

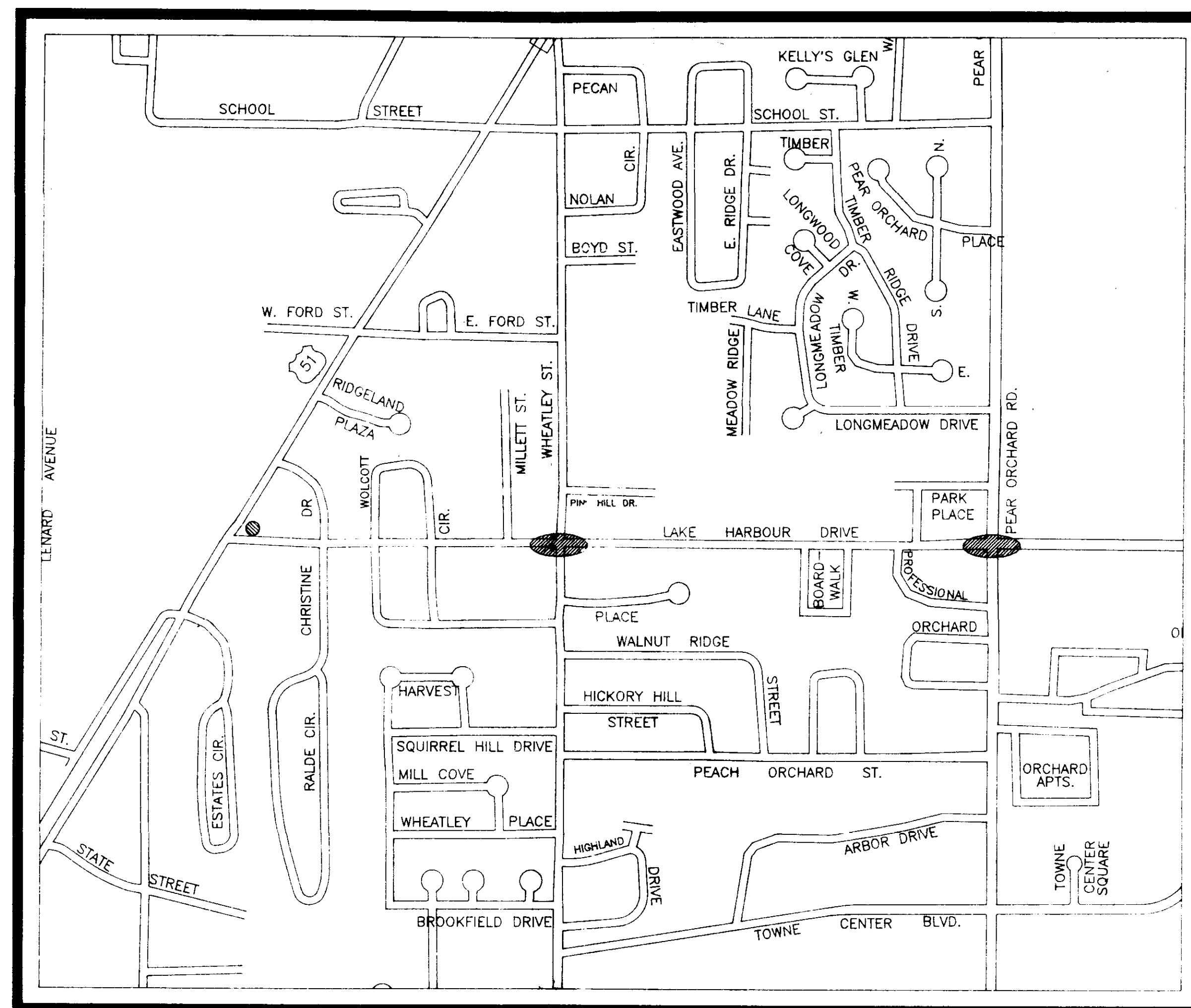
CITY OF RIDGELAND, MISSISSIPPI

FEDERAL AID SYSTEM

1992 TRAFFIC SIGNAL IMPROVEMENTS

LAKE HARBOUR DRIVE @ WHEATLEY AND PEAR ORCHARD ROAD MADISON COUNTY, MS.

FEDERAL AID PROJECT NO. STP-8323 (1)/48-8323-00-001-10



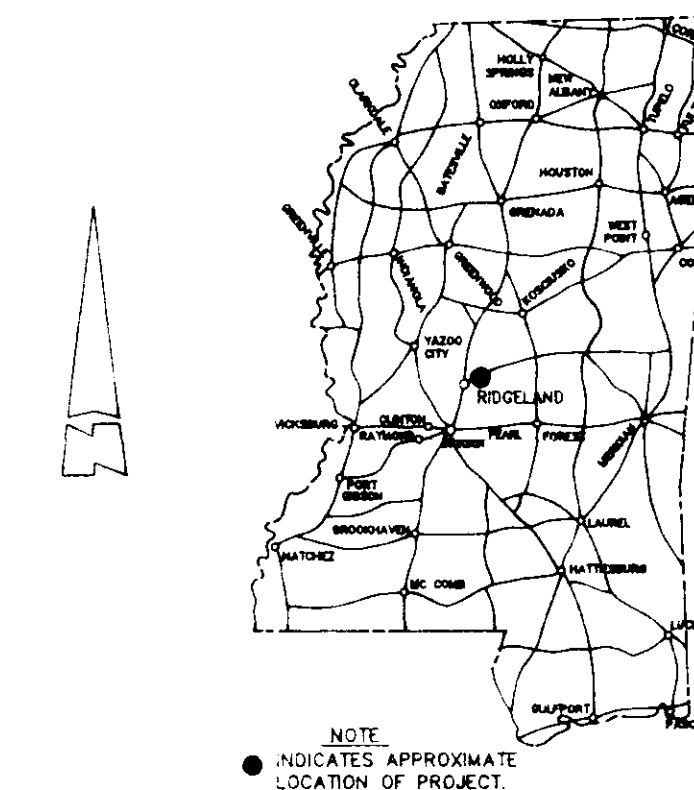
VICINITY MAP

JUNE, 1992

WAGGONER ENGINEERING, INC.
Consulting Engineers
Jackson, Mississippi

RECORD
DRAWING
(JULY 1994)

DESIGN CONTROL
35 MPH = V (SPEED DESIGN)
ADT (1990) = 9950; ADT (2010) = 14925
DHW = 1493 D = 60 - 40% T = 4.5%



NOTE:
● INDICATES APPROXIMATE
LOCATION OF PROJECT.

Mayor:

Gene F. McGee

Mayor Pro Tem:

Harvey Carr, Jr.

City Attorney:

Jerry Mills

Aldermen:

Brian Barcellona

Al Bible

Harvey Carr, Jr.

Linda Davis

Daryl Smith

Public Works Director:

Sam Vinson

City Clerk:

Micheal McPhearson

BY	APPROVED	DATE
	<i>Gene F. McGee</i>	7-21-92
	MAYOR	DATE
	CITY OF RIDGELAND	
	APPROVED	DATE
	<i>John R. Stahl</i>	9-26-92
REVISION	DIRECTOR	
	MISSISSIPPI STATE HIGHWAY DEPARTMENT	
	APPROVED	
	DIVISION ADMINISTRATOR	
	FEDERAL HIGHWAY ADMINISTRATION	
	DEPARTMENT OF TRANSPORTATION	

PWP 02011

SUMMARY OF QUANTITIES

PAY ITEM NO.	PAY ITEM	UNIT	LAKE HARBOUR @ WEATLEY STREET		LAKE HARBOUR @ PEAR ORCHARD ROAD		TOTAL	
			PRELIM.	FINAL	PRELIM.	FINAL	PRELIM.	FINAL
618-A	MAINTENANCE OF TRAFFIC	L.S.	L.S.		L.S.		L.S.	
620-A	MOBILIZATION	L.S.	L.S.		L.S.		L.S.	
	TRAFFIC SIGNAL ITEMS							
908-635-A	VEHICLE LOOP ASSEMBLIES	LF	1466	1777	1844	1115	3310	2892
908-636-A	SHIELDED CABLE (UNDERGROUND)	LF	1696	2929	2316	2016	4012	4945
908-638-A	LOOP DETECTOR AMPLIFIER CARD RACK MOUNTED (4 CHANNEL)	EA	1	3	1	4	2	7
907-639-C	STEEL TRAFFIC SIGNAL & EQUIP. POLES (TYPE II) (SINGLE MAST ARM) (16' SHAFT LENGTH)	EA			4	4	4	4
907-639-C	STEEL TRAFFIC SIGNAL & EQUIP. POLES (TYPE III) (DOUBLE MAST ARM) (16' SHAFT LENGTH)	EA	2	2			2	2
908-640-A	TRAFFIC SIGNAL HEADS (TYPE I)	EA	8	8	8	8	16	16
908-642-A	SOLID STATE TRAFFIC ACTUATED CONTROLLERS (TYPE BA)	EA	1	1	1	1	3	3
908-643-A	CLOSED LOOP ON STREET MASTER SYSTEM	EA				1	1	1
908-644-A	OPTICAL DETECTOR	EA	4	4	4	4	8	11
908-644-B	OPTICAL DETECTOR CABLE	LF	359	397	586	648	945	1394
908-647-A	PULLBOXES (TYPE 1)	EA	4	4	4	4	8	8
908-647-A	PULLBOXES (TYPE 2)	EA	4	4			4	4
907-649	STREET NAME SIGNS	S.F.	30	34	30	34	60	68
908-666-B	ELECTRIC CABLE (UNDERGROUND IN CONDUIT) (POWER LEAD IN) (AWG #6) (2 CONDUCTOR)	LF	100	222	338	363	460	585
908-666-B	ELECTRIC CABLE (UNDERGROUND IN CONDUIT) (SIGNAL CABLE) (AWG #14) (5 CONDUCTOR)	LF		368	227	598	227	966
908-666-B	ELECTRIC CABLE (UNDERGROUND IN CONDUIT) (SIGNAL CABLE) (AWG #14) (7 CONDUCTOR)	LF	38	408	596	665	983	1073
908-666-B	ELECTRIC CABLE (UNDERGROUND IN CONDUIT)(COMMUNICATION CABLE)(MSA40-4)(AWG #19)(6 PAIR)	LF	244	301	69	489	313	790
908-666-C	ELECTRIC CABLE (AERIAL SUPPORTED)(COMMUNICATIONS CABLE) (MSA 40-4)(AWG #6 (6 PAIR)	LF	2000	2111	2700	3400	4700	5517
908-668-A	TRAFFIC SIGNAL CONDUIT (UNDERGROUND) (TYPE I) (1")	LF	358	304	312	496	670	800
908-668-A	TRAFFIC SIGNAL CONDUIT (JACKED) (TYPE I) (3")	LF	171	160			171	160
908-668-B	TRAFFIC SIGNAL CONDUIT (UNDERGROUND) (TYPE IV) (1")	LF	271	302	486	492	757	794
908-668-B	TRAFFIC SIGNAL CONDUIT (UNDERGROUND) (TYPE IV) (2")	LF	134	134	60	51	194	185
908-668-B	TRAFFIC SIGNAL CONDUIT (UNDERGROUND) (TYPE IV) (3")	LF	36	14	18	14	54	28

902 ②
4945 ②

3 ②
349 ②

INDEX

SHEET NO.	TITLE
1	COVER SHEET
2	SUMMARY OF QUANTITIES, INDEX, APPLICATION RATES & GENERAL NOTES
3	PROJECT LOCATION MAP
4	TRAFFIC SIGNALIZATION DETAILS (LAKE HARBOUR DRIVE @ PEAR ORCHARD ROAD)
5	TRAFFIC SIGNALIZATION DETAILS (LAKE HARBOUR DRIVE @ WHEATLEY STREET)
6	TRAFFIC SIGNAL INSTALLATION DETAIL
7	STANDARD DETAILS TYPICAL TRAFFIC CONTROL PLANS
8	STANDARD SIGNS FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION
9	STANDARD SIGNAL DETAILS VEHICLE LOOP DETECTOR ASSEMBLY
10	STANDARD SIGNAL DETAILS CONDUIT, PULLBOX AND PEDESTRIAN PUSHBUTTON

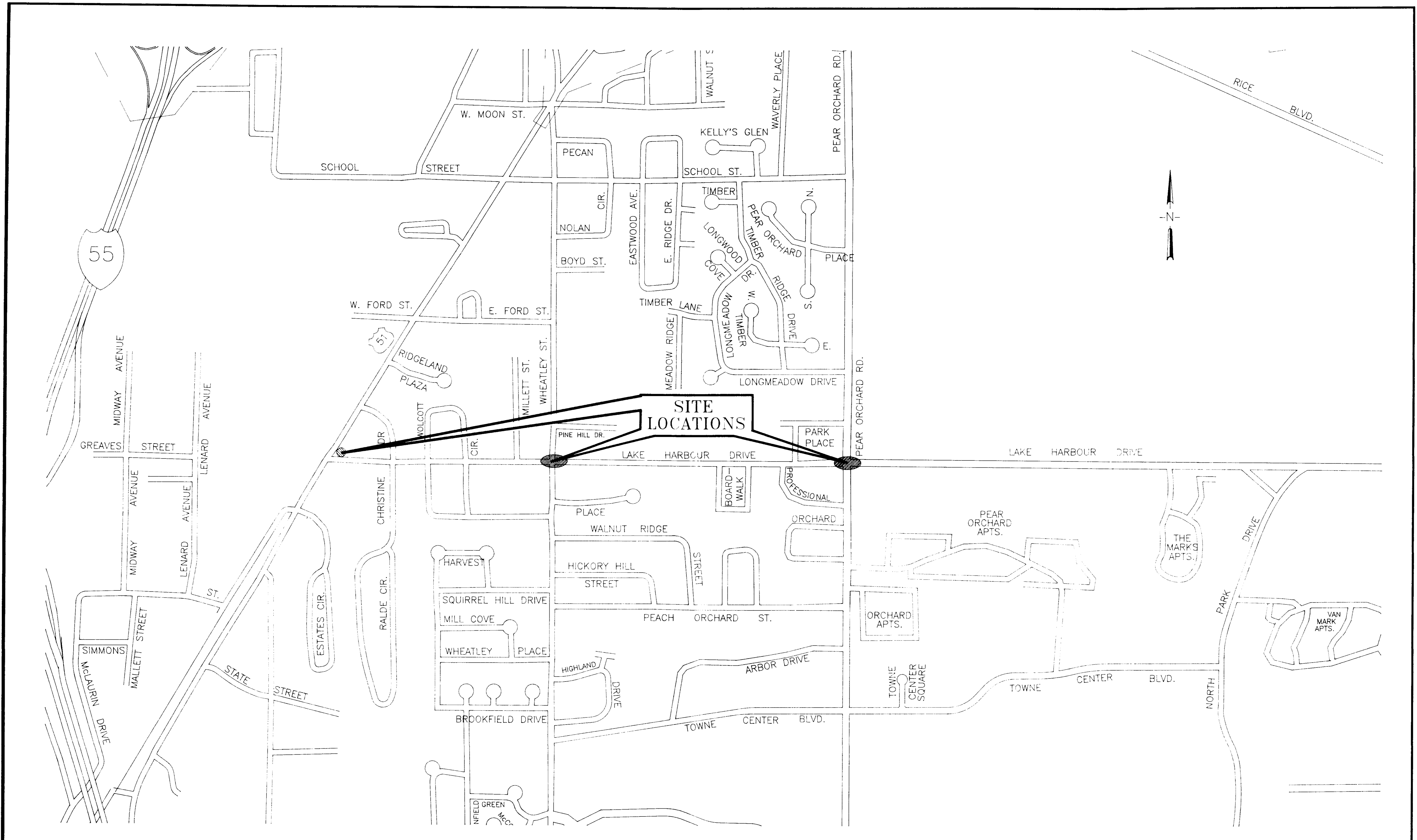
- ① ONE SOLID STATE TRAFFIC ACTUATED CONTROLLER AND CLOSED LOOP MASTER TO BE PLACED IN NORTHEAST QUADRANT OF U.S. HIGHWAY 51/LAKE HARBOUR DRIVE ON EXISTING CONCRETE PAD. EXISTING CONTROLLER BOX TO BE REMOVED BY CONTRACTOR AND STORED ON SITE FOR PICKUP BY STATE.
- ② QUANTITIES PLACED ON HIGHWAY 51 AND LAKE HARBOUR INTERSECTION.

Traffic Signal Installation General Notes

1. The plan locations of underground utilities are approximate only. The contractor shall notify all the utility companies prior to starting any excavation on the project, in order to establish exact locations. The contractor shall be responsible for making independent investigations, as necessary, to verify all utility locations at no cost to the owner.
2. All signs, signals, pavement markings and temporary traffic control devices are to conform to the Manual on Uniform Traffic Control Devices (1988 Edition) and all subsequent revisions.
3. All raised objects are to be placed a minimum of 2' behind the face of curb. New traffic signal poles are to be placed a minimum of 5' behind the face of curb except where conflicts with utilities and/or right-of-way exists.
4. All poles, pullboxes, controllers and pavement markings shall be field located by the Engineer and the Contractor at the nearest practical location indicated on the plan sheets.
5. The signal controller timings shall be provided by the Engineer.
6. The Contractor shall make application for power service, coordinating with City Officials and utility company involved, in advance of requiring the electrical service.
7. The Contractor is responsible for the maintenance of existing traffic signals and/or signs after work begins at either site. Cost to be included in other items bid.
8. All existing detector cabinets, controllers, signal heads, cable, poles, signs, etc. are to be removed and stored on site to be picked up by the City. Cost to be included in other items bid.
9. All detector cabinet and controller bases are to be completely removed. All existing pole bases are to be removed a minimum of 6" below finished ground level. Cost to be included in other items bid.
10. The Contractor shall schedule work so that the change over from existing controller cabinet to the new controller cabinet shall be done expeditiously. The Contractor shall notify the city at least 24 hours prior to signal being out of operation for traffic control by local law enforcement.
11. All pavement markings, etc. will be provided by others in a separate contract prior to initiation of construction activities under this project.
12. Cost of pedestrian pushbuttons and related signing R10-3, "Push Button For Green Light", to be included in Pay Item No. 908-642-A.
13. Contractor to strip away support cable from communication cable, Pay Item No. 908-666-B, prior to installation in underground conduit. Cost to be absorbed in Pay Item No. 908-666-B.

RECORD DRAWING (JULY 1994)

RECEIVED
OCT 04 1994
FINAL PLANS
74-01 F.P.

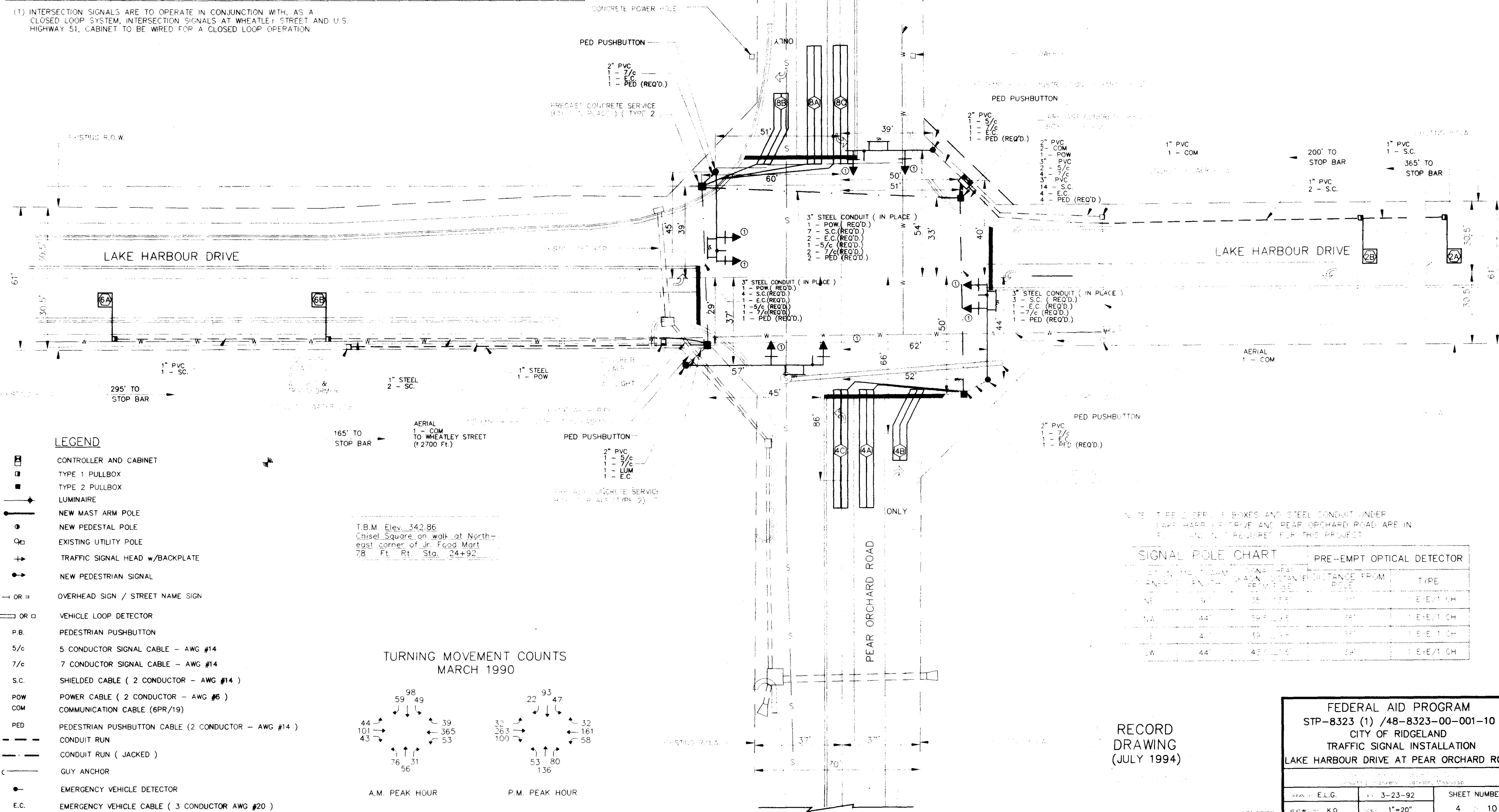
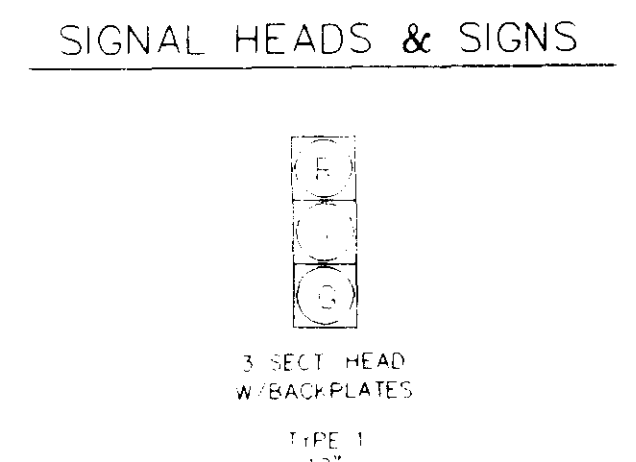
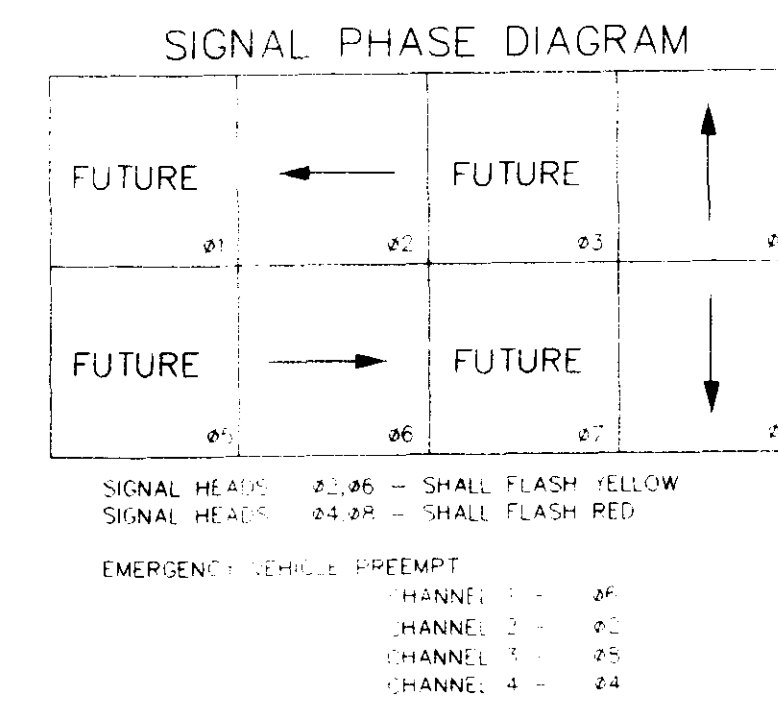


RECORD
DRAWING
(JULY 1994)

