4. VIBRATION PREDICTION

A long train is a line source of vibration forces that produce Rayleigh surface waves which slowly attenuate with distances from the track. Layering in the soil also concentrates ground vibration energy near the surface. The resulting surface wave motion is similar to that of waves in the open ocean. Without material damping, the attenuation with distance can be quite low. Fortunately, there is an observable tendency for the vibration amplitude to attenuate with distance, especially beyond 100 or 200 feet from the track, and, as a general rule, receivers close to the track are more prone to vibration impact than distant receivers. The cause of this attenuation includes material damping and scattering of wave energy to lower strata by surface in-homogeneity, such as outcrops, boulders, and, to a lesser extent, building foundations. The attenuation is highly frequency dependent, with increasing attenuation with increasing frequency.

Variation of frequency peaks in the vibration spectrum with train speed further complicates prediction. Waves in the rail and wheel run-out will necessarily cause peaks in the vibration spectrum that change frequency with train speed. The data shown in Figure 2 and 3 clearly show this effect. However, even in this case, the overall vibration velocity tends to decrease with train speed, and a reasonable assumption is that the overall vibration velocity amplitude varies linearly with train speed. This is equivalent to saying that the energy of ground vibration is directly proportional to the kinetic energy of the train.

Shear Stiffness

One of the most significant factors in wayside ground vibration is the shear stiffness of the soil, especially at low frequencies. The stiffer the soil, the lower the vibration. As a first approximation, the vibration amplitude is inversely proportional to the soil's shear modulus. The shear modulus is equal to the product of the soil density and the square of the shear wave propagation velocity. Thus, given the shear wave velocity, which may be easily measured, and the soil density, which does not vary greatly from one soil to the next from about 110 lbs/ft^3 , or 1,700 kg/m^3, for non-cohesive soils, the shear stiffness is determined. (Rock, on the other hand, has a higher density of roughly 3,000 kg/m^3.) Examples of shear wave velocities and densities for typical soils are presented in Table 4.[13]

Also shown in the table are the shear moduli inferred from the data given in the table. Given the same force, the vibration response of fine-grained sand may be as much as five times greater than that of Loess at natural moisture, explaining the variation of vibration amplitude from one area to the next. The shear stiffness of competent Westerly Granite is provided for comparison, and is roughly 100 or 200 times greater than that of soil. The density of Westerly Granite is also much higher than that of soil. Weathered rock near the ground surface is normally fractured, with lower shear stiffness than that of competent granite. Nevertheless, weathered rock is generally much stiffer and denser than soil, and the vibration response of weathered rock is much lower than that of soils.

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[13]D. D. Barkan, *Dynamics of Bases and Foundations*, Trans. Russion by L. Drashevska and G. P. Tschebotarioff, McGraw-Hill Book Company, New York, 1962. Pg. 316

The soil at the immediate surface is of less importance than that below. At 20 Hz, the wavelength of vibration for a shear wave velocity of 200 m/sec is of the order of 10 m, which is much greater than a top-soil layer of perhaps 1 meter thickness. The top soil layer will simply follow the motion of the lower soil layers. Similarly, the response of a shallow soil layer over rock would be controlled by the rock at low frequencies, and one may conclude that vibration on thin top soil over rock would be much lower than if the soil layer were very deep. Areas located in mountainous areas may have very shallow soil layers, so that vibration response in these areas may be very low. However, near rivers, there may be deep deposits of sands and gravels that concentrate vibration energy and amplify vibration amplitude through resonance of the deposit.

In contrast, a soft soil layer of moderate thickness (5 to 10 meter) over a hard soil or rock base can concentrate moderate frequency vibration near the surface. The amplitude of vibration can be expected to be as much as a factor of 3 (10 dB) higher than that for a uniform soil extending to great depth.

Many of the towns and cities through which the DM&E alignment passes are located on river flood plains, with soils that are expected to be of fine grained sands and gravels. Thus, the vibration responses in these areas should be greater than at locations removed from the rivers, where the soil may consist of clays overlain by loams. These river bottom areas should be considered prone to vibration impact, unless available soils reports indicate the presence of shallow rock strata within a meter of the surface.

Engineering soils reports obtained during construction of buildings or other civil structures should be reviewed to determine the nature of soils along the alignment. Most engineering soils reports do not provide data on shear stiffness or shear wave propagation velocity. Fortunately, an empirical relationship exists between shear wave velocity and the blow count obtained during soil sampling with a standard spoon and 140 lb driller's hammer. The relation is summarized in Table 5 along with estimates of shear stiffness based on the indicated shear wave velocity and soil density of 1,760 kg/m^2. The data indicate that sandy soils with low blow count have the lowest shear wave velocity and lowest shear modulus. Sandy soils with low blow counts are thus expected to support higher vibration levels than clay or indurated sands with relatively high blow counts. Soils reports containing blow counts, or "N-values", and soil descriptions can be reviewed to estimate shear stiffness and obtain a qualitative indication of the vibration impact potential at specific structures or along specific sections of right-of-way. Once these are identified, more detailed investigations can be conducted.

Existing Levels

Measurements of ground vibration from existing trains can be conducted in sensitive areas. In particular, vibration produced by passing locomotives may be used as a baseline from which vibration from loaded hopper cars can be estimated. The measurement data obtained at Kamloops indicate that the ground vibration velocity for loaded hopper cars is about 2 to 4 dB higher than that for locomotives. (Usually, locomotives produce greater vibration than do freight cars, but the weight of loaded hopper cars appears to produce the opposite effect.) Thus, measuring ground vibration

during passage of two or three locomotives operating in tandem and adjusting the levels upward by 3 dB (factor of 1.4) would provide an excellent estimate of loaded hopper cars on that track. However, replacement of the rail will change the vibration spectrum, and care must be exercised in selecting new track to avoid increasing vibration in critical areas.

Attenuation With Distance

Vibration attenuation with distance is the result of spreading losses and material losses. Spreading loss occurs as the vibration energy travels away and spreads out, thus reducing the vibration energy density in the ground. For point sources, the spreading loss for waves radiated into the ground as body waves produces an attenuation rate of 6 dB per doubling of distance from the source, and for a line source, such as a train, the attenuation rate would be 3 dB per doubling of distance. Most of the vibration energy, at least at low frequencies, is radiated away from the source as Rayleigh surface waves, for which the spreading losses for point and line sources are 3 and 0 dB per doubling of distance, respectively. Trains are necessarily line sources, and thus one may expect little or no attenuation with distance due to spreading losses where the vibration energy is carried away as surface waves, or where the vibration energy is concentrated near the surface by layering of the soil. In practice, however, vibration levels do attenuate with increasing distance from trains. For practical estimates of ground vibration from trains, the spreading loss attenuation may used for estimating vibration attenuation with distance between about 10 and 30 meters from the track.

Vibration produced by single locomotives would likely attenuate with distance at a higher rate than vibration produced by a long consist of unit coal hopper cars, because the single locomotive appears more as a point source than a line source. Thus, measurements of locomotive vibration should include a location at about 50 feet from the track, and preferably with 2 or 3 locomotives in tandem, to allow scaling for unit coal train vibration. Additional measurements at 100 and 200 feet from track should be included to assess attenuation with distance.

Beyond some distance (3 or 4 wavelengths), material damping in the soil becomes significant. Material damping is caused by friction between soil particles or between the water and soil structure. These are energy absorbing mechanisms, which are distinct from spreading loss effects. Material damping provides additional attenuation with distance than geometric spreading losses, and will dominate the attenuation rate at sufficiently large distances. Material damping is described by a loss factor, or alternatively by the quality factor, Q. High Q soils have low loss factors, and thus low attenuation with distance rates.

Structure Amplification

Finally, resonance amplification by the floors of buildings would increase vibration levels by roughly 3 to 6 dB, depending on the proximity of the floor resonance frequencies to the peak in the ground vibration spectrum. Floor resonance frequencies are typically between 8 and 16 Hz, and are thus well within the range of ground vibration from trains. The foundation response may attenuate vibration, thus partially canceling the effect of floor resonance amplification. An upward adjustment of 6 dB (a factor of 2) should be added to ground vibration data to estimate residential wood frame

floor vibration. (More detailed data can be provided for these estimates.) Concrete slab-on-grade floors, however, do not significantly amplify ground vibration. Approximately 2 dB attenuation per floor may be expected with increasing height of multi-story structures.

Regression Analysis of Vibration Velocity

To simplify the modeling of vibration level versus distance and speed, the overall rms vibration velocity levels observed at the most significant site at Kamloops were used to develop a regression curve of vibration velocity level versus the logarithm of distance and logarithm of speed for rail with either undulation or no undulation in the rail head profile. The formula is:

$$Lv\ (\text{dB re 1 micro-in/sec}) = L_0 + 19.9\ \text{Log}_{10}S(\text{mph}) - 4.9\ \text{Log}_{10}D(\text{meter})$$

where L_0 = 65.0dBV for undulating rail and 56.5dBV for straight rail. The results of this analysis are presented in Figure 9 for speeds of 20, 35, and 50 mph. Figure 9 indicates that there is little attenuation with distance, but that the speed dependence is strong. More importantly, the difference between undulating rail and straight rail is quite large. This formula represents a actual ground vibration caused by heavy unit train operations.

Between 3 and 6 dB would be added to the velocity levels predicted by the above formula and given in Figure 9 to obtain floor vibration velocity levels in wood frame structures on spread footing foundations. There would be no adjustment for slab-on-grade floors.

The peak particle velocity can be estimated from the rms velocity by adding about 14 dB to the vibration velocity level, and calculating the peak velocity as:

$$\text{PPV (in/sec)} = 10^{-6}\ \text{in/sec} \times 10^{(Lv\ (\text{dBV re 1 micro-in/sec})+14)/20}$$

Where L_v is the level of the overall vibration velocity level in decibels relative to 1 micro-in/sec. Figure 10 illustrates the estimated variation of peak particle velocity for unit train operation on soft soils. Two sets of curves are given: one for rail with undulation, and the other for straight rail with maximum deviation of, perhaps, plus or minus 0.4 mm in any section measuring three meters in length. The curves shown in Figure 10 should not be used for distances within 10 m, or thirty feet, from the track, because the static deflection of the ground due to the moving static loads of the vehicle trucks may be significant.

Example

As an example, the rms vibration velocity level at 10 meters (about 30 feet, the edge of a typical 60 ft right of way) is about 94 dBV for loaded hopper cars traveling at 50 mph on undulating rail. This level is well in excess of criteria for human response to vibration, the effects of floor resonance amplification notwithstanding. If 6 decibels were added to represent structural responses, the rms vibration level would be 100 dB, or 0.1 inch/sec. Thus, substantial community reaction would be expected.

The corresponding estimated peak particle velocity at 10 m from the track with for undulating rail would be:

$$PPV\ (in/sec) = 10^{-6}\ in/sec \times 10^{(94dBV+14)/20} = 0.25\ in/sec$$

This is above the damage criterion for residential structures, suggesting that loaded hopper cars traveling at 50 mph on undulating rail could cause structural damage to nearby residences at the right-of-way line. This prediction may be excessive, because the peak velocity could be significantly less than 14 dB above the rms velocity level for a cyclic vibration produced by undulating rail compared to random vibration.

With non-undulating rail, the predicted rms vibration velocity level at 10 m is 86dBV, which is also above the human response criteria for residential areas, but comparable with criterion for commercial spaces. The peak particle velocity would be about 0.1 in/sec, comparable with criterion for damage to historical structures, but within the criterion for residential structures. A modest speed reduction would reduce the vibration below the damage criterion.

The above formulas are approximate, and there exists substantial uncertainty. They are conservative, in that they represent a severe condition not often found, but are probably realistic for river bottom areas with deep soft mud or sandy soils. Actual vibration velocity levels could also exceed those predicted here. Also, where rail undulation is concerned, the 14 dB crest factor to be added to the vibration velocity level may be excessive, due to the sinusoidal rather than random nature of the vibration. For a pure sinusoid, the crest factor is 3 dB (factor of 1.4), rather than 14 dB (a factor of 5). Where these formulas indicate a potential for vibration impact, field measurements with existing trains should be considered.

Static Load Effects

The static load of the of the train may have a pronounced effect on vibration and static deflection of the ground within 10 meters of the track. For example, assuming a shear modulus for the soil, G, of 10,000 psi, and a static load, P, for each truck of a loaded hopper car of 200,000 pounds, the horizontal and vertical deflections of the soil at a distance, r, of 10 feet, or about 3 meters, from the track center would be given, respectively, by:[14]

$$u = \frac{P(1-2\nu)}{4\pi rG} \qquad\qquad w = \frac{P(1-\nu)}{2\pi rG}$$

In the above, υ, is the Poisson ratio, which can be assumed to be about 0.35, and a consistent set of units is assumed. Using these formulas, with appropriate unit conversions, the lateral and vertical peak deflections would be 0.0026 and 0.012 in, respectively. Assuming a 60 foot long hopper car with average truck spacing of 30 feet traveling at 50 mph, the corresponding peak particle velocity

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[14]Timoshenko & Goodier, **Theory of Elasticity,** McGraw-Hill, 1951. Pg. 365

would be of the order of 0.040 and 0.176 in/sec, respectively. The vector sum would be about 0.18 in/sec. These values scale as *1/r*, so that at 10 feet from the source, the magnitudes would be 50% higher, giving a vector sum of 0.27 in/sec. These magnitudes would be summed with vibration caused by rail and wheel roughness, using a root-sum-square formula (energy sum). Increasing soil stiffness with depth will reduce the above magnitude estimates. Conversely, softer soils would produce higher levels. The shear stiffness would be of the order of 2,000 psi for a soil with shear wave velocity 300 ft/sec. In this situation, the amplitudes would be increased by a factor of 5 over those predicted above! This discussion is particularly relevant to the Mankato flood wall.

TABLE 4 SEISMIC VELOCITY AND SHEAR MODULI FOR VARIOUS TYPES OF SOIL

Soil	Density - kg/m^3	c_s - m/sec	Shear Modulus - 10^6 N/m^2
Moist Clay[1]	1,760	150	39.6
Loess at natural moisture[1]	1,640	260	111
Dense Sand and Gravel[1]	1,670	250	104
Fine Grained Sand[1]	1,620	110	19.6
Medium Grained Sand[1]	1,620	160	41.5
Medium Sized Gravel[1]	1,760	180	57.0
Granite, Westerly[2]	2,500	3,000	22,500

[1]D. D. Barkan, *Dynamics of Bases and Foundations,* McGraw-Hill, 1962, pg. 316

[2]Jaeger & Cook, *Fundamentals of Rock Mechanics*, Chapman & Hall, 1984, pg. 146

TABLE 5 SEISMIC VELOCITY AND SHEAR STIFFNESS VERSUS BLOW COUNT FOR SANDS AND CLAYS

Blow Count	Sand		Clay	
	Shear Wave Velocity - m/sec -	Shear Stiffness - 10^6 N/m^2	Shear Wave Velocity - m/sec -	Shear Stiffness - 10^6 N/m^2
2	25	1.1	110	21
5	48	4.1	200	70
10	70	8.6	310	170
20	110	21		
50	240	100		

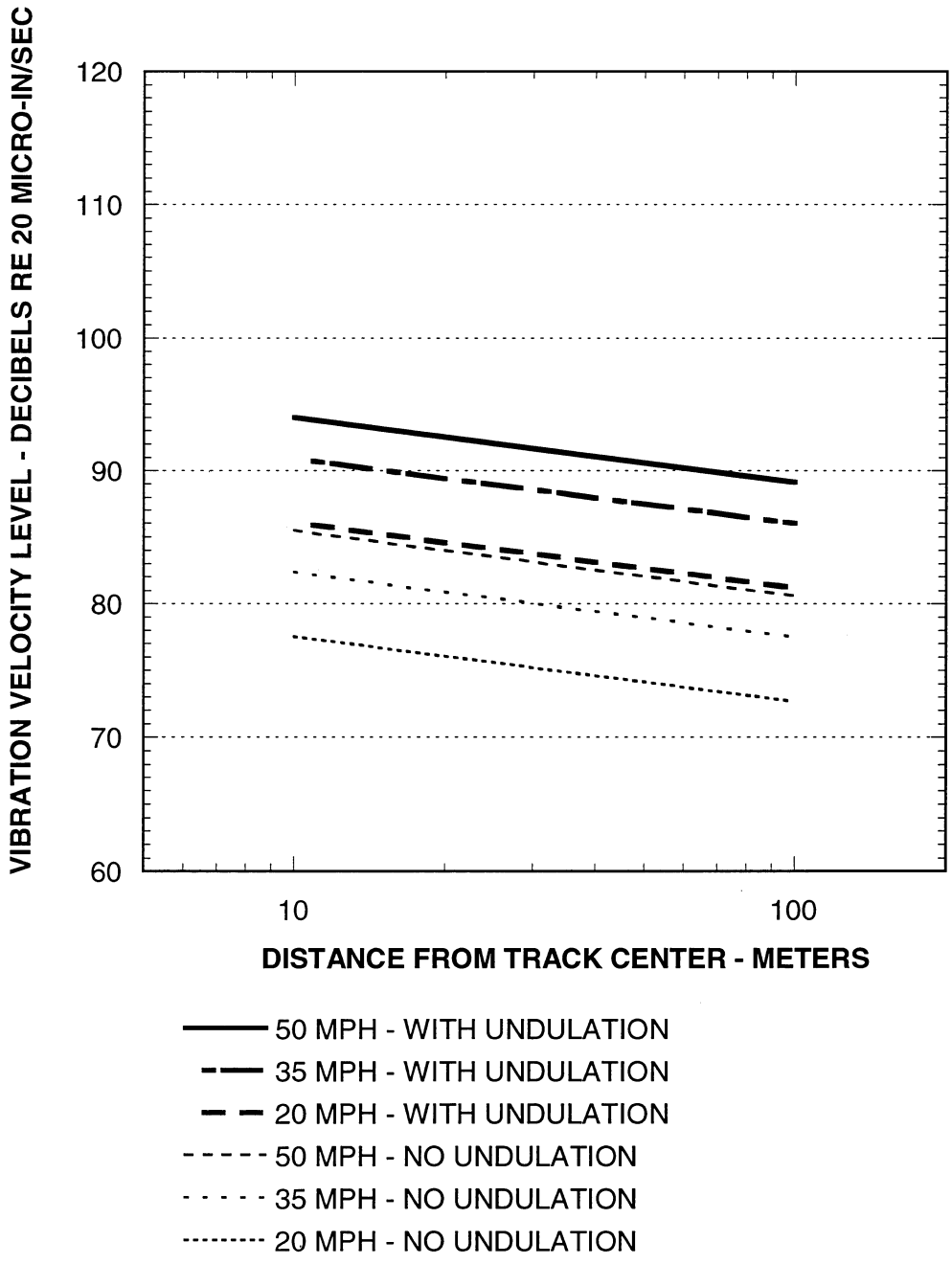

FIGURE 9 OVERALL RMS VIBRATION VELOCITY LEVEL VERSUS TRAIN SPEED AND DISTANCE FROM TRACK CENTER

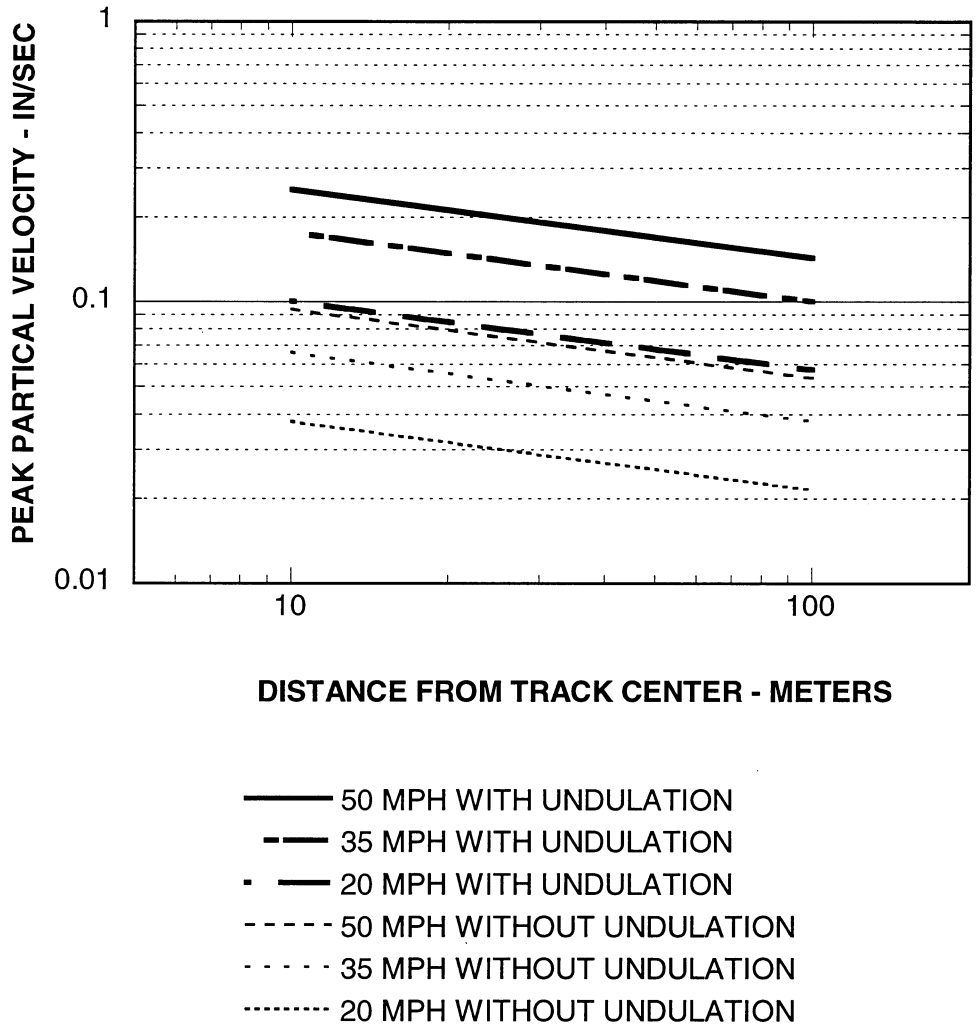

FIGURE 10 PEAK PARTICLE VELOCITY (PPV) VERSUS TRAIN SPEED AND DISTANCE FROM TRACK CENTER

5. VIBRATION IMPACT MITIGATION

Vibration impact can be mitigated to varying degrees with the following methods:

Rail Straightness Specification

Rail grinding

Wheel maintenance and truing

Selection of locations for cross-overs and turnouts

Selection of moveable point frogs at cross-overs and turnouts near sensitive receivers

Grouting of soft porous soils to increase stiffness

Pile supported track

Vibration isolated track

Each of these are discussed in detail below.

Rail Straightness Specification

Rail undulation has a direct bearing on wayside ground vibration, and rail straightened to stringent specifications can reduce vibration to levels less than that produced by gag-pressed rail. Such rail is difficult to obtain in the United States, but is available from European manufacturers. Where new rail is installed in sensitive areas with soft soils and sensitive receivers within a few hundred feet of the track, the procurement specification can include a requirement for straightness. A reasonable requirement is that the maximum deviation of the rail head from straight shall not exceed plus or minus fifteen thousandths of and inch (+/- 0.015", or 0.4 mm) over any length of rail measuring three yards in length (or three meters in length). A longer length would be desirable, though possibly impractical to verify in the field. This specification is similar to that used by European manufacturers. Rail does not straighten with time and use, but assumes the shape established during its manufacture. The only way to reliably rectify a track with undulating rail is to replace the rail. Rail grinding cannot remove long wave undulation.

Rail Grinding

Rail grinding is always desirable to control ground vibration and wayside noise. Rail grinding would be most effective for surface roughness of wavelength less than about 1 meter, which is highly dependent on the type of grinding machine. Rail grinding would likely be performed on a regular basis to control rail head wear, especially at curves. Asymmetrical rail head profiles can be employed to promote radial steering of vehicle bogies, thus reducing corrugation and vibration. Rail head

profiles will be determined primarily by wear reduction strategies. Controlling wear should be compatible with noise and vibration control.

Wheel Truing

Wheel truing can effectively control wheel roughness and thus ground vibration. Wheels must be maintained with low radial run-out to avoid low frequency vibration associated with the wheel rotation. The effects of radial run-out are identical to rail undulation, and may be distinguishable only by the frequency of the vibration. However, wheel truing might not be practiced by the railroad. In this case, replacement of anomalous wheel sets would have to be done to control vibration.

Selection of Locations for Cross-Overs and Turnouts

Cross-overs and turnouts are often sources of ground vibration as well as noise. Cross-over frogs and turnouts should be located away from sensitive receivers to control ground vibration, though relocation is impractical in urban industrial areas served by spurs. In this case, moveable point frogs may be employed. Careful grinding of the frogs can help to control vibration, though under heavy impact loads, specific frog geometries may be difficult to maintain.

Moveable Point Frogs

Moveable point frogs are effective in controlling low frequency vibration and noise produced at cross-overs and turnouts. Certain long-haul freight and unit train operators use moveable point frogs to reduce wear regardless of vibration control benefits. These should be considered for cross-overs and turnouts in sensitive areas. The ancillary benefit of reduced wear may pay for the installation over time.

Soil Stabilization

Soft porous granular soils may be stabilized with grout to stiffen the soil and thus reduce the amount of vibration energy that can be transmitted into the ground. Lime treatments may be used for clays. Soil stabilization would be most effective in loose sandy areas, such as creek bottoms, and may have other beneficial effects on track performance under heavy axle loads.

Pile Supported Track

Increasing the track stiffness with piling provided beneath the track has been shown to reduce ground vibration. As with soil stabilization, increasing the track stiffness reduces the amount of vibration energy that is transmitted into the soil. Piling may be impractical in urban areas due to buried utilities, and the cost is substantial.

Vibration Isolated Track

Floating slab track have been used to control ground vibration and noise at rail transit systems. The design resonance of the isolation system is of the order of 8 to 12 Hz. However, the cost of floating slab track may be substantial. Secondly, where low vibration may occur below 16 Hz, floating slab track may actually exacerbate ground vibration, and would thus be ill-advised.

Ballast Mats

Ballast mats are effective in reducing ground vibration at frequencies above 30 Hz. Some amplification of vibration may be expected below 30 Hz, thus possibly exacerbating ground vibration from unit trains. Ballast mats would not be effective in soft soils for this reason, but could be beneficial in areas of stiff soils where high frequency vibration is of concern.

Other Mitigation Measures

Other mitigation measures might included resilient direct fixation fasteners or trenching. Unfortunately, resilient direct fixation fasteners are not effective below 30 Hz, and they are unlikely to provide greater vibration reduction than ballasted track. Trenching and backfilling with light-weight foam has been proposed at some rail transportation systems, but the trench would have to be of substantial depth to be effective. For vibration at a frequency of 16 Hz in a soil with 400 ft/sec shear wave velocity, the depth would have to be of the order of 25 feet. Experiments indicate a relatively modest vibration reduction of 3 to 6 dB above 30 Hz with this type of treatment. The treatment is not considered practical for railroad application except under unusual circumstances.

6. CONCLUSION

Introduction of unit trains with loaded hopper cars would increase both the magnitude and occurrence of ground vibration relative to that produced by limited freight operations. The vibration may be similar to that produced by unit trains with hopper cars filled with grain, if not more. However, unit trains transporting grain would be less common than the proposed volume of traffic for unit trains transporting coal. Provision of continuous welded rail may not maintain ground vibration magnitudes below current levels, and may actually produce the opposite and detrimental effect of raising vibration levels if rail straightness is not controlled. A specification for rail straightness would help to control this eventuality.

Ground vibration from unit trains would likely exceed criteria for human perception within distances of 60 m or 200 feet in areas with soft soils. Many of the towns and cities along the alignment in river bottom areas are probably in this category. Many of these receivers may already be experiencing vibration in excess of criteria for various land use, and setting a vibration criterion to be less than the existing vibration would be unrealistic. A relatively modest increase in ground vibration (of the order of 50% in amplitude) can make an otherwise acceptable vibration environment unacceptable

to sensitive receivers, resulting in substantial court action and concern by residents over building damage.

Ground vibration from trains would likely be within criteria recommended here for building damage. However, the long-term effect of vibration on structures is poorly known. Further, within 50 or 100 feet (15 or 30 m) of the track, ground vibration could exceed the criteria for residential building damage recommended here for areas with soft soils if rail with excessive undulation is employed. Thus, some margin of safety should be considered in design.

Measurements of existing ground vibration produced by DM&E freight trains should be conducted to establish the severity and significance of ground vibration at sensitive receivers. This can be done relatively efficiently, and the data would provide an excellent basis for final assessment of impact. The type of rail (whether gag pressed or roller straightened), rail manufacturer, and train consist parameters such as number of cars, locomotives, loading condition, and speed should be included with the data.

APPENDIX G

Traffic and Transportation

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APPENDIX G
TRAFFIC AND TRANSPORTATION

This appendix contains SEA's approach to traffic and transportation issues. SEA conducted the evaluation according to accepted engineering procedures consistent with those used in other studies involving railroad mergers and constructions.

G.1 DATA SOURCES AND TYPES

For data sources and types for transportation effects at highway/rail at-grade crossings, SEA obtained data for the identification and evaluation of highway/rail at-grade crossings from available Federal Railroad Administration (FRA) location and inventory databases. This data included the following factors for analysis:

- State
- County
- FRA crossing identification number
- Number of trains
- Average daily vehicular traffic
- Train Speed

SEA supplemented the FRA database with field observations and information supplied by DM&E and state officials.

G.2 TRANSPORTATION EFFECTS AT HIGHWAY/ RAIL AT-GRADE CROSSINGS

Traffic delays at highway/rail at-grade crossings increase in direct proportion to increases in train volumes if other factors remain the same. SEA developed methods to quantify traffic delays at highway/rail at-grade crossings due to increased freight train traffic on existing rail line segments. For this analysis, SEA further refined the initial screening because some highway/rail at-grade crossings experience very low traffic volumes. SEA determined that the potential impact of freight train increases would be experienced by very few drivers at low-volume highway/rail at-grade crossings. For this reason, SEA eliminated roadways with average daily traffic (ADT) volumes below 5,000 vehicles from further study.

SEA estimated vehicular traffic delay at highway/rail at-grade crossings. Factors in the vehicle delay analysis included:

- The number of trains per day.
- The time it takes a train to pass the highway/rail at-grade crossing.
- The roadway traffic volumes.

SEA calculated several values for each highway/rail at-grade crossing included in the analysis. SEA examined pre-construction and post-construction conditions for the following:

- Blocked crossing time per train.
- Average vehicular delay
- Number of vehicles delayed per day
- Maximum vehicle queue
- Average delay for all vehicles
- Traffic level of service (LOS)

The following sections describe the methods used to measure vehicle delay at highway/rail at-grade crossings.

G.2.1 Blocked Crossing Time per Train

SEA estimated the time required for a train to pass by the intersecting roadway. SEA called this the "blocked crossing time." SEA used this measurement in later calculations to determine the length of time drivers wait when trains pass an highway/rail at-grade crossing. SEA used the following equation, presented in FRA's "Guidebook For Planning To Alleviate Urban Railroad Problems[1]," to estimate blocked crossing time for the highway/rail at-grade crossings:

$$TB = \frac{L}{Vx88} + 0.50$$

Where:

TB = The time during which a train blocks a grade crossing, or blocking time, in minutes.
L = Length of the train in feet. SEA assumed a train length of 6,400 feet for pre-Construction, and 6,400 and 7,400 feet for post-Construction.
V = Train speed, in miles per hour.
88 = Conversion factor from miles per hour to feet per minute.
0.50 = Allowance to account for delay after the last vehicle clears the crossing, in minutes.

G.2.2 Average Vehicular Delay

The "average vehicular delay" is the average amount of time a driver would have to wait at an highway/rail at-grade crossing when traffic is stopped to let a train pass. SEA assumed that drivers arrive at a crossing in a uniformly distributed manner. SEA calculated

[1] Federal Railroad Administration, *Guidebook For Planning to Alleviate Urban Railroad Problems*, June 1972, DOT-FR-20037

the delay using the following equation from the FRA's *Guidebook for Planning to Alleviate Urban Railroad Problems:*

$$TD = 0.5 \times TB + 0.3$$

Where:

TD= Average vehicular delay, in minutes.
0.5= Averaging factor. Assuming uniform arrivals, the average vehicle will be delayed half the time it takes the crossing to clear.
0.3= An allowance for queue dissipation, in minutes.

G.2.3 Number of Vehicles Delayed Per Day

The "number of vehicles delayed per day" represents the number of drivers in a 24-hour period that would be stopped for trains at highway/rail at-grade crossings. SEA estimated the number of vehicles delayed per day from the following equation:

$$V_D = \frac{TB}{1,440} \times N \times ADT$$

Where:

V_D = Number of vehicles delayed per day.
TB= The time during which a train blocks a grade crossing, or blocking time, in minutes.
1,440= Minutes per day.
N= Number of trains per day.
ADT= Average daily traffic.

G.2.4 Maximum Vehicle Queue

The "maximum vehicle queue" is the estimated longest line of autos, trucks, and buses that would occur under the proposed operating levels. SEA assumed this would occur during peak hours of roadway traffic. SEA estimated the maximum vehicle queue from the following equation:

$$Q = ADT \times 0.1 \times \frac{0.6}{60} \times \frac{TB}{NL/2}$$

Where:

Q = Maximum vehicle queue in peak hour (number of vehicles).
ADT = Average daily traffic from state DOT for highway/rail at-grade crossings.
0.1 = Ten percent factor to convert ADT to peak-hour traffic.
0.6 = Sixty percent factor to convert two-way traffic to peak direction traffic.

60 = Factor to convert traffic volume per hour to traffic volume per minute.
TB = The time during which a train blocks a grade crossing, or blocking time in minutes.
NL = Number of roadway lanes at the highway/rail at-grade crossing.
2 = Factor to convert total number of roadway lanes to number of lanes in peak direction.

G.2.5 Average Delay for all Vehicles

$$D_v = TB \times N \times TD \times \frac{24}{1{,}440} \times 0.0833$$

Where:

D_v = Average delay for all vehicles, in minutes per vehicle.
TB = The time during which a train blocks a grade crossing, or blocking time, in minutes.
N = Number of trains per day.
TD = Average vehicular delay, in minutes.
24 = Number of hours per day.
1,440 = Number of minutes per day.
0.0833 = Double the uniform hourly traffic as a proportion of daily traffic. This doubling factor results in a conservative estimate of vehicle delay.

G.2.6 Traffic Level of Service (LOS)

The Highway Capacity Manual (HCM)[2] is required for use by each state for capacity-related analysis. The HCM governs the functional facility parameters needed to meet specified levels of performance. Currently, the HCM does not specifically address LOS at highway/ rail at-grade intersections. However, highway/rail intersections do share some of the same characteristics of the two-way stop controlled intersection (TWSC) that is addressed.

LOS for intersections is defined in terms of vehicle delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. LOS is stated in terms of average total delay per vehicle for a given analysis period. Delay is usually measured in the field or calculated using complex empirical methods presented in the manual. Because of the lack of empirical procedures for highway/rail at-grade intersections,

[2] Transportation Research Board, *Highway Capacity Manual, Special Report 209, Third Edition.* 1994.

the analytical formulas previously described in this appendix will be used for the delay analysis.

Similar to a TWSC intersection, an highway/rail intersection involves an interaction between drivers on the minor or stop-controlled approach with drivers (train) on the major approach. Like a TWSC intersection, the major traffic (train) is assumed not to be impeded at any time by minor street flows. Also, the variability in the amount delay experienced at a TWSC intersection is similar to that experienced at a highway/rail intersection.

Although, the highway/rail intersection and TWSC intersection have their similarities, they also have several obvious differences. For example, highway/rail crossings lack turning movements that impact the capacity of the intersection. In addition, depending on the type of warning device and the presence of a train, drivers on the minor approach are not always required to stop.

SEA recognizes that because of these differences, LOS criteria presented in the HCM for TWSC intersections may not be completely representative of the conditions at highway/ rail intersections. However, the thresholds can be beneficial if used as a measurement for ranking the crossings in terms of delay severity.

HCM defines LOS as "a quantitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety". It is expressed as letter grades ranging from level of service A (free flowing) to F (severely congested) and is measured by the average total delay of all vehicles. This delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The relationship of levels of service to the ranges of average total delay as presented in Table 10-3 of the HCM and as shown below.

Level of Service	Average Total Delay (sec/vehicle)
A	≤5
B	> 5 and ≤10
C	>10 and ≤20
D	>20 and ≤30
E	>30 and ≤45
F	>45

LOS A describes operations with very low delay, up to 5 seconds (sec) per vehicle. This level of service occurs when progression is extremely favorable. Most vehicles do not stop at all.

LOS B describes operations with delay greater than 5 and up to 10 sec per vehicle. This level generally occurs with good progression. More vehicles stop than with LOS A, causing higher levels of average delay.

LOS C describes operations with delay greater than 10 and up to 20 sec per vehicle. These higher delays may result from fair progression. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with delay greater than 20 and up to 30 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression. Many vehicles stop, and the proportion of vehicles not stopping declines.

LOS E describes operations with delay greater than 30 and up to 45 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression and high volume to capacity (v/c) ratios.

LOS F describes operations with delay in excess of 45 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with over saturation. Poor progression may also be a major contributing cause to such delay levels.

G.3 CRITERIA OF SIGNIFICANCE FOR TRANSPORTATION EFFECTS AT HIGHWAY/RAIL AT-GRADE CROSSINGS

SEA established criteria of significance for vehicular delay at highway/rail at-grade crossings based on the increase in crossing delay per vehicle and the increase in delay for all vehicles. SEA determined that a significant impact would occur if vehicle delay at highway/rail at-grade crossings increased by 30 seconds. This increase represents a driver tolerance threshold above which the driver perceives added delay for an intermittent blocked crossing event. The crossing delay per vehicle is not directly related to level of service since this delay represents only those individual drivers stopped at the highway/rail at-grade crossing.

SEA converted average delay for all vehicles directly to levels of service and established level of service C or better as satisfactory. SEA determined that a significant impact would result if the increase in delay per vehicle resulted in (1) a post-construction level of service E or F no matter what the pre-construction condition or (2) a reduction from a pre-construction level of service C or better to a post-construction level of service D or worse.

G.3.1 Screening Criteria for Consideration of Grade Separated Crossings

SEA developed measures to identify highway/railroad at-grade crossings where state and local agencies should give additional consideration to determine if a grade separated crossing would be warranted. SEA selected screening criteria to identify grade crossings where there would be a significant degradation in level of service as a result of the proposed construction as well as added delay impacts as a result of significant increases in proposed train traffic. The option of mitigating these conditions through closing the crossing, upgrading warning devices, improving track circuitry or adjusting train operations need also be unfeasible for consideration of grade separations.

The specific screening criteria that SEA determined must all be met to warrant further consideration of a separated grade crossing are as follows:

- Post-Construction roadway traffic LOS would decrease at least one LOS grade and the Post-Construction LOS would be at LOS E or F.
- Construction-related train traffic would increase by at least eight trains per day.
- Increased train speeds would appear not to be feasible or sufficient to mitigate construction-related delay impacts.

The cost to grade separate a crossing can be substantial ($5-20 million or more) and the decision should not be based solely upon the outcome of the screening criteria described above. The decision to grade separate a crossing should be based on a benefit/cost analysis that takes into consideration the aggregate benefits from many factors. These factors include reduced accident potential, travel time savings, improvements in travel reliability, reduced environmental costs, vehicle operating cost savings, and roadway network impacts. The Federal Railroad Administration has developed the Highway-Rail Grade Crossing Investment Decision Support Tool "GradeDec," which is a software package that can be used by state and local agencies to assist in making informed decisions about when to grade separate a crossing.

GradeDec describes the following grade separation benefits that should be considered at highway/railroad crossings:

Safety

The probability of grade crossing accidents between vehicles and trains can be reduced through technological improvements at the grade crossing. The benefits accruing to society as a result of reduced vehicle/train accidents from reducing the statistical likelihood of loss of life and limb and property damage from vehicle/train accidents should be evaluated.

Travel Time Savings

Travel time benefits of a grade crossing improvement are due to the change in delay experienced by the highway vehicles at the grade crossing. Grade crossing delay is the amount of time highway traffic is blocked at the highway-rail grade crossing. The travel time benefit for highway vehicles is measured as reduced vehicle hours of delay.

System Reliability

Highway system reliability is the reduction in the variance of travel time for highway users. A reduction in accidents at a grade-crossing means fewer delay-causing incidents on the highway network. The reduced variance of travel time due to a grade-crossing improvement is a direct function of the probability of being delayed at a highway/rail grade crossing due to an accident.

Environmental Benefits

Environmental benefits result from a more efficient transportation network and accrue to society at large. Environmental benefits are calculated as the reduction in highway vehicle emissions in the highway network in the immediate neighborhood of the grade crossing and the reduction in locomotive emissions along the rail corridor as the result of a grade crossing improvement.

Vehicle Operating Cost Savings

Vehicle operating cost savings result from the improvements at the highway/rail grade crossing. Grade crossing upgrades improve traffic flows, which result in decreased fuel and oil consumption by highway vehicles.

Network Benefits

Network benefits for the neighboring highway network at each grade crossing takes

into account the average queue length over the approaching highway segments and the distance to the nearest major highway intersection.

Corridor Benefits

The corridor-level benefits from grade crossing improvements are the aggregate benefits estimated for each individual grade crossing. A simple sum can be used to aggregate the safety benefits, travel time benefits, reliability benefits, operating cost benefits, and environmental benefits.

In addition to the above factors, NCHRP Report 288[3] identifies rail operations, community and environmental factors, and institutional issues as primary concerns when making a decision. These concerns are described below.

Rail Operations

Benefits resulting from potential changes in rail operations, such as, restricting the time of day the train operates through the crossing; using movement patterns that reduce the blockage time; or closing a rail line and consolidating operations to a parallel rail line if one exists. However, the secondary impacts of these effects will also need to be considered. Secondary impacts include the vehicular congestion that may be caused at an adjacent crossing as a result of the crossing improvement under consideration.

Community and Environmental Considerations

Community and environmental issues to consider when evaluating a grade separation include the displacement of land and structures through right-of-way acquisition; disruption of land uses and community activity patterns; reductions in economic activity and property values; degradation of air, water, and aesthetic/scenic resources; and increased noise levels.

Institutional Considerations

The determination of a grade separation may be limited by certain institutional constraints. For example, the crossing jurisdiction may reside with the state agency (e.g., the public utility, public service commission, or DOT) that may not be able to solely influence the decision regarding the grade separation. Many states have authority over the roadways on the their state highway system but the opportunity to make an improvement may be on a local road or street where only the local government has jurisdiction. There may also be institutional constraints in the laws governing railroads, in the charter of the particular railroad, or in land deeds through which the railroad obtained its right-of-way.

[3] Transportation Research Board, *Evaluating Grade-Separated Rail And Highway Crossing Alternatives*, National Cooperative Highway Research Program Report 288, June 1987.

G.4 EMERGENCY VEHICLE RESPONSE

In many communities, response to emergency incidents by fire, police, and emergency medical service (EMS) vehicles require crossing railroad tracks at an highway/rail at-grade crossing. The potential exists for the crossing to be blocked by a train, delaying the emergency vehicle.

The evaluation of the effect of the construction on emergency vehicle response involves the measurement of increased vehicle delay. SEA measured vehicle delay in two ways. One measure is the crossing delay per stopped vehicle. The second measure is the total daily crossing blockage time. The following sections describe the methods used to measure emergency vehicle delay at highway/rail at-grade crossings.

G.4.1 Crossing Delay Per Stopped Vehicle

The "crossing delay per stopped vehicle" is the average amount of time a driver would have to wait at an highway/rail at-grade crossing when traffic is stopped to let a train pass. This is described earlier in this section of the appendix.

G.4.2 Total Daily Blocked Crossing Time

"Total daily blocked crossing time" is an indicator of the risk of delay since it indirectly measures the probability that an highway/rail at-grade crossing would be blocked at the time an emergency vehicle would need to cross the tracks. SEA developed the total daily blocked crossing time by multiplying the blocked crossing time per train by the number of daily trains, as shown with the following equation:

$$D_B = N \times [L / V \times 88 + 0.50]$$

Where:

D_B = Total daily blocked highway/rail at-grade crossing time, in minutes.
L= Length of train, expressed in feet.
N= Number or trains per day.
V= Train speed, in miles per hour

88= Conversion factor from miles per hour to feet per minute
0.50= Time in minutes for gate closing and opening prior to and after the passage of the train.

SEA compared the pre-construction and post-construction vehicle delays for affected

rail line segments and facilities and considered possible mitigation measures. This information is presented in Chapter 5 in the appropriate state discussions.

G.5 TRANSPORTATION ANALYSIS RESULTS

Tables 3-MN-G1 through 4-WY-G140 of this appendix show the results of the transportation analysis. Pre- and Post-construction vehicle delays are included for both 6,400 feet and 7,400 feet trains. The train lengths are analyzed at the 20, 50, and 100 MNT levels of operation.

