Appendix B – Intermodal Integration and Airport Access

B.1. Introduction

The Federal Aviation Administration's (FAA) 2015 updated Advisory Circular (AC) on aviation system planning, AC 150/5070-7, Change 1, *The Airport System Planning Process*, highlights the importance of including an assessment of intermodal integration, or airport access, in statewide aviation system plans. Including a discussion on intermodal integration acknowledges that aviation system planning does not exist in a silo and is impacted by external transportation factors. Airports cannot operate without the ability to transport people and goods from the air to their next destination on the ground and vice versa.

An aviation system, just like roadway or sidewalk systems, provide different ways for people and goods to move freely throughout a state and beyond, depending on traveler needs. These different systems represent the multiple modes of transportation that work together to create connections that allow for more efficient travel. The connections that exist for an aviation system are most commonly between surface transportation (bus, car, rail, etc.) and air travel. Therefore, an aviation system is greatly benefitted by a robust surface transportation network that promotes accessibility between the roads and the air.

To access the state's aviation system, residents and visitors primarily utilize South Dakota's network of vehicular roadways. South Dakota roadways include interstates, United States (U.S.) highways, state highways, county roads, and city roads. The two primary interstates in South Dakota include I-90 that runs east/west and I-29 that runs north/south. The two interstates and numerous state highways total 7,841 miles and handle 69 percent of all vehicle miles travelled (VMT) in the state. The county and municipal streets total 76,381 miles and handle the remaining 31 percent of the state's VMT. [1] The 80,000+ miles of roadways create connections across South Dakota and facilitate the movement of people and goods between urban and rural areas, across and out of the state.

This section provides a high-level overview of how intermodal integration conditions in South Dakota impact the state's aviation system. This appendix includes the following subsections:

- B.1.1 Airport Roadway Connectivity
- B.1.2 Intermodal Integration
- B.1.3 Heavy Rail
- B.1.4 Transportation Areas of Concern
- B.1.5 Long-Range Planning and Improvements
- B.1.6 Intermodal Integration and Airport Access Conclusion

B.1.1. Airport Roadway Connectivity

Airport accessibility and roadway connections were studied in two ways. First, airport managers/sponsors were asked during the inventory process to report if their airport had sufficient access to surface streets and/or major highways. The results of this inquiry are shown in **Table B-1**.

[1] 2010 South Dakota Statewide Long-Range Transportation Plan, pg. 2-1.

Table B-1: Sufficient Surface Street and Major Highway Access for SDSASP Airports

Associated City	Airport Name	FAA ID	Surface Street Access	Major Highway Access
Commercial Service				
Aberdeen	Aberdeen Regional	ABR	Yes	Yes
Pierre	Pierre Regional	PIR	Yes	Yes
Rapid City	Rapid City Regional	RAP	Yes	Yes
Sioux Falls	Sioux Falls Regional/ Joe Foss Field	FSD	Yes	Yes
Watertown	Watertown Regional	ATY	Yes	Yes
General Aviation				
Belle Fourche	Belle Fourche Municipal	EFC	Yes	Yes
Bison	Bison Municipal	6V5	Yes	Yes
Britton	Britton Municipal	BTN	Yes	No
Brookings	Brookings Regional	BKX	Yes	Yes
Buffalo	Harding County	9D2	Yes	Yes
Canton	Canton Municipal	7G9	Yes	Yes
Chamberlain	Chamberlain Municipal	9V9	Yes	Yes
Clark	Clark County	8D7	Yes	Yes
Custer	Custer County	CUT	No	Yes
De Smet	Wilder Field	6E5	No	Yes
Eagle Butte	Cheyenne Eagle Butte	84D	Yes	Yes
Edgemont	Edgemont Municipal	6V0	Yes	Yes
Eureka	Eureka Municipal	3W8	Yes	Yes
Faith	Faith Municipal	D07	Yes	Yes
Faulkton	Faulkton Municipal	3FU	No	Yes
Flandreau	Flandreau Municipal	4P3	Yes	Yes
Gettysburg	Gettysburg Municipal	0D8	No	Yes
Gregory	Gregory Municipal-Flynn Field	9D1	Yes	Yes
Highmore	Highmore Municipal	9D0	Yes	Yes
Hot Springs	Hot Springs Municipal	HSR	Yes	Yes
Hoven	Hoven Municipal	9F8	Yes	Yes
Howard	Howard Municipal	8D9	Yes (unpaved)	No
Huron	Huron Regional	HON	Yes	Yes
Lemmon	Lemmon Municipal	LEM	Yes	Yes
Madison	Madison Municipal	MDS	Yes	Yes
Martin	Martin Municipal	9V6	Yes	Yes

Associated City	Airport Name	FAA ID	Surface Street Access	Major Highway Access
McLaughlin	McLaughlin Municipal	5P2	Yes	No
Milbank	Milbank Municipal	1D1	Yes	Yes
Miller	Miller Municipal	MKA	Yes	Yes
Mitchell	Mitchell Municipal	MHE	Yes	Yes
Mobridge	Mobridge Municipal	MBG	Yes	Yes
Murdo	Murdo Municipal	8F6	Yes	Yes
Onida	Onida Municipal	98D	Yes	Yes
Parkston	Parkston Municipal	8V3	Yes	Yes
Philip	Philip	PHP	Yes	Yes
Pine Ridge	Pine Ridge	IEN	Yes	Yes
Platte	Platte Municipal	1D3	Yes	Yes
Redfield	Redfield Municipal	1D8	Yes	Yes
Rosebud	Rosebud Sioux Tribal	SUO	Yes	Yes
Sisseton	Sisseton Municipal	8D3	Yes	Yes
Spearfish	Black Hills-Clyde Ice Field	SPF	Yes	Yes
Springfield	Springfield Municipal	Y03	Yes	Yes
Sturgis	Sturgis Municipal	49B	Yes	Yes
Tea	Marv Skie-Lincoln County	Y14	Yes	Yes
Vermillion	Harold Davidson Field	VMR	Yes	Yes
Wagner	Wagner Municipal	AGZ	Yes	Yes
Wall	Wall Municipal	6V4	Yes	Yes
Webster	The Sigurd Anderson	1D7	Yes	Yes
Wessington Springs	Wessington Springs	4X4	Yes	Yes
Winner	Winner Regional	ICR	Yes	Yes
Yankton	Chan Gurney Municipal	YKN	Yes	Yes

