§652.11 Planning.

Federally aided bicycle and pedestrian projects implemented within urbanized areas must be included in the transportation improvement program/annual (or biennial) element unless excluded by agreement between the State and the metropolitan planning organization.

§652.13 Design and construction criteria.

- (a) The American Association of State Highway and Transportation Officials' "Guide for Development of New Bicycle Facilities, 1981" (AASHTO Guide) or equivalent guides developed in cooperation with State or local officials and acceptable to the division office of the FHWA, shall be used as standards for the construction and design of bicycle routes. Copies of the AASHTO Guide may be obtained from the American Association of State Highway and Transportation Officials, 444 North Capitol Street, NW., Suite 225, Washington, DC 20001.
- (b) Curb cuts and other provisions as may be appropriate for the handicapped are required on all Federal and Federal-aid projects involving the provision of curbs or sidewalks at all pedestrian crosswalks.

PART 655—TRAFFIC OPERATIONS

Subparts A-C [Reserved]

Subpart D—Traffic Surveillance and Control

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APPENDIX TO SUBPART F—ALTERNATE METH-OD OF DETERMINING THE COLOR OF RETROREFLECTIVE SIGN MATERIALS

Subpart G [Reserved]

AUTHORITY: 23 U.S.C. 101(a), 104, 109(d), 114(a), 217, 315, and 402(a); 23 CFR 1.32 and; 49 CFR 1.48(b).

Subparts A-C [Reserved]

Subpart D—Traffic Surveillance and Control

SOURCE: 49 FR 8436, Mar. 7, 1984, unless otherwise noted.

EFFECTIVE DATE NOTE: At 66 FR 1453, Jan. 8, 2001, subpart D of part 655, consisting of §§ 655.401, 655.403, 655.405, 655.407, 655.409, and feb. 7, 2001. At 66 FR 9198, Feb. 7, 2001, the effective date was delayed until Apr. 8, 2001.

§ 655.401 Purpose.

The purpose of this regulation is to provide policies and procedures relating to Federal-aid requirements of traffic surveillance and control system projects.

§ 655.403 Traffic surveillance and control systems.

- (a) A traffic surveillance and control system is an array of human, institutional, hardware and software components designed to monitor and control traffic, and to manage transportation on streets and highways and thereby improve transportation performance, safety, and fuel efficiency.
- (b) Systems may have various degrees of sophistication. Examples include, but are not limited to, the following systems: traffic signal control, freeway surveillance and control, and highway advisory radio, reversible lane control, tunnel and bridge control, adverse weather advisory, remote control of movable bridges, and priority lane control
- (c) Systems start-up is the process necessary to assure the surveillance and control project operates effectively. The start-up process is accomplished in a limited time period immediately after the system is functioning

§ 655.405

and consists of activities to achieve optimal performance. These activities include evaluation of the hardware, software and system performance on traffic; completion and updating of basic data needed to operate the system; and any modifications or corrections needed to improve system performance.

§655.405 Policy.

Implementation and efficient utilization of traffic surveillance and control systems are essential to optimize transporation systems efficiency, fuel conservation, safety, and environmental quality.

§655.407 Eligibility.

Traffic surveillance and control system projects are an integral part of Federal-aid highway construction and all phases of these projects are eligible for funding with appropriate Federal-aid highway funds. The degree of sophistication of any system must be in scale with needs and with the availability of personnel and budget resources to operate and maintain the system.

§655.409 Traffic engineering analysis.

Traffic surveillance and control system projects shall be based on a traffic engineering analysis. The analysis should be on a scale commensurate with the project scope. The basic elements of the analysis are:

- (a) Preliminary analysis. The Preliminary Traffic Engineering Analysis should determine: The area to be controlled; transportation characteristics; objectives of the system; existing systems resources (including communications); existing personnel and budget resources for the maintenance and operation of the system.
- (b) Alternative systems analysis. Alternative systems should be analyzed as applicable. For the alternatives considered, the analysis should encompass incremental initial costs; required maintenance and operating budget and personnel resources; and expected benefits. Improved use of existing resources, as applicable, should be considered also.
- (c) Procurement and system start-up analysis. Procurement and system start-up methods should be considered

in the analysis. Federal-aid laws, regulations, policies, and procedures provide considerable flexibility to accommodate the special needs of systems procurement.

- (d) Special features analysis. Unique or special features including special components and functions (such as emergency vehicle priority control, redundant hardware, closed circuit television, etc.) should be specifically evaulated in relation to the objectives of the system and incremental initial costs, operating costs, and resource requirements.
- (e) Analysis of laws and ordinances. Existing traffic laws, ordinances, and regulations relevant to the effective operation of the proposed system shall be reviewed to ensure compatibility.
- (f) Implementation plan. The final element in the traffic engineering analysis shall be an implementation plan. It shall include needed legislation, systems design, procurement methods, construction management procedures including acceptance testing, system start-up plan, operation and maintenance plan. It shall include necessary institutional arrangements and the dedication of needed personnel and budget resources required for the proposed system.

(Approved by the Office of Management and Budget under control number 2125-0512)

[49 FR 8436, Mar. 7, 1984, as amended at 59 FR 33910, July 1, 1994]

§655.411 Project administration.

- (a) Prior to authorization of Federalaid highway funds for construction, there should be a commitment to the operations plan (see §655.409 (f)).
- (b) The plans, specifications and estimates submittal shall include a total system acceptance plan.
- (c) Project approval actions are delegated to the Division Administrator. Approval actions for traffic surveillance and control system projects costing over \$1,000,000 are subject to review by the Regional Administrator prior to approval of plans, specifications, and estimates
- (d) System start-up is an integral part of a surveillance and control project.
- (1) Costs for system start-up, over and above those attributable to routine