# TRANSPORTATION MANAGEMENT PLAN

# **BURKE COUNTY**

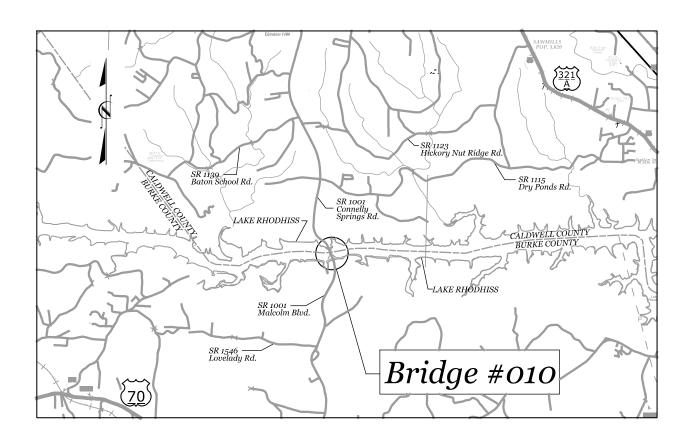
# **DIVISION** 13

LOCATION:

BURKE COUNTY: BRIDGE #010 ON MALCOLM BLVD./CONNELLY SPRINGS RD. (SR 1001) OVER RHODHISS LAKE

TYPE OF WORK:

TRAFFIC MANAGEMENT FOR BRIDGE PRESERVATION



# INDEX OF SHEETS

SHEET NO.

TITLE

TMP-1

TITLE SHEET, INDEX OF SHEETS, VICINITY MAP & TRAFFIC MANAGEMENT STRATEGY

TMP-2

LIST OF ROADWAY STANDARD DRAWINGS, TRAFFIC CONTROL PHASING, LEGEND & GENERAL NOTES

TMP-3

BRIDGE NO. 010 TYPICAL SECTIONS

TMP-4

ROADWAY STD. 1101.01 SHEET 3 OF 3

TMP-5

ROADWAY STD. 1101.02 SHEET 1 OF 14

QUANTITIES

TMP-6

# TIP PROJECT: 41665.5

TMP-1

# TRAFFIC MANAGEMENT STRATEGY

WORK ON BRIDGE NO. 010 WILL BE PERFORMED USING TEMPORARY LANE CLOSURES.



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 814-5000 FAX: (919) 771-2745

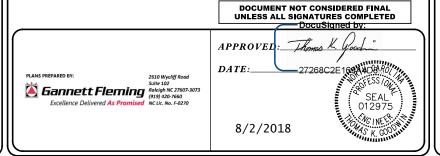
 $\underline{\text{J. E. Hummer, PhD, PE}} \hspace{0.2cm} \textit{STATE} \hspace{0.2cm} \textit{TRAFFIC} \hspace{0.2cm} \textit{MANAGEMENT} \hspace{0.2cm} \textit{ENGINEER}$ 

Tom Goodwin, P.E. TRAFFIC CONTROL PROJECT ENGINEER

Angel Pridgen, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER

TRAFFIC CONTROL DESIGN ENGINEER





THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C.. DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

### STD. NO.

### TITLE

1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1135.01	CONES
1150.01	FLAGGERS

## **LEGEND**

### GENERAL

DIRECTION OF TRAFFIC FLOW

---- EXIST. PVMT.

→ NORTH ARROW

PROPOSED PVMT.

WORK AREA

### TRAFFIC CONTROL DEVICES

CONE

\_\_\_ FLAGGER

TEMPORARY SIGNING

PORTABLE SIGN

STATIONARY SIGN

### **PHASING**

BURKE CO. BRIDGE #010

INSTALL ADVANCE WARNING SIGNS USING ROADWAY STANDARD DRAWING NO. 1101.01 AS SHOWN ON SHEET TMP-4.

PERFORM BRIDGE PRESERVATION USING NIGHTLY LANE CLOSURES USING ROADWAY STANDARD DRAWING NO. 1101.02 AS SHOWN ON SHEET TMP-5 AND TYPICAL SECTIONS SHOWN ON SHEET TMP-3.

