



APPROVED BY GWINNETT COUNTY
DEPARTMENT OF WATER RESOURCES

DATE



SCALE IN FEET

0 20 40 80

MATCH LINE STA 120+00. SEE DWG 24-001

REVISION DATES	DESCRIPTION

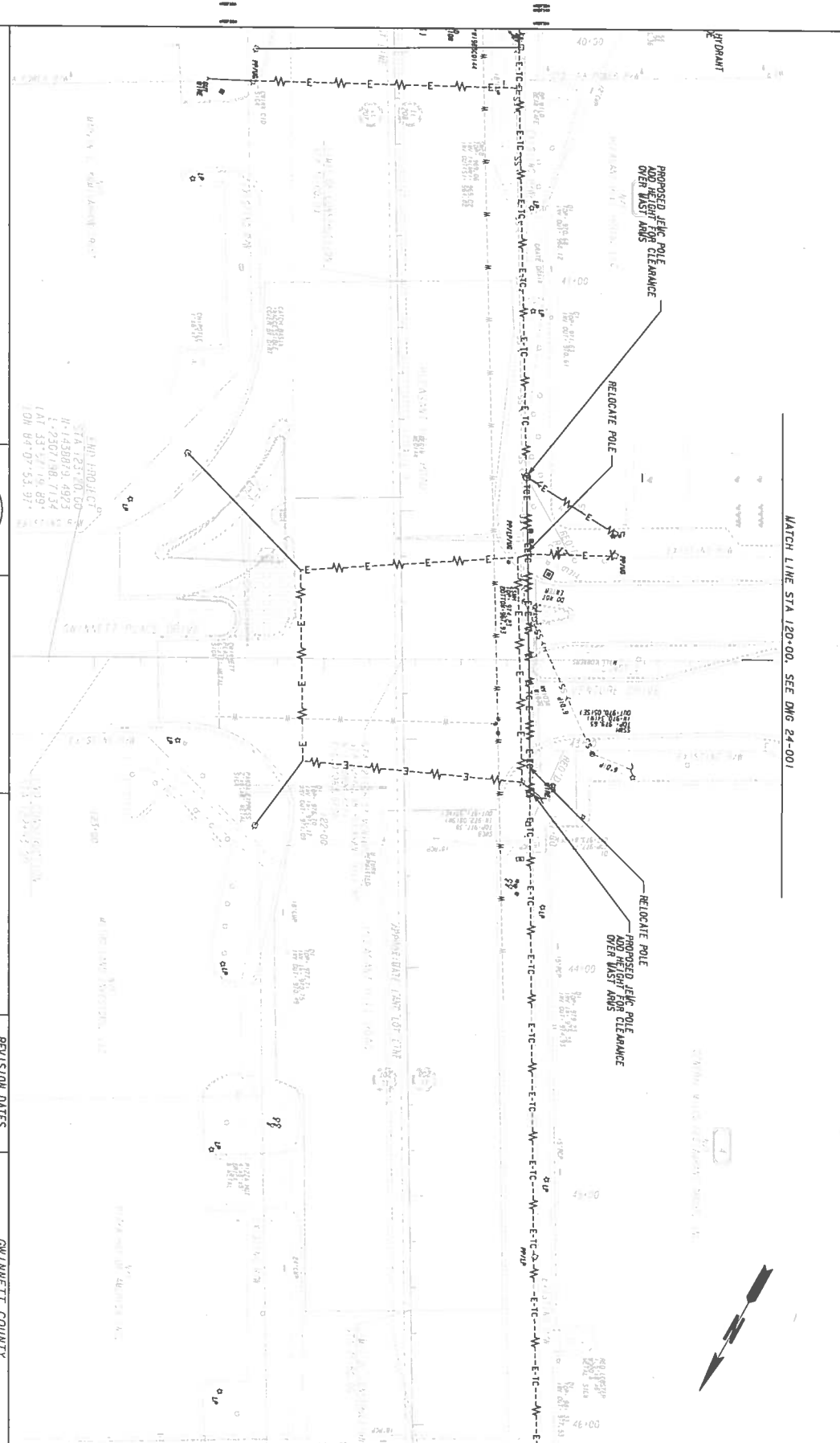
OFFICE: UTILTY PLANS

GWINNETT COUNTY
DEPARTMENT OF TRANSPORTATION

PLEASANT HILL ROAD AND
VENTURE DRIVE IMPROVEMENTS
11-0676 Phase 1A 08/21/2014

24-001

DETECT PROJECT
STA. 119+76.00
N 1438634.1311
E 2306756.7713
LAT 33° 57' 17.48"
LONG 84° 0' 59.22"

