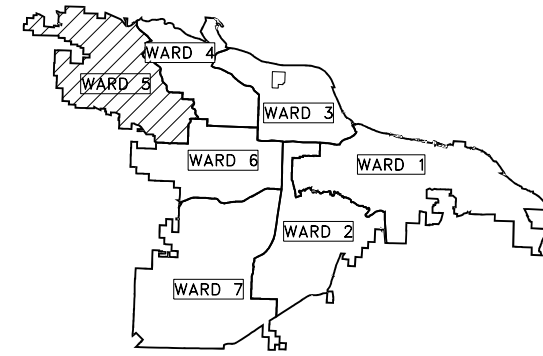
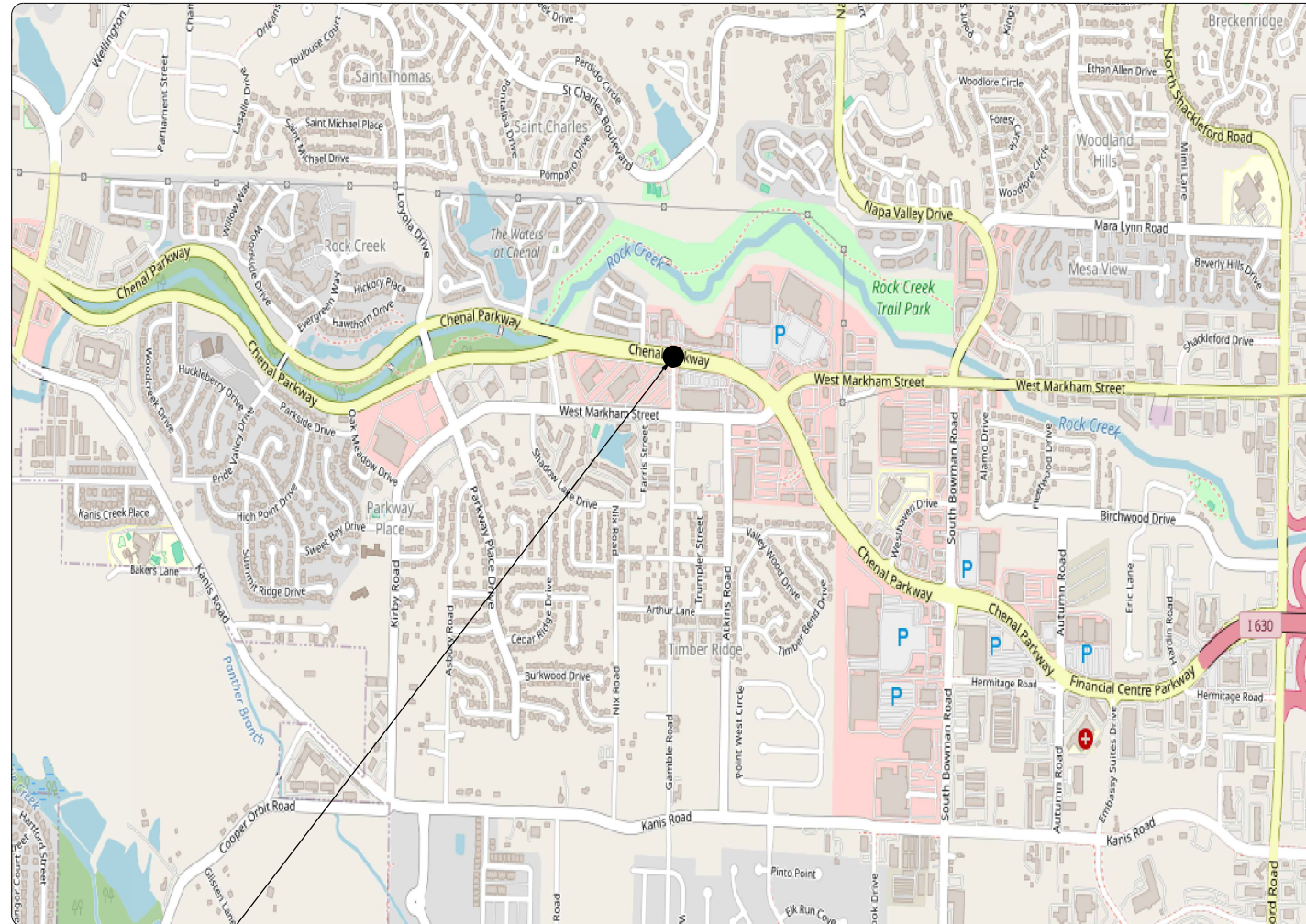


PROJECT #05-22-TR-186 CHENAL PARKWAY AND GAMBLE ROAD SIGNAL



PROJECT LOCATION - WARD 5



PROJECT LOCATION

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 WEST MARKHAM STREET
LITTLE ROCK, ARKANSAS 72201

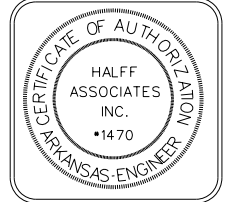
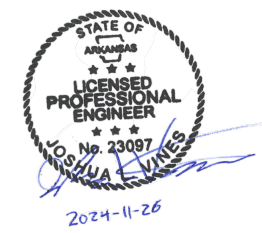
| SHEET NO. | TITLE |
|-----------|---------------------------|
| 1 | COVER SHEET |
| 2 | TRAFFIC SIGNAL NOTES |
| 3 | TRAFFIC SIGNAL QUANTITIES |
| 4 | MAINTENANCE OF TRAFFIC |
| 5 | INTERSECTION IMPROVEMENTS |
| 6 | SIGNALIZATION PLAN SHEET |
| 7 | SIGNALIZATION PLAN SHEET |
| 8 | SIGNALIZATION PLAN SHEET |
| 9 | SIGNALIZATION PLAN SHEET |
| 10 | SIGNALIZATION PLAN SHEET |



| REVISIONS | DATE |
|-----------|------|
| | |

CITY OF LITTLE ROCK, ARKANSAS
CEHNAL PARKWAY AND GAMBLE ROAD SIGNAL
COVER SHEET

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201



10800 FINANCIAL CENTRE PKWY
SUITE 500
LITTLE ROCK, AR 72205
TEL (501) 801-2690

DRAWN BY
JLV
DESIGNED
JLV
CHECKED
BLV
DATE
11/25/2024
SCALE
N/A
PROJECT NO.
05-22-TR-186
SHEET NO.
1

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TRAFFIC SIGNAL NOTES:

