

PLAN SYMBOLS

STATE LINE	---
COUNTY LINE	---
TOWNSHIP OR RANGE LINE	---
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
RIGHT-OF-WAY LINE	---
PRESENT RIGHT-OF-WAY LINE	---
CONTROL OF ACCESS LINE	---
PROPERTY LINE (Except Land Lines)	---
VACATED PLATTED PROPERTY	---
CORPORATE OR CITY LIMITS	---
TRUNK HIGHWAY CENTER LINE	---
RETAINING WALL	---
RAILROAD	---
RAILROAD RIGHT-OF-WAY LINE	---
RIVER OR CREEK	---
DRY RUN	---
DRAINAGE DITCH	---
DRAIN TILE	---
CULVERT	---
DROP INLET	---
GUARD RAIL	---
BARBED WIRE FENCE	---
WOVEN WIRE FENCE	---
CHAIN LINK FENCE	---
WOODEN FENCE	---
STONE WALL OR FENCE	---
HEDGE	---
RAILROAD CROSSING SIGN	---
RAILROAD CROSSING BELL	---
ELECTRIC WARNING SIGN	---
CROSSING GATE	---
MEANDER CORNER	---
BYPASS	---
MARSH	---
TIMBER ORCHARD	---
BRUSH NURSERY	---
CATCH BASIN	---
FIRE HYDRANT	---
GATTLIE GUARD	---
OVERPASS (Highway Over)	---
UNDERPASS (Highway Under)	---
BRIDGE	---
BUILDING (One Story Frame)	---
F-FRAME C-CONCRETE	---
S-STONE T-TILE	---
B-BRICK ST-STUCCO	---
IRON PIPE OR ROD	---
MONUMENT (STONE, CONCRETE, OR METAL)	---
WOODEN HUB	---
GRAVEL PIT	---
SAND PIT	---
BORROW PIT	---
ROCK QUARRY	---

UTILITY SYMBOLS

POWER POLE LINE	---
TELEPHONE OR TELEGRAPH POLE LINE	---
JOINT TELEPHONE AND POWER ON POWER POLES	---
JOINT TELEPHONE AND POWER ON TELEPHONE POLES	---
ANCHOR	---
STEEL TOWER	---
STREET LIGHT	---
PEDESTAL (TELEPHONE CABLE TERMINAL)	---
GAS MAIN	---
WATER MAIN	---
CONDUIT	---
TELEPHONE CABLE IN CONDUIT	---
ELECTRIC CABLE IN CONDUIT	---
TELEPHONE MANHOLE	---
ELECTRIC MANHOLE	---
BURIED COMMUNICATION CABLE	---
BURIED TELEPHONE CABLE	---
BURIED ELECTRIC CABLE	---
BEMER (SANITARY)	---
BEMER (STORM)	---
BEMER MANHOLE	---
HANDHOLE	---
CATCH BASIN	---

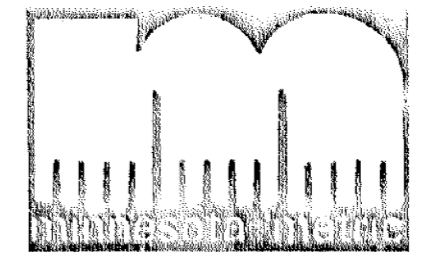
SCALE

INDEX MAP 0.9 km

GENERAL LAYOUT (SIGNALS) 5 m

GENERAL LAYOUT (ROAD WORK) 10 m

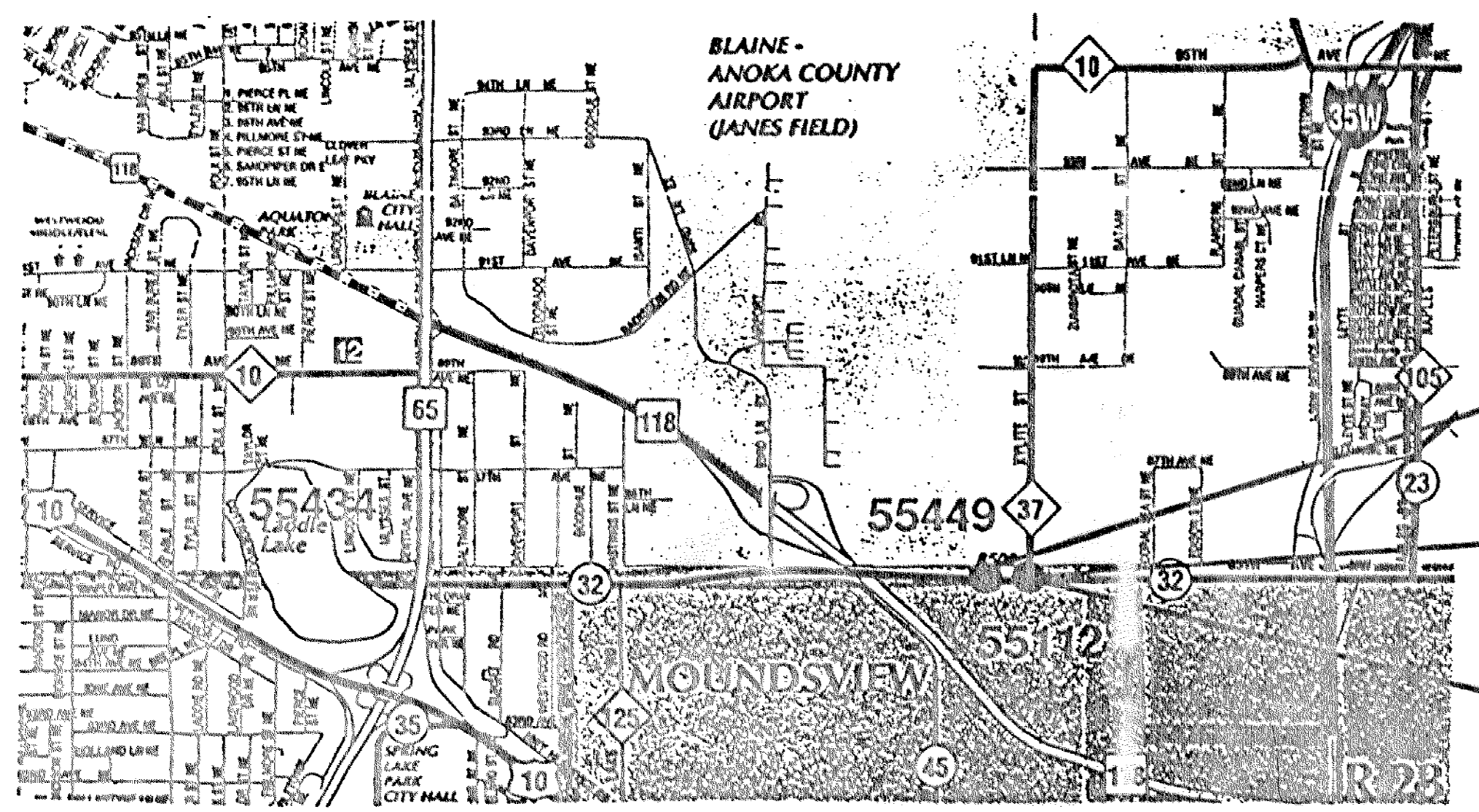
MINNESOTA DEPARTMENT OF TRANSPORTATION
ANOKA AND RAMSEY COUNTIES, MINNESOTA
CITIES OF BLAINE AND MOUNDS VIEW



CONSTRUCTION PLAN FOR ONE (1) FULL TRAFFIC ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM, TURN LANE CONSTRUCTION, AND RADIUS RECONSTRUCTION

LOCATED ON 85TH AVENUE NE (ANOKA CO. CSAH 32)/RAMSEY COUNTY ROAD J (RAMSEY CO. CSAH 1) AT XYLITE STREET NORTHEAST

ANOKA COUNTY PROJECT NO. 97-58-32
STATE AID PROJECT NOS. 62-601-09 & 106-020-16
STATE AID PROJECT NOS. 106-131-03 & 146-020-10



TURN LANE CONSTRUCTION

STATE AID PROJ. NO.	62-601-09, 106-020-16, 146-020-10
GROSS LENGTH	178.51 METERS
BRIDGES-LENGTH	0 METERS
EXCEPTIONS-LENGTH	0 METERS
NET LENGTH	178.51 METERS

BEGIN TURN LANE CONSTRUCTION
 STATION 1 + 648.39
 ANOKA COUNTY PROJECT NO. 97-58-32
 S.A.P. 62-601-09
 S.A.P. 106-020-16 & 146-020-10

TRAFFIC SIGNAL SYSTEM
 85TH AVENUE NE (CSAH 32)/
 COUNTY ROAD J (CSAH 1) AT
 XYLITE STREET NORTHEAST
 ANOKA COUNTY PROJECT NO. 97-58-32
 S.A.P. 62-601-09 & 106-020-16
 S.A.P. 106-131-03 & 146-020-10

END TURN LANE CONSTRUCTION
 STATION 1 + 826.90
 ANOKA COUNTY PROJECT NO. 97-58-32
 S.A.P. 62-601-09
 S.A.P. 106-020-16 & 146-020-10

STATEMENT OF ESTIMATED QUANTITIES

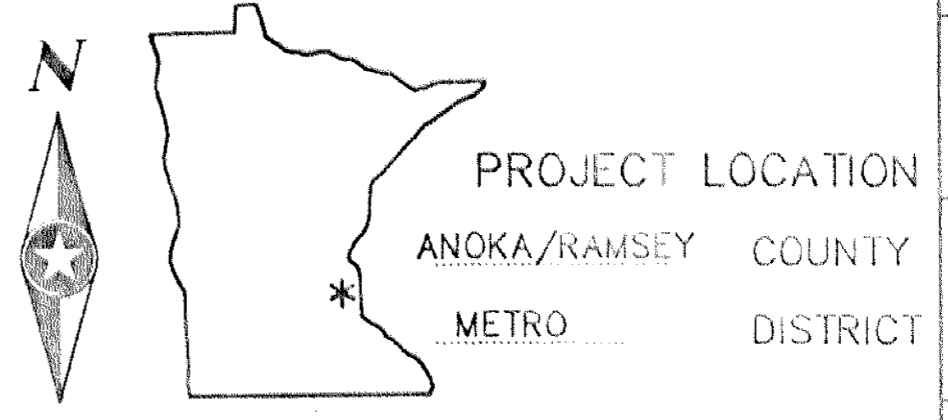
ITEM NUMBER	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	PARTICIPATION				
				ANOKA C.P. 97-58-32	S.A.P. 62-601-09	S.A.P. 106-020-16	S.A.P. 106-131-03	S.A.P. 146-020-10
2104.501	REMOVE CONCRETE CURB AND GUTTER	m	180	90	90	0	0	0
2104.509	REMOVE CATCH BASIN	EACH	2	1	1	0	0	0
2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	m	230	115	115	0	0	0
2105.501	COMMON EXCAVATION	m3	600	300	300	0	0	0
2105.535	SALVAGE TOPSOIL (C.V.)	m3	80	40	40	0	0	0
2211.501	AGGREGATE BASE, CLASS 5, 100% CRUSHED	t	220	110	110	0	0	0
2340.508	TYPE 47, WEARING COURSE MIXTURE	t	72	36	36	0	0	0
2340.510	TYPE 47, BINDER COURSE MIXTURE	t	72	36	36	0	0	0
2340.514	TYPE 31, BASE COURSE MIXTURE	t	128	64	64	0	0	0
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	l	112	56	56	0	0	0
2503.541	375 mm RCP SEWER, CLASS 5, DESIGN 3006	m	6.60	3.30	3.30	0	0	0
2503.602	CONNECT TO EXISTING STORM SEWER	EACH	2	1	1	0	0	0
2504.604	100 mm RIGID INSULATION	m2	12	6	6	0	0	0
2506.502	CONSTRUCT DRAINAGE STRUCTURE, DESIGN SPECIAL	EACH	3	1.50	1.50	0	0	0
2506.602	CASTING ASSEMBLY, DESIGN SPECIAL	EACH	3	1.50	1.50	0	0	0
2521.501	100 mm CONCRETE WALK	m2	36	18	18	0	0	0
2531.501	CONCRETE CURB AND GUTTER, DESIGN B624	m	180	90	90	0	0	0
2531.604	225 mm CONCRETE VALLEY GUTTER	m2	24	24	24	0	0	0
2564.531	SIGN PANELS-TYPE "C"	m2	7.52	2.67	2.67	0.84	0	0.84
2564.531	SIGN PANELS-TYPE "D"	m2	5.20	1.30	1.30	1.30	0	1.30
2564.602	PAVEMENT MESSAGE (LEFT ARROW)-EPOXY	EACH	2	2	2	0	0	0
2564.602	PAVEMENT MESSAGE (RIGHT ARROW)-EPOXY	EACH	1	1	1	0	0	0
2564.603	100 mm SOLID LINE WHITE-EPOXY	m	240	120	120	0	0	0
2564.603	100 mm BROKEN LINE WHITE-EPOXY	m	110	55	55	0	0	0
2564.603	100 mm DOUBLE SOLID LINE YELLOW-EPOXY	m	90	45	45	0	0	0
2564.603	600 mm SOLID LINE WHITE-EPOXY	m	4	11.50	11.50	8	0	9
2564.603	600 mm SOLID LINE YELLOW-EPOXY	m	2	135	135	0	0	0
2564.604	CROSSWALK MARKING-EPOXY	m2	22	22	22	13	0	13
2565.511	FULL-TRAFFIC-ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM	SIG.SYS.	1	0.125	0.25	0.125	0.25	0.25
2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM	LUMP SUM	1	0	0	0.25	0.25	0.50
2575.505	SOODING, TYPE LAWN	m2	50	250	250	0	0	0

PLAN REVISIONS

DATE	SHEET NO.	APPROVED BY

ATTENTION: THIS IS A METRIC PLAN.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MMUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS-JANUARY 1998".



FEDERAL PROJECT NO.

GOVERNING SPECIFICATIONS
 THE 1995 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION", SHALL GOVERN.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS AND STANDARD PLATES
3	DETAILS
4	INTERSECTION LAYOUT
5	FIELD WIRING DIAGRAM
6	TYPICAL SECTION & DETAILS
7	TURN LANE & STORM SEWER
8-11	SIGNING AND STRIPING
12	UTILITIES

THIS PLAN CONTAINS 12 SHEETS.

DESIGN ENGINEER: I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 11/12/98 REG. NO. 22457

SIGNAL DESIGN ENGINEER: I HEREBY CERTIFY THAT THESE SIGNAL PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, THAT THIS PLAN CONFORMS TO THE MMUTCD (EXCEPT WHERE A VARIANCE HAS BEEN GRANTED), AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 11/12/98 REG. NO. 22457

APPROVED	Charles Gentile	CITY OF BLAINE ENGINEER	DATE 11/12/98
APPROVED	Stuart D. Campbell	CITY OF MOUNDS VIEW ENGINEER	DATE 11/12/98
APPROVED	Paul V. Hill	ANOKA COUNTY ENGINEER	DATE 11/12/98
APPROVED	Paul V. Hill	RAMSEY COUNTY ENGINEER	DATE 11/12/98
APPROVED	METRO ASSISTANT DIVISION ENGINEER-STATE AID; REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY		DATE
APPROVED	APPROVED FOR STATE AID FUNDING; STATE AID ENGINEER		DATE

GEOMETRICS DESIGN DESCRIPTION

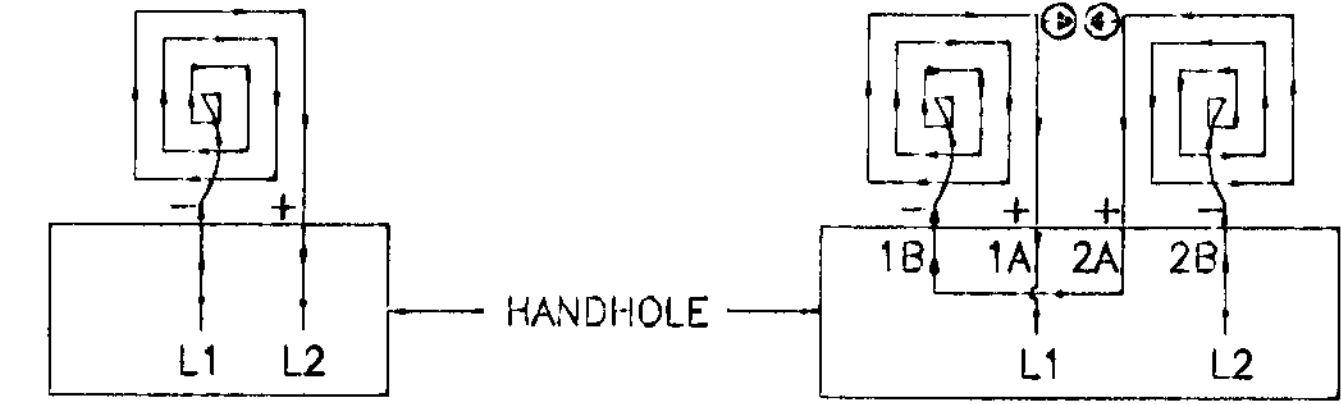
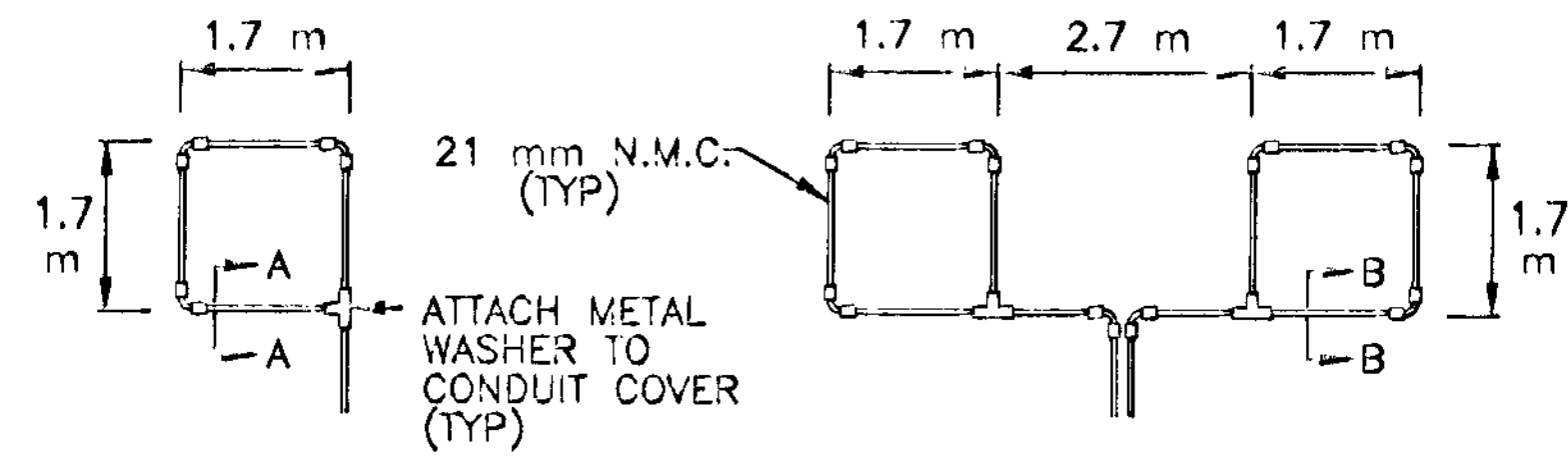
DESIGN SPEED	85TH AVE NE/ RAMSEY CO. RD. J	XYLITE ST NE
EXISTING A.D.T. (1998)	45 MPH/70 KMH	13,100
PROJECTED A.D.T. (2018)	30 MPH/50 KMH	2,000
FUNCTIONAL CLASSIFICATION	ARTERIAL/HIGH	COLLECTOR/HIGH
NO. OF TRAFFIC LANES	5	3
NO. OF PARKING LANES	0	0

MINNESOTA DEPARTMENT OF TRANSPORTATION
 ANOKA & RAMSEY COUNTIES, MINNESOTA
 CITIES OF BLAINE & MOUNDS VIEW

TITLE SHEET

ES&I

SIGNAL SYSTEM, TURN LANE CONSTRUCTION, AND RADIUS RECONSTRUCTION	FILE NO. ANOKC9708
85TH AVENUE NE (CSAH 32)/COUNTY ROAD J (CSAH 1) AT XYLITE STREET NORTHEAST	1
ANOKA COUNTY PROJECT NO. 97-58-32 S.A.P. 62-601-09 & 106-020-16 S.A.P. 106-131-03 & 146-020-10	12

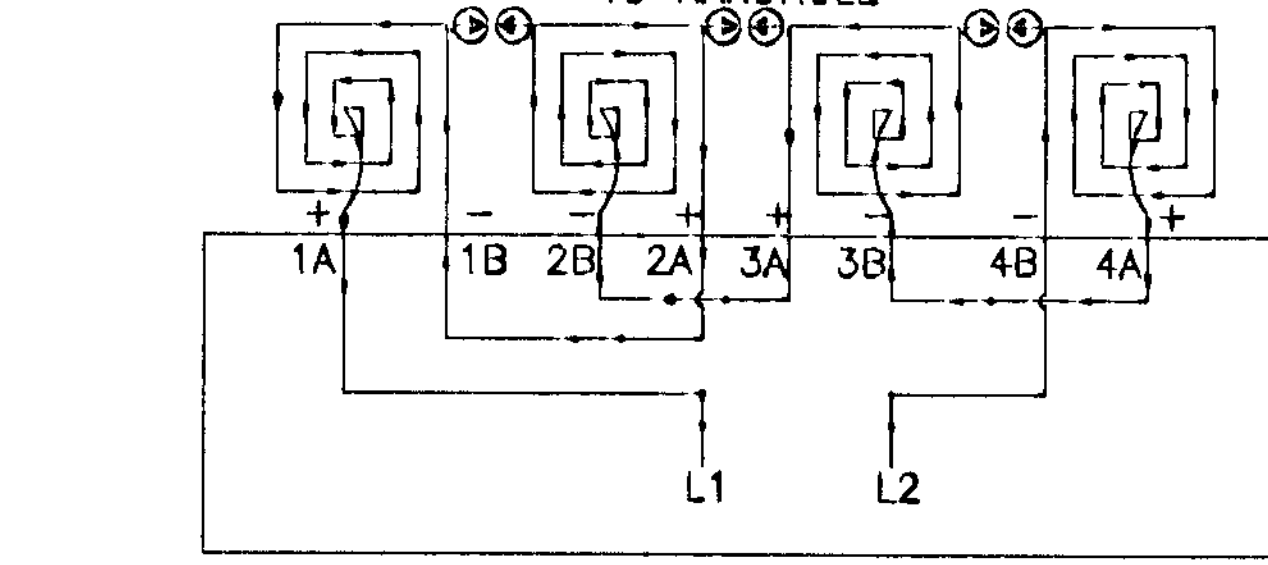
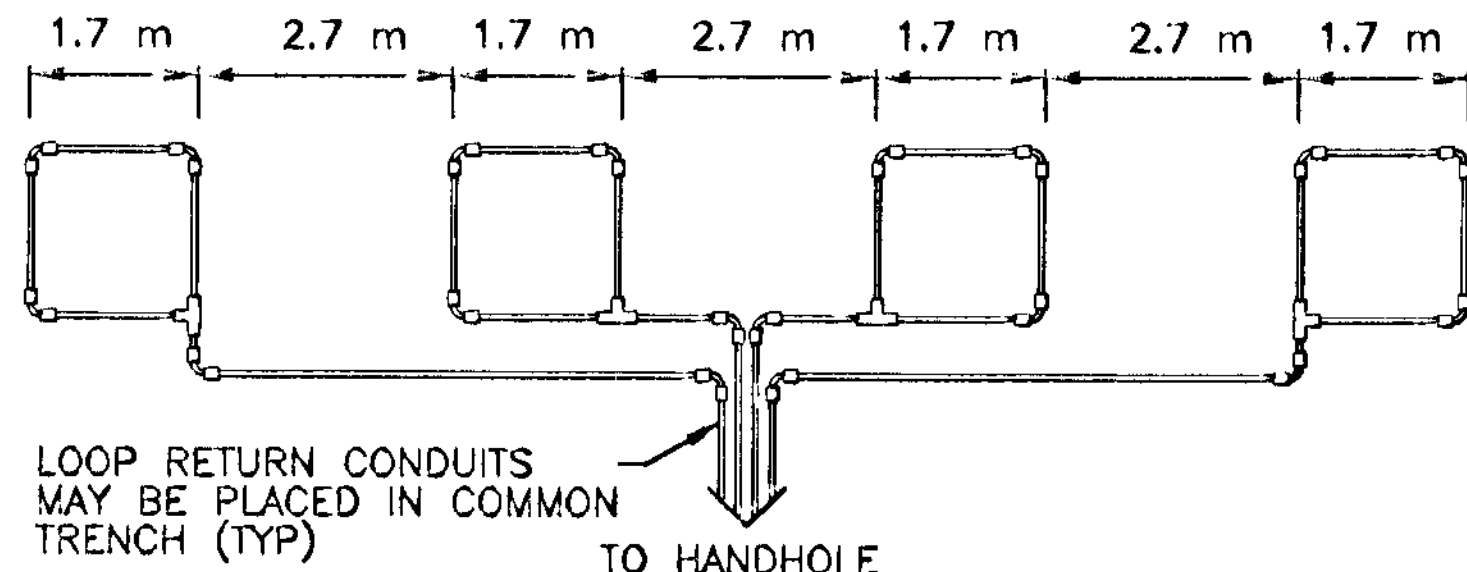