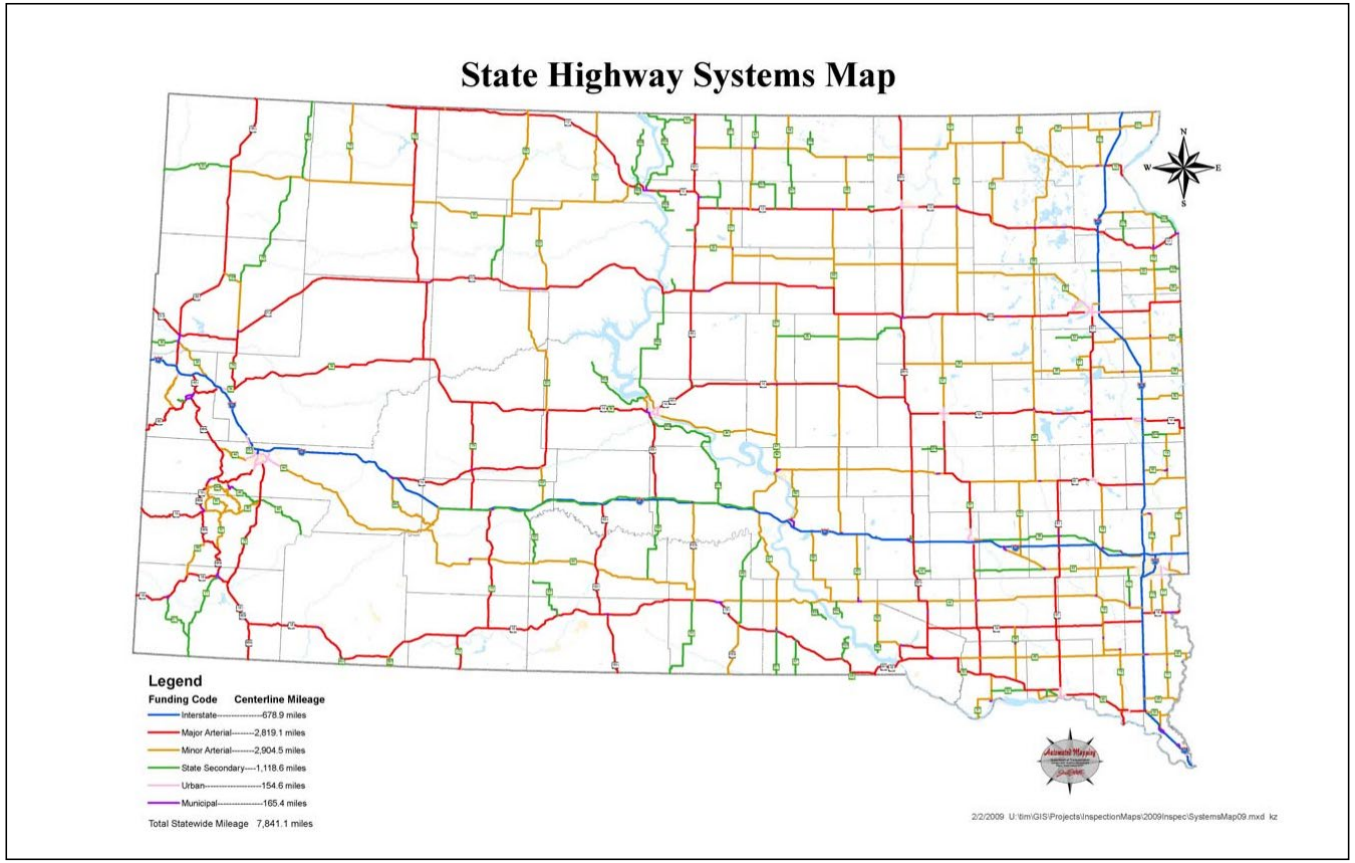
Source: 2020 SDSASP Inventory Form

As shown, all system airports have either sufficient surface street or major highway access, and the majority of the airports (49 of 56) report having access to both surface streets and major highways.

The second analysis conducted to determine roadway connectivity to SDSASP airports was a visual analysis using Google Maps and Google Earth geospatial tools. Adjacent roadway linkages within the vicinity of each airport were noted as either being direct or indirect linkages. A direct linkage was determined as a roadway that provided access to an airport through an immediate connection (off-ramp or driveway). Of note, some roadways that run immediately adjacent to an airport are not always considered to be "direct" linkages as the roadway may not provide a direct off-ramp or driveway to an airport but require the use of a distant off-ramp or driveway and backtracking to arrive on airport grounds. The visual analysis only studied interstate, U.S. highway, or state roads, therefore county and municipal roads are not included in this analysis. Google Earth was used to identify the nearby

interstates, U.S. highways, or state roads, and to determine the number of lanes on the roadway. Google Maps was used to determine distance from the airport to the relevant roadway as Google Maps provides more accurate travel-distances than Google Earth. All distances were rounded to the nearest whole mile. It is important to note that some margin of error is expected in this type of analysis as multiple routes may be used to access specific roadway linkages and each route's driving distance may differ slightly. For each airport, the roadways closest to the airport and the roadways that provide access to each direction were selected to be included in the analysis. For example, Bison Municipal Airport is closest to SD-20 so that roadway and its distance to the airport was included. Since SD-20 runs east to west it was important to capture another roadway in the vicinity that runs north to south. Therefore, SD-75 NB located within 10 miles of the airport and SD-73 SB located within 15 miles of the airport were identified to capture roadway connectivity in all directions. The results of this geospatial analysis used to evaluate roadway connectivity to airports is shown in **Table B-2**. **Figure B-1** shows the state highway system in South Dakota. This map shows interstates, major arterials, minor arterials, secondary state highways, urban, and municipal roadways.

Figure B-1: South Dakota State Highway System



Source: South Dakota Long-Range Transportation Plan, 2010

Table B-2: SDSASP Airport Roadway Connectivity

Associated City	Airport Name	FAA ID	Direct Access			Indirect Access		
			Interstate	U.S. Hwy	State Road/Hwy	Interstate	U.S. Hwy	State Road/Hwy
Commercial Service								
Aberdeen	Aberdeen Regional	ABR		US-12 (4 L)		I-29 (4 L) (68 mi)	US-281 (4 L) (5 mi)	SD-37 (2 L) (15 mi) SD-20 (2 L) (25 mi)
Pierre	Pierre Regional	PIR					US-14 (4 L) (3 mi)	
							US-83 (4 L) (4 mi)	
Rapid City	Rapid City Regional	RAP			SD-44 (2 L)	I-90 (4 L) (9 mi)		SD-79 (4 L) (9 mi)
Sioux Falls	Sioux Falls Regional/ Joe Foss Field	FSD			SD-115 (4L)	I-29 (4 L) (7 mi)		SD-42 (4 L) (7 mi)
						I-90 (4 L) (7 mi)		
						I-29 Connector (4 L) (7 mi)		
Watertown	Watertown Regional	ATY			SD-20 (4 L)	I-29 (4 L) (9 mi)	US-212 (4 L) (8 mi) US-81 (4 L) (9 mi)	
General Aviation								
Belle Fourche	Belle Fourche Municipal	EFC		US-85 (4 L)		I-90 (4 L) (15 mi)	US-212 (3 L) (4 mi)	

