

LIST OF MATERIALS

EXAMPLE

D3-1 OVERHEAD STREET NAME SIGN DETAILS

LIST OF MATERIALS IS FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL MATERIALS AND QUANTITIES REQUIRED FOR INSTALLATION.

MATERIALS	UNIT	QUANTITY
<b>CABINET CONTROLLER ASSEMBLIES</b>		
A. CONTROLLER UNIT, MODEL 2070LX (PREFERRED)	EA	1
E. CABINET ASSEMBLY, MODEL 332	EA	1
F. SWITCH PACK (LOAD SWITCH)	EA	12
G. DC ISOLATOR	EA	3
H. LOOP DETECTOR, 2-CHANNEL	EA	6
L. 2010 SIGNAL MONITOR, TYPE B (ETHERNET) (PREFERRED)	EA	1
M. AUXILIARY OUTPUT FILE	EA	1
BATTERY BACKUP SYSTEM - EXTERNAL MOUNTED (PER GDOT SPEC)	EA	1
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT)	EA	
A. 3 PAIR 18 AWG	REEL	3
<b>SIGNAL CABLE (14AWG)</b>		
B. 10 CONDUCTOR, PER 1000 FT	REEL	2
LOOP DETECTOR WIRE (114 AWG, STRANDED/1000 FT)	REEL	2
3-SECTION, 12" SIGNAL HEAD LED-, YELLOW HOUSING W/BLACK FRONT, PLASTIC	EA	8
4-SECTION, 12" SIGNAL HEAD LED-, YELLOW HOUSING W/BLACK FRONT, PLASTIC	EA	2
BLANK OUT SIGN, 30"X36"		
1. ONE FACE MESSAGE	EA	2
1-SECTION, 16"X18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HAND/WAN OVERLAP (9" HIGH NUMBER & 12" SYMBOLS)	EA	8
PEDESTRIAN PUSHBUTTON STATIONS, W/ BUTTONS AND SIGNS: 9"X15", RIO-3E, (L)LEFT OR (R)RIGHT, COUNTDOWN		
1. 9"X15", RIO-3EL, COUNTDOWN	EA	4
2. 9"X15", RIO-3ER, COUNTDOWN	EA	4
BACKPLATE FOR ONE-WAY, 3 SECTION, 12" SIGNAL HEAD, ABS PLASTIC, BLACK W/RETROREFLECTIVE STRIP	EA	8
BACKPLATE FOR ONE-WAY, 4 SECTION, 12" SIGNAL HEAD, ABS PLASTIC, BLACK W/RETROREFLECTIVE STRIP	EA	2
HARDWARE FOR MAST ARM MOUNTING	EA	10
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, TWO-WAY BRACKET ASSEMBLY	EA	4
PEDESTAL POLE & SQUARE BASE	EA	4
PULL BOX, PB-2	EA	12
PULL BOX, PB-3	EA	1
LOOP SAW CUT	LF	1000
CONDUIT, 1"	LF	100
CONDUIT, 2"	LF	500
R560-5 SIGN W/POST	EA	2
R10-5A, LEFT TURN YIELD ON FLASHING YELLOW SIGN	EA	2
MISC. MATL. TO COMPLETE INSTALLATION	LUMP	LUMP

PAY ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 4	LUMP SUM	LUMP SUM
615-1200	DIRECTIONAL BORE - 3 IN.	LF	500
615-1200	DIRECTIONAL BORE - 5 IN.	LF	50
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	60
639-3004	STEEL STRAIN POLE, TP IV (W/45 FT & 55 FT MAST ARMS)	EA	1
639-3004	STEEL STRAIN POLE, TP IV (W/40 FT MAST ARM)	EA	1
639-3004	STEEL STRAIN POLE, TP IV (W/60 FT MAST ARM)	EA	1
682-6233	CONDUIT, NONMETAL, TP 3, 2 IN	LF	400

**GEORGIA**  
DEPARTMENT  
OF  
TRANSPORTATION

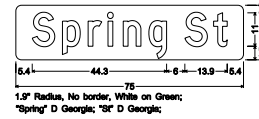
REVISION DATES

11/15			

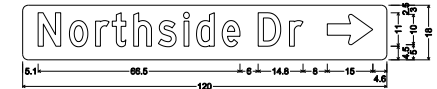
STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: TRAFFIC OPERATIONS

