ARLANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

HWY. 18/CARAWAY RD. INTERS.
IMPVTS. (JONESBORO) (S)
CRAIGHEAD COUNTY
ROUTE 18 SECTION 4
FEDERAL AID PROJ. CMF-9227(57)
JOB 100835
NOT TO SCALE

STA. 218+33.48
END CARAWAY RD.

STA. 129+16.34
END JOB 100835

STA. 114+49.47
BEGIN JOB 100835
LOG MILE 2.50

STA. 205+46.00
BEGIN CARAWAY RD.

DESIGN TRAFFIC DATA

| DESIGN YEAR | 2038 |
| ADT | 22000 |
| DHV | 2750 |
| DIRECTional DISTRIBUT | 0.60 |
| TRUCK | 0.60 |
| DESIGN SPEED | 40 MPH |

APPROVED

DEPUTY DIRECTOR
AND CHIEF ENGINEER
**INDEX OF SHEETS**

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GENERAL NOTES
1. GRADE LINE NOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR COVERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPARATUS THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U.S. MAIL BOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
6. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HANDED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
7. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
8. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
9. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAVING ALONG A NEAT LINE. AFTER SAVING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
CARWAY RD.
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 205+46.00 TO STA. 208+06.00

CARWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 208+06.00 TO STA. 208+94.00

NOTES:
- REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.
- ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
- THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID.
- LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
- REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS.
- PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHODS USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
- TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45° INTERVALS.
CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 208+94.00 TO STA. 211+63.09

NOTES:
THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE REQUIREMENTS SHOWN IN THE DRAWING OR PLAN
FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES; NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN Laid. LONGITUDINAL JOINTS SHALL BE AT LINE LINES.

REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS.

PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHODS USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45 INTERVALS.

TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45 INTERVALS.

TYPICAL SECTIONS OF IMPROVEMENT
CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 212+33.09 TO STA. 215+00.00

NOTES:
- The thickness of aggregate base course shall be within plus or minus one inch of the plan thickness shown. The contractor will correct any deficient thickness that does not meet the tolerance indicated. Payment will not be made for material placed in excess of the tolerance indicated.
- Refer to cross sections for deviation from the normal slopes. No changes shall be made from the planned slopes without the approval of the engineer.
- Asphalt for leveling of existing pavement shall be placed only if and where directed by the engineer. Calculations for the amount of leveling and/or leveling operations shall be performed before constructing notch and widening. Calculations will not be paid for, but payment will be considered included in the various pay items.
- The final 2" of surface course is to be placed after all other courses have been laid.
- Longitudinal joints shall be at lane lines.
- Refer to plan sheets for sidewalk locations.
- Prior to and during placement of pavement in front of the curb and gutter, the contractor shall provide positive drainage at all times. The methods used shall be approved by the engineer. Payment for this work shall be considered included in the price bid for the various contract items.
- Transverse expansion joints shall be placed in concrete walks at 45 intervals.
CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 215+00.00 TO STA. 215+91.00

NOTES:
1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN Laid. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
4. REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS.
5. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHODS USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
6. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45° INTERVALS.

CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 215+91.00 TO STA. 218+33.48
**P.C.C. BASE WIDENING DETAIL**

P.C.C. BASE WIDENING TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

**DETAIL OF REINFORCING STEEL FOR PAVEMENT**
(MESH FABRIC TYPE 3)

**PORTLAND CEMENT CONCRETE BASE**

8'-0" MAX. WIDTH

6' x 12' MESH FABRIC (TYPE 3) (5' x 10' x 9') = 4.26 LBS. PER SQ. YD.

**NOTES**

1. LAY MESH FABRIC MIN. 12" LONGITUDINALLY AND MIN. 6" TRANSVERSALLY.
2. MESH FABRIC IS NOT REQUIRED WHEN WIDTH OF PORTLAND CEMENT CONCRETE BASE IS LESS THAN 12'.
3. MESH FABRIC TYPE 3 WILL NOT BE PAID FOR DIRECTLY, BUT FULL COMPENSATION THEREFORE WILL BE CONSIDERED IN THE CONTRACT PRICE $10 PER SQ. YD. FOR PORTLAND CEMENT CONCRETE BASE (12" U.L.T.)

**DETAIL OF TURNOUTS, ASPHALT STREETS, COUNTY ROADS & STATE HIGHWAYS**
CURB & GUTTER SECTION

**PIPE EXTENSION**
REINFORCED Concrete COLLAR DETAIL
CONCRETE WALK (TYPE SPECIAL) DETAIL
MAX HEIGHT 3'-0"

CONCRETE WALK (TYPE SPECIAL) DETAILS
MAX HEIGHT 2'-0"

NOTES:
JOINTS IN THE WALL SHALL MATCH THE TYPE AND SPACING OF THE JOINTS IN THE WALK.
ALL CONCRETE SHALL BE CLASS 5 (F'c=3,500 PSI) AND SHALL BE POURED IN THE DRY.
REINFORCING STEEL SHALL BE ASHTO M31 OR M53, GRADE 60 (Fy=60,000 PSI).
PAINING FOR THE WEEP HOLES, CLASS 5 AGGREGATE, TYPE 2 GEOTEXTILE FABRIC,
PREFORMED JOINT FILLERS, Poured JOINT SEALER, REINF. STEEL, AND CONCRETE SHALL BE
INCLUDED IN THE UNIT BID PRICE FOR SQ. YD. FOR CONCRETE WALKS (TYPE SPECIAL).

CONCRETE ISLAND WITH
TYPE C CURB FACE = 82 SQ. YD.
R = 125°
LEGEND
(1) = SAND BAG DITCH CHECKS
(2) = ROCK DITCH CHECKS
(3) = SILT FENCE
(4) = DROP INLET FILTER Sock

STA 114+49.47
BEGIN JOB-100335
LOG MILE 2.50

STA 124+16.34
END JOB-100335

DATE OF REVISION

REVISION BOX

STAGE 2
TEMPORARY EROSION CONTROL DETAILS
Sequence of Construction

Stage 1
Install advance warning signs at the locations listed on the advance warning details. Install road work ahead of 1000-11 sign as shown on advance warning details.
Use vertical panels spaced 50" on center to delineate the work zone. Use traffic drums to delineate driveways as shown in the stage 1 maintenance of traffic details.
Maintain traffic in existing lanes. Maintain existing traffic signal at Caraway road intersection.
Remove curbed median on Caraway Rd. from STA 128-00 to STA 131-10. Place leveling course as directed by the engineer. For stages 2 and 3, Caraway Rd. replace construction pavement markings as shown in the stage 1 maintenance of traffic details.

Stage 2
Retain advance warning signs at the locations listed on the advance warning details. Retain road work ahead of 1000-11 sign as shown on advance warning details. Install road work ahead of 1000-11 sign as shown on advance warning details.
Maintain traffic in existing lanes. Maintain existing traffic signals at Caraway road intersection.
Remove curbed median on Caraway Rd. from STA 131-10 to STA 134-30. Place leveling course as directed by the engineer. For stage 2. Caraway Rd. place construction pavement markings as shown in the stage 2 maintenance of traffic details. Note that and R10, existing lanes for full length of job and from STA 218-36.00 to STA 218-33.48, LT. and RT. on Caraway Rd.
Use vertical panels spaced 50" on center to delineate the work zone. Use traffic drums to delineate driveway as shown in the stage 2 maintenance of traffic details.

