**SECTION 010013X ASSET MANAGEMENT DATA COLLECTION FOR NON-BIM CONSTRUCTION PROJECTS**

1. GENERAL
	* + 1. DESCRIPTION AND INFORMATION
				1. The work to be performed under this Section includes, but is not limited to, the furnishing of all materials, labor, tools, equipment, services, and incidentals required to collect, maintain, and transfer Asset Management information in accordance with the requirements stated herein.
			2. REFERENCED STANDARDS AND DOCUMENTS
				1. All work related to this specification shall be in accordance with the latest standards and references, including but not limited to:

National BIM Standard (NBIMS) – United States™ Version 3 – specifically Chapter 4 Information Exchange Standards, Section 4.2 COBie – Version 2.4

Conformed COBie (new assets) and Removed/Relocated Asset Worksheets (supplied by Engineer)

Conformed [MDOT\_MAABxP\_Part2 LODMatrix\_Attributes Parameters](https://public.airportal.maa.maryland.gov/DSTService/Home/getDocument?document=5epgs739vkO2-awnDQkXPIbi9jgomO4iWlJ8Hxu3pC6nnUK-eH-ZYpQtqbXjVi6MrdIw1B2LJJ9PQ8_69cj5V3rc5L_06-3yyl3t9xwjItJOMVMYYUDlEMJLZK-hUtYrb2djwZLH1hGfOStZIa4aMmsx47rwHoz5LBNnwsTAHVX27j5naQcqW0esDYFMKzy55TbKqoKQCZYUWekFVjRduM88SrQcSePo8AEEVpRxgSk1) Tables (supplied by Engineer) *Note: REVIT requirements within these tables are not applicable to this Specification.*

* + - 1. ASSET MANAGEMENT DATA COLLECTION WORKFLOW

**NOTE TO ENGINEER** – Engineer shall add to this section as required for items specific to the project.

* + - * 1. The following describes the requirements for identifying, collecting and documenting asset information over the course of the project.
				2. Bid Phase

During the design phase of the project, the Engineer shall develop COBie and other asset tracking spreadsheets to identify the specific asset data to be captured for the project. To the extent that such information is known before the construction contract is awarded, the Engineer shall populate the spreadsheets with Owner and Engineer-provided data. During the bid phase, Offerors shall have an opportunity to review the documents to understand the extent of data still to be collected and the associated responsibilities for data entry. Questions concerning the work shall be resolved via the formal question and answer process established by the Solicitation. Any required clarifications or adjustments to the documents shall be addressed by addendum and formalized by the Engineer in the Conformed Documents.

* + - * 1. Construction Phase

Documenting New Assets: Following contract award, the Conformed COBie documents shall be turned over to the Contractor for its use in preparing required asset management deliverables. The Contractor and its subcontractors shall continue COBie data population throughout the construction phase. Much of the data to be entered into the COBie spreadsheets can only be determined following the formal submittal and review process and, in some cases (e.g., serial numbers), only after the assets have been delivered to site and installed. The Contractor shall:

Adjust/complete the COBie documents as required to reflect the submitted/formally approved product data submittals.

Adjust/complete the COBie documents to address any formal design changes (e.g., Requests for Information, Design Clarifications, etc.).

On a regularly scheduled basis (frequency identified elsewhere in this section), Contractor shall meet with the Engineer and MDOT MAA’s Asset Management Manager (AMM) to review the status of the COBie data population. Progress submittals shall be provided in advance of such meetings. Completeness and accuracy of the submissions shall be reviewed and discussed at the progress meetings. MDOT MAA reserves the right to collect progress submittals and to upload the data to the MAA MDOT’s Maximo Test Environment to ensure data populates correctly. Any deficiencies or demonstrated data load failures must be addressed as part of the subsequent COBie progress submission.

As a condition of Final Acceptance, the Contractor shall deliver the completed COBie spreadsheets to the Engineer and the AMM for final review and approval.

The approved COBie spreadsheets shall be submitted by the Contractor as part of the final close-out submittals.

Documenting Removed/Relocated Assets: MDOT MAA standard spreadsheets shall be utilized to collect data on removed/relocated assets. The Engineer shall initially populate such spreadsheets and shall turn over to the contractor as part of the Conformed Documents. The Contractor shall complete the forms with all remaining data required to log and report assets that are demolished or relocated under this contract. Demolished/relocated assets shall be identified by existing/new locations, equipment type, asset tag number, make, model, etc., as required for MDOT MAA to uniquely identify the existing assets within its Maximo system and adjust status accordingly. The final spreadsheets shall be delivered to the Engineer concurrent with the close-out submittals and prior to the final walkthrough and commissioning.

* + - 1. PROGRESS & AS-BUILT ASSET DATA
				1. Additional requirements to Standard Provisions for Construction Contracts Volume 2, SP-8.08-Record Drawings/As-Built Drawings.

**NOTE TO ENGINEER** – **Engineer shall coordinate with MDOT MAA Design Manager to determine the frequency of progress submissions/meetings required for the project and adjust the below accordingly.**

* + - * 1. The Contractor shall supply monthly information updates to the project COBie and removed/relocated spreadsheets. These updates shall include any changes to assets resulting from design changes, contract modifications, etc., to reflect as-installed and as-built conditions. If issues are found, the Contractor shall complete the corrections and return the submission to the Engineer within ten (10) calendar days.
1. PRODUCTS AND REQUIREMENTS

**NOTE TO ENGINEER – Engineer may add to this section as required for items related/unique to the project.**

1. EXECUTION
	* + 1. ASSET MANAGEMENT DELIVERABLES

**NOTE TO ENGINEER – Engineer may add to this section as required for items related/unique to the project.**

* + - * 1. As-built Asset Management Documents shall conform to SECTION 8 of the Standard Provisions.
				2. Deliverables Required During Construction Phase

**NOTE TO ENGINEER – Engineer shall coordinate with MDOT MAA Design Manager to determine the frequency of progress submissions/meetings required for the project and adjust the below accordingly.**

Monthly submission of updated new assets (COBie), removed assets, and relocated assets documents, to include work performed during the previous 30-day period.

Submissions shall be submitted in advance of the monthly meetings (time frame to be established in coordination with the Engineer) to allow time for review by the AMM and Engineer.

A complete final draft of the Contractor’s submittals shall be required prior to the final walkthrough and commissioning.

* + - * 1. Project Deliverables Required at Project Closeout

Contractor shall submit As-Built asset data submissions within 14 calendar days of notification of substantial completion.

The Engineer and AMM shall have 14 calendar days to review the documents and issue comments.

Upon receipt of Engineer’s comments, the Contractor shall complete revisions to the As-Built asset data documents and resubmit within 14 calendar days. This review and revision process shall repeat until all comments are addressed and the model is approved.

Final submission of the asset data documents shall be delivered to the Engineer concurrent with the close-out submittals.

1. MEASUREMENT
	* + 1. METHOD OF MEASUREMENT
				1. No separate measurement will be made for the work required under this item.
2. PAYMENT
	* + 1. BASIS OF PAYMENT
				1. No separate payment will be made for work under this item. All costs incurred thereby shall be considered incidental to the item for which it applies, including furnishing all supervision, labor, equipment, tools, materials, and any other incidentals necessary to complete this item in accordance with these specifications.

**END OF SECTION 010013X**