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CONTRACT NO.: C203777 TIP PROJECT: I-5724 & I-5726

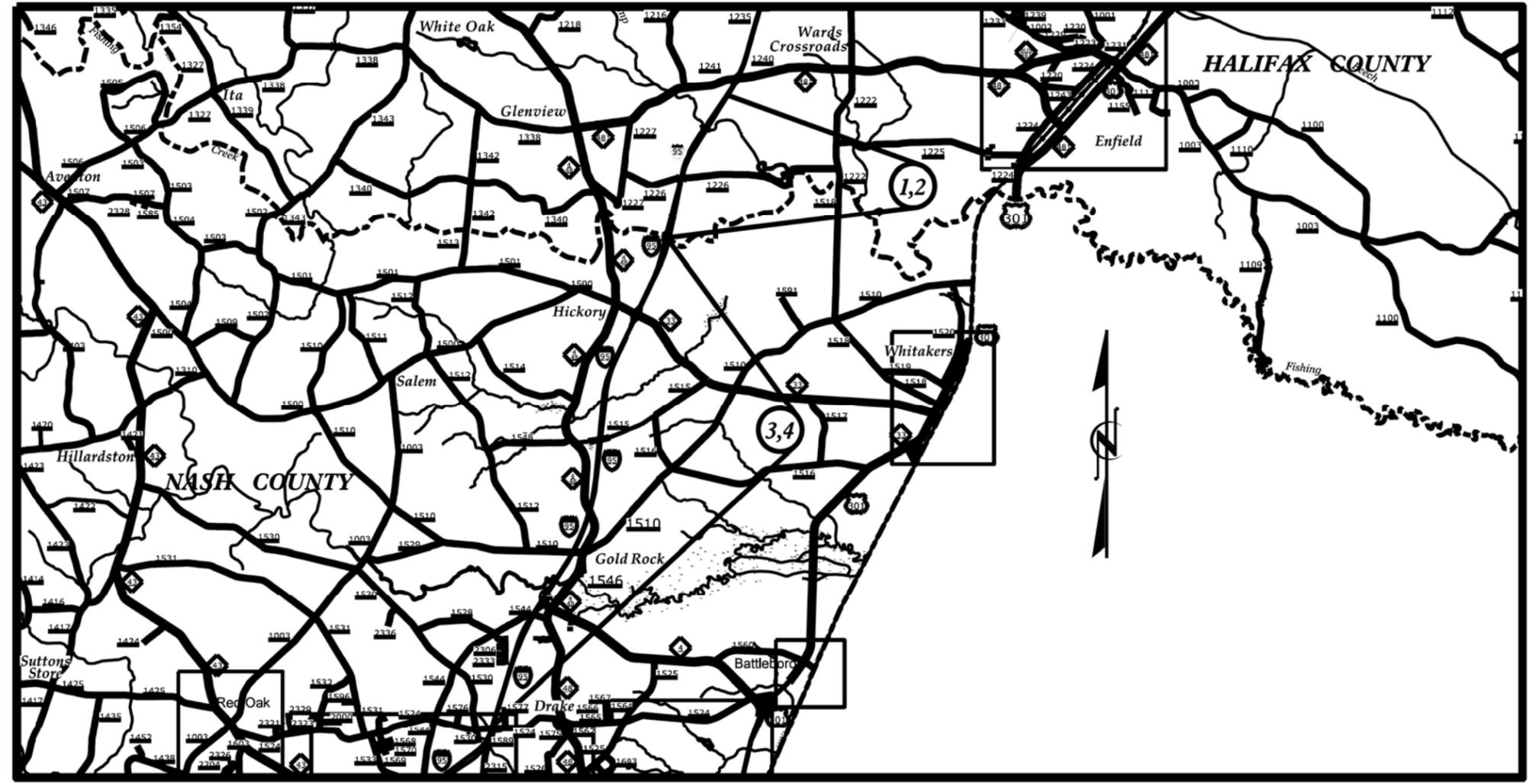
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5724 / I-5726	1	
STATE FUND NO.	F.A.FUND NO.	DESCRIPTION	
52002.1.1	NHPP-0095(23)152	I-5724 (PE)	
52002.3.1	NHPP-0095(23)152	I-5724 (CONST)	
52004.1.1	NHPP-0095(21)143	I-5726 (PE)	
52004.3.1	NHPP-0095(21)143	I-5726 (CONST)	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HALIFAX & NASH COUNTY

LOCATION: I-95 FROM SR 1524 IN NASH CO TO OGAFC SOUTH OF NC 481 IN HALIFAX CO

TYPE OF WORK: PAVEMENT REHABILITATION AND BRIDGE APPROACH & JOINT REPAIR



NOT TO SCALE

PROJECT LENGTH

WBS# 52002.3.1 = 2.317 MI
WBS# 52004.3.1 = 7.909 MI

Prepared In the Office of:
DIVISION OF HIGHWAYS

2012 STANDARD SPECIFICATIONS

LETTING DATE:

DIVISION PROJECT MANAGER

DIVISION PROPOSALS ENGINEER

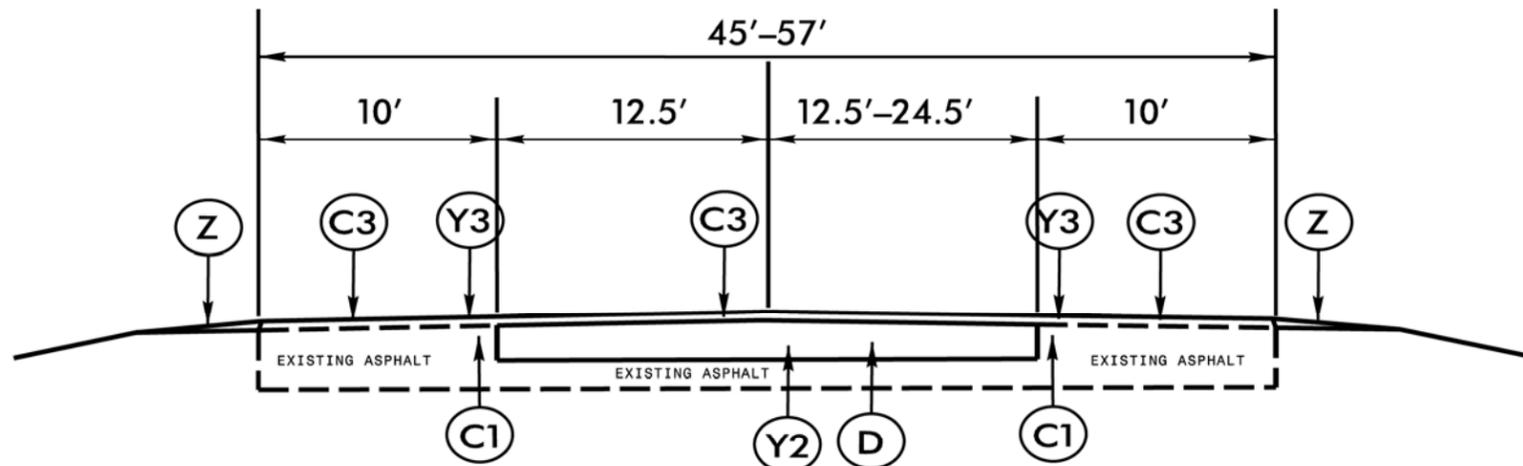
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



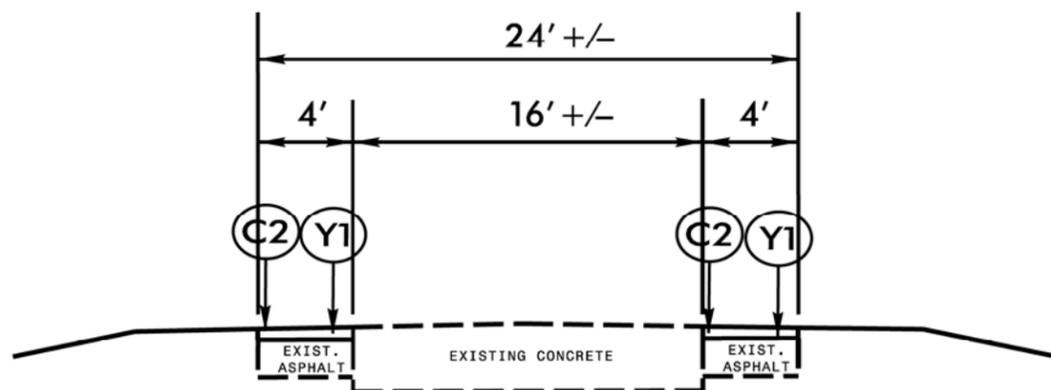
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NOTES:

1. EDGES, PAVEMENT WIDENING, INTERSECTIONS, ENTRANCE & EXIT LANES, AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES



