WAGGONER
Engineering, Inc.
Engineers, Scientists, Planners
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OLD CANTON ROAD AND WILLIAM BOULEVARD TRAFFIC SIGNAL INSTALLATION AND INTERSECTION IMPROVEMENTS CITY OF RIDGELAND, MISSISSIPPI

WEI #T00-034

CITY OFFICIALS:

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GENE F. McGEE

MAYOR PRO TEMPORE
GERALD STEEN

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ASST. DIRECTOR OF PUBLIC WORKS
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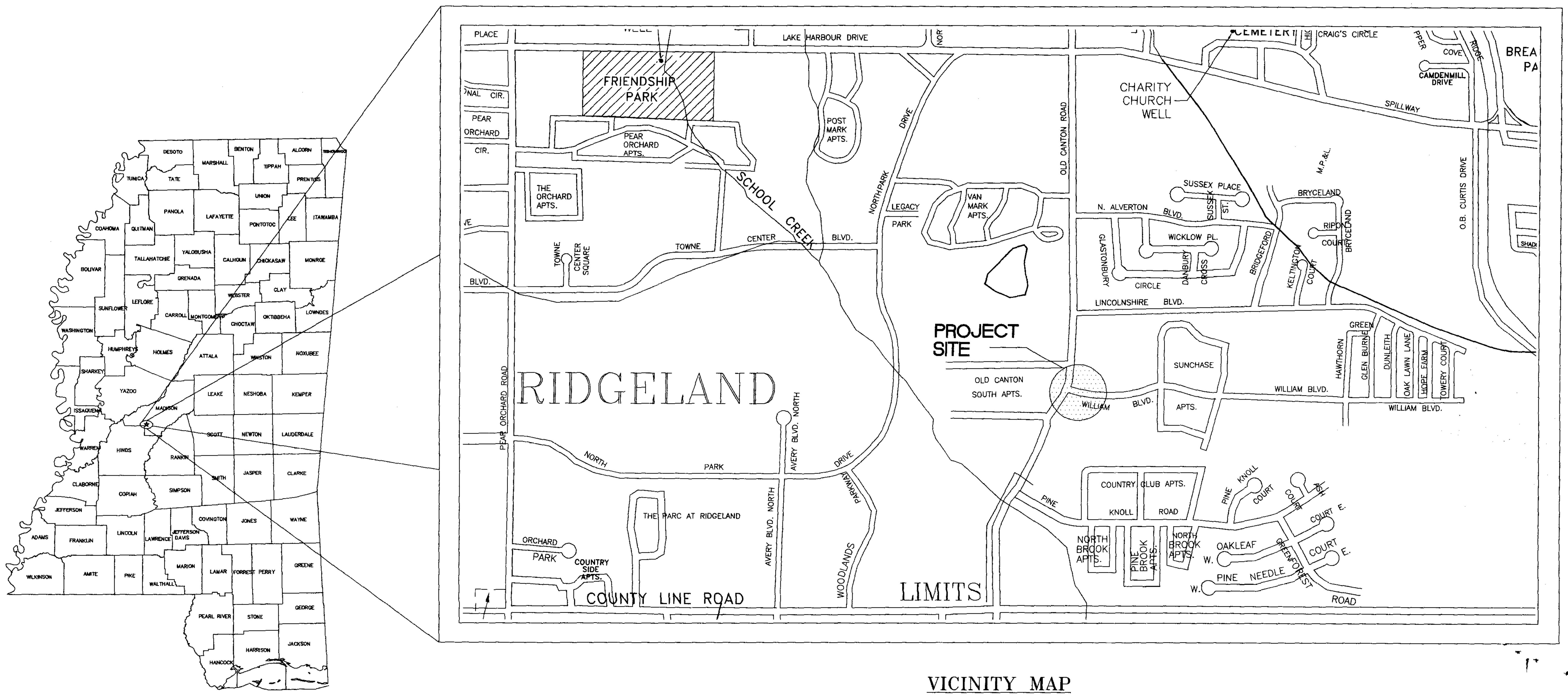
ASST. CITY ENGINEER
DAVID WILLIAMS, P.E.

PUBLIC WORKS OPERATOR
DANNY WHITEHEAD



VICINITY MAP
SCALE: 1" = 500'
JUNE, 2001

INDEX TO DRAWINGS

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5	CONDUIT, PULLBOX AND PEDESTRIAN PUSHBUTTON STANDARD DETAIL
6	SIGNAL POLES AND CONTROLLER CABINET STANDARD DETAIL
7	TRAFFIC CONTROL PLAN

PWP-01527

SEAL
GARLAND S. WRIGHT JR.
MISSISSIPPI

GENERAL CONSTRUCTION NOTES

1. THE PLAN LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY ALL THE UTILITY COMPANIES PRIOR TO 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 OR SIDEWALKS. NEW TRAFFIC SIGNAL POLES ARE TO BE PLACED AT A MINIMUMOF 2' BEHIND THE BACK 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 THE CONTRACTOR AT THE NEAREST PRACTICAL LOCATION INDICATED ON THE PLAN SHEETS AND APPROVED BY THE ENGINEER.

5. THE SIGNAL CONTROLLER TIMINGS SHALL BE PROVIDED BY THE ENGINEER.

6. THE CONTRACTOR SHALL MAKE APPLICATION FOR ELECTRICAL 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 SIGNS. ANY MODIFICATIONS REQUIRED TO THESE DEVICES SHALL BE PERFORMED BY THE CONTRACTOR.

8. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL TRAFFIC IN THE PROJECT. TRAFFIC CONTROL INCLUDING LANE CLOSURES SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), LATEST EDITION.

9. THE CONTRACTOR SHALL CAST AN ADDITIONAL 3" PVC CONDUIT INTO THE CONTROLLER CABINET BASE FOR FUTURE USE.

10. CONTRACTOR SHALL EXTEND THE CONTROLLER POWER WIRE UP THE POWER POLE TO THE NECESSARY HEIGHT AS REQUIRED BY THE UTILITY COMPANY WITH THE APPROPRIATE CONDUIT, STRAPPING, AND WEATHERHEAD. THIS ITEM SHALL BE COST ABSORBED.

11. A SPARE 4 CONDUCTOR SHIELDED CABLE WILL BE RAN FOR FUTURE PEDESTRIAN SIGNALS AND PUSHBUTTONS. LEAVE 20 FT. OF EXTRA CABLE FOR FUTURE USE.

