

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



PLANS

BANGOR

PENOBSCOT COUNTY

I-95 NORTHBOUND TIMBER NOISE BARRIER PROJECT
PROJECT NO. IM-95-8465(00)E

INDEX OF SHEETS

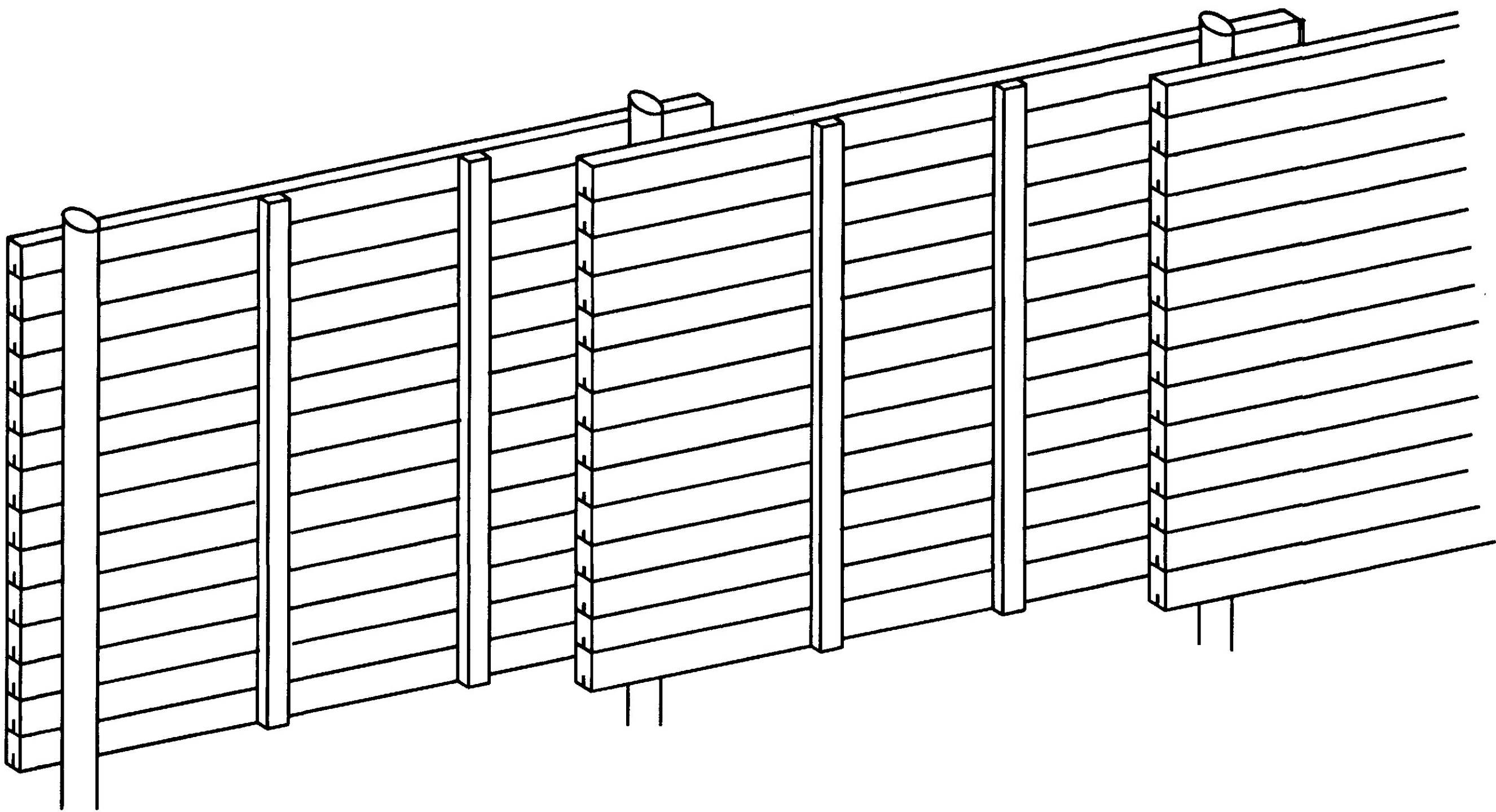
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES & GENERAL NOTES
3	PLAN & PROFILE
4-7	STANDARD DETAILS
8	SPECIAL DETAILS

SCALES

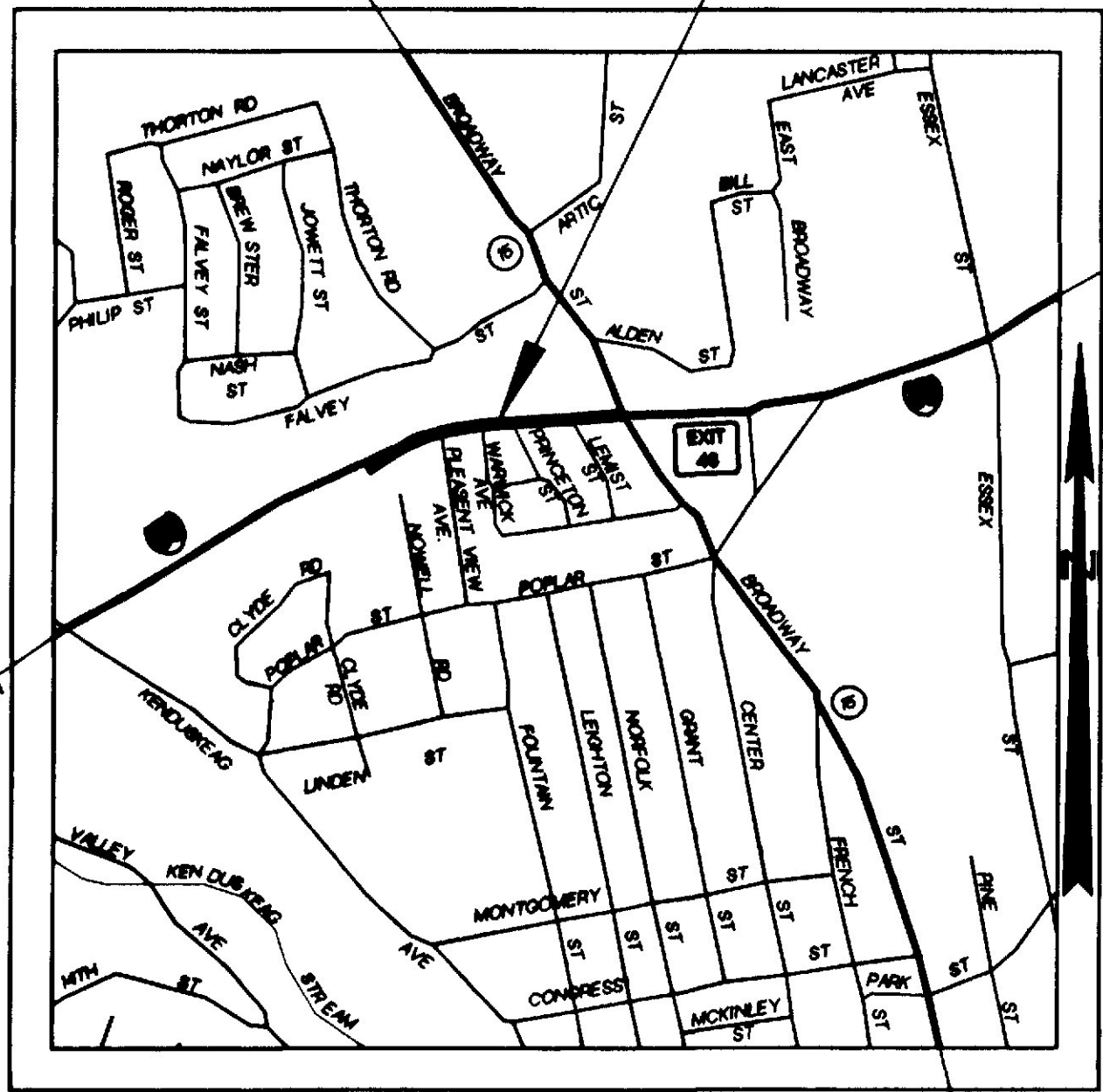


PLAN LEGEND

COUNTY LINES	TRAVELWAY-EXISTING
TOWN LINES	TRAVELWAY-PROPOSED
PROPERTY LINES	RAILROAD
R/W LINES-EXISTING	OUTLINE OF BODIES OF WATER
R/W LINES-NEW-ACCESS-CONTROL	CATCH BASINS
R/W LINES-NEW-NO ACCESS-CONTROL	MANHOLES
R/W LINES-NEW WITHIN EXISTING R/W	UTILITY POLES
R/W LINES-EXISTING WITHIN NEW R/W	UTILITY POLES-JOINT OCCUPANCY
CULVERT-EXISTING	PROPOSED UTILITY POLE-TEMPORARY
CULVERT-PROPOSED	FENCE (LABEL TYPE)
CURBING-EXISTING	TREES
CURBING-PROPOSED	WOODS
FIRE HYDRANTS	



PROPOSED
BARRIER LOCATION



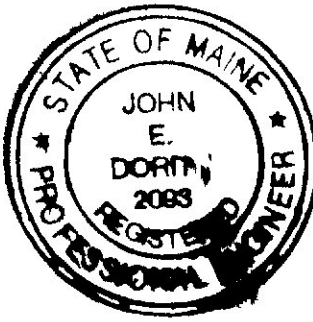
A PORTION OF PENOBSCOT COUNTY



P.H.V. 1977 (1997)
P.H.V. 2894 (2017)
T.I.P.H.V. 6 (2017)

NOTE

ALL WORK CONTEMPLATED UNDER THIS CONTRACT TO BE GOVERNED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (REVISION OF APRIL 1995) AND SUPPLEMENTALS THERETO AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.



APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COMMISSIONER
CHIEF ENGINEER

7/16/98
DATE
9/16/98
DATE

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

REGION 1

APPROVED:

DIVISION ADMINISTRATOR DATE

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	8/98
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

14SEP98-0100.10

[illegible]

CONCRETE SHALL BE CLASS "A" IN CONFORMANCE WITH SPECIAL PROVISION 502.

2 LUMBER & POLES
ALL LUMBER SHALL BE NO. 1 KD OR BETTER SOUTHERN YELLOW PINE OR DOUGLAS FIR SURFACED FOUR SIDES. ALL LUMBER AND POLES SHALL BE COMMERCIALY INSPECTED BY AN INDEPENDENT COMPANY. ALL CCA TREATED LUMBER AND POLES SHALL BE KILN DRIED TO 15% MOISTURE CONTENT AFTER TREATMENT. POLES TO BE STRAIGHT SOUTHERN YELLOW PINE OR DOUGLAS FIR CONFORMING TO ANSI 05.1-1987.
(ANSI--AMERICAN NATIONAL STANDARDS INSTITUTE)

3 TREATING SPECIFICATIONS
TWO TYPES OF TREATMENT ARE ACCEPTABLE:
A: CCA IN ACCORDANCE WITH AWPA P-5 (AWPA--AMERICAN WOOD PRESERVERS ASSOCIATION)
B: PENTACHLOROPHENOL IN ACCORDANCE WITH AWPA P-9, TYPE B (L.P.C.)
ALL MATERIAL SHALL HAVE A MINIMUM TREATMENT AS FOLLOWS:
PENTACHLOROPHENOL, 0.50 LBS. PER CU. FT.
CCA 0.40 LBS. PER CU. FT.
CCA (POLES) 0.60 LBS. PER CU. FT.
TREATMENT TO CONFORM TO AWPA C-2 FOR PLANK, PANELS, BATTENS AND AWPA C-4 FOR POLES.
ALL MATERIAL SHALL BE PROTECTED FROM WEATHER UNTIL INSTALLED.

