DES MOINES INTERNATIONAL AIRPORT

Development Plan

Foth

FLY DSM

DES MOINES International Airport

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PURPOSE & **BACKGROUND**

BACKGROUND

The Des Moines Airport Authority (Authority) has embarked on this Development Plan with a primary objective to evaluate nine (9) areas (~200 acres) of Authority controlled land for new development opportunities. This Plan completes in depth analyses to determine the highest and best uses of available lands along with the constraints and opportunities contributing to their development potential. The analyses include evaluating existing conditions, review of the area market trends (commercial and industrial), review of current demographics, concept planning of the identified development sites, and identification of costs (Ex. incentives, capital costs) required to make new business developments a reality.

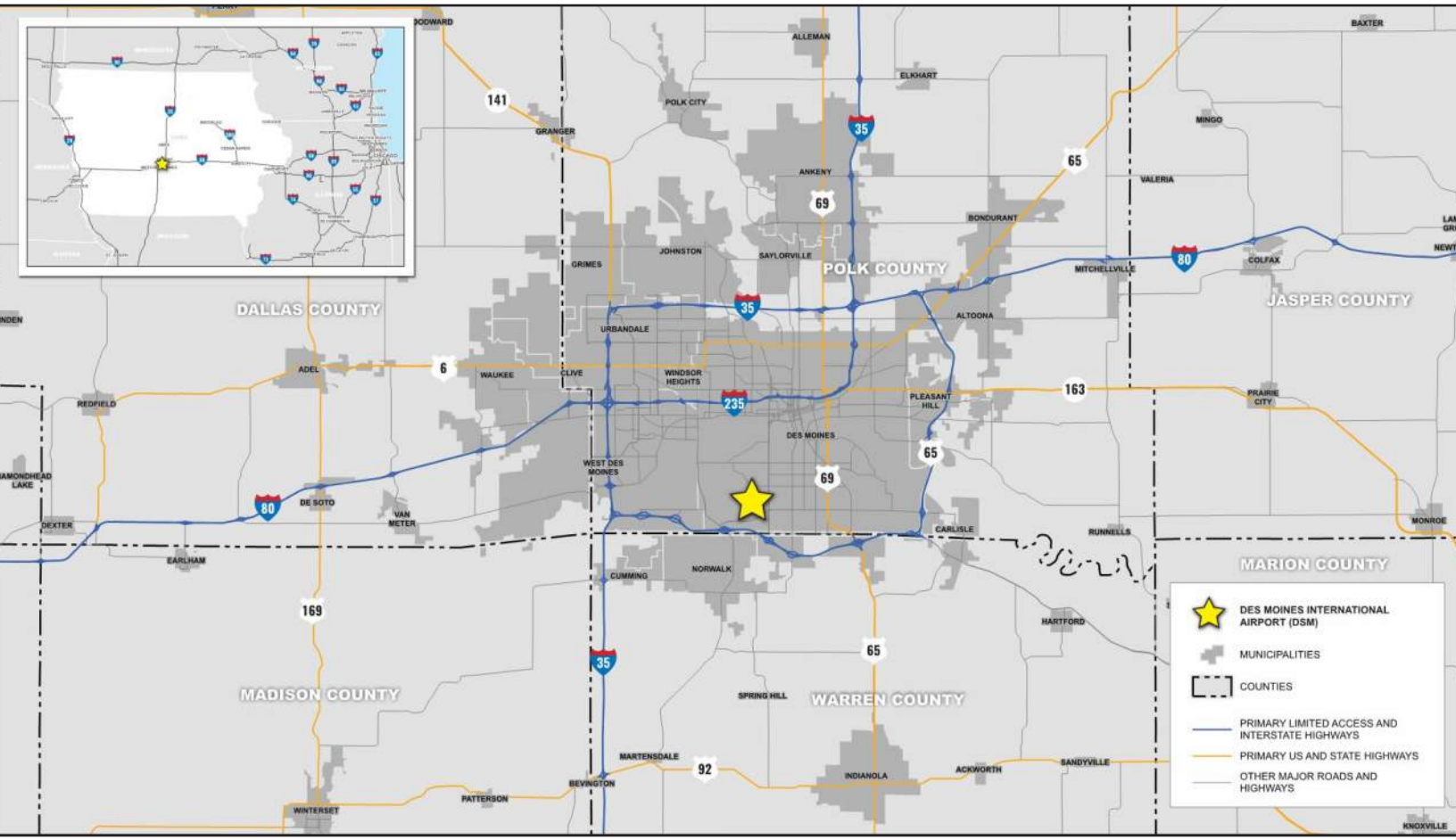
With airport properties, it is recognized that the planning of surrounding communities and infrastructure contribute to development investments in the area. This Plan includes working with the surrounding municipalities and contains a variety of recommendations on the objectives the Authority may take in cooperation with area agencies. The results of this Development Master Plan effort are a series of strategies and implementation measures for the Authority to market developable properties to new investors and businesses looking to expand in Central Iowa. Recommendations include determinations on where private investments may lead to more timely business development, what potential industries to target, and how the Authority can best leverage marketing opportunities of the sites. Implementation of the economic development recommendations in this Plan are anticipated to make Des Moines International Airport Authority (DSM) owned properties appealing for future development, creating a vibrant area of increased business activity for the Authority and in the greater Des Moines region.

This Development Plan evaluates:

9 EVALUATED AREAS

~200 ACRES

PURPOSE & **BACKGROUND**

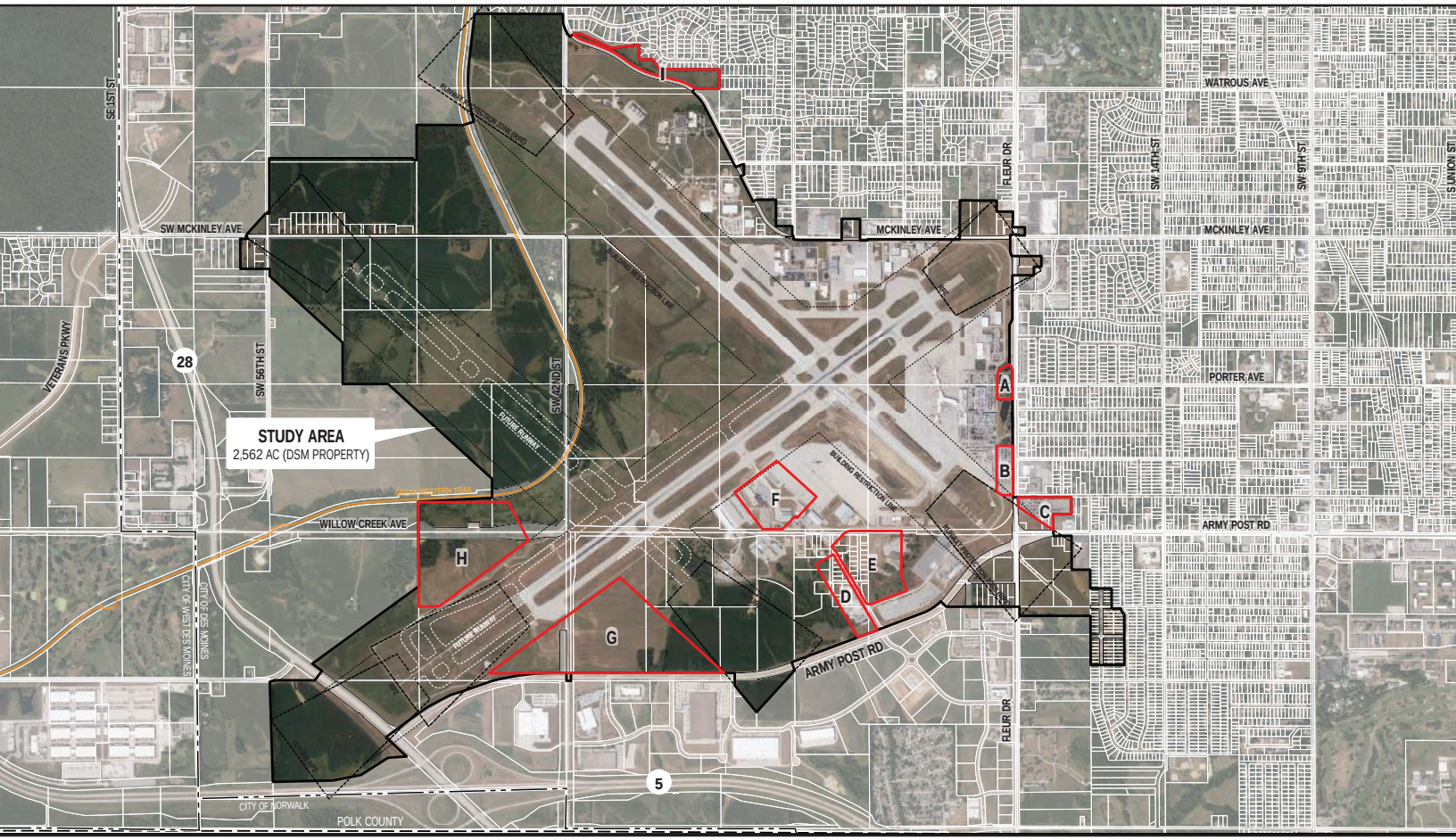


REGIONAL LOCATION

DSM is located in the far south portion of Polk County, Iowa within the City of Des Moines (closely bordering Warren County to the south). The airport property is approximately 140 miles east of Omaha, 300 miles west of Chicago, Illinois, 185 miles north of Kansas City, Missouri, and 240 miles south of Minneapolis/St. Paul, Minnesota area. The Regional Map found herein displays the location in more detail.

Image Credit: Greater Des Moines Partnership

PURPOSE & **BACKGROUND**



PLANNING AREA

The focus of this Plan are nine (9) identi□ed developable areas within the 2,500+ acre campus. The Planning Area Map displays this overall study area. While the focus of this Plan is the general study area, it is recognized that the infrastructure and land uses surrounding DSM also are important key elements to the vision of creating the highest returns on investment when attracting future business to the area. Given this, neighboring properties, corridors, and gateways that have in□uence on future development at DSM are part of the overall supporting recommendations and implementation measures of this Plan.

1 VISION & RECOMMENDATIONS

VISION

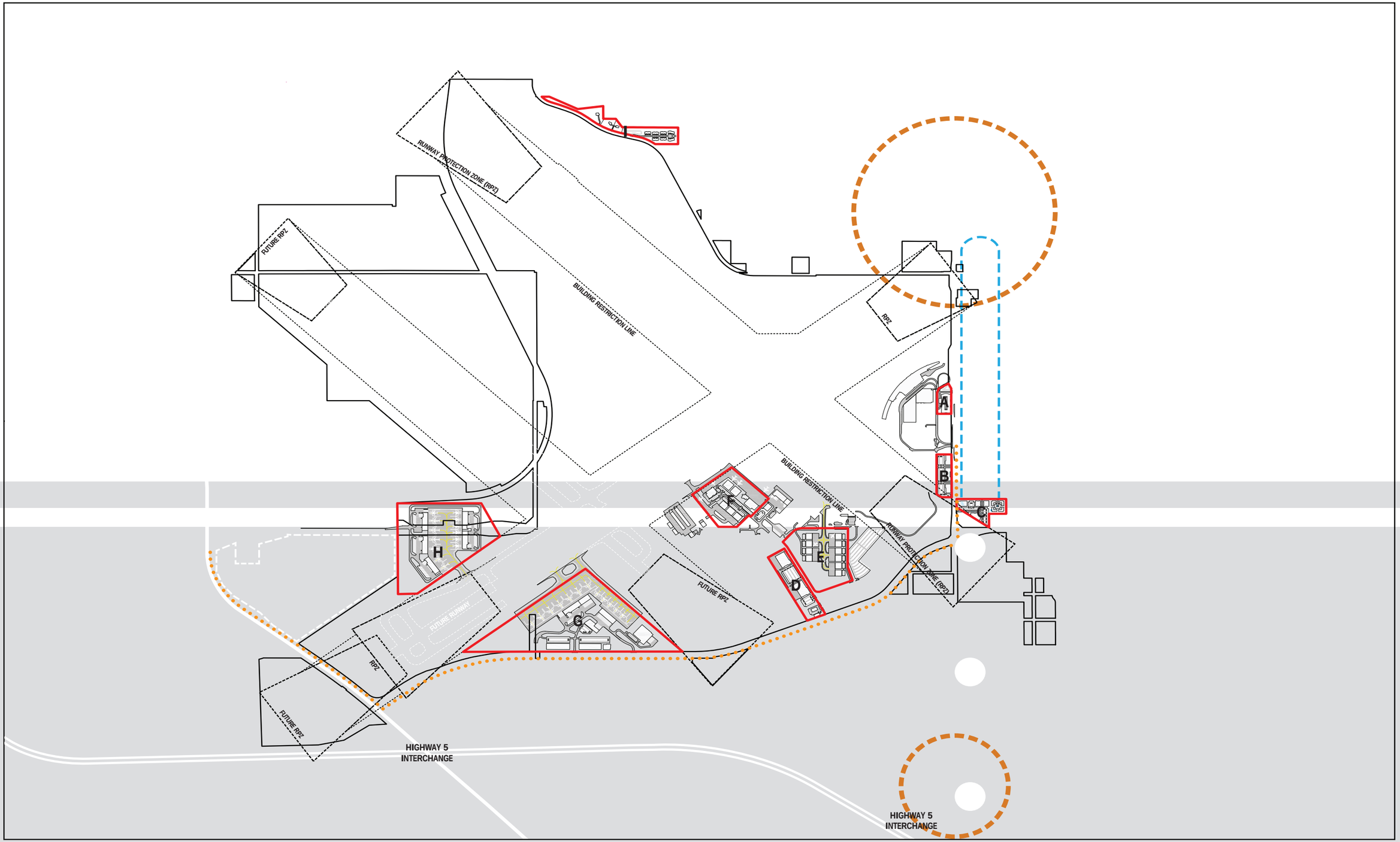
The Development Master Plan shall graphically present a synopsis of where Des Moines Airport Authority envisions investment for future airside and landside business development to foster economic growth for the airport and region. Through the plan the airport will serve as an economic engine by enhancing economic indicators that contribute to the regions growth by increasing area jobs, annual payrolls, and annual economic output.

This Development Plan is a deliberate step in implementing the vision above. The outcomes are envisioned to create an economic engine of business activity surrounding DSM that is shaped by:

- Realizing new financial strength for DSM by establishing specific opportunities for fostering economic development.
- Collaboration with local economic development organizations in creating an established identity for the region as major market for commerce activity.
- Marketing DSM as an ultimate location for new business growth due to having amenities unmatched by other regional business locations.
- Investment in infrastructure that contributes to the highest and best uses of development property.
- Delivery of incentives that enable maximum returns on investment.

VISION MAP

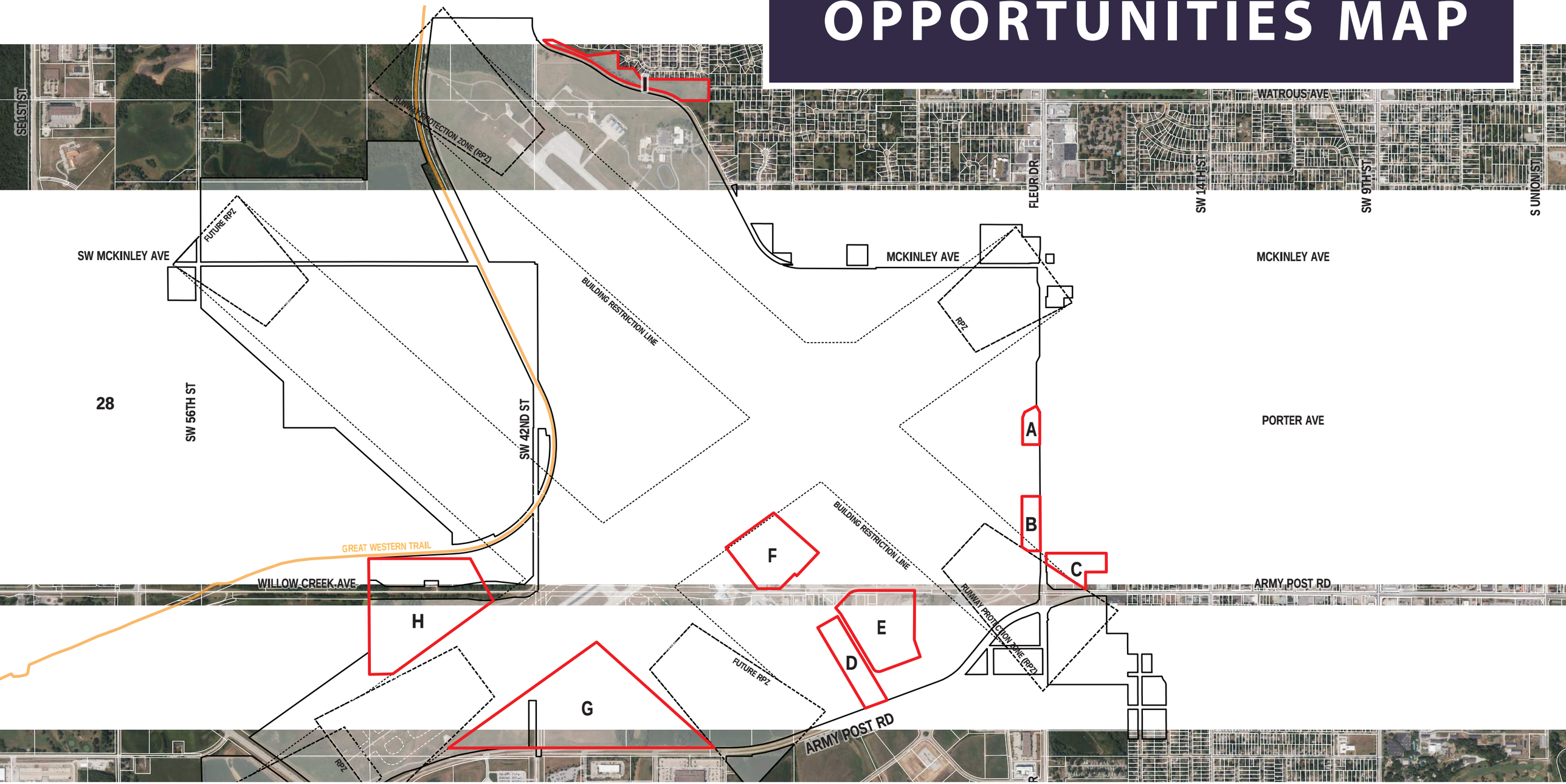
This Vision Map (found on the next page) is an essential tool in communicating the Authorities partnership with developers, investors, and local economic development agencies in creating the greater Des Moines region as a thriving business center. The Vision Map is a powerful storyteller when courting businesses and working with the local community to leverage private investments in the area. Essentially, this Vision Map relates the overall picture of future economic development activity that may be generated if the recommendations in the Plan are fulfilled to their ultimate potential.