Associated City	Airport Name	FAA ID	Direct Access			Indirect Access		
			Interstate	U.S. Hwy	State Road/Hwy	Interstate	U.S. Hwy	State Road/Hwy
Bison	Bison Municipal	6V5					US-212 (2 L) (65 mi)	SD-20 (2 L) (1 mi)
								SD-75 (2 L) (10 mi)
								SD-73 (2 L) (15 mi)
Britton	Britton Municipal	BTN						SD-10 (2 L) (2 mi) SD-27 (2 L) (8 mi) SD-37 (2 L) (19 mi)
Brookings	Brookings Regional	BKX				I-29 (4 L) (4 mi)	US-14 (4 L) (1 mi)	
Buffalo	Harding County	9D2					US-85 (2 L) (1 mi)	SD-20 (2 L) (2 mi)
Canton	Canton Municipal	7G9				I-29 (4 L) (12 mi)	US-18 (2 L) (1 mi)	SD-115 (2 Mi) (9 mi)
Chamberlain	Chamberlain Municipal	9V9				I-90 (4 L) (1 mi)		SD 50 (2 L) (7 mi)
Clark	Clark County	8D7				I-29 (4 L) (41 mi)	US 212 (2 L) (3 mi)	SD-25 (2 L) (12 mi)
Custer	Custer County	CUT						

Associated City	Airport Name	FAA ID	Direct Access			Indirect Access		
			Interstate	U.S. Hwy	State Road/Hwy	Interstate	U.S. Hwy	State Road/Hwy
De Smet	Wilder Field	6E5			SD-25 (2 L)		US-14 (2 L) (4 mi)	
Eagle Butte	Cheyenne Eagle Butte	84D					US-212 (2 L) (3 mi)	SD-63 (2 L) (2 mi)
Edgemont	Edgemont Municipal	6V0					US-18 (2 L) (7 mi)	SD-471 (2 L) (9 mi)
Eureka	Eureka Municipal	3W8						SD-47 (2 L) (1 mi) SD-10 (2 L) (2 mi)
Faith	Faith Municipal	D07		US-212 (2 L)				SD-73 SB (2 L) (1 mi)
								SD-73 NB (2 L) (9 mi)
Faulkton	Faulkton Municipal	3FU		US-212 (2 L)				SD-45 (2 L) (7 mi)
Flandreau	Flandreau Municipal	4P3			SD-34 (2 L)	I-29 (4 L) (9 mi)		SD-13 (2 L) (1 mi)
Gettysburg	Gettysburg Municipal	0D8					US-212 (4 L) (2 mi) US-83 (2 L) (7 mi)	
Gregory	Gregory Municipal-Flynn Field	9D1		US-18 (2 L)				SD-47 (2 L) (2 mi)
Highmore	Highmore Municipal	9D0			SD-47 (2 L)		US-14 (2 L) (1 mi)	

Associated City	Airport Name	FAA ID	Direct Access			Indirect Access		
			Interstate	U.S. Hwy	State Road/Hwy	Interstate	U.S. Hwy	State Road/Hwy
Hot Springs	Hot Springs Municipal	HSR		US-18 (4 L)				SD-79 (4 L) (2 mi)
				US-385 (4L)				
Hoven	Hoven Municipal	9F8			SD-47 (2 L)		US-87 (2 L) (14 mi)	SD-20 (2 L) (1 mi)
Howard	Howard Municipal	8D9					US-81 (2 L) (9 mi)	SD-25 (2 L) (1 mi)
								SD-34 (2 L) (3 mi)
Huron	Huron Regional	HON					US-14 (4 L) (2 mi)	SD-37 (4 L) (1 mi)
Lemmon	Lemmon Municipal	LEM					US-12 (2 L) (1 mi)	SD-73 SB (2 L) (4 mi)
								SD-73 NB (2 L) (9 mi)
Madison	Madison Municipal	MDS					US-81 (4 L) (3 mi)	SD-34 (2 L) (3 mi)
Martin	Martin Municipal	9V6		US-18 (2 L)				SD-73 SB (2 L) (1 mi)
McLaughlin	McLaughlin Municipal	5P2		US-12 (2 L)				SD-63 (2 L) (2 mi)
Milbank	Milbank Municipal	1D1					US-12 (2 L) (2 mi)	SD-15 (4 L) (5 mi)
Miller	Miller Municipal	MKA		US-14 (2 L)				SD-45 (4 L) (2 mi)

Associated City	Airport Name	FAA ID	Direct Access			Indirect Access		
			Interstate	U.S. Hwy	State Road/Hwy	Interstate	U.S. Hwy	State Road/Hwy
Mitchell	Mitchell Municipal	MHE				I-90 (4 L) (5 mi)		SD-37 (2 L) (1 mi)
Mobridge	Mobridge Municipal	MBG					US-12 (4 L) (1 mi) US-83 (4 L) (17 mi)	SD-1804 (2 L) (1 mi) SD-20 (2 L) (9 mi)
Murdo	Murdo Municipal	8F6		US-83 (2 L)		I-90 (4 L) (2 i)		SD-44 (2 L) (23 mi)
Onida	Onida Municipal	98D					US-83 (2 L) (1 mi) US-212 (2 L) (23 mi) US-14 (2 L) (15 mi)	
Parkston	Parkston Municipal	8V3			SD-44 (2 L)			SD-37 (2 L) (1 mi)
Philip	Philip	PHP		US-14 (2 L)		I-90 (4 Mi) (30 mi)		SD-73 (2 Mi) (4 mi)
Pine Ridge	Pine Ridge	IEN		US-18 (2 L)			US-18 (2 L) (16 mi)	SD-407 (2 L) (2 mi)
Platte	Platte Municipal	1D3						SD-45 (2 L) (1 mi) SD-44 (2 L) (2 mi)
Redfield	Redfield Municipal	1D8		US-281 (2 L)			US-212 (2 Mi) (1 mi)	