4 THE PLANK ENDS SHALL BE IN A VERTICAL STRAIGHT LINE AND ALL PLANKS SHALL FIT TIGHTLY AT THE TIME OF INSTALLATION. ANY PLANK WHICH DOES NOT FIT TIGHTLY SHALL BE REJECTED.

5 FIELD CUTS AND HOLES SHALL BE TREATED IN ACCORDANCE WITH AWPA M4.

6 ALL METAL SHALL BE STAINLESS STEEL TYPE 304 OR 316. 20D NAILS SHALL BE A MINIMUM DIAMETER OF .190 INCHES AND SHALL BE A MINIMUM OF 4 INCHES LONG. 10D NAILS SHALL HAVE A MINIMUM DIAMETER OF .145 INCHES AND SHALL BE A MINIMUM OF 2 3/4 " INCHES LONG. ALL NAILS SHALL BE RINGSHANKED. LAG BOLTS SHALL BE 1/4 " DIAMETER X 4" LONG. INSTALLED NAILS SHALL BE SET SO THAT HEADS ARE FLUSH WITH FACE OF PLANKS.

7 THE CRUSHED STONE SHALL CONFORM TO ARTICLE 703.31 OF THE STANDARD SPECIFICATIONS AND PLACED TO A MIN. DEPTH OF 2" ABOVE THE BOTTOM OF THE PLANKS. STONE DITCH PROTECTION CONFORMING TO ARTICLE 703.29 OF THE STANDARD SPECIFICATIONS SHALL BE REQUIRED IN LIEU OF CRUSHED STONE BETWEEN STATIONS +50 AND +4+50. "S" SHALL BE A MIN. OF 2" AND SHALL BE INCIDENTAL TO ITEM 607.422 TIMBER NOISE BARRIER.

8 CLEARING SHALL BE KEPT TO A MINIMUM AS DIRECTED BY THE ENGINEER. ONLY VEGETATION WITHIN THE EXISTING RIGHT OF WAY SHALL BE CLEARED FOR CONSTRUCTION OF THE NOISE BARRIER. OVERHANGING TREE LIMBS MAY BE PRUNED AS REQUIRED FOR CONSTRUCTION. CLEARING SHALL BE CONSIDERED INCIDENTAL TO ITEM 607.422 TIMBER NOISE BARRIER.

9 SEED AND MULCH SHALL BE APPLIED TO ALL AREAS OF DISTURBED SOIL UPON COMPLETION OF THE TIMBER NOISE BARRIER PROJECT (WORK SHALL BE INCIDENTAL TO ITEM 607.422 TIMBER NOISE BARRIER).

10 ACCESS FOR BUILDING THE BARRIER SHALL BE FROM THE NORTHBOUND LANES OF INTERSTATE 95. IF NECESSARY, TEMPORARY ACCESS RIGHTS ARE ALSO AVAILABLE FROM NOWELL ROAD -- HOWEVER, THE AREA USED FOR TEMPORARY ACCESS SHALL BE RESTORED UPON COMPLETION OF THE NOISE BARRIER. RESTORATION SHALL INCLUDE: ANY GRADING AS REQUIRED; PLACING LOAM, SEED, AND MULCH; AND REPLACING ANY DAMAGED TREES, SHRUBS, OR FLOWER GARDENS AS DIRECTED BY THE ENGINEER. (THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 607.422 TIMBER NOISE BARRIER.)

11 ALL WORK INVOLVING CONSTRUCTION OF THE TIMBER NOISE BARRIER AND REMOVAL OF THE CHAIN LINK RIGHT OF WAY FENCE SHALL BE CONDUCTED FROM WITHIN THE EXISTING RIGHT OF WAY.

12 AS DIRECTED BY THE ENGINEER, PORTIONS OF THE EXISTING CHAIN LINK RIGHT OF WAY FENCE MAY NEED TO BE REMOVED PRIOR TO CONSTRUCTION OF THE TIMBER NOISE BARRIER SO AS TO ALLOW WORK TO BE CONDUCTED ENTIRELY FROM WITHIN THE RIGHT OF WAY. UPON COMPLETION OF THE TIMBER NOISE BARRIER, THE REMAINDER OF THE EXISTING CHAIN LINK FENCE SHALL BE REMOVED EXCEPT ADJACENT TO THE DETOUR PROPERTY (38 PRINCETON STREET). THE EXISTING CHAIN LINK FENCE WILL ALSO REMAIN BEYOND BOTH ENDS OF THE NOISE BARRIER. IT SHALL BE ATTACHED TO THE BARRIER AT BOTH ENDS BY FASTENING STEEL FENCE POSTS WITH STAINLESS STEEL U-BOLTS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 607.243 REMOVE CHAIN LINK FENCE.

13 THE NEIGHBORHOOD SIDE OF THE BARRIER SHALL BE STAINED WITH A SOLID COLOR STAIN ADJACENT TO THE DETOUR PROPERTY (38 PRINCETON STREET--BETWEEN PRINCETON AND WARWICK STREETS) AS PER SPECIAL PROVISION 607 TIMBER NOISE BARRIER. STAIN SHALL BE PENETRATING EXTERIOR OIL BASE COMPATIBLE WITH THE PRESERVATIVE TREATMENT. COLOR SHALL BE WHITE.

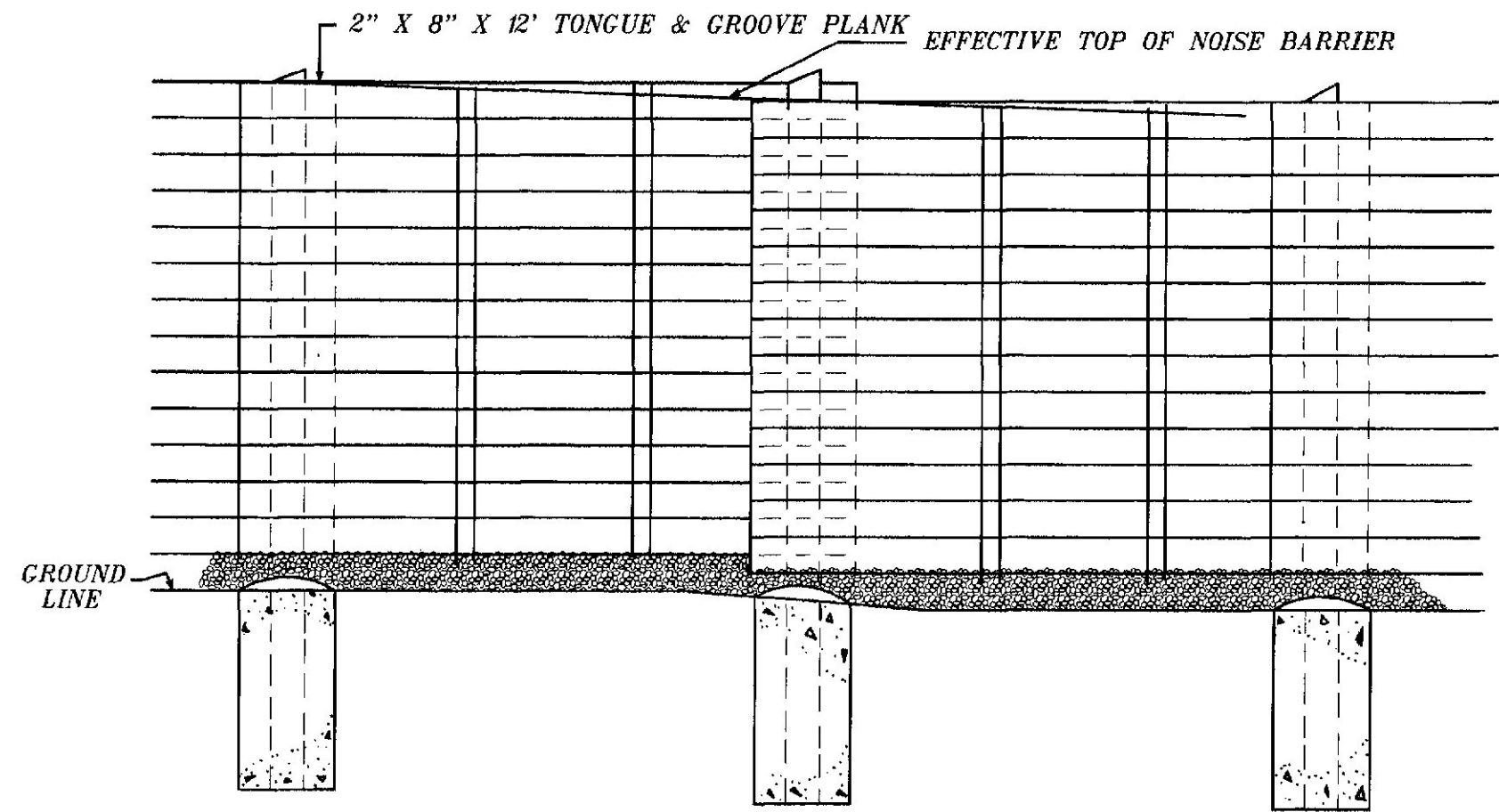
S-1	ROD SOUNDING	DEPTH 0 - 16 FT.	NO REFUSAL
B-2	POWER AUGER BORING	0 - 4.0 FT. 4.0 - 19.5 FT.	SILTY SANDY GRAVEL (FILL) SANDY CLAY SILT WITH COBBLES (AASHTO CLASSIFICATION A-4)
B-3	POWER AUGER BORING	0 - 2.5 FT. 2.5 - 16.0 FT. 2.5 - 16.0 FT.	SILTY SANDY GRAVEL (FILL) SANDY CLAY SILT WITH COBBLES (AASHTO CLASSIFICATION A-4) SANDY CLAY SILT WITH COBBLES (AASHTO CLASSIFICATION A-4) VERY FIRM AT DEPTH OF 16.4 FT. SOIL INCREASINGLY MOIST WITH DEPTH, HOWEVER WATER TABLE IS BELOW 19.5 FT.
B-4	POWER AUGER BORING	0 - 1.0 FT. 1.0 - 15.0 FT. 15.0 - 19.0 FT.	SILTY SANDY GRAVEL (FILL) SANDY CLAY SILT (AASHTO CLASSIFICATION A-6) SANDY CLAY SILT WITH COBBLES
B-5	POWER AUGER BORING	0-1.9 FT. 1.9 - 19 FT.	SILTY SANDY GRAVEL (FILL) SANDY CLAY SILT (AASHTO CLASSIFICATION A-6)
S-6	ROD SOUNDING	0 -12 FT.	NO REFUSAL (MATERIAL IS BLASTED LEDGE FILL)

- STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

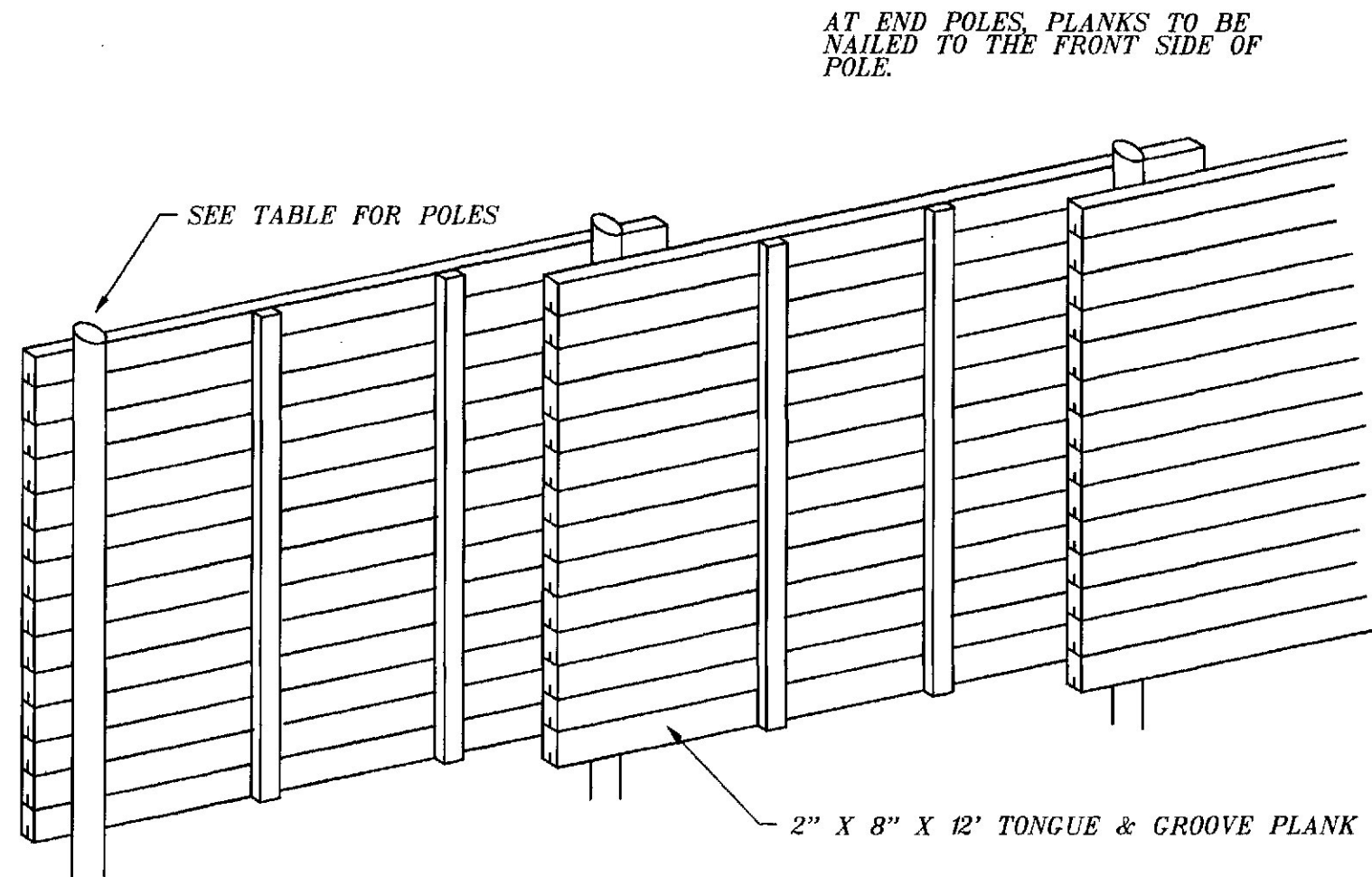
SHEET 1 OF 1 AUGUSTA, MAINE

WALL HIGHT "H"	POLE DIAMETER OF PIER AT TOP	MIN. ALLOWABLE DIAMETER AT TOP OF POLE	PIER DEPTH "D"
11.5' - 14'	11"	7.5"	10.5'
20'	14"	9"	12.5'

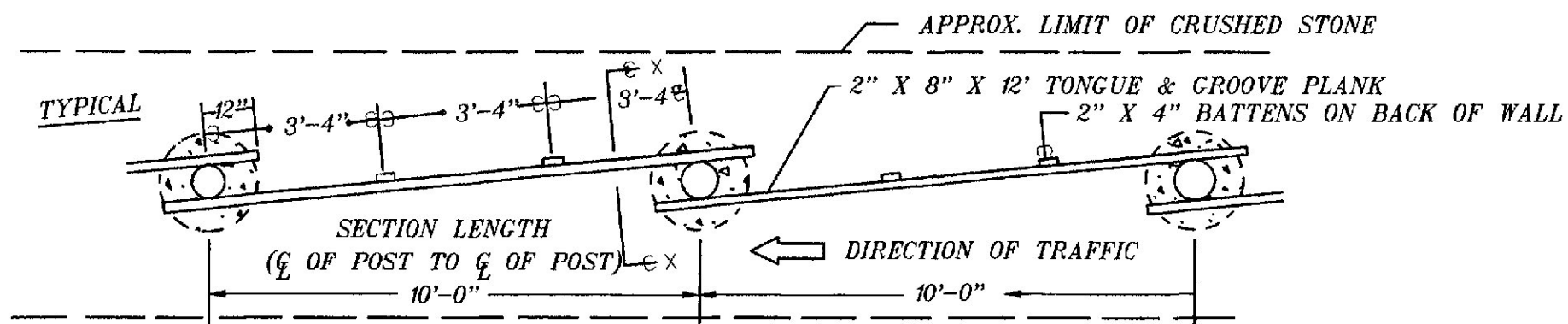
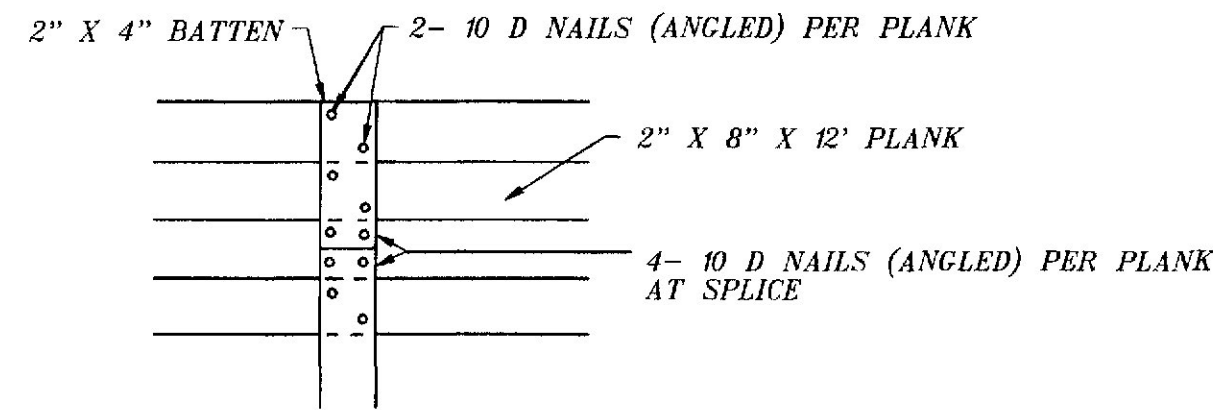
PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. DEVIN	8/98
CHECKED		
REVIEWS		
FIELD CHANGES		