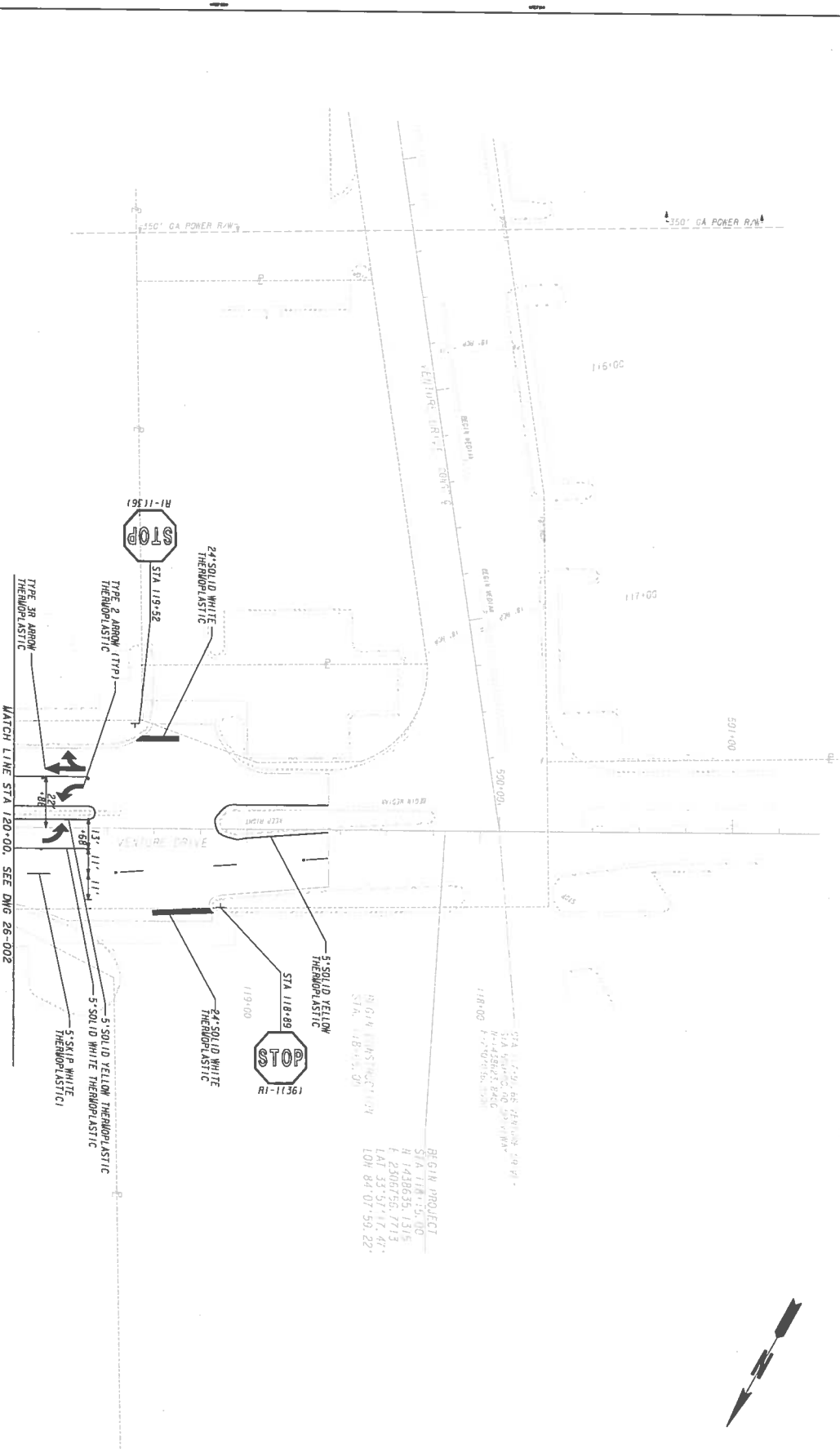


APPROVED BY GWINETT COUNTY DEPARTMENT OF HIGHWAY RESOURCES DATE



0 20 40 80 SCALE IN FEET

REVISION DATES	OFFICE:
	GWINETT COUNTY DEPARTMENT OF TRANSPORTATION
	UTILITY PLANS
	PLEASANT HILL ROAD AND VENTURE DRIVE IMPROVEMENTS
	11-0616 Phase 1A 08/21/2014
	24-002