12. CONTRACTOR SHALL PROVIDE NECESSARY HARDWARE FOR MOUNTING OF SIGNAL SIGNAL POLES. (COST ABSORBED)

13. CONTRACTOR TO INSPECT POLES AT CITY-YARD PRIOR TO CONSTRUCTION.

14. ALL WIRING ASSOCIATED WITH POLE/ARM TO BE REPLACED AND FURNISHED BY CONTRACTOR SHALL BE COST ABSORBED.

15. CONTRACTOR SHALL FURNISH CAPS FOR POLES AND ARMS (COST ABSORBED)

16. MOUNTING BOLTS/BRACKETS FOR LUMINARIES TO BE COST ABSORBED.

17. TRAFFIC CONTROL ADVANCED WARNINGS SIGNS TO BE PLACED AT 750', 500', AND 250' ALONG OLD CANTON ROAD EACH DIRECTION AND 250' ON WILLIAM BLVD. THIS SUPERSEDES STANDARD DRAWING TCP 1 FOR ADVANCED WARNING SIGNS ONLY.

SUMMARY OF QUANTITIES

	PAY ITEM		TOTAL QUANTITIES		
	PAY ITEM NO.	DESCRIPTIONS	PLAN	FINAL	UNIT
	1	MOBILIZATION/DEMOBILIZATION	1		LS
	2	MAINT. OF TRAFFIC DURING CONST. (INCLUDES TEMP. SIGNS, BARRICADES, BARRELS, LIGHTS, ETC.)	1		LS
	3	EROSION CONTROL	1		LS
	4	VEHICLE LOOP ASSEMBLIES	1,210		LF
	5	SHIELDED CABLE (2 AND 4 CONDUCTOR)	1,080		LF
	6	LOOP DETECTOR AMPLIFIER, CARD RACK MOUNTED (4 CHANNEL)	4		EA
(1)	7	STEEL TRAFFIC SIGNAL & EQUIPMENT POLE (SGL MAST ARM) (SHAFT LENGTH 21') (ARM LENGTH 38')	1	1	EA
(1)	8	STEEL TRAFFIC SIGNAL & EQUIPMENT POLE (SGL MAST ARM) (SHAFT LENGTH 30') (ARM LENGTH 24')	1	1	EA
(1)	9	STEEL TRAFFIC SIGNAL & EQUIPMENT POLE (SGL MAST ARM) (SHAFT LENGTH 30') (ARM LENGTH 30')	1	1	EA
	10	TRAFFIC SIGNAL HEAD (TYPE 1)	4		EA
	11	TRAFFIC SIGNAL HEAD (TYPE 3)	1		LF
	12	TRAFFIC SIGNAL HEAD (TYPE 7)	1		EA
	13	SOLID STATE TRAFFIC ACTUATED CONTROLLER (TYPE 3, WITH TBC AND FIBER COMMUNICATIONS))	1		EA
	14	OPTICAL DETECTOR	3		EA
	15	OPTICAL DETECTOR CABLE	390		LF
	16	PHASE SELECTOR (4 CHANNEL)	1		EA
	17	PULLBOXES (TYPE 1)	2	2	EA
	18	PULLBOXES (TYPE 2)	3	3	EA
	19	ELECTRIC CABLE (POWER) (AWG #6) (2 CONDUCTOR)	150		LF
	20	ELECTRIC CABLE (LUMINARE) (AWG #10) (2 CONDUCTOR)	390		LF
	21	ELECTRIC CABLE (SIGNAL CABLE) (AWG #14) (5 CONDUCTOR)	195		LF
	22	ELECTRIC CABLE (SIGNAL CABLE) (AWG #14) (7 CONDUCTOR)	155		LF
	23	LIGHTING AND TRAFFIC SIGNAL CONDUIT (UNDERGROUND) (TRENCHED) (TYPE 4) (2")	830		LF
	24	LIGHTING AND TRAFFIC SIGNAL CONDUIT (UNDERGROUND) (TRENCHED) (TYPE 4) (3")	75		LF
	25	LIGHTING AND TRAFFIC SIGNAL CONDUIT (UNDERGROUND) (JACKED) (TYPE 1) (2")	240		LF
	26	LIGHTING AND TRAFFIC SIGNAL CONDUIT (UNDERGROUND) (JACKED) (TYPE 1) (3")	80		LF
	27	TRAFFIC SIGN (ENCAPSULATED LENS)	8		SF
	28	STREET NAME SIGN (ENCAPSULATED LENS)	65		SF

NOTE:

(1) SIGNAL POLES AND MAST ARMS WILL BE FURNISHED BY THE CITY SEE SPECIFICATION SECTION B. PG 5 PARAGRAPH 21.

