U-2408

TIP PROJECT:

# STATE OF NORTH CAROLINA
# DIVISION OF HIGHWAYS

METRIC

| STATE PROJECT REFERENCE NO. | | SHEET NO. |
|---|---|---|
| U-2408 | | TCP-1 |
| STATE WBS NO. | F.A. PROJ. NO. | DESCRIPTION |
| 34799.3.2 | STP-274(4) | CONST. |

# *PLAN FOR PROPOSED*
# *TRAFFIC CONTROL, MARKING & DELINEATION*
# *GASTON 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 JANUARY 2002 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE |
|---|---|
| 1101.02 | TEMPORARY LANE CLOSURES |
| 1101.03 | TEMPORARY ROAD CLOSURES |
| 1101.05 | WORK ZONE VEHICLE ACCESSES |
| 1101.11 | TRAFFIC CONTROL DESIGN TABLES |
| 1110.01 | STATIONARY WORK ZONE SIGNS |
| 1110.02 | PORTABLE WORK ZONE SIGNS |
| 1115.01 | FLASHING ARROW PANELS |
| 1135.01 | CONES |
| 1150.01 | FLAGGERS |
| 1160.01 | TEMPORARY CRASH CUSHION |
| 1165.01 | TRUCK MOUNTED IMPACT ATTENUATOR |
| 1170.01 | PORTABLE CONCRETE BARRIER |
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES & OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS |
| 1205.03 | PAVEMENT MARKINGS - INTERCHANGES |
| 1205.04 | PAVEMENT MARKINGS - INTERSECTIONS |
| 1205.05 | PAVEMENT MARKINGS - TURN LANES |
| 1205.06 | PAVEMENT MARKINGS - THRU LANE DROPS |
| 1205.07 | PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS |
| 1205.08 | PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES |
| 1205.09 | PAVEMENT MARKINGS - PAINTED ISLANDS |
| 1205.11 | PAVEMENT MARKINGS - RAILROAD CROSSINGS |
| 1205.12 | PAVEMENT MARKINGS - BRIDGES |
| 1250.01 | PAVEMENT MARKER SPACING |
| 1251.01 | RAISED PAVEMENT MARKERS (PERMANENT & TEMPORARY) |
| 1253.01 | SNOWPLOWABLE RAISED PAVEMENT MARKERS |
| 1261.01 | GUARDRAIL & BARRIER DELINEATOR SPACING |
| 1261.02 | GUARDRAIL & BARRIER DELINEATOR TYPES |
| 1262.01 | GUARDRAIL END DELINEATION |
| 1264.01 | OBJECT MARKERS |
| 1264.02 | PLACEMENT OF OBJECT MARKERS |

## *INDEX OF SHEETS*


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| PM-1 | FINAL PAVEMENT MARKING SCHEDULE |
| PM-2 THRU PM-14 | FINAL PAVEMENT MARKING PLAN |


## *TEMP. PAVEMENT MARKING SCHEDULE*

| SYMBOL | DESCRIPTION | INTERMEDIATE PAY ITEM QUANTITY | TOTAL QUANTITY |
|---|---|---|---|
| | PAVEMENT MARKINGS | | |
| | | REMOVEABLE TAPE (100MM) | |
| RA | WHITE EDGELINE | 292 M | |
| RI | YELLOW DOUBLE CENTER LINE (2X) | 292 M | TOTAL 584 M |
| | | PAINT (100MM) | |
| PA | WHITE EDGELINE (2X) | 10624 M | |
| PC | 3.0 m WHITE SKIP (2X) | 882 M | |
| PD | 0.5 m WHITE MINISKIP (2X) | 358 M | |
| PE | WHITE SOLID LANE LINE (2X) | 800 M | |
| PF | 3.0 m YELLOW SKIP (2X) | 133 M | |
| PH | YELLOW SINGLE CENTER LINE (2X) | 520 M | |
| PI | YELLOW DOUBLE CENTER LINE (2X) | 26204 M | TOTAL 39521 M |
| | | PAINT (200MM) | |
| PR | WHITE GORELINE (2X) | 312 M | |
| PS | WHITE DIAGONAL (2X) | 146 M | |
| PV | YELLOW DIAGONAL (2X) | 100 M | TOTAL 558 M |
| | | PAINT (600MM) | |
| P4 | WHITE STOP BAR (2X) | 1040 M | TOTAL 1040 M |
| | | PAINT MARKING CHARACTERS | |
| QI | ALPHANUMERIC CHARACTER (2X) | 16 EA | TOTAL 16 EA |
| | | PAINT MARKING SYMBOLS | |
| QA | LEFT TURN ARROW (2X) | 110 EA | |
| QB | RIGHT TURN ARROW (2X) | 24 EA | |
| QC | STRAIGHT ARROW (2X) | 62 EA | |
| QD | STRAIGHT & LEFT TURN ARROW (2X) | 4 EA | |
| QE | STRAIGHT & RIGHT TURN ARROW (2X) | 34 EA | |
| QG | LEFT, RIGHT & STRAIGHT ARROW (2X) | 4 EA | TOTAL 238 EA |
| | | TEMPORARY RAISED PAVEMENT MARKERS | |
| MH | YELLOW & YELLOW | 1236 EA | |
| MI | CRYSTAL & RED | 130 EA | TOTAL 1366 EA |

## *LEGEND*

### GENERAL

- DIRECTION OF TRAFFIC FLOW
- NORTH ARROW
- PROPOSED PVMT. ---------- EXIST. PVMT.
- WORK AREA
- CONTINUE WORK AREA

### TRAFFIC CONTROL DEVICES

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

### PAVEMENT MARKINGS

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

*APPROVED:*

*DATE:*

*SEAL*

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER JEFFREY S. ASEPNY

8.23.05

*PLAN REVIEWED BY: N.C.D.O.T. TRAFFIC CONTROL, MARKING & DELINEATION SECTION*

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| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-2 |

# GENERAL NOTES

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

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 |
|---|---|
| 1. -L- (NC 274 BESSEMER CITY RD) | MON.-FRI. :7-9 AM, 3-7 PM |

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

1. -L- (NC 274 BESSEMER CITY RD)

HOLIDAY

1. FOR ANY EVENT THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.

2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 7 A.M. DECEMBER 31ST TO 7 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A SATURDAY OR A SUNDAY, THEN UNTIL 7 A.M. THE FOLLOWING TUESDAY.

3. FOR EASTER, BETWEEN THE HOURS OF 7 A.M. THURSDAY AND 7 P.M. MONDAY.

4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7 A.M. FRIDAY TO 7 P.M. TUESDAY.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7 P.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A SATURDAY OR SUNDAY, THEN BETWEEN THE HOURS OF 7 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 7 A.M. FRIDAY TO 7 P.M. TUESDAY.

7. FOR THANKSGIVING, BETWEEN THE HOURS OF 7 A.M. TUESDAY TO 7 P.M. MONDAY.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7 P.M. THE FOLLOWING MONDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT STOP TRAFFIC OR CLOSE ROADS AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|---|---|
| 1. -L- (NC 274 BESSEMER CITY RD) | MON.-FRI. :7-9 AM, 3-7 PM |

D) DO NOT STOP TRAFFIC FOR MORE THAN 30 MINUTES AS FOLLOWS:

| ROAD NAME | OPERATIONS |
|---|---|
| 1. -L- (NC 274 BESSEMER CITY RD) | TRAFFIC SHIFTS |

LANE AND SHOULDER CLOSURE REQUIREMENTS

E) 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.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 12m OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJANCENT TO AN UNDIVIDED FACILITY AND WITHIN 1.5m OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

   WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJANCENT TO A DIVIDED FACILITY AND WITHIN 3m OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

H) 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.

I) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.

J) DO NOT PERFORM WORK INVOLVING HEAVY EQUIPMENT WITHIN 5m OF THE EDGE OF TRAVELWAY WHEN WORK IS BEING PERFORMED BEHIND A LANE CLOSURE ON THE OPPOSITE SIDE OF THE TRAVELWAY.

K) DO NOT INSTALL MORE THAN 0.5Km OF LANE CLOSURE ON -L- BESSEMER CITY RD (NC 274), MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

# PROJECT NOTES

L) DO NOT INSTALL MORE THAN 1 SIMULTANEOUS LANE CLOSURE, IN ANY ONE DIRECTION, ON -L- BESSEMER CITY RD (NC 274).

PAVEMENT EDGE DROP OFF REQUIREMENTS

M) 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 A DROP-OFF AS FOLLOWS:

   BACKFILL DROP-OFFS THAT EXCEED 50mm ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

   BACKFILL DROP-OFFS THAT EXCEED 75mm 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.

N) DO NOT EXCEED A DIFFERENCE OF 40mm IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING UNEVEN LANES SIGNS (W8-11) 150m IN ADVANCE AND A MINIMUM OF ONCE EVERY 1.6Km THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

P) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 31m FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

Q) PROVIDE PERMANENT SIGNING.

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

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

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

U) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) 150m IN ADVANCE OF THE UNEVEN AREA.

V) INSTALL BLACK ON ORANGE "BUMP" SIGNS (W8-1) 150m IN ADVANCE OF THE UNEVEN AREA.

TRAFFIC BARRIER

W) INSTALL MOVABLE/PORTABLE CONCRETE BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE MOVABLE/PORTABLE CONCRETE 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 MOVABLE/PORTABLE CONCRETE BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE MOVABLE/PORTABLE CONCRETE BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET MOVABLE/PORTABLE CONCRETE 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.

X) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

   OFFSET THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER A MINIMUM OF 12m FROM ONCOMING TRAFFIC OR PROTECT AT ALL TIMES BY A TEMPORARY CRASH CUSHION.

   INSTALL MOVABLE/PORTABLE CONCRETE BARRIER WITH THE TRAFFIC FLOW, BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE MOVABLE/PORTABLE CONCRETE BARRIER AGAINST THE TRAFFIC FLOW, BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

   INSTALL AND SPACE DRUMS EQUAL IN METER to 2/3rds THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP CLOSED THE SECTION OF THE ROADWAY UNTIL THE BARRIER CAN BE PLACED OR AFTER BARRIER IS REMOVED.

TRAFFIC CONTROL DEVICES

Y) WHEN USING ROADWAY STANDARD NO. 1101.02, CONES MAY BE USED IN LIEU OF DRUMS ON ALL ROADS.

Z) SPACE CHANNELIZING DEVICES IN WORK AREAS EQUAL IN METERS TO 2/3 rds THE POSTED SPEED LIMIT (MPH), EXCEPT 3m ON-CENTER IN RADII, AND 1m OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.

AA) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY. STAGGER OR OVERLAP BARRICADES TO ALLOW FOR INGRESS OR EGRESS.

BB) PLACE SETS OF THREE (3) DRUMS PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 150m CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC. THESE DRUMS SHALL BE IN ADDITION TO CHANNELIZING DEVICES.

PAVEMENT MARKINGS AND MARKERS

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

| ROAD NAME | MARKING | MARKER |
|---|---|---|
| 1. ALL ROADS | POLYUREA | SNOWPLOWABLE RAISED |

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

| ROAD NAME | MARKING | MARKER |
|---|---|---|
| 1. ALL ROADS | PAINT | TEMPORARY RAISED |

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

FF) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.

GG) TRACE THE EDGE OF PROPOSED MONOLITHIC ISLAND WITH THE PROPER COLOR PAVEMENT MARKING PRIOR TO INSTALLATION OF A PROPOSED MONOLITHIC ISLAND.

HH) PLACE AT LEAST TWO APPLICATIONS OF PAINT ON NEW ASPHALT WITH TEMPORARY TRAFFIC PATTERNS WHICH WILL REMAIN IN PLACE OVER THREE (3) MONTHS. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.

TEMPORARY/FINAL SIGNALS

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

JJ) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN N THE SIGNAL PLANS.

MISCELLANEOUS

KK) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH INTERSECTIONS.

LL) PLACE DRUMS TO DELINEATE EXISTING AND/OR PROPOSED ISLANDS AFTER REMOVAL AND/OR BEFORE INSTALLATION.

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APPROVED:_____ DATE:_____

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SERDAR S. ASEFRAF

8.23.05

PROJECT NOTES

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS STATEWIDE TRAFFIC ENGINEERING BRANCH TRAFFIC CONTROL UNIT

REVISIONS

CADD FILE

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| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-3 |

PHASE I

STEP 1: INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 31m FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

STEP 2: INSTALL AND COVER DETOUR SIGNS AS REQUIRED.

INSTALL SIGNAL POLES AND ADJUST TEMPORARY SIGNALS AS REQUIRED. (SEE SIGNAL PLANS)

INSTALL LIGHTING AS REQUIRED IN INTERCHANGE AREA. (SEE LIGHTING PLANS)

CONSTRUCT DRAINAGE THROUGHOUT PROJECT LENGTH USING RDWY STD 1101.02, 1 OF 7, AND ALTERNATING LANE CLOSURES AT LOCATIONS WHERE PIPES CROSS TRAVEL LANES.

USING RDWY STD NO. 1101.02, SHEET 1 OF 7 PERFORM GAS LINE CONSTRUCTION AS FOLLOWS:

NOTE: PRIOR TO BEGINING GAS LINE WORK, PLACE PCB AS SHOWN IN STEP 2-AA. TRAFFIC WILL REMAIN IN EXISTING PATTERN ON BRIDGE DURING GAS LINE CONSTRUCTION.

A. CONSTRUCT TEMPORARY WIDENING ALONG THE LEFT SIDE OF EXISTING -L- LINE FROM STA 21+30+/- TO STA 23+50+/-. (SEE TCP-9)

B. INSTALL TEMPORARY PAVEMENT MARKING AND SHIFT TWO-LANE TWO-WAY TRAFFIC TO LEFT SIDE OF -L-. (SEE TCP-9)

C. INSTALL PCB ALONG THE RIGHT SIDE OF -L- FROM EXISTING PCB (STA 21+30+/-)TO STA 22+74+/-. INSTALL TEMPORARY SHORING AND CLOSE SR 1384. MAINTAIN ONSITE TEMPORARY ACCESS TO SR 1384 AS DIRECTED BY THE ENGINEER. (SEE TCP-9)

D. PERFORM GAS LINE CONSTRUCTION AS REQUIRED (SEE UTILITY PLANS) AND CONSTRUCT TEMPORARY WIDENING ALONG THE RIGHT SIDE OF -L- FROM END OF BRIDGE TO STA 23+50+/-. BEGIN CONSTUCTION OF -SR2- (SEE TCP-9)

E. REMOVE TEMPORARY SHORING AND PCB. INSTALL TEMPORARY PAVEMENT MARKING AND SHIFT TWO-LANE TWO-WAY TRAFFIC TO THE RIGHT SIDE OF -L-. (SEE TCP-9A)

F. INSTALL PCB AND TEMPORARY SHORING AND PERFORM GAS LINE CONSTRUCTION AS REQUIRED, (SEE UTILITY PLANS) (SEE TCP-9A)

WITH TRAFFIC IN THIS PATTERN, CONSTRUCT THE LEFT SIDE OF -L- FROM END OF BRIDGE TO -L-STA. 23+00+/-

WITH TRAFFIC IN EXISTING PATTERN ON BRIDGE, BEGIN THE WIDENING OF THE EXISTING BRIDGE OVER SOUTHERN RAILROAD AS FOLLOWS:

AA. USING RDWY STD 1101.02, SHEET 1 OF 7, INSTALL PCB ALONG OUTSIDE EDGE OF THE EXISTING LANES IN BOTH DIRECTIONS FROM -L- STA. 19+60+/- TO -L- STA. 21+20+/-. SEE TCP-8 AND TCP-9.

BB. BEHIND PCB, CONSTRUCT THE WIDENING OF BOTH SIDES OF THE EXISTING BRIDGE, INCLUDING TEMPORARY ASPHALT APPROACH SLABS AND EXCLUDING THE SIDEWALK ON THE LEFT SIDE ACCORDING TO (STAGE I) OF THE STRUCTURE PLANS. SEE TCP-9 AND STRUCTURE PLANS.

BEHIND PCB INSTALL AS MUCH PAVEMENT MARKING AS POSSIBLE WITHOUT INTERFERRING WITH TRAFFIC.

CC. USING RDWY STD 1101.02, SHEET 1 OF 7, REMOVE PCB FROM ALONG THE OUTSIDE LANES IN EACH DIRECTION. SHIFT TWO LANE TWO WAY TRAFFIC TO THE LEFT OUTSIDE LANES AND INSTALL REMAINING PAVEMENT MARKING. SEE TCP-10A

DD. USING RDWY STD 1101.02, SHEET 1 OF 7, PLACE PCB 1.04m LEFT OF -L- CENTER LINE. SEE TCP-10A PLACE THE LATEX CONCRETE OVERLAY ALONG THE RIGHT SIDE OF THE BRIDGE ACCORDING TO STAGE II OF THE STRUCTURE PLANS.

AWAY FROM TRAFFIC PLACE TEMPORARY PAVEMENT MARKING (REMOVABLE TAPE) FOR TWO LANE TWO WAY TRAFFIC ON RIGHT SIDE OF BRIDGE DECK.

EE. USING RDWY STD 1101.02, SHEET 1 OF 7, REMOVE PCB AND SHIFT TRAFFIC TO THE RIGHT SIDE AND INSTALL PCB ALONG THE LEFT EDGE OF -L- CENTER LINE. SEE TCP-10B CONSTRUCT THE SIDEWALK ALONG THE LEFT SIDE AND PLACE THE LATEX CONCRETE OVERLAY ON THE REMAINING HALF OF BRIDGE DECK ACCORDING TO (STAGE III) OF STRUCTURE PLANS.

UPON COMPLETION OF GAS LINE CONSTRUCTION, COMPLETE CONSTRUCTION OF -SR2- UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE, INSTALL PAVEMENT MARKING AND OPEN TO TRAFFIC. (SEE TCP-10) CONSTRUCT WIDENING, WEDGING AND C&G ALONG THE RIGHT SIDE OF -L- (NC 274 BESSEMER CITY RD) FROM -L- STA 20+80+/- TO -L- STA 22+97+/-. (SEE TCP-10)

USING RDWY STD. 1101.02, 4 OF 7, REMOVE CONCRETE ISLAND FROM MEDIAN FROM -L- STA 31+35+/- TO -L- STA 34+10+/- AND INSTALL TEMPORARY PAVEMENT MARKING. (SEE TCP-13, TCP-13A AND TCP-14)

WITH TRAFFIC IN EXISTING PATTERN AND USING RDWY STD. 1101.02, 1 OF 7, CONSTRUCT WIDENING, WEDGING AND C&G UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE ALONG -L- AS FOLLOWS:

LT SIDE:

-FROM -L- STA 10+04+/- TO -L- STA 14+87+/- (SEE TCP-5 THRU TCP-7)
-FROM -L- STA 36+00+/- TO -L- STA 38+80+/- (SEE TCP-14 & TCP-15)
-FROM -L- STA 41+80+/- TO -L- STA 47+45+/- (SEE TCP-16 & TCP-17)
-FROM -L- STA 47+90+/- TO -L- STA 50+20+/- (SEE TCP-18)
-FROM -L- STA 55+40+/- TO -L- STA 56+46+/- (SEE TCP-20)

RT SIDE:

-FROM -L- STA 13+94+/- TO -L- STA 30+75+/- (SEE TCP-6 THRU TCP-13)
-FROM -L- STA 35+65+/- TO -L- STA 38+05+/- (SEE TCP-14 & TCP-15)
-FROM -L- STA 46+60+/- TO -L- STA 51+16+/- (SEE TCP-17 THRU TCP-19)
-FROM -L- STA 52+75+/- TO -L- STA 56+46+/- (SEE TCP-19 & TCP-20)

WEDGE/PAVE EXISTING:

-FROM -L- STA 10+08+/- TO -L- STA 23+00+/- (SEE TCP-5 THRU TCP-9)
-FROM -L- STA 24+56+/- TO -L- STA 30+70+/- (SEE TCP-11 THRU TCP-13)
-FROM -L- STA 35+40+/- TO -L- STA 38+80+/- (SEE TCP-14 & TCP-15)
-FROM -L- STA 41+75+/- TO -L- STA 43+08+/- (SEE TCP-16)
-FROM -L- STA 45+00+/- TO -L- STA 50+20+/- (SEE TCP-17 & TCP-18)

NOTE: WITH TRAFFIC IN EXISTING PATTERN AND USING RDWY STD. 1101.02, 1 OF 7, CONSTRUCT -L- LINE UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE ON THE FULL WIDTH AS FOLLOWS:

-FROM -L- STA 38+80+/- TO -L- STA 41+89+/- (SEE TCP-15 & 16)
-FROM -L- STA 51+16+/- TO -L- STA 52+75+/- (SEE TCP-19)

USING RDWY STD. 1101.03, 2 OF 9, CLOSE -Y2A- (WHITE-JENKINS RD) AND DETOUR TRAFFIC ALONG -Y2B- (NC 275). CONSTRUCT UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE FROM -Y2A- STA 9+85+/- TO THE INTERSECTION OF -Y2B- AND -Y2A-. (SEE TCP-6) SEE TCP-36 FOR DETOUR.

INSTALL TEMPORARY PAVEMENT MARKING AND OPEN -Y2A- (WHITE-JENKINS RD) TO TRAFFIC.

USING RDWY STD. 1101.03, 2 OF 9, CLOSE -Y2B- (NC 275) AND DETOUR TRAFFIC ALONG -Y2A- (WHITE-JENKINS RD) AND CONSTRUCT UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE FROM -Y2B- STA 10+08+/- TO THE INTERSECTION OF -Y2B- AND -Y2A. (SEE TCP-7) SEE TCP-37 FOR DETOUR.

INSTALL TEMPORARY PAVEMENT MARKING AND OPEN -Y2B- (DALLAS-BESSEMER CITY RD) TO TRAFFIC.

COMPLETE THE WORK REQUIRED TO CONSTRUCT -Y3- IN 30 CALENDAR DAYS.

USING RDWY STD NO. 1101.03, SHEETS 1 & 2 OF 9 AND WORKING IN A CONTINUOUS MANNER, CLOSE -Y3- (ISLEY DR) AND DETOUR TRAFFIC OFFSITE AND WEDGE/PAVE -Y3- (ISLEY DR) UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE FROM -Y3- STA 10+15+/- TO THE INTERSECTION OF -Y3- AND -L- (NC 274 BESSEMER CITY RD). INSTALL TEMPORARY PAVEMENT MARKING AND OPEN TO TRAFFIC. (SEE TCP-8) SEE TCP-38 FOR DETOUR.

USING RDWY STD. 1101.02, 1 OF 7, GRADE AND CONSTRUCT WIDENING, C&G AND WEDGING ON -Y5- (SHANNON BRADLEY RD) AND -Y6- (JENKINS DAIRY RD) UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE. (SEE TCP-12)

USING RDWY STD 1101.03, 2 OF 9, CLOSE -Y19- (ARKRAY ST) AND -Y20- (BOND AVE) AND DETOUR TRAFFIC OFFSITE, AND USING RDWY STD. 1101.02, 1 OF 7, WEDGE UP TO PAVEMENT ELEVATION ON EXISTING NC 274 FROM -L- STA 45+00+/- TO -L- STA 46+40+/-, AND CONSTRUCT -Y19- AND -Y20- WITH THE -L- (NC 274 BESSEMER CITY RD) INTERSECTION. (SEE TCP-17) SEE TCP-39 FOR DETOUR.

USING RDWY STD. 1101.02, 1 OF 7, BEGIN CONSTRUCTION OF WIDENING UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE AND C&G AND INSTALL TEMPORARY PAVEMENT MARKINGS ON THE FOLLOWING -Y- LINES:

-Y9- (NORTHWEST BLVD) SEE TCP-15
-Y10- (MYRTLE AVE) AND -Y12- (MYRTLE AVE) SEE TCP-15
-Y15- (MILTON ST) AND -Y15A- (JENKINS RD) SEE TCP-16
-Y29- (OVERMAN AVE) SEE TCP-20

USING RDWY STD. 1101.02, 1 OF 7, CONSTRUCT WIDENING AND C&G UP TO EXISTING PAVEMENT ON -Y17- (MYRTLE SCHOOL RD) AND -Y18- (CRESCENT LN). AND COMPLETE CONSTRUCTION OF -Y17- AND -Y18- WITH THE INTERSECTION OF -L- (NC 274 BESSEMER CITY RD) UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE. (SEE TCP-17)

NOTE: THE FOLLOWING -Y- LINES SHALL NOT BE CLOSED SIMULTANEOUSLY

USING RDWY STD. 1101.03, 2 OF 9 AND WORKING IN A CONTINUOUS MANNER:

-CLOSE -Y21- AND -Y22- (GRAHAM ST) AND DETOUR TRAFFIC ALONG -Y23- (BLACK ST) AND -Y24- (WHITE ST). CONSTRUCT -Y21- AND -Y22- UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE WITH THE INTERSECTION OF -L- (NC 274 BESSEMER CITY RD). (SEE TCP-18) SEE TCP-40 FOR DETOUR.

-INSTALL TEMPORARY PAVEMENT MARKING AND OPEN -Y21- AND -Y22- (GRAHAM ST) TO TRAFFIC. SEE TCP-33

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Tel:919-789-9977 Fax:789-9591

APPROVED:_____ DATE:_____

NORTH CAROLINA PROFESSIONAL SEAL 20041 ENGINEER SEPEHR S. ASEFNIA

8/23/05

# PHASING

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

$$$$$SYSTIME$$$$$
$$$$$USERNAME$$$$$

\TCP\PHASING.dgn 8/22/2005 8:05:35 AM

-CLOSE -Y23- (BLACK ST) AND DETOUR TRAFFIC ALONG -Y22- (GRAHAM ST) AND -Y25- (WHITE ST). CONSTRUCT -Y23- UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE WITH THE INTERSECTION OF -L- (NC 274 BESSEMER CITY RD). (SEE TCP-18) SEE TCP-41 FOR DETOUR.

-INSTALL TEMPORARY PAVEMENT MARKING AND OPEN -Y23- (BLACK ST) TO TRAFFIC. SEE TCP-33

-CLOSE -Y24- (WHITE ST) AND DETOUR TRAFFIC ALONG -Y22- (GRAHAM ST). CONSTRUCT -Y24- UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE WITH THE INTERSECTION OF -L- (NC 274 BESSEMER CITY RD). (SEE TCP-18) SEE TCP-42 FOR DETOUR.

-INSTALL TEMPORARY PAVEMENT MARKING AND OPEN -Y24- (WHITE ST) TO TRAFFIC. SEE TCP-33

-CLOSE -Y25- (WHITE ST) AND DETOUR TRAFFIC ALONG -Y23- (BLACK ST) AND CONSTRUCT -Y25- UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE WITH THE INTERSECTION OF -L- (NC 274 BESSEMER CITY RD). (SEE TCP-17 & TCP-18) SEE TCP-43 FOR DETOUR.

-INSTALL TEMPORARY PAVEMENT MARKING AND OPEN -Y25- (WHITE ST) TO TRAFFIC. SEE TCP-34

## PHASE II

STEP 1: ADJUST TEMPORARY SIGNALS AS REQUIRED. (SEE SIGNAL PLANS)

STEP 2: AWAY FROM TRAFFIC INSTALL AS MUCH PAVEMENT MARKING AS POSSIBLE AND USING RDWY STD 1101.02 SHIFT TRAFFIC TO NEW PATTERN AND INSTALL REMAINING MARKING AS FOLLOWS:

A. SHIFT TRAFFIC TO THE LEFT SIDE OF THE PROPOSED TRAVELWAY FROM -L- STA 9+90+/- TO -L- STA 14+03+/-. (SEE TCP-22 AND TCP-23)

B. SHIFT TRAFFIC TO THE RIGHT SIDE OF THE PROPOSED TRAVELWAY FROM -L- STA 14+03+/- TO -L- STA 28+85+/-. (SEE TCP-23 THRU TCP-27)

C. SHIFT TRAFFIC TO THE NEW PATTERN FROM -L- STA 28+85+/- TO -L- STA 35+30+/-. (SEE TCP-27 THRU TCP-29)

D. SHIFT TRAFFIC TO THE LEFT SIDE OF THE PROPOSED TRAVELWAY FROM -L- STA 35+30+/- TO -L- STA 45+46+/-. (SEE TCP-29 THRU TCP-32)

E. SHIFT TRAFFIC TO THE RIGHT SIDE OF THE PROPOSED TRAVELWAY FROM -L- STA 45+46+/- TO -L- STA 55+60+/-. (SEE TCP-32 THRU TCP-35)

F. SHIFT TRAFFIC TO THE FINAL PATTERN FROM -L- STA 55+60+/- TO -L- STA 56+46+/-. (SEE TCP-35)

STEP 3: WITH TRAFFIC IN NEW TEMPORARY PATTERN AND USING RDWY STD 1101.02, 1 OF 7, CONSTRUCT REMAINING -L- LINE UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE INCLUDING C&G AS FOLLOWS:

-RIGHT SIDE FROM -L- STA 11+99+/- TO -L- STA 14+03+/-. (SEE TCP-22 & TCP-23)

-LEFT SIDE FROM -L- STA 14+87+/- TO -L- STA 16+14+/- AND FROM -L- STA 21+03+/- TO -L- STA 28+85+/-. (SEE TCP-23 AND TCP-25 THRU TCP-27)

-RIGHT SIDE FROM -L- STA 37+95+/- TO -L- STA 38+78+/- AND FROM -L- STA 42+00+/- TO -L- STA 46+60+/-. (SEE TCP-28 THRU TCP-32)

-LEFT SIDE FROM -L- STA 47+45+/- TO -L- STA 47+90+/- AND FROM -L- STA 50+20+/- TO -L- STA 55+60+/-. (SEE TCP-32 THRU TCP-35)

COMPLETE CONSTRUCTION BEGUN IN PHASE I ON:

-L- WIDENING OF BRIDGE OVER SOUTHERN RAILROAD
-Y10- (MYRTLE AVE) AND -Y12- (MYRTLE AVE) SEE TCP-30
-Y15- (MILTON ST) AND -Y15A- (JENKINS RD) SEE TCP-31
-Y17- (MYRTLE SCHOOL RD) SEE TCP-32
-Y18- (CRESCENT LN) SEE TCP-32
-Y29- (OVERMAN AVE) SEE TCP-35

USING RDWY STD. 1101.02, 1 OF 7, CONSTRUCT WIDENING UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE AND C&G ON -Y14- (ROSS ST) AND -Y16- (SUNSET AVE). (SEE TCP-31)

THE FOLLOWING -Y- LINES SHALL NOT BE CLOSED SIMULTANEOUSLY

USING RDWY STD. 1101.03, 2 OF 9, CLOSE -Y26- (CRAVEN ST), -Y27- (MAXTON AVE) AND -Y28- (HAYNES AVE) AND CONSTRUCT UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE. (SEE TCP-34) SEE TCP-44 FOR DETOUR.