SWAIN COUNTY
GEORGIA

Stantec

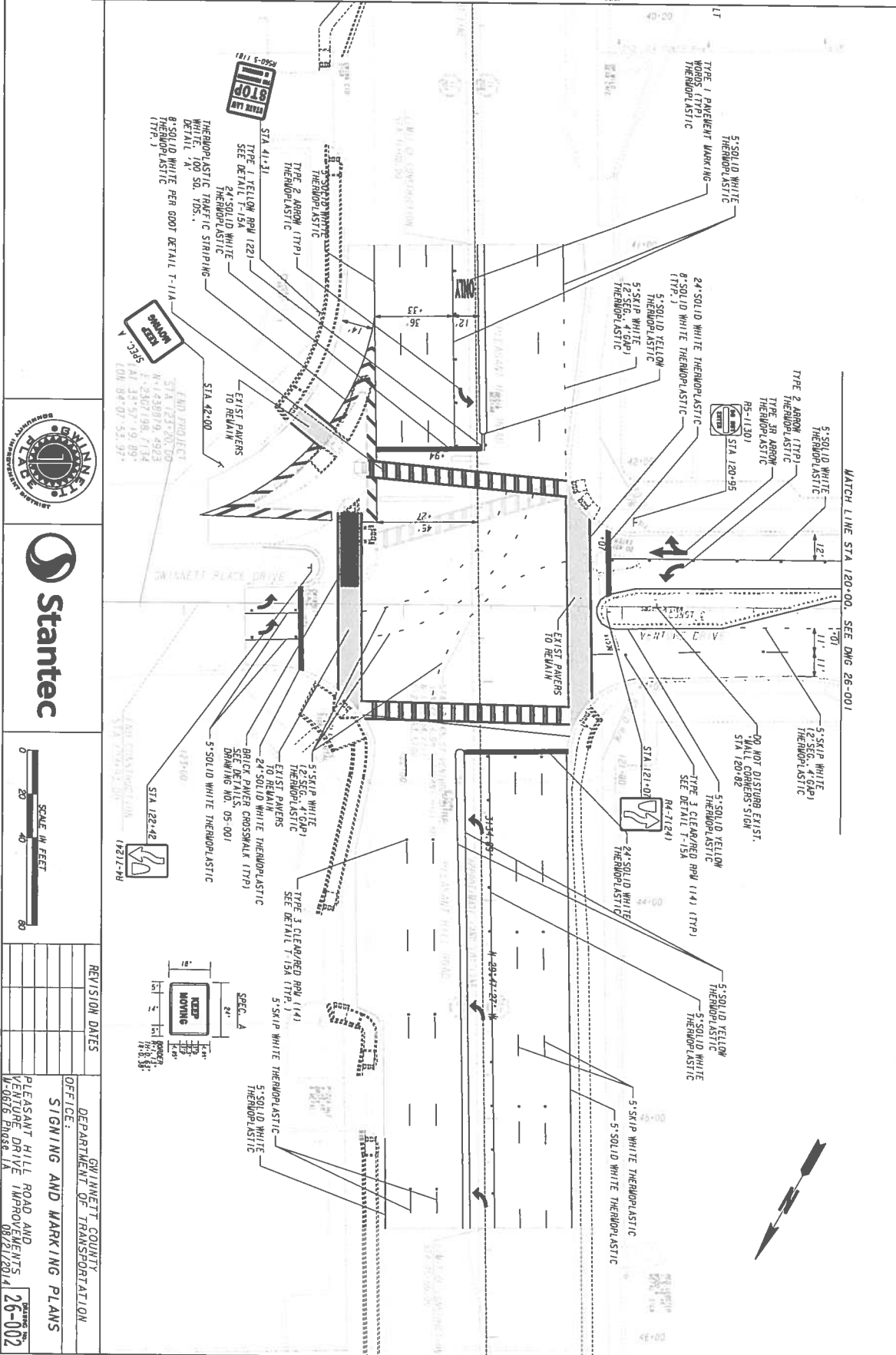
SCALE IN FEET

REVISION DATES

DEPARTMENT OF TRANSPORTATION
 OFFICE: SIGNING AND MARKING PLANS
 PLEASANT HILL ROAD AND VENTURE DRIVE IMPROVEMENTS
 09/21/2014

DRAWING NO.
26-001

MATCH LINE STA 120+00. SEE DWG 26-002



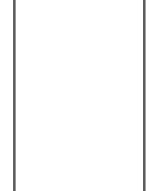
Stantec



REVISION DATES	OFFICE:
	GW INNETT COUNTY
	DEPARTMENT OF TRANSPORTATION
	SIGNING AND MARKING PLANS
	PLEASANT HILL ROAD AND
	VENUE DRIVE IMPROVEMENTS
	W-0016 Phase 1A
	08/21/2014
	26-002

