
ADDENDUM #1

Date: May 4, 2026

STV Project No: D007719.001

Introduction

This Addendum to the Final Report for the Umatilla County Comprehensive Safety Action Plan presents supplemental information that has been provided to Umatilla County as an extension to the Safe Streets For All (SS4A) project that funded the Safety Action Plan. This information includes vehicle probe data and associated performance metrics as well as asset management data, both provided by third party data providers as discussed below.

In the SS4A outreach and Plan development, two issues were identified that spurred this additional data exploration. The first was that much of the community outreach effort identified road conditions as a potential Safety Concern. The county had no way however, to immediately explore the ability to see road conditions in comparison to high accident corridors and individual crash locations. This mapping would require more asset management data and pictures of roadway types (paved, gravel, etc.), road conditions (cracking, potholes, shoulders, striping, etc.) along with any ancillary agency owned infrastructure such as roadway signs (and sign conditions), guardrail or crosswalk markings (both very limited on County owned roadways, but still worth capturing), school zones, etc. This issue was addressed by acquiring Asset Management Data from Blynscsy, a Bentley company, as described in this memo.

The second issue was the ability to look at driver behavior, (such as speeding as an example) and how it could be measured after some sort of “intervention” or treatment. An example that was proposed was to use the county’s current speed zone tracking and information equipment, which is mobile and can be set up on corridors of speed safety concern. Third party data may then be able to show how driver behavior is (or isn’t) directly affected in an immediate turnaround. This differs drastically from the long-term data collection, of seeing whether accidents still continued to occur at the same areas. This was addressed by acquiring Connected Vehicle data through a third-party data provider called FlowLabs. The raw connected vehicle data is provided primarily to FlowLabs from TomTom and the associated data now available are discussed further in this memo.

Project Background

Umatilla County completed an updated Comprehensive Safety Action Plan in late 2025. It was developed as part of the Safe Streets and Roads for All (SS4A) program to improve transportation safety across the

county. The project focuses on analyzing recent crash data, roadway characteristics, and community input to identify key safety challenges and prioritize effective countermeasures.

Umatilla County, a largely rural region in northeast Oregon, experiences unique transportation safety issues, including higher crash severity due to high-speed roadways, limited infrastructure, and longer emergency response times. The plan applies the Safe Systems Approach and aligns with state and regional safety goals, aiming to significantly reduce fatal and serious injury crashes—targeting a 50% reduction by 2045.

Through collaboration with local agencies, stakeholders, and the public, the project establishes a data-driven framework to guide future investments, policies, and safety improvements on county and state-managed roadways.

Introduction to the Umatilla County Safe Streets for All GIS Dashboard

Figure 1 illustrates the basic GIS platform for SS4A that STV developed as part of this project. On this screen the following data is immediately available:

- Severity of crashes
- Counts of Injury severity types of all data illustrated on the screen
- Fatal and Serious Injury (FSI) crash types

Along the top of the screen are different tabs that allow the user to go to different maps including:

- High Injury Network Corridors
- Social Equity Index for the county
- Proposed Counter measures for the top injury corridors as identified in the Safety Action Plan
- Speed Signage
- Mobility Metrics
- Roadside Assets

The remainder of this document will be focused on the last three bullets above.

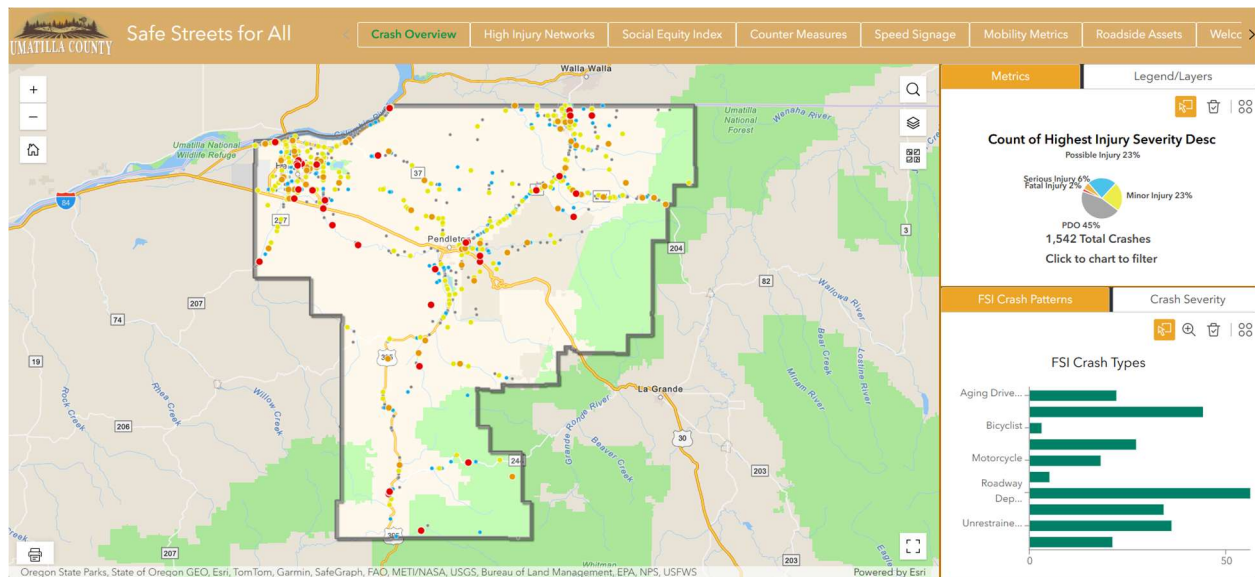


Figure 1: Umatilla County SS4A GIS Dashboard

Figure 2 presents a zoomed in view of a specific roadway section and associated intersections highlighting individual crash injuries by severity and with a different basemap layer. This is provided to illustrate the dynamic nature of the GIS platform, as it allows the user to zoom in on specific corridors and identify highly localized safety information, while providing geographic context such as roadway access, building types, etc., that are all available in the GIS platform.

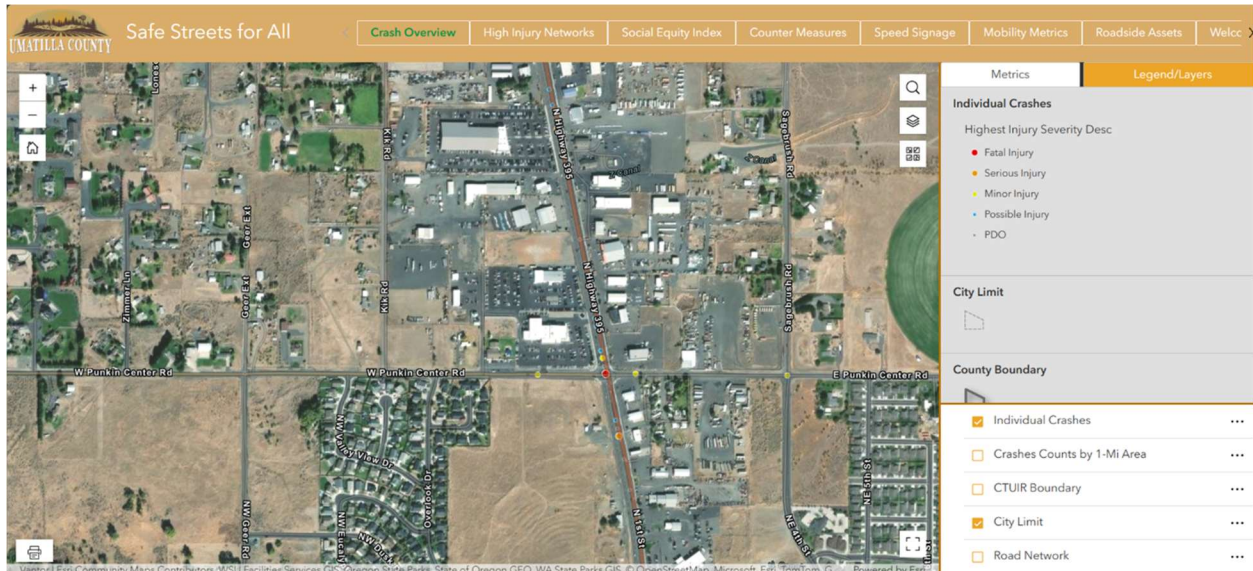


Figure 2: Umatilla County SS4A GIS Dashboard zoomed in view

Supplemental Data: Asset Management

Asset Management data was provided in this project from a third-party provider called Blynscsy, a subsidiary of Bentley Systems. According to the company's website:

"Blynscsy empowers agencies and infrastructure managers to overcome the challenges of aging infrastructure, budget constraints, and the increasing demand for safer, more efficient roads. We harness the power of Artificial Intelligence and comprehensive visual data, including the unparalleled Google Street View database, to deliver actionable intelligence that transforms how you inspect, analyze, and maintain your roadway assets."

Blynscsy does this by gathering vast amounts of visual data from diverse sources, including existing dash cameras and the comprehensive Google Street View archive, creating a rich, up-to-date visual record of the road network. When data is not available from Blynscsy's partner dash camera providers, they can provide cameras to an end user, and did so for Umatilla County to collect data on roadways that they did not already have data for.

Figure 3 shows a collection of signs and crosswalks that were collected by Blynscsy and are now available in the Umatilla County GIS platform.

