORAGE/OVERFLOW (UNIMPROVED)	420 SPACES

LEGEND	
	EXISTING PAVEMENT MARKING
	PROPOSED PAVEMENT MARKING

**NOTES:**  
 1) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.



\* ASSUME 76 PUBLIC PARKING SPACES ON THE EAST EDGE OF THE PARKING LOT PREVIOUSLY USED FOR SNOW REMOVAL/STORAGE IN WINTER ARE AVAILABLE FOR PARKING.

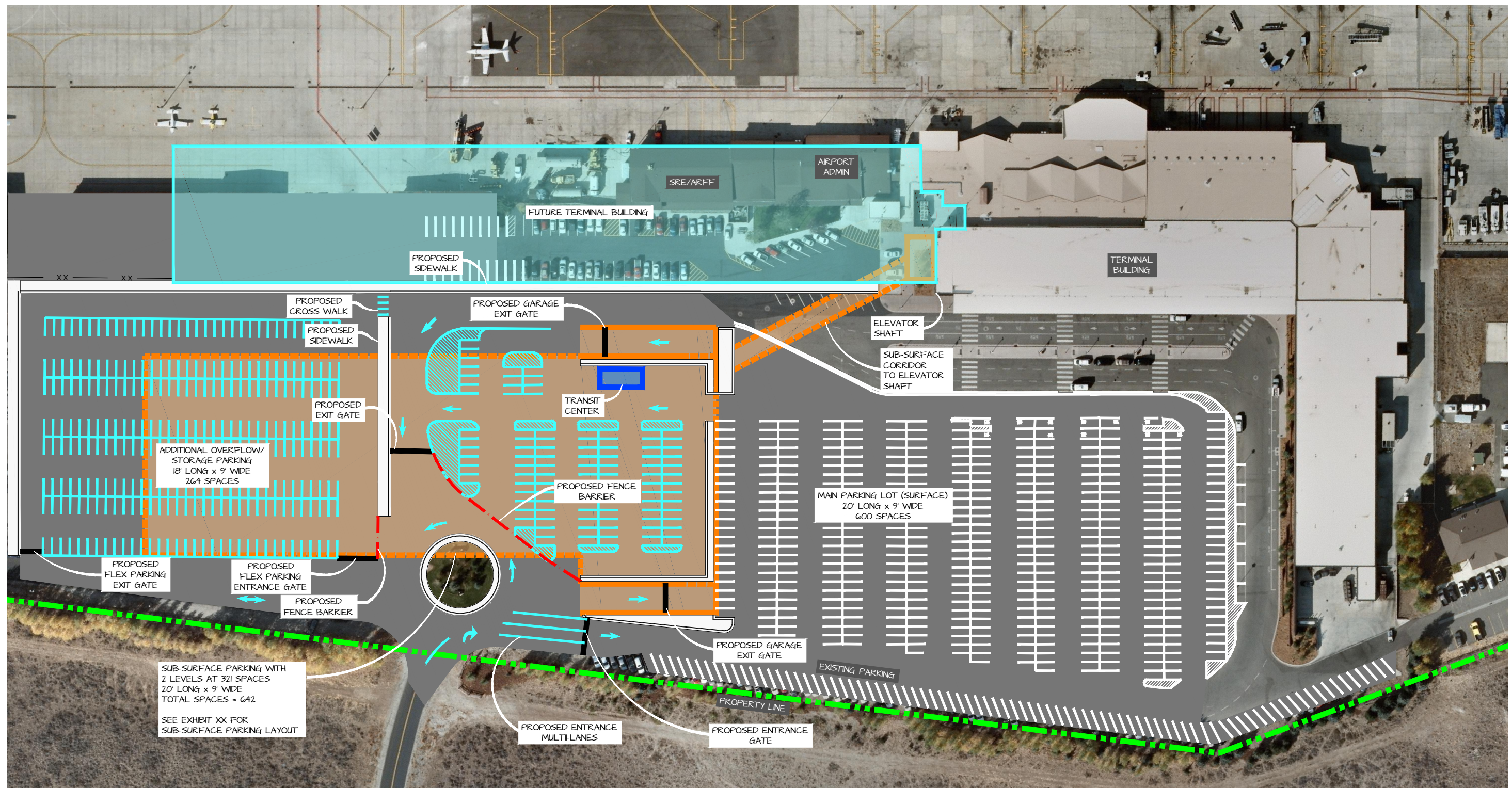
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**CONCEPTUAL AREA DEVELOPMENT PLAN  
 PARKING LOT LAYOUT - OPTION 2**  
 DATE: DECEMBER 16, 2015 EXHIBIT P-4



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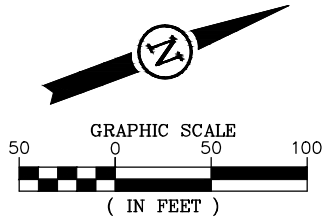


**OPTION 3 PARKING AVAILABLE**  
 PAVED PARKING SPACES (SURFACE/GARAGE)  
 1,506\* SPACES

\* ASSUME 76 PUBLIC PARKING SPACES ON THE EAST EDGE OF THE PARKING LOT PREVIOUSLY USED FOR SNOW REMOVAL/STORAGE IN WINTER ARE AVAILABLE FOR PARKING.

