STATE PROJECT REFERENCE NO.	SHEET NO.
37831	TCP-1

37831

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
TRAFFIC CONTROL, MARKING & DELINEATION
BUNCOMBE COUNTY

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS"- ROADWAY DESIGN 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
1101.02	TEMPORARY LANE CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL PLAN DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1145.01	TYPE III BARRICADES
1150.01	FLAGGERS
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS (TEMPORARY)
1253.01	SNOWPLOWABLE RAISED PAVEMENT MARKERS
1261.01	GUARDRAIL AND BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION

INDEX OF SHEETS

TEMP. PAV'T. MARKING SCHEDULE

SYMBOL	DESCRIPTION	QUANTITY BREAKDOWN	PAY ITEM	TOTAL QUANTITY
		PAVEMENT MARKING LINES		
			PAINT (4")	
PA	WHITE EDGELINE 2X	49,264 LF		
PD	2' WHITE MINISKIP 2X	172 LF		
PE	WHITE SOLID LANE LINE 2X	1194 LF		
PI	YELLOW DOUBLE CENTER LINE 2X	63,672 LF		
			TOTAL	114,302 LF
			PAINT (8")	
PV	YELLOW DIAGONAL 2X	284 LF		
			TOTAL	284 LF
			PAINT (24")	
P4	WHITE STOP BAR 2X	176 LF		
			TOTAL	176 LF
		PAVEMENT MARKING SYMBOLS		
			PAINT SYMBOL	
QA	LEFT TURN ARROW 2X	14 EA		
QB	RIGHT TURN ARROW 2X	2 EA		
QC	STRAIGHT ARROW 2X	4 EA		
QE	COMBO. STRAIGHT/RIGHT TURN ARROW 2X	20 EA		
			TOTAL	40 EA
		PAVEMENT MARKERS		
			TEMPORARY RAISED	
MH	YELLOW & YELLOW	388 EA		
MI	CRYSTAL & RED	32 EA		
			TOTAL	420 EA

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

LEGEND

GENERAL

◀	DIRECTION OF TRAFFIC FLOW
➤	NORTH ARROW
——	PROPOSED PVMT.
---------	EXIST. PVMT.
■	PROPOSED CONSTRUCTION
▨	ONGOING CONSTRUCTION
▩	OBLITERATION

TRAFFIC CONTROL DEVICES

I	TYPE I BARRICADE
⊧	TYPE II BARRICADE
▬	TYPE III BARRICADE
▲	CONE
●	DRUM
>●	FLASHING ARROW PANEL (TYPE C)
◉	TYPE 'B' WARNING LIGHT
⊢	STATIONARY SIGN
⊲	PORTABLE SIGN
⚑	WARNING FLAGS
∿	CRASH CUSHION
◁□	CHANGEABLE MESSAGE SIGN
◁▯	TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
⊞	POLICE
■	FLAGGER

PAVEMENT MARKINGS

▯	CRYSTAL PAVEMENT MARKER
◆	YELLOW/YELLOW PAVEMENT MARKER
◧	CRYSTAL/RED PAVEMENT MARKER
↑↰↲	PAVEMENT MARKING SYMBOLS

PLAN REVIEWED BY: N.C.D.O.T. TRAFFIC CONTROL, MARKING & DELINEATION SECTION	
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M. McDIARMID, P.E.	*TRAFFIC CONTROL PROJECT ENGINEER*
J. GALLOWAY, P.E.	*TRAFFIC CONTROL PROJ. DESIGN ENGINEER*
P. SEYMORE	*TRAFFIC CONTROL DESIGN ENGINEER*

APPROVED: Michael T Rzepka
DATE: 4-12-07

SEAL
SEAL 15876
MICHAEL T. RZEPKA

PLAN PREPARED FOR N.C.D.O.T. BY:

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G. E. PARKER	*DESIGN ENGINEER*
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PROJ. REFERENCE NO.	SHEET NO.
37831	TCP-2

PROJECT NOTES

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR 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
NC 112	6:00AM - 8:30AM AND 4:00PM - 6:00PM MONDAY THRU FRIDAY

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

ROAD NAME

NC 112

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S DAY, BETWEEN THE HOURS OF 4:00 P.M. DECEMBER 31ST TO 8:30 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:30 A.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 4:00 P.M. THURSDAY AND 8:30 A.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY TO 8:30 A.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 4:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:30 A.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 4:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:30 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY TO 8:30 A.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 4:00 P.M. TUESDAY TO 8:30 A.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 4:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:30 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

C) 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.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

F) DO NOT WORK SIMULTANEOUSLY WITHIH 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

G) 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.

H) 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

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

SIGNING

J) 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.

K) STATE FORCES WILL BE RESPONSIBLE FOR PERMANENT SIGNING.

TRAFFIC BARRIER

L) INSTALL WATER-FILLED BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE WATER-FILLED BARRIER IS INSTALLED AT ANY LOCATION, PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

ONCE WATER-FILLED BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE WATER-FILLED BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET WATER-FILLED BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

M) DO NOT PLACE WATER-FILLED BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

N) INSTALL WATER-FILLED BARRIER ACCORDING TO MANUFACTURES INSTRUCTION.

INSTALL WATER-FILLED BARRIER WITH THE TRAFFIC FLOW, BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE WATER-FILLED BARRIER AGAINST THE TRAFFIC FLOW, BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFIC.

TRAFFIC CONTROL DEVICES

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

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

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
NC 112	THERMOPLASTIC	SNOWPLOWABLE RAISED

R) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
NC 112	PAINT	TEMPORARY RAISED

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

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

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

TEMPORARY/FINAL SIGNALS

V) NOTIFY THE ENGINEER TWO (2) MONTHS BEFORE A TRAFFIC SIGNAL INSTALLATION BY OTHERS IS REQUIRED.

W) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN ON THE SIGNAL PLANS.

LOCAL NOTES

1) THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED WIDENING, INSTALLATION OF CURB AND GUTTER AND DRAINAGE IN AREAS OF ROADWAY SAG LOCATIONS IN SUCH A MANNER AS TO PREVENT WATER FROM PONDING INTO THE EXISTING TRAVEL LANES.

Plans prepared by:
KO & ASSOCIATES, P.C.
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RALEIGH, N.C. 27606
For Division of Highways

APPROVED: DATE: 4-12-07

SEAL

SEAL 15876
MICHAEL T. RZEPKA

PROJECT NOTES

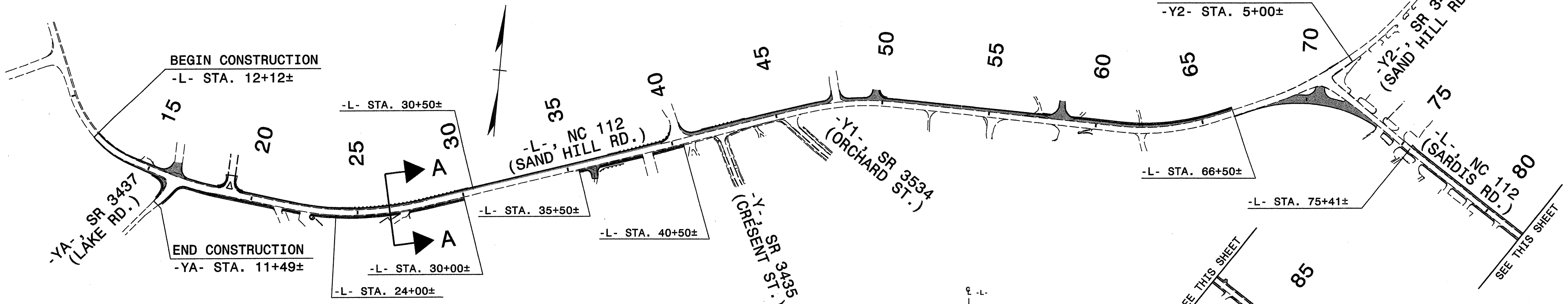
SCALE: NONE
DATE: 5-06
DWG. BY: B.L.M.
DESIGN BY: B.L.M.
REVIEWED BY: M.T.R.