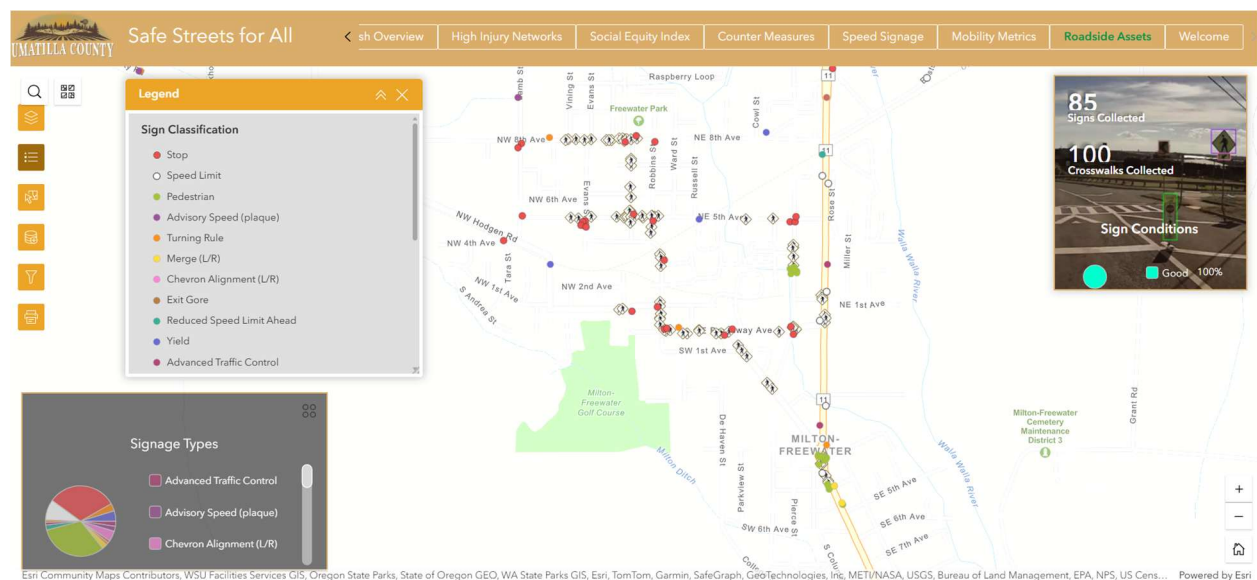


Figure 3: Umatilla County Roadside Assets: Signage and Crosswalks

Figure 4 illustrates portions of the Blyncoy data catalogue and the different data that is available within it that was procured by Umatilla County as part of the SS4A project. This includes:

- Guardrails
- Roadway Signage
- Roadway Asset type (Asphalt, concrete and gravel)
- Roadway Conditions
- Crosswalks
- School zones, signage and beacons

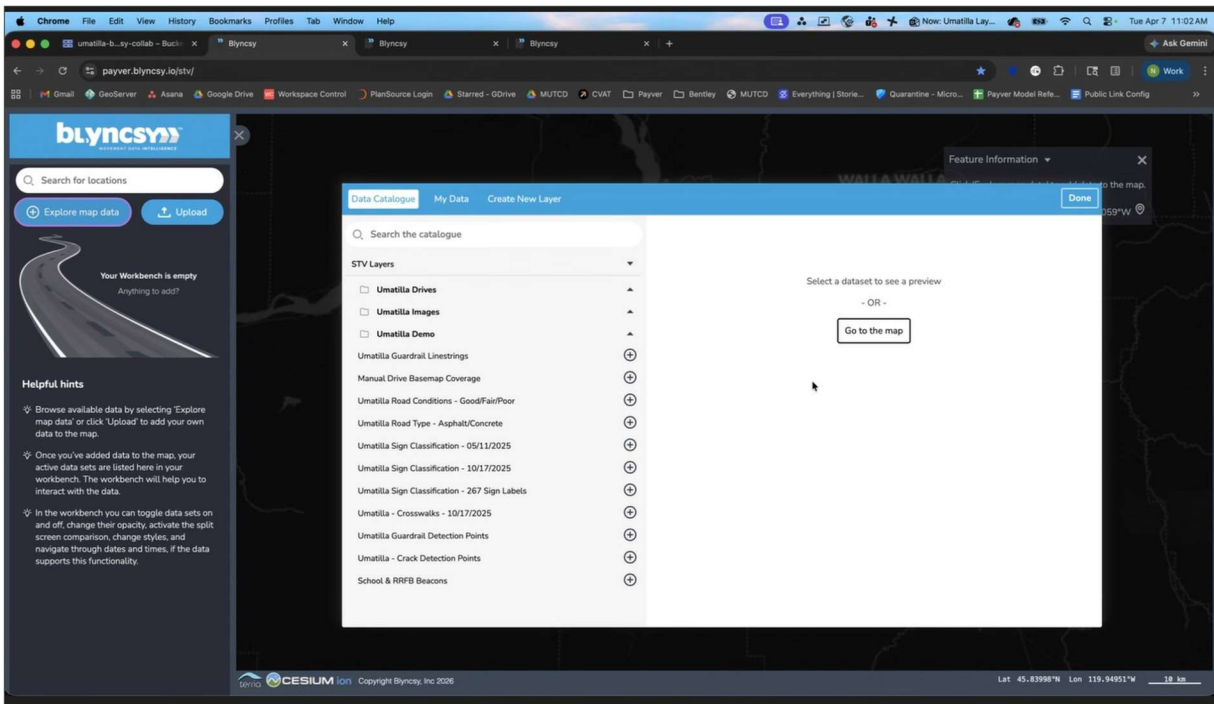


Figure 4: Blyncoy Data Catalogue

Figure 5 shows a zoomed in selection of signs and crosswalks and how the user can access images of a particular asset, in this case, a crosswalk. This is available first by selecting the Roadside Assets at the top of the screen, and then an individual crosswalk symbol on the map. NOTE: the image on the top right of the screen is for illustrative purposes, is not specific to the selected crosswalk and is not updated based on the selected item. The total number of signs and crosswalks in that box are updated however, based on the zoom level of the screen.

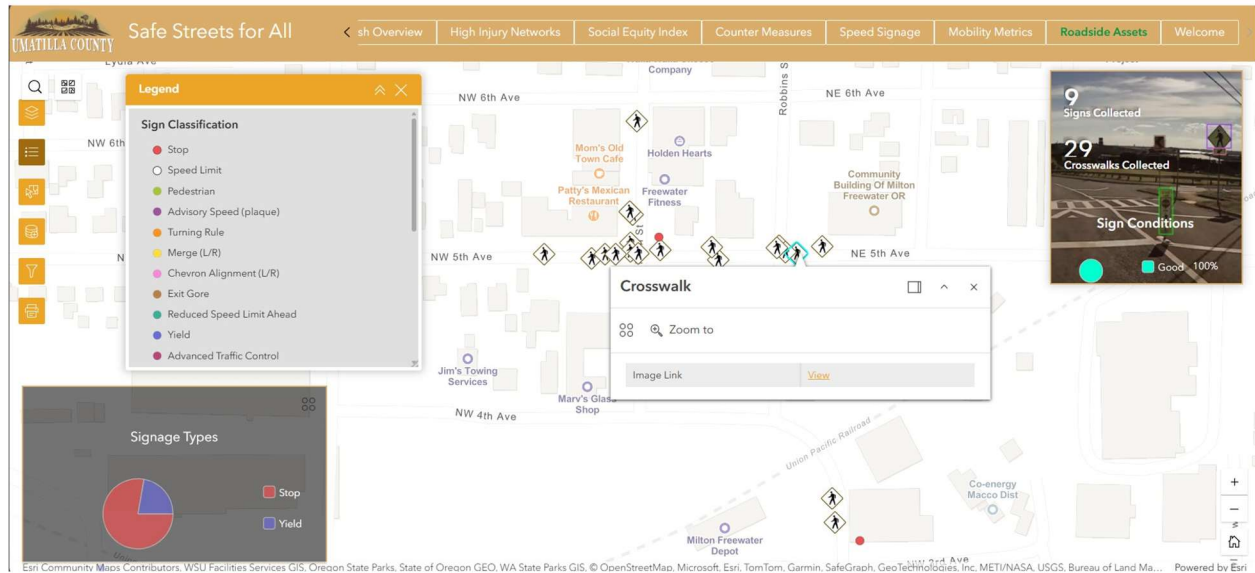


Figure 5: Umatilla County Roadside Assets zoomed in view

Figure 8 illustrates how the assets themselves appear in the GIS platform as provided by Blyncsy. These figures include photos of:

- Figure 6: Crosswalks
- Figure 7: Roadway sign (Stop Sign)Figure 8: School zone with RRFB¹

Figure 6 shows crosswalks being identified with Blyncsy.

Blyncsy Images

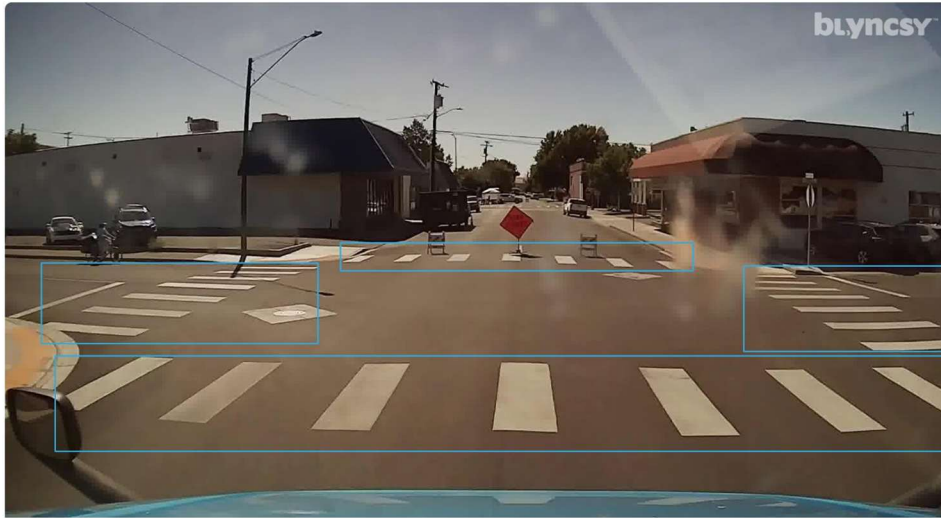


Figure 6: Blyncsy image identifying crosswalks

¹ At the time of this publication, many images were available in the Blyncsy platform, but have not yet been ingested into the Umatilla County GIS Platform. These appear like this figure with the Blyncsy dashboard.

Figure 7 shows a stop sign being identified by Blyncsy.

Blyncsy Images



Figure 7: Blyncsy image identifying stop sign

Figure 8 is showing feature information about a school site containing an RRFB. This image has not yet been ingested in the Umatilla County platform, but is available in the Blyncsy platform and will become part of the Umatilla County data set before this project is concluded. This image shows the selected sign location (white circle on the map) and the associated image.

