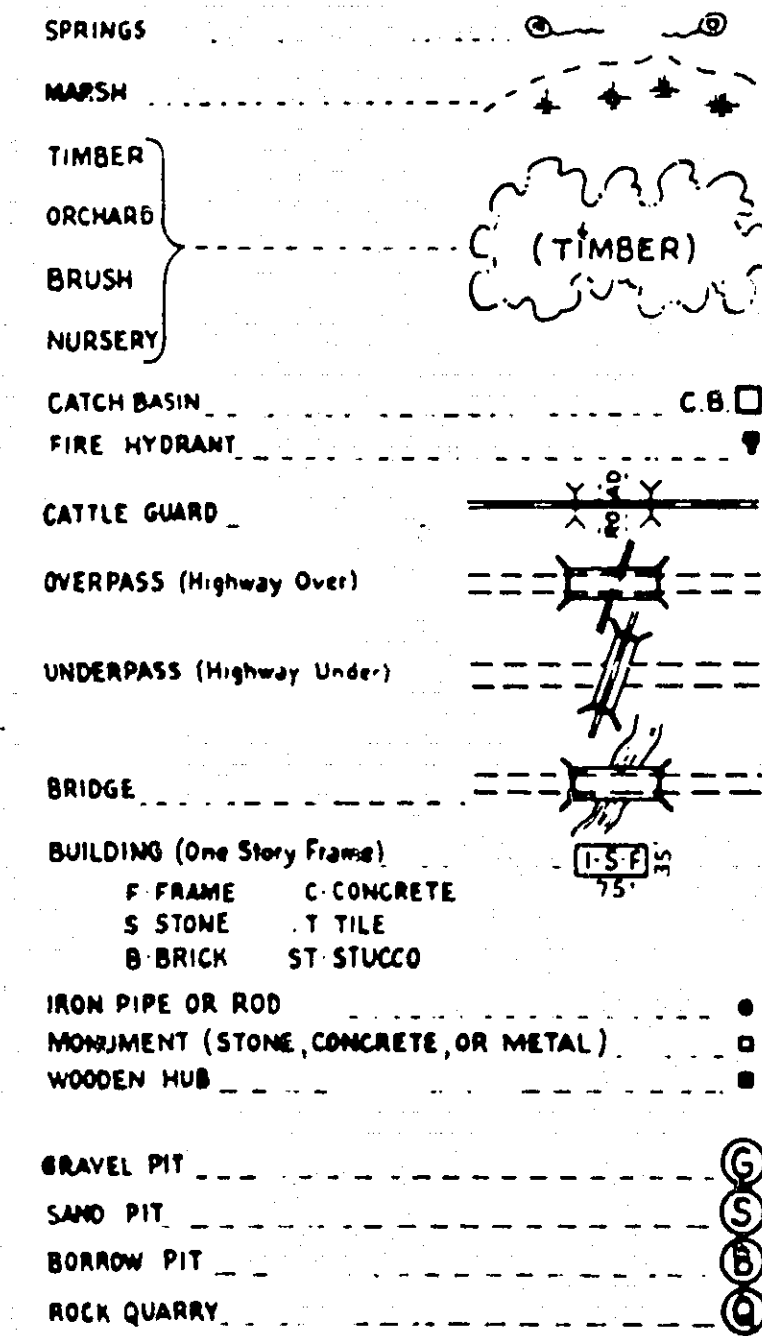
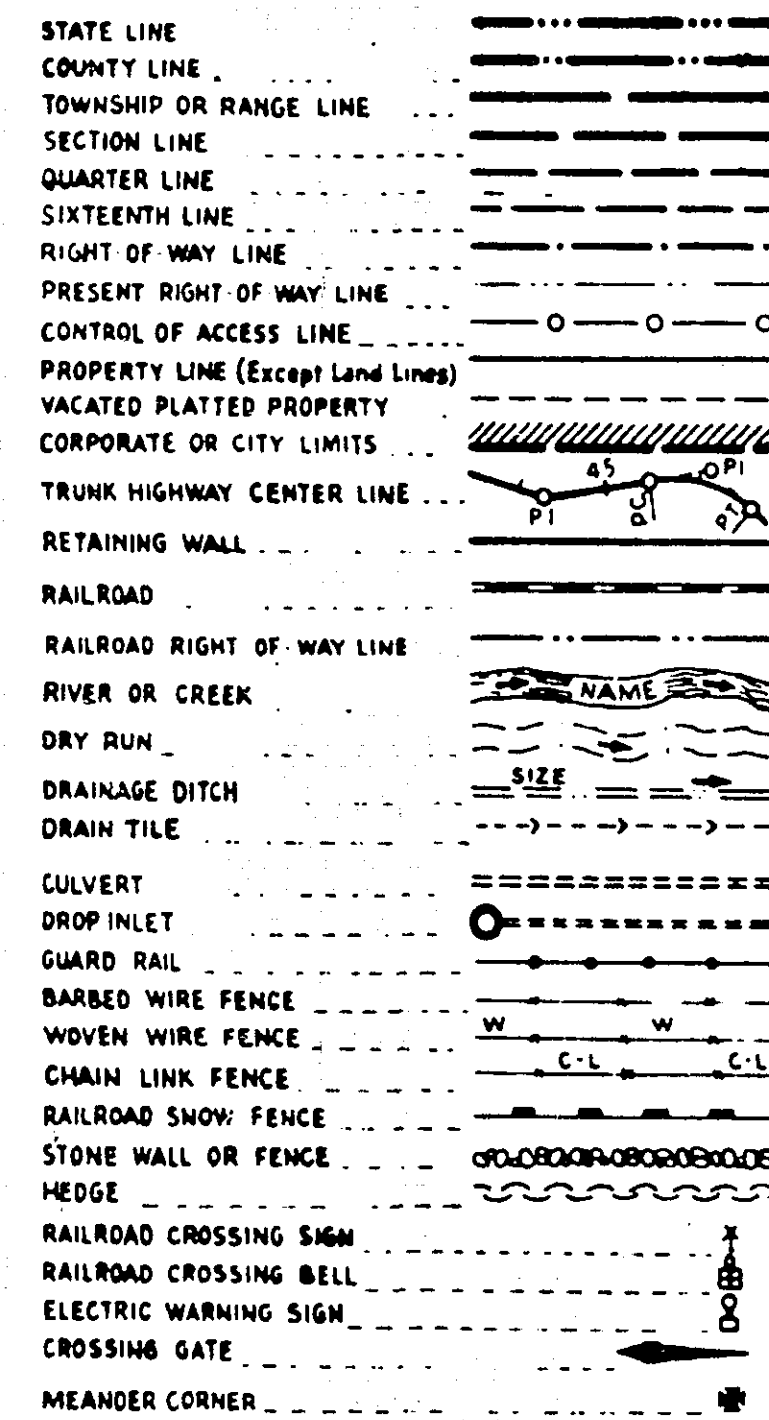
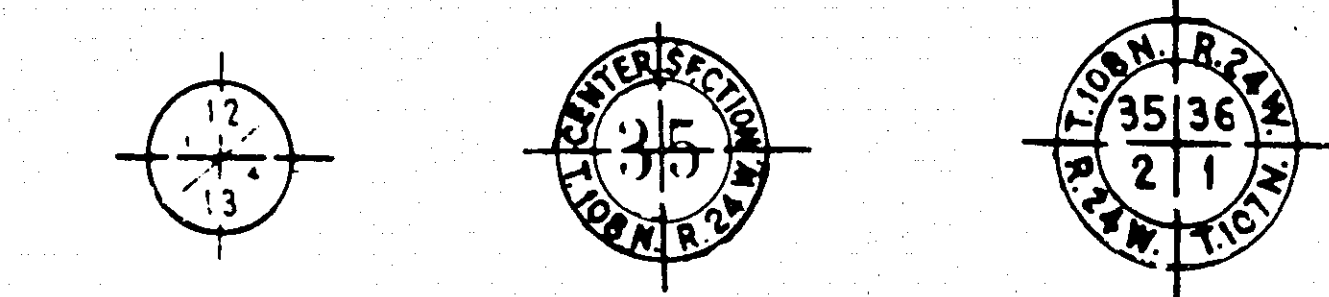
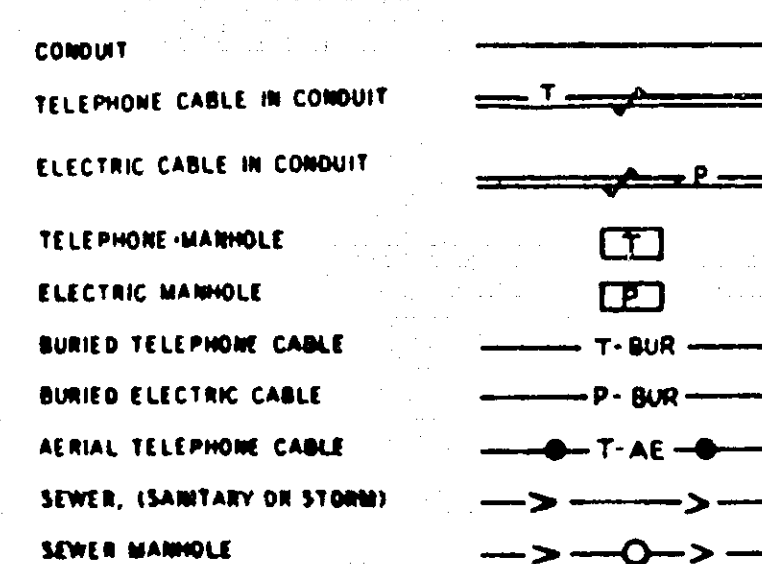
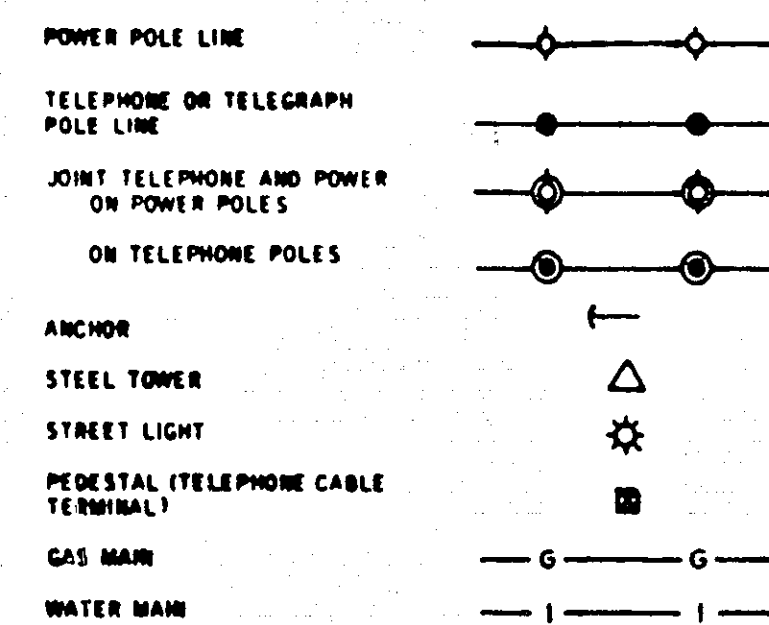


