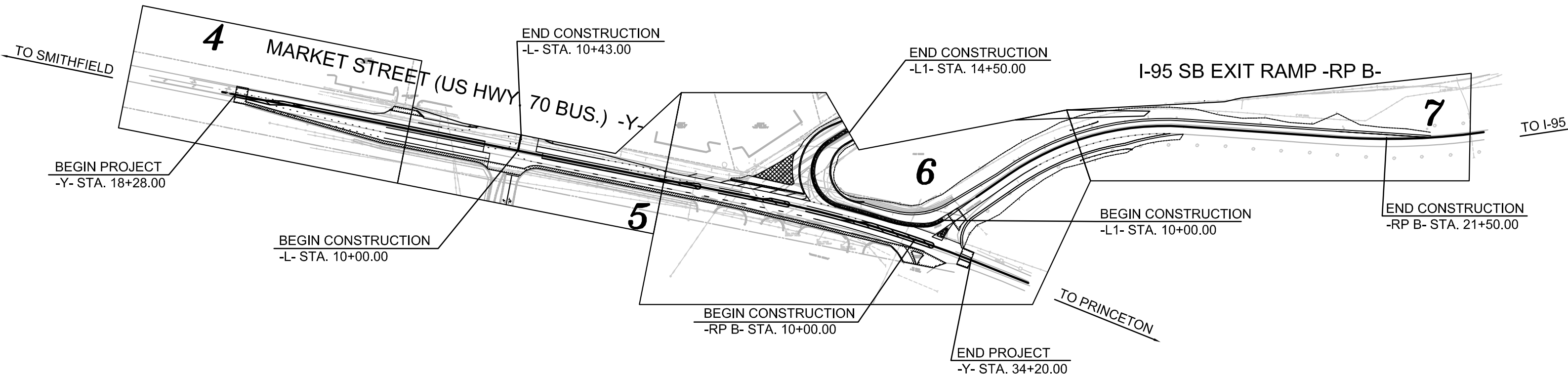


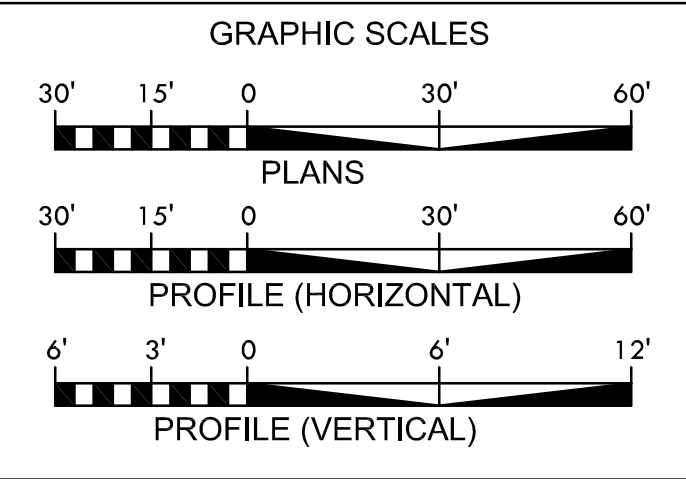
SMITHFIELD, NORTH CAROLINA  
SKETCH MAP SHOWING LOCATION OF PROJECT

Plan for the Proposed  
**US HWY 70 BUSINESS (Market Street) Roadway Improvements**  
Smithfield, North Carolina  
Johnston County  
Type of Work : Grading, Paving, Drainage, Erosion Control, Pavement Marking, Signing & Traffic Control  
April 13, 2011

**AREA A**



NC GRID - NAD 83/2001

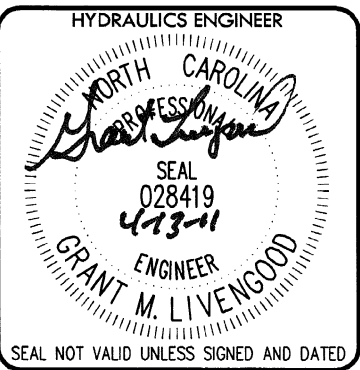


**TIP PROJECT: I-5404**

PROJECT LENGTH		
LENGTH ROADWAY -L-	=	0.008 mi.
TOTAL LENGTH OF TIP PROJECT I-5404	=	0.008 mi.

DESIGN DATA	
ADT 2005 = 17,200	
ADT 2031 = 37,100	
DHV = 10%	
D = 60%	
T = 5%	
V = 40 mph	
* TTST 2% DUAL 3%	

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES BOOK, DATED JULY 2006, AND THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS, DATED JULY 2006.



DRAINAGE & EROSION CONTROL DESIGN BY:

**MCKIM & CREED**  
1730 Varsity Drive, Suite 500  
Raleigh, North Carolina 27606  
Phone: (919)233-8091, Fax: (919)233-8031  
www.mckimcreed.com



GRADING, PAVING, PAVEMENT MARKING,  
SIGNING & TRAFFIC CONTROL DESIGN BY:

**RAMEY KEMP & ASSOCIATES**  
TRANSPORTATION ENGINEERS  
5808 Faringdon Place, Suite 100  
Raleigh, NC 27609  
P: 919.872.5115 F: 919.878.5416  
www.rameykemp.com

SHEET INDEX:

SHEET 1	TITLE SHEET
SHEET 1A	SHEET INDEX, UTILITY CONTACTS & STANDARD DRAWINGS
SHEET 1B	SURVEY INFORMATION
SHEETS 2 thru 2B	TYPICAL SECTIONS
SHEETS 2C thru 2E	MISCELLANEOUS DETAILS

SHEET 3-A	DRAINAGE, GUARDRAIL, IAND LUMP SUM GRADING SUMMARY
SHEETS 4 thru 7	ROADWAY PLAN, STORM DRAINAGE & PROFILE
SHEETS D-1 thru D-4	ROADWAY & DRAINAGE DETAIL SHEETS
SHEETS EC-1 thru EC-2	EROSION CONTROLS
SHEETS PM-1 thru PM-4	PAVEMENT MARKING PLANS
SHEETS S-1 thru S-14	SIGNING PLANS

SHEETS X-7 hru X-9	CROSS SECTIONS
--------------------	----------------

UTILITY CONTACTS:

Planning Department  
Town Hall - Town of Smithfield  
350 E. Market St.  
Smithfield, NC 27577  
P: 919.934.2116 ext. 1114  
Contact: Paul Embler, Planning Director

Smithfield Public Utilities Dept.  
Town of Smithfield  
Operations Center  
230 Hospital Rd.  
Smithfield, NC 27577  
P: 919.934.2798  
Contact: Earl Botlin

Electric  
Progress Energy  
221 US Hwy. 70 E.  
Selma, NC 27576  
P: 919.965.9264

Town of Smithfield  
Operations Center  
230 Hospital Rd.  
Smithfield, NC 27577  
P: 919.934.2230  
Contact: Rodney Johnson

Natural Gas  
Piedmont Natural Gas  
5520 Dillard Dr. Suite 240  
Cary, NC 27518  
P: 919.235.6005  
Contact: Ed Lyman

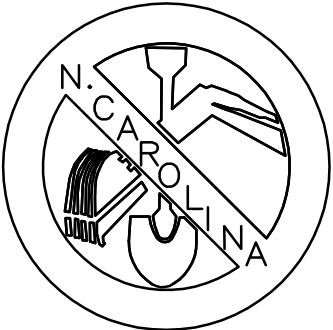
Water & Sewer  
Town of Smithfield  
Operations Center  
230 Hospital Rd.  
Smithfield, NC 27577  
P: 919.934.2438  
Contact: Danny Baker

Telephone  
Embarq  
1330 E Broad Street  
Fuquay Varina, NC 27526  
P: 919.552.0900

Cable Television  
Time Warner Cable  
114 US Hwy 70 W.  
Selma, NC 27576  
P: 866.489.2669

NCDOT  
Highway Division 4  
509 Ward Blvd.  
Wilson, NC 27895  
Contact: Bobby Lewis, PE  
P: 252.237.6164

Call " NC ONE CALL"  
BEFORE YOU DIG:  
1-800-632-4949



LIST OF APPLICABLE NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
STANDARD DRAWINGS

200.02	METHOD OF CLEARING - METHOD II
225.01	GUIDE FOR GRADING SUBGRADE - INTERSTATE AND FREEWAY
225.02	GUIDE FOR GRADING SUBGRADE - SECONDARY AND LOCAL
225.04	METHOD OF OBTAINING SUPERELEVATION - TWO LANE PAVEMENT
225.06	METHOD OF GRADING SIGHT DISTANCE AT INTERSECTIONS
665.01	ASPHALT SHOULDERS - MILLED RUMBLE STRIPS
700.05	TYING PROPOSED PAVEMENT TO EXISTING PAVEMENT
840.01	BRICK CATCH BASIN 12" THRU 54" PIPE
840.02	CONCRETE CATCH BASIN
840.03	FRAME, GRATES, AND HOOD
840.14	CONCRETE DROP INLET
840.15	BRICK DROP INLET 12" THRU 30" PIPE
840.16	DROP INLET FRAME AND GRATES
840.17	CONCRETE GRATED DROP INLET TYPE 'A'
840.22	FRAMES AND WIDE SLOT SAG GRATES
840.26	BRICK GRATED DROP INLET TYPE 'A' - 12" THRU 72" PIPE
840.31	CONCRETE JUNCTION BOX
840.32	BRICK JUNCTION BOX
840.52	PRECAST MANHOLE 4', 5', AND 6' DIAMETER
840.54	MANHOLE FRAME AND COVER
840.71	CONCRETE AND BRICK PIPE PLUG
846.01	CONCRETE CURB, GUTTER AND CURB & GUTTER
848.01	CONCRETE SIDEWALK
848.02	DRIVEWAY TURNOUT
848.04	STREET TURNOUT
848.05	WHEELCHAIR RAMP
852.01	CONCRETE ISLANDS
852.04	METHOD FOR PLACEMENT OF DROP INLETS IN GRASSED MEDIAN
852.05	MEDIAN CURB FOR CATCH BASIN
852.06	METHOD FOR PLACEMENT OF DROP INLETS IN CONCRETE ISLANDS
852.10	MEDIAN CONSTRUCTION - WITH CURB AND GUTTER
862.01	GUARDRAIL PLACEMENT
862.02	GUARDRAIL INSTALLATION
862.03	STRUCTURE ANCHOR UNITS
866.02	WOVEN WIRE FENCE - WITH WOOD POST
901.10	TYPE 'A' SIGNS
901.20	TYPE 'B' SIGNS
901.30	VHB TAPE CONSTRUCTION - FOR TYPE 'A' SIGNS
901.40	VHB TAPE CONSTRUCTION - FOR TYPE 'B' SIGNS
901.50	ARROWS AND SHIELDS
901.70	SIGN STRINGERS AND SUPPORT SPACING
901.80	SIGN MOUNTING DETAILS - FOR TYPE 'A' AND TYPE 'B' SIGNS
903.10	GROUND MOUNTED SIGN SUPPORTS
903.20	WOOD SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS - MOUNTING HEIGHT & LATERAL CLEARANCE
1110.02	PORTABLE WORK ZONE SIGNS - MOUNTING HEIGHT & LATERAL CLEARANCE
1115.01	FLASHING ARROW PANELS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES - TYPE III
1150.01	FLAGGING DEVICES
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - DIVIDED AND UNDIVIDED ROADWAYS
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 AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS
1264.02	PLACEMENT OF OBJECT MARKERS
1605.01	TEMPORARY SILT FENCE
1607.01	GRAVEL CONSTRUCTION ENTRANCE



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www.rameykemp.com  
NC License No. C-0910

REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

SHEET INDEX, UTILITY CONTACTS  
& STANDARD DRAWINGS

SCALE

N.T.S.

DATE: 02/04/11  
DWN BY:  
CHKD BY:

PROJECT NO.  
07098  
DRAWING  
SmCr\_SURV01

SHEET NO.  
1A



NOTES:

1. TOPOGRAPHIC SURVEY PERFORMED BY:  
STEPHEN R. WOLFE, PLS  
NC PLS # 3259  
JOYNER KEENY, PLLC  
P.O. BOX 7533  
209 NORTH PEARL STREET  
ROCKY MOUNT, NORTH CAROLINA 27804  
252-977-3124 (OFFICE)  
252-985-6024 (FAX)
2. BOUNDARY SURVEY PERFORMED BY:  
JIMMY C. BARBOUR, PLS  
NC PLS # 2855  
JIMMY BARBOUR SURVEYING, PA  
P.O. BOX 28  
213 S. SECOND STREET  
SMITHFIELD, NORTH CAROLINA 27577  
919-989-6642 (OFFICE)  
919-989-6643 (FAX)
3. THE INITIAL COORDINATES FOR THIS PROJECT WERE PRODUCED FROM GPS OBSERVATIONS UTILIZING TRIMBLE R8 GNSS DUAL FREQUENCY RECEIVERS AND ARE BASED ON NORTH CAROLINA GEODETIC SURVEY MONUMENT (NCGS) STAMPED "JCC 1998" (PID DF9071) HAVING NAD83/2001 PUBLISHED POSITIONS OF NORTH 639181.92 FEET, EAST 2199405.54 FEET. COORDINATES SHOWN ARE LOCALIZED HOLDING THIS MONUMENT WITH AN AVERAGE COMBINED FACTOR OF 0.999880557 (GROUND TO GRID).
4. ELEVATION DATUM IS NAVD 1988 DATUM AND IS BASED ON NCGS MONUMENT "JOH 26" WITH A PUBLISHED ELEVATION OF 151.86 FEET.
5. THERE HAS BEEN NO DETERMINATION OF WETLANDS OR HAZARDOUS WASTE ON THIS PROPERTY.
6. SURVEYOR DOES NOT GUARANTEE THAT ALL UNDERGROUND STRUCTURES SUCH AS UTILITIES, TANKS, AND PIPES ARE LOCATED HEREON.
7. DATE OF (TOPOGRAPHIC) FIELD SURVEY:  
15 JAN 2008 THRU 20 FEB 2008  
16 APR 2008 THRU 29 APR 2008  
09 JUL 2008 THRU 30 JUL 2008
8. FIELD BOOK # 126, 163, 172 AND 173
9. 1 FOOT CONTOUR INTERVAL

LEGEND

R/W	ROAD RIGHT-OF-WAY
R/W MON.	RIGHT-OF-WAY MONUMENT
RCP	REINFORCED CONC. PIPE
INV	PIPE INVERT
X 153.24	TYPICAL GROUND SHOT
	OVERHEAD UTILITY WIRES
	PIPES (SIZE & MATERIAL AS SHOWN)
	FIBER OPTIC LINE
	GAS LINE
	WATER LINE
	SANITARY SEWER LINE
	STORM DRAIN LINE
	TELEPHONE LINE
	FENCE (SIZE & MATERIAL AS SHOWN)
	UNDERGROUND ELECTRIC LINE
	WOODSLINE

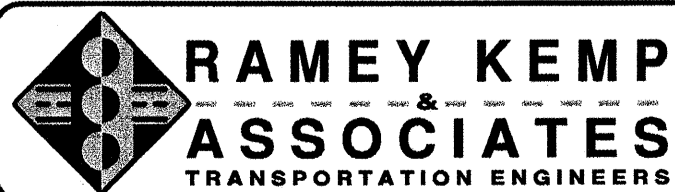
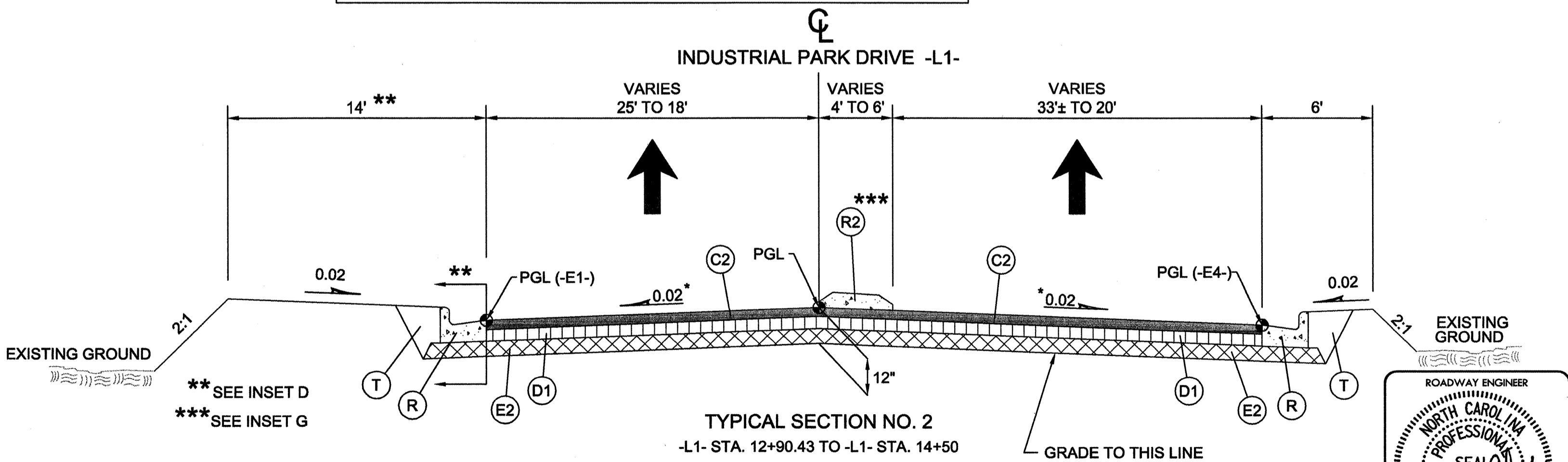
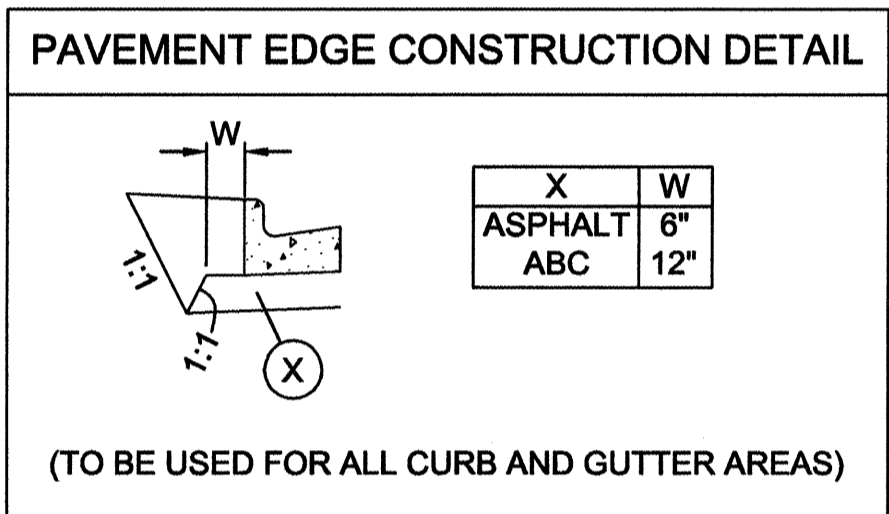
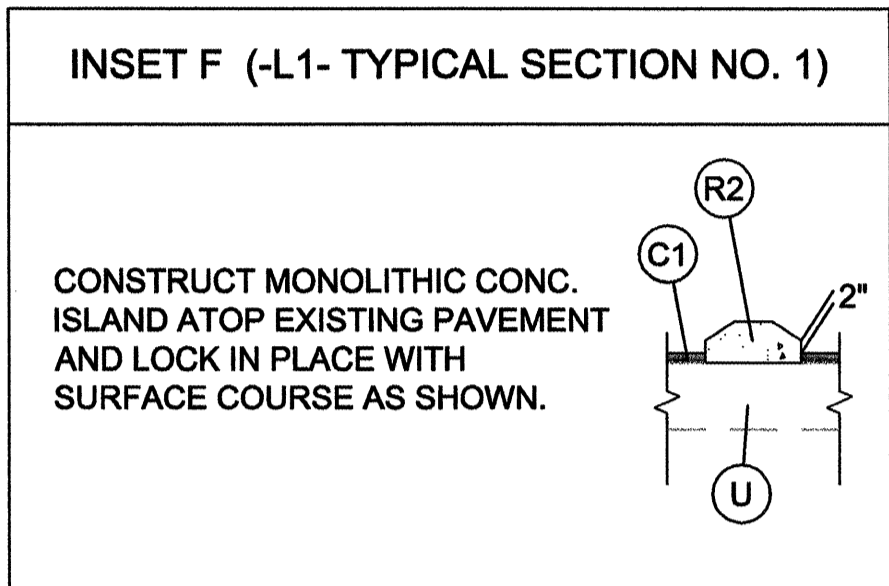
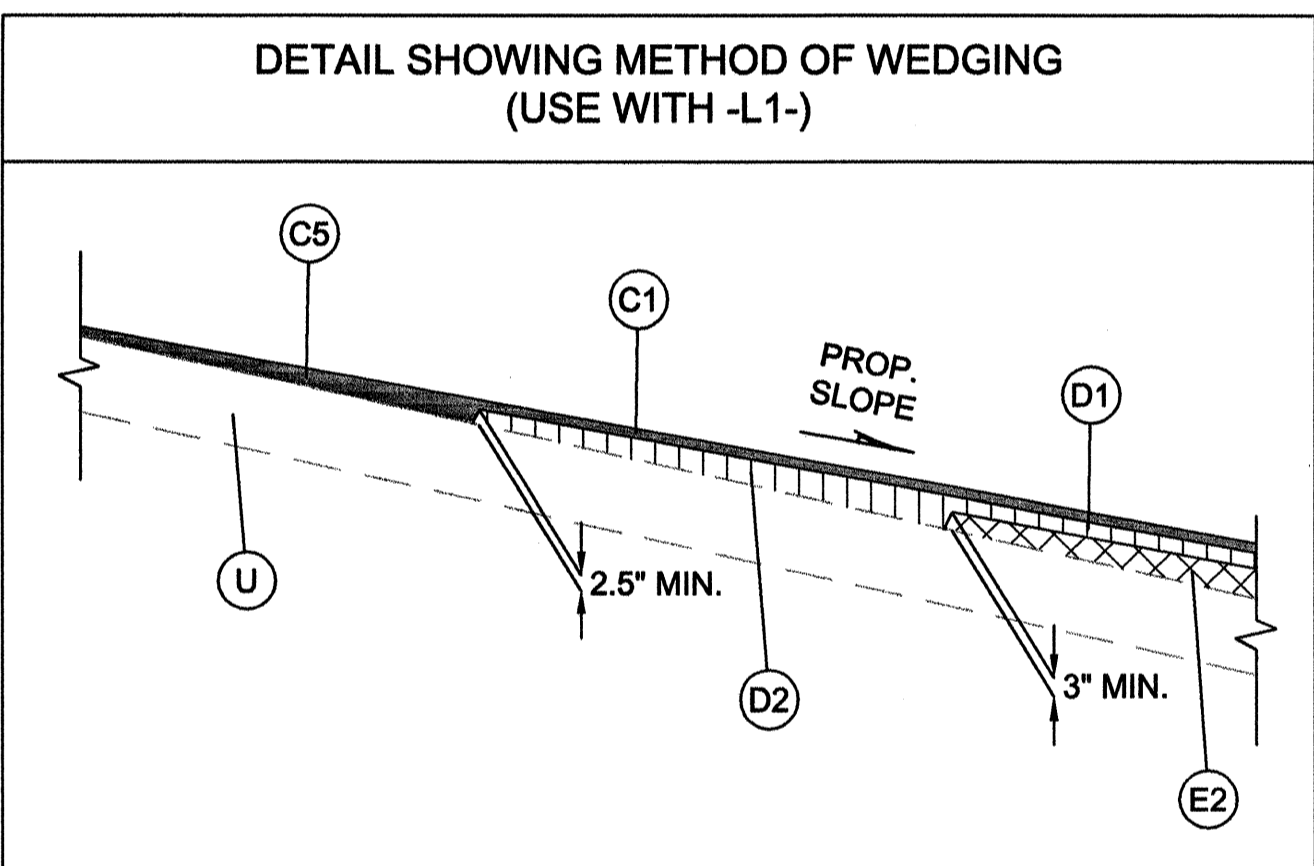
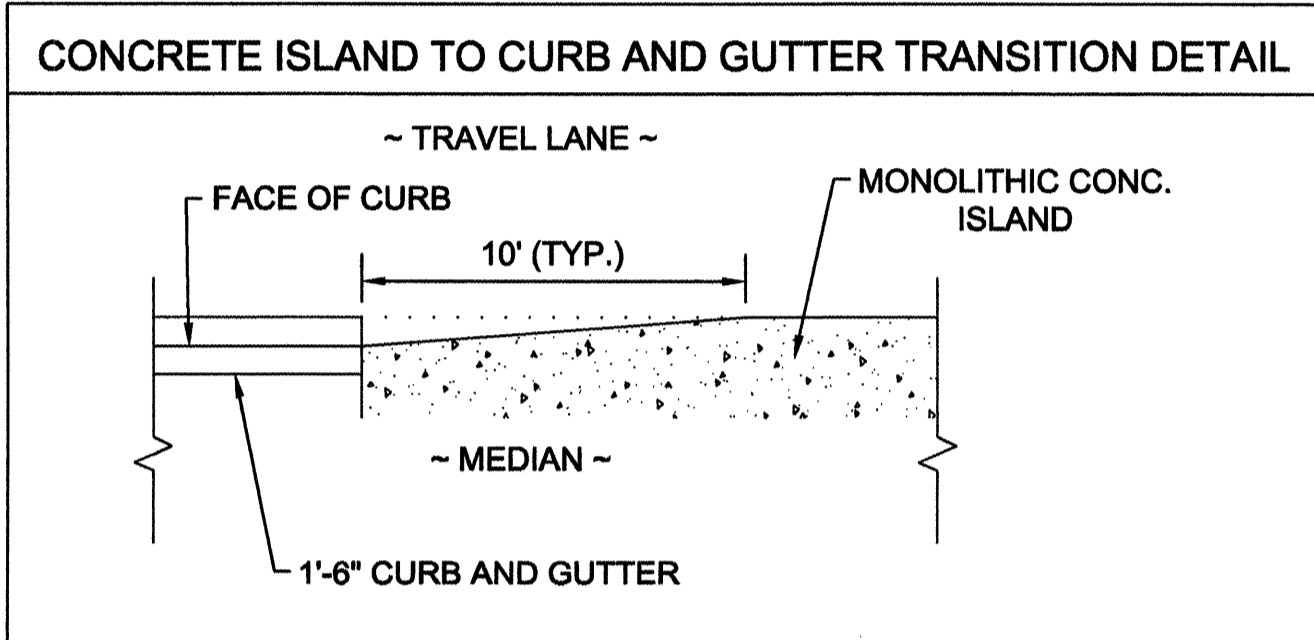
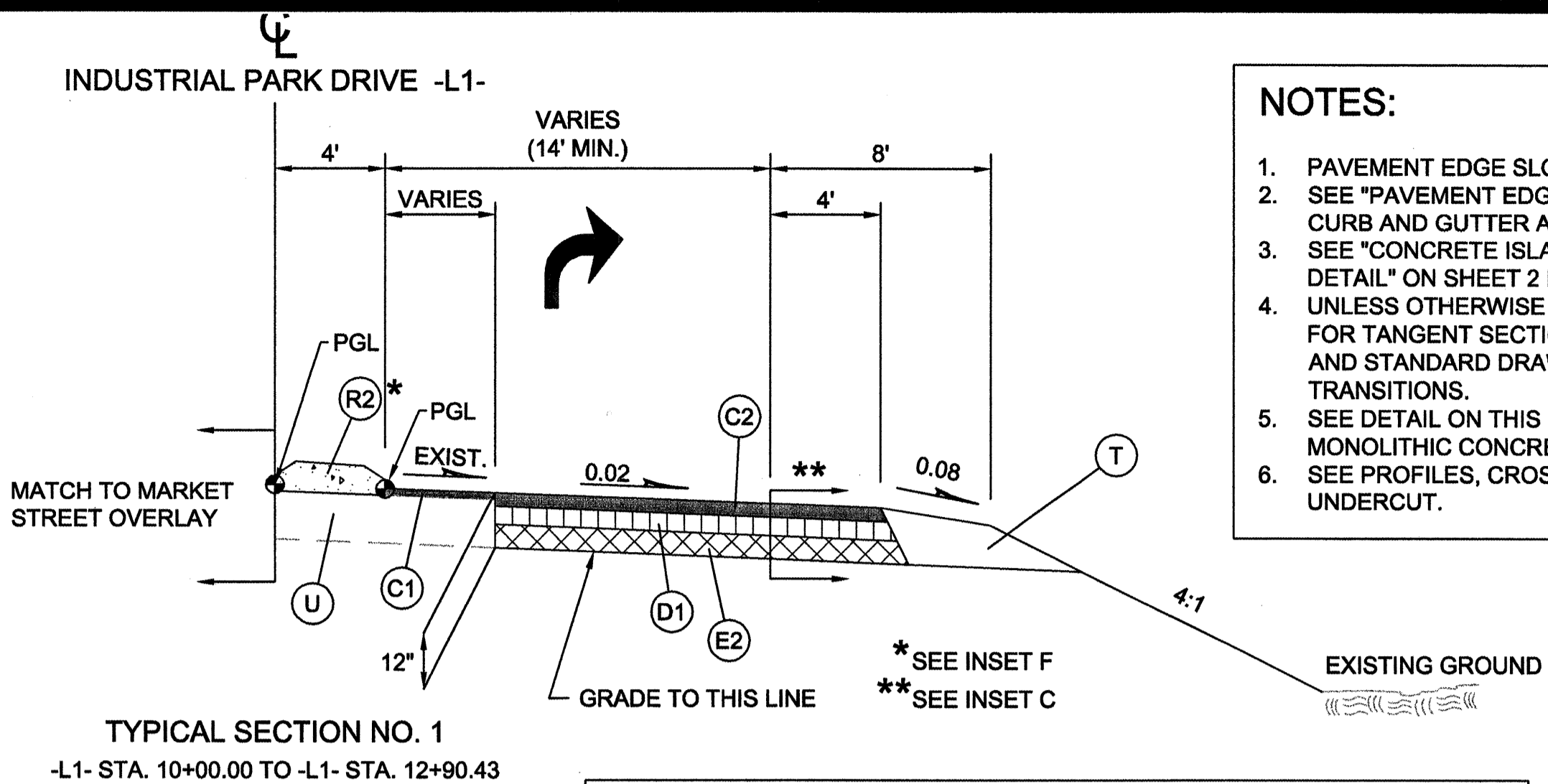
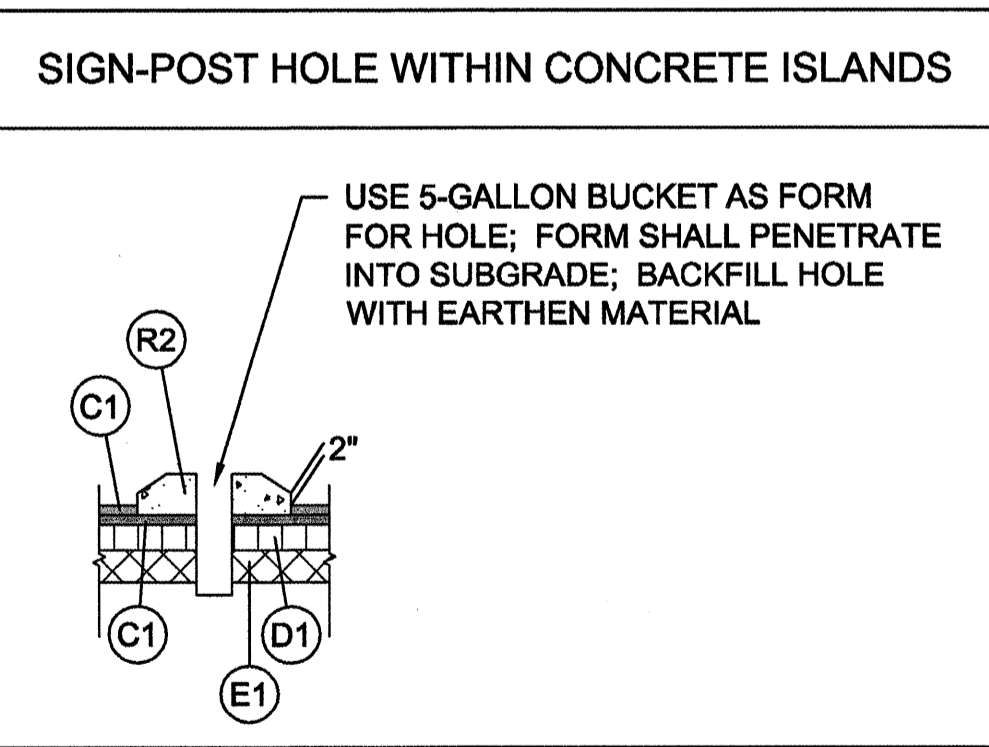
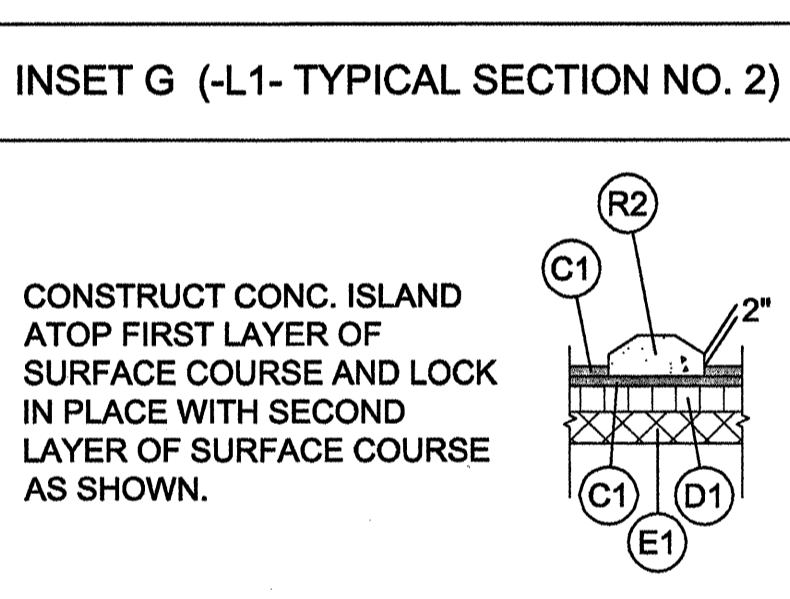
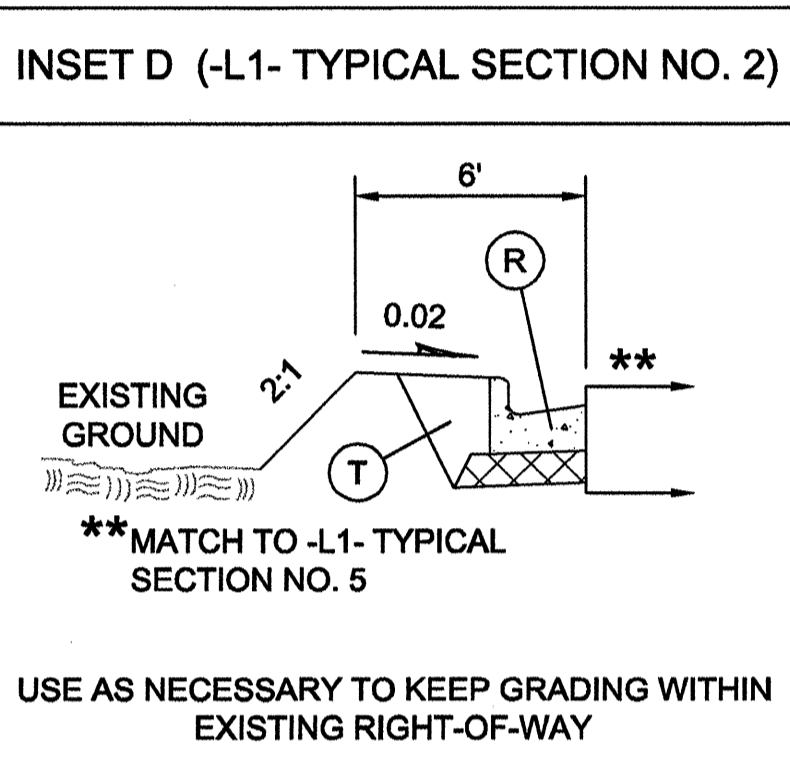
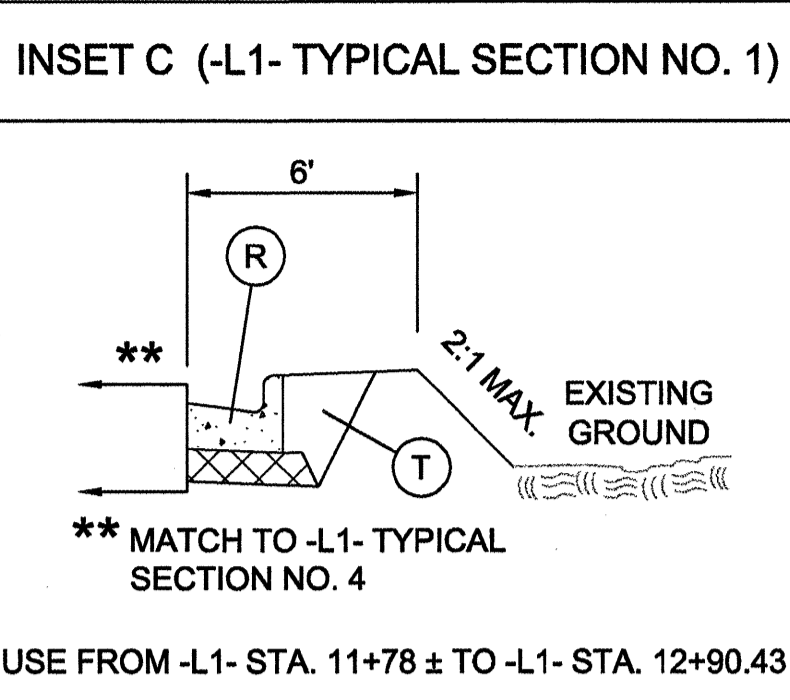
SYMBOLS LEGEND

