Annual WBAPS 2022

WEB ACCIDENT PREDICTION SYSTEM

Accident Prediction Report for
Public at-Grade Highway-Rail Crossings

Including:

Disclaimer/Abbreviation Key
Accident Prediction List

Provided by:

Federal Railroad Administration
Office of Safety Analysis
Highway-Rail Crossing Safety & Trespass Prevention

Data Contained in this Report:
　　　　STATE: MN
　　　　COUNTY: KANDIYOHI
　　　　RAILROAD: BNSF

Date Prepared:　11/17/2022

USING DATA PRODUCED BY WBAPS
(Web Accident Prediction System)

WBAPS generates reports listing public highway-rail intersections for a State, County, City or railroad ranked by predicted collisions per year. These reports include brief lists of the Inventory record and the collisions over the last 10 years along with a list of contacts for further information. These data were produced by the Federal Railroad Administration's Web Accident Prediction System (WBAPS).

WBAPS is a computer model which provides the user an analytical tool, which combined with other site-specific information, can assist in determining where scarce highway-rail grade crossing resources can best be directed. This computer model does not rank crossings in terms of most to least dangerous. Use of WBAPS data in this manner is incorrect and misleading.

WBAPS provides the same reports as PCAPS, which is FRA's PC Accident Prediction System. PCAPS was originally developed as a tool to alert law enforcement and local officials of the important need to improve safety at public highway-rail intersections within their jurisdictions. It has since become an indispensable information resource which is helping the FRA, States, railroads, Operation Lifesaver and others, to raise the awareness of the potential dangers at public highway-rail intersections. The PCAPS/WBAPS output enables State and local highway and law enforcement agencies identify public highway-rail crossing locations which may require additional or specialized attention. It is also a tool which can be used by state highway authorities and railroads to nominate particular crossings which may require physical safety improvements or enhancements.

The WBAPS accident prediction formula is based upon two independent factors (variables) which includes (1) basic data about a crossing's physical and operating characteristics and (2) five years of accident history data at the crossing. These data are obtained from the FRA's inventory and accident/incident files which are subject to keypunch and submission errors. Although every attempt is made to find and correct errors, there is still a possibility that some errors still exist. Erroneous, inaccurate and non-current data will alter WBAPS accident prediction values. While approximately 100,000 inventory file changes and updates are voluntarily provided annually by States and railroads and processed by FRA into the National Inventory File, data records for specific crossings may not be completely current. Only the intended users (States and railroads) are really knowledgeable as to how current the inventory data is for a particular State, railroad, or location.

It is important to understand the type of information produced by WBAPS and the limitations on the application of the output data. WBAPS does not state that specific crossings are the most dangerous. Rather, the WBAPS data provides an indication that conditions are such that one crossing may possibly be more hazardous than another based on the specific data that is in the program. It is only one of many tools which can be used to assist individual States, railroads and local highway authorities in determining where and how to initially focus attention for improving safety at public highway-rail intersections. WBAPS is designed to nominate crossings for further evaluation based only upon the physical and operating characteristics of specific crossings as voluntarily reported and updated by States and railroads and five years of accident history data.

PCAPS and WBAPS software are not designed to single out specific crossings without considering the many other factors which may influence accident rates or probabilities. State highway planners may or may not use PCAPS/WBAPS accident prediction model. Some States utilize their own formula or model which may include other geographic and site-specific factors. At best, PCAPS and WBAPS software and data nominates crossings for further on-the-ground review by knowledgeable highway traffic engineers and specialists. The output information is not the end or final product and the WBAPS data should not be used for non-intended purposes.

It should also be noted that there are certain characteristics or factors which are not, nor can be, included in the WBAPS database. These include sight-distance, highway congestion, bus or hazardous material traffic, local topography, and passenger exposure (train or vehicle), etc. Be aware that PCAPS/WBAPS is only one model and that other accident prediction models which may be used by States may yield different, by just as valid, results for ranking crossings for safety improvements.

Finally, it should be noted that this database is not the sole indicator of the condition of a specific public highway-rail intersection. The WBAPS output must be considered as a supplement to the information needed to undertake specific actions aimed at enhancing highway-rail crossing safety at locations across the U.S. The authority and jurisdiction to appropriate resources towards the safety improvement or elimination of specific crossings lies with the individual States.

