



**State of Vermont
Policy, Planning & Intermodal Development Division
Policy, Planning and Research Bureau
Development Review & Permitting Services Section**

One National Life Drive
Montpelier, VT 05633-5001
vtrans.vermont.gov

[phone] 802-828-2653
[fax] 802-828-2456
[ttd] 800-253-0191

Agency of Transportation

January 26, 2016

Town of Williston Public Works Department
Lisa Sheltra
7900 Williston Road
Williston, VT 05495

Subject: Williston, US2, L.S. 180+85 and 184+65 LT & RT

Dear Ms. Sheltra:

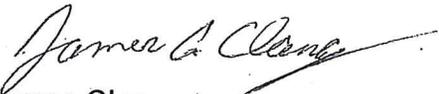
Your application for a permit to work within the State Highway right-of-way to install two rectangular rapid flashing beacons (RRFB's) adjacent to existing crosswalks, at the location indicated, has been processed by this office and is enclosed.

The two RRFB's must conform to the Manual on Uniform Traffic Coded Devices and the following conditions must be met for this permit to be valid:

The existing static signs must be replaced. The Library Drive crossing is within the school zone and should be signed as a school crossing (Fluorescent Yellow Green or FYG) S1-1 with W16-7P, downward arrow; and the midblock crossing is outside the school zone and should have FYG W11-2 with W16-7P signs. In both cases the signs need to be gate-posted (facing traffic on both the left and right side of the road). See attached exhibits for detail.

Please contact the District Transportation Office #5 prior to starting work in the state highway right-of-way. The telephone number for District #5 is (802) 655-1580.

Sincerely,


James Clancy
Permit Coordinator
Permitting Services

Enclosures

cc: District Transportation Office #5
Michael Golden, Traffic Operations

PERMIT ID# 40734

FOR AGENCY USE ONLY

Town: Williston
Route: US 2
Mile Marker: 3.43 + 3.50 LT/RT
Log Station: 180+85 + 184+65 LT/RT

VERMONT AGENCY OF TRANSPORTATION
19 V.S.A. § 1111 PERMIT APPLICATION

Owner's/Applicant's Name, Address & Phone No. LISA SHELTRA, TOWN OF WILLISTON, 7900 WILLISTON ROAD
WILLISTON VT (802) 878-1239 do Department of Public Works
Co-Applicant's Name, Address & Phone No. (if different from above) _____

The location of work (town, highway route, distance to nearest mile marker or intersection & which side)
326⁺ feet west of Route 2/State Barn Drive Intersection (AND) LIBRARY LANE & ROUTE 2 INTERSECTION
Description of work to be performed in the highway right-of-way (attach sketch) INSTALLATION OF 2
RECTANGULAR RAPID FLASHING BEACONS ADJACENT TO EXISTING PAINTED
CROSSWALKS

Property Deed Reference Book: _____ Page: _____ (only required for Permit Application for access)

Is a Zoning Permit required? Yes No - If Yes, # _____
Is a 30 VSA § 248 permit required? Yes No - If Yes, # _____
Is an Act 250 permit required? Yes No - If Yes, # _____
Other permit(s) required? Yes No - If Yes, name and # of each _____
Date applicant expects work to begin SPRING _____ 2016

Owner/Applicant: LISA SHELTRA (Print name above) Position Title: ASSISTANT DIRECTOR OF PW.

Sign in Shaded area: [Signature] Date: 11/18/2015

Co-Applicant: _____ (Print name above) Position Title: _____

Sign in Shaded area: _____ Date: _____

- INSTRUCTIONS:**
- Contact the Agency of Transportation Utilities and Permits Unit (802.828.2653) or your local area Agency Transportation Maintenance District to determine your issuing authority.
 - Contact the issuing authority to determine what plans and other documents are required to be submitted with your 19 VSA § 1111 permit application.
 - Complete this TA 210 Form (some information may not apply to you) and attach all necessary documents and submit it to the issuing authority. We require this application to be signed by the property owner or their legally authorized representative. Original signatures are required.
 - The Owner/Applicant and Co-Applicant (if applicable) declares under the pains and penalty of perjury that all information provided on this form and submitted attachments are to the best of their knowledge true and complete.
 - If you have any questions contact the issuing authority.

PERMIT APPROVAL

This covers only the work described below: Permission is granted to work within the state highway right-of-way to install two rectangular rapid flashing beacons adjacent to existing crosswalks, in accordance with the agency standard details and the attached plan, and permit special conditions.

The work is subject to the restrictions and conditions on the reverse page, plus the Special Conditions stated on the attached page(s).

Date work is to be completed December 1, 2016
By [Signature] Issued Date January 26, 2016
Authorized Representative for Secretary of Transportation
Date work accepted: _____
By: _____
DTA or Designee

NOTICE: This permit covers only the Vermont Agency of Transportation's jurisdiction over this highway under Title 19 Section 1111 VSA. It does not release the petitioner from the requirements of any other statutes, ordinances, rules or regulations.

No work shall be done under this permit until the owner/applicant has contacted the District Transportation Office at:
District #5, (802) 655-1580, PO Box 168, Essex Jct., VT 05453

Applicant to Complete

SPECIAL CONDITIONS

This permit is granted subject to the restrictions and conditions on the back of the permit, with particular attention given to the Special Conditions listed below. This permit pertains only to the authority exercised by the Vermont Agency of Transportation (Agency) under Vermont Statutes Annotated, Title 19, Section 1111, and does not relieve the Permit Holder from the requirements of otherwise applicable statutes, rules, regulations or ordinances (e.g., Act 250, zoning, etc.). The Permit Holder shall observe and comply with all Federal and State laws and local bylaws, ordinances, and regulations in any manner affecting the conduct of the work and the action or operation of those engaged in the work, including all orders or decrees as exist at present and those which may be enacted later by bodies or tribunals having jurisdiction or authority over the work, and the Permit Holder shall defend, indemnify, and save harmless the State and all its officers, agents, and employees against any claim or liability arising from or based on the violation of any such law, bylaws, ordinances, regulations, order, or decree, whether by the Permit Holder in person, by an employee of the Permit Holder, by a person or entity hired by the Permit Holder, or by a Subcontractor or supplier.

The Permit Holder shall accomplish all work under this permit in accordance with the profile and notes of standard drawings E-119 and E-121, copies attached; the attached location map and exhibits; and the attached Federal Highway memo on RRFB's.

A preconstruction meeting to discuss work to be completed must be held prior to the Permit Holder's employees or contractor beginning work. The Permit Holder is required to notify the District Transportation Administrator five (5) working days in advance of such meeting.