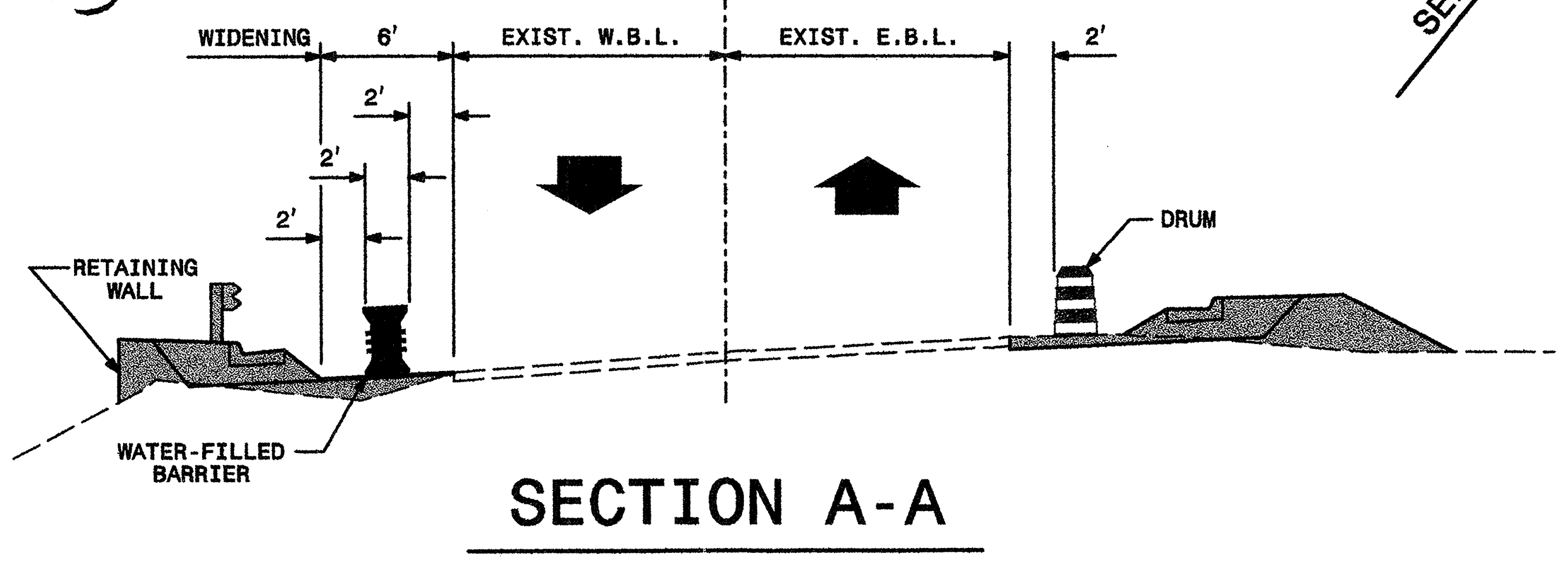
REVISIONS	

CADD FILE:

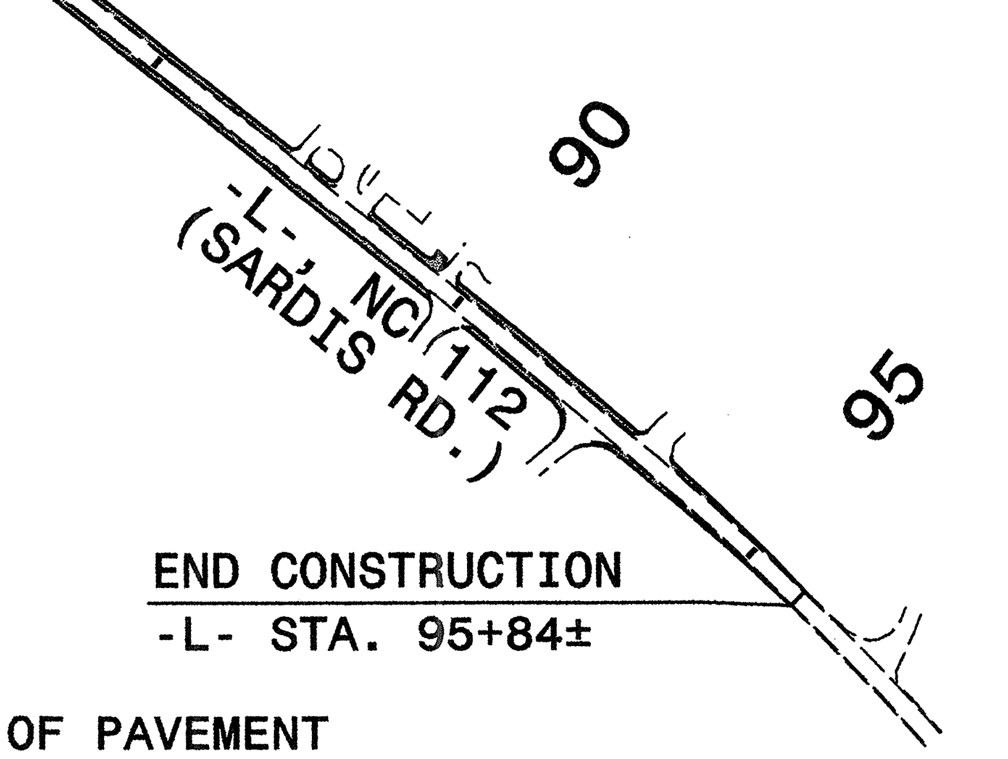
PROJ. REFERENCE NO.	SHEET NO.
37831	TCP-3

PHASE I OVERVIEW





SECTION A-A



PHASE I PHASING

STEP 1: - INSTALL WORKZONE SIGNS. (SEE SHEET TCP-8)

STEP 2: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, INSTALL PROPOSED 24" DUCTILE IRON WATER LINE UNDER EXISTING NC 112 (SAND HILL RD.) THROUGHOUT PROJECT LIMITS AS SHOWN IN UTILITY PLANS.

FILL IN EXCAVATION, REPLACE PAVEMENT AND REMOVE LANE CLOSURE AT THE END OF EACH DAY.