>	FES - FLARED END SECTION
☆	LP - LIGHT POLE
⊗	WV - WATER VALVE
□	T.PED - TELEPHONE PEDESTAL
+	SIGN - SIGN (INFORMATION SHOWN ON SIGN)
+	FOC-SIGN - FIBER OPTIC MARKER
⊙	FH - FIRE HYDRANT
⊙	WM - WATER METER
⊠	JB - ELECTRIC JUNCTION BOX
⊙	SAN.MH - SANITARY SEWER MANHOLE
○	CO - SEWER CLEAN OUT
●	RBC - REBAR AND CAP
△	ECM - EXISTING CONCRETE MONUMENT
⊙	POLE - POWER POLE
⊙	LPT - LIGHT POLE WITH TRANSFORMER
○	TLP - TRAFFIC LIGHT POLE
⊙	PPT - POWER POLE WITH TRANSFORMER
⊙	GUY - GUY WIRE
○	TEL.MH - TELEPHONE MAN HOLE
⊠	TRAFFIC LIGHT SIGNAL BOX
⊠	MAILBOX
⊙	FAUCET - WATER FAUCET
○	BOLLARD
⊠	CB - CATCH BASIN
○	POST - 4" x 4" GUARD POST ± 3.8' HIGH
⊙	SD.MH - STORM DRAIN MAN HOLE
⊠	DI - DROP INLET
○	EIP - EXISTING IRON PIPE
○	SD - SATELLITE DISH

REVISIONS		
NO.	DATE	REMARKS

FILE NAME: S:\2007 Projects\07098 Smithfield Crossings - Smithfield NC\Design 1A\SmCr\_Typ01.dwg LAYOUT NAME: 2 PLOTTED: Wednesday, April 13, 2011 - 8:50am USER: dpatty

PAVEMENT SCHEDULE	
(C1)	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
(C3)	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
(C4)	PROP. APPROX. 1-1/2" STAMPED COLORED ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C5)	PROP. VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1-1/2" IN DEPTH OR GREATER THAN 2" IN DEPTH.
(D1)	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
(D2)	PROP. VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2-1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
(E1)	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
(E2)	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
(E3)	PROP. VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5-1/2" IN DEPTH.
(J1)	PROPOSED 12" COMPACTED AGGREGATE BASE COURSE
(J2)	PROPOSED 8" COMPACTED AGGREGATE BASE COURSE
(R)	2'-6" CONCRETE CURB AND GUTTER
(R2)	5" MONOLITHIC CONCRETE ISLAND
(R3)	4" CONCRETE ISLAND COVER
(S)	4" CONCRETE SIDEWALK
(T)	EARTH MATERIAL (COMPACTION REQUIRED)
(U)	EXISTING PAVEMENT
(U1)	EXISTING CURB AND GUTTER
(V)	MILLED RUMBLE STRIPS
(W)	VARIABLE DEPTH ASPHALT PAVEMENT - APPLY AS NECESSARY (SEE WEDGING DETAIL ON SHEET 2)



5808 Faringdon Place  
Suite 100  
Raleigh, NC 27608  
P: 919.872.5115  
F: 919.878.5416  
www.rameykemp.com  
NC License No. C-0810

REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

TYPICAL SECTIONS

SCALE  
N.T.S.

DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

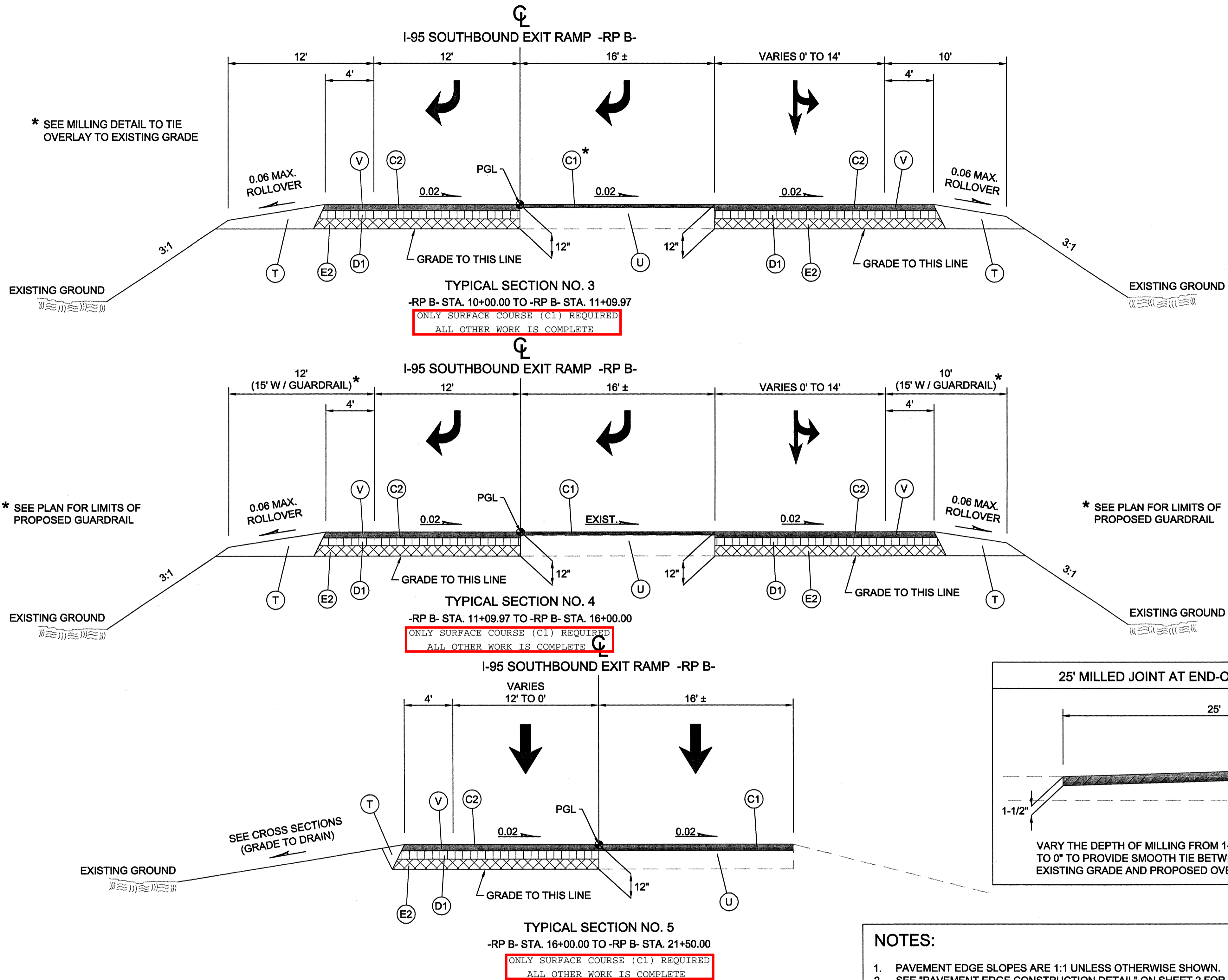
PROJECT NO.  
07098  
DRAWING  
SmCr\_Typ01

SHEET NO.  
2



# PAVEMENT SCHEDULE

C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
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C3	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
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C5	PROP. VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1-1/2" IN DEPTH OR GREATER THAN 2" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2-1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
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J2	PROPOSED 8" COMPACTED AGGREGATE BASE COURSE
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R2	5" MONOLITHIC CONCRETE ISLAND
R3	4" CONCRETE ISLAND COVER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL (COMPACTION REQUIRED)
U	EXISTING PAVEMENT
U1	EXISTING CURB AND GUTTER
V	MILLED RUMBLE STRIPS
W	VARIABLE DEPTH ASPHALT PAVEMENT - APPLY AS NECESSARY (SEE WEDGING DETAIL ON SHEET 2)

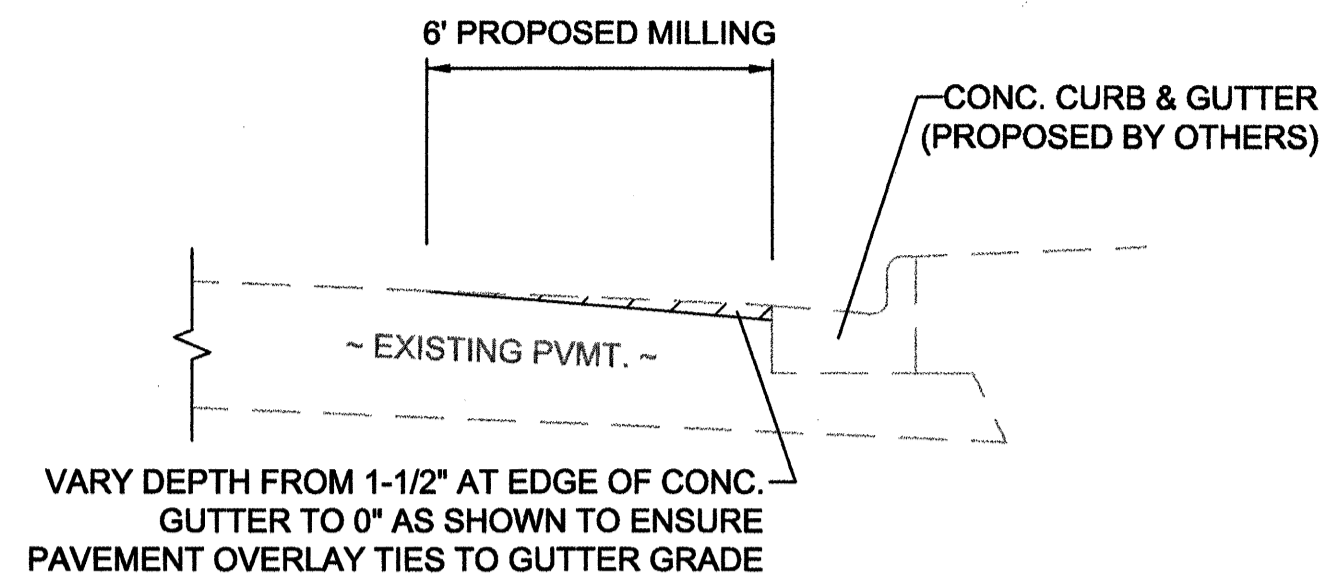


REVISIONS		
NO.	DATE	REMARKS

PAVEMENT SCHEDULE

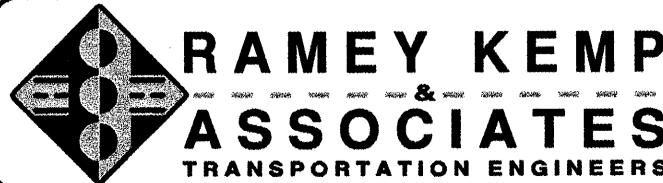
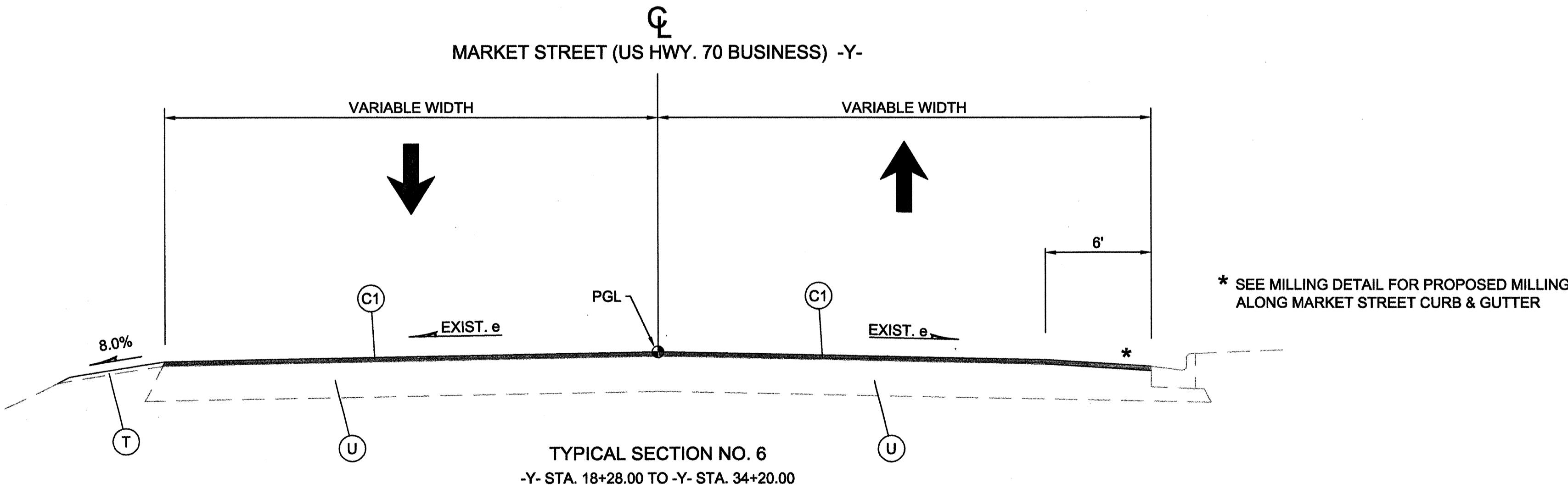
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D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2-1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E2	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E3	PROP. VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5-1/2" IN DEPTH.
J1	PROPOSED 12" COMPACTED AGGREGATE BASE COURSE
J2	PROPOSED 8" COMPACTED AGGREGATE BASE COURSE
R	2'-6" CONCRETE CURB AND GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND
R3	4" CONCRETE ISLAND COVER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL (COMPACTION REQUIRED)
U	EXISTING PAVEMENT
U1	EXISTING CURB AND GUTTER
V	MILLED RUMBLE STRIPS
W	VARIABLE DEPTH ASPHALT PAVEMENT - APPLY AS NECESSARY (SEE WEDGING DETAIL ON SHEET 2)

MILLING DETAIL ALONG MARKET STREET CURB & GUTTER



NOTES:

1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE SHOWN.
2. SEE "PAVEMENT EDGE CONSTRUCTION DETAIL" ON SHEET 2 FOR CURB AND GUTTER AREAS.
3. SEE "CONCRETE ISLAND TO CURB AND GUTTER TRANSITION DETAIL" ON SHEET 2 FOR SUCH TRANSITION AREAS.
4. UNLESS OTHERWISE INDICATED, THE TYPICAL SECTIONS ARE FOR TANGENT SECTIONS ONLY. SEE PLANS, CROSS SECTIONS, AND STANDARD DRAWINGS FOR SUPERELEVATION TRANSITIONS.
5. SEE DETAIL ON SHEET 2 FOR SIGN-POST HOLES WITHIN MONOLITHIC CONCRETE ISLANDS.
6. SEE PROFILES, CROSS SECTIONS FOR APPROXIMATE LIMITS OF UNDERCUT.



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Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

TYPICAL SECTIONS

SCALE

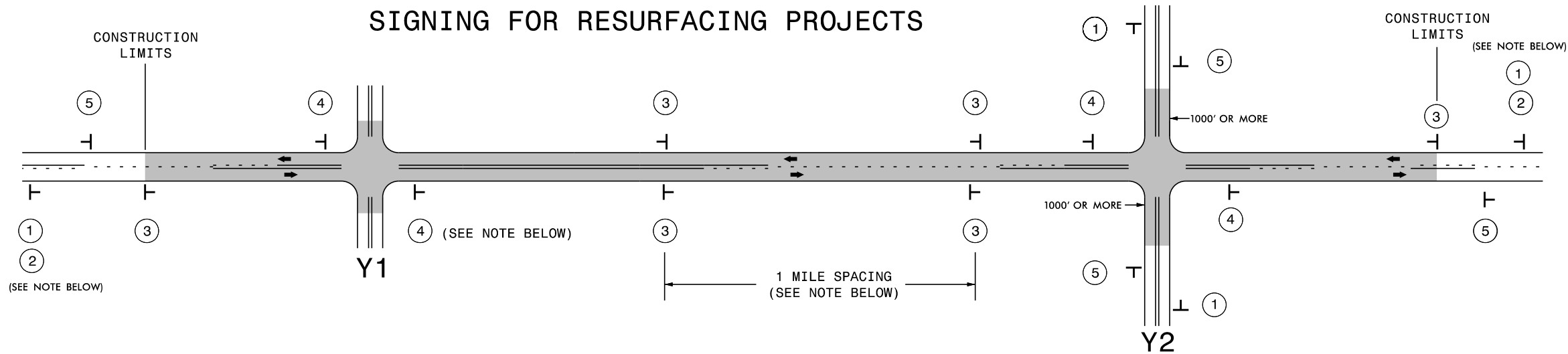
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DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

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07098  
DRAWING  
SmCr\_TYP01

SHEET NO.  
2B










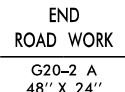
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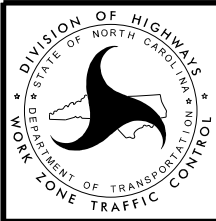
└ STATIONARY SIGN

➔ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

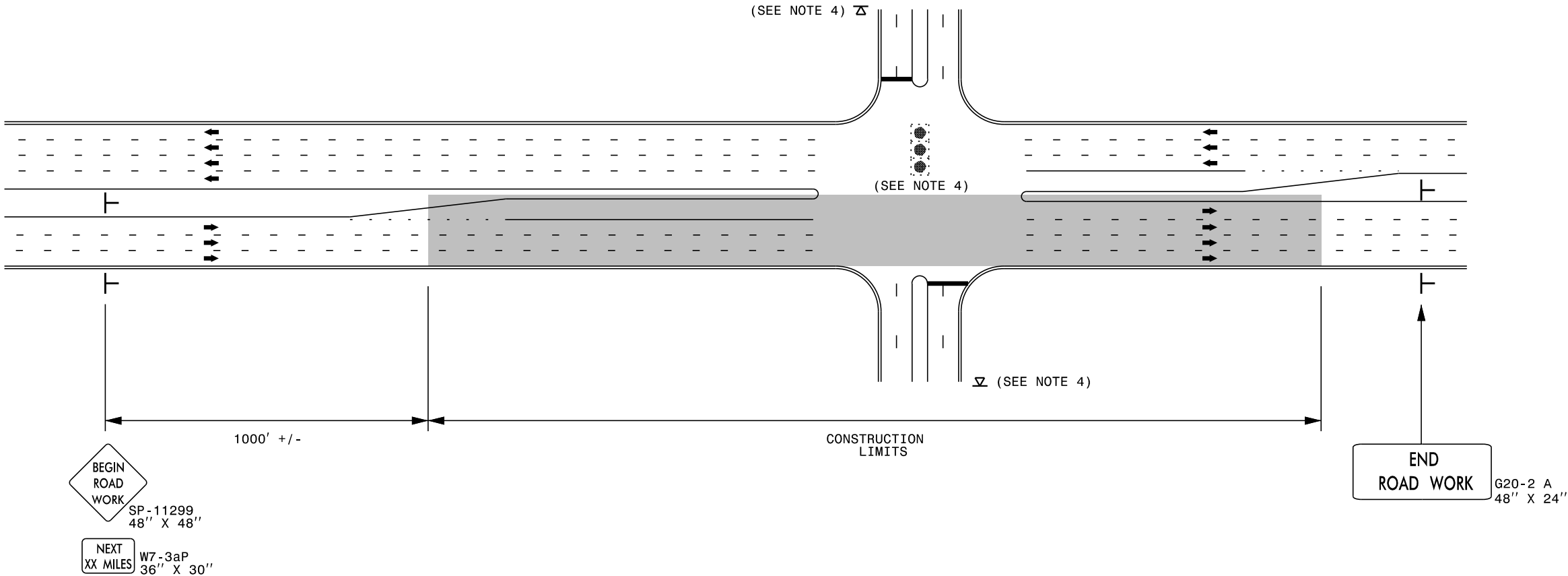
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<div>1</div> <div>2</div> <div><div>NEXT XX MILES</div><div>W7-36P 24" X 18"</div></div> <div>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</div> <div>#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</div>	<div>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</div> <div>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</div> <div>2) SUBDIVISION ROADS</div> <div>3) DEAD END ROADS</div> <div>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</div> <div><div><div>W20-1 48" X 48"</div></div><div><div>W20-7 A 48" X 48"</div></div><div>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</div></div>
	<div>3</div> <div><div>SP 13107 48" X 48"</div></div> <div>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</div>	
	<div>4</div> <div><div>SP 13106 48" X 48"</div></div> <div>THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</div>	
	<div>5</div> <div><div>G20-2 A 48" X 24"</div></div> <div>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</div>	



RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS

URBAN / SUBURBAN WORKZONES



NOTES:

- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AND PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS.THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

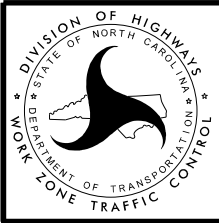
LEGEND

└

STATIONARY SIGN

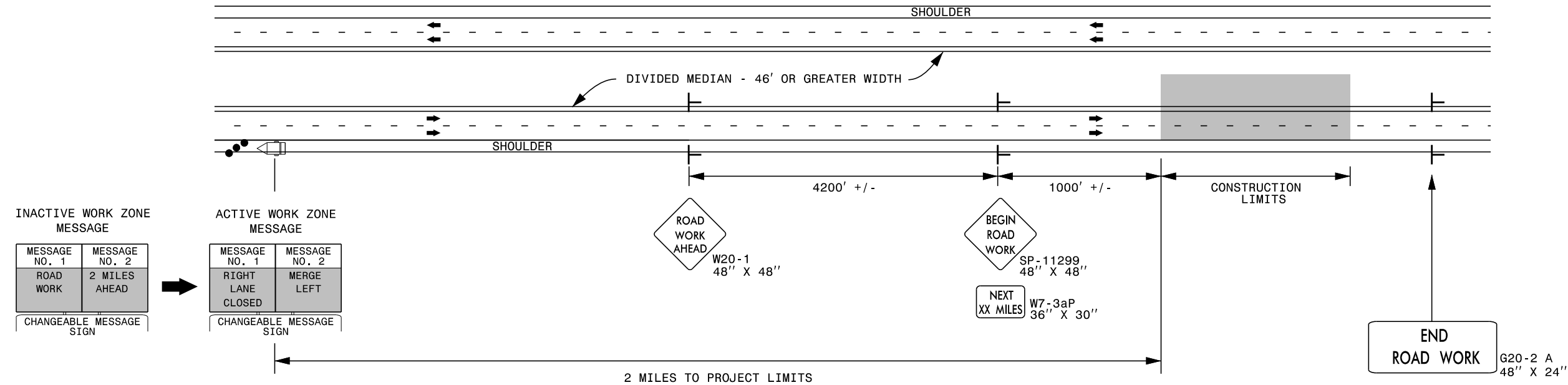
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DIRECTION OF TRAFFIC FLOW

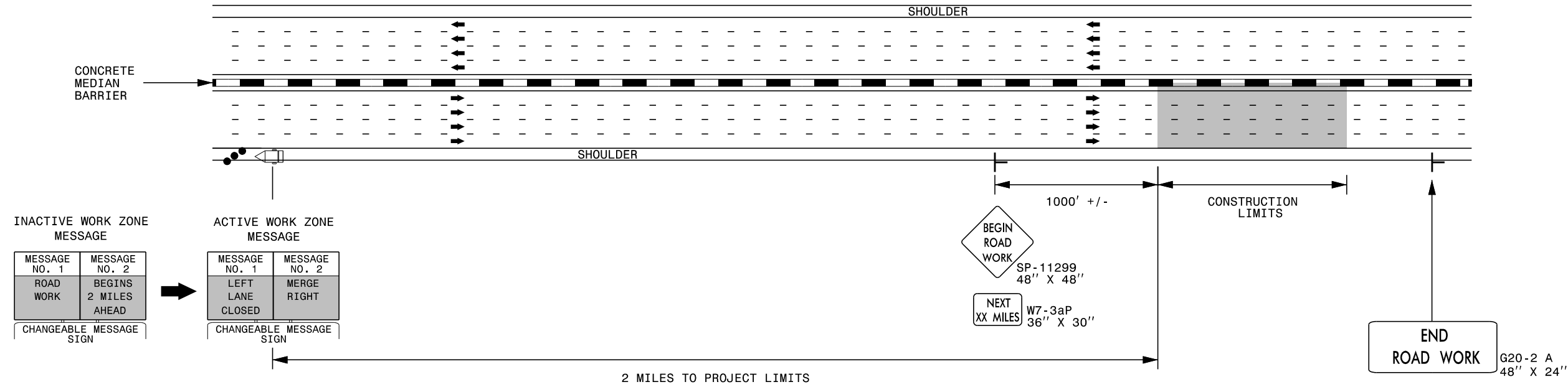


RESURFACING ADVANCE  
WARNING SIGNS FOR  
URBAN / SUBURBAN  
FACILITIES

DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER



NOTES:

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM



RESURFACING ADVANCE  
WARNING SIGNS FOR  
HIGH SPEED FACILITIES  
≥ 60 MPH



STANDARD FEATURES

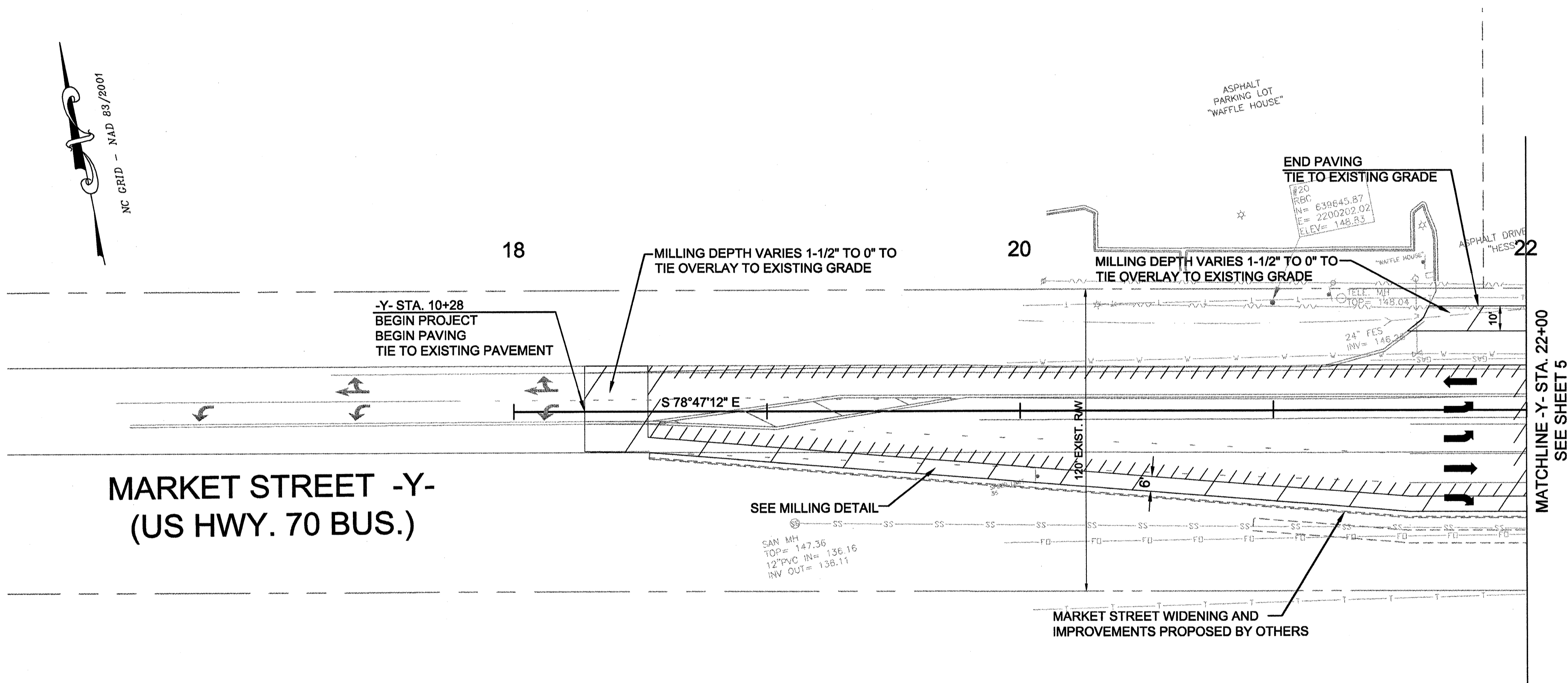
- ① 2'-6" CURB & GUTTER (NCDOT STD. 846.01)
- ③ 5' CONCRETE SIDEWALK (NCDOT STD. 848.01)
- ④ WHEELCHAIR RAMP (NCDOT STD. 848.05)
- ④\* CURB CUT ONLY (FOR FUTURE WC RAMP)
- ⑤ CONCRETE ISLAND COVER (NCDOT STD. 852.10)
- ⑦ 5" MONOLITHIC CONC. ISLAND (VARIABLE WIDTH) (NCDOT STD. 852.01)

LEGEND

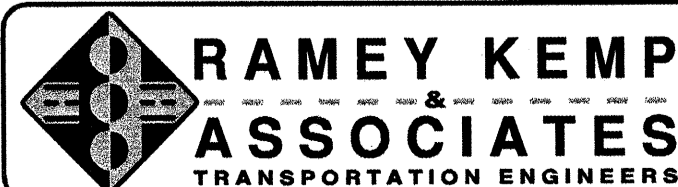
- PROPOSED FULL-DEPTH PAVEMENT SECTION
- PROPOSED CONCRETE
- PAVEMENT REMOVAL; GRADE, SEED & MULCH
- OVERLAY ONLY
- PROPOSED PAVEMENT MILLING & OVERLAY

NOTES:

- 1. ALL RADIUS RETURN CALLOUTS ARE TO EDGE OF PAVEMENT.
- 2. SEE "MILLING DETAIL ALONG MARKET STREET CURB & GUTTER" ON SHEET 2 FOR MILLING AREAS.



