

*Twin Cities-Des Moines-Kansas City
Route Study*



ALL ABOARD
MINNESOTA



Twin Cities – Des Moines –Kansas City Route Study

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2022

Photo of St Paul Union Depot - <https://www.uniondepot.org>

Photo of Kansas City Union Station – <https://unionstation.org>

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I. All Aboard Minnesota

All Aboard Minnesota (AAMN) strongly supports the study, development, and implementation of intercity passenger rail service between the Minneapolis-St Paul metropolitan area and the Kansas City metropolitan area. AAMN believes this route has the greatest ridership potential of any of the Phase I Corridors reviewed in the Minnesota State Rail Plan other than the Twin Cities- Chicago corridor.

To promote the advancement of a Twin Cities-Des Moines-Kansas City passenger rail service, this report presents information that AAMN has gathered in support of a future application for entry into the Federal Railroad Administration's Corridor Identification and Development Program (CIDP), which is a comprehensive intercity passenger rail planning and development program that will help guide intercity passenger rail development throughout the country and create a pipeline of intercity passenger rail projects ready for implementation.

All Aboard Minnesota is a 501 (c)(3) non-profit education and advocacy group focused on the expansion and development of intercity rail transportation as a part of a balanced transportation system. We are dedicated to the development of fast, comfortable, frequent intercity passenger train services within and beyond Minnesota.

AAMN believes that the re-establishment of a comprehensive passenger rail network that provides multiple frequencies on several routes and connects the state to the entire upper Midwest would become a popular and desirable travel option for intercity travel, would enhance the quality of life of Minnesota residents and visitors, and would make a significant contribution to the advancement of Minnesota's environmental and economic future.

In support of this vision, AAMN has reviewed ridership and schedules for historic passenger rail services, has documented current track conditions and speeds, and reviewed the Federal Bureau of Transportation Statistics Travel Survey data for all the potential rail routes in the state of Minnesota and surrounding region. AAMN has also conducted surveys of Amtrak passengers. From these studies, AAMN has devised a proposed passenger rail network, shown in Figure 1, that AAMN believes should be developed. This includes:

1. New service between the Twin Cities and Kansas City, MO via Des Moines, IA
2. Additional daily trips on the Borealis route
3. A second route between the Twin Cities and Chicago, IL via Madison, WI and Eau Claire, WI
4. Regional daytime service between the Twin Cities and Fargo, ND through St. Cloud on the existing Empire Builder route
5. The Northern Lights Express between the Twin Cities and Duluth, MN
6. New service between the Twin Cities and Omaha, NE via Mankato, MN, Sioux Falls, SD and Sioux City, IA.

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Figure 1 – All Aboard Minnesota Proposed Passenger Rail Network for the Midwest Region



II. Historical Context

Historically, the primary rail passenger route between the Twin Cities and Kansas City was the former Rock Island (now Union Pacific) route via Des Moines. In the post WWII era (1947-1969) the route hosted two trains a day: the daytime *Twin Star Rocket* and the overnight *Kansas City Rocket*. The daytime *Twin Star Rocket* was a long-distance train operating through Kansas City to Dallas and Houston. Its name came from a clever amalgamation of the North Star state of Minnesota and the Lone Star state of Texas.

At its peak, the *Twin Star Rocket* carried about 14 cars with 5 coaches, 3 sleepers, a diner, observation parlor, a baggage car and 2-3 mail cars. One coach and one sleeper were through cars that were transferred at Kansas City to the *Golden State* train bound for Tucson, Phoenix, Palm Springs, and Los Angeles. An additional through coach was added during the busy winter season to the Southwest.

By the early 1960's the *Twin Star Rocket* had dropped to four coaches and two sleepers. Interviews with ticket agents from that era state that the daytime *Twin Star Rocket* was popular with passengers heading to the southwest. Today Arizona and California are still major destinations for Minnesotans in the winter season. The overnight *Kansas City Rocket* was primarily a mail train, but it did carry two coaches and a sleeper.

The passenger business became less profitable and ultimately unprofitable with government subsidy investment in airports and interstate highways. There was no similar investment in passenger rail. Between 1960 and 1969, service on the *Twin Star Rocket*, the *Kansas City Rocket* and the *Golden State* was gradually and incrementally reduced until all of these trains disappeared. None of these trains were incorporated into Amtrak's network when it was created in 1971.

The only other railroad offering Twin Cities-Kansas City passenger service was the Chicago Great Western railroad, which offered an overnight mail train via Des Moines and St. Joseph, MO. It only carried one or two coaches and was never a significant player in this market. It was discontinued in 1961. No other railroad offered passenger service because their routes were so circuitous and slow, as to be non-competitive for passengers, but still viable for freight.



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III. Project Purpose and Need (SOW Subtask 2.1)

A. Project Definition

The proposed Twin Cities-Des Moines-Kansas City Corridor project is the **re-establishment** of intercity passenger train service between the Twin Cities Metropolitan Area (TCMA) and the Kansas City Metropolitan Area (KCMA) via Des Moines, Iowa (Figure 2).

1. Terminals

- The northern terminal of the Twin Cities-Des Moines-Kansas City Corridor would be the Union Depot in downtown St. Paul.
 - Further study will need to consider how to serve Target Field Station in downtown Minneapolis.
- The southern terminal of the Twin Cities-Des Moines-Kansas City Corridor would be Kansas City Union Station.

2. Major Markets

- Minneapolis
- St. Paul
- Des Moines
- Kansas City

3. Proposed Route

- The former Rock Island route between the Twin Cities and Kansas City via Des Moines, currently owned by the Union Pacific Railroad.

Figure 2
Twin Cities-Des Moines-Kansas City Corridor



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B. Project Objectives

The project has two principal objectives:

1. To provide an alternative mode of transportation for those who prefer not to or are unable to travel by other means.
2. Provide improved Amtrak network connectivity by providing a more direct connection between the Twin Cities and Amtrak trains operating between Chicago and California.

AAMN believes that the re-establishment of a comprehensive passenger rail network that provides multiple frequencies on several routes and connects the state to the entire upper Midwest would become a popular and desirable travel option for intercity travel, would enhance the quality of life of Minnesota residents and visitors, and would make a significant positive contribution to Minnesota's environmental and economic future.

C. Network Connections

Today, anyone from Minnesota who wants to ride the California Zephyr or Southwest Chief west to California must first take the Empire Builder east to Chicago. This adds at least an entire day to the trip. A Twin Cities-Des Moines-Kansas City train would connect with the California Zephyr in Chariton and the Southwest Chief in Kansas City.

D. Project Benefits

The project will provide a variety of social, environmental, and economic development benefits.

IV. Market Analysis (SOW Subtask 2.2)

A. Existing Travel Patterns

Interstate 35 connects Minneapolis, Des Moines and Kansas City and continues to Fort Worth and the Mexican border. From frequent travel on Interstate 35, AAMN has observed a high level of traffic between the Twin Cities and Des Moines in both directions, especially on Fridays and Sundays. This represents people traveling between the Twin Cities and various locations in Iowa. It also represents traffic from the Twin Cities to Sioux Falls/Sioux City on I-90 and Omaha on I-80. AAMN has also found that there is substantially less traffic between Des Moines and Kansas City. AAMN believes that a study of Interstate highway traffic origins and destinations would be very illustrative and would generally support these observations. There is also a strong North Dakota/Minnesota-Texas connection represented by Interstate 35 which would open up if a new train were brought up to Kansas City from Texas.

Des Moines and Kansas City are at ideal distances from St. Paul (259 and 478 miles respectively) for conversion of auto users to corridor train travel. The routes are not so short that taking the train takes longer than driving, but far enough that people would prefer not to drive, especially

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on winter roads. Due to winter conditions, driving is generally not a reliable and safe option for Minnesotans for four to five months a year. Train travel speed and safety are unaffected by severe winter weather.