GENERAL NOTES  
MISCELLANEOUS

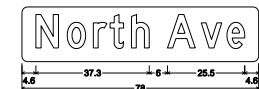
DRAWING NO.  
**27-004**



1.9" Radius, No border, White on Green;  
"Spring" D Georgia; "St" D Georgia;



1.9" Radius, No border, White on Green;  
"Northside" D Georgia; "Dr" D Georgia; Standard Arrow Custom 15.0" X 10.0" O";



1.9" Radius, No border, White on Green;  
"North" D Georgia; "Ave" D Georgia;

Note: Left & right edge spacing is to be no less than 4.5"

332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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UPPER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC	
CHANNEL 1	CMD	2-CH	2-CH			2-CH						DC 150	DC 150	DC 150	
	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
	FUNCTION	L1A	L2A			L4A						#2 PED	#6 PED	FLASH SENSE	
	FIELD TERM	T82 1,2	T82 5,6	T82 9,10	T84 1,2	T84 5,6	T84 9,10	T86 1,2	T86 5,6	T86 9,10		T88 4,6	T88 7,9	M/C	

	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
CHANNEL 2	FUNCTION		L2B										#4 PED	#8 PED	STOP TIME
	FIELD TERM	T82 3,4	T82 7,8	T82 11,12	T84 3,4	T84 7,8	T84 11,12	T86 3,4	T86 7,8	T86 11,12			T88 5,6	T88 8,9	M/C

LOWER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC	
CHANNEL 1	CMD	2-CH	2-CH			2-CH									
	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
	FUNCTION	L5A	L6A			L8A									
	FIELD TERM	T83 1,2	T83 5,6	T83 9,10	T85 1,2	T85 5,6	T85 9,10	T87 1,2	T87 5,6	T87 9,10			T89 4,6	T89 7,9	T89 10,12

	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
CHANNEL 2	FUNCTION		L6B												
	FIELD TERM	T83 3,4	T83 7,8	T83 11,12	T85 3,4	T85 7,8	T85 11,12	T87 3,4	T87 7,8	T87 11,12			T89 5,6	T89 8,9	T89 11,12

TRAFFIC SIGNAL GENERAL NOTES

1. THE COMPLETE SIGNAL INSTALLATION SHALL CONFORM TO ALL APPROPRIATE PARTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
2. SIGNAL HEADS SHALL BE ERECTED TO PROVIDE AT LEAST 17 FEET BUT NO MORE THAN 19 FEET CLEARANCE FROM BOTTOM OF SIGNAL HEADS TO TOP OF ROAD SURFACE AND A MINIMUM OF 8 FEET MEASURED HORIZONATALLY BETWEEN CENTERS OF SIGNAL FACES.
3. SHIELDED CABLE WILL BE USED FOR DETECTOR RUNS AS SHOWN ON THE DETAIL SHEET. DETECTORS SHALL HAVE SEPERATE LEAD-INS TO THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES IN VICINITY OF NEW TRAFFIC SIGNAL POLES PRIOR TO ORDERING. AT THE DICRETION OF THE ENGINEER, MINOR SHIFTS (UP TO 5 FEET, MAXIMUM) IN LOCATION OF NEW SIGNAL POLES ARE ACCEPTABLE TO AVOID UNDERGROUND UTILITIES. MINIMUM CLEARANCES FROM EDGE OF PAVEMENT SHALL BE MAINTAINED. PLACEMENT OF THE SIGNAL HEADS SHALL BE RETAINED AS SHOWN ON THE PLANS.
5. THE CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC SIGNALS DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN EXISTING VEHICLE DETECTION AND BE RESPONSIBLE FOR ALL TRAFFIC SIGNAL AND/OR CONTROL SYSTEM ADJUSTMENTS, INCLUDING TEMPORARY SUPPORT POLE LOCATION(S) REQUIRED BY THE PROJECT DURING THE INTERIM PERIOD THROUGH INSTALLATION OF NEW SIGNAL EQUIPMENT. AT NO TIME SHALL THE CONTRACTOR CAUSE ANY PART OF THE SIGNAL OPERATION TO BE INOPERABLE.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL NEW GUYS ON EXISTING UTILITY TIMBER POLES WHEN ATTACHING SPAN WIRE OR INTERCONNECT CABLE TO THE POLES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. INSTALLATION IS TO BE CHECKED AND ACCEPTED BY THE DISTRICT TRAFFIC ENGINEER PRIOR TO FINAL ACCEPTANCE.
8. WHEN REMOVED, EXISTING EQUIPMENT SHALL BE DELIVERED AND UNLOADED BY THE CONTRACTOR TO THE DEPARTEMENT OF TRANSPORTATION OFFICE OF TRAFFIC OPERATIONS DISTRICT SIGNAL SHOP. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCED NOTICE. CONTACT THE DISTRICT SIGNAL ENGINEER AT (\_\_\_\_)\_\_\_\_-\_\_\_\_.
9. FOR STRAIN POLE FOUNDATION SIZE AND REINFORCEMENT, SEE STRAIN POLE AND MAST ARM POLE FOUNDATION SHEET.
10. MATERIAL CERTIFICATION IS REQUIRED PRIOR TO BEGINNING ANY SIGNAL INSTALLATION WORK. THE CONTRACTOR SHALL FOLLOW PROCEDURES OUTLINED IN GDOT SPECIFICATIONS.