Stage 3
Maintain traffic in existing lanes. Maintain existing traffic signals at Caraway road intersection.
Construct islands as shown on plan. Place final layer of final pavement course. Install permanent pavement markings as shown in the permanent pavement marking details sheet.

Traffic Drums • 6 each 
# 0 O.D.

Driveway/Traffic Drum Detail

Advance Warning (All Stages)

Maintenance of Traffic Notes:
The quantity of vertical panels provided in the contract is for one side of the roadway for the full length of the job. This is the maximum number of vertical panels that will be used for the project. Refer to construction requirements and specifications for construction requirements.
CARAWAY ROAD STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

QUANTITIES
STAGE 2
5/05/5 + 207 50' FT
TRAFFIC DRUMS: 14 EACH
VERTICAL PANELS: 24 EACH
CONSTRUCTION PAVEMENT MARKINGS
WHITE: 2700 IN FT.
ARROWS: 12 EACH

WHITE SKIP
CONSTRUCTION PAVEMENT MARKING

DEB. YELLOW SOLID
CONSTR. PAVEMENT MARKING

WHITE SOLID
CONSTR. PAVE. MARKING

YELLOW SKIP
CONSTR. PAVEMENT MARKING

WHITE SKIP
CONSTR. PAVEMENT MARKING

STA. 205+46.00
BEGIN CARAWAY RO.

STA. 218+33.48
END CARAWAY RO.

CARAWAY ROAD STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

QUANTITIES
STAGE 2
5/05/5 + 207 50' FT
TRAFFIC DRUMS: 14 EACH
VERTICAL PANELS: 24 EACH
CONSTRUCTION PAVEMENT MARKINGS
WHITE: 2700 IN FT.
ARROWS: 12 EACH

WHITE SKIP
CONSTRUCTION PAVEMENT MARKING

DEB. YELLOW SOLID
CONSTR. PAVEMENT MARKING

WHITE SOLID
CONSTR. PAVE. MARKING

YELLOW SKIP
CONSTR. PAVEMENT MARKING

WHITE SKIP
CONSTR. PAVEMENT MARKING

STA. 205+46.00
BEGIN CARAWAY RO.

STA. 218+33.48
END CARAWAY RO.
### ADVANCE WARNING SIGNS AND DEVICES

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<th>MAXIMUM NUMBER REQUIRED</th>
<th>TOTAL SIGNS REQUIRED</th>
<th>VERTICAL PANELS</th>
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<td>ROAD WORK 150 FT</td>
<td>40 ft x 3 ft</td>
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<td>RWD-1</td>
<td>ROAD WORK 100 FT</td>
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<td>RWD-1</td>
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**Note:** This is a high traffic volume road as defined in Section 654.03. Standard specifications for highways construction.

### CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>STAGE 1</th>
<th>STAGE 2</th>
<th>STAGE 3</th>
<th>END OF JOB</th>
<th>CONSTRUCTION PAVEMENT MARKINGS</th>
<th>CONSTRUCTION PAVEMENT MARKINGS (AIRBRUSH)</th>
<th>RAISED PAVEMENT MARKERS TYPE (S) SPOTTED (R)</th>
<th>RAISED PAVEMENT MARKERS TYPE (S) TURED (R)</th>
<th>THERMOPLASTIC PAVEMENT MARKING WHITE (W)</th>
<th>THERMOPLASTIC PAVEMENT MARKING YELLOW (Y)</th>
<th>THERMOPLASTIC PAVEMENT MARKING WHITE (W)</th>
<th>THERMOPLASTIC PAVEMENT MARKING BLACK (B)</th>
<th>THERMOPLASTIC PAVEMENT MARKING (W,B) (R)</th>
<th>RAISED PAVEMENT MARKINGS (AIRBRUSH)</th>
<th>THERMOPLASTIC PAVEMENT MARKING (W,B) (R)</th>
<th>REFLECTORIZED PAINT MARKING WHITE (W)</th>
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<tr>
<td></td>
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<td>RLT FT</td>
<td>LRT FT</td>
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**Note:** This is a high traffic volume road as defined in Section 654.03. Standard specifications for highways construction.

### EROSION CONTROL

<table>
<thead>
<tr>
<th>STATION</th>
<th>STATION</th>
<th>LOCATION</th>
<th>PERMANENT EROSION CONTROL</th>
<th>TEMPORARY EROSION CONTROL</th>
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<td>EXPNS</td>
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**Note:** The temporary erosion control devices shown above and on the plans shall be installed in such sequence as to prevent erosion and sedimentation on U.S. waterways as explained by the national pollutant discharge elimination system permits.

**Quantities Estimated.**

See Section 104.03 of the STD. SPECS.
# Quantities

## Cold Milling Asphalt Pavement

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Width (sq. yd.)</th>
<th>Length (ft.)</th>
<th>Total Cost ( overthrow + revet. of culverts )</th>
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<tr>
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## ACHM Patching of Existing Roadway

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<th>Description</th>
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## Asphalt Concrete Patching for Maintenance of Traffic

<table>
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## Concrete Base

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<th>Station</th>
<th>Location</th>
<th>Length</th>
<th>Portland Cement Concrete Base</th>
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## Driveways & Turnouts

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<th>Width (ft.)</th>
<th>Modified Curves</th>
<th>ACHM Surface Course (1/2&quot;)</th>
<th>Aggregate Base Course (11/2&quot;)</th>
<th>Standard Drawings</th>
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<td>106</td>
<td>REMOVAL AND DISPOSAL OF SUNK</td>
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<td>107</td>
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**SUMMARY OF QUANTITIES**

**REVISIONS**

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*Denotes alternative bid items*
STA. 205+46.00
BEGIN CARAWAY ROAD

CARAWAY RD.
P1 = 205+46.00
A = 00'-00".90'
D = 00'-00".07'
PT = 206+14.72
NO SUPERELEVATION

SURVEY BASELINE

STA. 218+33.48
END CARAWAY ROAD

CARAWAY RD.
P1 = 218+33.48
A = 00'-00".90'
D = 00'-00".07'
PT = 219+40.43
NO SUPERELEVATION

SURVEY BASELINE
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF CARAWAY RD.

STA. 205+46.00
BEGIN CARAWAY RD.

STA. 206+00
TOP ELEV=273.30
F.L. ELEV=266.50
F.L. ELEV=269.80

STA. 207+15
TOP ELEV=273.74
F.L. ELEV=268.80
F.L. ELEV=269.02

STA. 208+00
TOP ELEV=273.30
F.L. ELEV=266.50
F.L. ELEV=269.80

STA. 209+00
TOP ELEV=273.30
F.L. ELEV=266.50
F.L. ELEV=269.80

STA. 210+00
TOP ELEV=273.30
F.L. ELEV=266.50
F.L. ELEV=269.80

STA. 211+00
TOP ELEV=273.00
F.L. ELEV=265.09

STA. 212+00
TOP ELEV=273.00
F.L. ELEV=265.09

STA. 213+00
TOP ELEV=273.00
F.L. ELEV=265.09

STA. 214+00
TOP ELEV=273.00
F.L. ELEV=265.09

CONNECTS TO DROP INLET
& STA. 204+00 RT.