CITY OF RIDGELAND TRAFFIC SIGNALS LOCATION MAP		
<small>WAGGONER ENGINEERING, INC. Consulting Engineers - Jackson, Mississippi</small>		
<small>DRAWN BY:</small> E.L.G.	<small>DATE:</small> 5/1/92	<small>SHEET NUMBER</small>
<small>REVIEWED BY:</small> F.K.O.	<small>SCALE:</small> 1"=400'	3 OF 10

DETECTOR ASSIGNMENT SUMMARY									
DETECTOR NUMBER	LOOP SIZE	TURNS	PED PUSHBUTTON FOR LAKE HARBOUR	PHASE CALLED	DELAY TIME (SEC)	NO. OF UNITS CHANNEL	PRESENCE MODE	PULSE MODE	COMMENTS
2A & 2B	6'x6'	4	-	2	-	2-1		X	2.5 SEC. EXT. EACH MINIMUM RECALL
4A & 4C	6'x50'	2-4-2	X	4	-	3-1	X		
4B	6'x30'	2-4-2	X	4	-	3-2	X		
6A & 6B	6'x6'	4	-	6	-	2-3		X	2.5 SEC. EXT. EACH MINIMUM RECALL
8A & 8C	6'x50'	2-4-2	X	8	=	3-3	X		
8B	6'x30'	2-4-2	X	8	-	3-4	X		

(1) INTERSECTION SIGNALS ARE TO OPERATE IN CONJUNCTION WITH, AS A CLOSED LOOP SYSTEM, INTERSECTION SIGNALS AT WHEATLEY STREET AND U.S. HIGHWAY 51. CABINET TO BE WIRED FOR A CLOSED LOOP OPERATION



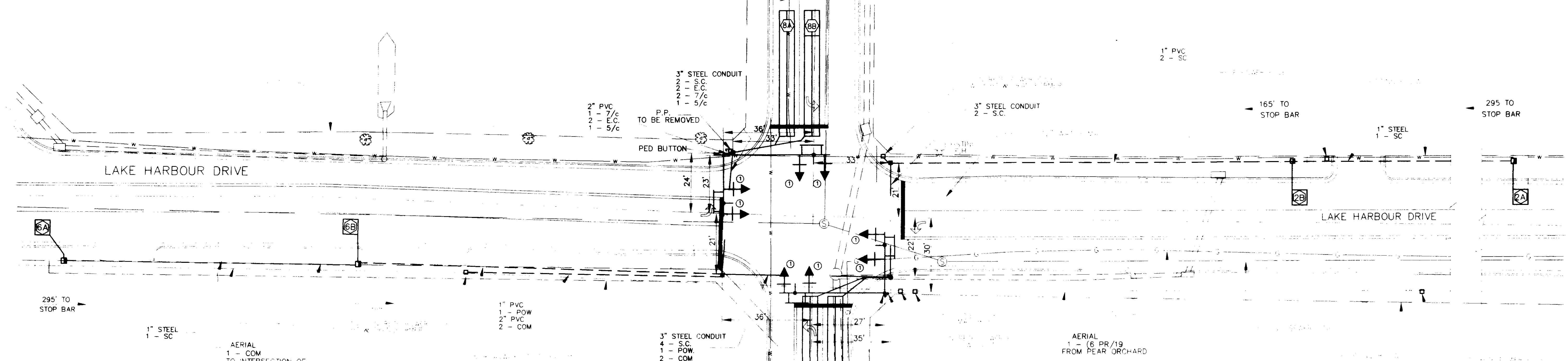
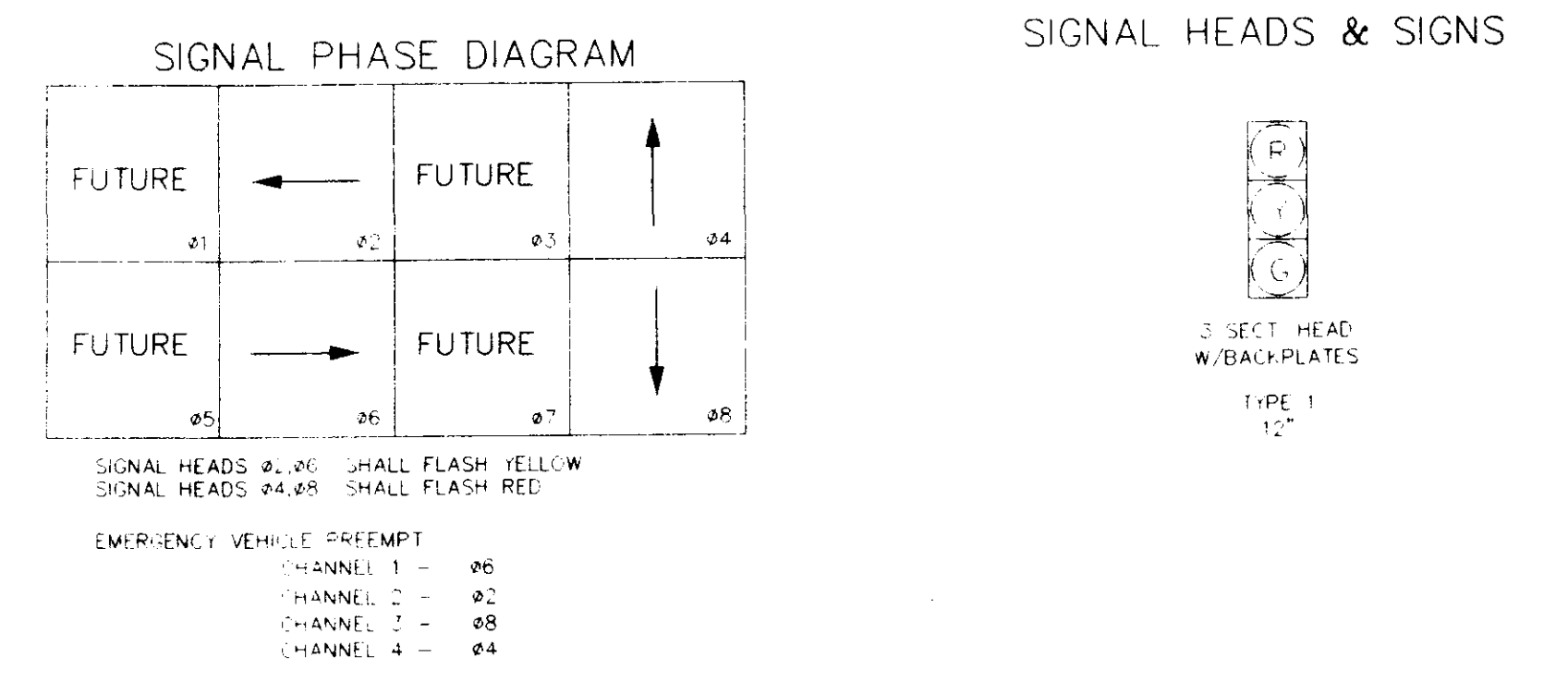
DATE: 07/14/94
 DRAWN BY: J. K. ...
 CHECKED BY: ...
 PROJECT: ...

FEDERAL AID PROGRAM
 STP-8323 (1) /48-8323-00-001-10
 CITY OF RIDGELAND
 TRAFFIC SIGNAL INSTALLATION
 LAKE HARBOUR DRIVE AT PEAR ORCHARD ROAD

DATE: 07/14/94	SCALE: 1"=20'	SHEET NUMBER: 4 OF 10
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DETECTOR ASSIGNMENT SUMMARY									
DETECTOR NUMBER	LOOP SIZE	TURNS	PEDESTRIAN PUSH BUTTON	PHASE CALLED	DELAY TIME (SEC.)	NO. OF UNITS CHANNEL	PRESENCE MODE	PULSE MODE	COMMENTS
2A & 2B	6'x6'	3	-	2	-	2-1,2-2		X	2.5 SEC. EXT. (EACH) MINIMUM RECALL
4A & 4B	6'x50'	2-4-2	X	4	-	5-1	X		
6A & 6B	6'x6'	3	-	6	-	3-1,3-2		X	2.5 SEC. EXT. (EACH) MINIMUM RECALL
8A & 8B	6'x50'	2-4-2	X	8	-	5-2	X		

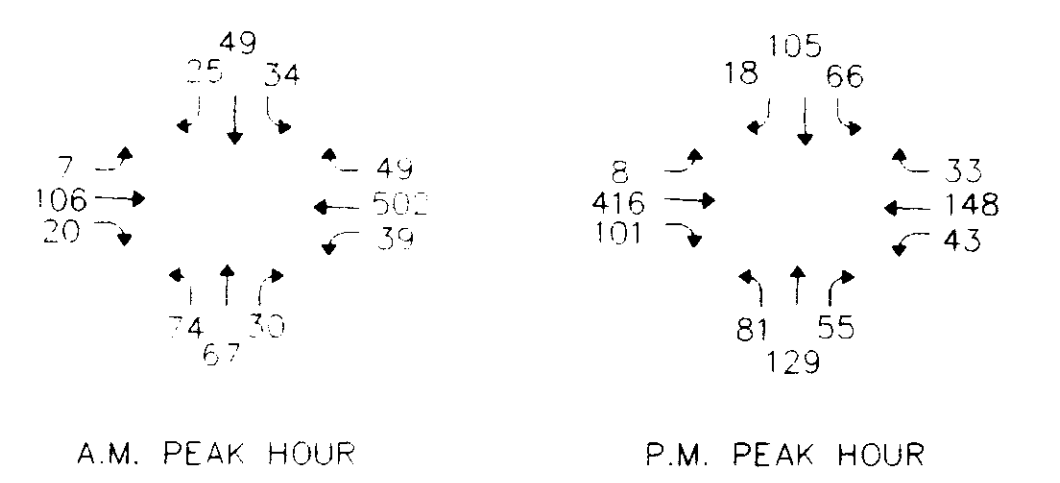
NOTE: INTERSECTION SIGNALS ARE TO OPERATE IN CONJUNCTION WITH, AS A CLOSED LOOP SYSTEM, INTERSECTION SIGNALS AT U.S. HIGHWAY 51 AND PEAR ORCHARD ROAD. CABINET SHALL BE WIRED FOR CLOSED LOOP OPERATION.



- LEGEND**
- ☐ POLE MOUNTED CONTROLLER AND CABINET
 - TYPE 1 PULLBOX
 - TYPE 2 PULLBOX
 - ◆— LUMINAIRE
 - NEW MAST ARM POLE
 - NEW PEDESTAL POLE
 - EXISTING UTILITY POLE
 - TRAFFIC SIGNAL HEAD w/BACKPLATE
 - NEW PEDESTRIAN SIGNAL
 - OR = OVERHEAD SIGN / STREET NAME SIGN
 - OR □ VEHICLE LOOP DETECTOR
 - P.B. PEDESTRIAN PUSHBUTTON
 - 5/c 5 CONDUCTOR SIGNAL CABLE - AWG #14
 - 7/c 7 CONDUCTOR SIGNAL CABLE - AWG #14
 - S.C. SHIELDED CABLE (2 CONDUCTOR - AWG #14)
 - POW POWER CABLE (2 CONDUCTOR - AWG #6)
 - COM COMMUNICATION CABLE (6 PR/19)
 - PED PEDESTRIAN PUSHBUTTON CABLE (2 CONDUCTOR - AWG #14)
 - CONDUIT RUN
 - - - CONDUIT RUN (JACKED)
 - GUY ANCHOR
 - EMERGENCY VEHICLE DETECTOR
 - E.C. EMERGENCY VEHICLE CABLE (3 CONDUCTOR AWG #20)

1 B.M. Elev. 332.61
Chisel Square Southeast corner of porch at House NO. 501 in Southwest corner of Wheatley Street and Lake Harbour Drive

TURNING MOVEMENT COUNTS MARCH 1990



SIGNAL POLE CHART			PRE-EMPT OPTICAL DETECTOR	
LOCATION	MAST ARM LENGTH	SIGNAL HEAD SPACING DISTANCE FROM POLE	DISTANCE FROM POLE	TYPE
NW	40'	30'-40'	35'	1 EYE/1 CH
NW	24'	13.5'-13.5'	19'	1 EYE/1 CH
SE	24'	13.5'-13.5'	19'	1 EYE/1 CH
SE	40'	30'-40'	35'	1 EYE/1 CH

NOTE: CLOSED LOOP ON STREET MASTER TO BE INSTALLED IN EXISTING CABINET LOCATED IN NORTHEAST QUADRANT OF U.S. HIGHWAY 51 AT LAKE HARBOUR INTERSECTION

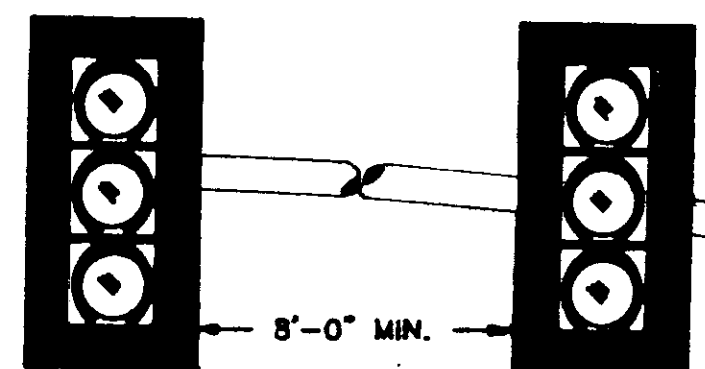
RECORD DRAWING (JULY 1994)

FEDERAL AID PROGRAM
STP-8323 (1) /48-8323-00-001-10
CITY OF RIDGELAND
TRAFFIC SIGNAL INSTALLATION
LAKE HARBOUR DRIVE AT WHEATLEY STREET

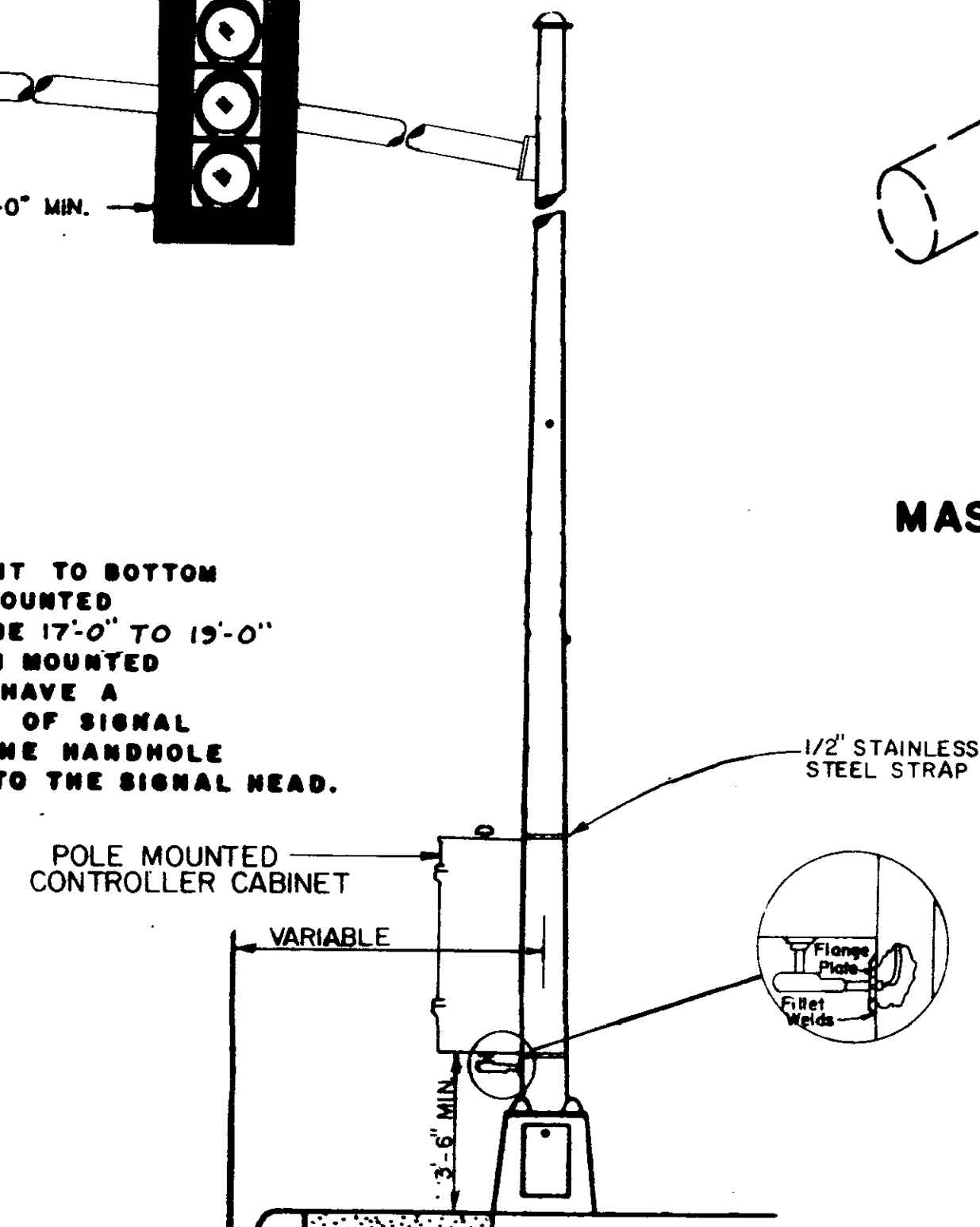
AWG 20/19/18/17/16/15/14/13/12/11/10/9/8/7/6/5/4/3/2/1
AWG 20/19/18/17/16/15/14/13/12/11/10/9/8/7/6/5/4/3/2/1

DESIGNED BY: E.L.G.	DATE: 3-23-92	SHEET NUMBER
REVIEWED BY: B.O.	SCALE: 1" = 20'	5 OF 10

1. STP 8323(1) INTERSECTION OF LAKE HARBOUR DRIVE AND WHEATLEY STREET, RIDGELAND, MISSISSIPPI
 2. DESIGN NUMBER: 8500-C
 3. ACQUISITION ORIGIN: MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 4. PROJECT NUMBER: 301

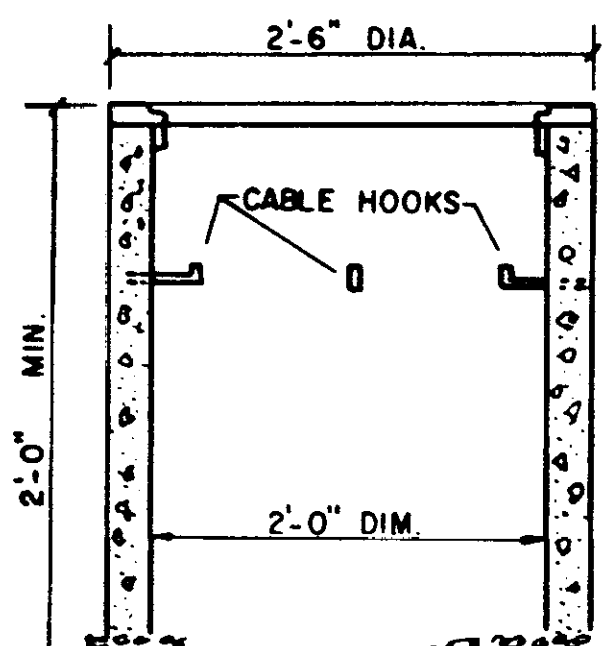


MINIMUM HEIGHT TO BOTTOM OF MAST ARM MOUNTED SIGNAL SHALL BE 17'-0" TO 19'-0" EACH MAST ARM MOUNTED SIGNAL SHALL HAVE A SEPARATE RUN OF SIGNAL CABLE FROM THE HANDHOLE IN POLE BASE TO THE SIGNAL HEAD.



MAST ARM POLE

CAST IRON RING AND COVER, 80 LB. MIN. RAISED LETTERS ON CAST IRON COVER TO READ "SIGNAL" UNLESS OTHERWISE NOTED ON THE PLANS, THE SERVICE BOX MAY ALSO BE POURED IN PLACE WITH 6" PORTLAND CEMENT WALLS.



PRE-CAST CONCRETE SERVICE BOX

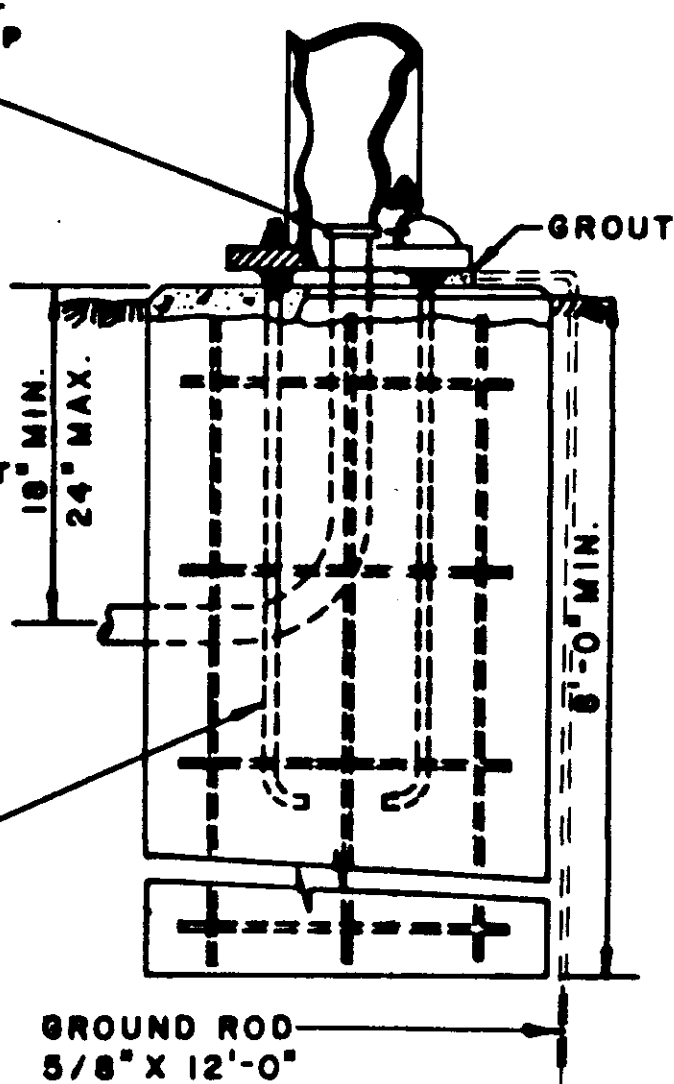
CONDUIT EXTENSIONS ABOVE BASE SHALL HAVE A PLASTIC OR METAL RIM BUSHING TO PREVENT THE CHAFING OF CABLES. TOP OF BASE SHALL NOT BE HIGHER THAN TOP OF SURFACE OR CURB.

IN SIDEWALK AREAS TOP OF BASE TO BE POURED TO BOTTOM OF SIDEWALK. SIDEWALK THEN TO BE POURED OR REPLACED TO NEAREST JOINT OR AS DIRECTED BY THE ENGINEER.

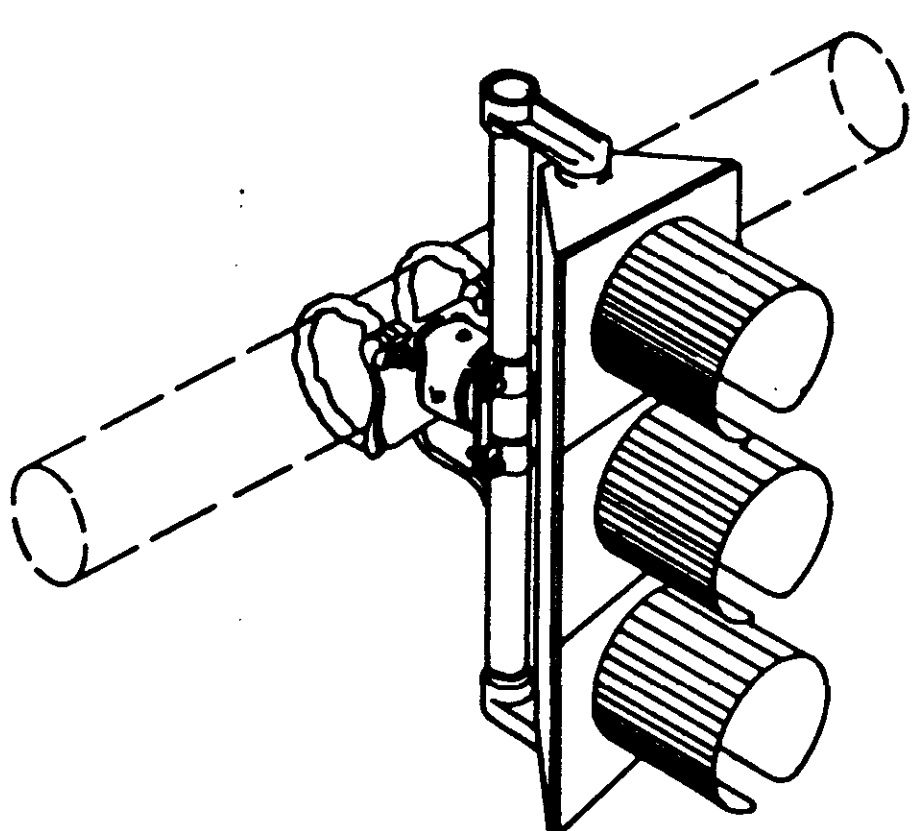
NO. 6 BARE COPPER GROUND CONDUCTOR FROM INTERNAL GROUNDING NUT TO CLAMP ON GROUND ROD.

