



DIRECTIVE

To: Distribution

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RE: Asset Information Delivery and Asset Tagging for Design and Construction Projects

This directive is intended to provide guidance on the requirements for asset information management throughout the design and construction phases for all projects that add, remove, rehabilitate, repair, or replace MBTA assets.

OBJECTIVE

To ensure that complete and accurate data pertaining to MBTA assets is captured and compiled throughout the design and construction process, that assets are clearly tagged in the field with unique identifying labels as part of the construction process, and that the necessary information pertaining to assets within project scopes of work is submitted to MBTA Asset Management, in the format directed by the MBTA, for import into the MBTA's enterprise asset management system (EAMS) to facilitate the ongoing operation and maintenance of MBTA assets.

POLICIES, STANDARDS AND GUIDELINES

- MBTA Asset Data Information Spreadsheet (ADIS)
- MBTA Asset Definition and Data Dictionary Document (AD4)
- MBTA Asset Naming Convention Standard
- MBTA Asset Tagging Standard

REQUIREMENTS

Parties contracted by MBTA to provide design and/or construction services to install or otherwise modify new and existing assets, as defined by the MBTA – including but not limited to rolling stock and equipment, facilities, structures, power, signals, and track infrastructure (referred to herein as “assets”) – shall be required to compile an electronic asset inventory and data record during all phases of work. The formatting and submission requirements for the data are defined by the Asset Data Information Spreadsheets (ADIS), the template of which will be provided to the contracted party by the MBTA. The type and extent of information required for assets noted in the ADIS is defined within the Asset Definition and Data Dictionary Document (AD4) for each asset class.

During the construction phase, assets identified within the ADIS shall be furnished in the field with an accompanying asset tag that clearly identifies the unique asset identifier (Asset ID) and other pertinent asset information per the MBTA Asset Tagging Standard.

Asset information and tagging requirements at each phase of work are as follows:

Conceptual Design Phase (0-15% Design):

During the Conceptual Design milestone review, MBTA's Office of the Chief Engineer (OCE) and Asset Management (AM) will review the scope of work and conceptual design deliverable(s). MBTA Asset Management will coordinate with the Designer to develop a preliminary list of assets added, removed, rehabilitated, repaired, or replaced within the scope of work, if any, which will be populated into ADIS templates. The project ADIS will be handed over to the Designer for use in future design phases.

Schematic and Design Development Phases (15-75% Design, or nearest equivalent milestone):

In the Schematic Design and Design Development phases, the Designer shall be responsible to update the project ADIS in coordination with the ongoing development of the project's design and drawings. Where assets are called out in the design drawings, references shall be made to the asset identifiers (Asset IDs) used in the project ADIS. The Designer shall coordinate any additions, changes, or subtractions to the assets listed in the project ADIS with the MBTA Project Manager and Asset Management. At design milestones, the Designer shall submit the updated project ADIS, containing all assets to be modified as part of the scope of work, to MBTA Asset Management. MBTA Asset Management will assign asset IDs to any new assets, review progress of the ADIS, and confirm all information fields required as part of the contract are properly identified with respect to the scope of work.

Final Design Phase (90-100%):

As part of the Final Design package, the Designer shall submit all project ADIS with the required design information populated for all assets contained within the scope of work for MBTA review and approval. Any assets added, changed, or removed from the scope of the design documents since the previous design milestone shall be communicated to the MBTA Project Manager and MBTA Asset Management, with the changes reflected on the submitted project ADIS.

The Designer shall include appropriate details, additions, and modifications to the drawings and specifications as required to define the scope of asset management information collection and tagging during the Construction Phase. The Designer is responsible to ensure asset tagging requirements are clearly defined in the drawings and specifications for all assets identified within the project ADIS. The Designer shall refer to the MBTA Asset Tagging Standard for relevant asset tag details and requirements to include in the documents. The Final Design drawings and specifications will be reviewed and approved by MBTA Asset Management to ensure that the asset information delivery and asset tagging requirements are accurate and complete.

Throughout the development of the design, Asset IDs will be generated by MBTA Asset Management according to the MBTA Asset Naming Convention Standard for all assets tracked within the project ADIS. At Final Design, where assets are listed in drawings, schedules, or otherwise identified and labeled in the documents, references to Asset IDs shall be made by the Designer such that assets can be identified within the design documents and related to the information on the project ADIS.

Bid Phase:

As part of the submission of the Bid Document package, the Designer shall include the project ADIS, containing all assets and their attributes within the scope of work, with all comments and revisions

resolved prior to submission. The project ADIS will be included in the Bid Documents as directed by MBTA with the asset information requirements and tagging requirements defined for the Contractor's reference.

Construction Phase:

Consistent with the requirements of the Contract Documents specified by the Designer, submittals, quality control and testing documentation, and Requests for Information (RFI) that pertain to specific asset(s) shall be submitted with accurate and clear reference to the Asset ID of the corresponding asset(s) identified within the project ADIS. The Designer shall confirm that the Asset IDs within such submissions are accurate as part of their review. Similarly, Contract Documents developed by the Designer shall specify that the Contractor is required to submit the asset information necessary to populate all information fields within the project ADIS in a succinct and well-organized manner to facilitate review by MBTA. In addition, language in the Contract Documents shall also specify that the Contractor furnishes and installs the required asset tags, in compliance with the MBTA Asset Tagging Standard, for assets identified within the project ADIS.

Throughout the Construction Phase, as part of Construction Phase Services, the Designer is responsible to continuously update the project ADIS according to the information included within the submissions from the Contractor. Any assets that are added, changed, or removed within the scope of work as a result of modifications to the Contract Documents resulting from RFI response, Design Change Request (DCR), Field Directive, or other means shall be reflected within the project ADIS. The Designer shall coordinate with the MBTA Project Manager and submit the current project ADIS as requested by the MBTA for review.

Construction Closeout:

Prior to the Contractor's request for Substantial Completion, during the startup and commissioning stage of the Project, the Designer shall ensure that the Contractor has submitted complete and accurate asset information for all assets identified within the project ADIS, including any changes to the project ADIS as a result of assets added, removed, or modified in scope during the construction process. Acceptance of Work in the field is contingent upon the receipt and verification of accurate asset data, asset testing and commissioning documentation, and asset tags, as applicable, for all assets. The Designer shall review the Contractor's as-built drawings to assure they contain references to the Asset ID for the corresponding asset(s) as noted within the project ADIS.

The Designer shall compile all asset information into the project ADIS for all assets within the scope of work, including any changes to the project ADIS caused by assets added, removed, or modified in scope during the construction process. The Designer shall coordinate with the MBTA Project Manager to populate fields in the project ADIS with hyperlinks and/or references to the stored location of as-built drawings, manuals, product data and other associated asset documents and information within the MBTA's PMIS system. At the conclusion of construction, the Designer shall coordinate with the MBTA Project Manager to submit the completed project ADIS for MBTA approval and acceptance.