

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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| STATE PROJECT REFERENCE NO. | SHEET NO. |
| W-4712 | TCP-1 |

**PLAN FOR PROPOSED
TRAFFIC CONTROL, MARKING & DELINEATION
LINCOLN COUNTY**

W-4712

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE |
|----------|---|
| 1101.01 | WORKZONE WARNING SIGNS |
| 1101.02 | TEMPORARY LANE CLOSURES |
| 1101.03 | TEMPORARY ROAD CLOSURES |
| 1101.04 | TEMPORARY SHOULDER CLOSURES |
| 1101.05 | WORK ZONE VEHICLE ACCESSES |
| 1101.06 | WARNING SIGNS FOR BLASTING ZONES |
| 1101.11 | TRAFFIC CONTROL DESIGN TABLES |
| 1110.01 | STATIONARY WORK ZONE SIGNS |
| 1110.02 | PORTABLE WORK ZONE SIGNS |
| 1115.01 | FLASHING ARROW PANELS |
| 1130.01 | DRUMS |
| 1135.01 | CONES |
| 1145.01 | BARRICADES |
| 1150.01 | FLAGGING DEVICES |
| 1160.01 | TEMPORARY CRASH CUSHION |
| 1165.01 | TRUCK MOUNTED IMPACT ATTENUATOR |
| 1170.01 | PORTABLE CONCRETE BARRIER |
| 1180.01 | SKINNY-DRUM |
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES & OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS |
| 1205.03 | PAVEMENT MARKINGS - INTERCHANGES |
| 1205.04 | PAVEMENT MARKINGS - INTERSECTIONS |
| 1205.05 | PAVEMENT MARKINGS - TURN LANES |
| 1205.06 | PAVEMENT MARKINGS - THRU LANE DROPS |
| 1205.07 | PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS |
| 1205.08 | PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES |
| 1205.09 | PAVEMENT MARKINGS - PAINTED ISLANDS |
| 1205.10 | PAVEMENT MARKINGS - SCHOOL AREAS |
| 1205.11 | PAVEMENT MARKINGS - RAILROAD CROSSINGS |
| 1205.12 | PAVEMENT MARKINGS - BRIDGES |
| 1250.01 | PAVEMENT MARKER SPACING |
| 1251.01 | RAISED PAVEMENT MARKERS - (TEMPORARY & PERMANENT) |
| 1253.01 | SNOWPLOWABLE RAISED PAVEMENT MARKERS |
| 1261.01 | GUARDRAIL & BARRIER DELINEATOR SPACING |
| 1261.02 | GUARDRAIL & BARRIER DELINEATOR TYPES |
| 1262.01 | GUARDRAIL END DELINEATION |
| 1264.01 | OBJECT MARKERS |
| 1264.02 | PLACEMENT OF OBJECT MARKERS |
| 1267.01 | FLEXIBLE DELINEATOR INSTALLATION |
| 1267.02 | FLEXIBLE DELINEATOR SPACING |
| 1267.03 | FLEXIBLE DELINEATOR - INTERCHANGES |

INDEX OF SHEETS

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| TCP-2 | PROJECT NOTES |
| TCP-3 | OMIT |
| TCP-4 | OFFSITE DETOUR |
| TCP-5 | ALTERNATE ROUTE PLAN |
| PM-1 | PAVEMENT MARKING SCHEDULE |
| PM-2 THRU PM-5 | FINAL PAVEMENT MARKING PLAN |

TEMP. PAV'T. MARKING SCHEDULE

| SYMBOL | DESCRIPTION | QUANTITY | PAY ITEM | TOTAL |
|--------|------------------------------|----------|----------|----------|
| PA | WHITE EDGELINE 1X | 500 LF | 2X | 1,000 LF |
| PI | YELLOW DOUBLE CENTER LINE 1X | 500 LF | 2X | 1,000 LF |
| | | | | 2,000 LF |

NOTE: FOR EACH PAINT PAVEMENT MARKING ITEM, 1X IMPLIES A SINGLE APPLICATION, 2X IMPLIES TWO APPLICATIONS, AND 3X IMPLIES THREE APPLICATIONS.