The existing static signs must be replaced. The Library Drive crossing is within the school zone and should be signed as a school crossing (Fluorescent Yellow Green or FYG) S1-1 with W16-7P, downward arrow; and the midblock crossing is outside the school zone and should have FYG W11-2 with W16-7P signs. In both cases the signs need to be gate-posted (facing traffic on both the left and right side of the road).

Please note that the Vermont Agency of Transportation is not a member of Dig Safe. The Permit Holder shall also contact Steve Guyette (802) 343-2188 for Districts #5 & #8 and for all other districts contact Tim Sweeney at (802) 279-0585. They will need to locate and mark all existing buried utility facilities owned by the Agency near the location of the proposed work.

Roadway shoulder areas must be maintained free of unnecessary obstructions, including parked vehicles, at all times while work is being performed under this permit.

Upon completion of the work, the Permit Holder shall be responsible to schedule and hold a final inspection. The Permit Holder is required to notify the District Transportation Administrator five (5) working days in advance of such inspection.

The Permit Holder shall verify the appropriate safety measures needed, prior to construction, so proper devices and/or personnel are available when and as needed. Traffic control devices, shall be in conformance with the MUTCD (Manual on Uniform Traffic Control Devices), Agency standards and any additional traffic control deemed necessary by the District Transportation Administrator. The Permit Holder's failure to utilize proper measures shall be considered sufficient grounds for the District Transportation Administrator to order cessation of the work immediately.

Town of Williston Public Works Department
Williston, US2, L.S. 180+85 and 184+65 LT & RT
January 26, 2016
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The Permit Holder will perform construction in such a way as to minimize conflicts with normal highway traffic. When two-way traffic cannot be maintained, the Permit Holder shall provide a sign package that conforms to the MUTCD (Manual on Uniform Traffic Control Devices) or Agency standards, as well as trained Flaggers. The District Transportation Administrator may require a similar sign package with trained Flaggers whenever it is deemed necessary for the protection of the traveling public. In addition, the District Transportation Administrator may require the presence of Uniform Traffic Officers (UTOs); moreover, the presence of UTOs shall not excuse the Permit Holder from its obligation to provide the sign package and Flaggers.

The Permit Holder shall ensure that all workers exposed to the risks of moving highway traffic and/or construction equipment wear high-visibility safety apparel meeting the requirements of ISEA (International Safety Equipment Association) "American National Standards for High-Visibility Safety Apparel," and labeled as ANSI (American National Standards Institute) 107-2004, or latest revisions, for Performance Class 2 or 3 requirements. A competent person - one designated by the Permit Holder's Contractor to be responsible for worker safety within the activity area of the State highway right-of-way shall select the appropriate class of garment. The Engineer may suspend this permit until compliance is obtained.

Independence; Liability: The Permit Holder will act in an independent capacity and not as officers or employees of the State.

The Permit Holder shall defend the State and its officers and employees against all claims or suits arising in whole or in part from any act or omission of the Permit Holder or of any agent of the Permit Holder. The State shall notify the Permit Holder in the event of any such claim or suit, and the Permit Holder shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit.

After a final judgment or settlement, the Permit Holder may request recoupment of specific defense costs and may file suit in the Washington Superior Court requesting recoupment. The Permit Holder shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the Permit Holder.

The Permit Holder shall indemnify the State and its officers and employees in the event that the State, its officers or employees become legally obligated to pay any damages or losses arising from any act or omission of the Permit Holder.

Insurance: Before beginning any work under this Permit the Permit Holder must provide certificates of insurance to show that the following minimum coverages are in effect. It is the responsibility of the Permit Holder to maintain current certificates of insurance on file with the State for the duration of work under the Permit. No warranty is made that the coverages and limits listed herein are adequate to cover and protect the interests of the Permit Holder for the Permit Holder's operations. These are solely minimums that have been established to protect the interests of the State.

Workers' Compensation: With respect to all operations performed under the Permit, the Permit Holder shall carry workers' compensation insurance in accordance with the laws of the State of Vermont.

Town of Williston Public Works Department
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General Liability and Property Damage: With respect to all operations performed under the Permit, the Permit Holder shall carry general liability insurance having all major divisions of coverage including, but not limited to:

Premises - Operations
Products and Completed Operations
Personal Injury Liability
Contractual Liability

The policy shall be on an occurrence form and limits shall not be less than:

\$2,000,000 Per Occurrence
\$2,000,000 General Aggregate
\$2,000,000 Products/Completed Operations Aggregate
\$ 50,000 Fire/Legal Liability

Permit Holder shall name the State of Vermont and its officers and employees as additional insureds for liability arising out of this Permit.

Automotive Liability: The Permit Holder shall carry automotive liability insurance covering all motor vehicles, including hired and non-owned coverage, used in connection with the Permit. Limits of coverage shall not be less than: \$1,000,000 combined single limit.

Permit Holder shall name the State of Vermont and its officers and employees as additional insureds for liability arising out of this Permit.

Rectangular Rapid Flashing Beacons

Proposed Locations

Legend

 Location



Location 1

Location 2

Google earth

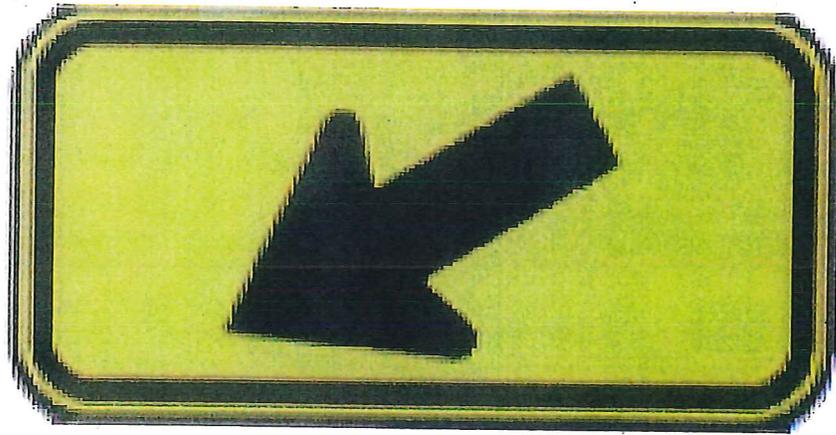
© 2015 Google

300 ft





SI-1

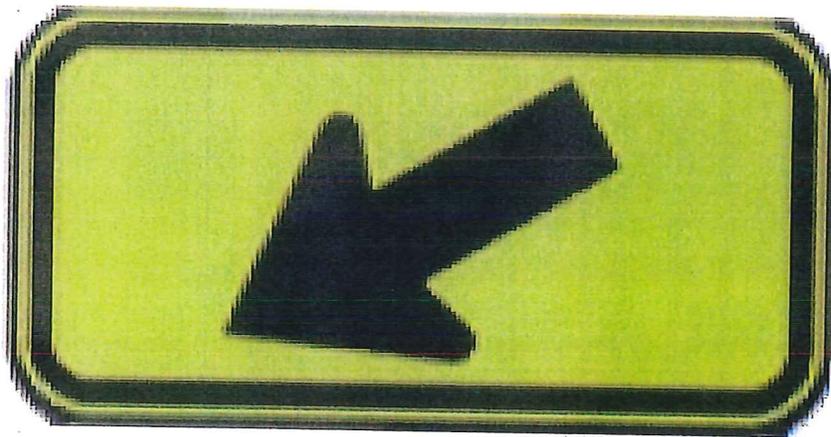


W16-7P

Exhibit 1 - Library Dr. Crossing (Location 1)



