

VIRGINIA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION (CD)

INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM (IIM)

GENERAL SUBJECT: PROPRIETARY ITEMS AND PROCESSES	NUMBER: IIM-CD-2015-01.01
SPECIFIC SUBJECT: APPROVAL PROCEDURES TO USE PROPRIETARY ITEMS AND PROCESSES	DATE: April 6, 2015
	SUPERCEDES:
DIVISION ADMINISTRATOR APPROVAL: <p style="text-align: center;">Bates, Kerry A., P.E.</p> <p style="text-align: right;">Digitally signed by Bates, Kerry A., P.E. DN: dc=gov, dc=virginia, dc=cov, ou=COV-Users, ou=End-Users, ou=VDOT, cn=Bates, Kerry A., P.E. document. Reason: I am approving this Date: 2015.04.06 11:09:14 -04'00'</p>	
STATE CONSTRUCTION ENGINEER	

PURPOSE

This IIM outlines the roles and responsibilities pertaining to the use and acquisition of proprietary items on construction projects using Federal-Aid Highway Program funds. The Code of Virginia requires additional measures for Sole Source items which are not covered in this IIM.

BACKGROUND

There are numerous highway construction items that are unique or state-of-the-art that can bring overall cost or safety benefits to Virginia Department of Transportation (VDOT) projects. In recognition of this, the Federal Highway Administration (FHWA) and VDOT have published guidelines on how and when these items may be incorporated into plans and specifications. The subject of proprietary items is addressed in the Code of Federal Regulations (CFR), Section 635.411. In addition, there are specific regulations related to proprietary items used in Intelligent Transportation System (ITS) projects, ITS, Traffic Systems, signing, pavement marking, and signal equipment, as specified in 23 CFR 655.606 and 23 CFR 940.11.

DEFINITIONS

Certification

As used in 23 CFR 635.411(a)(2), the written and signed statement of an appropriate contracting agency official certifying that a particular patented or proprietary product is either:

- Necessary for synchronization with existing facilities; or
- A unique product for which there is no equally suitable alternative.

Experimental Product	As used in 23 CFR 635.411(a)(3), a patented or proprietary product used for research or for a distinctive type of construction on relatively short sections of road on an experimental basis.
Intelligent Transportation System (ITS)	Electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.
ITS Project	Any project that in whole or in part funds the acquisition of technologies or systems of technologies that provide or significantly contribute to the provision of one or more ITS user services as defined in the National ITS Architecture. For VDOT purposes, ITS projects include projects containing traffic signal technologies.
Systems Engineering Analysis	<p>A structured process for arriving at a final design of a system. The final design is selected from a number of alternatives that would accomplish the same objectives and considers the total life-cycle of the project including not only the technical merits of potential solutions but also the costs and relative value of alternatives.</p> <p>The minimum requirements of a systems engineering analysis are included in 23 CFR 940.11.</p>
Traffic Systems Features	Any materials, equipment, or products which utilize analog or digital processing capabilities through electronics or software; used singly or in combination, for the safe and efficient exchange of right of way on a surface transportation system.
Oversight	<p>Oversight is the act of ensuring that the Federal-Aid Highway Program is delivered in accordance with applicable laws, regulations, and policies. Oversight activities include process reviews, program evaluation, program management activities, and project involvement activities.</p> <p>On certain projects, FHWA may delegate oversight and approval authority to VDOT, in conformance with the VDOT/FHWA Stewardship and Oversight Agreement. This IIM references two types of projects:</p> <p>Projects of Division Interest (PODI): Federally Eligible projects requiring FHWA involvement in project administration.</p> <p>Projects administered by VDOT or local public agency (LPA): Federally Eligible projects where FHWA has delegated oversight and approval authority to VDOT.</p>
Proprietary Items	A product, specification, or process identified in the plans or specifications as a "brand" or trade name (e.g. 3M, Corten). However, it may also be a product so narrowly specified that only a single provider can meet the specification. A proprietary product must meet one of the conditions listed under 23 CFR 635.411(a) or (c) for Federal funds to participate in its use on a Federal-aid highway construction project.
Sole Source Items	A sole source procurement is authorized when there is only one source practicably available for the goods or services required. Competition is not available in a sole source situation; thus distinguishing it from a proprietary purchase where the product required is restricted to the manufacturer(s) stipulated, but is sold through distributors

and competition between them can be obtained. Sole source justification based solely on a single vendor's capability to deliver in the least amount of time is not appropriate since availability alone is not a valid basis for determining a sole source procurement. Note: For sole source requirements exceeding \$5,000, a written quotation must be obtained from the vendor.