THE CONTRACTOR MAY BEGIN STEPS 3 AND 4 ON RIGHT SIDE OF -L-, NC 112 (SAND HILL RD.) IN AREAS WHICH DO NOT INTERFER WITH WATER LINE INSTALLATION AS PERMITTED BY ENGINEER.

STEP 3: - BEGIN INSTALLATION OF REQUIRED DRAINAGE AS MUCH AS POSSIBLE AS SHOWN IN ROADWAY PLANS EXCLUDING DRAINAGE STRUCTURES ALONG RIGHT SIDE OF EXISTING NC 112 AT -L- STA. 27+27± AND BETWEEN -L- STA. 40+50± AND -L- STA. 66+50±. ALSO EXCLUDE DRAINAGE STRUCTURE ON LEFT SIDE OF EXISTING NC 112 AT -L- STA. 27+26±. (REFER TO ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9)

STEP 4: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, BEGIN WIDENING OF EXISTING NC 112 UP TO EXISTING EDGE OF PAVEMENT ELEVATION INCLUDING CURB AND GUTTER AT THE FOLLOWING LOCATIONS: (SEE LOCAL NOTE 1)

-L- STA. 12+12± TO -L- STA. 24+00± (BOTH SIDES)
-L- STA. 30+50± TO -L- STA. 66+50± (LEFT SIDE)
-L- STA. 35+50± TO -L- STA. 40+50± (RIGHT SIDE)
-L- STA. 75+41± TO -L- STA. 95+84± (BOTH SIDES)

STEP 5: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, WIDEN LEFT SIDE OF EXISTING NC 112 (6'±) UP TO EDGE OF EXISTING PAVEMENT ELEVATION AND PLACE WATER-FILLED BARRIER FROM -L- STA. 24+00± TO -L- STA. 30+50± . (SEE SECTION VIEW A-A)

STEP 6: - BEHIND WATER-FILLED BARRIER, INSTALL DRAINAGE STRUCTURE AT -L- STA. 27+26± AND BEGIN WIDENING THE LEFT SIDE OF EXISTING NC 112 INCLUDING RETAINING WALL AND CURB AND GUTTER FROM -L- STA. 24+00± TO -L- STA. 30+50± . (SEE SECTION VIEW A-A)

USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, WIDEN RIGHT SIDE OF EXISTING NC 112 (6'±) UP TO EDGE OF EXISTING PAVEMENT ELEVATION AND PLACE WATER-FILLED BARRIER FROM -L- STA. 24+50± TO -L- STA. 27+50±. BEHIND WATER-FILLED BARRIER INSTALL DRAINAGE STRUCTURE AT -L- STA. 27+27±. UPON COMPLETION OF DRAINAGE STRUCTURE, REMOVE WATER-FILLED BARRIER AND REPLACE WITH DRUMS. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, BEGIN WIDENING OF RIGHT SIDE OF NC 112 UP TO EXISTING EDGE OF PAVEMENT ELEVATION INCLUDING CURB AND GUTTER FROM -L- STA. 24+00± TO -L- STA. 30+00±.

STEP 7: - CONSTRUCT -Y2- AND PROPOSED -L- UP TO EXISTING EDGE OF PAVEMENT ELEVATION ON RIGHT SIDE FROM -L- STA. 66+50± TO -L- STA. 75+41± EXCLUDING CURB AND GUTTER. (REFER TO ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9 AND PHASE I, DETAIL 1, SHEET TCP-4)

INSTALL AND MAKE OPERATIONAL TEMPORARY TRAFFIC SIGNAL AT THE INTERSECTION OF -L- (NC 112, SAND HILL RD) AND -Y2- AS SHOWN ON TCP-5. (SEE SIGNAL PLANS)

THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED OF PHASE I, STEP 8 IN ONE WEEKEND BEGINNING ON A FRIDAY AT 6:00 PM AND COMPLETED BY THE FOLLOWING MONDAY AT 6:00 AM

STEP 8: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, PAVE/WEDGE UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE PROPOSED -L- ALIGNMENT FROM -L- STA. 66+50± TO -L- STA. 75+41± AND PROPOSED -Y2- ALIGNMENT FROM -Y2- STA. 5+00± TO -Y2- STA. 7+35±. PLACE INTERIM PAVEMENT MARKING LINES (PAINT) AND MARKERS (TEMPORARY RAISED) AND SHIFT NC 112 AND -Y2- TRAFFIC ONTO INTERIM ALIGNMENT AS SHOWN ON PHASE I, DETAIL 2, SHEET TCP-5.

ACTIVATE TEMPORARY SIGNAL.

STEP 9: - BEGIN CONSTRUCTION OF REMAINING PORTION OF -Y2- AND -L- LINE FROM -L- STA. 66+50± TO -L- STA. 75+41± UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE INCLUDING CURB AND GUTTER. (REFER TO ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9 AND PHASE I, DETAIL 2, SHEET TCP-5)

LEGEND

▨ PROPOSED CONSTRUCTION

Plans prepared by:
KO & ASSOCIATES, P.C.
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1011 SCHAUB DR., SUITE #202
RALEIGH, N.C. 27606
For Division of Highways

APPROVED: Michael T Rzepka DATE: 4-12-07

SEAL
SEAL 15876
MICHAEL T. RZEPKA

PHASE I OVERVIEW
AND PHASING

SCALE: NONE
DATE: 5-06
DWG. BY: B.L.M.
DESIGN BY: G.E.P.
REVIEWED BY: M.T.R.