TMP-2 41665.5D

### GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

DAY AND TIME RESTRICTIONS

SR 1001 6:00 AM TO 7:00 PM ANY DAY

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

ALL ROADS

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 9:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

### TRAFFIC PATTERN ALTERATIONS

I) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY

### SIGNING

- INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY

### PAVEMENT MARKINGS AND MARKERS

L) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING



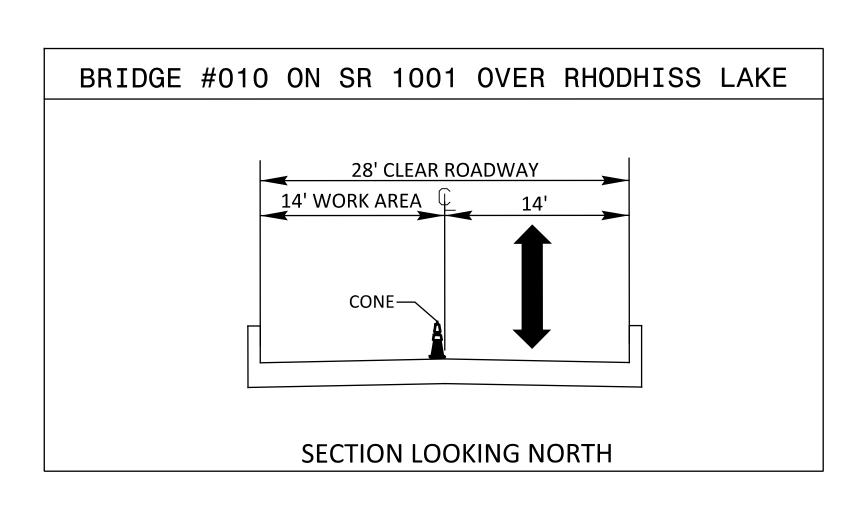
ROADWAY STANDARD DRAWINGS, LEGEND, TRAFFIC CONTROL PHASING & **GENERAL NOTES** 

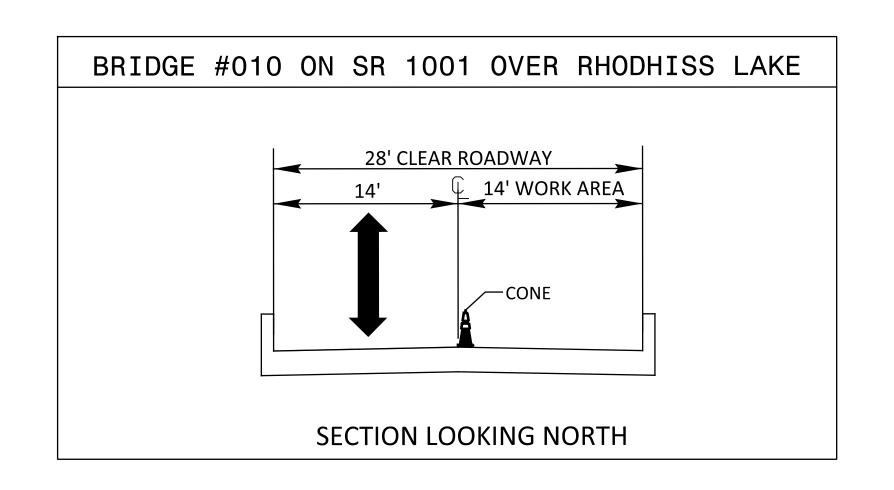
Gannett Fleming

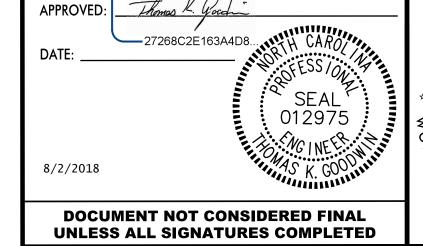
[919] 420-7660 Excellence Delivered As Promised NC Lic. No. F-0270

