



Digital Delivery Directive 2025

Digital As-Built Records Special Provision

ITEM 9000-0001 DIGITAL AS-BUILT RECORDS – GUIDE RAIL

DESCRIPTION — This work is collecting digital inventory information for all new and existing guide rail and submittal of “as built” inventory spreadsheet. The spreadsheet can be found in the ECMS File Cabinet with the name “Guiderail and Barrier As-Built Information Requirements”.

CONSTRUCTION —

(a) **General.** Submit to the Department one copy of the “Guiderail and Barrier As-Built Information Requirements” spreadsheet, as directed, for every guide rail and/or barrier located within the project limits. Upon receipt, “Guiderail and Barrier As-Built Information Requirements” spreadsheet copies will be supplied to the agency maintaining the system. The acceptance of this spreadsheet will not relieve Contractor responsibility for erroneous or inconsistent dimensions, notations, or omissions. The as-built information requirement spreadsheet will include Asset Location, Installation Details, Asset Identification and Properties, and Inspection Details as follows.

1. General Information:

- 1.a PennDOT Project Number
- 1.b Contractor Name
- 1.c Contact Person
- 1.d Contact Phone Number
- 1.e Contact Email

2. **Asset Location:** The “as-built” inventory spreadsheet will show the two-dimensional (2D) location based on a mapping grade positional horizontal accuracy (+/-3 survey feet). Document the location of the guide rail using the following definitions.

- 2.a SR Number: The PennDOT assigned 4-digit State Route number.
- 2.b Station and Offset: The construction station and offset reference in relation to the alignment shown in the construction plans.
- 2.c Segment and Segment Offset: PennDOT assigned state route segment number and offset value.
- 2.d Geospatial Coordinates: The system defined as two and/or three-dimensional coordinates based on the earth’s surface, using a specific datum, coordinate system and positional accuracy.
 - Required Positional Accuracy
 - Horizontal Reference Datum: WGS 1984
 - Horizontal Coordinate System: Geographic (Latitude/Longitude)
 - Horizontal Units: Decimal Degrees
 - Horizontal Accuracy: +/- 3 survey feet
 - Required Location of Final Installation
 - Every 50 feet and at each change of direction for linear guiderail systems

- At the anchor point of a cable anchor
 - At the start and end of crash cushions, and every 25 feet along curves (as applicable)
3. **Installation Details:** The information related to the installation of the guiderail and/or barrier system.

3.a Installation Date: MM/DD/YYYY

3.b Condition Status: The information indicating the status of the installed asset as

- Install (New)
- Repair
- Upgrade
- Remove (Do Not Replace)

4. **Asset Identification and Properties**

4.a Barrier Group: The information that identifies what type of component is being installed

- Barrier System (linear guiderail or barrier system)
- End Treatment
- Transitions (segments of linear guiderail or barrier)

4.b Barrier Group Type: The information that identifies specific type of barrier system, end treatment or transition.

- Barrier System Types:
 - Type 2-WC Guide Rail
 - Type 2-S Guide Rail
 - Type 2-S Guider Rail with Extra Length Posts
 - Type 2-SC Guide Rail
 - Type 2-SC Guide Rail with Extra Length Posts
 - Type 2-SCC Guide Rail
 - Type 2-SCC Guide Rail with Extra Length Posts
 - Type 2-S Strong Post End Treatment Type 2-WCC Guide Rail
 - Type 31-S Guide Rail
 - Type 31-S Guide Rail with 7' Extra Posts
 - Type 31-S Guide Rail with 8' Extra Length Posts
 - Type 31-SC Guide Rail
 - Type 31-SCC Guide Rail
 - Type 31-SM Guide Rail
 - Curved W-Beam Guide Rail at Intersections
 - Structure Mounted Guide Rail
 - Metal Median Barrier
 - Metal Median Barrier, Structure Mounted
 - Guide Rail Element
 - Rubbing Rail
 - Metal Median Barrier
 - Metal Median Barrier, Structure Mounted
 - Concrete Glare Screen
 - Concrete Glare Screen, Structure Mounted

- Concrete Media Barrier
- Concrete Median Barrier, Structure Mounted
- Single Face Concrete Barrier
- End Treatment Types:
 - Type I – Anchored Backslope Terminal
 - Type II – Energy Absorbing Terminal
 - Type III – Non-Energy Absorbing Terminal
 - Type IV – Gating Systems for 2-Way Traffic
 - Type V – Non-Gating Terminal for 2-Way Traffic
 - Type VI – Gating, Non-Redirective Crash Cushion System
 - Miscellaneous System
- Transition Types:
 - Typical and Alternate Concrete Bridge Barrier Transition without Inlet Placement
 - Typical and Alternate Concrete Bridge Barrier with Inlet Placement
 - Thrie-Beam to PA Type 10M Bridge Barrier Transition without Inlet Placement Thrie-Beam to PA Type 10M Bridge Barrier Transition with Inlet Placement
 - Thrie-Beam to PA Bridge Barrier Transition
 - Thrie-Beam to Vertical Wall Bridge Barrier Transition
 - Terminal Section, Bridge Connection

4.c Blockout Material:

- Steel
- Wood
- Composite
- Other
- N/A

4.d Post Material:

- Steel
- Wood
- Other
- N/A

4.e Manufacturer:

- Anchorage Assemblies for HTCB
- Barrier Systems by Lindsay
- Brifen
- Gibraltar
- Roadway Systems, Inc.
- Trinity Highway Products, LLC
- Other

5. **Inspection Details:** Information about inspection documentation.

5.a Installation Certification:

- As Designed
- Approved Modifications

5.b ECMS Item Number: Enter PennDOT Item Number

6. **Comments:** Any comments or notes to further explain a spreadsheet entry.

MEASUREMENT AND PAYMENT— DOLLAR

The price includes field collection of the location information, adding the inventory information, formatting the spreadsheet, and electronic delivery of “as built” Inventory Spreadsheet.