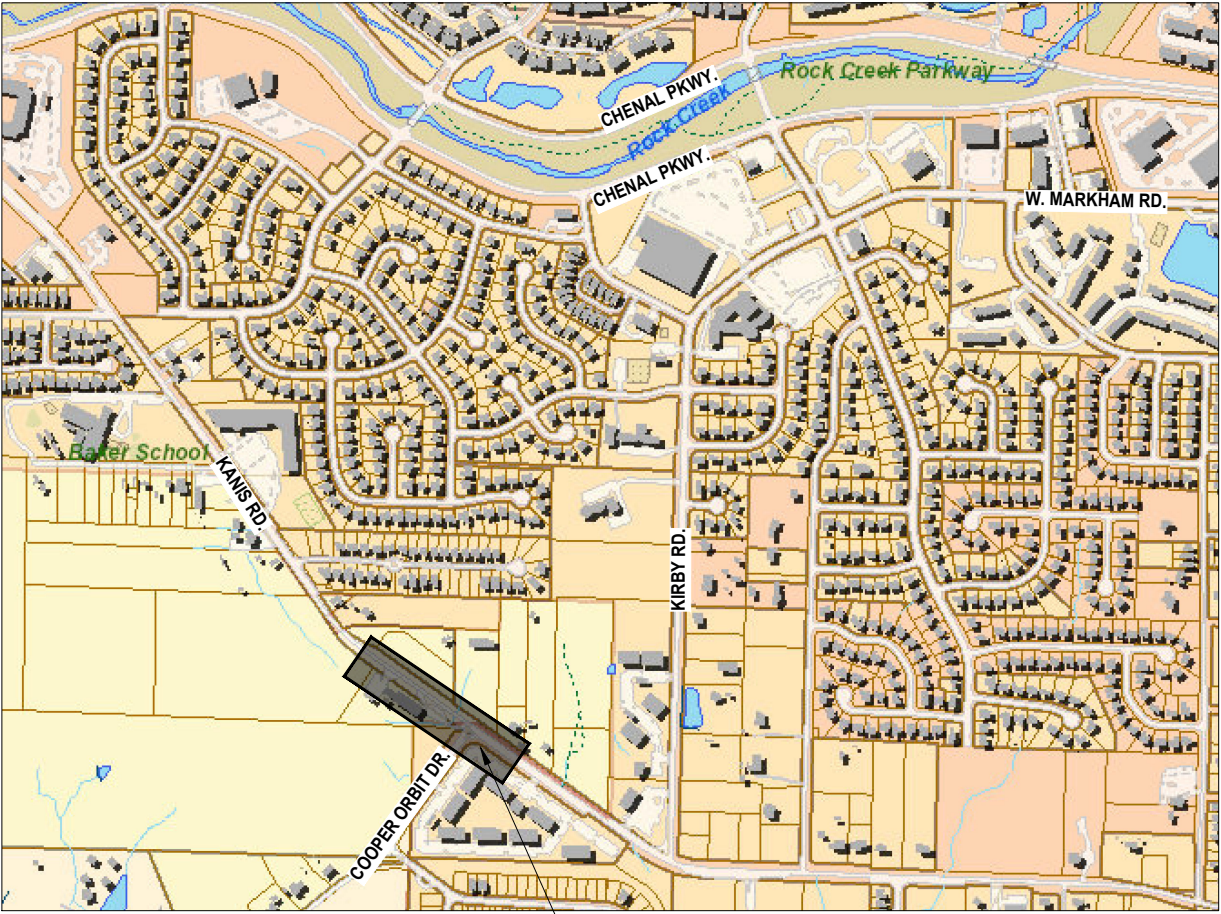
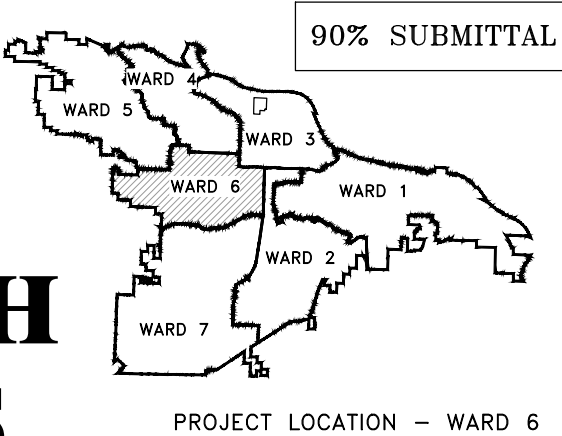


PROJECT # 00-22-TR-146

KANIS ROAD AT PANTHER BRANCH INTERSECTION IMPROVEMENTS

(COOPER ORBIT RD. & KANIS RD.)



PROJECT LOCATION

LOCATION

| Sheet List Table | |
|------------------|-------------------------------------|
| Sheet Number | Sheet Title |
| C1 | COVER SHEET |
| C2 | LEGEND, QUANTITIES, & DETAILS SHEET |
| C3 | TYPICAL SECTION SHEET 1 |
| C4 | TYPICAL SECTION SHEET 2 |
| C5 | EXISTING CONDITIONS PLAN |
| C6 | KANIS RD. PLAN & PROFILE SHEET |
| C7 | DRIVEWAY PLAN SHEET 1 |
| C8 | DRIVEWAY PLAN SHEET 2 |
| C9 | DRIVEWAY PLAN SHEET 3 |
| C10 | KANIS RD CROSS SECTION SHEET 1 |
| C11 | KANIS RD CROSS SECTION SHEET 2 |
| C12 | KANIS RD CROSS SECTION SHEET 3 |
| C13 | KANIS RD CROSS SECTION SHEET 4 |
| C14 | CENTERLINE FIELD TIES SHEET |
| C15 | EROSION CONTROL PH I SHEET |
| C16 | EROSION CONTROL PH II SHEET |
| C17 | EROSION CONTROL PH III SHEET |
| T1 | MAINTENANCE OF TRAFFIC PHASE I |
| T2 | MAINTENANCE OF TRAFFIC PHASE II |
| T3 | TRAFFIC SIGNAL QUANTITIES |
| T4 | TRAFFIC SIGNAL NOTES |
| T5 | GROUNDING ARRAY DETAIL |
| T6 | TRAFFIC SIGNAL STREET NAME SIGNS |
| T7 | SIGNALIZATION PLAN |
| T8 | PAVEMENT MARKING PLAN |
| T9 | SIGNALIZATION DETAILS |
| T10 | WIRE DIAGRAM |
| T11–T14 | STANDARD DRAWINGS |

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



Traffic Engineering Consultants, Inc.
217 E. Dickson St., Suite 106, Fayetteville, AR 72701, Ph: 479-335-5636, Web: www.tecusa.com

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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

COVER SHEET

DEPARTMENT OF PUBLIC WORKS

CIVIL ENGINEERING

701 W. MARKHAM

LITTLE ROCK, ARKANSAS 72201



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SHEET NO.
C1



| ITEM | DESCRIPTION | QTY | UNIT |
|---------|---|-------|------|
| 2.01 | SITE PREPARATION (INCLUDE TREE REMOVAL) | 1 | L.S. |
| 3.01 | UNCLASSIFIED EXCAVATION | 63 | C.Y. |
| 3.02 | SELECT FILL | 1103 | C.Y. |
| 4.01 | AGGREGATE BASE COURSE (CLASS 7) | 666 | TON |
| 5.01 | TACK COAT | 40 | GAL |
| 6.01 | ACHM SURFACE COURSE | 125 | TON |
| 6.02 | ACHM BINDER COURSE | 175 | TON |
| 7.06 | CONCRETE DRIVEWAY (6" THICK), STANDARD FINISH | 1285 | S.F. |
| 8.03 | CONCRETE CURB AND GUTTER (CLASS 3) | 382 | L.F. |
| 9.01 | CONCRETE SIDEWALK (4" THICK) | 1950 | S.F. |
| 10.02 | CURB INLET | 2 | EA. |
| 10.04 | AREA INLET | 1 | EA. |
| 10.11 | 3' THROAT EXTENSION | 2 | EA. |
| 11.01 | REINFORCED CONCRETE RETAINING WALL | 1480 | S.F. |
| 11.02 | REINFORCED CONCRETE BOX CULVERT (6'X3') | 20 | L.F. |
| 11.03 | CAST-IN-PLACE CONCRETE | 0.67 | C.Y. |
| 13.18S | STORM DRAIN PIPE, 18" SIDE DRAIN | 175 | L.F. |
| 14.01 | SOLID SODDING (BERMUDA. INCLUDED 4" TOPSOIL) | 450 | S.Y. |
| 16.01 | MAINTENANCE OF TRAFFIC | 1 | L.S. |
| 18.07 | HAND RAILING | 350 | L.F. |
| 18.09 | ACCESS RAMP (TYPE 3) | 36 | S.Y. |
| 18.10 | WATER FOR DUST CONTROL | 3,000 | GAL |
| 19.01 | FINAL CLEAN UP | 1 | L.S. |
| 23.01 | CONSTRUCTION ENTRANCE (CO) | 1 | EA. |
| 24.02 | CHECK DAM | 6 | C.Y. |
| 24.06 | FILTER SOCK (12") | 40 | L.F. |
| 24.01 | SILT FENCE - TYPE A (SFA) | 1425 | L.F. |
| 719.04W | THERMOPLASTIC PAVEMENT STRIPING WHITE (4") | 190 | L.F. |
| 719.12W | THERMOPLASTIC PAVEMENT STRIPING WHITE (12") | 96 | L.F. |
| 719.24W | THERMOPLASTIC PAVEMENT STRIPING WHITE (24") | 145 | L.F. |
| 719.60 | THERMOPLASTIC MARKING ARROWS AND WORDS | 2 | EA. |
| 719.60 | THERMOPLASTIC PAVEMENT YIELD LINE | 14 | L.F. |

| EXISTING | PROPOSED |
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| IRON ROD PK NAIL R.R. SPIKE CONC. MONUMENT WATER VALVE WATER METER FIRE HYDRANT GAS METER GAS VALVE CLEAN-OUT GUARD POST (BOLLARD) SIGN POST BENCHMARK STORM SEWER MANHOLE SANITARY SEWER MANHOLE TELEPHONE MANHOLE ELECTRIC MANHOLE TELEPHONE BOX ELECTRIC BOX CABLE BOX UTILITY POLE GUY WIRE LIGHT POLE POST OR POLE (TYPE AS NOTED) MAILBOX DECIDUOUS TREE EVERGREEN/CONIFEROUS TREE BUSH PROPERTY LINE SETBACK LINE EASEMENT LINE CURB FENCE OVERHEAD ELECTRIC OVERHEAD TELEPHONE OVERHEAD CABLE UNDERGROUND TELEPHONE UNDERGROUND ELECTRIC UNDERGROUND CABLE WATER LINE SEWER LINE GAS LINE STORM SEWER/CULVERT EDGE OF WOODS CONTOUR LINE | |

| PROPOSED |
|---|
| PROPOSED CONTOUR PROPOSED SPOT ELEVATION PROPOSED SPOT CURB ELEVATION STORM SEWER – PIPE STORM SEWER – MITERED END SECTION STORM SEWER – GRATE INLET STORM SEWER – JUNCTION BOX STORM SEWER – FLARED END SECTION STORM SEWER – HEADWALL STORM SEWER – SINGLE WING STORM SEWER – DOUBLE WING STORM SEWER – AREA INLET GRADE BREAK LINE HIGH POINT LOW POINT CUT LINE FILL LINE SANITARY SEWER PIPE SANITARY SEWER MANHOLE PROPOSED CURB PROPOSED CONCRETE CONSTRUCTION – ENTRANCE/EXIT CHECK DAM DIVERSION BERM DOWNDRAIN STRUCTURE – TEMPORARY ROCK DAM SEDIMENT BARRIER – SILT FENCE SEDIMENT BARRIER – GRAVEL RING SEDIMENT BARRIER – BLOCK & GRAVEL SEDIMENT BARRIER – BLOCK TEMPORARY SEDIMENT BASIN SILT FENCE – TYPE A SILT FENCE – TYPE B SILT FENCE – TYPE C STORM DRAIN OUTLET PROTECTION SURFACE ROUGHENING DISTURBED AREA STABILIZATION –TEMPORARY STABILIZATION DISTURBED AREA STABILIZATION –TEMPORARY GRASSING DISTURBED AREA STABILIZATION –PERMANENT GRASSING |

- NOTES:
- TYP. VERT. & HORIZ. WALL REINFORCEMENT NOT SHOWN FOR CLARITY.
 - HALF OF REINFORCEMENT IN OPEN ADDED TO EACH SIDE OF OPENING.

ADDED REIN 2-#4 X 6'-0" (TYP.) EACH FACE

WALL PENETRATION OF CONCRETE BOX
NTS

90% SUBMITTAL

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| CITY OF LITTLE ROCK, ARKANSAS KANIS ROAD AT PANTHER BRANCH INTERSECTION IMPROVEMENTS | LEGEND, QUANTITIES, & DETAILS SHEET |
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| DEPARTMENT OF PUBLIC WORKS CIVIL ENGINEERING 701 W. MARKHAM LITTLE ROCK, ARKANSAS 72201 |
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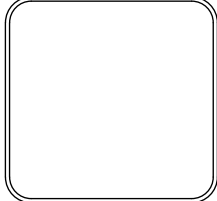
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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

TYPICAL SECTION SHEET 1

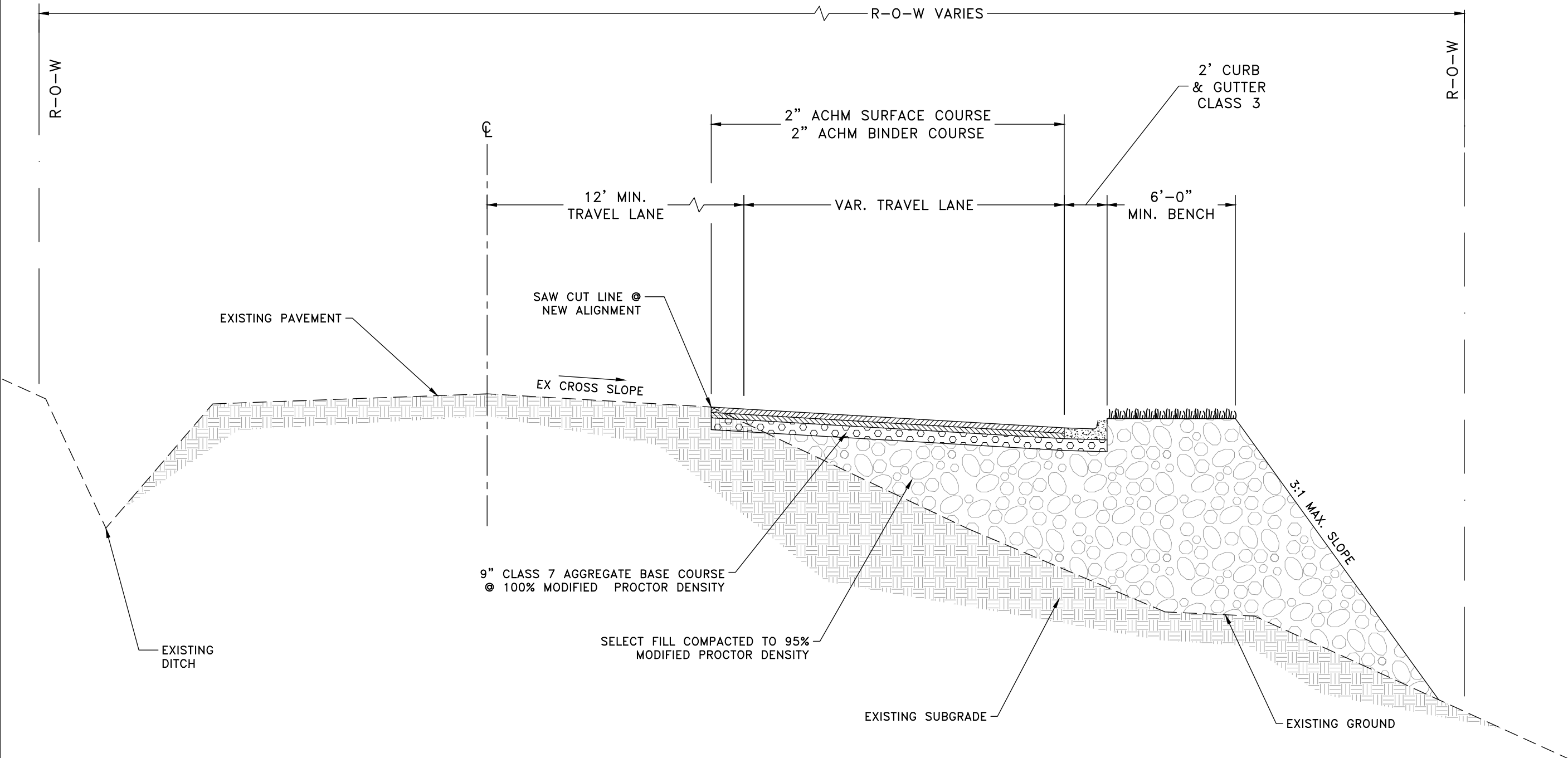
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701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201





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C3



TYPICAL SECTION - KANIS ROAD


Sta 11+00.00 to Sta. 11+09.85
Transition Cross-Slope to Match Existing for first 50' and last 50' of Street.

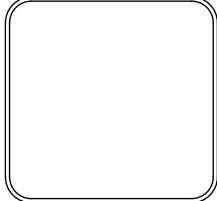
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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

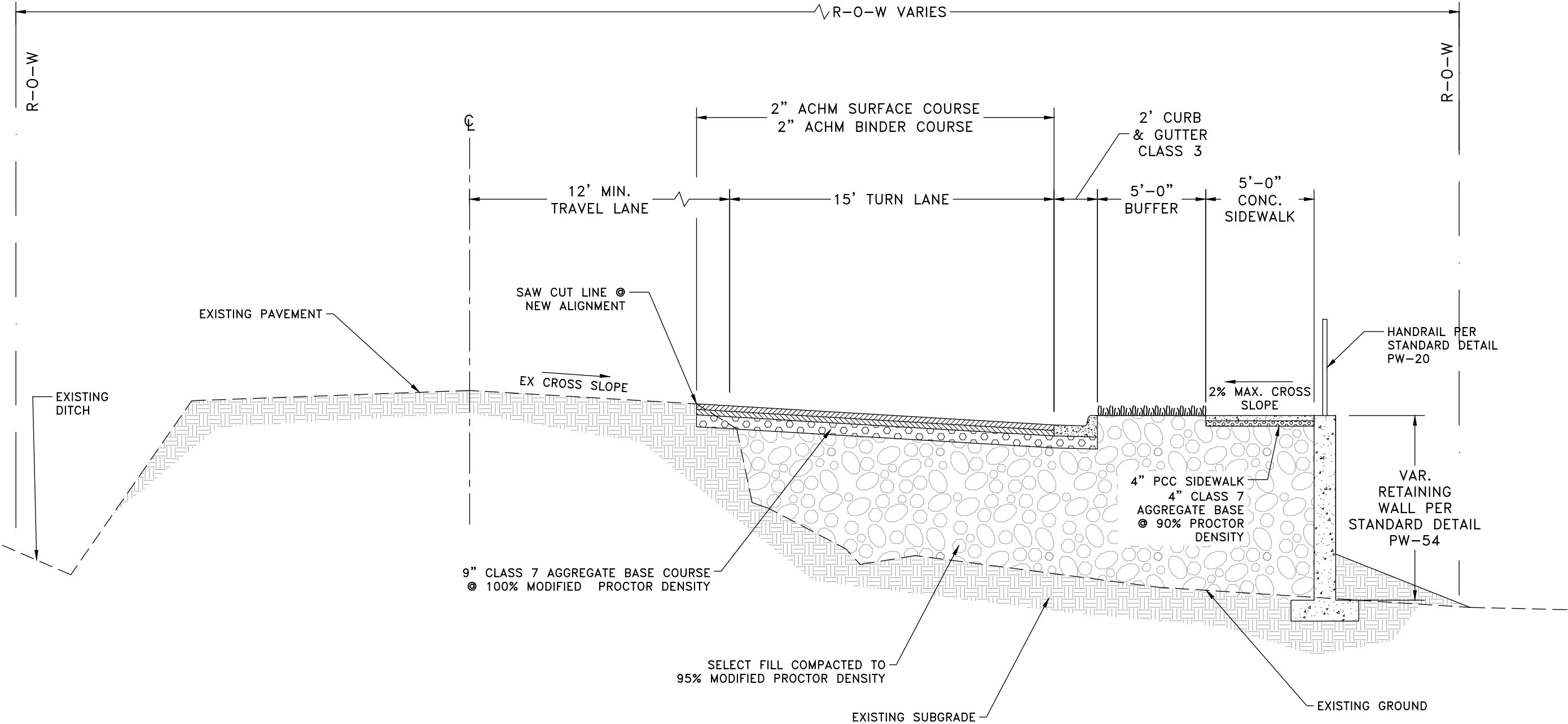
TYPICAL SECTION SHEET 2

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TYPICAL SECTION - KANIS ROAD

Sta 11+09.85 to Sta. 15+.39


Transition Cross-Slope to Match Existing for first 50' and last 50' of Street.