ANCHOR BOLTS AS SPECIFIED BY POLE MANUFACTURER

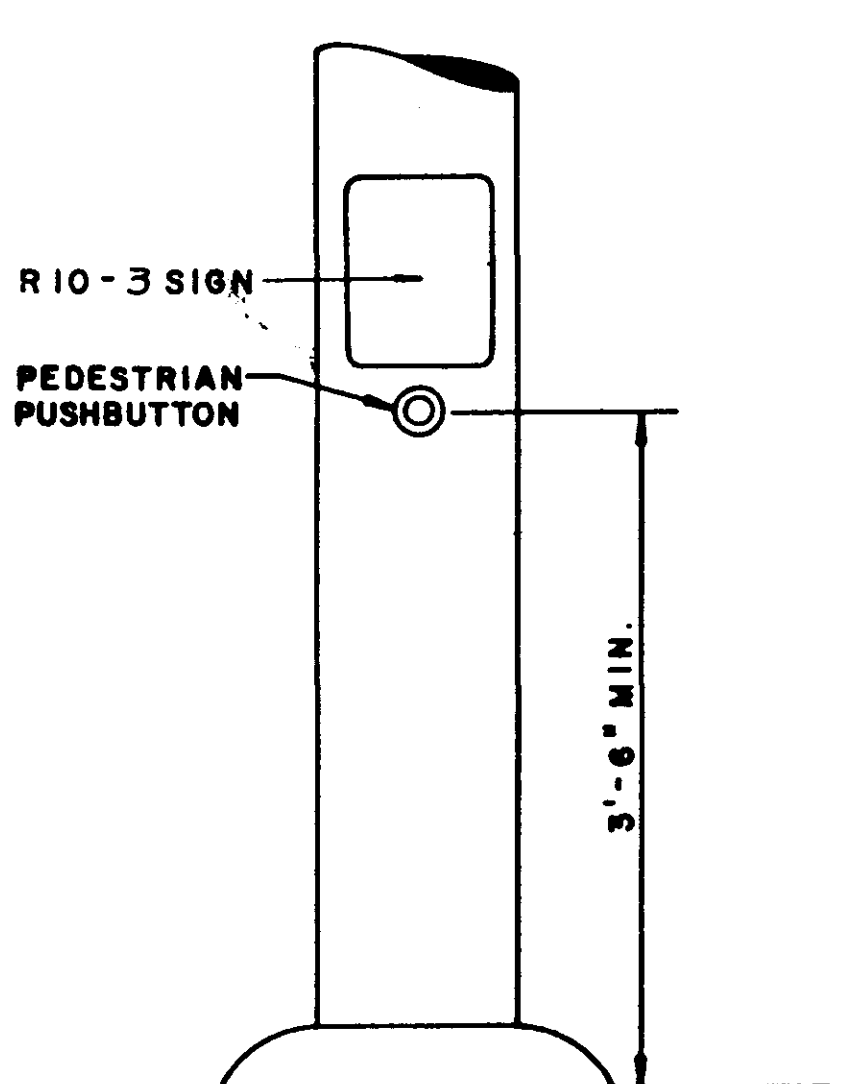
INSTALL AND CAP SPARE 2" CONDUIT AS DIRECTED BY ENGINEER.



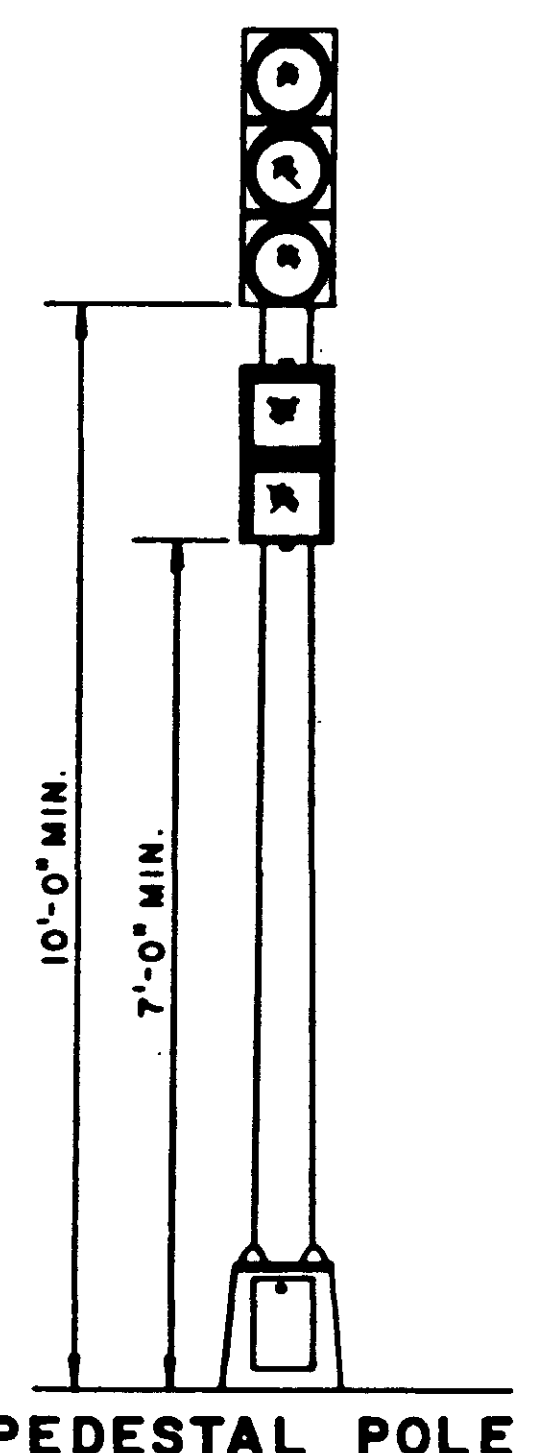
MAST ARM POLE BASE



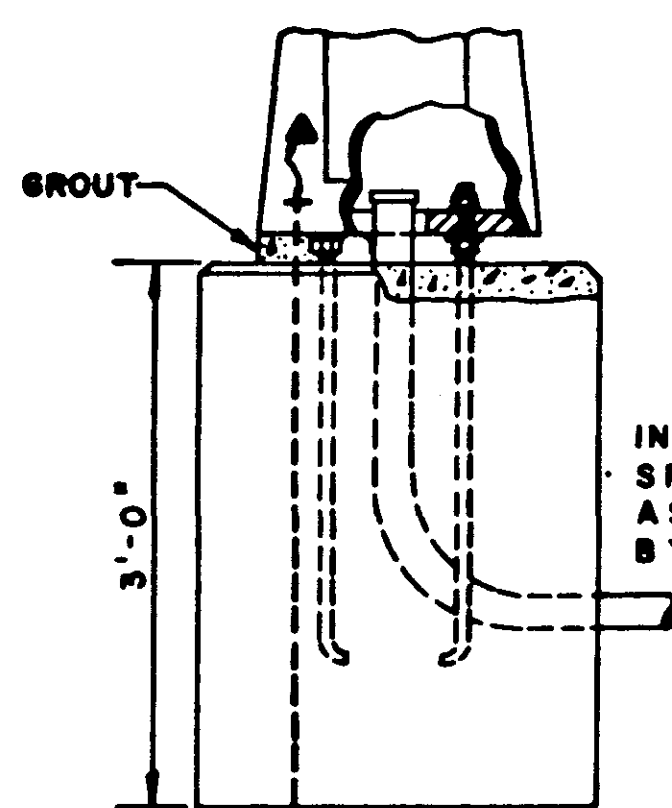
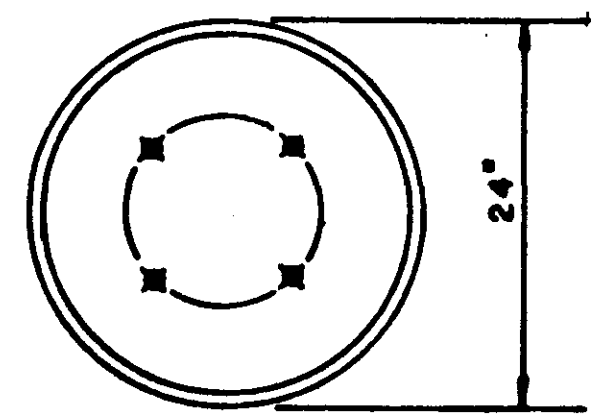
MAST ARM MOUNTING BRACKET



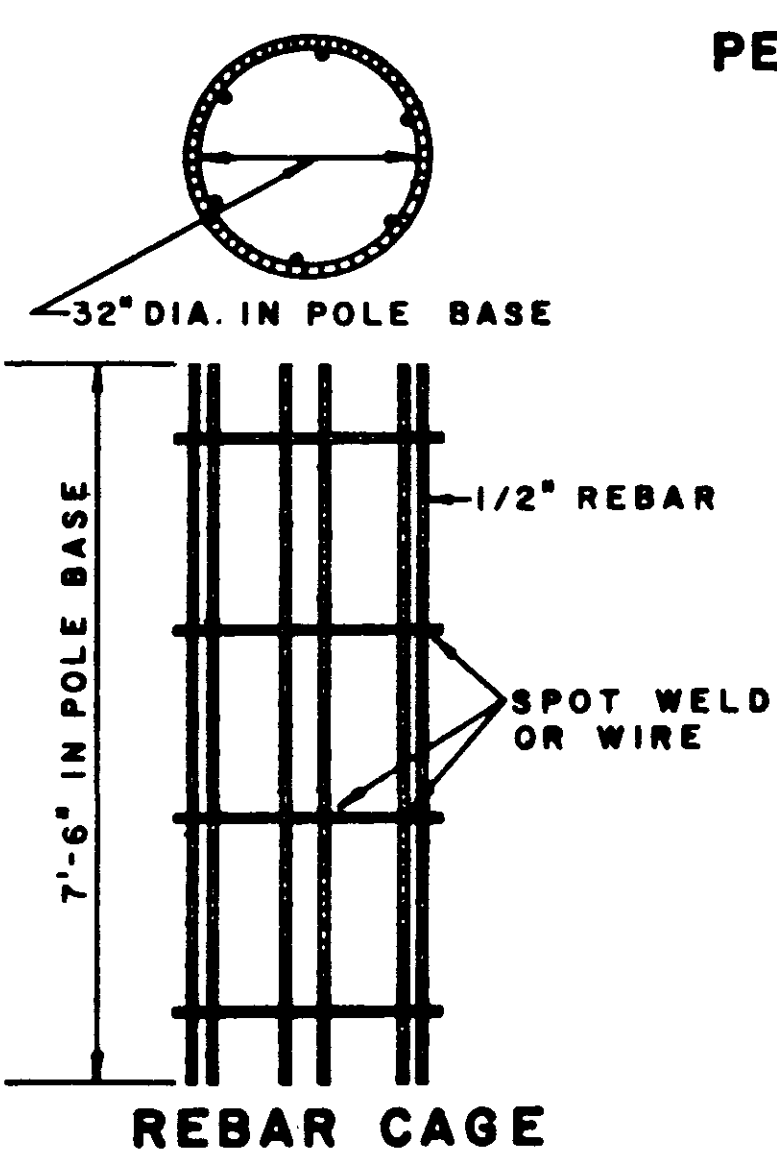
PEDESTRIAN PUSHBUTTON



PEDESTAL POLE



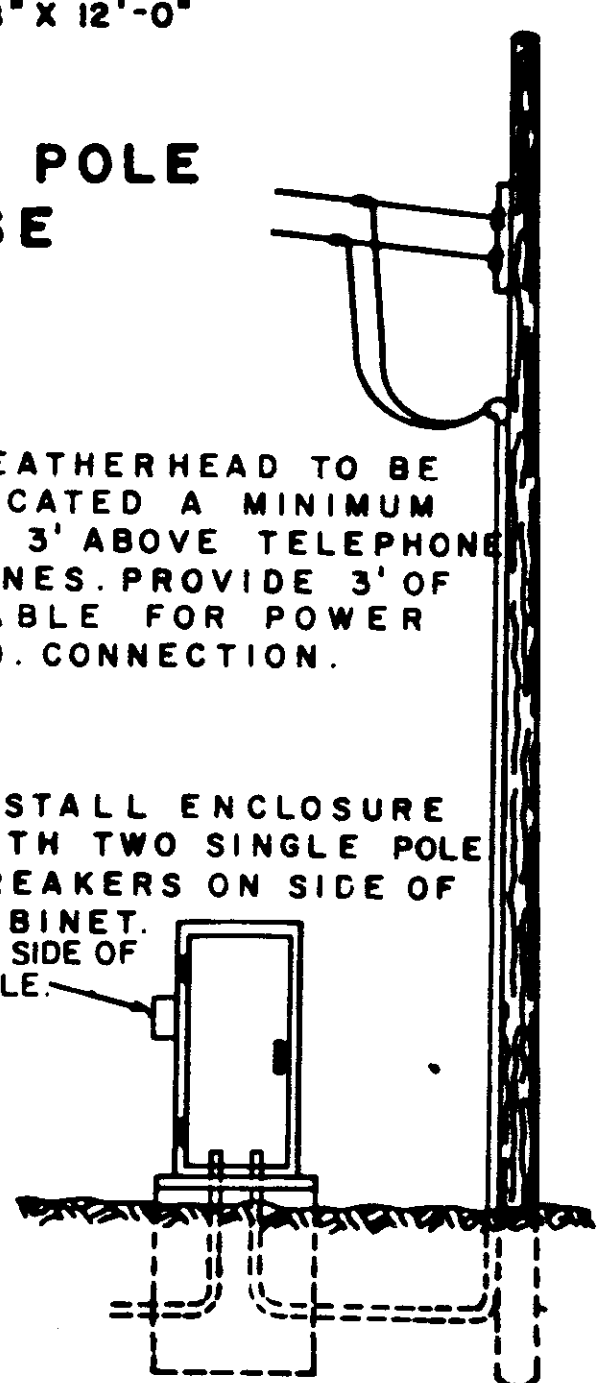
PEDESTAL POLE BASE



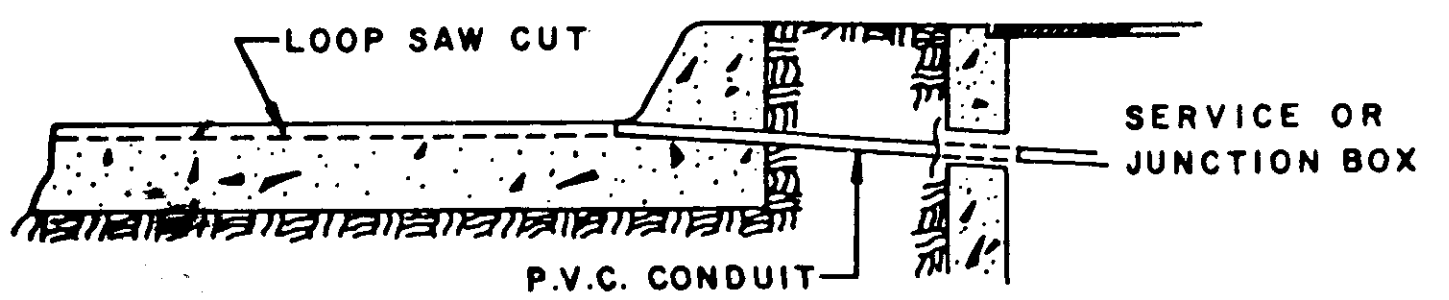
REBAR CAGE

WEATHERHEAD TO BE LOCATED A MINIMUM OF 3' ABOVE TELEPHONE LINES. PROVIDE 3' OF CABLE FOR POWER CO. CONNECTION.

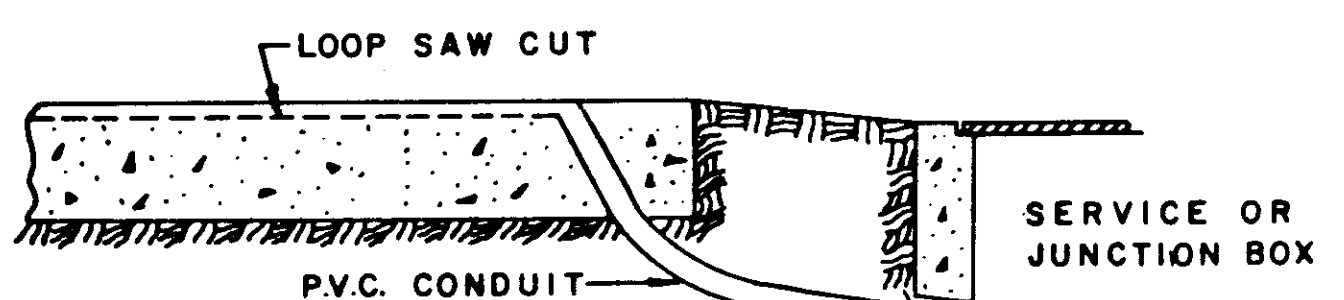
INSTALL ENCLOSURE WITH TWO SINGLE POLE BREAKERS ON SIDE OF CABINET OR SIDE OF POLE.



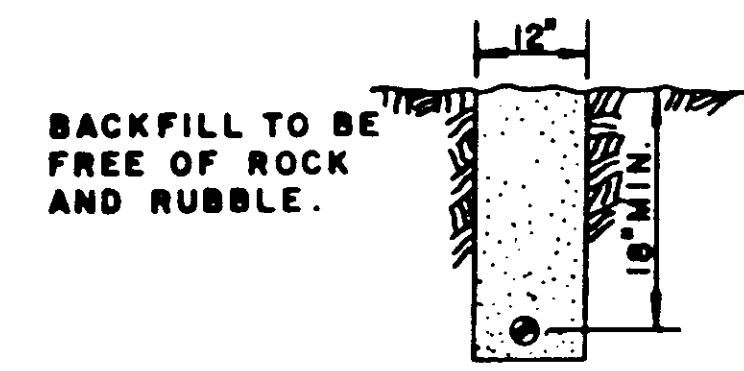
POWER SERVICE



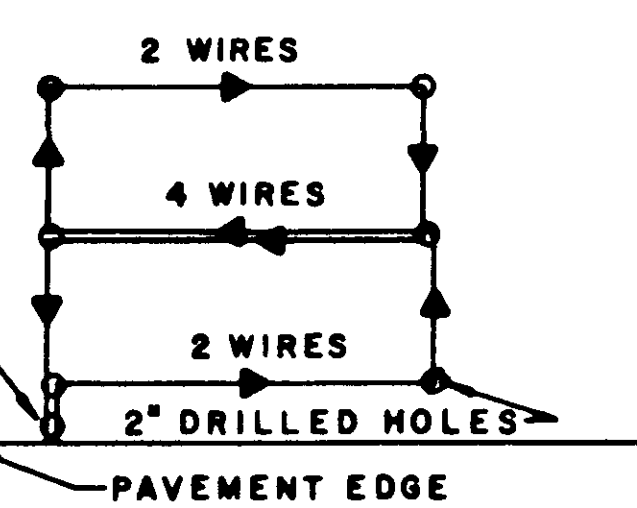
DETECTOR CONDUIT ENTRY (CURB)



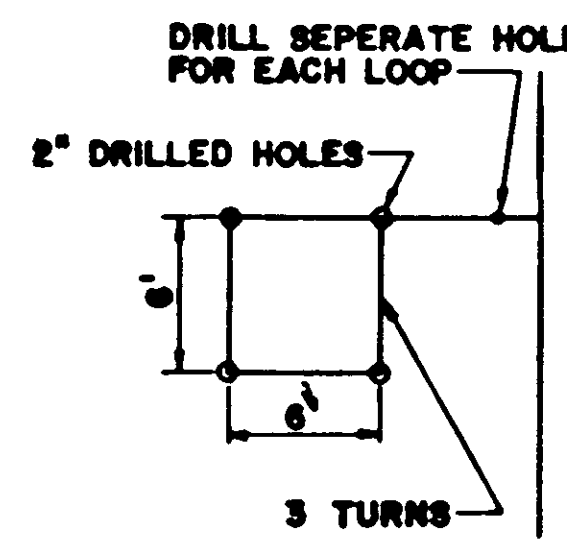
DETECTOR CONDUIT ENTRY (NO CURB)



TRENCHING IN UNPAVED AREAS

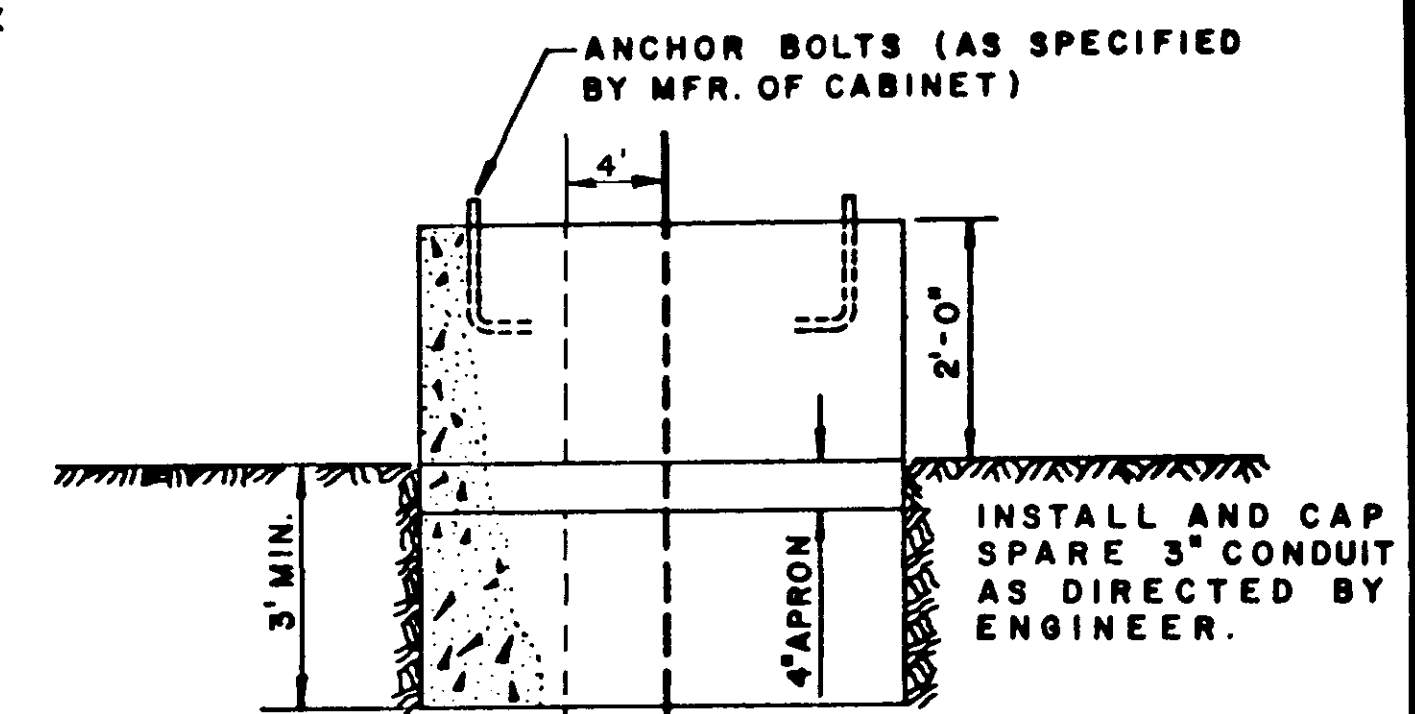


QUADRAPOLE LOOP



DETECTOR LOOP

SLOTS IN PAVEMENT FOR LOOPS TO BE CUT A MINIMUM OF 3/8" WIDE AND 1-1/2" TO 2" DEEP. SLOTS TO BE FILLED WITH LOOP SEALANT MATERIAL APPROVED BY THE ENGINEER. THE CONNECTION OF THE LOOP WIRE WITH THE FEEDER CABLE SHALL BE MADE WITH A SOLDERED "WESTERN UNION" TYPE SPLICE, WRAPPED WITH WATERPROOF TAPE AND COATED WITH A WATER-TIGHT PROTECTIVE COVERING. FEEDER CABLE AND LOOP WIRE SHALL BE OF CONTINUOUS RUN WITH NO SPLICES.