1. THE TRAFFIC SIGNAL SHALL NOT BE PUT INTO OPERATION OR SWITCHED TO THE NEXT CONSTRUCTION STAGE PRIOR TO THE FOLLOWING:
 - A. ALL TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED ACCORDING TO THE PLANS, SPECIAL PROVISIONS, AND PROPERLY FUNCTIONAL. THIS INCLUDES BUT NOT LIMITED TO: CABINETS, PULL BOXES, JUNCTION BOXES, POLES, MAST ARMS, FOUNDATIONS, LUMINAIRES, SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, PUSH BUTTONS, DETECTION SYSTEM, CONDUITS, CONDUCTORS, CABLES, TRAFFIC CONTROLLER, CONFLICT MONITOR, COMMUNICATION SYSTEM, SERVICE POINT, AND RAILROAD INTERCONNECT SYSTEM.
 - B. THE DETECTION SYSTEM SHALL BE INSTALLED, SETUP, AND CONFIGURED BY THE CONTRACTOR OR THEIR SUPPLIER PER PLANS. A TRAFFIC OPERATIONS INSPECTOR SHALL INSPECT AND PROVIDE APPROVAL IN ORDER TO PUT THE TRAFFIC SIGNAL INTO OPERATION.
 - C. THE TRAFFIC CONTROLLER AND CONFLICT MONITOR SHALL BE PROGRAMMED TO OPERATE AS REQUIRED PER THE PLANS (PHASING DIAGRAM, INTERVAL CHART, AND ANY ADDITIONAL NOTES), SPECIAL PROVISIONS AND ARDOT SPECIFICATIONS.
 - D. TIMING SETTINGS HAVE BEEN PROGRAMMED AND APPROVED AS REQUIRED BY TRAFFIC ENGINEERING.
 - E. THE TRAFFIC SIGNAL HAS BEEN INSPECTED AND APPROVED BY A TRAFFIC OPERATIONS INSPECTOR.
 - F. ALL REQUIRED DOCUMENTS RELATED TO THE TRAFFIC SIGNAL EQUIPMENT, THIS INCLUDES BUT NOT LIMITED TO: TEST RESULTS, CONFIGURATION/DATA REPORTS, WARRANTIES, AND ANY OTHER DOCUMENTATION REQUIRED PER PLANS AND SPECIAL PROVISIONS.
2. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
3. TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE CITY EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.
4. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE TRAFFIC SIGNAL IS OUT OF OPERATION. IF, IN THE OPINION OF THE ENGINEER, TRAFFIC CONDITIONS WARRANT, THE CONTRACTOR SHALL PROVIDE FLAGMEN TO DIRECT TRAFFIC WHILE THE TRAFFIC SIGNAL IS OUT OF OPERATION.
5. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (CURRENT EDITION) NATIONAL ELECTRICAL CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
6. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.
7. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAIN-TIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLER, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE TRAFFIC SIGNAL CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (2c/#6 A.W.G. USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'S/ COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM THE POINT OF TIE-IN AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.
8. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
9. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
10. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUS.

11. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
12. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.
13. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.
14. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.
15. ONE VIDEO PROGRAMMING MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.
16. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
17. THE LOCAL RADIO WITH ANTENNA AND TRAFFIC SIGNAL CONTROLLER SHALL BE COMPATIBLE WITH THE EXISTING COORDINATION SYSTEM IN THE CITY/COUNTY.
18. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" PER NEC. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED. THE ENGINEER SHALL GRANT A WRITTEN APPROVAL PRIOR TO USING THE TRENCHING METHOD.
19. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS. ALL CONDUIT UNDER THE ROADWAY, SIDEWALKS, AND DRIVEWAYS SHALL HAVE A MINIMUM DEPTH OF 24" FROM THE TOP OF THE CONDUIT TO THE FINISHED GRADE. CONDUIT DEPTH MAY NEED TO INCREASE NEAR DRAINAGE STRUCTURES.
20. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NON-METALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM. ALL NON-METALLIC CONDUIT SHALL USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.
21. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE.
22. ALL CONCRETE PULL BOXES SHALL BE SET ON A GRAVEL OR CRUSHED STONE BEDDING AS SPECIFIED IN SECTION 711, CONCRETE PULL BOX, OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014.
23. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS. TAGS SHALL BE EMBOSSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.
 EXAMPLES FOR CONDUIT IN SIDE CABINET: "TO POLE A AND B" OR "TO POLE C"
 EXAMPLES FOR CONDUIT IN PULL BOX: "TO POLE A" OR "TO TRAFFIC CABINET"
24. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4th EDITION (2001) WITH 2003 AND 2006 INTERIMS.
25. ALL TRAFFIC SIGNAL POLES SHALL BE GALVANIZED WITH METAL HANDHOLE COVERS.
26. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
27. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

28. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, THIRTY-EIGHT (38') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6') FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.
29. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (6') FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES, CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO "DESIGN PARAMETERS, MINIMUM CLEAR ZONE DISTANCE" FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.
30. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT ROCK.
31. LED LUMINAIRE ASSEMBLIES SHALL HAVE A BUG RATING OF U0.
32. BACKPLATES SHALL BE SUPPLIED FOR ALL TRAFFIC SIGNAL HEADS, REFER TO THE RETROREFLECTIVE BACKPLATES SPECIAL PROVISION FOR REQUIREMENTS.
33. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS.
34. BEFORE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL, THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT TRAFFIC SIGNAL PLANS TO THE CITY.

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| TRAFFIC SIGNAL NOTES | | | | | | |



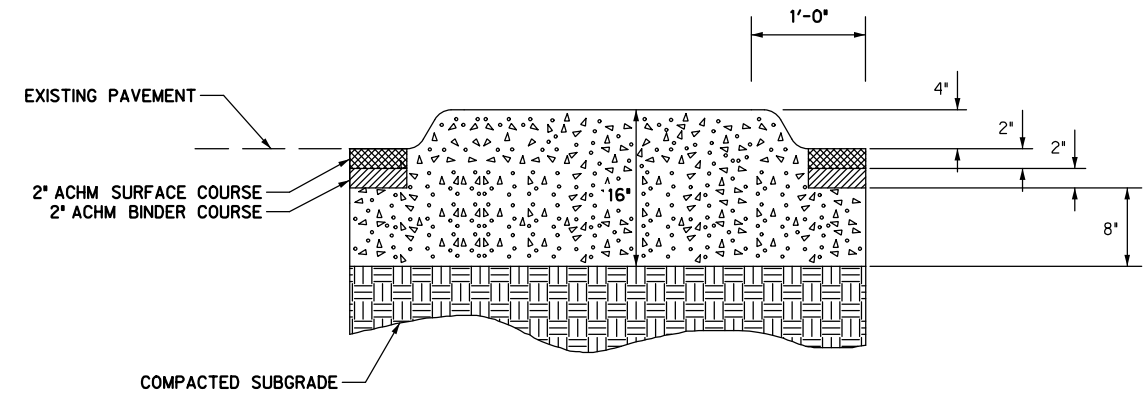
LOCATION: CHENAL PARKWAY AND GAMBLE ROAD
 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: 1" = N/A DRAWN BY: HALFF

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| TRAFFIC SIGNAL QUANTITIES | | | | | | |

