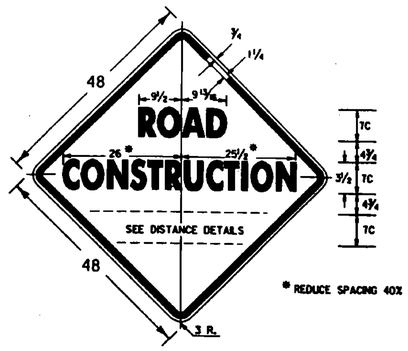
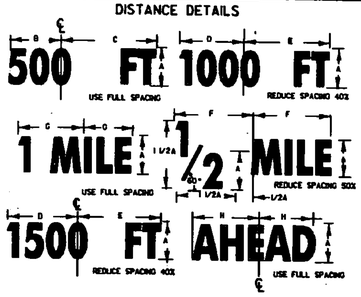
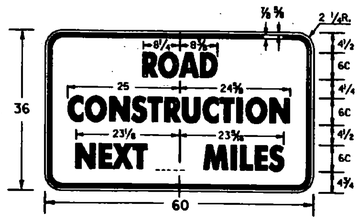


WHEN APPROPRIATE, EXISTING "BRIDGE CONSTRUCTION..." SIGNS MAY BE USED UNTIL THE EXISTING SIGNS NEED REPLACEMENT. NEW SIGNS SHALL SHOW REFERENCE TO "ROAD CONSTRUCTION". SIGN TEXT SHALL BE CONSISTENT THROUGHOUT THE PROJECT.

DISTANCE DETAILS

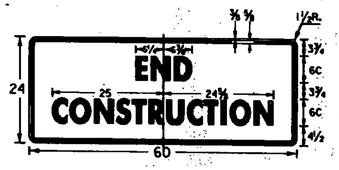


DIMENSIONS (INCHES)							
A	B	C	D	E	F	G	H
5D	10 3/16	10 3/16	15 5/16	11 1/4	11 1/4	9 1/2	10 3/16
6C	10 3/16	10 1/2	11 1/4	12	12 1/2	9 7/16	10 1/2
7C	12	12 3/16	13 1/16	14	14 5/16	10 5/16	12 1/4
8D	16 1/4	17 1/4	17	18	18	14 3/16	17 3/16

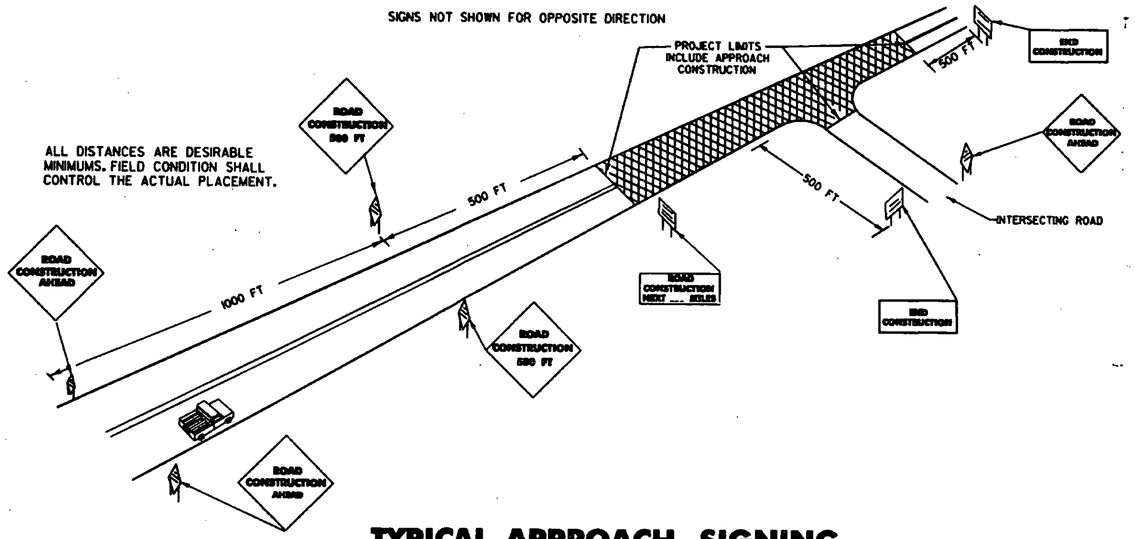


THIS SIGN TO BE USED WHEN PROJECT LENGTH EXCEEDS 2 MILES OR AS REQUESTED BY THE RESIDENT ENGINEER. SHOW MILEAGE TO NEAREST 1/4 MILE USING FRACTIONS, NOT DECIMALS. HAND LETTERING OF MILEAGE WILL NOT BE ALLOWED.