B. Travel Desires

AAMN does know from surveys taken of Amtrak riders in Minneapolis-St. Paul that there are a significant number of them interested in traveling south to connect with the California Zephyr and Southwest Chief, thus avoiding a day layover to connect with those trains in Chicago.

AAMN also knows through these surveys that there is a significant travel flow from the Twin Cities to Omaha, Denver, Phoenix and California destinations as well as to Iowa and Kansas City. If the California Zephyr was ever rerouted through Des Moines, a reestablished Twin Cities-Des Moines-Kansas City train could operate a through coach and sleeper to hand off to the California Zephyr at Des Moines for travelers going to Omaha, Denver and points west.

V. Railroad, Agency and Public Coordination (SOW Subtask 2.3, 2.4, 2.5, 2.6)

AAMN has conducted numerous educational activities to promote this route and our overall route vision for the state. Examples include:

1. Since 2018, AAMN has conducted approximately 36 outreach public forums for citizens, business and civic leaders, local elected officials and other key stakeholders in cities throughout the state. We estimate that over 2,000 citizens have attended these meetings.
2. Since inception AAMN has provided testimony for the Minnesota House and Senate Transportation Committees, both written and verbal advocating and educating for this and other routes. Examples available upon request.
3. Since 2014, AAMN has held at least one public annual meeting in the Twin Cities metro area to advocate and educate the general public about the benefits of passenger rail, updates in our region, and our route vision.
4. Communication:
 - a. Quarterly emailed newsletters for education and advocacy
 - b. During the session, we provide updates to our audiences about legislation impacting passenger rail and what they can do to support it.
 - c. Since inception, we have maintained a website that is regularly updated with new content. The site was completely overhauled in March of 2019 to streamline navigation, and update content which has been continuous since that time.
 - d. Social Media campaign; since inception AAMN has maintained a Facebook presence but that was stepped up significantly in April of 2024 with a regular campaign of advocacy and education, which was also expanded to X, TikTok, and Instagram.

VI. Route Options (SOW Subtask 3.1)

The determination of the number of alternative routes between the Twin Cities and Kansas City is influenced by the Purpose and Need of the Project. If the purpose of the project is to provide passenger rail service between Kansas City and the Twin Cities with an intermediate station location in Des Moines, there is one route that accomplishes this.

A. Primary Alignment

The former Rock Island alignment over which the *Twin Star Rocket* was operated and is now operated by the Union Pacific Railroad, goes from Minneapolis-St Paul to Northfield, then onto Faribault, Owatonna, Albert Lea, Mason City and Des Moines before heading to Kansas City. Interstate I-35 parallels the route. This is the most direct rail route to Kansas City from the Twin Cities and was the main rail passenger route in the past. The route is 482 miles long and in 1962 trains traveled the route in 9.5 hours for an average speed of 51 mph. The route had a daytime and overnight train each direction until the mid-1960s with through service to Dallas and Houston Texas, again along I35. Had the Rock Island continued to operate the *Twin Star Rocket* until 1971 on the former Rock Island alignment, it may have been included in the original Amtrak system. But service was discontinued in 1969. Amtrak never considered routes that had already been discontinued before it began operations.

If the purpose of the project is to provide passenger rail service between Kansas City and the Twin Cities without consideration of any intermediate locations, there are five other potential routes. Described below are all the potential routes without consideration of any intermediate locations. Later, in the Service Options Analysis, only one route option is carried forward for which a description of potential service characteristics is provided.

B. Alternate Alignments

There are five alternate rail routes between the Twin Cities Metropolitan Area and the Kansas City Metropolitan Area as follows:

1. CPKC Route (former Milwaukee Road)
2. BNSF Route
3. Great Northern/CNW/Burlington Route
4. CNW/Burlington Route
5. Chicago Great Western Route

1. CPKC (former Milwaukee Road)

The merger of the Canadian Pacific Railway and the Kansas City Southern Railway was possible because the two railroad systems connected in Kansas City. Trains destined for Kansas City from western Canada cross Minnesota from northwest to southeast, traversing the Twin Cities Metropolitan Area along the way. Leaving the Twin Cities, the CPKC follows the east shore of the Mississippi River to Hastings at which point, it crosses the Mississippi and then follows the

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west shore of the Mississippi River through Winona and La Crescent in Minnesota and then through Dubuque and Davenport, Iowa to Muscatine. At that point, the CPKC mainline turns to the southwest through Ottumwa, across the state border into Missouri and finally into Kansas City.

A portion of this route, between La Crescent and Saint Paul, is used by Amtrak's *Empire Builder*.

- The route would be 673 miles and take about 16.5 hours to complete at an average speed of 41mph.
- Most of the track south of La Crosse is limited to 30-49 mph and un-signalized.
- It follows the shoreline of the Mississippi with many slow curves.
- No engineering or track relocation was ever done to increase speeds from the original 1870 roadbed.
- What passenger service there was on this line in years past went from Twin Cities-Chicago and Chicago-Kansas City, not between the Twin Cities and Kansas City.

2. BNSF Railway (former Burlington Route)

The BNSF Railway leaves St. Paul to the southeast following the east shore of the Mississippi River, at times adjacent to the CPKC alignment, but remains on the east shore past Hastings and into Wisconsin. The BNSF continues to follow the east shore of the river through LaCrosse and Prairie du Chien, crosses into Illinois opposite Dubuque and continues to follow the river through Galena to Rock Island. At this point, the BNSF turns south to Galesburg and then turns southwest, crosses the southeast tip of Iowa north of Keokuk and finally straight on to Kansas City.

A portion of this route, between Galesburg and Kansas City, is used by Amtrak's *Southwest Chief*.

- This route was considerably faster than the Milwaukee Road route, because the *Zephyr* trains were operated on the route between the Twin Cities and Chicago and Chicago and Kansas City.
- Early in the 20th century the Burlington rebuilt its mainline between St. Paul and Savanna building many causeways to eliminate all the curves on the shoreline making for a mostly straight and high speed mainline.
- Similar work was done in northern Missouri on the Kansas City line, with a new 101-mile cutoff route built in 1952 between Brookfield, MO and Kansas City. This route is also about 694 miles long, but considerably faster at about 12 hours travel time in 1962, with an average speed of 58 mph.
- Today the train could be routed south of Galesburg on the former Santa Fe. Current track conditions are faster than 1962, which would put the travel time at about 11 hours.

3. *Great Northern/C&NW/Burlington Route-*

This route would follow the Great Northern (BNSF) west of Minneapolis to Willmar, then turn southwest to Sioux Falls, Sioux City and Omaha before going along the Missouri River to St. Joseph and Kansas City.

- The Great Northern had a one coach mail train on this route to Sioux City until about 1960.
- The Burlington operated corridor service three times a day between Omaha and Kansas City, some of which lasted up until Amtrak started.
- The route is 640 miles using the more direct Chicago & North Western (C&NW, now Union Pacific) route between Sioux City and Omaha.
- Most of the route is not signaled and would take about 14.5 hours with present track conditions for an average speed of 44 mph.
- Although this route also would be circuitous, it actually serves many major cities and might still be a route worth considering with the understanding that the seats would completely turn over in the middle section of the route.
- Such a route could provide significant ridership between the Twin Cities and Sioux City, Sioux Falls and Omaha as one travel market. And the same between Sioux City, Sioux Falls, Omaha and St. Joseph/Kansas City as another travel market; all served by the same train.
- Given the travel time no one would ride it from end to end, so this is not a viable option for Twin Cities-Kansas City service.

4. *C&NW/Burlington Route-*

This route would use the C&NW (now Union Pacific) St. Paul-Sioux Falls route for the first leg of the journey. This route serves Mankato and has more population than the GN route. It once hosted 3 trains a day, two overnight trains (*Nightingale* and *Mondamin*) and one daytime train called the *North American*.

