Approved:

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Office: Surveying and Mapping
Topic No.: 550-030-101-d

Department of Transportation

SURVEYING AND MAPPING

PURPOSE

This procedure sets forth the criteria to be utilized in performing all aspects of surveying and mapping activities for the Florida Department of Transportation (Department). It is supplemented by the ***Surveying and Mapping Handbook***; written instructions from the District Surveying and Mapping Office, State Surveyor, or other Secretary of Transportation designee; the project scope of services; and all other pertinent statutes, codes, rules, and procedures.

The ***Surveying and Mapping Handbook*** will be made available by the Surveying and Mapping Office to provide information, instructions, and guidelines that support consistent and efficient development of survey data. It will include sections that support more specific criteria for surveying and mapping. The Department will consider input from all users concerning the regular upkeep of this handbook. Appropriate contact information will be included in the handbook for users to submit suggestions for revisions to the handbook.

Items warranting immediate revision, or revisions mandated by state or federal law, will be made to the handbook after review by the State Surveyor, in the form of revisions to the ***Surveying and Mapping Handbook*** or ***Surveying and Mapping Bulletins***. These bulletins may be temporary in nature or may carry over until the next handbook revision.

STATEMENT OF POLICY

It is the policy of the Department to establish processes with the intent to: (a) govern the collection, preparation and delivery of all surveying and mapping data for the Department and (b) to ensure the integrity of the data delivered.

AUTHORITY

Section 20.23(3(a), Florida Statutes (F.S.)
Section 334.048(3), (F.S.)

SCOPE

This procedure applies to anyone performing surveying and mapping work for the Department.

REFERENCES

Chapter 20, F.S. – Organizational Structure
Chapter 177, F.S. – Land Boundaries
Chapter 287, F.S. – Procurement of Personal Property and Services
Chapter 334, F.S. – Transportation Administration
Chapter 337, F.S. – Contracting; Acquisition; Disposal; and Use of Property
Chapter 472, F.S. – Land Surveying and Mapping
Rule Chapter 5J-17, Florida Administrative Code (F.A.C.) – Board of Professional Surveyors and Mappers
Rule Chapter 14-75, F.A.C. – Qualification, Selection and Performance Evaluation Requirements for Professional Consultants to Perform Work for DOT
Title 23, Part 630, Federal Highway Administration – Preconstruction Procedures

GENERAL

This procedure replaces the following procedures:
Aerial Surveying and Mapping Standards for Transportation Products, Topic No. 550-020-002
Right of Way Mapping Procedure, Topic No. 550-030-015
Surveying Procedure, Topic No. 550-030-101

1. SURVEYING

All surveying and mapping work performed for the Department shall be in accordance with ***Chapters 177 and 472, F.S.***; ***Rule Chapter 5J-17, F.A.C.***; the ***Surveying and Mapping Handbook***; the project scope of services, and all other pertinent statutes, codes, rules, and procedures.

If a consultant is performing work, the Department must receive and approve all quality assurance and quality control plans prior to the commencement of work.

1.1 SURVEY REQUIREMENTS

The following specific items are required for anyone performing surveying and mapping work for the Department and shall be in accordance with the ***Surveying and Mapping Handbook:***

- All original survey data and derived products shall be prepared in Department approved format and shall become property of the Department. Electronic data shall be indexed such that it may be readily retrieved.
- Data shall be prepared on standard media compatible with Department standard hardware. Data recorded electronically shall be the raw data (observations) properly attributed.
- All reports will be prepared in Department approved format.
- All survey notes and computations shall be prepared along with a reproducible graphical representation of the survey.
- After the completion of survey work, original field documents shall be provided to and maintained by the Department. Original field documents must be of an approved type and prepared using work activity content.
- After review, all required documents shall be certified, i.e., signed, sealed, and dated, by the surveyor in responsible charge of the work performed.
- When a contract is awarded that includes geospatial imagery, the consultant will contact the Central Surveying and Mapping Office to request a tracking number. The consultant shall use this number to reference all project correspondence and submittals to the Central Surveying and Mapping Office. A copy of all imagery collected, reports, and derived products shall be sent, at the direction of the District Surveying and Mapping Project Manager, to the Central Surveying and Mapping Office.

1.2 COMPUTER AIDED DRAFTING AND DESIGN

All surveys prepared by or for the Department shall be in accordance with the ***CADD Manual, Topic No. 625-050-001***.