11. THE INSTALLATIONS SHALL BE CAPABLE OF MONITORING OVER IP NETWORKS FROM EXISTING CENTRAL COMPUTERS. CENTRAL COMPUTERS ARE LOCATED AT 935 EAST CONFEDERATE AVENUE BLDG. 24, ATLANTA, GEORIGA 30316. NETWORK ABILITIES DEMONSTRATION IS REQUIRED AT CENTRAL SITES PRIOR TO FINAL ACCEPTANCE.
12. ALL EXISTING STOP BARS, WORDS, ARROWS AND CROSSWALKS THAT ARE NOT REMOVED OR RELOCATED SHALL BE REPLACED IN ACCORDANCE WITH CURRENT GDOT STANDARDS.
13. PROPOSED SIGNAL SUPPORT WIRE ATTACHMENT HEIGHTS ON POLES ARE PROVIDED AS GENERAL GUIDELINES TO INSTALLER. ACTUAL ATTACHMENT HEIGHTS SHALL BE FIELD DETERMINED BY INSTALLER TO PROVIDE REQUIRED SIGNAL HEAD MOUNTING HEIGHTS AND CLEARANCE FROM EXISTING UTILITIES.
14. SAWCUTS AND REMOVAL OF ALL CONCRETE ASSOCIATED WITH CURB CUT RAMPS SHALL BE INCLUDED IN THE SIDEWALK PAY ITEM.
15. THE CONTRACTOR SHALL REPLACE IN KIND AND SIZE, AT NO SEPERATE EXPENSE TO THE DEPARTMENT, ANY BARRIER WALL, FENCE, DITCH PAVING, CURBING, SIDEWALK, GUTTER, SLOPE PAVEMENT, SIGNS, GAURDRAILS, LANDSCAPING, GRASSINGS, UTILITY SERVICE LINES, STORM DRAIN PIPES, MASONRY WALLS AND PAVING THAT IS REMOVED, DAMAGED OR DESTROYED DUE TO CONTRACTOR'S ACTIVITIES.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MEASURES TO ENSURE COMPLIANCE TO ALL STATE AND FEDERAL LAWS AND GUIDELINES. THE COST SHALL BE CONSIDERED INCIDENTAL AND BE INCLUDED IN THE OVERALL BID PRICE. NO ADDITIONAL PAYMENTS SHALL BE MADE TO THE CONTRACTOR FOR EROSION CONTROL.
17. ALL TRAFFIC MARKINGS, SYMBOLS OR STRIPING TO BE REMOVED AND/OR REPLACED SHALL BE PAID FOR IN THE TRAFFIC CONTROL LUMP SUM ITEM.
18. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH MODIFYING AND ESTABLISHING NEW POWER AND COMMUNICATIONS SERVICES FOR TRAFFIC SIGNALS, DETECTION SYSTEMS AND/OR CCTV CAMERAS ON THIS PROJECT. IF A UTILITY TRANSFORMER IS REQUIRED FOR TRAFFIC SIGNAL EQUIPMENT, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INCLUDE THE COST, AS PART OF THEIR BID PRICE, FOR THAT TRAFFIC SIGNAL INSTALLATION. IF THE RESPECTIVE UTILITY REQUIRES PAYMENT FOR INSTALLATION.
19. THE CONTRACTOR WIL BE RESPONSIBLE FOR ALL MONTHLY POWER AND COMMUNICATION SERVICE TO THE TRAFFIC SIGNAL INSTALLATION AND SUPPORT DEVICES, UNTIL THE NEW TRAFFIC SIGNAL INSTALLATION HAS SATISFACTORALLY COMPLETED A TEST PERIOD, 30 DAYS, OF UNINTERRUPTED OPERATION. THE CONTRACTOR WILL COMPLETE A TRANSFER OF UTILITY COST TO \_\_\_\_\_(THE MAINTAINING AGENCY).