CITY OF RIDGELAND

OLD CANTON ROAD & WILLIAM BOULEVARD TRAFFIC SIGNAL INSTALLATION & INTERSECTION IMPROVEMENTS

SUMMARY OF QUANTITIES AND GENERAL NOTES

WAGGONER ENGINEERING, INC.
Consulting Engineers – Jackson, Mississippi

DRAWN BY: S.W.	DATE: 5-30-00	SHEET NUMBER
REVIEWED BY: B.S.	SCALE: N.A.	2

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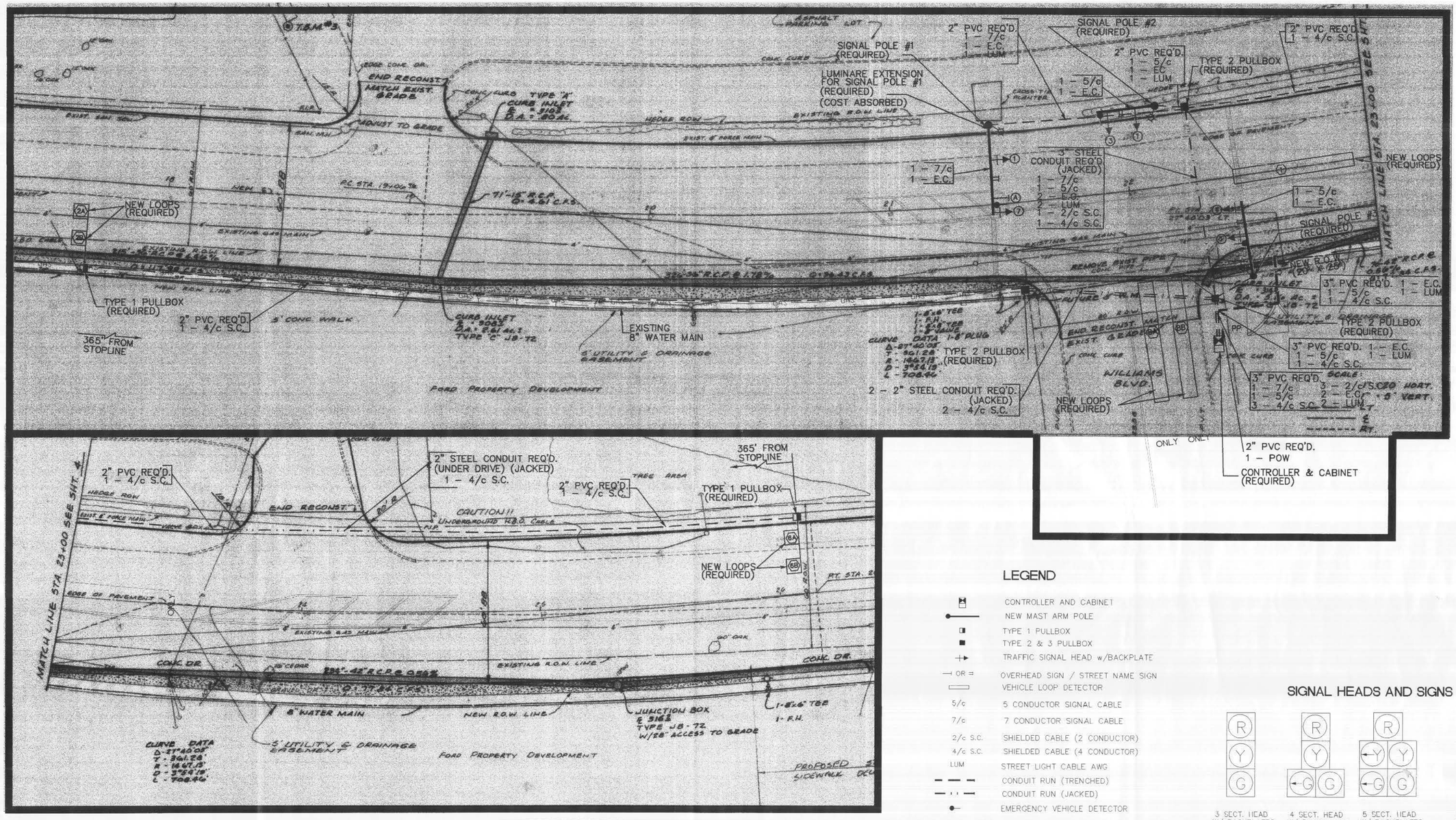


SIGNAL POLE CHART		LOCATION (FROM POLE – FT)			STREET NAME SIGN LEGEND
SIGNAL POLE NO.	MAST ARM LENGTH	SIGNAL HEADS	EMERGENCY VEHICLE DETECTOR	SIGNS	
1	38'	15',37'	34'	23',31'	WILLIAM BLVD.
2	24'	8', 20'	23'	14'	WILLIAM BLVD.
3	30'	17',29'	14'	23'	OLD CANTON RD.

SIGNAL PHASING

Ø1	Ø2	N/A Ø3	N/A Ø4
N/A Ø5	Ø6	N/A Ø7	Ø8

FLASHING OPERATION
YELLOW – Ø1,Ø2,Ø6
RED – Ø8

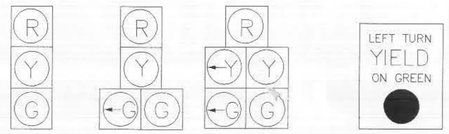
DETECTOR ASSIGNMENT SUMMARY						
DETECTOR CHANNEL	LOOP NUMBER	LOOP SIZE	NUMBER OF TURNS	PHASE CALLED	PRESENCE MODE	PULSE MODE
1–1	1	6'x 50'	2	1	X	
2–1	2A	6'x 6'	2	2		X
2–2	2B	6'x 6'	2	2		X
1–2	8A	6'x 50'	2	4	X	
1–3	8B	6'x 50'	2	4	X	
2–3	6A	6'x 6'	2	6		X
2–4	6B	6'x 6'	2	6		X

EMERGENCY PRE-EMPT
CHANNEL 1 – Ø1,Ø6
CHANNEL 2 – Ø2
CHANNEL 3 – Ø8

LEGEND

- CONTROLLER AND CABINET
- NEW MAST ARM POLE
- TYPE 1 PULLBOX
- TYPE 2 & 3 PULLBOX
- TRAFFIC SIGNAL HEAD w/BACKPLATE
- OR = OVERHEAD SIGN / STREET NAME SIGN
- VEHICLE LOOP DETECTOR
- 5/c 5 CONDUCTOR SIGNAL CABLE
- 7/c 7 CONDUCTOR SIGNAL CABLE
- 2/c S.C. SHIELDED CABLE (2 CONDUCTOR)
- 4/c S.C. SHIELDED CABLE (4 CONDUCTOR)
- LUM STREET LIGHT CABLE AWG
- CONDUIT RUN (TRENCHED)
- CONDUIT RUN (JACKED)
- EMERGENCY VEHICLE DETECTOR
- E.C. EMERGENCY VEHICLE CABLE
- LUMINAIRE

SIGNAL HEADS AND SIGNS



3 SECT. HEAD W/ BACKPLATES TYPE 1 12" ①
4 SECT. HEAD W/ BACKPLATES TYPE 3 12" ③
5 SECT. HEAD W/ BACKPLATES TYPE 7 12" ⑦
R10-12 (30" X 36") Ⓐ

PROJECTED TURNING MOVEMENTS WITH FUTURE DEVELOPMENT

(A.M. PEAK HOUR) (P.M. PEAK HOUR)