REVISIONS

CADD FILE

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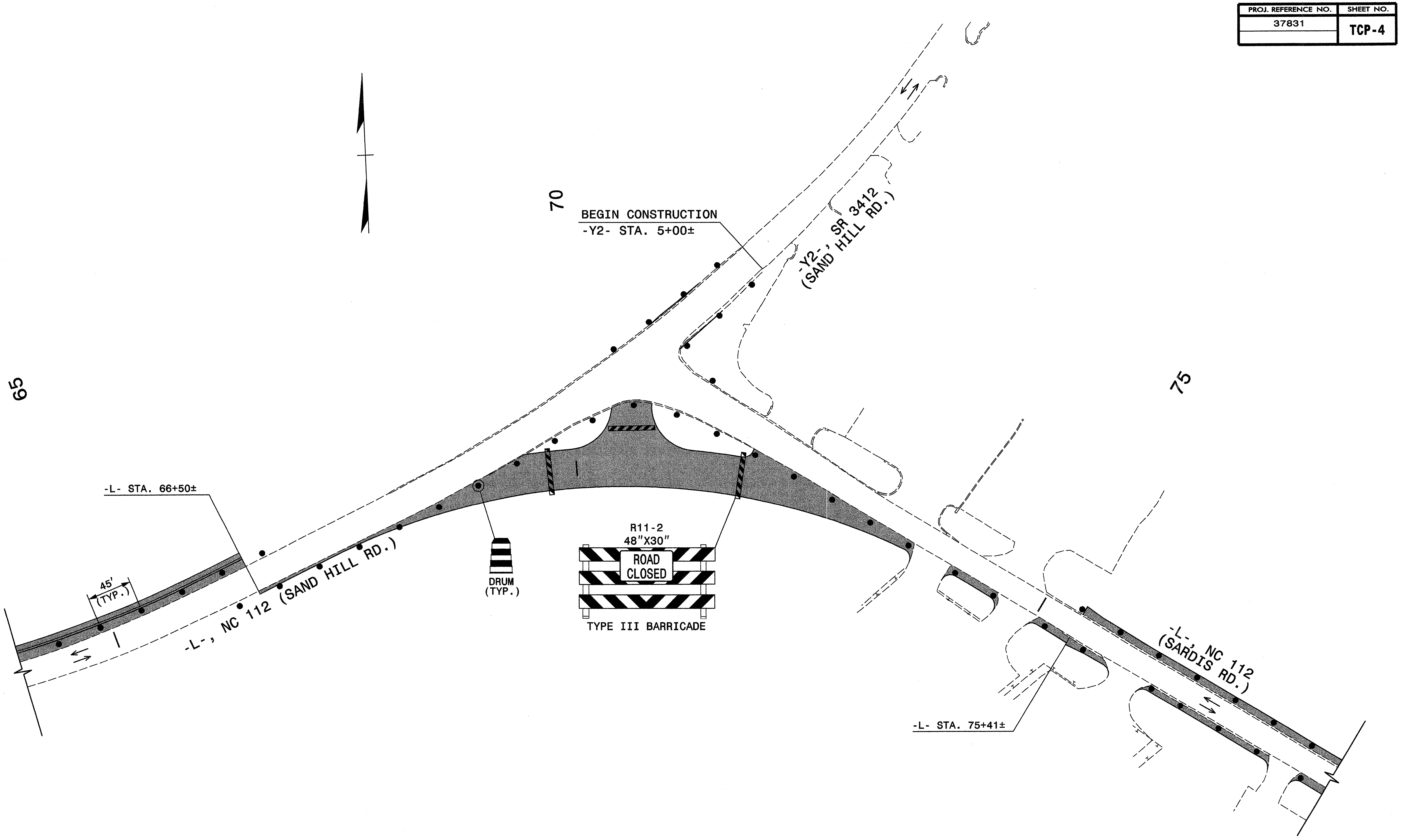
PROJ. REFERENCE NO.	SHEET NO.
37831	TCP-4



LEGEND

▨ PROPOSED CONSTRUCTION

Plans prepared by:
KO & ASSOCIATES, P.C.
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For Division of Highways

APPROVED: Michael T. Rzepka DATE: 4-12-07

SEAL

SEAL
15876
MICHAEL T. RZEPKA

PHASE I, DETAIL 1

SCALE:	NONE
DATE:	5-06
DWG. BY:	B.L.M.
DESIGN BY:	G.E.P.
REVIEWED BY:	M.T.R.

REVISIONS

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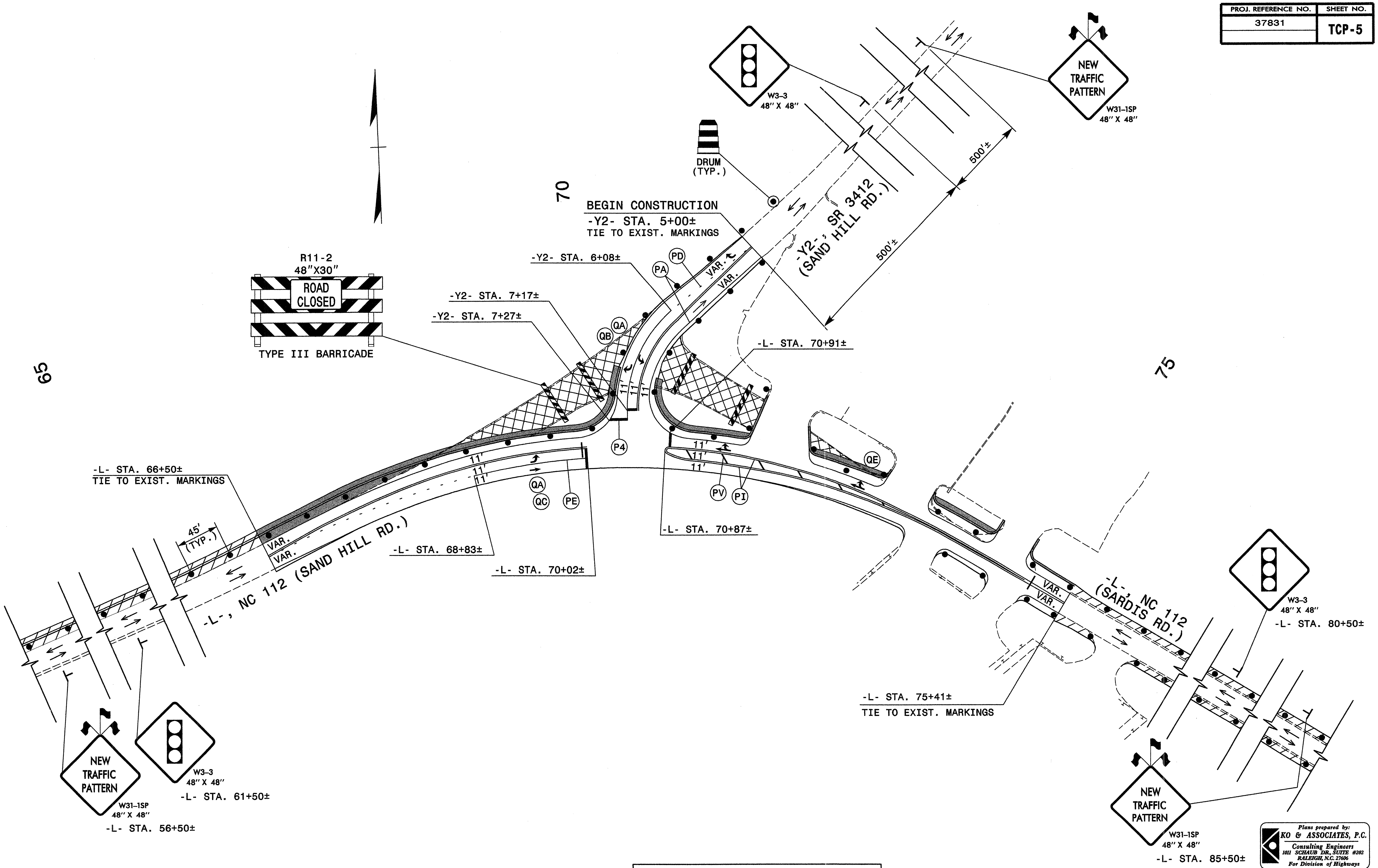

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For Division of Highways

LEGEND

▩	PROPOSED CONSTRUCTION
▨	ONGOING CONSTRUCTION
▦	OBLITERATION

APPROVED: Michael T. Rzepka DATE: 4-12-07

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

PHASE I, DETAIL 2

SCALE:	NONE
DATE:	5-06
DWG. BY:	B.L.M.
DESIGN BY:	G.E.P.
REVIEWED BY:	M.T.R.