CONTROLLER PAD

NOTES:

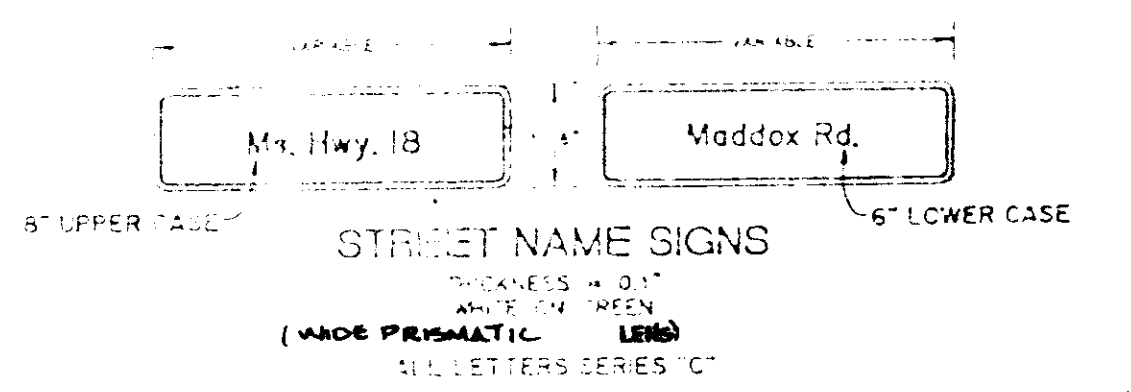
THE ENGINEER IN CHARGE OF CONSTRUCTION SHALL STAKE ALL LOCATIONS FOR TRAFFIC SIGNAL POLES AND PEDESTALS TO BE INSTALLED. FINAL POSITIONS AND POINTING OF SIGNAL FACES TO BE DETERMINED IN THE FIELD.

TRAFFIC SIGNAL HEADS SHALL REMAIN COVERED DURING CONSTRUCTION UNTIL THE ENTIRE INSTALLATION IS IN PLACE AND IN OPERATION.

ALL WIRING INSTALLED SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND LOCAL ORDINANCES AND REQUIREMENTS.

THE POWER COMPANY SHOULD BE NOTIFIED IN ADVANCE AS TO WHEN THE SIGNAL SYSTEM NEED BE ENERGIZED.

THE TRAFFIC SIGNAL SYSTEM SHALL BE COMPLETE AND THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT NECESSARY FOR THE SATISFACTORY OPERATION OF ELECTRICAL APPARATUS AND FOR THE COMPLETE OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.

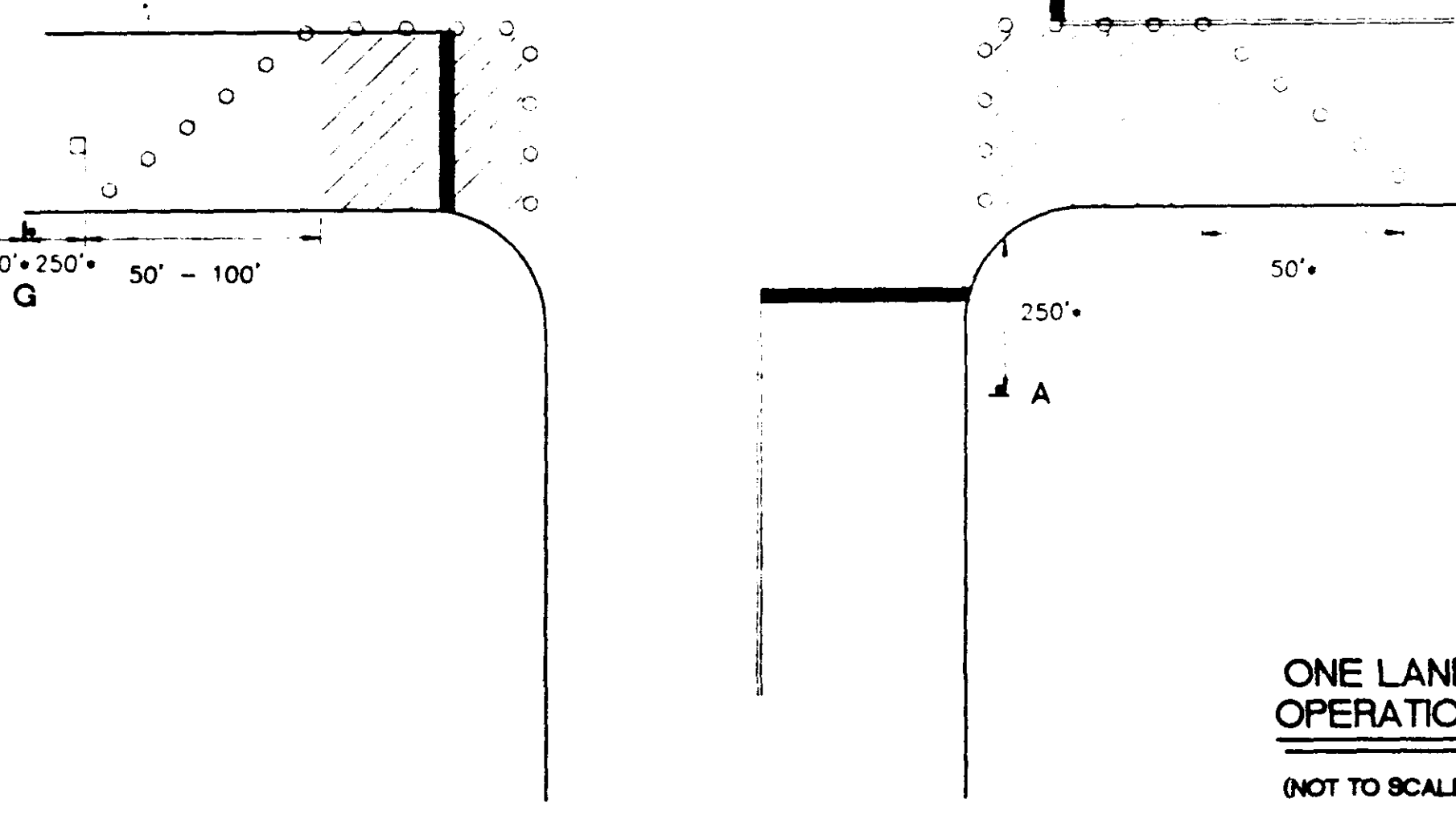
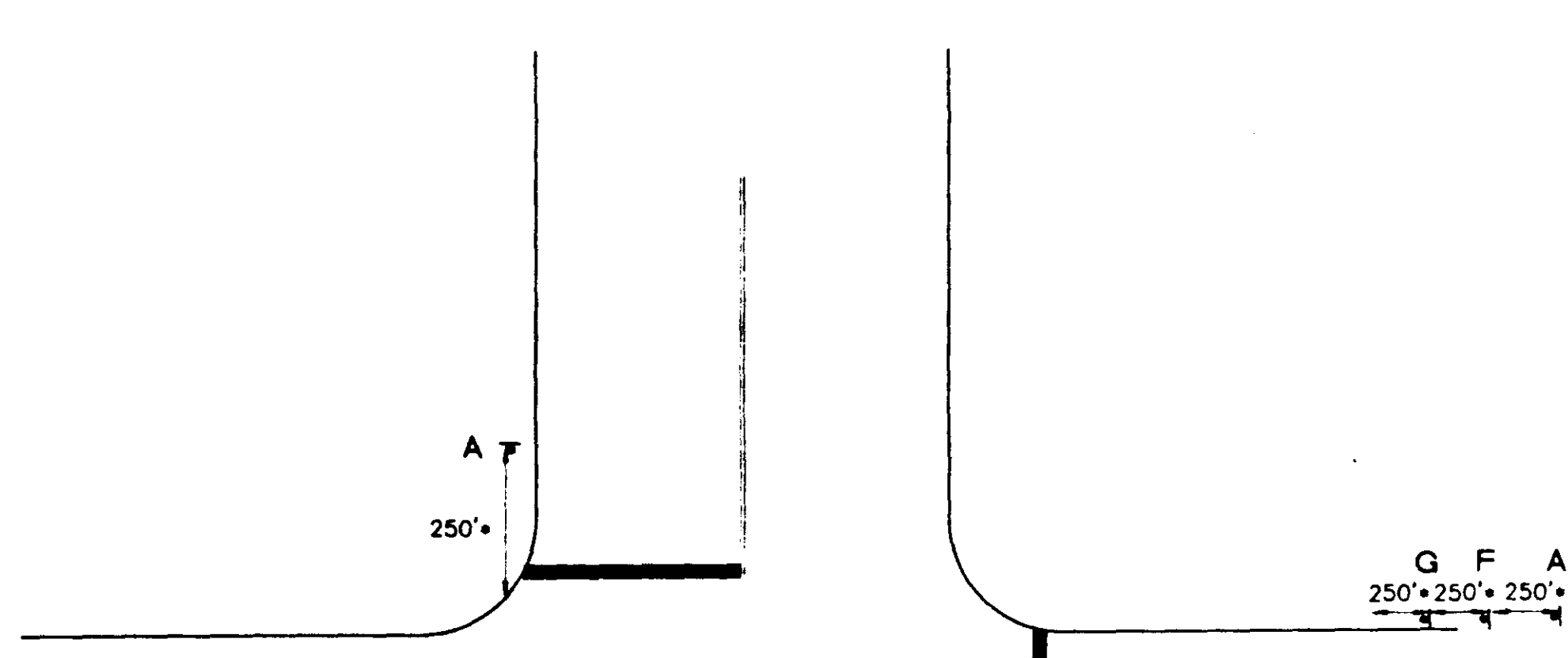
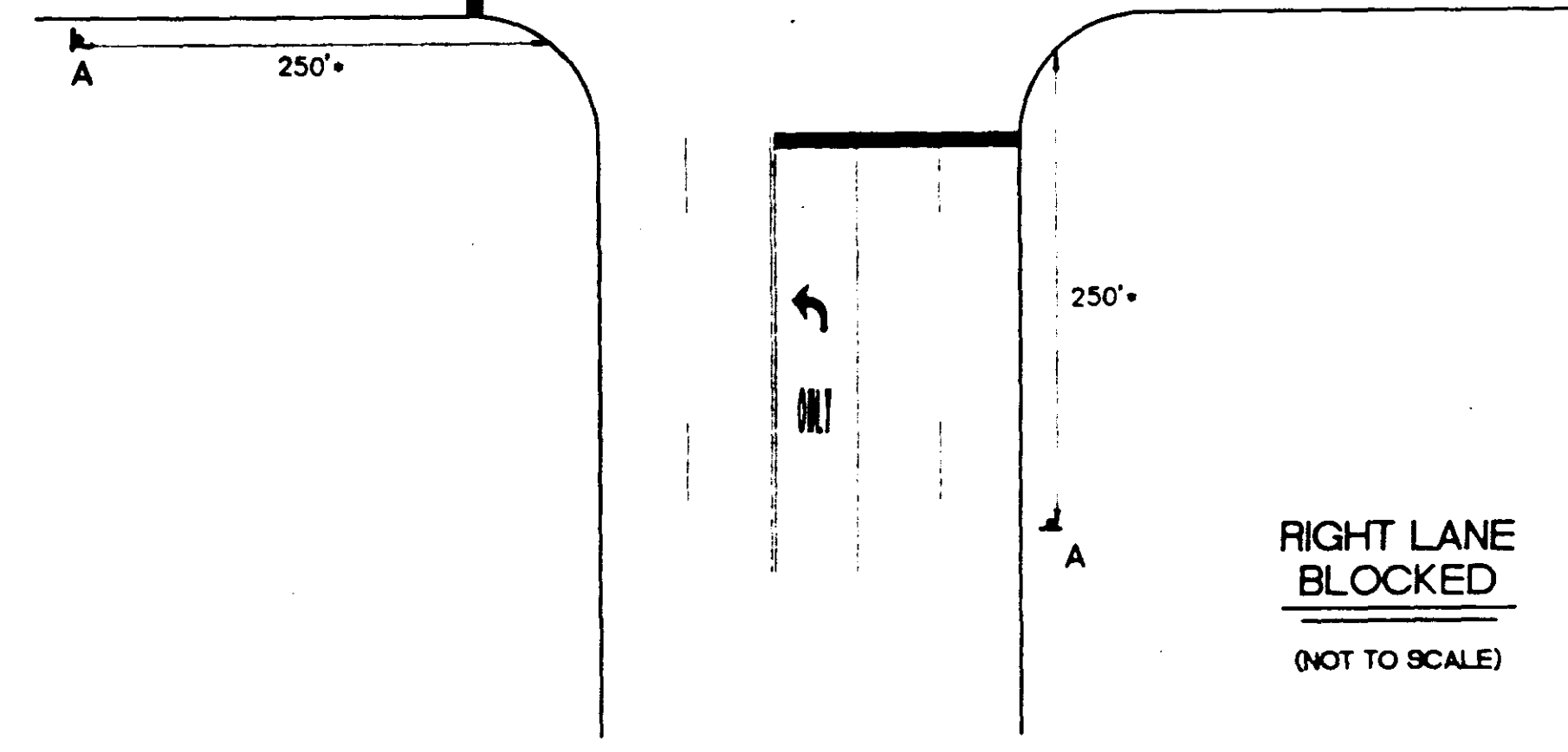
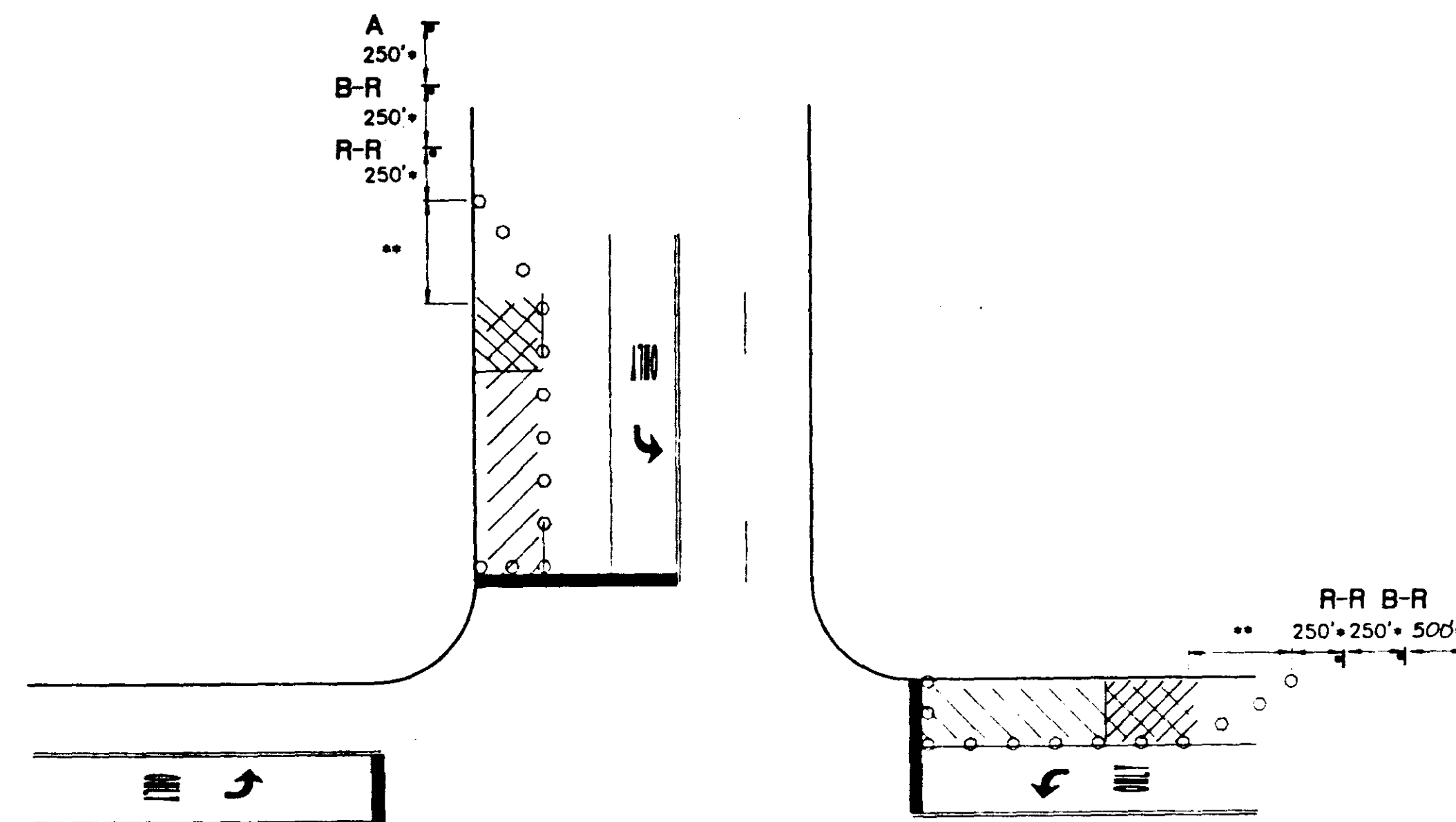
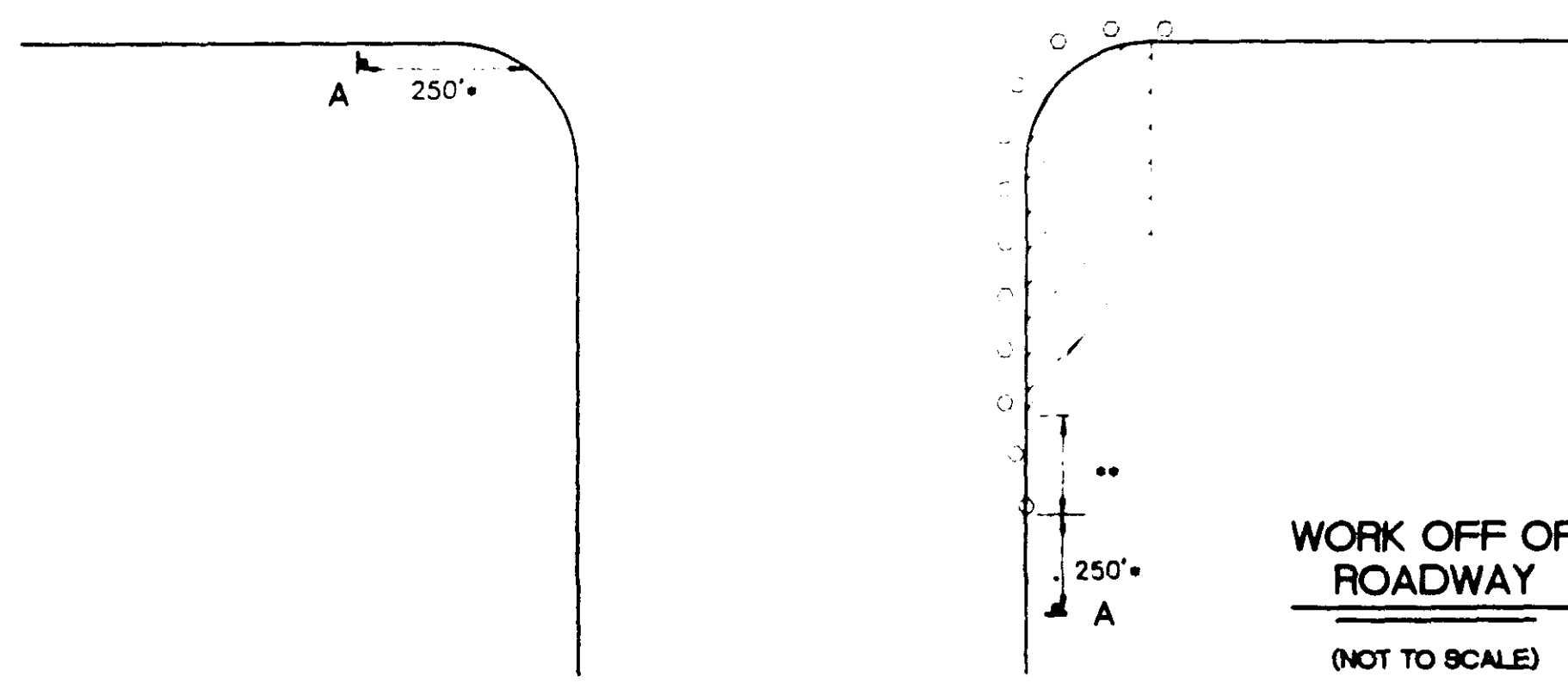
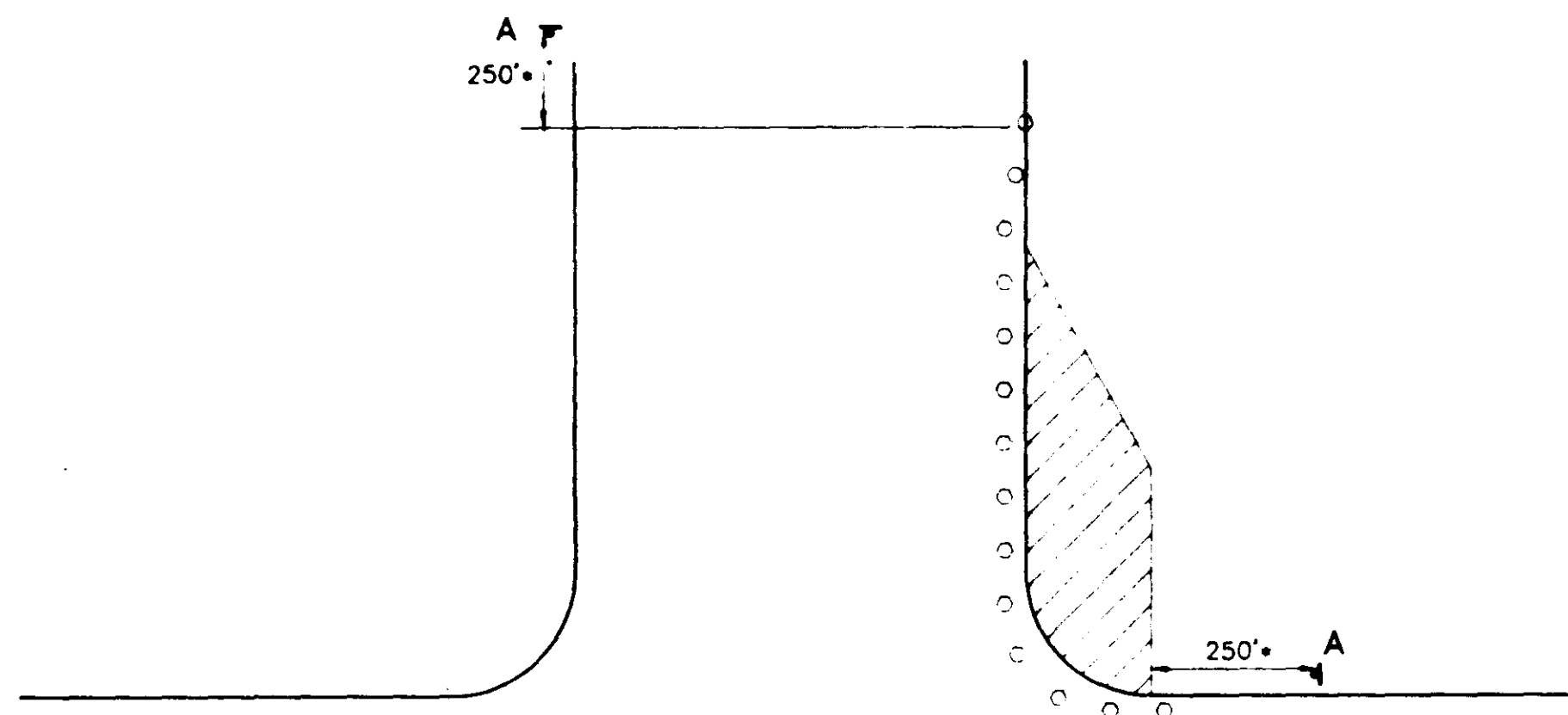
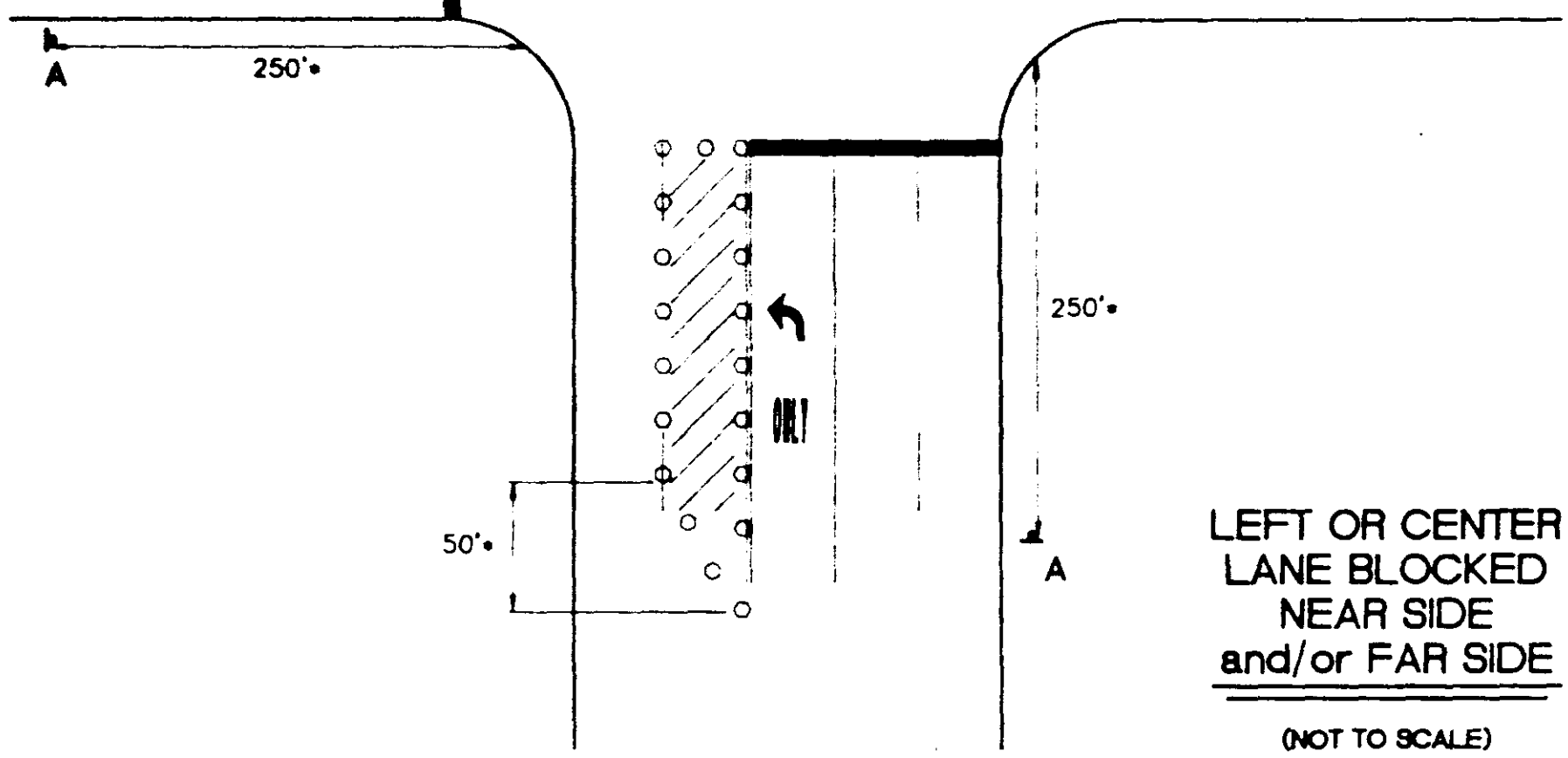
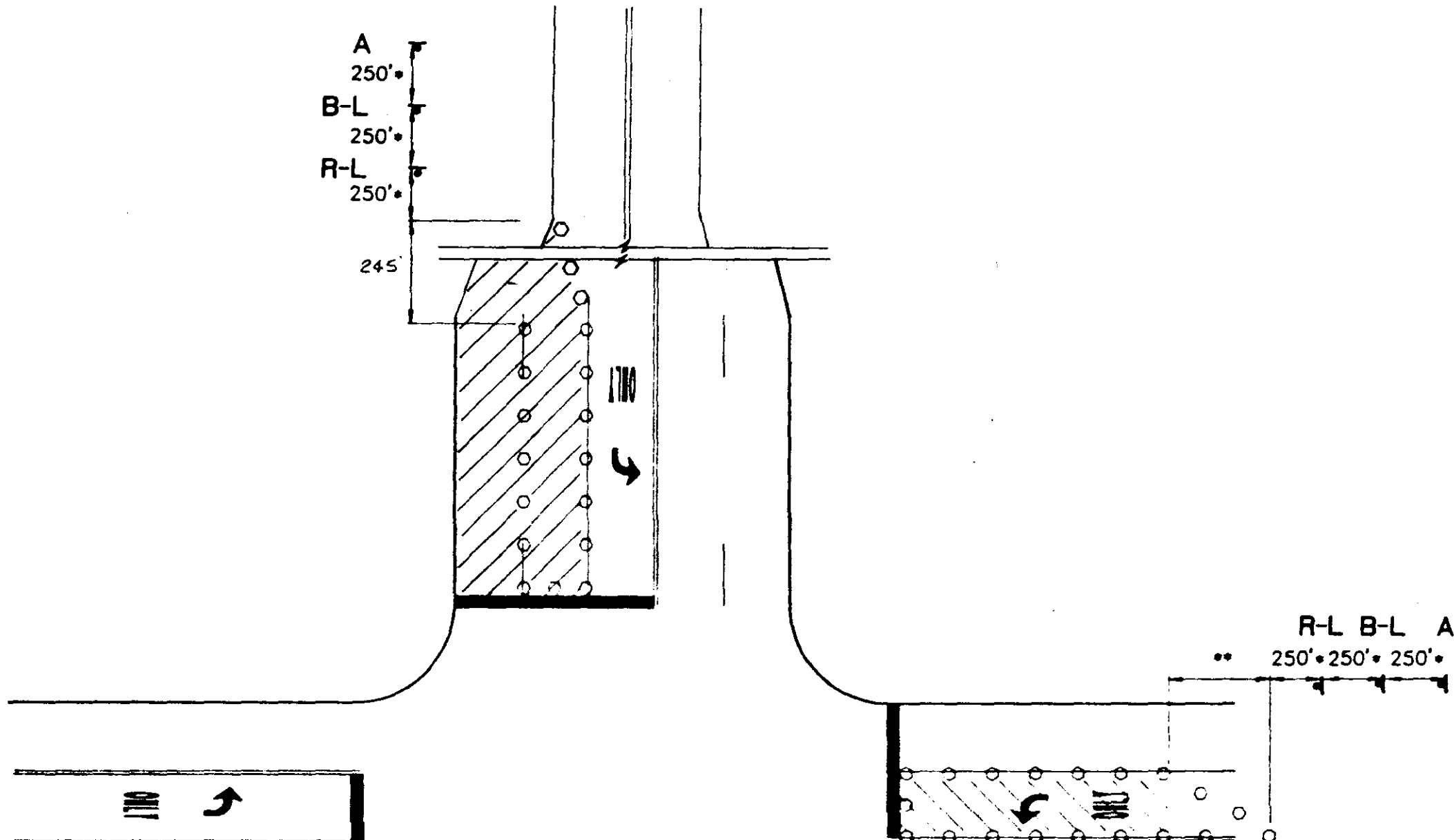


