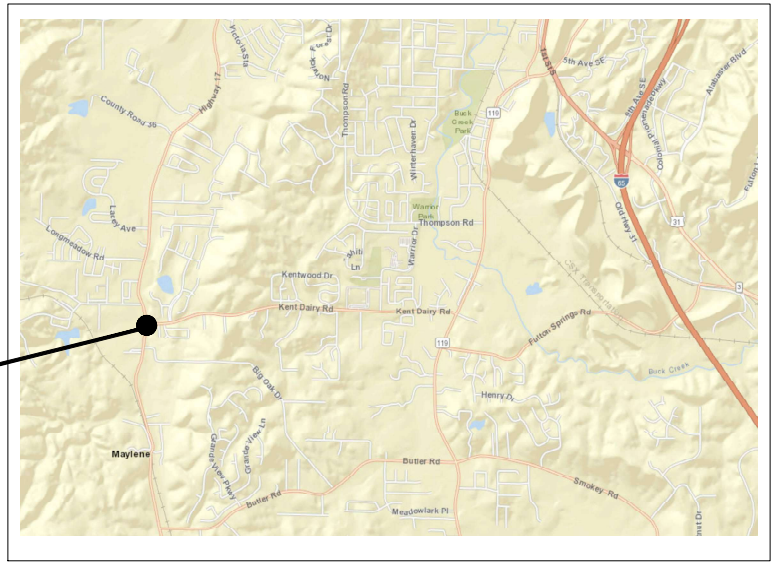
REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.	LAST SHEET NO.
SCP-59-912-20	2021	1	6

SHELBY COUNTY
HIGHWAY DEPARTMENT

PLANS OF PROPOSED
PROJECT NO. SCP 59-912-20
TRAFFIC SIGNAL CONSTRUCTION
AT HIGHWAY 26 AND HIGHWAY 17
SHELBY COUNTY

PROJECT LOCATION



VICINITY MAP

ALABAMA LICENSED No. 20061 PROFESSIONAL ENGINEER RICHARD LYN CLIDE
5/21/21

PLANS PREPARED BY:

SKIPPER CONSULTING INC

3644 VANN ROAD SUITE 100
BIRMINGHAM, ALABAMA 35235
TELEPHONE: (205)655-8855

INDEX TO SHEETS

REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.
SCP-59-912-20	2021	1B

SHEET NO.	TITLE	DESCRIPTION
1	TITLE SHEET	
1B	INDEX TO SHEETS	
1C	TRAFFIC SIGNAL LEGEND	
2	TRAFFIC SIGNAL NOTES	
3	TRAFFIC SIGNAL QUANTITIES	
4	TRAFFIC SIGNAL PLAN	TRAFFIC SIGNAL CONSTRUCTION PLAN – CR–17 AT CR–26
5	TRAFFIC SIGNAL DETAILS	
6	TRAFFIC CONTROL PLAN	

2021 ALDOT STANDARD AND SPECIAL DRAWING REFERENCES

INDEX	DRAWING NO.	DESCRIPTION
74007	TCD–100	DETAILS OF TRAFFIC CHANNELIZING DEVICES
73001	T.S.D.–730–1	POWER SOURCE DETAIL FOR TRAFFIC SIGNALS AND TRAFFIC SIGNAL POLES WITH LIGHTING
73027	T.S.D.–730–10	BASE AND POLE MOUNTED CONTROLLER CABINET INSTALLATIONS
73033	T.S.D.–730–12	VIDEO DETECTION SYSTEM INSTALLATION
73051	T.S.D.–730–18	FLASHING YELLOW ARROW SIGN
73084	TSOP NO.30	TRAFFIC SIGNAL OPERATING PLAN

		DESIGNER: Richard L. Caudle, P.E.	PLAN SUBMITTAL	SHELBY COUNTY HIGHWAY DEPARTMENT		SHEET TITLE	ROUTE
		DATE: May 21, 2021	FINAL			INDEX TO SHEETS	CR–26

TRAFFIC SIGNAL AND ITS LEGEND

REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.
SCP-59-912-20	2021	1C

ELECTRICAL BOXES

	EXISTING	REQUIRED
METALLIC PULL BOX	PB	PB
FIBER OPTIC COMMBOX TYPE F1	F1	F1
FIBER OPTIC COMMBOX TYPE F2	F2	F2
TRAFFIC SIGNAL JUNCTION BOX		

CABLE IN CONDUIT

	EXISTING	REQUIRED
FIBER OPTIC CABLE IN CONDUIT (UNDERGROUND)	fo	FO
FIBER OPTIC CABLE IN CONDUIT (UNDERGROUND WITH CONCRETE)	fowc	FOWC
FIBER OPTIC CABLE IN CONDUIT (BRIDGE ATTACHED)	fo	FO
FIBER OPTIC CABLE (AERIAL INSTALLATION)	ofo	OFO
INTERCONNECT CABLE IN CONDUIT (UNDERGROUND)	UI	UI
INTERCONNECT CABLE (AERIAL INSTALLATION)	OI	OI
CONDUIT	C	C
ENCASEMENT		
OVERHEAD ELECTRIC	OE	OE
BURIED ELECTRIC	BE	BE

VEHICULAR DETECTORS

	EXISTING	REQUIRED
PRESENCE LOOP DETECTOR		
QUADRUPOLE LOOP DETECTOR		
6'x 6' LOOP DETECTOR		
VEHICLE DETECTION CAMERA	VDC	VDC
VIDEO DETECTION ZONE		
RADAR DETECTION UNIT	R	R