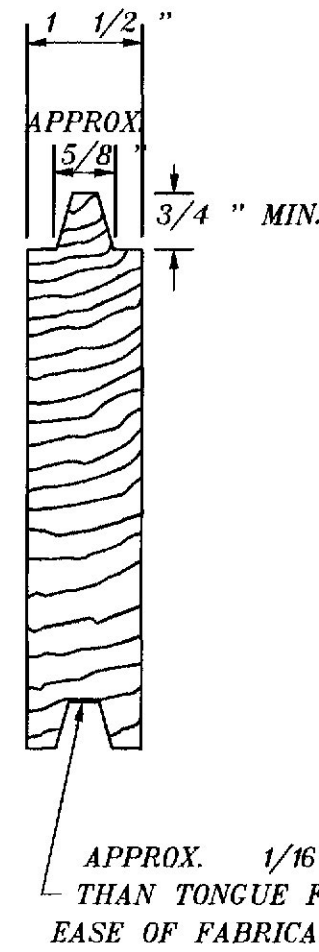
ELEVATION



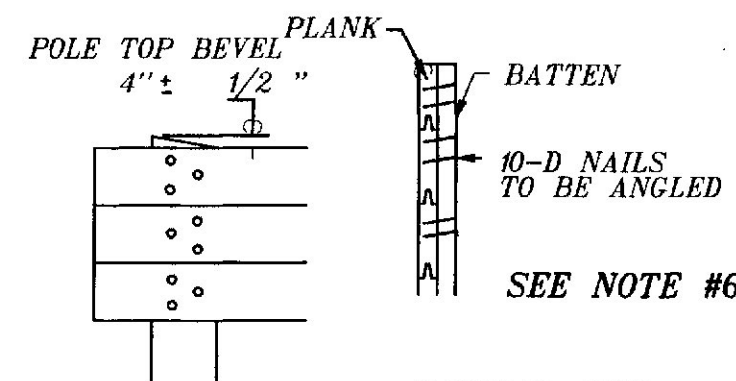
ISOMETRIC VIEW - SIDE AWAY FROM HIGHWAY



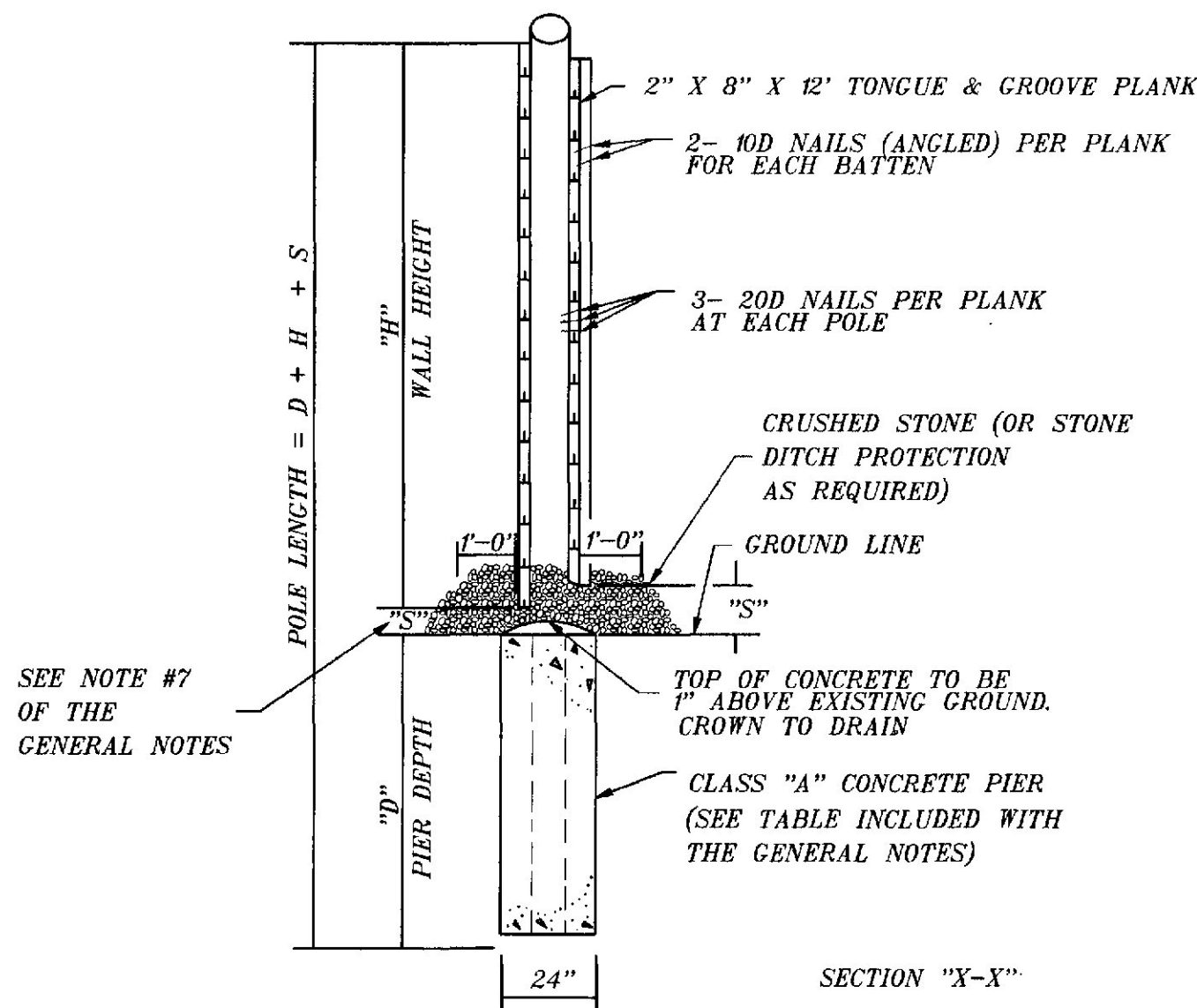
PLAN VIEW



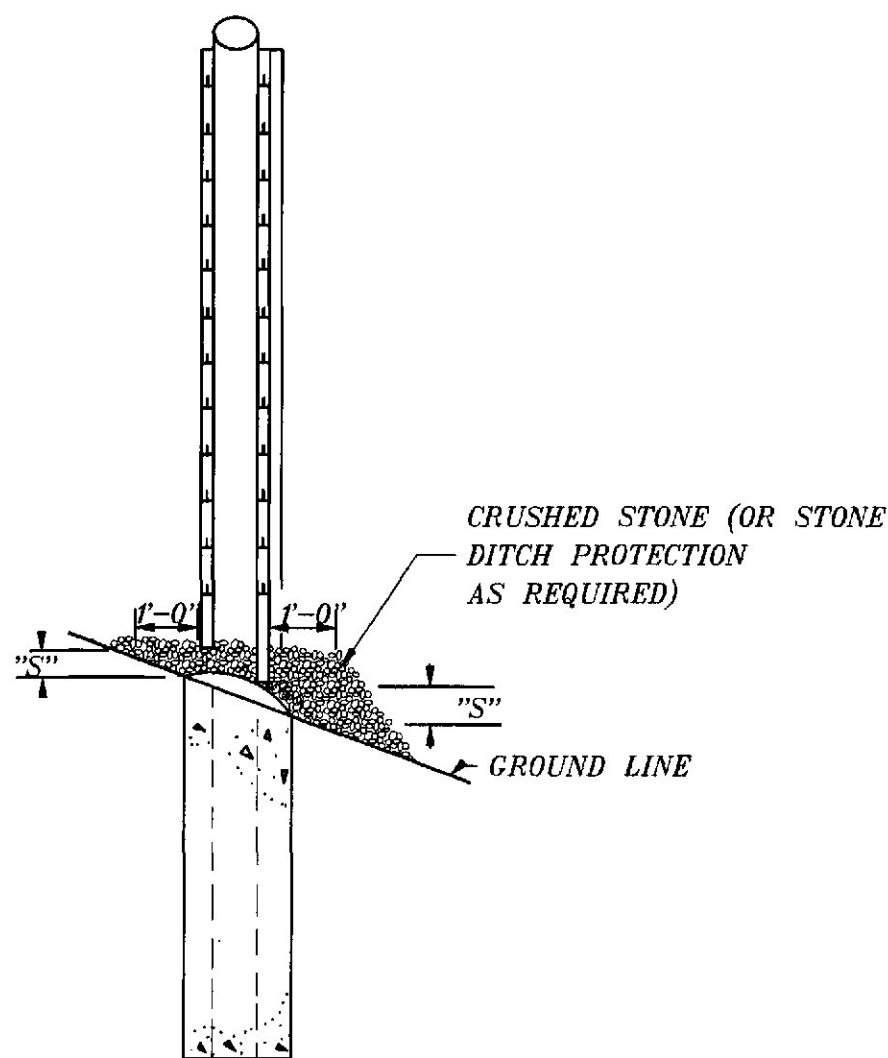
NOTE: INSTALL PLANKS WITH TONGUE UP.
TOP PLANK SHALL NOT HAVE TONGUE.
BOTTOM PLANK MAY HAVE GROOVE.
NOMINAL LUMBER DIMENSIONS WILL BE SATISFACTORY



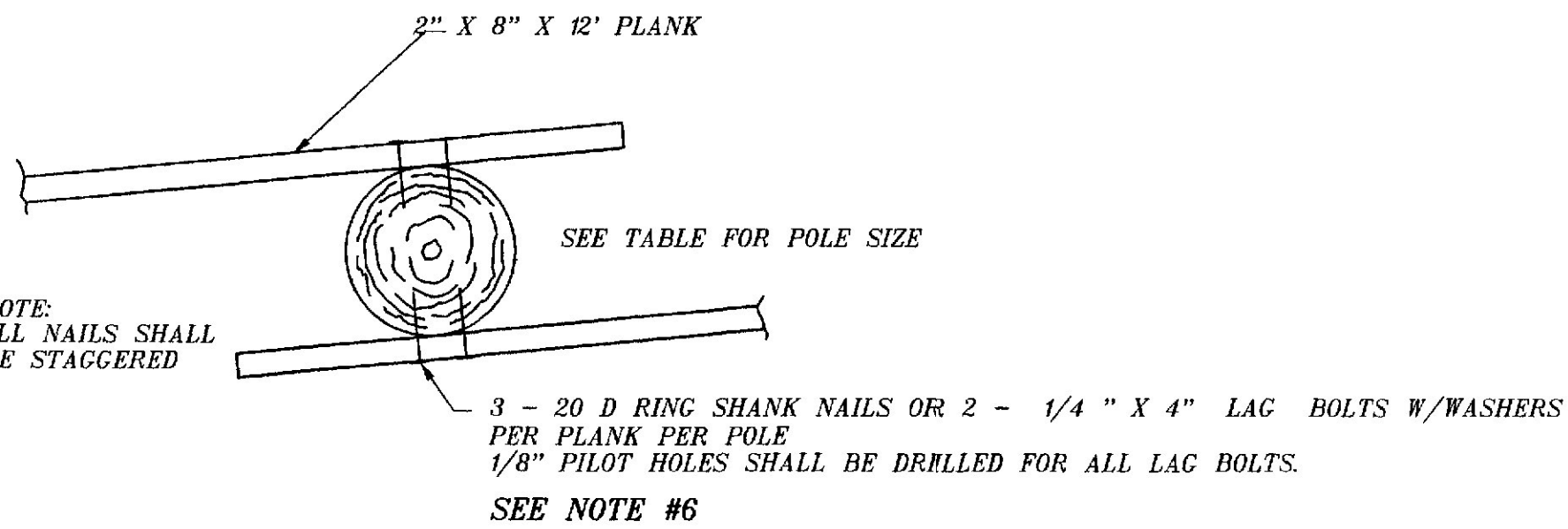
DETAIL "B"



INSTALLED ON LEVEL GROUND



INSTALLED ON SLOPE



DETAIL "A"

TIMBER NOISE BARRIER
TYPE 2

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BANGOR
NOISE BARRIER
DETAILS

SHEET 1 OF 4 AUGUSTA, MAINE

BANGOR I - 95 NORTHBOUND

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. DEVIN	6/98
CHECKED	D. CHURCH	
REVISIONS		
FIELD CHANGES		

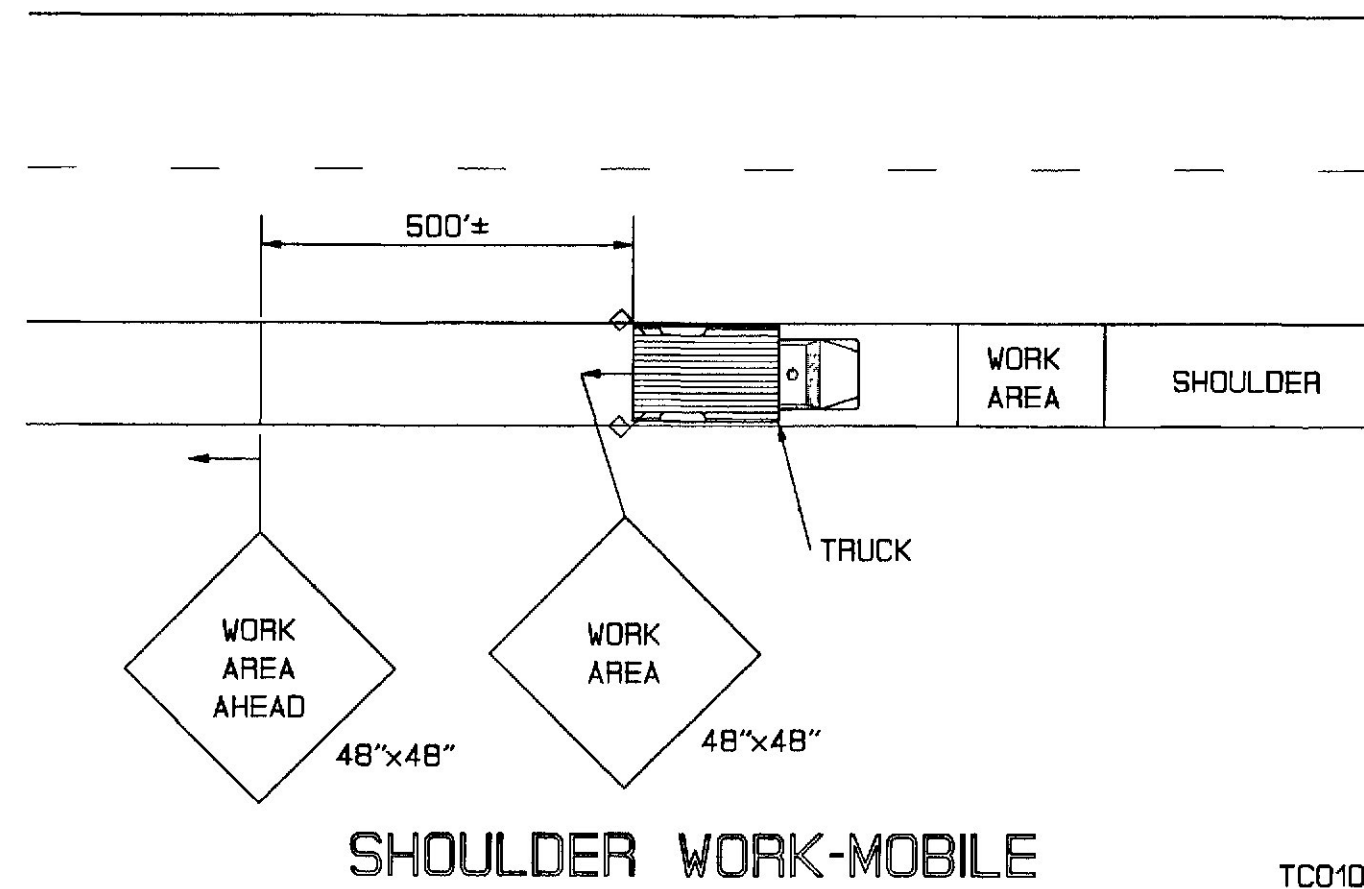
PLANS

18SEP98-0100.00

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. DEYAN	8/98
CHECKED		
REVISIONS		
FIELD CHANGES		