CITY OF RIDGELAND

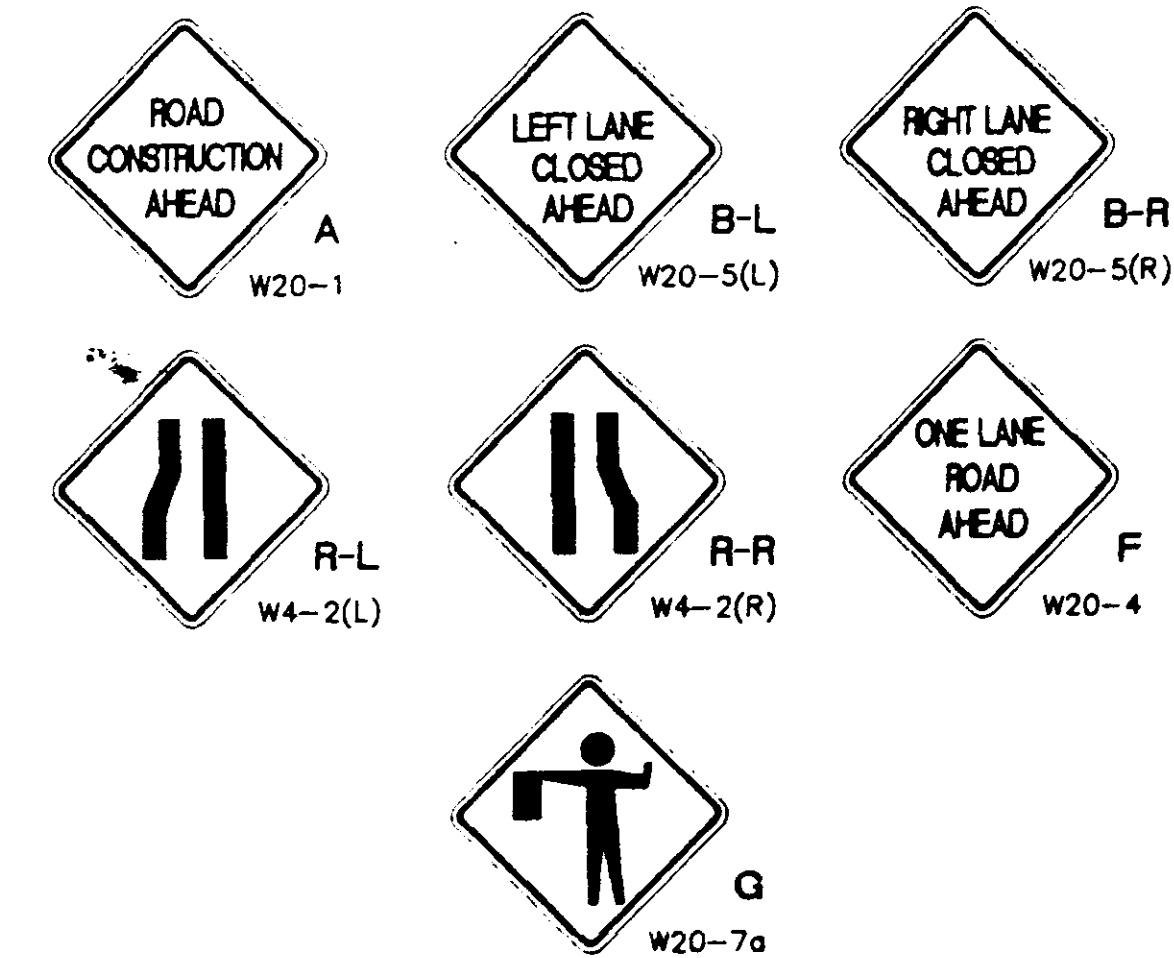
**TRAFFIC SIGNAL INSTALLATION
DETAIL SHEET**

WAGGONER ENGINEERING CO. INC. Consulting Engineers - Jackson / Brandon, Ms.		
DRAWN BY: T.D.L.	DATE: AUGUST, 1994	SHEET NO.
CHECKED BY: M.L.	SCALE: N.T.S.	6 OF 10
APPROVED BY: J.A.W.		

RECORD
DRAWING
(JULY 1994)



SIGN LEGEND



GENERAL NOTES

- ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY.
- POST MOUNTED SIGNS SHALL HAVE A 7' MINIMUM MOUNTING HEIGHT.
- PAYMENT FOR ALL SIGNS, CONES, DRUMS, STEEL PLATES AND OTHER MATERIALS, BARRICADES, LABOR AND INCIDENTALS REQUIRED TO IMPLEMENT THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED UNDER PAY ITEMS 618-A MAINTENANCE OF TRAFFIC.
- APPROACH SIDE TRAFFIC CONTROL TO BE USED WHEN WORK OCCURS ON EITHER THE APPROACH SIDE OR THE FAR SIDE OF THE INTERSECTION. FAR SIDE TRAFFIC CONTROL IS NOT NEEDED WHEN WORK IS CONFINED TO THE APPROACH SIDE ONLY.
- FOR A DIVIDED HIGHWAY SITUATION, A SECOND SET OF ADVANCE WARNING SIGNS SHALL BE ERECTED IN MEDIAN AREA (8' MIN. MEDIAN WIDTH REQUIRED).
- CONTRACTOR SHALL NOT BE ALLOWED TO CLOSE A LANE OF TRAFFIC DURING THE TIME PERIODS OF 7:00 - 9:00 A.M. & 4:00 - 6:00 P.M. WEEKDAYS.

LEGEND

- DRUMS (30' MAXIMUM SPACING) - 36" CONES MAY BE USED AS A SUBSTITUTE FOR SHORT TERM WORK OR AS DIRECTED BY ENGINEER
 - ▲ A SIGNS - SEE SIGN LEGEND MIN. SIZE 48" x 48", BLACK ON ORANGE BACKGROUND
 - FLAGGER WITH PADDLE - 18" STOP/SLOW PADDLES SHALL BE USED. HANDHELD FLAGS SHALL NOT BE ACCEPTED AS PROPER TRAFFIC CONTROL DEVICES FOR FLAGGING OPERATION.
 - ▨ WORK AREA ▩ BUFFER AREA
 - * CONSIDERED MINIMUM DISTANCE - ENGINEER TO DETERMINE APPROPRIATE SPACING IN THE FIELD
 - ** SPEED LIMIT BUFFER LENGTH TAPER LENGTH
- | M.P.H. | FEET | FEET |
|--------|------|------|
| 25 | | 125 |
| 30 | 100 | 175 |
| 35 | | 250 |
| 40 | | 325 |
| 45 | | 550 |
| 60 | 300 | 720 |

RECORD DRAWING (JULY 1994)

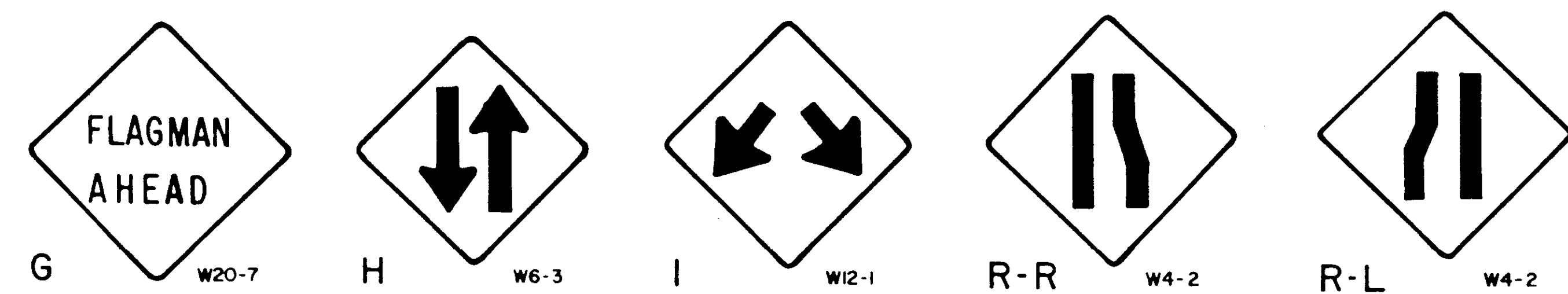
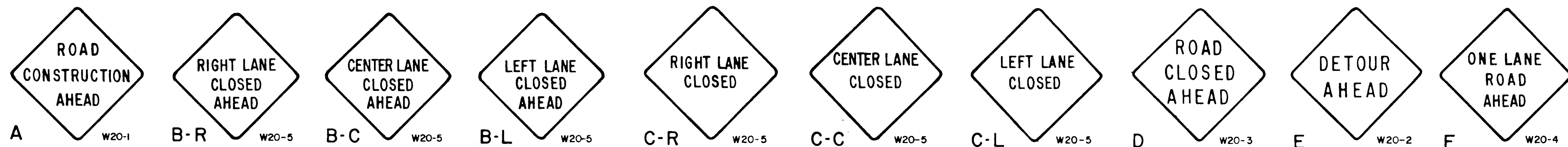
CITY OF RIDGELAND

STANDARD DETAILS
TYPICAL TRAFFIC CONTROL PLANS

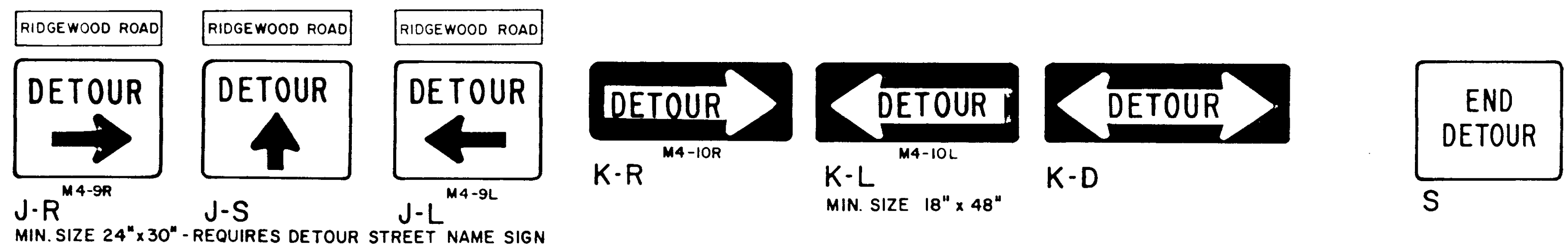
DSGN		DRAWING NO
DRWN		7 OF 10
CHKD		
SCALE	1/8" = 1'	

1482-010.DWG(95,35)03

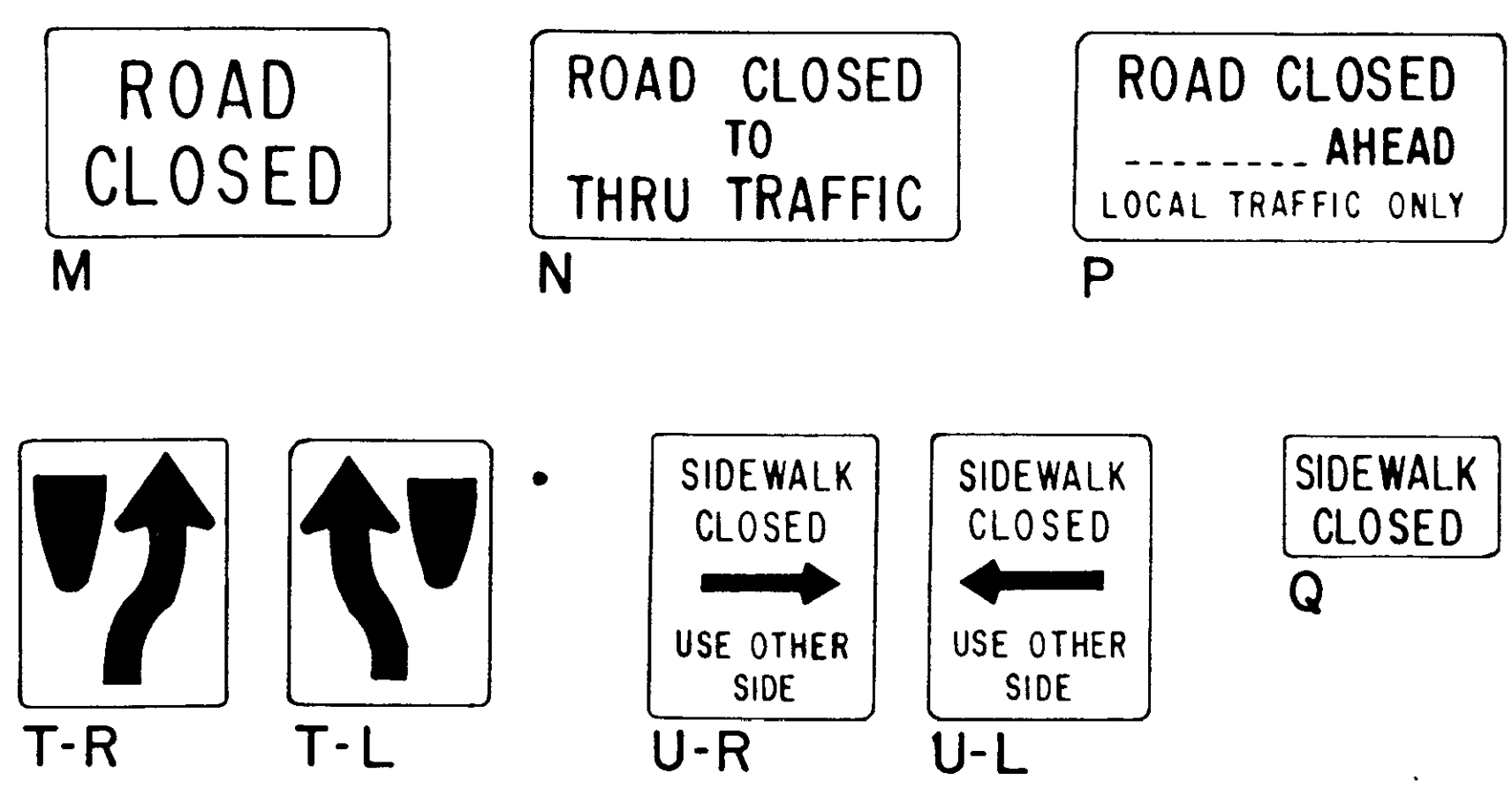
BLACK MESSAGE ON ORANGE REFLECTIVE BACKGROUND - SIGNS A THRU K MIN. SIZE (30" x 30")



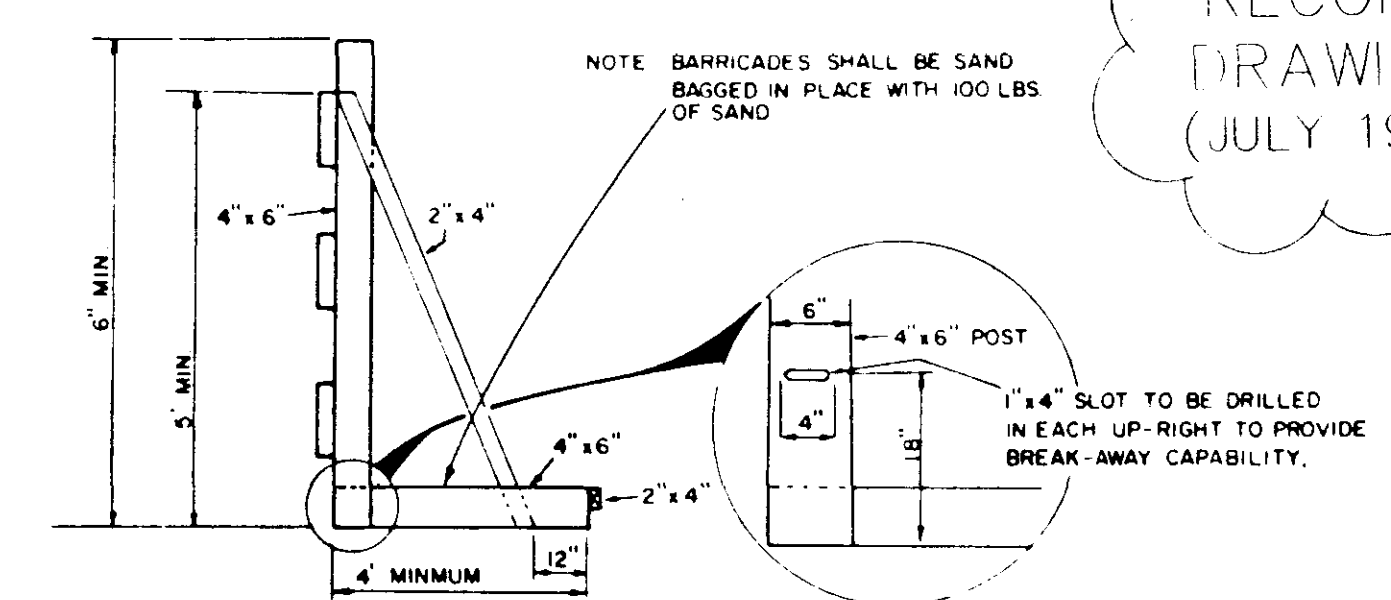
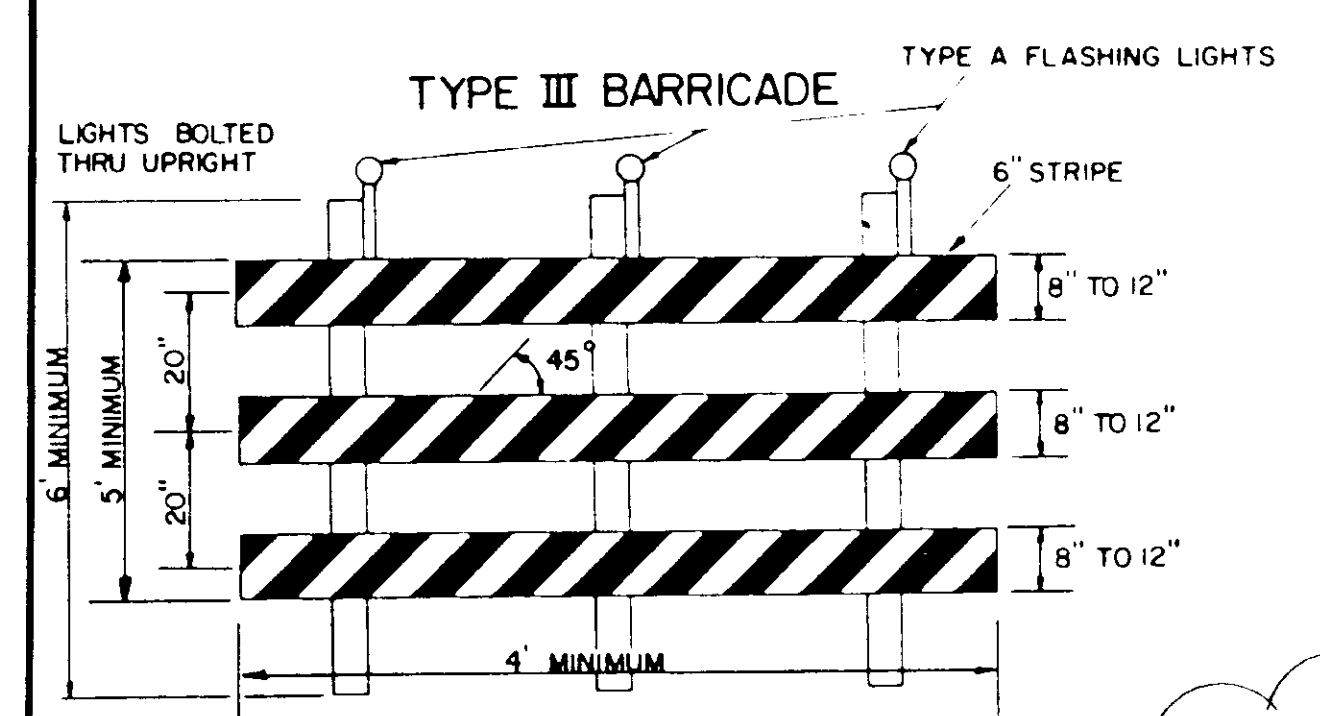
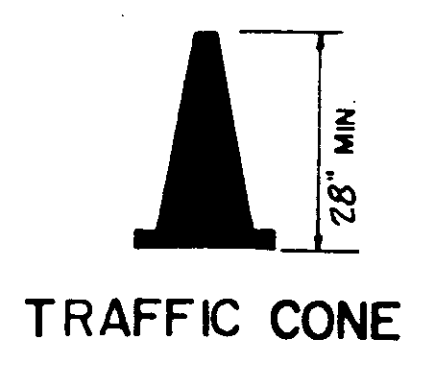
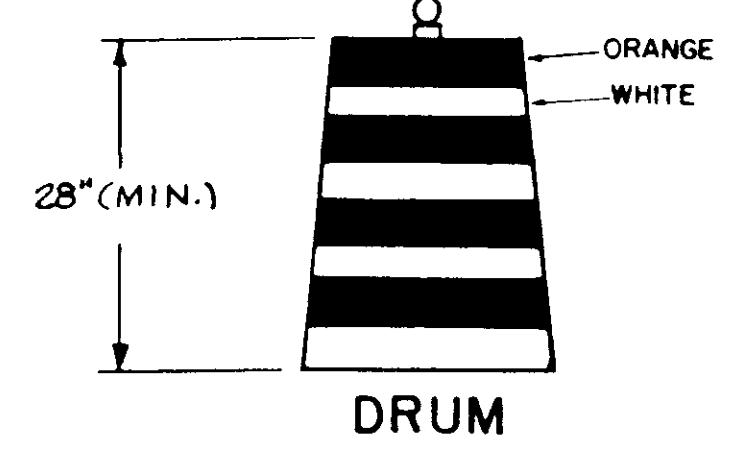
NOTE:
STREET NAME SIGN (8" x 30")
REQUIRED ON ALL M4-9
SERIES SIGNS