W11-2
Pedestrian



W16-7P

Exhibit 2 - mid-block crossing (Location 2)



U.S. Department
of Transportation
Federal Highway
Administration

Memorandum

Sent via Electronic Mail

Subject: **INFORMATION:** MUTCD – Interim Approval for
Optional Use of Rectangular Rapid Flashing Beacons (IA-11)

Date: July 16, 2008

From: Anthony T. Furst /s/ *Anthony T. Furst*
Acting Associate Administrator
for Operations

Reply to
Attn. of: HOTO-1

To: Associate Administrators
Chief Counsel
Acting Chief Financial Officer
Directors of Field Services
Federal Lands Highway Division Engineers
Resource Center Director
Division Administrators

Purpose: The purpose of this memorandum is to issue an Interim Approval for the optional use of Rectangular Rapid Flashing Beacons (RRFB) as warning beacons under certain limited conditions. Interim Approval allows interim use, pending official rulemaking, of a new traffic control device, a revision to the application or manner of use of an existing traffic control device, or a provision not specifically described in the Manual on Uniform Traffic Control Devices (MUTCD).

Background: The Florida Department of Transportation, in conjunction with the city of St. Petersburg, has requested that the Federal Highway Administration (FHWA) issue an Interim Approval to allow the use of RRFBs as warning beacons to supplement standard pedestrian crossing and school crossing warning signs at crossings across uncontrolled approaches. The RRFB does not meet the current standards for flashing warning beacons as contained in the 2003 edition of the MUTCD, Chapter 4K which requires a warning beacon to be round in shape and either 8 or 12 inches in diameter, to flash at a rate of approximately once per second, and to be located no less than 12 inches outside the nearest edge of the warning sign it supplements. The RRFB uses rectangular-shaped high-intensity LED-based indications, flashes rapidly in a wig-wag "flickering" flash pattern, and is mounted immediately between the crossing sign and the sign's supplemental arrow plaque.

MOVING THE
AMERICAN
ECONOMY

Research on the RRFB: The city of St. Petersburg has completed experimentation with the RRFB at 18 pedestrian crosswalks across uncontrolled approaches and has submitted their final report. In addition to "before" data, the city collected "after" data at intervals for 1 year at all sites and for 2 years at the first 2 implemented sites. For the first 2 sites, the city collected data for overhead and ground-mounted pedestrian crossing signs supplemented with standard round yellow flashing beacons, for comparison purposes, before the RRFBs were installed. The data show very high rates of motorist "yield to pedestrians" compliance, mostly in the high 80s to close to 100 percent, in comparison to far lower rates (in the 15 to 20 percent range) for standard beacons. The very high yielding rates are sustained even after 2 years in operation, and no identifiable negative effects have been found. The RRFB's very high compliance rates are previously unheard of for any device other than a full traffic signal and a "HAWK" hybrid signal, both of which stop traffic with steady red signal indications. The St. Petersburg data also shows that drivers exhibit yielding behavior much further in advance of the crosswalk with RRFB than with standard round yellow flashing beacons. These data clearly document very successful and impressive positive experience with the RRFBs at crosswalks in that city.

In addition to the St. Petersburg locations, experimentation is underway at 3 sites in Miami-Dade County, FL, 4 sites in Largo, FL, and 2 sites in Las Cruces, NM, and RRFBs are being installed at 3 sites in northern Illinois. Additionally, the District of Columbia has installed RRFBs at one crosswalk and plans to request experimentation with RRFB at several sites. Data from locations other than St. Petersburg is limited but does show results very similar to those found in St. Petersburg. A study of 2 RRFB locations in Miami-Dade County, FL, reported in a TRB paper, found that evasive conflicts between drivers and pedestrians and the percentage of pedestrians trapped in the center of an undivided road because of a non-yielding driver in the second half of the roadway were both significantly reduced to negligible levels. Data so far from the one RRFB site in DC shows driver yielding compliance rates increased from 26 percent to 74 percent after 30 days in operation and advance yielding distances also increased comparable to the St. Petersburg results.

FHWA Evaluation of Results: The Office of Transportation Operations has reviewed the available data and considers the RRFB to be highly successful for the applications tested (uncontrolled crosswalks). The RRFB offers significant potential safety and cost benefits, because it achieves very high rates of compliance at a very low relative cost in comparison to other more restrictive devices that provide comparable results, such as full midblock signalization. The components of RRFB are not proprietary and can be assembled by any jurisdiction with off-the-shelf hardware. The FHWA believes that the RRFB has a low risk of safety or operational concerns. However, because proliferation of RRFBs in the roadway environment to the point that they become ubiquitous could decrease their effectiveness, use of RRFBs should be limited to locations with the most critical safety concerns, such as pedestrian and school crosswalks across uncontrolled approaches, as tested in the experimentation.

At a recent meeting of the National Committee on Uniform Traffic Control Devices, the Signals Technical Committee voted to endorse the future inclusion of the RRFB for uncontrolled crosswalks into the MUTCD and recommended that FHWA issue an Interim Approval for RRFB. The FHWA believes this indicates a consensus in the practitioner community in support of optional use of RRFB. This Interim Approval does not create a new mandate compelling installation of RRFB but will allow agencies to install this type of flashing beacon, pending official MUTCD rulemaking, to provide a degree of enhanced pedestrian safety at uncontrolled crosswalks that has been previously unattainable without costly and delay-producing full traffic signalization.