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
TRAFFIC CONTROL UNIT

REVISIONS	
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PROJ. REFERENCE NO.	SHEET NO.
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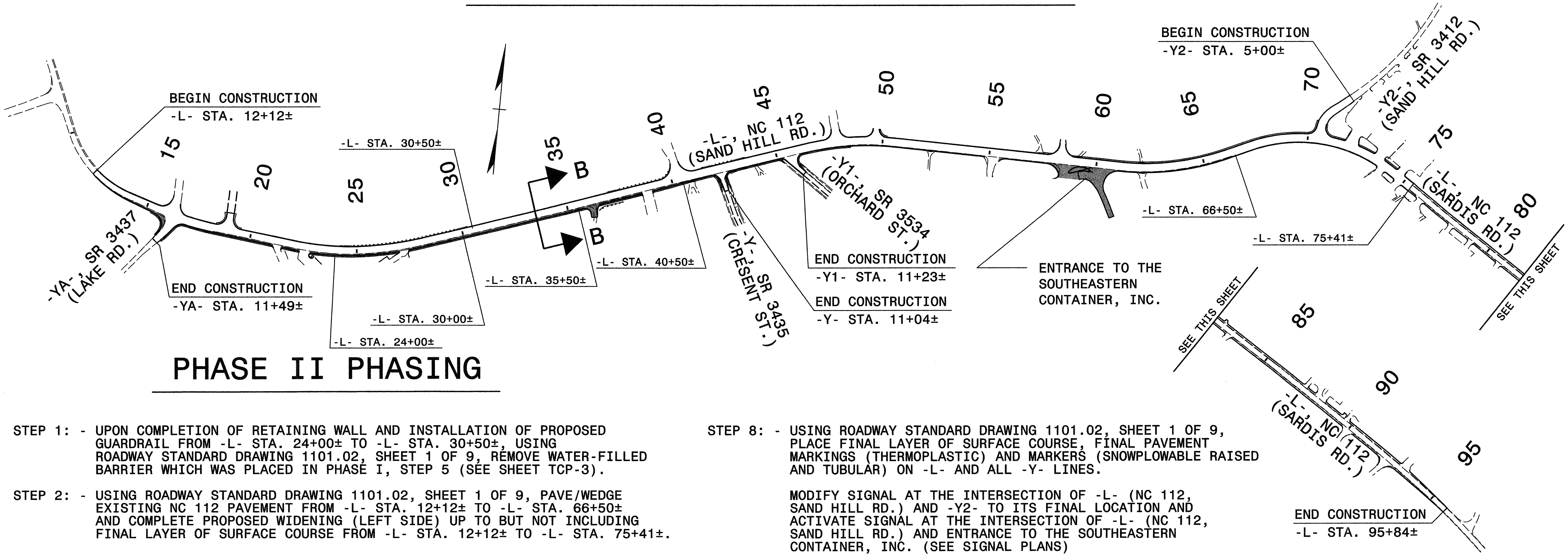
PHASE II OVERVIEW



PHASE II PHASING

STEP 1: - UPON COMPLETION OF RETAINING WALL AND INSTALLATION OF PROPOSED GUARDRAIL FROM -L- STA. 24+00± TO -L- STA. 30+50±, USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, REMOVE WATER-FILLED BARRIER WHICH WAS PLACED IN PHASE I, STEP 5 (SEE SHEET TCP-3).

STEP 2: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, PAVE/WEDGE EXISTING NC 112 PAVEMENT FROM -L- STA. 12+12± TO -L- STA. 66+50± AND COMPLETE PROPOSED WIDENING (LEFT SIDE) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 12+12± TO -L- STA. 75+41±.

STEP 3: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, PLACE INTERIM PAVEMENT MARKING LINES (PAINT) AND MARKERS (TEMPORARY RAISED) AND SHIFT NC 112 TRAFFIC ONTO THE LEFT SIDE OF PROPOSED -L- FROM -L- STA. 28+00± TO -L- STA. 75+41± AS SHOWN IN PHASE II, DETAIL 1, SHEET TCP-7.

MODIFY TEMPORARY SIGNAL AT THE INTERSECTION OF -L- (NC 112, SAND HILL RD.) AND -Y2-. (SEE SIGNAL PLANS)

STEP 4: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, PLACE WATER-FILLED BARRIER FROM -L- STA. 30+00± TO -L- STA. 35+50± ALONG RIGHT EDGE LINE. (SEE SECTION VIEW B-B)

STEP 5: - BEHIND WATER-FILLED BARRIER, WIDENING THE RIGHT SIDE OF EXISTING NC 112 UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE, INCLUDING RETAINING WALL AND CURB AND GUTTER, FROM -L- STA. 30+00± TO -L- STA. 35+50±. (SEE SECTION VIEW B-B)

WIDEN EXISTING NC 112 (RIGHT SIDE) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE INCLUDING PROPOSED DRAINAGE STRUCTURES AND CURB AND GUTTER FROM -L- STA. 40+50± TO -L- STA. 75+41±. (REFER TO ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9 AND PHASE II, DETAIL 1, SHEET TCP-7)

STEP 6: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, PAVE EXISTING NC 112 PAVEMENT AND COMPLETE PROPOSED WIDENING (BOTH SIDES) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA, 75+41± TO -L- STA. 95+84±.

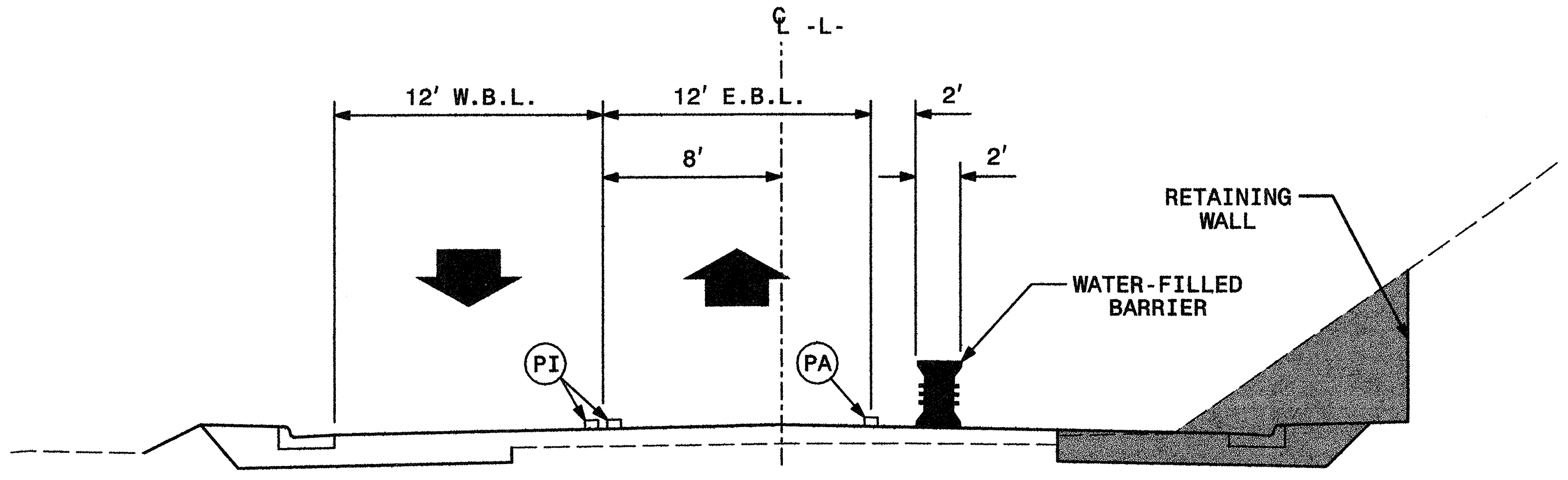
COMPLETE WIDENING OF RIGHT SIDE OF NC 112 UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 12+12± TO -L- STA. 30+00± AND FROM -L- STA. 35+50± TO -L- STA. 40+50±.