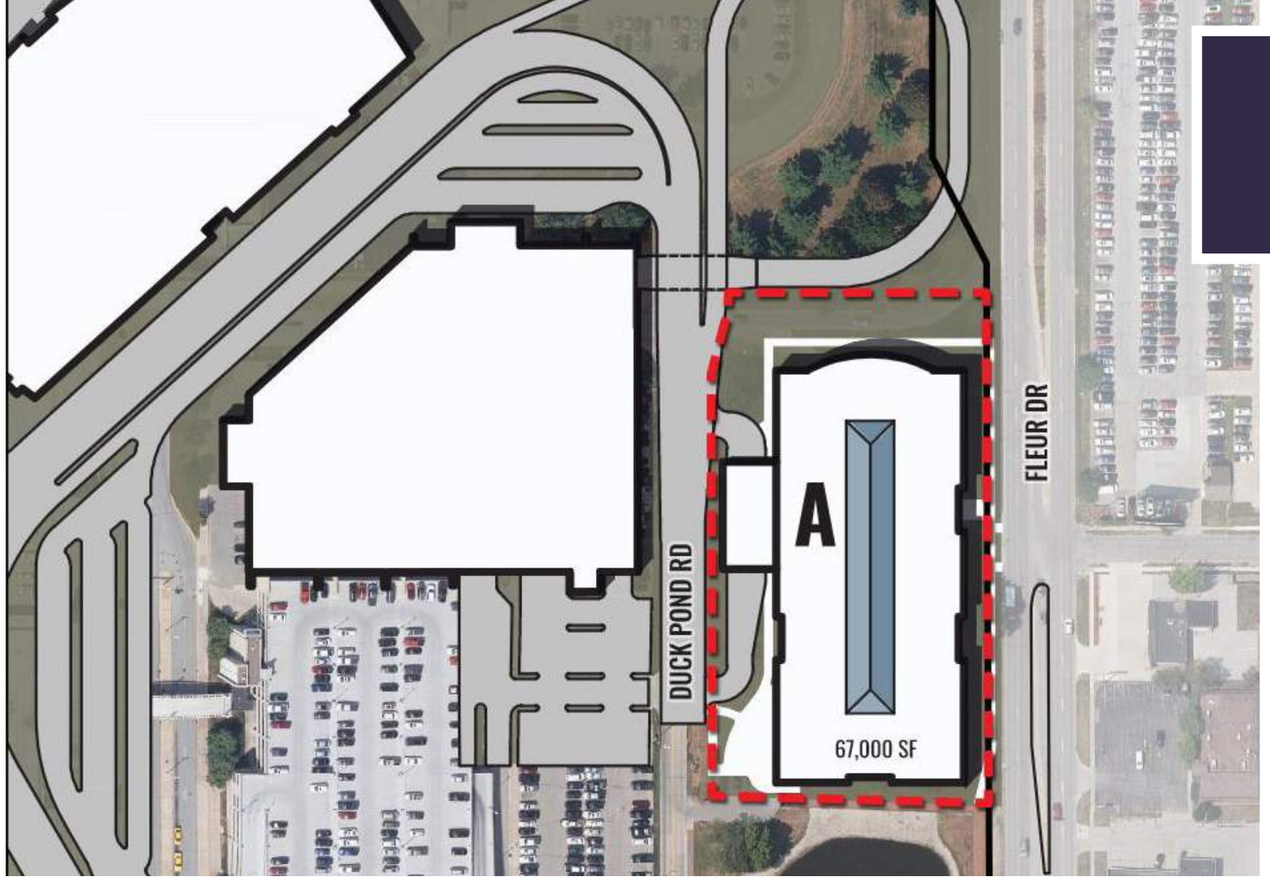

RUNWAY PROTECTION ZONE (RPZ)
FUTURE RPZ
BUILDING RESTRICTION LINE
RPZ
A
B
C
D
E
F
G
H
BUILDING RESTRICTION LINE
RUNWAY PROTECTION ZONE (RPZ)
FUTURE RPZ
FUTURE RUNWAY
RPZ
FUTURE RPZ
HIGHWAY 5
INTERCHANGE
HIGHWAY 5
INTERCHANGE

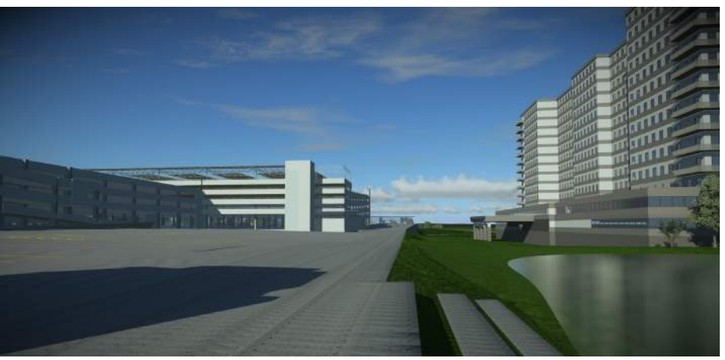
2 DEVELOPABLE OPPORTUNITY AREAS

Nine (9) developable opportunity areas are identified in this Plan as having potential for future commercial and industrial uses. These areas are recognized as Areas A-I and can be found in the Development Opportunities Map herein. This section provides a deeper look at each site identifying the constraints and opportunities of each developable area. The analyses include existing conditions and details on the costs for realizing development (making them pad-ready). The highest and best uses of each site are determined based on the analyses from Section 3 and 4 of this Plan (Existing Conditions and Market Analyses). A conceptual rendering is also provided in order to display a vision on how a development may work on the each site. As previously noted, these analysis sheets will be instrumental in marketing the development possibilities of the lands and act as quick resources in answering future site selector and broker development inquiries.

DEVELOPMENT
OPPORTUNITIES MAP







DEVELOPMENT AREA A
TERMINAL GATEWAY

PROPERTY CHARACTERISTICS

Location: The Terminal Gateway parcel is located directly adjacent to Cowles Drive, the main entrance road to DSM along Fleur Drive. The lands are open and vacant used primarily as a beauti□cation bu□er to the terminal parking garages. The lands will be preserved for development upon the future expansion of the terminal.

Size: ~2.7 Acres

Road Access/Frontage: Fleur Drive (~425')

Runway Access: N/A

Railroad Access: N/A

Sanitary Sewer: City of Des Moines Wastewater Reclamation Authority - 15" main runs north/south along the west side of Fleur Drive directly adjacent to the development area.

Water: Des Moines Water Works - 12" diameter main on the west side of Fleur Drive near the development area.

Electric: MidAmerican Energy Company in area.

Gas: MidAmerican Energy Company - 10 PSI service that runs to the existing terminal is nearby.

Telecommunications: Windstream Communications - 4" – 6Way □ber duct bank that runs North/South along the west side of Fleur Drive directly adjacent to Area A.

Topography: 930' – Flat

Stormwater: Required upon development. Additional underground storage may be necessary.

Floodplain: None

Wetlands: None

Zoning: P2 - Public, Civic, and Institutional (P) District

Future Land Use: Airport

Noise Zone: 65 DNL

Air Height Restrictions: 150+' elevation restriction area

Runway Protection Zone: None

DSM Intent for Transaction of this Area: Lease only

DEVELOPMENT CONSTRAINTS

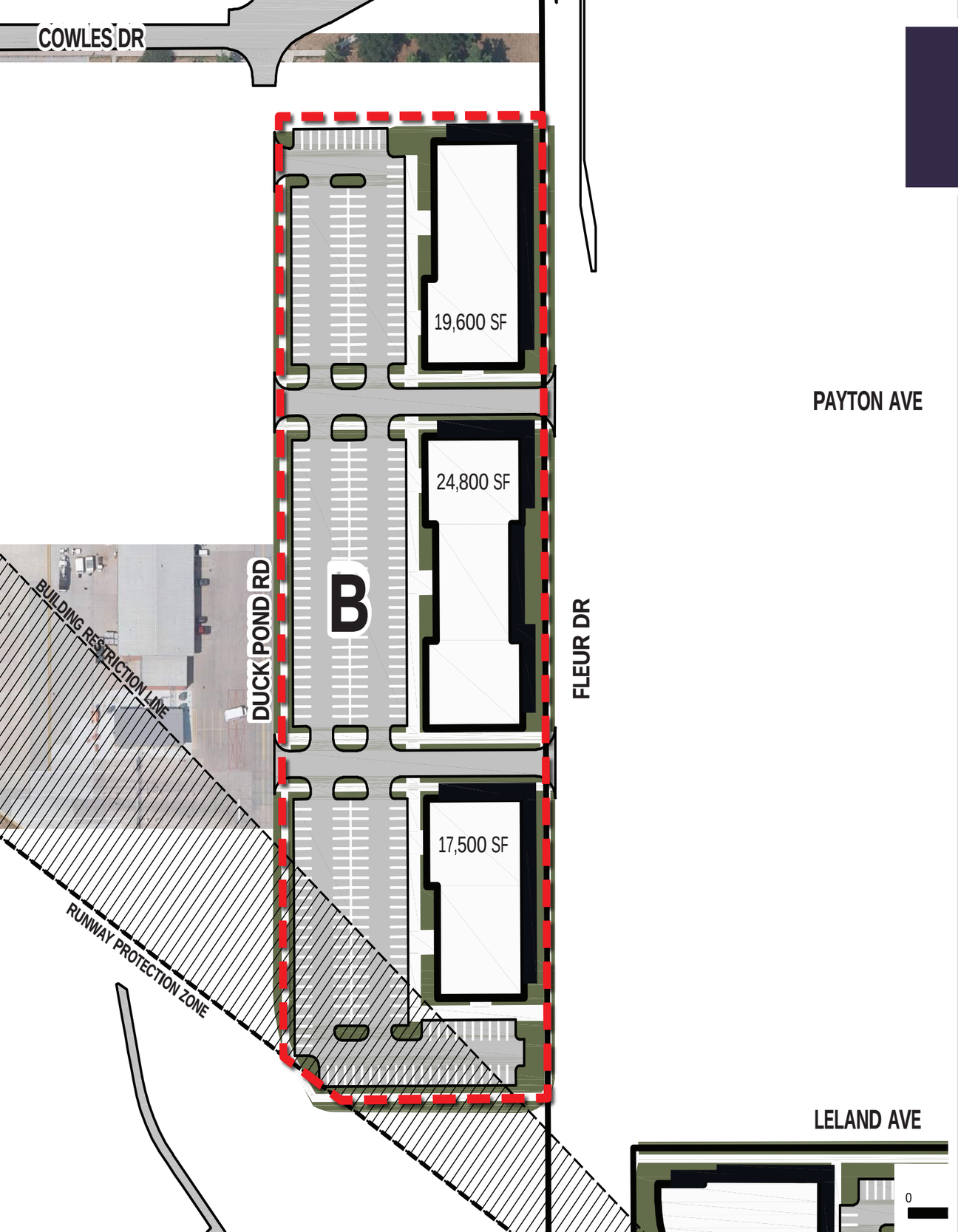
Possible limitations to consider for future development of this property include:

- Access to Fleur Drive may be limited to certain locations or regulated as rt in/rt out
- Stormwater management will be required for new development
- Building methods may need to be incorporated for noise protection
- Possible rezoning timeline required depending on use

POSSIBLE HIGHEST & BEST USES

Target Industries: Hospitality & Supporting Commercial

The highest and best uses for Developable Area A are likely to be commercial related uses consisting of hospitality and commercial support businesses for the hospitality and tourism industry (restaurants). DSM has expressed interest in having conference rooms and sta o ces in cooperation with a future development here as well. These uses are found to be the most appropriate due to: 1) Matches current zoning and land use patterns along Fleur Drive; & 2) Market demand attributed to o ering lodging and daily convenience needs within the travel industry along an airport gateway (Would follow City of Des Moines Land Use Plan for continued mixed use corridor along Fleur Drive) .



DEVELOPMENT AREA B
ECONOMY PARKING LOT 2

PROPERTY CHARACTERISTICS

Location: The Economy Parking Lot 2 parcel is located directly along the west side of Fleur Drive south of the passenger terminal. The parcel is currently used as an airport parking lot and abuts private airport parking uses to the west.

Size: ~5.7 Acres

Road Access/Frontage: Fleur Drive (~900')

Runway Access: N/A

Railroad Access: N/A

Sanitary Sewer: City of Des Moines Wastewater Reclamation Authority - 15" main runs north/south along the west side of Fleur Drive directly adjacent to the development area.

Water: Des Moines Water Works - 6" main runs through the southern half of the development area.

Electric: MidAmerican Energy Company in area.

Gas: MidAmerican Energy Company - 10 PSI service that runs to the existing terminal is nearby.

Telecommunications: Windstream Communications - 4" - 6Way ber duct bank that runs North/South along the west side of Fleur Drive directly adjacent to Area B.

Topography: 950' – Flat

Stormwater: Required upon development. Additional underground storage may be necessary.

Floodplain: None

Wetlands: None

Zoning: P2 - Public, Civic, and Institutional (P) District

Future Land Use: Airport

Noise Zone: 65-70 DNL

Air Height Restrictions: 50'-150' elevation restriction area depending on location of building

Runway Protection Zone: None

DSM Intent for Transaction of this Area: Lease only

DEVELOPMENT CONSTRAINTS

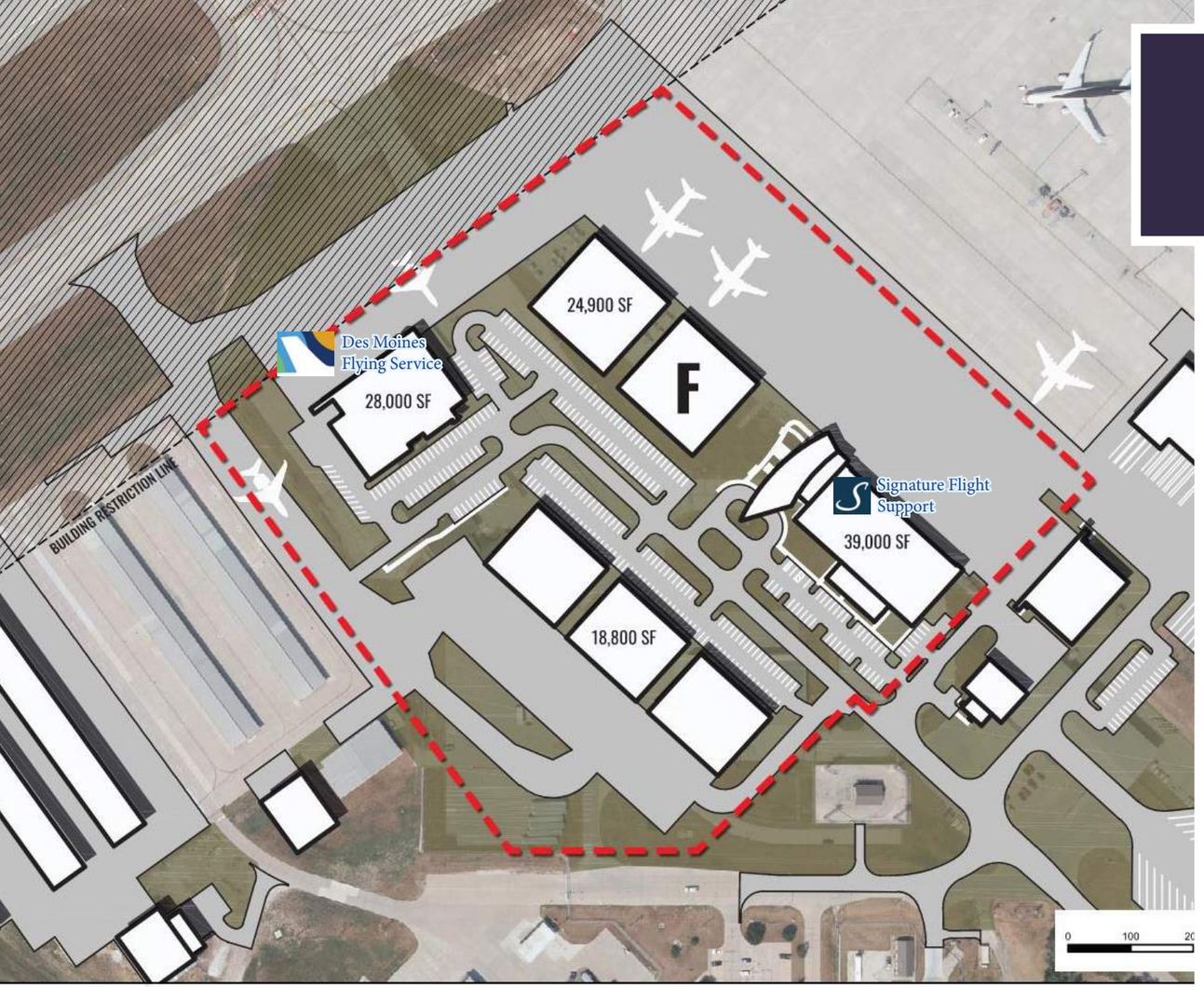
Possible limitations to consider for future development of this property include:

- Access to Fleur Drive may be limited to certain locations or regulated as rt in/rt out
- Demolition to existing parking lot infrastructure
- Some restraints on building heights depending on the desired end use
- Possible rezoning timeline required depending on use

POSSIBLE HIGHEST & BEST USES

Target Industries: Commercial

The highest and best uses for Developable Area B are likely to be continued use as a parking lot or commercial related uses consisting of hospitality, retail, and convenience type businesses. Continued use of this site as a remote parking lot is highly desirable due to the revenue generation that comes from this use. However, commercial related uses should be more widely considered when future terminal expansion parking garages take place and when proposed commercial uses may outweigh revenue generation from the parking lot uses. Commercial uses are found to be the most appropriate due to: 1) Matches current zoning and land use patterns along Fleur Drive; & 2) Market demand attributed to o ering lodging and daily convenience needs within the travel industry along an airport gateway.