CABINETS

	EXISTING	REQUIRED
CABINET		

CAMERAS

	EXISTING	REQUIRED
CCTV CAMERA, FIXED	FIX	FIX
CCTV CAMERA, PTZ	PTZ	PTZ

MISCELLANEOUS EQUIPMENT

	EXISTING	REQUIRED
TRAFFIC SIGNAL HEAD		#
TRAFFIC SIGNAL HEAD WITH BACKPLATE		#
PEDESTRIAN SIGNAL HEAD		
8 FOOT PEDESTAL POLE AND PEDESTRIAN SIGNAL HEAD		
PEDESTAL MOUNTED FLASHING WARNING SIGNAL WITH SIGN		
PEDESTAL MOUNTED ILLUMINATED SCHOOL ZONE SIGN	SCH	SCH
PUSH BUTTON ASSEMBLY	PB	PB
SPAN/MASTARM MOUNTED SIGN		
OMNI DIRECTIONAL ANTENNA		
DIRECTIONAL ANTENNA		
EMERGENCY VEHICLE PREEMPTION SENSOR	EVP	EVP
BLANKOUT MESSAGE SIGN	B	B
TRAFFIC CONTROL CENTER		
HIGHWAY ADVISORY RADIO		
HUB BUILDING		
DYNAMIC MESSAGE SIGN (OVERHEAD)		
DYNAMIC MESSAGE SIGN (ROADSIDE)		
DYNAMIC MESSAGE SIGN (CANTILEVER)		

(NOTE: # INDICATES SIGNAL HEAD NUMBER)

POLES

	EXISTING	REQUIRED
METAL POLE		
CONCRETE POLE		
METAL MASTARM POLE		
CLASS 3 WOOD SERVICE POLE WITH DISCONNECT	D	D
WOOD POLE		
DOWN GUY		
LUMINAIRE		

ABBREVIATIONS

AMERICAN WIRE GUAGE ..... AWG
CLOSED CIRCUIT TELEVISION ..... CCTV
CONDUIT..... C
CURB AND GUTTER ..... C&G
DYNAMIC MESSAGE SIGN ..... DMS
EASTBOUND ROADWAY ..... EBR
EMERGENCY VEHICLE PREEMPTION ..... EVP
END ANCHOR ..... E/A
FLASHING BEACON ..... FB
GALVANIZED RIGID CONDUIT..... GRC
GUARDRAIL ..... GR
HIGH DENSITY POLYETHYLENE ..... HDPE
HIGHWAY ADVISORY RADIO ..... HAR
INDIVIDUAL LOWERING DEVICE ..... ILD
INTELLIGENT TRANSPORTATION SYSTEM(S).... ITS
JUNCTION BOX ..... JB
LEFT ..... LT
LIGHT EMITTING DIODE ..... LED
LIGHT POLE ..... LP
LUMINAIRE ..... LUM
MILEPOST..... MP
NORTHBOUND ROADWAY ..... NBR
NON-METALLIC CONDUIT ..... NMC
PAN TILT ZOOM..... PTZ
PRIMARY FIBER DISTRIBUTION UNIT..... PFDU
PROPERTY LINE ..... PL
PUBLIC ACCESS CAMERA..... PAC
PULL BOX..... PB
RADIUS ..... R
RAILROAD ..... RR
RIGHT ..... RT
RIGHT OF WAY..... ROW
ROADWAY ..... RDWY
SECONDARY FIBER DISTRIBUTION UNIT ..... SFDU
SCHOOL..... SCH
SOUTHBOUND ROADWAY ..... SBR
STANDARD DRAWING ..... STD-DWG
STATION ..... STA
TRAFFIC CONTROL CENTER ..... TCC
TRAFFIC SIGNAL OPERATING PLAN ..... TSOP
TRANSPORTATION MANAGEMENT CENTER ..... TMC
TURNOUT ..... TO
VEHICLE DETECTION CAMERA ..... VDC
WESTBOUND ROADWAY ..... WBR

ALABAMA LICENSED No. 20061 PROFESSIONAL ENGINEER RICHARD LYN CAUDLE
5/21/21

		DESIGNER: Richard L. Caudle, P.E.	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION	NOT TO SCALE	SHEET TITLE	ROUTE
		DATE: May 21, 2021	FINAL	TRAFFIC DESIGN SECTION		TRAFFIC SIGNAL AND ITS LEGEND	CR-26

REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.
SCP-59-912-20	2021	2

TRAFFIC SIGNAL PLAN NOTES

IN THE EVENT CONFLICTS OCCUR BETWEEN THE PROJECT TRAFFIC SIGNAL NOTES AND THE MUTCD, THE MUTCD WILL GOVERN.

( ) NOTES THAT APPLY TO THIS PROJECT.

(500) WHEN THE CONTROLLER IS IN THE FLASHING MODE, THE VEHICULAR SIGNAL HEADS SHALL FLASH YELLOW ON CR-17, RED ON CR-26, AND RED ON PROTECTED LEFT TURNS AND U-TURNS.

501. ALL EXISTING TRAFFIC CONTROL EQUIPMENT WHICH IS THE PROPERTY OF THE STATE INCLUDING SIGNAL HEADS, CONTROLLERS, POLES, AND MISCELLANEOUS HARDWARE SHALL BE REMOVED UPON COMPLETION OF THE NEW TRAFFIC CONTROL UNIT (TEMPORARY OR PERMANENT) AND STORED TO COMPLY WITH SECTION 730.03 OF THE STANDARD SPECIFICATIONS. THE SAME SHALL BE DELIVERED TO THE ALABAMA DEPARTMENT OF TRANSPORTATION AS DIRECTED BY THE ENGINEER.

502. ALL EXISTING TRAFFIC CONTROL EQUIPMENT WHICH IS THE PROPERTY OF SHELBY COUNTY INCLUDING SIGNAL HEADS, CONTROLLERS, POLES, AND MISCELLANEOUS HARDWARE SHALL BE REMOVED UPON COMPLETION OF THE NEW TRAFFIC CONTROL UNIT (TEMPORARY OR PERMANENT) AND STORED TO COMPLY WITH SECTION 730.03 OF THE STANDARD SPECIFICATIONS. THE SAME SHALL BE DELIVERED TO THE ALABAMA DEPARTMENT OF TRANSPORTATION AS DIRECTED BY THE ENGINEER.

(503) THE LOCATION OF THE POWER SOURCE AS SHOWN IN THE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF THE POWER SOURCE AND THE SHORTEST ROUTE TO SERVE THE TRAFFIC SIGNAL CONTROLLER CABINET AND LUMINAIRES.

(504) FROM THE DATE TIME CHARGE BEGINS THE CONTRACTOR SHALL ASSUME TOTAL RESPONSIBILITY FOR ALL EXISTING, TEMPORARY, AND NEW TRAFFIC CONTROL UNIT(S) ON THE PROJECT. THE CONTRACTOR SHALL CONTINUE THE OPERATION AND MAINTENANCE OF THE EXISTING TRAFFIC CONTROL UNIT(S) UNTIL THE ENTIRE NEW PERMANENT TRAFFIC CONTROL UNIT(S) IS(ARE) OPERATIONAL AND ACCEPTED BY SHELBY COUNTY.