BLACK MESSAGE ON WHITE REFLECTIVE BACKGROUND



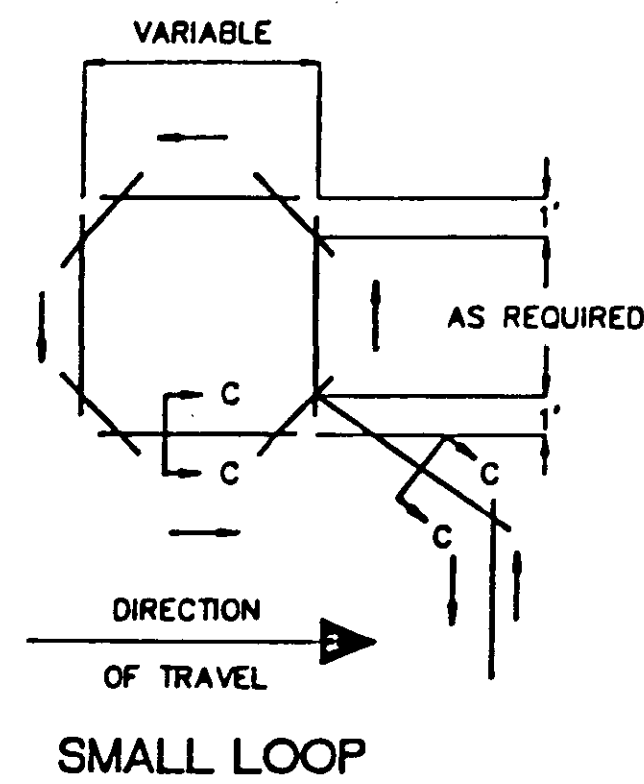
NOTE TYPE "A" OR "C" LIGHT AS REQUIRED BY SECTION VI OF MANUAL OF UNIFORM TRAFFIC DEVICES, 1988 EDITION



RECORD DRAWING (JULY 1994)

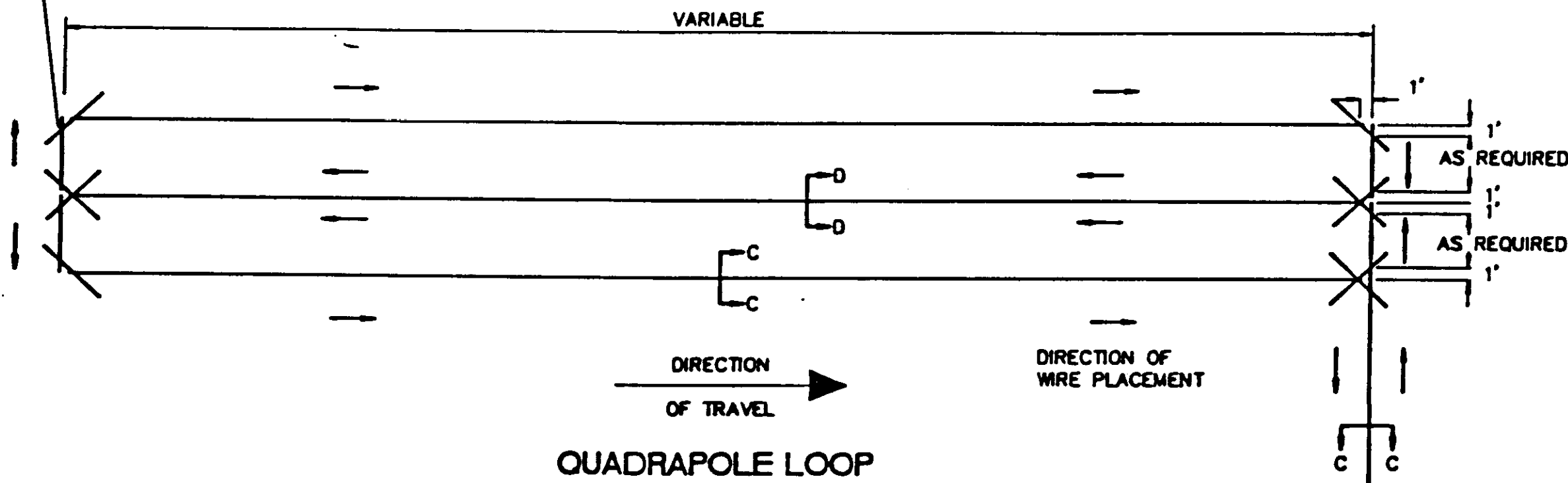
REVNO	RELEASED BY	DESCRIPTION OF REVISION
CITY OF RIDGELAND, MISSISSIPPI		
STANDARD SIGNS FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION		
RIDGWOOD ROAD AND CENTER STREET RECONSTRUCTION		
WAGGONER ENGINEERING, INC. Consulting Engineers - Jackson / Brandon, Ms.		
DRAWN BY:	DATE: FEB. 1992	SHEET NO.
CHECKED BY:	SCALE: NONE	8 of 10
APPROVED BY:		

SIZE AND NUMBER OF TURNS SPECIFIED ON DETECTOR OPERATION CHART

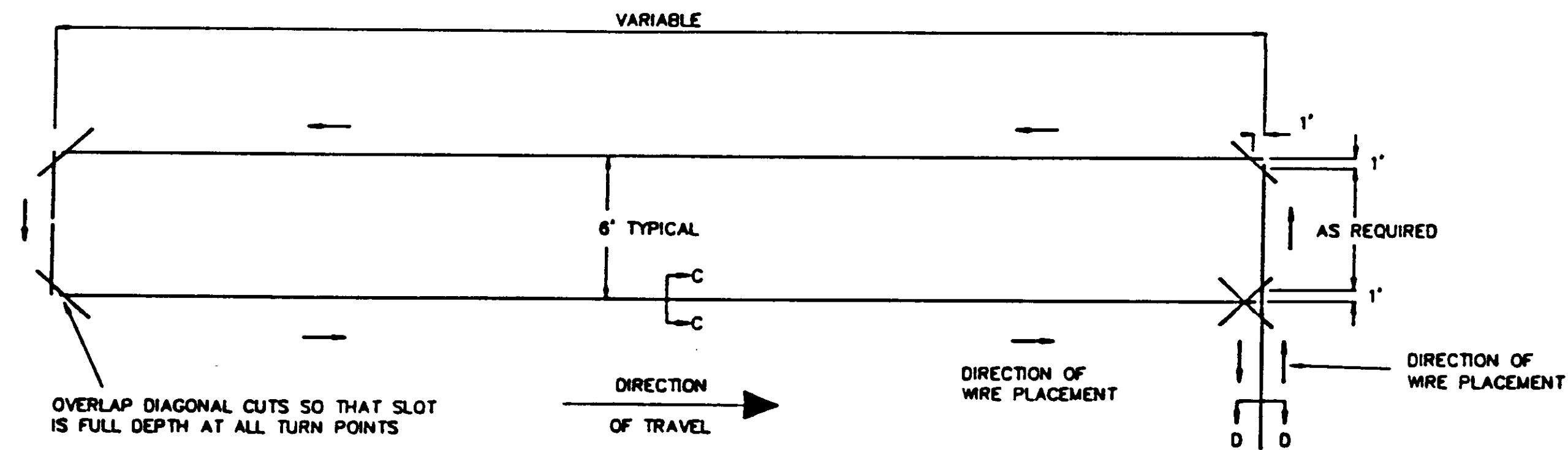


OVERLAP DIAGONAL CUTS SO THAT SLOT IS FULL DEPTH AT ALL TURN POINTS

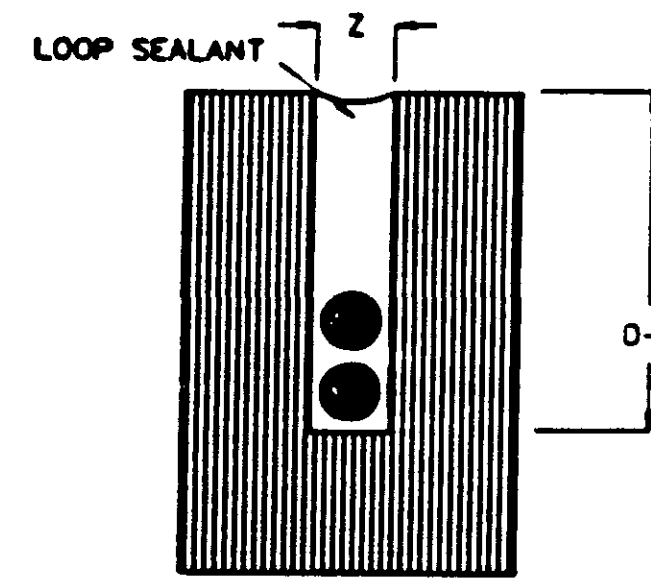
SIZE AND NUMBER OF TURNS SPECIFIED ON DETECTOR OPERATION CHART



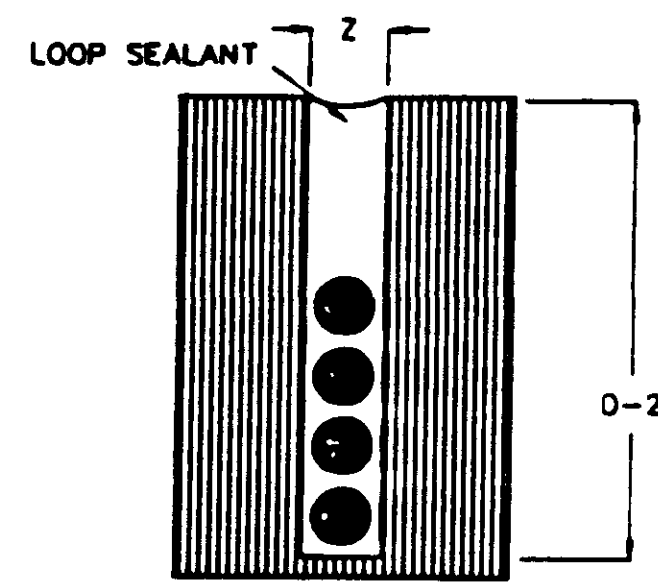
SIZE AND NUMBER OF TURNS SPECIFIED ON DETECTOR OPERATION CHART



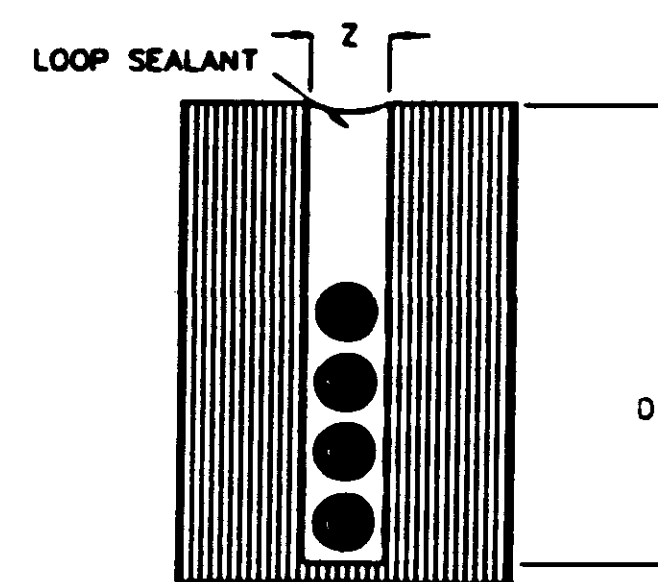
RECTANGULAR LOOP
SAW CUT DIAGRAM



LOOP IN CONCRETE



SECTION D

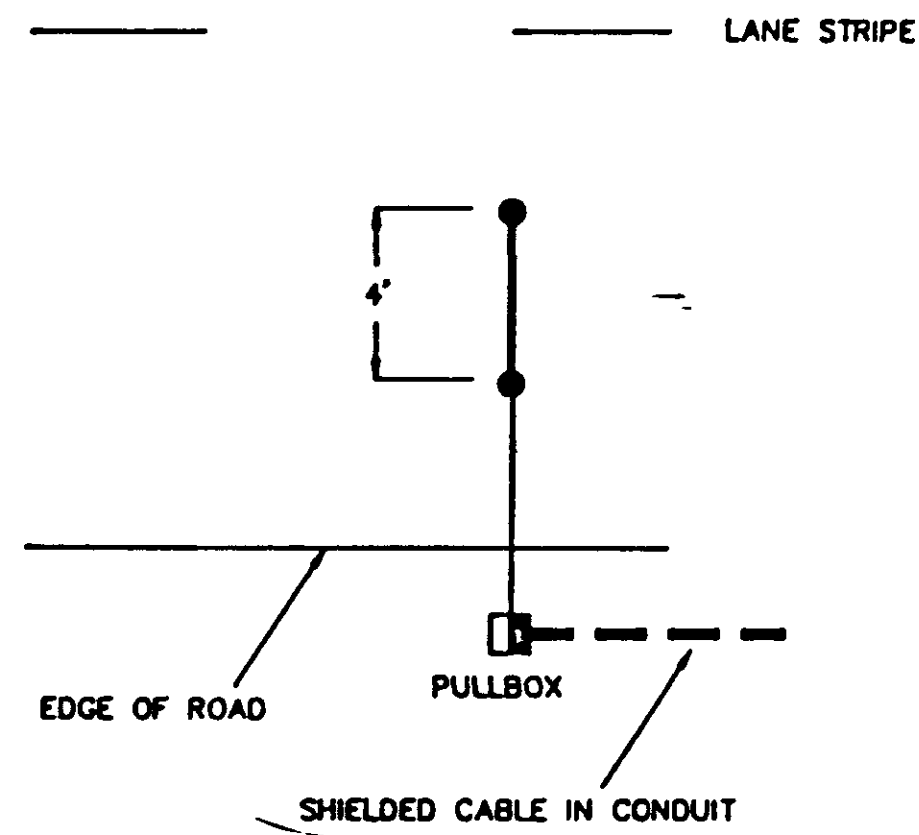


SECTION C & D
LOOP IN ASPHALT

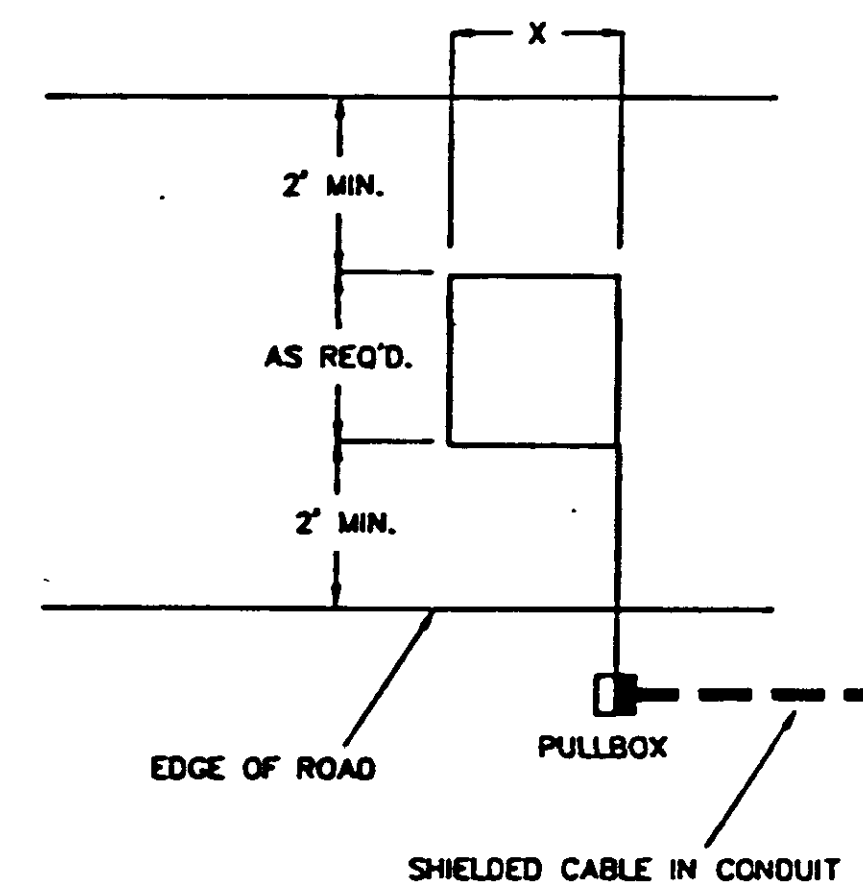
"Z" DIMENSION SHALL BE WIDE ENOUGH TO ACCOMMODATE LOOP WIRE WITHOUT CHAFING THE INSULATION (5/16" NOMINAL).

SAW SLOT DETAIL

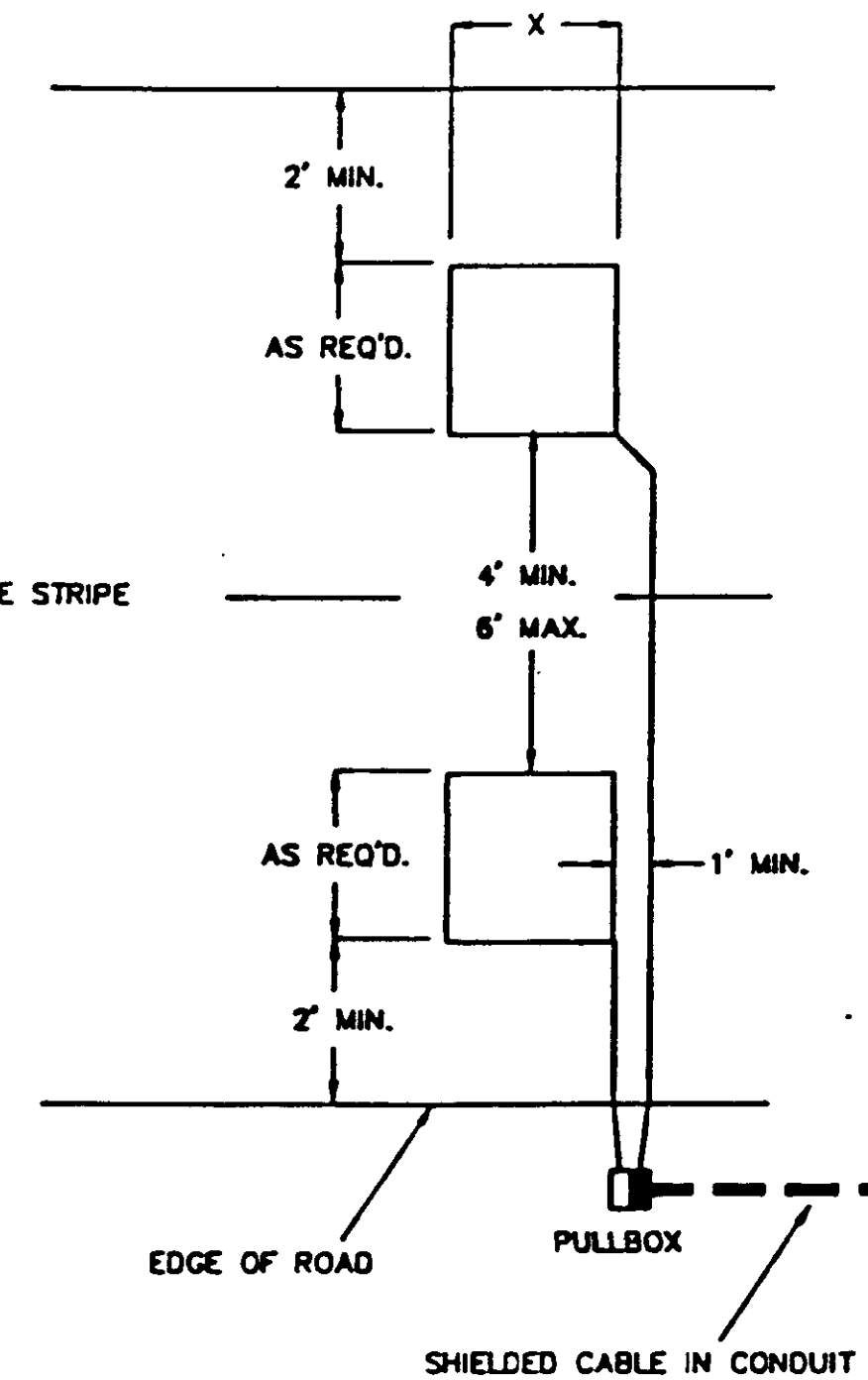
DEPTH	NUMBER OF WIRES				
	1	2	3	4	6
D-1	1.5"	2.0"	2.0"	2.5"	3.0"
D-2	-	2.0"	2.0"	2.5"	3.0"
D-3	2.0"	2.0"	2.5"	3.0"	3.0"



