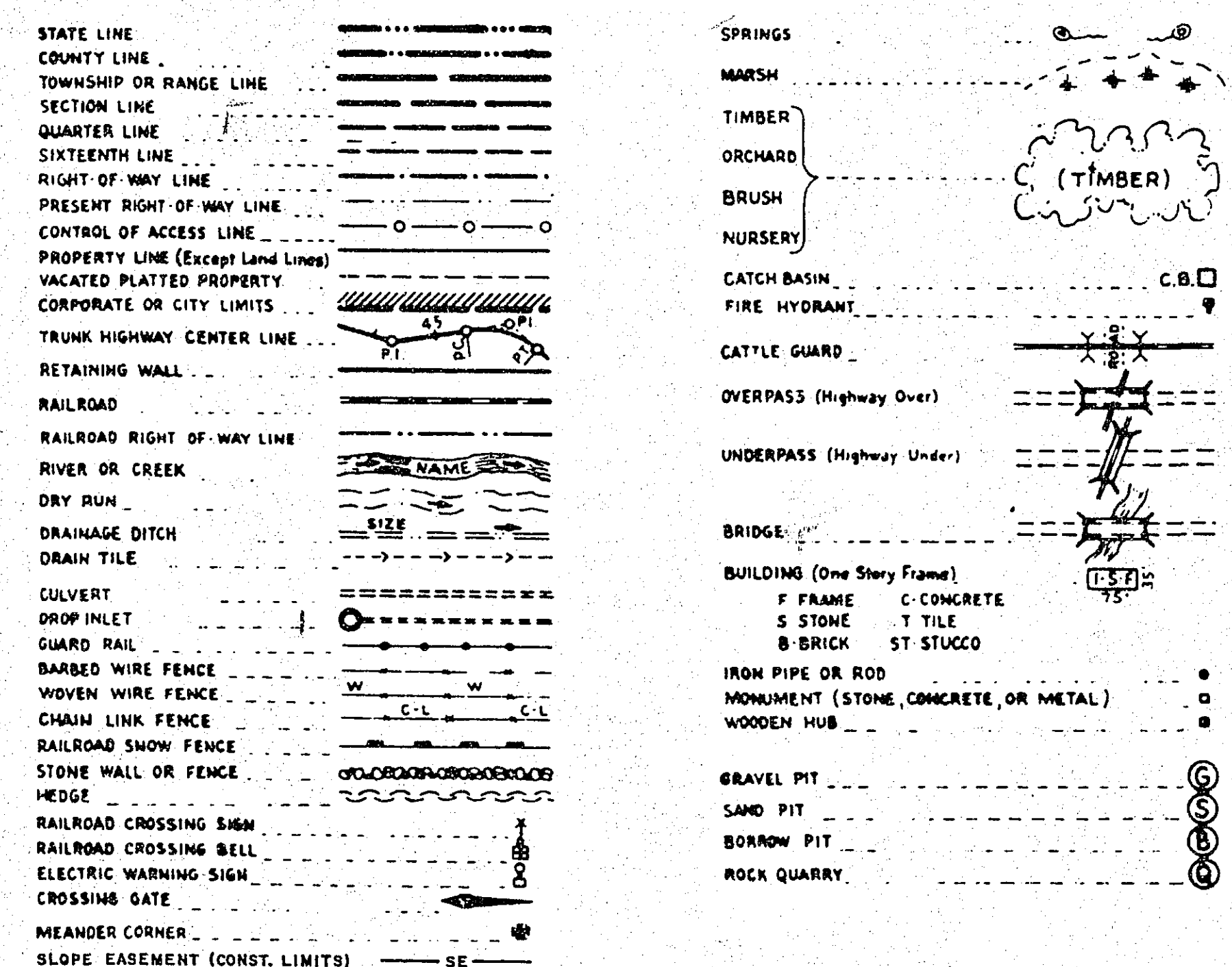
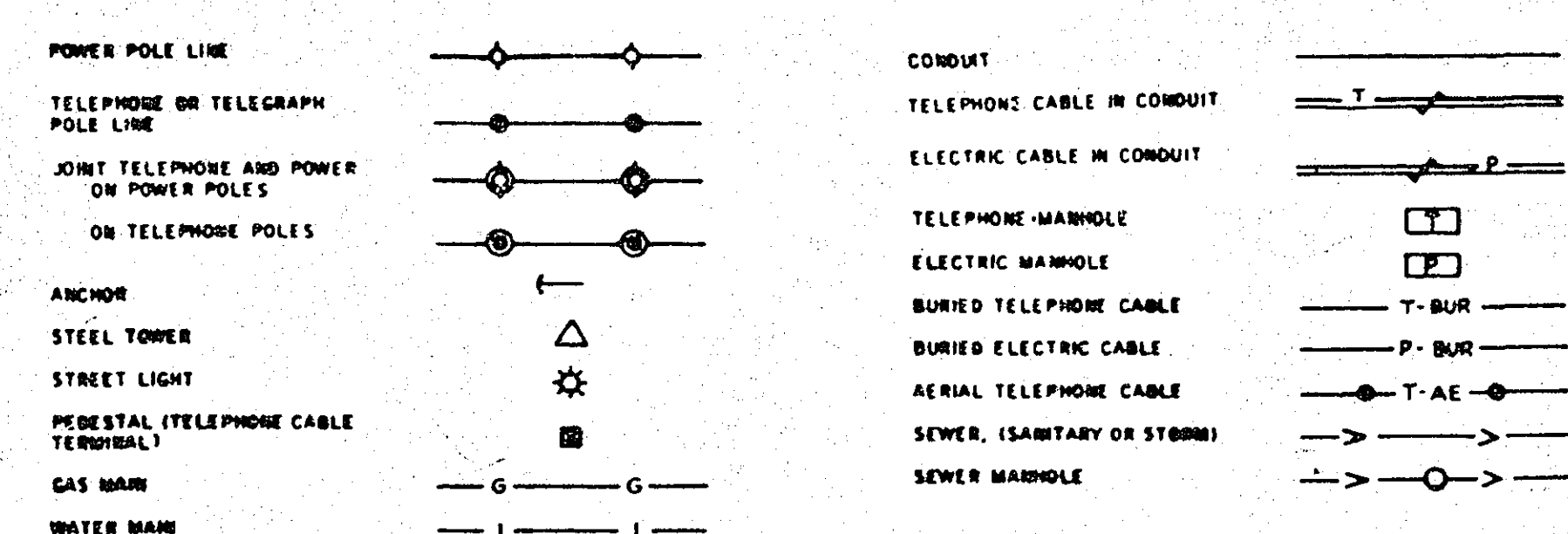


23-141

PLANS SYMBOLS



UTILITIES SYMBOLS

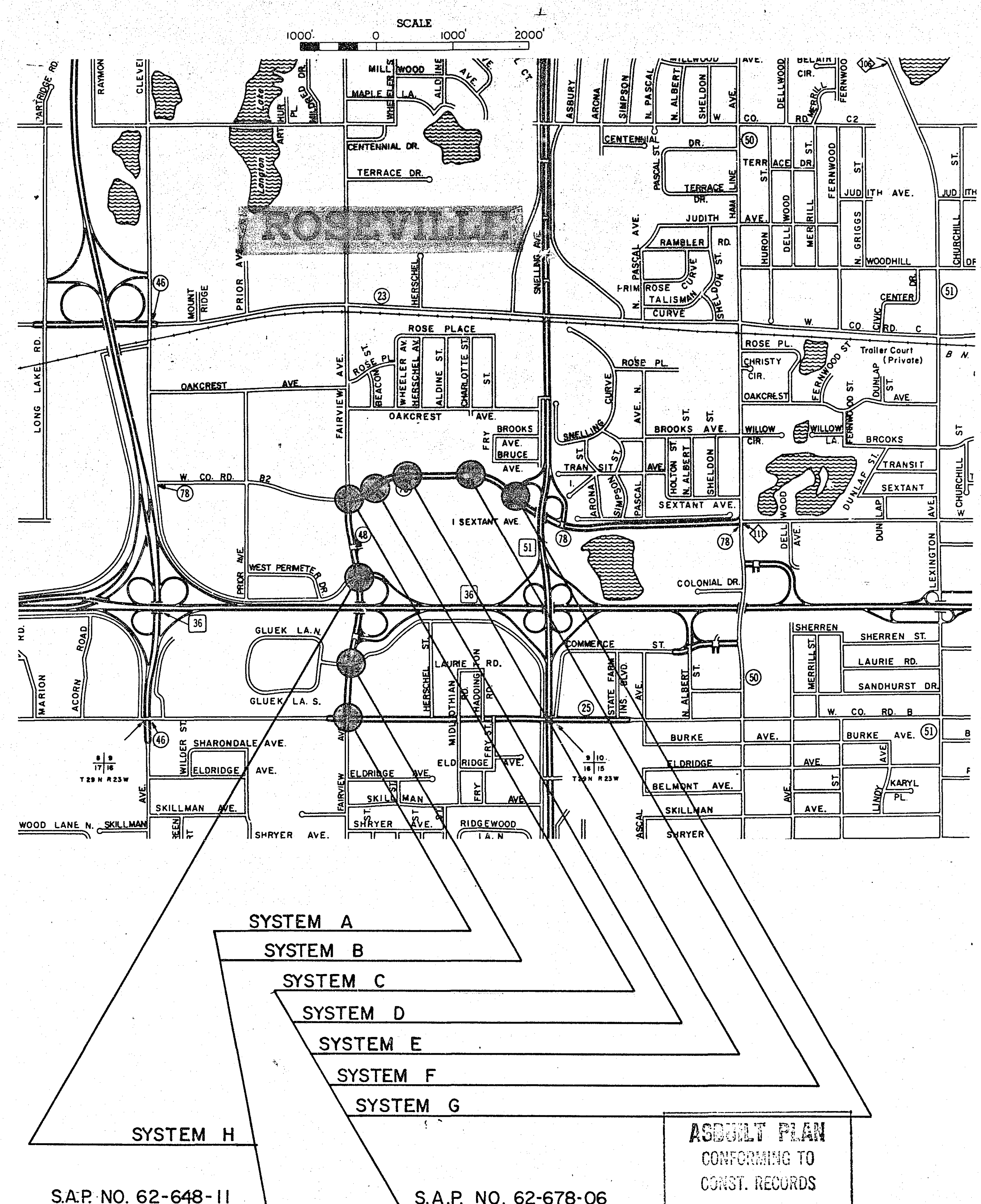


PIT DATA

PIT NO. _____ Located in _____
PIT NO. _____ Located in _____

GOVERNING SPECIFICATIONS

THE 1983 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.



S.A.P. NO. 62-648-11

S.A.P. NO. 62-678-06

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH
DATE: 1-26-90

RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION PLAN FOR TRAFFIC CONTROL SIGNAL SYSTEMS

S.A.P. NO 62-648-11

FAIRVIEW AVE. & COUNTY RD. B.....SYSTEM A
FAIRVIEW AVE. & GLUEK LN.....SYSTEM B
FAIRVIEW AVE. & T.H. 36 NORTH RAMP.....SYSTEM H

S.A.P. NO 62-678-06

COUNTY RD. B2 & FAIRVIEW AVE.....SYSTEM C
COUNTY RD. B2 & N.W. ENT., ROSEDALE.....SYSTEM D
COUNTY RD. B2 & LOEHMANN'S ENT.....SYSTEM E
COUNTY RD. B2 & AMERICAN ST.....SYSTEM F
COUNTY RD. B2 & T.H. 51 WEST RAMP.....SYSTEM G

INDEX

SHEET NO.	DESCRIPTION
1	TITLE
2	LOCATION MAP
3-6	ESTIMATED QUANTITIES & DETAILS
7-9	SYSTEM A
10-12	SYSTEM B
13	INTERCONNECT
14-20	SYSTEM C
21-23	SYSTEM D
24-26	SYSTEM E
27-29	SYSTEM F
30-35	SYSTEM G
36-37	SYSTEM H
38-44	UTILITIES & PROPOSED CONSTRUCTION

DESIGN SQUAD *R. Kibbe* DATE 9-29-87
DRAWN BY _____ DATE _____
CHECKED BY _____ DATE _____

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 10/7/87 REG. NO. 12703 ENGR. *R. Kibbe*

RECOMMENDED FOR APPROVAL *DES* DATE 9/30/87
RECOMMENDED FOR APPROVAL *DES* DATE 10/7/87
RECOMMENDED FOR APPROVAL *DES* DATE 10/2/87
RECOMMENDED FOR APPROVAL *DES* DATE 10-27-87
RECOMMENDED FOR APPROVAL *DES* DATE 10/6/87
RECOMMENDED FOR APPROVAL *DES* DATE 10-7-87
APPROVED *DES* DATE 10-7-87

RECOMMENDED FOR APPROVAL *DES* DATE 10/14/87
APPROVED *DES* DATE 2/24/88
APPROVED *DES* DATE 10-15-87
MINNESOTA DEPARTMENT OF TRANSPORTATION
RECOMMENDED FOR APPROVAL *DES* DATE 10/30/87
RECOMMENDED FOR APPROVAL *DES* DATE 12/7/87
APPROVED *DES* DATE 12/2/87

DATE	SHEET NO.	BY
10-23-87	ADD NOTES SHEET 3, 14 & 30	RW
12-17-87	3, 14, 30, 11, 12, 15, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44	RW

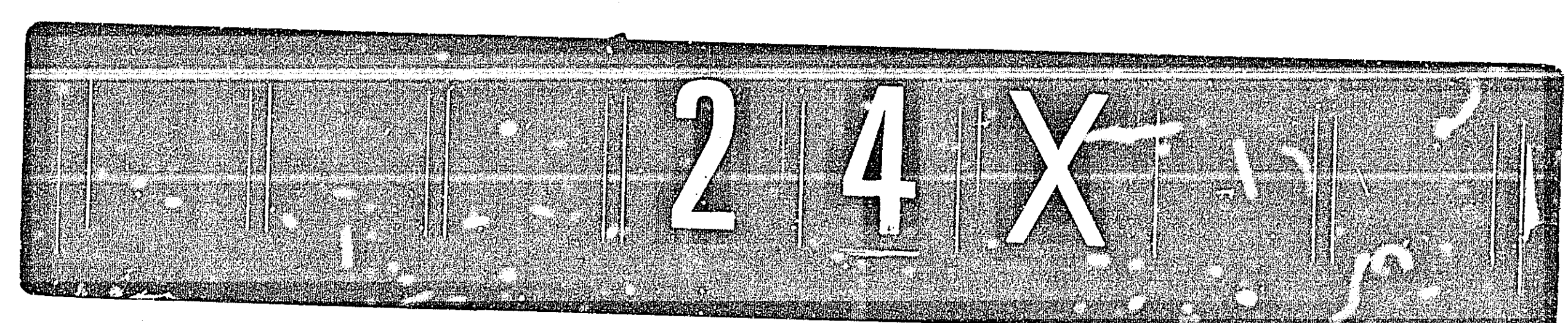
S.A.P. NO. 62-648-11
S.A.P. NO. 62-678-06

APPROVED *Leonard G. Elts* DATE 12/30/87
MN/DOT TRAFFIC ENGINEER

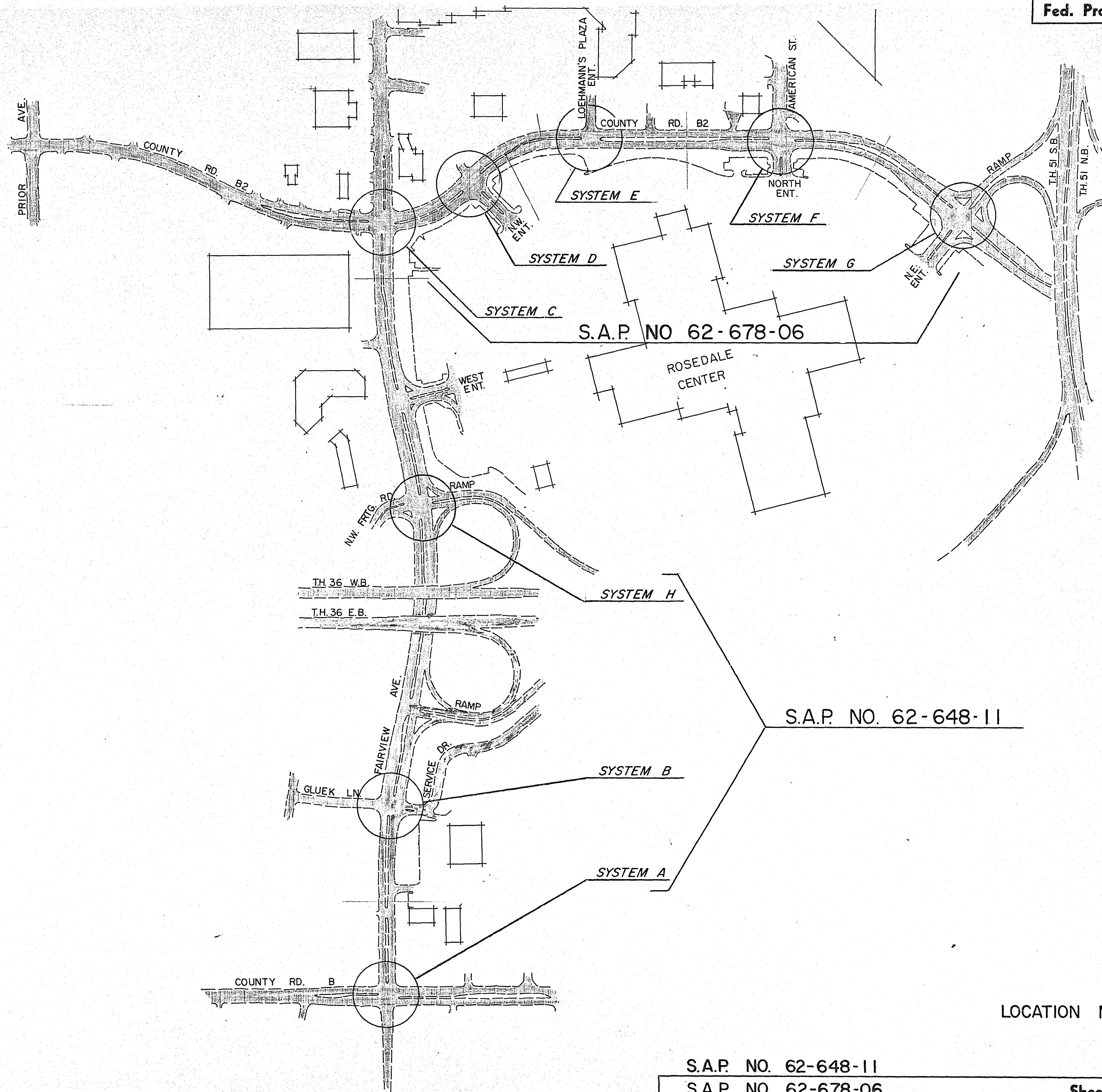
Sheet No. 1 of 44 Sheets

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23-141 Construction Plan for Traffic Control Signal System 1-44
SAP 62-648-11 + 62-678-06



23-141



24X

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Construction Plan for Traffic Control Signal System
SAP 62-648-11 + 62-678-06

1-94

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ABBREVIATIONS

YEL	- YELLOW
GRN	- GREEN
WLK	- WALK
NEU	- NEUTRAL
DNK	- DON'T WALK
LUM	- LUMINAIRE
DNL	- DOWNLIGHT
SW	- SWITCH
SWD	- SWITCHED
CH.SW.	- CHECK SWITCH
H.H.	- HANDHOLE
J.B.	- JUNCTION BOX
GR.R.	- GROUND ROD
SERV.	- SERVICE
—●—	- SPLICE
THA	- THRU ARROW
LTA	- LEFT TURN ARROW
RTA	- RIGHT TURN ARROW
TRA	- THRU AND RIGHT ARROW
RTHA (EG)	- THRU ARROW - RED
GLTA (EG)	- LEFT TURN ARROW - GREEN
YRTA (EG)	- RIGHT TURN ARROW - YELLOW
PI-1 (EG)	- PEDESTRIAN INDICATIONS - PHASE "1"
PB2-2 (EG)	- PUSH BUTTON - PHASE "2"
3-2 (EG)	- SIGNAL HEADS - PHASE "3"
DI-2	- DETECTOR - PHASE "1"
P.E.C.	- PHOTOELECTRIC CELL
ST.LHT.	- STREET LIGHT
S.O.P.	- SOURCE OF POWER
EGG	- EQUIPMENT GROUND
SPR	- SPARE CONDUCTORS
R.S.C.	- RIGID STEEL CONDUIT
N.M.C.	- NON METALLIC CONDUIT
E.V.P.	- EMERGENCY VEHICLE PRE-EMPTION
—○—	- EGG CONNECTION
TDW	- TELEPHONE DROP WIRE

F&I	- FURNISH AND INSTALL
R&S	- REMOVE AND SALVAGE
FL	- FLASH/FLASHING
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
CLR.	- CLEAR
BR.GR.	- BARE GROUND

H.P.S.	- HIGH PRESSURE SODIUM
—	- EVP DETECTOR DIRECTION
3	- SIGNAL BASE NO.
(1-1)	- SIGNAL FACE NO.
△	- LUMINAIRE NO.
---	- R/W LINE
---	- EASEMENT

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
* 0004 A	SPECIFICATION REFERENCE TO STANDARD PLATES
* 8110 C	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
* 8111 B	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
* 8112 C	PEDESTAL FOUNDATION
8113 C	MAGNETIC VEHICLE DETECTOR INSTALLATION
* 8115 C	PEDESTRIAN PUSH BUTTON INSTALLATION
* 8117 F	PRECAST CONCRETE HANDHOLE
8118 C	SERVICE EQUIPMENT & POLE, TRAFFIC CONTROL SIGNALS
8119 C	GROUND MOUNTED CABINET FOUNDATION
* 8120 H	POLE FOUNDATION (P-80 & P-90)
* 8121 B	TRANSFORMER BASE WITH POLE BASE PLATE
* 8222 C	PEDESTAL AND PEDESTAL BASE
* 8123 B	POLE AND MAST ARM (LUMINAIRE AND TRAFFIC LIGHTS)
* 8124 D	MAST ARM SIGNAL HEAD MOUNTS
* 8126 C	P-100 POLE FOUNDATION
* 8130 D	SAW CUT LOOP DETECTORS

* STANDARD PLATES APPLICABLE TO THIS PROJECT.

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITY	PARTICIPATION (%)			
				C.S.A.H.		CITY	MN/DOT
				62-648-11	62-678-06		
2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM A	SIG SYS	1	100	-	-	-
2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM B	SIG SYS	1	50	-	50	-
2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM D	SIG SYS	1	-	50	50	-
2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM E	SIG SYS	1	-	50	50	-
2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM F	SIG SYS	1	-	50	50	-
0565.601	TRAFFIC CONTROL INTERCONNECTION	L. SUM	1				
0565.602	HANDHOLE TYPE C (INTERCONNECT)	EACH	3				
0565.603	2" RIGID STEEL CONDUIT (INTERCONNECT)	L.F.	910	29.63	37.04	29.63	3.70
0565.603	12 PAIR #19 CABLE (INTERCONNECT)	L.F.	5,450				
0565.604	REVISE SIGNAL SYSTEM H (INTERCONNECT)	SYSTEM	1				
0565.604	REVISE SIGNAL SYSTEM C	SYSTEM	1	-	100	-	-
0565.604	REVISE SIGNAL SYSTEM G	SYSTEM	1	-	50	25	25
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM A	SYSTEM	1	-	-	100	-
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM B	SYSTEM	1	-	-	100	-
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM D	SYSTEM	1	-	-	100	-
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM E	SYSTEM	1	-	-	100	-
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM F	SYSTEM	1	-	-	100	-

NOTE:
AREA PROPERTY OWNERS OWN AND MAINTAIN UNDERGROUND SPRINKLER SYSTEMS ADJACENT TO EXISTING ROADWAYS AND ENTRANCES. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO MINIMIZE DAMAGE THERETO AND SHALL INFORM PROPERTY OWNERS WHEN HIS OPERATIONS WILL AFFECT THEIR SPRINKLER SYSTEM.

INPLACE ORNAMENTAL STREET LIGHTING WITH BURIED CABLE ON COUNTY RD B2 BETWEEN FAIRVIEW AVE. SHALL BE PROTECTED OR MODIFIED AS SHOWN IN THE PLANS. SEE SPECIAL PROVISIONS.

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 10/7/87 Reg. No. 12703

ASSEMBLY PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 1-26-90

ESTIMATED QUANTITIES
& DETAILS

S.A.P. NO. 62-648-11

S.A.P. NO. 62-678-06

Sheet No. 3 of 44 Sheets

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2-4-X

DRAWING 1

DRAWING NUMBER
23-141

DRAWING NUMBER

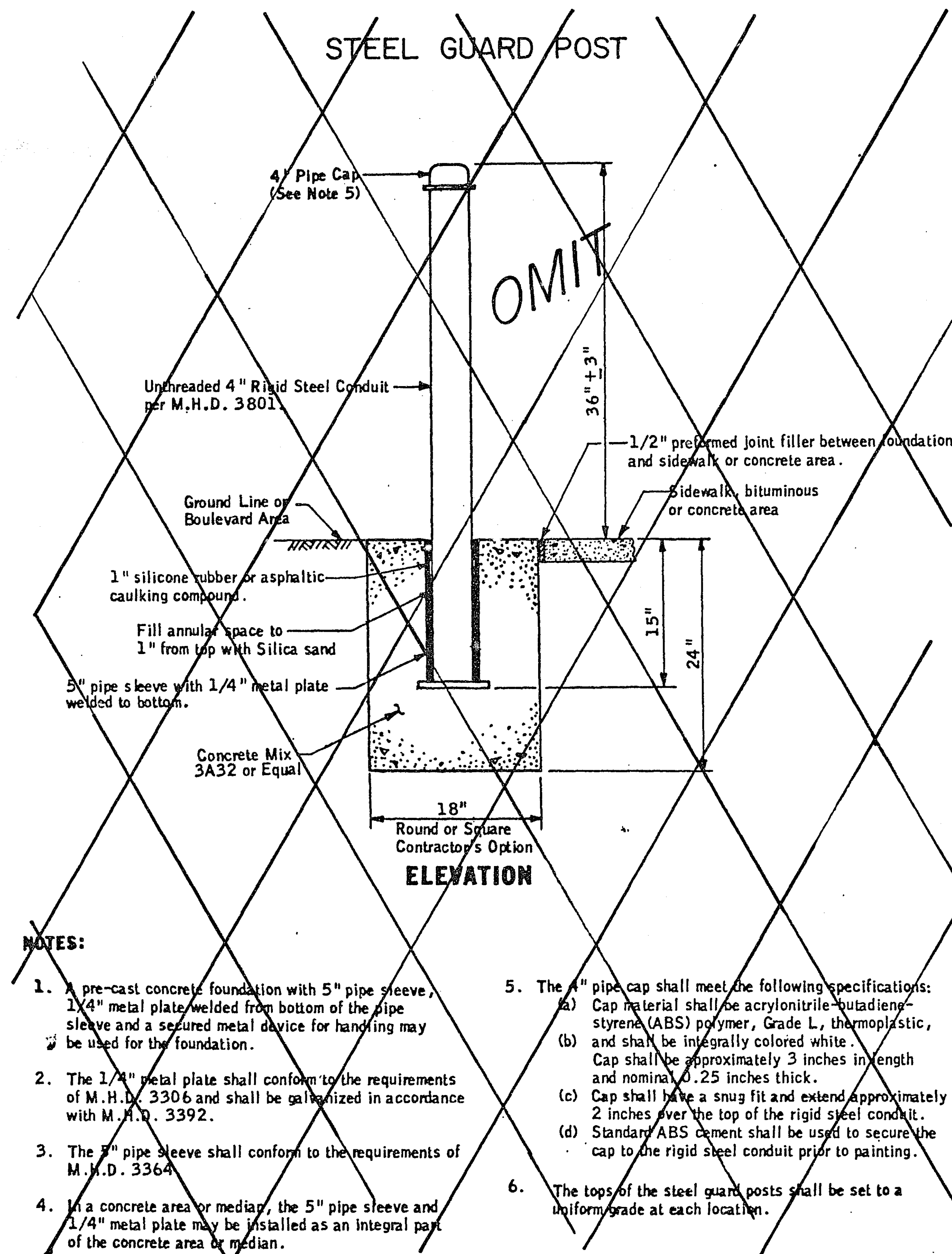
NUMBER

PLAN/HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
MINNESOTA

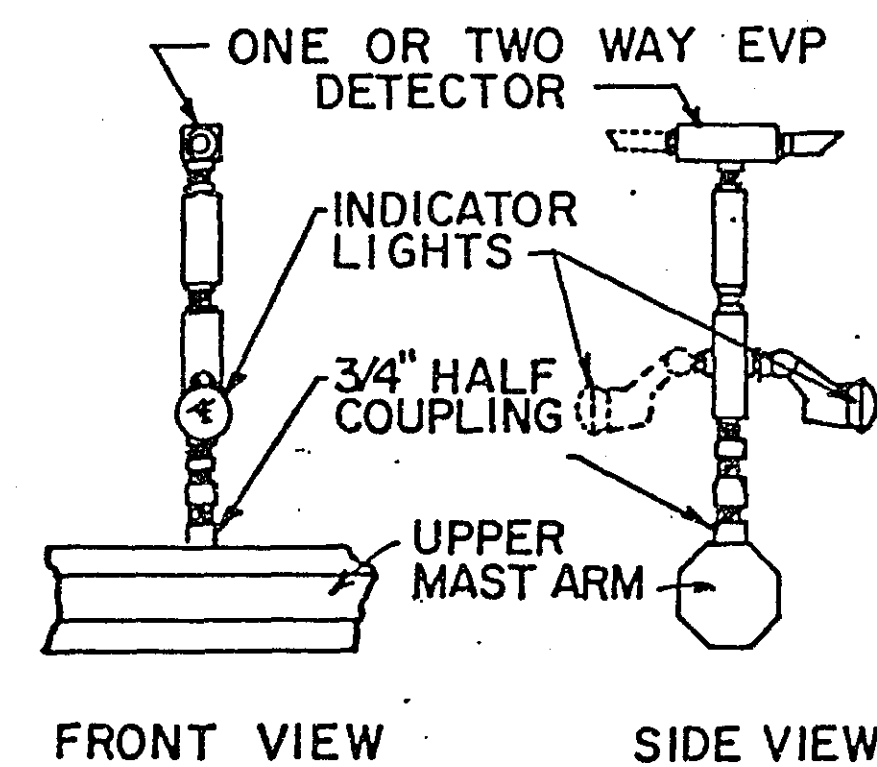
PLAN/HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
MINNESOTA

PLAN/HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
MINNESOTA

PLAN/HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
MINNESOTA

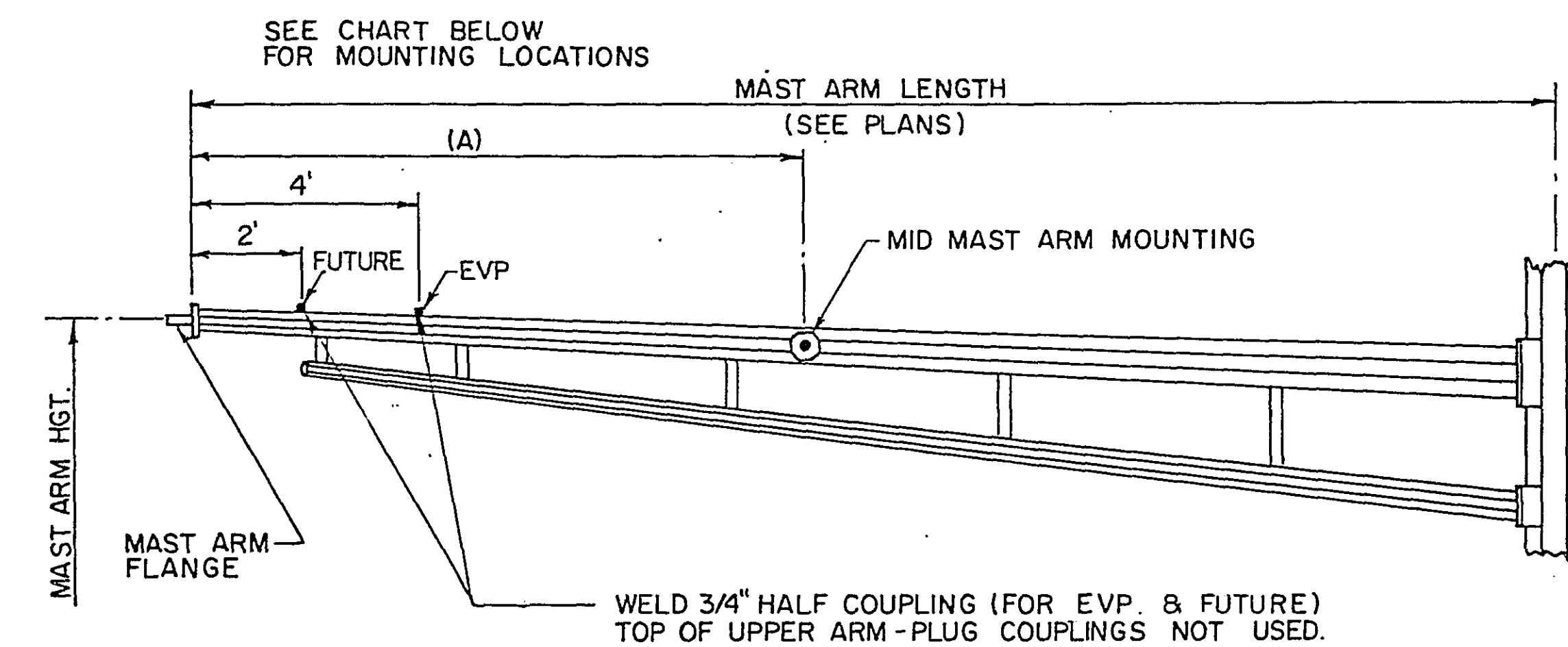


EVP DETECTOR & LIGHT
MOUNTING DETAIL ON MAST ARM



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direct supervision and that I am a duly
Registered Professional Engineer under the laws
of the State of Minnesota.
Date 10/2/87 Reg. No. 12703

MAST ARM DETAILS



MOUNTING LOCATIONS			
SYSTEM	POLE NO.	POLE TYPE	DIMENSION (A)
A	1	P80-A-20-T40-10	0'
A	2	P90-A-35	16'
A	3	P80-A-20-T40-10	0'
A	4	P90-A-35	14'
B	1	P90-A-35-T40-10	14'
B	2	P80-A-20	0'
B	3	P100-A-40-T40-10	12'
B	4	P80-A-30	0'
D	1	P100-A-40-T30-10	14'
D	2	P80-A-20	0'
D	3	P90-A-30-T30-10	12'
D	4	P80-A-20	0'
E	2	P90-A-35-T30-10	14'
E	3	P80-A-20	0'
E	4	P80-A-20-T30-10	0'
F	1	P100-A-40-T30-10	14'
F	2	P80-A-30	0'
F	3	P100-A-40-T30-10	15'
F	4	P80-A-25	0'

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 1-26-90

DETAILS

S.A.P. NO. 62-648-11

S.A.P. NO. 62-678-06

Sheet No. 4 of 44 Sheets

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23-141 Construction Plan for Traffic Control Signal System
SAP 62-648-11 + 62-678-06 1-94

24X

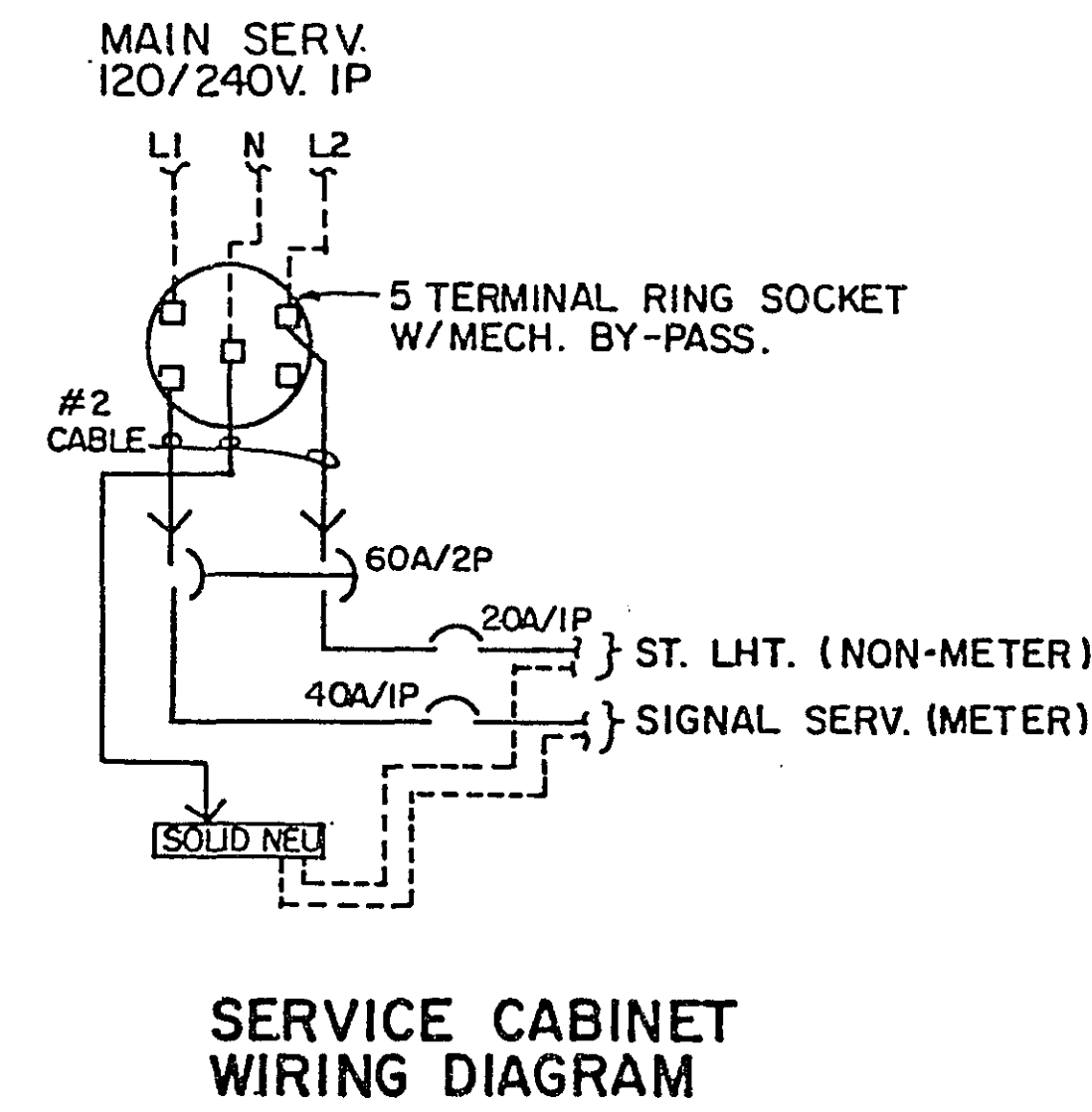
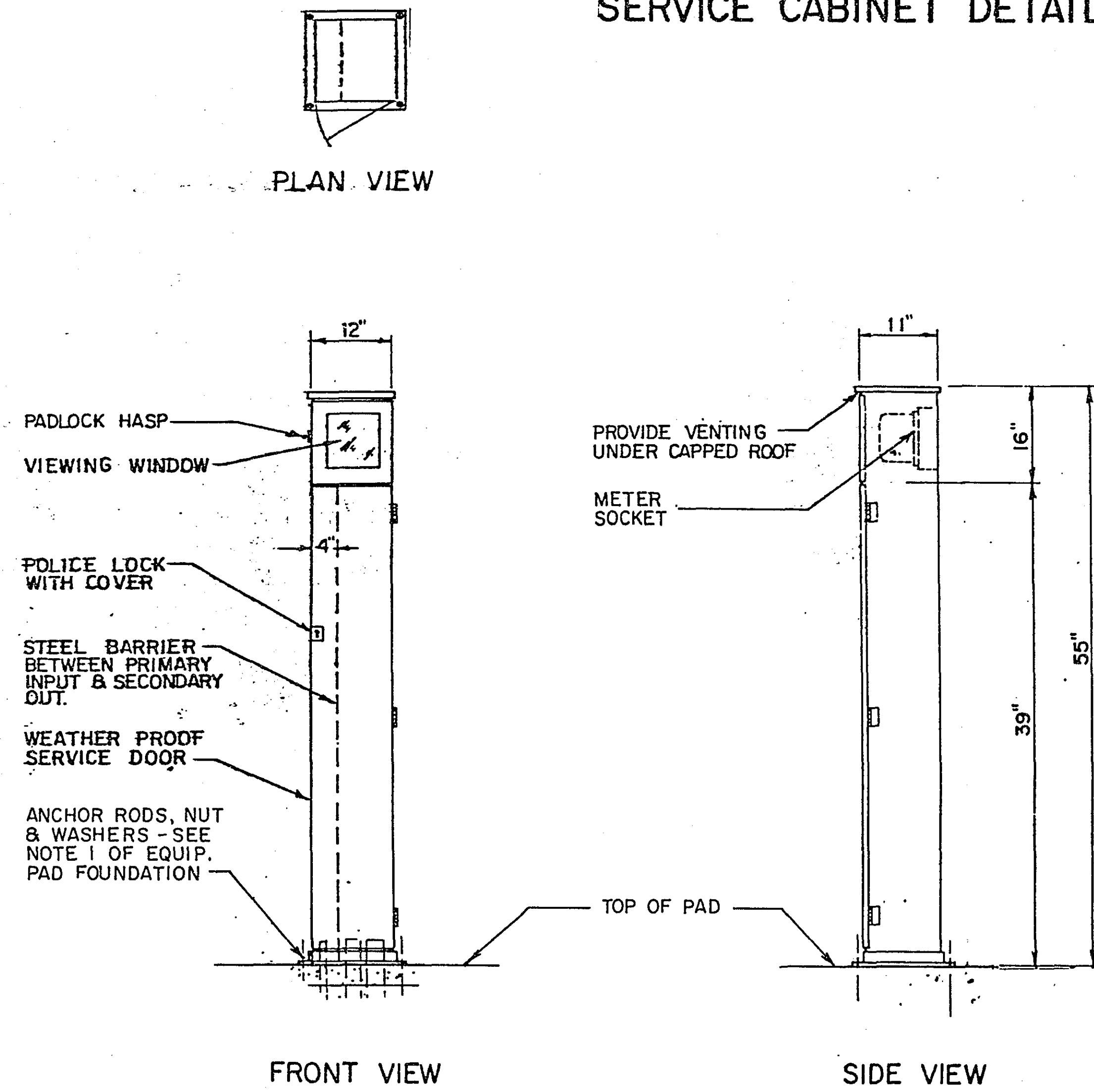
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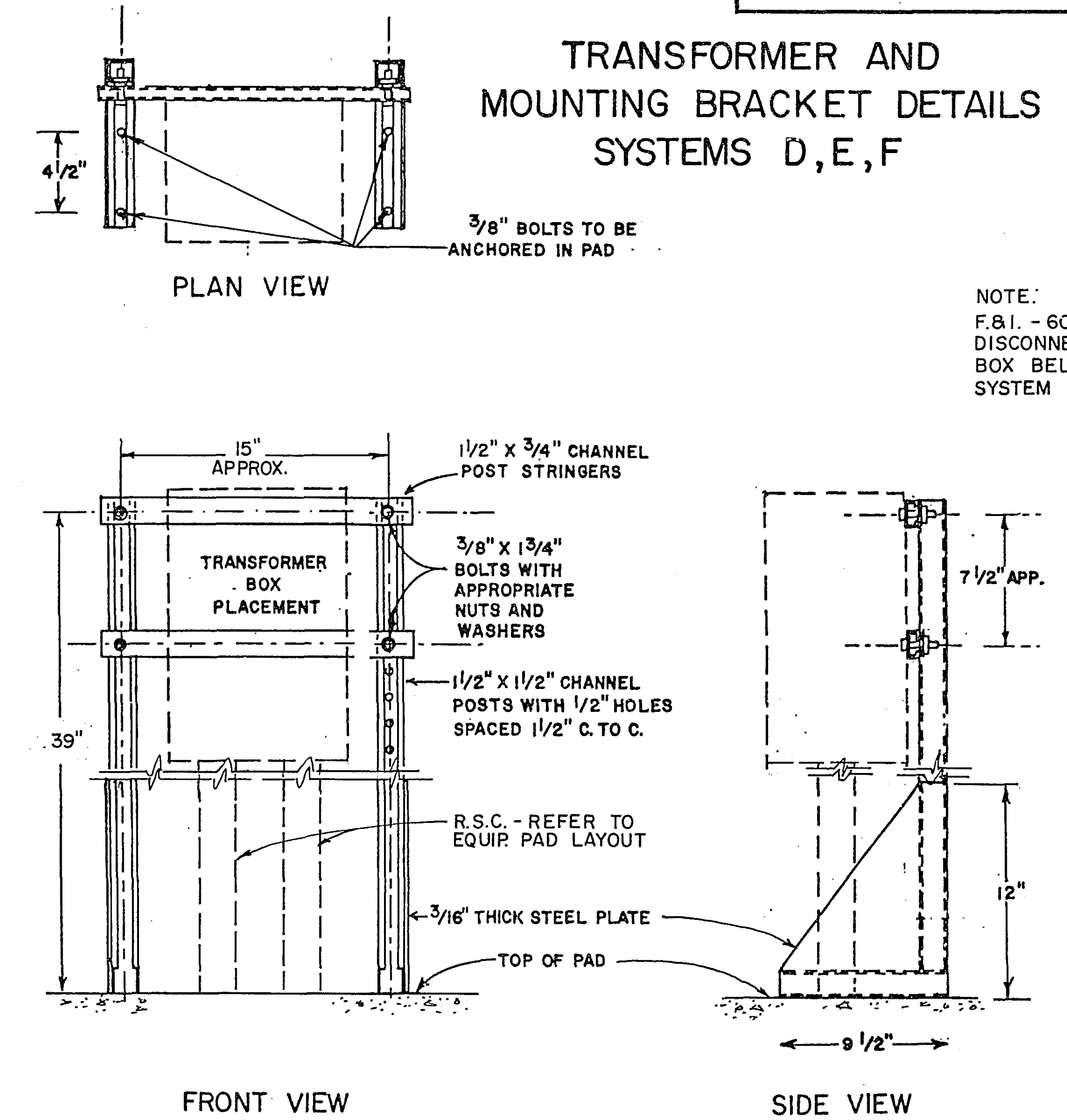
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SERVICE CABINET DETAILS