505. THE CONTRACTOR, WITHOUT EXTRA COMPENSATION, SHALL BE RESPONSIBLE TO INSURE THE CONTINUAL OPERATION AND MAINTENANCE OF THE EXISTING AND TEMPORARY TRAFFIC CONTROL UNIT(S) DURING THE PERIOD OF CONSTRUCTION. MAINTAINING CONTINUAL OPERATION SHALL INCLUDE THE RELOCATION OF VEHICULAR SIGNAL HEADS DURING CONSTRUCTION AND THE MATERIALS AND LABOR NECESSARY TO INSURE THE CONTINUAL OPERATION OF THE TRAFFIC CONTROL UNIT(S) EQUIPMENT AT ALL TIMES.

(506) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES TO LOCATE ALL OVERHEAD AND UNDERGROUND UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE UTILITY COMPANY AND THE ENGINEER. THE CONTRACTOR SHALL BEAR ALL COST TO REPAIR ANY AND ALL DAMAGES TO THE UTILITIES CAUSED BY THE CONTRACTOR.

(507) SHELBY COUNTY RESERVES THE RIGHT TO RESPOND TO TRAFFIC CONTROL UNIT(S) MALFUNCTIONS IN AN EMERGENCY OR NATURAL DISASTER. IN DOING SO THE CONTRACTOR'S LIABILITY AND RESPONSIBILITY RELATED TO MAINTAINING THE TRAFFIC UNIT(S) OR SYSTEM REMAINS IN EFFECT.

508. THE CONTRACTOR SHALL HAVE THE APPROVAL OF THE ENGINEER PRIOR TO THE REMOVAL OF ANY EXISTING TRAFFIC CONTROL UNIT. THE CONTRACTOR SHALL NOT REMOVE AN EXISTING TRAFFIC CONTROL UNIT UNTIL THE REQUIRED TRAFFIC CONTROL UNIT IS INSTALLED AND COMPLETELY OPERATIONAL.

(509) EACH REQUIRED TRAFFIC SIGNAL STRAIN POLE AND MAST ARM POLE MAY VARY IN LENGTH AND SIZE. THE CONTRACTOR SHALL ASCERTAIN THAT THE POLE HEIGHTS ARE SUFFICIENT TO PROVIDE THE REQUIRED VEHICULAR TRAFFIC SIGNAL CLEARANCE. EXTENSIONS FOR MOUNTING SIGNALS SHALL BE PROVIDED WHEN NECESSARY.

510. EACH MAST ARM MAY VARY IN LENGTH. THE CONTRACTOR SHALL ASCERTAIN THAT ALL ARM LENGTHS ARE SUFFICIENT SO THAT EACH VEHICULAR SIGNAL HEAD POSITION CONFORMS TO THE MUTCD.

(511) THE TRAFFIC SIGNAL POLE LOCATION(S) AS SHOWN IN THE PLANS IS(ARE) APPROXIMATE. THE CONTRACTOR SHALL COORDINATE THE POLE LOCATION(S) WITH THE ENGINEER. THE CONTRACTOR SHALL ASCERTAIN THAT THE FINAL POLE LOCATION(S) PROVIDE FOR THE VEHICULAR TRAFFIC SIGNAL HEADS TO MEET THE DISTANCE REQUIREMENTS TO THE STOP LINE AS REQUIRED BY THE MUTCD. WHEN PEDESTRIAN SIGNAL HEADS AND/OR PEDESTRIAN CROSSWALKS ARE INVOLVED THE SAME SAID POLE LOCATION(S) SHALL ALSO CONFORM TO THE RELATIVE SECTIONS OF THE MUTCD.

(512) THE CONTRACTOR SHALL LOCATE EACH REQUIRED AND RELOCATED VEHICULAR TRAFFIC SIGNAL HEAD ON THE SPAN WIRE OR MAST ARM SO THAT EACH HEAD IS LOCATED IN THE APPROACH LANE FOR WHICH IT APPLIES. LOCATION OF SIGNAL HEADS SHALL CONFORM TO THE MUTCD.

513. THE TRAFFIC SIGNAL STRAIN POLE LOCATION(S) AS SHOWN IN THE PLANS IS(ARE) APPROXIMATE. THE ENGINEER SHALL APPROVE ALL FOUNDATION LOCATIONS PRIOR TO THE CONTRACTOR EXCAVATING FOR EACH FOUNDATION.

(514) BALANCE ADJUSTERS SHALL BE INSTALLED ON TRAFFIC SIGNAL HEADS FOR PROPER AIM. THE CONTRACTOR SHALL ALIGN THE SIGNAL HEADS IN ACCORDANCE WITH THE MUTCD AND TO THE SATISFACTION OF THE ENGINEER.

(515) A 12 INCH DRIP COIL WITH 3 LOOPS SHALL BE PROVIDED TO THE RIGHTS OF EACH VEHICULAR TRAFFIC SIGNAL HEAD. A DRIP LOOP SHALL BE FORMED SO THAT WATER CANNOT ENTER THE ENTRANCE CLAMP. THE WIRE SHALL ENTER THE CLAMP FROM THE BOTTOM OF THE DRIP LOOP.

(516) WHEN PVC CONDUIT IS USED FROM THE CONTROLLER TO THE STEEL STRAIN POLE OR MAST ARM POLE, THE CONTRACTOR SHALL BOND THE CONTROLLER TO THE POLE WITH A #6-1C BONDING CABLE.

(517) MARKING TAPE SHALL BE BURIED OVER CONDUIT. THE TAPE SHALL BE 4 INCH POLYETHYLENE, RED IN COLOR WITH BLACK LETTERING.

518. WHEN EXISTING LOOP WIRE AND VEHICLE LOOP DETECTORS ARE TO BE RETAINED AND REUSED, OR RELOCATED IN A NEW CONTROLLER CABINET, THE CONTRACTOR SHALL ASCERTAIN THE MANUFACTURER AND MODEL NUMBER OF EACH EXISTING DETECTOR AMPLIFIER AND PROVIDE A NEW WIRING HARNESS COMPLETELY WIRED IN THE CONTROLLER CABINET FOR EACH EXISTING DETECTOR AMPLIFIER.