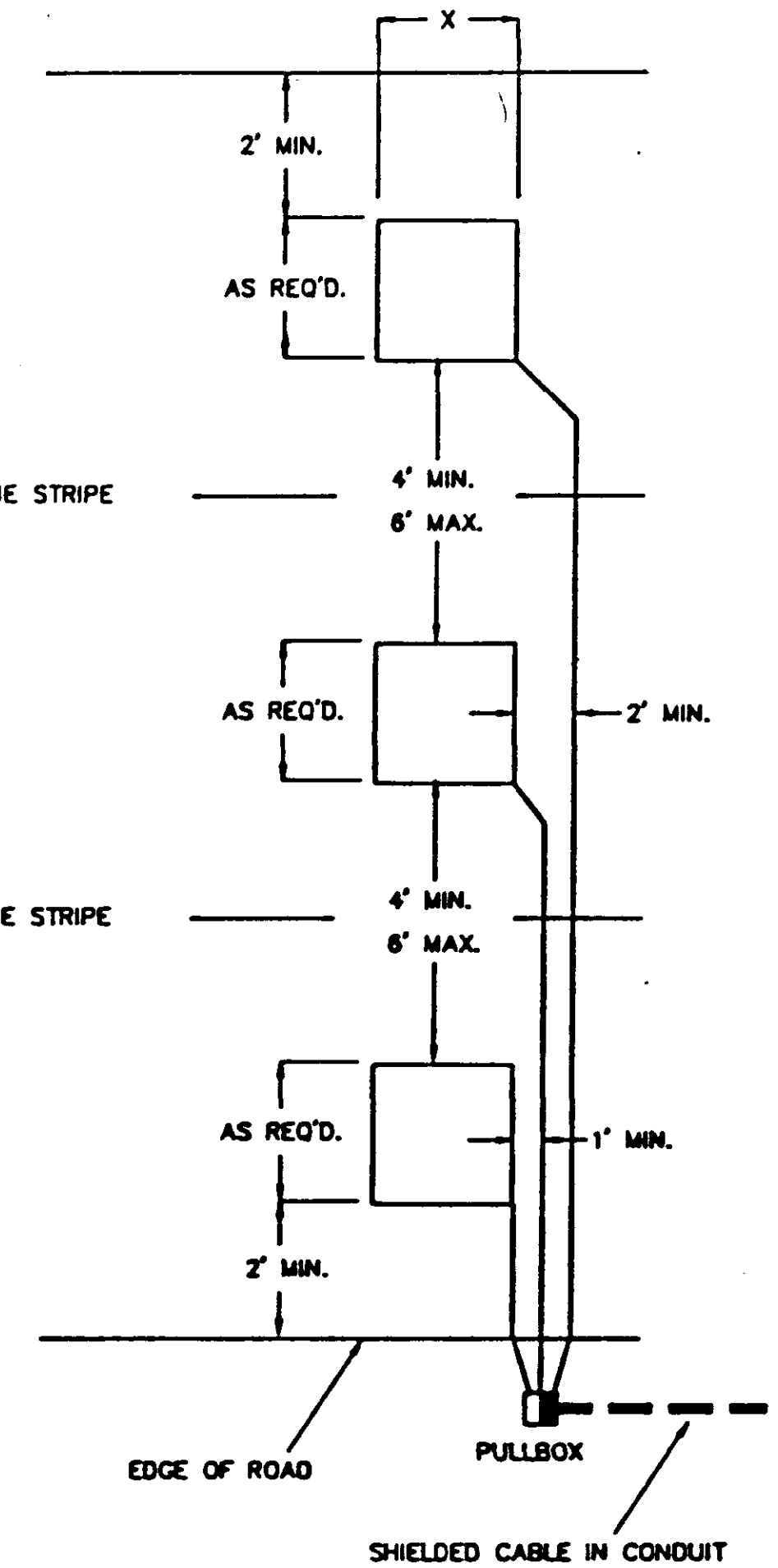
PROBE DETECTOR



ONE LANE COVERAGE



TWO LANE COVERAGE



THREE LANE COVERAGE

TYPICAL LOOP DETECTOR LANE COVERAGE DIAGRAM

"X" DIMENSION SPECIFIED ON PLANS

SAW SLOT AND LOOP WIRE INSTALLATION PROCEDURES

1. CONCRETE PAVEMENT JOINTS SHALL NOT BE USED FOR EITHER LOOP OR FEEDER WIRE. NO LOOPS ARE TO BE INSTALLED THROUGH, OVER, OR UNDER TRANSVERSE CONCRETE JOINTS IN CONCRETE PAVEMENT. NO MANHOLES, INLETS, VALVES, ETC. MAY BE LOCATED WITHIN A LOOP. IF JOINTS OR MANHOLES ARE ENCOUNTERED, THE LOCATION OF THE LOOP MAY BE VARIED SLIGHTLY AS DIRECTED BY THE ENGINEER. IF THE JOINTS OR MANHOLES ARE UNAVOIDABLE, SMALLER LOOPS, THE SIZE TO BE DETERMINED BY THE ENGINEER, MAY BE USED INSTEAD OF ONE LARGER LOOP AND SHALL PROVIDE THE SAME AREA OF COVERAGE AS THE LARGE LOOP. THE SMALLER LOOPS USED TO REPLACE THE ONE LARGE LOOP MAY BE CONNECTED TO ONE DETECTOR AMPLIFIER.
2. WHEN A BEND OR CORNER IS REQUIRED THE SLOTS PRODUCING THE "WOULD-BE" RIGHT ANGLE SHALL NOT OVERLAP.
3. WHEN A BEND OR CORNER IS REQUIRED THE SLOTS PRODUCING THE ANGLES APPROXIMATELY 45° SHALL OVERLAP THE SLOTS IT CONNECTS. THIS IS TO INSURE FULL DEPTH OF SLOTS AT BENDS OR CORNERS.
4. ALL CORNERS OF THE LOOP SHALL BE CUT AT A 45° ANGLE AND HAVE A MINIMUM DIAGONAL LENGTH OF 16".
5. SAW CUTS IN THE PAVEMENT SHALL BE FLUSHED WITH CLEAN WATER UNDER SUFFICIENT PRESSURE TO REMOVE MUD AND SMALL DEBRIS. SAW CUTS SHALL THEN BE DRIED AND CLEANED OF ALL DEBRIS BEFORE INSTALLING THE LOOP WIRE.
6. ONE CONTINUOUS, UNBROKEN LENGTH OF WIRE SHALL BE USED TO FORM A LOOP OF THE NUMBER OF TURNS AS SPECIFIED IN THE PLANS. THE CONTINUOUS RUN SHALL BE FROM THE PULLBOX/CONDULET INCLUDING THE LOOP AND RETURN.
7. ALL WIRE SHALL BE PUSHED INTO THE SAW CUT WITH WOOD STICKS TO INSURE THE INSULATION IS NOT DAMAGED. THE USE OF METAL TOOLS IS NOT PERMITTED.
8. SPLICE BETWEEN LEAD-IN AND SHIELDED CABLE REQUIRED IN PULLBOX OR CONDULET. ALL SPLICES IN THE LEAD-IN WIRE SHALL BE MADE ONLY IN THE PULLBOX OR CONDULET. ALL SPLICES MUST BE CAREFULLY MADE TO INSURE CONSTANT LOW RESISTANCE AND MUST BE INSULATED IN SUCH A MANNER THAT UNDER THE LOCAL PREVAILING CONDITIONS THE INSTALLATION MAINTAINS A RESISTANCE TO GROUND OF NOT LESS THAN 5 MEGOHMS. TO INSURE CONSISTENT LOW RESISTANCE CONNECTIONS, THE SPLICES SHALL BE SOLDERED WITH RESIN FILLED SOLDER AND WATERPROOFED BY SHRINK WRAP OR BY OTHER METHOD APPROVED BY THE ENGINEER. OPEN FLAME SOLDER SHALL NOT BE PERMITTED.
9. WHERE THE WIRES LEAVE THE SAWCUT, EACH PAIR OF LEAD-IN WIRES MUST BE TWISTED TOGETHER WITH A MINIMUM OF THREE TWISTS PER FOOT.
10. IF THE LEAD-IN IS TAKEN OVERHEAD THE WIRE MUST BE PROTECTED BY CONDUIT (TYPE I) FROM UNDERGROUND TO SPAN.
11. WHEN A PULLBOX IS NOT USED IN THE LEAD-IN (THE WIRE WHICH CONNECTS THE SENSING LOOP TO THE DETECTOR AMPLIFIER), THE LOOP WIRE SHALL BE TWISTED A MINIMUM OF THREE TURNS PER FOOT FROM THE LOOP TO THE DETECTOR AMPLIFIER.

RECORD
DRAWING
(JULY 1994)

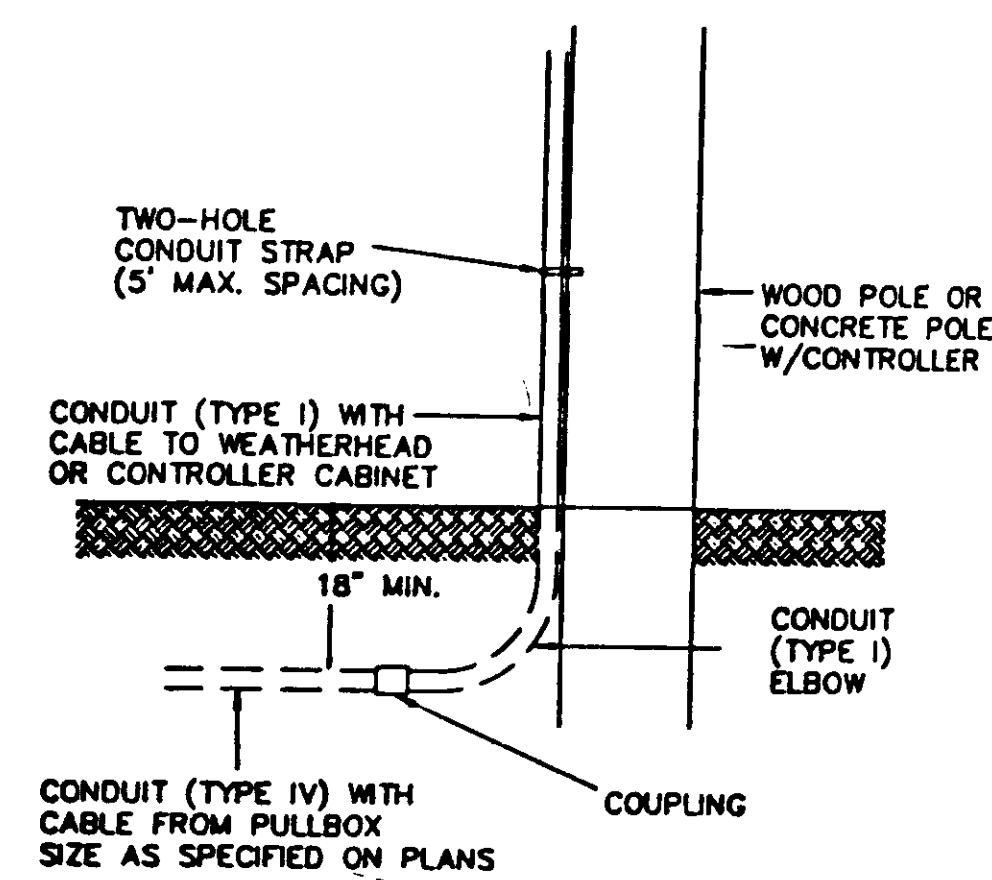
CITY OF RIDGELAND

STANDARD SIGNAL DETAILS
VEHICLE LOOP
DETECTOR ASSEMBLY

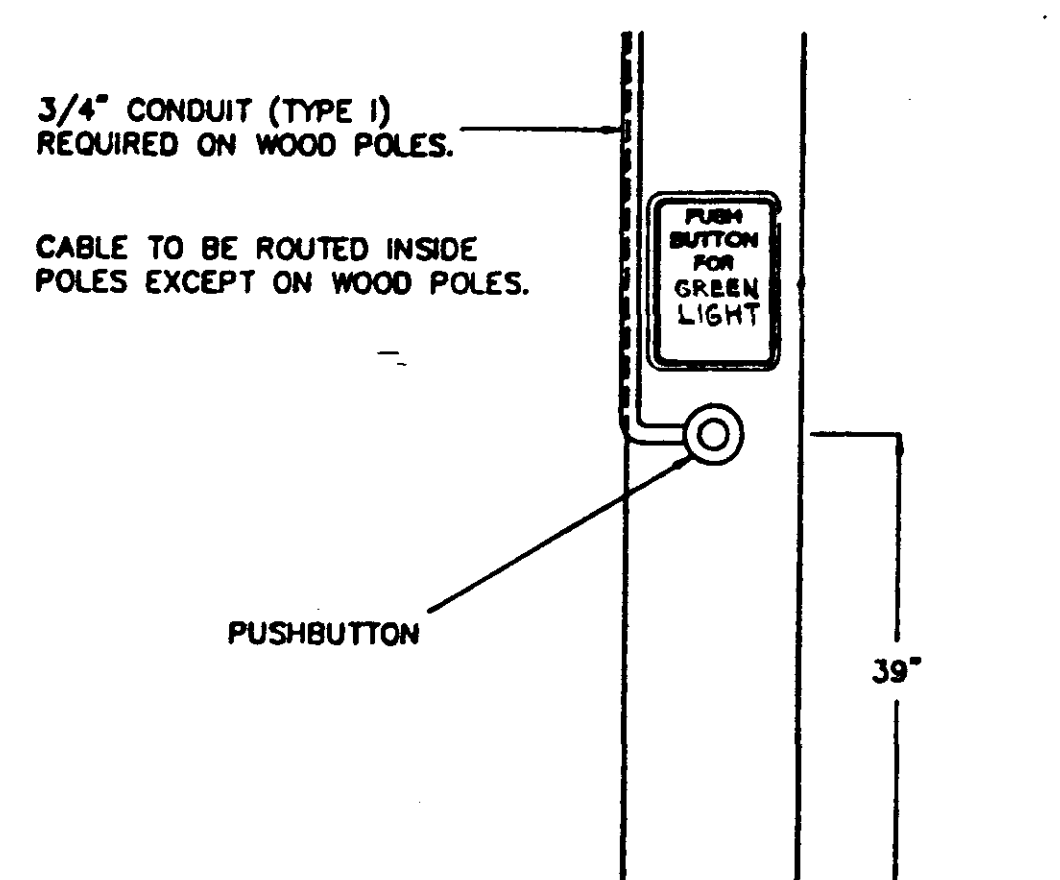
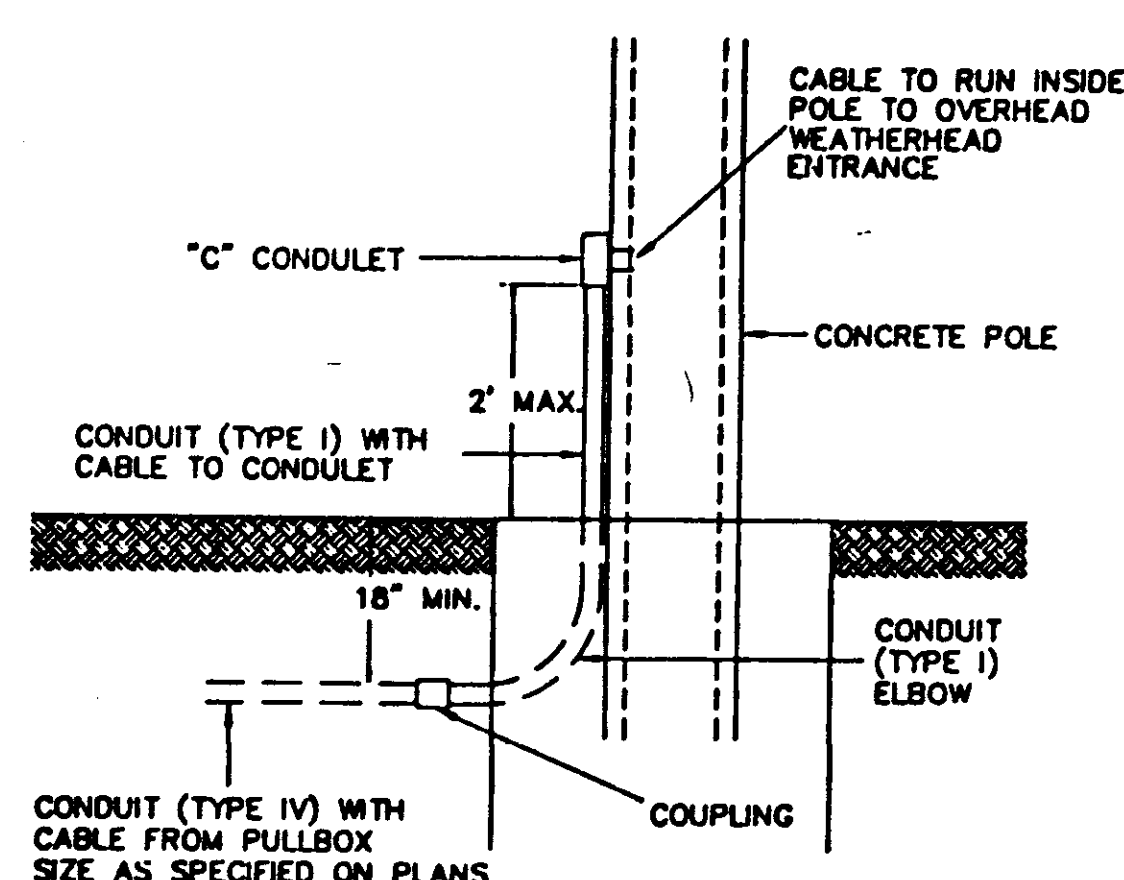
DATE: 12/18/93 BY: []

DRAWING NO. 9 OF 10

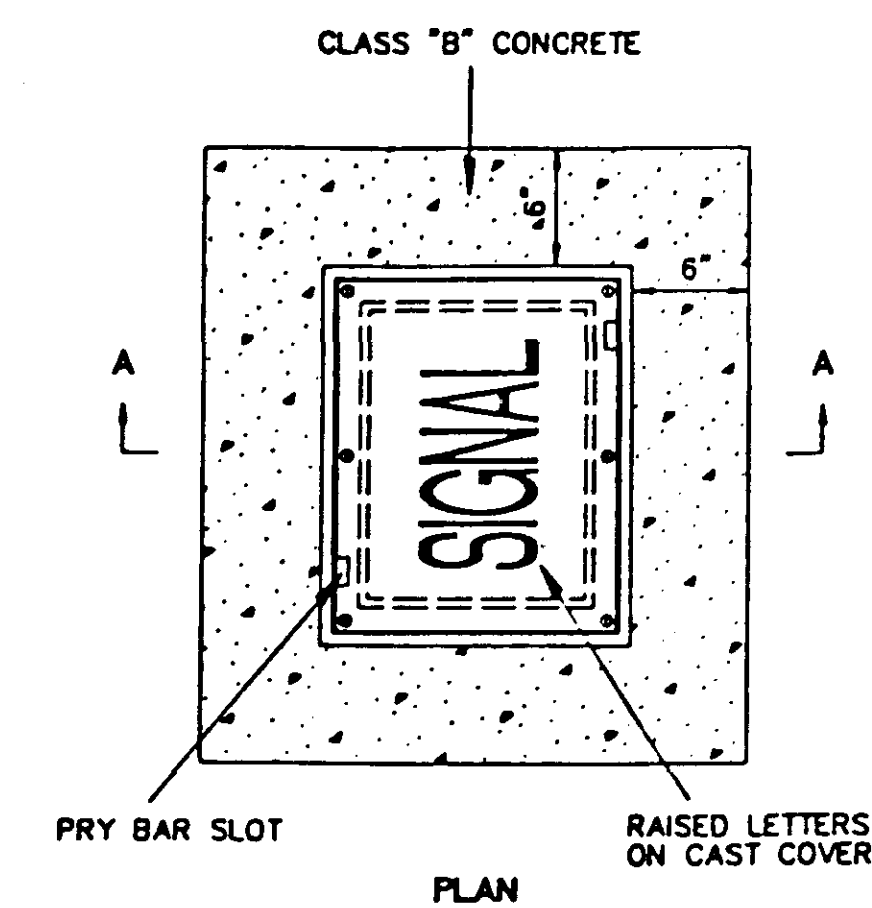
SCALE: []



CONDUIT DETAIL AT POLES

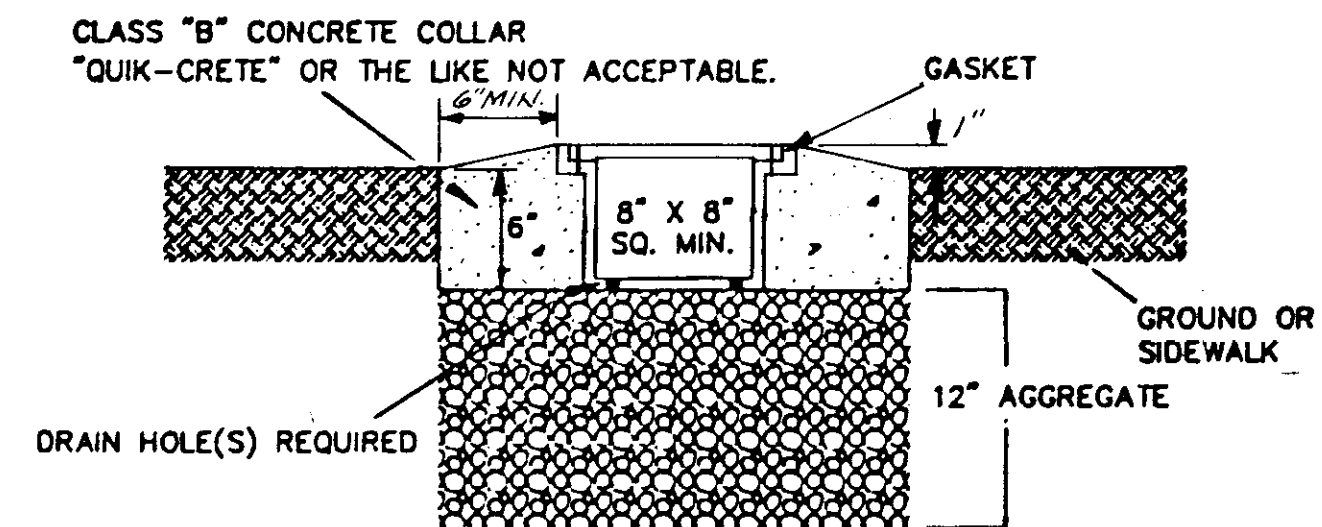


PEDESTRIAN PUSH BUTTON AND SIGN INSTALLATION DETAIL



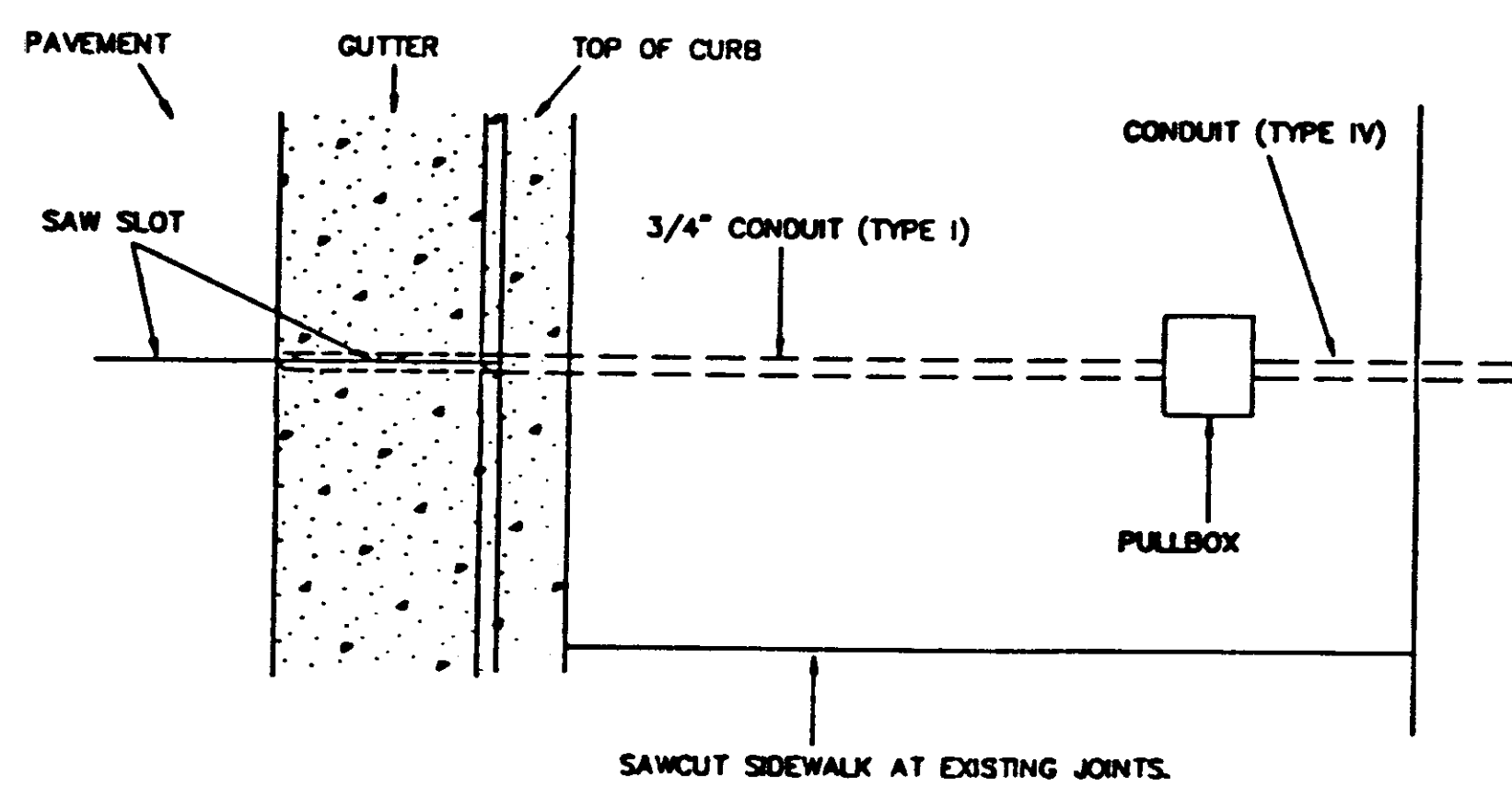
TWO-PIECE PULLBOX (TYPE 1)

