VUEWorks/CAVE Field Descriptions: Longline (LL) and Special Markings (SM)

March 2024

Field	Description	Table Name
Marking ID*	Unique identifier assigned to the record. Upon creation of a new record, a Marking ID* will automatically be assigned. This attribute allows for asset managers to directly search for specific records.	**MRKG_MAIN_GE**
Region	Represents the WisDOT Region in which the marking is located. Select from dropdown: Northwest, North Central, Northeast, Southwest or Southeast.	**MRKG_RGN**
County	Represents the County in which the marking is located. Select from drop-down: All 72 counties are listed.	**MRKG_CNTY**
Route	Represents the freeway, expressway, conventional highway, or county/local road (under WisDOT jurisdiction) on which the marking is installed. Select from drop-down: All IH, USH, STH and applicable county/local roadways are listed.	**MRKG_RTE**
Travel Direction	Represents the placement of the marking on the roadway in reference to the direction of traffic it guides. Select from drop-down: Eastbound, Eastbound/ Westbound, Northbound, Northbound/Southbound, Southbound or Westbound. *Under the Segment-Based Approach, some longline records can represent **combined** footages within a pre-determined segment based on material, color, and applied year. For these records, the Eastbound/Westbound and Northbound/Southbound options can be used to indicate it represents footages for both directions. Each Turn Lane and Gore, along with all Special Markings, should have separate records by location with the correct travel direction they pertain to noted.	**MRKG_TRVL_DRCTN**
Segment Location *(Longline)* & Nearest Crossroad *(Special Marking)*	Used as a reference point to provide a location of the marking related to intersecting roadways. This is an open-ended field. For Longline records representing combined footages within a segment, this field can be used to give the segment limits a name (for example, "STH 73 to CTH K Loyal"). For Turn Lanes and Gores, along with all Special Markings, this field can be used to note the nearest crossroad to the marking.	**LL: MRKG_STE_ID** **SM: MRKG_NEAR_XRD**
Start Marker *(Longline)* & Starting Marker *(Special Marking)*	Represents the location of a Longline Marking's start point, or a Special Marking's location, based on Photolog Marker (PLM). This field is used to give the marking a reference point based on Photolog imagery and allows records to be listed in order by direction on reports. This is an open-ended field. *Photolog, an image capturing software program used to photograph and log WisDOT's roadways, assigns each image (taken every 1/100th of a mile) a PLM. Used as a reference tool, the closest PLM to the marking's starting location on the roadway should be used. *Photolog was replaced with PathWeb starting in 2018, and PLMs are no longer captured; however, the guidance is to continue using PLMs from the most recently filmed Photolog*	**MRKG_STRT_MRK**

	imagery of the route. Photolog Marker does not impact the record's Latitude and Longitude	
Start Latitude *(Longline)* & Starting Latitude *(Special Marking)*	Represents the GPS location of a Longline Marking's starting point or a Special Marking's location. This field is auto populated based on the marking's placement on the map.	**MRKG_STRT_LTTD**
Start Longitude *(Longline)* & Starting Longitude *(Special Marking)*	Represents the GPS location of a Longline Marking's starting point or a Special Marking's location. This field is auto populated based on the marking's placement on the map.	**MRKG_STRT_LNGTD**
End Marker (Longline Only)	Represents the location of a Longline Marking's end point based on PLM (Photolog Marker). This is an open-ended field. The closest PLM to a Longline Marking's end point on the roadway should be used. *This field only pertains to the Longline layer.*	**MRKG_END_MRK**
End Latitude *(Longline Only)*	Represents the GPS location of a Longline Marking's end point. This field is auto populated based on the marking's placement on the map. *This field only pertains to the Longline layer.*	**MRKG_END_LTTD**
End Longitude *(Longline Only)*	Represents the GPS location of a Longline Marking's end point. This field is auto populated based on the marking's placement on the map. *This field only pertains to the Longline layer.*	**MRKG_END_LNGTD**
Bid Item Number & Description	Indicates the type of marking the record represents and its associated bid item number. Select from drop-down: There are 35 bid items available in the Longline layer and 35 bid items available in the Special Marking layer.	**MRKG_BID_ITM_DESC**
Marking Location	Used as another reference point for where the marking is placed on the roadway and how it is being utilized. Select from drop-down: Choose the best location from the available options (same options for both Longline and Special Marking layers). For example, this field can be used to indicate if the marking is placed on an Exit Ramp, J-turn, Roundabout, or if it is Edgeline Right or Edgeline Left, Centerline, Centerline with Rumble Strips, a Right or Left Turn Lane, Gore, etc.	**MRKG_MRK_LOC**
Marking Code	Another field to indicate what kind of marking the record represents (used in combination with the "Bid Item Number & Description"). Select from drop-down: Choose the best indicator from the available options (options are specific to each layer). For example, a Longline record may be entered as "Solid", "Edgeline", "Turnlane", "Bike Lane", etc. For a Special Marking record, options include "Curb", "Diagonal", "Island Nose" "StopBar-18-Inch", "Yield Line" and various types of Arrows.	**MRKG_CD**

