

# Vision Zero Council

3/27/24

9:00a.m. – 11:00a.m.

# Vision Zero Council – Welcome and Introductions



# Vision Zero Council – Meeting Agenda

- I. Adoption of 12/12/23 Meeting Minutes
- II. Legislative Update
  - a. Questions from Council
- III. Connecticut Transportation Safety  
Research Center – Crash Data Dashboard  
Update
  - a. Questions from Council
- IV. Vision Zero Council – 2024 goals and  
priorities
- V. Next Meeting – dates and potential topics  
for future 2024 VZC meetings
- VI. Public Comment
- VII. Adjourn

# Vision Zero Council – Adoption of 12/12/23 Meeting Minutes



# Vision Zero Council – Legislative Update

Anne Kleza and Philip Mainiero  
- Connecticut Department of  
Transportation, Office of  
Legislative Affairs

- DOT Supported Bills
- Bills of Concern
- Other Bills of Note

# HB 5328 — AAC Automated Traffic Safety Enforcement in Work Zones and Municipalities

- ***Work Zone Speed Cameras (§§ 1-3, 6, 8 & 9)***
  - Restarts and makes permanent DOT's work zone speed camera program
  - Expands where cameras may be operated to include any public road, not just limited access highways as was the case under the pilot program
  - Lowers from 15 mph to 10 mph, by which a vehicle must exceed the posted speed limit for a warning/ticket
  - Creates a new violation for vehicles driving 85 mph or more in a work zone to a fine (\$75) for a first violation
  - Requires that DOT annually report certain information on the program and tickets issued
- ***Municipal Speed and Red Light Cameras (§§ 4, 5 & 7)***
  - Specifies that subsequent violations under the municipal speed/red light camera program are those which occur within one year after the date of the vehicle owner's most recent violation
  - Allows personally identifiable information to be retained for the purpose of determining whether a person committed a second or subsequent violation
  - Requires information to be destroyed within one year after a person's most recent violation

# SB 424 — AA Reducing the Blood Alcohol Limits for Impaired Driving and Boating

- Lowers the blood alcohol content (BAC) per se limit for impaired driving and boating from 0.08% to 0.05%
- Applies this change to criminal statutes and to the administrative license suspension process (referred to as “administrative per se”)
- Annually requires DOT and DESPP, to jointly report on (1) the number of police officers trained as drug recognition experts (DREs) and recommendations to increase access to training, (2) improvements or technological advancements regarding roadside screening tests to detect cannabis-impaired drivers, and (3) recommendations for implementing strategies and procedures to detect cases of cannabis impaired driving

# HB 5330 — AA Implementing Recommendations of the Department of Transportation

- ***Bicycle Traffic Control Signals (§ 6)***
  - Permits the use of traffic control signal lights specifically for bicycles
  - under the bill, these are three lens signal heads exhibiting green, yellow, or red bicycle stenciled lenses
- ***Variable Speed Limits (§ 9)***
  - Allows DOT to establish variable speed limits to temporarily lower posted speed limits on limited access highways (this replaces a provision of current law allowing DOT to set speed limits on these highways during a weather event or emergency)
  - Requires variable speed limits to be (1) based on an engineering investigation, (2) no less than 10 mph below the posted speed limit, and (3) effective when posted and accompanied by a sign notifying motorists that is between 500 and 1,000 feet before the point where the variable speed limit begins
  - Under the bill, DOT must use stationary or portable changeable message signs to provide notice of a variable speed limit



# HB 5330 — AA Implementing Recommendations of the Department of Transportation (cont.)

- ***Motorcycle Helmets (§§ 15-17)***

- Requires motorcycle riders (and their passengers) to wear helmets meeting certain federal standards for a period of three years after the rider is issued a motorcycle endorsement
- Subjects violators to an infraction with a fine of at least \$90
- Requires driver's licenses that also authorize motorcycle operation to include the date DMV issued the endorsement

- ***Reckless Driving (§§ 18 & 19)***

- State law generally prohibits a person from doing the following while driving: (1) talking or listening on a cell phone, unless he or she uses a hands-free device, or (2) using any mobile electronic device (there are additional restrictions under certain circumstances, such as for school bus drivers and those under age 18)
- Violators face a fine of (1) \$200 for a first violation, (2) \$375 for a second violation, and (3) \$625 for a third violation
- The bill makes engaging in these activities while driving on a limited access highway a violation under the state's reckless driving law