INSTALL AND MAKE OPERATIONAL TRAFFIC SIGNAL AT THE INTERSECTION OF -L- (NC 112, SAND HILL RD.) AND ENTRANCE TO THE SOUTHEASTERN CONTAINER, INC. (SEE SIGNAL PLANS)

STEP 7: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, REMOVE WATER-FILLED BARRIER FROM -L- STA. 30+00± TO -L- STA. 35+50± WHICH WAS PLACED IN STEP 4.

STEP 8: - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, PLACE FINAL LAYER OF SURFACE COURSE, FINAL PAVEMENT MARKINGS (THERMOPLASTIC) AND MARKERS (SNOWPLOWABLE RAISED AND TUBULAR) ON -L- AND ALL -Y- LINES.

MODIFY SIGNAL AT THE INTERSECTION OF -L- (NC 112, SAND HILL RD.) AND -Y2- TO ITS FINAL LOCATION AND ACTIVATE SIGNAL AT THE INTERSECTION OF -L- (NC 112, SAND HILL RD.) AND ENTRANCE TO THE SOUTHEASTERN CONTAINER, INC. (SEE SIGNAL PLANS)



SECTION B-B

LEGEND

▨ PROPOSED CONSTRUCTION

Plans prepared by:
KO & ASSOCIATES, P.C.
Consulting Engineers
1011 SCHAUB DR., SUITE #202
RALEIGH, N.C. 27606
For Division of Highways

APPROVED: Michael T. Rzepka DATE: 8-29-07

SEAL

SEAL 15876 MICHAEL T. RZEPKA

PHASE II OVERVIEW
AND PHASING

SCALE:	NONE
DATE:	5-06
DWG. BY:	B.L.M.
DESIGN BY:	G.E.P.
REVIEWED BY:	M.T.R.

REVISIONS

CADD FILE

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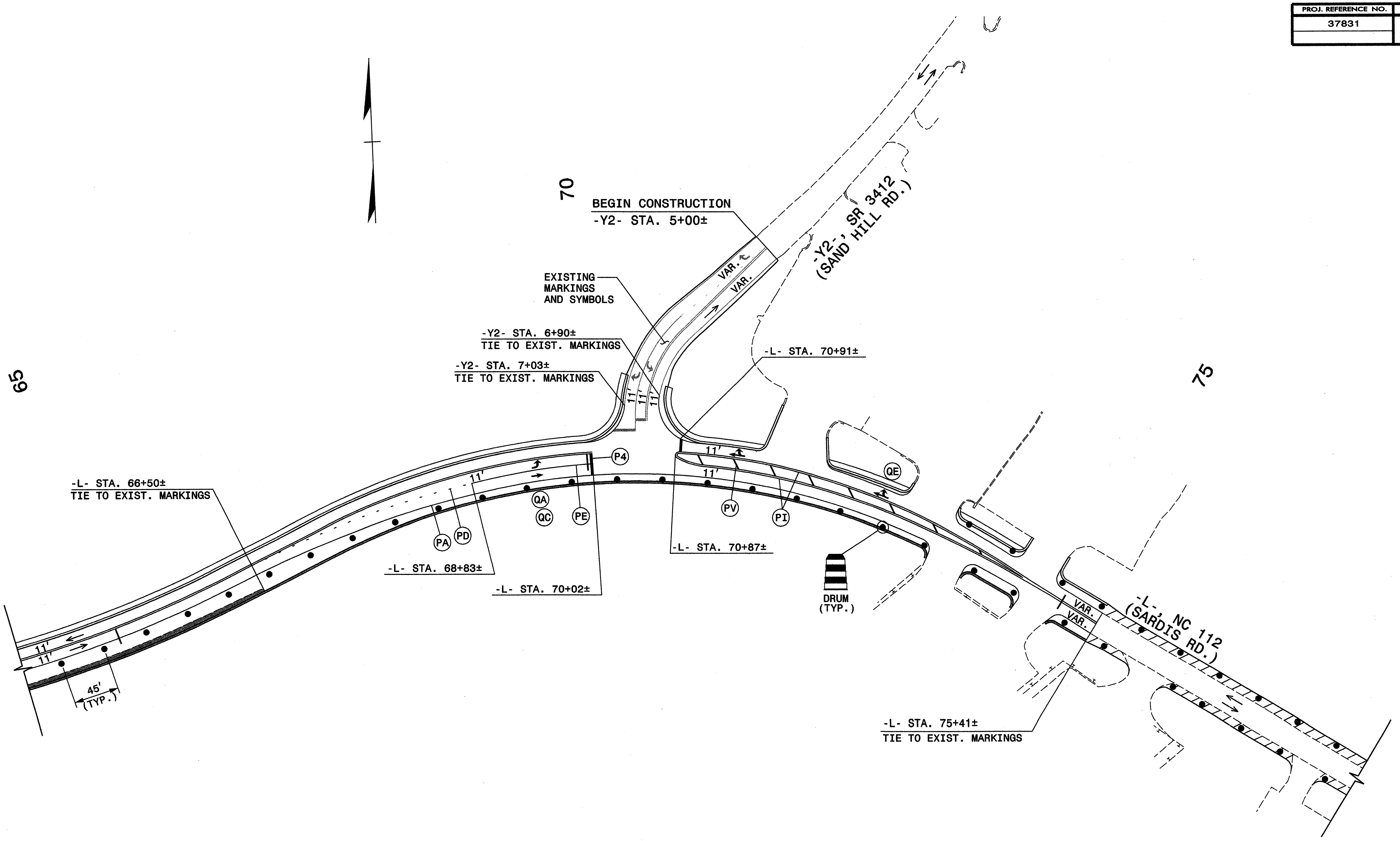
PROJ. REFERENCE NO.	SHEET NO.
37831	TCP-7



LEGEND

▓ PROPOSED CONSTRUCTION

Plans prepared by:
KO & ASSOCIATES, P.C.
Consulting Engineers
1011 SCHAUB DR., SUITE #202
RALEIGH, N.C. 27606
For Division of Highways

APPROVED: Michael T Rzepka DATE: 4-12-07

SEAL

SEAL 15876 MICHAEL T. RZEPKA

PHASE II, DETAIL 1

SCALE:	NONE
DATE:	5-06
DWG. BY:	B.L.M.
DESIGN BY:	G.E.P.
REVIEWED BY:	M.T.R.