TYPICAL SECTION #1
MAIN LINE



TYPICAL SECTION #2
RAMPS AT NC 33

PROJECT REFERENCE NO.	SHEET NO.
I-5724 & I-5726	2

PAVEMENT SCHEDULE	
C1	ASPHALT CONCRETE SURFACE COURSE, S4.75A, AT A RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH TO FILL EXISTING RUMBLE STRIPS
C2	ASPHALT CONCRETE SURFACE COURSE, S9.5B, AT AN AVERAGE RATE OF 168 LBS PER SQ YD (1.5")
C3	ASPHALT CONCRETE SURFACE COURSE, S9.5D, AT AN AVERAGE RATE OF 168 LBS PER SQ YD (1.5")
D	ASPHALT CONCRETE INTERMEDIATE COURSE, I19.0D, AT AN AVERAGE RATE OF 285 LBS PER SQ YD (2.5")
Y1	MILL ASPHALT 1.5" DEEP
Y2	MILL ASPHALT 2.5" DEEP
Y3	MILLED RUMBLE STRIPS
Z	SHOULDER RECONSTRUCTION USING AGGREGATE SHOULDER BORROW AS DIRECTED

EFF. 01-17-2012
 REV. 10-30-2012

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - 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
 DIVISION 6 - ASPHALT BASES AND PAVEMENTS
 665.01 Asphalt Shoulders - Milled Rumble Strips

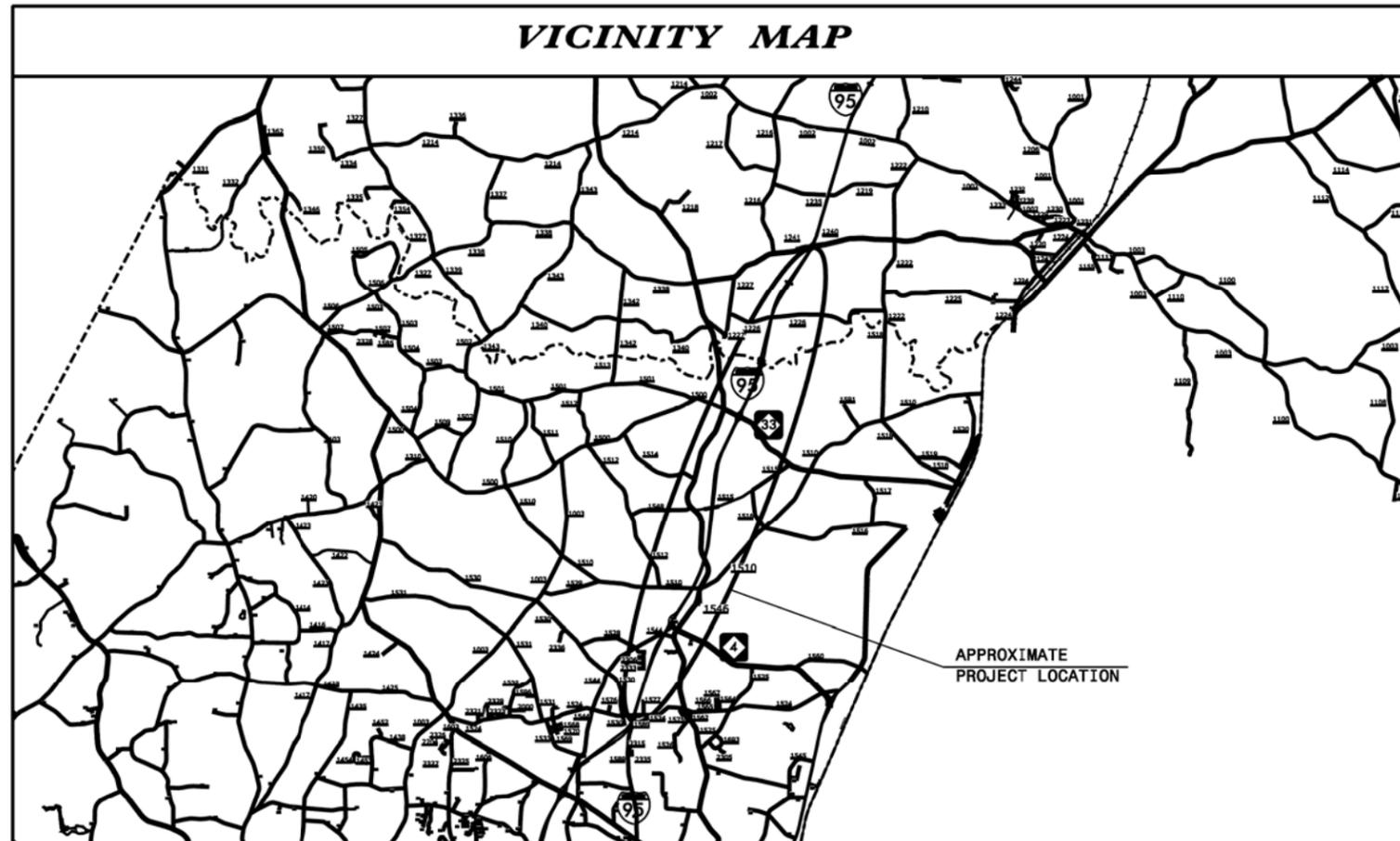
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

NASH & HALIFAX COUNTIES



VICINITY MAP



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) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
STEVE KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER
DON PARKER TRAFFIC CONTROL PROJECT DESIGN ENGINEER
TRAFFIC CONTROL DESIGN ENGINEER



PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE DESIGN GROUP, INC.
ENGINEERS • CONSULTANTS
PH: 704 573 3003

APPROVED: *Tom Arney*
DATE: 11/13/2015
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025465
TIM AREY

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>TITLE</u>
TMP-1	TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES)
TMP-2A THRU TMP-2H	OFF SITE DETOUR DETAILS
TMP-2I	WORK ZONE VARIABLE SPEED LIMIT DETAIL
TMP-3	TRAFFIC CONTROL PHASING

SHEET NO.
TMP-1

TIP PROJECT: I-5724 / I-5726

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN 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	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXIT AND ENTRANCE RAMPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1253.01	RAISED PAVEMENT MARKERS - (SNOWPLOWABLE)

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)

- WORK AREA
- REMOVAL
- TEMPORARY PAVEMENT
- ON-GOING CONSTRUCTION

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

<p>PLAN PREPARED IN THE OFFICE OF:</p> <p>PROGRESSIVE DESIGN GROUP, INC.</p> <p>ENGINEERS • CONSULTANTS PH 704 573 3003</p>	<p>APPROVED: DATE: 1/13/2015</p> <p>SEAL</p>		<p>ROADWAY STANDARD DRAWINGS & LEGEND</p>
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MANAGEMENT STRATEGIES

PROJ. REFERENCE NO.	SHEET NO.
I-5724/I-5726	TMP-2

THIS PROJECT CONSISTS OF MILLING AND REPLACING ALONG THE MAIN LINE TRAVEL LANES OF I-95 INCLUDING THE EXISTING RUMBLE STRIPS AND OVERLAY OF THE EXISTING SHOULDERS OF I-95. THIS OPERATION WILL BE COMPLETED USING LANE CLOSURES DURING THE TIMES ALLOWED IN THE GENERAL NOTES. MILLING AND PLACEMENT OPERATIONS ALONG THE EXISTING RAMPS WILL BE ACCOMPLISHED WITH OFFSITE DETOURS AS SHOWN IN THESE PLANS.

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 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 AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-95	MONDAY-THURSDAY 7:00AM-8:00PM FRIDAY-SUNDAY 7:00AM-10:00PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES ON I-95, DETAIN AND/OR ALTER THE TRAFFIC FLOW ON OR DURING HOLIDAYS, HOLIDAY WEEKENDS, SPECIAL EVENTS, OR ANY OTHER TIME WHEN TRAFFIC IS UNUSUALLY HEAVY, INCLUDING THE FOLLOWING SCHEDULES:

HOLIDAY AND HOLIDAY WEEKEND LANE CLOSURE RESTRICTIONS

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S DAY, BETWEEN THE HOURS OF 6:30AM DECEMBER 31st AND 8:00PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00PM THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:30AM THURSDAY AND 8:00PM TUESDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:30AM FRIDAY AND 8:00PM WEDNESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:30AM THE FRIDAY BEFORE THE WEEK OF INDEPENDENCE DAY AND 8:00PM THE FOLLOWING MONDAY AFTER THE WEEK OF INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:30AM FRIDAY AND 8:00PM WEDNESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:30AM TUESDAY AND 8:00PM MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:30AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-95	MONDAY-SUNDAY 6:00AM-11:00PM

LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) 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.
- E) 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.

F) 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 THE WORK ZONE "VARIABLE" SPEED LIMIT DETAIL SHOWN ON SHEET TMP-21 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 THE WORK ZONE "VARIABLE" SPEED LIMIT DETAIL SHOWN ON SHEET TMP-21 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

G) 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.

H) DO NOT INSTALL MORE THAN 5 MILES OF LANE CLOSURE ON I-95 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON I-95.

PAVEMENT EDGE DROP OFF REQUIREMENTS

J) 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.

K) 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) 500 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

M) 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.

N) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

O) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN THE ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

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

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

TRAFFIC CONTROL DEVICES

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

S) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

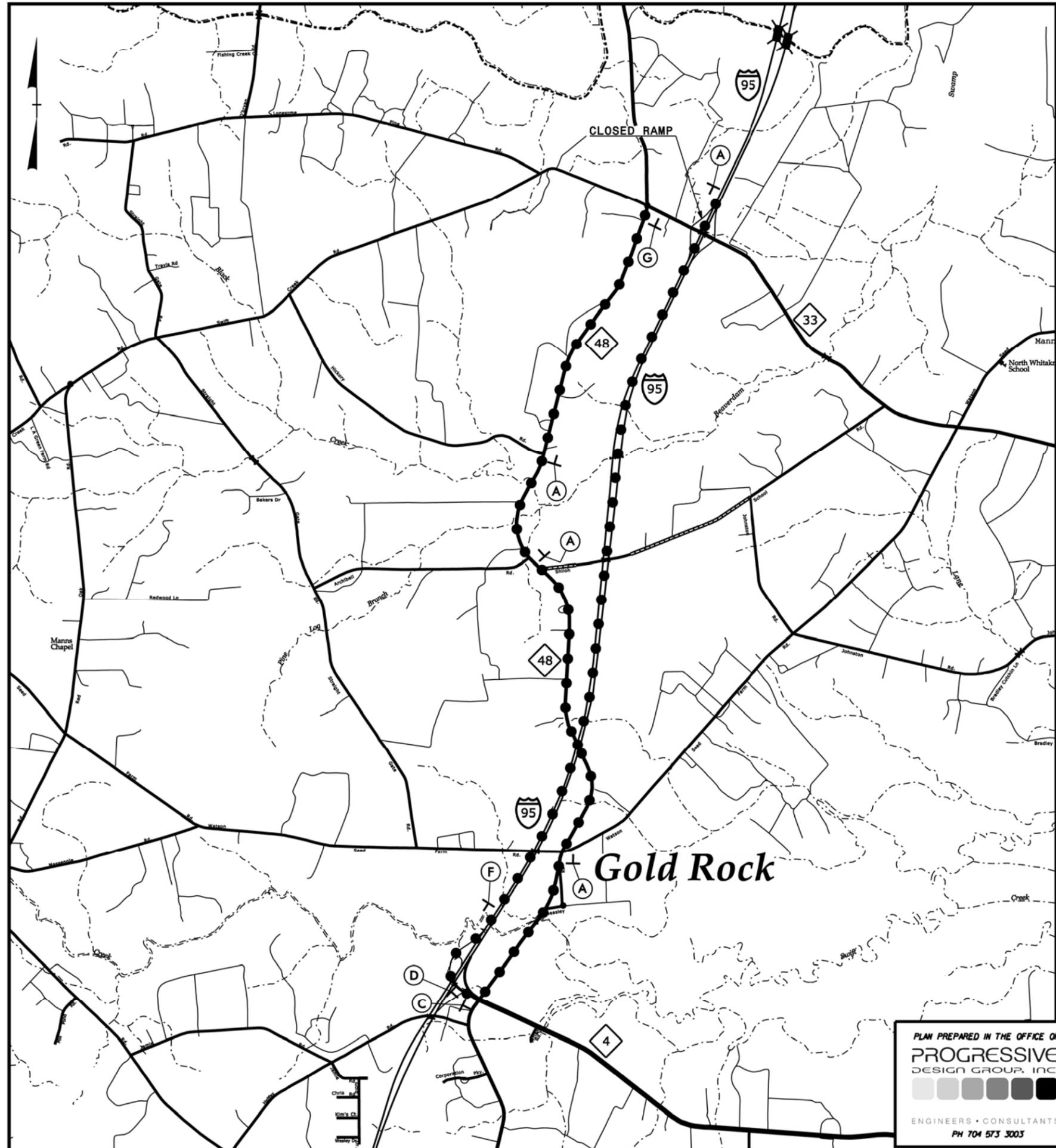
PAVEMENT MARKINGS AND MARKERS

T) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

U) LAW ENFORCEMENT BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

<p>PLAN PREPARED IN THE OFFICE OF: PROGRESSIVE DESIGN GROUP, INC. ENGINEERS • CONSULTANTS PH 704 573 3003</p>	<p>APPROVED: <i>Tom Arty</i> DATE: 11/13/2015 SEAL </p>	<p></p>	<p>TRANSPORTATION MANAGEMENT PLAN TRANSPORTATION OPERATIONS PLAN</p>
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SIGN ASSEMBLY
(A)
 DETOUR M4-8 24" X 12"
 33 M1-5 24" X 24"
 ↑ M6-3 21" X 15"

SIGN ASSEMBLY
(B)
 DETOUR M4-8 24" X 12"
 33 M1-5 24" X 24"
 → M6-1 21" X 15"

SIGN ASSEMBLY
(C)
 DETOUR M4-8 24" X 12"
 33 M1-5 24" X 24"
 ← M6-1 L 21" X 15"

SIGN ASSEMBLY
(D)
 DETOUR M4-8 24" X 12"
 33 M1-5 24" X 24"
 ↙ M5-1 21" X 15"

SIGN ASSEMBLY
(E)
 DETOUR M4-8 24" X 12"
 33 M1-5 24" X 24"
 ↘ M5-1 R 21" X 15"

SIGN ASSEMBLY
(F)
 DETOUR M4-8 24" X 12"
 33 M1-5 24" X 24"
 ↗ M6-2 21" X 15"

SIGN ASSEMBLY
(G)
 END M4-8 B 24" X 12"
 DETOUR M4-8 24" X 12"
 33 M1-5 24" X 24"

NOTE:
 1. ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE. FINAL PLACEMENT AS DIRECTED BY ENGINEER.

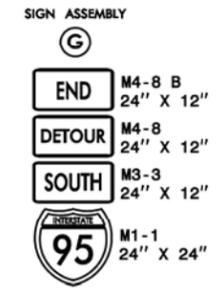
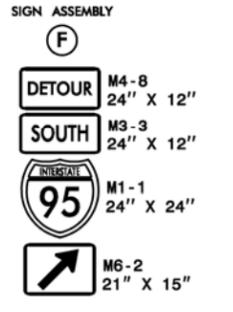
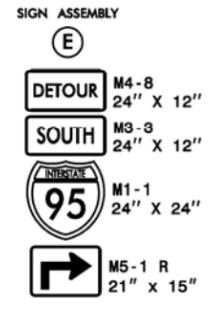
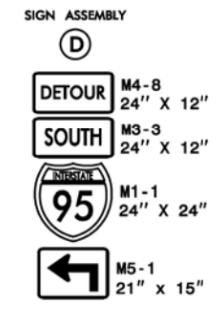
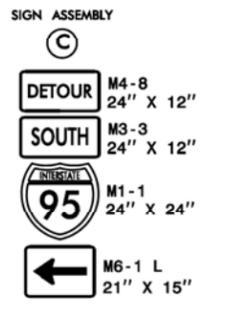
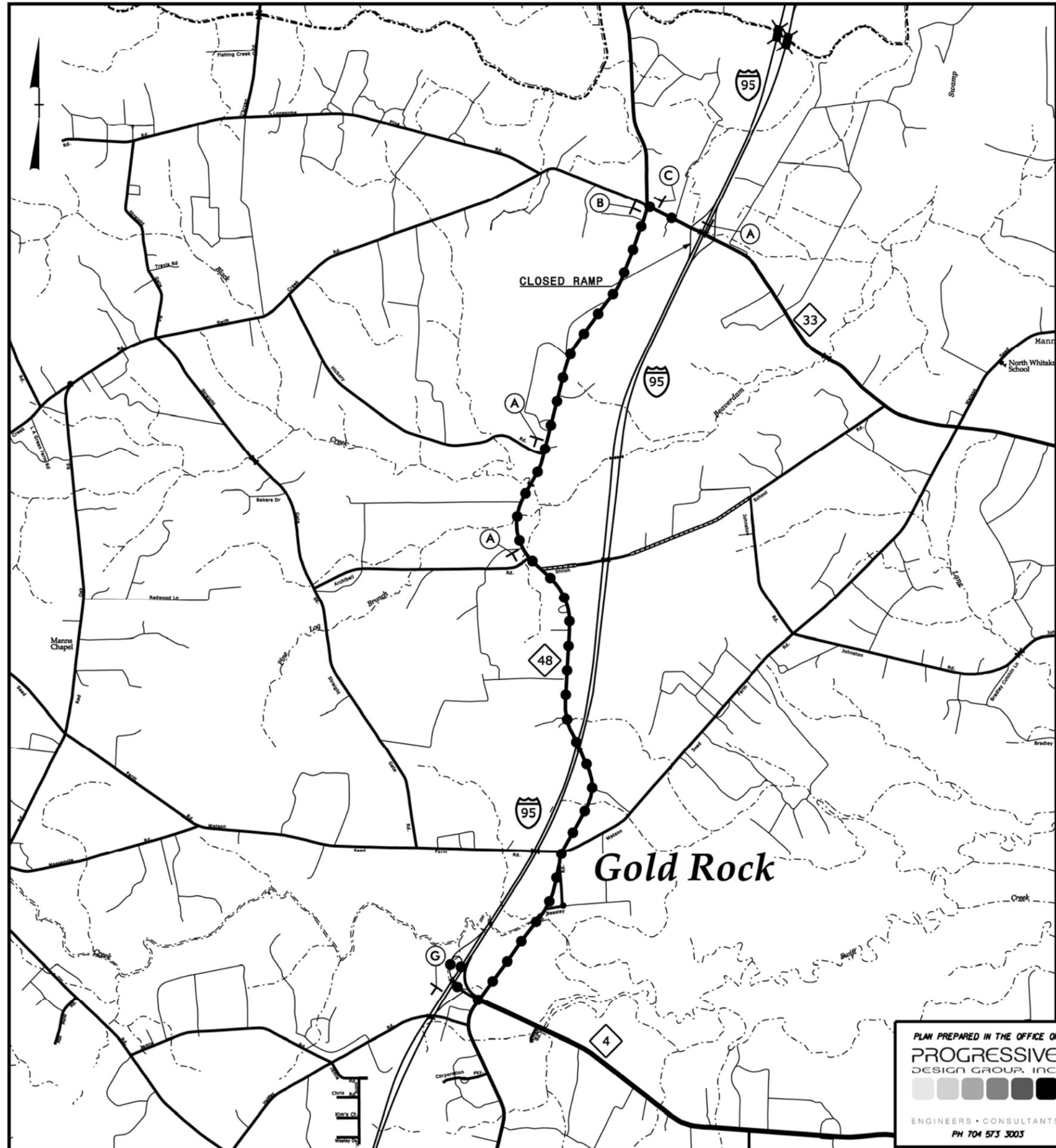
OFFSITE DETOUR ●●●●●●●●●●
**I-95 SB OFFRAMP TO NC-33
 OFFSITE DETOUR**