# HB 5204-An Act Concerning The Registration And Use Of Low-Speed Vehicles

- Allows the use of LSEV conforming to the federal regs 49 CFR 571.500 to be used on roads under 35mph

# SB 186 — AA Establishing Weight Tolerance Exemptions for Electric Commercial Vehicles and Registration of Certain Pick-Up Trucks

- Grants commercial electric vehicles a weight tolerance exemption of 2,000 lbs from the gross, total axle, total tandem, or bridge formula weight limits
- Increases, from 8,500 to 8,550 lbs, the gross vehicle weight rating (GVWR) threshold at or under which a pick-up truck not used for commercial purposes may be registered as a passenger vehicle
- As under current law, pick-up trucks not used for commercial purposes with a GVWR above the passenger registration threshold but below 12,500 lbs must be registered as combination vehicles

# HB 5484 AAC Tree And Vegetation Management Guidelines By The Department Of Transportation

- Requires DOT to create and submit to the Environment & Transportation committees a vegetation management plan
- Requires the Environment & Transportation committees to vote on the submitted plan prior to any vegetation removal

# SB 289 AAC The Authority Of The Departments Of Energy And Environmental Protection And Transportation Over Vegetation Management

- Requires DOT to obtain a permit from DEEP 30 days prior to any vegetation management or removal
- Permit may contain restrictions on machinery usage and hours of operation

# HB 5329-AAC ROAD SAFETY AUDITS BY THE DEPARTMENT OF TRANSPORTATION.

- No later than thirty days after receipt of any request for a Road Safety Audit (RSA), DOT shall provide the requester with the following information:
- A letter stating DOT will perform the road safety audit and,
- Identify the scope of the road safety audit to be performed and the date for the completion, or
- A letter stating the RSA will not be completed and the reasons for the determination
- Requires DOT to provide information on RSA's on the website

# SB 185 — AAC School Buses Equipped with Seat Safety Belts

- Beginning July 1, 2025, restarts an expired program to provide a partial sales tax refund (50%) to bus companies that purchase new school buses equipped with three-point lap and shoulder seat belts according to an agreement with a school district o Participating districts must (1) provide written notice to the parents or legal guardians of all students who will ride these buses that seatbelts are available and (2) instruct these students on properly using the seatbelts
- Under the program, districts, bus carriers, and drivers are exempt from liability for an injury resulting from a student's use, misuse, or failure to use a seat belt installed on a bus used in the program
- Requires DMV, in collaboration with the Department of Education, to annually inform school districts about the program, including how to apply
- Requires the Transportation and Education committees to hold a public hearing, during the 2030 legislative session, on the participation level of the program and its effectiveness

# Vision Zero Council – Legislative Update

- **Questions from Council**



# UConn Connecticut Transportation Safety Research Center – Crash Data Dashboard Update



Aaron Nash, GISP  
GIS Project Manager  
aaron.nash@uconn.edu



# Outline

- ▶ Business Requirements
- ▶ Development
- ▶ Demo
- ▶ Future Development
- ▶ Q/A

# Phase 1 - Business Requirements

- ▶ Provide crash data on a common platform for quick access and analysis
- ▶ Web Mapping / Visualization / Query Tool
  - ▶ ESRI Dashboards
- ▶ Compliment the CTCDR - Crash Data Repository

The screenshot shows the 'Basic Crash Report' form on the UCONN Connecticut Crash Data Repository website. The form is titled 'Basic Crash Report' and includes several sections for data selection:

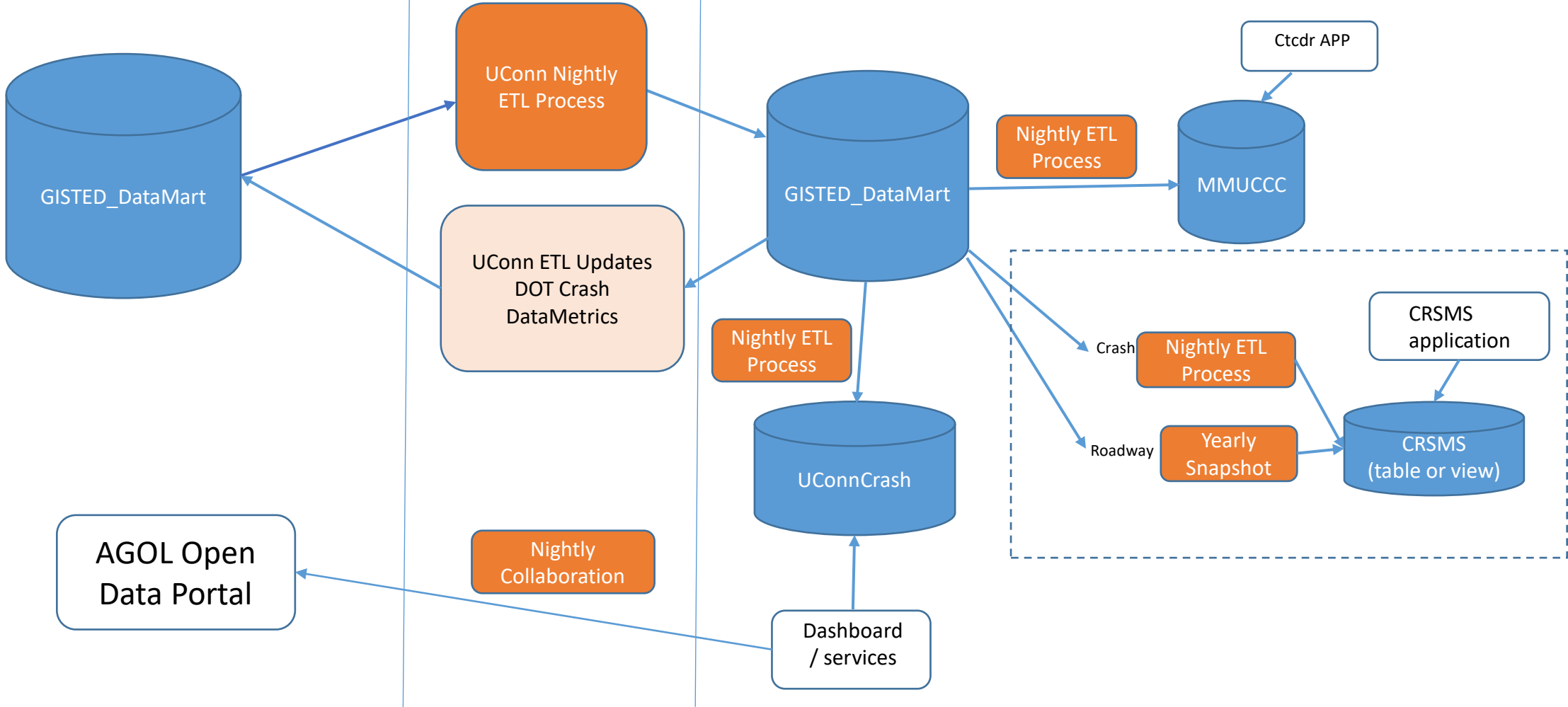
- Start Year:** 2015 (dropdown)
- End Year:** 2022 (dropdown)
- Available Reports:** Select a Report (dropdown)
- Route Class:** Any, Unknown, Interstate, USRoute, State, Local (dropdown)
- Rural/Urban:** Any, Rural, Urban (dropdown)
- Town:** Andover, Ansonia, Ashford, Avon, Barkhamsted, Beacon Falls, Berlin, Bethany, Bethel, Bethlehem (dropdown)
- Police Agency:** Amtrak PD, Ansonia PD, Avon PD, Berlin PD, Bethel PD, Bloomfield PD, Branford PD, Bridgeport PD, Bristol PD, Brookfield PD (dropdown)
- CSP Troop:** A, B, C, D, E, F, G, H, I, K (dropdown)
- COG:** CT Metropolitan, Capital Region, Lower CT River Va, Naugatuck Valley, Northeastern CT, Northwest Hills, South Central Reg, Southeastern CT, Western CT (dropdown)
- MPO:** Capital Region, Central Naugatuck, Greater Bridgepor, Housatonic Valley, Lower CT River Va, Rural Region, South Central Reg, South Western Re, Southeastern CT (dropdown)
- County:** Fairfield, Hartford, Litchfield, Middlesex, New Haven, New London, Tolland, Windham (dropdown)

At the bottom of the form, there is a 'Report Subtitle' text input field, a 'Generate Report' button, and a 'Clear Selection' button.