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ATTACHMENT

Transportation Tables

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Table No.	Title		
3-MN-G1	Pre/Post Construction Delays	Minnesota 20 MNT	Train Length=6,400 Feet
3-MN-G2	Pre/Post Construction Delays	Minnesota 20 MNT	Train Length=7,400 Feet
3-MN-G3	Pre/Post Construction Delays	Minnesota 50 MNT	Train Length=6,400 Feet
3-MN-G4	Pre/Post Construction Delays	Minnesota 50 MNT	Train Length=7,400 Feet
3-MN-G5	Pre/Post Construction Delays	Minnesota 100 MNT	Train Length=6,400 Feet
3-MN-G6	Pre/Post Construction Delays	Minnesota 100 MNT	Train Length=7,400 Feet
4-SD-G7	Pre/Post Construction Delays	South Dakota 20 MNT	Train Length=6,400 Feet
4-SD-G8	Pre/Post Construction Delays	South Dakota 20 MNT	Train Length=7,400 Feet
4-SD-G9	Pre/Post Construction Delays	South Dakota 50 MNT	Train Length=6,400 Feet
4-SD-G10	Pre/Post Construction Delays	South Dakota 50 MNT	Train Length=7,400 Feet
4-SD-G10a	Pre/Post Construction Delays	South Dakota 100 MNT	Train Length=6,400 Feet
4-SD-G10b	Pre/Post Construction Delays	South Dakota 100 MNT	Train Length=7,400 Feet
4-WY-G11	Post Construction Delays	Wyoming 20 MNT, Alternative B	Train Length=6,400 Feet
4-WY-G12	Post Construction Delays	Wyoming 20 MNT, Alternative B	Train Length=7,400 Feet
4-WY-G13	Post Construction Delays	Wyoming 50 MNT, Alternative B	Train Length=6,400 Feet
4-WY-G14	Post Construction Delays	Wyoming 50 MNT, Alternative B	Train Length=7,400 Feet
4-WY-G15	Post Construction Delays	Wyoming 100 MNT, Alternative B	Train Length=6,400 Feet
4-WY-G16	Post Construction Delays	Wyoming 100 MNT, Alternative B	Train Length=7,400 Feet
4-WY-G17	Post Construction Delays	Wyoming 20 MNT, Alternative C	Train Length=6,400 Feet
4-WY-G18	Post Construction Delays	Wyoming 20 MNT, Alternative C	Train Length=7,400 Feet
4-WY-G19	Post Construction Delays	Wyoming 50 MNT, Alternative C	Train Length=6,400 Feet
4-WY-G20	Post Construction Delays	Wyoming 50 MNT, Alternative C	Train Length=7,400 Feet
4-WY-G21	Post Construction Delays	Wyoming 100 MNT, Alternative C	Train Length=6,400 Feet
4-WY-G22	Post Construction Delays	Wyoming 100 MNT, Alternative C	Train Length=7,400 Feet
4-WY-G23	Pre/Post Construction Delays	Wyoming 20 MNT, Alternative D	Train Length=6,400 Feet
4-WY-G24	Pre/Post Construction Delays	Wyoming 20 MNT, Alternative D	Train Length=7,400 Feet
4-WY-G24a	Pre/Post Construction Delays	Wyoming 50 MNT, Alternative D	Train Length=6,400 Feet
4-WY-G24b	Pre/Post Construction Delays	Wyoming 50 MNT, Alternative D	Train Length=7,400 Feet

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4-WY-G26	Pre/Post Construction Delays	Wyoming 100 MNT, Alternative D	Train Length=7,400 Feet
4-SD-G27	Pre/Post Construction Delays	Brookings Existing Alignment, 20MNT, Alternative B	Train Length=6,400 Feet
4-SD-G28	Pre/Post Construction Delays	Brookings Existing Alignment, 20MNT, Alternative B	Train Length=7,400 Feet
4-SD-G29	Pre/Post Construction Delays	Brookings Existing Alignment, 50MNT, Alternative B	Train Length=6,400 Feet
4-SD-G30	Pre/Post Construction Delays	Brookings Existing Alignment, 50MNT, Alternative B	Train Length=7,400 Feet
4-SD-G31	Pre/Post Construction Delays	Brookings Existing Alignment, 100MNT, Alternative B	Train Length=6,400 Feet
4-SD-G32	Pre/Post Construction Delays	Brookings Existing Alignment, 100MNT, Alternative B	Train Length=7,400 Feet
3-MN-G33	Pre/Post Construction Delays	Rochester Existing Alignment- 20MNT	Train Length=6,400 Feet
3-MN-G34	Pre/Post Construction Delays	Rochester Existing Alignment- 20MNT	Train Length=7,400 Feet
3-MN-G35	Pre/Post Construction Delays	Rochester Existing Alignment- 50MNT	Train Length=6,400 Feet
3-MN-G36	Pre/Post Construction Delays	Rochester Existing Alignment- 50MNT	Train Length=7,400 Feet
3-MN-G37	Pre/Post Construction Delays	Rochester Existing Alignment- 100MNT	Train Length=6,400 Feet
3-MN-G38	Pre/Post Construction Delays	Rochester Existing Alignment- 100MNT	Train Length=7,400 Feet
3-MN-G39	Pre/Post Construction Delays	Owatonna Existing Alignment -20MNT	Train Length=6,400 Feet
3-MN-G40	Pre/Post Construction Delays	Owatonna Existing Alignment -20MNT	Train Length=7,400 Feet
3-MN-G41	Pre/Post Construction Delays	Owatonna Existing Alignment -50MNT	Train Length=6,400 Feet
3-MN-G42	Pre/Post Construction Delays	Owatonna Existing Alignment -50MNT	Train Length=7,400 Feet
3-MN-G43	Pre/Post Construction Delays	Owatonna Existing Alignment -100MNT	Train Length=6,400 Feet

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3-MN-G44	Pre/Post Construction Delays	Owatonna Existing Alignment -100MNT	Train Length=7,400 Feet
3-MN-G45	Pre/Post Construction Delays	Mankato Existing Alignment -20MNT	Train Length=6,400 Feet
3-MN-G46	Pre/Post Construction Delays	Mankato Existing Alignment -20MNT	Train Length=7,400 Feet
3-MN-G47	Pre/Post Construction Delays	Mankato Existing Alignment -50MNT	Train Length=6,400 Feet
3-MN-G48	Pre/Post Construction Delays	Mankato Existing Alignment -50MNT	Train Length=7,400 Feet
3-MN-G49	Pre/Post Construction Delays	Mankato Existing Alignment -100MNT	Train Length=6,400 Feet
3-MN-G50	Pre/Post Construction Delays	Mankato Existing Alignment -100MNT	Train Length=7,400 Feet
4-SD-G51	Post Construction Delays	Brookings Bypass, Alternative B-3, 20MNT	Train Length=6,400 Feet
4-SD-G52	Post Construction Delays	Brookings Bypass, Alternative B-3, 20MNT	Train Length=7,400 Feet
4-SD-G53	Post Construction Delays	Brookings Bypass, Alternative B-3, 50MNT	Train Length=6,400 Feet
4-SD-G54	Post Construction Delays	Brookings Bypass, Alternative B-3, 50MNT	Train Length=7,400 Feet
4-SD-G55	Post Construction Delays	Brookings Bypass, Alternative B-3,100MNT	Train Length=6,400 Feet
4-SD-G56	Post Construction Delays	Brookings Bypass, Alternative B-3,100MNT	Train Length=7,400 Feet
4-SD-G57	Post Construction Delays	Brookings Bypass, Alternative B-4, 20MNT	Train Length=6,400 Feet
4-SD-G58	Post Construction Delays	Brookings Bypass, Alternative B-4, 20MNT	Train Length=7,400 Feet
4-SD-G59	Post Construction Delays	Brookings Bypass, Alternative B-4, 50MNT	Train Length=6,400 Feet
4-SD-G60	Post Construction Delays	Brookings Bypass, Alternative B-4, 50MNT	Train Length=7,400 Feet
4-SD-G61	Post Construction Delays	Brookings Bypass, Alternative B-4,100MNT	Train Length=6,400 Feet
4-SD-G62	Post Construction Delays	Brookings Bypass, Alternative B-4,100MNT	Train Length=7,400 Feet
3-MN-G63	Pre/Post Construction Delays	Winona Existing Alignment, 20MNT	Train Length=6,400 Feet
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3-MN-G67	Pre/Post Construction Delays	Winona Existing Alignment, 100MNT	Train Length=6,400 Feet
3-MN-G68	Pre/Post Construction Delays	Winona Existing Alignment, 100MNT	Train Length=7,400 Feet
3-MN-G69	Post Construction Delays	Rochester South Bypass, Alternative R-3, 20MNT	Train Length=6,400 Feet
3-MN-G70	Post Construction Delays	Rochester South Bypass, Alternative R-3, 20MNT	Train Length=7,400 Feet
3-MN-G71	Post Construction Delays	Rochester South Bypass, Alternative R-3, 50MNT	Train Length=6,400 Feet
3-MN-G72	Post Construction Delays	Rochester South Bypass, Alternative R-3, 50MNT	Train Length=7,400 Feet
3-MN-G73	Post Construction Delays	Rochester South Bypass, Alternative R-3,100MNT	Train Length=6,400 Feet
3-MN-G74	Post Construction Delays	Rochester South Bypass, Alternative R-3,100MNT	Train Length=7,400 Feet
3-MN-G75	Post Construction Delays	Rochester South Bypass, Alternative R-4, 20MNT	Train Length=6,400 Feet
3-MN-G76	Post Construction Delays	Rochester South Bypass, Alternative R-4, 20MNT	Train Length=7,400 Feet
3-MN-G77	Post Construction Delays	Rochester South Bypass, Alternative R-4, 50MNT	Train Length=6,400 Feet
3-MN-G78	Post Construction Delays	Rochester South Bypass, Alternative R-4, 50MNT	Train Length=7,400 Feet
3-MN-G79	Post Construction Delays	Rochester South Bypass, Alternative R-4,100MNT	Train Length=6,400 Feet
3-MN-G80	Post Construction Delays	Rochester South Bypass, Alternative R-4,100MNT	Train Length=7,400 Feet
3-MN-G81	Post Construction Delays	Owatonna South Bypass, Alternative O-4, 20MNT	Train Length=6,400 Feet
3-MN-G82	Post Construction Delays	Owatonna South Bypass, Alternative O-4, 20MNT	Train Length=7,400 Feet
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3-MN-G85	Post Construction Delays	Owatonna South Bypass, Alternative O-4, 100MNT	Train Length=6,400 Feet
3-MN-G86	Post Construction Delays	Owatonna South Bypass, Alternative O-4, 100MNT	Train Length=7,400 Feet
3-MN-G87	Post Construction Delays	Owatonna South Bypass, Alternative O-5, 20MNT	Train Length=6,400 Feet
3-MN-G88	Post Construction Delays	Owatonna South Bypass, Alternative O-5, 20MNT	Train Length=7,400 Feet
3-MN-G89	Post Construction Delays	Owatonna South Bypass, Alternative O-5, 50MNT	Train Length=6,400 Feet
3-MN-G90	Post Construction Delays	Owatonna South Bypass, Alternative O-5, 50MNT	Train Length=7,400 Feet
3-MN-G91	Post Construction Delays	Owatonna South Bypass, Alternative O-5, 100MNT	Train Length=6,400 Feet
3-MN-G92	Post Construction Delays	Owatonna South Bypass, Alternative O-5, 100MNT	Train Length=7,400 Feet
3-MN-G93	Post Construction Delays	Mankato Bypass, Alternative M-2, 20MNT	Train Length=6,400 Feet
3-MN-G94	Post Construction Delays	Mankato Bypass, Alternative M-2, 20MNT	Train Length=7,400 Feet
3-MN-G95	Post Construction Delays	Mankato Bypass, Alternative M-2, 50MNT	Train Length=6,400 Feet
3-MN-G96	Post Construction Delays	Mankato Bypass, Alternative M-2, 50MNT	Train Length=7,400 Feet
3-MN-G97	Post Construction Delays	Mankato Bypass, Alternative M-2, 100MNT	Train Length=6,400 Feet
3-MN-G98	Post Construction Delays	Mankato Bypass, Alternative M-2, 100MNT	Train Length=7,400 Feet
4-SD-G99	Pre/Post Construction Delays	South Dakota- 20MNT, Alternative B	Train Length=6,400 Feet
4-SD-G100	Pre/Post Construction Delays	South Dakota- 20MNT, Alternative B	Train Length=7,400 Feet
4-SD-G101	Pre/Post Construction Delays	South Dakota- 50MNT, Alternative B	Train Length=6,400 Feet
4-SD-G102	Pre/Post Construction Delays	South Dakota- 50MNT, Alternative B	Train Length=7,400 Feet
4-SD-G103	Pre/Post Construction Delays	South Dakota- 100MNT, Alternative B	Train Length=6,400 Feet

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4-SD-G105	Post Construction Delays	South Dakota- 20MNT, Alternative C	Train Length=6,400 Feet
4-SD-G106	Post Construction Delays	South Dakota- 20MNT, Alternative C	Train Length=7,400 Feet
4-SD-G107	Post Construction Delays	South Dakota, 20MNT, Route C New Cost. Alternatives	Train Length=6,400 Feet
4-SD-G108	Post Construction Delays	South Dakota, 20MNT, Route C New Cost. Alternatives	Train Length=7,400 Feet
4-SD-G109	Post Construction Delays	South Dakota- 50MNT, Alternative C	Train Length=6,400 Feet
4-SD-G110	Post Construction Delays	South Dakota- 50MNT, Alternative C	Train Length=7,400 Feet
4-SD-G111	Post Construction Delays	South Dakota, 50MNT, Route C New Cost. Alternatives	Train Length=6,400 Feet
4-SD-G112	Post Construction Delays	South Dakota, 50MNT, Route C New Cost. Alternatives	Train Length=7,400 Feet
4-SD-G113	Post Construction Delays	South Dakota- 100MNT, Alternative C	Train Length=6,400 Feet
4-SD-G114	Post Construction Delays	South Dakota- 100MNT, Alternative C	Train Length=7,400 Feet
4-SD-G115	Post Construction Delays	South Dakota, 100MNT, Route C New Cost. Alternatives	Train Length=6,400 Feet
4-SD-G116	Post Construction Delays	South Dakota, 100MNT, Route C New Cost. Alternatives	Train Length=7,400 Feet
4-SD-G117	Pre/Post Construction Delays	South Dakota, 20 MNT, Alternative D	Train Length=6,400 Feet
4-SD-G118	Pre/Post Construction Delays	South Dakota, 20 MNT, Alternative D	Train Length=7,400 Feet
4-SD-G119	Pre/Post Construction Delays	South Dakota, 50 MNT, Alternative D	Train Length=6,400 Feet
4-SD-G120	Pre/Post Construction Delays	South Dakota, 50 MNT, Alternative D	Train Length=7,400 Feet
4-SD-G121	Pre/Post Construction Delays	South Dakota, 100 MNT, Alternative D	Train Length=6,400 Feet
4-SD-G122	Pre/Post Construction Delays	South Dakota, 100 MNT, Alternative D	Train Length=7,400 Feet
4-WY-G123	Post Construction Delays	Wyoming, 20 MNT, Alternative B	Train Length=6,400 Feet
4-WY-G124	Post Construction Delays	Wyoming, 20 MNT, Alternative B	Train Length=7,400 Feet
4-WY-G125	Post Construction Delays	Wyoming, 50 MNT, Alternative B	Train Length=6,400 Feet
4-WY-G126	Post Construction Delays	Wyoming, 50 MNT, Alternative B	Train Length=7,400 Feet

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4-WY-G128	Post Construction Delays	Wyoming, 100 MNT, Alternative B	Train Length=7,400 Feet
4-WY-G129	Post Construction Delays	Wyoming, 20 MNT, Alternative C	Train Length=6,400 Feet
4-WY-G130	Post Construction Delays	Wyoming, 20 MNT, Alternative C	Train Length=7,400 Feet
4-WY-G131	Post Construction Delays	Wyoming, 50 MNT, Alternative C	Train Length=6,400 Feet
4-WY-G132	Post Construction Delays	Wyoming, 50 MNT, Alternative C	Train Length=7,400 Feet
4-WY-G133	Post Construction Delays	Wyoming,100 MNT, Alternative C	Train Length=6,400 Feet
4-WY-G134	Post Construction Delays	Wyoming,100 MNT, Alternative C	Train Length=7,400 Feet
4-WY-G135	Pre/Post Construction Delays	Wyoming, 20 MNT, Alternative D	Train Length=6,400 Feet
4-WY-G136	Pre/Post Construction Delays	Wyoming, 20 MNT, Alternative D	Train Length=7,400 Feet
4-WY-G137	Pre/Post Construction Delays	Wyoming, 50 MNT, Alternative D	Train Length=6,400 Feet
4-WY-G138	Pre/Post Construction Delays	Wyoming, 50 MNT, Alternative D	Train Length=7,400 Feet
4-WY-G139	Pre/Post Construction Delays	Wyoming,100 MNT, Alternative D	Train Length=6,400 Feet
4-WY-G140	Pre/Post Construction Delays	Wyoming,100 MNT, Alternative D	Train Length=7,400 Feet

Pre/Post-Construction Delays
Minnesota 20 MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 1 Winona to Lewiston MP 0 to 18.4																						
193317H	520	1	460	24	6400	10	0.4	3.5	2.1	11.3	3.2	6.1	45.0	6400	11	0.5	2.1	1.4	7.4	1.9	2.6	-0.7	NO
193197K	620	1	100	24	6400	10	0.4	3.5	2.1	2.5	0.7	6.1	45.0	6400	11	0.5	2.1	1.4	1.6	0.4	2.6	-0.7	NO
193200R	000860	2	2500	24	6400	10	0.4	3.5	2.1	61.3	8.8	6.1	45.0	6400	11	0.5	2.1	1.4	40.4	5.3	2.6	-0.7	NO
193176S	000930	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.7	NO
193201X	001110	2	1750	24	6400	10	0.4	3.5	2.1	42.9	6.2	6.1	45.0	6400	11	0.5	2.1	1.4	28.3	3.7	2.6	-0.7	NO
193206G	001680	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	25.0	6400	11	0.5	3.4	2.0	1.4	0.2	6.3	-0.1	NO
193207N	001780	2	1850	24	6400	10	0.4	3.5	2.1	45.4	6.5	6.1	45.0	6400	11	0.5	2.1	1.4	29.9	3.9	2.6	-0.7	NO
193209C	001840	2	1700	24	6400	10	0.4	3.5	2.1	41.7	6.0	6.1	45.0	6400	11	0.5	2.1	1.4	27.5	3.6	2.6	-0.7	NO
Segment 2 Lewiston to Owatonna MP 18.4 to 88.1																						
193210W	1900	1	55	20	6400	12	0.5	4.1	2.4	1.9	0.5	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.2	2.6	-1.0	NO
193211D	002090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193247L	002190	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	6400	11	0.5	2.1	1.4	5.0	0.7	2.6	-1.0	NO
193248T	002270	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-1.0	NO
193249A	2300	1	39	20	6400	12	0.5	4.1	2.4	1.3	0.3	9.8	45.0	6400	11	0.5	2.1	1.4	0.6	0.2	2.6	-1.0	NO
193250U	002400	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193251B	2540	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193253P	002650	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	6400	11	0.5	2.1	1.4	9.2	1.2	2.6	-1.0	NO
193193H	2780	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	6400	11	0.5	2.1	1.4	8.1	1.1	2.6	-1.0	NO
193254W	002820	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	6400	11	0.5	2.1	1.4	6.1	1.6	2.6	-1.0	NO
193255D	002840	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	6400	11	0.5	2.1	1.4	8.9	1.2	2.6	-1.0	NO
193256K	002850	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193257S	002870	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	6400	11	0.5	2.1	1.4	2.8	0.4	2.6	-1.0	NO
193194P	2900	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193258Y	003010	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	6400	11	0.5	2.1	1.4	1.3	0.2	2.6	-1.0	NO
193259F	003040	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	6400	11	0.5	2.1	1.4	76.0	5.0	2.6	-1.0	NO
193195W	003090	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	6400	11	0.5	2.1	1.4	5.9	0.8	2.6	-1.0	NO
193260A	003220	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193261G	003420	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	6400	11	0.5	2.1	1.4	2.5	0.3	2.6	-1.0	NO
193262N	003530	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	6400	11	0.5	2.1	1.4	24.2	3.2	2.6	-1.0	NO
193263V	003680	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	6400	11	0.5	2.1	1.4	56.8	7.4	2.6	-1.0	NO
193289X	006130	2	670	20	6400	12	0.5	4.1	2.4	23.1	2.8	9.8	45.0	6400	11	0.5	2.1	1.4	10.8	1.4	2.6	-1.0	NO
193290S	006230	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193291Y	006350	2	2750	20	6400	12	0.5	4.1	2.4	94.8	11.4	9.8	45.0	6400	11	0.5	2.1	1.4	44.5	5.8	2.6	-1.0	NO
193292F	006360	2	610	20	6400	12	0.5	4.1	2.4	21.0	2.5	9.8	45.0	6400	11	0.5	2.1	1.4	9.9	1.3	2.6	-1.0	NO
193293M	006370	2	360	20	6400	12	0.5	4.1	2.4	12.4	1.5	9.8	45.0	6400	11	0.5	2.1	1.4	5.8	0.8	2.6	-1.0	NO
193294U	006430	2	860	20	6400	12	0.5	4.1	2.4	29.6	3.6	9.8	45.0	6400	11	0.5	2.1	1.4	13.9	1.8	2.6	-1.0	NO
196630L	006520	2	7900	20	6400	12	0.5	4.1	2.4	272.3	32.7	9.8	45.0	6400	11	0.5	2.1	1.4	127.7	16.7	2.6	-1.0	NO
193296H	006530	2	60	20	6400	12	0.5	4.1	2.4	2.1	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	1.0	0.1	2.6	-1.0	NO
193357W	006630	2	540	20	6400	12	0.5	4.1	2.4	18.6	2.2	9.8	45.0	6400	11	0.5	2.1	1.4	8.7	1.1	2.6	-1.0	NO
193358D	006740	2	45	20	6400	12	0.5	4.1	2.4	1.6	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-1.0	NO
193359K	006840	2	135	20	6400	12	0.5	4.1	2.4	4.7	0.6	9.8	45.0	6400	11	0.5	2.1	1.4	2.2	0.3	2.6	-1.0	NO
193297P	006890	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-1.0	NO
193360E	006900	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-1.0	NO
193361L	006910	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-1.0	NO
193298W	006920	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-1.0	NO
193362T	006930	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-1.0	NO
193299D	006940	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-1.0	NO
193363A	006950	2	3300	20	6400	12	0.5	4.1	2.4	113.8	13.7	9.8	45.0	6400	11	0.5	2.1	1.4	53.3	7.0	2.6	-1.0	NO
193300V	007000	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	6400	11	0.5	2.1	1.4	8.1	1.1	2.6	-1.0	NO

Pre/Post-Construction Delays
Minnesota 20 MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction									Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193364G	007140	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193303R	7190	2	10	20	6400	12	0.5	4.1	2.4	0.3	0.0	9.8	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-1.0	NO
193365N	007270	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	6400	11	0.5	2.1	1.4	5.0	0.7	2.6	-1.0	NO
193366V	007320	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-1.0	NO
193367C	7370	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193368J	007480	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193369R	007580	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	6400	11	0.5	2.1	1.4	9.2	1.2	2.6	-1.0	NO
193370K	007640	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	6400	11	0.5	2.1	1.4	6.1	1.6	2.6	-1.0	NO
193371S	007680	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	6400	11	0.5	2.1	1.4	8.9	1.2	2.6	-1.0	NO
193307T	007780	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193372Y	007980	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	6400	11	0.5	2.1	1.4	2.8	0.4	2.6	-1.0	NO
193373F	008090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193311H	8130	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193374M	008180	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	6400	11	0.5	2.1	1.4	1.3	0.2	2.6	-1.0	NO
193375U	008290	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	6400	11	0.5	2.1	1.4	76.0	5.0	2.6	-1.0	NO
193376B	008390	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	6400	11	0.5	2.1	1.4	5.9	0.8	2.6	-1.0	NO
193312P	008500	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-1.0	NO
193377H	008540	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	6400	11	0.5	2.1	1.4	2.5	0.3	2.6	-1.0	NO
193382E	8740	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	6400	11	0.5	2.1	1.4	24.2	3.2	2.6	-1.0	NO
380294J	8750	2	200	20	6400	12	0.5	4.1	2.4	6.9	0.8	9.8	45.0	6400	11	0.5	2.1	1.4	3.2	0.4	2.6	-1.0	NO
187034M	8760	1	200	20	6400	12	0.5	4.1	2.4	6.9	1.7	9.8	45.0	6400	11	0.5	2.1	1.4	3.2	0.8	2.6	-1.0	NO
187033F	008776	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	6400	11	0.5	2.1	1.4	56.8	7.4	2.6	-1.0	NO
187032Y	8780	2	2000	20	6400	12	0.5	4.1	2.4	68.9	8.3	9.8	45.0	6400	11	0.5	2.1	1.4	32.3	4.2	2.6	-1.0	NO
Segment 3 Owatonna to Waseca MP 88.1 to 102.5																							
193383L	8830	4	2515	23	6400	14	0.6	3.7	2.1	89.5	4.6	9.1	45.0	6400	11	0.5	2.1	1.4	40.7	2.7	2.6	-0.8	NO
193384T	008840	4	6800	23	6400	14	0.6	3.7	2.1	242.1	12.5	9.1	45.0	6400	11	0.5	2.1	1.4	109.9	7.2	2.6	-0.8	NO
193388V	008890	2	5600	23	6400	14	0.6	3.7	2.1	199.4	20.5	9.1	45.0	6400	11	0.5	2.1	1.4	90.5	11.9	2.6	-0.8	NO
193390W	008950	2	125	23	6400	14	0.6	3.7	2.1	4.5	0.5	9.1	45.0	6400	11	0.5	2.1	1.4	2.0	0.3	2.6	-0.8	NO
193391D	008970	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	6400	11	0.5	2.1	1.4	43.6	5.7	2.6	-0.8	NO
193392K	009030	2	70	23	6400	14	0.6	3.7	2.1	2.5	0.3	9.1	45.0	6400	11	0.5	2.1	1.4	1.1	0.1	2.6	-0.8	NO
193394Y	9250	4	290	23	6400	14	0.6	3.7	2.1	10.3	0.5	9.1	45.0	6400	11	0.5	2.1	1.4	4.7	0.3	2.6	-0.8	NO
193395F	9350	2	100	23	6400	14	0.6	3.7	2.1	3.6	0.4	9.1	45.0	6400	11	0.5	2.1	1.4	1.6	0.2	2.6	-0.8	NO
193397U	009640	2	555	23	6400	14	0.6	3.7	2.1	19.8	2.0	9.1	45.0	6400	11	0.5	2.1	1.4	9.0	1.2	2.6	-0.8	NO
193398B	009780	2	55	23	6400	14	0.6	3.7	2.1	2.0	0.2	9.1	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193399H	009930	1	10	23	6400	14	0.6	3.7	2.1	0.4	0.1	9.1	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.8	NO
193400A	010090	2	500	23	6400	14	0.6	3.7	2.1	17.8	1.8	9.1	45.0	6400	11	0.5	2.1	1.4	8.1	1.1	2.6	-0.8	NO
193403V	010180	2	2000	23	6400	14	0.6	3.7	2.1	71.2	7.3	9.1	45.0	6400	11	0.5	2.1	1.4	32.3	4.2	2.6	-0.8	NO
193404C	010200	2	200	23	6400	14	0.6	3.7	2.1	7.1	0.7	9.1	45.0	6400	11	0.5	2.1	1.4	3.2	0.4	2.6	-0.8	NO
193405J	010220	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	6400	11	0.5	2.1	1.4	43.6	5.7	2.6	-0.8	NO
193406R	010250	2	7900	23	6400	14	0.6	3.7	2.1	281.3	28.9	9.1	45.0	6400	11	0.5	2.1	1.4	127.7	16.7	2.6	-0.8	NO
Segment 4 Waseca to Walnut Grove MP 102.5 to 219																							
193314D	010260	2	1050	23	6400	10	0.4	3.7	2.1	26.7	3.8	6.5	45.0	6400	11	0.5	2.1	1.4	17.0	2.2	2.6	-0.8	NO
193315K	010270	2	2700	23	6400	10	0.4	3.7	2.1	68.7	9.9	6.5	45.0	6400	11	0.5	2.1	1.4	43.6	5.7	2.6	-0.8	NO
193317Y	010340	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	6400	11	0.5	2.1	1.4	10.5	1.4	2.6	-0.8	NO
193318F	010380	2	2600	23	6400	10	0.4	3.7	2.1	66.1	9.5	6.5	45.0	6400	11	0.5	2.1	1.4	42.0	5.5	2.6	-0.8	NO
193320G	010460	2	810	23	6400	10	0.4	3.7	2.1	20.6	3.0	6.5	45.0	6400	11	0.5	2.1	1.4	13.1	1.7	2.6	-0.8	NO
193322V	010620	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193324J	010730	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193326X	010850	2	190	23	6400	10	0.4	3.7	2.1	4.8	0.7	6.5	45.0	6400	11	0.5	2.1	1.4	3.1	0.4	2.6	-0.8	NO
193328L	010960	2	10	23	6400	10	0.4	3.7	2.1	0.3	0.0	6.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.8	NO

Pre/Post-Construction Delays
Minnesota 20 MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193329T	11020	2	20	23	6400	10	0.4	3.7	2.1	0.5	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.8	NO
193341A	011090	2	110	23	6400	10	0.4	3.7	2.1	2.8	0.4	6.5	45.0	6400	11	0.5	2.1	1.4	1.8	0.2	2.6	-0.8	NO
193342G	11190	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	11	0.5	2.1	1.4	1.6	0.2	2.6	-0.8	NO
193344V	011260	2	1100	23	6400	10	0.4	3.7	2.1	28.0	4.0	6.5	45.0	6400	11	0.5	2.1	1.4	17.8	2.3	2.6	-0.8	NO
193346J	011280	2	1900	23	6400	10	0.4	3.7	2.1	48.3	7.0	6.5	45.0	6400	11	0.5	2.1	1.4	30.7	4.0	2.6	-0.8	NO
193348X	011300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
193349E	011310	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
193354B	011510	2	275	23	6400	10	0.4	3.7	2.1	7.0	1.0	6.5	45.0	6400	11	0.5	2.1	1.4	4.4	0.6	2.6	-0.8	NO
193356P	011630	2	565	23	6400	10	0.4	3.7	2.1	14.4	2.1	6.5	45.0	6400	11	0.5	2.1	1.4	9.1	1.2	2.6	-0.8	NO
193407X	011660	2	235	23	6400	10	0.4	3.7	2.1	6.0	0.9	6.5	45.0	6400	11	0.5	2.1	1.4	3.8	0.5	2.6	-0.8	NO
193410F	11750	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	11	0.5	2.1	1.4	1.6	0.2	2.6	-0.8	NO
193408E	011870	2	85	23	6400	10	0.4	3.7	2.1	2.2	0.3	6.5	45.0	6400	11	0.5	2.1	1.4	1.4	0.2	2.6	-0.8	NO
193411M	011980	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	6400	11	0.5	2.1	1.4	1.2	0.2	2.6	-0.8	NO
193414H	012080	2	39	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.8	NO
193509R	14720	1	100	23	6400	10	0.4	3.7	2.1	2.5	0.7	6.5	45.0	6400	11	0.5	2.1	1.4	1.6	0.4	2.6	-0.8	NO
193480V	14890	2	52	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-0.8	NO
193481C	14980	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	6400	11	0.5	2.1	1.4	15.7	2.1	2.6	-0.8	NO
193482J	14990	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	1.0	0.1	2.6	-0.8	NO
193483R	15020	1	55	23	6400	10	0.4	3.7	2.1	1.4	0.4	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.2	2.6	-0.8	NO
193484X	15630	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	11	0.5	2.1	1.4	2.6	0.3	2.6	-0.8	NO
193485E	15660	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	6400	11	0.5	2.1	1.4	1.3	0.2	2.6	-0.8	NO
193487T	15810	2	750	23	6400	10	0.4	3.7	2.1	19.1	2.7	6.5	45.0	6400	11	0.5	2.1	1.4	12.1	1.6	2.6	-0.8	NO
193571H	16060	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	11	0.5	2.1	1.4	1.6	0.2	2.6	-0.8	NO
193522E	16270	2	115	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	6400	11	0.5	2.1	1.4	1.9	0.2	2.6	-0.8	NO
192523L	16310	2	50	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-0.8	NO
193488A	16410	4	5300	23	6400	10	0.4	3.7	2.1	134.8	9.7	6.5	45.0	6400	11	0.5	2.1	1.4	85.7	5.6	2.6	-0.8	NO
196260K	16440	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	11	0.5	2.1	1.4	10.2	1.3	2.6	-0.8	NO
196261S	16460	2	800	23	6400	10	0.4	3.7	2.1	20.3	2.9	6.5	45.0	6400	11	0.5	2.1	1.4	12.9	1.7	2.6	-0.8	NO
193491H	016490	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	6400	11	0.5	2.1	1.4	10.5	1.4	2.6	-0.8	NO
193492P	16520	2	770	23	6400	10	0.4	3.7	2.1	19.6	2.8	6.5	45.0	6400	11	0.5	2.1	1.4	12.4	1.6	2.6	-0.8	NO
193493W	016540	2	1400	23	6400	10	0.4	3.7	2.1	35.6	5.1	6.5	45.0	6400	11	0.5	2.1	1.4	22.6	3.0	2.6	-0.8	NO
193494D	016550	2	1200	23	6400	10	0.4	3.7	2.1	30.5	4.4	6.5	45.0	6400	11	0.5	2.1	1.4	19.4	2.5	2.6	-0.8	NO
193525A	016558	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	11	0.5	2.1	1.4	10.2	1.3	2.6	-0.8	NO
193537U	16570	2	1750	23	6400	10	0.4	3.7	2.1	44.5	6.4	6.5	45.0	6400	11	0.5	2.1	1.4	28.3	3.7	2.6	-0.8	NO
193536M	16680	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	6400	11	0.5	2.1	1.4	15.7	2.1	2.6	-0.8	NO
911203V	16720	2	3500	23	6400	10	0.4	3.7	2.1	89.0	12.8	6.5	45.0	6400	11	0.5	2.1	1.4	56.6	7.4	2.6	-0.8	NO
193560N	16800	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	11	0.5	2.1	1.4	10.2	1.3	2.6	-0.8	NO
193572H	016950	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	1.0	0.1	2.6	-0.8	NO
193573P	017050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193579F	017150	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193574W	017250	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.8	NO
193546T	017310	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	6400	11	0.5	2.1	1.4	1.3	0.2	2.6	-0.8	NO
193575D	017360	2	355	23	6400	10	0.4	3.7	2.1	9.0	1.3	6.5	45.0	6400	11	0.5	2.1	1.4	5.7	0.8	2.6	-0.8	NO
193547A	017370	2	780	23	6400	10	0.4	3.7	2.1	19.8	2.9	6.5	45.0	6400	11	0.5	2.1	1.4	12.6	1.7	2.6	-0.8	NO
193548G	017510	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193577S	17670	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	11	0.5	2.1	1.4	2.6	0.3	2.6	-0.8	NO
193578Y	017780	2	116	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	6400	11	0.5	2.1	1.4	1.9	0.2	2.6	-0.8	NO
193558M	017970	2	3100	23	6400	10	0.4	3.7	2.1	78.8	11.4	6.5	45.0	6400	11	0.5	2.1	1.4	50.1	6.6	2.6	-0.8	NO
193557F	017980	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
193584C	017990	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	6400	11	0.5	2.1	1.4	14.5	1.9	2.6	-0.8	NO
193553D	018040	2	580	23	6400	10	0.4	3.7	2.1	14.7	2.1	6.5	45.0	6400	11	0.5	2.1	1.4	9.4	1.2	2.6	-0.8	NO
193554K	018090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193588E	018280	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.8	NO
193589L	018380	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	6400	11	0.5	2.1	1.4	9.7	1.3	2.6	-0.8	NO

Pre/Post-Construction Delays
Minnesota 20 MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193590F	018600	2	130	23	6400	10	0.4	3.7	2.1	3.3	0.5	6.5	45.0	6400	11	0.5	2.1	1.4	2.1	0.3	2.6	-0.8	NO
193591M	018610	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
193592U	018700	2	48	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-0.8	NO
193594H	018870	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193595P	018940	2	480	23	6400	10	0.4	3.7	2.1	12.2	1.8	6.5	45.0	6400	11	0.5	2.1	1.4	7.8	1.0	2.6	-0.8	NO
193596W	019050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193610P	019140	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
911204C	19260	2	1250	23	6400	10	0.4	3.7	2.1	31.8	4.6	6.5	45.0	6400	11	0.5	2.1	1.4	20.2	2.6	2.6	-0.8	NO
193612D	19270	2	200	23	6400	10	0.4	3.7	2.1	5.1	0.7	6.5	45.0	6400	11	0.5	2.1	1.4	3.2	0.4	2.6	-0.8	NO
193613K	019290	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
193599S	019300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
193614S	019310	2	1650	23	6400	10	0.4	3.7	2.1	42.0	6.0	6.5	45.0	6400	11	0.5	2.1	1.4	26.7	3.5	2.6	-0.8	NO
193616F	019330	2	1000	23	6400	10	0.4	3.7	2.1	25.4	3.7	6.5	45.0	6400	11	0.5	2.1	1.4	16.2	2.1	2.6	-0.8	NO
193600J	019360	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
193859H	019410	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	6400	11	0.5	2.1	1.4	9.7	1.3	2.6	-0.8	NO
193710U	019760	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	11	0.5	2.1	1.4	2.6	0.3	2.6	-0.8	NO
193711B	020050	2	56	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193664V	020080	2	146	23	6400	10	0.4	3.7	2.1	3.7	0.5	6.5	45.0	6400	11	0.5	2.1	1.4	2.4	0.3	2.6	-0.8	NO
197897F	020170	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	6400	11	0.5	2.1	1.4	21.0	2.8	2.6	-0.8	NO
197896Y	020180	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
193669E	020260	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	6400	11	0.5	2.1	1.4	1.2	0.2	2.6	-0.8	NO
193671F	020370	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
197895S	020880	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.8	NO
197894K	020910	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	6400	11	0.5	2.1	1.4	21.0	2.8	2.6	-0.8	NO
193712H	21090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193713P	021300	2	99	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	11	0.5	2.1	1.4	1.6	0.2	2.6	-0.8	NO
197789J	021370	2	510	23	6400	10	0.4	3.7	2.1	13.0	1.9	6.5	45.0	6400	11	0.5	2.1	1.4	8.2	1.1	2.6	-0.8	NO
193714W	021410	2	320	23	6400	10	0.4	3.7	2.1	8.1	1.2	6.5	45.0	6400	11	0.5	2.1	1.4	5.2	0.7	2.6	-0.8	NO
193715D	021500	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.8	NO
193716K	021610	2	125	23	6400	10	0.4	3.7	2.1	3.2	0.5	6.5	45.0	6400	11	0.5	2.1	1.4	2.0	0.3	2.6	-0.8	NO
193717S	021710	2	44	23	6400	10	0.4	3.7	2.1	1.1	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.8	NO
193718Y	021810	2	530	23	6400	10	0.4	3.7	2.1	13.5	1.9	6.5	45.0	6400	11	0.5	2.1	1.4	8.6	1.1	2.6	-0.8	NO
193719F	021880	2	49	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-0.8	NO
197893D	021900	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	6400	11	0.5	2.1	1.4	14.5	1.9	2.6	-0.8	NO
Segment 5 Walnut Grove to Tracy MP 219 to 226.6																							
197892W	21920	2	1000	24	6400	8	0.3	3.5	2.1	19.6	3.5	4.9	45.0	6400	11	0.5	2.1	1.4	16.2	2.1	2.6	-0.7	NO
193721G	022110	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.7	NO
193692Y	022220	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.7	NO
193694M	022320	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.7	NO
193696B	022410	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.7	NO
193697H	022510	2	37	24	6400	8	0.3	3.5	2.1	0.7	0.1	4.9	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.7	NO
193722N	022650	4	1450	24	6400	8	0.3	3.5	2.1	28.4	2.6	4.9	45.0	6400	11	0.5	2.1	1.4	23.4	1.5	2.6	-0.7	NO
193741T	022660	2	2200	24	6400	8	0.3	3.5	2.1	43.1	7.8	4.9	45.0	6400	11	0.5	2.1	1.4	35.6	4.7	2.6	-0.7	NO
Segment 6 Brookings to Tracy MP 226.6 to 290.0																							
193742A	022720	2	650	28	6400	10	0.4	3.1	1.8	14.0	2.0	4.8	45.0	6400	11	0.5	2.1	1.4	10.5	1.4	2.6	-0.5	NO
193699W	022800	2	320	28	6400	10	0.4	3.1	1.8	6.9	1.0	4.8	45.0	6400	11	0.5	2.1	1.4	5.2	0.7	2.6	-0.5	NO
193700N	022830	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193702C	022950	2	225	28	6400	10	0.4	3.1	1.8	4.8	0.7	4.8	45.0	6400	11	0.5	2.1	1.4	3.6	0.5	2.6	-0.5	NO
193708T	023150	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193709A	023250	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO

Pre/Post-Construction Delays
Minnesota 20 MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction									
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193810Y	023350	2	1350	28	6400	10	0.4	3.1	1.8	29.0	4.2	4.8	45.0	6400	11	0.5	2.1	1.4	21.8	2.9	2.6	-0.5	NO
193757P	023390	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193758W	023450	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193759D	023550	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193743G	023660	2	155	28	6400	10	0.4	3.1	1.8	3.3	0.5	4.8	45.0	6400	11	0.5	2.1	1.4	2.5	0.3	2.6	-0.5	NO
193744N	023760	2	73	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	1.2	0.2	2.6	-0.5	NO
193745V	023860	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.5	NO
193797M	023940	2	1050	28	6400	10	0.4	3.1	1.8	22.6	3.3	4.8	45.0	6400	11	0.5	2.1	1.4	17.0	2.2	2.6	-0.5	NO
193746C	023950	2	100	28	6400	10	0.4	3.1	1.8	2.2	0.3	4.8	45.0	6400	11	0.5	2.1	1.4	1.6	0.2	2.6	-0.5	NO
193751Y	024180	2	38	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.5	NO
193752F	024230	2	45	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.5	NO
193753M	024330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193755B	024440	2	495	28	6400	10	0.4	3.1	1.8	10.6	1.5	4.8	45.0	6400	11	0.5	2.1	1.4	8.0	1.0	2.6	-0.5	NO
193725J	024590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193726R	024640	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-0.5	NO
193730F	024920	2	16	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.5	NO
193732U	024980	2	15	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.5	NO
193734H	025180	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193736W	025290	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.5	NO
193798U	025340	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	6400	11	0.5	2.1	1.4	6.1	0.8	2.6	-0.5	NO
193799B	025350	2	3150	28	6400	10	0.4	3.1	1.8	67.8	9.8	4.8	45.0	6400	11	0.5	2.1	1.4	50.9	6.7	2.6	-0.5	NO
193800T	025380	2	1000	28	6400	10	0.4	3.1	1.8	21.5	3.1	4.8	45.0	6400	11	0.5	2.1	1.4	16.2	2.1	2.6	-0.5	NO
193737D	025490	2	59	28	6400	10	0.4	3.1	1.8	1.3	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	1.0	0.1	2.6	-0.5	NO
193740L	025590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193761E	025690	2	95	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	6400	11	0.5	2.1	1.4	1.5	0.2	2.6	-0.5	NO
193762L	025790	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193764A	025900	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193801A	026160	2	1100	28	6400	10	0.4	3.1	1.8	23.7	3.4	4.8	40.0	6400	11	0.5	2.3	1.5	19.5	2.6	3.1	-0.4	NO
193802G	026190	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	6400	11	0.5	2.1	1.4	7.3	1.0	2.6	-0.5	NO
193768C	026330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193769J	026480	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.9	0.1	2.6	-0.5	NO
193770D	026590	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	6400	11	0.5	2.1	1.4	7.3	1.0	2.6	-0.5	NO
193771K	026730	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-0.5	NO
193773Y	026750	2	150	28	6400	10	0.4	3.1	1.8	3.2	0.5	4.8	45.0	6400	11	0.5	2.1	1.4	2.4	0.3	2.6	-0.5	NO
193772S	026780	2	23	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.4	0.0	2.6	-0.5	NO
193776U	026830	2	75	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	6400	11	0.5	2.1	1.4	1.2	0.2	2.6	-0.5	NO
193780J	026940	2	720	28	6400	10	0.4	3.1	1.8	15.5	2.2	4.8	45.0	6400	11	0.5	2.1	1.4	11.6	1.5	2.6	-0.5	NO
193782X	27040	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.5	NO
193783E	027140	2	110	28	6400	10	0.4	3.1	1.8	2.4	0.3	4.8	45.0	6400	11	0.5	2.1	1.4	1.8	0.2	2.6	-0.5	NO
193784L	027250	2	44	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.5	NO

Pre/Post Construction Delays
Minnesota 20 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 1 Winona to Lewiston MP 0 to 18.4																						
193317H	520	1	460	24	6400	10	0.4	3.5	2.1	11.3	3.2	6.1	45.0	7400	11	0.5	2.4	1.5	8.3	2.2	3.2	-0.6	NO
193197K	620	1	100	24	6400	10	0.4	3.5	2.1	2.5	0.7	6.1	45.0	7400	11	0.5	2.4	1.5	1.8	0.5	3.2	-0.6	NO
193200R	000860	2	2500	24	6400	10	0.4	3.5	2.1	61.3	8.8	6.1	45.0	7400	11	0.5	2.4	1.5	45.2	5.9	3.2	-0.6	NO
193176S	000930	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193201X	001110	2	1750	24	6400	10	0.4	3.5	2.1	42.9	6.2	6.1	45.0	7400	11	0.5	2.4	1.5	31.7	4.1	3.2	-0.6	NO
193206G	001680	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	25.0	7400	11	0.5	3.9	2.2	1.6	0.2	7.9	0.2	NO
193207N	001780	2	1850	24	6400	10	0.4	3.5	2.1	45.4	6.5	6.1	45.0	7400	11	0.5	2.4	1.5	33.5	4.4	3.2	-0.6	NO
193209C	001840	2	1700	24	6400	10	0.4	3.5	2.1	41.7	6.0	6.1	45.0	7400	11	0.5	2.4	1.5	30.8	4.0	3.2	-0.6	NO
Segment 2 Lewiston to Owatonna MP 18.4 to 88.1																						
193210W	1900	1	55	20	6400	12	0.5	4.1	2.4	1.9	0.5	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.3	3.2	-0.9	NO
193211D	002090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193247L	002190	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	7400	11	0.5	2.4	1.5	5.6	0.7	3.2	-0.9	NO
193248T	002270	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.9	NO
193249A	2300	1	39	20	6400	12	0.5	4.1	2.4	1.3	0.3	9.8	45.0	7400	11	0.5	2.4	1.5	0.7	0.2	3.2	-0.9	NO
193250U	002400	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193251B	2540	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193253P	002650	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	7400	11	0.5	2.4	1.5	10.3	1.4	3.2	-0.9	NO
193193H	2780	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	7400	11	0.5	2.4	1.5	9.0	1.2	3.2	-0.9	NO
193254W	002820	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	7400	11	0.5	2.4	1.5	6.9	1.8	3.2	-0.9	NO
193255D	002840	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	7400	11	0.5	2.4	1.5	10.0	1.3	3.2	-0.9	NO
193256K	002850	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193257S	002870	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	7400	11	0.5	2.4	1.5	3.2	0.4	3.2	-0.9	NO
193194P	2900	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193258Y	003010	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.9	NO
193259F	003040	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	7400	11	0.5	2.4	1.5	85.0	5.6	3.2	-0.9	NO
193195W	003090	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	7400	11	0.5	2.4	1.5	6.6	0.9	3.2	-0.9	NO
193260A	003220	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193261G	003420	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	7400	11	0.5	2.4	1.5	2.8	0.4	3.2	-0.9	NO
193262N	003530	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	7400	11	0.5	2.4	1.5	27.1	3.6	3.2	-0.9	NO
193263V	003680	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	7400	11	0.5	2.4	1.5	63.6	8.3	3.2	-0.9	NO
193289X	006130	2	670	20	6400	12	0.5	4.1	2.4	23.1	2.8	9.8	45.0	7400	11	0.5	2.4	1.5	12.1	1.6	3.2	-0.9	NO
193290S	006230	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193291Y	006350	2	2750	20	6400	12	0.5	4.1	2.4	94.8	11.4	9.8	45.0	7400	11	0.5	2.4	1.5	49.8	6.5	3.2	-0.9	NO
193292F	006360	2	610	20	6400	12	0.5	4.1	2.4	21.0	2.5	9.8	45.0	7400	11	0.5	2.4	1.5	11.0	1.4	3.2	-0.9	NO
193293M	006370	2	360	20	6400	12	0.5	4.1	2.4	12.4	1.5	9.8	45.0	7400	11	0.5	2.4	1.5	6.5	0.9	3.2	-0.9	NO
193294U	006430	2	860	20	6400	12	0.5	4.1	2.4	29.6	3.6	9.8	45.0	7400	11	0.5	2.4	1.5	15.6	2.0	3.2	-0.9	NO
196630L	006520	2	7900	20	6400	12	0.5	4.1	2.4	272.3	32.7	9.8	45.0	7400	11	0.5	2.4	1.5	142.9	18.7	3.2	-0.9	NO
193296H	006530	2	60	20	6400	12	0.5	4.1	2.4	2.1	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.1	0.1	3.2	-0.9	NO
193357W	006630	2	540	20	6400	12	0.5	4.1	2.4	18.6	2.2	9.8	45.0	7400	11	0.5	2.4	1.5	9.8	1.3	3.2	-0.9	NO
193358D	006740	2	45	20	6400	12	0.5	4.1	2.4	1.6	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.9	NO
193359K	006840	2	135	20	6400	12	0.5	4.1	2.4	4.7	0.6	9.8	45.0	7400	11	0.5	2.4	1.5	2.4	0.3	3.2	-0.9	NO
193297P	006890	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.9	NO
193360E	006900	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.9	NO
193361L	006910	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.9	NO
193298W	006920	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.9	NO
193362T	006930	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.9	NO
193299D	006940	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.9	NO
193363A	006950	2	3300	20	6400	12	0.5	4.1	2.4	113.8	13.7	9.8	45.0	7400	11	0.5	2.4	1.5	59.7	7.8	3.2	-0.9	NO

Pre/Post Construction Delays
Minnesota 20 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193300V	007000	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	7400	11	0.5	2.4	1.5	9.0	1.2	3.2	-0.9	NO
193364G	007140	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193303R	7190	2	10	20	6400	12	0.5	4.1	2.4	0.3	0.0	9.8	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.9	NO
193365N	007270	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	7400	11	0.5	2.4	1.5	5.6	0.7	3.2	-0.9	NO
193366V	007320	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.9	NO
193367C	7370	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193368J	007480	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193369R	007580	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	7400	11	0.5	2.4	1.5	10.3	1.4	3.2	-0.9	NO
193370K	007640	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	7400	11	0.5	2.4	1.5	6.9	1.8	3.2	-0.9	NO
193371S	007680	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	7400	11	0.5	2.4	1.5	10.0	1.3	3.2	-0.9	NO
193307T	007780	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193372Y	007980	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	7400	11	0.5	2.4	1.5	3.2	0.4	3.2	-0.9	NO
193373F	008090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193311H	8130	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193374M	008180	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.9	NO
193375U	008290	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	7400	11	0.5	2.4	1.5	85.0	5.6	3.2	-0.9	NO
193376B	008390	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	7400	11	0.5	2.4	1.5	6.6	0.9	3.2	-0.9	NO
193312P	008500	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193377H	008540	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	7400	11	0.5	2.4	1.5	2.8	0.4	3.2	-0.9	NO
193382E	8740	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	7400	11	0.5	2.4	1.5	27.1	3.6	3.2	-0.9	NO
380294J	8750	2	200	20	6400	12	0.5	4.1	2.4	6.9	0.8	9.8	45.0	7400	11	0.5	2.4	1.5	3.6	0.5	3.2	-0.9	NO
187034M	8760	1	200	20	6400	12	0.5	4.1	2.4	6.9	1.7	9.8	45.0	7400	11	0.5	2.4	1.5	3.6	0.9	3.2	-0.9	NO
187033F	008776	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	7400	11	0.5	2.4	1.5	63.6	8.3	3.2	-0.9	NO
187032Y	8780	2	2000	20	6400	12	0.5	4.1	2.4	68.9	8.3	9.8	45.0	7400	11	0.5	2.4	1.5	36.2	4.7	3.2	-0.9	NO
Segment 3 Owatonna to Waseca MP 88.1 to 102.5																						
193383L	8830	4	2515	23	6400	14	0.6	3.7	2.1	89.5	4.6	9.1	45.0	7400	11	0.5	2.4	1.5	45.5	3.0	3.2	-0.6	NO
193384T	008840	4	6800	23	6400	14	0.6	3.7	2.1	242.1	12.5	9.1	45.0	7400	11	0.5	2.4	1.5	123.0	8.1	3.2	-0.6	NO
193388V	008890	2	5600	23	6400	14	0.6	3.7	2.1	199.4	20.5	9.1	45.0	7400	11	0.5	2.4	1.5	101.3	13.3	3.2	-0.6	NO
193390W	008950	2	125	23	6400	14	0.6	3.7	2.1	4.5	0.5	9.1	45.0	7400	11	0.5	2.4	1.5	2.3	0.3	3.2	-0.6	NO
193391D	008970	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	7400	11	0.5	2.4	1.5	48.9	6.4	3.2	-0.6	NO
193392K	009030	2	70	23	6400	14	0.6	3.7	2.1	2.5	0.3	9.1	45.0	7400	11	0.5	2.4	1.5	1.3	0.2	3.2	-0.6	NO
193394Y	9250	4	290	23	6400	14	0.6	3.7	2.1	10.3	0.5	9.1	45.0	7400	11	0.5	2.4	1.5	5.2	0.3	3.2	-0.6	NO
193395F	9350	2	100	23	6400	14	0.6	3.7	2.1	3.6	0.4	9.1	45.0	7400	11	0.5	2.4	1.5	1.8	0.2	3.2	-0.6	NO
193397U	9640	2	555	23	6400	14	0.6	3.7	2.1	19.8	2.0	9.1	45.0	7400	11	0.5	2.4	1.5	10.0	1.3	3.2	-0.6	NO
193398B	009780	2	55	23	6400	14	0.6	3.7	2.1	2.0	0.2	9.1	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193399H	009930	1	10	23	6400	14	0.6	3.7	2.1	0.4	0.1	9.1	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.6	NO
193400A	010090	2	500	23	6400	14	0.6	3.7	2.1	17.8	1.8	9.1	45.0	7400	11	0.5	2.4	1.5	9.0	1.2	3.2	-0.6	NO
193403V	010180	2	2000	23	6400	14	0.6	3.7	2.1	71.2	7.3	9.1	45.0	7400	11	0.5	2.4	1.5	36.2	4.7	3.2	-0.6	NO
193404C	010200	2	200	23	6400	14	0.6	3.7	2.1	7.1	0.7	9.1	45.0	7400	11	0.5	2.4	1.5	3.6	0.5	3.2	-0.6	NO
193405J	010220	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	7400	11	0.5	2.4	1.5	48.9	6.4	3.2	-0.6	NO
193406R	010250	2	7900	23	6400	14	0.6	3.7	2.1	281.3	28.9	9.1	45.0	7400	11	0.5	2.4	1.5	142.9	18.7	3.2	-0.6	NO
Segment 4 Waseca to Walnut Grove MP 102.5 to 219																						
193314D	010260	2	1050	23	6400	10	0.4	3.7	2.1	26.7	3.8	6.5	45.0	7400	11	0.5	2.4	1.5	19.0	2.5	3.2	-0.6	NO
193315K	010270	2	2700	23	6400	10	0.4	3.7	2.1	68.7	9.9	6.5	45.0	7400	11	0.5	2.4	1.5	48.9	6.4	3.2	-0.6	NO
193317Y	010340	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	7400	11	0.5	2.4	1.5	11.8	1.5	3.2	-0.6	NO
193318F	010380	2	2600	23	6400	10	0.4	3.7	2.1	66.1	9.5	6.5	45.0	7400	11	0.5	2.4	1.5	47.0	6.2	3.2	-0.6	NO
193320G	010460	2	810	23	6400	10	0.4	3.7	2.1	20.6	3.0	6.5	45.0	7400	11	0.5	2.4	1.5	14.7	1.9	3.2	-0.6	NO
193322V	010620	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193324J	010730	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO

Pre/Post Construction Delays
Minnesota 20 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193326X	010850	2	190	23	6400	10	0.4	3.7	2.1	4.8	0.7	6.5	45.0	7400	11	0.5	2.4	1.5	3.4	0.5	3.2	-0.6	NO
193328L	010960	2	10	23	6400	10	0.4	3.7	2.1	0.3	0.0	6.5	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.6	NO
193329T	11020	2	20	23	6400	10	0.4	3.7	2.1	0.5	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.4	0.0	3.2	-0.6	NO
193341A	011090	2	110	23	6400	10	0.4	3.7	2.1	2.8	0.4	6.5	45.0	7400	11	0.5	2.4	1.5	2.0	0.3	3.2	-0.6	NO
193342G	11190	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	11	0.5	2.4	1.5	1.8	0.2	3.2	-0.6	NO
193344V	011260	2	1100	23	6400	10	0.4	3.7	2.1	28.0	4.0	6.5	45.0	7400	11	0.5	2.4	1.5	19.9	2.6	3.2	-0.6	NO
193346J	011280	2	1900	23	6400	10	0.4	3.7	2.1	48.3	7.0	6.5	45.0	7400	11	0.5	2.4	1.5	34.4	4.5	3.2	-0.6	NO
193348X	011300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
193349E	011310	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
193354B	011510	2	275	23	6400	10	0.4	3.7	2.1	7.0	1.0	6.5	45.0	7400	11	0.5	2.4	1.5	5.0	0.7	3.2	-0.6	NO
193356P	011630	2	565	23	6400	10	0.4	3.7	2.1	14.4	2.1	6.5	45.0	7400	11	0.5	2.4	1.5	10.2	1.3	3.2	-0.6	NO
193407X	011660	2	235	23	6400	10	0.4	3.7	2.1	6.0	0.9	6.5	45.0	7400	11	0.5	2.4	1.5	4.3	0.6	3.2	-0.6	NO
193410F	11750	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	11	0.5	2.4	1.5	1.8	0.2	3.2	-0.6	NO
193408E	011870	2	85	23	6400	10	0.4	3.7	2.1	2.2	0.3	6.5	45.0	7400	11	0.5	2.4	1.5	1.5	0.2	3.2	-0.6	NO
193411M	011980	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	7400	11	0.5	2.4	1.5	1.3	0.2	3.2	-0.6	NO
193414H	012080	2	39	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.6	NO
193430S	012950	2	414	23	6400	10	0.4	3.7	2.1	10.5	1.5	6.5	40.0	7400	11	0.5	2.6	1.6	8.2	1.1	3.8	-0.5	NO
193509R	14720	1	100	23	6400	10	0.4	3.7	2.1	2.5	0.7	6.5	45.0	7400	11	0.5	2.4	1.5	1.8	0.5	3.2	-0.6	NO
193480V	14890	2	52	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.6	NO
193481C	14980	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	7400	11	0.5	2.4	1.5	17.6	2.3	3.2	-0.6	NO
193482J	14990	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.1	0.1	3.2	-0.6	NO
193483R	15020	1	55	23	6400	10	0.4	3.7	2.1	1.4	0.4	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.3	3.2	-0.6	NO
193484X	15630	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	11	0.5	2.4	1.5	2.9	0.4	3.2	-0.6	NO
193485E	15660	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.6	NO
193487T	15810	2	750	23	6400	10	0.4	3.7	2.1	19.1	2.7	6.5	45.0	7400	11	0.5	2.4	1.5	13.6	1.8	3.2	-0.6	NO
193571H	16060	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	11	0.5	2.4	1.5	1.8	0.2	3.2	-0.6	NO
193522E	16270	2	115	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	7400	11	0.5	2.4	1.5	2.1	0.3	3.2	-0.6	NO
193523L	16310	2	50	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.6	NO
193488A	16410	4	5300	23	6400	10	0.4	3.7	2.1	134.8	9.7	6.5	45.0	7400	11	0.5	2.4	1.5	95.9	6.3	3.2	-0.6	NO
196260K	16440	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	11	0.5	2.4	1.5	11.4	1.5	3.2	-0.6	NO
196261S	16460	2	800	23	6400	10	0.4	3.7	2.1	20.3	2.9	6.5	45.0	7400	11	0.5	2.4	1.5	14.5	1.9	3.2	-0.6	NO
193491H	016490	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	7400	11	0.5	2.4	1.5	11.8	1.5	3.2	-0.6	NO
193492P	16520	2	770	23	6400	10	0.4	3.7	2.1	19.6	2.8	6.5	45.0	7400	11	0.5	2.4	1.5	13.9	1.8	3.2	-0.6	NO
193493W	016540	2	1400	23	6400	10	0.4	3.7	2.1	35.6	5.1	6.5	45.0	7400	11	0.5	2.4	1.5	25.3	3.3	3.2	-0.6	NO
193494D	016550	2	1200	23	6400	10	0.4	3.7	2.1	30.5	4.4	6.5	45.0	7400	11	0.5	2.4	1.5	21.7	2.8	3.2	-0.6	NO
193525A	16560	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	11	0.5	2.4	1.5	11.4	1.5	3.2	-0.6	NO
193537U	16570	2	1750	23	6400	10	0.4	3.7	2.1	44.5	6.4	6.5	45.0	7400	11	0.5	2.4	1.5	31.7	4.1	3.2	-0.6	NO
193536M	16680	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	7400	11	0.5	2.4	1.5	17.6	2.3	3.2	-0.6	NO
911203V	16720	2	3500	23	6400	10	0.4	3.7	2.1	89.0	12.8	6.5	45.0	7400	11	0.5	2.4	1.5	63.3	8.3	3.2	-0.6	NO
193560N	16800	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	11	0.5	2.4	1.5	11.4	1.5	3.2	-0.6	NO
193572H	016950	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.1	0.1	3.2	-0.6	NO
193573P	017050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193579F	017150	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193574W	017250	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.6	NO
193546T	017310	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.6	NO
193575D	017360	2	355	23	6400	10	0.4	3.7	2.1	9.0	1.3	6.5	45.0	7400	11	0.5	2.4	1.5	6.4	0.8	3.2	-0.6	NO
193547A	017370	2	780	23	6400	10	0.4	3.7	2.1	19.8	2.9	6.5	45.0	7400	11	0.5	2.4	1.5	14.1	1.8	3.2	-0.6	NO
193548G	017510	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193577S	17670	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	11	0.5	2.4	1.5	2.9	0.4	3.2	-0.6	NO
193578Y	017780	2	116	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	7400	11	0.5	2.4	1.5	2.1	0.3	3.2	-0.6	NO
193558M	017970	2	3100	23	6400	10	0.4	3.7	2.1	78.8	11.4	6.5	45.0	7400	11	0.5	2.4	1.5	56.1	7.3	3.2	-0.6	NO
193557F	017980	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
193584C	017990	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	7400	11	0.5	2.4	1.5	16.3	2.1	3.2	-0.6	NO

Pre/Post Construction Delays
Minnesota 20 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction									Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193553D	018040	2	580	23	6400	10	0.4	3.7	2.1	14.7	2.1	6.5	45.0	7400	11	0.5	2.4	1.5	10.5	1.4	3.2	-0.6	NO
193554K	018090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193588E	018280	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.6	NO
193589L	018380	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	7400	11	0.5	2.4	1.5	10.9	1.4	3.2	-0.6	NO
193590F	018600	2	130	23	6400	10	0.4	3.7	2.1	3.3	0.5	6.5	45.0	7400	11	0.5	2.4	1.5	2.4	0.3	3.2	-0.6	NO
193591M	018610	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
193592U	018700	2	48	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.6	NO
193594H	018870	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193595P	018940	2	480	23	6400	10	0.4	3.7	2.1	12.2	1.8	6.5	45.0	7400	11	0.5	2.4	1.5	8.7	1.1	3.2	-0.6	NO
193596W	019050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193610P	019140	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
911204C	19260	2	1250	23	6400	10	0.4	3.7	2.1	31.8	4.6	6.5	45.0	7400	11	0.5	2.4	1.5	22.6	3.0	3.2	-0.6	NO
193612D	19270	2	200	23	6400	10	0.4	3.7	2.1	5.1	0.7	6.5	45.0	7400	11	0.5	2.4	1.5	3.6	0.5	3.2	-0.6	NO
193613K	019290	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
193599S	019300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
193614S	019310	2	1650	23	6400	10	0.4	3.7	2.1	42.0	6.0	6.5	45.0	7400	11	0.5	2.4	1.5	29.9	3.9	3.2	-0.6	NO
193616F	019330	2	1000	23	6400	10	0.4	3.7	2.1	25.4	3.7	6.5	45.0	7400	11	0.5	2.4	1.5	18.1	2.4	3.2	-0.6	NO
193600J	019360	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
193859H	019410	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	7400	11	0.5	2.4	1.5	10.9	1.4	3.2	-0.6	NO
193710U	019760	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	11	0.5	2.4	1.5	2.9	0.4	3.2	-0.6	NO
193711B	020050	2	56	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193664V	020080	2	146	23	6400	10	0.4	3.7	2.1	3.7	0.5	6.5	45.0	7400	11	0.5	2.4	1.5	2.6	0.3	3.2	-0.6	NO
197897F	020170	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	7400	11	0.5	2.4	1.5	23.5	3.1	3.2	-0.6	NO
197896Y	020180	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
193669E	020260	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	7400	11	0.5	2.4	1.5	1.3	0.2	3.2	-0.6	NO
193671F	020370	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
197895S	020880	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.6	NO
197894K	020910	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	7400	11	0.5	2.4	1.5	23.5	3.1	3.2	-0.6	NO
193712H	21090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193713P	021300	2	99	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	11	0.5	2.4	1.5	1.8	0.2	3.2	-0.6	NO
197789J	021370	2	510	23	6400	10	0.4	3.7	2.1	13.0	1.9	6.5	45.0	7400	11	0.5	2.4	1.5	9.2	1.2	3.2	-0.6	NO
193714W	021410	2	320	23	6400	10	0.4	3.7	2.1	8.1	1.2	6.5	45.0	7400	11	0.5	2.4	1.5	5.8	0.8	3.2	-0.6	NO
193715D	021500	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193716K	021610	2	125	23	6400	10	0.4	3.7	2.1	3.2	0.5	6.5	45.0	7400	11	0.5	2.4	1.5	2.3	0.3	3.2	-0.6	NO
193717S	021710	2	44	23	6400	10	0.4	3.7	2.1	1.1	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.6	NO
193718Y	021810	2	530	23	6400	10	0.4	3.7	2.1	13.5	1.9	6.5	45.0	7400	11	0.5	2.4	1.5	9.6	1.3	3.2	-0.6	NO
193719F	021880	2	49	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.6	NO
197893D	021900	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	7400	11	0.5	2.4	1.5	16.3	2.1	3.2	-0.6	NO
Segment 5 Walnut Grove to Tracy MP 219 to 226.6																							
197892W	21920	2	1000	24	6400	8	0.3	3.5	2.1	19.6	3.5	4.9	45.0	7400	11	0.5	2.4	1.5	18.1	2.4	3.2	-0.6	NO
193721G	022110	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.6	NO
193692Y	022220	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.6	NO
193694M	022320	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193696B	022410	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.6	NO
193697H	022510	2	37	24	6400	8	0.3	3.5	2.1	0.7	0.1	4.9	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.6	NO
193722N	022650	4	1450	24	6400	8	0.3	3.5	2.1	28.4	2.6	4.9	45.0	7400	11	0.5	2.4	1.5	26.2	1.7	3.2	-0.6	NO
193741T	022660	2	2200	24	6400	8	0.3	3.5	2.1	43.1	7.8	4.9	45.0	7400	11	0.5	2.4	1.5	39.8	5.2	3.2	-0.6	NO
Segment 6 Brookings to Tracy MP 226.6 to 290.0																							
193742A	022720	2	650	28	6400	10	0.4	3.1	1.8	14.0	2.0	4.8	45.0	7400	11	0.5	2.4	1.5	11.8	1.5	3.2	-0.4	NO

Pre/Post Construction Delays
Minnesota 20 MNT
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193699W	022800	2	320	28	6400	10	0.4	3.1	1.8	6.9	1.0	4.8	45.0	7400	11	0.5	2.4	1.5	5.8	0.8	3.2	-0.4	NO
193700N	022830	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193702C	022950	2	225	28	6400	10	0.4	3.1	1.8	4.8	0.7	4.8	45.0	7400	11	0.5	2.4	1.5	4.1	0.5	3.2	-0.4	NO
193708T	023150	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193709A	023250	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193810Y	023350	2	1350	28	6400	10	0.4	3.1	1.8	29.0	4.2	4.8	45.0	7400	11	0.5	2.4	1.5	24.4	3.2	3.2	-0.4	NO
193757P	023390	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193758W	023450	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193759D	023550	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193743G	023660	2	155	28	6400	10	0.4	3.1	1.8	3.3	0.5	4.8	45.0	7400	11	0.5	2.4	1.5	2.8	0.4	3.2	-0.4	NO
193744N	023760	2	73	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.3	0.2	3.2	-0.4	NO
193745V	023860	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.4	NO
193797M	023940	2	1050	28	6400	10	0.4	3.1	1.8	22.6	3.3	4.8	45.0	7400	11	0.5	2.4	1.5	19.0	2.5	3.2	-0.4	NO
193748R	023990	2	710	28	6400	10	0.4	3.1	1.8	15.3	2.2	4.8	45.0	7400	11	0.5	2.4	1.5	12.8	1.7	3.2	-0.4	NO
193751Y	024180	2	38	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.4	NO
193752F	024230	2	45	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.4	NO
193753M	024330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193755B	024440	2	495	28	6400	10	0.4	3.1	1.8	10.6	1.5	4.8	45.0	7400	11	0.5	2.4	1.5	9.0	1.2	3.2	-0.4	NO
193725J	024590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193726R	024640	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.4	NO
193730F	024920	2	16	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.4	NO
193732U	024980	2	15	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.4	NO
193734H	025180	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193736W	025290	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.4	NO
193798U	025340	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	7400	11	0.5	2.4	1.5	6.9	0.9	3.2	-0.4	NO
193799B	025350	2	3150	28	6400	10	0.4	3.1	1.8	67.8	9.8	4.8	45.0	7400	11	0.5	2.4	1.5	57.0	7.5	3.2	-0.4	NO
193800T	025380	2	1000	28	6400	10	0.4	3.1	1.8	21.5	3.1	4.8	45.0	7400	11	0.5	2.4	1.5	18.1	2.4	3.2	-0.4	NO
193737D	025490	2	59	28	6400	10	0.4	3.1	1.8	1.3	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.1	0.1	3.2	-0.4	NO
193740L	025590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193761E	025690	2	95	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	7400	11	0.5	2.4	1.5	1.7	0.2	3.2	-0.4	NO
193762L	025790	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193764A	025900	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193801A	026160	2	1100	28	6400	10	0.4	3.1	1.8	23.7	3.4	4.8	40.0	7400	11	0.5	2.6	1.6	21.9	2.9	3.8	-0.2	NO
193802G	026190	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	7400	11	0.5	2.4	1.5	8.1	1.1	3.2	-0.4	NO
193768C	026330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193769J	026480	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.4	NO
193770D	026590	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	7400	11	0.5	2.4	1.5	8.1	1.1	3.2	-0.4	NO
193771K	026730	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.4	NO
193773Y	026750	2	150	28	6400	10	0.4	3.1	1.8	3.2	0.5	4.8	45.0	7400	11	0.5	2.4	1.5	2.7	0.4	3.2	-0.4	NO
193772S	026780	2	23	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.4	NO
193776U	026830	2	75	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.4	NO
193780J	026940	2	720	28	6400	10	0.4	3.1	1.8	15.5	2.2	4.8	45.0	7400	11	0.5	2.4	1.5	13.0	1.7	3.2	-0.4	NO
193782X	27040	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.4	NO
193783E	027140	2	110	28	6400	10	0.4	3.1	1.8	2.4	0.3	4.8	45.0	7400	11	0.5	2.4	1.5	2.0	0.3	3.2	-0.4	NO
193784L	027250	2	44	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.4	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 1 Winona to Lewiston MP 0 to 18.4																						
19317H	520	1	460	24	6400	10	0.4	3.5	2.1	11.3	3.2	6.1	45.0	6400	21	0.9	2.1	1.4	14.2	1.9	5.0	-0.7	NO
193197K	620	1	100	24	6400	10	0.4	3.5	2.1	2.5	0.7	6.1	45.0	6400	21	0.9	2.1	1.4	3.1	0.4	5.0	-0.7	NO
193200R	000860	2	2500	24	6400	10	0.4	3.5	2.1	61.3	8.8	6.1	45.0	6400	21	0.9	2.1	1.4	77.2	5.3	5.0	-0.7	NO
193176S	000930	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.7	NO
193201X	001110	2	1750	24	6400	10	0.4	3.5	2.1	42.9	6.2	6.1	45.0	6400	21	0.9	2.1	1.4	54.0	3.7	5.0	-0.7	NO
193206G	001680	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	25.0	6400	21	0.9	3.4	2.0	2.7	0.2	12.0	-0.1	NO
193207N	001780	2	1850	24	6400	10	0.4	3.5	2.1	45.4	6.5	6.1	45.0	6400	21	0.9	2.1	1.4	57.1	3.9	5.0	-0.7	NO
193209C	001840	2	1700	24	6400	10	0.4	3.5	2.1	41.7	6.0	6.1	45.0	6400	21	0.9	2.1	1.4	52.5	3.6	5.0	-0.7	NO
Segment 2 Lewiston to Owatonna MP 18.4 to 88.1																						
193210W	1900	1	55	20	6400	12	0.5	4.1	2.4	1.9	0.5	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.2	5.0	-1.0	NO
193211D	002090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193247L	002190	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	6400	21	0.9	2.1	1.4	9.6	0.7	5.0	-1.0	NO
193248T	002270	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-1.0	NO
193249A	2300	1	39	20	6400	12	0.5	4.1	2.4	1.3	0.3	9.8	45.0	6400	21	0.9	2.1	1.4	1.2	0.2	5.0	-1.0	NO
193250U	002400	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193251B	2540	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193253P	002650	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	6400	21	0.9	2.1	1.4	17.6	1.2	5.0	-1.0	NO
193193H	2780	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	6400	21	0.9	2.1	1.4	15.4	1.1	5.0	-1.0	NO
193254W	002820	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	6400	21	0.9	2.1	1.4	11.7	1.6	5.0	-1.0	NO
193255D	002840	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	6400	21	0.9	2.1	1.4	17.0	1.2	5.0	-1.0	NO
193256K	002850	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193257S	002870	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	6400	21	0.9	2.1	1.4	5.4	0.4	5.0	-1.0	NO
193194P	2900	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193258Y	003010	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	6400	21	0.9	2.1	1.4	2.5	0.2	5.0	-1.0	NO
193259F	003040	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	6400	21	0.9	2.1	1.4	145.0	5.0	5.0	-1.0	NO
193195W	003090	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	6400	21	0.9	2.1	1.4	11.3	0.8	5.0	-1.0	NO
193260A	003220	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193261G	003420	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	6400	21	0.9	2.1	1.4	4.8	0.3	5.0	-1.0	NO
193262N	003530	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	6400	21	0.9	2.1	1.4	46.3	3.2	5.0	-1.0	NO
193263V	003680	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	6400	21	0.9	2.1	1.4	108.5	7.4	5.0	-1.0	NO
193289X	006130	2	670	20	6400	12	0.5	4.1	2.4	23.1	2.8	9.8	45.0	6400	21	0.9	2.1	1.4	20.7	1.4	5.0	-1.0	NO
193290S	006230	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193291Y	006350	2	2750	20	6400	12	0.5	4.1	2.4	94.8	11.4	9.8	45.0	6400	21	0.9	2.1	1.4	84.9	5.8	5.0	-1.0	NO
193292F	006360	2	610	20	6400	12	0.5	4.1	2.4	21.0	2.5	9.8	45.0	6400	21	0.9	2.1	1.4	18.8	1.3	5.0	-1.0	NO
193293M	006370	2	360	20	6400	12	0.5	4.1	2.4	12.4	1.5	9.8	45.0	6400	21	0.9	2.1	1.4	11.1	0.8	5.0	-1.0	NO
193294U	006430	2	860	20	6400	12	0.5	4.1	2.4	29.6	3.6	9.8	45.0	6400	21	0.9	2.1	1.4	26.5	1.8	5.0	-1.0	NO
196630L	006520	2	7900	20	6400	12	0.5	4.1	2.4	272.3	32.7	9.8	45.0	6400	21	0.9	2.1	1.4	243.8	16.7	5.0	-1.0	NO
193296H	006530	2	60	20	6400	12	0.5	4.1	2.4	2.1	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.9	0.1	5.0	-1.0	NO
193357W	006630	2	540	20	6400	12	0.5	4.1	2.4	18.6	2.2	9.8	45.0	6400	21	0.9	2.1	1.4	16.7	1.1	5.0	-1.0	NO
193358D	006740	2	45	20	6400	12	0.5	4.1	2.4	1.6	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-1.0	NO
193359K	006840	2	135	20	6400	12	0.5	4.1	2.4	4.7	0.6	9.8	45.0	6400	21	0.9	2.1	1.4	4.2	0.3	5.0	-1.0	NO
193297P	006890	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-1.0	NO
193360E	006900	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-1.0	NO
193361L	006910	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-1.0	NO
193298W	006920	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-1.0	NO
193362T	006930	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-1.0	NO
193299D	006940	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-1.0	NO
193363A	006950	2	3300	20	6400	12	0.5	4.1	2.4	113.8	13.7	9.8	45.0	6400	21	0.9	2.1	1.4	101.8	7.0	5.0	-1.0	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction									Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193300V	007000	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	6400	21	0.9	2.1	1.4	15.4	1.1	5.0	-1.0	NO
193364G	007140	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193303R	7190	2	10	20	6400	12	0.5	4.1	2.4	0.3	0.0	9.8	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-1.0	NO
193365N	007270	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	6400	21	0.9	2.1	1.4	9.6	0.7	5.0	-1.0	NO
193366V	007320	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-1.0	NO
193367C	7370	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193368J	007480	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193369R	007580	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	6400	21	0.9	2.1	1.4	17.6	1.2	5.0	-1.0	NO
193370K	007640	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	6400	21	0.9	2.1	1.4	11.7	1.6	5.0	-1.0	NO
193371S	007680	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	6400	21	0.9	2.1	1.4	17.0	1.2	5.0	-1.0	NO
193307T	007780	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193372Y	007980	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	6400	21	0.9	2.1	1.4	5.4	0.4	5.0	-1.0	NO
193373F	008090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193311H	8130	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193374M	008180	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	6400	21	0.9	2.1	1.4	2.5	0.2	5.0	-1.0	NO
193375U	008290	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	6400	21	0.9	2.1	1.4	145.0	5.0	5.0	-1.0	NO
193376B	008390	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	6400	21	0.9	2.1	1.4	11.3	0.8	5.0	-1.0	NO
193312P	008500	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-1.0	NO
193377H	008540	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	6400	21	0.9	2.1	1.4	4.8	0.3	5.0	-1.0	NO
193382E	8740	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	6400	21	0.9	2.1	1.4	46.3	3.2	5.0	-1.0	NO
380294J	8750	2	200	20	6400	12	0.5	4.1	2.4	6.9	0.8	9.8	45.0	6400	21	0.9	2.1	1.4	6.2	0.4	5.0	-1.0	NO
187034M	8760	1	200	20	6400	12	0.5	4.1	2.4	6.9	1.7	9.8	45.0	6400	21	0.9	2.1	1.4	6.2	0.8	5.0	-1.0	NO
187033F	008776	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	6400	21	0.9	2.1	1.4	108.5	7.4	5.0	-1.0	NO
187032Y	8780	2	2000	20	6400	12	0.5	4.1	2.4	68.9	8.3	9.8	45.0	6400	21	0.9	2.1	1.4	61.7	4.2	5.0	-1.0	NO
Segment 3 Owatonna to Waseca MP 88.1 to 102.5																							
193383L	8830	4	2515	23	6400	14	0.6	3.7	2.1	89.5	4.6	9.1	45.0	6400	21	0.9	2.1	1.4	77.6	2.7	5.0	-0.8	NO
193384T	008840	4	6800	23	6400	14	0.6	3.7	2.1	242.1	12.5	9.1	45.0	6400	21	0.9	2.1	1.4	209.9	7.2	5.0	-0.8	NO
193388V	008890	2	5600	23	6400	14	0.6	3.7	2.1	199.4	20.5	9.1	45.0	6400	21	0.9	2.1	1.4	172.8	11.9	5.0	-0.8	NO
193390W	008950	2	125	23	6400	14	0.6	3.7	2.1	4.5	0.5	9.1	45.0	6400	21	0.9	2.1	1.4	3.9	0.3	5.0	-0.8	NO
193391D	008970	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	6400	21	0.9	2.1	1.4	83.3	5.7	5.0	-0.8	NO
193392K	009030	2	70	23	6400	14	0.6	3.7	2.1	2.5	0.3	9.1	45.0	6400	21	0.9	2.1	1.4	2.2	0.1	5.0	-0.8	NO
193394Y	9250	4	290	23	6400	14	0.6	3.7	2.1	10.3	0.5	9.1	45.0	6400	21	0.9	2.1	1.4	8.9	0.3	5.0	-0.8	NO
193395F	9350	2	100	23	6400	14	0.6	3.7	2.1	3.6	0.4	9.1	45.0	6400	21	0.9	2.1	1.4	3.1	0.2	5.0	-0.8	NO
193397U	009640	2	555	23	6400	14	0.6	3.7	2.1	19.8	2.0	9.1	45.0	6400	21	0.9	2.1	1.4	17.1	1.2	5.0	-0.8	NO
193398B	009780	2	55	23	6400	14	0.6	3.7	2.1	2.0	0.2	9.1	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193399H	009930	1	10	23	6400	14	0.6	3.7	2.1	0.4	0.1	9.1	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.8	NO
193400A	010090	2	500	23	6400	14	0.6	3.7	2.1	17.8	1.8	9.1	45.0	6400	21	0.9	2.1	1.4	15.4	1.1	5.0	-0.8	NO
193403V	010180	2	2000	23	6400	14	0.6	3.7	2.1	71.2	7.3	9.1	45.0	6400	21	0.9	2.1	1.4	61.7	4.2	5.0	-0.8	NO
193404C	010200	2	200	23	6400	14	0.6	3.7	2.1	7.1	0.7	9.1	45.0	6400	21	0.9	2.1	1.4	6.2	0.4	5.0	-0.8	NO
193405J	010220	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	6400	21	0.9	2.1	1.4	83.3	5.7	5.0	-0.8	NO
193406R	010250	2	7900	23	6400	14	0.6	3.7	2.1	281.3	28.9	9.1	45.0	6400	21	0.9	2.1	1.4	243.8	16.7	5.0	-0.8	NO
Segment 4 Waseca to Walnut Grove MP 102.5 to 219																							
193314D	010260	2	1050	23	6400	10	0.4	3.7	2.1	26.7	3.8	6.5	45.0	6400	21	0.9	2.1	1.4	32.4	2.2	5.0	-0.8	NO
193315K	010270	2	2700	23	6400	10	0.4	3.7	2.1	68.7	9.9	6.5	45.0	6400	21	0.9	2.1	1.4	83.3	5.7	5.0	-0.8	NO
193317Y	010340	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	6400	21	0.9	2.1	1.4	20.1	1.4	5.0	-0.8	NO
193318F	010380	2	2600	23	6400	10	0.4	3.7	2.1	66.1	9.5	6.5	45.0	6400	21	0.9	2.1	1.4	80.2	5.5	5.0	-0.8	NO
193320G	010460	2	810	23	6400	10	0.4	3.7	2.1	20.6	3.0	6.5	45.0	6400	21	0.9	2.1	1.4	25.0	1.7	5.0	-0.8	NO
193322V	010620	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193324J	010730	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193326X	010850	2	190	23	6400	10	0.4	3.7	2.1	4.8	0.7	6.5	45.0	6400	21	0.9	2.1	1.4	5.9	0.4	5.0	-0.8	NO
193328L	010960	2	10	23	6400	10	0.4	3.7	2.1	0.3	0.0	6.5	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.8	NO
193329T	11020	2	20	23	6400	10	0.4	3.7	2.1	0.5	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-0.8	NO
193341A	011090	2	110	23	6400	10	0.4	3.7	2.1	2.8	0.4	6.5	45.0	6400	21	0.9	2.1	1.4	3.4	0.2	5.0	-0.8	NO
193342G	11190	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	21	0.9	2.1	1.4	3.1	0.2	5.0	-0.8	NO
193344V	011260	2	1100	23	6400	10	0.4	3.7	2.1	28.0	4.0	6.5	45.0	6400	21	0.9	2.1	1.4	33.9	2.3	5.0	-0.8	NO
193346J	011280	2	1900	23	6400	10	0.4	3.7	2.1	48.3	7.0	6.5	45.0	6400	21	0.9	2.1	1.4	58.6	4.0	5.0	-0.8	NO
193348X	011300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
193349E	011310	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
193354B	011510	2	275	23	6400	10	0.4	3.7	2.1	7.0	1.0	6.5	45.0	6400	21	0.9	2.1	1.4	8.5	0.6	5.0	-0.8	NO
193356P	011630	2	565	23	6400	10	0.4	3.7	2.1	14.4	2.1	6.5	45.0	6400	21	0.9	2.1	1.4	17.4	1.2	5.0	-0.8	NO
193407X	011660	2	235	23	6400	10	0.4	3.7	2.1	6.0	0.9	6.5	45.0	6400	21	0.9	2.1	1.4	7.3	0.5	5.0	-0.8	NO
193410F	11750	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	21	0.9	2.1	1.4	3.1	0.2	5.0	-0.8	NO
193408E	011870	2	85	23	6400	10	0.4	3.7	2.1	2.2	0.3	6.5	45.0	6400	21	0.9	2.1	1.4	2.6	0.2	5.0	-0.8	NO
193411M	011980	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	6400	21	0.9	2.1	1.4	2.3	0.2	5.0	-0.8	NO
193414H	012080	2	39	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.8	NO
193509R	14720	1	100	23	6400	10	0.4	3.7	2.1	2.5	0.7	6.5	45.0	6400	11	0.5	2.1	1.4	1.6	0.4	2.6	-0.8	NO
193480V	14890	2	52	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.6	0.1	5.0	-0.8	NO
193481C	14980	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	6400	21	0.9	2.1	1.4	29.9	2.1	5.0	-0.8	NO
193482J	14990	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.9	0.1	5.0	-0.8	NO
193483R	15020	1	55	23	6400	10	0.4	3.7	2.1	1.4	0.4	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.2	5.0	-0.8	NO
193484X	15630	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	21	0.9	2.1	1.4	4.9	0.3	5.0	-0.8	NO
193485E	15660	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	6400	21	0.9	2.1	1.4	2.5	0.2	5.0	-0.8	NO
193487T	15810	2	750	23	6400	10	0.4	3.7	2.1	19.1	2.7	6.5	45.0	6400	21	0.9	2.1	1.4	23.1	1.6	5.0	-0.8	NO
193571H	16060	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	21	0.9	2.1	1.4	3.1	0.2	5.0	-0.8	NO
193522E	16270	2	115	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	6400	21	0.9	2.1	1.4	3.5	0.2	5.0	-0.8	NO
193523L	16310	2	50	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-0.8	NO
193488A	16410	4	5300	23	6400	10	0.4	3.7	2.1	134.8	9.7	6.5	45.0	6400	21	0.9	2.1	1.4	163.6	5.6	5.0	-0.8	NO
196260K	16440	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	21	0.9	2.1	1.4	19.4	1.3	5.0	-0.8	NO
196261S	16460	2	800	23	6400	10	0.4	3.7	2.1	20.3	2.9	6.5	45.0	6400	21	0.9	2.1	1.4	24.7	1.7	5.0	-0.8	NO
193491H	016490	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	6400	21	0.9	2.1	1.4	20.1	1.4	5.0	-0.8	NO
193492P	16520	2	770	23	6400	10	0.4	3.7	2.1	19.6	2.8	6.5	45.0	6400	21	0.9	2.1	1.4	23.8	1.6	5.0	-0.8	NO
193493W	016540	2	1400	23	6400	10	0.4	3.7	2.1	35.6	5.1	6.5	45.0	6400	21	0.9	2.1	1.4	43.2	3.0	5.0	-0.8	NO
193494D	016550	2	1200	23	6400	10	0.4	3.7	2.1	30.5	4.4	6.5	45.0	6400	21	0.9	2.1	1.4	37.0	2.5	5.0	-0.8	NO
193525A	16560	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	21	0.9	2.1	1.4	19.4	1.3	5.0	-0.8	NO
193537U	16570	2	1750	23	6400	10	0.4	3.7	2.1	44.5	6.4	6.5	45.0	6400	21	0.9	2.1	1.4	54.0	3.7	5.0	-0.8	NO
193536M	16680	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	6400	21	0.9	2.1	1.4	29.9	2.1	5.0	-0.8	NO
911203V	16720	2	3500	23	6400	10	0.4	3.7	2.1	89.0	12.8	6.5	45.0	6400	21	0.9	2.1	1.4	108.0	7.4	5.0	-0.8	NO
193560N	16800	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	21	0.9	2.1	1.4	19.4	1.3	5.0	-0.8	NO
193572H	016950	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.9	0.1	5.0	-0.8	NO
193573P	017050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193579F	017150	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193574W	017250	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.8	NO
193546T	017310	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	6400	21	0.9	2.1	1.4	2.5	0.2	5.0	-0.8	NO
193575D	017360	2	355	23	6400	10	0.4	3.7	2.1	9.0	1.3	6.5	45.0	6400	21	0.9	2.1	1.4	11.0	0.8	5.0	-0.8	NO
193547A	017370	2	780	23	6400	10	0.4	3.7	2.1	19.8	2.9	6.5	45.0	6400	21	0.9	2.1	1.4	24.1	1.7	5.0	-0.8	NO
193548G	017510	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193577S	17670	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	21	0.9	2.1	1.4	4.9	0.3	5.0	-0.8	NO
193578Y	017780	2	116	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	6400	21	0.9	2.1	1.4	3.6	0.2	5.0	-0.8	NO
193558M	017970	2	3100	23	6400	10	0.4	3.7	2.1	78.8	11.4	6.5	45.0	6400	21	0.9	2.1	1.4	95.7	6.6	5.0	-0.8	NO
193557F	017980	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
193584C	017990	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	6400	21	0.9	2.1	1.4	27.8	1.9	5.0	-0.8	NO
193553D	018040	2	580	23	6400	10	0.4	3.7	2.1	14.7	2.1	6.5	45.0	6400	21	0.9	2.1	1.4	17.9	1.2	5.0	-0.8	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193554K	018090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193588E	018280	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.8	NO
193589L	018380	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	6400	21	0.9	2.1	1.4	18.5	1.3	5.0	-0.8	NO
193590F	018600	2	130	23	6400	10	0.4	3.7	2.1	3.3	0.5	6.5	45.0	6400	21	0.9	2.1	1.4	4.0	0.3	5.0	-0.8	NO
193591M	018610	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
193592U	018700	2	48	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-0.8	NO
193594H	018870	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193595P	018940	2	480	23	6400	10	0.4	3.7	2.1	12.2	1.8	6.5	45.0	6400	21	0.9	2.1	1.4	14.8	1.0	5.0	-0.8	NO
193596W	019050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193610P	019140	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
911204C	19260	2	1250	23	6400	10	0.4	3.7	2.1	31.8	4.6	6.5	45.0	6400	21	0.9	2.1	1.4	38.6	2.6	5.0	-0.8	NO
193612D	19270	2	200	23	6400	10	0.4	3.7	2.1	5.1	0.7	6.5	45.0	6400	21	0.9	2.1	1.4	6.2	0.4	5.0	-0.8	NO
193613K	019290	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
193599S	019300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
193614S	019310	2	1650	23	6400	10	0.4	3.7	2.1	42.0	6.0	6.5	45.0	6400	21	0.9	2.1	1.4	50.9	3.5	5.0	-0.8	NO
193616F	019330	2	1000	23	6400	10	0.4	3.7	2.1	25.4	3.7	6.5	45.0	6400	21	0.9	2.1	1.4	30.9	2.1	5.0	-0.8	NO
193600J	019360	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
193859H	019410	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	6400	21	0.9	2.1	1.4	18.5	1.3	5.0	-0.8	NO
193710U	019760	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	21	0.9	2.1	1.4	4.9	0.3	5.0	-0.8	NO
193711B	020050	2	56	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193664V	020080	2	146	23	6400	10	0.4	3.7	2.1	3.7	0.5	6.5	45.0	6400	21	0.9	2.1	1.4	4.5	0.3	5.0	-0.8	NO
197897F	020170	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	6400	21	0.9	2.1	1.4	40.1	2.8	5.0	-0.8	NO
197896Y	020180	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
193669E	020260	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	6400	21	0.9	2.1	1.4	2.3	0.2	5.0	-0.8	NO
193671F	020370	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
197895S	020880	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.8	NO
197894K	020910	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	6400	21	0.9	2.1	1.4	40.1	2.8	5.0	-0.8	NO
193712H	21090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193713P	021300	2	99	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	21	0.9	2.1	1.4	3.1	0.2	5.0	-0.8	NO
197789J	021370	2	510	23	6400	10	0.4	3.7	2.1	13.0	1.9	6.5	45.0	6400	21	0.9	2.1	1.4	15.7	1.1	5.0	-0.8	NO
193714W	021410	2	320	23	6400	10	0.4	3.7	2.1	8.1	1.2	6.5	45.0	6400	21	0.9	2.1	1.4	9.9	0.7	5.0	-0.8	NO
193715D	021500	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.8	NO
193716K	021610	2	125	23	6400	10	0.4	3.7	2.1	3.2	0.5	6.5	45.0	6400	21	0.9	2.1	1.4	3.9	0.3	5.0	-0.8	NO
193717S	021710	2	44	23	6400	10	0.4	3.7	2.1	1.1	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-0.8	NO
193718Y	021810	2	530	23	6400	10	0.4	3.7	2.1	13.5	1.9	6.5	45.0	6400	21	0.9	2.1	1.4	16.4	1.1	5.0	-0.8	NO
193719F	021880	2	49	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-0.8	NO
197893D	021900	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	6400	21	0.9	2.1	1.4	27.8	1.9	5.0	-0.8	NO
Segment 5 Walnut Grove to Tracy MP 219 to 226.6																							
197892W	21920	2	1000	24	6400	8	0.3	3.5	2.1	19.6	3.5	4.9	45.0	6400	21	0.9	2.1	1.4	30.9	2.1	5.0	-0.7	NO
193721G	022110	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.7	NO
193692Y	022220	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.7	NO
193694M	022320	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.7	NO
193696B	022410	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.7	NO
193697H	022510	2	37	24	6400	8	0.3	3.5	2.1	0.7	0.1	4.9	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.7	NO
193722N	022650	4	1450	24	6400	8	0.3	3.5	2.1	28.4	2.6	4.9	45.0	6400	21	0.9	2.1	1.4	44.7	1.5	5.0	-0.7	NO
193741T	022660	2	2200	24	6400	8	0.3	3.5	2.1	43.1	7.8	4.9	45.0	6400	21	0.9	2.1	1.4	67.9	4.7	5.0	-0.7	NO
Segment 6 Brookings to Tracy MP 226.6 to 290.0																							
193742A	022720	2	650	28	6400	10	0.4	3.1	1.8	14.0	2.0	4.8	45.0	6400	21	0.9	2.1	1.4	20.1	1.4	5.0	-0.5	NO
193699W	022800	2	320	28	6400	10	0.4	3.1	1.8	6.9	1.0	4.8	45.0	6400	21	0.9	2.1	1.4	9.9	0.7	5.0	-0.5	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193700N	022830	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193702C	022950	2	225	28	6400	10	0.4	3.1	1.8	4.8	0.7	4.8	45.0	6400	21	0.9	2.1	1.4	6.9	0.5	5.0	-0.5	NO
193708T	023150	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193709A	023250	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193810Y	023350	2	1350	28	6400	10	0.4	3.1	1.8	29.0	4.2	4.8	45.0	6400	21	0.9	2.1	1.4	41.7	2.9	5.0	-0.5	NO
193757P	023390	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193758W	023450	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193759D	023550	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193743G	023660	2	155	28	6400	10	0.4	3.1	1.8	3.3	0.5	4.8	45.0	6400	21	0.9	2.1	1.4	4.8	0.3	5.0	-0.5	NO
193744N	023760	2	73	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	2.3	0.2	5.0	-0.5	NO
193745V	023860	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.5	NO
193797M	023940	2	1050	28	6400	10	0.4	3.1	1.8	22.6	3.3	4.8	45.0	6400	21	0.9	2.1	1.4	32.4	2.2	5.0	-0.5	NO
193746C	023950	2	100	28	6400	10	0.4	3.1	1.8	2.2	0.3	4.8	45.0	6400	21	0.9	2.1	1.4	3.1	0.2	5.0	-0.5	NO
193751Y	024180	2	38	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.5	NO
193752F	024230	2	45	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-0.5	NO
193753M	024330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193755B	024440	2	495	28	6400	10	0.4	3.1	1.8	10.6	1.5	4.8	45.0	6400	21	0.9	2.1	1.4	15.3	1.0	5.0	-0.5	NO
193725J	024590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193726R	024640	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-0.5	NO
193730F	024920	2	16	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-0.5	NO
193732U	024980	2	15	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-0.5	NO
193734H	025180	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193736W	025290	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.5	NO
193798U	025340	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	6400	21	0.9	2.1	1.4	11.7	0.8	5.0	-0.5	NO
193799B	025350	2	3150	28	6400	10	0.4	3.1	1.8	67.8	9.8	4.8	45.0	6400	21	0.9	2.1	1.4	97.2	6.7	5.0	-0.5	NO
193800T	025380	2	1000	28	6400	10	0.4	3.1	1.8	21.5	3.1	4.8	45.0	6400	21	0.9	2.1	1.4	30.9	2.1	5.0	-0.5	NO
193737D	025490	2	59	28	6400	10	0.4	3.1	1.8	1.3	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.8	0.1	5.0	-0.5	NO
193740L	025590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193761E	025690	2	95	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	6400	21	0.9	2.1	1.4	2.9	0.2	5.0	-0.5	NO
193762L	025790	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193764A	025900	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193801A	026160	2	1100	28	6400	10	0.4	3.1	1.8	23.7	3.4	4.8	40.0	6400	21	0.9	2.3	1.5	37.2	2.6	5.9	-0.4	NO
193802G	026190	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	6400	21	0.9	2.1	1.4	13.9	1.0	5.0	-0.5	NO
193768C	026330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193769J	026480	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.7	0.1	5.0	-0.5	NO
193770D	026590	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	6400	21	0.9	2.1	1.4	13.9	1.0	5.0	-0.5	NO
193771K	026730	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-0.5	NO
193773Y	026750	2	150	28	6400	10	0.4	3.1	1.8	3.2	0.5	4.8	45.0	6400	21	0.9	2.1	1.4	4.6	0.3	5.0	-0.5	NO
193772S	026780	2	23	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	0.7	0.0	5.0	-0.5	NO
193776U	026830	2	75	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	6400	21	0.9	2.1	1.4	2.3	0.2	5.0	-0.5	NO
193780J	026940	2	720	28	6400	10	0.4	3.1	1.8	15.5	2.2	4.8	45.0	6400	21	0.9	2.1	1.4	22.2	1.5	5.0	-0.5	NO
193782X	27040	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.5	NO
193783E	027140	2	110	28	6400	10	0.4	3.1	1.8	2.4	0.3	4.8	45.0	6400	21	0.9	2.1	1.4	3.4	0.2	5.0	-0.5	NO
193784L	027250	2	44	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-0.5	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 1 Winona to Lewiston MP 0 to 18.4																						
193317H	520	1	460	24	6400	10	0.4	3.5	2.1	11.3	3.2	6.1	45.0	7400	21	0.9	2.4	1.5	15.9	2.2	6.2	-0.6	NO
193197K	620	1	100	24	6400	10	0.4	3.5	2.1	2.5	0.7	6.1	45.0	7400	21	0.9	2.4	1.5	3.5	0.5	6.2	-0.6	NO
193200R	000860	2	2500	24	6400	10	0.4	3.5	2.1	61.3	8.8	6.1	45.0	7400	21	0.9	2.4	1.5	86.4	5.9	6.2	-0.6	NO
193176S	000930	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193201X	001110	2	1750	24	6400	10	0.4	3.5	2.1	42.9	6.2	6.1	45.0	7400	21	0.9	2.4	1.5	60.5	4.1	6.2	-0.6	NO
193206G	001680	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	25.0	7400	21	0.9	3.9	2.2	3.1	0.2	15.1	0.2	NO
193207N	001780	2	1850	24	6400	10	0.4	3.5	2.1	45.4	6.5	6.1	45.0	7400	21	0.9	2.4	1.5	63.9	4.4	6.2	-0.6	NO
193209C	001840	2	1700	24	6400	10	0.4	3.5	2.1	41.7	6.0	6.1	45.0	7400	21	0.9	2.4	1.5	58.7	4.0	6.2	-0.6	NO
Segment 2 Lewiston to Owatonna MP 18.4 to 68.1																						
193210W	1900	1	55	20	6400	12	0.5	4.1	2.4	1.9	0.5	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.3	6.2	-0.9	NO
193211D	002090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193247L	002190	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	7400	21	0.9	2.4	1.5	10.7	0.7	6.2	-0.9	NO
193248T	002270	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2	-0.9	NO
193249A	2300	1	39	20	6400	12	0.5	4.1	2.4	1.3	0.3	9.8	45.0	7400	21	0.9	2.4	1.5	1.3	0.2	6.2	-0.9	NO
193250U	002400	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193251B	2540	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193253P	002650	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	7400	21	0.9	2.4	1.5	19.7	1.4	6.2	-0.9	NO
193193H	2780	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	7400	21	0.9	2.4	1.5	17.3	1.2	6.2	-0.9	NO
193254W	002820	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	7400	21	0.9	2.4	1.5	13.1	1.8	6.2	-0.9	NO
193255D	002840	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	7400	21	0.9	2.4	1.5	19.0	1.3	6.2	-0.9	NO
193256K	002850	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193257S	002870	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	7400	21	0.9	2.4	1.5	6.0	0.4	6.2	-0.9	NO
193194P	2900	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193258Y	003010	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	7400	21	0.9	2.4	1.5	2.8	0.2	6.2	-0.9	NO
193259F	003040	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	7400	21	0.9	2.4	1.5	162.4	5.6	6.2	-0.9	NO
193195W	003090	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	7400	21	0.9	2.4	1.5	12.6	0.9	6.2	-0.9	NO
193260A	003220	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193261G	003420	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	7400	21	0.9	2.4	1.5	5.4	0.4	6.2	-0.9	NO
193262N	003530	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	7400	21	0.9	2.4	1.5	51.8	3.6	6.2	-0.9	NO
193263V	003680	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	7400	21	0.9	2.4	1.5	121.4	8.3	6.2	-0.9	NO
193269X	006130	2	670	20	6400	12	0.5	4.1	2.4	23.1	2.8	9.8	45.0	7400	21	0.9	2.4	1.5	23.1	1.6	6.2	-0.9	NO
193290S	006230	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193291Y	006350	2	2750	20	6400	12	0.5	4.1	2.4	94.8	11.4	9.8	45.0	7400	21	0.9	2.4	1.5	95.0	6.5	6.2	-0.9	NO
193292F	006360	2	610	20	6400	12	0.5	4.1	2.4	21.0	2.5	9.8	45.0	7400	21	0.9	2.4	1.5	21.1	1.4	6.2	-0.9	NO
193293M	006370	2	360	20	6400	12	0.5	4.1	2.4	12.4	1.5	9.8	45.0	7400	21	0.9	2.4	1.5	12.4	0.9	6.2	-0.9	NO
193294U	006430	2	860	20	6400	12	0.5	4.1	2.4	29.6	3.6	9.8	45.0	7400	21	0.9	2.4	1.5	29.7	2.0	6.2	-0.9	NO
196630L	006520	2	7900	20	6400	12	0.5	4.1	2.4	272.3	32.7	9.8	45.0	7400	21	0.9	2.4	1.5	272.9	18.7	6.2	-0.9	NO
193296H	006530	2	60	20	6400	12	0.5	4.1	2.4	2.1	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	2.1	0.1	6.2	-0.9	NO
193357W	006630	2	540	20	6400	12	0.5	4.1	2.4	18.6	2.2	9.8	45.0	7400	21	0.9	2.4	1.5	18.7	1.3	6.2	-0.9	NO
193358D	006740	2	45	20	6400	12	0.5	4.1	2.4	1.6	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.6	0.1	6.2	-0.9	NO
193359K	006840	2	135	20	6400	12	0.5	4.1	2.4	4.7	0.6	9.8	45.0	7400	21	0.9	2.4	1.5	4.7	0.3	6.2	-0.9	NO
193297P	006890	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.9	NO
193360E	006900	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.9	NO
193361L	006910	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.9	NO
193298W	006920	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.9	NO
193362T	006930	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.9	NO
193299D	006940	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.9	NO
193363A	006950	2	3300	20	6400	12	0.5	4.1	2.4	113.8	13.7	9.8	45.0	7400	21	0.9	2.4	1.5	114.0	7.8	6.2	-0.9	NO
193300V	007000	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	7400	21	0.9	2.4	1.5	17.3	1.2	6.2	-0.9	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193364G	007140	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193303R	7190	2	10	20	6400	12	0.5	4.1	2.4	0.3	0.0	9.8	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.9	NO
193365N	007270	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	7400	21	0.9	2.4	1.5	10.7	0.7	6.2	-0.9	NO
193366V	007320	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2	-0.9	NO
193367C	7370	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193368J	007480	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193369R	007580	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	7400	21	0.9	2.4	1.5	19.7	1.4	6.2	-0.9	NO
193370K	007640	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	7400	21	0.9	2.4	1.5	13.1	1.8	6.2	-0.9	NO
193371S	007680	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	7400	21	0.9	2.4	1.5	19.0	1.3	6.2	-0.9	NO
193307T	007780	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193372Y	007980	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	7400	21	0.9	2.4	1.5	6.0	0.4	6.2	-0.9	NO
193373F	008090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193311H	8130	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193374M	008180	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	7400	11	0.5	2.4	1.5	1.0	0.1	3.2	-0.9	NO
193375U	008290	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	7400	21	0.9	2.4	1.5	2.8	0.2	6.2	-0.9	NO
193376B	008390	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	7400	21	0.9	2.4	1.5	162.4	5.6	6.2	-0.9	NO
193312P	008500	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	21	0.9	2.4	1.5	12.6	0.9	6.2	-0.9	NO
193377H	008540	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.9	NO
193382E	8740	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	7400	21	0.9	2.4	1.5	5.4	0.4	6.2	-0.9	NO
380294J	8750	2	200	20	6400	12	0.5	4.1	2.4	6.9	0.8	9.8	45.0	7400	21	0.9	2.4	1.5	51.8	3.6	6.2	-0.9	NO
187034M	8760	1	200	20	6400	12	0.5	4.1	2.4	6.9	1.7	9.8	45.0	7400	21	0.9	2.4	1.5	6.9	0.5	6.2	-0.9	NO
187033F	008776	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	7400	21	0.9	2.4	1.5	6.9	0.9	6.2	-0.9	NO
187032Y	8780	2	2000	20	6400	12	0.5	4.1	2.4	68.9	8.3	9.8	45.0	7400	21	0.9	2.4	1.5	121.4	8.3	6.2	-0.9	NO
Segment 3 Owatonna to Waseca MP 88.1 to 102.5																			69.1	4.7	6.2	-0.9	NO
193383L	8830	4	2515	23	6400	14	0.6	3.7	2.1	89.5	4.6	9.1	45.0	7400	21	0.9	2.4	1.5	86.9	3.0	6.2	-0.6	NO
193384T	008840	4	6800	23	6400	14	0.6	3.7	2.1	242.1	12.5	9.1	45.0	7400	21	0.9	2.4	1.5	234.9	8.1	6.2	-0.6	NO
193388V	008890	2	5600	23	6400	14	0.6	3.7	2.1	199.4	20.5	9.1	45.0	7400	21	0.9	2.4	1.5	193.4	13.3	6.2	-0.6	NO
193390W	008950	2	125	23	6400	14	0.6	3.7	2.1	4.5	0.5	9.1	45.0	7400	21	0.9	2.4	1.5	4.3	0.3	6.2	-0.6	NO
193391D	008970	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	7400	21	0.9	2.4	1.5	93.3	6.4	6.2	-0.6	NO
193392K	009030	2	70	23	6400	14	0.6	3.7	2.1	2.5	0.3	9.1	45.0	7400	21	0.9	2.4	1.5	2.4	0.2	6.2	-0.6	NO
193394Y	9250	4	290	23	6400	14	0.6	3.7	2.1	10.3	0.5	9.1	45.0	7400	21	0.9	2.4	1.5	10.0	0.3	6.2	-0.6	NO
193395F	9350	2	100	23	6400	14	0.6	3.7	2.1	3.6	0.4	9.1	45.0	7400	21	0.9	2.4	1.5	3.5	0.2	6.2	-0.6	NO
193397U	009640	2	555	23	6400	14	0.6	3.7	2.1	19.8	2.0	9.1	45.0	7400	21	0.9	2.4	1.5	19.2	1.3	6.2	-0.6	NO
193398B	009780	2	55	23	6400	14	0.6	3.7	2.1	2.0	0.2	9.1	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193399H	009930	1	10	23	6400	14	0.6	3.7	2.1	0.4	0.1	9.1	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.6	NO
193400A	010090	2	500	23	6400	14	0.6	3.7	2.1	17.8	1.8	9.1	45.0	7400	21	0.9	2.4	1.5	17.3	1.2	6.2	-0.6	NO
193403V	010180	2	2000	23	6400	14	0.6	3.7	2.1	71.2	7.3	9.1	45.0	7400	21	0.9	2.4	1.5	69.1	4.7	6.2	-0.6	NO
193404C	010200	2	200	23	6400	14	0.6	3.7	2.1	7.1	0.7	9.1	45.0	7400	21	0.9	2.4	1.5	6.9	0.5	6.2	-0.6	NO
193405J	010220	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	7400	21	0.9	2.4	1.5	93.3	6.4	6.2	-0.6	NO
193406R	010250	2	7900	23	6400	14	0.6	3.7	2.1	281.3	28.9	9.1	45.0	7400	21	0.9	2.4	1.5	272.9	18.7	6.2	-0.6	NO
Segment 4 Waseca to Walnut Grove MP 102.5 to 219																							
193314D	010260	2	1050	23	6400	10	0.4	3.7	2.1	26.7	3.8	6.5	45.0	7400	21	0.9	2.4	1.5	36.3	2.5	6.2	-0.6	NO
193315K	010270	2	2700	23	6400	10	0.4	3.7	2.1	68.7	9.9	6.5	45.0	7400	21	0.9	2.4	1.5	93.3	6.4	6.2	-0.6	NO
193317Y	010340	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	7400	21	0.9	2.4	1.5	22.5	1.5	6.2	-0.6	NO
193318F	010380	2	2600	23	6400	10	0.4	3.7	2.1	66.1	9.5	6.5	45.0	7400	21	0.9	2.4	1.5	89.8	6.2	6.2	-0.6	NO
193320G	010460	2	810	23	6400	10	0.4	3.7	2.1	20.6	3.0	6.5	45.0	7400	21	0.9	2.4	1.5	28.0	1.9	6.2	-0.6	NO
193322V	010620	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193324J	010730	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193326X	010850	2	190	23	6400	10	0.4	3.7	2.1	4.8	0.7	6.5	45.0	7400	21	0.9	2.4	1.5	6.6	0.5	6.2	-0.6	NO
193328L	010960	2	10	23	6400	10	0.4	3.7	2.1	0.3	0.0	6.5	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.6	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per									
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193329T	11020	2	20	23	6400	10	0.4	3.7	2.1	0.5	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.6	NO
193341A	011090	2	110	23	6400	10	0.4	3.7	2.1	2.8	0.4	6.5	45.0	7400	21	0.9	2.4	1.5	3.8	0.3	6.2	-0.6	NO
193342G	11190	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	21	0.9	2.4	1.5	3.5	0.2	6.2	-0.6	NO
193344V	011260	2	1100	23	6400	10	0.4	3.7	2.1	28.0	4.0	6.5	45.0	7400	21	0.9	2.4	1.5	38.0	2.6	6.2	-0.6	NO
193346J	011280	2	1900	23	6400	10	0.4	3.7	2.1	48.3	7.0	6.5	45.0	7400	21	0.9	2.4	1.5	65.6	4.5	6.2	-0.6	NO
193348X	011300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
193349E	011310	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
193354B	011510	2	275	23	6400	10	0.4	3.7	2.1	7.0	1.0	6.5	45.0	7400	21	0.9	2.4	1.5	9.5	0.7	6.2	-0.6	NO
193356P	011630	2	565	23	6400	10	0.4	3.7	2.1	14.4	2.1	6.5	45.0	7400	21	0.9	2.4	1.5	19.5	1.3	6.2	-0.6	NO
193407X	011660	2	235	23	6400	10	0.4	3.7	2.1	6.0	0.9	6.5	45.0	7400	21	0.9	2.4	1.5	8.1	0.6	6.2	-0.6	NO
193410F	11750	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	21	0.9	2.4	1.5	3.5	0.2	6.2	-0.6	NO
193408E	011870	2	85	23	6400	10	0.4	3.7	2.1	2.2	0.3	6.5	45.0	7400	21	0.9	2.4	1.5	2.9	0.2	6.2	-0.6	NO
193411M	011980	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	7400	21	0.9	2.4	1.5	2.5	0.2	6.2	-0.6	NO
193414H	012080	2	39	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	1.3	0.1	6.2	-0.6	NO
193509R	14720	1	100	23	6400	10	0.4	3.7	2.1	2.5	0.7	6.5	45.0	7400	21	0.9	2.4	1.5	3.5	0.5	6.2	-0.6	NO
193480V	14890	2	52	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.8	0.1	6.2	-0.6	NO
193481C	14980	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	7400	21	0.9	2.4	1.5	33.5	2.3	6.2	-0.6	NO
193482J	14990	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	2.1	0.1	6.2	-0.6	NO
193483R	15020	1	55	23	6400	10	0.4	3.7	2.1	1.4	0.4	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.3	6.2	-0.6	NO
193484X	15630	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	21	0.9	2.4	1.5	5.5	0.4	6.2	-0.6	NO
193485E	15660	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	7400	21	0.9	2.4	1.5	2.8	0.2	6.2	-0.6	NO
193487T	15810	2	750	23	6400	10	0.4	3.7	2.1	19.1	2.7	6.5	45.0	7400	21	0.9	2.4	1.5	25.9	1.8	6.2	-0.6	NO
193571H	16060	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	21	0.9	2.4	1.5	3.5	0.2	6.2	-0.6	NO
193522E	16270	2	115	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	7400	21	0.9	2.4	1.5	4.0	0.3	6.2	-0.6	NO
193523L	16310	2	50	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2	-0.6	NO
193488A	16410	4	5300	23	6400	10	0.4	3.7	2.1	134.8	9.7	6.5	45.0	7400	21	0.9	2.4	1.5	183.1	6.3	6.2	-0.6	NO
196260K	16440	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	21	0.9	2.4	1.5	21.8	1.5	6.2	-0.6	NO
196261S	16460	2	800	23	6400	10	0.4	3.7	2.1	20.3	2.9	6.5	45.0	7400	21	0.9	2.4	1.5	27.6	1.9	6.2	-0.6	NO
193491H	016490	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	7400	21	0.9	2.4	1.5	22.5	1.5	6.2	-0.6	NO
193492P	16520	2	770	23	6400	10	0.4	3.7	2.1	19.6	2.8	6.5	45.0	7400	21	0.9	2.4	1.5	26.6	1.8	6.2	-0.6	NO
193493W	016540	2	1400	23	6400	10	0.4	3.7	2.1	35.6	5.1	6.5	45.0	7400	21	0.9	2.4	1.5	48.4	3.3	6.2	-0.6	NO
193494D	016550	2	1200	23	6400	10	0.4	3.7	2.1	30.5	4.4	6.5	45.0	7400	21	0.9	2.4	1.5	41.5	2.8	6.2	-0.6	NO
193525A	16560	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	21	0.9	2.4	1.5	21.8	1.5	6.2	-0.6	NO
193537U	16570	2	1750	23	6400	10	0.4	3.7	2.1	44.5	6.4	6.5	45.0	7400	21	0.9	2.4	1.5	60.5	4.1	6.2	-0.6	NO
193536M	16680	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	7400	21	0.9	2.4	1.5	33.5	2.3	6.2	-0.6	NO
911203V	16720	2	3500	23	6400	10	0.4	3.7	2.1	89.0	12.8	6.5	45.0	7400	21	0.9	2.4	1.5	120.9	8.3	6.2	-0.6	NO
193560N	16800	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	21	0.9	2.4	1.5	21.8	1.5	6.2	-0.6	NO
193572H	016950	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	2.1	0.1	6.2	-0.6	NO
193573P	017050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193579F	017150	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193574W	017250	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.6	NO
193546T	017310	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	7400	21	0.9	2.4	1.5	2.8	0.2	6.2	-0.6	NO
193575D	017360	2	355	23	6400	10	0.4	3.7	2.1	9.0	1.3	6.5	45.0	7400	21	0.9	2.4	1.5	12.3	0.8	6.2	-0.6	NO
193547A	017370	2	780	23	6400	10	0.4	3.7	2.1	19.8	2.9	6.5	45.0	7400	21	0.9	2.4	1.5	26.9	1.8	6.2	-0.6	NO
193548G	017510	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193577S	17670	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	21	0.9	2.4	1.5	5.5	0.4	6.2	-0.6	NO
193578Y	017780	2	116	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	7400	21	0.9	2.4	1.5	4.0	0.3	6.2	-0.6	NO
193558M	017970	2	3100	23	6400	10	0.4	3.7	2.1	78.8	11.4	6.5	45.0	7400	21	0.9	2.4	1.5	107.1	7.3	6.2	-0.6	NO
193557F	017980	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
193584C	017990	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	7400	21	0.9	2.4	1.5	31.1	2.1	6.2	-0.6	NO
193553D	018040	2	580	23	6400	10	0.4	3.7	2.1	14.7	2.1	6.5	45.0	7400	21	0.9	2.4	1.5	20.0	1.4	6.2	-0.6	NO
193556Y	018040	2	3000	23	6400	10	0.4	3.7	2.1	76.3	11.0	6.5	45.0	7400	21	0.9	2.4	1.5	103.6	7.1	6.2	-0.6	NO
193588E	018280	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.6	NO
193589L	018380	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	7400	21	0.9	2.4	1.5	20.7	1.4	6.2	-0.6	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193590F	018600	2	130	23	6400	10	0.4	3.7	2.1	3.3	0.5	6.5	45.0	7400	21	0.9	2.4	1.5	4.5	0.3	6.2	-0.6	NO
193591M	018610	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
193592U	018700	2	48	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2	-0.6	NO
193594H	018870	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193595P	018940	2	480	23	6400	10	0.4	3.7	2.1	12.2	1.8	6.5	45.0	7400	21	0.9	2.4	1.5	16.6	1.1	6.2	-0.6	NO
193596W	019050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193610P	019140	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
911204C	19260	2	1250	23	6400	10	0.4	3.7	2.1	31.8	4.6	6.5	45.0	7400	21	0.9	2.4	1.5	43.2	3.0	6.2	-0.6	NO
193612D	19270	2	200	23	6400	10	0.4	3.7	2.1	5.1	0.7	6.5	45.0	7400	21	0.9	2.4	1.5	6.9	0.5	6.2	-0.6	NO
193613K	019290	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
193599S	019300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
193614S	019310	2	1650	23	6400	10	0.4	3.7	2.1	42.0	6.0	6.5	45.0	7400	21	0.9	2.4	1.5	57.0	3.9	6.2	-0.6	NO
193616F	019330	2	1000	23	6400	10	0.4	3.7	2.1	25.4	3.7	6.5	45.0	7400	21	0.9	2.4	1.5	34.5	2.4	6.2	-0.6	NO
193600J	019360	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
193859H	019410	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	7400	21	0.9	2.4	1.5	20.7	1.4	6.2	-0.6	NO
193710U	019760	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	21	0.9	2.4	1.5	5.5	0.4	6.2	-0.6	NO
193711B	020050	2	56	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193664V	020080	2	146	23	6400	10	0.4	3.7	2.1	3.7	0.5	6.5	45.0	7400	21	0.9	2.4	1.5	5.0	0.3	6.2	-0.6	NO
197897F	020170	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	7400	21	0.9	2.4	1.5	44.9	3.1	6.2	-0.6	NO
197896Y	020180	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
193669E	020260	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	7400	21	0.9	2.4	1.5	2.5	0.2	6.2	-0.6	NO
193671F	020370	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
197895S	020880	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.6	NO
197894K	020910	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	7400	21	0.9	2.4	1.5	44.9	3.1	6.2	-0.6	NO
193712H	21090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193713P	021300	2	99	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	21	0.9	2.4	1.5	3.4	0.2	6.2	-0.6	NO
197789J	021370	2	510	23	6400	10	0.4	3.7	2.1	13.0	1.9	6.5	45.0	7400	21	0.9	2.4	1.5	17.6	1.2	6.2	-0.6	NO
193714W	021410	2	320	23	6400	10	0.4	3.7	2.1	8.1	1.2	6.5	45.0	7400	21	0.9	2.4	1.5	11.1	0.8	6.2	-0.6	NO
193715D	021500	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193716K	021610	2	125	23	6400	10	0.4	3.7	2.1	3.2	0.5	6.5	45.0	7400	21	0.9	2.4	1.5	4.3	0.3	6.2	-0.6	NO
193717S	021710	2	44	23	6400	10	0.4	3.7	2.1	1.1	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.5	0.1	6.2	-0.6	NO
193718Y	021810	2	530	23	6400	10	0.4	3.7	2.1	13.5	1.9	6.5	45.0	7400	21	0.9	2.4	1.5	18.3	1.3	6.2	-0.6	NO
193719F	021880	2	49	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2	-0.6	NO
197893D	021900	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	7400	21	0.9	2.4	1.5	31.1	2.1	6.2	-0.6	NO
Segment 5 Walnut Grove to Tracy MP 219 to 226.6																							
197892W	21920	2	1000	24	6400	8	0.3	3.5	2.1	19.6	3.5	4.9	45.0	7400	21	0.9	2.4	1.5	34.5	2.4	6.2	-0.6	NO
193721G	022110	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.6	NO
193692Y	022220	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.6	NO
193694M	022320	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193696B	022410	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.6	NO
193697H	022510	2	37	24	6400	8	0.3	3.5	2.1	0.7	0.1	4.9	45.0	7400	21	0.9	2.4	1.5	1.3	0.1	6.2	-0.6	NO
193722N	022650	4	1450	24	6400	8	0.3	3.5	2.1	28.4	2.6	4.9	45.0	7400	21	0.9	2.4	1.5	50.1	1.7	6.2	-0.6	NO
193741T	022660	2	2200	24	6400	8	0.3	3.5	2.1	43.1	7.8	4.9	45.0	7400	21	0.9	2.4	1.5	76.0	5.2	6.2	-0.6	NO
Segment 6 Brookings to Tracy MP 226.6 to 290.0																							
193742A	022720	2	650	28	6400	10	0.4	3.1	1.8	14.0	2.0	4.8	45.0	7400	21	0.9	2.4	1.5	22.5	1.5	6.2	-0.4	NO
193699W	022800	2	320	28	6400	10	0.4	3.1	1.8	6.9	1.0	4.8	45.0	7400	21	0.9	2.4	1.5	11.1	0.8	6.2	-0.4	NO
193700N	022830	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193702C	022950	2	225	28	6400	10	0.4	3.1	1.8	4.8	0.7	4.8	45.0	7400	21	0.9	2.4	1.5	7.8	0.5	6.2	-0.4	NO
193708T	023150	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193709A	023250	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO

Pre/Post-Construction Delays
Minnesota 50 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193810Y	023350	2	1350	28	6400	10	0.4	3.1	1.8	29.0	4.2	4.8	45.0	7400	21	0.9	2.4	1.5	46.6	3.2	6.2	-0.4	NO
193757P	023390	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193758W	023450	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193759D	023550	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193743G	023660	2	155	28	6400	10	0.4	3.1	1.8	3.3	0.5	4.8	45.0	7400	21	0.9	2.4	1.5	5.4	0.4	6.2	-0.4	NO
193744N	023760	2	73	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	2.5	0.2	6.2	-0.4	NO
193745V	023860	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.4	NO
193797M	023940	2	1050	28	6400	10	0.4	3.1	1.8	22.6	3.3	4.8	45.0	7400	21	0.9	2.4	1.5	36.3	2.5	6.2	-0.4	NO
193748R	023990	2	710	28	6400	10	0.4	3.1	1.8	15.3	2.2	4.8	45.0	7400	21	0.9	2.4	1.5	24.5	1.7	6.2	-0.4	NO
193751Y	024180	2	38	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.3	0.1	6.2	-0.4	NO
193752F	024230	2	45	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.6	0.1	6.2	-0.4	NO
193753M	024330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193755B	024440	2	495	28	6400	10	0.4	3.1	1.8	10.6	1.5	4.8	45.0	7400	21	0.9	2.4	1.5	17.1	1.2	6.2	-0.4	NO
193725J	024590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193726R	024640	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2	-0.4	NO
193730F	024920	2	16	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	7400	21	0.9	2.4	1.5	0.6	0.0	6.2	-0.4	NO
193732U	024980	2	15	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	7400	21	0.9	2.4	1.5	0.5	0.0	6.2	-0.4	NO
193734H	025180	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193736W	025290	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.4	NO
193798U	025340	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	7400	21	0.9	2.4	1.5	13.1	0.9	6.2	-0.4	NO
193799B	025350	2	3150	28	6400	10	0.4	3.1	1.8	67.8	9.8	4.8	45.0	7400	21	0.9	2.4	1.5	108.8	7.5	6.2	-0.4	NO
193800T	025380	2	1000	28	6400	10	0.4	3.1	1.8	21.5	3.1	4.8	45.0	7400	21	0.9	2.4	1.5	34.5	2.4	6.2	-0.4	NO
193737D	025490	2	59	28	6400	10	0.4	3.1	1.8	1.3	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	2.0	0.1	6.2	-0.4	NO
193740L	025590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193761E	025690	2	95	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	7400	21	0.9	2.4	1.5	3.3	0.2	6.2	-0.4	NO
193762L	025790	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193764A	025900	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193801A	026160	2	1100	28	6400	10	0.4	3.1	1.8	23.7	3.4	4.8	40.0	7400	21	0.9	2.6	1.6	41.7	2.9	7.3	-0.2	NO
193802G	026190	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	7400	21	0.9	2.4	1.5	15.5	1.1	6.2	-0.4	NO
193768C	026330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193769J	026480	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.9	0.1	6.2	-0.4	NO
193770D	026590	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	7400	21	0.9	2.4	1.5	15.5	1.1	6.2	-0.4	NO
193771K	026730	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2	-0.4	NO
193773Y	026750	2	150	28	6400	10	0.4	3.1	1.8	3.2	0.5	4.8	45.0	7400	21	0.9	2.4	1.5	5.2	0.4	6.2	-0.4	NO
193772S	026780	2	23	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	0.8	0.1	6.2	-0.4	NO
193776U	026830	2	75	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	7400	21	0.9	2.4	1.5	2.6	0.2	6.2	-0.4	NO
193780J	026940	2	720	28	6400	10	0.4	3.1	1.8	15.5	2.2	4.8	45.0	7400	21	0.9	2.4	1.5	24.9	1.7	6.2	-0.4	NO
193782X	27040	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.4	NO
193783E	027140	2	110	28	6400	10	0.4	3.1	1.8	2.4	0.3	4.8	45.0	7400	21	0.9	2.4	1.5	3.8	0.3	6.2	-0.4	NO
193784L	027250	2	44	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.5	0.1	6.2	-0.4	NO

Pre/Post-Construction Delays
Minnesota 100MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 1 Winona to Lewiston MP 0 to 18.4																						
19317H	520	1	460	24	6400	10	0.4	3.5	2.1	11.3	3.2	6.1	45.0	6400	37	1.5	2.1	1.4	25.0	1.9	8.9	-0.7	NO
193197K	620	1	100	24	6400	10	0.4	3.5	2.1	2.5	0.7	6.1	45.0	6400	37	1.5	2.1	1.4	5.4	0.4	8.9	-0.7	NO
193200R	000860	2	2500	24	6400	10	0.4	3.5	2.1	61.3	8.8	6.1	45.0	6400	37	1.5	2.1	1.4	135.9	5.3	8.9	-0.7	NO
193176S	000930	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.7	NO
193201X	001110	2	1750	24	6400	10	0.4	3.5	2.1	42.9	6.2	6.1	45.0	6400	37	1.5	2.1	1.4	95.2	3.7	8.9	-0.7	NO
193206G	001680	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	25.0	6400	37	1.5	3.4	2.0	4.8	0.2	21.1	-0.1	NO
193207N	001780	2	1850	24	6400	10	0.4	3.5	2.1	45.4	6.5	6.1	45.0	6400	37	1.5	2.1	1.4	100.6	3.9	8.9	-0.7	NO
193209C	001840	2	1700	24	6400	10	0.4	3.5	2.1	41.7	6.0	6.1	45.0	6400	37	1.5	2.1	1.4	92.4	3.6	8.9	-0.7	NO
Segment 2 Lewiston to Owatonna MP 18.4 to 88.1																						
193210W	1900	1	55	20	6400	12	0.5	4.1	2.4	1.9	0.5	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.2	8.9	-1.0	NO
193211D	002090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193247L	002190	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	6400	37	1.5	2.1	1.4	16.9	0.7	8.9	-1.0	NO
193248T	002270	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9	-1.0	NO
193249A	2300	1	39	20	6400	12	0.5	4.1	2.4	1.3	0.3	9.8	45.0	6400	37	1.5	2.1	1.4	2.1	0.2	8.9	-1.0	NO
193250U	002400	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193251B	2540	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193253P	002650	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	6400	37	1.5	2.1	1.4	31.0	1.2	8.9	-1.0	NO
193193H	2780	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	6400	37	1.5	2.1	1.4	27.2	1.1	8.9	-1.0	NO
193254W	002820	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	6400	37	1.5	2.1	1.4	20.7	1.6	8.9	-1.0	NO
193255D	002840	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	6400	37	1.5	2.1	1.4	29.9	1.2	8.9	-1.0	NO
193256K	002850	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193257S	002870	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	6400	37	1.5	2.1	1.4	9.5	0.4	8.9	-1.0	NO
193194P	2900	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193258Y	003010	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	6400	37	1.5	2.1	1.4	4.3	0.2	8.9	-1.0	NO
193259F	003040	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	6400	37	1.5	2.1	1.4	255.6	5.0	8.9	-1.0	NO
193195W	003090	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	6400	37	1.5	2.1	1.4	19.8	0.8	8.9	-1.0	NO
193260A	003220	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193261G	003420	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	6400	37	1.5	2.1	1.4	8.4	0.3	8.9	-1.0	NO
193262N	003530	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	6400	37	1.5	2.1	1.4	81.6	3.2	8.9	-1.0	NO
193263V	003680	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	6400	37	1.5	2.1	1.4	191.1	7.4	8.9	-1.0	NO
193289X	006130	2	670	20	6400	12	0.5	4.1	2.4	23.1	2.8	9.8	45.0	6400	37	1.5	2.1	1.4	36.4	1.4	8.9	-1.0	NO
193290S	006230	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193291Y	006350	2	2750	20	6400	12	0.5	4.1	2.4	94.8	11.4	9.8	45.0	6400	37	1.5	2.1	1.4	149.5	5.8	8.9	-1.0	NO
193292F	006360	2	610	20	6400	12	0.5	4.1	2.4	21.0	2.5	9.8	45.0	6400	37	1.5	2.1	1.4	33.2	1.3	8.9	-1.0	NO
193293M	006370	2	360	20	6400	12	0.5	4.1	2.4	12.4	1.5	9.8	45.0	6400	37	1.5	2.1	1.4	19.6	0.8	8.9	-1.0	NO
193294U	006430	2	860	20	6400	12	0.5	4.1	2.4	29.6	3.6	9.8	45.0	6400	37	1.5	2.1	1.4	46.8	1.8	8.9	-1.0	NO
196630L	006520	2	7900	20	6400	12	0.5	4.1	2.4	272.3	32.7	9.8	45.0	6400	37	1.5	2.1	1.4	429.6	16.7	8.9	-1.0	NO
193296H	006530	2	60	20	6400	12	0.5	4.1	2.4	2.1	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.3	0.1	8.9	-1.0	NO
193357W	006630	2	540	20	6400	12	0.5	4.1	2.4	18.6	2.2	9.8	45.0	6400	37	1.5	2.1	1.4	29.4	1.1	8.9	-1.0	NO
193358D	006740	2	45	20	6400	12	0.5	4.1	2.4	1.6	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	2.4	0.1	8.9	-1.0	NO
193359K	006840	2	135	20	6400	12	0.5	4.1	2.4	4.7	0.6	9.8	45.0	6400	37	1.5	2.1	1.4	7.3	0.3	8.9	-1.0	NO
193297P	006890	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-1.0	NO
193360E	006900	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-1.0	NO
193361L	006910	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-1.0	NO
193298W	006920	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-1.0	NO
193362T	006930	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-1.0	NO
193299D	006940	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-1.0	NO
193363A	006950	2	3300	20	6400	12	0.5	4.1	2.4	113.8	13.7	9.8	45.0	6400	37	1.5	2.1	1.4	179.4	7.0	8.9	-1.0	NO
193300V	007000	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	6400	37	1.5	2.1	1.4	27.2	1.1	8.9	-1.0	NO

Pre/Post-Construction Delays
Minnesota 100MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193364G	007140	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193303R	7190	2	10	20	6400	12	0.5	4.1	2.4	0.3	0.0	9.8	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-1.0	NO
193365N	007270	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	6400	37	1.5	2.1	1.4	16.9	0.7	8.9	-1.0	NO
193366V	007320	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9	-1.0	NO
193367C	7370	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193368J	007480	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193369R	007580	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	6400	37	1.5	2.1	1.4	31.0	1.2	8.9	-1.0	NO
193370K	007640	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	6400	37	1.5	2.1	1.4	20.7	1.6	8.9	-1.0	NO
193371S	007680	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	6400	37	1.5	2.1	1.4	29.9	1.2	8.9	-1.0	NO
193307T	007780	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193372Y	007980	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	6400	37	1.5	2.1	1.4	9.5	0.4	8.9	-1.0	NO
193373F	008090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193311H	8130	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193374M	008180	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	6400	37	1.5	2.1	1.4	4.3	0.2	8.9	-1.0	NO
193375U	008290	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	6400	37	1.5	2.1	1.4	255.6	5.0	8.9	-1.0	NO
193376B	008390	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	6400	37	1.5	2.1	1.4	19.8	0.8	8.9	-1.0	NO
193312P	008500	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-1.0	NO
193377H	008540	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	6400	37	1.5	2.1	1.4	8.4	0.3	8.9	-1.0	NO
193382E	8740	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	6400	37	1.5	2.1	1.4	81.6	3.2	8.9	-1.0	NO
380294J	8750	2	200	20	6400	12	0.5	4.1	2.4	6.9	0.8	9.8	45.0	6400	37	1.5	2.1	1.4	10.9	0.4	8.9	-1.0	NO
187034M	8760	1	200	20	6400	12	0.5	4.1	2.4	6.9	1.7	9.8	45.0	6400	37	1.5	2.1	1.4	10.9	0.8	8.9	-1.0	NO
187033F	008776	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	6400	37	1.5	2.1	1.4	191.1	7.4	8.9	-1.0	NO
187032Y	8780	2	2000	20	6400	12	0.5	4.1	2.4	68.9	8.3	9.8	45.0	6400	37	1.5	2.1	1.4	108.7	4.2	8.9	-1.0	NO
Segment 3 Owatonna to Waseca MP 88.1 to 102.5																							
193383L	8830	4	2515	23	6400	14	0.6	3.7	2.1	89.5	4.6	9.1	45.0	6400	37	1.5	2.1	1.4	136.7	2.7	8.9	-0.8	NO
193384T	008840	4	6800	23	6400	14	0.6	3.7	2.1	242.1	12.5	9.1	45.0	6400	37	1.5	2.1	1.4	369.7	7.2	8.9	-0.8	NO
193388V	008890	2	5600	23	6400	14	0.6	3.7	2.1	199.4	20.5	9.1	45.0	6400	37	1.5	2.1	1.4	304.5	11.9	8.9	-0.8	NO
193390W	008950	2	125	23	6400	14	0.6	3.7	2.1	4.5	0.5	9.1	45.0	6400	37	1.5	2.1	1.4	6.8	0.3	8.9	-0.8	NO
193391D	008970	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	6400	37	1.5	2.1	1.4	146.8	5.7	8.9	-0.8	NO
193392K	009030	2	70	23	6400	14	0.6	3.7	2.1	2.5	0.3	9.1	45.0	6400	37	1.5	2.1	1.4	3.8	0.1	8.9	-0.8	NO
193394Y	9250	4	290	23	6400	14	0.6	3.7	2.1	10.3	0.5	9.1	45.0	6400	37	1.5	2.1	1.4	15.8	0.3	8.9	-0.8	NO
193395F	9350	2		23	6400	14	0.6	3.7	2.1	0.0	0.0	9.1	45.0	6400	37	1.5	2.1	1.4	0.0	0.0	8.9	-0.8	NO
193397U	009640	2	555	23	6400	14	0.6	3.7	2.1	19.8	2.0	9.1	45.0	6400	37	1.5	2.1	1.4	30.2	1.2	8.9	-0.8	NO
193398B	009780	2	55	23	6400	14	0.6	3.7	2.1	2.0	0.2	9.1	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193399H	009930	1	10	23	6400	14	0.6	3.7	2.1	0.4	0.1	9.1	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.8	NO
193400A	010090	2	500	23	6400	14	0.6	3.7	2.1	17.8	1.8	9.1	45.0	6400	37	1.5	2.1	1.4	27.2	1.1	8.9	-0.8	NO
193403V	010180	2	2000	23	6400	14	0.6	3.7	2.1	71.2	7.3	9.1	45.0	6400	37	1.5	2.1	1.4	108.7	4.2	8.9	-0.8	NO
193404C	010200	2	200	23	6400	14	0.6	3.7	2.1	7.1	0.7	9.1	45.0	6400	37	1.5	2.1	1.4	10.9	0.4	8.9	-0.8	NO
193405J	010220	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	6400	37	1.5	2.1	1.4	146.8	5.7	8.9	-0.8	NO
193406R	010250	2	7900	23	6400	14	0.6	3.7	2.1	281.3	28.9	9.1	45.0	6400	37	1.5	2.1	1.4	429.6	16.7	8.9	-0.8	NO
Segment 4 Waseca to Walnut Grove MP 102.5 to 219																							
193314D	010260	2	1050	23	6400	10	0.4	3.7	2.1	26.7	3.8	6.5	45.0	6400	37	1.5	2.1	1.4	57.1	2.2	8.9	-0.8	NO
193315K	010270	2	2700	23	6400	10	0.4	3.7	2.1	68.7	9.9	6.5	45.0	6400	37	1.5	2.1	1.4	146.8	5.7	8.9	-0.8	NO
193317Y	010340	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	6400	37	1.5	2.1	1.4	35.3	1.4	8.9	-0.8	NO
193318F	010380	2	2600	23	6400	10	0.4	3.7	2.1	66.1	9.5	6.5	45.0	6400	37	1.5	2.1	1.4	141.4	5.5	8.9	-0.8	NO
193320G	010460	2	810	23	6400	10	0.4	3.7	2.1	20.6	3.0	6.5	45.0	6400	37	1.5	2.1	1.4	44.0	1.7	8.9	-0.8	NO
193322V	010620	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193324J	010730	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193326X	010850	2	190	23	6400	10	0.4	3.7	2.1	4.8	0.7	6.5	45.0	6400	37	1.5	2.1	1.4	10.3	0.4	8.9	-0.8	NO
193328L	010960	2	10	23	6400	10	0.4	3.7	2.1	0.3	0.0	6.5	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.8	NO

Pre/Post-Construction Delays
Minnesota 100MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193329T	11020	2	20	23	6400	10	0.4	3.7	2.1	0.5	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.1	0.0	8.9	-0.8	NO
193341A	011090	2	110	23	6400	10	0.4	3.7	2.1	2.8	0.4	6.5	45.0	6400	37	1.5	2.1	1.4	6.0	0.2	8.9	-0.8	NO
193342G	11190	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	37	1.5	2.1	1.4	5.4	0.2	8.9	-0.8	NO
193344V	011260	2	1100	23	6400	10	0.4	3.7	2.1	28.0	4.0	6.5	45.0	6400	37	1.5	2.1	1.4	59.8	2.3	8.9	-0.8	NO
193346J	011280	2	1900	23	6400	10	0.4	3.7	2.1	48.3	7.0	6.5	45.0	6400	37	1.5	2.1	1.4	103.3	4.0	8.9	-0.8	NO
193348X	011300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
193349E	011310	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
193354B	011510	2	275	23	6400	10	0.4	3.7	2.1	7.0	1.0	6.5	45.0	6400	37	1.5	2.1	1.4	15.0	0.6	8.9	-0.8	NO
193356P	011630	2	565	23	6400	10	0.4	3.7	2.1	14.4	2.1	6.5	45.0	6400	37	1.5	2.1	1.4	30.7	1.2	8.9	-0.8	NO
193407X	011660	2	235	23	6400	10	0.4	3.7	2.1	6.0	0.9	6.5	45.0	6400	37	1.5	2.1	1.4	12.8	0.5	8.9	-0.8	NO
193410F	11750	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	37	1.5	2.1	1.4	5.4	0.2	8.9	-0.8	NO
193408E	011870	2	85	23	6400	10	0.4	3.7	2.1	2.2	0.3	6.5	45.0	6400	37	1.5	2.1	1.4	4.6	0.2	8.9	-0.8	NO
193411M	011980	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	6400	37	1.5	2.1	1.4	4.0	0.2	8.9	-0.8	NO
193414H	012080	2	39	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	2.1	0.1	8.9	-0.8	NO
193509R	14720	1	100	23	6400	10	0.4	3.7	2.1	2.5	0.7	6.5	45.0	6400	37	1.5	2.1	1.4	5.4	0.4	8.9	-0.8	NO
193480V	14890	2	52	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	2.8	0.1	8.9	-0.8	NO
193481C	14980	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	6400	37	1.5	2.1	1.4	52.7	2.1	8.9	-0.8	NO
193482J	14990	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.3	0.1	8.9	-0.8	NO
193483R	15020	1	55	23	6400	10	0.4	3.7	2.1	1.4	0.4	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.2	8.9	-0.8	NO
193484X	15630	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	37	1.5	2.1	1.4	8.7	0.3	8.9	-0.8	NO
193485E	15660	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	6400	37	1.5	2.1	1.4	4.3	0.2	8.9	-0.8	NO
193487T	15810	2	750	23	6400	10	0.4	3.7	2.1	19.1	2.7	6.5	45.0	6400	37	1.5	2.1	1.4	40.8	1.6	8.9	-0.8	NO
193571H	16060	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	37	1.5	2.1	1.4	5.4	0.2	8.9	-0.8	NO
193522E	16270	2	115	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	6400	37	1.5	2.1	1.4	6.3	0.2	8.9	-0.8	NO
193523L	16310	2	50	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9	-0.8	NO
193488A	16410	4	5300	23	6400	10	0.4	3.7	2.1	134.8	9.7	6.5	45.0	6400	37	1.5	2.1	1.4	288.2	5.6	8.9	-0.8	NO
196260K	16440	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	37	1.5	2.1	1.4	34.3	1.3	8.9	-0.8	NO
196261S	16460	2	800	23	6400	10	0.4	3.7	2.1	20.3	2.9	6.5	45.0	6400	37	1.5	2.1	1.4	43.5	1.7	8.9	-0.8	NO
193491H	016490	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	6400	37	1.5	2.1	1.4	35.3	1.4	8.9	-0.8	NO
193492P	16520	2	770	23	6400	10	0.4	3.7	2.1	19.6	2.8	6.5	45.0	6400	37	1.5	2.1	1.4	41.9	1.6	8.9	-0.8	NO
193493W	016540	2	1400	23	6400	10	0.4	3.7	2.1	35.6	5.1	6.5	45.0	6400	37	1.5	2.1	1.4	76.1	3.0	8.9	-0.8	NO
193494D	016550	2	1200	23	6400	10	0.4	3.7	2.1	30.5	4.4	6.5	45.0	6400	37	1.5	2.1	1.4	65.2	2.5	8.9	-0.8	NO
193525A	16560	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	37	1.5	2.1	1.4	34.3	1.3	8.9	-0.8	NO
193537U	16570	2	1750	23	6400	10	0.4	3.7	2.1	44.5	6.4	6.5	45.0	6400	37	1.5	2.1	1.4	95.2	3.7	8.9	-0.8	NO
193536M	16680	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	6400	37	1.5	2.1	1.4	52.7	2.1	8.9	-0.8	NO
911203V	16720	2	3500	23	6400	10	0.4	3.7	2.1	89.0	12.8	6.5	45.0	6400	37	1.5	2.1	1.4	190.3	7.4	8.9	-0.8	NO
193560N	16800	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	6400	37	1.5	2.1	1.4	34.3	1.3	8.9	-0.8	NO
193572H	016950	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.3	0.1	8.9	-0.8	NO
193573P	017050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193579F	017150	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193574W	017250	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.8	NO
193546T	017310	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	6400	37	1.5	2.1	1.4	4.3	0.2	8.9	-0.8	NO
193575D	017360	2	355	23	6400	10	0.4	3.7	2.1	9.0	1.3	6.5	45.0	6400	37	1.5	2.1	1.4	19.3	0.8	8.9	-0.8	NO
193547A	017370	2	780	23	6400	10	0.4	3.7	2.1	19.8	2.9	6.5	45.0	6400	37	1.5	2.1	1.4	42.4	1.7	8.9	-0.8	NO
193548G	017510	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193577S	17670	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	37	1.5	2.1	1.4	8.7	0.3	8.9	-0.8	NO
193578Y	017780	2	116	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	6400	37	1.5	2.1	1.4	6.3	0.2	8.9	-0.8	NO
193558M	017970	2	3100	23	6400	10	0.4	3.7	2.1	78.8	11.4	6.5	45.0	6400	37	1.5	2.1	1.4	168.6	6.6	8.9	-0.8	NO
193557F	017980	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
193584C	017990	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	6400	37	1.5	2.1	1.4	48.9	1.9	8.9	-0.8	NO
193553D	018040	2	580	23	6400	10	0.4	3.7	2.1	14.7	2.1	6.5	45.0	6400	37	1.5	2.1	1.4	31.5	1.2	8.9	-0.8	NO
193554K	018090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193588E	018280	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.8	NO
193589L	018380	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	6400	37	1.5	2.1	1.4	32.6	1.3	8.9	-0.8	NO

Pre/Post-Construction Delays
Minnesota 100MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193590F	018600	2	130	23	6400	10	0.4	3.7	2.1	3.3	0.5	6.5	45.0	6400	37	1.5	2.1	1.4	7.1	0.3	8.9	-0.8	NO
193591M	018610	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
193592U	018700	2	48	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	2.6	0.1	8.9	-0.8	NO
193594H	018870	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193595P	018940	2	480	23	6400	10	0.4	3.7	2.1	12.2	1.8	6.5	45.0	6400	37	1.5	2.1	1.4	26.1	1.0	8.9	-0.8	NO
193596W	019050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193610P	019140	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
911204C	19260	2	1250	23	6400	10	0.4	3.7	2.1	31.8	4.6	6.5	45.0	6400	37	1.5	2.1	1.4	68.0	2.6	8.9	-0.8	NO
193612D	19270	2	200	23	6400	10	0.4	3.7	2.1	5.1	0.7	6.5	45.0	6400	37	1.5	2.1	1.4	10.9	0.4	8.9	-0.8	NO
193613K	019290	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
193599S	019300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
193614S	019310	2	1650	23	6400	10	0.4	3.7	2.1	42.0	6.0	6.5	45.0	6400	37	1.5	2.1	1.4	89.7	3.5	8.9	-0.8	NO
193616F	019330	2	1000	23	6400	10	0.4	3.7	2.1	25.4	3.7	6.5	45.0	6400	37	1.5	2.1	1.4	54.4	2.1	8.9	-0.8	NO
193600J	019360	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
193859H	019410	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	6400	37	1.5	2.1	1.4	32.6	1.3	8.9	-0.8	NO
193710U	019760	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	6400	37	1.5	2.1	1.4	8.7	0.3	8.9	-0.8	NO
193711B	020050	2	56	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193664V	020080	2	146	23	6400	10	0.4	3.7	2.1	3.7	0.5	6.5	45.0	6400	37	1.5	2.1	1.4	7.9	0.3	8.9	-0.8	NO
197897F	020170	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	6400	37	1.5	2.1	1.4	70.7	2.8	8.9	-0.8	NO
197896Y	020180	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
193669E	020260	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	6400	37	1.5	2.1	1.4	4.0	0.2	8.9	-0.8	NO
193671F	020370	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
197895S	020880	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.8	NO
197894K	020910	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	6400	37	1.5	2.1	1.4	70.7	2.8	8.9	-0.8	NO
193712H	21090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193713P	021300	2	99	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	6400	37	1.5	2.1	1.4	5.4	0.2	8.9	-0.8	NO
197789J	021370	2	510	23	6400	10	0.4	3.7	2.1	13.0	1.9	6.5	45.0	6400	37	1.5	2.1	1.4	27.7	1.1	8.9	-0.8	NO
193714W	021410	2	320	23	6400	10	0.4	3.7	2.1	8.1	1.2	6.5	45.0	6400	37	1.5	2.1	1.4	17.4	0.7	8.9	-0.8	NO
193715D	021500	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.8	NO
193716K	021610	2	125	23	6400	10	0.4	3.7	2.1	3.2	0.5	6.5	45.0	6400	37	1.5	2.1	1.4	6.8	0.3	8.9	-0.8	NO
193717S	021710	2	44	23	6400	10	0.4	3.7	2.1	1.1	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	2.4	0.1	8.9	-0.8	NO
193718Y	021810	2	530	23	6400	10	0.4	3.7	2.1	13.5	1.9	6.5	45.0	6400	37	1.5	2.1	1.4	28.8	1.1	8.9	-0.8	NO
193719F	021880	2	49	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9	-0.8	NO
197893D	021900	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	6400	37	1.5	2.1	1.4	48.9	1.9	8.9	-0.8	NO
Segment 5 Walnut Grove to Tracy MP 219 to 226.6																							
197892W	21920	2	1000	24	6400	8	0.3	3.5	2.1	19.6	3.5	4.9	45.0	6400	37	1.5	2.1	1.4	54.4	2.1	8.9	-0.7	NO
193721G	022110	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.7	NO
193692Y	022220	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.7	NO
193694M	022320	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.7	NO
193696B	022410	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.7	NO
193697H	022510	2	37	24	6400	8	0.3	3.5	2.1	0.7	0.1	4.9	45.0	6400	37	1.5	2.1	1.4	2.0	0.1	8.9	-0.7	NO
193722N	022650	4	1450	24	6400	8	0.3	3.5	2.1	28.4	2.6	4.9	45.0	6400	37	1.5	2.1	1.4	78.8	1.5	8.9	-0.7	NO
193741T	022660	2	2200	24	6400	8	0.3	3.5	2.1	43.1	7.8	4.9	45.0	6400	37	1.5	2.1	1.4	119.6	4.7	8.9	-0.7	NO
Segment 6 Brookings to Tracy MP 226.6 to 290.0																							
193742A	022720	2	650	28	6400	10	0.4	3.1	1.8	14.0	2.0	4.8	45.0	6400	37	1.5	2.1	1.4	35.3	1.4	8.9	-0.5	NO
193699W	022800	2	320	28	6400	10	0.4	3.1	1.8	6.9	1.0	4.8	45.0	6400	37	1.5	2.1	1.4	17.4	0.7	8.9	-0.5	NO
193700N	022830	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193702C	022950	2	225	28	6400	10	0.4	3.1	1.8	4.8	0.7	4.8	45.0	6400	37	1.5	2.1	1.4	12.2	0.5	8.9	-0.5	NO
193708T	023150	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193709A	023250	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO

Pre/Post-Construction Delays
Minnesota 100MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193810Y	023350	2	1350	28	6400	10	0.4	3.1	1.8	29.0	4.2	4.8	45.0	6400	37	1.5	2.1	1.4	73.4	2.9	8.9	-0.5	NO
193757P	023390	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193758W	023450	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193759D	023550	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193743G	023660	2	155	28	6400	10	0.4	3.1	1.8	3.3	0.5	4.8	45.0	6400	37	1.5	2.1	1.4	8.4	0.3	8.9	-0.5	NO
193744N	023760	2	73	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	4.0	0.2	8.9	-0.5	NO
193745V	023860	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	6400	37	1.5	2.1	1.4	0.3	0.0	8.9	-0.5	NO
193797M	023940	2	1050	28	6400	10	0.4	3.1	1.8	22.6	3.3	4.8	45.0	6400	37	1.5	2.1	1.4	57.1	2.2	8.9	-0.5	NO
193748R	023990	2	710	28	6400	10	0.4	3.1	1.8	15.3	2.2	4.8	45.0	6400	37	1.5	2.1	1.4	38.6	1.5	8.9	-0.5	NO
193751Y	024180	2	38	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.1	0.1	8.9	-0.5	NO
193752F	024230	2	45	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.4	0.1	8.9	-0.5	NO
193753M	024330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193755B	024440	2	495	28	6400	10	0.4	3.1	1.8	10.6	1.5	4.8	45.0	6400	37	1.5	2.1	1.4	26.9	1.0	8.9	-0.5	NO
193725J	024590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193726R	024640	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9	-0.5	NO
193730F	024920	2	16	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	6400	37	1.5	2.1	1.4	0.9	0.0	8.9	-0.5	NO
193732U	024980	2	15	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	6400	37	1.5	2.1	1.4	0.8	0.0	8.9	-0.5	NO
193734H	025180	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193736W	025290	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.5	NO
193798U	025340	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	6400	37	1.5	2.1	1.4	20.7	0.8	8.9	-0.5	NO
193799B	025350	2	3150	28	6400	10	0.4	3.1	1.8	67.8	9.8	4.8	45.0	6400	37	1.5	2.1	1.4	171.3	6.7	8.9	-0.5	NO
193800T	025380	2	1000	28	6400	10	0.4	3.1	1.8	21.5	3.1	4.8	45.0	6400	37	1.5	2.1	1.4	54.4	2.1	8.9	-0.5	NO
193737D	025490	2	59	28	6400	10	0.4	3.1	1.8	1.3	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.2	0.1	8.9	-0.5	NO
193740L	025590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193761E	025690	2	95	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	6400	37	1.5	2.1	1.4	5.2	0.2	8.9	-0.5	NO
193762L	025790	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193764A	025900	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193801A	026160	2	1100	28	6400	10	0.4	3.1	1.8	23.7	3.4	4.8	40.0	6400	37	1.5	2.3	1.5	65.5	2.6	10.4	-0.4	NO
193802G	026190	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	6400	37	1.5	2.1	1.4	24.5	1.0	8.9	-0.5	NO
193768C	026330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193769J	026480	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	3.0	0.1	8.9	-0.5	NO
193770D	026590	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	6400	37	1.5	2.1	1.4	24.5	1.0	8.9	-0.5	NO
193771K	026730	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9	-0.5	NO
193773Y	026750	2	150	28	6400	10	0.4	3.1	1.8	3.2	0.5	4.8	45.0	6400	37	1.5	2.1	1.4	8.2	0.3	8.9	-0.5	NO
193772S	026780	2	23	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	1.3	0.0	8.9	-0.5	NO
193776U	026830	2	75	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	6400	37	1.5	2.1	1.4	4.1	0.2	8.9	-0.5	NO
193780J	026940	2	720	28	6400	10	0.4	3.1	1.8	15.5	2.2	4.8	45.0	6400	37	1.5	2.1	1.4	39.1	1.5	8.9	-0.5	NO
193782X	27040	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.5	NO
193783E	027140	2	110	28	6400	10	0.4	3.1	1.8	2.4	0.3	4.8	45.0	6400	37	1.5	2.1	1.4	6.0	0.2	8.9	-0.5	NO
193784L	027250	2	44	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.4	0.1	8.9	-0.5	NO

Pre/Post-Construction Delays
Minnesota 100 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction									Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 1 Winona to Lewiston MP 0 to 18.4																							
19317H	520	1	460	24	6400	10	0.4	3.5	2.1	11.3	3.2	6.1	45.0	7400	37	1.5	2.4	1.5	28.0	2.2	10.8	-0.6	NO
193197K	620	1	100	24	6400	10	0.4	3.5	2.1	2.5	0.7	6.1	45.0	7400	37	1.5	2.4	1.5	6.1	0.5	10.8	-0.6	NO
193200R	000860	2	2500	24	6400	10	0.4	3.5	2.1	61.3	8.8	6.1	45.0	7400	37	1.5	2.4	1.5	152.2	5.9	10.8	-0.6	NO
193176S	000930	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193201X	001110	2	1750	24	6400	10	0.4	3.5	2.1	42.9	6.2	6.1	45.0	7400	37	1.5	2.4	1.5	106.5	4.1	10.8	-0.6	NO
193206G	001680	2	55	24	6400	10	0.4	3.5	2.1	1.3	0.2	6.1	25.0	7400	37	1.5	3.9	2.2	5.5	0.2	26.6	0.2	NO
193207N	001780	2	1850	24	6400	10	0.4	3.5	2.1	45.4	6.5	6.1	45.0	7400	37	1.5	2.4	1.5	112.6	4.4	10.8	-0.6	NO
193209C	001840	2	1700	24	6400	10	0.4	3.5	2.1	41.7	6.0	6.1	45.0	7400	37	1.5	2.4	1.5	103.5	4.0	10.8	-0.6	NO
Segment 2 Lewiston to Owatonna MP 18.4 to 88.1																							
193210W	1900	1	55	20	6400	12	0.5	4.1	2.4	1.9	0.5	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.3	10.8	-0.9	NO
193211D	002090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193247L	002190	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	7400	37	1.5	2.4	1.5	18.9	0.7	10.8	-0.9	NO
193248T	002270	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8	-0.9	NO
193249A	2300	1	39	20	6400	12	0.5	4.1	2.4	1.3	0.3	9.8	45.0	7400	37	1.5	2.4	1.5	2.4	0.2	10.8	-0.9	NO
193250U	002400	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193251B	2540	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193253P	002650	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	7400	37	1.5	2.4	1.5	34.7	1.4	10.8	-0.9	NO
193193H	2780	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	7400	37	1.5	2.4	1.5	30.4	1.2	10.8	-0.9	NO
193254W	002820	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	7400	37	1.5	2.4	1.5	23.1	1.8	10.8	-0.9	NO
193255D	002840	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	7400	37	1.5	2.4	1.5	33.5	1.3	10.8	-0.9	NO
193256K	002850	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193257S	002870	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	7400	37	1.5	2.4	1.5	10.7	0.4	10.8	-0.9	NO
193194P	2900	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193258Y	003010	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	7400	37	1.5	2.4	1.5	4.9	0.2	10.8	-0.9	NO
193259F	003040	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	7400	37	1.5	2.4	1.5	286.1	5.6	10.8	-0.9	NO
193195W	003090	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	7400	37	1.5	2.4	1.5	22.2	0.9	10.8	-0.9	NO
193260A	003220	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193261G	003420	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	7400	37	1.5	2.4	1.5	9.4	0.4	10.8	-0.9	NO
193262N	003530	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	7400	37	1.5	2.4	1.5	91.3	3.6	10.8	-0.9	NO
193263V	003680	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	7400	37	1.5	2.4	1.5	213.9	8.3	10.8	-0.9	NO
193289X	006130	2	670	20	6400	12	0.5	4.1	2.4	23.1	2.8	9.8	45.0	7400	37	1.5	2.4	1.5	40.8	1.6	10.8	-0.9	NO
193290S	006230	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193291Y	006350	2	2750	20	6400	12	0.5	4.1	2.4	94.8	11.4	9.8	45.0	7400	37	1.5	2.4	1.5	167.4	6.5	10.8	-0.9	NO
193292F	006360	2	610	20	6400	12	0.5	4.1	2.4	21.0	2.5	9.8	45.0	7400	37	1.5	2.4	1.5	37.1	1.4	10.8	-0.9	NO
193293M	006370	2	360	20	6400	12	0.5	4.1	2.4	12.4	1.5	9.8	45.0	7400	37	1.5	2.4	1.5	21.9	0.9	10.8	-0.9	NO
193294U	006430	2	860	20	6400	12	0.5	4.1	2.4	29.6	3.6	9.8	45.0	7400	37	1.5	2.4	1.5	52.3	2.0	10.8	-0.9	NO
196630L	006520	2	7900	20	6400	12	0.5	4.1	2.4	272.3	32.7	9.8	45.0	7400	37	1.5	2.4	1.5	480.8	18.7	10.8	-0.9	NO
193296H	006530	2	60	20	6400	12	0.5	4.1	2.4	2.1	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.7	0.1	10.8	-0.9	NO
193357W	006630	2	540	20	6400	12	0.5	4.1	2.4	18.6	2.2	9.8	45.0	7400	37	1.5	2.4	1.5	32.9	1.3	10.8	-0.9	NO
193358D	006740	2	45	20	6400	12	0.5	4.1	2.4	1.6	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	2.7	0.1	10.8	-0.9	NO
193359K	006840	2	135	20	6400	12	0.5	4.1	2.4	4.7	0.6	9.8	45.0	7400	37	1.5	2.4	1.5	8.2	0.3	10.8	-0.9	NO
193297P	006890	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.9	NO
193360E	006900	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.9	NO
193361L	006910	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.9	NO
193298W	006920	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.9	NO
193362T	006930	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.9	NO
193299D	006940	2	380	20	6400	12	0.5	4.1	2.4	13.1	1.6	9.8	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.9	NO
193363A	006950	2	3300	20	6400	12	0.5	4.1	2.4	113.8	13.7	9.8	45.0	7400	37	1.5	2.4	1.5	200.8	7.8	10.8	-0.9	NO
193300V	007000	2	500	20	6400	12	0.5	4.1	2.4	17.2	2.1	9.8	45.0	7400	37	1.5	2.4	1.5	30.4	1.2	10.8	-0.9	NO
193364G	007140	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO

Pre/Post-Construction Delays
Minnesota 100 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193303R	7190	2	10	20	6400	12	0.5	4.1	2.4	0.3	0.0	9.8	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.9	NO
193365N	007270	2	310	20	6400	12	0.5	4.1	2.4	10.7	1.3	9.8	45.0	7400	37	1.5	2.4	1.5	18.9	0.7	10.8	-0.9	NO
193366V	007320	2	49	20	6400	12	0.5	4.1	2.4	1.7	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8	-0.9	NO
193367C	7370	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193368J	007480	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193369R	007580	2	570	20	6400	12	0.5	4.1	2.4	19.6	2.4	9.8	45.0	7400	37	1.5	2.4	1.5	34.7	1.4	10.8	-0.9	NO
193370K	007640	1	380	20	6400	12	0.5	4.1	2.4	13.1	3.1	9.8	45.0	7400	37	1.5	2.4	1.5	23.1	1.8	10.8	-0.9	NO
193371S	007680	2	550	20	6400	12	0.5	4.1	2.4	19.0	2.3	9.8	45.0	7400	37	1.5	2.4	1.5	33.5	1.3	10.8	-0.9	NO
193307T	007780	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193372Y	007980	2	175	20	6400	12	0.5	4.1	2.4	6.0	0.7	9.8	45.0	7400	37	1.5	2.4	1.5	10.7	0.4	10.8	-0.9	NO
193373F	008090	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193311H	8130	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193374M	008180	2	80	20	6400	12	0.5	4.1	2.4	2.8	0.3	9.8	45.0	7400	37	1.5	2.4	1.5	4.9	0.2	10.8	-0.9	NO
193375U	008290	4	4700	20	6400	12	0.5	4.1	2.4	162.0	9.7	9.8	45.0	7400	37	1.5	2.4	1.5	286.1	5.6	10.8	-0.9	NO
193376B	008390	2	365	20	6400	12	0.5	4.1	2.4	12.6	1.5	9.8	45.0	7400	37	1.5	2.4	1.5	22.2	0.9	10.8	-0.9	NO
193312P	008500	2	55	20	6400	12	0.5	4.1	2.4	1.9	0.2	9.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.9	NO
193377H	008540	2	155	20	6400	12	0.5	4.1	2.4	5.3	0.6	9.8	45.0	7400	37	1.5	2.4	1.5	9.4	0.4	10.8	-0.9	NO
193382E	8740	2	1500	20	6400	12	0.5	4.1	2.4	51.7	6.2	9.8	45.0	7400	37	1.5	2.4	1.5	91.3	3.6	10.8	-0.9	NO
380294J	8750	2	200	20	6400	12	0.5	4.1	2.4	6.9	0.8	9.8	45.0	7400	37	1.5	2.4	1.5	12.2	0.5	10.8	-0.9	NO
187034M	8760	1	200	20	6400	12	0.5	4.1	2.4	6.9	1.7	9.8	45.0	7400	37	1.5	2.4	1.5	12.2	0.9	10.8	-0.9	NO
187033F	008776	2	3515	20	6400	12	0.5	4.1	2.4	121.2	14.5	9.8	45.0	7400	37	1.5	2.4	1.5	213.9	8.3	10.8	-0.9	NO
187032Y	8780	2	2000	20	6400	12	0.5	4.1	2.4	68.9	8.3	9.8	45.0	7400	37	1.5	2.4	1.5	121.7	4.7	10.8	-0.9	NO
Segment 3 Owatonna to Waseca MP 88.1 to 102.5																							
193383L	8830	4	2515	23	6400	14	0.6	3.7	2.1	89.5	4.6	9.1	45.0	7400	37	1.5	2.4	1.5	153.1	3.0	10.8	-0.6	NO
193384T	008840	4	6800	23	6400	14	0.6	3.7	2.1	242.1	12.5	9.1	45.0	7400	37	1.5	2.4	1.5	413.9	8.1	10.8	-0.6	NO
193388V	008890	2	5600	23	6400	14	0.6	3.7	2.1	199.4	20.5	9.1	45.0	7400	37	1.5	2.4	1.5	340.8	13.3	10.8	-0.6	NO
193390W	008950	2	125	23	6400	14	0.6	3.7	2.1	4.5	0.5	9.1	45.0	7400	37	1.5	2.4	1.5	7.6	0.3	10.8	-0.6	NO
193391D	008970	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	7400	37	1.5	2.4	1.5	164.3	6.4	10.8	-0.6	NO
193392K	009030	2	70	23	6400	14	0.6	3.7	2.1	2.5	0.3	9.1	45.0	7400	37	1.5	2.4	1.5	4.3	0.2	10.8	-0.6	NO
193394Y	9250	4	290	23	6400	14	0.6	3.7	2.1	10.3	0.5	9.1	45.0	7400	37	1.5	2.4	1.5	17.7	0.3	10.8	-0.6	NO
193395F	9350	2		23	6400	14	0.6	3.7	2.1	0.0	0.0	9.1	45.0	7400	37	1.5	2.4	1.5	0.0	0.0	10.8	-0.6	NO
193397U	009640	2	555	23	6400	14	0.6	3.7	2.1	19.8	2.0	9.1	45.0	7400	37	1.5	2.4	1.5	33.8	1.3	10.8	-0.6	NO
193398B	009780	2	55	23	6400	14	0.6	3.7	2.1	2.0	0.2	9.1	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193399H	009930	1	10	23	6400	14	0.6	3.7	2.1	0.4	0.1	9.1	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.6	NO
193400A	010090	2	500	23	6400	14	0.6	3.7	2.1	17.8	1.8	9.1	45.0	7400	37	1.5	2.4	1.5	30.4	1.2	10.8	-0.6	NO
193403V	010180	2	2000	23	6400	14	0.6	3.7	2.1	71.2	7.3	9.1	45.0	7400	37	1.5	2.4	1.5	121.7	4.7	10.8	-0.6	NO
193404C	010200	2	200	23	6400	14	0.6	3.7	2.1	7.1	0.7	9.1	45.0	7400	37	1.5	2.4	1.5	12.2	0.5	10.8	-0.6	NO
193405J	010220	2	2700	23	6400	14	0.6	3.7	2.1	96.1	9.9	9.1	45.0	7400	37	1.5	2.4	1.5	164.3	6.4	10.8	-0.6	NO
193406R	010250	2	7900	23	6400	14	0.6	3.7	2.1	281.3	28.9	9.1	45.0	7400	37	1.5	2.4	1.5	480.8	18.7	10.8	-0.6	NO
Segment 4 Waseca to Walnut Grove MP 102.5 to 219																							
193314D	010260	2	1050	23	6400	10	0.4	3.7	2.1	26.7	3.8	6.5	45.0	7400	37	1.5	2.4	1.5	63.9	2.5	10.8	-0.6	NO
193315K	010270	2	2700	23	6400	10	0.4	3.7	2.1	68.7	9.9	6.5	45.0	7400	37	1.5	2.4	1.5	164.3	6.4	10.8	-0.6	NO
193317Y	010340	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	7400	37	1.5	2.4	1.5	39.6	1.5	10.8	-0.6	NO
193318F	010380	2	2600	23	6400	10	0.4	3.7	2.1	66.1	9.5	6.5	45.0	7400	37	1.5	2.4	1.5	158.2	6.2	10.8	-0.6	NO
193320G	010460	2	810	23	6400	10	0.4	3.7	2.1	20.6	3.0	6.5	45.0	7400	37	1.5	2.4	1.5	49.3	1.9	10.8	-0.6	NO
193322V	010620	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193324J	010730	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193326X	010850	2	190	23	6400	10	0.4	3.7	2.1	4.8	0.7	6.5	45.0	7400	37	1.5	2.4	1.5	11.6	0.5	10.8	-0.6	NO
193328L	010960	2	10	23	6400	10	0.4	3.7	2.1	0.3	0.0	6.5	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.6	NO
193329T	11020	2	20	23	6400	10	0.4	3.7	2.1	0.5	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.6	NO
193341A	011090	2	110	23	6400	10	0.4	3.7	2.1	2.8	0.4	6.5	45.0	7400	37	1.5	2.4	1.5	6.7	0.3	10.8	-0.6	NO

Pre/Post-Construction Delays
Minnesota 100 MNT
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193342G	11190	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	37	1.5	2.4	1.5	6.1	0.2	10.8	-0.6	NO
193344V	011260	2	1100	23	6400	10	0.4	3.7	2.1	28.0	4.0	6.5	45.0	7400	37	1.5	2.4	1.5	66.9	2.6	10.8	-0.6	NO
193346J	011280	2	1900	23	6400	10	0.4	3.7	2.1	48.3	7.0	6.5	45.0	7400	37	1.5	2.4	1.5	115.6	4.5	10.8	-0.6	NO
193348X	011300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
193349E	011310	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
193354B	011510	2	275	23	6400	10	0.4	3.7	2.1	7.0	1.0	6.5	45.0	7400	37	1.5	2.4	1.5	16.7	0.7	10.8	-0.6	NO
193356P	011630	2	565	23	6400	10	0.4	3.7	2.1	14.4	2.1	6.5	45.0	7400	37	1.5	2.4	1.5	34.4	1.3	10.8	-0.6	NO
193407X	011660	2	235	23	6400	10	0.4	3.7	2.1	6.0	0.9	6.5	45.0	7400	37	1.5	2.4	1.5	14.3	0.6	10.8	-0.6	NO
193410F	11750	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	37	1.5	2.4	1.5	6.1	0.2	10.8	-0.6	NO
193408E	011870	2	85	23	6400	10	0.4	3.7	2.1	2.2	0.3	6.5	45.0	7400	37	1.5	2.4	1.5	5.2	0.2	10.8	-0.6	NO
193411M	011980	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	7400	37	1.5	2.4	1.5	4.4	0.2	10.8	-0.6	NO
193414H	012080	2	39	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.6	NO
193509R	14720	1	100	23	6400	10	0.4	3.7	2.1	2.5	0.7	6.5	45.0	7400	37	1.5	2.4	1.5	6.1	0.5	10.8	-0.6	NO
193480V	14890	2	52	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.2	0.1	10.8	-0.6	NO
193481C	14980	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	7400	37	1.5	2.4	1.5	59.0	2.3	10.8	-0.6	NO
193482J	14990	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.7	0.1	10.8	-0.6	NO
193483R	15020	1	55	23	6400	10	0.4	3.7	2.1	1.4	0.4	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.3	10.8	-0.6	NO
193484X	15630	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	37	1.5	2.4	1.5	9.7	0.4	10.8	-0.6	NO
193485E	15660	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	7400	37	1.5	2.4	1.5	4.9	0.2	10.8	-0.6	NO
193487T	15810	2	750	23	6400	10	0.4	3.7	2.1	19.1	2.7	6.5	45.0	7400	37	1.5	2.4	1.5	45.6	1.8	10.8	-0.6	NO
193571H	16060	2	100	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	37	1.5	2.4	1.5	6.1	0.2	10.8	-0.6	NO
193522E	16270	2	115	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	7400	37	1.5	2.4	1.5	7.0	0.3	10.8	-0.6	NO
193523L	16310	2	50	23	6400	10	0.4	3.7	2.1	1.3	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8	-0.6	NO
193488A	16480	4	5300	23	6400	10	0.4	3.7	2.1	134.8	9.7	6.5	45.0	7400	37	1.5	2.4	1.5	322.6	6.3	10.8	-0.6	NO
196260K	16440	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	37	1.5	2.4	1.5	38.3	1.5	10.8	-0.6	NO
196261S	16460	2	800	23	6400	10	0.4	3.7	2.1	20.3	2.9	6.5	45.0	7400	37	1.5	2.4	1.5	48.7	1.9	10.8	-0.6	NO
193491H	016490	2	650	23	6400	10	0.4	3.7	2.1	16.5	2.4	6.5	45.0	7400	37	1.5	2.4	1.5	39.6	1.5	10.8	-0.6	NO
193492P	16520	2	770	23	6400	10	0.4	3.7	2.1	19.6	2.8	6.5	45.0	7400	37	1.5	2.4	1.5	46.9	1.8	10.8	-0.6	NO
193493W	016540	2	1400	23	6400	10	0.4	3.7	2.1	35.6	5.1	6.5	45.0	7400	37	1.5	2.4	1.5	85.2	3.3	10.8	-0.6	NO
193494D	016550	2	1200	23	6400	10	0.4	3.7	2.1	30.5	4.4	6.5	45.0	7400	37	1.5	2.4	1.5	73.0	2.8	10.8	-0.6	NO
193525A	16560	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	37	1.5	2.4	1.5	38.3	1.5	10.8	-0.6	NO
193537U	16570	2	1750	23	6400	10	0.4	3.7	2.1	44.5	6.4	6.5	45.0	7400	37	1.5	2.4	1.5	106.5	4.1	10.8	-0.6	NO
193536M	16680	2	970	23	6400	10	0.4	3.7	2.1	24.7	3.6	6.5	45.0	7400	37	1.5	2.4	1.5	59.0	2.3	10.8	-0.6	NO
911203V	16720	2	3500	23	6400	10	0.4	3.7	2.1	89.0	12.8	6.5	45.0	7400	37	1.5	2.4	1.5	213.0	8.3	10.8	-0.6	NO
193560N	16800	2	630	23	6400	10	0.4	3.7	2.1	16.0	2.3	6.5	45.0	7400	37	1.5	2.4	1.5	38.3	1.5	10.8	-0.6	NO
193572H	016950	2	60	23	6400	10	0.4	3.7	2.1	1.5	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.7	0.1	10.8	-0.6	NO
193573P	017050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193579F	017150	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193574W	017250	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.6	NO
193546T	017310	2	80	23	6400	10	0.4	3.7	2.1	2.0	0.3	6.5	45.0	7400	37	1.5	2.4	1.5	4.9	0.2	10.8	-0.6	NO
193575D	017360	2	355	23	6400	10	0.4	3.7	2.1	9.0	1.3	6.5	45.0	7400	37	1.5	2.4	1.5	21.6	0.8	10.8	-0.6	NO
193547A	017370	2	780	23	6400	10	0.4	3.7	2.1	19.8	2.9	6.5	45.0	7400	37	1.5	2.4	1.5	47.5	1.8	10.8	-0.6	NO
193548G	017510	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193577S	17670	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	37	1.5	2.4	1.5	9.7	0.4	10.8	-0.6	NO
193578Y	017780	2	116	23	6400	10	0.4	3.7	2.1	2.9	0.4	6.5	45.0	7400	37	1.5	2.4	1.5	7.1	0.3	10.8	-0.6	NO
193558M	017970	2	3100	23	6400	10	0.4	3.7	2.1	78.8	11.4	6.5	45.0	7400	37	1.5	2.4	1.5	188.7	7.3	10.8	-0.6	NO
193557F	017980	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
193584C	017990	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	7400	37	1.5	2.4	1.5	54.8	2.1	10.8	-0.6	NO
193553D	018040	2	580	23	6400	10	0.4	3.7	2.1	14.7	2.1	6.5	45.0	7400	37	1.5	2.4	1.5	35.3	1.4	10.8	-0.6	NO
193554K	018090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193588E	018280	2	40	23	6400	10	0.4	3.7	2.1	1.0	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.6	NO
193589L	018380	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	7400	37	1.5	2.4	1.5	36.5	1.4	10.8	-0.6	NO
193590F	018600	2	130	23	6400	10	0.4	3.7	2.1	3.3	0.5	6.5	45.0	7400	37	1.5	2.4	1.5	7.9	0.3	10.8	-0.6	NO
193591M	018610	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
193592U	018700	2	48	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	2.9	0.1	10.8	-0.6	NO

Pre/Post-Construction Delays
Minnesota 100 MNT
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
193594H	018870	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193595P	018940	2	480	23	6400	10	0.4	3.7	2.1	12.2	1.8	6.5	45.0	7400	37	1.5	2.4	1.5	29.2	1.1	10.8	-0.6	NO
193596W	019050	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193610P	019140	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
911204C	19260	2	1250	23	6400	10	0.4	3.7	2.1	31.8	4.6	6.5	45.0	7400	37	1.5	2.4	1.5	76.1	3.0	10.8	-0.6	NO
193612D	19270	2	200	23	6400	10	0.4	3.7	2.1	5.1	0.7	6.5	45.0	7400	37	1.5	2.4	1.5	12.2	0.5	10.8	-0.6	NO
193613K	019290	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
193599S	019300	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
193614S	019310	2	1650	23	6400	10	0.4	3.7	2.1	42.0	6.0	6.5	45.0	7400	37	1.5	2.4	1.5	100.4	3.9	10.8	-0.6	NO
193616F	019330	2	1000	23	6400	10	0.4	3.7	2.1	25.4	3.7	6.5	45.0	7400	37	1.5	2.4	1.5	60.9	2.4	10.8	-0.6	NO
193600J	019360	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
193859H	019410	2	600	23	6400	10	0.4	3.7	2.1	15.3	2.2	6.5	45.0	7400	37	1.5	2.4	1.5	36.5	1.4	10.8	-0.6	NO
193710U	019760	2	160	23	6400	10	0.4	3.7	2.1	4.1	0.6	6.5	45.0	7400	37	1.5	2.4	1.5	9.7	0.4	10.8	-0.6	NO
193711B	020050	2	56	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.4	0.1	10.8	-0.6	NO
193664V	020080	2	146	23	6400	10	0.4	3.7	2.1	3.7	0.5	6.5	45.0	7400	37	1.5	2.4	1.5	8.9	0.3	10.8	-0.6	NO
197897F	020170	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	7400	37	1.5	2.4	1.5	79.1	3.1	10.8	-0.6	NO
197896Y	020180	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
193669E	020260	2	73	23	6400	10	0.4	3.7	2.1	1.9	0.3	6.5	45.0	7400	37	1.5	2.4	1.5	4.4	0.2	10.8	-0.6	NO
193671F	020370	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
197895S	020880	2	380	23	6400	10	0.4	3.7	2.1	9.7	1.4	6.5	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.6	NO
197894K	020910	2	1300	23	6400	10	0.4	3.7	2.1	33.1	4.8	6.5	45.0	7400	37	1.5	2.4	1.5	79.1	3.1	10.8	-0.6	NO
193712H	21090	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193713P	021300	2	99	23	6400	10	0.4	3.7	2.1	2.5	0.4	6.5	45.0	7400	37	1.5	2.4	1.5	6.0	0.2	10.8	-0.6	NO
197789J	021370	2	510	23	6400	10	0.4	3.7	2.1	13.0	1.9	6.5	45.0	7400	37	1.5	2.4	1.5	31.0	1.2	10.8	-0.6	NO
193714W	021410	2	320	23	6400	10	0.4	3.7	2.1	8.1	1.2	6.5	45.0	7400	37	1.5	2.4	1.5	19.5	0.8	10.8	-0.6	NO
193715D	021500	2	55	23	6400	10	0.4	3.7	2.1	1.4	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193716K	021610	2	125	23	6400	10	0.4	3.7	2.1	3.2	0.5	6.5	45.0	7400	37	1.5	2.4	1.5	7.6	0.3	10.8	-0.6	NO
193717S	021710	2	44	23	6400	10	0.4	3.7	2.1	1.1	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	2.7	0.1	10.8	-0.6	NO
193718Y	021810	2	530	23	6400	10	0.4	3.7	2.1	13.5	1.9	6.5	45.0	7400	37	1.5	2.4	1.5	32.3	1.3	10.8	-0.6	NO
193719F	021880	2	49	23	6400	10	0.4	3.7	2.1	1.2	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8	-0.6	NO
197893D	021900	2	900	23	6400	10	0.4	3.7	2.1	22.9	3.3	6.5	45.0	7400	37	1.5	2.4	1.5	54.8	2.1	10.8	-0.6	NO
Segment 5 Walnut Grove to Tracy MP 219 to 226.6																							
197892W	21920	2	1000	24	6400	8	0.3	3.5	2.1	19.6	3.5	4.9	45.0	7400	37	1.5	2.4	1.5	60.9	2.4	10.8	-0.6	NO
193721G	022110	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.6	NO
193692Y	022220	2	40	24	6400	8	0.3	3.5	2.1	0.8	0.1	4.9	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.6	NO
193694M	022320	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193696B	022410	2	55	24	6400	8	0.3	3.5	2.1	1.1	0.2	4.9	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.6	NO
193697H	022510	2	37	24	6400	8	0.3	3.5	2.1	0.7	0.1	4.9	45.0	7400	37	1.5	2.4	1.5	2.3	0.1	10.8	-0.6	NO
193722N	022650	4	1450	24	6400	8	0.3	3.5	2.1	28.4	2.6	4.9	45.0	7400	37	1.5	2.4	1.5	88.3	1.7	10.8	-0.6	NO
193741T	022660	2	2200	24	6400	8	0.3	3.5	2.1	43.1	7.8	4.9	45.0	7400	37	1.5	2.4	1.5	133.9	5.2	10.8	-0.6	NO
Segment 6 Brookings to Tracy MP 226.6 to 290.0																							
193742A	022720	2	650	28	6400	10	0.4	3.1	1.8	14.0	2.0	4.8	45.0	7400	37	1.5	2.4	1.5	39.6	1.5	10.8	-0.4	NO
193699W	022800	2	320	28	6400	10	0.4	3.1	1.8	6.9	1.0	4.8	45.0	7400	37	1.5	2.4	1.5	19.5	0.8	10.8	-0.4	NO
193700N	022830	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193702C	022950	2	225	28	6400	10	0.4	3.1	1.8	4.8	0.7	4.8	45.0	7400	37	1.5	2.4	1.5	13.7	0.5	10.8	-0.4	NO
193708T	023150	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193709A	023250	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193810Y	023350	2	1350	28	6400	10	0.4	3.1	1.8	29.0	4.2	4.8	45.0	7400	37	1.5	2.4	1.5	82.2	3.2	10.8	-0.4	NO
193757P	023390	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193758W	023450	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193759D	023550	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO

Pre/Post-Construction Delays
Minnesota 100 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
193743G	023660	2	155	28	6400	10	0.4	3.1	1.8	3.3	0.5	4.8	45.0	7400	37	1.5	2.4	1.5	9.4	0.4	10.8	-0.4	NO
193744N	023760	2	73	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	4.4	0.2	10.8	-0.4	NO
193745V	023860	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	7400	37	1.5	2.4	1.5	0.3	0.0	10.8	-0.4	NO
193797M	023940	2	1050	28	6400	10	0.4	3.1	1.8	22.6	3.3	4.8	45.0	7400	37	1.5	2.4	1.5	63.9	2.5	10.8	-0.4	NO
193748R	023990	2	710	28	6400	10	0.4	3.1	1.8	15.3	2.2	4.8	45.0	7400	37	1.5	2.4	1.5	43.2	1.7	10.8	-0.4	NO
193751Y	024180	2	38	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.3	0.1	10.8	-0.4	NO
193752F	024230	2	45	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.7	0.1	10.8	-0.4	NO
193753M	024330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193755B	024440	2	495	28	6400	10	0.4	3.1	1.8	10.6	1.5	4.8	45.0	7400	37	1.5	2.4	1.5	30.1	1.2	10.8	-0.4	NO
193725J	024590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193726R	024640	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8	-0.4	NO
193730F	024920	2	16	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	7400	37	1.5	2.4	1.5	1.0	0.0	10.8	-0.4	NO
193732U	024980	2	15	28	6400	10	0.4	3.1	1.8	0.3	0.0	4.8	45.0	7400	37	1.5	2.4	1.5	0.9	0.0	10.8	-0.4	NO
193734H	025180	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193736W	025290	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.4	NO
193798U	025340	2	380	28	6400	10	0.4	3.1	1.8	8.2	1.2	4.8	45.0	7400	37	1.5	2.4	1.5	23.1	0.9	10.8	-0.4	NO
193799B	025350	2	3150	28	6400	10	0.4	3.1	1.8	67.8	9.8	4.8	45.0	7400	37	1.5	2.4	1.5	191.7	7.5	10.8	-0.4	NO
193800T	025380	2	1000	28	6400	10	0.4	3.1	1.8	21.5	3.1	4.8	45.0	7400	37	1.5	2.4	1.5	60.9	2.4	10.8	-0.4	NO
193737D	025490	2	59	28	6400	10	0.4	3.1	1.8	1.3	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.6	0.1	10.8	-0.4	NO
193740L	025590	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193761E	025690	2	95	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	7400	37	1.5	2.4	1.5	5.8	0.2	10.8	-0.4	NO
193762L	025790	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193764A	025900	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193801A	026160	2	1100	28	6400	10	0.4	3.1	1.8	23.7	3.4	4.8	40.0	7400	37	1.5	2.6	1.6	73.6	2.9	12.8	-0.2	NO
193802G	026190	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	7400	37	1.5	2.4	1.5	27.4	1.1	10.8	-0.4	NO
193768C	026330	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193769J	026480	2	55	28	6400	10	0.4	3.1	1.8	1.2	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.3	0.1	10.8	-0.4	NO
193770D	026590	2	450	28	6400	10	0.4	3.1	1.8	9.7	1.4	4.8	45.0	7400	37	1.5	2.4	1.5	27.4	1.1	10.8	-0.4	NO
193771K	026730	2	50	28	6400	10	0.4	3.1	1.8	1.1	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8	-0.4	NO
193773Y	026750	2	150	28	6400	10	0.4	3.1	1.8	3.2	0.5	4.8	45.0	7400	37	1.5	2.4	1.5	9.1	0.4	10.8	-0.4	NO
193772S	026780	2	23	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	1.4	0.1	10.8	-0.4	NO
193776U	026830	2	75	28	6400	10	0.4	3.1	1.8	1.6	0.2	4.8	45.0	7400	37	1.5	2.4	1.5	4.6	0.2	10.8	-0.4	NO
193780J	026940	2	720	28	6400	10	0.4	3.1	1.8	15.5	2.2	4.8	45.0	7400	37	1.5	2.4	1.5	43.8	1.7	10.8	-0.4	NO
193782X	27040	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.4	NO
193783E	027140	2	110	28	6400	10	0.4	3.1	1.8	2.4	0.3	4.8	45.0	7400	37	1.5	2.4	1.5	6.7	0.3	10.8	-0.4	NO
193784L	027250	2	44	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.7	0.1	10.8	-0.4	NO

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 6 Brookings to Tracy MP 226.6 to 290.0																						
193785T	027360	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.5	NO
193786A	027440	2	1400	28	6400	10	0.4	3.1	1.8	30.1	4.3	4.8	45.0	6400	11	0.5	2.1	1.4	22.6	3.0	2.6	-0.5	NO
193787G	027460	2	250	28	6400	10	0.4	3.1	1.8	5.4	0.8	4.8	45.0	6400	11	0.5	2.1	1.4	4.0	0.5	2.6	-0.5	NO
193788N	027470	2	300	28	6400	10	0.4	3.1	1.8	6.5	0.9	4.8	45.0	6400	11	0.5	2.1	1.4	4.8	0.6	2.6	-0.5	NO
193789V	027480	2	642	28	6400	10	0.4	3.1	1.8	13.8	2.0	4.8	45.0	6400	11	0.5	2.1	1.4	10.4	1.4	2.6	-0.5	NO
193791W	027570	2	35	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.5	NO
193792D	027680	2	39	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.5	NO
193794S	027780	2	36	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.5	NO
193795Y	027810	2	33	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.5	0.1	2.6	-0.5	NO
197475M	27880	2	93	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	6400	11	0.5	2.1	1.4	1.5	0.2	2.6	-0.5	NO
193805C	027990	2	41	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.5	NO
197476U	028090	2	47	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-0.5	NO
197477B	028150	2	27	28	6400	10	0.4	3.1	1.8	0.6	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-0.5	NO
193806J	028200	2	43	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.5	NO
193807R	028300	2	42	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.5	NO
193808X	028410	2	31	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.5	0.1	2.6	-0.5	NO
197424C	028490	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.5	NO
197425J	028510	2	139	28	6400	10	0.4	3.1	1.8	3.0	0.4	4.8	45.0	6400	11	0.5	2.1	1.4	2.2	0.3	2.6	-0.5	NO
197426R	028620	2	21	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.5	NO
197429L	028830	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.5	NO
197430F	28870	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.5	NO
197478H	028930	4	12703	28	6400	10	0.4	3.1	1.8	273.2	19.7	4.8	45.0	6400	11	0.5	2.1	1.4	205.3	13.4	2.6	-0.5	NO
197479P	28960	2	3025	28	6400	10	0.4	3.1	1.8	65.1	9.4	4.8	45.0	6400	11	0.5	2.1	1.4	48.9	6.4	2.6	-0.5	NO
197480J	029030	2	6440	28	6400	10	0.4	3.1	1.8	138.5	19.9	4.8	45.0	6400	11	0.5	2.1	1.4	104.1	13.6	2.6	-0.5	NO
197481R	029090	4	7988	28	6400	10	0.4	3.1	1.8	171.8	12.4	4.8	45.0	6400	11	0.5	2.1	1.4	129.1	8.5	2.6	-0.5	NO
Segment 7 Arlington to Brookings MP 290.9 to 308.3																						
197482X	029110	2	2630	20	6400	8	0.3	4.1	2.4	60.4	10.9	6.5	45.0	6400	11	0.5	2.1	1.4	42.5	5.6	2.6	-1.0	NO
197483E	029210	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.5	0.1	2.6	-1.0	NO
197484L	029240	2	78	20	6400	8	0.3	4.1	2.4	1.8	0.3	6.5	45.0	6400	11	0.5	2.1	1.4	1.3	0.2	2.6	-1.0	NO
197485T	029350	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-1.0	NO
197487G	029460	2	35	20	6400	8	0.3	4.1	2.4	0.8	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-1.0	NO
197440L	29650	2	46	20	6400	8	0.3	4.1	2.4	1.1	0.2	6.5	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-1.0	NO
197441T	029720	2	1787	20	6400	8	0.3	4.1	2.4	41.1	7.4	6.5	45.0	6400	11	0.5	2.1	1.4	28.9	3.8	2.6	-1.0	NO
197442A	029730	2	2180	20	6400	8	0.3	4.1	2.4	50.1	9.0	6.5	45.0	6400	11	0.5	2.1	1.4	35.2	4.6	2.6	-1.0	NO
197443G	029740	2	950	20	6400	8	0.3	4.1	2.4	21.8	3.9	6.5	45.0	6400	11	0.5	2.1	1.4	15.4	2.0	2.6	-1.0	NO
197445V	029840	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-1.0	NO
197493K	029870	2	2962	20	6400	8	0.3	4.1	2.4	68.1	12.3	6.5	45.0	6400	11	0.5	2.1	1.4	47.9	6.3	2.6	-1.0	NO
197446C	029960	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.5	0.1	2.6	-1.0	NO
197447J	030170	1	17	20	6400	8	0.3	4.1	2.4	0.4	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-1.0	NO
197448R	030280	2	170	20	6400	8	0.3	4.1	2.4	3.9	0.7	6.5	45.0	6400	11	0.5	2.1	1.4	2.7	0.4	2.6	-1.0	NO
197449X	030380	2	25	20	6400	8	0.3	4.1	2.4	0.6	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-1.0	NO
197450S	030480	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.5	0.1	2.6	-1.0	NO
197502G	030680	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-1.0	NO
197503N	030730	2	15	20	6400	8	0.3	4.1	2.4	0.3	0.1	6.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-1.0	NO
197451Y	030800	4	1536	20	6400	8	0.3	4.1	2.4	35.3	3.2	6.5	45.0	6400	11	0.5	2.1	1.4	24.8	1.6	2.6	-1.0	NO
197452F	30820	2	630	20	6400	8	0.3	4.1	2.4	14.5	2.6	6.5	45.0	6400	11	0.5	2.1	1.4	10.2	1.3	2.6	-1.0	NO
Segment 8 Huron to Arlington																						

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction									Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
MP 308.3 to 362.6																							
197453M	030835	2	300	21	6400	6	0.3	4.0	2.3	5.0	1.2	4.5	45.0	6400	11	0.5	2.1	1.4	4.8	0.6	2.6	-0.9	NO
197454U	030840	2	430	21	6400	6	0.3	4.0	2.3	7.1	1.7	4.5	45.0	6400	11	0.5	2.1	1.4	7.0	0.9	2.6	-0.9	NO
197504V	030940	2	43	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.9	NO
197505C	031060	2	74	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	6400	11	0.5	2.1	1.4	1.2	0.2	2.6	-0.9	NO
197507R	031160	2	20	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.9	NO
197508X	031260	2	245	21	6400	6	0.3	4.0	2.3	4.0	1.0	4.5	45.0	6400	11	0.5	2.1	1.4	4.0	0.5	2.6	-0.9	NO
197509E	031390	2	118	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	6400	11	0.5	2.1	1.4	1.9	0.2	2.6	-0.9	NO
197510Y	031470	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO
197514B	031670	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.9	NO
197519K	032070	2	408	21	6400	6	0.3	4.0	2.3	6.7	1.6	4.5	45.0	6400	11	0.5	2.1	1.4	6.6	0.9	2.6	-0.9	NO
197520E	032090	2	89	21	6400	6	0.3	4.0	2.3	1.5	0.4	4.5	45.0	6400	11	0.5	2.1	1.4	1.4	0.2	2.6	-0.9	NO
197521L	032100	2	2496	21	6400	6	0.3	4.0	2.3	41.2	9.9	4.5	45.0	6400	11	0.5	2.1	1.4	40.3	5.3	2.6	-0.9	NO
197522T	032110	2	86	21	6400	6	0.3	4.0	2.3	1.4	0.3	4.5	45.0	6400	11	0.5	2.1	1.4	1.4	0.2	2.6	-0.9	NO
197523A	032170	2	225	21	6400	6	0.3	4.0	2.3	3.7	0.9	4.5	45.0	6400	11	0.5	2.1	1.4	3.6	0.5	2.6	-0.9	NO
197679Y	032370	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.9	NO
197680T	032480	2	3	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.9	NO
197681A	032580	2	75	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	6400	11	0.5	2.1	1.4	1.2	0.2	2.6	-0.9	NO
197683N	032680	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO
197684V	032780	2	27	21	6400	6	0.3	4.0	2.3	0.4	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-0.9	NO
197685C	032930	2	115	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	6400	11	0.5	2.1	1.4	1.9	0.2	2.6	-0.9	NO
197456H	032970	2	390	21	6400	6	0.3	4.0	2.3	6.4	1.5	4.5	45.0	6400	11	0.5	2.1	1.4	6.3	0.8	2.6	-0.9	NO
197457P	032980	2	3063	21	6400	6	0.3	4.0	2.3	50.6	12.1	4.5	45.0	6400	11	0.5	2.1	1.4	49.5	6.5	2.6	-0.9	NO
197458W	032990	2	186	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	6400	11	0.5	2.1	1.4	3.0	0.4	2.6	-0.9	NO
197459D	033000	2	130	21	6400	6	0.3	4.0	2.3	2.1	0.5	4.5	45.0	6400	11	0.5	2.1	1.4	2.1	0.3	2.6	-0.9	NO
197686J	033040	2	610	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	6400	11	0.5	2.1	1.4	9.9	1.3	2.6	-0.9	NO
197687R	033080	2	33	21	6400	6	0.3	4.0	2.3	0.5	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.5	0.1	2.6	-0.9	NO
197690Y	033290	2	2	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.9	NO
197460X	033390	2	36	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.9	NO
197461E	33490	1	10	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO
197462L	033590	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.9	NO
197464A	033700	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO
197465G	033800	2	215	21	6400	6	0.3	4.0	2.3	3.6	0.9	4.5	45.0	6400	11	0.5	2.1	1.4	3.5	0.5	2.6	-0.9	NO
197466N	033840	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.9	NO
197467V	033890	2	17	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.9	NO
197469J	34000	1	62	21	6400	6	0.3	4.0	2.3	1.0	0.5	4.5	45.0	6400	11	0.5	2.1	1.4	1.0	0.3	2.6	-0.9	NO
197470D	034100	2	62	21	6400	6	0.3	4.0	2.3	1.0	0.2	4.5	45.0	6400	11	0.5	2.1	1.4	1.0	0.1	2.6	-0.9	NO
197691F	34200	1	8	21	6400	6	0.3	4.0	2.3	0.1	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.9	NO
197692M	034300	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO
197694B	34390	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.9	NO
197696P	34420	2	1285	21	6400	6	0.3	4.0	2.3	21.2	5.1	4.5	45.0	6400	11	0.5	2.1	1.4	20.8	2.7	2.6	-0.9	NO
197697W	34460	2	613	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	6400	11	0.5	2.1	1.4	9.9	1.3	2.6	-0.9	NO
197698D	34470	2	230	21	6400	6	0.3	4.0	2.3	3.8	0.9	4.5	45.0	6400	11	0.5	2.1	1.4	3.7	0.5	2.6	-0.9	NO
197471K	034490	2	157	21	6400	6	0.3	4.0	2.3	2.6	0.6	4.5	45.0	6400	11	0.5	2.1	1.4	2.5	0.3	2.6	-0.9	NO
197473Y	034690	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO
197474F	034790	2	42	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.9	NO
197455B	034890	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO
197887A	034990	2	95	21	6400	6	0.3	4.0	2.3	1.6	0.4	4.5	45.0	6400	11	0.5	2.1	1.4	1.5	0.2	2.6	-0.9	NO
197701J	35080	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.9	NO
197702R	35180	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.9	NO
197703X	35280	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.9	NO
197704E	035380	2	188	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	6400	11	0.5	2.1	1.4	3.0	0.4	2.6	-0.9	NO
197706T	035480	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
197707A	35580	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.9	NO
197708G	035680	2	37	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.9	NO
197710H	035780	2	44	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.9	NO
197711P	035880	2	40	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.9	NO
197891P	035980	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.9	NO
197890H	036080	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	11	0.5	2.1	1.4	0.7	0.1	2.6	-0.9	NO
189696U	36220	2	545	21	6400	6	0.3	4.0	2.3	9.0	2.2	4.5	45.0	6400	11	0.5	2.1	1.4	8.8	1.2	2.6	-0.9	NO
189698H	36280	4	11030	21	6400	6	0.3	4.0	2.3	182.1	21.9	4.5	45.0	6400	11	0.5	2.1	1.4	178.3	11.7	2.6	-0.9	NO
Segment 9 Wolsey to Huron MP 362.8 to 376.1																							
189701N	36380	2	5290	34	6400	6	0.3	2.6	1.6	58.2	14.0	2.1	45.0	6400	11	0.5	2.1	1.4	85.5	11.2	2.6	-0.3	NO
189702V	036470	4	2137	34	6400	6	0.3	2.6	1.6	23.5	2.8	2.1	45.0	6400	11	0.5	2.1	1.4	34.5	2.3	2.6	-0.3	NO
189703C	36480	2	125	34	6400	6	0.3	2.6	1.6	1.4	0.3	2.1	45.0	6400	11	0.5	2.1	1.4	2.0	0.3	2.6	-0.3	NO
189704J	36590	2	40	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.3	NO
189705R	36690	1	29	34	6400	6	0.3	2.6	1.6	0.3	0.2	2.1	45.0	6400	11	0.5	2.1	1.4	0.5	0.1	2.6	-0.3	NO
189706X	036800	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.3	NO
189707E	36900	2	305	34	6400	6	0.3	2.6	1.6	3.4	0.8	2.1	45.0	6400	11	0.5	2.1	1.4	4.9	0.6	2.6	-0.3	NO
189708L	37000	2	35	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.3	NO
189710M	37100	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.3	NO
189712B	37320	2	19	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.3	NO
189713H	37480	1	3	34	6400	6	0.3	2.6	1.6	0.0	0.0	2.1	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.3	NO
Segment 10 Midland to Wolsey MP 376.1 to 533.2																							
189716D	37620	2	2671	30	6400	4	0.2	2.9	1.8	21.7	7.8	1.7	40.0	6400	11	0.5	2.3	1.5	47.3	6.2	3.1	-0.3	NO
189717K	37630	1	200	30	6400	4	0.2	2.9	1.8	1.6	1.2	1.7	45.0	6400	11	0.5	2.1	1.4	3.2	0.8	2.6	-0.4	NO
189718S	37730	1	27	30	6400	4	0.2	2.9	1.8	0.2	0.2	1.7	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-0.4	NO
189720T	37930	1	24	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-0.4	NO
189722G	38040	2	15	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.4	NO
189724V	38140	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.4	NO
189726J	038350	1	12	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.1	2.6	-0.4	NO
189728X	38550	2	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-0.4	NO
189730Y	38650	2	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-0.4	NO
189731F	038750	2	952	30	6400	4	0.2	2.9	1.8	7.7	2.8	1.7	45.0	6400	11	0.5	2.1	1.4	15.4	2.0	2.6	-0.4	NO
189732M	38770	2	464	30	6400	4	0.2	2.9	1.8	3.8	1.4	1.7	45.0	6400	11	0.5	2.1	1.4	7.5	1.0	2.6	-0.4	NO
189734B	38880	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.1	2.6	-0.4	NO
189736P	39000	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189738D	39110	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.4	NO
189740E	39220	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189742T	39340	2	120	30	6400	4	0.2	2.9	1.8	1.0	0.4	1.7	45.0	6400	11	0.5	2.1	1.4	1.9	0.3	2.6	-0.4	NO
189744G	039560	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189746V	039670	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-0.4	NO
189747C	39760	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189748J	39860	1	4	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189749R	39960	2	115	30	6400	4	0.2	2.9	1.8	0.9	0.3	1.7	45.0	6400	11	0.5	2.1	1.4	1.9	0.2	2.6	-0.4	NO
189751S	40030	2	164	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	6400	11	0.5	2.1	1.4	2.7	0.3	2.6	-0.4	NO
189752Y	040040	2	166	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	6400	11	0.5	2.1	1.4	2.7	0.4	2.6	-0.4	NO
189754M	40160	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-0.4	NO
189755U	40260	2	400	30	6400	4	0.2	2.9	1.8	3.2	1.2	1.7	45.0	6400	11	0.5	2.1	1.4	6.5	0.8	2.6	-0.4	NO
189756B	040290	2	2505	30	6400	4	0.2	2.9	1.8	20.3	7.3	1.7	45.0	6400	11	0.5	2.1	1.4	40.5	5.3	2.6	-0.4	NO
189757H	40310	1	204	30	6400	4	0.2	2.9	1.8	1.7	1.2	1.7	45.0	6400	11	0.5	2.1	1.4	3.3	0.9	2.6	-0.4	NO
189758P	40360	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.1	2.6	-0.4	NO

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189759W	40460	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189760R	40560	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189761X	40660	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189762E	40750	1	49	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	6400	11	0.5	2.1	1.4	0.8	0.2	2.6	-0.4	NO
189763L	40860	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189765A	41060	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189767N	41260	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189768V	41330	2	508	30	6400	4	0.2	2.9	1.8	4.1	1.5	1.7	45.0	6400	11	0.5	2.1	1.4	8.2	1.1	2.6	-0.4	NO
189769C	041360	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189770W	41550	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189771D	041660	1	4	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189772K	041830	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.4	NO
189775F	42120	9	115	30	6400	4	0.2	2.9	1.8	0.9	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	1.9	0.1	2.6	-0.4	NO
189776M	042230	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189780C	42420	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.4	NO
189781J	042500	2	272	30	6400	4	0.2	2.9	1.8	2.2	0.8	1.7	45.0	6400	11	0.5	2.1	1.4	4.4	0.6	2.6	-0.4	NO
189782R	42520	2	1543	30	6400	4	0.2	2.9	1.8	12.5	4.5	1.7	45.0	6400	11	0.5	2.1	1.4	24.9	3.3	2.6	-0.4	NO
189784E	42620	1	8	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189786T	42820	2	6	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189787A	42920	2	36	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.4	NO
189789N	43120	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.4	NO
189791P	43290	1	21	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.4	NO
189792W	043320	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	6400	11	0.5	2.1	1.4	1.3	0.2	2.6	-0.4	NO
189793D	43420	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189795S	43520	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189797F	043620	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189799U	043820	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.4	NO
189800L	043920	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.4	NO
189801T	43990	2	300	30	6400	4	0.2	2.9	1.8	2.4	0.9	1.7	45.0	6400	11	0.5	2.1	1.4	4.8	0.6	2.6	-0.4	NO
189802A	044020	2	145	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	6400	11	0.5	2.1	1.4	2.3	0.3	2.6	-0.4	NO
189805V	44320	1	35	30	6400	4	0.2	2.9	1.8	0.3	0.2	1.7	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.4	NO
189809X	044720	2	35	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.6	0.1	2.6	-0.4	NO
189810S	44920	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.4	NO
189812F	45130	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189813M	45220	2	9	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-0.4	NO
189816H	045330	2	153	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	6400	11	0.5	2.1	1.4	2.5	0.3	2.6	-0.4	NO
189822L	046110	2	82	30	6400	4	0.2	2.9	1.8	0.7	0.2	1.7	45.0	6400	11	0.5	2.1	1.4	1.3	0.2	2.6	-0.4	NO
189839P	47790	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	6400	11	0.5	2.1	1.4	1.3	0.2	2.6	-0.4	NO
189840J	47840	2	30	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.5	0.1	2.6	-0.4	NO
189841R	47890	2	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	40.0	6400	11	0.5	2.3	1.5	0.0	0.0	3.1	-0.3	NO
189842X	47950	2	1000	30	6400	4	0.2	2.9	1.8	8.1	2.9	1.7	40.0	6400	11	0.5	2.3	1.5	17.7	2.3	3.1	-0.3	NO
189843E	48000	2	3798	30	6400	4	0.2	2.9	1.8	30.9	11.1	1.7	40.0	6400	11	0.5	2.3	1.5	67.3	8.8	3.1	-0.3	NO
189844L	48050	2	100	30	6400	4	0.2	2.9	1.8	0.8	0.3	1.7	40.0	6400	11	0.5	2.3	1.5	1.8	0.2	3.1	-0.3	NO
189845T	48070	2	1560	30	6400	4	0.2	2.9	1.8	12.7	4.6	1.7	40.0	6400	11	0.5	2.3	1.5	27.6	3.6	3.1	-0.3	NO
189846A	48110	4	19755	30	6400	4	0.2	2.9	1.8	160.5	28.9	1.7	40.0	6400	11	0.5	2.3	1.5	349.8	22.9	3.1	-0.3	NO
189847G	48140	2	1020	30	6400	4	0.2	2.9	1.8	8.3	3.0	1.7	40.0	6400	11	0.5	2.3	1.5	18.1	2.4	3.1	-0.3	NO
189848N	48160	2	6045	30	6400	4	0.2	2.9	1.8	49.1	17.7	1.7	40.0	6400	11	0.5	2.3	1.5	107.0	14.0	3.1	-0.3	NO
189850P	48190	2	6365	30	6400	4	0.2	2.9	1.8	51.7	18.6	1.7	40.0	6400	11	0.5	2.3	1.5	112.7	14.8	3.1	-0.3	NO
189851W	48220	2	1149	30	6400	4	0.2	2.9	1.8	9.3	3.4	1.7	40.0	6400	11	0.5	2.3	1.5	20.3	2.7	3.1	-0.3	NO
189856F	48350	2	3500	30	6400	4	0.2	2.9	1.8	28.4	10.2	1.7	40.0	6400	11	0.5	2.3	1.5	62.0	8.1	3.1	-0.3	NO
189857M	48370	2	50	30	6400	4	0.2	2.9	1.8	0.4	0.1	1.7	40.0	6400	11	0.5	2.3	1.5	0.9	0.1	3.1	-0.3	NO
189858U	048410	2	392	30	6400	4	0.2	2.9	1.8	3.2	1.1	1.7	40.0	6400	11	0.5	2.3	1.5	6.9	0.9	3.1	-0.3	NO
189859B	48430	2	211	30	6400	4	0.2	2.9	1.8	1.7	0.6	1.7	40.0	6400	11	0.5	2.3	1.5	3.7	0.5	3.1	-0.3	NO

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189860V	48450	2	756	30	6400	4	0.2	2.9	1.8	6.1	2.2	1.7	40.0	6400	11	0.5	2.3	1.5	13.4	1.8	3.1	-0.3	NO
189861C	048460	2	3136	30	6400	4	0.2	2.9	1.8	25.5	9.2	1.7	40.0	6400	11	0.5	2.3	1.5	55.5	7.3	3.1	-0.3	NO
189862J	48490	2	406	30	6400	4	0.2	2.9	1.8	3.3	1.2	1.7	40.0	6400	11	0.5	2.3	1.5	7.2	0.9	3.1	-0.3	NO
189864X	48590	2	385	30	6400	4	0.2	2.9	1.8	3.1	1.1	1.7	45.0	6400	11	0.5	2.1	1.4	6.2	0.8	2.6	-0.4	NO
189870B	048940	1	15	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.1	2.6	-0.4	NO
189889T	050300	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6	-0.4	NO
189902E	51320	2	62	30	6400	4	0.2	2.9	1.8	0.5	0.2	1.7	45.0	6400	11	0.5	2.1	1.4	1.0	0.1	2.6	-0.4	NO
189908V	052020	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.3	0.1	2.6	-0.4	NO
189914Y	52290	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-0.4	NO
189929N	53300	1	55	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	6400	11	0.5	2.1	1.4	0.9	0.2	2.6	-0.4	NO
189930H	53320	1	56	30	6400	4	0.2	2.9	1.8	0.5	0.3	1.7	45.0	6400	11	0.5	2.1	1.4	0.9	0.2	2.6	-0.4	NO
Segment 11 Wasta to Midland MP 533.2 to 605																							
189931P	53340	1	228	10	6400	2	0.1	7.8	4.2	2.5	3.5	5.4	45.0	6400	11	0.5	2.1	1.4	3.7	1.0	2.6	-2.8	NO
189932W	53360	2	280	10	6400	2	0.1	7.8	4.2	3.0	2.2	5.4	45.0	6400	11	0.5	2.1	1.4	4.5	0.6	2.6	-2.8	NO
189989X	55950	1	75	10	6400	2	0.1	7.8	4.2	0.8	1.2	5.4	45.0	6400	11	0.5	2.1	1.4	1.2	0.3	2.6	-2.8	NO
190010C	55970	2	615	10	6400	2	0.1	7.8	4.2	6.6	4.8	5.4	45.0	6400	11	0.5	2.1	1.4	9.9	1.3	2.6	-2.8	NO
190501B	56170	2	50	10	6400	2	0.1	7.8	4.2	0.5	0.4	5.4	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-2.8	NO
190025S	57130	1	15	10	6400	2	0.1	7.8	4.2	0.2	0.2	5.4	45.0	6400	11	0.5	2.1	1.4	0.2	0.1	2.6	-2.8	NO
190026Y	57180	2	1020	10	6400	2	0.1	7.8	4.2	11.0	7.9	5.4	45.0	6400	11	0.5	2.1	1.4	16.5	2.2	2.6	-2.8	NO
190027F	57320	1	59	10	6400	2	0.1	7.8	4.2	0.6	0.9	5.4	45.0	6400	11	0.5	2.1	1.4	1.0	0.2	2.6	-2.8	NO
190028M	57350	2	26	10	6400	2	0.1	7.8	4.2	0.3	0.2	5.4	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6	-2.8	NO
190032C	57520	1	41	10	6400	2	0.1	7.8	4.2	0.4	0.6	5.4	45.0	6400	11	0.5	2.1	1.4	0.7	0.2	2.6	-2.8	NO
190034R	057730	1	12	10	6400	2	0.1	7.8	4.2	0.1	0.2	5.4	45.0	6400	11	0.5	2.1	1.4	0.2	0.1	2.6	-2.8	NO
190039A	58309	1	6	10	6400	2	0.1	7.8	4.2	0.1	0.1	5.4	45.0	6400	11	0.5	2.1	1.4	0.1	0.0	2.6	-2.8	NO
190044W	58470	2	87	10	6400	2	0.1	7.8	4.2	0.9	0.7	5.4	45.0	6400	11	0.5	2.1	1.4	1.4	0.2	2.6	-2.8	NO
190049F	059020	2	19	10	6400	2	0.1	7.8	4.2	0.2	0.1	5.4	45.0	6400	11	0.5	2.1	1.4	0.3	0.0	2.6	-2.8	NO