## PHASE III

STEP 1: USING RDWY. STD. 1101.02, 1 OF 7, PLACE FINAL SURFACE COURSE ALONG THE OUTSIDE SOUTH BOUND LANES, INSTALL SKIP LANE LINE AND PLACE SOUTH BOUND TRAFFIC ON SAME. PLACE DRUMS ALONG THE SKIP LANE LINE IN THE INSIDE EAST BOUND LANE.

STEP 2: USING RDWY. STD. 1101.02, 1 OF 7, PLACE FINAL SURFACE COURSE ALONG THE OUTSIDE NORTH BOUND LANES, INSTALL SKIP LANE LINE AND PLACE NORTH BOUND TRAFFIC ON SAME. PLACE DRUMS ALONG THE SKIP LANE LINE IN THE INSIDE WEST BOUND LANE.

STEP 3: USING RDWY. STD. 1101.02, 1 OF 7, AS REQUIRED, PLACE THE FINAL SURFACE COURSE ON THE REMAINING CENTER LANE AND INSTALL THE REMAINING PAVEMENT MARKING AND MARKERS.

STEP 4: USING RDWY. STD. 1101.02, 1 OF 7, PLACE THE FINAL SURFACE COURSE ON ALL -Y- LINES AND INSTALL FINAL PAVEMENT MARKING AND MARKERS.

STEP 5: OPEN ALL LANES TO TRAFFIC, ADJUST SIGNALS FOR FINAL TRAFFIC PATTERN AND REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES.

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APPROVED:_____ DATE:_____

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER STEPHEN S. ASEFNIA

8/23/05

# PHASING

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

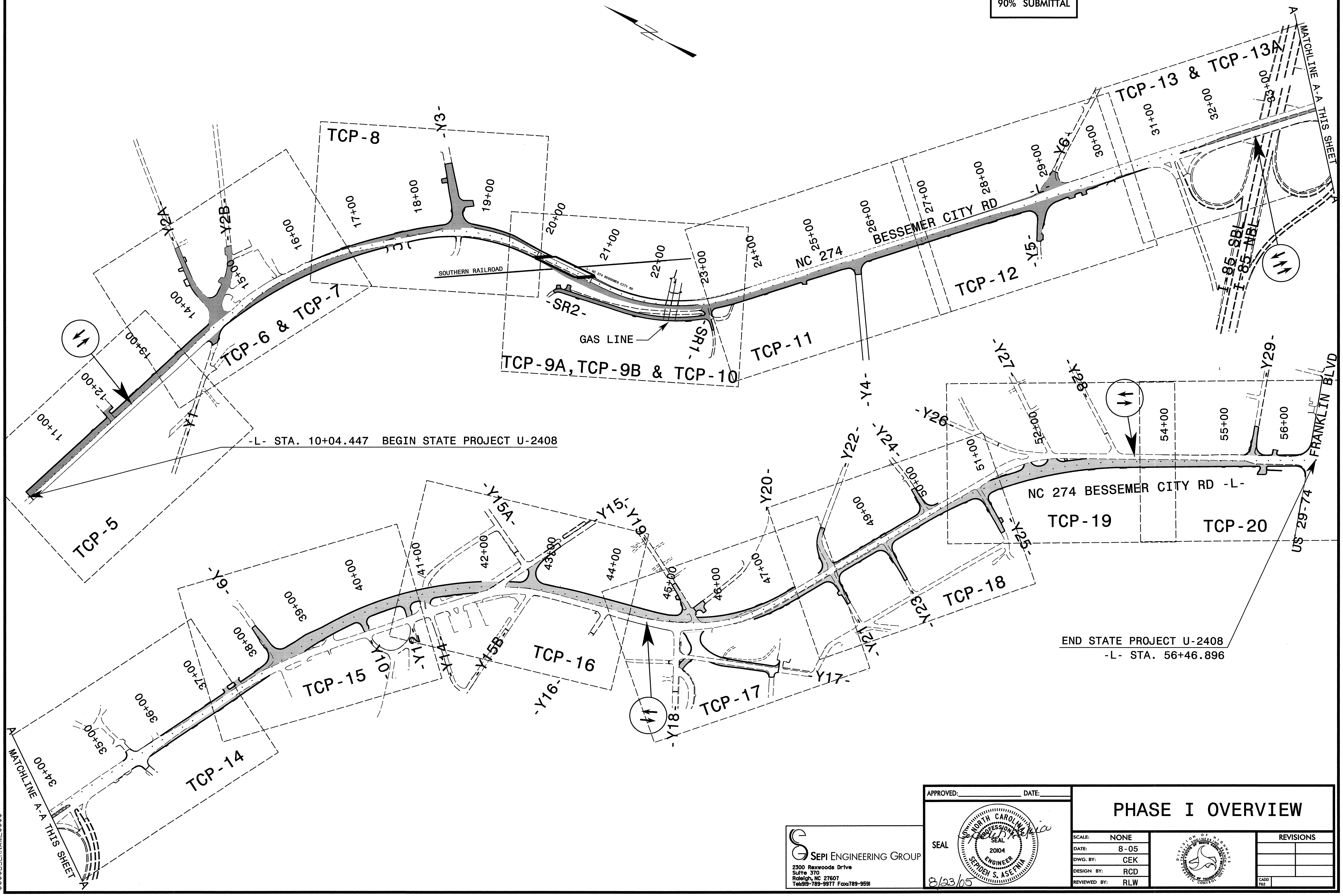
$$$$$SYSTIME$$$$$ $$$$$DGN$$$$$ $$$$$DGNNAME$$$$$ $$$$$USERNAME$$$$$ \TCP&PM\TCPPHASING.dgn 8/22/2005 8:05:41 AM

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION.

90% SUBMITTAL

METRIC

| PROJ. REFERENCE NO. | SHEET NO. |
| --- | --- |
| U-2408 | TCP-4 |

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8/23/05

# PHASE I OVERVIEW

| SCALE: | NONE |
| --- | --- |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

REVISIONS

$$$$SYSTIME$$$$
$$$$$DGN$$$$$$$$$$$$$$
$$$USERNAME$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-5 |

METRIC

NAD 83

R11-2
1219 X 762

ROAD CLOSED

TYPE III BARRICADE

11+00

12+00

13+00

A

A'

15m
TYP

-L- BESSEMER CITY RD (NC 274)

-L- STA 10+04+/- BEGIN STATE PROJECT U-2408

TIE TO FUTURE PROJECT U-3405

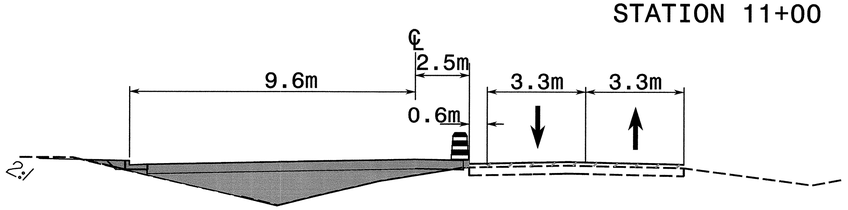
MATCHLINE -L- STA 13+40+/- SEE TCP-6

WEDGING

OATES RD -Y1-

## SECTION A-A'

STATION 11+00




$$SYSTIME$$
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$$USERNAME$$


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NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASENIN

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# PHASE I

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
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| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
DEPARTMENT OF TRANSPORTATION
STATE OF NORTH CAROLINA

| REVISIONS | |
|---|---|
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| CADD FILE | |

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| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-6 |

METRIC

BEGIN CONSTRUCTION
-Y2A- STA 9+85+/-

R11-3
1524 X 762
ROAD CLOSED
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

WHITE & JENKINS RD.
(SR 1456) -Y2A-

10+00

DALLAS-BESSEMER CITY RD
(NC 275) -Y2B-

BEGIN CONSTRUCTION
-Y2B- STA 10+08+/-

NAD 83

SEE TCP-36
FOR DETOUR

-Y2B- STA 10+72+/-

11+00

15+00

16+00

-Y2B- STA 11+36+/-

14+00

-Y2B- STA 11+04+/-

-L- STA 14+18+/-

PI

-Y2B- STA 11+16+/-

15m
TYP

B

-L- STA 16+14+/-

MATCHLINE -L- STA 13+40+/- SEE TCP-5

MATCHLINE -L- STA 16+40+/- SEE TCP-8

R11-2
1219 X 762
ROAD
CLOSED

-L- BESSEMER CITY RD (NC 274)

B'

-L- STA 13+94+/-

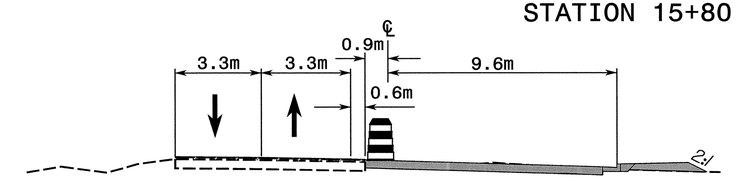
TYPE III BARRICADE

OATES RD -Y1-

END CONSTRUCTION
-Y1- STA 10+31+/-

WEDGING

## SECTION B-B'
STATION 15+80

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APPROVED: _____ DATE: _____

SEAL

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8/23/05

# PHASE I
# -Y2A- CONSTRUCTION

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

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

REVISIONS

CADD FILE

$$$$$SYSTIME$$$$$
$$$$$DGN$$$$$
$$$$$USERNAME$$$$$

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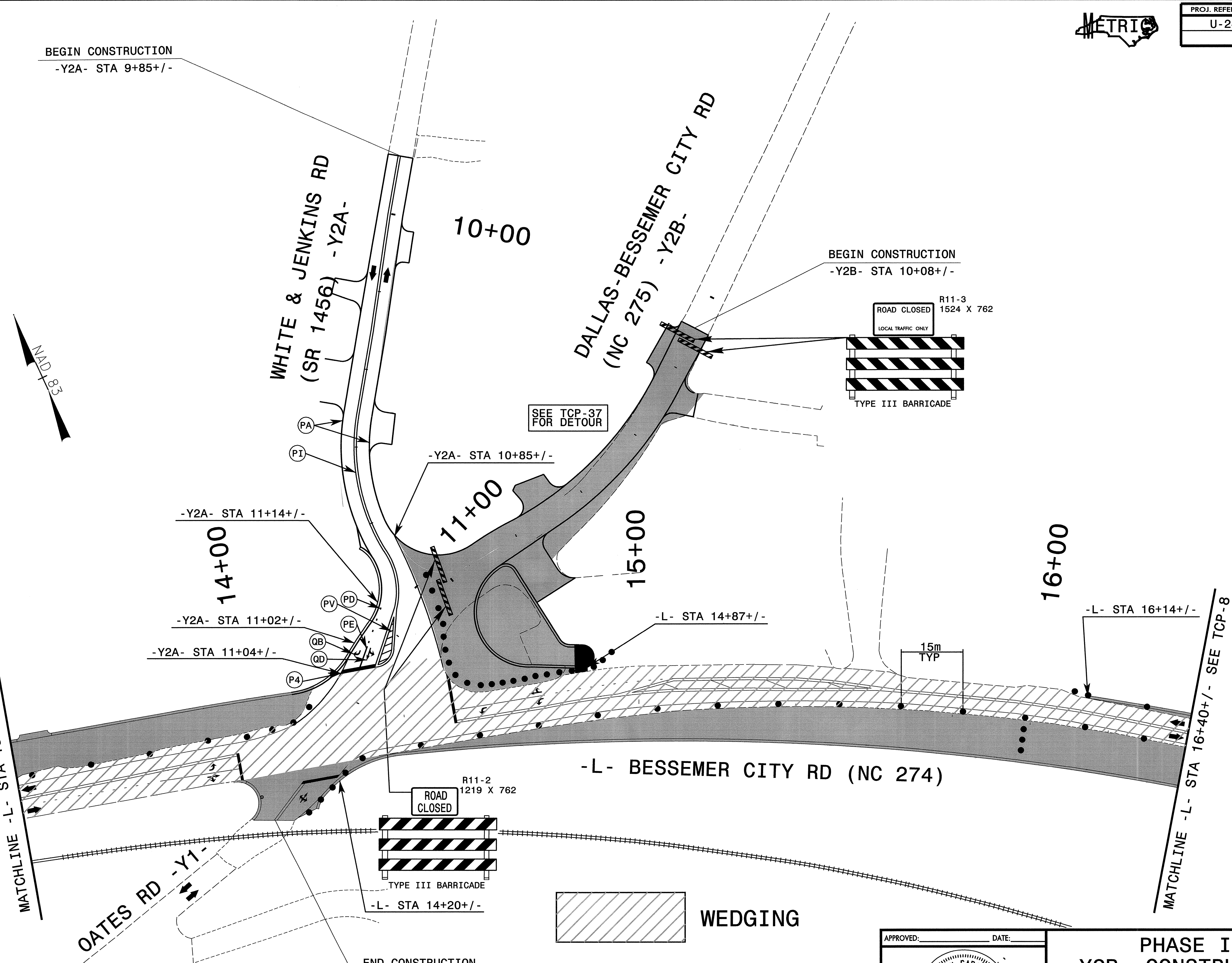


| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-7 |

**PHASE I**
**-Y2B- CONSTRUCTION**

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

REVISIONS

APPROVED: ____ DATE: ____

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8/23/05

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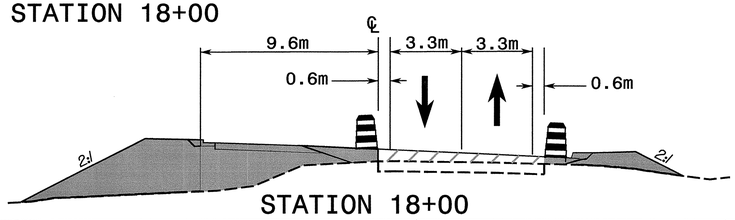
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-8 |

METRIC

## SECTION C-C'
STATION 18+00




ISLEY DR.
-Y3-

BEGIN CONSTRUCTION
-Y3- STA 10+15+/-

ROAD CLOSED
R11-2
1219 X 762
TYPE III BARRICADE(S)

NAD 83

SEE TCP-38 FOR DETOUR

19+00

ROAD CLOSED
R11-2
1219 X 762
TYPE III BARRICADE

18+00

11+00

BEGIN PCB
-L- STA 19+60+/-

17+00

C

C'

15m TYP

MATCHLINE -L- STA 19+80+/- SEE TCP-9 & 9A

MATCHLINE -L- STA 16+40+/- SEE TCP-9

WEDGING

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEIFOUH S. ASEFNIA

9-8-05

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Tel:919-789-9977 Fax:789-9591

# PHASE I

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

REVISIONS

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$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$USERNAME$$$$

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| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-9 |

METRIC

MATCHLINE -L-
STA 19+80+/-
SEE TCP-8

USE TEMP. PAVEMENT IN PLACE
OF CONCRETE APPROACH SLAB
SEE RDWY AND STRUCTURE PLANS

21+00

END PCB
-L- STA 21+20+/-

D

D'

SOUTHERN RAILROAD

END APPROACH SLAB
(TEMP. ASPHALT)
-L- STA 20+10+/-

23+00

-L- STA 23+50+/-

STEP 2A

MATCHLINE -L-
STA 19+80+/-
SEE TCP-8

BEGIN BRIDGE
-L- STA 20+18+/-

BEGIN APPROACH SLAB
(TEMP. ASPHALT)
-L- STA 20+90+/-

TEMP. PAV'T
VAR. 0-4M

20+00

21+00

SR 1384

SOUTHERN RAILROAD

END BRIDGE
-L- STA 20+91+/-

-L- NC 274 BESSEMER CITY RD

TIE INTO EXISTING
-L- STA 21+30+/-

PA

PI

BEGIN TEMP SHORING
-L- STA 22+23.5+/-

STEPS 2B-2D

END PCB
-L- STA 22+74+/-

-L- STA 22+92+/-

22+00

BEGIN TEMP SHORING
-L- STA 22+56.5+/-

23+00

-L- STA 23+50+/-

-L- STA 23+17+/-

E

P4

WEDGING

TEMPORARY PAVEMENT

(SR 1384) -SR2-

TEMP. PAV'T
VAR. 0-4M

E

SR 1384

-SR1- STA 9+99+/-

-SR1- STA 10+20+/-

R11-2
1219 X 762

ROAD
CLOSED

TYPE III BARRICADE

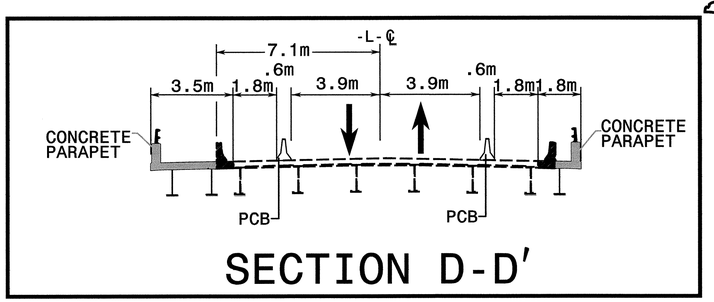
GAS LINES

R11-2
1219 X 762

ROAD
CLOSED

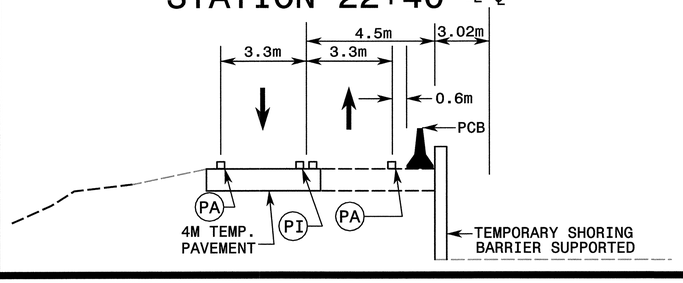
TYPE III BARRICADE

(SR 1384)
-SR1-




SECTION D-D'

## SECTION E-E'
### STATION 22+40 -L-℄




NOTE: THE STANDARD SHORING DESIGN CANNOT BE USED. THE CONTRACTOR IS RESPONSIBLE FOR SHORING DESIGN AT THIS LOCATION.

FOR DESIGN OF TEMPORARY SHORING, USE THE FOLLOWING SOIL PARAMETERS FURNISHED BY NCDOT-DESIGN SERVICES SOIL AND FOUNDATION SECTION:

FOR THE DESIGN OF TEMPORARY SHORING (BARRIER SUPPORTED) FROM STA. 22+23.5+/- -L- TO STA. 22+56.5+/- -L-:
ESTIMATED LENGTH OF SHORING = 30m
UNIT WEIGHT OF SOIL ABOVE WATER TABLE = 18.8kN/m³
UNIT WEIGHT OF SOIL BELOW WATER TABLE = 9.4kN/m³
FRICTION ANGLE $\phi$ =29°
COHESION C =0 kPa
GROUND WATER TABLE ELEVATION =253 m
ESTIMATED QUANTITY OF TEMPORARY SHORING = 200m²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APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEMIA

8/23/05

# PHASE I
(GAS LINE CONSTRUCTION)
&
(WIDENING OF BRIDGE OVER SOUTHERN RAILWAY)

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STRUCTURE DESIGN UNIT
DESIGN SERVICES
DEPARTMENT OF TRANSPORTATION
CONTROL

REVISIONS

CADD FILE

$$$$USERNAME$$$$ $$$$SYSTIME$$$$
$$$$DGN$$$$ $$$$DATE$$$$

NOTE: THE STANDARD SHORING DESIGN CANNOT BE USED. THE CONTRACTOR IS RESPONSIBLE FOR SHORING DESIGN AT THIS LOCATION.

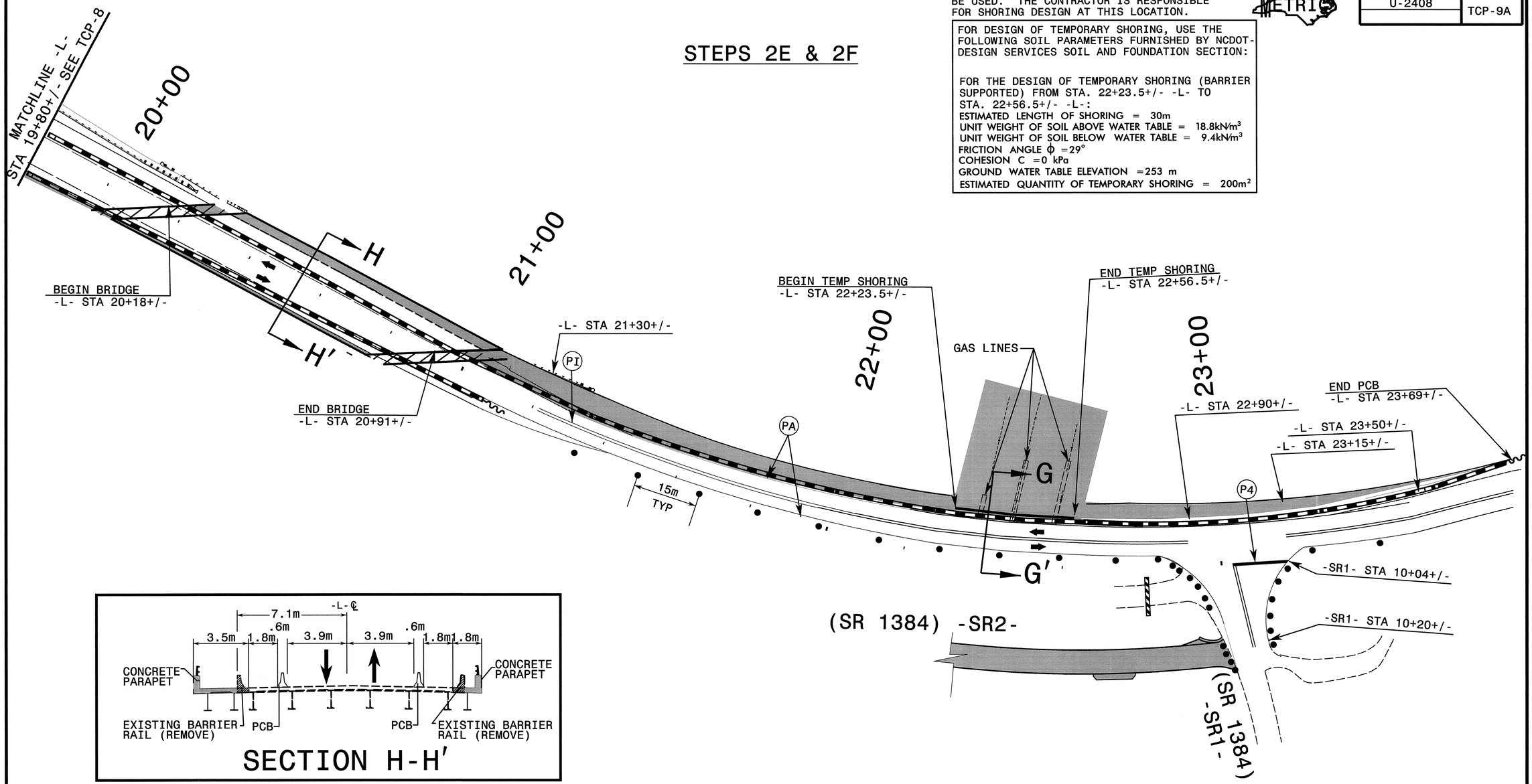
METRIC

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-9A |

FOR DESIGN OF TEMPORARY SHORING, USE THE FOLLOWING SOIL PARAMETERS FURNISHED BY NCDOT-DESIGN SERVICES SOIL AND FOUNDATION SECTION:

FOR THE DESIGN OF TEMPORARY SHORING (BARRIER SUPPORTED) FROM STA. 22+23.5+/- -L- TO STA. 22+56.5+/- -L-:
ESTIMATED LENGTH OF SHORING = 30m
UNIT WEIGHT OF SOIL ABOVE WATER TABLE = 18.8kN/m³
UNIT WEIGHT OF SOIL BELOW WATER TABLE = 9.4kN/m³
FRICTION ANGLE $\phi$ =29°
COHESION C =0 kPa
GROUND WATER TABLE ELEVATION =253 m
ESTIMATED QUANTITY OF TEMPORARY SHORING = 200m²

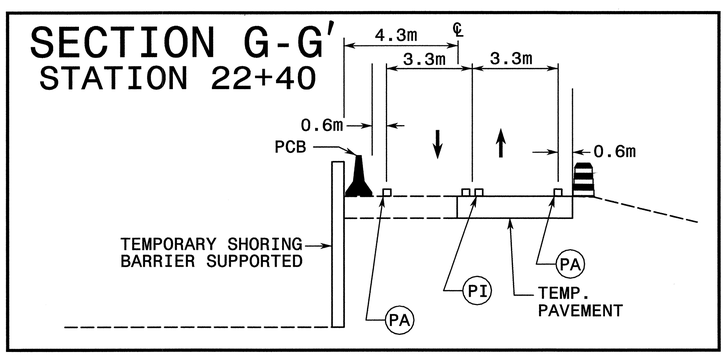
## STEPS 2E & 2F







SECTION H-H'





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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# PHASE I
(GAS LINE CONSTRUCTION)
&
(WIDENING OF BRIDGE OVER SOUTHERN RAILWAY)

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SAFETY SYSTEMS BRANCH
TRAFFIC CONTROL UNIT

REVISIONS

CADD FILE

$$$$$SYSTIME$$$$$
$$$$$DGN$$$$$
$$$$$USERNAME$$$$$

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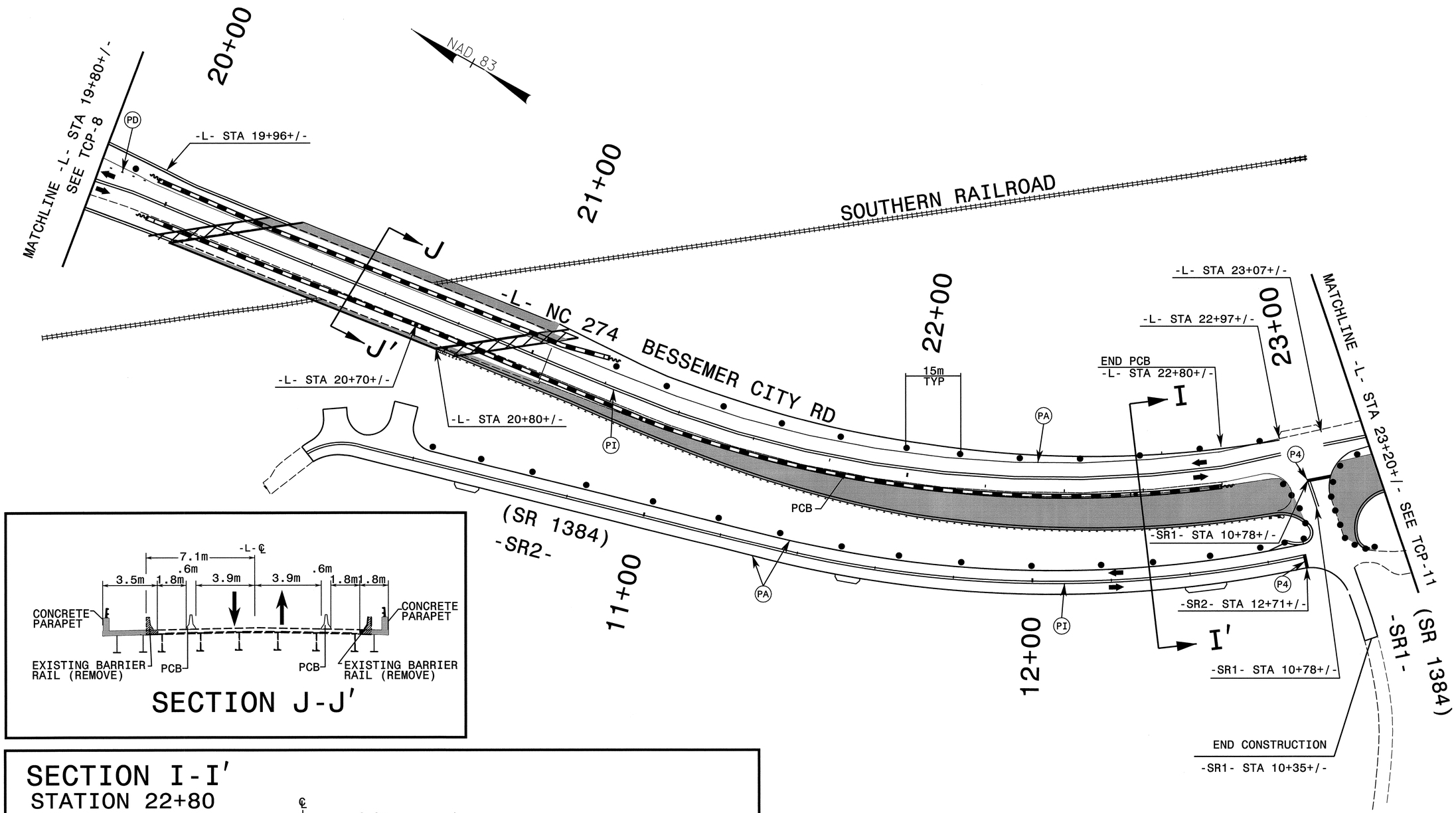
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-10 |

