# Section 9

## APL DEVELOPMENTAL PROCESS

#### 9.1 PURPOSE

The objective of this section is to describe the Department's APL developmental process to applicants and end-users. The Department shall compile and publish a manual of uniform traffic control devices which defines the uniform system adopted, and shall compile and publish minimum specifications for traffic control signals and devices certified by it as conforming with the uniform system in accordance with 316.0745(2), F.S. The APL developmental process concerns innovative traffic control devices authorized for limited use on the streets and highways of the State as conforming with developmental specifications the Department publishes. Products authorized under this process are listed on the APL (Developmental Process) as defined in **Section 2**. Following a successful field evaluation of these innovative devices, the TERL's intent is to develop SSRBCs and add the devices to the list of traffic control products with required APL (Certified Process) listing (listed in **Section 4**).

#### 9.2 APL DEVELOPMENTAL PROCESS

The APL developmental process is as follows:

- (1) Step 1: Initial PATH Application Submittal and Review: To begin the process, the applicant shall submit via the <a href="PATH portal">PATH portal</a> product information including a completed <a href="Request for Product Consideration">Request for Product Consideration (RFPC)</a> application. The applicant shall select the applicable APL product type and developmental specification. The TERL in conjunction with Department Districts will review the provided information; it will determine whether the product has benefit to the state and requires APL listing. As applicable, the TERL will also determine whether the correct APL product type and developmental specification are selected.
  - If the product requires listing on the APL (Developmental Process) and a developmental specification exists, the applicant will be notified to proceed to Step 2A.
- (2) Step 2A: Product Compliance Information Submittal and Review: The applicant will be provided with a product compliance matrix (based on the developmental specification) to complete. The applicant shall submit the following documentation:
  - (a) The compliance matrix;

- **(b)** Third-party or first-party test data stipulated in the matrix (refer to **Section 7** for test laboratory and test reporting requirements);
- (c) Manufacturer's product specifications;
- (d) Product drawings or cut sheets;
- (e) Parts list; and
- **(f)** Assembly and installation instructions.

Depending on the product, the following additional documentation may be required:

- (g) Operation manual;
- (h) Troubleshooting and service manual; and
- (i) Circuit board schematics or block diagrams (refer to **Section 10.3** for how to handle confidential information).

Conformance is initially based on a review of the "Item Comply? (Yes/No/NA)" information in the matrix or the developmental specification marked-up by the applicant, and justification for any noncompliant item. Once the application is deemed complete and no apparent nonconformities are noted, the applicant will be instructed to proceed to Step 2B and will be provided with the name of the assigned product evaluator.

(3) Step 2B: Product Sample Submittal, Evaluation, and Authorization: After Steps 1 through 2A have been successfully completed, the applicant will typically be notified to provide a product sample to the TERL for evaluation. The applicant shall submit a product sample that is a production unit representative of the entire line or group of products to be evaluated, and with all accessory components necessary for full operation. All product shipping boxes must have the PATH application ID number and name of the assigned product evaluator on their shipping label. All costs of freight and shipping must be at the applicant's expense.

The product compliance information submitted in Step 2A will be reviewed for content, and the product evaluated against the developmental specification. The TERL will communicate any deficiencies to the applicant via an evaluation report.

The TERL in coordination with Districts may develop a field evaluation plan. The plan will typically include:

- (a) Design requirements and criteria;
- (b) Operational and maintenance requirements; and
- (c) Evaluation criteria, methods, and responsibilities.

The field evaluation plan shall be implemented on projects selected by the APL (Developmental Process) Monitor (refer to **Section 9.3**).

Once the TERL product evaluation staff have determined that a product meets the developmental specification, a recommendation will be made to the APL (Developmental Process) Monitor or Director, Office of Traffic Engineering and Operations to authorize and list the product on the APL. If the recommendation is accepted, the applicant will receive a final evaluation report (uploaded to PATH); the Director, Office of Materials (or designee) will conduct an administrative review; and the applicant will be notified that the product is listed on the APL. The applicant will also be provided with the field evaluation plan, as applicable.

# 9.3 USE OF DEVELOPMENTAL SPECIFICATION, APL DEVICE AND FIELD EVALUATION PLAN

When a project requires use of an APL device as meeting the developmental specification used for APL listing, the Department District Specifications Engineer will request use of the developmental specification from the APL (Developmental Process) Monitor on the specific project. Use of the developmental specification will be granted on a project-by-project basis. Use is granted if the proposed application falls within the scope of the developmental specification. If use is granted, the project will be listed in a Project List in PATH (associated with the developmental specification) that includes the Department District number, project FPID number, letting date, a brief description of the project, and the name of the APL (Developmental Process) Monitor.

The APL (Developmental Process) Monitor will periodically sample projects from the Project List and notify affected APL suppliers of the need to implement the field evaluation plan, as applicable (refer to **Section 9.2**). The APL supplier shall provide to the APL (Developmental Process) Monitor a schedule with milestone events concerning the field evaluation for the sampled projects. Product performance will be assessed by a field evaluation monitoring team typically consisting of:

- (a) A representative from the supplier;
- **(b)** The Department District Transportation Systems Management and Operations (TSM&O) Engineer or their designee;
- (c) A representative from each maintaining agency involved; and
- (d) The APL (Developmental Process) Monitor or their designee.

The APL (Developmental Process) Monitor will give the supplier a due date for submitting a field evaluation report on the sampled projects to the TERL. The field evaluation report will be developed by an individual appointed by the Department District TSM&O Engineer with input and review by the field evaluation monitoring team. The report typically includes:

- (a) A summary of the operational and field results of the evaluation;
- **(b)** Input from the maintaining agency as to the maintainability and reliability of the product;

- (c) A conclusion on the effectiveness and safety of the product; and
- **(d)** A recommendation for APL (Certified Process) consideration.

The reporting due date may be extended if the field evaluation and associated report are not complete by the field evaluation due date. Under these conditions, at least 30 calendar days prior to the due date, the supplier shall provide to the APL (Developmental Process) Monitor and TERL a written justification (e.g., inconclusive results obtained so far) for the extension. The APL (Developmental Process) Monitor will notify the supplier of the decision to extend (or lack thereof).

#### 9.4 ADDRESSING ALLEGED DEFICIENCIES

Alleged deficiencies of Section 316.0745, F.S., or product standards or authorization/listing requirements should be reported. To do so, the complainant shall submit a completed Alleged Deficiency Report (ADR) (downloadable at <a href="https://www.fdot.gov/traffic/traf-sys/traf-sys.shtm">https://www.fdot.gov/traffic/traf-sys/traf-sys.shtm</a>). Supporting evidence must be provided in order for the APL (Developmental Process) Monitor and TERL to process the ADR. If there is sufficient evidence of a deficiency and the deficiency is supplier related, a Notice of Deficiency will be sent to the supplier consistent with the process outlined in **Section 3.6**. If the deficiency is determined to present an immediate threat to the general public, the subject product will be immediately removed from the APL. Upon resolution of the deficiency, the APL (Developmental Process) Monitor and TERL will notify the supplier and originator of the deficiency. If action by the supplier is not deemed necessary, the APL (Developmental Process) Monitor and TERL will document the resolution and notify the originator accordingly.

### 9.5 DOCUMENT HISTORY

| Rev | Description                                | Authored and Checked | Reviewed                            | Approved  | Approval<br>Date |
|-----|--|----------------------|-------------------------------------|-----------|------------------|
| 1.0 | New Product Certification Handbook section | A. Burleson          | D. Vollmer<br>M. DeWitt<br>W. Geitz | R. Powell | 05/09/2024       |
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