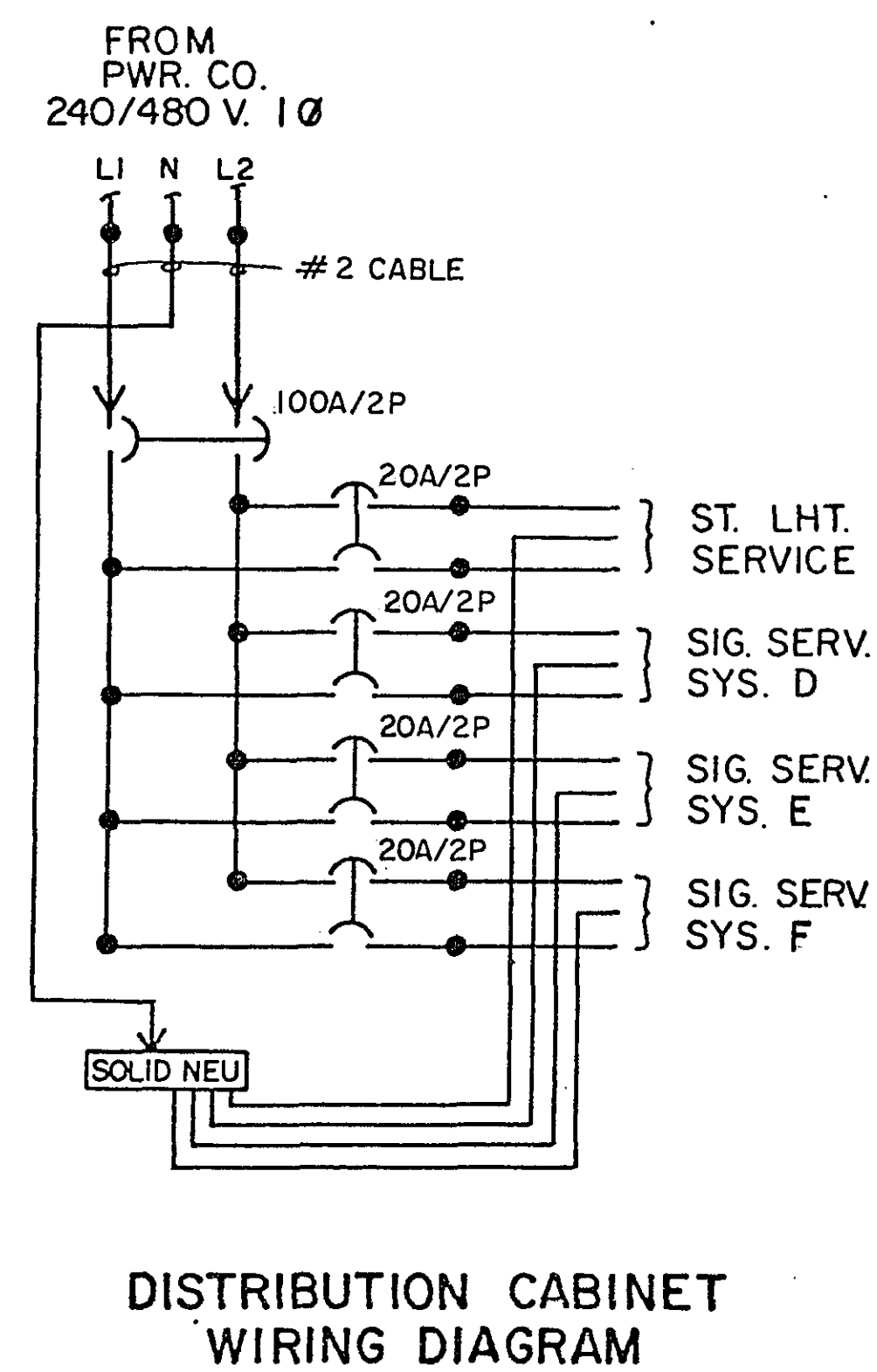
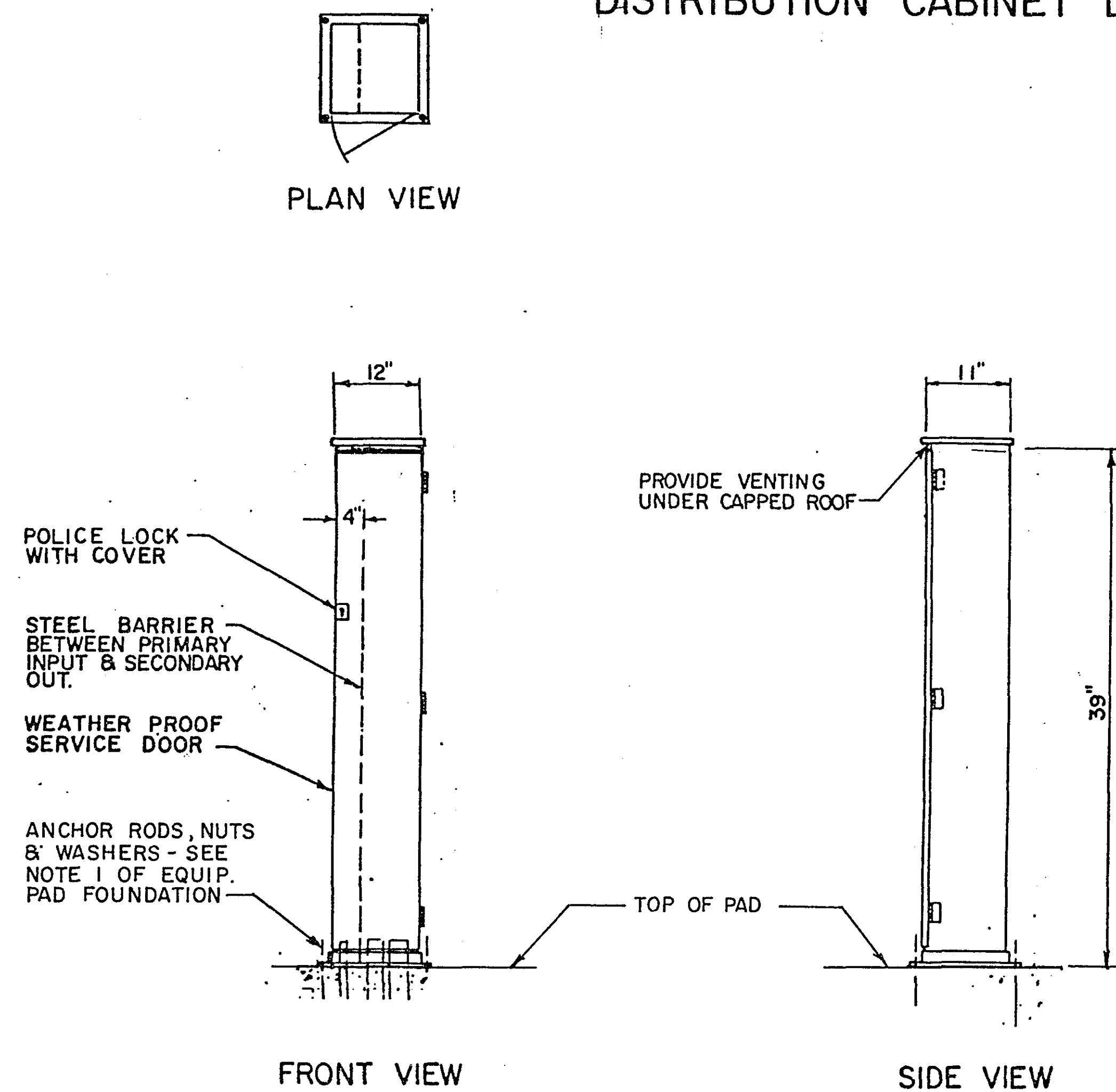


TRANSFORMER AND MOUNTING BRACKET DETAILS SYSTEMS D,E,F



NOTE:
F&I - 60 AMP, 2-POLE DISCONNECT AND JCT BOX BELOW TRANS. SYSTEM E.

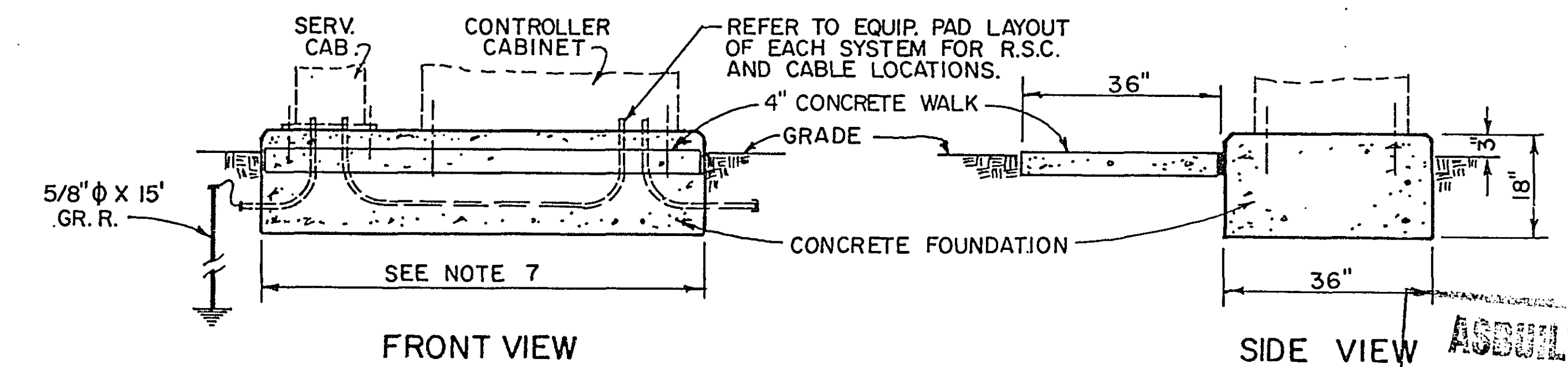
SYSTEM E DISTRIBUTION CABINET DETAILS



EQUIPMENT PAD FOUNDATION

NOTES:

- ANCHOR RODS, NUTS AND WASHERS PER MN/DOT 3385 OR APPROVED EQUAL SET AS RECOMMENDED BY CABINET MANUFACTURER (NUMBER, SIZE AND LENGTH OF ANCHOR RODS) SHALL BE AS REQUIRED BY THE CABINET (MANUFACTURER.)
- UPPER PART OF FOUNDATION SHALL BE BEVELED OR CHAMFERED IN A NEAT MANNER AS DIRECTED BY THE ENGINEER IN THE FIELD.
- TOP OF CONDUITS SHALL BE THREADED AND CAPPED AFTER INSTALLATION (UNTIL CABLES ARE INSTALLED) CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE CONCRETE AND SHALL BE LOCATED INSIDE THE CABINET WHERE DIRECTED BY THE ENGINEER BUT SHALL NOT INTERFERE WITH CABINET FUNCTIONS. (SUPPORTING MEMBERS, ETC.)
- CONCRETE MIX 3A32 OR EQUAL SHALL BE USED FOR FOUNDATION AND CONCRETE WALK.
- CONDUITS WHICH HAVE BOTH ENDS TERMINATING WITHIN THE PAD SHALL NOT BE INSTALLED BELOW THE CONCRETE.
- EXACT LOCATIONS OF CONDUIT WITHIN THE PAD SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.
- REFER TO EQUIPMENT PAD LAYOUT OF EACH SYSTEM FOR FOUNDATION SIZE, CONDUIT PLACEMENT AND EQUIPMENT TO BE INSTALLED.



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 H. Smith

Date 10/7/87 Reg. No. 12702

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH

DATE: 1-26-90

EQUIPMENT PAD DETAILS

S.A.P. NO. 62-648-11

S.A.P. NO. 62-678-06

Sheet No. 5 of 44 Sheets

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23-141 Construction Plan for traffic control signal system
SAP 62-648-11 + 62-678-06 1-94

24X

DRAWING

DRAWING NUMBER
23-141

DRAWING NUMBER

G NUMBER

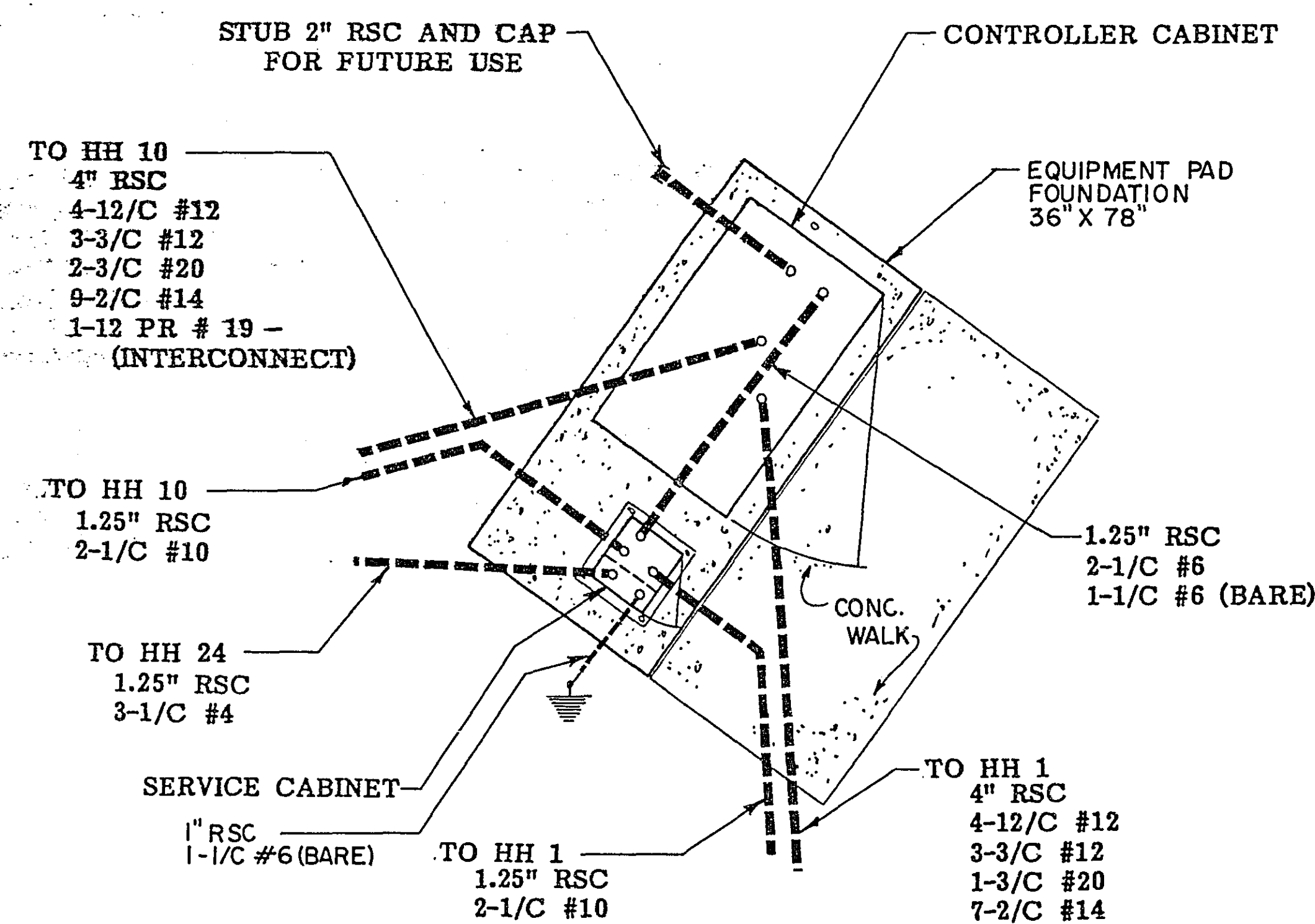
PLAN HEAD CORPORATION
REGISTERED PROFESSIONAL ENGINEER

PLAN HEAD CORPORATION
REGISTERED PROFESSIONAL ENGINEER

PLAN HEAD CORPORATION
REGISTERED PROFESSIONAL ENGINEER

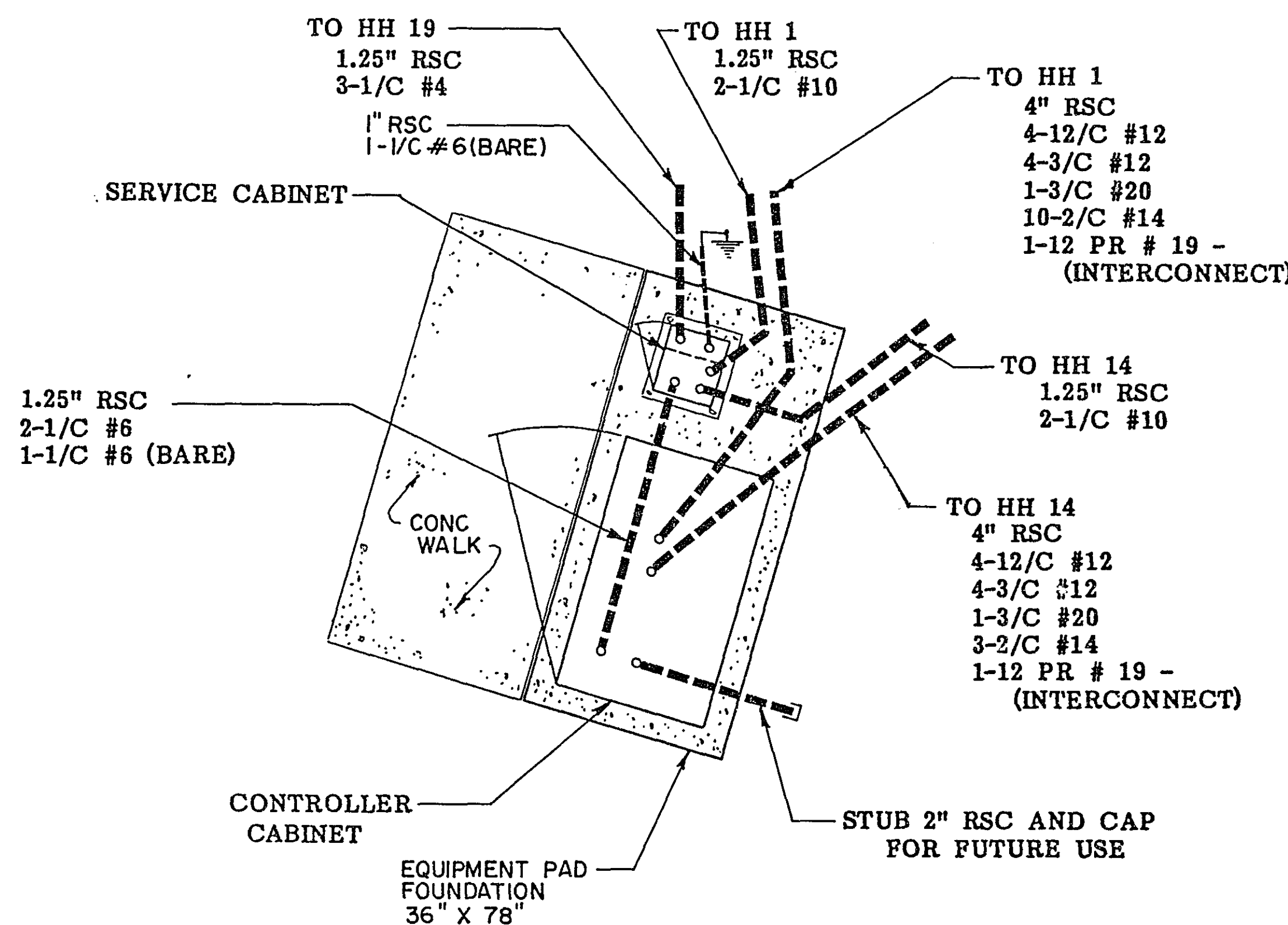
PLAN HEAD CORPORATION
REGISTERED PROFESSIONAL ENGINEER

FAIRVIEW AVE. & COUNTY RD. B
SYSTEM A



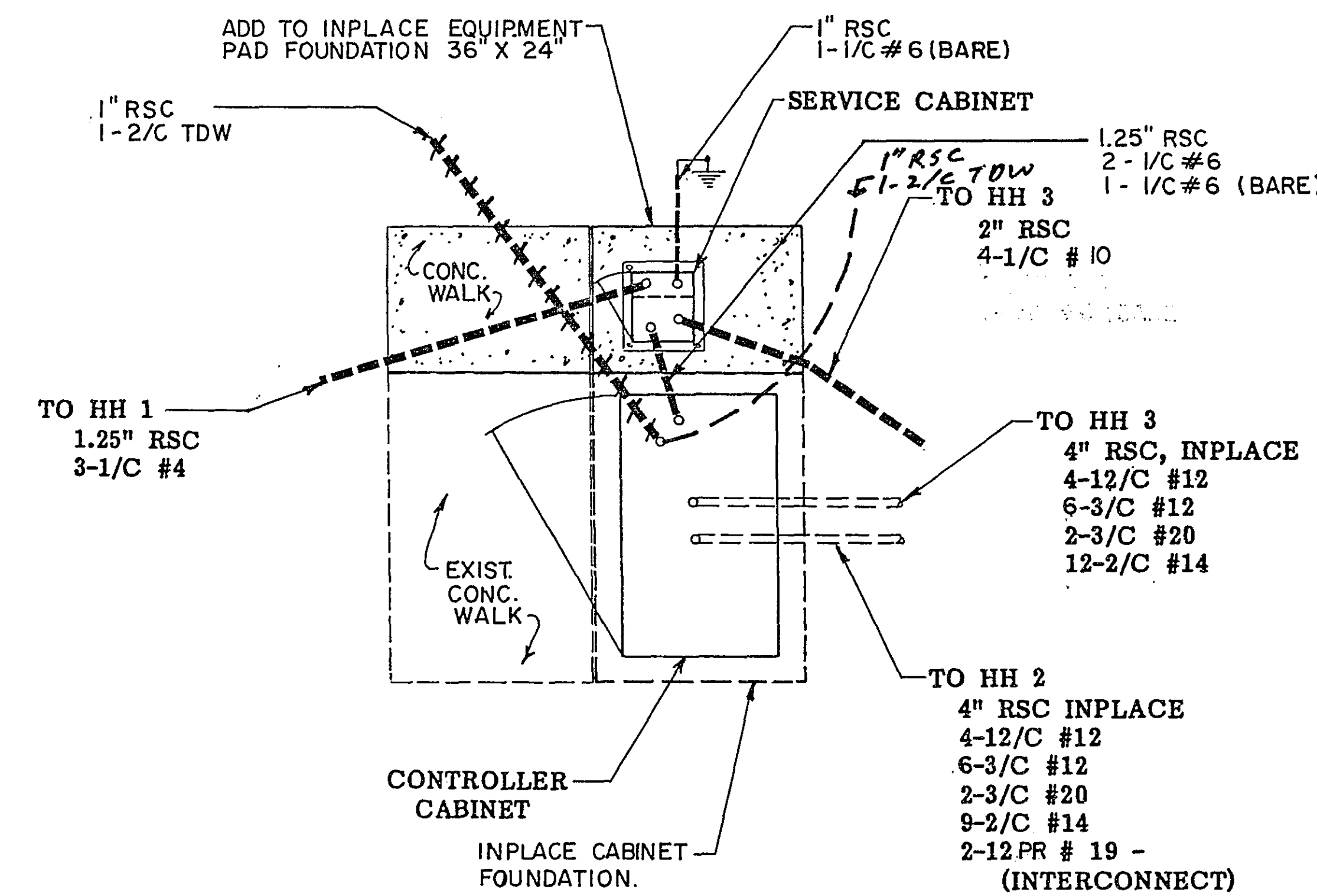
PLAN VIEW

FAIRVIEW AVE. & GLUEK LN. (T.H.36 SERVICE DR.)
SYSTEM B



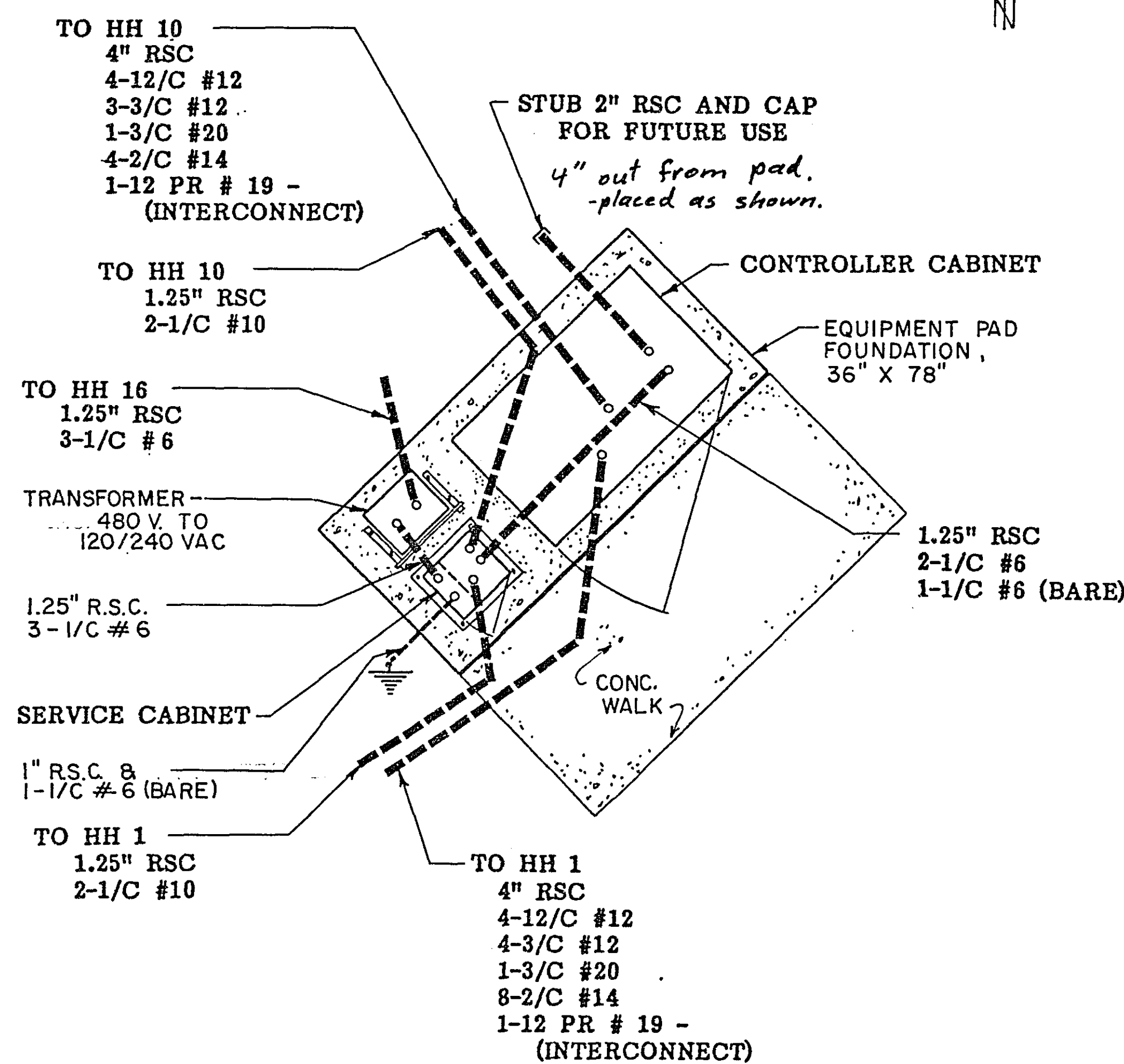
PLAN VIEW

COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C



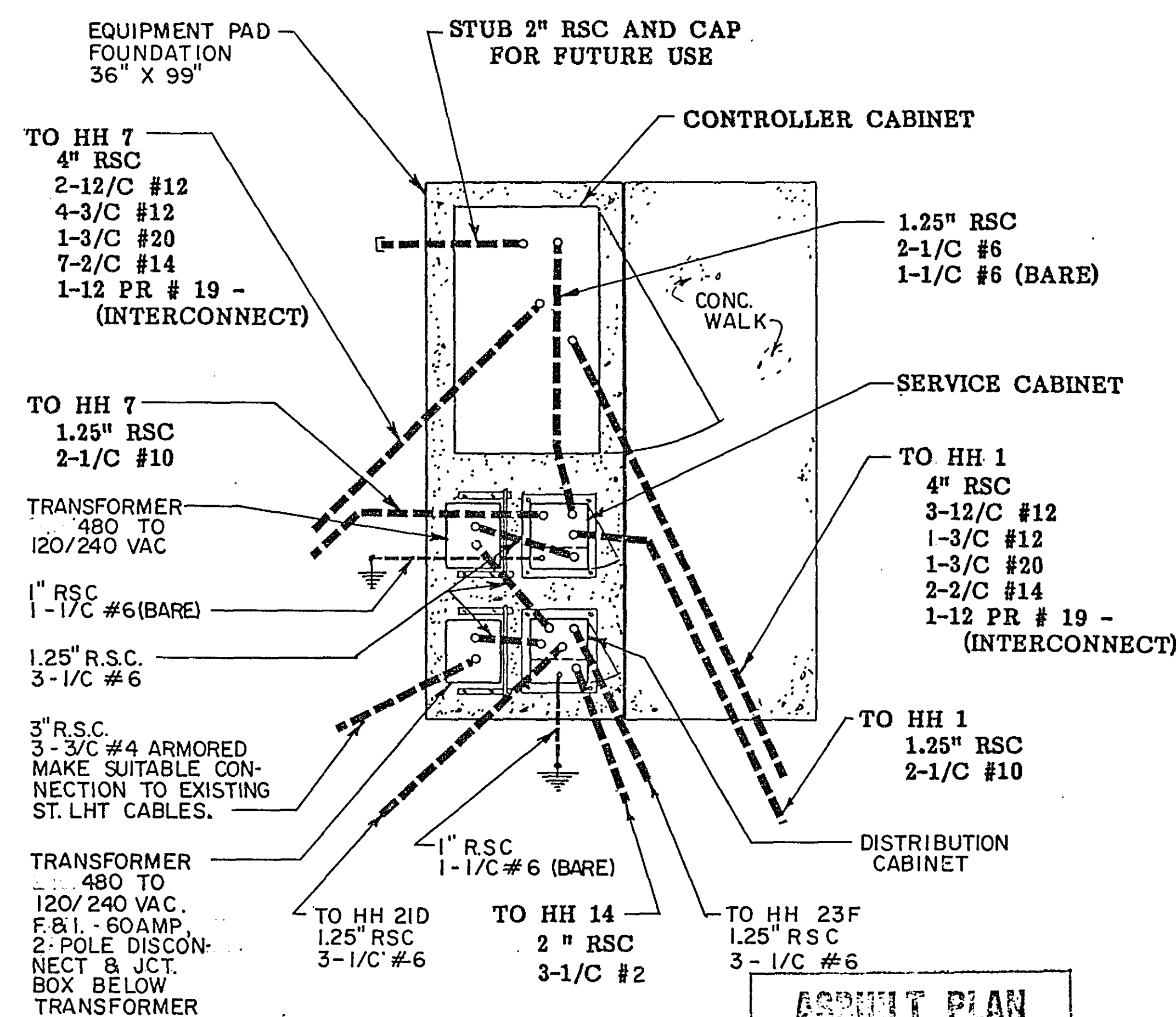
PLAN VIEW

COUNTY RD. B2 & NW. ENT., ROSEDALE CENTER
SYSTEM D



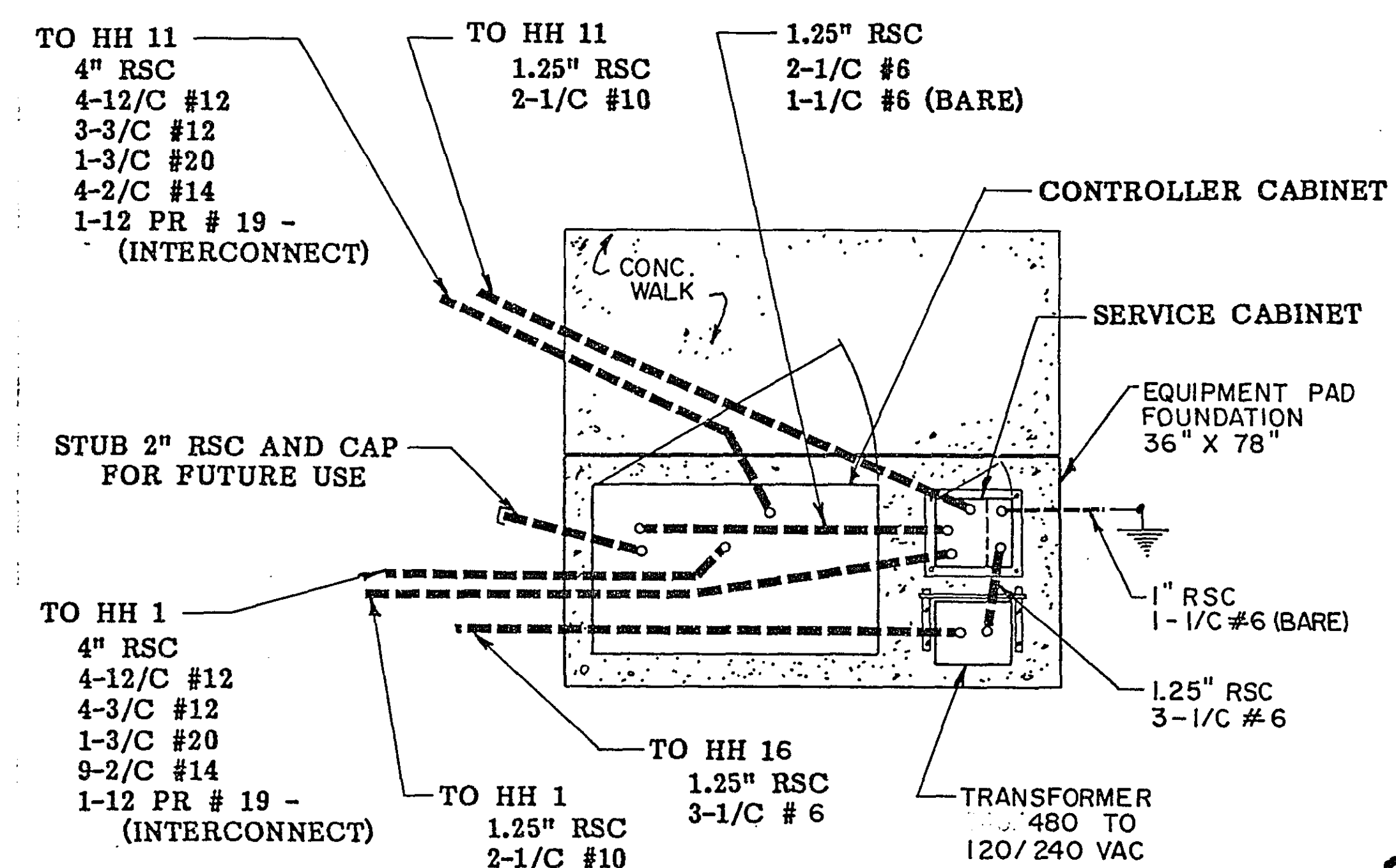
PLAN VIEW

COUNTY RD. B2 & LOEHMANN'S PLAZA ENT.
SYSTEM E



PLAN VIEW

COUNTY RD B2 & AMERICAN ST.
SYSTEM F



PLAN VIEW

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 10/17/92 Reg. No. 12703

ASBUILT PLAN
CONFORMING TO
CONSTR. RECORDS

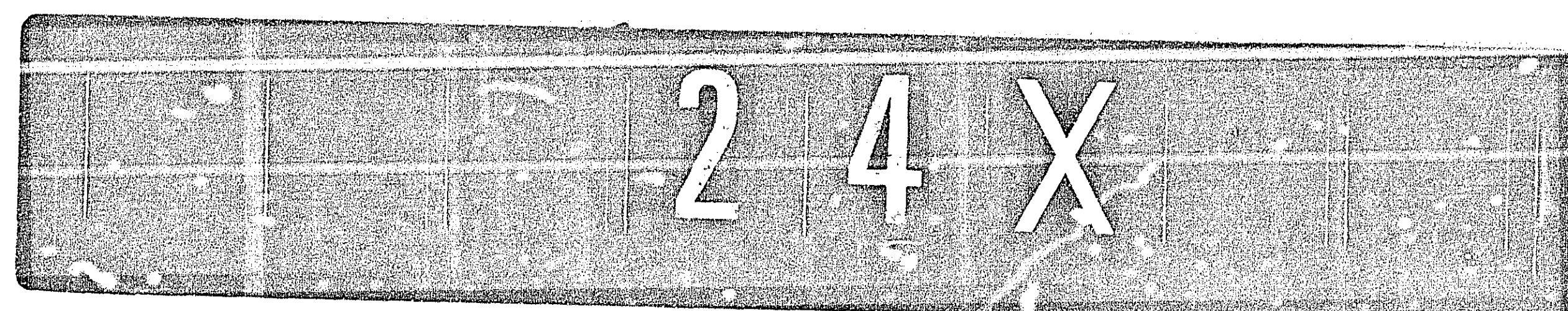
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S.A.P. NO. 62-648-11
S.A.P. NO. 62-678-06

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23-141 Construction Plan for Traffic Control Signal system
SAP 62-648-11 & 62-678-06 1-94



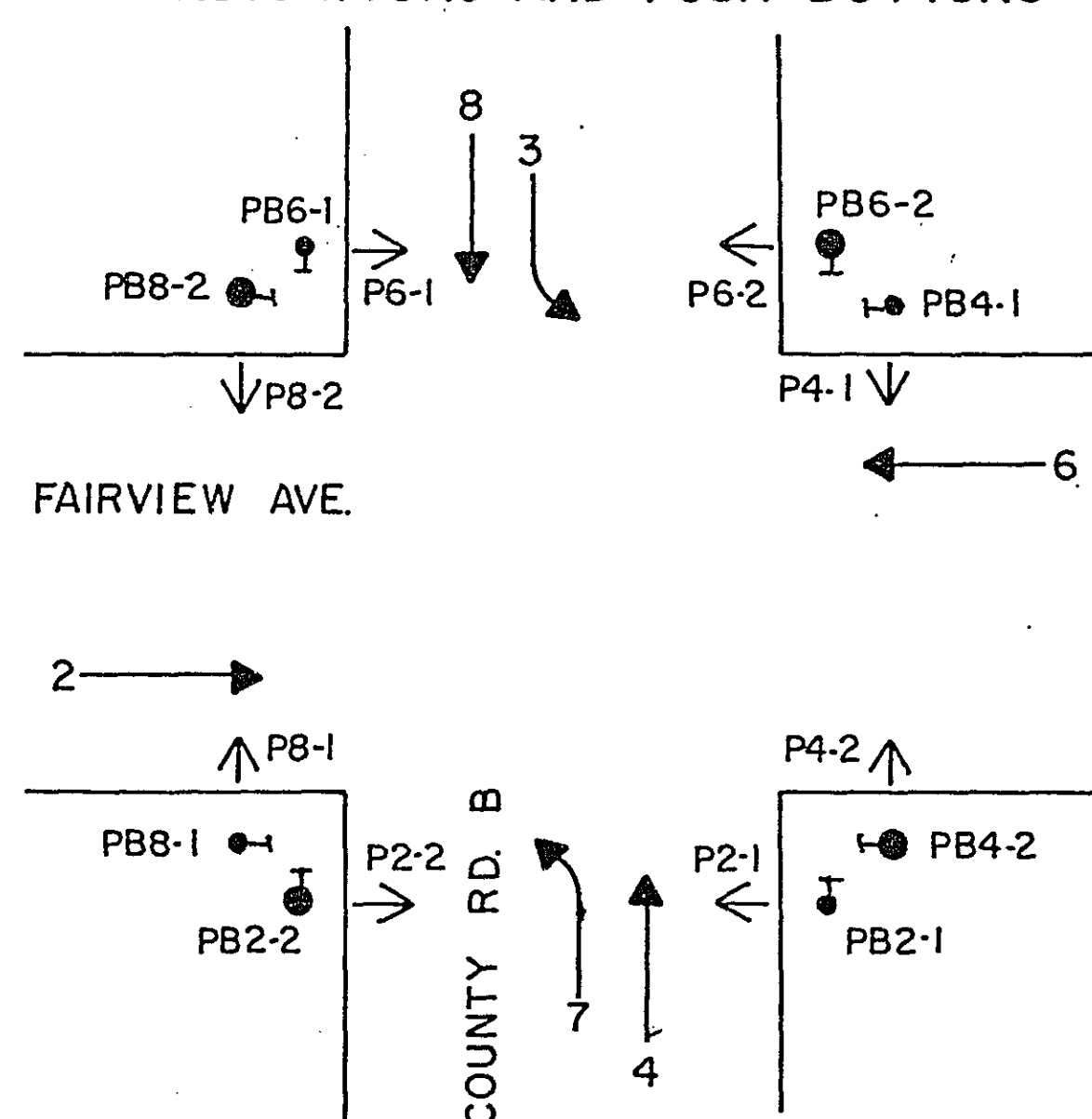
LEGEND OF SYMBOLS	
SIGNAL BASE NO.	5
SIGNAL FACE NO.	4-2
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE	
HANDHOLE-INPLACE	
RIGID STEEL CONDUIT (RSC)	
RIGID STEEL CONDUIT (RSC)-INPLACE	
SIGNAL FACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN 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	