Associated City	Airport Name	FAA ID	Direct Access			Indirect Access		
			Interstate	U.S. Hwy	State Road/Hwy	Interstate	U.S. Hwy	State Road/Hwy
Rosebud	Rosebud Sioux Tribal	SUO					US-18 (2 l) (7 mi)	
Sisseton	Sisseton Municipal	8D3				I-29 (4 L) (2 mi)		SD-10 (2L) (1 mi)
Spearfish	Black Hills-Clyde Ice Field	SPF				I-90 (4 L) (2 mi)	US-85 (2 L) (4 mi)	
Springfield	Springfield Municipal	Y03						SD-37 (2 L) (1 mi)
								SD-52 (2 L) (3 mi)
Sturgis	Sturgis Municipal	49B				I-90 (4 L) (8 mi)		SD-34 (2 L) (2 mi) SD-79 (2 L) (3 i)
Tea	Marv Skie-Lincoln County	Y14				I-29 (4 L) (3 mi)		SD-42 (L) (7 mi)
Vermillion	Harold Davidson Field	VMR				I-29 (4 L) (9 mi)		SD-19 (2 L) (3 mi) SD-50 (4 L) (4 i)
Wagner	Wagner Municipal	AGZ					US-18 (2 L) (2 mi)	SD-46 (2 L) (1 mi)
Wall	Wall Municipal	6V4				I-90 (4 L) (1 mi)		SD-240 (2 L) (2 mi)
Webster	The Sigurd Anderson	1D7			SD-25 (2 L)		US-12 (4 L) (3 mi)	

Associated City	Airport Name	FAA ID	Direct Access			Indirect Access		
			Interstate	U.S. Hwy	State Road/Hwy	Interstate	U.S. Hwy	State Road/Hwy
Wessington Springs	Wessington Springs	4X4			SD-34 (2 L)		US-284 (2 L) (4 mi)	
Winner	Winner Regional	ICR					US-18 (4 L) (1 mi)	SD-44 (2 L) (1 mi)
							US-183 (2 L) (10 mi)	SD-49 (2 L) (8 mi)
Yankton	Chan Gurney Municipal	YKN					US-81 (4 L) (1 mi)	SD-50 WB (2 L) (1 mi)
								SD-50 EB (2 L) (3 mi)

Sources: Google Maps; Google Earth

This analysis demonstrates that the majority of system airports have an interstate, U.S. highway or state road within 10 miles that leads north, south, east and west. There are only 12 system airports that have at least one connection more than 10 miles away. The longest distance recorded between an airport and a major highway access point is at Aberdeen Regional Airport with a distance of 68 miles. It is important to note that Aberdeen Regional has direct access to U.S. Highway-12 and indirect access to U.S. Highway-281 within five miles. Access from an airport facility to either surface streets or major highways promotes a well-connected surface transportation system that allows for efficient connections between the airport and the community or the user's final destination.

B.1.2. Intermodal Integration

Various modes of transportation, whether vehicular, pedestrian, or rail, are required to transport people and goods to and from airports. Airport integration and community interconnectivity by various modes of transportation is an essential aspect of the aviation system's overall accessibility. Having intermodal connections between an airport and its community promotes the free flow of people and can stimulate economic activity between communities and surrounding areas. Poor integration and limited interconnectivity can limit a community's ability to leverage aviation to its highest potential.

In order to evaluate intermodal connectivity this section discusses the different types of ground transportation located at system airports that promote intermodal integration and touches on the movement of goods through the use of freight and rail.

B.1.2.1. Ground Transportation

Ground transportation is a crucial component to intermodal integration, as it is required to connect people and goods to their final destination once they've completed their trip at the airport. Ground transportation options allow airport users to connect to other parts of the state, either by a courtesy car, rental car, bus, taxi, and more. This section reviews the variety of ground transportation options available at system airports.

B.1.2.1.1. Courtesy Car

For airports located in smaller communities where rental cars or public transportation may not be available, a courtesy car can provide that critical link between an airport and its surrounding community. Courtesy cars are generally stored on-airport and are sponsored by the airport owner/operator, or by the fixed-base operator (FBO). Courtesy cars provide an easy way to get visitors into town for meetings, meals, or entertainment, and are very popular among pilots for that reason. Courtesy cars typically rely on an honor system, where it is the user's responsibility to return the vehicle with gas and in the same condition as when they left the airport. Without courtesy cars, many of South Dakota's airports would isolate their visitors from connecting to local communities.

There are 24 system airports that provide courtesy cars, and of those 24 airports nine of them report that their courtesy cars are the only ground transportation option available to airport users. For these nine airports the courtesy car is an essential part of the airport's intermodal integration and connectivity to the community. A summary of system airports with courtesy car availability is shown in **Table B-3.**

B.1.2.1.2. Rental Car

Rental cars can be a very useful option for promoting intermodal integration and community connectivity as it provides the user freedom to leave the airport and travel around independently, without having to wait for a taxi, rideshare, or transit operator or be limited on the time they have the

vehicle (like with a courtesy car). Although rental cars promote connectivity, this amenity is often only seen at larger airports that serve more densely populated areas and is generally unavailable in the more rural areas of South Dakota.

Sixteen of the 56 system airports reported having rental car facilities on site, including all five commercial service airports and 11 general aviation (GA) airports. A summary of the rental car services available at SDSASP airports is shown in **Table B-3**.

B.1.2.1.3. Taxi and Rideshare

For airports located in smaller communities where public transportation may not be available, taxi services can provide the critical link between airports and their communities. In a similar fashion, rideshare services such as Uber and Lyft can also help to promote connectivity by picking up airport users at the terminal and transporting them to their final destination. Despite the helpful connections that taxis and rideshares provide, these services are limited across system airports and primarily exist at commercial service airports and select GA airports.

All five of the commercial service airports have both taxi and rideshare availability, while only nine GA airports report having taxis, and three of those nine also report having rideshares available. A summary of taxi and rideshare services available at SDSASP airports is shown in **Table B-3.**

B.1.2.1.4. Hotel Shuttle

In some instances, mostly reserved for the more urban or densely populated regions, hotel shuttles may be an available ground transportation option. These shuttles are limited because they only pick up guests of the hotel associated with the shuttle, and the shuttles will only perform pick-up and drop-off services between the airport and the hotel. Depending on the hotel, the shuttle may also provide limited transportation services to hotel guests within close proximity of the hotel. All of the commercial service airports and six GA airports in the system host hotel shuttle services. **Table B-3** shows the system airports that are served by hotel shuttles.