ALL DIMENSIONS SHOWN IN INCHES



SIGNS NOT SHOWN FOR OPPOSITE DIRECTION



ALL DISTANCES ARE DESIRABLE MINIMUMS. FIELD CONDITION SHALL CONTROL THE ACTUAL PLACEMENT.

TYPICAL APPROACH SIGNING

SIGN POSTS

WHERE CONSTRUCTION SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARD RAIL OR OTHER APPROVED TRAFFIC BARRIERS, THE POSTS ON WHICH THE SIGNS ARE MOUNTED SHALL BE YIELDING METAL POSTS AS DESIGNATED IN THE E SERIES OF STANDARD DRAWINGS OR YIELDING WOODEN POSTS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

WOODEN POSTS ARE ACCEPTABLE FOR USE WITH CONSTRUCTION SIGNS PROVIDED THE POSTS HAVE A UNIFORM CROSS-SECTION AND IF, IN AN 8 FOOT WIDE VEHICULAR PATH, THERE IS OR ARE:

1. A SINGLE POST WITH AN ELASTIC SECTION MODULUS NO GREATER THAN 24 IN.³ (A FULL DIMENSION 4'' X 6'' POST).
2. TWO POSTS, EACH WITH AN ELASTIC SECTION MODULUS NO GREATER THAN 18 IN.³ (FULL DIMENSION 3'' X 6'' OR 4'' X 5'' POSTS).
3. THREE POSTS, EACH WITH AN ELASTIC SECTION MODULUS NO GREATER THAN 14 IN.³ (FULL DIMENSION 3'' X 5'' OR 4'' X 4'') POSTS.

THE FORMULA FOR DETERMINING THE ELASTIC SECTION MODULUS (S) IS:

$$S = \frac{B\,(D)^2}{6}$$

WHERE B = THE SMALLER DIMENSION IN INCHES IF THE TIMBER IS RECTANGULAR IN CROSS-SECTION

D = THE LARGER DIMENSION IN INCHES IF THE TIMBER IS RECTANGULAR IN CROSS-SECTION

OR B = D IN INCHES IF THE TIMBER IS SQUARE IN CROSS-SECTION AND THE RESULT IS EXPRESSED IN INCHES CUBED.

WOODEN POSTS MAY BE CONSTRUCTED UP TO THE MAXIMUM SIZES LISTED BY LAMINATING SMALLER SECTIONS. WEAKENED TIMBER POSTS WILL NOT BE PERMITTED. NO CROSS-BRACING OR BRACING TO KEEP THE POSTS PLUMB WILL BE PERMITTED. CONCRETE FOUNDATION COLLARS OR SOIL BEARING PLATES ARE NOT ACCEPTABLE FOR USE. POST EMBEDMENT DEPTH SHALL BE 3' - 6''.

NOTES

THE APPROACH CONSTRUCTION SIGNS SHOWN ON THIS SHEET ARE INTENDED FOR USE IN PROVIDING ADVANCE WARNING AND INFORMATION ON CONSTRUCTION PROJECTS OVER WHICH TRAFFIC WILL BE MAINTAINED. WHEN ADDITIONAL APPROACH SIGNS OR OTHER TYPES OF ADVANCE SIGNING OR CONTROL ARE NECESSARY, THE PLANS AND\OR THE SPECIFICATIONS FOR THAT PROJECT WILL GIVE THE DETAILS OF THE SIGNS AND DEVICES REQUIRED. FOR ON-PROJECT CONSTRUCTION SIGNS, REFER TO APPROPRIATE STANDARD SHEETS.

APPLICATION OF STANDARDS
SINCE IT IS NOT POSSIBLE TO PRESCRIBE DETAILED STANDARDS OF APPLICATION FOR ALL OF THE SITUATIONS THAT MAY CONCEIVABLY ARISE ON A CONSTRUCTION PROJECT, REFERENCE SHALL BE MADE TO THE ''MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES'' FOR THE PRINCIPLES, PROCEDURES, AND STANDARDS THAT WILL BE REQUIRED IN CONNECTION WITH ADVANCED WARNING AND ON-PROJECT CONSTRUCTION SIGNS AND BARRICADES. THE SIGNS SHOWN IN E-101 AND E-102 REPRESENT A SAMPLE OF THOSE MORE COMMONLY USED.

LOCATION
CONSTRUCTION APPROACH SIGNS SHALL BE LOCATED AS DETAILED ON THIS SHEET OR AS OTHERWISE SHOWN ON THE PLANS. THEY SHALL APPEAR AT EACH END OF THE HIGHWAY UNDER CONSTRUCTION AND ON ALL INTERSECTING PUBLIC HIGHWAYS. THE EXACT PLACEMENT OF ANY SIGN WILL DEPEND UPON THE ALIGNMENT INTENDED TO INDICATE THE SEQUENCE TO BE FOLLOWED, AND THE APPROXIMATE SPACING TO BE OBSERVED. THE ENGINEER SHALL DETERMINE THE EXACT LOCATIONS.