SIGNAL INDICATION CHART							
FACE	PHASE	INDICATION SIZE					
		R	Y	G	Y	G	
2-1	2	12"	12"	12"	-	-	
2-2	2	12"	12"	12"	-	-	
2-3	2	12"	12"	12"	-	-	
4-1	4	12"	12"	12"	-	-	
4-2	4 and 7	12"	12"	12"	12"	12"	
4-3	4 and 7	12"	12"	12"	12"	12"	
4-4	4	12"	12"	12"	-	-	
6-1	6	12"	12"	12"	-	-	
6-2	6	12"	12"	12"	-	-	
6-3	6	12"	12"	12"	-	-	
8-1	8	12"	12"	12"	-	-	
8-2	8 and 3	12"	12"	12"	12"	12"	
8-3	8 and 3	12"	12"	12"	12"	12"	
8-4	8	12"	12"	12"	-	-	

FLASH MODE = ALL RED

SIGNAL HEAD PHASING	
HEADS 4-2 and 4-3	HEADS 8-2 and 8-3
(R) 0 4	(R) 0 8
(Y) 0 4	(Y) 0 8
(G) 0 7	(G) 0 3
(Y) 0 7	(Y) 0 3
(G) 0 3	(G) 0 3
(Y) 0 3	(Y) 0 3

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



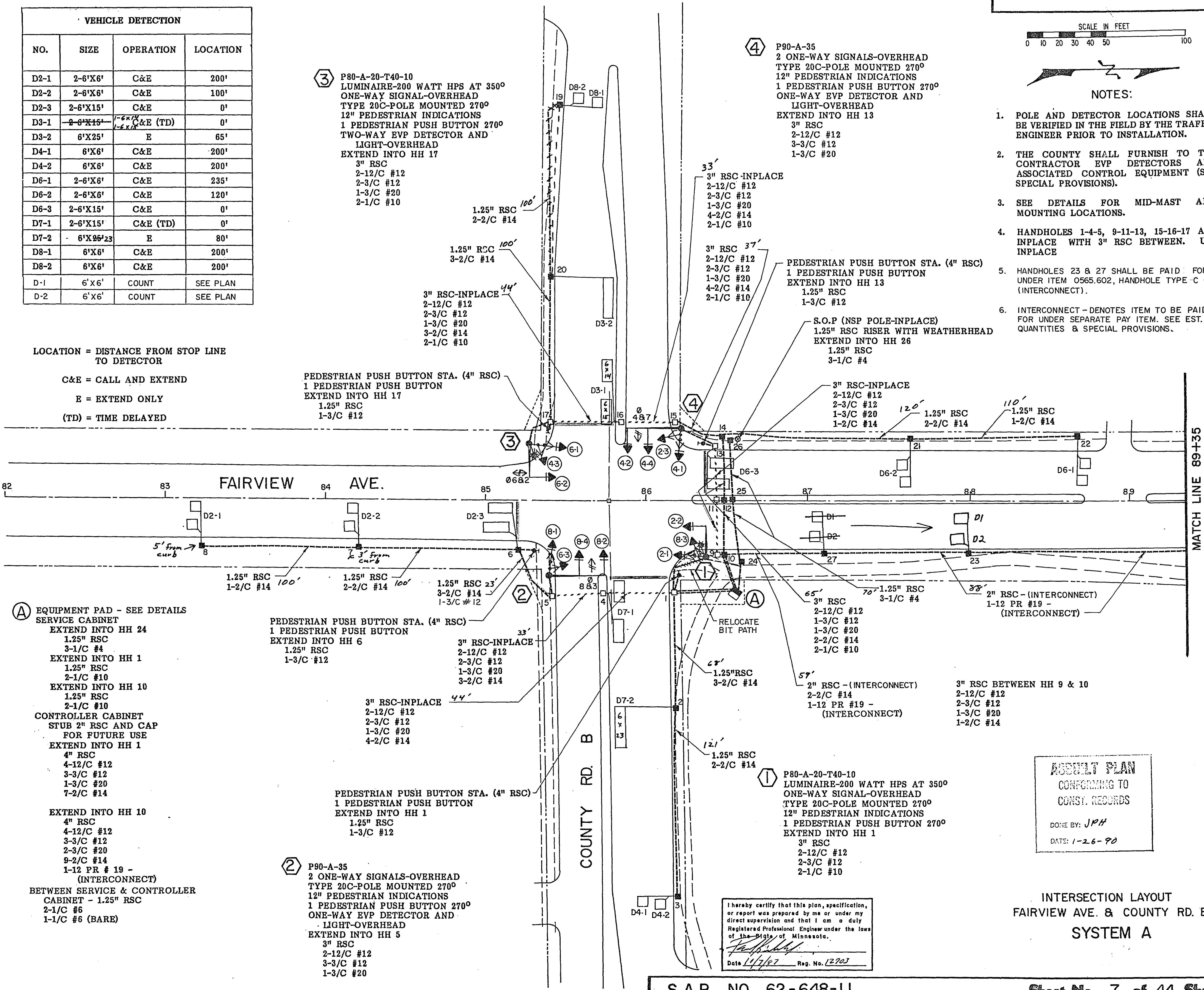
VEHICLE DETECTION			
NO.	SIZE	OPERATION	LOCATION
D2-1	2-6'X6'	C&E	200'
D2-2	2-6'X6'	C&E	100'
D2-3	2-6'X15'	C&E	0'
D3-1	2-6'X15'	C&E (TD)	0'
D3-2	6'X25'	E	65'
D4-1	6'X6'	C&E	200'
D4-2	6'X6'	C&E	200'
D6-1	2-6'X6'	C&E	235'
D6-2	2-6'X6'	C&E	120'
D6-3	2-6'X15'	C&E	0'
D7-1	2-6'X15'	C&E (TD)	0'
D7-2	6'X25'	E	80'
D8-1	6'X6'	C&E	200'
D8-2	6'X6'	C&E	200'
D-1	6'X6'	COUNT	SEE PLAN
D-2	6'X6'	COUNT	SEE PLAN

LOCATION = DISTANCE FROM STOP LINE TO DETECTOR

C&E = CALL AND EXTEND

E = EXTEND ONLY

(TD) = TIME DELAYED



SCALE IN FEET
0 10 20 30 40 50 100

NOTES:

- POLE AND DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
- THE COUNTY SHALL FURNISH TO THE CONTRACTOR EVP DETECTORS AND ASSOCIATED CONTROL EQUIPMENT (SEE SPECIAL PROVISIONS).
- SEE DETAILS FOR MID-MAST ARM MOUNTING LOCATIONS.
- HANDHOLES 1-4-5, 9-11-13, 15-16-17 ARE INPLACE WITH 3" RSC BETWEEN. USE INPLACE
- HANDHOLES 23 & 27 SHALL BE PAID FOR UNDER ITEM 0565.602, HANDHOLE TYPE C - (INTERCONNECT).
- INTERCONNECT - DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE EST. QUANTITIES & SPECIAL PROVISIONS.

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 1-26-90

INTERSECTION LAYOUT
FAIRVIEW AVE. & COUNTY RD. B
SYSTEM A

S.A.P. NO. 62-648-11

Sheet No. 7 of 44 Sheets

24X

23-141 construction plan for traffic control signal system
SAP 62-648-11 + 62-678-06 1-44

DRAWING

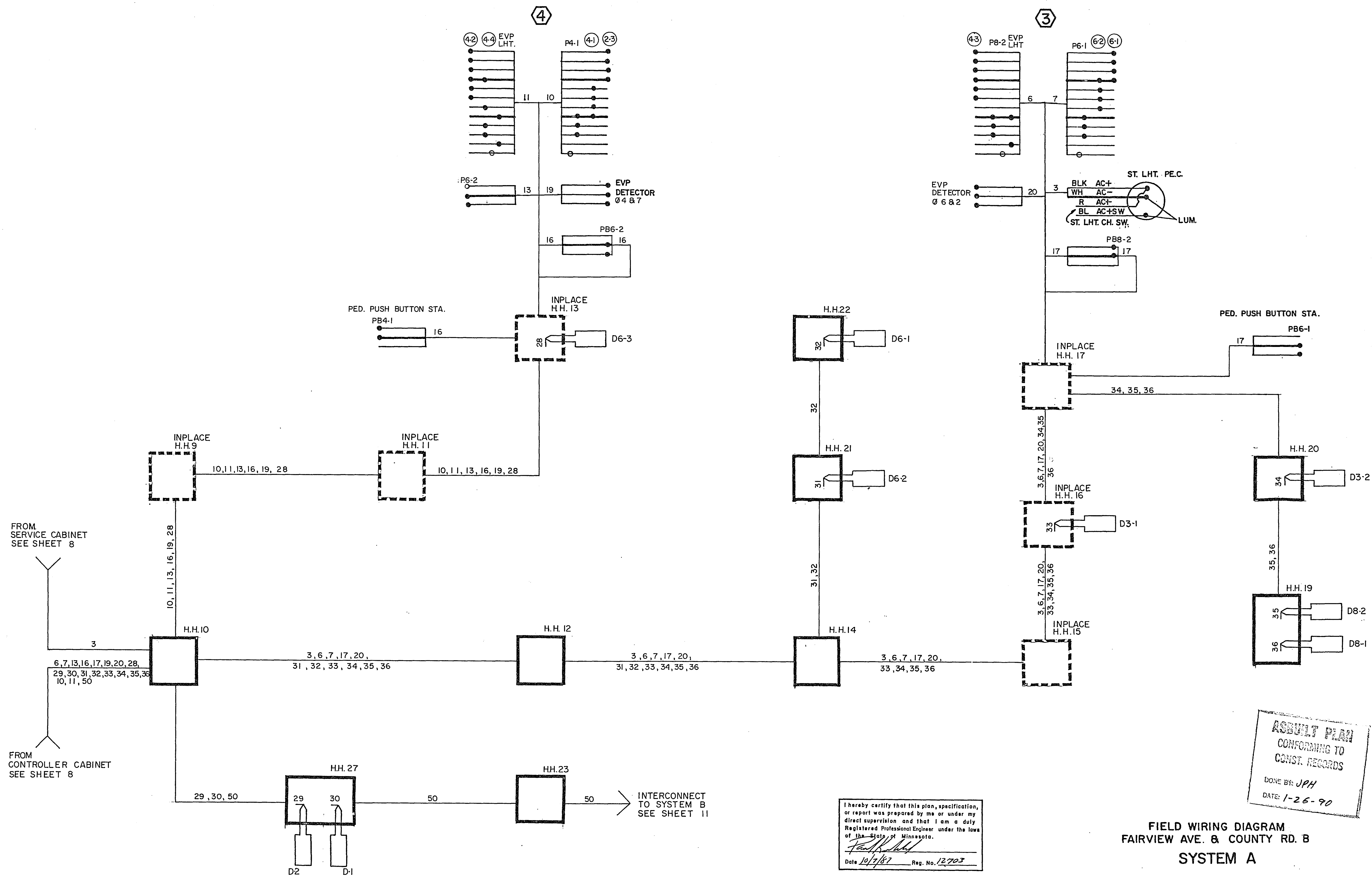
DRAWING NUMBER

23-141

DRAWING NUMBER

3 NUMBER

PLAN HOLD CORPORATION

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
ENGINEER NAME: JPHPLAN HOLD CORPORATION • IRVINE, CALIFORNIA
ENGINEER NAME: JPHN • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER

S.A.P. NO. 62-648-11

Sheet No. 9 of 44 Sheets

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Construction Plan for Traffic Control Signal System
SAP 62-648-11 + 62-678-06

1-94

24X

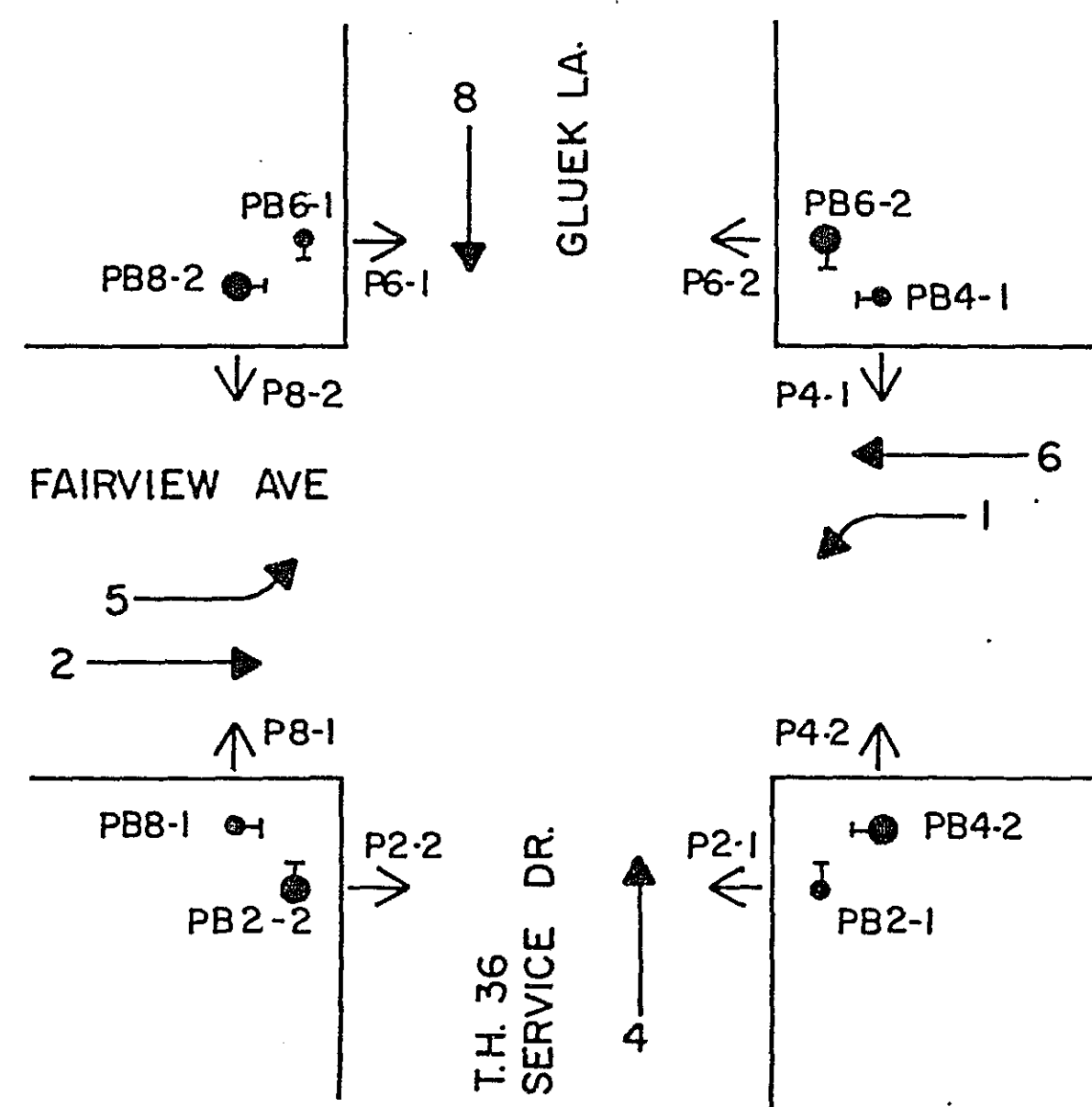
LEGEND OF SYMBOLS	
SIGNAL BASE No.	5
SIGNAL FACE No.	4-2
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE - INPLACE	
RIGID STEEL CONDUIT (R.S.C.)	
RIGID STEEL CONDUIT (R.S.C.) - INPLACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE - INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS - 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	

SIGNAL INDICATION CHART						
FACE	PHASE	INDICATION SIZE				
		R	Y	G	Y	G
2-1	2	12"	12"	12"	-	-
2-2	2 and 5	12"	12"	12"	12"	12"
2-3	2 and 5	12"	12"	12"	12"	12"
2-4	2	12"	12"	12"	-	-
4-1	4	12"	12"	12"	-	-
4-2	4	12"	12"	12"	-	-
4-3	4	12"	12"	12"	-	-
4-4	4	12"	12"	12"	-	-
6-1	6	12"	12"	12"	-	-
6-2	6	12"	12"	12"	-	-
6-3	6	12"	12"	12"	-	-
6-4	6	12"	12"	12"	-	-
6-2	6 and 1	12"	12"	12"	12"	12"
6-3	6 and 1	12"	12"	12"	12"	12"
6-4	6	12"	12"	12"	-	-

FLASH MODE = ALL RED

SIGNAL HEAD PHASING	
HEADS 2-2 and 2-3	HEADS 6-2 and 6-3

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



VEHICLE DETECTION			
NO.	SIZE	OPERATION	LOCATION
D1-1	2-6'X15'	C&E (TD)	0'
D1-2	6'X25'	E	80'
D2-1	6'X6'	C&E	275'
D2-2	6'X6'	C&E	275'
D4-1	6'X6'	C&E	120'
D4-2	6'X6'	C&E	55'
D4-3	2-6'X15'	C&E	0'
D5-1	2-6'X15'	C&E (TD)	+15'
D6-1	6'X6'	C&E	260'
D6-2	6'X6'	C&E	260'
D8-1	6'X6'	C&E	120'
D8-2	6'X6'	C&E	55'
D8-3	6'X15'	C&E	0'

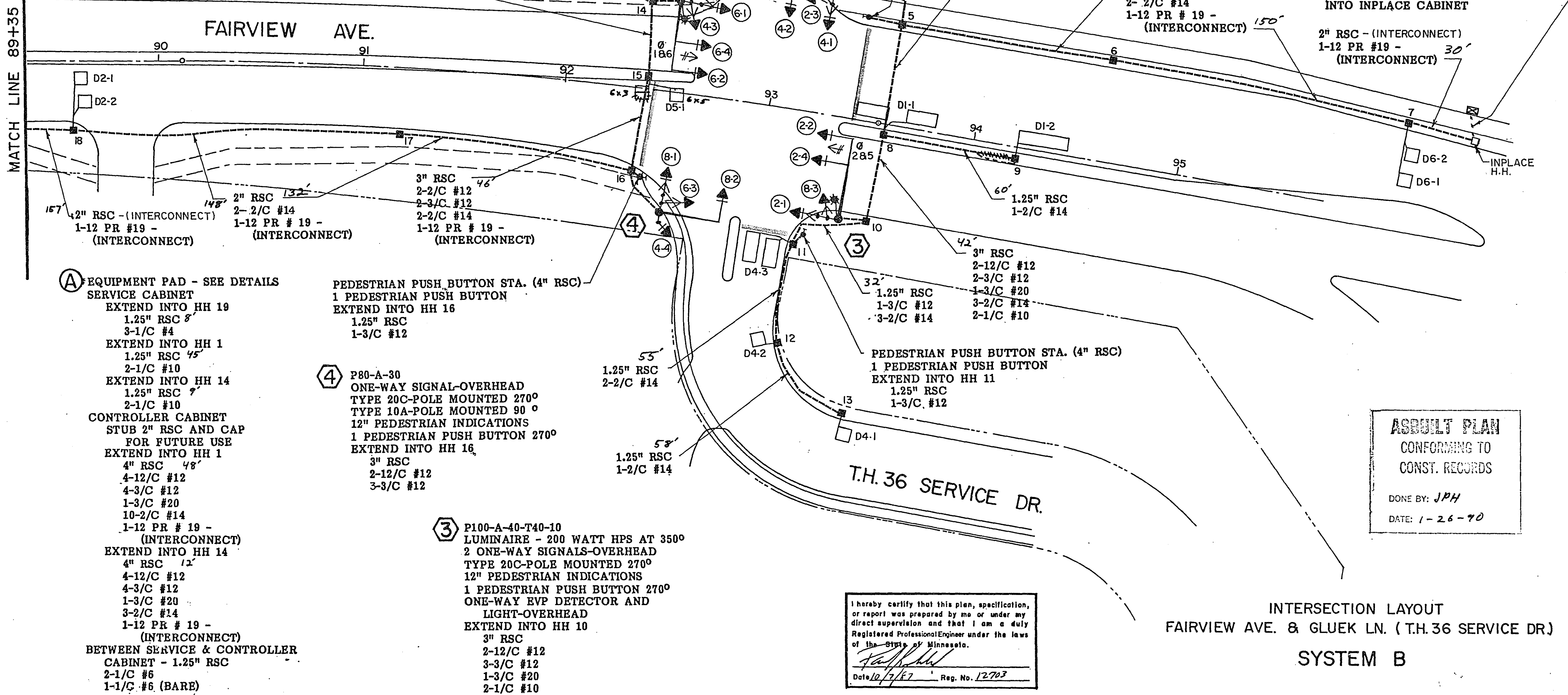
LOCATION = DISTANCE FROM STOP LINE TO DETECTOR

C&E = CALL AND EXTEND

E = EXTEND ONLY

(TD) = TIME DELAYED

MATCH LINE 89+35



① P90-A-35-T40-10
LUMINAIRE - 200 WATT HPS AT 350°
2 ONE-WAY SIGNALS-OVERHEAD
TYPE 20C-POLE MOUNTED 270°
12" PEDESTRIAN INDICATIONS
1 PEDESTRIAN PUSH BUTTON 270°
ONE-WAY EVP DETECTOR AND
LIGHT-OVERHEAD
EXTEND INTO HH 14
3" RSC
2-12/C #12
2-3/C #12
1-3/C #20
2-1/C #10

② P90-A-20
ONE-WAY SIGNAL-OVERHEAD
TYPE 20C-POLE MOUNTED 270°
12" PEDESTRIAN INDICATIONS
1 PEDESTRIAN PUSH BUTTON 270°
EXTEND INTO HH 4
3" RSC
2-12/C #12
2-3/C #12

SCALE IN FEET
0 10 20 30 40 50 100

NOTES:

- POLE AND DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
- THE COUNTY SHALL FURNISH TO THE CONTRACTOR EVP DETECTORS AND ASSOCIATED CONTROL EQUIPMENT (SEE SPECIAL PROVISIONS).
- SEE DETAILS FOR MID-MAST ARM MOUNTING LOCATIONS.
- (INTERCONNECT) - DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE EST. QUANTITIES & SPECIAL PROVISIONS.

ASBUILT PLAN
CONFORMING TO
CONST. RECORDSDONE BY: JPH
DATE: 1-26-70INTERSECTION LAYOUT
FAIRVIEW AVE. & GLUEK LN. (T.H. 36 SERVICE DR.)
SYSTEM B

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: 1/17/70 Reg. No. 12703

S.A.P. NO. 62-648-11

Sheet No. 10 of 44 Sheets

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construction plan for traffic control signal system
SAP 62-648-11 + 62-678-06

1-44

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DRAWING

PLAN-HOLD CORPORATION
NEW YORK, N.Y.

DRAWING NUMBER
23-141

PLAN-HOLD CORPORATION
NEW YORK, N.Y.

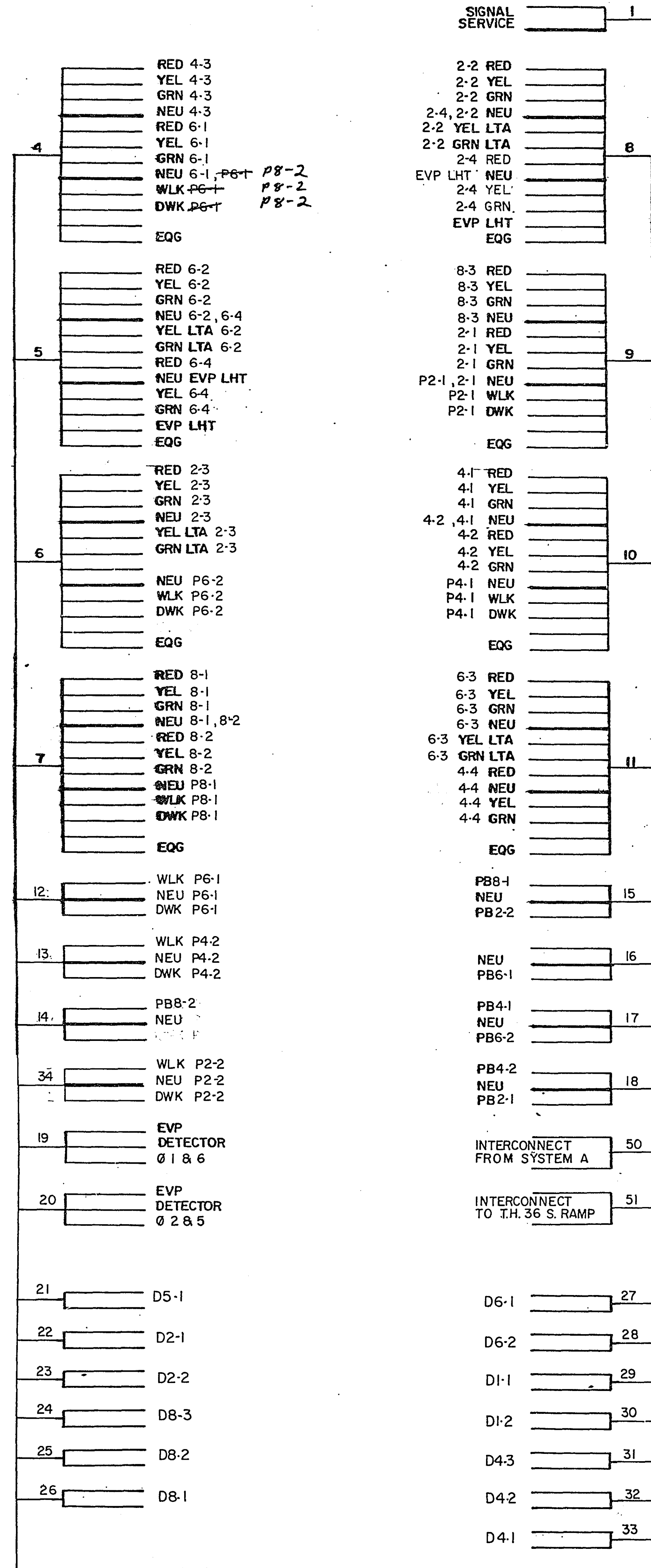
DRAWING NUMBER

PLAN-HOLD CORPORATION
NEW YORK, N.Y.

NUMBER

PLAN-HOLD CORPORATION
NEW YORK, N.Y.

CONTROLLER CABINET



S.O.P.
120/240 VAC

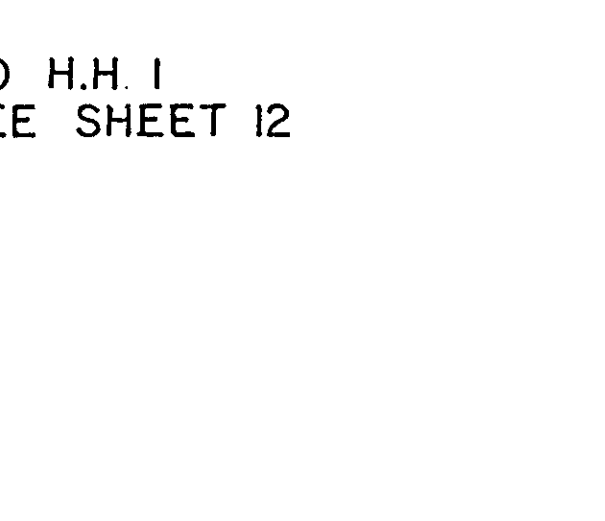
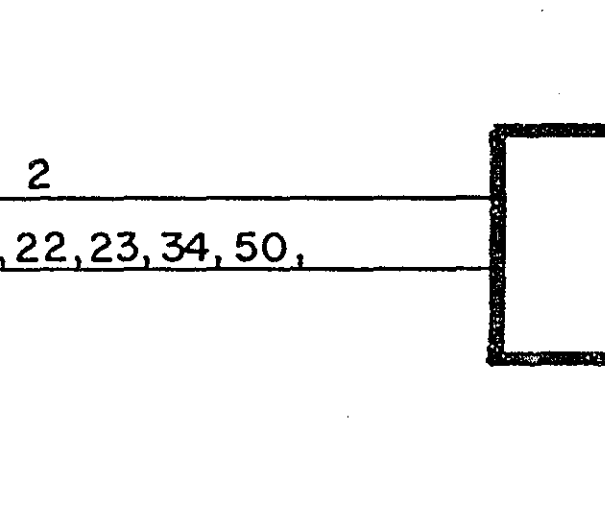
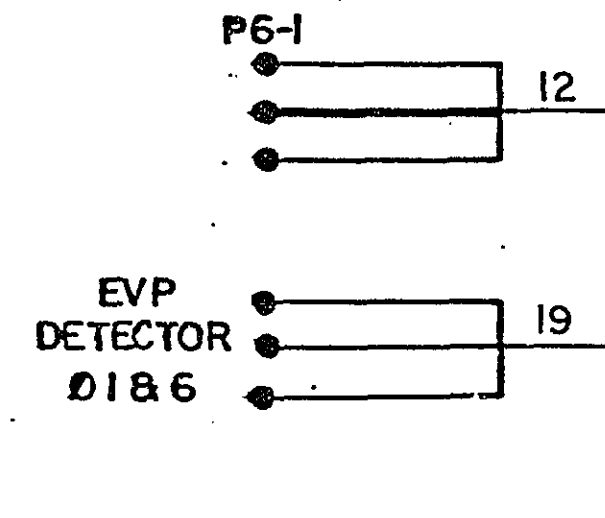
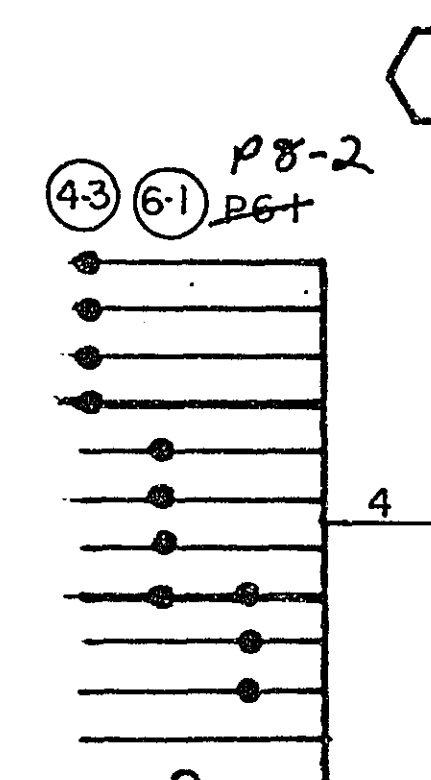
H.H.19

SERVICE CABINET & METER

1 SIGNAL SERVICE (METERED)
2 ST. LIGHT SERVICE (UNMETERED)
3 ST. LIGHT SERVICE (UNMETERED)

S.O.P.
120/240V
SERVICE

3 TO H.H. 1
SEE SHEET 12



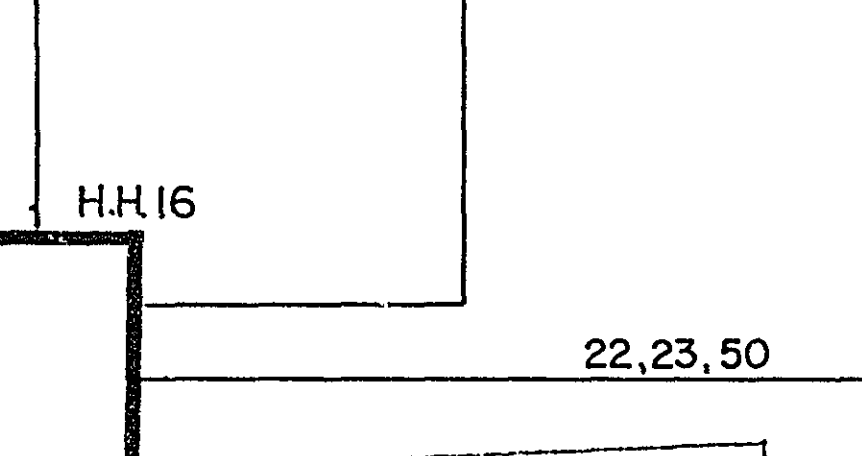
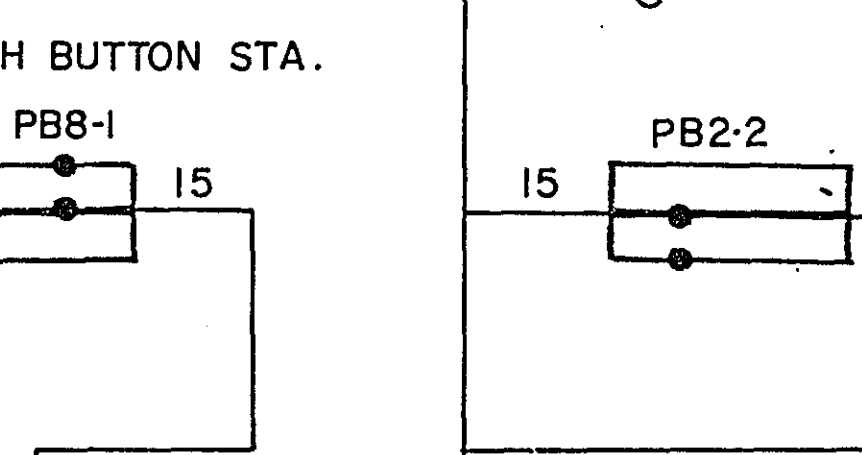
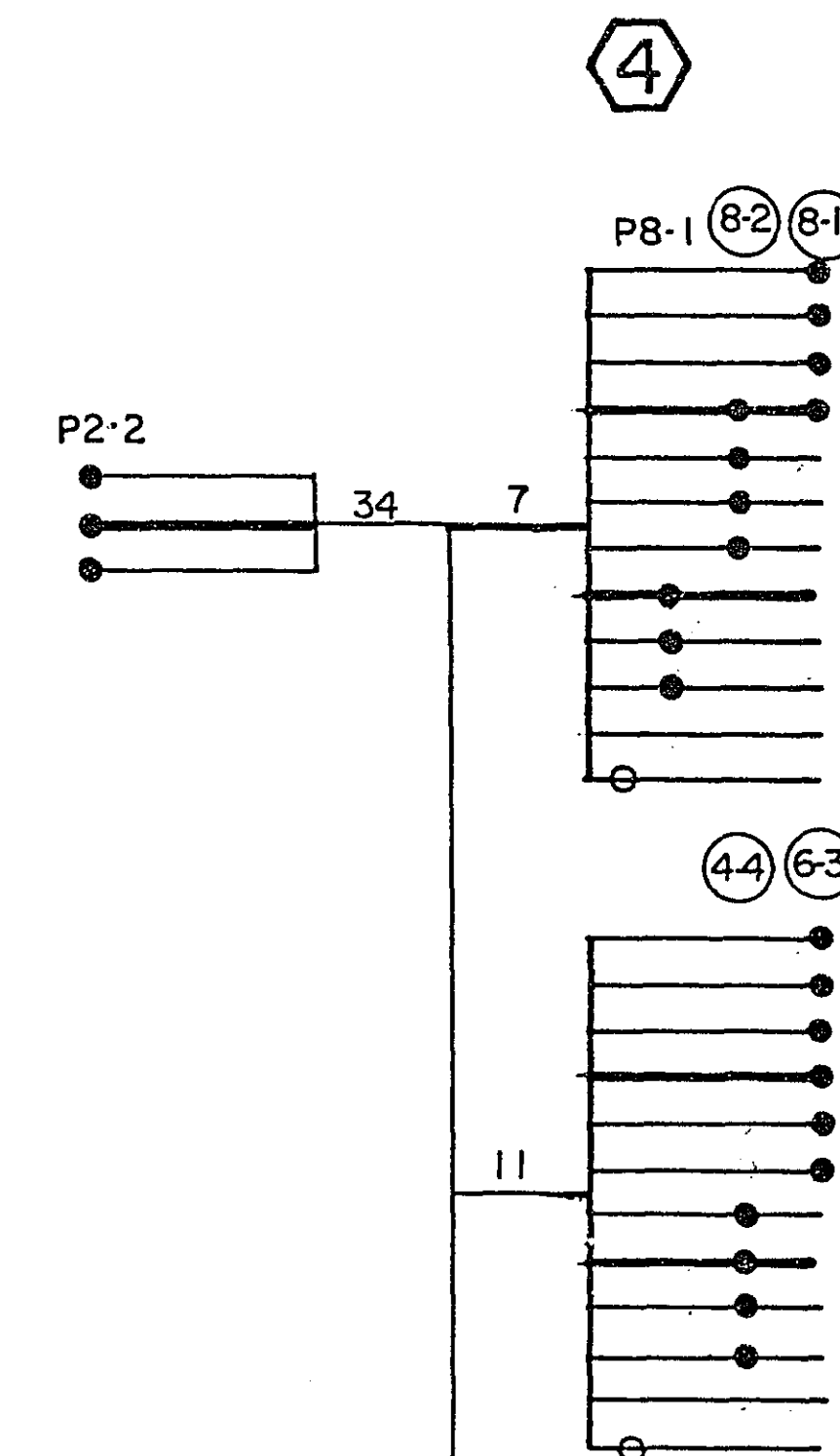
6, 8, 9, 10, 13, 16, 17, 18, 20,
24, 25, 26, 27, 28, 29, 30, 31,
32, 33, 51

TO H.H. 1
SEE SHEET 12

CONDUCTOR COLOR CODING

R	BLK	2-1/C #6
O	BLK	2-1/C #10
BL		
WH	R	3/C #12
R/BLK	WH	
O/BLK	BLK	
BL/BLK	BLK	2/C #14
WH/BLK	BLK	
BLK	CLEAR	
BLK/WH	R OR O	3/C #20
G/BLK	WH OR YEL	
G	BL OR BLK	

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



ASSULT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH
DATE: 1-26-90

FIELD WIRING DIAGRAM
FAIRVIEW AVE. & GLUEK LN. (T.H.36 SERVICE DR.)
SYSTEM B

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 10/1/97 Reg. No. 12705

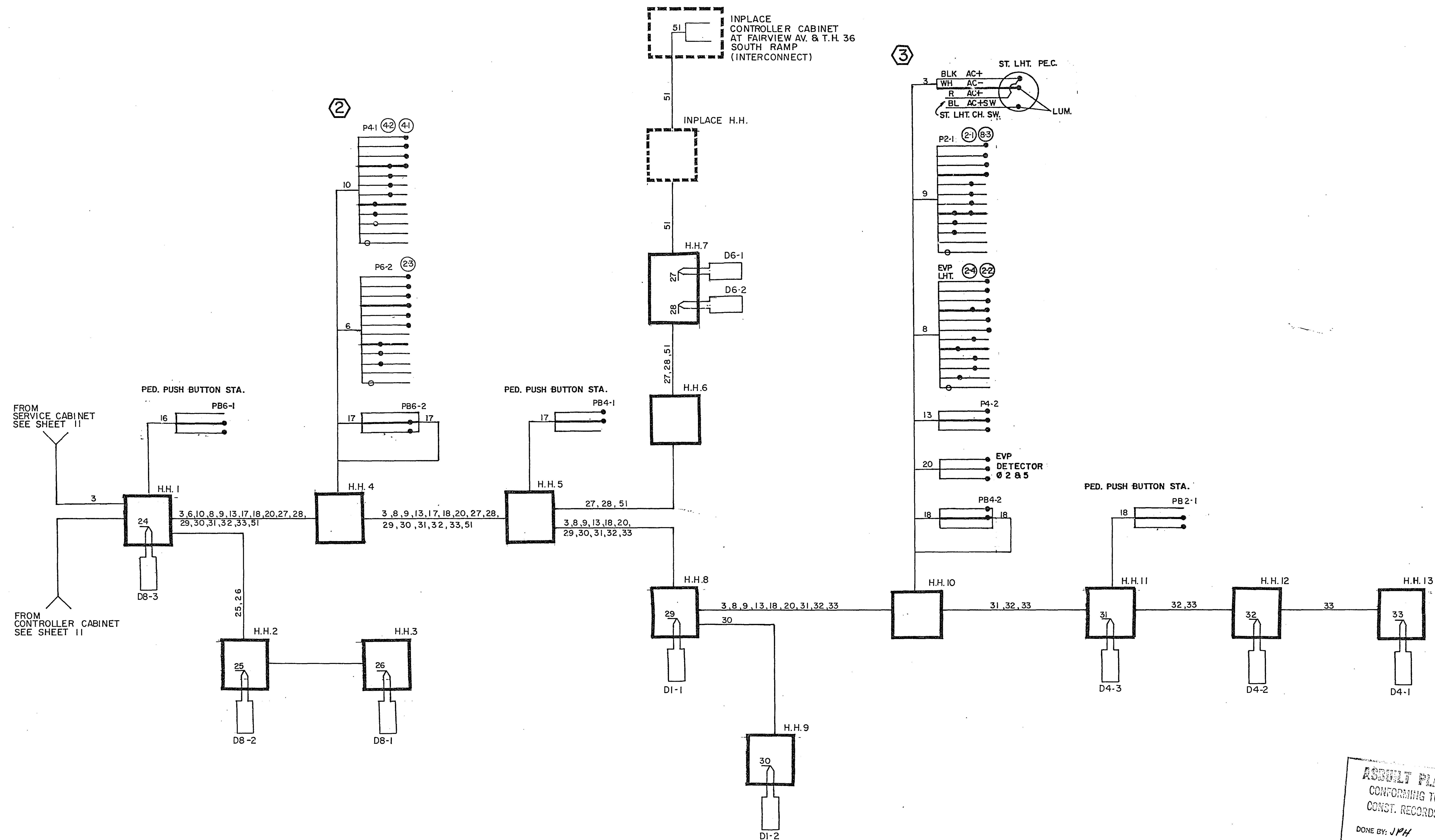
S.A.P. NO. 62-648-11

Sheet No. 11 of 44 Sheets

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23-141 construction plan for traffic control signal system 1-94
SAP 62-648-11 + 62-678-05

24X



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.