MARKET STREET -Y-  
(US HWY. 70 BUS.)

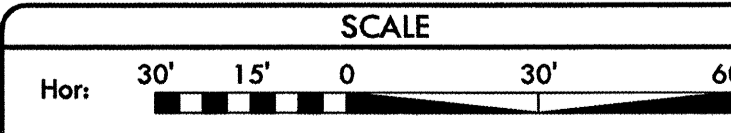


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Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

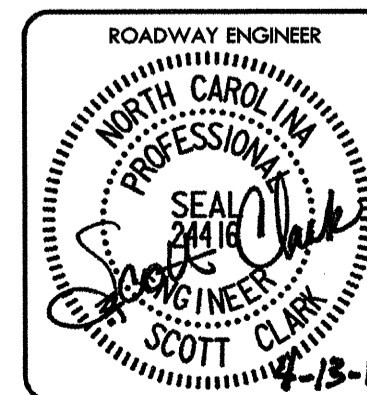
ROADWAY IMPROVEMENT PLAN

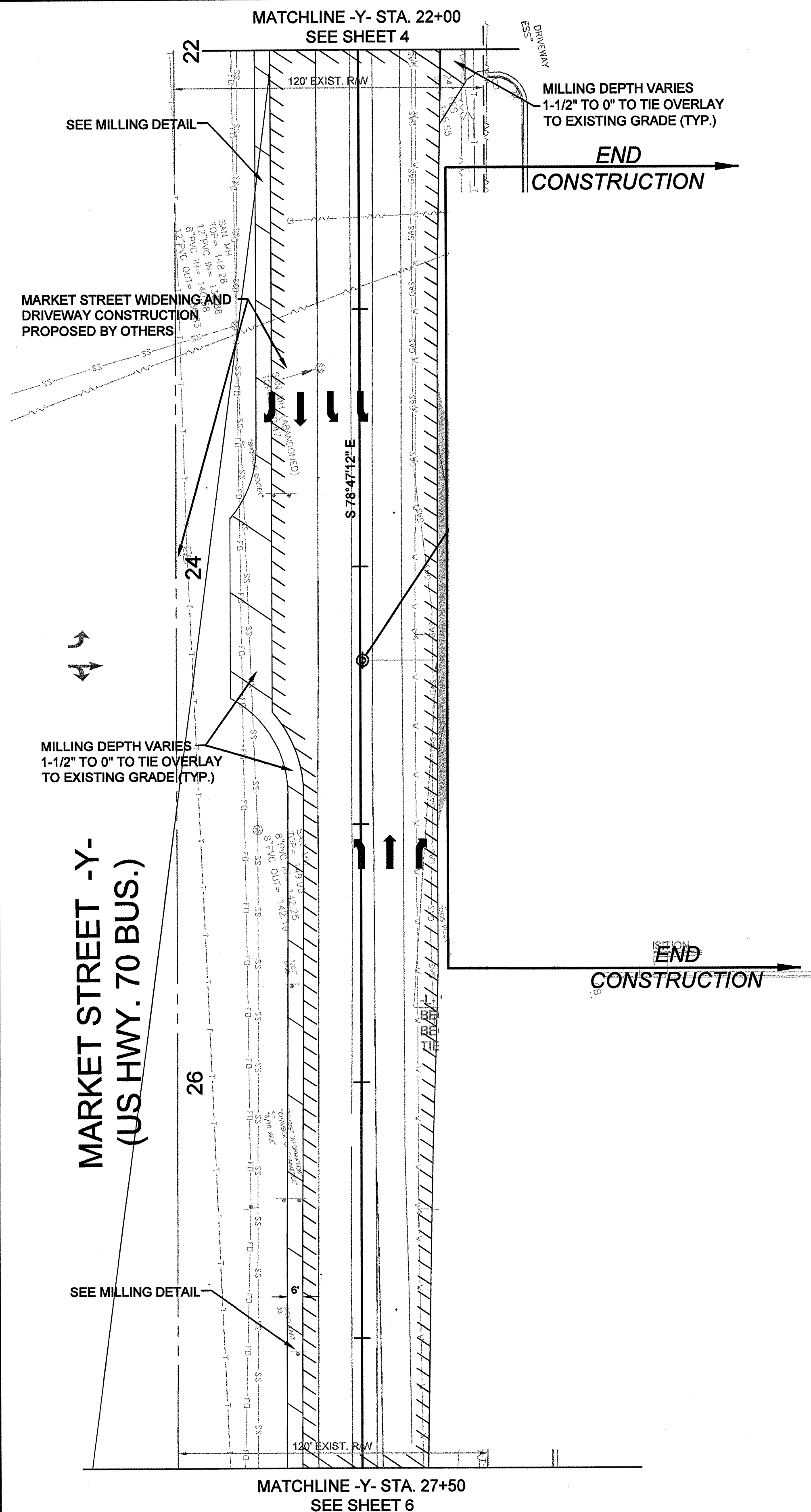


DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

PROJECT NO.  
07098  
DRAWING  
SmCr\_PLN01

SHEET NO.  
4

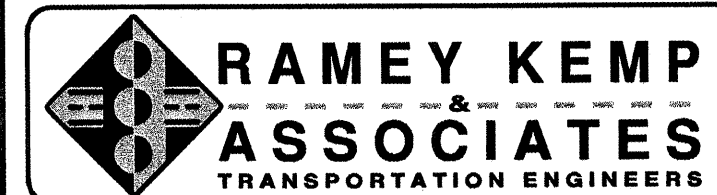
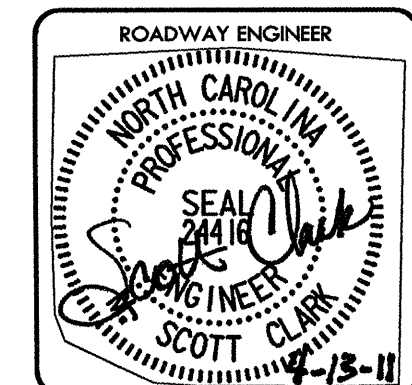




LEGEND	
PROPOSED FULL-DEPTH PAVEMENT SECTION	
PROPOSED CONCRETE	
PAVEMENT REMOVAL; GRADE, SEED & MULCH	
OVERLAY ONLY	
PROPOSED PAVEMENT MILLING & OVERLAY	

- NOTES:
1. ALL RADIUS RETURN CALLOUTS ARE TO EDGE OF PAVEMENT.
  2. SEE "MILLING DETAIL ALONG MARKET STREET CURB & GUTTER" ON SHEET 2 FOR MILLING AREAS.

SEE SHEET 5A FOR STORM DRAINAGE

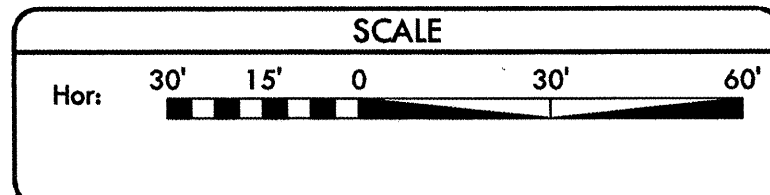


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Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

ROADWAY IMPROVEMENT PLAN



DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

PROJECT NO.  
07098  
DRAWING  
SmCr\_PLN02

SHEET NO.  
5

- ① 2'-6" CURB & GUTTER (NCDOT STD. 846.01)
- ③ 5' CONCRETE SIDEWALK (NCDOT STD. 848.01)
- ④ WHEELCHAIR RAMP (NCDOT STD. 848.05)
- ④\* CURB CUT ONLY (FOR FUTURE WC RAMP)
- ⑤ CONCRETE ISLAND COVER (NCDOT STD. 852.10)
- ⑦ 5" MONOLITHIC CONC. ISLAND (VARIABLE WIDTH) (NCDOT STD. 852.01)

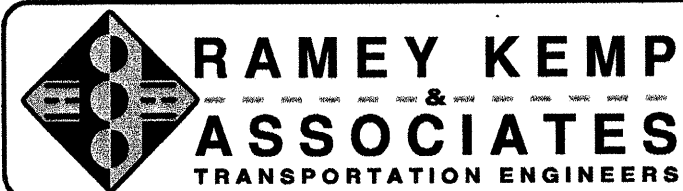
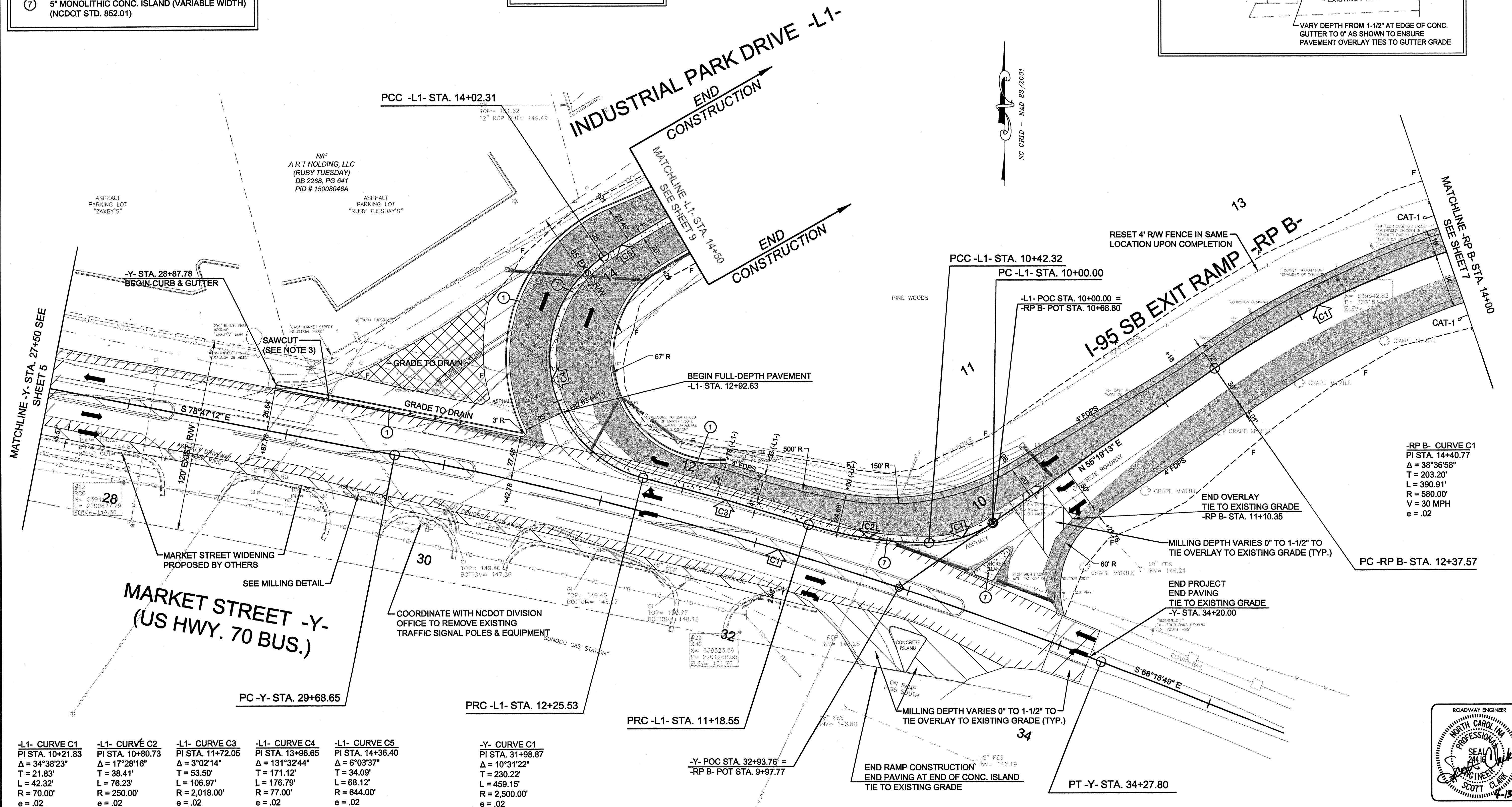
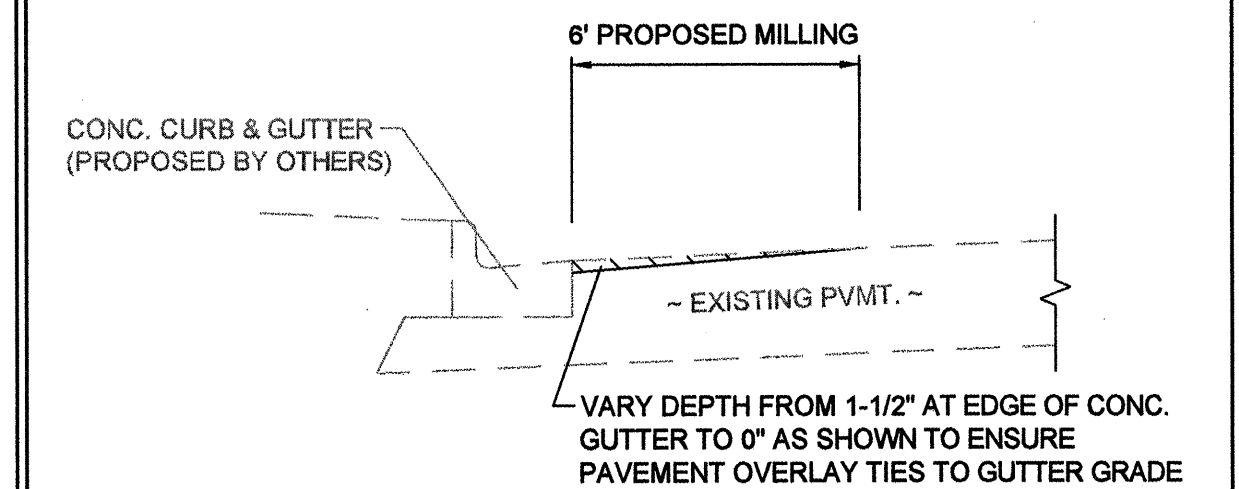
## NOTES

1. ALL RADIUS RETURN CALLOUTS ARE TO EDGE OF PAVEMENT.
2. WHERE PROPOSED CURB & GUTTER IS INSTALLED ADJACENT TO EXISTING PAVEMENT, SAWCUT AT LEAST 1' IN FRONT OF PROPOSED GUTTER AND BACKFILL WITH FULL-DEPTH ASPHALT PAVEMENT.

### LEGEND

- PROPOSED FULL-DEPTH  
PAVEMENT SECTION
- PROPOSED CONCRETE  
PAVEMENT REMOVAL;  
GRADE, SEED & MULCH
- PROPOSED PAVEMENT  
MILLING & OVERLAY

**MILLING DETAIL ALONG MARKET STREET CURB & GUTTER**

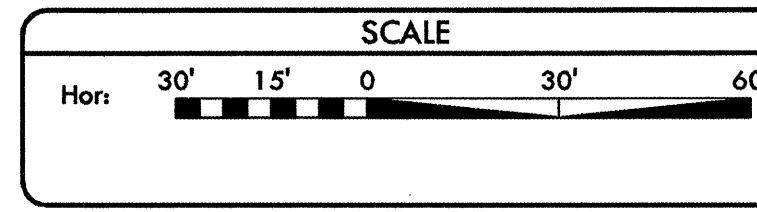


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## Smithfield Crossings Roadway Improvements Smithfield, North Carolina

## ROADWAY IMPROVEMENT PLAN



DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

PROJECT NO.  
07098

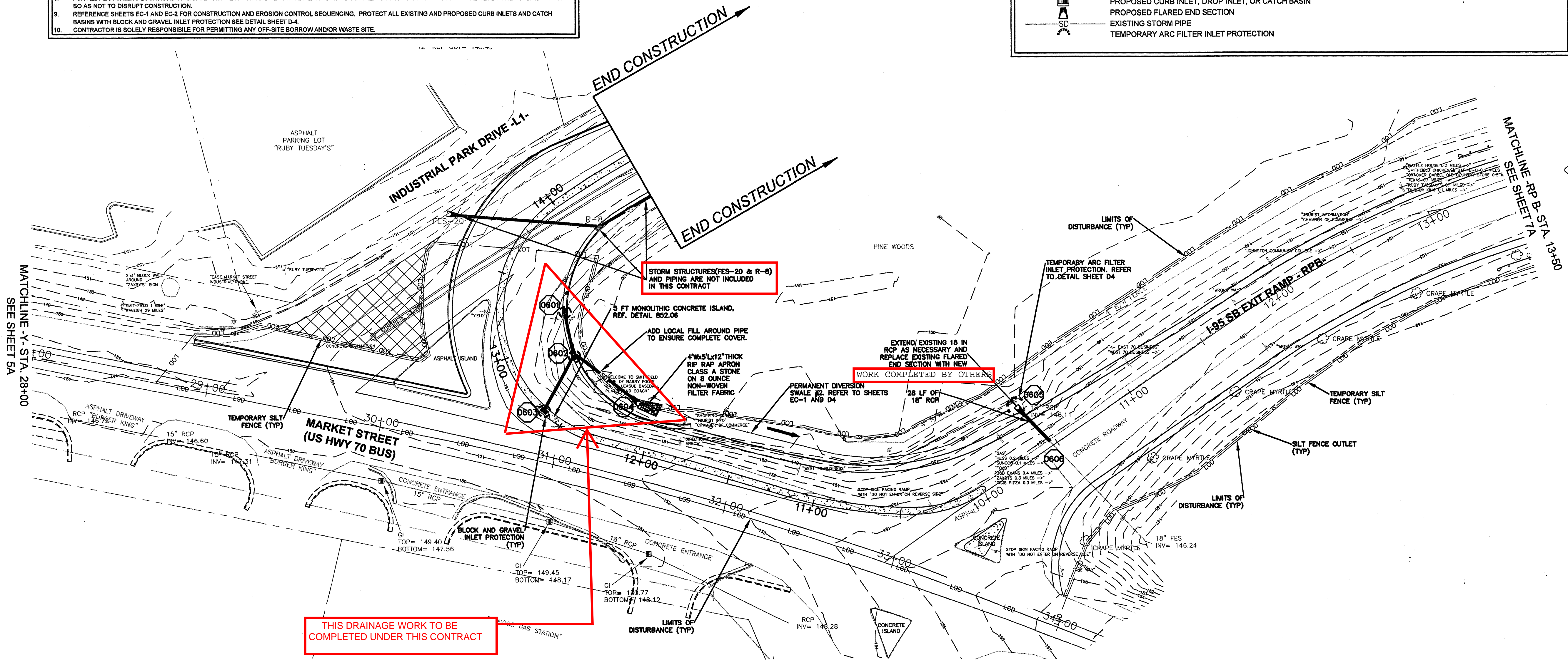
DRAWING  
SmCr\_PLN03

SHEET NO.  
6

- NOTES:
- EXISTING SURVEY PROVIDED INFORMATION PROVIDED BY JOYNER, KEENEY, & ASSOCIATES.
  - QUANTITIES AND DESIGN SHOWN HEREON ARE FOR STORM DRAINAGE ONLY. QUANTITY TAKEOFFS ARE ESTIMATES ONLY PREPARED BY THE ENGINEER FOR ENGINEERING COST ESTIMATION. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEW OF PLANS AND VERIFY BID QUANTITIES SHOWN.
  - CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - PLANS DO NOT DETAIL IMPACTS AND REPLACEMENT OF EXISTING WATER, SEWER, & ELECTRICAL UTILITIES.
  - WHERE EXISTING STORM PIPES ARE TO BE EXTENDED, CONTRACTOR SHALL MAKE CONNECTIONS AT PIPE JOINTS ONLY. ANY EXISTING STORM PIPE DAMAGES SHALL BE REPLACED WITH A FULL PIPE JOINT LENGTH.
  - CONTRACTOR SHALL SEQUENCE CONSTRUCTION TO MAINTAIN ALL EXISTING, OFF SITE DRAINAGE SUCH THAT THIS DRAINAGE IS NOT INTERRUPTED DURING CONSTRUCTION.
  - REFERENCE SHEETS D3 TO D5 FOR STORMWATER AND EROSION CONTROL DETAILS.
  - FOR ALL PLAN SHEETS LOCATIONS OF SILT FENCE ARE APPROXIMATE. PLACE FENCING AT TOE OF ALL FILL SLOPES. CONTRACTOR SHALL DETERMINE FINAL LOCATION SO AS NOT TO DISRUPT CONSTRUCTION.
  - REFERENCE SHEETS EC-1 AND EC-2 FOR CONSTRUCTION AND EROSION CONTROL SEQUENCING. PROTECT ALL EXISTING AND PROPOSED CURB INLETS AND CATCH BASINS WITH BLOCK AND GRAVEL INLET PROTECTION SEE DETAIL SHEET D-4.
  - CONTRACTOR IS SOLELY RESPONSIBLE FOR PERMITTING ANY OFF-SITE BORROW AND/OR WASTE SITE.

LEGEND

141	PROPOSED CONTOUR	SF	TEMPORARY SILT FENCE
141	GRASSED SWALE	PDE	PERMANENT DRAINAGE EASEMENT
141	RIP RAP	LDD	LIMITS OF DISTURBANCE
141	EXISTING CONTOUR	○	TEMPORARY INLET PROTECTION
141	CONCRETE	→	DIVERSION SWALE / DITCH
141	NEW ASPHALT		
SD	PROPOSED STORM DRAINAGE PIPE		
SD	PROPOSED CURB INLET, DROP INLET, OR CATCH BASIN		
SD	PROPOSED FLARED END SECTION		
SD	EXISTING STORM PIPE		
SD	TEMPORARY ARC FILTER INLET PROTECTION		



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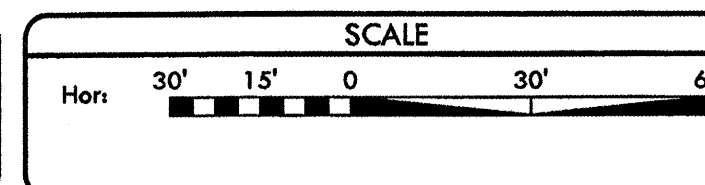
**RAMEY KEMP  
ASSOCIATES**  
TRANSPORTATION ENGINEERS

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Smithfield Roadway Improvements  
Smithfield, North Carolina  
AREA A

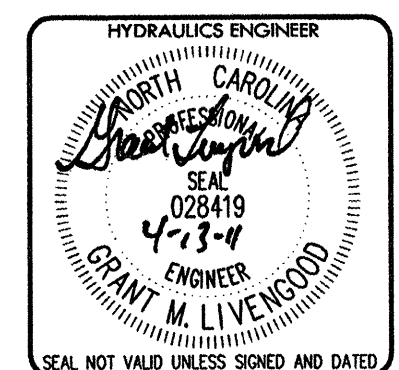
STORM DRAINAGE PLAN



DATE: 02/04/11  
DWN BY: JDH  
CHKD BY: JCA

PROJECT NO.  
07098  
DRAWING  
CE-101

SHEET NO.  
6A

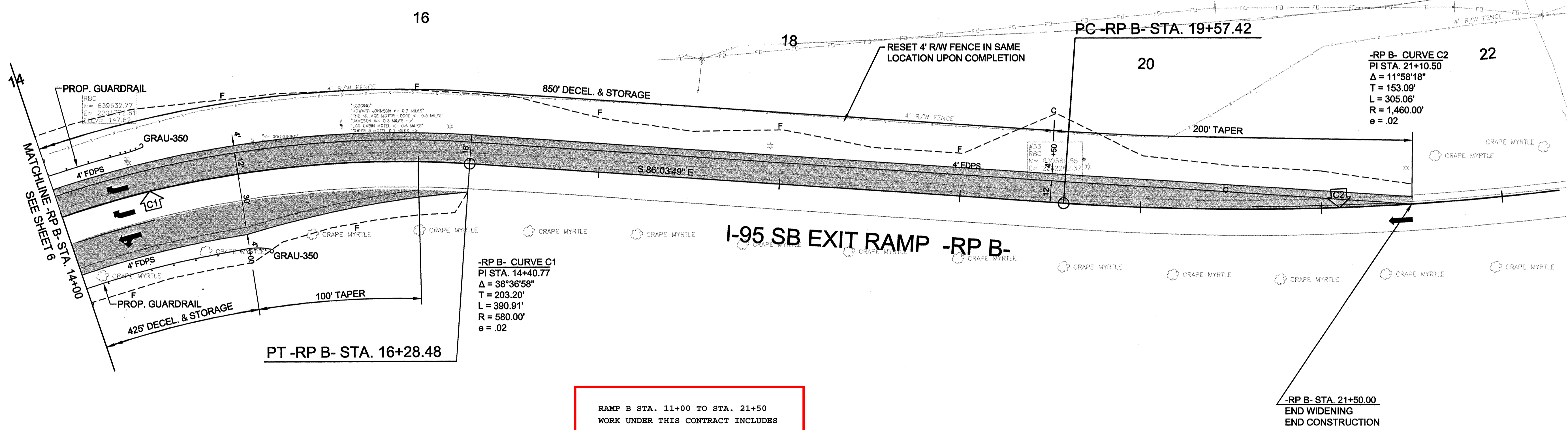


NOTES:

1. ALL RADIUS RETURN CALLOUTS ARE TO EDGE OF PAVEMENT.
2. WHERE PROPOSED CURB & GUTTER IS INSTALLED ADJACENT TO EXISTING PAVEMENT, SAWCUT AT LEAST 1' IN FRONT OF PROPOSED GUTTER AND BACKFILL WITH FULL-DEPTH ASPHALT PAVEMENT.

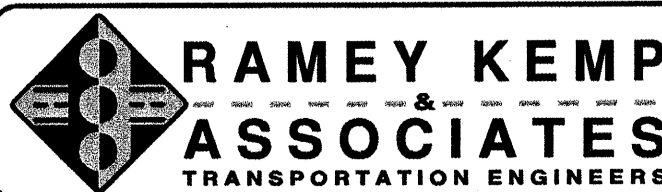
STANDARD FEATURES

- ① 2'-6" CURB & GUTTER (NCDOT STD. 846.01)
- ③ 5' CONCRETE SIDEWALK (NCDOT STD. 848.01)
- ④\* CURB CUT ONLY (FOR FUTURE WC RAMP)
- ⑤ CONCRETE ISLAND COVER (NCDOT STD. 852.10)
- ⑦ 5" MONOLITHIC CONC. ISLAND (VARIABLE WIDTH) (NCDOT STD. 852.01)



RAMP B STA. 11+00 TO STA. 21+50  
WORK UNDER THIS CONTRACT INCLUDES  
CONSTRUCTION OF FINAL FILL SLOPES.  
ALL OTHER WORK HAS BEEN COMPLETED.