LEGEND	
—	EXISTING PAVEMENT MARKING
—	PROPOSED PAVEMENT MARKING

**NOTES:**  
 1) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.



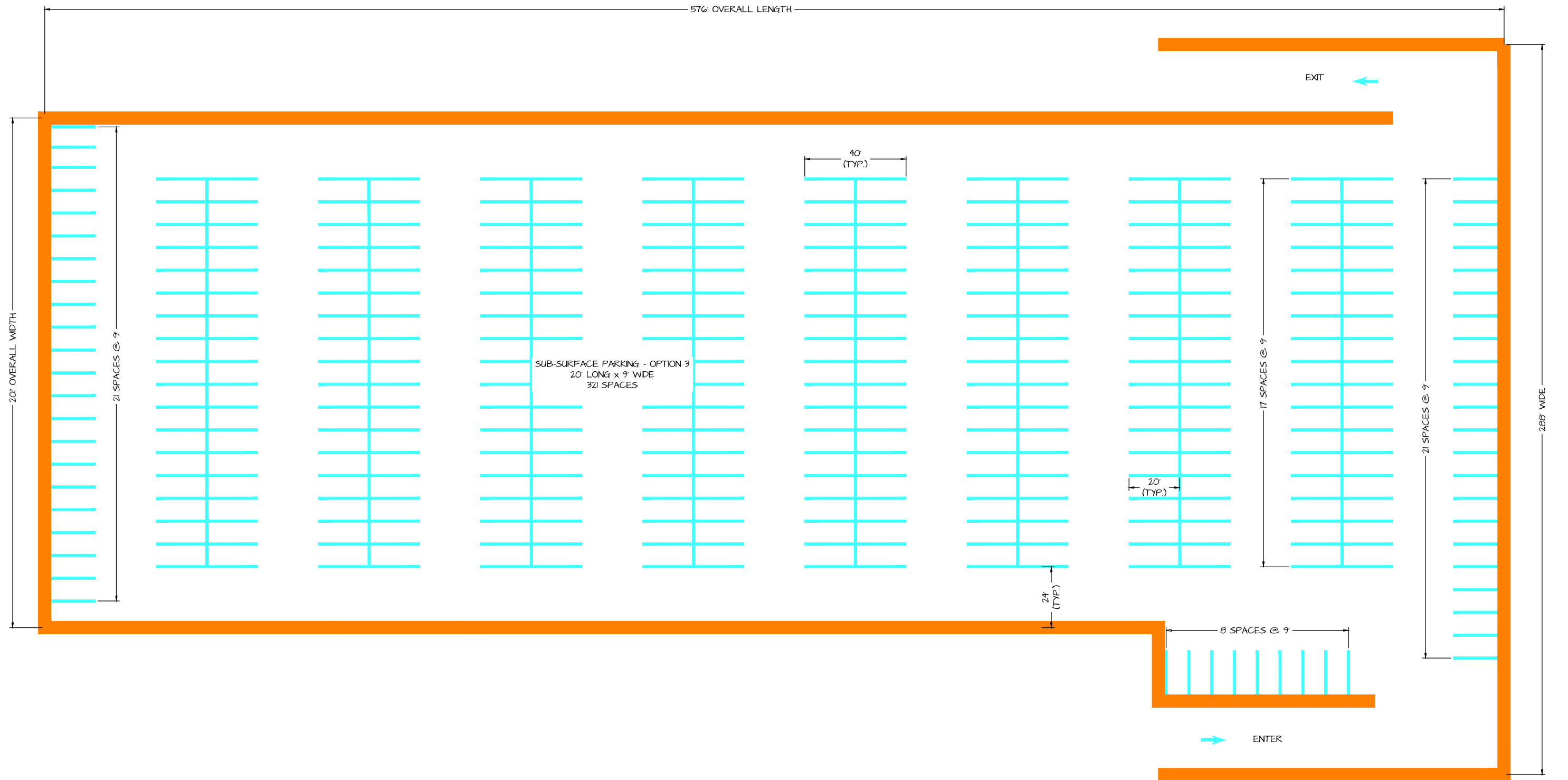
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**CONCEPTUAL AREA DEVELOPMENT PLAN**  
**PARKING LOT LAYOUT - OPTION 3**  
 DATE: DECEMBER 16, 2015 EXHIBIT P-5



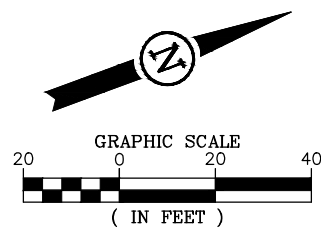
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LEGEND	
	PROPOSED PAVEMENT MARKING

NOTES:

1) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.



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CONCEPTUAL AREA DEVELOPMENT PLAN  
PARKING LOT LAYOUT OPTION 3  
SUB-SURFACE PARKING