DEVELOPMENT AREA F
GENERAL AVIATION APRON

PROPERTY CHARACTERISTICS

Location: The General Aviation parcel is located directly adjacent to the south side of Runway 5/23. Various impervious surfaces exist throughout the lands and are utilized for a variety of airside commercial aviation uses and cargo operations. An approved future development layout exists reserving this property for a variety of airside aeronautical business uses.

Size: ~28.1 Acres

Road Access/Frontage: SW 28th Street (Internal airport road)

Runway Access: Yes

Railroad Access: N/A

Sanitary Sewer: City of Des Moines Wastewater Reclamation Authority - 6" service lines available for future development (Connects to the 8" main at SW 28th Street).

Water: Des Moines Water Works - 12" main running east/west along the south side of the Airport Service road. Also a 12" main running north/south along the east side of SW 28th Street.

Electric: MidAmerican Energy Company - An existing redundant electric network is in place and ready for connection.

Gas: MidAmerican Energy Company - Existing 10 PSI system installed during the SW 28th Street extension and ready for connection.

Telecommunications: DSM Airport - Conduit is readily available to be extended to the proposed facility and connected to airport communications infrastructure.

Topography: 930' – Flat

Stormwater: Already accounted for o□site.

Floodplain: None

Wetlands: None

Zoning: P2 - Public, Civic, and Institutional (P) District

Future Land Use: Airport

Noise Zone: 70-75 DNL

Air Height Restrictions: ~40-foot elevation restriction area depending on
location of building (RTR limits heights in area)

Runway Protection Zone: None

DSM Intent for Transaction of this Area: Lease only

Possible Plane Types Shown in Rendering for this Area: B737-800 or A320, Gulfstream G550, & G650

DEVELOPMENT CONSTRAINTS

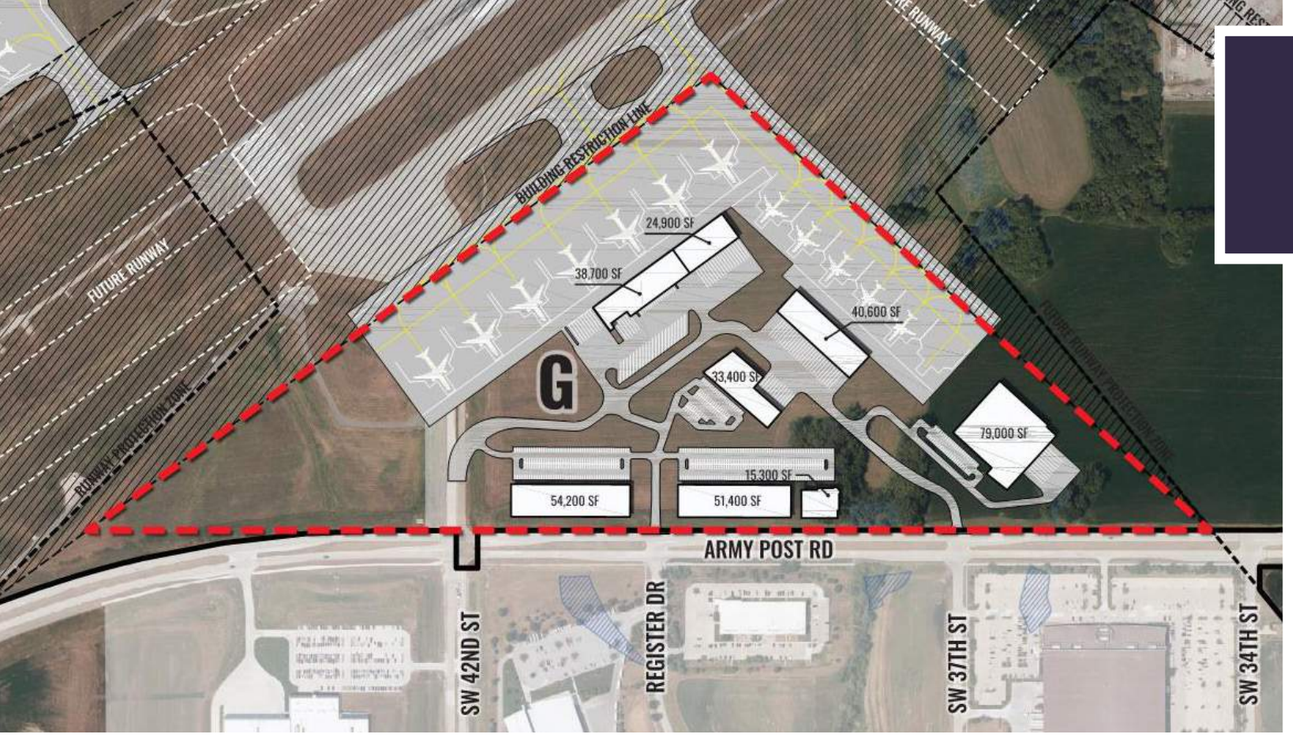
Possible limitations to consider for future development of this property include:

- Some restraints on building heights depending on the desired end use
- Demolition costs for current pavement/building infrastructure
- Existing sanitary sewer to develop around

POSSIBLE HIGHEST & BEST USES

Target Industries: Airside Aeronautical Business & General Aviation

The highest and best uses for Developable Area I are likely to be commercial airside uses consisting of general aviation services and support. These uses are found to be the most appropriate due to: 1) A pre-existing plan by DSM to establish this area as reserved for general aviation uses.



DEVELOPMENT AREA G
RUNWAY 5 SOUTH

PROPERTY CHARACTERISTICS

Location: The Runway 5 South parcel is located directly south of the end of Runway 5. Access to the runway can exist to the north and public access can take place to the south along Army Post Road. The lands abut existing modern business park uses to the south within the Airport Business Park.

Size: ~81.6 Acres

Road Access/Frontage: Army Post Road (~4000')

Runway Access: Yes

Railroad Access: N/A

Sanitary Sewer: City of Des Moines Wastewater Reclamation Authority - 18" sanitary sewer main at the northeast corner of Army Post Road and SW 42nd Street.

Water: Des Moines Water Works - 24" diameter water main located at the northeast corner of Army Post Road and SW 42nd Street.

Electric: MidAmerican Energy Company in area.

Gas: MidAmerican Energy Company - 4" diameter 60 PSI gas main on the north side of Army Post Road near the development.

Telecommunications: Windstream Communications - Runs east/west along the south side of Army Post Road. Topography: 900'-940' – Sloping

Stormwater: Required upon development.

Floodplain: None

Wetlands: None apparent

Zoning: P2 - Public, Civic, and Institutional (P) District

Future Land Use: Airport

Noise Zone: 65-70 DNL

Air Height Restrictions: 50'-150' elevation restriction area depending on location of building

Runway Protection Zone: Adjacent to west

DSM Intent for Transaction of this Area: Lease only

Possible Plane Types Shown in Rendering for this Area: Boeing 767-300, Airbus A300, Boeing 737-800 & Airbus A320

DEVELOPMENT CONSTRAINTS

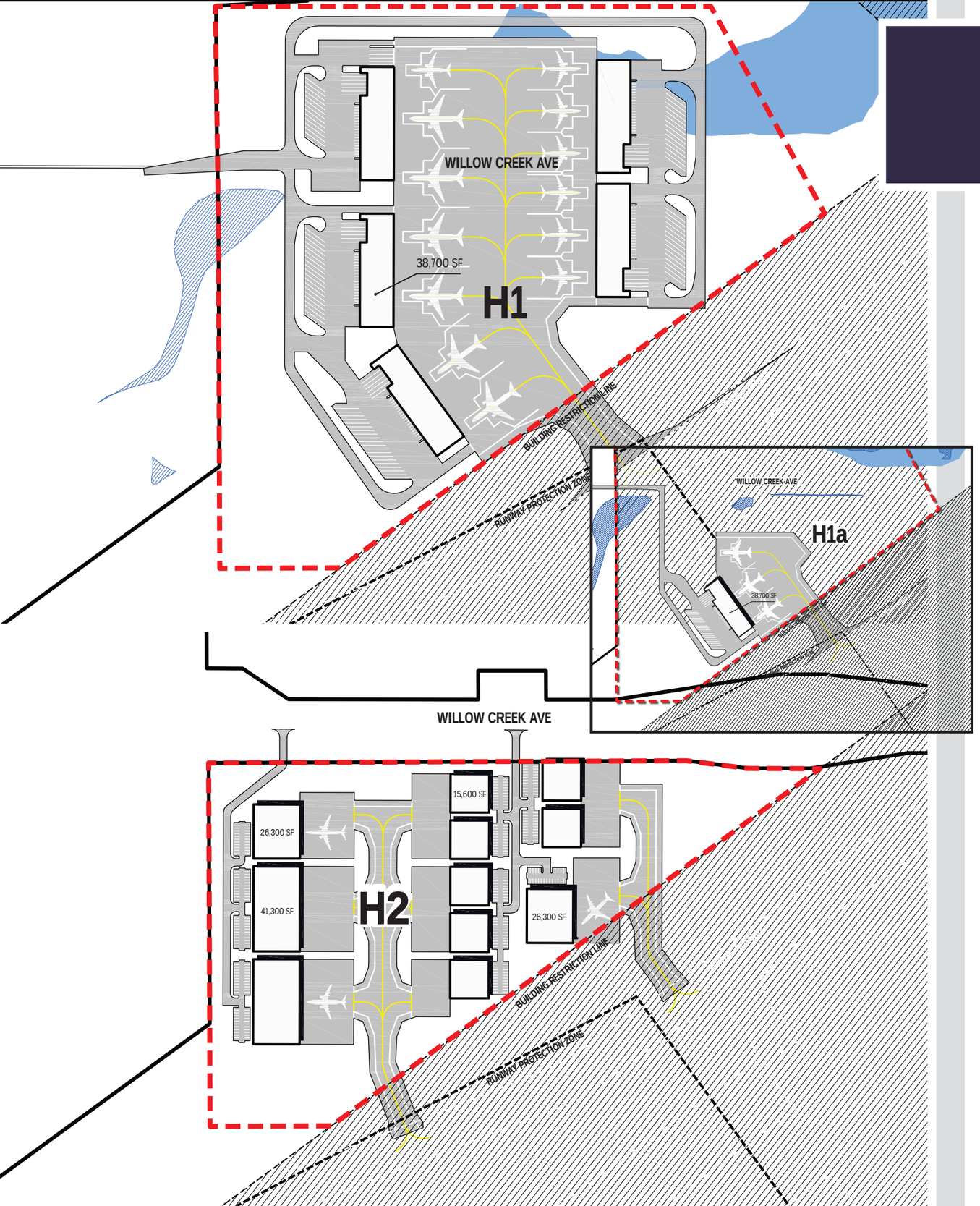
Possible limitations to consider for future development of this property include:

- Large amount of infrastructure/extensions required
- Possible lift station required
- Large amount of grading required
- Stormwater management will be required for new developments
- Some restraints on building heights depending on the desired end use
- Possible Right-of-way vacation needed for SW 42nd Street
- Possible rezoning timeline required depending on use

POSSIBLE HIGHEST & BEST USES

Target Industries: Airside Aeronautical Business, Advanced Manufacturing, Datacenters, Insurance & Financial Services, & Logistics

The highest and best uses for Developable Area E are likely to be airside aeronautical business to the north and business park uses to the south. These uses are found to be the most appropriate due to: 1) Adjacency and access to the Runway 5 to the north; 2) Large at acreage footprints t large businesses and plane movements; 3) Matches current zoning and land use business park patterns along Army Post Road; & 4) Market analysis showing demand for industrial uses in region.



DEVELOPMENT AREA H
WILLOW CREEK

PROPERTY CHARACTERISTICS

Location: The Willow Creek parcel is located northwest of the end of Runway 5 with frontage along Willow Creek Avenue. The area surrounding the parcel is largely undeveloped vacant lands.

Size: ~60 Acres

Road Access/Frontage: Willow Creek Avenue (~2000')

Runway Access: Yes

Railroad Access: N/A

Sanitary Sewer: City of Des Moines Wastewater Reclamation Authority -12" sanitary sewer force main runs north/south through the proposed development with the lift station being positioned approximately 1,500' northeast of the Runway 5 threshold.

Water: Des Moines Water Works - 16" water main running north/south along the east side of SW 42nd Street.

Electric: MidAmerican Energy Company in area.

Gas: MidAmerican Energy Company - 12" diameter 712 PSI high pressure gas feeder than runs north/south underneath Runway 5 approximately 800' east of the threshold (requires regulator station) or another line is found approximately 7,500 LF west of the development near Army Post Road and 1st Street.

Telecommunications: DSM Airport - The closest communication infrastructure appears to be in the Runway 5 glideslope building which is located over 1,000 LF from the development. Further discussions with the Airport would be necessary to determine if this existing infrastructure could be extended to support a future development.

Topography: 880'-920' – Sloping

Stormwater: Required upon development.

