

INDEX OF SHEETS

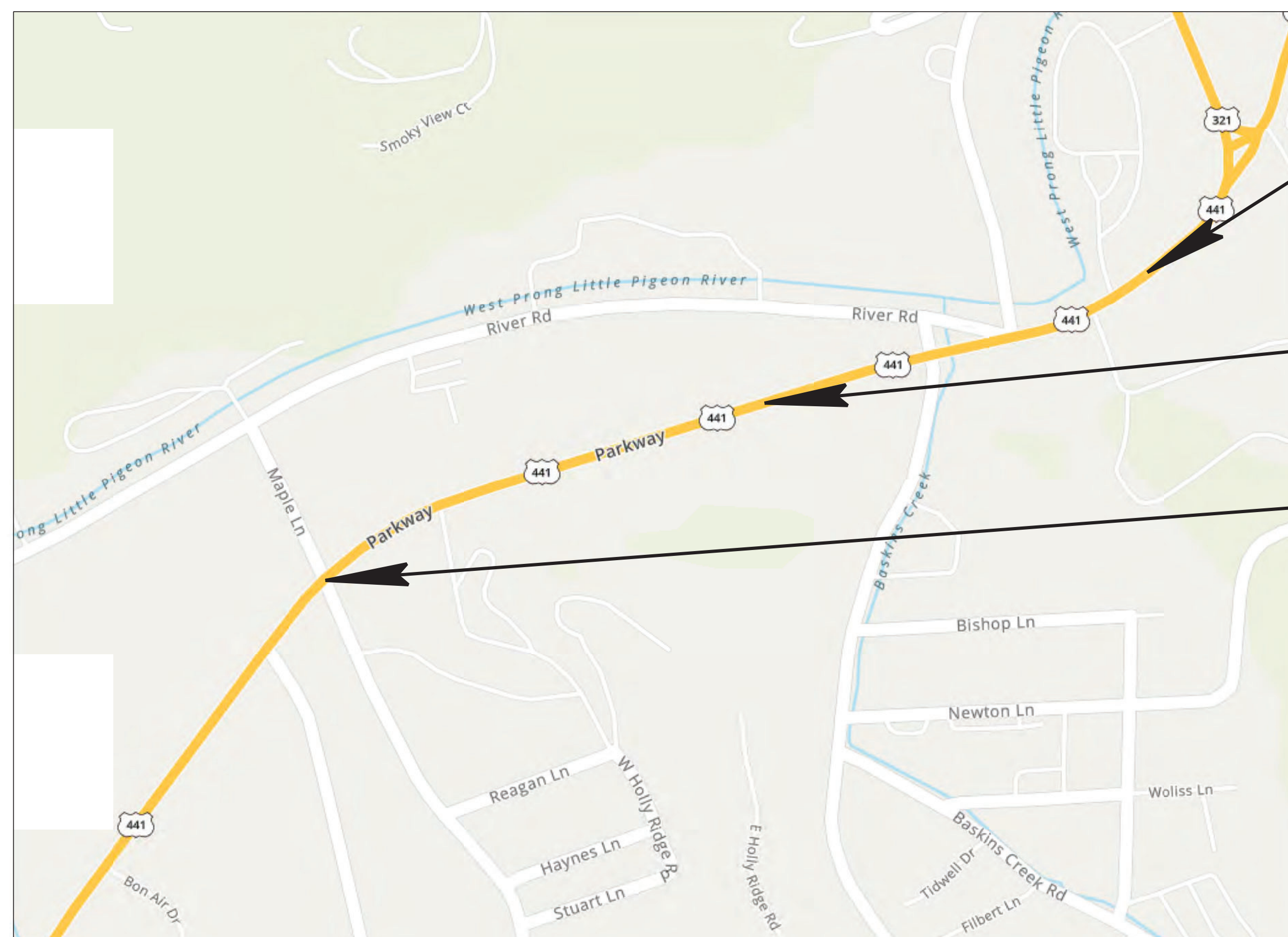
SHEET NAME	SHEET NO.
TITLE SHEET	1
NOTES	2
ESTIMATED QUANTITIES	3
PROPOSED SIGNAL LAYOUT	4 - 6
SIGNAL OPERATIONAL SETTINGS	4A - 6A
PROPOSED RAMP LAYOUT	4B - 6B
TRAFFIC CONTROL PLAN - REAGAN DR / MAPLES LN	4C - 4E
TRAFFIC CONTROL PLAN - BASKIN SQUARE / VILLAGE SHOPPES	5C
TRAFFIC CONTROL PLAN - NEAR MARGARITAVILLE DWY	6C - 6D



PARKWAY (US 441) TRAFFIC SIGNAL PROJECT

TDOT STANDARD ROADWAY AND TRAFFIC OPERATIONAL DRAWINGS

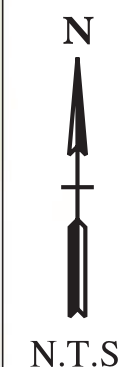
DRAWING NO.	CURRENT REV. DATE	DESCRIPTION
RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
RD-L-3	02-20-20	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	02-20-20	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RP-VC-10	03-04-21	VERTICAL CONCRETE CURBS AND CURB AND GUTTER (FOR 8" TO 12" GUTTER DEPTH)
RP-VC -11	03-04-21	VERTICAL CONCRETE CURB AND GUTTER (FOR 6" AND 7" GUTTER DEPTH)
MM-CR-1	06-28-19	DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS
MM-CR-2		PERPENDICULAR CURB RAMP
MM-CR-3		PARALLEL CURB RAMP
MM-CR-6		DUAL CROSSING CURB RAMP PLACED OUTSIDE CURVE
MM-CR-7		CURVE RAMPS IN BI-DIRECTIONAL DUAL CROSSING
T-M-4	07-17-20	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-4B	01-28-22	STANDARD SIGNALIZED MID-BLOCK CROSSING
T-WZ-40	03-05-17	RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-41	03-05-17	LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-51	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 4 OR 5 LANE MAJOR ROUTES
T-WZ-55	10-29-21	SIDEWALK TRAFFIC CONTROL
T-WZ-FAB1		FLASHING YELLOW ARROW BOARD
EC-STR-37	06-10-14	SEDIMENT TUBE
EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3 & 4
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-16A	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-11-17	STANDARD GROUND MOUNTED SIGN USING PERFORATED/ KNOCKOUT SQUARE TUBE
T-S-19	06-12-20	STANDARD STEEL SIGN SUPPORTS
T-S-20	07-11-17	SIGN DETAILS
T-SG-2	06-27-16	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3A	06-27-16	ALTERNATE DETECTION DETAILS
T-SG-5	06-27-16	CONTROLLER CABINET DETAILS
T-SG-6	10-21-19	PEDESTRIAN SIGNAL DETAILS
T-SG-7	10-21-19	SIGNAL HEAD ASSEMBLIES
T-SG-9	10-21-19	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A	07-12-17	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	07-11-17	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	06-27-16	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-SG-12	12-20-19	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-FO-2		FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
T-FO-4		FIBER OPTIC PULL BOX, CABINET & POLE DETAILS



PARKWAY (US 441) SOUTH OF EAST PARKWAY

PARKWAY (US 441) SOUTH OF PARKWAY AT RIVER ROAD/CHEROKEE ORCHARD ROAD

PARKWAY (US 441) AT REAGAN DRIVE / MAPLES LANE



CINDY CAMERON OGLE - CITY MANAGER



CITY OF GATLINBURG
1230 EAST PARKWAY
GATLINBURG, TENNESSEE 37738

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2021 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

PROPOSALS MAY BE REJECTED IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

REVISIONS		DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8535 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919		
CLIENT:		
CITY OF GATLINBURG		
PROJECT:		
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS		
TITLE SHEET		
	CGI PROJECT NO.	01613-0001
	DATE	08-04-2022
	P.M.	RCB
	DRAWN	TSN
	C.C.	ALC
		1

NOTES

SIGNALIZATION

- (1) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH THE APPLICABLE SECTIONS OF THE TDOT STANDARD SPECIFICATIONS SECTION 730, "SPECIAL PROVISIONS REGARDING SECTION 730-TRAFFIC SIGNALS", TDOT STANDARD TRAFFIC OPERATIONS DRAWINGS, AND THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
- (2) THE TRAFFIC SIGNAL CONTRACTOR MUST PREQUALIFY WITH THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT). ONLY CONTRACTORS THAT HAVE BEEN PRE-QUALIFIED BY TDOT CAN PERFORM WORK ON THE TRAFFIC SIGNAL.
- (3) CONTRACTOR SHALL HAVE AN IMSA LEVEL II CERTIFIED TECHNICIAN ON-SITE DURING ALL CABINET RELATED CONSTRUCTION AND START-UP OPERATION OF THE SIGNAL.
- (4) CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO THE CITY OF GATLINBURG FOR APPROVAL PRIOR TO ORDERING ALL MATERIALS (INCLUDING BUT NOT LIMITED TO CONDUIT, PULLBOXES, CABLE, SIGNAL HEADS, BACKPLATES, POLES, CONTROLLER, SIGNAL MONITOR, CABINET, SIGNAL BRACKETS, DETECTION SYSTEM, AND CONCRETE).
- (5) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE CITY OF GATLINBURG IN WRITING WHEN ALL WORK HAS BEEN COMPLETED AND THE SIGNAL INSTALLATION IS READY FOR FINAL INSPECTION.
- (6) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.
- (7) ALL EQUIPMENT SHALL MEET ALL APPLICABLE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION STANDARDS.
- (8) ALL NEW TRAFFIC SIGNAL HEADS SHALL BE INCANDESCENT STYLE L.E.D. (LIGHT EMITTING DIODE) TYPE WITH CLEAR LENSES MEETING THE CURRENT STANDARDS PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS. INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE. COMPATIBILITY WITH CONFLICT MONITORS SHALL BE TESTED AND CONFIRMED. TRAFFIC SIGNAL HEADS SHALL BE MCCAIN OR APPROVED EQUIVALENT. LED'S SHALL BE DIALIGHT, GE, OR APPROVED EQUIVALENT.
- (9) ALL SIGNAL HEADS SHALL UTILIZE 12" DISPLAYS, SHALL BE BLACK IN COLOR AND EQUIPPED WITH BLACK BACKPLATES.
- (10) ALL PEDESTRIAN SIGNAL HEADS SHALL HAVE BLACK HOUSINGS AND INCANDESCENT STYLE LED DISPLAYS CONFORMING TO CURRENT ITE STANDARDS, WITH WALK/DON'T WALK SYMBOLS DISPLAYED IN SAME FACE WITH COUNTDOWN TIMER.
- (11) ALL SIGNAL CABLE SHALL BE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) APPROVED CABLE AND SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS.
- (12) NEW SIGNAL CONTROLLERS SHALL BE MCCAIN ATC EX2 NEMA.
- (13) NEW SIGNAL CABINET SHALL BE MCCAIN 353I (FOR PARKWAY / HISTORIC NATURE TRAIL / REAGAN / MAPLES) 16-CHANNEL ATC COMPLETE WITH PANELS, WIRING, AND OTHER INCIDENTALS REQUIRED FOR COMPLETE OPERATION. CABINETS FOR PEDESTRIAN SIGNALS SHALL BE MCCAIN BACKPACK, WITH FIBER OPTIC CAPABILITY.
- (14) PEDESTRIAN APS SHALL BE RTB SAFETRAFFIC SYSTEM WITH BLUETOOTH ENABLED BLX KOMBI-S ACOUSTIC UNIT PAIRED WITH E+ PIT APS SENSOR BUTTON EQUIPPED WITH AUDIBLE BEACON AND VIBROTACTILE FEEDBACK FUNCTIONALITY.
- (15) SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.
- (16) ALL NEW SIGNAL POLES, MAST ARMS, PEDESTALS, POSTS, AND CABINETS SHALL BE GREEN POWDER COAT. COLOR AND STYLE SHALL MATCH EXISTING CITY POLE/ARMS.
- (17) FINAL DESIGN OF POLES AND FOUNDATIONS ARE THE RESPONSIBILITY OF THE POLE MANUFACTURER AND CONTRACTOR.
- (18) PRIOR TO ORDERING SIGNAL POLES/MAST ARMS THE CONTRACTOR SHALL INVESTIGATE VIA "POTHOLING" AND/OR OTHER METHODS, THE ABILITY OF THE SELECTED INSTALLATION LOCATIONS TO ALLOW USE OF A STANDARD T.D.O.T. 3 FOOT DIAMETER FOOTING. IF EXISTING UNDERGROUND FACILITIES WILL NOT ALLOW SUCH A FOOTING, THE CITY OF GATLINBURG AND THE DESIGN ENGINEER SHALL BE NOTIFIED IN ORDER TO COORDINATE FINDING A RELOCATION OR REDESIGN SOLUTION.

- (19) CLOSELY COORDINATE FOOTING INSTALLATION WITH EXISTING UTILITIES. HAND DIG FOUNDATION OR VARY SIZE AS REQUIRED.
- (20) ALL TRAFFIC SIGNAL EQUIPMENT SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY OR EASEMENTS. NO EXCEPTIONS WILL BE PERMITTED WITHOUT WRITTEN APPROVAL FROM THE CITY OF GATLINBURG.
- (21) CONTRACTOR SHALL CONTACT THE CITY OF GATLINBURG ONE DAY PRIOR TO CONCRETE PLACEMENT FOR SIGNAL POLE FOUNDATIONS.
- (22) EACH POLE FOUNDATION SHALL INCLUDE AT LEAST ONE SPARE 2-INCH CONDUIT.
- (23) LARGER SIZED PULL BOXES (17" X 30" X 18") SHALL BE USED AS NEEDED WHERE THERE ARE MANY CONDUITS AND SIGNAL CABLES IN A PULL BOX LOCATION.
- (24) CONDUIT MAY BE SCHEDULE 80 PVC OR HDPE, EXCEPT IT SHALL BE RGS FOR POWER SERVICE RUNS AND HDPE FOR FIBER OPTIC RUNS.
- (25) NEW DETECTION SHALL UTILIZE ONE GRIDSMART BELL CAMERA PER INTERSECTION. DETECTOR UNIT SHALL BE PLACED ON MANUFACTURER RECOMMENDED RISERS AND/OR EXTENSION ARMS TO MAXIMIZE DETECTION WITHIN THE DETECTION ZONES, SPECIFIED ON THE SIGNAL LAYOUT SHEETS. CAMERA AND SENSOR LOCATIONS MAY VARY FROM THAT SHOWN ON THE LAYOUT SHEETS IF THE REVISED LOCATION IMPROVES DETECTION ACCURACY. CONTRACTOR SHALL NOT REVISE THESE LOCATIONS WITHOUT RECEIVING APPROVAL FROM THE CITY OF SEVIERVILLE. GRIDSMART DETECTION SYSTEM SHALL INCLUDE THE PERFORMANCE PLUS MODULE LICENSE.
- (26) BBS UNIT SHALL BE APC SECUREUPS 1300VA UNIT WHT A SINGLE 48VDC BATTERY ARRAY CONSISTING OF QTY 4 SECUREUPS 50AH 12VDC BATTERIES, REQUIRED CABLE HARNESS, APC SECUREUPS BYPASS UNIT, AND SUITABLE SHELF MOUNT TO INSTALL BATTERIES INSIDE MCCAIN 353I ATC CABINET.
- (27) THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS TO THE CITY OF GATLINBURG IF CONSTRUCTION OF THE TRAFFIC SIGNAL DEVIATES FROM THE TRAFFIC SIGNAL PLAN.
- (28) THE SIGNAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE NEW TRAFFIC SIGNALS UNTIL THE FINAL SIGNAL INSPECTION HAS BEEN PERFORMED AND THE SIGNALS ACCEPTED BY THE CITY.

CURB RAMPS

- (1) PROPOSED CURB RAMPS SHALL COMPLY WITH TDOT AND ADA STANDARDS.
- (2) NEW CURB AND CURB AND GUTTER SHALL MATCH THE DEPTH OF THE ADJACENT EXISTING CURB OR CURB AND GUTTER.
- (3) IN AREAS WITH NEW CURB RAMPS, CURB, OR CURB AND GUTTER, CONTRACTOR SHALL SAWCUT EXISTING ASPHALT PAVEMENT A MINIMUM OF ONE FOOT FROM THE EDGE OF THE NEW CURB RAMP, CURB, OR CURB AND GUTTER. IN AREAS OF SAWCUT, CONTRACTOR SHALL OVERLAY WITH 1.5" OF 411D MIX AND SHALL FILL ANY VOIDS UNDERNEATH THE OVERLAY WITH CLASS A CONCRETE. ASPHALT OVERLAY AND CLASS A CONCRETE SHALL BE PAID FOR UNDER PAY ITEM NO. 407-02.14, ASPHALT PAVEMENT REPAIR.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (1) TEMPORARY TRAFFIC CONTROL DEVICES AND MEASURES SHALL BE PROVIDED DURING CONSTRUCTION IN FULL COMPLIANCE WITH THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THESE DEVICES AND MEASURES SHALL BE PROVIDED IN CONSIDERATION OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
- (2) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (3) ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION.

UTILITIES

- (1) THE UTILITIES AND UNDERGROUND STRUCTURES SHOWN ON THESE PLANS ARE NOT NECESSARILY ALL THE ONES PRESENT, NOR ARE THE INDICATED LOCATIONS NECESSARILY ACCURATE. THE CONTRACTOR SHALL COORDINATE WITH UTILITY AND PROPERTY OWNERS AS REQUIRED TO IDENTIFY, RELOCATE, AND PROTECT FEATURES AS NECESSARY PRIOR TO CONSTRUCTION. SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ON CALL SYSTEM, INC. 1-800-351-1111 AS REQUIRED BY TCA 65-31-106.
- (2) THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR SHALL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT SHALL BE INCLUDED IN THE PRICE BID.

- (3) THE COST OF ANY DAMAGE TO UTILITY FACILITIES SHALL BE BORNE BY THE CONTRACTOR.
- (4) COORDINATE WITH JERRY CAMERON, SEVIER COUNTY ELECTRIC, 865-453-2887, WITH REGARD TO ELECTRICAL SERVICE CONNNECTION.
- (5) A MINIMUM OF 2 FT. SEPERATION SHALL BE MAINTAINED BETWEEN ALL EXISTING NATURAL GAS FACILITIES AND THE PROPOSED POLE FOUNDATIONS AND PULL BOXES.

SIGNING AND PAVEMENT MARKING

- (1) ALL SIGN FACES SHALL UTILIZE 3M DIAMOND GRADE REFLECTIVE SHEETING.
- (2) ALL NEW PERMANENT SIGN POSTS SHALL BE WOODEN POSTS MATCHING THE EXISTING POSTS ON PARKWAY.
- (3) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (4) ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM NO. 713-15.
- (5) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.
- (6) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.
- (7) ALL NEW PAVEMENT MARKINGS SHOWN ON THE PLANS SHALL BE THERMOPLASTIC OR PERFORMED PLASTIC.
- (8) PAVEMENT MARKING REMOVAL SHALL COMPLY WITH T.D.O.T. STANDARD SPECIFICATION SECTION 712.05.

MISCELLANEOUS


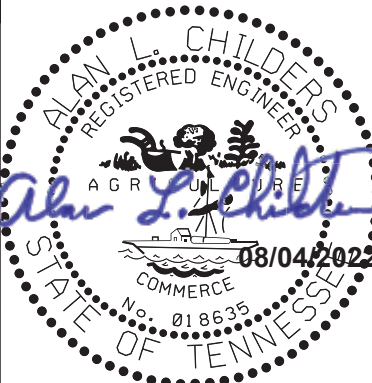
- (1) NOTHING IN THE NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.
- (2) ANY DISTURBED AREA DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR AS ACCEPTABLE BY THE CITYOF GATLINBURG.
- (3) EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
- (4) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT SOIL MATERIAL, LITTER, CONSTRUCTION DEBRIS, CONSTRUCTION WASTES, PETROLEUM PRODUCTS AND OTHER CHEMICAL POLLUTANTS FROM ENTERING WATERS OF THE STATE/U.S.
- (5) SALVAGEABLE EQUIPMENT SHALL BECOME THE PROPERTY OF THE CITY OF GATLINBURG.

FIBER OPTIC COMMUNICATION

- (1) THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TO THE OWNER A COMPLETE AND WORKING FIBER OPTIC COMMUNICATIONS SYSTEM AS DETAILED IN THESE PLANS. ALL REQUIRED DEVICES, EQUIPMENT, OR INCIDENTALS NOT SHOWN AS DIRECT PAY ITEMS, BUT REQUIRED TO MAKE THIS SYSTEM FULLY FUNCTIONAL, SHALL BE PAID FOR UNDER RELATED BID ITEMS INCLUDED IN THE PROJECT.
- (2) ALL PROPOSED FIBER OPTIC CONDUIT SHALL BE HDPE.
- (3) CONTRACTOR SHALL UTILIZE FUSION SPLICES FOR ALL FIBER CABLE CONNECTIONS. MATERIALS, METHOD AND MEASUREMENTS OF FUSION SPLICES SHALL FOLLOW ACCEPTED T.D.O.T. PRACTICE.
- (4) CONTRACTOR SHALL COORDINATE INSTALLATION OF COMMUNICATIONS WITH EXTENET SYSTEMS FOR INTERFACE WITH THE EXISTING FIBER OPTIC CABLE AND REQUIRED SPLICING.

CONTRACTOR WORK RESTRICTIONS



- (1) CONTRACTOR WORK RESTRICTIONS ARE DETAILED IN THE PROJECT MANUAL.