PLANS SYMBOLS



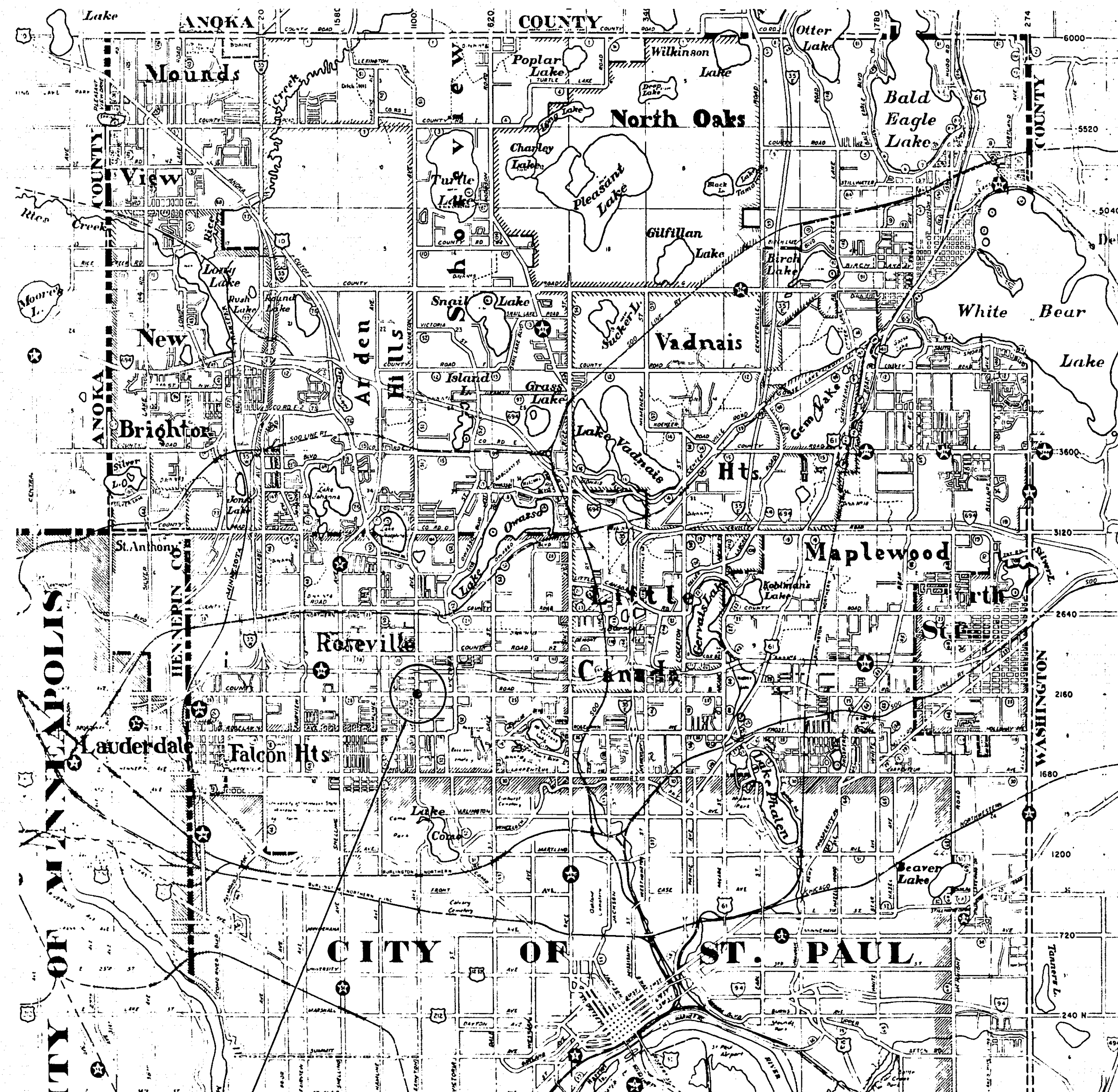
UTILITIES SYMBOLS



PIT DATA

PIT NO. 1 Located in Dead Haul

PIT NO. 2 Located in Dead Haul



LEXINGTON AVE. & COUNTY RD. B
S.A.P. NO. 62-651-02 C.T.B.

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY

PLAN OF TRAFFIC CONTROL SYSTEM FOR THE INTERSECTION OF
LEXINGTON AVE. & COUNTY ROAD B
S.A.P. NO. 62-651-02 C.T.B.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE
2	DETAILS & QUANTITIES
3	INTERSECTION LAYOUT
4-5	FIELD WIRING DIAGRAM
6-7	INFORMATION

I hereby certify that this plan, specification, or report 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 7-7-78 Reg. No. 12703

RECOMMENDED FOR APPROVAL *Paul H. Schmidt* DATE 7-7-78
TRAFFIC ENGINEER

RECOMMENDED FOR APPROVAL *Robert J. Outh* DATE 8-3-78
COUNTY ENGINEER

APPROVED *Robert J. Outh* DATE 4-10-79
CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED *James J. Jensen* DATE
MAYOR, CITY OF ROSEVILLE

APPROVED _____ DATE _____

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL *Delbert O. O'Connell* DATE 3-6-79

RECOMMENDED FOR APPROVAL *Delbert O. O'Connell* DATE 4-22-79
DISTRICT STATE AID ENGINEER

APPROVAL *Delbert O. O'Connell* DATE 3/7/79
STATE AID ENGINEER

RECOMMENDED FOR APPROVAL *DAJ* DATE 10-27-78
ENV. ENGR.