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 6 Brookings to Tracy MP 226.6 to 290.0																						
193785T	027360	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.4	NO
193786A	027440	2	1400	28	6400	10	0.4	3.1	1.8	30.1	4.3	4.8	45.0	7400	11	0.5	2.4	1.5	25.3	3.3	3.2	-0.4	NO
193787G	027460	2	250	28	6400	10	0.4	3.1	1.8	5.4	0.8	4.8	45.0	7400	11	0.5	2.4	1.5	4.5	0.6	3.2	-0.4	NO
193788N	027470	2	300	28	6400	10	0.4	3.1	1.8	6.5	0.9	4.8	45.0	7400	11	0.5	2.4	1.5	5.4	0.7	3.2	-0.4	NO
193789V	027480	2	642	28	6400	10	0.4	3.1	1.8	13.8	2.0	4.8	45.0	7400	11	0.5	2.4	1.5	11.6	1.5	3.2	-0.4	NO
193791W	027570	2	35	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.4	NO
193792D	027680	2	39	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.4	NO
193794S	027780	2	36	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.4	NO
193795Y	027810	2	33	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.4	NO
197475M	27880	2	93	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	7400	11	0.5	2.4	1.5	1.7	0.2	3.2	-0.4	NO
193805C	027990	2	41	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.4	NO
197476U	028090	2	47	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-0.4	NO
197477B	028150	2	27	28	6400	10	0.4	3.1	1.8	0.6	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.4	NO
193806J	028200	2	43	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.4	NO
193807R	028300	2	42	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.4	NO
193808X	028410	2	31	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.4	NO
197424C	028490	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.4	NO
197425J	028510	2	139	28	6400	10	0.4	3.1	1.8	3.0	0.4	4.8	45.0	7400	11	0.5	2.4	1.5	2.5	0.3	3.2	-0.4	NO
197426R	028620	2	21	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	7400	11	0.5	2.4	1.5	0.4	0.0	3.2	-0.4	NO
197429L	028830	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.4	NO
197447J	28870	1	17	20	6400	8	0.3	4.1	2.4	0.4	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.1	3.2	-0.9	NO
197478H	028930	4	12703	28	6400	10	0.4	3.1	1.8	273.2	19.7	4.8	45.0	7400	11	0.5	2.4	1.5	229.8	15.0	3.2	-0.4	NO
197479P	28960	2	3025	28	6400	10	0.4	3.1	1.8	65.1	9.4	4.8	45.0	7400	11	0.5	2.4	1.5	54.7	7.2	3.2	-0.4	NO
197480J	029030	2	6440	28	6400	10	0.4	3.1	1.8	138.5	19.9	4.8	45.0	7400	11	0.5	2.4	1.5	116.5	15.3	3.2	-0.4	NO
197481R	029090	4	7988	28	6400	10	0.4	3.1	1.8	171.8	12.4	4.8	45.0	7400	11	0.5	2.4	1.5	144.5	9.5	3.2	-0.4	NO
Segment 7 Arlington to Brookings MP 290.9 to 308.3																						
197482X	029110	2	2630	20	6400	8	0.3	4.1	2.4	60.4	10.9	6.5	45.0	7400	11	0.5	2.4	1.5	47.6	6.2	3.2	-0.9	NO
197483E	029210	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.9	NO
197484L	029240	2	78	20	6400	8	0.3	4.1	2.4	1.8	0.3	6.5	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.9	NO
197485T	029350	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.4	0.0	3.2	-0.9	NO
197487G	029460	2	35	20	6400	8	0.3	4.1	2.4	0.8	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.9	NO
197440L	29650	2	46	20	6400	8	0.3	4.1	2.4	1.1	0.2	6.5	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.9	NO
197441T	029720	2	1787	20	6400	8	0.3	4.1	2.4	41.1	7.4	6.5	45.0	7400	11	0.5	2.4	1.5	32.3	4.2	3.2	-0.9	NO
197442A	029730	2	2180	20	6400	8	0.3	4.1	2.4	50.1	9.0	6.5	45.0	7400	11	0.5	2.4	1.5	39.4	5.2	3.2	-0.9	NO
197443G	029740	2	950	20	6400	8	0.3	4.1	2.4	21.8	3.9	6.5	45.0	7400	11	0.5	2.4	1.5	17.2	2.3	3.2	-0.9	NO
197445V	029840	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.4	0.0	3.2	-0.9	NO
197493K	029870	2	2962	20	6400	8	0.3	4.1	2.4	68.1	12.3	6.5	45.0	7400	11	0.5	2.4	1.5	53.6	7.0	3.2	-0.9	NO
197446C	029960	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.9	NO
197447J	030170	2	17	20	6400	8	0.3	4.1	2.4	0.4	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.9	NO
197448R	030280	2	170	20	6400	8	0.3	4.1	2.4	3.9	0.7	6.5	45.0	7400	11	0.5	2.4	1.5	3.1	0.4	3.2	-0.9	NO
197449X	030380	2	25	20	6400	8	0.3	4.1	2.4	0.6	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.9	NO
197450S	030480	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.9	NO
197502G	030680	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.4	0.0	3.2	-0.9	NO
197503N	030730	2	15	20	6400	8	0.3	4.1	2.4	0.3	0.1	6.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.9	NO
197451Y	030800	4	1536	20	6400	8	0.3	4.1	2.4	35.3	3.2	6.5	45.0	7400	11	0.5	2.4	1.5	27.8	1.8	3.2	-0.9	NO
197452F	30820	2	630	20	6400	8	0.3	4.1	2.4	14.5	2.6	6.5	45.0	7400	11	0.5	2.4	1.5	11.4	1.5	3.2	-0.9	NO
Segment 8 Huron to Arlington																						

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
MP 308.3 to 362.8																						
197453M	030835	2	300	21	6400	6	0.3	4.0	2.3	5.0	1.2	4.5	45.0	7400	11	0.5	2.4	1.5	5.4	0.7	3.2	-0.8	NO
197454U	030840	2	430	21	6400	6	0.3	4.0	2.3	7.1	1.7	4.5	45.0	7400	11	0.5	2.4	1.5	7.8	1.0	3.2	-0.8	NO
197504V	030940	2	43	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.8	NO
197505C	031060	2	74	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	7400	11	0.5	2.4	1.5	1.3	0.2	3.2	-0.8	NO
197507R	031160	2	20	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.4	0.0	3.2	-0.8	NO
197508X	031260	2	245	21	6400	6	0.3	4.0	2.3	4.0	1.0	4.5	45.0	7400	11	0.5	2.4	1.5	4.4	0.6	3.2	-0.8	NO
197509E	031390	2	118	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	7400	11	0.5	2.4	1.5	2.1	0.3	3.2	-0.8	NO
197510Y	031470	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.8	NO
197514B	031670	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.8	NO
197519K	032070	2	408	21	6400	6	0.3	4.0	2.3	6.7	1.6	4.5	45.0	7400	11	0.5	2.4	1.5	7.4	1.0	3.2	-0.8	NO
197520E	032090	2	89	21	6400	6	0.3	4.0	2.3	1.5	0.4	4.5	45.0	7400	11	0.5	2.4	1.5	1.6	0.2	3.2	-0.8	NO
197521L	032100	2	2496	21	6400	6	0.3	4.0	2.3	41.2	9.9	4.5	45.0	7400	11	0.5	2.4	1.5	45.2	5.9	3.2	-0.8	NO
197522T	032110	2	86	21	6400	6	0.3	4.0	2.3	1.4	0.3	4.5	45.0	7400	11	0.5	2.4	1.5	1.6	0.2	3.2	-0.8	NO
197523A	032170	2	225	21	6400	6	0.3	4.0	2.3	3.7	0.9	4.5	45.0	7400	11	0.5	2.4	1.5	4.1	0.5	3.2	-0.8	NO
197679Y	032370	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.8	NO
197680T	032480	2	3	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.8	NO
197681A	032580	2	75	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.8	NO
197683N	032680	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.8	NO
197684V	032780	2	27	21	6400	6	0.3	4.0	2.3	0.4	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.8	NO
197685C	032930	2	115	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	7400	11	0.5	2.4	1.5	2.1	0.3	3.2	-0.8	NO
197456H	032970	2	390	21	6400	6	0.3	4.0	2.3	6.4	1.5	4.5	45.0	7400	11	0.5	2.4	1.5	7.1	0.9	3.2	-0.8	NO
197457P	032980	2	3063	21	6400	6	0.3	4.0	2.3	50.6	12.1	4.5	45.0	7400	11	0.5	2.4	1.5	55.4	7.3	3.2	-0.8	NO
197458W	032990	2	186	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	7400	11	0.5	2.4	1.5	3.4	0.4	3.2	-0.8	NO
197459D	033000	2	130	21	6400	6	0.3	4.0	2.3	2.1	0.5	4.5	45.0	7400	11	0.5	2.4	1.5	2.4	0.3	3.2	-0.8	NO
197686J	033040	2	610	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	7400	11	0.5	2.4	1.5	11.0	1.4	3.2	-0.8	NO
197687R	033080	2	33	21	6400	6	0.3	4.0	2.3	0.5	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.8	NO
197690Y	033290	2	2	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.8	NO
197460X	033390	2	36	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.8	NO
197461E	33490	1	10	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.8	NO
197462L	033590	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.8	NO
197464A	033700	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.8	NO
197465G	033800	2	215	21	6400	6	0.3	4.0	2.3	3.6	0.9	4.5	45.0	7400	11	0.5	2.4	1.5	3.9	0.5	3.2	-0.8	NO
197466N	033840	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.8	NO
197467V	033890	2	17	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.8	NO
197469J	34000	1	62	21	6400	6	0.3	4.0	2.3	1.0	0.5	4.5	45.0	7400	11	0.5	2.4	1.5	1.1	0.3	3.2	-0.8	NO
197470D	034100	2	62	21	6400	6	0.3	4.0	2.3	1.0	0.2	4.5	45.0	7400	11	0.5	2.4	1.5	1.1	0.1	3.2	-0.8	NO
197691F	34200	1	8	21	6400	6	0.3	4.0	2.3	0.1	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.8	NO
197692M	034300	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.8	NO
197694B	34390	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.8	NO
197696P	34420	2	1285	21	6400	6	0.3	4.0	2.3	21.2	5.1	4.5	45.0	7400	11	0.5	2.4	1.5	23.3	3.0	3.2	-0.8	NO
197697W	34460	2	613	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	7400	11	0.5	2.4	1.5	11.1	1.5	3.2	-0.8	NO
197698D	34470	2	230	21	6400	6	0.3	4.0	2.3	3.8	0.9	4.5	45.0	7400	11	0.5	2.4	1.5	4.2	0.5	3.2	-0.8	NO
197471K	034490	2	157	21	6400	6	0.3	4.0	2.3	2.6	0.6	4.5	45.0	7400	11	0.5	2.4	1.5	2.8	0.4	3.2	-0.8	NO
197473Y	034690	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.8	NO
197474F	034790	2	42	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.8	NO
197455B	034890	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.8	NO
197887A	034990	2	95	21	6400	6	0.3	4.0	2.3	1.6	0.4	4.5	45.0	7400	11	0.5	2.4	1.5	1.7	0.2	3.2	-0.8	NO
197701J	35080	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.8	NO
197702R	35180	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.8	NO
197703X	35280	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.8	NO
197704E	035380	2	188	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	7400	11	0.5	2.4	1.5	3.4	0.4	3.2	-0.8	NO
197706T	035480	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.8	NO

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
197707A	35580	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.8	NO
197708G	035680	2	37	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.8	NO
197710H	035780	2	44	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.8	NO
197711P	035880	2	40	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.8	NO
197891P	035980	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.8	NO
197890H	036080	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	11	0.5	2.4	1.5	0.8	0.1	3.2	-0.8	NO
189696U	36220	2	545	21	6400	6	0.3	4.0	2.3	9.0	2.2	4.5	45.0	7400	11	0.5	2.4	1.5	9.9	1.3	3.2	-0.8	NO
189698H	36280	4	11030	21	6400	6	0.3	4.0	2.3	182.1	21.9	4.5	45.0	7400	11	0.5	2.4	1.5	199.6	13.1	3.2	-0.8	NO
Segment 9 Wolsey to Huron MP 362.8 to 376.1																							
189701N	36380	2	5290	34	6400	6	0.3	2.6	1.6	58.2	14.0	2.1	45.0	7400	11	0.5	2.4	1.5	95.7	12.5	3.2	-0.1	NO
189702V	036470	4	2137	34	6400	6	0.3	2.6	1.6	23.5	2.8	2.1	45.0	7400	11	0.5	2.4	1.5	38.7	2.5	3.2	-0.1	NO
189703C	36480	2	125	34	6400	6	0.3	2.6	1.6	1.4	0.3	2.1	45.0	7400	11	0.5	2.4	1.5	2.3	0.3	3.2	-0.1	NO
189704J	36590	2	40	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.1	NO
189705R	36690	1	29	34	6400	6	0.3	2.6	1.6	0.3	0.2	2.1	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.1	NO
189706X	036800	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.1	NO
189707E	36900	2	305	34	6400	6	0.3	2.6	1.6	3.4	0.8	2.1	45.0	7400	11	0.5	2.4	1.5	5.5	0.7	3.2	-0.1	NO
189708L	37000	2	35	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.1	NO
189710M	37100	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.1	NO
189712B	37320	2	19	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.1	NO
189713H	37480	1	3	34	6400	6	0.3	2.6	1.6	0.0	0.0	2.1	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.1	NO
Segment 10 Midland to Wolsey MP 376.1 to 533.2																							
189716D	37620	2	2671	30	6400	4	0.2	2.9	1.8	21.7	7.8	1.7	40.0	7400	11	0.5	2.6	1.6	53.1	7.0	3.8	-0.2	NO
189717K	37630	1	200	30	6400	4	0.2	2.9	1.8	1.6	1.2	1.7	45.0	7400	11	0.5	2.4	1.5	3.6	0.9	3.2	-0.3	NO
189718S	37730	1	27	30	6400	4	0.2	2.9	1.8	0.2	0.2	1.7	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.3	NO
189720T	37930	1	24	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.3	NO
189722G	38040	2	15	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-0.3	NO
189724V	38140	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.3	NO
189726J	038350	1	12	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.2	0.1	3.2	-0.3	NO
189728X	38550	2	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.4	0.0	3.2	-0.3	NO
189730Y	38650	2	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.3	NO
189731F	038750	2	952	30	6400	4	0.2	2.9	1.8	7.7	2.8	1.7	45.0	7400	11	0.5	2.4	1.5	17.2	2.3	3.2	-0.3	NO
189732M	38770	2	464	30	6400	4	0.2	2.9	1.8	3.8	1.4	1.7	45.0	7400	11	0.5	2.4	1.5	8.4	1.1	3.2	-0.3	NO
189734B	38880	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.3	0.1	3.2	-0.3	NO
189736P	39000	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.3	NO
189738D	39110	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.3	NO
189740E	39220	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189742T	39340	2	120	30	6400	4	0.2	2.9	1.8	1.0	0.4	1.7	45.0	7400	11	0.5	2.4	1.5	2.2	0.3	3.2	-0.3	NO
189744G	039560	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189746V	039670	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.3	NO
189747C	39760	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189748J	39860	1	4	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189749R	39960	2	115	30	6400	4	0.2	2.9	1.8	0.9	0.3	1.7	45.0	7400	11	0.5	2.4	1.5	2.1	0.3	3.2	-0.3	NO
189751S	40030	2	164	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	7400	11	0.5	2.4	1.5	3.0	0.4	3.2	-0.3	NO
189752Y	040040	2	166	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	7400	11	0.5	2.4	1.5	3.0	0.4	3.2	-0.3	NO
189754M	40160	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.3	NO
189755U	40260	2	400	30	6400	4	0.2	2.9	1.8	3.2	1.2	1.7	45.0	7400	11	0.5	2.4	1.5	7.2	0.9	3.2	-0.3	NO
189756B	040290	2	2505	30	6400	4	0.2	2.9	1.8	20.3	7.3	1.7	45.0	7400	11	0.5	2.4	1.5	45.3	5.9	3.2	-0.3	NO
189757H	40310	1	204	30	6400	4	0.2	2.9	1.8	1.7	1.2	1.7	45.0	7400	11	0.5	2.4	1.5	3.7	1.0	3.2	-0.3	NO
189758P	40360	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.3	0.1	3.2	-0.3	NO

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189759W	40460	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189760R	40560	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189761X	40660	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189762E	40750	1	49	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	7400	11	0.5	2.4	1.5	0.9	0.2	3.2	-0.3	NO
189763L	40860	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189765A	41060	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189767N	41260	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189768V	41330	2	508	30	6400	4	0.2	2.9	1.8	4.1	1.5	1.7	45.0	7400	11	0.5	2.4	1.5	9.2	1.2	3.2	-0.3	NO
189769C	041360	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189770W	41550	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189771D	041660	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189772K	041830	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.3	NO
189775F	42120	9	115	30	6400	4	0.2	2.9	1.8	0.9	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	2.1	0.1	3.2	-0.3	NO
189776M	042230	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.0	0.0	3.2	-0.3	NO
189780C	42420	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.3	NO
189781J	042500	2	272	30	6400	4	0.2	2.9	1.8	2.2	0.8	1.7	45.0	7400	11	0.5	2.4	1.5	4.9	0.6	3.2	-0.3	NO
189782R	42520	2	1543	30	6400	4	0.2	2.9	1.8	12.5	4.5	1.7	45.0	7400	11	0.5	2.4	1.5	27.9	3.7	3.2	-0.3	NO
189784E	42620	1	8	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189786T	42820	2	6	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189787A	42920	2	36	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.7	0.1	3.2	-0.3	NO
189789N	43120	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.3	NO
189791P	43290	1	21	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.3	NO
189792W	043320	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.3	NO
189793D	43420	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189795S	43520	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189797F	043620	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-0.3	NO
189799U	043820	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.3	NO
189800L	043920	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.4	0.1	3.2	-0.3	NO
189801T	43990	2	300	30	6400	4	0.2	2.9	1.8	2.4	0.9	1.7	45.0	7400	11	0.5	2.4	1.5	5.4	0.7	3.2	-0.3	NO
189802A	044020	2	145	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	7400	11	0.5	2.4	1.5	2.6	0.3	3.2	-0.3	NO
189805V	44320	1	35	30	6400	4	0.2	2.9	1.8	0.3	0.2	1.7	45.0	7400	11	0.5	2.4	1.5	0.6	0.2	3.2	-0.3	NO
189809X	044720	2	35	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.6	0.1	3.2	-0.3	NO
189810S	44920	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.3	0.1	3.2	-0.3	NO
189812F	45130	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.3	NO
189813M	45220	2	9	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.3	NO
189816H	045330	2	153	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	7400	11	0.5	2.4	1.5	2.8	0.4	3.2	-0.3	NO
189822L	046110	2	82	30	6400	4	0.2	2.9	1.8	0.7	0.2	1.7	45.0	7400	11	0.5	2.4	1.5	1.5	0.2	3.2	-0.3	NO
189839P	47790	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	7400	11	0.5	2.4	1.5	1.4	0.2	3.2	-0.3	NO
189840J	47840	2	30	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.3	NO
189841R	47890	2	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	40.0	7400	11	0.5	2.6	1.6	0.0	0.0	3.8	-0.2	NO
189842X	47950	2	1000	30	6400	4	0.2	2.9	1.8	8.1	2.9	1.7	40.0	7400	11	0.5	2.6	1.6	19.9	2.6	3.8	-0.2	NO
189843E	48000	2	3798	30	6400	4	0.2	2.9	1.8	30.9	11.1	1.7	40.0	7400	11	0.5	2.6	1.6	75.5	9.9	3.8	-0.2	NO
189844L	48050	2	100	30	6400	4	0.2	2.9	1.8	0.8	0.3	1.7	40.0	7400	11	0.5	2.6	1.6	2.0	0.3	3.8	-0.2	NO
189845T	48070	2	1560	30	6400	4	0.2	2.9	1.8	12.7	4.6	1.7	40.0	7400	11	0.5	2.6	1.6	31.0	4.1	3.8	-0.2	NO
189846A	48110	4	19755	30	6400	4	0.2	2.9	1.8	160.5	28.9	1.7	40.0	7400	11	0.5	2.6	1.6	392.7	25.7	3.8	-0.2	NO
189847G	48140	2	1020	30	6400	4	0.2	2.9	1.8	8.3	3.0	1.7	40.0	7400	11	0.5	2.6	1.6	20.3	2.7	3.8	-0.2	NO
189848N	48160	2	6045	30	6400	4	0.2	2.9	1.8	49.1	17.7	1.7	40.0	7400	11	0.5	2.6	1.6	120.2	15.7	3.8	-0.2	NO
189850P	48190	2	6365	30	6400	4	0.2	2.9	1.8	51.7	18.6	1.7	40.0	7400	11	0.5	2.6	1.6	126.5	16.6	3.8	-0.2	NO
189841R	48220	2	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	40.0	7400	11	0.5	2.6	1.6	0.0	0.0	3.8	-0.2	NO
189856F	48350	2	3500	30	6400	4	0.2	2.9	1.8	28.4	10.2	1.7	40.0	7400	11	0.5	2.6	1.6	69.6	9.1	3.8	-0.2	NO
189857M	48370	2	50	30	6400	4	0.2	2.9	1.8	0.4	0.1	1.7	40.0	7400	11	0.5	2.6	1.6	1.0	0.1	3.8	-0.2	NO
189858U	048410	2	392	30	6400	4	0.2	2.9	1.8	3.2	1.1	1.7	40.0	7400	11	0.5	2.6	1.6	7.8	1.0	3.8	-0.2	NO
189859B	48430	2	211	30	6400	4	0.2	2.9	1.8	1.7	0.6	1.7	40.0	7400	11	0.5	2.6	1.6	4.2	0.5	3.8	-0.2	NO

Pre/Post-Construction Delays
South Dakota 20 MNT
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189860V	48450	2	756	30	6400	4	0.2	2.9	1.8	6.1	2.2	1.7	40.0	7400	11	0.5	2.6	1.6	15.0	2.0	3.8	-0.2	NO
189861C	048460	2	3136	30	6400	4	0.2	2.9	1.8	25.5	9.2	1.7	40.0	7400	11	0.5	2.6	1.6	62.3	8.2	3.8	-0.2	NO
189862J	48490	2	406	30	6400	4	0.2	2.9	1.8	3.3	1.2	1.7	40.0	7400	11	0.5	2.6	1.6	8.1	1.1	3.8	-0.2	NO
189864X	48590	2	385	30	6400	4	0.2	2.9	1.8	3.1	1.1	1.7	45.0	7400	11	0.5	2.4	1.5	7.0	0.9	3.2	-0.3	NO
189870B	048940	1	15	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.3	0.1	3.2	-0.3	NO
189889T	050300	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2	-0.3	NO
189902E	51320	2	62	30	6400	4	0.2	2.9	1.8	0.5	0.2	1.7	45.0	7400	11	0.5	2.4	1.5	1.1	0.1	3.2	-0.3	NO
189908V	052020	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.3	0.1	3.2	-0.3	NO
189914Y	52290	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-0.3	NO
189929N	53300	1	55	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	7400	11	0.5	2.4	1.5	1.0	0.3	3.2	-0.3	NO
189930H	53320	1	56	30	6400	4	0.2	2.9	1.8	0.5	0.3	1.7	45.0	7400	11	0.5	2.4	1.5	1.0	0.3	3.2	-0.3	NO
Segment 11 Wasta to Midland MP 533.2 to 605																							
189931P	53340	1	228	10	6400	2	0.1	7.8	4.2	2.5	3.5	5.4	45.0	7400	11	0.5	2.4	1.5	4.1	1.1	3.2	-2.7	NO
189932W	53360	2	280	10	6400	2	0.1	7.8	4.2	3.0	2.2	5.4	45.0	7400	11	0.5	2.4	1.5	5.1	0.7	3.2	-2.7	NO
189989X	55950	1	75	10	6400	2	0.1	7.8	4.2	0.8	1.2	5.4	45.0	7400	11	0.5	2.4	1.5	1.4	0.4	3.2	-2.7	NO
190010C	55970	2	615	10	6400	2	0.1	7.8	4.2	6.6	4.8	5.4	45.0	7400	11	0.5	2.4	1.5	11.1	1.5	3.2	-2.7	NO
190501B	56170	2	50	10	6400	2	0.1	7.8	4.2	0.5	0.4	5.4	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2	-2.7	NO
190025S	57130	1	15	10	6400	2	0.1	7.8	4.2	0.2	0.2	5.4	45.0	7400	11	0.5	2.4	1.5	0.3	0.1	3.2	-2.7	NO
190026Y	57180	2	1020	10	6400	2	0.1	7.8	4.2	11.0	7.9	5.4	45.0	7400	11	0.5	2.4	1.5	18.5	2.4	3.2	-2.7	NO
190027F	57320	1	59	10	6400	2	0.1	7.8	4.2	0.6	0.9	5.4	45.0	7400	11	0.5	2.4	1.5	1.1	0.3	3.2	-2.7	NO
190028M	57350	2	26	10	6400	2	0.1	7.8	4.2	0.3	0.2	5.4	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2	-2.7	NO
190032C	57520	1	41	10	6400	2	0.1	7.8	4.2	0.4	0.6	5.4	45.0	7400	11	0.5	2.4	1.5	0.7	0.2	3.2	-2.7	NO
190034R	057730	1	12	10	6400	2	0.1	7.8	4.2	0.1	0.2	5.4	45.0	7400	11	0.5	2.4	1.5	0.2	0.1	3.2	-2.7	NO
190039A	58309	1	6	10	6400	2	0.1	7.8	4.2	0.1	0.1	5.4	45.0	7400	11	0.5	2.4	1.5	0.1	0.0	3.2	-2.7	NO
190044W	58470	2	87	10	6400	2	0.1	7.8	4.2	0.9	0.7	5.4	45.0	7400	11	0.5	2.4	1.5	1.6	0.2	3.2	-2.7	NO
190049F	059020	2	19	10	6400	2	0.1	7.8	4.2	0.2	0.1	5.4	45.0	7400	11	0.5	2.4	1.5	0.3	0.0	3.2	-2.7	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 6 Brookings to Tracy MP 226.6 to 290.0																						
193785T	027360	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.5	NO
193786A	027440	2	1400	28	6400	10	0.4	3.1	1.8	30.1	4.3	4.8	45.0	6400	21	0.9	2.1	1.4	43.2	3.0	5.0	-0.5	NO
193787G	027460	2	250	28	6400	10	0.4	3.1	1.8	5.4	0.8	4.8	45.0	6400	21	0.9	2.1	1.4	7.7	0.5	5.0	-0.5	NO
193788N	027470	2	300	28	6400	10	0.4	3.1	1.8	6.5	0.9	4.8	45.0	6400	21	0.9	2.1	1.4	9.3	0.6	5.0	-0.5	NO
193789V	027480	2	642	28	6400	10	0.4	3.1	1.8	13.8	2.0	4.8	45.0	6400	21	0.9	2.1	1.4	19.8	1.4	5.0	-0.5	NO
193791W	027570	2	35	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.5	NO
193792D	027680	2	39	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.5	NO
193794S	027780	2	36	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.5	NO
193795Y	027810	2	33	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.0	0.1	5.0	-0.5	NO
197475M	27880	2	93	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	6400	21	0.9	2.1	1.4	2.9	0.2	5.0	-0.5	NO
193805C	027990	2	41	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.3	0.1	5.0	-0.5	NO
197476U	028090	2	47	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-0.5	NO
197477B	028150	2	27	28	6400	10	0.4	3.1	1.8	0.6	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-0.5	NO
193806J	028200	2	43	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.3	0.1	5.0	-0.5	NO
193807R	028300	2	42	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.3	0.1	5.0	-0.5	NO
193808X	028410	2	31	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	1.0	0.1	5.0	-0.5	NO
197424C	028490	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.5	NO
197425J	028510	2	139	28	6400	10	0.4	3.1	1.8	3.0	0.4	4.8	45.0	6400	21	0.9	2.1	1.4	4.3	0.3	5.0	-0.5	NO
197426R	028620	2	21	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-0.5	NO
197429L	028830	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.5	NO
197430F	28870	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.5	NO
197478H	028930	4	12703	28	6400	10	0.4	3.1	1.8	273.2	19.7	4.8	45.0	6400	21	0.9	2.1	1.4	392.0	13.4	5.0	-0.5	NO
197479P	28960	2	3025	28	6400	10	0.4	3.1	1.8	65.1	9.4	4.8	45.0	6400	21	0.9	2.1	1.4	93.4	6.4	5.0	-0.5	NO
197480J	029030	2	6440	28	6400	10	0.4	3.1	1.8	138.5	19.9	4.8	45.0	6400	21	0.9	2.1	1.4	198.7	13.6	5.0	-0.5	NO
197481R	029090	4	7988	28	6400	10	0.4	3.1	1.8	171.8	12.4	4.8	45.0	6400	21	0.9	2.1	1.4	246.5	8.5	5.0	-0.5	NO
Segment 7 Arlington to Brookings MP 290.9 to 308.3																						
197482X	029110	2	2630	20	6400	8	0.3	4.1	2.4	60.4	10.9	6.5	45.0	6400	21	0.9	2.1	1.4	81.2	5.6	5.0	-1.0	NO
197483E	029210	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.9	0.1	5.0	-1.0	NO
197484L	029240	2	78	20	6400	8	0.3	4.1	2.4	1.8	0.3	6.5	45.0	6400	21	0.9	2.1	1.4	2.4	0.2	5.0	-1.0	NO
197485T	029350	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-1.0	NO
197487G	029460	2	35	20	6400	8	0.3	4.1	2.4	0.8	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-1.0	NO
197440L	29650	2	46	20	6400	8	0.3	4.1	2.4	1.1	0.2	6.5	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-1.0	NO
197441T	029720	2	1787	20	6400	8	0.3	4.1	2.4	41.1	7.4	6.5	45.0	6400	21	0.9	2.1	1.4	55.1	3.8	5.0	-1.0	NO
197442A	029730	2	2180	20	6400	8	0.3	4.1	2.4	50.1	9.0	6.5	45.0	6400	21	0.9	2.1	1.4	67.3	4.6	5.0	-1.0	NO
197443G	029740	2	950	20	6400	8	0.3	4.1	2.4	21.8	3.9	6.5	45.0	6400	21	0.9	2.1	1.4	29.3	2.0	5.0	-1.0	NO
197445V	029840	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-1.0	NO
197493K	029870	2	2962	20	6400	8	0.3	4.1	2.4	68.1	12.3	6.5	45.0	6400	21	0.9	2.1	1.4	91.4	6.3	5.0	-1.0	NO
197446C	029960	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.9	0.1	5.0	-1.0	NO
197447J	030170	1	17	20	6400	8	0.3	4.1	2.4	0.4	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.5	0.1	5.0	-1.0	NO
197448R	030280	2	170	20	6400	8	0.3	4.1	2.4	3.9	0.7	6.5	45.0	6400	21	0.9	2.1	1.4	5.2	0.4	5.0	-1.0	NO
197449X	030380	2	25	20	6400	8	0.3	4.1	2.4	0.6	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-1.0	NO
197450S	030480	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.9	0.1	5.0	-1.0	NO
197502G	030680	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-1.0	NO
197503N	030730	2	15	20	6400	8	0.3	4.1	2.4	0.3	0.1	6.5	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-1.0	NO
197451Y	030800	4	1536	20	6400	8	0.3	4.1	2.4	35.3	3.2	6.5	45.0	6400	21	0.9	2.1	1.4	47.4	1.6	5.0	-1.0	NO
197452F	30820	2	630	20	6400	8	0.3	4.1	2.4	14.5	2.6	6.5	45.0	6400	21	0.9	2.1	1.4	19.4	1.3	5.0	-1.0	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 8 Huron to Arlington MP 308.3 to 362.8																						
197453M	30830	2	300	21	6400	6	0.3	4.0	2.3	5.0	1.2	4.5	45.0	6400	21	0.9	2.1	1.4	9.3	0.6	5.0	-0.9	NO
197454U	030840	2	430	21	6400	6	0.3	4.0	2.3	7.1	1.7	4.5	45.0	6400	21	0.9	2.1	1.4	13.3	0.9	5.0	-0.9	NO
197504V	030940	2	43	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	21	0.9	2.1	1.4	1.3	0.1	5.0	-0.9	NO
197505C	031060	2	74	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	6400	21	0.9	2.1	1.4	2.3	0.2	5.0	-0.9	NO
197507R	031160	2	20	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-0.9	NO
197508X	031260	2	245	21	6400	6	0.3	4.0	2.3	4.0	1.0	4.5	45.0	6400	21	0.9	2.1	1.4	7.6	0.5	5.0	-0.9	NO
197509E	031390	2	118	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	6400	21	0.9	2.1	1.4	3.6	0.2	5.0	-0.9	NO
197510Y	031470	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.9	NO
197514B	031670	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.9	NO
197519K	032070	2	408	21	6400	6	0.3	4.0	2.3	6.7	1.6	4.5	45.0	6400	21	0.9	2.1	1.4	12.6	0.9	5.0	-0.9	NO
197520E	032090	2	89	21	6400	6	0.3	4.0	2.3	1.5	0.4	4.5	45.0	6400	21	0.9	2.1	1.4	2.7	0.2	5.0	-0.9	NO
197521L	032100	2	2496	21	6400	6	0.3	4.0	2.3	41.2	9.9	4.5	45.0	6400	21	0.9	2.1	1.4	77.0	5.3	5.0	-0.9	NO
197522T	032110	2	86	21	6400	6	0.3	4.0	2.3	1.4	0.3	4.5	45.0	6400	21	0.9	2.1	1.4	2.7	0.2	5.0	-0.9	NO
197523A	032170	2	225	21	6400	6	0.3	4.0	2.3	3.7	0.9	4.5	45.0	6400	21	0.9	2.1	1.4	6.9	0.5	5.0	-0.9	NO
197679Y	032370	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.9	NO
197680T	032480	2	3	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.9	NO
197681A	032580	2	75	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	6400	21	0.9	2.1	1.4	2.3	0.2	5.0	-0.9	NO
197683N	032680	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-0.9	NO
197684V	032780	2	27	21	6400	6	0.3	4.0	2.3	0.4	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-0.9	NO
197685C	032930	2	115	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	6400	21	0.9	2.1	1.4	3.5	0.2	5.0	-0.9	NO
197456H	032970	2	390	21	6400	6	0.3	4.0	2.3	6.4	1.5	4.5	45.0	6400	21	0.9	2.1	1.4	12.0	0.8	5.0	-0.9	NO
197457P	032980	2	3063	21	6400	6	0.3	4.0	2.3	50.6	12.1	4.5	45.0	6400	21	0.9	2.1	1.4	94.5	6.5	5.0	-0.9	NO
197458W	032990	2	186	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	6400	21	0.9	2.1	1.4	5.7	0.4	5.0	-0.9	NO
197459D	033000	2	130	21	6400	6	0.3	4.0	2.3	2.1	0.5	4.5	45.0	6400	21	0.9	2.1	1.4	4.0	0.3	5.0	-0.9	NO
197686J	033040	2	610	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	6400	21	0.9	2.1	1.4	18.8	1.3	5.0	-0.9	NO
197687R	033080	2	33	21	6400	6	0.3	4.0	2.3	0.5	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	1.0	0.1	5.0	-0.9	NO
197690Y	033290	2	2	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.9	NO
197460X	033390	2	36	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.9	NO
197461E	33490	1	10	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.9	NO
197462L	033590	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.9	NO
197464A	033700	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.9	NO
197465G	033800	2	215	21	6400	6	0.3	4.0	2.3	3.6	0.9	4.5	45.0	6400	21	0.9	2.1	1.4	6.6	0.5	5.0	-0.9	NO
197466N	033840	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-0.9	NO
197467V	033890	2	17	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-0.9	NO
197469J	34000	1	62	21	6400	6	0.3	4.0	2.3	1.0	0.5	4.5	45.0	6400	21	0.9	2.1	1.4	1.9	0.3	5.0	-0.9	NO
197470D	034100	2	62	21	6400	6	0.3	4.0	2.3	1.0	0.2	4.5	45.0	6400	21	0.9	2.1	1.4	1.9	0.1	5.0	-0.9	NO
197691F	34200	1	8	21	6400	6	0.3	4.0	2.3	0.1	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.9	NO
197692M	034300	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-0.9	NO
197694B	34390	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-0.9	NO
197696P	34420	2	1285	21	6400	6	0.3	4.0	2.3	21.2	5.1	4.5	45.0	6400	21	0.9	2.1	1.4	39.7	2.7	5.0	-0.9	NO
197697W	34460	2	613	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	6400	21	0.9	2.1	1.4	18.9	1.3	5.0	-0.9	NO
197698D	34470	2	230	21	6400	6	0.3	4.0	2.3	3.8	0.9	4.5	45.0	6400	21	0.9	2.1	1.4	7.1	0.5	5.0	-0.9	NO
197471K	034490	2	157	21	6400	6	0.3	4.0	2.3	2.6	0.6	4.5	45.0	6400	21	0.9	2.1	1.4	4.8	0.3	5.0	-0.9	NO
197473Y	034690	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.9	NO
197474F	034790	2	42	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	21	0.9	2.1	1.4	1.3	0.1	5.0	-0.9	NO
197455B	034890	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.9	NO
197887A	034990	2	95	21	6400	6	0.3	4.0	2.3	1.6	0.4	4.5	45.0	6400	21	0.9	2.1	1.4	2.9	0.2	5.0	-0.9	NO
197701J	35080	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.9	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
197702R	35180	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-0.9	NO
197703X	35280	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.9	NO
197704E	035380	2	188	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	6400	21	0.9	2.1	1.4	5.8	0.4	5.0	-0.9	NO
197706T	035480	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-0.9	NO
197707A	35580	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-0.9	NO
197708G	035680	2	37	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.9	NO
197710H	035780	2	44	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-0.9	NO
197711P	035880	2	40	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.9	NO
197891P	035980	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-0.9	NO
197890H	036080	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	21	0.9	2.1	1.4	1.4	0.1	5.0	-0.9	NO
189696U	36220	2	545	21	6400	6	0.3	4.0	2.3	9.0	2.2	4.5	45.0	6400	21	0.9	2.1	1.4	16.8	1.2	5.0	-0.9	NO
189698H	36280	4	11030	21	6400	6	0.3	4.0	2.3	182.1	21.9	4.5	45.0	6400	21	0.9	2.1	1.4	340.4	11.7	5.0	-0.9	NO
Segment 9 Wolsey to Huron MP 362.8 to 376.1																							
189701N	36380	2	5290	34	6400	6	0.3	2.6	1.6	58.2	14.0	2.1	45.0	6400	21	0.9	2.1	1.4	163.3	11.2	5.0	-0.3	NO
189702V	036470	4	2137	34	6400	6	0.3	2.6	1.6	23.5	2.8	2.1	45.0	6400	21	0.9	2.1	1.4	65.9	2.3	5.0	-0.3	NO
189703C	36480	2	125	34	6400	6	0.3	2.6	1.6	1.4	0.3	2.1	45.0	6400	21	0.9	2.1	1.4	3.9	0.3	5.0	-0.3	NO
189704J	36590	2	40	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	6400	21	0.9	2.1	1.4	1.2	0.1	5.0	-0.3	NO
189705R	36690	1	29	34	6400	6	0.3	2.6	1.6	0.3	0.2	2.1	45.0	6400	21	0.9	2.1	1.4	0.9	0.1	5.0	-0.3	NO
189706X	036800	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	21	0.9	2.1	1.4	0.6	0.1	5.0	-0.3	NO
189707E	36900	2	305	34	6400	6	0.3	2.6	1.6	3.4	0.8	2.1	45.0	6400	21	0.9	2.1	1.4	9.4	0.6	5.0	-0.3	NO
189708L	37000	2	35	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.3	NO
189710M	37100	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	21	0.9	2.1	1.4	0.6	0.1	5.0	-0.3	NO
189712B	37320	2	19	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-0.3	NO
189713H	37480	1	3	34	6400	6	0.3	2.6	1.6	0.0	0.0	2.1	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.3	NO
Segment 10 Midland to Wolsey MP 376.1 to 533.2																							
189716D	37620	2	2671	30	6400	4	0.2	2.9	1.8	21.7	7.8	1.7	45.0	6400	21	0.9	2.1	1.4	82.4	5.7	5.0	-0.4	NO
189717K	37630	1	200	30	6400	4	0.2	2.9	1.8	1.6	1.2	1.7	40.0	6400	21	0.9	2.3	1.5	6.8	0.9	5.9	-0.3	NO
189718S	37730	1	27	30	6400	4	0.2	2.9	1.8	0.2	0.2	1.7	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-0.4	NO
189720T	37930	1	24	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.7	0.1	5.0	-0.4	NO
189722G	38040	2	15	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.5	0.0	5.0	-0.4	NO
189724V	38140	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.6	0.1	5.0	-0.4	NO
189726J	038350	1	12	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.4	0.1	5.0	-0.4	NO
189728X	38550	2	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-0.4	NO
189730Y	38650	2	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-0.4	NO
189731F	038750	2	952	30	6400	4	0.2	2.9	1.8	7.7	2.8	1.7	45.0	6400	21	0.9	2.1	1.4	29.4	2.0	5.0	-0.4	NO
189732M	38770	2	464	30	6400	4	0.2	2.9	1.8	3.8	1.4	1.7	45.0	6400	21	0.9	2.1	1.4	14.3	1.0	5.0	-0.4	NO
189734B	38880	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.4	0.1	5.0	-0.4	NO
189736P	39000	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.4	NO
189738D	39110	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.4	NO
189740E	39220	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189742T	39340	2	120	30	6400	4	0.2	2.9	1.8	1.0	0.4	1.7	45.0	6400	21	0.9	2.1	1.4	3.7	0.3	5.0	-0.4	NO
189744G	039560	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.0	0.0	5.0	-0.4	NO
189746V	039670	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-0.4	NO
189747C	39760	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.0	0.0	5.0	-0.4	NO
189748J	39860	1	4	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189749R	39960	2	115	30	6400	4	0.2	2.9	1.8	0.9	0.3	1.7	45.0	6400	21	0.9	2.1	1.4	3.5	0.2	5.0	-0.4	NO
189751S	40030	2	164	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	6400	21	0.9	2.1	1.4	5.1	0.3	5.0	-0.4	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189752Y	040040	2	166	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	6400	21	0.9	2.1	1.4	5.1	0.4	5.0	-0.4	NO
189754M	40160	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-0.4	NO
189755U	40260	2	400	30	6400	4	0.2	2.9	1.8	3.2	1.2	1.7	45.0	6400	21	0.9	2.1	1.4	12.3	0.8	5.0	-0.4	NO
189756B	040290	2	2505	30	6400	4	0.2	2.9	1.8	20.3	7.3	1.7	45.0	6400	21	0.9	2.1	1.4	77.3	5.3	5.0	-0.4	NO
189757H	40310	1	204	30	6400	4	0.2	2.9	1.8	1.7	1.2	1.7	45.0	6400	21	0.9	2.1	1.4	6.3	0.9	5.0	-0.4	NO
189758P	40360	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.4	0.1	5.0	-0.4	NO
189759W	40460	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189760R	40560	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189761X	40660	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189762E	40750	1	49	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	6400	21	0.9	2.1	1.4	1.5	0.2	5.0	-0.4	NO
189763L	40860	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189765A	41060	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.4	NO
189767N	41260	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189768V	41330	2	508	30	6400	4	0.2	2.9	1.8	4.1	1.5	1.7	45.0	6400	21	0.9	2.1	1.4	15.7	1.1	5.0	-0.4	NO
189769C	041360	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.4	NO
189770W	41550	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189771D	041660	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.4	NO
189772K	041830	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.6	0.1	5.0	-0.4	NO
189775F	42120	9	115	30	6400	4	0.2	2.9	1.8	0.9	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	3.5	0.1	5.0	-0.4	NO
189776M	042230	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.0	0.0	5.0	-0.4	NO
189780C	42420	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.4	NO
189781J	042500	2	272	30	6400	4	0.2	2.9	1.8	2.2	0.8	1.7	45.0	6400	21	0.9	2.1	1.4	8.4	0.6	5.0	-0.4	NO
189782R	42520	2	1543	30	6400	4	0.2	2.9	1.8	12.5	4.5	1.7	45.0	6400	21	0.9	2.1	1.4	47.6	3.3	5.0	-0.4	NO
189784E	42620	1	8	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.4	NO
189786T	42820	2	6	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.4	NO
189787A	42920	2	36	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.4	NO
189789N	43120	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.4	NO
189791P	43290	1	21	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.6	0.1	5.0	-0.4	NO
189792W	043320	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	6400	21	0.9	2.1	1.4	2.5	0.2	5.0	-0.4	NO
189793D	43420	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189795S	43520	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.1	0.0	5.0	-0.4	NO
189797F	043620	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-0.4	NO
189799U	043820	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.6	0.1	5.0	-0.4	NO
189800L	043920	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.6	0.1	5.0	-0.4	NO
189801T	43990	2	300	30	6400	4	0.2	2.9	1.8	2.4	0.9	1.7	45.0	6400	21	0.9	2.1	1.4	9.3	0.6	5.0	-0.4	NO
189802A	044020	2	145	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	6400	21	0.9	2.1	1.4	4.5	0.3	5.0	-0.4	NO
189805V	44320	1	35	30	6400	4	0.2	2.9	1.8	0.3	0.2	1.7	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.4	NO
189809X	044720	2	35	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	1.1	0.1	5.0	-0.4	NO
189810S	44920	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.5	0.1	5.0	-0.4	NO
189812F	45130	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.4	NO
189813M	45220	2	9	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.4	NO
189816H	045330	2	153	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	6400	21	0.9	2.1	1.4	4.7	0.3	5.0	-0.4	NO
189822L	046110	2	82	30	6400	4	0.2	2.9	1.8	0.7	0.2	1.7	45.0	6400	21	0.9	2.1	1.4	2.5	0.2	5.0	-0.4	NO
189839P	47790	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	6400	21	0.9	2.1	1.4	2.5	0.2	5.0	-0.4	NO
189840J	47840	2	30	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.9	0.1	5.0	-0.4	NO
189841R	47890	2	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	11	0.5	2.1	1.4	0.0	0.0	2.6	-0.4	NO
189842X	47950	2	1000	30	6400	4	0.2	2.9	1.8	8.1	2.9	1.7	40.0	6400	21	0.9	2.3	1.5	33.8	2.3	5.9	-0.3	NO
189843E	48000	2	3798	30	6400	4	0.2	2.9	1.8	30.9	11.1	1.7	40.0	6400	21	0.9	2.3	1.5	128.4	8.8	5.9	-0.3	NO
189844L	48050	2	100	30	6400	4	0.2	2.9	1.8	0.8	0.3	1.7	40.0	6400	21	0.9	2.3	1.5	3.4	0.2	5.9	-0.3	NO
189845T	48070	2	1560	30	6400	4	0.2	2.9	1.8	12.7	4.6	1.7	40.0	6400	21	0.9	2.3	1.5	52.7	3.6	5.9	-0.3	NO
189846A	48110	4	19755	30	6400	4	0.2	2.9	1.8	160.5	28.9	1.7	40.0	6400	21	0.9	2.3	1.5	667.9	22.9	5.9	-0.3	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189847G	48140	2	1020	30	6400	4	0.2	2.9	1.8	8.3	3.0	1.7	40.0	6400	21	0.9	2.3	1.5	34.5	2.4	5.9	-0.3	NO
189848N	48160	2	6045	30	6400	4	0.2	2.9	1.8	49.1	17.7	1.7	40.0	6400	21	0.9	2.3	1.5	204.4	14.0	5.9	-0.3	NO
189850P	48190	2	6365	30	6400	4	0.2	2.9	1.8	51.7	18.6	1.7	40.0	6400	21	0.9	2.3	1.5	215.2	14.8	5.9	-0.3	NO
189851W	48220	2	1149	30	6400	4	0.2	2.9	1.8	9.3	3.4	1.7	40.0	6400	11	0.5	2.3	1.5	20.3	2.7	3.1	-0.3	NO
189856F	48350	2	3500	30	6400	4	0.2	2.9	1.8	28.4	10.2	1.7	40.0	6400	21	0.9	2.3	1.5	118.3	8.1	5.9	-0.3	NO
189857M	48370	2	50	30	6400	4	0.2	2.9	1.8	0.4	0.1	1.7	40.0	6400	21	0.9	2.3	1.5	1.7	0.1	5.9	-0.3	NO
189858U	048410	2	392	30	6400	4	0.2	2.9	1.8	3.2	1.1	1.7	40.0	6400	21	0.9	2.3	1.5	13.3	0.9	5.9	-0.3	NO
189859B	48430	2	211	30	6400	4	0.2	2.9	1.8	1.7	0.6	1.7	40.0	6400	21	0.9	2.3	1.5	7.1	0.5	5.9	-0.3	NO
189860V	48450	2	756	30	6400	4	0.2	2.9	1.8	6.1	2.2	1.7	40.0	6400	21	0.9	2.3	1.5	25.6	1.8	5.9	-0.3	NO
189861C	048460	2	3136	30	6400	4	0.2	2.9	1.8	25.5	9.2	1.7	40.0	6400	21	0.9	2.3	1.5	106.0	7.3	5.9	-0.3	NO
189862J	48490	2	406	30	6400	4	0.2	2.9	1.8	3.3	1.2	1.7	40.0	6400	21	0.9	2.3	1.5	13.7	0.9	5.9	-0.3	NO
189864X	48590	2	385	30	6400	4	0.2	2.9	1.8	3.1	1.1	1.7	45.0	6400	21	0.9	2.1	1.4	11.9	0.8	5.0	-0.4	NO
189870B	048940	1	15	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.5	0.1	5.0	-0.4	NO
189889T	050300	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0	-0.4	NO
189902E	51320	2	62	30	6400	4	0.2	2.9	1.8	0.5	0.2	1.7	45.0	6400	21	0.9	2.1	1.4	1.9	0.1	5.0	-0.4	NO
189908V	052020	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.5	0.1	5.0	-0.4	NO
189914Y	52290	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-0.4	NO
189929N	53300	1	55	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	6400	21	0.9	2.1	1.4	1.7	0.2	5.0	-0.4	NO
189930H	53320	1	56	30	6400	4	0.2	2.9	1.8	0.5	0.3	1.7	45.0	6400	21	0.9	2.1	1.4	1.7	0.2	5.0	-0.4	NO
Segment 11 Watta to Midland MP 533.2 to 605																							
189931P	53340	1	228	10	6400	2	0.1	7.8	4.2	2.5	3.5	5.4	45.0	6400	21	0.9	2.1	1.4	7.0	1.0	5.0	-2.8	NO
189932W	53360	2	280	10	6400	2	0.1	7.8	4.2	3.0	2.2	5.4	45.0	6400	21	0.9	2.1	1.4	8.6	0.6	5.0	-2.8	NO
189989X	55950	1	75	10	6400	2	0.1	7.8	4.2	0.8	1.2	5.4	45.0	6400	21	0.9	2.1	1.4	2.3	0.3	5.0	-2.8	NO
190010C	55970	2	615	10	6400	2	0.1	7.8	4.2	6.6	4.8	5.4	45.0	6400	21	0.9	2.1	1.4	19.0	1.3	5.0	-2.8	NO
190501B	56170	2	50	10	6400	2	0.1	7.8	4.2	0.5	0.4	5.4	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0	-2.8	NO
190025S	57130	1	15	10	6400	2	0.1	7.8	4.2	0.2	0.2	5.4	45.0	6400	21	0.9	2.1	1.4	0.5	0.1	5.0	-2.8	NO
190026Y	57180	2	1020	10	6400	2	0.1	7.8	4.2	11.0	7.9	5.4	45.0	6400	21	0.9	2.1	1.4	31.5	2.2	5.0	-2.8	NO
190027F	57320	1	59	10	6400	2	0.1	7.8	4.2	0.6	0.9	5.4	45.0	6400	21	0.9	2.1	1.4	1.8	0.2	5.0	-2.8	NO
190028M	57350	2	26	10	6400	2	0.1	7.8	4.2	0.3	0.2	5.4	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0	-2.8	NO
190032C	57520	1	41	10	6400	2	0.1	7.8	4.2	0.4	0.6	5.4	45.0	6400	21	0.9	2.1	1.4	1.3	0.2	5.0	-2.8	NO
190034R	057730	1	12	10	6400	2	0.1	7.8	4.2	0.1	0.2	5.4	45.0	6400	21	0.9	2.1	1.4	0.4	0.1	5.0	-2.8	NO
190039A	58309	1	6	10	6400	2	0.1	7.8	4.2	0.1	0.1	5.4	45.0	6400	21	0.9	2.1	1.4	0.2	0.0	5.0	-2.8	NO
190044W	58470	2	87	10	6400	2	0.1	7.8	4.2	0.9	0.7	5.4	45.0	6400	21	0.9	2.1	1.4	2.7	0.2	5.0	-2.8	NO
190049F	059020	2	19	10	6400	2	0.1	7.8	4.2	0.2	0.1	5.4	45.0	6400	21	0.9	2.1	1.4	0.6	0.0	5.0	-2.8	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 6 Brookings to Tracy MP 226.6 to 290.0																						
193785T	027360	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.4	NO
193786A	027440	2	1400	28	6400	10	0.4	3.1	1.8	30.1	4.3	4.8	45.0	7400	21	0.9	2.4	1.5	48.4	3.3	6.2	-0.4	NO
193787G	027460	2	250	28	6400	10	0.4	3.1	1.8	5.4	0.8	4.8	45.0	7400	21	0.9	2.4	1.5	8.6	0.6	6.2	-0.4	NO
193788N	027470	2	300	28	6400	10	0.4	3.1	1.8	6.5	0.9	4.8	45.0	7400	21	0.9	2.4	1.5	10.4	0.7	6.2	-0.4	NO
193789V	027480	2	642	28	6400	10	0.4	3.1	1.8	13.8	2.0	4.8	45.0	7400	21	0.9	2.4	1.5	22.2	1.5	6.2	-0.4	NO
193791W	027570	2	35	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.4	NO
193792D	027680	2	39	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.3	0.1	6.2	-0.4	NO
193794S	027780	2	36	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.4	NO
193795Y	027810	2	33	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.1	0.1	6.2	-0.4	NO
197475M	27880	2	93	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	7400	21	0.9	2.4	1.5	3.2	0.2	6.2	-0.4	NO
193805C	027990	2	41	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.4	NO
197476U	028090	2	47	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.6	0.1	6.2	-0.4	NO
197477B	028150	2	27	28	6400	10	0.4	3.1	1.8	0.6	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-0.4	NO
193806J	028200	2	43	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.5	0.1	6.2	-0.4	NO
193807R	028300	2	42	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.5	0.1	6.2	-0.4	NO
193808X	028410	2	31	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	1.1	0.1	6.2	-0.4	NO
197424C	028490	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.4	NO
197425J	028510	2	139	28	6400	10	0.4	3.1	1.8	3.0	0.4	4.8	45.0	7400	21	0.9	2.4	1.5	4.8	0.3	6.2	-0.4	NO
197426R	028620	2	21	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.4	NO
197429L	028830	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.4	NO
197430F	28870	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.4	NO
197478H	028930	4	12703	28	6400	10	0.4	3.1	1.8	273.2	19.7	4.8	45.0	7400	21	0.9	2.4	1.5	438.8	15.0	6.2	-0.4	NO
197479P	28960	2	3025	28	6400	10	0.4	3.1	1.8	65.1	9.4	4.8	45.0	7400	21	0.9	2.4	1.5	104.5	7.2	6.2	-0.4	NO
197480J	029030	2	6440	28	6400	10	0.4	3.1	1.8	138.5	19.9	4.8	45.0	7400	21	0.9	2.4	1.5	222.5	15.3	6.2	-0.4	NO
197481R	029090	4	7988	28	6400	10	0.4	3.1	1.8	171.8	12.4	4.8	45.0	7400	21	0.9	2.4	1.5	275.9	9.5	6.2	-0.4	NO
Segment 7 Arlington to Brookings MP 290.9 to 308.3																						
197482X	029110	2	2630	20	6400	8	0.3	4.1	2.4	60.4	10.9	6.5	45.0	7400	21	0.9	2.4	1.5	90.8	6.2	6.2	-0.9	NO
197483E	029210	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	1.0	0.1	6.2	-0.9	NO
197484L	029240	2	78	20	6400	8	0.3	4.1	2.4	1.8	0.3	6.5	45.0	7400	21	0.9	2.4	1.5	2.7	0.2	6.2	-0.9	NO
197485T	029350	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.9	NO
197487G	029460	2	35	20	6400	8	0.3	4.1	2.4	0.8	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.9	NO
197440L	29650	2	46	20	6400	8	0.3	4.1	2.4	1.1	0.2	6.5	45.0	7400	21	0.9	2.4	1.5	1.6	0.1	6.2	-0.9	NO
197441T	029720	2	1787	20	6400	8	0.3	4.1	2.4	41.1	7.4	6.5	45.0	7400	21	0.9	2.4	1.5	61.7	4.2	6.2	-0.9	NO
197442A	029730	2	2180	20	6400	8	0.3	4.1	2.4	50.1	9.0	6.5	45.0	7400	21	0.9	2.4	1.5	75.3	5.2	6.2	-0.9	NO
197443G	029740	2	950	20	6400	8	0.3	4.1	2.4	21.8	3.9	6.5	45.0	7400	21	0.9	2.4	1.5	32.8	2.3	6.2	-0.9	NO
197445V	029840	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.9	NO
197493K	029870	2	2962	20	6400	8	0.3	4.1	2.4	68.1	12.3	6.5	45.0	7400	21	0.9	2.4	1.5	102.3	7.0	6.2	-0.9	NO
197446C	029960	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	1.0	0.1	6.2	-0.9	NO
197447J	030170	1	17	20	6400	8	0.3	4.1	2.4	0.4	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	0.6	0.1	6.2	-0.9	NO
197448R	030280	2	170	20	6400	8	0.3	4.1	2.4	3.9	0.7	6.5	45.0	7400	21	0.9	2.4	1.5	5.9	0.4	6.2	-0.9	NO
197449X	030380	2	25	20	6400	8	0.3	4.1	2.4	0.6	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-0.9	NO
197450S	030480	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	1.0	0.1	6.2	-0.9	NO
197502G	030680	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.9	NO
197503N	030730	2	15	20	6400	8	0.3	4.1	2.4	0.3	0.1	6.5	45.0	7400	21	0.9	2.4	1.5	0.5	0.0	6.2	-0.9	NO
197451Y	030800	4	1536	20	6400	8	0.3	4.1	2.4	35.3	3.2	6.5	45.0	7400	21	0.9	2.4	1.5	53.1	1.8	6.2	-0.9	NO
197452F	30820	2	630	20	6400	8	0.3	4.1	2.4	14.5	2.6	6.5	45.0	7400	21	0.9	2.4	1.5	21.8	1.5	6.2	-0.9	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per									
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
Segment 8 Huron to Arlington MP 308.3 to 362.8																							
197453M	30830	2	300	21	6400	6	0.3	4.0	2.3	5.0	1.2	4.5	45.0	7400	21	0.9	2.4	1.5	10.4	0.7	6.2	-0.8	NO
197454U	030840	2	430	21	6400	6	0.3	4.0	2.3	7.1	1.7	4.5	45.0	7400	21	0.9	2.4	1.5	14.9	1.0	6.2	-0.8	NO
197504V	030940	2	43	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	21	0.9	2.4	1.5	1.5	0.1	6.2	-0.8	NO
197505C	031060	2	74	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	7400	21	0.9	2.4	1.5	2.6	0.2	6.2	-0.8	NO
197507R	031160	2	20	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.8	NO
197508X	031260	2	245	21	6400	6	0.3	4.0	2.3	4.0	1.0	4.5	45.0	7400	21	0.9	2.4	1.5	8.5	0.6	6.2	-0.8	NO
197509E	031390	2	118	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	7400	21	0.9	2.4	1.5	4.1	0.3	6.2	-0.8	NO
197510Y	031470	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.8	NO
197514B	031670	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.8	NO
197519K	032070	2	408	21	6400	6	0.3	4.0	2.3	6.7	1.6	4.5	45.0	7400	21	0.9	2.4	1.5	14.1	1.0	6.2	-0.8	NO
197520E	032090	2	89	21	6400	6	0.3	4.0	2.3	1.5	0.4	4.5	45.0	7400	21	0.9	2.4	1.5	3.1	0.2	6.2	-0.8	NO
197521L	032100	2	2496	21	6400	6	0.3	4.0	2.3	41.2	9.9	4.5	45.0	7400	21	0.9	2.4	1.5	86.2	5.9	6.2	-0.8	NO
197522T	032110	2	86	21	6400	6	0.3	4.0	2.3	1.4	0.3	4.5	45.0	7400	21	0.9	2.4	1.5	3.0	0.2	6.2	-0.8	NO
197523A	032170	2	225	21	6400	6	0.3	4.0	2.3	3.7	0.9	4.5	45.0	7400	21	0.9	2.4	1.5	7.8	0.5	6.2	-0.8	NO
197679Y	032370	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.8	NO
197680T	032480	2	3	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.8	NO
197681A	032580	2	75	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	7400	21	0.9	2.4	1.5	2.6	0.2	6.2	-0.8	NO
197683N	032680	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.5	0.0	6.2	-0.8	NO
197684V	032780	2	27	21	6400	6	0.3	4.0	2.3	0.4	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-0.8	NO
197685C	032930	2	115	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	7400	21	0.9	2.4	1.5	4.0	0.3	6.2	-0.8	NO
197456H	032970	2	390	21	6400	6	0.3	4.0	2.3	6.4	1.5	4.5	45.0	7400	21	0.9	2.4	1.5	13.5	0.9	6.2	-0.8	NO
197457P	032980	2	3063	21	6400	6	0.3	4.0	2.3	50.6	12.1	4.5	45.0	7400	21	0.9	2.4	1.5	105.8	7.3	6.2	-0.8	NO
197458W	032990	2	186	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	7400	21	0.9	2.4	1.5	6.4	0.4	6.2	-0.8	NO
197459D	033000	2	130	21	6400	6	0.3	4.0	2.3	2.1	0.5	4.5	45.0	7400	21	0.9	2.4	1.5	4.5	0.3	6.2	-0.8	NO
197686J	033040	2	610	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	7400	21	0.9	2.4	1.5	21.1	1.4	6.2	-0.8	NO
197687R	033080	2	33	21	6400	6	0.3	4.0	2.3	0.5	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	1.1	0.1	6.2	-0.8	NO
197690Y	033290	2	2	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.8	NO
197460X	033390	2	36	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.8	NO
197461E	33490	1	10	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.8	NO
197462L	033590	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.8	NO
197464A	033700	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.8	NO
197465G	033800	2	215	21	6400	6	0.3	4.0	2.3	3.6	0.9	4.5	45.0	7400	21	0.9	2.4	1.5	7.4	0.5	6.2	-0.8	NO
197466N	033840	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	21	0.9	2.4	1.5	1.6	0.1	6.2	-0.8	NO
197467V	033890	2	17	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.6	0.0	6.2	-0.8	NO
197469J	34000	1	62	21	6400	6	0.3	4.0	2.3	1.0	0.5	4.5	45.0	7400	21	0.9	2.4	1.5	2.1	0.3	6.2	-0.8	NO
197470D	034100	2	62	21	6400	6	0.3	4.0	2.3	1.0	0.2	4.5	45.0	7400	21	0.9	2.4	1.5	2.1	0.1	6.2	-0.8	NO
197691F	34200	1	8	21	6400	6	0.3	4.0	2.3	0.1	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.8	NO
197692M	034300	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.5	0.0	6.2	-0.8	NO
197694B	34390	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.8	NO
197696P	34420	2	1285	21	6400	6	0.3	4.0	2.3	21.2	5.1	4.5	45.0	7400	21	0.9	2.4	1.5	44.4	3.0	6.2	-0.8	NO
197697W	34460	2	613	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	7400	21	0.9	2.4	1.5	21.2	1.5	6.2	-0.8	NO
197698D	34470	2	230	21	6400	6	0.3	4.0	2.3	3.8	0.9	4.5	45.0	7400	21	0.9	2.4	1.5	7.9	0.5	6.2	-0.8	NO
197471K	034490	2	157	21	6400	6	0.3	4.0	2.3	2.6	0.6	4.5	45.0	7400	21	0.9	2.4	1.5	5.4	0.4	6.2	-0.8	NO
197473Y	034690	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.8	NO
197474F	034790	2	42	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	21	0.9	2.4	1.5	1.5	0.1	6.2	-0.8	NO
197455B	034890	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.8	NO
197887A	034990	2	95	21	6400	6	0.3	4.0	2.3	1.6	0.4	4.5	45.0	7400	21	0.9	2.4	1.5	3.3	0.2	6.2	-0.8	NO
197701J	35080	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.8	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
197702R	35180	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.8	NO
197703X	35280	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.8	NO
197704E	035380	2	188	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	7400	21	0.9	2.4	1.5	6.5	0.4	6.2	-0.8	NO
197706T	035480	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.5	0.0	6.2	-0.8	NO
197707A	35580	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	0.5	0.0	6.2	-0.8	NO
197708G	035680	2	37	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	21	0.9	2.4	1.5	1.3	0.1	6.2	-0.8	NO
197710H	035780	2	44	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	21	0.9	2.4	1.5	1.5	0.1	6.2	-0.8	NO
197711P	035880	2	40	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.8	NO
197891P	035980	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	21	0.9	2.4	1.5	1.6	0.1	6.2	-0.8	NO
197890H	036080	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	21	0.9	2.4	1.5	1.6	0.1	6.2	-0.8	NO
189696U	36220	2	545	21	6400	6	0.3	4.0	2.3	9.0	2.2	4.5	45.0	7400	21	0.9	2.4	1.5	18.8	1.3	6.2	-0.8	NO
189698H	36280	4	11030	21	6400	6	0.3	4.0	2.3	182.1	21.9	4.5	45.0	7400	21	0.9	2.4	1.5	381.0	13.1	6.2	-0.8	NO
Segment 9 Wolsey to Huron MP 362.6 to 376.1																							
189701N	36380	2	5290	34	6400	6	0.3	2.6	1.6	58.2	14.0	2.1	45.0	7400	21	0.9	2.4	1.5	182.7	12.5	6.2	-0.1	NO
189702V	036470	4	2137	34	6400	6	0.3	2.6	1.6	23.5	2.8	2.1	45.0	7400	21	0.9	2.4	1.5	73.8	2.5	6.2	-0.1	NO
189703C	36480	2	125	34	6400	6	0.3	2.6	1.6	1.4	0.3	2.1	45.0	7400	21	0.9	2.4	1.5	4.3	0.3	6.2	-0.1	NO
189704J	36590	2	40	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	7400	21	0.9	2.4	1.5	1.4	0.1	6.2	-0.1	NO
189705R	36690	1	29	34	6400	6	0.3	2.6	1.6	0.3	0.2	2.1	45.0	7400	21	0.9	2.4	1.5	1.0	0.1	6.2	-0.1	NO
189706X	036800	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	21	0.9	2.4	1.5	0.7	0.1	6.2	-0.1	NO
189707E	36900	2	305	34	6400	6	0.3	2.6	1.6	3.4	0.8	2.1	45.0	7400	21	0.9	2.4	1.5	10.5	0.7	6.2	-0.1	NO
189708L	37000	2	35	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.1	NO
189710M	37100	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	21	0.9	2.4	1.5	0.7	0.1	6.2	-0.1	NO
189712B	37320	2	19	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.1	NO
189713H	37480	1	3	34	6400	6	0.3	2.6	1.6	0.0	0.0	2.1	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.1	NO
Segment 10 Midland to Wolsey MP 376.1 to 533.2																							
189716D	37620	2	2671	30	6400	4	0.2	2.9	1.8	21.7	7.8	1.7	45.0	7400	21	0.9	2.4	1.5	92.3	6.3	6.2	-0.3	NO
189717K	37630	1	200	30	6400	4	0.2	2.9	1.8	1.6	1.2	1.7	40.0	7400	21	0.9	2.6	1.6	7.6	1.0	7.3	-0.2	NO
189718S	37730	1	27	30	6400	4	0.2	2.9	1.8	0.2	0.2	1.7	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-0.3	NO
189720T	37930	1	24	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.8	0.1	6.2	-0.3	NO
189722G	38040	2	15	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.5	0.0	6.2	-0.3	NO
189724V	38140	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.7	0.1	6.2	-0.3	NO
189726J	038350	1	12	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.4	0.1	6.2	-0.3	NO
189728X	38550	2	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-0.3	NO
189730Y	38650	2	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-0.3	NO
189731F	038750	2	952	30	6400	4	0.2	2.9	1.8	7.7	2.8	1.7	45.0	7400	21	0.9	2.4	1.5	32.9	2.3	6.2	-0.3	NO
189732M	38770	2	464	30	6400	4	0.2	2.9	1.8	3.8	1.4	1.7	45.0	7400	21	0.9	2.4	1.5	16.0	1.1	6.2	-0.3	NO
189734B	38880	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.5	0.1	6.2	-0.3	NO
189736P	39000	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.3	NO
189738D	39110	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.3	NO
189740E	39220	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189742T	39340	2	120	30	6400	4	0.2	2.9	1.8	1.0	0.4	1.7	45.0	7400	21	0.9	2.4	1.5	4.1	0.3	6.2	-0.3	NO
189744G	039560	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.0	0.0	6.2	-0.3	NO
189746V	039670	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-0.3	NO
189747C	39760	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.0	0.0	6.2	-0.3	NO
189748J	39860	1	4	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189749R	39960	2	115	30	6400	4	0.2	2.9	1.8	0.9	0.3	1.7	45.0	7400	21	0.9	2.4	1.5	4.0	0.3	6.2	-0.3	NO
189751S	40030	2	164	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	7400	21	0.9	2.4	1.5	5.7	0.4	6.2	-0.3	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
189752Y	040040	2	166	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	7400	21	0.9	2.4	1.5	5.7	0.4	6.2	-0.3	NO
189754M	40160	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-0.3	NO
189755U	40260	2	400	30	6400	4	0.2	2.9	1.8	3.2	1.2	1.7	45.0	7400	21	0.9	2.4	1.5	13.8	0.9	6.2	-0.3	NO
189756B	040290	2	2505	30	6400	4	0.2	2.9	1.8	20.3	7.3	1.7	45.0	7400	21	0.9	2.4	1.5	86.5	5.9	6.2	-0.3	NO
189757H	40310	1	204	30	6400	4	0.2	2.9	1.8	1.7	1.2	1.7	45.0	7400	21	0.9	2.4	1.5	7.0	1.0	6.2	-0.3	NO
189758P	40360	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.5	0.1	6.2	-0.3	NO
189759W	40460	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189760R	40560	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189761X	40660	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189762E	40750	1	49	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	7400	21	0.9	2.4	1.5	1.7	0.2	6.2	-0.3	NO
189763L	40860	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189765A	41060	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.3	NO
189767N	41260	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189768V	41330	2	508	30	6400	4	0.2	2.9	1.8	4.1	1.5	1.7	45.0	7400	21	0.9	2.4	1.5	17.5	1.2	6.2	-0.3	NO
189769C	041360	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.3	NO
189770W	41550	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189771D	041660	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.3	NO
189772K	041830	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.7	0.1	6.2	-0.3	NO
189775F	42120	9	115	30	6400	4	0.2	2.9	1.8	0.9	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	4.0	0.1	6.2	-0.3	NO
189776M	042230	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.0	0.0	6.2	-0.3	NO
189780C	42420	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.3	NO
189781J	042500	2	272	30	6400	4	0.2	2.9	1.8	2.2	0.8	1.7	45.0	7400	21	0.9	2.4	1.5	9.4	0.6	6.2	-0.3	NO
189782R	42520	2	1543	30	6400	4	0.2	2.9	1.8	12.5	4.5	1.7	45.0	7400	21	0.9	2.4	1.5	53.3	3.7	6.2	-0.3	NO
189784E	42620	1	8	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.3	NO
189786T	42820	2	6	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.3	NO
189787A	42920	2	36	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.3	NO
189789N	43120	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.3	NO
189791P	43290	1	21	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.7	0.1	6.2	-0.3	NO
189792W	043320	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	7400	21	0.9	2.4	1.5	2.8	0.2	6.2	-0.3	NO
189793D	43420	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189795S	43520	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.1	0.0	6.2	-0.3	NO
189797F	043620	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-0.3	NO
189799U	043820	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.7	0.1	6.2	-0.3	NO
189800L	043920	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.7	0.1	6.2	-0.3	NO
189801T	43990	2	300	30	6400	4	0.2	2.9	1.8	2.4	0.9	1.7	45.0	7400	21	0.9	2.4	1.5	10.4	0.7	6.2	-0.3	NO
189802A	044020	2	145	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	7400	21	0.9	2.4	1.5	5.0	0.3	6.2	-0.3	NO
189805V	44320	1	35	30	6400	4	0.2	2.9	1.8	0.3	0.2	1.7	45.0	7400	21	0.9	2.4	1.5	1.2	0.2	6.2	-0.3	NO
189809X	044720	2	35	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	1.2	0.1	6.2	-0.3	NO
189810S	44920	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.6	0.1	6.2	-0.3	NO
189812F	45130	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.3	NO
189813M	45220	2	9	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.3	NO
189816H	045330	2	153	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	7400	21	0.9	2.4	1.5	5.3	0.4	6.2	-0.3	NO
189822L	046110	2	82	30	6400	4	0.2	2.9	1.8	0.7	0.2	1.7	45.0	7400	21	0.9	2.4	1.5	2.8	0.2	6.2	-0.3	NO
189839P	47790	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	7400	21	0.9	2.4	1.5	2.8	0.2	6.2	-0.3	NO
189840J	47840	2	30	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	1.0	0.1	6.2	-0.3	NO
189841R	47890	2	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	21	0.9	2.4	1.5	0.0	0.0	6.2	-0.3	NO
189842X	47950	2	1000	30	6400	4	0.2	2.9	1.8	8.1	2.9	1.7	40.0	7400	21	0.9	2.6	1.6	37.9	2.6	7.3	-0.2	NO
189843E	48000	2	3798	30	6400	4	0.2	2.9	1.8	30.9	11.1	1.7	40.0	7400	21	0.9	2.6	1.6	144.1	9.9	7.3	-0.2	NO
189844L	48050	2	100	30	6400	4	0.2	2.9	1.8	0.8	0.3	1.7	40.0	7400	21	0.9	2.6	1.6	3.8	0.3	7.3	-0.2	NO
189845T	48070	2	1560	30	6400	4	0.2	2.9	1.8	12.7	4.6	1.7	40.0	7400	21	0.9	2.6	1.6	59.2	4.1	7.3	-0.2	NO
189846A	48110	4	19755	30	6400	4	0.2	2.9	1.8	160.5	28.9	1.7	40.0	7400	21	0.9	2.6	1.6	749.7	25.7	7.3	-0.2	NO