- Service was discontinued in 1959 mainly due to efforts to discourage ridership and the C&NW success in convincing the Interstate Commerce Commission that it was in financial distress and needed to be relieved of the trains' losses.
- Like the route via Willmar discussed above, at Sioux Falls this train would retrace its steps to Manley and follow the Great Northern (now BNSF) route down to Sioux City where it would rejoin the C&NW route to Omaha.
- From Omaha it would follow the Burlington (BNSF) to Kansas City. This route is 643 miles long and would take about 14 hours with current track conditions at an average speed of 46 mph.
- These routes have limited signaling. With track and signaling upgrades to 79 mph conditions, travel times on either of these routes could be cut to about 12 hours.



5. Chicago Great Western Route -

This route meandered southeast to Waterloo and then turned southwest to Des Moines, St. Joseph and Kansas City.

- It was 542 miles long and a trip took about 14.5 hours at an average of 37 mph.
- The train consisted of mail and one or two coaches until its discontinuance in 1961.
- The entire CGW railroad has since been abandoned, so this route is not an option.
- The cost to restore trackage to the route would be cost prohibitive for one passenger train. This is unfortunate since the CGW south of Des Moines did serve St. Joseph, which is larger than any points on the southern portion of the Rock Island (Union Pacific) route.

C. Three Options for Getting out of the Twin Cities

One of the most difficult issues to address when considering the reestablishment of train service in any direction from Minneapolis is what route can be taken within the Twin Cities Metropolitan Area. The Rock Island trains on this route originally started in Minneapolis, went to St. Paul then south to Northfield. The bridge they used over the Mississippi south of St. Paul (between Newport and Inver Grove) has since been removed and the route severed. This route was 489 miles to Kansas City from Minneapolis, 478 from St. Paul.

Historically, Rock Island Railroad passenger trains used the Milwaukee Road Depot in downtown Minneapolis. This building still exists but is no longer connected to the rail system and has been converted into a hotel and event center.

There are three remaining route options to reach the Rock Island mainline to Kansas City at Northfield. A detailed study will need to evaluate capital and operating costs and identify community and freight railroad impacts. The capital costs may be considerable since each route needs major bridge replacement immediately or at some point in the future. One route involves reclaiming a bike trail for railroad use.

1. Route Option 1:

Today freight trains go on the former Chicago Great Western (now Union Pacific) route out of St. Paul to Hoffman Avenue near Dayton's Bluff (Warner Road bridge) and then south along Pigs Eye Lake Road around the sewage treatment plant, over the Mississippi, through the South St. Paul freight yards for nine miles to reach the mainline at Inver Grove. The speed limit is 20-25 mph. When the Rochester train was studied, Union Pacific indicated strong opposition to trains operating through its freight yards. It may still be possible to use this route, but UP may request a second main line be built around the yards to Inver Grove. There would still be the bottleneck of the single-track bridge over the Mississippi River. This bridge is also old and in need of replacement at some point. This route would originate in Minneapolis and travel to St. Paul on the MnDOT preferred Amtrak/BNSF/ former GN/ Milwaukee route via Midway Station.

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A related CGW route would be to leave St. Paul Union Depot and immediately cross the Mississippi River on the former CGW (now Union Pacific) Robert St. Bridge and then continue to South St. Paul entering the UP yards there from the north. This route still involves slow running on industrial and yard trackage. The other big issue is the Robert St. Bridge is in immediate need of replacement and is unsafe in its present deteriorated condition. Union Pacific announced that they will replace this bridge.

2. Route Option 2:

Another way to reach Northfield out of St. Paul would be to rebuild the former Milwaukee Road line to Rosemont. The route follows the former C&NW/ Omaha Road (now Union Pacific) trackage southwest out of downtown along the Mississippi River before crossing Bridge 15 and continuing south to 35E. At this point (Cliff Jct.) the Milwaukee route splits off the C&NW and climbs up the side of the bluff to the top at Mendota. From here it follows near Hwy 55, 149 and 3. The south end of this route ties directly into the Rock Island line at Rosemont where a suburban station could be placed next to a park and ride or where it crosses County 42. MnDOT selected this route for the proposed St. Paul-Rochester train service. It is a good option, but AAMN assumes there would likely be concerns from the bicycling community. Bridge 15 is also in need of replacement at some point. This may be the best route, but further study of these three alternatives is needed. It is clearly the shortest and probably the fastest route out of town. This route would also necessitate the train originate in Minneapolis and travel to St. Paul. If it used the MnDOT preferred Amtrak/BNSF/ former GN/ Milwaukee route via Midway Station, it would arrive at St. Paul Union Depot pointed in the wrong direction (east), where it would need to be pointed west to depart south to Rosemont. One solution is to keep this train on the former GN (BNSF) route to St. Paul so it could enter Union Station from the east side.

3. Route Option 3:

This option would be to originate the train in St. Paul, travel to Minneapolis, then go west on the former Great Northern (now BNSF) line to St. Louis Park (just west of Hwy 100) where the connection could be reinstalled to the former MN&S line (now Canadian Pacific) direct to Northfield. This route would be 493 miles long from St. Paul; 482 from Minneapolis. This would involve rebuilding the former MN&S line to Northfield to mainline passenger standards. The MN&S bridge over the Minnesota River to Savage is in serious need of replacement. AAMN originally thought that this was the best route but the immediate cost of bridge replacement and cost of rebuilding the line is a problem.

Whether the train starts in St. Paul or Minneapolis, passengers traveling from one or the other are going to experience a 30 minute longer ride to Kansas City than the other. Since the route is already at a transit time disadvantage to I35, it seems logical to have the last stop be the one with the largest boarding's, so as to affect the least number of riders. A detailed study will have

to be made to determine whether that is St. Paul or Minneapolis. On the surface it would seem that Minneapolis would have the greatest boarding's, since two thirds of the Twin Cities population lives on that side of the metro. But St. Paul is where connecting passengers will board the train and the Minneapolis Target Field station is very difficult to reach by car and has limited parking. AAMN believes a serious study should be made of the Minneapolis station situation and a new station and maintenance facility location at Minneapolis Junction should be explored.

One advantage of the Minneapolis routing would be the opportunity to establish a suburban stop south of the Minnesota River near Burnsville Center so that those passengers from this southern part of the metro would not have to drive into Minneapolis to catch the train only to be taken by the train back south. AAMN thinks a suburban stop in Burnsville just west of Burnsville Center off Egan Drive/County Road 42 would possibly attract more riders than compared with a similar stop in Rosemont.

E. Summary

In conclusion AAMN feels the Rock Island route, now owned by Union Pacific, is the only practical passenger train route between the Twin Cities and Kansas City and should be the route utilized to implement the service. The other routes are too long, too circuitous and too slow. Access to existing train stations in St. Paul, Minneapolis and Kansas City will require further study.

VII. Service Options (SOW Subtask 3.2)

A. Service Frequency

AAMN believes that a corridor service between the Twin Cities and Des Moines could support three trains a day each way. The best times would be morning, noon and late afternoon departures, which airlines have found to be the most popular in corridors. Studies have shown that each train added to a route increases ridership geometrically because riders now have more options, creating this induced demand. Illinois saw ridership more than double when they doubled their train service from Chicago to St. Louis and Carbondale several years ago.

B. Network Connections

Trains operating between the Twin Cities and Kansas City should be timed to connect with the California Zephyr at Chariton and the Southwest Chief at Kansas City. If a Kansas City to Texas (Dallas, Houston, San Antonio, Austin) train is developed the Twin Cities-Kansas City train should connect with it as well or a merger of the two trains should take place to form a Twin Cities to Texas through long distance train. The economies of scale and the increased ridership that would result make this a very desirable option to consider in the future.

