



The U.S. DOT Data for Automated Vehicle Integration (DAVI)

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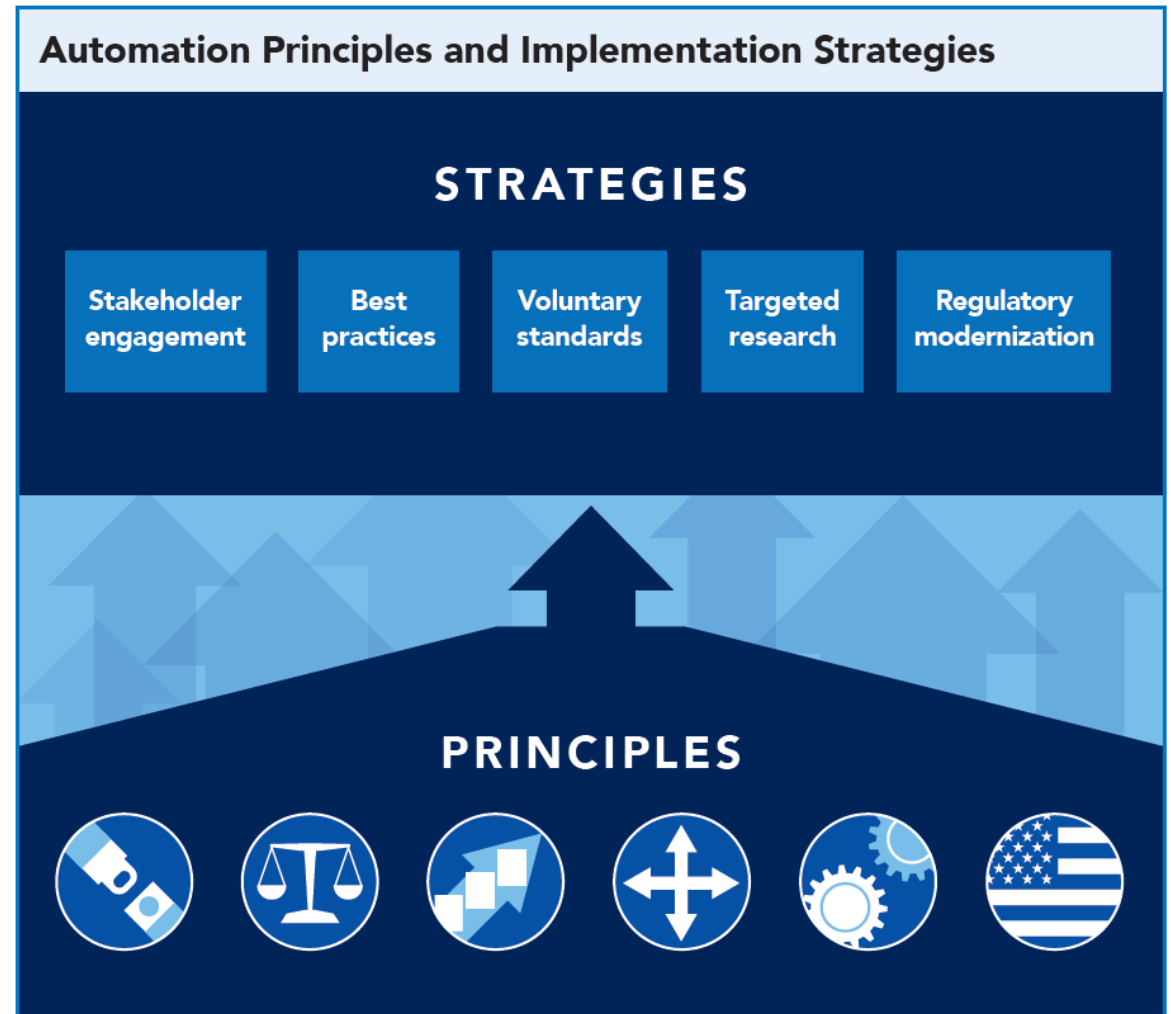


Purpose of Today's Session

- Provide an update on lessons learned through U.S. DOT's *Data for Automated Vehicle Integration* (DAVI) initiative, including:
 - Priorities for data exchange
 - Federal and non-federal roles
 - Progress on increasing access to work zone data