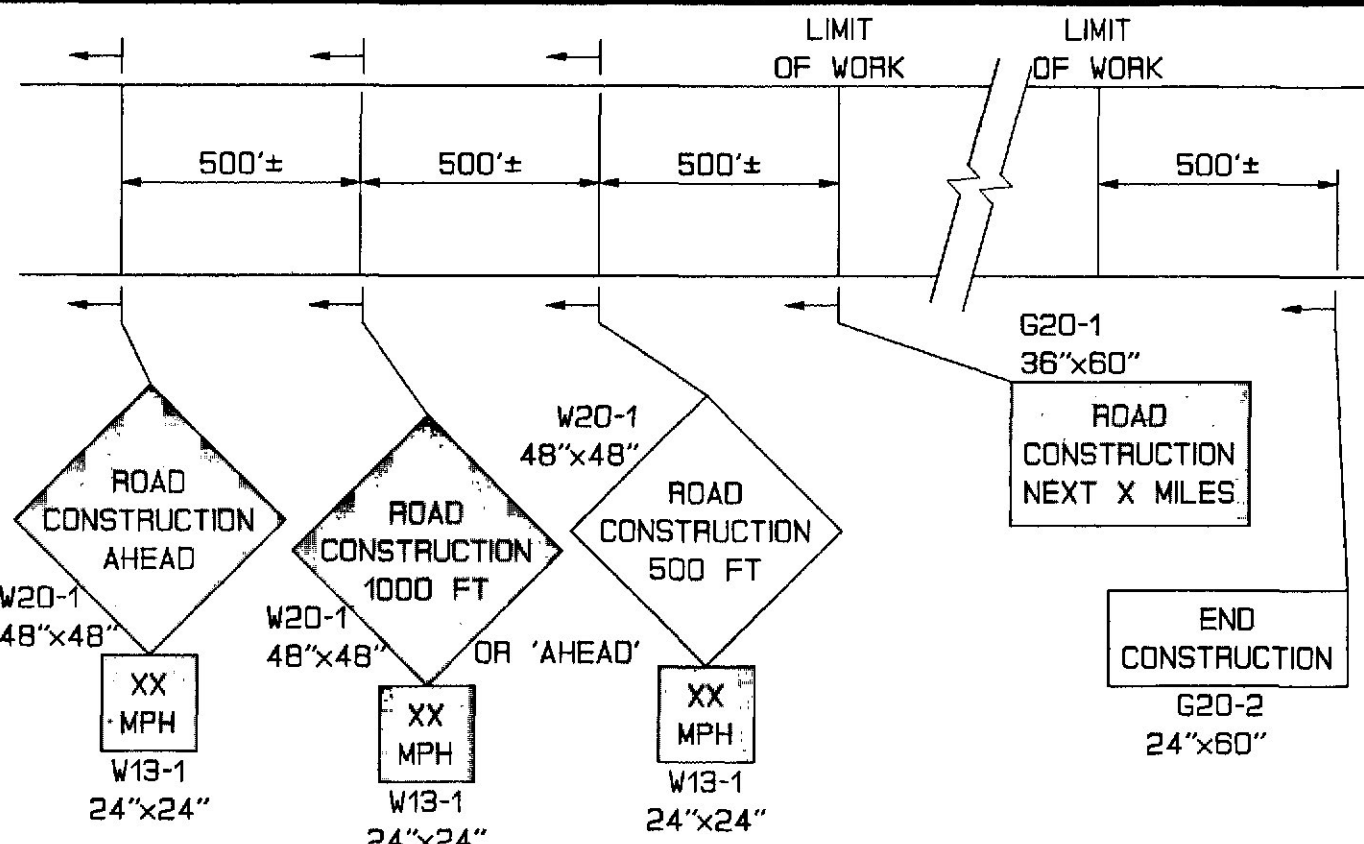
PLANS

16SEP98-0100000



SHOULDER WORK-MOBILE

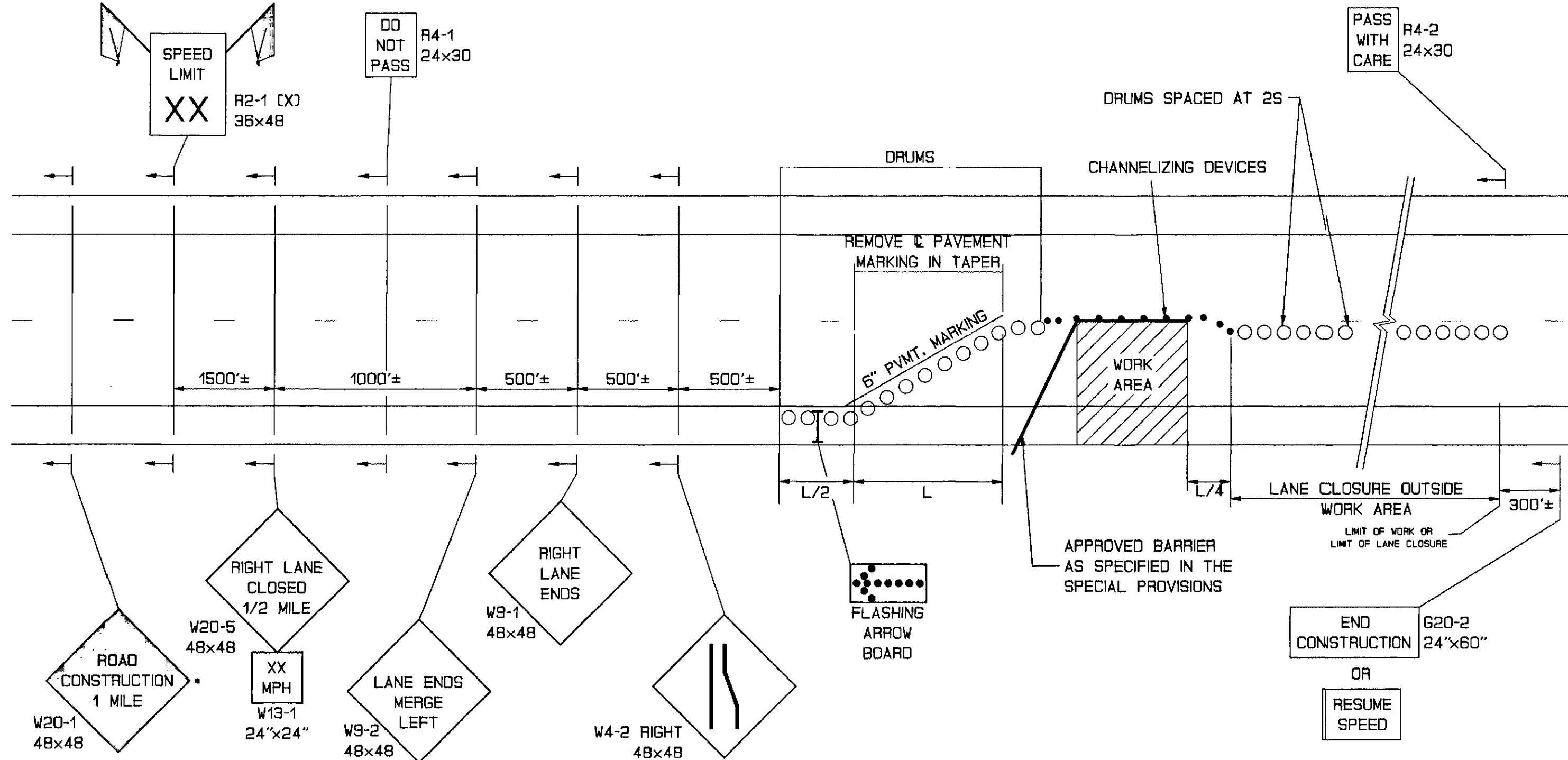
TC010



PROJECT APPROACH SIGNING
EXPRESSWAY

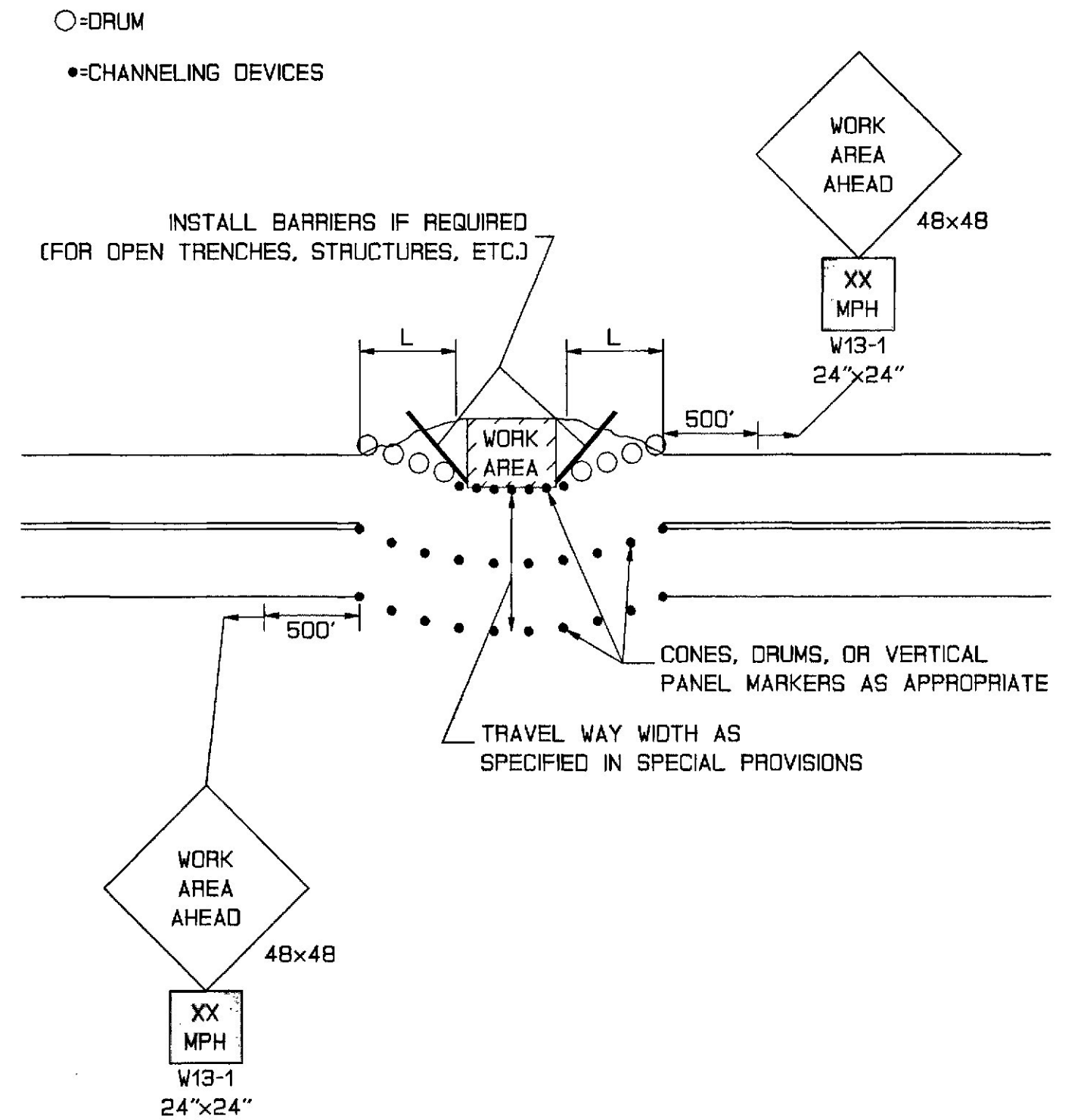
TC009

NOTE
• OMIT W20-1 IF LANE CLOSURE SIGNING ARRAY IS WITHIN PROJECT LIMITS.
ALTER PAVEMENT MARKINGS AS REQUIRED.
MAINTAIN 15 FT. LATERAL CLEARANCE.
USE SIMILAR SIGNING FOR LEFT LANE CLOSURE.