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C. Operating Speeds and Trip Times

Table 3 illustrates a potential schedule for the Twin Cities to Kansas City train. This schedule is based on the schedule for the Twin Star Rocket from June 1962.

Table 3
Potential Schedule

Amtrak Connection from Seattle arrives at 7:43a and to leaves Seattle at 10:20p.						
Milepost	June, 1962	Southbound	Station	Northbound	June, 1962	
0	12:01p	11:30a	St. Paul, MN	6:20p	7:05p	
11	11:30a	12:01p	Minneapolis	5:49p	7:30p	
34	-	12:35p	Burnsville	5:15p	-	
56	12:48p	1:05p	Northfield	4:44p	5:41p	
69	1:02p	1:20p	Faribault	4:29p	5:25p	
85	1:18p	1:36p	Owatonna	4:13p	5:10p	
116	1:48p	2:03p	Albert Lea	3:46p	4:38p	
153	2:33p	2:38p	Mason City, IA	3:11p	3:45p	
198	3:25p	3:16p	Iowa Falls	2:33p	3:02p	
239	-	3:52p	Nevada	1:57p	-	
274	4:52p	4:30p	Des Moines	1:19p	1:47p	
326	5:55p	5:22p	Chariton	12:16p	12:32p	
400	7:15p	6:28p	Trenton, MO	11:10a	11:17a	
430	-	6:58p	Nettelton (US 36)	10:40a	-	
466	8:27p	7:31p	Excelsior Springs	10:06a	10:09a	
493	9:25p	8:05p	Kansas City, MO	9:30a	9:30a	
Avg Speed	49 mph	57 mph		56 mph	49 mph	
Amtrak Connection to LA leaves KC at 10:42p and from LA arrives at 6:53a.						
Amtrak Connection to Omaha, Denver and San Francisco is estimated to leave Chariton at 7:40p and would arrive at 8:10a.						

It appears that the top speed for the Rock Island at that time was between 65 and 70 mph, which would be consistent with upgrading the route to Class 4 and therefore allowing a 79-mph maximum operating speed where topography and curvature allow. The table also shows the arrival and departure times of the major connecting trains: The Amtrak Empire Builder at St. Paul to Seattle/Portland through Fargo and Minot and the Southwest Chief at Kansas City connecting to Flagstaff, Albuquerque, Grand Canyon, Phoenix and Los Angeles.



D. Fleet Analysis

The operation of one train a day between the Twin Cities and Kansas City would require two train sets, each of which would consist of one locomotive and 4-6 cars. Each additional frequency would require an additional pair of train sets. It is assumed that facilities would be available at each terminal to wye the entire train and therefore obviate the need for either a second locomotive or a cab car. The size of the consist would be determined by a detailed ridership study but would likely consist of the following:

- Locomotive
- Baggage Car
- Coach
- Coach
- Coach
- Coach
- Café Lounge (snack bar)/ Business Class

If the proposed service between Minneapolis and Kansas City is provided as part of a through train to Texas, fleet requirements would be more consistent with other long-distance services operated by Amtrak.

Baggage service is recommended for a train operating this distance and connecting with other long-distance trains. Similar trains in the Amtrak system do not offer a dining car. The Café-Lounge car would provide snack bar food service, lounge space and business class seating.

The type of equipment provided depends upon the selected operator and how the train is operated. If the operator is Amtrak and the proposed service only operates between Kansas City and the Twin Cities, equipment would be consistent with other corridor trains such as the Hiawatha or Borealis. If another operator is selected for Twin Cities to Kansas City service, equipment could either be provided by the selected operator or the states supporting the service. Using equipment that is associated with the Midwest Equipment Pool would need to be considered and evaluated in either case.

E. Fares and Fare Structure

Fares and fare structure would be consistent with other corridor services operated by Amtrak.

VIII. Investment Requirements (SOW Subtask 3.3)

Most of the routes have CTC (Centralized Traffic Control) signal systems, which are ideal for passenger train operation. There are several segments in the middle of the route that are operated with ABS (Automatic Block Signals) and TWC (Track Warrant Control). It would be ideal to install CTC on these segments

IX. Existing Conditions (SOW Subtask 4.1)

A. Existing Track Conditions

Union Pacific operates the line today and has made substantial investments in the track infrastructure. UP operates freight trains at a top speed of 50 mph north of Des Moines and 60 mph south of Des Moines. AAMN's field study of the line showed that the UP made a major upgrade of the line to FRA Class 4 (79 mph) standards between Mason City and Kansas City in 2015 with new 136lb welded rail, ties and ballast. Passing sidings on the line received new ties and ballast. The track north of Mason City received upgrades in the 1990's with new rail, ties and ballast. In some places there is still 1960's welded rail in place, but it is in good condition. This represents a substantial investment by UP and greatly reduces the capital startup cost of bringing passenger service back onto this route. AAMN estimates that UP invested about \$300 million in these improvements, which would be capable of a top passenger train speed of 79 mph with additional signal and grade crossing timing upgrades.

Information related to the Albert Lea Subdivision, Mason City Subdivision, and Trenton Subdivision is provided in Appendix A.

B. Signal Infrastructure-

Significant segments of the proposed Rock Island route have Centralized Traffic Control (CTC) signal systems. There is a gap between Mason City and Nevada, Iowa and Beech-Williamson, Iowa (south of Des Moines to north of Chariton). The remaining Union Pacific portion of the route has CTC. There is no signal system at all on the Minneapolis-Northfield, MN segment.

Any track that operates passenger trains must be equipped with Positive Train Control (PTC). Union Pacific, who owns almost the entire route to Kansas City from Northfield south, has implemented PTC on the portion of the line between Mason City and Des Moines. The remainder of the route between Minneapolis to Kansas City does not have PTC.

With the advent of PTC, CTC signal systems are fully integrated with the new PTC system and are implemented as one package. AAMN's discussions with railway signal systems experts indicated that the CTC system may have to be substantially replaced or reworked due to differing signal spacing needs on the line for passenger trains vs. freight trains. Another issue will be the need to change all the highway crossing signal systems for 79 mph operation. This will involve extending the train detection system further away from the highway crossing to

give the system time to activate and drop the gates. Crossings without warning devices will also have to be evaluated.

C. Track Infrastructure-

With Union Pacific's investment in the line between Mason City and Kansas City in 2015 the capital needs for track infrastructure are much less than they might have been. This track has been upgraded to FRA Class 4 (79 mph) track condition. AAMN's observation of the track between the Iowa border and Northfield showed it to be in similar condition as well, but without as much rail replacement.

The track between Northfield and the connection to the former GN line now owned by BNSF in St. Louis Park will need to be completely rebuilt with new rail, ties and ballast. The current rail on the route is 90 lb. from the 1950's. Parts of this line have not been operated for a number of years and substantial trees and brush will need to be removed to get access to the track. In Burnsville, Bloomington and St. Louis Park this line has a narrow 50 ft or less right of way going through neighborhoods and back yards so fencing will probably be needed for safety reasons. It is important that the line be rebuilt with speed and safety in mind.

In order for the train to be time competitive from the Twin Cities to Kansas City, every effort has to be made to make this first 45 miles as fast as possible. AAMN makes this point because studies have shown that trains can lose a lot of time in the first few miles of operation in rail terminal areas. Any way to speed up trains and cut delays in the terminal areas has a significant impact on overall transit time. With the train operating its first 11 miles in the terminal area between St. Paul and Minneapolis, which historically has taken 20-25 minutes for an average speed of 26-33 mph, the train already starts its trip with a transit time disadvantage.