Frank K. Hill

Date 10/7/87 Reg. No. 12903

FIELD WIRING DIAGRAM
FAIRVIEW AVE. & GLUEK LN. (T.H.36 SERVICE DR.)
SYSTEM B

S.A.P. NO. 62-648-11

Sheet No. 12 of 44 Sheets

23-141

23-141 construction plan for traffic control signal system 1-94
SAP 62-648-11 & 62-678-06

2 4 X

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

NUMBER

PLAN HOLD CORPORATION
REGISTERED MAP

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED MAPS 0548

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED MAPS 0548

PLAN HOLD CORPORATION
REGISTERED MAP

SCALE IN FEET
0 10 20 30 40 50 100

NOTES:

1. HANDHOLE 20 SHALL BE PAID FOR UNDER ITEM 0565.602, HANDHOLE TYPE C-(INTERCONNECT)
2. (INTERCONNECT) - DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE EST. QUANTITIES & SPECIAL PROVISIONS

Supplemental Agreement #1
change
- Add 150' of 1.25" RSC
- Add 1 handhole

1.25" RSC 150'
2- 2/c #14

Inplace handhole

MATCH LINE 111+72 SEE SHEET 14

FAIRVIEW AVE.

2" RSC - (INTERCONNECT)
1-12 PR #19 -
(INTERCONNECT)

CONTROLLER & CABINET INPLACE
EXTEND INTO H.H. 2
3" RSC
2- 12/c #12
1- 3/c #12
1- 3/c #20
4- 2/c #14
1-12PR #19 -
(INTERCONNECT)

ALL REMAINING CONDUIT & CABLE
SHALL BE USED INPLACE

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH
DATE: 1-26-90

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 10/7/87 Reg. No. 12703

WEST ENT.
ROSEDALE CENTER

INTERCONNECT LAYOUT

FAIRVIEW AVE.

BETWEEN ROSEDALE W. ENT. & CO. RD. B2

S.A.P. NO. 62-648-11

Sheet No. 13 of 44 Sheets

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23-141 construction plan for traffic control signal system 1-44
SAP 62-648-11 + 62-678-05

24X

LEGEND OF SYMBOLS

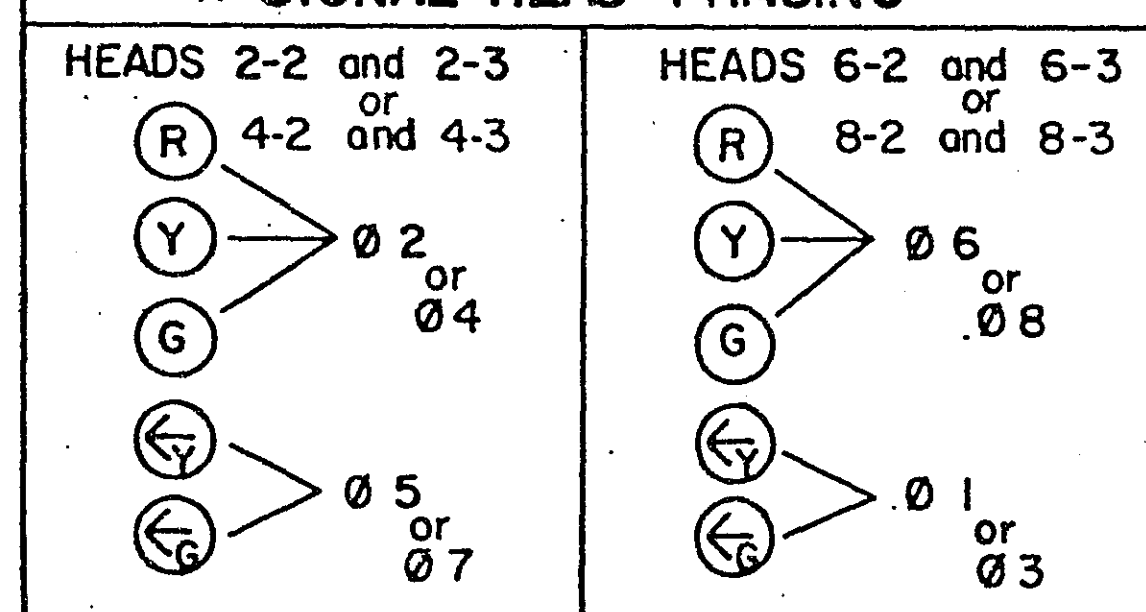
SIGNAL BASE NO.	
SIGNAL FACE NO.	
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE	
HANDHOLE-INPLACE	
RIGID STEEL CONDUIT (R.S.C.)	
RIGID STEEL CONDUIT (R.S.C.)-INPLACE	
SIGNAL FACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE-INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS-INPLACE	
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	

SIGNAL INDICATION CHART

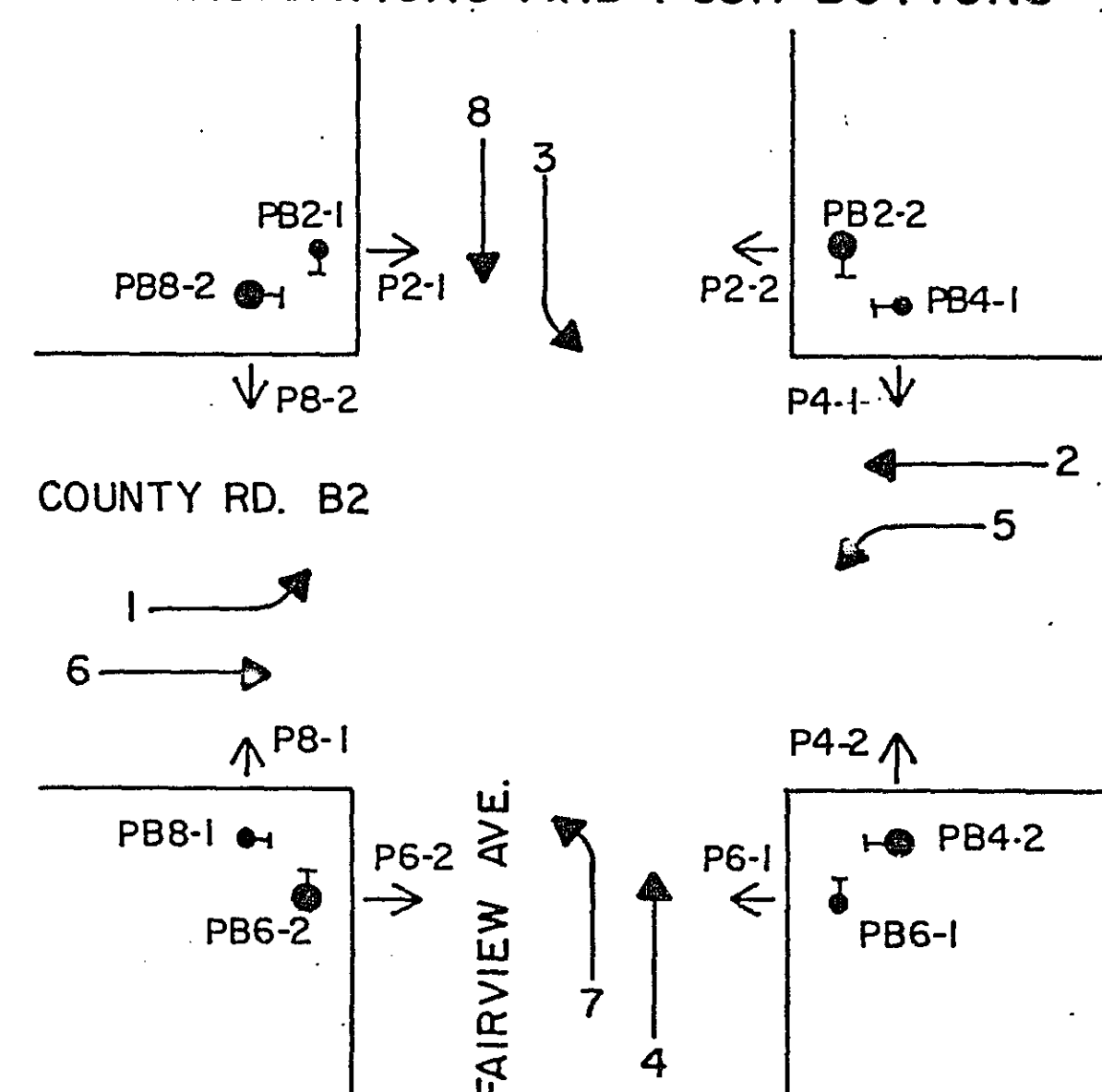
	FACE	PHASE	INDICATION SIZE					
			R	Y	G	Y	G	
*	2-1	2	12"	12"	12"	-	-	
	2-2	2 and 5	12"	12"	12"	12"	12"	
*	2-3	2 and 5	12"	12"	12"	12"	12"	
	2-4	2	12"	12"	12"	-	-	
*	4-1	4	12"	12"	12"	-	-	
*	4-2	4 and 7	12"	12"	12"	12"	12"	
*	4-3	4 and 7	12"	12"	12"	12"	12"	
*	4-4	4	12"	12"	12"	-	-	
*	6-1	6	12"	12"	12"	-	-	
*	6-2	6 and 1	12"	12"	12"	12"	12"	
*	6-3	6 and 1	12"	12"	12"	12"	12"	
	6-4	6	12"	12"	12"	-	-	
*	8-1	8	12"	12"	12"	-	-	
*	8-2	8 and 3	12"	12"	12"	12"	12"	
*	8-3	8 and 3	12"	12"	12"	12"	12"	
	8-4	8	12"	12"	12"	-	-	

FLASH MODE = ALL RED

* SIGNAL HEAD PHASING



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



A EQUIPMENT PAD - SEE DETAILS

* SERVICE CABINET
EXTEND INTO HH 1
* 1.25" RSC
* 3-1/C #4
EXTEND INTO HH 3
* 2" RSC
* 4-1/C #10

* CONTROLLER CABINET INPLACE, R & S
* CONTROLLER CABINET

EXTEND INTO HH 2
4" RSC INPLACE
* 4-12/C #12
* 6-3/C #12
* 2-3/C #20
* 9-2/C #14
* 2-12 PR #19 -
(INTERCONNECT)
EXTEND INTO HH 3
4" RSC INPLACE
* 4-12/C #12
* 6-3/C #12
* 2-3/C #20
* 12-2/C #14

BETWEEN HH 2 & 3
3" RSC INPLACE
* 3" RSC

* 4-12/C #12
* 6-3/C #12
* 2-3/C #20
* 9-2/C #14
* 4-1/C #10

* FURNISH AND INSTALL - 1" R.S.C. INTO INPLACE CABINET. FOUNDATION, STUB FROM CABINET TO 20' NORTH, WITH DRAIN TEE & 1-2/C TELEPHONE DROP WIRE.

* F&I 1.25" RSC
BETWEEN INPLACE CABINET AND SERVICE CABINET WITH
* 2-1/C #6
* 1-1/C #6 (BARE)

A100-A-35-T30-15 INPLACE
LUMINAIRE - 200 WATT HPS INPLACE
ONE-WAY SIGNAL-OVERHEAD (2-4) INPLACE, R & S
* ONE-WAY SIGNAL-OVERHEAD (2-2) INPLACE, R & S
* TYPE 10C-POLE MOUNTED INPLACE, R & S
* TYPE 10B-POLE MOUNTED 45°
* TYPE 10B-POLE MOUNTED 225°
* 12" PEDESTRIAN INDICATIONS
* 2 PEDESTRIAN PUSH BUTTONS INPLACE, R & S ONE
EXTEND INTO HH 2
3" RSC INPLACE
* 2-12/C #12
* 4-3/C #12
* 2-1/C #10

* PEDESTRIAN PUSH BUTTON STA (4" RSC)
* 1 PEDESTRIAN PUSH BUTTON
EXTEND INTO HH 2
* 1.25" RSC
* 1-3/C #12

S.O.P. (NSP POLE INPLACE)
* SERVICE EQUIPMENT AND
RSC RISER, R & S
* 1.25" RSC RISER WITH WEATHERHEAD
EXTEND INTO HH 1
* 1.25" RSC
* 3-1/C #4

NO.	SIZE	OPERATION	LOCATION
* D1-1	2-6'X15'	C&E (TD)	0'
* D1-2	6'X25'	E	80'
* D2-1	6'X6'	C&E	245'
* D2-2	6'X6'	C&E	245'
* D3-1	2-6'X15'	C&E (TD)	0'
* D3-2	6'X25'	E	80'
* D4-1	6'X6'	C&E	260'
* D4-2	6'X6'	C&E	260'
* D4-5	2-6'X8'	C	0'
* D5-1	2-6'X15'	C&E (TD)	0'
* D5-2	6'X25'	E	80'
* D6-1	6'X6'	C&E	260'
* D6-2	6'X6'	C&E	260'
* D6-4	2-6'X8'	C	0'
* D7-1	2-6'X15'	C&E (TD)	0'
* D7-2	6'X25'	E	80'
* D8-1	6'X6'	C&E	260'
* D8-2	6'X6'	C&E	260'
* D8-5	2-6'X8'	C	0'
* D-3	6'X6'	COUNT	SEE PLAN
* D-4	6'X6'	COUNT	SEE PLAN

LOCATION = DISTANCE FROM STOP LINE TO DETECTOR

C&E = CALL AND EXTEND

E = EXTEND ONLY

C = CALL ONLY

(TD) = TIME DELAYED

A100-A-35 INPLACE
ONE-WAY SIGNAL-OVERHEAD (8-4) INPLACE
* ONE-WAY SIGNAL-OVERHEAD (8-2) INPLACE, R & S
* ONE-WAY SIGNAL-OVERHEAD (8-2)
* TYPE 10C-POLE MOUNTED INPLACE, R & S
* TYPE 20C-POLE MOUNTED 270°
* 12" PEDESTRIAN INDICATIONS
* 2 PEDESTRIAN PUSH BUTTONS INPLACE, R & S ONE
ONE-WAY EVP DETECTORS AND
LIGHTS-OVERHEAD, INPLACE
EXTEND INTO HH 12
3" RSC INPLACE
* 2-12/C #12
* 4-3/C #12
* 2-3/C #20

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 10/7/87 Reg. No. 12703

A100-A-35 INPLACE
* 2 ONE-WAY SIGNAL-OVERHEAD INPLACE, R & S
* 2 ONE-WAY SIGNALS-OVERHEAD
* TYPE 10C-POLE MOUNTED INPLACE, R & S
* TYPE 10B-POLE MOUNTED 45°
* TYPE 10B-POLE MOUNTED 225°
* 12" PEDESTRIAN INDICATIONS
* 2 PEDESTRIAN PUSH BUTTONS INPLACE, R & S ONE
ONE-WAY EVP DETECTOR AND
LIGHT-OVERHEAD, INPLACE
EXTEND INTO HH 7
3" RSC INPLACE
* 2-12/C #12
* 4-3/C #12
* 1-3/C #20

4" RSC INPLACE
* 4-12/C #12
* 6-3/C #12
* 2-3/C #20
* 7-2/C #14
* 2-1/C #10
* 2-12 PR #19 -
(INTERCONNECT)

* PEDESTRIAN PUSH BUTTON STA (4" RSC)
* 1 PEDESTRIAN PUSH BUTTON
EXTEND INTO HH 7
* 1.25" RSC
* 1-3/C #12

* 2" RSC
* 3-2/C #14
* 1-12 PR #19 -
(INTERCONNECT)

- * NOTES:
- ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE USED INPLACE UNLESS OTHERWISE NOTED WITH A * (* = WORK TO BE DONE, THIS SHEET ONLY).
 - SEE SHEETS 17-20 FOR EXISTING SIGNAL SYSTEM.
 - DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
 - REMOVE AND SALVAGE INPLACE DOWN LIGHTS MOUNTED OVERHEAD (4 TOTAL).
 - WELD NEW 1.25" DIA. HALF COUPLINGS FOR REVISED SIGNAL HEAD MOUNTINGS ON POLES 1 AND 2. PLUG UNUSED MOUNTINGS.
 - R & S DENOTES REMOVE AND SALVAGE.
 - REMOVE AND SALVAGE ALL CONTROL CABLE AND INSTALL NEW.
 - TEMPORARY ALL RED FLASHING OPERATION DURING REVISION WORK. SEE SPECIAL PROVISIONS.

* REFLUMB POLE-SEE SPEC.
A100-A-35-T30-15 INPLACE
* LUMINAIRE - 400 WATT MERCURY INPLACE, R & S
* LUMINAIRE - 200 WATT HPS AT 315°
ONE-WAY SIGNAL-OVERHEAD (6-4) INPLACE
* ONE-WAY SIGNAL-OVERHEAD (6-2), INPLACE, R & S
* ONE-WAY SIGNAL-OVERHEAD (6-2)
* TYPE 10C-POLE MOUNTED INPLACE, R & S
* TYPE 20C-POLE MOUNTED 270°
* 12" PEDESTRIAN INDICATIONS
* 2 PEDESTRIAN PUSH BUTTONS INPLACE, R & S ONE
ONE-WAY EVP DETECTOR AND
LIGHT-OVERHEAD, INPLACE
EXTEND INTO HH 10
3" RSC INPLACE
* 2-12/C #12
* 4-3/C #12
* 1-3/C #20
* 2-1/C #10

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH
DATE: 1-26-90

INTERSECTION LAYOUT
COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C

S.A.P. NO. 62-678-06

Sheet No. 14 of 44 Sheets

23-141

23-141

Construction Plan for Traffic Control Signal System
SAP 62-678-11 & 62-678-06

1-94

24X

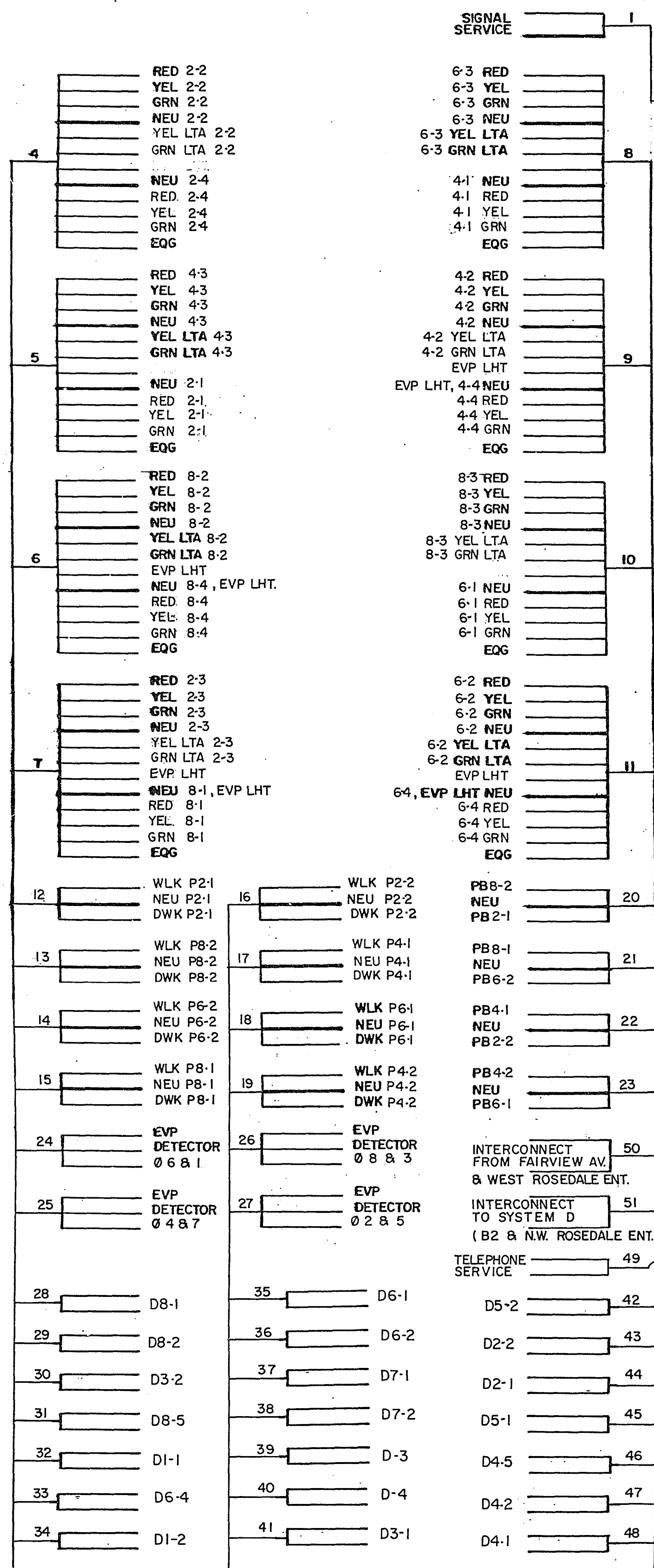
DRAWING N

DRAWING NUMBER
23-141

DRAWING NUMBER

NUMBER

CONTROLLER CABINET



SERVICE CABINET & METER

SIGNAL SERVICE (METERED)

ST. LIGHT SERVICE (UNMETERED)

ST. LIGHT SERVICE (UNMETERED)

S.O.P. 120/240V. SERVICE

H.H.1

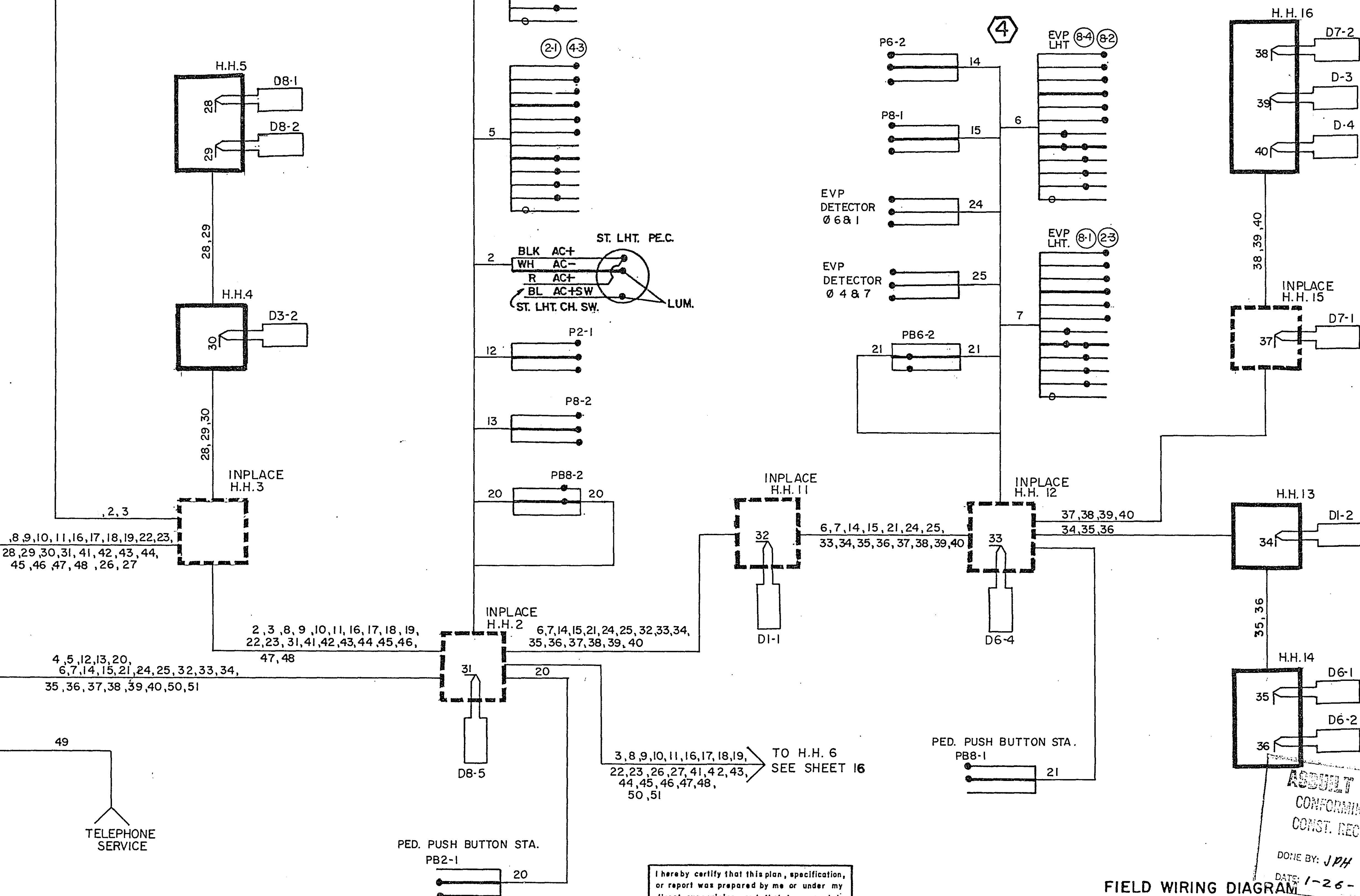
S.O.P.

120/240 VAC

CONDUCTOR COLOR CODING

R	BLK	2-1/C #6
O	BL	2-1/C #10
BL	R	3/C #12
WH	WH	3/C #12
R/BLK	BLK	2/C #14
O/BLK	BLK	2/C #14
BL/BLK	BLK	2/C #14
WH/BLK	BLK	2/C #14
BLK	R OR O	3/C #20
BLK/WH	WH OR YEL	3/C #20
G/BLK	BL OR BLK	3/C #20
G		

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

FIELD WIRING DIAGRAM
COUNTY RD. B2 & FAIRVIEW AVE.

SYSTEM C

S.A.P. NO. 62-678-06

Sheet No. 15 of 44 Sheets

23-141

24X

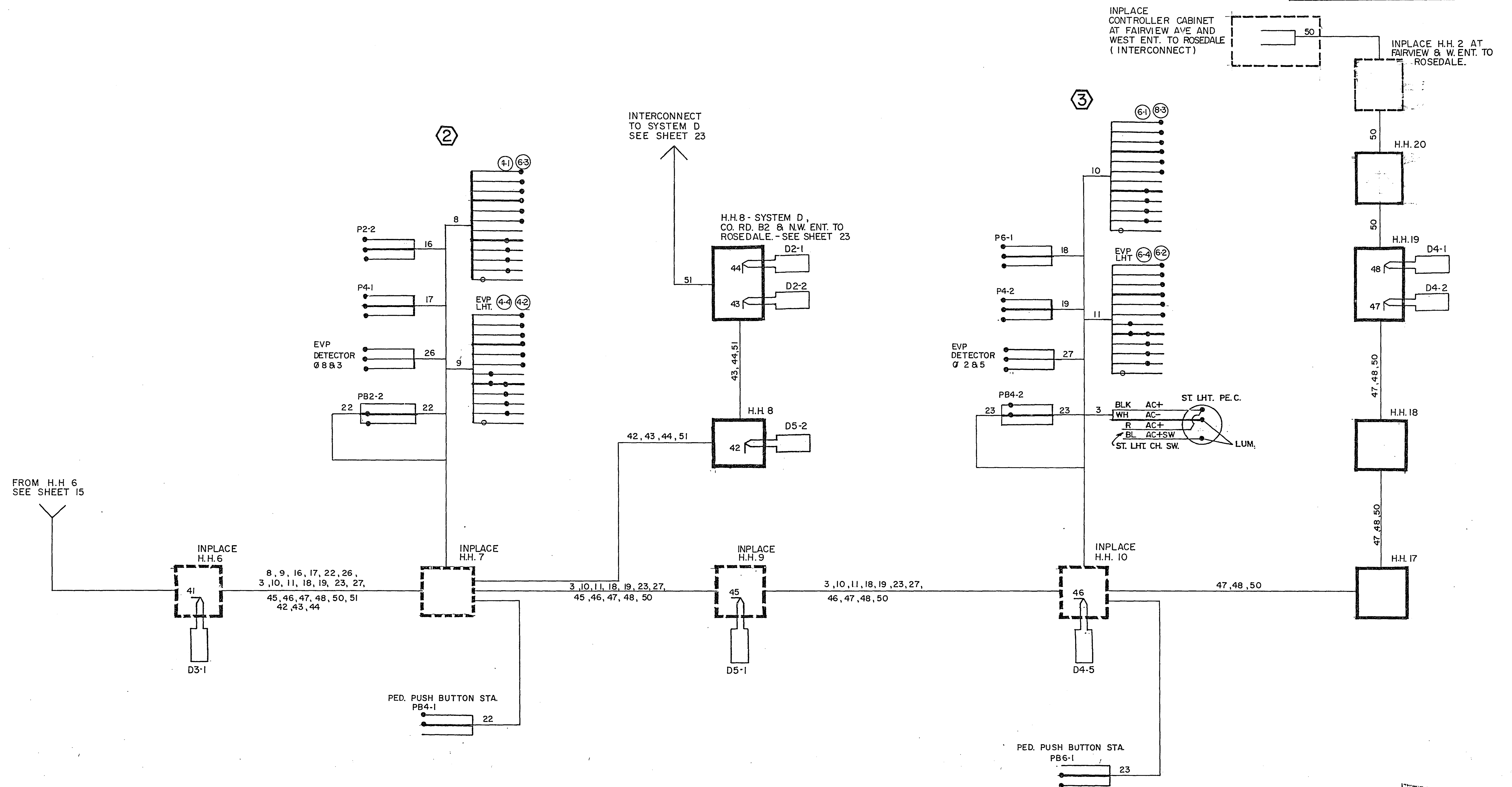
23-141 Construction Plan for Traffic Control Signal System 1-94
SAP 62-648-11 + 62-678-06

DRAWING

DRAWING NUMBER
23-141

DRAWING NUMBER

NUMBER

PLAN HOLD CORPORATION
REGISTEREDPLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED NUMBER 07584PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED NUMBER 07584PLAN HOLD CORPORATION
REGISTERED

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 H. JPH
Date 10/17/97 Reg. No. 12703

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 1-26-90

FIELD WIRING DIAGRAM
COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C

S.A.P. NO. 62-678-06

Sheet No. 16 of 44 Sheets

23-141

23-141

Construction Plan for Traffic Control Signal system 1-94
SAP 62-648-11 + 62-678-06

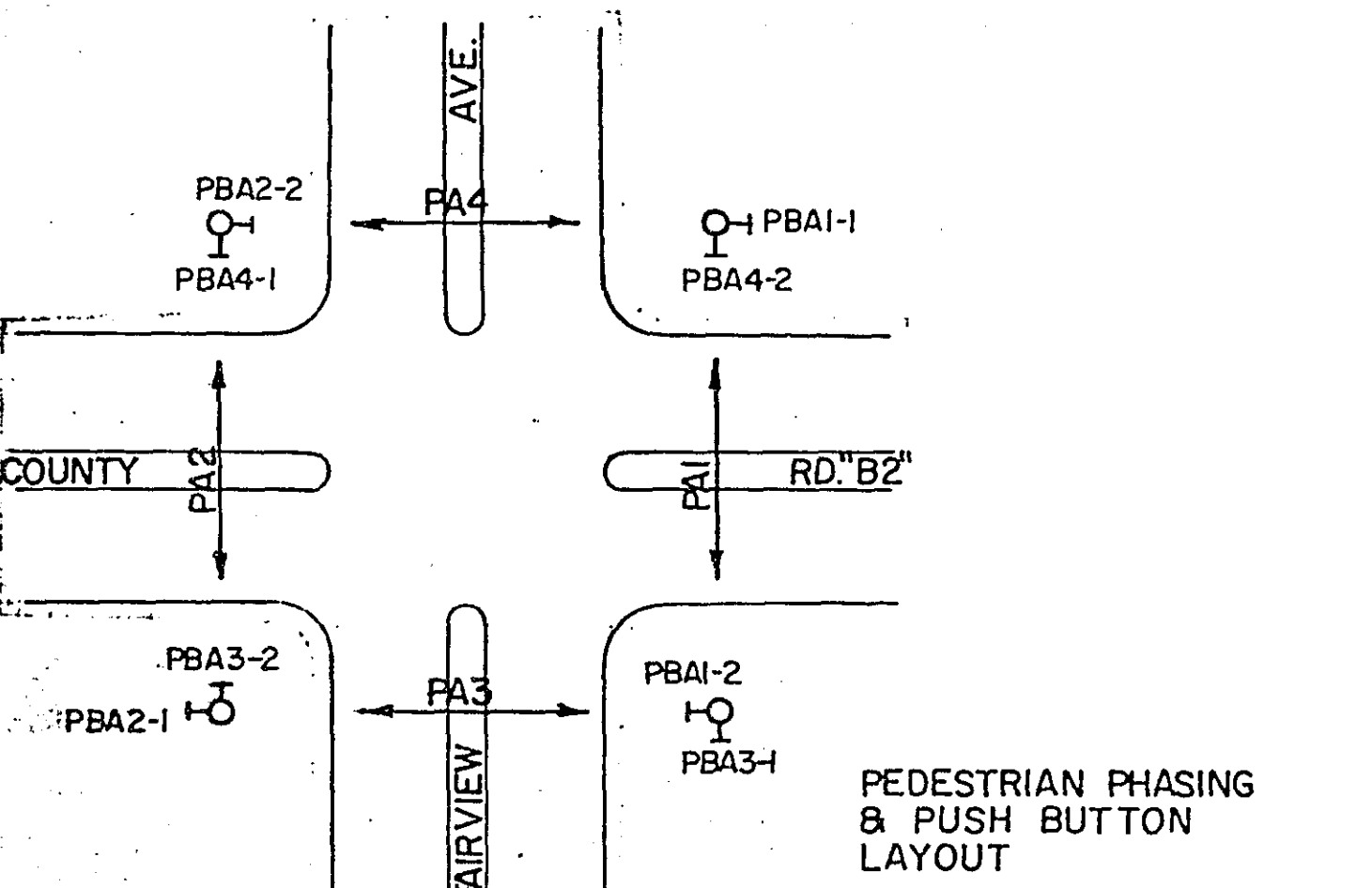
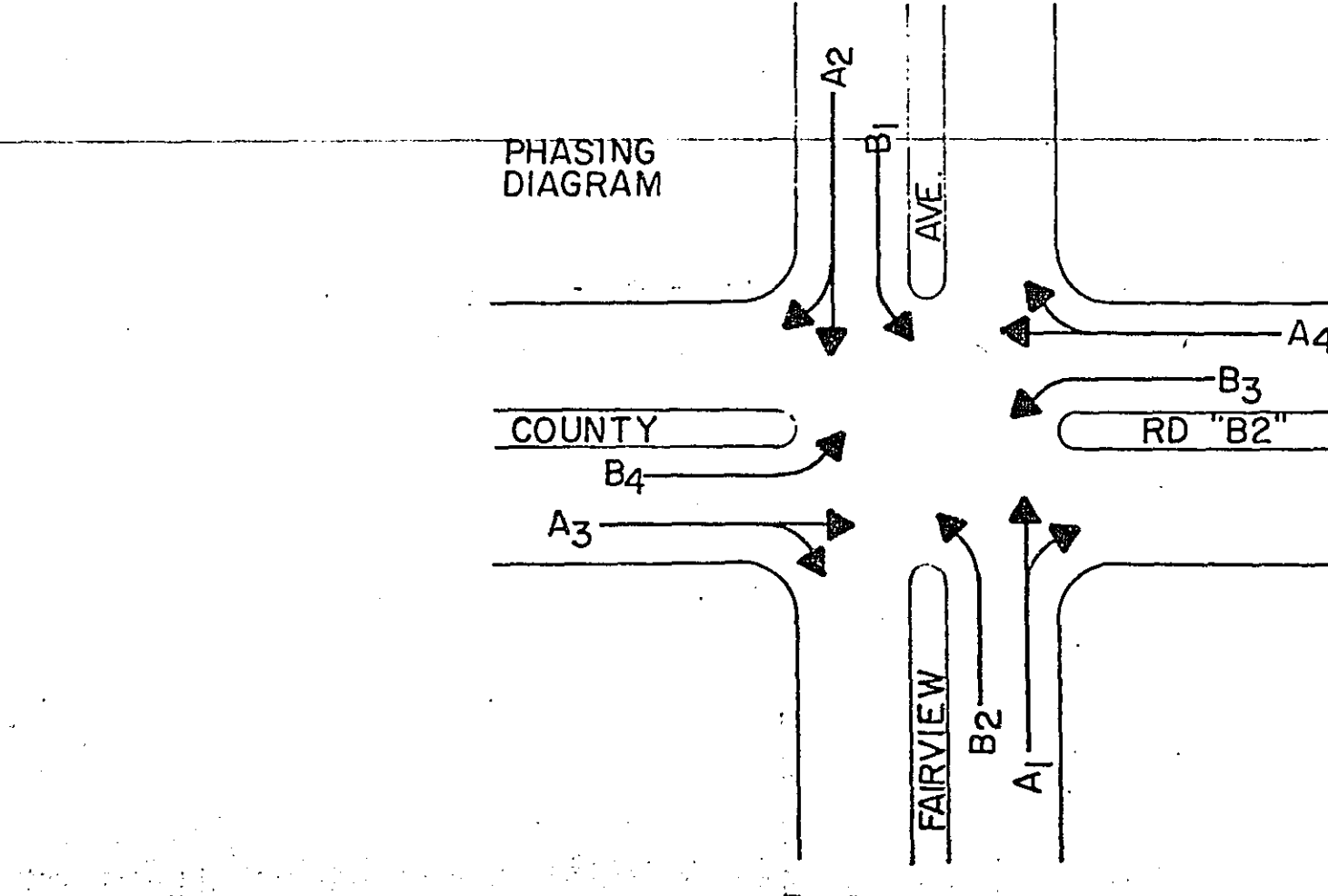
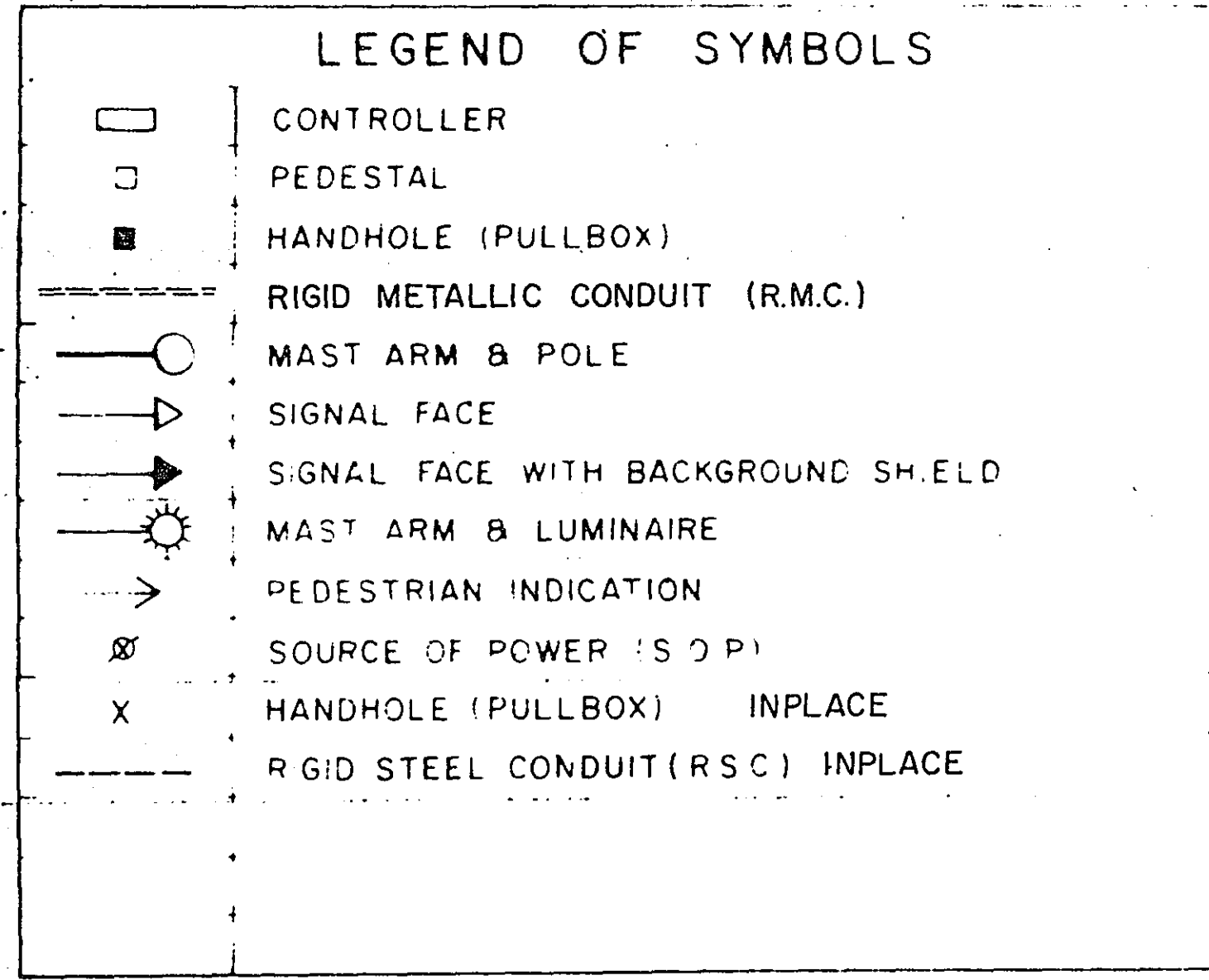
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DRAWING

DRAWING NUMBER
23-141

DRAWING NUMBER

NUMBER



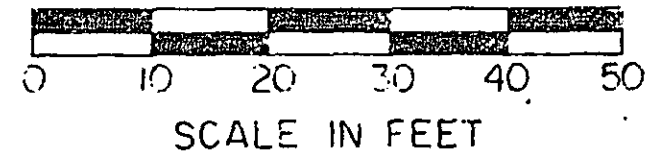
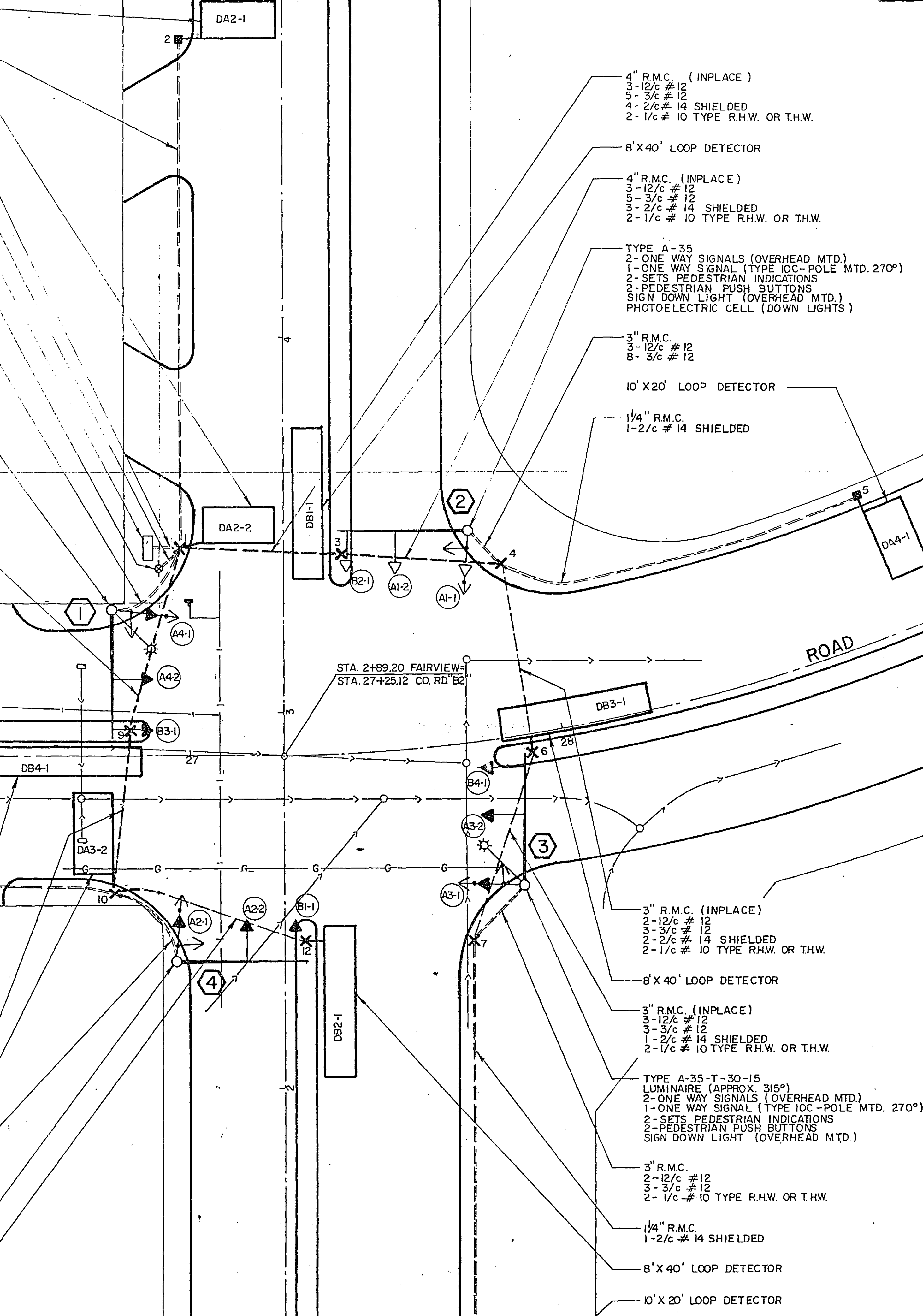
FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1-1	A1	R	12"	12"	12"	—	—	—
A1-2	A1	R	12"	12"	12"	—	—	—
A2-1	A2	R	12"	12"	12"	—	—	—
A2-2	A2	R	12"	12"	12"	—	—	—
A3-1	A3	R	12"	12"	12"	—	—	—
A3-2	A3	R	12"	12"	12"	—	—	—
A4-1	A4	R	12"	12"	12"	—	—	—
A4-2	A4	R	12"	12"	12"	—	—	—
* B1-1	B1	R	12"	12"	—	12"	—	—
* B2-1	B2	R	12"	12"	—	12"	—	—
* B3-1	B3	R	12"	12"	—	12"	—	—
* B4-1	B4	R	12"	12"	—	12"	—	—

* SEE SPECIAL PROVISIONS (SPECIAL SIGNAL FACES)

10' X 20' LOOP DETECTOR
1/4" R.M.C.
1-2/c #14 SHIELDED
10' X 20' LOOP DETECTOR (CALLING)
2-4" R.M.C.
2-12/c #12
2-3/c #12
2-1/c #14 SHIELDED
2-1/c #10 TYPE R.H.W. OR T.H.W.
2-1/4" R.M.C.
1-1/c #6 TYPE R.H.W. OR T.H.W.
4-1/c #10
CONTROLLER CABINET
(SEE SPECIAL PROVISIONS)
SOURCE OF POWER
SERVICE EQUIPMENT
3" R.M.C.
3-12/c #12
3-3/c #12
2-1/c #10 TYPE R.H.W. OR T.H.W.
TYPE A-35-T-30-15
LUMINAIRE (APPROX. 315°)
2-ONE WAY SIGNALS (OVERHEAD MTD.)
1-ONE WAY SIGNAL (TYPE 10C-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS
SIGN DOWN LIGHT (OVERHEAD MTD.)