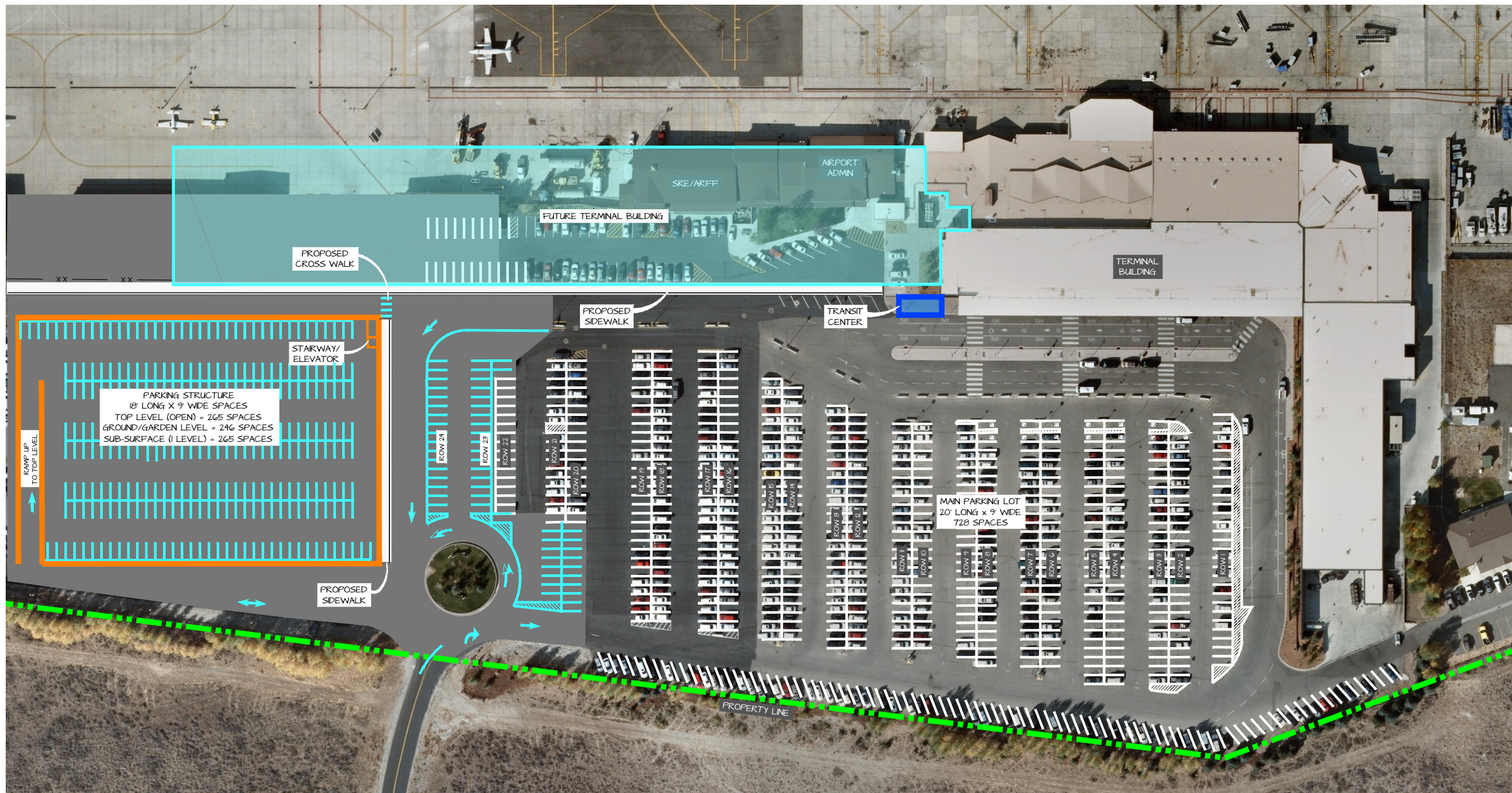
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EXHIBIT P-6





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**OPTION 4 PARKING AVAILABLE**

PAVED PARKING SPACES  
(SURFACE/GARAGE)

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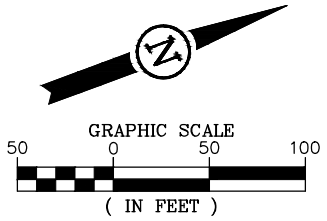
1,504\* SPACES

\* ASSUME 76 PUBLIC PARKING SPACES ON THE EAST EDGE OF THE PARKING LOT PREVIOUSLY USED FOR SNOW REMOVAL/STORAGE IN WINTER ARE AVAILABLE FOR PARKING.

LEGEND	
—	EXISTING PAVEMENT MARKING
—	PROPOSED PAVEMENT MARKING

**NOTES:**

1) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.