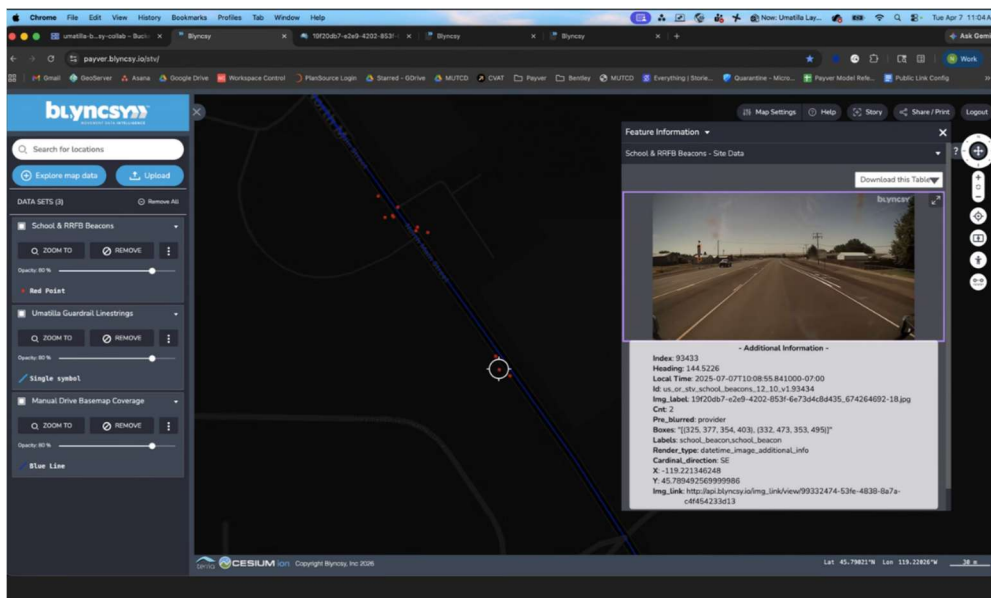


Figure 8: Blyncsy feature information for RRFB

The following figures, Figure 9 through Figure 11, illustrate some of the roadway types and conditions also included in the Blyncsy platform. These include the following examples:

- Figure 9: Gravel road
- Figure 10: Asphalt (as an example under the category of All road conditions)
- Figure 11: Road conditions can be sorted by type, and this figure illustrates a section of roadway with poor conditions (also sorted as red lines on the map)

Figure 9 is showing feature information for a selected section of gravel road.

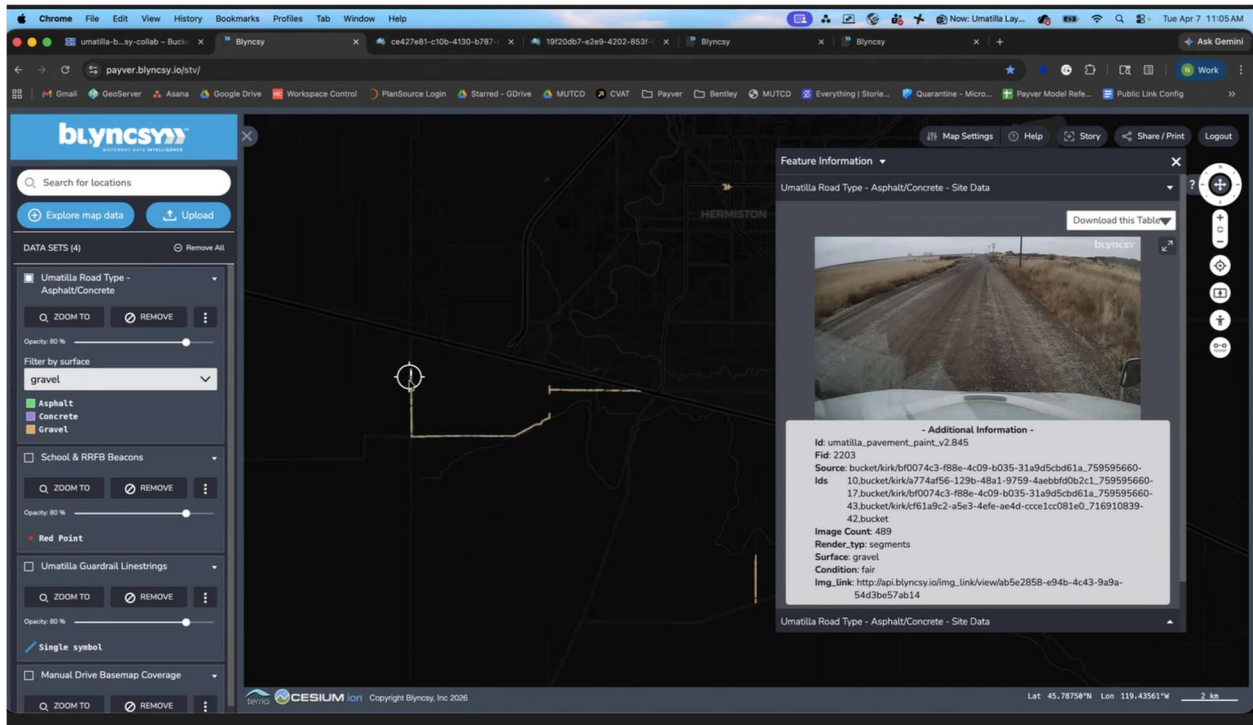


Figure 9: Blynscsy feature information for road type “gravel”

Figure 10 presents a wider view of the different types of roads in Umatilla County.

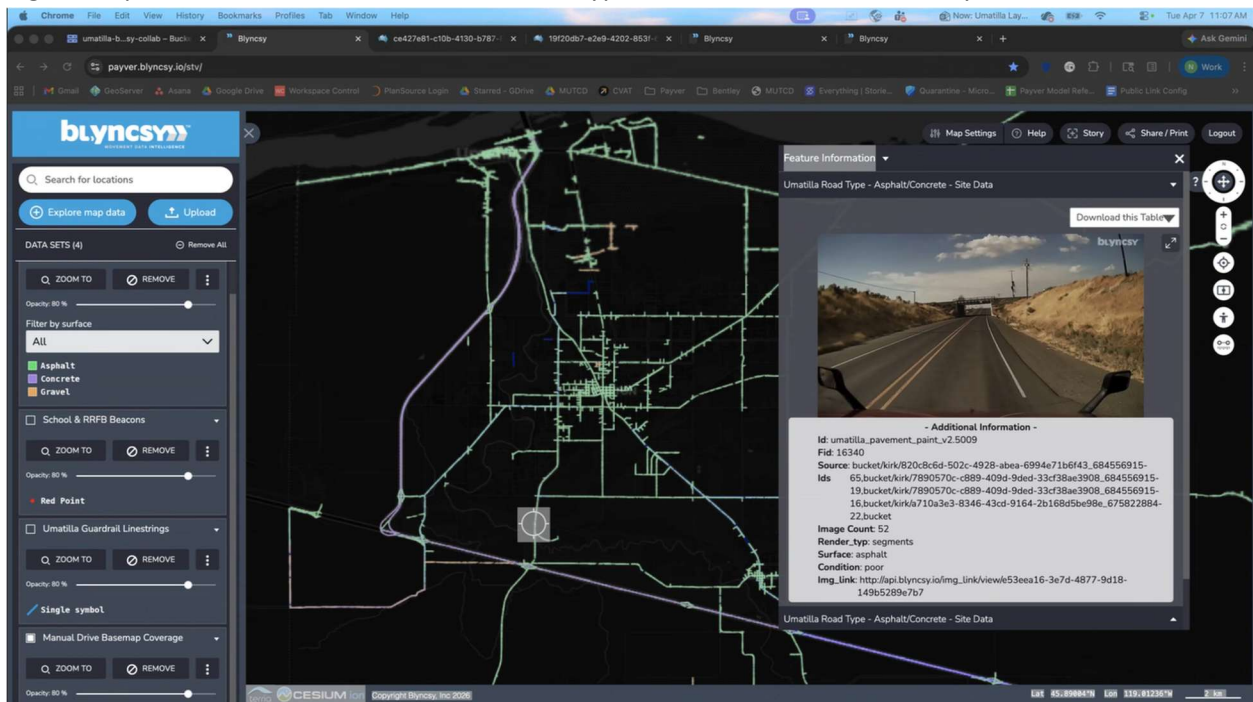


Figure 10: Blynscsy feature information for road type "All"

Figure 11 is highlighting road sections that were classified as poor².

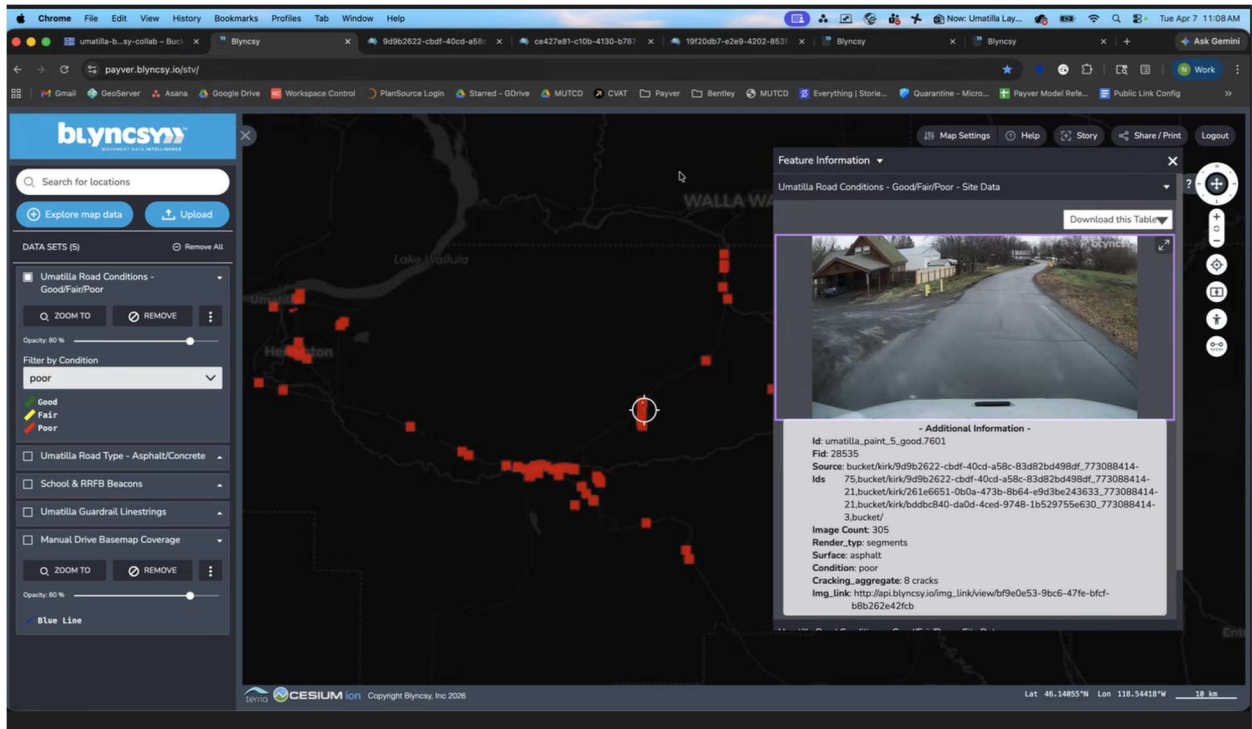


Figure 11: Blynscsy feature information for road conditions (filtered by Condition of Roadway)