CONNECTS TO DROP INLET
& STA. 204+40 LT.

RIGHT SIDE OF CARAWAY RD.

STA. 205+46.00
BEGIN CARAWAY RD.

STA. 206+00
TOP ELEV=273.30
F.L. ELEV=266.50
F.L. ELEV=269.80

STA. 207+15
TOP ELEV=273.74
F.L. ELEV=268.80
F.L. ELEV=269.02

STA. 208+00
TOP ELEV=273.30
F.L. ELEV=266.50
F.L. ELEV=269.80

STA. 209+00
TOP ELEV=273.30
F.L. ELEV=266.50
F.L. ELEV=269.80

STA. 210+00
TOP ELEV=273.30
F.L. ELEV=266.50
F.L. ELEV=269.80

STA. 211+00
TOP ELEV=273.00
F.L. ELEV=265.09

STA. 212+00
TOP ELEV=273.00
F.L. ELEV=265.09

STA. 213+00
TOP ELEV=273.00
F.L. ELEV=265.09

STA. 214+00
TOP ELEV=273.00
F.L. ELEV=265.09

CONNECTS TO DROP INLET
& STA. 204+00 RT.

CONNECTS TO DROP INLET
& STA. 204+40 LT.
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF CARA WAY RD.

STA. 218.33.48
END CARA WAY RD.

RIGHT SIDE OF CARA WAY RD.

STA. 218.33.48
END CARA WAY RD.
TRAFFIC SIGNAL NOTES:


2. Extend Ground Equipment Grounding Conductor (E.G.C.) from ground bar to first pole. Securely 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.

3. Electrical service shall be provided by the citycounty to a service pole with external Raintight 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 (25# A.W.G. used rated, with ground typical) and perform wireing to tap into the citycounty's main breaker as part of this contract. Conduct 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 (25# A.W.G. if 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.

4. Contractor shall connect a separate neutral for each load switch represented on each signal pole.

5. 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.

6. Controller cabinet shall be wired such that during flash operations power to the load switches cannot be backed to load switch power bus.

7. 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.

8. Conduit installed under roadway surfaces shall be installed by pushing or boring methods. If the engineer determines this is not feasible, then a trenching method as shown in the standard drawings may be used.

9. Traffic signal poles shall be galvanized. Backplates shall be supplied for all signal heads.

10. Pavement marking shown for reference only. See permanent pavement marking details. It is recommended that the surface be detailed as shown in the standard drawings.

11. 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.

12. All concrete pull boxes shall be (Type 2 HD) unless otherwise indicated. All conduit shall be three (3") inch diameter unless specified on plans.

13. Contractor shall notify all existing utility owners before beginning work on this project.

14. Luminaire assemblies shall be of the full cutoff type.

15. 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 (COM) detectors shall also be programmed to provide vehicle count/occupancy data.

16. The local radio with antenna shall be compatible with the existing closed loop coordination system in the city county.

17. 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.

18. 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.

19. 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.

20. 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.

21. Controller cabinet layout and orientation shall conform to MSA standards.

22. 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.

23. 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 the prior notification.

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. Door panel test push buttons shall activate indicated phases. Detector assignments and/or side panel jumpers may require modification.

26. All system detector racks and associated equipment shall be protected by the main controller cabinet power surge protection.

27. In pull boxes, pole bases, junction boxes and controller cabinets, the direction of each cable run shall be indicated by attaching a permanent tag of rigid plastic or nonferrous metal to the conduit. 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. In instances where the conduit or conductor entries are not visible or accessible, a direction tag shall be attached to each cable.

28. 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 flags to direct traffic while the traffic signal is out of operation.

29. All non-conduit runs shall have bell ring fittings installed on the terminating ends of the conduit. This includes pull boxes, pole bases, and traffic signal cabinets.
# SUMMARY OF TRAFFIC SIGNAL QUANTITIES

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP &amp; 701</td>
<td>SYSTEM LOCAL CONTROLLER T52-TYPE, 2, E-NET (8 PHASES)</td>
</tr>
<tr>
<td>SP</td>
<td>ETHERNET SWITCH T150 HARDENED (8-PORT)</td>
</tr>
<tr>
<td>SP</td>
<td>ETHERNET CABLE (EXTERIOR CAT 5E)</td>
</tr>
<tr>
<td>SP</td>
<td>ANTENNA SUPPORT (SHOE BASE, 50 FT)</td>
</tr>
<tr>
<td>SP &amp; 708</td>
<td>TRAFFIC SIGNAL HEAD, LED (3 SECTION 1 WAY)</td>
</tr>
<tr>
<td>SP &amp; 707</td>
<td>COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED</td>
</tr>
<tr>
<td>708</td>
<td>TRAFFIC SIGNAL CABLE (50/74 A.W.G)</td>
</tr>
<tr>
<td>708</td>
<td>TRAFFIC SIGNAL CABLE (50/74 A.W.G)</td>
</tr>
<tr>
<td>SP</td>
<td>ELECTRICAL CONDUCTORS IN-CONDUIT (1/8 A.W.G, E.G.C)</td>
</tr>
<tr>
<td>SP</td>
<td>ELECTRICAL CONDUCTORS IN-CONDUIT (1/12 A.W.G, E.G.C)</td>
</tr>
<tr>
<td>SP</td>
<td>ELECTRICAL CONDUCTORS IN-CONDUIT (2/8 A.W.G)</td>
</tr>
<tr>
<td>SP</td>
<td>ELECTRICAL CONDUCTORS FOR LUMINARIES</td>
</tr>
<tr>
<td>709</td>
<td>GALVANIZED STEEL CONDUIT (2&quot;)</td>
</tr>
<tr>
<td>709</td>
<td>GALVANIZED STEEL CONDUIT (4&quot;)</td>
</tr>
<tr>
<td>710</td>
<td>NONMETALLIC CONDUIT (2&quot;)</td>
</tr>
<tr>
<td>710</td>
<td>NONMETALLIC CONDUIT (3&quot;)</td>
</tr>
<tr>
<td>711</td>
<td>CONCRETE PULL BOX (TYPE 2)</td>
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<tr>
<td>711</td>
<td>CONCRETE PULL BOX (TYPE 2 HD)</td>
</tr>
<tr>
<td>SS &amp; 713</td>
<td>SPAN WIRE ASSEMBLY</td>
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<tr>
<td>SS &amp; 713</td>
<td>TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (96&quot;)</td>
</tr>
<tr>
<td>SS &amp; 713</td>
<td>TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (96&quot;)</td>
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<tr>
<td>SS &amp; 715</td>
<td>TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION</td>
</tr>
<tr>
<td>SP</td>
<td>SERVICE POINT ASSEMBLY (2 CIRCUITS)</td>
</tr>
<tr>
<td>SP</td>
<td>REMOVAL OF TRAFFIC SIGNAL EQUIPMENT</td>
</tr>
<tr>
<td>718</td>
<td>TREATED WOOD POLE (CLASS 2, 45')</td>
</tr>
<tr>
<td>SP</td>
<td>18&quot; STREET NAME SIGN</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VIDEO DETECTOR (CLIR)</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VIDEO DETECTOR (IP)</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VIDEO CABLE</td>
</tr>
<tr>
<td>733</td>
<td>VIDEO CABLE (EXTERIOR CAT 5E)</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VIDEO PROCESSOR, EDGE CARD (2 CAMERA)</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VEHICLE DETECTOR RACK (16 CHANNEL)</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>CENTRAL CONTROL UNIT (8 CHANNEL)</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VIDEO PROCESSOR, EDGE CARD (2 CAMERA)</td>
</tr>
<tr>
<td>SP</td>
<td>NET-SUBSCRIBER RADIO (0.6 GHz, 32 Mbps)</td>
</tr>
</tbody>
</table>