METRIC

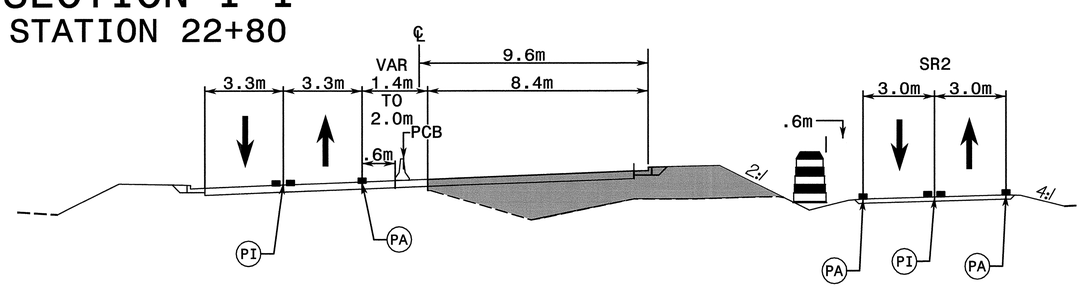






SECTION J-J'

SECTION I-I'
STATION 22+80





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8/23/05

# PHASE I

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| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

REVISIONS

CADD FILE

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$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
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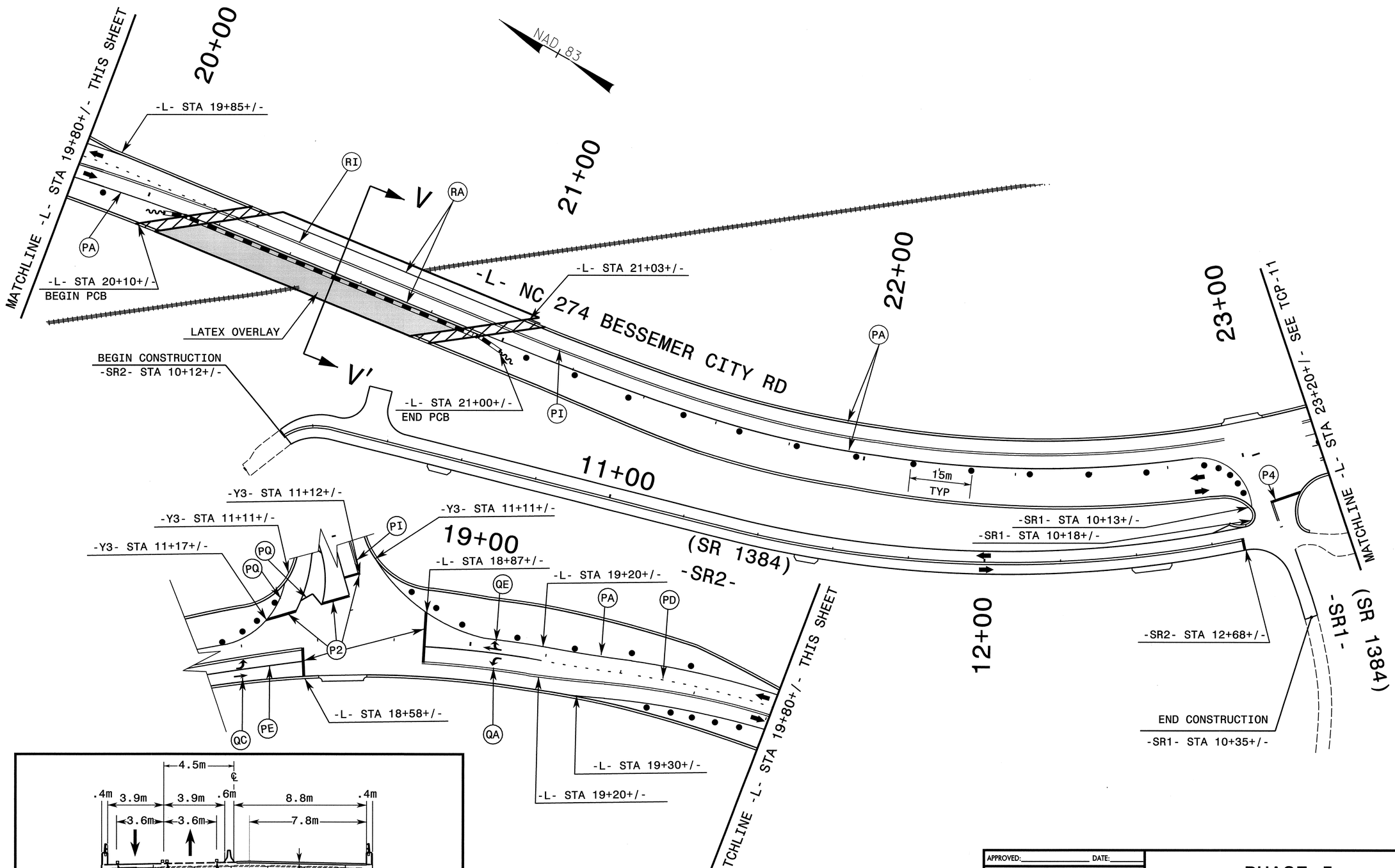
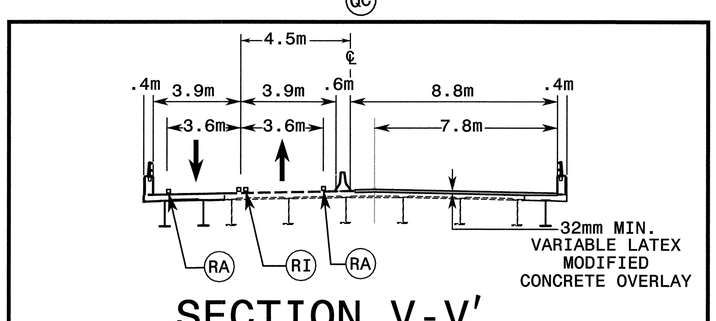
| U-2408 | TCP-10A |




SECTION V-V'

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

9-8-05

# PHASE I

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|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS ENGINEERING DIRECTORATE STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

$$$$$$$SYSTIME$$$$$$$
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| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-10B |

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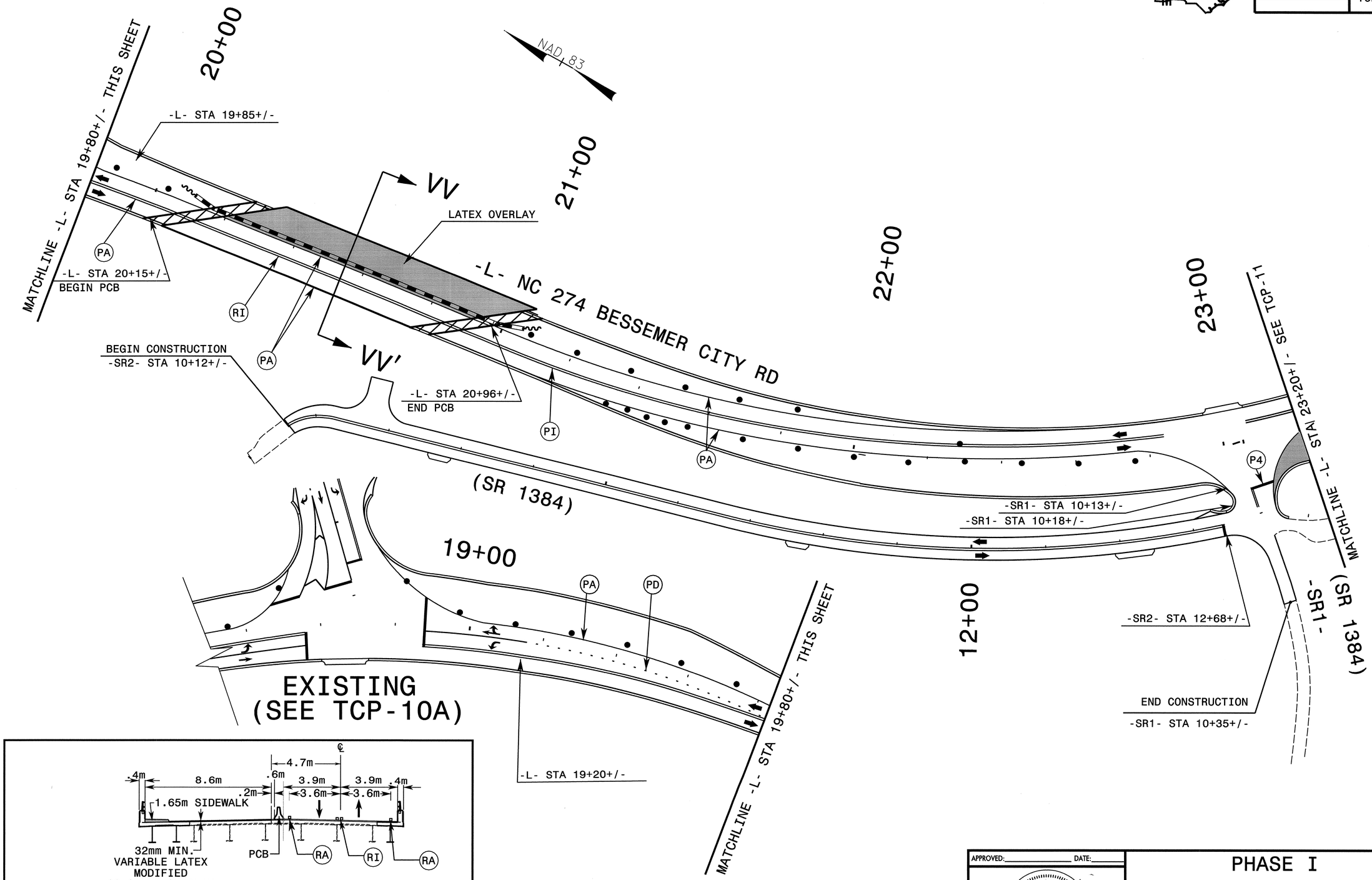


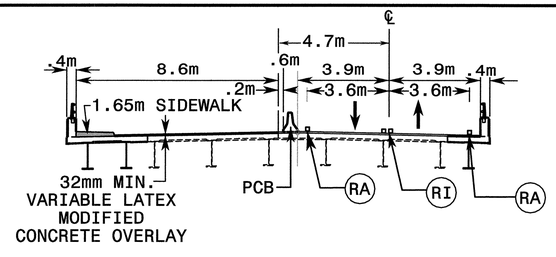


SECTION VV-VV'


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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEYDOUH S. ASEFNIA

9-8-05

PHASE I

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|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS — STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

$$$$SYSTIME$$$$
$$$$USERNAME$$$$DGN$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-11 |

METRIC

NAD 83

24+00

25+00

26+00

MATCHLINE -L- STA 23+20+/- SEE TCP-10

MATCHLINE -L- STA 26+80+/- SEE TCP-12

15m TYP

-L- STA 24+56+/-

-L- STA 25+55+/-

-L- STA 25+70+/-

-L- BESSEMER CITY RD (NC 274)

K

K'

L

L'

PI

PA

P4

QA

QB

PE

PD

-Y4- STA 10+00+/-

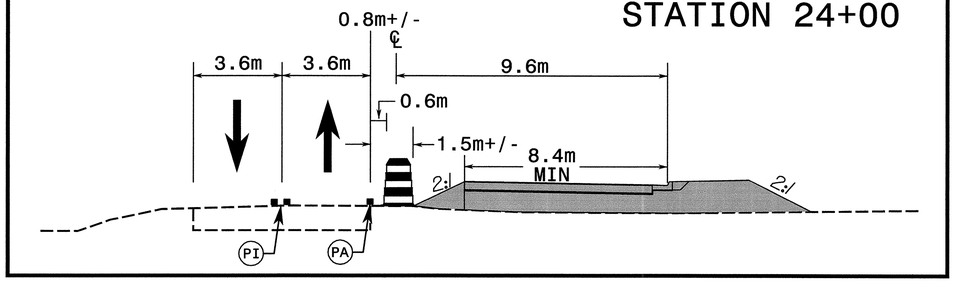
-Y4- STA 10+14+/-

DELTA DR.
-Y4-

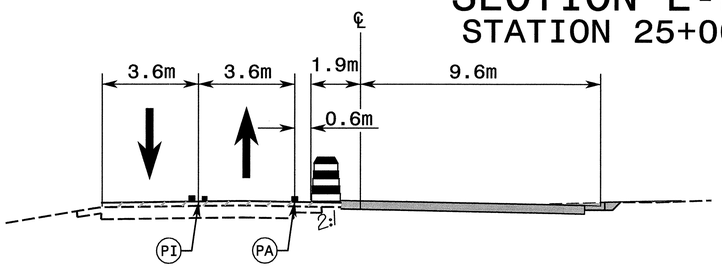
END CONSTRUCTION
-Y4- STA 10+26+/-

WEDGING

## SECTION K-K'
## STATION 24+00




## SECTION L-L'
## STATION 25+00





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NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEYEDEH S. ASEFNIA

9-8-05

# PHASE I

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|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

$$$$$SYSTIME$$$$$
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$$$$$USERNAME$$$$$

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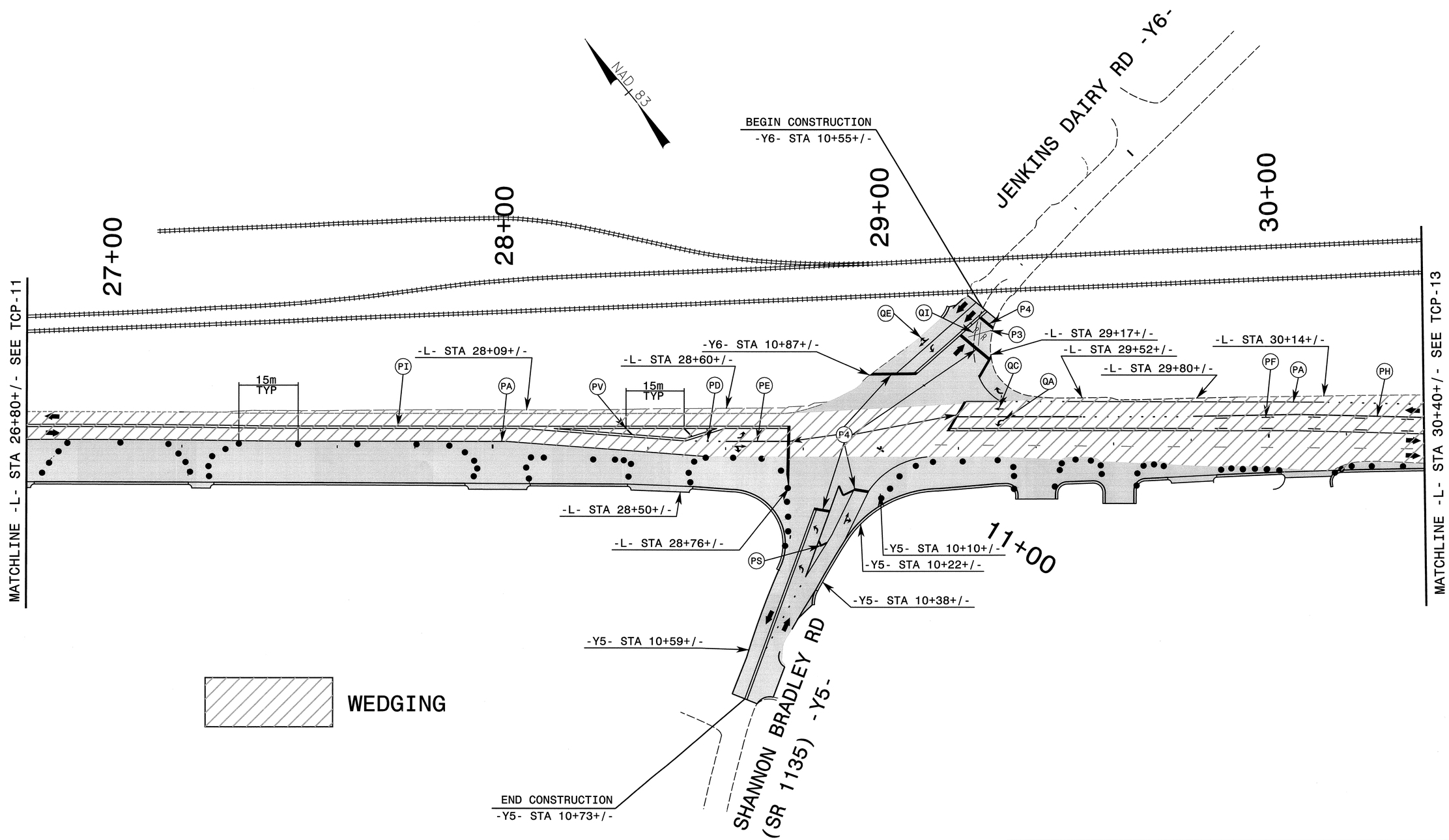
|---|---|
| U-2408 | TCP-12 |

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEENIA

8/23/05

# PHASE I

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|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$$$

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| PROJ. REFERENCE NO. | SHEET NO. |
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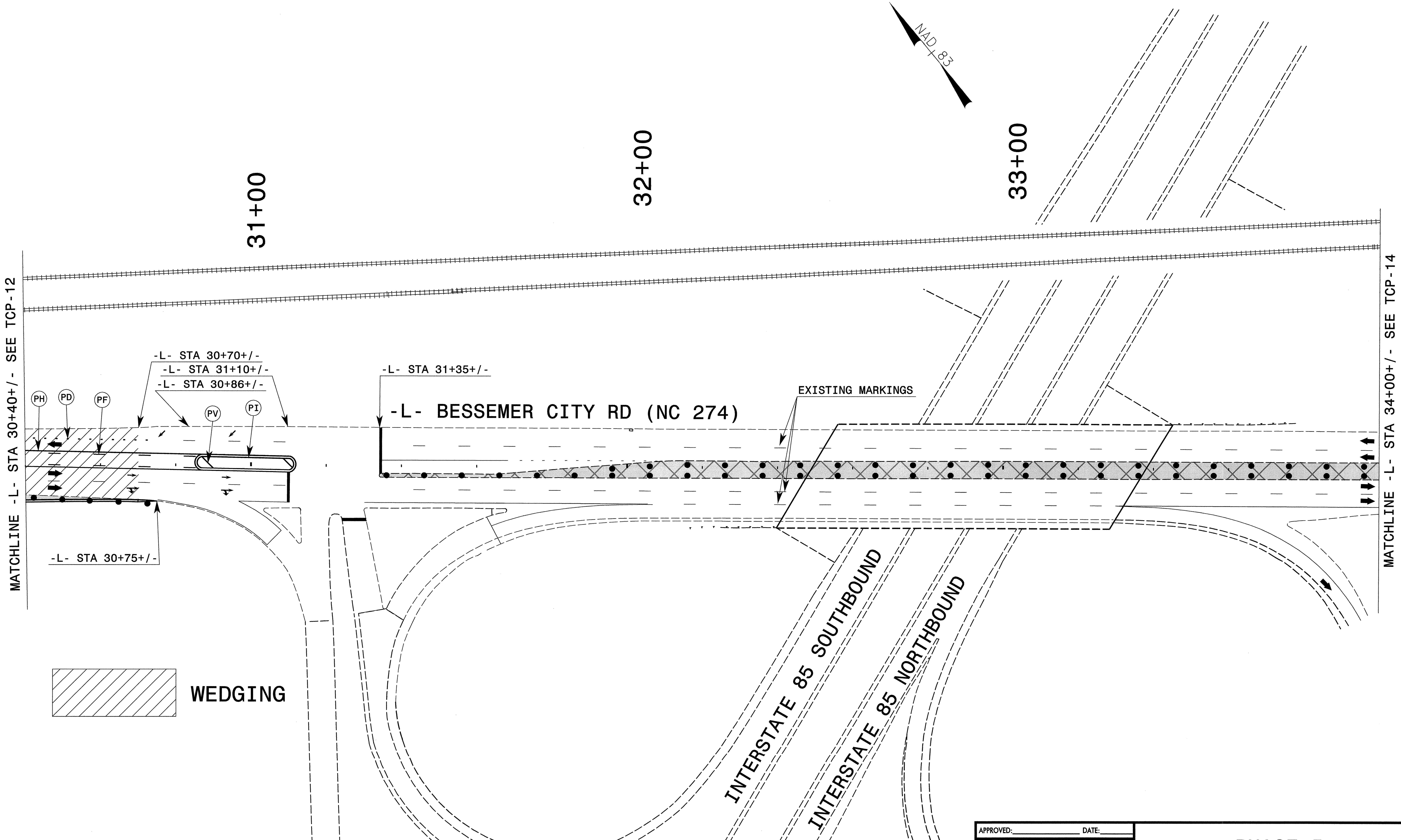
| U-2408 | TCP-13 |

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8/23/05

# PHASE I

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| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
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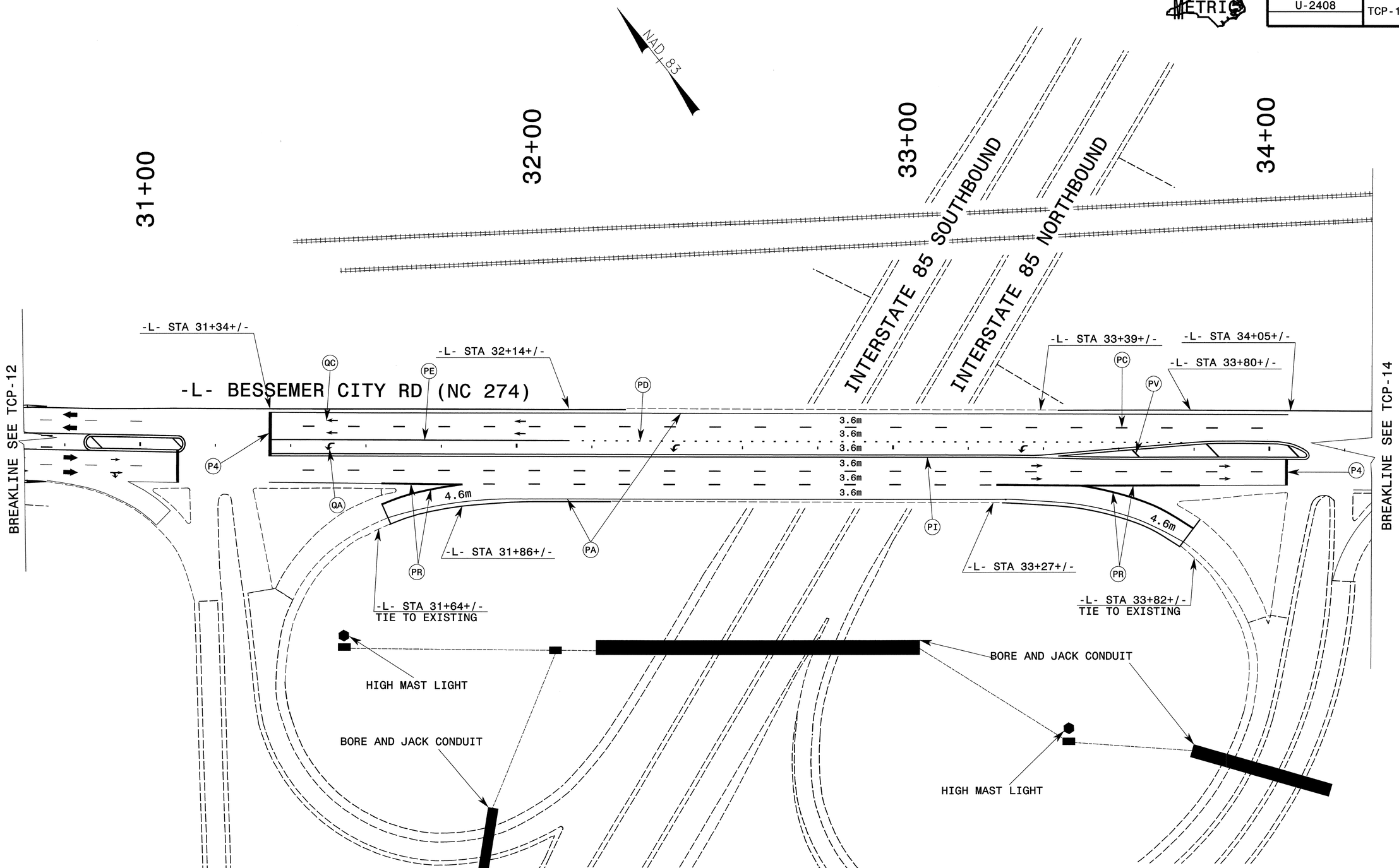
REVISIONS

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-13A |

METRIC




APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

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# PHASE I

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|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

$$$$$$SYSTIME$$$$$
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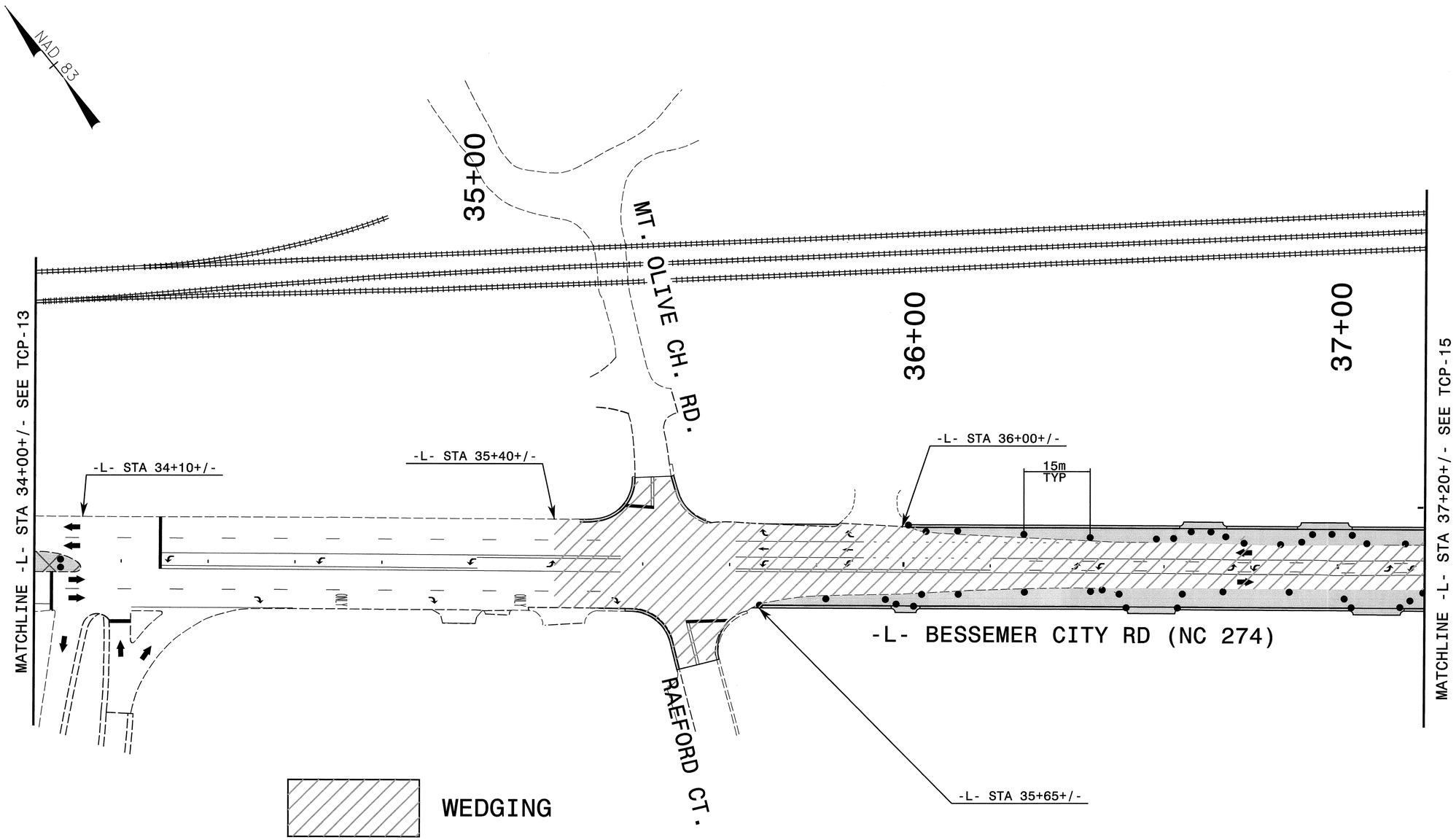
$$$USERNAME$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-14 |