3" R.M.C. (INPLACE)
3-12/c #12
3-3/c #12
4-2/c #14 SHIELDED

10' X 20' LOOP DETECTOR
1/4" R.M.C.
1-2/c #14 SHIELDED
8' X 40' LOOP DETECTOR
3" R.M.C. (INPLACE)
3-12/c #12
3-3/c #12
2-1/c #14 SHIELDED
10' X 20' LOOP DETECTOR (CALLING)
3" R.M.C.
3-12/c #12
3-3/c #12
TYPE A-35
2-ONE WAY SIGNALS (OVERHEAD MTD.)
1-ONE WAY SIGNAL (TYPE 10C-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS
SIGN DOWN LIGHT (OVERHEAD MTD.)
3" R.M.C. (INPLACE)
1-2/c #14 SHIELDED



NOTES:
(1) HANDHOLE (INPLACE) IS TWO HANDHOLES PLACED SIDE BY SIDE WITH 3" R.M.C. BETWEEN

FOR INFORMATION ONLY
(INPLACE SYSTEM)

INTERSECTION LAYOUT
COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 1-26-90

S.A.P. NO. 62-678-06

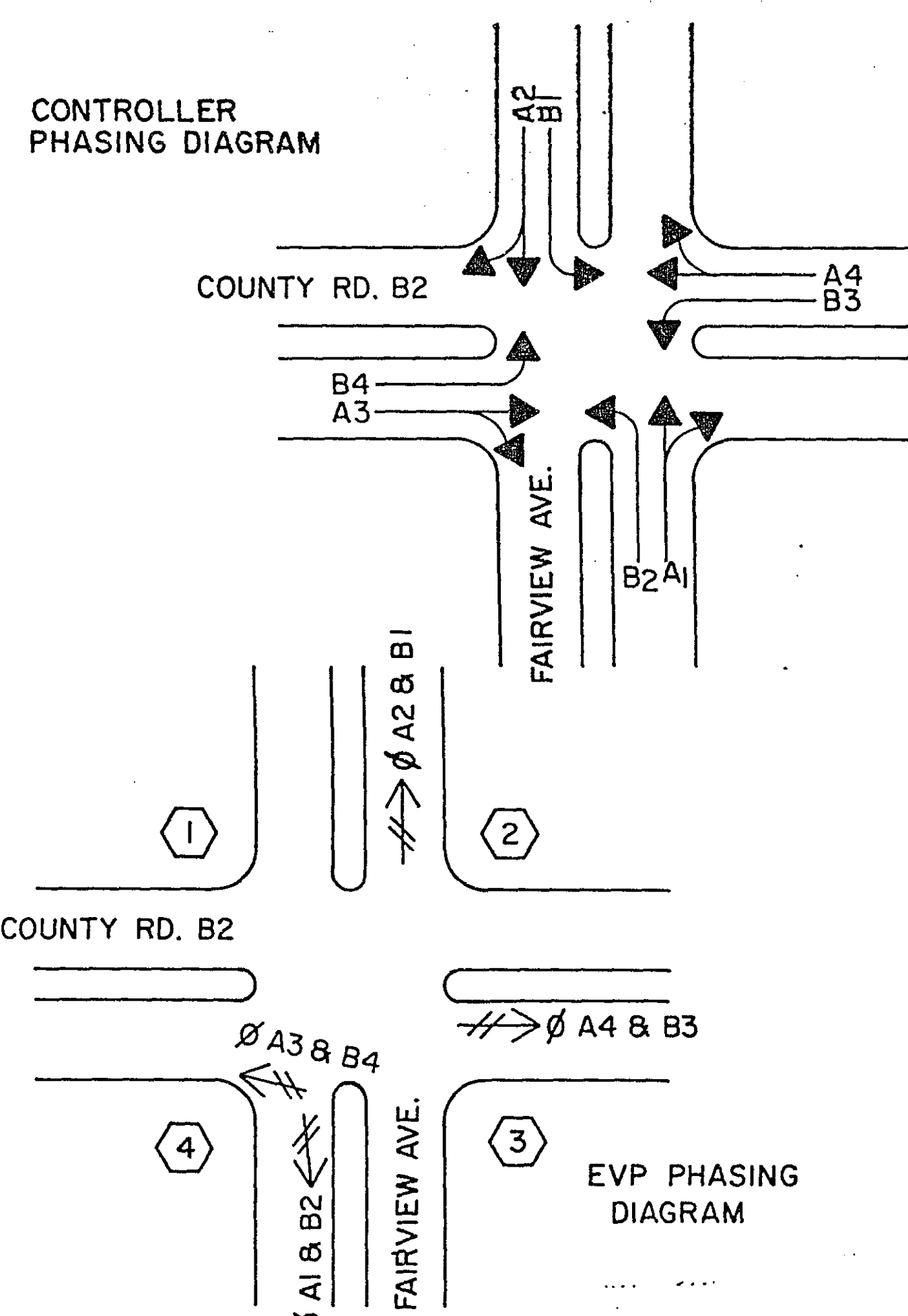
SHEET NO. 17 OF 44 SHEETS

23-141 Construction Plan for Traffic Control Signal System 1-94
SAP 62-648-11 + 62-678-06

24X

LEGEND OF SYMBOLS

SIGNAL BASE No.	5
SIGNAL FACE No.	4
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	



SIGNAL INDICATION CHART (INPLACE)

FACE	PHASE	FLASH	INDICATION SIZE			←	↑	→
			R	Y	G			
A1-1	A1	R	12"	12"	12"	—	—	—
A1-2	A1	R	12"	12"	12"	—	—	—
A2-1	A2	R	12"	12"	12"	—	—	—
A2-2	A2	R	12"	12"	12"	—	—	—
A3-1	A3	R	12"	12"	12"	—	—	—
A3-2	A3	R	12"	12"	12"	—	—	—
A4-1	A4	R	12"	12"	12"	—	—	—
A4-2	A4	R	12"	12"	12"	—	—	—
* B1-1	B1	R	12"	12"	12"	—	—	—
* B2-1	B2	R	12"	12"	12"	—	—	—
* B3-1	B3	R	12"	12"	12"	—	—	—
* B4-1	B4	R	12"	12"	12"	—	—	—

* SPECIAL SIGNAL FACES

CONTROLLER CABINET WIRING REVISION

INPLACE CABLE	RED A3-1	YEL A3-1	GRN A3-1	NEU A3-1, A3-2	RED A3-2	YEL A3-2	GRN A3-2	NEU PAI-2 EVP LHT	WLK PAI-2	DWK PAI-2	EVP LHT ØA4 & B3	EQG
INPLACE CABLE	RED AI-1	YEL AI-1	GRN AI-1	NEU AI-1, AI-2	RED AI-2	YEL AI-2	GRN AI-2	NEU PAI-1, EVP LHT	WLK PAI-1	DWK PAI-1	EVP LHT ØA2 & B1	EQG
INPLACE CABLE	RED A2-1	YEL A2-1	GRN A2-1	NEU A2-1, A2-2	RED A2-2	YEL A2-2	GRN A2-2	NEU PA2-1, EVP LHT	WLK PA2-1	DWK PA2-1	EVP LHT ØA1 & B2	EQG
INPLACE CABLE	RED BI-1	YEL BI-1	LTA BI-1	NEU BI-1, B3-1	RED B3-1	YEL B3-1	LTA B3-1	NEU PA3-2, EVP LHT	WLK PA3-2	DWK PA3-2	EVP LHT ØA3 & B4	EQG

NEW CABLE
31
3/c #20
EVP
CABLE
ØA2 & B1

NEW CABLE
32
3/c #20
EVP
CABLE
ØA4 & B3

NEW CABLE
33
3/c #20
EVP
CABLE
ØA1 & B2

NEW CABLE
34
3/c #20
EVP
CABLE
ØA3 & B4

SEE SHEETS 4 & 5 FOR INPLACE WIRING.

FIELD WIRING REVISIONS

7L	PAI-2 EVP LHT	ØA3-1	ØA3-2
11G	PAI-1 EVP LHT	ØAI-1	ØAI-2
22G	PA2-1 EVP LHT	ØA2-1	ØA2-2
27L	PA3-2 EVP LHT	ØBI-1	ØB3-1

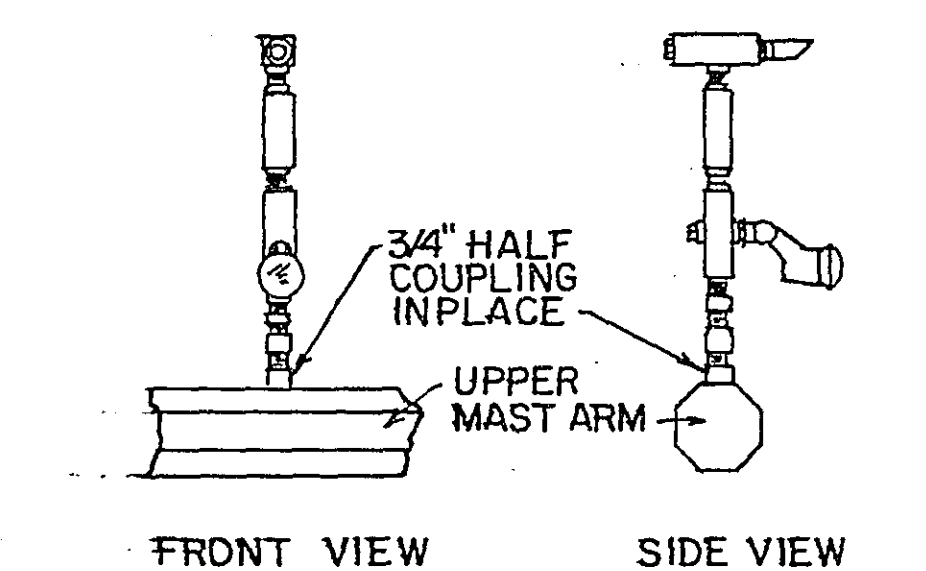
31G
EVP
CABLE
ØA2 & B1

32L
EVP
CABLE
ØA4 & B3

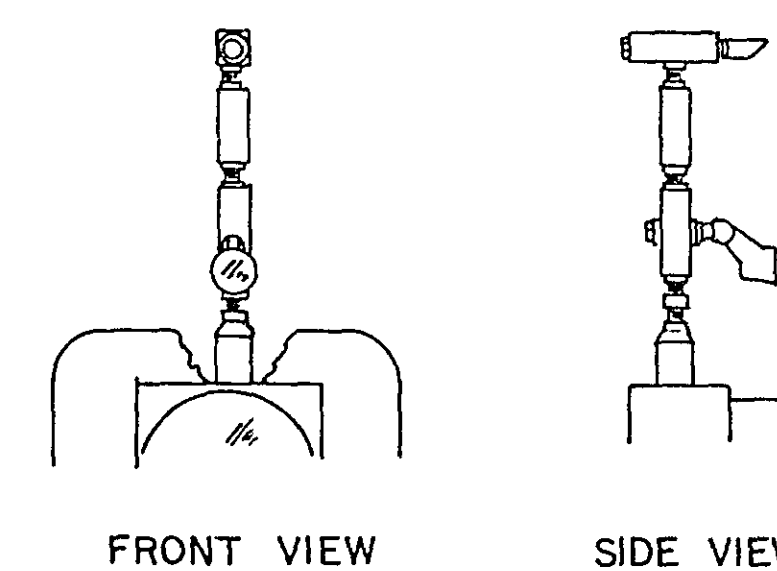
33G
EVP
CABLE
ØA1 & B2

34G
EVP
CABLE
ØA3 & B4

LABEL CABLES IN HANDHOLES AS DIRECTED BY ENGINEER.

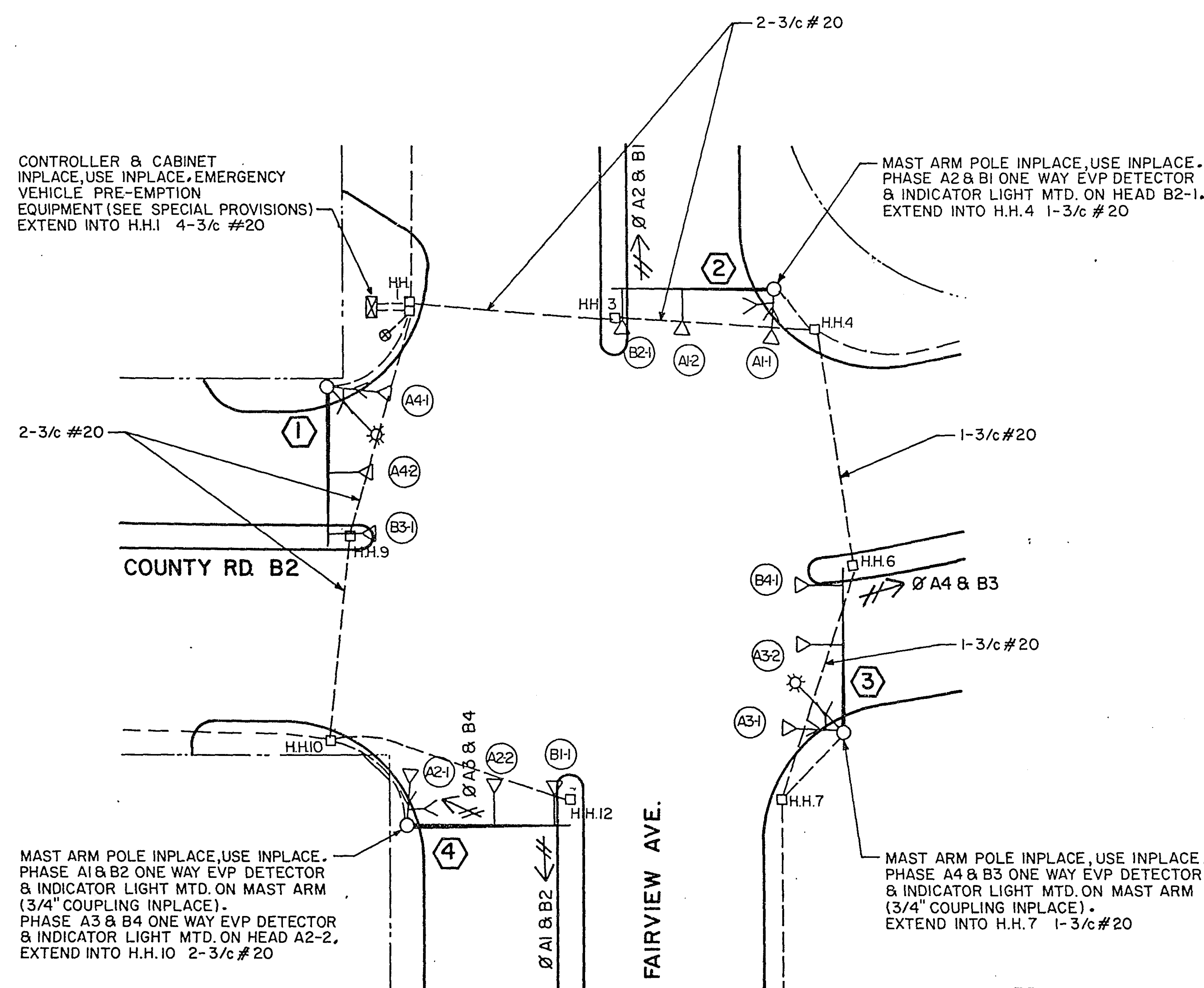


ONE WAY EVP DETECTOR & LIGHT MOUNTED TOP UPPER MAST ARM-POLES 3 & 4



ONE WAY EVP DETECTOR & LIGHT MOUNTED TOP SIGNAL HEADS A2-2 & B2-1

SCALE IN FEET



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH
DATE: 1-26-90

FOR INFORMATION ONLY
(INPLACE SYSTEM)

INTERSECTION LAYOUT
COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C

S.A.P. NO. 62-678-06

SHEET NO. 18 OF 44 SHEETS

23-141

23-141 construction plan for traffic control signal system 1-94
SAP 62-678-11 & 62-678-06

24-X

DRAWING

DRAWING NUMBER
23-141

DRAWING NUMBER

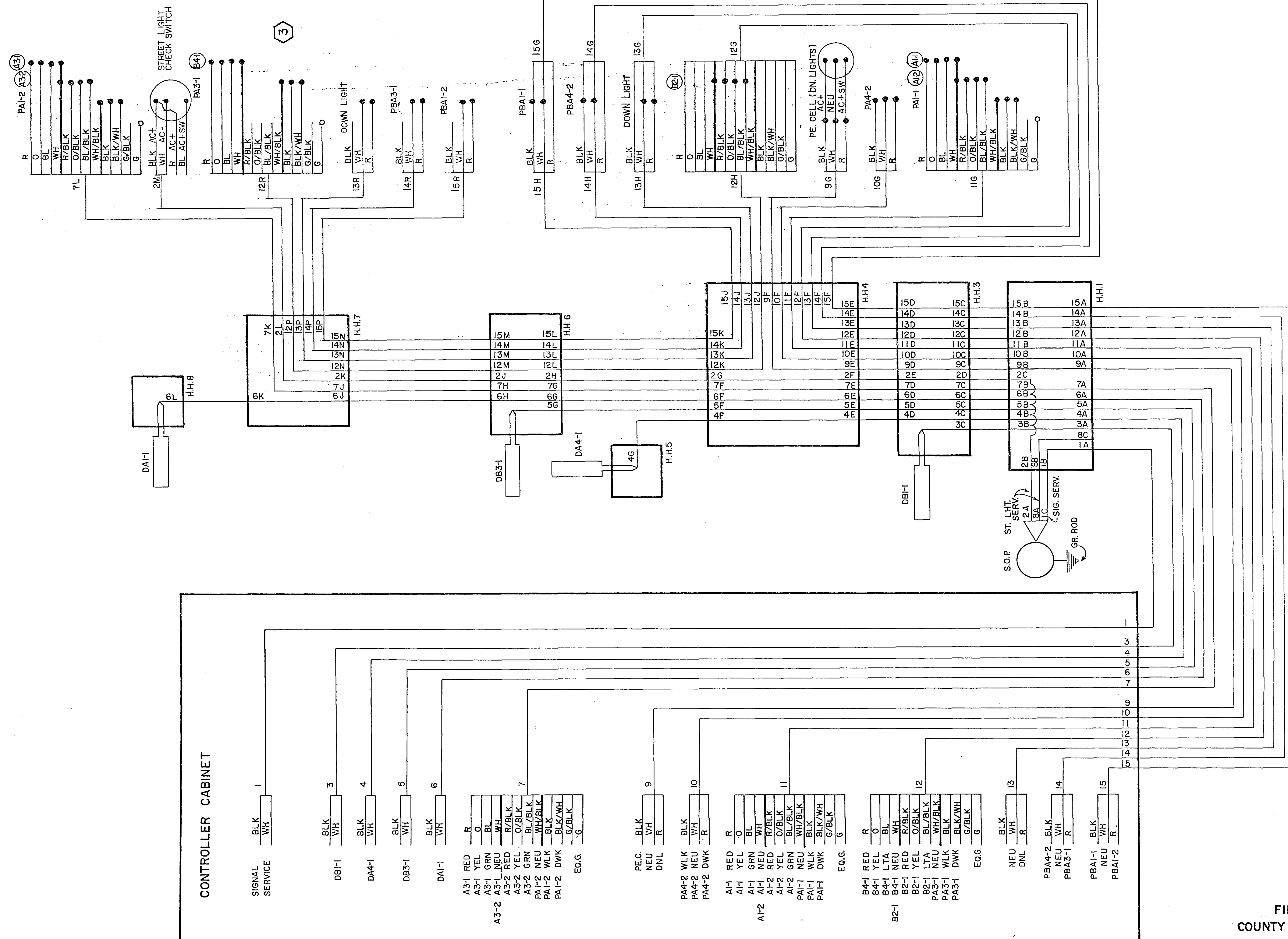
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PLAN HOLD CORPORATION
REQUIRE NO.

PLAN HOLD CORPORATION
REQUIRE NO. 0248

PLAN HOLD CORPORATION
REQUIRE NO. 0248

PLAN HOLD CORPORATION
REQUIRE NO. 0248



FOR INFORMATION ONLY
(INPLACE SYSTEM)

FIELD WIRING DIAGRAM
COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C

ASBURY PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 1-26-90

S.A.P. NO. 62-678-06

SHEET NO. 19 OF 44 SHEETS

23-141

23-141 construction plan for traffic control signal system 1-94
SAP 62-648-11 + 62-678-06

2-4-X

DRAWING 1

PLANT HOLD CORPORATION
RIVERSIDE, CALIFORNIA

DRAWING NUMBER
23-141

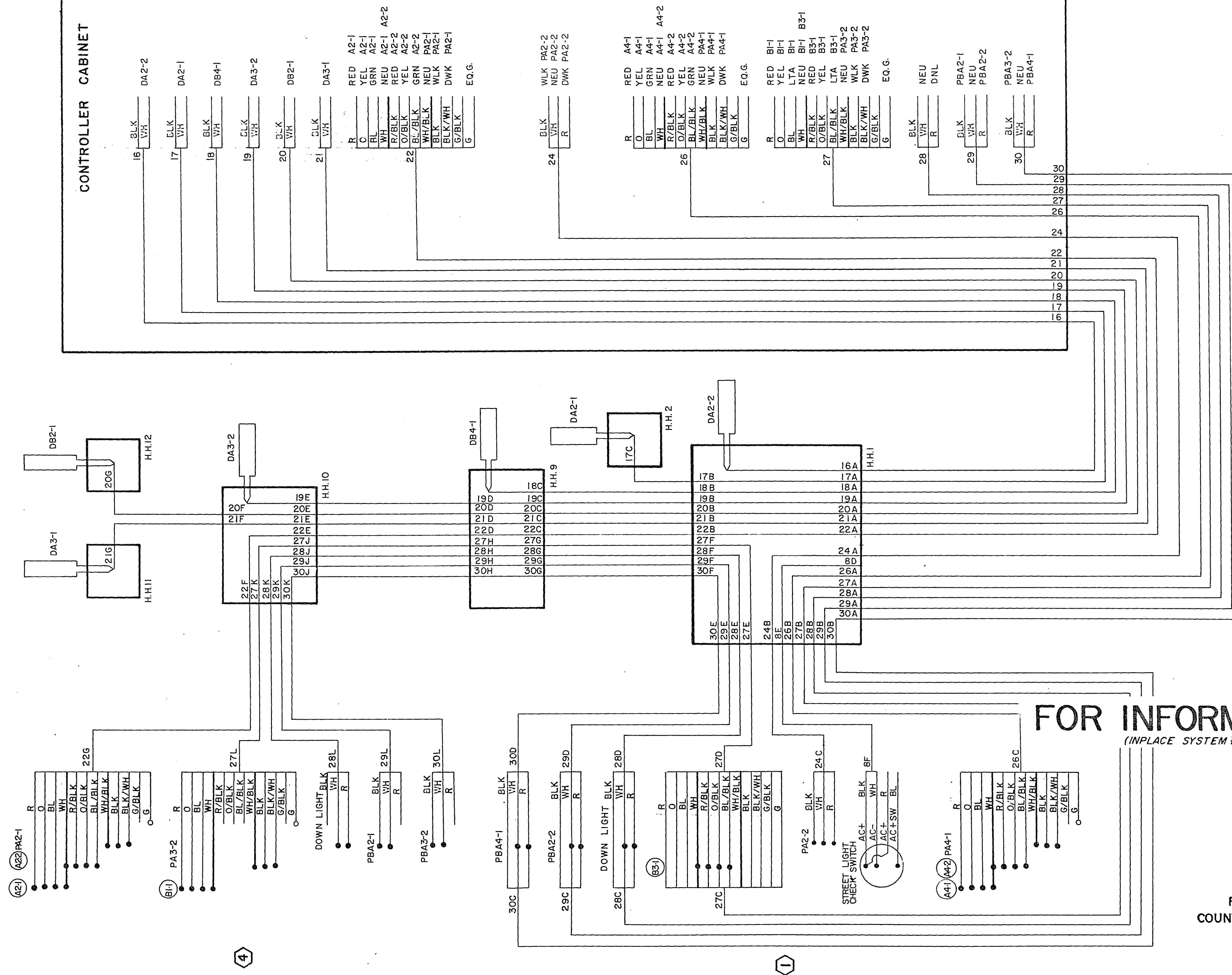
PLANT HOLD CORPORATION • RIVERSIDE, CALIFORNIA
REGISTERED NUMBER 0144

DRAWING NUMBER

PLANT HOLD CORPORATION • RIVERSIDE, CALIFORNIA
REGISTERED NUMBER 0144

NUMBER

PLANT HOLD CORPORATION
RIVERSIDE, CALIFORNIA



FOR INFORMATION ONLY
(INPLACE SYSTEM)

ASBUILT PLAN
CONFORMING TO
CONS. RECORDS
DONE BY: JPH
DATE: 1-26-90

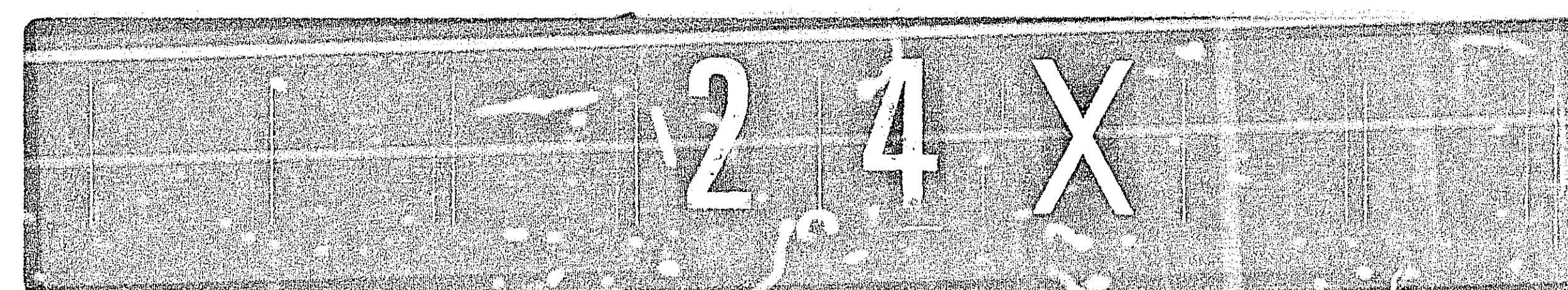
FIELD WIRING DIAGRAM
COUNTY RD. B2 & FAIRVIEW AVE.
SYSTEM C

S.A.P. NO. 62-678-06

SHEET NO. 20 OF 44 SHEETS

23-141

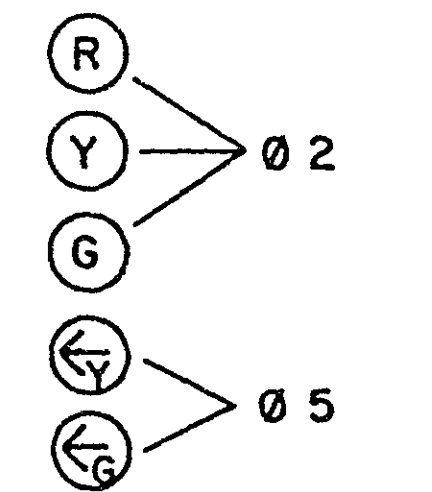
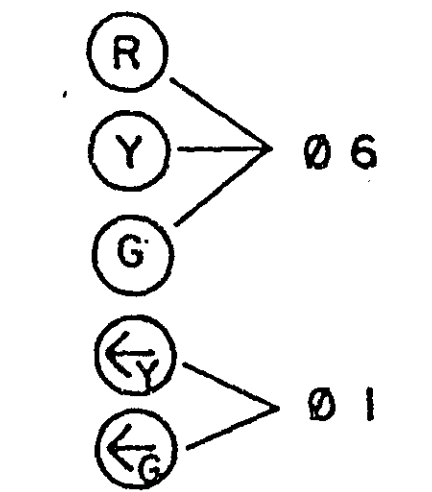
23-141 Construction Plan for Traffic Control Signal System 1-94
SAP 62-648-11 + 62-678-06

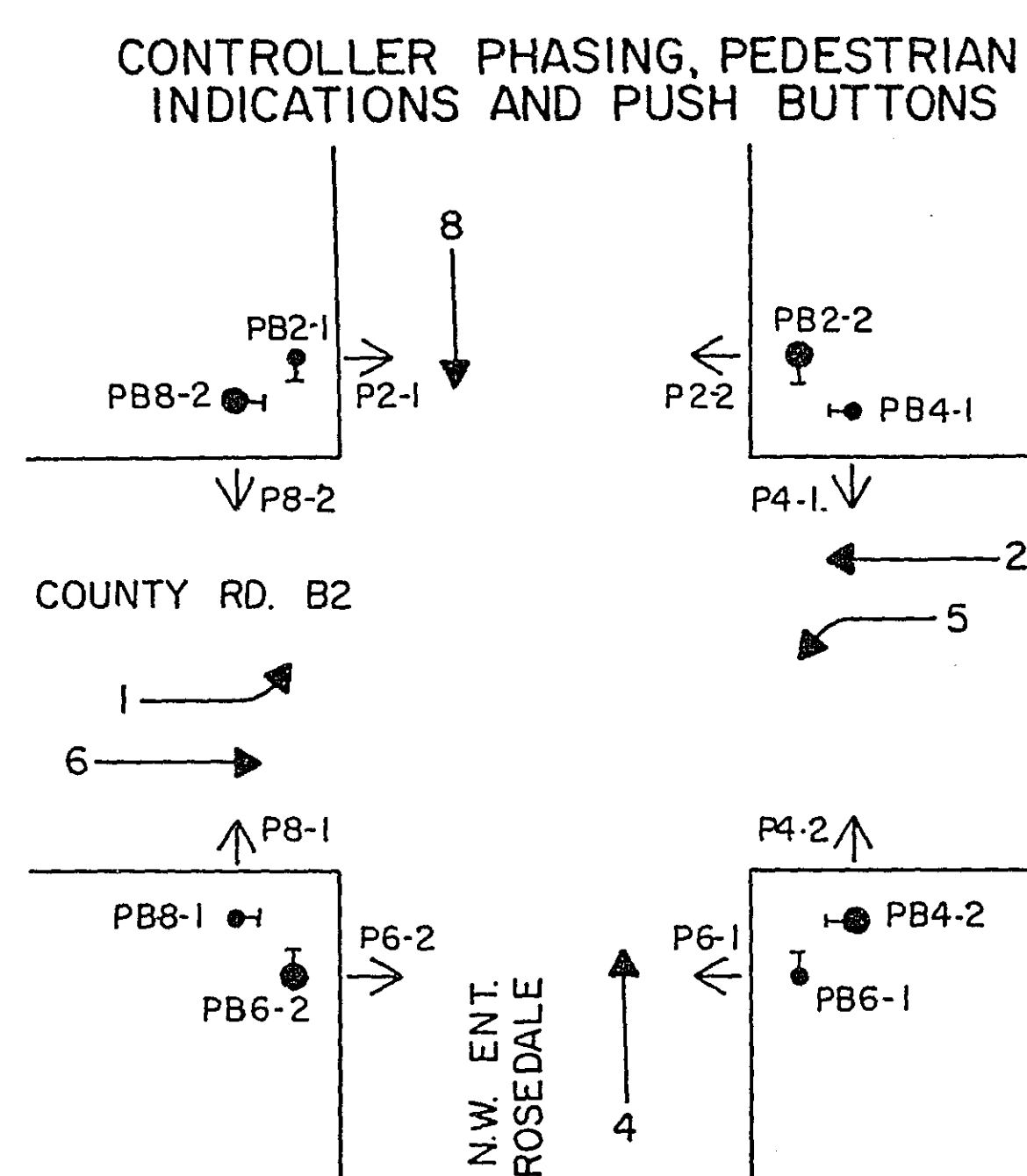


LEGEND OF SYMBOLS	
SIGNAL BASE NO.	5
SIGNAL FACE NO.	2
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE	
HANDHOLE-INPLACE	
RIGID STEEL CONDUIT (R.S.C.)	
RIGID STEEL CONDUIT (R.S.C.)-INPLACE	
SIGNAL FACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE-INPLACE	
PEDESTRIAN INDICATIONS	
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	

SIGNAL INDICATION CHART						
FACE	PHASE	INDICATION SIZE				
		R	Y	G	Y	G
2-1	2	12"	12"	12"	-	-
2-2	2 and 5	12"	12"	12"	12"	12"
2-3	2 and 5	12"	12"	12"	12"	12"
2-4	2	12"	12"	12"	-	-
4-1	4	12"	12"	12"	-	-
4-2	4	12"	12"	12"	-	-
4-3	4	12"	12"	12"	-	-
8-1	8	12"	12"	12"	-	-
8-2	8	12"	12"	12"	-	-
8-3	8	12"	12"	12"	-	-
6-1	6	12"	12"	12"	-	-
6-2	6 and 1	12"	12"	12"	12"	12"
6-3	6 and 1	12"	12"	12"	12"	12"
6-4	6	12"	12"	12"	-	-

FLASH MODE = ALL RED.

SIGNAL HEAD PHASING	
HEADS 2-2 and 2-3	HEADS 6-2 and 6-3
	



VEHICLE DETECTION			
NO.	SIZE	OPERATION	LOCATION
D1-1	6'X25'	C&E (TD)	10'
D2-1	6'X8'	C&E	260'
D2-2	6'X8'	C&E	260'
D4-1	2-6'X6'	C&E	120'
D4-2	2-6'X6'	C&E	55'
D4-3	2-6'X15'	C&E	0'
D5-1	2-6'X15'	C&E (TD)	0'
D5-2	6'X25'	E	80'
D6-1 & D-5	6'X6'	C&E COUNT	250'
D6-2 & D-6	6'X6'	C&E COUNT	250'
D-7	6'X6'	COUNT	SEE PLAN
D8-4	2-6'X6'	C&E (TD)	0'

LOCATION = DISTANCE FROM STOP LINE TO DETECTOR

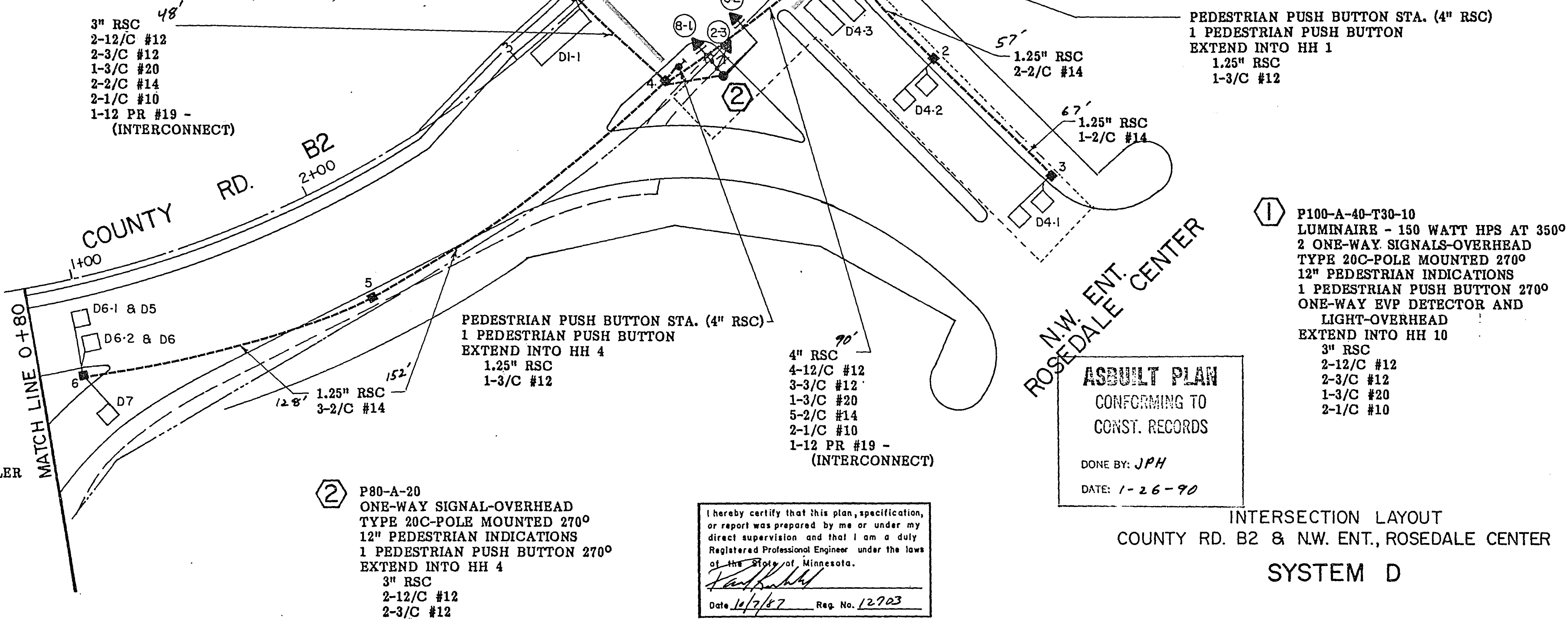
C&E = CALL AND EXTEND

E = EXTEND ONLY

(TD) = TIME DELAYED

REMOVE AND SALVAGE INPLACE LIGHTING UNIT AND FOUNDATION. DISCONNECT INPLACE CABLES AND MAKE SUITABLE UNDERGROUND SPLICE.