* ONE SPARE VIDEO DETECTOR (IP) AND ONE SPARE VIDEO PROCESSOR, EDGE CARD (2 CAMERA) SHALL BE SUPPLIED.
PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL

NOTES:

- EACH PEDESTRIAN PUSH BUTTON SHALL HAVE ONE RIO-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION T23 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH THICKNESS OF 0.030 INCH.
- MINIMUM STRUCTURAL REQUIREMENTS:

CONSTRUCTION SPECIFICATIONS:

- STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION CURRENT EDITION WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.
- POLE CAP - POLE CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.
- HAND HOLE - HAND HOLES SHALL BE 3 IN. X 5 IN. FOR PED POLES. MINIMUM PLACED APPROXIMATELY 12 INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACUUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL.
- NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.

GROUND ROD - A 10' X 3/4" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 3/4" NMC SHALL BE INCLUDED IN ITEM 7/4 FOR SIGNAL POLES AND ITEM 7/6 FOR THE CONTROLLER. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPARATELY.

POLE BASE/Foundation - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS, ONE LOCK WASHER, AND ONE HEX NUT. PERIMETER OF ANCHOR BASE SHALL BE GROUTED WITH A 1/4" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

CONCRETE - ALL CONCRETE POLE FOUNDATION SHALL BE CLASS "S" OR GREATER.
OVERHEAD STREET NAME
MARKER STANDARD
MAST ARM MOUNTED

STAGE 1 TRAFFIC SIGNAL QUANTITIES

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>ITEM</th>
<th>QUANTITY</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP &amp; 701</td>
<td>SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-MET (2 PHASES)</td>
<td>1 EACH</td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>ETHERNET SWITCH, 1100 HARDENED (IMPORT)</td>
<td>1 EACH</td>
<td></td>
</tr>
</tbody>
</table>
| SP          | E-MET CABLE (EXTERIOR CAT) | 40 L.M. FT.
| SP & 702    | TRAFFIC SIGNAL HEAD, LED, (5 SECTION, 1 WAY) | 1 EACH |
| 705         | TRAFFIC SIGNAL CABLE (30,4 A.W.G.) | 3600 L.M. FT.
| SP          | ELECTRICAL CONDUCTORS-IN-CONDUIT (50,8 A.W.G., E.G.C.) | 2 EACH |
| SP          | ELECTRICAL CONDUCTORS-IN-CONDUIT (30,8 A.W.G.) | 2 EACH |
| 709         | GALVANIZED STEEL CONDUIT (2") | 70 L.M. FT.
| 710         | NON-METALLIC CONDUIT (2") | 90 L.M. FT.
| 711         | CONCRETE PULL BOX (TYPE 2 HD) | 1 EACH |
| 713         | SP ASSOCIATED MARKER STANDARD | 1 EACH |
| SP          | SERVICE POINT ASSEMBLY 50 MTS | 1 EACH |
| SP          | REMOVAL OF TRAFFIC SIGNAL EQUIPMENT | 0.50 LUMP SUM |
| 715         | TREATED WOOD POLE (CLASS 2-4") | 4 EACH |
| SP & 733    | VIDEO DETECTOR (CL) | 8 EACH |
| 735         | VIDEO CABLE | 1894 L.M. FT.
| 733         | VIDEO MONITOR (CL) | 1 EACH |
| SP & 733    | VIDEO PROCESSOR, EDGE CARD (2 CAMERA) | 1 EACH |
| SP & 733    | VEHICLE DETECTOR RACK (16 CHANNEL) | 1 EACH |
| SP          | NET-SUBSBERBER RADIO 3.8 (40, 32 MIPS) | 1 EACH |

STAGE 1 INSTALL ALL TEMPORARY TRAFFIC SIGNAL EQUIPMENT, INCLUDING THE PERMANENT SERVICE POINT ASSEMBLY (2 CIRCUITS) WITH ALL ASSOCIATED ITEMS AS SHOWN ON THE STAGE 1 TEMPORARY TRAFFIC SIGNAL PLANS AND REMOVE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT.

TRAFFIC SIGNAL QUANTITIES

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>ITEM</th>
<th>QUANTITY</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP &amp; 701</td>
<td>SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-MET (2 PHASES)</td>
<td>1 EACH</td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>ETHERNET SWITCH, 1100 HARDENED (IMPORT)</td>
<td>1 EACH</td>
<td></td>
</tr>
</tbody>
</table>
| SP          | E-MET CABLE (EXTERIOR CAT) | 100 L.M. FT.
| SP & 706    | TRAFFIC SIGNAL HEAD, LED, (5 SECTION, 1 WAY) | 1 EACH |
| SP & 707    | COUNTERPAN PEDESTRIAN SIGNAL, HEAD, LED | 1 EACH |
| 705         | TRAFFIC SIGNAL CABLE (30,4 A.W.G.) | 3403 L.M. FT.
| SP          | ELECTRICAL CONDUCTORS-IN-CONDUIT (50,8 A.W.G., E.G.C.) | 750 L.M. FT.
| SP          | ELECTRICAL CONDUCTORS-IN-CONDUIT (30,8 A.W.G.) | 250 L.M. FT.
| 710         | NON-METALLIC CONDUIT (2") | 825 L.M. FT.
| 711         | CONCRETE PULL BOX (TYPE 2 HD) | 1 EACH |
| 714         | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56") | 1 EACH |
| 714         | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56") | 2 EACH |
| 715         | LUMBAR ASSEMBLY | 1 EACH |
| 716         | CONCRETE PULL BOX (TYPE 2 HD) | 1 EACH |
| 717         | TRAFFIC SIGNAL HEAD, LED, (5 SECTION, 1 WAY) | 1 EACH |
| 718         | DISCONNECT OF TRAFFIC SIGNAL EQUIPMENT | 0.50 LUMP SUM |
| SP          | 16" STREET NAME Sign | 2 EACH |
| SP & 733    | VIDEO DETECTOR (P) | 4 EACH |
| SP & 733    | VIDEO CABLE (EXTERIOR CAT) | 2100 L.M. FT.
| 735         | VIDEO MONITOR (CL) | 1 EACH |
| SP & 733    | VEHICLE DETECTOR RACK (16 CHANNEL) | 1 EACH |
| SP & 733    | CENTRAL CONTROL UNIT (8 CHANNEL) | 2 EACH |
| SP & 733    | VIDEO PROCESSOR, EDGE CARD (2 CAMERA) | 1 EACH |
| SP          | NET-SUBSBERBER RADIO 3.8 (40, 32 MIPS) | 1 EACH |

* ONE SPARE VIDEO DETECTOR (P) AND ONE SPARE VIDEO PROCESSOR, EDGE CARD (P) SHALL BE SUPPLIED.