**LOOP DETECTOR
DETAIL 'A'**
(LOOP PHASING FOR
SINGLE CONNECTION)

LOOP CONNECTIONS SHALL BE
LABELED AND SPLICED IN THE
HANDHOLE AS FOLLOWS:

L1 TO 1A
L2 TO 2A

**LOOP DETECTOR
DETAIL 'B'**
(LOOP PHASING FOR
SERIES CONNECTION)

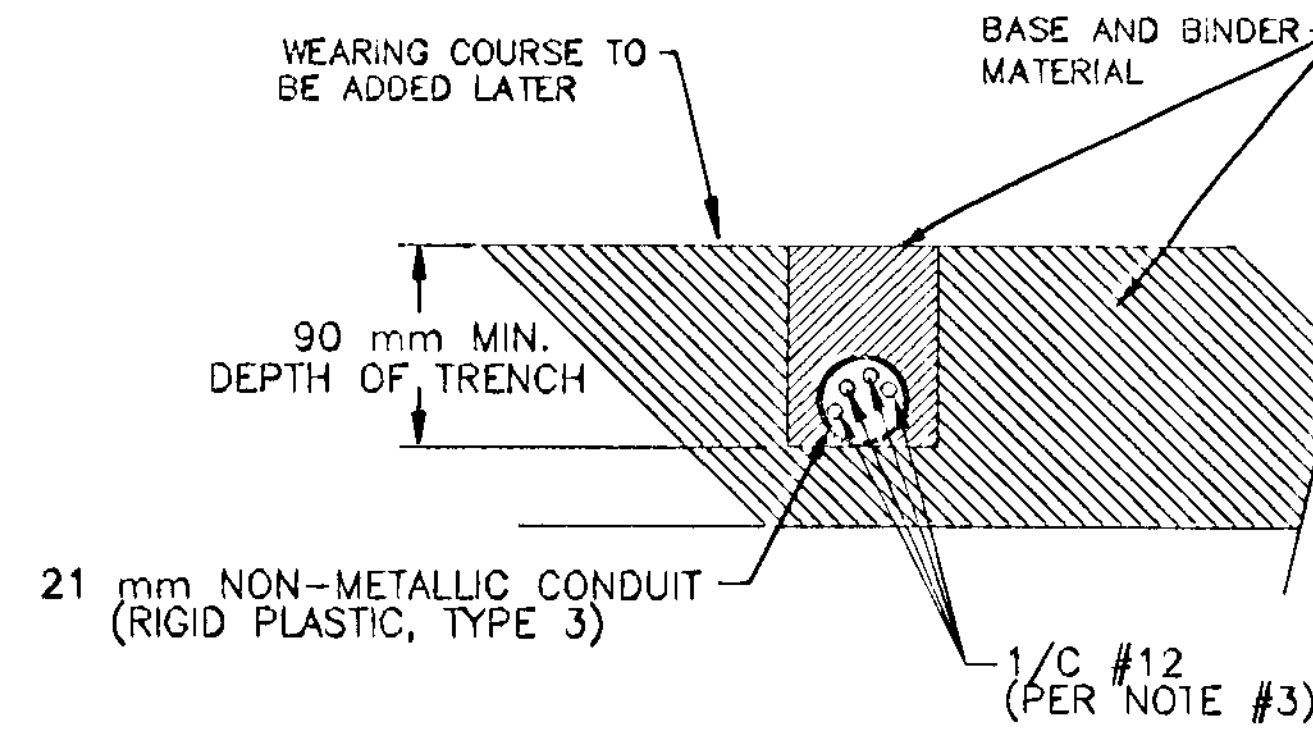


LOOP CONNECTIONS SHALL BE LABELED AND SPLICED
IN THE HANDHOLE AS FOLLOWS:

L1 TO 1A
L2 TO 2A
L3 TO 3A

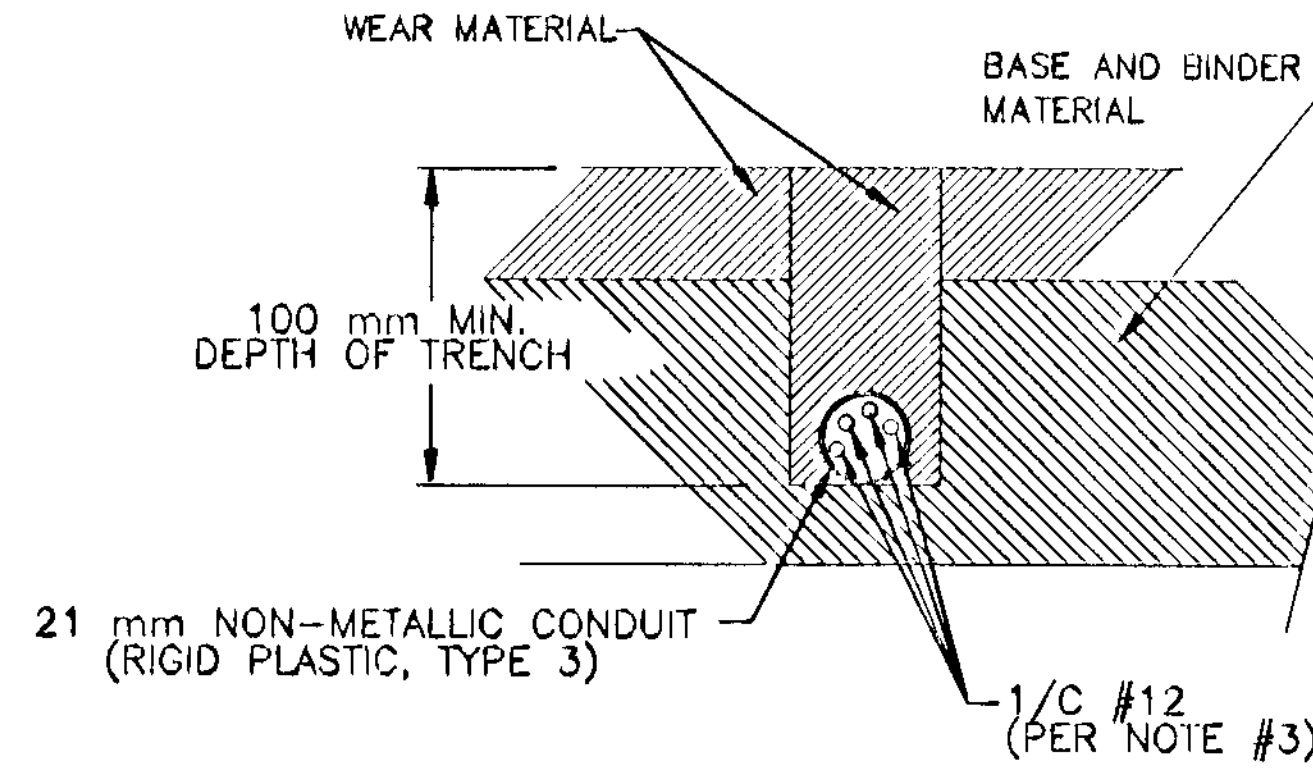
SPLICE CONTROL CABLE TO L1 & L2 IN HANDHOLE.
ALL CONDUCTORS SHALL BE TAGGED IN HANDHOLE
(1A, 1B, ECT)

**LOOP DETECTOR
DETAIL 'C'**
(LOOP PHASING FOR
SERIES CONNECTION)



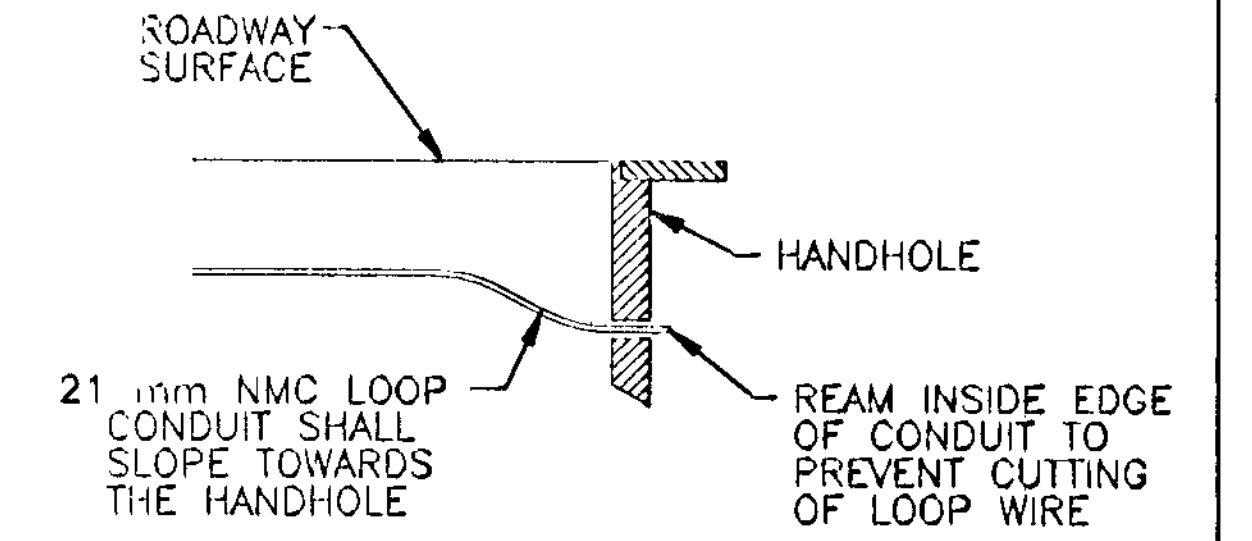
SECTION A-A

DETAIL FOR LOOP INSTALLATION
IN NEW ROADWAY



SECTION B-B

DETAIL FOR LOOP INSTALLATION
IN EXISTING ROADWAY



DRAINAGE DETAIL

LOOP DETECTOR WIRING

- 1) ALL CORNERS SHALL BE 90° CONDUIT BENDS.
- 2) CONNECT WIRES IN HANDHOLES USING SPLICE KIT METHOD DESCRIBED IN THE SPECIAL PROVISIONS.
- 3) LOOP DETECTOR WIRES SHALL BE #12 AWG CROSSED LINKED POLYETHYLENE (XLP). SEE SPECIAL PROVISIONS.
- 4) LOOP LEAD IN WIRES SHALL BE TWISTED A MIN. OF (5) TURNS PER 0.3 METER (1 FOOT) THROUGH THE CONDUIT TO THE HANDHOLE.
- 5) NMC DESIGNATES NON-METALLIC CONDUIT (SPEC. 3803)
- 6) LOOPS 1.7 m x 1.7 m THRU 1.7 m x 4.3 m SHALL HAVE (4) TURNS.
- 7) LOOPS 1.7 m x 4.6 m AND LARGER SHALL HAVE (2) TURNS.

LEGEND OF SYMBOLS

CONTROLLER AND SERVICE EQUIP. NO's	(Symbol)
SIGNAL BASE NO.	(Symbol)
SIGNAL FACE NO.	(Symbol)
LUMINAIRE NO.	(Symbol)
CONTROLLER AND CABINET	(Symbol)
CONTROLLER AND CABINET - IN PLACE	(Symbol)
HANDHOLE	(Symbol)
HANDHOLE - IN PLACE	(Symbol)
RIGID STEEL CONDUIT (RSC)	(Symbol)
RIGID STEEL CONDUIT (RSC) - IN PLACE	(Symbol)
SIGNAL FACE WITH BACKGROUND SHIELD	(Symbol)
SIGNAL FACE W/O BACKGROUND SHIELD	(Symbol)
SIGNAL FACE - IN PLACE	(Symbol)
PEDESTRIAN INDICATORS	(Symbol)
PEDESTRIAN INDICATORS - IN PLACE	(Symbol)
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE	(Symbol)
PEDESTRIAN PUSH BUTTON STATION	(Symbol)
TRAFFIC SIGNAL PEDESTAL	(Symbol)
TRAFFIC SIGNAL PEDESTAL - IN PLACE	(Symbol)
TRAFFIC SIGNAL POLE AND MAST ARM	(Symbol)
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	(Symbol)
STREET LIGHT POLE AND LUMINAIRE	(Symbol)
STREET LIGHT POLE AND LUMINAIRE - IN PLACE	(Symbol)
MAST ARM AND LUMINAIRE	(Symbol)
MAST ARM AND LUMINAIRE - IN PLACE	(Symbol)
WOOD POLE	(Symbol)
WOOD POLE - IN PLACE	(Symbol)
SOURCE OF POWER	(Symbol)
RAILROAD SIGNAL - IN PLACE	(Symbol)
RIGHT OF WAY LINE	(Symbol)
CENTERLINE	(Symbol)
EDGE OF ROADWAY	(Symbol)
SHOULDERLINE	(Symbol)
CURB LINE	(Symbol)
STOP BAR	(Symbol)

ABBREVIATIONS

3-1(EG)	SIGNAL HEAD PHASE "3" - NO. "1"	P2-1(EG)	PEDESTRIAN INDICATION PHASE "2" - NO. "1"
BR. GR.	BARE GROUND	PB	PUSH BUTTON
CH. SW.	CHECK SWITCH	PB2-1(EG)	PUSH BUTTON PHASE "2" - NO. "1"
CLR	CLEAR	PEC	PHOTOELECTRIC CELL
D2-1(EG)	DETECTOR PHASE "2" - NO. "1"	PED	PEDESTRIAN
DWK	DON'T WALK	R	RED
EQQ	EQUIPMENT GROUND	R&S	REMOVE AND SALVAGE
EVP	EMERGENCY VEHICLE PRE-EMPTION	RLTA	RED LEFT TURN ARROW
F&I	FURNISH AND INSTALL	RRTA	RED RIGHT TURN ARROW
FL	FLASH/FLASHING	RSC	RIGID STEEL CONDUIT
G	GREEN	SOP	SOURCE OF POWER
GLTA	GREEN LEFT TURN ARROW	SPR	SPARE
GRN	GREEN	ST. LHT	STREET LIGHT
GR. R	GROUND ROD	STA	STATION
GRTA	GREEN RIGHT TURN ARROW	SW	SWITCH
GTHA	GREEN THRU ARROW	SWD	SWITCHED
HH	HANDHOLE	TOW	TELEPHONE DROP WIRE
HPS	HIGH PRESSURE SODIUM	WLK	WALK
JB	JUNCTION BOX	YEL	YELLOW
LUM	LUMINAIRE	YLTA	YELLOW LEFT TURN ARROW
NEU	NEUTRAL	YRTA	YELLOW RIGHT TURN ARROW
NMC	NONMETALLIC CONDUIT	YTHA	YELLOW THRU ARROW

CONDUCTOR COLOR CODE

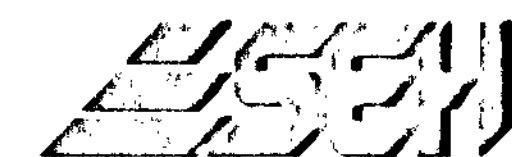
R	RED
O	ORANGE
BL	BLUE
WH	WHITE
R/BLK	RED WITH BLACK TRACER
O/BLK	ORANGE WITH BLACK TRACER
BL/BLK	BLUE WITH BLACK TRACER
WH/BLK	WHITE WITH BLACK TRACER
BLK	BLACK
BLK/WH	BLACK WITH WHITE TRACER
G/BLK	GREEN WITH BLACK TRACER
G	GREEN

STANDARD PLATES
THESE STANDARD PLATES AS APPROVED BY FHWA SHALL APPLY:

PLATE NO.	DESCRIPTION
* M3000 L	REINFORCED CONCRETE PIPE
* M3006 G	GASKET JOINT FOR R.C. PIPE
* M4011 E	PRECAST CONCRETE BASE
* M7035 K	CONCRETE WALK AND CURB RETURNS AT ENTRANCES
* M7036 D	PEDESTRIAN CURB RAMP
* M7100 G	CONCRETE CURB AND GUTTER
* M8000 I	STANDARD BARRICADES
* M8110 D	TRAFFIC SIGNAL BRACKETING - POLE MOUNTED
* M8111 C	TRAFFIC SIGNAL BRACKETING - PEDESTAL MOUNTED
* M8112 C	PEDESTAL FOUNDATION
* M8114 A	PVC HANDHOLE/PULLBOX
M8115 D	PEDESTRIAN PUSH BUTTON INSTALLATION
* M8118 C	SERVICE EQUIPMENT AND POLE-TRAFFIC CONTROL SIGNALS
* M8119 C	GROUND MOUNTED CABINET FOUNDATION
M8120 K	FA85 POLE FOUNDATION
* M8121 D	TRANSFORMER BASE AND POLE BASE PLATE
* M8122 C	PEDESTAL AND PEDESTAL BASE
* M8123 D	POLE AND MAST ARM
* M8124 E	MAST ARM SIGNAL HEAD MOUNTS
* M8126 F	PA300 AND PA100 POLE FOUNDATION

* - APPLIES TO THIS PROJECT

1	JMG/11/5	PER MIN/DOT COMMENTS								I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota. <i>J. M. Jones</i> Date: 11/12/98 Reg. No. 22457
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED				



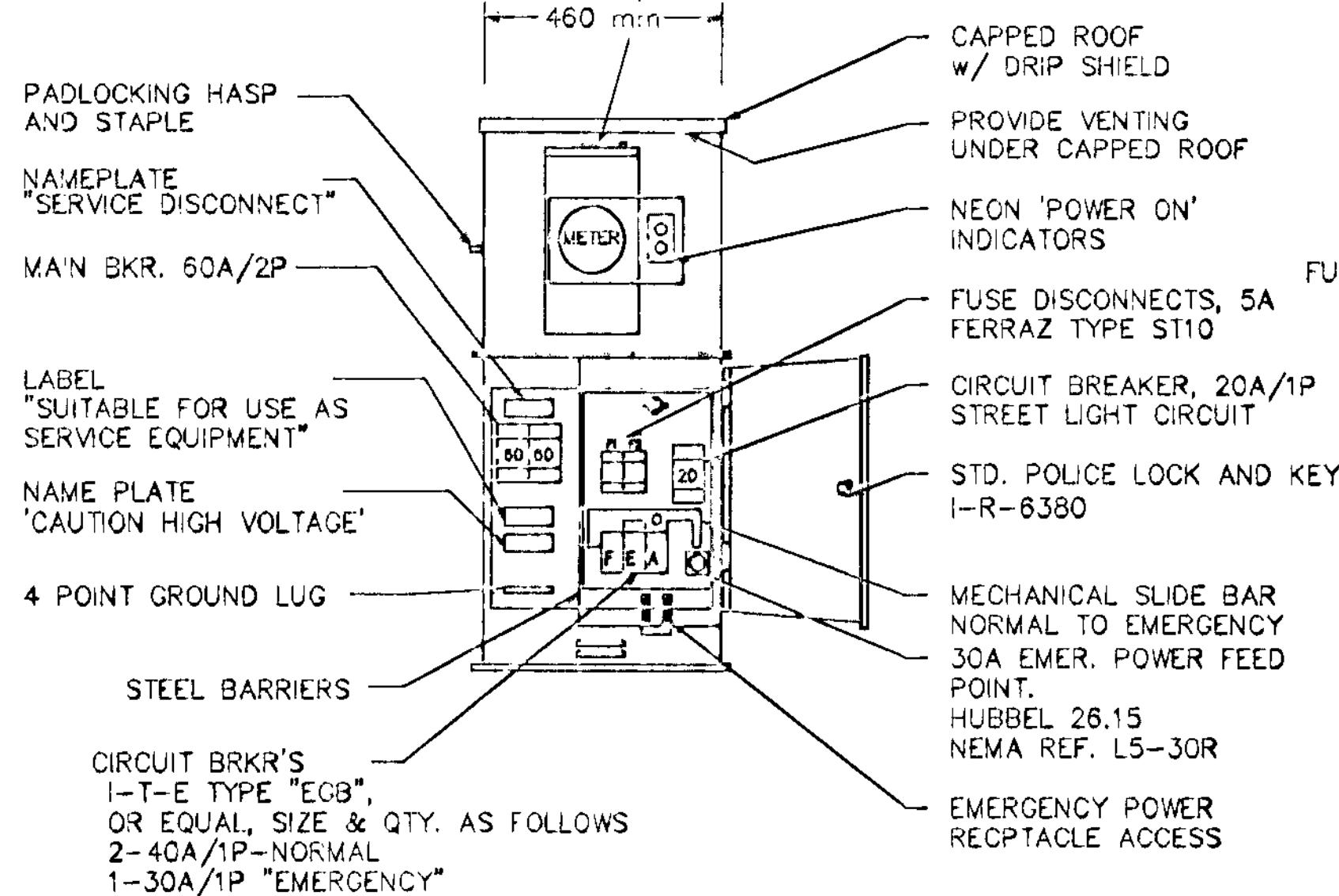
ANOKA COUNTY, MINNESOTA
CITIES OF BLAINE & MOUNDS VIEW
ANOKA COUNTY PROJECT NO. 97-58-32
S.A.P. 62-601-09 & 106-020-16
S.A.P. 106-131-03 & 146-020-10