U.S. Department
of Transportation
**Federal Railroad
Administration**

ABBREVIATION KEY
for use with WBAPS Reports

1200 New Jersey Avenue, SE
Third Floor West
Washington, DC 20590

The lists produced are only for public at-grade highway-rail intersections for the entity listed at the top of the page. The parameters shown are those used in the collision prediction calculation.

RANK:	Crossings are listed in order and ranked with the highest collision prediction value first.
PRED COLLS:	The accident prediction value is the probability that a collision between a train and a highway vehicle will occur at the crossing in a year.
CROSSING:	The unique sight specific identifying DOT/AAR Crossing Inventory Number.
RR:	The alphabetic abbreviation for the railroad name.
CITY:	The city in (or near) which the crossing is located.
ROAD:	The name of the road, street, or highway (if provided) where the crossing is located.
NUM OF COLLISIONS:	The number of accidents reported to FRA in each of the years indicated. Note: Most recent year is partial year (data is not for the complete calendar year) unless Accidents per Year is 'AS OF DECEMBER 31'.
DATE CHG:	The date of the latest change of the warning device category at the crossing which impacts the collision prediction calculation, e.g., a change from crossbucks to flashing lights, or flashing lights to gates. The accident prediction calculation utilizes three different formulas, on each for (1) passive devices, (2) flashing lights only, and (3) flashing lights with gates. When a date is shown, the collision history prior to the indicated year-month is not included in calculating the accident prediction value.
WD:	The type of warning device shown on the current Inventory record for the crossing where: FQ=Four Quad Gates; GT = All Other Gates; FL = Flashing lights; HS = Wigwags, Highway Signals, Bells, or Other Activated; SP = Special Protection (e.g., a flagman); SS = Stop Signs; XB = Crossbucks; OS = Other Signs or Signals; NO = No Signs or Signals.
TOT TRNS:	Number of total trains per day.
TOT TRKS:	Total number of railroad tracks between the warning devices at the crossing.
TTBL SPD:	The maximum timetable (allowable) speed for trains through the crossing.
HWY PVD:	Is the highway paved on both sides of the crossing?
HWY LNS:	The number of highway traffic lanes crossing the tracks at the crossing.
AADT:	The Average Annual Daily Traffic count for highway vehicles using the crossing.

PUBLIC HIGHWAY-RAIL CROSSINGS RANKED BY PREDICTED ACCIDENTS PER YEAR AS OF 12/31/2021*

*Num of Collisions: Most recent year is partial year (data is not for the complete calendar year) unless Accidents per Year is 'AS OF DECEMBER 31'.