RECOMMENDED FOR APPROVAL *DAJ* DATE 7-12-78
MAINT. ENGR.

RECOMMENDED FOR APPROVAL *DAJ* DATE 7-12-78
CONST. ENGR.

RECOMMENDED FOR APPROVAL *DAJ* DATE 7-12-78
DESIGN ENGR.

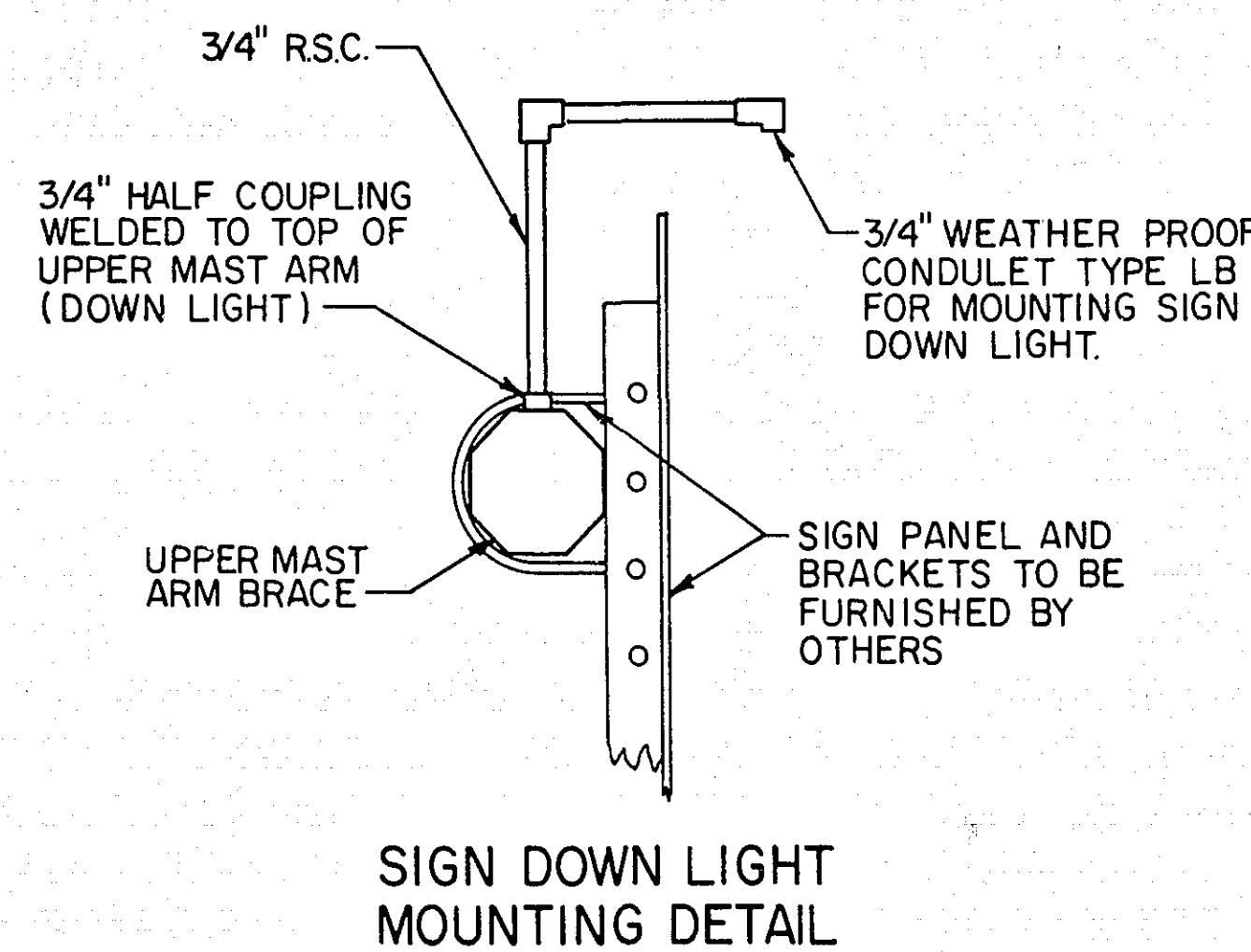
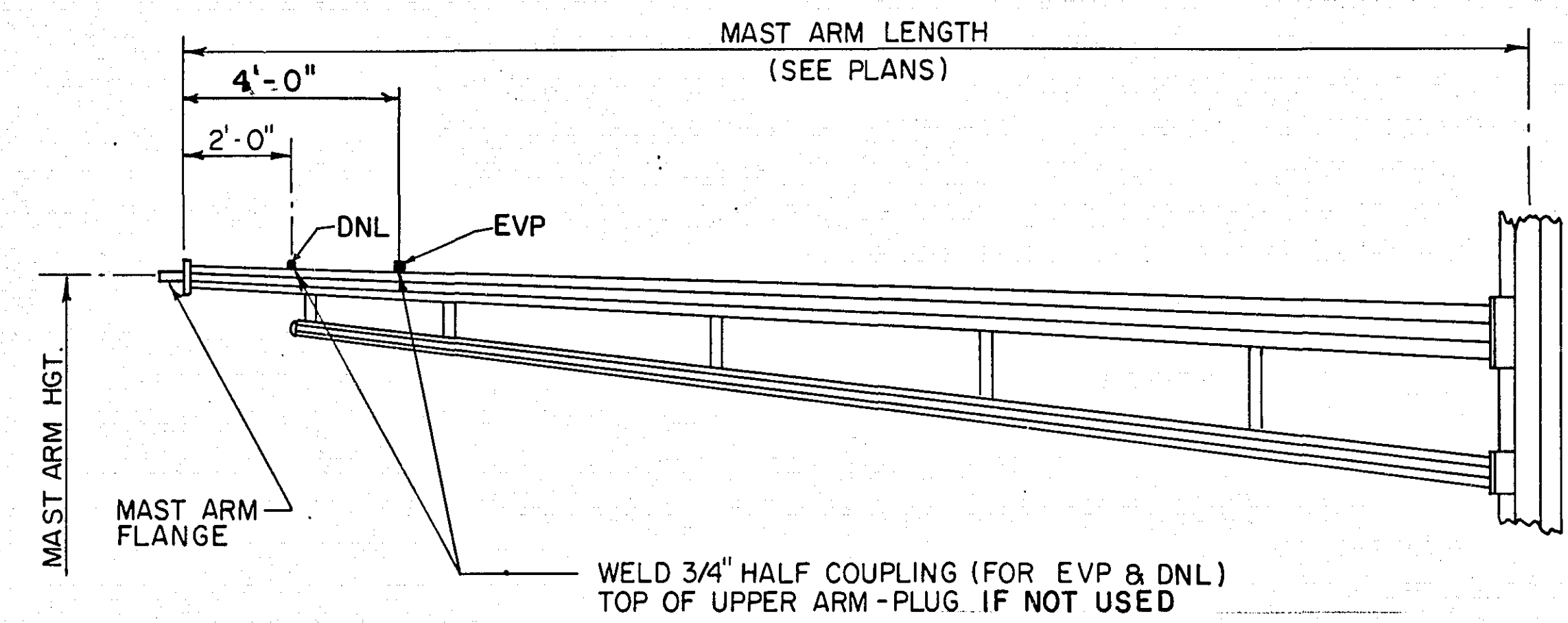
RECOMMENDED FOR APPROVAL *DAJ* DATE 7-12-78
S.D. ENGR.

APPROVED *Walter J. Jensen* DATE 10-24-78
COORDINATING ENGR.

SPECIFICATION REFERENCE

THE 1978 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATION FOR HIGHWAY CONSERVATION" SHALL GOVERN.