90% SUBMITTAL

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**CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS**

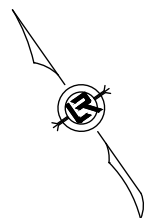
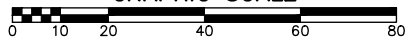
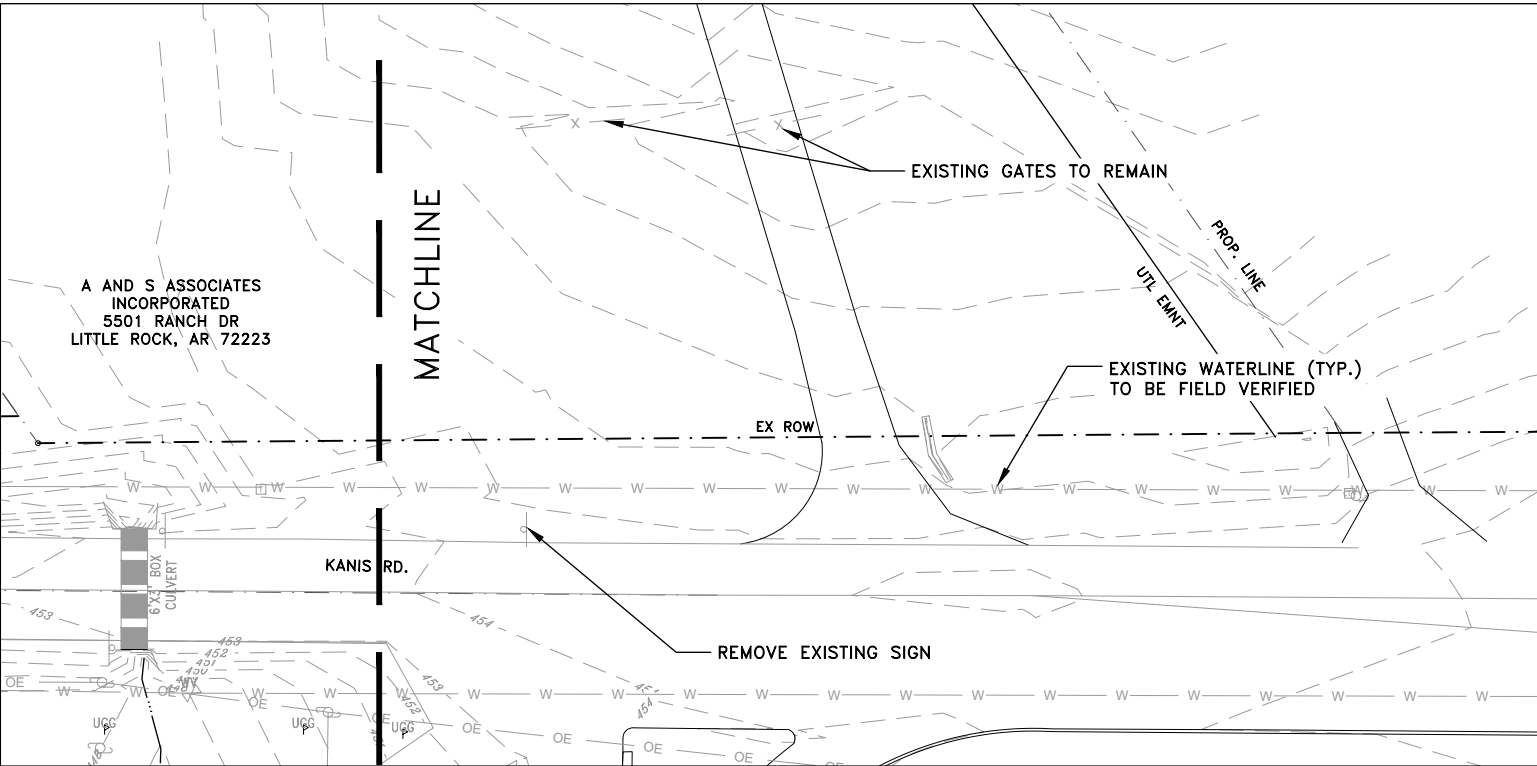
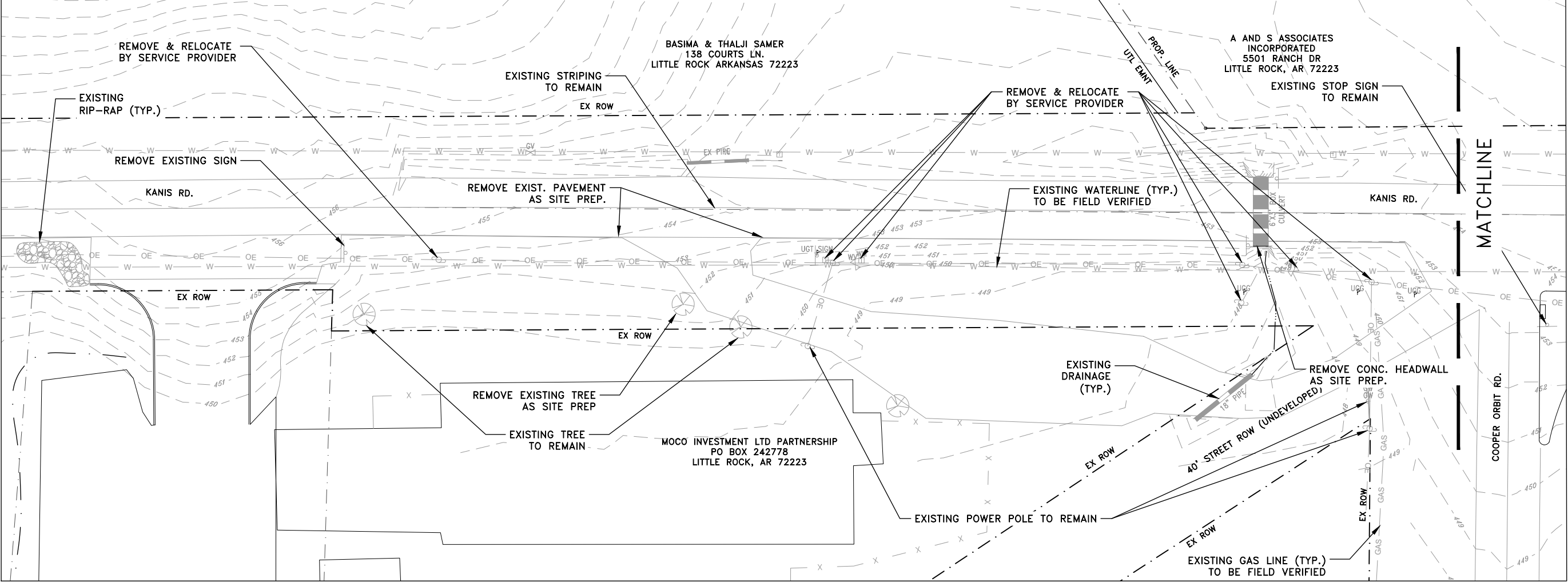
EXISTING CONDITIONS PLAN



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LITTLE ROCK, ARKANSAS 72201



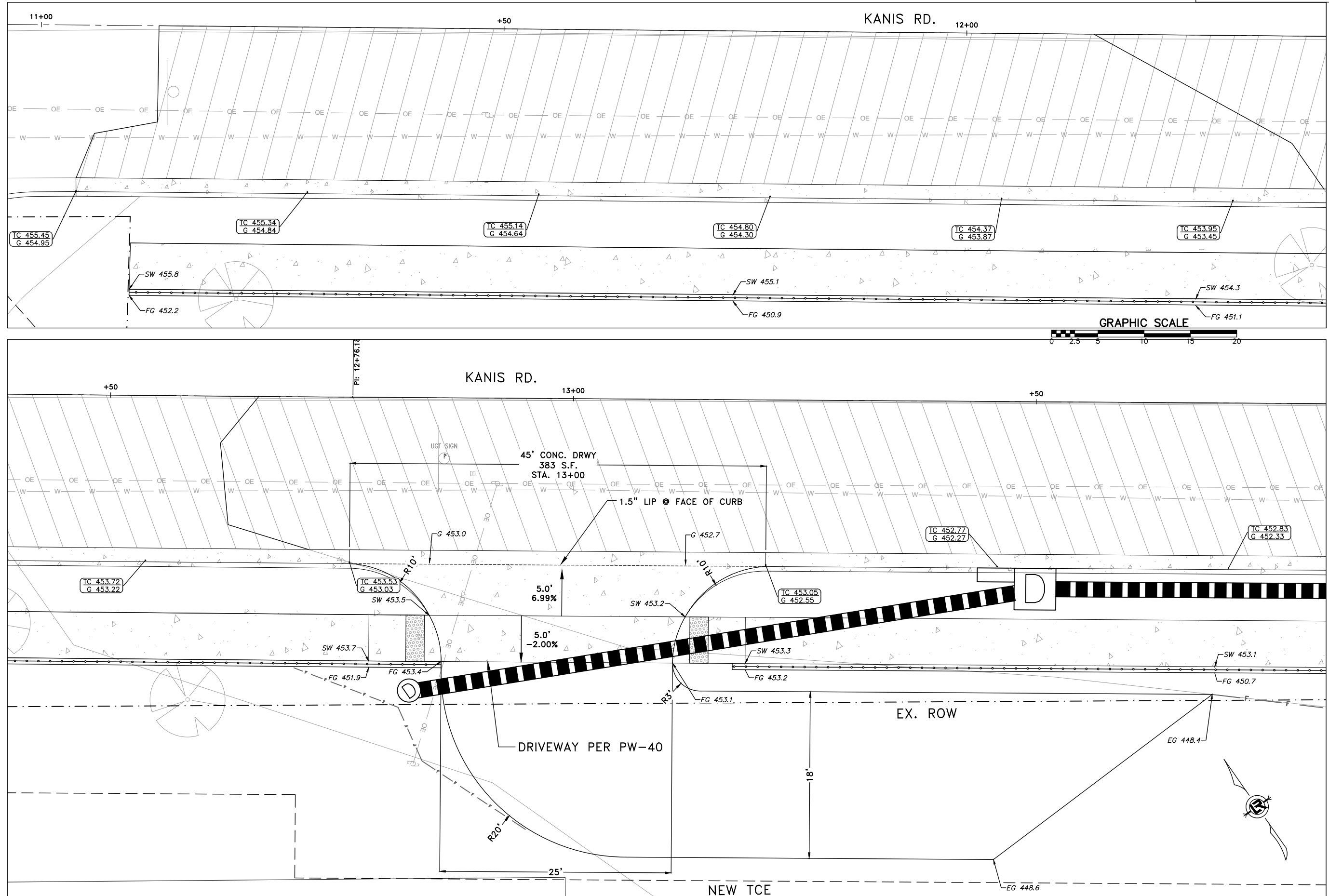
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701 W. MARKHAM
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SHEET NO.
C7



90% SUBMITTAL

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CITY OF LITTLE ROCK, ARKANSAS

KANIS ROAD AT PANTHER BRANCH

INTERSECTION IMPROVEMENTS

DRIVEWAY PLAN SHEET 2

DEPARTMENT OF PUBLIC WORKS

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701 W. MARKHAM

LITTLE ROCK, ARKANSAS 72201

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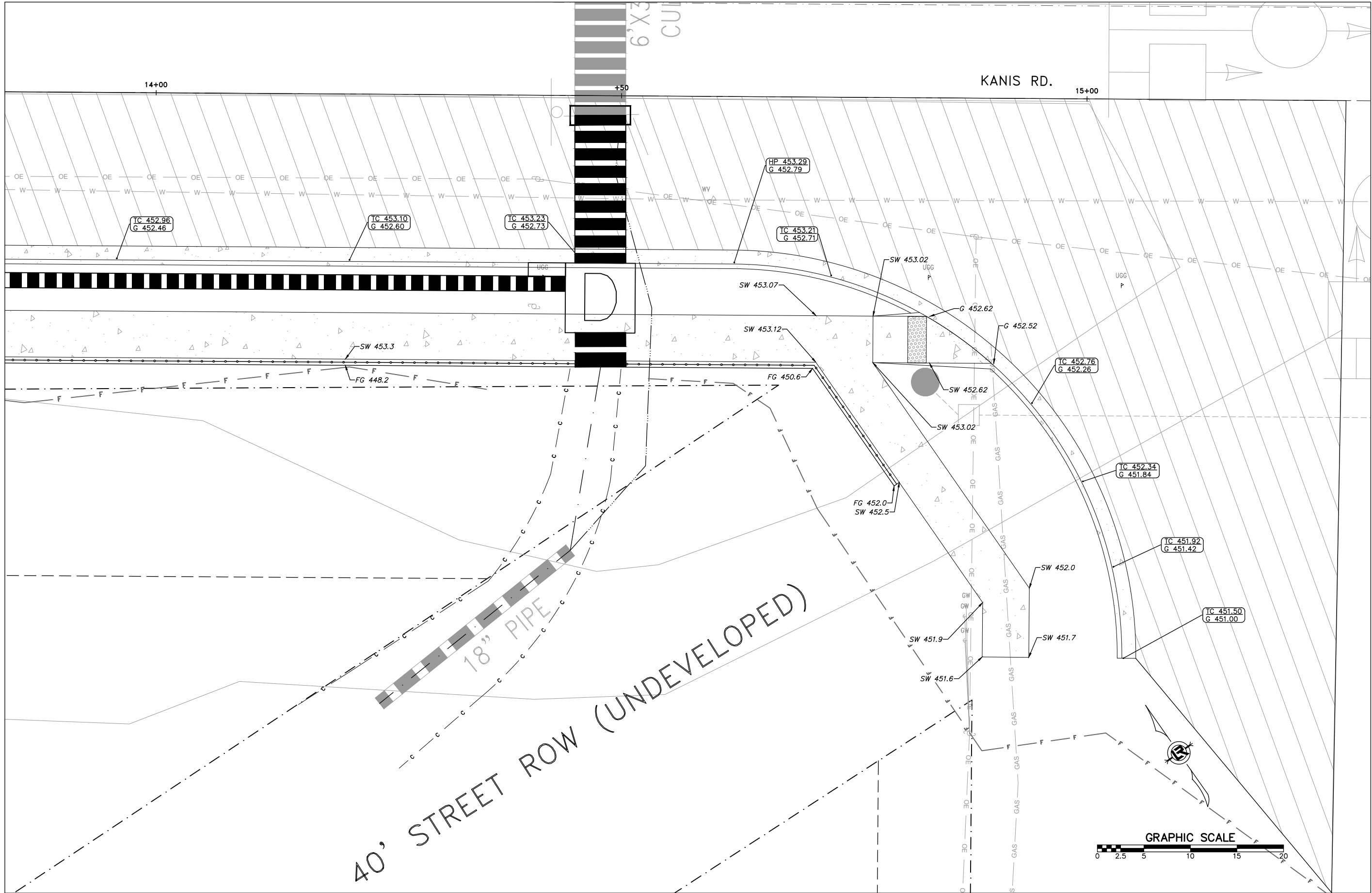
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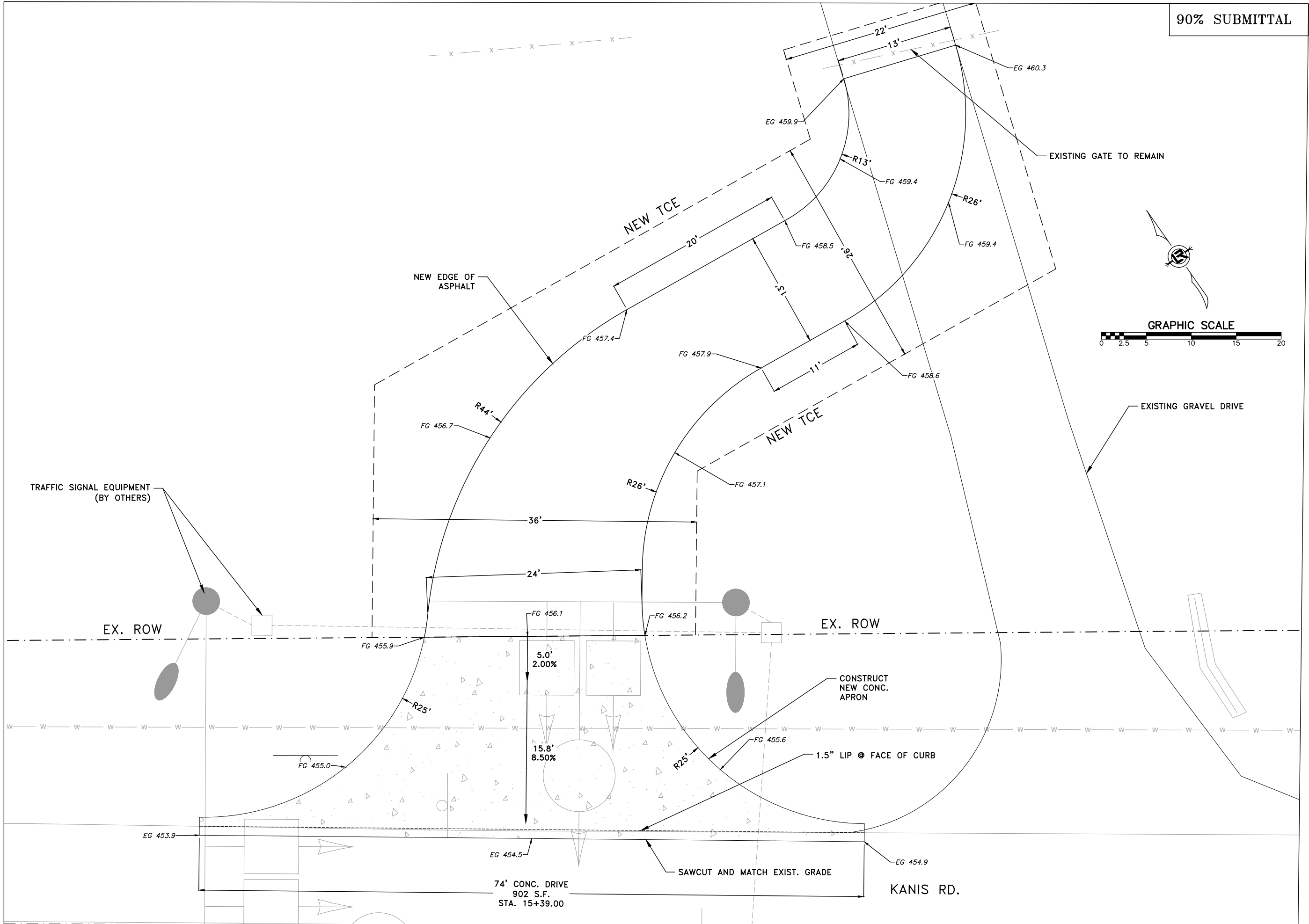
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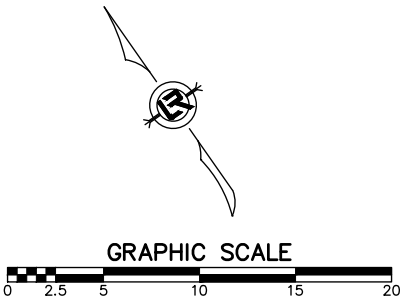
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90% SUBMITTAL