² Roadway Condition is a feature that is still in refinement by Blynscsy. It is a somewhat arbitrary classification and is early in the development utilizing Artificial Intelligence. It is based roughly on the number of visible cracks that the AI “sees” and is not mapped to Umatilla specific classifications. It is provided for information only until it has been refined or better verified by Umatilla County.

Figure 12 is showing guardrail line-strings site data feature information. This illustrates both the location of guardrail, and the viewer can see the condition of the guardrail itself from the image. While the county has limited guardrail on county managed roadways, this is still a valuable asset to have access to, and many state corridors are still analyzed for safety conditions in the Safety Action Plan.

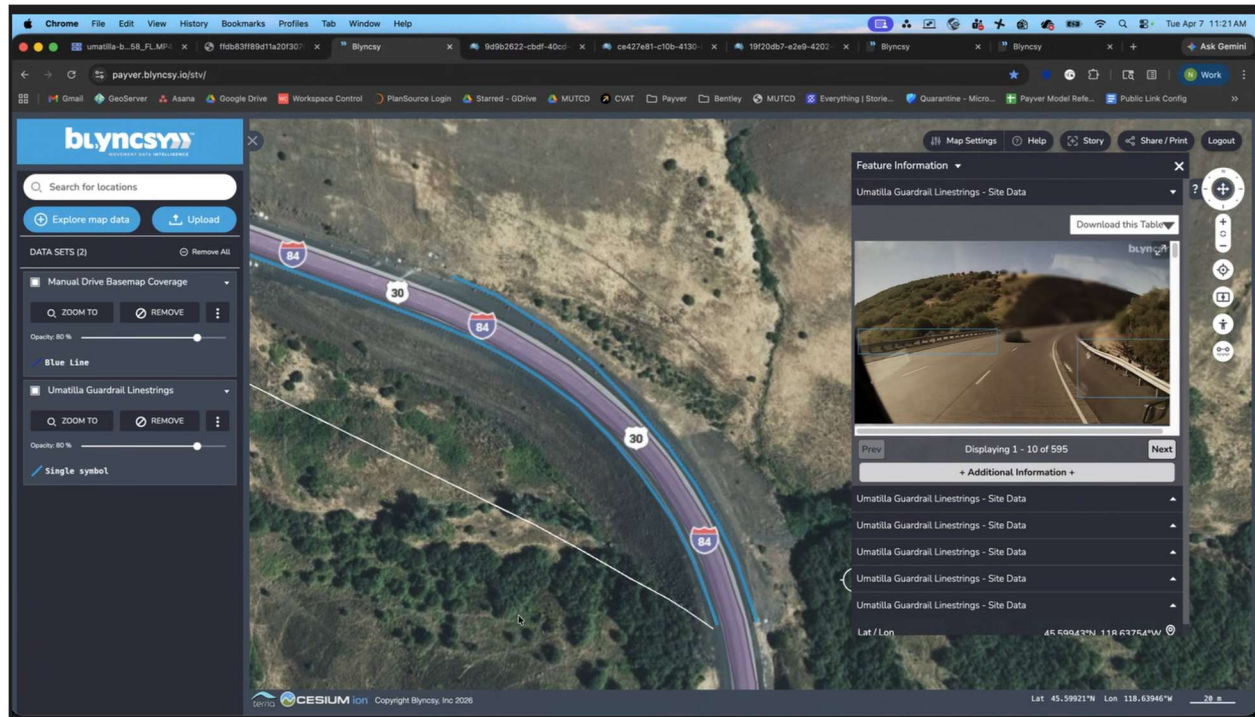


Figure 12: Blynscsy feature information for guardrail line-strings

Supplemental Data: Mobility Metrics

In addition to the roadway asset data, a separate set of third party data was provided by FlowLabs. This data includes vehicle location, speed, and other connected vehicle data sets. FlowLabs is a data aggregator and analysis vendor, who provides traffic signal timing and corridor optimization functionality, safety analysis and emerging capabilities such as origin and destination traffic planning tools. Their raw data is primarily provided by TomTom and they provide a constantly evolving set of analysis tools. Their data is very granular (three second breadcrumb data) of individual cars at an every increasingly high sample rate³, and provides much more data over a period of time than is practical or valuable for Umatilla County to store on-site. FlowLabs is normally procured as a licensed software-as-a-service product, so that they host the raw data and provide the analysis tools, while the agency only then normally downloads a much smaller subset of aggregated data for agency analysis and management. At the time of this publication, the STV team is still working with the county to determine the appropriate amount and format of the data to be stored by Umatilla County, to find the right “value” point.

Data was provided by FlowLabs for all of the Umatilla County roadways with data available for the time period of 7/1/2025 – 12/31/2025.

³ In many markets, FlowLabs claims to have well over 10% sample rates, and often into the “teens”. For more populous regions, this is a significant enough sample rate to be considered statistically relevant for many traffic analysis scenarios. For more rural areas, this is still a relatively low amount of actual data counts, however, it is increasing all the time with more and more connected vehicles coming on the market.

The data provided included:

- Roadway Length
- Volume
- Roadway Direction
- Probe count
- Travel Time
- Buffer Index
- Planning Index
- Travel Time Index
- Free Flow Travel Time
- Speed Limit Travel Time
- Delay
- VHD
- Delay per Mile
- Free-Flow Travel Time
- Average Speed
- Speed Limit
- Speed Limit Violations
- Severe Speed Limit Violations
- Speed Differential
- Speed Distribution Metrics

FlowLabs Data Dictionary is provided as an Appendix to this Addendum and Final Report, which provides a description of all of the individual data components listed above, along with many other data sets that are available from FlowLabs in other modules which were not procured for this pilot exercise.

Figure 13 has information on how to filter the Mobility Metrics data and the analysis tools developed by STV in partnership with FlowLabs.

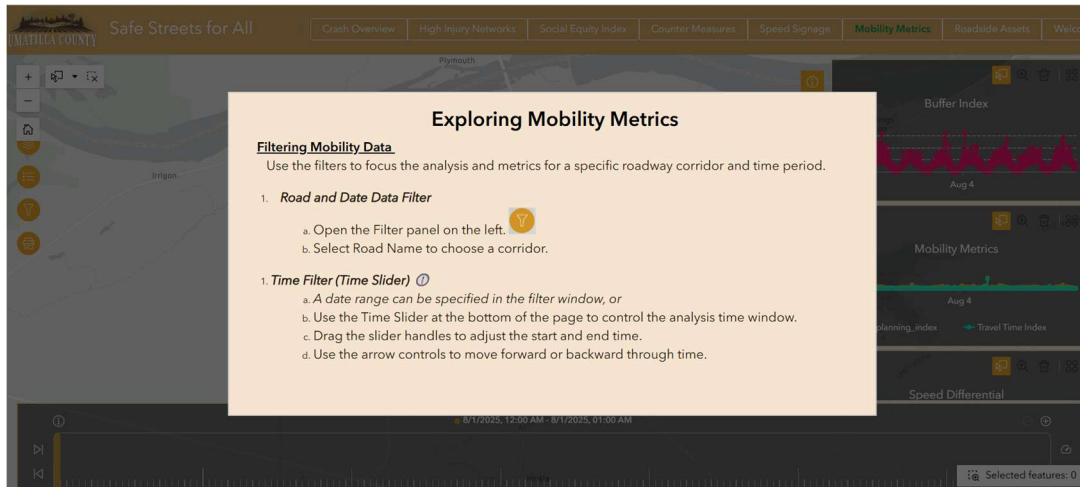


Figure 13: Exploring Mobility Metrics

Figure 14 introduces the data dictionary to help navigate the different terms and definitions, with a preliminary focus on Buffer Index and Planning Time Index.