AV 3.0 & Data

- Provides new multimodal safety guidance, clarifies policy and roles, and outlines how to work with U.S. DOT as automation technology evolves
- Calls on stakeholders to identify opportunities for voluntary data exchanges
- Features efforts aimed at enabling voluntary data exchanges

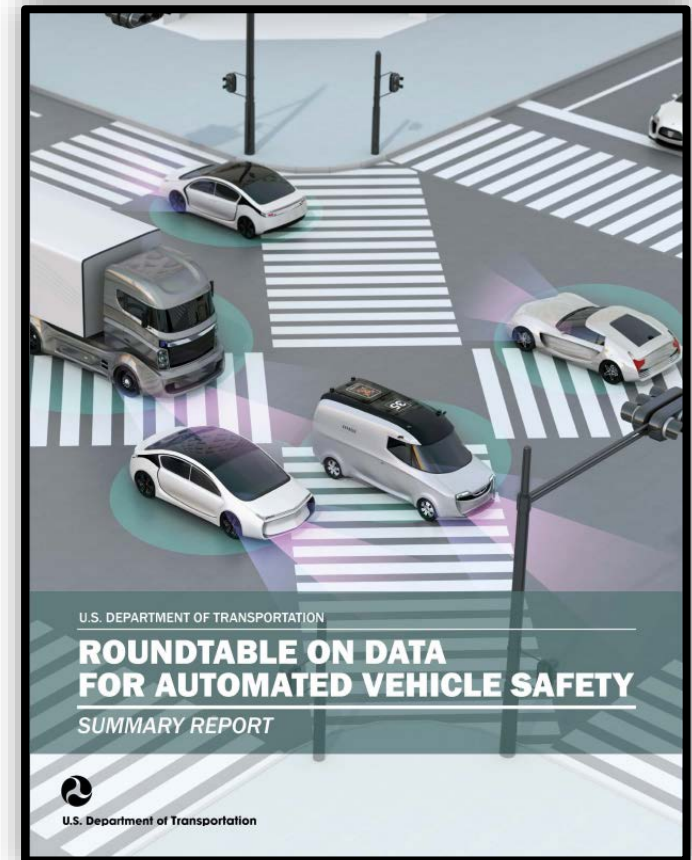


1. Prioritize safety
2. Remain technology neutral
3. Modernize regulations
4. Encourage consistent regulatory and operational environment
5. Prepare proactively for automation
6. Protect and enhance the freedoms enjoyed by Americans

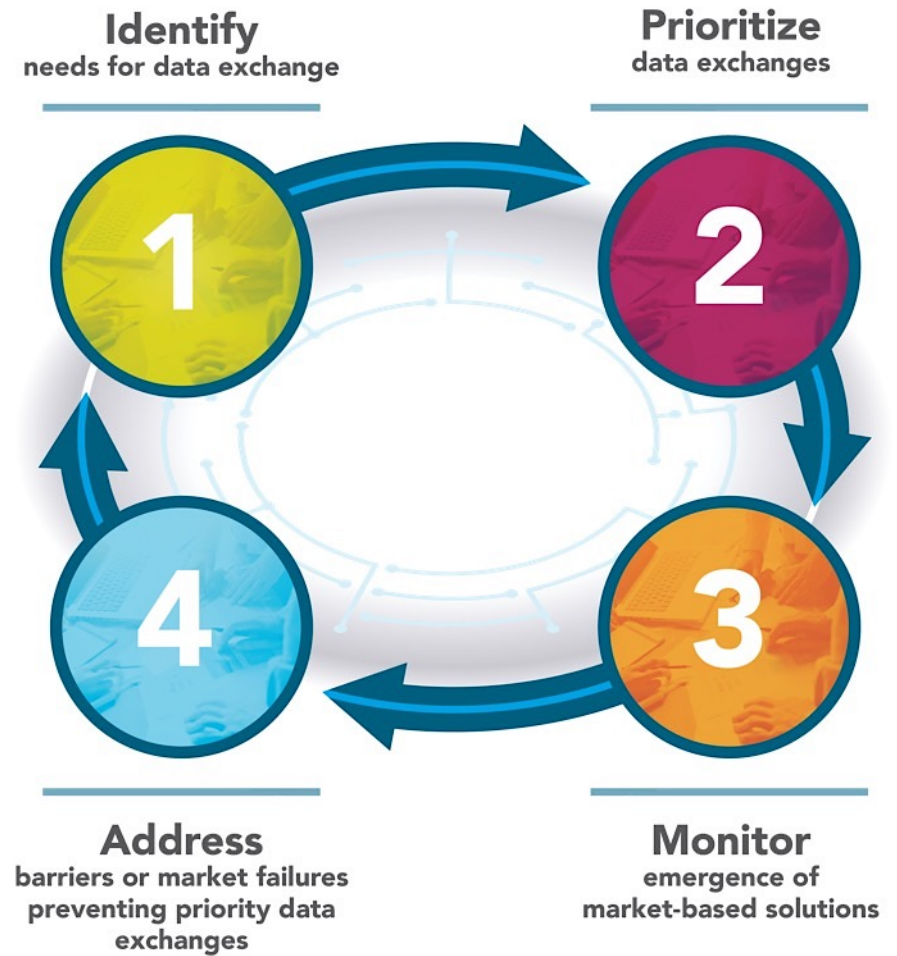
<https://www.transportation.gov/av/data>