TRAFFIC SIGNAL SYSTEM
DETAILS OF STANDARD PLATES
85TH AVE NE (CSAH 32)/COUNTY ROAD J
(CSAH 1) AT KYLITE STREET NORTHEAST

FILE NO.	ANOKC9708	2
DATE	9/14/98	12

SIGNAL SERVICE CABINET

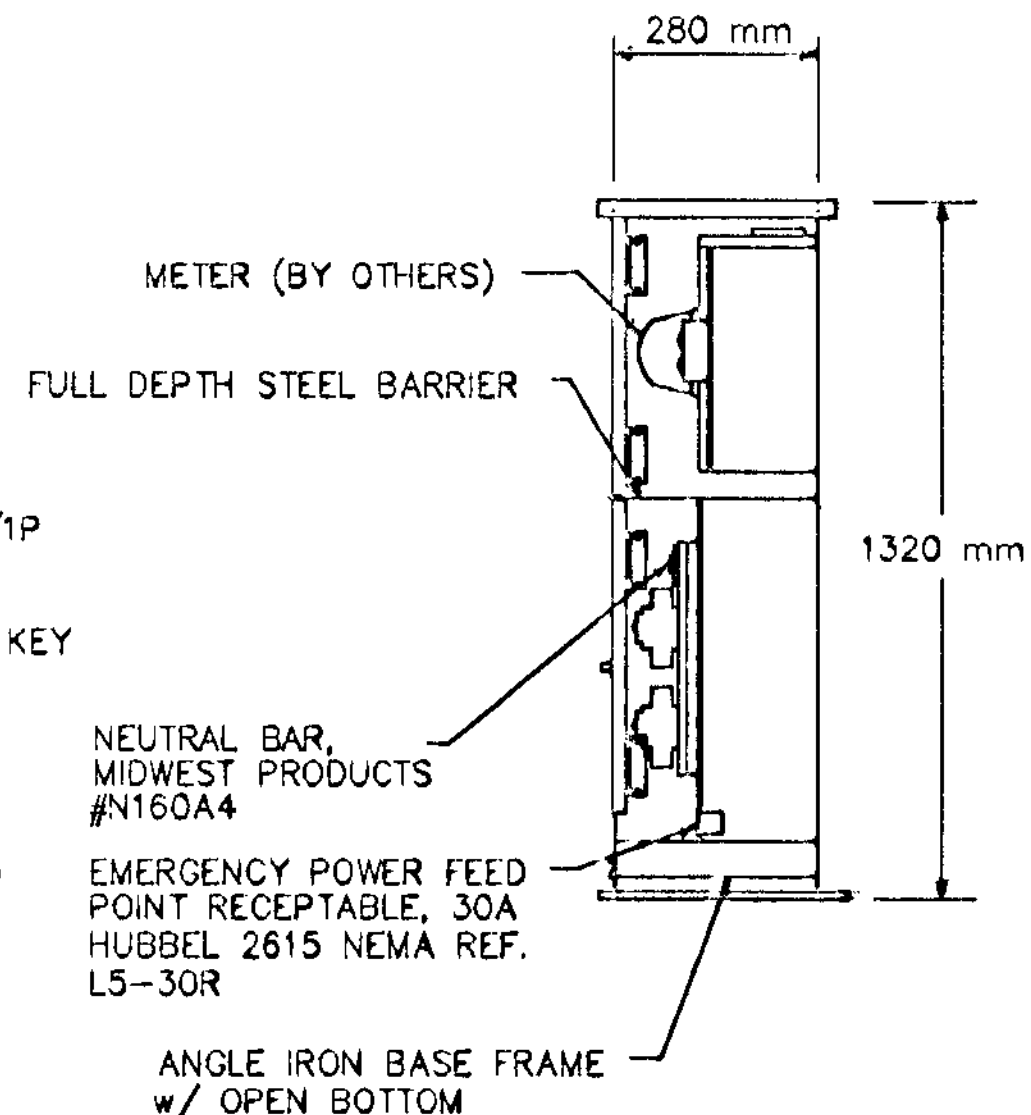
N.S.P. METER SOCKET, 5-TERMINAL
w/ POSITIVE BY-PASS MECHANISM
MLBANK CAT. No. U-2272-RL



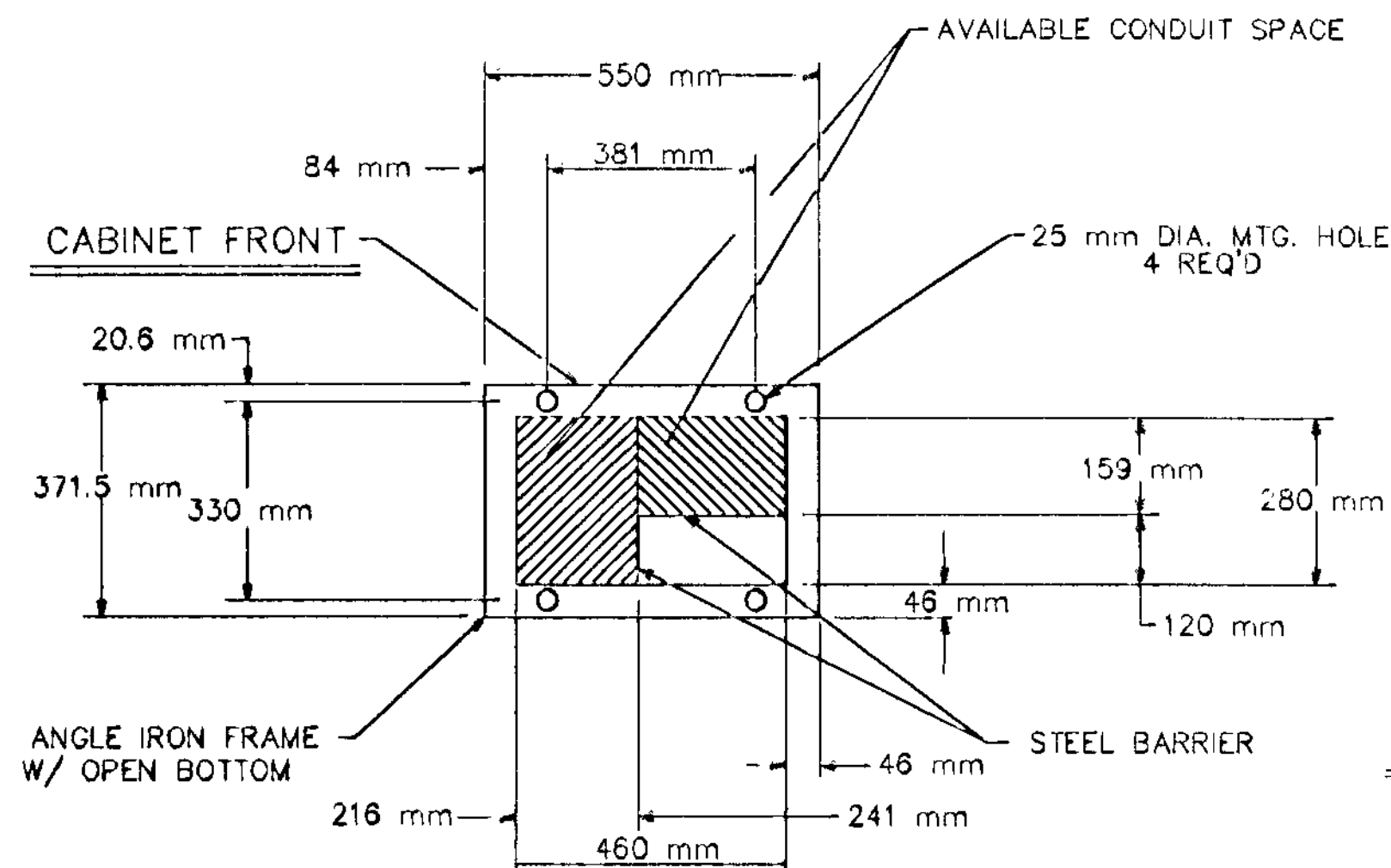
FRONT ELEV.

CONSTRUCTION NOTES

ENCLOSURE SHALL BE FABRICATED FROM #12 GA. ALL WELDED COLD ROLLED STEEL FOR OUTDOOR WEATHER PROOF SERVICE. DOORS TO BE GASKETED, ALL HINGES, PINS AND LOCKS TO BE OF NON CORRODING CONSTRUCTION. CABINET TO BE PRIMED INSIDE AND OUT WITH RUST INHIBITING PRIMER. FINISH PER MN/DOT #3527. ENCLOSURE SHALL BE 'UL' APPROVED

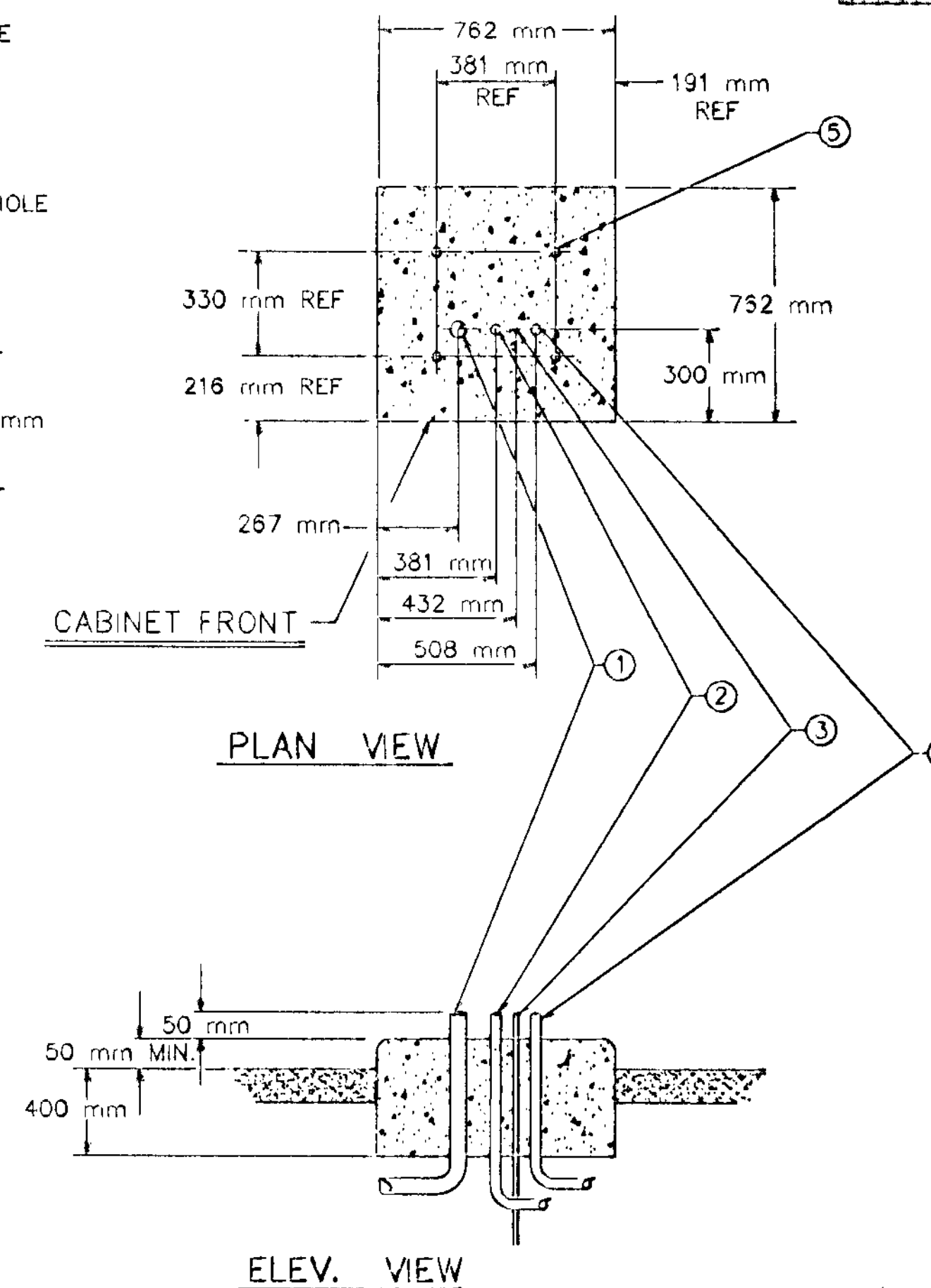


RIGHT SIDE ELEV.



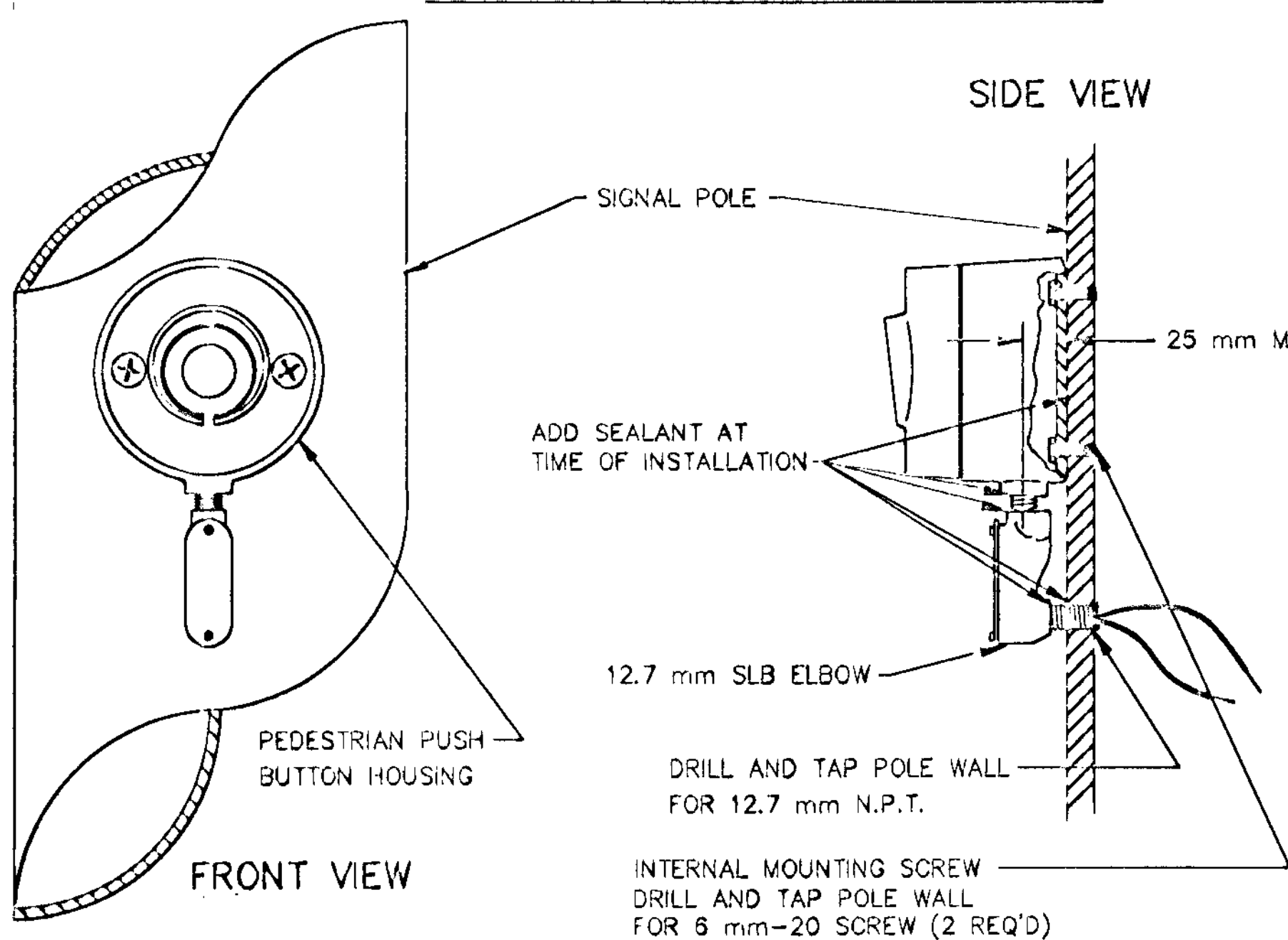
BASE VIEW

SERVICE CABINET FOUNDATION

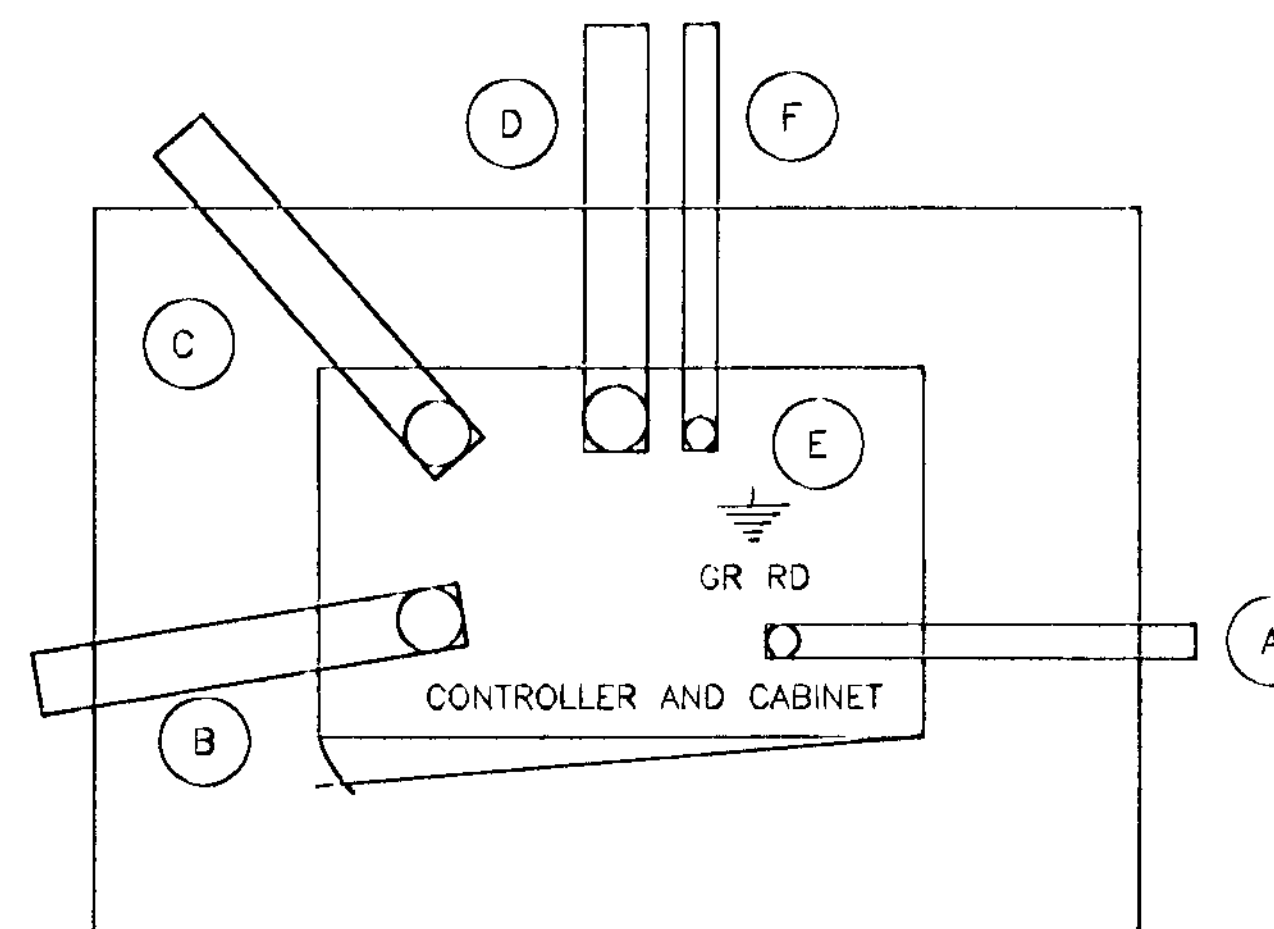


- ① 53 mm RSC STUB OUT (FOR POWER CABLES)
- ② 53 mm RSC TO CONTROLLER CABINET (VIA HH 14)
- ③ GROUNDING ROD
- ④ 53 mm RSC TO HANDHOLE 13 (STREET LIGHTING)
- ⑤ ANCHOR BOLT LOCATIONS (4 REQUIRED)

MAST ARM POLE PEDESTRIAN PUSH BUTTON DETAIL



- A 53 mm R.S.C. FOR SERVICE CONNECTION (VIA HH 14)
- B 103 mm R.S.C. TO HH 1
- C 103 mm R.S.C. TO HH 13
- D 78 mm R.S.C. STUBOUT, THREAD & CAP BOTH ENDS (FOR FUTURE USE).
- E 15.8 mm DIA X 4.6 m GROUND ROD
- F 53 mm R.S.C. STUBOUT, THREAD & CAP BOTH ENDS (FOR FUTURE USE).



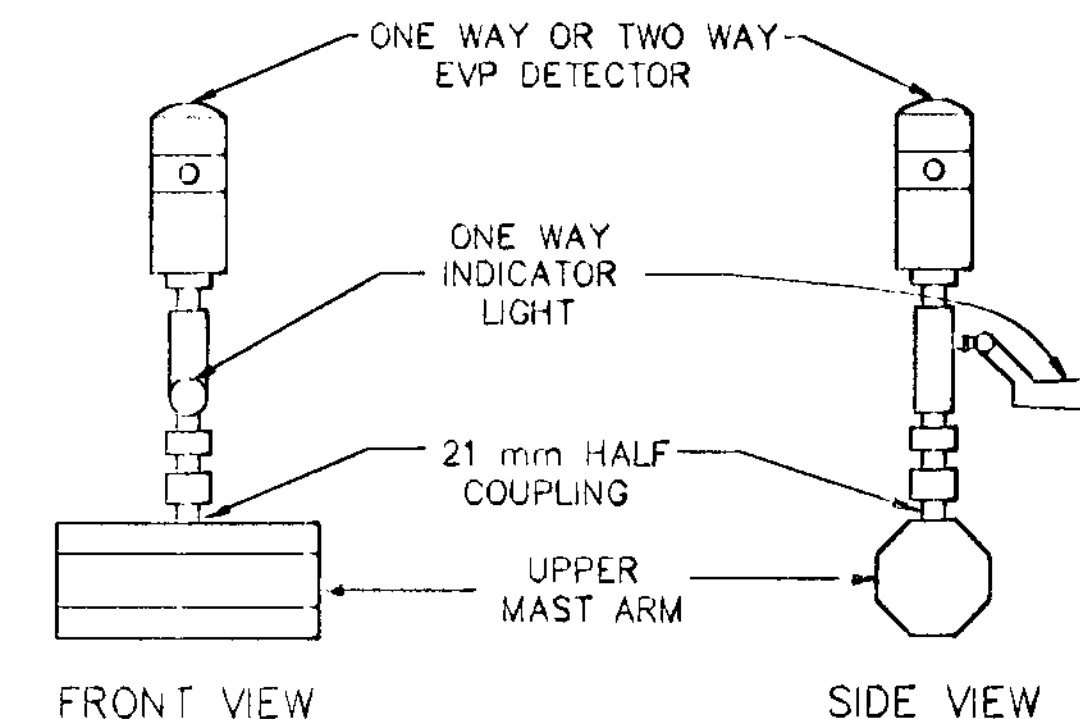
CONCRETE FOUNDATION
 SEE MN/DOT STANDARD PLATE NO. M8119C FOR DIMENSIONS.