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, INCLUDING SUBSEQUENT PUBLISHED RULINGS.
2. ALL MATERIALS AND WORK SHALL BE IN ACCORDANCE WITH THE GEORGIA DEPARTMENT OF TRANSPORTATION CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS FOR TRAFFIC SIGNAL INSTALLATION. THE LOCATION AND ELEVATION SHALL BE AS SHOWN ON THE PLANS OR ON THE COUNTY D.O.T.'S INSTALLATION SHALL MEET CURRENT MPA NATIONAL ELECTRICAL CODE AND MSA NATIONAL ELECTRICAL SHEET CODE.
3. UNIVERSAL CERTIFICATION IS REQUIRED PRIOR TO BEGINNING ANY SIGNAL INSTALLATION WORK. THE CONTRACTOR SHALL FOLLOW PROCEDURES OUTLINED IN THE SPECIAL PROVISIONS.
4. CONTRACTOR SHALL SUBMIT LOAD CALCULATIONS, SHOP DRAWINGS AND FOUNDATION DIMENSIONS OF POLES AND CATALOG CUTS OF PROPOSED SIGNAL EQUIPMENT AND ELECTRICAL/LINE HARDWARE MATERIALS TO THE PROJECT ENGINEER FOR APPROVAL.
5. FOR STRAIN POLE FOUNDATION SIZE AND REINFORCEMENT, SEE STRAIN POLE AND WAST AWAY POLE FOUNDATION SHEET.
6. THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES IN THE VICINITY OF NEW TRAFFIC SIGNAL POLES BEFORE INSTALLATION. MINOR SHIFTS UP TO A MAXIMUM OF 5 FEET IN LOCATION OF NEW SIGNAL POLES AT THE DISCRETION OF THE ENGINEER, ARE ACCEPTABLE TO AVOID UNDERGROUND UTILITIES. MINIMUM CLEARANCES FROM EDGE OF PAVEMENT SHALL BE MAINTAINED. PLACEMENT OF THE SIGNAL HEADS MUST BE RETAINED AS SHOWN ON THE PLANS.
7. SIGNAL HEADS SHALL BE ERRECTED 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 HORIZONTALLY BETWEEN CENTERS OF SIGNAL HEADS.
8. THE CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC SIGNALS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC SIGNAL AND/OR CONTROL SYSTEM ADJUSTMENTS, INCLUDING TEMPORARY SUPPORT POLE LOCATIONS 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.
9. WHEN APPLICABLE TO THE PLANS, THE CONTRACTOR MUST INSTALL AND TEST ALL NEW SIGNAL ITEMS PRIOR TO REMOVING EXISTING SIGNALS FROM SERVICE.
10. WHEN APPLICABLE TO THE PLANS, CONTRACTOR WILL BE REQUIRED TO PROVIDE A NEW RISER, CONDUIT, CONDUCTIONS AND DISCONNECT TO PROVIDE POWER SERVICE INTO THE CONTROLLER CABINET.
11. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL NEW GYS ON EXISTING POLES WHEN ATTACHING SPAN WIRE OR FIBER OPTIC INTERCONNECT CABLE TO THE POLES, WHEN REQUIRED, BY THE ENGINEER.
12. SHIELDED CABLE SHALL BE USED FOR DETECTOR RUNS, AS SHOWN ON THE DETAIL SHEET. DETECTORS SHALL HAVE SEPARATE LEAD-INS TO THE CONTROLLER CABINET. LOOP AND PEDIESTRIAN DETECTOR CABLES SHALL BE 14 AWG. 185A SO 2 3 PAIR EQUIVALENT CABLE.
13. FAILURE DETECTION LOOPS ARE INSTALLED PROPERLY. FAILURE TO DO SO WILL RESULT IN ASSESSMENT OF LIQUIDATED DAMAGES IN ACCORDANCE WITH SECTION 150.08 OF THE SPECIFICATIONS.
14. CONDUIT UNDER DRIVEMANS AND ROADWAYS SHALL BE TYPE 3 (SOP 11) HOPEX, RIGID METAL OR ENCASED IN CONCRETE. ALL CONDUIT RUNS GREATER THAN 50 FEET IN LENGTH SHALL BE BURIED TO A MINIMUM DEPTH OF 48 INCHES, UNLESS APPROVED BY THE ENGINEER.
15. WHEN APPLICABLE TO THE PLANS, DETECTABLE WARNING TAPE LABELED "CONCRETE" DOT CALL 1770 822-7474 SHALL BE INSTALLED DIRECTLY ABOVE ALL UNDERGROUND CONDUIT CONTAINING FIBER OPTIC INTERCONNECT CABLE. AN INSULATED TRACING WIRE, GROUNDING ON ONE END, SHALL BE INSTALLED INSIDE A CONDUIT SEPARATE FROM THE FIBER OPTIC INTERCONNECT CABLE.
16. SIGNAL HEADS ON WAST AWAY SHALL HAVE BACK PLATES AND BE RIGID MOUNTED.
17. VEHICLE AND PEDIESTRIAN SIGNAL HEADS AND HARDWARE SHALL BE ALL BLACK IN COLOR. VEHICLE SIGNAL HEADS SHALL HAVE TUNNEL VISIONS AND SHALL BE MADE OF POLYCARBONATE MATERIAL. VEHICLE SIGNAL HEADS SHALL BE EQUIPPED WITH LED MODULES.
18. PEDIESTRIAN SIGNAL HEADS ATTACHED TO PEDIESTRIAN POLES AND STEEL STRAIN POLES SHALL BE MOUNTED WITH "CLAM-SHELL" TYPE BRACKET ASSEMBLIES. ALL PEDIESTRIAN SIGNAL HEADS ATTACHED TO CONCRETE STRAIN POLES SHALL BE MOUNTED WITH ONE-WAY SIDE-OF-POLE ALUMINUM BRACKETS. PEDIESTRIAN SIGNAL HEADS SHALL BE EQUIPPED WITH CONDUIT, UNIFORM APPEARANCE. FULL HANDMADE/MECHANICAL LED MODULES.
19. PUSHBUTTON STATIONS THAT ARE INSTALLED ON A PEDIESTRIAN POLE FOR TWO PERPENDICULAR CROSSINGS SHALL BE MOUNTED ON A DOUBLE PUSHBUTTON STATION ADAPTER. PEDIESTRIAN PUSHBUTTONS SHALL BE INSTALLED WITHIN 10' OF SIDEWALK WITH SIGN ARROW INDICATING THE CROSSING DIRECTION. PEDIESTRIAN PUSHBUTTONS SHALL BE VIBRANT RESISTANT WITH A PIEZO SWITCH, LED INDICATION AND AUDIBLE FEEDBACK.
20. ONLY THE MODELS OF VEHICLE SIGNAL MODULES, PEDIESTRIAN SIGNAL MODULES, AND PUSHBUTTONS THAT HAVE BEEN TESTED AND PRE-APPROVED BY GWINNETT COUNTY DOT SHALL BE USED. CONTACT GWINNETT COUNTY DOT AT 1770 822-7474.
21. ONE 7-CONDUCTOR, 14 AWG. STRANDED CABLE AND ONE 3-PAIR DETECTOR CABLE FOR PROPOSED AND EXISTING PEDIESTRIAN SIGNALS SHALL BE INSTALLED AT EACH STRAIN POLE. A MINIMUM OF ONE 7-CONDUCTOR, 14 AWG. STRANDED SIGNAL CABLE FOR PROPOSED AND EXISTING VEHICLE SIGNALS SHALL BE INSTALLED ON ALL FOUR SIDES OF THE INSTALLATION.
22. LOOP DETECTOR UNIT SHALL ENERGIZE ITS INDIVIDUAL LOOP CHANNELS NONCONCURRENTLY. DETECTOR UNIT SHALL BE FAIL SAFE (PROVIDE A CONSTANT CALL TO THE CONTROLLER IF LOOP FAILURE OCCURS).
23. CONTROLLER SHALL INCLUDE 5-VOLT 2 MB DATA KEY AND SHALL HAVE THE CURRENT GOOD LICENSE INTERSECTION SOFTWARE INSTALLED AND OPERATIONAL.
24. HOT DIP GALVANIZED WELDLESS RINGS SHALL BE USED FOR SPAN WIRE UNIONS. GUY ANCHORS SHALL BE GALVANIZED.
25. GWINNETT COUNTY D.O.T. WILL BE RESPONSIBLE FOR PROGRAMMING OF SIGNAL TIMING AND "TURN-ON" OF ALL NEW SIGNALS.
26. GWINNETT COUNTY DOT IS NOT ON THE ONE-CALL SYSTEM. CALL 1770 822-7474 WHEN LOCATING UTILITIES FOR CONSTRUCTION.