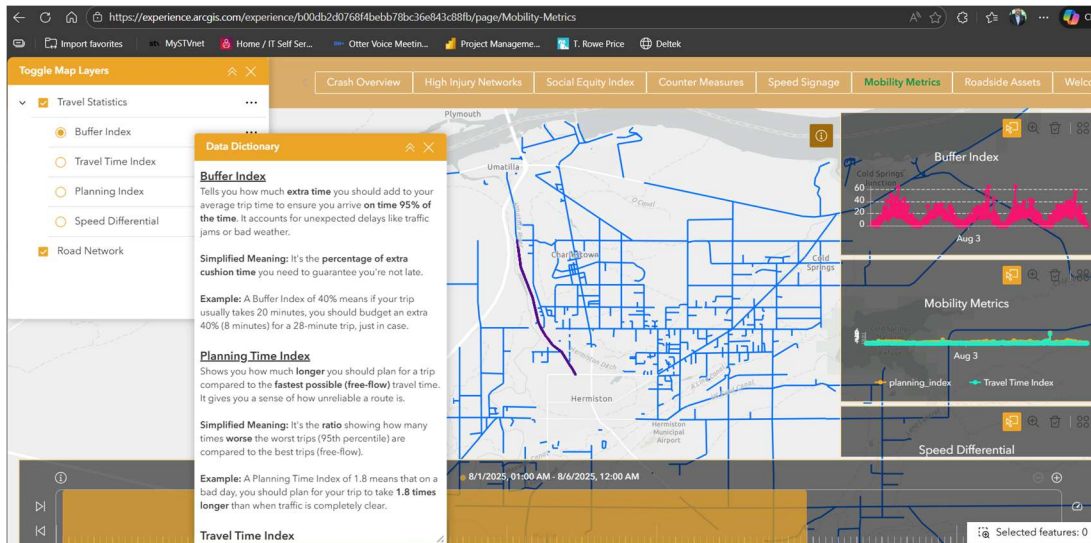


Figure 14: Mobility Metrics Data Dictionary and Analysis Tools (Part 1)

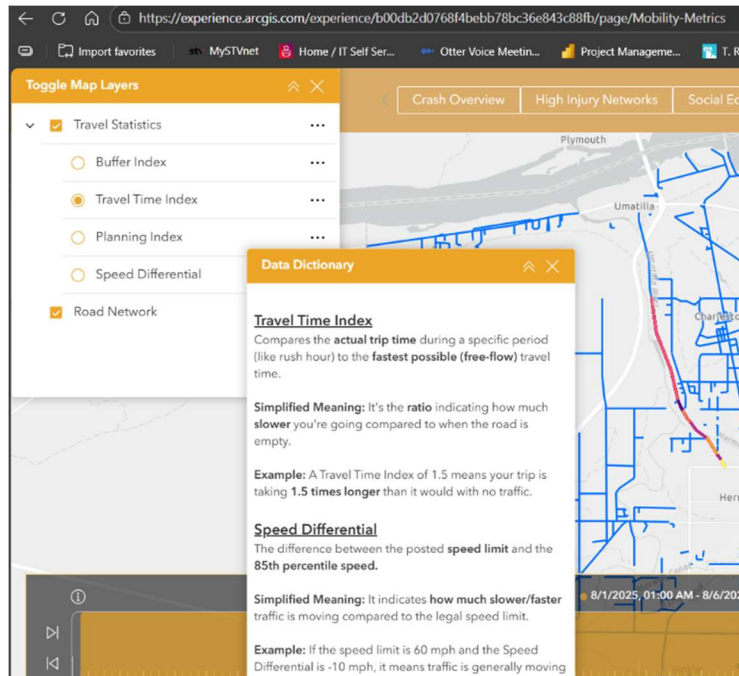


Figure 15: Mobility Metrics Data Dictionary and Analysis Tools (Part 2)

Figure 15 is showing the rest of the data dictionary, with definitions for Travel Time Index and Speed Differential.

Figure 16 and Figure 17 are provided simply to illustrate that the mobility metrics change temporally, as the user can slide the time and date bar at the bottom of the map to see the map segments and the mobility metrics themselves on the side of the map change with the granular roadway conditions. From a Safety Analysis standpoint, this will allow the planners at Umatilla County to look not just at day to day conditions, but to be able to compare a “normal” day to one with abnormal conditions, whether it be event related (such as the Pendleton Round-up or an eclipse event), weather related (such as snow or ice conditions,

forest fires, flooding, etc.) or if there is a major incident or crash. This will also support immediate analysis of before and after conditions if the county makes a roadway safety improvement, as with any of the recommended counter measures included in the Action Plan.

This last point is significant. Historically with Safety Analysis, agencies are using long term and **lagging indicator** data such as 3-5 years of crash data to determine not just where counter measures may be needed, but to determine if the improvements implemented had the desired outcome or not. This lagging indicator data is the crash data used throughout the Safety Action Plan study and includes fatalities and Serious Injury accidents as the primary metrics on whether conditions have improved from a Safety perspective. Using Connected Vehicle data and “near real time” highly granular mobility metrics data, an agency can implement a counter measure and see fairly immediately if driver behavior is changing as anticipated by the improvement. This **leading indicator** data can help an agency determine in a much shorter time frame which improvements are having the biggest impact, long before needing to wait to see if serious accidents or fatalities are continuing to be located at problem intersections or corridors. This in turn can influence much better data driven investments to get the most positive impact from scarce financial resources.

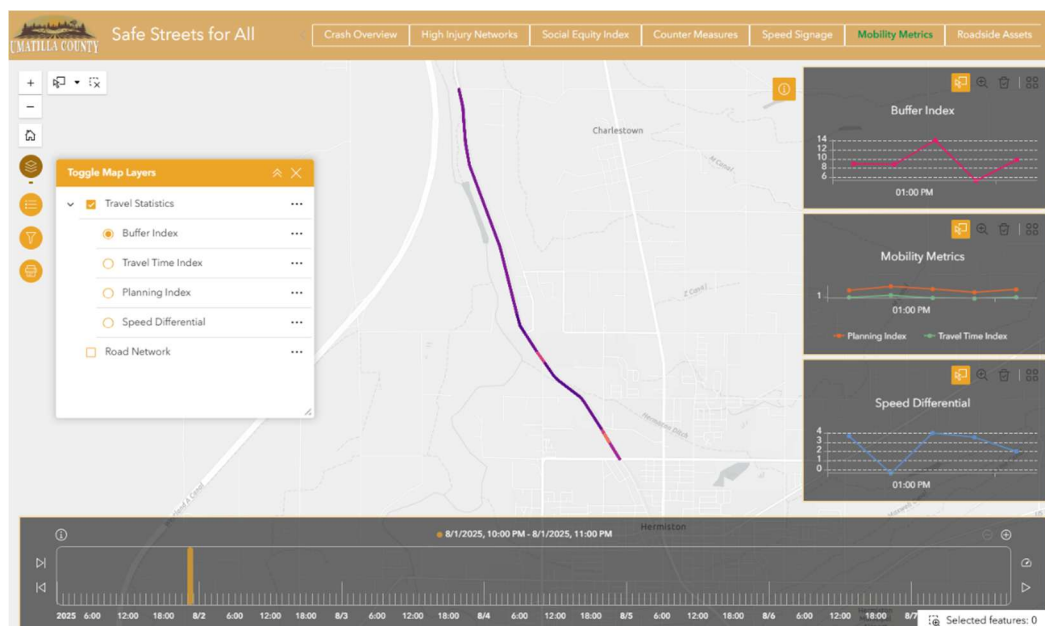


Figure 16: Temporal changes in Mobility Metrics (example #1)

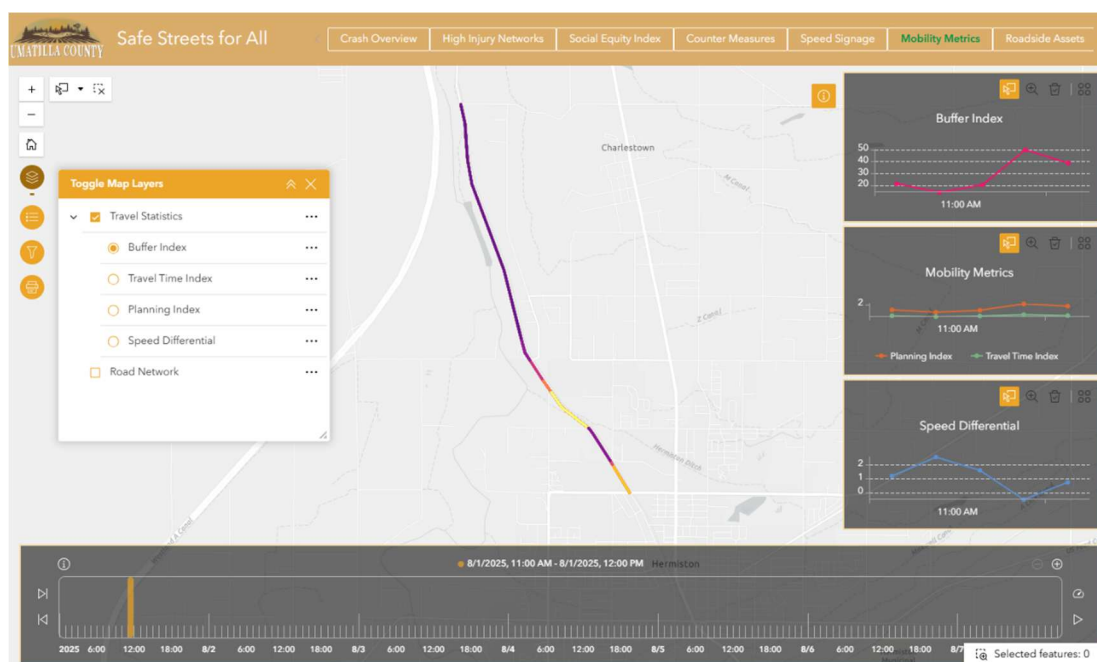


Figure 17: Temporal changes in Mobility Metrics (example #2)

Speed Sign Example Use Case

One example of how this granular and near real-time data can be used to demonstrate driver impact changes from a traffic counter measure was the use of Speed Signs. Umatilla County's Sheriff's Department owns one speed sign, which can be set up temporarily along a roadway to show drivers the local speed limit vs. their current driving speed. This use case was utilized for this project because it is a low-cost counter measure, utilizing the agency's own resources, is easy to set up and can be moved around from location to location. Umatilla County worked with the Sheriff's office to identify some known corridors of concern with speed limits. These are often located in places like school zones or rural to urban transition zones, where speeds may drop from 55mph down to 45mph or 20mph given the different roadway and land use conditions.