- (A) EQUIPMENT PAD - SEE DETAILS SERVICE CABINET
EXTEND INTO TRANSFORMER
1.25" RSC
3-1/C #6
EXTEND INTO HH 1
1.25" RSC
2-1/C #10
EXTEND INTO HH 10
1.25" RSC
2-1/C #10
CONTROLLER CABINET
STUB 2" RSC AND CAP
FOR FUTURE USE
EXTEND INTO HH 1
4" RSC
4-12/C #12
4-3/C #12
1-3/C #20
8-2/C #14
1-12 PR #19 -
(INTERCONNECT)
EXTEND INTO HH 10
4" RSC
4-12/C #12
3-3/C #12
1-3/C #20
4-2/C #14
1-12 PR #19 -
(INTERCONNECT)
BETWEEN SERVICE & CONTROLLER CABINET - 1.25" RSC
2-1/C #6
1-1/C #6 (BARE)
TRANSFORMER
480 TO
120/240 VAC
EXTEND INTO H.H. 16
1.25" RSC
3-1/C #6

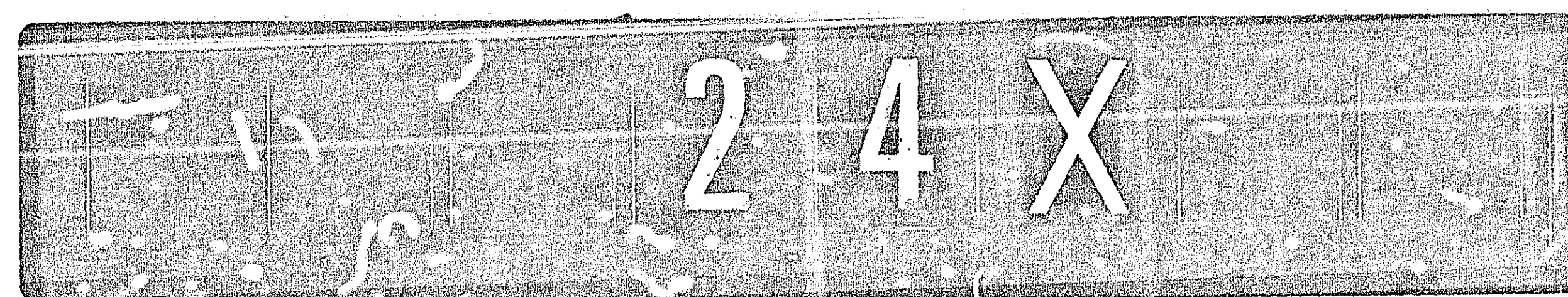


S.A.P. NO. 62-678-06

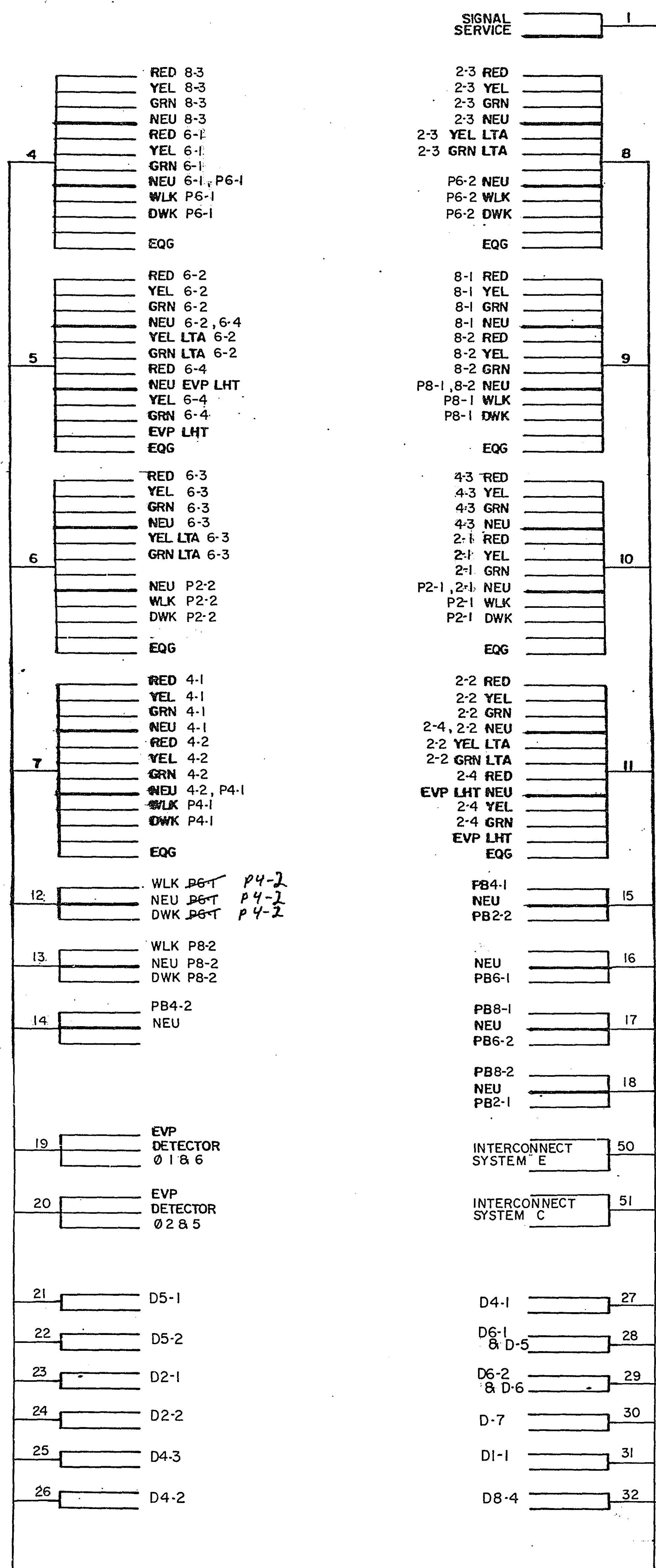
Sheet No. 21 of 44 Sheets

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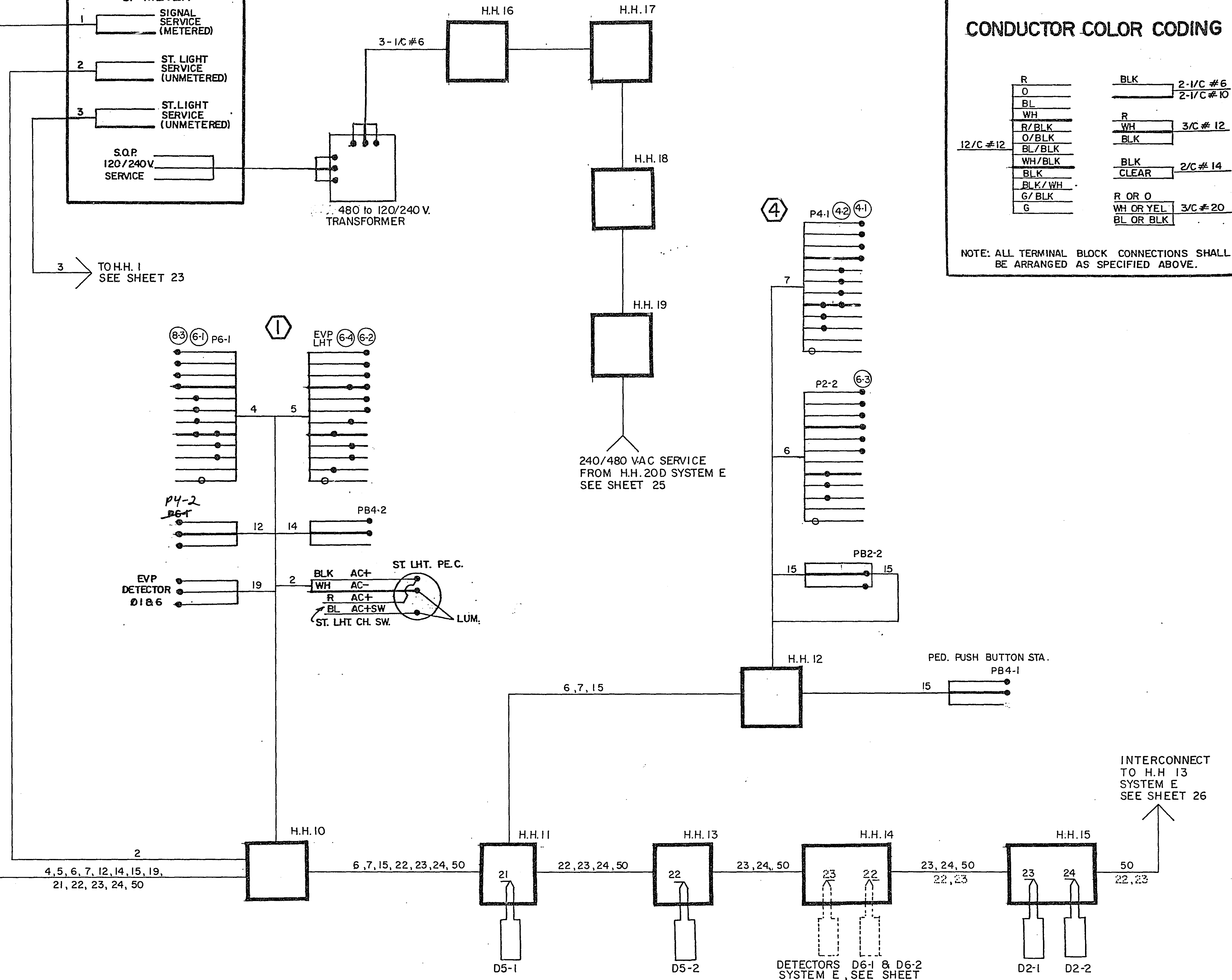
Construction Plan for Traffic Control Signal System
SAP 62-648-11 & 62-678-06 1-94



CONTROLLER CABINET



SERVICE CABINET
& METER



CONDUCTOR COLOR CODING

R	BLK	2-1/C #6
O		2-1/C #10
BL		
WH	R	3/C #12
R/BLK	WH	
O/BLK	BLK	
BL/BLK		
WH/BLK	BLK	2/C #14
BLK	CLEAR	
BLK / WH		
G/ BLK	R OR O	
G	WH OR YEL	3/C #20
	BL OR BLK	

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

**ASBUILT PLAN
CONFORMING TO
CONST. RECORDS**

DONE BY: JPH
DATE: 1-26-90

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.

Frank R. Kiehl

Date 10/7/87 Reg. No. 12703

FIELD WIRING DIAGRAM
COUNTY RD. B2 & N.W. ENT., ROSEDALE CENTER
SYSTEM D

S.A.P. NO. 62-678-06

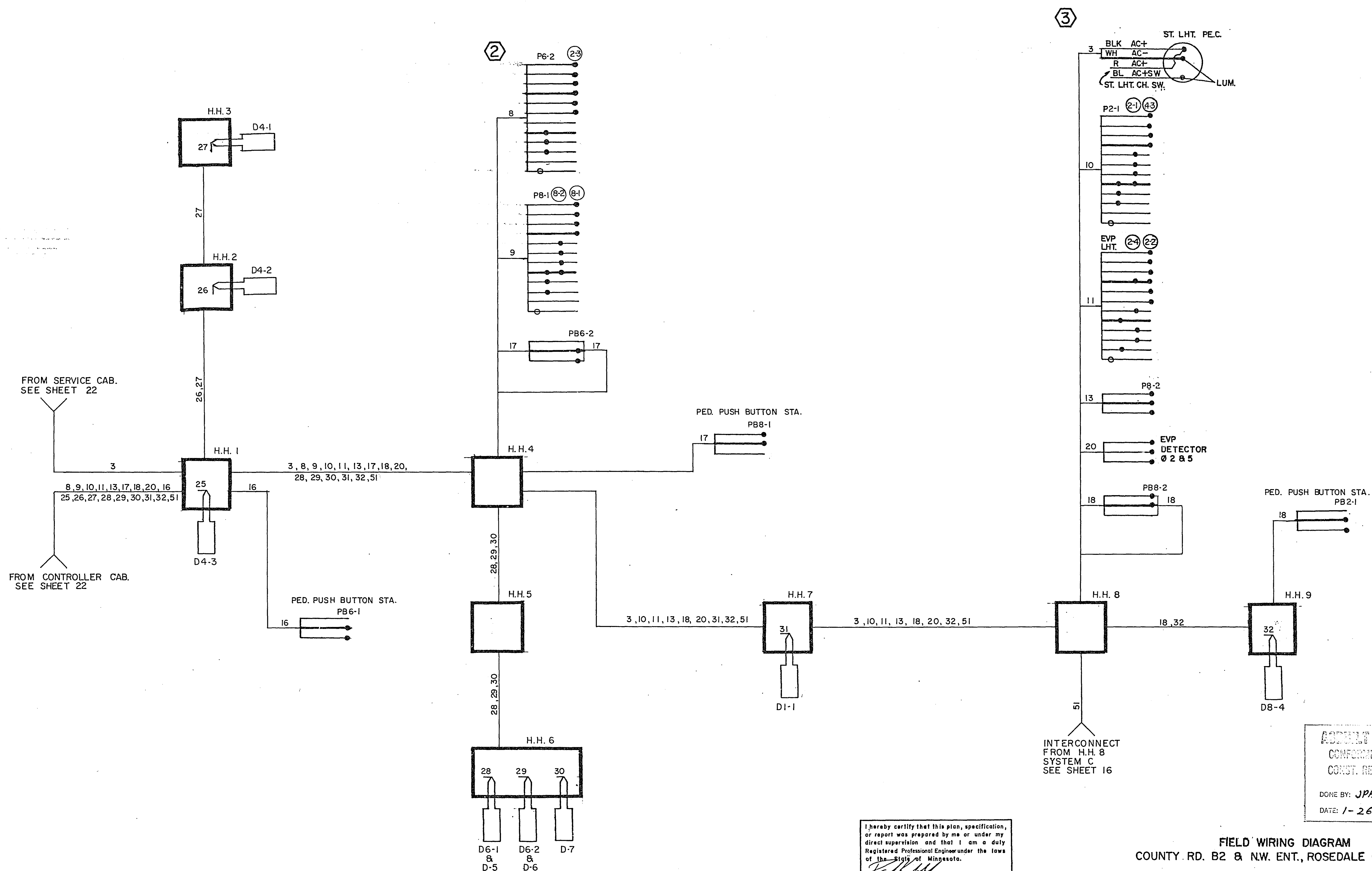
Sheet No. 22 of 44 Sheets

23-141

Construction Plan for Traffic Control Signal System
SHP 62-648-11 & 62-678-76 1-44

1-44

2 4 X



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 R. Kelly

Date 10/7/87 Reg. No. 12703

FIELD WIRING DIAGRAM
COUNTY RD. B2 & NW. ENT., ROSEDALE CENTER
SYSTEM D

S.A.P. NO 62-678-06

Sheet No. 23 of 44 Sheets

23-141 construction plan for traffic control signal system 1-44
SAP 62-648-11 & 62-678-06

2 4 X

NON PUGNABIT OTTOH NUTS

PLAIN HED CORPORATION • IRVINE, CALIFORNIA

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA

• IRVINE, CALIFORNIA

SIGNAL BASE No. _____ (5) (4-2)
SIGNAL FACE No. _____
CONTROLLER AND CABINET _____
CONTROLLER AND CABINET-INPLACE _____
HANDLE _____
HANDLE-IN-PLACE _____
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 OR 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 _____

SIGNAL INDICATION CHART						
FACE	PHASE	INDICATION SIZE				
		R	Y	G	←Y	←G
2-1	2	12"	12"	12"	-	-
2-2	2	12"	12"	12"	-	-
8-1	8	12"	12"	12"	-	-
8-2	8	12"	12"	12"	-	-
8-3	8	12"	12"	12"	-	-
6-1	6	12"	12"	12"	-	-
6-2	6 and 1	12"	12"	12"	12"	12"
6-3	6 and 1	12"	12"	12"	12"	12"
6-4	6	12"	12"	12"	-	-

FLASH MODE = ALL RED

SIGNAL HEAD PHASING	
	HEADS 6-2 and 6-3

The map shows the intersection of County Rd. B2 (vertical line) and Loehmann's Plaza Ent. (horizontal line). Key locations and distances are marked as follows:

- Top Left (County Rd. B2 side):**
 - PB8-4 and PB2-1 are marked with dots.
 - An arrow points from PB2-1 down to P2-1, labeled '8'.
 - An arrow points from P2-1 down to P8-4, labeled '1'.
- Top Right (Loehmann's Plaza Ent. side):**
 - PB2-2 and PB8-1 are marked with dots.
 - An arrow points from PB2-2 down to P2-2, labeled '2'.
 - An arrow points from P2-2 down to P8-1, labeled '1'.
- Bottom (County Rd. B2 side):**
 - PB8-3 and PB8-2 are marked with dots.
 - An arrow points from PB8-3 up to P8-3, labeled '6'.
 - An arrow points from P8-3 up to P8-1, labeled '1'.

VEHICLE DETECTION			
NO.	SIZE	OPERATION	LOCATION
D1-1	2-6'X15'	C&E (TD)	0'
D1-2	6'X25'	E	80'
D2-1	6'X6'	C&E	260'
D2-2	6'X6'	C&E	260'
D6-1	6'X6'	C&E	260'
D6-2	6'X6'	C&E	260'
D8-1	6'X6'	C&E	115'
D8-2	6'X6'	C&E	50'
D8-3	6'X15'	C&E	0'

LOCATION = DISTANCE FROM STOP LINE
TO DETECTOR

C&E = CALL AND EXTEND

E = EXTEND ONLY

(TD) = TIME DELAYED

4 P80-A-20-T30-10
LUMINAIRE - 150 WATT HPS AT 350°
ONE-WAY SIGNAL-OVERHEAD
TYPE 10C-POLE MOUNTED 270°
12" PEDESTRIAN INDICATIONS
1 PEDESTRIAN PUSH BUTTON 270°
ONE WAY EWP DETECTOR AND
LIGHT-OVERHEAD
EXTEND INTO HH 8
3" RSC
1-12/C #12
3-3/C #12
1-3/C #20
2-1/C #10

 TYPE 1D
12" PEDESTRIAN INDICATIONS
1 PEDESTRIAN PUSH BUTTON
EXTEND INTO HH 7
3" RSC 22'
1-12/C #12
3-3/C #12

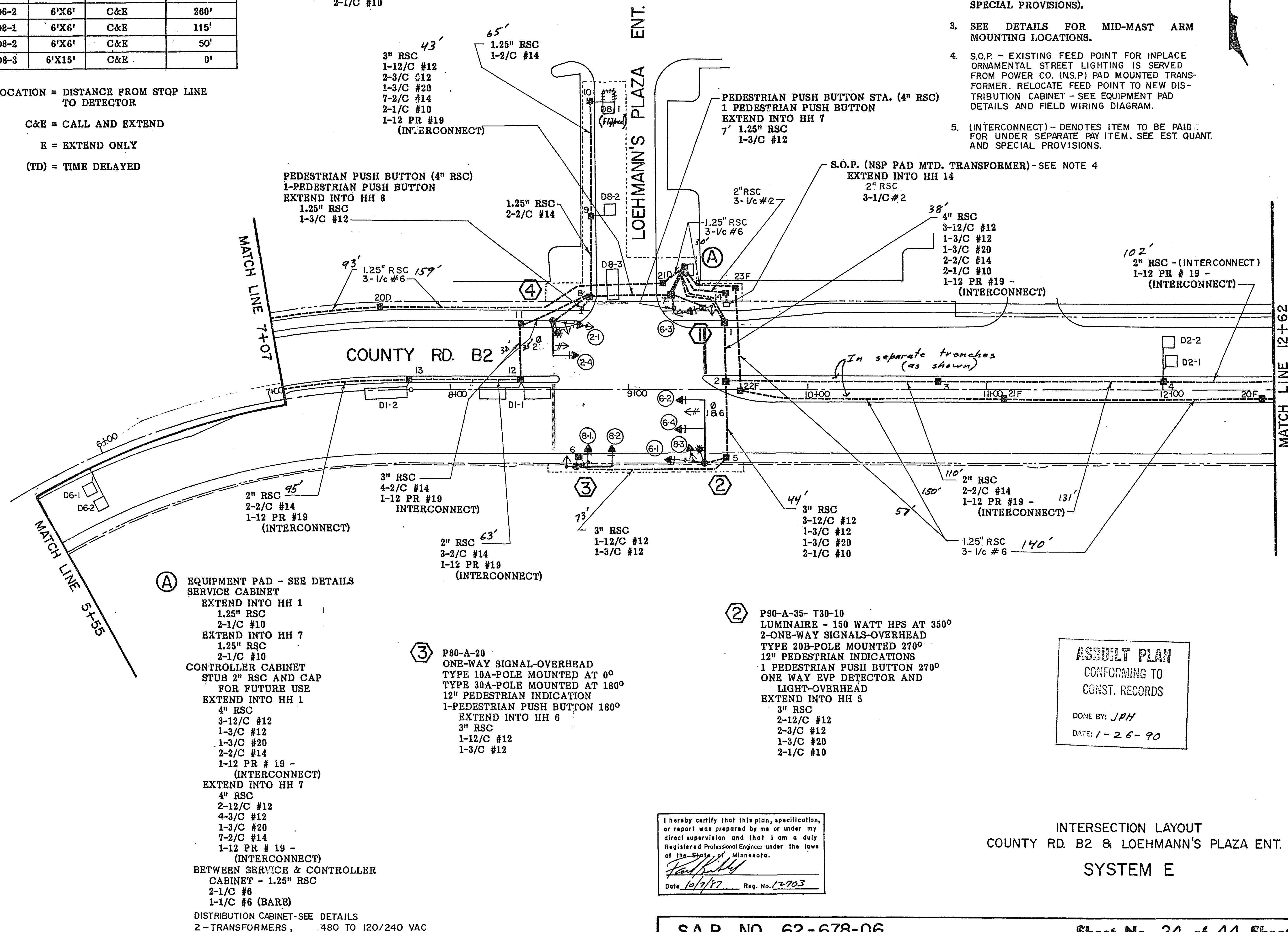
1. POLE AND DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION
2. THE COUNTY SHALL FURNISH TO THE CONTRACTOR EVP DETECTORS AND ASSOCIATED CONTROL EQUIPMENT (SEE SPECIAL PROVISIONS).
3. SEE DETAILS FOR MID-MAST ARM MOUNTING LOCATIONS.
4. S.O.P. - EXISTING FEED POINT FOR INPLACE ORNAMENTAL STREET LIGHTING IS SERVED FROM POWER CO. (N.S.P) PAD MOUNTED TRANSFORMER. RELOCATE FEED POINT TO NEW DISTRIBUTION CABINET - SEE EQUIPMENT PAD DETAILS AND FIELD WIRING DIAGRAM.
5. (INTERCONNECT) - DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE EST. QUANT. AND SPECIAL PROVISIONS.

SCALE IN FEET



30 40 50 100

NOTES:



ASBULT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH
DATE: 1-26-90

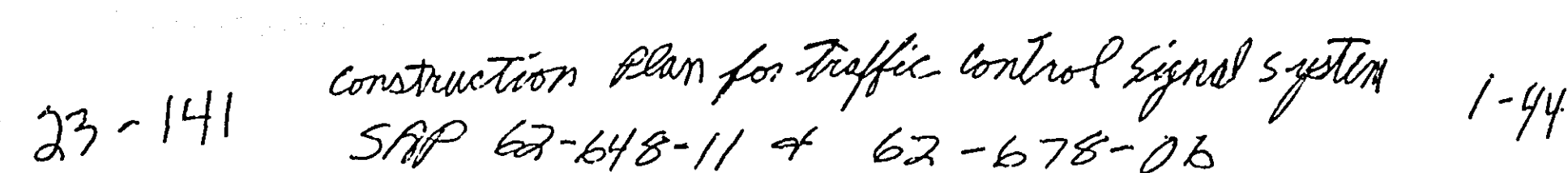
INTERSECTION LAYOUT
COUNTY RD. B2 & LOEHMANN'S PLAZA ENT.
SYSTEM E

S.A.P. NO. 62-678-06

Sheet No. 24 of 44 Sheets

23-141 construction plan for traffic control signal system
SAP 62-648-11 & 62-678-DB 1-44

2 4 X



2 4 X

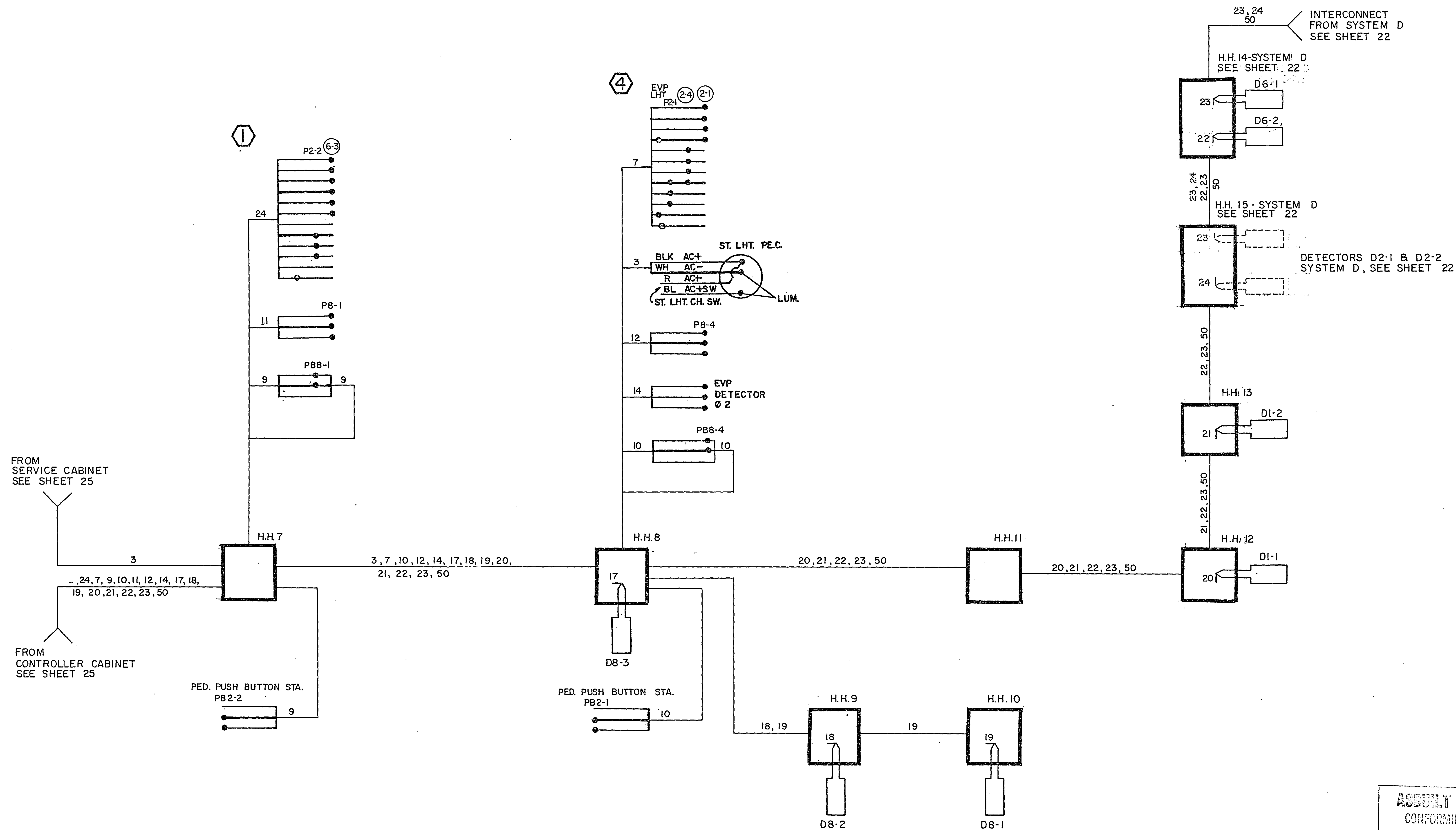
DRAWING

DRAWING NUMBER

23-141

DRAWING NUMBER

NUMBER



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 10/1/87 Reg. No. 12703

FIELD WIRING DIAGRAM
COUNTY RD. B2 & LOEHMANN'S PLAZA ENT.
SYSTEM E

S.A.P. NO. 62-678-06

Sheet No. 26 of 44 Sheets

23-141

23-141 construction plan for traffic control signal system 1-94
SAP 62-648-11 + 62-678-06

24X

DRAWING

DRAWING NUMBER

DRAWING NUMBER

NUMBER

PLAN/SECTION/DETAIL

PLAN/SECTION/DETAIL

PLAN/SECTION/DETAIL

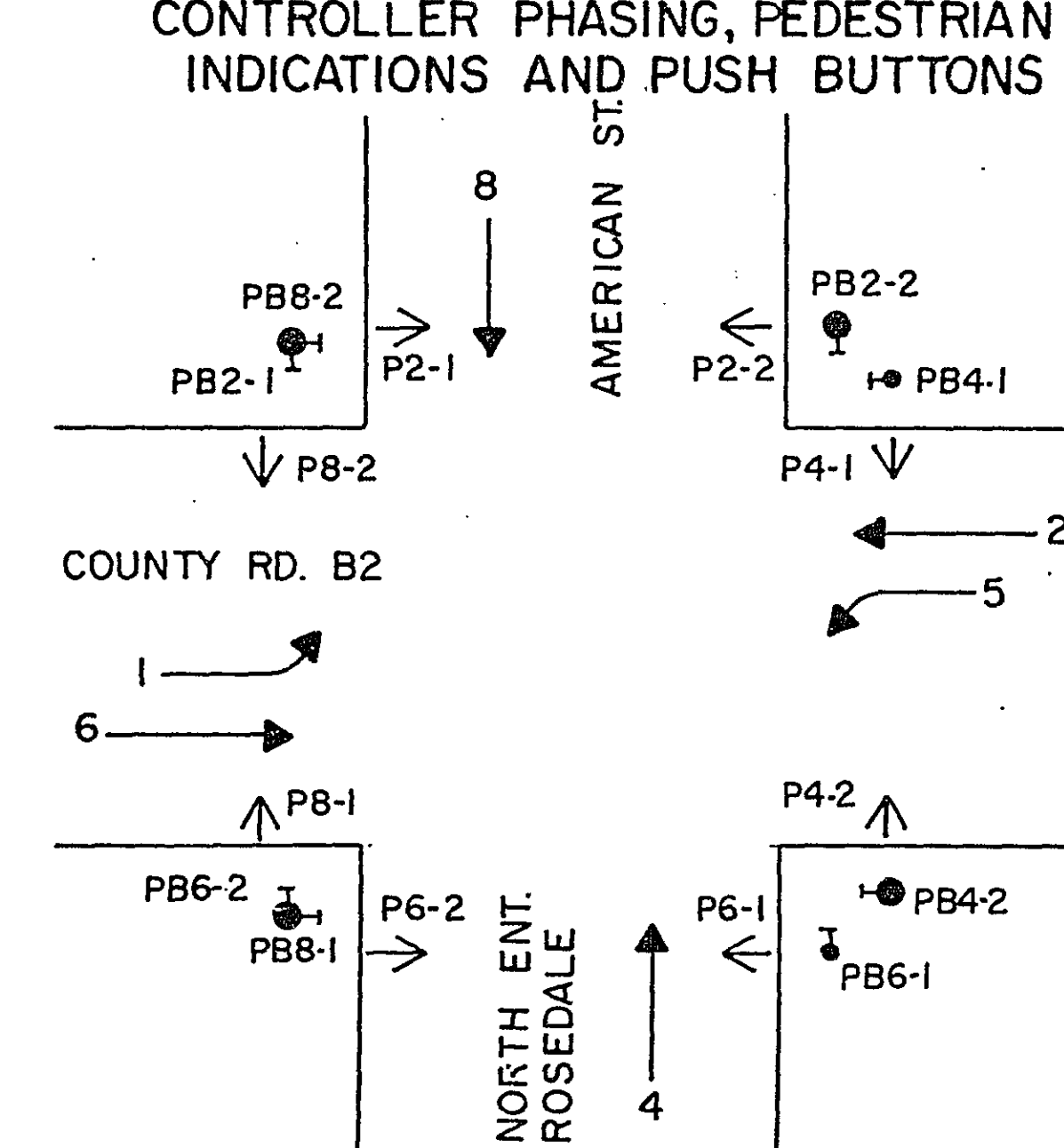
PLAN/SECTION/DETAIL

LEGEND OF SYMBOLS	
SIGNAL BASE NO.	
SIGNAL FACE NO.	
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE	
RIGID STEEL CONDUIT (RSC)	
RIGID STEEL CONDUIT (RSC)-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	

SIGNAL INDICATION CHART						
FACE	PHASE	R	Y	G	Y	G
2-1	2	12"	12"	12"	-	-
2-2	2 and 5	12"	12"	12"	12"	12"
2-3	2 and 5	12"	12"	12"	12"	12"
2-4	2	12"	12"	12"	-	-
4-1	4	12"	12"	12"	-	-
4-2	4	12"	12"	12"	-	-
4-3	4	12"	12"	12"	-	-
6-1	6	12"	12"	12"	-	-
6-2	6	12"	12"	12"	-	-
6-3	6	12"	12"	12"	-	-
6-4	6	12"	12"	12"	-	-

FLASH MODE = ALL RED

SIGNAL HEAD PHASING	
HEADS 2-2 and 2-3	HEADS 6-2 and 6-3
(R) 0 2	(R) 0 6
(Y) 0 2	(Y) 0 6
(G) 0 2	(G) 0 6
(Y) 0 5	(Y) 0 1
(G) 0 5	(G) 0 1



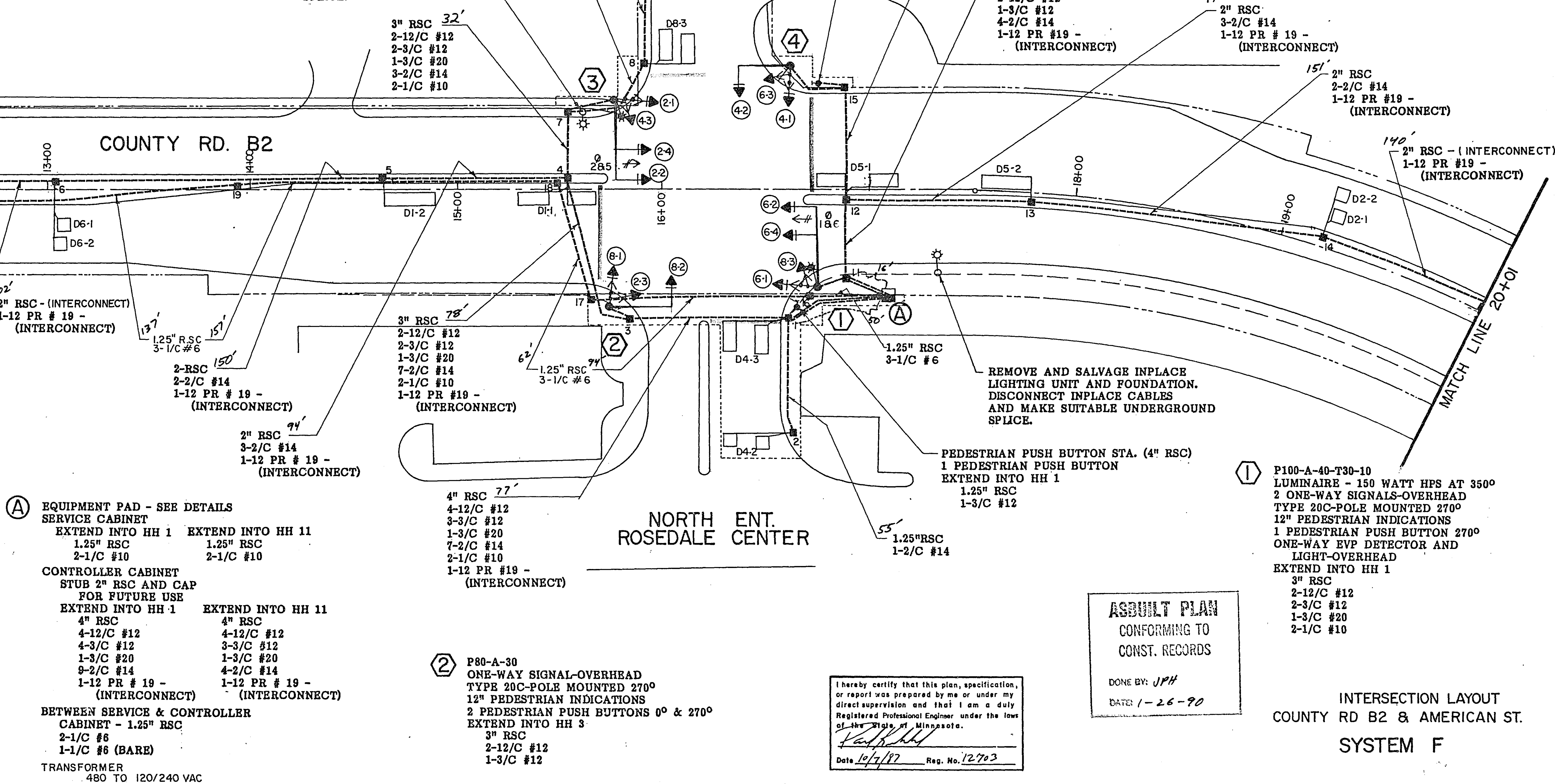
VEHICLE DETECTION			
NO.	SIZE	OPERATION	LOCATION
D1-1	2-6'X15'	C&E (TD)	0'
D1-2	6'X25'	E	80'
D2-1	6'X6'	C&E	260'
D2-2	6'X6'	C&E	260'
D4-2	6'X6'	C&E	55'
D4-3	2-6'X15'	C&E	0'
D5-1	2-6'X15'	C&E (TD)	0'
D5-2	6'X25'	E	80'
D6-1	6'X6'	C&E	260'
D6-2	6'X6'	C&E	260'
D8-1	2-6'X6'	C&E	140'
D8-2	2-6'X6'	C&E	65'
D8-3	2-6'X15'	C&E	5'

LOCATION = DISTANCE FROM STOP LINE TO DETECTOR

C&E = CALL AND EXTEND

E = EXTEND ONLY

(TD) = TIME DELAYED



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 10/17/77 Reg. No. 12703

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH
DATE: 1-26-90

INTERSECTION LAYOUT
COUNTY RD B2 & AMERICAN ST.
SYSTEM F

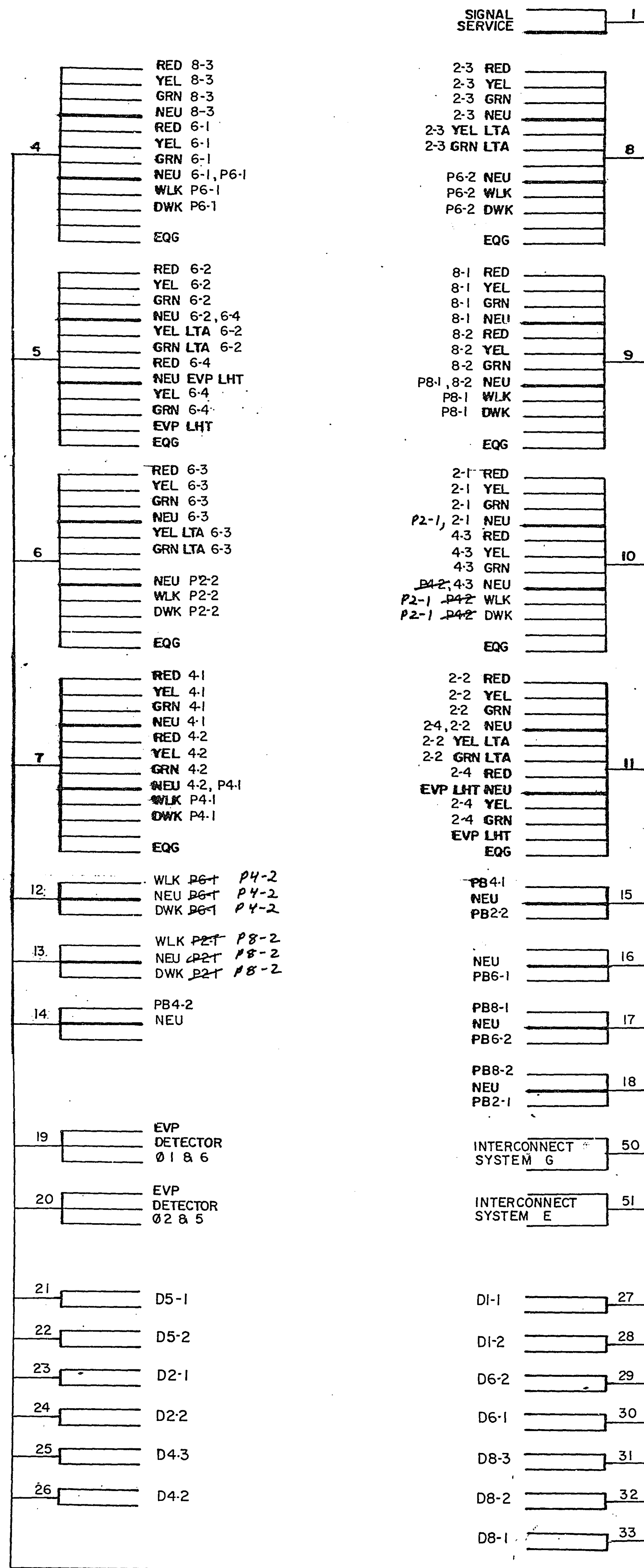
S.A.P. NO. 62-678-06

Sheet No. 27 of 44 Sheets

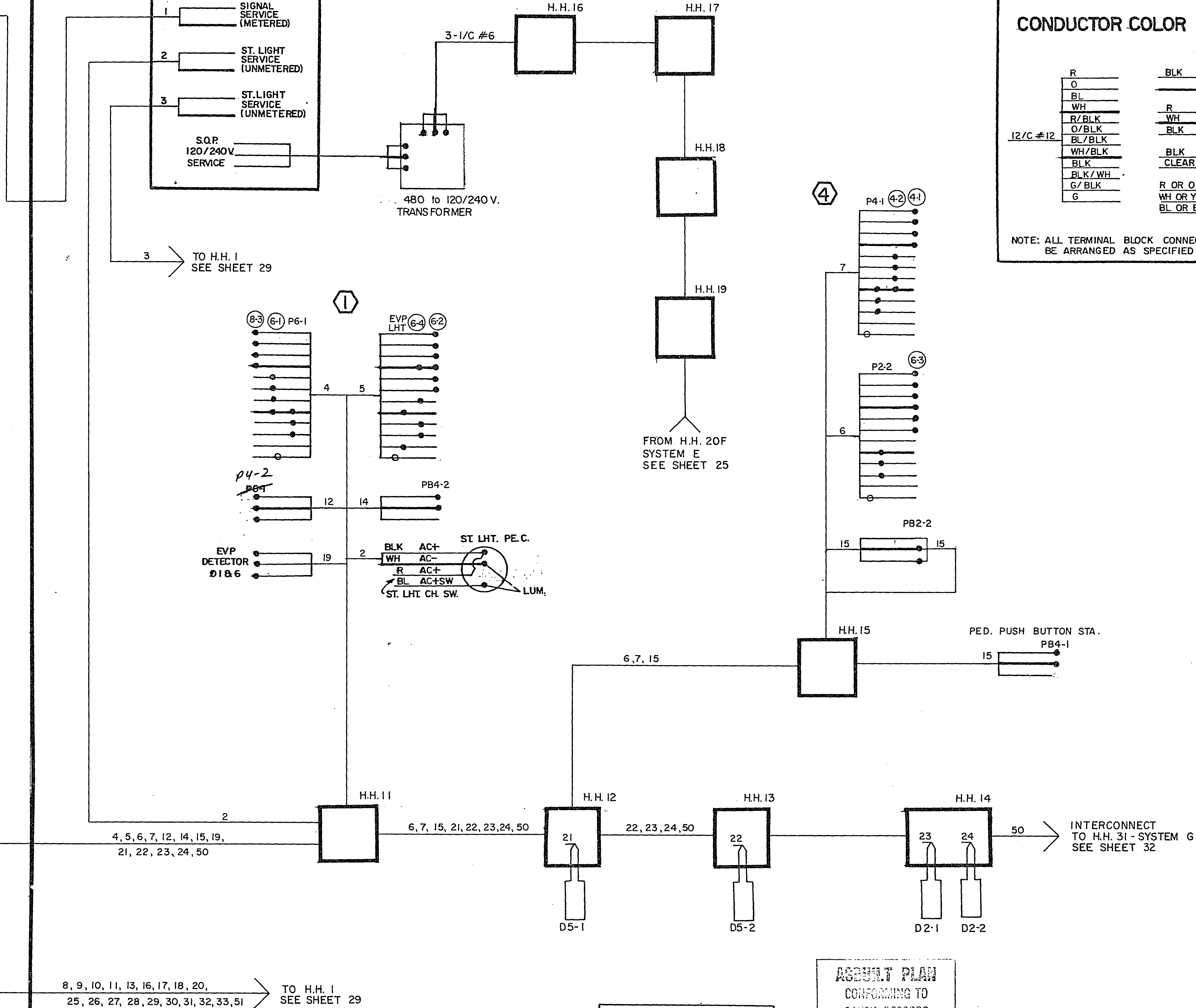
23-141 Construction Plan for Traffic Control Signal System
SAP 62-648-11 + 62-678-06 1-94