Conditions of Interim Approval: The FHWA will grant Interim Approval for the optional use of the RRFB as a warning beacon to supplement standard pedestrian crossing or school crossing signs at crosswalks across uncontrolled approaches to any jurisdiction that submits a written request to the Office of Transportation Operations. A State may request Interim Approval for all jurisdictions in that State. Jurisdictions using RRFB under this Interim Approval must agree to comply with the technical conditions detailed below, to maintain an inventory list of all locations where the devices are placed, and to comply with Item F at the bottom of Page 1A-6 of the 2003 MUTCD, Section 1A.10 which requires:

"An agreement to restore the site(s) of the Interim Approval to a condition that complies with the provisions in this Manual within 3 months following the issuance of a Final Rule on this traffic control device. This agreement must also provide that the agency sponsoring the Interim Approval will terminate use of the device or application installed under the Interim Approval at any time that it determines significant safety concerns are directly or indirectly attributable to the device or application. The FHWA's Office of Transportation Operations has the right to terminate the interim approval at any time if there is an indication of safety concerns."

1. General Conditions:

- a. An RRFB shall consist of two rapidly and alternately flashed rectangular yellow indications having LED-array based pulsing light sources, and shall be designed, located, and operated in accordance with the detailed requirements specified below.
- b. The use of RRFBs is optional. However, if an agency opts to use an RRFB under this Interim Approval, the following design and operational requirements shall apply, and shall take precedence over any conflicting provisions of the MUTCD for the approach on which RRFBs are used:

2. Allowable Uses:

- a. An RRFB shall only be installed to function as a Warning Beacon (see 2003 MUTCD Section 4K.03).
- b. An RRFB shall only be used to supplement a W11-2 (Pedestrian) or S1-1 (School) crossing warning sign with a diagonal downward arrow (W16-7p) plaque, located at or immediately adjacent to a marked crosswalk.
- c. An RRFB shall not be used for crosswalks across approaches controlled by YIELD signs, STOP signs, or traffic control signals. This prohibition is not applicable to a crosswalk across the approach to and/or egress from a roundabout.
- d. In the event sight distance approaching the crosswalk at which RRFBs are used is less than deemed necessary by the engineer, an additional RRFB may be installed on that approach in advance of the crosswalk, as a Warning Beacon to supplement a W11-2 (Pedestrian) or S1-1 (School) crossing warning sign with an AHEAD: (W16-9p) plaque. This additional RRFB shall be supplemental to and not a replacement for RRFBs at the crosswalk itself.

3. Sign/Beacon Assembly Locations:

- a. For any approach on which RRFBs are used, two W11-2 or S1-1 crossing warning signs (each with RRFB and W16-7p plaque) shall be installed at the crosswalk, one on the right-hand side of the roadway and one on the left-hand side of the roadway. On a divided highway, the left-hand side assembly should be installed on the median, if practical, rather than on the far left side of the highway.
- b. An RRFB shall not be installed independent of the crossing signs for the approach the RRFB faces. The RRFB shall be installed on the same support as the associated W11-2 (Pedestrian) or S1-1 (School) crossing warning sign and plaque.

4. Beacon Dimensions and Placement in Sign Assembly:

- a. Each RRFB shall consist of two rectangular-shaped yellow indications, each with an LED-array based light source. Each RRFB indication shall be a minimum of approximately 5 inches wide by approximately 2 inches high.
- b. The two RRFB indications shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of approximately seven inches (7 in), measured from inside edge of one indication to inside edge of the other indication.

c. The outside edges of the RRFB indications, including any housings, shall not project beyond the outside edges of the W11-2 or S1-1 sign.

d. As a specific exception to 2003 MUTCD Section 4K.01 guidance, the RRFB shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque (or, in the case of a supplemental advance sign, the AHEAD plaque), rather than 12 inches above or below the sign assembly. (See attached example photo.)

5. Beacon Flashing Requirements:

a. When activated, the two yellow indications in each RRFB shall flash in a rapidly alternating "wig-wag" flashing sequence (left light on, then right light on).

b. As a specific exception to 2003 MUTCD Section 4K.01 requirements for the flash rate of beacons, RRFBs shall use a much faster flash rate. Each of the two yellow indications of an RRFB shall have 70 to 80 periods of flashing per minute and shall have alternating but approximately equal periods of rapid pulsing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, one of the yellow indications shall emit two rapid pulses of light and the other yellow indication shall emit three rapid pulses of light.

c. The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30 flashes per second, to avoid frequencies that might cause seizures.

d. The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005.

6. Beacon Operation:

a. The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation at a predetermined time after the pedestrian actuation or, with passive detection, after the pedestrian clears the crosswalk.

b. All RRFBs associated with a given crosswalk (including those with an advance crossing sign, if used) shall, when activated, simultaneously commence operation of their alternating rapid flashing indications and shall cease operation simultaneously.

c. If pedestrian pushbuttons (rather than passive detection) are used to actuate the RRFBs, a pedestrian instruction sign with the legend PUSH BUTTON TO TURN ON WARNING LIGHTS should be mounted adjacent to or integral with each pedestrian pushbutton.

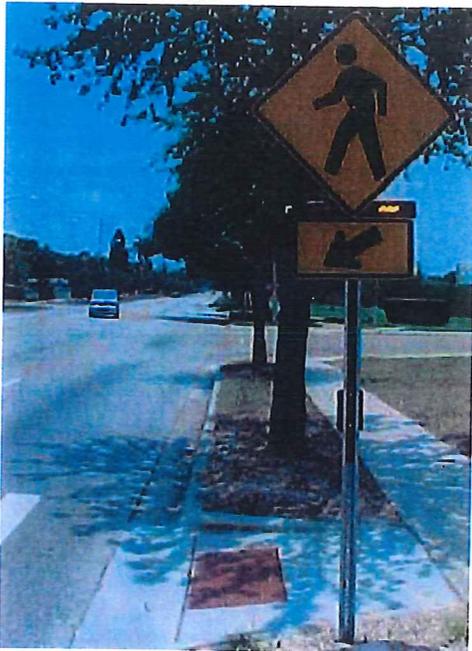
d. The duration of a predetermined period of operation of the RRFBs following each actuation should be based on the MUTCD procedures for timing of pedestrian clearance times for pedestrian signals.

e. A small light directed at and visible to pedestrians in the crosswalk may be installed integral to the RRFB or push button to give confirmation that the RRFB is in operation.

7. Other:

a. Except as otherwise provided above, all other provisions of the MUTCD applicable to Warning Beacons shall apply to RRFBs.

Any questions concerning this Interim Approval should be directed to Mr. Scott Wainwright at scott.wainwright@dot.gov or by telephone at 202-366-0857.