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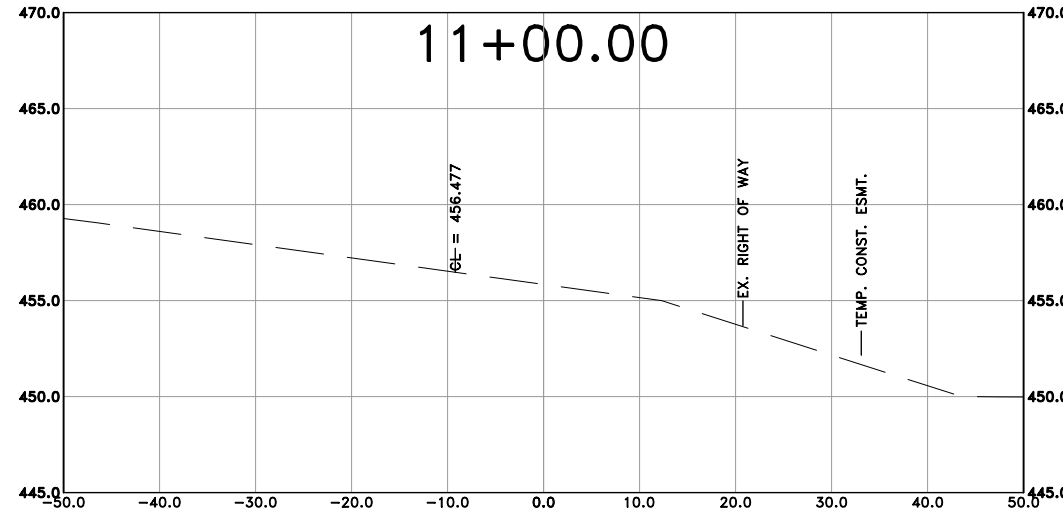
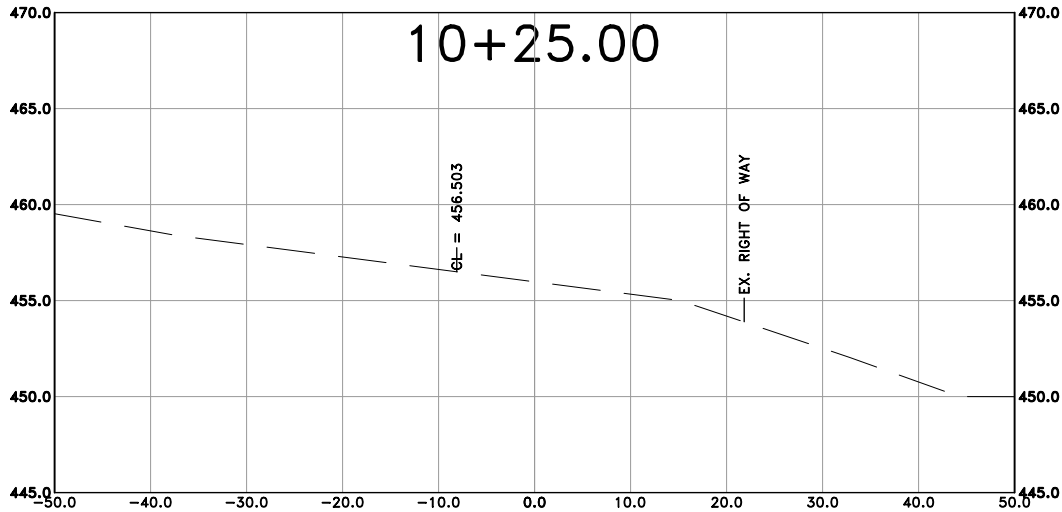
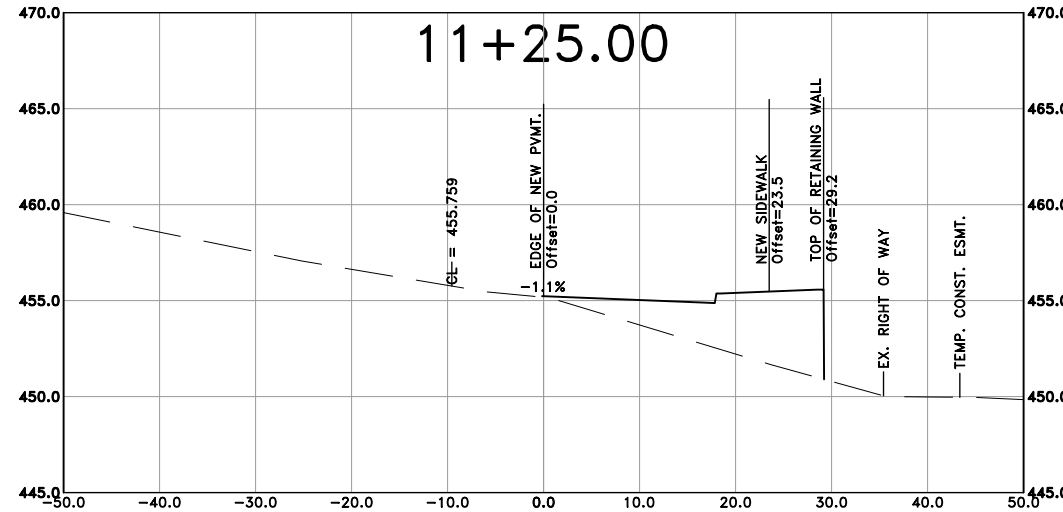
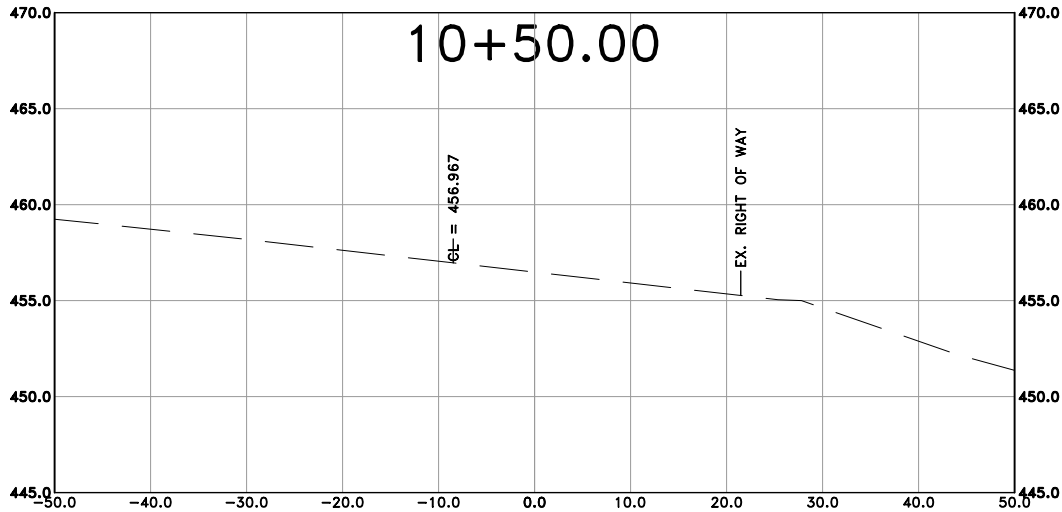
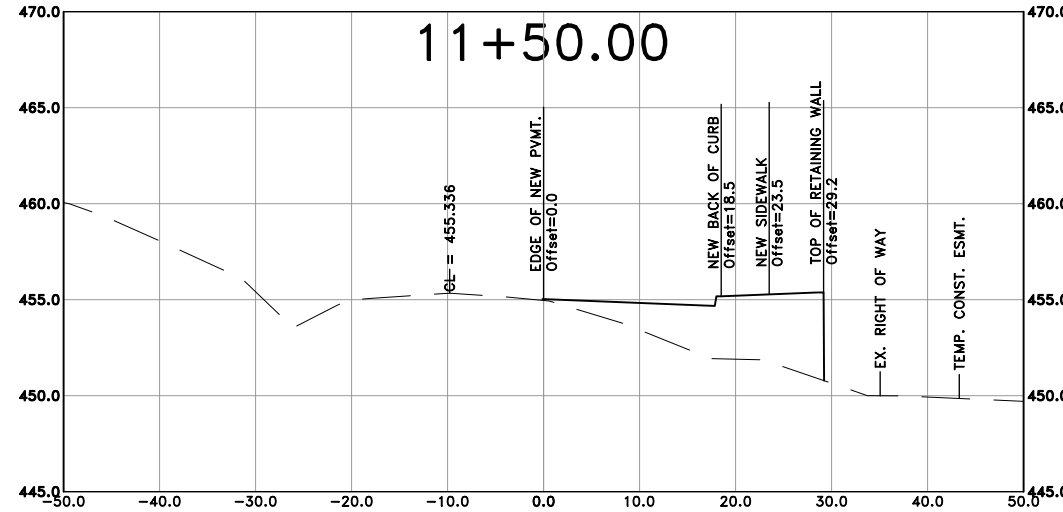
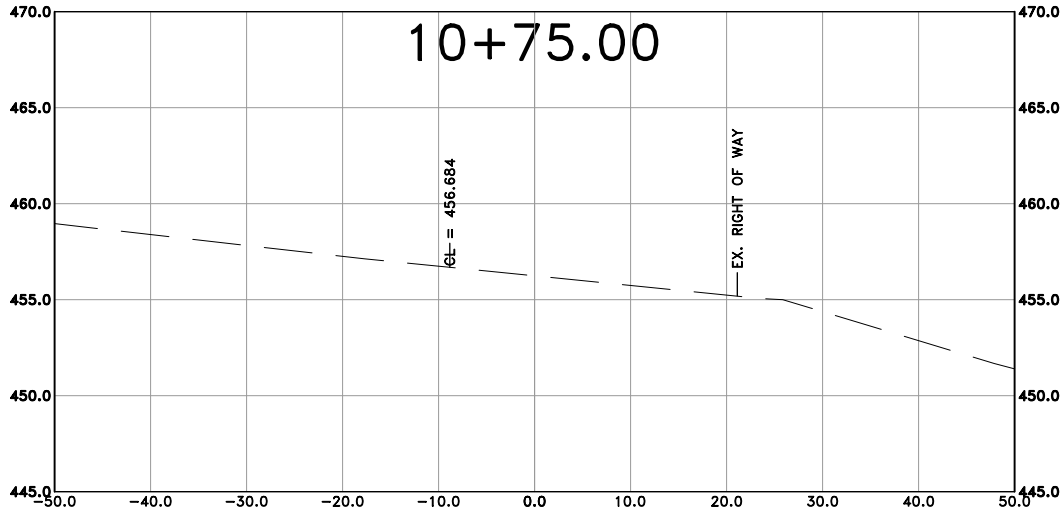
CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

DRIVEWAY PLAN SHEET 3

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

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90% SUBMITTAL

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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

KANIS RD CROSS SECTION SHEET 1

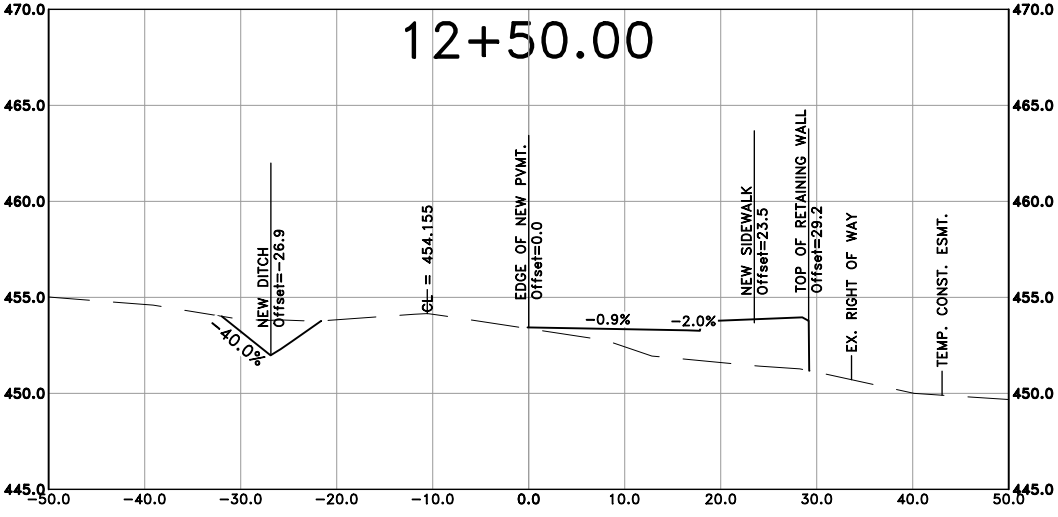
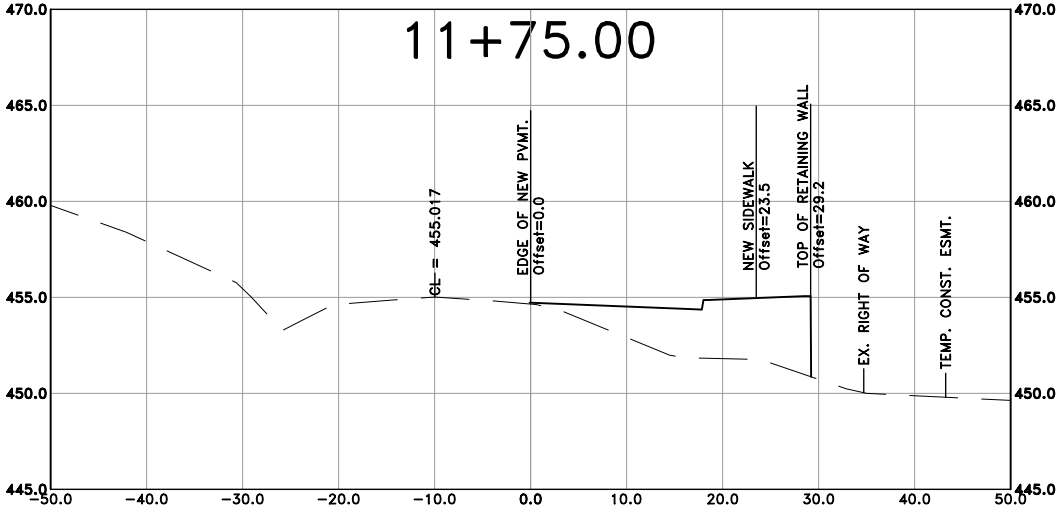
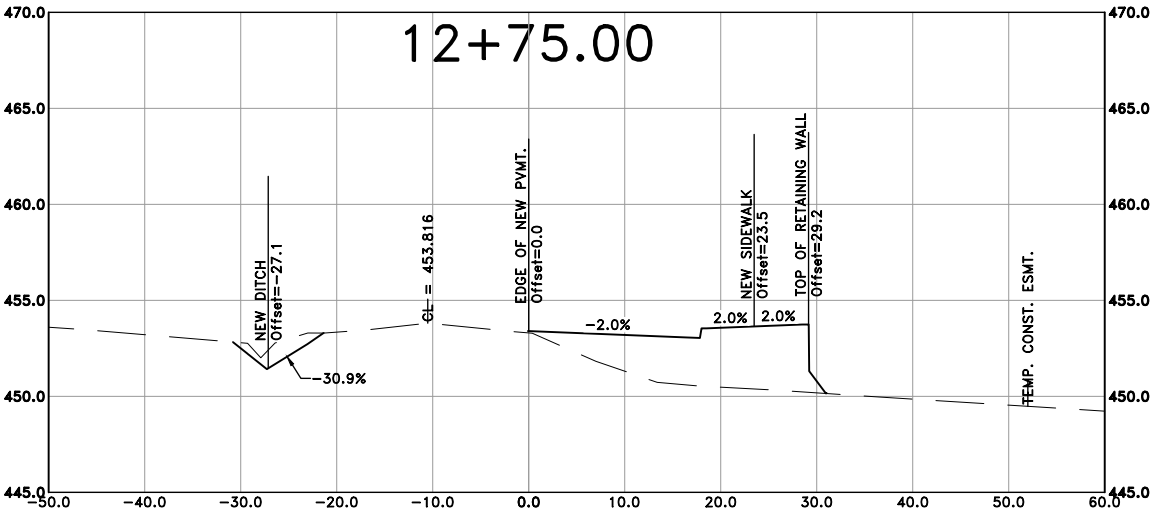
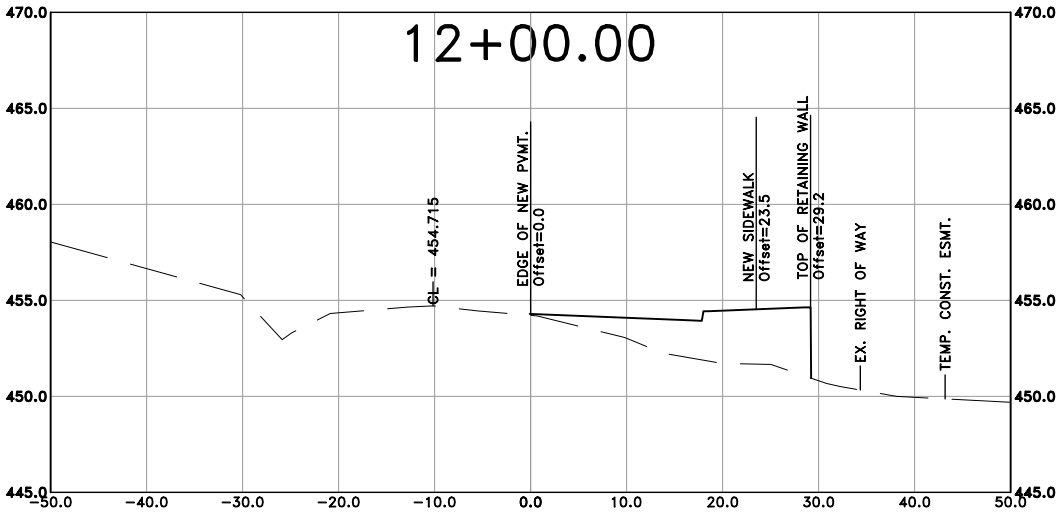
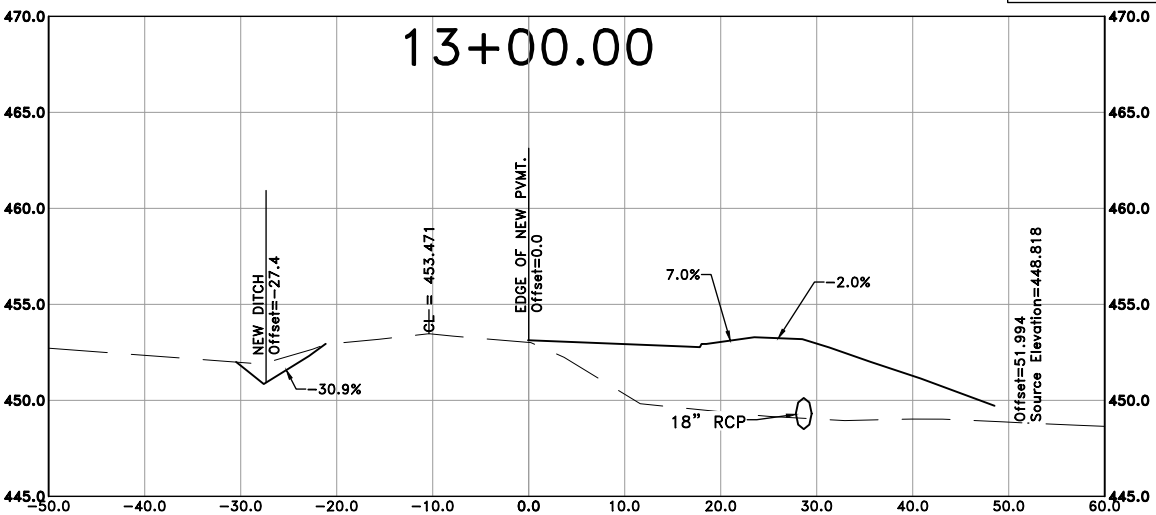
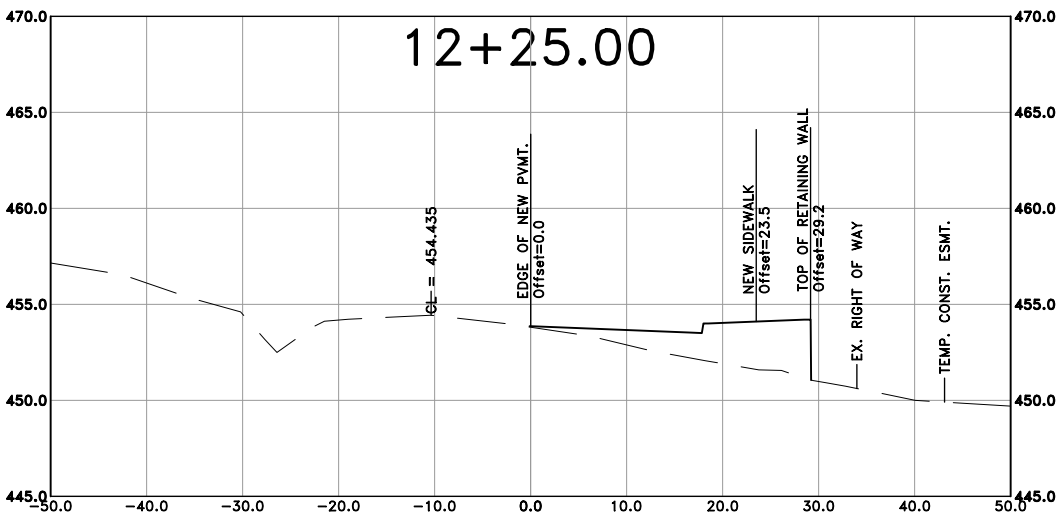
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701 W. MARKHAM

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PROJECT NO.

SHEET NO.
C10



90% SUBMITTAL

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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