METRIC

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER STEPHEN S. ASENIM

8.23.05

# PHASE I

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| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
TRAFFIC CONTROL UNIT

| REVISIONS | |
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| CADD FILE | |

$$$$$$SYSTIME$$$$$$
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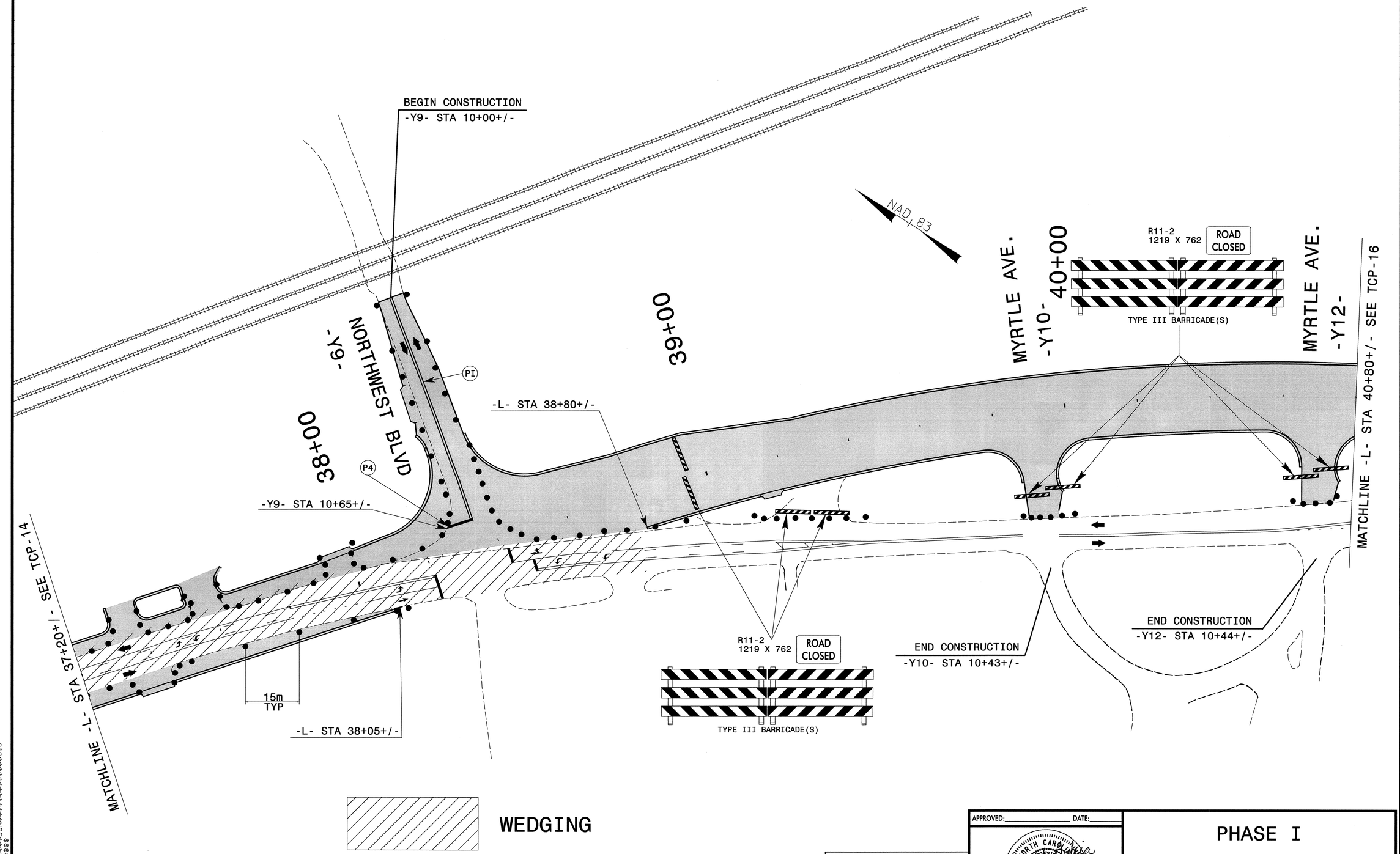
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-15 |

METRIC

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NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASENIN

8/23/05

# PHASE I

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| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING & SAFETY SYSTEMS BRANCH
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$USERNAME$$$$

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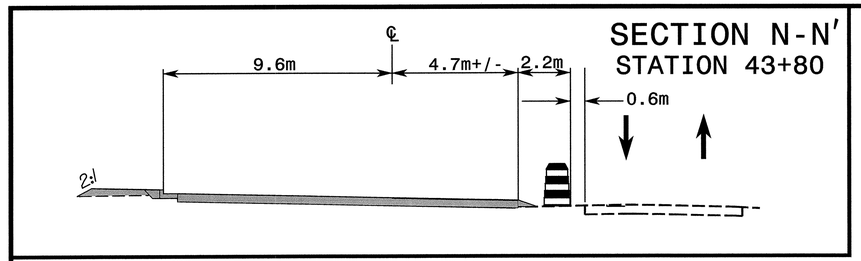


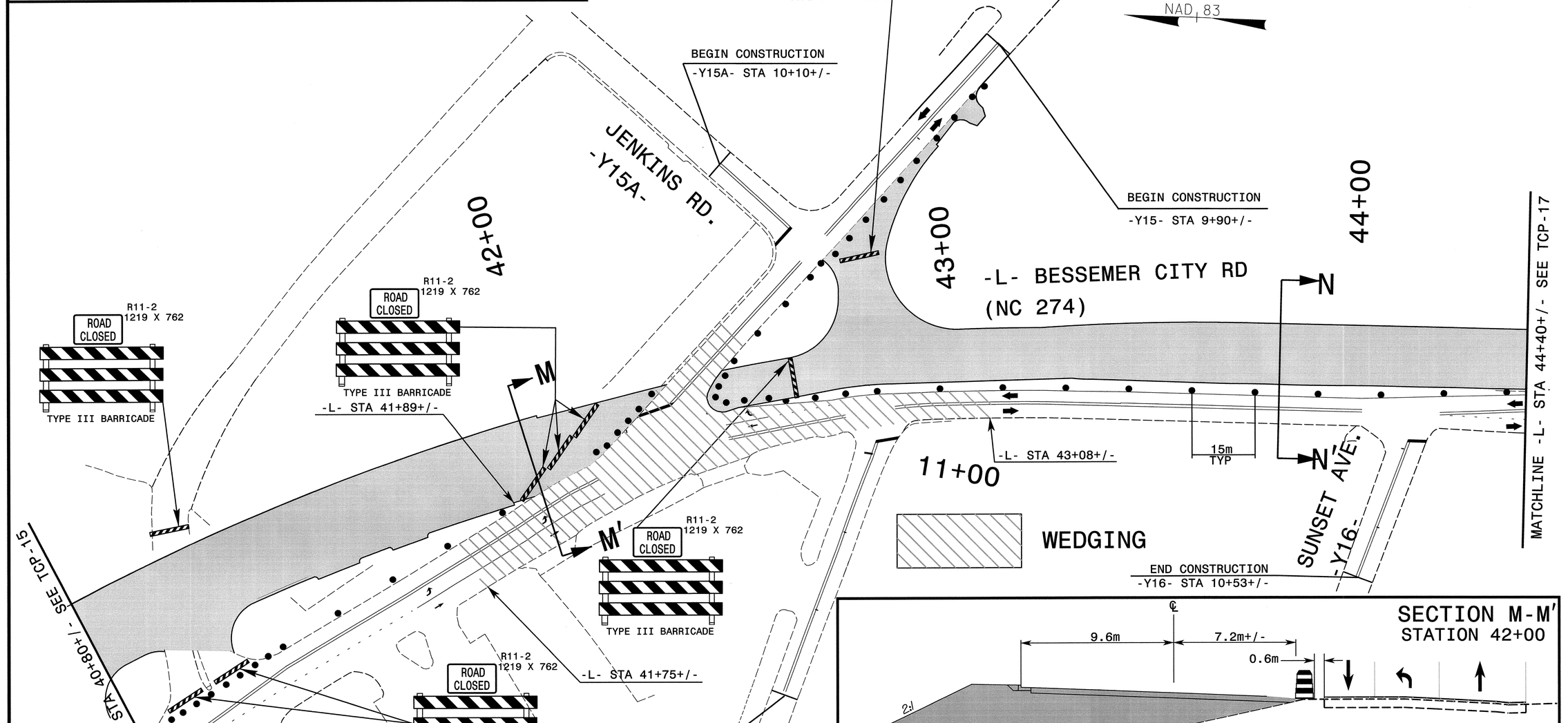





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9-8-05

# PHASE I

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|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

REVISIONS

CADD FILE

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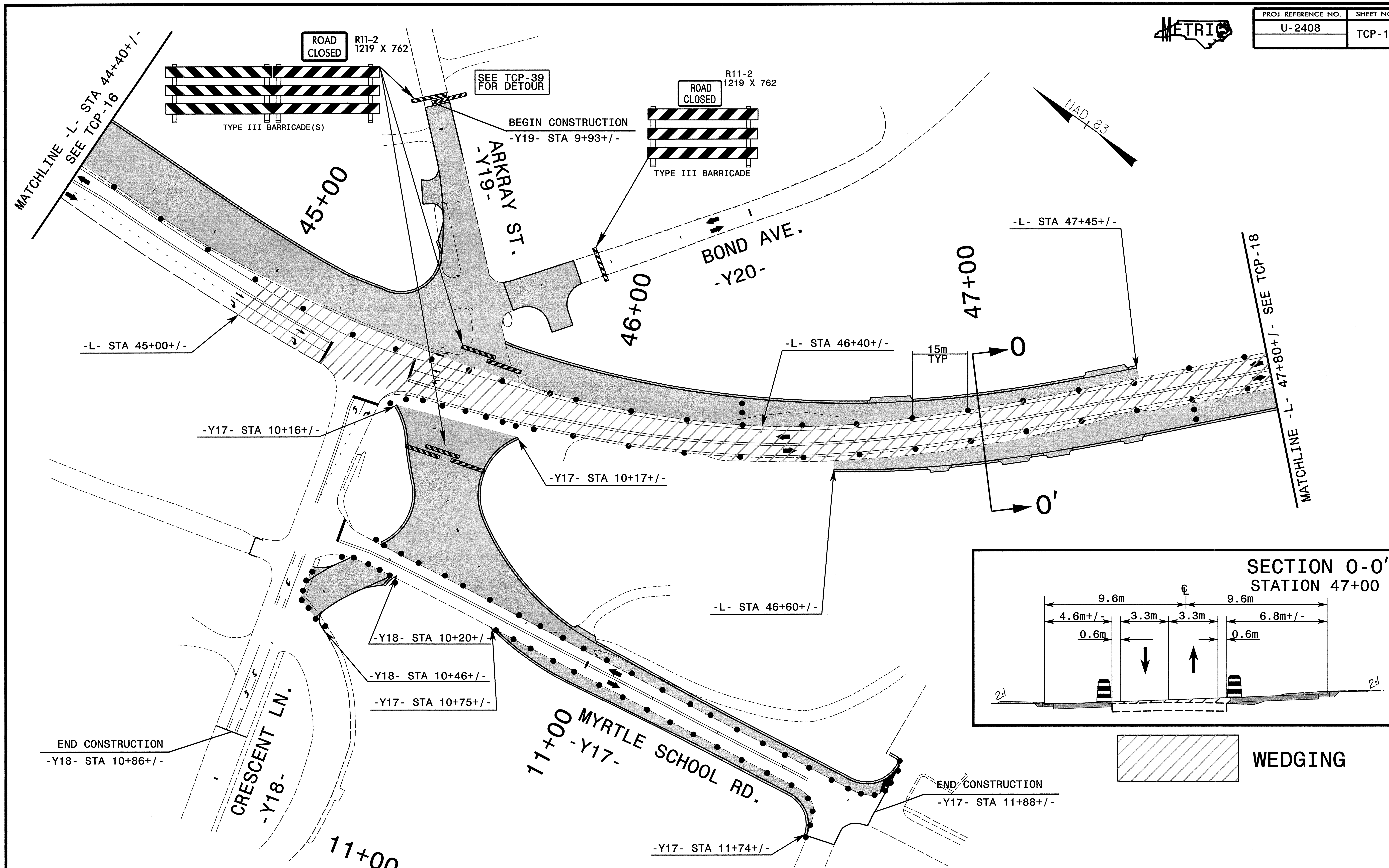


PHASE I

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 20104 SEPIDEH S. ASEFNIA

8/23/05

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|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

REVISIONS

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| PROJ. REFERENCE NO. | SHEET NO. |
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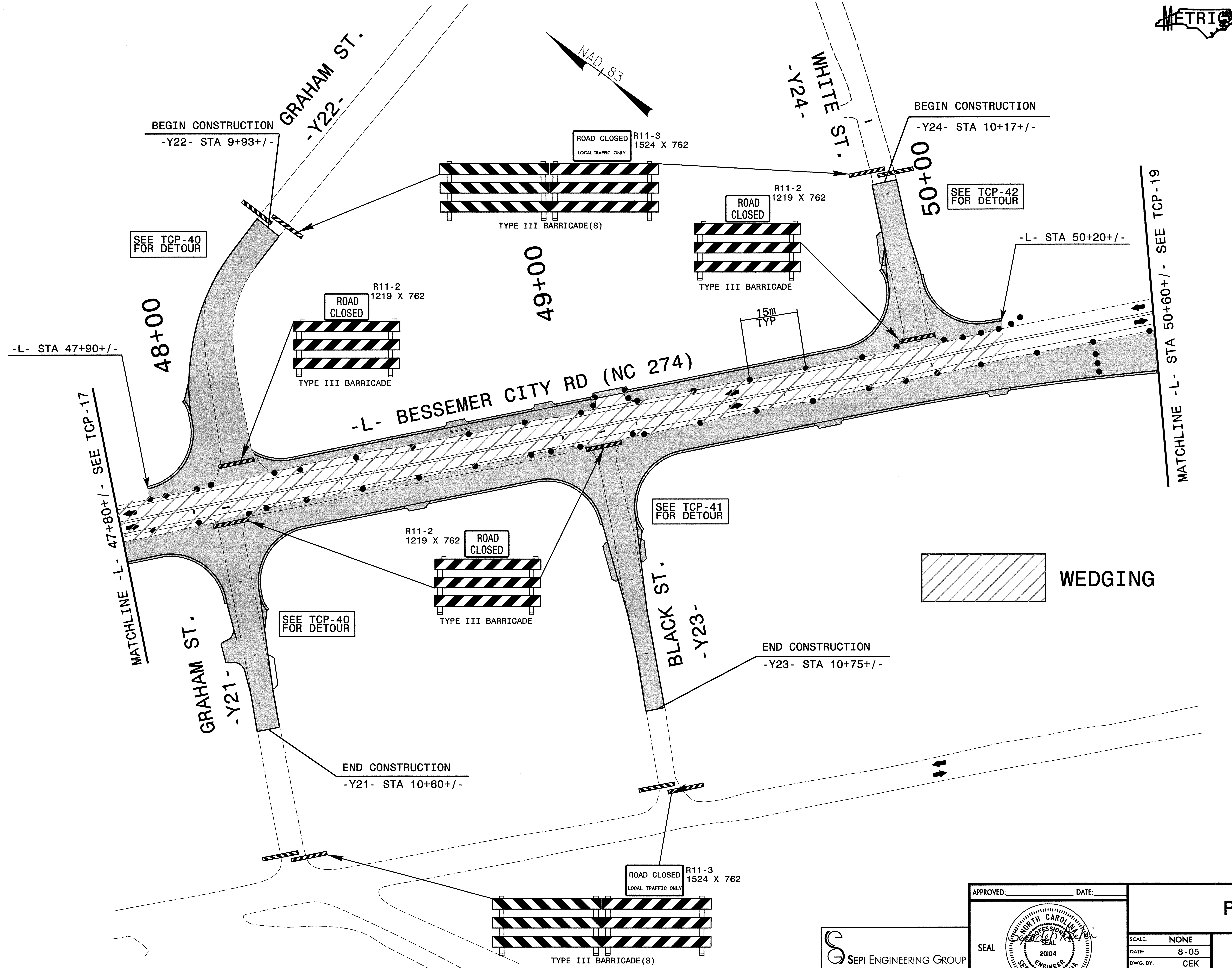
| U-2408 | TCP-18 |

METRIC

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8/23/05

# PHASE I

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| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS TRAFFIC ENGINEERING BRANCH STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL UNIT

REVISIONS

CADD FILE

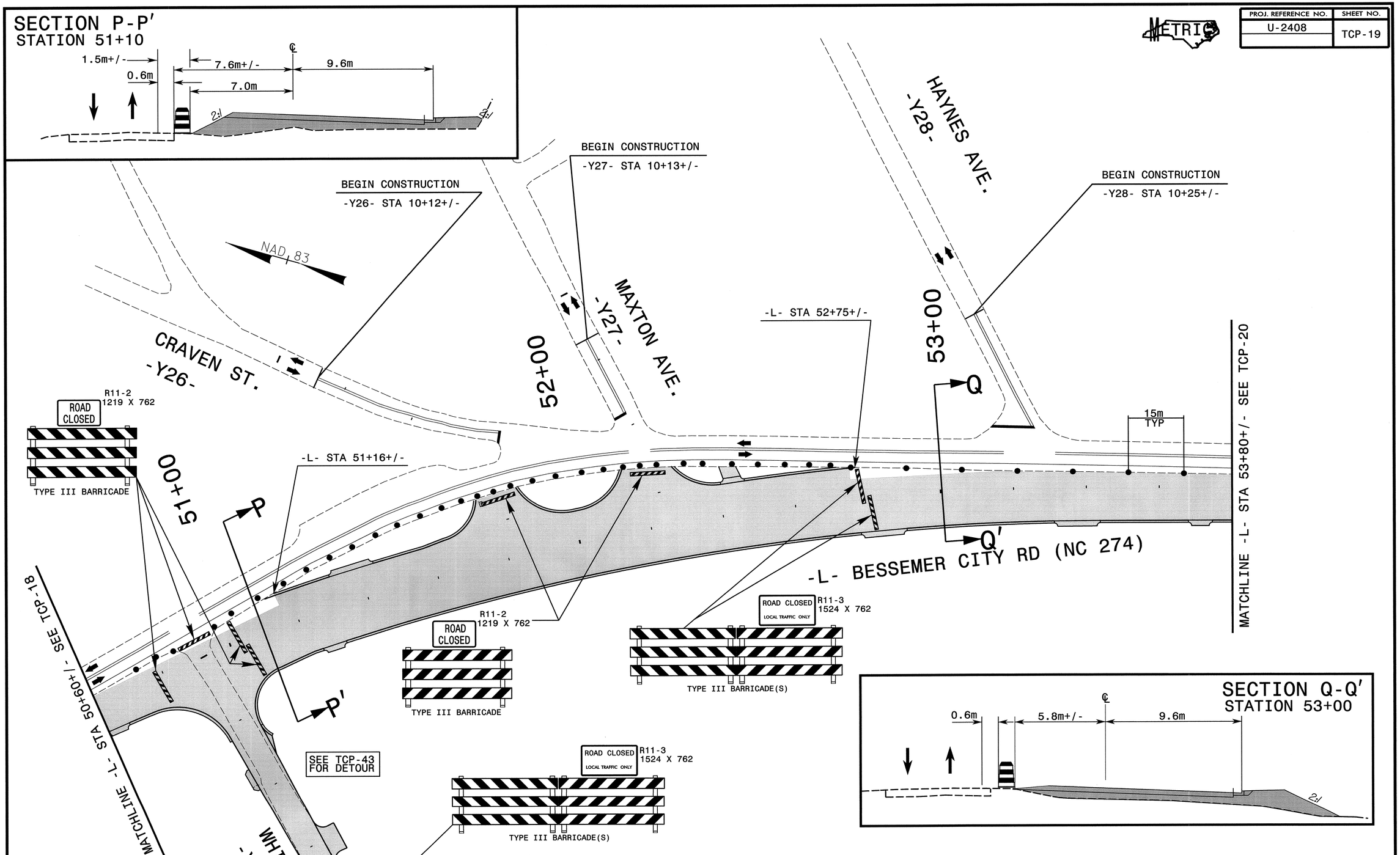
$$$$SYSTIME$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-19 |

METRIC

## SECTION P-P'
STATION 51+10




## SECTION Q-Q'
STATION 53+00




APPROVED:_____ DATE:_____

SEAL

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9-8-05

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# PHASE I

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| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATEWIDE TRAFFIC ENGINEERING & SAFETY
TRAFFIC CONTROL
DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

$$$$$SYSTIME$$$$$
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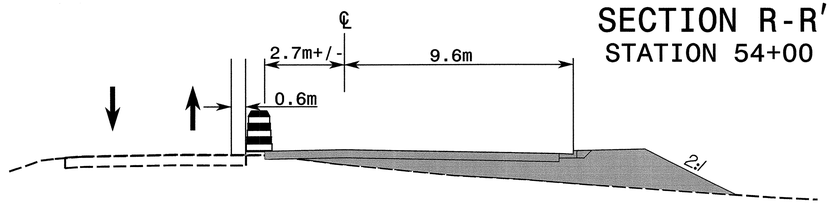
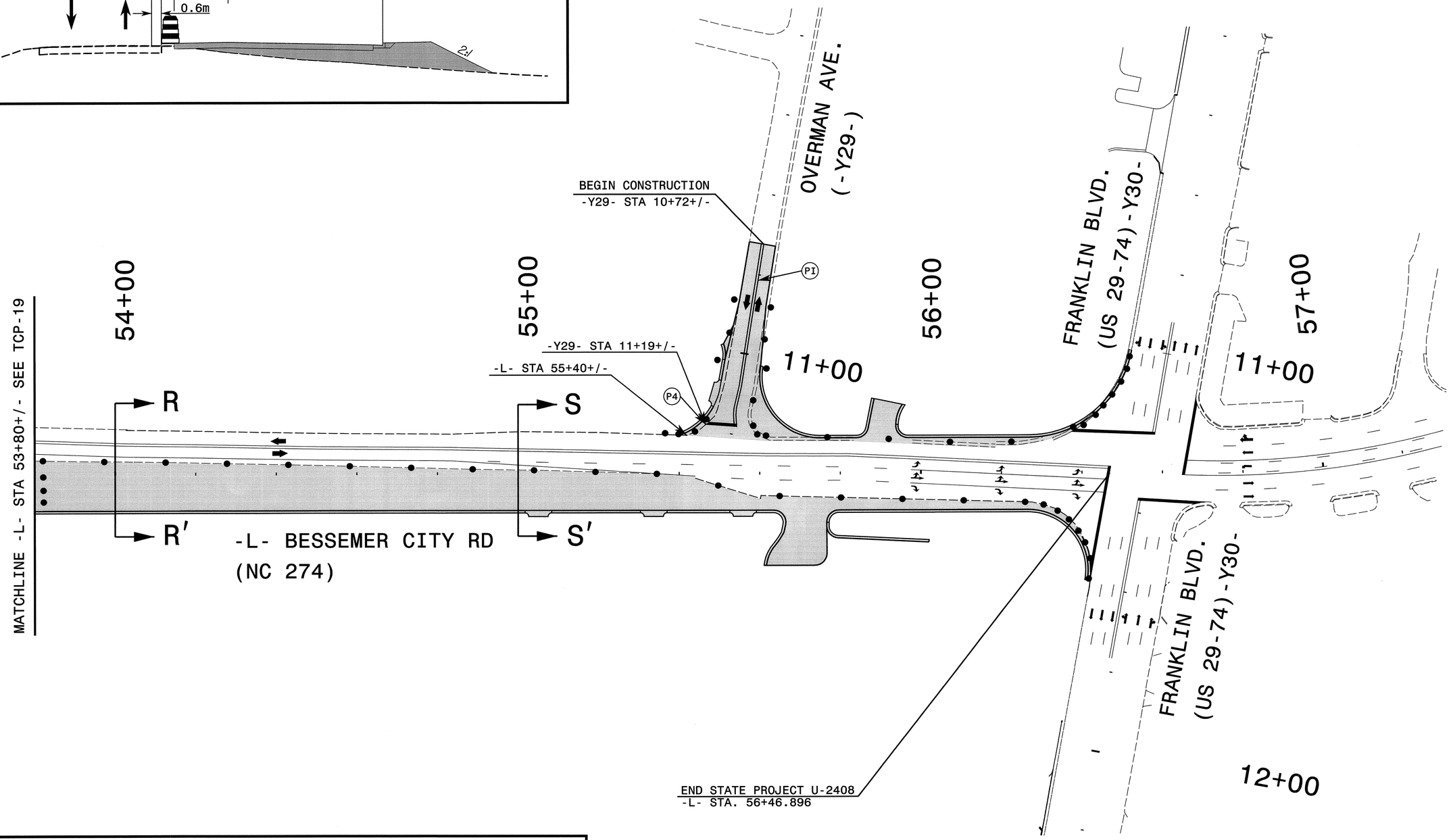
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-20 |

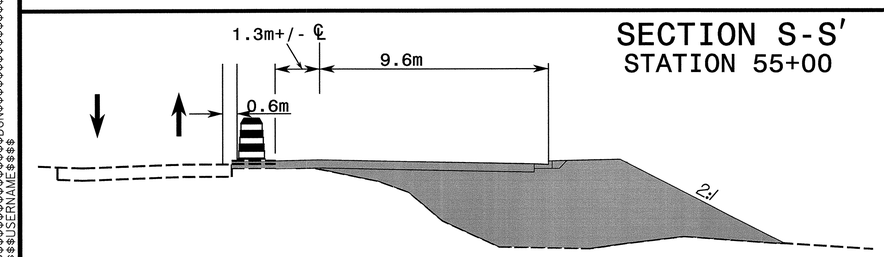
METRIC

## SECTION R-R′
STATION 54+00




## SECTION S-S′
STATION 55+00

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER STEPHEN S. ASETNIA

8/25/05

# PHASE I

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING & SAFETY SYSTEMS BRANCH
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL

REVISIONS

CADD FILE

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$$$$USERNAME$$$$

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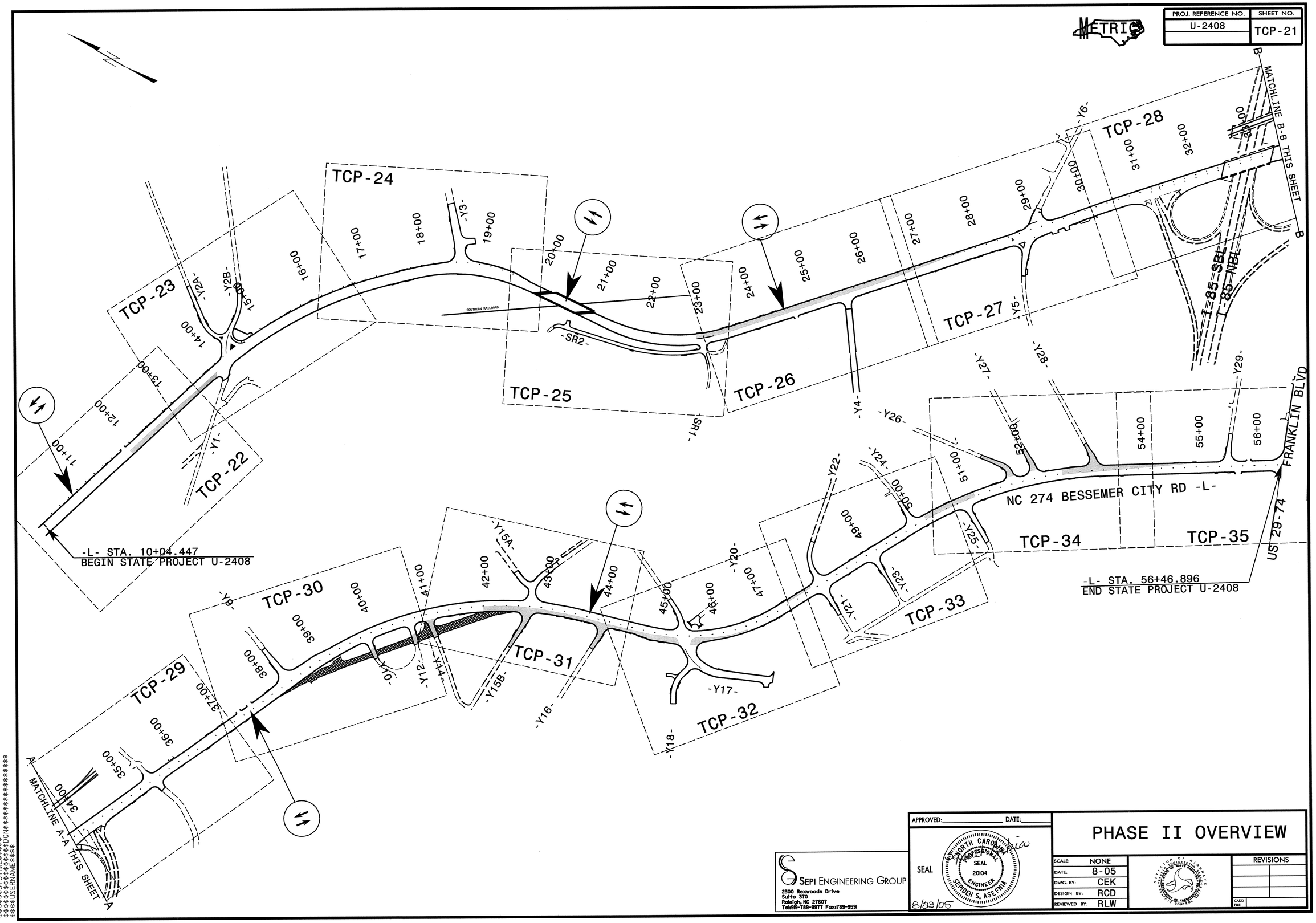
| U-2408 | TCP-21 |

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NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# PHASE II OVERVIEW

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
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REVISIONS