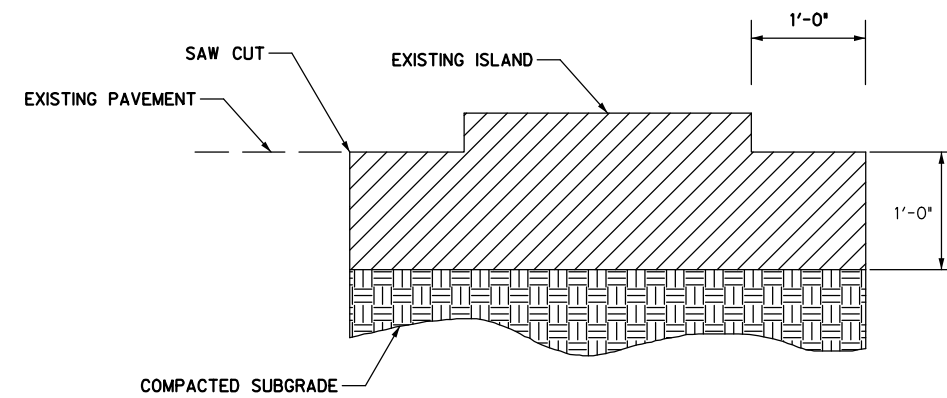


SUMMARY OF TRAFFIC SIGNAL QUANTITIES

| ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-------------|--|----------|----------|
| 202 | REMOVAL AND DISPOSAL OF CONCRETE WALKS | 71 | SQ. YD. |
| SS & 604 | TRAFFIC DRUMS | 15 | EACH |
| SS & 632 | CONCRETE ISLAND | 47 | SQ. YD. |
| SS & 633 | CONCRETE WALKS | 31 | SQ. YD. |
| SS & 634 | CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6") | 55 | LIN. FT. |
| 641 | WHEELCHAIR RAMPS (TYPE 3) | 32 | SQ. YD. |
| 641 | WHEELCHAIR RAMPS (TYPE 6) | 10 | SQ. YD. |
| SP & 701 | SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES) | 1 | EACH |
| SP | ETHERNET SWITCH, T100 HARDENED (8-PORT) | 1 | EACH |
| SP | E-NET CABLE (EXTERIOR CAT 5E) | 845 | LIN. FT. |
| SP | LOCAL RADIO (E-NET 5.8) WITH ANTENNA | 1 | EACH |
| SP | ADVANCED WARNING FLASHING BEACON ASSEMBLY | 1 | EACH |
| SP & 706 | TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY) | 9 | EACH |
| SP & 706 | TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY) | 2 | EACH |
| SP & 707 | POLE MOUNTED ASSEMBLY | 6 | EACH |
| SP & 707 | COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED | 6 | EACH |
| 708 | TRAFFIC SIGNAL CABLE (5C/14 A.W.G.) | 1232 | LIN. FT. |
| 708 | TRAFFIC SIGNAL CABLE (7C/14 A.W.G.) | 120 | LIN. FT. |
| 708 | TRAFFIC SIGNAL CABLE (20C/14 A.W.G.) | 590 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.) | 695 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.) | 120 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/12 A.W.G.) | 850 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS FOR LUMINAIRES | 480 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (2") | 970 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (3") | 425 | LIN. FT. |
| SS & 711 | CONCRETE PULL BOX (TYPE 2) | 3 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 1 HD) | 5 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 2 HD) | 3 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (30') | 1 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (35') | 1 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (44') | 1 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56') | 1 | EACH |
| SP | LED LUMINAIRE ASSEMBLY | 3 | EACH |
| SP & 715 | TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION (15') | 2 | EACH |
| SP | SERVICE POINT ASSEMBLY (2 CIRCUIT) W/ BATTERY BACKUP | 1 | EACH |
| 719 | THERMOPLASTIC PAVEMENT MARKING WHITE (6") | 485 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING WHITE (12") | 270 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING WHITE (24") | 113 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING YELLOW (6") | 100 | LIN. FT. |
| SP | 18" STREET NAME SIGN | 4 | EACH |
| SP & 733 | VIDEO DETECTOR (IP) | 4 | EACH |
| SP & 733 | VIDEO MONITOR (CLR) | 1 | EACH |
| SP & 733 | ATCS PROCESSING UNIT | 1 | EACH |
| SP & 733 | POWER OVER ETHERNET EXTENDER | 2 | EACH |
| SP & 733 | ETHERNET RADIO UBIQUITY NSM5 | 4 | EACH |



ISLAND DETAIL



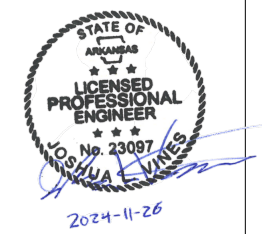
ISLAND REMOVAL DETAIL

LOCATION: CHENAL PARKWAY AND GAMBLE ROAD
 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: 1" = N/A DRAWN BY: HALFF

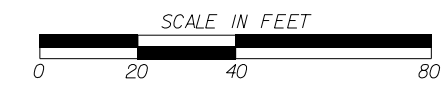
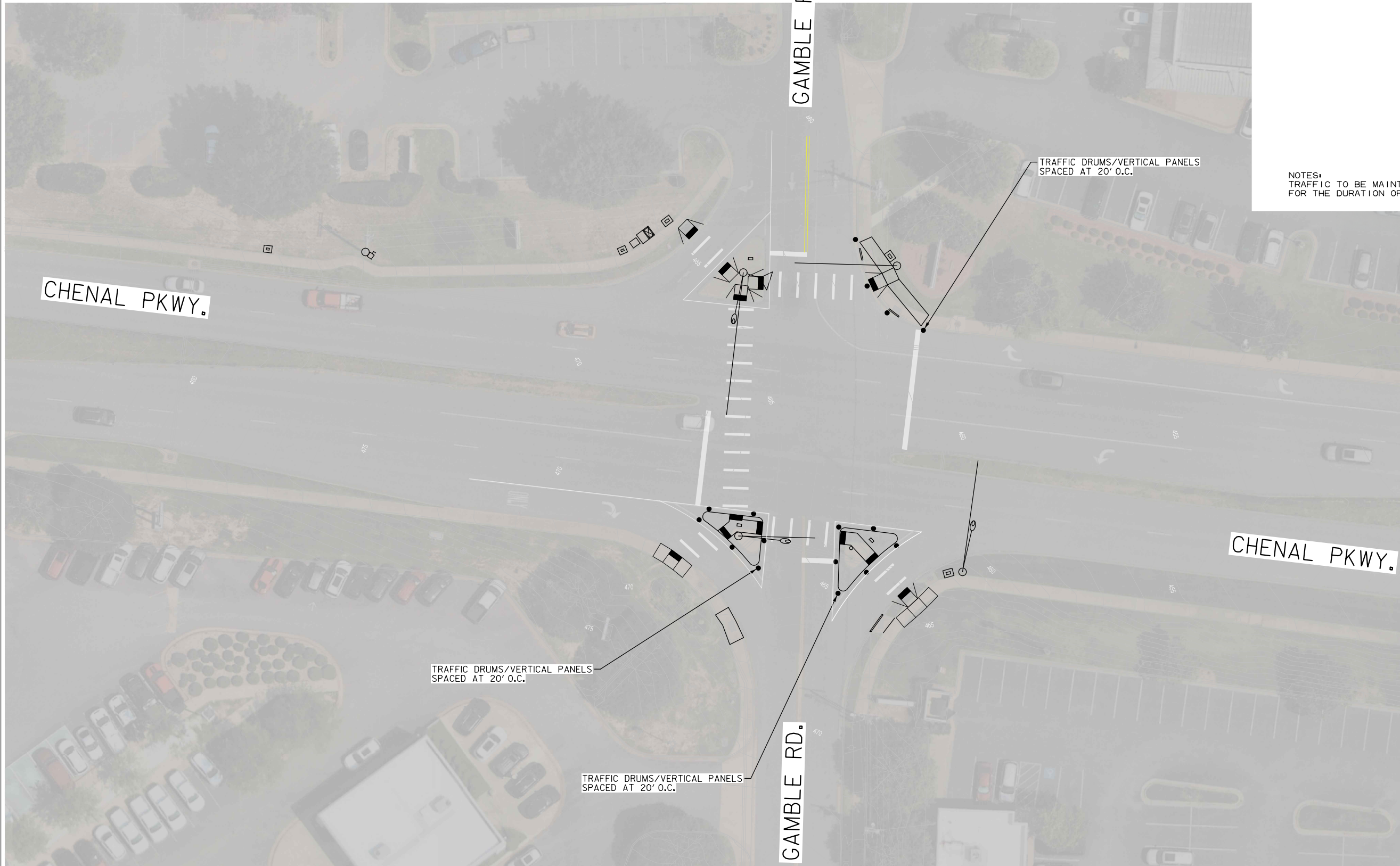
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| INTERSECTION IMPROVEMENTS | | | | | | |



NOTES:
TRAFFIC TO BE MAINTAINED FOR ALL THROUGH LANES FOR THE DURATION OF THE PROJECT.