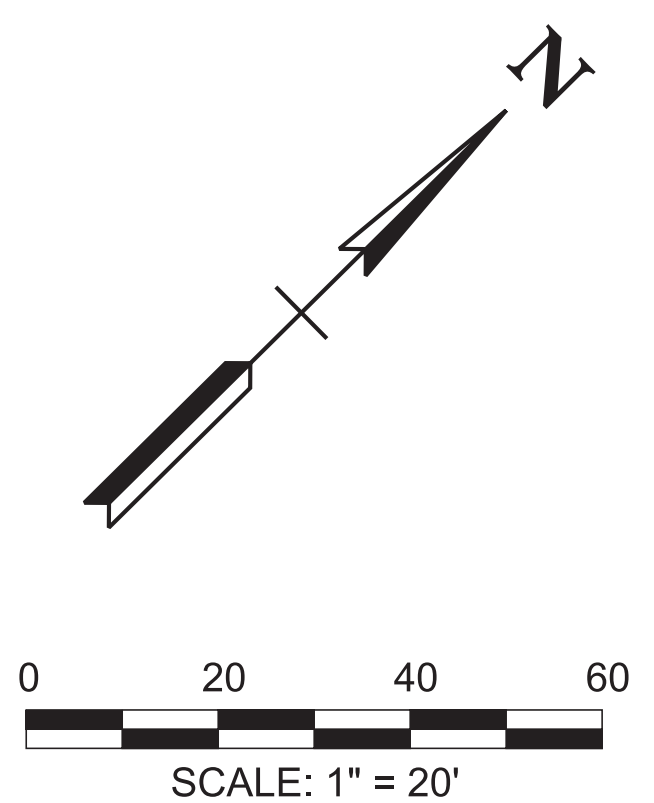
REVISIONS	DATE
 CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	
CITY OF GATLINBURG	
PROJECT:	
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS	
NOTES	
	CGI PROJECT NO. 01613-0001
	DATE 08-04-2022
	P.M. RCB
	DRAWN TSN
J.C. ALC	2

FOOT NOTES	ITEM NO.	DESCRIPTION	QTY.	UNIT
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	1	LS
1	202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1	LS
2	202-03	REMOVAL OF RIGID PAVEMENT, SIDEWALK, ETC.	100	S.Y.
3	202-03.01	REMOVAL OF ASPHALT PAVEMENT	75	SY
4	202-08.10	REMOVAL OF CURB	90	LF
5	209-05	SEDIMENT REMOVAL	4	CY
5	209-09.43	CURB INLET PROTECTION (TYPE 4)	11	EACH
6	407-02.14	ASPHALT PAVEMENT REPAIR	11	SY
7	407-20.05	SAWCUTTING ASPHALT PAVEMENT	225	LF
8	411-33.35	STAMPED ASPHALT (RED-BRICK PATTERN)	575	SF
	611-09.02	REWORK CATCHBASIN	1	EACH
	701-01.01	CONCRETE SIDEWALK (4")	840	SF
9	701-01.20	BRICK SIDEWALK	150	SY
10	701-02.01	CONCRETE CURB RAMP (RETROFIT)	525	SF
	701-02.06	DETECTABLE WARNING SURFACE (REHABILITATION)	180	SF
	702-01	CONCRETE CURB	3	CY
11	712-01	TRAFFIC CONTROL	1	LS
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	50	EACH
	712-05.03	WARNING LIGHTS (TYPE C)	25	EACH
	712-06	SIGNS (CONSTRUCTION)	193	SF
	712-08.03	ARROW BOARD (TYPE C)	2	EACH
12	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	1	LS
	713-16.20	SIGNS (TN-69A, LEFT TURN YIELD ON FLASHING YELLOW ARROW)	3	EACH
	713-16.21	SIGNS (R10-15, TURNING VEHICLES YIELD TO PEDESTRIANS)	6	EACH
13	713-16.22	SIGNS (R10-6, STOP HERE ON RED)	4	EACH
13	713-16.23	SIGNS (R10-23mod., CROSSWALK - STOP ON RED)	4	EACH
13	713-16.24	SIGNS (W3-3, SIGNAL AHEAD W/ W16-2aP)	1	EACH
13	713-16.25	SIGNS (W3-3, SIGNAL AHEAD W/ W16-15P)	5	EACH
	713-16.26	SIGNS (SPECIAL, WAIT FOR WALK SIGNAL)	4	EACH
13	713-16.41	RELOCATE SIGN (W11-2, CROSSWALK SYMBOL W/ W16-7P)	2	EACH
	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	155	LF
	716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	65	LF
	716-03.06	PLASTIC WORD PAVEMENT MARKING (SIGNAL AHEAD)	2	EACH
14	716-08.01	REMOVAL OF PAVEMENT MARKING (LINE)	100	LF
14	716-08.03	REMOVAL OF PAVEMENT MARKING (CROSS WALK)	65	LF
14	716-08.06	REMOVAL OF PAVEMENT MARKING (TURN LANE ARROW)	2	EACH
14	716-08.11	REMOVAL OF WORD PAVEMENT MARKING (CROSS WALK)	4	EACH
	716-12.02	ENHANCED FLAT LINE THERMO PVMT MRKNG (6IN LINE)	0.01	L.M.
	716-12.05	ENHANCED FLAT LINE THERMO PVMT MRKNG (6IN DOTTED LINE)	50	LF
	716-12.06	ENHANCED FLAT LINE THERMO (8IN LINE)	100	LF
	717-01	MOBILIZATION	1	LS
	725-02.79	FIBER SPLICE ENCLOSURE (UNDERGROUND)	1	EACH
	725-23.24	FIBER OPTIC DROP CABLE (6 STRAND)	900	LF
	725-23.28	FIBER OPTIC SPLICE FUSION	6	EACH
	725-23.31	FIBER OPTIC DROP PANEL	1	EACH
	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	19	EACH
	730-02.30	SIGNAL HEAD ASSEMBLY (130 A3FY WITH BACKPLATE)	3	EACH
	730-03.21	INSTALL PULL BOX (TYPE B)	7	EACH
	730-03.23	INSTALL PULL BOX (FIBER OPTIC-TYPE A)	3	EACH
	730-03.24	INSTALL PULL BOX (FIBER OPTIC-TYPE B)	2	EACH
15	730-05.01	ELECTRICAL SERVICE CONNECTION	2	EACH
	730-05.04	MODIFY EXISTING ELECTRICAL SERVICE CONNECTION	1	EACH
	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	5750	LF
16	730-12.02	CONDUIT 2" DIAMETER (PVC)	1150	LF
16	730-12.03	CONDUIT 3" DIAMETER (PVC)	725	LF
	730-12.08	CONDUIT 2" DIAMETER (RGS)	100	LF
17	730-13.14	VEHICLE DETECTOR (360-DEGREE CAMERA)	2	EACH
18	730-15.07	CABINET (16 PHASE ATC)	1	EACH
19	730-15.08	CABINET (BACKPACK)	2	EACH
20	730-16.14	CONTROLLER (16 PHASE ATC)	3	EACH
21	730-23.30	PEDESTAL POLE (PEDESTRIAN TYPE A)	8	EACH
21	730-23.48	CANTILEVER SIGNAL SUPPORT (1 ARM @ 20')	2	EACH
21,22	730-23.62	CANTILEVER SIGNAL SUPPORT (2 @ 25 & 40' WITH EXTENSION ARM)	1	EACH
21	730-23.87	CANTILEVER SIGNAL SUPPORT (2 @ 40' & 45')	1	EACH
21	730-25.14	CANTILEVER SIGNAL SUPPORT (1 ARM @ 70')	1	EACH
	730-26.05	COUNTDOWN PEDESTRIAN SIGNAL	4	EACH
23	730-26.11	COUNTDOWN PED SGNL HEAD WAUDIBLE PUSH BUTT ON & 15IN SIGN	10	EACH
	730-35.06	BATTERY BACKUP AND POWER CONDITIONER	2	EACH
5	740-11.01	TEMPORARY SEDIMENT TUBE 8IN	100	LF

FOOTNOTES:

- (1) INCLUDES REMOVAL AND RELOCATION OF HANDRAIL, BENCHES AND OTHER FEATURES OBSTRUCTING PROJECT ACTIVITIES.
- (2) PAY ITEM INCLUDES SAW CUTTING, REMOVAL OF EXISTING MATERIAL, AND ALL ITEMS NECESSARY FOR REMOVAL OF CONCRETE SIDEWALK.
- (3) PAY ITEM SHALL BE USED FOR REMOVAL OF ASPHALT PAVEMENT IN THE VICINITY OF NEW CURB. ASPHALT SHALL BE REMOVED A WIDTH OF ONE FOOT FROM THE CURB.
- (4) PAY ITEM SHALL BE USED FOR REMOVAL OF CURB ADJACENT TO NEW CURB RAMPS AND SIDEWALK.
- (5) PAY ITEM SHALL ONLY BE USED WHERE DIRECTED BY THE ENGINEER OR THE CITY'S REPRESENTATIVE.
- (6) PAY ITEM SHALL INCLUDE REPAIRING OF ASPHALT PAVEMENT WHERE REMOVED ADJACENT TO NEW CURB. ITEM SHALL ALSO INCLUDE ANY NECESSARY CLASS A CONCRETE TO FILL VOIDS UNDER THE 1.5" OF ASPHALT SURFACE.
- (7) PAY ITEM SHALL BE USED FOR SAW CUTTING ASPHALT PAVEMENT ADJACENT TO NEW CURB AS WELL AS NEW CROSSWALK.
- (8) PAY ITEM INCLUDES THE RED ASPHALT CROSSWALK WITH THE 2' WIDE BRICK PATTERN BORDER AND 6' WIDE AREA BETWEEN THE BRICK PATTERN BORDER. TO BE INSTALLED PER CITY OF GATLINBURG STANDARD.
- (9) PAY ITEM INCLUDES REMOVAL AND REPLACEMENT OF BRICK STRIPS IN SIDEWALK.
- (10) PAY ITEM IS USED IN LOCATIONS WHERE A RAMP OR SIDEWALK ALREADY EXISTS, BUT A NEW RAMP IS REQUIRED. PAY ITEM INCLUDES BOTH CONSTRUCTION OF THE NEW CURB RAMP AND REMOVAL OF ALL EXISTING MATERIAL WITHIN THE FOOTPRINT OF THE NEW RAMP. PAY ITEM SHALL ALSO INCLUDE INSTALLATION OF TRUNCATED DOMES.
- (11) PAY ITEM INCLUDES ALL TRAFFIC CONTROL ACTIVITIES AND ITEMS NOT OTHERWISE CALLED OUT IN THE QUANTITIES.
- (12) PAY ITEM INCLUDES 4 SIGNS, FACES AND 2 SUPPORTS, POSTS AND FOOTINGS.
- (13) PAY ITEM INCLUDES ALL POSTS AND FOOTINGS REQUIRED FOR POST MOUNTED SIGNS.
- (14) PAVEMENT MARKING REMOVAL SHALL BE COMPLETED USING WATERBLASTING, HYDROBLASTIC, OR GRINDING TECHNIQUES TO MINIMIZE VISIBILITY OF EXISTING STRIPING.
- (15) ITEM INCLUDES CONDUIT, CABLE, AND ALL OTHER ITEMS NECESSARY TO INSTALL ELECTRICAL SERVICE CONNECTION AT THE INTERSECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM.
- (16) CONDUIT SHALL BE PVC SCHEDULE 80 OR HDPE. ITEM INCLUDES ALL MATERIALS AND ACTIVITIES REQUIRED FOR THE INSTALLATION OF THE CONDUIT AS DISCUSSED IN THE CONDUIT ROUTING AND INSTALLATION NOTES ON THE SIGNAL LAYOUT SHEETS, IRREGARDLESS OF THE INSTALLATION METHOD CHOSEN.
- (17) ITEM INCLUDES ONE GRIDSMA RT FISHEYE CAMERA PROCESSOR, WIRING, AND INCIDENTALS NECESSARY FOR COMPLETE INSTALLATION OF VIDEO DETECTION SYSTEM. SYSTEM SHALL INCLUDE PERFORMANCE PLUS MODULE LICENSE.
- (18) CABINET SHALL BE McCAIN 353i 16-CHANNEL ATC. ITEM INCLUDES RECONSTRUCTION OF FOUNDATION. CABINET SHALL BE GREEN POWDER COAT.
- (19) CABINETS SHALL BE McCAIN BACKPACK, GREEN POWDER COAT.
- (20) CONTROLLERS SHALL BE McCAIN ATC EX2 NEMA
- (21) ITEM INCLUDES SIGNAL SUPPORT, FOUNDATION, AND THE COST OF THE SUPPORTS AND FOUNDATION DESIGN AND, IF NECESSARY, THE SOIL EXPLORATION REQUIRED FOR THE DESIGN OF THE FOUNDATION. ALSO INCLUDED IS REMOVAL OF EXCAVATION MATERIAL, AS WELL AS SEEDING AND WATERING TO RESTORE GROUND AROUND POLE FOUNDATION. ALL POLES, MAST ARMS, AND PEDESTALS SHALL BE GREEN POWDER COAT. COLOR AND STYLE SHALL MATCH EXISTING CITY POLE/ARMS.
- (22) SIGNAL POLE SHALL INCLUDE AN EXTENSION ARM FOR GRIDSMA RT VIDEO DETECTOR.
- (23) PUSHBUTTONS SHALL BE FULLY ACCESSIBLE CONFORMING TO ADA AND PROWAG STANDARDS. PUSHBUTTONS SHALL BE RTB SAFETRAFFIC SYSTEM.

REVISED QUANTITIES	9/29/2022
REVISIONS	DATE
 CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	CITY OF GATLINBURG
PROJECT:	DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS
ESTIMATED QUANTITIES	
CGI PROJECT NO.	01613-0001
DATE	08-04-2022
P.M.	RCB
DRAWN	TSN
D.C.	ALC
	3

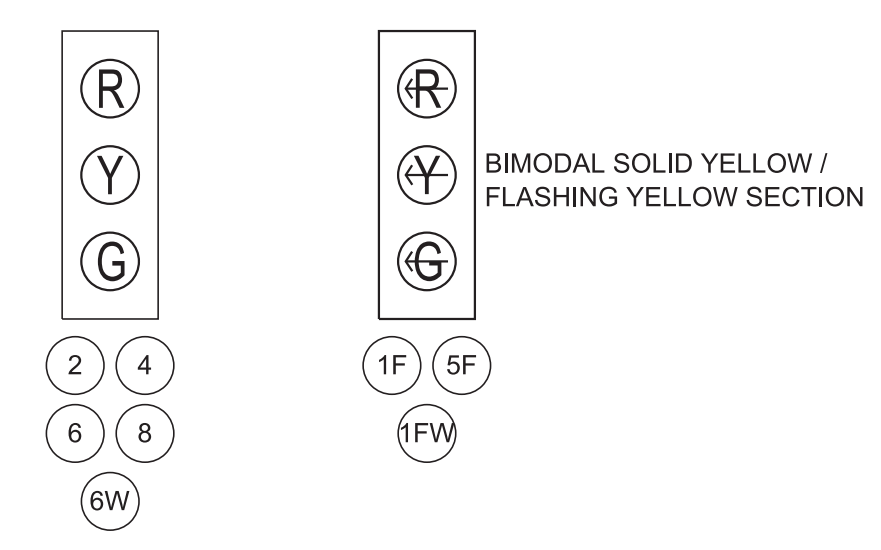


SEE SHEET 4A FOR WIRING AND CONDUIT DIAGRAM AND SIGNAL OPERATIONAL SETTINGS.
SEE SHEET 4B FOR CURB RAMP AND PAVEMENT MARKING DETAILS.

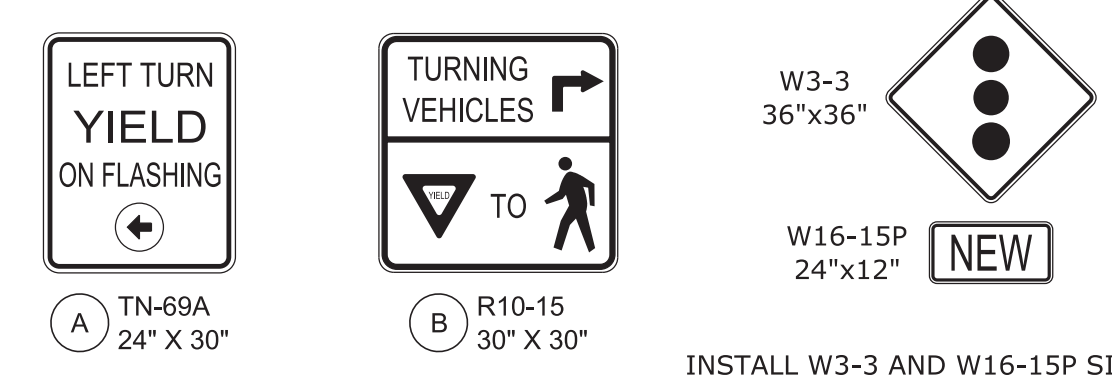
DETECTION ZONE SCHEDULE					
ZONE NO.	DETECTION ZONE	ZONE DIMENSIONS	ASSOC. CONTROLLER PHASES	AMP MODE	COMMENTS
1	Z1-1	7 x 50	1 & 2	PRES.	
2	Z2-1	7 x 50	2	PRES.	
3	Z4-1	8 x 50	5	PRES.	DELAY/NORMAL W/ 10 SEC. DELAY
4	Z5-1	7 x 50	2 & 3	PRES.	
5	Z6-1	7 x 50	2	PRES.	
6	Z8-1	8 x 50	5	PRES.	DELAY/NORMAL W/ 10 SEC. DELAY
7	Z1W-1	7 x 50	2 & 3	PRES.	
8	Z2W-1	7 x 50	2	PRES.	
9	Z2W-2	7 x 50	2	PRES.	
10	Z6W-1	7 x 50	2	PRES.	
11	Z8W-1	8 x 50	5	PRES.	
12	Z8W-2	8 x 50	5	PRES.	DELAY/NORMAL W/ 10 SEC. DELAY

NOTES:
1. CONTROLLER PHASES DO NOT NECESSARILY CORRESPOND TO SIGNAL HEAD AND DETECTION ZONE NUMBERING. SEE PROPOSED SIGNAL PHASING ON SHEET 4A FOR CLARIFICATION.
2. GRID SMART VIDEO DETECTOR CAMERAS SHALL BE PLACED ON POLES 4F AND H.N.T. 1 AS SHOWN, UNLESS BETTER LOCATIONS ARE AVAILABLE. FINAL PLACEMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND SHALL PROVIDE POSITIVE DETECTION OF VEHICLES IN ASSOCIATED ZONES WITH NO INTERFERENCE FROM VEHICLES IN ADJACENT LANES.
3. DETECTION ZONES AS DELAY/NORMAL SHALL HAVE A TIME DELAYED OUTPUT WHEN ASSOCIATED PHASE NOT GREEN (DELAY SETTINGS AS SPECIFIED). OUTPUT SHALL BE NORMAL WHEN ASSOCIATED PHASE IS GREEN.

PROPOSED SIGNAL HEADS



PROPOSED SIGNS



INSTALL W3-3 AND W16-15P SIGNS A DISTANCE OF 150± FEET FROM STOP BAR ON PARKWAY.
INSTALL SIGNS ON A TEMPORARY POST FOR MINIMUM OF 6 WEEKS AFTER COMPLETION OF CONSTRUCTION.

EXISTING SIGNS

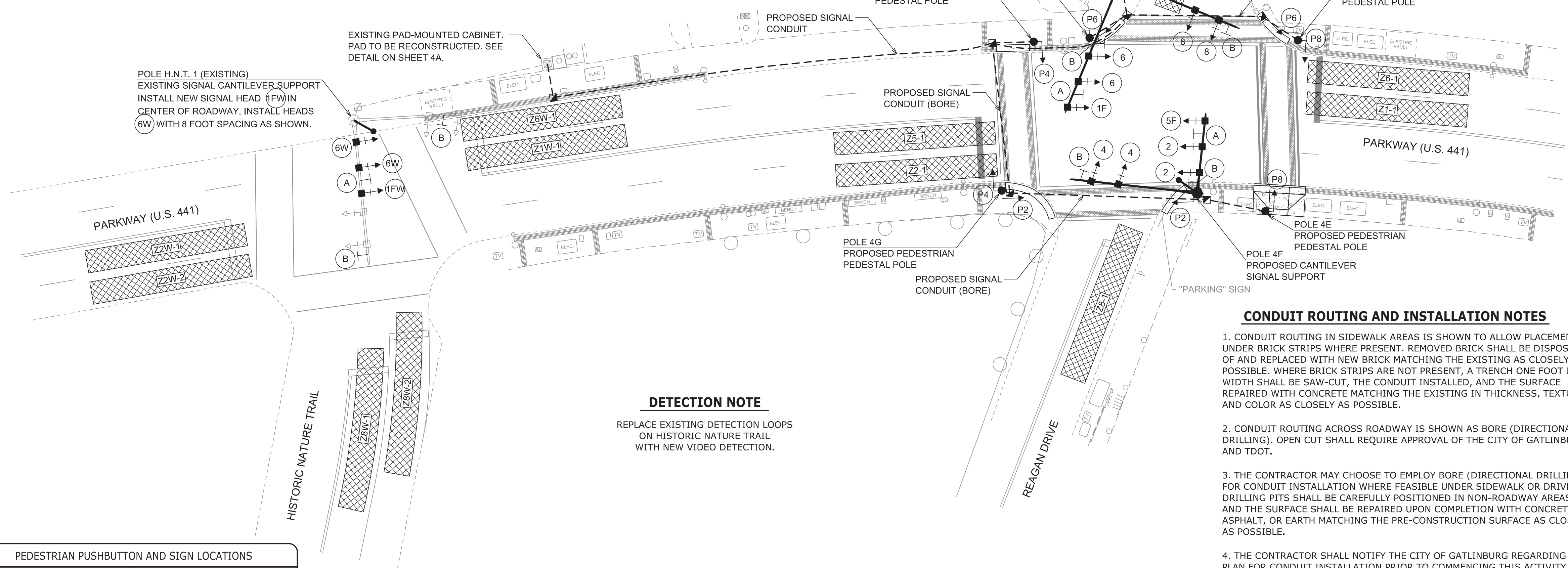
REMOVE EXISTING R1-1 SIGNS AND POSTS ON REAGAN DRIVE AND MAPLES LANE WHEN NEW SIGNAL IS ACTIVATED.
REMOVE EXISTING "RIGHT TURN ON RED YIELD TO PEDESTRIAN" SIGNS ON MAST ARMS AT INTERSECTION OF PARKWAY AT HISTORIC NATURE TRAIL AND REPLACE WITH SIGN (B).

EXISTING LEGEND

- ☒ PAD MOUNTED CONTROLLER CABINET
- SIGNAL STRAIN POLE
- PEDESTRIAN PEDESTAL POLE/POST
- +→ VEHICLE SIGNAL HEAD
- ↑ PEDESTRIAN SIGNAL HEAD
- SIGNAL MAST ARM
- ☒ SIGNAL PULL BOX
- SIGNAL SPAN WIRE
- - - SIGNAL CONDUIT
- ⊥ SIGN ON POST

PROPOSED LEGEND

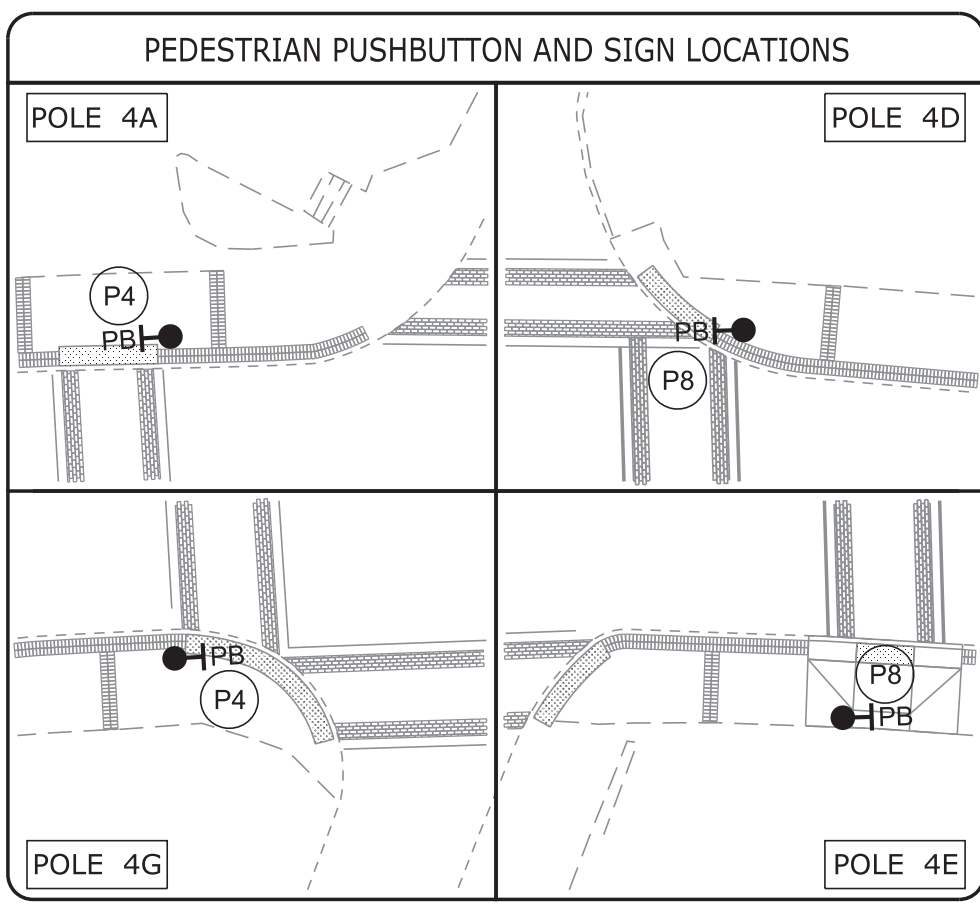
- ☒ POLE MOUNTED CONTROLLER CABINET
- SIGNAL STRAIN POLE
- PEDESTRIAN PEDESTAL POLE/POST
- +→ (2) VEHICLE SIGNAL HEAD W/ ASSOCIATED PHASE
- ↑ (P2) PEDESTRIAN SIGNAL HEAD W/ ASSOCIATED PHASE
- ⊥ (PB) (P2) PEDESTRIAN PUSHBUTTON AND SIGN W/ ASSOCIATED PHASE
- SIGNAL MAST ARM
- GRIDSMArt VIDEO DETECTION
- ☒ SIGNAL PULL BOX (TYPE B)
- ☒ FIBER OPTIC PULL BOX
- - - SIGNAL CONDUIT (PVC)
- ⊥ OVERHEAD SIGN
- ▨ VIDEO DETECTION ZONE W/ ASSOCIATED PHASE
- ⊥ SIGN ON POST



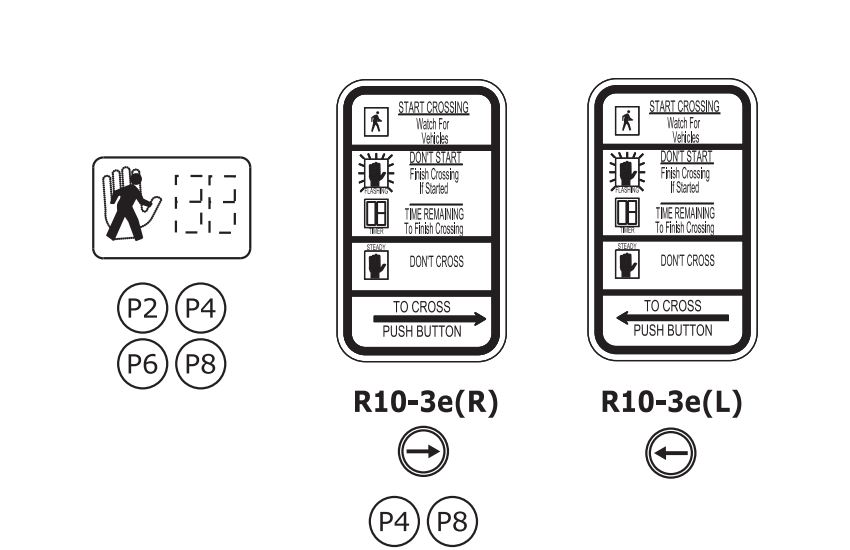
DETECTION NOTE
REPLACE EXISTING DETECTION LOOPS ON HISTORIC NATURE TRAIL WITH NEW VIDEO DETECTION.

