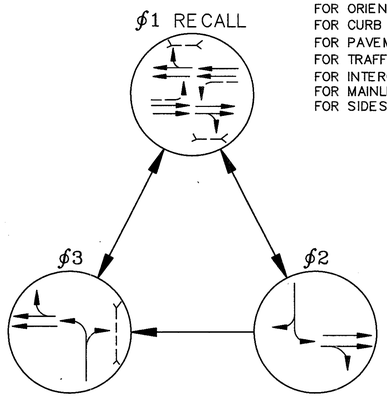
CALC. BY S.J.G. DATE 12/89	LAKE COUNTY	OHIO	338
CHKD. BY M.P.C. DATE 12/89	LAK – 306 – 7.12	FHWA 5 REGION	452

FOR SIGNING DETAILS SEE SHEET 363-365
FOR ORIENTATION ANGLES SEE SHEET 339
FOR CURB RAMP CALL OFFS SEE SHEET 50
FOR PAVEMENT MARKING DETAILS SEE SHEET 352-353
FOR TRAFFIC CONTROL GENERAL SUMMARY SEE SHEET 336-337
FOR INTERCONNECT DETAILS SEE SHEET 367
FOR MAINLINE PLAN & PROFILE SEE SHEET 91
FOR SIDESTREET PLAN & PROFILE SEE SHEET 124



PHASING DIAGRAM

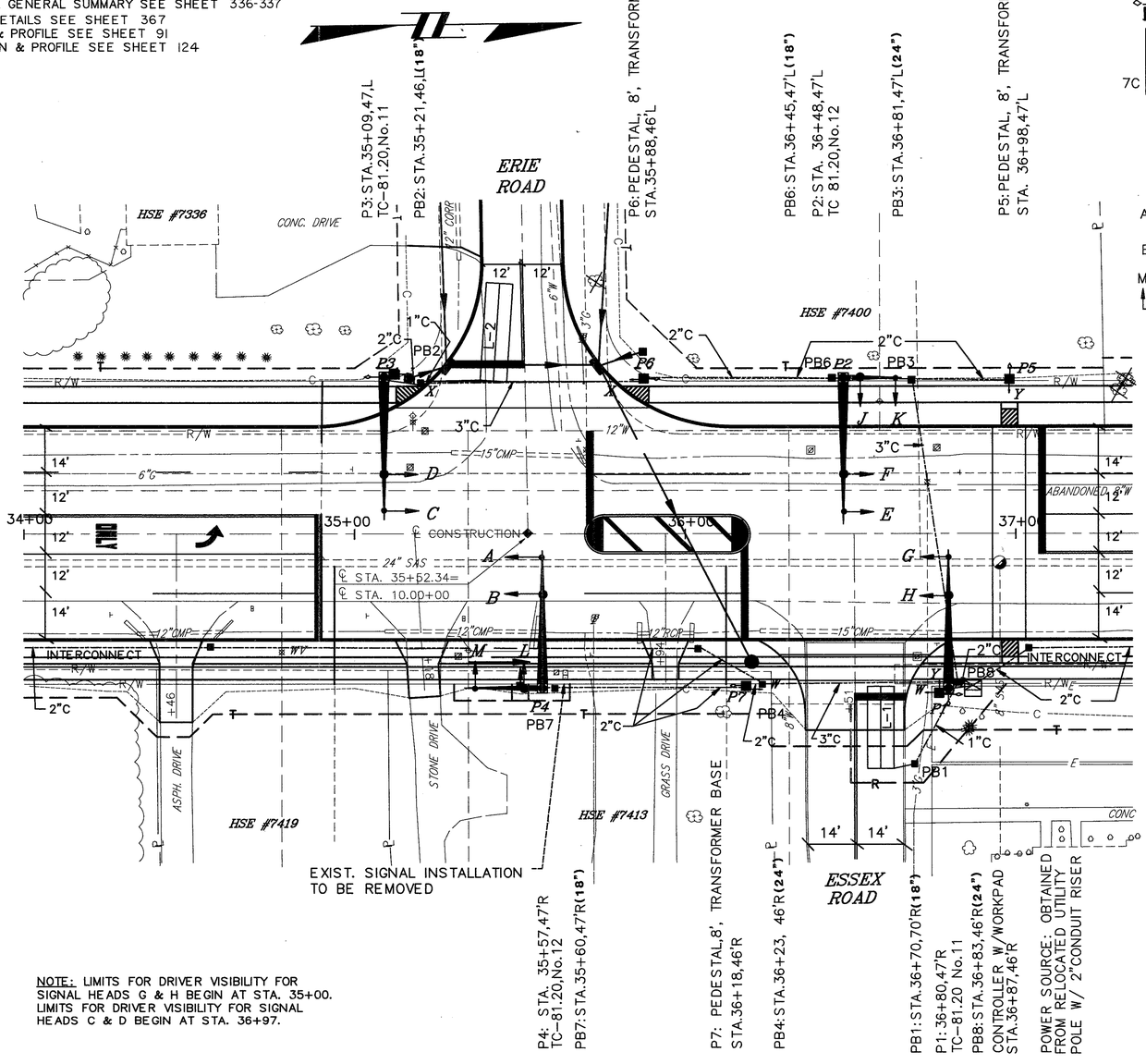
SIGNAL HEAD	φ1 R/W	φ1 CLEAR			φ2 R/W	φ2 CLEAR			φ3 R/W	φ3 CLEAR			FLASH	DWELL
A	G	G	Y	R	R	R	R	R	R	R	R	R	Y	G
B	G	G	Y	R	R	R	R	R	R	R	R	R	Y	G
C	G	G	G	③	③ R	R	R	R	R	G	Y	R	Y	G
D	G	G	G	③	③ R	R	R	R	R	G	Y	R	Y	G
E	G	G	Y	R	R	R	R	R	R	R	R	R	Y	G
F	G	G	Y	R	R	R	R	R	R	R	R	R	Y	G
G	G	G	G	① G	② G	G	G	④	④ R	R	R	R	Y	G
H	G	G	G	① G	② G	G	G	④	④ R	R	R	R	Y	G
J	R	R	R	R	R	R	R	R	R	G	Y	R	R	R
K	R	R	R	R	R	R	R	R	R	G	Y	R	R	R
L	R	R	R	R	R	G	Y	R	R	R	R	R	R	R
M	R	R	R	R	R	G	Y	R	R	R	R	R	R	R
W–W	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT	DW
X–X	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT	DW
Y–Y	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	OUT	DW