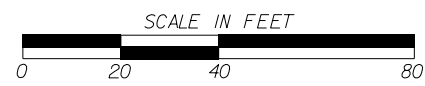
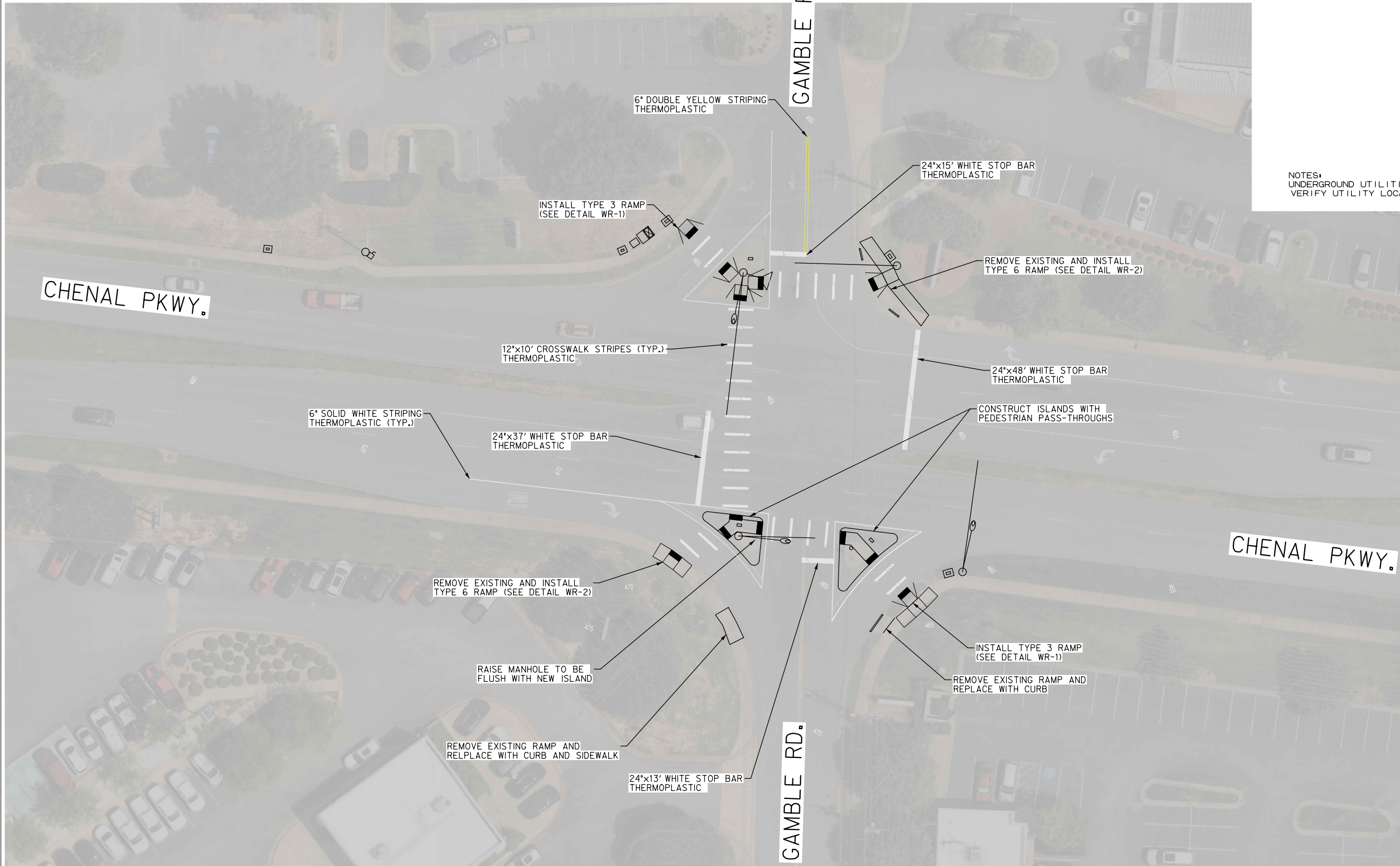
LOCATION: CHENAL PARKWAY AND GAMBLE ROAD
 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: 1" = 40' DRAWN BY: HALFF

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| INTERSECTION IMPROVEMENTS | | | | | | |



NOTES:
UNDERGROUND UTILITIES IN AREA. CONTRACTOR TO VERIFY UTILITY LOCATIONS BEFORE DIGGING.



LOCATION: CHENAL PARKWAY AND GAMBLE ROAD
 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: 1" = 40' DRAWN BY: HALFF

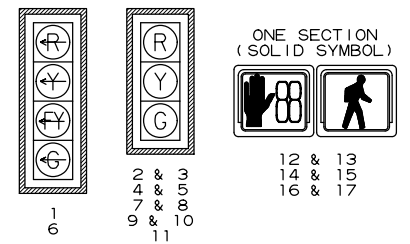
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| SIGNALIZATION PLAN SHEET | | | | | | |