REVISIONS	
CADD FILE	

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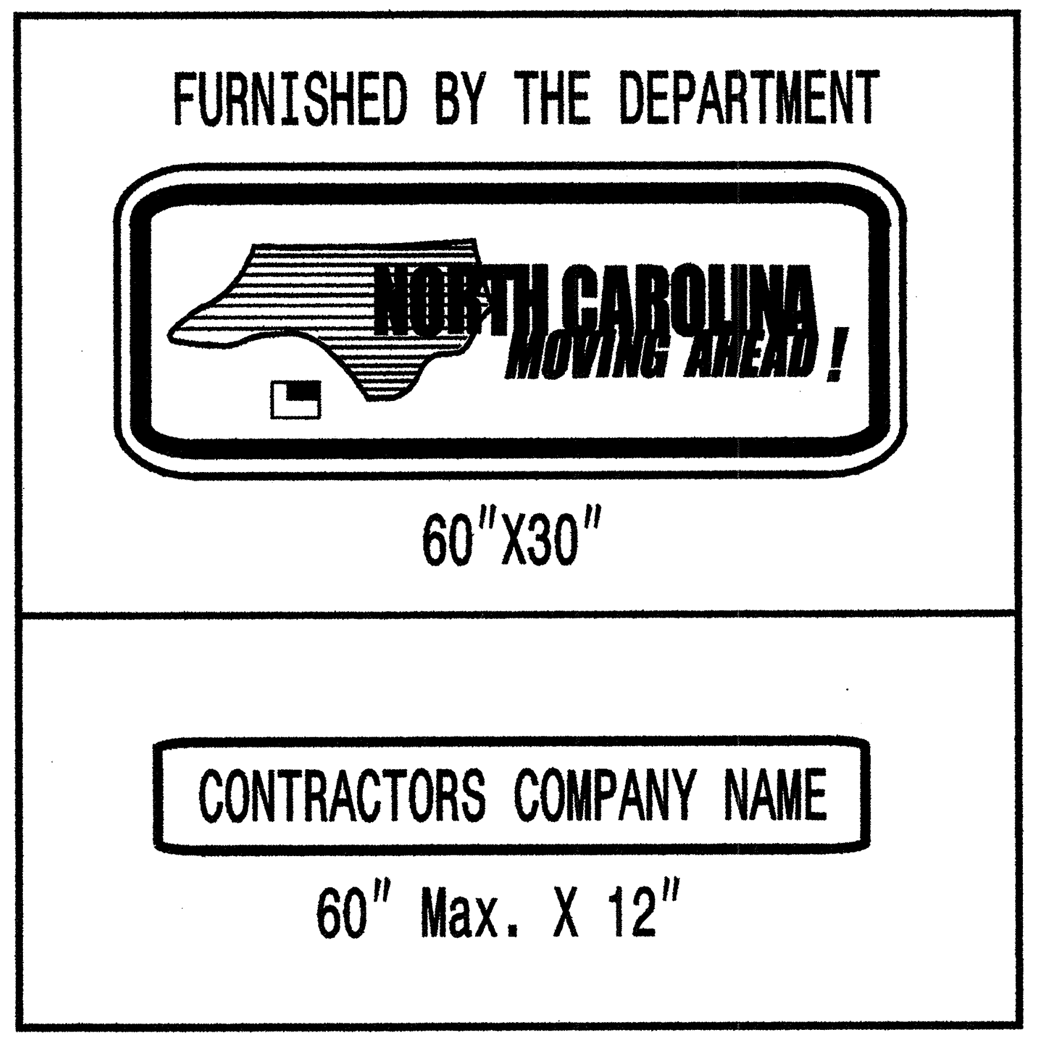
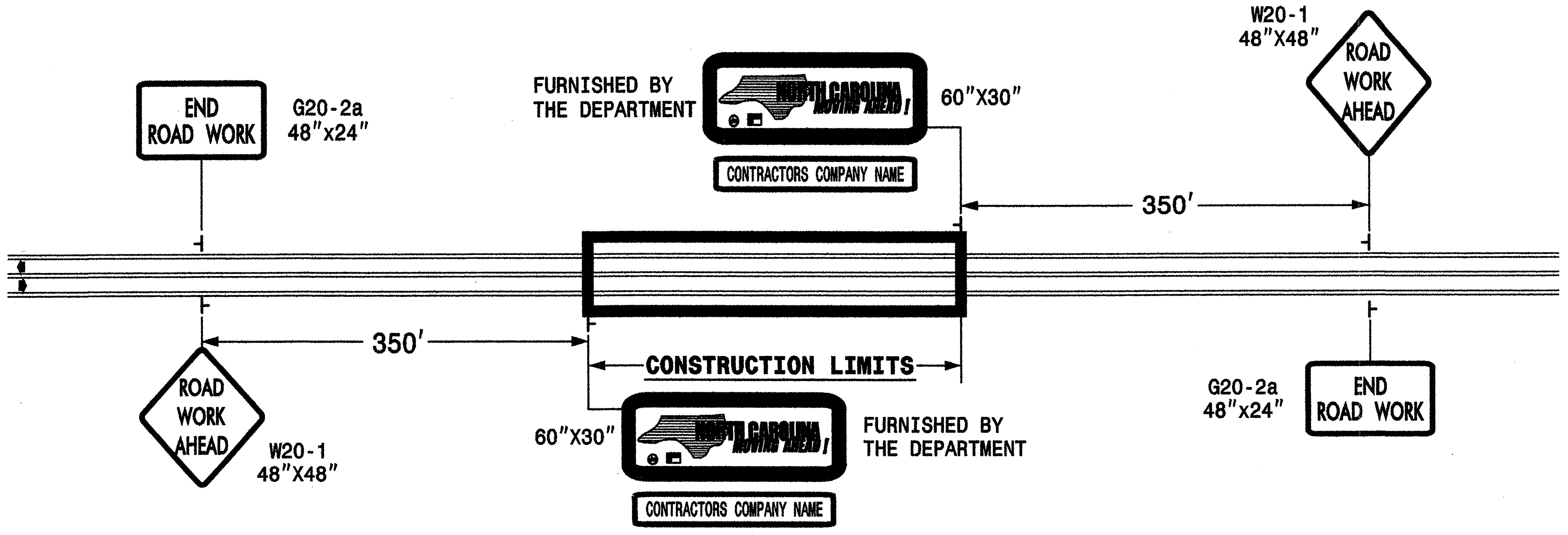
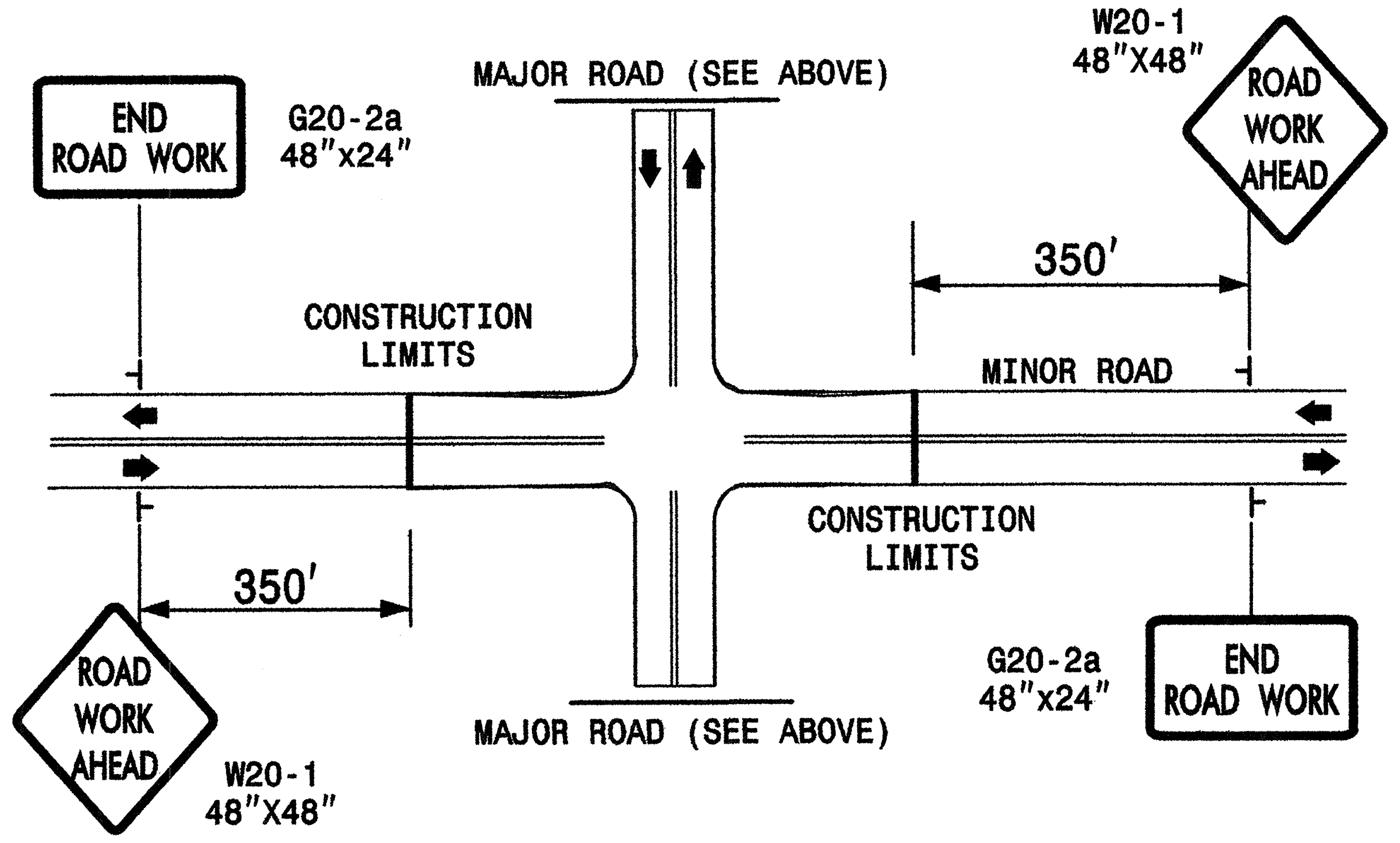
PROJ. REFERENCE NO.	SHEET NO.
37831	TCP-8