EXAMPLE

UTILITY OWNER	SERVICE

**GEORGIA**  
DEPARTMENT  
OF  
TRANSPORTATION

REVISION DATES	
08/14	
11/15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: TRAFFIC OPERATIONS  
GENERAL NOTES

EXISTING SIGNAL

PROPOSED SIGNAL

EXAMPLE

- CONTROLLER CABINET
- STRAIN POLE
- TIMBER POLE
- DOWN GUY
- MAST ARM
- STREET LIGHT
- 3 SECTION HEAD
- 4 SECTION HEAD W/BACKPLATE
- 4/5 SECTION (CLUSTER/T-SHAPE) HEAD
- OVERHEAD SIGN
- PEDESTAL POLE
- PED SIGNAL HEAD
- CURB CUT RAMP
- PULLBOX,(TYPE TO BE CALLED OUT)
- 6X6 PULSE LOOP
- 6X18 CALL LOOP
- 6X40 PRESENCE LOOP (DIPOLE)
- 6X40 PRESENCE LOOP (QUADRUPOLE)
- CONDUIT
- RAILROAD CONTROLLER
- SIGN POST

- CONTROLLER CABINET
- STRAIN POLE
- TIMBER POLE
- DOWN GUY
- MAST ARM
- STREET LIGHT
- 3 SECTION HEAD
- 3 SECTION HEAD W/ BACKPLATE
- 4 SECTION HEAD
- 4/5 SECTION (CLUSTER/T-SHAPE) HEAD
- OVERHEAD SIGN
- PEDESTAL POLE
- PED SIGNAL HEAD
- CURB CUT RAMP -(SEE ADA DETAIL)
- PULLBOX,(TYPE TO BE CALLED OUT)
- 6x6 PULSE LOOP
- 6x18 CALL LOOP
- 6x40 PRESENCE LOOP (DIPOLE)
- 6x40 PRESENCE LOOP (QUADRUPOLE)
- CONDUIT,(TYPE TO BE CALLED OUT)
- RAILROAD CONTROLLER
- SIGN POST
- RADAR DETECTION DEVICE
- MAGNETOMETER DETECTION DEVICE
- VIDEO DETECTION DEVICE
- VIRTUAL DETECTION ZONE (RADAR,VIDEO,ETC.)

EXAMPLE

PROPERTY AND EXISTING R/W LINE		BEGIN LIMIT OF ACCESS.....BLA	
REQUIRED R/W LINE		END LIMIT OF ACCESS.....ELA	
CONSTRUCTION LIMITS		LIMIT OF ACCESS	
EASEMENT FOR CONSTRUCTION & MAINTANENCE OF SLOPES		REQ'D R/W AND LIMIT OF ACCESS	
EASEMENT FOR CONSTR OF SLOPES			
EASEMENT FOR CONSTR OF DRIVES			

**GEORGIA**  
DEPARTMENT  
OF  
TRANSPORTATION

REVISION DATES	
11/15	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: TRAFFIC OPERATIONS  
SIGNAL PLANS  
SIGNAL LEGEND

DRAWING NO.  
27-001