519. WHEN SYSTEM TIMINGS ARE NOT INCLUDED IN THE PLANS FOR TIME BASE OR CLOSED LOOP SYSTEMS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HIRE A LICENSED PROFESSIONAL ENGINEER TO CALCULATE SYSTEM TIMINGS. THE COST OF CALCULATING SYSTEM TIMINGS SHALL BE A SUBSIDIARY OBLIGATION OF 730C.

520. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HIRE A LICENSED PROFESSIONAL ENGINEER TO INPUT THE TIMINGS AND FINE TUNE THE TIMINGS. THE COST OF INPUTTING AND FINE TUNING TIMINGS SHALL BE A SUBSIDIARY OBLIGATION OF 730C.

521. THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR INPUTTING AND FINE TUNING THE TIMINGS.

522. WHEN EXISTING SPAN WIRE THAT IS TO BE RETAINED HAS SAGGED, THE CONTRACTOR SHALL ADJUST THE SPAN WIRE SO THAT SIGNAL HEADS COMPLY WITH THE CLEARANCE SHOWN ON THE STANDARD DETAIL DRAWING.

523. OMIT.

(524) THE CONTRACTOR SHALL PROVIDE A SET OF AS-BUILT PLANS TO SHELBY COUNTY.

(525) BACKPLATES WITH AN 1 INCH TO 3 INCH FLUORESCENT YELLOW REFLECTIVE BORDER SHALL BE INSTALLED ON ALL SIGNAL HEADS (EXISTING AND REQUIRED).

(526) CONTROLLER SHALL BE A SIEMENS M60 OR ECONOLITE COBALT.

527. OMIT

(528) THE INSTALLER IS REQUIRED TO CONSTRUCT AND PROVIDE A COMPLETE TRAFFIC SIGNAL THE INTERSECTION THAT FUNCTIONS PROPERLY AND MEETS SHELBY COUNTY REQUIREMENTS AND STANDARDS.

(529) LUMINAIRES USED AS A PART OF THIS PROJECT SHALL BE APPROVED FOR USE BY ALDOT AND SHALL BE LED TYPE FIXTURES.

(530) D3 SIGNS USED AS A PART OF THIS PROJECT SHALL BE EDGE LIT LED TYPE SIGNS.

531. OMIT

532. THE CONTRACTOR SHALL INSTALL AN UNINTERRUPTIBLE POWER SUPPLY (UPS) FOR THIS TRAFFIC SIGNAL. THE UPS SHALL COMPLY WITH THE FOLLOWING:
* SHALL BE A STANDBY GENERATOR W/INTERNAL COMBUSTION ENGINE FUELED BY NATURAL GAS
* SHALL BE INSTALLED ON A CONCRETE PAD ADJACENT TO THE TRAFFIC SIGNAL CONTROLLER
* SHALL INCLUDE AN AUTOMATIC TRANSFER SWITCH WITH A MINIMUM OF TWO (2) CIRCUITS – 1 STREET LIGHT CIRCUIT & 1 TRAFFIC SIGNAL CIRCUIT
* SHALL HAVE A SELF EXERCISING FUNCTION
* SHALL PROVIDE A MINIMUM 3,000 WATT SINGLE PHASE POWER SUPPLY

SHELBY COUNTY SHALL REVIEW AND APPROVE THE UPS PRIOR TO PROCUREMENT.

533. SHELBY COUNTY WILL ASSIST IN THE COORDINATION WITH THE NATURAL GAS PROVIDER AND THE SHELBY COUNTY BUILDING INSPECTIONS DEPARTMENT. SHELBY COUNTY WILL REQUIRE BUILDING INSPECTIONS FOR ALL GAS RELATED PLUMBING WORK ON THIS PROJECT.

534. IT IS THE CONTRACTOR'S RESPONSIBILITY TO:
* FURNISH AND INSTALL THE UPS,
* INSTALL THE GAS SERVICE LINE FROM THE METER/TAP TO THE UPS, AND
* AND MAKE THE CONNECTIONS TO THE UPS PER THE UPS MANUFACTURER GUIDELINES.

ALL COSTS ASSOCIATED ARE CONSIDERED A SUBSIDIARY REQUIREMENT OF PAY ITEM 730C-000.

		DESIGNER: Richard L. Caudle, P.E.	PLAN SUBMITTAL	SHELBY COUNTY HIGHWAY DEPARTMENT		SHEET TITLE	ROUTE
		DATE: May 21, 2021	FINAL			TRAFFIC SIGNAL PLAN NOTES	CR-26

SUMMARY OF QUANTITIES

REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.
SCP-59-912-20	2021	3

TOTAL	ITEM NO.	UNITS	DESCRIPTION
72	703A-002	SQ.FT.	TRAFFIC CONTROL MARKINGS, CLASS 2, TYPE A
1	730C-000	LUMP SUM	FURNISHING AND INSTALLING TRAFFIC CONTROL UNIT (CR17 AT CR26)
4	730G-002	EACH	CONCRETE TRAFFIC SIGNAL STRAIN POLE
100	730L-003	LINEAR FOOT	1", NON-METALLIC CONDUIT
3	730N-000	EACH	LUMINAIRE EXTENSION ASSEMBLY, 12 FOOT
7	730P-022	EACH	VEHICULAR SIGNAL HEAD, 12 INCH, 3 SECTION, TYPE LED
1	730P-023	EACH	VEHICULAR SIGNAL HEAD, 12 INCH, 4 SECTION, TYPE LED
1	730R-022	EACH	CONTROLLER ASSEMBLY, TYPE III, 8 PHASE
1	730T-000	EACH	WOOD POLE
1	730U-015	LUMP SUM	VIDEO DETECTION SYSTEM

		DESIGNER: Richard L. Caudle, P.E.	PLAN SUBMITTAL	SHELBY COUNTY HIGHWAY DEPARTMENT		SHEET TITLE	ROUTE
		DATE: May 21, 2021	FINAL			SUMMARY OF QUANTITIES	CR-26

TRAFFIC SIGNAL PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
SCP-59-912-20	2021	4