2. RIGHT OF WAY MAPPING

All right of way mapping work performed for the Department shall be in accordance with ***Chapters 177 and 472, F.S.***; ***Rule Chapter 5J-17, F.A.C.***; the ***Surveying and Mapping Handbook***; the project scope of services, and all other pertinent statutes, codes, rules, and procedures.

If a consultant is performing work, the Department must receive and approve all quality assurance and quality control plans prior to the commencement of work.

2.1 RIGHT OF WAY RELATED MAPS

2.1.1 CONTROL SURVEY MAP

A control survey map provides the certified survey support for the preparation of right of way related maps. This map provides horizontal, and may provide vertical, position data for the support or control of right of way related maps.

See ***Surveying and Mapping Handbook*** for Control Survey Map requirements.

2.1.2 MAINTENANCE MAP

A maintenance map is prepared when the District Surveyor and Mapper has identified a property for which there has been no formal conveyance of right of way or accepted dedication, or there is notification/evidence that a formal conveyance was ineffectual to pass title to the Department. This map serves as prima facie evidence of the ownership of lands on which a road has been maintained pursuant to ***Section 95.361, F.S.*** It is filed at the direction of the District Surveying and Mapping Office in the office of the Clerk of the Circuit Court of the county in which the road is located.

See ***Surveying and Mapping Handbook*** for Maintenance Map requirements.

2.1.3 RIGHT OF WAY MAP

A right of way map is prepared when real property rights are to be acquired for a transportation facility. This map is a scaled drawing and must be prepared to clearly show the right of way to be acquired. A right of way map must show sufficient technical data, including land ties, to permit the preparation of legal descriptions for use in acquisition documents and serve as an aid in appraisal, acquisition, property management, and monumentation. It is not a map of survey; rather is supported by a Control Survey Map.

See ***Surveying and Mapping Handbook*** for Right of Way Map requirements.

2.1.4 RIGHT OF WAY MONUMENTATION MAP

A right of way monumentation map shows the location of survey monuments that are set at the direction of the District Surveying and Mapping Office after the construction of a project, and is filed in the office of the Clerk of the Circuit Court of the county in which the project is located. This map is filed after the right of way has been monumented at the direction of the District Surveying and Mapping Office.

See ***Surveying and Mapping Handbook*** for Right of Way Monumentation Map requirements.

2.2 CONVEYANCE, TRANSFER, AND DOCUMENTATION REQUIREMENTS

2.2.1 COMPUTATIONS

When performing surveying and mapping activities, sufficient computations will be performed by the surveyor in responsible charge:

- to provide sufficient data to prepare legal descriptions for each parcel to be acquired.
- to relate mathematically the required right of way to the parent tracts of each parcel to be acquired and the survey line.
- to provide any additional distances and directions to depict the parent tracts of each parcel to be acquired.

2.2.2 PROPERTY OWNERSHIP ANALYSIS

An analysis of title search reports and field survey data will be made at the direction of the District Surveying and Mapping Office to assure accurate identification of all parent tracts affected by a right of way project. This will include identification of any gaps or overlaps.

2.2.3 LEGAL DESCRIPTIONS

When it is determined by the District Surveying and Mapping Office that a legal description must be prepared, it must meet the following criteria:

- **Minimum Requirements** - All points of commencement, where practical, should be outside of the required right of way.
- **Verification** - Each description must be compared to the right of way map to assure that all information referenced in the description is readily discernible from information shown on the right of way map.
- **Certification** - The description for each parcel must be certified (signed, sealed, and dated) by a professional surveyor and mapper.

See ***Surveying and Mapping Handbook*** for parcel number designations and certification.

2.2.4 TITLE SEARCH AND DOCUMENT PREPERATION

All title documents will be prepared in accordance with the ***Right of Way Manual, Topic No. 575-000-000***.

See ***Surveying and Mapping Handbook*** for title search requirements.

2.2.5 ROAD TRANSFERS

The use of right of way maps is the preferred method for documenting the transfer of ownership of a road, either to or from the Department, after notice has been given pursuant to ***Transportation System Jurisdiction and Numbering, Topic No. 525-020-010.***

See ***Surveying and Mapping Handbook*** for certification.

2.3 COMPUTER AIDED DRAFTING AND DESIGN

All right of way related maps prepared by or for the Department shall be in accordance with the ***CADD Manual, Topic No. 625-050-001***.

3. TRAINING

None

4. FORMS

None