Example of RRFB with W11-2 sign and W16-7p plaque at crosswalk across uncontrolled approach. [Photo courtesy of City of St. Petersburg, Florida]

FHWA:HOTO-1:SWainwright:ds:60857:7-2-08

cc: HOTO-1 HOTO-1(HKalla/SWainwright/BFriedman)

Mr. Roger Wentz, ATSSA Mr. Jim Baron, ATSSA
SafetyField

E84-401 Chron E84-401 Reader

DF(IA-11 Rectangular Rapid Flashing Beacon)

M:\MUTCD\INTERIM APPROVALS\IA-11 Rectangular Rapid Flashing Beacon\

IA-11 - RRFB Interim Approval Policy Memo.doc

**FINANCE AND MAINTENANCE AGREEMENT
BETWEEN
STATE OF VERMONT
AGENCY OF TRANSPORTATION
AND
TOWN OF WILLISTON
FOR
RECTANGULAR RAPID FLASHING BEACON INSTALLATION
Contract No. FM0163**

THIS AGREEMENT, made this 16th day of JANUARY, 2016, between the State of Vermont, acting through its Agency of Transportation, with its principal office at National Life Building, One National Life Drive, Montpelier, Vermont 05633-5001 (the "STATE") and the Town of Williston, with its principal office at 7900 Williston Road, Williston, Vermont 05495 (the "MUNICIPALITY").

WITNESSETH:

WHEREAS, the MUNICIPALITY desires to install two Rectangular Rapid Flashing Beacons (RRFB) to improve the pedestrian crossing on US Route 2 at the following locations: L.S. 180+85 (Approximate MM 3.43); and L.S. 184+65 (Approximate MM 3.50);

WHEREAS, the STATE proposes to allow the MUNICIPALITY to install and maintain the improvement of this highway as described above; and

WHEREAS, the MUNICIPALITY further desires that the STATE provide all permits necessary for the MUNICIPALITY to complete the work mentioned above;

NOW, THEREFORE, in consideration of the promises and the mutual agreements hereinafter set forth, the parties hereto agree as follows:

- 1. Allocation of Funds to Project.** That all costs for the new signs, solar powered rectangular rapid flashing beacon assemblies be born solely by the MUNICIPALITY.
- 2. Technical Assistance from State.** The MUNICIPALITY will provide all necessary equipment to erect the rectangular rapid flashing beacon.
- 3. State/Municipal Cooperation.** The Project will be constructed by the MUNICIPALITY and STATE staff will assist in obtaining all necessary permits necessary for work within the State ROW.
- 4. Maintenance of Traffic Control Devices and Street Lights.** All signs, solar panels, control mechanisms and LED flasher units installed with this project, will be maintained by the MUNICIPALITY.

5. Control of Right-of-Way. The State will issue to the MUNICIPALITY a 19 V.S.A. Section 1111 permit, allowing the Municipality access into the State ROW for the purposes of maintaining the equipment and signage related to the Rectangular Rapid Flashing Beacons.

6. Relocation of Utilities. The MUNICIPALITY will be responsible for any unforeseen relocation of underground utilities. Any relocation cost not born by the utility companies will be the responsibility of the MUNICIPALITY.

7. Section Headings. The section headings contained in this Agreement are for reference and convenience only and in no way define or limit the scope and contents of this Agreement or in any way affect its provisions.

8. Entire Agreement. This Agreement constitutes the entire agreement between the parties relating to the subject matter hereof, supersedes all prior oral or written negotiations, agreements, understandings and courses of dealing between the parties relating to the subject matter hereof and is subject to no understandings, conditions, or representations other than those expressly stated herein. This Agreement may only be modified or amended by a writing which states that it modifies or amends this Agreement and which is signed by both parties.

9. Applicable Law. This Agreement will be governed by the laws of the State of Vermont.

10. Independence; Liability. The MUNICIPALITY will act in an independent capacity and not as officers or employees of the STATE.

The MUNICIPALITY shall defend the STATE and its officers and employees against all claims or suits arising in whole or in part from any act or omission of the MUNICIPALITY or of any agent of the MUNICIPALITY. The STATE shall notify the MUNICIPALITY in the event of any such claim or suit, and the MUNICIPALITY shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit.

After a final judgment or settlement, the MUNICIPALITY may request recoupment of specific defense costs and may file suit in the Washington Superior Court requesting recoupment. The MUNICIPALITY shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the MUNICIPALITY.

The MUNICIPALITY shall indemnify the STATE and its officers and employees in the event that the STATE, its officers or employees become legally obligated to pay any damages or losses arising from any act or omission of the MUNICIPALITY.

11. Fair Employment Practices and Americans with Disabilities Act. MUNICIPALITY agrees to comply with the requirement of 21 V.S.A. Chapter 5, Subchapter 6 (Fair Employment Practices), relating to fair employment practices, to the full extent applicable. MUNICIPALITY shall also ensure, to the full extent required by the Americans with Disabilities Act of 1990 that qualified individuals with disabilities receive equitable access to the services, programs, and activities provided by the MUNICIPALITY under this Agreement. MUNICIPALITY further agrees to include this provision in all subcontracts.

12. Set Off. The STATE may set off any sums which the MUNICIPALITY owes the STATE against the sums due the MUNICIPALITY under this Agreement; provided, however, that any set off of amounts due the State of Vermont as taxes shall be in accordance with the procedures more specifically provided hereinafter.

13. Taxes Due to the State.

- a. MUNICIPALITY understands and acknowledges responsibility, if applicable, for compliance with STATE tax laws, including income tax withholding for employees performing services with the STATE, payment of use tax on property used within the STATE, corporate and/or personal income tax on income earned with the STATE.
- b. MUNICIPALITY certified under pains and penalties of perjury that, as of the date the contract is signed, the MUNICIPALITY is in good standing with respect to, or in full compliance with a plan to pay, any and all taxes due the State of Vermont.
- c. MUNICIPALITY understands that final payment under this Agreement may be withheld if the Commissioner of Taxes determines that the MUNICIPALITY is not in good standing with respect to or in full compliance with a plan to pay any and all taxes due to the State of Vermont.
- d. MUNICIPALITY also understands that STATE may set off taxes (and related penalties, interest, and fees) due to the State of Vermont, but only if the MUNICIPALITY has failed to make an appeal within the time allowed by law, or an appeal has been taken and finally determined and the MUNICIPALITY has not further legal recourse to contest the amount due.

14. No Gifts or Gratuities. MUNICIPALITY shall not give title or possession of anything of substantial value (including property, currency, travel and/or education programs) to any officer or employee of the STATE during the term of this Agreement.

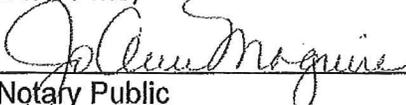
IN WITNESS WHEREOF, the State of Vermont has caused its name to be subscribed this 15th day of January, 2016, by its Secretary [Deputy] of Transportation and duly authorized agent.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

By: 
Christopher J. Cole/Richard M. Tetreault
Secretary [Deputy] of Transportation
and Duly Authorized Agent

STATE OF VERMONT
WASHINGTON COUNTY, ss.