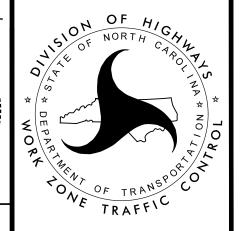
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJ. REFERENCE NO.	SHEET NO.
41665.5D	TMP-3



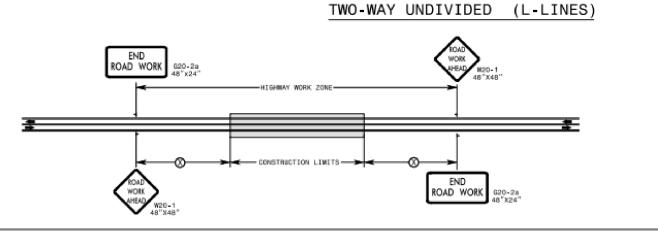






BRIDGE TYPICAL SECTIONS

PROJ. REFERENCE NO. 41665.5D TMP-4



RECOMMENDED MINIMUM SIGN SPACING POSTED SPEED LIMIT ⊗ 500' 1000"

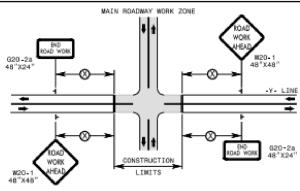
1-18 STATE OF
NORTH CAROLINA
DEPT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

FOR

WORK ZONE ADVANCE WARNING SIGNS TWO-WAY UNDIVIDED FACILITIES

ROADWAY STANDARD DRAWING FOR

ROADWAYS INTERSECTING ALONG TWO-WAY UNDIVIDED WORK ZONE (Y-LINES)



MO STATIONARY -Y. LINE ADVANCE WARNING SIGNAGE IS REQUIRED UNLESS THERE IS MORE THAN 1000' OF CONSTRUCTION ALONG THE -Y- LINE.

### **GENERAL NOTES**

- 1- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK
- 2- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT LONGER THAN 3 CONSECUTIVE DAYS.
- 3- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- 4- ERECT SIGNS PER RSD 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATIONS FOR WORK ZONE SIGNS.
- 5- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH RSD. 1110.01.
- 6- DO NOT BACK BRACE SIGN SUPPORTS.

LEGEND

F STATIONARY SIGN

DIRECTION OF TRAFFIC FLOW

SHEET 3 OF 3 1101.01

PLANS PREPARED BY:

2610 Wycliff Road
Suite 102

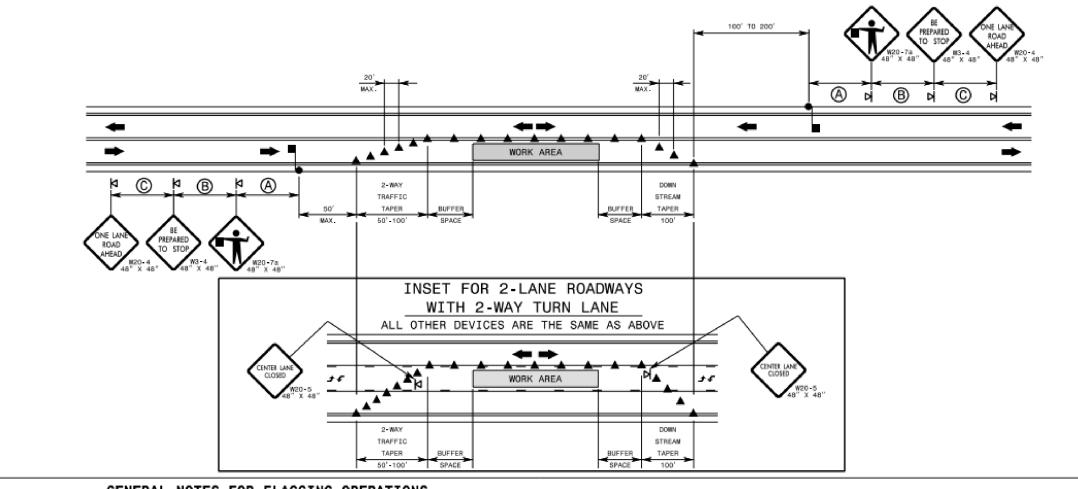
Raleigh NC 27607-307

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ROADWAY STD. 1101.01 SHEET 3 OF 3