LEGEND

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
 - NORTH ARROW
 - PROPOSED PVMT. EXIST. PVMT.
 - WORK AREA
 - REMOVAL OF EXISTING PAVEMENT

- TRAFFIC CONTROL DEVICES**
- TYPE I BARRICADE
 - TYPE II BARRICADE
 - TYPE III BARRICADE
 - CONE
 - DRUM SKINNY DRUM
 - FLASHING ARROW PANEL (TYPE C)
 - STATIONARY SIGN
 - PORTABLE SIGN
 - STATIONARY OR PORTABLE SIGN
 - CRASH CUSHION
 - CHANGEABLE MESSAGE SIGN
 - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
 - POLICE
 - FLAGGER

- PAVEMENT MARKINGS**
- CRYSTAL/CRYSTAL PAVEMENT MARKER
 - YELLOW/YELLOW PAVEMENT MARKER
 - CRYSTAL/RED PAVEMENT MARKER
 - PAVEMENT MARKING SYMBOLS

TIP PROJECT

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| | |
|----------------|--|
| APPROVED: | PLAN PREPARED BY: N.C.D.O.T. DDC UNIT |
| DATE: 12/20/11 | |
| SEAL | _____ TRAFFIC CONTROL ENGINEER |
| | _____ TRAFFIC CONTROL PROJECT ENGINEER |
| | _____ TRAFFIC CONTROL PROJECT DESIGN ENGINEER |
| | _____ TRAFFIC CONTROL DESIGN ENGINEER / TECHNICIAN |

PROJECT NOTES

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 UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

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 DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

NC 27, NC 150, SR 1321, SR 1354, SR 1650, SR 1689, & SR 1746

HOLIDAY

1. 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 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 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 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- B) 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.
- C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN 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.
- D) 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 BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 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 BARRIER OR GUARDRAIL.

- E) 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.
- F) 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.
- G) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON NC 27.

PAVEMENT EDGE DROP OFF REQUIREMENTS

H) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

I) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FT. IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

J) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

K) 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.

L) PROVIDE PERMANENT SIGNING.

M) PROVIDE DETOUR SIGNING WITHIN AND OFF THE PROJECT LIMITS.

N) COVER OR REMOVE ALL DETOUR SIGNS WITHIN AND OFF THE PROJECT LIMITS WHEN A DETOUR IS NOT IN OPERATION.

O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 200 FT. IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

Q) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.

R) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

S) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

| ROAD NAME | MARKING | MARKER |
|-----------|---------------|--------------|
| ALL ROADS | THERMOPLASTIC | SNOWPLOWABLE |

T) INSTALL TEMPORARY PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE INTERMEDIATE SURFACE AS DIRECTED:

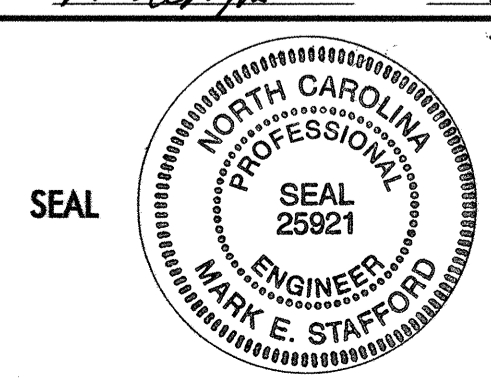

| ROAD NAME | MARKING | MARKER |
|-----------|---------|------------------|
| ALL ROADS | PAINT | TEMPORARY RAISED |

U) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

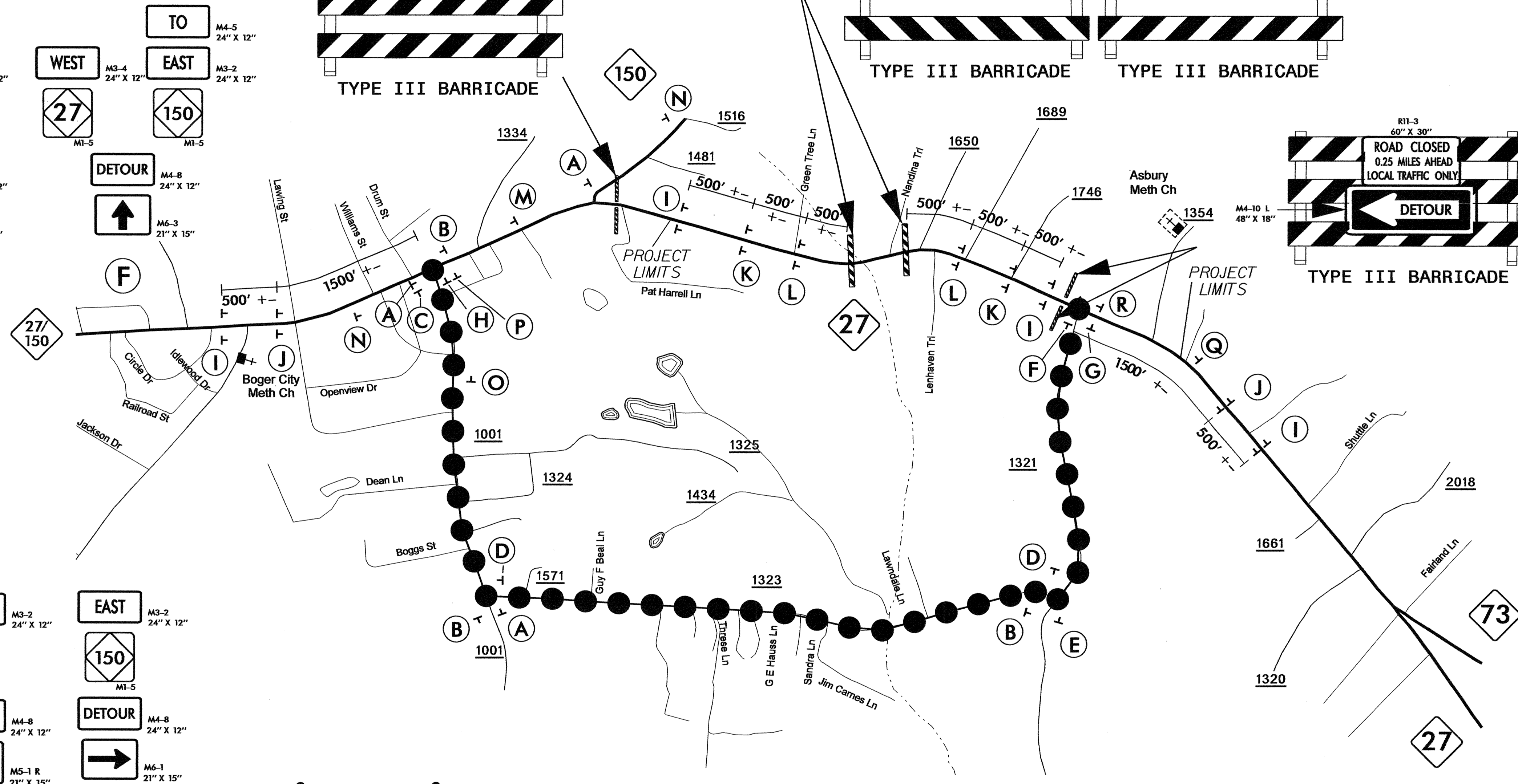
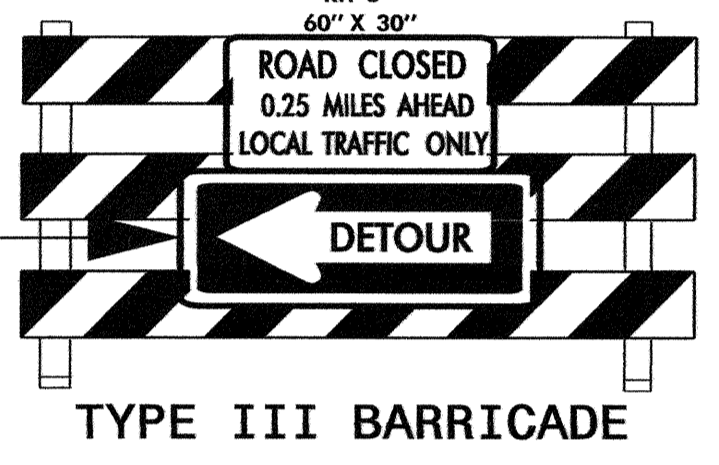
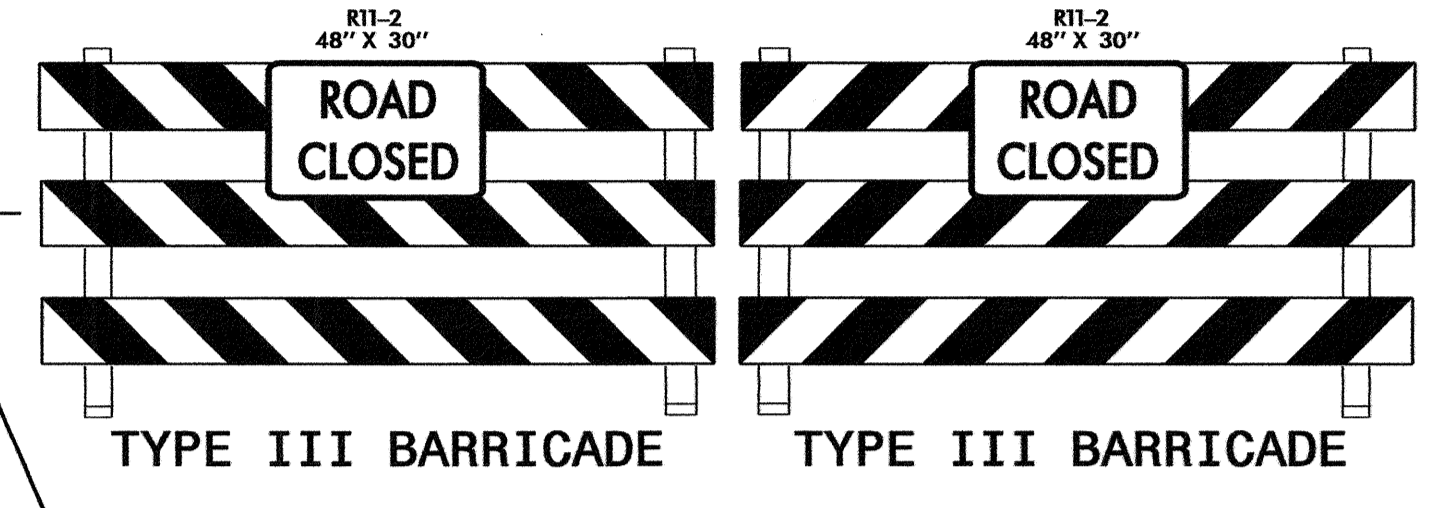