CONDUIT ROUTING AND INSTALLATION NOTES

- CONDUIT ROUTING IN SIDEWALK AREAS IS SHOWN TO ALLOW PLACEMENT UNDER BRICK STRIPS WHERE PRESENT. REMOVED BRICK SHALL BE DISPOSED OF AND REPLACED WITH NEW BRICK MATCHING THE EXISTING AS CLOSELY AS POSSIBLE. WHERE BRICK STRIPS ARE NOT PRESENT, A TRENCH ONE FOOT IN WIDTH SHALL BE SAW-CUT, THE CONDUIT INSTALLED, AND THE SURFACE REPAIRED WITH CONCRETE MATCHING THE EXISTING IN THICKNESS, TEXTURE, AND COLOR AS CLOSELY AS POSSIBLE.
- CONDUIT ROUTING ACROSS ROADWAY IS SHOWN AS BORE (DIRECTIONAL DRILLING). OPEN CUT SHALL REQUIRE APPROVAL OF THE CITY OF GATLINBURG AND TDOT.
- THE CONTRACTOR MAY CHOOSE TO EMPLOY BORE (DIRECTIONAL DRILLING) FOR CONDUIT INSTALLATION WHERE FEASIBLE UNDER SIDEWALK OR DRIVEWAYS. DRILLING PITS SHALL BE CAREFULLY POSITIONED IN NON-ROADWAY AREAS ONLY, AND THE SURFACE SHALL BE REPAIRED UPON COMPLETION WITH CONCRETE, ASPHALT, OR EARTH MATCHING THE PRE-CONSTRUCTION SURFACE AS CLOSELY AS POSSIBLE.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF GATLINBURG REGARDING THE PLAN FOR CONDUIT INSTALLATION PRIOR TO COMMENCING THIS ACTIVITY.

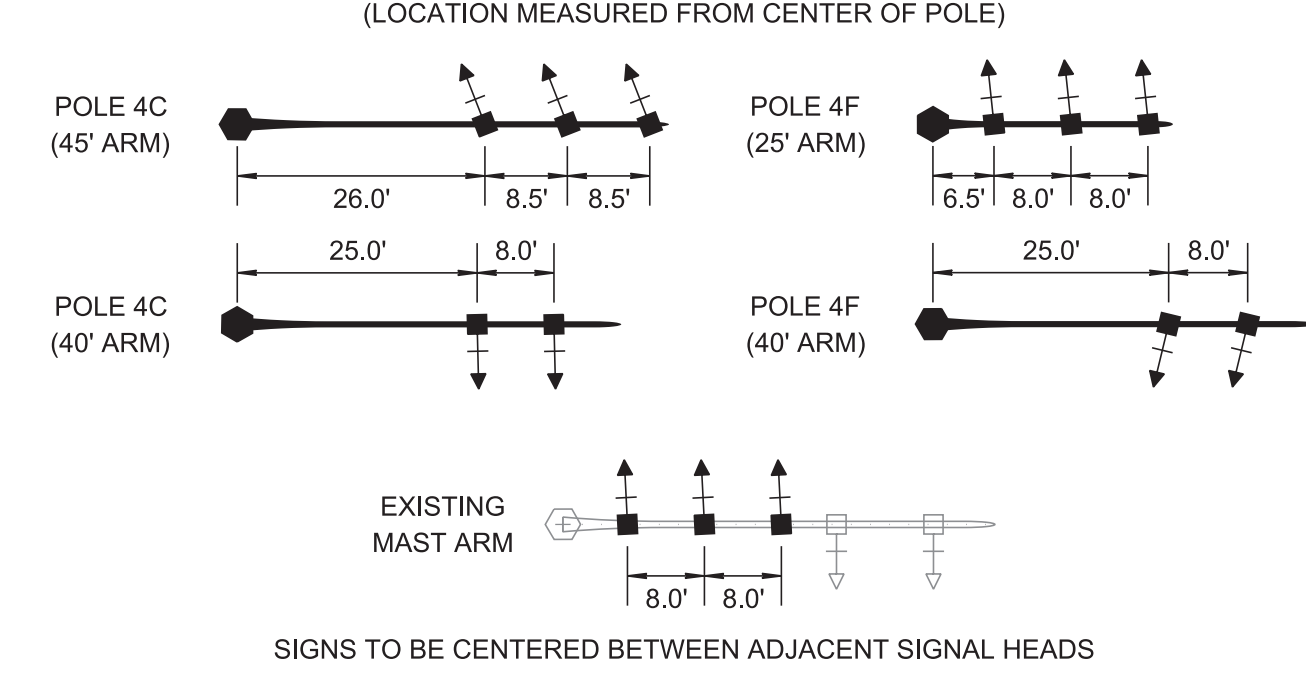


PROPOSED PEDESTRIAN SIGNAL DETAILS



PEDESTRIAN SIGNALS/PUSHBUTTONS SHALL BE ACCESSIBLE

SIGNAL/SIGN LOCATION ON MAST ARMS
(LOCATION MEASURED FROM CENTER OF POLE)

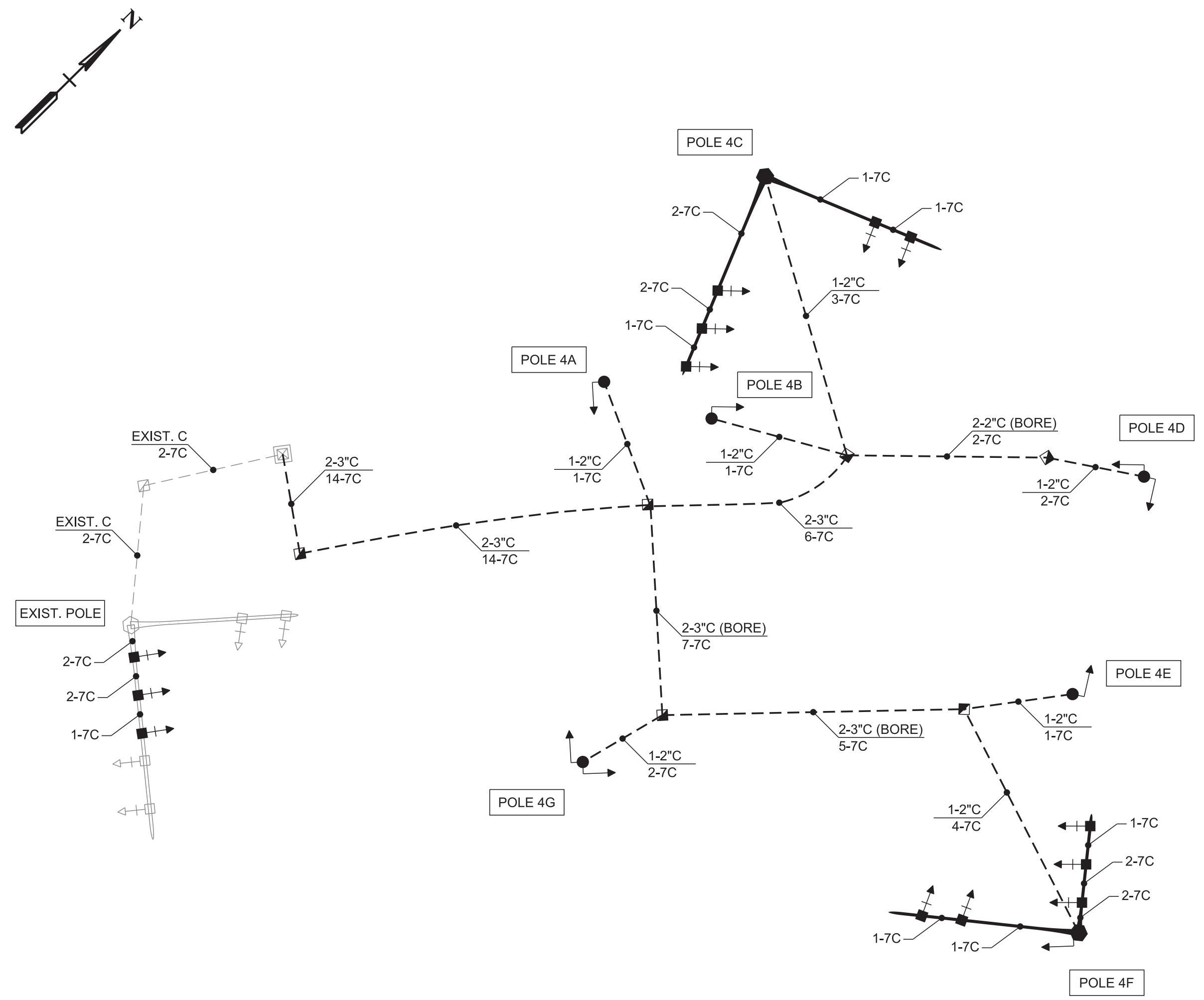


PROPOSED POLE LOCATIONS				
POLE ID	POLE TYPE	NORTHING	EASTING	MAST ARM SPREAD
4A	PEDESTAL POLE	511052.67	2705386.02	
4B	PEDESTAL POLE	511065.84	2705397.35	
4C	MAST ARM	511085.53	2705391.21	45' & 40'
4D	PEDESTAL POLE	511111.29	2705443.31	
4E	PEDESTAL POLE	511066.83	2705473.92	
4F	MAST ARM	511055.78	2705455.02	25' & 40'
4G	PEDESTAL POLE	511013.16	2705411.89	

*COORDINATES SHOULD BE FIELD VERIFIED WITH PROPOSED POLE LOCATIONS SHOWN ON THIS SHEET.
DAMPER PLATES NOT REQUIRED ON MAST ARMS FOR POLES 4C AND 4F.
SEE ADDITIONAL POLE / MAST ARM NOTES ON SHEET 2.

MOVED POLE 4E	9/29/2022
REVISIONS	DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	CITY OF GATLINBURG
PROJECT:	DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS
PARKWAY (U.S. 441) AT REAGAN DRIVE / MAPLES LANE PROPOSED SIGNAL LAYOUT	
CCI PROJECT NO.	01613-0001
DATE	08-04-2022
P.M.	RCB
DRAWN	TSN
C.C.	ALC
4	

WIRING AND CONDUIT DIAGRAM (N.T.S)



- NOTES:
- 1) POWER SERVICE AND GROUND CONDUITS AND CABLE NOT SHOWN.
 - 2) EXISTING CONDUIT ROUTING ASSUMED.
 - 3) CONDUIT SHALL BE SCHEDULE 80 PVC EXCEPT WHERE SPECIFIED OTHERWISE.
 - 4) ALL CONDUIT UNDER ROADWAY SHALL BE DIRECTIONAL BORE.
 - 5) ALL CABLE RUNS SHALL BE CONTINUOUS; NO SPLICES ALLOWED.

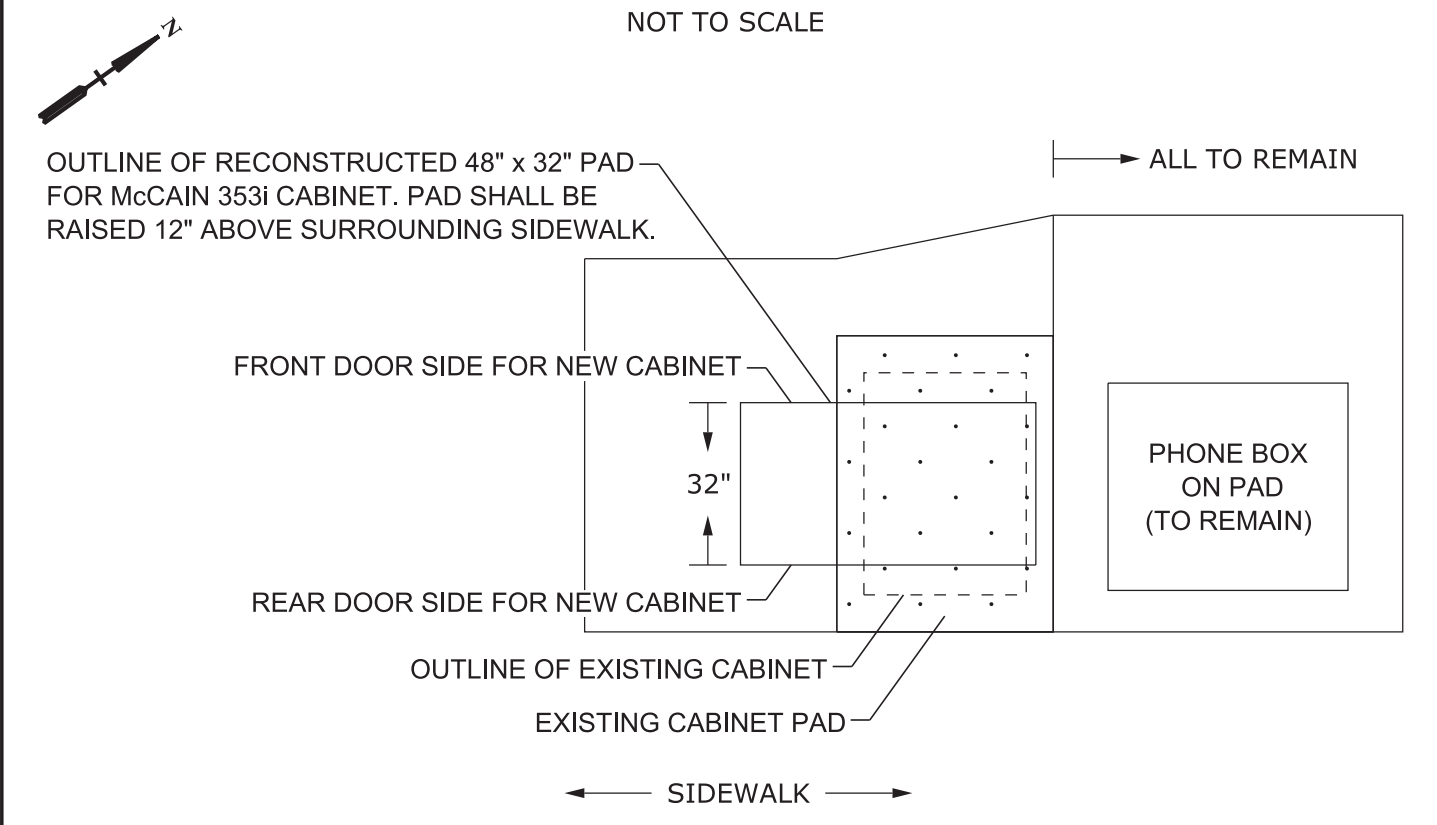
BASIC TIMING (SECS) FOR McCAIN ATC EX2 CONTROLLER

PHASE	MINIMUM GREEN (MIN GRN)	PASSAGE TIME (PASS/10)	MAXIMUM GREEN 1 (MAX 1)	MAXIMUM GREEN 2 (MAX 2)	YELLOW CHANGE (YEL/10)	RED CLEARANCE (RED/10)	WALK TIME (WALK)	PEDESTRIAN CLEARANCE (PED/CLR)	RECALL TO
1	6.0	30	8	8	40	20			
2	28.0	30	50	28	40	20	10.0	18.0	PED & MIN
3	8.0	30	15	12	40	20			
4	0	0	0	0	0	20	10.0	18.0	
5	8.0	30	20	15	40	20			

- ADDITIONAL CONTROLLER SETTINGS
1. ENABLE "NO BACKUP" ON PHASE 1.
 2. ENABLE "WALK REST" ON PHASE 2.
 3. ENABLE "FDW PED RECYCLE" ON PHASE 2.
 4. ENABLE "NO MIN YELLOW" ON PHASE 4.
 5. ALL OTHER SETTINGS SHALL BE PER MANUFACTURER RECOMMENDATIONS.

MAX. SCHEDULE: (ALL DAYS OF THE YEAR)
 8:00 A.M. TO 8:00 P.M. - MAXIMUM 1
 8:00 P.M. TO 8:00 A.M. - MAXIMUM 2

**CONTROLLER FOUNDATION RECONSTRUCTION DETAIL
 PARKWAY AT HISTORIC NATURE TRAIL AND REAGAN / MAPLES**

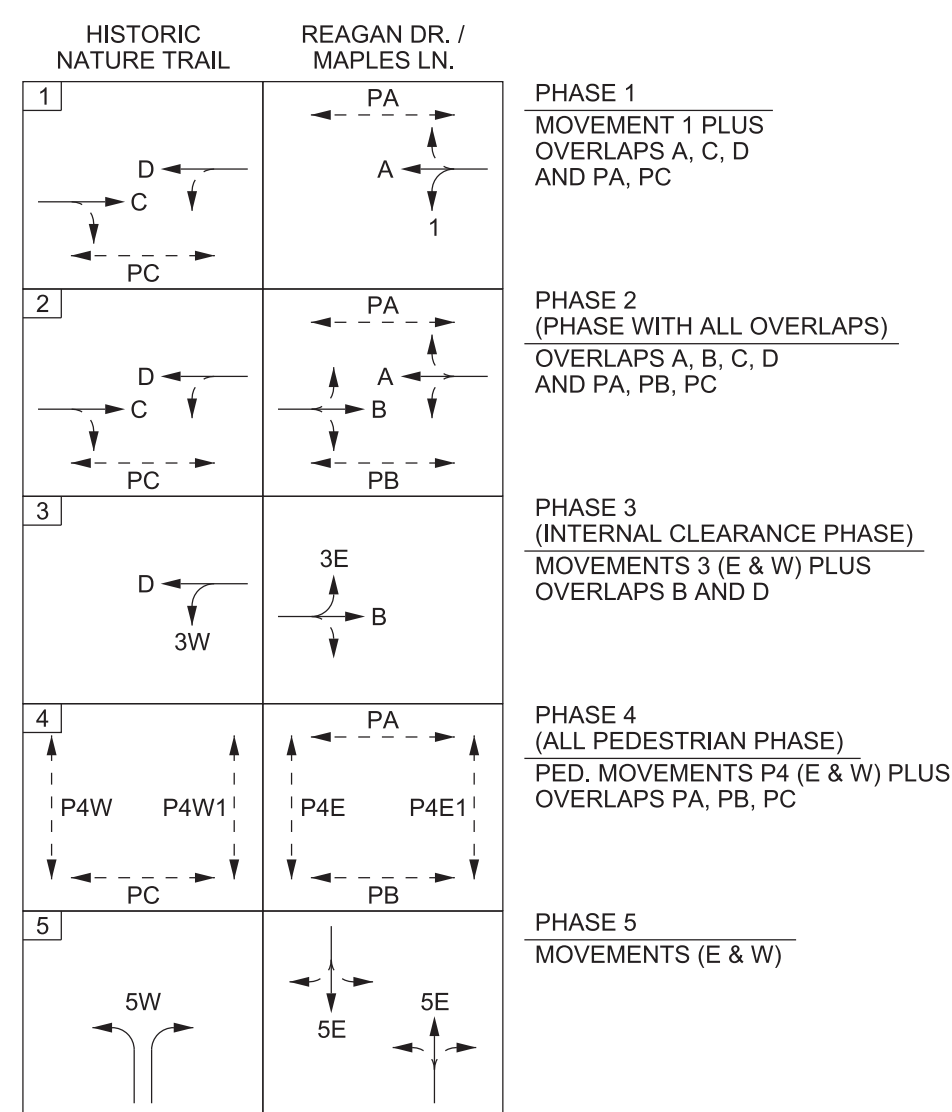


- NOTES:
- 1) SIGNAL SHALL REMAIN IN OPERATION DURING PAD RECONSTRUCTION REQUIRING EXISTING CABINET TO BE RAISED AND TEMPORARILY SUPPORTED.
 - 2) NEW CABINET SHALL BE PLACED TO ACCOMMODATE BOTH THE EXISTING CONDUITS AND THE NEW ONES FROM PARKWAY AND REAGAN / MAPLES.