PERMANENT TRAFFIC SIGNAL INSTALLATION FOR STAGES 1, 2, AND 3 SHALL REMAIN IN OPERATION UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND OPERATIONAL, INSTALL THE PERMANENT TRAFFIC SIGNAL, MAINTAIN THE SERVICE POINT ASSEMBLY (2 CIRCUITS) WITH ALL ASSOCIATED EQUIPMENT THAT WAS INSTALLED IN THE STAGE 1 TEMPORARY TRAFFIC SIGNAL PLANS, AND REMOVE THE TEMPORARY TRAFFIC SIGNAL COMPONENTS THAT WERE INSTALLED ON THE STAGE 1 TEMPORARY TRAFFIC SIGNAL PLANS.

NOTES:
1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 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 ALSO BE ALOYZID. THE ALUMINUM SHEETING SHALL BE 0.100 INCH NOMINAL THICKNESS AND OF THE SIZE SHOWN WITH 1.5" CORNER RADIUS 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 NEARER LEAVE POLE. SEE STANDARD DRAWING SHEET FOR MORE INFORMATION ON MOUNTING ON MAST ARM ASSEMBLY.
4. THE SERIES C 2000 STANDARD ALPHABET SHALL BE USED FOR ALL LETTERS.

LOCATION: HIC: 8/CARAWAY RD
CITY: JONESBORO
COUNTY: CRI (HEAD)
DISTRICT: 10
SCALE: 1/20
DRAWN BY: CHE
PHASING DIAGRAM NOTE:
LEAD LAG LEFT TURN PHASING SHALL BE IMPLEMENTED FOR PHASES ONE AND FIVE, THREE AND SEVEN.
PHASES ONE AND FIVE, THREE AND SEVEN CANNOT RUN CONCURRENTLY.
NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

NOTE TO CONTRACTOR:
LUMINAIRE ARMS (OR APPROVED MOUNTING HARDWARE) SHALL NOT INCLUDE LUMINAIRE ASSEMBLIES.
THE COST FOR LUMINAIRE ARMS, MOUNTING, AND ALL HARDWARE IS INCLUDED IN PRICE BID FOR THE BASE WORK PILE.

STAGE 1 TRAFFIC SIGNAL

POLE LOCATIONS

<table>
<thead>
<tr>
<th>POLE</th>
<th>LOCATION &amp; STATION</th>
<th>OFFSET</th>
<th>X, Y COORDINATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>HWY. 18 - STA. 122+67.65</td>
<td>81' RT.</td>
<td>1704495.14, 544153.20</td>
</tr>
<tr>
<td>B</td>
<td>HWY. 18 - STA. 120+90.76</td>
<td>101' RT.</td>
<td>1704328.37, 544131.44</td>
</tr>
<tr>
<td>C</td>
<td>HWY. 18 - STA. 120+76.30</td>
<td>88' LT.</td>
<td>1704312.86, 544320.33</td>
</tr>
<tr>
<td>D</td>
<td>HWY. 18 - STA. 122+53.38</td>
<td>89' LT.</td>
<td>1704489.93, 544323.04</td>
</tr>
</tbody>
</table>

SCALE IN FEET

LOCATIONS:
- HWY. 18/CARAMAY RD.
- JONESBORO, AR
- SCAL VIDEO GRAPHICS

DATE: 10-19-18
FILE NAME: 1000610.DWG
DRAWN BY: GVE
STAGE 1, 2, AND 3 TEMPORARY 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.

LOCATION: 18/CARMAY RD.
CITY: JONESBORO
COUNTY: CHAI (HEAD)
DISTRICT: 10 SCALE: N/A DRAWN BY: GDE

DATE: 10/15/10 FILE NAME: s010205.G1.dgn
PHASING DIAGRAM

SIGNAL FACES

12" LENSES

1, 4, 7, 10

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

STAGE 1, 2, AND 3 DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 00685

| DET # | LOCATION/DIRECTION | TYPE | DET # | CASE # | AMP # | CON # | PHS # | SYSTEM DET # | MASTER SYSTEM DETECTOR NUMBERS | COMMENTS |
|-------|---------------------|------|-------|--------|-------|-------|-------|-------|------------------|--------------------------|----------|
| V11   | EB LEFT TURN LOCAL  | COMB | V1    | V8     | 1     | 1     | 1     | V1    | V1              | 25"         |          |
| V12   | EB LEFT TURN LOCAL  | COMB | V2    | V1     | 1     | 1     | 1     | V1    | V1              | 25"         |          |
| V21   | WB ADVANCE LOCAL    | COMB | V5    | V2     | 2     | 2     | 2     | V2    | V2              | 25"         |          |
| V22   | WB NEAR LOCAL       | COMB | V9    | V3     | 3     | 3     | 3     | V3    | V2              | 25"         |          |
| V31   | SB LEFT TURN LOCAL  | COMB | V11   | V1     | 1     | 1     | 1     | V1    | V1              | 25"         |          |
| V32   | SB LEFT TURN LOCAL  | COMB | V12   | V1     | 1     | 1     | 1     | V1    | V1              | 25"         |          |
| V41   | NB ADVANCE LOCAL    | COMB | V13   | V4     | 4     | 4     | 4     | V4    | V4              | 25"         |          |
| V42   | NB NEAR LOCAL       | COMB | V14   | V5     | 5     | 5     | 5     | V5    | V5              | 25"         |          |
| V51   | WB LEFT TURN LOCAL  | COMB | V7    | V6     | 6     | 6     | 6     | V6    | V6              | 25"         |          |
| V52   | WB LEFT TURN LOCAL  | COMB | V8    | V6     | 6     | 6     | 6     | V6    | V6              | 25"         |          |
| V61   | EB ADVANCE LOCAL    | COMB | V3    | V8     | 8     | 8     | 8     | V8    | V8              | 25"         |          |
| V62   | EB NEAR LOCAL       | COMB | V4    | V9     | 9     | 9     | 9     | V9    | V9              | 25"         |          |
| V71   | NB LEFT TURN LOCAL  | COMB | V11   | V1     | 1     | 1     | 1     | V1    | V1              | 25"         |          |
| V72   | NB LEFT TURN LOCAL  | COMB | V12   | V1     | 1     | 1     | 1     | V1    | V1              | 25"         |          |
| V81   | SB ADVANCE LOCAL    | COMB | V17   | V1     | 1     | 1     | 1     | V1    | V1              | 25"         |          |
| V82   | SB NEAR LOCAL       | COMB | V18   | V1     | 1     | 1     | 1     | V1    | V1              | 25"         |          |

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN" REFERS TO THE BACK OUTPUT POSITION WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