MAST ARM DETAILS



STANDARD PLATES	
PLATE NO.	TITLE
* 8110 C	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
* 8111 B	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8112 B	PEDESTAL FOUNDATION
8113 B	MAGNETIC VEHICLE DETECTOR INSTALLATION
* 8115 B	PEDESTRIAN PUSH BUTTON INSTALLATION
* 8116 C	STEEL GUARD POST
* 8117 E	PRECAST CONCRETE HANDHOLE
* 8118 B	SERVICE EQUIPMENT & POLE, TRAFFIC CONTROL SIGNALS
* 8119 B	GROUND MOUNTED CABINET FOUNDATION
8120 D	MAST ARM POLE FOUNDATION
8122 B	PEDESTAL AND PEDESTAL BASE
* 8123 A	POLE AND MAST ARM (LUMINAIRES AND TRAFFIC LIGHTS)
* 8124 B	SIGNAL HEAD MOUNTS
8125 A	SWING-AWAY HINGE (FOR TRAFFIC SIGNAL ARM MAST)
* 8130 B	SAW CUT LOOP DETECTORS

* STANDARD PLATES APPLICABLE TO THIS PROJECT

STATEMENT OF ESTIMATED QUANTITIES

PROJECT NO.	ITEM NO.	ITEM	UNIT	QUANT.
62-651-02	2565.501	FULL TRAFFIC ACTUATED TRAFFIC CONTROL SYSTEM	SIGNAL SYSTEM	1
TRF 503-31	565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM	SYSTEM	1

ABBREVIATIONS

EQUIPMENT & INDICATIONS

RED - RED
YEL - YELLOW
GRN - GREEN
LTA - LEFT TURN ARROW
THA - THRU ARROW
RTA - RIGHT TURN ARROW
TRA - THRU AND RIGHT ARROW
WLK - WALK
NEU - NEUTRAL
DWK - DON'T WALK
SW - SWITCH
SWD - SWITCHED
LUM - LUMINAIRE
PA1 (eg) - PEDESTRIAN INDICATION - "A" PHASE
PBB2 (eg) - PUSH BUTTON - "B" PHASE
C3 (eg) - SIGNAL HEAD - "C" PHASE
DA4 (eg) - DETECTOR - "A" PHASE
H.H. - HANDHOLE
GR.R. - GROUND ROD
SERV. - SERVICE
EVP - EMERGENCY VEHICLE PRE-EMPTION

DNL - DOWNLIGHT
PE.C. - PHOTOELECTRIC CELL
ST. LHT. - STREET LIGHT
CH. - CHECK
S.O.P. - SOURCE OF POWER
EQ.G. - EQUIPMENT GROUND
SPR - SPARE CONDUCTOR

COLOR CODING OF CONDUCTOR

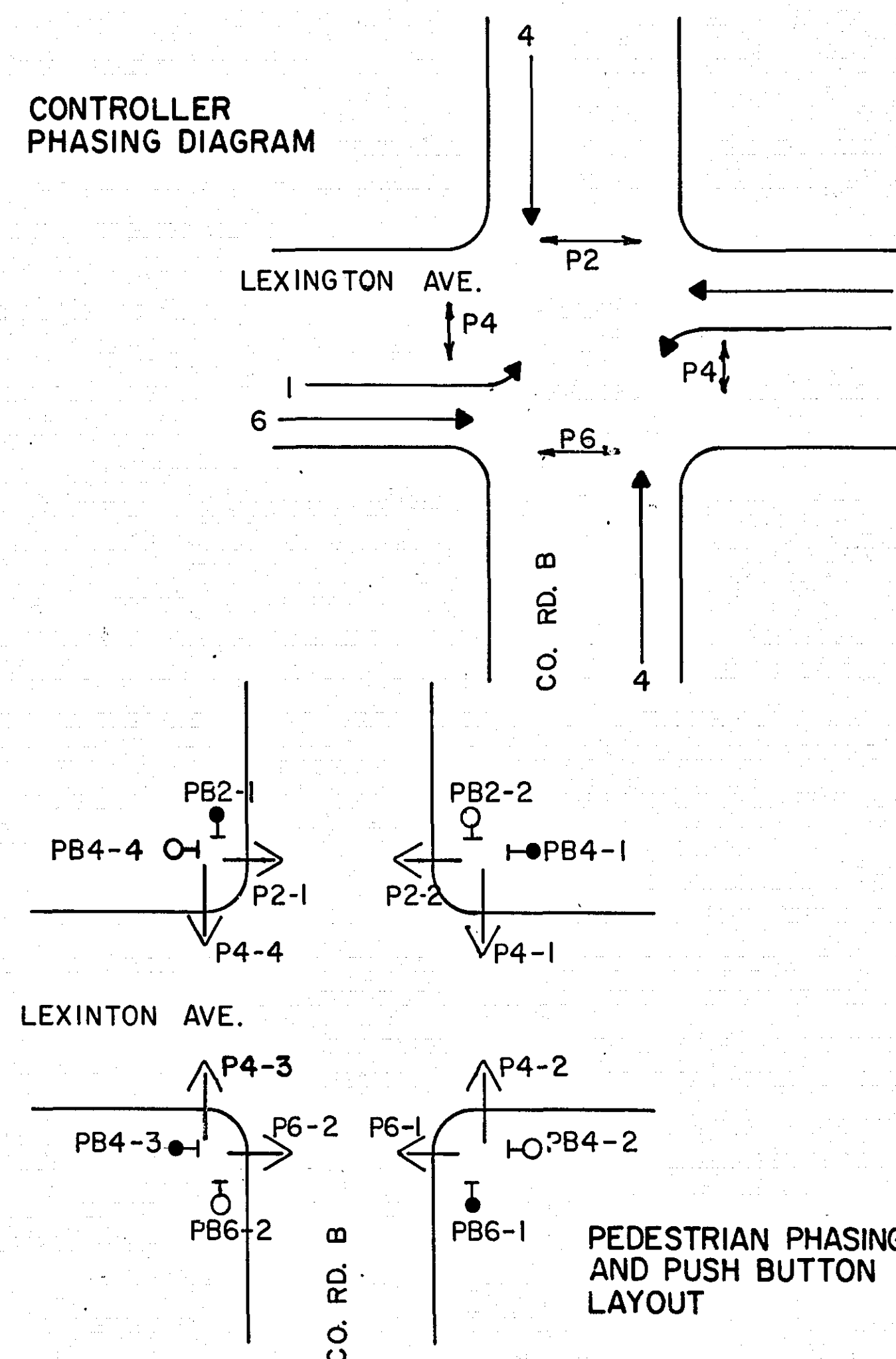
R - RED
O - ORANGE
BL - BLUE
WH - WHITE
R/BLK - RED WITH BLACK TRACER
O/BLK - ORANGE WITH BLACK TRACER
BL/BLK - BLUE WITH BLACK TRACER
WH/BLK - WHITE WITH BLACK TRACER
BLK - BLACK
BLK/WH - BLACK WITH WHITE TRACER
G/BLK - GREEN WITH BLACK TRACER
G - GREEN

I hereby certify that this plan, specification, or report 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.
Paul J. Ramsey
Date 7-7-78 Reg. No. 12703

LEGEND OF SYMBOLS

SIGNAL BASE No.	5
SIGNAL FACE No.	A2
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE	
HANDHOLE-INPLACE	
RIGID STEEL CONDUIT (R.S.C.)	
RIGID STEEL CONDUIT (R.S.C.)-INPLACE	
SIGNAL FACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE - INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS -INPLACE	
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE	
PEDESTRIAN PUSH BUTTON STATION	
TRAFFIC SIGNAL PEDESTAL	
TRAFFIC SIGNAL PEDESTAL-INPLACE	
TRAFFIC SIGNAL POLE AND MAST ARM	
TRAFFIC SIGNAL POLE AND MAST ARM - INPLACE	
MAST ARM AND LUMINAIRE	
MAST ARM AND LUMINAIRE -INPLACE	
WOOD POLE	
WOOD POLE -INPLACE	
SOURCE OF POWER	
EMERGENCY VEHICLE PRE-EMPTION DETECTOR LOCATION	

CONTROLLER PHASING DIAGRAM



SIGNAL INDICATION CHART

FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	YEL ←	GRN ←	→
2-1	2	R	12"	12"	12"	—	—	—
2-2	2 AND 5	R	12"	12"	12"	12"	12"	—
2-3	2 AND 5	R	12"	12"	12"	12"	12"	—
4-1	4	R	12"	12"	12"	—	—	—
4-2	4	R	12"	12"	12"	—	—	—
4-3	4	R	12"	12"	12"	—	—	—
4-4	4	R	12"	12"	12"	—	—	—
4-5	4	R	12"	12"	12"	—	—	—
4-6	4	R	12"	12"	12"	—	—	—
6-1	6	R	12"	12"	12"	—	—	—
6-2	6 AND 1	R	12"	12"	12"	12"	12"	—
6-3	6 AND 1	R	12"	12"	12"	12"	12"	—

USE SALVAGE RED, YEL., GRN. SIGNAL FACES FROM INPLACE SIGNAL SYSTEM. FURNISH AND INSTALL NEW YEL. & GRN. ARROW INDICATIONS.

