

# Requested Changes to WZDx v1 Specification

MassDOT would like the Work Zone Data Working Group (WZDWG) and specifically the WZDx v2 specification subgroup to consider the following additions to the WZDx v2 specification:

## Work Zone Activity Definition

The following data elements are desired in addition to those defined in the existing WZDx v1 data feed specification:

1. District: the MassDOT district responsible for the project. For flexibility this should be alphanumeric.
2. Detour Information: designated detour specifics for the work zone activity. Can be free form text.
3. Work Type: the type of work being performed as part of the specific activity. This can be an enumeration or free form text. MassDOT has currently defined the following types: 'repaving', 'bridge repair', 'bridge deck replacement', 'guardrail repair', 'maintenance', and 'other'.
4. Town/City: to be part of all location elements (i.e. begin and end location).

The following data elements are desired in addition to those defined in the metadata of WZDx v1:

1. Prime Contractor Details: as a minimum, contractor name, company URL, primary contact details (name, phone, email).

## Work Zone Activity Metrics

The following data elements are desired for the purposes of performance measure management. It is preferred that this data be defined separately from the (somewhat static) work zone activity definition data.

1. Queue Length: the length of the queue formed upstream of the lane taper start location.
2. Travel Time: the current travel time through the work zone activity.
3. Delay: the delay experienced by motorists beyond that of normal free flow travel.
4. Speed: the average speed through the work zone activity.

It is also desired that the following fields (which we feel are more dynamic in nature) from the work zone activity model be moved or duplicated herein to avoid the need to continuously check the static definition data feed:

1. Workers Present
2. Open Lanes
3. Closed Lanes

4. Closed Shoulders
5. Reduce Speed Posted
6. Road restrictions

## Device Management

The following data elements are desired for the purposes of device management. It is preferred that this data be defined separately from the (somewhat static) work zone activity definition data. It is also preferred that the static device data be maintained separately from the dynamic device data.

1. Traffic Measures: for each location that collects traffic measures:

### *STATIC DATA*

- a. The ID of the traffic collection device
- b. The latitude and longitude of the device location
- c. The roadway name
- d. The direction of travel being measured

### *DYNAMIC DATA*

- e. The operational status of the device
- f. The number of lanes monitored
- g. For each monitored lane:
  - i. Current volume
  - ii. Current speed
  - iii. Current occupancy

2. Signage: for each message sign deployed:

### *STATIC DATA*

- a. The ID of the sign
- b. The sign characteristics (type, size, etc.)
- c. The latitude and longitude of the sign's location
- d. The roadway name
- e. The direction of travel being signed for

### *DYNAMIC DATA*

- f. The operational status of the sign
- g. The current message posted on the sign

3. Cameras: for each camera deployed:

*STATIC DATA*

- a. The ID of the camera
- b. The latitude and longitude of the camera's location
- c. The roadway name
- d. Preset details (preset number and view description)

*DYNAMIC DATA*

- e. The operational status of the camera
- f. A still of the current camera view
- g. Description of current camera view