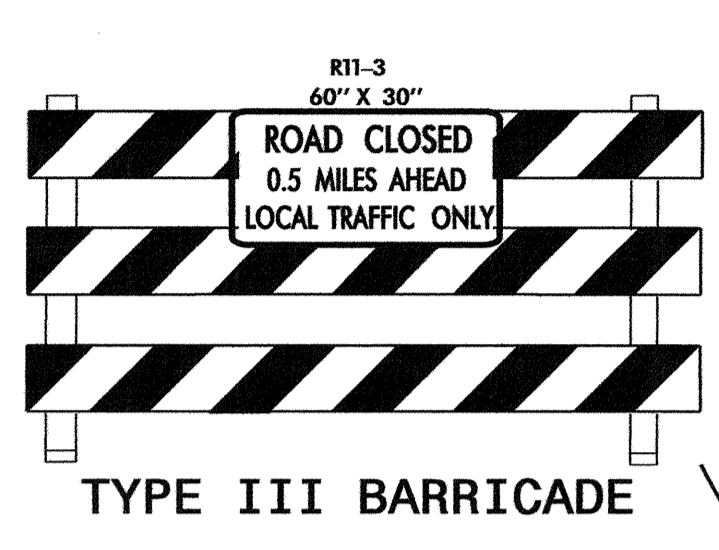
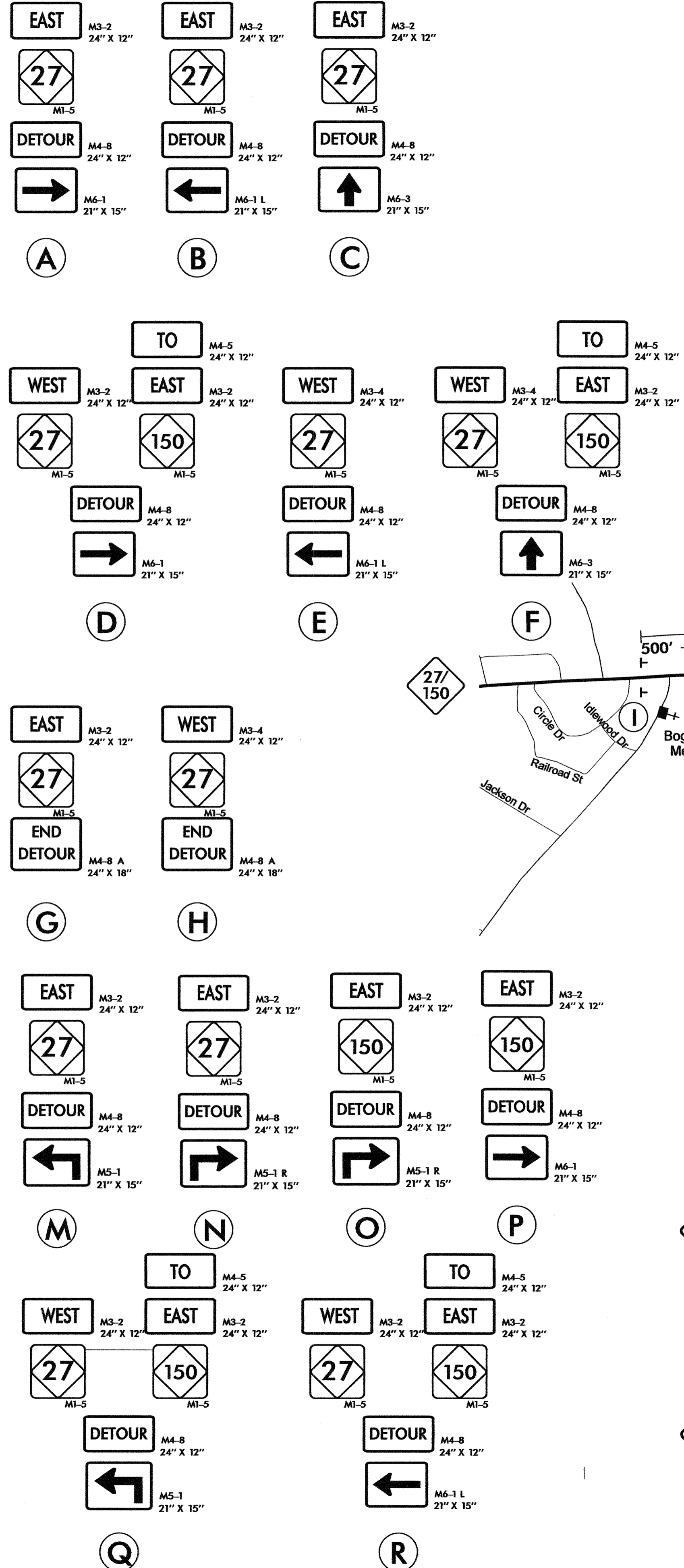
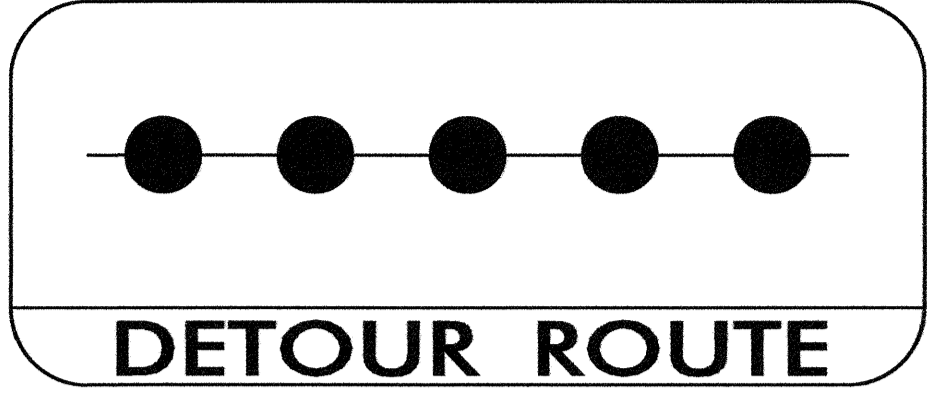
V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

W) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

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 \$\$\$USERNAME\$\$\$

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|---|----------------|---|-----------|
| APPROVED: <i>Mark E. Stafford</i> | DATE: 10-10-11 | PROJECT NOTES | |
|  | SCALE: NONE |  | REVISIONS |
| | DATE: 07-09 | | |
| | DESIGN BY: BKS | | |
| | REVIEWED BY: | | |

DETOUR



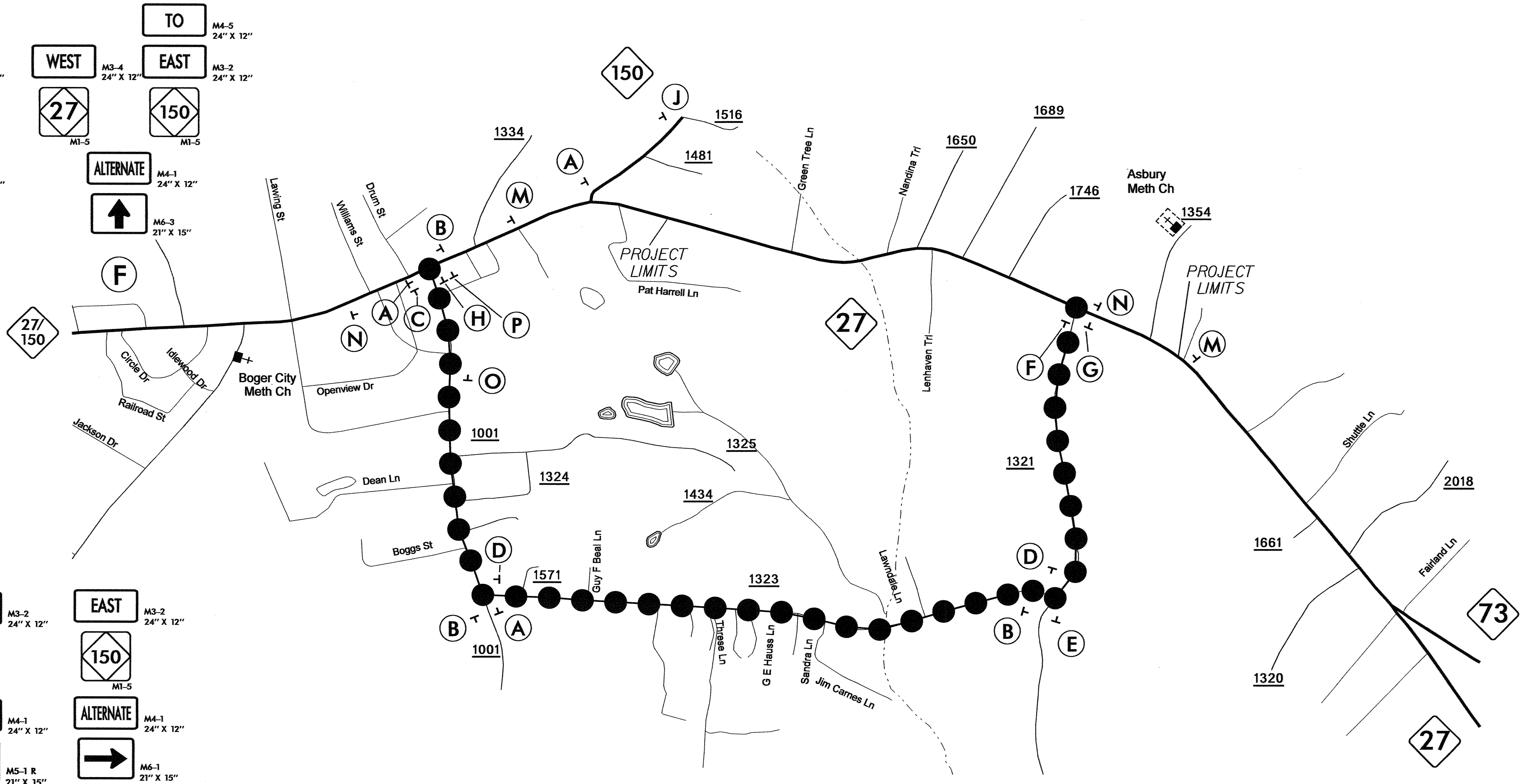
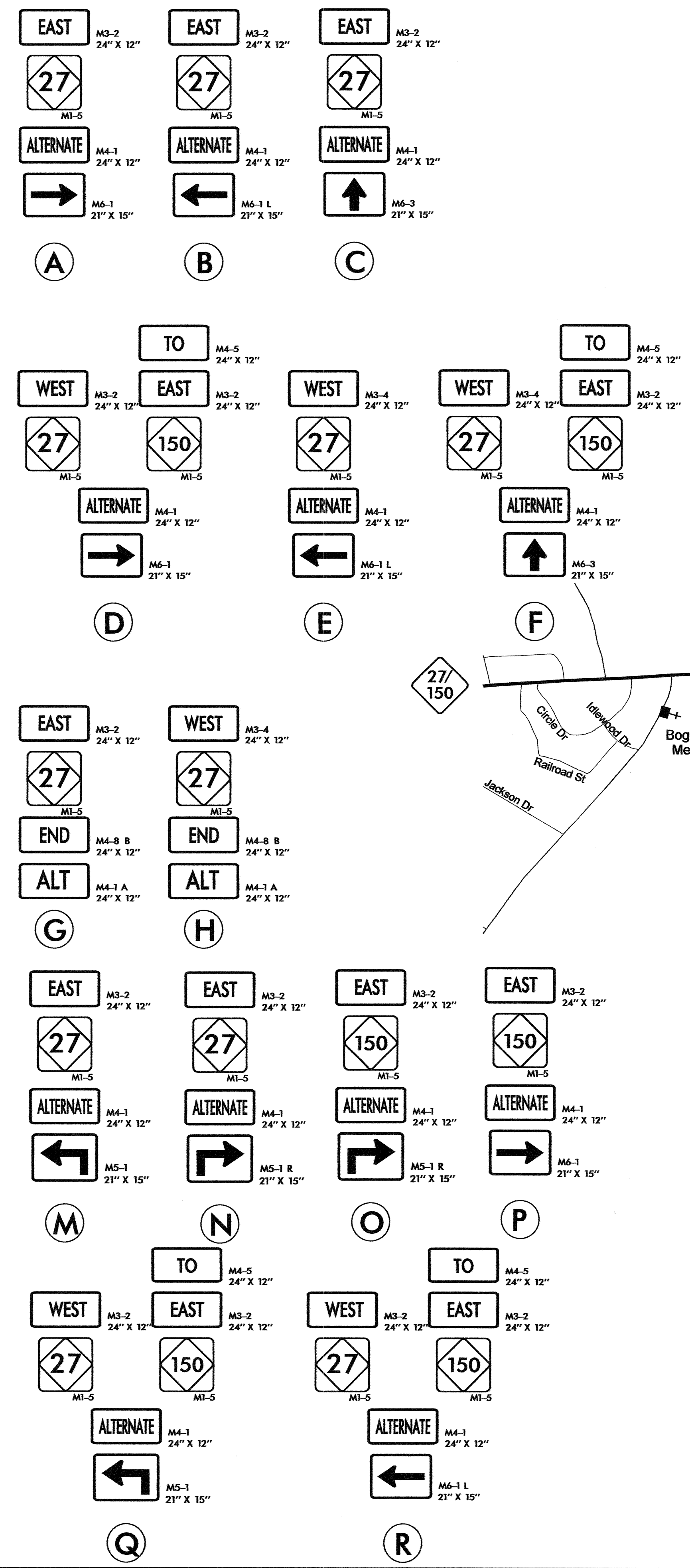
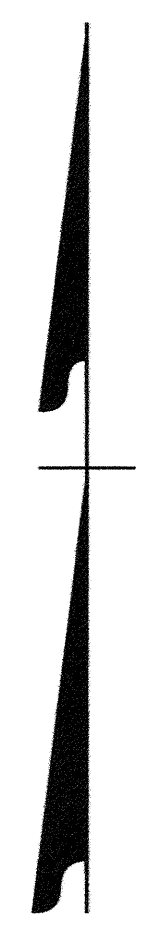
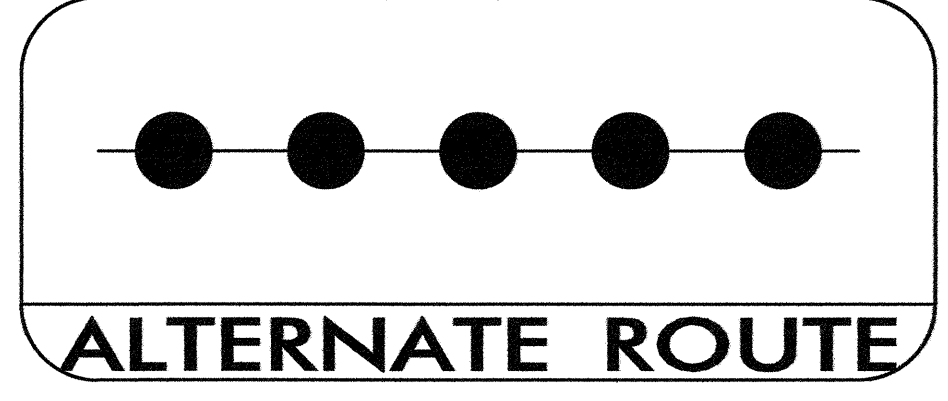
APPROVED: *Mark E. Stafford* DATE: 10/10/11