# Flow of Data

## DOT Environment

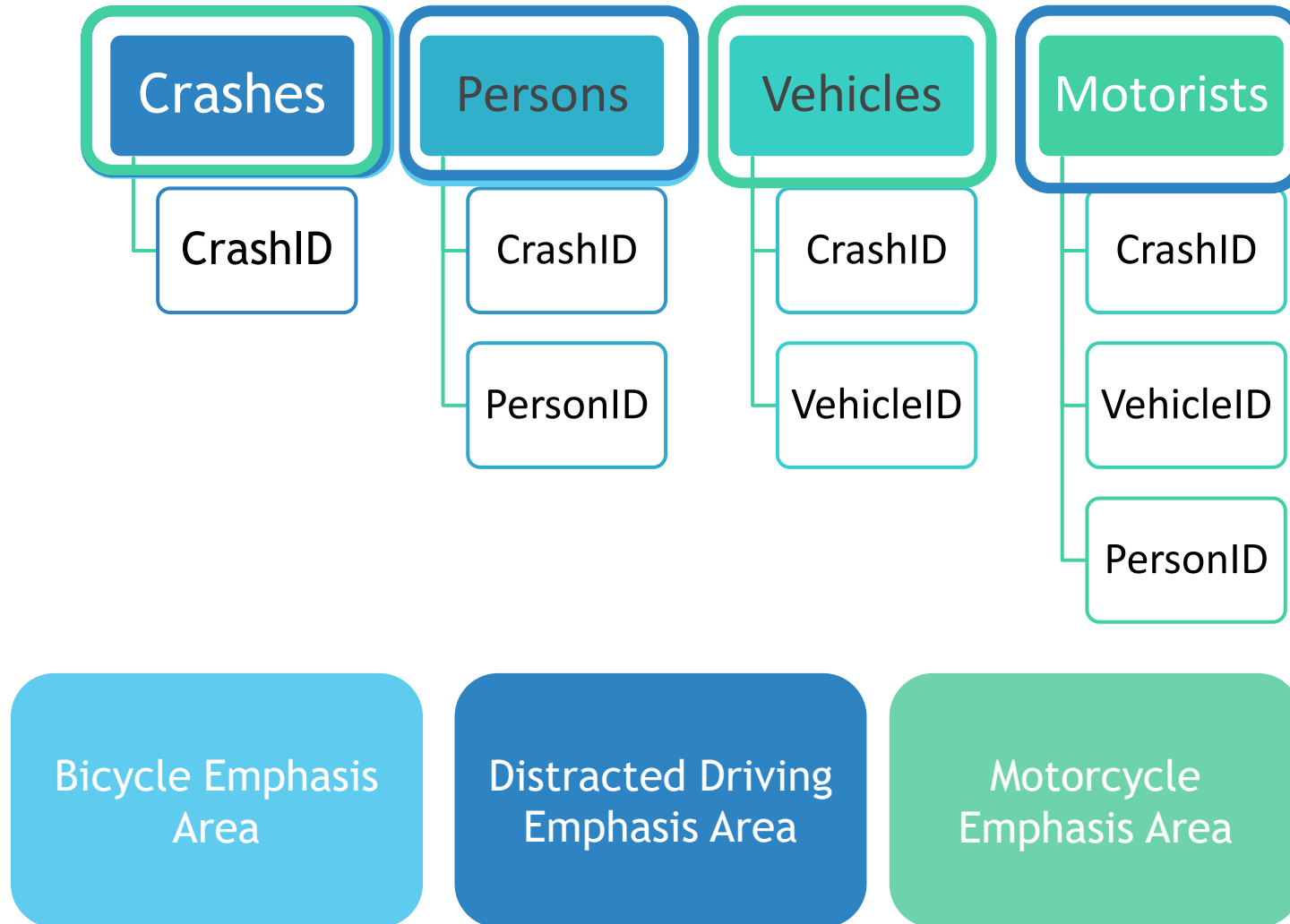
## UConn Environment



# Emphasis Areas

- ▶ Just under a million crash records from 2015 - present
  - ▶ Large tables that make up the dataset with lots of information captured
- ▶ Want to break out and display data in areas of interest
  - ▶ 26 different queries that visualize the data
  - ▶ Based off ways the data is commonly filtered and viewed
- ▶ Informative, user friendly, interactive