① Y IF φ3 NEXT
② R IF φ3 NEXT
③ G IF φ3 NEXT
④ G IF φ1 NEXT

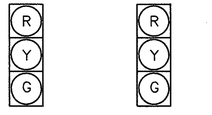
SIGNAL SEQUENCE CHART

FUNCTION	φ1	φ2	φ3		
INITIAL GREEN	--	3.5	3.5		
MINIMUM GREEN	30.0	--	--		
VEHICLE EXTENSION	--	2.5	2.5		
MAXIMUM GREEN I	--	15.0	22.0		
MAXIMUM GREEN II	--	20.0	22.0		
PEDESTRIAN WALK	20.0	--	7.0		
PEDESTRIAN CLEARANCE	10.0	--	15.0		
VEHICLE CLEARANCE I	3.0	3.0	3.0		
VEHICLE CLEARANCE II	3.0	3.0	3.0		
VEHICLE CLEARANCE III	1.0	1.0	1.0		
RECALL	YES	NO	NO		
MEMORY	NO	NO	NO		

SIGNAL TIMING CHART



NOTE: LIMITS FOR DRIVER VISIBILITY FOR SIGNAL HEADS G & H BEGIN AT STA. 35+00. LIMITS FOR DRIVER VISIBILITY FOR SIGNAL HEADS C & D BEGIN AT STA. 36+97.



PROGRAMABLE * C,D,G,H — A,B,E,F,J,K,L,M

12" SIGNAL HEADS

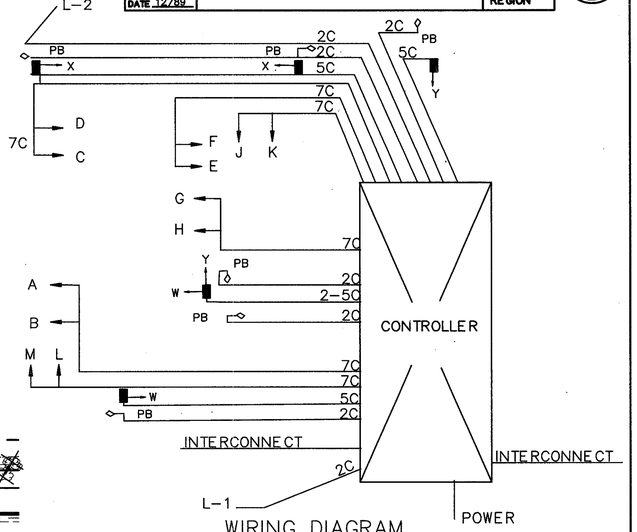
* NOTE: HEADS C,D,G,H ARE RIGIDLY MOUNTED TO MAST ARM