24X

CONTROLLER CABINET



SERVICE CABINET
& METER



CONDUCTOR COLOR CODING

	R	BLK	
	O		2-1/C #6
	BL		2-1/C #10
	WH	R	
	R/BLK	WH	3/C #12
	O/BLK	BLK	
12/C #12	BL/BLK		
	WH/BLK	BLK	2/C #14
	BLK	CLEAR	
	BLK/WH	R OR O	
	G/BLK	WH OR YEL	3/C #20
	G	BL OR BLK	

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

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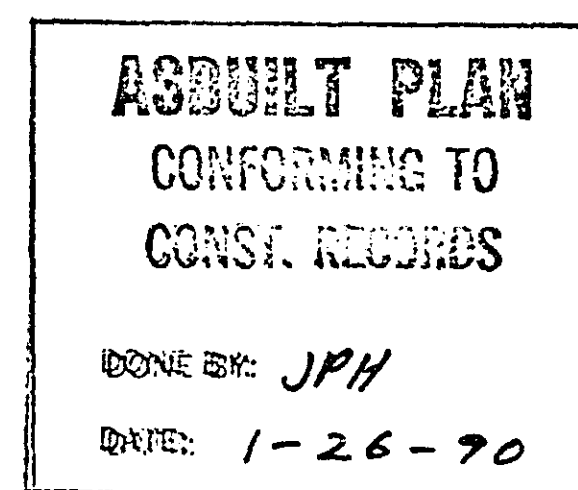
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Construction Plan for Traffic Control Signal System
SAP 62-648-11 & 62-678-06

1-44

2 4 X



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 R. Kibbey

Date 10/2/87 Reg. No. 12703

FIELD WIRING DIAGRAM
COUNTY RD B2 & AMERICAN ST.
SYSTEM F

S.A.P. NO. 62-678-06

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SAP 62-648-11 & 62-678-06 1-94

2 4 X

LEGEND OF SYMBOLS

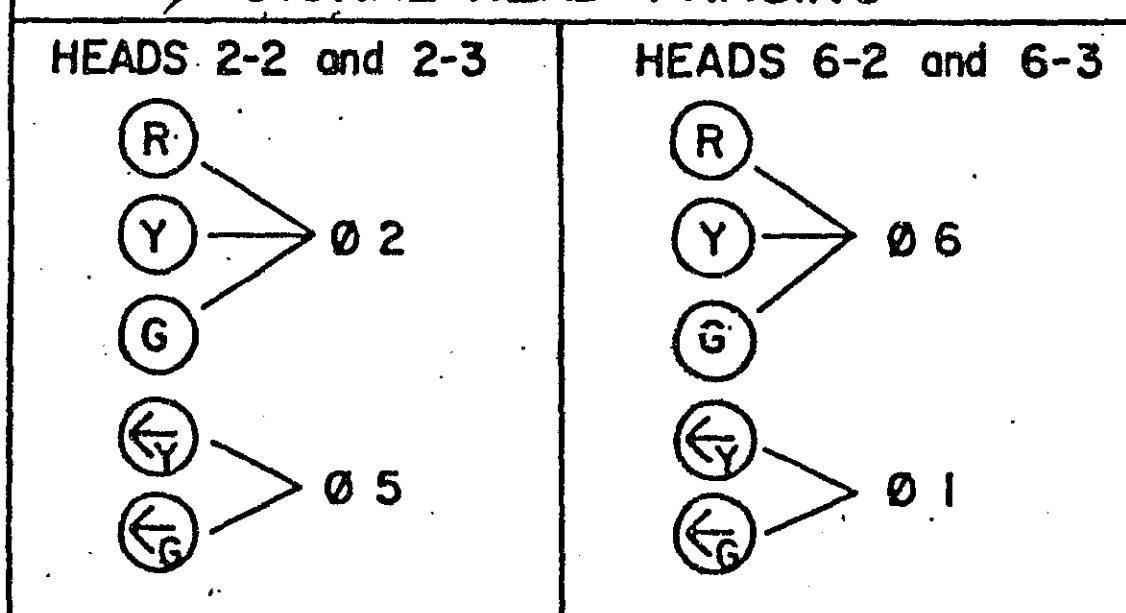
SIGNAL BASE NO.	5
SIGNAL FACE NO.	2
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE-INPLACE	
RIGID STEEL CONDUIT (R.S.C.)	
RIGID STEEL CONDUIT (R.S.C.)-INPLACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE - INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS - INPLACE	
PEDESTRIAN 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	

SIGNAL INDICATION CHART

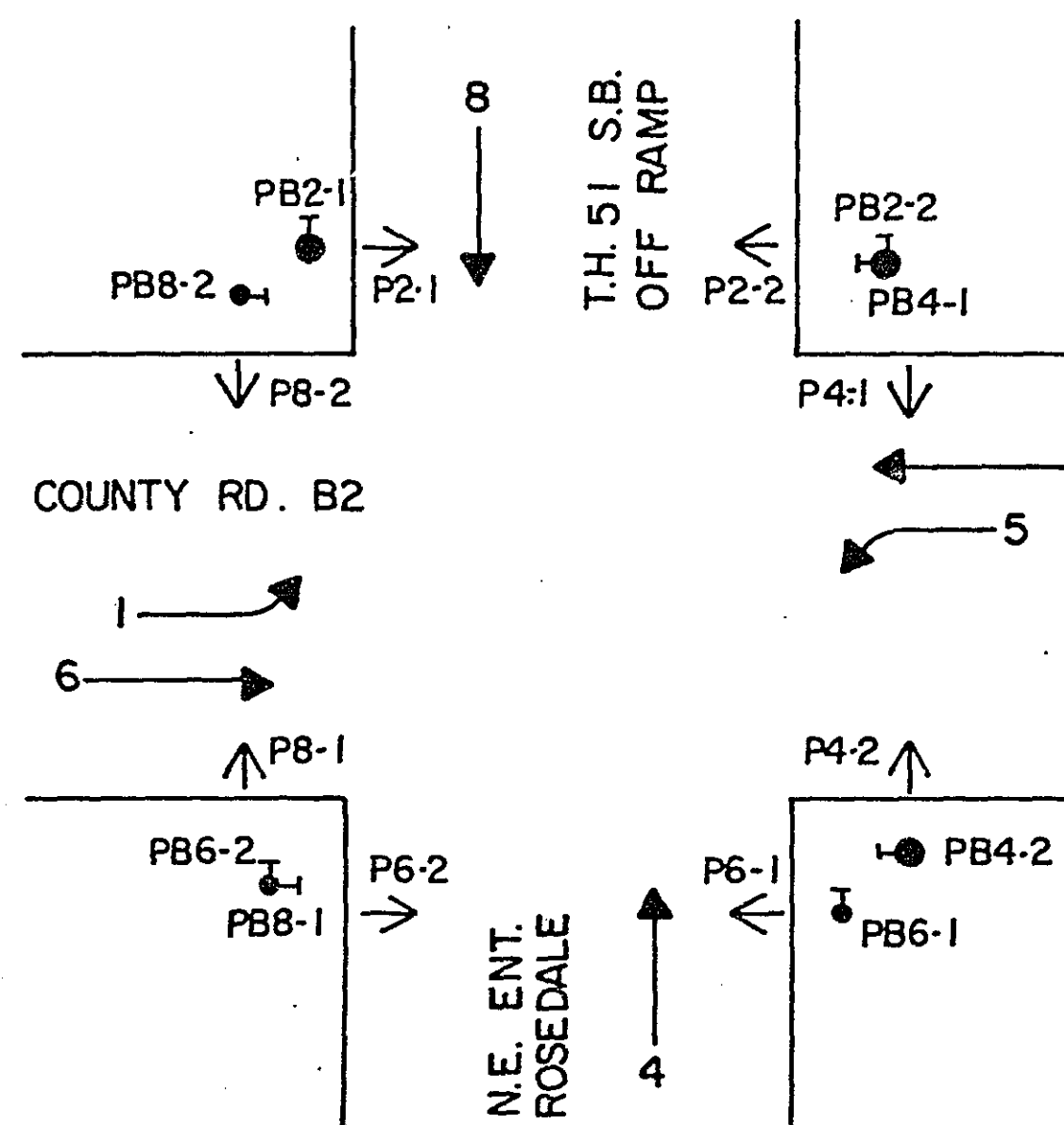
FACE	PHASE	INDICATION SIZE				
		R	Y	G	Y	G
2-1	2	12"	12"	12"	12"	12"
2-2	2 and 5	12"	12"	12"	12"	12"
2-3	2 and 5	12"	12"	12"	12"	12"
2-4	2	12"	12"	12"	12"	12"
4-1	4	12"	12"	12"	12"	12"
4-2	4	12"	12"	12"	12"	12"
4-3	4	12"	12"	12"	12"	12"
8-1	8	12"	12"	12"	12"	12"
8-2	8	12"	12"	12"	12"	12"
8-3	8	12"	12"	12"	12"	12"
6-1	6	12"	12"	12"	12"	12"
6-2	6 and 1	12"	12"	12"	12"	12"
6-3	6 and 1	12"	12"	12"	12"	12"
6-4	6	12"	12"	12"	12"	12"

FLASH MODE = ALL RED

* SIGNAL HEAD PHASING



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



* VEHICLE DETECTION			
NO.	SIZE	OPERATION	LOCATION
D1-1	2-6'X15'	C&E (TD)	0'
D1-2	6'X25'	E	80'
D2-1	6'X6'	C&E	260'
D2-2	6'X6'	C&E	260'
D4-1	2-6'X6'	C&E	120'
D4-2	2-6'X6'	C&E	55'
D4-3	2-6'X15'	C&E	5'
D5-1	2-6'X15'	C&E (TD)	0'
D5-2	6'X25'	E	80'
D6-1	6'X6'	C&E	260'
D6-2	6'X6'	C&E	260'
D8-1	6'X6'	C&E	150'
D8-2	6'X6'	C&E	60'
D8-3	6'X15'	C&E	0'
D-8	6'X6'	COUNT	SEE PLAN
D-9	6'X6'	COUNT	SEE PLAN
D-10	6'X6'	COUNT	SEE PLAN
D-11	6'X6'	COUNT	360'

LOCATION = DISTANCE FROM STOP LINE TO DETECTOR

C&E = CALL AND EXTEND

E = EXTEND ONLY

(TD) = TIME DELAYED

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH

DATE: 1-26-90

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 Illinois.

Date 10/7/91 Reg. No. 12703

* NOTES:

- ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE USED INPLACE UNLESS OTHERWISE NOTED WITH A * (* = WORK TO BE DONE, THIS SHEET ONLY).
- SEE SHEETS 33-35 FOR EXISTING SIGNAL SYSTEM.
- DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
- REMOVE AND SALVAGE INPLACE DOWN LIGHTS MOUNTED OVERHEAD (2 TOTAL).
- WELD NEW 1/2" DIA. HALF COUPLING FOR REVISED SIGNAL HEAD MOUNTINGS ON POLE 1 PLUG UNUSED MOUNTINGS.
- REMOVE AND SALVAGE INPLACE CONTROL CABLE AS DIRECTED BY THE ENGR.
- R & S DENOTES REMOVE AND SALVAGE.
- (INTERCONNECT) DENOTES SEPARATE PAY ITEM. SEE EST. QUANTITIES & SPECIAL PROVISIONS.

- (A) CONTROL EQUIPMENT PAD, INPLACE SERVICE CABINET, INPLACE EXTEND INTO HH 32
3" RSC, INPLACE
3-1/C #10, INPLACE
EXTEND INTO HH 1
3" RSC, INPLACE
* 4-1/C #10
* 2-12/C #12
* 2-3/C #12
* 1-3/C #20
* 5-2/C #14
* 2-1/C #10
EXTEND INTO HH 13
4" RSC, INPLACE
* 4-12/C #12
* 4-3/C #12
* 2-3/C #20
* 16-2/C #14
* 1-12 PR #19 - (INTERCONNECT)

SOP WITH 2" RSC RISER & WEATHER HEAD, INPLACE
* 2" RSC
* 2-2/C #14

* NOTE: TEMPORARY ALL RED FLASH OPERATION DURING REVISION WORK. SEE SPECIAL PROVISIONS.

INTERSECTION LAYOUT
COUNTY RD. B2 & T.H. 51 WEST RAMP
SYSTEM G

S.A.P. NO. 62-678-06

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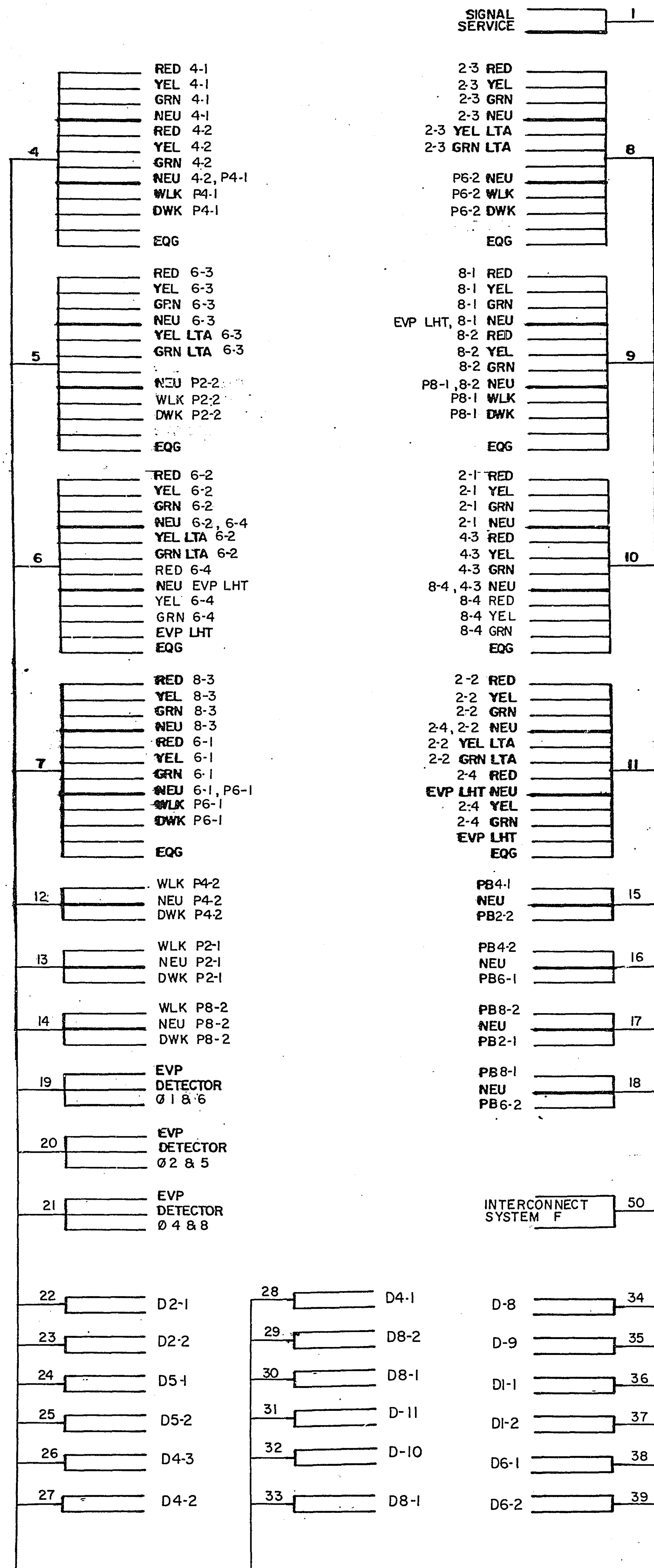
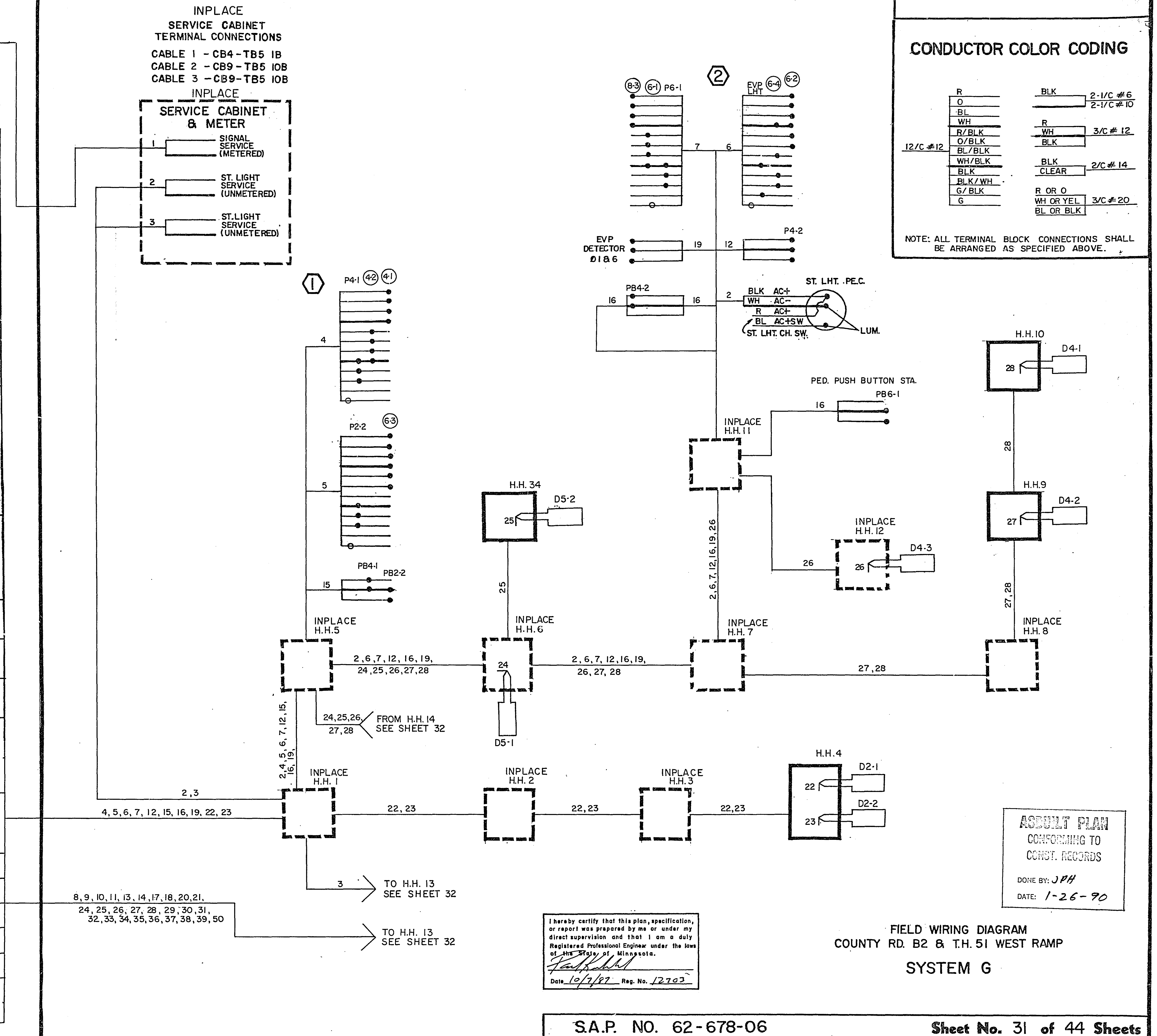
DRAWING

DRAWING NUMBER
23-141

DRAWING NUMBER

NUMBER

CONTROLLER CABINET

INPLACE
SERVICE CABINET
TERMINAL CONNECTIONSCABLE 1 - CB4-TB5 1B
CABLE 2 - CB9-TB5 10B
CABLE 3 - CB9-TB5 10BINPLACE
SERVICE CABINET
& METER1 SIGNAL SERVICE (METERED)
2 ST. LIGHT SERVICE (UNMETERED)
3 ST. LIGHT SERVICE (UNMETERED)23-141 Construction Plan for Traffic Control Signal System
SAP 62-648-11 + 62-678-06 1-44

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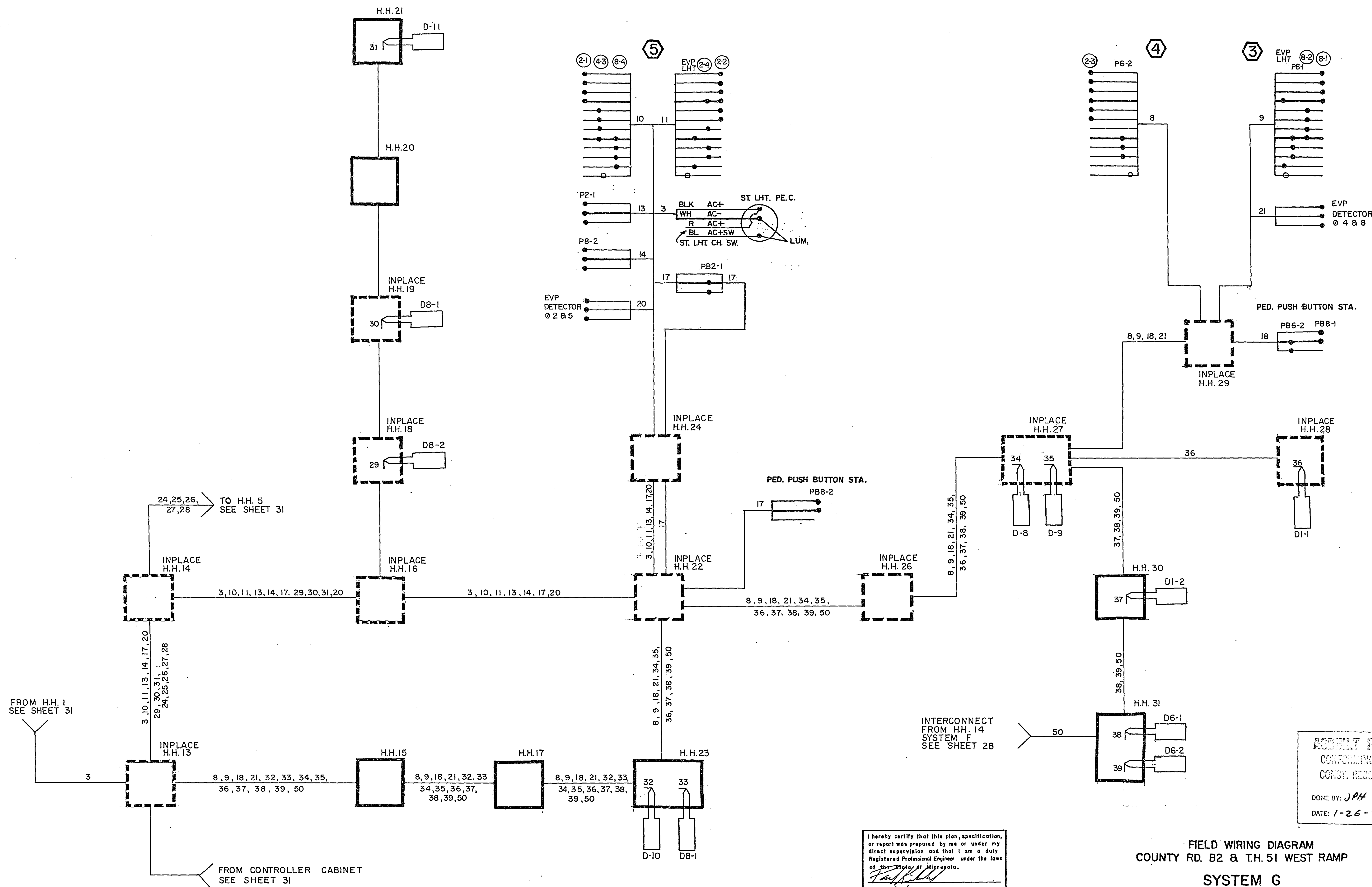
DRAWING 1

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
REGISTERED IN MINNESOTADRAWING NUMBER
23-141PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
REGISTERED IN MINNESOTA

DRAWING NUMBER

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
REGISTERED IN MINNESOTA

NUMBER

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
REGISTERED IN MINNESOTA

S.A.P. NO. 62-678-06

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24X

FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1	A1	Y	12"	12"	12"	—	—	—
A2	A1	Y	12"	12"	12"	—	—	—
A3	A2	Y	12"	12"	12"	—	—	—
A4	A2	Y	12"	12"	12"	—	—	—
B1	B1	Y	12"	12"	—	12"	—	—
B2	B2	Y	12"	12"	—	12"	—	—
C1	C	R	12"	12"	12"	—	—	—
C2	C	R	12"	12"	12"	—	—	—
C3	C	R	12"	12"	12"	—	—	—
C4	C	R	12"	12"	12"	—	—	—
C5	C	R	12"	12"	12"	—	—	—
C6	C	R	12"	12"	12"	—	—	—
C7	C	R	12"	12"	12"	—	—	—

* SPECIAL SIGNAL FACES (SEE SPECIAL PROVISIONS)

- NOTES:
1. A 3/4" HALF COUPLING AND PLUG FOR EMERGENCY VEHICLE PRE-EMPTION EQUIPMENT SHALL BE PROVIDED APPROXIMATELY 2' FROM THE END OF THE MAST ARMS AT POLES 1, 3, 4, AND 5.
 2. SUFFICIENT 3/C #20 SHALL BE PROVIDED AT POLES 1, 3, 4, AND 5 TO REACH THE END OF THE MAST ARMS.
 3. BETWEEN H.H.12 AND H.H.13 EXTEND: 3" R.S.C., 3-12/C #12, 4-3/C #12, 2-1/C #10, 1-2/C #14, 1-3/C #20

3" RSC INPLACE, USE INPLACE
4-12/C #12
5-3/C #12
4-2/C #14
2-1/C #10, 2-3/C #20

STREET LIGHT INPLACE, REMOVE AND SALVAGE
REMOVE BASE
TYPE A-35-D40-12
TWO WAY SIGNAL (TYPE 20D-POLE MOUNTED 270°)
ONE WAY SIGNAL (TYPE 10A-POLE MOUNTED 0°)
2-ONE WAY SIGNALS (OVERHEAD)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS (0°, 270°)
SIGN DOWNLIGHT (OVERHEAD)
LUMINAIRE (APPROX. 350°)
2-STEEL GUARD POSTS
EXTEND INTO H.H.13:

3" RSC INPLACE, USE INPLACE
3-12/C #12
3-3/C #12
3-2/C #14, 1-3/C #20

3" RSC INPLACE, USE INPLACE
1-12/C #12
3-3/C #12
2-2/C #14, 1-3/C #20

MULTIPLE LOOP DETECTOR

LOOP DETECTORS 6'x6'

11/4" RSC
1-2/C #14

10' SIGNAL PEDESTAL (TYPE 4A)
1-SET PEDESTRIAN INDICATIONS
1-PEDESTRIAN PUSH BUTTON (MOUNT ON NORTH SIDE)
EXTEND INTO H.H.17:
3" R.S.C.
3-3/C #12

TYPE A-30
ONE WAY SIGNAL (TYPE 10B-POLE MOUNTED 270°)
ONE WAY SIGNAL (OVERHEAD)
1-SET PEDESTRIAN INDICATIONS
1-PEDESTRIAN PUSH BUTTON (0°)
EXTEND INTO H.H.17:
3" R.S.C.
1-12/C #12
2-3/C #12, 1-3/C #20

LOOP DETECTORS 6'x10'

LOOP DETECTORS 6'x30'

3" RSC INPLACE, USE INPLACE
4-12/C #12
5-3/C #12
6-2/C #14
2-1/C #10, 2-3/C #20

TYPE A-20
ONE WAY SIGNAL (TYPE 10C-POLE MOUNTED 270°)
ONE WAY SIGNAL (OVERHEAD)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS (0°, 270°)
2-STEEL GUARD POSTS
EXTEND INTO H.H.4: 3" R.S.C.
3-12/C #12, 5-3/C #12, 1-3/C #20

3" RSC INPLACE, USE INPLACE
3-12/C #12
4-3/C #12
5-2/C #14
2-1/C #10
2-3/C #20

CONTROL EQUIPMENT PAD
SIGNAL SERVICE CABINET - TRANSFORMER - CIRCUIT BREAKER
LIGHTING SERVICE CABINET (INSTALLED AS PART OF LIGHTING SYSTEM)
EXTEND INTO H.H.22:
3" RSC AND 3-1/C #10
SIGNAL SERVICE CABINET
EXTEND INTO H.H.2:
3" R.S.C. AND 4-1/C #10
CONTROLLER AND CABINET
EXTEND INTO H.H.2:
3" R.S.C., 3-12/C #12,
4-3/C #12, 7-2/C #14, 2-3/C #20
EXTEND INTO H.H.1:
4" R.S.C., 4-12/C #12,
4-3/C #12, 6-2/C #14,
2-3/C #20

WOOD POLE INPLACE, USE INPLACE
2" RISER AND WEATHERHEAD
EXTEND INTO H.H.21:
2" RSC
3-1/C #10
LIGHTING SERVICE INPLACE, REMOVE AND SALVAGE (AS PART OF SIGNAL SYSTEM)

3" RSC INPLACE, USE INPLACE
2-12/C #12
2-3/C #12
5-2/C #14
2-1/C #10
1-3/C #20

LOOP DETECTORS 6'x6'

W.B. CO. RD. B2

E.B. CO. RD. B2

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

3" RSC INPLACE, USE INPLACE
2-12/C #12, 2-3/C #12,
4-2/C #14, 2-1/C #10, 1-3/C #20

STREET LIGHT INPLACE, REMOVE AND SALVAGE
REMOVE BASE
TYPE A-35-D40-12
TWO WAY SIGNAL (TYPE 20D-POLE MOUNTED 270°)
2-ONE WAY SIGNALS (OVERHEAD)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS (0°, 270°)
LUMINAIRE (APPROX. 350°)
SIGN DOWN LIGHT (OVERHEAD)
EXTEND INTO H.H.7: 3" R.S.C.,
2-12/C #12, 2-3/C #12,
2-1/C #10, 1-3/C #20

3" R.S.C.
2-2/C #14

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: JPH
DATE: 1-26-90

FOR INFORMATION ONLY
(INPLACE SYSTEM)

INTERSECTION LAYOUT
COUNTY RD. B2 & T.H. 51 WEST RAMP
SYSTEM G

S.A.P. NO. 62-678-06

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24X

23-141 construction plan for traffic control signal system
SAP 62-648-11 + 62-678-06 1-94

DRAWING

PLAN FIELD WIRING DIAGRAM
SHEET NO. 34DRAWING NUMBER
23-141PLAN FIELD WIRING DIAGRAM
SHEET NO. 34

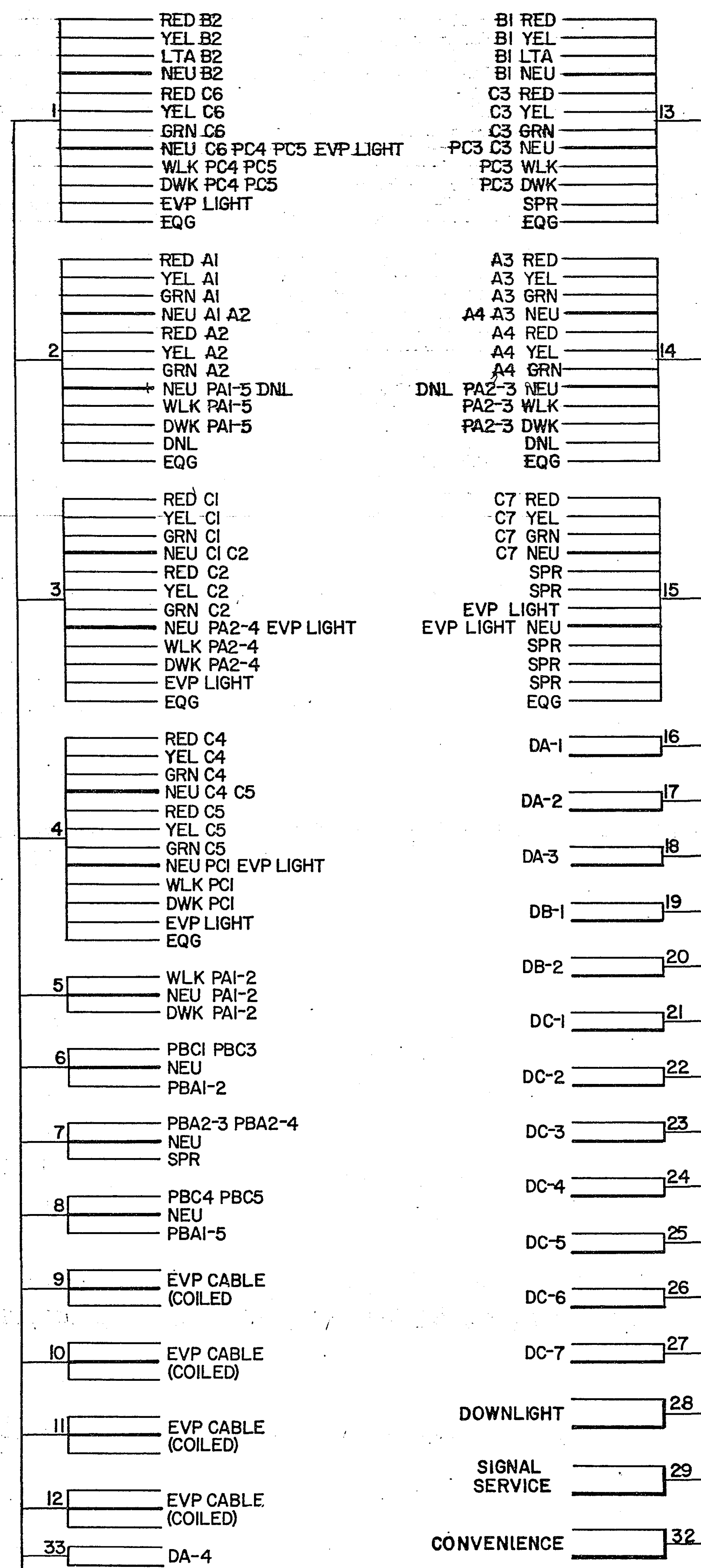
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PLAN FIELD WIRING DIAGRAM
SHEET NO. 34

NUMBER

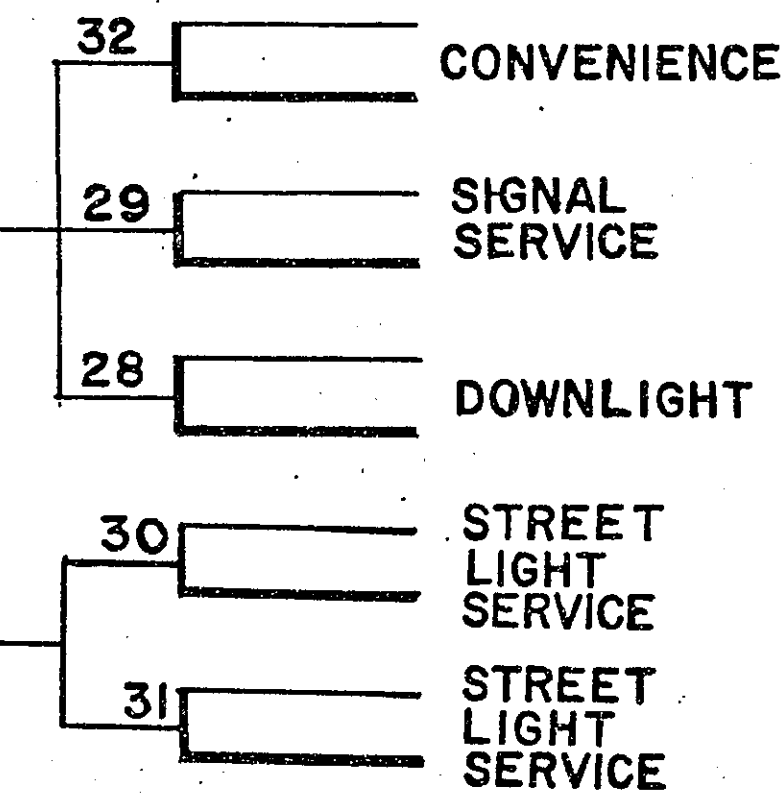
PLAN FIELD WIRING DIAGRAM
SHEET NO. 34

CONTROLLER CABINET

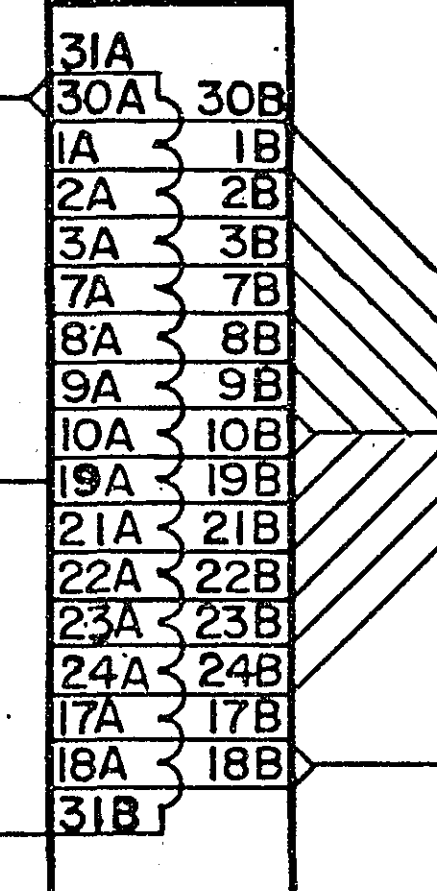
SERVICE CABINET
TERMINAL CONNECTIONS

CABLE 28 - CB8 - TB5 15B
CABLE 29 - CB4 - TB5 1B
CABLE 30 - CB9 - TB5 10B
CABLE 31 - CB9 - TB5 10B
CABLE 32 - CB6 - TB5 5B

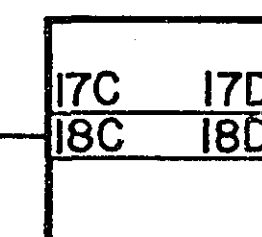
SIGNAL SERVICE CABINET



H.H.2



H.H.20



4

9E EVL CABLE
(COILED)C1 C2 PA2-4
EVL LIGHT

3E

7E

7F

IE

IF

8E

8F

9C

9D

9E

9F

9G

9H

9I

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9K

9L

9M

9N

9O

9P

9Q

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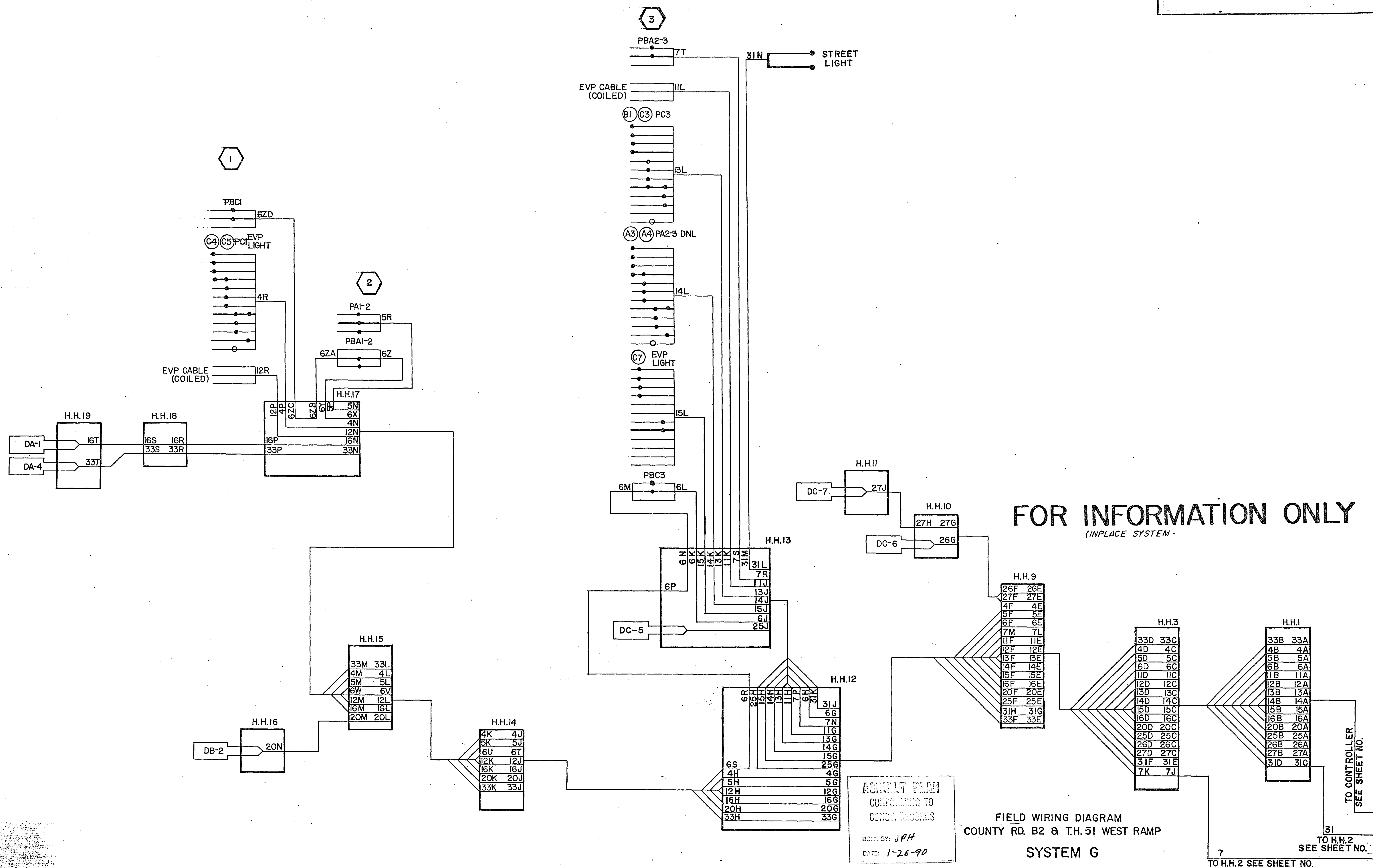
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SAP 62-648-11 & 62-678-06 1-44