TYPE A-25

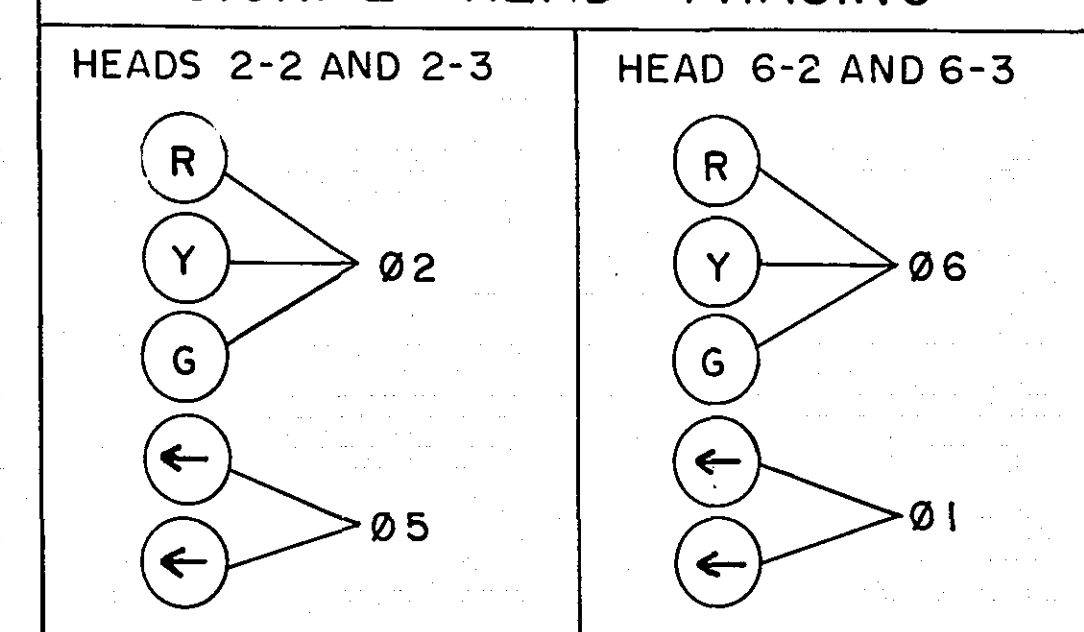
ONE-WAY SIGNAL (OVERHEAD MTD.)
TWO-WAY SIGNAL (TYPE 20C-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS
1-PEDESTRIAN PUSH BUTTON (MTD. 270°)
SIGN DOWN LIGHT (OVERHEAD MTD.)
PHOTOELECTRIC CELL (DN. LIGHTS) (MTD. TOP SIGNAL BRACKETS)
2-STEEL GUARD POSTS.
EXTEND INTO H.H. 10:
3" R.S.C.
2-12/c #12
3-3/c #12
1-3/c #20
ONE WAY EVP DETECTOR AND LIGHT MTD ON MAST ARM

VEHICLE DETECTION

NUMBER	SIZE	OPERATION
DI-1	6' X 40'	EXTEND ONLY
DI-2	6' X 25'	CALL & EXTEND
D2-1	6' X 6'	CALL & EXTEND
D2-2	8' X 18' 6"	CALL ONLY
D4-1	6' X 6'	CALL & EXTEND
D4-2	6' X 6'	CALL & EXTEND
D4-3	8' X 18' 15"	CALL ONLY
D4-4	6' X 6'	CALL & EXTEND
D4-5	6' X 6'	CALL & EXTEND
D4-6	8' X 18' 13"	CALL ONLY
D5-1	6' X 40'	EXTEND ONLY
D5-2	6' X 25'	CALL & EXTEND
D6-1	6' X 6'	CALL & EXTEND
D6-2	8' X 18' 6"	CALL ONLY

① TIME DELAYED

SIGNAL HEAD PHASING



CONTROLLER & CABINET
4-STEEL GUARD POST.
EXTEND INTO H.H. 1:

4" R.S.C.
4-12/c #12
3-3/c #12
2-3/c #20
10-2/c #14
2-1/c #10
EXTEND INTO H.H. 10:

4" R.S.C.
4-12/c #12
4-3/c #12
2-3/c #20
4-2/c #14
BETWEEN H.H. 1 & H.H. 10:

3" R.S.C. 2-12/c #12
2-1/c #10
SERVICE CABINET (SEE S.A. #1)
WIRING DIAGRAM

1 1/4" R.S.C. INPLACE-EXTEND INTO H.H. 1
2-2/c #14

USED N.S.P. FOR R.R. ONLY
SERVICE EQUIPMENT - INPLACE
EXTEND INTO H.H. 1: SERVICE CAB.
1 1/4" R.S.C.
2-1/c #6
4-1/c #10

PEDESTRIAN PUSH BUTTON STATION
1-PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 10:
1 1/4" R.S.C.
2-3/c #12

1 1/4" R.S.C.
1-2/c #14

1 1/4" R.S.C.
2-2/c #14
3" R.S.C.
2-12/c #12
1-3/c #12
4-2/c #14
1-3/c #20
2-1/c #10

PEDESTRIAN PUSH BUTTON STATION
2-PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 11:
1 1/4" R.S.C.
2-3/c #12

TYPE A-25-T40-15
LUMINAIRE - 250 WATT HIGH PRESSURE SODIUM (APPROX. 315°)
ONE-WAY SIGNAL (OVERHEAD MTD.)
TWO-WAY SIGNAL (TYPE 20C-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS
1-PEDESTRIAN PUSH BUTTON (MTD. 270°)
2-STEEL GUARD POSTS
EXTEND INTO H.H. 11:
3" R.S.C.
2-12/c #12
1-3/c #12
4-2/c #14
2-1/c #10
ONE WAY EVP DETECTOR AND LIGHT MTD ON MAST ARM

USE SALVAGE

4" R.S.C.
4-12/c #12
3-3/c #12
2-3/c #20
7-2/c #14
2-1/c #10

TYPE A-30-T40-15
LUMINAIRE - 250 WATT HIGH PRESSURE SODIUM (APPROX. 315°)

ONE-WAY SIGNAL (OVERHEAD MTD.)
TWO-WAY SIGNAL (TYPE 20C-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS

1-PEDESTRIAN PUSH BUTTON.
(MTD. 270°)
1/2-STEEL GUARD POSTS
EXTEND INTO H.H. 4:

3" R.S.C.
2-12/c #12
1-3/c #12
1-3/c #20
2-1/c #10
ONE WAY EVP DETECTOR AND LIGHT MTD ON MAST ARM
PEDESTRIAN PUSH BUTTON STATION
1-PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 4:

1 1/4" R.S.C.
2-3/c #12
1 1/4" R.S.C.
1-2/c #14
1 1/4" R.S.C.
2-2/c #14

1 1/4" R.S.C.
1-2/c #14
1 1/4" R.S.C.
2-2/c #14

EXIST. CONC. WALK

PROPOSED CONSTRUCTION
S.A.P. 62-651-03 C.T.B. SEE SHEET 7

3" R.S.C.
2-12/c #12
2-3/c #12
3-2/c #14
1-3/c #20

TYPE A-25
ONE-WAY SIGNAL (OVERHEAD MTD.)
TWO-WAY SIGNAL (TYPE 20C-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS.
1-PEDESTRIAN PUSH (MTD. 270°)
SIGN DOWN LIGHT (OVERHEAD MTD.)
2-STEEL GUARD POSTS
EXTEND INTO H.H. 7:

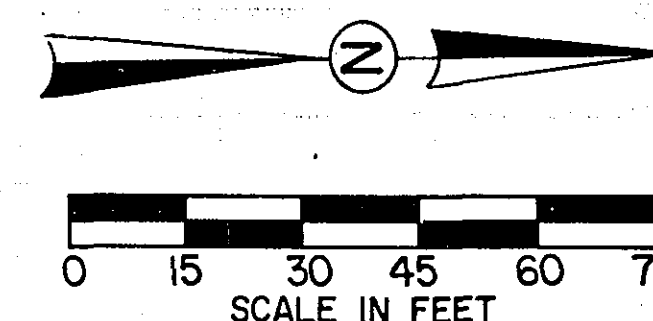
3" R.S.C.
2-12/c #12
2-3/c #12
1-3/c #20
ONE WAY EVP DETECTOR AND LIGHT MTD ON MAST ARM

PEDESTRIAN PUSH BUTTON STATION
1-PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 7:
1 1/4" R.S.C.
2-3/c #12

1 1/4" R.S.C. INPLACE-EXTEND INTO H.H. 7
2-2/c #14

1 1/4" R.S.C.
2-2/c #14

I hereby certify that this plan, specification, or report 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 7-7-78 Reg. No. 12703



NOTES:

- ALL ITEMS NOTED "USE SALVAGE" ARE ITEMS REMOVED FROM INPLACE SYSTEM. THE CONTRACTOR SHALL INSTALL SALVAGED ITEMS AND FURNISH ANY MISC. HARDWARE, BRACKETING AND SIGNAL FACES (SEE CHART) TO COMPLETE INSTALLATION TO THE SATISFACTION OF THE ENGR. EXCEPTION - FURNISH AND INSTALL NEW SIGNAL HEAD MOUNTS FOR ALL MAST ARM MOUNTINGS.
- SUFFICIENT 3/c #20 TO REACH THE END OF THE MAST ARM SHALL BE INSTALLED IN POLES 1, 2, 3, AND 4.
- ALL ITEMS NOTED INPLACE SHALL BE USED INPLACE UNLESS OTHERWISE NOTED.
- LOOP DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.

LOCATION CHART		
STATION	LOCATION	DESCRIPTION
LEXINGTON AVE.		
50+25	RT. 27'	H.H. 13
51+22	RT. 31'	H.H. 12
52+06	LT. 31.5	POLE #1
52+10	RT. 27'	PEDEST. STA.
52+13	RT. 31'	H.H. 11
52+18	LT. 41'	H.H. 10
52+18	LT. 63'	CONTROLLER
52+22	LT. 47'	PEDEST. STA.
52+25	LT. 53'	H.H. 1
52+27	RT. 45'	POLE #4
52+82	RT. 45'	H.H. 7
52+86	RT. 38'	PEDEST. STA.
52+92	LT. 51'	POLE #2
53+00	LT. 43'	PEDEST. STA.
53+01	RT. 31'	POLE #3
53+10	LT. 42'	H.H. 4
53+86	LT. 42'	H.H. 5
54+87	LT. 42'	H.H. 6
COUNTY RD. B = 26+34.40 =		
LEX. 52+54.45		
24+05	RT. 30'	H.H. 3
28+42	LT. 8'	H.H. 9

INTERSECTION LAYOUT
LEXINGTON AVE. & COUNTY RD. B

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

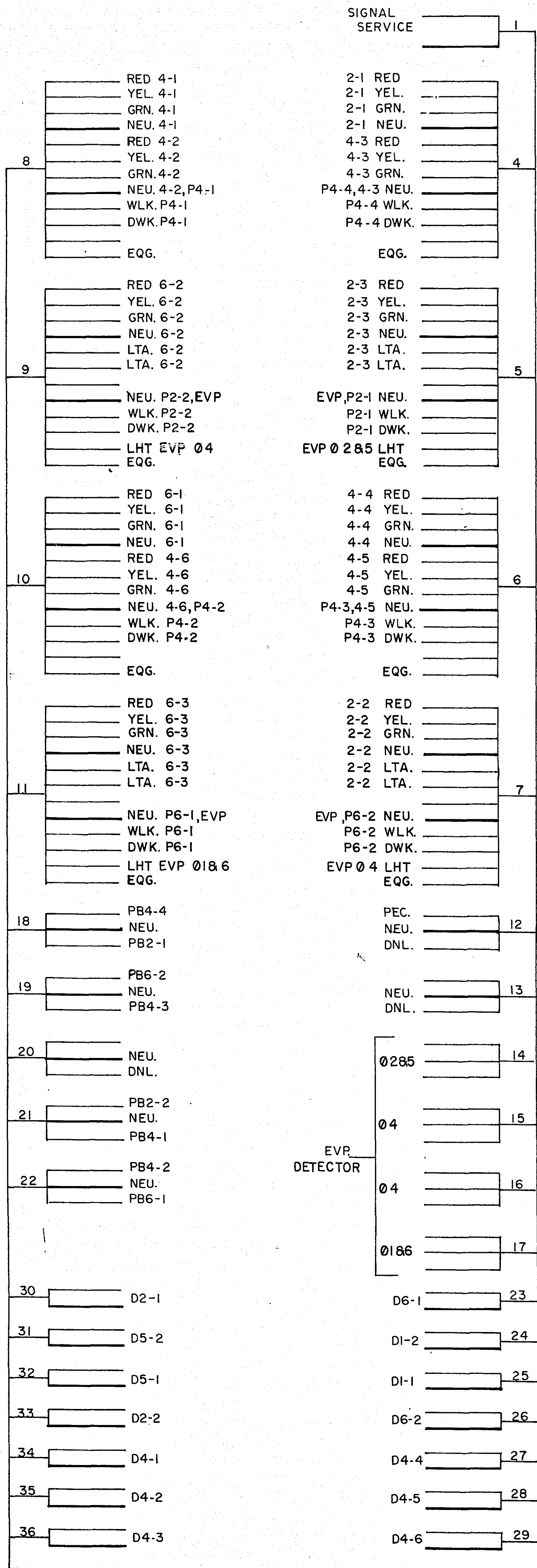
DONE BY: R. Weber
DATE: 6-19-80

S.A.P. NO. 62-651-02 C.T.B.