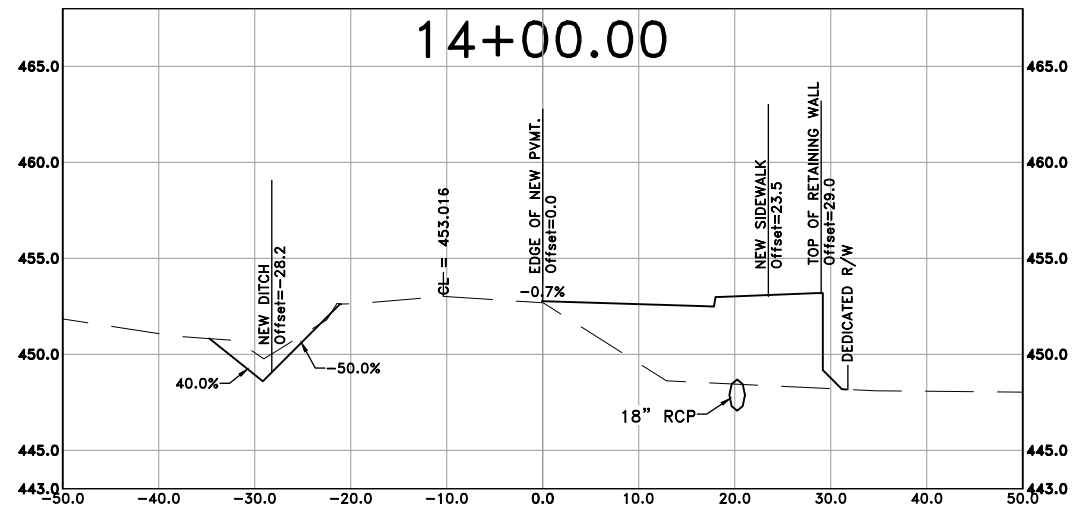
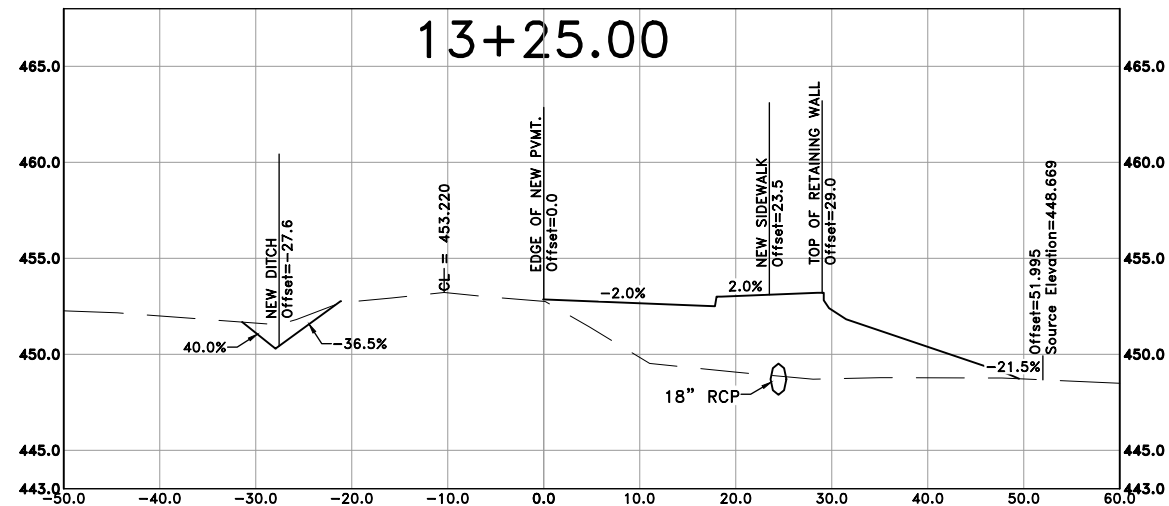
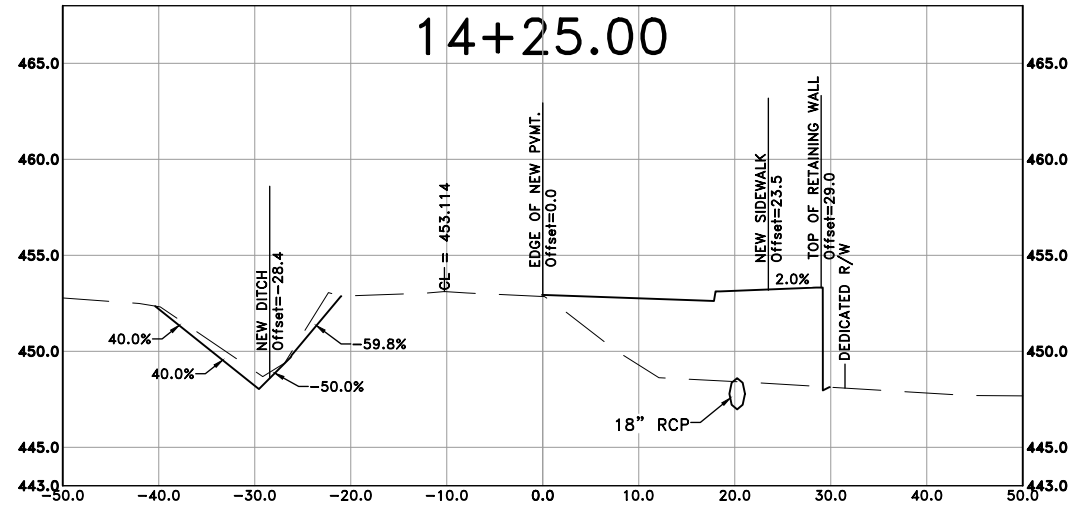
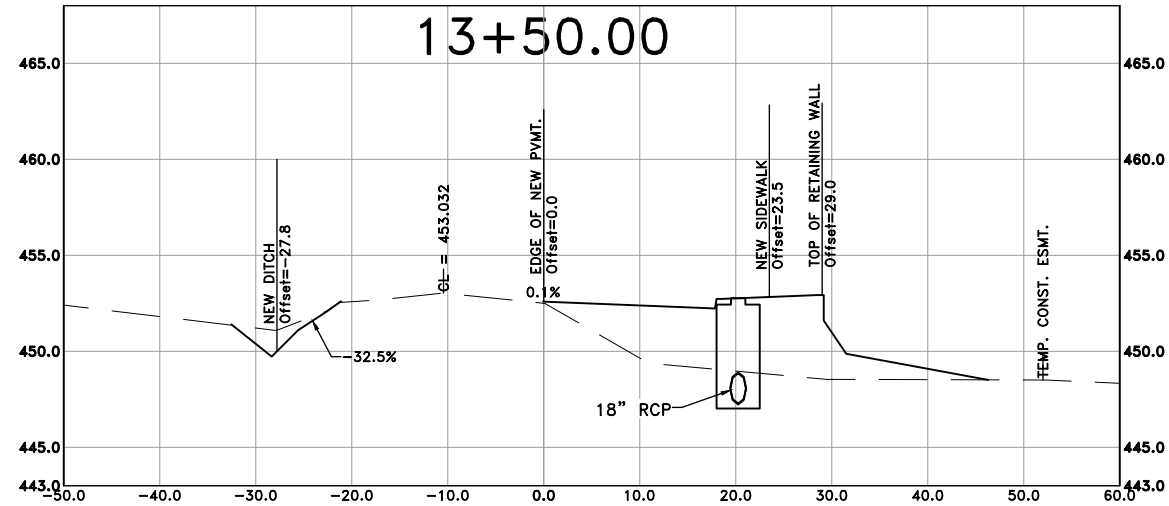
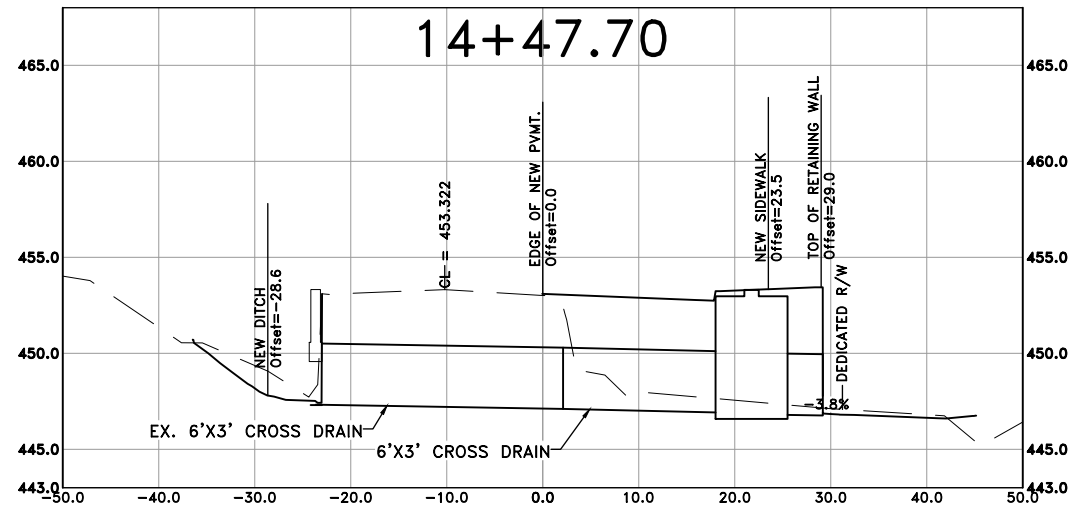
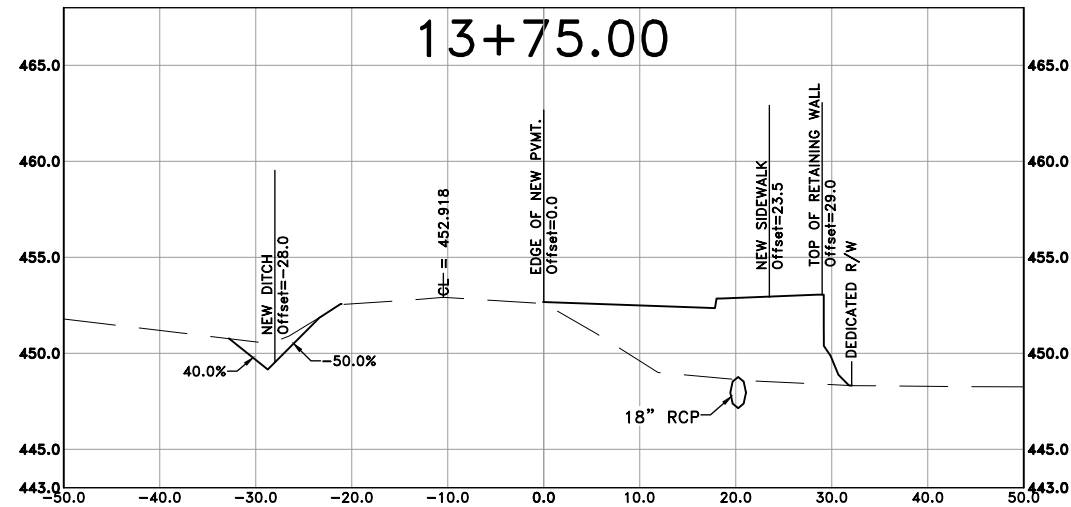
KANIS RD CROSS SECTION SHEET 2

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CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201



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C11



90% SUBMITTAL

REVISIONS DATE

CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

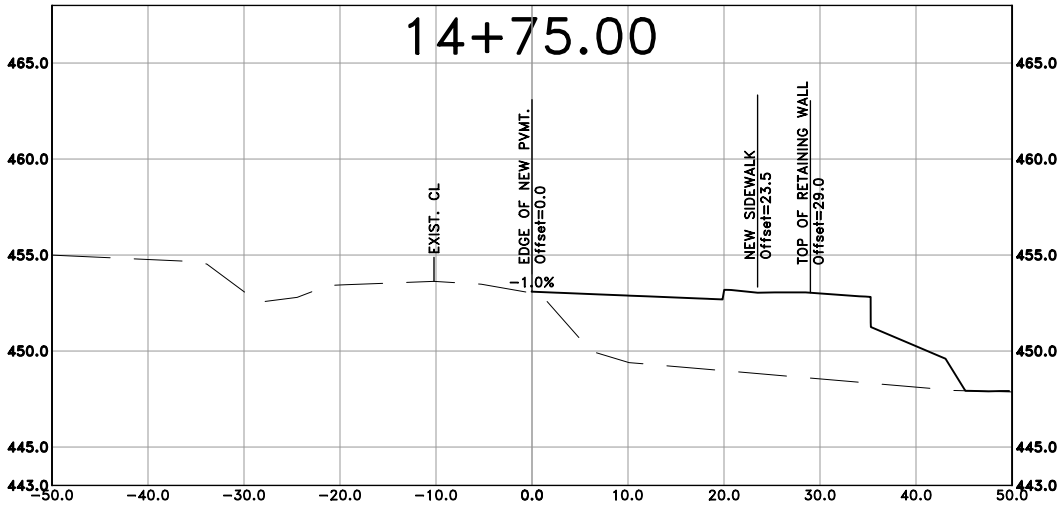
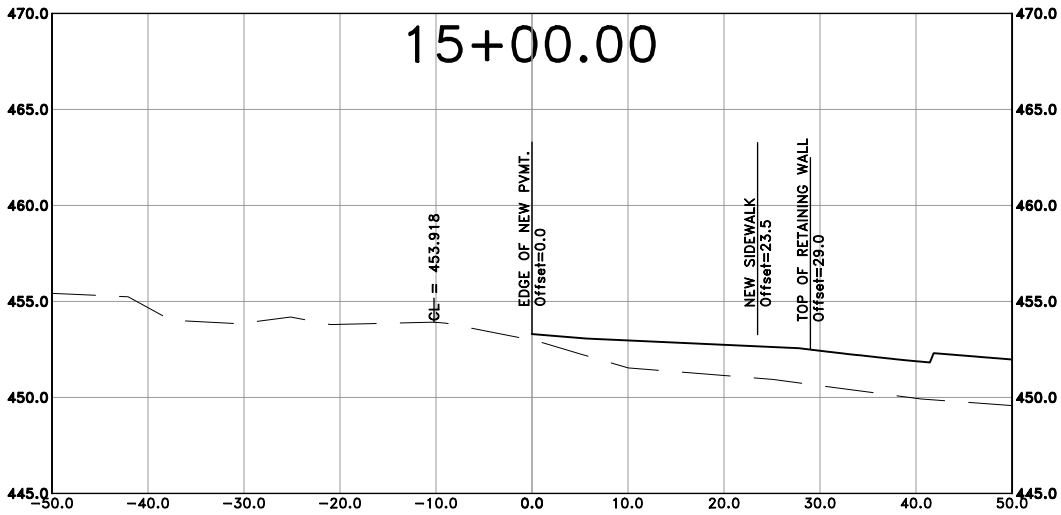
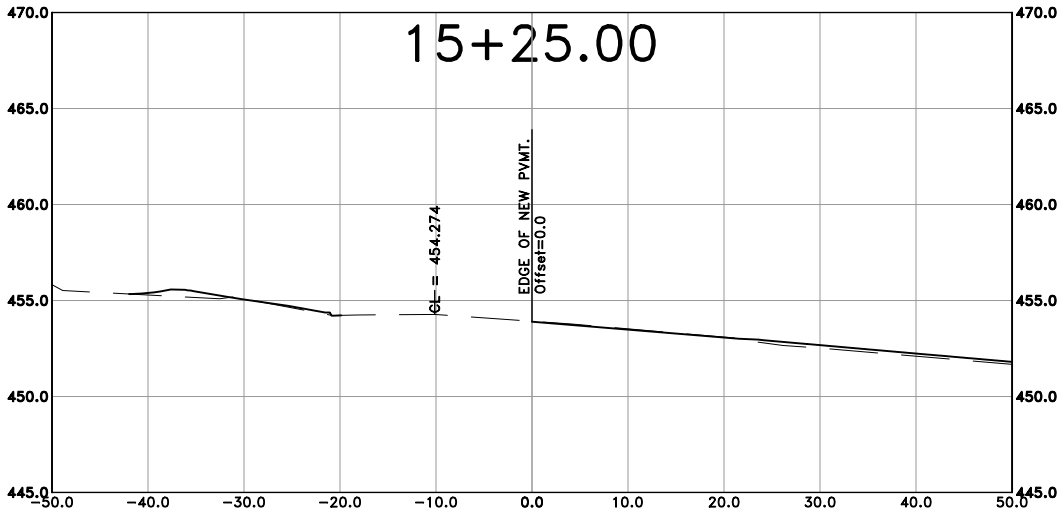
KANIS RD CROSS SECTION SHEET 3

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



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CITY OF LITTLE ROCK, ARKANSAS

KANIS ROAD AT PANTHER BRANCH

INTERSECTION IMPROVEMENTS

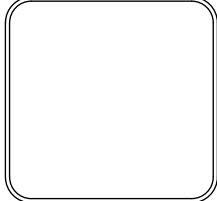
KANIS RD CROSS SECTION SHEET 4

DEPARTMENT OF PUBLIC WORKS

CIVIL ENGINEERING

701 W. MARKHAM

LITTLE ROCK, ARKANSAS 72201



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PROJECT NO.

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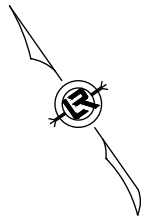
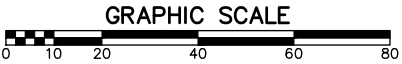
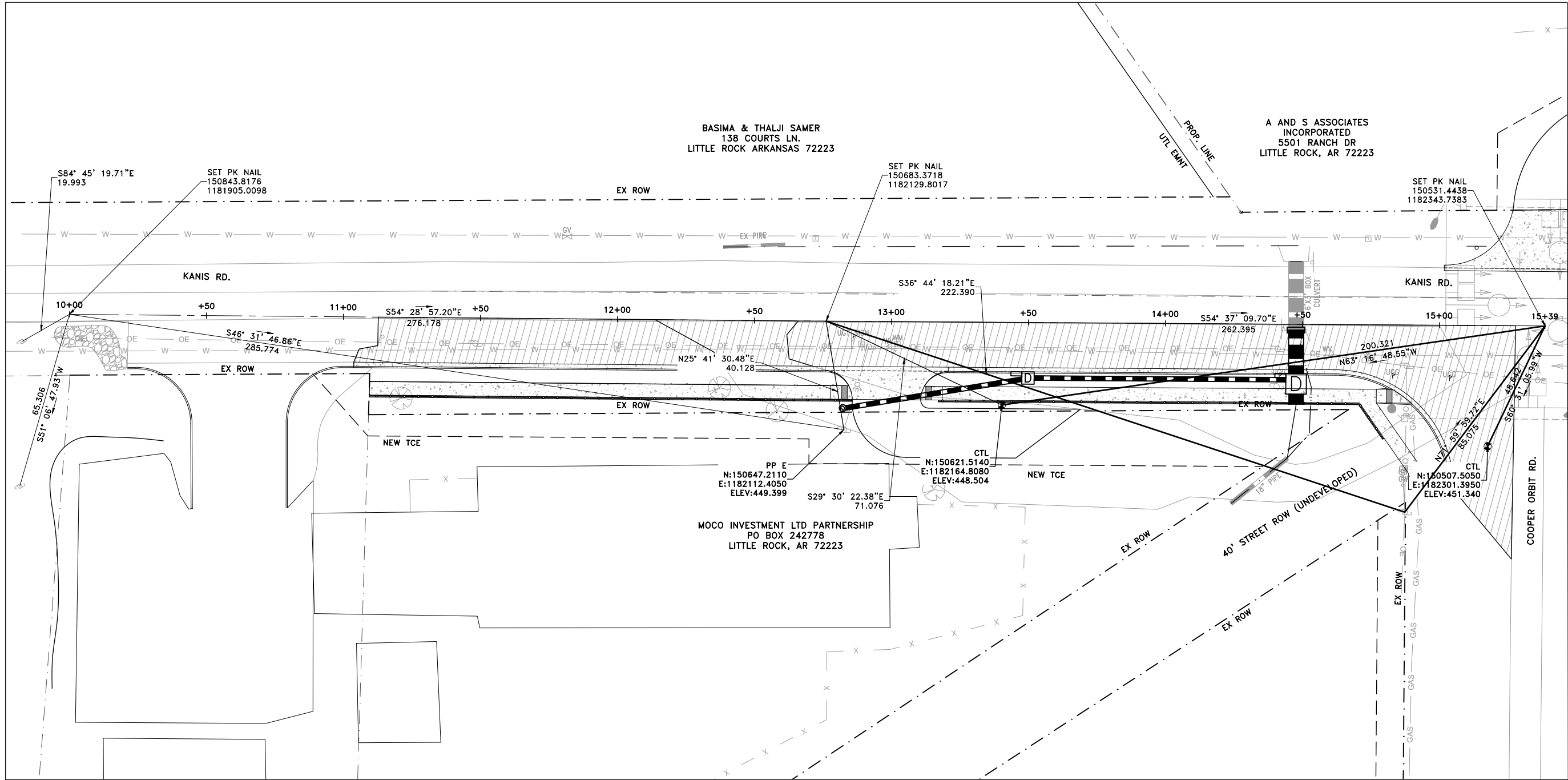
CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS
CENTERLINE FIELD TIES SHEET

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



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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

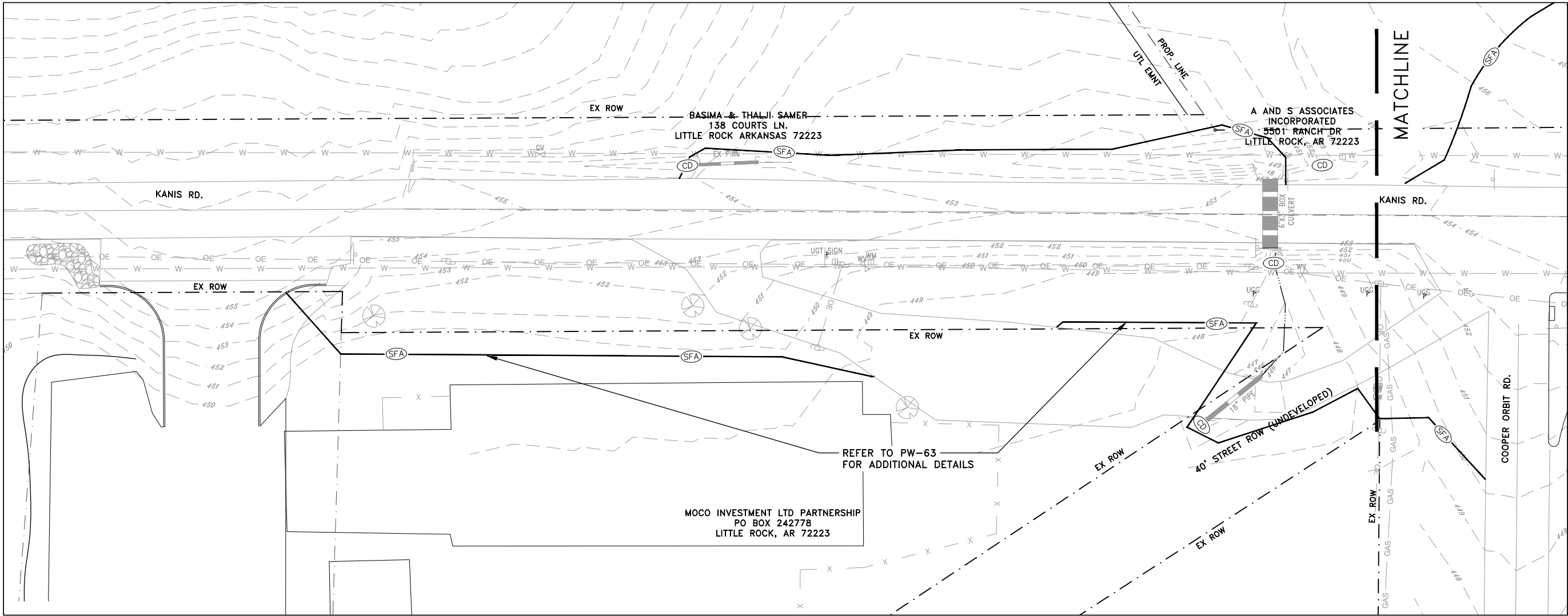
EROSION CONTROL PH I SHEET

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CIVIL ENGINEERING
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LITTLE ROCK, ARKANSAS 72201



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PROJECT NO.

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C15



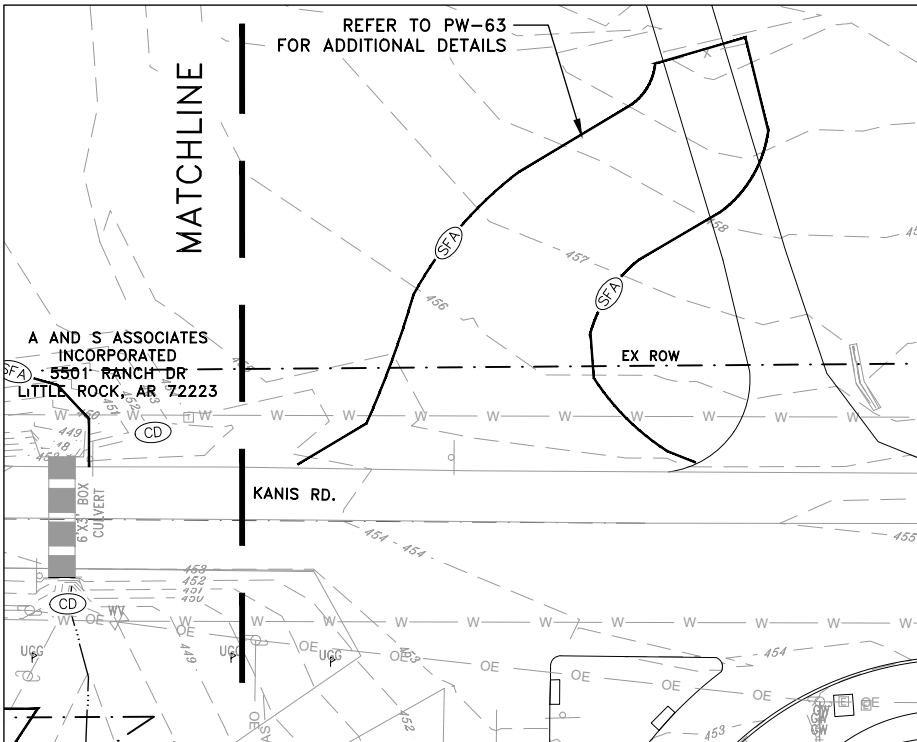
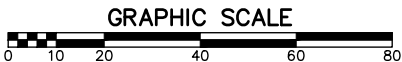
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|---|-------|
| CONSTRUCTION - ENTRANCE/EXIT | (CO) |
| CHECK DAM | (CD) |
| DIVERSION BERM | (DI) |
| DOWNDRAIN STRUCTURE - TEMPORARY | (DN) |
| ROCK DAM | (RD) |
| SEDIMENT BARRIER - SILT FENCE | (SD1) |
| SEDIMENT BARRIER - GRAVEL RING | (SD2) |
| SEDIMENT BARRIER - BLOCK & GRAVEL | (SD3) |
| SEDIMENT BARRIER - BLOCK | (SD4) |
| TEMPORARY SEDIMENT BASIN | (SB1) |
| SILT FENCE - TYPE A | (SFA) |
| SILT FENCE - TYPE B | (SFB) |
| SILT FENCE - TYPE C | (SFC) |
| STORM DRAIN OUTLET PROTECTION | (ST) |
| SURFACE ROUGHENING | (SU) |
| DISTURBED AREA STABILIZATION -TEMPORARY STABILIZATION | (TS1) |
| DISTURBED AREA STABILIZATION -TEMPORARY GRASSING | (TS2) |
| DISTURBED AREA STABILIZATION -PERMANENT GRASSING | (TS3) |
| MATTING/BLANKETS | (Mb) |

PHASE 1

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT(S) AND SWPPP INFORMATION SIGN.
2. INSTALL SILT FENCE(S) ON THE SITE. CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE.
3. PREPARE TEMPORARY PARKING AND STORAGE AREA.
4. HALT ALL ACTIVITIES AND CONTACT THE CITY OF LITTLE ROCK TO PERFORM INSPECTION AND ACCEPTANCE OF BMP'S.
5. CONSTRUCT AND STABILIZE SEDIMENT BASIN(S) AND SEDIMENT TRAP(S) WITH APPROPRIATE OUTFALL STRUCTURES. CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL BASINS AND TRAPS.
6. INSTALL AND STABILIZE HYDRAULIC CONTROL STRUCTURES (DIKES, SWALES, CHECK DAMS, ETC.). CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL HYDRAULIC CONTROL DEVICES.