SEAL:

| DETOUR PLAN | | REVISIONS | |
|--------------|---------|-----------|--|
| SCALE: | NONE | | |
| DATE: | 01 - 22 | | |
| DWG. BY: | BKS | | |
| DESIGN BY: | REH | | |
| REVIEWED BY: | SCN | | |

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ALTERNATE ROUTE



*NOTE: WHEN DETOUR IS ENDED REMOVE DETOUR SIGNS (M4-8) FROM SIGN ASSEMBLIES AND REPLACE WITH ALTERNATE SIGN (M4-1).
 ON SIGN ASSEMBLIES G & H REMOVE END DETOUR SIGN (M4-8A) AND REPLACE WITH END (M4-8B) AND ALT (M4-1A).
 PAYMENT WILL BE MADE FOR NEW SIGNS ADDED TO ASSEMBLIES AS DESCRIBED ABOVE.

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 Bksowell

| | | |
|--|-----------------------------|-----------------------------|
| APPROVED: <i>Mark E. Stafford</i> DATE: 10-10-11 | ALTERNATE ROUTE PLAN | |
| | | |
| SCALE: NONE | REVISIONS | |
| DATE: 10-22 | | |
| DWG. BY: BKS | | |
| DESIGN BY: REH | | |
| REVIEWED BY: | | <small>CHD FILE</small> |