B.1.2.1.5. Public Transit

Public transit within a community can greatly increase accessibility and encourages equitable economic opportunity to all residents and visitors. Public transit also provides an option for airport employees including the airport sponsor and businesses on the airport. Transit has lower user fees than rideshare, taxi, or rental cars and can substantially reduce vehicular traffic on community roadways. Because of these benefits, transit is often promoted as a preferred transportation mode for both visitors and residents. Direct connections from airports to public transportation allow visitors quick and reliable mobility into and within the community. The convenience provided by a direct transit route from airport to the community further boosts intermodal integration. **Table B-3** shows the system airports with public transit availability. Forty one of the 56 system airports provide transit connectivity from the airport into the community, with public transit available at all Commercial Service airports, and 36 GA airports. **Figure B-2** shows transit coverage in South Dakota. Hoven Municipal Airport and Rosebud Sioux Tribal Airport appear to be within a transit service area according to **Figure B-2**, but according to the transit service providers these airports are not a part of the service area, which is indicated in **Table B-3**.

Table B-3: Summary of Ground Transportation at SDSASP Airports

Associated City	Airport Name	FAA ID	Courtesy Car	Rental Car	Rideshare	Taxi	Hotel Shuttle	Public Transit	Other	Total
Commercial Service										
Aberdeen	Aberdeen Regional	ABR		✓	✓	✓	✓	✓		5
Pierre	Pierre Regional	PIR	✓	✓	✓	✓	✓	✓		6
Rapid City	Rapid City Regional	RAP	✓	✓	✓	✓	✓	Partial		6
Sioux Falls	Sioux Falls Regional/ Joe Foss Field	FSD	✓	✓	✓	✓	✓	✓		6
Watertown	Watertown Regional	ATY	✓	✓	✓	✓	✓	✓		6
General Aviation										
Belle Fourche	Belle Fourche Municipal	EFC	✓	✓				✓		3
Bison	Bison Municipal	6V5								0
Britton	Britton Municipal	BTN						✓		1
Brookings	Brookings Regional	BKX	✓					✓		2
Buffalo	Harding County	9D2								0
Canton	Canton Municipal	7G9	✓							1
Chamberlain	Chamberlain Municipal	9V9		✓			✓	✓		3
Clark	Clark County	8D7	✓							1
Custer	Custer County	CUT		✓		✓		✓	Airport staff will transport to Custer Motels/Restaurants	4
De Smet	Wilder Field	6E5							Pilots will call a local car dealership to get a car	1
Eagle Butte	Cheyenne Eagle Butte	84D						✓		1

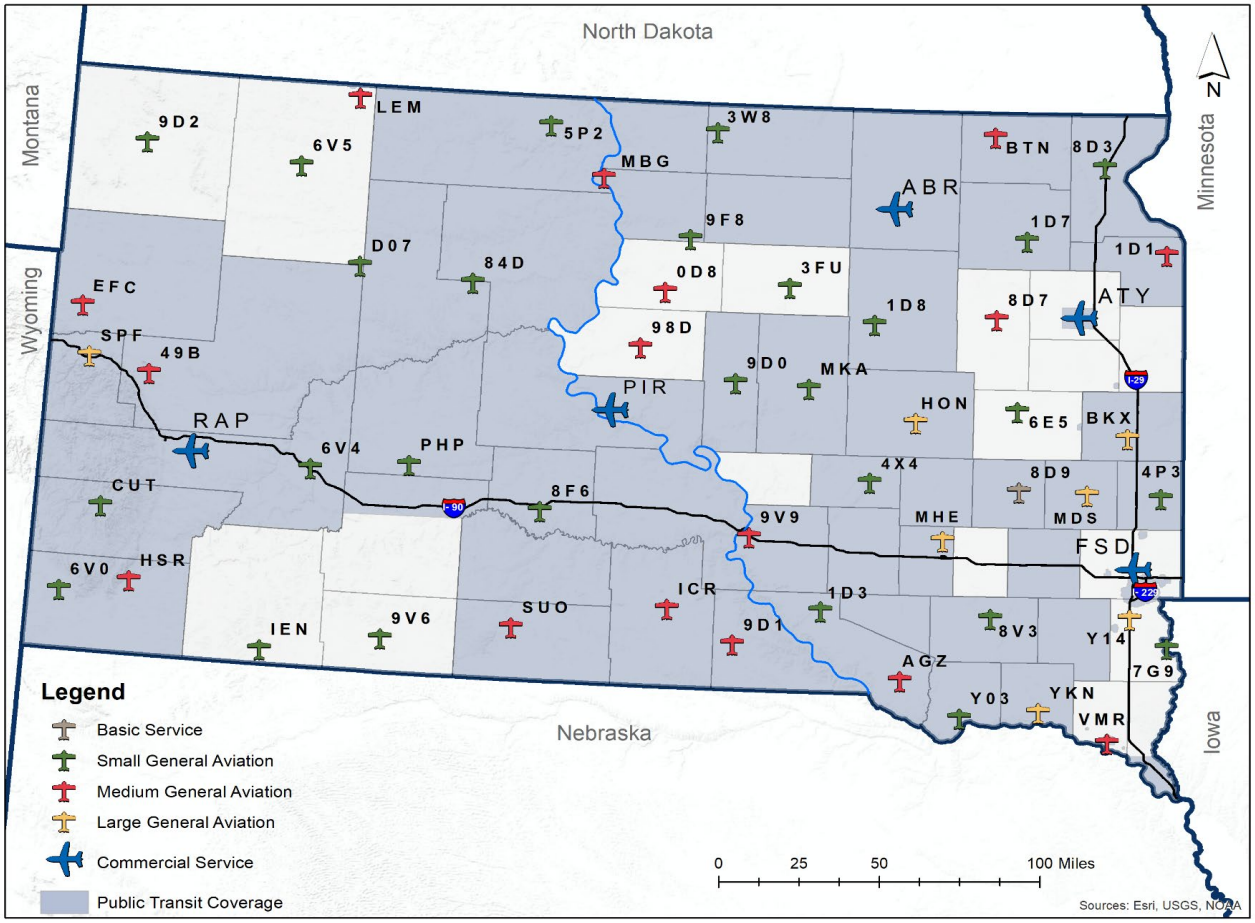
Associated City	Airport Name	FAA ID	Courtesy Car	Rental Car	Rideshare	Taxi	Hotel Shuttle	Public Transit	Other	Total
Edgemont	Edgemont Municipal	6V0						✓		1
Eureka	Eureka Municipal	3W8						✓		1
Faith	Faith Municipal	D07						✓		1
Faulkton	Faulkton Municipal	3FU								0
Flandreau	Flandreau Municipal	4P3						✓		1
Gettysburg	Gettysburg Municipal	0D8	✓							1
Gregory	Gregory Municipal-Flynn Field	9D1	✓					✓	During Hunting season arrangements can be made to rent a vehicle	3
Highmore	Highmore Municipal	9D0						✓		1
Hot Springs	Hot Springs Municipal	HSR	✓	✓		✓		✓		4
Hoven	Hoven Municipal	9F8								0
Howard	Howard Municipal	8D9						✓		1
Huron	Huron Regional	HON	✓	✓		✓	✓	✓		5
Lemmon	Lemmon Municipal	LEM	✓							1
Madison	Madison Municipal	MDS	✓					✓		2
Martin	Martin Municipal	9V6								0
McLaughlin	McLaughlin Municipal	5P2						Partial	Someone picks up the passengers	2
Milbank	Milbank Municipal	1D1						✓	Call dealerships in town	2
Miller	Miller Municipal	MKA		✓				✓	City employees during regular business hours	3