Public Interest Finding (PIF) As used in 23 CFR 635.411(c), an approval based on a request from a contracting agency that it is in the public interest to allow the contracting agency to require the use of a specific material or product even though other equally acceptable materials or products are available.

Synchronization As used in 23 CFR 635.411(a)(2), providing a product that matches specific current or desired characteristics of a project. Synchronization may be based on:

- **Function** (the proprietary product is necessary for the satisfactory operation of the existing facility),
- **Aesthetics** (the proprietary product is necessary to match the visual appearance of existing facilities),
- **Logistics** (the proprietary product is interchangeable with products in an agency's maintenance inventory),

or any combination of the above project characteristics.

In addition, it may be advisable to evaluate the following factors as they relate to synchronization:

- **Lifecycle** (the relative age of existing systems that will be expanded and the remaining projected life of the proposed proprietary element in relation to the remaining life of the existing elements),
- **Size/extent** of products and systems to be synchronized to/with, and the relative cost of the proprietary elements compared with replacing the elements requiring synchronization

GUIDELINES

- A. VDOT's Construction Division may allow proprietary items to be specified in construction projects when one of the following conditions apply:
- a. The proprietary item is obtained through competitive bidding with other suitable proprietary and non-proprietary products from multiple manufacturers, provided under 23 CFR 635.411(a)(1). Where both proprietary and non-proprietary items are available, the contracting agency must compose specifications that allow the contractor to choose amongst as many acceptable items as possible. If the specification lists specific products, it must list all or at least a reasonable number of products, and must include the words "or equal" to ensure the broadest range of choice.
 - b. A certification by the contracting agency, as provided in 23 CFR 635.411(a)(2), that the specified proprietary product is either necessary for synchronization with existing facilities or a unique product for which there is no equally suitable alternative.
 - c. A proprietary item is to be used for research or for a distinctive type of construction on an experimental basis as provided in 23 CFR 635.411(a)(3).
 - d. If there are other equally acceptable materials or products available, the contracting agency may require a specific material or product when its use is approved as being in the public interest as provided in 23 CFR 635.411(c).

Note: Proprietary items are not exempt from meeting Buy America requirements.

- B. For nonproprietary items, the Project Manager shall ensure that all materials and processes used are cost-effective and consistent with the requirement for the broadest practical competition.

IMPLEMENTATION

- A. The use of a single trade name in specifications and on plans should be avoided.
- B. Proprietary items may be listed in Special Provisions when the items have been preapproved for use by VDOT, provided that the items comply with one of the provisions of Subpart A of the GUIDELINES above and are accompanied by drawings and specifications if necessary. Items in this category could include, but are not limited to attenuation devices, preformed pavement markings, and sign sheeting. Any alternatives allowed to preapproved items should be stated in Special Provisions. A certification can be approved on a per-project basis, or may cover multiple projects, regions, or districts. A certification may also be statewide or programmatic.

PROCEDURES

- A. **Certification of a proprietary item - Construction Division** may concur that a particular proprietary item is either necessary for synchronization with existing facilities or is a unique product for which there is no equally suitable alternative. The authority to concur with certification requests is currently limited to VDOT.
1. The Requestor or Locality Representative shall certify and provide documentation to the Project Manager/Project Coordinator justifying the use of only one product or patented process. The basis for certification is for synchronization or uniqueness. The documentation should include, as applicable:
 - A. Synchronization
 - Cost
 - Impacts on safety
 - Maintenance requirements
 - Functions, aesthetics, logistics
 - Systems Engineering Analysis (for ITS projects and projects containing ITS or Traffic Systems Features)
 - B. Uniqueness
 - Cost
 - Impacts on safety
 - Availability
 - Potential benefit
 - Systems Engineering Analysis (for ITS projects and projects containing ITS or Traffic Systems Features)
 - The term of a certification should be specified. When a certification extends beyond a single project, a sunset date (maximum of 5 years) should be specified. It is recommended that the action have a limited duration to encourage re-evaluation of the continued need for a specified product.
2. This certification document shall be submitted for concurrence prior to inclusion of the products or processes in the plans or specifications. This should be accomplished as early in the design process as possible to avoid any adverse impact or schedule delay (Submit the Certification Request Form (C-98a) in Exhibit 1).

3. The Construction Division will provide approval that a particular proprietary item is either necessary for synchronization with existing facilities or is a unique product for which there is no equally suitable alternative.
4. Construction Division will list all certifications on this website:
<http://www.viriniadot.org/business/resources/const/ProprietaryItemsApproval.pdf>
5. For PODIs, Construction Division will include a copy of the completed Certification Request Form with the federal-aid authorization request.