RING DIAGRAM NOTE

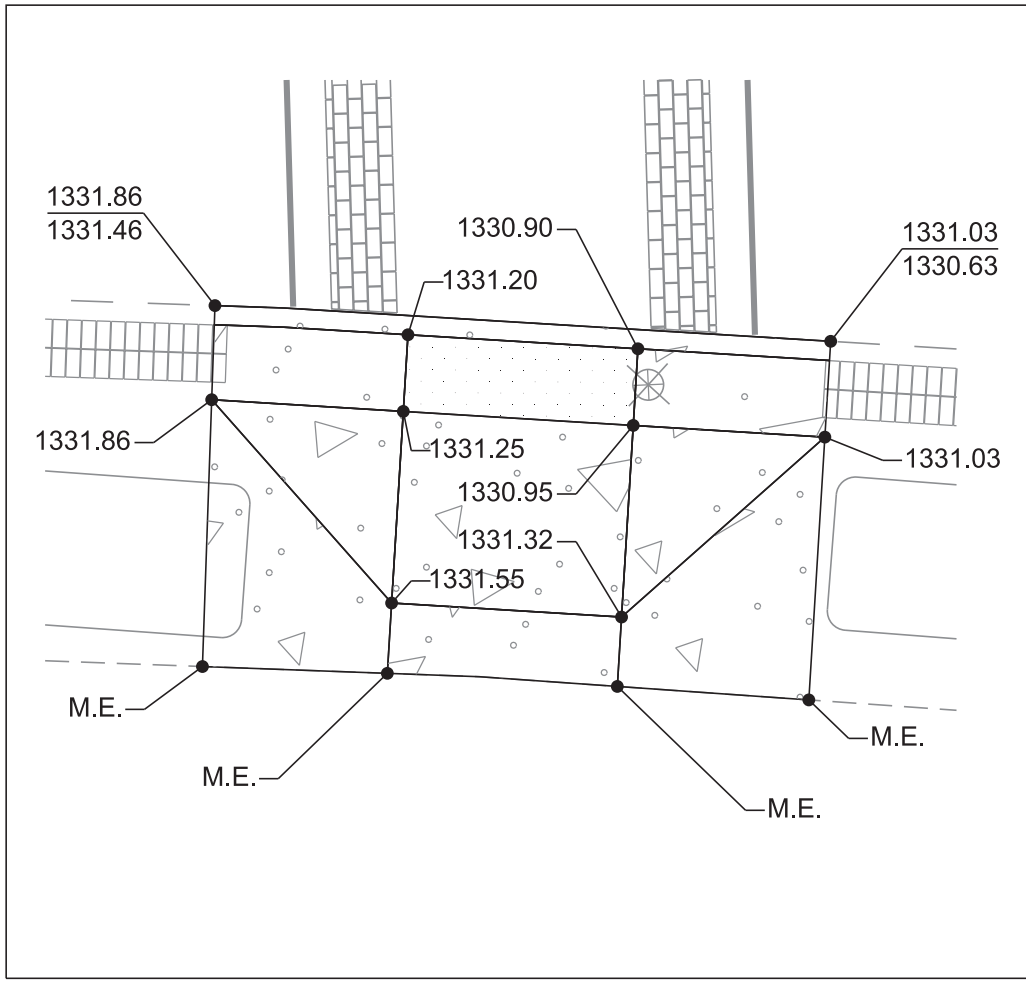
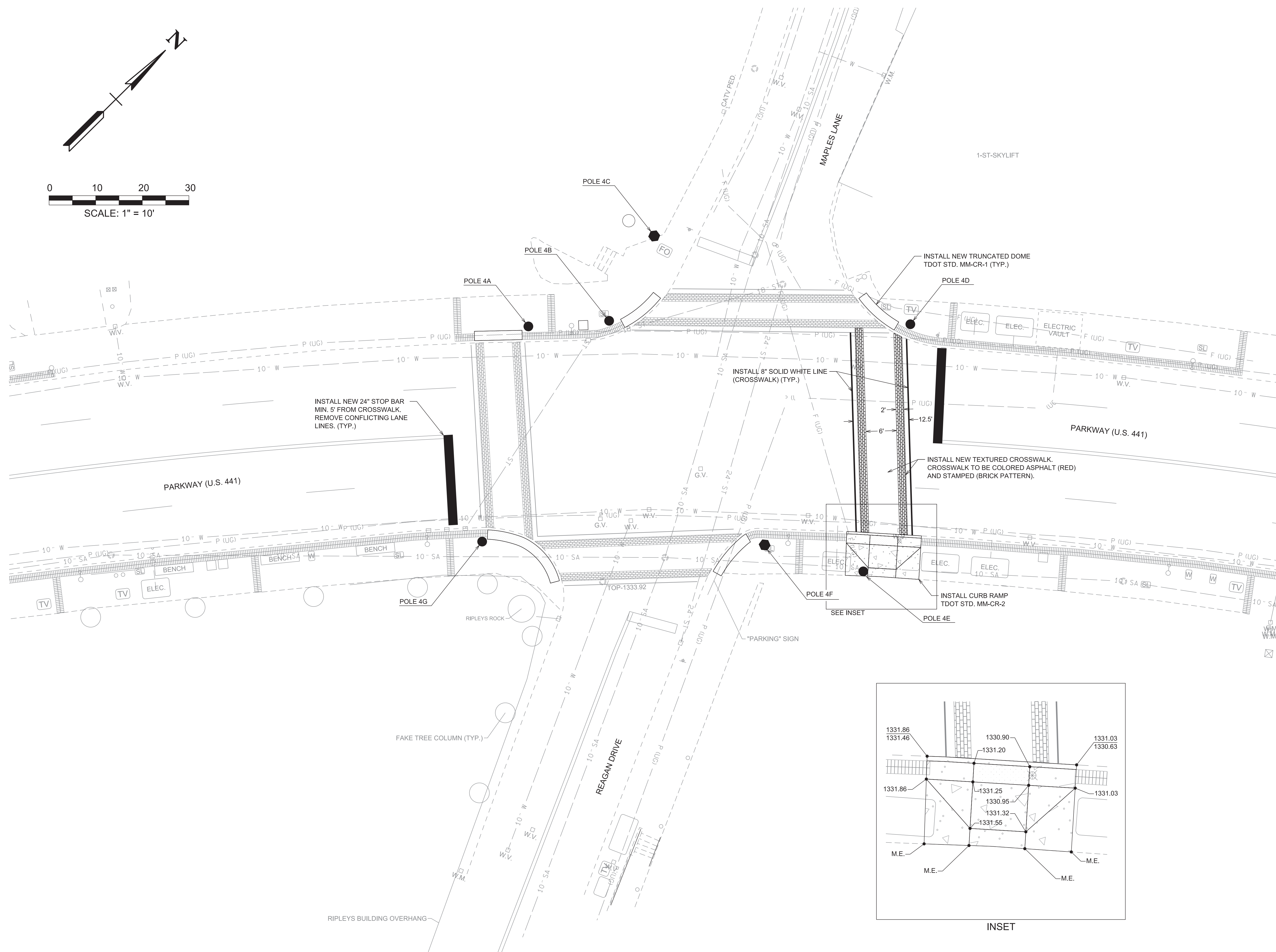
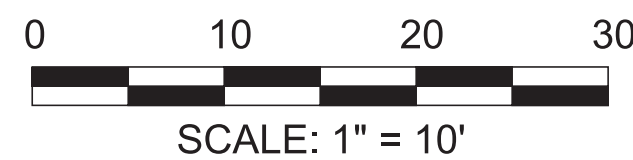
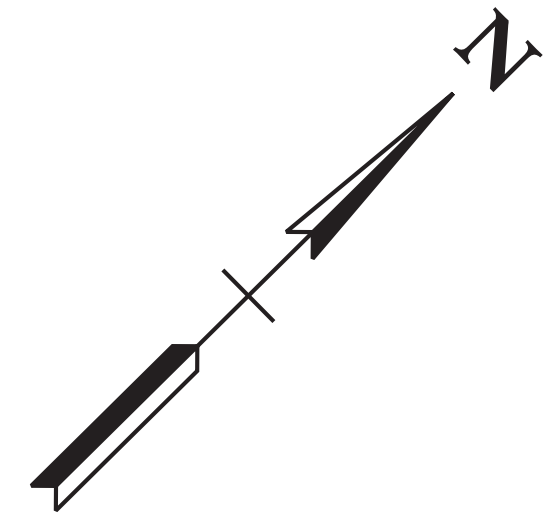
RING DIAGRAM IS FIVE PHASE SEQUENTIAL WITH MOVEMENT / OVERLAP ASSIGNMENTS AS SHOWN BELOW.

PROPOSED PHASING DIAGRAM



- NOTES:
1. VEHICLE MOVEMENT OR OVERLAP.
 2. PERMISSIVE VEHICLE LEFT-TURN MOVEMENT.
 3. PEDESTRIAN MOVEMENT OR OVERLAP.
 4. ALL CLEARANCES SHALL BE IN ACCORDANCE WITH THE MUTCD.

MOVED POLE 4E	9/29/2022
REVISIONS	DATE
 CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	CITY OF GATLINBURG
PROJECT:	DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS
PARKWAY (U.S. 441) AT REAGAN DRIVE / MAPLES LANE SIGNAL OPERATIONAL SETTINGS	
CGI PROJECT NO.	01613-0001
DATE	08-04-2022
P.M.	RCB
DRAWN	TSN
D.C.	ALC
4A	

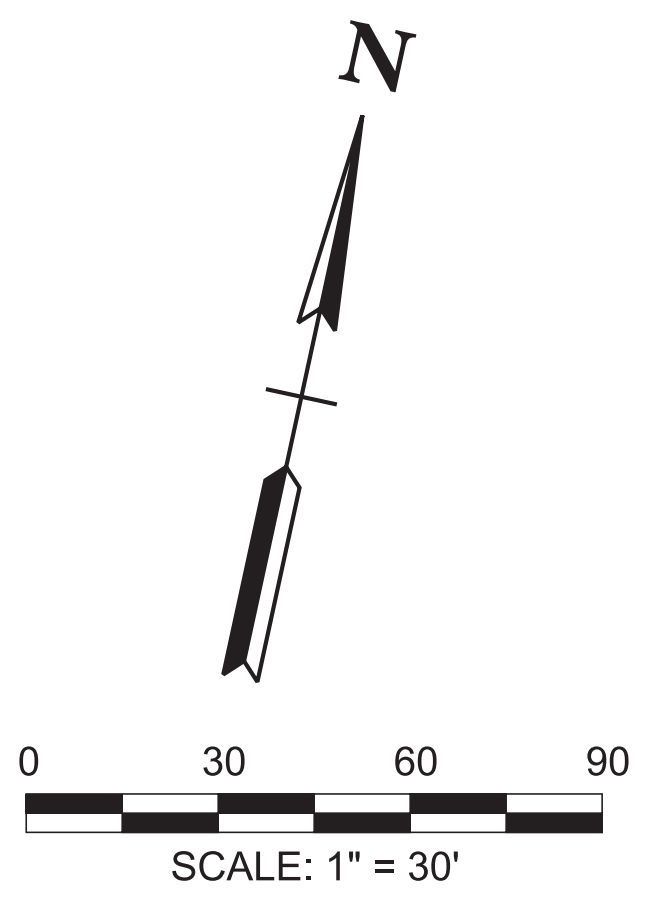


INSET

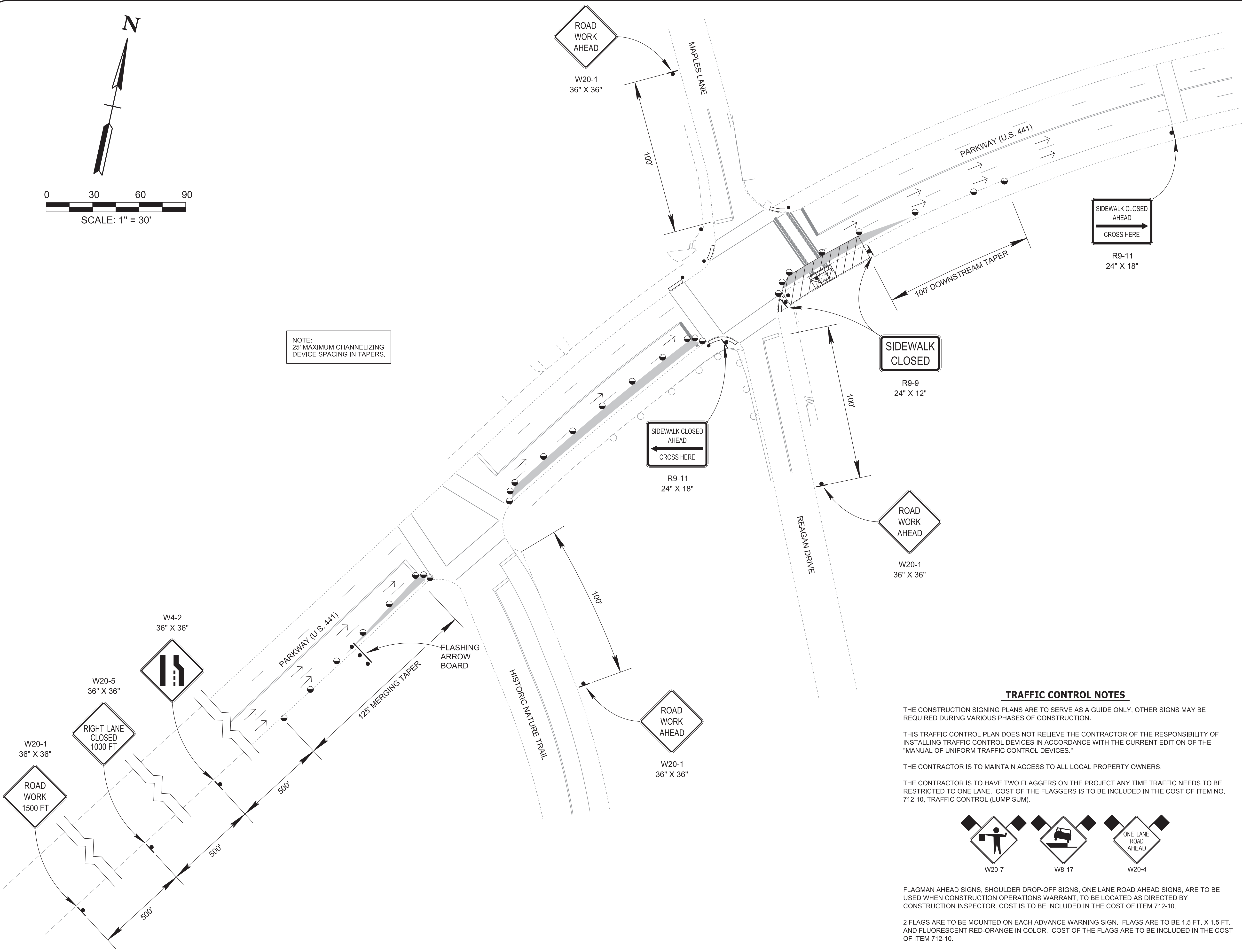
PROPOSED LEGEND

- SIGNAL STRAIN POLE
- PEDESTRIAN PEDESTAL POLE/POST
- GROUND MOUNTED SIGN
- TRUNCATED DOME SURFACE
- CONCRETE SIDEWALK/RAMP
- STOP BAR
- LONGITUDINAL CROSSWALK
- STAMPED AND STAINED CROSSWALK MATCH EXISTING

MOVED POLE 4E	9/29/2022
REVISIONS	DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	
CITY OF GATLINBURG	
PROJECT:	
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS	
PARKWAY (U.S. 441) AT REAGAN DRIVE / MAPLES LANE PROPOSED RAMP LAYOUT	
CGI PROJECT NO. 01613-0001 DATE 08-04-2022 P.M. RCB DRAWN TSN D.C. ALC	4B



NOTE:
25' MAXIMUM CHANNELIZING
DEVICE SPACING IN TAPERS.



TRAFFIC CONTROL LEGEND	
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	ARROW BOARD TYPE C
	TYPE III BARRICADE
	FLAGGER SYMBOL
	TRAFFIC FLOW ARROW
	WORK AREA
	LANE CLOSURE

TRAFFIC CONTROL NOTES

THE CONSTRUCTION SIGNING PLANS ARE TO SERVE AS A GUIDE ONLY, OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.

THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

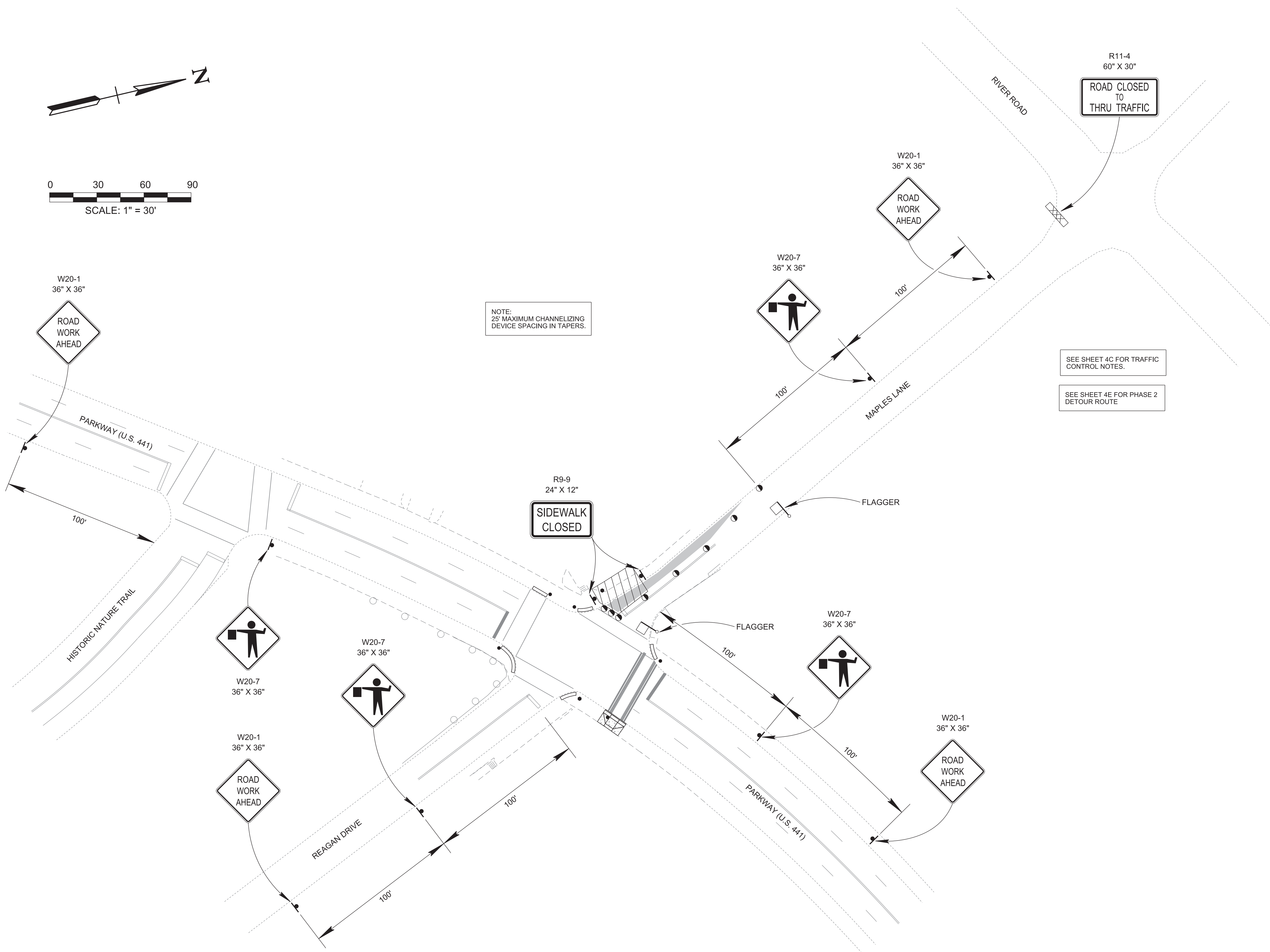
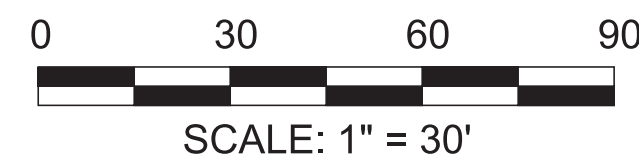
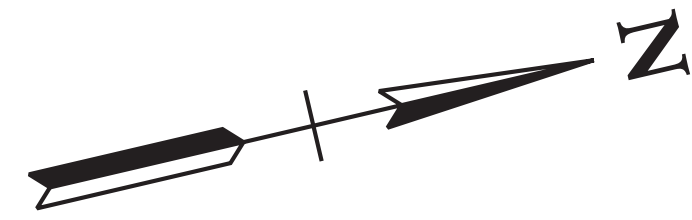
THE CONTRACTOR IS TO HAVE TWO FLAGGERS ON THE PROJECT ANY TIME TRAFFIC NEEDS TO BE RESTRICTED TO ONE LANE. COST OF THE FLAGGERS IS TO BE INCLUDED IN THE COST OF ITEM NO. 712-10, TRAFFIC CONTROL (LUMP SUM).



FLAGMAN AHEAD SIGNS, SHOULDER DROP-OFF SIGNS, ONE LANE ROAD AHEAD SIGNS, ARE TO BE USED WHEN CONSTRUCTION OPERATIONS WARRANT, TO BE LOCATED AS DIRECTED BY CONSTRUCTION INSPECTOR. COST IS TO BE INCLUDED IN THE COST OF ITEM 712-10.

2 FLAGS ARE TO BE MOUNTED ON EACH ADVANCE WARNING SIGN. FLAGS ARE TO BE 1.5 FT. X 1.5 FT. AND FLUORESCENT RED-ORANGE IN COLOR. COST OF THE FLAGS ARE TO BE INCLUDED IN THE COST OF ITEM 712-10.

REVISIONS		DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919		
CLIENT:		
CITY OF GATLINBURG		
PROJECT:		
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS		
PARKWAY (U.S. 441) AT REAGAN DRIVE / MAPLES LANE TRAFFIC CONTROL PLAN - PHASE 1		
CGI PROJECT NO.	01613-0001	
DATE	08-04-2022	
P.M.	RCB	
DRAWN	TSN	
C.C.	ALC	
4C		



NOTE:
25' MAXIMUM CHANNELIZING
DEVICE SPACING IN TAPERS.