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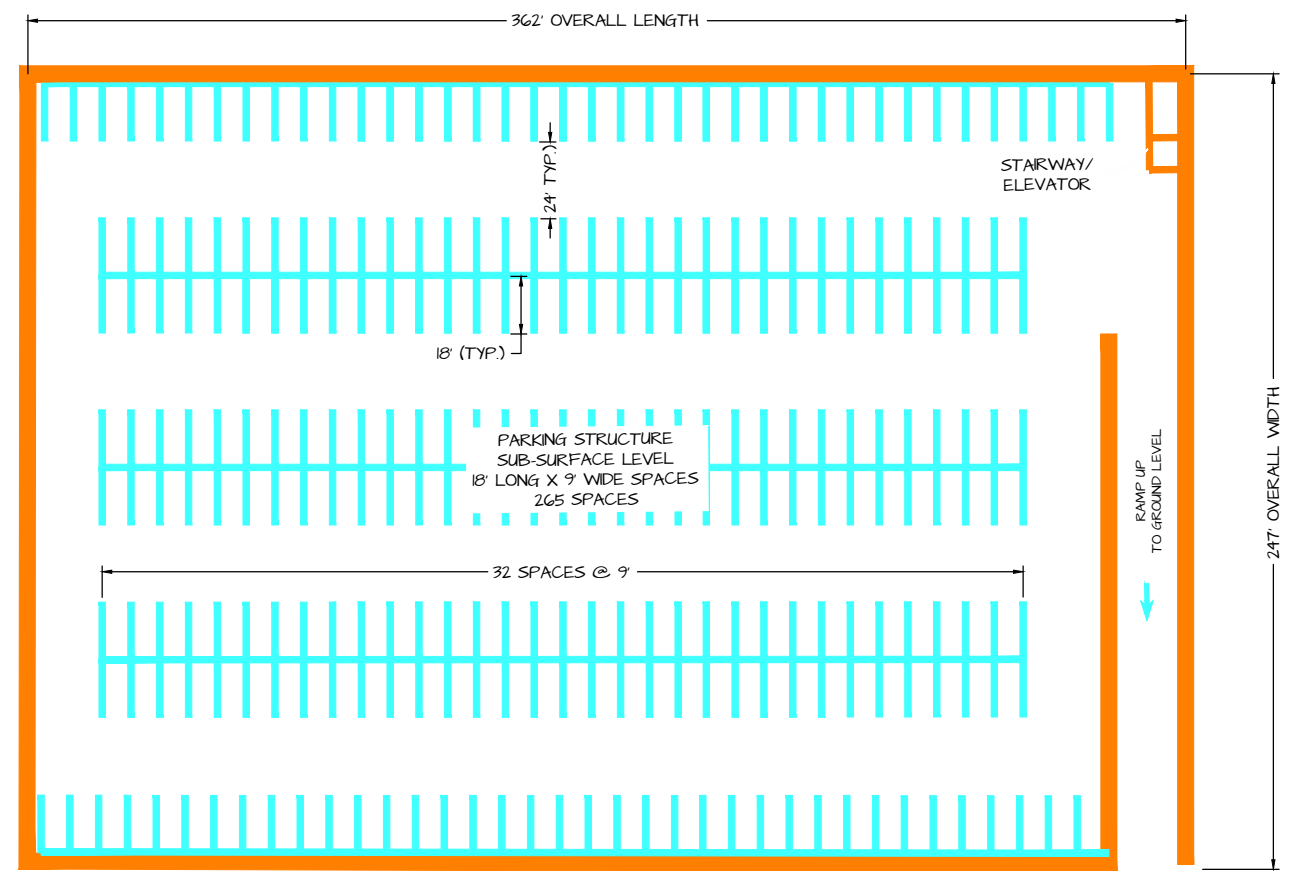
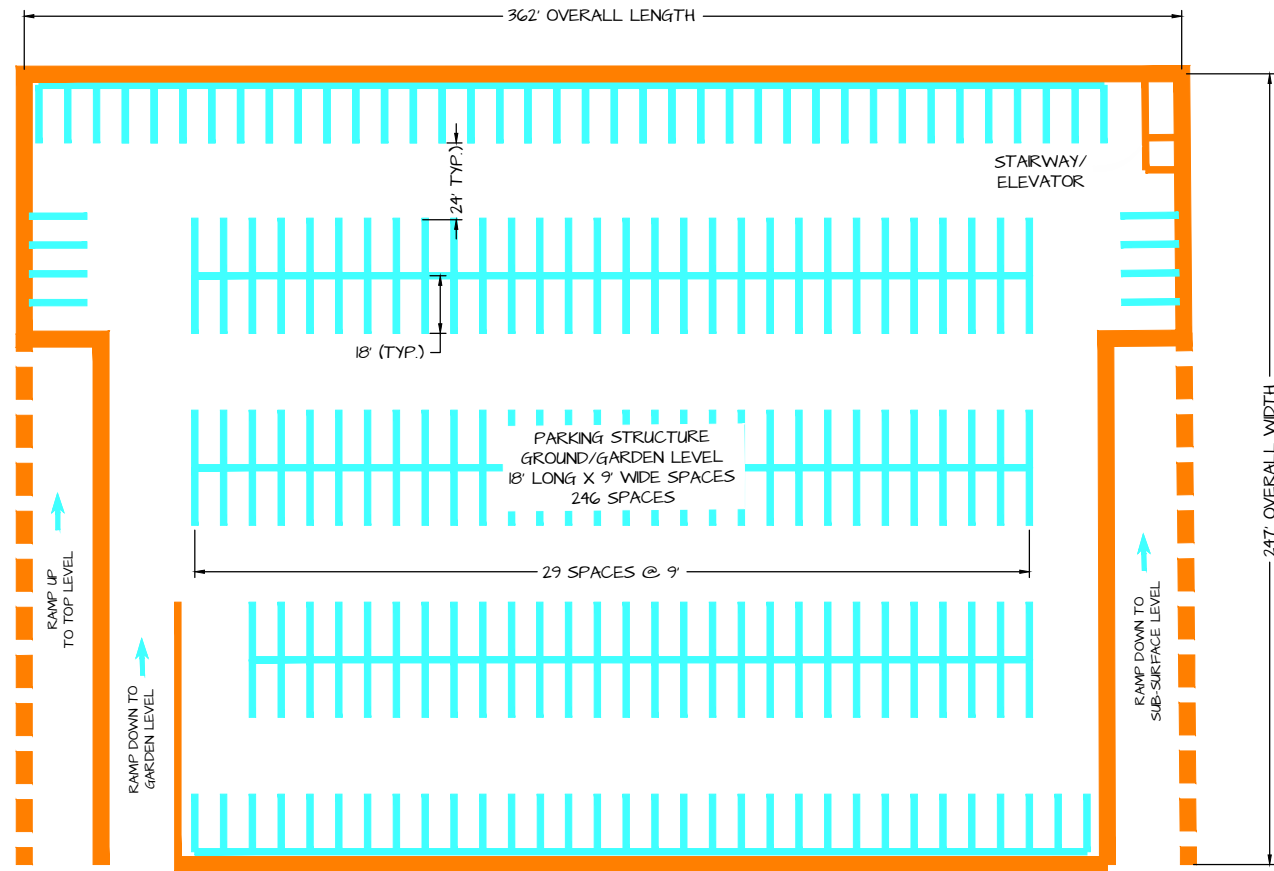
**CONCEPTUAL AREA DEVELOPMENT PLAN  
PARKING LOT LAYOUT - OPTION 4**

DATE: DECEMBER 16, 2015

EXHIBIT P-7



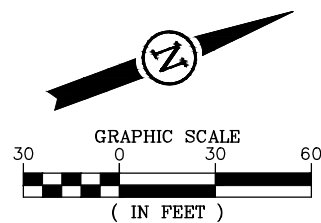
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LEGEND	
	PROPOSED PAVEMENT MARKING

NOTES:

1) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.