Figure 19 below illustrates one example of a speed zone sign implementation on Townsend Road, and the driver behavior changes from *before* to *during* to *after* the installation of the speed sign. The findings from the speed zone use case varied widely across the region for the different locations, however they demonstrated the value of the near real-time data in analyzing these temporary installations. This use case also identified that other performance metrics may be more valuable in analyzing the effectiveness of the application. For example, with the limited sample size and the relatively short duration of the study, there wasn't a lot of individual vehicle data collected, and it is likely rarely the case that mean or 85th percentile traffic speeds would change drastically. However, if the analysis looked at more extreme cases, such as mid (5-10 miles over the speed limit) and high-speed violators⁴ (10+ miles over the speed limit), and then seeing if these more extreme violators changed their driving behavior during the sign installation, as well as what happened after the sign had been moved, the results may have been far more indicative of where installing permanent speed signs (for example) would achieve a better cost to benefit ratio.



Figure 18: Example Temporary & Mobile Speed Zone Sign

⁴ Note: these definitions are used as example only and are not based on either industry standards or on Umatilla County Sheriff definitions.

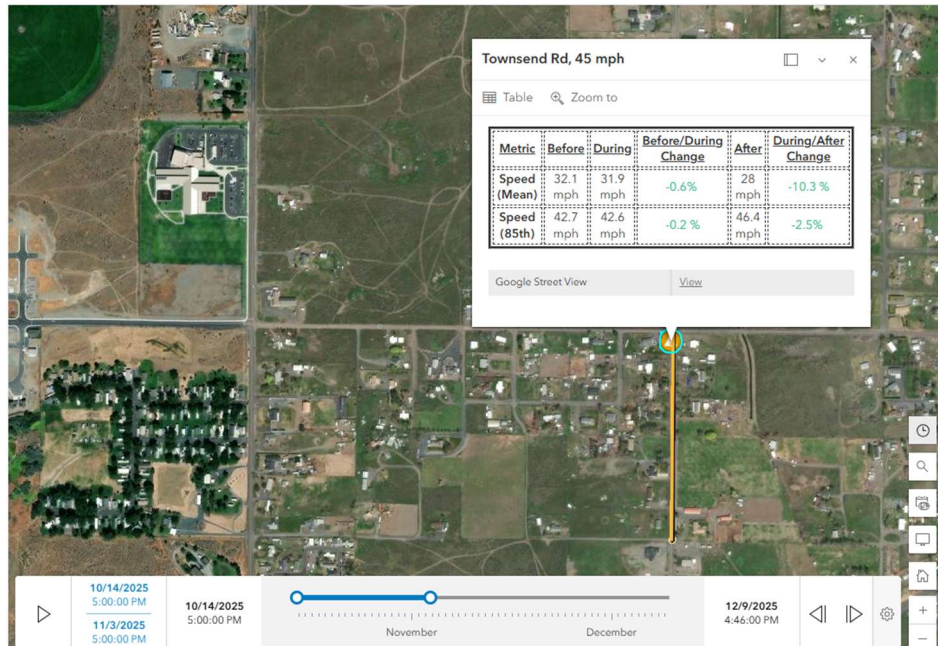


Figure 19: Speed Zone Mobility Metric Use Case

Figure 20 indicates the six(6) locations of Speed Zone pilot demonstration. In each case, the sign was set up on areas of probable high speed zone violation corridors. The intent of the pilot demonstration, was to show that data could be collected in terms of vehicle speeds before a temporary sign was set up, during the demonstration week and after the demonstration week was over. This data could then be analyzed to see if in fact, driver behavior during that time period and how it was later impacted when the sign was removed. While it was not a key objective of the pilot to determine if these were the appropriate locations for permanent speed radar sign installations, this example data could be used in the future to determine where permanent signs or other traffic treatments should be considered.

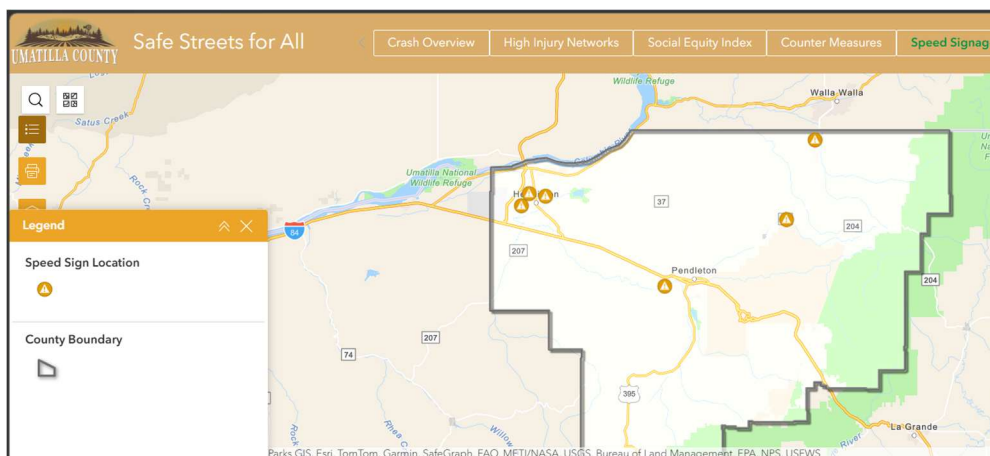


Figure 20: Speed Zone Pilot Locations

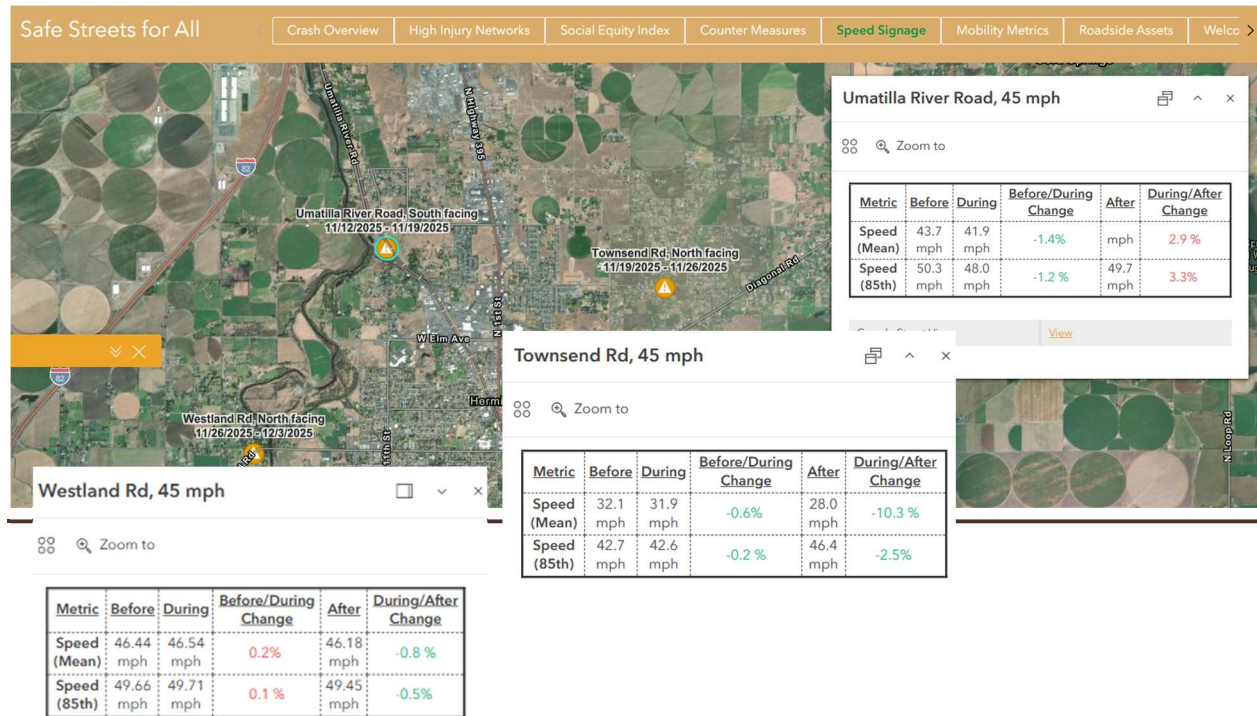


Figure 21: Before and After Analysis of Speed Zone Pilot: NW grouping

As illustrated in Figure 21, for each speed zone pilot location the following information is shown on either the GIS Map or in a pop-up results table:

GIS Map

- Location Name
- Direction that the sign is facing
- Date range of demonstration period

Pop-up Results Table

- Location name and legal speed in that zone
- Speed (Mean)
- Speed (85th Percentile)
- Actual Speeds before the pilot period (mean & 85%)
- Actual Speeds during the pilot period (mean & 85%)
- Actual Speeds after the pilot period (mean & 85%)
- Difference in Speed (in percentage) before and during the pilot
- Difference in Speed (in percentage) during and after the pilot

The expectation would be that the speeds would show a reduction (illustrated as a Negative (-) and green font) during the pilot period, and would “bounce back” to a speed increase (illustrated as a Positive (+) and red font) after the temporary sign was removed). An overall speed reduction in any case, is considered a positive outcome of the use of the speed signs.