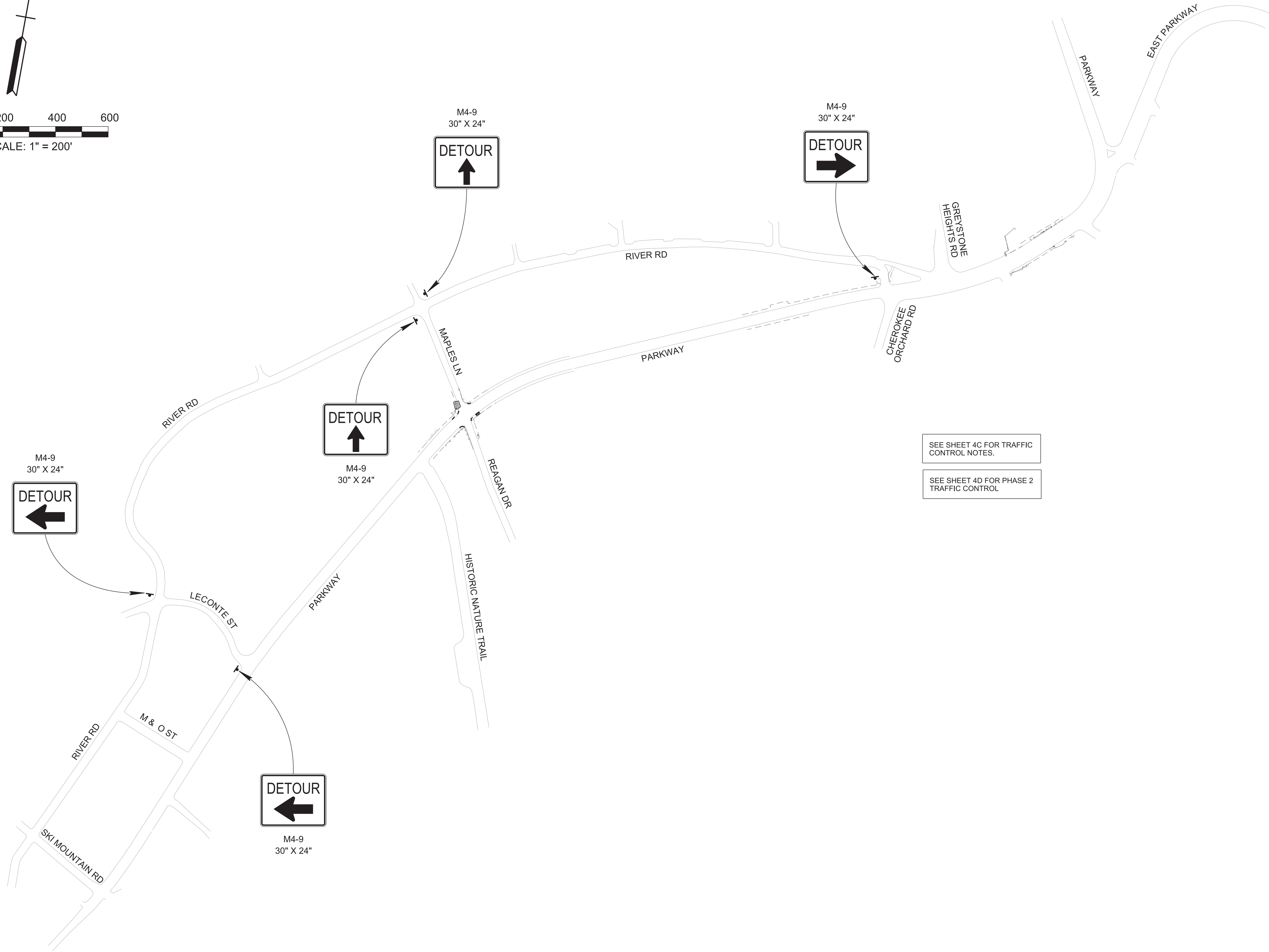
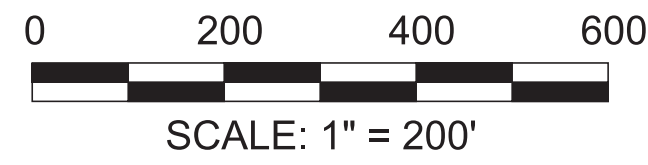
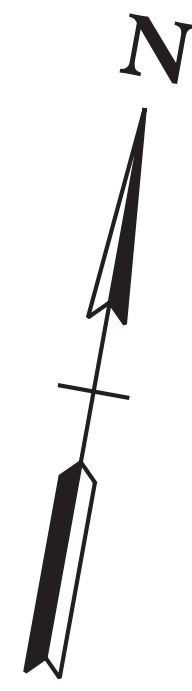
SEE SHEET 4C FOR TRAFFIC
CONTROL NOTES.

SEE SHEET 4E FOR PHASE 2
DETOUR ROUTE

TRAFFIC CONTROL LEGEND

- FLEXIBLE DRUMS (CHANNELIZING)
- SIGN (CONSTRUCTION)
- ARROW BOARD TYPE C
- TYPE III BARRICADE
- FLAGGER SYMBOL
- TRAFFIC FLOW ARROW
- WORK AREA
- LANE CLOSURE









REVISIONS	DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8535 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	
CITY OF GATLINBURG	
PROJECT:	
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS	
PARKWAY (U.S. 441) AT REAGAN DRIVE / MAPLES LANE TRAFFIC CONTROL PLAN - PHASE 2	
ERECCA C. BOTTOM REGISTERED ENGINEER No. 18978 08/04/2022 STATE OF TENNESSEE	CGI PROJECT NO. 01613-0001 DATE 08-04-2022 P.M. RCB DRAWN TSN I.C. ALC
4D	



SEE SHEET 4C FOR TRAFFIC CONTROL NOTES.

SEE SHEET 4D FOR PHASE 2 TRAFFIC CONTROL

TRAFFIC CONTROL LEGEND

-  FLEXIBLE DRUMS (CHANNELIZING)
-  SIGN (CONSTRUCTION)
-  ARROW BOARD TYPE C
-  TYPE III BARRICADE
-  FLAGGER SYMBOL
-  TRAFFIC FLOW ARROW
-  WORK AREA
-  LANE CLOSURE

REVISIONS	DATE

CANNON & CANNON INC
CONSULTING ENGINEERS · FIELD SURVEYORS
TEL 865.670.8555 | 8550 Kingston Pike
WWW.CANNON-CANNON.COM | Knoxville, TN 37919

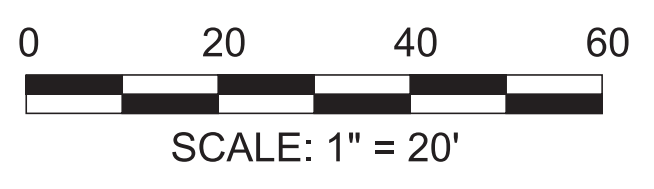
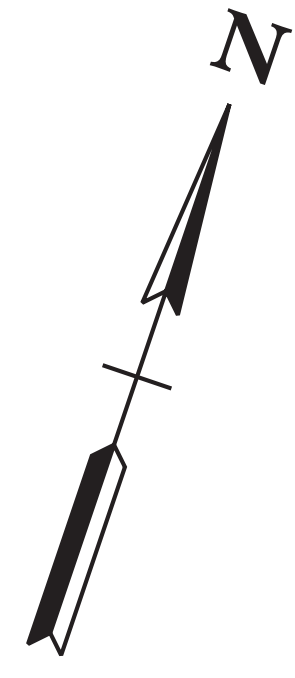
CLIENT:
CITY OF GATLINBURG

PROJECT:
**DOWNTOWN GATLINBURG
PARKWAY TRAFFIC SIGNALS**

**PARKWAY (U.S. 441) AT
REAGAN DRIVE / MAPLES LANE
TRAFFIC CONTROL PLAN - PHASE 2**

CGI PROJECT NO.	01613-0001
DATE	08-04-2022
P.M.	RCB
DRAWN	TSN
C.C.	ALC

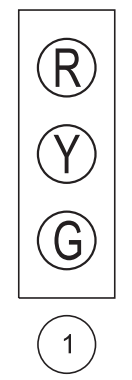




SEE SHEET 5A FOR WIRING AND CONDUIT DIAGRAM AND SIGNAL OPERATIONAL SETTINGS.

SEE SHEET 5B FOR CURB RAMP AND PAVEMENT MARKING DETAILS.

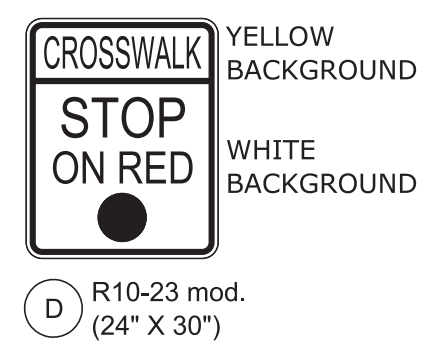
PROPOSED SIGNAL HEADS



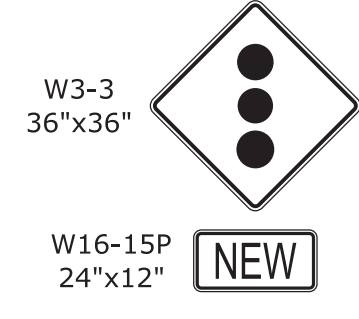
EXISTING SIGNS

EXISTING W11-2 AND W16-7P SIGNS TO REMAIN.

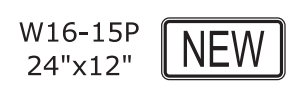
PROPOSED SIGNS



(BLACK ON WHITE) INSTALL DIRECTLY UNDER WALK SIGNALS



INSTALL W3-3 AND W16-15P SIGNS A DISTANCE OF 150± FEET FROM STOP BAR ON PARKWAY. INSTALL SIGNS ON A TEMPORARY POST FOR MINIMUM OF 6 WEEKS AFTER COMPLETION OF CONSTRUCTION.



CONDUIT ROUTING AND INSTALLATION NOTES

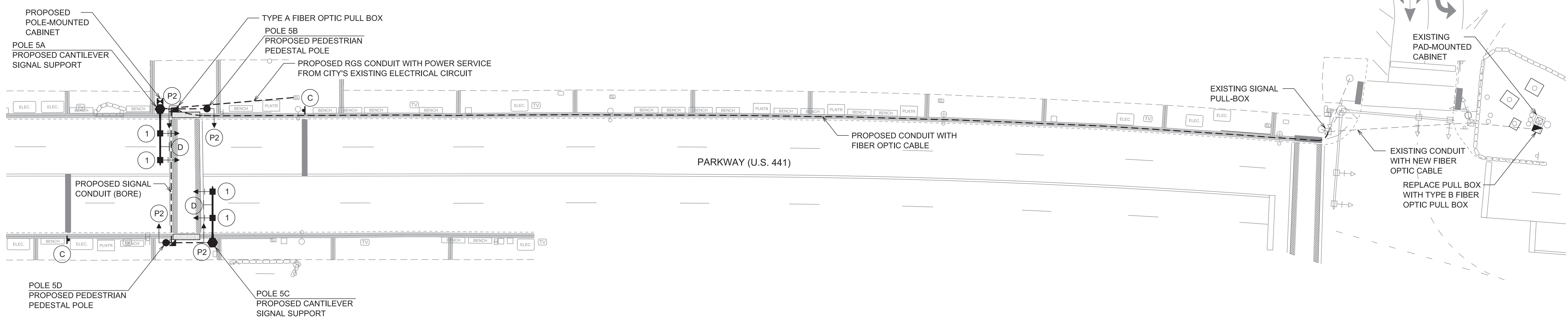
1. CONDUIT ROUTING IN SIDEWALK AREAS IS SHOWN TO ALLOW PLACEMENT UNDER BRICK STRIPS WHERE PRESENT. REMOVED BRICK SHALL BE DISPOSED OF AND REPLACED WITH NEW BRICK MATCHING THE EXISTING AS CLOSELY AS POSSIBLE. WHERE BRICK STRIPS ARE NOT PRESENT, A TRENCH ONE FOOT IN WIDTH SHALL BE SAW-CUT, THE CONDUIT INSTALLED, AND THE SURFACE REPAIRED WITH CONCRETE MATCHING THE EXISTING IN THICKNESS, TEXTURE, AND COLOR AS CLOSELY AS POSSIBLE.

2. CONDUIT ROUTING ACROSS ROADWAY IS SHOWN AS BORE (DIRECTIONAL DRILLING). OPEN CUT SHALL REQUIRE APPROVAL OF THE CITY OF GATLINBURG AND TDOT.

3. THE CONTRACTOR MAY CHOOSE TO EMPLOY BORE (DIRECTIONAL DRILLING) FOR CONDUIT INSTALLATION WHERE FEASIBLE UNDER SIDEWALK OR DRIVEWAYS. DRILLING PITS SHALL BE CAREFULLY POSITIONED IN NON-ROADWAY AREAS ONLY, AND THE SURFACE SHALL BE REPAIRED UPON COMPLETION WITH CONCRETE, ASPHALT, OR EARTH MATCHING THE PRE-CONSTRUCTION SURFACE AS CLOSELY AS POSSIBLE.

4. THE CONTRACTOR SHALL NOTIFY THE CITY OF GATLINBURG REGARDING THE PLAN FOR CONDUIT INSTALLATION PRIOR TO COMMENCING THIS ACTIVITY.

5. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF GATLINBURG ABOUT INSTALLING POWER SERVICE FROM EXISTING CITY ELECTRICAL SERVICE.



EXISTING LEGEND

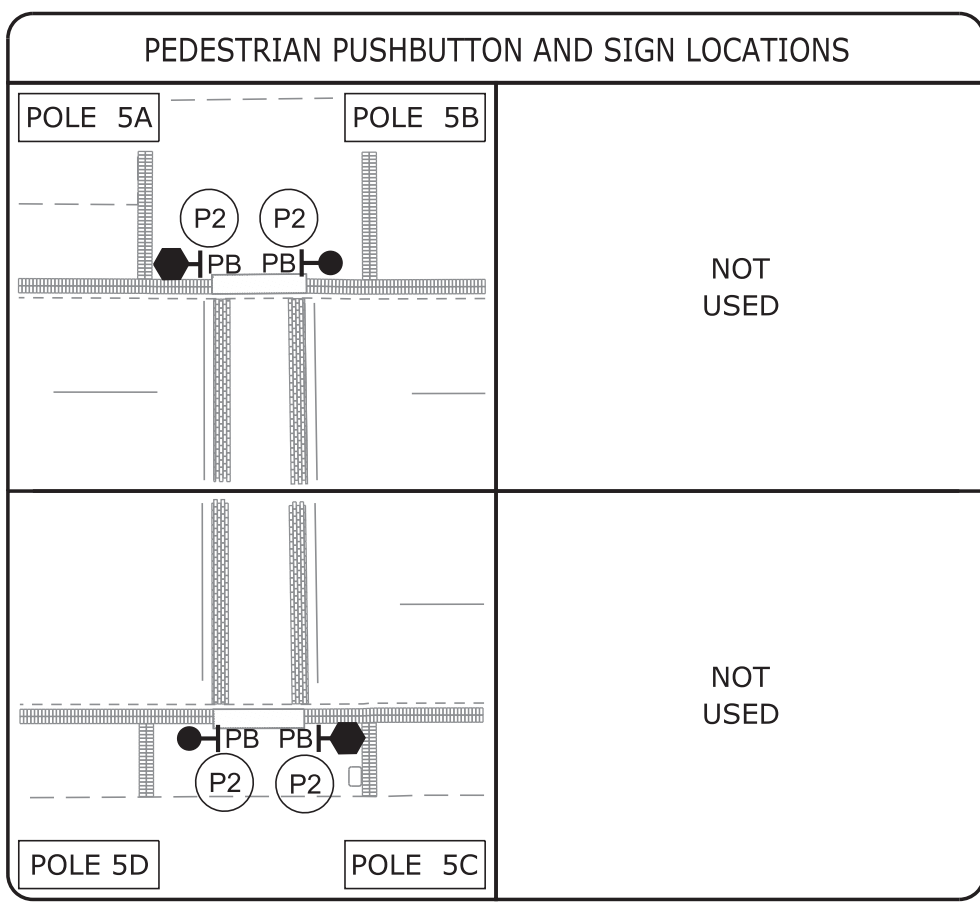
- PAD MOUNTED CONTROLLER CABINET
- SIGNAL STRAIN POLE
- PEDESTRIAN PEDESTAL POLE/POST
- VEHICLE SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- SIGNAL MAST ARM
- SIGNAL PULL BOX
- SIGNAL SPAN WIRE
- SIGNAL CONDUIT
- SIGN ON POST

PROPOSED LEGEND

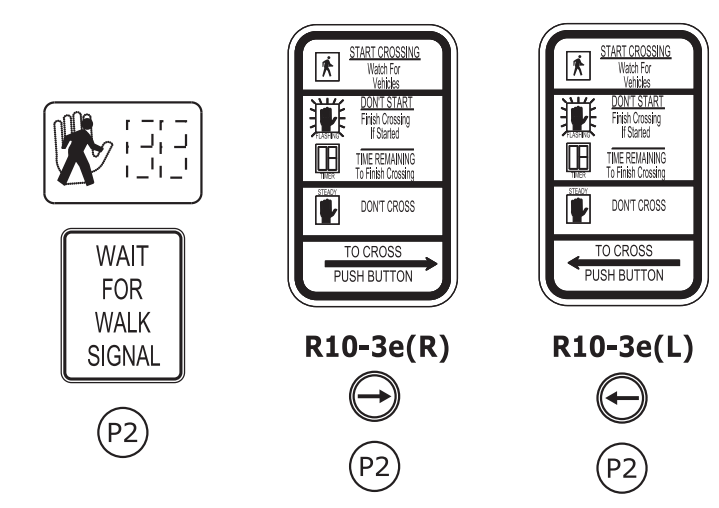
- POLE MOUNTED CONTROLLER CABINET
- SIGNAL STRAIN POLE
- PEDESTRIAN PEDESTAL POLE/POST
- VEHICLE SIGNAL HEAD W/ ASSOCIATED PHASE
- PEDESTRIAN SIGNAL HEAD W/ ASSOCIATED PHASE
- PEDESTRIAN PUSHBUTTON AND SIGN W/ ASSOCIATED PHASE
- SIGNAL MAST ARM
- GRIDSMART VIDEO DETECTION
- SIGNAL PULL BOX (TYPE B)
- FIBER OPTIC PULL BOX
- SIGNAL CONDUIT (PVC)
- OVERHEAD SIGN
- VIDEO DETECTION ZONE W/ ASSOCIATED PHASE
- SIGN ON POST

FIBER OPTIC NOTE

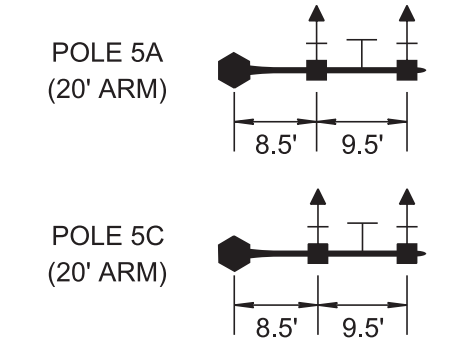
FIBER OPTIC CABLE SHALL BE 6 STRAND DROP CABLE COMPATIBLE WITH THE EXISTING FIBER OPTIC FACILITIES.



PROPOSED PEDESTRIAN SIGNAL DETAILS



SIGNAL/SIGN LOCATION ON MAST ARMS
(LOCATION MEASURED FROM CENTER OF POLE)



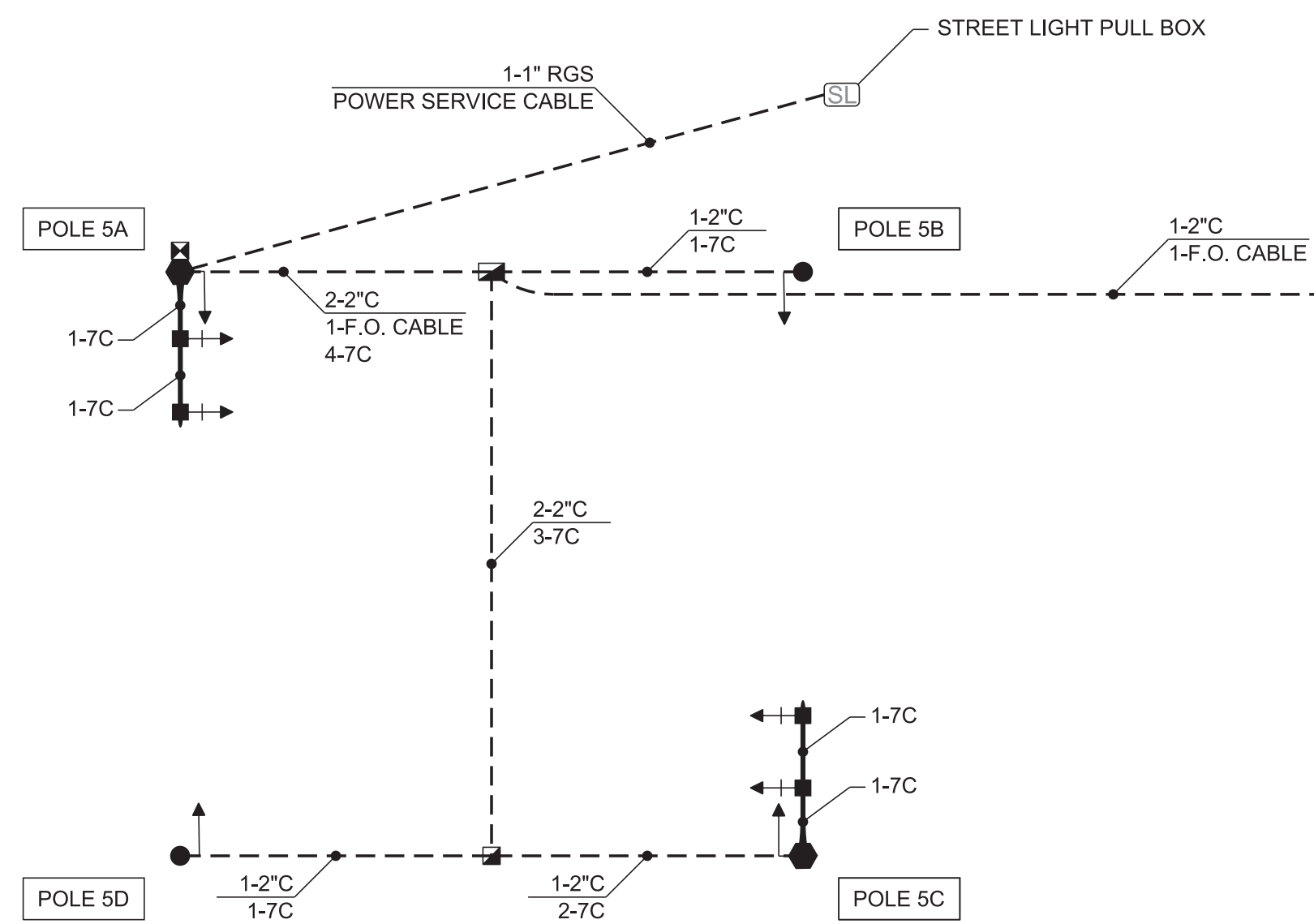
SIGNS TO BE CENTERED BETWEEN ADJACENT SIGNAL HEADS

PROPOSED POLE LOCATIONS				
POLE ID	POLE TYPE	NORTHING	EASTING	MAST ARM SPREAD
5A	MAST ARM	511570.26	2706550.00	20'
5B	PEDESTAL POLE	511575.71	2706565.64	
5C	MAST ARM	511531.55	2706582.70	20'
5D	PEDESTAL POLE	511526.24	2706567.10	

*COORDINATES SHOULD BE FIELD VERIFIED WITH PROPOSED POLE LOCATIONS SHOWN ON THIS SHEET.
DAMPER PLATES NOT REQUIRED ON MAST ARMS FOR POLES 5A AND 5C.
SEE ADDITIONAL POLE / MAST ARM NOTES ON SHEET 2.

REVISIONS	DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS	
TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	CITY OF GATLINBURG
PROJECT:	DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS
PARKWAY (U.S. 441) AT BASKIN SQUARE / VILLAGE SHOPPES PROPOSED SIGNAL LAYOUT	
CCI PROJECT NO.	01613-0001
DATE	08-04-2022
P.M.	RCB
DRAWN	TSN
C.C.	ALC
5	

WIRING AND CONDUIT DIAGRAM (N.T.S)



- NOTES:
 1) POWER SERVICE AND GROUND CONDUITS AND CABLE NOT SHOWN.
 2) CONDUIT SHALL BE SCHEDULE 80 PVC EXCEPT WHERE SPECIFIED OTHERWISE.
 3) ALL CABLE RUNS SHALL BE CONTINUOUS; NO SPLICES ALLOWED.