Floodplain: None

Wetlands: Possible north of Willow Creek Ave

Zoning: P2 - Public, Civic, and Institutional (P) District & EX – Mixed Use

Future Land Use: Airport & Business Park

Noise Zone: 65-70 DNL

Air Height Restrictions: 50'-150' elevation restriction area depending on location of building

Runway Protection Zone: Adjacent to south

DSM Intent for Transaction of this Area: Lease only

Possible Plane Types Shown in Rendering for this Area: F1- Boeing 767-300, Airbus A300, Boeing 737-800 & Airbus A320; F2 - Boeing 737-800 or Airbus A320

DEVELOPMENT CONSTRAINTS

Possible limitations to consider for future development of this property include:

- Large amount of infrastructure/extensions required
- Large amount of grading required
- Stormwater management will be required for new developments
- Environmental impacts a possibility (Ex. wetlands)
- Some restraints on building heights depending on the desired end use
- Site isolated from other surrounding business developments at this time

POSSIBLE HIGHEST & BEST USES

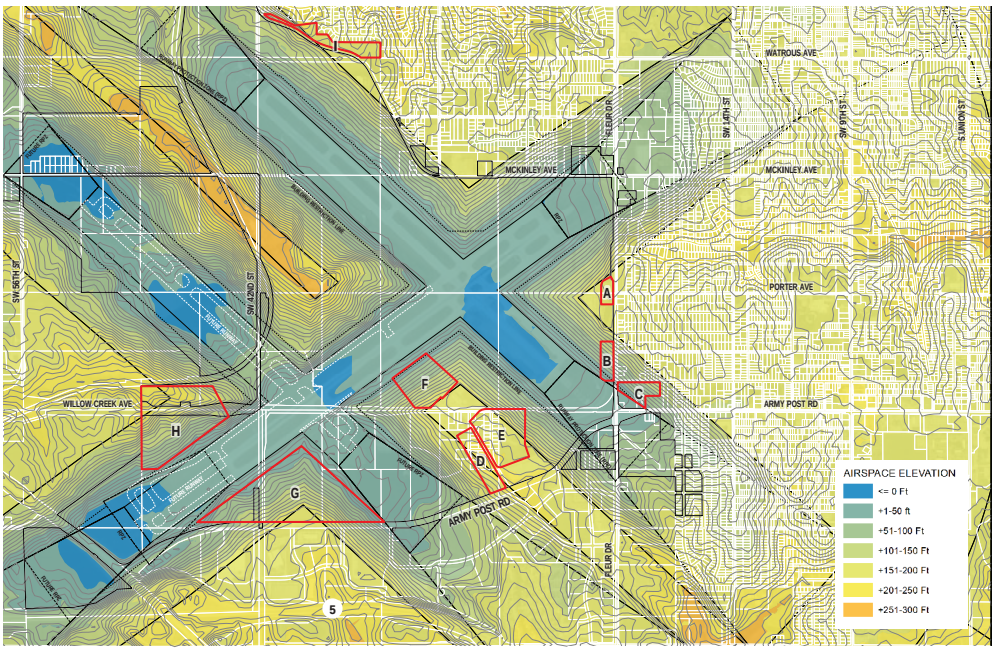
Target Industries: Airside Aeronautical Business and General Aviation

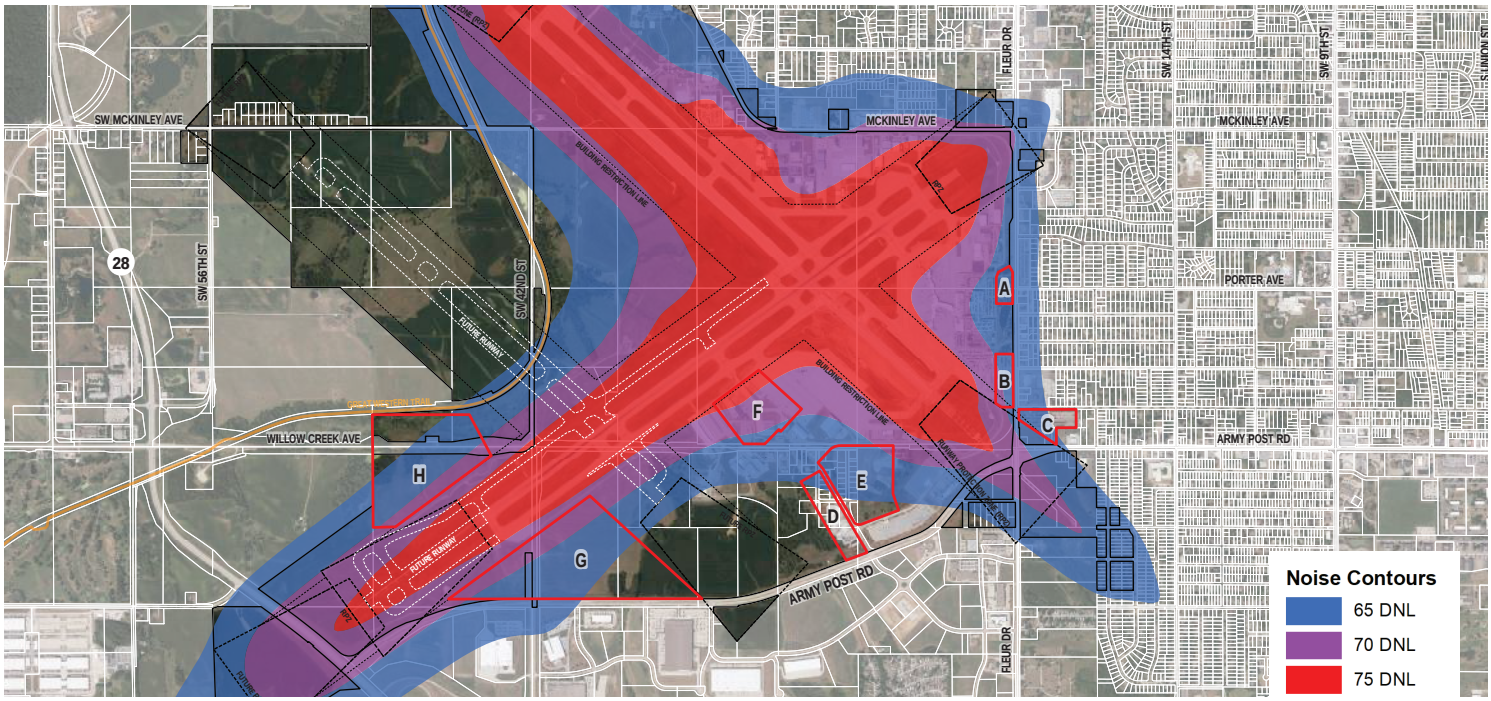
The highest and best uses for Developable Area F are likely to be airside aeronautical business. Options for large oorplate businesses to general aviation exist. These uses are found to be the most appropriate due to: 1) Adjacency and access to the Runway 5 to the south; 2) Opportunity for new business node in community in this currently rural area.

3 EXISTING CONDITIONS ANALYSIS

PROTECTION ZONES

Protection zones exist around the runways prohibiting or limiting the size of developments. Building restriction lines are found parallel to each runway, Runway Protection Zones (RPZs) are found at the end of each runway, and height restrictive areas are found throughout the runway complex. The height zones limit the heights of new structures in proximity to the runways based on a number of variables including property elevations and proximity to RPZs. The Airspace Elevation Map herein displays the protection zones in detail around DSM including the zones anticipated if a 3rd runway was added.





NOISE ZONES

While the presence of airport noise does not prohibit any use it should be noted as a possible constraint to future development in the area. Certain uses may not cooperate well with excessive noise. The map herein lays out the decibel levels associated with the use of the runways at DSM. These noise levels are considered in determining highest and best uses on the DSM identi□ed developable properties.

3 EXISTING CONDITIONS ANALYSIS

INFRASTRUCTURE

Infrastructure in relation to utilities and transportation exists throughout the DSM campus. A synopsis of infrastructure providers are provided below while a more intricate evaluation of infrastructure locations, needs, and costs is detailed for each developable area within Section 1 of this Plan. Utility infrastructure was reviewed for both public and private providers consisting of sanitary sewer, water, storm, electric, gas, and fiber. Transportation infrastructure consists of roads, rail, and air provisions.

Water & Sewer

Public water is provided to existing developments around DSM by the Des Moines Water Works while sanitary sewer provision derives from the City of Des Moines Wastewater Reclamation Authority. A variety of water and sewer upgrades will be required to facilitate capacity needs of future higher end developments. The existing facilities are shown on the "Exiting Utilities Map" while projected upgrade requirements of each developable area are shown on the costs table within Appendix A of this Plan.

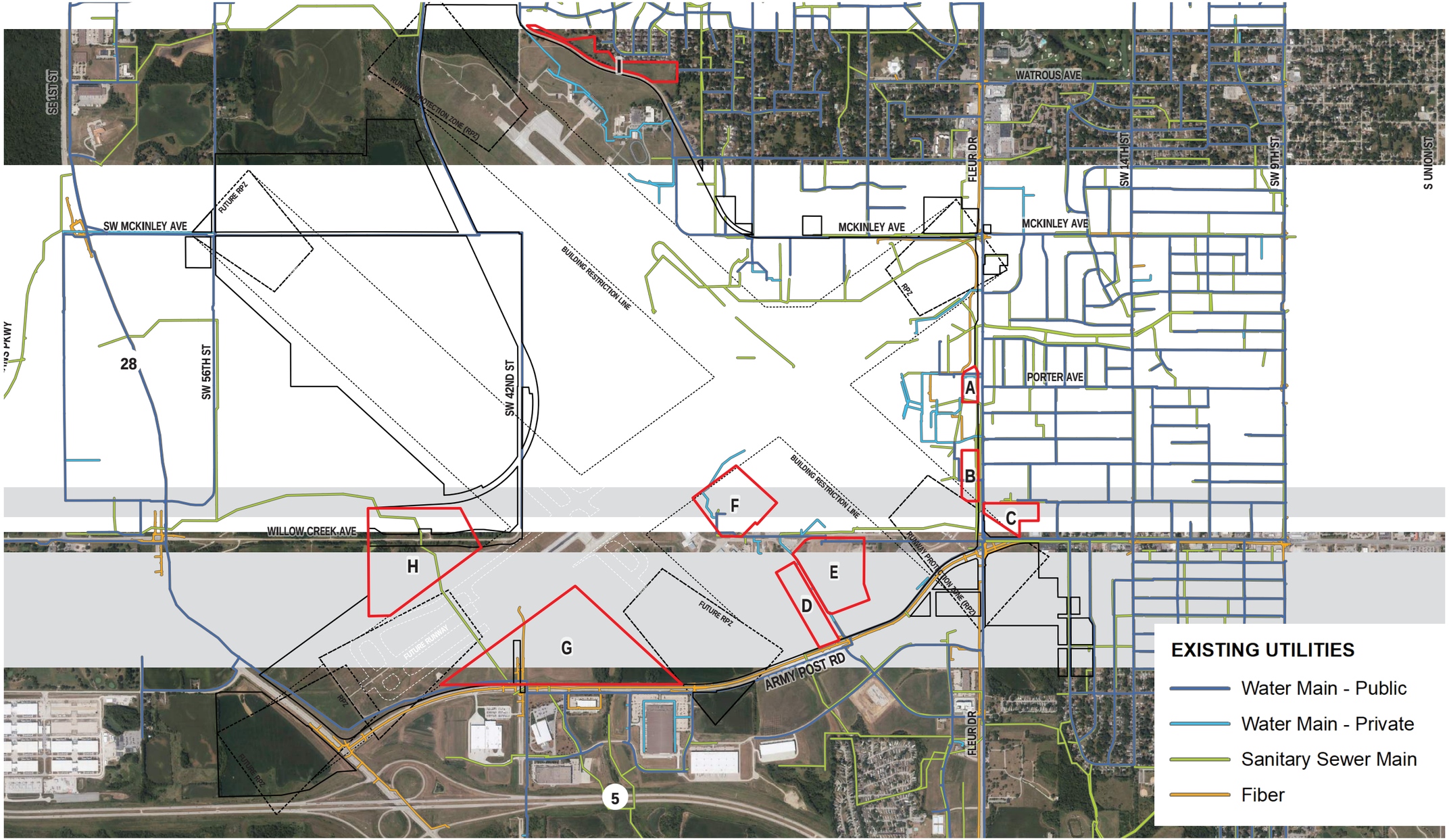
Stormwater Facilities

Stormwater facilities, consisting curb and gutter and storm sewers, mainly exist next to current development areas and along roadways. DSM has a series of storm ponds controlling stormwater for airport related impervious areas. Future developments will require stormwater management planning per local and state ordinances as indicated in each developable area review within this Plan.

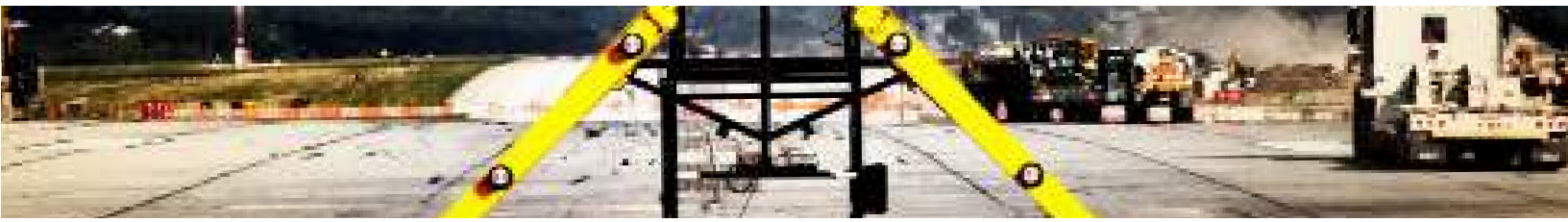
Private Utilities

The entire planning area has access to the private utilities of electric and natural gas as provided by MidAmerican Energy Company. Telecommunications are provided by DSM and Windstream Communication. Future developments will require private utility extensions and upgrades as required by their location, size, and capacity.

EXISTING UTILITIES MAP



3 EXISTING CONDITIONS ANALYSIS



INFRASTRUCTURE (con't)

Roads / Access / Gateways

The road infrastructure supporting DSM and developable opportunity parcels surrounding the area is extremely important to future development in the area. Roadways need to be of sufficient size to accommodate various development traffic (Ex. trucking industry, etc.). Further the overall presentation and aesthetics of a roadway can set the standard for entering a neighborhood's sense of place which can lead to a future developer's level of investment (Ex. architecture, landscaping) they wish to inject into their business expansion.

The roadways surrounding DSM are characterized as follows:

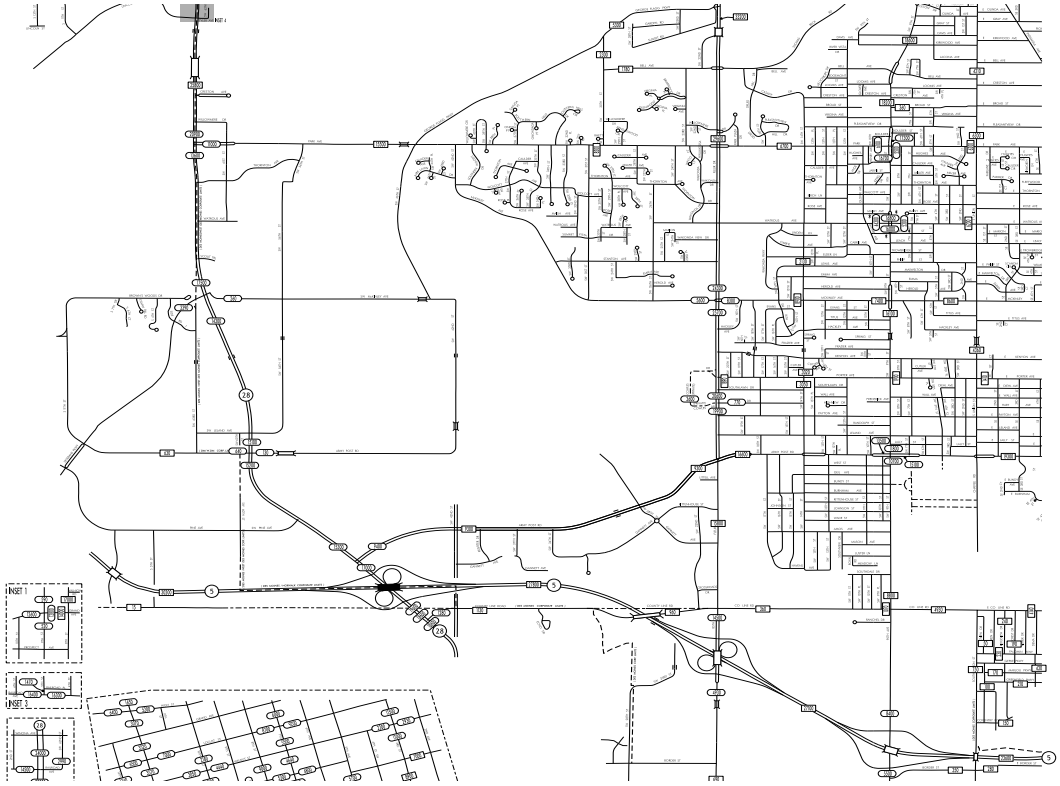
- The main accesses, and defined "gateways", to DSM from outside the planning area occur from on/off ramps of IA-5 at the intersection with Fleur Drive and from the north out of downtown Des Moines along Fleur Drive.
- Fleur Drive is characterized as a 4-lane rural cross section from IA-5 up to County Line Road, where it transitions to a 4-lane urban cross section with a median. This continues to the main terminal entrance for DSM at Cowles Drive.
- The area in front of the DSM campus along Fleur Drive has a robust amount of beautification measures that define the area with a sense of place. Beautification and complete street measures applied as follows:
    - Sidewalks are present intermittently along the east side of Fleur Drive from Army Post Road to Leland Drive, from Payton Avenue to Porter Avenue, south of Kenyon Avenue to the Kinley's Golf & Bowling Sales property, and from Hackley Avenue to the Motel 6 property, south of McKinley Avenue.
    - A green terrace can be found on either side of Fleur Drive.
    - Median landscape beds are found near the entrances to DSM between Leeland Avenue and Highland Drive, from the intersection of Porter Avenue to Kenyon Avenue, and between Hackley Avenue and McKinley Avenue.
    - Consistent terrace pole lighting is found from the intersection of Army Post Road up to the intersection of McKinley Avenue to the north.
- Army Post Road south of the DSM campus is a 4-lane urban cross section from IA-28 to Fleur Drive. This segment has some beautification measures including: a green median boulevard; green terraces; and consistent median pole lighting. East of Fleur Drive, transitions to a 4-lane urban cross section with sidewalks on both sides of the street with green terraces.
- McKinley Avenue is an urban 3-lane cross section from Fleur Drive to SW 26th Street, where it transitions to a 2-lane rural cross section to approximately SW 31st Street, where it transitions to a 2-lane urban cross section. McKinley Avenue has consistent lighting mounted on electrical poles on the north side of the road, and green terraces.
- SW 28th Street is an urban 2-lane cross section with green terraces and consistent terrace pole lighting.

Rail

Two rail spurs exists along the northwest border of DSM owned lands and are owned and operated by the Union Paci□c Railroad, which is a Class I railroad. These spurs serve Siegwerk USA, Inc. and Monarch Cement of Iowa. The spurs connect to the Perry Subdivision of Union Paci□c's Iowa Area Division. The Perry Subdivision has one main track which has an FRA Track Class of Class 1, with a maximum authorized speed of 10 mph freight. Currently, there is no rail access to DSM's development areas.

TRAFFIC COUNTS

Area tra□c counts are tracked every few years by the Iowa Department of Transportation (IDOT). Tra□c counts from 2016 are shown in the inset map herein and show the tra□c counts for the roads surrounding DSM and along IA-5. Counts average ~20,000 trips a day (north and south) all along Fleur Drive in front of DSM.