CAST IRON, CAST ALUMINUM, WELDED ALUMINUM, OR APPROVED EQUAL

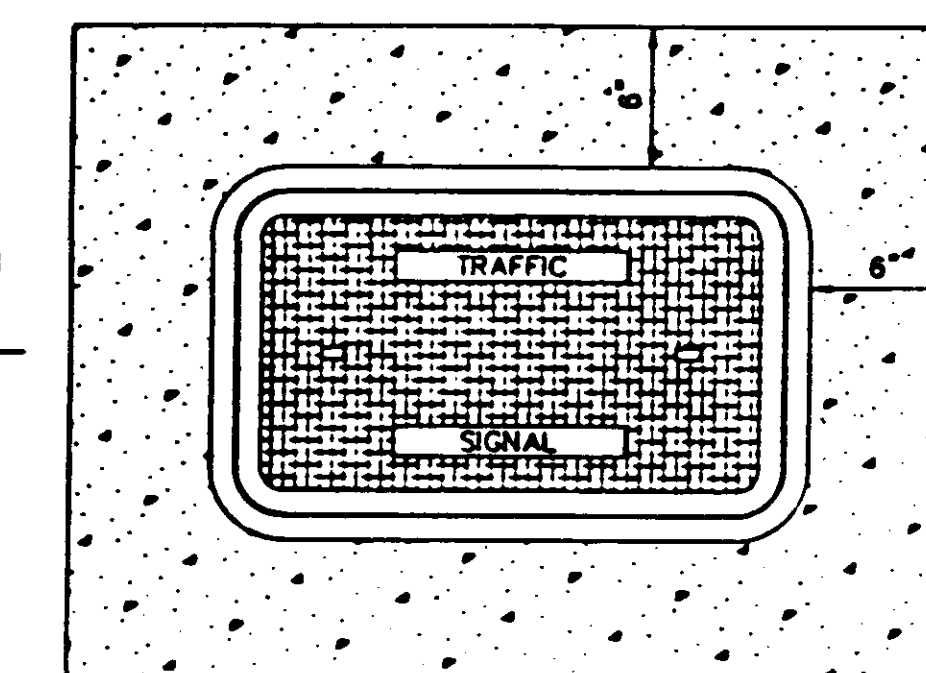
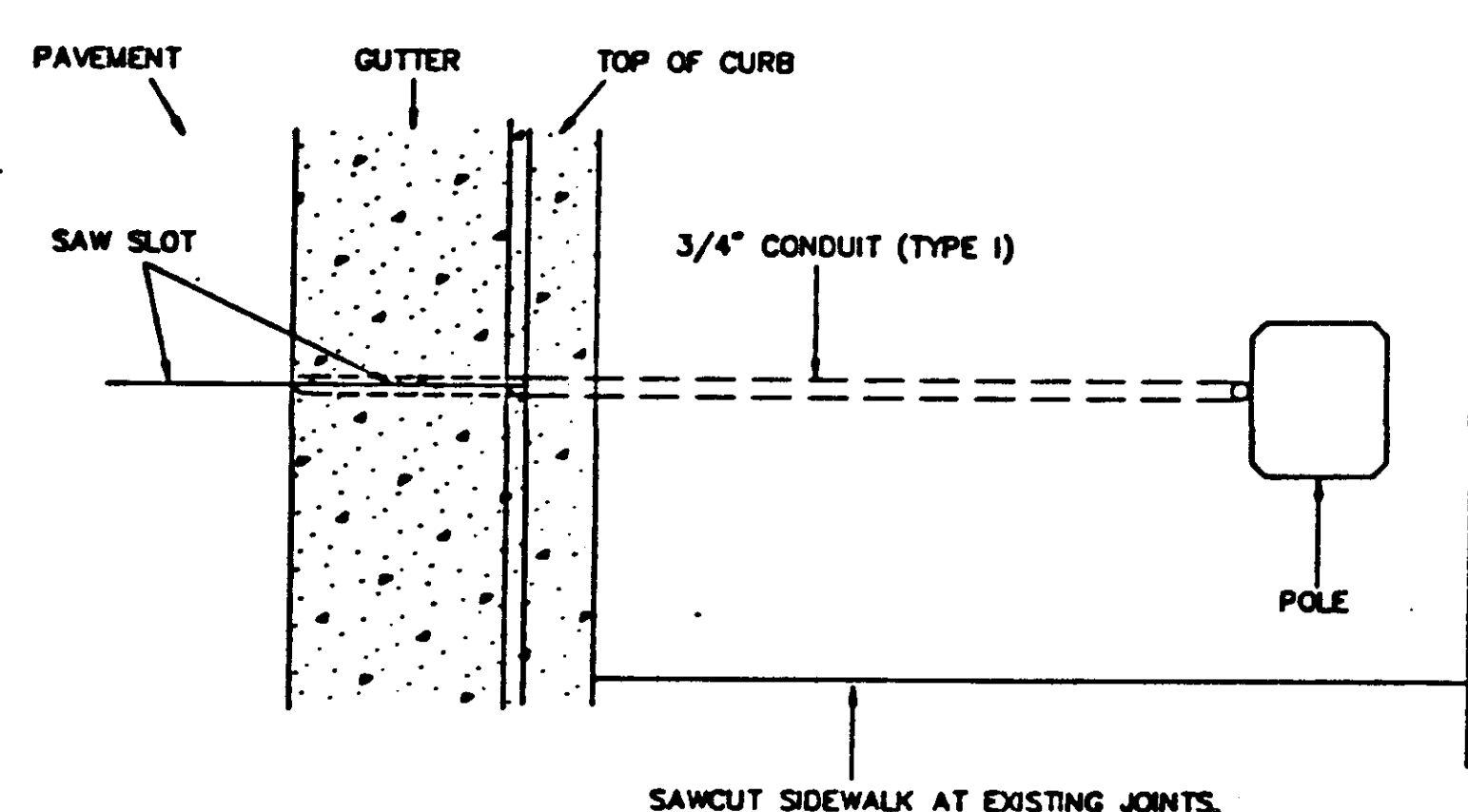


SECTION A-A

- PULLBOX NOTES:
1. NOMINAL PULLBOX DIMENSIONS:
TYPE 1 - 8" L x 8" W x 6" D
TYPE 2 - TOP BODY - 25" L x 15" W x 15" D
BOTTOM BODY (INSIDE) - 29" L x 18" W
 2. GRAVEL, 12" DEEP, IS REQUIRED UNDER PULLBOXES FOR DRAINAGE.
 3. CONCRETE COLLAR, 6" W x 6" D, IS REQUIRED FOR PULLBOXES PLACED IN SOIL.
 4. TRAFFIC SIGNAL, TRAFFIC OR SIGNAL LEGEND REQUIRED.
 5. COVERS SHALL BOLT DOWN.



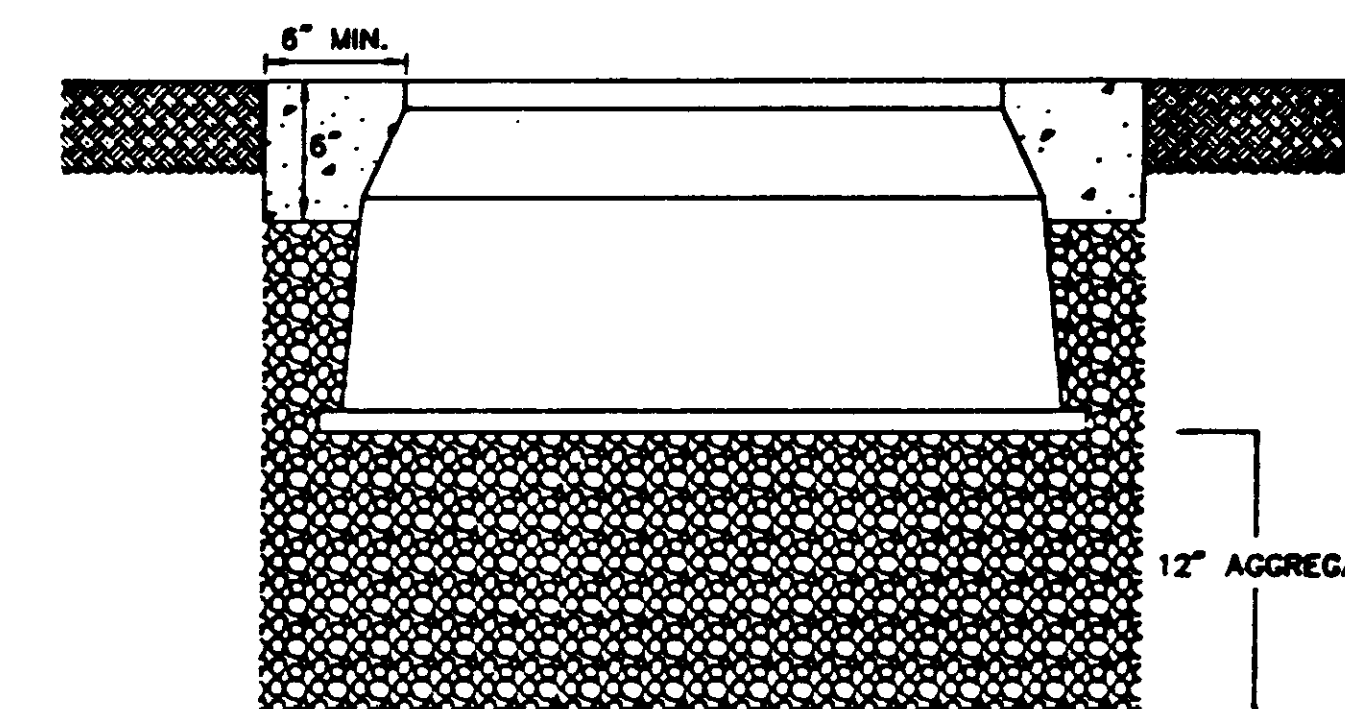
PLAN VIEW - LOOP LEAD-IN CONDUIT



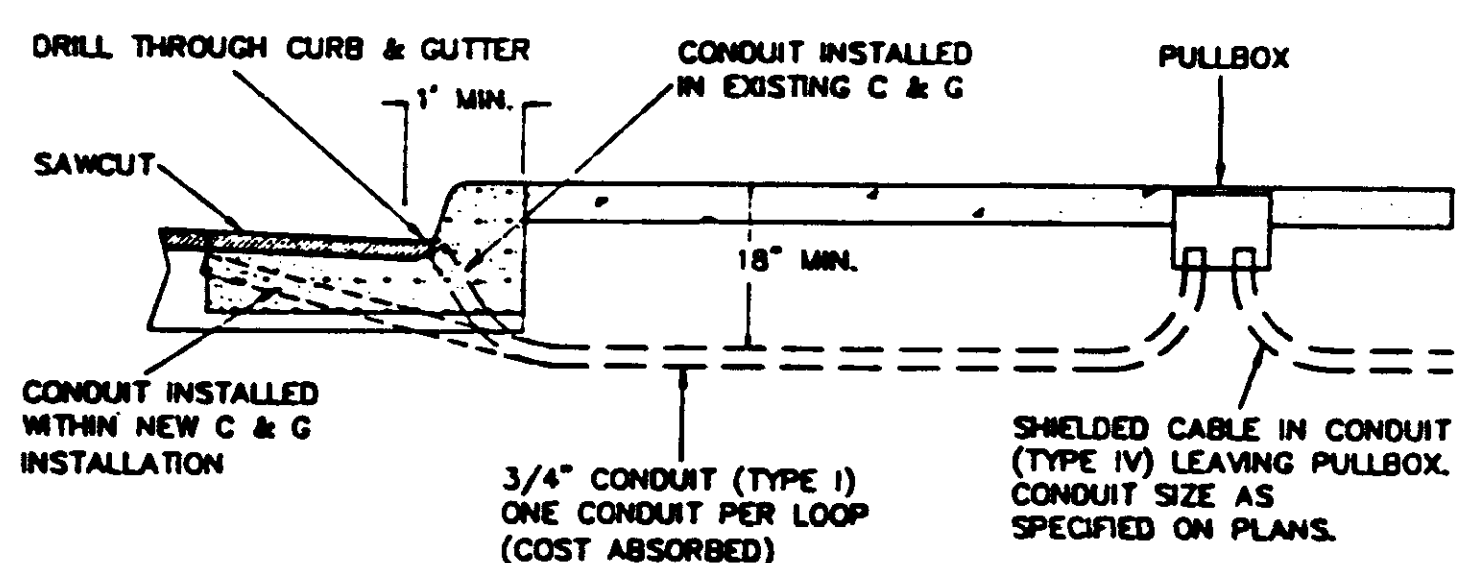
PLAN

TWO-PIECE PULLBOX (TYPE 2)

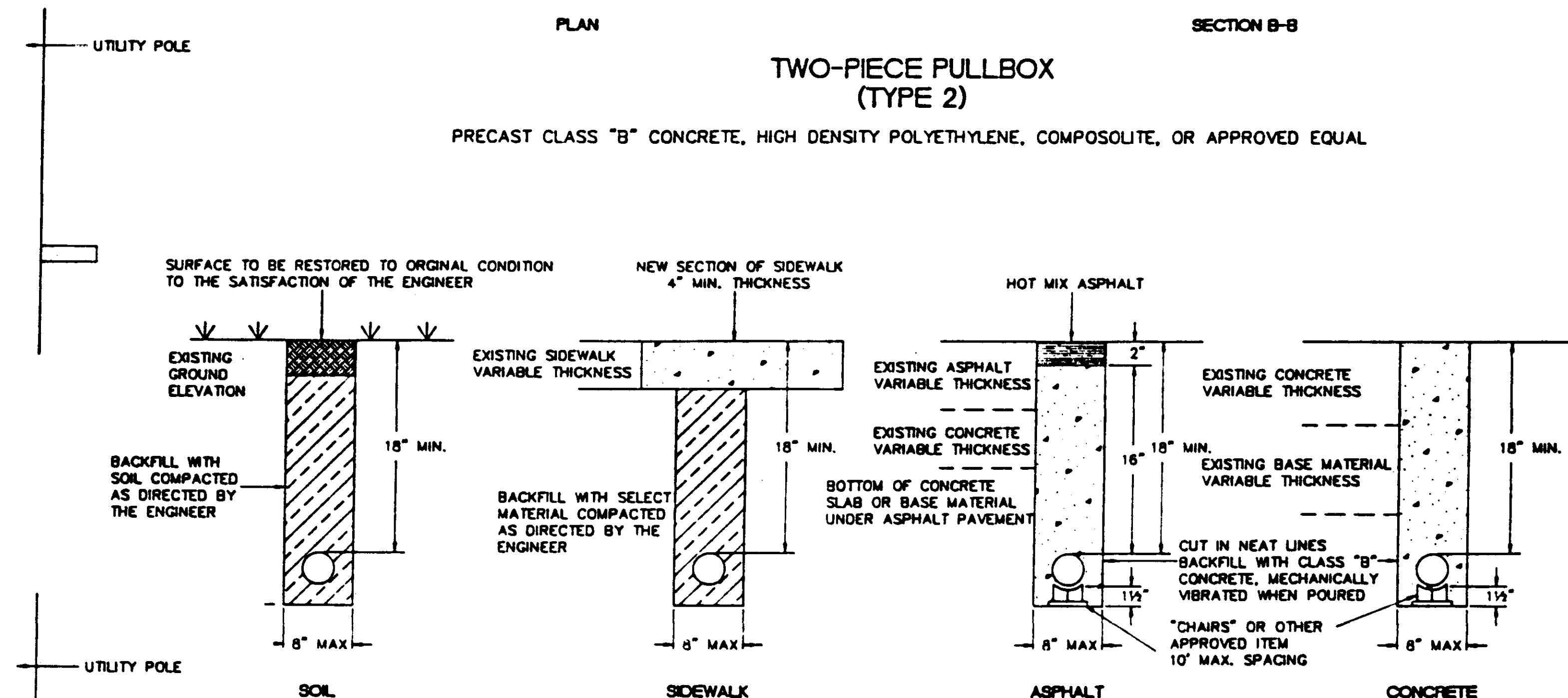
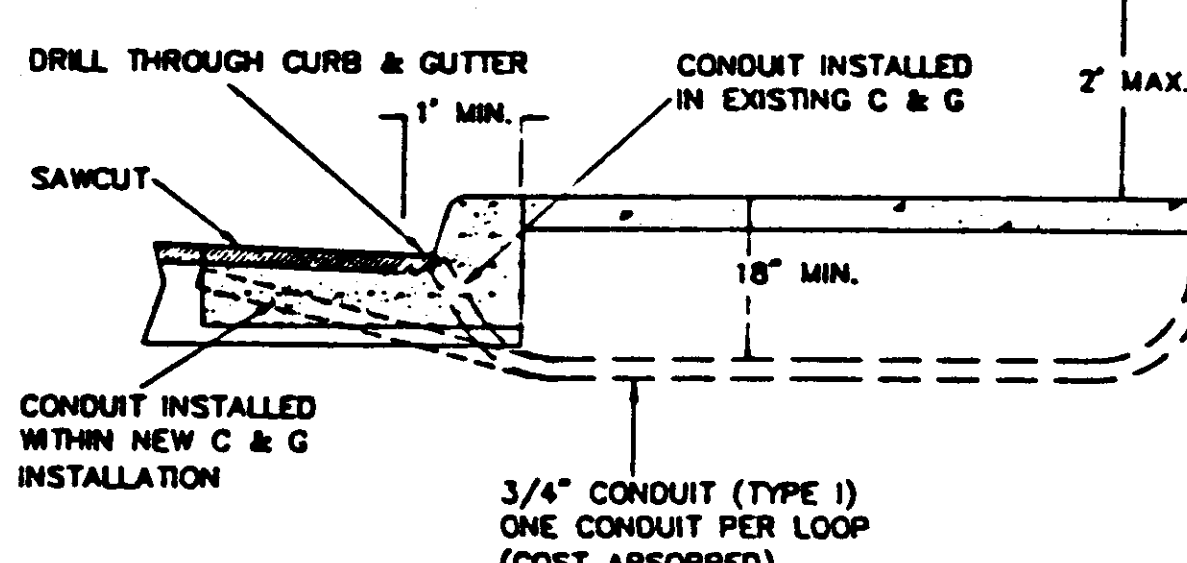
PRECAST CLASS "B" CONCRETE, HIGH DENSITY POLYETHYLENE, COMPOSOLITE, OR APPROVED EQUAL



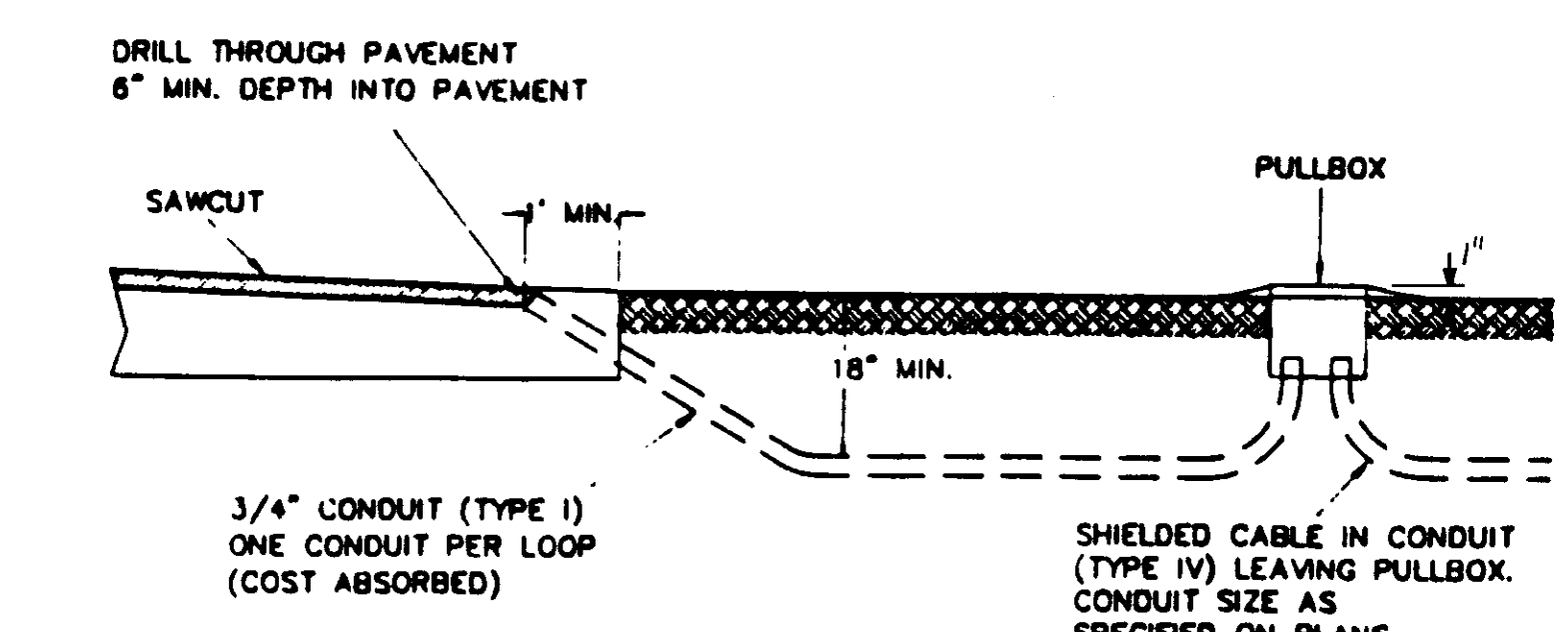
SECTION B-B



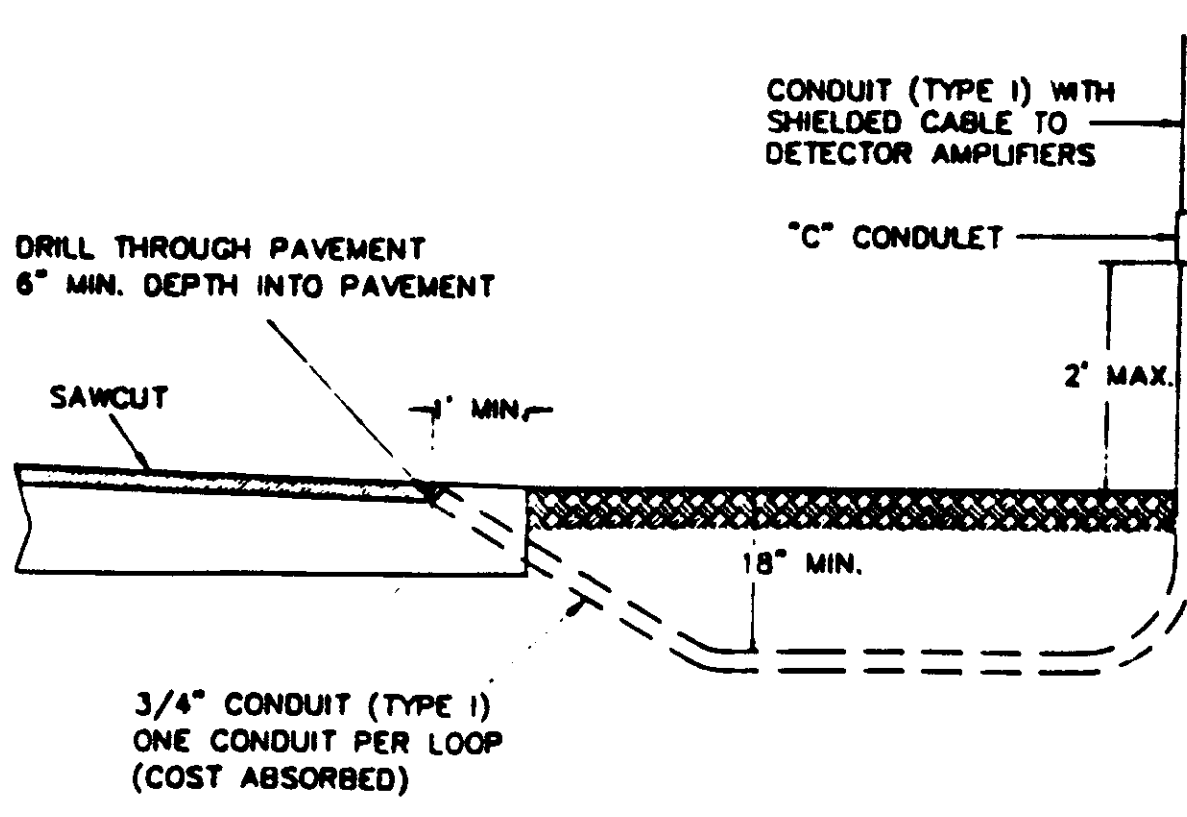
TYPICAL SECTION IN GUTTER AND SIDEWALK



CONDUIT TRENCHING DETAIL



TYPICAL SECTION IN EARTH



NOTES:

1. CONDUIT TO BE SEALED WITH DUCT SEALER ONCE CABLE IS INSTALLED.
2. SAWCUT SIDEWALK AT EXISTING JOINTS AND REPLACE ENTIRE SECTION TO MATCH EXISTING MATERIAL. WHEN NEW SIDEWALK IS BEING CONSTRUCTED, CONDUIT, PULLBOX, AND POLE ARE TO BE INSTALLED BEFORE SIDEWALK IS POURED.
3. TYPE I CONDUIT IS RIGID STEEL; TYPE IV CONDUIT IS PVC.

RECORD DRAWING (JULY 1994)

CITY OF RIDGELAND

STANDARD SIGNAL DETAILS
CONDUIT, PULLBOX AND
PEDESTRIAN PUSHBUTTON

DSGM:		DRAWING NO.	
DRWN:			
CHKD:			
SCALE:	N.T.S.		