2-4 X

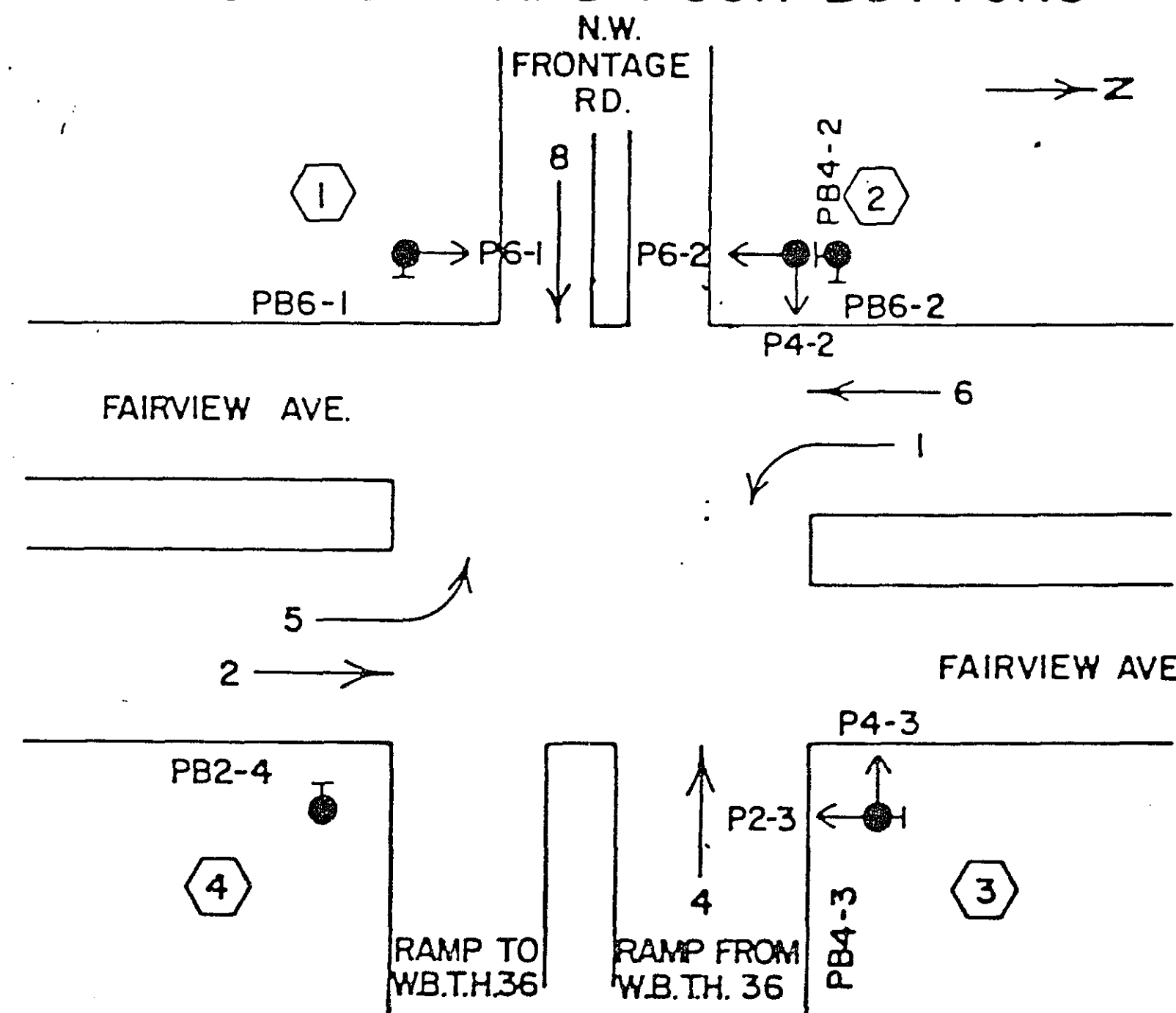
LOOP DETECTORS			
NUMBER	SIZE	FUNCTION	LOCATION
D1-1	MULTIPLE	1	5'
D2-1	2'-6" X 6'	1	180'
D4-1	6' X 6'	3	180'
D4-2	6' X 20'	1	5'
D5-1	MULTIPLE	1	5'
D6-1	3'-6" X 6'	1	180'
D8-1	2'-6" X 6'	1	180'
D8-2	4'-6" X 6'	1	5'
D8-3	6' X 20'	1	5'
D8-4	6' X 20'	2	5'
D-4	6' X 6'	4	Sta 105+25
D-5	6' X 6'	4	Sta 105+25
D-6	6' X 6'	4	Sta 105+50
D-7	6' X 6'	4	Sta 105+61
D-12	6' X 6'	4	360'

LOCATION - DISTANCE FROM STOP LINE TO DETECTOR

LOOP DETECTOR FUNCTIONS

- 1 CALL AND EXTEND
- 2 DELAYED CALL - IMMEDIATE EXTEND
- 3 EXTEND ONLY
- 4 SYSTEM SAMPLING DETECTOR

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



- ① TYPE P90-A35-D40-9 (DAVIT AT 350°)
P90 POLE FOUNDATION
2 ONE WAY SIGNALS - OVERHEAD
TYPE 20B - POLE MOUNTED 270°
LUMINAIRE - 200 WATT H.P.S.
1 - PEDESTRIAN PUSH BUTTON AND SIGN
ONE WAY EVP DETECTOR AND LIGHT
EXTEND INTO H.H. 13:
3" I.M.C.
2-12/C # 12
1-3/C # 12
1-3/C # 20
2-1/C # 10

- ② TYPE P80-A-30
P80 POLE FOUNDATION
ONE WAY SIGNAL - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
EXTEND INTO H.H. 13:
3" I.M.C.
2-12/C # 12
2-3/C # 12

- ④ TYPE P80-A-15
P80 POLE FOUNDATION
ONE WAY SIGNAL - OVERHEAD
TYPE 20A - POLE MOUNTED 270°
1 - PEDESTRIAN PUSH BUTTON AND SIGN
TWO WAY EVP DETECTOR AND LIGHTS
EXTEND INTO H.H. 5:
3" I.M.C.
2-12/C # 12
1-3/C # 12
1-3/C # 20

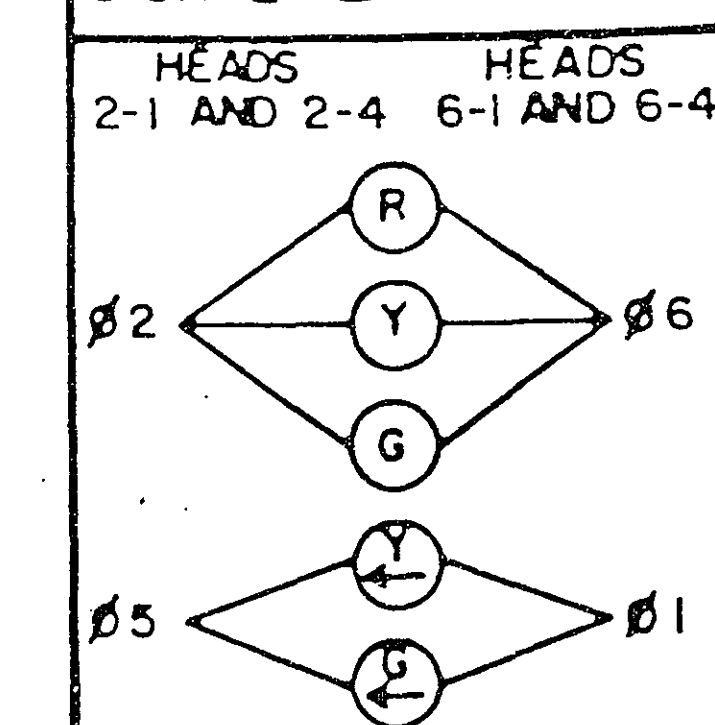
- ③ TYPE P90-A-30-D40-9 (DAVIT AT 350°)
P90 POLE FOUNDATION
2 ONE WAY SIGNALS - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
LUMINAIRE - 200 WATT H.P.S.
1 - PEDESTRIAN PUSH BUTTON AND SIGN
ONE WAY EVP DETECTOR AND LIGHT
EXTEND INTO H.H. 2:
3" I.M.C.
2-12/C # 12
3-3/C # 12
1-3/C # 20
2-1/C # 10

- CONTROLLER AND CABINET
CABINET FOUNDATION
EXTEND INTO H.H. 1:
4" I.M.C.
4-12/C # 12
2-3/C # 12
2-3/C # 20
4-2/C # 14
1-25 PR # 19
1-2/C # 14

- EXTEND INTO H.H. 11:
4" I.M.C.
4-12/C # 12
1-3/C # 12
2-3/C # 20
9-2/C # 14
2-1/C # 6
1-1/C # 6 BR. GR.
1-12 PR # 19
1-25 PR # 19

SCALE IN FEET
0 10 20 30 40 50 100

SIGNAL HEAD PHASING



NOTE:

- 1) THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- 2) SEE SPECIAL PROVISIONS FOR FURNISHED EQUIPMENT.
- 3) EACH LUMINAIRE HAS A PHOTOELECTRIC CELL AND CHECK SWITCH.
- 4) ALL PEDESTRIAN INDICATIONS ARE 12" X 12", EXCEPT P2-3 WHICH SHALL BE 9" X 9".
- 5) ALL SIGNAL FACES HAVE BACKGROUND SHIELDS EXCEPT FACE NO.'S 2-4, 4-3, 6-4 AND 8-3.
- 6) ALL SIGNAL FACE ARE 12" 3 SECTION R-Y-G EXCEPT FACE NO.'S 2-1, 2-4, 6-1 AND 6-4 WHICH ARE 12" 5 SECTION R-Y-G - YLTA - GLTA.

NOTE:

ALL ITEMS SHOWN ARE INPLACE, AND SHALL BE USED INPLACE UNLESS OTHERWISE SPECIFIED IN BOLD PRINT.

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 10/7/87 Reg. No. 12203

ASBURY PLAN
CONFORMING TO
CONS. RECORDS

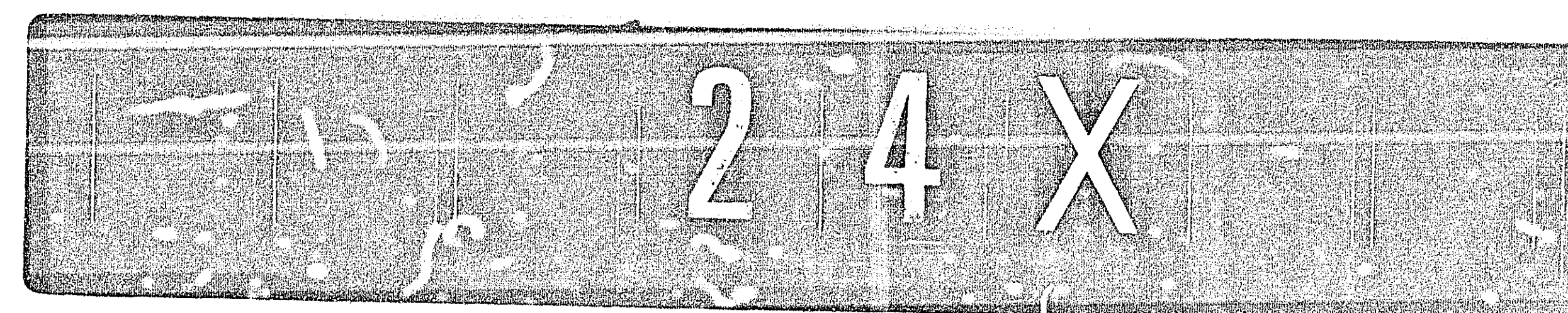
DONE BY: JPH
DATE: 1-26-90

INTERSECTION LAYOUT
FAIRVIEW AVE. & T.H. 36 NORTH RAMP
SYSTEM H

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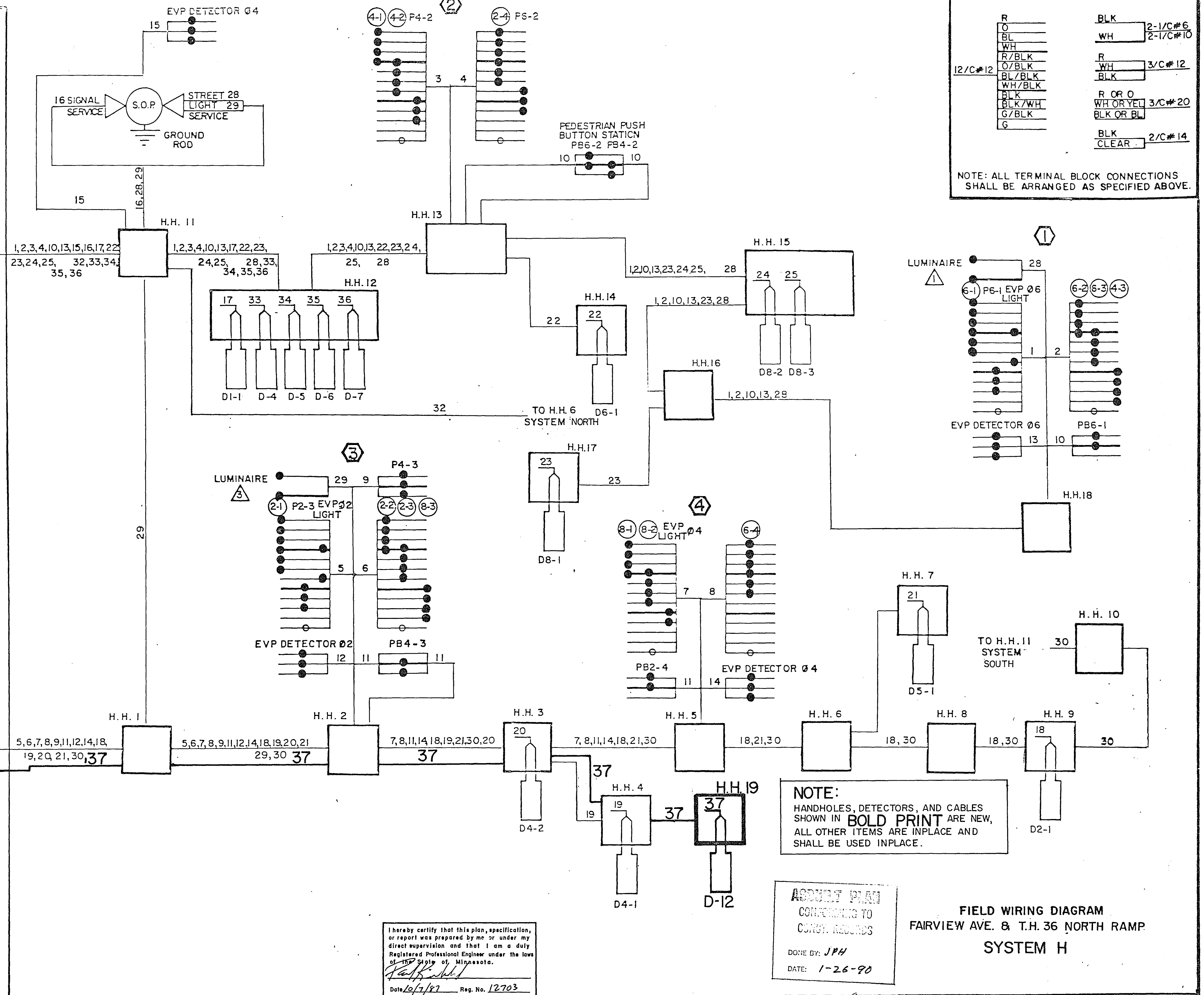
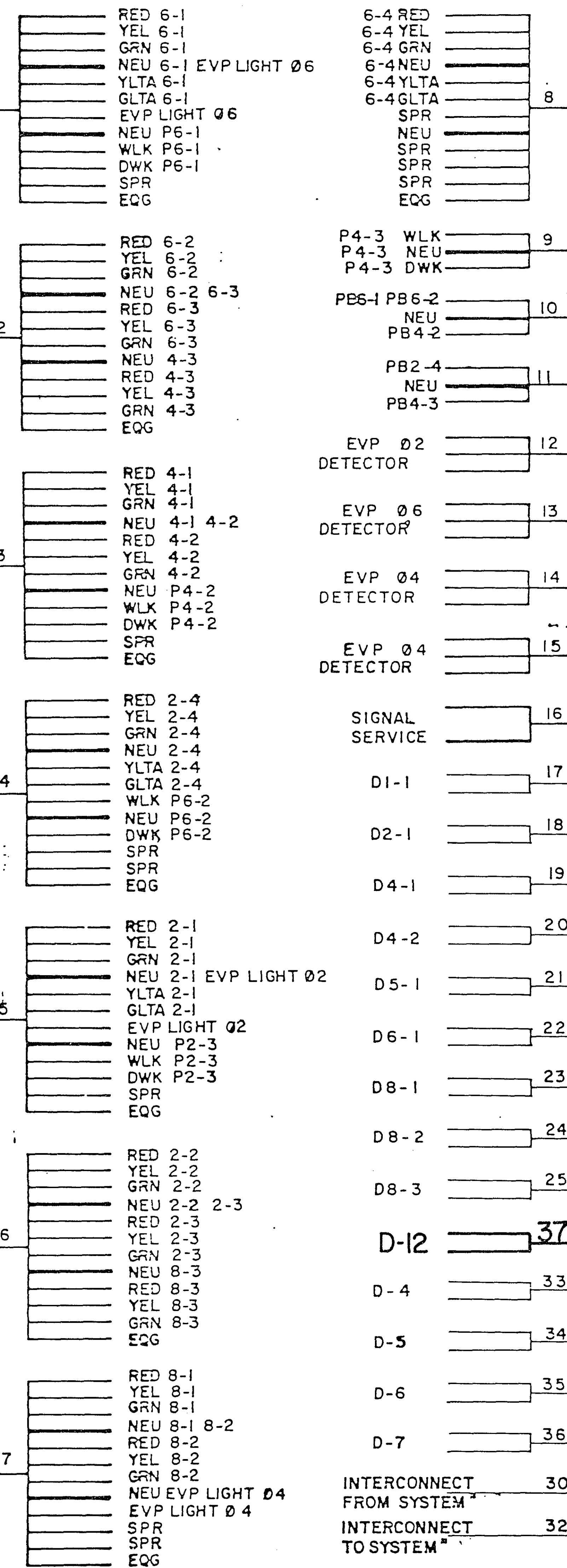
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NUMBER

CONTROLLER CABINET



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SAP 62-648-11 & 62-678-06

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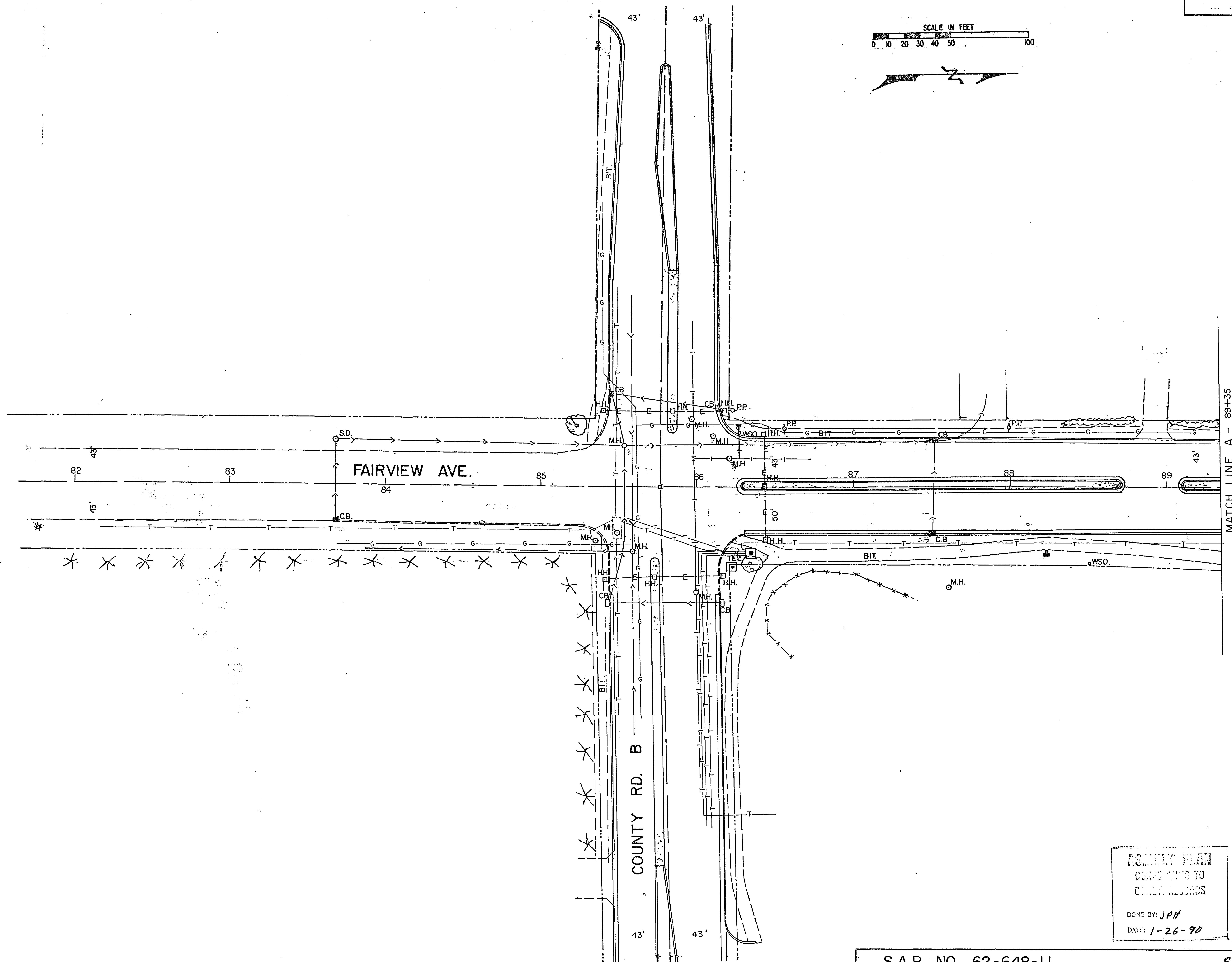
NUMBER

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA



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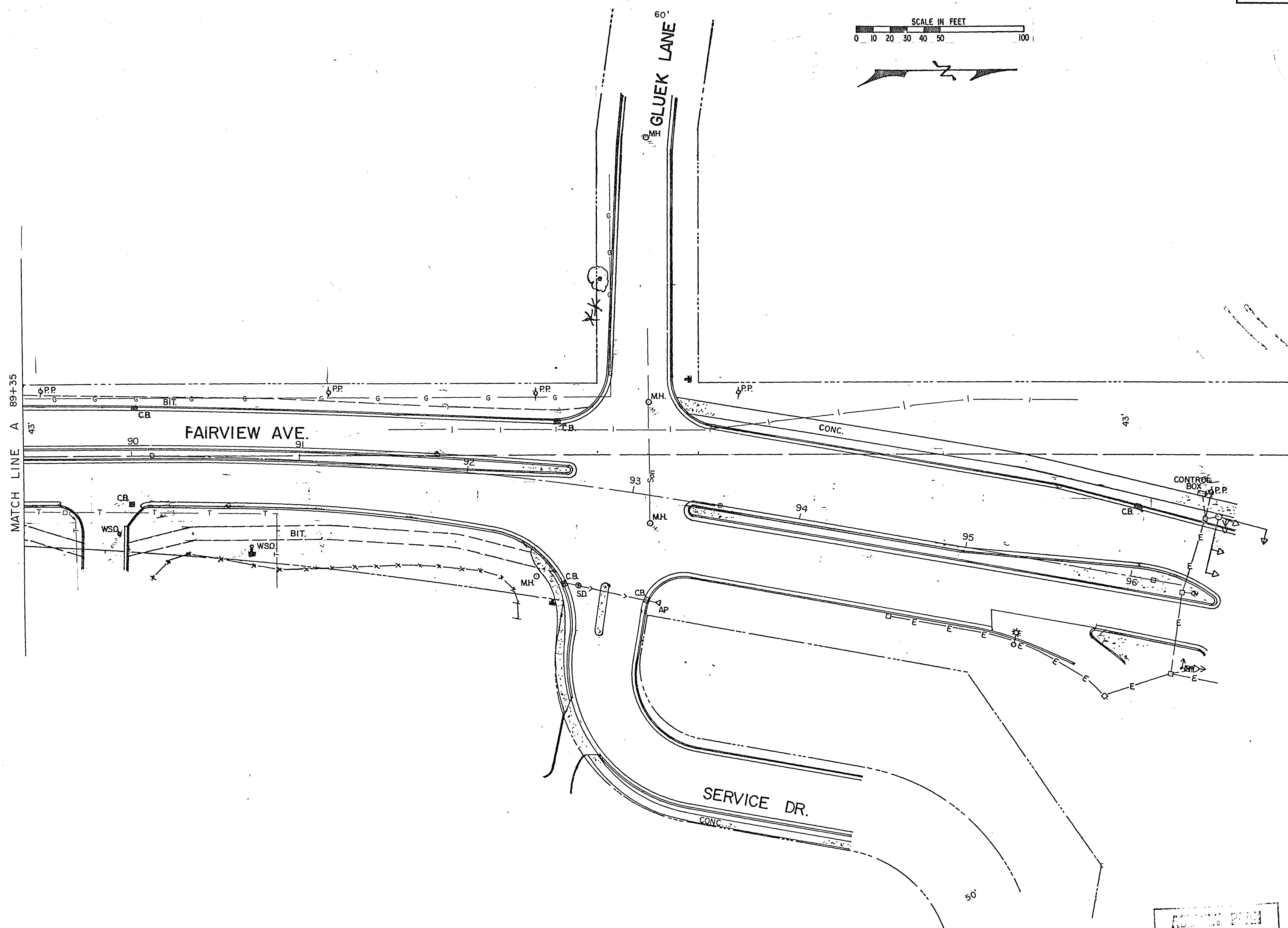
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RECORDING UNIT

PLAN FIELD CORPORATION
RECORDING UNIT

PLAN FIELD CORPORATION
RECORDING UNIT

PLAN FIELD CORPORATION
RECORDING UNIT



RECORD PLAN
CONFORM TO
CITY RECORDS
DONE BY: JPH
DATE: 1-26-90

UTILITIES

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DRAWING NUMBER

23-141

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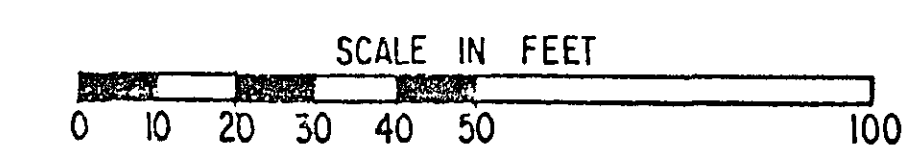
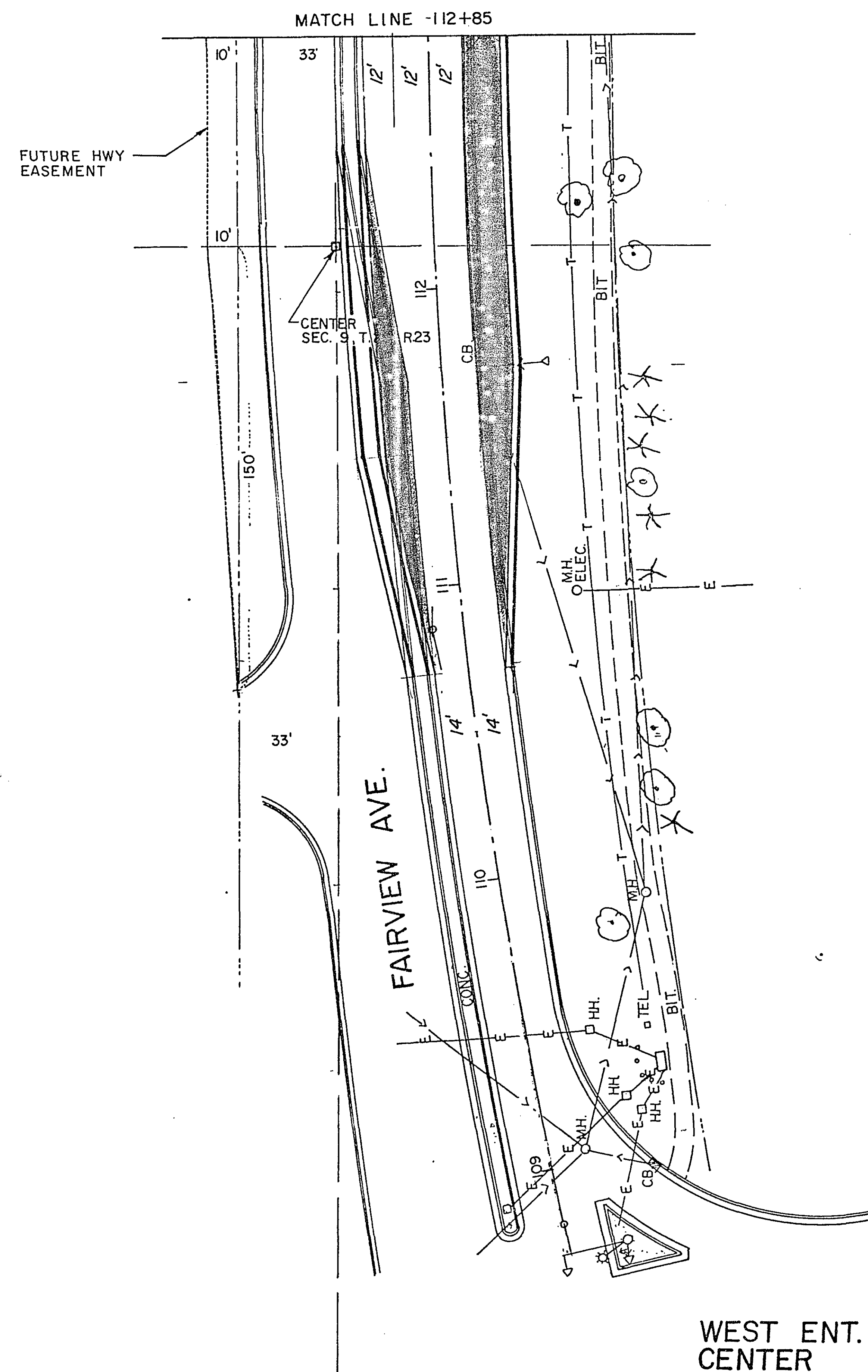
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REGISTERED BY N.Y.S.

PLAN HOLD CORPORATION
REGISTERED BY N.Y.S.

PLAN HOLD CORPORATION
REGISTERED BY N.Y.S.

PLAN HOLD CORPORATION
REGISTERED BY N.Y.S.



NOTES:

1. GEOMETRIC REVISIONS WILL BE PERFORMED UNDER A SEPARATE CONCURRENT CONTRACT - SEE SPECIAL PROVISIONS.

LEGEND

PROPOSED NEW BIT. SURFACING

WEST ENT. ROSEDALE CENTER

ASBESTOS PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 1-26-90

UTILITIES
&
PROPOSED CONSTRUCTION

S.A.P. NO. 62-648-11

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DRAWING NUMBER
23-141

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NUMBER

SCALE IN FEET
0 10 20 30 40 50 100

NOTES:

1. GEOMETRIC REVISIONS WILL BE PERFORMED UNDER A SEPARATE CONCURRENT CONTRACT - SEE SPECIAL PROVISIONS.

LEGEND

- PERMANENT HWY EASEMENT
- UTILITY EASEMENT
- PROPOSED NEW BIT. SURFACING
- CONSTRUCTION LIMITS

ASBURY PLAN
CONFORMING TO
COND. RECORDS

DONE BY: JPH
DATE: 1-26-90

UTILITIES
&
PROPOSED CONSTRUCTION

S.A.P. NO. 62-678-06

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23-141 construction plan for traffic control signal system 1-44
SAP 62-648-11 & 62-678-06

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DRAWING

PLAN HEAD CORPORATION
SAN JOSE, CALIFORNIA

DRAWING NUMBER
23-141

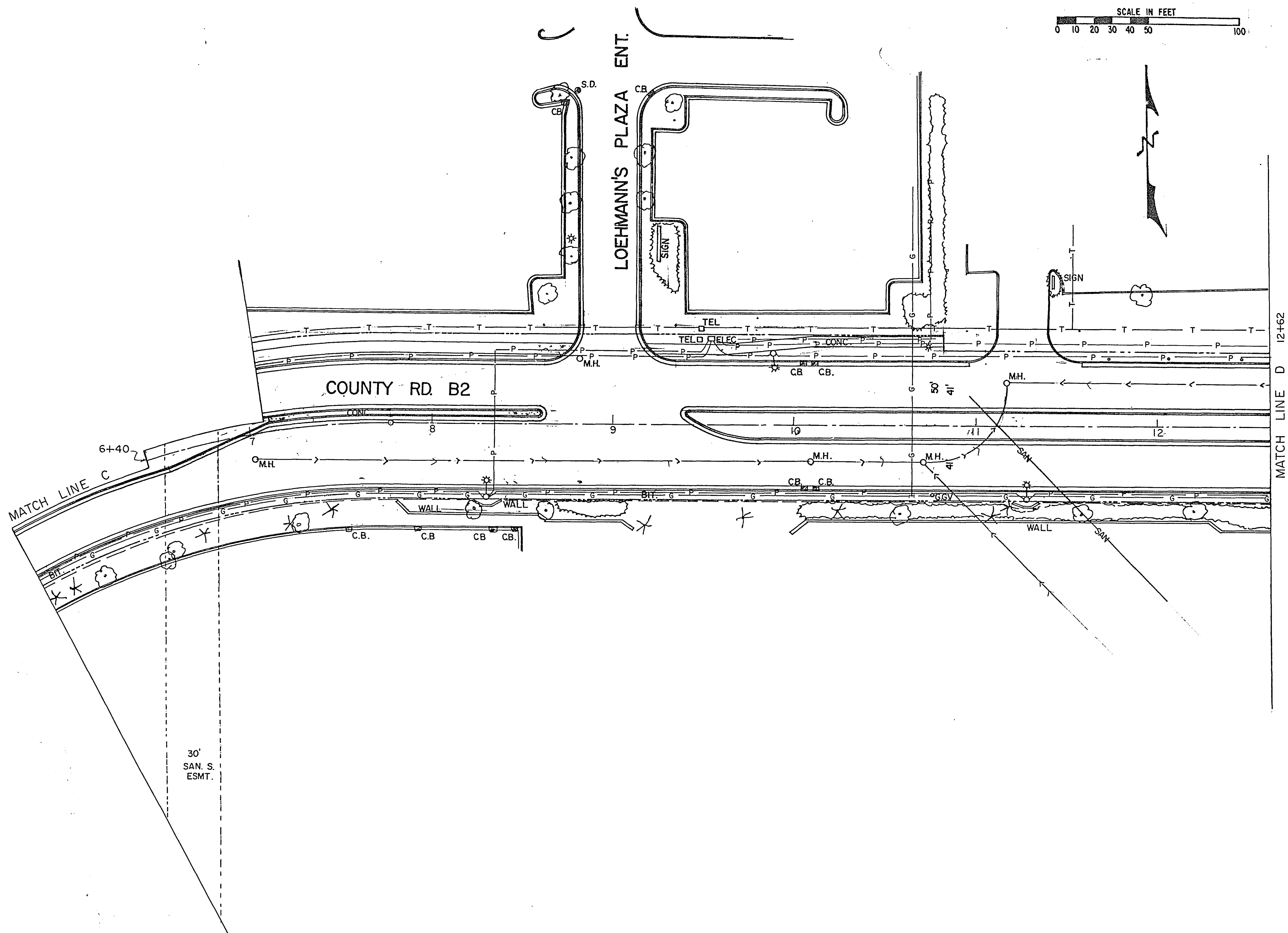
PLAN HEAD CORPORATION
SAN JOSE, CALIFORNIA

DRAWING NUMBER

PLAN HEAD CORPORATION
SAN JOSE, CALIFORNIA

G NUMBER

PLAN HEAD CORPORATION
SAN JOSE, CALIFORNIA



ASBUILT PLAN
CONFORMING TO
CITY RECORDS
DONE BY: JPH
DATE: 1-26-90

UTILITIES

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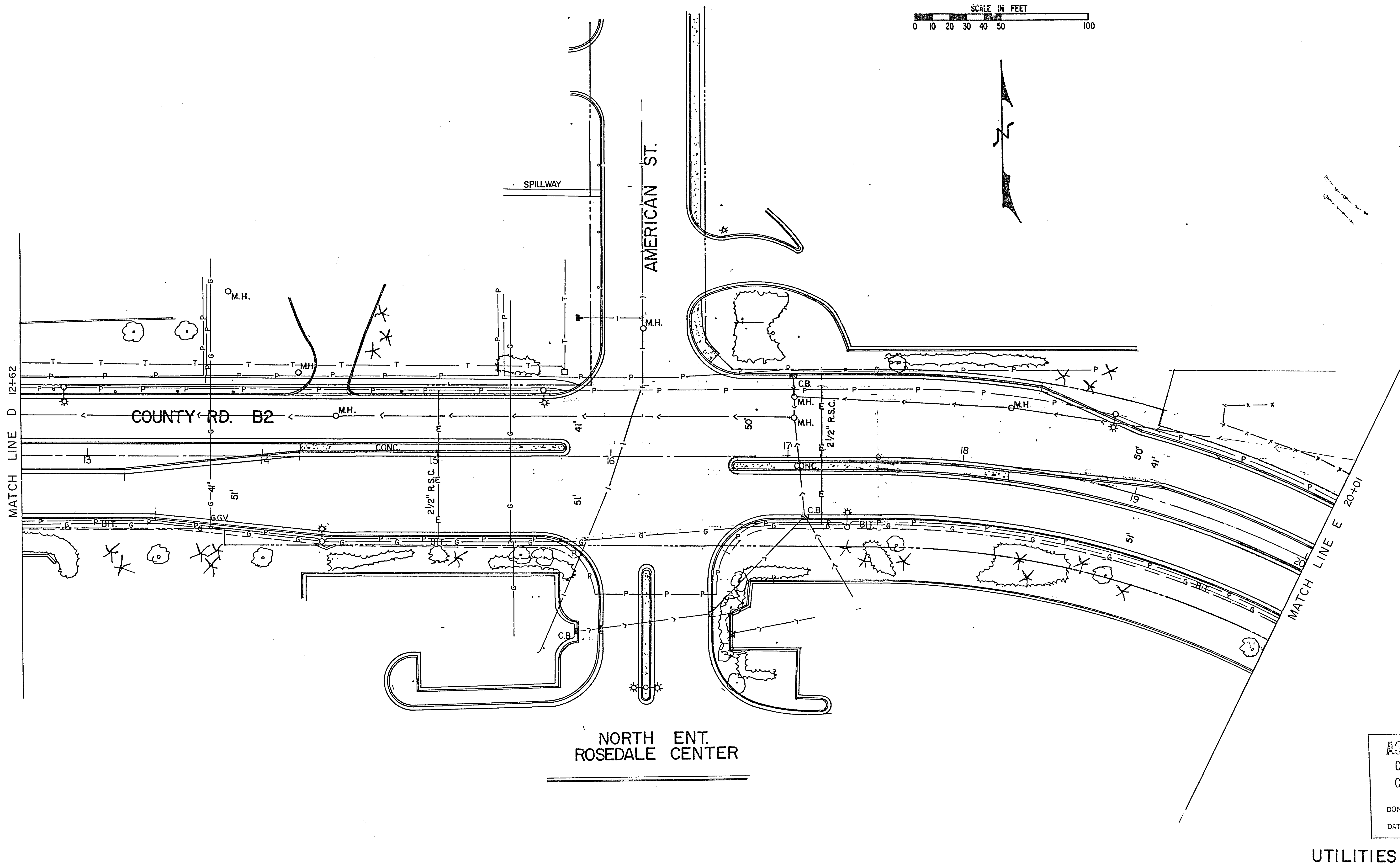
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IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER

DRAWING NUMBER

PLAN HOLD CORPORATION
IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER

NUMBER

PLAN HOLD CORPORATION
IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER



ASBUILT PLAN
CONFORMING TO
CONV. RECORDS
DONE BY: JPH
DATE: 1-26-90

UTILITIES

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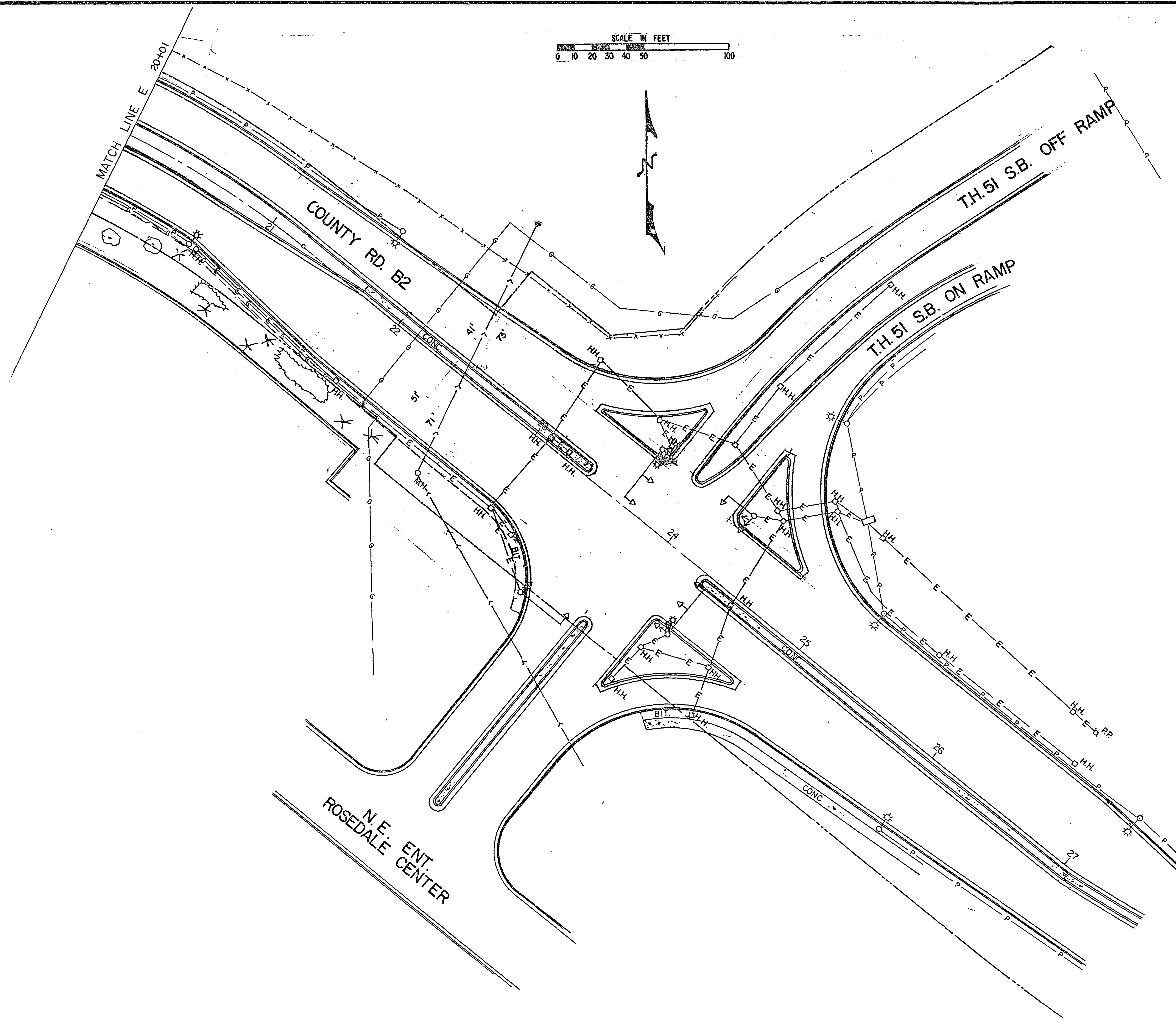
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DRAWING NUMBER
23-141

DRAWING NUMBER

NUMBER

SCALE IN FEET
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ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 1-26-90

UTILITIES

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