OTHER TRANSPORTATION

A variety of alternative forms of transportation are found in the area to get employees and DSM patrons to and from the airport. Buses and paratransit (handicapped assisted transportation), car rentals, hotel shuttles, limousines / ride share, regional shuttles, and taxis are all available. Also, the Des Moines Area Regional Transit Authority (DART) provides public bus service to and from the airport via Route 8. The route runs Monday thru Friday from 6 AM to 6:30 PM, with bus stops at Fleur and McKinley and the Airport South Park & Ride. Policy 37 of the Transportation Chapter of PlanDSM states, "Investigate multi-modal access between the airport and downtown including non-stop bus service".

3 EXISTING CONDITIONS ANALYSIS

NATURAL RESOURCES & TOPOGRAPHY

The current natural resources (wetlands/floodplains) and topography can be found on the individual site analysis maps of each identified developable opportunity parcel in this Plan. Limited wetlands and floodplains are found throughout the planning area and most parcels are of a level topography.

FOREIGN TRADE ZONE

Foreign-trade zones are designated sites licensed by the Foreign-Trade Zones (FTZ) Board at which special Customs procedures may be used for foreign goods. The activities in a zone offset Customs advantages available to overseas producers who compete with producers located in the United States. The program, which has existed since the 1930s, continues to thrive and change to better meet the needs of American companies in the global economy. The U.S. Department of Commerce FTZ Board oversees the Foreign-Trade Zone program and the FTZ Grantees are granted authority by the FTZ Board to establish, operate and maintain FTZ zones within certain geographical areas.

An FTZ exists 14 miles from DSM at Interstates 80 and 35, which is known as FTZ # 107. As Grantee of FTZ #107, substantial savings can be created for the companies within them for reducing, deferring and eliminating tariff (duty) payments. Simply stated, an FTZ is a duty-free, quota-free, secure area in a customs port of entry, actually considered to be outside the US Customs territory. Both foreign and domestics goods can be brought into an FTZ without formal customs entry for assembly, manufacture, display, storage, destruction or other processing. Duty payments are not required until the merchandise leaves the zone for domestic consumption. If exported, no duty payments are made.

3 EXISTING CONDITIONS ANALYSIS

AREA COMMUNITY / STAKEHOLDER DISCUSSIONS

Upon the first drafting of this study airport staff engaged area economic development partnerships. Discussions with representatives from the City of Des Moines and the Greater Des Moines Partnership took place. The discussions allowed the stakeholders to view the DSM development visions and converse about ways to market the identified opportunities in a collective way. Possibilities to share in costs and incentives also took place. The unbiased insights give further understandings into future anticipated development patterns of the DSM properties as they are planned in the coming years. Some results from the stakeholder discussions were as follows:

City of Des Moines

• The City praised the Plan finding that the outcomes are an excellent extension to the City Comprehensive Plan. Such deeper studies into City corridors and neighborhoods, like the DSM Plan, will help to better position the City to partner in marketing new businesses to the area.

• Insights were given into what zoning districts may best support the highest and best uses found in the Plan.

• Ways to leverage the City of Des Moines's financing tools were discussed and strategized, including possible use of City Tax Incremental Districts and tax abatements.

• A consensus was formed to jointly market the airport's development opportunities to expand the regional tax base and create new jobs.

Greater Des Moines Partnership

• The Partnership found that the DSM Development Plan will be very beneficial to courting future development partners in the Des Moines region. Having a vision and knowing the constraints and costs to development parcels upfront is key to a future business making a site selection in the area.

• The Greater Des Moines Partnership doesn't typically get involved with hospitality and commercial uses. Focus will be on regional target industry uses such as data centers, warehousing, and logistics.

• A focus on marketing future development on Area G may be most immediately beneficial due to the high-end regional target industries forecasted for this parcel.

• The length of airport allowed lease terms may narrow some future development prospects.

•The Partnership is willing to add the airport's development sites to the Location One Information System (LOIS).

• The Partnership can provide support on research, marketing, taxes, and cost of doing business.

• The Partnership will act as a conduit for prospects looking to apply for State incentives (corporate income tax incentives).

• The Partnership can conduct return on investment analyses (Investment vs. Jobs) as directed.

• Aid on incentive packages can take place, however, taxes from portions of a future development most likely will have to take place in order to qualify for state/federal programs.

• The Partnership pointed out that for leases, prospects will want to know who pays for infrastructure costs associated with a particular development site and how long improvements would take.

4 MARKET ANALYSIS

This Development Plan includes a deeper look at what types of land uses may be targeted for future development. In order to determine outcomes for future land uses a market and economic development analysis was performed. The analyses include pertinent market and demographic information about DSM surrounding lands and the region that may drive future development in the area.

GREATER DES MOINES PARTNERSHIP

The Greater Des Moines Partnership has identified the Des Moines region target industries as Advanced Manufacturing, Agbioscience, Data Centers, Insurance & Financial Services, Logistics, and Technology. A sample of businesses found in the surrounding region within each target industry can be found below.

Advanced Manufacturing

Existing Companies

- 3M
- B&G Foods, Inc.
- Anderson Erickson Dairy Co.
- Bridgestone/Firestone
- ColorFX
- Dee Zee, Inc.
- EFCO Corporation
- Emerson/Fisher Division
- JBS USA
- John Deere
- Lennox
- Pella Corporation
- Pine Ridge Farms
- Quality Manufacturing Corp.
- The Wittern Group
- Titan Tire Corporation
- TPI Composites, INc.
- Tyson Foods, Inc.
- UTC Aerospace Systems
- Vermeer Corporation
- Weiler, Inc.
- Windsor Windows & Doors

Agbioscience

Existing Companies

- ADM
- Albaugh, Inc.
- Bridgestone/Firestone
- Danfoss
- Hy-Line International
- John Deere
- Kemin Industries
- Kent Corporation
- Lauridsen Group, Inc.
- Monsanto
- Corteva Agriscience
- Renewable Energy Group, Inc.
- Stine Seed Company
- Sukup Manufacturing Co.
- Syngenta
- Vermeer Corp.

Data Centers

Existing Companies

- Facebook
- Microsoft
- Apple

Technology

Recent Expansions:

- ESO
- Granular
- Dwolla
- John Deere: Intelligent Solutions Group

DSM Accelerators:

- Global Insurance Accelerator
- BrokerTech Ventures
- Iowa AgriTech Accelerator
- TechStars

GREATER DES MOINES PARTNERSHIP (con't)

Insurance & Financial Services

Existing Companies

- Accordia Life
- American Enterprise Group, Inc.
- American Equity Investment
- ARAG Group
- Athene
- Continental Western Group
- Delta Dental of Iowa
- DLL Group
- EMC Insurance Companies
- Farmers Mutual Hail Insurance Company of Iowa
- FBL Financial Group, Inc.
- Fidelity & Guaranty Life
- Grinnell Mutual Reinsurance
- GuideOne Insurance
- Holmes Murphy & Associates
- Homesteaders Life Company
- The IMT Group
- John Deere
- Mercer
- MetLife
- Mortgage Compliance Advisors, LLC
- Nationwide
- NCMIC Group, Inc.
- Principal
- Rain and Hail, a CHUBB Company
- Sammons Financial Group
- Symetra
- Voya Financial
- Wellmark Blue Cross Blue Shield of Iowa
- Wells Fargo & Co.

Logistics

Existing Companies

- Bridgestone/Firestone
- Briggs Healthcare
- Capital City Fruit
- Casey's General Stores
- CDS Global
- Daimler Trucks North America
- FedEx
- Interstate Batteries
- Lo□redo Fresh Produce Co., Inc.
- Merchants Distribution Service
- NAPA Distribution Center
- Owens & Minor
- PDM
- PDI
- Power Distributions
- Ruan
- Sysco Iowa
- TMC Transportation
- TORO
- UPS
- U.S. AutoForce
- XPO Logistics

Top 10 Employers in Des Moines MSA

Company	Type of Business	Employees
Wells Fargo	Financial	13,500
Hy-Vee Food Corporation	Retail	7,500
Mercy Medical Center	Healthcare	7,305
UnityPoint Health - Des Moines	Healthcare	6,329
Principal Financial Group	Financial	6,131
Nationwide	Insurance	4,300
John Deere Companies	Agricultural Equipment	3,089
DuPont Pioneer	Agribusiness	3,000
JBS USA, LLC	Food Processing	2,300
Pella Corporation	Home Manufacturing	2,224

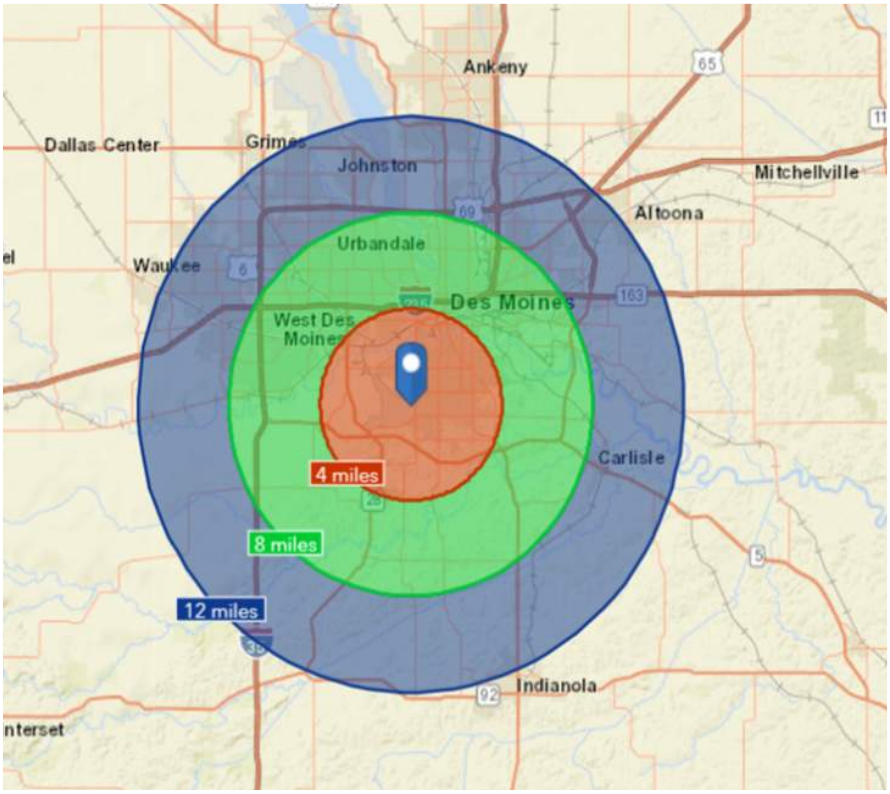
Source: The Greater Des Moines Partnership, September 2014

4 MARKET ANALYSIS

AREA MARKET ANALYSIS

Data Analysis

Market analysis data was collected to aid in determining the types of industries that may best serve the DSM properties. The data was collected from multiple geographic areas surrounding DSM including four-, eight-, and twelve-mile rings. Collecting the data over multiple geographic rings gives insight into the dynamics of the con□nes of DSM itself (4 mile ring), the immediate surrounding urban areas (8 mile ring), and the overall City of Des Moines area (12 mile ring) that closely support the DSM region. The data includes statistics on consumer spending, supply vs. demand in the marketplace, household budgeting, and various market statistics. The full data analysis is found by separate document of this Plan with the takeaways noted in the text herein. Lastly, CoStar Analytics were used to view the current vacancies and absorption rates of the immediate region.



4 MARKET ANALYSIS

Statistics (2019 unless indicated)	C. Des Moines	Polk County	Warren County
Population	229,062	503,534	53,066
Median Age	35.5	36.4	40
Median Household Income	52,360	67,432	68,023
Households	91,250	196,970	20,096
Median Household Value	$134,977	$185,343	$197,424
# of Employees	163,443	323,902	11,577
# of Employees Per Certain Industry			
Manufacturing	9,058	19,483	348
Healthcare	29,625	39,644	772
Retail Trade	21,577	59,287	2,624
Finance & Insurance	29,048	54,239	542
Largest Paying Industries (Median Earnings)			
Management	75179 (1)	~~	80917 (1)
Utilities	68214 (2)	63321 (3)	66208 (2)
Public Administration	56310 (3)	72897 (1)	57964 (4)
Prof., Scientific, & Technical Services	45500 (4)	65616 (2)	56086 (5)
Finance & Insurance	44744 (5)	60331 (4)	60376 (3)
Wholesale Trade	~~	55939 (5)	~~
Average Commute Time (2017)	18.3 minutes	18.9 minutes	22.3 minutes

Source: ESRI Business Analyst & Data USA

The population surrounding DSM in particular

Statistic (2019)	4-Mile Radius	4-8 Mile Radius	8-12 Mile Radius
Population	87,850	224,377	160,202
Median Age	36.3	36.2	37.3
Housing Units	39,786	96,282	64,280
Median Household Income	$53,779	$59,196	$88,839
2024 Average Household Income	$61,121	$67,050	$101,164
Median Home Value	$148,863	$160,054	$236,502

4 MARKET ANALYSIS

AREA MARKET ANALYSIS (con't)

Consumer Spending

Consumer spending metrics display what the people in the area are spending their money on. An analysis of consumer spending sheds light on what industries may be most advantageous to locating close to the people of a given area. Here are a few takeaways from the current data:

- All area geographic areas are consistent with people primarily using their incomes on their home (mortgages) at ~30-31% of their spending, food (at home or away) at ~12% of their spending, transportation (car payments, etc.) at 11% of their spending, and healthcare at ~8% of their incomes.
- All geographic areas are consistent in spending their disposable income on "food away from home" (~5%) and "entertainment and recreation" (~4%). This amounts to an average of over $6,000 per household for these categories a year alone. In the entire 12-mile area this amounts to ~$546 million money spent for "food away from home" and "entertainment and recreation" showing a continuing demand for such industries in the area.

Retail Marketplace Profile (supply vs. demand)

The retail marketplace table (industry supply vs/ demand analysis) paints a similar picture to consumer spending but shows where a need or lack of industry is found in the DSM region. Such data can point to locations that are frequented heavy by the population as well as where locations are that the population may be leaving the community to spend their money. Adding a retail marketplace analysis can give a deeper insight on which industries are lacking for a region and may be the most ideal to promote in future marketing to developers. Here are a few takeaways from the current data:

- A majority of commercial uses have an overall demand for in the 0-4 mile region. Additional spending potential includes the following commercial uses: grocery, automobile dealerships, furniture stores, general merchandise stores, and gas stations.
- The 4-8 mile region, which contains downtown Des Moines mainly shows no current spending demand for any uses indicating adequate supplies already exist.

Business Summary

The business summary statistics take a deeper look into the commercial and industrial businesses that are found in a geographic area. Cross referencing the amounts/types of businesses with the demand/supply analysis can truly reveal what industries may be lacking and be the most marketable for a given area. Here are a few takeaways from the current data:

AREA MARKET ANALYSIS (con't)

Business Summary (con't)

- The key area is the 0-4 mile geographic zone which shows the bulk of businesses are in Professional, Scienti□c, and Tech Services (11.6%), Other Services (12.3%), and Retail Trade (10.5%) while manufacturing makes up 2.2% of businesses.
- The 4-8 mile geographic zone includes downtown Des Moines and shows relatively the same concentrations of industries consisting of Other Services (13.6%), Retail Trade (13.3%), and Professional, Scienti□c, and Tech Services (9.6%).
- The high percentage of Professional, Scienti□c, and Tech Services correlates well with targeted industries shown from the Greater Des Moines Partnership for Logistics, Datacenters, and Advanced Manufacturing.
- Retail trades continue to hold some of the highest percentage of businesses across all geographic areas showing demand continues to be present.

Statistic (2019)	4-Mile Radius	4-8 Mile Radius	8-12 Mile Radius
Total Businesses	3,218	8,592	5,837
Total Employees	77,119	143,926	101,393
Employee/Residential Population Ratio (per 100 Residents)	88	64	63

Absorption & Vacancy Rates

Area absorption rates in the surrounding market can display the potential for ful□lling a successful a new development at DSM. Absorption can tell DSM what industries may be most lucrative to market due to the demand of the particular industry in the region. Another indicator of the area market is in relation to vacancy, which is the amount of unoccupied square feet of the various target industries that may be found in the region. Below is a collection of the absorption and vacancy trends in area Counties (Polk & Warren) for the retail, industrial, and o□ce industries (Based on CoStar Analytic Data up to Quarter 1 2020). The tables and graphs on the following pages display the following takeaways:

Area Inventory (Polk Co.)

- Industrial Industries in Polk County during Quarter 1 2020 had an inventory of 64,551,441 SF which presents an additional 1.8M SF rise since Quarter 1 2018.
- Retail Industries in Polk County during Quarter 1 2020 had an inventory of 34,784,205 SF which represents an additional 685k SF rise since Quarter 1 of 2018.
- O□ce Industries in Polk County during Quarter 1 2020 had an inventory of 33,234,813 SF which represents an additional 570k SF rise since Quarter 1 of 2018.