CONSTRUCTION EROSION CONTROL
BEST MANAGEMENT PRACTICES

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILERS, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREA WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.



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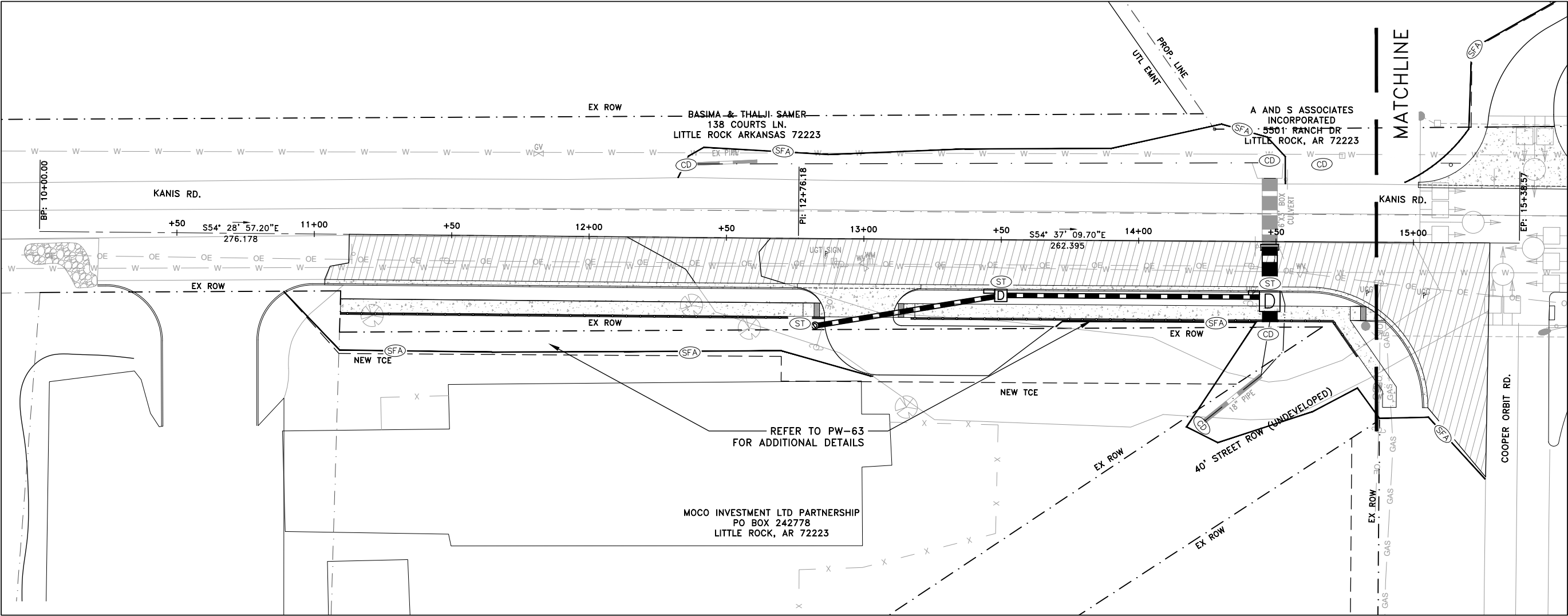
CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

EROSION CONTROL PH II SHEET

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

DRAWN BY
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01-10-2025
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H: 1"=20'
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PROJECT NO.

SHEET NO.
C16



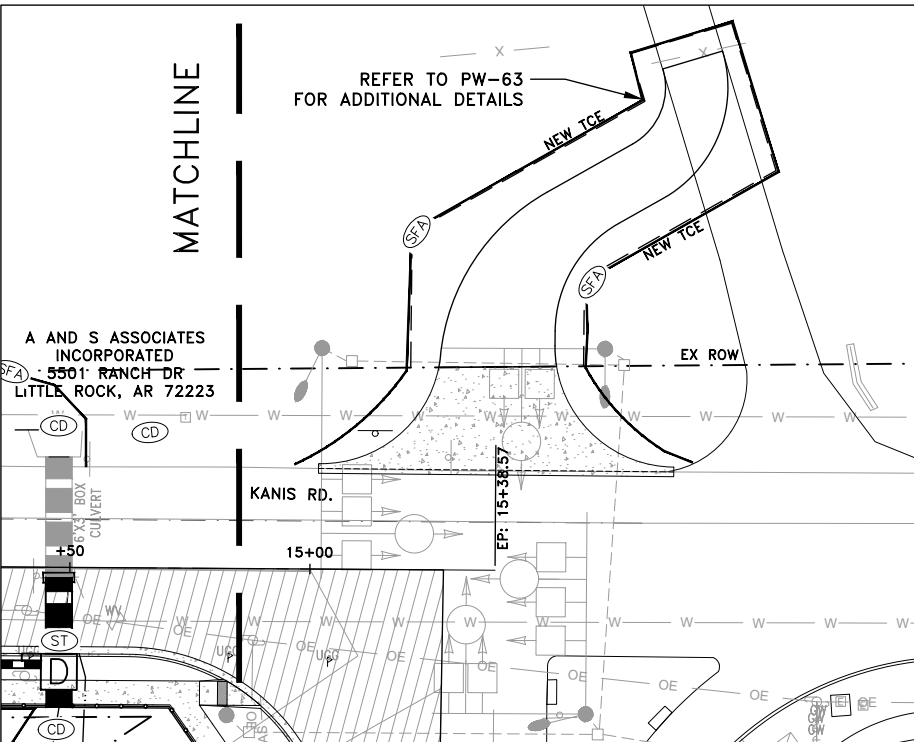
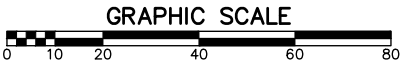
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| CONSTRUCTION - ENTRANCE/EXIT | (CO) |
| CHECK DAM | (CD) |
| DIVERSION BERM | (DI) |
| DOWNDRAIN STRUCTURE - TEMPORARY | (DN) |
| ROCK DAM | (RD) |
| SEDIMENT BARRIER - SILT FENCE | (SD1) |
| SEDIMENT BARRIER - GRAVEL RING | (SD2) |
| SEDIMENT BARRIER - BLOCK & GRAVEL | (SD3) |
| SEDIMENT BARRIER - BLOCK | (SD4) |
| TEMPORARY SEDIMENT BASIN | (SB1) |
| SILT FENCE - TYPE A | (SFA) |
| SILT FENCE - TYPE B | (SFB) |
| SILT FENCE - TYPE C | (SFC) |
| STORM DRAIN OUTLET PROTECTION | (ST) |
| SURFACE ROUGHENING | (SU) |
| DISTURBED AREA STABILIZATION -TEMPORARY STABILIZATION | (TS1) |
| DISTURBED AREA STABILIZATION -TEMPORARY GRASSING | (TS2) |
| DISTURBED AREA STABILIZATION -PERMANENT GRASSING | (TS3) |
| MATTING/BLANKETS | (Mb) |

PHASE 2

1. BEGIN SITE DEMOLITION, CLEARING AND GRUBBING.
2. CONTINUE GRADING THE SITE.
3. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS & INLETS.
4. PREPARE SUBGRADE, ROAD BASE AND CURBS AND GUTTERS.
5. CONSTRUCT DRIVEWAY TRANSITIONS.
6. INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR PAVED AREAS AS WORK PROGRESSES.

CONSTRUCTION EROSION CONTROL
BEST MANAGEMENT PRACTICES

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILERS, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREA WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.



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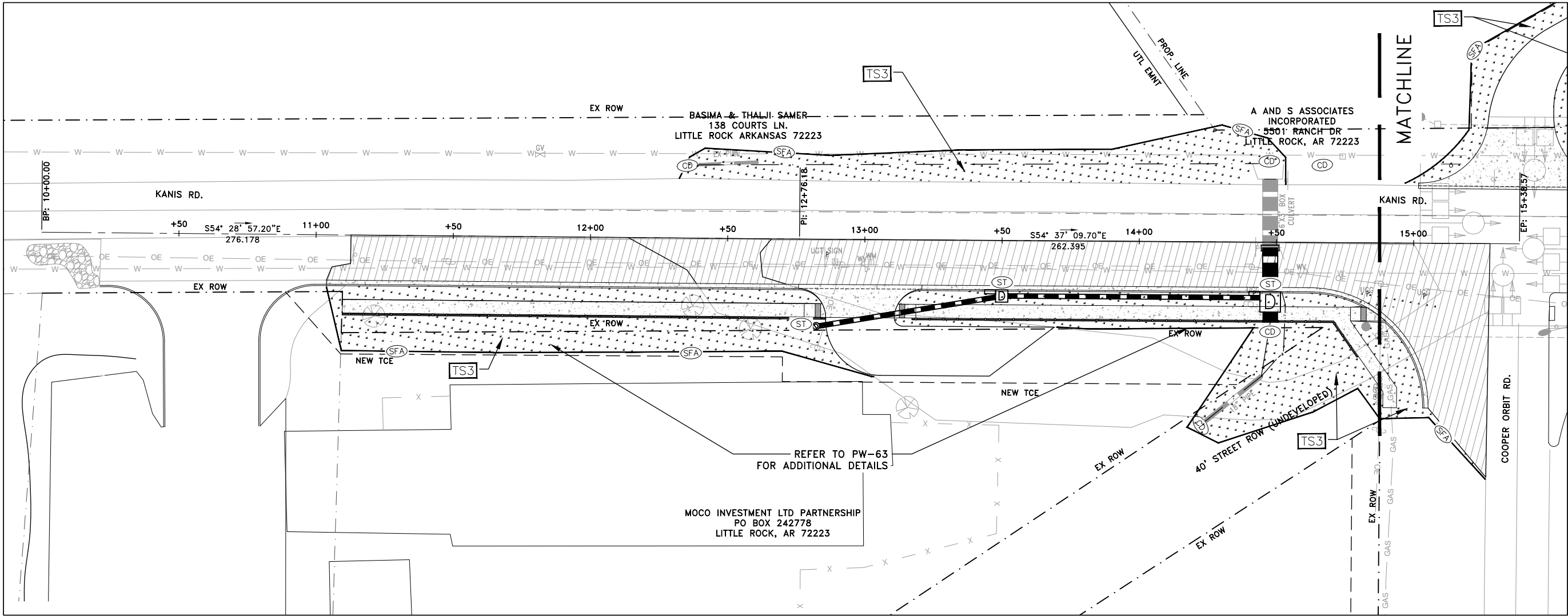
CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

EROSION CONTROL PH III SHEET

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

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PROJECT NO.

SHEET NO.
C17



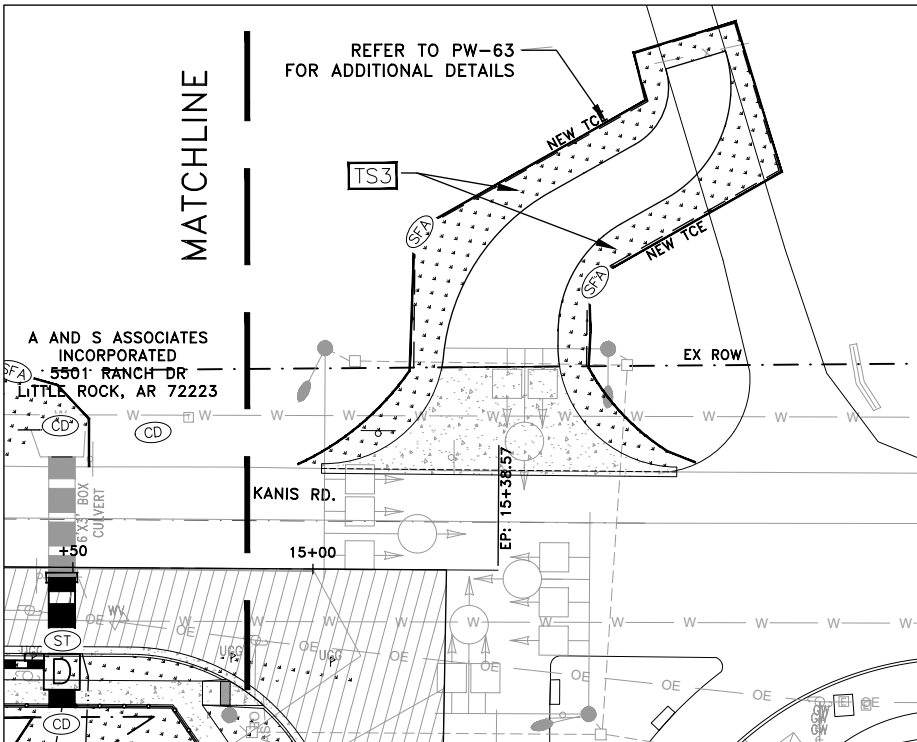
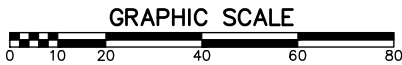
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| CONSTRUCTION - ENTRANCE/EXIT | (CO) |
| CHECK DAM | (CD) |
| DIVERSION BERM | (DI) |
| DOWNDRAIN STRUCTURE - TEMPORARY | (DN) |
| ROCK DAM | (RD) |
| SEDIMENT BARRIER - SILT FENCE | (SD1) |
| SEDIMENT BARRIER - GRAVEL RING | (SD2) |
| SEDIMENT BARRIER - BLOCK & GRAVEL | (SD3) |
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| SILT FENCE - TYPE A | (SFA) |
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| DISTURBED AREA STABILIZATION -TEMPORARY STABILIZATION | (TS1) |
| DISTURBED AREA STABILIZATION -TEMPORARY GRASSING | (TS2) |
| DISTURBED AREA STABILIZATION -PERMANENT GRASSING | (TS3) |
| MATTING/BLANKETS | (Mb) |

PHASE 3

1. FINISH GRADE SIDE SLOPES & PREPARE SUBGRADES FOR SIDEWALKS, ETC.
2. PREPARE SITE FOR PAVING.
3. PAVE WHERE INDICATED ON PLANS. CONSTRUCT SIDEWALKS.
4. INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR PAVED AREAS AS WORK PROGRESSES.
5. COMPLETE GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL NON-PAVED AREAS.

CONSTRUCTION EROSION CONTROL BEST MANAGEMENT PRACTICES

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILERS, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREA WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.



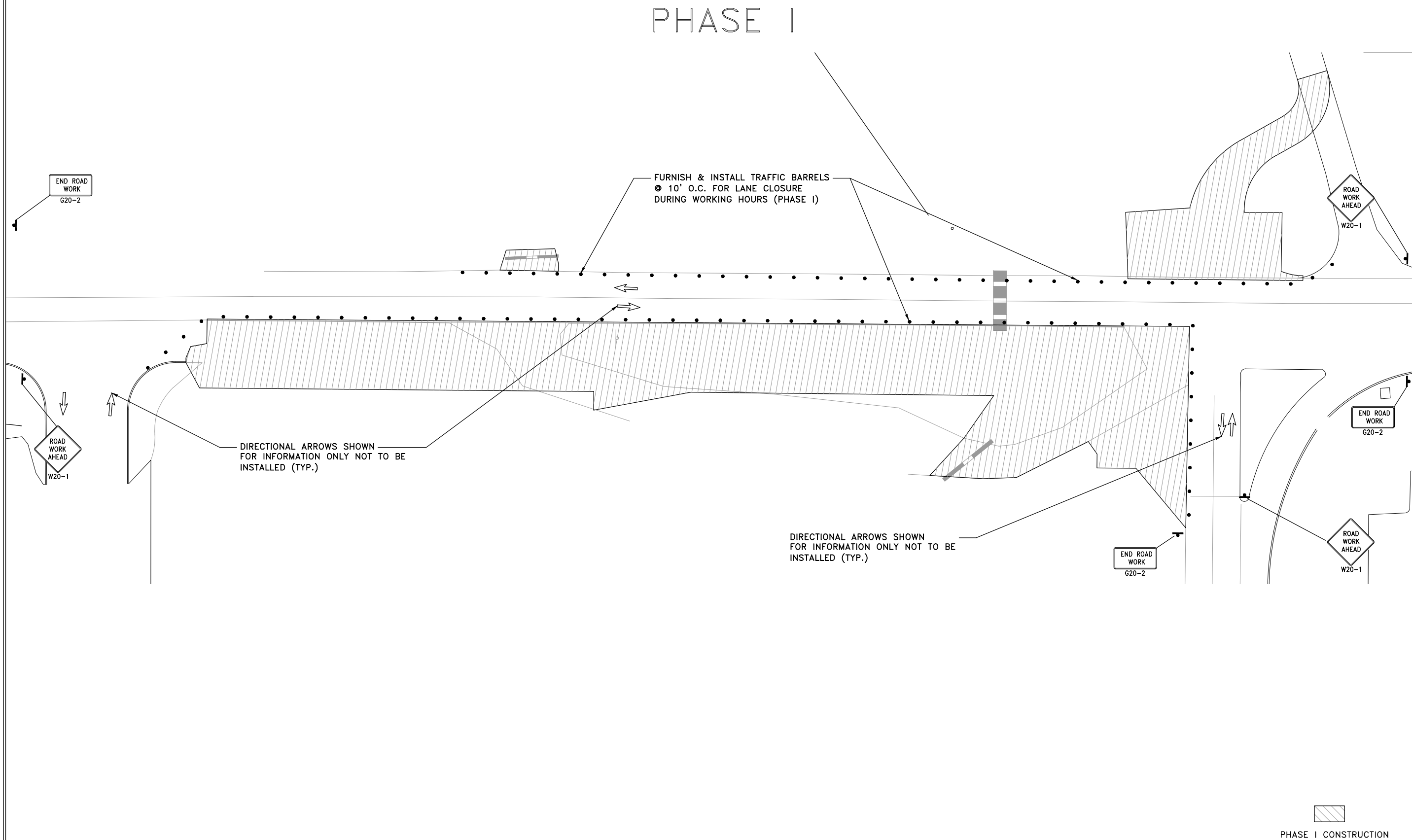
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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

MAINTENANCE OF TRAFFIC PHASE I

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

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| DATE | 01-10-2025 |
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| PROJECT NO. | |
| SHEET NO. | T1 |

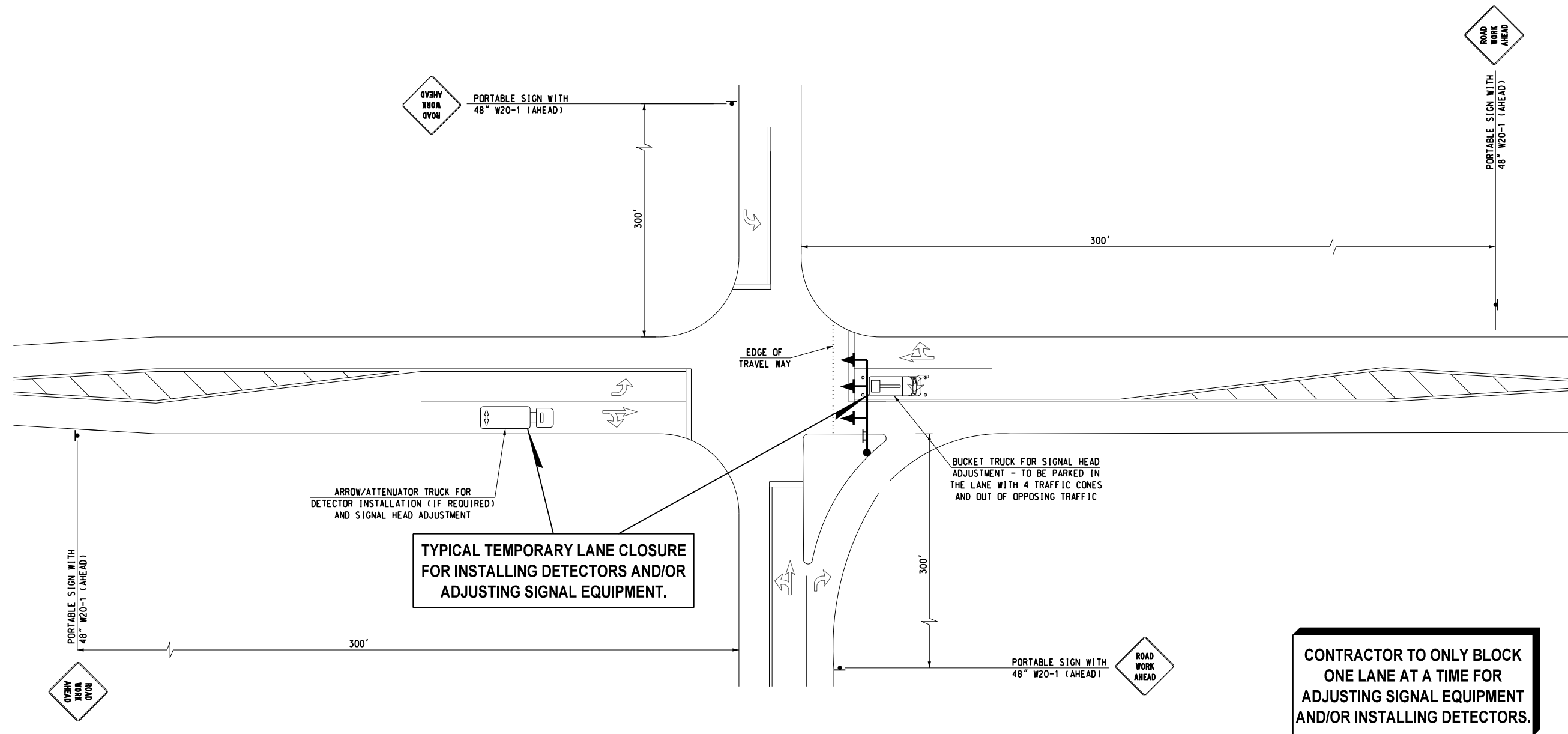


90% SUBMITTAL

NOTE:

1. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
2. ONLY ONE LANE MAY BE CLOSED AT A TIME DURING NORMAL WORKING HOURS AND ALL LANES MUST BE REOPENED AT THE END OF EACH DAY USING STEEL PLATES

PHASE I



**CONTRACTOR TO ONLY BLOCK
ONE LANE AT A TIME FOR
ADJUSTING SIGNAL EQUIPMENT
AND/OR INSTALLING DETECTORS**

**CITY OF LITTLE ROCK, ARKANSAS
KANIS RD. AND COOPER ORBIT RD.
INTERSECTION IMPROVEMENTS**



DRAWN BY
MJB

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DATE
2/11/2025

SCALE
N/A

PROJECT NO.