# Table Structure - MMUCC 4



# Phase 1 - Lessons Learned

- ▶ Snapshot of Data
- ▶ Dynamic views
  - ▶ Extremely poor performance
  - ▶ Time out errors in dashboards
- ▶ Create geometry in python
- ▶ Registering with geodatabase
- ▶ Increasing instance on dedicated service
- ▶ Coded values
  - ▶ Decoded in dashboard

| Instance Type  |  |
|--|--|
| Make this service available using:                     | <input checked="" type="radio"/> Dedicated instance pool<br><input type="radio"/> Shared instance pool |
| Specify Number of Instances                            |  |
| Minimum number of instances per machine:               | <input type="text" value="8"/>   |
| Maximum number of instances per machine:               | <input type="text" value="16"/>  |
| Specify Service Timeouts                               |  |
| The maximum time a client can use a service:           | <input type="text" value="600"/> seconds   |
| The maximum time a client will wait to get a service:  | <input type="text" value="60"/> seconds  |
| The maximum time an idle instance can be kept running: | <input type="text" value="1800"/> seconds  |

# Phase 1 - Final Product

- ▶ Tables built in SQL
  - ▶ Updated nightly from scheduled SQL procedure
  - ▶ Create geometry using latitude and longitude in SQL
- ▶ Indexing
  - ▶ Spatial index
  - ▶ Clustered indexes
- ▶ Mobile and desktop optimized

```
-----BIKE

TRUNCATE TABLE [dbo].[Dashboards_Bike_Desc]
INSERT INTO [dbo].[Dashboards_Bike_Desc]

SELECT CR.*
FROM [dbo].[01_Crash_Descriptions]
AS CR

INNER JOIN ( SELECT DISTINCT CRASH.[CrashID] FROM [dbo].[01_Crash_Descriptions] AS CRASH
LEFT OUTER JOIN [GISTED_DataMart].[CRASH].[Persons] AS PER ON CRASH.[CrashID] = PER.[CrashID]
LEFT OUTER JOIN [GISTED_DataMart].[CRASH].[Vehicles] AS VEH ON CRASH.[CrashID] = VEH.[CrashID]

WHERE (PER.[PersonType] IN (5, 6)
OR VEH.[MostHarmfulEventForThisVehicle] IN (18, 19)
OR CRASH.[FirstHarmfulEvent] IN (10, 11))
) AS BIKE
ON CR.[CrashID] = BIKE.[CrashID]

PRINT 'BIKE - COMPLETE'

----- CAR SEAT

TRUNCATE TABLE [dbo].[Dashboards_CarSeat_Desc]
INSERT INTO [dbo].[Dashboards_CarSeat_Desc]

SELECT CRASH.*
FROM [dbo].[01_Crash_Descriptions]
AS CRASH

INNER JOIN (
SELECT DISTINCT
[CrashID]
FROM [GISTED_DataMart].[CRASH].[Persons]
WHERE (([PersonType] = 2
OR [PersonType] = 7)
AND [Age] <= 6)
) AS PER
ON CRASH.[CrashID] = PER.[CrashID]

PRINT 'CAR SEAT'
```



# Feature Service Configuration

- ▶ Required fields in tables
  - ▶ ObjectID - Unique Identifier as the first field
  - ▶ Geometry
  - ▶ Date fields - Need to be cast as datetime2
  - ▶ Field names no longer than 31 characters
- ▶ Setting on time zone on the service
  - ▶ Correct temporal queries