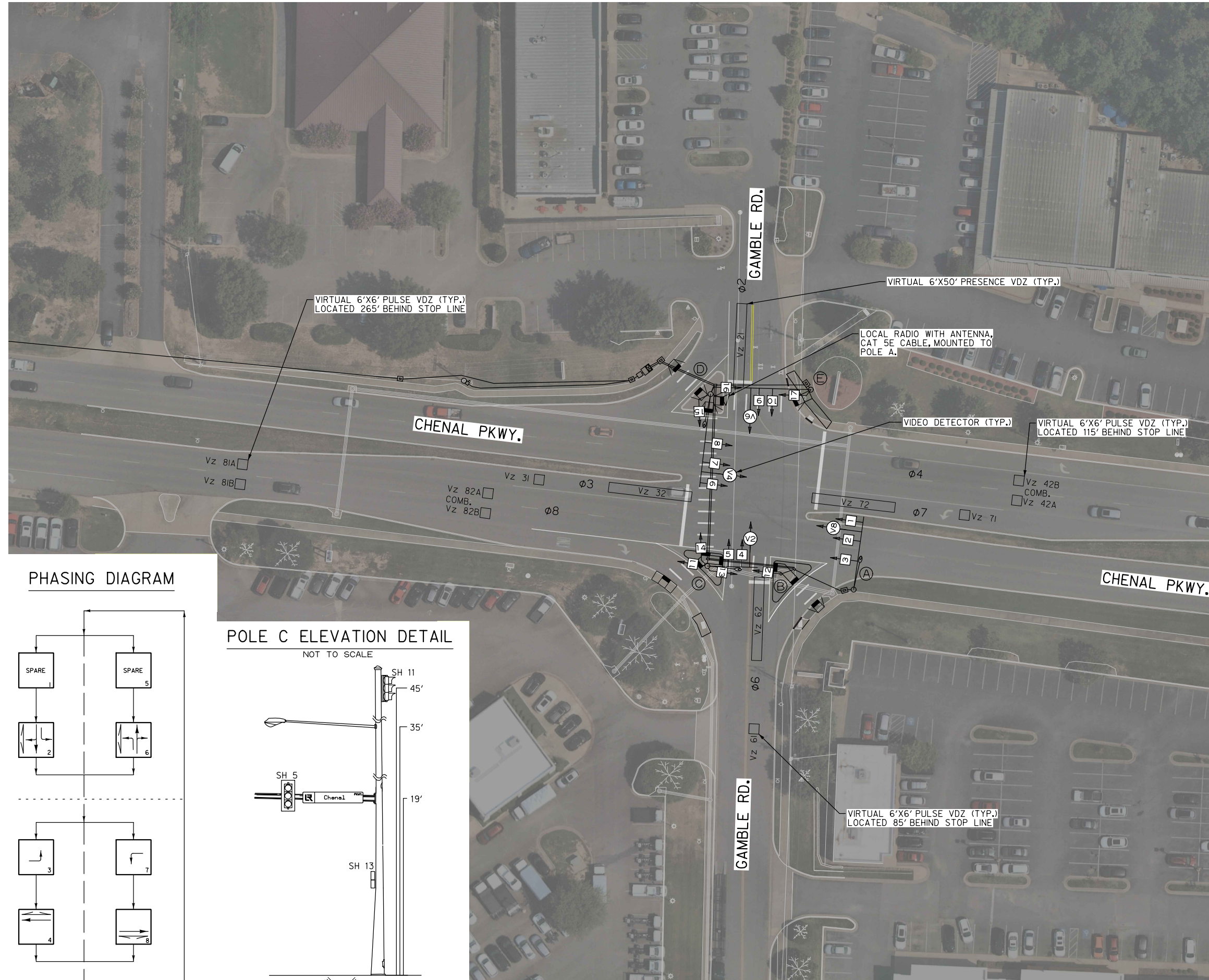


SIGNAL FACES

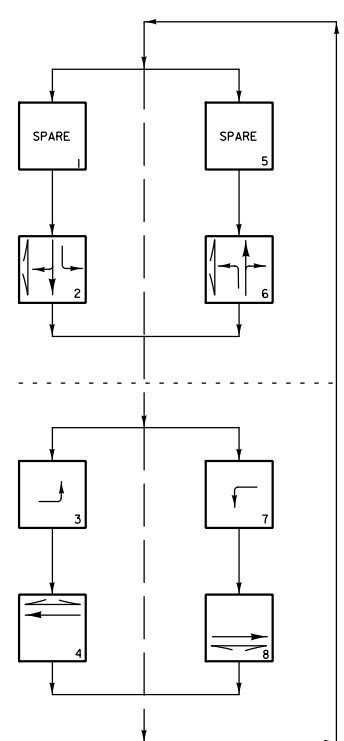
12" LENSES



- NOTES:
1. ALL SIGNAL HEADS SHALL HAVE METAL BACKPLATES.
 2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
 3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
 4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEET A.D.A. STANDARDS.
 5. RHYTHM VIDEO DETECTION TO BE USED.
 6. UNDERGROUND UTILITIES IN AREA. CONTRACTOR TO VERIFY UTILITY LOCATIONS BEFORE DIGGING.

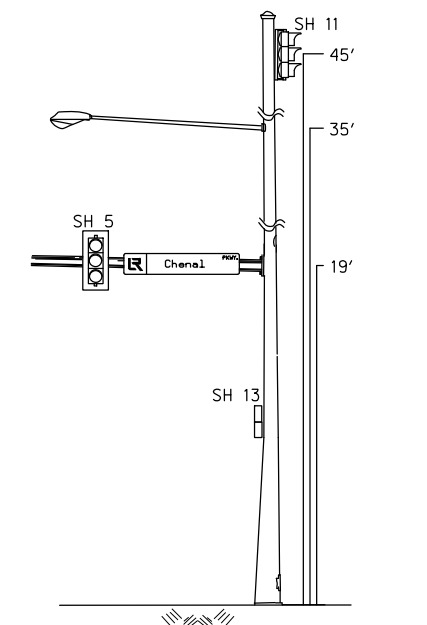


PHASING DIAGRAM



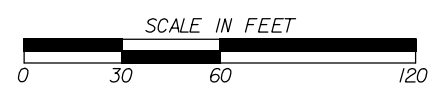
POLE C ELEVATION DETAIL

NOT TO SCALE



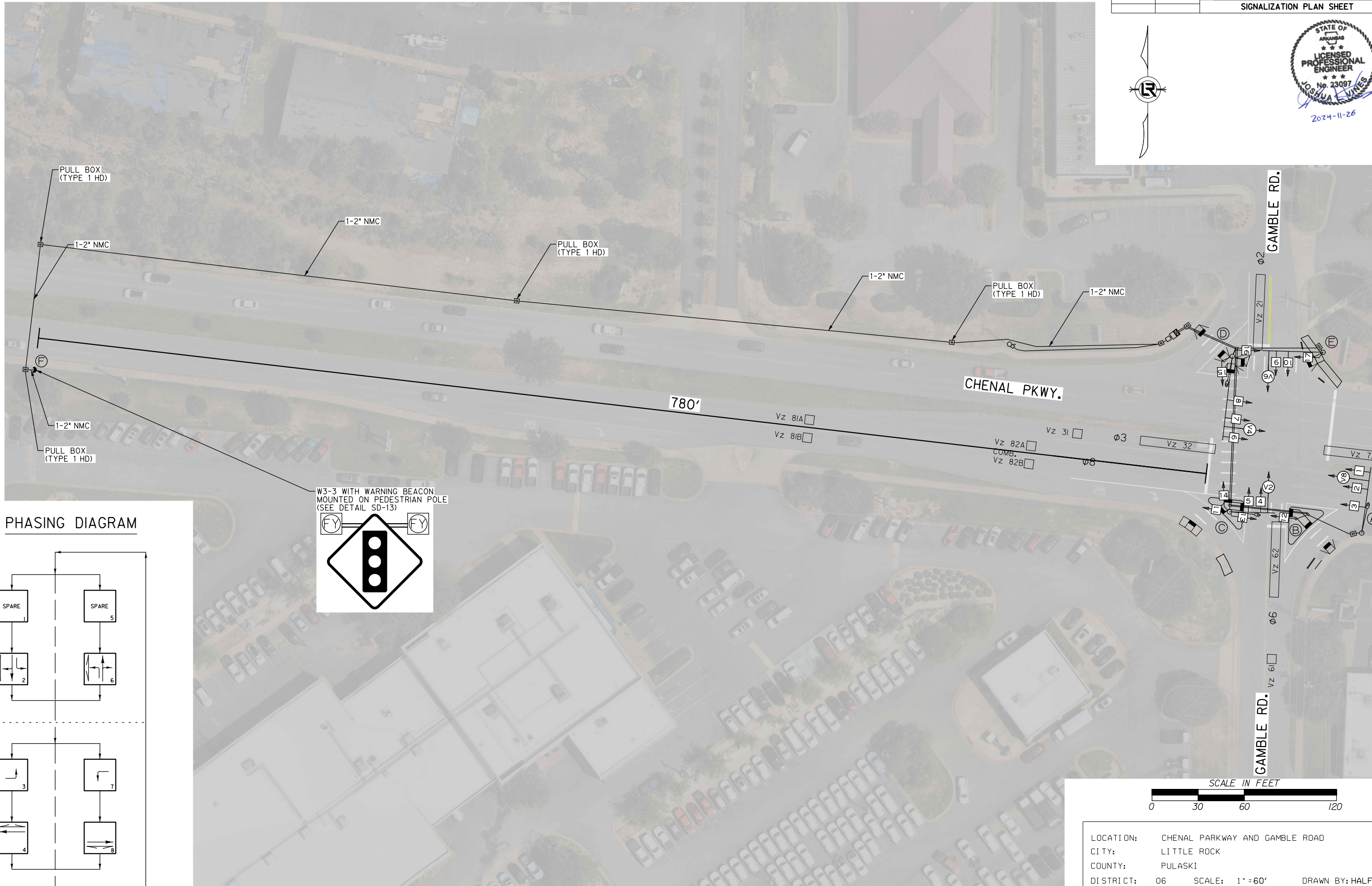
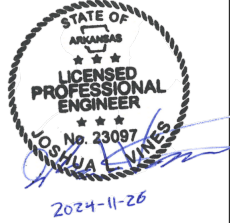
DETECTOR SPACING CHART

| CHENAL PARKWAY VIRTUAL LOOPS | | |
|------------------------------|-------------------------|---------|
| POSTED SPEED | DISTANCE FROM STOP LINE | |
| | LEAD VDZ | LAG VDZ |
| 45 MPH | 265' | 115' |
| GAMBLE ROAD VIRTUAL LOOPS | | |
| POSTED SPEED | DISTANCE FROM STOP LINE | |
| | LEAD VDZ | LAG VDZ |
| 25 MPH | 85' | N/A |