X. Operations Analysis (SOW Subtask 4.2)

From a freight traffic congestion standpoint, the Union Pacific operates a moderate number of trains on this route, compared to many mainlines. The route handles 25.7 MGTM (Million Gross Tons per Mile) annually on its northern segment in Iowa up to 34-37 MGTM south of Mason City as it gathers grain and ethanol traffic. These levels of traffic are similar extending up to the Twin Cities and south in Missouri to Kansas City. (This information is sourced from the 2021 Iowa State Rail Plan). A railroad industry study concluded that the route is operating at 30-50% of its daily train capacity, so there may be limited or no need for the railroad to demand capacity improvements on the route. The practical capacity limits were taken from the *National Rail Freight Infrastructure Capacity and Investment* study prepared in 2007 by the Association of American Railroads. Since 2007 Union Pacific has implemented the Precision Scheduled Railroading operating strategy, with fewer longer freight trains. This along with changes in traffic patterns would indicate a new study would be needed to evaluate track capacity. Traffic levels appear to have remained about the same since 2007 per Union Pacific Gross Ton Mile

density maps but longer freight trains, exceeding the length of many passing sidings, could effectively reduce track capacity.

XI. Ridership Projections (SOW Subtask 4.3)

When the train operated on the Rock Island between the Twin Cities and Kansas City in the last half of the 1960's, the consist was 3-4 coaches and a diner lounge car. The cars assigned were generally of the high-capacity coach fleet with 70 seats per car. This would indicate a seating capacity of the train at around 210-280 seats, which is high for most Midwest Amtrak corridor trains. Based on the seats assigned to the train and a 60% occupancy ratio, AAMN believes that in the last years of operation by the Rock Island, 1966 to 1969, the route probably had about 100,000-120,000 riders annually. This would include train connections at Des Moines to Omaha, Iowa City and Quad Cities as well as connections at Kansas City to Santa Fe trains to Texas and California.

A direct connection between Minneapolis and both the California Zephyr and Southwest Chief has the potential to contribute substantial ridership to a Twin Cities-Des Moines-Kansas City train and boost ridership on the connecting trains. Bureau of Transportation Statistics show that some of the top destinations for Twin Cities travelers are Denver, Phoenix, San Francisco and Los Angeles. Denver attracts skiers in the winter and vacationers in the summer. Phoenix and Arizona in general have always had a strong connection due to the warmer climate in the wintertime and the number of retirees who travel between Minnesota and Arizona each year.

AAMN projects the ridership on this route would reach 190,530 annually with a full build out of the bus and van connections discussed below. This would equate to 381,060 boardings and alightings annually. AAMN believes that with the proposed bus connections and the possible doubling of population in the major cities on the route the train could handle the higher number AAMN projects. AAMN used historical boarding and alighting estimates by station and compared the annual result to boarding's Amtrak reports at similar population or situation stations in the upper Midwest on the Empire Builder, California Zephyr and Southwest Chief routes as a cross check for reasonableness. The estimate and supporting data can be found in Appendix B. AAMN's estimate gives boarding's and alighting's by station southbound, which are doubled to incorporate northbound ridership. This method is based on actual previous ridership on the route and allows one to look at each station for reasonableness.

A. Population Change

Since 1960, population has increased. Table 1 illustrates the change in population of the three major markets along the route. Across the board, this represents about a doubling of population in the major cities on the route. AAMN believes this indicates that there is a higher ridership potential on the route than there was when the last rail passenger service was operated by the Rock Island.



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Table 1
Population Change

	1960	2020	Percent Change
Twin Cities	1,700,000	3,700,000	118%
Des Moines	337,000	709,000	110%
Kansas City	1,300,000	2,200,000	69%
Total	3,337,000	6,609,000	98%

B. Importance of Dedicated Bus and Van Connecting Service

For the route to achieve its full ridership potential, providing a dedicated bus and van feeder network to significant offline communities will be essential. California and Michigan DOT's have found providing such service increases train ridership, reduces losses and sometimes can be done at a profit or break-even. Michigan DOT works with Indian Trails bus line in a mutually beneficial relationship. California contracted with private bus companies to operate its system. They found that the core routes were profitable and used these profits to further build out the bus feeder system to smaller locations using the profits to cover the losses on these routes.

As can be seen above there are numerous such opportunities on the Kansas City route:

- Owatonna-Rochester (Mayo Clinic): population served - 115,557
- Owatonna-Mankato (Mankato State University): population - 42,093
- Albert Lea-Austin: population- 25,114
- Iowa Falls-Cedar Falls (University of Northern Iowa)/ Waterloo: population- 168,314
- Iowa Falls-Ft. Dodge: population- 24,871
- Nevada-Ames (Iowa State University): population-66,023
- Nevada-Marshalltown: population- 27,591
- Nevada- Iowa City (University of Iowa), Marshalltown, Cedar Rapids, Quad Cities: population- 667,799
- Trenton-St. Joseph- population- 91,303

C. Existing Passenger Transportation Available

Passenger rail is a travel option that provides an alternative to driving. The other alternatives to driving are bus and air. Table 2 is a summary of the seats per day each way that, in 2022, were operated by:

- Airlines with direct non-stop service
- Bus companies with direct service from Minneapolis-St. Paul
- Bus companies with indirect service via transfer from Minneapolis-St. Paul that was competitive.

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Table 2

Bus and Airline Seats available between Minneapolis/St. Paul and destinations in the Twin Cities to Kansas City Project Study Area as of 2022.

Destination	Mode	Seats Per Day	Notes
Des Moines	Air	228	
	Bus	112	Continuing To Kansas City
Kansas City	Air	686	
	Bus	112	Via transfer in Des Moines
Omaha	Air	228	
	Bus	112	Via transfer in Des Moines
Denver	Air	3,631	
	Bus	112	Via transfer in Des Moines
Waterloo	Air	0	
	Bus	0	
Cedar Rapids	Air	228	
	Bus	0	
Quad Cities	Air	152	
	Bus	0	
Iowa City	Air	304	
	Bus	56	Via transfer in Des Moines

Bus routes through Chicago were 13-15 hours overnight and not viable options. The two bus schedules to Kansas City served Des Moines en-route and transferred passengers to Iowa City, Omaha and Denver in Des Moines.

From this analysis it is clear that there is very limited bus service in the area. This may be due to a reduction in service from Covid. Air service is more plentiful but still limited to 2-3 flights a day for most cities except Denver. The size of the Twin Cities-Denver market is significant as stated above. The air and bus travel to offline communities demonstrate the importance of a bus feeder network to the train.

XII. Stations (SOW Subtask 4.5)

The following section identifies the communities where stations will be located, the location of a station facility within each community, the status of any facility formerly used as a station, additional facility options and intermodal access.

A. St. Paul , MN

Metro Population of 3,690,261.

AAMN believes that St. Paul, the Minnesota state capitol and the hub for AAMN’s recommended rail passenger system for Minnesota, is the best place to originate train service to Kansas City. The train station in St. Paul , and the entire metropolitan area, is the historic and

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recently restored Union Depot in downtown St. Paul. This station once had over 22 tracks to receive and dispatch trains. The renovated and updated station now has three tracks with the capacity for 2-4 more. A network of intercity passenger trains to Chicago, Milwaukee, Fargo, and Duluth/Superior can be supported by coach and locomotive maintenance facilities at the former Midway Amtrak Station location, which is still owned by Amtrak.

B. Minneapolis, MN

Metro Population of 3,690,261.

Minneapolis is the corporate headquarters and financial center of the upper Midwest. It has a thriving and diverse economy.

Unlike St. Paul, there is no opportunity to restore a former train station in downtown Minneapolis as the original stations were torn down or cut off by development from the rail network. The Great Northern station was replaced by the Federal Reserve Bank. The Milwaukee Road station became a hotel with its connecting tracks removed to make way for new buildings and developments.