DESIGN
THE DESIGN OF THE SIGNS SHALL CONFORM WITH THE DETAILS SHOWN ON THIS SHEET AND WITH THE STANDARDS PRESCRIBED IN THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES'.

MATERIALS
THE SIGN BASE MATERIAL USED FOR THE WARNING SIGNS ON THIS SHEET MAY BE ANY OF THE FOLLOWING, WITH MINIMUM THICKNESS AS NOTED.

FLAT SHEET ALUMINUM	0.125 INCHES
HIGH DENSITY OVERLAYED PLYWOOD	3/4 INCHES
GALVANIZED SHEET STEEL	12 GAGE

REFLECTORIZATION
ALL REFLECTORIZED MATERIAL SHALL CONSIST OF ENCAPSULATED LENS REFLECTIVE SHEETING.

COLORS
THE COLORS SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICALS AND APPROVED BY THE U.S. DEEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. COLORS SHOWN ON THIS SHEET CONSIST OF BLACK TEXT AND BORDER ON A REFLECTORIZED ORANGE BACKGROUND.

INSTALLATION
THE SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY, OR UPON COMPLETION OF THE WORK. SIGNS MAY BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER ON POSTS SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST 6 FEET ABOVE ROAD LEVEL, AND THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST 6 FEET OUTSIDE THE SHOULDER POINT OR 2 FEET OUTSIDE GUARD RAIL, CURBING, OR SIDEWALK. THE INSTALLATION OF SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER. IN URBAN AREAS, THE BOTTOM OF THE SIGN SHALL BE AT LEAST 7 FEET ABOVE THE SIDEWALK.

MAINTENANCE
SIGNS SHALL BE MAINTAINED IN A CLEAN AND LEGIBLE CONDITION SATISFACTORY TO THE ENGINEER. THEY SHALL BE COMPLETELY VISIBLE TO APPROACHING TRAFFIC AT ALL TIMES. THEY SHALL BE KEPT PLUMB AND LEVEL, AND ALWAYS PRESENT A NEAT APPEARANCE. DAMAGED, DEFACED, OR DIRTY SIGNS SHALL BE REPAIRED, CLEANED OR REPLACED AS ORDERED BY THE ENGINEER.

GENERAL
THE COST OF FURNISHING, ERECTING, MAINTAINING AND REMOVING ALL CONSTRUCTION APPROACH SIGNS WILL BE CONSIDERED SUBSIDIARY WORK PERTAINING TO THE PROJECT AS A WHOLE AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR VARIOUS ITEMS INVOLVED IN THE CONTRACT. DURING ALL PHASES OF CONSTRUCTION THE REQUIREMENTS SET FORTH IN THE ''MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES'' SHALL BE MET. WHEN THE PROJECT IS CLOSED DOWN FOR TEMPORARY PERIODS THE SIGNS SHALL BE COVERED IN A WORKMANLIKE MANNER.

SIGN COVERS
SIGN COVERS SHALL CONSIST OF A PANEL PAINTED FLAT BLACK, THE SAME SIZE AS THE SIGN IT COVERS. THE PANEL SHALL BE OF WOOD, PLYWOOD, HARDBOARD OR ANY MATERIAL SATISFACTORY TO THE ENGINEER. NO MATERIAL WILL BE APPROVED THAT WILL DETERIORATE BY EXPOSURE TO THE WEATHER DURING THE PROJECT. MOUNTING OF THE PANEL SHALL BE DONE IN SUCH A WAY AS NOT TO DAMAGE THE SIGN FACE MATERIAL.

CONTRACTORS SHALL COORDINATE THEIR SIGNING ACTIVITIES WITH OTHER CONTRACTORS WITHIN THE PROJECT LIMITS, AS DIRECTED BY THE REGIONAL CONSTRUCTION ENGINEER.

REVISIONS AND CORRECTIONS

MAY 26, 1989 - SIGN POST NOTES ADDED

APPROVED FOR THIS PROJECT AS AN INTERIM DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED SEPT. 10, 1987 DATE

David O Kelley
CHIEF ENGINEER

DIRECTOR OF PLANNING AND PRECONSTRUCTION

Gordon B Mac Arthur
TRAFFIC AND SAFETY ENGINEER

CONSTRUCTION APPROACH SIGNS

VERMONT AGENCY OF TRANSPORTATION

STANDARD E-100