W–W
X–X
Y–Y

NOTE: SEE SHEET 348 FOR ADDITIONAL LOOP DETECTOR UNITS TO BE INSTALLED IN CONTROLLER AT THIS LOCATION.

LOOP	SIZE	TURNS	MODE	DELAY	PHASE	REMARK	INHIBITED DELAY	LOCATION 1st FRONT CORNER	LOCATION 2nd FRONT CORNER
L–1	8X25	2–4–2	PRESENCE	7.0	φ3	QUADRAPOLE	φ3	STA. 36+55, 47'R	STA. 36+63, 47'R
L–2	8X30	2–4–2	PRESENCE	7.0	φ2	QUADRAPOLE	φ2	STA. 35+38, 45'L	STA. 35+46, 44'L

LOOP DETECTOR CHART



WIRING DIAGRAM

SUB SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
625	CONDUIT, 1", 713.07, TYPE DB	LIN FT	29
625	CONDUIT, 2", 713.07, TYPE DB	LIN FT	194
625	CONDUIT, 3", 713.07, TYPE DB	LIN FT	58
625	CONDUIT, CONCRETE ENCASED, 3", 713.07	LIN FT	166
625	TRENCH	LIN FT	447
625	PULL BOX, 713.08, 18"	EACH	4
625	PULL BOX, 713.08, 24"	EACH	3
625	GROUND ROD	EACH	8
632	VEHICULAR SIGNAL HEADS, 3-SECTION, 12" LENS, 1-WAY, AS PER PLAN	EACH	8
632	VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED,3-SECTION,12"-LENS,1-WAY	EACH	4
632	PEDESTAL,8', TRANSFORMER BASE	EACH	3
632	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN	EACH	6
632	PEDESTRIAN PUSHBUTTON	EACH	6
632	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN	EACH	2
632	LOOP DETECTOR PAVEMENT CUTTING	LIN FT	245
632	CONCRETE FOR ANCHOR BASE FOUNDATION	CU YDS	12.04
632	SIGNAL SUPPORT,TYPE TC–81.20,DESIGN 12,WITH MAST ARMS TC–81.20 DESIGN 11,42 FEET AND TC–81.20 DESIGN 1,17 FEET	EACH	1
632	SIGNAL SUPPORT,TYPE TC–81.20,DESIGN 12,WITH MAST ARMS TC–81.20 DESIGN 11,42 FEET AND TC–81.20 DESIGN 1,22 FEET	EACH	1
632	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN No. 11, W/ 42' ARM	EACH	2
632	CONDUIT RISER, 2" DIAMETER	EACH	1
632	CABLE SUPPORT ASSEMBLY	EACH	6
632	SIGNAL CABLE, 2–CONDUCTOR, 14 AWG, AS PER PLAN	LIN FT	595
632	SIGNAL CABLE, 5–CONDUCTOR, 14 AWG	LIN FT	628
632	SIGNAL CABLE, 7–CONDUCTOR, 14 AWG	LIN FT	1261
632	LOOP DETECTOR WIRE, TYPE E	LIN FT	550
632	LOOP DETECTOR LEAD–IN CABLE	LIN FT	299
632	POWER CABLE, 2–CONDUCTOR, 8 AWG	LIN FT	150
632	POWER SERVICE	EACH	1
632	COVERING OF VEHICULAR SIGNAL HEADS	EACH	12
632	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	EACH	1
633	CONTROLLER, ACTUATED,4 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN	EACH	1
633	COORDINATOR, MULTI–DIAL, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY	EACH	1
633	CONCRETE FOR CABINET FOUNDATION	CU YDS	1.00
633	CONTROLLER WORK PAD	SQ FT	8.3