SHEET NO.
T2

SHEET NO.
T2

2/25/2025 G:\Projects\04 Little Rock Office Projects\LR-25C - 5D Intersection Improvement\Kanis & Panther Branch - Little Rock, AR\CAD\TI-QUANT.dgn

90% SUBMITTAL

TRAFFIC SIGNAL QUANTITIES

| ARDOT ITEM NUMBER | LR ITEM NUMBER | ITEM | QUANTITY | UNIT |
|----------------------|----------------|--|----------|----------|
| SP & 701 | 53.01 | SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES) | 1 | EACH |
| SP | 53.11 | ETHERNET SWITCH, T1000 HARDENED (8 PORT) | 1 | EACH |
| SP & 701 | 53.21 | E-NET CABLE (EXTERIOR CAT 5E) | 100 | LIN. FT. |
| SP & 706 | 54.03 | TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY) | 9 | EACH |
| SP & 706 | 54.04 | TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY) | 1 | EACH |
| SP & 707 | 54.11 | COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED | 2 | EACH |
| 708 | 55.01 | TRAFFIC SIGNAL CABLE (5C/12 A.W.G.) | 340 | LIN. FT. |
| SP & 708 | 55.02 | TRAFFIC SIGNAL CABLE (5C/14 A.W.G.) | 800 | LIN. FT. |
| SP & 708 | 55.21 | TRAFFIC SIGNAL CABLE (7C/14 A.W.G.) | 140 | LIN. FT. |
| SP & 708 | 55.31 | TRAFFIC SIGNAL CABLE (20C/14 A.W.G.) | 410 | LIN. FT. |
| SP | 56.01 | ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.) | 620 | LIN. FT. |
| SP | 56.02 | ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.) | 60 | LIN. FT. |
| SP | 56.03 | ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.) | 50 | LIN. FT. |
| SP | 56.04 | ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/12 A.W.G.) | 490 | LIN. FT. |
| SP & 710 | 57.03 | NON-METALLIC CONDUIT (3") | 430 | LIN. FT. |
| SS & 711 | 57.23 | CONCRETE PULL BOX (TYPE 2 HD) | 4 | EACH |
| SS & 711 | 57.24 | CONCRETE PULL BOX (TYPE 3 HD) | 1 | EACH |
| SS & 714 | 58.34 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34') | 1 | EACH |
| SS & 714 | 58.38 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (38') | 1 | EACH |
| SS & 714 | 58.42 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34'-42') | 1 | EACH |
| SP | 59.11 | LED LUMINAIRE ASSEMBLY | 2 | EACH |
| SS & 715 | 59.21 | TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION | 1 | EACH |
| SP | 60.01 | SERVICE POINT ASSEMBLY | 1 | EACH |
| SP | 61.18 | 18" STREET NAME SIGN | 4 | EACH |
| SP & 733 | 70.01 | VIDEO DETECTION EQUIPMENT (MIOVISION TRAFFIC LINK) | 1 | LS |

TRAFFIC SIGNAL QUANTITIES



| ARDOT ITEM NUMBER | LR ITEM NUMBER | ITEM | QUANTITY | UNIT |
|----------------------|----------------|---|----------|----------|
| 719 | 50.01 | THERMOPLASTIC PAVEMENT MARKING (WHITE, 6") | 540 | LIN. FT. |
| 719 | 50.02 | THERMOPLASTIC PAVEMENT MARKING (WHITE, 12") | 145 | LIN. FT. |
| 719 | 50.11 | THERMOPLASTIC PAVEMENT MARKING (YELLOW, 6") | 2537 | LIN. FT. |
| 719 | 50.21 | THERMOPLASTIC PAVEMENT MARKING (YIELD LINE) | 14 | LIN. FT. |
| 719 | 50.22 | THERMOPLASTIC PAVEMENT MARKING (WORDS) | 5 | EACH |
| 719 | 50.23 | THERMOPLASTIC PAVEMENT MARKING (ARROWS) | 6 | EACH |

| REVISIONS | DATE |
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CITY OF LITTLE ROCK, ARKANSAS
KANIS RD. AND COOPER ORBIT RD.
INTERSECTION IMPROVEMENTS

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

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



DRAWN BY

DESIGNED

CHECKED

DATE
2/25/2025

SCALE
N/A

PROJECT NO.

SHEET NO.
T3

2/11/2025 G:\0\Projects\04 Little Rock Office Projects\LR-25C - SD Intersection Improvement-Kanis & Panther Branch - Little Rock, AR\CAD\T2-NOTES.dgn

90% SUBMITTAL

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 REQUIRE BY ITS MANAGEMENT SECTION-MAINTENANCE DIVISION.

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 RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR 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 RAINIGHT 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 BUSS.
11. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE 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 EMBOSSED, 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.
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 MAINTENANCE AUTHORITY AND ARDOT.
35. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY FOR THE INSTALLATION OF INISYNC VIDEO DETECTION SYSTEM BY RHYTHM ENGINEERING.
36. LUMINARIES SHALL BE LEOTEK GREENCOBRA GCI-60F-MV-NV-3-GY-700

| REVISIONS | DATE |
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CITY OF LITTLE ROCK, ARKANSAS
KANIS RD. AND COOPER ORBIT RD.
INTERSECTION IMPROVEMENTS

TRAFFIC SIGNAL NOTES



DEPARTMENT OF PUBLIC WORKS

CIVIL ENGINEERING

701 W. MARKHAM

LITTLE ROCK, ARKANSAS 72201

DRAWN BY

DESIGNED

CHECKED

DATE
2/11/2025

SCALE
N/A

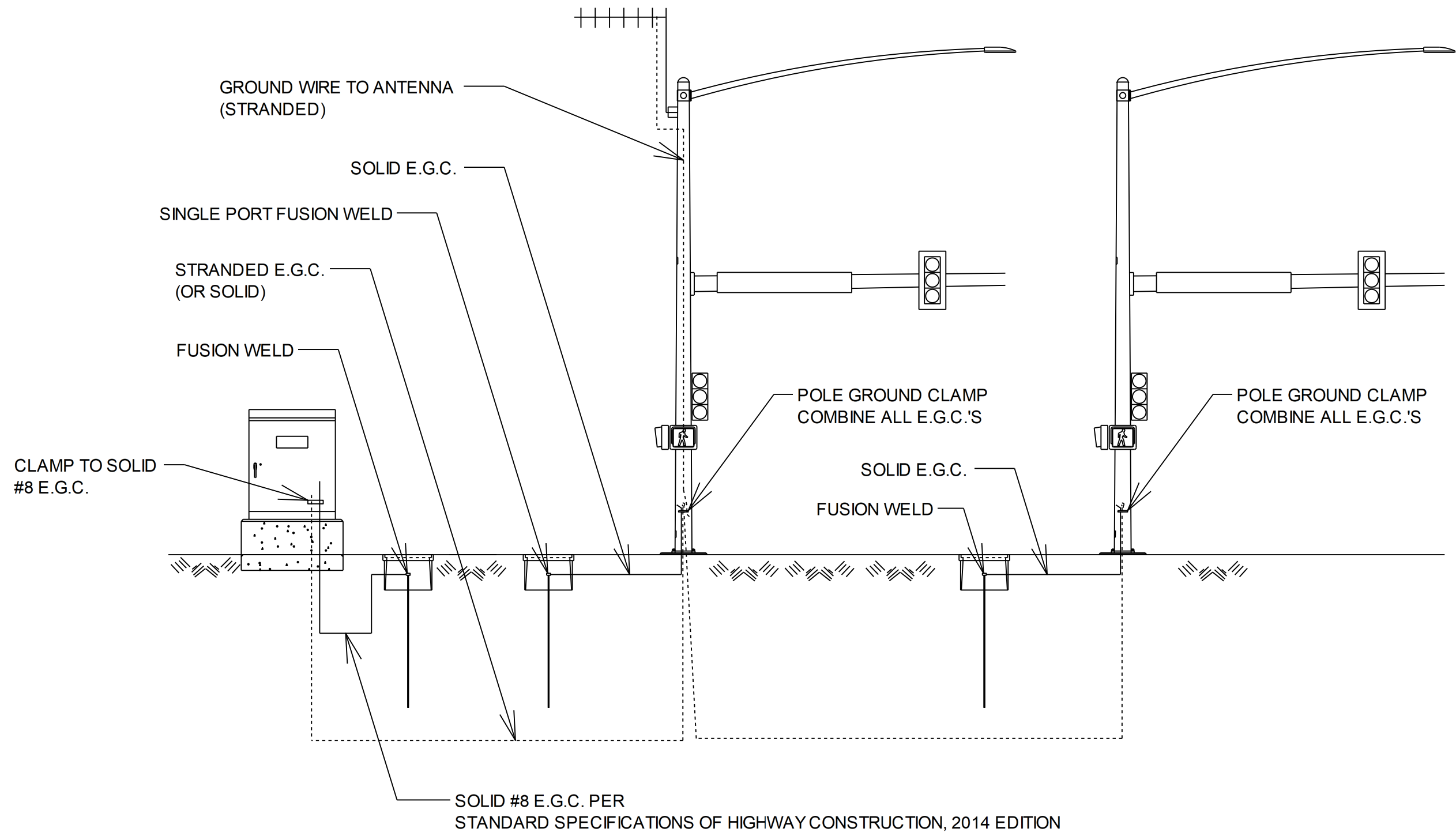
PROJECT NO.

SHEET NO.
T4

GROUNDING ARRAY

SINGLE-PORT FUSION WELDS


90% SUBMITTAL



| REVISIONS | DATE |
|-----------|------|
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CITY OF LITTLE ROCK, ARKANSAS
KANIS RD. AND COOPER ORBIT RD.
INTERSECTION IMPROVEMENTS

GROUNDING ARRAY DETAIL



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

| |
|-------------------|
| DRAWN BY MJB |
| DESIGNED BFV |
| CHECKED |
| DATE 2/24/2025 |
| SCALE N/A |
| PROJECT NO. |
| SHEET NO. T5 |

02/11/25 G:\0\Projects\04 Little Rock Office Projects\LR-25C - SD Intersection Improvement-Kanis & Panther Branch - Little Rock, AR\CAD\15-STREET NAME SIGNS.dgn

90% SUBMITTAL



NOTES:

1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 3M DIAMOND GRADE REFLECTIVE 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.
2. 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.
3. 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 NEARSIDE LEFT POLE. SEE STANDARD DRAWING SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
4. THE SERIES C 2000 STANDARD ALPHABET SHALL BE USED FOR ALL LETTERS. 12" UPPERCASE 9" LOWERCASE.

| REVISIONS | DATE |
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CITY OF LITTLE ROCK, ARKANSAS
KANIS RD. AND COOPER ORBIT RD.
INTERSECTION IMPROVEMENTS

TRAFFIC SIGNAL STREET NAME SIGNS



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



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| DRAWN BY SB |
| DESIGNED BFV |
| CHECKED |
| DATE 02/11/25 |
| SCALE N/A |
| PROJECT NO. |
| SHEET NO. T6 |

2/25/2025 G:\0\Projects\04 Little Rock Office Projects\LR-P5C - SD, Intersection Improvement-Kanis & Panther Branch - Little Rock, AR\CAD\16-20 SCALE.dgn

KANIS RD. AND COOPER ORBIT RD.

POLE DIMENSIONS

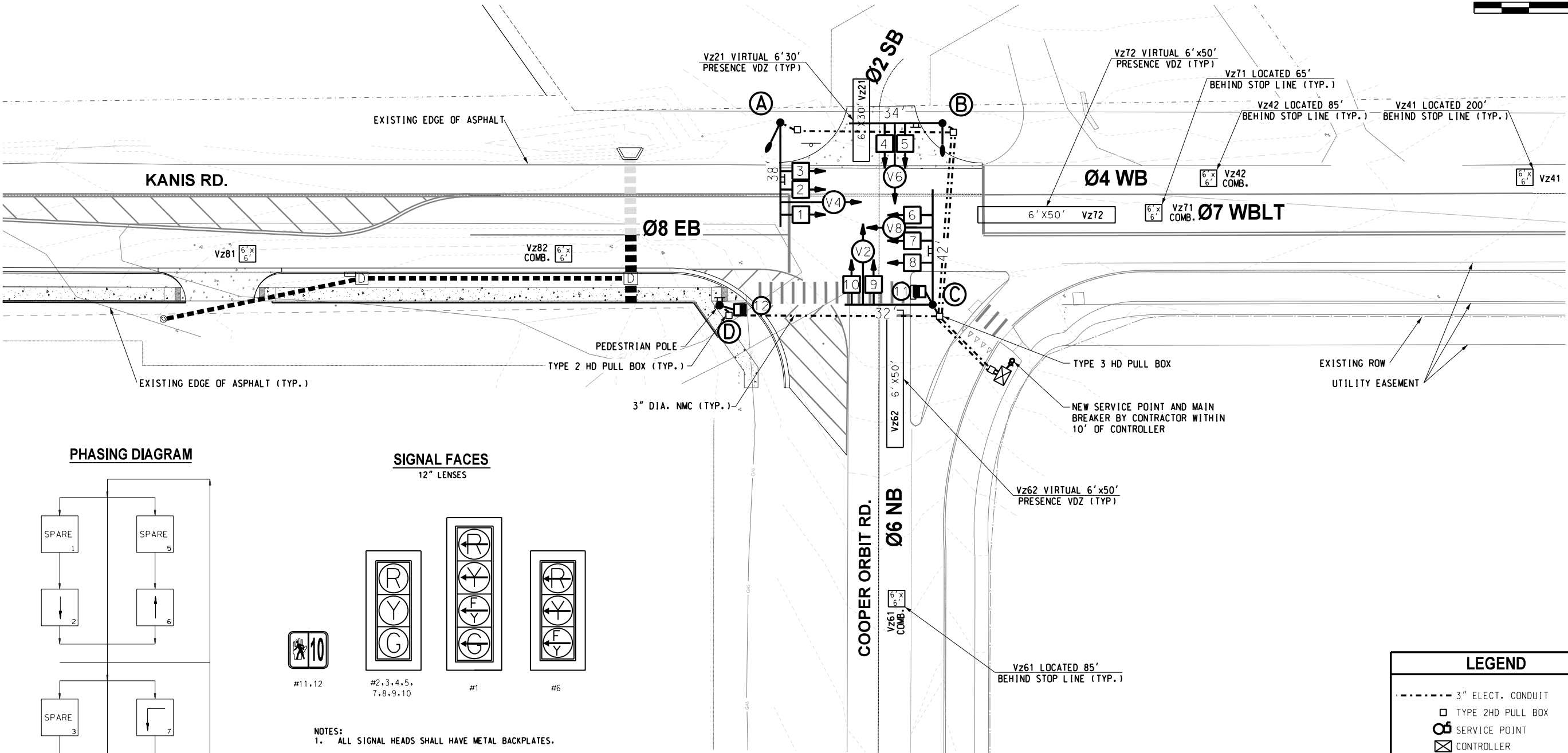
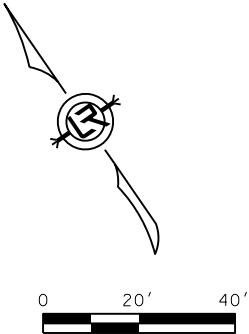
| POLE | MAST ARM | * MAST ARM ANGLE | ** HAND HOLE | VERT. SHAFT | LUM. ARM | * LUM. ANGLE |
|------|----------|---------------------|-----------------|----------------|-------------|-----------------|
| A | 48' | 215° | 180° | 35' | 20' | 215° |
| B | 34' | 305° | 90° | 35' | 20' | 305° |
| C | 42' | 35° | 90° | N/A | N/A | N/A |
| D | PED POLE | N/A | N/A | 20' | N/A | N/A |

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°,
CLOCKWISE ROTATION.

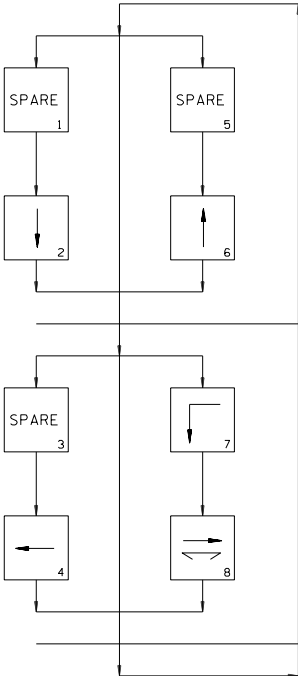
** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.

POLE D (SEE PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL).

90% SUBMITTAL

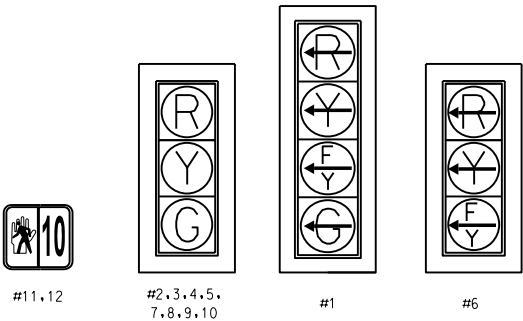


PHASING DIAGRAM



SIGNAL FACES

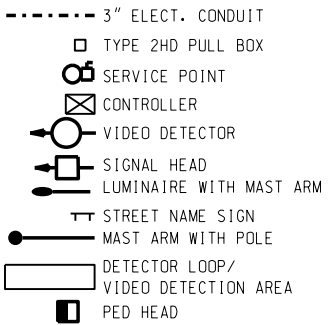
12" LENSES



NOTES:

- ALL SIGNAL HEADS SHALL HAVE METAL BACKPLATES.
- REFER TO SPECIAL PROVISIONS FOR "REFLECTIVE BACKPLATES" DETAILS ON REQUIREMENT 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.
- RADIO SHALL BE MDS 9710 FIXED FREQUENCY DIGITAL OR APPROVED EQUAL.

LEGEND



REVISIONS DATE

| NO. | DESCRIPTION | DATE |
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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

SIGNALIZATION PLAN

DEPARTMENT OF PUBLIC WORKS

CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

DRAWN BY
MJB

DESIGNED
BFV

CHECKED

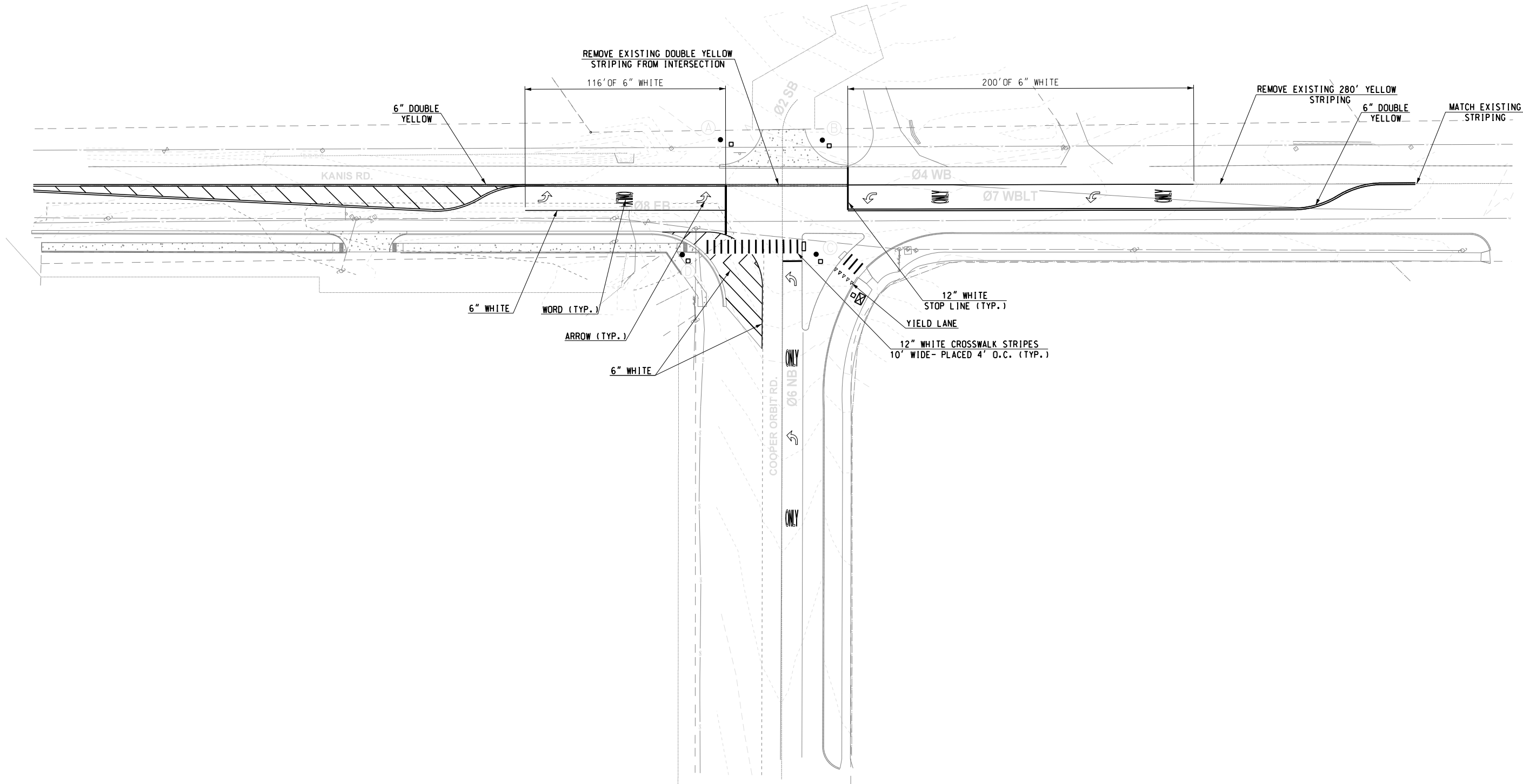
DATE
2/25/2025

SCALE
1" = 20'

PROJECT NO.