At Montpelier, this 15th day of January, 2016, personally appeared Christopher J. Cole/Richard M. Tetreault [Deputy] Secretary of Transportation and duly authorized agent of the State of Vermont, and acknowledged the foregoing instrument by him/her signed to be his/her free act and deed and the free act and deed of the State of Vermont.

Before me,

Notary Public
(My commission expires 2-10, 2019)

APPROVED AS TO FORM:

DATED: 12/18/2015


ASSISTANT ATTORNEY GENERAL

IN WITNESS WHEREOF, the Town of Williston has caused this instrument to be signed by Richard McGuire, its Town Manager and duly authorized agent, this 29th day of December, 2015

Town of Williston
("MUNICIPALITY")

By: Richard McGuire

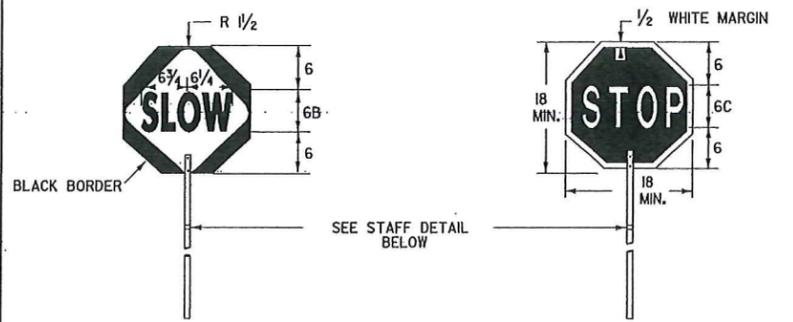
Its Town Manager
and Duly Authorized Agent

STATE OF VERMONT
CHITTENDEN COUNTY, ss.

At Williston, this 29 day of December, 2015 personally appeared Richard McGuire and acknowledged the foregoing instrument, by him/her as Town Manager and duly authorized agent of the Town of Williston subscribed, to be his/her free act and deed and the free act and deed of the Town of Williston.

Before me,

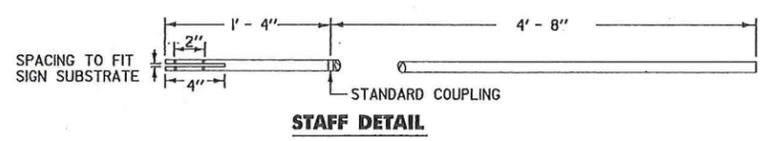
Clayton H. Adams
Notary Public
(My commission expires 2/10, 2019)



SIGN PADDLE DETAIL FOR FLAGPERSON

COLORS
 ORANGE ASTM TYPE VIII RETROREFLECTORIZED DIAMOND WITH BLACK TEXT AND BORDER

COLORS
 RED ASTM TYPE III OR TYPE VIII RETROREFLECTORIZED OCTAGON WITH WHITE ASTM TYPE III OR TYPE VIII RETROREFLECTORIZED TEXT AND BORDER



STAFF DETAIL

MATERIALS

THE SIGN MATERIALS SHALL BE ALUMINUM, ABS PLASTIC OR EQUIVALENT, WITH COLORS AS INDICATED ON DETAILS. RETROREFLECTIVE SHEETING SHALL BE ASTM TYPE III OR TYPE VIII. THE STAFF MAY BE RIGID ALUMINUM TUBING, ABS PLASTIC OR WOOD.

MOUNTING

THE SIGN SHALL BE MOUNTED WITH EITHER TWO 1/4" DIAMETER ALUMINUM BOLTS OR TWO 1/4" DIAMETER ALUMINUM RIVETS.

SIGN SPACING NOTES

WORK DURATION

WORK DURATION IS A MAJOR FACTOR IN DETERMINING THE NUMBER AND TYPES OF DEVICES USED IN UTILITY TRAFFIC CONTROL ZONES. THE DURATION OF A TEMPORARY TRAFFIC CONTROL ZONE IS DEFINED RELATIVE TO THE LENGTH OF TIME A WORK OPERATION OCCUPIES A SPOT LOCATION.

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR. SIMPLIFIED CONTROL PROCEDURES MAY BE WARRANTED FOR SHORT-DURATION WORK. ALL WORK VEHICLES SHALL BE EQUIPPED AND OPERATING ROTATING OR STROBE LIGHTS DURING SHORT-DURATION WORK. THE SUPERVISOR WILL DETERMINE IF ADDITIONAL SIGNS AND TRAFFIC CONTROL IS NECESSARY. SAFETY IN SHORT-DURATION WORK ZONES SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE LOCATIONS.

SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR BUT LESS THAN 12 HOURS (MOST MAINTENANCE AND UTILITY OPERATIONS ARE SHORT-TERM STATIONARY WORK). ADVANCE WARNING SIGNS SHALL BE PLACED TO WARN TRAVELING PUBLIC THAT WORK IS TAKING PLACE. THE NUMBER AND SPACING OF THESE WARNING DEVICES WILL DEPEND ON THE LOCATION OF THE WORKZONE.

SIGN SPACING

WHERE HIGHWAY CONDITIONS PERMIT, WARNING SIGNS SHOULD BE PLACED A VARYING DISTANCE IN ADVANCE OF THE WORK AREA, DEPENDING ON THE ROADWAY TYPE, CONDITION, AND SPEED. WHERE A SERIES OF TWO OR MORE WARNING SIGNS IS USED, THE CLOSEST SIGN TO THE WORK AREA SHOULD BE PLACED APPROXIMATELY 100' FT AWAY. FOR LOW-SPEED URBAN STREETS, 1,000 FT AWAY OR MORE FOR EXPRESSWAYS AND FREEWAYS. SEE TABLE BELOW.

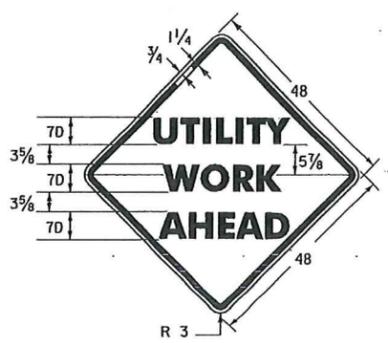
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LOW SPEED)	100	100	100
URBAN (HIGH SPEED)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1,000	1,500	2,640

REVISIONS AND CORRECTIONS

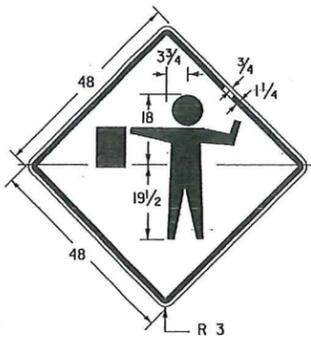
AUG 08, 1995 - SUPERSEDES STD E-9 AND UPDATED TO NEW CHAPTER VI OF MUTCD
 APRIL 18, 2002 - CHANGED REFLECTIVE SHEETING TO TYPE III
 MARCH 01, 2004 - UPDATED SIGN PACKAGES TO MEET MUTCD

APPROVED

[Signature]
 DIRECTOR OF PROGRAM DEVELOPMENT
[Signature]
 TRAFFIC OPERATIONS ENGINEER
[Signature]
 FEDERAL HIGHWAY ADMINISTRATION



W21-7 OR W20-1



W20-7a

NOTES

DESIGN

LETTERS, DIGITS, SPACING AND TEXT DIMENSIONS SHALL CONFORM WITH THE "STANDARD HIGHWAYS SIGNS BOOK" AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) ADOPTED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION (FHWA).