FILE NAME: S:\2007 Projects\Smithfield Crossings - Smithfield NC\Design\I-95\I-95-PLN04.dwg LAYOUT NAME: Layout11 PLOTTED: Wednesday, April 13, 2011 - 8:27am USER: gpeley

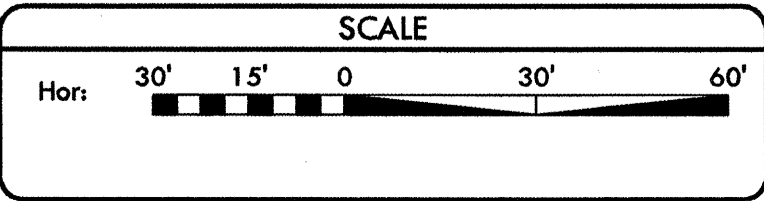


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Smithfield, North Carolina

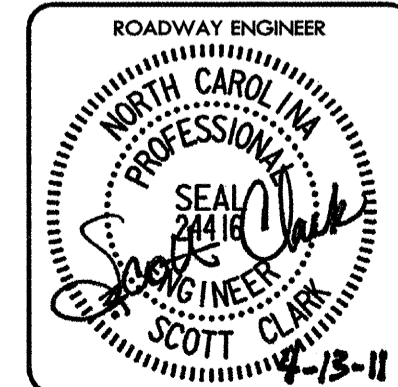
ROADWAY IMPROVEMENT PLAN



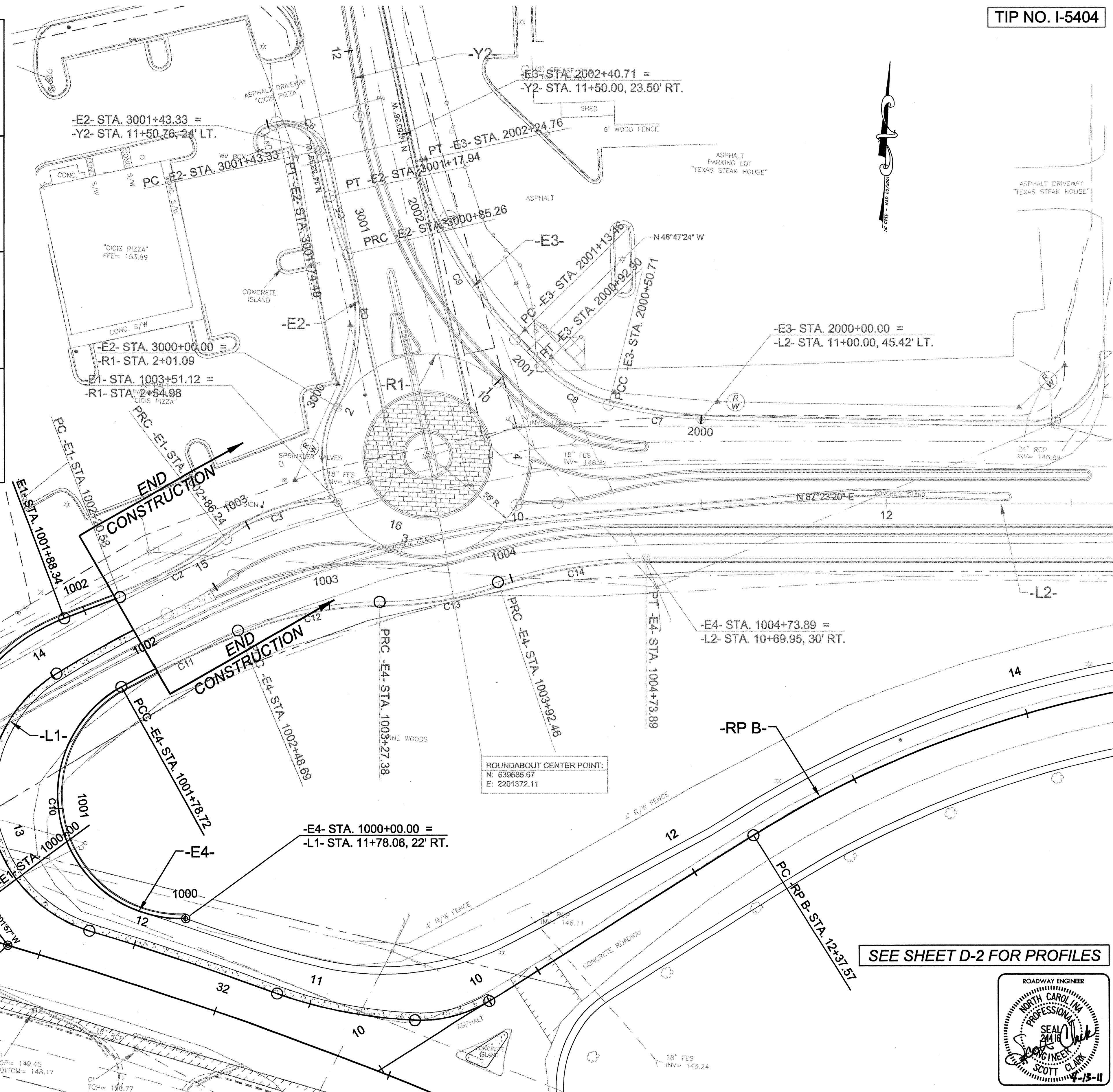
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SmCr\_PLN04

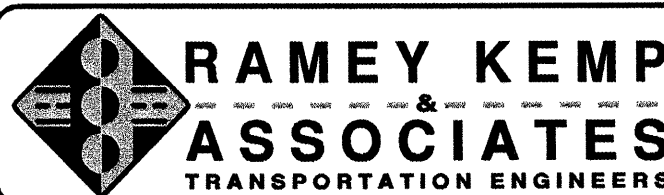
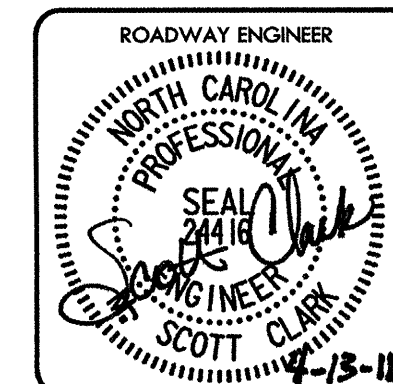
SHEET NO.  
7



<b>-E1-</b>	<b>-L1- WEST EDGE OF PAVEMENT</b>				
	C1	C2	C3		
	PI STA 1001+34.87	PI STA 1002+53.64	PI STA 1003+19.87		
	Δ = 105°47'59"	Δ = 16°13'04"	Δ = 37°10'11"		
	L = 188.35'	L = 65.67'	L = 64.87'		
	T = 134.87'	T = 33.05'	T = 33.62'		
	R = 102.00'	R = 232.00'	R = 100.00'		
<b>-E2-</b>	<b>-Y2- WEST EDGE OF PAVEMENT</b>				
	C4	C5	C6		
	PI STA 3000+45.41	PI STA 3001+01.62	PI STA 3001+63.08		
	Δ = 48°51'01"	Δ = 6°57'27"	Δ = 89°17'05"		
	L = 85.26'	L = 32.68'	L = 31.17'		
	T = 45.41'	T = 16.36'	T = 19.75'		
	R = 100.00'	R = 270.00'	R = 20.00'		
<b>-E3-</b>	<b>SLIP LANE (FROM -L2- TO -Y2-) NORTHEAST EDGE OF PAVEMENT</b>				
	C7	C8	C9		
	PI STA 2000+25.81	PI STA 2000+72.69	PI STA 2001+70.25		
	Δ = 11°47'08"	Δ = 30°51'04"	Δ = 28°05'34"		
	L = 51.44'	L = 41.46'	L = 111.30'		
	T = 25.81'	T = 21.25'	T = 56.79'		
	R = 250.00'	R = 77.00'	R = 227.00'		
<b>-E4-</b>	<b>-L1- EAST EDGE OF PAVEMENT</b>				
	C10	C11	C12	C13	C14
	PI STA 1002+77.28	PI STA 1002+13.74	PI STA 1002.88.55	PI STA 1003+60.21	PI STA 1004+33.54
	Δ = 152°49'53"	Δ = 6°27'58"	Δ = 22°32'44"	Δ = 18°38'36"	Δ = 18°39'44"
	L = 173.72'	L = 69.97'	L = 78.70'	L = 65.08'	L = 81.43'
	T = 277.28'	T = 35.02'	T = 32.83'	T = 41.08'	
	R = 67.00'	R = 620.00'	R = 200.00'	R = 200.00'	R = 250.00'



SEE SHEET D-2 FOR PROFILES

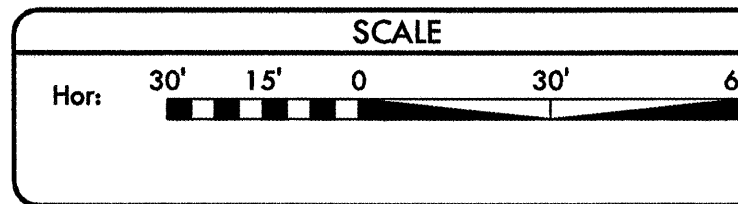


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NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

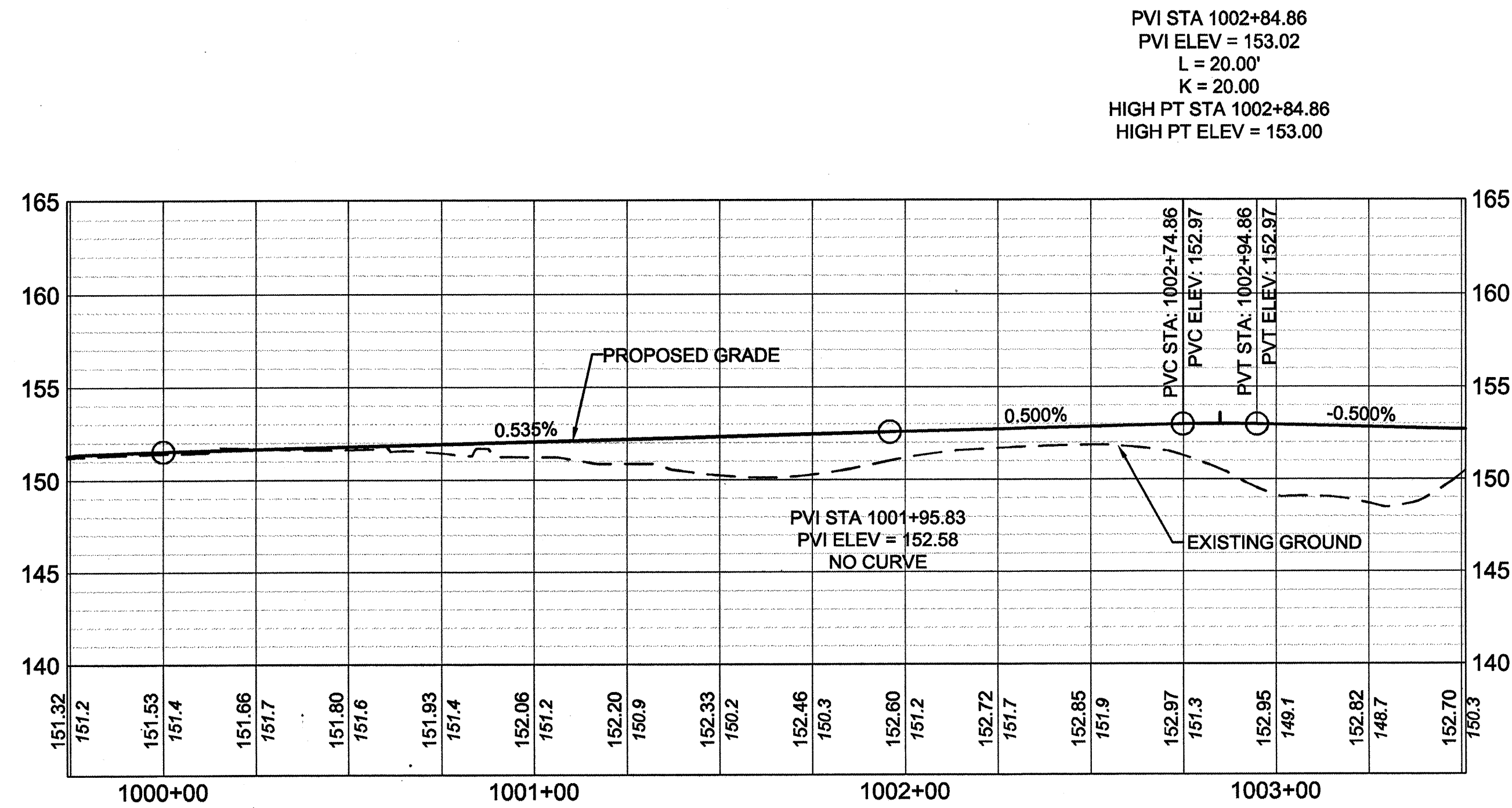
EDGE OF PAVEMENT DETAIL SHEET



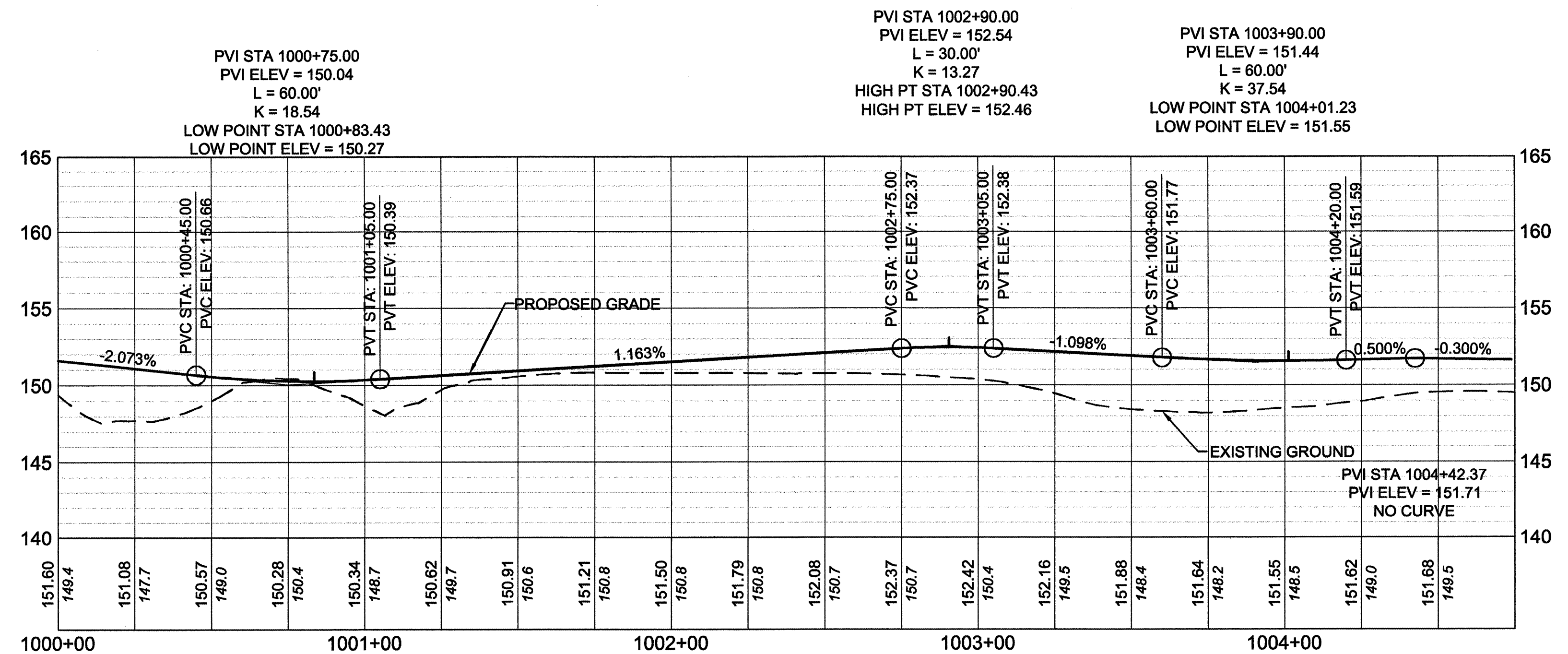
DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

PROJECT NO.  
07098  
DRAWING  
SmCr\_DTL01

SHEET NO.  
D-1

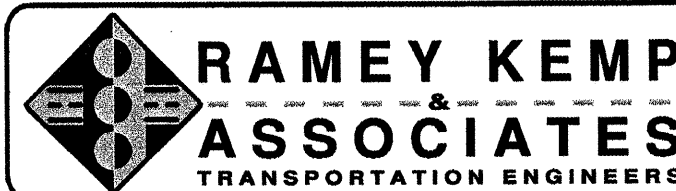


-L1- WEST EDGE OF PAVEMENT:  
-E1- STA. 1000+00 TO -E1- STA. 1003+51.12



-L1- EAST EDGE OF PAVEMENT:  
-E4- STA. 1000+00 TO -E4- STA. 1004+75

SEE SHEET D-1 FOR PLAN LAYOUT

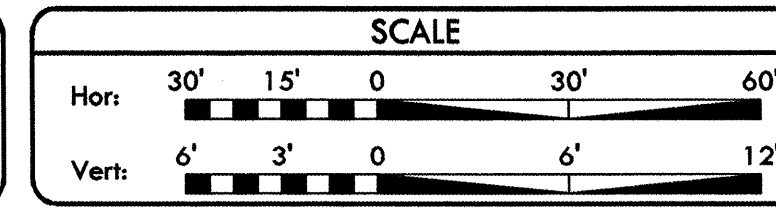


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REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

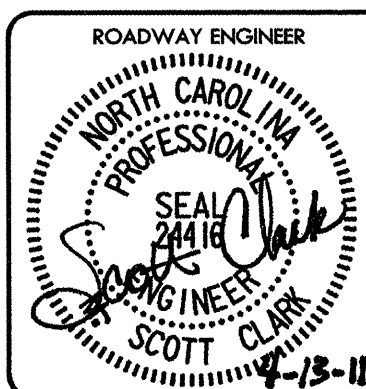
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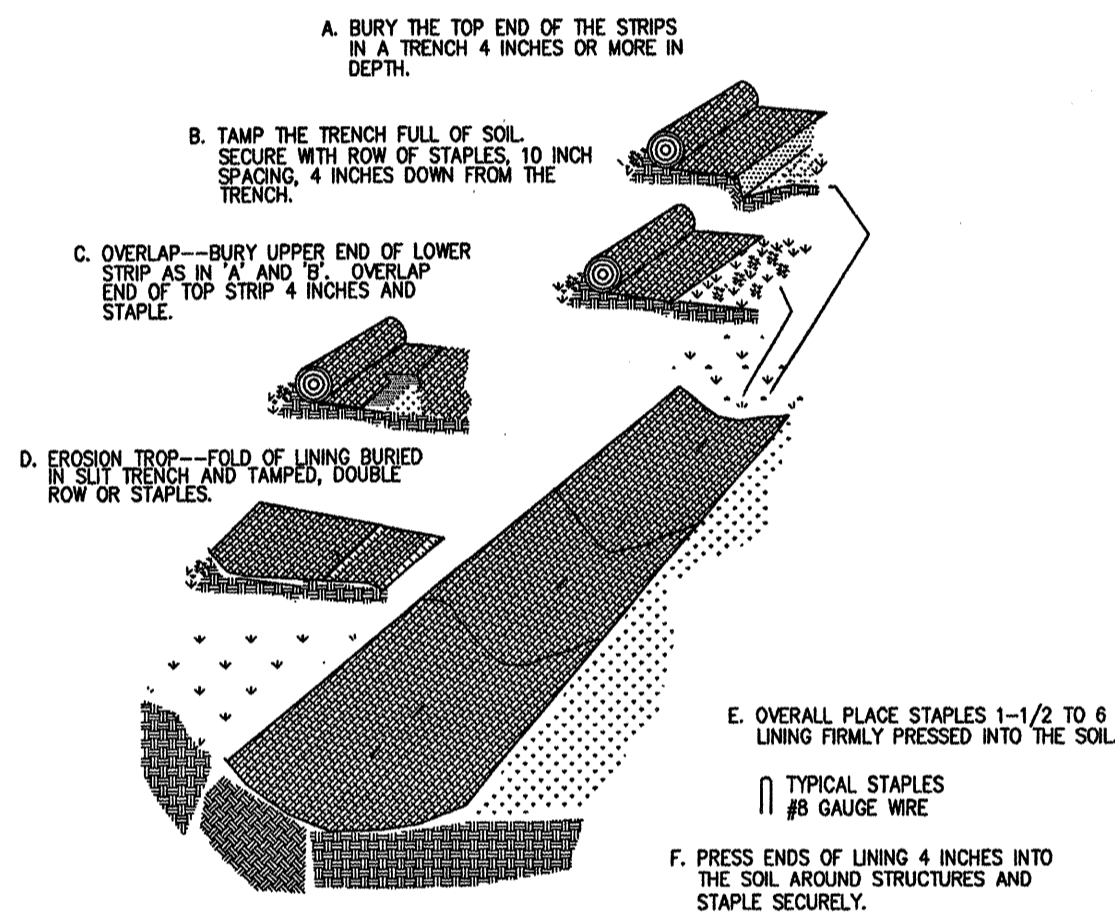
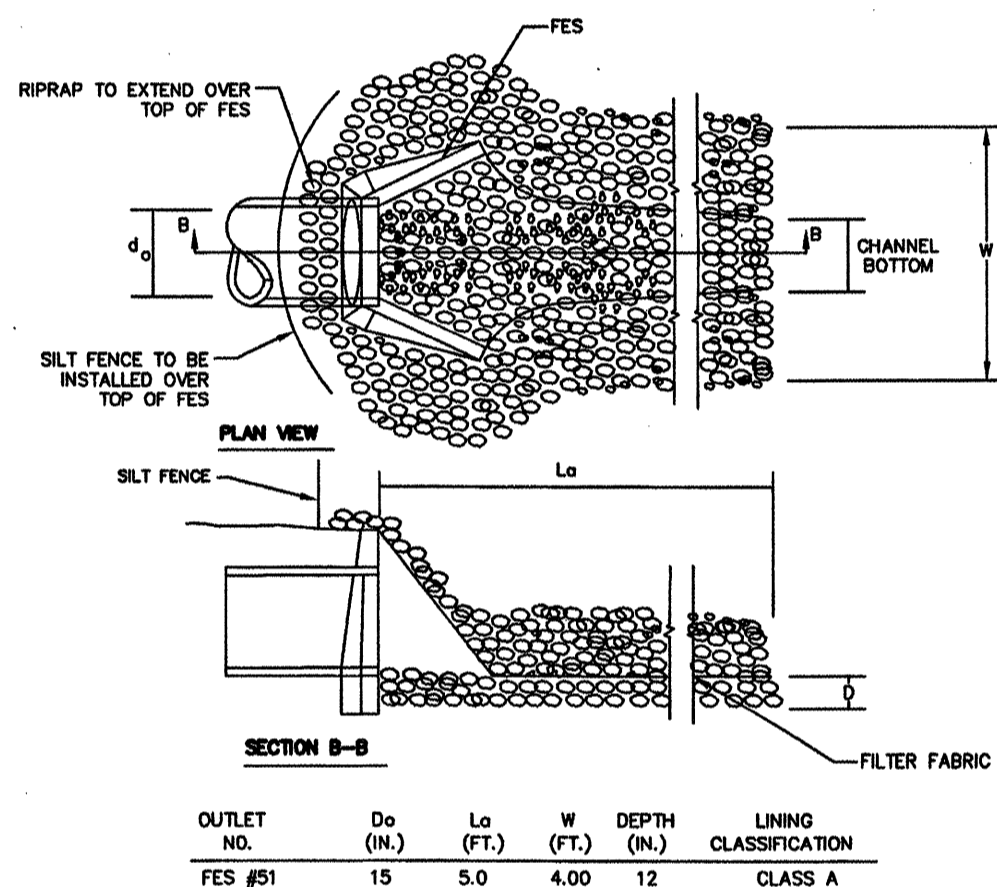
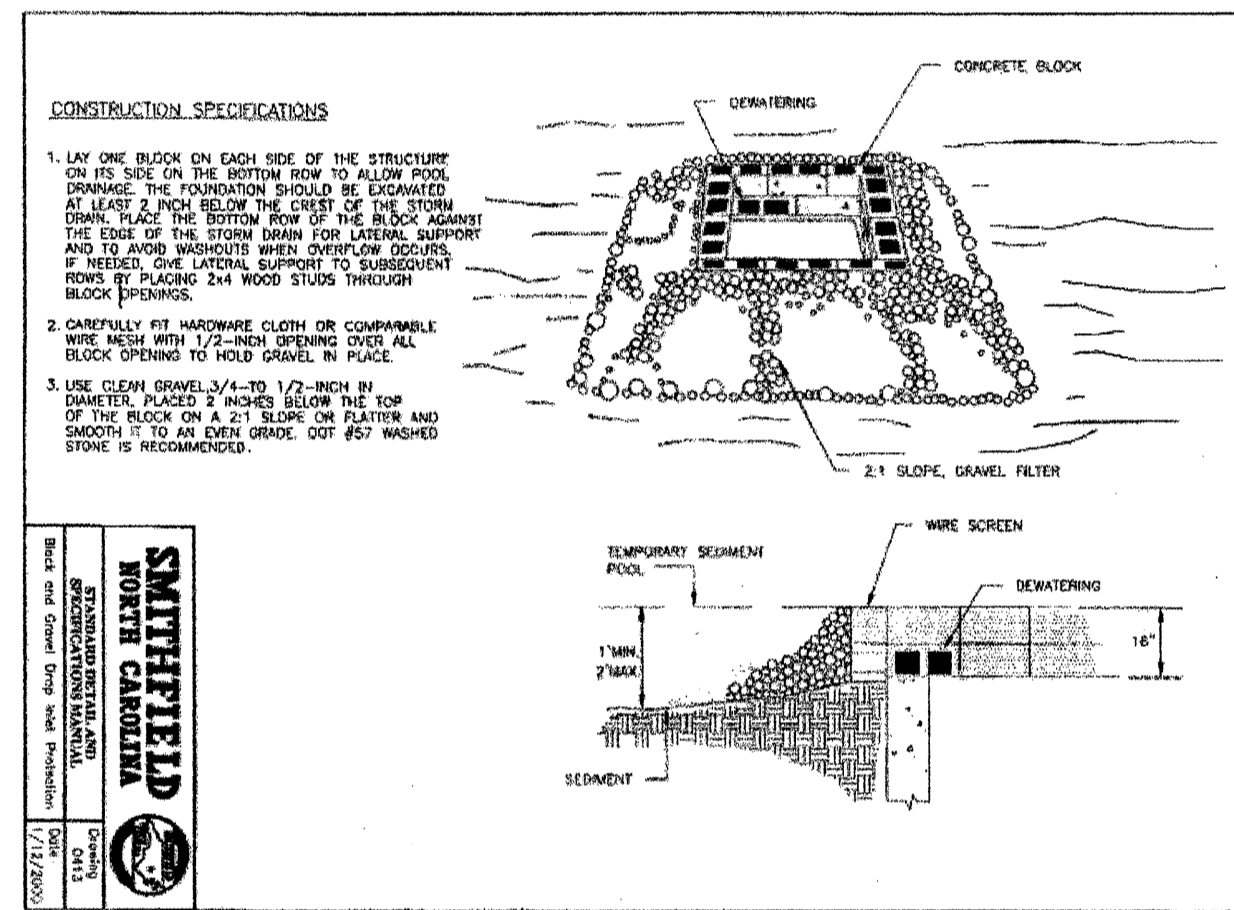
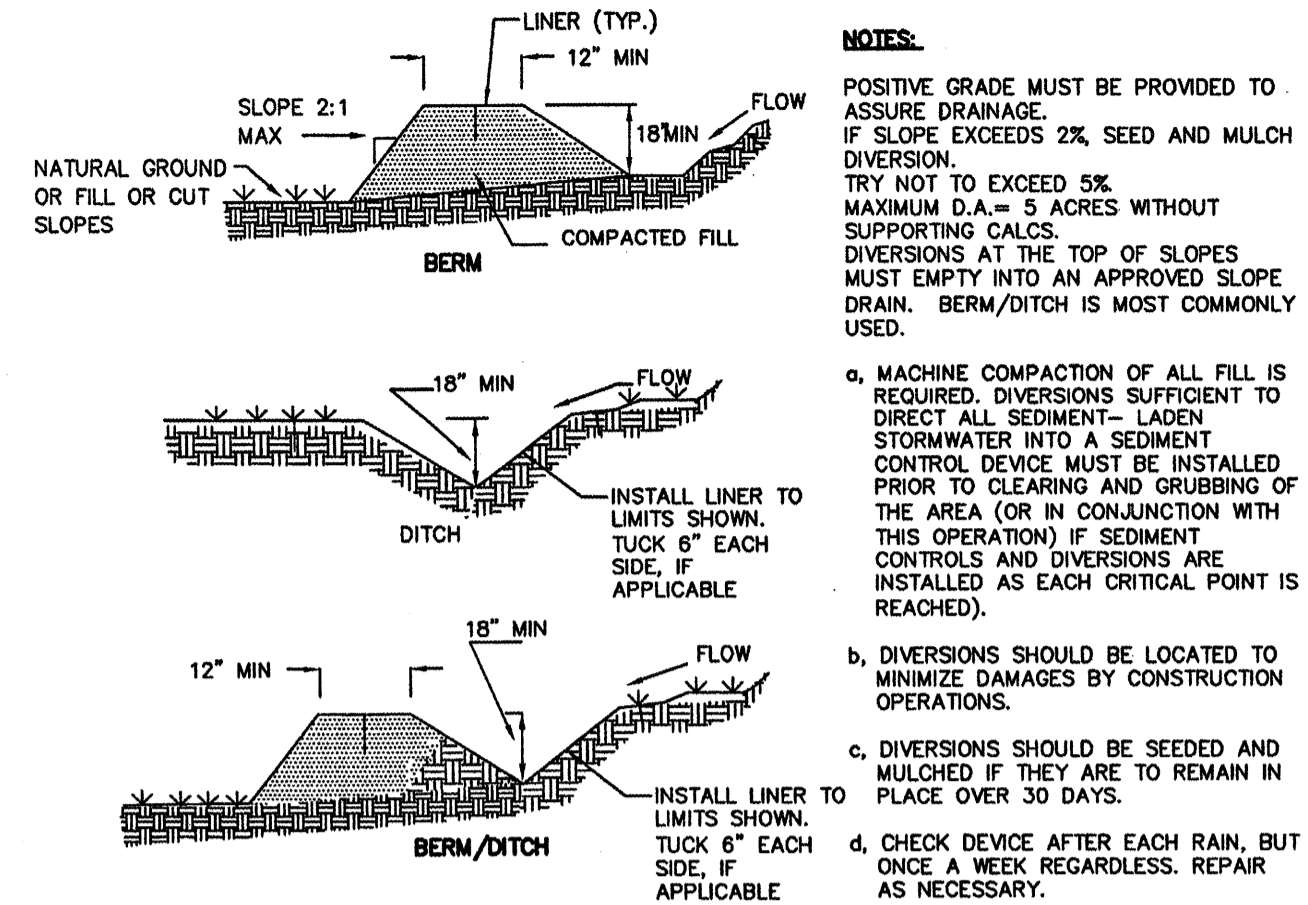
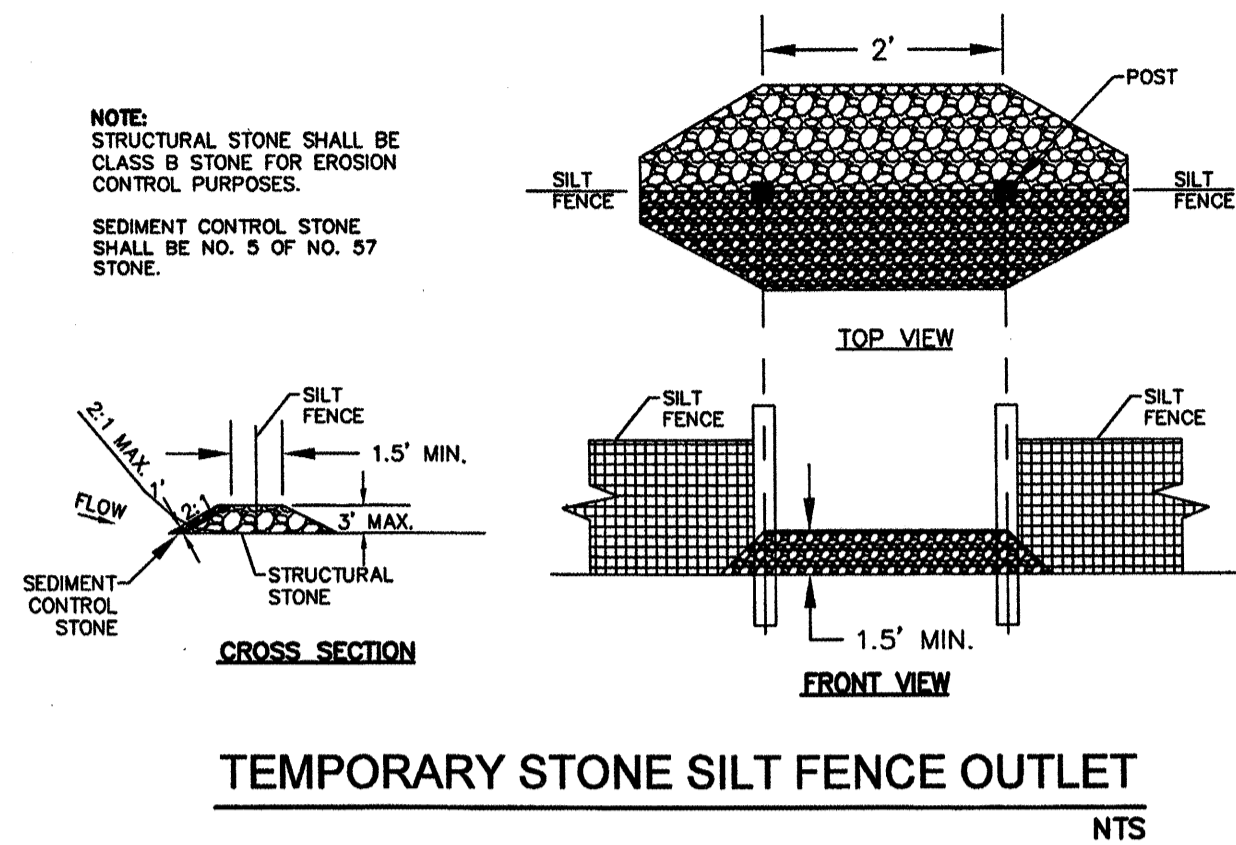
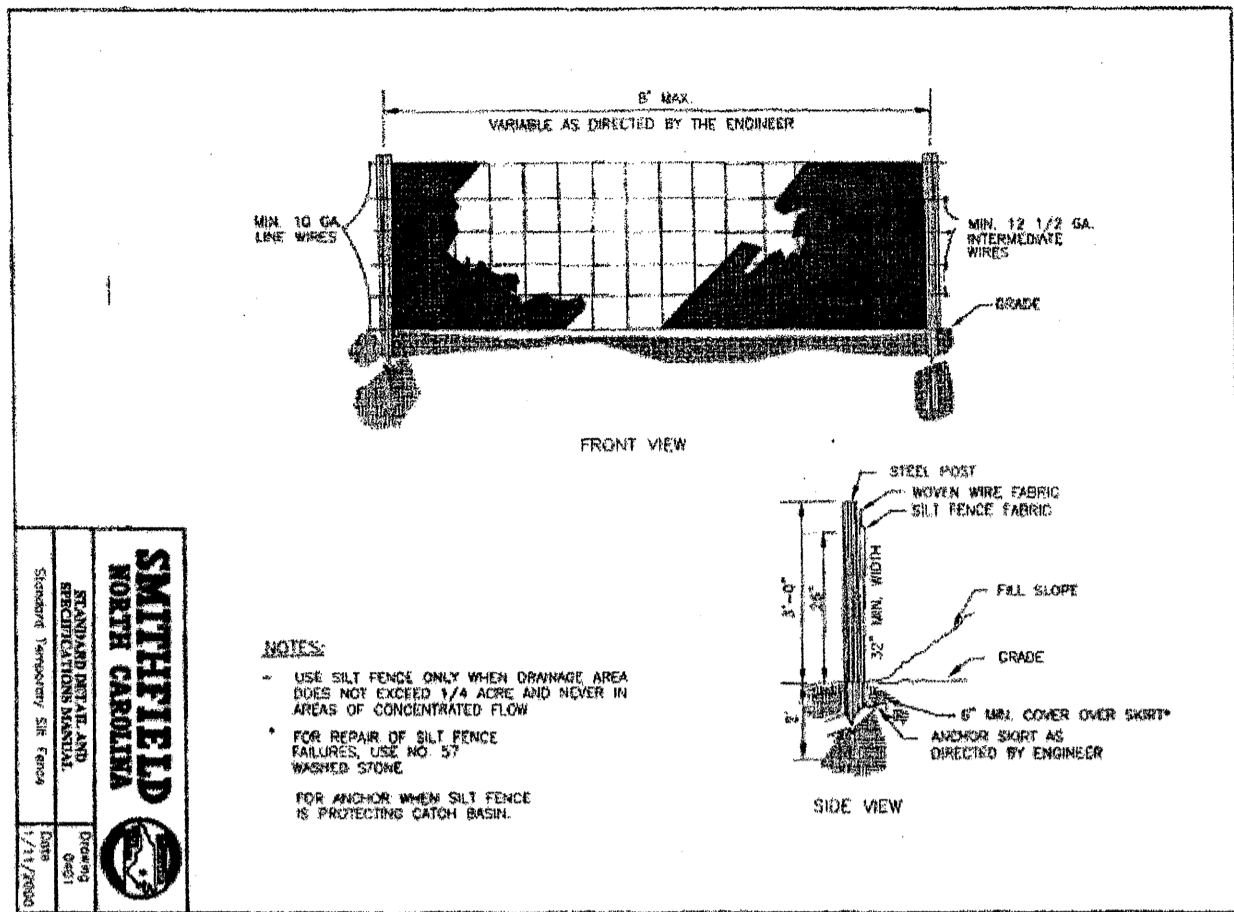