CITY OF RIDGELAND

OLD CANTON ROAD & WILLIAM BOULEVARD TRAFFIC SIGNAL INSTALLATION & INTERSECTION IMPROVEMENTS

PLAN VIEW

WAGGONER ENGINEERING, INC.
Consulting Engineers – Jackson, Mississippi

DRAWN BY: S.W.	DATE: 6-05-01	SHEET NUMBER
REVIEWED BY: B.S.	SCALE: 1" = 20'	3

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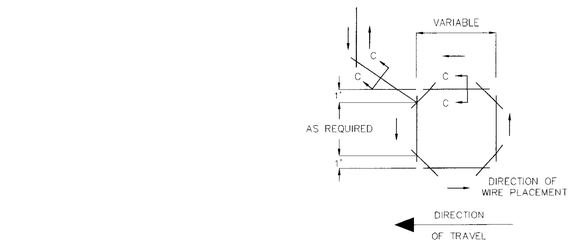
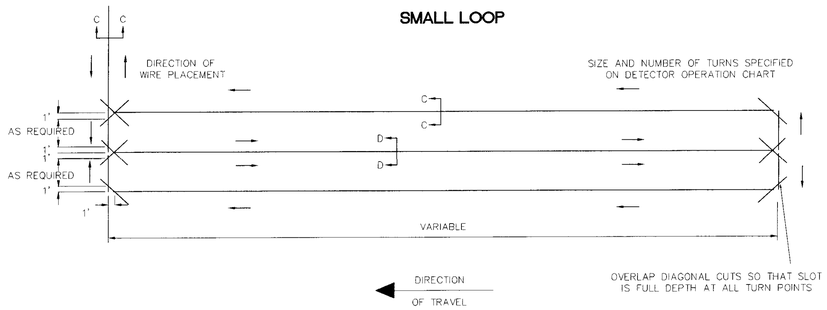
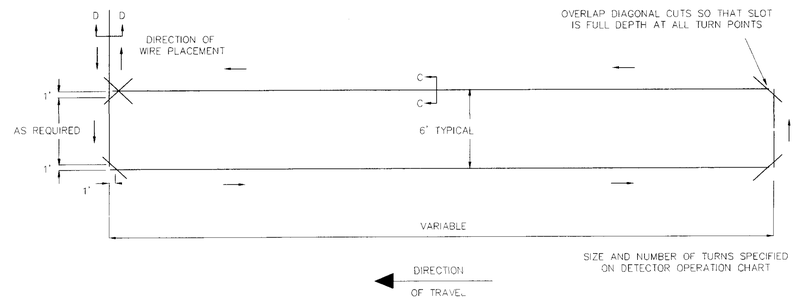


SIZE AND NUMBER OF TURNS SPECIFIED ON DETECTOR OPERATION CHART

SMALL LOOP



QUADRAPOLE LOOP



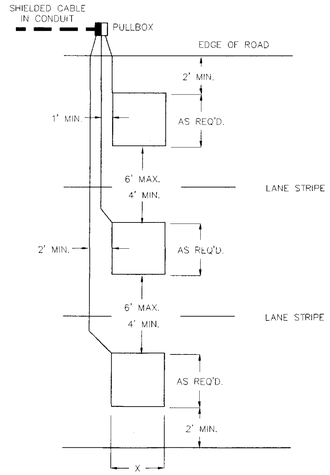
SIZE AND NUMBER OF TURNS SPECIFIED ON DETECTOR OPERATION CHART

RECTANGULAR LOOP

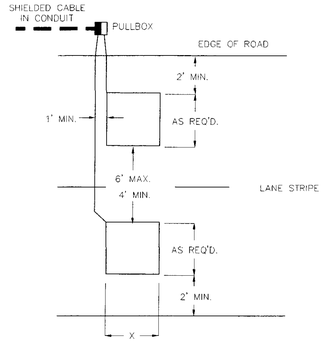
SAW CUT DIAGRAM

SAW SLOT AND LOOP WIRE INSTALLATION PROCEDURES

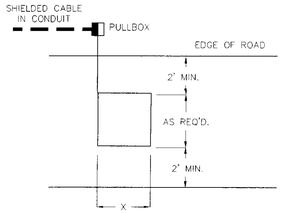
1. CONCRETE PAVEMENT JOINTS SHALL NOT BE USED FOR EITHER LOOP OR FEEDER WIRE. NO LOOPS ARE TO BE INSTALLED THROUGH, OVER, OR UNDER TRANSVERSE CONCRETE JOINTS IN CONCRETE PAVEMENT. NO MANHOLES, INLETS, VALVES, ETC. MAY BE LOCATED WITHIN A LOOP. IF JOINTS OR MANHOLES ARE ENCOUNTERED, THE LOCATION OF THE 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 LOOP, 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.