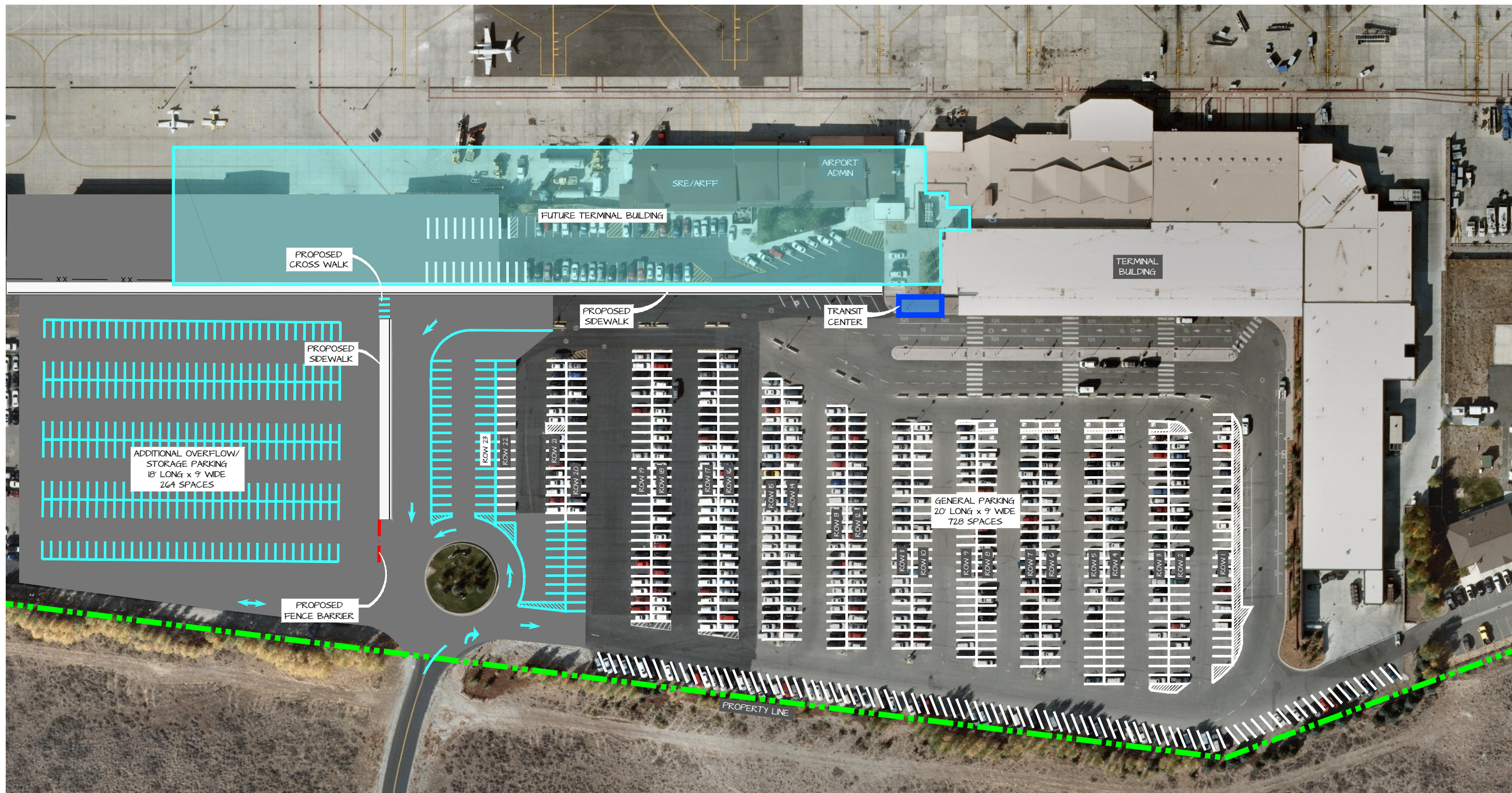


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<b>CONCEPTUAL AREA DEVELOPMENT PLAN          PARKING LOT LAYOUT OPTION 4          GROUND AND SUB-SURFACE PARKING</b> DATE: DECEMBER 16, 2015	EXHIBIT P-8
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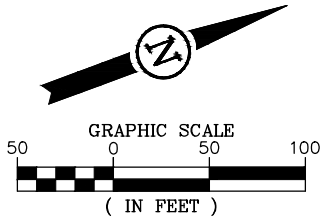


OPTION 5 PARKING AVAILABLE	
PAVED PARKING SPACES (ON-SITE)	992* SPACES
PAVED PARKING SPACES (OFF-SITE EMPLOYEE)	120 SPACES
RENTAL CAR STORAGE (OFF-SITE)	992 CARS

\* ASSUME 76 PUBLIC PARKING SPACES ON THE EAST EDGE OF THE PARKING LOT PREVIOUSLY USED FOR SNOW REMOVAL/STORAGE IN WINTER ARE AVAILABLE FOR PARKING.

LEGEND	
	EXISTING PAVEMENT MARKING
	PROPOSED PAVEMENT MARKING

NOTES:  
 1) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.



