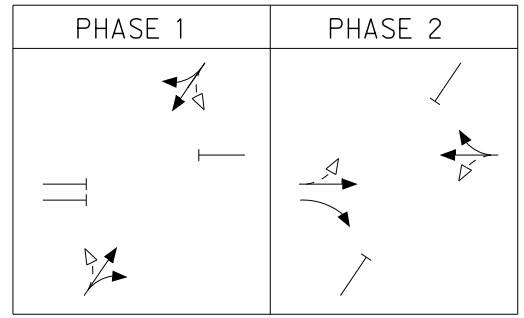


MATERIAL REQUIRED

ITEM	QTY.	UNITS	DESCRIPTION
625	1797	LIN. FT.	CONDUIT, 713.04, 1"
625	25	LIN. FT.	CONDUIT, 713.04, 2"
625	93	LIN. FT.	CONDUIT, 713.04, 3" JACKED OR DRILLED
625	19	EACH	PULL BOX, 713.08, 18"
625	3	EACH	GROUND ROD, AS PER PLAN
632	4	EACH	VEHICULAR SIGNAL HEAD, 3-SECTION, 12" LENS, 2-WAY
632	9	EACH	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, APP
632	124	LIN. FT.	MESSENGER WIRE, 7-STRAND, 1/4" DIA. W/ACCESSORIES
632	124	LIN. FT.	MESSENGER WIRE, 7-STRAND, 3/8" DIA. W/ACCESSORIES
632	459.8	LIN. FT.	SIGNAL CABLE, 4-5/C, NO. 14 AWG
632	54	LIN. FT.	POWER CABLE, 2/C, NO. 6 AWG
632	3151.8	LIN. FT.	LOOP DETECTOR LEAD-IN CABLE, 2/C, NO. 14 AWG
632	2	EACH	STRAIN POLE, TYPE TC-81.10, DESIGN 7, 30'
632	2	EACH	STRAIN POLE FOUNDATION, AS PER PLAN
632	1	EACH	METER BASE, 200 AMP, WITH BYPASS
632	653	LIN. FT.	LOOP DETECTOR PAVEMENT CUTTING, APP
632	1826	LIN. FT.	LOOP DETECTOR WIRE, TYPE E, APP
633	1	EACH	UNINTERRUPTIBLE POWER SUPPLY WITH ENCLOSURE
633	1	EACH	CONTROLLER ACTUATED, 8-PHASE, SOLID-STATE DIGITAL MICROPROCESSOR, APP
633	1	EACH	CABINET FOUNDATION, TYPE 1
633	2	EACH	CONTROLLER WORKPAD