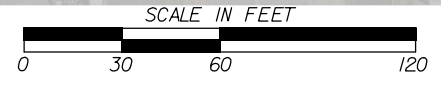
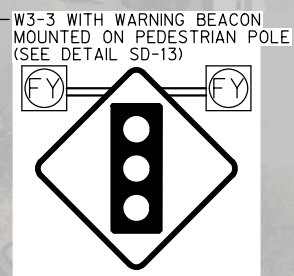
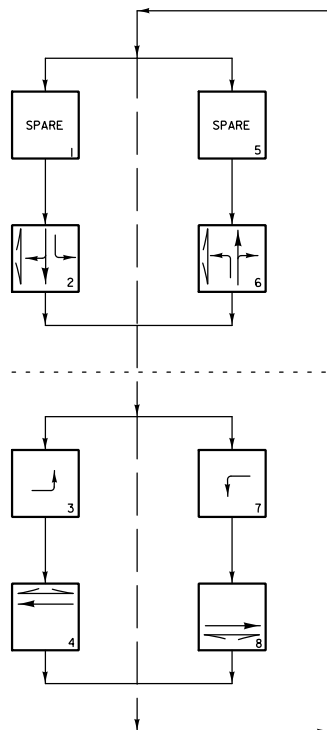


LOCATION: CHENAL PARKWAY AND GAMBLE ROAD
 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: 1" = 60' DRAWN BY: HALFF

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|--------------------------|--------------|--------------------|-------|--------------|-----------|--------------|
| | | 6 | ARK. | 05-22-TR-186 | 7 | 10 |
| SIGNALIZATION PLAN SHEET | | | | | | |



PHASING DIAGRAM



LOCATION: CHENAL PARKWAY AND GAMBLE ROAD
 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: 1" = 60' DRAWN BY: HALFF

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|--------------------------|--------------|--------------------|-------|--------------|-----------|--------------|
| | | 6 | ARK. | 05-22-TR-186 | 8 | 10 |
| SIGNALIZATION PLAN SHEET | | | | | | |

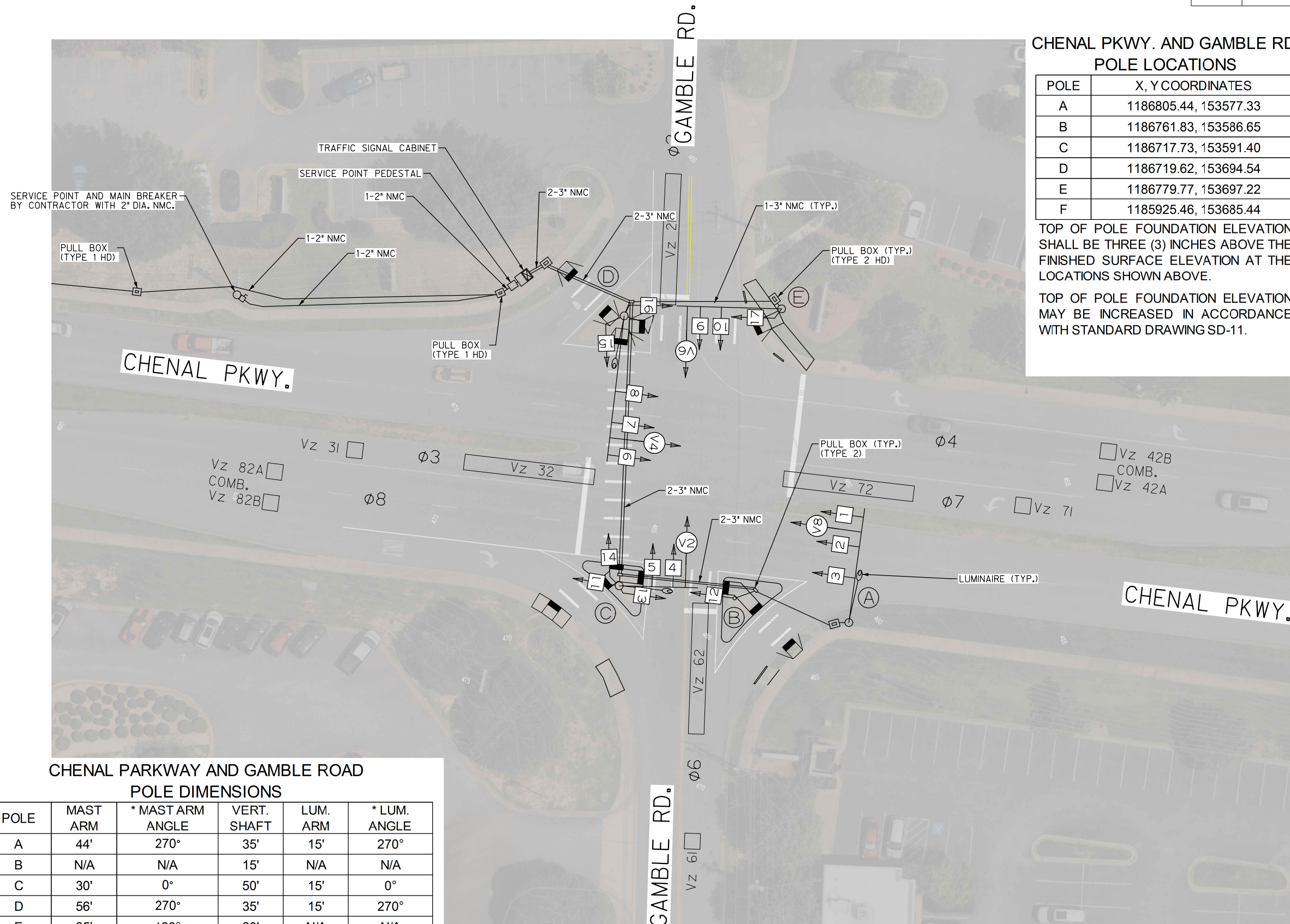


CHENAL PKWY. AND GAMBLE RD. POLE LOCATIONS

| POLE | X, Y COORDINATES |
|------|-----------------------|
| A | 1186805.44, 153577.33 |
| B | 1186761.83, 153586.65 |
| C | 1186717.73, 153591.40 |
| D | 1186719.62, 153694.54 |
| E | 1186779.77, 153697.22 |
| F | 1185925.46, 153685.44 |

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.

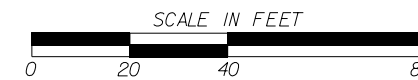
TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.



CHENAL PARKWAY AND GAMBLE ROAD POLE DIMENSIONS

| POLE | MAST ARM | * MAST ARM ANGLE | VERT. SHAFT | LUM. ARM | * LUM. ANGLE |
|------|----------|------------------|-------------|----------|--------------|
| A | 44' | 270° | 35' | 15' | 270° |
| B | N/A | N/A | 15' | N/A | N/A |
| C | 30' | 0° | 50' | 15' | 0° |
| D | 56' | 270° | 35' | 15' | 270° |
| E | 35' | 180° | 20' | N/A | N/A |
| F | N/A | N/A | 15' | N/A | N/A |

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM HAND HOLE, CLOCKWISE ROTATION.



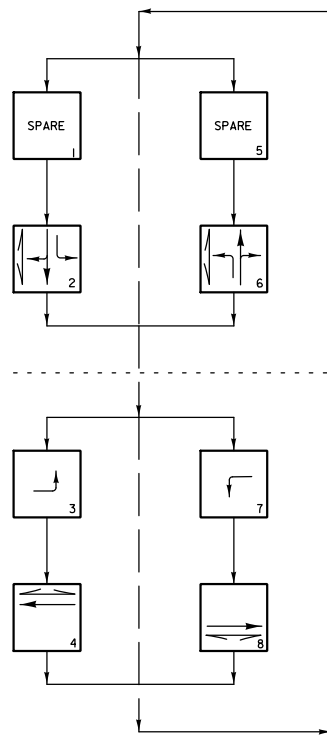
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 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: 1" = 40' DRAWN BY: HALFF

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|--------------------------|--------------|--------------------|-------|--------------|-----------|--------------|
| | | 6 | ARK. | 05-22-TR-186 | 9 | 10 |
| SIGNALIZATION PLAN SHEET | | | | | | |