RANK	PRED COLLS.	CROSSING	RR	STATE	COUNTY	CITY	ROAD	NUM OF COLLISIONS					DATE CHG	W D	TOT TRN	TOT TRK	TTBL SPD	HWY PVD	HWY LNS	AADT
								21*	20	19	18	17								
1	0.070596	082463X	BNSF	MN	KANDIYOHI	RAYMOND	COUNTY LINE RD	0	1	0	1	0		XB	10	1	49	NO	2	350
2	0.025934	061089Y	BNSF	MN	KANDIYOHI	WILLMAR	30th ST NW	0	0	0	0	0		GT	8	3	40	YES	3	7,115
3	0.021081	067711G	BNSF	MN	KANDIYOHI	WILLMAR	30th ST SW	0	0	0	0	0		GT	10	1	49	YES	2	5,612
4	0.020912	085969W	BNSF	MN	KANDIYOHI	WILLMAR	8th St SW	0	0	0	0	0		SS	8	3	40	YES	2	644
5	0.020247	061099E	BNSF	MN	KANDIYOHI	PENNOCK	Atlantic Ave	0	0	0	0	0		SS	10	1	40	YES	2	416
6	0.019175	067710A	BNSF	MN	KANDIYOHI	WILLMAR	Willmar AVE SW	0	0	0	0	0		FQ	10	1	49	YES	2	3,803
7	0.018351	067836G	BNSF	MN	KANDIYOHI	WILLMAR	10th St SW	0	0	0	0	0		GT	10	5	40	YES	2	1,904
8	0.016732	082462R	BNSF	MN	KANDIYOHI	RAYMOND	COLFIELD ST	0	0	0	0	0		GT	10	3	49	YES	2	2,200
9	0.016533	067834T	BNSF	MN	KANDIYOHI	WILLMAR	7th St SW	0	0	0	0	0		FQ	6	3	40	YES	2	2,806
10	0.016343	067709F	BNSF	MN	KANDIYOHI	WILLMAR	Trott AVE SW	0	0	0	0	0		GT	10	1	49	YES	2	2,004
11	0.015884	067831X	BNSF	MN	KANDIYOHI	WILLMAR	Lakeland Dr SE	0	0	0	0	0		GT	4	4	40	YES	2	4,509
12	0.015748	067835A	BNSF	MN	KANDIYOHI	WILLMAR	8TH ST SW	0	0	0	0	0		SS	6	1	40	YES	2	380
13	0.015141	061088S	BNSF	MN	KANDIYOHI	WILLMAR	19th St NW	0	0	0	0	0		GT	8	2	40	YES	2	1,263
14	0.013646	061104Y	BNSF	MN	KANDIYOHI	PENNOCK	135th ST NW	0	0	0	0	0		GT	10	1	40	YES	2	992
15	0.013202	061103S	BNSF	MN	KANDIYOHI	PENNOCK	120th St NW	0	0	0	0	0		SS	10	1	40	YES	2	103
16	0.013156	067715J	BNSF	MN	KANDIYOHI	WILLMAR	45th St S	0	0	0	0	0		GT	10	1	49	NO	2	862
17	0.012536	067837N	BNSF	MN	KANDIYOHI	ATWATER	Main St S	0	0	0	0	0		GT	6	1	60	YES	2	1,603
18	0.012325	061079T	BNSF	MN	KANDIYOHI	KANDIYOHI	N 4th ST	0	0	0	0	0		GT	6	1	60	YES	2	1,503
19	0.012316	061101D	BNSF	MN	KANDIYOHI	PENNOCK	105th St NW	0	0	0	0	0		SS	10	1	40	NO	2	416
20	0.011206	061097R	BNSF	MN	KANDIYOHI	WILLMAR	67th St SW	0	0	0	0	0		SS	10	1	40	YES	2	62
21	0.010316	061098X	BNSF	MN	KANDIYOHI	WILLMAR	75th St SW	0	0	0	0	0		GT	10	1	40	YES	2	344
22	0.010118	067725P	BNSF	MN	KANDIYOHI	RAYMOND	105TH ST SW	0	0	0	0	0		GT	10	1	49	YES	2	320
23	0.009369	067723B	BNSF	MN	KANDIYOHI	RAYMOND	75TH AVE SW	0	0	0	1	0		XB	10	1	49	NO	2	150
24	0.008942	061100W	BNSF	MN	KANDIYOHI	PENNOCK	S 1st St	0	0	0	0	0	02/22	GT	10	1	40	YES	2	1,313
25	0.008737	061068F	BNSF	MN	KANDIYOHI	ATWATER	3rd St	0	0	0	0	0		GT	6	1	60	YES	2	416
26	0.007768	067721M	BNSF	MN	KANDIYOHI	WILLMAR	75th St SW	0	0	0	0	0		GT	10	1	49	NO	2	121
27	0.007251	061081U	BNSF	MN	KANDIYOHI	KANDIYOHI	60th St NE	0	0	0	0	0		GT	6	2	40	NO	2	126
28	0.006458	061073C	BNSF	MN	KANDIYOHI	KANDIYOHI	135th St NE	0	0	0	0	0		SS	6	1	60	NO	2	84
29	0.006209	061096J	BNSF	MN	KANDIYOHI	WILLMAR	60th St NW	0	0	0	0	0		SS	10	1	40	NO	2	54
30	0.006015	061071N	BNSF	MN	KANDIYOHI	ATWATER	150th St SE	0	0	0	0	0	05/18	GT	6	1	60	YES	2	691

TTL: 0.462247   0 1 0 1 0