### GENERAL NOTES FOR FLAGGING OPERATIONS

- REFER TO RSD. 1101.11, SHEETS 1 & 4, FOR "L" DISTANCE AND SIGN SPACING.
- 2- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
- 3- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- PLACE CONES THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 5- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER (REFER TO RSD. 1101.11, SHEET 2).
- 6- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
- 7- DRUMS OR SKINNY DRUMS MAY BE USED IN LIEU OF CONES. REFER TO RSD. 1180.01 FOR SKINNY DRUM REQUIREMENTS.
- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE. SUPPLEMENT FLAGGERS LOCATED AT INTERSECTIONS WITH FLAGGER AHEAD SIGNS (W20-7a) PLACED APPROXIMATELY 250 FT IN ADVANCE OF THE FLAGGER FOR SIGNALIZED INTERSECTIONS PLACE SIGNALS IN THE FLASH MODE AND USE LAW ENFORCEMENT.
- 9- REFER TO THE CURRENT MUTCD FOR FLAGGER CONTROL, REQUIREMENTS, AND PROCEDURES.
- DO NOT EXCEED A 1 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER. 10-

11- IF VEHICLE QUEUES WILL REACH WITHIN 15' OF EITHER SIDE OF ACTIVE RAILROAD TRACKS, PROVIDE A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER TO PREVENT VEHICLES FROM' STOPPING WITHIN THE GRADE CROSSING. PROVIDE OFFICER OR FLAGGER EVEN IF AUTOMATIC WARNING MEASURES ALREADY EXIST.

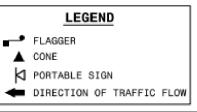
### GENERAL NOTES FOR PILOT CAR OPERATIONS

- 1- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.
- 2- IF ROADWAY WIDTH IS LESS THAN 22 FEET (EOP TO EOP), CONES MAY NOT BE REQUIRED ALONG WORK AREA, AND AT THE DISCRETION OF THE ENGINEER, CONES MAY BE OMITTED ALONG THE WORK AREA IF USING A PILOT CAR.
- 3- CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.
- 4- MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A CONSPICUOUS POSITION ON THE REAR OF THE PILOT VEHICLE.

APPROVED

8/2/2018

- 5 DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- 6- ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING FLAGGING AND PILOT CAR OPERATIONS.



CLOSED CLOSURES DRAWING \_ ROADWAY LANE ANDARD TEMPORARY ST ROADWAY Ø LANE

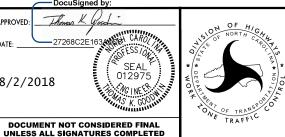
1-18 STATE OF
NORTH CAROLINA
DEPT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

-18

SHEET 1 OF 14 1101.02

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Gannett Fleming (919) 420-7660 Excellence Delivered As Promised NC Lic. No. F-0270

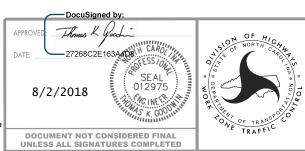


ROADWAY STD. 1101.02

PROJ. REFERENCE NO.	SHEET NO.	
41665.5D	TMP-6	

COUNTY	BRIDGE	ROUTE	BRIDGE LENGTH (LF)	CLEAR ROADWAY WIDTH (LF)	LENGTH OF APPROACH (FT)	FLAGGER (DAY)
BURKE	10	SR 1001	910	28	100	30
COUNTY	BRIDGE	ROUTE	CONES (EA)	WORK ZONE SIGNS (PORTABLE) (SF)	WORK ZONE SIGNS (STATIONARY) (SF)	PORTABLE LIGHTING (LS)
BURKE	10	SR 1001	39	96	48	1





QUANTITIES