SHEET NO. 3 OF 7 SHEETS

23-114

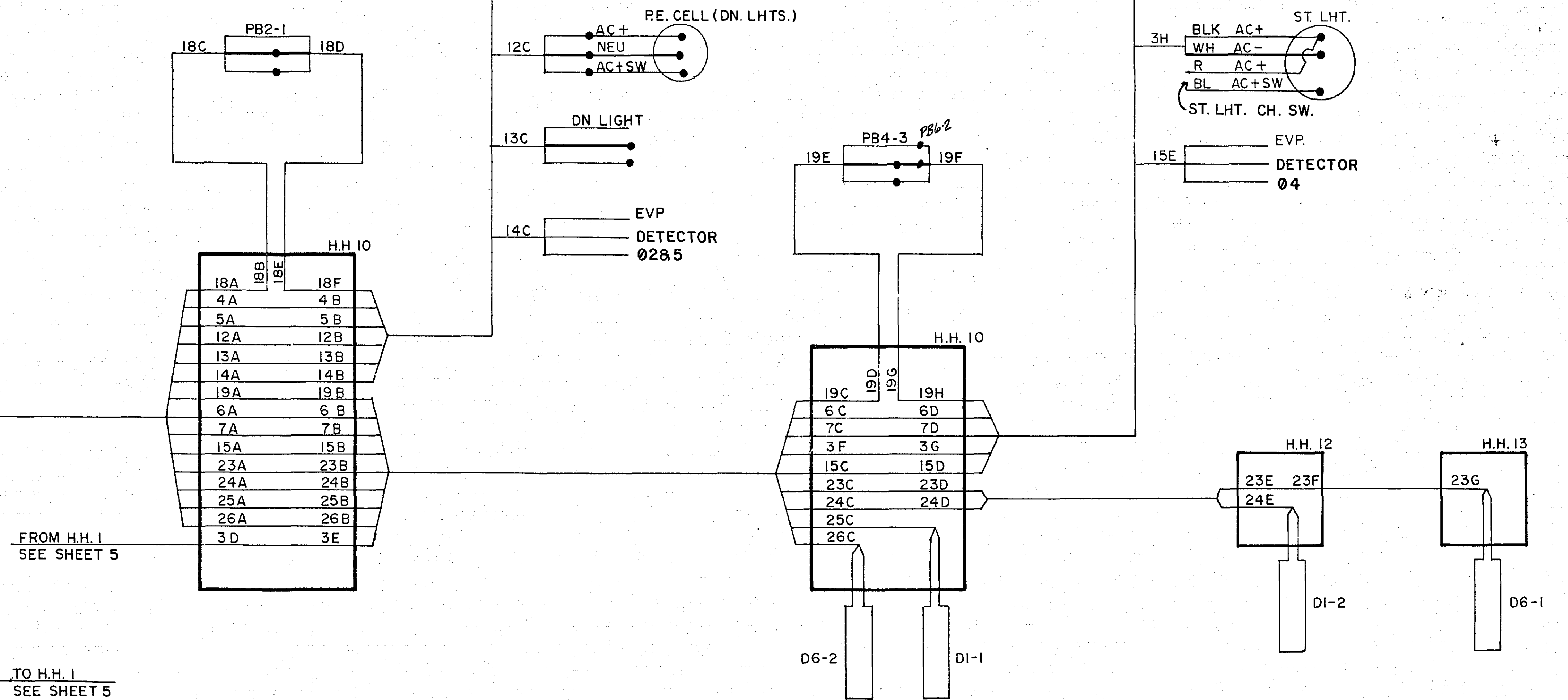
CONTROLLER CABINET



CONDUCTOR COLOR CODING

	R	BLK	
	O		2-1/c #6
	BL	WH	2-1/c #10
	WH		
	R/BLK	R	
	O/BLK	WH	3/c #12
	BL/BLK	BLK	
	WH/BLK		
	BLK	BLK	
	BLK/WH	CLEAR	2/c #14
	G/BLK		
	G		

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



**ASBUILT PLAN
CONFORMING TO
CONST. RECORDS**

DONE BY: R. Weber
DATE: 6-19-80

I hereby certify that this plan, specification,
or report 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.

Paul L. Kohnen

Date 7-7-78 Reg. No. 12703

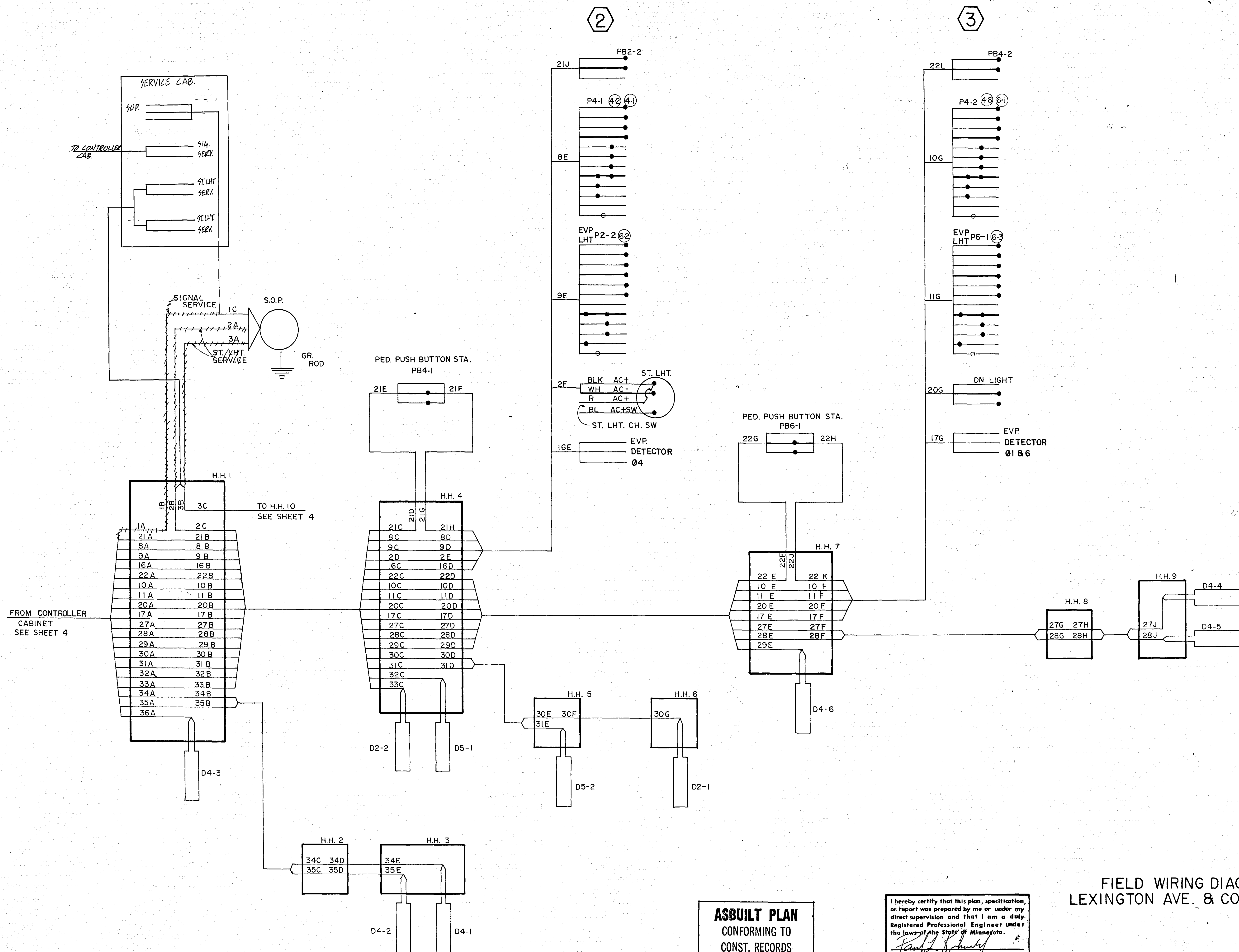
FIELD WIRING DIAGRAM
LEXINGTON AVE. & COUNTY RD. B

MICROFILMED
AMSEY CO. ENGR.

S.A.P. NO. 62-651-02 C.T.B.

Sheet No. 4 of 7 Sheets

23-114



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *R. Allen*
DATE: 6-19-80

I hereby certify that this plan, specification, or report 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.
Paul J. Schmidt
Date 7-7-80 Reg. No. 12703

