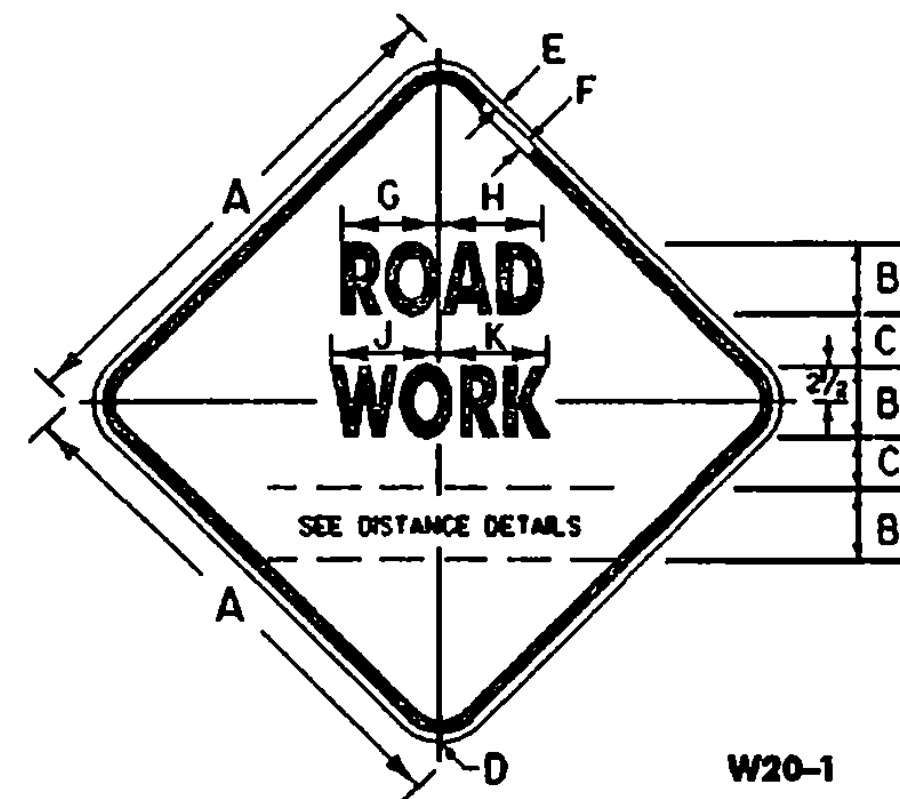
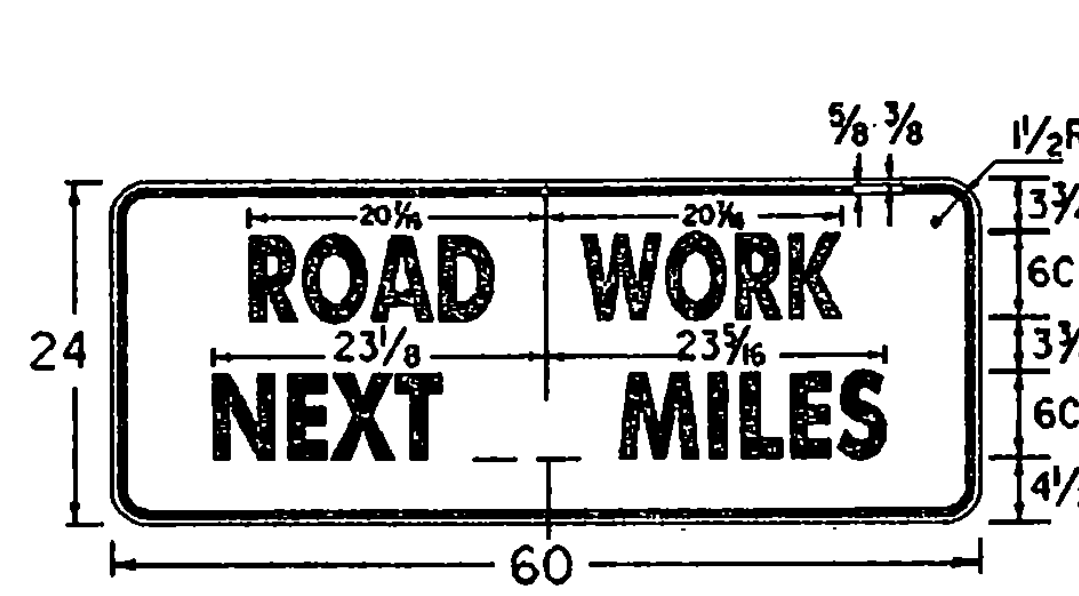