CADD FILE

$$$$SYSTIME$$$$
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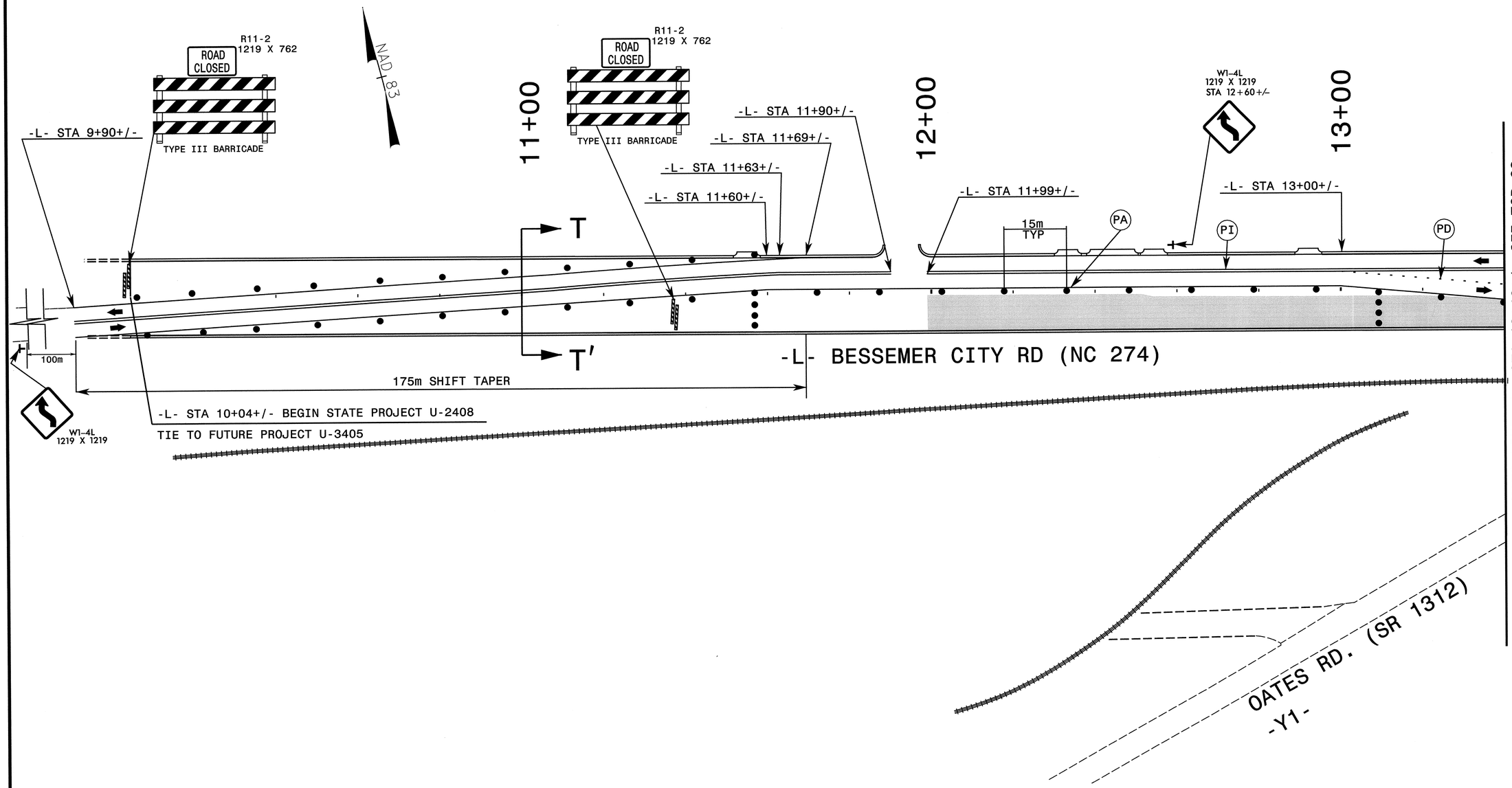
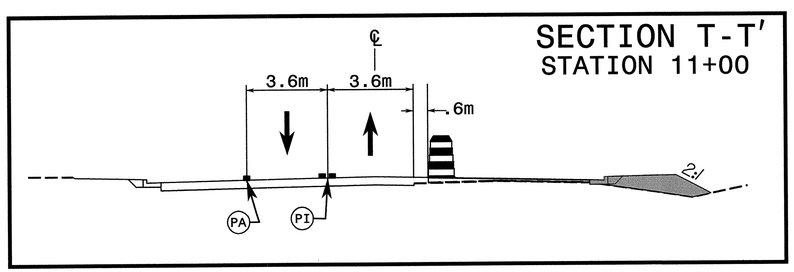
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-22 |

METRIC





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Raleigh, NC 27607
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APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER STEPHEN S. ASEFNIA

8/23/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
CONTROL

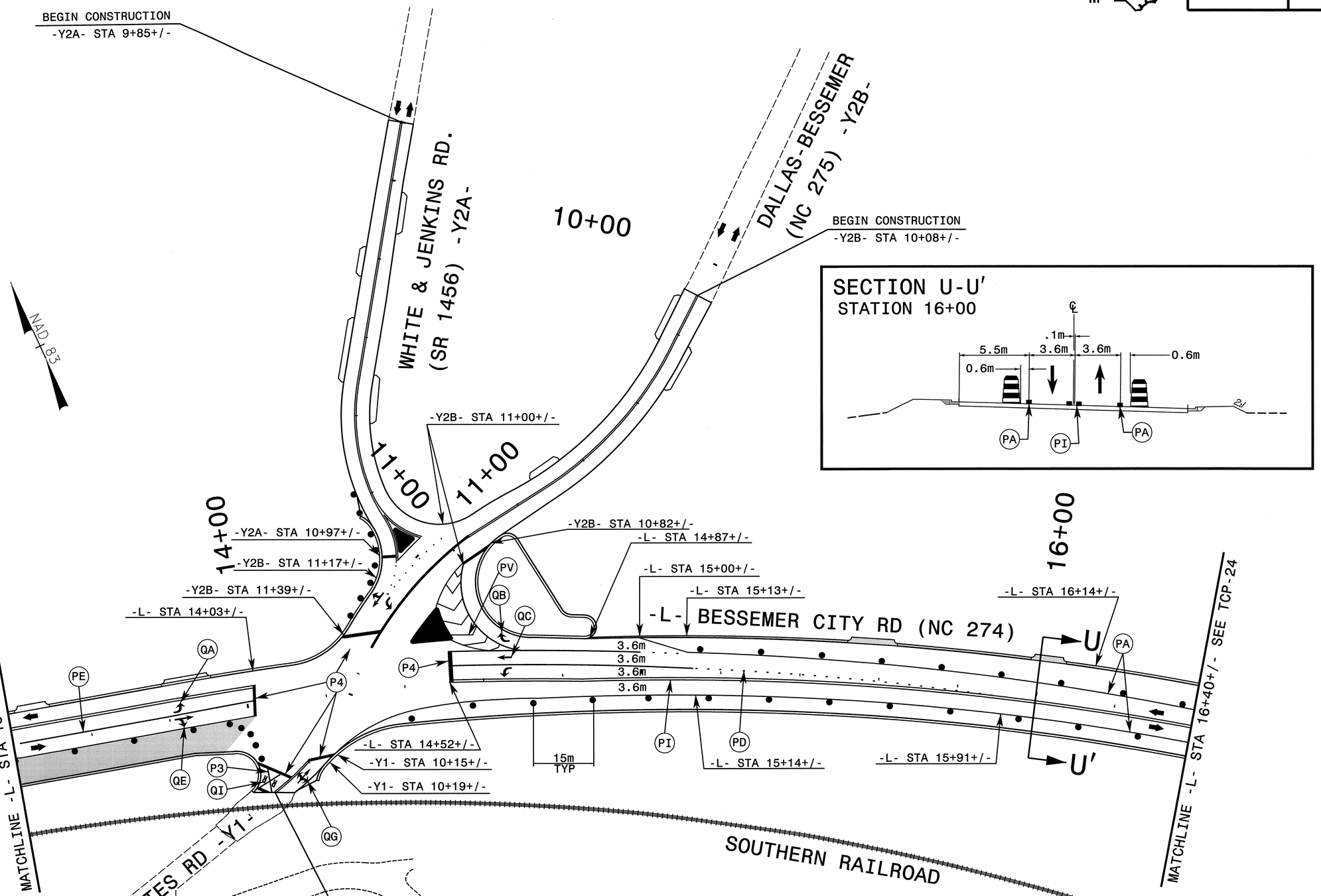
REVISIONS

CADD FILE


$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$DGNFILE$$$$
$$$$DATE$$$$
$$$$TIME$$$$
$$$$DGNFILE$$$$
$$$$USERNAME$$$$
$$$$SYSTIME$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-23 |

METRIC

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEYIDEH S. ASEFNIA

9-8-05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, NORTH CAROLINA

REVISIONS

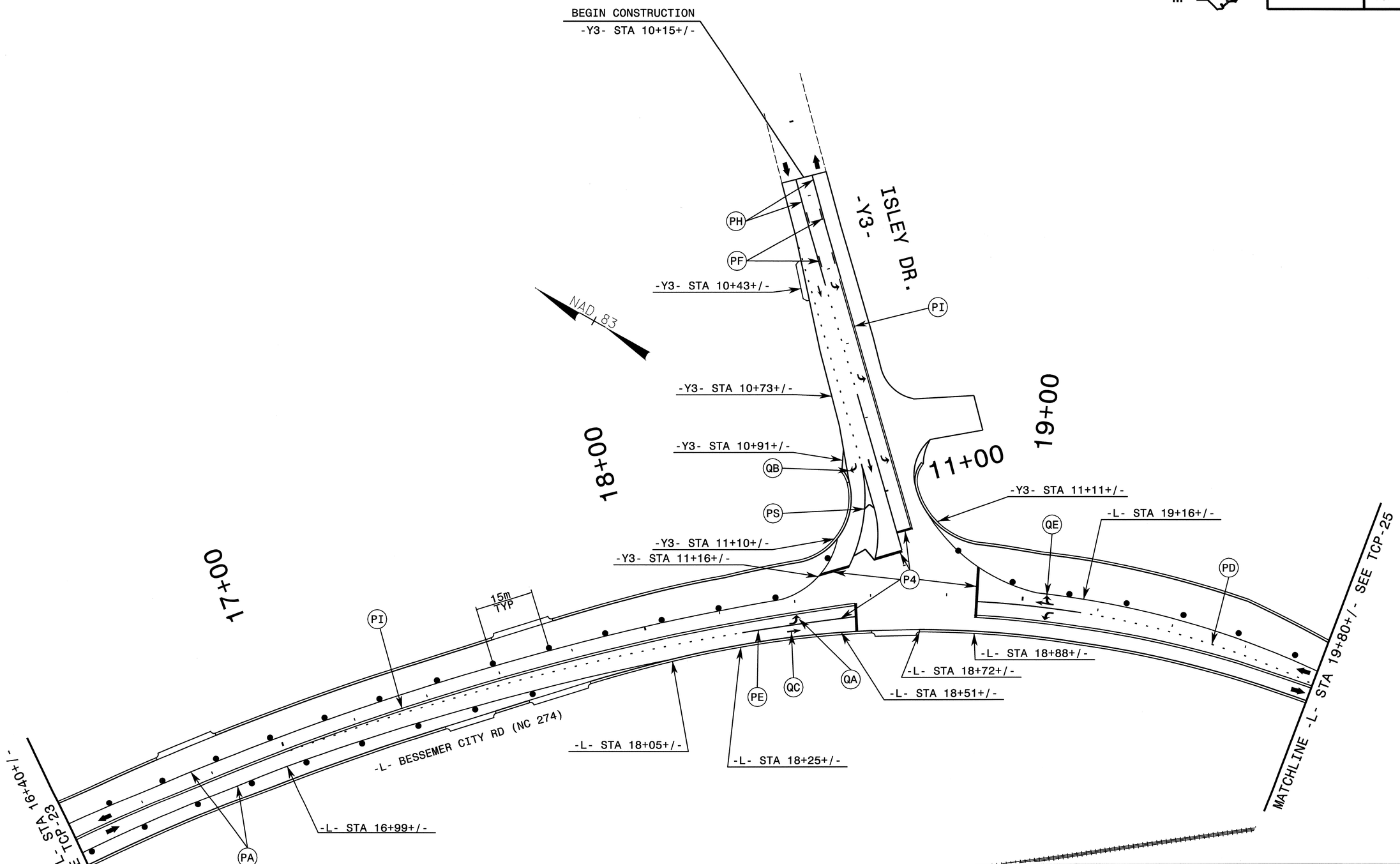
CADD FILE

$$$$$SYSTIME$$$$$
$$$$$DGN$$$$$
$$$$$USERNAME$$$$$

\\tcd\Proje 11\U2408\tcp23.psm 9/6/2005 7:56:27 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-24 |

METRIC

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/22/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
DESIGN BUILD TEAM
TRANSPORTATION BUILDING
RALEIGH, N.C. 27601
DEPARTMENT OF TRANSPORTATION

REVISIONS

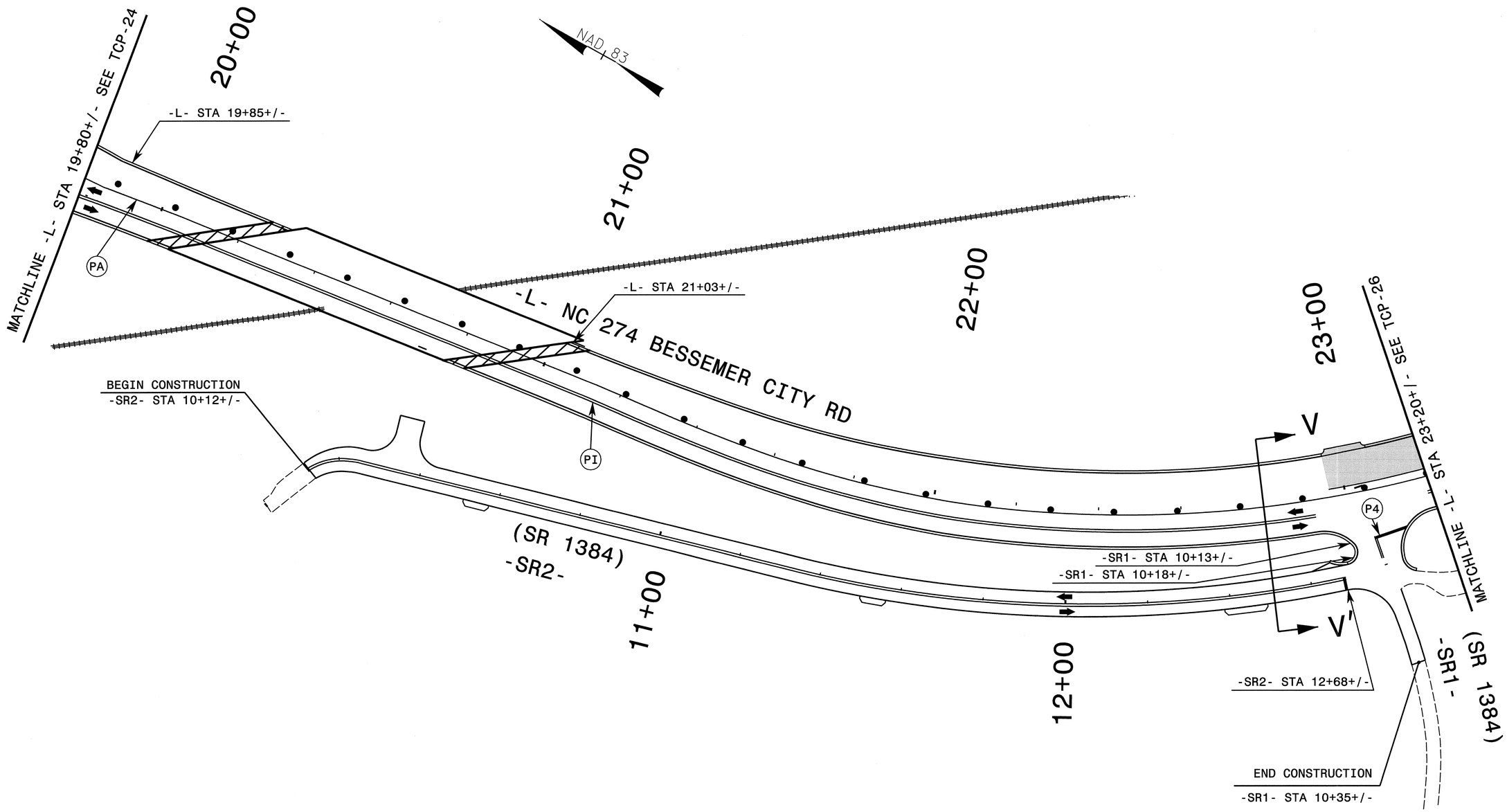
CADD FILE

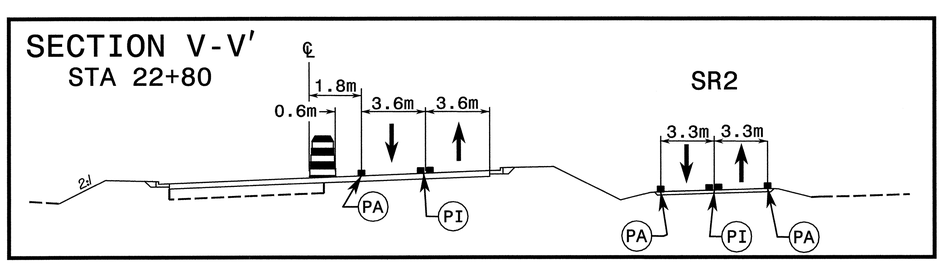
$$$$$SYSTIME$$$$$
$$$$$DGN$$$$$
$$$$$USERNAME$$$$$

...\TCP\Proj\ase 11\u2408tcp24.pat 8/22/2005 8:02:59 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-25 |

METRIC

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASENIN

3/23/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRANSPORTATION MOBILITY AND SAFETY DIVISION
TRAFFIC ENGINEERING & TRANSPORTATION MANAGEMENT
TRAFFIC CONTROL

REVISIONS

CADD FILE

$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$USERNAME$$$$

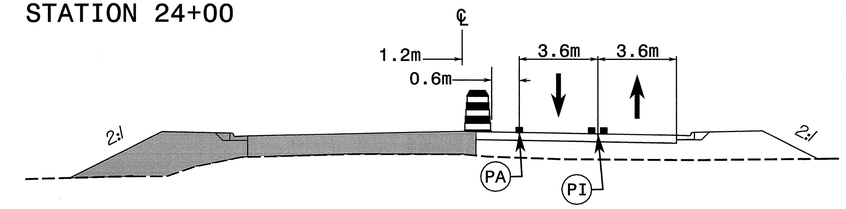
..\TCP\Phase II\u2408tcp25.psh 8/22/2005 8:02:20 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-26 |

METRIC

NAD 83

## SECTION W-W'
STATION 24+00




24+00

25+00

26+00

TYPE III BARRICADE

TYPE III BARRICADE

SOUTHERN RAILROAD

240m SHIFT TAPER

-L- BESSEMER CITY RD (NC 274)

W

W'

X

X'

MATCHLINE -L- STA 23+20+/- SEE TCP-25

MATCHLINE -L- 26+80+/- SEE TCP-27

PA

-Y4- STA 10+10+/-

-L- STA 25+57+/-

-L- STA 25+68+/-

-L- STA 26+24+/-

PI

PV

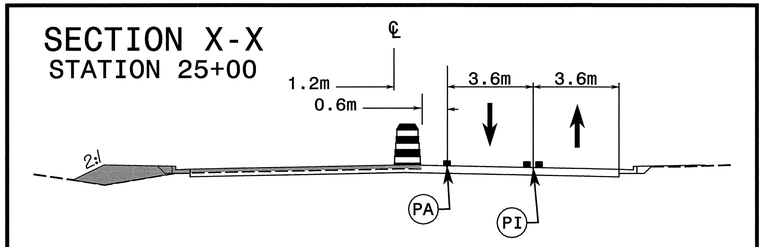
QA

QB

DELTA DR.
-Y4-

END CONSTRUCTION
-Y4- STA 10+26+/-

## SECTION X-X
STATION 25+00





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APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRANSPORTATION BUILDER
STATE OF NORTH CAROLINA
TRANSPORTATION MOBILITY AND DEVELOPMENT
TRAFFIC ENGINEERING BRANCH

REVISIONS

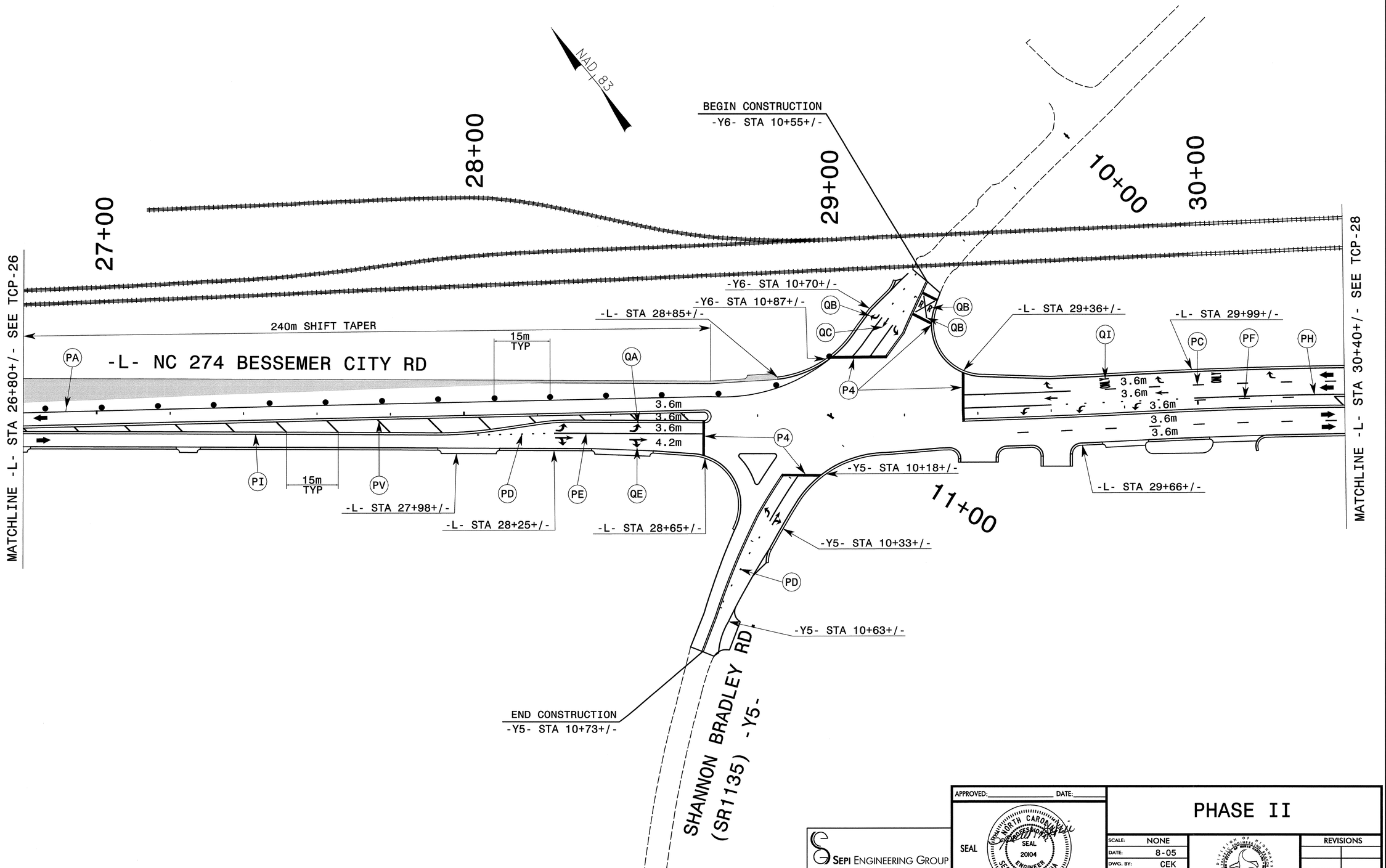
CADD FILE

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$$$

..\TCP\Phase II\u2408tcp26.psh 8/22/2005 8:02:31 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-27 |

METRIC

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASENIA

8/23/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

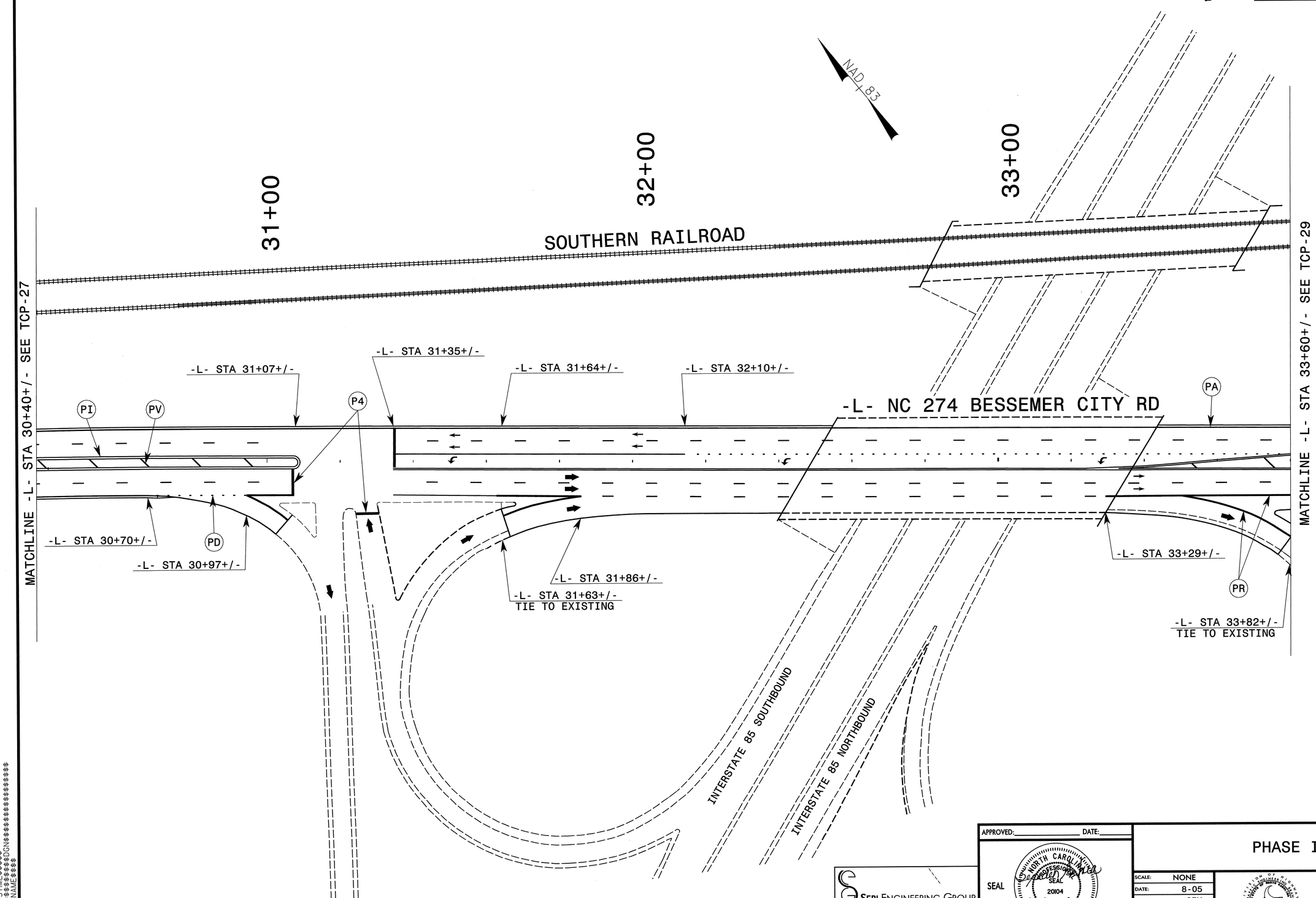
REVISIONS

CADD FILE

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-28 |

METRIC




$$$$SYSTIME$$$$
$$$$VERSION$$$$
$$$$USERNAME$$$$

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Suite 370
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APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER STEPHEN S. ASEFNIA

8/23/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

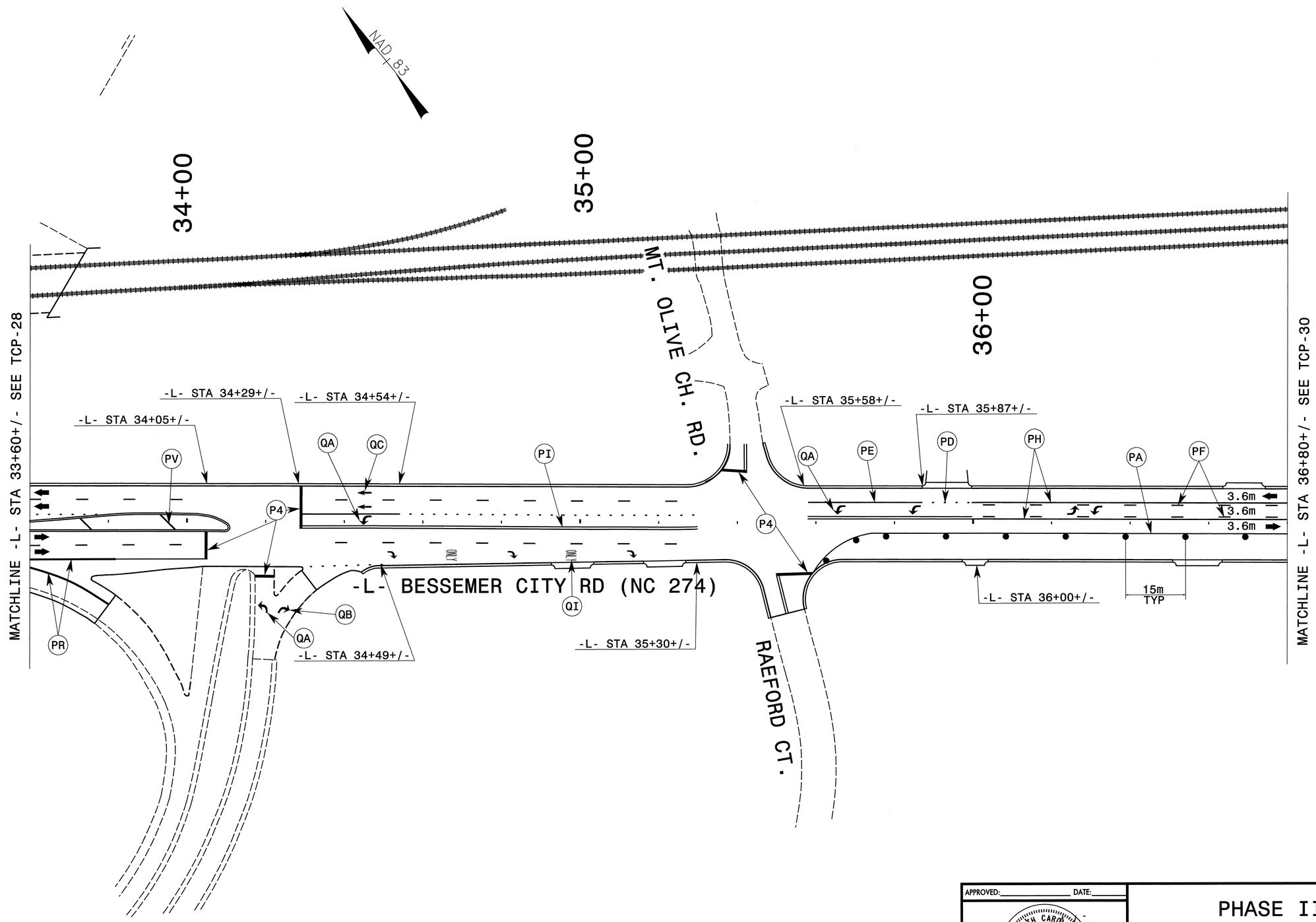
DIVISION OF HIGHWAYS ENGINEERING DIVISION OF NORTH CAROLINA TRANSPORTATION CONTROL