REVISION DATES	DESCRIPTION

DEPARTMENT OF TRANSPORTATION
 OFFICE: GWINNETT COUNTY
 SIGNAL PLANS
 GENERAL NOTES
 PLEASANT HILL ROAD AND
 WENTFORD DRIVE IMPROVEMENTS
 1709800028/Signal/0898989
 17-0676, Phase 1A
 DATE: 08/21/2014
 SHEET NO.: 27
 TOTAL SHEETS: 49

SUMMARY OF QUANTITIES - SIGNAL

TRAFFIC CONTROL		
DESCRIPTION	UNIT	TOTAL
TRAFFIC SIGNAL INSTALLATION NO. 1	LS	LS
TOTAL	LUMP SUM	

DESCRIPTION	UNIT	TOTAL
STRAIN POLE - TP IV WITH 55' MASTARM	EA	2
STRAIN POLE - TP IV WITH 65' MASTARM	EA	2
CONDUIT, NONMETAL, TYPE 3, 2 IN	LF	2200

DESCRIPTION	UNIT	TOTAL
DIRECTIONAL BORE, 3"	LF	255
DIRECTIONAL BORE, 7"	LF	385

DESCRIPTION	UNIT	TOTAL
INTERNALLY ILLUMINATED STREET SIGN	EA	6
INTERNALLY ILLUMINATED STREET SIGN CONTROL ASSEMBLY	EA	6

DESCRIPTION	UNIT	TOTAL
FIBER OPTIC CLOSURE, EOC (WALL-MOUNTED), 6 FIBER	EA	1
FIBER OPTIC CLOSURE, AERIAL (SEALED), 48 FIBER	EA	1
FIBER OPTIC CLOSURE, DROP, SINGLE MODE, 6 FIBER	LF	170

SUMMARY OF NETWORK ITEMS

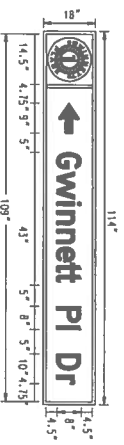
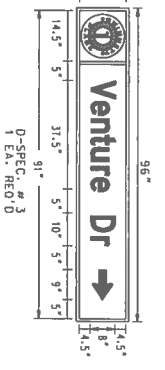
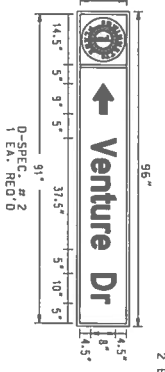
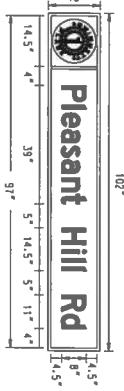
DESCRIPTION	UNIT	TOTAL
FIBER OPTIC SPLICE FUSION	EA	6

DESCRIPTION	UNIT	TOTAL
FIELD SWITCH, TYPE C	EA	1

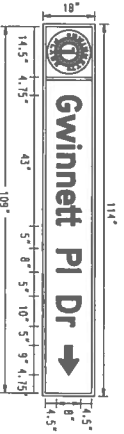
DESCRIPTION	UNIT	TOTAL
FIBER OPTIC CLOSURE, EOC (WALL-MOUNTED), 6 FIBER	EA	1

DESCRIPTION	UNIT	TOTAL
FIBER OPTIC CLOSURE, AERIAL (SEALED), 48 FIBER	EA	1

DETAILS OF INTERNALLY ILLUMINATED OVERHEAD STREET NAME SIGNS - RIGID MOUNTED



D-SPEC. # 4
1 EA. REQ'D



D-SPEC. # 5
1 EA. REQ'D

GENERAL NOTES:
1. L&D SIGN SHALL CONTAIN A MINIMUM OF 10(1/2) INCHES OF MOUNTING SURFACE.
2. SIGN LETTER SHALL BE 8 IN. HIGH AND 1/4 INCH DEEP. USE 3/16 IN. LETTERS. ALL MOUNTING SHALL BE 1/2 IN. DIA. UNLESS OTHERWISE NOTED.