The only existing intercity passenger train station is Target Field Station, on the west side of downtown Minneapolis, which was opened in 2009 as the southern terminal of the Northstar commuter rail line. It is easily accessible by the Light Rail Transit and Metro Transit bus system, but difficult to access by car for suburban travelers. There is limited long term and affordable parking nearby. The Minnesota Twins baseball ball field, also known as Target Field, was built on the last possible location for a major passenger train station near downtown Minneapolis. Target Field Station is sandwiched between the stadium and other developments with little room for expansion. Although the County and City have developed contingency plans with the Minnesota Department of Transportation to allow expansion from two station tracks to four, the configuration of the tracks and the limited space will make it difficult to originate or terminate trains at this location. The station is also not configured to support long-distance travelers. Since the station currently functions as a commuter rail station, there are no waiting rooms, bathrooms or other normal station amenities.

Given the limitations of the Target Field Northstar Station, AAMN believes other options should be examined. The former Midway Station could be used as the Minneapolis stop, as it is far more accessible than Target Field and has ample free parking. Another option would be to build a new station at Minneapolis Junction, about 1.5 miles north of downtown Minneapolis.

There is ample room for a station and parking at that site and it is easily accessible by car. There would be room for multiple tracks and platforms as well as space to build a car maintenance facility. A station at this location would allow the *Empire Builder* to stop at Minneapolis without a backup move to Target Field and could better originate/accommodate Chicago and Duluth corridor trains.

C. Burnsville, MN (Option A)

Population of 61,311.

Burnsville is at the center of major Minneapolis suburbs that are south of the Minnesota River and connected by County Road 42. AAMN suggests a site just west of I35W and Burnsville Center off Eagan Drive/County 42 which would be easily reachable for passengers living in the south suburbs who do not wish to board in downtown Minneapolis only to take a train south again. One of the major challenges in a passenger rail route to Kansas City is that I35 is 46 miles shorter and two hours faster than the previous Rock Island running time. Anything that can be done to reduce travel time will stimulate ridership demand. Placing a suburban stop in Burnsville will begin to address this problem for those living in the south metro. This would be a new stop and requires building a new station and parking area. The specific location AAMN identified is 14450 Judicial Road. Another possible nearby location would be along Newton Ave or in Rose Park.

D. Rosemont, MN (Option B)

Population of 25,650.

If the train were to start in Minneapolis and go to St. Paul, a suburban stop could be located in Rosemont (just east of Apple Valley) as part of the current Park & Ride in downtown on Burnley Road or more prominently located where the route crosses County Road 42. Whether the train is routed through the Union Pacific yards south of St. Paul along the Mississippi River or west from St. Paul utilizing the former Milwaukee Road line along the Mississippi River and Highway 3, both lines come together at this location in Rosemont. Rosemont is located on County Road 42 connecting it to the southern metro suburbs south of the Minnesota River. But Rosemont is on the far east end of those suburbs and is not as centrally located as Burnsville and would have less ridership potential.

E. Northfield, MN

Population 20,347.

Northfield was the first stop south of the Twin Cities for the former Twin Star Rocket train. It is a college town with both St. Olaf College and Carleton College. St. Olaf pulls students from the Upper Midwest, while Carleton students primarily come from the East Coast. It is also a bedroom community for some who commute to the metro area. The original station has been saved by the community and moved back from railroad property on a new foundation. The community is renovating the station and it could still be used as a train station in its new location. The community has been asking for commuter rail service to the Twin Cities and would probably be open to having the building serve as a train station again.

F. Faribault, MN

Population 23,800.

Faribault is the second stop south of the Twin Cities. It is a regional center and has some population that commutes to the metro area. The station has been converted into a restaurant but there is ample space to the north to build a new station with significant city owned parking available.

G. Owatonna, MN (Rochester, Mankato)

Population of 25,685 (115,557; 42,093).

Owatonna is another regional center, which is on a state highway that serves nearby Mankato (47 miles west) and Rochester (41 miles east). Mankato is a significant Minnesota city with a large state college and Rochester is home to the Mayo Clinic, which receives patients from around the country and the world. Bus or van service from Mankato and Rochester to connect with the train in Owatonna would stimulate train ridership. In the Rock Island days there was bus service direct to Rochester and the Mayo Clinic. The station in Owatonna was torn down and a new one would have to be built either on the previous site (Riverside Ave and Hillsdale, St.) near downtown or to the north in an empty lot at Hoffman Dr. NW and W. North St. across from 333 W. North St. This is just off the Hoffman Dr. NW exit from I35 and easily accessible. The original depot site is not as accessible as this north site. Interestingly, the original depot platform is still in place.

H. Albert Lea, MN (Austin)

Population 17,773 (25,114).

Albert Lea would also serve Austin, which is located 20 miles to the east. The original Rock Island station is in place at 538 E. Main St. and still in use by Union Pacific, complete with original 750' concrete platform. The building was built in the 1950's and is currently used by the local Union Pacific track department. There is substantial depot parking available. The depot is ideally located right off Highway 65/East Main St. The depot is in good condition. This building could be used again as a passenger station or a new one could be built adjacent to it on this site.

I. Mason City, IA

Population of 49,462 metro.

Mason City is the largest community in central northern Iowa. It has a regional airport. The original station at 600 1st St. NW was torn down and replaced by a new office building, which Union Pacific subsequently sold. Another former station is just to the east and still used by the Union Pacific as a local office. It no longer is connected to rail. There might be room to build a new station or move the UP station to the west side of the tracks. This is an obscure location in Mason City, but it is six blocks west of downtown. AAMN identified a better location to the



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south on the east side of the mainline between Hy 18/5th St SW and 6th St SW and adjacent to North Iowa Joint Transit Facility. This is located at 520 and 518 6th St. SW. There is ample room to build a station and parking lot and a long station platform. This is prominently located just southwest of downtown, on the major east-west Highway 18, highly visible and easily accessible to traffic.

J. Iowa Falls, IA (Cedar Falls/Waterloo, Fort Dodge)

Population 5,122 (168,314, 24,871).

Iowa Falls is a small community located 55 miles west of the major Iowa metro of Cedar Falls/Waterloo. It is 54 miles east of Fort Dodge, IA. This is also where the former Rock Island Twin Cities-Kansas City mainline and the former Illinois Central (now Canadian National) Chicago-Omaha/Sioux City) mainlines cross. Iowa DOT has been looking long term at restoring service on the IC (CN) route from Chicago-Dubuque-Waterloo and possibly west to Sioux City. This could be an important connection point between these lines for future passenger service. The former Rock Island station still exists on Hollis Ave and E. Rocksylva Ave and is currently used by the Union Pacific track department. It was also built in the 1950's but appears in poor condition. The location is obscure and hard to find. AAMN identified a better location for a new station at the junction of both railroads on west 2nd St north of E Rocksylva Ave. This is also the location of the Mills Tower Historic District where the original train junction tower is located. A new depot could either be placed adjacent to the tower on the south side or located in an empty lot across the street to the west. There is room for ample parking on this empty lot. Platforms could be put in to serve both lines with one station. The former Illinois Central station, located two blocks west on E. Rocksylva Ave., has been fully restored by the community. It might be possible to move this station to the junction site instead of building a new station.

K. Nevada, IA (Ames, Marshalltown, Cedar Rapids, Iowa City, Quad Cities)

Population 6,925 (66,023, 27,591, 257,940, 382,268).

Nevada is a small community 11 miles east of Ames, which is the home of Iowa State University. It was once the home of Maytag manufacturing. It is located 30 miles west of Marshalltown. Rock Island *Twin Star Rocket* never had a stop here. The main purpose of adding this location is to serve Iowa State University, which is only 20 minutes away. The University is home to over 36,000 students with limited public transportation options. The original station is long since demolished. A new station could be located on 19th St on the east end of town just north of a major exit on US Highway 30. This area on the southeast quadrant of 19th St and the mainline is currently a farm field with plenty of room to build a new station and parking lot.