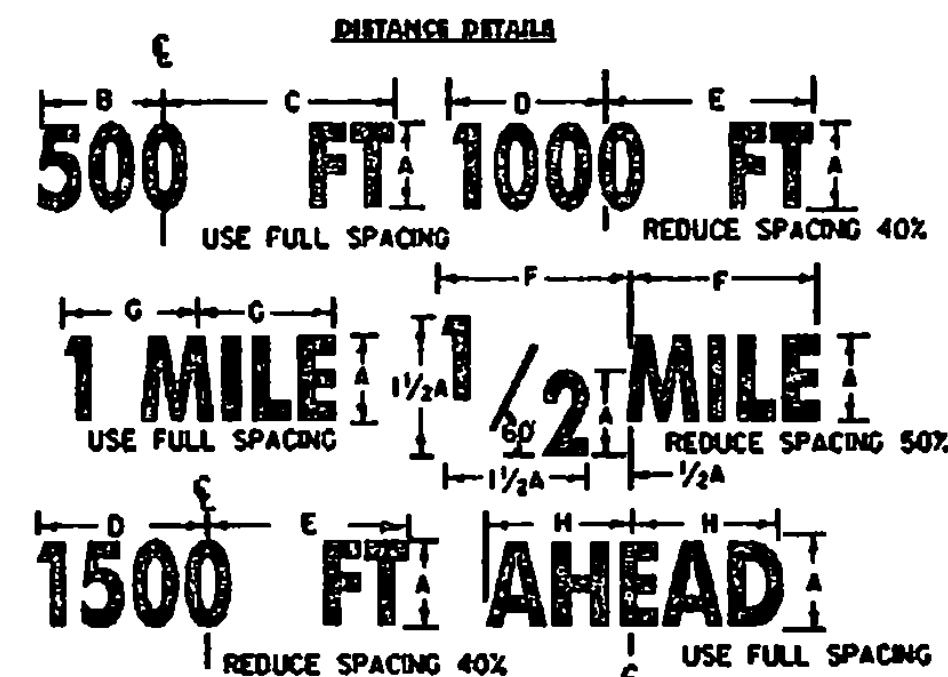