TYPICAL CONTROLLER CABINET PAD LAYOUT

NO SCALE

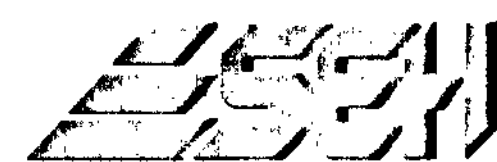
SEE INTERSECTION LAYOUT FOR CONDUIT & CABLE INFORMATION

EVP DETECTOR AND LIGHT MOUNTING DETAIL ON MAST ARM



1	JMG	11/9	PER MN/DOT COMMENTS				
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED	

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.
 Date: 11/12/98 Reg. No. 22457



ANOKA COUNTY, MINNESOTA
 CITIES OF BLAINE & MOUNDS VIEW
 ANOKA COUNTY PROJECT NO. 97-58-32
 S.A.P. 62-601-09 & 106-020-16
 S.A.P. 106-131-03 & 146-020-10

TRAFFIC SIGNAL SYSTEM
 DETAILS
 85TH AVE NE (CSAH 32)/COUNTY ROAD J
 (CSAH 1) AT XYLITE STREET NORTHEAST

FILE NO.
 ANOKC9708
 DATE
 9/14/98

3
 12

NOTES:

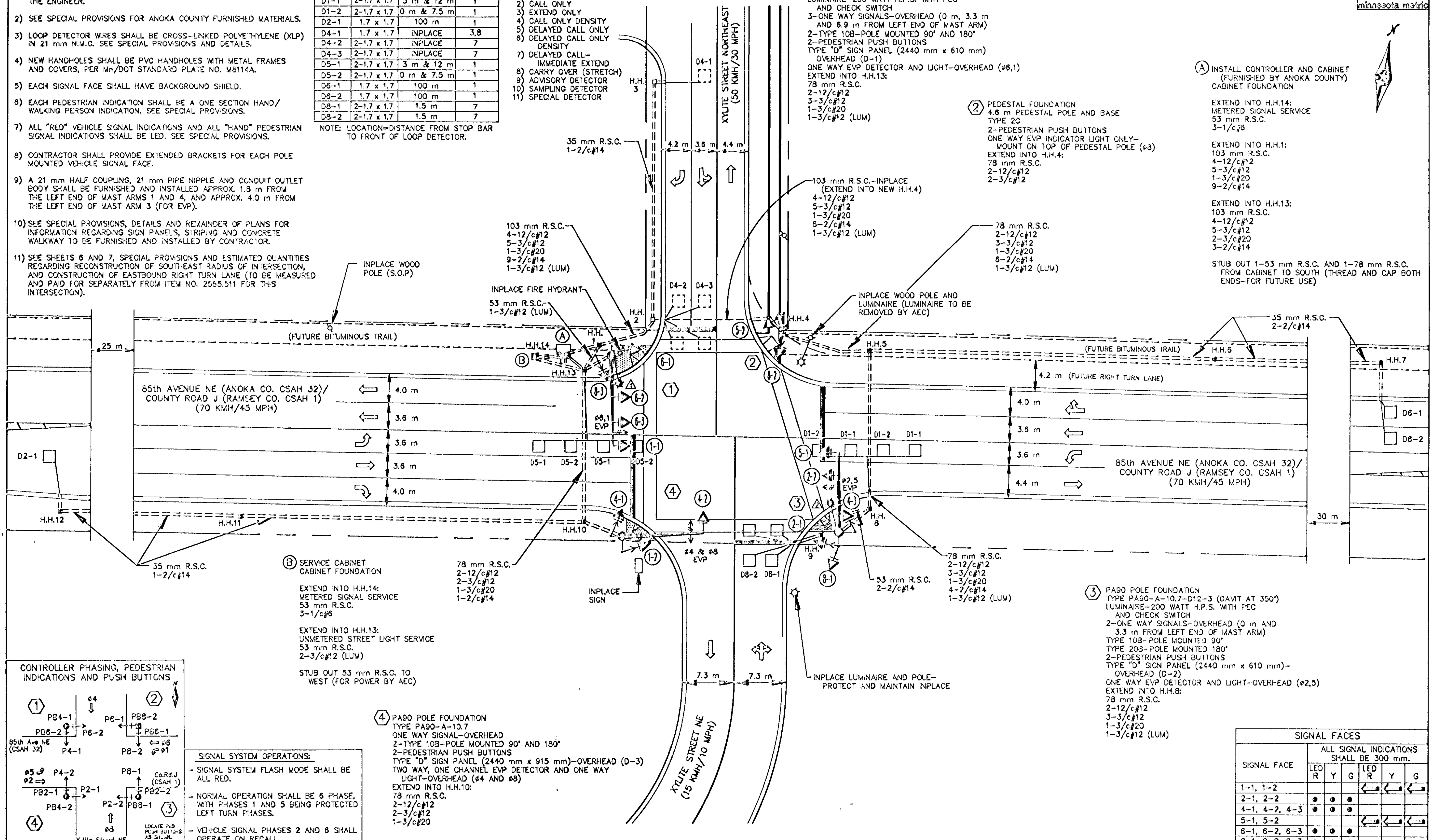
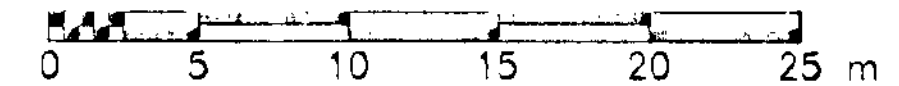
- 1) LOCATION OF POLES, CONTROLLER CABINET, SERVICE CABINET, LOOP DETECTORS AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2) SEE SPECIAL PROVISIONS FOR ANOKA COUNTY FURNISHED MATERIALS.
- 3) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 21 mm N.M.C. SEE SPECIAL PROVISIONS AND DETAILS.
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS, PER Mn/DOT STANDARD PLATE NO. M8114A.
- 5) EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
- 6) EACH PEDESTRIAN INDICATION SHALL BE A ONE SECTION HAND/WALKING PERSON INDICATION. SEE SPECIAL PROVISIONS.
- 7) ALL "RED" VEHICLE SIGNAL INDICATIONS AND ALL "HAND" PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED. SEE SPECIAL PROVISIONS.
- 8) CONTRACTOR SHALL PROVIDE EXTENDED BRACKETS FOR EACH POLE MOUNTED VEHICLE SIGNAL FACE.
- 9) A 21 mm HALF COUPLING, 21 mm PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED APPROX. 1.3 m FROM THE LEFT END OF MAST ARMS 1 AND 4, AND APPROX. 4.0 m FROM THE LEFT END OF MAST ARM 3 (FOR EVP).
- 10) SEE SPECIAL PROVISIONS, DETAILS AND REMAINDER OF PLANS FOR INFORMATION REGARDING SIGN PANELS, STRIPING AND CONCRETE WALKWAY TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
- 11) SEE SHEETS 6 AND 7, SPECIAL PROVISIONS AND ESTIMATED QUANTITIES REGARDING RECONSTRUCTION OF SOUTHEAST RADIUS OF INTERSECTION, AND CONSTRUCTION OF EASTBOUND RIGHT TURN LANE (TO BE MEASURED AND PAID FOR SEPARATELY FROM ITEM NO. 2565.511 FOR THIS INTERSECTION).

LOOP DETECTORS			
NUMBER	SIZE (m)	LOCATION	FUNCTION
D1-1	2-1.7 x 1.7	3 m & 12 m	1
D1-2	2-1.7 x 1.7	0 m & 7.5 m	1
D2-1	1.7 x 1.7	100 m	1
D4-1	1.7 x 1.7	INPLACE	3,8
D4-2	2-1.7 x 1.7	INPLACE	7
D4-3	2-1.7 x 1.7	INPLACE	7
D5-1	2-1.7 x 1.7	3 m & 12 m	1
D5-2	2-1.7 x 1.7	0 m & 7.5 m	1
D6-1	1.7 x 1.7	100 m	1
D6-2	1.7 x 1.7	100 m	1
D8-1	2-1.7 x 1.7	1.5 m	7
D8-2	2-1.7 x 1.7	1.5 m	7

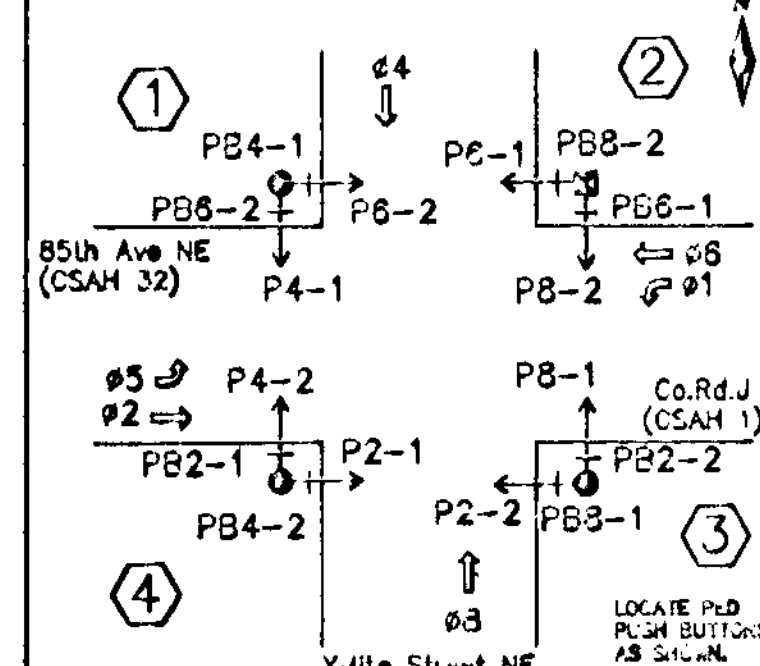
NOTE: LOCATION=DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR.

DETECTOR FUNCTIONS:

- 1) CALL AND EXTEND
- 2) CALL ONLY
- 3) EXTEND ONLY
- 4) CALL ONLY DENSITY
- 5) DELAYED CALL ONLY
- 6) DELAYED CALL ONLY DENSITY
- 7) DELAYED CALL-IMMEDIATE EXTEND
- 8) CARRY OVER (STRETCH)
- 9) ADVISORY DETECTOR
- 10) SAMPLING DETECTOR
- 11) SPECIAL DETECTOR



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



SIGNAL SYSTEM OPERATIONS:

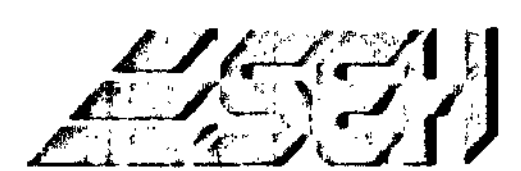
- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
- NORMAL OPERATION SHALL BE 6 PHASE, WITH PHASES 1 AND 5 BEING PROTECTED LEFT TURN PHASES.
- VEHICLE SIGNAL PHASES 2 AND 6 SHALL OPERATE ON RECALL.

4) PA90 POLE FOUNDATION
 TYPE PA90-A-10.7
 ONE WAY SIGNAL-OVERHEAD
 2-TYPE 10B-POLE MOUNTED 90° AND 180°
 2-PEDESTRIAN PUSH BUTTONS
 TYPE "D" SIGN PANEL (2440 mm x 915 mm)-OVERHEAD (D-3)
 TWO WAY, ONE CHANNEL EVP DETECTOR AND ONE WAY LIGHT-OVERHEAD (#4 AND #8)
 EXTEND INTO H.H.10:
 78 mm R.S.C.
 2-12/c#12
 2-3/c#12
 1-3/c#20

SIGNAL FACES						
SIGNAL FACE	ALL SIGNAL INDICATIONS SHALL BE 300 mm.					
	LED R	Y	G	LED R	Y	G
1-1, 1-2				←	←	←
2-1, 2-2	•	•	•			
4-1, 4-2, 4-3	•	•	•			
5-1, 5-2				←	←	←
6-1, 6-2, 6-3	•	•	•			
8-1, 8-2, 8-3	•	•	•			

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED
1	JMG	11/9				

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.
 Date: 11/12/98 Reg. No. 22457

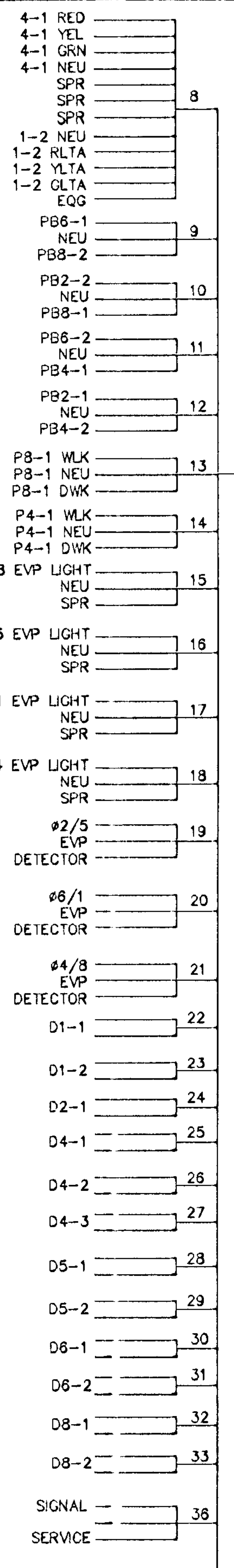
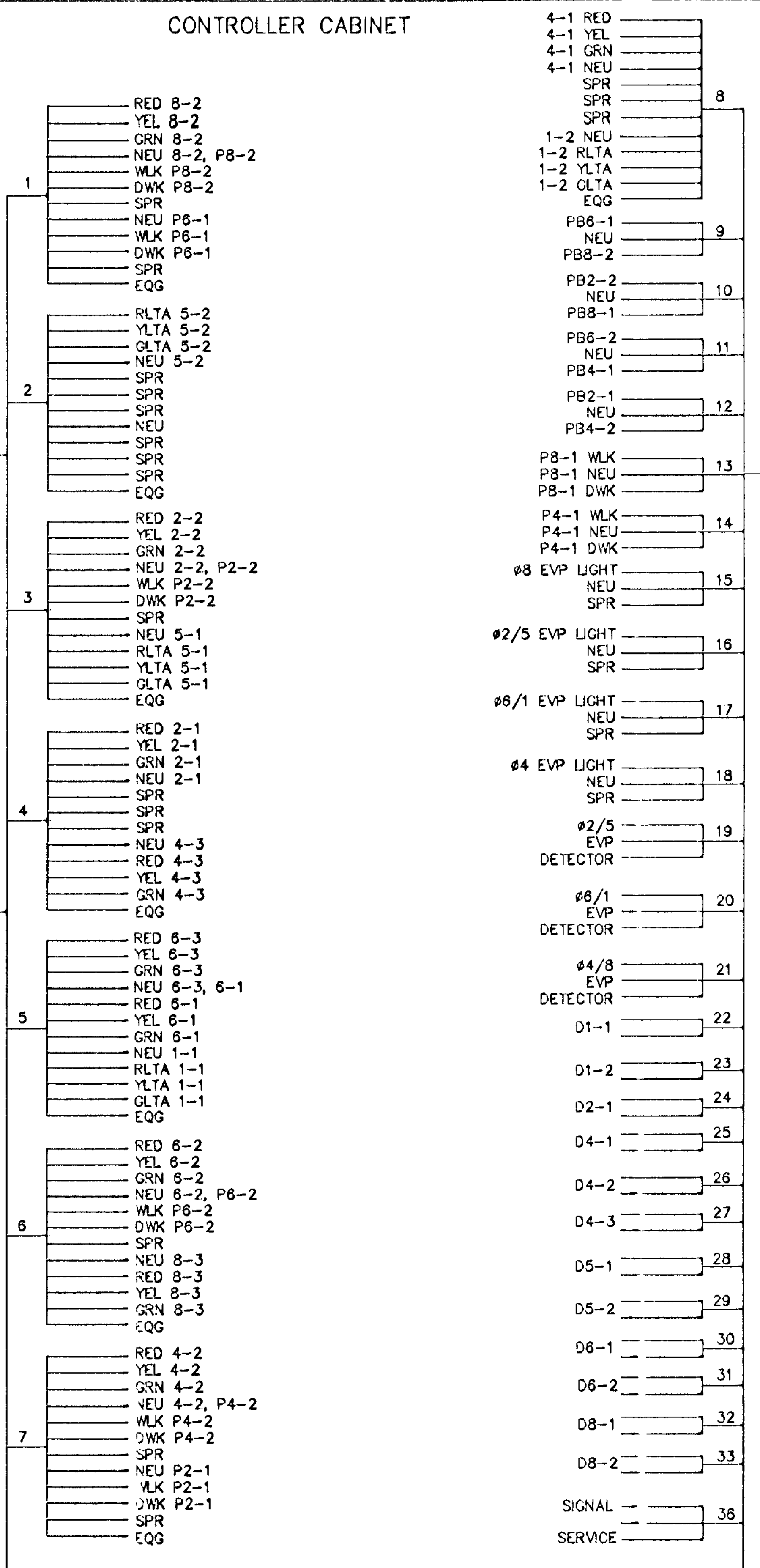
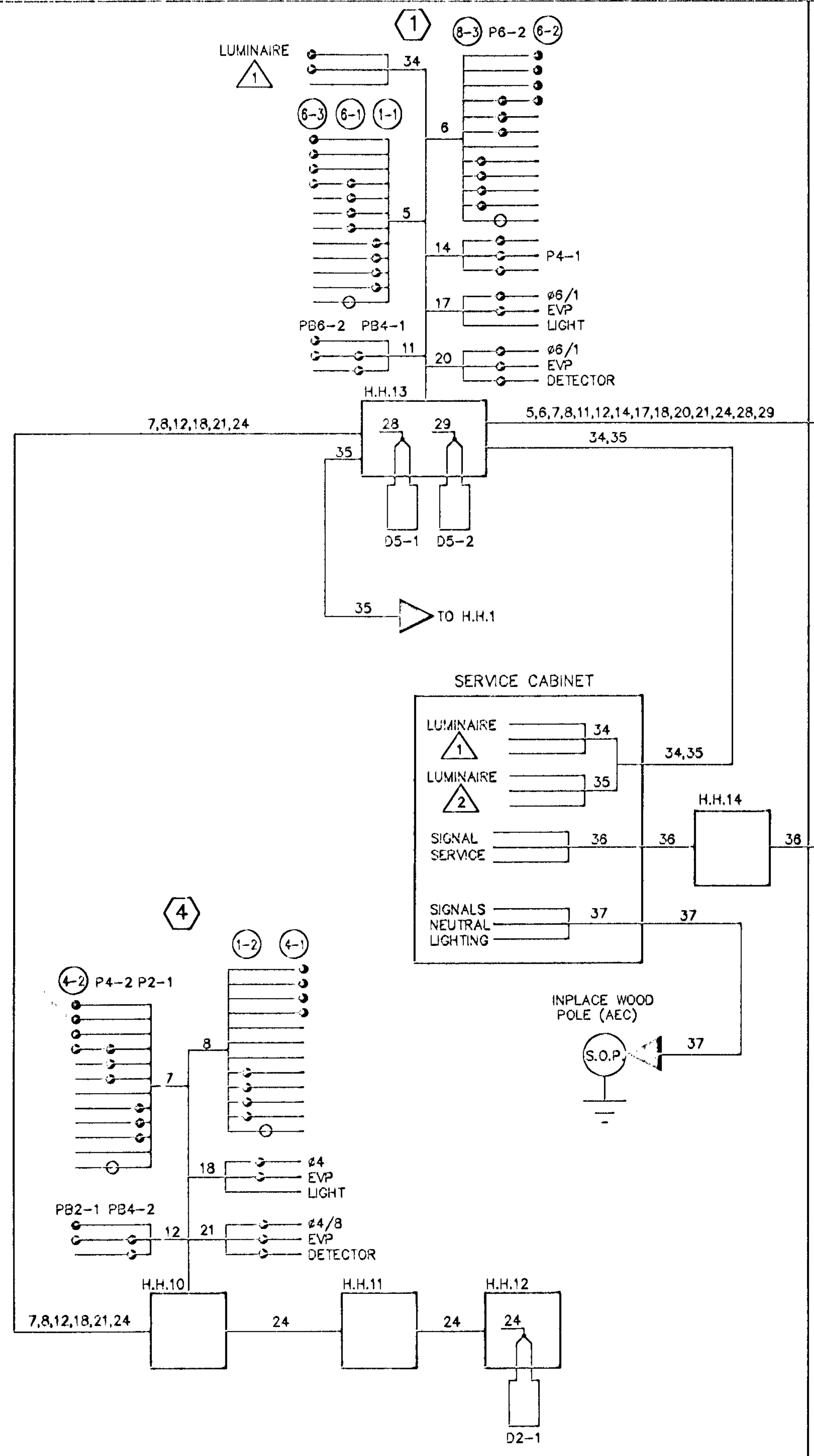


ANOKA COUNTY, MINNESOTA
 CITIES OF BLAINE & MOUNDS VIEW
 ANOKA COUNTY PROJECT NO. 97-53-32
 S.A.P. 62-601-09 & 106-020-16
 S.A.P. 106-131-03 & 146-020-10

TRAFFIC SIGNAL SYSTEM
 INTERSECTION LAYOUT
 85TH AVE NE (CSAH 32)/COUNTY ROAD J (CSAH 1) AT XYLITE STREET NORTHEAST

FILE NO. ANOKC9708
 DATE 9/14/98
 4
 12

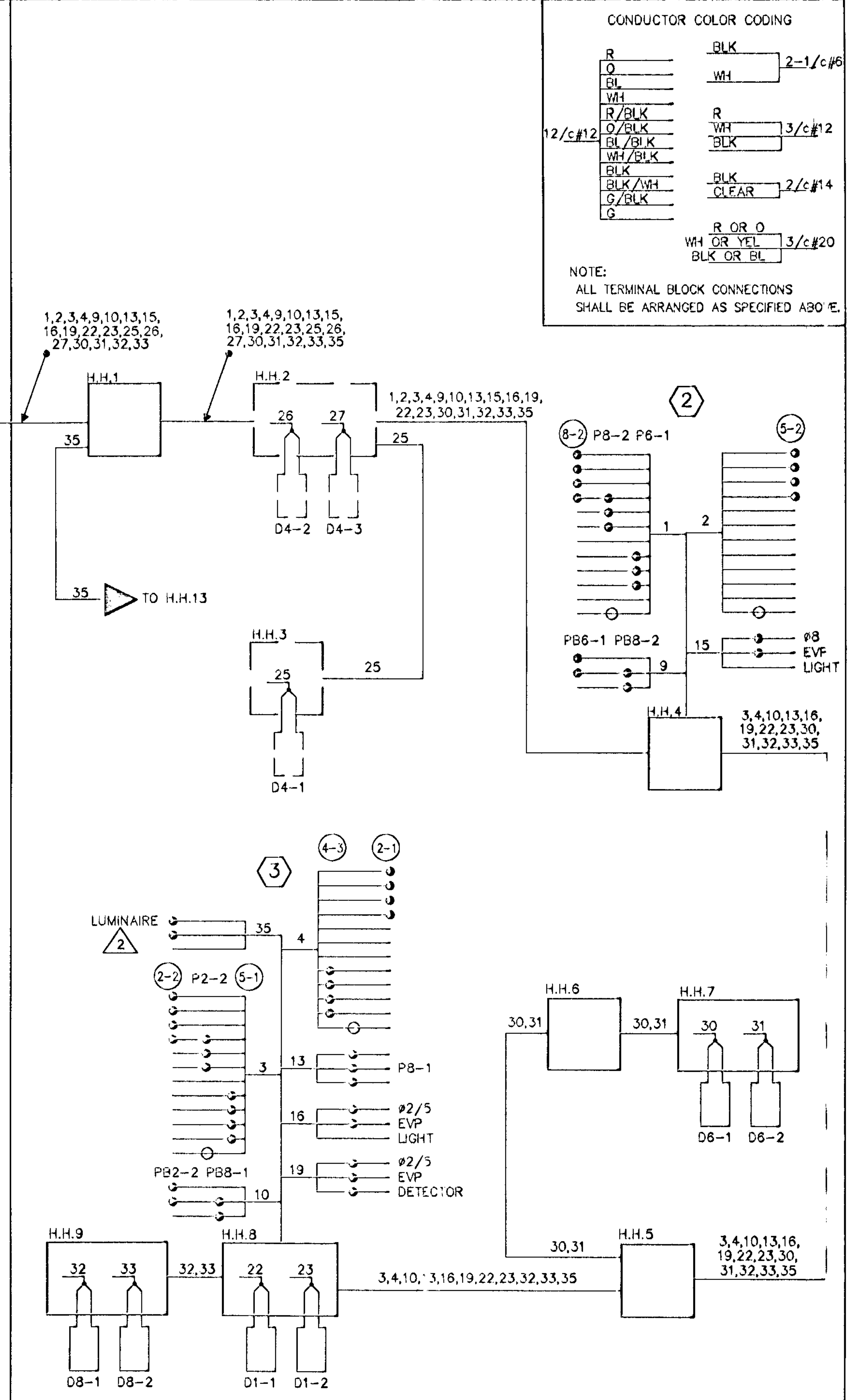
CONTROLLER CABINET



CONDUCTOR COLOR CODING

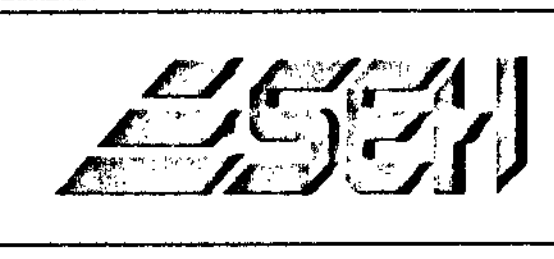
R	BLK	2-1/c#6
O	WH	
BL		
WH		
R/BLK	R	3/c#12
O/BLK	WH	
RL/BLK	BLK	
WH/BLK		
BLK	BLK	2/c#14
BLK/WH	CLEAR	
G/BLK		
G		
R OR O		3/c#20
WH OR YEL		
BLK OR BL		

NOTE:
ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.