REVISION DATES	DESCRIPTION

OFFICE: GWINNETT COUNTY DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
PLEASANT HILL ROAD AND VENTURE DRIVE IMPROVEMENTS
08/21/2014 27-002



EXISTING UTILITIES

- EXISTING GUY WIRE
- EX.OH ELECTRIC
- EX POWER POLE
- EX TRANSFORMER
- EX.UG ELECTRIC
- EX GAS LINE
- EX GAS METER
- EX GAS VALVE
- EX WATER LINE
- EX FIRE HYDRANT
- EX WATER METER
- EX WATER VALVE
- EX SANITARY SEWER
- EX SS MANHOLE
- EX TELEPHONE MH
- EX OH TELEPHONE
- EX UG TELEPHONE
- EX OH CABLE TV
- EX UG CABLE TV

EXISTING SIGNAL

- CONTROLLER CABINET
- STRAIN POLE
- TIMBER POLE
- DOWN GUY
- MAST ARM
- STREET LIGHT
- 3 SECTION HEAD
- 5 SECTION HEAD
- OVERHEAD SIGN
- PEDESTAL POLE
- PED SIGNAL HEAD
- CURB CUT RAMP
- PULLBOX
- 6x6 PULSE LOOP
- 6x8 CALL LOOP
- 6x40 PRESENCE LOOP (DIPOLE)
- 6x40 PRESENCE LOOP (QUADRUPOLE)
- CONDUIT
- RAILROAD CONTROLLER
- SIGN POST

PROPOSED SIGNAL

- CONTROLLER CABINET W/ BATTERY BACKUP
- STRAIN POLE
- TIMBER POLE
- DOWN GUY
- MAST ARM
- STREET LIGHT
- 3 SECTION HEAD
- 3 SECTION HEAD W/ BACKPLATE
- 5 SECTION HEAD
- 5 SECTION HEAD W/ BACKPLATE
- OVERHEAD SIGN
- PEDESTAL POLE
- PED SIGNAL HEAD
- CURB CUT RAMP - (See ADA Detail)
- PULLBOX, TYPE 1
- PULLBOX, TYPE 2
- PULLBOX, TYPE 3
- PULLBOX, TYPE 6
- PULLBOX, TYPE 7
- 6x6 PULSE LOOP
- 6x40 PRESENCE LOOP (QUADRUPOLE)
- CONDUIT, NONMETAL
- CONDUIT, DIRECTIONAL BORE
- SIGN POST

PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTRUCTION

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRENES

BEGIN LIMIT OF ACCESS BLA

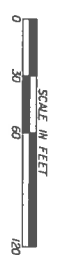
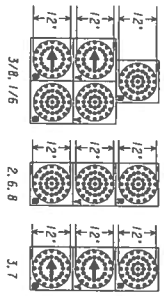
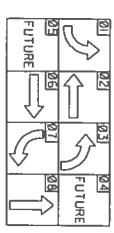
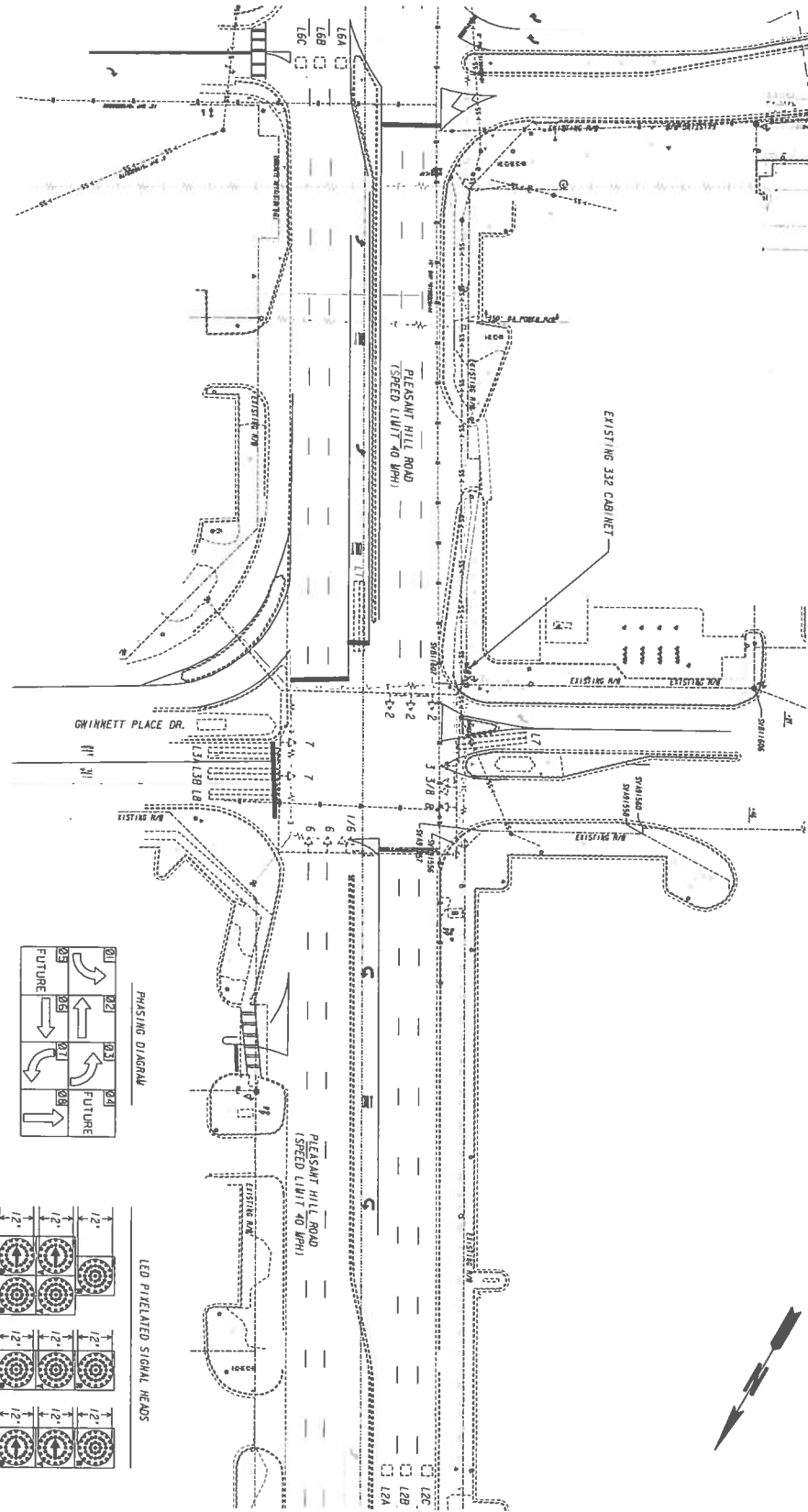
END LIMIT OF ACCESS ELA