REVISIONS

CADD FILE

...\TCP\Phase 11\u2408tcp28.psh 8/22/2005 8:02:54 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-29 |

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

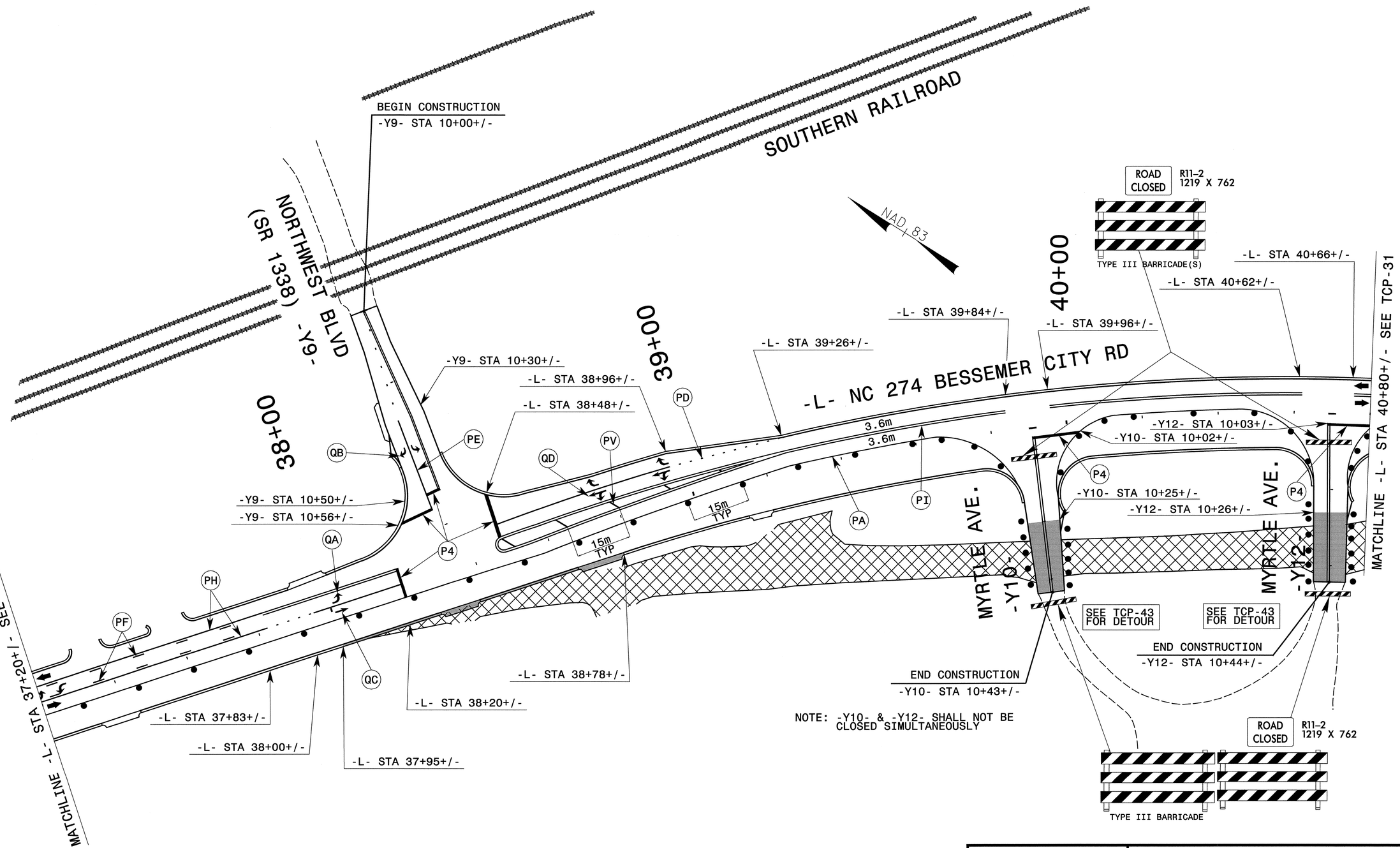
REVISIONS

CADD FILE

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-30 |

METRIC




NOTE: -Y10- & -Y12- SHALL NOT BE CLOSED SIMULTANEOUSLY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NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# PHASE II

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|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
ENGINEERING DIVISION
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

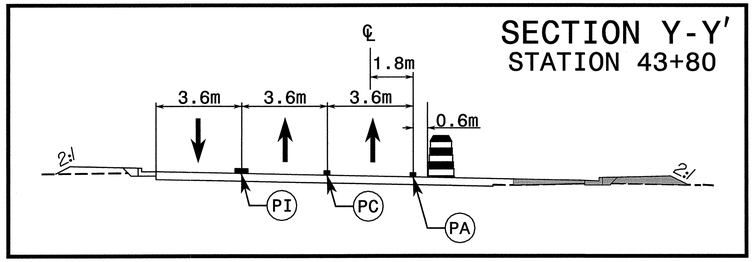
| REVISIONS | |
|---|---|
| | |
| | |
| | |
| CADD FILE | |

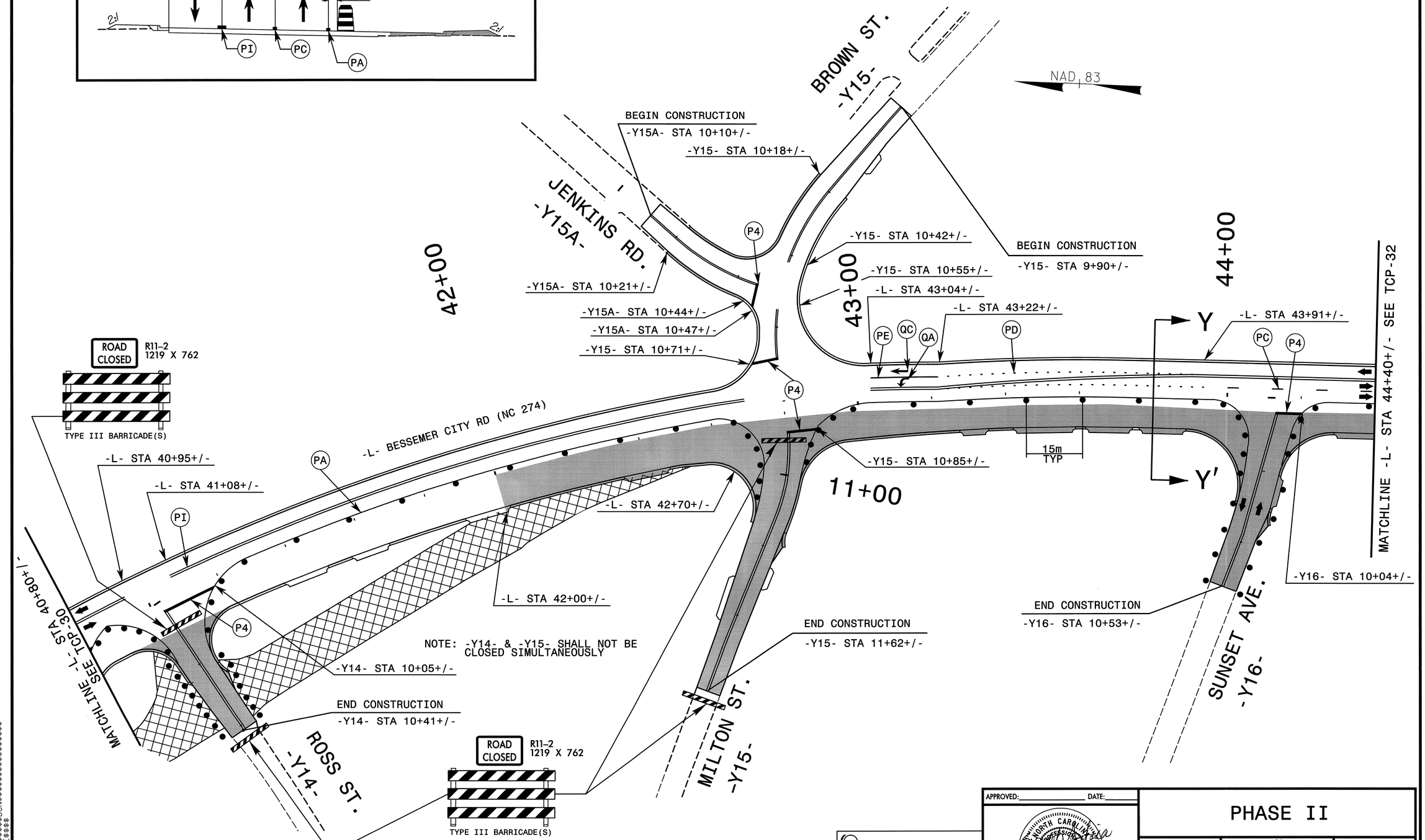
$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$$

\TCP\Phase 1\U2408tcp30.psh 9/22/2005 8:03:13 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-31 |

METRIC

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
TRAFFIC CONTROL UNIT

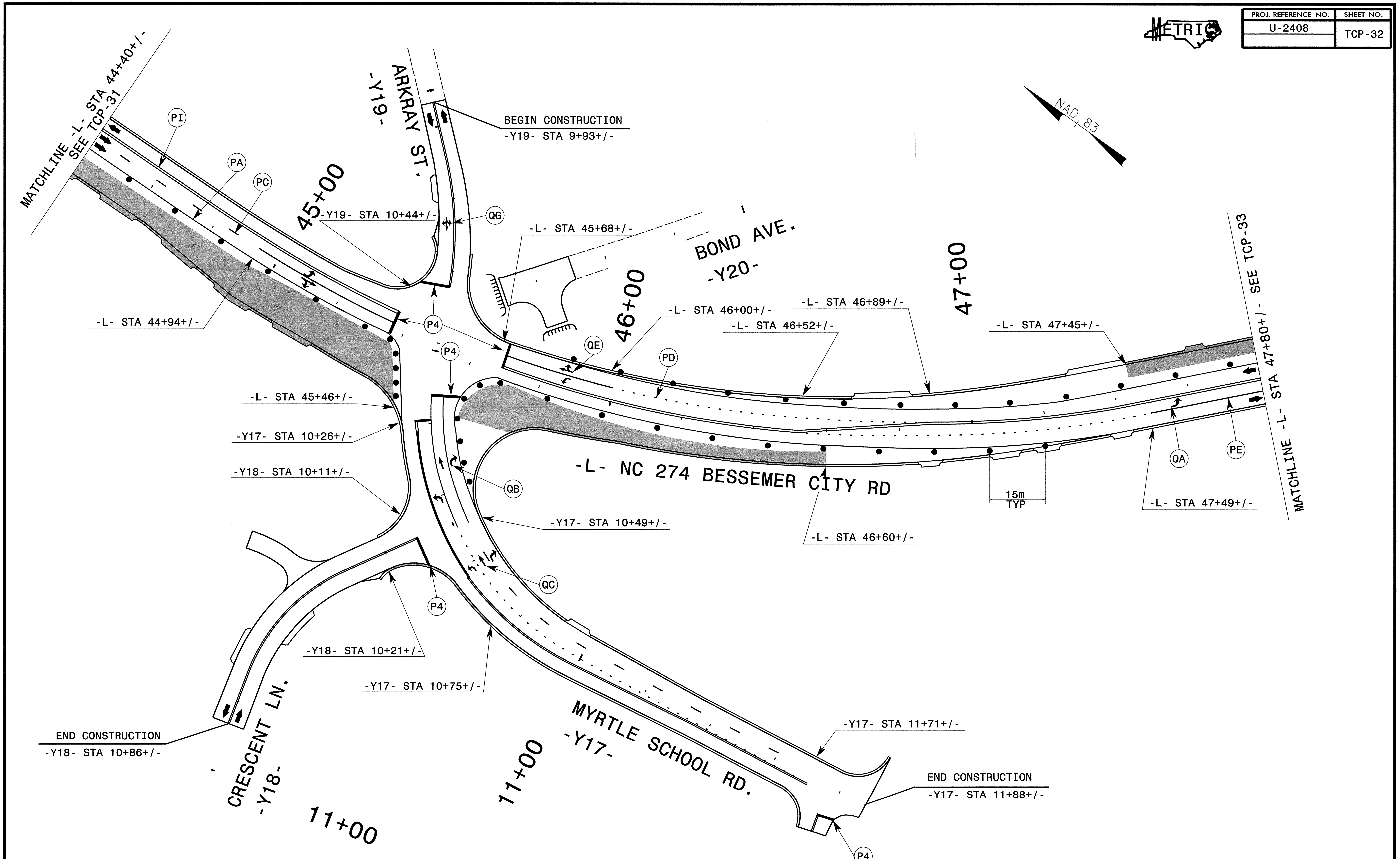
REVISIONS

CADD FILE

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

...\TCP\Phase II\u2408tcp31.psh 8/22/2005 8:03:28 AM

| PROJ. REFERENCE NO. | SHEET NO. |
| --- | --- |
| U-2408 | TCP-32 |




APPROVED:____________ DATE:______

SEAL

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8/23/05

# PHASE II

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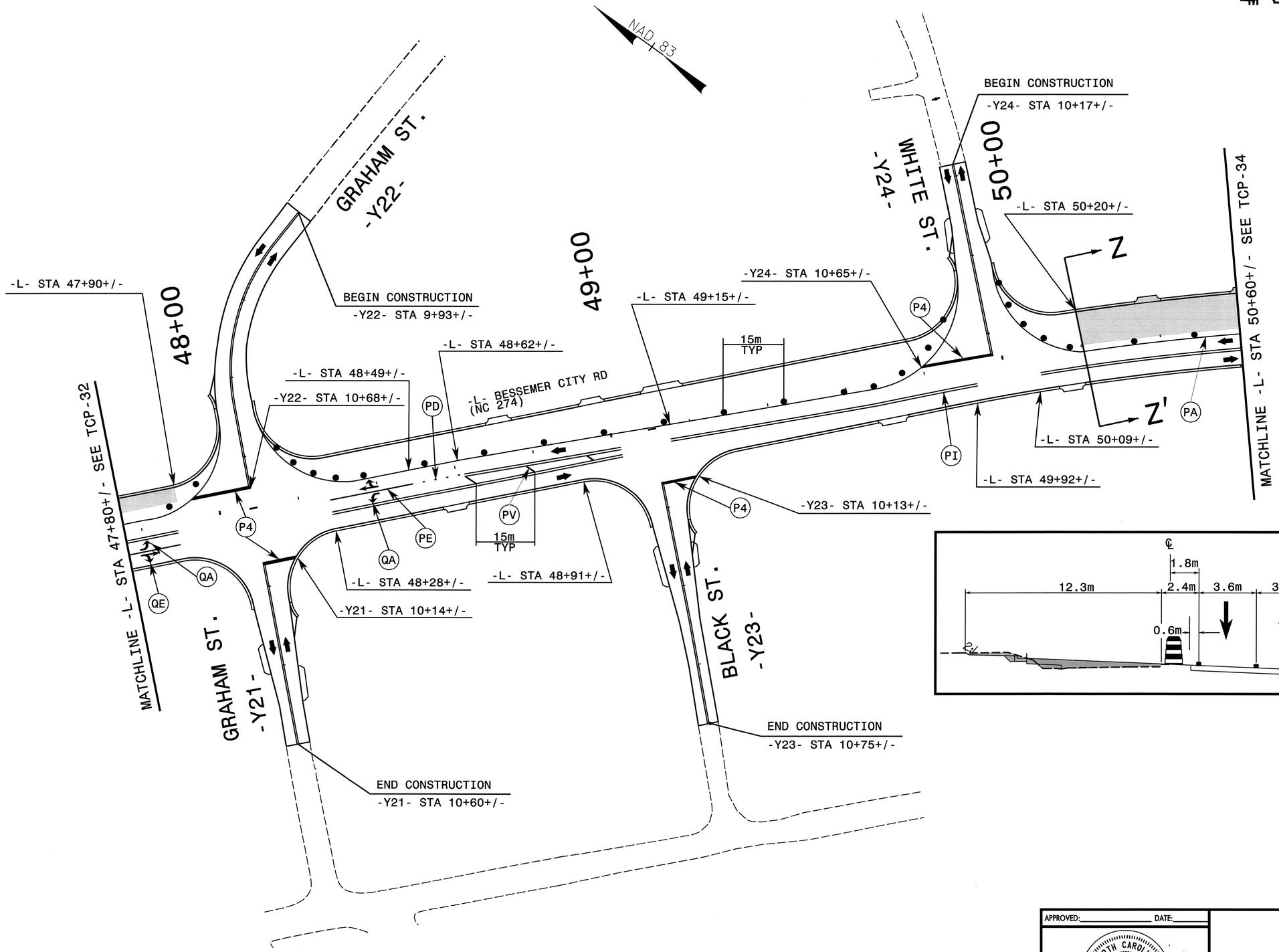
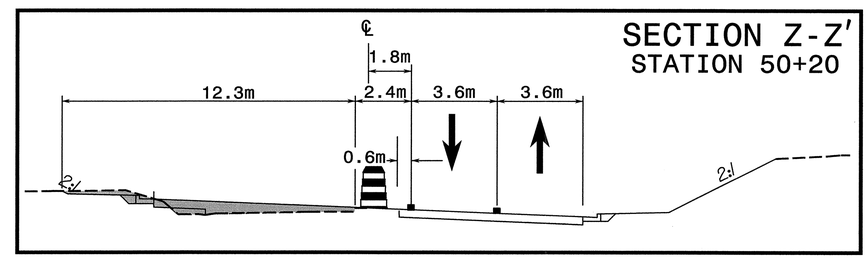
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

REVISIONS

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-33 |

METRIC

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEYDEH S. ASEFNIA

9-8-05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

REVISIONS

CADD FILE

$$$$$$SYSTIME$$$$$$
$$$$$$DGN$$$$$$
$$$$$$USERNAME$$$$$$

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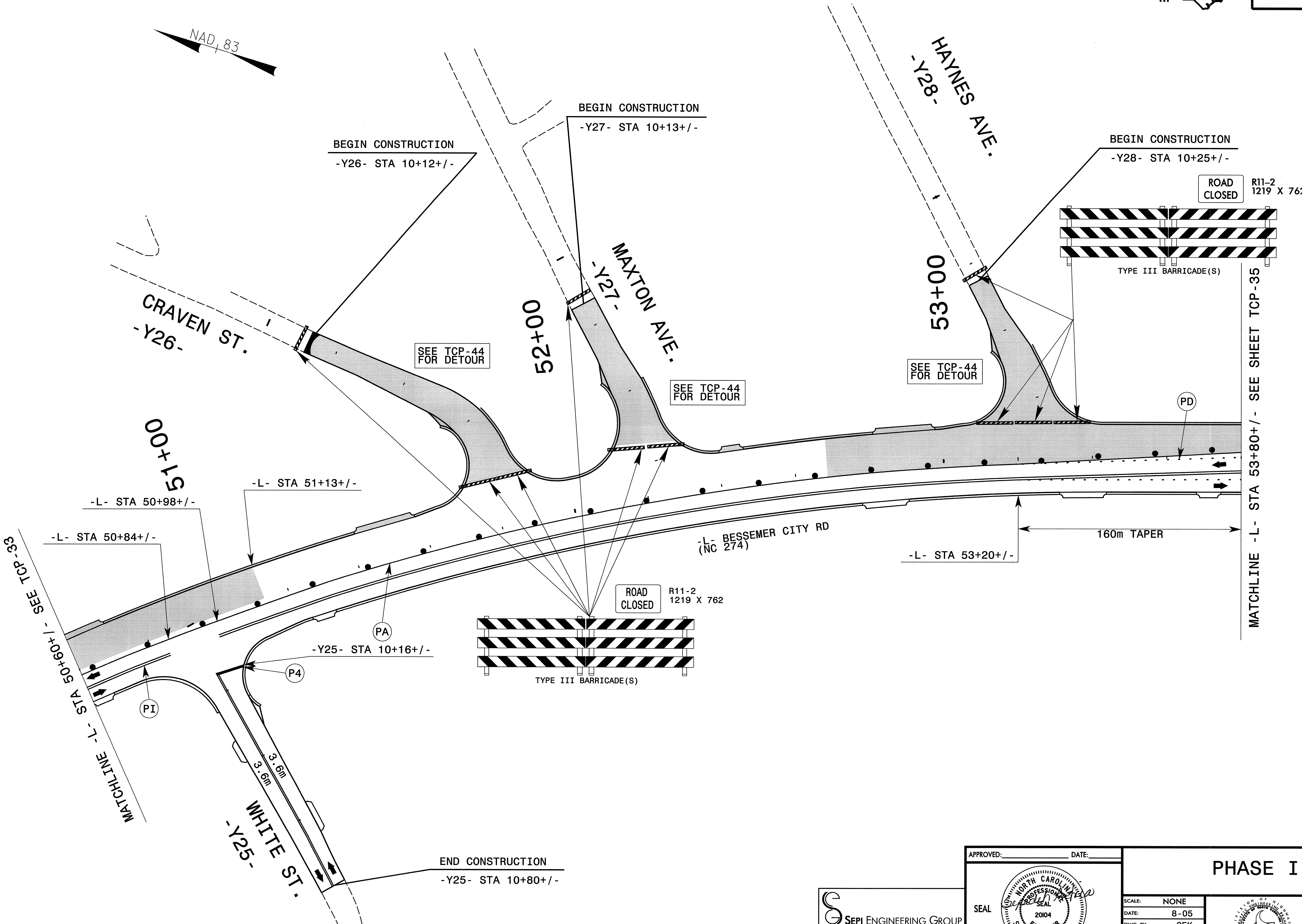
| PROJ. REFERENCE NO. | SHEET NO. |
| --- | --- |
| U-2408 | TCP-34 |

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEMDEH S. ASEFNIA

8/23/05

# PHASE II

| SCALE: | NONE |
| --- | --- |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

REVISIONS

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-35 |

METRIC

NAD 83

MATCHLINE -L- STA 53+80+/- SEE TCP-35

54+00

55+00

56+00

57+00

11+00

11+00

12+00

OVERMAN AVE. (-Y29-)

FRANKLIN BLVD. (US 29-74) -Y30-

FRANKLIN BLVD. (US 29-74) -Y30-

BEGIN CONSTRUCTION
-Y29- STA 10+72+/-

-L- STA 54+80+/-

-Y29- STA 11+16+/-

-L- STA 55+60+/-

160m TAPER

-L- NC 274 BESSEMER CITY RD

25m

25m

AA

AA'

3.6m

3.6m

W4-2R
1219 x 1219
STA 56+24+/-

PA

PD

PI

PC

P4

QC

PE

QE

QA

-L- STA 54+65+/-

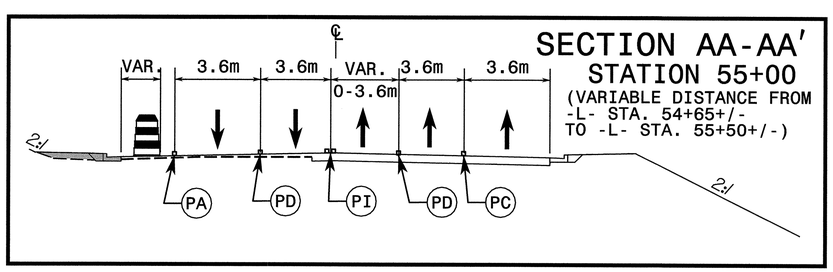
-L- STA 55+50+/-

-L- STA 56+30+/-

-L- STA 56+35+/-

END STATE PROJECT U-2408
-L- STA. 56+46.896

## SECTION AA-AA'
## STATION 55+00
(VARIABLE DISTANCE FROM -L- STA. 54+65+/- TO -L- STA. 55+50+/-)

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# PHASE II

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRAFFIC CONTROL

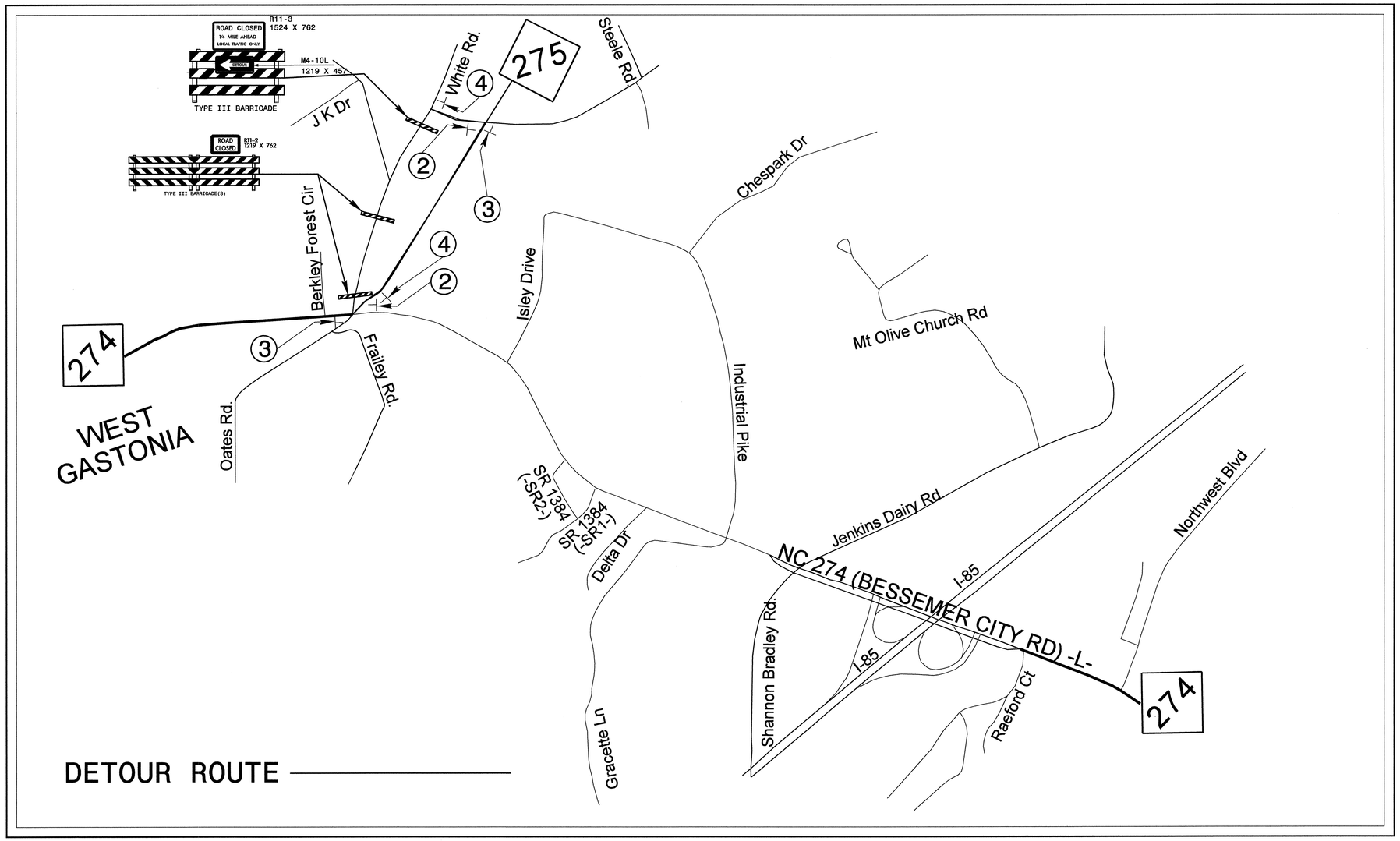
REVISIONS

CADD FILE

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

\TCP\Phase II\u2408tcp35.psm 8/22/2005 8:24:07 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-36 |



* DETOUR M4-8 600 x 300

M6-3 533 X 381

①

* DETOUR M4-8 600 x 300

M6-1R 533 X 381

②

* DETOUR M4-8 600 x 300

M6-1L 533 X 381

③

END DETOUR M4-8A 1200 X 450

④

* SEE SIGN DESIGN SHEET FOR DIMENSIONS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STATE OF NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# -Y2A- JENKINS WHITE RD DETOUR MAP