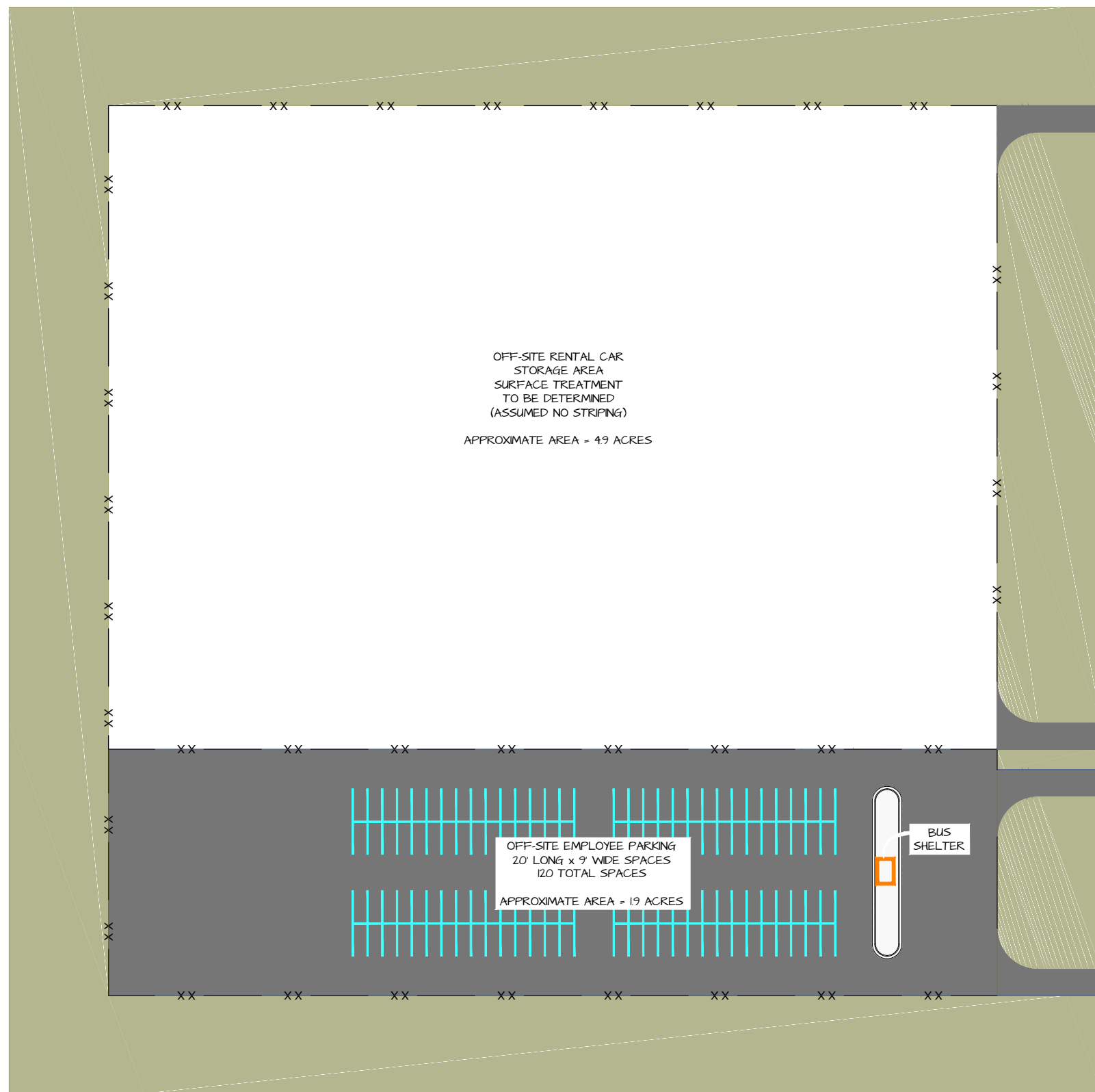
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**JACKSON HOLE AIRPORT**  
 JACKSON, WYOMING

CONCEPTUAL AREA DEVELOPMENT PLAN  
 PARKING LOT LAYOUT - OPTION 5  
 DATE: DECEMBER 16, 2015 EXHIBIT P-9

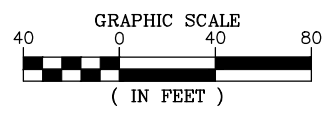


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LEGEND	
	PROPOSED PAVEMENT MARKING

NOTES:  
1) SEE EXHIBIT P-12, CAPITAL PROJECTS EFFECT ON AVAILABLE PARKING SPACES/STORAGE FOR AN ANALYSIS OF PARKING AVAILABLE COMPARED TO FORECASTED PARKING ACTIVITY.