SHEET NO.
T7

2/24/2025 G:\0\Projects\04 Little Rock Office Projects\LR-25C - SD Intersection Improvement-Kanis & Panther Branch - Little Rock, AR\CAD\17-PAVEMENT MARKING.dgn



90% SUBMITTAL

| REVISIONS | DATE |
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CITY OF LITTLE ROCK, ARKANSAS
KANIS ROAD AT PANTHER BRANCH
INTERSECTION IMPROVEMENTS

PAVEMENT MARKING PLAN



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



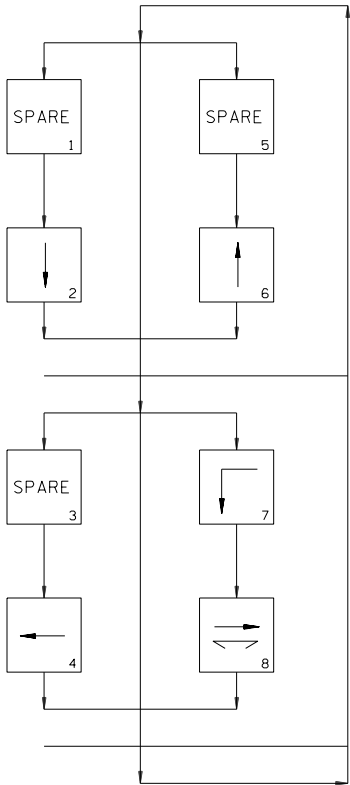
DRAWN BY
MJB
DESIGNED
BFV
CHECKED

DATE
2/24/2025
SCALE
1" = 30'
PROJECT NO.

SHEET NO.
T8

2/24/2025 G:\0\Projects\04 Little Rock Office Projects\LR-P5C - SD Intersection Improvement-Kanis & Panther Branch - Little Rock, AR\CAD\16-DETAIL.dgn

PHASING DIAGRAM



INTERVAL CHART

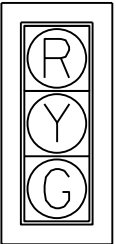
| SIGNAL FACES | KANIS RD. AT PANTHER BRANCH | | | | | | FLASH SEQUENCE |
|--------------|-----------------------------|------|-----|------|-----|------|----------------|
| | 2+6 | CLR. | 4+7 | CLR. | 4+8 | CLR. | |
| 1 | R | R | ←G | * | R | R | ←R |
| 2&3 | R | R | G | ** | G | ** | R |
| 4&5 | G | ** | R | R | R | R | R |
| 6 | R | R | R | R | R | R | ←R |
| 7&8 | R | R | R | R | G | ** | R |
| 9&10 | G | ** | R | R | R | R | R |
| | | | | | | | |
| 11&12 | DW | DW | DW | DW | W | FDW | BLK |

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

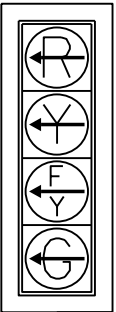
SIGNAL FACES
12" LENSES



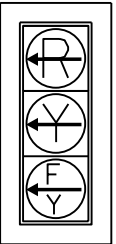
#11,12



#2,3,4,5,
7,8,9,10



#1



#6

- NOTES:
- ALL SIGNAL HEADS SHALL HAVE METAL BACKPLATES.
 - REFER TO SPECIAL PROVISIONS FOR "REFLECTIVE BACKPLATES" DETAILS ON REQUIREMENT 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.
 - RADIO SHALL BE MDS 9710 FIXED FREQUENCY DIGITAL OR APPROVED EQUAL.

DETECTOR CHART

| DETECTOR SYSTEM DESCRIPTION: JOB | | | | | | | | | | | |
|---|-----------------------|-------|--------|--------------------------------|--------------|-------------|---------------------|---------------|--------------------------------|-----------|--------------|
| KANIS RD. AT PANTHER BRANCH 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 | COMB. | | | 6 | V10 | 2 | 2 | | CAMERA V2 | 37" |
| Vz41 | WB ADVANCE | LOCAL | | | 13 | V4 | 4 | | | CAMERA V4 | 37" |
| Vz42 | WB NEAR | COMB. | | | 14 | V12 | 4 | 4 | | CAMERA V4 | 37" |
| 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 | V15 | 7 | 7 | | CAMERA V7 | 37" |
| Vz72 | WB LEFT TURN | LOCAL | | | 16 | V7 | 7 | | | CAMERA V7 | 37" |
| Vz81 | EB ADVANCE | LOCAL | | | 11 | V8 | 8 | | | CAMERA V8 | 37" |
| Vz82 | EB NEAR | COMB. | | | 12 | V16 | 8 | 8 | | CAMERA V8 | 37" |
| PB8 | (COOPER ORBIT) S. LEG | PED. | | | | P8 | 8 | | | | |
| | | | | | SPARE: 1,3,5 | | | | | | |

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

| REVISIONS | DATE |
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CITY OF LITTLE ROCK, ARKANSAS
KANIS RD. AND COOPER ORBIT RD.
INTERSECTION IMPROVEMENTS

SIGNALIZATION DETAILS

DEPARTMENT OF PUBLIC WORKS

CIVIL ENGINEERING

701 W. MARKHAM

LITTLE ROCK, ARKANSAS 72201

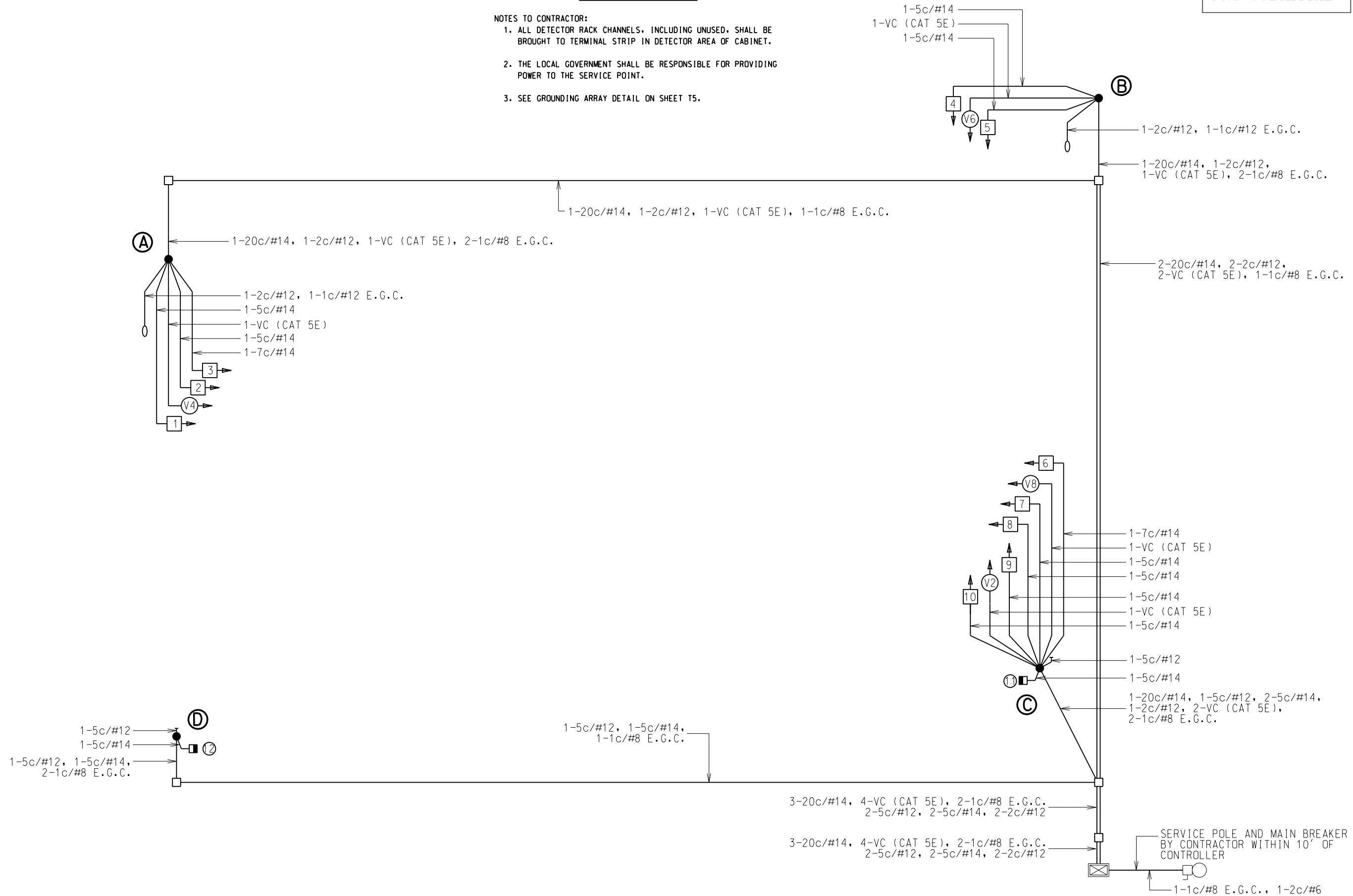
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|-------------------|
| DRAWN BY MJB |
| DESIGNED BFV |
| CHECKED |
| DATE 2/24/2025 |
| SCALE N/A |
| PROJECT NO. |
| SHEET NO. T9 |

WIRING DIAGRAM

NOTES TO CONTRACTOR:

1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
3. SEE GROUNDING ARRAY DETAIL ON SHEET T5.

90% SUBMITTAL



| REVISIONS | DATE |
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**CITY OF LITTLE ROCK, ARKANSAS
KANIS RD. AND COOPER ORBIT RD.
INTERSECTION IMPROVEMENTS**

WIRE DIAGRAM



CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201



DRAWN BY
MJB

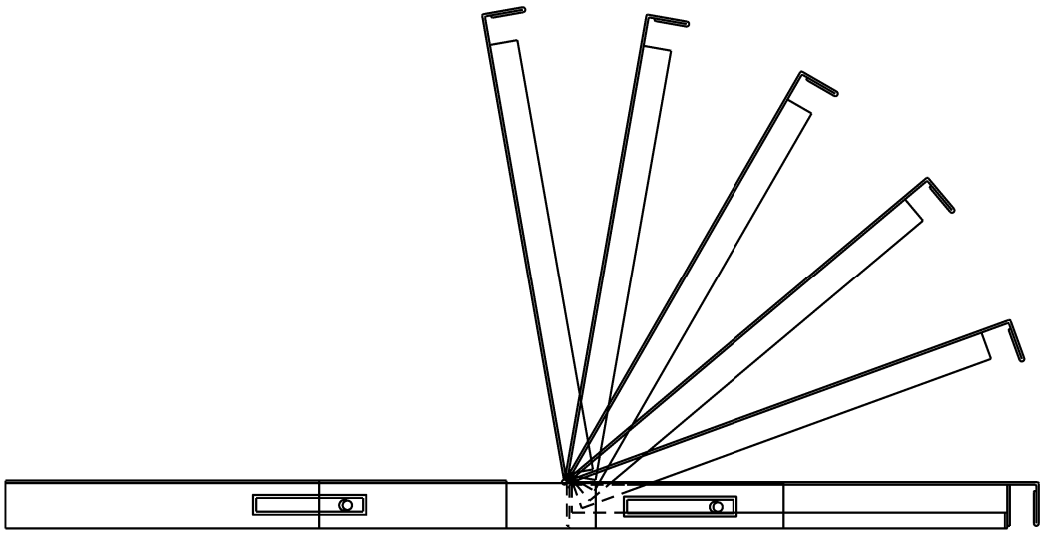
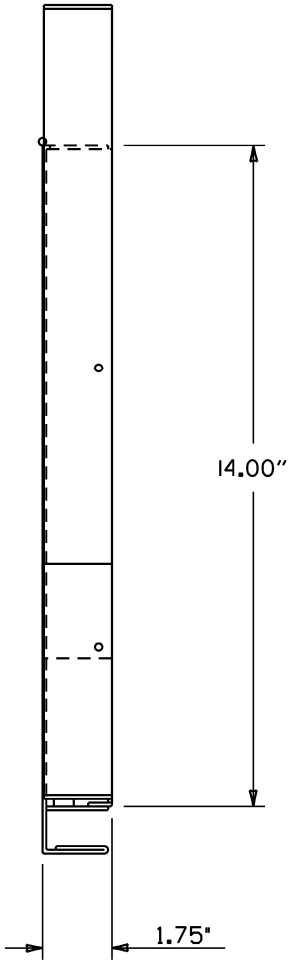
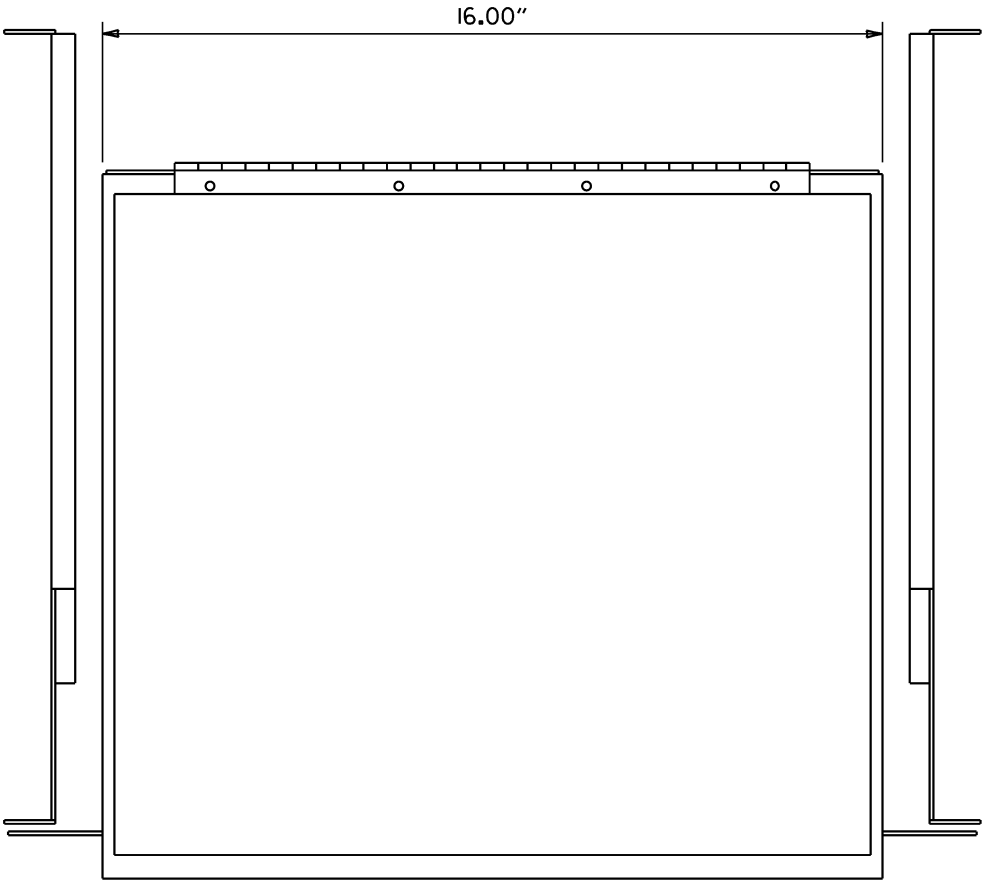
DESIGNED
BFV

CHECKED

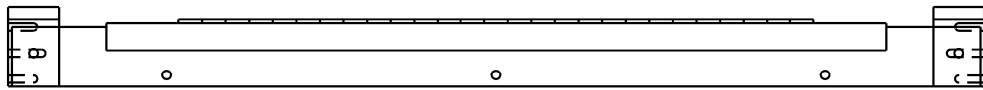
| | |
|-------------|-----------|
| DATE | 2/24/2025 |
| SCALE | N/A |
| PROJECT NO. | |

SHEET NO.
T10

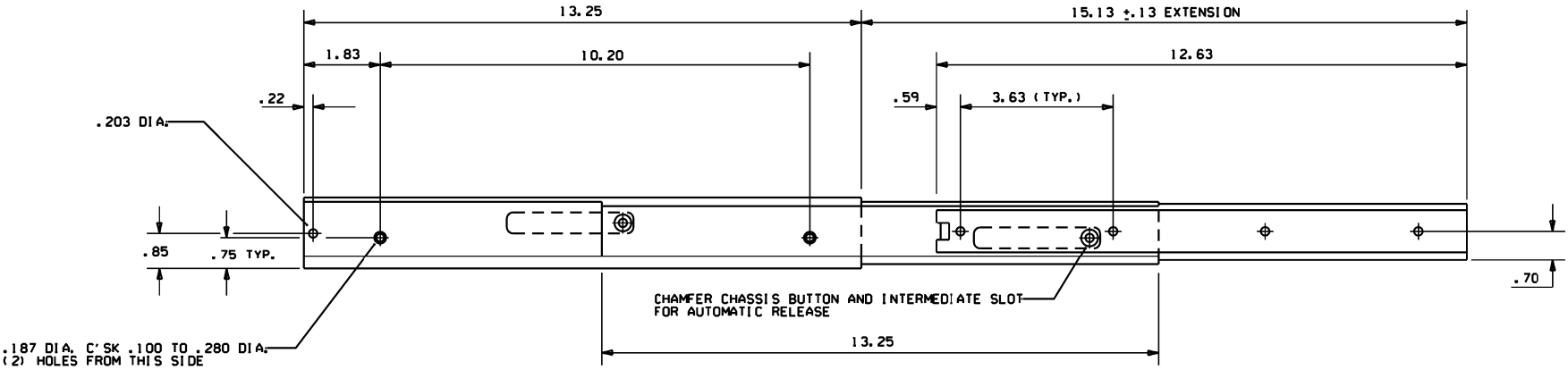
DRAWER PLAN VIEW



NOTES:
1. RIGHT HAND SLIDE SHOWN, LEFT SLIDE OPPOSITE.
2. GENERAL DEVICES (CC3002-99-0102) OR EQUAL AND CONTAINS (1) RIGHT HAND SLIDE ASSEMBLY, (1) LEFT HAND SLIDE ASSEMBLY.
3. ALL HARDWARE NECESSARY TO FASTEN SLIDE ASSEMBLY TO UNDERSIDE OF CONTROLLER SHELF SHALL BE INCLUDED.