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
DEPARTMENT OF TRANSPORTATION
STATE OF NORTH CAROLINA
TRAFFIC ENGINEERING BRANCH
TRAFFIC CONTROL UNIT

| REVISIONS | |
|---|---|
| | |
| | |
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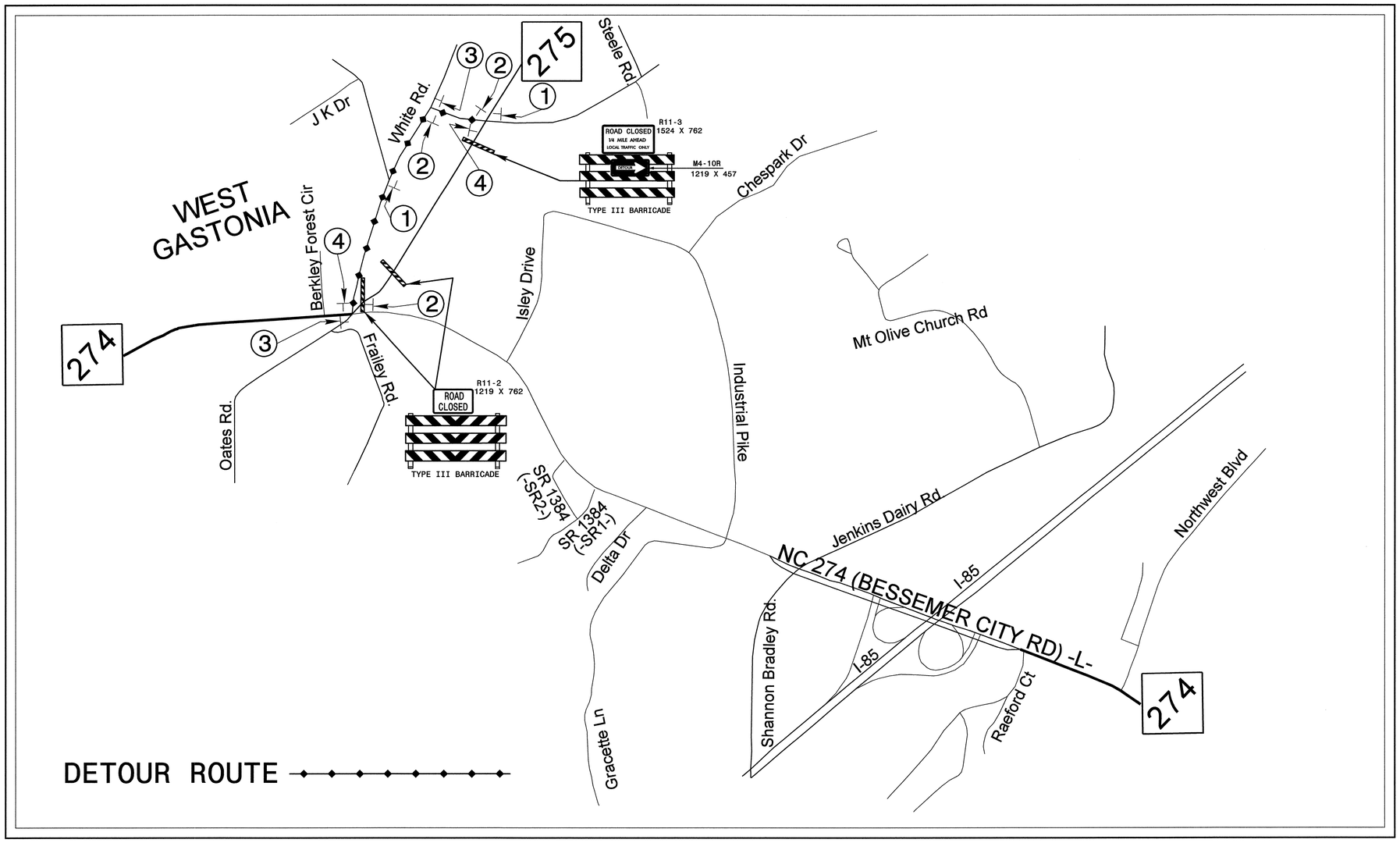
| CADD FILE | |

...\TCP&PMP\TCP\detour.dgn 8/22/2005 8:07:53 AM

$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$
$$$$$$DGN$$$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-37 |




DALLAS–BESSEMER CITY RD *

DETOUR M4–8 600 x 300

M6–3 533 X 381

①

DALLAS–BESSEMER CITY RD *

DETOUR M4–8 600 x 300

M6–1R 533 X 381

②

DALLAS–BESSEMER CITY RD *

DETOUR M4–8 600 x 300

M6–1L 533 X 381

③

END DETOUR M4–8A 1200 X 450

④

* SEE SIGN DESIGN SHEET FOR DIMENSIONS

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NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# -Y2B- DALLAS-BESSEMER CITY RD DETOUR MAP

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8–05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
DIVISION OF ENGINEERS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL

REVISIONS

CADD FILE

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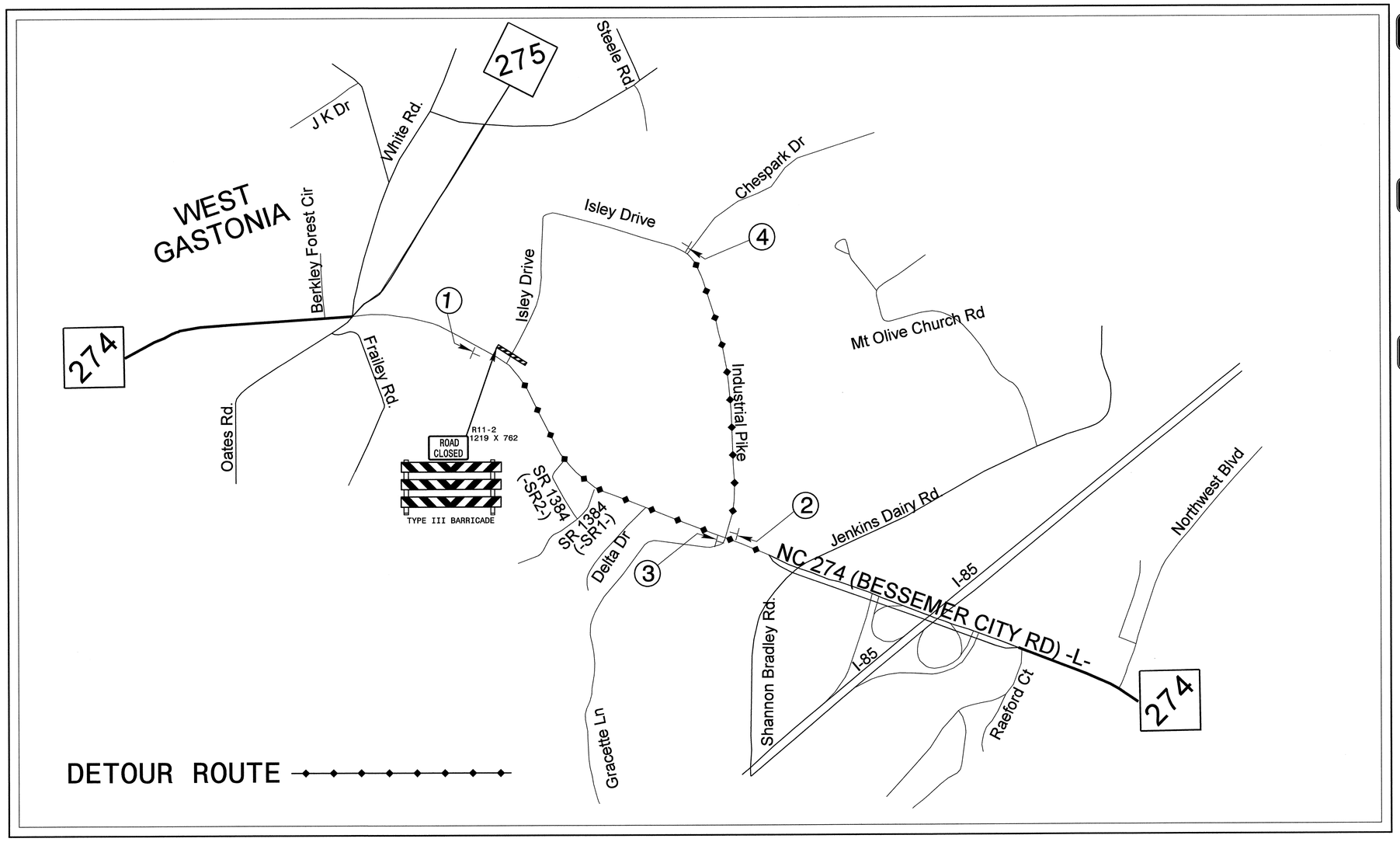
SYSTIME$$$$$$$$
USERNAME$$$$$$$$
DGNSPACE$$$$$$$$
DGNFILE$$$$$$$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-38 |




**ISLEY RD** *

DETOUR — M4-8, 600 x 300

M6-3, 533 X 381

①

**ISLEY RD** *

DETOUR — M4-8, 600 x 300

M6-1R, 533 X 381

②

**ISLEY RD** *

DETOUR — M4-8, 600 x 300

M6-1L, 533 X 381

③

END DETOUR — M4-8A, 1200 X 450

④

* SEE SIGN DESIGN SHEET FOR DIMENSIONS


SEPI ENGINEERING GROUP
2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591


APPROVED:_____ DATE:_____

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# -Y3- ISLEY DR DETOUR MAP

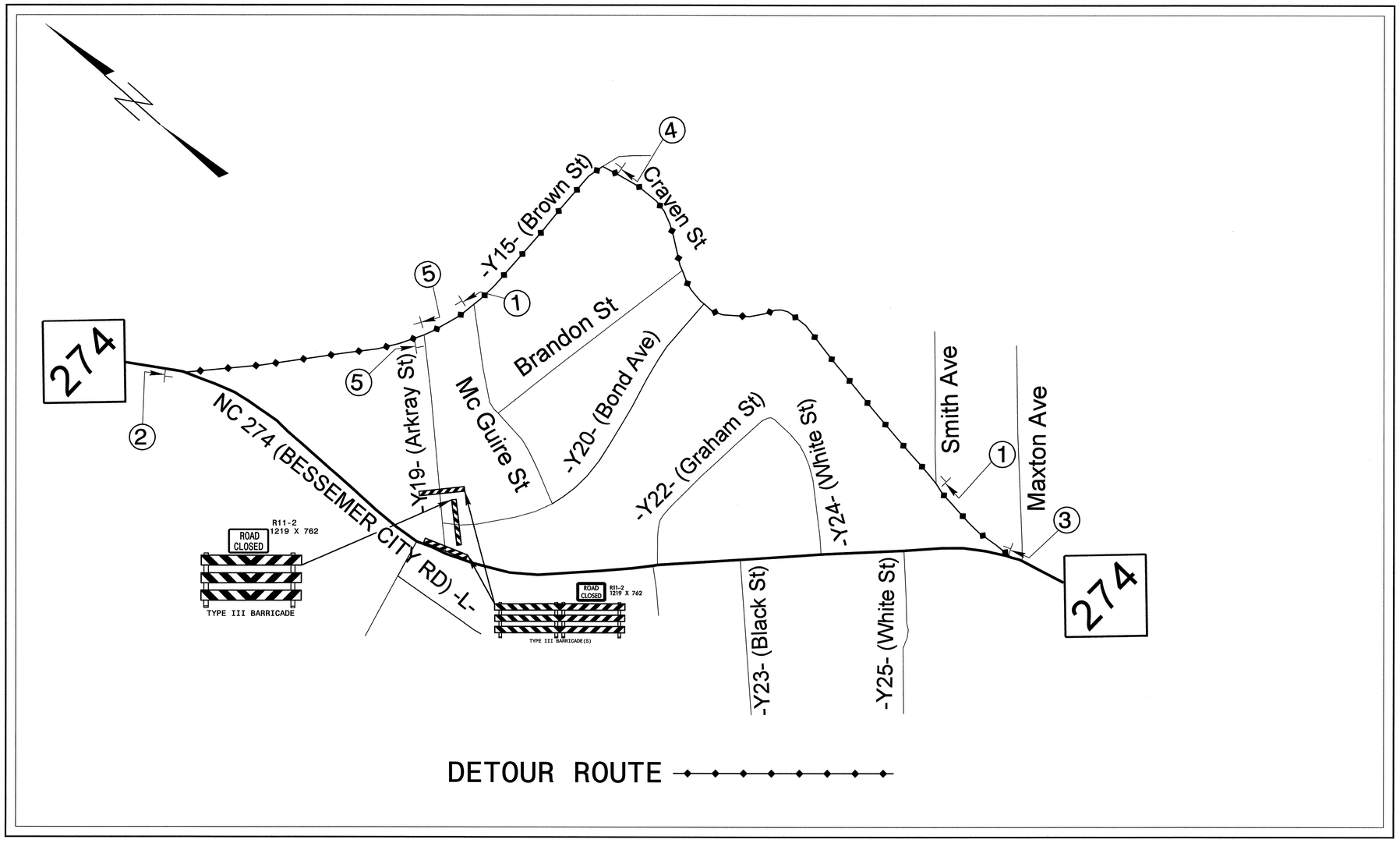
| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS — TRAFFIC ENGINEERING BRANCH — TRAFFIC CONTROL

REVISIONS

CADD FILE

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-39 |




**ARKRAY ST** *

DETOUR M4-8 600 x 300

M6-3 533 X 381

①

**ARKRAY ST** *

DETOUR M4-8 600 x 300

M6-2L 533 X 381

②

**ARKRAY ST** *

DETOUR M4-8 600 x 300

M6-2R 533 X 381

③

**ARKRAY ST** *

DETOUR M4-8 600 x 300

M6-1L 533 X 381

④

END DETOUR M4-8A 1200 X 450

⑤

* SEE SIGN DESIGN SHEET FOR DIMENSIONS


SEPI ENGINEERING GROUP
2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591


APPROVED:_____ DATE:_____

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEYDEH S. ASEFNIA

8/23/05

# -Y19- ARKRAY ST DETOUR MAP

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS ENGINEERING DIVISION TRAFFIC CONTROL

REVISIONS

CADD FILE

SYSTIME DGN DESIGNTIME

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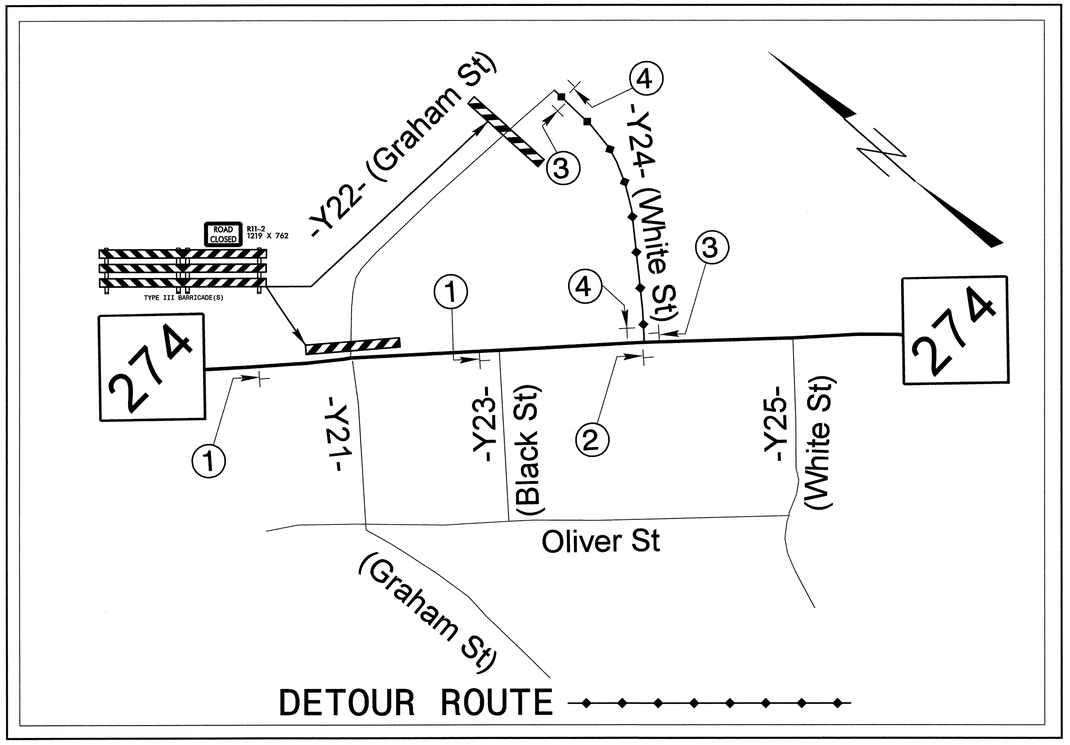
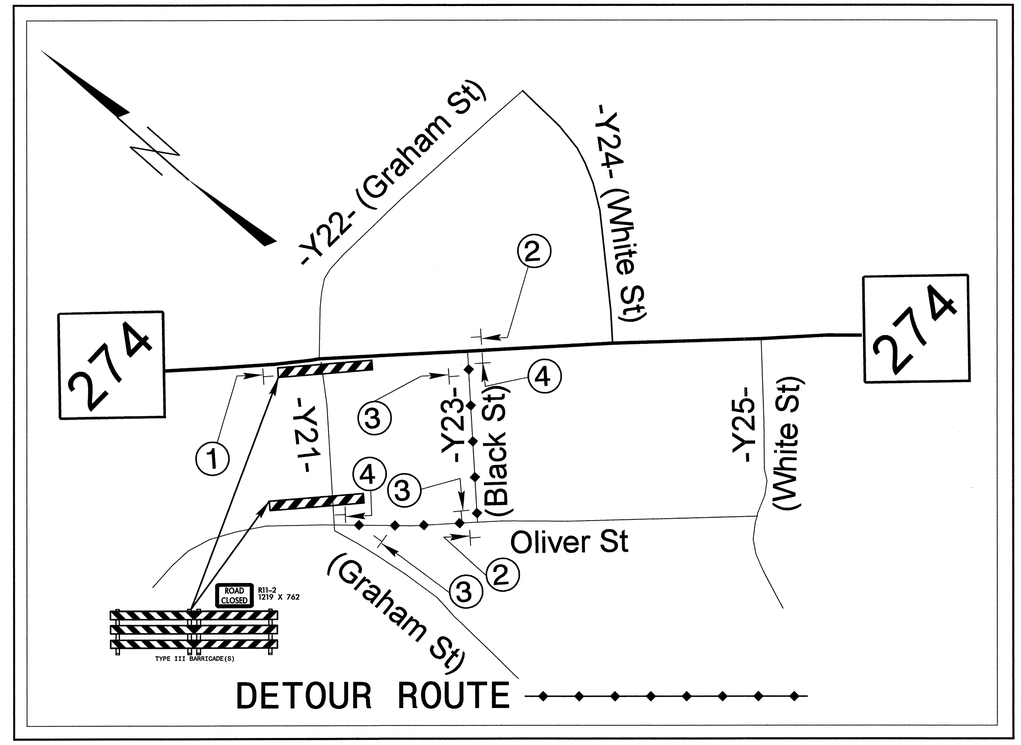
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-40 |




**GRAHAM ST**
DETOUR — M4-8, 600 x 300
M6-3, 533 X 381
①

**GRAHAM ST**
DETOUR — M4-8, 600 x 300
M6-1L, 533 X 381
②

**GRAHAM ST**
DETOUR — M4-8, 600 x 300
M6-1R, 533 X 381
③

END DETOUR — M4-8A, 1200 X 450
④

* SEE SIGN DESIGN SHEET FOR DIMENSIONS


SEPI ENGINEERING GROUP
2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591


APPROVED:_____ DATE:_____

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA
8/23/05

# -Y21- & -Y22- GRAHAM ST DETOUR MAP

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

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$$$$$$$$USERNAME$$$$$$$$
$$$$$$$$DGN$$$$$$$$

$$$$$$$$DRIVE$$$$$$$$
$$$$$$$$PATH$$$$$$$$
$$$$$$$$FILENAME$$$$$$$$

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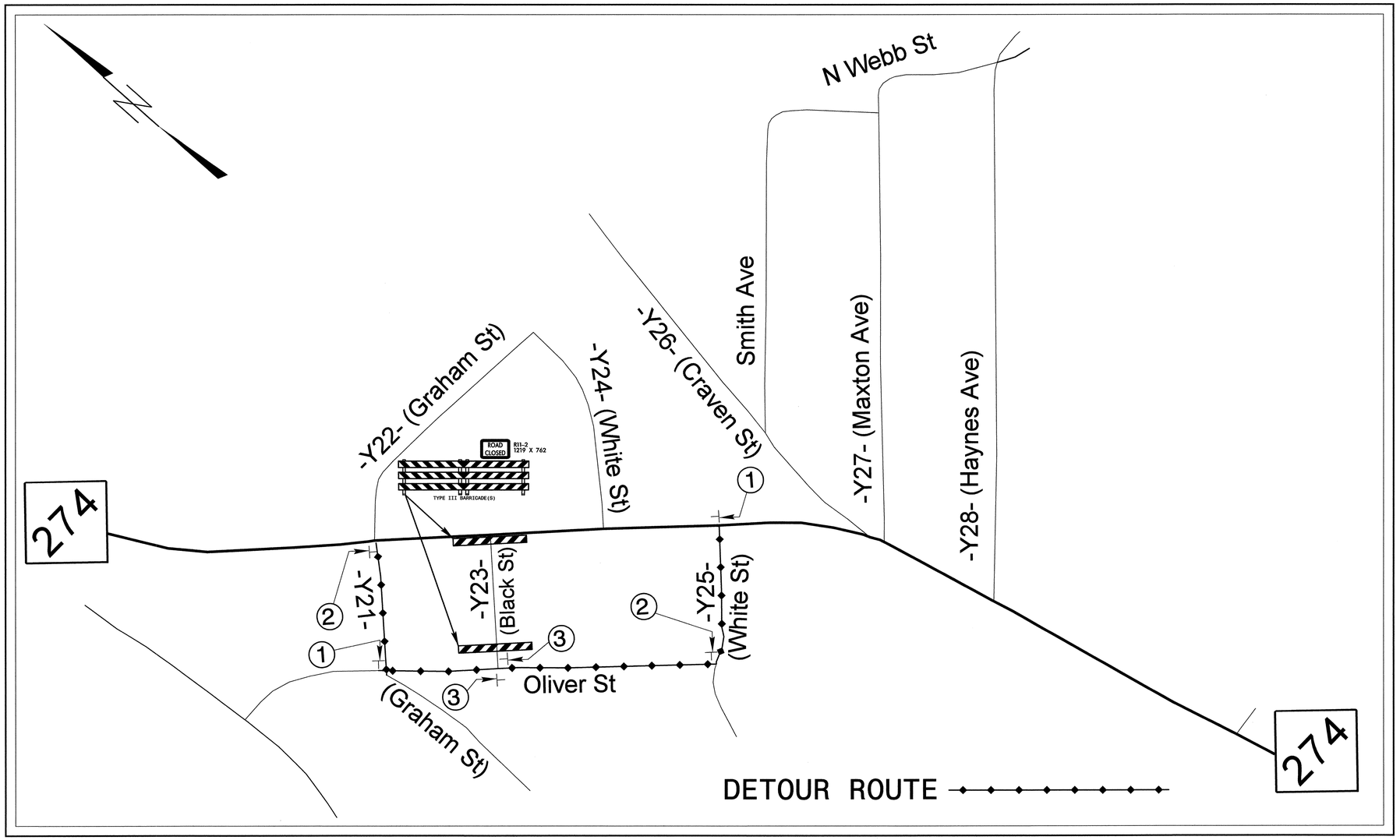
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-41 |




**BLACK ST**

DETOUR — M4-8, 600 x 300

M6-1L, 533 X 381

①

**BLACK ST**

DETOUR — M4-8, 600 x 300

M6-1R, 533 X 381

②

END DETOUR — M4-8A, 1200 X 450

③

* SEE SIGN DESIGN SHEET FOR DIMENSIONS


SEPI ENGINEERING GROUP
2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591


APPROVED: _____ DATE: _____

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEYDEH S. ASEFNIA

8/23/05

# -Y23- BLACK ST DETOUR MAP

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS — STATE OF NORTH CAROLINA — DEPARTMENT OF TRANSPORTATION — TRAFFIC CONTROL UNIT

REVISIONS

CADD FILE

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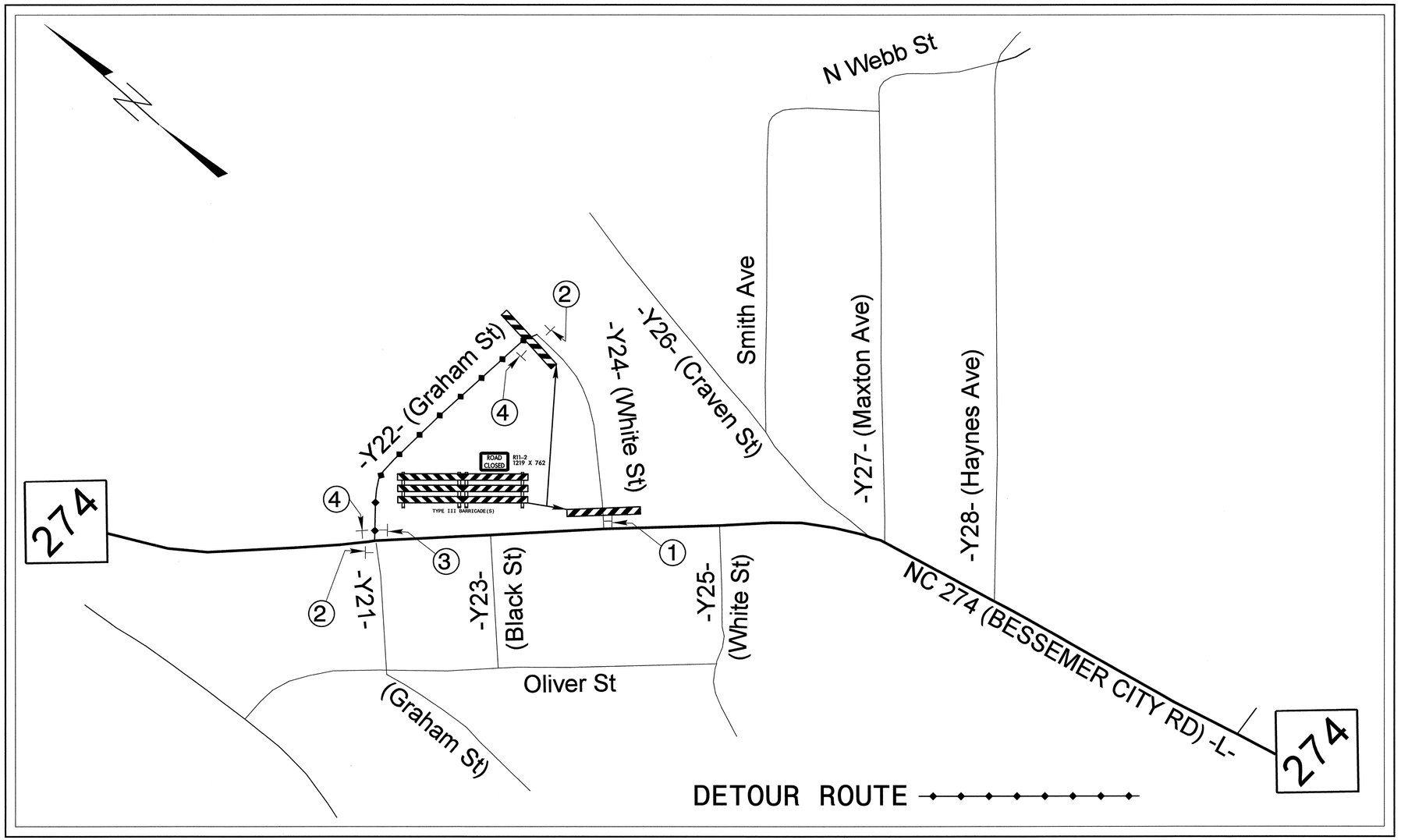
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-42 |




**WHITE ST**

DETOUR M4-8 600 x 300

M6-3 533 X 381

①

**WHITE ST**

DETOUR M4-8 600 x 300

M6-1L 533 X 381

②

**WHITE ST**

DETOUR M4-8 600 x 300

M6-1R 533 X 381

③

END DETOUR M4-8A 1200 X 450

④

* SEE SIGN DESIGN SHEET FOR DIMENSIONS


SEPI ENGINEERING GROUP
2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591


APPROVED:_____ DATE:_____

STATE OF NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# -Y24- WHITE ST DETOUR MAP