TWO LANE, TWO WAY WORK ZONE (L-LINES)





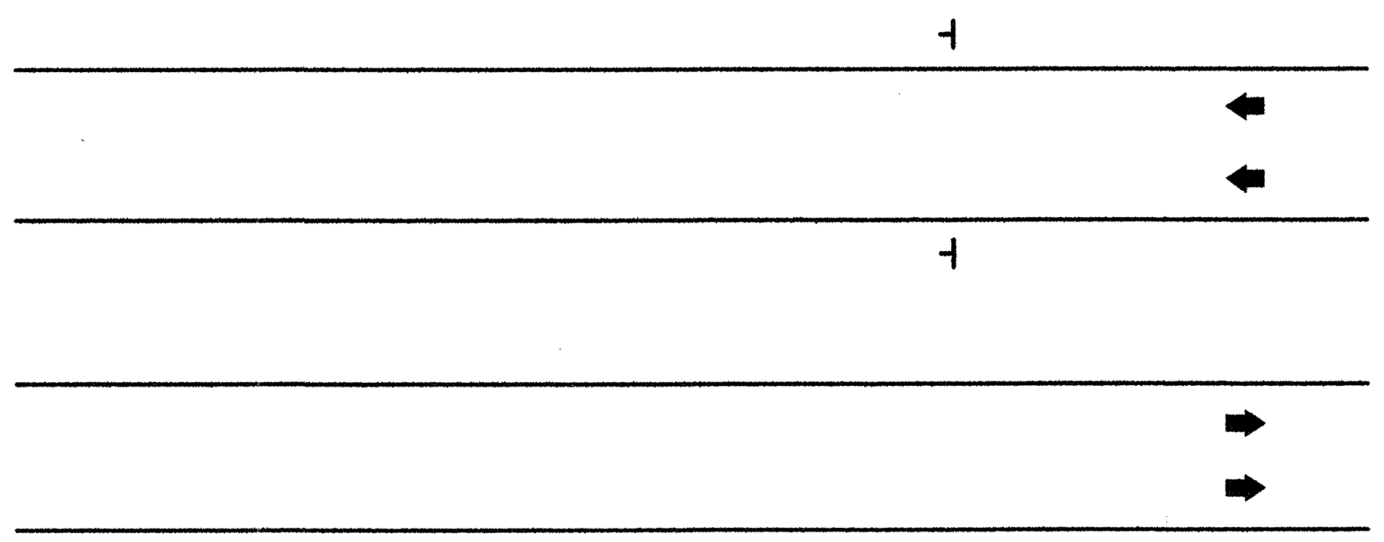
INTERSECTIONS (-Y- LINES)



FREEWAYS/INTERSTATES

DUAL MOUNT "ROAD WORK AHEAD" SIGNS 1,000' IN ADVANCE OF PROJECT LIMITS

DUAL MOUNT "MOVING AHEAD" SIGNS 500' IN ADVANCE OF PROJECT LIMITS



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED. USE PORTABLE WORK ZONE SIGNS ONLY WITH PORTABLE WORK ZONE SIGN STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER. PORTABLE WORK ZONE SIGNS MAY BE ROLL UP OR APPROVED COMPOSITE.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- SEE SPECIAL PROVISIONS FOR "NORTH CAROLINA MOVING AHEAD" REQUIREMENTS.

LEGEND

├ STATIONARY SIGN

⬅ DIRECTION OF TRAFFIC FLOW

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Plans prepared by:
KO & ASSOCIATES, P.C.
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1011 SCHAUB DR., SUITE #202
RALEIGH, N.C. 27606
For Division of Highways

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

DETAIL DRAWING FOR ADVANCE
WARNING WORK ZONE SIGNS

SHEET 1 OF 1

APPROVED: Michael T. Rzepka DATE: 4-12-07

SEAL

SEAL 15876
MICHAEL T. RZEPKA

DETAIL DRAWING FOR ADVANCE
WARNING WORK ZONE SIGNS

SCALE:	NONE
DATE:	5-06
DWG. BY:	B.L.M.
DESIGN BY:	B.L.M.
REVIEWED BY:	M.T.R.

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
TRAFFIC CONTROL UNIT

REVISIONS	
CADD FILE	