AREA MARKET ANALYSIS (con't)

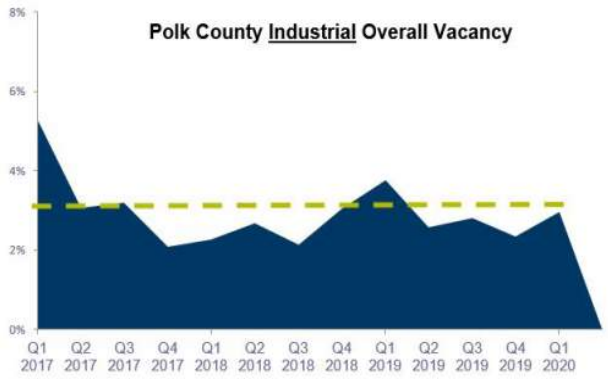
Absorption & Vacancy Rates (con't)

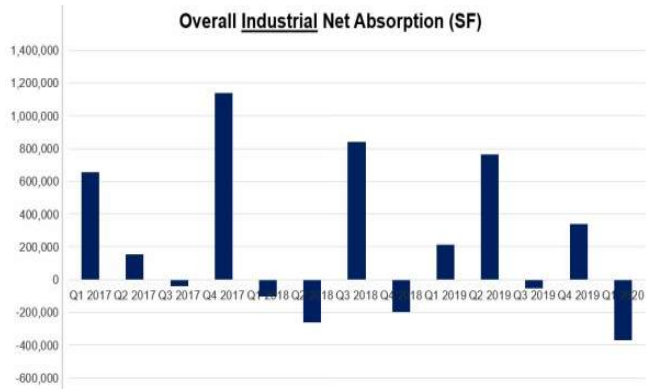
Area Absorption (Polk Co.)

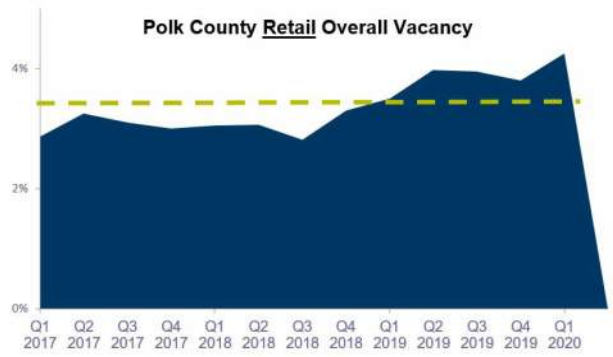
- Industrial Industries: The past two years have shown that the industrial industry is fairly steady with minimal absorption levels over the past two years.
- Retail Industry: The absorption of the retail industry is fairly constant during 2019.
- O□ce Industry: The absorption of the o□ce industry has decreased at the end of 2019 possibly showing signs of o□ce industry need slowing down.

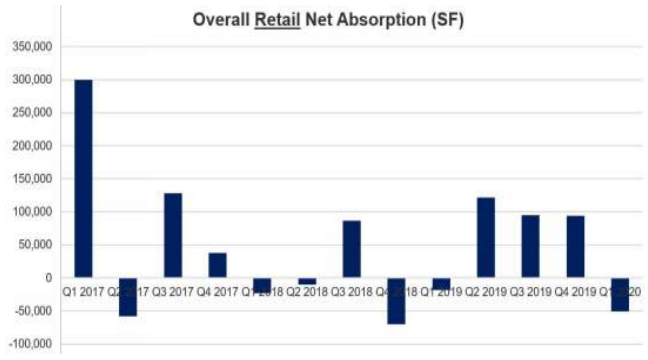
Area Vacancy (Polk Co.)

- The vacancy rate for industrial uses was 3% during Quarter 1 2020. This is only slightly above the two year average of 2.7%.
- The vacancy rate for retail uses was 4.3% during Quarter 1 2020. This rate is progressing higher than the two year average of 3.5%.
- The vacancy rate for o□ce uses was 6.1% during Quarter 1 2020. This is the peak vacancy rate in the last two years (average is 4.7%).



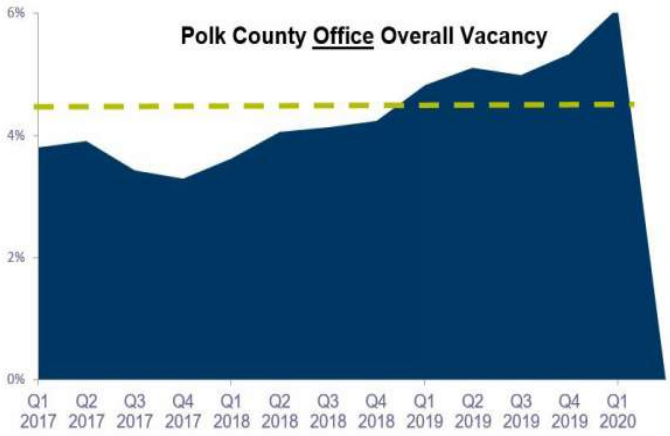


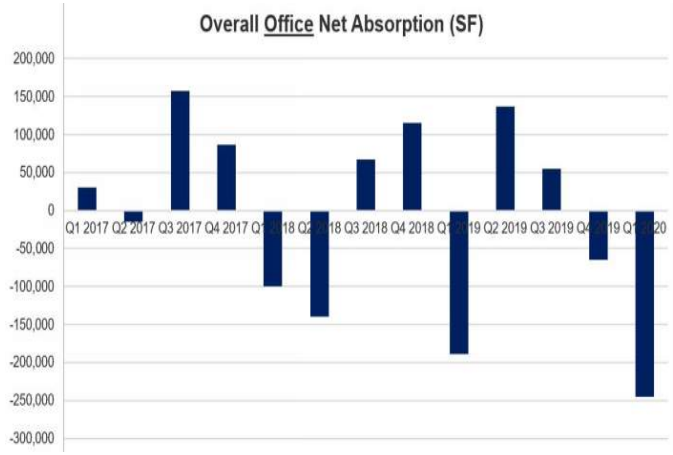




AREA MARKET ANALYSIS (con't)

Absorption & Vacancy Rates (con't)





Polk County vs. Warren County

Industry	Quarter 1 - 2020	Inventory (SF)	Overall Vacant (SF)	Vacancy %	Absorption (SF) Difference From Previous Quarter	Absorption (SF) Average Over Previous Year
Industrial	Polk Co.	64,551,441	1,914,824	3.0%	-705,010	171,173
	Warren Co.	1,146,043	5,400	0.5%	2,700	1,450
	Totals	65,697,484	1,920,224	3.5% Combined Avg.	-702,310 Combined	172623 Combined
Retail	Polk Co.	34,784,205	1,481,644	4.3%	-145,400	64,877
	Warren Co.	1,475,332	11,451	0.8%	-3,009	10,632
	Totals	36,259,537	1,493,095	5.1% Combined	-148,409 Combined	75,509 Combined
Office	Polk Co.	33,234,813	2,019,975	6.1%	-180,473	-29,873
	Warren Co.	291,032	3,800	1.3%	0	245
	Totals	33,525,845	2,023,775	7.4% Combined	-180,473 Combined	29,628 Combined

AREA MARKET ANALYSIS (con't)

Current Sale / Lease Properties

Very few privately brokered commercial and industrial properties are currently for sale or lease as of the date of this Plan. The relevant commercial sale and lease properties, listed with public brokerages and within a close proximity to the DSM owned properties, are found here:

1. A private brokerage group has 114 acres listed for sale along Highway 28. The property directly abutts DSM identified Developable Area F. The property is listed as for future business park development uses. The price is listed for $5.53M ($48,500/acre).

2. DSM currently has Developable Area I for sale on the public market. The listing is currently set at $308,000 (based on appraisal) for approximately 10.39 acres.

APPENDIX

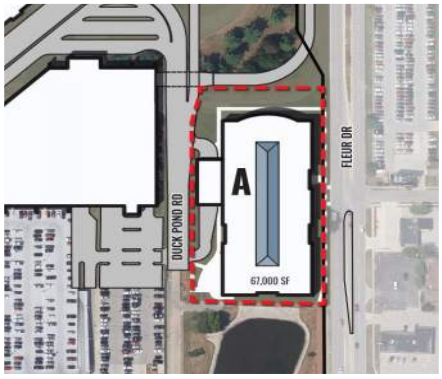
COST ANALYSES

The identified development opportunity areas each will require pre-development costs that would enable them to be pad-ready for a future development. Cost estimates are included below for various infrastructure requirements such as sewer, water, roads, and basic grading. Final costs will depend on actual development plans being presented and known sizes/positions of structures made known. The possible development costs presented should be used as a baseline for DSM to aid in future developer incentive negotiations, capital planning discussions, and/or pursuance of grants/incentives with other authorities. Refined development costs will always have to be re-evaluated once an imminent development is known.

Generally, a future developer will share, or accept certain costs. It is anticipated that many costs may be shared between the airport and developer when appropriate. The airport will work to find partnerships and/or financial aides to offset development costs whenever available. Further, the airport may negotiate offsetting developer costs when a proposed development sets up opportunities for new future phases of development. For purposes of the following estimates, it is assumed that costs associated with airfield pavement areas would be eligible for funding through the AIP (Airport Improvement Program), while public roadways may be eligible for RISE (Revitalize Iowa's Sound Economy) at varying participation rates.

APPENDIX- Cost Anlayses Cont.

AREA A
~$267,000

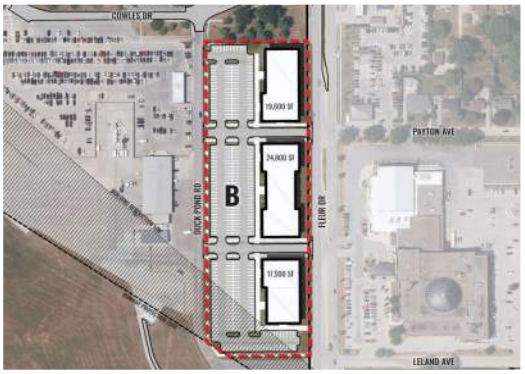


REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ -	Almost all removed during Cowles Phase 1
Utilities	$18/LF	$ 60,000	Existing storm sewer, irrigation, and street lighting electric in the area. Account for the Airport being responsible for some removals.
Misc. Cleanup	LS	$ 48,000	Airport may have to clear and grub trees for developer
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$12/CY	$ 30,000	Est. 6" earth movement over entire site. 2,500 CY.
Topsoil	$36 Off/Cy - $14.4 On/Cy	$ 12,000	Est. 800 CY for topsoil strip/respread, and adding at tree removal and existing landscape areas.
Misc. Grading	LS		
Erosion Control	10% LS of above		`
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 78,000	Existing on-site storm will have to be relocated. Accounted for the Airport contributing to 500 LF of pipe.
Storm Misc	50% of Pipe	$ 39,000	
Storm Detention	LS	$ -	Developer costs.
Sanitary Sewer	$108/LF	$ -	Readily available for a developer to tie into. Runs Parallel to Fleur on the west side.
Sanitary Misc	25% of Pipe	$ -	Developer costs.
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ -	12" water connections readily available for a developer.
Water Misc.	30% LS of above	$ -	
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ -	Readily available for a developer to tie into.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ -	Fleur, Cowles, and Duck Pond are all there for a developer to add access to.
Misc.		$ -	N/A
Street Lighting		$ -	Developer costs.
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	0	N/A
Misc.	50% LS	0	N/A
	GRAND TOTAL	**$ 267,000**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/positions of structures are made known. Determinations of actaul responsible parties for development costs vary and cannot be formally made until a formal development is proposed and reviewed.

APPENDIX- Cost Anlayses Cont.

AREA B
~$558,000

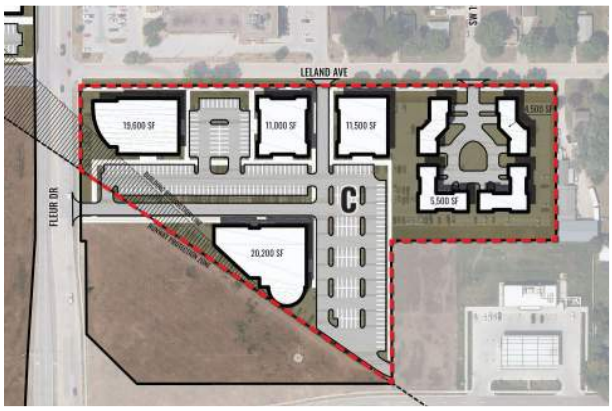


REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ 312,000	26,000 SY of Pavement Removal
Utilities	$18/LF	$ 60,000	Street lighting conduit, water main, subdrain
Misc. Cleanup	LS	$ 90,000	Canopies, Bus shelters, street lights
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$12/CY	$ 60,000	Est. 5,000 CY to restore site following pavement removal. Est. 1' over entire site.
Topsoil	$36 Off/Cy - $14.4 On/Cy	$ -	No demo of pavement until a developer on-board. Therefore no topsoil needed.
Misc. Grading	LS	$ -	Covered in site grading
Erosion Control	LS	$ 36,000	SWPPP, temporary seed, and devices.
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ -	Existing storm sewer exists. Developer can reuse or relocate
Storm Misc	50% of Pipe	$ -	N/A see above
Storm Detention	LS	$ -	Developer costs.
Sanitary Sewer	$108/LF	$ -	Existing sanitary readily available on the east side of the site
Sanitary Misc	25% of Pipe	$ -	N/A see above
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ -	Existing 6" main readily available to be connected to.
Water Misc.	30% LS of above	$ -	N/A see above
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ -	Existing utility connections in close proximity to the site.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ -	Leland, Duck Pond, and Fleur are all in close proximity for connections
Misc.		$ -	N/A
Street Lighting		$ -	Developer costs.
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	0	N/A
Misc.	50% LS	0	N/A
	GRAND TOTAL	**$ 558,000**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actaul responsible parties for development costs vary and cannot be formally made until a formal development is proposed and reviewed.

APPENDIX- Cost Anlayses Cont.

AREA C
~$660,000



REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ 372,000	Est. 31,000 SY of pavement removal
Utilities	$18/LF	$ 60,000	Misc. comm, electric, and storm cleanup. Most of the existing storm is on the north side of the site, parallel to Leland.
Misc. Cleanup	LS	$ 90,000	Canopies, Bus Shelters, Street Lights
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$12/CY	$ 102,000	Est. 8,500 CY to restore site following pavement removal.
Topsoil	$36 Off/Cy - $14.40 On/Cy	$ -	No demo of pavement until a developer on-board. Therefore no topsoil needed.
Misc. Grading	LS	$ -	
Erosion Control	LS	$ 36,000	SWPPP, Devices, Temp Seeding
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ -	Requirement of the developer. Will likely require a Leland Ave closure to upgrade/connect to existing infrastructure.
Storm Misc	50% of Pipe	$ -	Developer costs.
Storm Detention	LS	$ -	Developer costs.
Sanitary Sewer	$108/LF	$ -	Requirement of the developer. Will likely require a Leland Ave closure to upgrade/connect to existing infrastructure.
Sanitary Misc	25% of Pipe	$ -	Developer costs.
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ -	Connections to existing water main are available near Leland or Army Post.
Water Misc.	30% LS of above	$ -	
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ -	Existing utility connections in close proximity to the site.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ -	Developer can connect site to Leland, Fleur, or Army Post.
Misc.		$ -	N/A
Street Lighting		$ -	Developer costs.
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	0	N/A
Misc.	50% LS	0	N/A
	GRAND TOTAL	**$ 660,000**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actaul responsible parties for development costs vary and cannot be formally made until a formal development is proposed and reviewed.

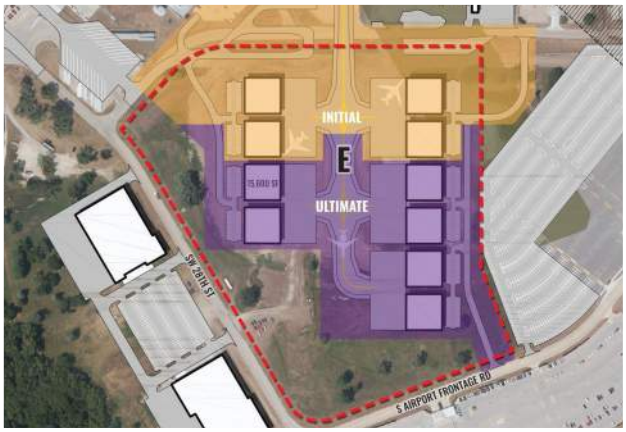
APPENDIX- Cost Anlayses Cont.

AREA D
~$240,000

REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ -	Site is greenspace
Utilities	$18/LF	$ -	Utilities are out of the way for a developer to build. There are a few storm sewer outfalls that a developer will need to identify during design.
Misc. Cleanup	LS	$ -	N/A
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$12/CY	$ -	A developer will likely need to bring in fill, but overall the site is ready to be taken.
Topsoil	$36 Off/Cy - $14.40 On/Cy	$ -	Plenty of existing topsoil on site.
Misc. Grading	LS	$ -	Developer costs.
Erosion Control	LS	$ -	Developer costs.
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ -	Developer can outlet all proposed storm sewer to the South Quadrant detention basin. Airport may want to create a utility easement for an additional storm sewer trunk line running through the site - Site H Phase 2 will likely require an additional storm sewer outfall.
Storm Misc	50% of Pipe	$ -	
Storm Detention	LS	$ -	Already accounted for in the south quadrant detention basin.
Sanitary Sewer	$108/LF	$ -	Easy connection into existing on the west side of the site
Sanitary Misc	25% of Pipe	$ -	
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ -	Utility basemap shows 8" water main pipes already stubbed across SW 28th street for easy connections.
Water Misc.	30% LS of above	$ -	
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ 240,000	Some effort to make gas, electric, and comm. more accessible. Airport may want to add some additional comm. infrastructure from the south IDF.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ -	Site is directly adjacent to SW 28th Street
Misc.		$ -	N/A
Street Lighting		$ -	Developer costs.
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	0	N/A
Misc.	50% LS	0	N/A
	GRAND TOTAL	**$ 240,000**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actaul responsible parties for development costs vary and cannot be formally made until a formal development is proposed and reviewed.