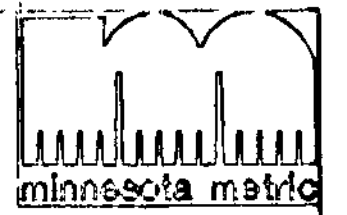
1	JMG	11/9	PER MN/DOT COMMENTS			
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date: 11/11/98 Reg. No. 22457



ANOKA COUNTY, MINNESOTA
CITIES OF BLAINE & MOUNDS VIEW
ANOKA COUNTY PROJECT NO. 97-58-32
S.A.P. 62-601-09 & 106-020-16
S.A.P. 106-131-03 & 146-020-10

TRAFFIC SIGNAL SYSTEM
FIELD WIRING DIAGRAM
85TH AVE NE (CSAH 32)/COUNTY ROAD J (CSAH 1) AT XYLITE STREET NORTHEAST
FILE NO. ANOKC9708
DATE 9/14/98
5
1:



SAWCUT BIT. AND MATCH
EXISTING PAVEMENT SECTION

3.600 m

EXISTING B624 CONC.
C&G TO BE REMOVED

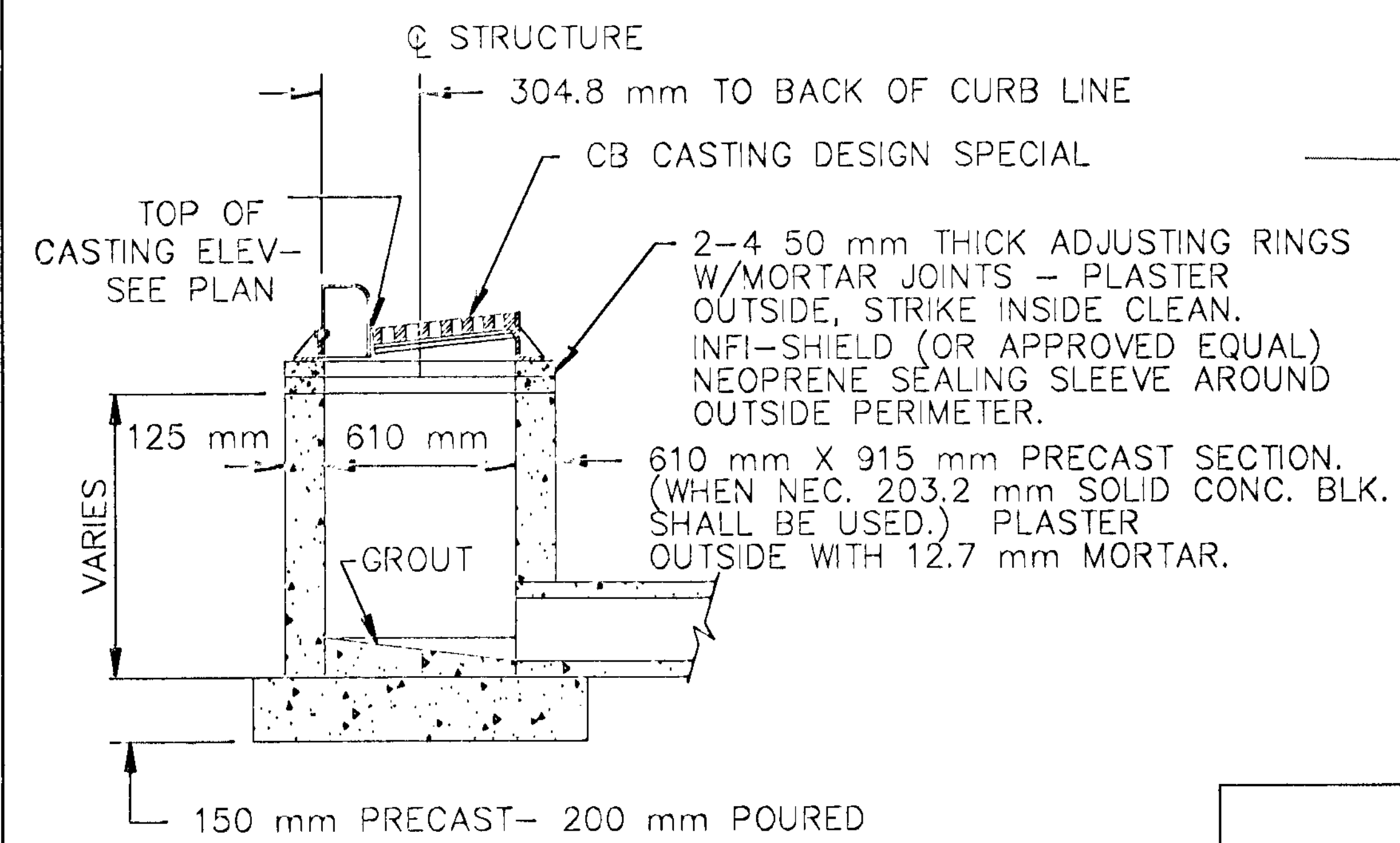
B624 CONC. C&G

150 mm

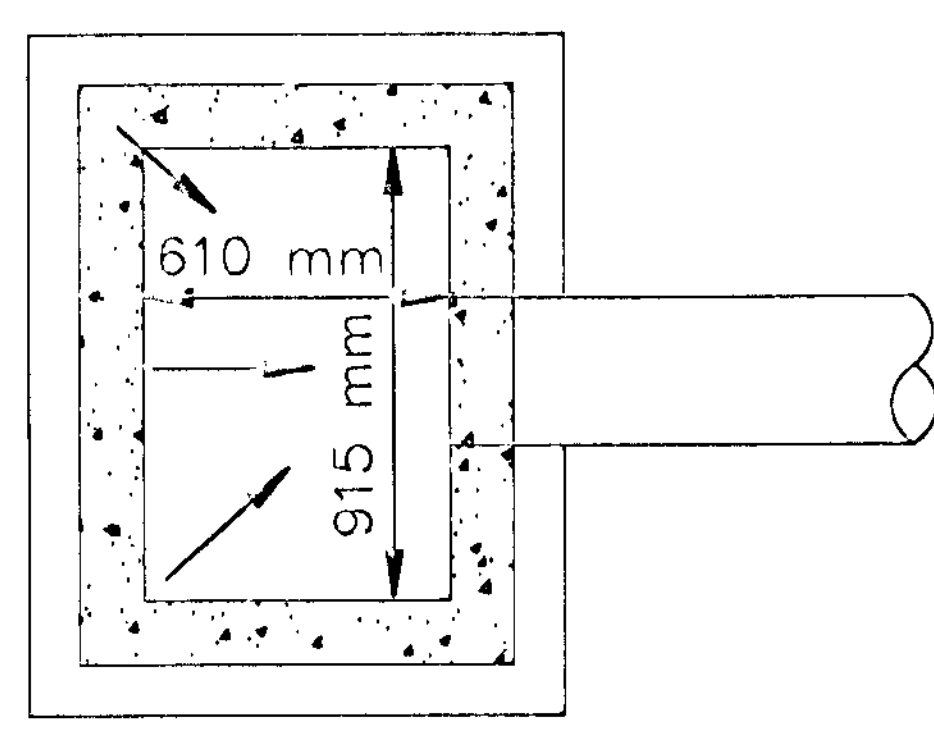
2%

MATCH
EXIST.

TYPE "SPECIAL" CATCH BASIN
(RECTANGULAR)



SECTION

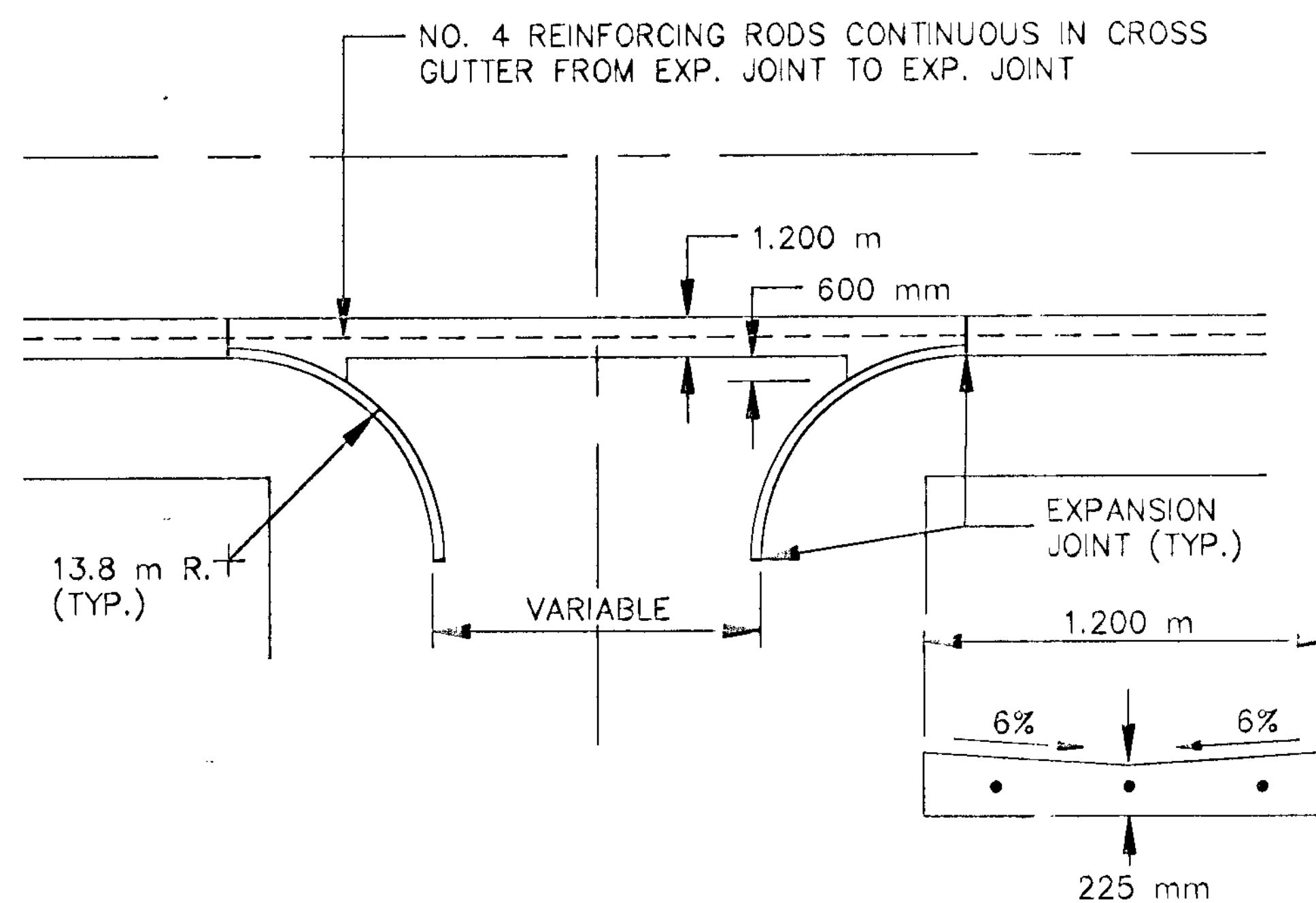


PLAN

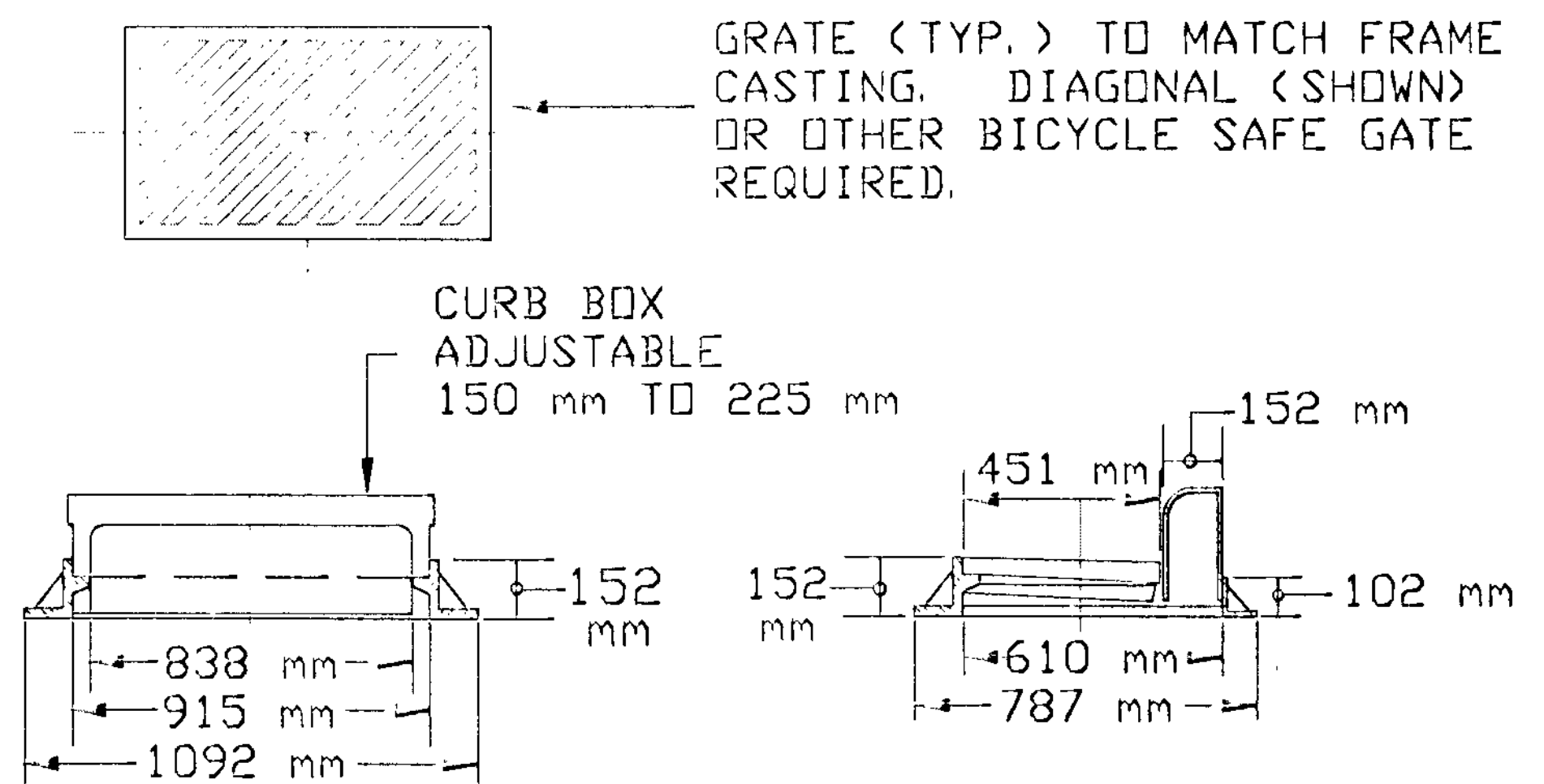
TYPICAL SECTION

- 50 mm 2340 TYPE 47WEA50070 *
- 2357 TACK COAT
- 50 mm 2340 TYPE 47BIB50070 *
- 2357 TACK COAT
- 90 mm 2340 TYPE 31BBB50000 *
- 150 mm 2211 AGGREGATE BASE, CLASS 6
(100% CRUSHED)
- 600 mm 3149 SELECT GRANULAR BORROW
- * PG 58-28

CONCRETE VALLEY GUTTER



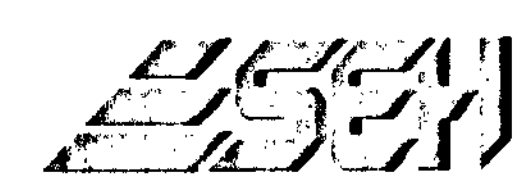
C. B. CASTING DETAIL DESIGN SPECIAL



NOTE:
TO BE USED WITH TYPE "SPECIAL" CATCH BASIN DESIGN

1	JMG	11/9	PER MN/DOT COMMENTS					
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED		

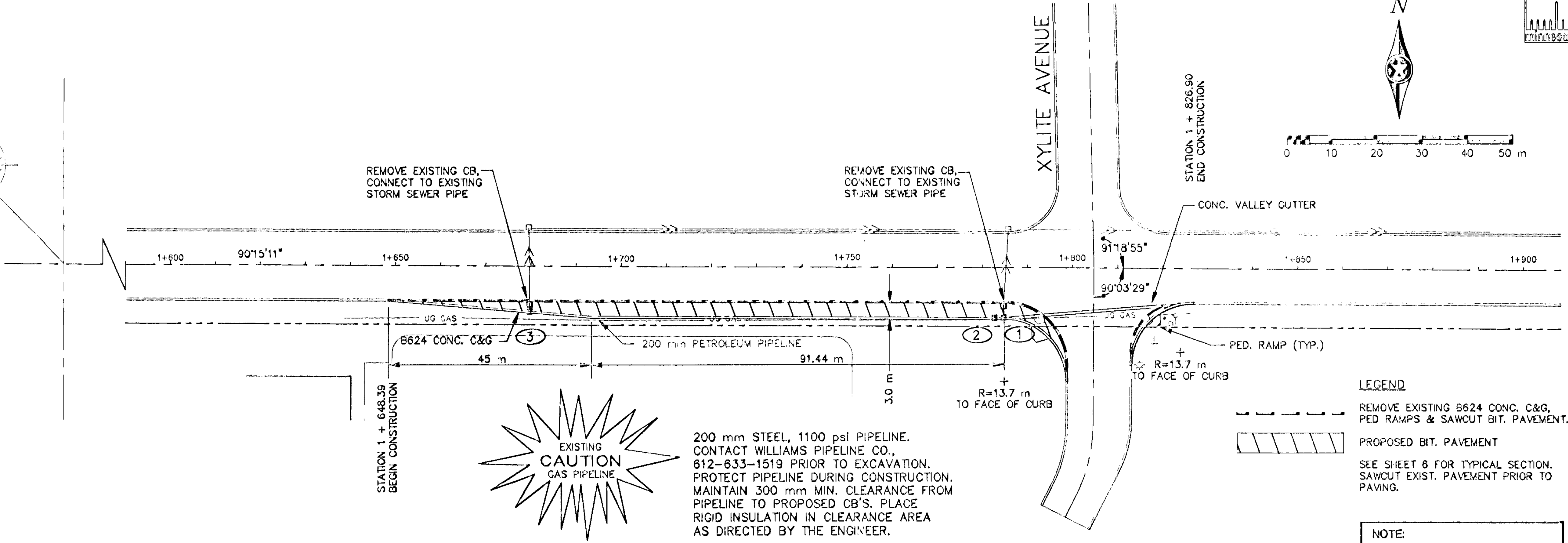
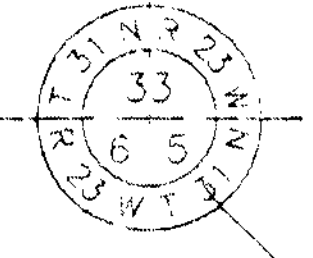
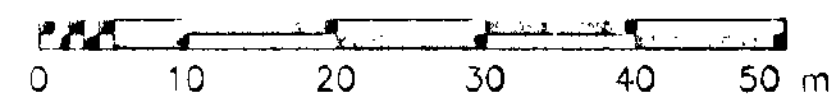
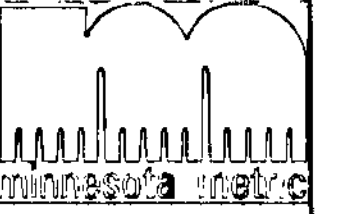
I hereby certify that this plan was prepared by me or
under my direct supervision and that I am a duly
Registered Professional Engineer under the laws of the
state of Minnesota.
[Signature]
Date: 11/12/98 Reg. No. 22457



ANOKA COUNTY, MINNESOTA
CITIES OF BLAINE & MOUNDS VIEW
ANOKA COUNTY PROJECT NO. 97-58-32
S.A.P. 62-601-09 & 106-020-15
S.A.P. 106-131-03 & 146-020-10

85TH AVENUE/CO.RD.J
TYPICAL SECTION & DETAILS
85TH AVE NE (CSAH 32)/COUNTY ROAD J
(CSAH 1) AT XYLITE STREET NORTHEAST

FILE NO.	ANOKC9708	6
DATE	9/14/98	12



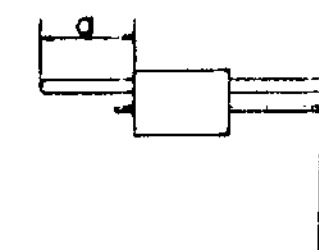
	1+550	1+600	1+650	1+700	1+750	1+800	1+850	1+900	
278									278
277									277
276									276
275									275
274									274
273									273
272									272
271									271
270									270
269									269
268									268

1 JMG 11/9		PER MN/DOT COMMENTS			I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota. <i>[Signature]</i> 22457 Date: 11/12/18 Reg. No. 21615			ANOKA COUNTY, MINNESOTA CITIES OF BLAINE & MOUNDS VIEW ANOKA COUNTY PROJECT NO. 97-53-32 S.A.P. 62-601-09 & 106-020-16 S.A.P. 106-131-03 & 146-020-10	85TH AVENUE/CO.RD.J TURN LANE & STORM SEWER 85TH AVE NE (CSAH 32)/COUNTY ROAD J (CSAH 1) AT XYLITE STREET NORTHEAST	FILE NO. ANOKC9708	7
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED				DATE	9/14/98