## Date Field Setting

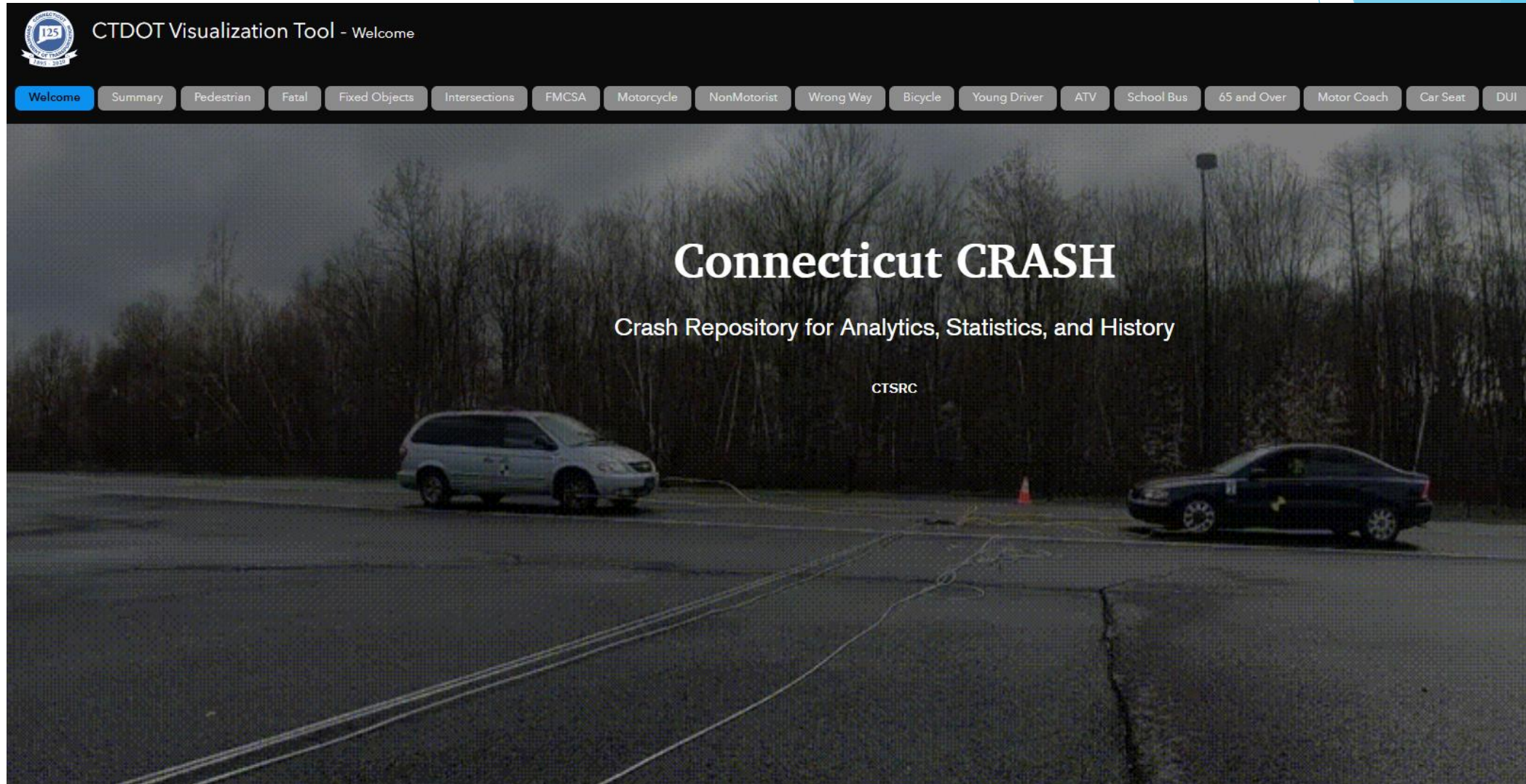
Time Zone:

(UTC-05:00) Eastern Time (US & Canada) ▼

Values are adjusted for daylight savings

Preferred Time Zone

# Tabbed Experience Builder- ArcGIS Enterprise



The screenshot displays the CTDOT Visualization Tool interface. At the top left is the CTDOT logo with the text "CTDOT Visualization Tool - Welcome". Below the logo is a horizontal navigation bar with tabs for various categories: Welcome, Summary, Pedestrian, Fatal, Fixed Objects, Intersections, FMCSA, Motorcycle, NonMotorist, Wrong Way, Bicycle, Young Driver, ATV, School Bus, 65 and Over, Motor Coach, Car Seat, and DUI. The main content area features a background image of a road scene with a white SUV and a dark sedan. Overlaid on the image is the text "Connecticut CRASH" in a large, bold, white font, followed by "Crash Repository for Analytics, Statistics, and History" in a smaller white font, and "CTSRC" in a small white font at the bottom center.