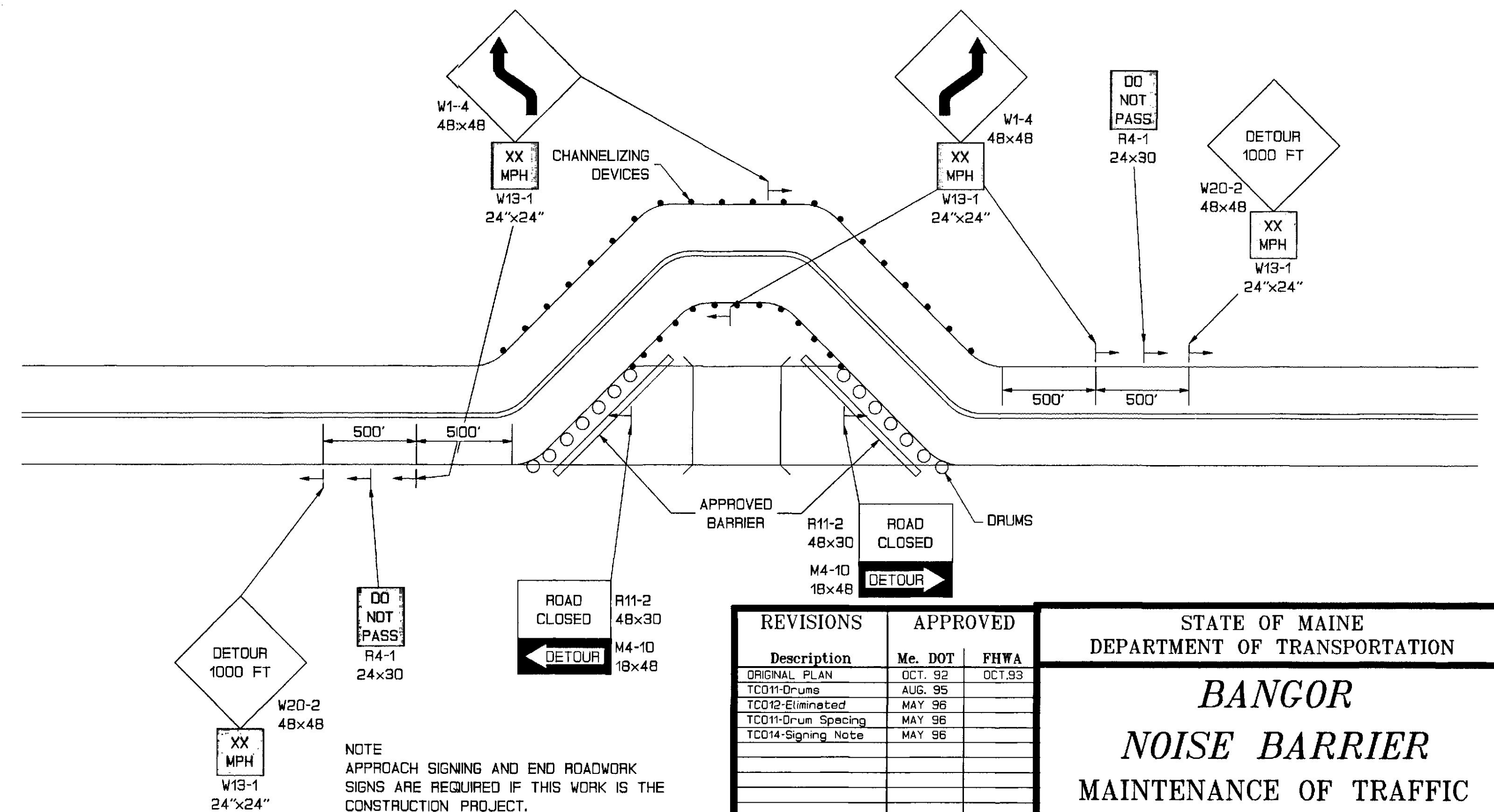
EXPRESSWAY LANE CLOSURE

TC011



TWO WAY TRAFFIC
MAINTAINED THROUGH WORK AREA

TC013

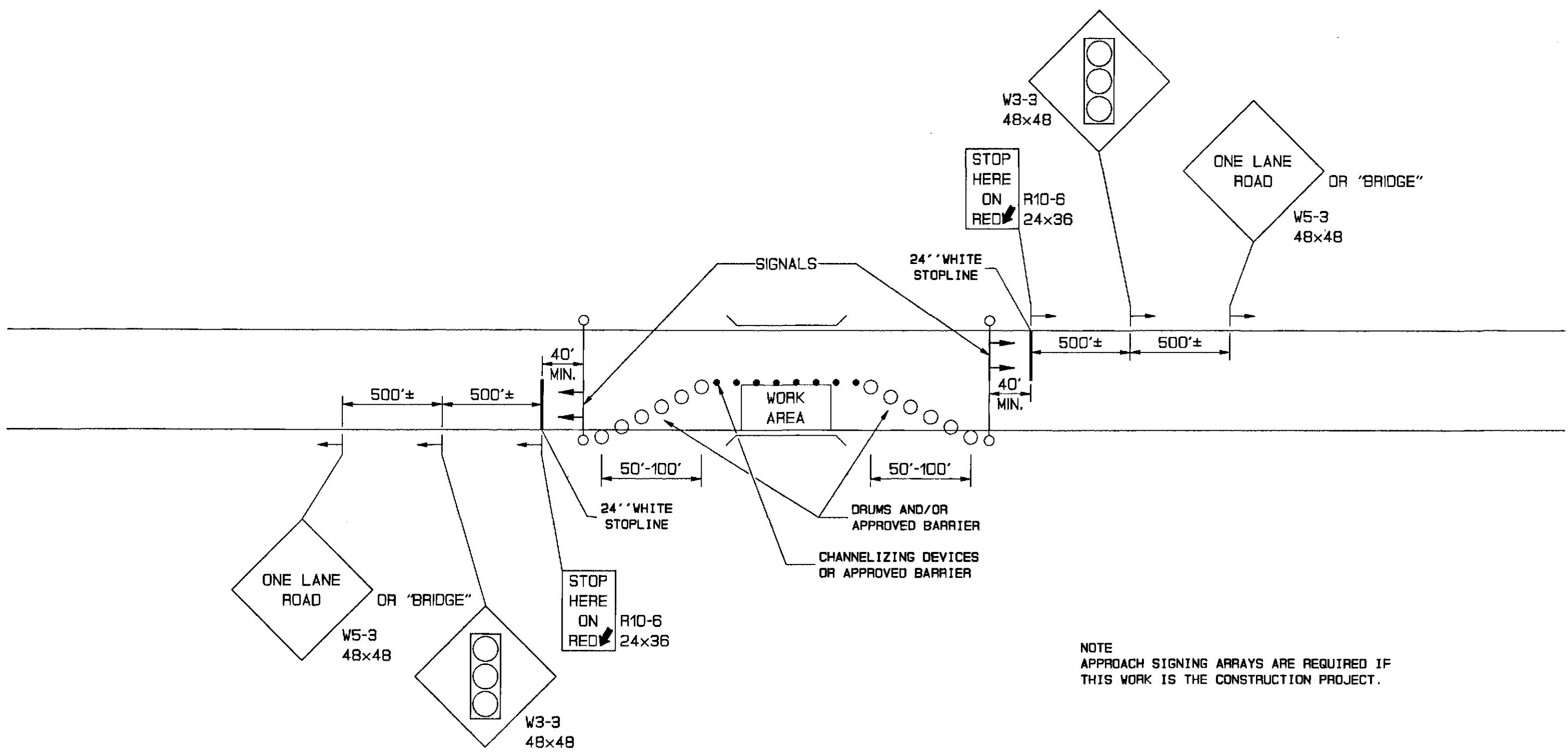


TWO WAY TWO LANE DETOUR

TC014

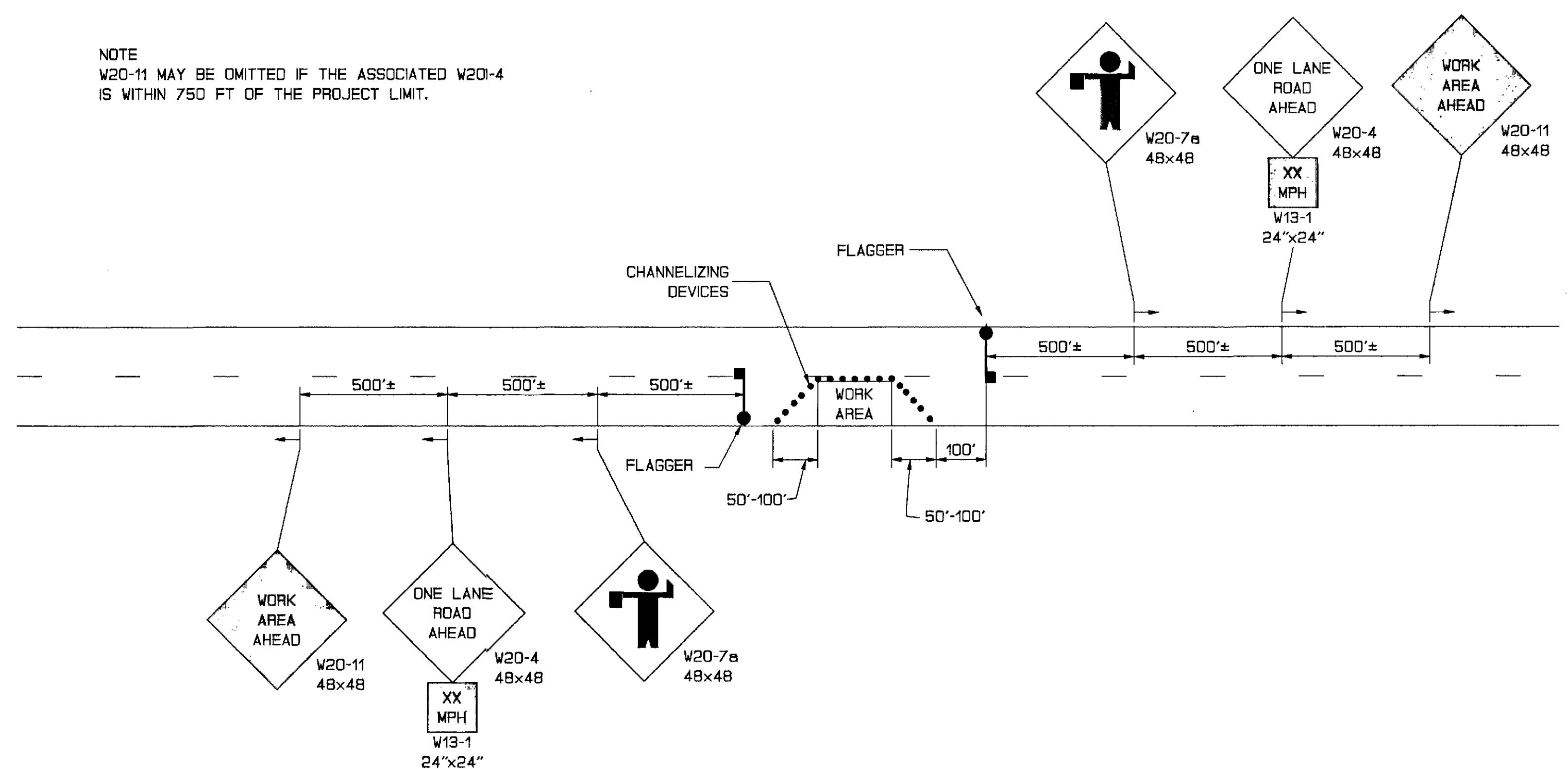
REVISIONS	APPROVED
Description	Me. DOT
ORIGINAL PLAN	OCT. 92
TC011-Drums	AUG. 95
TC012-Eliminated	MAY. 96
TC011-Drum Spacing	MAY. 96
TC014-Signing Note	MAY. 96

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
BANGOR
NOISE BARRIER
MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES



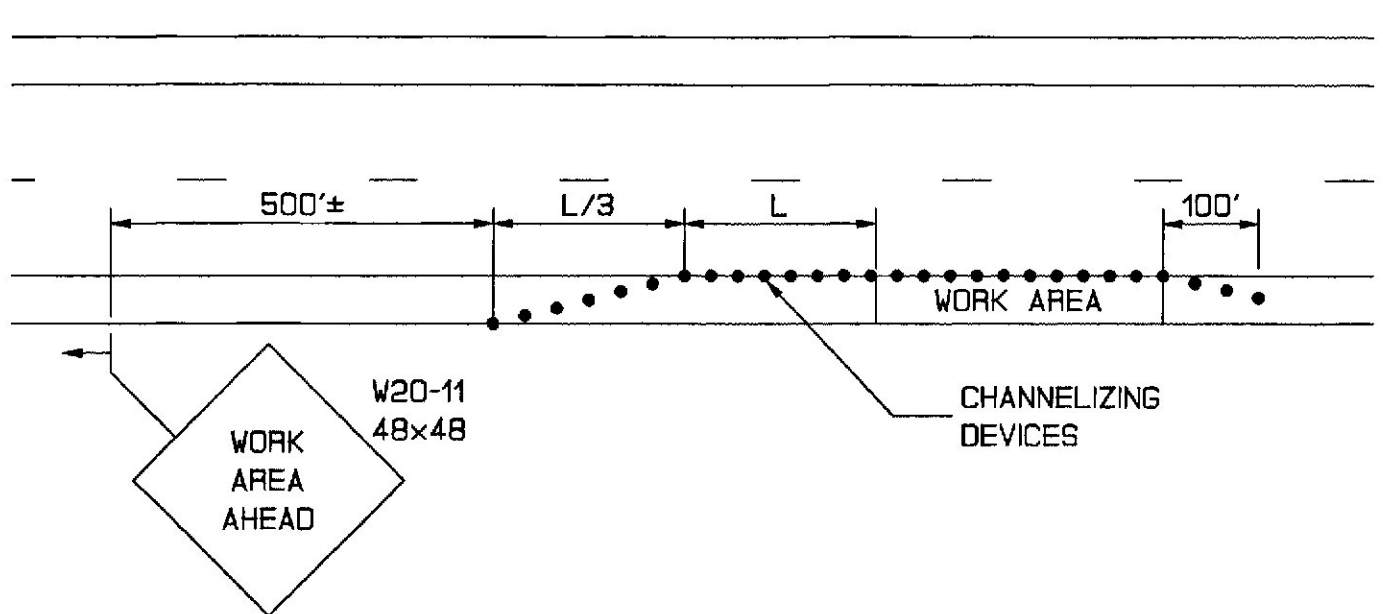
TWO WAY TRAFFIC LANE CLOSURE
WITH TEMPORARY TRAFFIC SIGNALS

TC015



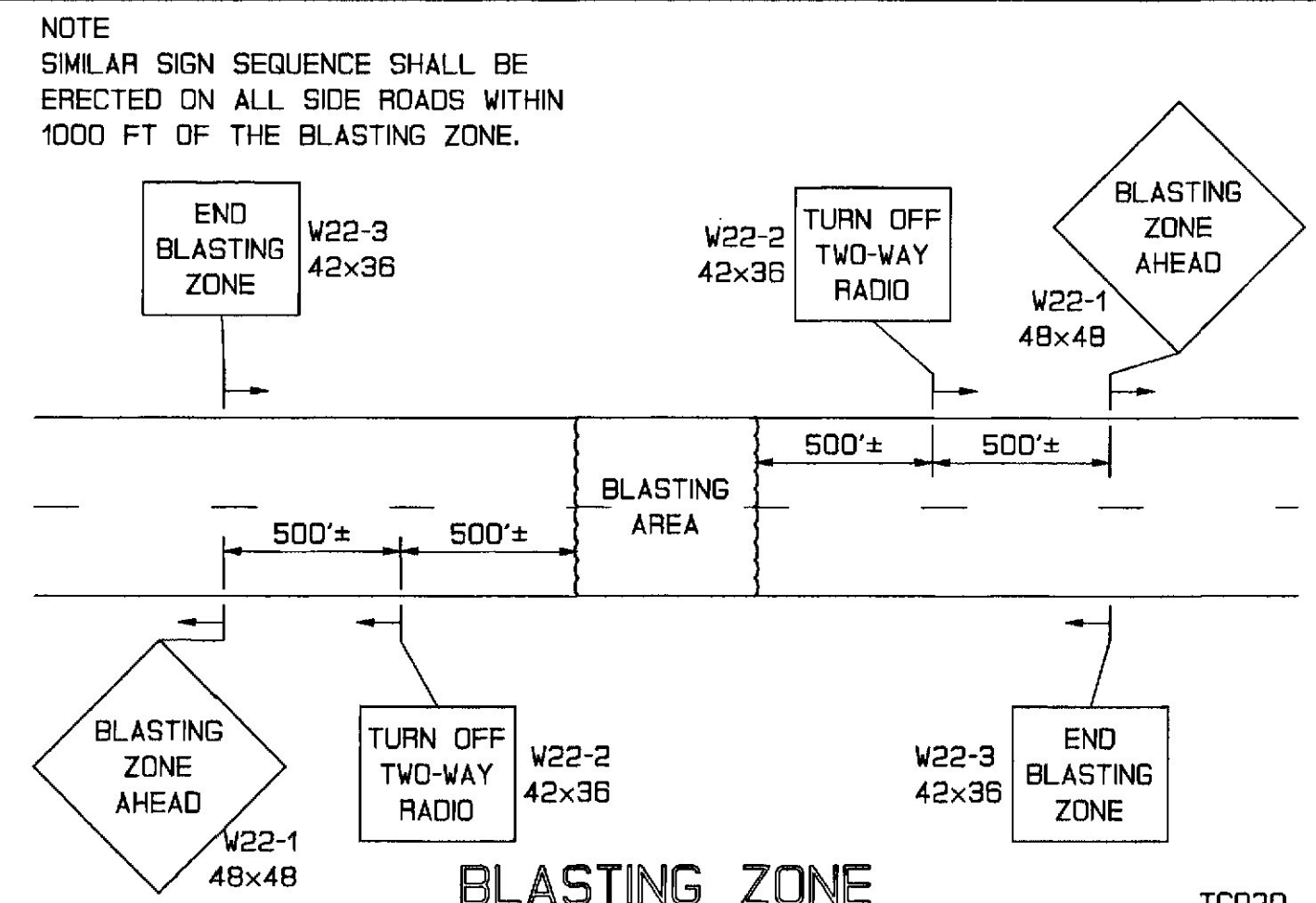
TWO-WAY TRAFFIC LANE CLOSURE WITH FLAGGERS