This stop could also serve Marshalltown, Cedar Rapids, Iowa City (University of Iowa) and Quad Cities with a direct bus connection on Route 30 to I80. This would be a significant traffic source



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for the train. Iowa City and Quad Cities could also be served by a bus from Des Moines, rather than with a combined route bus on I80.

L. Des Moines, IA

Metro population of 709,466.

Des Moines is the capital of Iowa and the largest city in the state. It is also the intersection of two major future passenger rail routes: The former Rock Island east-west mainline from Chicago-Quad Cities-Omaha and the north-south Twin Cities-Kansas City mainline. Most of the population of Iowa is located on these two routes. The Chicago-Omaha route is part of the Midwest Rail Plan route structure. In 1971 Amtrak selected the former Burlington mainline from Chicago-Omaha via Galesburg and Ottumwa because Rock Island did not join Amtrak and the Burlington line track was in vastly superior condition for fast running. The Rock Island was nearly bankrupt at the time and their track was in horrendous condition. So, the Burlington (now BNSF), line was selected even though it bypassed all the major population centers. Amtrak's *California Zephyr* continues to run through the state on the BNSF line today.

One of the challenges in Des Moines is that the original station was located about two miles east of the crossing of these lines. As the lines cross in a remote section of town in the middle of two railroad yards, it would be difficult to locate a station there. The original station at 100 SW 4th St. still exists and is now owned and used as offices by a business publisher. The area around the station has undergone a major revival and a new metro bus Transit Center was built just west of the original depot. The DART Central Station is located at 620 Cherry St. It would be ideal if either the former station could be restored for use or a new station built next to the Transit Center. It appears that was the intent when the Transit Center was built about a decade ago. There is ample public parking in the area and room to build a station in one of the parking lots. The backup move for all north-south trains is a problem, yet that is what the Rock Island did. Another option is to locate a new station on the east end of downtown just east of the Des Moines River, near the Capitol, in an area that has been revived with new apartments, condominiums, shops, and entertainment venues. Many young people live in this bustling area, but it is a mile from downtown proper and the Transit Center.

Another capital investment issue in Des Moines will be the need to reinstall the southwest connecting track where the east-west and north-south lines cross. The right-of-way is intact, but the track is missing. This will be needed to facilitate the rapid movement of trains backing into the depot. The connecting tracks in the other three quadrants of the crossing are still in place.

M. Chariton, IA (Ottumwa, California Zephyr connection)

Population 4,149 (24,545).

Chariton is a small community in southern Iowa where the BNSF, former Burlington, Amtrak Chicago-Omaha line crosses the Rock Island Twin Cities-Kansas City line. There may come a time

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when the Amtrak *California Zephyr* is rerouted onto the former Rock Island Chicago-Omaha line through Des Moines, where a connection can be made between the trains. But either way there will need to be a connection between passenger trains on the BNSF line and the Rock Island line at Chariton. Both original stations exist, but they are a mile apart and not in condition to be reused. A better solution is one station where the lines cross, like AAMN proposes in Iowa Falls. The problem is that the Rock Island north-south line crosses under the BNSF in a deep trench. A station could be built in the northeast quadrant of the crossing where the north-south track comes out of the trench. This would be a very accessible location at Hwy 34 and S 4th St. There is room in a field there for a multi-level station to serve both lines and parking. This would allow passengers on each line to make connections.

N. Trenton, MO (Chillicothe, Cameron, St. Joseph)

Population of 5,770, (9,165, 9665, 72473).

Trenton, a division point on the former Rock Island, is a small community in northern Missouri. The population in this area of Missouri is light and economic conditions are depressed. It is the largest community on this section of the line and would also allow riders from Chillicothe, MO (population 9,107) to access the train. Chillicothe is 23 miles south of Trenton. A new station will probably have to be built as the former one is small, in poor condition and used by UP. There is room to build a small station.

There are several significant communities near the Rock Island route, but not directly served. One solution to attract this ridership is to build a station where the line crosses the major east-west 4 lane highway in that part of Missouri: Hwy 36. This station would be located in the country, about 6 miles east of Hamilton (2 miles east of Nettleton) where MFA Co-Op has built a unit grain train loading facility on the railroad. This location would be 21 miles west of Chillicothe, 18 miles east of Cameron and 58 miles east of the major city in the area, St. Joseph. Interstate I35 crosses Hwy 36 at Cameron and pulls traffic from all of these communities. Perhaps a train station strategically located on Hwy. 36 could do the same thing. Another, less expensive option would be a dedicated bus connection serving northbound passengers out of Trenton to Chillicothe, Cameron and St. Joseph. This would provide direct service to all three communities with a total population of 97,073.

O. Excelsior Springs, MO

Population of 10,553.

This former spa and resort town was the final stop of the train on the route. The station was located just northwest of 928 Dunbar Ave. It was in a remote location and demolished long ago. It is unclear to us whether a stop here is still warranted, but it would be not unlike Red Wing or Northfield. Excelsior Springs is in a rural area about 30 miles northeast of central Kansas City, MO. If a new station were built the best location appears to be where Kearney Road crosses

under the line. A retail property at 1327 Kearney Road or a parking lot on the other side of the tracks owned by a car dealership appear to be the best locations.

P. Kansas City, MO (Southwest Chief connection)

Metro population of 2,170,000.

Kansas City would be served by Kansas City Union Station, which was renovated by the city in a similar manner to St. Paul Union Depot. It has restaurants and the Science Museum. Here connections could be made to Amtrak trains to St. Louis and the Southwest Chief to Flagstaff, Grand Canyon, Phoenix and Los Angeles. The states of Texas, Oklahoma and Kansas are looking to extend the Heartland Flyer up from Oklahoma City (on the former Santa Fe Texas Chief Chicago-Texas route) to Kansas City allowing connections to Dallas, Fort Worth, Austin and San Antonio. AAMN believes there would be a ridership/operating cost advantage to reconstituting the Twin Star Rocket for direct through service from the Twin Cities to these Texas points and Houston should this happen.

XIII. Summary

All Aboard Minnesota (AAMN) strongly supports the study, development, and implementation of intercity passenger rail service between the Minneapolis-St. Paul metropolitan area and the Kansas City metropolitan area. To promote the advancement of a Twin Cities-Des Moines-Kansas City passenger rail service, this report has presented information that AAMN has gathered in the hope that it will support a future application for entry into the Federal Railroad Administration's Corridor Identification and Development Program (CIDP).



Appendix A

SUBDIVISION: ALBERT LEA SUBDIVISION

Division	Twin Cities Area
Owner	UNION PACIFIC
Operator	UNION PACIFIC
Line Heritage	<ul style="list-style-type: none"> • Joint Chicago, Rock Island & Pacific Railroad (CRI&P) and Chicago Great Western Railway (CGW) Mason City, Iowa-Manly, Iowa • Joint Chicago, Rock Island & Pacific Railroad (CRI&P) and Minneapolis & St. Louis Railway (M&StL) Manly, Iowa - Iowa / Minnesota state line near Northwood, Iowa
Subdivision Route / Mileage	Portion of Subdivision in Iowa: Mason City, Iowa - Iowa / Minnesota state line near Northwood, Iowa; 24.4 miles
FRA Track Class	Class 4
Track Configuration	One main track with passing sidings
Maximum Authorized Speed	Freight 50 mph
Maximum Authorized Speed	Passenger N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	<ul style="list-style-type: none"> • Yard Limits (YL) at Mason City, Iowa • Centralized Traffic Control (CTC) Mason City, Iowa - Iowa / Minnesota state line near Northwood, Iowa
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Approximately 20' 2" Above Top of Rail
Current Line Density (2014)	25.7 MGTM
Average Number of Trains per Day	10-16
Trains per Day Track Capacity	30-48
Commodities Transported	Intermodal, automobiles, coal, farm products, food and kindred products, chemical and allied products, ethanol, and general merchandise freight traffic
FRA Excepted Track	None