AREA E - INITIAL
~$7,921,400



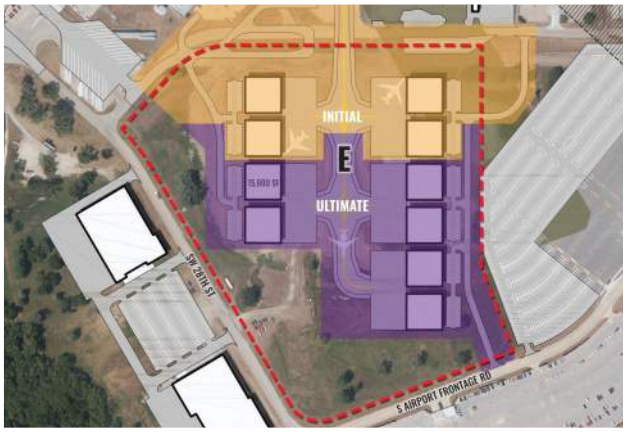
REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ 240,000	Remove existing Old army post roadway and existing apron at tie in location, est. 20,000 SY
Utilities	$18/LF	$ 240,000	Gate 7 removal and relocation. Remove electrical and comm. facilities at the gate. Removal of existing fuel stand.
Misc. Cleanup	LS	$ 300,000	Many utilities near the proposed fuel station, unknown on existing utility depths that could lead to relocations
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$9/CY	$ 315,000	Estimate 7' of fill over the taxilane extension area. Est. 35,000 CY
Topsoil	$36 Off/Cy - $14.40 On/Cy	$ 57,600	Estimate 4,000 CY of topsoil strip/salvage/respread within existing green space of the initial phase.
Misc. Grading	LS	$ 90,000	Estimate to fine grade top of building slabs, roadway and new fueling station.
Erosion Control	LS	$ 120,000	SWPPP, seeding, erosion control devices.
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 546,000	Considerable storm sewer improvements to capture runoff from the taxilane and apron and then convey it to the south quadrant detention basin. Assumed that fueling on these apron's will not be permitted. Estimate 3,500 LF.
Storm Misc	60% of Pipe	$ 327,600	Structures and Subdrain
Storm Detention	LS	$ -	Volume already accounted for in the south quadrant detention basin.
Sanitary Sewer	$108/LF	$ 162,000	Sanitary sewer main extension to both sides of the site, approx. 1,500 LF. Developer shall extend the main or services as necessary to facilitate their site. Assumed that deicing on these apron's will not be permitted.
Sanitary Misc	30% of Pipe	$ 48,600	Structures
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ 45,000	Close connection along Old Army Post Road. Approx. 500 LF to bring main in close proximity to the future hangars.
Water Misc.	LS	$ 72,000	Tapping fees, hydrants, valves, etc.
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ 300,000	hangar facilities. Connect existing gas main along old Army Post Road is close in proximity.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ 1,080,000	Approx. 10,000 SY of pavement construction
Misc.		$ 960,000	New fueling station and retaining walls as necessary
Street Lighting		$ 240,000	Extend street lighting to facilities
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	$ 1,984,000	15,500 SY of taxilane and apron pavement. Developer responsible for first 50 ft in front of the building (~3,000 SY).
Misc.	40% LS	$ 793,600	Miscellaneous costs associated with apron/taxilane development
	GRAND TOTAL	**$ 7,921,400**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actual responsible parties for development costs vary and are estimated below.

	OWNER		DEVELOPER		FAA AIP Eligible		RISE (50%) Eligible	TOTAL
REMOVALS	$ 312,000	40%			$ 468,000	60%		$ 780,000
GRADING	$ 174,780	30%	$ 58,260	10%	$ 349,560	60%		$ 582,600
STORM SEWER	$ 262,080	30%	$ 87,360	10%	$ 524,160	60%		$ 873,600
SANITARY SEWER	$ 147,420	70%	$ 63,180	30%	$ -	Deice Only		$ 210,600
WATER MAIN	$ 105,300	90%	$ 11,700	10%				$ 117,000
ELEC./COMM./GAS	$ 150,000	50%	$ 150,000	50%				$ 300,000
ROADWAY			$ 1,140,000.0	50%			$ 1,140,000	$ 2,280,000
APRON	$ 277,760	10%	$ 555,520	20%	$ 1,944,320	70%		$ 2,777,600
TOTAL	$ 1,429,340		$ 2,066,020		$ 3,286,040		$ 1,140,000	$ 7,921,400

APPENDIX- Cost Anlayses Cont.

AREA E - ULTIMATE
~$6,839,960



REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ -	No pavement removal, green space
Utilities	$18/LF	$ -	Green Space
Misc. Cleanup	LS	$ -	Green Space
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$9/CY	$ 720,000	Estimated on the on fill needed for the ultimate site @ 80,000 CY
Topsoil	$36 Off/Cy - $14.40 On/Cy	$ 108,000	Estimate 7,500 CY of topsoil strip/salvage/respread
Misc. Grading	LS	$ 90,000	Estimate to fine grade already installed material
Erosion Control	LS	$ 120,000	SWPPP, seeding, erosion control devices.
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 390,000	Estimate 2,500 LF. Biggest effort will be connection to Economy Lot 4 outfall.
Storm Misc	60% of Pipe	$ 234,000	Structures and Subdrain
Storm Detention	LS	$ -	Volume already accounted for in the south quadrant detention basin.
Sanitary Sewer	$108/LF	$ 86,400	Sanitary main extension to additional hangars 800 LF. Assumed that deicing on these apron's will not be permitted.
Sanitary Misc	30% of Pipe	$ 25,920	Structures
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ 162,000	Watermain could be extensive Airport loops water main which may be necessary to attain flow rate and pressures. Assuming loop is needed, estimate 1,800 LF
Water Misc.	50% LS of above	$ 81,000	Tapping fees, hydrants, etc.
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ 300,000	Comm, electric, and gas extensions
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ 810,000	Approx. 7,500 SY for roadway extensions and connection to south Airport Frontage Road
Misc.		$ 600,000	Roadway Misc including retaining walls.
Street Lighting		$ 120,000	Extend street lighting to facilities
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	$ 2,137,600	16,700 SY of taxilane and apron pavement. Developer responsible for first 50 ft in front of each building (~4,500 SY).
Misc.	40% LS	$ 855,040	Miscellaneous costs associated with apron/taxilane development
	GRAND TOTAL	**$ 6,839,960**	

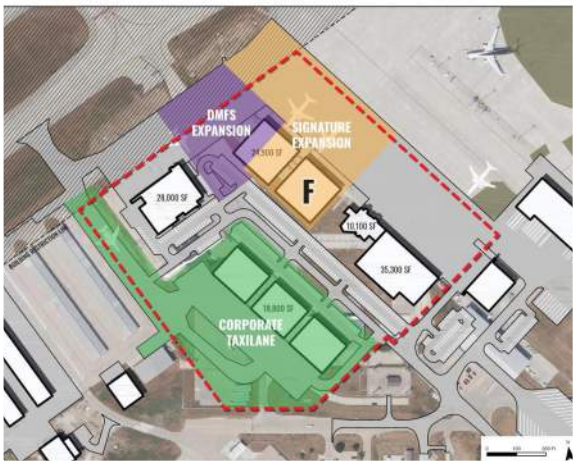
NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actual responsible parties for development costs vary and are estimated below.

	OWNER		DEVELOPER		FAA AIP Eligible		RISE (50%) Eligible	TOTAL
REMOVALS	$ -	40%			$ -	60%		$ -
GRADING	$ 311,400	30%	$ 103,800	10%	$ 622,800	60%		$ 1,038,000
STORM SEWER	$ 187,200	30%	$ 62,400	10%	$ 374,400	60%		$ 624,000
SANITARY SEWER	$ 78,624	70%	$ 33,696	30%	$ -	Deice Only		$ 112,320
WATER MAIN	$ 218,700	90%	$ 24,300	10%				$ 243,000
ELEC./COMM./GAS	$ 150,000	50%	$ 150,000	50%				$ 300,000
ROADWAY			$ 765,000.0	50%			$ 765,000	$ 1,530,000
APRON	$ 299,264	10%	$ 598,528	20%	$ 2,094,848	70%		$ 2,992,640
TOTAL	$ 1,245,188		$ 1,737,724		$ 3,092,048		$ 765,000	$ 6,839,960

APPENDIX- Cost Anlayses Cont.

AREA F - CORPORATE TAXILANE
~$3,164,620

18,800 SF Buildings Area

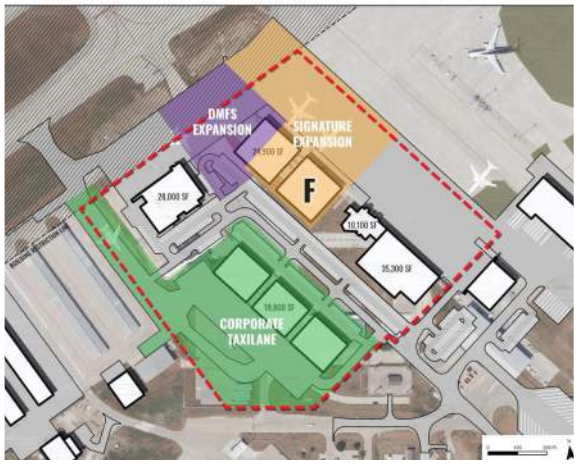


REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ 60,000	Est. 5,000 SY of pavement removal. Some removals accounted for down in the Apron - 2020 State CIP costs. Remaining asphalt removal near gate 12.
Utilities	$18/LF	$ 60,000	Electrical, comm, and gas cleanup in the area. Some of these costs accounted for in Apron - 2020 State CIP costs.
Misc. Cleanup	LS	$ -	Most of the site is green space
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$9/CY	$ 180,000	Est. 20000 CY of dirt movement, primarily fill.
Topsoil	$36 Off/Cy - $14.40 On/Cy	$ 21,600	Estimate 1,500 CY of topsoil strip/salvage/respread
Misc. Grading	LS	$ 18,000	
Erosion Control	LS	$ 90,000	SWPPP, Devices, Seeding
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 234,000	Estimate 1,500 LF. Will likely connect to the open throat intake near Gate 12
Storm Misc	75% of Pipe	$ 175,500	Structures and Subdrain
Storm Detention	LS	$ -	Volume already accounted for in the south quadrant detention basin.
Sanitary Sewer	$108/LF	$ 64,800	Up to 600 LF of sanitary service pipe that the airport may be required to install. A stubout is available for a developer to pick up.
Sanitary Misc	50% of Pipe	$ 32,400	Structures
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ -	Water is readily available for a developer
Water Misc.	50% LS of above	$ -	N/A
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ 60,000	Comm, gas, and electric are readily available for a developer. Airport have some misc. costs associated with electric and comm.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ -	SW 28th Street has already been installed. Parking lot would fall on the developer.
Misc.		$ -	
Street Lighting		$ -	
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	$ 1,548,800	12,100 SY of taxilane and apron pavement
Misc.	40% LS	$ 619,520	Miscellaneous costs associated with apron/taxilane development. Includes AOA fence relocates, new vehicle gate, and retaining walls as necessary.
2020 State CIP		$ -	The Construct Future Corporate Hangar Taxilane project was constructed in 2021 for $1.15 million
	GRAND TOTAL	**$ 3,164,620**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actaul responsible parties for development costs vary and cannot be formally made until a formal development is proposed and reviewed.

AREA F SIGNATURE EXPANSION

~$3,286,800



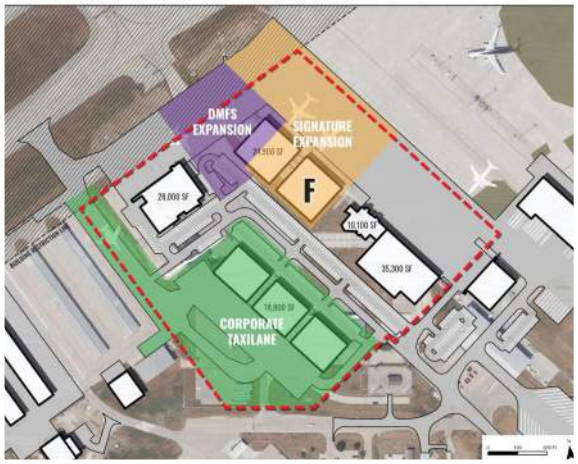
REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ 180,000	15,000 SY of removals
Utilities	$18/LF	$ 48,000	Existing storm and subdrain
Misc. Cleanup	LS	$ -	Clean site once pavement is removed
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$9/CY	$ 90,000	Est. 10,000 CY of dirt movement
Topsoil	$36 Off/Cy - $14.4 On/Cy	$ 7,200	Estimate 500 CY of topsoil strip/salvage/respread
Misc. Grading	LS	$ 24,000	
Erosion Control	LS	$ 60,000	
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 93,600	Budget for 600 LF
Storm Misc		$ 96,000	Structures and Subdrain
Storm Detention	LS	$ -	Volume already accounted for
Sanitary Sewer	$108/LF	$ -	Already installed
Sanitary Misc	30% of Pipe	$ -	Already installed
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ -	N/A
Water Misc.	50% LS of above	$ -	N/A
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ -	Comm, gas, and electric are readily available for a developer.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ -	SW 28th Street has already been installed.
Misc.		$ -	Roadway Misc including retaining walls.
Street Lighting		$ -	Extend street lighting to facilities
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	$ 1,920,000	15,000 SY of taxilane and apron pavement
Misc.	40% LS	$ 768,000	Miscellaneous costs associated with apron/taxilane development.
	GRAND TOTAL	**$ 3,286,800**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actaul responsible parties for development costs vary and cannot be formally made until a formal development is proposed and reviewed.

AREA F - DMFS EXPANSION

~$1,352,400

24,900 SF Buildings Area

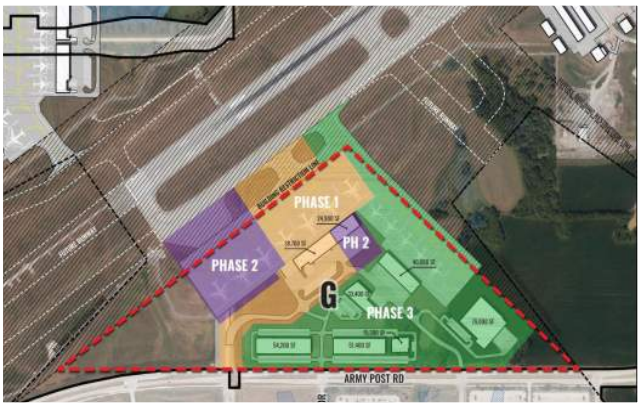


REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ -	Clean Site - Any removals needed to tie into the old cargo pavement to meet aviation grades are accounted for in the Signature Expansion.
Utilities	$18/LF	$ 9,000	Existing storm sewer removal
Misc. Cleanup	LS	$ -	Clean Site
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$9/CY	$ 67,500	Est. 7,500 CY of dirt movement, some fill
Topsoil	$36 Off/Cy - $15 On/Cy	$ 7,500	Estimate 500 CY of topsoil strip/salvage/respread
Misc. Grading	LS	$ 18,000	
Erosion Control	LS	$ 30,000	
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 30,000	Tie into existing storm sewer main
Storm Misc		$ 48,000	Structures and Subdrain
Storm Detention	LS	$ -	Volume already accounted for
Sanitary Sewer	$108/LF	$ -	Already installed
Sanitary Misc	30% of Pipe	$ -	Already installed
Sanitary Deicing	LS	$ -	N/A
Sanitary Force M.	LS	$ -	N/A
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ -	N/A
Water Misc.	50% LS of above	$ -	N/A
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ -	Comm, gas, and electric are readily available for a developer.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ -	SW 28th Street has already been installed.
Misc.		$ -	Roadway Misc including retaining walls.
Street Lighting		$ -	Extend street lighting to facilities
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	$ 816,000	6,800 SY of taxilane and apron pavement
Misc.	40% LS	$ 326,400	Miscellaneous costs associated with apron/taxilane development. Includes AOA fence relocates.
	GRAND TOTAL	**$ 1,352,400**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actaul responsible parties for development costs vary and cannot be formally made until a formal development is proposed and reviewed.

APPENDIX- Cost Anlayses Cont.