THREE LANE COVERAGE

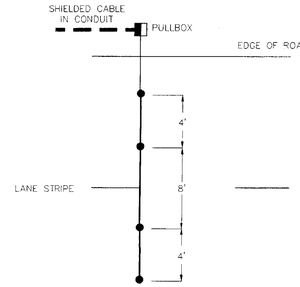


TWO LANE COVERAGE



ONE LANE COVERAGE

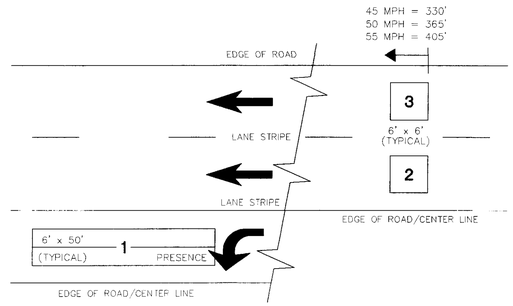
"X" DIMENSION SPECIFIED ON PLANS



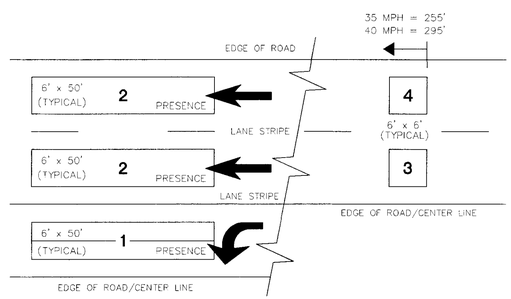
PROBE DETECTOR

TYPICAL LOOP DETECTOR LANE COVERAGE DIAGRAM

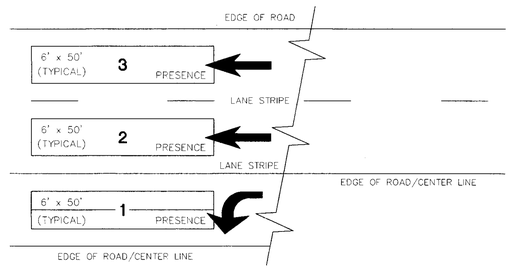
45 MPH or GREATER



35 - 40 MPH



30 MPH or LESS

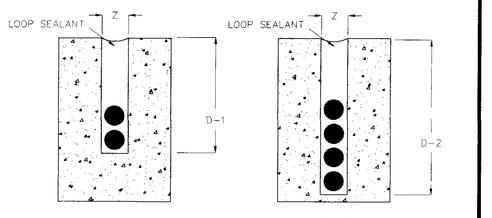


TYPICAL LOOP DETECTOR PLACEMENT DIAGRAM

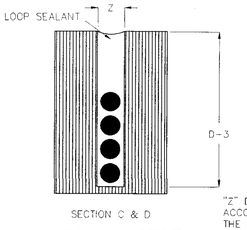
3 = CHANNEL NUMBER

AMP 1-Ø2, AMP 2-Ø4, AMP 3-Ø6, AMP 4-Ø8

MPH IS BASED ON SPEED LIMIT
ALL DISTANCES FROM STOPLINE



LOOP IN CONCRETE



LOOP IN ASPHALT

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"

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

SAW SLOT DETAIL

CITY OF RIDGELAND

OLD CANTON ROAD & WILLIAM BOULEVARD TRAFFIC SIGNAL INSTALLATION & INTERSECTION IMPROVEMENTS

VEHICLE LOOP DETECTOR ASSEMBLY

WAGGONER ENGINEERING, INC.
Consulting Engineers – Jackson, Mississippi

DRAWN BY: B.F.	DATE: 05-23-00	SHEET NUMBER
REVIEWED BY: J.B.	SCALE: N.T.S.	4

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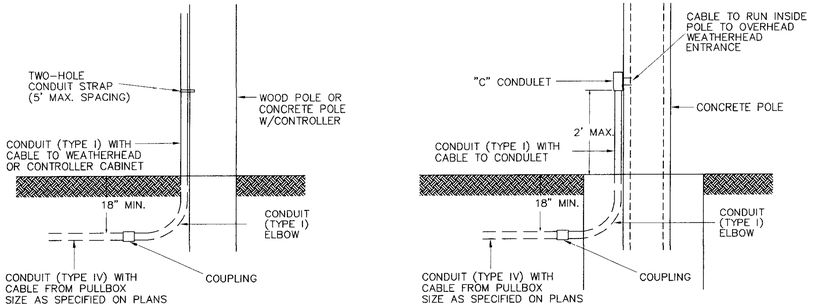
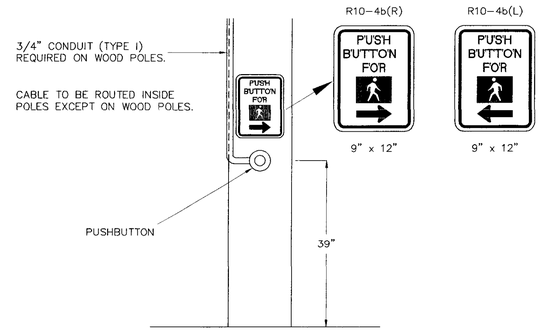
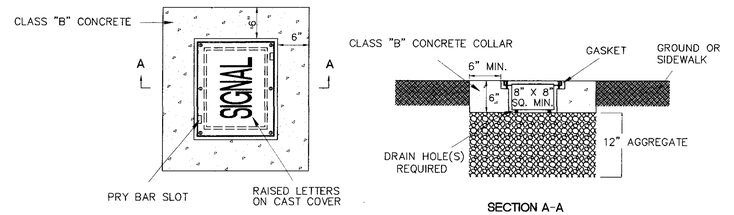


CONDUIT DETAIL AT POLES

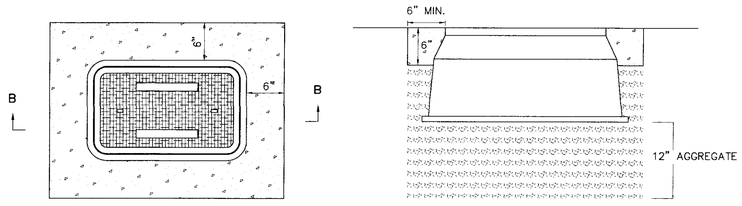


PEDESTRIAN PUSH BUTTON AND SIGN INSTALLATION DETAIL



TWO-PIECE PULLBOX (TYPE 1)

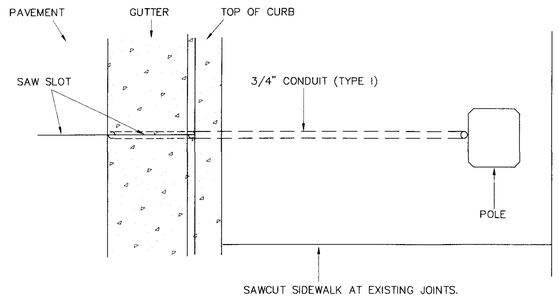
CAST IRON, CAST ALUMINUM, WELDED ALUMINUM, OR APPROVED EQUAL



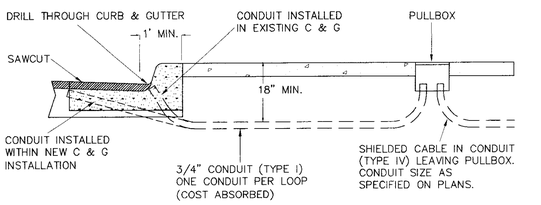
TWO-PIECE PULLBOX (TYPE 2)