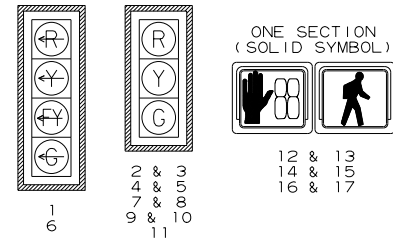


PHASING DIAGRAM



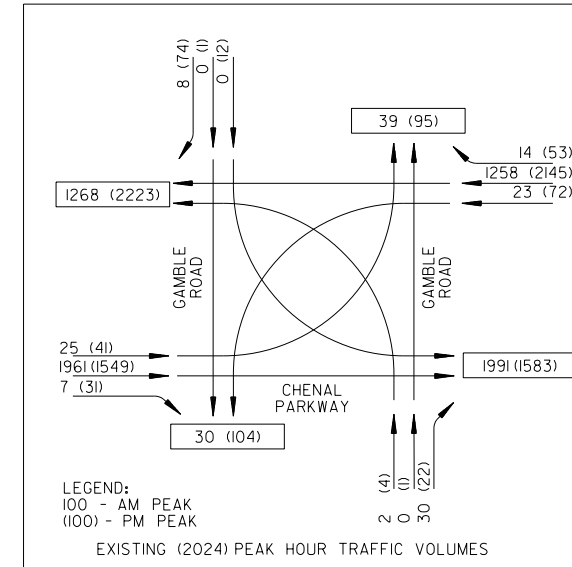
SIGNAL FACES

12" LENSES



- NOTES:
- ALL SIGNAL HEADS SHALL HAVE METAL BACKPLATES.
 - REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
 - REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
 - ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEET A. D. A. STANDARDS.
 - RHYTHM VIDEO DETECTION TO BE USED.
 - UNDERGROUND UTILITIES IN AREA. CONTRACTOR TO VERIFY UTILITY LOCATIONS BEFORE DIGGING.

TRAFFIC FLOW DIAGRAM



DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 05-22-TR-186

| CHENAL PARKWAY AND GAMBLE ROAD DETECTOR ASSIGNMENTS | | | | HARDWARE INPUTS BY SUPPLIER | | | PROGRAM ASSIGNMENTS | | | COMMENTS | TUBE LENGTHS |
|---|--------------------|-------|--------|-----------------------------|------------|-------------|---------------------|---------------|--------------------------------|-----------|--------------|
| DET. ID # | LOCATION DIRECTION | TYPE | DET. # | CAB. TRM. # | AMP CHN. # | CON. IMP. # | PHS | SYSTEM DET. # | MASTER SYSTEM DETECTOR NUMBERS | | |
| Vz21 | SB NEAR | LOCAL | | | 5 | V2 | 2 | | | CAMERA V2 | 37" |
| Vz31 | EB LEFT TURN FAR | COMB. | | | 9 | V11 | 3 | 3 | | CAMERA V8 | 74" |
| Vz32 | EB LEFT TURN | LOCAL | | | 10 | V3 | 3 | | | CAMERA V8 | 74" |
| Vz41 A&B | WB ADVANCE | LOCAL | | | 13 | V4 | 4 | | | CAMERA V4 | 74" |
| Vz42 A&B | WB NEAR | COMB. | | | 14 | V12 | 4 | 4 | | CAMERA V4 | 74" |
| Vz61 | NB ADVANCE | LOCAL | | | 3 | V6 | 6 | | | CAMERA V6 | 37" |
| Vz62 | NB NEAR | COMB. | | | 4 | V14 | 6 | 6 | | CAMERA V6 | 37" |
| Vz71 | WB LEFT TURN FAR | COMB. | | | 15 | V11 | 7 | 7 | | CAMERA V4 | 74" |
| Vz72 | WB LEFT TURN | LOCAL | | | 16 | V3 | 7 | | | CAMERA V4 | 74" |
| Vz81 A&B | EB ADVANCE | LOCAL | | | 11 | V16 | 8 | | | CAMERA V8 | 37" |
| Vz82 A&B | EB FAR | COMB. | | | 12 | V8 | 8 | 8 | | CAMERA V8 | 37" |
| PB2 A&B | CHENAL W. LEG | PED. | | | | P2 | 2 | | | | |
| PB4 A&B | GAMBLE N. LEG | PED. | | | | P4 | 4 | | | | |
| PB8 A&B | GAMBLE S. LEG | PED. | | | | P8 | 8 | | | | |
| | | | | SPARE: 1-2, 6-8 | | | | | | | |

CONTROLLER INPUT ABBREVIATIONS:

- V = VEHICLE INPUT
- D = SYSTEM OR AUXILIARY INPUT
- P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION. THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE. EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

INTERVAL CHART

| SIGNAL FACES | CHENAL PARKWAY AND GAMBLE ROAD | | | | | | | | | | | | FLASH SEQUENCE |
|--------------|--------------------------------|------|-----|------|------|------|------|------|-----|------|-----|------|----------------|
| | 3+7 | CLR. | 3+8 | CLR. | 4+7 | CLR. | 4+8 | CLR. | 2 | CLR. | 6 | CLR. | |
| 1 | <-G | * | <-G | * | <-FY | *** | <-FY | *** | <-R | <-R | <-R | <-R | <-R |
| 2, 3, & 11 | R | R | G | ** | R | R | G | ** | R | R | R | R | R |
| 4 & 5 | R | R | R | R | R | R | R | R | G | R | R | R | R |
| 6 | <-FY | *** | <-G | * | <-FY | *** | <-G | * | <-R | <-R | <-R | <-R | <-R |
| 7 & 8 | R | R | R | R | G | ** | G | ** | R | R | R | R | R |
| 9 & 10 | R | R | R | R | R | R | R | R | R | R | G | R | R |
| 12 & 13 | DW | DW | W | DW | DW | DW | W | DW | DW | DW | DW | DW | BLK |
| 14 & 15 | DW | DW | DW | DW | DW | DW | DW | DW | W | DW | DW | DW | BLK |
| 16 & 17 | DW | DW | DW | DW | W | DW | W | DW | DW | DW | DW | DW | BLK |

- * DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
- ** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
- *** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

LOCATION: CHENAL PARKWAY AND GAMBLE ROAD
 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: N/A DRAWN BY: HALFF

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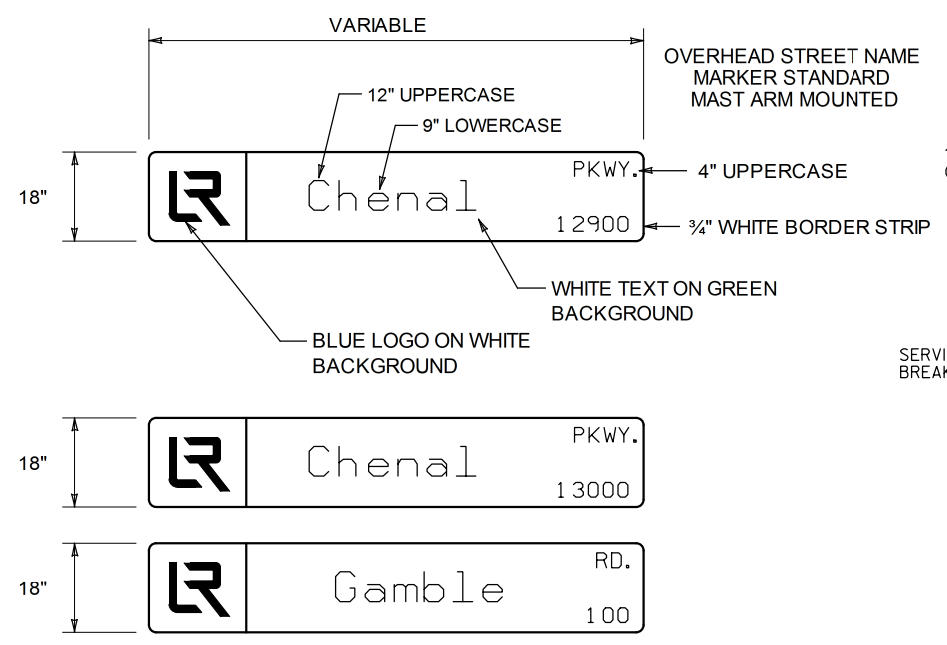
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|--------------|--------------|--------------------|-------|--------------|-----------|--------------|
| | | 6 | ARK. | 05-22-TR-186 | 10 | 10 |