* For LPA projects, the locality will certify to VDOT that the products meet the requirements as identified above. (See the Certification Request Form (C-98a) in Exhibit 1).

B. Proprietary item PIF- A PIF letter, from the Requestor or Locality Representative, is required when the contracting agency requests to use a specific material or product **even though other equally acceptable materials or products are available**. FHWA provides approval on projects requiring FHWA oversight and Construction Division provides approval on VDOT or LPA-administered projects that are federally eligible. FHWA approval is required for multiple projects, locality-wide, district-wide, statewide, region-wide or programmatic PIFs regardless of the project type. After approving a PIF, FHWA will post details of the approval to the FHWA website at <http://www.fhwa.dot.gov/construction/contracts/pnpapprovals/approvals.cfm>.

1. All PIF requests should document the reasonableness of the contracting agency's minimum needs and the best method to meet these needs consistent with the requirement for the broadest practical competition.

The level of documentation included depends on the nature of the product and projects involved. Supporting material should include, as applicable:

- A description of how the proprietary product requirement will benefit the public;
 - An evaluation of the pool of other equally acceptable products;
 - An estimate of additional costs incurred as a result of this proprietary product requirement;
 - Description of need, including limitations and conditions (types of roadways, traffic volumes, and other critical factors);
 - Engineering/ economic analysis supporting the requested action;
 - Extent of Approval: Is the approval project-specific, for multiple projects, district/region wide, statewide, or programmatic
 - Additional supporting material required for signing, pavement marking, signal materials (or equipment) and Traffic Systems Features:
 - A comparison of the distinctive performance characteristics of competing products for signing, pavement marking, and signal materials (or equipment) in compliance with 23 CFR 655.606.
 - Systems Engineering Analysis (for ITS projects and projects containing ITS or Traffic Systems Features)
 - The term of a PIF should be specified. When a PIF extends beyond a single project, a sunset date (maximum of 5 years) should be specified. It is recommended that the action have a limited duration to encourage re-evaluation of the continued need for a specified product.
2. **Approval to specify a proprietary item is needed at project authorization. The Requestor or Locality Representative is encouraged to submit requests for approval early in project development to avoid potential delays in authorization.** A copy of all approved PIFs shall be included with the federal-aid authorization request. The authorization request letter must include the Public Interest Finding Request Form (C-98b) in Exhibit 2.

3. All approvals made by Construction Division on federally eligible non-PODIs shall be made using the same rules and guidance under which FHWA would have made the decision. For these projects VDOT will send a copy of the approved PIF to the FHWA Division Administrator.
4. If a PIF is denied, then the item must be competitively bid or marked as non-participating in accordance with 23 CFR 635.411.

C. **Experimental products** - VDOT may decide to use a proprietary product for research or for a distinctive type of construction on a relatively short section of road or limited basis for experimental purposes. FHWA provides approval of experimental products on PODIs. Construction Division provides approval on VDOT or LPA-administered projects that are federally eligible. The same approval authority applies when an experimental feature is requested through a construction change order. (Submit the Experimental Use Request Form (C-98c) in Exhibit 3).

In addition to submitting the form in Exhibit 3, the following procedures must be followed:

1. Designate the project as an experimental research project in project description.
2. Develop a work plan that includes a description of the experimental feature, experimental feature objectives, construction requirements (including necessary measurements), characteristics to be evaluated, time schedules, reporting requirements, cost estimates, construction and post-construction inspection schedules, control sections, and evaluations to be conducted. Guidance can be found at the FHWA website here www.fhwa.dot.gov/programadmin/contracts/expermnt.cfm
3. Report results in accordance with the guidelines outlined in the above FHWA website
4. VDOT will provide a copy to the FHWA Division Administrator.

Note: All experimental and (Programmatic, Locality-wide, District-wide, Region-wide, or Statewide) requests for proprietary signing, pavement marking, lighting, and traffic signal materials, equipment, or products installed on the VDOT highway system shall receive concurrence from the Assistant State Traffic Engineer for Traffic Control Devices prior to approval by Construction Division. All requests for proprietary ITS projects and ITS systems materials, equipment or products installed on the VDOT highway systems shall receive concurrence from the State Operations Engineer prior to approval by Construction Division.

Exhibit 1

Form C-98a
03-23-15

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PATENTED OR PROPRIETARY ITEM
CERTIFICATION REQUEST FORM**

A specific patented or proprietary material, specification, or process shall not be required on a contract except as permitted in 23 CFR 635.411. Use this form to obtain approval of the use of a proprietary feature on a project or group of projects.