CONDUIT AND CONDUCTOR SCHEDULE			
CONDUIT	CONDUCTOR	FROM	TO
2-1" PVC	3C #6 CONTROLLER POWER CABLE 3C #8 LUMINAIRE POWER CABLE	DISCONNECT SWITCH	TRAFFIC SIGNAL CONTROLLER
--	5C #14 SIGNAL CABLE	TRAFFIC SIGNAL CONTROLLER	SIGNAL HEAD #1
--	4C #14 SIGNAL CABLE	TRAFFIC SIGNAL CONTROLLER	SIGNAL HEADS #2
--	4C #14 SIGNAL CABLE	TRAFFIC SIGNAL CONTROLLER	SIGNAL HEADS #4
--	4C #14 SIGNAL CABLE	TRAFFIC SIGNAL CONTROLLER	SIGNAL HEADS #6
--	VIDEO DETECTION CABLE	TRAFFIC SIGNAL CONTROLLER	EACH CAMERA
--	3C #8 LUMINAIRE POWER CABLE	POLE #1	POLE #2
--	3C #8 LUMINAIRE POWER CABLE	POLE #1	POLE #4
--	3C #10 LUMINAIRE POWER CABLE	POLE BASE	LUMINAIRE FIXTURE

SUPPORTING STRUCTURES (CONCRETE)				
POLE NO.	POLE LENGTH (APPROX.)	POLE LOCATION (APPROX.)	LUMINAIRE ARM EXT. LENGTH (APPROX.)	COMMENTS
1.	45 FT	N.1169650.14 E.2163448.79	12 FT	CONCRETE POLE
2.	45 FT	N.1169645.91 E.2163349.43	12 FT	CONCRETE POLE
3.	35 FT	N.1169774.54 E.2163344.70	---	CONCRETE POLE
4.	45 FT	N.1169727.99 E.2163423.59	12 FT	CONCRETE POLE

PHASING DIAGRAM

1	2	3 OMIT	4
5 OMIT	6	7 OMIT	8 OMIT

REQUIRED SIGNAL HEADS

1 2,4,6

REQUIRED SIGNS

D3-1

KENT DAIRY RD

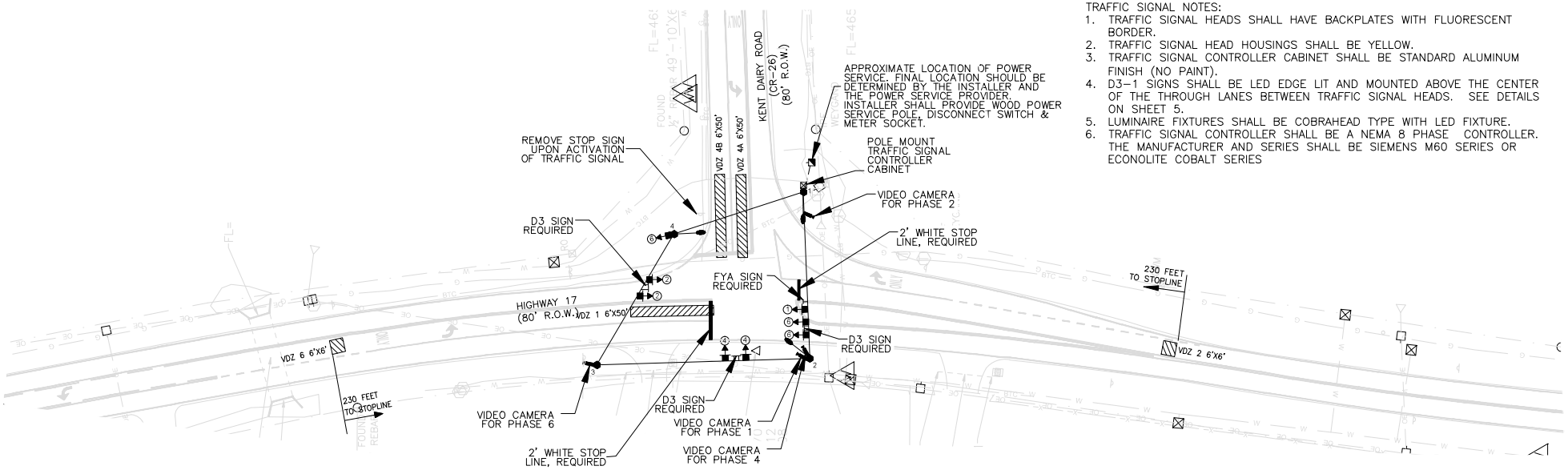
D3-1

COUNTY ROAD 17

FYA Sign

LEFT TURN YIELD ON FLASHING YELLOW ARROW

30" X 36"



TRAFFIC SIGNAL NOTES:

1. TRAFFIC SIGNAL HEADS SHALL HAVE BACKPLATES WITH FLUORESCENT BORDER.
2. TRAFFIC SIGNAL HEAD HOUSINGS SHALL BE YELLOW.
3. TRAFFIC SIGNAL CONTROLLER CABINET SHALL BE STANDARD ALUMINUM FINISH (NO PAINT).
4. D3-1 SIGNS SHALL BE LED EDGE LIT AND MOUNTED ABOVE THE CENTER OF THE THROUGH LANES BETWEEN TRAFFIC SIGNAL HEADS. SEE DETAILS ON SHEET 5.
5. LUMINAIRE FIXTURES SHALL BE COBRAHEAD TYPE WITH LED FIXTURE.
6. TRAFFIC SIGNAL CONTROLLER SHALL BE A NEMA 8 PHASE CONTROLLER. THE MANUFACTURER AND SERIES SHALL BE SIEMENS M60 SERIES OR ECONOLITE COBALT SERIES

PAY ITEM 730C-000 ESTIMATED EQUIPMENT AND MATERIAL SCHEDULE
MISC. HARDWARE
#14 SIGNAL CABLE, IMSA 20-1
POWER SERVICE, 240 VOLTS
TRAFFIC SIGNAL HEAD BACKPLATES WITH REFLECTIVE BORDER