DATE: 09/29/10  
DWN BY: JPS  
CHKD BY: MSC

PROJECT NO.  
07098  
DRAWING  
SmCr\_DTL02

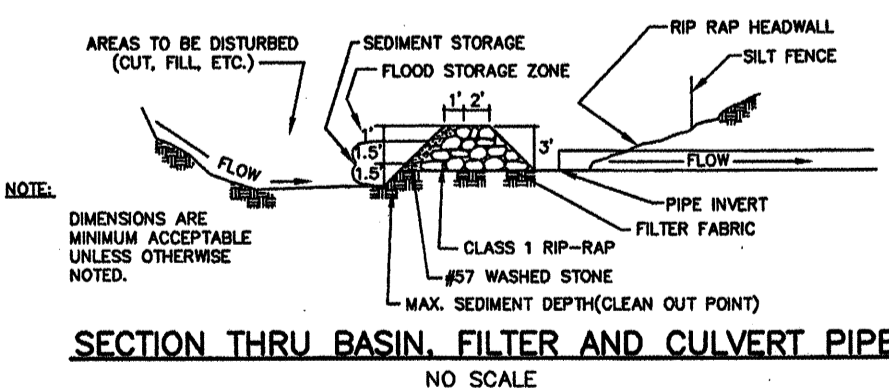
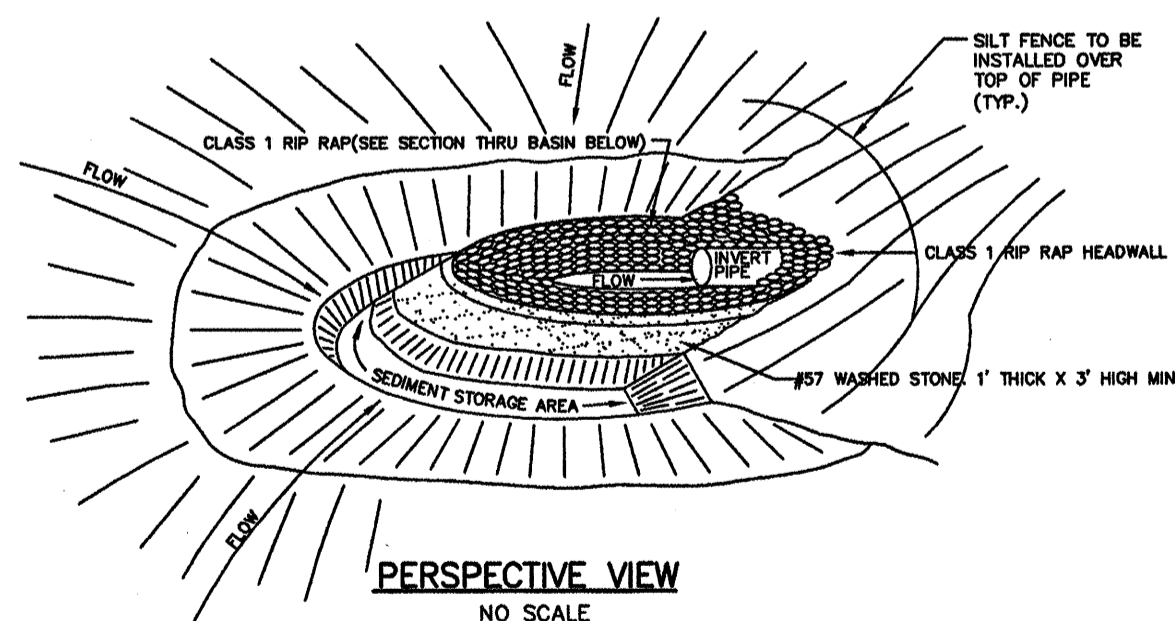
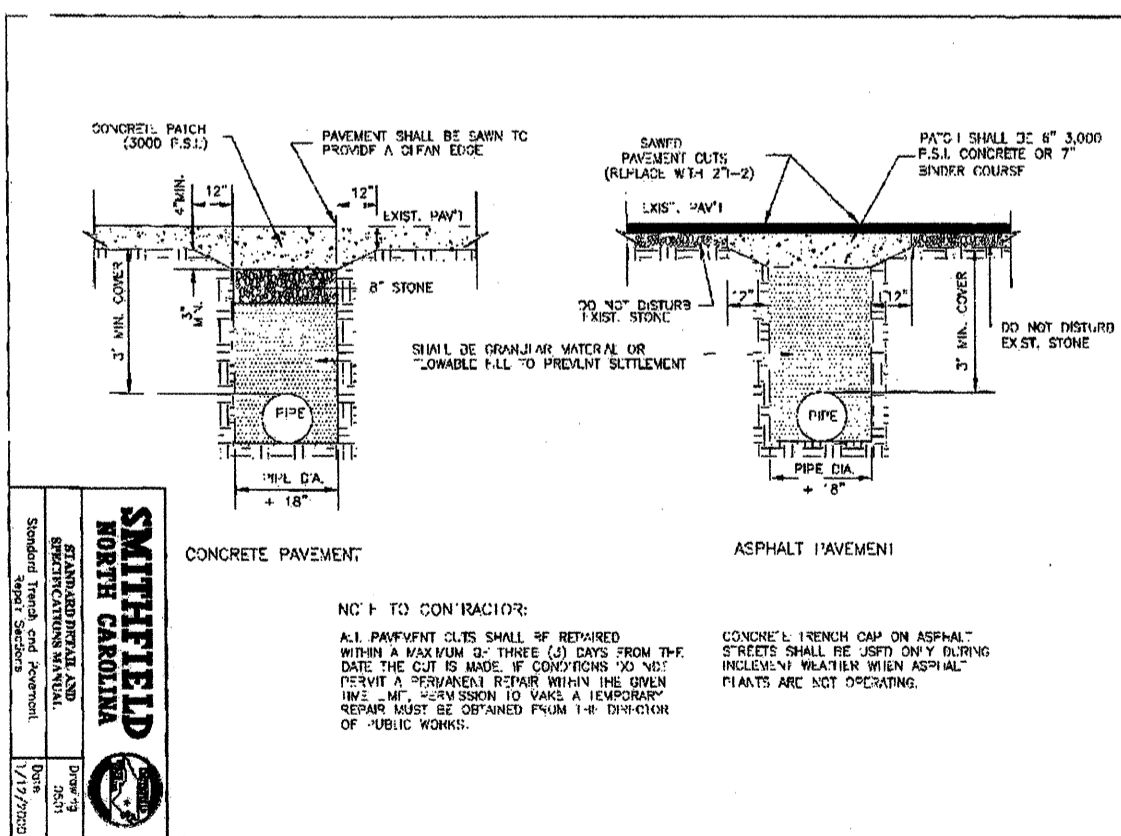
SHEET NO.  
D-2





SWALE #	TEMPORARY LINER	PERMANENT LINER	d	TOP W	BOTTOM W
2	STRAW W/NET	TALL FESCUE	0.93'	5.60'	N/A

**V-SHAPED SWALE**  
 NTS



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REVISIONS		
NO.	DATE	REMARKS

Smithfield Roadway Improvements  
 Smithfield, North Carolina  
 AREA A

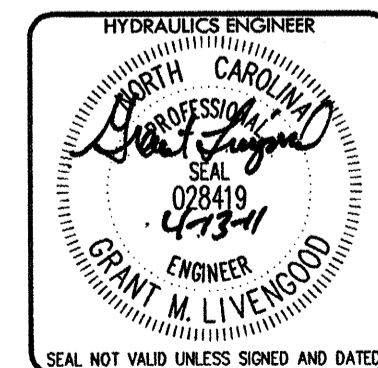
**EROSION CONTROL DETAILS**

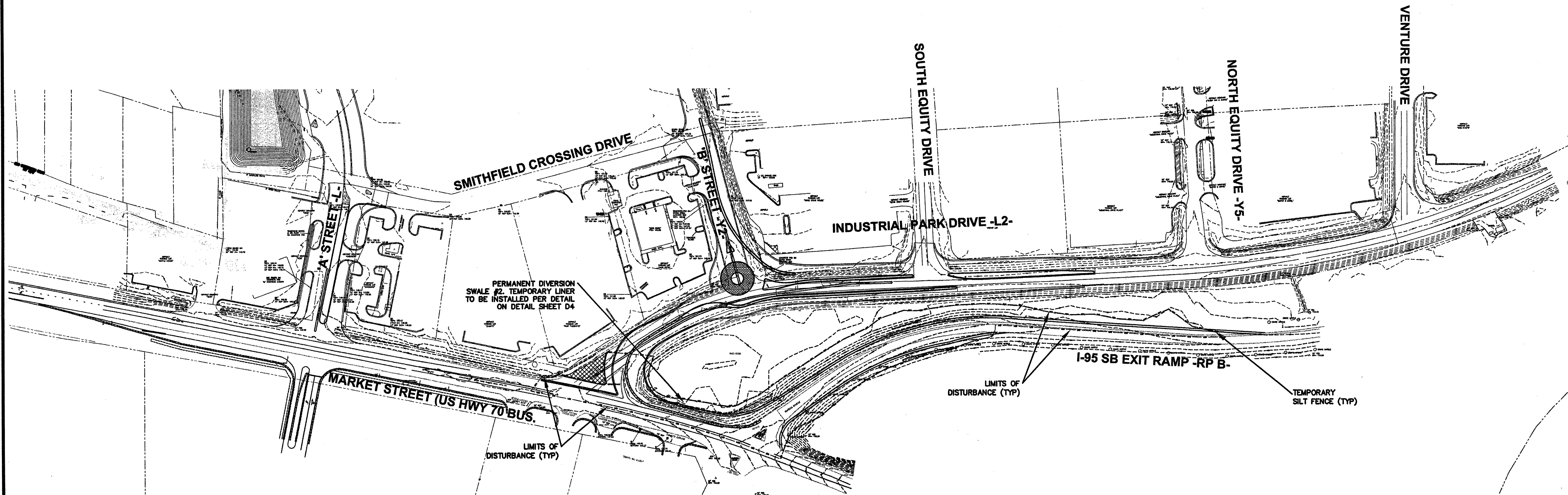
SCALE

DATE: 02/04/11  
 DWN BY: JDH  
 CHKD BY: GML

PROJECT NO.  
 07098  
 DRAWING  
 CE-101

SHEET NO.  
 D4





- NOTES:**
- EXISTING SURVEY PROVIDED INFORMATION PROVIDED BY JOYNER, KEENEY, & ASSOCIATES.
  - QUANTITIES AND DESIGN SHOWN HEREON ARE FOR STORM DRAINAGE ONLY. QUANTITY TAKEOFFS ARE ESTIMATES ONLY PREPARED BY THE ENGINEER FOR ENGINEERING COST ESTIMATION. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEW OF PLANS AND VERIFY BID QUANTITIES SHOWN.
  - CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - PLANS DO NOT DETAIL IMPACTS AND REPLACEMENT OF EXISTING WATER, SEWER, & ELECTRICAL UTILITIES.
  - WHERE EXISTING STORM PIPES ARE TO BE EXTENDED, CONTRACTOR SHALL MAKE CONNECTIONS AT PIPE JOINTS ONLY. ANY EXISTING STORM PIPE DAMAGES SHALL BE REPLACED WITH A FULL PIPE JOINT LENGTH.
  - CONTRACTOR SHALL SEQUENCE CONSTRUCTION TO MAINTAIN ALL EXISTING, OFF SITE DRAINAGE SUCH THAT THIS DRAINAGE IS NOT INTERRUPTED DURING CONSTRUCTION.
  - REFERENCE SHEETS D3 TO D8 FOR STORMWATER AND EROSION CONTROL DETAILS.
  - FOR ALL PLAN SHEETS LOCATIONS OF SILT FENCE ARE APPROXIMATE. PLACE FENCING AT TOE OF ALL FILL SLOPE. CONTRACTOR SHALL DETERMINE FINAL LOCATION SO AS NOT TO DISRUPT CONSTRUCTION.
  - REFERENCE SHEETS EC-1 AND EC-2 FOR CONSTRUCTION AND EROSION CONTROL SEQUENCE. PROTECT ALL EXISTING AND PROPOSED CURB INLETS AND CATCH BASINS WITH BLOCK AND GRAVEL INLET PROTECTION SEE DETAIL SHEET D-4.
  - CONTRACTOR IS SOLELY RESPONSIBLE FOR PERMITTING ANY OFF-SITE BORROW AND/OR WASTE SITE.

- CONSTRUCTION SEQUENCE - PHASE I:**
- THE INTENT OF THE CONSTRUCTION SEQUENCE IS TO PROVIDE THE CONTRACTOR WITH A GENERAL GUIDE FOR CONSTRUCTION PURPOSES. THIS SEQUENCE IS NOT INTENDED TO OUTLINE ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
  - ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NORTH CAROLINA EROSION AND SEDIMENTATION CONTROL PLANNING AND DESIGN MANUAL.
  - ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY.
  - IF IT IS DETERMINED DURING CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE, DESPITE PROPER IMPLEMENTATION AND MAINTENANCE, THE CONTRACTOR IS OBLIGATED TO TAKE ADDITIONAL CORRECTIVE ACTION. CONTACT OWNER'S REPRESENTATIVE AND ENGINEER WITH ANY ADDITIONAL MEASURES NEEDED.
  - CONTRACTOR SHALL ESTABLISH GROUND COVER ON DISTURBED AREAS WITHIN TWENTY-ONE (21) CALENDAR DAYS AFTER COMPLETION OF ANY PHASE OF GRADING.
  - CONTRACTOR SHALL ARRANGE PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVE, ENGINEER, TOWN OF SMITHFIELD AND NC DENR-LAND QUALITY SECTION REPRESENTATIVE (919) 791-4200.
  - OBTAIN LETTER OF PLAN APPROVAL FOR SEDIMENTATION AND EROSION CONTROL FROM NC DENR-LAND QUALITY SECTION.
  - CONTRACTOR TO POST GRADING PERMIT PROMINENTLY ON SITE AT ALL TIMES.
  - CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES TO AVOID CONFLICT DURING INSTALLATION OF EROSION CONTROL MEASURES. STORM SEWER PIPES, UNDERGROUND UTILITY AND ROADWAYS. CONTRACTOR IS TO CALL 1-800-632-4949 FOR "NO ONE CALL" TO HAVE EXISTING UTILITIES LOCATED.
  - CONTRACTOR TO HAVE A PROFESSIONAL LAND SURVEYOR FLAG PROPERTY LINES, EASEMENTS, STREAM BUFFERS, TREE PROTECTION AREAS AND LIMITS OF DISTURBANCE.
  - INSTALL TEMPORARY SILT FENCE AS SHOWN ON PLANS. CLEAR ONLY AS NECESSARY TO INSTALL FENCING.
  - INSTALL BLOCK AND GRAVEL INLET PROTECTION ON ALL EXISTING INLETS AS SHOWN ON PLAN.
  - INSTALL PERMANENT DIVERSION DITCH AS SHOWN ON PLAN. SEED, MULCH AND INSTALL TEMPORARY LINER PER DETAIL SHEET D4. CLEAR ONLY AS NECESSARY TO INSTALL THESE EROSION CONTROL MEASURES.
  - CONTACT NC DENR-LAND QUALITY SECTION AT (919) 791-4200 AND COMPLETION OF PHASE I EROSION CONTROL MEASURES.
  - ONCE PHASE I HAS BEEN COMPLETED AND APPROVED BY NC DENR AND THE ENGINEER, THE CONTRACTOR MAY MOVE INTO PHASE II OF THE EROSION CONTROL. REFER TO SHEET EC-2.

LEGEND			
141	PROPOSED CONTOUR	SF	TEMPORARY SILT FENCE
GRASS	GRASSED SWALE	PDE	PERMANENT DRAINAGE EASEMENT
141	EXISTING CONTOUR	LOD	LIMITS OF DISTURBANCE
CONCRETE	CONCRETE	TEMPORARY INLET PROTECTION	TEMPORARY INLET PROTECTION
NEW ASPHALT	NEW ASPHALT	DIVERSION SWALE / DITCH	DIVERSION SWALE / DITCH
SD	PROPOSED STORM DRAINAGE PIPE		
PROPOSED CURB INLET, DROP INLET, OR CATCH BASIN	PROPOSED CURB INLET, DROP INLET, OR CATCH BASIN		
PROPOSED FLARED END SECTION	PROPOSED FLARED END SECTION		
EXISTING STORM PIPE	EXISTING STORM PIPE		
TEMPORARY ARC FILTER INLET PROTECTION	TEMPORARY ARC FILTER INLET PROTECTION		

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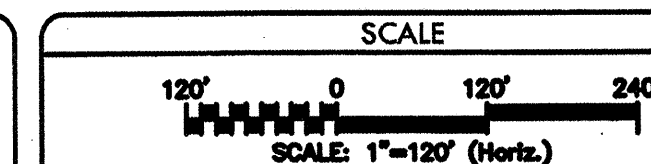
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REVISIONS		
NO.	DATE	REMARKS

Smithfield Roadway Improvements  
Smithfield, North Carolina  
AREA A

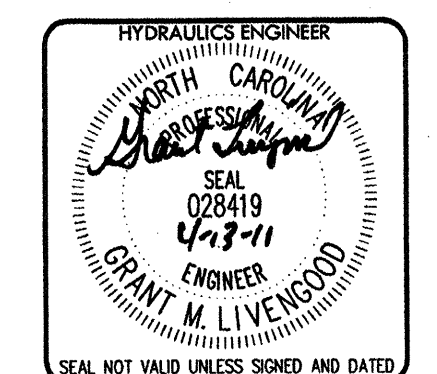
EROSION CONTROL PLAN  
PHASE I

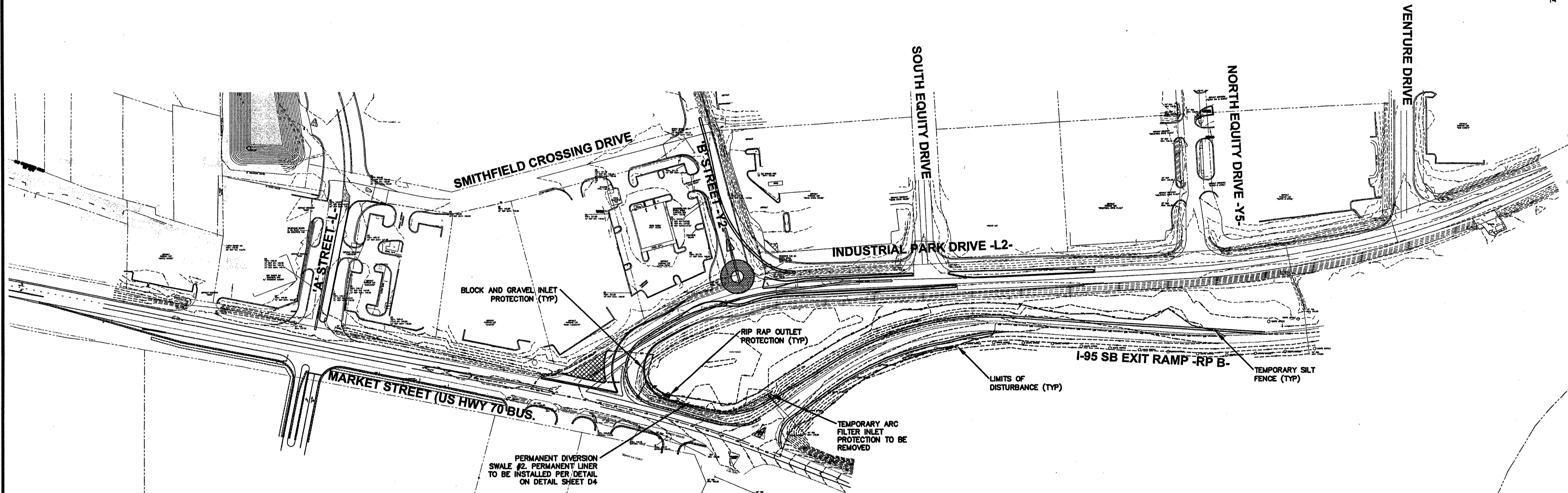


DATE: 02/04/11  
DWN BY: JDH  
CHKD BY: GML

PROJECT NO.  
07098  
DRAWING  
CE-101

SHEET NO.  
EC-1





- NOTES:**
- EXISTING SURVEY PROVIDED INFORMATION PROVIDED BY JOYNER, KEENEY, & ASSOCIATES.
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  - CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - PLANS DO NOT DETAIL IMPACTS AND REPLACEMENT OF EXISTING WATER, SEWER, & ELECTRICAL UTILITIES.
  - WHERE EXISTING STORM PIPES ARE TO BE EXTENDED, CONTRACTOR SHALL MAKE CONNECTIONS AT PIPE JOINTS ONLY. ANY EXISTING STORM PIPE DAMAGES SHALL BE REPLACED WITH A FULL PIPE JOINT LENGTH.
  - CONTRACTOR SHALL SEQUENCE CONSTRUCTION TO MAINTAIN ALL EXISTING, OFF SITE DRAINAGE SUCH THAT THIS DRAINAGE IS NOT INTERRUPTED DURING CONSTRUCTION.
  - REFERENCE SHEETS D3 TO D8 FOR STORMWATER AND EROSION CONTROL DETAILS.
  - FOR ALL PLAN SHEETS LOCATIONS OF SILT FENCE ARE APPROXIMATE. PLACE FENCING AT TOE OF ALL FILL SLOPE, CONTRACTOR SHALL DETERMINE FINAL LOCATION SO AS NOT TO DISRUPT CONSTRUCTION.
  - REFERENCE SHEETS EC-1 AND EC-2 FOR CONSTRUCTION AND EROSION CONTROL SEQUENCE. PROTECT ALL EXISTING AND PROPOSED CURB INLETS AND CATCH BASINS WITH BLOCK AND GRAVEL INLET PROTECTION SEE DETAIL SHEET D-4.
  - CONTRACTOR IS SOLELY RESPONSIBLE FOR PERMITTING ANY OFF-SITE BORROW AND/OR WASTE SITE.

- CONSTRUCTION SEQUENCE - PHASE II:**
- ONCE PHASE I EROSION CONTROL HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER, CONTRACTOR IS TO START PHASE II OF THE EROSION CONTROL.
  - START PERFORMING CLEARING, GRUBBING AND TOPSOIL REMOVAL AS REQUIRED.
  - BEGIN SITE GRADING OPERATIONS.
  - MAINTAIN AND PROTECT ALL EXISTING UTILITIES THAT ARE TO REMAIN UNDISTURBED.
  - CONTRACTOR IS TO MAINTAIN ALL THE PHASE I DIVERSION SWALES/DITCHES AND OTHER EROSION CONTROL MEASURES UNTIL THEY HAVE BEEN APPROVED TO BE REMOVED.
  - AS ROADWAY GRADES ARE ESTABLISHED AND NEW STORM PIPES ARE IN PLACE, REMOVE ANY EXISTING STORM SEWER PIPES INDICATED ON PLAN.
  - CONTRACTOR SHALL ESTABLISH GROUND COVER ON DISTURBED AREAS WITHIN TWENTY-ONE (21) CALENDAR DAYS AFTER COMPLETION OF ANY PHASE OF GRADING.
  - IF IT IS DETERMINED DURING CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE, DESPITE PROPER IMPLEMENTATION AND MAINTENANCE, THE CONTRACTOR IS OBLIGATED TO TAKE ADDITIONAL CORRECTIVE ACTION. CONTACT OWNERS REPRESENTATIVE AND ENGINEER WITH ANY ADDITIONAL MEASURES NEEDED.
  - COMPLETE CONSTRUCTION OF ROAD BEDS AND SHOULDERS, INSTALL ABC STONE IN ROAD BEDS.
  - CARRY OUT FINAL GRADING OPERATIONS AS REQUIRED.
  - THE PERMANENT LINER FOR PERMANENT SWALE #2 TO BE INSTALLED AT THIS TIME. WHEN INSTALLING THE PERMANENT LINER THEY ARE TO BE ANCHORED TO SIDES SLOPES IF MATTING IS REQUIRED. REFER TO DETAIL SHEET D-4.
  - PERFORM SEEDING AND MULCHING AS REQUIRED IN ACCORDANCE WITH THE PLANS.
  - ONCE ALL GROUND COVER HAS BEEN PERMANENTLY ESTABLISHED, AND OTHER CONSTRUCTION IS COMPLETE, CONTACT NC DENR LAND QUALITY SECTION AND ENGINEER FOR SITE INSPECTION BEFORE REMOVING ANY TEMPORARY EROSION CONTROL MEASURES.
  - IF THE SITE IS APPROVED BY NC DENR THE CONTRACTOR IS TO REMOVE ALL BLOCK AND GRAVEL INLET PROTECTION AND TEMPORARY ARC FILTER INLET PROTECTION.
  - CONTRACTOR IS TO REGRADE ANY EXISTING SWALES THAT HAVE BEEN DISTURBED TO PROVIDE POSITIVE DRAINAGE.
  - INSTALL FINAL PAVING AS SHOWN ON PLANS.
  - AFTER SITE IS COMPLETELY STABILIZED, REMOVE ALL TEMPORARY MEASURES AND INSTALL PERMANENT VEGETATION AS REQUIRED AND ON ANY RESULTING BARE AREAS, CONTRACTOR SHALL INSPECT VEGETATION TO ENSURE ESTABLISHMENT AND PROVIDE ADDITIONAL VEGETATION ON ANY RESULTING BARE AREAS.

LEGEND			
141	PROPOSED CONTOUR	SF	TEMPORARY SILT FENCE
GRASS	GRASSED SWALE	PDE	PERMANENT DRAINAGE EASEMENT
RR	RIP RAP	LOD	LIMITS OF DISTURBANCE
141	EXISTING CONTOUR	TI	TEMPORARY INLET PROTECTION
CONC	CONCRETE	DS	DIVERSION SWALE / DITCH
ASPH	NEW ASPHALT		
SD	PROPOSED STORM DRAINAGE PIPE		
CI	PROPOSED CURB INLET, DROP INLET, OR CATCH BASIN		
FE	PROPOSED FLARED END SECTION		
SD	EXISTING STORM PIPE		
AFIP	TEMPORARY ARC FILTER INLET PROTECTION		

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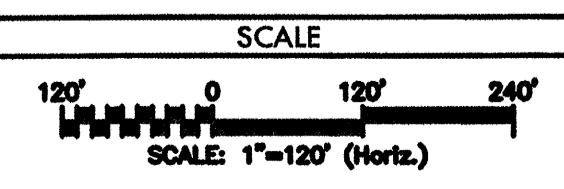
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REVISIONS		
NO.	DATE	REMARKS

Smithfield Roadway Improvements  
Smithfield, North Carolina  
AREA A

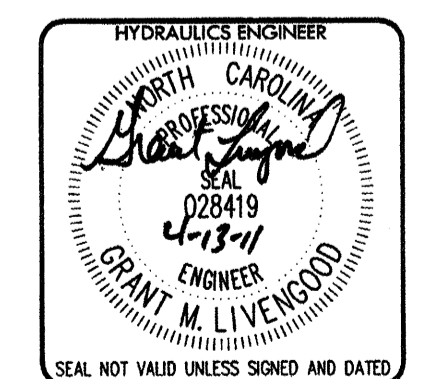
EROSION CONTROL PLAN  
PHASE II



DATE: 02/04/11  
DWN BY: JDH  
CHKD BY: GML

PROJECT NO.  
07098  
DRAWING  
CE-101

SHEET NO.  
EC-2



### LEGEND - PAVEMENT MARKING LINES

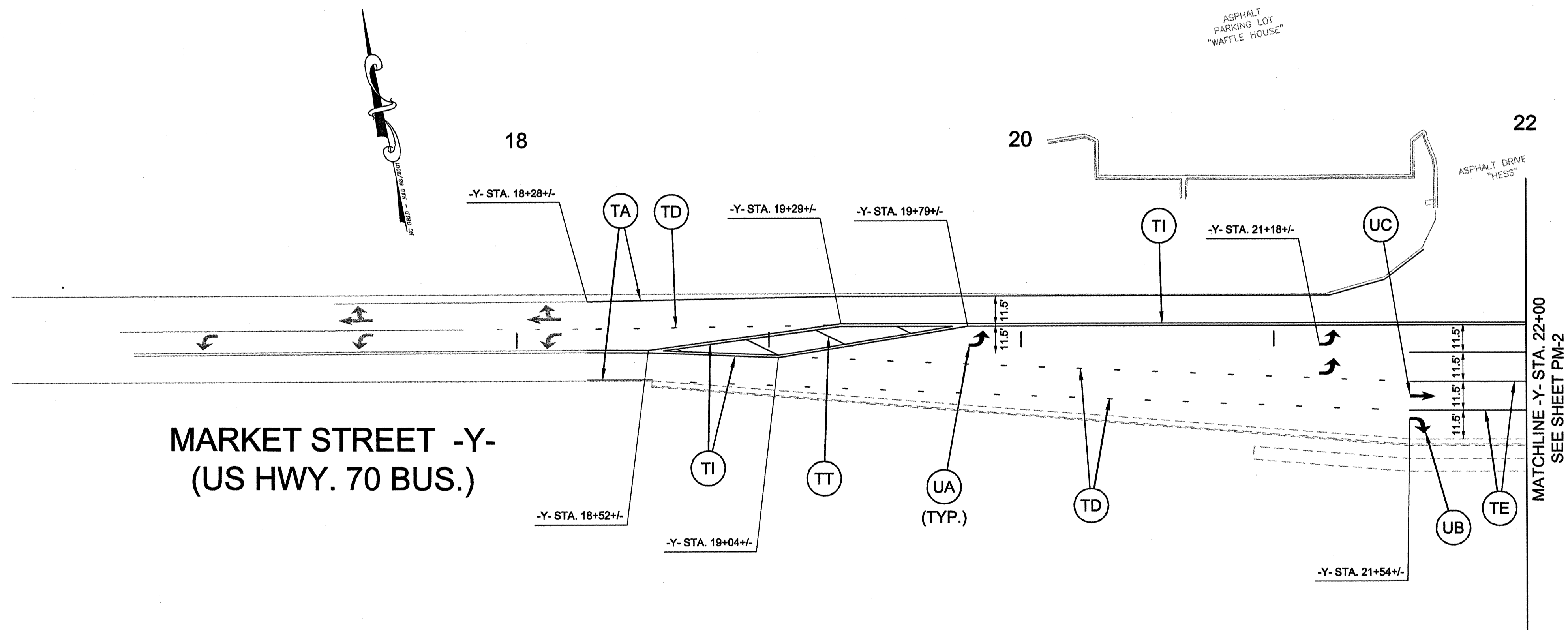
----- THERMOPLASTIC (4", 90 mils)	----- THERMOPLASTIC (8", 90 mils)
TA - WHITE EDGE LINE	TP - WHITE GORE LINE
TB - YELLOW EDGE LINE	TQ - WHITE DIAGONAL
----- THERMOPLASTIC (4", 120 mils)	TT - YELLOW DIAGONAL
TC - 10 ft. WHITE SKIP	----- THERMOPLASTIC (12", 90 mils)
TD - 2 ft. WHITE MINI SKIP	T10 - 2 ft. WHITE MINI SKIP, 3' GAP
TE - WHITE SOLID LANE LINE	----- THERMOPLASTIC (24", 120 mils)
TF - YELLOW 10 ft. YELLOW SKIP	T2 - WHITE STOP BAR
TG - 2 ft. YELLOW MINI SKIP	T3 - WHITE CROSSWALK LINE
TH - YELLOW SINGLE CENTER LINE	----- PAINT (4")
TI - YELLOW DOUBLE CENTER LINE	PA - WHITE LINE
T8 - 2 ft. WHITE MINI SKIP, 8' GAP	
----- THERMOPLASTIC (6", 120 mils)	
T6 - WHITE EDGE LINE	
T7 - YELLOW EDGE LINE	
TJ - 10 ft. WHITE SKIP	
TK - 2 ft. WHITE MINI SKIP	
TL - WHITE SOLID LANE LINE	

### LEGEND - PAVEMENT MARKING SYMBOLS

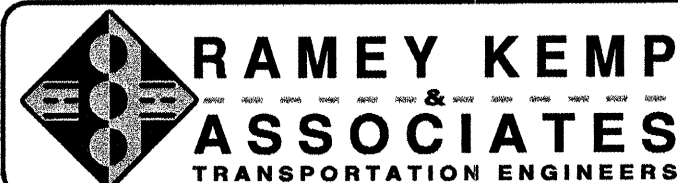
----- WHITE THERMOPLASTIC (90 mils)
UA - LEFT TURN ARROW
UB - RIGHT TURN ARROW
UC - STRAIGHT ARROW
UD - COMBINATION STRAIGHT & LEFT TURN ARROW
UE - COMBINATION STRAIGHT & RIGHT TURN ARROW
UF - COMBINATION LEFT & RIGHT TURN ARROW
----- WHITE THERMOPLASTIC (120 mils)
UI - ALPHANUMERIC CHARACTER "ONLY"
UN - YIELD LINE (SEE DETAIL 'A')

### NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES BOOK, DATED JULY 2006, AND THE NCDOT ROADWAY STANDARD DRAWINGS, DATED JULY 2006.
2. INSTALL RAISED PAVEMENT MARKERS WITHIN THE PROJECT LIMITS ALONG MARKET STREET (US HIGHWAY 70 BUSINESS) AND THE I-95 EXIT RAMP PER NCDOT ROADWAY STANDARD DRAWING 1250.01.
3. TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
4. REMOVE / REPLACE ANY CONFLICTING / DAMAGED PAVEMENT MARKINGS AND MARKERS.
5. THE STOP BAR LOCATIONS SHOWN ON THE APPROVED TRAFFIC SIGNAL PLANS SHALL SUPERCEDE THOSE ON THIS PLAN.