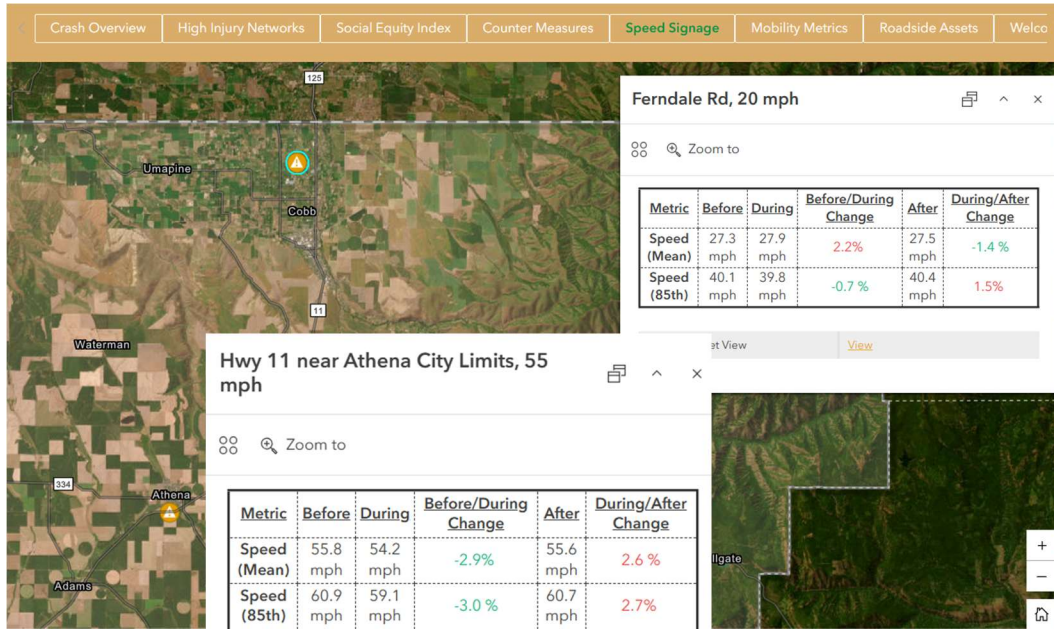


Figure 22: Before and After Analysis of Speed Zone Pilot: NE Grouping

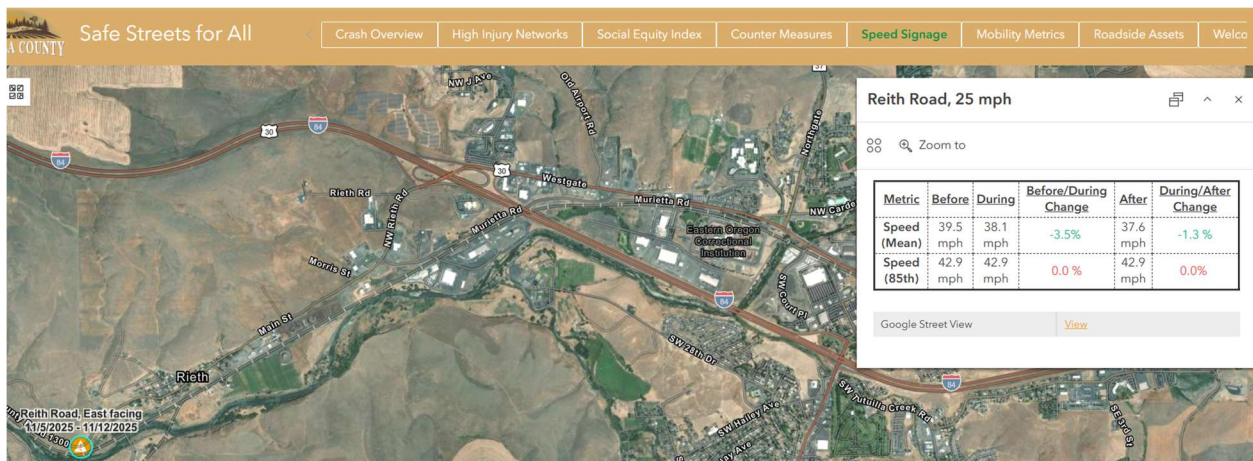


Figure 23: Before and After Analysis of Speed Zone Pilot: Reith Rd

Ferndale Rd	Speed (zone)		Date Range		
	20 mph		10/22/2025	10/29/2025	
	Speed Before	Speed During	Difference	Speed After	Difference
Speed (Mean)	27.3	27.9	2.20%	27.5	-1.40%
Speed (85% Percentile)	40.1	39.8	-0.70%	40.4	1.50%

Hwy 11 (Athena)	Speed (zone)		Date Range		
	55 mph		10/29/2025	11/5/2025	
	Speed Before	Speed During	Difference	Speed After	Difference
Speed (Mean)	55.8	54.2	-2.90%	55.6	2.60%
Speed (85% Percentile)	60.9	59.1	-3.00%	60.7	2.70%

Reith Rd	Speed (zone)		Date Range		
	25 mph		11/5/2025	11/12/2025	
	Speed Before	Speed During	Difference	Speed After	Difference
Speed (Mean)	39.5	38.1	-3.50%	37.6	-1.30%
Speed (85% Percentile)	42.9	42.9	0.00%	42.9	0.00%

Umatilla River Rd	Speed (Zone)		Date Range		
	45 mph		11/12/2025	11/19/2025	
	Speed Before	Speed During	Difference	Speed After	Difference
Speed (Mean)	43.7	41.9	-1.40%	43.2	2.90%
Speed (85% Percentile)	50.3	48.0	-1.20%	49.7	3.30%

Towsend Rd	Speed (zone)		Date Range		
	45 mph		11/19/2025	11/26/2025	
	Speed Before	Speed During	Difference	Speed After	Difference
Speed (Mean)	32.1	31.9	-0.60%	28.0	-10.30%
Speed (85% Percentile)	42.7	42.6	-0.20%	46.4	-2.50%

Westland Rd	Speed (zone)		Date Range		
	45 mph		11/26/2025	12/3/2025	
	Speed Before	Speed During	Difference	Speed After	Difference
Speed (Mean)	46.4	46.5	0.2%	46.2	-0.8%
Speed (85% Percentile)	49.7	49.7	0.1%	49.4	-0.5%

Figure 24: Results from Speed Zone Pilot Demonstration

Pilot Demonstration Assessment

As discussed above, the expectation would be that the speeds would show a reduction (illustrated as a Negative (-) and green font) during the pilot period, and would “bounce back” to a speed increase (illustrated as a Positive (+) and red font) after the temporary sign was removed. An overall speed reduction in any case, is considered a positive outcome of the use of the speed signs. Overall, small reductions in speed were identified in the majority of the corridors, however the changes during and after the pilot demonstration did not always reflect the expectations.

Also as discussed above, the primary objective of the demonstration was to illustrate that near real-time data could be gathered to show conditions before and after a traffic intervention was introduced and that these “leading indicator” data sets could potentially be used to determine if driver behavior was being impacted by the intervention and whether it was being impacted in the manner expected or desired.

Discussion on the findings and recommendations associated with this demonstration are included at the end of this document.

Counter Measure Inclusion in GIS Maps and the Value of Overlaying Data

Figure 25 illustrates the additional value of providing a dynamic, interactive compilation of data in one resource. This screen shot was taken from the Umatilla County GIS system, with multiple data sets turned on at the same time. This image shows roadway assets, a highlighted Counter Measure zone which was described in detail in the Safety Action Plan (in this case Umatilla River Road), the crash analysis detail of that particular segment, the speed zone analysis of a stretch of roadway entering (or

leaving) the same corridor, and the recommended counter measures described in the Safety Action Plan for that corridor.

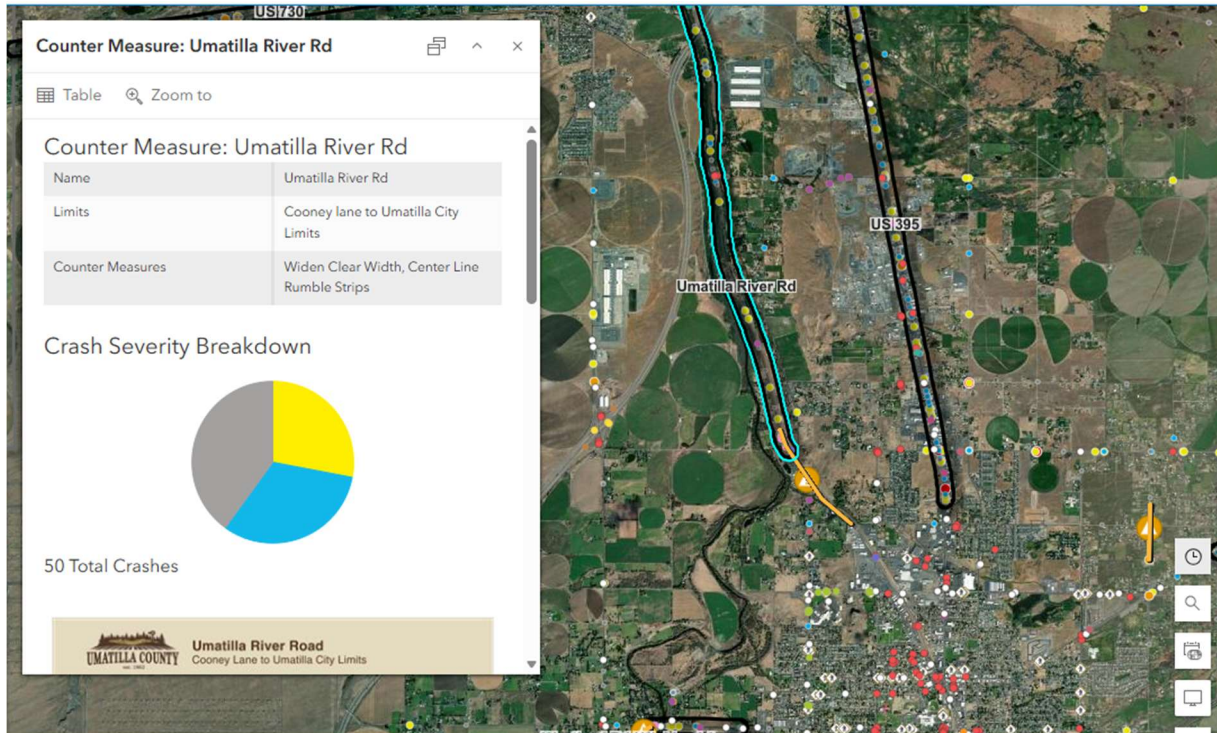


Figure 25: Overlay of Multiple Safety Analysis sets, Assets and Third-Party Data Sets

In the Safety Action Plan, each of the corridors of recommended Counter Measures included a two page “cut sheet” summarizing the recommendations. These cut sheets summarized the corridor problems to be addressed, the recommended treatments, a cost analysis and details of the counter measures themselves using both images and text. While these kinds of Counter Measure cut sheets are common in virtually all Safety Action Plans, they are rarely included in any sort of interactive interface and particularly the county’s own GIS platform. Figure 25 illustrates the beginning of the Corridor cutsheet in the scrollable Counter Measure call out box, which Figure 26 and Figure 27 show the details included in the cutsheets themselves. Finally, Figure 28 illustrates the Speed Zone analysis of a segment of roadway leaving the Umatilla Roadway Counter Measure corridor.

All of this data is now available directly to the user when looking at the Safe Streets for All data set of the Umatilla County GIS Platform.