STAGES 1, 2, AND 3 TRAFFIC SIGNAL CHARTS

INTERVAL CHART

<table>
<thead>
<tr>
<th>SIGNAL FACES</th>
<th>INTERVALS</th>
<th>FLASH SECS</th>
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</thead>
<tbody>
<tr>
<td>2A3</td>
<td>G ** R</td>
<td>RRRRRRRRR</td>
</tr>
<tr>
<td>4</td>
<td>G ** R</td>
<td>RRRRRRRRR</td>
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<tr>
<td>586</td>
<td>R R R R R</td>
<td>R R R R R</td>
</tr>
<tr>
<td>7</td>
<td>G ** R</td>
<td>RRRRRRRRR</td>
</tr>
<tr>
<td>8P3</td>
<td>R R R R R</td>
<td>R R R R R</td>
</tr>
<tr>
<td>10</td>
<td>G ** R</td>
<td>RRRRRRRRR</td>
</tr>
<tr>
<td>2A2</td>
<td>R R R R R</td>
<td>R R R R R</td>
</tr>
</tbody>
</table>

* DENOTES GREEN OR YELLOW ARROW Depending on Next Phase
** DENOTES GREEN OR YELLOW BALL Depending on Next Phase

PHASING DIAGRAM NOTE:
LEAD LAG LEFT TURN PHASING SHALL BE IMPLEMENTED FOR PHASES ONE AND FIVE, THREE AND SEVEN.
PHASES ONE AND FIVE, THREE AND SEVEN CANNOT RUN CONCURRENTLY.
TYPICAL WOOD POLE WITH LUMINAIRE ARM

NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

STAGE 2 TRAFFIC SIGNAL

LOCATION: HWY. 18/CARMAY RD.
CITY: JONESBORO
COUNTY: CRAWFORD

DATE: 10-04-19   FILE NAME: 6100035.01.dgn
TYPICAL WOOD POLE WITH LUMINAIRE ARM

NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

STAGE 3 TRAFFIC SIGNAL

LOCATION: HWY. 18/CARAWAY RD
CITY: JONESBORO
COUNTY: CNH (HEAD)
DISTRICT: 10
SCALE: 1"=40' DRAWN BY: ONE

EXIST. R/W

HWY. 18 (E. HIGHLAND DR.)

HWY. 18 (E. HIGHLAND DR.)

STAGE 3 TRAFFIC SIGNAL

LOCATION: HWY. 18/CARAWAY RD
CITY: JONESBORO
COUNTY: CNH (HEAD)
DISTRICT: 10
SCALE: 1"=40' DRAWN BY: ONE

EXIST. R/W
PHASING DIAGRAM NOTE:
LEAD LAG LEFT TURN PHASING SHALL BE IMPLEMENTED FOR PHASES ONE AND FIVE, THREE AND SEVEN. PHASES ONE AND FIVE, THREE AND SEVEN CANNOT RUN CONCURRENTLY.

POLE DIMENSIONS

<table>
<thead>
<tr>
<th>POLE</th>
<th>MAST ARM</th>
<th>*MAST ARM ANGLE</th>
<th>VERT. SHAFT</th>
<th>LUM. ARM</th>
<th>*LUM. ARM ANGLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>N/A</td>
<td>N/A</td>
<td>50'</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>B</td>
<td>N/A</td>
<td>N/A</td>
<td>5'</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>C</td>
<td>56'</td>
<td>180'</td>
<td>30'</td>
<td>15'</td>
<td>90'</td>
</tr>
<tr>
<td>D</td>
<td>N/A</td>
<td>N/A</td>
<td>6'</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>E</td>
<td>N/A</td>
<td>N/A</td>
<td>15'</td>
<td>N/A</td>
<td>90'</td>
</tr>
<tr>
<td>F</td>
<td>58'</td>
<td>180'</td>
<td>30'</td>
<td>15'</td>
<td>90'</td>
</tr>
<tr>
<td>G</td>
<td>N/A</td>
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<td>6'</td>
<td>N/A</td>
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*ANGLE MEASURED CLOCKWISE FROM HOLE.
NOTES TO CONTRACTOR:
1. ONE SEPARATE 1-5c. IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.
2. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL
   STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
PHASING DIAGRAM

NOTE:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISIONS "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 RAMP AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.

INTERVAL CHART

LOCATION HWY. 18/CARAWAY RD.

NOTE:
- LEAD LAG LEFT TURN PHASING SHALL BE IMPLEMENTED FOR PHASES ONE AND FIVE, THREE AND SEVEN.
- PHASES ONE AND FIVE, THREE AND SEVEN CANNOT RUN CONCURRENTLY.

CONTROLLER INPUT ABBREVIATIONS:

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

NOTE:
- *AMP CAN =" REFERS TO THE RACK OUTPUT POSITION WHICH IS PROGRAMMED TO ACTIVATE THE DESIGNATED PHASE.
CARAWAY RD.
STA. 205+46 TO STA. 205+90

- Stage 1:
  - Begin at Caraway Rd.
  - End at STA. 205+90

- Stage 2:
  - Begin at STA. 205+46
  - End at STA. 205+90

- Cut Area
  - STA. 205+46 to STA. 205+90
  - 4 SQ. FT.
  - 19 SQ. FT.

- Fill Area
  - STA. 205+46 to STA. 205+90
  - 3 SQ. FT.
  - 15 SQ. FT.

- Cut Volume
  - STA. 205+46 to STA. 205+90
  - 6 CU. YD.
  - 27 CU. YD.

- Fill Volume
  - STA. 205+46 to STA. 205+90
  - 5 CU. YD.
  - 17 CU. YD.

- Caraway Rd.
- STA. 205+46 to STA. 205+90

- 59' Existing Pavement

- Remove Outlet and Construct
  - 24" RCP Outlet
  - STA. 205+46 to STA. 205+90
  - 24" RCP Outlet
  - STA. 205+46 to STA. 205+90
### Cross Sections

#### STAGE 1

<table>
<thead>
<tr>
<th>STA 20-15</th>
<th>CONSTRUCT</th>
<th>DROP INLET ON LT.</th>
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<tr>
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<td>TYPE II MELT X 4 PA.</td>
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<td>CONSTRUCT</td>
<td>24&quot; SPCSS PIPE TYPE 2</td>
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| STA 20-15 | CONSTRUCT | 24" SPCSS PIPE TYPE 2 | 22 L.I.F. |
| STA 20-15 | CONSTRUCT | 24" SPCSS PIPE TYPE 2 | 22 L.I.F. |

#### STAGE 2

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#### STAGE 5

| STA 20-15 | CONSTRUCT | CONNECT TO JUNCTION BOX @ STA. 20-00 LT. |

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### Cut and Fill Areas

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### Cut and Fill Volumes

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### Notes

- Construct S.P.C.S.S. type 2 pipe | 22 L.I.F. |
- Construct S.P.C.S.S. type 2 pipe | 22 L.I.F. |

### Accessories

- Junction Box on LT. | 24" U.P. PIPE OUTLET |
- Junction Box on LT. | 24" U.P. PIPE OUTLET |
- Junction Box on LT. | 24" U.P. PIPE OUTLET |

---

### Construction

- Construct S.P.C.S.S. type 2 pipe | 22 L.I.F. |
- Construct S.P.C.S.S. type 2 pipe | 22 L.I.F. |