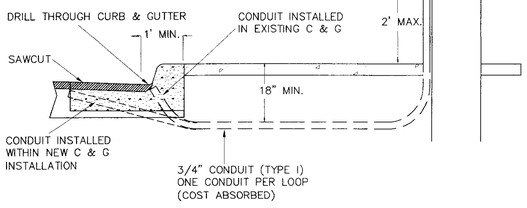
TRAFFIC

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

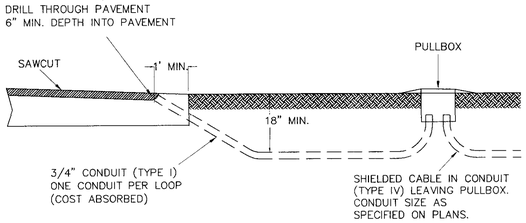


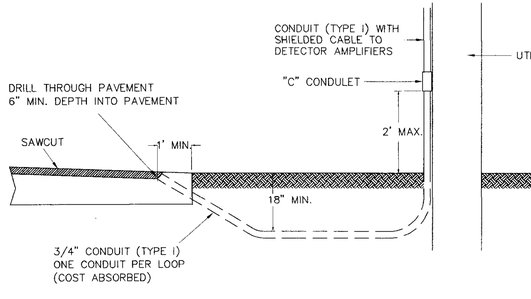
PLAN VIEW - LOOP LEAD-IN CONDUIT



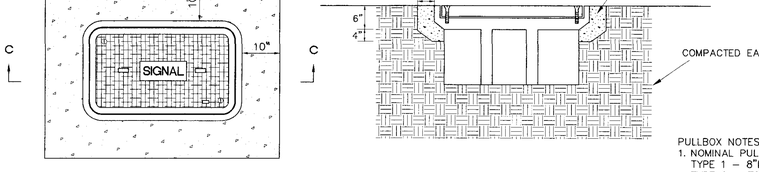


TYPICAL SECTION IN GUTTER AND SIDEWALK





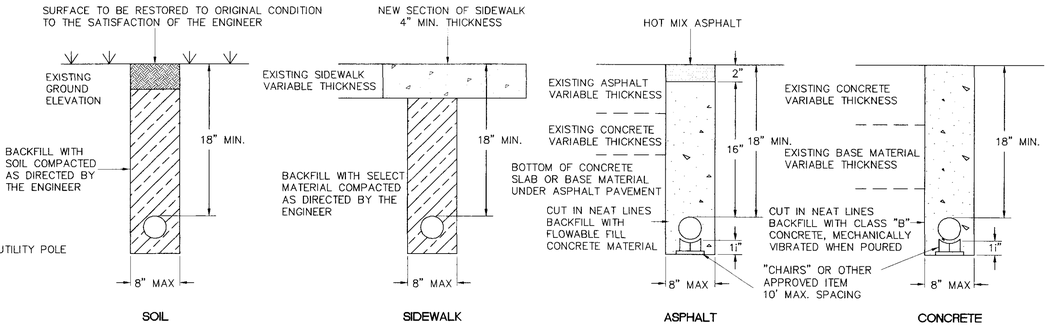
TYPICAL SECTION IN EARTH



TWO-PIECE PULLBOX (TYPE 3)

COMPOSOLITE OR APPROVED EQUAL

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.



CONDUIT TRENCHING DETAIL

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.
4. CONDUIT MAY BE TRENCHED OR JACKED. ELECTRICAL SUBCONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION WORK UNDER ROADWAY WITH ROADWAY CONSTRUCTION PHASING IN ORDER TO MINIMIZE JACKING.

CITY OF RIDGELAND

OLD CANTON ROAD & WILLIAM BOULEVARD TRAFFIC SIGNAL INSTALLATION & INTERSECTION IMPROVEMENTS

CONDUIT, PULLBOX AND PEDESTRIAN PUSHBUTTON

WAGGONER ENGINEERING, INC.
Consulting Engineers – Jackson, Mississippi

DRAWN BY: E.L.G.	DATE: 10-6-99	SHEET NUMBER
REVIEWED BY: J.B.	SCALE: N.T.S.	5

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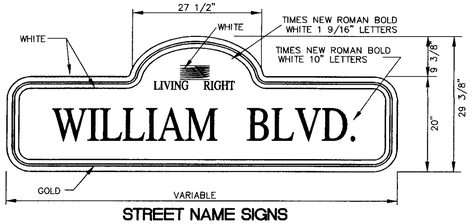
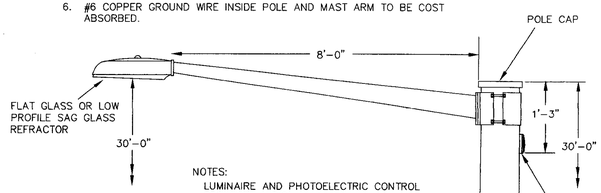


STREET NAME SIGNS (TYPICAL)

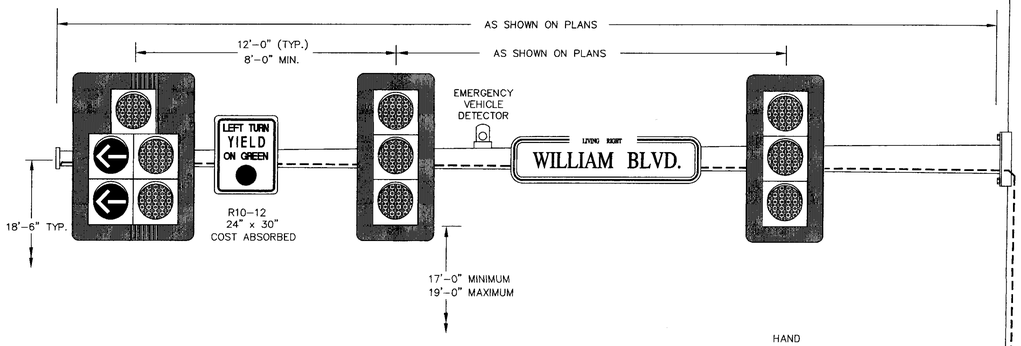
THE SIGN BLANK SHALL BE A SINGLE PIECE OF SMOOTH CUT ALUMINUM FROM ASTM B-209 ALLOY 5052-H38, 5154-H38 OR 6061-T6 SHEETS IN 0.125 INCH THICKNESS. THE ALUMINUM SHALL BE DEGREASED AND LIGHTLY ACID ETCHED BEFORE THE SIGN SHEETING IS APPLIED. THE SIGN SHEETING SHALL BE APPLIED TO THE PANELS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE RETROFLECTIVE SHEETING MANUFACTURER.