Associated City	Airport Name	FAA ID	Courtesy Car	Rental Car	Rideshare	Taxi	Hotel Shuttle	Public Transit	Other	Total
Mitchell	Mitchell Municipal	MHE		✓	✓	✓		✓		4
Mobridge	Mobridge Municipal	MBG	✓							1
Murdo	Murdo Municipal	8F6		✓				✓		2
Onida	Onida Municipal	98D								0
Parkston	Parkston Municipal	8V3						✓		1
Philip	Philip	PHP	✓				✓	✓	Rental cars available at car dealerships in Philip	4
Pine Ridge	Pine Ridge	IEN								0
Platte	Platte Municipal	1D3						✓	Have provided rides and personal vehicles	2
Redfield	Redfield Municipal	1D8	✓					✓		2
Rosebud	Rosebud Sioux Tribal	SUO								0
Sisseton	Sisseton Municipal	8D3	✓	✓				✓		3
Spearfish	Black Hills-Clyde Ice Field	SPF	✓	✓		✓	✓	✓		5
Springfield	Springfield Municipal	Y03						✓		1
Sturgis	Sturgis Municipal	49B	✓			✓	✓	✓		4
Tea	Marv Skie-Lincoln County	Y14	✓		✓	✓				3
Vermillion	Harold Davidson Field	VMR	✓					✓		2
Wagner	Wagner Municipal	AGZ	✓					✓		2
Wall	Wall Municipal	6V4						✓		1

Associated City	Airport Name	FAA ID	Courtesy Car	Rental Car	Rideshare	Taxi	Hotel Shuttle	Public Transit	Other	Total
Webster	The Sigurd Anderson	1D7						✓	Other transportation option provided. No details specified.	2
Wessington Springs	Wessington Springs	4X4						✓		1
Winner	Winner Regional	ICR	✓	✓		✓		✓		4
Yankton	Chan Gurney Municipal	YKN	✓	✓	✓	✓	✓	✓		6

Sources: All Municipal Transit Providers; SDSASP 2020 Inventory Form

Figure B-2: Transit Service Areas in South Dakota



Sources: Kimley-Horn, 2020; SDDOT, Interactive Transit Map

Commented [AR1]: Is this one source or two?

There are 15 system airports that do not provide any type of ground transportation option for airport users. Several airports have limited or no ground transportation options, but they overcome this issue by using creative solutions, like leveraging partnerships with car dealerships to rent cars or setting up a policy with city employees to assist with pickups and drop offs.

Reviewing the ground transportation options available at system airports demonstrates the variety of services available to airport users. Some airports have three or more ground transportation options that help to promote intermodal integration, while other airports have no options and must rely on airport staff or community members to bridge the gap between airport property and the community.

B.1.2.2. Interregional Bus Service: Greyhound

The Greyhound bus service provides interregional connectivity that allows users to travel between select cities throughout South Dakota and across the country. These bus terminals are not in walking distance from the airports so a transportation option between the airport and the Greyhound bus stop/station is required. Despite not having direct stops at system airports, Greyhound promotes intermodal integration because it allows a user of a system airport to travel outside of their arrival destination to a new destination. The following is a list of system airports that have a Greyhound bus stop or station within the airports' associated city:

- Aberdeen Regional – Aberdeen
- Black Hills-Clyde Ice Field – Spearfish
- Brookings Regional – Brookings
- Flandreau Municipal – Flandreau
- Harold Davidson Field – Vermillion
- Huron Regional – Huron
- Mitchell Municipal – Mitchell
- Onida Municipal – Onida
- Pierre Regional – Pierre
- Rapid City Regional – Rapid City
- The Sigurd Anderson – Webster
- Sioux Falls Regional/Joe Foss Field – Sioux Falls
- Sisseton Municipal – Sisseton
- Wall Municipal – Wall
- Watertown Regional – Watertown

B.1.3. Heavy Rail

When integrated with airports, heavy rail provides a unique connection that can facilitate the movement of goods and commodities. This type of connection is rare. However, it does represent a transportation mode that can be integrated with airports.

There are several airports within the system that are in close proximity to a heavy rail yard that provides shipping and distribution services. There is a railyard co-located at Sioux Falls Regional, but according to the 2019 Railroad Loading Facilities map there is not currently an active loading facility in Sioux Falls[2]. Although the railyard does not appear to be currently in use it is important to note that Sioux Falls is the