SUBMIT TO FEDERAL SUBMISSIONS OFFICER

Name of Requestor

Title

Requesting Agency

Date Submitted

State Project No.

UPC

Federal Project No.

Project Description

**Extent of Approval
(Check only one)**

Project Specific
Programmatic
Locality-wide

District-wide
Region-wide
Statewide

Proprietary Product(s) or Process(es)

Manufacturer Information (Name, Address, Phone Number, & Website)

Programmatic, Locality-wide, District-wide, Region-wide, or Statewide Certification Request will have a term of:

Term:

Start Date

End Date

Comments

UPC: _____
Date: _____
of the _____

Requestor or Locality Representative (Print)
Title
Agency

do hereby certify that in accordance with the requirements of 23 CFR 635.411(a)(2), that:

(Check only one)

the identified patented or proprietary item(s) is essential for synchronization with existing highway facilities.

or

no equally suitable alternative exists for the identified patented or proprietary item(s).

Signature *Date*

I concur with this Request

VDOT Project Manager / Project Coordinator (Print)

Signature *Date*

This request Meets Does Not Meet Additional Information Required
FHWA & State Procurement Requirements

Concur

Do Not Concur with this Request

VDOT Federal Submissions Officer / Locally Administered Program Manager

Signature *Date*
(May act on requests on any Federally Eligible non-PODIs)

Meets Does Not Meet Additional Information Required

FHWA Engineer

Signature *Date*
(Required for PODIs, Multiple Projects, Locality-wide, District-wide, Statewide, Region-wide, or Programmatic requests)

Comments:

List attached documentation as outlined in Subpart A of the PROCEDURES in the CONSTRUCTION DIVISION (CD) INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM for PROPRIETARY ITEMS AND PROCESSES.

CC: VDOT Director of Contracts
Assistant State Traffic Engineer – Traffic Control Devices
State Operations Engineer

Exhibit 2

Form C-98b
03-23-15

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PATENTED OR PROPRIETARY ITEM

PUBLIC INTEREST FINDING REQUEST FORM

A specific patented or proprietary material, specification, or process shall not be required on a contract except as permitted in 23 CFR 635.411. Use this form to obtain approval of the use of a proprietary feature on a project or group of projects.

SUBMIT TO FEDERAL SUBMISSIONS OFFICER

Name of Requestor

Title

Requesting Agency

Date Submitted

State Project No.

UPC

Federal Project No.

Project Description

**Extent of Approval
(Check only one)**

Project Specific
Programmatic
Locality-wide

District-wide
Region-wide
Statewide

Proprietary Product(s) or Process(es)

Manufacturer Information (Name, Address, Phone Number, & Website)

Programmatic, Locality-wide, District-wide, Region-wide, or Statewide Public Interest Finding Request will have a term of:

Term:

Start Date

End Date

UPC:

Date:

Requestor or Locality Representative (Print)

Title

of the

Agency

request approval of the Public Interest Finding (PIF) based on the following information:

Signature

Date

Comments:

I concur with this Request

VDOT Project Manager / Project Coordinator (Print)

Signature

Date

This request Meets Does Not Meet Additional Information Required
FHWA & State Procurement Requirements

Approved

Not Approved this Request

VDOT Federal Submissions Officer / Locally Administered Program Manager

Signature

Date

(May act on requests on any Federally Eligible non-PODIs)

Approved

Not Approved

Additional Information Required

FHWA Engineer

Signature of FHWA Engineer

Date

(Required for PODIs, Multiple Projects, Locality-wide, District-wide, Statewide, Region-wide, or Programmatic requests)

Comments:

List attached documentation as outlined in Subpart B of the PROCEDURES in the CONSTRUCTION DIVISION (CD) INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM for PROPRIETARY ITEMS AND PROCESSES:

CC: VDOT Director of Contracts
Assistant State Traffic Engineer – Traffic Control Devices
State Operations Engineer

Exhibit 3

Form C-98c
03-23-15

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PATENTED OR PROPRIETARY ITEM

EXPERIMENTAL USE REQUEST FORM

A specific patented or proprietary material, specification, or process shall not be required on a contract except as permitted in 23 CFR 635.411. Use this form to obtain approval of the use of a proprietary feature on a project or group of projects.

SUBMIT TO FEDERAL SUBMISSIONS OFFICER

Name of Requestor

Title

Requesting Agency

Date Submitted

State Project No.

UPC

Federal Project No.