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SUBDIVISION: MASON CITY SUBDIVISION

Division	Iowa Area
Owner	UNION PACIFIC
Line Heritage	Chicago, Rock Island & Pacific Railroad (CRI&P)
Subdivision Route / Mileage	Des Moines, Iowa-Mason City, Iowa; 119.5 miles
FRA Track Class	Class 4
Track Configuration	One main track with passing sidings
Maximum Authorized Speed	Freight- 60 mph
Maximum Authorized Speed	Passenger- N/A
Wayside Signals	<ul style="list-style-type: none">• Centralized Traffic Control (CTC) Des Moines, Iowa-Nevada, Iowa• Automatic Block Signals (ABS) Nevada, Iowa-Mason City, Iowa Method of Operation
	<ul style="list-style-type: none">• Track Warrant Control (TWC) Nevada, Iowa-Flint, Iowa• Yard Limits (YL) Flint, Iowa-Mason City, Iowa
Maximum Allowable Gross Weight	286,000 lbs. (Des Moines-Mason City)
Clearances	Approximately 20' 2" Above Top of Rail (one bridge on the subdivision in Iowa will not clear 21' 6" Above Top of Rail)
Current Line Density (2014)	37.0 MGTM
Average Number of Trains per Day	10-16
Trains per Day Track Capacity	30-48 (16-20 between Beech and Williamson)
Commodities Transported	Intermodal, automobiles, coal, farm products, food and kindred products, chemical and allied products, ethanol, and general merchandise freight traffic

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SUBDIVISION: TRENTON SUBDIVISION

Division	Kansas City Area
Owner	UNION PACIFIC
Operator	UNION PACIFIC
Line Heritage	Chicago, Rock Island & Pacific Railroad (CRI&P)
Subdivision Route / Mileage	Portion of Subdivision in Iowa: Des Moines, Iowa - Iowa / Missouri state line near Lineville, Iowa; 87.0 miles
FRA Track Class	Class 4
Track Configuration	One main track with passing sidings
Maximum Authorized Speed	Freight 60 mph
Maximum Authorized Speed	Passenger N/A
Wayside Signals	<ul style="list-style-type: none"> • Centralized Traffic Control (CTC) Des Moines, Iowa-Beech, Iowa • Automatic Block Signals (ABS) Beech, Iowa-Williamson, Iowa • Centralized Traffic Control (CTC) Beech, Iowa - Iowa / Missouri state line near Lineville, Iowa
Method of Operation	<ul style="list-style-type: none"> • Centralized Traffic Control (CTC) Des Moines, Iowa-Beech, Iowa • Track Warrant Control (TWC) Beech, Iowa-Williamson, Iowa • Centralized Traffic Control (CTC) Williamson, Iowa - Iowa / Missouri state line near Lineville, Iowa
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Approximately 20' 2" Above Top of Rail (two bridges on the subdivision in Iowa will not clear 21' 6" Above Top of Rail)
Current Line Density (2014)	34.2 MGTM
Average Number of Trains per Day	10-16
Trains per Day Track Capacity	30-48
Commodities Transported	Intermodal, automobiles, coal, farm products, food and kindred products, chemical and allied products, ethanol, and general merchandise freight traffic
FRA Excepted Track	None

Appendix B

All Aboard Minnesota
Ridership Forecast Estimates

Twin Cities – Des Moines – Kansas City Route Study

CROSSCHECK WITH ACTUAL AMTRAK RIDERSHIP

	Population	Near Population	Far Population
St. Paul	3,690,261		
Minneapolis	3,690,261		
Burnsville	61,311		
Northfield	20,347		
Faribault	23,800		
Owatonna	25,685	183,335	
Albert Lea	17,773	42,887	
Mason City	49,462		
Iowa Falls	5,122	198,307	
Nevada	6,925	100,539	667,799
Des Moines	709,466		
Chariton	4,149	28,694	968,179
Trenton	5,770	91,303	
Excelsior Springs	10,553		
Kansas City	2,170,000		

	ON	OFF	On Board	Daily Each Way	Better Estimate
St Paul		145	145		120450
Minneapolis		57	0	202	
Burnsville		20	0	222	
Northfield		11	4	229	5 7,959 Low
Faribault		11	3	237	
Owatonna		20	15	242	
Albert Lea		18	18	242	9 13,199 High
Mason City		18	18	242	9 13,199 High
Iowa Falls		6	28	220	10 15,000 Low
Nevada		18	36	202	9 13,199 Low
Des Moines		51	71	182	
Chariton		1	31	152	
Trenton		0	18	134	18 13,199 Low
Excelsior Springs		0	6	128	
Kansas City			128	0	
		376	376		

Original

Station	Ridership	Similar Population or Situation Amtrak Stations
St Paul	73000	St. Paul 90961 Midway 1500 Dvr 142974KC 153527
Minneapolis	36500	
Burnsville	10950	
Northfield	4380	Red W 7959 1/2 Wino 660 La Plt 11487
Faribault	7300	Red W 7959 1/2 Wino 660 La Plt 11487
Owatonna	17520	Red W 7959 St. Cld 9143 Fgo 18556 Colum 1Tpka 8129 La Plt 11487 Wino 13199
Albert Lea	17520	Wino 13199 Burl 7603 Otum 10322Ft Mad La Plt 11487
Mason City	24820	Wino 13199 Burl 7603 Otum 10322Ft Mad 2xLa Plt 23000
Iowa Falls	4380	Colum 12537 St. Cld 9143 Fgo 18556 La Crs 2Tpka 8129
Nevada	8760	Lawr 8389 2xWin 26400 La Crs 25587
Des Moines	73000	Osc 14026 Omaha 2490 2 x Licn 300 5xFrgo 93000
Chariton	21900	Colum 12537 Osc 14026 Crest 3281
Trenton	5840	1/2 La C 13000 Det Lk 4697 Crest 3281 Mt Pls 1 Red W 7959 La Plt 11487 Colum 12537
Excelsior Springs	1460	Ptg 7061 Toma 11394 Mt Pls 1049 Crest 32Wi Del 14722
Kansas City	73000	KC 153527 Dvr 142974 MSP 90961
	380330	



Twin Cities – Des Moines – Kansas City Route Study

AMTRAK RIDERSHIP - 2022

Empire Builder

	Population	Ridership
Columbus(Madison)	5,058	12,537 269,840 Madison Metro
Portage	10,406	7,061
Wisconsin Dells	2,841	14,722
Tomah	9,383	11,394
La Crosse	139,627	25,587
Winona	50,485	13,199
Red Wing	16,338	7,959
MSP	3,152,564	90,961 150,000 before move to SPUD in St. Paul
St. Cloud	194,418	9,143
Staples	2,989	6,014
Detroit Lakes	9,869	4,697
Fargo	248,591	18,556
Grand Forks	100,381	12,807

California Zephyr

Princeton	7,328	37,118
Galesburg	49,053	90,796 382,268 metro
Burlington	45,243	7,603
Mount Pleasant	8,604	10,492
Ottumwa	34,985	10,322
Osceola	5,415	14,026 699,292 metro
Creston	7,639	3,281
Omaha	968,179	24,909
Lincoln	340,217	14,884
Denver	2,963,821	142,974

Southwest Chief

Mendota	7,057	22,688
Princeton	7,328	37,118
Galesburg	49,053	90,796 382,268 metro
Ft. Madison	57,732	5,775
La Platta/ Kirksville	1,296	11,487 29,933 metro
Kansas City	2,392,035	153,527
Lawrence	122,530	8,389
Topeka	233,870	8,129