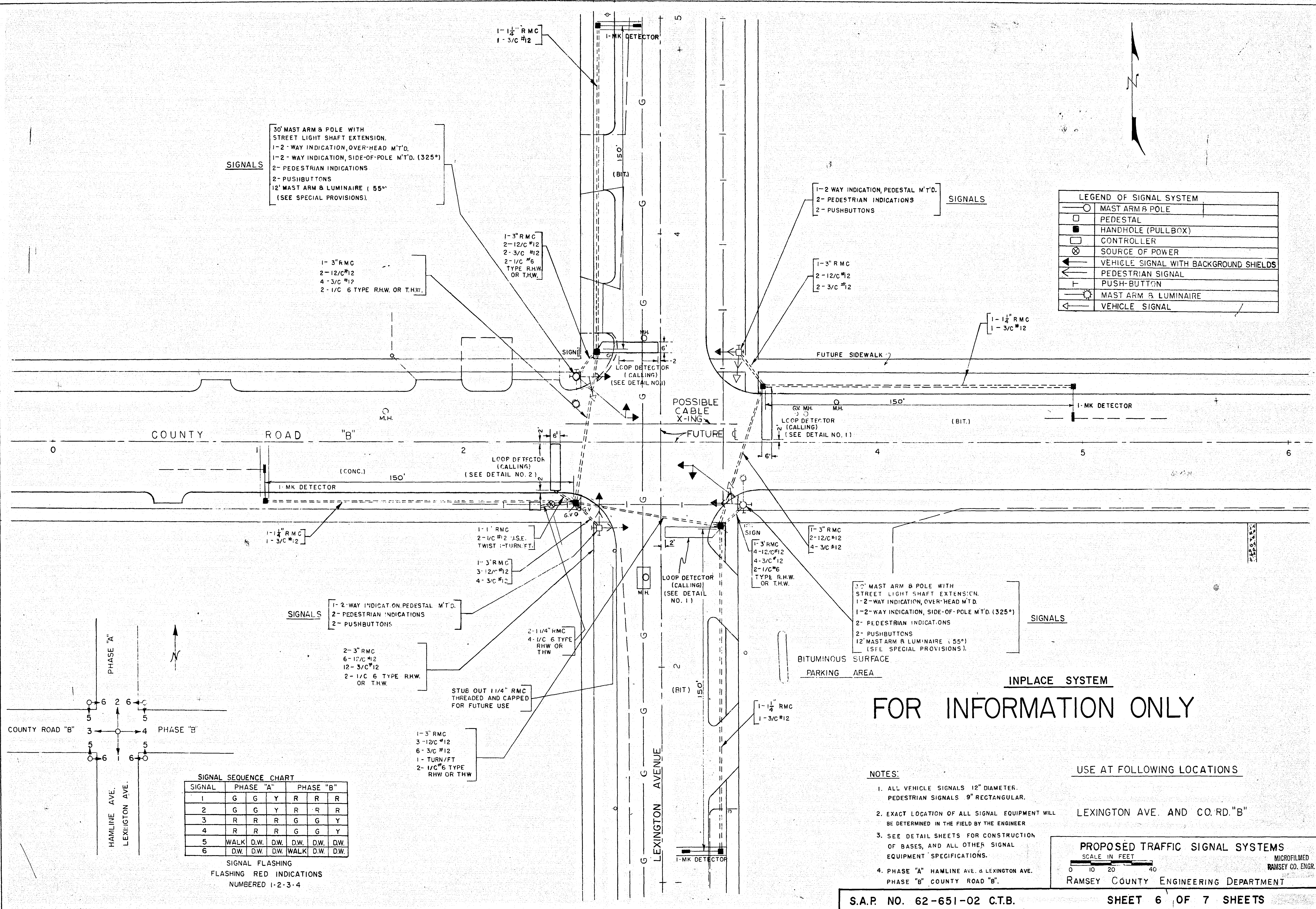
FIELD WIRING DIAGRAM
LEXINGTON AVE. & COUNTY RD. B

S.A.P. NO. 62-651-02 C.T.B

Sheet No. 5 of 7 Sheets

MICROFILMED
RAMSEY CO. ENGR.

23-114

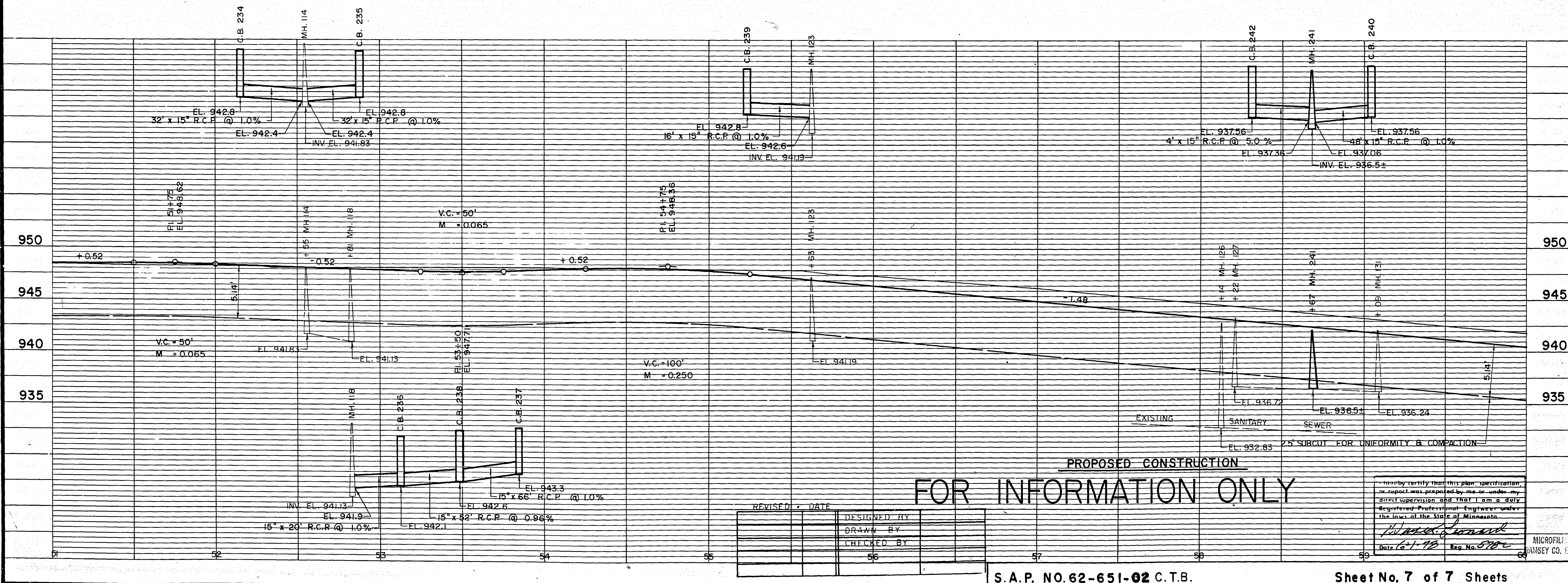
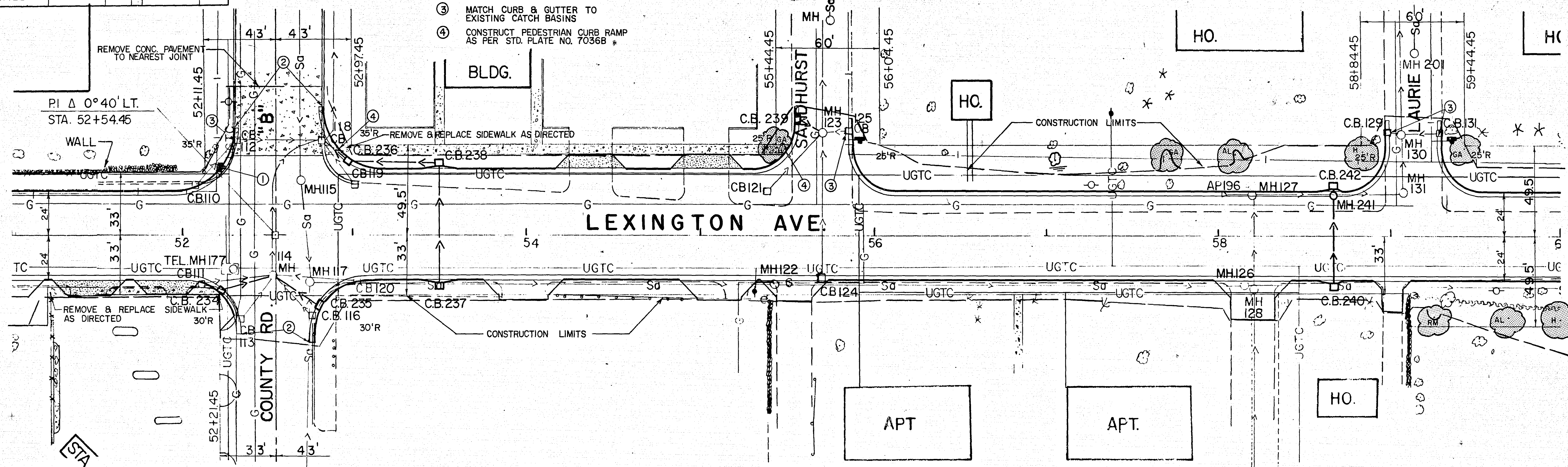


23-114

TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

- ① SALVAGE & RELOCATE HYDRANT AS DIRECTED BY THE CITY OF ROSEVILLE
- ② MATCH B624 CURB & GUTTER TO EXISTING CONCRETE CURB
- ③ MATCH CURB & GUTTER TO EXISTING CATCH BASINS
- ④ CONSTRUCT PEDESTRIAN CURB RAMP AS PER STD. PLATE NO. 7036B

SCALE: 1" = 30'



PROPOSED CONSTRUCTION
FOR INFORMATION ONLY

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

I hereby certify that this plan, specification, or report 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 6-1-78 Reg. No. 5702