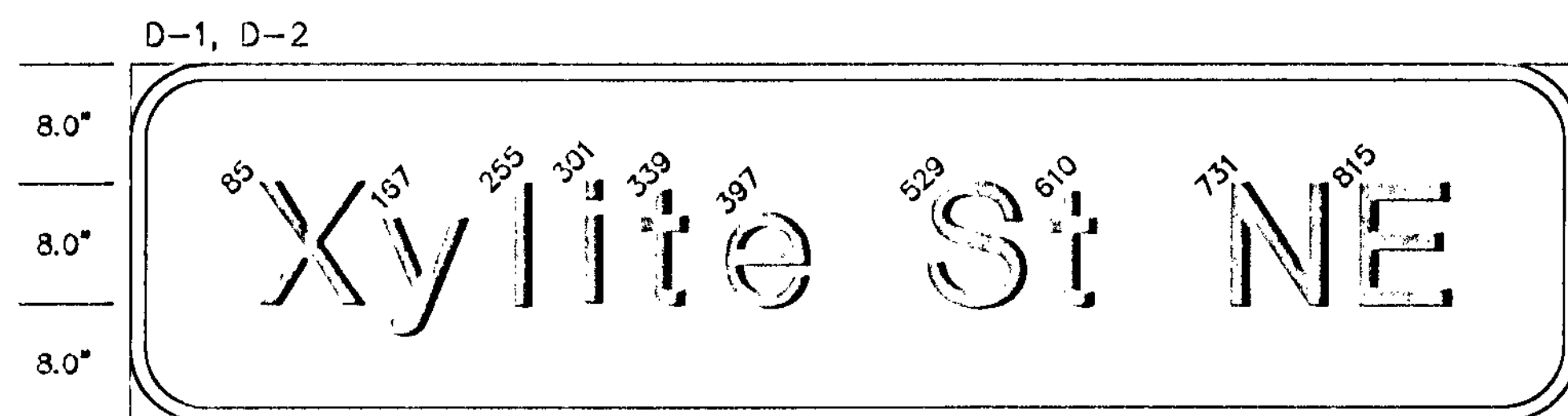
TYPE "D" SIGNS - F & I								
SIGN PANEL	SIZE (inches)	SIZE (meters)	NO. REQ.	NO. POSTS PER SIGN	POST SPACING (mm)	AREA (sq.meters) PER SIGN	POLE NO.	Ø
D-1	96x24	2.44x0.61	1	2	1375	1.49	1	8.5 m
D-2	96x24	2.44x0.61	1	2	1375	1.49	3	6.0 m
D-3	96x36	2.44x0.91	1	2	1375	2.23	4	2.5 m
TYPE "C" SIGNS - F & I								
R3-8G (mod)	48x30	1.22x0.76	1	2U-1A	-	0.93	-	-
R3-8H	54x30	1.37x0.76	1	2U-1A	-	1.05	-	-
W3-3	36x36	0.91x0.91	4	2-U	-	0.84	-	-
W4-2L	36x36	0.91x0.91	1	2-U	-	0.84	-	-
W9-1L	36x36	0.91x0.91	1	2-U	-	0.84	-	-
TYPE "C" SIGNS - SALVAGE								
R1-1	30x30	0.76x0.76	1	1-U	-	-	-	-
R1-1	36x36	0.91x0.91	1	2-U	-	-	-	-

NOTE: ALL DIMENSIONS OF DETAILED SIGN PANELS ARE IN INCHES

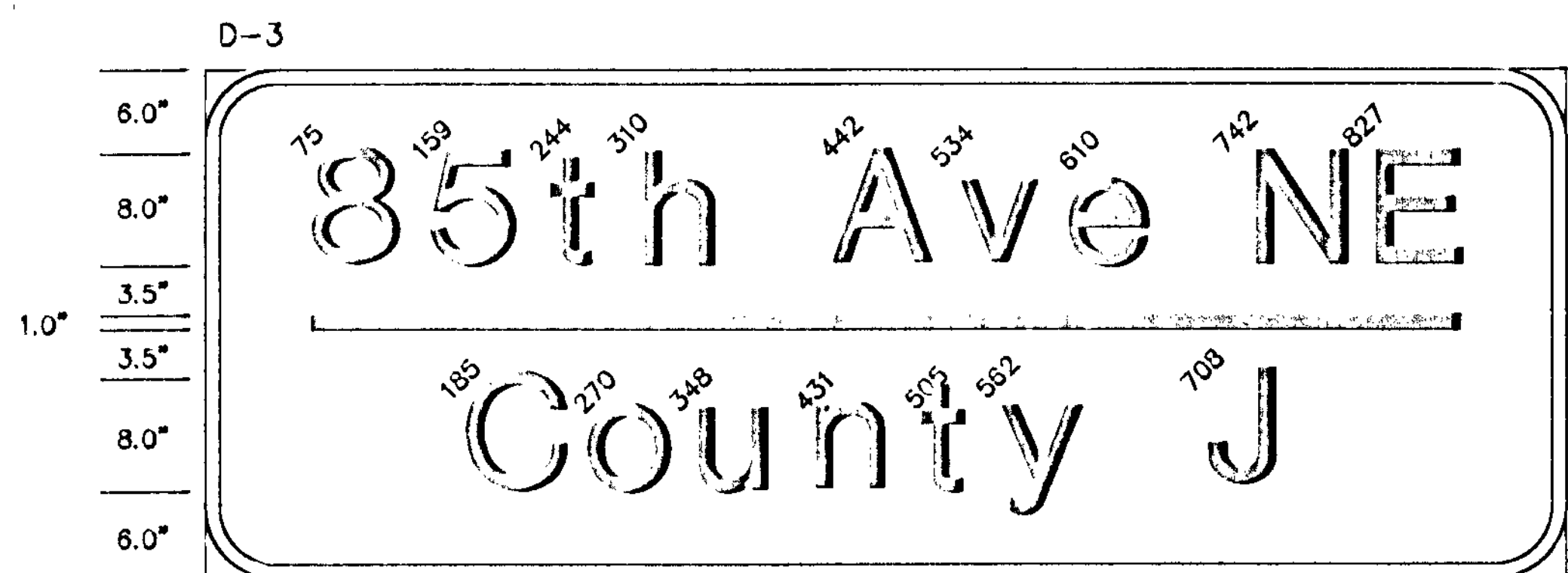


NOTES:

- 1) TYPE "D" SIGN COLOR-WHITE LEGEND AND BORDER ON GREEN BACKGROUND, FULLY REFLECTORIZED.
- 2) CORNERS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
- 3) FOR STRUCTURAL DETAILS, TYPE "C" AND "D" SIGNS, SEE DETAILS AND STANDARD SIGNS MANUAL.
- 4) FOR TYPE "D" STRINGER AND PANEL-JOINT DETAIL, SEE DETAILS AND STANDARD SIGNS MANUAL.
- 5) TYPE "C" AND "D" SIGN PANELS SHALL BE FURNISHED AND INSTALLED BY SIGNAL CONTRACTOR UNDER SEPARATE PAY ITEMS FROM ITEM NO. 2565.511. SEE SPECIAL PROVISIONS AND ESTIMATED QUANTITIES.
- 6) SIGN PANELS TO BE SALVAGED BY SIGNAL CONTRACTOR WILL BE CONSIDERED INCIDENTAL TO SIGN PANELS -TYPE "C". SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION.
- 7) LOCATION OF ALL SIGNS AND PAVEMENT MARKINGS SHOWN ON SHEET 9 ARE APPROXIMATE AND SHALL BE LOCATED BY THE ENGINEER IN THE FIELD PRIOR TO INSTALLATION.
- 8) SEE STANDARD SIGNS MANUAL FOR DETAILED DRAWINGS OF TYPE "C" SIGN PANELS.
- 9) PUNCHING CODES FOR TYPE "C" SIGNS SHALL BE GOVERNED BY THE NUMBER OF SIGN POSTS SPECIFIED ON THE PLANS AT EACH LOCATION (NOT BY WHAT IS SHOWN ON THE DETAILED DRAWINGS IN THE STANDARD SIGNS MANUAL). DIMENSIONS SHALL BE AS SPECIFIED ON PAGES 108-111 OF THE STANDARD SIGNS MANUAL.
- 10) MOUNTING HEIGHTS OF SIGN PANELS SHALL CONFORM TO STANDARDS SET FORTH IN SPECIAL PROVISIONS.
- 11) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL, DATED JANUARY 1998.
- 12) CONTRACTOR SHALL PROVIDE SKETCH OF ALL MODIFIED SIGN PANELS TO ENGINEER, SHOWING ALL PERTINENT DIMENSIONS, PRIOR TO THESE SIGNS BEING FABRICATED.

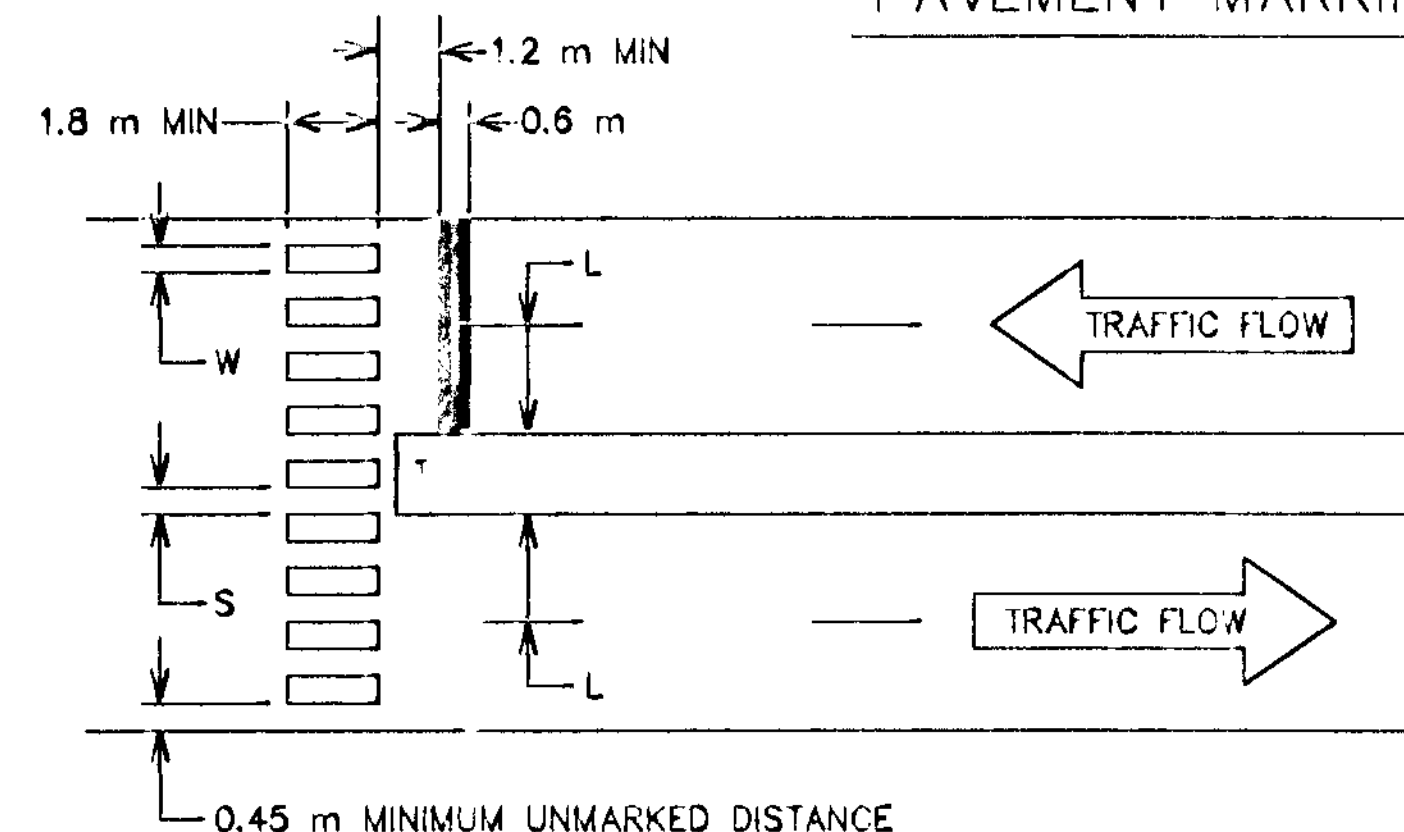


96"x24", 3"R, 1.0"B.
Line 1 82.0: 8"-6" E MOD.



96"x36", 3"R, 1.0"B.
Line 1 81.1: 8"-6" E MOD.
Line 2 81.1: 1 INCH LINE
Line 3 58.3: 8"-6" E MOD.

PAVEMENT MARKINGS DETAIL



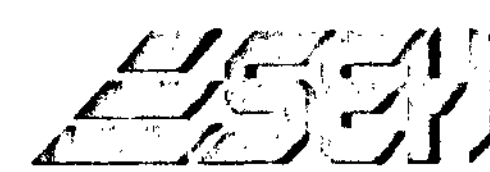
WIDTH OF INSIDE LANE (L)	WIDTH OF MARKED AREA (W)	WIDTH OF SPACE (S)
2.7 m	0.6 m	0.75 m
3.0 m	0.75 m	0.75 m
3.3 m	0.75 m	0.9 m
3.6 m	0.9 m	0.9 m
3.9 m	0.9 m	1.05 m

NOTES:

1. CROSSWALK AREAS TO BE CENTERED AND ALIGNED ON CENTER LINE AND LANE LINES.
2. A MINIMUM OF 0.45 m CLEAR DISTANCE MUST BE LEFT ADJACENT TO CURB. IF LAST MARKED AREA FALLS INTO THIS DISTANCE, IT MUST BE OMITTED.

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED
1	JVG	11/9	PER MN/DOT COMMENTS			

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.
Date: 11/2/14 Reg. No. 22457



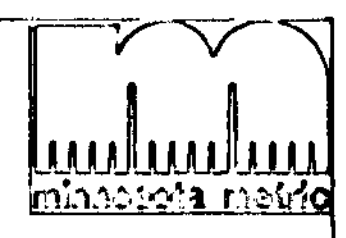
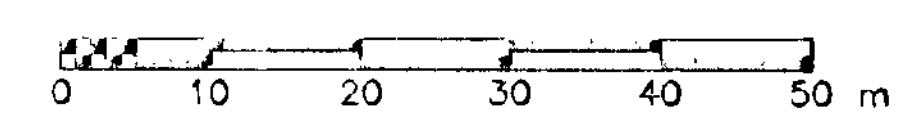
ANOKA COUNTY, MINNESOTA
CITIES OF BLAINE & MOUNDS VIEW
ANOKA COUNTY PROJECT NO. 97-58-32
S.A.P. 62-601-09 & 106-020-18
S.A.P. 106-131-03 & 146-020-10

TRAFFIC SIGNAL SYSTEM
SIGNING & STRIPING DETAILS
85TH AVE NE (CSAH 32)/COUNTY ROAD J
(CSAH 1) AT XYLITE STREET NORTHEAST

FILE NO.
ANOKC9708
DATE
9/14/98

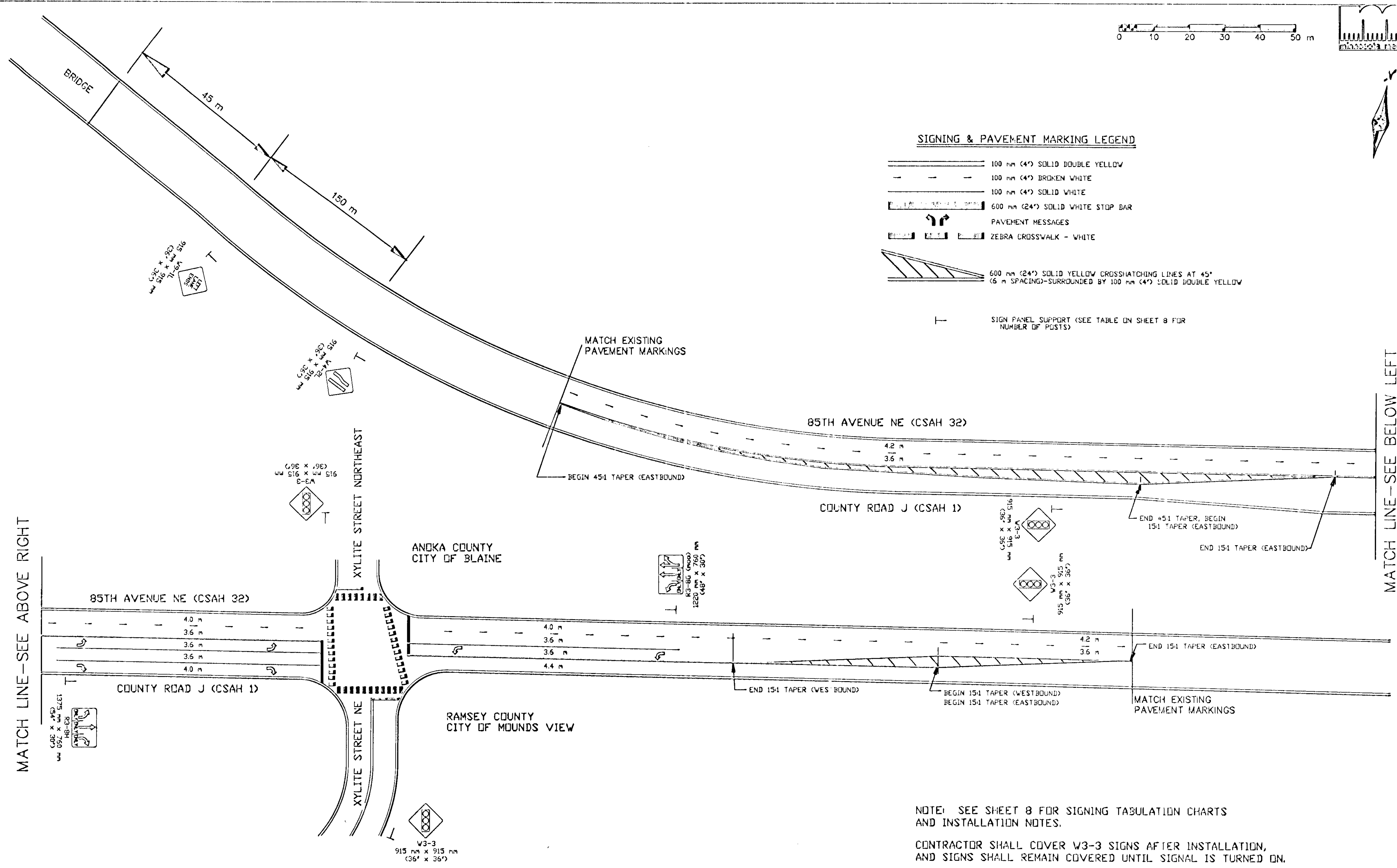
8

12



SIGNING & PAVEMENT MARKING LEGEND

- 100 mm (4\") SOLID DOUBLE YELLOW
- 100 mm (4\") BROKEN WHITE
- 100 mm (4\") SOLID WHITE
- 600 mm (24\") SOLID WHITE STOP BAR
- PAVEMENT MESSAGES
- ZEBRA CROSSWALK - WHITE
- 600 mm (24\") SOLID YELLOW CROSSHATCHING LINES AT 45° (6 m SPACING)-SURROUNDED BY 100 mm (4\") SOLID DOUBLE YELLOW
- SIGN PANEL SUPPORT (SEE TABLE ON SHEET 8 FOR NUMBER OF PUSTS)



MATCH LINE—SEE ABOVE RIGHT

MATCH LINE—SEE BELOW LEFT

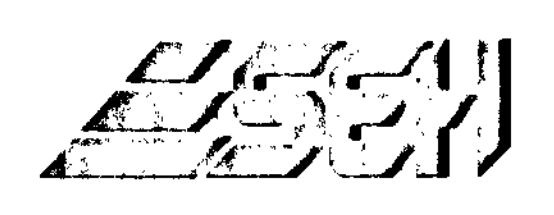
NOTE: SEE SHEET 8 FOR SIGNING TABULATION CHARTS AND INSTALLATION NOTES.

CONTRACTOR SHALL COVER W3-3 SIGNS AFTER INSTALLATION, AND SIGNS SHALL REMAIN COVERED UNTIL SIGNAL IS TURNED ON.

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED
1	JMG	11/9				

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

John M. Jones
 Date: 11/12/98 Reg. No. 22457



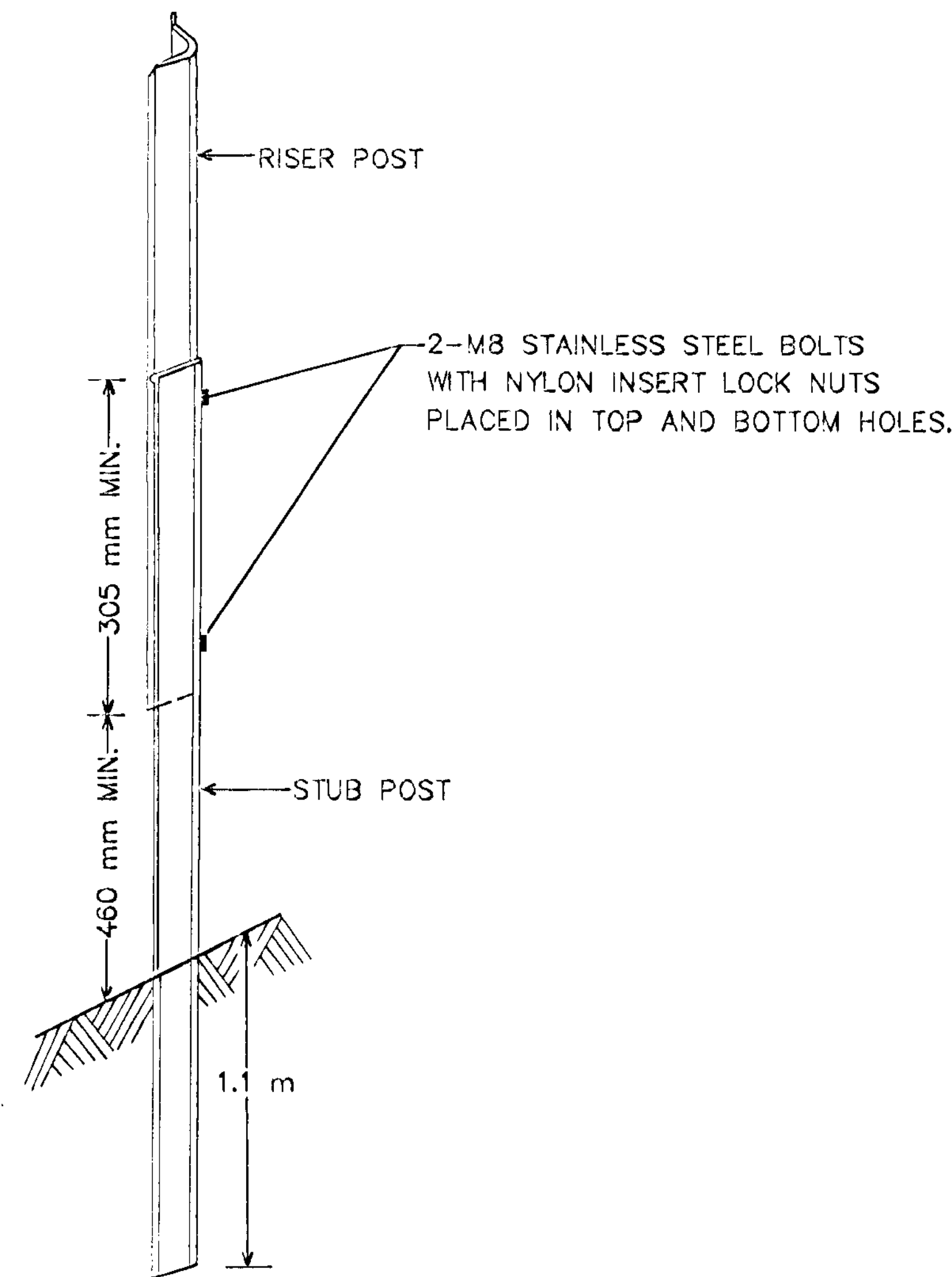
ANKA COUNTY, MINNESOTA
CITIES OF BLAINE & MOUNDS VIEW
 ANKA COUNTY PROJECT NO. 97-58-32
 S.A.P. 62-601-09 & 106-020-16
 S.A.P. 106-131-03 & 146-020-10