MARKET STREET -Y-  
(US HWY. 70 BUS.)

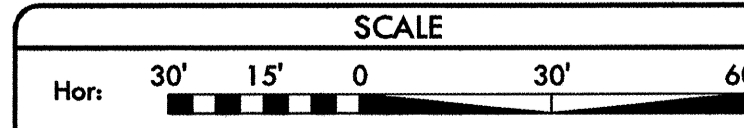


5808 Farington Place  
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Raleigh, NC 27608  
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NC License No. C-0810

REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

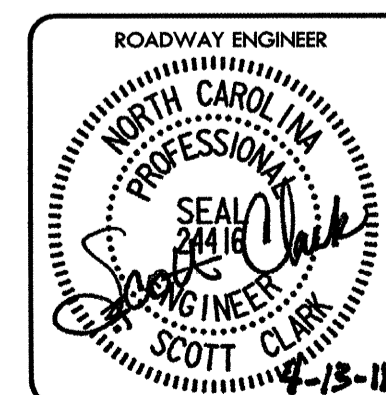
PAVEMENT MARKING PLAN



DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

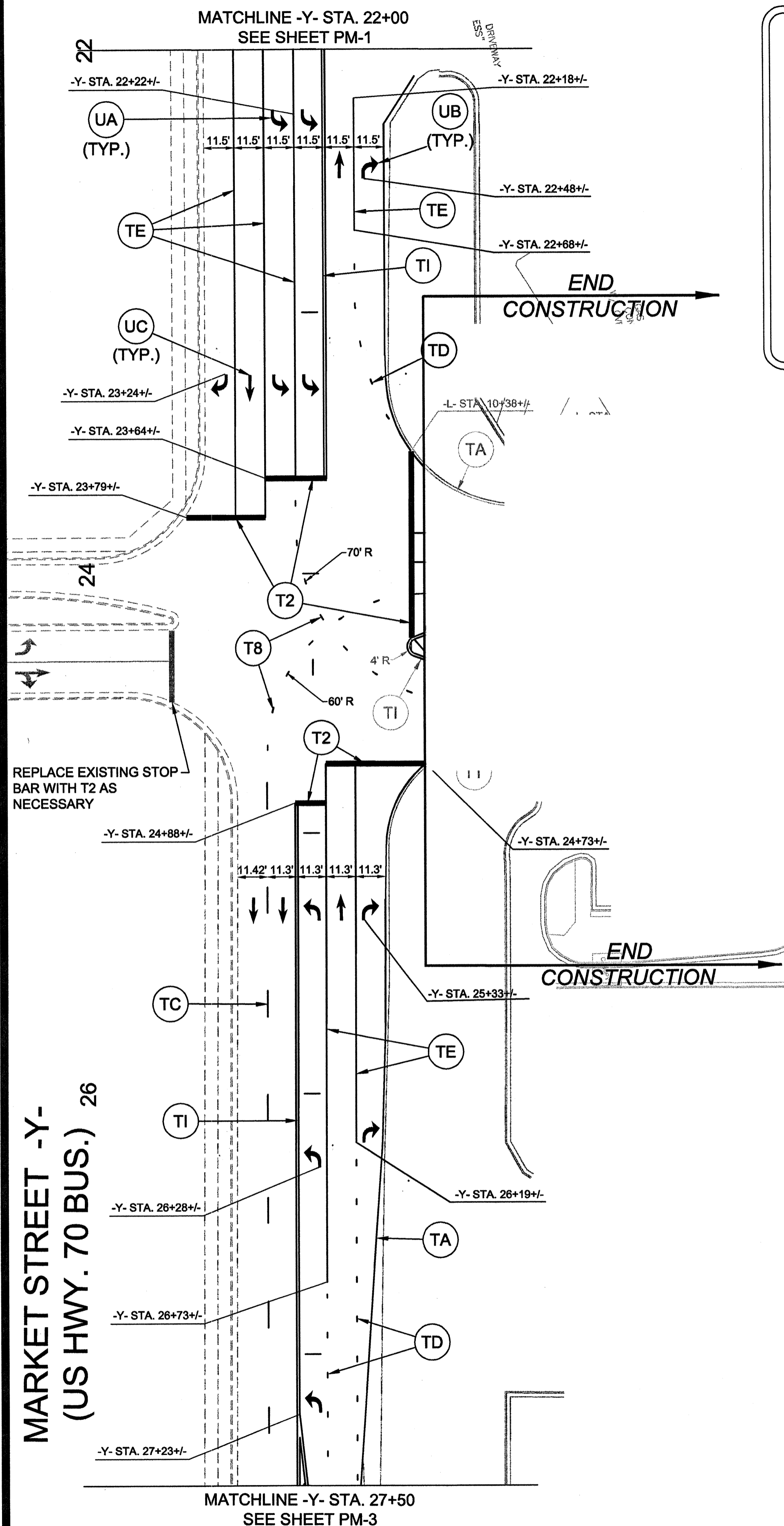
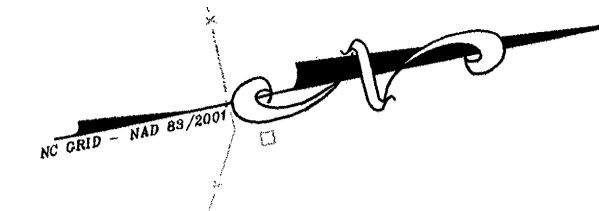
PROJECT NO.  
07098  
DRAWING  
SmCr\_PM01

SHEET NO.  
PM-1



**NOTES:**

1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES BOOK, DATED JULY 2006, AND THE NCDOT ROADWAY STANDARD DRAWINGS, DATED JULY 2006.
2. INSTALL RAISED PAVEMENT MARKERS WITHIN THE PROJECT LIMITS ALONG MARKET STREET (US HIGHWAY 70 BUSINESS) AND THE I-95 EXIT RAMP PER NCDOT ROADWAY STANDARD DRAWING 1250.01.
3. TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
4. REMOVE / REPLACE ANY CONFLICTING / DAMAGED PAVEMENT MARKINGS AND MARKERS.
5. THE STOP BAR LOCATIONS SHOWN ON THE APPROVED TRAFFIC SIGNAL PLANS SHALL SUPERCEDE THOSE ON THIS PLAN.

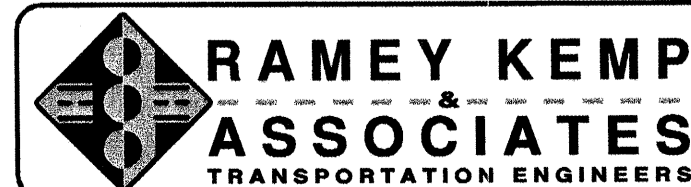
**LEGEND - PAVEMENT MARKING LINES**

- THERMOPLASTIC (4", 90 mils)  
 TA - WHITE EDGE LINE  
 TB - YELLOW EDGE LINE
- THERMOPLASTIC (4", 120 mils)  
 TC - 10 ft. WHITE SKIP  
 TD - 2 ft. WHITE MINI SKIP  
 TE - WHITE SOLID LANE LINE  
 TF - YELLOW 10 ft. YELLOW SKIP  
 TG - 2 ft. YELLOW MINI SKIP  
 TH - YELLOW SINGLE CENTER LINE  
 TI - YELLOW DOUBLE CENTER LINE  
 T8 - 2 ft. WHITE MINI SKIP, 8' GAP
- THERMOPLASTIC (6", 120 mils)  
 T6 - WHITE EDGE LINE  
 T7 - YELLOW EDGE LINE  
 TJ - 10 ft. WHITE SKIP  
 TK - 2 ft. WHITE MINI SKIP  
 TL - WHITE SOLID LANE LINE
- THERMOPLASTIC (8", 90 mils)  
 TP - WHITE GORE LINE  
 TQ - WHITE DIAGONAL  
 TT - YELLOW DIAGONAL
- THERMOPLASTIC (12", 90 mils)  
 T10 - 2 ft. WHITE MINI SKIP, 3' GAP
- THERMOPLASTIC (24", 120 mils)  
 T2 - WHITE STOP BAR  
 T3 - WHITE CROSSWALK LINE
- PAINT (4")  
 PA - WHITE LINE

**LEGEND - PAVEMENT MARKING SYMBOLS**

- WHITE THERMOPLASTIC (90 mils)  
 UA - LEFT TURN ARROW  
 UB - RIGHT TURN ARROW  
 UC - STRAIGHT ARROW  
 UD - COMBINATION STRAIGHT & LEFT TURN ARROW  
 UE - COMBINATION STRAIGHT & RIGHT TURN ARROW  
 UF - COMBINATION LEFT & RIGHT TURN ARROW
- WHITE THERMOPLASTIC (120 mils)  
 UI - ALPHANUMERIC CHARACTER "ONLY"  
 UN - YIELD LINE (SEE DETAIL 'A')

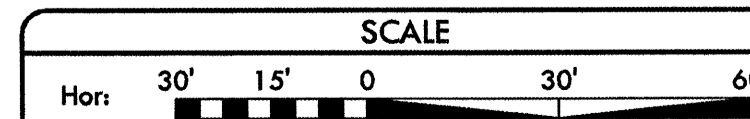
MARKET STREET -Y-  
 (US HWY. 70 BUS.) 26



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REVISIONS		
NO.	DATE	REMARKS

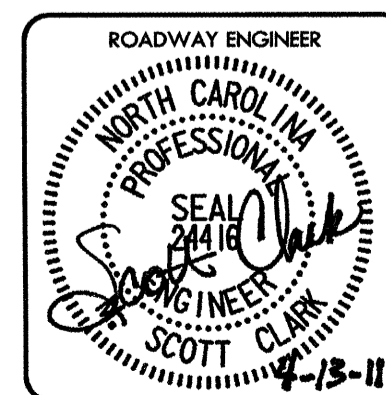
Smithfield Crossings Roadway Improvements  
 Smithfield, North Carolina

**PAVEMENT MARKING PLAN**

DATE: 02/04/11  
 DWN BY: JPS  
 CHKD BY: MSC

PROJECT NO.  
 07098  
 DRAWING  
 SmCr\_PM01

SHEET NO.  
 PM-2



**LEGEND - PAVEMENT MARKING LINES**

----- THERMOPLASTIC (4", 90 mils)  
TA - WHITE EDGE LINE  
TB - YELLOW EDGE LINE

----- THERMOPLASTIC (4", 120 mils)  
TC - 10 ft. WHITE SKIP  
TD - 2 ft. WHITE MINI SKIP  
TE - WHITE SOLID LANE LINE  
TF - YELLOW 10 ft. YELLOW SKIP  
TG - 2 ft. YELLOW MINI SKIP  
TH - YELLOW SINGLE CENTER LINE  
TI - YELLOW DOUBLE CENTER LINE  
T8 - 2 ft. WHITE MINI SKIP, 8' GAP

----- THERMOPLASTIC (6", 120 mils)  
T6 - WHITE EDGE LINE  
T7 - YELLOW EDGE LINE  
TJ - 10 ft. WHITE SKIP  
TK - 2 ft. WHITE MINI SKIP  
TL - WHITE SOLID LANE LINE

----- THERMOPLASTIC (8", 90 mils)  
 TP - WHITE GORE LINE  
 TQ - WHITE DIAGONAL  
 TT - YELLOW DIAGONAL

----- THERMOPLASTIC (12", 90 mils)  
 T10- 2 ft. WHITE MINI SKIP, 3' GAP

----- THERMOPLASTIC (24", 120 mils)  
 T2 - WHITE STOP BAR  
 T3 - WHITE CROSSWALK LINE

----- PAINT (4")  
 PA - WHITE LINE

### LEGEND - PAVEMENT MARKING SYMBOLS

----- WHITE THERMOPLASTIC (90 mils)

UA - LEFT TURN ARROW

UB - RIGHT TURN ARROW

UC - STRAIGHT ARROW

UD - COMBINATION STRAIGHT & LEFT TURN ARROW

UE - COMBINATION STRAIGHT & RIGHT TURN ARROW

UF - COMBINATION LEFT & RIGHT TURN ARROW

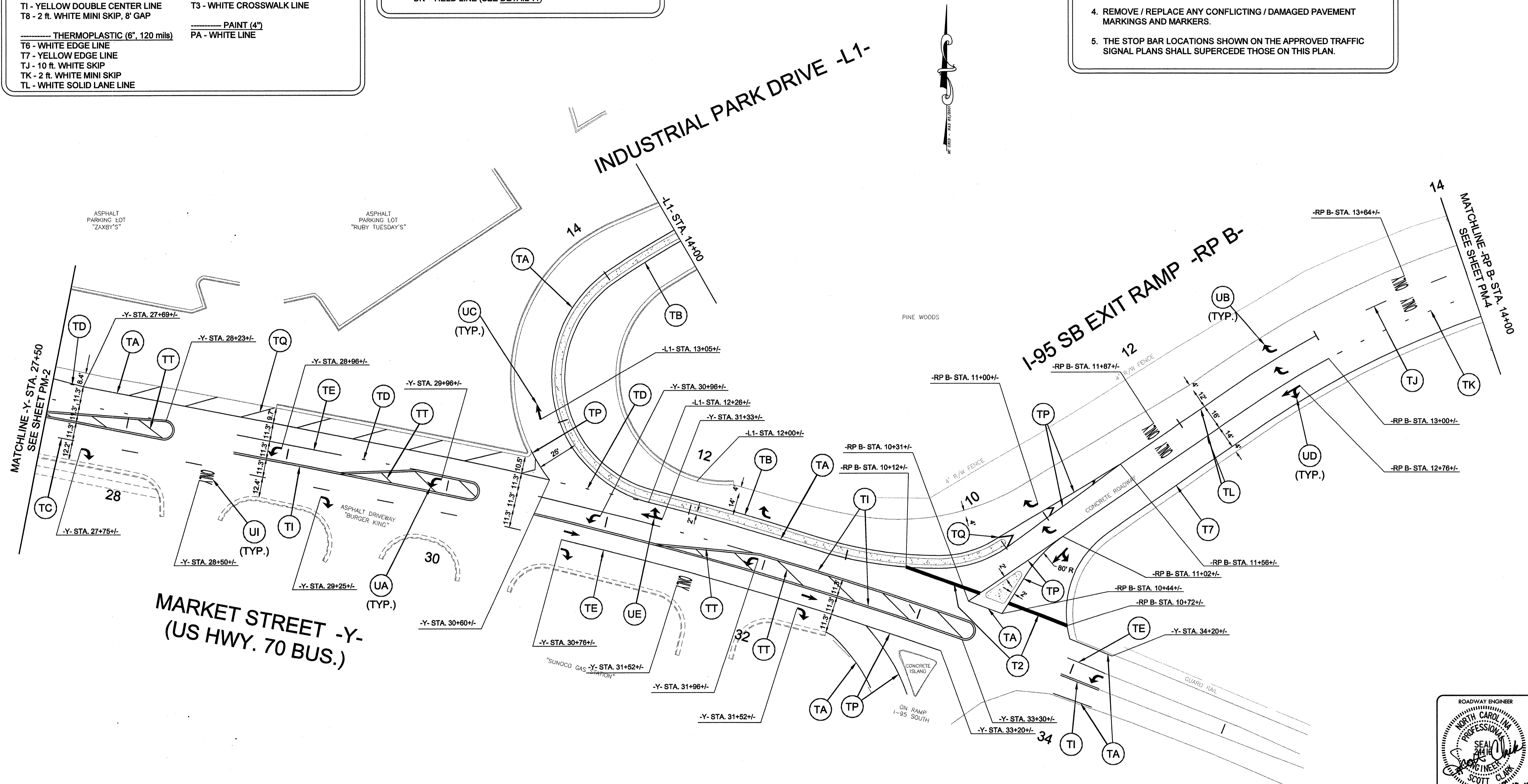
----- WHITE THERMOPLASTIC (120 mils)

UI - ALPHANUMERIC CHARACTER "ONLY"

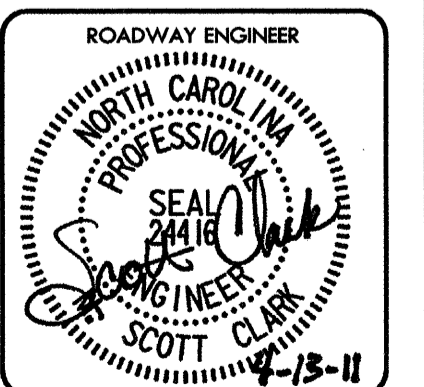
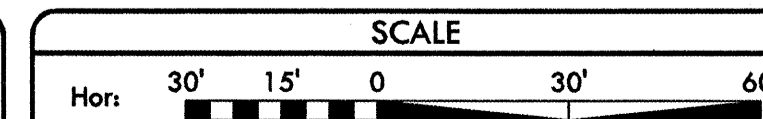
UN - YIELD LINE (SEE DETAIL 'A')

**NOTES:**

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REVISIONS		
NO.	DATE	REMARKS



LEGEND - PAVEMENT MARKING LINES

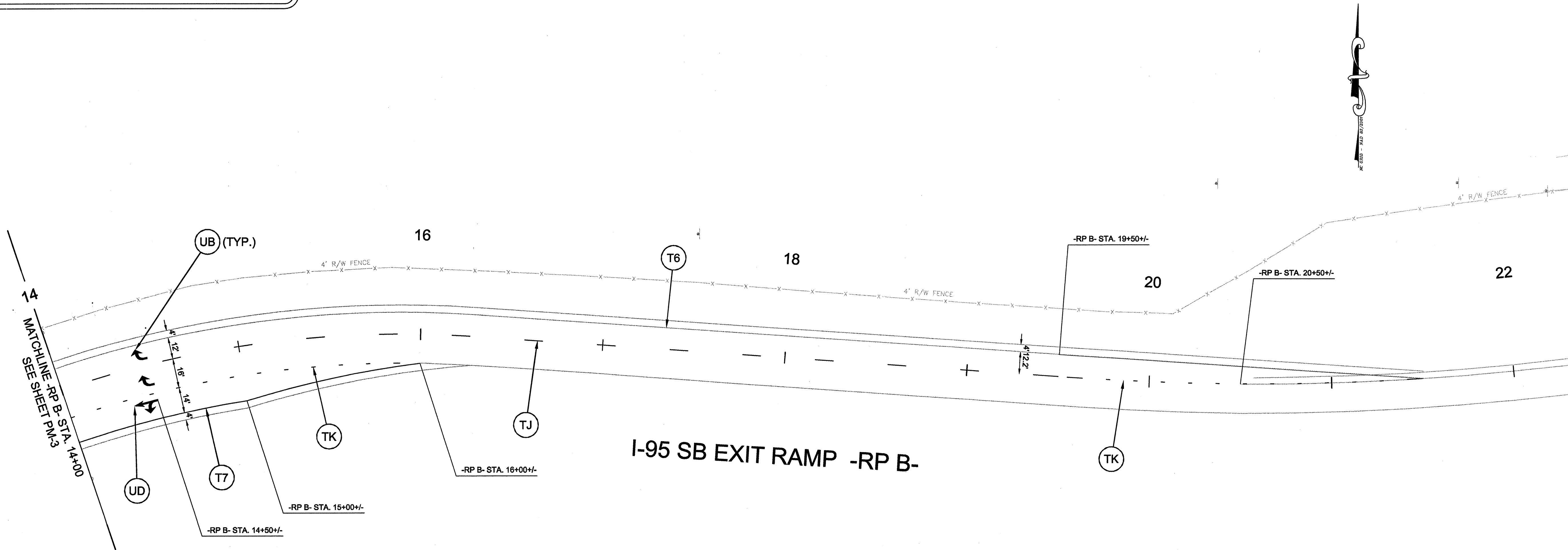
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T2 - WHITE STOP BAR  
T3 - WHITE CROSSWALK LINE
- PAINT (4")  
PA - WHITE LINE

LEGEND - PAVEMENT MARKING SYMBOLS

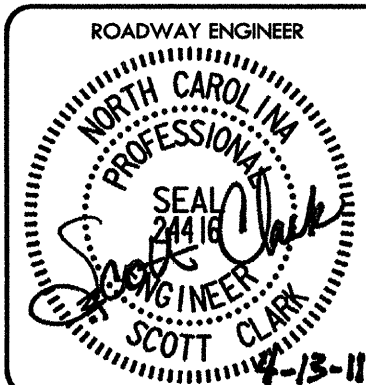
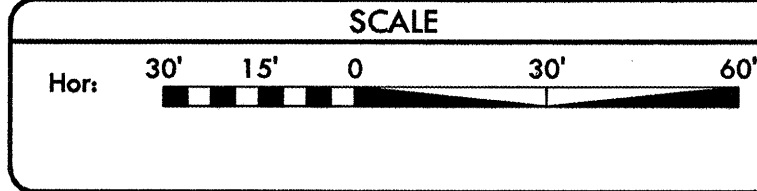
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REVISIONS		
NO.	DATE	REMARKS



ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

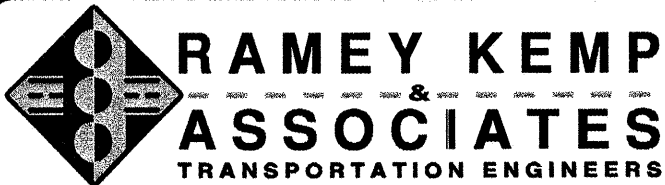
STD. NO.	TITLE
901.10	TYPE 'A' SIGNS
901.20	TYPE 'B' SIGNS
901.30	VHB TAPE CONSTRUCTION - FOR TYPE 'A' SIGNS
901.40	VHB TAPE CONSTRUCTION - FOR TYPE 'B' SIGNS
901.50	ARROWS AND SHIELDS
901.70	SIGN STRINGERS AND SUPPORT SPACING
901.80	SIGN MOUNTING DETAILS - FOR TYPE A AND TYPE B SIGNS
903.10	GROUND MOUNTED SIGN SUPPORTS
903.20	WOOD SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS

GENERAL NOTES

- . SIGNS FURNISHED BY CONTRACTOR
- . SIGNING PLANS DO NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING OR PAVEMENT MARKINGS. SEE TRAFFIC CONTROL PLANS.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- . DO NOT BEGIN FABRICATION FOR TYPES A & B SIGNS MOUNTED ON OVERHEAD STRUCTURES OR STEEL SUPPORTS UNTIL "S" DIMENSIONS HAVE BEEN FIELD VERIFIED.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.
- . ALL NEW INDIVIDUAL LOGO PANELS WILL BE SUPPLIED BY EACH PARTICIPATING BUSINESS AND INSTALLED BY NCDOT FORCES.
- . THE TOWN OF SMITHFIELD SHALL NOTIFY ALL BUSINESSES CURRENTLY PARTICIPATING IN THE NCDOT LOGO PROGRAM WHICH ARE AFFECTED BY THE GEOMETRIC REALIGNMENT OF THE ROADWAY, OF THE NEED FOR ANY ADDITIONAL LOGO PANELS AND ANY ASSOCIATED INCREASE IN ANNUAL PROGRAM COST.

INDEX

SHEET NO.	DESCRIPTION
S-1	SIGNING GENERAL NOTES
S-2	SUPPORT CHART
S-8	SPECIFIC SERVICE SIGN LAYOUTS
S-9	TYPE "E" SIGNS
S-10	TYPE "F" SIGNS
S-11 - S-12	EXISTING SIGNING PLAN
S-13 - S-14	PROPOSED SIGNING PLAN



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REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

SIGNING GENERAL NOTES

SCALE

N.T.S.

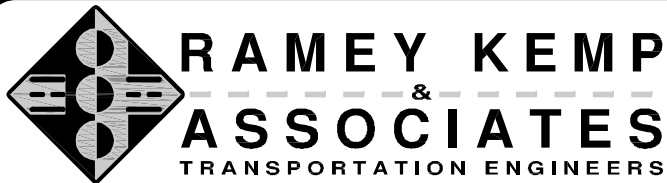
DATE: 02/04/11  
DWN BY: SPP  
CHKD BY: WJH

PROJECT NO.  
07098  
DRAWING  
SmCr\_SGN01

SHEET NO.  
S-1

SIGN NO.	SIGN TYPE	SIGN SIZE (in.)			ROADWAY STATION	NO. OF SUP.	BEAM SECTION	SUPPORT TYPE BA or S	ATTACH METHOD	MOUNTING METHOD	HORIZ. CLR. (ft.)	LENGTH (ft)			LEFT SUPPORT (ft)			CENTER SUPPORT (ft)			RIGHT SUPPORT (ft)			FOOTING DIAMETER (ft.)	FOOTING DEPTH (ft.)	B/A SUPPORT WEIGHTS (lbs.)	SIMPLE SUPPORT WEIGHTS (lbs.)	REINF. FTGS. (c.y.)	PLAIN FTGS. (c.y.)	FIELD VERIFIED SEE NOTE 2 (mm/dd/yy)		
		w	x	h								SNS HT H	MTG HT C	EMBEDMENT	S	L	TOTAL LENGTH	S	L	TOTAL LENGTH	S	L	TOTAL LENGTH									
101A	A	60	X	60	21+25 RT -Y-	2	S3x5.7	BA	N/A	N/A	2.00	5.00	7.11	3.5	0.00	12.11	15.61	0.00	0.00	0.00	-0.11	12.00	15.50	1	4	212.87	0.00	0.00	0.23	1/4/2012		
102	B	48	X	54	30+25 LT -Y-	2	S3x5.7	BA	N/A	N/A	2.00	4.50	7.00	3	0.05	11.55	14.55	0.00	0.00	0.00	0.05	11.55	14.55	1	3.5	201.40	0.00	0.00	0.20	1/4/2012		
103	B	48	X	72	11+50 LT -RP E	2	S3x5.7	BA	N/A	N/A	12.00	6.00	7.00	3.5	0.76	13.76	17.26	0.00	0.00	0.00	1.54	14.54	18.04	1	4	236.76	0.00	0.00	0.23	1/4/2012		
104A	A	60	X	60	27+25 LT -Y-	2	S3x5.7	BA	N/A	N/A	2.00	5.00	7.00	3.5	1.35	13.35	16.85	0.00	0.00	0.00	2.35	14.35	17.85	1	4	233.32	0.00	0.00	0.23	1/4/2012		
106	B	48	X	72	15+75 RT -RP E	2	S3x5.7	BA	N/A	N/A	12.00	6.00	7.00	3.5	2.06	15.06	18.56	0.00	0.00	0.00	1.70	14.70	18.20	1	4	245.06	0.00	0.00	0.23	1/4/2012		
107	A	54	X	54	15+75 LT -RP E	2	S3x5.7	BA	N/A	N/A	12.00	4.50	7.00	3	0.18	11.68	14.68	0.00	0.00	0.00	1.06	12.56	15.56	1	3.5	207.90	0.00	0.00	0.20	1/4/2012		
109	A	90	X	108	17+00 LT -RP E	2	V6x12	BA	N/A	N/A	12.00	9.00	7.00	4.5	0.69	16.69	21.19	0.00	0.00	0.00	1.79	17.79	22.29	1.5	5	607.12	0.00	0.65	0.00	1/4/2012		
(Assumed Future Height for Sign 109 for Support Size)																																
110	A	90	X	108	18+50 RT -RP E	2	V6x12	BA	N/A	N/A	12.00	9.00	7.00	4.5	2.24	18.24	22.74	0.00	0.00	0.00	1.71	17.71	22.21	1.5	5	624.76	0.00	0.65	0.00	1/4/2012		
111	A	90	X	108	18+50 LT -RP E	2	V6x12	BA	N/A	N/A	12.00	9.00	7.00	4.5	0.72	16.72	21.22	0.00	0.00	0.00	1.03	17.03	21.53	1.5	5	598.36	0.00	0.65	0.00	1/4/2012		
112	A	90	X	108	20+00 LT -RP E	2	V6x12	BA	N/A	N/A	12.00	9.00	7.00	4.5	0.89	16.89	21.39	0.00	0.00	0.00	1.25	17.25	21.75	1.5	5	603.04	0.00	0.65	0.00	1/4/2012		
NOTE: ELIMINATE HINGE CONNECTION FOR SIGNS ON 1 BREAKAWAY SUPPORT!																																
																												TOTAL	TOTAL	TOTAL	TOTAL	
																												3770.61	0.00	2.62	1.34	
																												3771	0	3	2	
USE:																																

FILE NAME: S:\2007 Projects\07098 Smithfield Crossings - Smithfield NC\Design 1A\SmCr\_SGN01.dwg LAYOUT NAME: S-2 PLOTTED: Monday, February 20, 2012 - 3:47pm USER: entlgen



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REVISIONS		
NO.	DATE	REMARKS
1	11-4-11	REMOVE LINE ITEMS
2	1-17-12	8 DIMENSION FIELD VERIFICATION
3	2-6-12	SIGN SIZE MODIFICATION