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JACKSON, WYOMING

CONCEPTUAL AREA DEVELOPMENT PLAN  
PARKING LOT LAYOUT - OPTION 5  
OFF-SITE PARKING

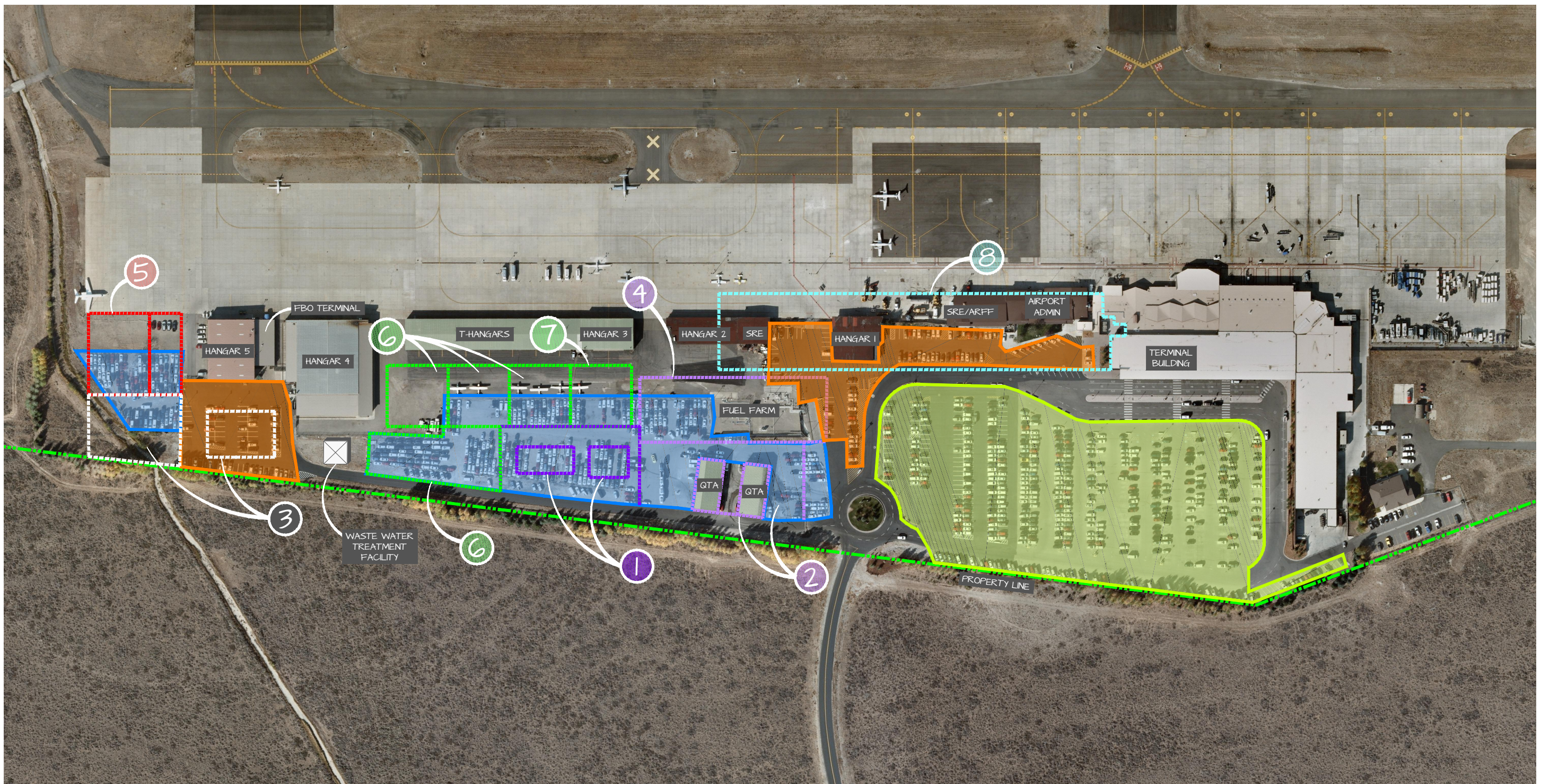
DATE: DECEMBER 16, 2015




EXHIBIT P-10











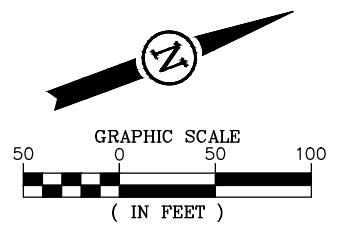


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LEGEND	
	EXISTING PUBLIC AND RENTAL CAR READY/RETURN PARKING
	EXISTING EMPLOYEE PARKING
	EXISTING RENTAL CAR STORAGE

CAPITAL PROJECT DESCRIPTION					
	1 RENTAL CAR QTA CONSTRUCTION CONCEPTUAL AREA DEVELOPMENT PLAN YEARS 1 TO 5		4 EXISTING FUEL FARM REMOVAL CONCEPTUAL AREA DEVELOPMENT PLAN YEARS 5 TO 15		7 1 MEDIUM GA HANGAR CONSTRUCTION CONCEPTUAL AREA DEVELOPMENT PLAN YEARS 15 TO 25
	2 EXISTING RENTAL CAR QTA REMOVAL AND CONSTRUCT OVERFLOW PARKING CONCEPTUAL AREA DEVELOPMENT PLAN YEARS 1 TO 5		5 LARGE GA HANGAR AND NEW FBO TERMINAL CONSTRUCTION CONCEPTUAL AREA DEVELOPMENT PLAN YEARS 5 TO 15		8 TERMINAL EXPANSION CONCEPTUAL AREA DEVELOPMENT PLAN YEARS 25 YEARS AND BEYOND
	3 FUEL FARM CONSTRUCTION AND FBO/EMPLOYEE PARKING RELOCATION CONCEPTUAL AREA DEVELOPMENT PLAN YEARS 1 TO 5		6 3 MEDIUM GA HANGAR AND GA PARKING CONSTRUCTION CONCEPTUAL AREA DEVELOPMENT PLAN YEARS 5 TO 15		