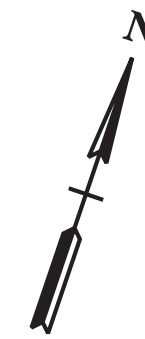
BASIC TIMING (SECS) FOR McCAIN ATC EX2 CONTROLLER

PHASE	MINIMUM GREEN (MIN GRN)	PASSAGE TIME (PASS/10)	MAXIMUM GREEN 1 (MAX 1)	MAXIMUM GREEN 2 (MAX 2)	YELLOW CHANGE (YEL/10)	RED CLEARANCE (RED/10)	WALK TIME (WALK)	PEDESTRIAN CLEARANCE (PED/CLR)	RECALL TO
1	30.0	30	60	60	40	20			MIN.
2	0	0	0	0	0	20	10.0	16.0	

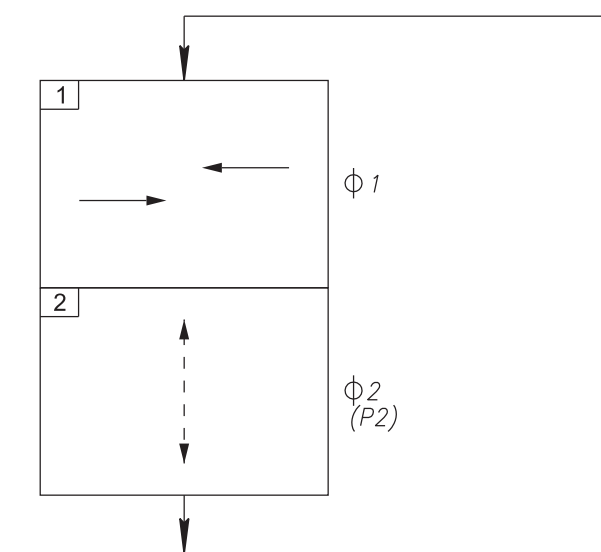
- ADDITIONAL CONTROLLER SETTINGS
 1. ENABLE "NO MIN YELLOW" ON PHASE 2.
 2. ALL OTHER SETTINGS SHALL BE PER MANUFACTURER RECOMMENDATIONS.

PROPOSED CONTROLLER RING DIAGRAM

1	←	2	↕	3	NOT USED	4	NOT USED	
5	→	6	↕	BARRIER	7	NOT USED	8	NOT USED

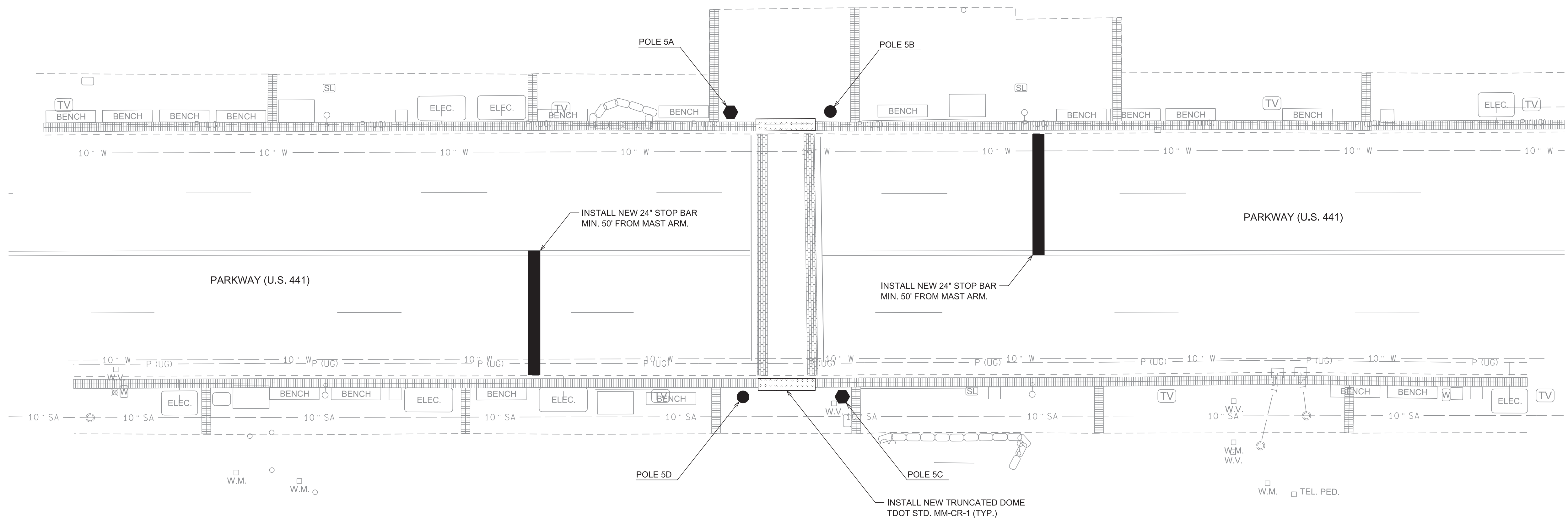
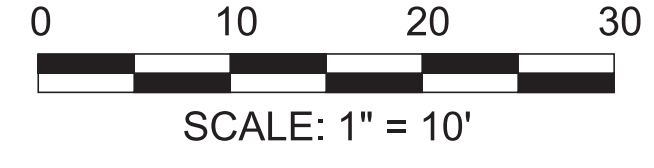
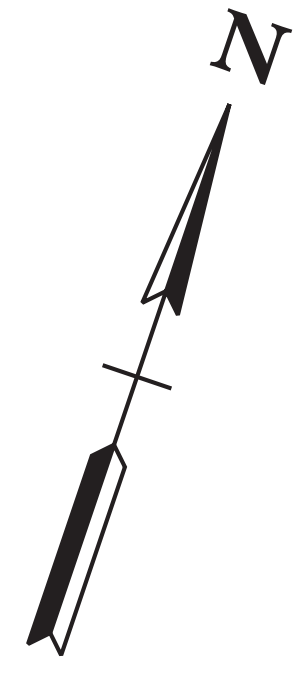


PROPOSED PHASING DIAGRAM



- NOTES:
 1. ← → VEHICULAR MOVEMENT.
 2. ↕ PEDESTRIAN MOVEMENT.
 3. ALL CLEARANCES SHALL BE IN ACCORDANCE WITH THE MUTCD.

REVISIONS		DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919		
CLIENT:		
CITY OF GATLINBURG		
PROJECT:		
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS		
PARKWAY (U.S. 441) AT BASKIN SQUARE / VILLAGE SHOPPES SIGNAL OPERATIONAL SETTINGS		
	CGI PROJECT NO.	01613-0001
	DATE	08-04-2022
	P.M.	RCB
	DRAWN	TSN
J.C.	ALC	
5A		



PROPOSED LEGEND

- SIGNAL STRAIN POLE
- PEDESTRIAN PEDESTAL POLE/POST
- GROUND MOUNTED SIGN
- TRUNCATED DOME SURFACE
- CONCRETE SIDEWALK/RAMP
- STOP BAR
- LONGITUDINAL CROSSWALK
- STAMPED AND STAINED CROSSWALK MATCH EXISTING

EDITED STOP BAR TEXT	9/29/2022
REVISIONS	DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	
CITY OF GATLINBURG	
PROJECT:	
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS	
PARKWAY (U.S. 441) AT BASKIN SQUARE / VILLAGE SHOPPES PROPOSED RAMP LAYOUT	
CGI PROJECT NO. 01613-0001 DATE 08-04-2022 P.M. RCB DRAWN TSN D.C. ALC	5B

TRAFFIC CONTROL NOTES

THE CONSTRUCTION SIGNING PLANS ARE TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.

THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

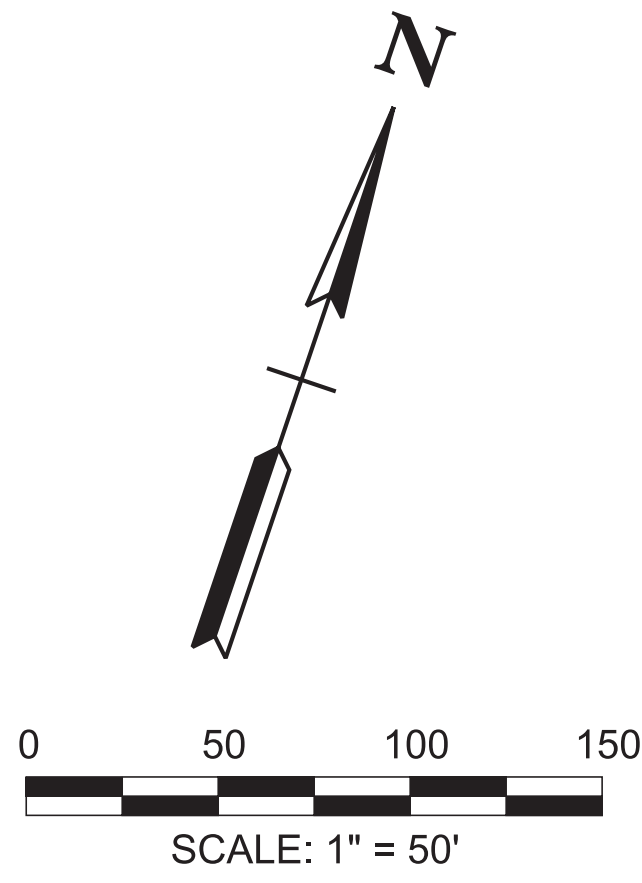
THE CONTRACTOR IS TO HAVE TWO FLAGGERS ON THE PROJECT ANY TIME TRAFFIC NEEDS TO BE RESTRICTED TO ONE LANE. COST OF THE FLAGGERS IS TO BE INCLUDED IN THE COST OF ITEM NO. 712-10, TRAFFIC CONTROL (LUMP SUM).



FLAGMAN AHEAD SIGNS, SHOULDER DROP-OFF SIGNS, ONE LANE ROAD AHEAD SIGNS, ARE TO BE USED WHEN CONSTRUCTION OPERATIONS WARRANT, TO BE LOCATED AS DIRECTED BY CONSTRUCTION INSPECTOR. COST IS TO BE INCLUDED IN THE COST OF ITEM 712-10.

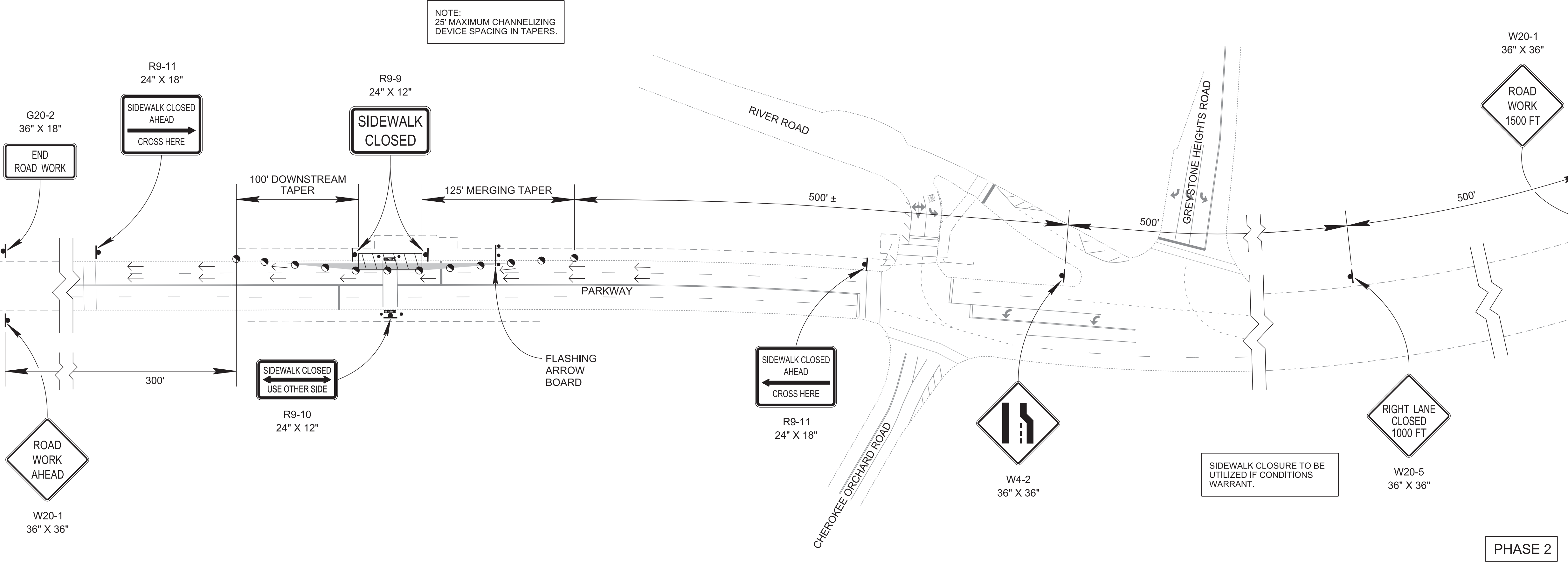
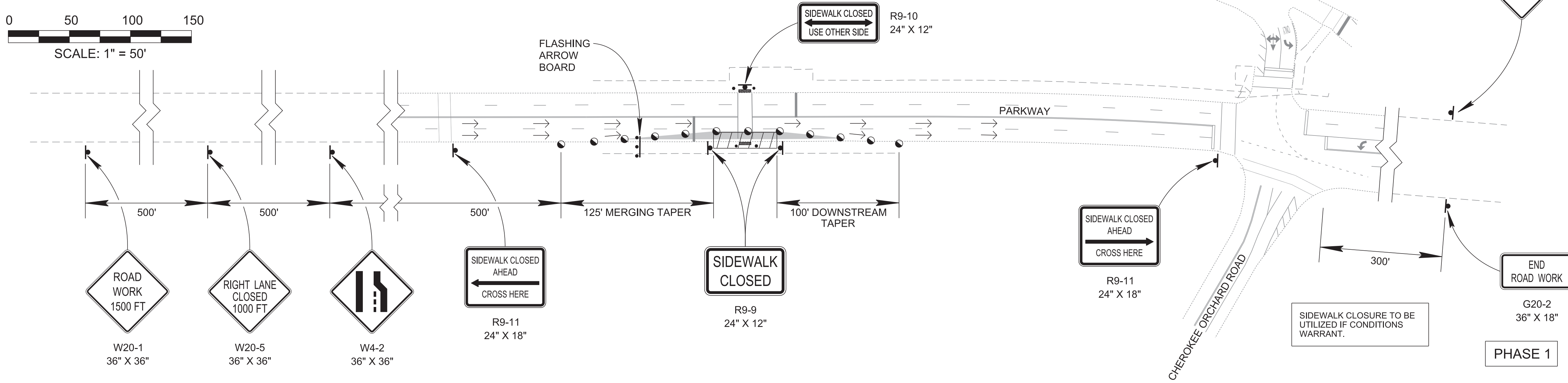
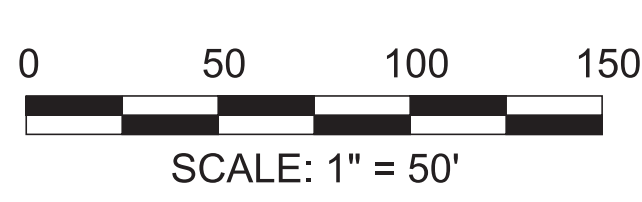
2 FLAGS ARE TO BE MOUNTED ON EACH ADVANCE WARNING SIGN. FLAGS ARE TO BE 1.5 FT. X 1.5 FT. AND FLUORESCENT RED-ORANGE IN COLOR. COST OF THE FLAGS ARE TO BE INCLUDED IN THE COST OF ITEM 712-10.

NOTE:
25' MAXIMUM CHANNELIZING
DEVICE SPACING IN TAPERS.

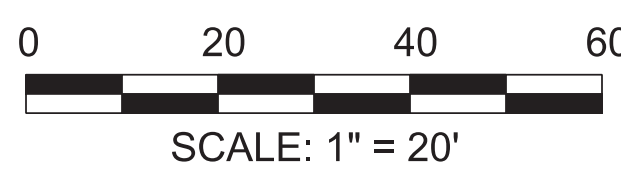
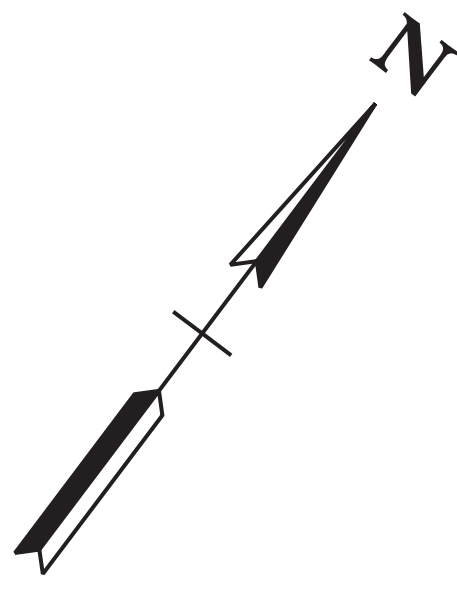


TRAFFIC CONTROL LEGEND

- FLEXIBLE DRUMS (CHANNELIZING)
- ▬ SIGN (CONSTRUCTION)
- ▬ ARROW BOARD TYPE C
- ▬ TYPE III BARRICADE
- FLAGGER SYMBOL
- TRAFFIC FLOW ARROW
- ▨ WORK AREA
- LANE CLOSURE



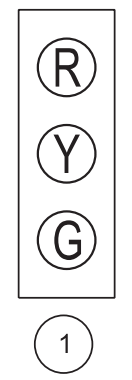
ADDED ADDITIONAL SIGNS	9/29/2022
REVISIONS	DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	CITY OF GATLINBURG
PROJECT:	DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS
PARKWAY (U.S. 441) AT BASKIN SQUARE / VILLAGE SHOPPES TRAFFIC CONTROL PLAN - PHASE 1 & 2	
CGI PROJECT NO.	01613-0001
DATE	08-04-2022
P.M.	RCB
DRAWN	TSN
CHECKED	ALC
5C	



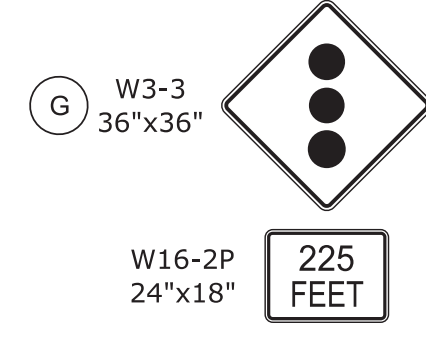
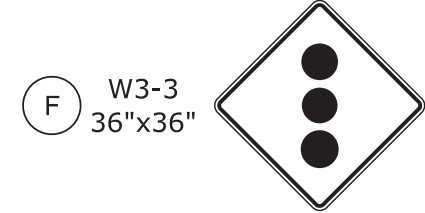
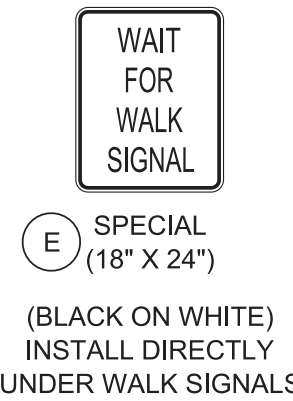
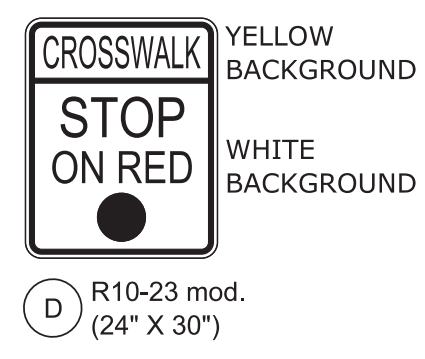
SEE SHEET 6A FOR WIRING AND CONDUIT DIAGRAM AND SIGNAL OPERATIONAL SETTINGS.

SEE SHEET 6B FOR CURB RAMP AND PAVEMENT MARKING DETAILS.

PROPOSED SIGNAL HEADS



PROPOSED SIGNS



CONDUIT ROUTING AND INSTALLATION NOTES

1. CONDUIT ROUTING IN SIDEWALK AREAS IS SHOWN TO ALLOW PLACEMENT UNDER BRICK STRIPS WHERE PRESENT. REMOVED BRICK SHALL BE DISPOSED OF AND REPLACED WITH NEW BRICK MATCHING THE EXISTING AS CLOSELY AS POSSIBLE. WHERE BRICK STRIPS ARE NOT PRESENT, A TRENCH ONE FOOT IN WIDTH SHALL BE SAW-CUT, THE CONDUIT INSTALLED, AND THE SURFACE REPAIRED WITH CONCRETE MATCHING THE EXISTING IN THICKNESS, TEXTURE, AND COLOR AS CLOSELY AS POSSIBLE.

2. CONDUIT ROUTING ACROSS ROADWAY IS SHOWN AS BORE (DIRECTIONAL DRILLING). OPEN CUT SHALL REQUIRE APPROVAL OF THE CITY OF GATLINBURG AND TDOT.

3. THE CONTRACTOR MAY CHOOSE TO EMPLOY BORE (DIRECTIONAL DRILLING) FOR CONDUIT INSTALLATION WHERE FEASIBLE UNDER SIDEWALK OR DRIVEWAYS. DRILLING PITS SHALL BE CAREFULLY POSITIONED IN NON-ROADWAY AREAS ONLY, AND THE SURFACE SHALL BE REPAIRED UPON COMPLETION WITH CONCRETE, ASPHALT, OR EARTH MATCHING THE PRE-CONSTRUCTION SURFACE AS CLOSELY AS POSSIBLE.

4. THE CONTRACTOR SHALL NOTIFY THE CITY OF GATLINBURG REGARDING THE PLAN FOR CONDUIT INSTALLATION PRIOR TO COMMENCING THIS ACTIVITY.

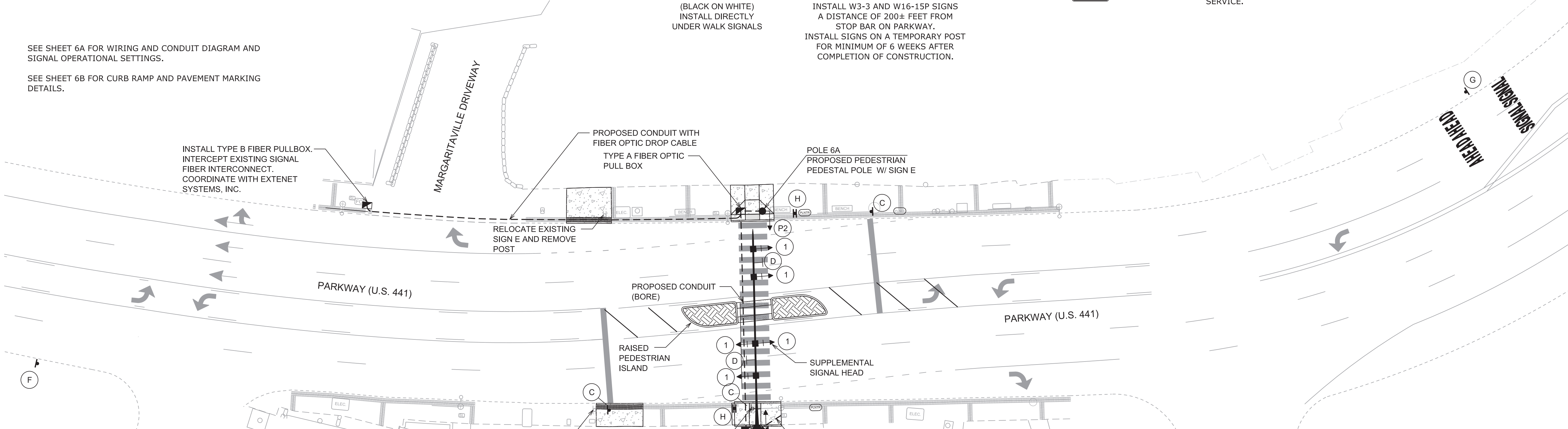
5. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF GATLINBURG ABOUT INSTALLING POWER SERVICE FROM EXISTING CITY ELECTRICAL SERVICE.