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

SUPPORT CHART

SCALE

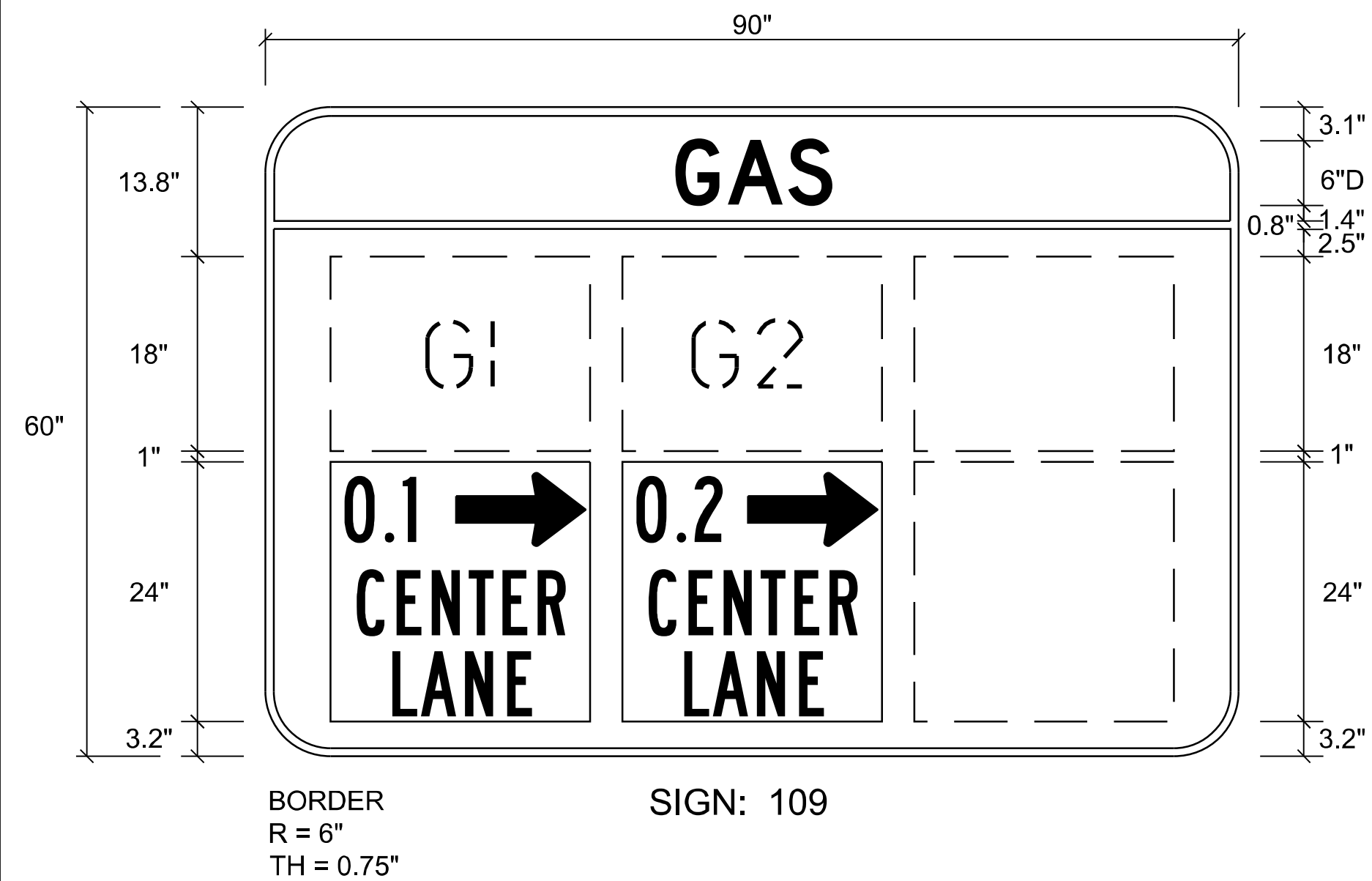
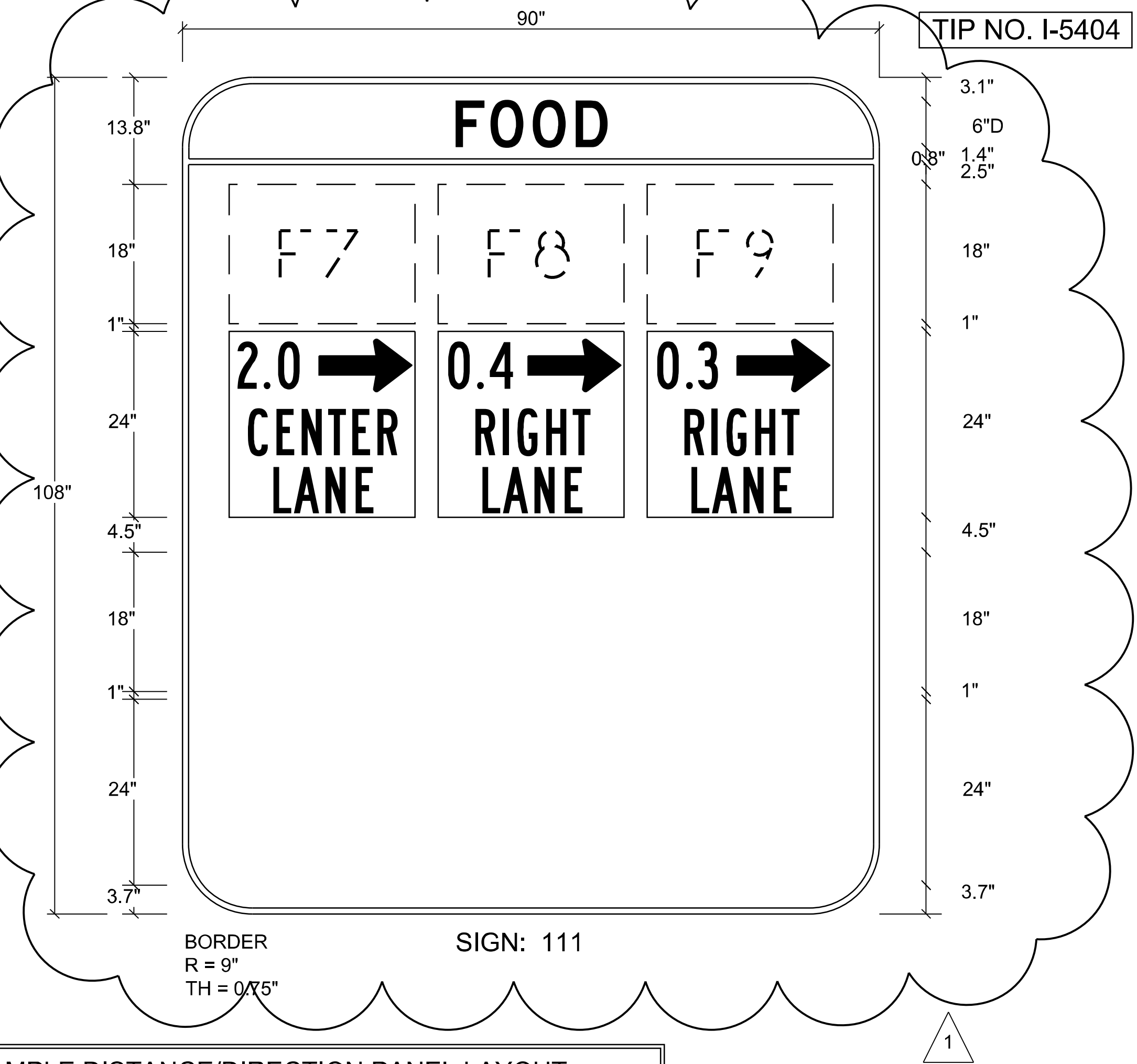
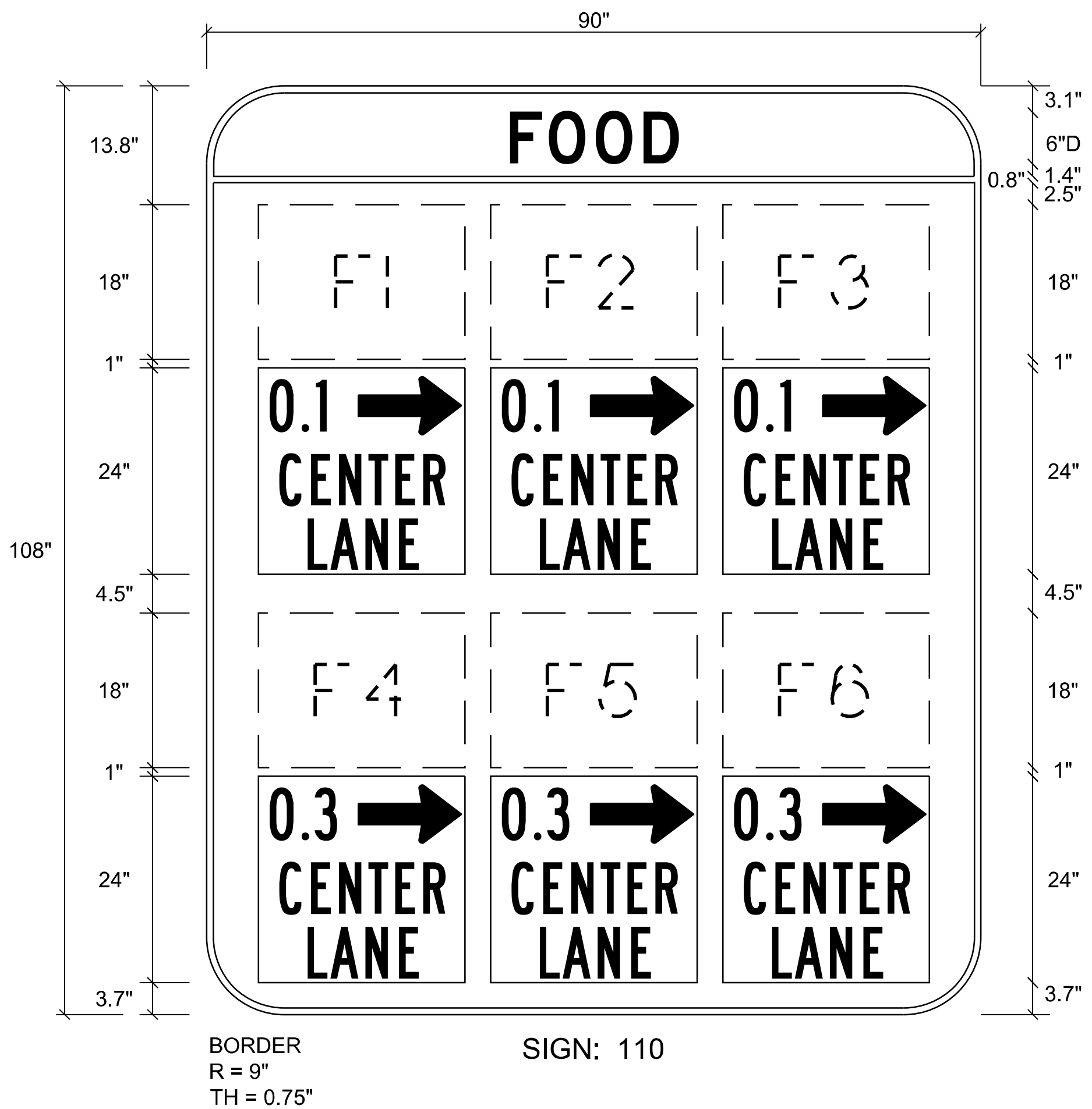
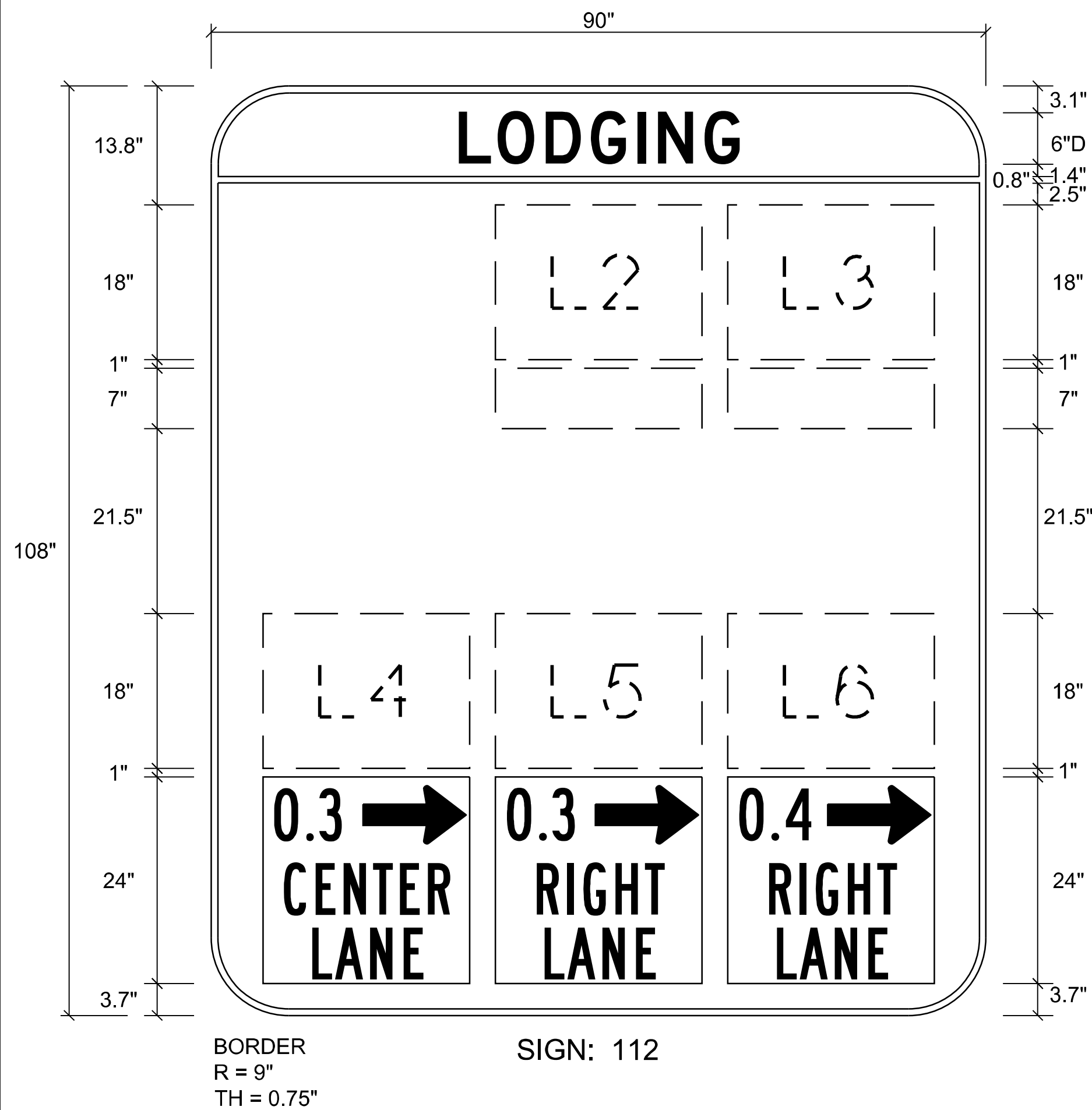
N.T.S.

DATE: 02/04/11  
DWN BY: SPP  
CHKD BY: WJH

PROJECT NO.  
07098  
DRAWING  
SmCr\_SGN01

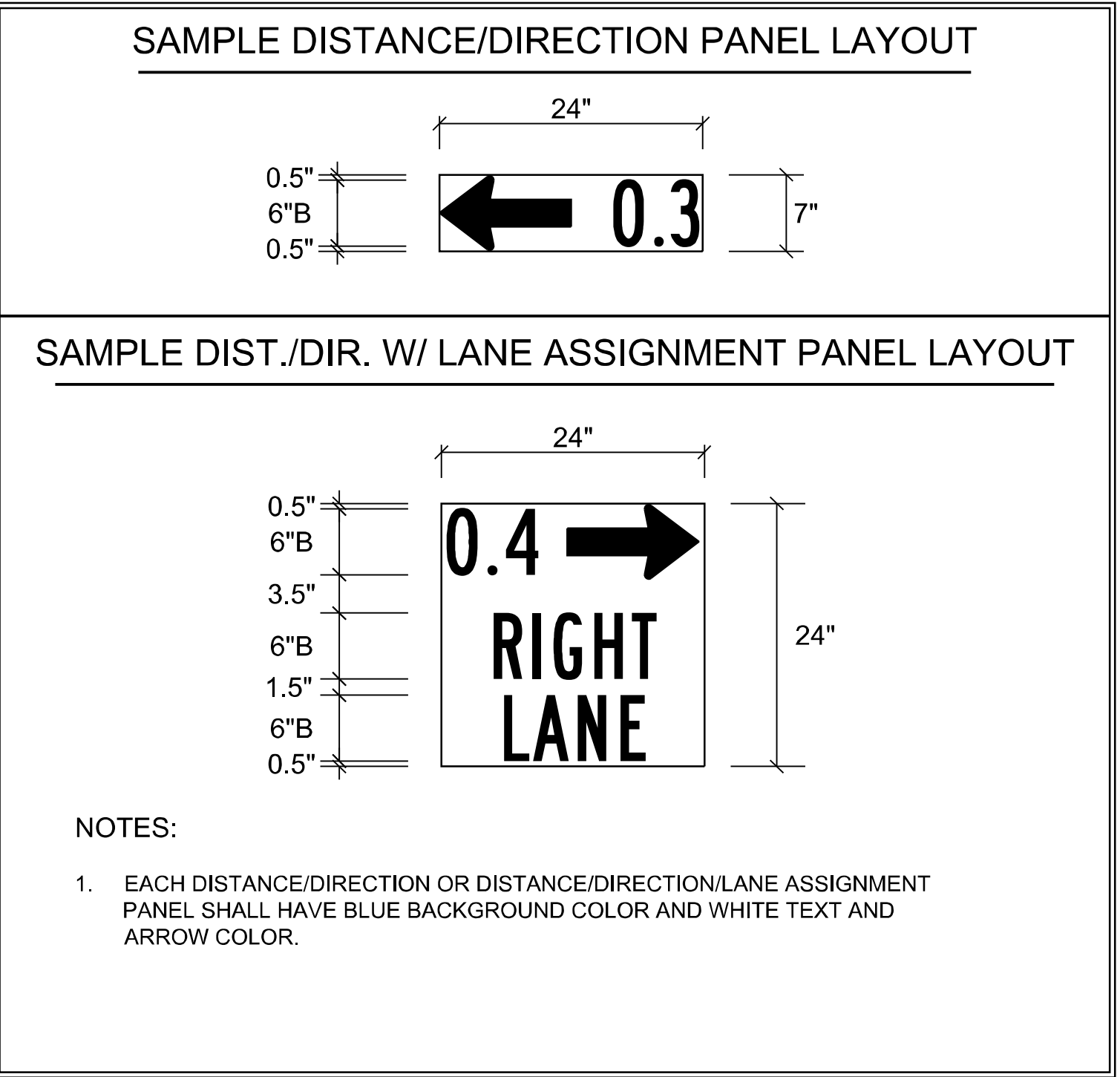
SHEET NO.  
S-2

ROADWAY ENGINEER


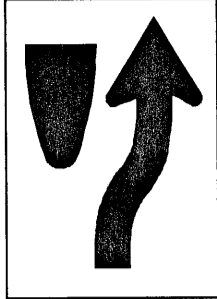









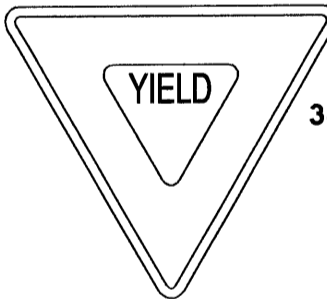
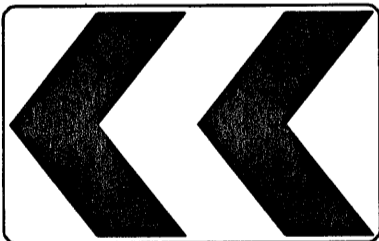


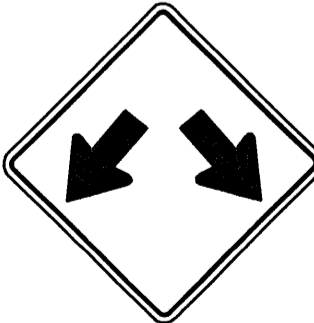



LOGO PANEL	BUSINESS	DIST./DIR.	LANE ASSIGNMENT
L2	THE VILLAGE MOTOR LODGE	0.5	
L3	LOG CABIN MOTEL	0.6	
L4	JAMESON INN	0.3	CENTER LANE
L5	SUPER 8 MOTEL	0.3	RIGHT LANE
L6	SLEEP INN	0.4	RIGHT LANE
F1	TEXAS STEAKHOUSE	0.1	CENTER LANE
F2	RUBY TUESDAY	0.1	CENTER LANE
F3	BURGER KING	0.1	CENTER LANE
F4	WAFFLE HOUSE	0.3	CENTER LANE
F5	ZAXBY'S	0.3	CENTER LANE
F6	CICI'S PIZZA	0.3	CENTER LANE
F7	SMITHFIELD'S CHICKEN & BBQ	2.0	CENTER LANE
F8	BOB EVANS	0.4	RIGHT LANE
F9	CRACKER BARREL	0.8	RIGHT LANE
G1	SUNOCO	0.1	CENTER LANE
G2	HESS	0.2	CENTER LANE

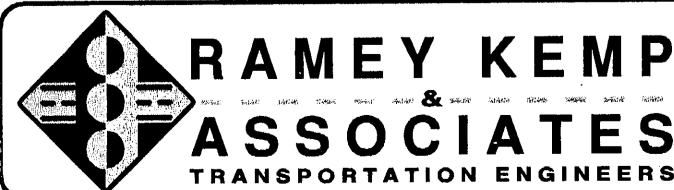
- NOTES:
- LEGEND AND BORDER SHALL BE DIRECT APPLIED A SHEETING.
  - BACKGROUND SHALL BE GRADE C REFLECTIVE SHEETING.
  - EACH SPECIFIC SERVICE SIGN SHALL HAVE BLUE BACKGROUND COLOR AND WHITE BORDER AND TEXT COLOR.
  - ALL LOGO PANELS ARE EXISTING AND SHOULD BE RE-USED ON THESE NEW SIGNS AS SHOWN.



FILE NAME: S:\2007 Projects\07088 Smithfield Crossings - Smithfield, NC\Design - Smithfield Crossings - S-9 PLOTTED: Wednesday, November 02, 2011 - 1:46pm USER: depuy

<div>401</div> <div>QUANTITY REQ'D 0</div> <div><div>24X30 R2-1</div></div> <div>ONE "U" POSTS PER SIGN</div>	<div>406</div> <div>QUANTITY REQ'D 1</div> <div><div>24 X 30 R4-7</div></div> <div>ONE "U" POST PER SIGN</div>	<div>413</div> <div>QUANTITY REQ'D 1</div> <div><div>30 X 30 R3-2</div></div> <div>ONE "U" POST PER SIGN</div>	<div>418</div> <div>QUANTITY REQ'D 0</div> <div><div>30 X 30 W14-2</div></div> <div>ONE "U" POST PER SIGN</div>			
<div>402</div> <div>QUANTITY REQ'D 2</div> <div><div>30 X 30 R1-1</div></div> <div>ONE "U" POST PER SIGN</div>	<div>407</div> <div>QUANTITY REQ'D 0</div> <div><div>18 X 18 R1-52</div></div> <div>ONE "U" POST PER SIGN</div>	<div>414</div> <div>QUANTITY REQ'D 1</div> <div><div>36 X 36 W1-1A</div></div> <div>ONE "U" POST PER SIGN</div>	<div>419</div> <div>QUANTITY REQ'D 0</div> <div><div>30X18 R5-10B (Modified)</div></div> <div>ONE "U" POST PER SIGN</div>			
<div>403</div> <div>QUANTITY REQ'D 3</div> <div><div>30 X 30 R5-1</div></div> <div>ONE "U" POST PER SIGN</div>	<div>408</div> <div>QUANTITY REQ'D 1</div> <div><div>30 X30 W2-6</div></div> <div>ONE "U" POST PER SIGN</div>	<div>415</div> <div>QUANTITY REQ'D 0</div> <div><div>30X30 R3-7L</div></div> <div>ONE "U" POST PER SIGN</div>				
<div>404</div> <div>QUANTITY REQ'D 0</div> <div><div>36 X 36 X 36 R1-2</div></div> <div>ONE "U" POST PER SIGN</div>	<div>409</div> <div>QUANTITY REQ'D 0</div> <div><div>48 X 30 R6-4</div></div> <div>TWO "U" POSTS PER SIGN</div>	<div>416</div> <div>QUANTITY REQ'D 0</div> <div><div>24X30 R2-1</div></div> <div>ONE "U" POSTS PER SIGN</div>				
<div>405</div> <div>QUANTITY REQ'D 1</div> <div><div>36 X 12 R6-1 (R)</div></div> <div>TWO "U" POSTS PER SIGN</div>	<div>410</div> <div>QUANTITY REQ'D 1</div> <div><div>30 X 30 W12-1</div></div> <div>ONE "U" POST PER SIGN</div>	<div>417</div> <div>QUANTITY REQ'D 1</div> <div><div>36 X 12 R6-1 (L)</div></div> <div>TWO "U" POSTS PER SIGN</div>				

TIP NO. I-5404



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REVISIONS		
NO.	DATE	REMARKS
1	11-4-11	Sign Qty.

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

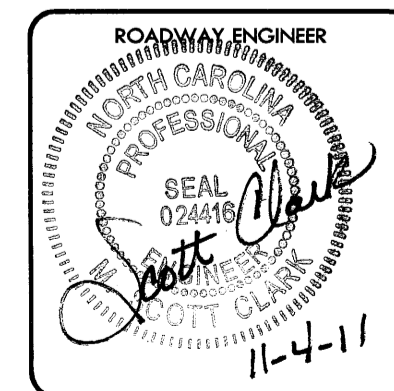
TYPE "E" SIGNS

SCALE  
N.T.S.

DATE: 02/04/11  
DWN BY: SPP  
CHKD BY: WJH

PROJECT NO.  
07098  
DRAWING  
SmCr\_SGN05

SHEET NO.  
S-9



FILE NAME: S:\2007 Projects\07098 Smithfield Crossings - Smithfield NC\Design 1A\SmCr\_SGN05.dwg LAYOUT NAME: S-10 PLOTTED: Wednesday, April 13, 2011 - 10:22am USER: dpetty

501 QUANTITY REQ'D 0

TO

TO

TO BUSINESS

INTERSTATE

95

70

←

←

M4-5  
24 x 12

M4-3  
24 x 12

M1-1  
24 x 24

M6-1L  
21 x 15

M4-5  
24 x 12

M4-3  
24 x 12

M1-4  
24 x 24

M6-1L  
21 x 15

TWO "U" POSTS PER SIGN

506 QUANTITY REQ'D 0

TO

TO

TO BUSINESS

INTERSTATE

95

70

→

→

M4-5  
24 x 12

M4-3  
24 x 12

M1-1  
24 x 24

M6-1R  
21 x 15

M4-5  
24 x 12

M4-3  
24 x 12

M1-4  
24 x 24

M6-1R  
21 x 15

TWO "U" POSTS PER SIGN

502 QUANTITY REQ'D 1

F1

F8

F9

↗

EXISTING

EXISTING

EXISTING

M6-2R  
21 x 15

ONE "U" POSTS PER SIGN

507 QUANTITY REQ'D 0

L4

←

M6-2L  
21 x 15

ONE "U" POSTS PER SIGN

503 QUANTITY REQ'D 1

L4

L5

L6

↗

EXISTING

EXISTING

EXISTING

M6-2R  
21 x 15

ONE "U" POSTS PER SIGN

508 QUANTITY REQ'D 0

G2

F4

F7

↑

NEW

NEW

NEW

M6-3  
21 x 15

ONE "U" POSTS PER SIGN

504 QUANTITY REQ'D 1

F2

F5

F6

↑

NEW

NEW

NEW

M6-3  
21 x 15

ONE "U" POSTS PER SIGN

505 QUANTITY REQ'D 0

L4

F1

L5

F8

L6

F9

↑

↑

NEW

NEW

NEW

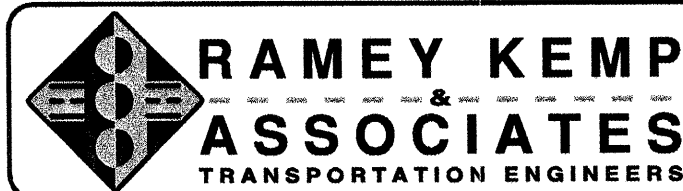
M6-3  
21 x 15

M6-3  
21 x 15

TWO "U" POSTS PER SIGN

TIP NO. I-5404

- NOTES:
- 1. LOGO PANELS ARE EXISTING AND SHOULD BE RE-USED AS SHOWN.
  - 2. LOGO PANELS ARE NEW AND WILL BE SUPPLIED BY EACH BUSINESS AND INSTALLED BY NCDOT FORCES.



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REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

TYPE "F" SIGNS

SCALE

N.T.S.

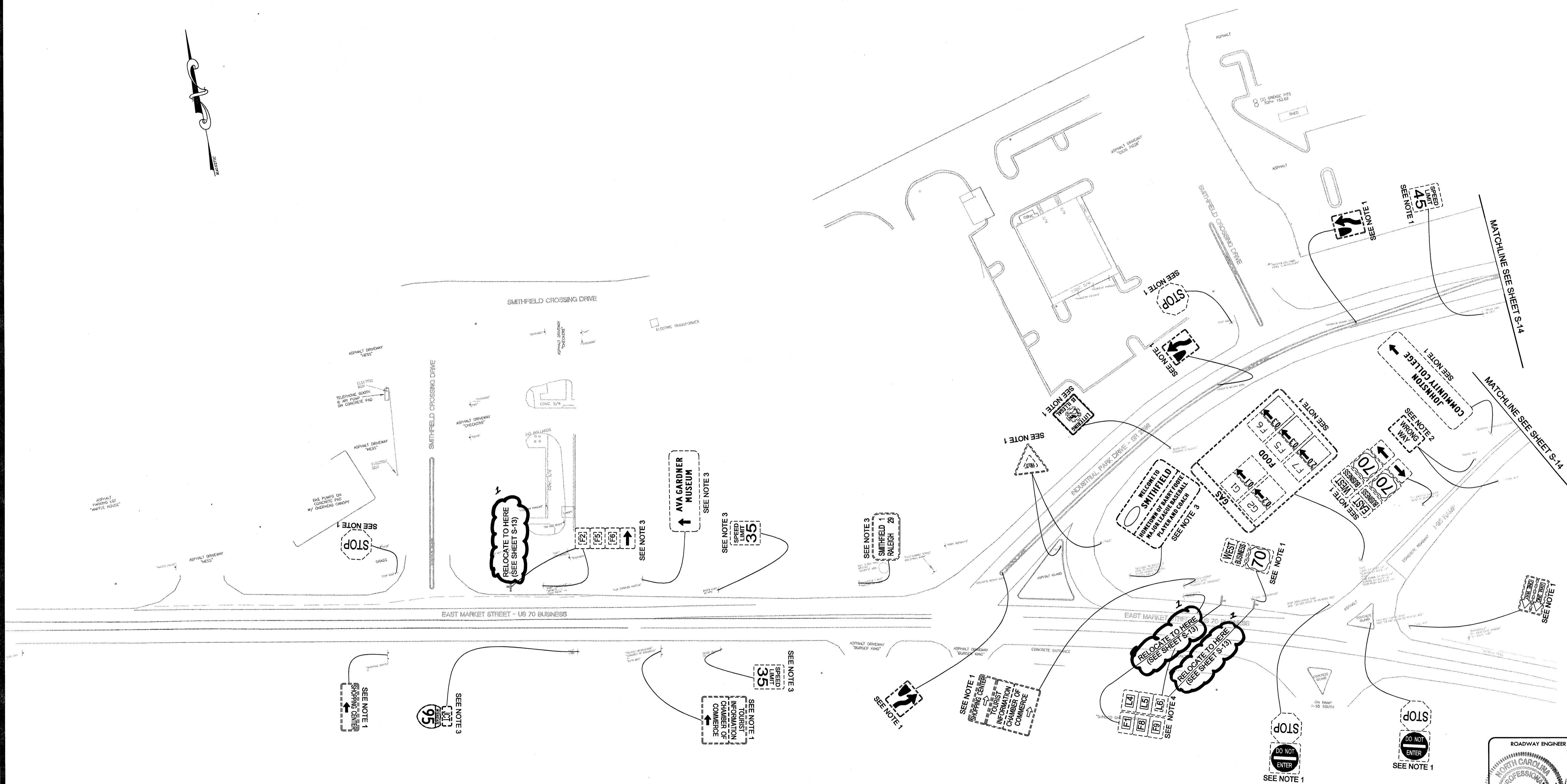
DATE: 02/04/11  
DWN BY: SPP  
CHKD BY: WJH

PROJECT NO.  
07098  
DRAWING  
SmCr\_SGN05

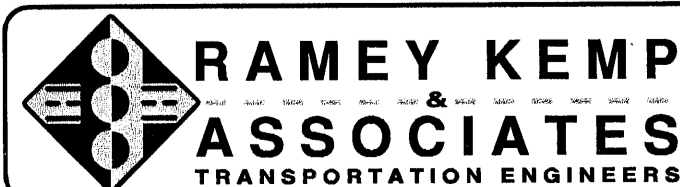
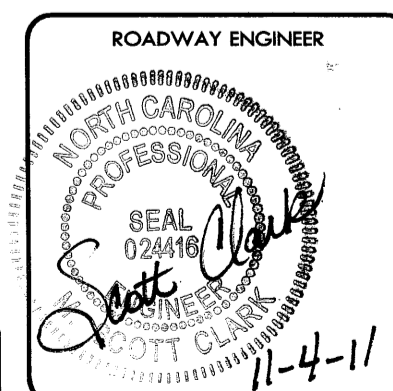
SHEET NO.  
S-10



\* ANY EXISTING SIGN NOT SHOWN ON PLANS MAY BE REMOVED AT THE DISCRETION OF THE ENGINEER.



**SEE SHEET S-12 FOR LOGO SIGN BUSINESSES**



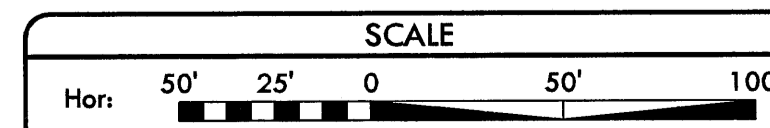
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REVISIONS		
NO.	DATE	REMARKS
1	11-4-11	SHEET REF No.