MATERIALS

THE SIGN BASE MATERIAL USED FOR THE WARNING SIGNS ON THIS SHEET MAY BE OF ANY OF THE FOLLOWING WITH MINIMUM THICKNESS AS NOTED.
 FLAT SHEET ALUMINUM - .0125 INCHES
 HIGH DENSITY OVERLAPPED PLYWOOD - 5/8 INCHES
 ROLL-UP SIGN MATERIAL ASTM TYPE VI

REFLECTORIZATION

ALL RETROREFLECTORIZED MATERIAL SHALL CONSIST OF ASTM TYPE III, TYPE VI OR TYPE VIII RETROREFLECTIVE SHEETING. THE TEXT AND BORDERS MAY BE SILK SCREENED OR LETTERING FILM.

COLORS

THE WARNING SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT BORDER AND SYMBOLS ON A RETROREFLECTORIZED FLUORESCENT ORANGE BACKGROUND THE ORANGE SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY AASHTO AND APPROVED BY THE FHWA.

INSTALLATION

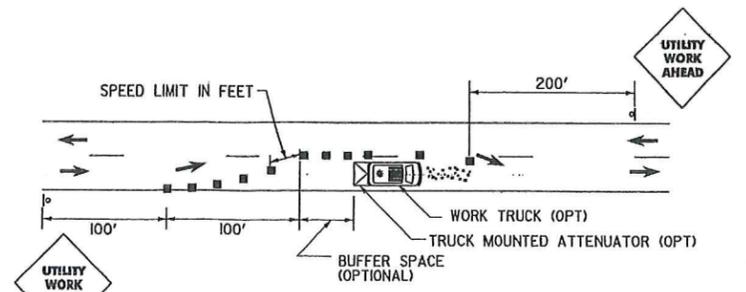
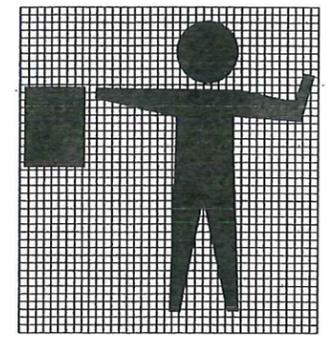
THE SIGNS SHALL BE IN-PLACE AT THE TIME THE PROJECT COMMENCES AND WHERE APPLICABLE, EACH POST MOUNTED SIGN SHALL BE ERECTED IN A NEAT AND PROFESSIONAL MANNER ON METAL POSTS SET SECURELY IN THE GROUND, UNLESS OTHERWISE NOTED ON THIS SHEET. THE BOTTOM OF A SIGN, UNLESS OTHERWISE NOTED SHALL BE AT LEAST 7 FEET ABOVE EDGE OF THE TRAVELED WAY, AND THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST 6 FEET OUTSIDE THE SHOULDER POINT, 4 FEET OUTSIDE GUARD RAIL OR 2 FEET OUTSIDE CURBING OR SIDEWALK. SIGNS MOUNTED ON BARRICADES OR TEMPORARY SUPPORTS SHALL BE POSITIONED SUCH THAT THE BOTTOM OF THE SIGN IS NOT LESS THAN ONE FOOT ABOVE THE PAVEMENT ELEVATION. ALL SIGN INSTALLATIONS SHALL BE NCHRP 350 COMPLIANT FOR THE SIGN SUBSTRATE MATERIAL BEING USED. FOR MOBILE OPERATIONS REFER TO THE MUTCD PART VI (TA-17)

SPECIFICATIONS

WARNING SIGNS SHALL MEET THE VERMONT STATE STANDARD SPECIFICATIONS FOR CONSTRUCTION "TRAFFIC SIGNS".

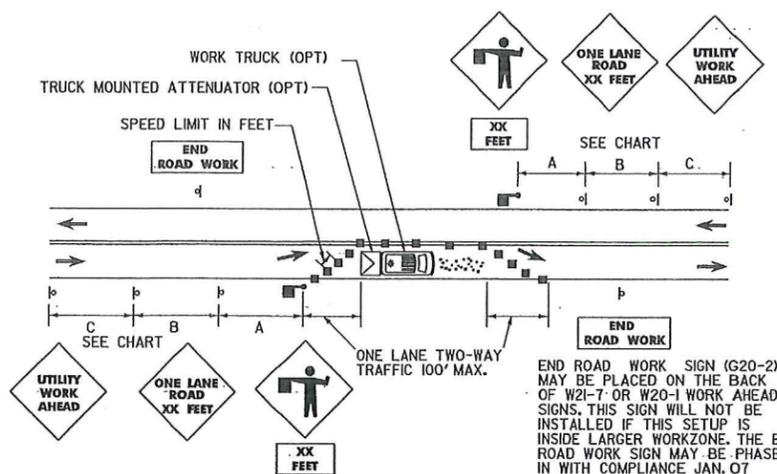
LEGEND

- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- WORK AREA
- SIGN & POSTS
- FLAGPERSON
- CHANNELIZING DEVICES (CONES OR DRUMS)



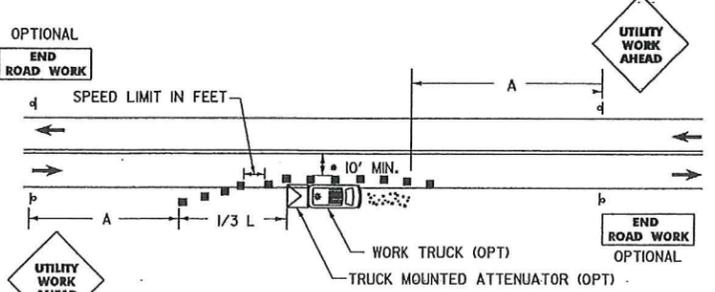
TWO LANE RESIDENTIAL STREET LOW VOLUME TRAFFIC (TA-18)

THIS LAYOUT SHALL ONLY BE USED ON ROADS WITH SPEED LIMITS LESS THAN 30 MPH AND WHERE SIGHT DISTANCE MEETS MINIMUM STOPPING SIGHT DISTANCES REQUIREMENTS FOR BOTH DIRECTIONS OF APPROACHING TRAFFIC.