SIGNING AND STRIPING LAYOUT
 85TH AVE NE (CSAH 32)/COUNTY ROAD J (CSAH 1) AT XYLITE STREET NORTHEAST

FILE NO. ANKCC9708
 DATE 9/14/98
 9
 12

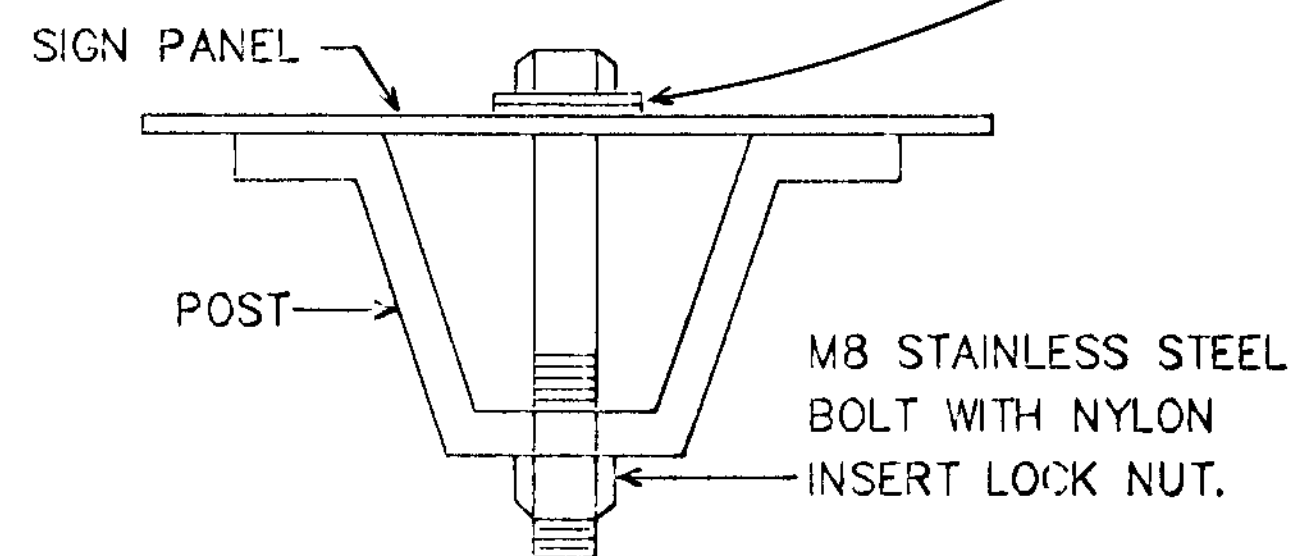


TYPE "C" & "D" POST

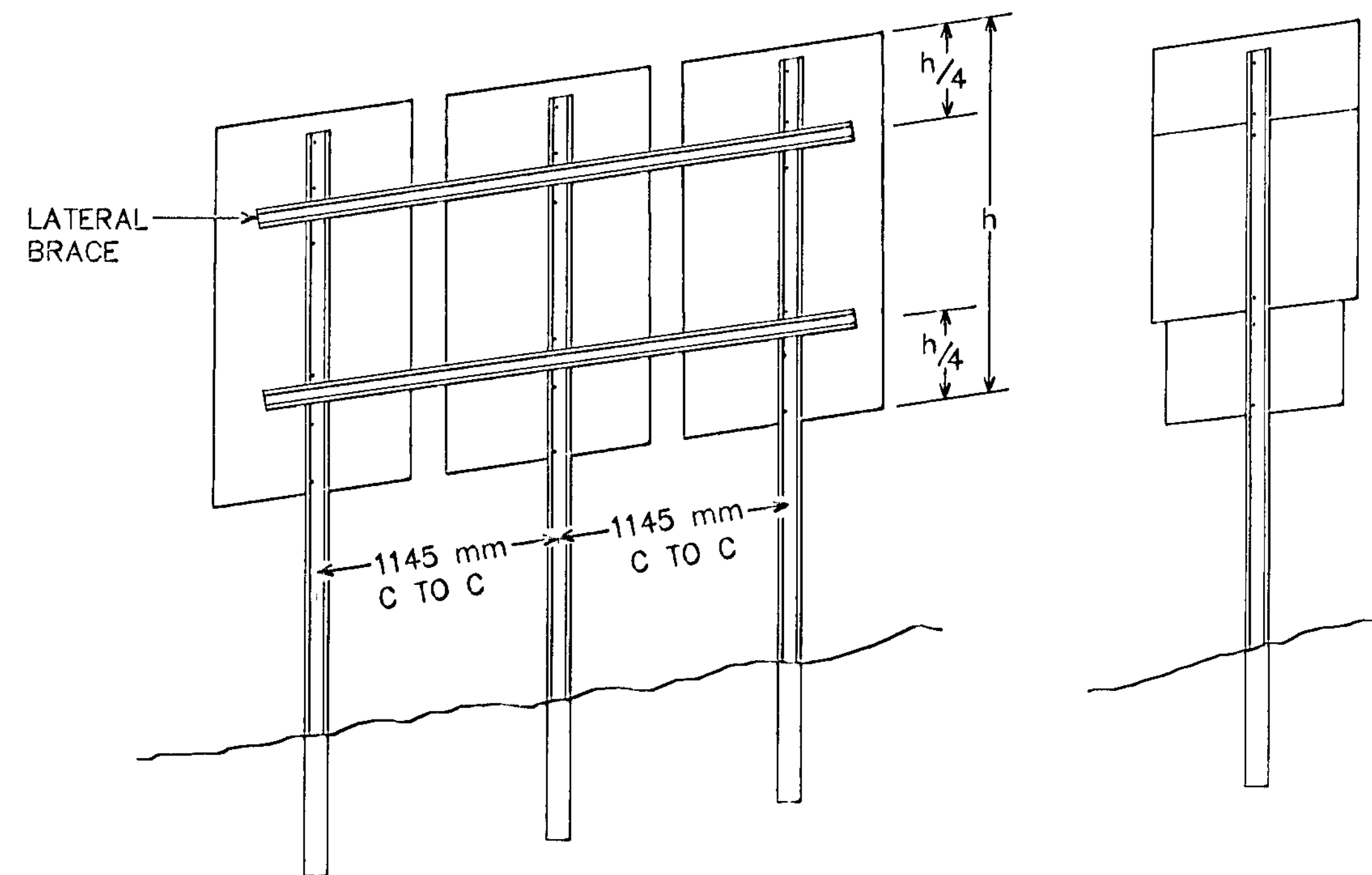


"U POST" SPLICE

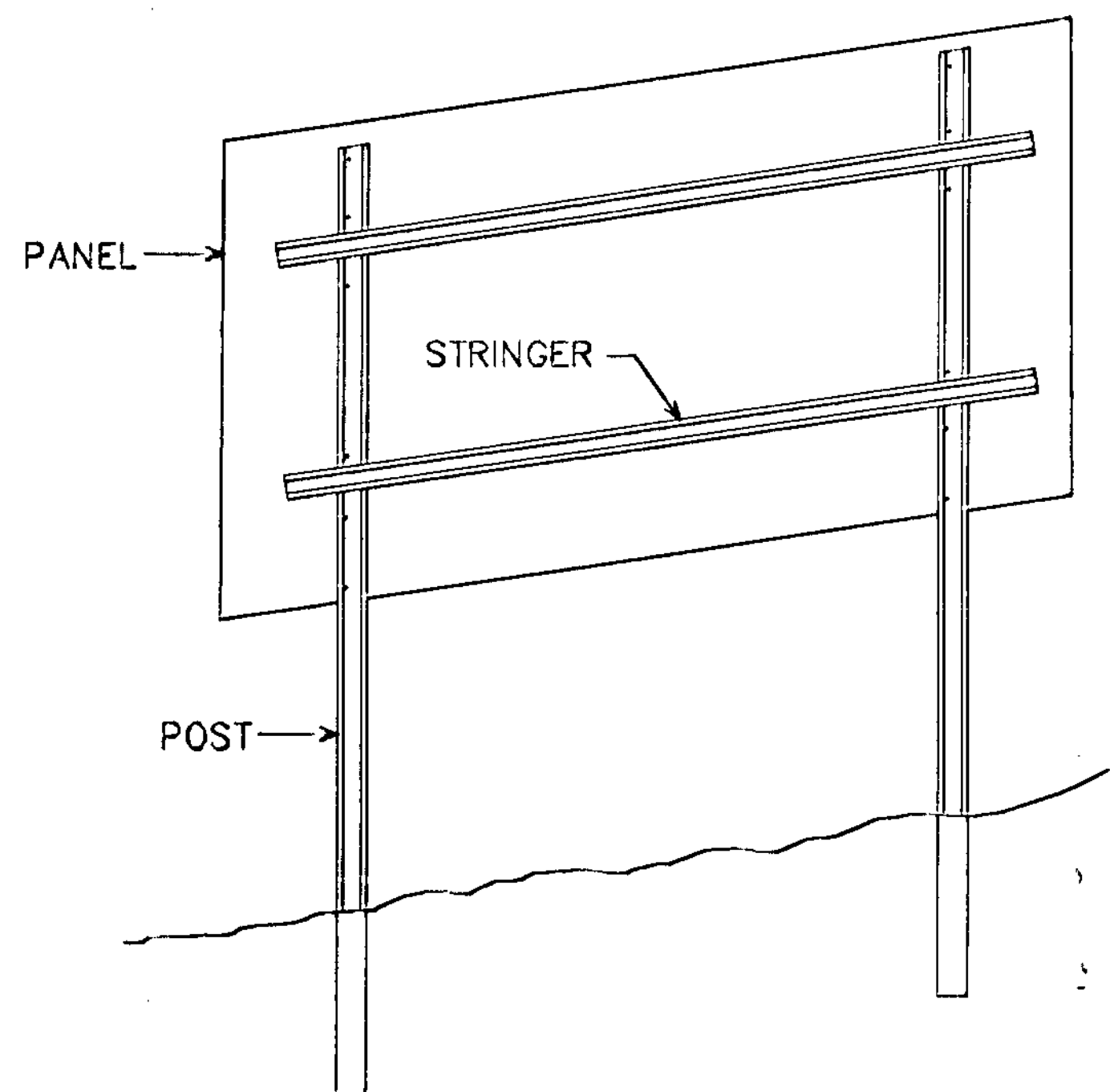
STAINLESS STEEL WASHER AND NYLON WASHER
(T= 1 mm MIN., I.D.= 9.5 mm MAX., O.D.= 22 mm MAX.)



"U POST" MOUNTING
TYPE "C" SIGNS



TYPICAL TYPE "C" INSTALLATIONS



TYPICAL TYPE "D" INSTALLATIONS

NOTES:

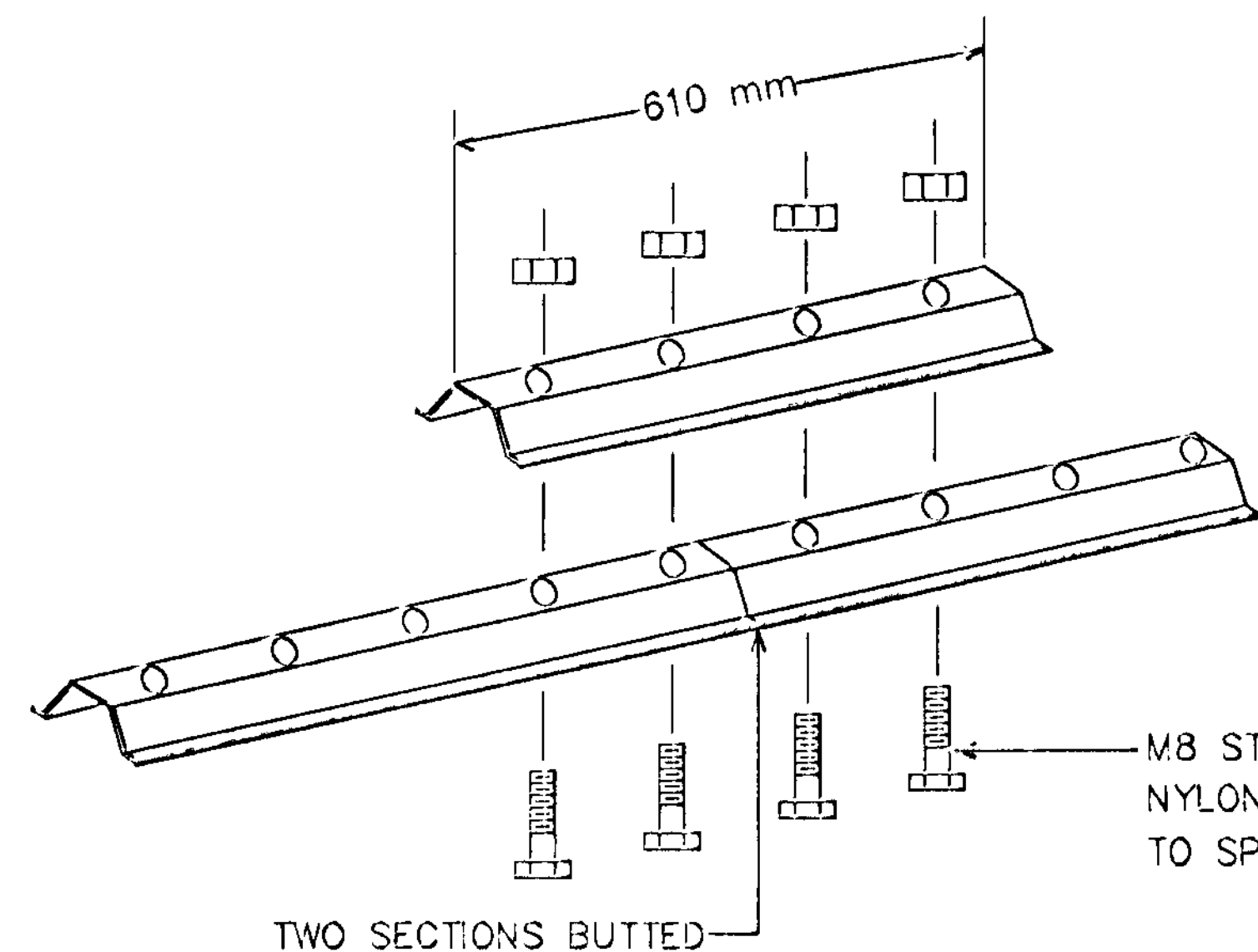
- USE 4.45 kg/m STUB POSTS, RISER POSTS, STRINGERS, KNEE BRACES, LATERAL BRACES AND KNEE BRACE STUB POSTS. ALL SHALL CONFORM TO MN/DOT 3401.
- FOR TYPE "D" SIGN POST LENGTHS AND SPACINGS, SEE SIGN DATA SHEET.
- TYPE "D" SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 610 mm MAXIMUM INTERVALS IN ACCORDANCE WITH TYPE "D" STRINGER AND PANEL-JOINT DETAIL (SEE STANDARD SIGNS MANUAL).
- MOUNTING (PUNCHING CODE) FOR TYPE "C" AND TYPE "D" SIGN PANELS SHALL BE AS INDICATED IN THE STANDARD SIGNS MANUAL UNLESS OTHERWISE NOTED.
- ALL RISER (VERTICAL) "U POSTS" SHALL BE SPLICED. DRIVEN STUB POSTS SHALL BE AT LEAST 2.2 m LONG.
- USE STAINLESS STEEL M8 BOLTS, WASHERS, AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
- STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
- BRACING STUBS SHALL BE NO MORE THAN 100 mm ABOVE GROUND AND EMBEDDED AT LEAST 1.1 m.
- A-FRAME BRACKET SHALL BE STEEL CONFORMING TO MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394.
- COLLARS SHALL BE USED TO SHIM OVERLAYS AND DEMOUNTABLE LEGEND AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MN/DOT 3352.2A7.
- MULTIPLE POST INSTALLATIONS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 1525 mm OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
- WHERE 2 OR MORE SINGLE POST SIGNS (TYPE "C") ARE MOUNTED SIDE BY SIDE, THEY SHALL BE REINFORCED Laterally BY AT LEAST 2 POST SECTIONS, BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN SKETCH.

DRAWN BY:	REVISED BY:	REVISED BY:	AS BUILT BY:
CHECKED: DATE:	CHECKED: DATE:	CHECKED: DATE:	CHECKED: DATE:
SYSTEM I.D. :			
METER ADDRESS:			
S.A.P.: 62-601-09, 106-020-16			
S.A.P.: 106-131-03, 146-020-10			

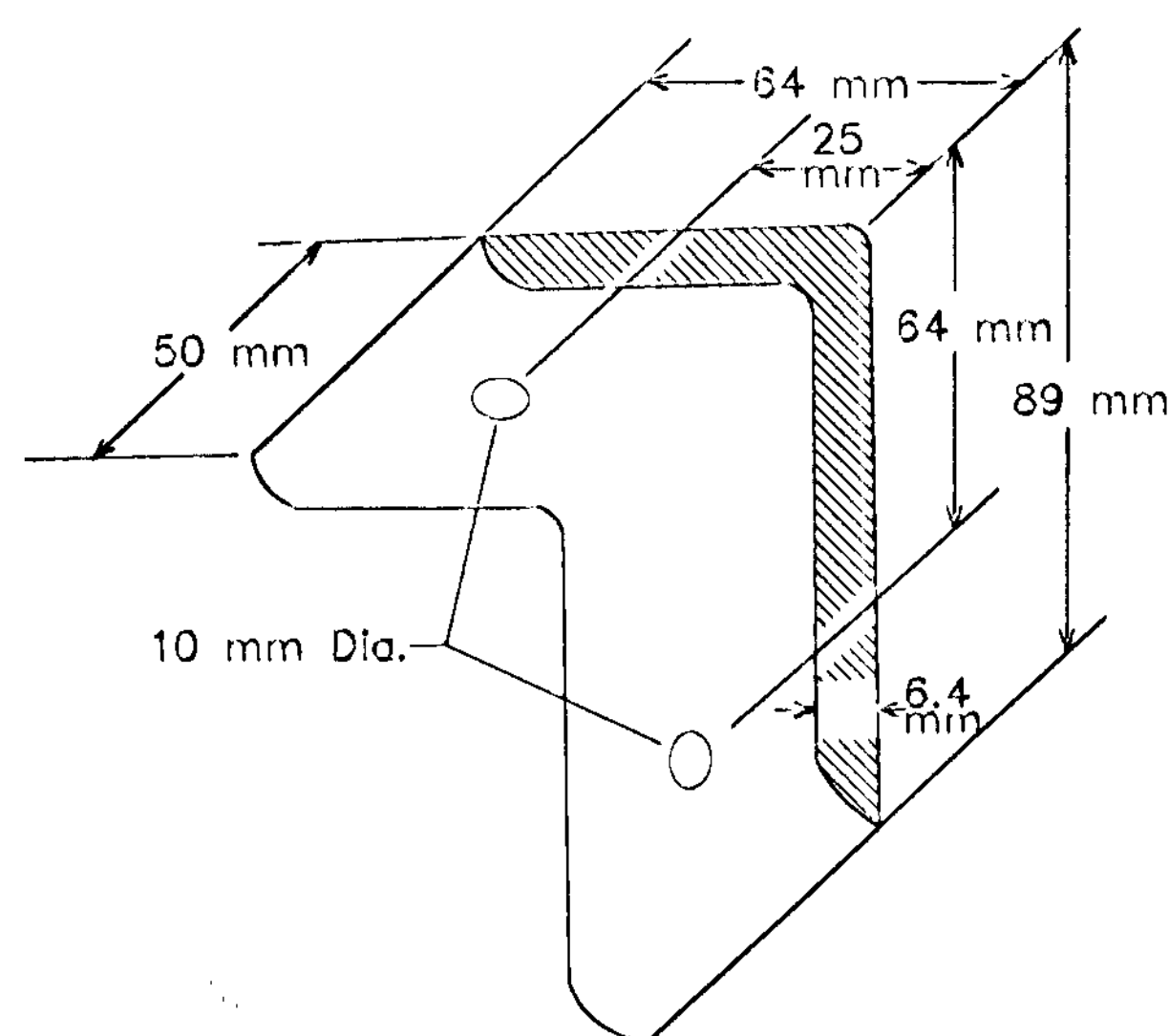
"C" & "D" SIGN DETAILS

DESIGN A
SHEET 1 OF 2

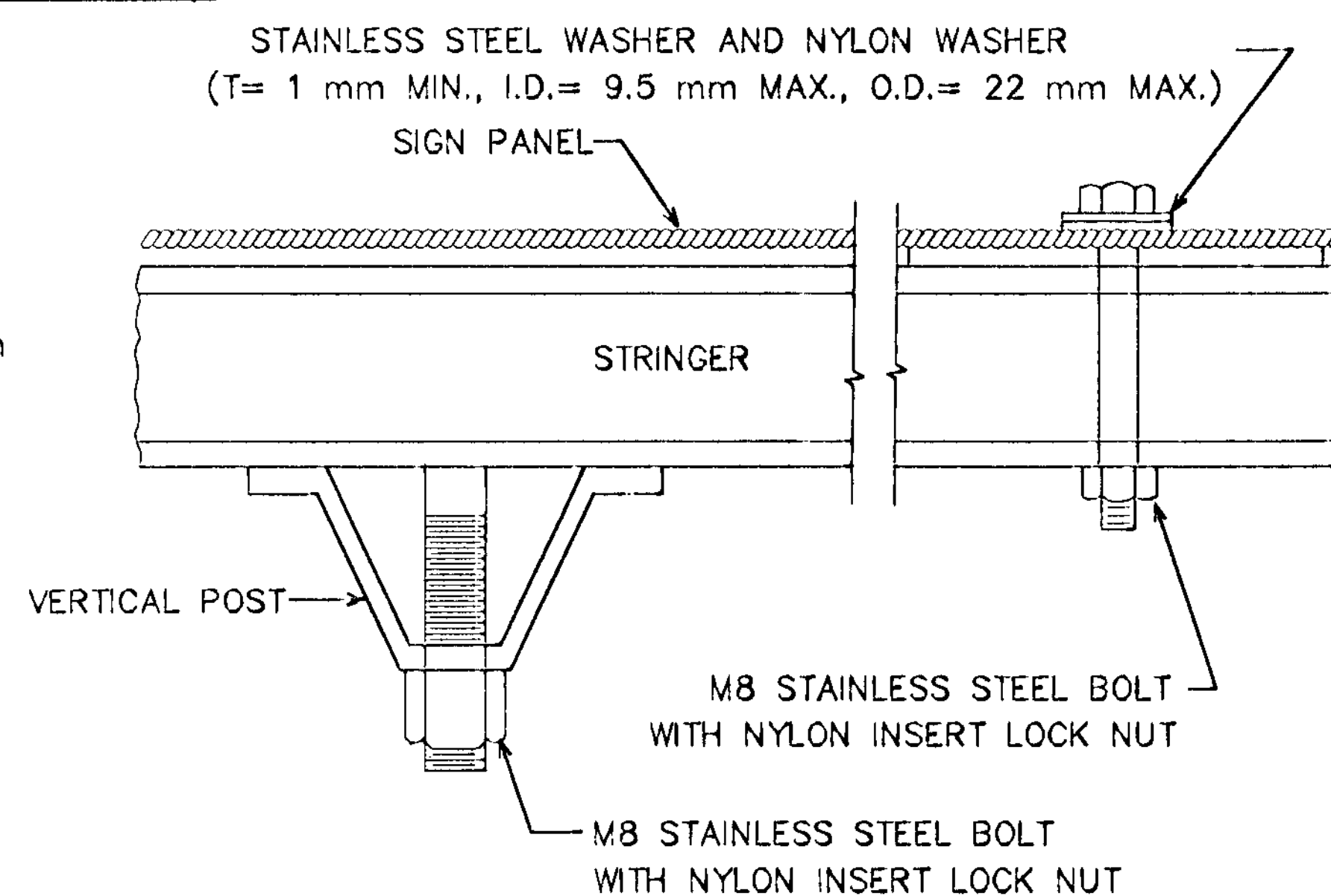
85TH AVE/COUNTY ROAD J AT XYLITE ST NE
IN BLAINE/MOUNDS VIEW, ANOKA/RAMSEY COUNTY