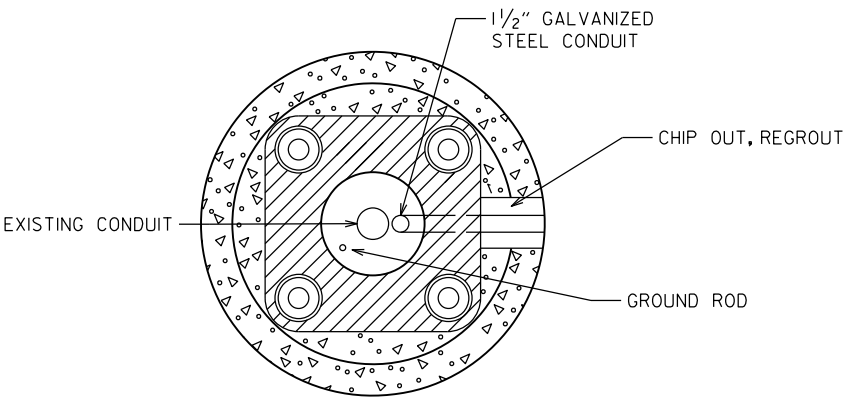
FRONT VIEW



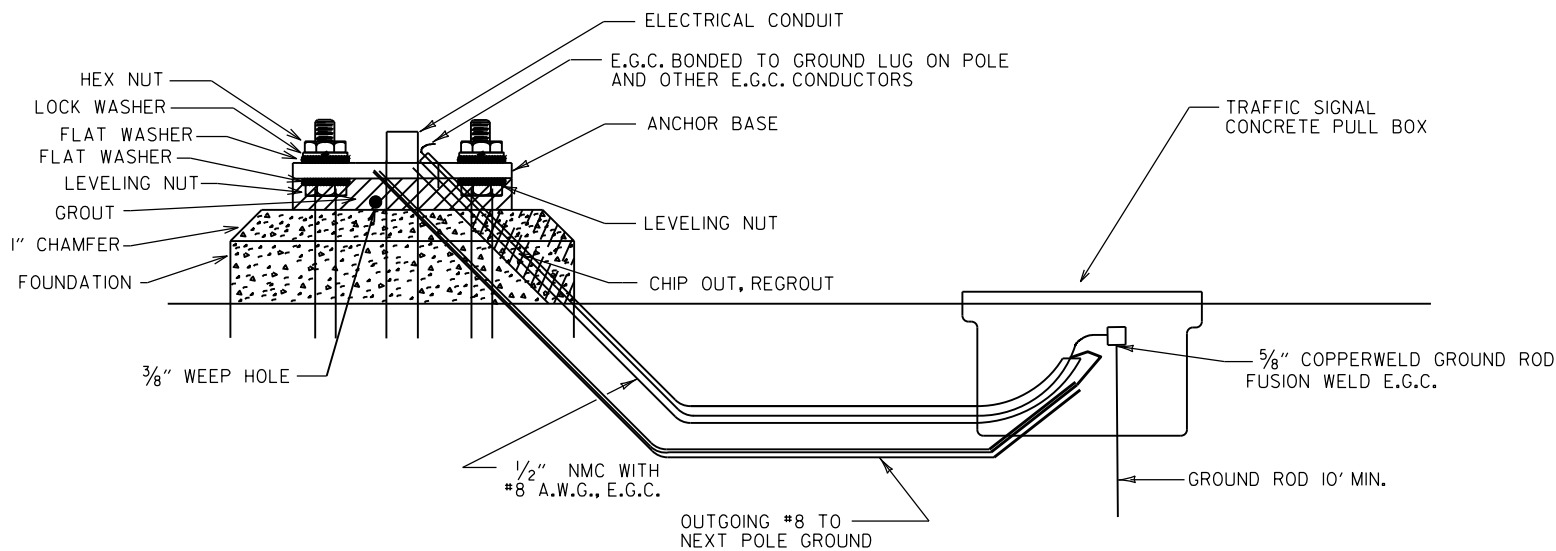
RIGHT SIDE ASSEMBLY

| | | | |
|---------|----------------------------|------------|--------------------------------------|
| | | | ARKANSAS STATE HIGHWAY COMMISSION |
| | | | CONTROLLER CABINET UTILITY DRAWER |
| 9-12-13 | ISSUED AS STANDARD DRAWING | | |
| 6-15-05 | ISSUED | | |
| DATE | REVISION | DATE FILED | STANDARD DRAWING SD-5 |

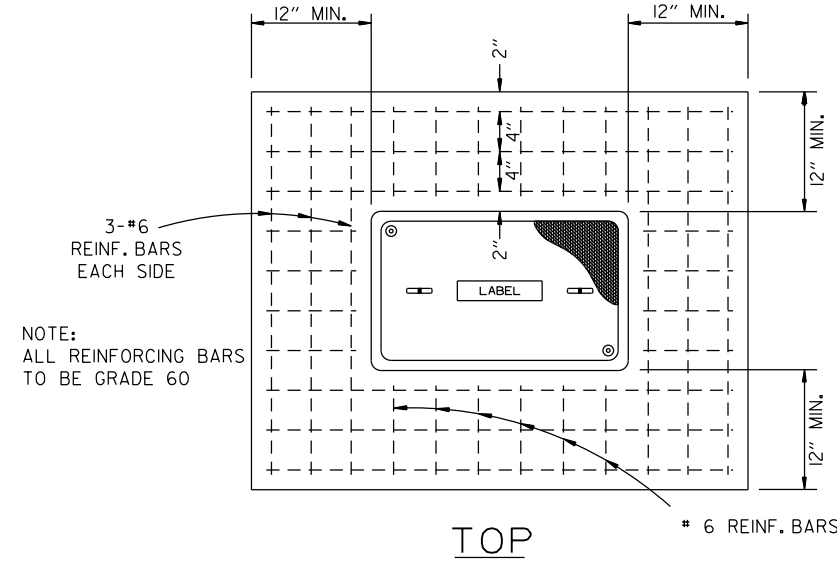
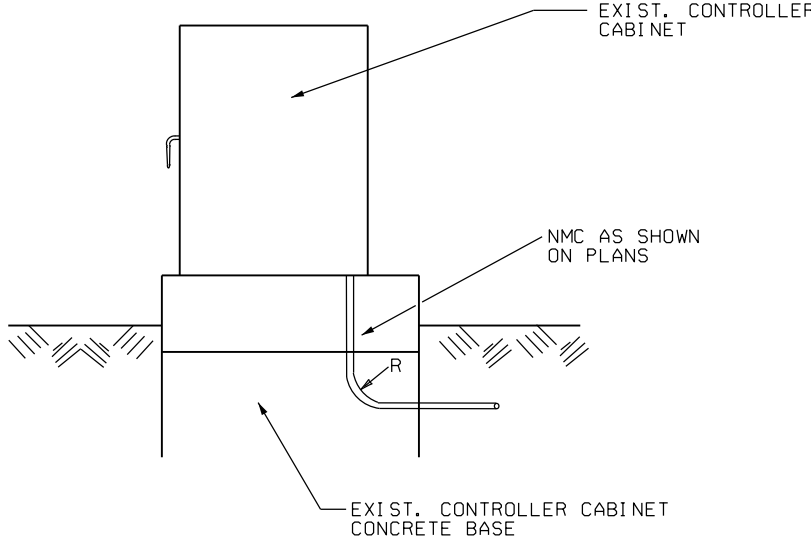
CONDUIT ENTRY TO EXISTING POLE BASE



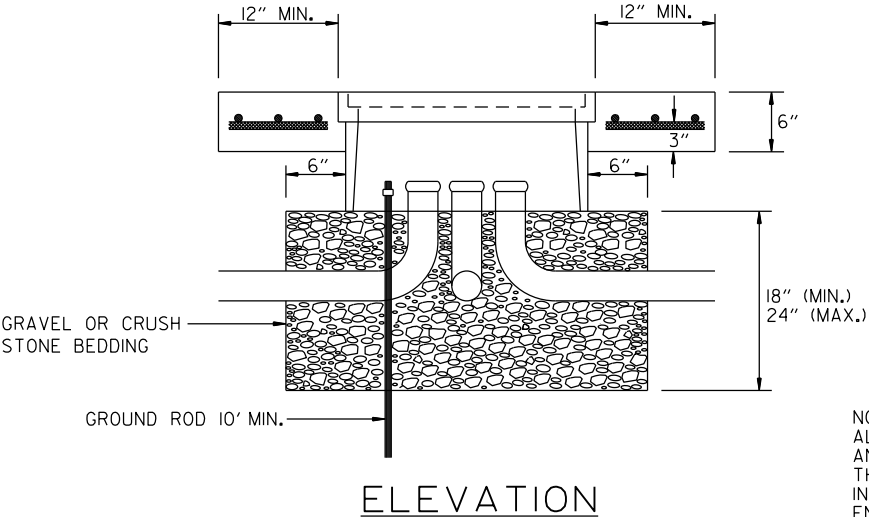
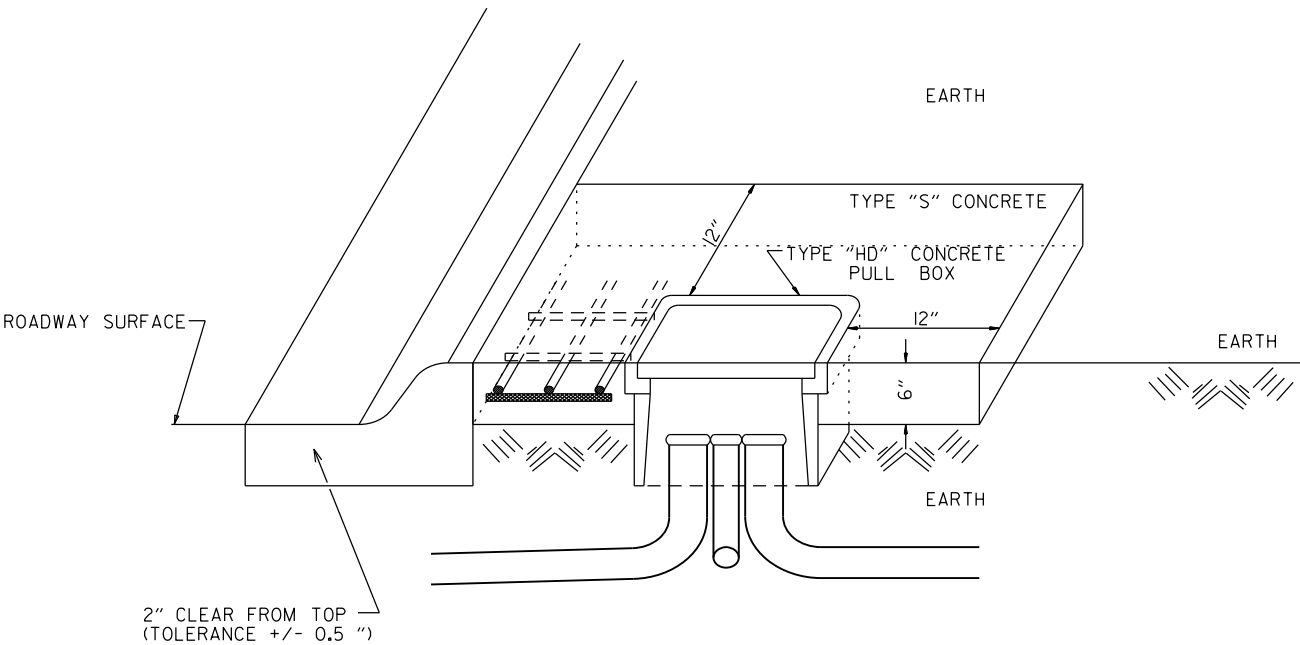
ANCHOR BASE



CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



TYPE "HD" CONCRETE PULL BOX DETAIL



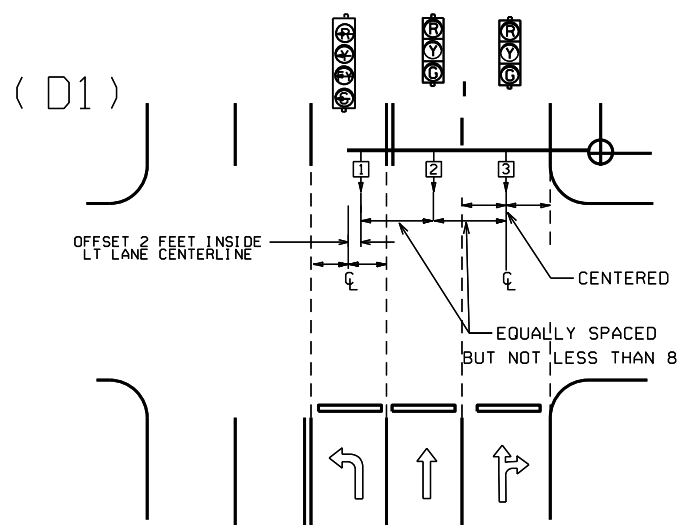
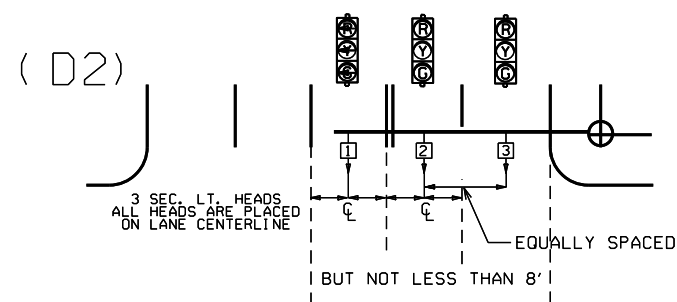
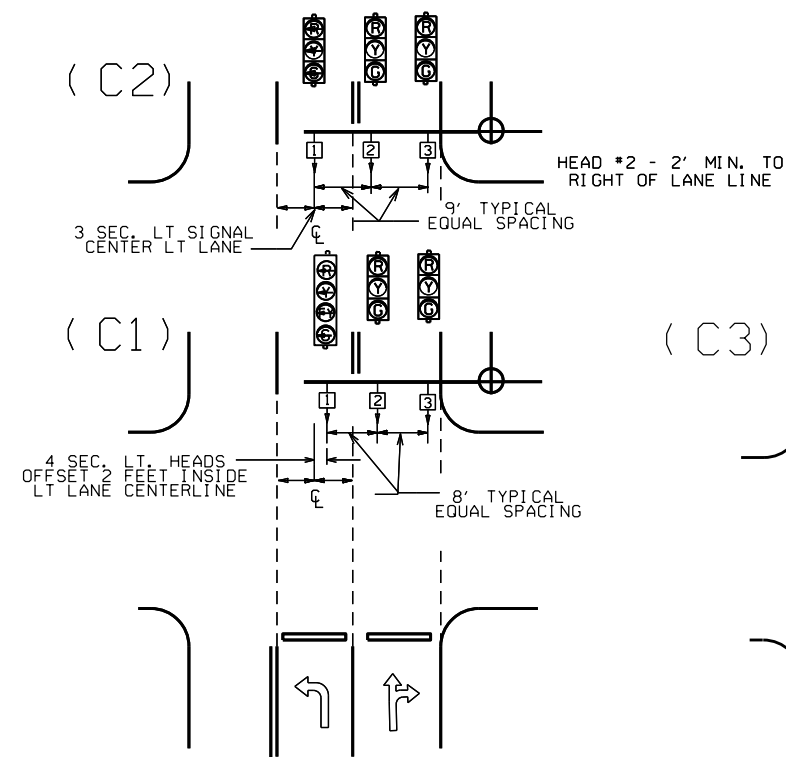
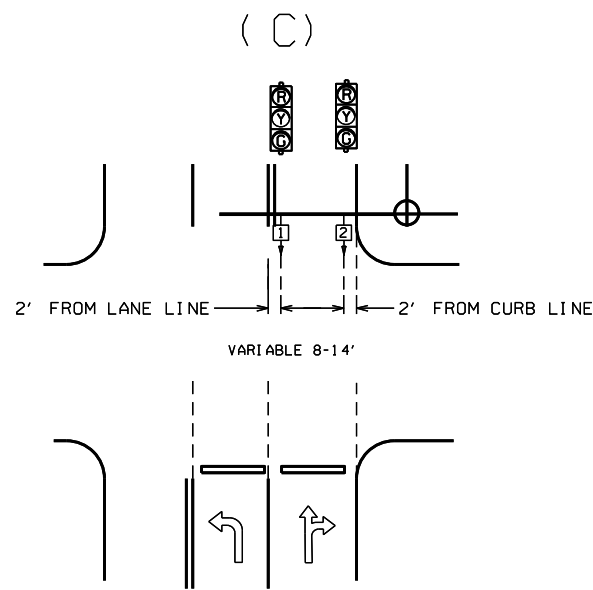
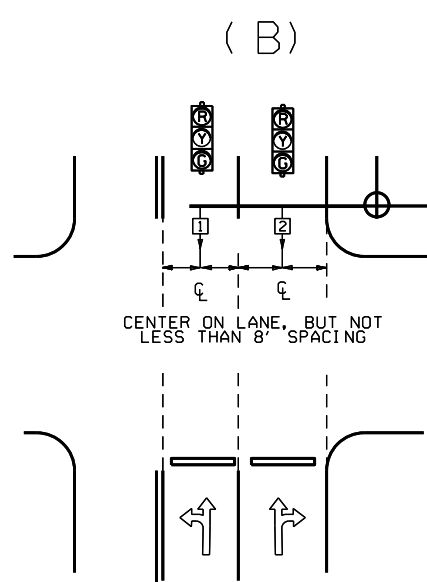
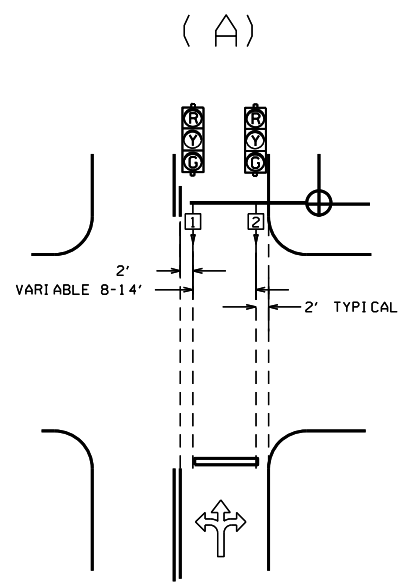
NOTE:
ALL TYPE 1 HD, TYPE 2 HD, AND TYPE 3 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 6" IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD CONCRETE PULL BOX. THE CONCRETE PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S". THREE #6 REINFORCING BARS IN THE APRON ON ALL SIDES OF THE CONCRETE PULL BOX IS REQUIRED IN CONCRETE.

| DATE | REVISION | FILMED |
|----------|---|--------|
| 02-13-24 | REVISED NOTES AND TYPE "HD" CONCRETE PULL BOX DETAILS | |
| 11-16-17 | REVISED NOTES | |
| 09-02-15 | REVISED PULL BOX DEPTH | |
| 09-12-13 | ISSUED AS STANDARD DRAWING | |
| 05-21-09 | REVISED GROUNDING | |
| 07-31-08 | ADDED & REVISED CONDUIT ENTRY | |
| 06-23-04 | REVISED CLEARANCE AT CURB ENTRY | |
| 01-04-02 | ADDED REINFORCING TO BOX APRON | |
| 07-02-01 | REVISED | |
| 12-27-99 | REVISED NOTES | |
| 11-18-98 | ISSUED | |

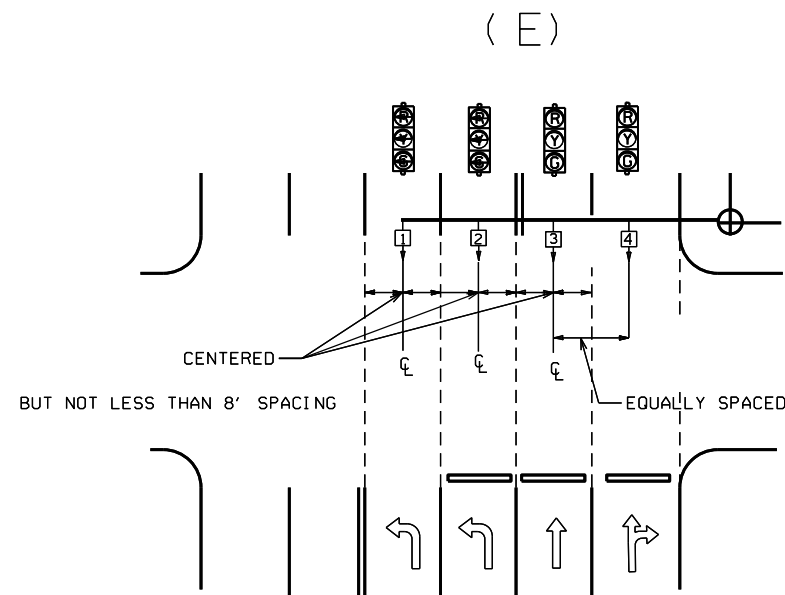
ARKANSAS STATE HIGHWAY COMMISSION

HEAVY DUTY PULL BOX

STANDARD DRAWING SD-6



NOTE: WHERE LEFT TURN HEAD (HEAD 1 ON D1 AND D2) IS NOT CALLED FOR ON PLANS, MAST ARM LENGTH MAY STILL BE ALLOWED FOR FUTURE INSTALLATION. HEADS FOR THROUGH MOVEMENTS SHALL STILL BE ALIGNED WITH THROUGH LANES AS SHOWN ON DETAILS.



GENERAL NOTES:

- FOUR SECTION "PROTECTED/PERMISSIVE" LEFT TURN HEADS SHOULD BE PLACED A MINIMUM OF TWO (2') FEET TO THE RIGHT OF THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.
- THREE SECTION "PROTECTED" LEFT TURN HEADS SHOULD BE PLACED ON THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.
- WHEN IT IS NECESSARY TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEET(S) RESULTING IN MAST ARM EXTENDING MORE THAN TWO FEET PAST (TO THE LEFT OF) THE CENTERLINE OF THE APPROACHING LEFT TURN LANE, MAST ARM SHALL BE CUT TO APPROPRIATE LENGTH AS DETERMINED BY THE ENGINEER, AND A NEW END CAP PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THIS PRIOR TO INSTALLING THE MAST ARM IF ADDITIONAL COMPENSATION IS REQUIRED.
- SIGNAL HEAD SPACING SHALL, IN NO CASE, BE LESS THAN EIGHT (8') FEET BETWEEN HEADS ON CENTER, MEASURED HORIZONTALLY PERPENDICULAR TO THE APPROACH.
- ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROACH SIDE OF THE INTERSECTION.
- MAXIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 4D-5 OF 2009 MUTCD.

℄ = CENTER OF LANE FROM APPROACH SIDE

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| | | | ARKANSAS STATE HIGHWAY COMMISSION |
| 12-8-16 | REVISED NOTE 6 | | SIGNAL HEAD PLACEMENT |
| 9-12-13 | ISSUED AS STANDARD DRAWING | | |
| 3-11-10 | 2009 MUTCD | | |
| 12-9-99 | ISSUED | | STANDARD DRAWING SD-8 |
| DATE | REVISION | DATE FILM | |

| | | |
|----------|--|--------|
| 02-13-24 | REVISED SPECIAL SIGN TO RIO-12a SIGN | |
| 11-16-17 | REVISED NOTES, ADDED PEDESTRIAN SIGNAL HEAD DETAIL, ADDED HANDHOLE TERMINAL DETAIL, ADDED TRENCHING DETAIL | |
| 02-27-14 | REVISED NOTES. | |
| 09-12-13 | ISSUED AS STANDARD DRAWING | |
| 12-08-16 | REVISED NOTES | |
| 02-27-14 | REVISED NOTES | |
| 09-12-13 | ISSUED AS STANDARD DRAWING | |
| 07-21-11 | REVISED VMD, SIGNAL HEADS | |
| 05-21-09 | REVISED GROUNDING | |
| 07-31-08 | REVISED GROUNDING | |
| 04-25-08 | ADDED VIBRATORY MITIGATION DEVICE & NOTES | |
| 04-18-08 | REVISED AASHTO NOTES | |
| 04-17-08 | REVISED TO 2001 AASHTO STANDARDS | |
| 10-12-04 | REVISED CABINET ORIENTATION | |
| 06-23-04 | REVISED | |
| 05-11-04 | REV. NOTE 3/AASHTO REQUIREMENTS | |
| 06-11-01 | REV. NOTES & POLE MAST ARM SLOPE | |
| 04-11-01 | REVISED POLE TAPERS | |
| 04-25-00 | REV. NOTES & SIGNAL HEAD PLACEMENT | |
| 11-22-99 | REVISED FOUNDATION DETAILS | |
| 11-17-98 | REVISED DETAILS AND NOTES | |
| 11-21-95 | ISSUED | |
| DATE | REVISION | FILMED |