PLAN PREPARED IN THE OFFICE OF:
**PROGRESSIVE
 DESIGN GROUP, INC.**
 ENGINEERS • CONSULTANTS
 PH 704 573 3003

APPROVED: *Tim Arey* DATE: 11/13/2011
 SEAL



**TRANSPORTATION
 MANAGEMENT PLAN
 OFFSITE DETOUR ROUTE**

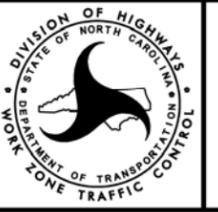


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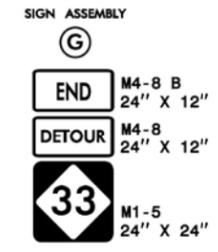
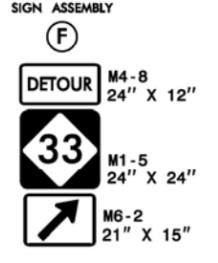
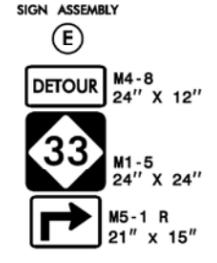
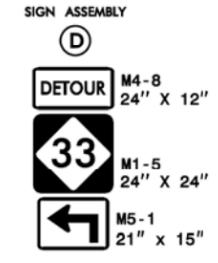
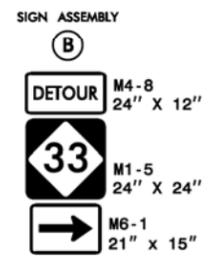
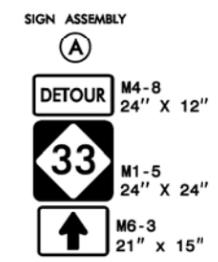
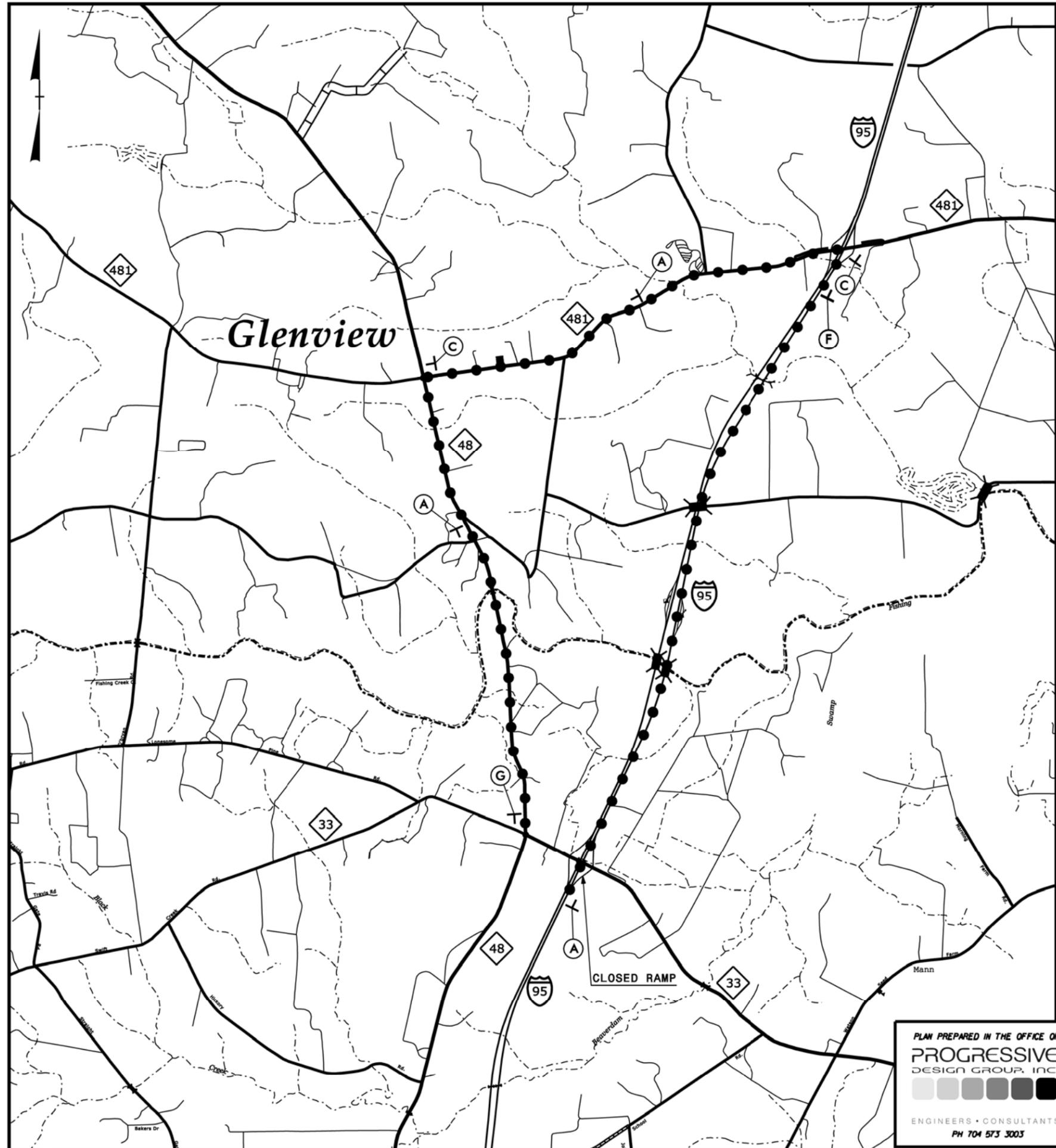
OFFSITE DETOUR ●●●●●●●●
I-95 SB ONRAMP FROM NC 33 OFFSITE DETOUR

PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE DESIGN GROUP, INC.
ENGINEERS • CONSULTANTS
PH 704 573 3003

APPROVED: *Jim Arty* DATE: 2/13/2015
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 025465
TIM ARTY