SIGNALIZATION PLAN SHEET

WIRING DIAGRAM

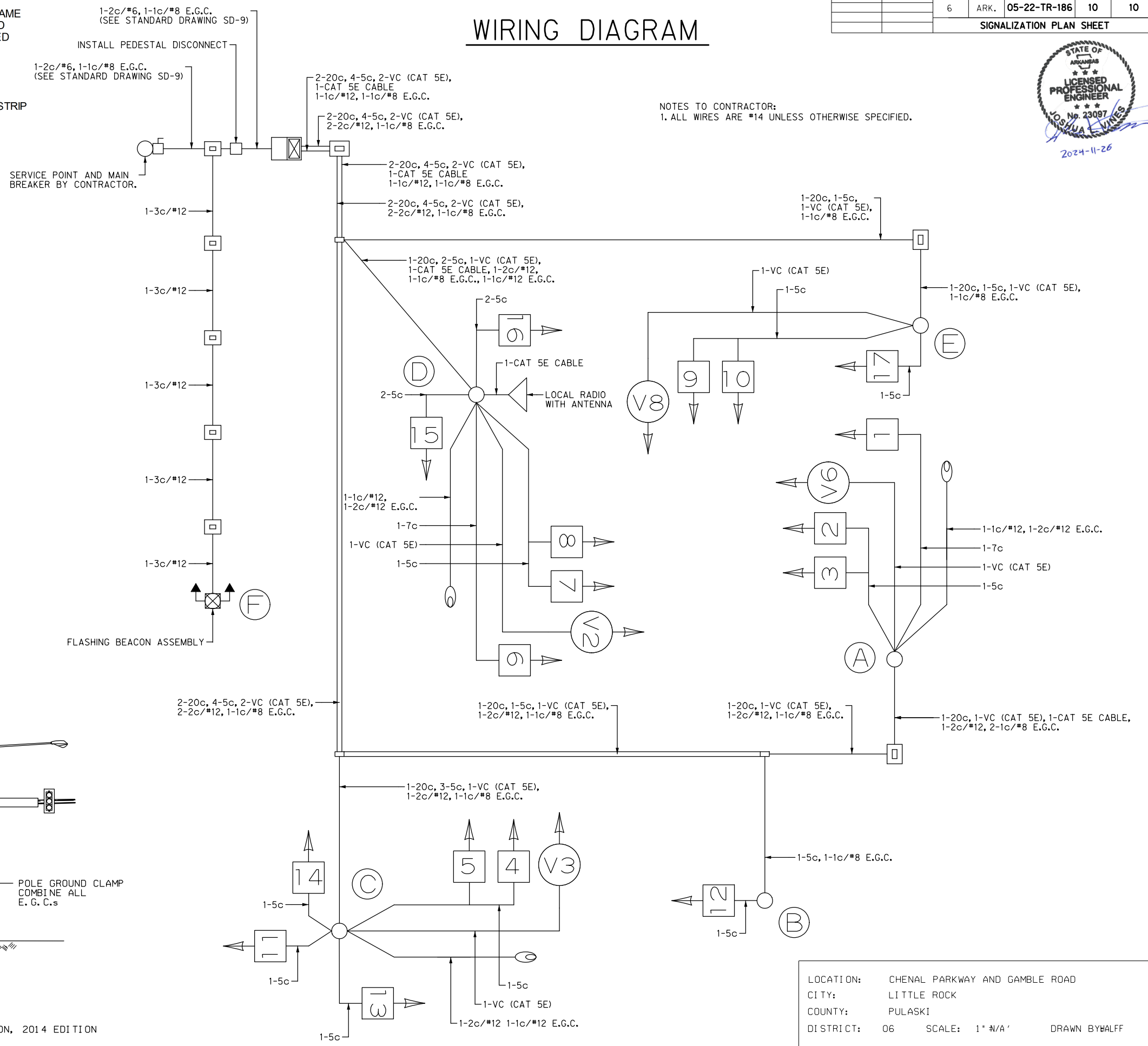
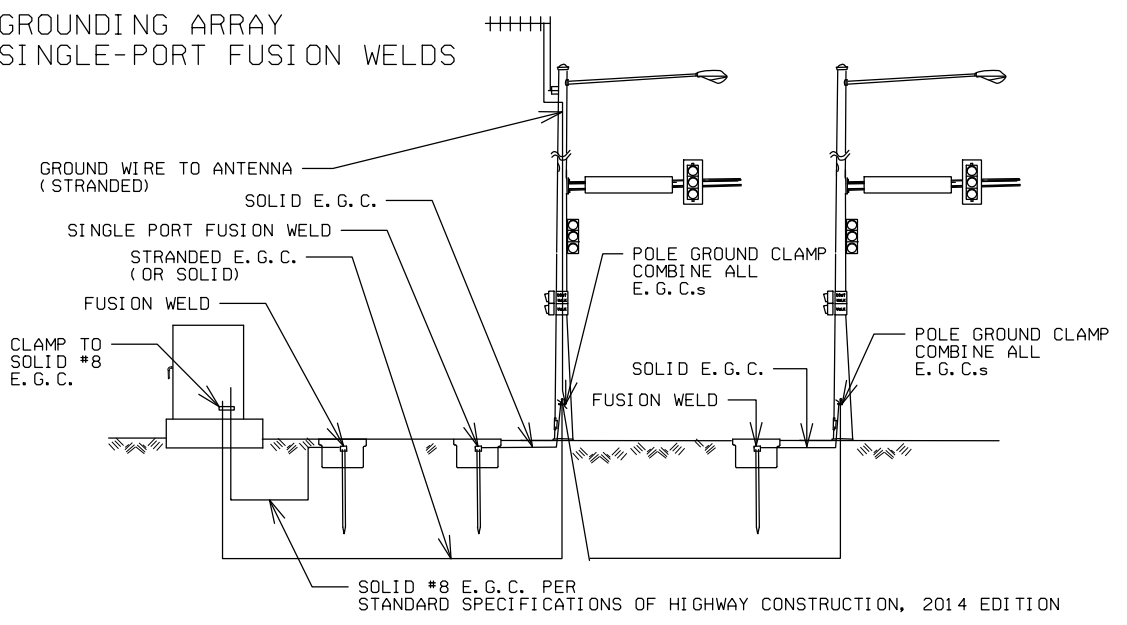


NOTES TO CONTRACTOR:
1. ALL WIRES ARE #14 UNLESS OTHERWISE SPECIFIED.



- NOTES:**
- REFLECTIVE SHEETING SHALL BE DIAMOND GRADE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.
 - ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL BE ALSO ALODIZED. THE ALUMINUM SHEETING SHALL BE 0.100 INCH NOMINAL THICKNESS AND OF THE SIZE SHOWN WITH 1.5" CORNER RADII PRIOR TO FABRICATION OF THE SIGNS, THE LAYOUT SHALL FIRST BE APPROVED BY AN AGENT OF THE CITY/COUNTY.
 - WHEN CROSSROAD HAS TWO NAMES, THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM ON THE NEAR SIDE LEFT POLE. SEE STANDARD DRAWING SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
 - THE CLEARVIEW 2W STANDARD ALPHABET SHALL BE USED FOR ALL LETTERS.

GROUNDING ARRAY SINGLE-PORT FUSION WELDS



LOCATION: CHENAL PARKWAY AND GAMBLE ROAD
 CITY: LITTLE ROCK
 COUNTY: PULASKI
 DISTRICT: 06 SCALE: 1" = 4' DRAWN BY: WJFF