Pre/Post-Construction Delays
South Dakota-50 MNT
Alternative B
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
189847G	48140	2	1020	30	6400	4	0.2	2.9	1.8	8.3	3.0	1.7	40.0	7400	21	0.9	2.6	1.6	38.7	2.7	7.3	-0.2	NO
189848N	48160	2	6045	30	6400	4	0.2	2.9	1.8	49.1	17.7	1.7	40.0	7400	21	0.9	2.6	1.6	229.4	15.7	7.3	-0.2	NO
189850P	48190	2	6365	30	6400	4	0.2	2.9	1.8	51.7	18.6	1.7	40.0	7400	21	0.9	2.6	1.6	241.6	16.6	7.3	-0.2	NO
189841R	48220	2	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	40.0	7400	21	0.9	2.6	1.6	0.0	0.0	7.3	-0.2	NO
189856F	48350	2	3500	30	6400	4	0.2	2.9	1.8	28.4	10.2	1.7	40.0	7400	21	0.9	2.6	1.6	132.8	9.1	7.3	-0.2	NO
189857M	48370	2	50	30	6400	4	0.2	2.9	1.8	0.4	0.1	1.7	40.0	7400	21	0.9	2.6	1.6	1.9	0.1	7.3	-0.2	NO
189858U	048410	2	392	30	6400	4	0.2	2.9	1.8	3.2	1.1	1.7	40.0	7400	21	0.9	2.6	1.6	14.9	1.0	7.3	-0.2	NO
189859B	48430	2	211	30	6400	4	0.2	2.9	1.8	1.7	0.6	1.7	40.0	7400	21	0.9	2.6	1.6	8.0	0.5	7.3	-0.2	NO
189860V	48450	2	756	30	6400	4	0.2	2.9	1.8	6.1	2.2	1.7	40.0	7400	21	0.9	2.6	1.6	28.7	2.0	7.3	-0.2	NO
189861C	048460	2	3136	30	6400	4	0.2	2.9	1.8	25.5	9.2	1.7	40.0	7400	21	0.9	2.6	1.6	119.0	8.2	7.3	-0.2	NO
189862J	48490	2	406	30	6400	4	0.2	2.9	1.8	3.3	1.2	1.7	40.0	7400	21	0.9	2.6	1.6	15.4	1.1	7.3	-0.2	NO
189864X	48590	2	385	30	6400	4	0.2	2.9	1.8	3.1	1.1	1.7	45.0	7400	21	0.9	2.4	1.5	13.3	0.9	6.2	-0.3	NO
189870B	048940	1	15	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.5	0.1	6.2	-0.3	NO
189889T	050300	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2	-0.3	NO
189902E	51320	2	62	30	6400	4	0.2	2.9	1.8	0.5	0.2	1.7	45.0	7400	21	0.9	2.4	1.5	2.1	0.1	6.2	-0.3	NO
189908V	052020	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.6	0.1	6.2	-0.3	NO
189914Y	52290	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-0.3	NO
189929N	53300	1	55	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	7400	21	0.9	2.4	1.5	1.9	0.3	6.2	-0.3	NO
189930H	53320	1	56	30	6400	4	0.2	2.9	1.8	0.5	0.3	1.7	45.0	7400	21	0.9	2.4	1.5	1.9	0.3	6.2	-0.3	NO
Segment 11 Wasta to Midland MP 533.2 to 605																							
189931P	53340	1	228	10	6400	2	0.1	7.8	4.2	2.5	3.5	5.4	45.0	7400	21	0.9	2.4	1.5	7.9	1.1	6.2	-2.7	NO
189932W	53360	2	280	10	6400	2	0.1	7.8	4.2	3.0	2.2	5.4	45.0	7400	21	0.9	2.4	1.5	9.7	0.7	6.2	-2.7	NO
189989X	55950	1	75	10	6400	2	0.1	7.8	4.2	0.8	1.2	5.4	45.0	7400	21	0.9	2.4	1.5	2.6	0.4	6.2	-2.7	NO
190010C	55970	2	615	10	6400	2	0.1	7.8	4.2	6.6	4.8	5.4	45.0	7400	21	0.9	2.4	1.5	21.2	1.5	6.2	-2.7	NO
190501B	56170	2	50	10	6400	2	0.1	7.8	4.2	0.5	0.4	5.4	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2	-2.7	NO
190025S	57130	1	15	10	6400	2	0.1	7.8	4.2	0.2	0.2	5.4	45.0	7400	21	0.9	2.4	1.5	0.5	0.1	6.2	-2.7	NO
190026Y	57180	2	1020	10	6400	2	0.1	7.8	4.2	11.0	7.9	5.4	45.0	7400	21	0.9	2.4	1.5	35.2	2.4	6.2	-2.7	NO
190027F	57320	1	59	10	6400	2	0.1	7.8	4.2	0.6	0.9	5.4	45.0	7400	21	0.9	2.4	1.5	2.0	0.3	6.2	-2.7	NO
190028M	57350	2	26	10	6400	2	0.1	7.8	4.2	0.3	0.2	5.4	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2	-2.7	NO
190032C	57520	1	41	10	6400	2	0.1	7.8	4.2	0.4	0.6	5.4	45.0	7400	21	0.9	2.4	1.5	1.4	0.2	6.2	-2.7	NO
190034R	057730	1	12	10	6400	2	0.1	7.8	4.2	0.1	0.2	5.4	45.0	7400	21	0.9	2.4	1.5	0.4	0.1	6.2	-2.7	NO
190039A	58309	1	6	10	6400	2	0.1	7.8	4.2	0.1	0.1	5.4	45.0	7400	21	0.9	2.4	1.5	0.2	0.0	6.2	-2.7	NO
190044W	58470	2	87	10	6400	2	0.1	7.8	4.2	0.9	0.7	5.4	45.0	7400	21	0.9	2.4	1.5	3.0	0.2	6.2	-2.7	NO
190049F		2	19	10	6400	2	0.1	7.8	4.2	0.2	0.1	5.4	45.0	7400	21	0.9	2.4	1.5	0.7	0.0	6.2	-2.7	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 6 Brookings to Tracy MP 226.6 to 290.0																						
193785T	027360	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.5	NO
193786A	027440	2	1400	28	6400	10	0.4	3.1	1.8	30.1	4.3	4.8	45.0	6400	37	1.5	2.1	1.4	76.1	3.0	8.9	-0.5	NO
193787G	027460	2	250	28	6400	10	0.4	3.1	1.8	5.4	0.8	4.8	45.0	6400	37	1.5	2.1	1.4	13.6	0.5	8.9	-0.5	NO
193788N	027470	2	300	28	6400	10	0.4	3.1	1.8	6.5	0.9	4.8	45.0	6400	37	1.5	2.1	1.4	16.3	0.6	8.9	-0.5	NO
193789V	027480	2	642	28	6400	10	0.4	3.1	1.8	13.8	2.0	4.8	45.0	6400	37	1.5	2.1	1.4	34.9	1.4	8.9	-0.5	NO
193791W	027570	2	35	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	1.9	0.1	8.9	-0.5	NO
193792D	027680	2	39	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.1	0.1	8.9	-0.5	NO
193794S	027780	2	36	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.0	0.1	8.9	-0.5	NO
193795Y	027810	2	33	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	1.8	0.1	8.9	-0.5	NO
197475M	27880	2	93	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	6400	37	1.5	2.1	1.4	5.1	0.2	8.9	-0.5	NO
193805C	027990	2	41	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.5	NO
197476U	028090	2	47	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.6	0.1	8.9	-0.5	NO
197477B	028150	2	27	28	6400	10	0.4	3.1	1.8	0.6	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	1.5	0.1	8.9	-0.5	NO
193806J	028200	2	43	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.3	0.1	8.9	-0.5	NO
193807R	028300	2	42	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	2.3	0.1	8.9	-0.5	NO
193808X	028410	2	31	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	1.7	0.1	8.9	-0.5	NO
197424C	028490	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	6400	37	1.5	2.1	1.4	0.3	0.0	8.9	-0.5	NO
197425J	028510	2	139	28	6400	10	0.4	3.1	1.8	3.0	0.4	4.8	45.0	6400	37	1.5	2.1	1.4	7.6	0.3	8.9	-0.5	NO
197426R	028620	2	21	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	6400	37	1.5	2.1	1.4	1.1	0.0	8.9	-0.5	NO
197429L	028830	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.5	NO
197430F	28870	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.5	NO
197478H	028930	4	12703	28	6400	10	0.4	3.1	1.8	273.2	19.7	4.8	45.0	6400	37	1.5	2.1	1.4	690.7	13.4	8.9	-0.5	NO
197479P	28960	2	3025	28	6400	10	0.4	3.1	1.8	65.1	9.4	4.8	45.0	6400	37	1.5	2.1	1.4	164.5	6.4	8.9	-0.5	NO
197480J	029030	2	6440	28	6400	10	0.4	3.1	1.8	138.5	19.9	4.8	45.0	6400	37	1.5	2.1	1.4	350.2	13.6	8.9	-0.5	NO
197481R	029090	4	7988	28	6400	10	0.4	3.1	1.8	171.8	12.4	4.8	45.0	6400	37	1.5	2.1	1.4	434.3	8.5	8.9	-0.5	NO
Segment 7 Arlington to Brookings MP 290.9 to 308.3																						
197482X	029110	2	2630	20	6400	8	0.3	4.1	2.4	60.4	10.9	6.5	45.0	6400	37	1.5	2.1	1.4	143.0	5.6	8.9	-1.0	NO
197483E	029210	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.6	0.1	8.9	-1.0	NO
197484L	029240	2	78	20	6400	8	0.3	4.1	2.4	1.8	0.3	6.5	45.0	6400	37	1.5	2.1	1.4	4.2	0.2	8.9	-1.0	NO
197485T	029350	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.1	0.0	8.9	-1.0	NO
197487G	029460	2	35	20	6400	8	0.3	4.1	2.4	0.8	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.9	0.1	8.9	-1.0	NO
197440L	29650	2	46	20	6400	8	0.3	4.1	2.4	1.1	0.2	6.5	45.0	6400	37	1.5	2.1	1.4	2.5	0.1	8.9	-1.0	NO
197441T	029720	2	1787	20	6400	8	0.3	4.1	2.4	41.1	7.4	6.5	45.0	6400	37	1.5	2.1	1.4	97.2	3.8	8.9	-1.0	NO
197442A	029730	2	2180	20	6400	8	0.3	4.1	2.4	50.1	9.0	6.5	45.0	6400	37	1.5	2.1	1.4	118.5	4.6	8.9	-1.0	NO
197443G	029740	2	950	20	6400	8	0.3	4.1	2.4	21.8	3.9	6.5	45.0	6400	37	1.5	2.1	1.4	51.7	2.0	8.9	-1.0	NO
197445V	029840	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.1	0.0	8.9	-1.0	NO
197493K	029870	2	2962	20	6400	8	0.3	4.1	2.4	68.1	12.3	6.5	45.0	6400	37	1.5	2.1	1.4	161.1	6.3	8.9	-1.0	NO
197446C	029960	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.6	0.1	8.9	-1.0	NO
197447J	030170	1	17	20	6400	8	0.3	4.1	2.4	0.4	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	0.9	0.1	8.9	-1.0	NO
197448R	030280	2	170	20	6400	8	0.3	4.1	2.4	3.9	0.7	6.5	45.0	6400	37	1.5	2.1	1.4	9.2	0.4	8.9	-1.0	NO
197449X	030380	2	25	20	6400	8	0.3	4.1	2.4	0.6	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9	-1.0	NO
197450S	030480	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.6	0.1	8.9	-1.0	NO
197502G	030680	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	1.1	0.0	8.9	-1.0	NO
197503N	030730	2	15	20	6400	8	0.3	4.1	2.4	0.3	0.1	6.5	45.0	6400	37	1.5	2.1	1.4	0.8	0.0	8.9	-1.0	NO
197451Y	030800	4	1536	20	6400	8	0.3	4.1	2.4	35.3	3.2	6.5	45.0	6400	37	1.5	2.1	1.4	83.5	1.6	8.9	-1.0	NO
197452F	30820	2	630	20	6400	8	0.3	4.1	2.4	14.5	2.6	6.5	45.0	6400	37	1.5	2.1	1.4	34.3	1.3	8.9	-1.0	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 6 Huron to Arlington MP 308.3 to 362.8																						
197453M	030835	2	300	21	6400	6	0.3	4.0	2.3	5.0	1.2	4.5	45.0	6400	37	1.5	2.1	1.4	16.3	0.6	8.9	-0.9	NO
197454U	030840	2	430	21	6400	6	0.3	4.0	2.3	7.1	1.7	4.5	45.0	6400	37	1.5	2.1	1.4	23.4	0.9	8.9	-0.9	NO
197504V	030940	2	43	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	37	1.5	2.1	1.4	2.3	0.1	8.9	-0.9	NO
197505C	031060	2	74	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	6400	37	1.5	2.1	1.4	4.0	0.2	8.9	-0.9	NO
197507R	031160	2	20	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	1.1	0.0	8.9	-0.9	NO
197508X	031260	2	245	21	6400	6	0.3	4.0	2.3	4.0	1.0	4.5	45.0	6400	37	1.5	2.1	1.4	13.3	0.5	8.9	-0.9	NO
197509E	031390	2	118	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	6400	37	1.5	2.1	1.4	6.4	0.2	8.9	-0.9	NO
197510Y	031470	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.9	NO
197514B	031670	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	6400	37	1.5	2.1	1.4	0.3	0.0	8.9	-0.9	NO
197519K	032070	2	408	21	6400	6	0.3	4.0	2.3	6.7	1.6	4.5	45.0	6400	37	1.5	2.1	1.4	22.2	0.9	8.9	-0.9	NO
197520E	032090	2	89	21	6400	6	0.3	4.0	2.3	1.5	0.4	4.5	45.0	6400	37	1.5	2.1	1.4	4.8	0.2	8.9	-0.9	NO
197521L	032100	2	2496	21	6400	6	0.3	4.0	2.3	41.2	9.9	4.5	45.0	6400	37	1.5	2.1	1.4	135.7	5.3	8.9	-0.9	NO
197522T	032110	2	86	21	6400	6	0.3	4.0	2.3	1.4	0.3	4.5	45.0	6400	37	1.5	2.1	1.4	4.7	0.2	8.9	-0.9	NO
197523A	032170	2	225	21	6400	6	0.3	4.0	2.3	3.7	0.9	4.5	45.0	6400	37	1.5	2.1	1.4	12.2	0.5	8.9	-0.9	NO
197679Y	032370	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	6400	37	1.5	2.1	1.4	0.3	0.0	8.9	-0.9	NO
197680T	032480	2	3	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	6400	37	1.5	2.1	1.4	0.2	0.0	8.9	-0.9	NO
197681A	032580	2	75	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	6400	37	1.5	2.1	1.4	4.1	0.2	8.9	-0.9	NO
197683N	032680	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	0.8	0.0	8.9	-0.9	NO
197684V	032780	2	27	21	6400	6	0.3	4.0	2.3	0.4	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	1.5	0.1	8.9	-0.9	NO
197685C	032930	2	115	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	6400	37	1.5	2.1	1.4	6.3	0.2	8.9	-0.9	NO
197456H	032970	2	390	21	6400	6	0.3	4.0	2.3	6.4	1.5	4.5	45.0	6400	37	1.5	2.1	1.4	21.2	0.8	8.9	-0.9	NO
197457P	032980	2	3063	21	6400	6	0.3	4.0	2.3	50.6	12.1	4.5	45.0	6400	37	1.5	2.1	1.4	166.5	6.5	8.9	-0.9	NO
197458W	032990	2	186	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	6400	37	1.5	2.1	1.4	10.1	0.4	8.9	-0.9	NO
197459D	033000	2	130	21	6400	6	0.3	4.0	2.3	2.1	0.5	4.5	45.0	6400	37	1.5	2.1	1.4	7.1	0.3	8.9	-0.9	NO
197686J	033040	2	610	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	6400	37	1.5	2.1	1.4	33.2	1.3	8.9	-0.9	NO
197687R	033080	2	33	21	6400	6	0.3	4.0	2.3	0.5	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	1.8	0.1	8.9	-0.9	NO
197690Y	033290	2	2	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.9	NO
197460X	033390	2	36	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	2.0	0.1	8.9	-0.9	NO
197461E	33490	1	10	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.9	NO
197462L	033590	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	1.9	0.1	8.9	-0.9	NO
197464A	033700	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.9	NO
197465G	033800	2	215	21	6400	6	0.3	4.0	2.3	3.6	0.9	4.5	45.0	6400	37	1.5	2.1	1.4	11.7	0.5	8.9	-0.9	NO
197466N	033840	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	37	1.5	2.1	1.4	2.4	0.1	8.9	-0.9	NO
197467V	033890	2	17	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	0.9	0.0	8.9	-0.9	NO
197469J	34000	1	62	21	6400	6	0.3	4.0	2.3	1.0	0.5	4.5	45.0	6400	37	1.5	2.1	1.4	3.4	0.3	8.9	-0.9	NO
197470D	034100	2	62	21	6400	6	0.3	4.0	2.3	1.0	0.2	4.5	45.0	6400	37	1.5	2.1	1.4	3.4	0.1	8.9	-0.9	NO
197691F	34200	1	8	21	6400	6	0.3	4.0	2.3	0.1	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	0.4	0.0	8.9	-0.9	NO
197692M	034300	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	0.8	0.0	8.9	-0.9	NO
197694B	34390	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	1.0	0.0	8.9	-0.9	NO
197696P	34420	2	1285	21	6400	6	0.3	4.0	2.3	21.2	5.1	4.5	45.0	6400	37	1.5	2.1	1.4	69.9	2.7	8.9	-0.9	NO
197697W	34460	2	613	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	6400	37	1.5	2.1	1.4	33.3	1.3	8.9	-0.9	NO
197698D	34470	2	230	21	6400	6	0.3	4.0	2.3	3.8	0.9	4.5	45.0	6400	37	1.5	2.1	1.4	12.5	0.5	8.9	-0.9	NO
197471K	034490	2	157	21	6400	6	0.3	4.0	2.3	2.6	0.6	4.5	45.0	6400	37	1.5	2.1	1.4	8.5	0.3	8.9	-0.9	NO
197473Y	034690	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.9	NO
197474F	034790	2	42	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	37	1.5	2.1	1.4	2.3	0.1	8.9	-0.9	NO
197455B	034890	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.9	NO
197887A	034990	2	95	21	6400	6	0.3	4.0	2.3	1.6	0.4	4.5	45.0	6400	37	1.5	2.1	1.4	5.2	0.2	8.9	-0.9	NO
197701J	35080	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	1.9	0.1	8.9	-0.9	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
197702R	35180	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	1.0	0.0	8.9	-0.9	NO
197703X	35280	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	1.9	0.1	8.9	-0.9	NO
197704E	035380	2	188	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	6400	37	1.5	2.1	1.4	10.2	0.4	8.9	-0.9	NO
197706T	035480	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	0.8	0.0	8.9	-0.9	NO
197707A	35580	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	0.8	0.0	8.9	-0.9	NO
197708G	035680	2	37	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	6400	37	1.5	2.1	1.4	2.0	0.1	8.9	-0.9	NO
197710H	035780	2	44	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	37	1.5	2.1	1.4	2.4	0.1	8.9	-0.9	NO
197711P	035880	2	40	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.9	NO
197891P	035980	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	37	1.5	2.1	1.4	2.4	0.1	8.9	-0.9	NO
197890H	036080	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	6400	37	1.5	2.1	1.4	2.4	0.1	8.9	-0.9	NO
189696U	36220	2	545	21	6400	6	0.3	4.0	2.3	9.0	2.2	4.5	45.0	6400	37	1.5	2.1	1.4	29.6	1.2	8.9	-0.9	NO
189698H	36280	4	11030	21	6400	6	0.3	4.0	2.3	182.1	21.9	4.5	45.0	6400	37	1.5	2.1	1.4	599.7	11.7	8.9	-0.9	NO
Segment 9 Wolsey to Huron MP 362.8 to 376.1																							
189701N	36380	2	5290	34	6400	6	0.3	2.6	1.6	58.2	14.0	2.1	45.0	6400	37	1.5	2.1	1.4	287.6	11.2	8.9	-0.3	NO
189702V	036470	4	2137	34	6400	6	0.3	2.6	1.6	23.5	2.8	2.1	45.0	6400	37	1.5	2.1	1.4	116.2	2.3	8.9	-0.3	NO
189703C	36480	2	125	34	6400	6	0.3	2.6	1.6	1.4	0.3	2.1	45.0	6400	37	1.5	2.1	1.4	6.8	0.3	8.9	-0.3	NO
189704J	36590	2	40	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	6400	37	1.5	2.1	1.4	2.2	0.1	8.9	-0.3	NO
189705R	36690	1	29	34	6400	6	0.3	2.6	1.6	0.3	0.2	2.1	45.0	6400	37	1.5	2.1	1.4	1.6	0.1	8.9	-0.3	NO
189706X	036800	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	37	1.5	2.1	1.4	1.1	0.1	8.9	-0.3	NO
189707E	36900	2	305	34	6400	6	0.3	2.6	1.6	3.4	0.8	2.1	45.0	6400	37	1.5	2.1	1.4	16.6	0.6	8.9	-0.3	NO
189708L	37000	2	35	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	6400	37	1.5	2.1	1.4	1.9	0.1	8.9	-0.3	NO
189710M	37100	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	37	1.5	2.1	1.4	1.1	0.1	8.9	-0.3	NO
189712B	37320	2	19	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	6400	37	1.5	2.1	1.4	1.0	0.0	8.9	-0.3	NO
189713H	37480	1	3	34	6400	6	0.3	2.6	1.6	0.0	0.0	2.1	45.0	6400	37	1.5	2.1	1.4	0.2	0.0	8.9	-0.3	NO
Segment 10 Midland to Wolsey MP 376.1 to 533.2																							
189716D	37620	2	2671	30	6400	4	0.2	2.9	1.8	21.7	7.8	1.7	40.0	6400	37	1.5	2.3	1.5	159.1	6.2	10.4	-0.3	NO
189717K	37630	1	200	30	6400	4	0.2	2.9	1.8	1.6	1.2	1.7	45.0	6400	37	1.5	2.1	1.4	10.9	0.8	8.9	-0.4	NO
189718S	37730	1	27	30	6400	4	0.2	2.9	1.8	0.2	0.2	1.7	45.0	6400	37	1.5	2.1	1.4	1.5	0.1	8.9	-0.4	NO
189720T	37930	1	24	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.3	0.1	8.9	-0.4	NO
189722G	38040	2	15	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.8	0.0	8.9	-0.4	NO
189724V	38140	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.1	0.1	8.9	-0.4	NO
189726J	038350	1	12	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.7	0.1	8.9	-0.4	NO
189728X	38550	2	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.1	0.0	8.9	-0.4	NO
189730Y	38650	2	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9	-0.4	NO
189731F	038750	2	952	30	6400	4	0.2	2.9	1.8	7.7	2.8	1.7	45.0	6400	37	1.5	2.1	1.4	51.8	2.0	8.9	-0.4	NO
189732M	38770	2	464	30	6400	4	0.2	2.9	1.8	3.8	1.4	1.7	45.0	6400	37	1.5	2.1	1.4	25.2	1.0	8.9	-0.4	NO
189734B	38880	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.8	0.1	8.9	-0.4	NO
189736P	39000	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.4	NO
189738D	39110	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.4	NO
189740E	39220	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189742T	39340	2	120	30	6400	4	0.2	2.9	1.8	1.0	0.4	1.7	45.0	6400	37	1.5	2.1	1.4	6.5	0.3	8.9	-0.4	NO
189744G	039560	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189746V	039670	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9	-0.4	NO
189747C	39760	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189748J	39860	1	4	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.2	0.0	8.9	-0.4	NO
189749R	39960	2	115	30	6400	4	0.2	2.9	1.8	0.9	0.3	1.7	45.0	6400	37	1.5	2.1	1.4	6.3	0.2	8.9	-0.4	NO
189751S	40030	2	164	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	6400	37	1.5	2.1	1.4	8.9	0.3	8.9	-0.4	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 6,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189752Y	040040	2	166	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	6400	37	1.5	2.1	1.4	9.0	0.4	8.9	-0.4	NO
189754M	40160	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9	-0.4	NO
189755U	40260	2	400	30	6400	4	0.2	2.9	1.8	3.2	1.2	1.7	45.0	6400	37	1.5	2.1	1.4	21.7	0.8	8.9	-0.4	NO
189756B	040290	2	2505	30	6400	4	0.2	2.9	1.8	20.3	7.3	1.7	45.0	6400	37	1.5	2.1	1.4	136.2	5.3	8.9	-0.4	NO
189757H	40310	1	204	30	6400	4	0.2	2.9	1.8	1.7	1.2	1.7	45.0	6400	37	1.5	2.1	1.4	11.1	0.9	8.9	-0.4	NO
189758P	40360	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.8	0.1	8.9	-0.4	NO
189759W	40460	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189760R	40560	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189761X	40660	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189762E	40750	1	49	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	6400	37	1.5	2.1	1.4	2.7	0.2	8.9	-0.4	NO
189763L	40860	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.2	0.0	8.9	-0.4	NO
189765A	41060	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.3	0.0	8.9	-0.4	NO
189767N	41260	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189768V	41330	2	508	30	6400	4	0.2	2.9	1.8	4.1	1.5	1.7	45.0	6400	37	1.5	2.1	1.4	27.6	1.1	8.9	-0.4	NO
189769C	041360	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.3	0.0	8.9	-0.4	NO
189770W	41550	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189771D	041660	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.4	0.0	8.9	-0.4	NO
189772K	041830	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.1	0.1	8.9	-0.4	NO
189775F	42120	9	115	30	6400	4	0.2	2.9	1.8	0.9	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	6.3	0.1	8.9	-0.4	NO
189776M	042230	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.1	0.0	8.9	-0.4	NO
189780C	42420	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.4	NO
189781J	042500	2	272	30	6400	4	0.2	2.9	1.8	2.2	0.8	1.7	45.0	6400	37	1.5	2.1	1.4	14.8	0.6	8.9	-0.4	NO
189782R	42520	2	1543	30	6400	4	0.2	2.9	1.8	12.5	4.5	1.7	45.0	6400	37	1.5	2.1	1.4	83.9	3.3	8.9	-0.4	NO
189784E	42620	1	8	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.4	0.0	8.9	-0.4	NO
189786T	42820	2	6	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.3	0.0	8.9	-0.4	NO
189787A	42920	2	36	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	2.0	0.1	8.9	-0.4	NO
189789N	43120	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.4	NO
189791P	43290	1	21	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.1	0.1	8.9	-0.4	NO
189792W	043320	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	6400	37	1.5	2.1	1.4	4.3	0.2	8.9	-0.4	NO
189793D	43420	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.2	0.0	8.9	-0.4	NO
189795S	43520	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.2	0.0	8.9	-0.4	NO
189797F	043620	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.4	0.0	8.9	-0.4	NO
189799U	043820	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.1	0.1	8.9	-0.4	NO
189800L	043920	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.1	0.1	8.9	-0.4	NO
189801T	43990	2	300	30	6400	4	0.2	2.9	1.8	2.4	0.9	1.7	45.0	6400	37	1.5	2.1	1.4	16.3	0.6	8.9	-0.4	NO
189802A	044020	2	145	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	6400	37	1.5	2.1	1.4	7.9	0.3	8.9	-0.4	NO
189805V	44320	1	35	30	6400	4	0.2	2.9	1.8	0.3	0.2	1.7	45.0	6400	37	1.5	2.1	1.4	1.9	0.1	8.9	-0.4	NO
189809X	044720	2	35	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.9	0.1	8.9	-0.4	NO
189810S	44920	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.9	0.1	8.9	-0.4	NO
189812F	45130	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.4	NO
189813M	45220	2	9	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.4	NO
189816H	045330	2	153	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	6400	37	1.5	2.1	1.4	8.3	0.3	8.9	-0.4	NO
189822L	046110	2	82	30	6400	4	0.2	2.9	1.8	0.7	0.2	1.7	45.0	6400	37	1.5	2.1	1.4	4.5	0.2	8.9	-0.4	NO
189839P	47790	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	6400	37	1.5	2.1	1.4	4.3	0.2	8.9	-0.4	NO
189840J	47840	2	30	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.6	0.1	8.9	-0.4	NO
189841R	47890	2	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	40.0	6400	37	1.5	2.3	1.5	0.1	0.0	10.4	-0.3	NO
189842X	47950	2	1000	30	6400	4	0.2	2.9	1.8	8.1	2.9	1.7	40.0	6400	37	1.5	2.3	1.5	59.6	2.3	10.4	-0.3	NO
189843E	48000	2	3798	30	6400	4	0.2	2.9	1.8	30.9	11.1	1.7	40.0	6400	37	1.5	2.3	1.5	226.2	8.8	10.4	-0.3	NO
189844L	48050	2	100	30	6400	4	0.2	2.9	1.8	0.8	0.3	1.7	40.0	6400	37	1.5	2.3	1.5	6.0	0.2	10.4	-0.3	NO
189845T	48070	2	1560	30	6400	4	0.2	2.9	1.8	12.7	4.6	1.7	40.0	6400	37	1.5	2.3	1.5	92.9	3.6	10.4	-0.3	NO
189846A	48110	4	19755	30	6400	4	0.2	2.9	1.8	160.5	28.9	1.7	40.0	6400	37	1.5	2.3	1.5	1176.7	22.9	10.4	-0.3	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 6,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
189847G	48140	2	1020	30	6400	4	0.2	2.9	1.8	8.3	3.0	1.7	40.0	6400	37	1.5	2.3	1.5	60.8	2.4	10.4	-0.3	NO
189848N	48160	2	6045	30	6400	4	0.2	2.9	1.8	49.1	17.7	1.7	40.0	6400	37	1.5	2.3	1.5	360.1	14.0	10.4	-0.3	NO
189850P	48190	2	6365	30	6400	4	0.2	2.9	1.8	51.7	18.6	1.7	40.0	6400	37	1.5	2.3	1.5	379.1	14.8	10.4	-0.3	NO
189851W	48220	2	1149	30	6400	4	0.2	2.9	1.8	9.3	3.4	1.7	40.0	6400	37	1.5	2.3	1.5	68.4	2.7	10.4	-0.3	NO
189856F	48350	2	3500	30	6400	4	0.2	2.9	1.8	28.4	10.2	1.7	40.0	6400	37	1.5	2.3	1.5	208.5	8.1	10.4	-0.3	NO
189857M	48370	2	50	30	6400	4	0.2	2.9	1.8	0.4	0.1	1.7	40.0	6400	37	1.5	2.3	1.5	3.0	0.1	10.4	-0.3	NO
189858U	048410	2	392	30	6400	4	0.2	2.9	1.8	3.2	1.1	1.7	40.0	6400	37	1.5	2.3	1.5	23.3	0.9	10.4	-0.3	NO
189859B	48430	2	211	30	6400	4	0.2	2.9	1.8	1.7	0.6	1.7	40.0	6400	37	1.5	2.3	1.5	12.6	0.5	10.4	-0.3	NO
189860V	48450	2	756	30	6400	4	0.2	2.9	1.8	6.1	2.2	1.7	40.0	6400	37	1.5	2.3	1.5	45.0	1.8	10.4	-0.3	NO
189861C	048460	2	3136	30	6400	4	0.2	2.9	1.8	25.5	9.2	1.7	40.0	6400	37	1.5	2.3	1.5	186.8	7.3	10.4	-0.3	NO
189862J	48490	2	406	30	6400	4	0.2	2.9	1.8	3.3	1.2	1.7	40.0	6400	37	1.5	2.3	1.5	24.2	0.9	10.4	-0.3	NO
189864X	48590	2	385	30	6400	4	0.2	2.9	1.8	3.1	1.1	1.7	45.0	6400	37	1.5	2.1	1.4	20.9	0.8	8.9	-0.4	NO
189870B	048940	1	15	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.8	0.1	8.9	-0.4	NO
189889T	050300	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9	-0.4	NO
189902E	51320	2	62	30	6400	4	0.2	2.9	1.8	0.5	0.2	1.7	45.0	6400	37	1.5	2.1	1.4	3.4	0.1	8.9	-0.4	NO
189908V	052020	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	0.9	0.1	8.9	-0.4	NO
189914Y	52290	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9	-0.4	NO
189929N	53300	1	55	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	6400	37	1.5	2.1	1.4	3.0	0.2	8.9	-0.4	NO
189930H	53320	1	56	30	6400	4	0.2	2.9	1.8	0.5	0.3	1.7	45.0	6400	37	1.5	2.1	1.4	3.0	0.2	8.9	-0.4	NO
Segment 11 Wasta to Midland MP 533.2 to 605																							
189931P	53340	1	228	10	6400	2	0.1	7.8	4.2	2.5	3.5	5.4	45.0	6400	37	1.5	2.1	1.4	12.4	1.0	8.9	-2.8	NO
189932W	53360	2	280	10	6400	2	0.1	7.8	4.2	3.0	2.2	5.4	45.0	6400	37	1.5	2.1	1.4	15.2	0.6	8.9	-2.8	NO
189989X	55950	1	75	10	6400	2	0.1	7.8	4.2	0.8	1.2	5.4	45.0	6400	37	1.5	2.1	1.4	4.1	0.3	8.9	-2.8	NO
190010C	55970	2	615	10	6400	2	0.1	7.8	4.2	6.6	4.8	5.4	45.0	6400	37	1.5	2.1	1.4	33.4	1.3	8.9	-2.8	NO
190501B	56170	2	50	10	6400	2	0.1	7.8	4.2	0.5	0.4	5.4	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6	-2.8	NO
190025S	57130	1	15	10	6400	2	0.1	7.8	4.2	0.2	0.2	5.4	45.0	6400	37	1.5	2.1	1.4	0.8	0.1	8.9	-2.8	NO
190026Y	57180	2	1020	10	6400	2	0.1	7.8	4.2	11.0	7.9	5.4	45.0	6400	37	1.5	2.1	1.4	55.5	2.2	8.9	-2.8	NO
190027F	57320	1	59	10	6400	2	0.1	7.8	4.2	0.6	0.9	5.4	45.0	6400	37	1.5	2.1	1.4	3.2	0.2	8.9	-2.8	NO
190028M	57350	2	26	10	6400	2	0.1	7.8	4.2	0.3	0.2	5.4	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9	-2.8	NO
190032C	57520	1	41	10	6400	2	0.1	7.8	4.2	0.4	0.6	5.4	45.0	6400	37	1.5	2.1	1.4	2.2	0.2	8.9	-2.8	NO
190034R	057730	1	12	10	6400	2	0.1	7.8	4.2	0.1	0.2	5.4	45.0	6400	37	1.5	2.1	1.4	0.7	0.1	8.9	-2.8	NO
190039A	58309	1	6	10	6400	2	0.1	7.8	4.2	0.1	0.1	5.4	45.0	6400	37	1.5	2.1	1.4	0.3	0.0	8.9	-2.8	NO
190044W	58470	2	87	10	6400	2	0.1	7.8	4.2	0.9	0.7	5.4	45.0	6400	37	1.5	2.1	1.4	4.7	0.2	8.9	-2.8	NO
190049F	059020	2	19	10	6400	2	0.1	7.8	4.2	0.2	0.1	5.4	45.0	6400	37	1.5	2.1	1.4	1.0	0.0	8.9	-2.8	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 6 Brookings to Tracy MP 226.6 to 290.0																						
193785T	027360	2	40	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.4	NO
193786A	027440	2	1400	28	6400	10	0.4	3.1	1.8	30.1	4.3	4.8	45.0	7400	37	1.5	2.4	1.5	85.2	3.3	10.8	-0.4	NO
193787G	027460	2	250	28	6400	10	0.4	3.1	1.8	5.4	0.8	4.8	45.0	7400	37	1.5	2.4	1.5	15.2	0.6	10.8	-0.4	NO
193788N	027470	2	300	28	6400	10	0.4	3.1	1.8	6.5	0.9	4.8	45.0	7400	37	1.5	2.4	1.5	18.3	0.7	10.8	-0.4	NO
193789V	027480	2	642	28	6400	10	0.4	3.1	1.8	13.8	2.0	4.8	45.0	7400	37	1.5	2.4	1.5	39.1	1.5	10.8	-0.4	NO
193791W	027570	2	35	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.1	0.1	10.8	-0.4	NO
193792D	027680	2	39	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.4	NO
193794S	027780	2	36	28	6400	10	0.4	3.1	1.8	0.8	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.2	0.1	10.8	-0.4	NO
193795Y	027810	2	33	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.0	0.1	10.8	-0.4	NO
197475M	27880	2	93	28	6400	10	0.4	3.1	1.8	2.0	0.3	4.8	45.0	7400	37	1.5	2.4	1.5	5.7	0.2	10.8	-0.4	NO
193805C	027990	2	41	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.5	0.1	10.8	-0.4	NO
197476U	028090	2	47	28	6400	10	0.4	3.1	1.8	1.0	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.9	0.1	10.8	-0.4	NO
197477B	028150	2	27	28	6400	10	0.4	3.1	1.8	0.6	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	1.6	0.1	10.8	-0.4	NO
193806J	028200	2	43	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.6	0.1	10.8	-0.4	NO
193807R	028300	2	42	28	6400	10	0.4	3.1	1.8	0.9	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	2.6	0.1	10.8	-0.4	NO
193808X	028410	2	31	28	6400	10	0.4	3.1	1.8	0.7	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	1.9	0.1	10.8	-0.4	NO
197424C	028490	2	5	28	6400	10	0.4	3.1	1.8	0.1	0.0	4.8	45.0	7400	37	1.5	2.4	1.5	0.3	0.0	10.8	-0.4	NO
197425J	028510	2	139	28	6400	10	0.4	3.1	1.8	3.0	0.4	4.8	45.0	7400	37	1.5	2.4	1.5	8.5	0.3	10.8	-0.4	NO
197426R	028620	2	21	28	6400	10	0.4	3.1	1.8	0.5	0.1	4.8	45.0	7400	37	1.5	2.4	1.5	1.3	0.0	10.8	-0.4	NO
197429L	028830	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.4	NO
197430F	28870	2	10	28	6400	10	0.4	3.1	1.8	0.2	0.0	4.8	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.4	NO
197478H	028930	4	12703	28	6400	10	0.4	3.1	1.8	273.2	19.7	4.8	45.0	7400	37	1.5	2.4	1.5	773.1	15.0	10.8	-0.4	NO
197479P	28960	2	3025	28	6400	10	0.4	3.1	1.8	65.1	9.4	4.8	45.0	7400	37	1.5	2.4	1.5	184.1	7.2	10.8	-0.4	NO
197480J	029030	2	6440	28	6400	10	0.4	3.1	1.8	138.5	19.9	4.8	45.0	7400	37	1.5	2.4	1.5	392.0	15.3	10.8	-0.4	NO
197481R	029090	4	7988	28	6400	10	0.4	3.1	1.8	171.8	12.4	4.8	45.0	7400	37	1.5	2.4	1.5	486.2	9.5	10.8	-0.4	NO
Segment 7 Arlington to Brookings MP 290.9 to 308.3																						
197482X	029110	2	2630	20	6400	8	0.3	4.1	2.4	60.4	10.9	6.5	45.0	7400	37	1.5	2.4	1.5	160.1	6.2	10.8	-0.9	NO
197483E	029210	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.8	0.1	10.8	-0.9	NO
197484L	029240	2	78	20	6400	8	0.3	4.1	2.4	1.8	0.3	6.5	45.0	7400	37	1.5	2.4	1.5	4.7	0.2	10.8	-0.9	NO
197485T	029350	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.9	NO
197487G	029460	2	35	20	6400	8	0.3	4.1	2.4	0.8	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	2.1	0.1	10.8	-0.9	NO
197440L	29650	2	46	20	6400	8	0.3	4.1	2.4	1.1	0.2	6.5	45.0	7400	37	1.5	2.4	1.5	2.8	0.1	10.8	-0.9	NO
197441T	029720	2	1787	20	6400	8	0.3	4.1	2.4	41.1	7.4	6.5	45.0	7400	37	1.5	2.4	1.5	108.8	4.2	10.8	-0.9	NO
197442A	029730	2	2180	20	6400	8	0.3	4.1	2.4	50.1	9.0	6.5	45.0	7400	37	1.5	2.4	1.5	132.7	5.2	10.8	-0.9	NO
197443G	029740	2	950	20	6400	8	0.3	4.1	2.4	21.8	3.9	6.5	45.0	7400	37	1.5	2.4	1.5	57.8	2.3	10.8	-0.9	NO
197445V	029840	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.9	NO
197493K	029870	2	2962	20	6400	8	0.3	4.1	2.4	68.1	12.3	6.5	45.0	7400	37	1.5	2.4	1.5	180.3	7.0	10.8	-0.9	NO
197446C	029960	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.8	0.1	10.8	-0.9	NO
197447J	030170	1	17	20	6400	8	0.3	4.1	2.4	0.4	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.0	0.1	10.8	-0.9	NO
197448R	030280	2	170	20	6400	8	0.3	4.1	2.4	3.9	0.7	6.5	45.0	7400	37	1.5	2.4	1.5	10.3	0.4	10.8	-0.9	NO
197449X	030380	2	25	20	6400	8	0.3	4.1	2.4	0.6	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8	-0.9	NO
197450S	030480	2	30	20	6400	8	0.3	4.1	2.4	0.7	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.8	0.1	10.8	-0.9	NO
197502G	030680	2	20	20	6400	8	0.3	4.1	2.4	0.5	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.9	NO
197503N	030730	2	15	20	6400	8	0.3	4.1	2.4	0.3	0.1	6.5	45.0	7400	37	1.5	2.4	1.5	0.9	0.0	10.8	-0.9	NO
197451Y	030800	4	1536	20	6400	8	0.3	4.1	2.4	35.3	3.2	6.5	45.0	7400	37	1.5	2.4	1.5	93.5	1.8	10.8	-0.9	NO
197452F	30820	2	630	20	6400	8	0.3	4.1	2.4	14.5	2.6	6.5	45.0	7400	37	1.5	2.4	1.5	38.3	1.5	10.8	-0.9	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 7,400 Feet

FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Segment 8 Huron to Arlington MP 308.3 to 362.8																						
197453M	030835	2	300	21	6400	6	0.3	4.0	2.3	5.0	1.2	4.5	45.0	7400	37	1.5	2.4	1.5	18.3	0.7	10.8	-0.8	NO
197454U	030840	2	430	21	6400	6	0.3	4.0	2.3	7.1	1.7	4.5	45.0	7400	37	1.5	2.4	1.5	26.2	1.0	10.8	-0.8	NO
197504V	030940	2	43	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	2.6	0.1	10.8	-0.8	NO
197505C	031060	2	74	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	7400	37	1.5	2.4	1.5	4.5	0.2	10.8	-0.8	NO
197507R	031160	2	20	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.8	NO
197508X	031260	2	245	21	6400	6	0.3	4.0	2.3	4.0	1.0	4.5	45.0	7400	37	1.5	2.4	1.5	14.9	0.6	10.8	-0.8	NO
197509E	031390	2	118	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	7400	37	1.5	2.4	1.5	7.2	0.3	10.8	-0.8	NO
197510Y	031470	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.8	NO
197514B	031670	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.3	0.0	10.8	-0.8	NO
197519K	032070	2	408	21	6400	6	0.3	4.0	2.3	6.7	1.6	4.5	45.0	7400	37	1.5	2.4	1.5	24.8	1.0	10.8	-0.8	NO
197520E	032090	2	89	21	6400	6	0.3	4.0	2.3	1.5	0.4	4.5	45.0	7400	37	1.5	2.4	1.5	5.4	0.2	10.8	-0.8	NO
197521L	032100	2	2496	21	6400	6	0.3	4.0	2.3	41.2	9.9	4.5	45.0	7400	37	1.5	2.4	1.5	151.9	5.9	10.8	-0.8	NO
197522T	032110	2	86	21	6400	6	0.3	4.0	2.3	1.4	0.3	4.5	45.0	7400	37	1.5	2.4	1.5	5.2	0.2	10.8	-0.8	NO
197523A	032170	2	225	21	6400	6	0.3	4.0	2.3	3.7	0.9	4.5	45.0	7400	37	1.5	2.4	1.5	13.7	0.5	10.8	-0.8	NO
197679Y	032370	2	5	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.3	0.0	10.8	-0.8	NO
197680T	032480	2	3	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.2	0.0	10.8	-0.8	NO
197681A	032580	2	75	21	6400	6	0.3	4.0	2.3	1.2	0.3	4.5	45.0	7400	37	1.5	2.4	1.5	4.6	0.2	10.8	-0.8	NO
197683N	032680	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	0.9	0.0	10.8	-0.8	NO
197684V	032780	2	27	21	6400	6	0.3	4.0	2.3	0.4	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	1.6	0.1	10.8	-0.8	NO
197685C	032930	2	115	21	6400	6	0.3	4.0	2.3	1.9	0.5	4.5	45.0	7400	37	1.5	2.4	1.5	7.0	0.3	10.8	-0.8	NO
197456H	032970	2	390	21	6400	6	0.3	4.0	2.3	6.4	1.5	4.5	45.0	7400	37	1.5	2.4	1.5	23.7	0.9	10.8	-0.8	NO
197457P	032980	2	3063	21	6400	6	0.3	4.0	2.3	50.6	12.1	4.5	45.0	7400	37	1.5	2.4	1.5	186.4	7.3	10.8	-0.8	NO
197458W	032990	2	186	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	7400	37	1.5	2.4	1.5	11.3	0.4	10.8	-0.8	NO
197459D	033000	2	130	21	6400	6	0.3	4.0	2.3	2.1	0.5	4.5	45.0	7400	37	1.5	2.4	1.5	7.9	0.3	10.8	-0.8	NO
197686J	033040	2	610	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	7400	37	1.5	2.4	1.5	37.1	1.4	10.8	-0.8	NO
197687R	033080	2	33	21	6400	6	0.3	4.0	2.3	0.5	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	2.0	0.1	10.8	-0.8	NO
197690Y	033290	2	2	21	6400	6	0.3	4.0	2.3	0.0	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.8	NO
197460X	033390	2	36	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	2.2	0.1	10.8	-0.8	NO
197461E	33490	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.8	NO
197462L	033590	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	2.1	0.1	10.8	-0.8	NO
197464A	033700	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.8	NO
197465G	033800	2	215	21	6400	6	0.3	4.0	2.3	3.6	0.9	4.5	45.0	7400	37	1.5	2.4	1.5	13.1	0.5	10.8	-0.8	NO
197466N	033840	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	2.7	0.1	10.8	-0.8	NO
197467V	033890	2	17	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	1.0	0.0	10.8	-0.8	NO
197469J	34000	2	62	21	6400	6	0.3	4.0	2.3	1.0	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	3.8	0.1	10.8	-0.8	NO
197470D	034100	2	62	21	6400	6	0.3	4.0	2.3	1.0	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	3.8	0.1	10.8	-0.8	NO
197691F	34200	2	8	21	6400	6	0.3	4.0	2.3	0.1	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.5	0.0	10.8	-0.8	NO
197692M	034300	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	0.9	0.0	10.8	-0.8	NO
197694B	34390	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.8	NO
197696P	34420	2	1285	21	6400	6	0.3	4.0	2.3	21.2	5.1	4.5	45.0	7400	37	1.5	2.4	1.5	78.2	3.0	10.8	-0.8	NO
197697W	34460	2	613	21	6400	6	0.3	4.0	2.3	10.1	2.4	4.5	45.0	7400	37	1.5	2.4	1.5	37.3	1.5	10.8	-0.8	NO
197698D	34470	2	230	21	6400	6	0.3	4.0	2.3	3.8	0.9	4.5	45.0	7400	37	1.5	2.4	1.5	14.0	0.5	10.8	-0.8	NO
197471K	034490	2	157	21	6400	6	0.3	4.0	2.3	2.6	0.6	4.5	45.0	7400	37	1.5	2.4	1.5	9.6	0.4	10.8	-0.8	NO
197473Y	034690	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.8	NO
197474F	034790	2	42	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	2.6	0.1	10.8	-0.8	NO
197455B	034890	2	10	21	6400	6	0.3	4.0	2.3	0.2	0.0	4.5	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.8	NO
197887A	034990	2	95	21	6400	6	0.3	4.0	2.3	1.6	0.4	4.5	45.0	7400	37	1.5	2.4	1.5	5.8	0.2	10.8	-0.8	NO
197701J	35080	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	2.1	0.1	10.8	-0.8	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
197702R	35180	2	19	21	6400	6	0.3	4.0	2.3	0.3	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.8	NO
197703X	35280	2	35	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	2.1	0.1	10.8	-0.8	NO
197704E	035380	2	188	21	6400	6	0.3	4.0	2.3	3.1	0.7	4.5	45.0	7400	37	1.5	2.4	1.5	11.4	0.4	10.8	-0.8	NO
197706T	035480	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	0.9	0.0	10.8	-0.8	NO
197707A	35580	2	15	21	6400	6	0.3	4.0	2.3	0.2	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	0.9	0.0	10.8	-0.8	NO
197708G	035680	2	37	21	6400	6	0.3	4.0	2.3	0.6	0.1	4.5	45.0	7400	37	1.5	2.4	1.5	2.3	0.1	10.8	-0.8	NO
197710H	035780	2	44	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	2.7	0.1	10.8	-0.8	NO
197711P	035880	2	40	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.8	NO
197891P	035980	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	2.7	0.1	10.8	-0.8	NO
197890H	036080	2	45	21	6400	6	0.3	4.0	2.3	0.7	0.2	4.5	45.0	7400	37	1.5	2.4	1.5	2.7	0.1	10.8	-0.8	NO
189696U	36220	2	545	21	6400	6	0.3	4.0	2.3	9.0	2.2	4.5	45.0	7400	37	1.5	2.4	1.5	33.2	1.3	10.8	-0.8	NO
189698H	36280	4	11030	21	6400	6	0.3	4.0	2.3	182.1	21.9	4.5	45.0	7400	37	1.5	2.4	1.5	671.3	13.1	10.8	-0.8	NO
Segment 9 Wolsey to Huron MP 362.8 to 376.1																							
189701N	36380	2	5290	34	6400	6	0.3	2.6	1.6	58.2	14.0	2.1	45.0	7400	37	1.5	2.4	1.5	322.0	12.5	10.8	-0.1	NO
189702V	036470	4	2137	34	6400	6	0.3	2.6	1.6	23.5	2.8	2.1	45.0	7400	37	1.5	2.4	1.5	130.1	2.5	10.8	-0.1	NO
189703C	36480	2	125	34	6400	6	0.3	2.6	1.6	1.4	0.3	2.1	45.0	7400	37	1.5	2.4	1.5	7.6	0.3	10.8	-0.1	NO
189704J	36590	2	40	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	7400	37	1.5	2.4	1.5	2.4	0.1	10.8	-0.1	NO
189705R	36690	1	29	34	6400	6	0.3	2.6	1.6	0.3	0.2	2.1	45.0	7400	37	1.5	2.4	1.5	1.8	0.1	10.8	-0.1	NO
189706X	036800	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	37	1.5	2.4	1.5	1.2	0.1	10.8	-0.1	NO
189707E	36900	2	305	34	6400	6	0.3	2.6	1.6	3.4	0.8	2.1	45.0	7400	37	1.5	2.4	1.5	18.6	0.7	10.8	-0.1	NO
189708L	37000	2	35	34	6400	6	0.3	2.6	1.6	0.4	0.1	2.1	45.0	7400	37	1.5	2.4	1.5	2.1	0.1	10.8	-0.1	NO
189710M	37100	1	20	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	37	1.5	2.4	1.5	1.2	0.1	10.8	-0.1	NO
189712B	37320	2	19	34	6400	6	0.3	2.6	1.6	0.2	0.1	2.1	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.1	NO
189713H	37480	1	3	34	6400	6	0.3	2.6	1.6	0.0	0.0	2.1	45.0	7400	37	1.5	2.4	1.5	0.2	0.0	10.8	-0.1	NO
Segment 10 Midland to Wolsey MP 376.1 to 533.2																							
189716D	37620	2	2671	30	6400	4	0.2	2.9	1.8	21.7	7.8	1.7	40.0	7400	37	1.5	2.6	1.6	178.6	7.0	12.8	-0.2	NO
189717K	37630	1	200	30	6400	4	0.2	2.9	1.8	1.6	1.2	1.7	45.0	7400	37	1.5	2.4	1.5	12.2	0.9	10.8	-0.3	NO
189718S	37730	1	27	30	6400	4	0.2	2.9	1.8	0.2	0.2	1.7	45.0	7400	37	1.5	2.4	1.5	1.6	0.1	10.8	-0.3	NO
189720T	37930	1	24	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8	-0.3	NO
189722G	38040	2	15	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.9	0.0	10.8	-0.3	NO
189724V	38140	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.2	0.1	10.8	-0.3	NO
189726J	038350	1	12	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.7	0.1	10.8	-0.3	NO
189728X	38550	2	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-0.3	NO
189730Y	38650	2	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8	-0.3	NO
189731F	038750	2	952	30	6400	4	0.2	2.9	1.8	7.7	2.8	1.7	45.0	7400	37	1.5	2.4	1.5	57.9	2.3	10.8	-0.3	NO
189732M	38770	2	464	30	6400	4	0.2	2.9	1.8	3.8	1.4	1.7	45.0	7400	37	1.5	2.4	1.5	28.2	1.1	10.8	-0.3	NO
189734B	38880	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.9	0.1	10.8	-0.3	NO
189736P	39000	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.5	0.0	10.8	-0.3	NO
189738D	39110	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.3	NO
189740E	39220	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189742T	39340	2	120	30	6400	4	0.2	2.9	1.8	1.0	0.4	1.7	45.0	7400	37	1.5	2.4	1.5	7.3	0.3	10.8	-0.3	NO
189744G	039560	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189746V	039670	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8	-0.3	NO
189747C	39760	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189748J	39860	1	4	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.2	0.0	10.8	-0.3	NO
189749R	39960	2	115	30	6400	4	0.2	2.9	1.8	0.9	0.3	1.7	45.0	7400	37	1.5	2.4	1.5	7.0	0.3	10.8	-0.3	NO
189751S	40030	2	164	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	7400	37	1.5	2.4	1.5	10.0	0.4	10.8	-0.3	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189752Y	040040	2	166	30	6400	4	0.2	2.9	1.8	1.3	0.5	1.7	45.0	7400	37	1.5	2.4	1.5	10.1	0.4	10.8	-0.3	NO
189754M	40160	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8	-0.3	NO
189755U	40260	2	400	30	6400	4	0.2	2.9	1.8	3.2	1.2	1.7	45.0	7400	37	1.5	2.4	1.5	24.3	0.9	10.8	-0.3	NO
189756B	040290	2	2505	30	6400	4	0.2	2.9	1.8	20.3	7.3	1.7	45.0	7400	37	1.5	2.4	1.5	152.5	5.9	10.8	-0.3	NO
189757H	40310	1	204	30	6400	4	0.2	2.9	1.8	1.7	1.2	1.7	45.0	7400	37	1.5	2.4	1.5	12.4	1.0	10.8	-0.3	NO
189758P	40360	1	14	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.9	0.1	10.8	-0.3	NO
189759W	40460	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189760R	40560	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189761X	40660	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189762E	40750	1	49	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	7400	37	1.5	2.4	1.5	3.0	0.2	10.8	-0.3	NO
189763L	40860	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.2	0.0	10.8	-0.3	NO
189765A	41060	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.3	0.0	10.8	-0.3	NO
189767N	41260	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189768V	41330	2	508	30	6400	4	0.2	2.9	1.8	4.1	1.5	1.7	45.0	7400	37	1.5	2.4	1.5	30.9	1.2	10.8	-0.3	NO
189769C	041360	1	5	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.3	0.0	10.8	-0.3	NO
189770W	41550	1	2	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189771D	041660	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.4	0.0	10.8	-0.3	NO
189772K	041830	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.2	0.1	10.8	-0.3	NO
189775F	42120	9	115	30	6400	4	0.2	2.9	1.8	0.9	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	7.0	0.1	10.8	-0.3	NO
189776M	042230	1	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.1	0.0	10.8	-0.3	NO
189780C	42420	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.3	NO
189781J	042500	2	272	30	6400	4	0.2	2.9	1.8	2.2	0.8	1.7	45.0	7400	37	1.5	2.4	1.5	16.6	0.6	10.8	-0.3	NO
189782R	42520	2	1543	30	6400	4	0.2	2.9	1.8	12.5	4.5	1.7	45.0	7400	37	1.5	2.4	1.5	93.9	3.7	10.8	-0.3	NO
189784E	42620	1	8	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.5	0.0	10.8	-0.3	NO
189786T	42820	2	6	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.4	0.0	10.8	-0.3	NO
189787A	42920	2	36	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	2.2	0.1	10.8	-0.3	NO
189789N	43120	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.3	NO
189791P	43290	1	21	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.3	0.1	10.8	-0.3	NO
189792W	043320	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	7400	37	1.5	2.4	1.5	4.9	0.2	10.8	-0.3	NO
189793D	43420	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.2	0.0	10.8	-0.3	NO
189795S	43520	1	3	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.2	0.0	10.8	-0.3	NO
189797F	043620	1	7	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.4	0.0	10.8	-0.3	NO
189799U	043820	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.2	0.1	10.8	-0.3	NO
189800L	043920	1	20	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.2	0.1	10.8	-0.3	NO
189801T	43990	2	300	30	6400	4	0.2	2.9	1.8	2.4	0.9	1.7	45.0	7400	37	1.5	2.4	1.5	18.3	0.7	10.8	-0.3	NO
189802A	044020	2	145	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	7400	37	1.5	2.4	1.5	8.8	0.3	10.8	-0.3	NO
189805V	44320	1	35	30	6400	4	0.2	2.9	1.8	0.3	0.2	1.7	45.0	7400	37	1.5	2.4	1.5	2.1	0.2	10.8	-0.3	NO
189809X	044720	2	35	30	6400	4	0.2	2.9	1.8	0.3	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	2.1	0.1	10.8	-0.3	NO
189810S	44920	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.0	0.1	10.8	-0.3	NO
189812F	45130	1	9	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.5	0.0	10.8	-0.3	NO
189813M	45220	2	9	30	6400	4	0.2	2.9	1.8	0.1	0.0	1.7	45.0	7400	37	1.5	2.4	1.5	0.5	0.0	10.8	-0.3	NO
189816H	045330	2	153	30	6400	4	0.2	2.9	1.8	1.2	0.4	1.7	45.0	7400	37	1.5	2.4	1.5	9.3	0.4	10.8	-0.3	NO
189822L	046110	2	82	30	6400	4	0.2	2.9	1.8	0.7	0.2	1.7	45.0	7400	37	1.5	2.4	1.5	5.0	0.2	10.8	-0.3	NO
189839P	47790	2	80	30	6400	4	0.2	2.9	1.8	0.6	0.2	1.7	45.0	7400	37	1.5	2.4	1.5	4.9	0.2	10.8	-0.3	NO
189840J	47840	2	30	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.8	0.1	10.8	-0.3	NO
189841R	47890	2	1	30	6400	4	0.2	2.9	1.8	0.0	0.0	1.7	40.0	7400	37	1.5	2.6	1.6	0.1	0.0	12.8	-0.2	NO
189842X	47950	2	1000	30	6400	4	0.2	2.9	1.8	8.1	2.9	1.7	40.0	7400	37	1.5	2.6	1.6	66.9	2.6	12.8	-0.2	NO
189843E	48000	2	3798	30	6400	4	0.2	2.9	1.8	30.9	11.1	1.7	40.0	7400	37	1.5	2.6	1.6	253.9	9.9	12.8	-0.2	NO
189844L	48050	2	100	30	6400	4	0.2	2.9	1.8	0.8	0.3	1.7	40.0	7400	37	1.5	2.6	1.6	6.7	0.3	12.8	-0.2	NO
189845T	48070	2	1560	30	6400	4	0.2	2.9	1.8	12.7	4.6	1.7	40.0	7400	37	1.5	2.6	1.6	104.3	4.1	12.8	-0.2	NO
189846A	48110	4	19755	30	6400	4	0.2	2.9	1.8	160.5	28.9	1.7	40.0	7400	37	1.5	2.6	1.6	1320.9	25.7	12.8	-0.2	NO

Pre/Post-Construction Delays
South Dakota-100 MNT
Alternative B
Train Length = 7,400 Feet

				Pre-Construction									Post-Construction										
						Trains Per									Trains Per								
FRA ID	MILEPOST	Number of Roadway Lanes	ADT	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Day	Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Difference Average Delay/ Veh. (min.)	Trip Threshold
189847G	48140	2	1020	30	6400	4	0.2	2.9	1.8	8.3	3.0	1.7	40.0	7400	37	1.5	2.6	1.6	68.2	2.7	12.8	-0.2	NO
189848N	48160	2	6045	30	6400	4	0.2	2.9	1.8	49.1	17.7	1.7	40.0	7400	37	1.5	2.6	1.6	404.2	15.7	12.8	-0.2	NO
189850P	48190	2	6365	30	6400	4	0.2	2.9	1.8	51.7	18.6	1.7	40.0	7400	37	1.5	2.6	1.6	425.6	16.6	12.8	-0.2	NO
189851W	48220	2	1149	30	6400	4	0.2	2.9	1.8	9.3	3.4	1.7	40.0	7400	37	1.5	2.6	1.6	76.8	3.0	12.8	-0.2	NO
189856F	48350	2	3500	30	6400	4	0.2	2.9	1.8	28.4	10.2	1.7	40.0	7400	37	1.5	2.6	1.6	234.0	9.1	12.8	-0.2	NO
189857M	48370	2	50	30	6400	4	0.2	2.9	1.8	0.4	0.1	1.7	40.0	7400	37	1.5	2.6	1.6	3.3	0.1	12.8	-0.2	NO
189858U	048410	2	392	30	6400	4	0.2	2.9	1.8	3.2	1.1	1.7	40.0	7400	37	1.5	2.6	1.6	26.2	1.0	12.8	-0.2	NO
189859B	48430	2	211	30	6400	4	0.2	2.9	1.8	1.7	0.6	1.7	40.0	7400	37	1.5	2.6	1.6	14.1	0.5	12.8	-0.2	NO
189860V	48450	2	756	30	6400	4	0.2	2.9	1.8	6.1	2.2	1.7	40.0	7400	37	1.5	2.6	1.6	50.5	2.0	12.8	-0.2	NO
189861C	048460	2	3136	30	6400	4	0.2	2.9	1.8	25.5	9.2	1.7	40.0	7400	37	1.5	2.6	1.6	209.7	8.2	12.8	-0.2	NO
189862J	48490	2	406	30	6400	4	0.2	2.9	1.8	3.3	1.2	1.7	40.0	7400	37	1.5	2.6	1.6	27.1	1.1	12.8	-0.2	NO
189864X	48590	2	385	30	6400	4	0.2	2.9	1.8	3.1	1.1	1.7	45.0	7400	37	1.5	2.4	1.5	23.4	0.9	10.8	-0.3	NO
189870B	048940	1	15	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.9	0.1	10.8	-0.3	NO
189889T	050300	1	10	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8	-0.3	NO
189902E	51320	2	62	30	6400	4	0.2	2.9	1.8	0.5	0.2	1.7	45.0	7400	37	1.5	2.4	1.5	3.8	0.1	10.8	-0.3	NO
189908V	052020	1	16	30	6400	4	0.2	2.9	1.8	0.1	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.0	0.1	10.8	-0.3	NO
189914Y	52290	1	25	30	6400	4	0.2	2.9	1.8	0.2	0.1	1.7	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8	-0.3	NO
189929N	53300	1	55	30	6400	4	0.2	2.9	1.8	0.4	0.3	1.7	45.0	7400	37	1.5	2.4	1.5	3.3	0.3	10.8	-0.3	NO
189930H	53320	1	56	30	6400	4	0.2	2.9	1.8	0.5	0.3	1.7	45.0	7400	37	1.5	2.4	1.5	3.4	0.3	10.8	-0.3	NO
Segment 11 Wasta to Midland MP 533.2 to 605																							
189931P	53340	1	228	10	6400	2	0.1	7.8	4.2	2.5	3.5	5.4	45.0	7400	37	1.5	2.4	1.5	13.9	1.1	10.8	-2.7	NO
189932W	53360	2	280	10	6400	2	0.1	7.8	4.2	3.0	2.2	5.4	45.0	7400	37	1.5	2.4	1.5	17.0	0.7	10.8	-2.7	NO
189989X	55950	1	75	10	6400	2	0.1	7.8	4.2	0.8	1.2	5.4	45.0	7400	37	1.5	2.4	1.5	4.6	0.4	10.8	-2.7	NO
190010C	55970	2	615	10	6400	2	0.1	7.8	4.2	6.6	4.8	5.4	45.0	7400	37	1.5	2.4	1.5	37.4	1.5	10.8	-2.7	NO
190501B	56170	2	50	10	6400	2	0.1	7.8	4.2	0.5	0.4	5.4	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8	-2.7	NO
190025S	57130	1	15	10	6400	2	0.1	7.8	4.2	0.2	0.2	5.4	45.0	7400	37	1.5	2.4	1.5	0.9	0.1	10.8	-2.7	NO
190026Y	57180	2	1020	10	6400	2	0.1	7.8	4.2	11.0	7.9	5.4	45.0	7400	37	1.5	2.4	1.5	62.1	2.4	10.8	-2.7	NO
190027F	57320	1	59	10	6400	2	0.1	7.8	4.2	0.6	0.9	5.4	45.0	7400	37	1.5	2.4	1.5	3.6	0.3	10.8	-2.7	NO
190028M	57350	2	26	10	6400	2	0.1	7.8	4.2	0.3	0.2	5.4	45.0	7400	37	1.5	2.4	1.5	1.6	0.1	10.8	-2.7	NO
190032C	57520	1	41	10	6400	2	0.1	7.8	4.2	0.4	0.6	5.4	45.0	7400	37	1.5	2.4	1.5	2.5	0.2	10.8	-2.7	NO
190034R	057730	1	12	10	6400	2	0.1	7.8	4.2	0.1	0.2	5.4	45.0	7400	37	1.5	2.4	1.5	0.7	0.1	10.8	-2.7	NO
190039A	58309	1	6	10	6400	2	0.1	7.8	4.2	0.1	0.1	5.4	45.0	7400	37	1.5	2.4	1.5	0.4	0.0	10.8	-2.7	NO
190044W	58470	2	87	10	6400	2	0.1	7.8	4.2	0.9	0.7	5.4	45.0	7400	37	1.5	2.4	1.5	5.3	0.2	10.8	-2.7	NO
190049F	059020	2	19	10	6400	2	0.1	7.8	4.2	0.2	0.1	5.4	45.0	7400	37	1.5	2.4	1.5	1.2	0.0	10.8	-2.7	NO

Post-Construction Delay Summary
Wyoming 20 MNT
Alternative B
Train Length = 6400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
74070	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
74120	2	800	45.0	6400	11	0.5	2.1	1.4	12.9	1.7	2.6
Weston County											
74990	1	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
75180	2	50	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6
76130	2	50	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6
76180	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
77030	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
Campbell County											
78100	2	430	45.0	6400	11	0.5	2.1	1.4	7.0	0.9	2.6
79230	2	10	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6
82230	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
82870	2	700	45.0	6400	11	0.5	2.1	1.4	11.3	1.5	2.6
830	2	10	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6
1210	1	10	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6

Post-Construction Delay Summary
Wyoming 20 MNT
Alternative B
Train Length = 7400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
74070	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
74120	2	800	45.0	7400	11	0.5	2.4	1.5	14.5	1.9	3.2
Weston County											
74990	1	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
75180	2	50	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2
76130	2	50	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2
76180	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
77030	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
Campbell County											
78100	2	430	45.0	7400	11	0.5	2.4	1.5	7.8	1.0	3.2
79230	2	10	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2
82230	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
82870	2	700	45.0	7400	11	0.5	2.4	1.5	12.7	1.7	3.2
830	2	10	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2
1210	1	10	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2

Post-Construction Delay Summary
Wyoming 50 MNT
Alternative B
Train Length = 6400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
74070	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
74120	2	800	45.0	6400	21	0.9	2.1	1.4	24.7	1.7	5.0
Weston County											
74990	1	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
75180	2	50	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0
76130	2	50	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0
76180	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
77030	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
Campbell County											
78100	2	430	45.0	6400	21	0.9	2.1	1.4	13.3	0.9	5.0
79230	2	10	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0
82230	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
82870	2	700	45.0	6400	21	0.9	2.1	1.4	21.6	1.5	5.0
830	2	10	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0
1210	1	10	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0

Post-Construction Delay Summary
Wyoming 50 MNT
Alternative B
Train Length = 7400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
74070	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
74120	2	800	45.0	7400	21	0.9	2.4	1.5	27.6	1.9	6.2
Weston County											
74990	1	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
75180	2	50	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2
76130	2	50	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2
76180	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
77030	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
Campbell County											
78100	2	430	45.0	7400	21	0.9	2.4	1.5	14.9	1.0	6.2
79230	2	10	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2
82230	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
82870	2	700	45.0	7400	21	0.9	2.4	1.5	24.2	1.7	6.2
830	2	10	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2
1210	1	10	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2

Post-Construction Delay Summary
Wyoming 100 MNT
Alternative B
Train Length = 6400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
74070	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
74120	2	800	45.0	6400	37	1.5	2.1	1.4	43.5	1.7	8.9
Weston County											
74990	1	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
75180	2	50	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9
76130	2	50	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9
76180	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
77030	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
Campbell County											
78100	2	430	45.0	6400	37	1.5	2.1	1.4	23.4	0.9	8.9
79230	2	10	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9
82230	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
82870	2	700	45.0	6400	37	1.5	2.1	1.4	38.1	1.5	8.9
830	2	10	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9
1210	1	10	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9

Post-Construction Delay Summary
Wyoming 100 MNT
Alternative B
Train Length = 7400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
74070	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
74120	2	800	45.0	7400	37	1.5	2.4	1.5	48.7	1.9	10.8
Weston County											
74990	1	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
75180	2	50	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8
76130	2	50	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8
76180	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
77030	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
Campbell County											
78100	2	430	45.0	7400	37	1.5	2.4	1.5	26.2	1.0	10.8
79230	2	10	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8
82230	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
82870	2	700	45.0	7400	37	1.5	2.4	1.5	42.6	1.7	10.8
830	2	10	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8
1210	1	10	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8

Post-Construction Delay Summary
Wyoming 20 MNT
Alternative C
Train Length = 6400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
74070	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
74120	2	800	45.0	6400	11	0.5	2.1	1.4	12.9	1.7	2.6
Weston County											
74990	1	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
75180	2	50	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6
76130	2	50	45.0	6400	11	0.5	2.1	1.4	0.8	0.1	2.6
76180	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
77030	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
78210	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
78360	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
Campbell County											
79440	2	1010	45.0	6400	11	0.5	2.1	1.4	16.3	2.1	2.6
80460	2	10	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6
82230	2	25	45.0	6400	11	0.5	2.1	1.4	0.4	0.1	2.6
82870	2	700	45.0	6400	11	0.5	2.1	1.4	11.3	1.5	2.6
830	2	10	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6
1210	1	10	45.0	6400	11	0.5	2.1	1.4	0.2	0.0	2.6

Post-Construction Delay Summary
Wyoming 20 MNT
Alternative C
Train Length = 7400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
74070	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
74120	2	800	45.0	7400	11	0.5	2.4	1.5	14.5	1.9	3.2
Weston County											
74990	1	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
75180	2	50	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2
76130	2	50	45.0	7400	11	0.5	2.4	1.5	0.9	0.1	3.2
76180	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
77030	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
78210	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
78360	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
Campbell County											
79440	2	1010	45.0	7400	11	0.5	2.4	1.5	18.3	2.4	3.2
80460	2	10	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2
82230	2	25	45.0	7400	11	0.5	2.4	1.5	0.5	0.1	3.2
82870	2	700	45.0	7400	11	0.5	2.4	1.5	12.7	1.7	3.2
830	2	10	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2
1210	1	10	45.0	7400	11	0.5	2.4	1.5	0.2	0.0	3.2

Post-Construction Delay Summary
Wyoming 50 MNT
Alternative C
Train Length = 6400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
74070	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
74120	2	800	45.0	6400	21	0.9	2.1	1.4	24.7	1.7	5.0
Weston County											
74990	1	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
75180	2	50	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0
76130	2	50	45.0	6400	21	0.9	2.1	1.4	1.5	0.1	5.0
76180	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
77030	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
78210	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
78360	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
Campbell County											
79440	2	1010	45.0	6400	21	0.9	2.1	1.4	31.2	2.1	5.0
80460	2	10	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0
82230	2	25	45.0	6400	21	0.9	2.1	1.4	0.8	0.1	5.0
82870	2	700	45.0	6400	21	0.9	2.1	1.4	21.6	1.5	5.0
830	2	10	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0
1210	1	10	45.0	6400	21	0.9	2.1	1.4	0.3	0.0	5.0

Post-Construction Delay Summary
Wyoming 50 MNT
Alternative C
Train Length = 7400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
74070	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
74120	2	800	45.0	7400	21	0.9	2.4	1.5	27.6	1.9	6.2
Weston County											
74990	1	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
75180	2	50	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2
76130	2	50	45.0	7400	21	0.9	2.4	1.5	1.7	0.1	6.2
76180	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
77030	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
78210	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
78360	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
Campbell County											
79440	2	1010	45.0	7400	21	0.9	2.4	1.5	34.9	2.4	6.2
80460	2	10	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2
82230	2	25	45.0	7400	21	0.9	2.4	1.5	0.9	0.1	6.2
82870	2	700	45.0	7400	21	0.9	2.4	1.5	24.2	1.7	6.2
830	2	10	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2
1210	1	10	45.0	7400	21	0.9	2.4	1.5	0.3	0.0	6.2

Post-Construction Delay Summary
100 MNT
Alternative C
Train Length = 6,400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
74070	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
74120	2	800	45.0	6400	37	1.5	2.1	1.4	43.5	1.7	8.9
Weston County											
74990	1	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
75180	2	50	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9
76130	2	50	45.0	6400	37	1.5	2.1	1.4	2.7	0.1	8.9
76180	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
77030	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
78210	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
78360	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
Campbell County											
79440	2	1010	45.0	6400	37	1.5	2.1	1.4	54.9	2.1	8.9
80460	2	10	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9
82230	2	25	45.0	6400	37	1.5	2.1	1.4	1.4	0.1	8.9
82870	2	700	45.0	6400	37	1.5	2.1	1.4	38.1	1.5	8.9
830	2	10	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9
1210	1	10	45.0	6400	37	1.5	2.1	1.4	0.5	0.0	8.9

Post-Construction Delay Summary
Wyoming 100 MNT
Alternative C
Train Length = 7400 Feet

MILEPOST	Number of Roadway Lanes	ADT	Post-Construction								
			Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)
Wyoming MP 737.70 to 828.70											
Niobrara County											
73770	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
74070	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
74120	2	800	45.0	7400	37	1.5	2.4	1.5	48.7	1.9	10.8
Weston County											
74990	1	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
75180	2	50	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8
76130	2	50	45.0	7400	37	1.5	2.4	1.5	3.0	0.1	10.8
76180	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
77030	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
78210	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
78360	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
Campbell County											
79440	2	1010	45.0	7400	37	1.5	2.4	1.5	61.5	2.4	10.8
80460	2	10	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8
82230	2	25	45.0	7400	37	1.5	2.4	1.5	1.5	0.1	10.8
82870	2	700	45.0	7400	37	1.5	2.4	1.5	42.6	1.7	10.8
830	2	10	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8
1210	1	10	45.0	7400	37	1.5	2.4	1.5	0.6	0.0	10.8

Pre/Post-Construction Delays
Wyoming 20 MNT
Alternative D
Train Length = 6,400 Feet

STREET	MILEPOST	Number of Roadway Lanes	ADT	Pre-Construction									Post-Construction								Difference Average Delay/ Veh. (min.)	Trip Threshold
				Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train (min.)	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)	Train Speed (mph)	Train Length (feet)	Trains Per Day	Trains Per Hour	Total Blocked Time/ Train	Average Delay/ Veh. (min)	Number of Vehicles Delayed Per Day	Maximum Vehicle Queue	Average Delay for all Vehicles (sec/veh)		
Weston County																						
Whoopup Canyon Road	510.90	2	100	49	6400	12	0.5	2.0	1.3	1.7	0.2	2.6	49.0	6400	23	1.0	2.0	1.3	3.2	0.2	4.9	0.0	NO
Old Highway 85	518.30	2	100	49	6400	12	0.5	2.0	1.3	1.7	0.2	2.6	49.0	6400	23	1.0	2.0	1.3	3.2	0.2	4.9	0.0	NO
US HWY 85	522.10	2	100	49	6400	12	0.5	2.0	1.3	1.7	0.2	2.6	49.0	6400	23	1.0	2.0	1.3	3.2	0.2	4.9	0.0	NO
Faye Ave.	522.30	2	221	49	6400	12	0.5	2.0	1.3	3.7	0.4	2.6	49.0	6400	23	1.0	2.0	1.3	7.0	0.4	4.9	0.0	NO
US Hwy 16 By-Pass	522.40	2	100	49	6400	51	2.1	2.0	1.3	7.0	0.2	10.9	49.0	6400	62	2.6	2.0	1.3	8.5	0.2	13.2	0.0	NO
West Main Street	522.50	4	4700	49	6400	51	2.1	2.0	1.3	330.3	4.7	10.9	49.0	6400	62	2.6	2.0	1.3	401.5	4.7	13.2	0.0	NO
Walker Ave.	522.80	2	652	49	6400	51	2.1	2.0	1.3	45.8	1.3	10.9	49.0	6400	62	2.6	2.0	1.3	55.7	1.3	13.2	0.0	NO
Williams Ave.	523.00	2	100	49	6400	51	2.1	2.0	1.3	7.0	0.2	10.9	49.0	6400	62	2.6	2.0	1.3	8.5	0.2	13.2	0.0	NO
Grove Ave.	523.10	2	1189	49	6400	45	1.9	2.0	1.3	73.7	2.4	9.6	49.0	6400	56	2.3	2.0	1.3	91.7	2.4	12.0	0.0	NO
Oil Creek Road	525.00	2	100	49	6400	45	1.9	2.0	1.3	6.2	0.2	9.6	49.0	6400	56	2.3	2.0	1.3	7.7	0.2	12.0	0.0	NO
E. Rail Road Street	531.80	2	252	49	6400	14	0.6	2.0	1.3	4.9	0.5	3.0	49.0	6400	25	1.0	2.0	1.3	8.7	0.5	5.3	0.0	NO
Skull Creek Road	532.70	2	480	49	6400	14	0.6	2.0	1.3	9.3	1.0	3.0	49.0	6400	25	1.0	2.0	1.3	16.5	1.0	5.3	0.0	NO
Baroid Road	535.00	2	100	49	6400	14	0.6	2.0	1.3	1.9	0.2	3.0	49.0	6400	25	1.0	2.0	1.3	3.4	0.2	5.3	0.0	NO
Highway 16	544.00	2	100	49	6400	14	0.6	2.0	1.3	1.9	0.2	3.0	49.0	6400	25	1.0	2.0	1.3	3.4	0.2	5.3	0.0	NO
Highway 116	546.20	2	790	49	6400	11	0.5	2.0	1.3	12.0	1.6	2.3	49.0	6400	22	0.9	2.0	1.3	23.9	1.6	4.7	0.0	NO
Pine Street	546.50	1	35	49	6400	14	0.6	2.0	1.3	0.7	0.1	3.0	49.0	6400	25	1.0	2.0	1.3	1.2	0.1	5.3	0.0	NO
Thorn Road	555.00	2	100	49	6400	14	0.6	2.0	1.3	1.9	0.2	3.0	49.0	6400	25	1.0	2.0	1.3	3.4	0.2	5.3	0.0	NO
Crook County																						
Buffalo Creek Road (Ki	562.90	2	100	50	6400	48	2.0	2.0	1.3	6.5	0.2	10.0	49.0	6400	59	2.5	2.0	1.3	8.1	0.2	12.6	0.0	NO
Warbonnet Road	565.30	9	20	50	6400	48	2.0	2.0	1.3	1.3	0.0	10.0	49.0	6400	59	2.5	2.0	1.3	1.6	0.0	12.6	0.0	NO
South Big Horn Ave	566.60	1	33	50	6400	48	2.0	2.0	1.3	2.2	0.1	10.0	49.0	6400	59	2.5	2.0	1.3	2.7	0.1	12.6	0.0	NO
Donkey Creek Road	573.40	2	100	50	6400	48	2.0	2.0	1.3	6.5	0.2	10.0	49.0	6400	59	2.5	2.0	1.3	8.1	0.2	12.6	0.0	NO
Wessex Road	574.20	2	100	50	6400	48	2.0	2.0	1.3	6.5	0.2	10.0	49.0	6400	59	2.5	2.0	1.3	8.1	0.2	12.6	0.0	NO
State Highway 51 (14/1	576.40	2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Stewart Road	577.00	2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Adon Road	580.00	2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Svaling Road	582.40	2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
State Highway 51 (14/1	582.70	2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Timber Creek Road	3.00	2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Timber Creek Road	4.50	2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Bishop Road	13.10	2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Bishop Road		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Bishop Road		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Bishop Road		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
T-7 Road		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Keeline Road		2	42	49	6400	6	0.3	2.0	1.3	0.3	0.1	1.3	49.0	6400	17	0.7	2.0	1.3	1.0	0.1	3.6	0.0	NO
Little Thunder Road		2	26	49	6400	6	0.3	2.0	1.3	0.2	0.1	1.3	49.0	6400	17	0.7	2.0	1.3	0.6	0.1	3.6	0.0	NO
State Highway 450		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Little Thunder Road		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
School Creek Road		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Reno County Road		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Piney Creek Road (Mackey Road)		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO
Converse County																						
Irwin Road		2	100	49	6400	6	0.3	2.0	1.3	0.8	0.2	1.3	49.0	6400	17	0.7	2.0	1.3	2.3	0.2	3.6	0.0	NO