# Smithfield Crossings Roadway Improvements

## Smithfield, North Carolina

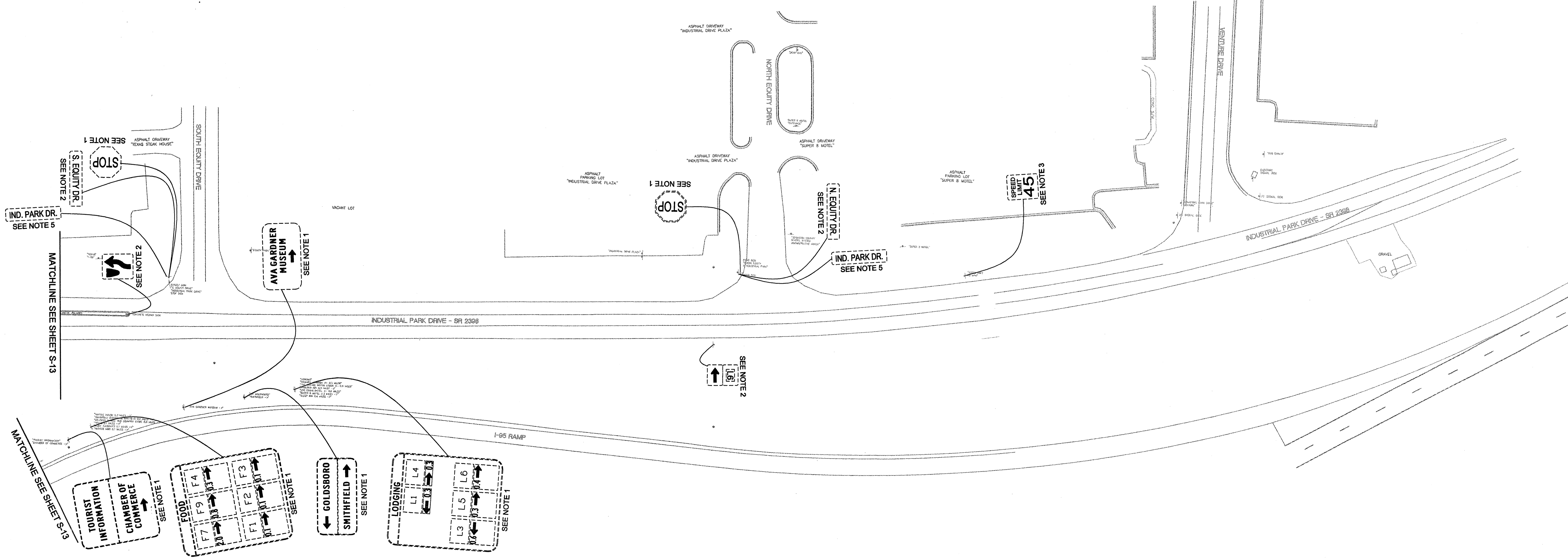
## EXISTING SIGNING PLAN



DATE: 02/04/11  
DWN BY: SPP  
CHKD BY: WJH

PROJECT NO. 07098
DRAWING SmCr SGN06

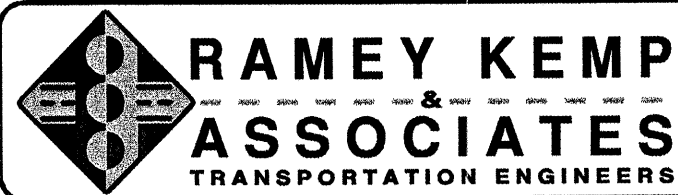
SHEET NO.  
S-11



BUSINESSES SHOWN ON LOGO SIGNS			
FOOD		GAS	
F1	TEXAS STEAKHOUSE	G1	SUNOCO
F2	RUBY TUESDAY	G2	HESS
F3	BURGER KING		
F4	WAFFLE HOUSE	LODGING	
F5	ZAXBY'S	L2	THE VILLAGE MOTOR LODGE
F6	CICI'S PIZZA	L3	LOG CABIN MOTEL
F7	SMITHFIELD'S CHICKEN & BARBECUE	L4	JAMESON INN
F8	BOB EVANS	L5	SUPER 8 MOTEL
F9	CRACKER BARREL	L6	SLEEP INN

- NOTES:
- EXISTING SIGN AND SUPPORT TO BE REMOVED  
LOGO SHIELDS TO BE REUSED.
  - EXISTING SIGN TO REMAIN.
  - EXISTING SIGN TO BE RELOCATED
  - REMOVE EXISTING ARROW PANEL. RELOCATE  
SIGN WITH NEW ARROW PANEL
  - EXISTING SIGN TO BE REMOVED.

\* ANY EXISTING SIGN NOT SHOWN ON PLANS MAY  
BE REMOVED AT THE DISCRETION OF THE  
ENGINEER.

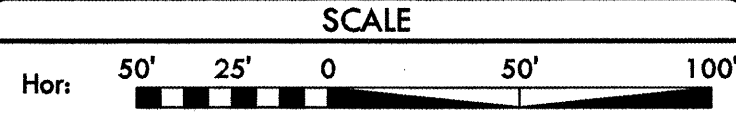


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REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

EXISTING SIGNING PLAN



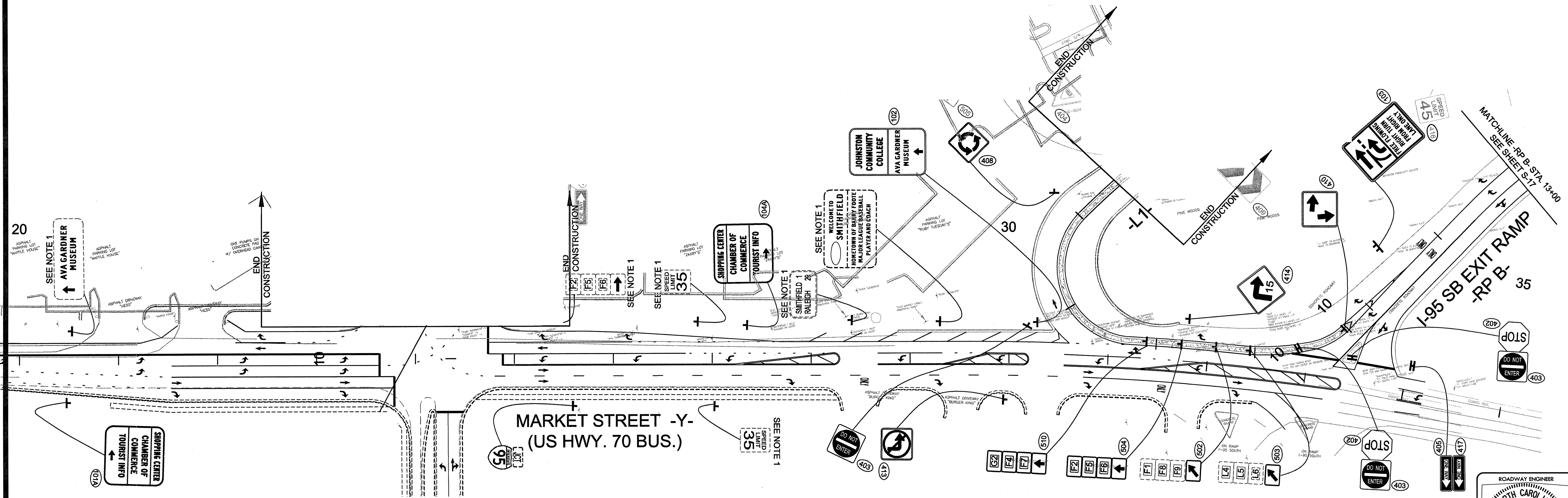
DATE: 02/04/11  
DWN BY: SPP  
CHKD BY: WJH

PROJECT NO.  
07098  
DRAWING  
SmCr\_SGN07

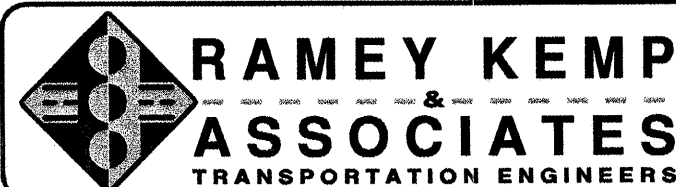
SHEET NO.  
S-12

NOTE:  
1. INSTALL EXISTING SIGN ON NEW U-CHANNEL  
POST IN NEW LOCATION.

TIP NO. I-5404



SEE SHEET S-14 FOR LOGO SIGN BUSINESSES

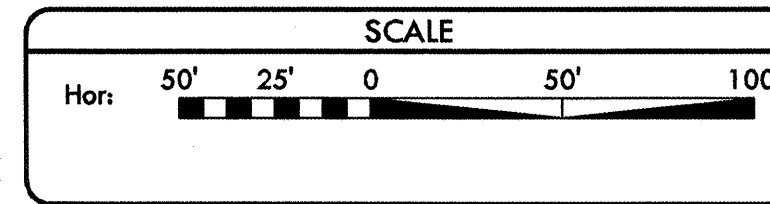


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REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

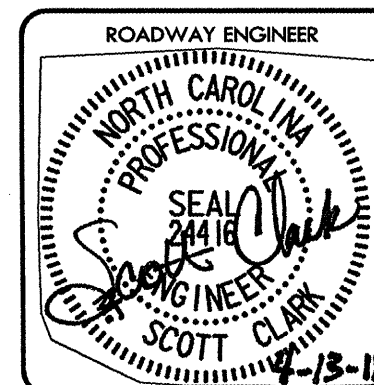
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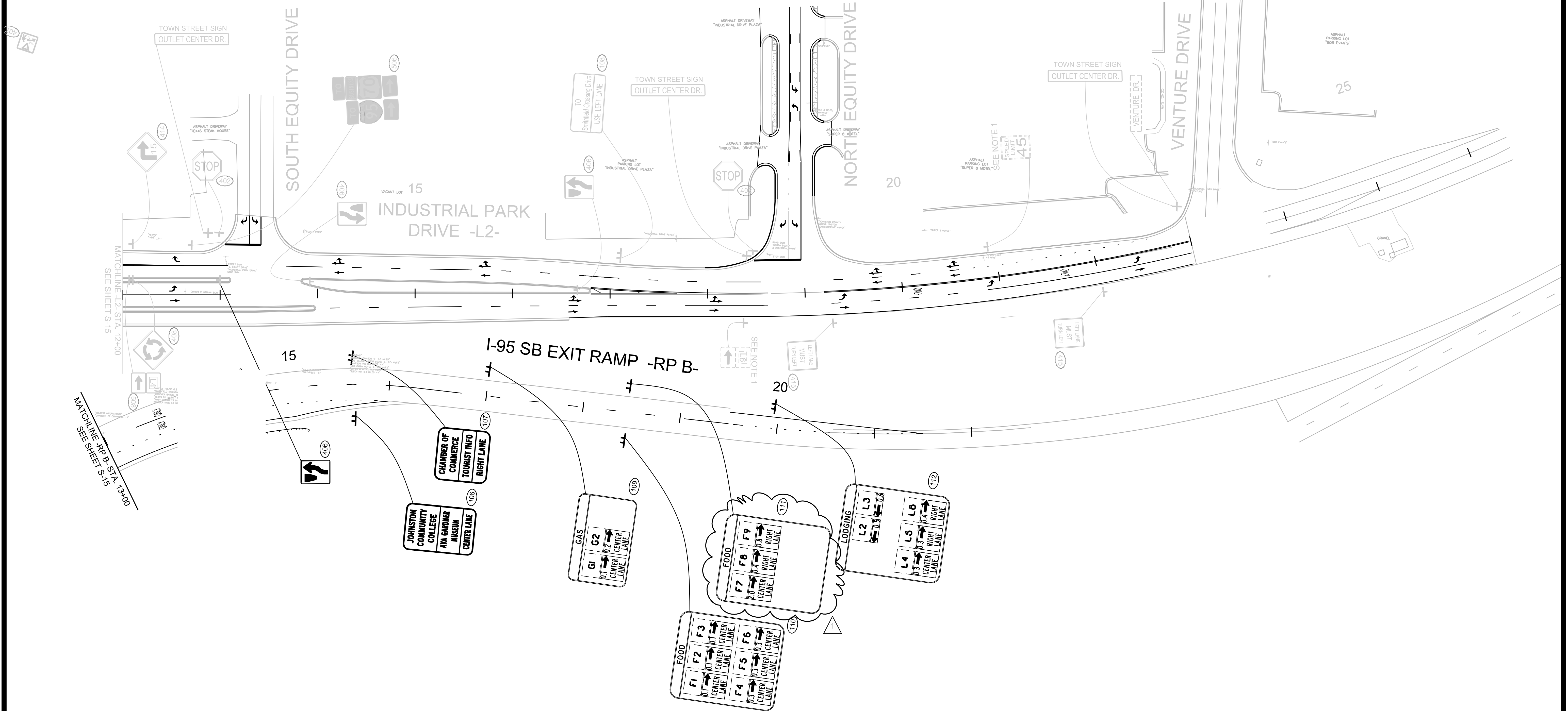


DATE: 02/04/11  
DWN BY: SPP  
CHKD BY: WJH

PROJECT NO.  
07098  
DRAWING  
SmCr\_SGN08

SHEET NO.  
S-13



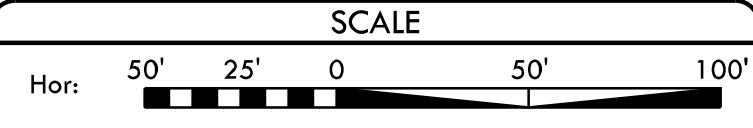


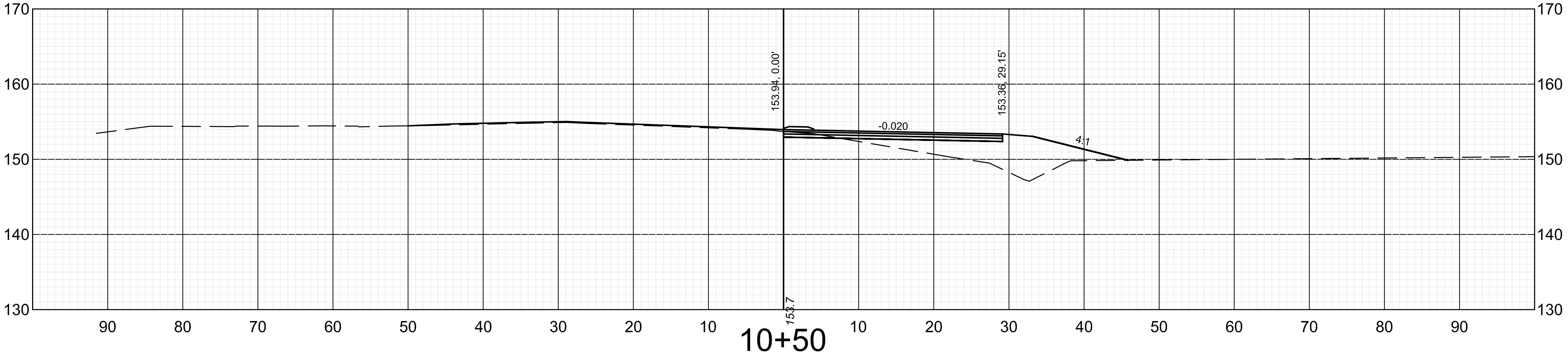
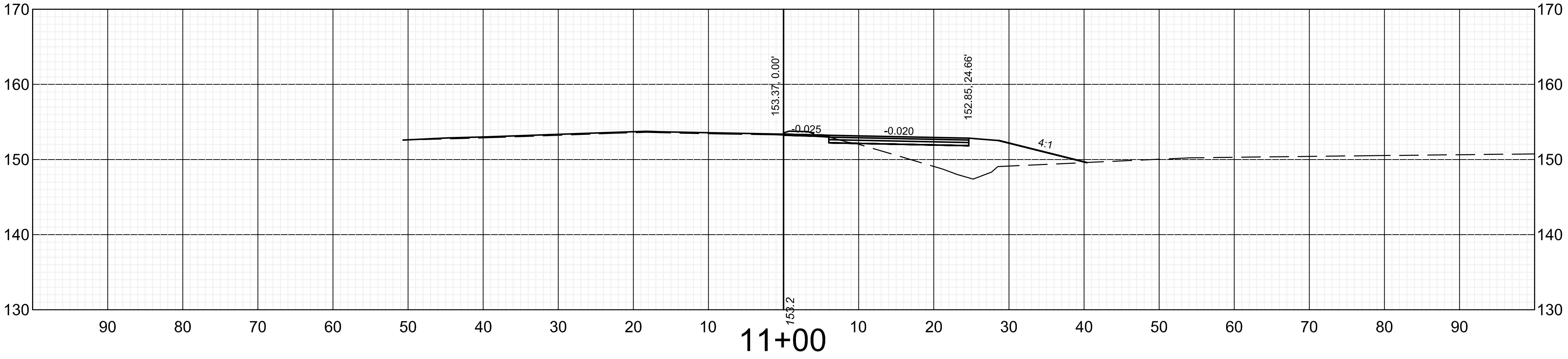
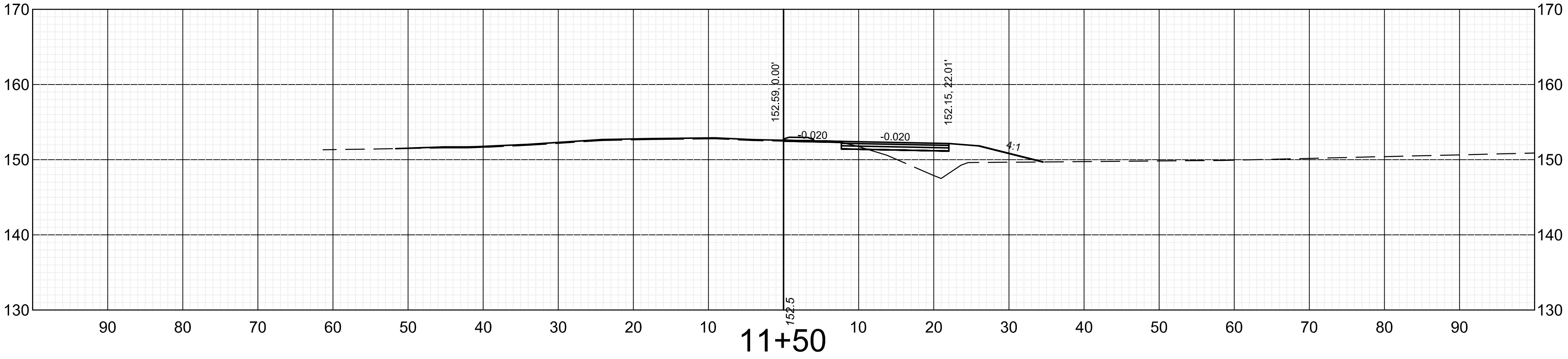
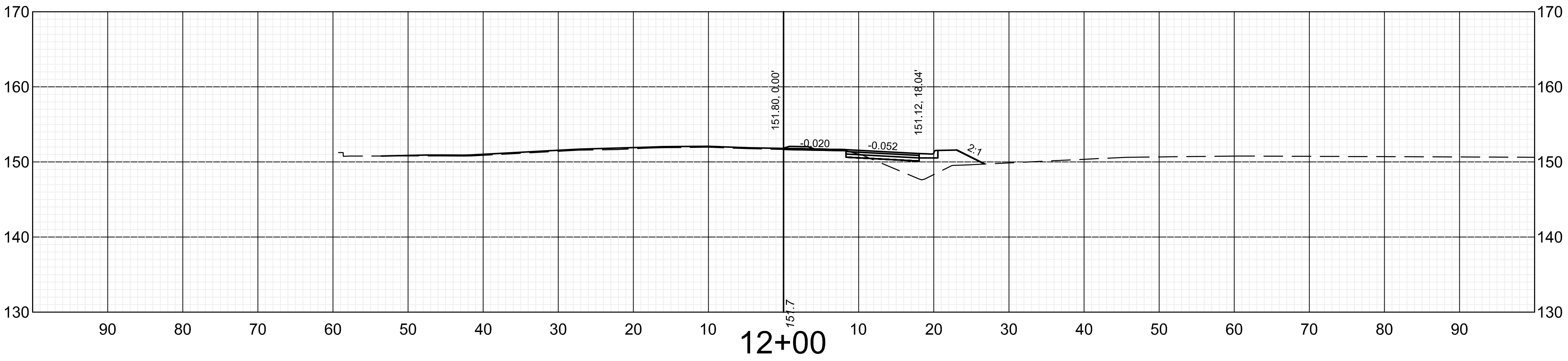
**NOTE:**  
1. INSTALL EXISTING SIGN ON NEW U-CHANNEL POST IN NEW LOCATION.

BUSINESSES SHOWN ON LOGO SIGNS			
<b>FOOD</b>		<b>GAS</b>	
F1	TEXAS STEAKHOUSE	G1	SUNOCO
F2	RUBY TUESDAY	G2	HESS
F3	BURGER KING		
F4	WAFFLE HOUSE	<b>LODGING</b>	
F5	ZAXBY'S	L2	THE VILLAGE MOTOR LODGE
F6	CICI'S PIZZA	L3	LOG CABIN MOTEL
F7	SMITHFIELD'S CHICKEN & BARBECUE	L4	JAMESON INN
F8	BOB EVANS	L5	SUPER 8 MOTEL
F9	CRACKER BARREL	L6	SLEEP INN

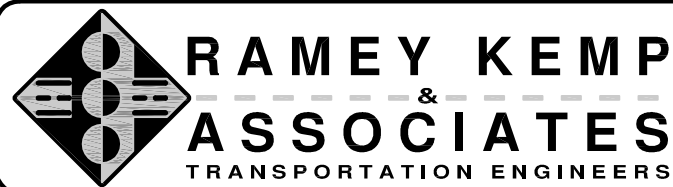
ROADWAY ENGINEER

REVISIONS			
NO.	DATE	REMARKS	
1	2-6-12	SIGN MODIFICATION	





FILE NAME: S:\2007 Projects\07098 Smithfield Crossings - Smithfield NC\Design 1A\SmCr\_XS02-IPD.dwg PLOTTED: Thursday, April 28, 2011 - 12:45pm USER: dpatry

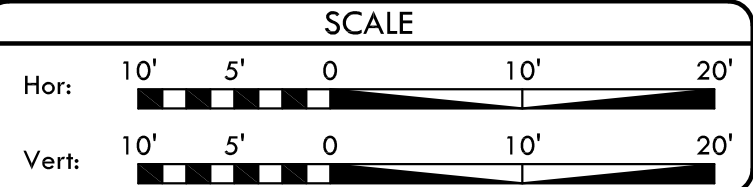


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REVISIONS		
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Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

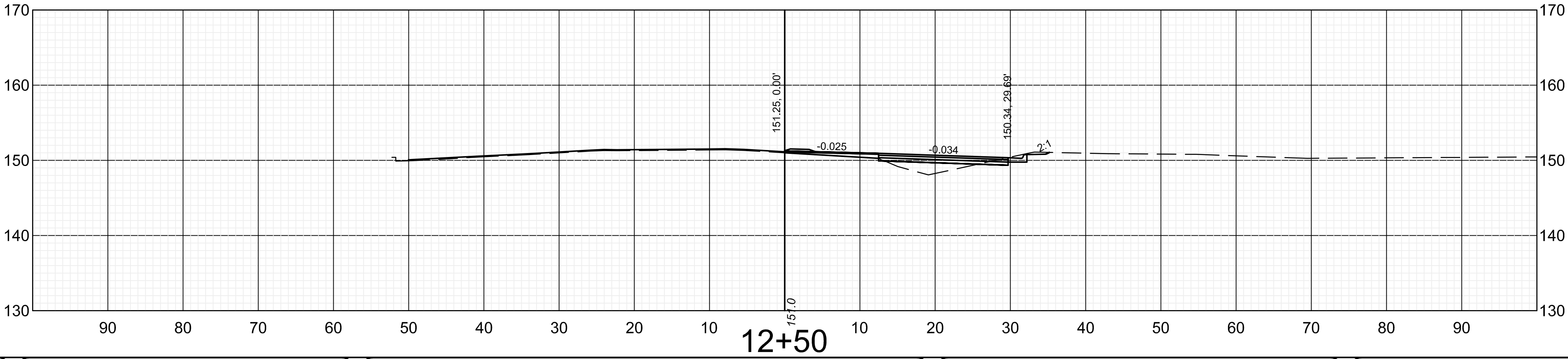
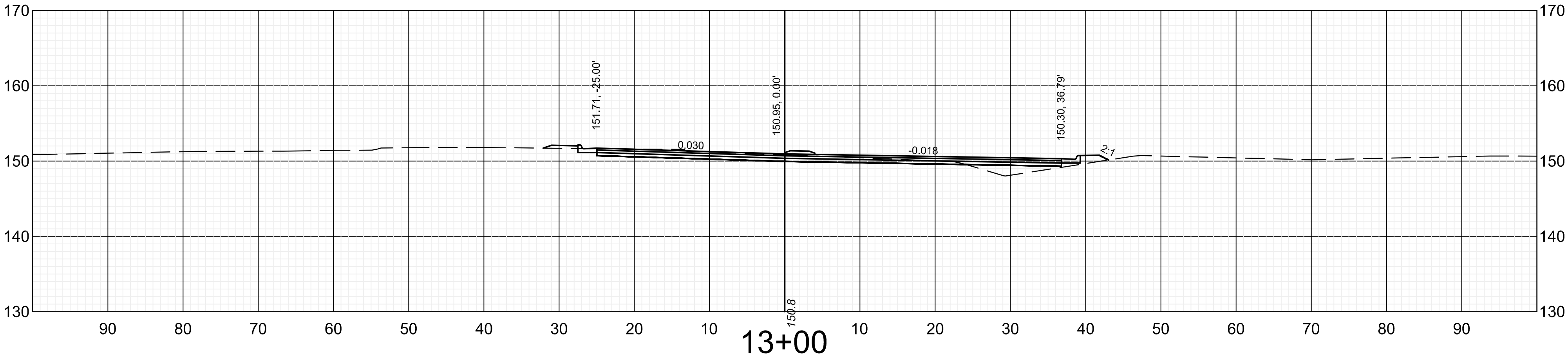
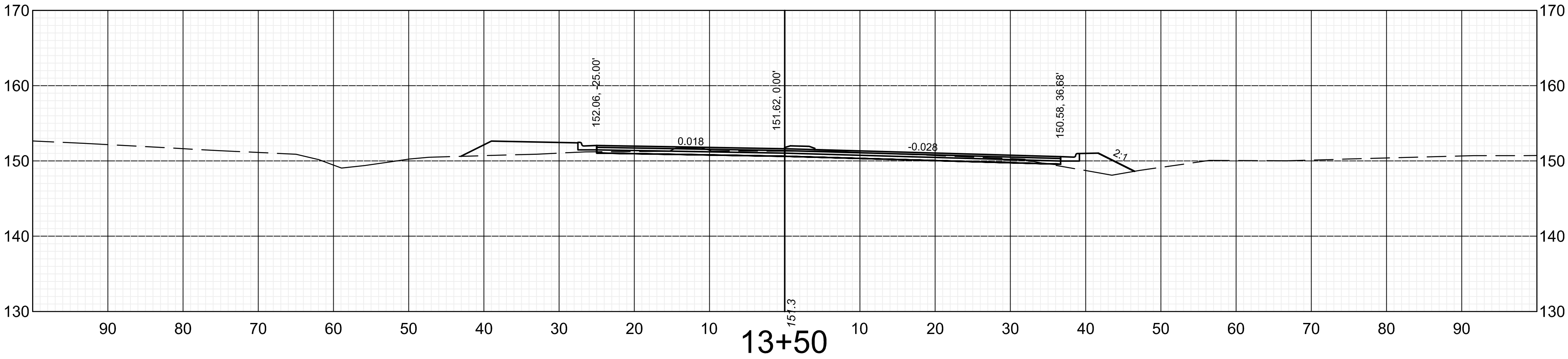
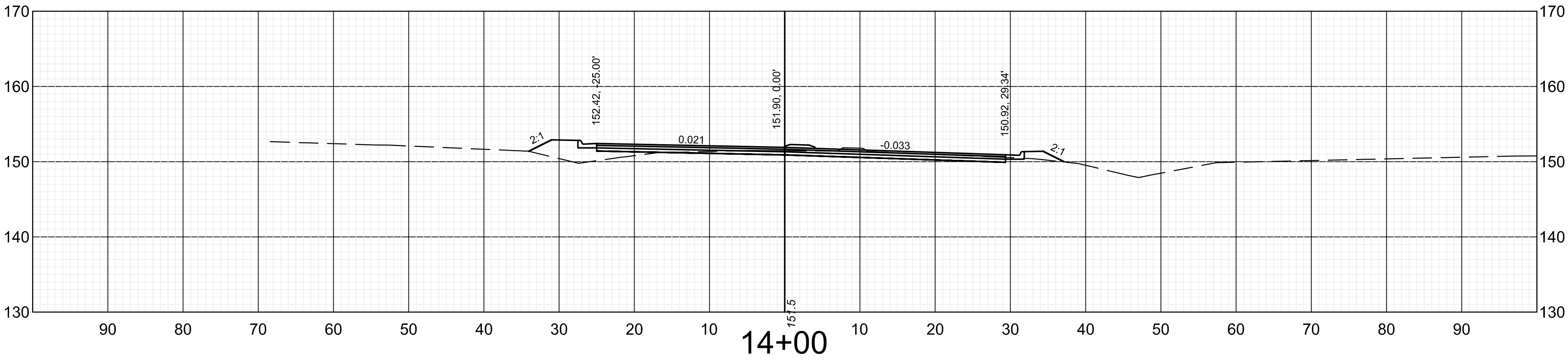
CROSS SECTIONS (-L1-)



DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

PROJECT NO.  
07098  
DRAWING  
SmCr\_XS02-IPD

SHEET NO.  
X-7

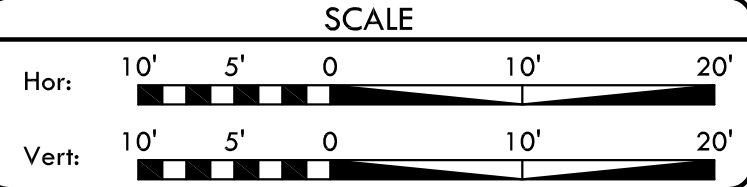


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REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

CROSS SECTIONS (-L1-)

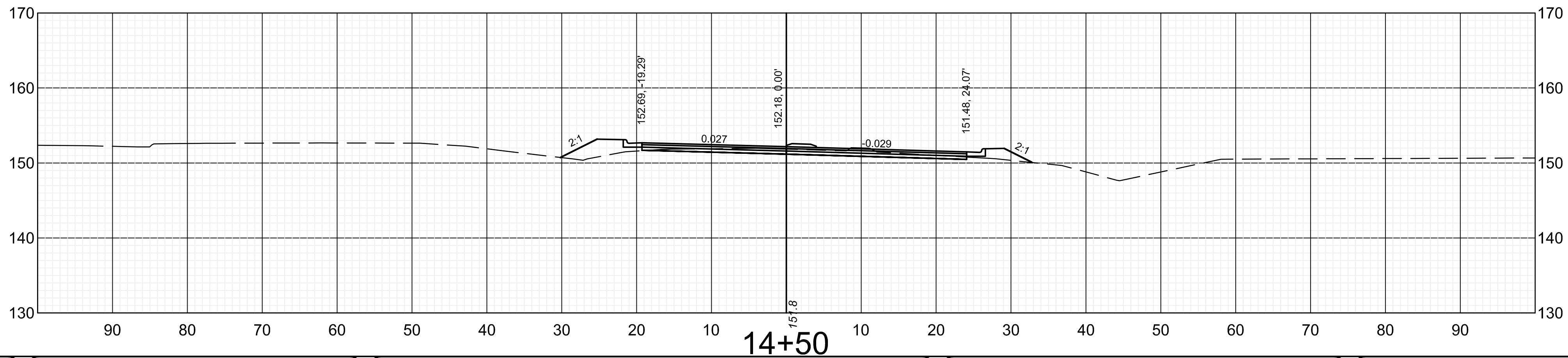


DATE: 02/04/11  
DWN BY: JPS  
CHKD BY: MSC

PROJECT NO.  
07098  
DRAWING  
SmCr\_XS02-IPD

SHEET NO.  
X-8

FILE NAME: S:\2007 Projects\07098 Smithfield Crossings - Smithfield NC\Design 1A\SmCr\_XS02-IPD.dwg LAYOUT NAME: X-9 PLOTTED: Thursday, April 28, 2011 - 12:55pm USER: dpahy

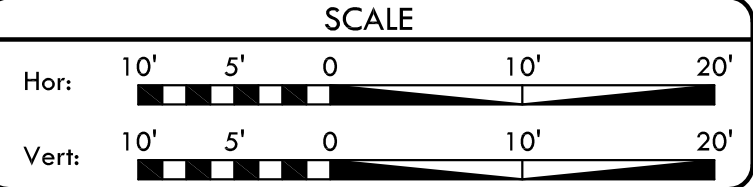


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REVISIONS		
NO.	DATE	REMARKS

Smithfield Crossings Roadway Improvements  
Smithfield, North Carolina

CROSS SECTIONS (-L1-)



DATE: 02/04/11  
DWN BY: JPS  
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PROJECT NO.  
07098  
DRAWING  
SmCr\_XS02-IPD

SHEET NO.  
X-9