Project Description

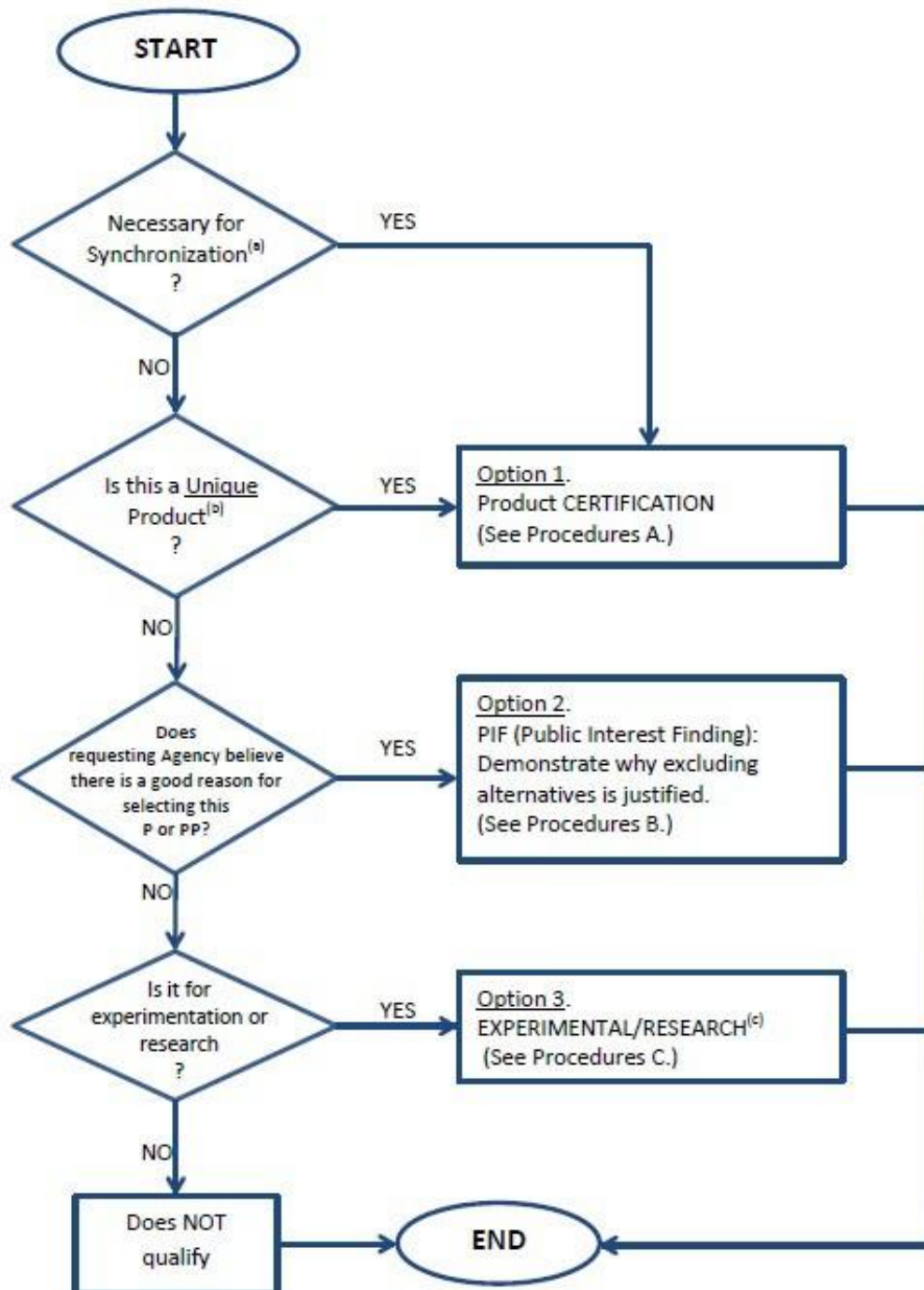
Proprietary Product(s) or Process(es)

Manufacturer Information (Name, Address, Phone Number, & Website)

Document the reasons for experimental use of the proprietary item(s) or process(es). Include a work plan that describes how research or experimental feature will be used and evaluated. Attach additional pages and documentation as necessary. See FHWA guidance for "Construction Projects Incorporating Experimental Features": <http://www.fhwa.dot.gov/programadmin/contracts/expermnt.cfm>.

Exhibit 4

Patented and Proprietary Products Decision Tree Flowchart



- (a) Should address at least one of the following: Function, Aesthetics or Logistics
- (b) For which there in no equally suitable alternative
- (c) Relative short section of road or small scale