Color	Represents the marking's color. Select from drop-down: Yellow, White or Black.	**MRKG_CD_COLR**
Segment Length ***(Longline Only)***	Represents the length of a Longline Marking (in miles). This field is auto populated within 24 hours of creating/updating a record based on the End Marker minus Start Marker fields. For example, if the End Marker is entered at PLM = 12.34 and the Start Marker is entered at PLM = 7.89, the Segment Length will be 12.34-7.89 = 4.45 miles. *This field only pertains to the Longline layer.*	**MRKG_SEG_LN**
Verified Footage ***(Longline)*** **& Painted Footage** ***(Special Marking)***	For Longline records, this field is the total footage of material (paint, epoxy, etc.) the record represents. For Special Marking records, if it is measured linearly, this field is also the total footage material (paint, epoxy, etc.) the record represents; if it is measured by units (arrows, words, etc.), this field is the quantity of markings the record represents. This is an open-ended field. For Longline Markings: If the record represents the summed footage of a particular material/color across a segment, populate the total combined footage (i.e., if the record represents both edgelines in a segment, enter the combined footage). For Turn Lanes & Gores, each marking should have its own record with its footage noted, do not combine turn lane/gore footages throughout a segment. For Special Markings: 1.) If the marking is measured linearly (LF), enter the total footage the record represents. For example, if the record represents a "Stop Line Epoxy 18-In" marking for NB mainline lanes at an intersection and the total linear footage is 58 feet, enter 58 (same for records measured in cubic feet - i.e., corrugated medians). 2.) If the marking is measured at a point (EACH), enter the number of units the record represents. For example, if the record represents one arrow, enter 1; if it represents 2 arrows, enter 2. *While records can indicate multiple Special Markings measured in units, guidance is to have each record represent 1 marking.*	**MRKG_PNT_FT**
Performed By	Represents the county or contractor that installed or most recently retraced the marking. This is an open-ended field.	**MRKG_PFMD_BY**
Applied Year	Represents the year in which the marking was installed or most recently retraced. This is an open-ended field.	**MRKG_APD_YR**
Retrace	Indicates whether the marking is in its initial (first) application or if it has been retraced. Select from drop-down: Yes or No.	**LL: MRKG_APD_MTHD** **SM: MRKG_RTRC**
Pavement Type	Represents the type of surface on which the marking is applied. Select from drop-down: Asphalt, Chip Seal, Concrete or Unknown.	**LL: MRKG_PVMT_CLS** **SM: MRKG_PVMT_TY**
Project ID	Represents the project ID in which the marking was installed or last retraced. This is an open-ended field. Project ID should be entered in the correct format: XXXX-XX-XX.	**MRKG_PROJ_ID**
Maintaining Authority	Represents the entity responsible for retracing & upholding the condition of the marking. This is an open-ended field.	**MRKG_MAINT_AUTHORITY**

	For most records, this should be entered with "WisDOT", "Wisconsin DOT" or left blank (if blank, assumption would be WisDOT maintains it). If a marking is installed on a state roadway, but the local municipality is responsible for ongoing maintenance, the municipality should be entered (for example, "City of Alma" or a more general "Local").	
Comments	Can be used to make any additional notes regarding the record that is not covered in one of the other attribute fields. This is an open-ended field.	**MRKG_CMNTS**
Data Source ***(Special Marking Only)***	This field is utilized to differentiate between data that has historically been entered in VUEWorks and what is captured in the 2024/2025 LiDAR project. Historical data = Will be populated with "2017" LiDAR data = Will be populated with "2025" *After LiDAR data is collected it will be uploaded to a Special Marking sub-layer, and the historical data will be compared with and used to enhance LiDAR data as needed/able, with the expectation that the historical records will eventually be removed and the LiDAR data will override it as the Special Marking layer.*	**SM: MRKG_DSRC**

Additional Notes

- **There are two separate Pavement Markings layers:**
  - **Longline Markings:** Contains records of markings with different Start & End Markers. The "Verified Footage" field should be entered with the total linear footage (LF) the record represents.
    - Examples include: Edgelines, Centerlines, Turn Lanes, and Gores.
  - **Special Markings:** There are two ways Special Markings are measured:
    - **"Linear"**: While they are considered Special Markings, these types of markings are measured by linear footage (LF) for contract purposes. The "Painted Footage" field should be entered with the total linear footage (LF) of the marking the record represents.
      - Examples include: Stop Bars, Diagonals, Parking Stalls, Curbs, etc.
    - **"Point"**: These types of markings are measured by quantity (EACH). The "Painted Footage" field can be entered to represent multiple markings (i.e., 2 arrows). *However, guidance is to have a record for each Special Marking, in which case the "Painted Footage" would be 1.*
      - Examples include: Arrows, Words (Only and Yield), Island Noses, Symbols, etc.
  - All editing of Longline records needs to be done in the Longline layer; all editing of Special Marking records needs to be done in the Special Marking layer. "Bid Item Number & Description" options are specific to each layer (i.e., only Longline bid items are available in the Longline layer).
  - Asset managers can turn on or off both layers.
- **In addition to the attribute fields noted above, VUEWorks also provides additional features to assign supplementary information to records. Using the dropdown above the attribute fields, an asset manager can select the following:**
  - **Attributes:** Allows for editing the above fields. This is the default display.
  - **Documents:** Allows for documents (contracts, agreements, notes, etc.) to be uploaded and assigned to specific records.
  - **Work Orders:** Any work orders (created in VUEWorks) that included the marking will be displayed here.
  - **Projects:** Any projects (created in VUEWorks) that included the marking will be displayed here.
- **Longline records representing edgelines or centerline markings should start and end on the map as close to their actual locations in the field as possible and should follow the curves of the road within reason. Turn Lanes, Gores and all Special Markings should be placed on the map as close to their actual location as possible.**