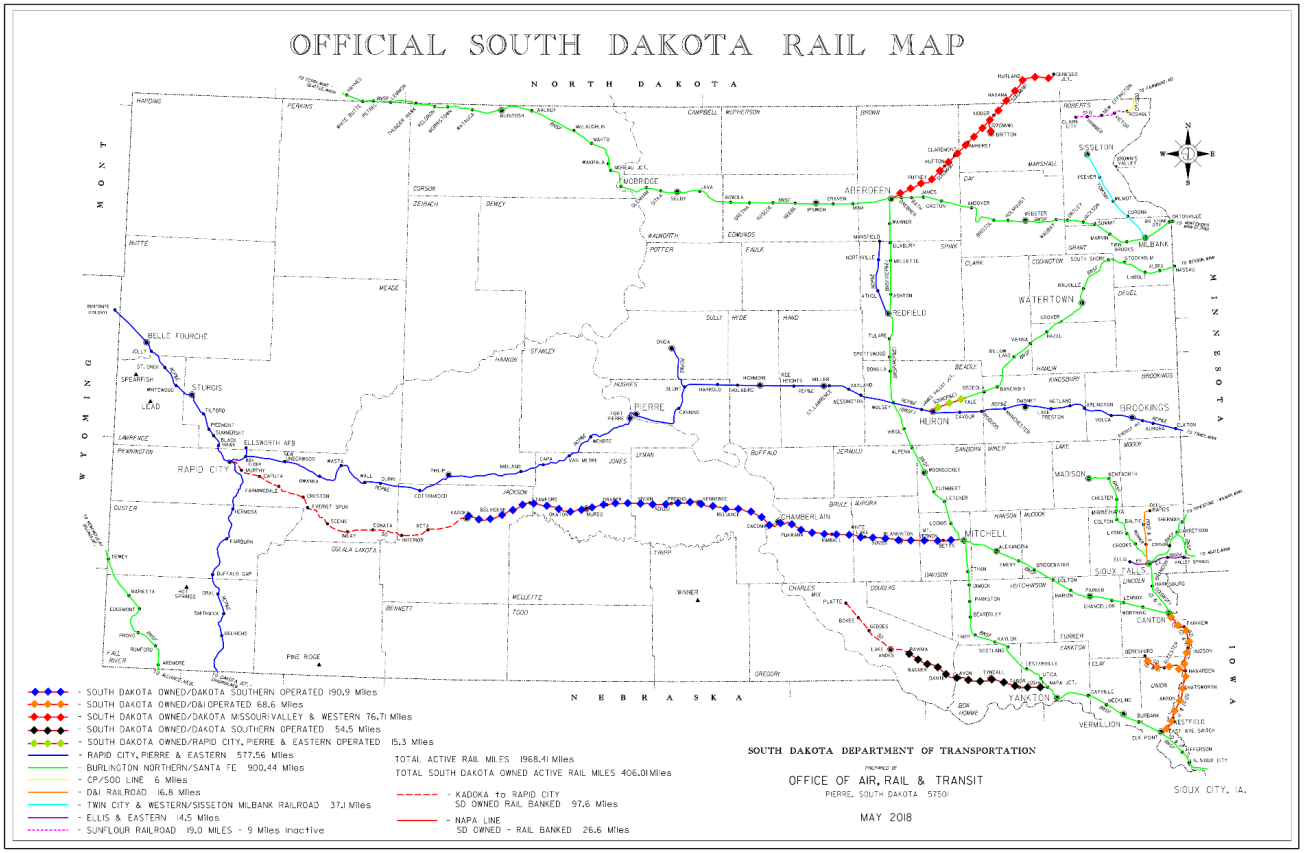
[2] SDDOT, *Ethanol Plants and Train Lodging Facilities*, 2019.

one of the busiest air cargo facilities in the state, with 42.6 million pounds of cargo inbound and outbound in 2016.[3] The close proximity and connections between Sioux Falls Regional and the railyard could create unique economic opportunities and present a compelling case for further exploration of heavy rail integration at the airport if future demand requires.

Figure B-3 depicts the heavy rail network in South Dakota. **Figure B-4** shows a Google Earth image of Sioux Falls Regional with the railroad indicated in red and the adjacent railyard circled in blue.

[3] SDDOT, *South Dakota Freight Plan*, June 2017.

Figure B-3: South Dakota Heavy Rail Connections



Source: SDDOT, 2018

Figure B-4: Sioux Falls Regional and Adjacent Railyard Infrastructure

Sources: Google Earth; Kimley-Horn, 2020

B.1.4. Transportation Areas of Concern

Transportation systems are constantly evolving as needed improvements are identified and constructed. This section presents the areas of potential improvement pertaining to airport accessibility and intermodal integration, particularly at the larger commercial service airports. These areas of concern were identified through outreach to SDDOT Air, Rail and Transit staff, airport managers, and other SDDOT staff.

Through conversations with airport managers at two of South Dakota's largest commercial airports: Sioux Falls Regional and Rapid City Regional, it became clear that one of the concerns facing the larger commercial system airports is the proliferation of transportation network companies (TNCs) such as Uber or Lyft (also referred to as rideshares). TNCs have increased in popularity across the country within the past decade, and their impacts are being noticed not just by the cities in which they operate, but by airports as well. The two greatest concerns pertaining to TNC operation at airports is the loss of airport parking revenue and curbside management due to congestion. On average, there are 180 pick-ups/drop-offs at the busier commercial airports in South Dakota, and this influx of passengers using TNCs and not driving/parking their cars results in significant reductions in parking revenue. For many commercial airports, the parking revenue is the largest source of income, so any reduction can be impactful. Airports can help to reduce the impacts of parking revenue loss by implementing fees for TNC pick-up and drop-off but often these fees are not enough to overcome the overall revenue loss. Moreover, the curbside management concerns result in the designated pick-up/drop-off lanes becoming overly congested, reducing traffic flow and creating safety concerns particularly in front of the terminal. It is anticipated that these issues will continue to worsen over time without the appropriate policies in place.

TNCs are not the only concern related to intermodal integration at South Dakota airports. Rapid City Regional Airport faces a challenge pertaining to airport access from traffic travelling to the airport from I-90. At this time there is no direct connection from I-90 to the airport, forcing passengers and cargo to travel on a two-lane local road, or redirect through town to gain access to Highway 44, and neither are effective options. This concern is being addressed in the upcoming 2020 Rapid City Metropolitan Transportation Plan.

Additionally, it is important to note that while there is no direct public transportation availability at the two largest airports. This is not considered an area of concern as the current ridership demand does not support direct access at this time.

B.1.5. Long-Range Planning and Improvements

Planning is a critical component of ensuring viable growth and coverage of the state's overall accessibility and modal interconnectivity. Planning allows communities to anticipate future growth and shifts in demand to best plan for desired outcomes. Following planning efforts, specific improvements can be identified and implemented along planned timelines or upon reaching specific milestones. The following subsections touch on local long-range planning efforts and specific infrastructure improvements that are either in process or planned for the near future for South Dakota's transportation/mobility systems.