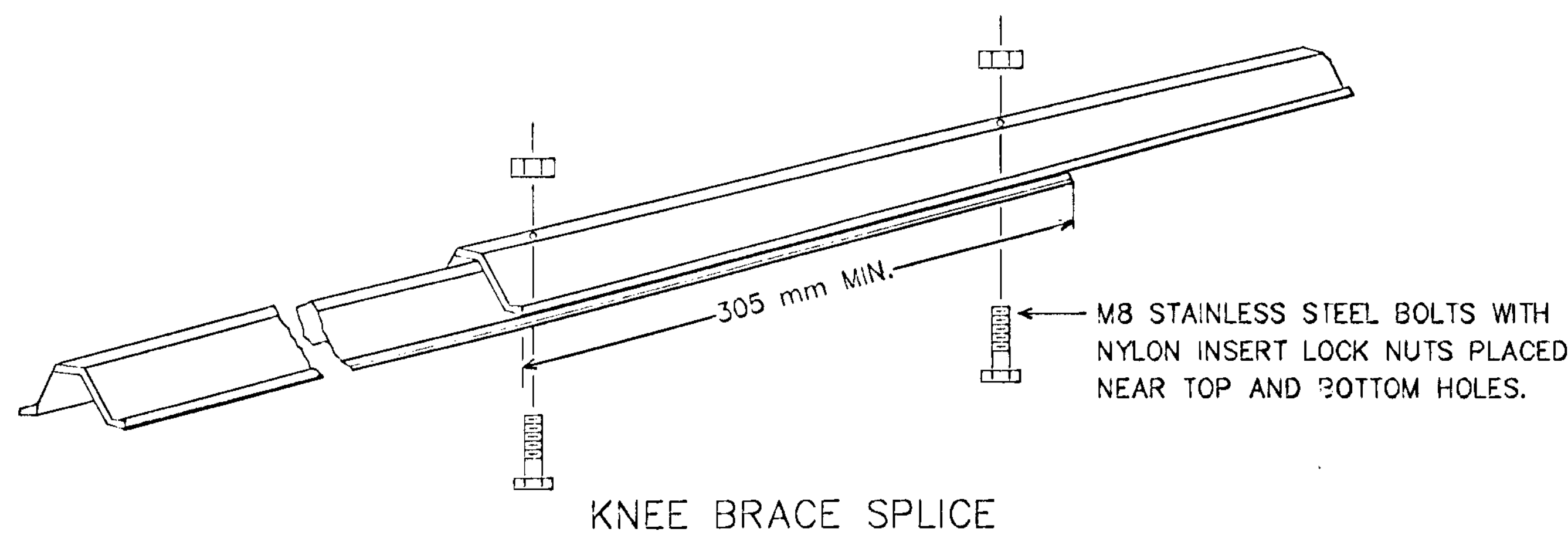
LATERAL BRACE OR STRINGER
SPLICE DETAIL (EXPLODED VIEW)



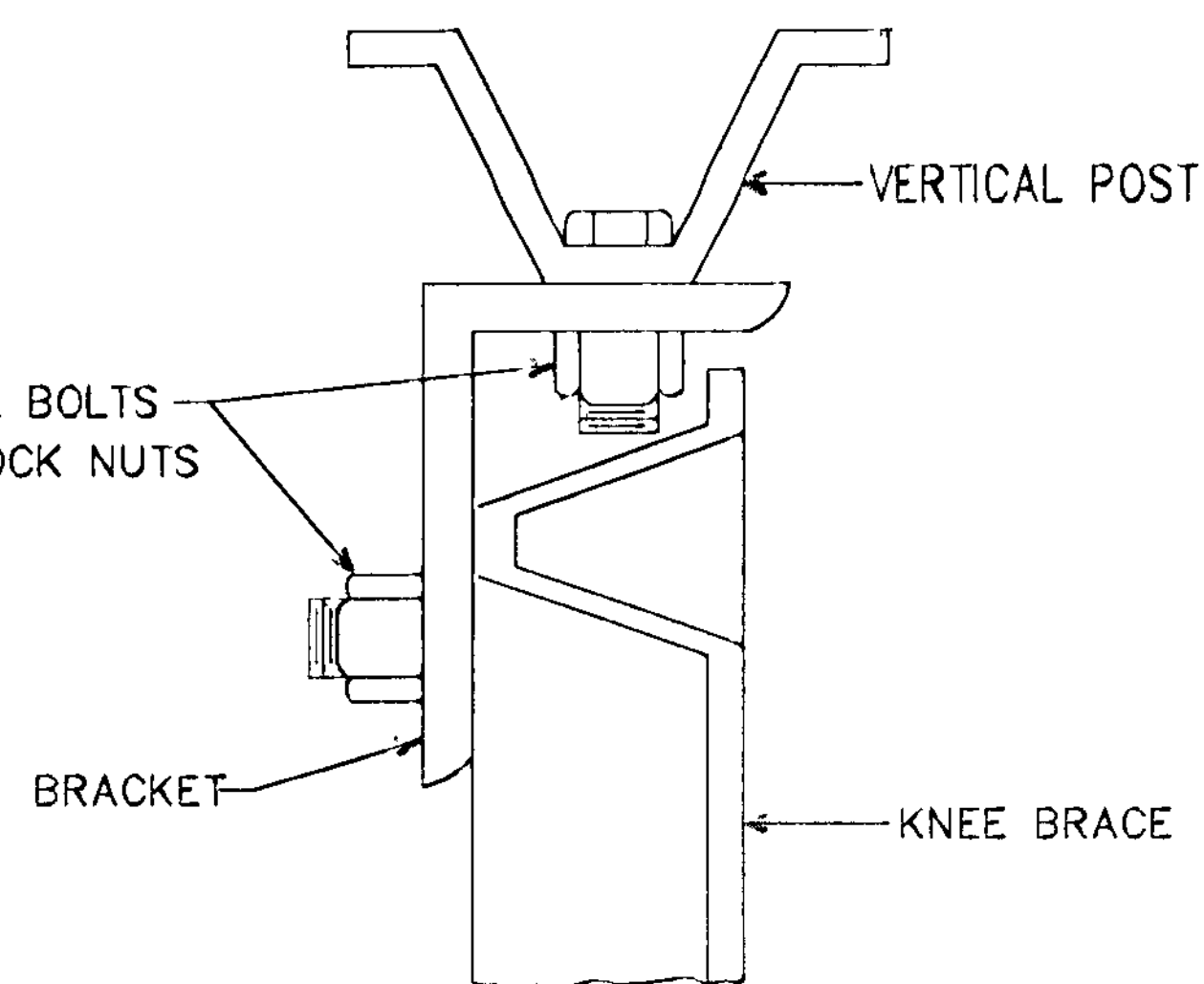
A-FRAME BRACKET
(STEEL Mn/DOT 3306 GALVANIZED PER Mn/DOT 3394)



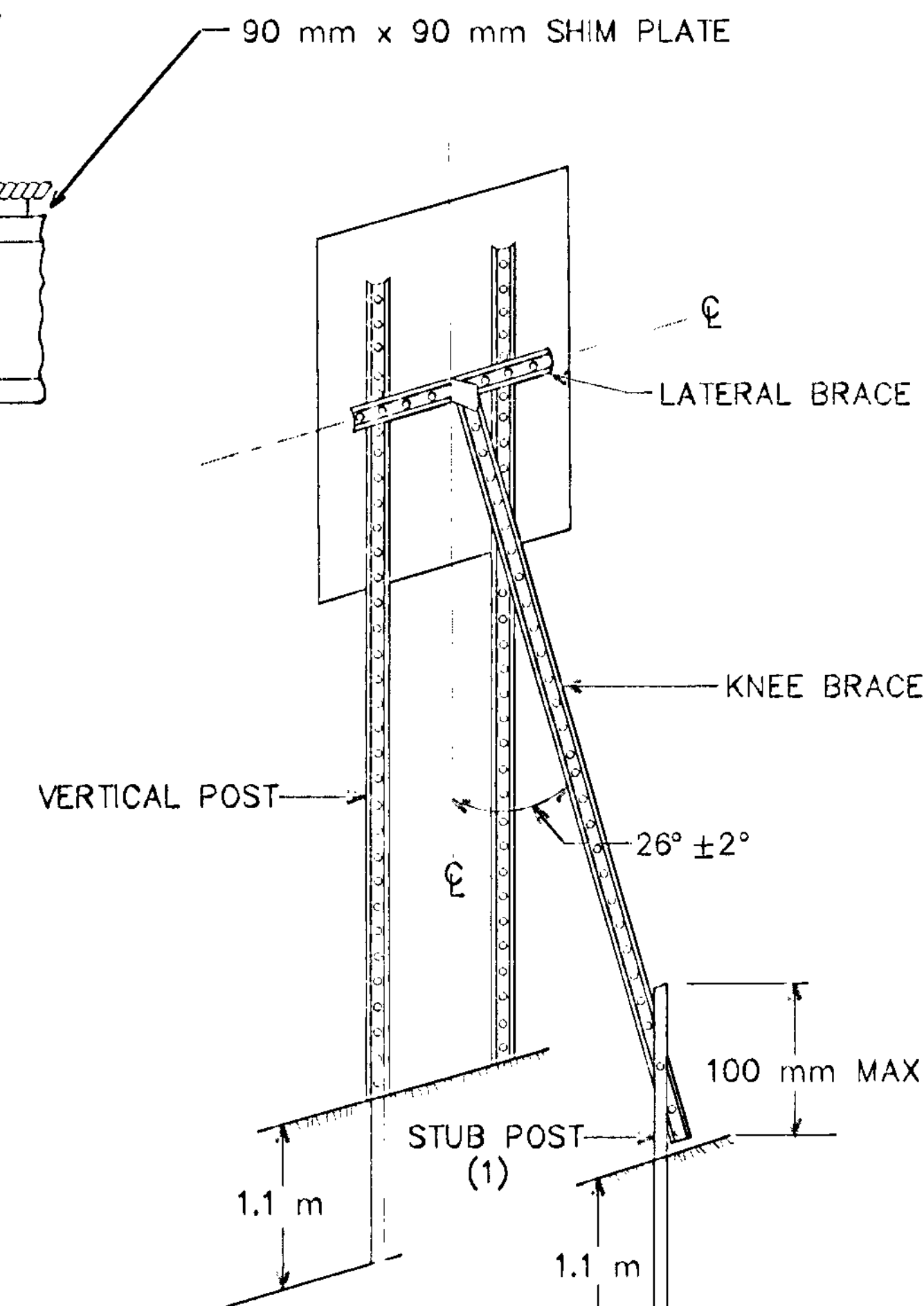
SECTION B-B



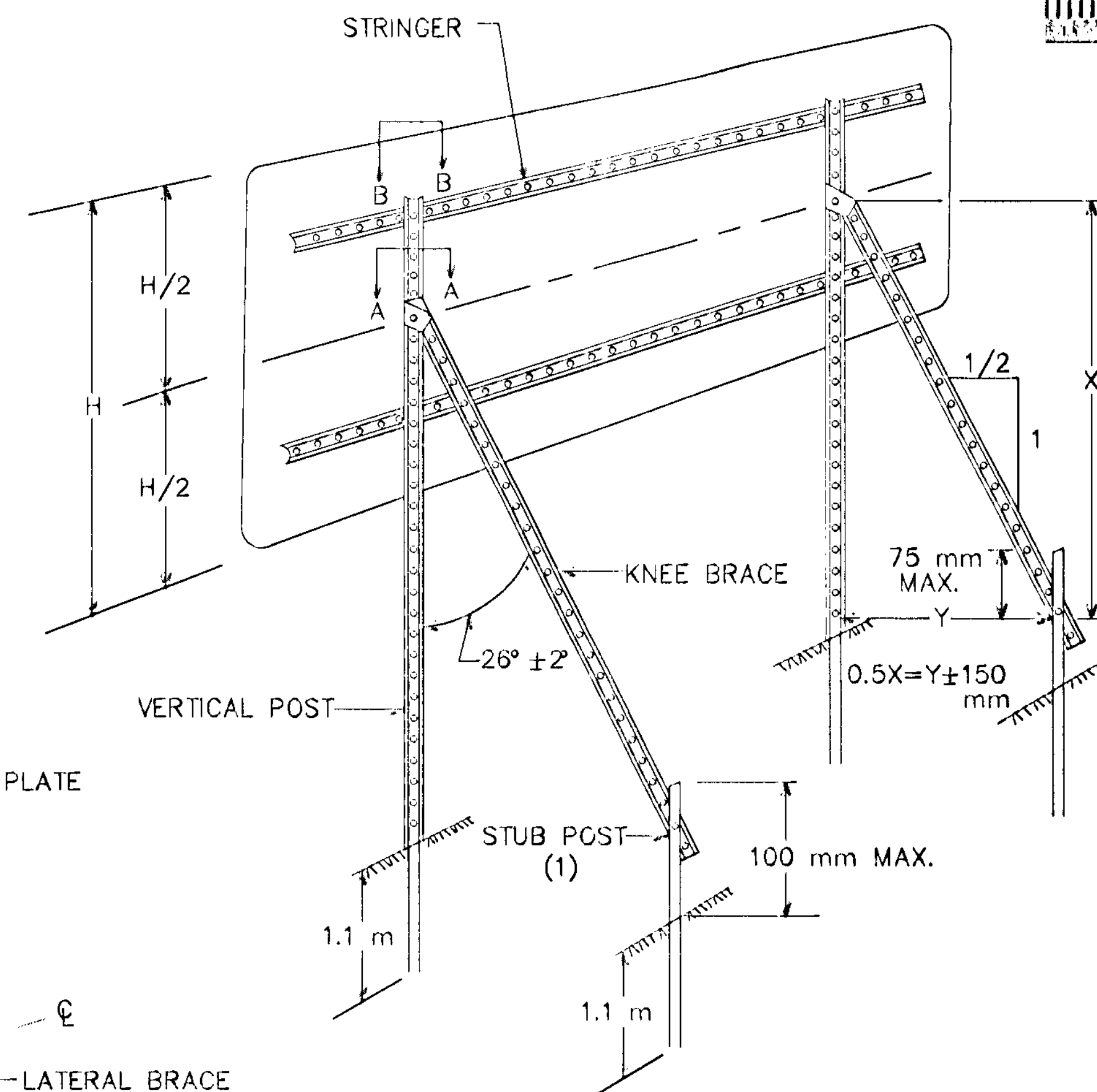
KNEE BRACE SPLICE



SECTION A-A

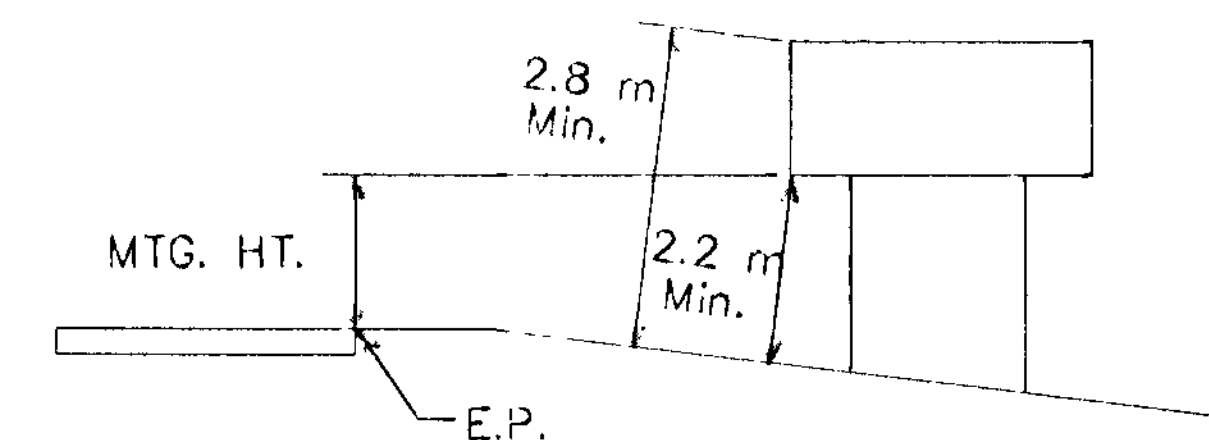


TYPICAL "A-FRAME"
INSTALLATION
TYPE "C" SIGNS



TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS

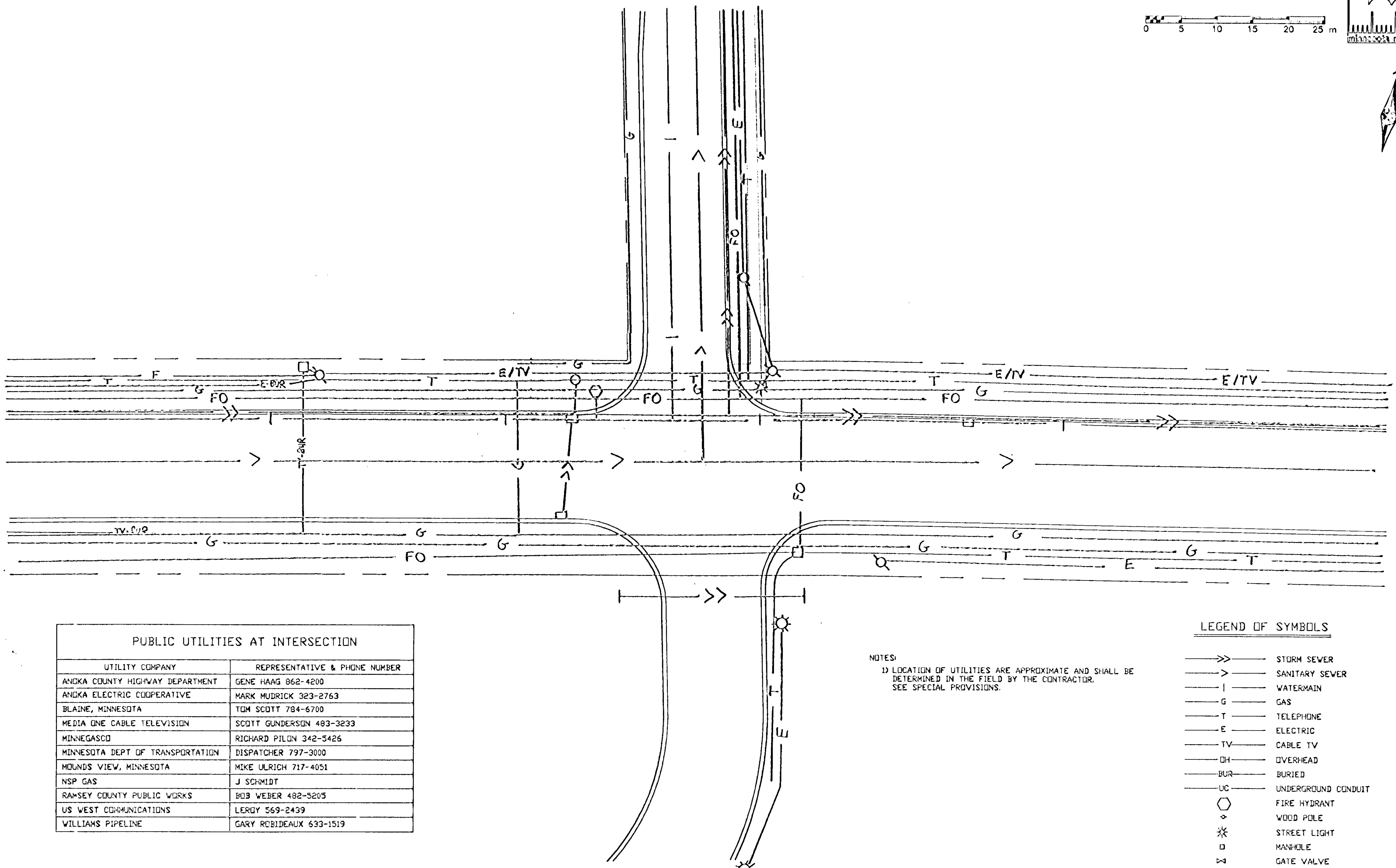
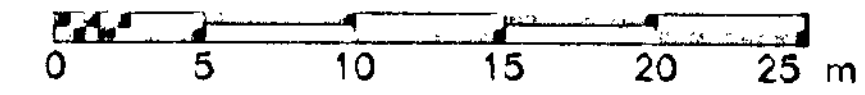
(1) OFFSET STUB POST 300 mm TOWARD ROADWAY
RELATIVE TO VERTICAL POST.



TYPICAL MOUNTING

DRAWN BY:	REVISED BY:	REVISED BY:	AS BUILT BY:
CHECKED: DATE:	CHECKED: DATE:	CHECKED: DATE:	CHECKED: DATE:
SYSTEM I.D. :			
METER ADDRESS:			
S.A.P.: 62-601-09, 106-020-16			
S.A.P.: 106-131-03, 146-020-10			

"C" & "D" SIGN DETAILS	
DESIGN A	
SHEET 2 OF 2	
85TH AVE/COUNTY ROAD J AT XYLITE ST NE IN B_AINE/MOUNDS VIEW , ANOKA/RAMSEY COUNTY	
Sheet No. 11 of 12 Sheets	



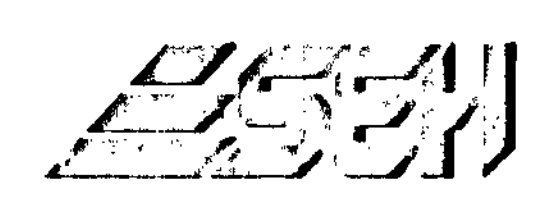
PUBLIC UTILITIES AT INTERSECTION	
UTILITY COMPANY	REPRESENTATIVE & PHONE NUMBER
ANKKA COUNTY HIGHWAY DEPARTMENT	GENE HAAG 862-4200
ANKKA ELECTRIC COOPERATIVE	MARK MUDRICK 323-2763
BLAINE, MINNESOTA	TOM SCOTT 784-6700
MEDIA ONE CABLE TELEVISION	SCOTT GUNDERSON 483-3233
MINNEGASCO	RICHARD PILON 342-5426
MINNESOTA DEPT OF TRANSPORTATION	DISPATCHER 797-3000
MOUNDS VIEW, MINNESOTA	MIKE ULRICH 717-4051
NSP GAS	J SCHMIDT
RAMSEY COUNTY PUBLIC WORKS	BOB WEBER 482-5205
US WEST COMMUNICATIONS	LERDY 569-2439
WILLIAMS PIPELINE	GARY ROBIDEAUX 633-1519

NOTES:
 1) LOCATION OF UTILITIES ARE APPROXIMATE AND SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. SEE SPECIAL PROVISIONS.

LEGEND OF SYMBOLS

- STORM SEWER
- SANITARY SEWER
- | WATERMAIN
- G GAS
- T TELEPHONE
- E ELECTRIC
- TV CABLE TV
- BUR BURIED
- UC UNDERGROUND CONDUIT
- FIRE HYDRANT
- ◇ WOOD POLE
- ★ STREET LIGHT
- MANHOLE
- ⊗ GATE VALVE
- FO FIBER OPTIC CABLE

1	JMG 11/9	PER MN/DDT COMMENTS								I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota. <i>Signatures</i> Date: 11/12/98 Reg. No. 22457
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED				



ANKKA COUNTY, MINNESOTA
 CITIES OF BLAINE & MOUNDS VIEW
 ANKA COUNTY PROJECT NO. 97-58-32
 S.A.P. 62-601-09 & 106-020-16
 S.A.P. 106-131-03 & 146-020-10

TRAFFIC SIGNAL SYSTEM
 UTILITIES
 85TH AVE NE (CSAH 32)/COUNTY ROAD J
 (CSAH 1) AT WHITE STREET NORTHEAST

FILE NO. ANDKC9708	12
DATE 9/14/98	12