AREA G - Ph. 1
~$22,300,320



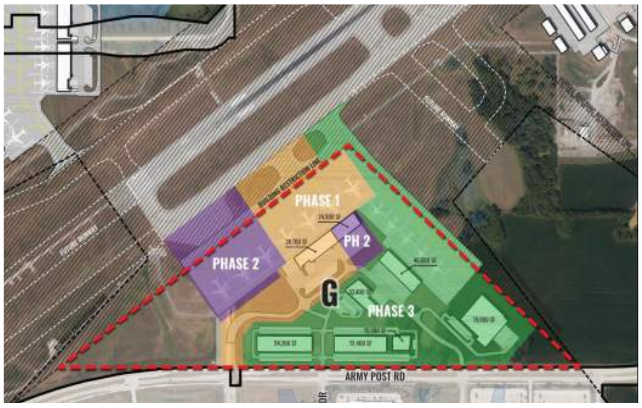
REMOVALS	Unit Price	Total	Notes
Pavement	$12 SY	$ -	Site is greenspace, Developer may have some removals on existing SW 42nd. Airport may have some removals along Taxiway P.
Utilities	$18/LF	$ 48,000	Some existing airport electric and communications demo. Airport will have to come to an agreement with MidAmerican regarding the existing high pressure gas main. The potential removals of these gas mains is not accounted for.
Misc. Cleanup	LS	$ 120,000	Some existing fence demo. Gravel pavement, foreign objects, and some debris may exist.
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$7/CY	$ 5,600,000	Approx. 800,000 CY of cut, 100,000 CY of fill.
Topsoil	$30 Off/Cy - $12 On/Cy	$ 216,000	Approx. 18,000 CY of strip/salvage/respread
Misc. Grading	LS	$ -	
Erosion Control	LS	$ 300,000	SWPPP, Seeding, and Devices
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 546,000	Considerable storm extensions airside and landside to connect storm into existing infrastructure. Will utilize existing infrastructure that takes stormwater north of Runway 5/23. Estimated 3,500 LF for airside improvements
Storm Misc	65% of Pipe	$ 354,900	Subdrain and structures.
Storm Detention	LS	$ 1,320,000	Some of these costs will likely be shared with a developer. Will need oil/water separators.
Sanitary Sewer	$108/LF	$ 270,000	Will have to collect apron runoff and pipe it back to the south towards the proposed buildings. From the buildings a lift station will pump to Army Post Rd. Assumed 50/50 split of costs between Airport and the developer. Estimated 2,500 LF for Airport costs.
Sanitary Misc	50% of Pipe	$ 135,000	Structures
Sanitary Deicing	LS	$ 2,000,000	Deicing storage tanks between Papa and the Apron
Sanitary Force M.	LS	$ 90,000	Share lift station costs with developer. Waste will pump back to Army Post Rd.
Sanitary Connection	LS	$ 96,000	19 acres of connection fees assumed
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ 180,000	Airport will bring water main to the site but on the developer to bring to facilities. Approx. 1,500 LF of water main.
Water Misc.	30% LS of above	$ 54,000	
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ 240,000	Developer assumes costs to connect to city electric/comm./ and gas. All infrastructure is in close proximity. Airport may want to make some upgrades to their existing comm. facilities. Airport and MidAmerican will need to come to an agreement on the existing high pressure gas mains on the west side of the development. These costs are not included.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ 1,007,720	Developer assumes roadway connection costs.
Misc.		$ -	N/A
Street Lighting		$ -	Developer costs.
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	$ 7,479,000	Est. 55,400 SY of Apron/Taxilane Pavement. Developer responsible for first 50 ft in front of the building (~5,000 SY).
Misc.	30% LS	$ 2,243,700	Misc. costs associated with apron construction
	GRAND TOTAL	**$ 22,300,320**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actual responsible parties for development costs vary and are estimated below.

	OWNER		DEVELOPER		FAA AIP Eligible		RISE (50%) Eligible	TOTAL
REMOVALS	$ 67,200	40%			$ 100,800	60%		$ 168,000
GRADING	$ 1,834,800	30%	$ 611,600	10%	$ 3,669,600	60%		$ 6,116,000
STORM SEWER	$ 666,270	30%	$ 222,090	10%	$ 1,332,540	60%		$ 2,220,900
SANITARY SEWER	$ 613,700	70%	$ 177,300	30%	$ 1,800,000	Deice Only		$ 2,591,000
WATER MAIN	$ 210,600	90%	$ 23,400	10%				$ 234,000
ELEC./COMM./GAS	$ 120,000	50%	$ 120,000	50%				$ 240,000
ROADWAY			$ 503,860	50%			$ 503,860	$ 1,007,720
APRON	$ 972,270	10%	$ 972,270	10%	$ 7,778,160	80%		$ 9,722,700
TOTAL	$ 4,484,840		$ 2,630,520		$ 14,681,100		$ 503,860	$ 22,300,320

APPENDIX- Cost Anlayses Cont.

AREA G - Ph. 2
~$10,082,000



REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ 150,000	Hold Bay Removals, approx. 15,000 SY of PCC removal
Utilities	$18/LF	$ 60,000	Some existing airport electric and communications demo. Subdrain and electrical within the hold bay.
Misc. Cleanup	LS	$ 70,000	Some existing fence demo. Misc. discoveries.
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$7/CY	$ 280,000	Majority is included within Phase 1. Apron regrading, hold bay grading, runway connector grading. This equates to close to 40,000 CY of grading.
Topsoil	$30 Off/Cy - $12 On/Cy	$ 120,000	Approx. 10,000 CY of topsoil strip/salvage/respread for phase 2 apron and the runway connector.
Misc. Grading	LS	$ -	
Erosion Control	LS	$ 180,000	SWPPP, Seeding, and Devices
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 78,000	Most airside storm sewer installed during phase 1. Add 500 LF as necessary.
Storm Misc	65% of Pipe	$ 180,000	Subdrain and structures.
Storm Detention	LS	$ 150,000	May need upgrades to storm detention. May need an additional separator.
Sanitary Sewer	$108/LF	$ 54,000	Most airside sanitary installed during phase 1. Add 500 LF as necessary.
Sanitary Misc	66% of Pipe	$ 36,000	Structures
Sanitary Deicing	LS	$ 150,000	Installed during Phase 1 but upgrades to the tanks as necessary.
Sanitary Force M.	LS	$ 90,000	Share lift station costs with developer. Waste will pump back to Army Post Rd.
Sanitary Connection	LS	$ 60,000	12 acres of connection fees assumed
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ -	Developer costs, installed during Phase 1
Water Misc.	30% LS of above	$ -	
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ -	Developer costs installed during phase 1. Airport and MidAmerican would have a new gas agreement completed during phase 1.
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ -	Developer assumes roadway connection costs.
Misc.		$ -	N/A
Street Lighting		$ -	Developer costs.
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	$ 6,480,000	Est. 48,000 SY of Apron/Taxilane Pavement. Includes runway connector. Developer responsible for first 50 ft in front of the building (~5,000 SY).
Misc.	30% LS	$ 1,944,000	Misc. costs associated with apron construction
	GRAND TOTAL	**$ 10.082.000**	

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actual responsible parties for development costs vary and are estimated herein.

	OWNER		DEVELOPER		FAA AIP Eligible		RISE (50%) Eligible	TOTAL
REMOVALS	$ 112,000	40%			$ 168,000	60%		$ 280,000
GRADING	$ 174,000	30%	$ 58,000	10%	$ 348,000	60%		$ 580,000
STORM SEWER	$ 122,400	30%	$ 40,800	10%	$ 244,800	60%		$ 408,000
SANITARY SEWER	$ 183,000	70%	$ 72,000	30%	$ 135,000	Deice Only		$ 390,000
WATER MAIN	$ -	90%	$ -	10%				$ -
ELEC./COMM./GAS	$ -	50%	$ -	50%				$ -
ROADWAY			$ -	50%			$ -	$ -
APRON	$ 842,400	10%	$ 842,400	10%	$ 6,739,200	80%		$ 8,424,000
TOTAL	$ 1,433,800		$ 1,013,200		$ 7,635,000		$ -	$ 10,082,000

APPENDIX- Cost Anlayses Cont.

AREA G - Ph. 3
~$19,088,500

REMOVALS	Unit Price	Total	Notes
Pavement	$12/SY	$ -	No Airside removals, clean site
Utilities	$18/LF	$ -	No Airside removals, clean site
Misc. Cleanup	LS	$ -	No Airside removals, clean site
GRADING	**Unit Price**	**Total**	**Notes**
Site Grading	$7/CY	$ 4,340,000	Estimated 620,000 CY of cut to complete grading of Phase 3 and make landside development buildable
Topsoil	$30 Off/Cy - $12 On/Cy	$ 300,000	Approx. 25,000 CY of topsoil strip/salvage/respread for phase 3 apron and landside development.
Misc. Grading	LS	$ -	
Erosion Control	LS	$ 300,000	SWPPP, Seeding, and Devices
SEWER	**Unit Price**	**Total**	**Notes**
Storm Sewer	$156/LF	$ 390,000	Storm sewer additions to collect apron runoff, est. 2,500 LF. Developer to assume cost on all landside improvements.
Storm Misc	65% of Pipe	$ 253,500	Subdrain and structures for airside.
Storm Detention	LS	$ 600,000	May need upgrades to Airside storm detention. May need an additional oil/water separator.
Sanitary Sewer	$108/LF	$ 81,000	Bypass storm structure to treat glycol water during deicing season, as well as approx. 750 lf of pipe to connect into the storage tank installed during Ph1.
Sanitary Misc	66% of Pipe	$ 120,000	Structures, including bypass structure
Sanitary Deicing	LS	$ 600,000	Deicing storage installed during Phase 1, upgrades as necessary
Sanitary Force M.	LS	$ -	Lift station installed during Phase 1
Sanitary Connection	LS	$ 216,000	40 acres of connection fees assumed (1/2 is landside development)
WATER MAIN	**Unit Price**	**Total**	**Notes**
Water Pipe	$90/LF	$ 135,000	Developer costs for additional water main to facilities.
Water Misc.	30% LS of above	$ 40,500	
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**
Total	LS	$ 240,000	Airport will want to make improvements to comm. infrastructure
ROADWAY	**Unit Price**	**Total**	**Notes**
Pavement	$108/SY, $118/SY	$ 767,000	Developer assumes roadway connection costs.
Misc.		$ -	N/A
Street Lighting		$ -	Developer costs.
APRON	**Unit Price**	**Total**	**Notes**
Pavement	$135/SY, $128/SY, $120/SY	$ 8,235,000	Est. 61,000 SY of Apron/Taxilane Pavement. Includes Twy P connector. Developer responsible for first 50 ft in front of the building (~6,000 SY).
Misc.	30% LS	$ 2,470,500	Misc. costs associated with apron construction

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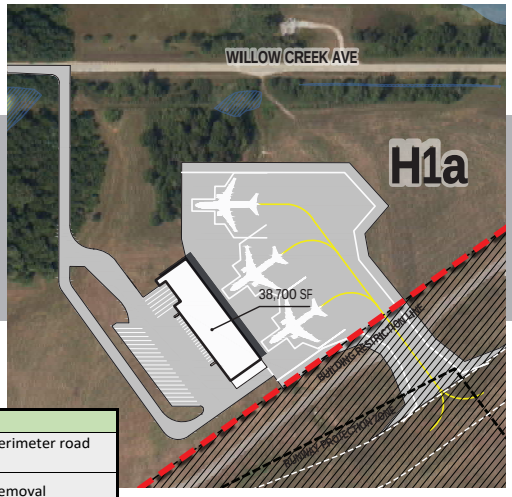
GRAND TOTAL $ 19,088,500

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actual responsible parties for development costs vary and are estimated herein.

	OWNER		DEVELOPER		FAA AIP Eligible		RISE (50%) Eligible	TOTAL
REMOVALS	$ -	40%			$ -	60%		$ -
GRADING	$ 1,482,000	30%	$ 494,000	10%	$ 2,964,000	60%		$ 4,940,000
STORM SEWER	$ 373,050	30%	$ 124,350	10%	$ 746,100	60%		$ 1,243,500
SANITARY SEWER	$ 351,900	70%	$ 125,100	30%	$ 540,000	Deice Only		$ 1,017,000
WATER MAIN	$ 157,950	90%	$ 17,550	10%				$ 175,500
ELEC./COMM./GAS	$ 120,000	50%	$ 120,000	50%				$ 240,000
ROADWAY			$ 383,500	50%			$ 383,500	$ 767,000
APRON	$ 1,070,550	10%	$ 1,070,550	10%	$ 8,564,400	80%		$ 10,705,500
TOTAL	$ 3,555,450		$ 2,335,050		$ 12,814,500		$ 383,500	$ 19,088,500

AREA H1a - CARGO OPTION

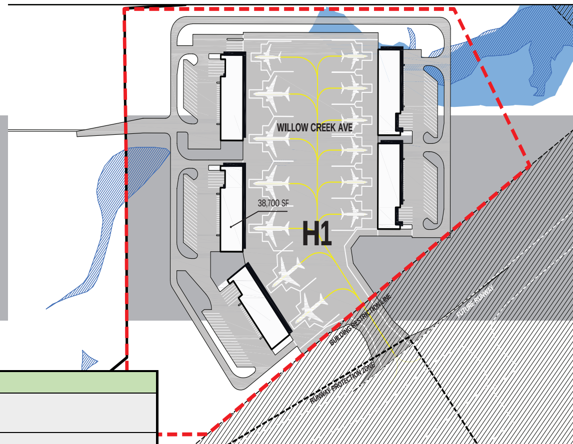
~$14,307,820



REMOVALS	Unit Price	Total	Notes	
Pavement	$12/SY	$ 26,400	Willow creek road removals, 1,200 SY. Existing gravel perimeter road removals.	
Utilities	$18/LF	$ 90,000	Sanitary Sewer Force Main Relocation and pipe removal	
Misc. Cleanup	LS	$ 60,000	Tree removal. Environmental assessment has not been completed in this area.	
GRADING	**Unit Price**	**Total**	**Notes**	
Site Grading	$7/CY	$ 1,190,000	Estimated 170,000 CY of Fill and 70,000 CY of cut to build the GA configurations south of Willow Creek Ave.	D
Topsoil	$30 Off/Cy - $12 On/Cy	$ 132,000	Approx. 11,000 CY of topsoil strip/salvage/respread.	D
Misc. Grading	LS	$ -		
Erosion Control	LS	$ 225,000	SWPPP, Seeding, and Devices	
SEWER	**Unit Price**	**Total**	**Notes**	
Storm Sewer	$156/LF	$ 624,000	Significant Airside storm sewer pipe quantities to drain the apron/taxilane - est. 4,000 LF	
Storm Misc	65% of Pipe	$ 405,600	Subdrain and structures for airside.	
Storm Detention	LS	$ 1,200,000	Storm sewer detention and oil/water separator	
Sanitary Sewer	$108/LF	$ 432,000	Airport will install necessary sanitary sewer main, developer will extend to their facility. Est. 3,000 LF of main installation. Including force main relocation.	
Sanitary Misc	66% of Pipe	$ 285,120	Structures, including bypass structure	
Sanitary Deicing	LS	$ 1,200,000	Deicing storage requirements	
Sanitary Force M.	LS	$ -	Lift station improvements, will have to work with the city of DSM	
Sanitary Connection	LS	$ 120,000	20 acres of connection fees assumed	
WATER MAIN	**Unit Price**	**Total**	**Notes**	
Water Pipe	$90/LF	$ 270,000	Airport will bring water main to the site but on the developer to bring to facilities. Approx. 3,000 LF of water main.	
Water Misc.	50% LS of above	$ 135,000		
ELEC/COMM/GAS	**Unit Price**	**Total**	**Notes**	
Total	LS	$ 400,000	Airport will want to make improvements to comm. infrastructure. Significant improvements to bring Gas to the site. Electric can be accommodated.	D
ROADWAY	**Unit Price**	**Total**	**Notes**	
Pavement	$108/SY, $118/SY	$ 843,700	Upgrades along Willow Creek Ave. from Highway 28 are likely necessary to accommodate semi-traffic. These Willow Creek Avenue improvement costs have been left out of the estimate. All interior roads accessing the facility may be RISE grant eligible.	
Misc.		$ -	N/A	
Street Lighting		$ -	Potential to be RISE grant eligible	
APRON	**Unit Price**	**Total**	**Notes**	
Pavement	$135/SY, $128/SY, $120/SY	$ 5,130,000	Est. 38,000 SY of Apron/Taxilane Pavement. Developer responsible for first 50 ft in front of the building. (~3,500 SY)	
Misc.	30% LS	$ 1,539,000	Misc. costs associated with apron construction	
	GRAND TOTAL	**$ 14,307,820**		

NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/ positions of structures are made known. Determinations of actual responsible parties for development costs vary and are estimated herein.

	OWNER		DEVELOPER		FAA AIP Eligible		RISE (50%) Eligible	TOTAL
REMOVALS	$ 70,560	40%			$ 105,840	60%		**$ 176,400**
GRADING	$ 464,100	30%	$ 154,700		$ 928,200	60%		**$ 1,547,000**
STORM SEWER	$ 668,880	30%	$ 222,960		$ 1,337,760	60%		**$ 2,229,600**
SANITARY SEWER	$ 705,984	70%	$ 251,136	30%	$ 1,080,000	Deice Only		**$ 2,037,120**
WATER MAIN	$ 405,000							**$ 405,000**
ELEC./COMM./GAS	$ 200,000	50%	$ 200,000	50%				**$ 400,000**
ROADWAY			$ 421,850	50%			$ 421,850	**$ 843,700**
APRON	$ 666,900	10%	$ 666,900	10%	$ 5,335,200	80%		**$ 6,669,000**
TOTAL	**$ 3,181,424**		**$ 1,917,546**		**$ 8,787,000**		**$ 421,850**	**$ 14,307,820**



AREA H1 - CARGO OPTION
~$43,384,680

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NOTE: Refined development costs will always have to be re-evaluated once an imminent development is known and actual sizes/positions of structures are made known. Determinations of actual responsible parties for development costs vary and are estimated herein.