EXISTING LEGEND

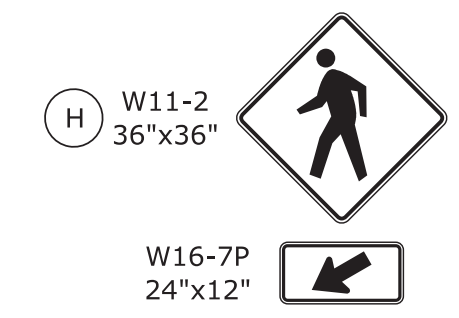
- PAD MOUNTED CONTROLLER CABINET
- SIGNAL STRAIN POLE
- PEDESTRIAN PEDESTAL POLE/POST
- VEHICLE SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- SIGNAL MAST ARM
- SIGNAL PULL BOX
- SIGNAL SPAN WIRE
- SIGNAL CONDUIT
- SIGN ON POST

PROPOSED LEGEND

- POLE MOUNTED CONTROLLER CABINET
- SIGNAL STRAIN POLE
- PEDESTRIAN PEDESTAL POLE/POST
- VEHICLE SIGNAL HEAD W/ ASSOCIATED PHASE
- PEDESTRIAN SIGNAL HEAD W/ ASSOCIATED PHASE
- PEDESTRIAN PUSHBUTTON AND SIGN W/ ASSOCIATED PHASE
- SIGNAL MAST ARM
- GRIDSMART VIDEO DETECTION
- SIGNAL PULL BOX (TYPE B)
- FIBER OPTIC PULL BOX
- SIGNAL CONDUIT (PVC)
- OVERHEAD SIGN
- VIDEO DETECTION ZONE W/ ASSOCIATED PHASE
- SIGN ON POST



EXISTING SIGNS

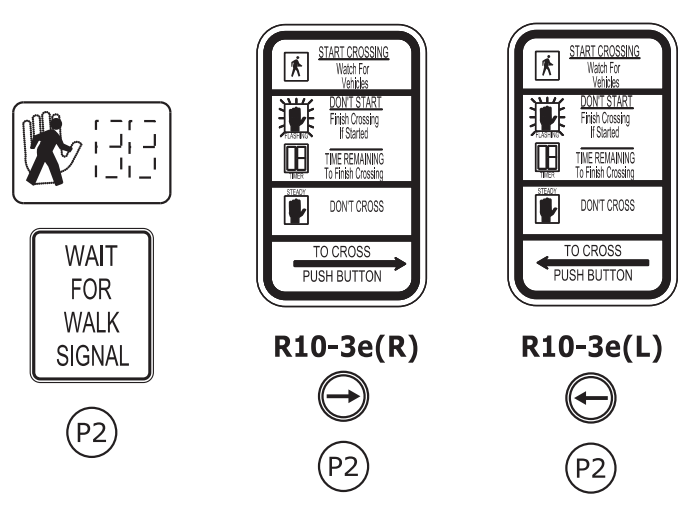


RELOCATE W11-2 AND W16-7P SIGNS TO PROPOSED CROSSWALK LOCATION ON PARKWAY.

FIBER OPTIC NOTE

FIBER OPTIC CABLE SHALL BE 6 STRAND DROP CABLE COMPATIBLE WITH THE EXISTING FIBER OPTIC FACILITIES.

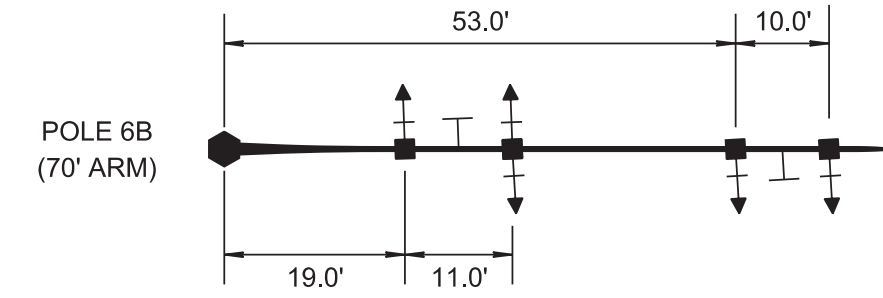
PROPOSED PEDESTRIAN SIGNAL DETAILS



PEDESTRIAN SIGNALS/PUSHBUTTONS SHALL BE ACCESSIBLE

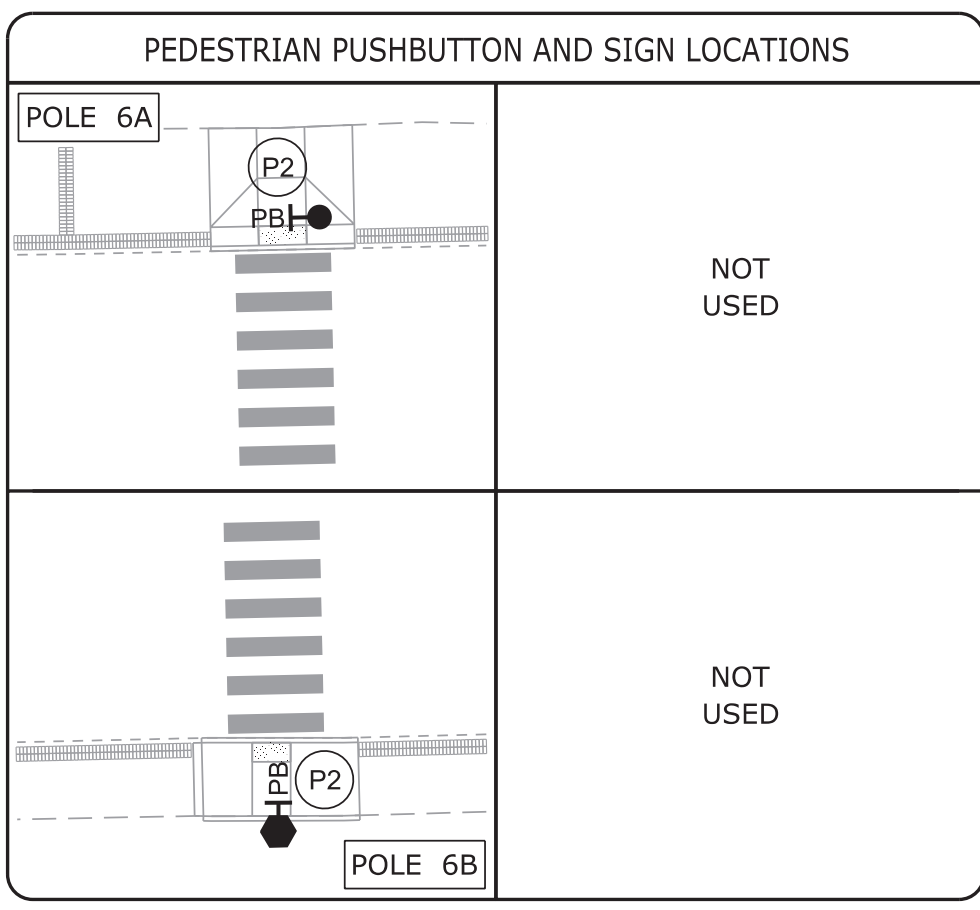
SIGNAL/SIGN LOCATION ON MAST ARMS

(LOCATION MEASURED FROM CENTER OF POLE)



PROPOSED POLE LOCATIONS				
POLE ID	POLE TYPE	NORTHING	EASTING	MAST ARM SPREAD
6A	PEDESTAL POLE	511949.90	2707538.06	
6B	MAST ARM	511887.91	2707582.48	70'

*COORDINATES SHOULD BE FIELD VERIFIED WITH PROPOSED POLE LOCATIONS SHOWN ON THIS SHEET.
 A DAMPER PLATE SHALL BE PLACED AT THE END OF THE MAST ARM FOR POLE 6C.
 SEE ADDITIONAL POLE / MAST ARM NOTES ON SHEET 2.



ADDED SUPPLEMENTAL HEAD, PEDESTRIAN ISLAND, AND SIGNAL AHEAD SIGN / MARKINGS.	9/29/2022
REVISIONS	DATE

CANNON & CANNON INC
 CONSULTING ENGINEERS · FIELD SURVEYORS
 TEL 865.670.8535 | 8550 Kingston Pike
 WWW.CANNON-CANNON.COM | Knoxville, TN 37919

CLIENT:
CITY OF GATLINBURG

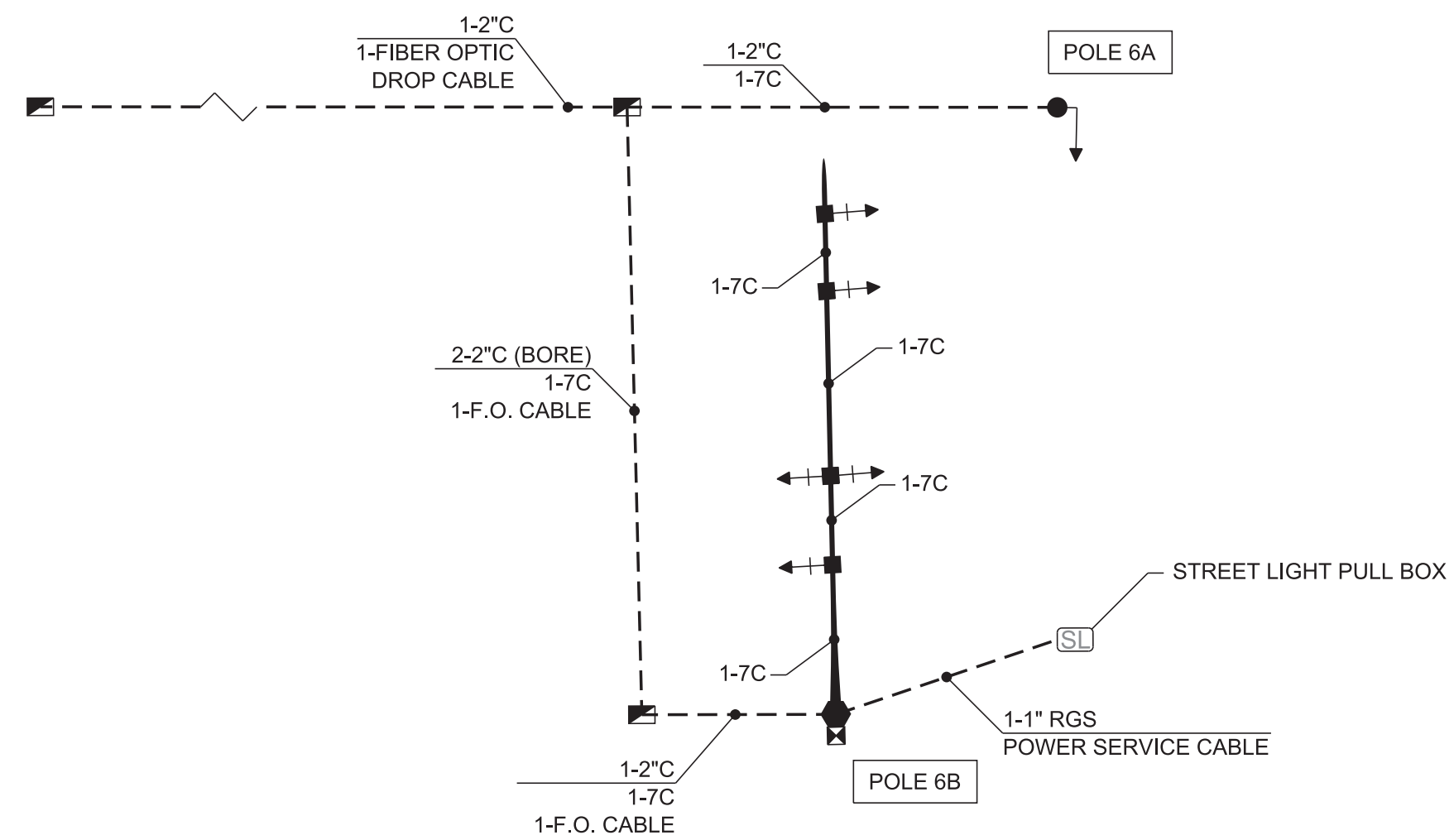
PROJECT:
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS

PARKWAY (U.S. 441) NEAR MARGARITAVILLE DRIVEWAY PROPOSED SIGNAL LAYOUT

CCI PROJECT NO. 01613-0001
 DATE 08-04-2022
 P.M. RCB
 DRAWN TSN
 D.C. ALC

6

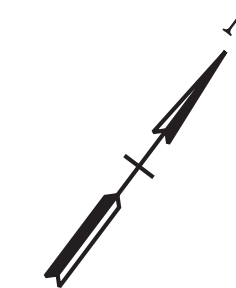
WIRING AND CONDUIT DIAGRAM (N.T.S)



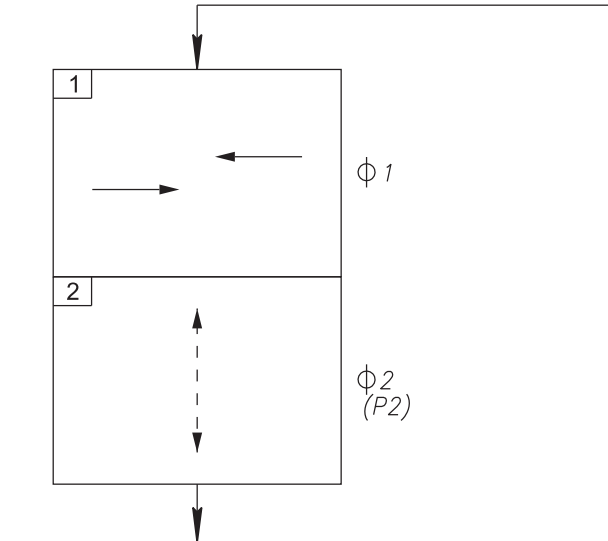
- NOTES:
 1) POWER SERVICE AND GROUND CONDUITS AND CABLE NOT SHOWN.
 2) CONDUIT SHALL BE SCHEDULE 80 PVC EXCEPT WHERE SPECIFIED OTHERWISE.
 3) ALL CABLE RUNS SHALL BE CONTINUOUS; NO SPLICES ALLOWED.
 4) SEE CONDUIT ROUTING AND INSTALLATION NOTES ON SHEET 6.

PROPOSED CONTROLLER RING DIAGRAM

1	←	2	↕	3	NOT USED	4	NOT USED	
5	→	6	↕	BARRIER	7	NOT USED	8	NOT USED



PROPOSED PHASING DIAGRAM



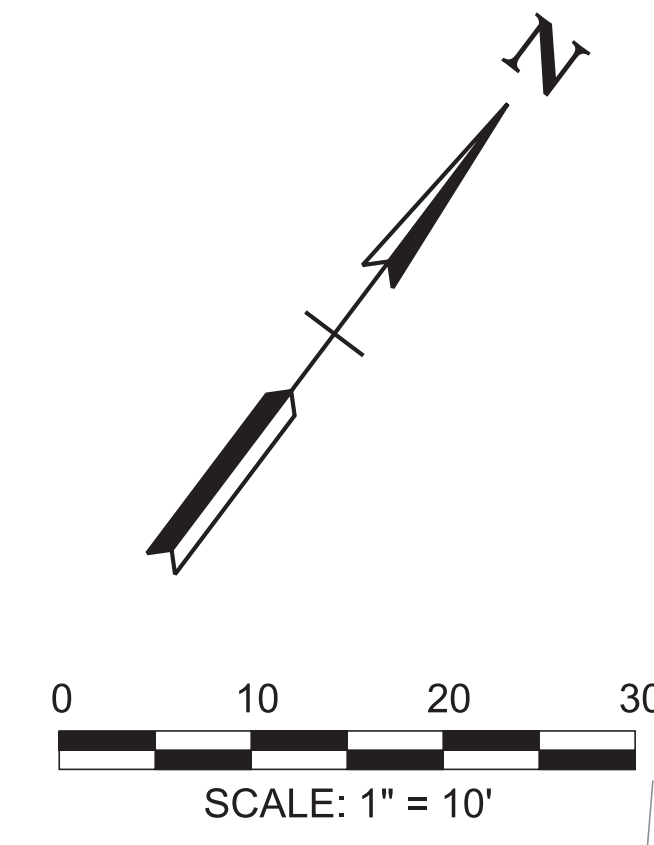
- NOTES:
 1. ← VEHICULAR MOVEMENT.
 2. - - - PEDESTRIAN MOVEMENT.
 3. ALL CLEARANCES SHALL BE IN ACCORDANCE WITH THE MUTCD.

BASIC TIMING (SECS) FOR McCAIN ATC EX2 CONTROLLER

PHASE	MINIMUM GREEN (MIN GRN)	PASSAGE TIME (PASS/10)	MAXIMUM GREEN 1 (MAX 1)	MAXIMUM GREEN 2 (MAX 2)	YELLOW CHANGE (YEL/10)	RED CLEARANCE (RED/10)	WALK TIME (WALK)	PEDESTRIAN CLEARANCE (PED/CLR)	RECALL TO
1	30.0	30	60	60	40	20			MIN.
2	0	0	0	0	0	20	10.0	16.0	

- ADDITIONAL CONTROLLER SETTINGS
 1. ENABLE "NO MIN YELLOW" ON PHASE 2.
 2. ALL OTHER SETTINGS SHALL BE PER MANUFACTURER RECOMMENDATIONS.









ADDED SUPPLEMENTAL SIGNAL HEAD.	9/29/2022
REVISIONS	DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	CITY OF GATLINBURG
PROJECT:	DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS
PARKWAY (U.S. 441) NEAR MARGARITAVILLE DRIVEWAY SIGNAL OPERATIONAL SETTINGS	
CGI PROJECT NO.	01613-0001
DATE	08-04-2022
P.M.	RCB
DRAWN	TSN
D.C.	ALC
6A	

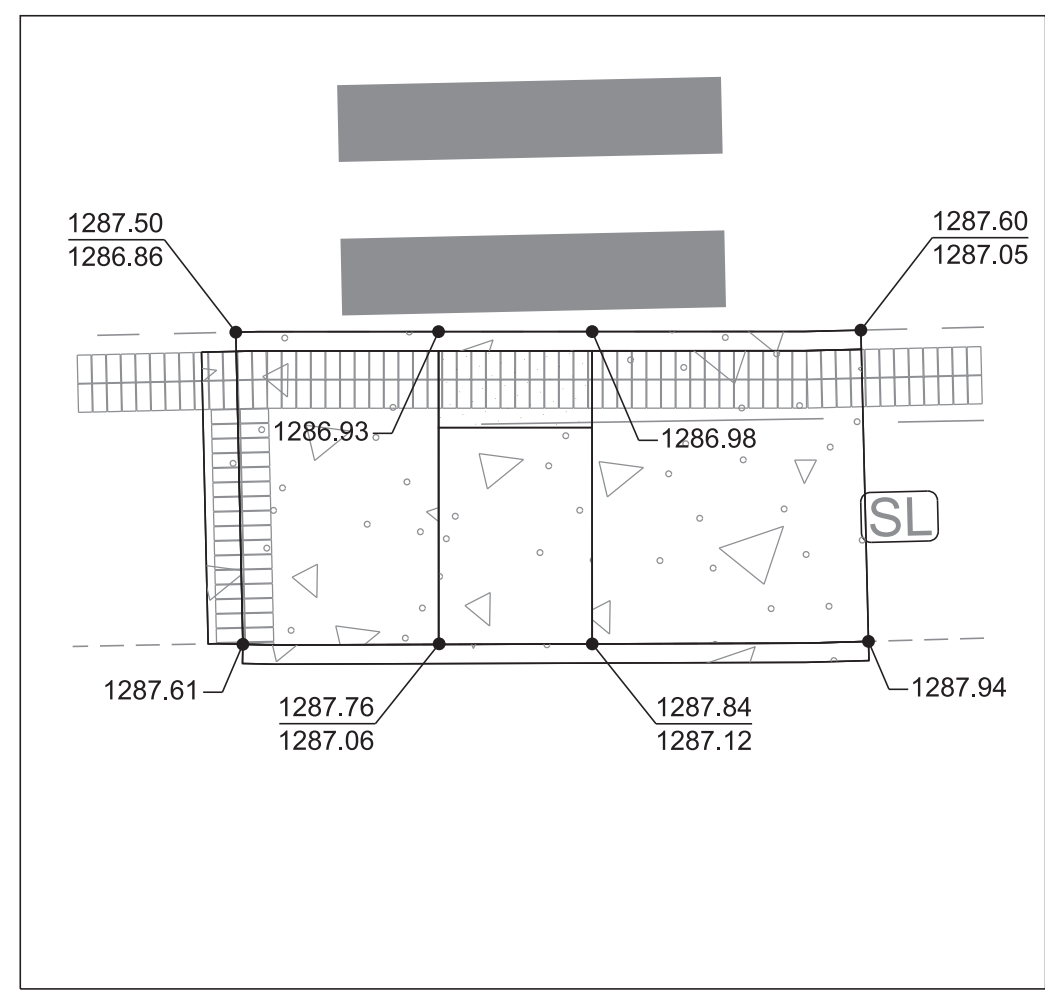
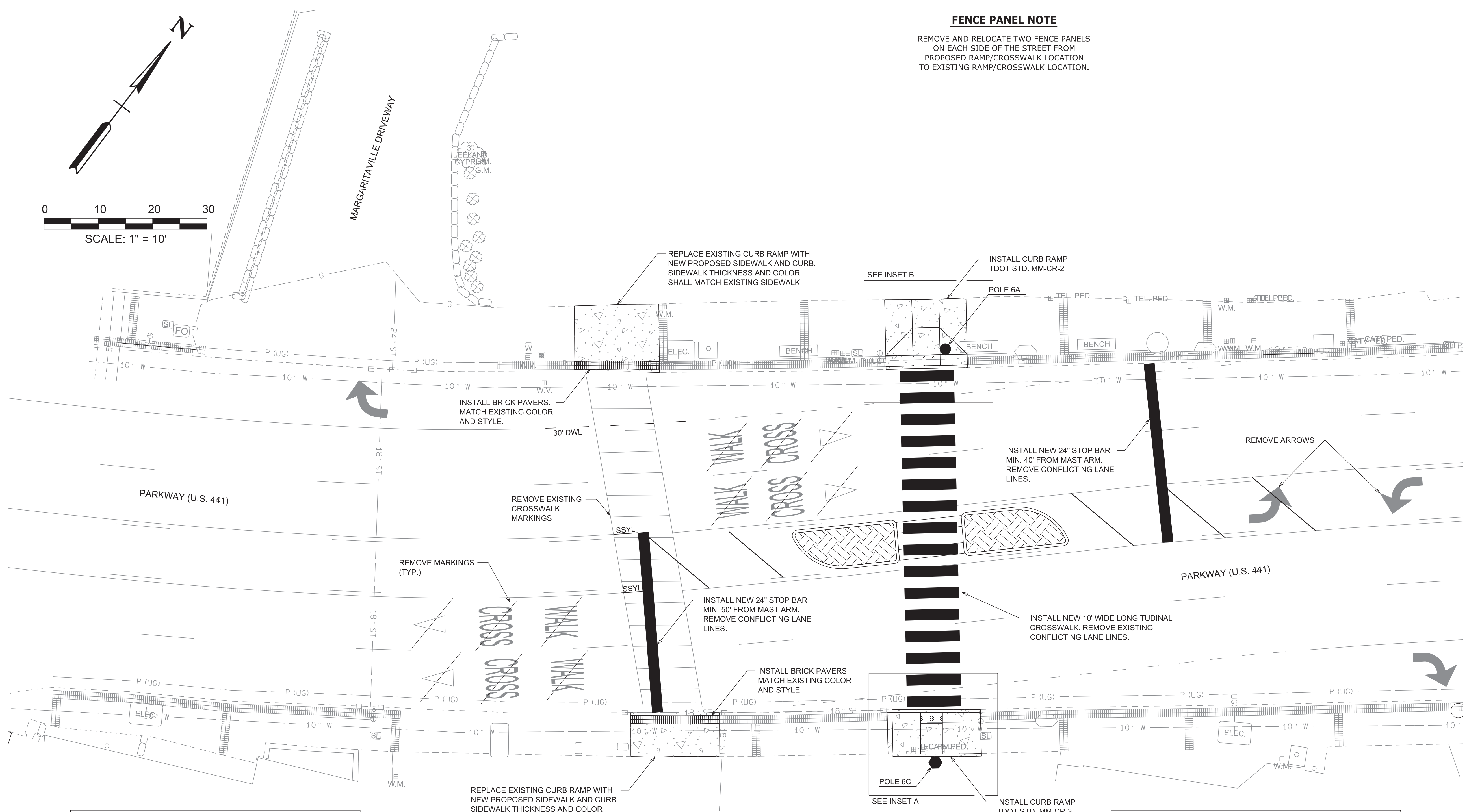