B.1.5.1. Long-Range Planning

A primary goal of aviation system planning is to help airports integrate their needs and impacts with local land use and transportation planning efforts. Collaboration between airports and local land use

authorities through local and regional planning efforts helps facilitate airport integration in their communities and identify specific access and other needs to be met by all parties involved. Accordingly, as part of the SDSASP, airport managers were asked to identify if their airport is considered in their local land use or transportation planning efforts. The following 22 system airports have been included in their local land use and/or transportation plans:

- Aberdeen Regional – Aberdeen
- Pierre Regional – Pierre
- Rapid City Regional – Rapid City
- Sioux Falls Regional/Joe Foss Field – Sioux Falls
- Belle Fourche Municipal – Belle Fourche
- Brookings Regional – Brookings
- Harding County – Buffalo
- Canton Municipal – Canton
- Chamberlain Municipal – Chamberlain
- Custer County – Custer
- Faulkton Municipal – Faulkton
- Gregory Municipal-Flynn Field – Gregory
- Lemmon Municipal – Lemmon
- Madison Municipal – Madison
- Phillip – Phillip
- Redfield Municipal – Redfield
- Black Hills-Clyde Ice Field – Spearfish
- Sturgis Municipal – Sturgis
- Marv Skie-Lincoln County – Tea
- Harold Davidson Field – Vermillion
- The Sigurd Anderson – Webster

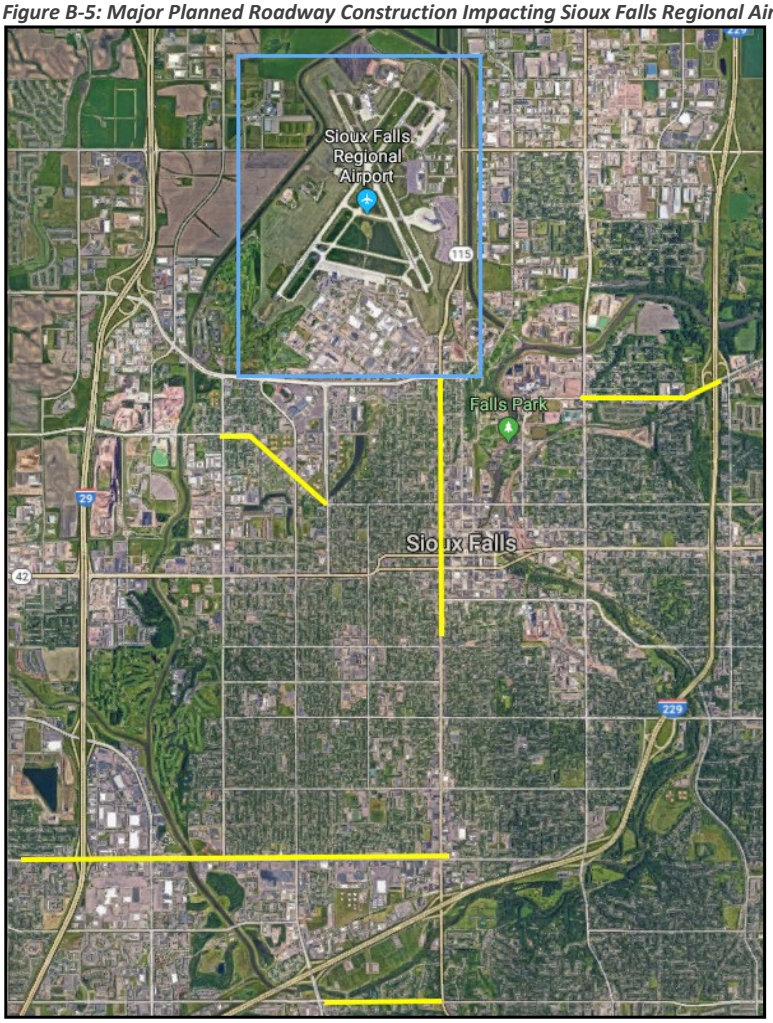
B.1.5.2. Major Planned Transportation Improvement

SDDOT publishes a Statewide Transportation Improvement Program (STIP) every year for four upcoming years, the 2020-2023 STIP is the most recent update of this plan. This long-range planning process relies on coordinated efforts from the Department of Transportation, Transportation Commission, state and federal agencies, local and tribal governments and other stakeholders, in order to develop a prioritized list of transportation projects for the state. Highway and intermodal projects included in the STIP are designed to preserve, renovate, and enhance South Dakota's transportation system. In addition to the STIP, the three metropolitan planning organizations (MPOs) in the state also publish four-year transportation improvement programs (TIPs). With the assistance of SDDOT, the STIP and TIPs were reviewed to identify any major projects planned within the next four years that impact the state's aviation system.

SDDOT identified a major project within the Sioux Falls MPO 2020-2023 TIP that will improve access to Sioux Falls Regional Airport via major arterials in the area. The project is within Lincoln and Minnehaha counties, and is classified as a major street reconstruction project. The purpose of the project is to increase traffic flow and lessen congestion on major arterials by widening and redesigning segments of various roadways. The impacted arterials surround the airport, with one of the largest sections of the

project (Minnesota Ave from Russell St to 18th St) running directly north to the airport, and south away from the airport. Other affected roadway segments are both east, and west of the airport close to nearby interstate connections, and feed the Minnesota Ave corridor, which is a major route to the airport. **Figure B-5** shows the roadway segments in yellow that are a part of this major street reconstruction project that will improve ground access to the Sioux Falls Regional Airport. It is important to note that the yellow highlights are an estimation of project details based on the Sioux Falls MPO 2020-2023 TIP. The expected cost of this project is just under $1 million.

Figure B-5: Major Planned Roadway Construction Impacting Sioux Falls Regional Airport



Sources: Google Earth; Google Maps; Kimley-Horn, 2020; Sioux Falls MPO 2020-2023 TIP

Another proposed improvement project that is intended to promote intermodal integration is included in the Rapid City Bicycle and Pedestrian Master Plan. The plan proposes to retrofit portions of Highway 44 and Airport Road with a bike lane as both roads already have the necessary additional four feet of width needed to accommodate this improvement. In addition to retrofitting portions Highway 44 with bicycle infrastructure, there are also portions of an old railway line that is being retrofitted as a shared use path. Rail to trail improvements are becoming increasingly popular among cities with unused railway lines. These bike lane improvements will result in bicycle access directly to the terminal from Highway 44. As mentioned in the previous section there currently is no direct transit service to either large commercial service airports in the state, but Rapid City's Transit Development Program will consider expansion and/or reconfiguration of several bus routes, and while service directly to the airport is not a current short-term goal as development moves eastward towards the airport this may become more feasible in the future.

B.1.6. Intermodal Integration and Airport Access Conclusion

Intermodal integration and airport access are new topics being emphasized in statewide aviation system plans across the country. This section on intermodal integration and airport access reports the existing conditions of connections between different modes of surface transportation and system airports. These connections are important to understand as they determine the ways in which people and cargo move when using a system airport. This section also assesses the roadway connections that exist at system airports and ground transportation options for users of SDSASP airports. Some of the transportation concerns that exist when considering intermodal integration at SDSASP airports are documented, along with major planned transportation improvements impacting larger commercial service airports in the state.