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JACKSON, WYOMING

**CONCEPTUAL AREA DEVELOPMENT PLAN  
CAPITAL PROJECT EFFECTS ON  
AVAILABLE PARKING SPACES/STORAGE**

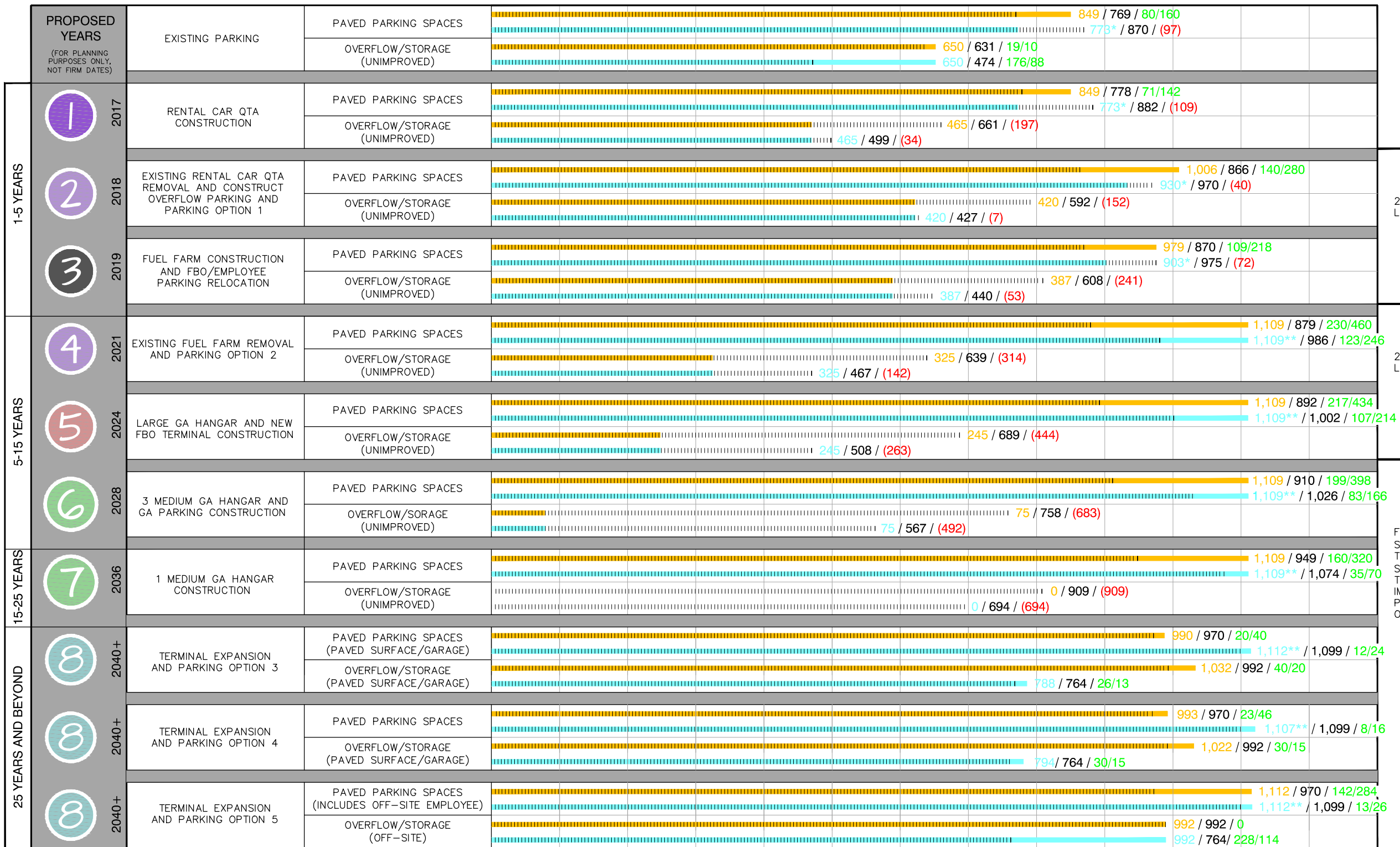
DATE: DECEMBER 16, 2015

EXHIBIT P-11



NUMBER OF PARKING SPACES/CARS

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300

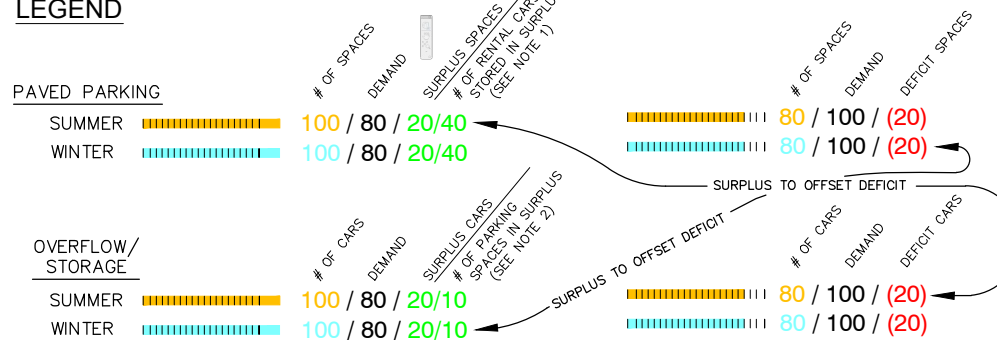


2018 - PROPOSED PARKING LOT LAYOUT OPTION 1

2021 - PROPOSED PARKING LOT LAYOUT OPTION 2

FOLLOWING 2024, THE PARKING SPACES/STORAGE DEFICIT BEGINS TO OUTWEIGH THE PARKING SPACES/STORAGE AVAILABLE. THE AIRPORT MAY CONSIDER IMPLEMENTING IN WHOLE, OR PART PARKING LOT OPTION 3, 4, OR 5 AT THIS TIME

LEGEND



NOTES:

- WITH INPUT FROM RENTAL CAR COMPANIES, THE STUDY ASSUMES THAT FOR EVERY MARKED PARKING SPACE, 2 RENTAL CAR VEHICLES CAN BE STORED.
- THE STUDY ASSUMES THAT FOR EVERY RENTAL CAR STORED, 1/2 OF A PARKING SPACE CAN BE ACHIEVED.
- SURPLUS PARKING SPACES/STORAGE AREA CAN BE USED TO HELP OFFSET DEFICITS DURING THE SUMMER AND WINTER SEASONS.

\* DURING WINTER, APPROXIMATELY 76 PARKING SPACES ARE UNAVAILABLE DUE TO SNOW REMOVAL/STORAGE.  
 \*\* ASSUMES THE 76 PARKING SPACES UNAVAILABLE DURING WINTER ARE NOW AVAILABLE FOR PARKING.

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**JACKSON HOLE AIRPORT**  
 JACKSON, WYOMING

CONCEPTUAL AREA DEVELOPMENT PLAN  
 CAPITAL PROJECT EFFECTS ON AVAILABLE PARKING SPACES/STORAGE  
 DATE: DECEMBER 16, 2015  
 EXHIBIT P-12

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## Chapter VI: Rough Order of Magnitude Costs – 1 to 5 Years

### Introduction

As part of the Conceptual Area Plan Development, Rough Order of Magnitude (ROM) cost estimates are to be provided for work that is proposed to take place in years 1 to 5 of the plan. These projects are considered the most critical within the Development Sub-Zone, and therefore, most likely to occur as proposed in the development plan.

### Years 1 to 5 ROM Cost Estimates

The capital projects that are proposed to occur within the years 1 to 5 of the Conceptual Area Development Plan are as follows:

- Rental Car QTA Design/Construction
- Existing Rental Car Removal
- Overflow/Storage Parking Lot Design/Construction
- Fuel Farm Design/Construction
- FBO/Employee Parking Lot Design/Construction

To understand where these proposed projects will occur on the airport, please see **Exhibit D-1**, “Conceptual Area Development Plan Years 1 to 5”. Below are the Rough Order of Magnitude cost estimates for these proposed projects:

Conceptual Area Development Plan 1-5 Years ROM Cost Estimate	
Proposed Capital Project	Estimated Cost
Rental Car QTA Design/Construction	\$7,000,000
Existing Rental Car QTA Removal	\$750,000
Overflow/Storage Parking Lot Design/Construction	\$500,000
Fuel Farm Design/Construction	\$5,500,000
FBO/Employee Parking Lot Design/Construction	\$750,000
<b>Total Estimated Costs</b>	<b>\$14,500,000</b>