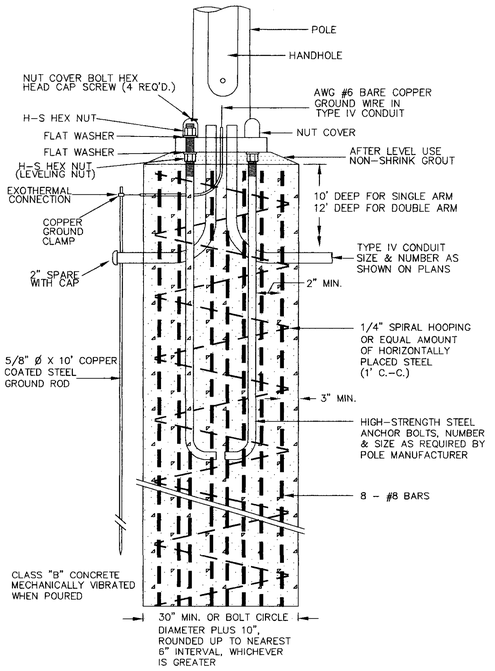
THE DECORATIVE STREET NAME SIGNS SHALL BE FINISHED ON BOTH SIDES. THE SIGN SHEETING MATERIAL SHALL BE REFLECTIVE ENCLOSED LINES (ENGINEER GRADE) CONFORMING TO FEDERAL SPECIFICATIONS FP92. THE COLORS OF THE DECORATIVE STREET NAME SIGNS SHALL MATCH THE EXISTING DECORATIVE STREET NAME SIGNS.

NOTES:
1. WIRE ENTRANCE TO MAST ARM WILL BE FIELD DRILLED TO CORRESPOND TO THE LOCATION OF THE SIGNAL HEADS WHEN ALIGNED IN THE FIELD.
2. ALL SIGNAL HEADS TO BE YELLOW IN COLOR.
3. RED SECTION INDICATIONS TO BE APPROXIMATELY SAME HEIGHT.
4. EXACT DIMENSIONS AND LOCATIONS OF ANCHOR BOLTS TO BE SUPPLIED BY THE POLE MANUFACTURER.
5. DESIGN WIND LOAD FOR POLES AND MAST ARMS IS 70 MPH.
6. #6 COPPER GROUND WIRE INSIDE POLE AND MAST ARM TO BE COST ABSORBED.

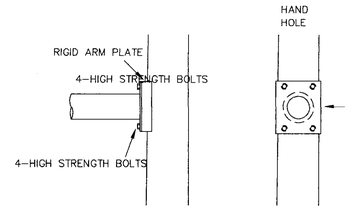


NOTES:
LUMINAIRE AND PHOTOELECTRIC CONTROL 250 WATT H.P.S. LIGHT FIXTURE WITH 250 WATT LAMPS AND PHOTO CELL TO BE PROVIDED BY THE CONTRACTOR. (COST ABSORBED)

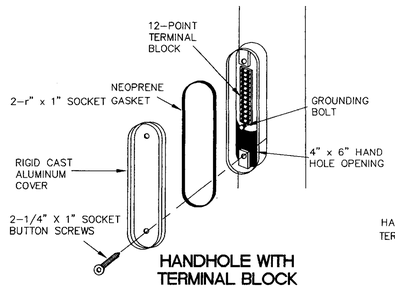




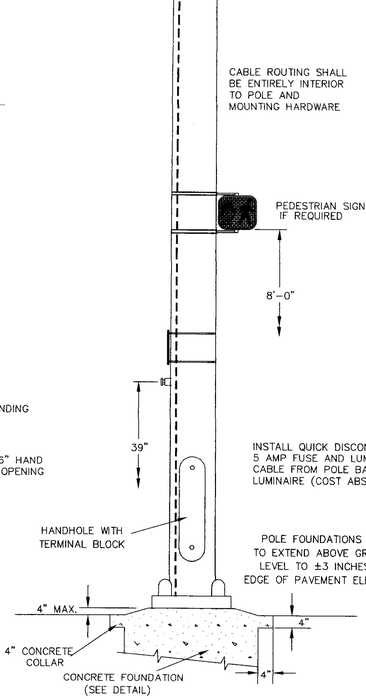
STEEL MAST ARM POLE FOUNDATION DETAIL



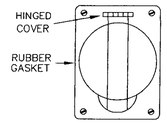
MAST ARM ATTACHMENT



HANDHOLE WITH TERMINAL BLOCK

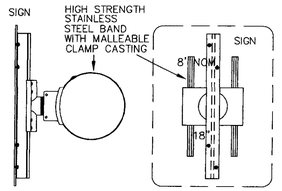


STEEL MAST ARM POLE DETAIL

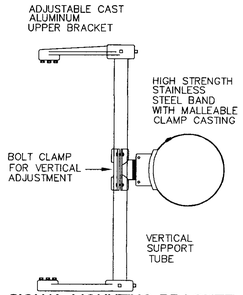


OUTLET BOX WITH SINGLE 15 AMP - 125 VOLT POLARIZED RECEPTACLE (GROUNDING TYPE)

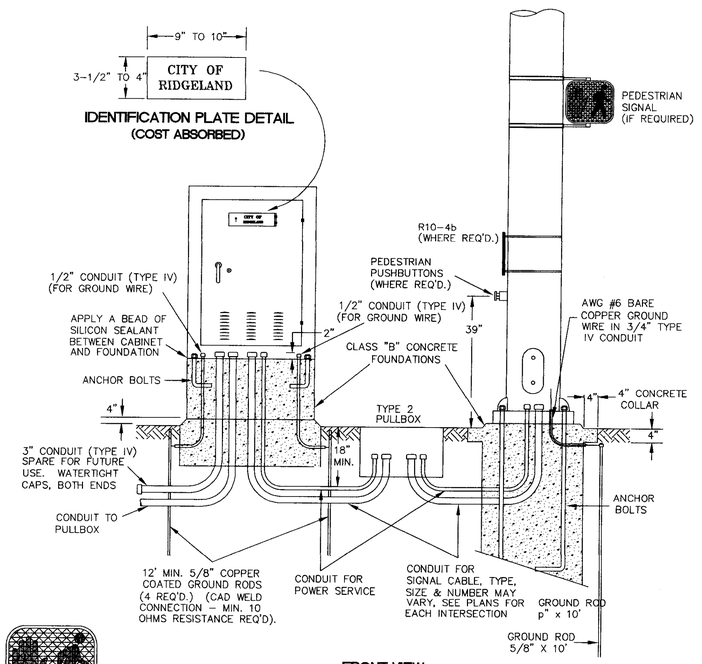
OUTLET (TO BE ADDED TO CITY FURNISHED POLE)