TRANSPORTATION MANAGEMENT PLAN OFFSITE DETOUR ROUTE



NOTE:
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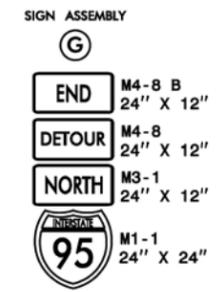
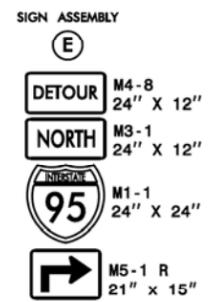
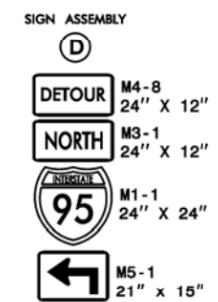
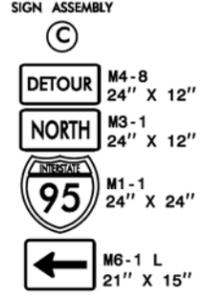
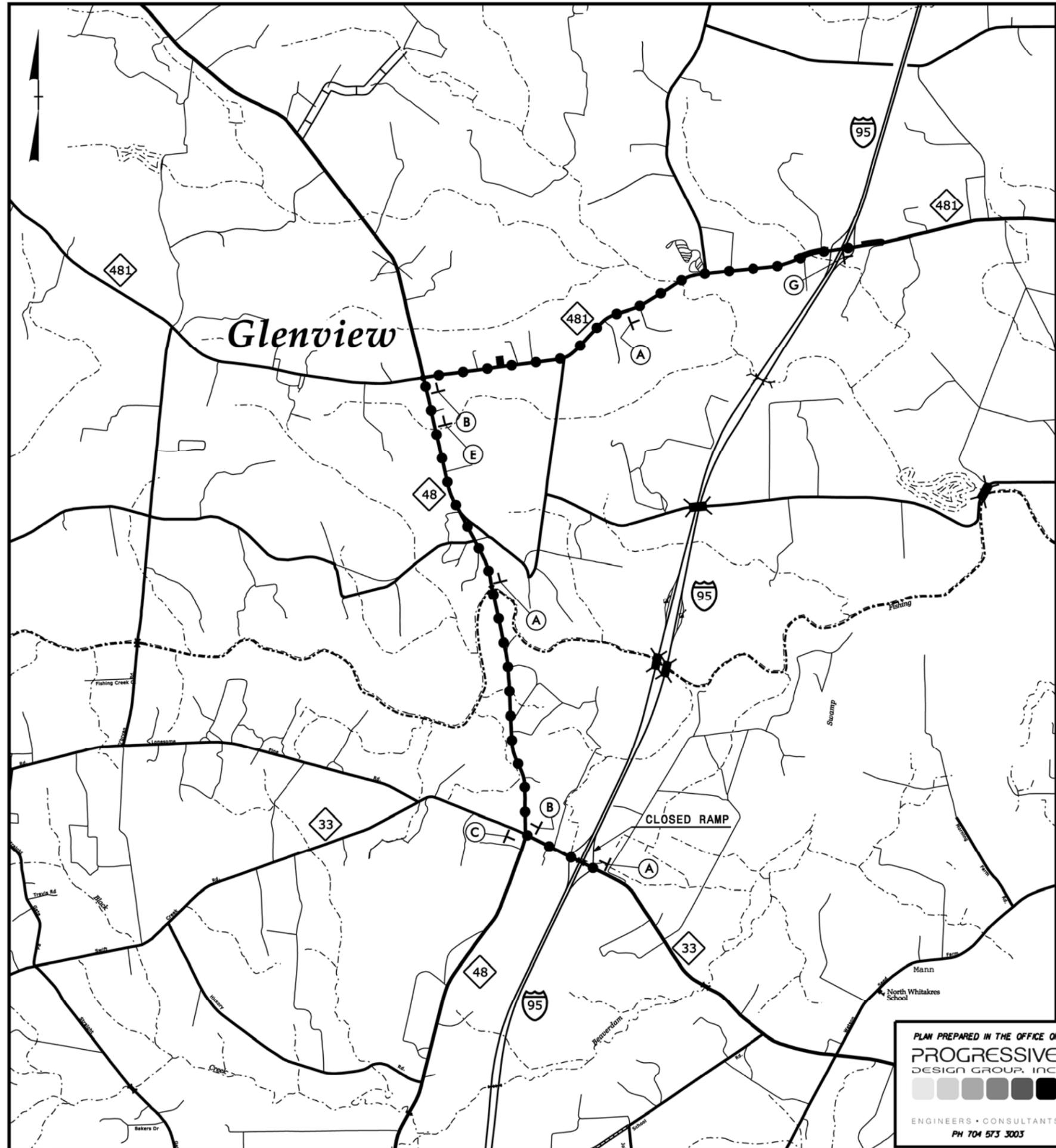
OFFSITE DETOUR ●●●●●●●●●●
**I-95 NB OFFRAMP TO NC 33
OFFSITE DETOUR**

PLAN PREPARED IN THE OFFICE OF:
**PROGRESSIVE
DESIGN GROUP, INC.**
ENGINEERS • CONSULTANTS
PH 704 573 3003

APPROVED: *Tim Arey* DATE: 1/13/2015
SEAL



**TRANSPORTATION
MANAGEMENT PLAN
OFFSITE DETOUR ROUTE**

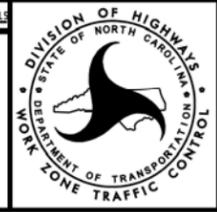


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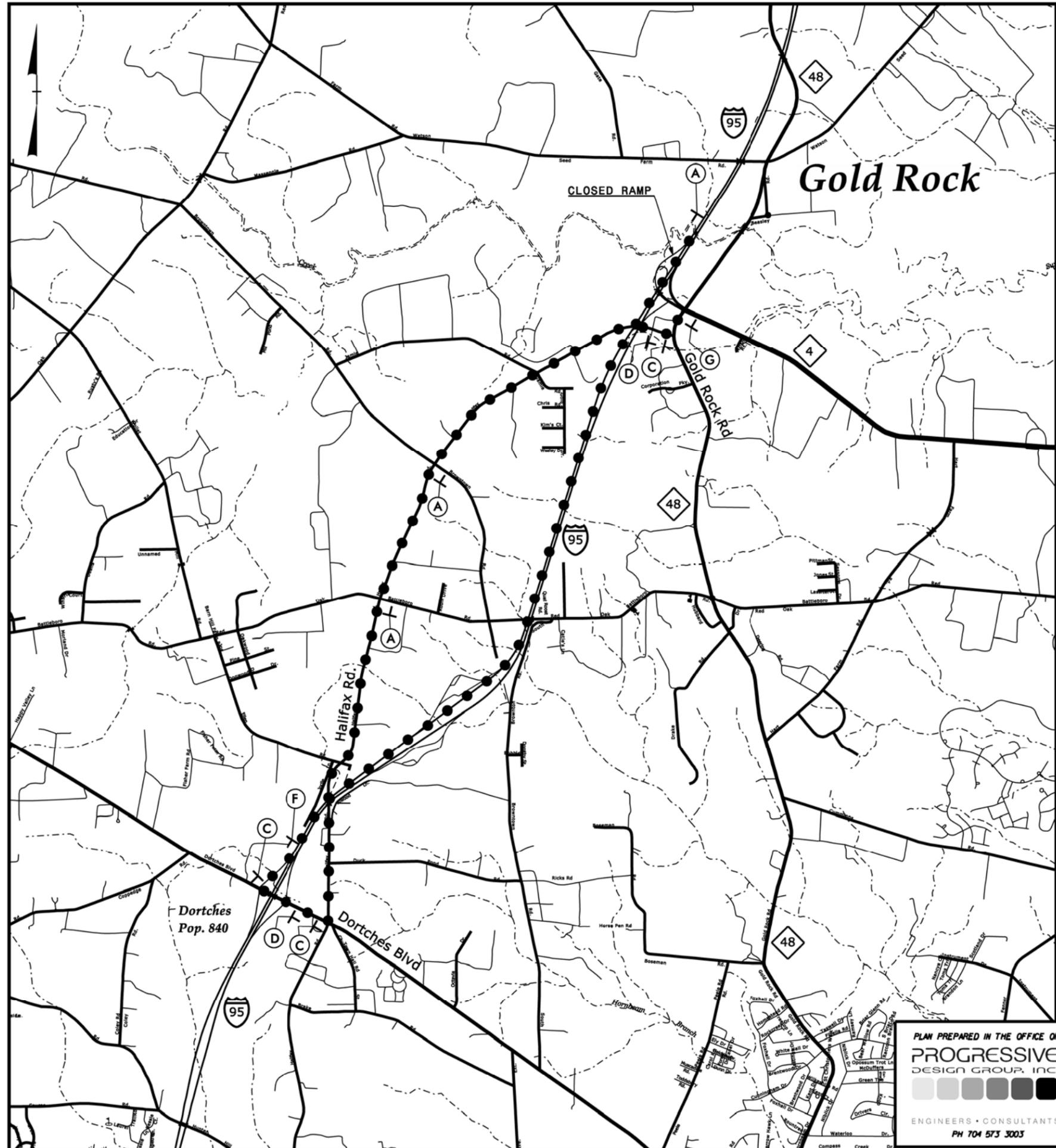
OFFSITE DETOUR ●●●●●●●●●●
**I-95 NB ONRAMP FROM NC 33
OFFSITE DETOUR**

PLAN PREPARED IN THE OFFICE OF:
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DESIGN GROUP, INC.**
ENGINEERS • CONSULTANTS
PH 704 573 3003

APPROVED: *Tommy* DATE: 11/13/2015
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 025465
TIM AREY



**TRANSPORTATION
MANAGEMENT PLAN
OFFSITE DETOUR ROUTE**



SIGN ASSEMBLY
(A)

DETOUR M4-8
24" X 12"

4 M1-5
24" X 24"

↑ M6-3
21" X 15"

SIGN ASSEMBLY
(B)

DETOUR M4-8
24" X 12"

4 M1-5
24" X 24"

→ M6-1
21" X 15"

SIGN ASSEMBLY
(C)

DETOUR M4-8
24" X 12"

4 M1-5
24" X 24"

← M6-1 L
21" X 15"

SIGN ASSEMBLY
(D)

DETOUR M4-8
24" X 12"

4 M1-5
24" X 24"

← M5-1
21" X 15"

SIGN ASSEMBLY
(E)

DETOUR M4-8
24" X 12"

4 M1-5
24" X 24"

→ M5-1 R
21" X 15"

SIGN ASSEMBLY
(F)

DETOUR M4-8
24" X 12"

4 M1-5
24" X 24"

↗ M6-2
21" X 15"

SIGN ASSEMBLY
(G)

END M4-8 B
24" X 12"

DETOUR M4-8
24" X 12"

4 M1-5
24" X 24"

NOTE:
1. ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE.
FINAL PLACEMENT AS DIRECTED BY ENGINEER.