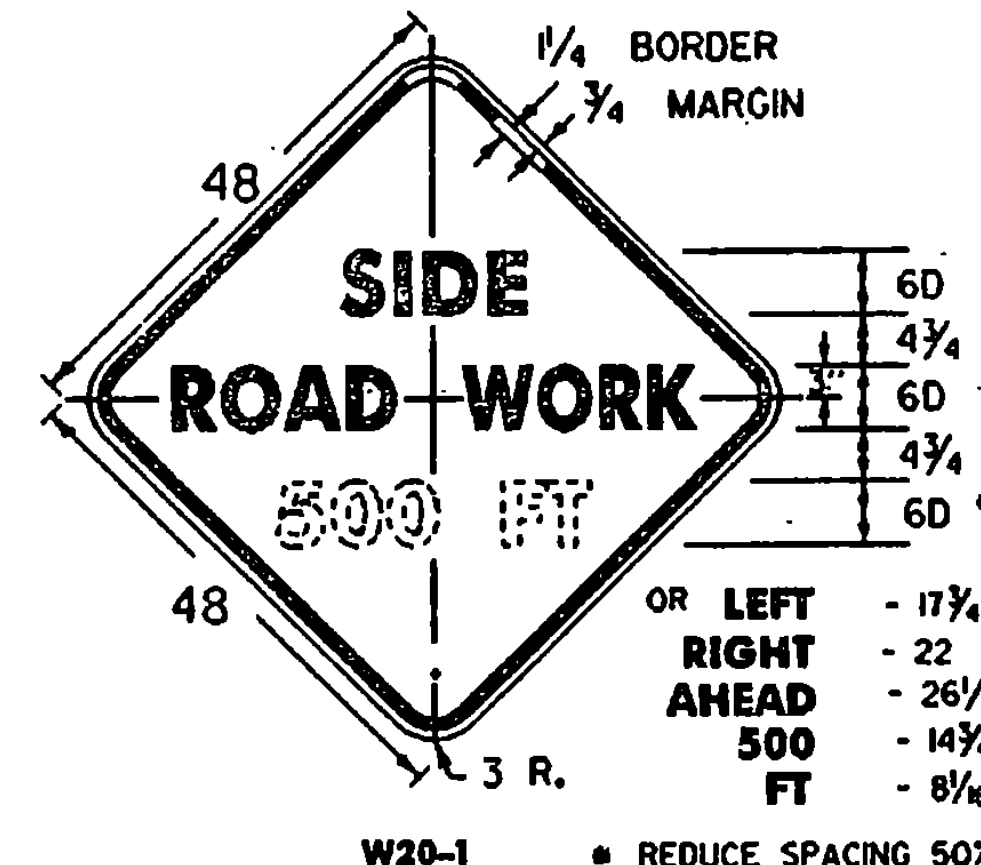
CONSTRUCTION APPROACH SIGNS



W20-1



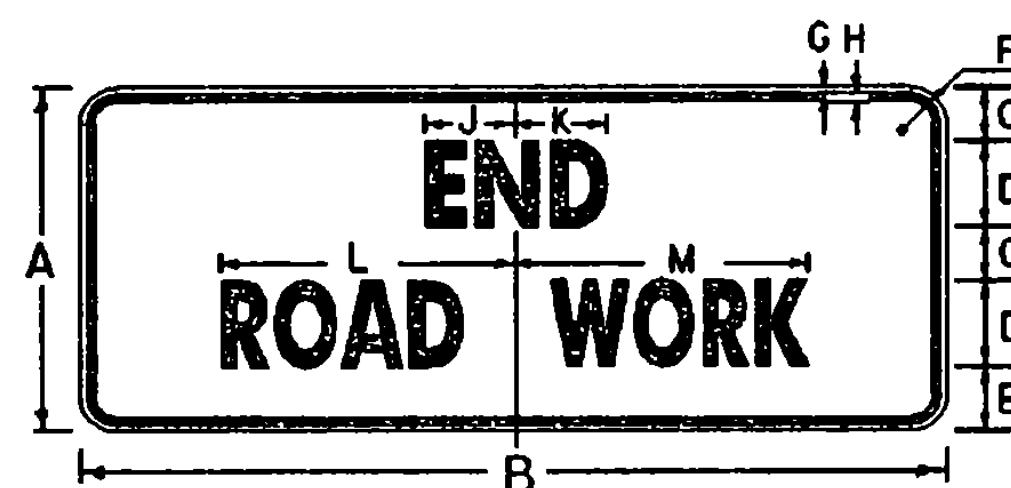
THIS SIGN TO BE USED WHEN PROJECT LENGTH EXCEEDS 2 MILES OR AS REQUESTED BY THE RESIDENT ENGINEER, SHOW MILEAGE TO NEAREST 1/4 MILE USING FRACTIONS, NOT DECIMALS. HAND LETTERING OF MILEAGE WILL NOT BE ALLOWED. (ALL DIMENSIONS SHOWN IN INCHES)



W20-1 • REDUCE SPACING 50%

DIMENSIONS (INCHES)										
STD.	A	B	C	D	E	F	G	H	J	K
	48	7C	4 1/4	3" R.	3/4	1 1/4	9/2	9 3/4	10 1/2	10 3/4
URBAN	36	5C	3 3/4	2 1/4 R.	3/8	1/2	6 3/4	11 1/4	7 1/2	7 3/4