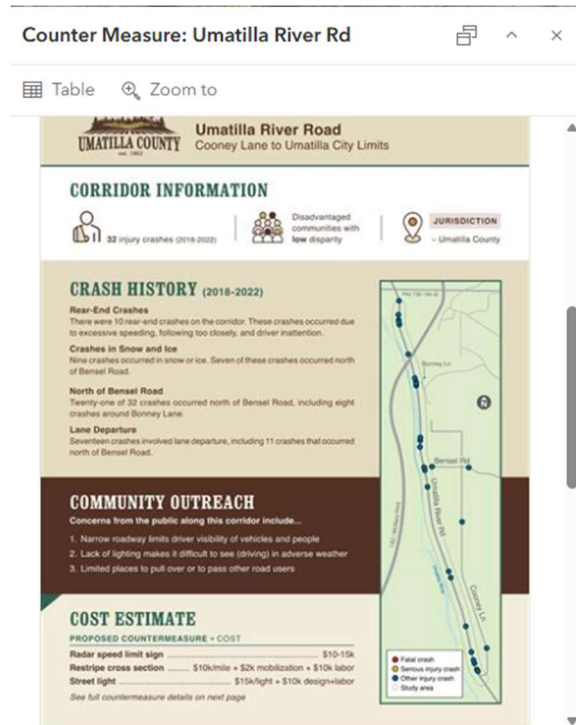


Figure 26: Counter Measure Example Included in the GIS System (pg. 1)



Figure 27: Counter Measure Example Included in the GIS System (pg. 2)

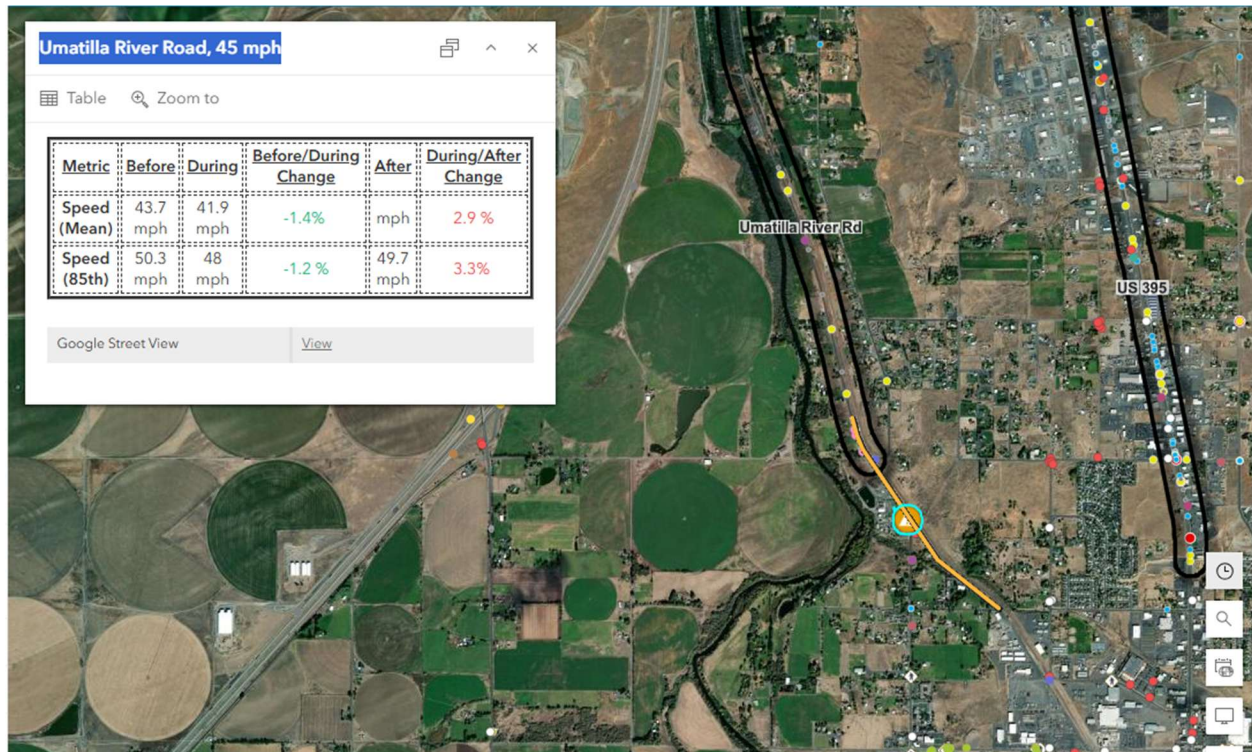


Figure 28: Speed Sign Analysis near Umatilla Road Safety Corridor

Key Findings and Recommendations

The procurement and piloting of third-party data provided several key findings and recommendations for Umatilla County to consider in future projects and phases of work.

Asset Management Data

- 1) **Relatively Easy to Use:** The Blynscy Asset Management data is relatively straight forward to work with. It provides spot location data about a given asset and easy ability to view the image associated with the asset.
- 2) **“Off the Shelf” Data not Comprehensive:** Blynscy utilizes data from existing partnerships with fleets and vehicles that are equipped with cameras. This data is purported to be fairly comprehensive in more densely populated areas. However, in more rural areas, this data needs to be augmented by collecting significant amounts of video data, including by the agency procuring the information.
- 3) **New Data Collection Takes Time:** The process for acquiring data when it is not previously/readily available within the Blynscy system comes in two steps. The first step includes Blynscy sending data collection equipment and instructions to the partner agency and the

agency driving their own routes and collecting data, which again, was relatively straightforward. The second step was for Blynscy to ingest, scan, analyze and process the data, and then make it available to Umatilla County. This step happens entirely at Blynscy and took a much longer period of time than anticipated.

- 4) **Condition Data Still a Work in Progress:** Sign and roadway condition analysis is provided by Artificial Intelligence “scanning” the image. This is still in the earlier phases of development and is provided in Blynscy defined terms, i.e., it is not mapped at all to how Umatilla County would classify asset status, particularly with the roadway conditions.
- 5) **Umatilla County May Want to Improve Roadway Condition Data:** Blynscy indicated the ability to work with Umatilla County to refine this categorization of assets, to make the results more directly relevant to the county. This could involve meeting to identify how Umatilla categorizes pavement and sign conditions into categories such as Good, Fair and Poor. Blynscy may then be able to modify how their AI solutions work to produce consistent results, in a manner that is more readily usable by partner agencies.

Mobility Metric Data

- 1) **Mobility Data is Significant and Vendor Platform Is Useful for Analysis:** The TomTom data provided by the FlowLabs platform is extensive, rich and very granular. The FlowLabs platform provides the analytics tools to analyze the data and explore a number of metrics and performance criteria, and should be utilized by the agency while subscribing to the platform.
- 2) **Data Storage Should be Targeted:** The data should then be downloaded and ingested by the agency once the actual desired, aggregated data has been determined to be of value to the agency.
- 3) **New Mobility Data is Not Easy to Use:** Because of the complexity of the data provided by TomTom and FlowLabs (see attached Data Dictionary), this data is much more challenging (and less intuitive) for an agency to take full advantage of.
- 4) **More Time and Specific Strategy is Required to Maximize Mobility Data Return on Investment:** Based on these top three findings, a longer duration of subscription services would be required (likely a minimum of a one-year subscription) for the county to get a better return on investment. It is also recommended that Umatilla County should go through product training, gather all product documentation materials (and data definitions), perform their own analysis, and have access to FlowLabs technical resources throughout the subscription period. Only then could the county determine if subsequent data purchases and/or platform subscriptions are of on-going value to the agency.
- 5) **This Strategic Approach Will Require “Trial and Error” Incremental Process:** Access to this rich, granular and near real-time data allows for traffic safety (and operational) analysis that has not been available before. Traditional methods for safety analysis can now be augmented with this third-party data, and shorter durations between project implementation and before/after

analysis can now be achieved. **However**, since this data is so newly available and very little industry research has been completed, there is a “trail and error” process to determine which data sets and which analysis techniques provide the most value.

- 6) **Lessons Learned from Speed Zone Demonstration:** The Speed Zone pilot demonstration discussed in this Addendum is an example representing all of the above findings and recommendations. While the analysis did demonstrate that third party data can be utilized to measure immediate results after a traffic intervention (the speed zone sign) was introduced, the specific data and analysis were likely not the most effective when analyzing project success. In this case, it may have been more compelling to have focused on excessive speeders as opposed to mean and 85% travel speeds. If the total counts and percentage of excessive speeders had been more significantly reduced with the introduction of the temporary speed signs, then the findings may have been more useful in guiding where permanent speed radar signs would prove most effective and beneficial.
- 7) **ARTIS Program and Value of Combined Data Platform:** The aggregation of all of the historic safety data, the SS4A project cut sheets and implementation recommendations, and the third-party data into the same GIS platform shows significant promise as an on-going platform for the continued investment and expansion of the ARTIS system. This also forms the beginning of a performance monitoring system, to be able to analyze all future project investments and determine if the desired outcomes are being met in the short and long term.

Conclusion

The supplemental data effort significantly enhances Umatilla County’s ability to make fast, informed, and data-driven safety decisions. By integrating Blynscys’ roadway asset imagery with FlowLabs’ connected-vehicle mobility metrics, the County now has a clearer understanding of both infrastructure conditions and real-time driver behavior. As the document notes, Blynscys provides “spot location data about a given asset and easy ability to view the image associated with the asset,” while FlowLabs supplies “highly granular mobility metrics data” that reveal how speeds and travel patterns change before and after safety interventions.

The pilot speed-sign demonstrations show that even small behavioral shifts can be detected quickly, illustrating the value of using connected-vehicle data as a leading indicator rather than waiting years for crash trends to emerge. While some datasets—such as AI-generated roadway condition ratings—will require refinement, the combined system now embedded in the County’s GIS platform offers a powerful, unified view of crashes, assets, mobility performance, and recommended countermeasures.

Overall, this Addendum confirms that third-party data can meaningfully strengthen Umatilla County’s safety planning, support more targeted investments, and accelerate progress toward reducing fatal and serious-injury crashes.