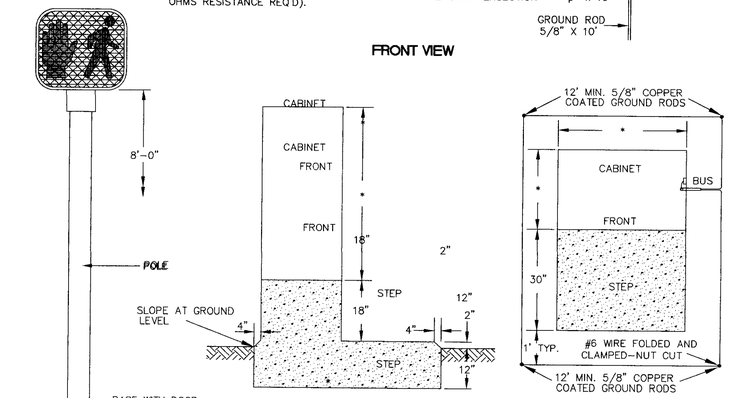
MAST ARM SIGN BRACKET (TYPICAL) (TO BE ADDED TO CITY FURNISHED POLE)



SIGNAL MOUNTING BRACKET (TYPICAL) (TO BE ADDED TO CITY FURNISHED POLE)



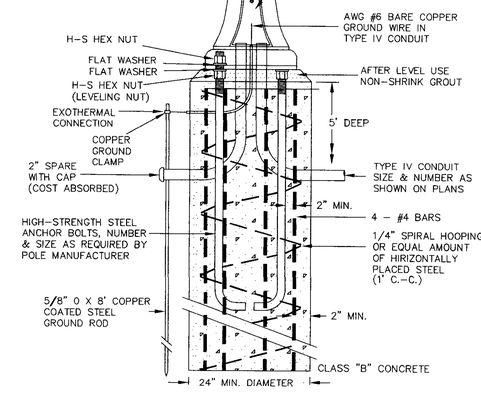
FRONT VIEW



SIDE VIEW — TOP VIEW

CONTROLLER BASE DETAIL

* CABINET DIMENSIONS TO MEET SIGNAL CABINET MANUFACTURER'S SPECIFICATIONS.
NOMINAL DIMENSIONS: 8-PHASE - D=26", W=44", H=55"
4-PHASE - D=17", W=30", H=52"



PEDESTAL POLE DETAIL

GENERAL FOUNDATION NOTES

1. EXACT DIMENSIONS AND LOCATIONS OF ANCHOR BOLTS TO BE SUPPLIED BY THE MANUFACTURER. ANY FOUNDATION FAILING TO MEET THESE DIMENSIONS WILL BE REJECTED.
2. TYPE IV CONDUIT TO BE RUN INTERNALLY FOR CONCRETE AND STEEL POLES; TYPE I CONDUIT RISERS REQUIRED FOR WOOD POLES.
3. DESIGN WIND LOAD FOR POLES SHALL BE 70 MPH.
4. FOUNDATIONS TO BE CLASS "B" CONCRETE, MECHANICALLY VIBRATED WHEN POURING.
5. MINIMUM STEEL POLE FOUNDATION SHALL BE 30" DIA. X 10' DEEP.
6. #6 COPPER GROUND WIRE AND 5/8" DIA. COPPER GROUND ROD REQ'D. FOR ALL POLE FOUNDATIONS. (COST ABSORBED).

CITY OF RIDGELAND

OLD CANTON ROAD & WILLIAM BOULEVARD TRAFFIC SIGNAL INSTALLATION & INTERSECTION IMPROVEMENTS

SIGNAL POLE & CONTROLLER CABINET STANDARD SIGNAL DETAIL

WAGGONER ENGINEERING, INC.
Consulting Engineers - Jackson, Mississippi

DRAWN BY: E.L.G.	DATE: 6-6-01	SHEET NUMBER
REVIEWED BY: S.W.	SCALE: N.T.S.	6

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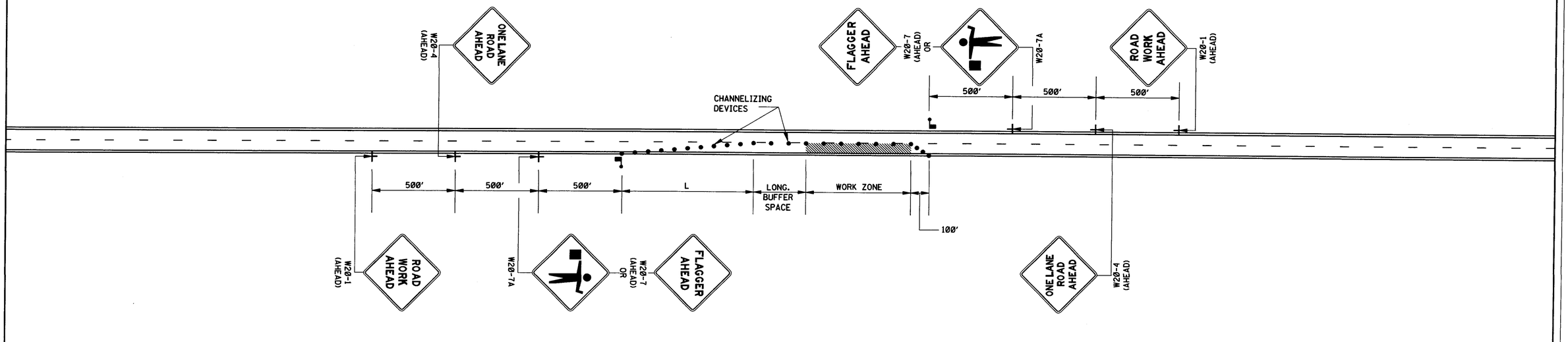

LEGEND

- FLAGGER
- CHANNELIZING DEVICES

GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		MINIMUM LONGITUDINAL BUFFER SPACE (ft)	TAPER † RATES
	TAPER	ALONG LANE LINE & WORK ZONE		
mph				
≤40	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = $WS^2/60$ FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 24" IN HEIGHT.
3. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
4. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" x 48".
5. WHEN THERE IS NO EXISTING HAZARD OR AT THE END OF THE WORK DAY, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
6. WHERE THE WORK ZONE IS STATIONARY, THE W20-7 (500 FT.) SIGN OR THE W20-7A SIGN TOGETHER WITH THE W20-7 (500 FT.) SUPPLEMENTAL PLATE SHOULD BE USED TO INDICATE THE DISTANCE TO THE FLAGGER.

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN WITH FLAGGER
(ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)

ENGLISH

WORKING NUMBER: TCP-1

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