VIDEO DETECTION ZONE CHART					
ZONE	CAMERA	PHASE	SIZE	TYPE	COMMENTS
1	VDC 1	1	6'X50'	PRESENCE	
2	VDC 2	2	6'X6'	PULSE	230' TO STOPLINE
4A	VDC 4	4	6'X50'	PRESENCE	
4B	VDC 4	4	6'X50'	PRESENCE	8 SEC DELAY
6	VDC 6	6	6'X6'	PULSE	230' TO STOPLINE

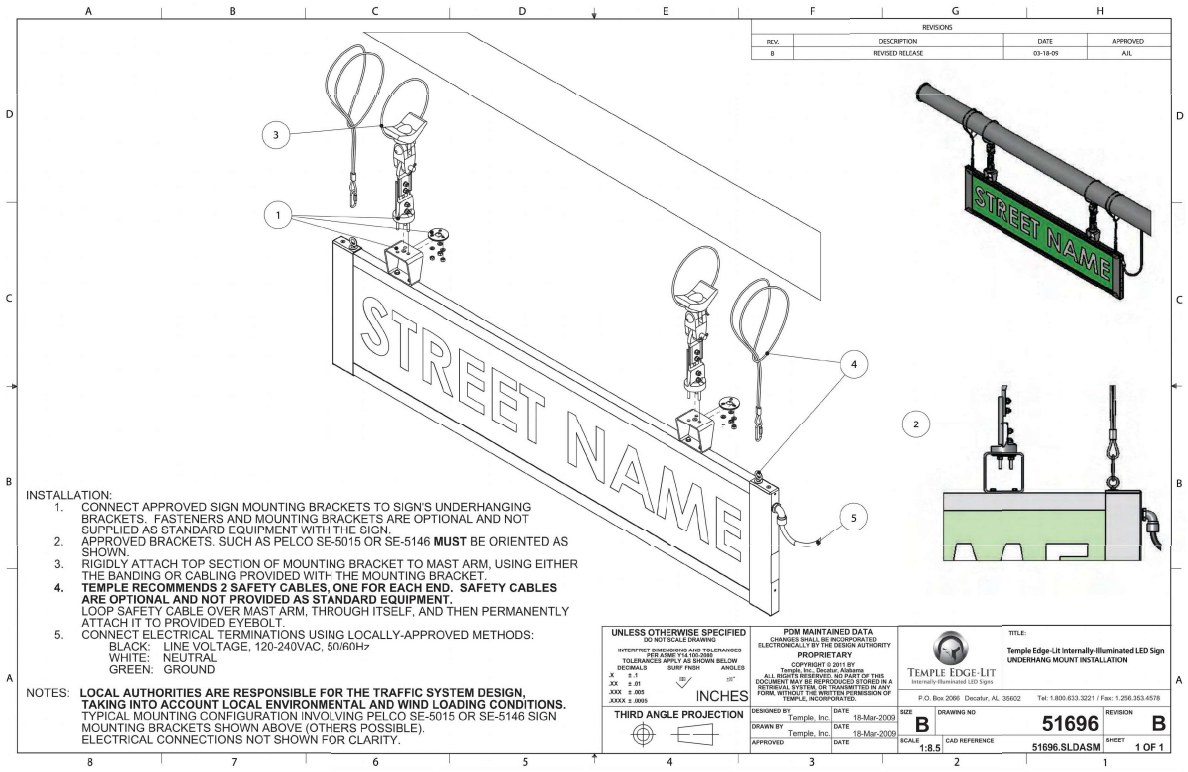
LOCAL CONTROLLER PROGRAMMING CHART

PHASE	MIN INITIAL	DENSITY ACTIVE	PASSAGE	YELLOW	ALL RED	MAX 1	MAX 2	WALK	FDW	PED OMIT	MIN RECALL	PHASE OMIT	NON-LOCK
1	6.0	N	3.0	5.1	1.2	25.0	25.0			Y	N	N	Y
2	25.0	N	4.0	5.1	1.4	60.0	60.0			Y	Y	N	N
3		N								Y	N	Y	N
4	8.0	N	3.0	4.0	2.7	40.0	40.0			Y	N	N	Y
5		N								Y	N	Y	N
6	25.0	N	4.0	5.1	1.4	60.0	60.0			Y	Y	N	N
7		N								Y	N	Y	N
8		N								Y	N	Y	N

		DESIGNER: Richard L. Caudle,P.E.	PLAN SUBMITTAL	SHELBY COUNTY HIGHWAY DEPARTMENT	HORIZ 30 0 30 SCALE (FEET)	SHEET TITLE	ROUTE
		DATE: May 21, 2021	FINAL			TRAFFIC SIGNAL PLAN SHEET	CR-26

TRAFFIC SIGNAL DETAILS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
SCP-59-912-20	2021	5



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	REVISED RELEASE	03-18-09	AJL

INSTALLATION:

1. CONNECT APPROVED SIGN MOUNTING BRACKETS TO SIGN'S UNDERHANGING BRACKETS. FASTENERS AND MOUNTING BRACKETS ARE OPTIONAL AND NOT SUPPLIED AS STANDARD EQUIPMENT WITH THE SIGN.
2. APPROVED BRACKETS. SUCH AS PELCO SE-5015 OR SE-5146 **MUST** BE ORIENTED AS SHOWN.
3. RIGIDLY ATTACH TOP SECTION OF MOUNTING BRACKET TO MAST ARM, USING EITHER THE BANDING OR CABLING PROVIDED WITH THE MOUNTING BRACKET.
4. **TEMPLE RECOMMENDS 2 SAFETY CABLES, ONE FOR EACH END. SAFETY CABLES ARE OPTIONAL AND NOT PROVIDED AS STANDARD EQUIPMENT.** LOOP SAFETY CABLE OVER MAST ARM, THROUGH ITSELF, AND THEN PERMANENTLY ATTACH IT TO PROVIDED EYEBOLT.
5. CONNECT ELECTRICAL TERMINATIONS USING LOCALLY-APPROVED METHODS:
   BLACK: LINE VOLTAGE, 120-240VAC, 50/60Hz
   WHITE: NEUTRAL
   GREEN: GROUND

NOTES: **LOCAL AUTHORITIES ARE RESPONSIBLE FOR THE TRAFFIC SYSTEM DESIGN, TAKING INTO ACCOUNT LOCAL ENVIRONMENTAL AND WIND LOADING CONDITIONS.** TYPICAL MOUNTING CONFIGURATION INVOLVING PELCO SE-5015 OR SE-5146 SIGN MOUNTING BRACKETS SHOWN ABOVE (OTHERS POSSIBLE). ELECTRICAL CONNECTIONS NOT SHOWN FOR CLARITY.

UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING
INTERPRET DIMENSIONING AND TOLERANCES PER ASME Y14.100-2000
TOLERANCES APPLY AS SHOWN BELOW

DECIMALS	SURF FINISH	ANGLES
X ± .1		
XX ± .01		
XXX ± .005		
XXXX ± .0005		

INCHES

THIRD ANGLE PROJECTION

PDM MAINTAINED DATA
CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN AUTHORITY

PROPRIETARY

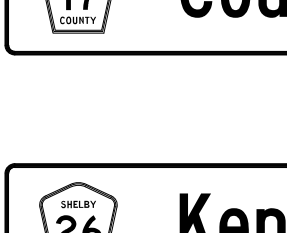
TEMPLE EDGE-LIT
Internally-Illuminated LED Signs

P.O. Box 2066 Decatur, AL 35602 Tel: 1.800.633.3221 / Fax: 1.256.353.4578

TITLE:
Temple Edge-Lit Internally-Illuminated LED Sign
UNDERHANG MOUNT INSTALLATION

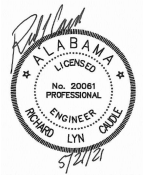
DESIGNED BY	Temple, Inc	DATE	18-Mar-2009
DRAWN BY	Temple, Inc	DATE	18-Mar-2009
APPROVED		DATE	

SIZE	DRAWING NO	REVISION
B	51696	B
SCALE 1:8.5	CAD REFERENCE 51696.SLDASM	SHEET 1 OF 1



EDGE LIT LED SIGN NOTES:

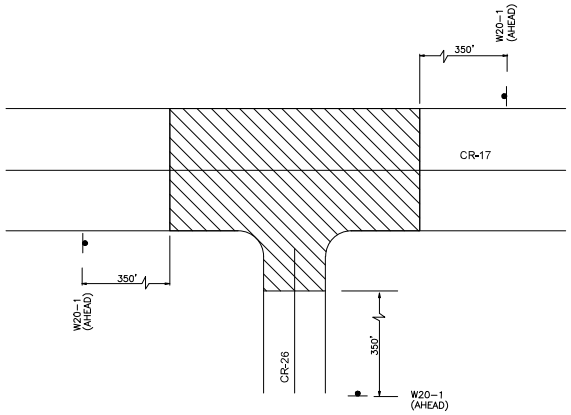
1. STREET NAME SIGNS SHALL BE TEMPLE EDGE LIT LED STREET NAME SIGNS OR APPROVED ALTERNATE.
2. STREET NAME SIGNS SHALL HAVE STANDARD GREEN BACKGROUNDS AND WHITE BORDER AS REQUIRED BY THE MUTCD LATEST EDITION.
3. STREET NAME SIGNS SHALL HAVE THE SHELBY COUNTY ROUTE SHIELD PLACED TO THE LEFT OF THE TEXT AS SHOWN IN THE DETAILS ABOVE. THE SHIELD SHALL SHOW THE APPROPRIATE COUNTY ROADWAY NUMBER.
4. STREET NAME SIGNS SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE CENTER OF THE APPROACH OVER WHICH THE SIGN SHALL FACE. FINAL SIGN POSITIONING SHALL BE APPROVED BY SHELBY COUNTY.
5. THE STREET NAME SIGNS SHALL BE MOUNTED ON THE SPAN WIRE USING THE UNDERHANG TYPE MOUNT UNLESS OTHERWISE APPROVED BY SHELBY COUNTY.
6. THE SIGN MANUFACTURER SHALL SIZE THE STREET NAME SIGN ACCORDING TO THE REQUIRED TEXT AND SYMBOLS AND SUBMIT TO SHELBY COUNTY FOR APPROVAL PRIOR TO CONSTRUCTION.



		DESIGNER: Richard L. Caudle, P.E.	PLAN SUBMITTAL	SHELBY COUNTY HIGHWAY DEPARTMENT	HORIZ 30 0 30 SCALE (FEET)	SHEET TITLE	ROUTE
		DATE: May 21, 2021	FINAL			TRAFFIC SIGNAL DETAILS	CR-26

TRAFFIC CONTROL PLAN

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
SCP-59-912-20	2021	6



NOTE:
NO LANE CLOSURES SHALL BE PERMITTED BETWEEN THE HOURS OF 7:00AM TO 8:30AM AND 4:00PM TO 6:00 PM.

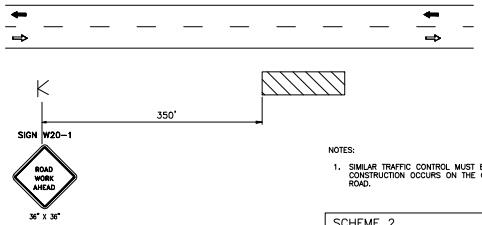
TRAFFIC CONTROL NOTES:

1. WORK AREAS COVERED BY TRAFFIC CONTROL SCHEME #2 ARE MORE THAN TWO FEET FROM THE TRAVEL WAY BUT LESS THAN 15 FEET. (FOUNDATIONS FOR POLES, CONTROLLER FOUNDATIONS, CABINET WIRING, ETC.)
2. ALL TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
3. THE TRAFFIC CONTROL SCHEMES SHOWN HAVE BEEN DEVELOPED IN CONFORMANCE WITH THE MUTCD. THE DEVICES SHOWN REPRESENT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS WARRANT ADDITIONAL CONTROL DEVICES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL SAME AS OUTLINED IN THE MUTCD.
4. ALL THE TRAFFIC CONTROL DEVICES REQUIRED FOR WORK WITHIN THE ROADWAY SHALL BE IN PLACE PRIOR TO THE CONTRACTOR BEGINNING WORK.
5. ALL PORTABLE SIGNS SHALL BE REMOVED WHEN NOT IN USE OR AT THE END OF THE WORK DAY.
6. ALL TRAFFIC CONTROL DEVICES SHOWN IN SCHEME #1 SHALL REMAIN IN PLACE DURING ALL CONSTRUCTION.
7. ALL TRAFFIC CONTROL SCHEMES ARE BASED UPON A DESIGN SPEED OF 50 MILES PER HOUR.
8. PERMANENT OR TEMPORARY CONSTRUCTION SIGNS WHICH ARE NOT APPLICABLE OR INAPPROPRIATE FOR THE CURRENT CONDITIONS SHALL BE COVERED OR REMOVED.
9. HAZARDOUS CONDITIONS ON OPEN ROADWAYS SUCH AS PAVEMENT DROP OFFS; CONSTRUCTION MATERIALS VEHICLES, OR EQUIPMENT STORED OR PLACED WITHIN THE ROADWAY RIGHT OF WAY; AND OPEN TRENCHES ACROSS OR NEAR THE ROADWAY SHALL NOT BE ALLOWED UNLESS THE INSTALLER IS ON SITE AND WORKING, AND PROPER TRAFFIC CONTROL MEASURES ARE BEING TAKEN.
10. THE INSTALLER SHALL KEEP OPEN ROADWAYS CLEAN AND FREE OF CONSTRUCTION DEBRIS, DIRT, LOOSE GRAVEL, OR OTHER MATERIAL THAT MAY CAUSE HAZARDOUS DRIVING CONDITIONS.
11. TRAFFIC CONTROL DEVICES SHALL MEET THE STANDARD MATERIAL AND INSTALLATION REQUIREMENT SPECIFIED IN THE CURRENT EDITION OF THE ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE THE WORK AREA.

LEGEND:

POST MOUNTED SIGN | CHANNELIZING DRUMS | WORK AREA
REQUIRED SIGN (PORTABLE) | FLAGGER STATION | DIRECTION OF TRAVEL

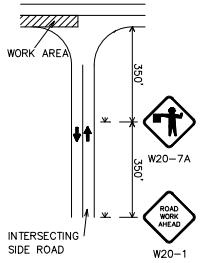
SCHEME 1



NOTES:
1. SIMILAR TRAFFIC CONTROL MUST BE IN PLACE IF CONSTRUCTION OCCURS ON THE OTHER SIDE OF ROAD.

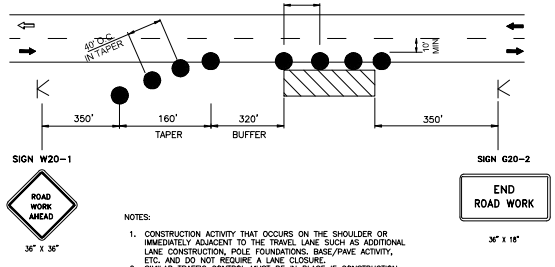
SCHEME 2
WORK BEYOND THE SHOULDER

TRAFFIC CONTROL FOR INTERSECTING SIDE ROADS WITHIN WORK AREA



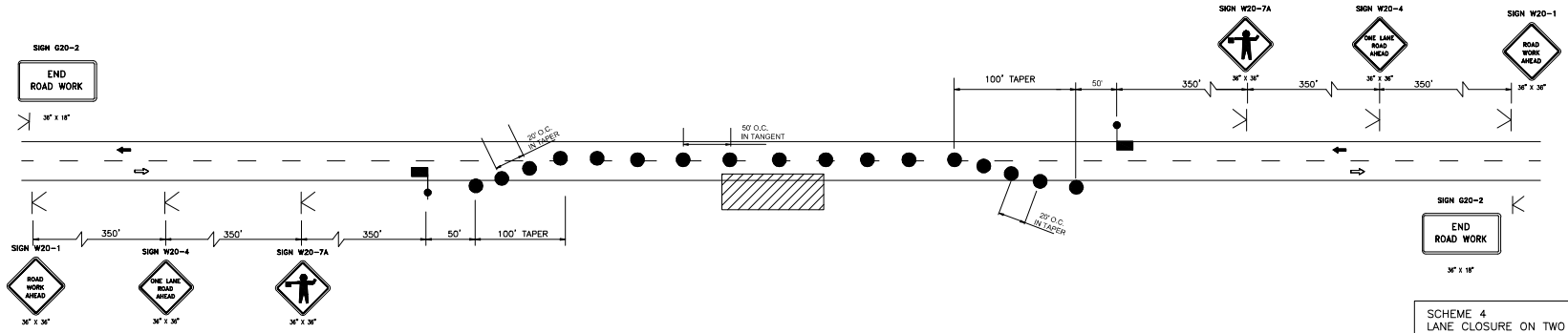
NOTE:
THE W20-1 AND W20-7A SIGNS TO BE USED ON INTERSECTING ROADS SHALL BE 48"X48" IN SIZE. THE TEMPORARY MOUNTED W20-1 ROAD WORK AHEAD SIGN SHOWN ON THE SIDE ROAD WILL NOT BE REQUIRED IF ONE IS ALREADY POST MOUNTED ON THE SIDE STREET.

EQUAL SPACING NOT TO EXCEED 80'



NOTES:
1. CONSTRUCTION ACTIVITY THAT OCCURS ON THE SHOULDER OR IMMEDIATELY ADJACENT TO THE TRAVEL LANE SUCH AS ADDITIONAL LANE CONSTRUCTION, POLE FOUNDATIONS, BASE/PAVE ACTIVITY, ETC. AND DO NOT REQUIRE A LANE CLOSURE.
2. SIMILAR TRAFFIC CONTROL MUST BE IN PLACE IF CONSTRUCTION OCCURS ON THE OTHER SIDE OF ROAD. IF CONSTRUCTION IS ON BOTH SIDES OF ROAD, CONTROL DEVICES MUST BE IN PLACE FOR BOTH DIRECTIONS OF TRAVEL.

SCHEME 3
SHOULDER WORK WITH MINOR ENCROACHMENT (NO LANE CLOSURE)



SCHEME 4
LANE CLOSURE ON TWO LANE ROAD USING FLAGGER

ALABAMA LICENSED No. 20061 PROFESSIONAL ENGINEER RICHARD LYN CAUDLE 5/21/21

		DESIGNER: Richard L. Caudle, P.E.	PLAN SUBMITTAL	SHELBY COUNTY HIGHWAY DEPARTMENT	HORIZ 30 0 30 SCALE (FEET)	SHEET TITLE	ROUTE
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