LIMIT OF ACCESS

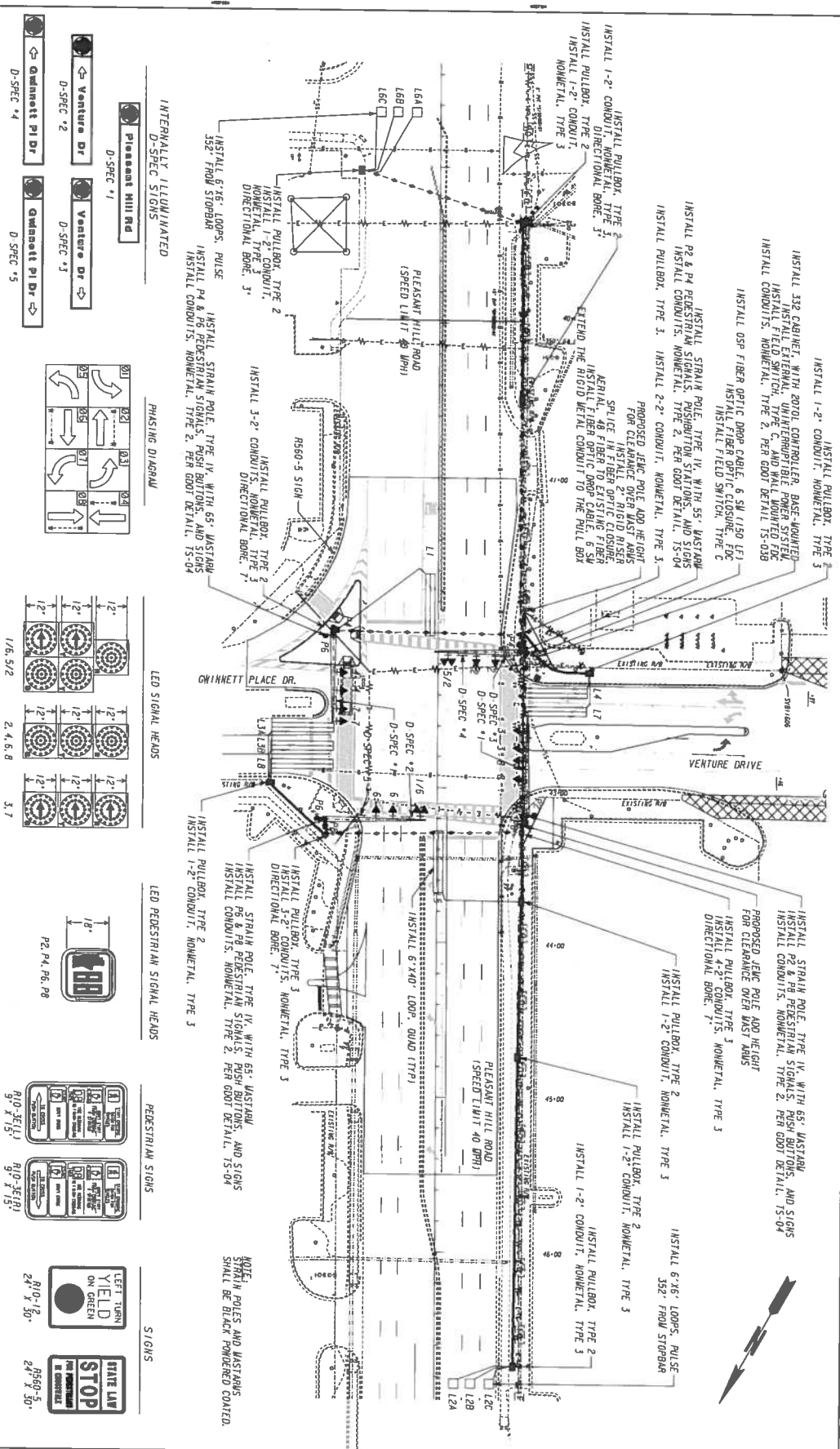
REGD R/W AND LIMIT OF ACCESS



REVISION DATES	OFFICE:	LEGEND
	DEPARTMENT OF TRANSPORTATION	PLEASANT HILL ROAD AND VENTURE DRIVE IMPROVEMENTS 08/27/2014
		27-004