### Materials

- SPCSS PIPE (CLASS X) | 24" |
- SPCSS PIPE (CLASS X) | 24" |

---

### Specifications

- SPCSS PIPE (CLASS X) | 24" |
- SPCSS PIPE (CLASS X) | 24" |

### Annotations

- STA 213+75 CONSTRUCT | DROP INLET ON LT. |
- STA 213+75 CONSTRUCT | DROP INLET ON LT. |
- STA 213+75 CONSTRUCT | DROP INLET ON LT. |

### Figures

- STA 213+75 CONSTRUCT | DROP INLET ON LT. |
- STA 213+75 CONSTRUCT | DROP INLET ON LT. |
- STA 213+75 CONSTRUCT | DROP INLET ON LT. |

### Details

- STA 213+75 CONSTRUCT | DROP INLET ON LT. |
- STA 213+75 CONSTRUCT | DROP INLET ON LT. |
- STA 213+75 CONSTRUCT | DROP INLET ON LT. |

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### References

- SPCSS PIPE (CLASS X) | 24" |
- SPCSS PIPE (CLASS X) | 24" |

### Credits

- CARAWAY RD. |
  STA 213+00 to STA 213+75
CONCRETE COMBINATION CURB AND GUTTER

DETAIL OF GUTTER SLOPE
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.

ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB

NOTICE: MODIFIED CURB AS SPECIFIED ON STD. OR L. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED PART OF THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

CONCRETE CURB
PLAN VIEW

"TRANSITION FROM A "B" TO A "D" TYPE "C" CURB FACE IN THE CURB FACE TO THE FRONT SIDE OF THE CONCRETE ISLAND IN THIS LENGTH"  

ISOMETRIC VIEW

TYPE "B" CURB FACE (TYPICAL, ALL SIDES)

REFERENCES

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVeways & ISLANDS

STANDARD DRAWING DR-I
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ARCH PIPE

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NOTE: THE SPAN AND RISE SHALL NOT VARY MORE THAN ± 1% FROM THE VALUES SPECIFIED BY AASHO W 296.

END VIEW

CONCRETE ARCH PIPE

END VIEW

FLARED END SECTION

STANDARD DRAWING FES-2
SECTION

METHOD

OF EXISTING R.C.

OF

CONSTRUCTING

SECTION

DROP INLET (TYPE E)

Heavy Duty Ring & Cover

JUNCTION BOX (TYPE E)

DETAIL OF

STEP FOR DROP INLET

APPROVED SIZE = 4" B. CAST IRON

PLAN

NOTES: ALL DETAILS TO BE REVIEWED BY ENGINEER.

SECTION A-A

SECTION B-B

GENERAL NOTES:

ARIZONA STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

STANDARD DRAWING FPC-10

NOTE: BARS TO BE 4" BARS ON 12" C.T. WITH 3" W.M.

NOTE: HEAD BARS TO BE USED WHERE NOT SUBJECT TO TRAFFIC.

NOTE: BARS TO BE 4" BARS ON 6" C.T. WITH 3" W.M.

NOTE: HEAD BARS TO BE USED WHERE NOT SUBJECT TO TRAFFIC.

NOTE: BARS TO BE 4" BARS ON 6" C.T. WITH 3" W.M.

NOTE: HEAD BARS TO BE USED WHERE NOT SUBJECT TO TRAFFIC.

METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

NOTE: "D" BARS AND REINFORCING BAR SIZES SHALL CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.
HEAVY DUTY RING & COVER

1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL MEET THE REQUIREMENTS OF THE STANDARD CLASS FOR A CAST IRON MOLD.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.

DETAIL OF NOTCH FOR SIDEWALKS

TAPERED—not less than 1/2" in 4" for single extension used

NOTE FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

SECTION A-A

SECTION B-B

DETAIL OF STEP FOR DROP INLET

NOTICE TO DRAWER—NOT TO SCALE

SECTION C-C

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET (TYPE MD)

STANDARD DRAWING FPC-9M
NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE MIRTH.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

4. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

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**NOTES FOR PIPE UNDERDRAINS**

1. Geotextile fabric shall meet the requirements of Section 625 for Type I. Payment for geotextile fabric and granular filter material shall be included in the price bid per unit, per for "pipe underdrains" in accordance with Section 605 of the standard specifications.

2. 4" non-perforated Schedule 40 PVC pipe laterals with outlet protectors shall be installed at 24 inch lateral to be measured and paid for by 4" pipe underdrains. Underdrain outlet protectors will be measured and paid for by the unit in accordance with Section 605 of the standard specifications.

3. The location of all laterals shall be marked with a 4" x 2" permanent pavement marking tape (Type C) at the outside edge of the shoulder, placed transverse to traffic. Payment for this work shall be included in the price bid for the various contract items.

4. Any existing underdrains that interfere with installation of the new underdrain system shall be removed and disposed of as directed by the engineer. Payment will be included in the price bid for each for "pipe underdrains.

5. Existing 4" pipe underdrains may be connected to proposed inlet lines or extended where directed by the engineer. Payment for connecting to drop inlets shall be considered included in the price bid for 4" pipe underdrains.

6. Where necessary, geotextile fabric shall be installed along lateral with outlet protectors where directed by the engineer. Payment for this work shall be included in the price bid for the various contract items.

7. At locations where a single lateral is used the contractor shall have the following options: install outlet protector as shown on standard drawing P4-14, or install the unlined hole or E, install an outlet protector with a single hole.

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**DETAILS OF PIPE UNDERDRAIN**

- **Underdrain Cover** (required)
- **Granular Material**
- **Geotextile Fabric**
- **Drain Pipe**
- **Underdrain Outlet Protectors**
- **4" pipe underdrain**
- **Detail of hole for 4" pipe**
- **Front view (detail of rodent screen)**
- **Plan view**

**UNDERDRAIN OUTLET PROTECTORS**

- **4" pipe underdrain**
- **4" pipe lateral**
- **Glued connection (typical)**
- **Non-perforated pipe**
- **Outlet of various sizes**

**DETAILS OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE**

- **Flow**
- **4" pipe underdrain**
- **4" pipe lateral**
- **Pipe schedule 40 long sweep 90° elbow or equal (typical)**
- **25° normal**
- **Underdrain outlet protectors**
- **Flow**

**ARKANSAS STATE HIGHWAY COMMISSION**

**STANDARD DRAWING PU-1**

**DATE**

**REVISION**

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**Comments**: This document provides detailed specifications for underdrain systems, including the installation of geotextile fabric, granular filter material, and underdrain outlet protectors. It outlines the necessary components and procedures to ensure proper drainage and protection of underlying soil layers. The diagrams illustrate the various views and details necessary for the installation of underdrains along with the pavement edge.
MINIMUM STRUCTURAL REQUIREMENTS:


Use fatigue category II.


Base wind speed: 90 MPH.

Steel members considered may be considered members with a thickness greater than 1/4" shall meet the longitudinal Charpy V-notch test specified in subsection B(6) of the standard specifications.

The ground rod shall be fusion welded to a 6"- formations of copper ground wire. Attachment to the primary ground may be by an approved clamp. The rod is to be located in the concrete pull box for separately shown on the plans.

ANTENNA POLE

Anchor base

Electrical conduit:

Service ground

Connection to ground lug on pole and other EGC. Conductors 1/8" MC with 4/0 AWG.

Concrete pull box

Ground rod shall be fusion welded to an IBC 8 AWG copper ground wire.