FENCE PANEL NOTE

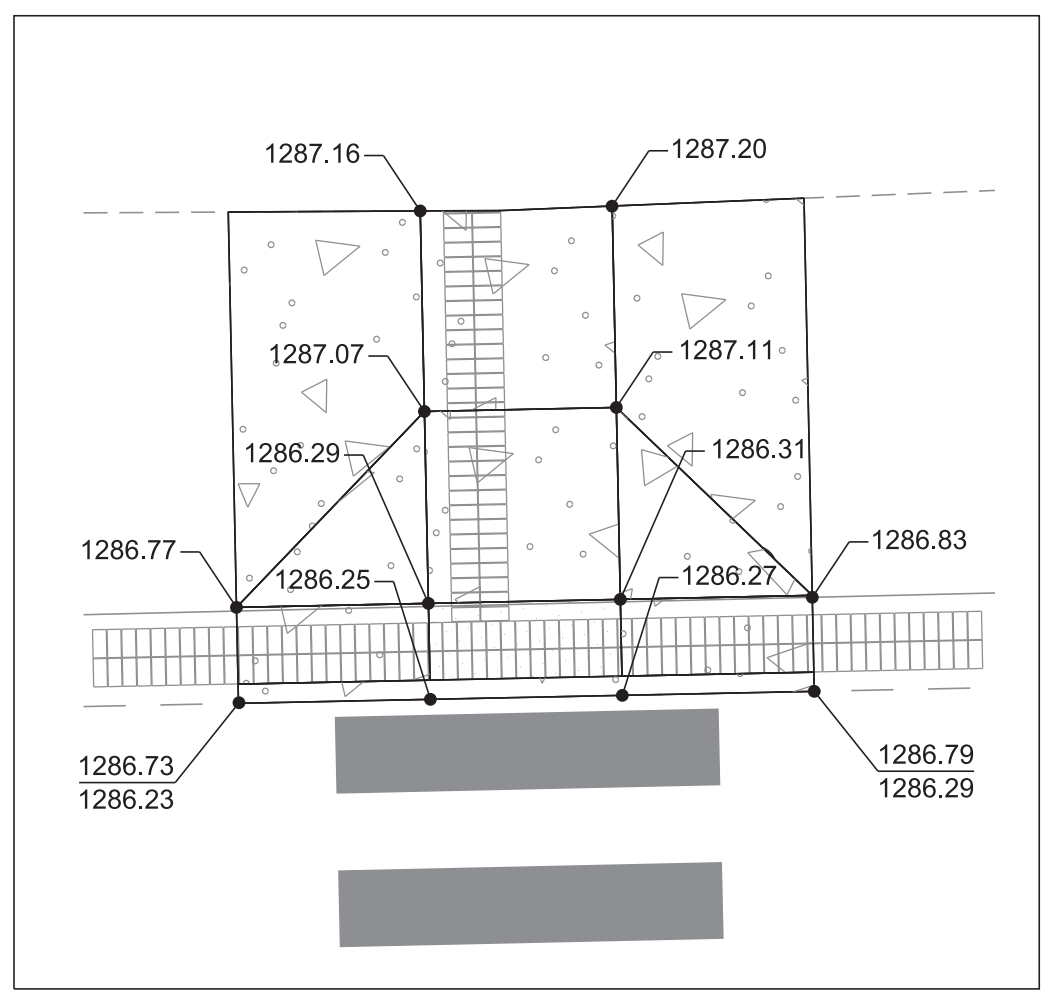
REMOVE AND RELOCATE TWO FENCE PANELS ON EACH SIDE OF THE STREET FROM PROPOSED RAMP/CROSSWALK LOCATION TO EXISTING RAMP/CROSSWALK LOCATION.

PROPOSED LEGEND

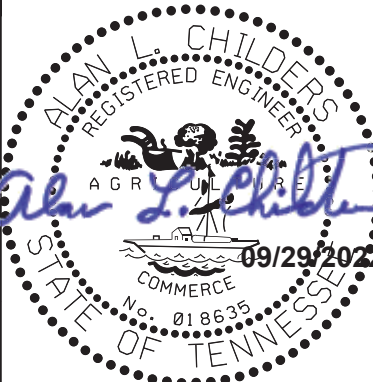
-  SIGNAL STRAIN POLE
-  PEDESTRIAN PEDESTAL POLE/POST
-  GROUND MOUNTED SIGN
-  TRUNCATED DOME SURFACE
-  CONCRETE SIDEWALK/RAMP
-  STOP BAR
-  LONGITUDINAL CROSSWALK
-  STAMPED AND STAINED CROSSWALK MATCH EXISTING

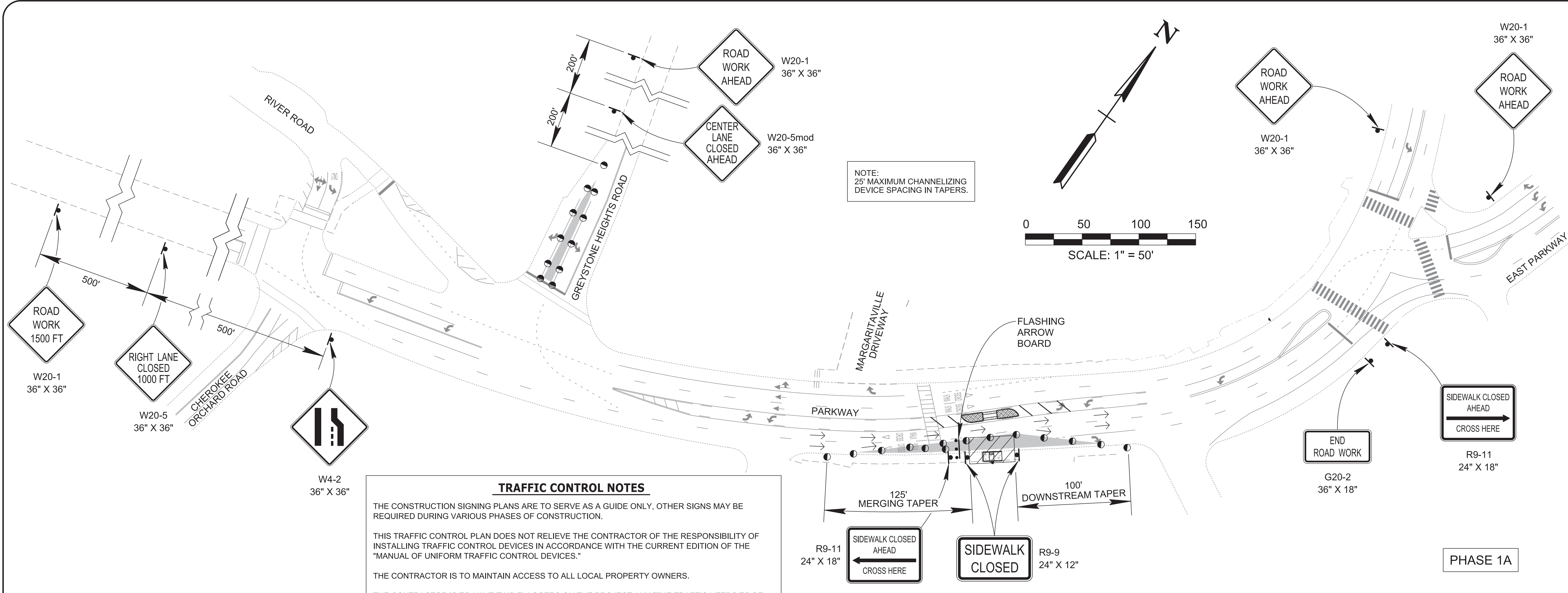


INSET A



INSET B

ADDED PEDESTRIAN ISLAND, RELOCATED STOP BAR, AND REMOVED PAVEMENT MARKING ARROWS.	9/29/2022
REVISIONS	DATE
 CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8535 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	
CITY OF GATLINBURG	
PROJECT:	
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS	
PARKWAY (U.S. 441) NEAR MARGARITAVILLE DRIVEWAY PROPOSED RAMP LAYOUT	
CGI PROJECT NO. 01613-0001	DATE 08-04-2022
P.M. RCB	DRAWN TSN
D.C. ALC	DATE 09/29/2022
	
6B	



TRAFFIC CONTROL NOTES

THE CONSTRUCTION SIGNING PLANS ARE TO SERVE AS A GUIDE ONLY, OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.

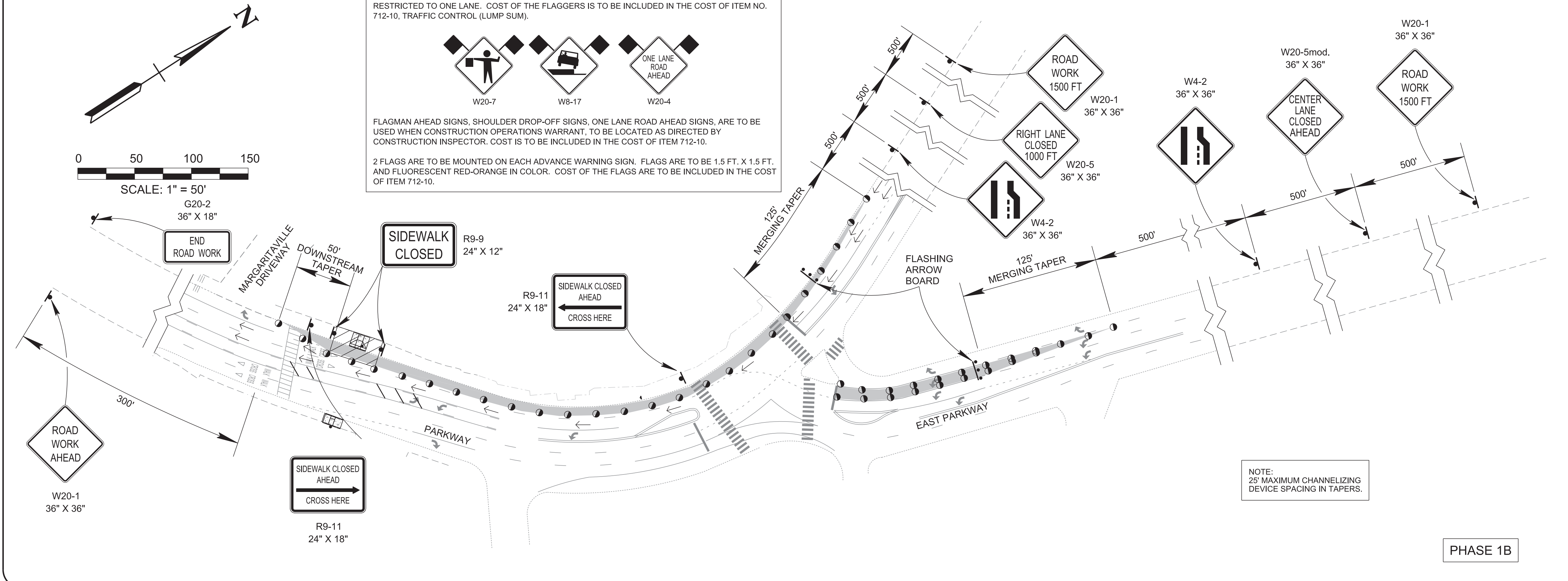
THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

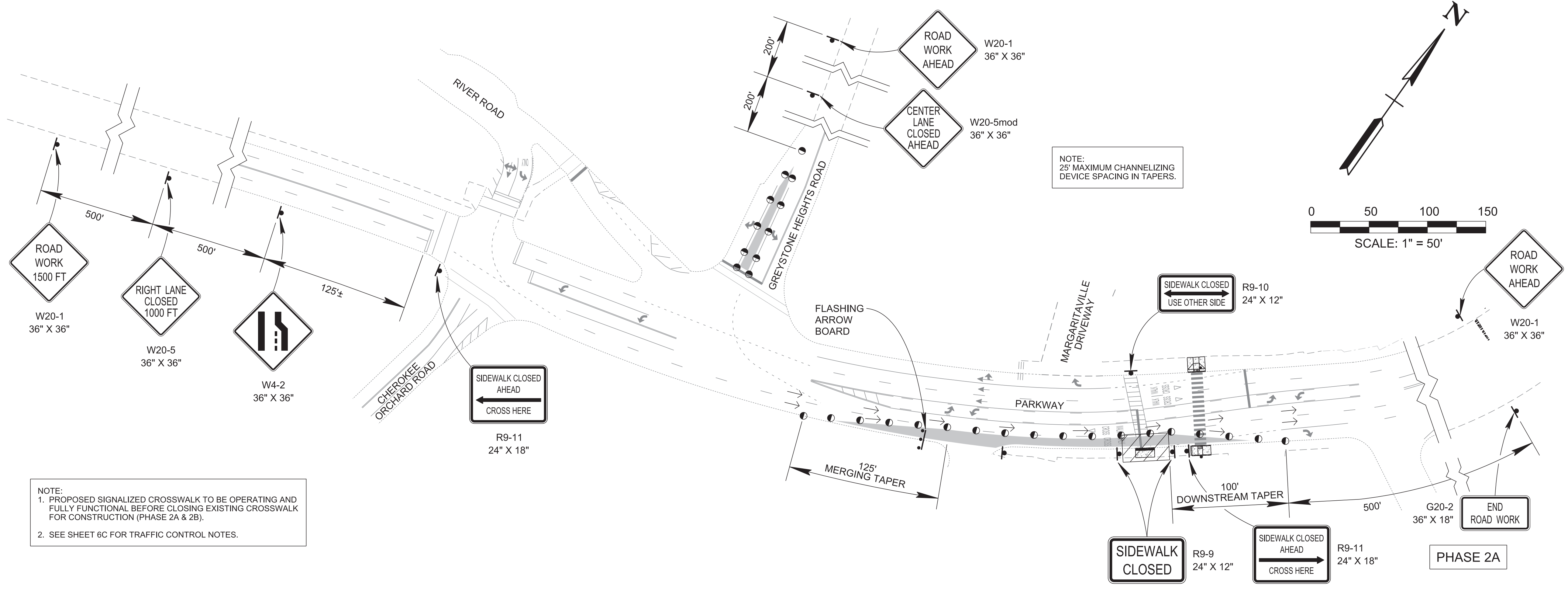
THE CONTRACTOR IS TO HAVE TWO FLAGGERS ON THE PROJECT ANY TIME TRAFFIC NEEDS TO BE RESTRICTED TO ONE LANE. COST OF THE FLAGGERS IS TO BE INCLUDED IN THE COST OF ITEM NO. 712-10, TRAFFIC CONTROL (LUMP SUM).

FLAGMAN AHEAD SIGNS, SHOULDER DROP-OFF SIGNS, ONE LANE ROAD AHEAD SIGNS, ARE TO BE USED WHEN CONSTRUCTION OPERATIONS WARRANT, TO BE LOCATED AS DIRECTED BY CONSTRUCTION INSPECTOR. COST IS TO BE INCLUDED IN THE COST OF ITEM 712-10.

2 FLAGS ARE TO BE MOUNTED ON EACH ADVANCE WARNING SIGN. FLAGS ARE TO BE 1.5 FT. X 1.5 FT. AND FLUORESCENT RED-ORANGE IN COLOR. COST OF THE FLAGS ARE TO BE INCLUDED IN THE COST OF ITEM 712-10.

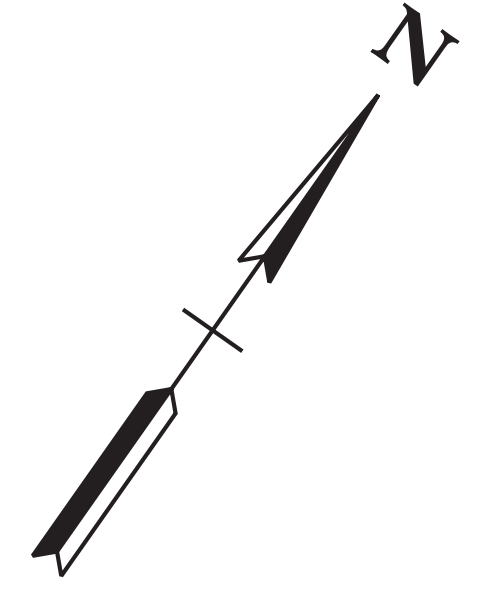
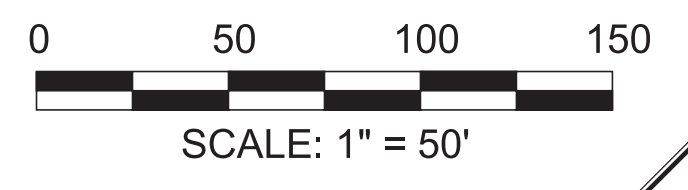


ADDED ADDITIONAL SIGNS	9/29/2022
REVISIONS	DATE
CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	CITY OF GATLINBURG
PROJECT:	DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS
PARKWAY (U.S. 441) NEAR MARGARITAVILLE DRIVEWAY TRAFFIC CONTROL PLAN - PHASE 1	
CGI PROJECT NO.	01613-0001
DATE	08-04-2022
P.M.	RCB
DRAWN	TSN
CHECKED	ALC
6C	



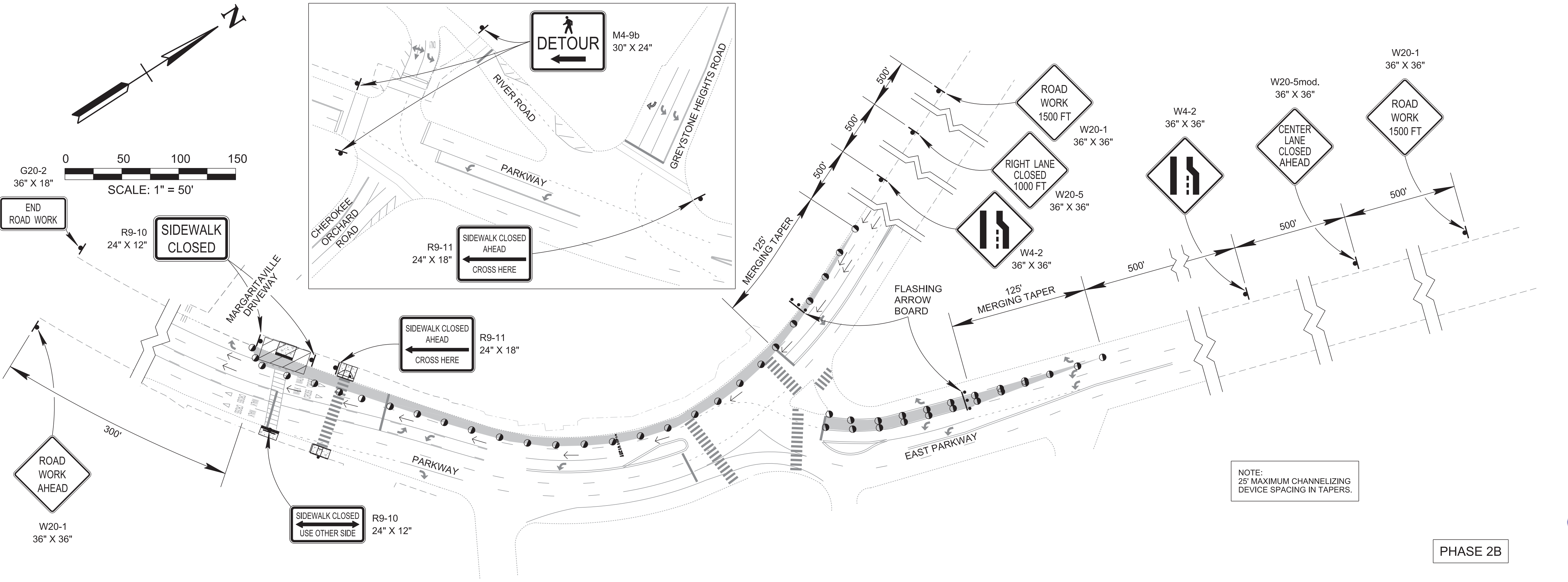
NOTE:
 1. PROPOSED SIGNALIZED CROSSWALK TO BE OPERATING AND FULLY FUNCTIONAL BEFORE CLOSING EXISTING CROSSWALK FOR CONSTRUCTION (PHASE 2A & 2B).
 2. SEE SHEET 6C FOR TRAFFIC CONTROL NOTES.

NOTE:
 25' MAXIMUM CHANNELIZING DEVICE SPACING IN TAPERS.

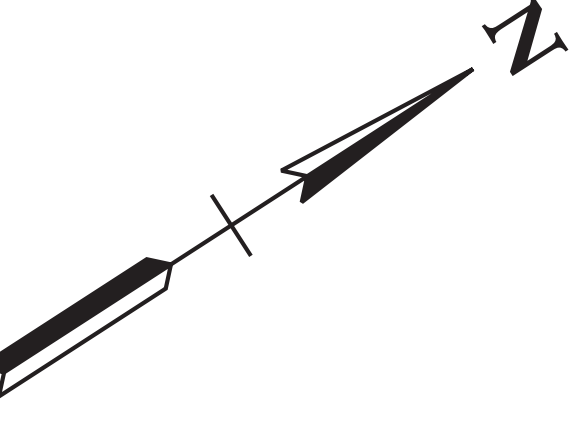
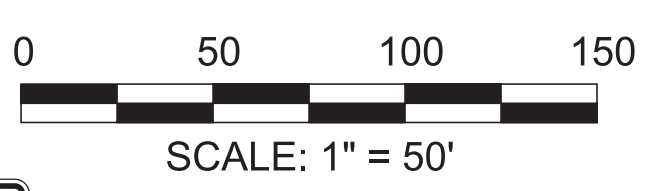


TRAFFIC CONTROL LEGEND

- FLEXIBLE DRUMS (CHANNELIZING)
- SIGN (CONSTRUCTION)
- ARROW BOARD TYPE C
- TYPE III BARRICADE
- FLAGGER SYMBOL
- TRAFFIC FLOW ARROW
- WORK AREA
- LANE CLOSURE



NOTE:
 25' MAXIMUM CHANNELIZING DEVICE SPACING IN TAPERS.



ADDED ADDITIONAL SIGNS	9/29/2022
REVISIONS	DATE
 CANNON & CANNON INC CONSULTING ENGINEERS · FIELD SURVEYORS TEL 865.670.8555 8550 Kingston Pike WWW.CANNON-CANNON.COM Knoxville, TN 37919	
CLIENT:	
CITY OF GATLINBURG	
PROJECT:	
DOWNTOWN GATLINBURG PARKWAY TRAFFIC SIGNALS	
PARKWAY (U.S. 441) NEAR MARGARITAVILLE DRIVEWAY TRAFFIC CONTROL PLAN - PHASE 2	
REBECCA C. BOTTOM REGISTERED ENGINEER No. 18978 COMMERCIAL STATE OF TENNESSEE 09/29/2022	CGI PROJECT NO. 01613-0001 DATE 08-04-2022 P.M. RCB DRAWN TSN CHECKED ALC
6D	