OFFSITE DETOUR ●●●●●●●●●●

**I-95 SB OFFRAMP TO NC 4
OFFSITE DETOUR**

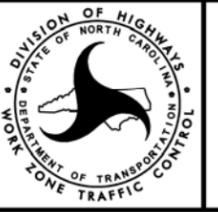
PLAN PREPARED IN THE OFFICE OF:
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PH 704 573 3003

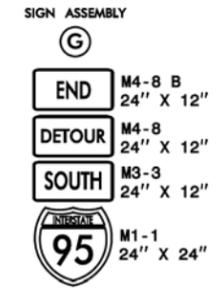
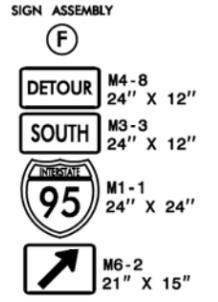
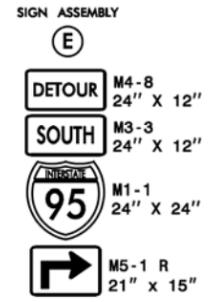
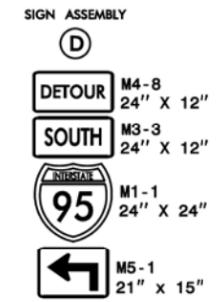
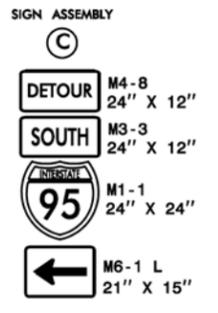
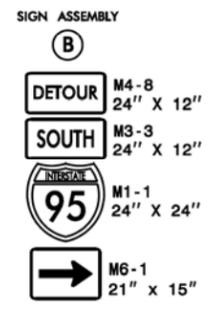
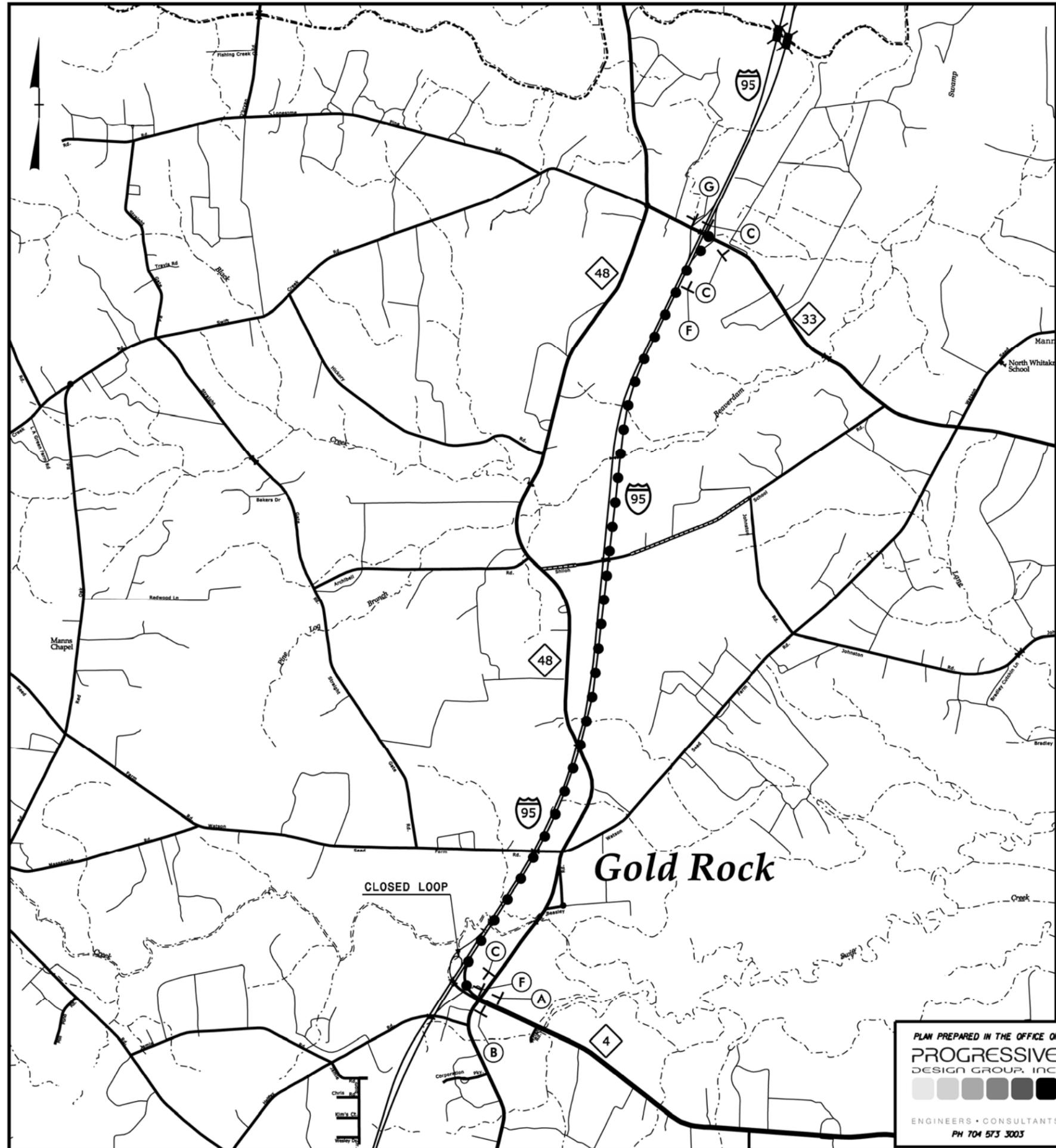
APPROVED: *Janley* DATE: 11/13/2015

SEAL

NORTH CAROLINA
PROFESSIONAL
ENGINEER
TIM AREY
SEAL 025465



**TRANSPORTATION
MANAGEMENT PLAN
OFFSITE DETOUR ROUTE**



NOTE:
1. ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE. FINAL PLACEMENT AS DIRECTED BY ENGINEER.

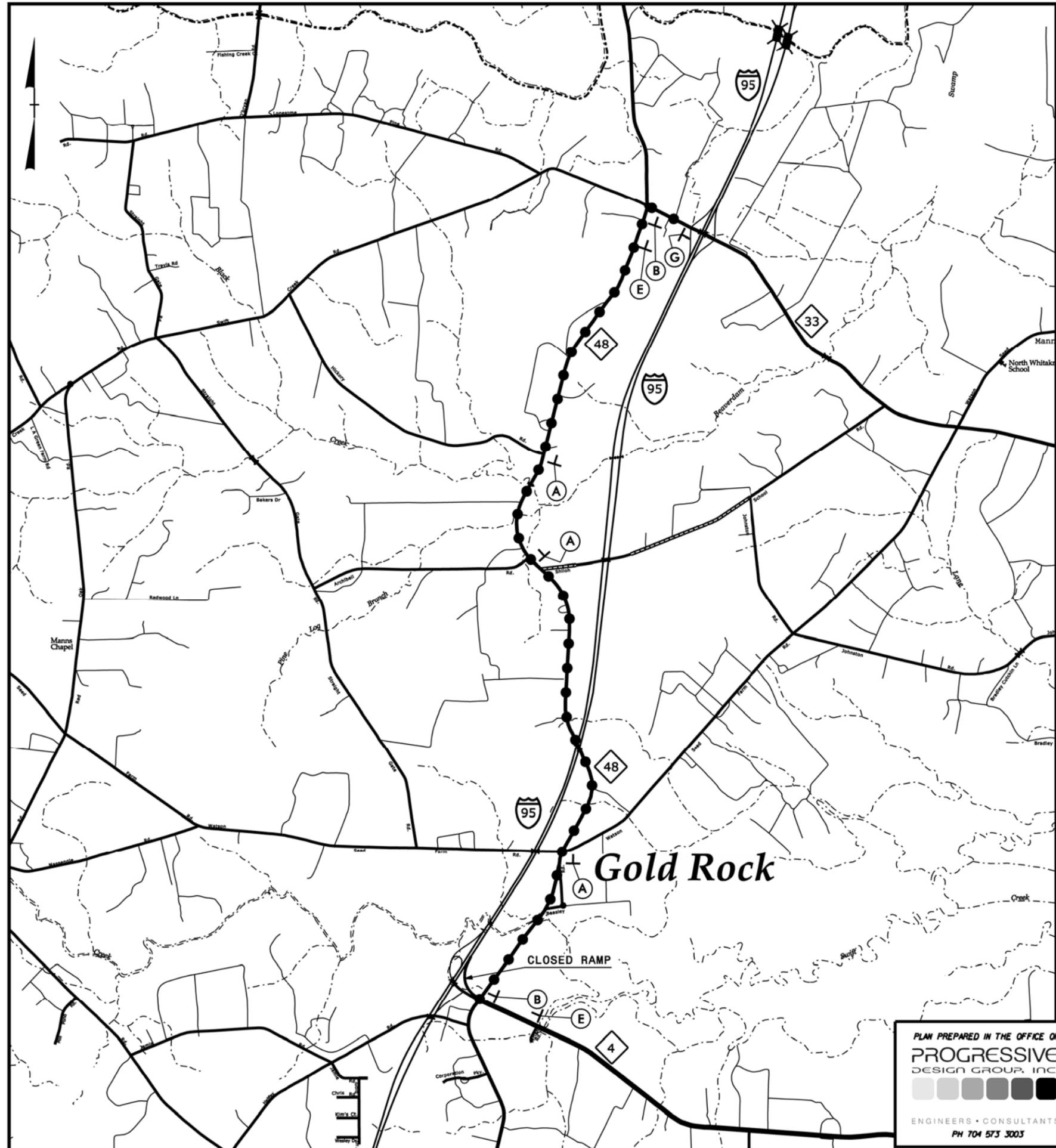
OFFSITE DETOUR ●●●●●●●●●●
I-95 SB ONLOOP FROM NC 4 OFFSITE DETOUR

PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE DESIGN GROUP, INC.
ENGINEERS • CONSULTANTS
PH 704 573 3003

APPROVED: [Signature] DATE: 1/13/2015
SEAL: [Professional Engineer Seal for Tim Arey, No. 025465]



TRANSPORTATION MANAGEMENT PLAN OFFSITE DETOUR ROUTE



SIGN ASSEMBLY
(A)
 DETOUR M4-8 24" X 12"
 NORTH M3-1 24" X 12"
 95 M1-1 24" X 24"
 ↑ M6-3 21" X 15"

SIGN ASSEMBLY
(B)
 DETOUR M4-8 24" X 12"
 NORTH M3-1 24" X 12"
 95 M1-1 24" X 24"
 → M6-1 21" X 15"

SIGN ASSEMBLY
(C)
 DETOUR M4-8 24" X 12"
 NORTH M3-1 24" X 12"
 95 M1-1 24" X 24"
 ← M6-1 L 21" X 15"

SIGN ASSEMBLY
(D)
 DETOUR M4-8 24" X 12"
 NORTH M3-1 24" X 12"
 95 M1-1 24" X 24"
 ← M5-1 21" X 15"

SIGN ASSEMBLY
(E)
 DETOUR M4-8 24" X 12"
 NORTH M3-1 24" X 12"
 95 M1-1 24" X 24"
 → M5-1 R 21" X 15"

SIGN ASSEMBLY
(F)
 DETOUR M4-8 24" X 12"
 NORTH M3-1 24" X 12"
 95 M1-1 24" X 24"
 ↗ M6-2 21" X 15"

SIGN ASSEMBLY
(G)
 END M4-8 B 24" X 12"
 DETOUR M4-8 24" X 12"
 NORTH M3-1 24" X 12"
 95 M1-1 24" X 24"

NOTE:

1. ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE. FINAL PLACEMENT AS DIRECTED BY ENGINEER.

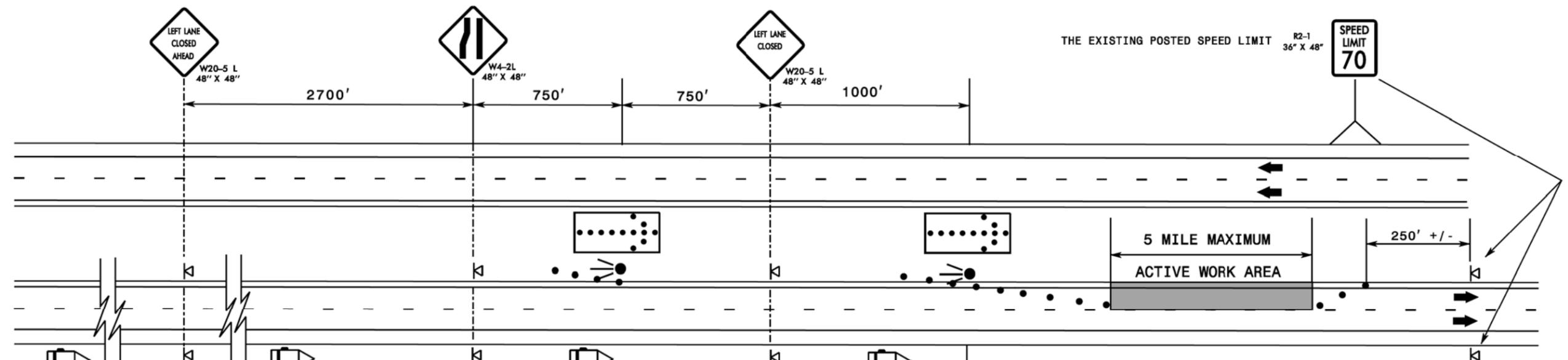
OFFSITE DETOUR ●●●●●●●●
I-95 NB ONRAMP FROM NC 4 OFFSITE DETOUR

PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE DESIGN GROUP, INC.
 ENGINEERS • CONSULTANTS
 PH 704 573 3003

APPROVED: *Tim Arey* DATE: 1/13/2015
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 025465
 TIM AREY



TRANSPORTATION MANAGEMENT PLAN OFFSITE DETOUR ROUTE



SIGN SPACINGS SHOWN ON THIS DETAIL MAY BE ADJUSTED AS NECESSARY (UP TO 300') IN ORDER TO AVOID CONFLICTS WITH EXISTING SIGNS ALREADY IN PLACE

MESSAGE NO. 1 LEFT LANE CLOSED	MESSAGE NO. 2 MERGE RIGHT
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CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1 55 MPH ZONE AHEAD	MESSAGE NO. 2 \$250 FINE
------------------------------------	-----------------------------

CHANGEABLE MESSAGE SIGN

OR

MESSAGE NO. 1 BEGIN 55 MPH 1500 FT	MESSAGE NO. 2 WORKERS IN ROADWAY
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CHANGEABLE MESSAGE SIGN