Attachment to the primary ground may be by an approved clamp. The rod is to be located in the concrete pull box for separately shown on the plans.

TYPICAL FOUNDATION DETAILS

Foundation minimum dimensions and steel reinforcing.

<table>
<thead>
<tr>
<th>Pole Weight</th>
<th>Foundation Diameter</th>
<th>Depth</th>
<th>Vertical</th>
<th>Horizontal Tie Spacing</th>
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<tbody>
<tr>
<td>25,000</td>
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<td>6'</td>
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<td>30&quot;</td>
<td>6'</td>
<td>12'-0&quot;</td>
<td></td>
</tr>
</tbody>
</table>

All concrete shall be cast "S" with a minimum 28-day compressive strength. Finish of all concrete shall be finished in the dry and all exposed concrete shall be chamfered 1/4" unless noted otherwise.

All reinforcing steel shall conform to ASTM A615 or bolt grade 40 yield strength-50 ksi. Provide 3" clean ties. Detail 3" to first tie at top of shaft.
NOTE:

1. RIGHT HAND SLIDE ASSEMBLY, LEFT SLIDE ASSEMBLY.
2. FRAME DETAILS TO BE DETERMINED BY USER AND CONTAINER (F) RIGHT HAND SLIDE ASSEMBLY, (L) LEFT HAND SLIDE ASSEMBLY. Hinges and fasteners necessary to fasten slide assembly to undersides of controller shelf shall be specified.

CONTROLLER CABINET
UTILITY DRAWER

FRONT VIEW

DRAWER PLAN VIEW

RIGHT SIDE ASSEMBLY
CONDUIT ENTRY TO EXISTING POLE BASE

150° GALVANIZED STEEL CONDUIT

EXISTING CONDUIT

GROUND ROD

CHIP OUT, REGROUT

ANCHOR BASE

ELECTRICAL CONDUIT

E.G.C. BONDED TO GROUND LUG ON POLE AND OTHER E.G.C. CONDUCTORS

TRAFFIC SIGNAL CONCRETE PULL BOX

CONDUIT ENTRY TO EXISTING
CONTROLLER CABINET

EXIST. CONTROLLER CABINET

E.G.C. AS SHOWN ON PLANS

TYPE "HD" CONCRETE PULL BOX DETAIL

NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

TYPE "S" CONCRETE
CONCRETE PULL BOX

EARTH

ROADWAY SURFACE

REINF. BARS

ELEVATION

12" MIN.

CONCRETE PULL BOX

12" MIN.

NOTE:
ALL REINFORCING BARS TO BE GRADE 60

NOTE:
ALL TYPE 1 AND TYPE 2 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 2" WIDE AND 1" IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE.

NOTE:
THE CONCRETE PULL BOX SHALL BE FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S" THREE-AS REINFORCING BARS IN THE APRON ON ALL SIDES OF THE CONCRETE PULL BOX IS REQUIRED IN CONCRETE.
NOTE: WHERE LEFT TURN HEAD (HEAD 1 ON DI AND D2) IS NOT CALLED FOR ON TURN LANE APPROACH LANE, SIGNALS SHALL STILL BE ALIGNED WITH THROUGH LINES AS SHOWN ON DETAILS.

GENERAL NOTES:

1. 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.

2. THREE SECTION "PROTECTED" LEFT TURN HEADS SHOULD BE PLACED ON THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

3. WHEN IT IS NEEDED TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEET 31, RESULTING IN WAVE ARM EXTENDING MORE THAN TWO FEET PAST 1' TO THE LEFT OF THE CENTERLINE OF THE APPROACHING LEFT TURN LANE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE WAVE ARM IF ADDITIONAL COMPENSATION IS REQUIRED.

4. SIGNS, HEAD SPACING SHALL, IN NO CASE, BE LESS THAN EIGHT (8') FEET BETWEEN HEADS ON CENTER, MEASURED HORIZONTALLY PERPENDICULAR TO THE APPROACH.

5. ALL SIGNALS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROACH SIDE OF THE INTERSECTION.

6. MAXIMUM MOUNTING HEIGHT OF SIGNAL HEADS LOCATED BETWEEN 40 FEET AND 53 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 40-5 OF 2009 MUTCD.
DETAILS OF CONCRETE STEPS & WALKS

GENERAL NOTES
1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARYING AS DIRECTED BY THE ENGINEER. HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISE DIMENSIONS.
2. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

DETAILS OF ALTERNATE POST ANCHOR SYSTEM
(EPoxy ADHESIVE ANCHORS)

HAND RAILING DETAILS

REINFORCED CONCRETE SPRING BOX

STEEL SCHEDULE

<table>
<thead>
<tr>
<th>BARS</th>
<th>NUMBER</th>
<th>LENGTH</th>
<th>SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot;</td>
<td>12</td>
<td>6'-0&quot;</td>
<td>4'-0&quot;</td>
</tr>
<tr>
<td>&quot;B&quot;</td>
<td>20</td>
<td>9'-0&quot;</td>
<td>4'-0&quot;</td>
</tr>
<tr>
<td>&quot;C&quot;</td>
<td>4</td>
<td>3'-0&quot;</td>
<td>3'-0&quot;</td>
</tr>
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</table>

ALL STEEL TO BE 413 BARS

CONCRETE 3:1:6 YLD. REINFORCING STEEL 60 LBS.

REINFORCED CONCRETE SPRING BOX

NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 1'-0".

BASE PLATE

POST CONNECTION DETAILS

DETAILS OF HAND RAILING SET IN CONCRETE

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF SPECIAL ITEMS

STANDARD DRAWING SI-1
CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE
1. Place perimeter controls (e.g., Silt fences, diversion ditches, sediment bagging, etc.).
2. Perform clearing and grubbing operation.

EXCAVATION

EXISTING GROUND
INTERCEPTOR OR DIVERSION DITCH
EXISTING GROUND

NOTE: NUMBER OF PHASES WILL VARY, TYPES SHOWN FOR ILLUSTRATION

GENERAL NOTE
ALL CUT SLOPES SHALL BE DUG, PREPARED, BAGGED, AND MULCHED AS THE WORK PROGRESS. SLOPES SHALL BE STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE
1. Excavate and stabilize interceptor and/or diversion ditches.
2. Perform Phase 1 excavation, place permanent or temporary seeding.
3. Perform Phase 2 excavation, place permanent or temporary seeding.
4. Perform final Phase of excavation, place permanent or temporary seeding, stabilize, etc.

EMBANKMENT

DIVERSION DITCH TO BE IN PLACE UNTIL SLOPE IS COMPLETELY STABILIZED.

GENERAL NOTE
ALL EMBANKMENT SLOPES SHALL BE DUG, PREPARED, BAGGED, AND MULCHED AS THE WORK PROGRESS. SLOPES SHALL BE STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE
1. Construct diversion ditches, ditch checks, sediment bagging, Silt fences, or other erosion control devices as specified.
2. Place Phase 1 embankment with permanent or temporary seeding.
3. Place Phase 2 embankment with permanent or temporary seeding.
4. Place final Phase of embankment with permanent or temporary seeding.

ARKANSAS STATE HIGHWAY COMMISSION
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3