TWO LANE ROAD REQUIRING LANE CLOSURE (TA-10)

SINGLE FLAGGER OPERATION MAY BE USED IF SIGHT DISTANCE IS AVAILABLE ON LOW VOLUME ROADS



TWO LANE ROAD SHOULDER WORK AREA (TA-6)

$L = \frac{WS^2}{60} \leq 40 \text{ MPH}$
 $L = \frac{WS^2}{60} \geq 45 \text{ MPH}$

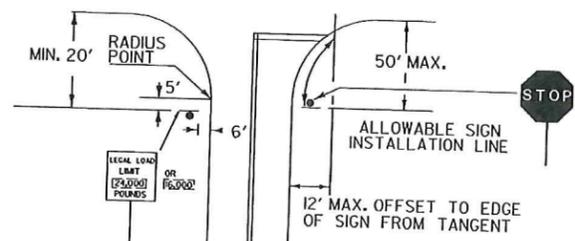
* IF LESS THAN 10' USE THE FLAGGING OPERATION AS SHOWN ABOVE

OTHER STDS. E-100, E-102 REQUIRED:

UTILITY WORK ZONE

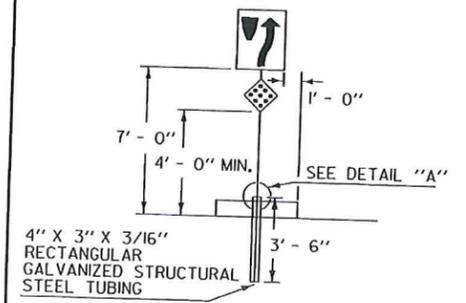


STANDARD E-119



STOP SIGN SHALL BE PLACED ON DRIVERS RIGHT, MAINTAINING MAXIMUM VISIBILITY. CLEARANCE SHALL BE A MINIMUM OF 6' AND A MAXIMUM OF 50' FROM EDGE LINE OF INTERSECTING ROADWAY AND DOES NOT HAVE TO BE ADJACENT TO THE STOP BAR.

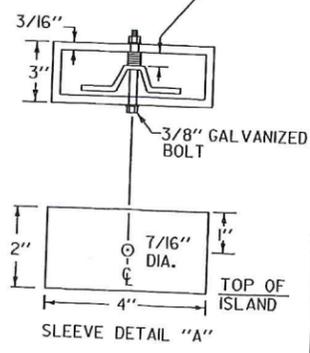
LEGAL LOAD LIMIT AND STOP SIGNS AT INTERSECTIONS WITH TOWN HIGHWAYS



4" X 3" X 3/16" RECTANGULAR GALVANIZED STRUCTURAL STEEL TUBING

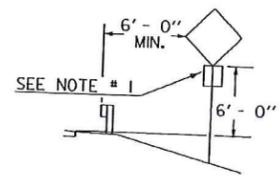
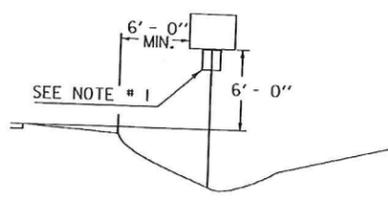
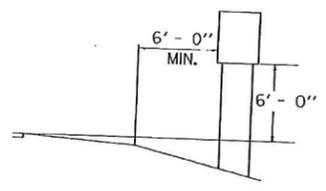
SIGNS ON MEDIAN ISLANDS IN THE LINE OF TRAFFIC

TO INSURE A TIGHT CONNECTION GALVANIZED WASHERS SHALL BE USED AS SPACERS.

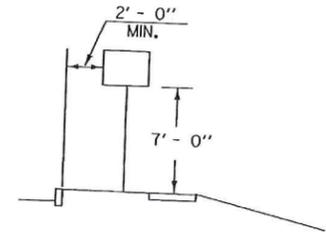
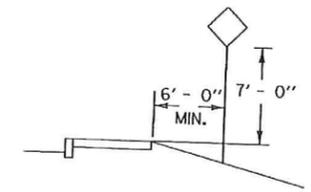


SLEEVE DETAIL "A"

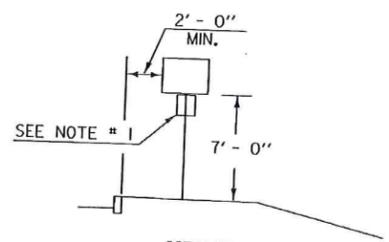
INCREASE VERTICAL CLEARANCE TO 7' IN AREAS OF FREQUENT ROADSIDE PARKING OR PEDESTRIAN ACTIVITY



RURAL



IF SUFFICIENT CLEARANCE IS NOT AVAILABLE BETWEEN CURB AND SIDEWALK MOUNT SIGN BEHIND SIDEWALK AS SHOWN AT TOP. CHECK FOR ADEQUATE R.O.W..



URBAN

NOTES:

1. IN BOTH RURAL AND URBAN LOCATIONS, IF A SECONDARY SIGN IS MOUNTED BELOW ANOTHER SIGN, THE MINIMUM CLEARANCE MAY BE REDUCED BY ONE FOOT.
2. IN RURAL AREAS WITH NO OR MINIMAL SHOULDER, THE LATERAL CLEARANCE TO THE EDGE OF A SIGN SHOULD BE A MINIMUM OF 12' FROM THE EDGE OF THE TRAVELED WAY.
3. ALSO SEE OTHER STANDARD SHEETS FOR MOUNTING CLEARANCE AND SPACING OF DESTINATION AND ROUTE MARKER ASSEMBLIES AND TOWN LINE SIGNS.

POST REFERENCE:
REFER TO THE DETAILS ON THE APPROPRIATE STANDARD DRAWING FOR INFORMATION CONCERNING THE PROPER MOUNTING OF SIGNS ON APPROPRIATE POSTS.

REVISIONS AND CORRECTIONS

JAN. 23, 1995 - DATE OF ORIGINAL ISSUE
AUG. 08, 1995 - VARIOUS MINOR NOTE REVISIONS

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

Stephen J. McArthur
DIRECTOR OF ENGINEERING

David A. Ross
TRAFFIC AND SAFETY ENGINEER

**STANDARD SIGN PLACEMENT
CONVENTIONAL ROAD**

/traf/std/stdel2l.dgn : stdel2l.i

**OTHER STDS. E-160 E-161 E-162 E-163 E-164
REQUIRED:**



**STANDARD
E-121**