Roundtable on Data for AV Safety



U.S. DOT's Data for AV Integration (DAVI) Initiative



U.S. DOT's Guiding Principles on Data for Automated Vehicle Safety



1. Promote proactive, data-driven safety, cybersecurity, and privacy-protection practices.



2. Act as a facilitator to inspire and enable voluntary data exchanges.



3. Start small to demonstrate value and scale what works toward a bigger vision.



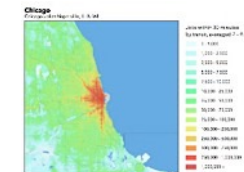
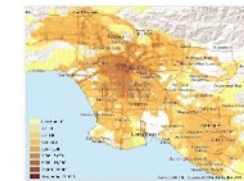
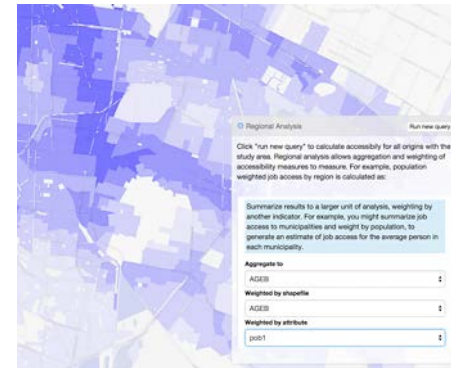
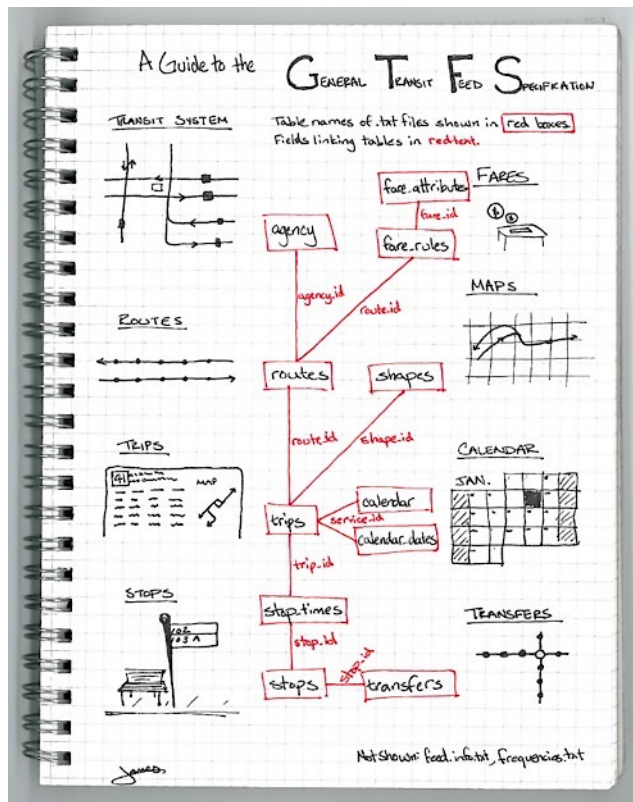
4. Coordinate across modes to reduce costs, reduce industry burden, and accelerate action.



What can we learn from the open transit data story?

A simple specification...