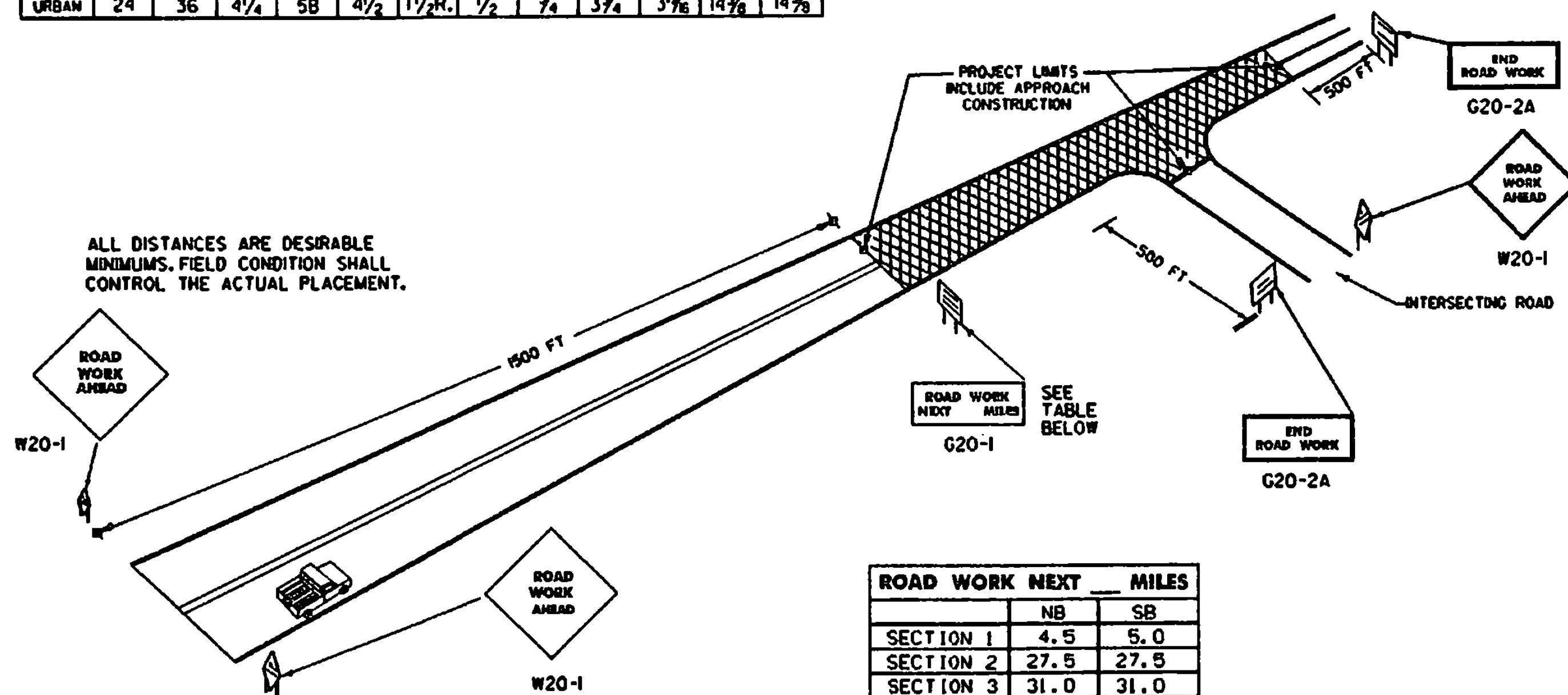
DIMENSIONS (INCHES)							
A	B	C	D	E	F	G	H
9D	10 3/4	10 3/4	9 3/4	11 1/4	11 1/4	9 1/2	10 3/4
6C	10 3/4	10 1/2	11 1/4	12	12 1/2	9 3/4	10 1/2
7C	12	12 3/4	13 3/4	14	14 3/4	10 3/4	12 1/4
8D	16 1/4	17 1/4	17	18	18	14 3/4	17 3/4



G20-2A

DIMENSIONS (INCHES)											
STD.	A	B	C	D	E	F	G	H	J	K	M
	24	60	3 3/4	6C	4 1/2	11 1/2 R.	3/8	3/8	6 1/4	6 3/4	20 1/4
URBAN	24	36	4 1/4	5B	4 1/2	11 1/2 R.	1/2	1/2	3 3/4	3 3/4	14 3/4

(ALL DIMENSIONS SHOWN IN INCHES UNLESS OTHERWISE NOTED)



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

SECTION	ROAD WORK NEXT MILES	
	NB	SB
SECTION 1	4.5	5.0
SECTION 2	27.5	27.5
SECTION 3	31.0	31.0
SECTION 4	27.0	23.5
SECTION 5	15.0	15.0
SECTION 6	9.0	14.0

TYPICAL APPROACH SIGNING (SIGNS NOT SHOWN FOR OPPOSITE DIRECTION)

NOTES CONT.

GENERAL

THE COST OF FURNISHING, INSTALLING, 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.

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. THESE POSTS SHALL HAVE A UNIFORM CROSS-SECTION AND SHALL BE MADE FROM GRADE 2, AIR-DRIED SOUTHERN YELLOW PINE OR ANOTHER EQUIVALENT SOFTWOOD. AN ACCEPTABLE EQUIVALENT SOFTWOOD SHALL HAVE AN EXTREME FIBER BENDING "FB" DESIGN VALUE NOT TO EXCEED 1400 psi AND HORIZONTAL SHEAR "Fv" DESIGN VALUE NOT TO EXCEED 90 psi SPECIFICATIONS "DESIGN VALUES FOR WOOD CONSTRUCTION" AND RELATED SUPPLEMENT, DATED 1986.