PHASING DIAGRAM

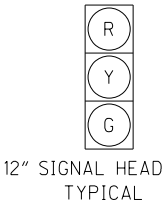
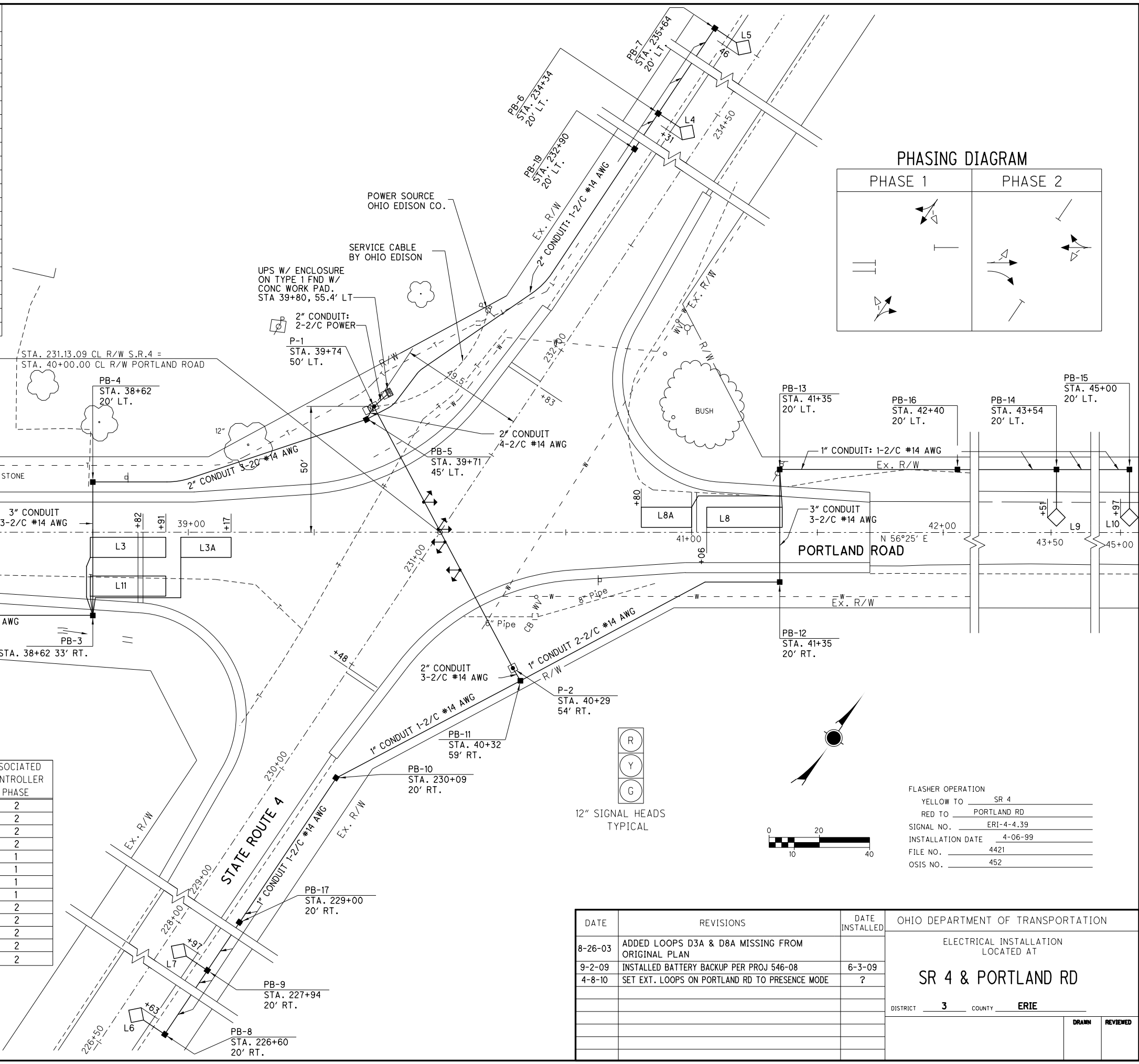


LOOP DETECTOR CHART

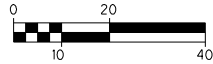
LOOP DESIGNATION	SIZE (FEET)	NO. OF TURNS	SHAPE	PULSE OR PRESENCE	DELAY (SEC.)	CONNECT TO DETECTOR NO.	ASSOCIATED CONTROLLER PHASE
L1	5 X 5	3	SQUARE	PRESENCE	3*	1	2
L2	5 X 5	3	SQUARE	PRESENCE	3*	1	2
L3	8 X 30	2	RECTANGLE	PRESENCE	8*	2	2
L3A	8 X 20	2	RECTANGLE	PRESENCE	8*	2	2
L4	5 X 5	3	SQUARE	PULSE	0	3	1
L5	5 X 5	3	SQUARE	PULSE	0	3	1
L6	5 X 5	3	SQUARE	PULSE	0	4	1
L7	5 X 5	3	SQUARE	PULSE	0	4	1
L8	8 X 30	2	RECTANGLE	PRESENCE	8*	5	2
L8A	8 X 20	2	RECTANGLE	PRESENCE	8*	5	2
L9	5 X 5	3	SQUARE	PRESENCE	3*	6	2
L10	5 X 5	3	SQUARE	PRESENCE	3*	6	2
L11	8 X 30	2	RECTANGLE	PRESENCE	8*	7	2

* INHIBIT DELAY DURING PHASE 2 GREEN

DESIGN FILE: I:\FIELD\N\ELECTRICAL\SIGNAL\DCN\E4&Portland.dgn
WORKSTATION: rronev DATE: 3/24/2011



12" SIGNAL HEADS TYPICAL



FLASHER OPERATION
YELLOW TO SR 4
RED TO PORTLAND RD
SIGNAL NO. ERI-4-4.39
INSTALLATION DATE 4-06-99
FILE NO. 4421
OSIS NO. 452

DATE	REVISIONS	DATE INSTALLED	OHIO DEPARTMENT OF TRANSPORTATION	
8-26-03	ADDED LOOPS D3A & D8A MISSING FROM ORIGINAL PLAN		ELECTRICAL INSTALLATION LOCATED AT	
9-2-09	INSTALLED BATTERY BACKUP PER PROJ 546-08	6-3-09	SR 4 & PORTLAND RD	
4-8-10	SET EXT. LOOPS ON PORTLAND RD TO PRESENCE MODE	?		
			DISTRICT 3	COUNTY ERIE
				DRAWN REVIEWED