...with a wide range of uses



Line	Station	Next	Headway	Line	Station	Next	Headway
Red	Loop Station	12:30	3 min	Red	Loop Station	7:30	3 min
Blue	Loop Station	9:30	6 min	Blue	Loop Station	1:30	3 min
Green	Loop Station	3:30	3 min	Green	Loop Station	5:30	3 min
Orange	Loop Station	8:30	3 min	Orange	Loop Station	10:30	3 min
Purple	Loop Station	11:30	3 min	Purple	Loop Station	1:30	3 min

A Federated Front Door to Transit Data

- Now, **basic transit data** is easy to **find and use nationwide**.
- Transit agencies and their users **continue to collaborate** on the specifications.

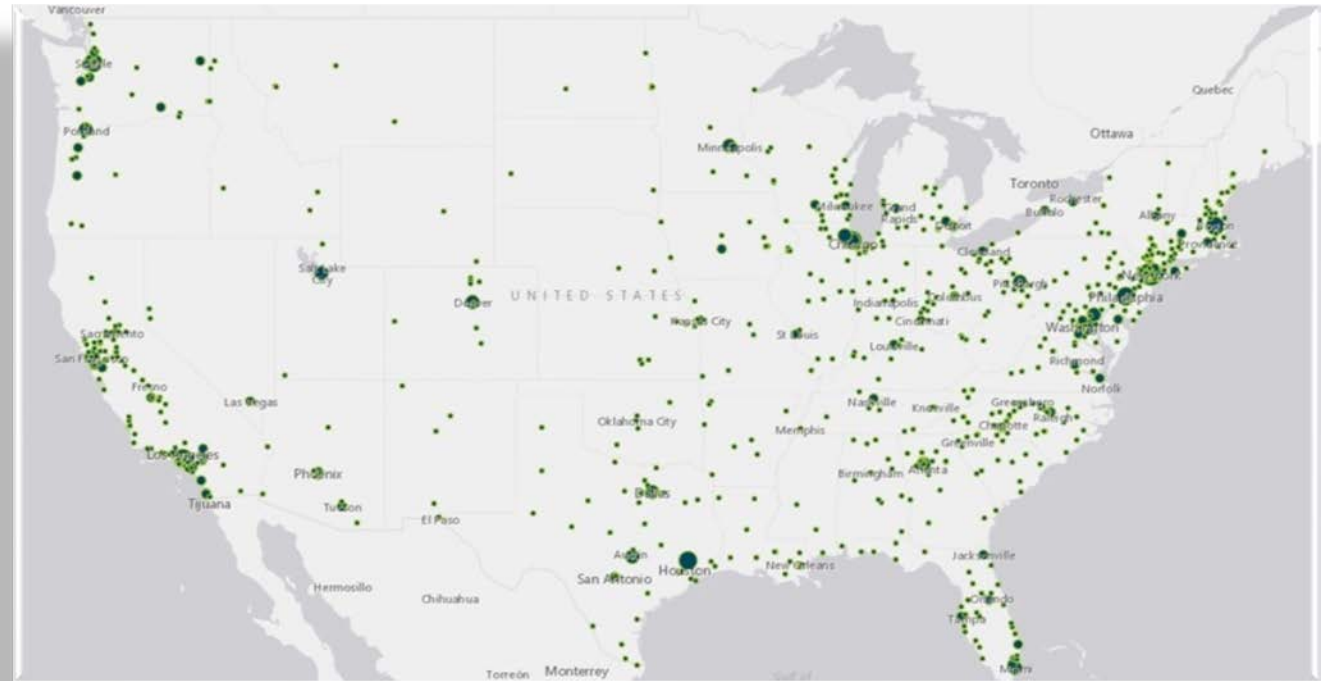
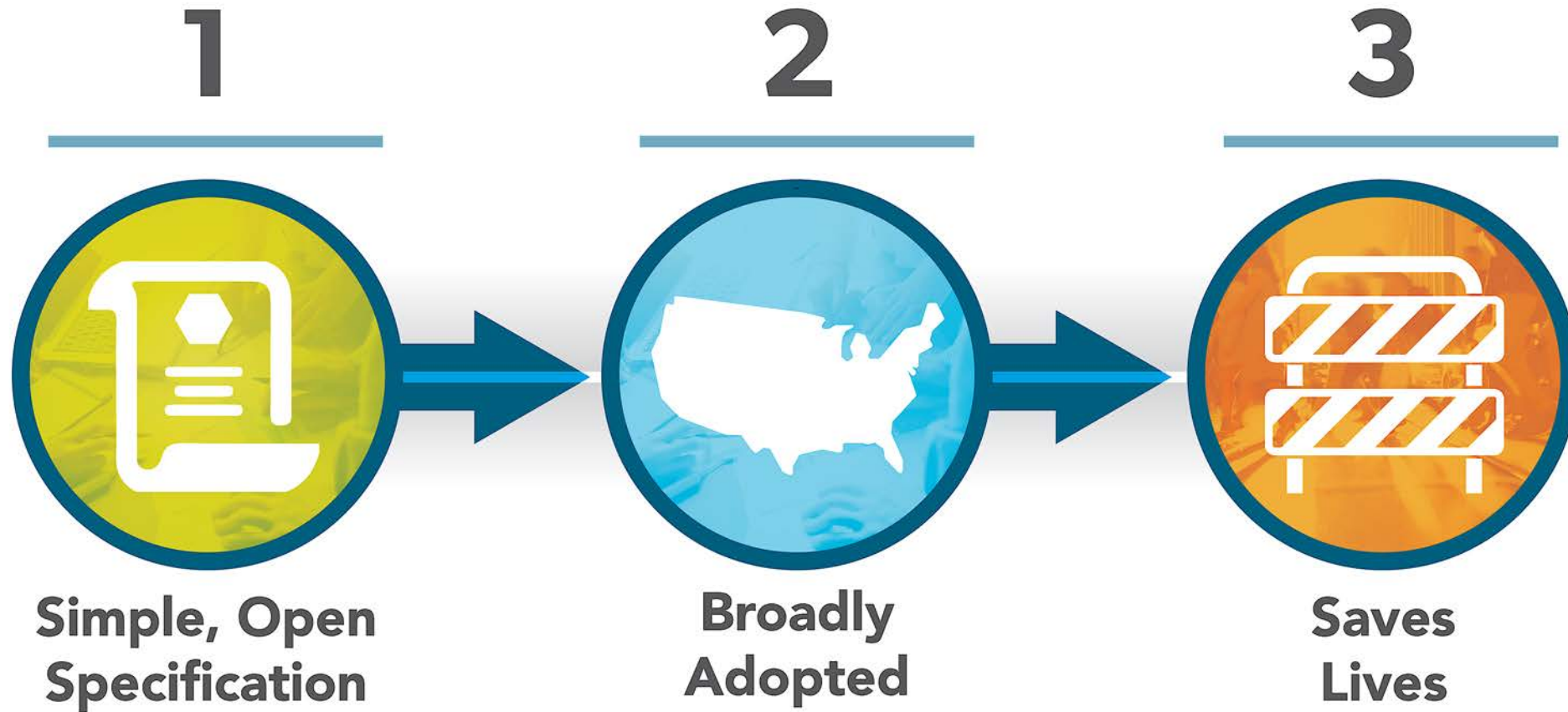
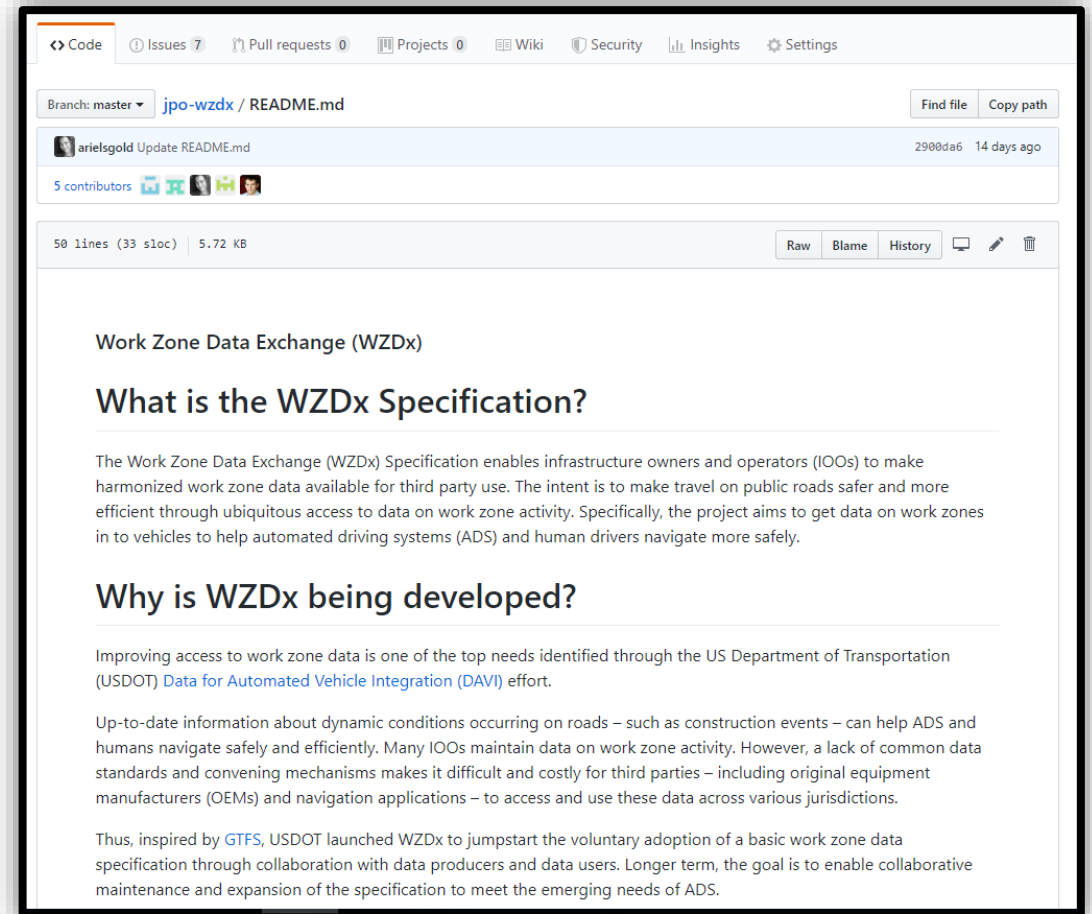