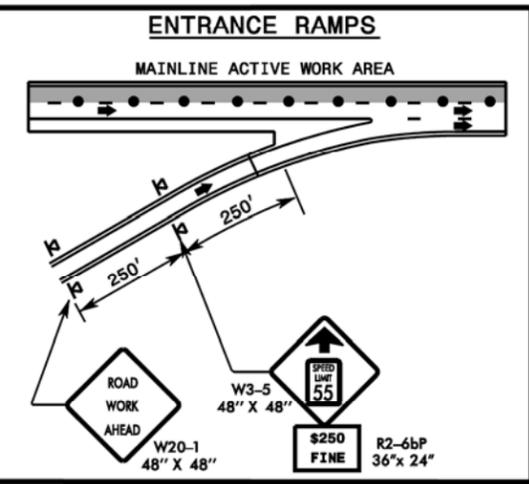
OR

MESSAGE NO. 1 SPEED LIMIT 55	MESSAGE NO. 2 \$250 FINE
---------------------------------	-----------------------------

CHANGEABLE MESSAGE SIGN

OR

- ### GUIDELINES
1. THIS DRAWING IS FOR USE ONLY AFTER AN ENGINEERING INVESTIGATION HAS BEEN PERFORMED BY THE REGIONAL TRAFFIC ENGINEER AND WORK ZONE TRAFFIC CONTROL SECTION. THE WORK ZONE "VARIABLE" SPEED LIMIT IS INTENDED FOR USE ON FREEWAYS WITH SPEED LIMITS 65 MPH OR GREATER. SEE WORK ZONE "VARIABLE" SPEED LIMIT GUIDELINES FOR CRITERIA.
 2. THE STATE TRAFFIC ENGINEER HAS TO ORDINANCE THE SPEED LIMIT REDUCTION IN ORDER FOR THE REDUCTION AND/OR \$250 SPEEDING FINE TO BE VALID AND ENFORCEABLE. NO SPEED LIMIT MESSAGES/SIGNS SHALL BE INSTALLED PRIOR TO RECEIVING A SIGNED ORDINANCE. IN ADDITION, THE \$250 SPEEDING FINE ALSO REQUIRES A SEPARATE SIGNED ORDINANCE BY THE STATE TRAFFIC ENGINEER.
 3. EACH DIRECTION OF THE PROJECT IS TO BE EVALUATED FOR THE WORK ZONE "VARIABLE" SPEED LIMIT REDUCTION. THIS DRAWING INTENTIONALLY HAS 1 DIRECTION SIGNED AS A REMINDER TO CAREFULLY CONSIDER WHETHER BOTH DIRECTIONS OF THE PROJECT NEED TO HAVE THE SPEED LIMIT REDUCED.
 4. THE MAXIMUM LANE CLOSURE LENGTH IS 5 MILES UNLESS OTHERWISE SHOWN IN THE PLANS. IN ADDITION, FOR ACTIVE WORK AREAS THAT EXCEED 1 MILE IN LENGTH, AN EVALUATION IS TO BE MADE TO DETERMINE IF ADDITIONAL CMS'S/SIGNS ARE NEEDED TO SUPPLEMENT THE INITIAL ONES. PORTABLE MOUNTED W3-5 SIGNS WITH SPEEDING PENALTY SIGNS ARE TO BE PLACED ALONG ENTRANCE RAMP LOCATED WITHIN THE ACTIVE WORK AREA.
 5. THE \$250 SPEEDING FINE PENALTY APPLIES FOR ALL PROJECTS THAT QUALIFY FOR A WORK ZONE "VARIABLE" SPEED LIMIT REDUCTION.
 6. THIS APPLICATION IS FOR SHORT-TERM ACTIVITIES SUCH AS LANE CLOSURES AND ROAD CLOSURES. THE WORK ZONE "VARIABLE" SPEED LIMIT SHALL NOT BE IN OPERATION CONTINUOUSLY (24/7) FOR A PERIOD EXCEEDING 30 CALENDAR DAYS. THE WORK ZONE "VARIABLE" SPEED LIMIT MESSAGING/SIGNAGE SHALL BE REMOVED AT THE COMPLETION OF THE ACTIVITY. THE REGIONAL TRAFFIC ENGINEER WILL BE NOTIFIED BY THE RESIDENT ENGINEER TO RESCIND THE ORDINANCE.
 7. WHEN WORK ZONE "VARIABLE" SPEED LIMIT REDUCTIONS ARE IN EFFECT, THE CONTRACTOR IS TO COVER ANY EXISTING SPEED LIMIT SIGNS LOCATED WITHIN THE ACTIVE WORK AREA THAT CONFLICT WITH THE WORK ZONE "VARIABLE" SPEED LIMIT REDUCTION.
 8. PLACE CMS APPROXIMATELY 1 MILE IN ADVANCE OF THE W20-5 SIGNS. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC, MOVE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP.



- ### NOTES
1. THE WORK ZONE "VARIABLE" SPEED LIMIT WILL BE ESTABLISHED IN COLLABORATION BETWEEN THE REGIONAL TRAFFIC ENGINEER, THE DIVISION, AND THE WORK ZONE TRAFFIC CONTROL SECTION. THIS DRAWING SHOWS THE TYPICAL APPLICATION OF REDUCING THE SPEED LIMIT TO 55 MPH.
 2. TYPICALLY THE WORK ZONE "VARIABLE" SPEED LIMIT APPLIES TO A SPECIFIC PORTION AND NOT THE ENTIRE PROJECT. THE WORK AREA AFFECTED BY THE SPEED REDUCTION SHOULD NOT EXCEED 5 MILES.
 3. THE WORK ZONE "VARIABLE" SPEED LIMIT AND THE \$250 SPEEDING FINE IS TO BEGIN 500' IN ADVANCE OF THE FLASHING ARROW PANEL AT THE MERGE TAPER. THE EXISTING SPEED LIMIT SIGNS AND THE "END \$250 FINE" SIGNS ARE TO BE INSTALLED AT THE LOCATION WHERE THE EXISTING SPEED LIMIT IS TO RESUME.
 4. THE NEED AND LOCATION OF ADDITIONAL POSTED WORK ZONE "VARIABLE" SPEED LIMIT SIGNS WITHIN THE LANE CLOSURE IS TO BE DETERMINED BY THE REGIONAL TRAFFIC ENGINEER.

PLAN PREPARED IN THE OFFICE OF:

PROGRESSIVE DESIGN GROUP, INC.

ENGINEERS • CONSULTANTS
PH 704 573 3003

APPROVED: *[Signature]* DATE: 11/13/2015

SEAL: *[Professional Engineer Seal]*

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

WORK ZONE "VARIABLE" SPEED LIMIT DETAIL

PHASING

STEP 1: INSTALL WORK ZONE ADVANCE WARNING SIGNS WITHIN THE PROJECT LIMITS AS SHOWN IN ROADWAY STANDARD DRAWING NO. 1101.01, SHEET 1 OF 3.

NOTE: OPERATIONS DESCRIBED IN STEP 2 AND STEPS 3 THRU 5 MAY BE COMPLETED SIMULTANEOUSLY.

STEP 2: USING THE WORK ZONE VARIABLE SPEED LIMIT DETAIL SHOWN ON SHEET TMP-2I, COMPLETE THE MILLING AND REPLACEMENT OVERLAYS FOR BOTH DIRECTIONS OF I-95 IN THE LOCATIONS SHOWN IN THE ROADWAY DESIGN PLANS. PLACE PERMANENT MARKINGS AND MARKERS ALONG I-95 BACK TO THE ORIGINAL PATTERN AS THE FINAL LAYER IS PLACED.

NOTE: UTILIZE THE CONSTRUCTION OPERATION DESCRIBED IN STEP 3 THRU STEP 5 FOR EACH RAMP AT THE NC 33 INTERCHANGE. DO NOT SIMULTANEOUSLY CLOSE MORE THAN ONE RAMP AT A TIME. RAMPS SHALL ONLY BE CLOSED DURING THE TIMES ALLOWED BY GENERAL NOTE 'C' ON SHEET TMP-2.

STEP 3: INSTALL THE OFF SITE DETOUR SIGNING SHOWN ON SHEETS TMP-2A THRU TMP-2D FOR THE APPROPRIATE RAMP THAT IS UNDER CONSTRUCTION. CLOSE THE RAMP TO TRAFFIC USING TYPE III BARRICADES AND SIGN ASSEMBLIES W20-3/R3-2 AND W20-3/R3-1 FROM ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 2 OF 9 AS APPROPRIATE.

STEP 4: MILL AND REPLACE THE EXISTING PAVED SHOULDERS IN THE SECTIONS WHERE THE RAMP TRAVEL LANE(S) ARE CONCRETE. MILL AND REPLACE THE FULL WIDTH OF THE RAMP IN THE AREAS WHERE THE TRAVEL LANE(S) ARE ASPHALT. USE THE WORK ZONE VARIABLE SPEED LIMIT DETAIL SHOWN ON SHEET TMP-2I TO CLOSE THE OUTSIDE LANE OF I-95 WHEN THE RAMP MILLING AND RESURFACING OPERATIONS ARE WITHIN 30' OF THE OPEN TRAVEL LANE.

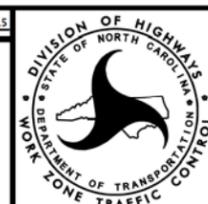
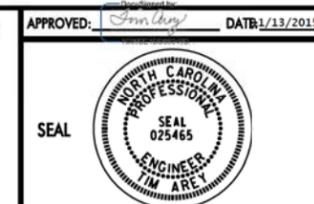
STEP 5: PLACE PERMANENT MARKINGS AND MARKERS ALONG THE NEWLY RESURFACED RAMP AND REOPEN THE RAMP BACK TO THE ORIGINAL PATTERN.

NOTE: OPERATIONS DESCRIBED IN STEP 2 AND STEPS 6 THRU 8 MAY BE COMPLETED SIMULTANEOUSLY. UTILIZE THE CONSTRUCTION OPERATION DESCRIBED IN STEP 6 THRU STEP 8 FOR EACH RAMP AT THE NC 4 INTERCHANGE. DO NOT SIMULTANEOUSLY CLOSE MORE THAN ONE RAMP AT A TIME. RAMPS SHALL ONLY BE CLOSED DURING THE TIMES ALLOWED BY GENERAL NOTE 'C' ON SHEET TMP-2.

STEP 6: INSTALL THE OFF SITE DETOUR SIGNING SHOWN ON SHEETS TMP-2E THRU TMP-2H FOR THE APPROPRIATE RAMP/LOOP THAT IS UNDER CONSTRUCTION AND CLOSE THE RAMP/LOOP TO TRAFFIC. CLOSE THE RAMP/LOOP TO TRAFFIC USING TYPE III BARRICADES AND SIGN ASSEMBLIES W20-3/R3-2 AND W20-3/R3-1 FROM ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 2 OF 9 AS APPROPRIATE.

STEP 7: MILL AND REPLACE THE FULL WIDTH OF THE RAMP/LOOP IN THE LOCATIONS SHOWN IN THE ROADWAY DESIGN PLANS. USE THE WORK ZONE VARIABLE SPEED LIMIT DETAIL SHOWN ON SHEET TMP-2I TO CLOSE THE OUTSIDE LANE OF I-95 WHEN THE RAMP/LOOP MILLING AND RESURFACING OPERATIONS ARE WITHIN 30' OF THE OPEN TRAVEL LANE.

STEP 8: PLACE PERMANENT MARKINGS AND MARKERS ALONG THE NEWLY RESURFACED RAMP/LOOP AND REOPEN THE RAMP/LOOP BACK TO THE ORIGINAL PATTERN.



TRANSPORTATION
MANAGEMENT PLAN
TRAFFIC CONTROL PHASING