AS ESTABLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION IN THEIR NATIONAL DESIGN THE FOLLOWING ARE CONSIDERED TO BE ACCEPTABLE WOODEN POSTS:

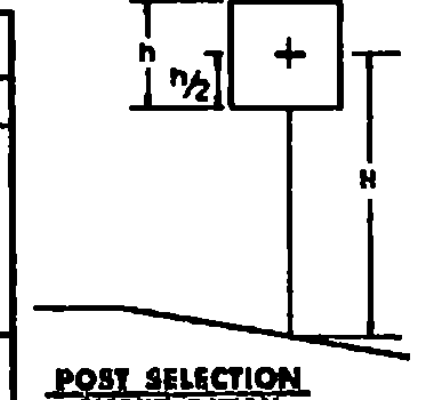
- 4" x 4" (ACTUAL DIMENSIONS ARE 3.5" x 3.5")
 - ACCEPTABLE FOR SINGLE OR DUAL POSTS INSTALLATION WITH NO MODIFICATIONS.
 - ACCEPTABLE FOR THREE POSTS (OR MORE) INSTALLATION ONLY WHEN THERE ARE NO MORE THAN TWO POSTS IN A 7 FOOT PATH.
- 4" x 6" (ACTUAL DIMENSIONS ARE 3.5" x 5.5")
 - ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 1/2" DIAMETER HOLES, ONE AT 4" AND THE OTHER 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.
 - ACCEPTABLE FOR MULTIPLE POSTS (TWO OR MORE) INSTALLATIONS ONLY WHEN MODIFIED AS ABOVE AND THE MINIMUM SPACING BETWEEN POSTS IS 7 FEET.
- 6" x 6" (ACTUAL DIMENSIONS ARE 5.5" x 5.5")
 - ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 2" DIAMETER HOLES, ONE AT 4" AND THE OTHER AT 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO ROADWAY CENTERLINE.
 - ACCEPTABLE FOR MULTIPLE POST INSTALLATION ONLY WHEN MODIFIED AS ABOVE AND THE MINIMUM SPACING BETWEEN POSTS IS 7 FEET.
- 6" x 8" (ACTUAL DIMENSIONS ARE 5.5" x 7.5")
 - ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 3" DIAMETER HOLES, ONE AT 4" AND THE OTHER AT 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.
 - ACCEPTABLE FOR MULTIPLE POST INSTALLATIONS ONLY WHEN MODIFIED AS ABOVE AND THE MINIMUM SPACING BETWEEN POSTS IS 7 FEET.

ADDITIONAL DESIGN CRITERIA

THE LONGER DIMENSION OF THE POST(S), SUCH AS THE 6" DIMENSION OF THE 4" x 6" POST, SHALL BE PLACED PARALLEL TO THE ROADWAY CENTERLINE. ALL WOODEN POSTS SHALL HAVE AN EMBEDMENT DEPTH OF 4 FEET. NO CROSS-BRACING OR BACK-BRACING TO KEEP THE POSTS PLUMB WILL BE ALLOWED. CONCRETE FOUNDATIONS COLLARS OR SOIL BEARING PLATES ARE NOT PERMITTED. CONSTRUCTION SIGNS SHALL BE PLACED ON TWO OR MORE POSTS WHEN ANY OF THE FOLLOWING CONDITIONS OCCUR:

- THE SIGN WIDTH (HORIZONTAL DIMENSIONS FOR DIAMOND SHAPED SIGNS) EXCEEDS 3 1/2 FEET.
- THE EXPOSED SIGN AREA OF ANY SINGLE SIGN OR ASSEMBLY EXCEEDS 12 1/2 SQ. FEET.
- THE SV OF A SINGLE POST IS EXCEEDED. (SEE THE POST SELECTION CHART BELOW).

WOOD POST SELECTION CHART		
SIGN AREA (FT ²) X HEIGHT (FT) < Sv (SELECTION VALUE)	Sv	DESIGN CRITERIA
4" x 4"	64	WIND SPEED = 60 MPH (10-YEAR MEAN OCCURRENCE INTERVAL)
4" x 6"	147	WIND PRESSURE = 13 psf
6" x 6"	286	ALLOWABLE BENDING STRESS
6" x 8"	369	



CONSTRUCTION APPROACH SIGNS DETAILS

PROJECT: STATEWIDE GUARDRAIL	PROJECT NO.: IMG GDRL (I)
DESIGN FILE NAME: /sqda/95a376/da375.dgn	PLOT DATE: 16-SEP-1996
IPARM FILE NAME: da375cab.t	SURVEY DATE: N/A
SURVEYED BY: N/A	DRAWN BY: MGN
SQUAD LEADER: NYQUIST	SHEET: 27 OF 28

N.T.S.