TC016



ROADSIDE WORK AREA SIGNING

TC017



BLASTING ZONE

TC020

PORTABLE ENERGY ABSORPTION UNITS

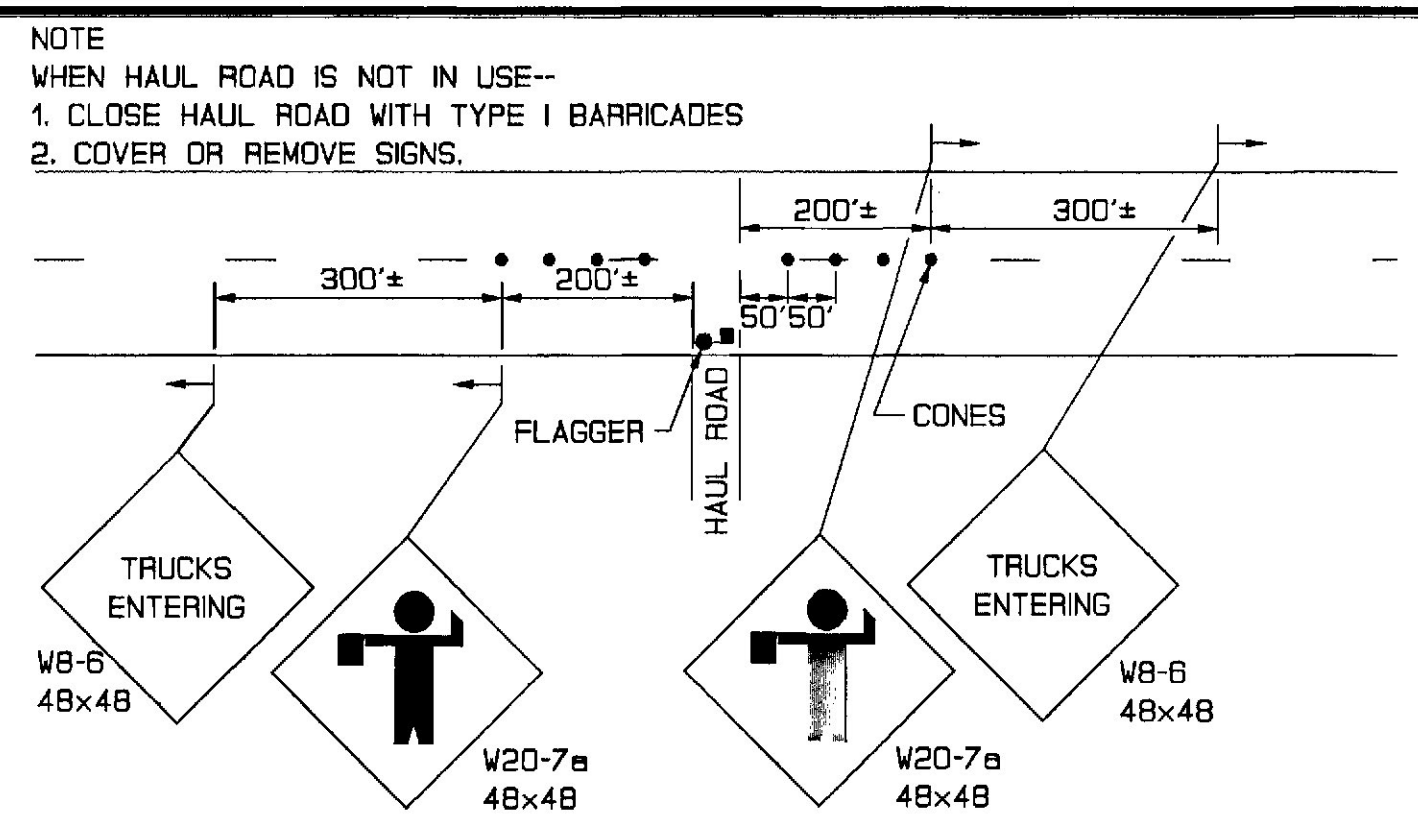
ARRAYS FOR SPEEDS OF 20 TO 65 MPH

KEY

(21) PLASTIC CRASH BARREL
WEIGHT OF SAND IN HUNDREDS OF POUNDS

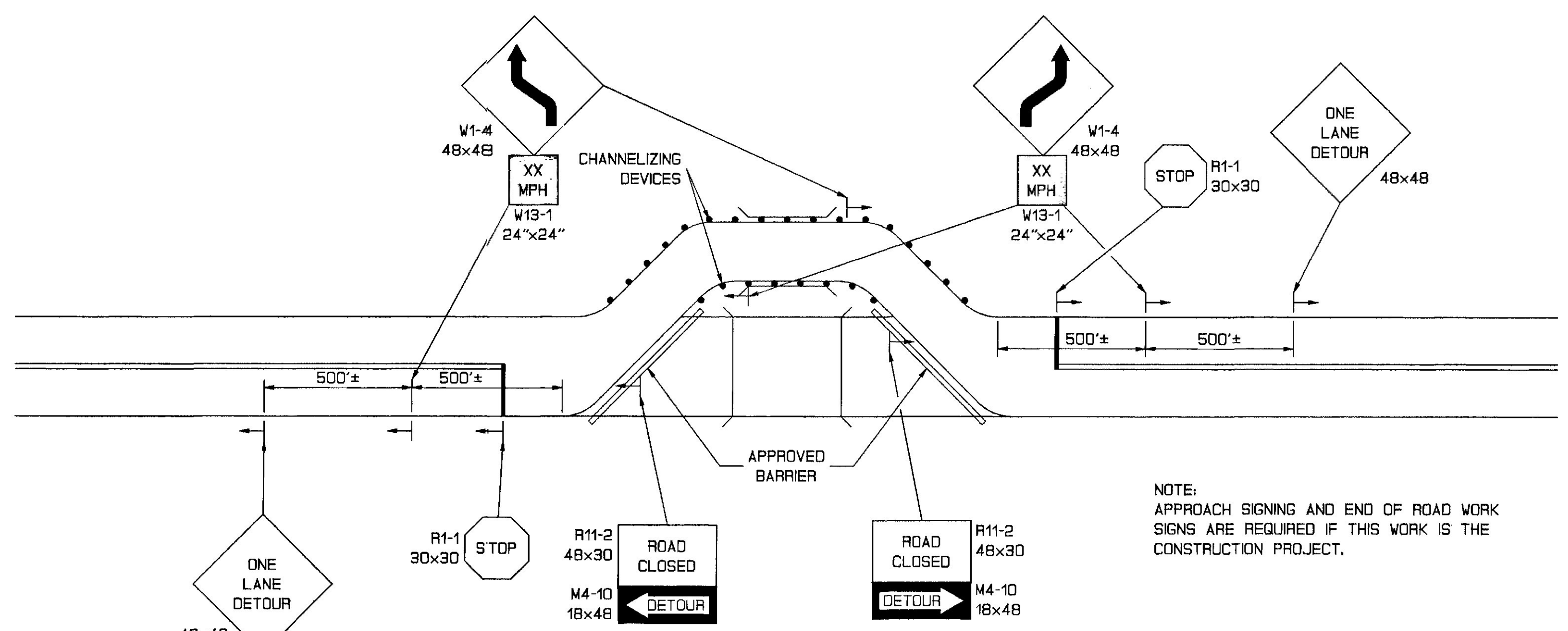
ITEM NO. 527.32	
20 & 25 MPH	Direction of Traffic (14) (14) (21) (14) (21)
30 & 35 MPH	Direction of Traffic (7) (14) (14) (21) (14) (21)
40 MPH	Direction of Traffic (4) (7) (14) (14) (21) (14) (21)
45 MPH	Direction of Traffic (2) (4) (7) (14) (14) (21) (14) (21)
50 MPH	Direction of Traffic (2) (2) (4) (7) (7) (14) (14) (21) (7) (14) (14) (21)
55 MPH	Direction of Traffic (2) (2) (2) (4) (7) (7) (14) (14) (21) (7) (14) (14) (21)
60 & 65 MPH	Direction of Traffic (2) (2) (2) (2) (4) (7) (4) (7) (14) (14) (21) (4) (7) (14) (14) (21)

Maximum Deceleration = 6 - 7 g's



HAUL ROADS

TC019



ONE WAY DETOUR
LOW VOLUME ROAD WITH ADEQUATE SIGHT DISTANCE

TC018

REVISIONS	APPROVED
Description	Me. DOT FHWA
ORIGINAL PLAN	OCT. 92 OCT. 93
Add TC022	JUNE 93 OCT. 93
TC018 Signing Note	MAY 95

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BANGOR

NOISE BARRIER

MAINTENANCE OF TRAFFIC
IN CONSTRUCTION ZONES

SHEET 4 OF 4 AUGUSTA, MAINE

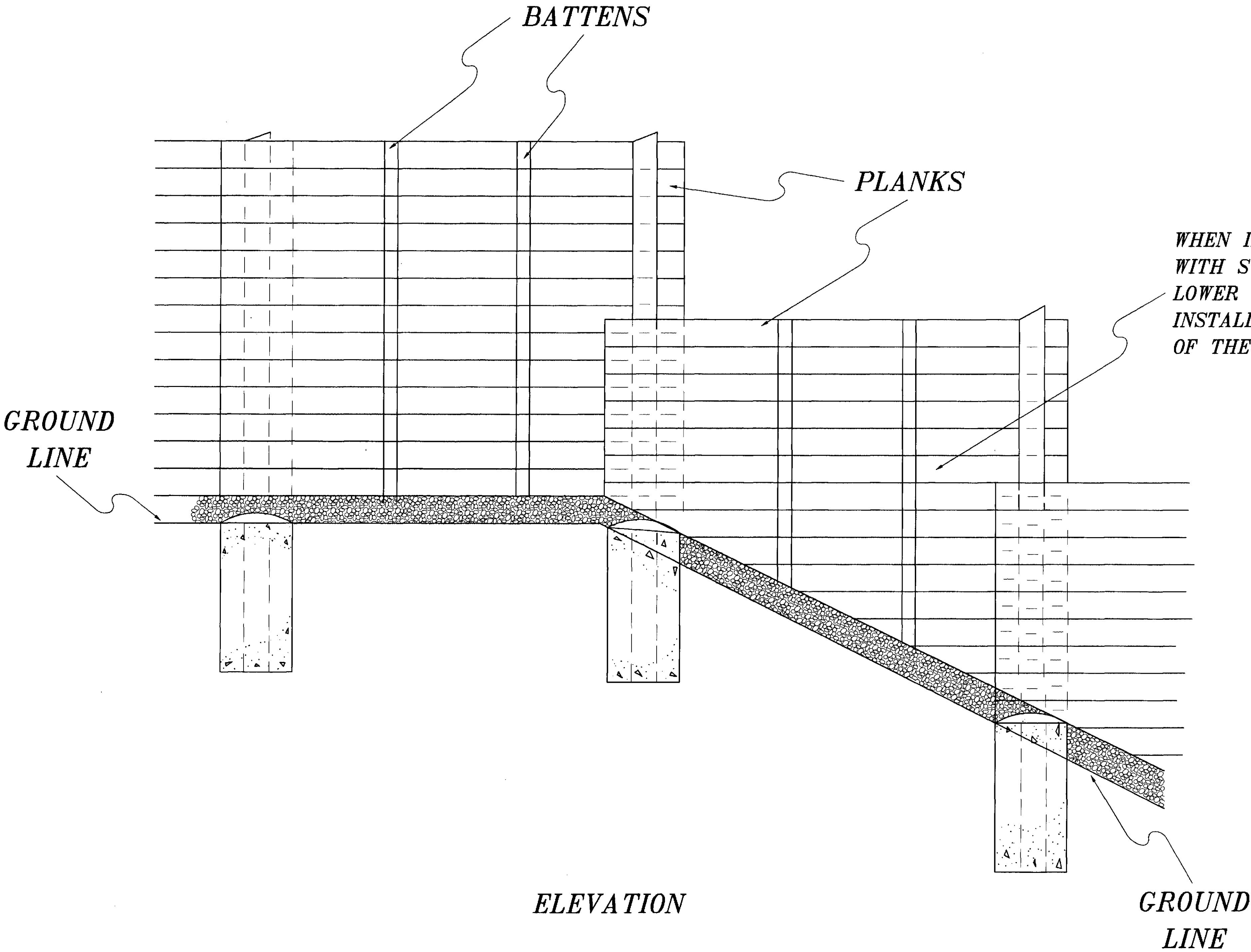
PROJECT DESIGN ENGINEER
DESIGN-DETAILED
CHECKED
REVISIONS
FIELD CHANGES

DATE
8/98

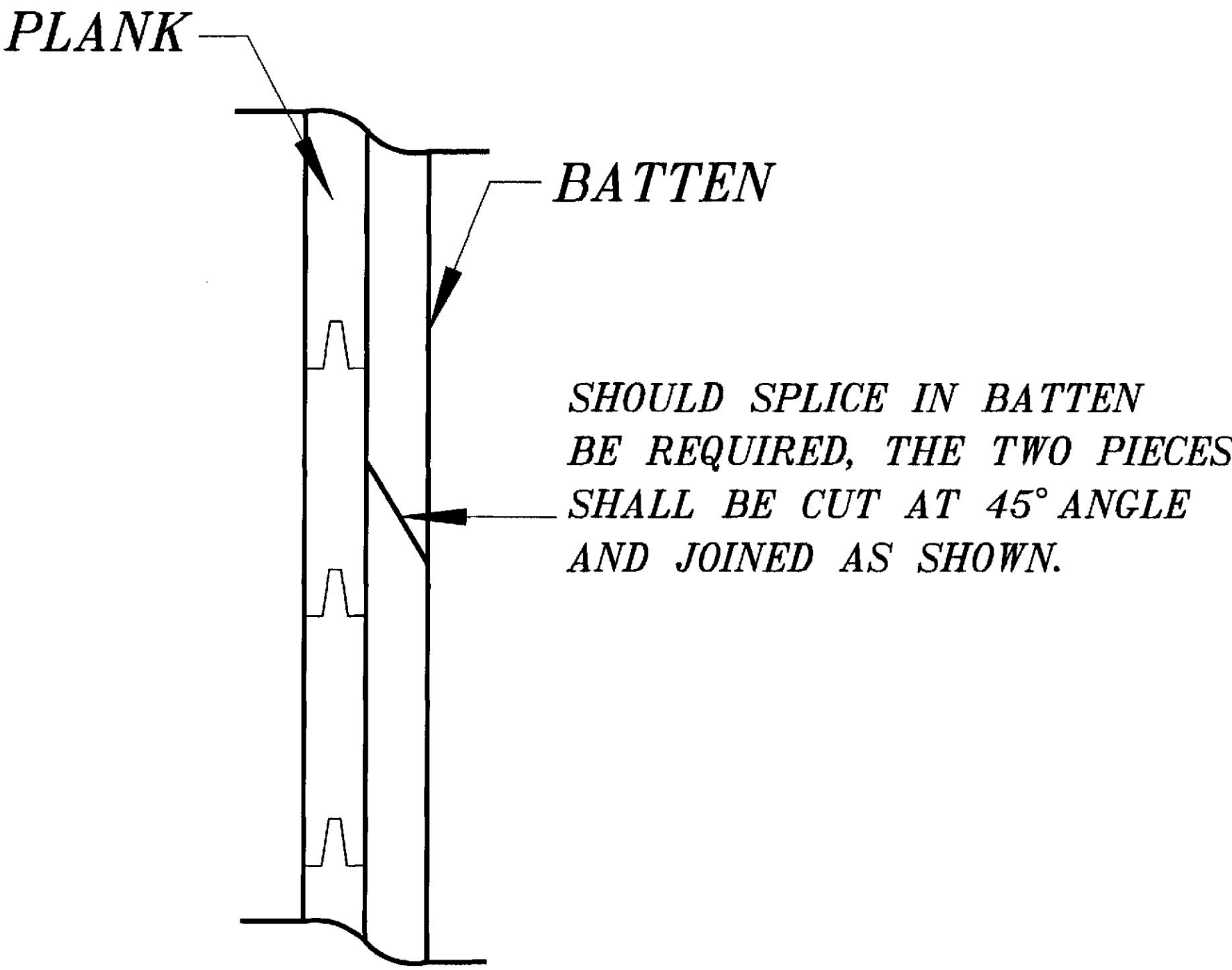
BY
J. DEVA D. CHIRACO

PLANS

16SEP98-010000



STEP IN WALL HEIGHT ON STEEP SCOPE



BATTEN SPLICE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BANGOR
NOISE BARRIER
SPECIAL DETAILS

SHEET 1 OF 1 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. DAVIN	07/98
CHECKED		
REVISIONS		
FIELD CHANGES		

18SEP98-0100000

NOT TO SCALE