CTDOT Visualization Tool - Welcome

Welcome Summary Pedestrian Fatal Fixed Objects Intersections FMCSA Motorcycle NonMotorist Wrong Way Bicycle Young Driver ATV School Bus 65 and Over Motor Coach Car Seat DUI

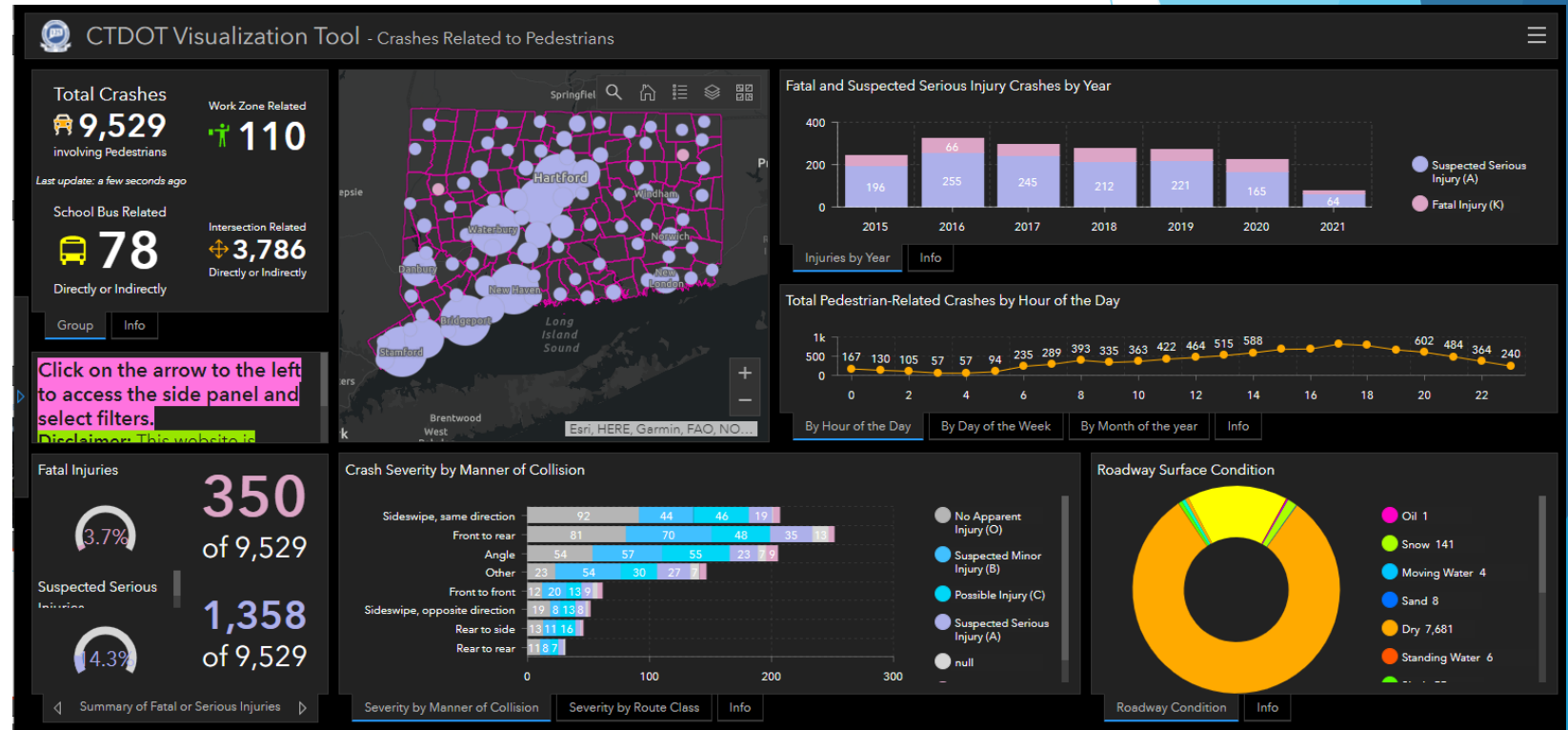
## Connecticut CRASH

Crash Repository for Analytics, Statistics, and History

CTSRC

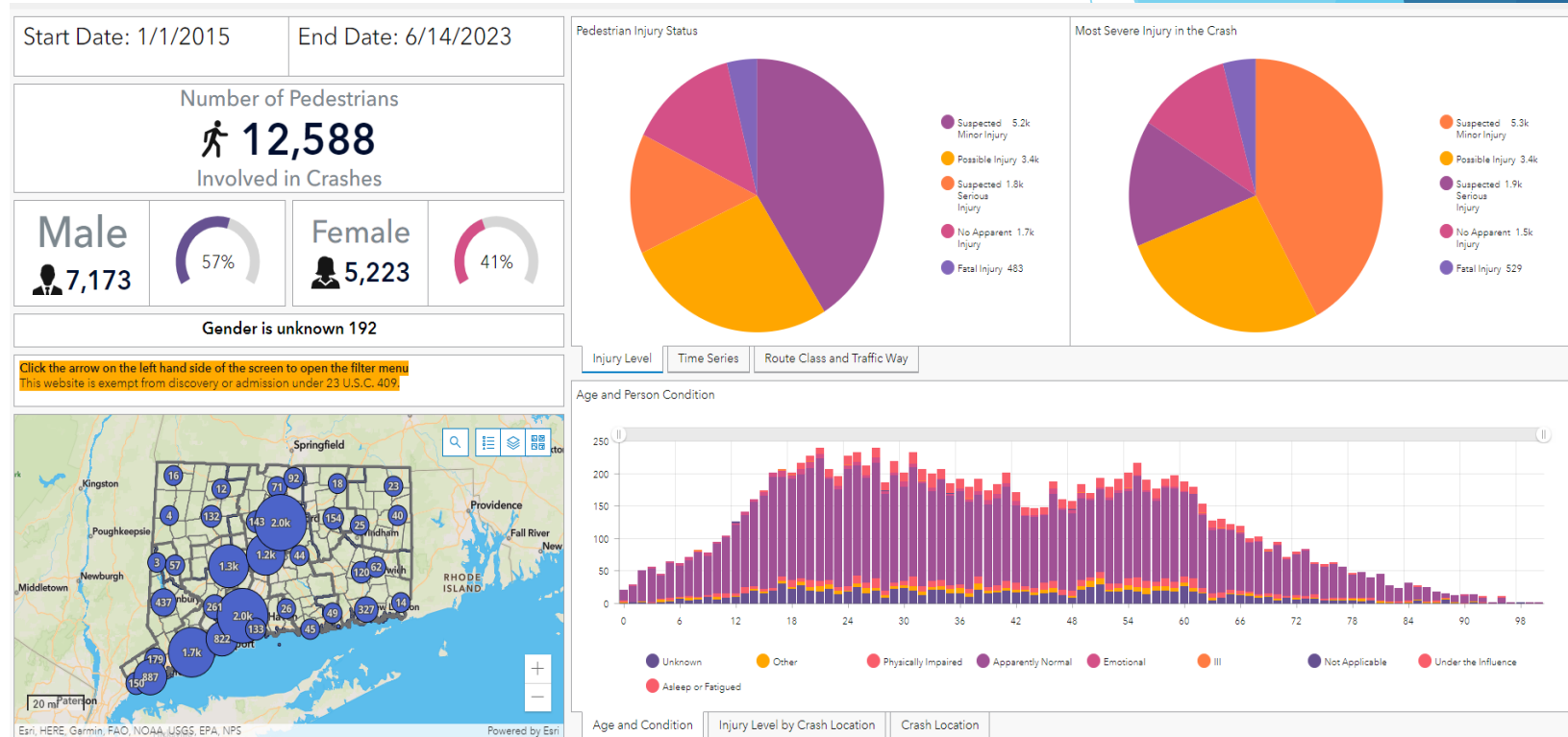
# Dashboards - ArcGIS Enterprise

- AA Compliant
  - Dark theme
  - Contrasting colors
  - Contrasting font
- Spatial and attribute filtering
- Info tabs on widgets
- Clustering on webmap with spatial filtering



# Phase 2

- ▶ Internal pilot project to provide different view of the MMUCC data
- ▶ Person level data (Published)
  - ▶ Age, Gender, Person Condition, Seat Belt Use
- ▶ Vehicle level data (In QA)
  - ▶ Vehicle Age, Body Type, Vehicle Damage
- ▶ Mission is to provide full comprehensive view of MMUCC



# DEMO

3/28/2024

# Future Development

- ▶ Full view feature services with front end applications to query and visualize
- ▶ Upgrade to MMUCC 6
- ▶ Enhancements of Dashboards
- ▶ Continued interaction with end users to drive future development

3/28/2024

# CTRSC – Crash Dashboards

- **Questions from Council**



# Vision Zero Council – 2024 Goals and Priorities

- **Open Discussion**
- **Sub-Committee Roles**



# Vision Zero Council – Next Steps

- **Meeting Topics/Areas of interest**
- **Future Meeting Dates:**
  - **6/20/24**
  - **9/11/24**
  - **12/10/24**

# Vision Zero Council – Public Comment

- Please Raise your hand to be called upon or enter your question in the Q&A field
- In person questions will be prioritized over those entered in the Q&A field