REVISION DATES	GWINNETT COUNTY DEPARTMENT OF TRANSPORTATION
OFFICE:	SIGNAL PLANS
	EXISTING CONDITIONS
	PLEASANT HILL ROAD AND
	VENTURE DRIVE IMPROVEMENTS
	08/21/2014
	27-005



INTERMEDIATE ILLUMINATED D-SPEC SIGNS

- ← Venture Dr (D-SPEC *2)
- Venture Dr (D-SPEC *3)
- ← Whinnett Pl Dr (D-SPEC *4)
- Whinnett Pl Dr (D-SPEC *5)

PUSHING DIAGRAM

30	31	32	33
34	35	36	37
38	39	40	41
42	43	44	45

LED SIGNAL HEADS

1.2	1.2	1.2	1.2
1.2	1.2	1.2	1.2
1.2	1.2	1.2	1.2
1.2	1.2	1.2	1.2
1.2	1.2	1.2	1.2
1.2	1.2	1.2	1.2
1.2	1.2	1.2	1.2
1.2	1.2	1.2	1.2

1/6, 5/2 2, 4, 6, 8 3, 7

LED PEDESTRIAN SIGNAL HEADS

8" x 8" P2, P4, P6, P8

PEDESTRIAN SIGNS

R10-3E(L) R10-3E(R)

SIGNS

R10-12 24" x 30" STATE LAW STOP

R560-5 24" x 30"

NOTES:
STRAIN POLES AND MASTARUS SHALL BE BLACK POWDER COATED.

STATTEC

SCALE IN FEET: 0, 30, 60, 120

REVISION DATES

SIGNAL PLANS
DEPARTMENT OF TRANSPORTATION
GW INNETT COUNTY
OFFICE: PLEASANT HILL ROAD AND VENTURE DRIVE IMPROVEMENTS (08/21/2014) 27-006

GDOT DEFAULT 336 CABINET PIN OUTS

UNIT	QTY	DESCRIPTION	UNIT	QTY	DESCRIPTION	UNIT	QTY	DESCRIPTION
1	1	CONTROLLED CABINET ASSEMBLY	EA	1				
2	1	A. CONTROLLED UNIT, MODEL 2010	EA	1				
3	1	B. CABINET ASSEMBLY, MODEL 3324	EA	1				
4	1	C. SWITCH PACK	EA	1				
5	1	F. DC ISOLATOR	EA	1				
6	1	G. LOOP DETECTOR, 2 CHANNEL	EA	1				
7	1	H. 2010 CONFLICT MONITOR, EXTENDED FEATURES	EA	1				
8	1	K. UNINTERRUPTIBLE POWER SYSTEM	EA	1				
9	1	EXTERNAL MOUNTED, CABINET 1600 GROSS	EA	1				
10	1	3324 PRE-FABRICATED CONTROLLED CABINET BASE W/UPS EXTENSION	EA	1				
11	1	LOOP/RED LEAD-IN WIRE (INSTALLED/1000 FT.)	EA	1				
12	2	A. 3 PAIR, 14 AWG	REFL	2				
13	2	B. 7 CONDUCTOR, PER 1000 FT.	REFL	2				
14	2	LOOP DETECTOR WIRE 1/4 AWG, STAINLESS/1000 FT.	REFL	2				
15	2	ONE-WAY, 3-SECTION, 12" SIGNAL HEAD LED'S, PLASTIC	EA	2				
16	2	ONE-WAY, 5-SECTION, 12" SIGNAL HEAD LED'S, PLASTIC	EA	2				
17	2	ONE-WAY, 1-SECTION, 18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HANDWAVE OVERLAP	EA	2				
18	2	1. 9" HIGH, NUMBER 3	EA	2				
19	2	PEDESTRIAN PUSHBUTTON STATION ASSEMBLY	EA	2				
20	2	B. 9" x 15"	EA	2				
21	2	PEDESTRIAN PUSHBUTTONS AND SIGNS:	EA	2				
22	2	B. 9" x 15", RIO-36, (LEFT or RIGHT, Countdown	EA	2				
23	2	BACK PLATE FOR ONE-WAY, 3-SECTION, 12" SIGNAL HEAD	EA	2				
24	2	BACK PLATE FOR ONE-WAY, 5-SECTION, CLUSTERED 12" SIGNAL HEAD	EA	2				
25	2	HARDWARE FOR MASTARM MOUNTING	EA	2				
26	2	HARDWARE FOR CLASHWELL MOUNTING OF PEDESTRIAN SIGNAL	EA	2				
27	2	PULL BOX, PB-2	EA	2				
28	2	PULL BOX, PB-3	EA	2				
29	2	LOOP SAW CUT	EA	2				
30	2	CONDUIT, NOMINAL, TP 1, 1"	LF	1745				
31	2	CONDUIT, NOMINAL, TP 2, 2"	LF	210				
32	2	RIO-12, LEFT TURN YIELD ON GREEN SIGN	LF	85				
33	2	RIO-12, LEFT TURN YIELD ON GREEN SIGN	EA	2				
34	2	MISCELLANEOUS MATERIALS NEEDED TO COMPLETE INSTALLATION	LUMP	2				

FOR INFORMATION ONLY

REVISION	DATE	DESCRIPTION

	
	
REVISION DATES DEPARTMENT OF TRANSPORTATION OFFICE:	SIGNAL PLANS CONSTRUCTION & INSTALLATION PLEASEN DRIVE ROAD AND HWY 48 W-10676 Bridge IA 08/21/2014 21-007