Figure 4: Map identifying the different locations where basic transit data can be found and used

Can this be replicated?



The Work Zone Data eXchange (WZDx)



The screenshot shows a GitHub repository page for the 'jpo-wzdx' project. The current branch is 'master' and the file being viewed is 'README.md'. The commit history shows a recent update by 'arielsgold' on '2900da6' 14 days ago, with 5 contributors. The file size is 5.72 KB and it contains 50 lines of code (33 SLOC). The README content includes the following sections:

Work Zone Data Exchange (WZDx)

What is the WZDx Specification?

The Work Zone Data Exchange (WZDx) Specification enables infrastructure owners and operators (IOOs) to make harmonized work zone data available for third party use. The intent is to make travel on public roads safer and more efficient through ubiquitous access to data on work zone activity. Specifically, the project aims to get data on work zones in to vehicles to help automated driving systems (ADS) and human drivers navigate more safely.

Why is WZDx being developed?

Improving access to work zone data is one of the top needs identified through the US Department of Transportation (USDOT) [Data for Automated Vehicle Integration \(DAVI\)](#) effort.

Up-to-date information about dynamic conditions occurring on roads – such as construction events – can help ADS and humans navigate safely and efficiently. Many IOOs maintain data on work zone activity. However, a lack of common data standards and convening mechanisms makes it difficult and costly for third parties – including original equipment manufacturers (OEMs) and navigation applications – to access and use these data across various jurisdictions.

Thus, inspired by [GTFS](#), USDOT launched WZDx to jumpstart the voluntary adoption of a basic work zone data specification through collaboration with data producers and data users. Longer term, the goal is to enable collaborative maintenance and expansion of the specification to meet the emerging needs of ADS.

Resources

To learn more and access available resources, please visit:

- [DAVI Website](#)
- [Automated Vehicles 3.0](#)
- [AV Data Roundtable Summary Report](#)
- [City of Austin Smart Mobility Roadmap](#)
- [General Transit Feed Specification](#)
- [WZDx Version 1.1. Common Core Data Specification](#)
- [WZDx Project Repo](#)
- [Work Zone Data Initiative](#)
- [ITS.DOT.gov](#)

For information on the WZDx project or anything else related to the DAVI initiative, contact avdx@dot.gov