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS TRAFFIC ENGINEERING BRANCH TRAFFIC CONTROL UNIT

REVISIONS

CADD FILE

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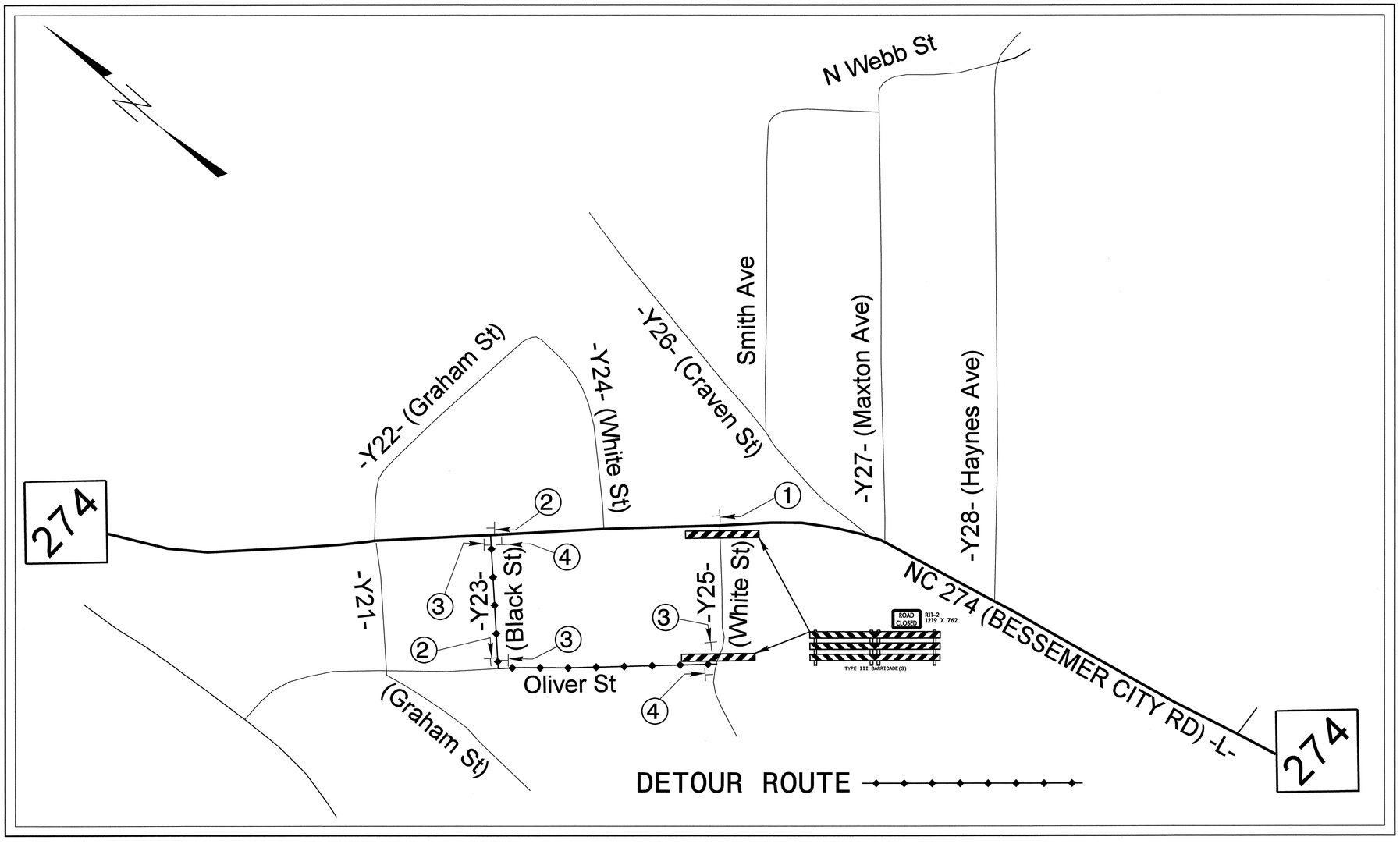
$$SYSTIME$$
$$USERNAME$$

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-43 |




**WHITE ST**

DETOUR — M4-8 600 x 300

M6-3 533 X 381

①

**WHITE ST**

DETOUR — M4-8 600 x 300

M6-1 L 533 X 381

②

**WHITE ST**

DETOUR — M4-8 600 x 300

M6-1 533 X 381

③

END DETOUR — M4-8A 1200 X 450

④

* SEE SIGN DESIGN SHEET FOR DIMENSIONS

SEPI ENGINEERING GROUP
2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# -Y25- WHITE ST DETOUR MAP

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS — TRAFFIC ENGINEERING BRANCH — TRAFFIC CONTROL UNIT — STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

CADD FILE

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$$$$$$DGNFILE$$$$$$
$$$$$$USERNAME$$$$$$

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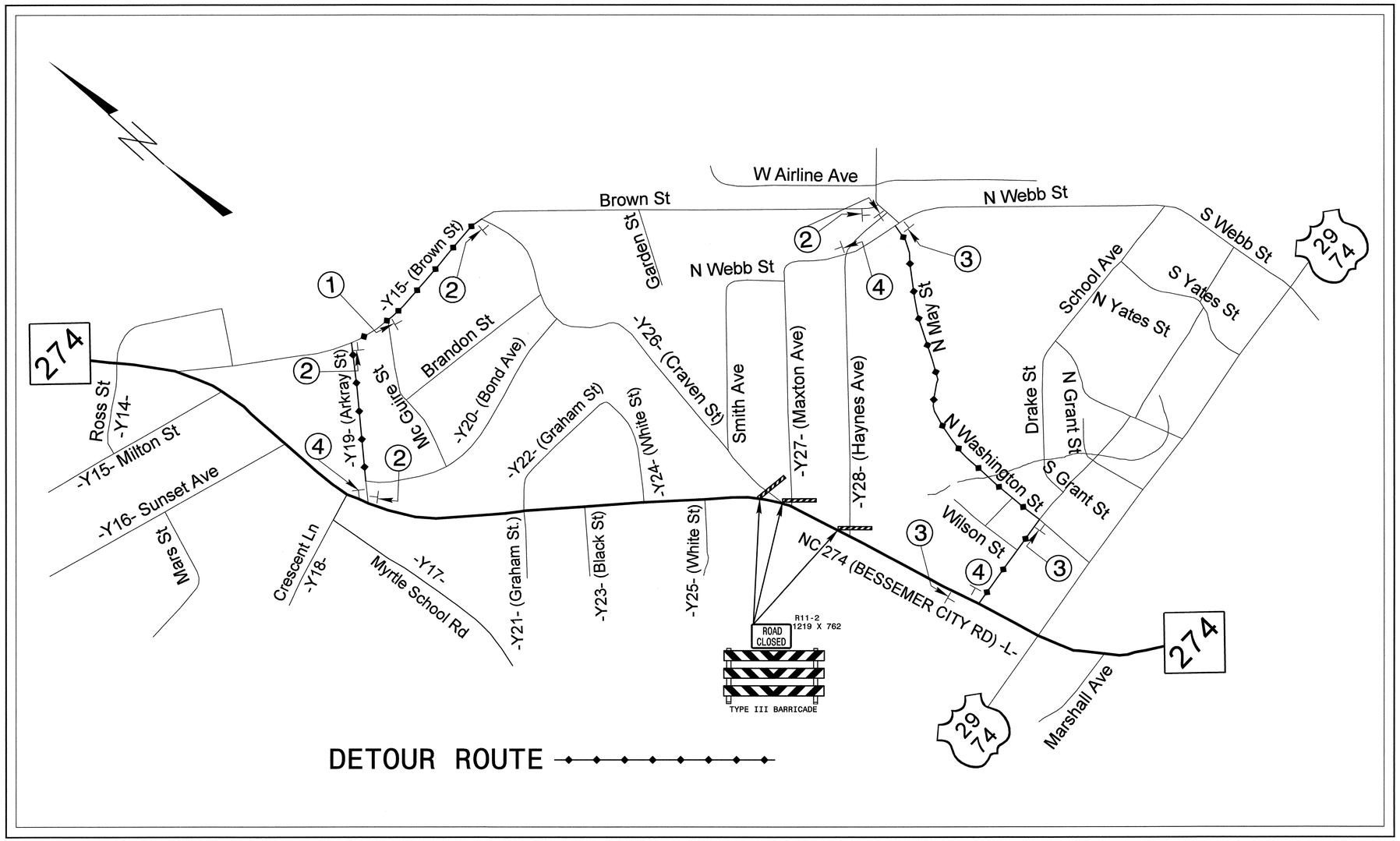
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-44 |




DETOUR M4-8 600 x 300
M6-3 533 X 381
①

DETOUR M4-8 600 x 300
M6-1R 533 X 381
②

DETOUR M4-8 600 x 300
M6-1L 533 X 381
③

END DETOUR M4-8A 1200 X 450
④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2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591


APPROVED: _____ DATE: _____

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SERIDEN S. ASEFNIA

8/23/05

# -Y26-, -Y27- & -Y28- DETOUR MAP

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | RCD |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
CONTROL

REVISIONS

CADD FILE

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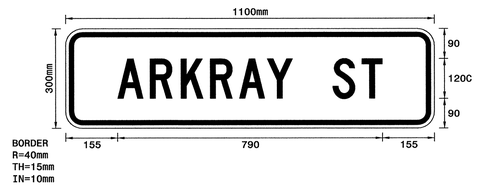
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-45 |

N. C. DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
SIGNING DEPARTMENT

SIGN NUMBER: SP04012
TYPE: D
QUANTITY: 5
SIGN WIDTH: 1100mm
HEIGHT: 300mm
TOTAL AREA: 0.3 Sq.m
BORDER TYPE: FLUSH
RECESS: 10mm
WIDTH: 15mm
RADII: 40mm
NO. Z BARS:
LENGTH:
BACKG COLOR: Orange
COPY COLOR: Black
MAT'L: 0.080" (2.0 mm) ALUMINUM

DESIGN BY: F. MURRAY
PROJECT ID: ID
CHECKED BY:
DIV:
STD #:
DATE: Jan 07,2004




USE NOTES: 2,4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter

| | | | | | | | | | | | | | | | | | | | | | | | | | | | Series/Size Text Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | R | K | R | A | Y | | S | T | | | | | | | | | | | | | | | | | C120 |
| | 155 | 97 | 92 | 87 | 87 | 83 | 76 | 120 | 87 | 61 | 155 | | | | | | | | | | | | | | | | 790 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Spacing Factor is 1 unless specified otherwise

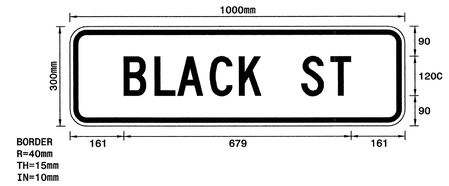
FILENAME: FMU_METRI

NORTH CAROLINA D.O.T. SIGN DETAIL

N. C. DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
SIGNING DEPARTMENT

SIGN NUMBER: SP04013
TYPE: D
QUANTITY: 4
SIGN WIDTH: 1000mm
HEIGHT: 300mm
TOTAL AREA: 0.3 Sq.m
BORDER TYPE: FLUSH
RECESS: 10mm
WIDTH: 15mm
RADII: 40mm
NO. Z BARS:
LENGTH:
BACKG COLOR: Orange
COPY COLOR: Black
MAT'L: 0.080" (2.0 mm) ALUMINUM

DESIGN BY: F. MURRAY
PROJECT ID: ID
CHECKED BY:
DIV:
STD #:
DATE: Jan 07,2004




USE NOTES: 2,4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter

| | | | | | | | | | | | | | | | | | | | | | | | | | | | Series/Size Text Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B | L | A | C | K | | S | T | | | | | | | | | | | | | | | | | | C120 |
| | 161 | 92 | 68 | 97 | 87 | 67 | 120 | 87 | 61 | 161 | | | | | | | | | | | | | | | | | 679 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Spacing Factor is 1 unless specified otherwise

FILENAME: FMU_METRI

NORTH CAROLINA D.O.T. SIGN DETAIL

N. C. DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
SIGNING DEPARTMENT

SIGN NUMBER: SP04011
TYPE: D
QUANTITY: 6
SIGN WIDTH: 1100mm
HEIGHT: 300mm
TOTAL AREA: 0.3 Sq.m
BORDER TYPE: FLUSH
RECESS: 10mm
WIDTH: 15mm
RADII: 40mm
NO. Z BARS:
LENGTH:
BACKG COLOR: Orange
COPY COLOR: Black
MAT'L: 0.080" (2.0 mm) ALUMINUM

DESIGN BY: F. MURRAY
PROJECT ID: ID
CHECKED BY:
DIV:
STD #:
DATE: Jan 07,2004

USE NOTES: 2,4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter

| | | | | | | | | | | | | | | | | | | | | | | | | | | | Series/Size Text Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | G | R | A | H | A | M | | S | T | | | | | | | | | | | | | | | | | C120 |
| | 147 | 92 | 87 | 97 | 87 | 97 | 79 | 120 | 87 | 61 | 147 | | | | | | | | | | | | | | | | 807 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Spacing Factor is 1 unless specified otherwise

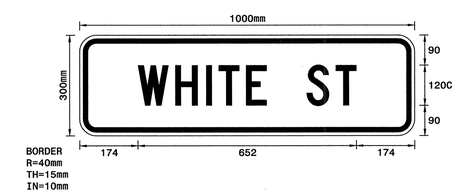
FILENAME: FMU_METRI

NORTH CAROLINA D.O.T. SIGN DETAIL

N. C. DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
SIGNING DEPARTMENT

SIGN NUMBER: SP04010
TYPE: D
QUANTITY: 6
SIGN WIDTH: 1000mm
HEIGHT: 300mm
TOTAL AREA: 0.3 Sq.m
BORDER TYPE: FLUSH
RECESS: 10mm
WIDTH: 15mm
RADII: 40mm
NO. Z BARS:
LENGTH:
BACKG COLOR: Orange
COPY COLOR: Black
MAT'L: 0.080" (2.0 mm) ALUMINUM

DESIGN BY: F. MURRAY
PROJECT ID: ID
CHECKED BY:
DIV:
STD #:
DATE: Jan 07,2004




USE NOTES: 2,4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter

| | | | | | | | | | | | | | | | | | | | | | | | | | | | Series/Size Text Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | W | H | I | T | E | | S | T | | | | | | | | | | | | | | | | | | C120 |
| | 174 | 112 | 92 | 37 | 82 | 61 | 120 | 87 | 61 | 174 | | | | | | | | | | | | | | | | | 652 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Spacing Factor is 1 unless specified otherwise

FILENAME: FMU_METRI

NORTH CAROLINA D.O.T. SIGN DETAIL

APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# DETOUR SIGN LAYOUT

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
TRAFFIC CONTROL

REVISIONS

CADD FILE

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$$$

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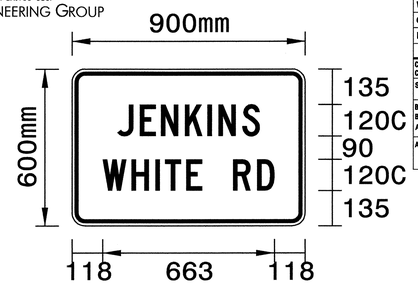
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-46 |

METRIC

2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591
SEPI ENGINEERING GROUP

| | |
|---|---|
| SIGN NUMBER: SEPI SPECIAL SIGN #1 | STANDARD #: N/A |
| SIGN TYPE: D | DATE: Aug 04,2004 |
| W x H: 900mm x 600mm | AREA: 0.5 Sq.m |
| QUANTITY: 5 | DES BY: CEK |
| MOUNTING: GROUND | CHK BY: RCD |

COPY & BORDER: TYPE III DIRECT APPLIED REFLECTIVE SHEETING
COPY & BORDER COLOR: Black
SHIELDS & ARROWS: TYPE III REFLECTIVE SHEETING ON 0.032" (0.8mm) ALUMINUM AND DEMOUNTABLE
BACKGROUND: TYPE III REFLECTIVE SHEETING
BACKGROUND COLOR: Orange
ALUMINUM THICKNESS: 0.125" (3.2mm)
ADDITIONAL NOTES:




BORDER
R=40mm
TH=15mm
IN=10mm

| SYMBOL | X | Y | WID | HT |
|---|---|---|---|---|
| | | | | |

Letter spacings are to start of next letter

| | | | | | | | | | | | | | | | | | | | Series/Size Text Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | J | E | N | K | I | N | S | | | | | | | | | | | | C120 |
| 175 | 87 | 82 | 92 | 87 | 43 | 92 | 67 | 175 | | | | | | | | | | | 550 |
| | W | H | I | T | E | | R | D | | | | | | | | | | | C120 |
| 118 | 112 | 92 | 37 | 82 | 61 | 120 | 92 | 67 | 118 | | | | | | | | | | 663 |

Spacing Factor is 1 unless specified otherwise

FILENAME: sign layout

2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591
SEPI ENGINEERING GROUP

| | |
|---|---|
| SIGN NUMBER: SEPI SPECIAL SIGN #2 | STANDARD #: N/A |
| SIGN TYPE: D | DATE: Aug 04,2004 |
| W x H: 1600mm x 600mm | AREA: 1.0 Sq.m |
| QUANTITY: 7 | DES BY: CEK |
| MOUNTING: GROUND | CHK BY: RCD |

COPY & BORDER: TYPE III DIRECT APPLIED REFLECTIVE SHEETING
COPY & BORDER COLOR: Black
SHIELDS & ARROWS: TYPE III REFLECTIVE SHEETING ON 0.032" (0.8mm) ALUMINUM AND DEMOUNTABLE
BACKGROUND: TYPE III REFLECTIVE SHEETING
BACKGROUND COLOR: Orange
ALUMINUM THICKNESS: 0.125" (3.2mm)
ADDITIONAL NOTES:

BORDER
R=40mm
TH=15mm
IN=10mm

Letter spacings are to start of next letter

| | | | | | | | | | | | | | | | | | | | Series/Size Text Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D | A | L | L | A | S | - | B | E | S | S | E | M | E | R | | | | C120 |
| 137 | 87 | 97 | 82 | 68 | 96 | 93 | 115 | 92 | 81 | 87 | 93 | 82 | 105 | 82 | 67 | 137 | | | 1326 |
| | C | I | T | Y | | R | D | | | | | | | | | | | | C120 |
| 526 | 87 | 37 | 68 | 76 | 120 | 92 | 67 | 526 | | | | | | | | | | | 547 |

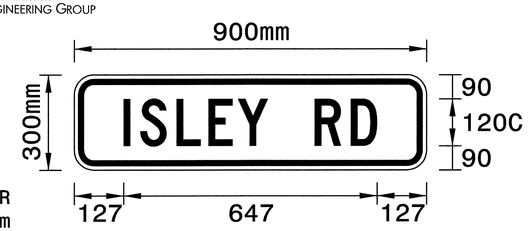
Spacing Factor is 1 unless specified otherwise

FILENAME: sign layout

2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel:919-789-9977 Fax:789-9591
SEPI ENGINEERING GROUP

| | |
|---|---|
| SIGN NUMBER: SEPI SPECIAL SIGN #3 | STANDARD #: |
| SIGN TYPE: D | DATE: Jul 13,2004 |
| W x H: 900mm x 300mm | AREA: 0.2 Sq.m |
| QUANTITY: 3 | DES BY: RCD |
| MOUNTING: GROUND | CHK BY: RCD |

COPY & BORDER: TYPE III DIRECT APPLIED NON-REFLECTIVE SHEETING
COPY & BORDER COLOR: Black
SHIELDS & ARROWS: TYPE III REFLECTIVE SHEETING ON 0.032" (0.8mm) ALUMINUM AND DEMOUNTABLE
BACKGROUND: TYPE III REFLECTIVE SHEETING
BACKGROUND COLOR: Orange
ALUMINUM THICKNESS: 0.125" (3.2mm)
ADDITIONAL NOTES:




BORDER
R=40mm
TH=15mm
IN=10mm

Letter spacings are to start of next letter

| | | | | | | | | | | | | | | | | | | | Series/Size Text Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | I | S | L | E | Y | | R | D | | | | | | | | | | | C120 |
| 127 | 42 | 93 | 82 | 75 | 76 | 120 | 92 | 67 | 127 | | | | | | | | | | 647 |

Spacing Factor is 1 unless specified otherwise

FILENAME: sign layout

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SUDHEEN S. ASENIA

8/23/05

# DETOUR SIGN LAYOUT

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8-05 |
| DWG. BY: | CEK |
| DESIGN BY: | RCD |
| REVIEWED BY: | RLW |

DIVISION OF HIGHWAYS
TRAFFIC CONTROL

REVISIONS

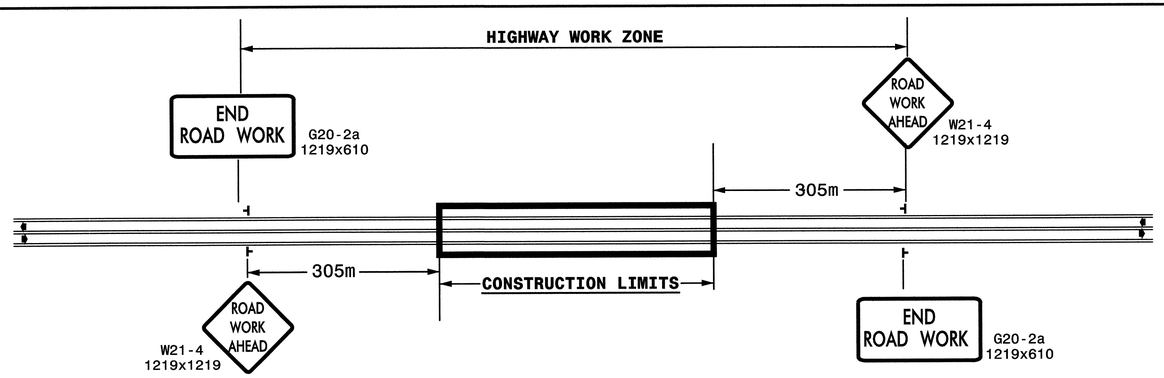
CADD FILE

$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$USERNAME$$$$

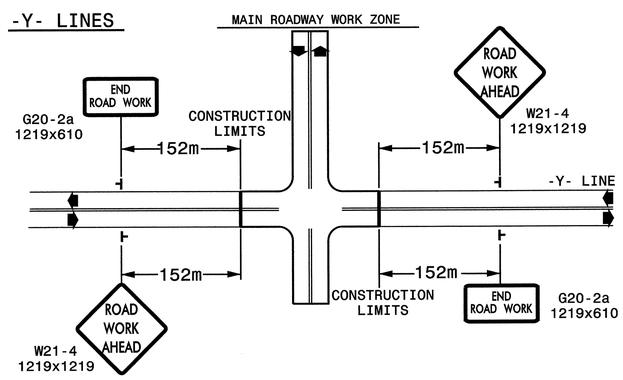
...\TCP\sign layout 2.dgn 8/22/2005 11:02:01 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-47 |

## TWO-WAY UNDIVIDED ** (L-LINES)




## ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)




## 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.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 1.4Kg STEEL U-CHANNEL POST OR 90mm X 90mm WOOD POST FOR ALL WORK ZONE SIGNS. 1.4Kg 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 1.4Kg STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 1.4Kg 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.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

### LEGEND

⊢ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

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

# DETAIL DRAWING FOR TWO-WAY UNDIVIDED WORK ZONE WARNING SIGNS

SHEET 1 OF 1

APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASENIN

8/23/05

DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS

| | |
|---|---|
| SCALE: | NONE |
| DATE: | |
| DWG. BY: | |
| DESIGN BY: | |
| REVIEWED BY: | |

DIVISION OF HIGHWAYS TRAFFIC ENGINEERING BRANCH TRAFFIC CONTROLS

| REVISIONS | |
|---|---|
| 7-98 | 10/01 |
| 10-98 | 03/04 |
| 01/01 | 11/04 |

CADD FILE

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$$$$DGN$$$$
$$$$USERNAME$$$$

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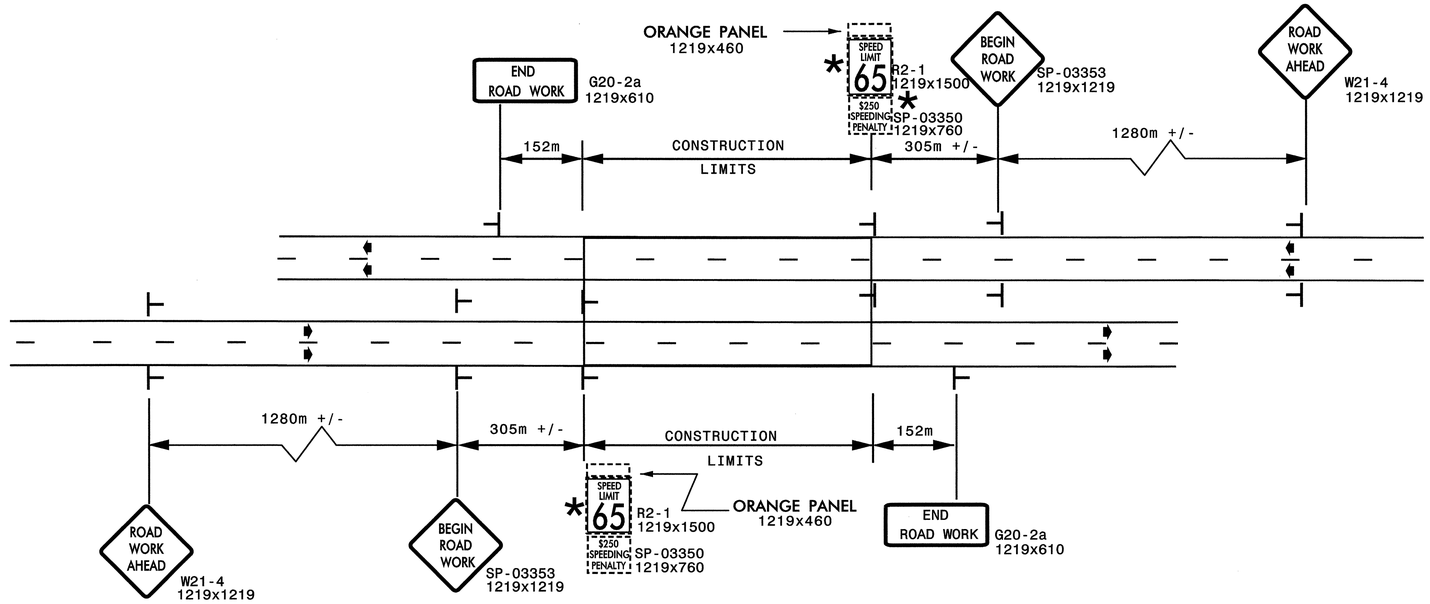
# ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-48 |

## DETAIL A

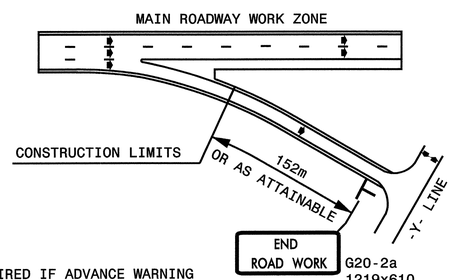



LEGEND
- ├ STATIONARY SIGN
- ➧ DIRECTION OF TRAFFIC FLOW

* USE THE "$250 SPEEDING PENALTY" SIGN, SPEED LIMIT SIGN, AND ORANGE PANEL; ONLY WHEN A "$250 SPEEDING PENALTY" ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

## DETAIL B

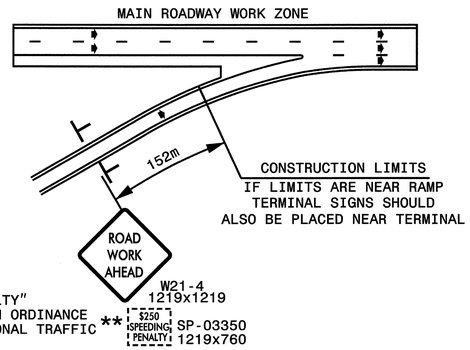
EXIT RAMPS




NOTE: SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

## DETAIL C

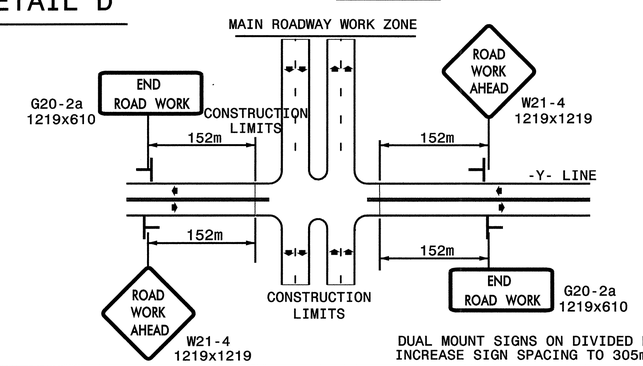
ENTRANCE RAMPS




** USE THE "$250 SPEEDING PENALTY" SUPPLEMENTAL SIGN ONLY IF AN ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

## DETAIL D

-Y- LINES




DUAL MOUNT SIGNS ON DIVIDED HIGHWAYS AND INCREASE SIGN SPACING TO 305m +/-.

## 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.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 1.4Kg STEEL U-CHANNEL POST OR 90mm X 90mm WOOD POST FOR ALL WORK ZONE SIGNS. 1.4Kg 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 1.4Kg STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 1.4Kg 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.

APPROVED:_____ DATE:_____

SEAL — NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SENDEH S. ASEFNIA — 8/23/05

ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 8/03 |
| DWG. BY: | JI |
| DESIGN BY: | JI |
| REVIEWED BY: | |

DIVISION OF HIGHWAYS — TRAFFIC CONTROL

| REVISIONS | |
|---|---|
| 03/04 | |
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| CADD FILE | |

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$$$$USERNAME$$$$DGN$$$$

..\2005_Freeways_4lanes_pr_greate 8/22/2006 8:06:31 AM

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-49 |

METRIC

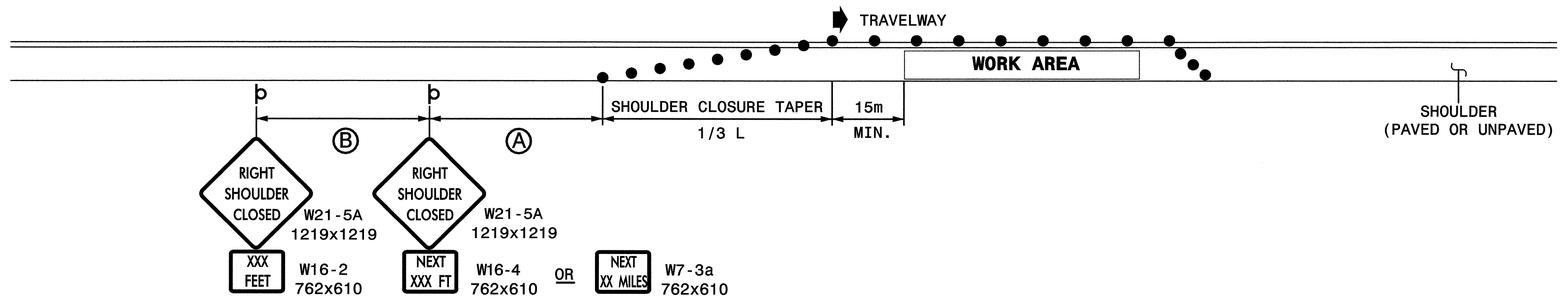
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-05

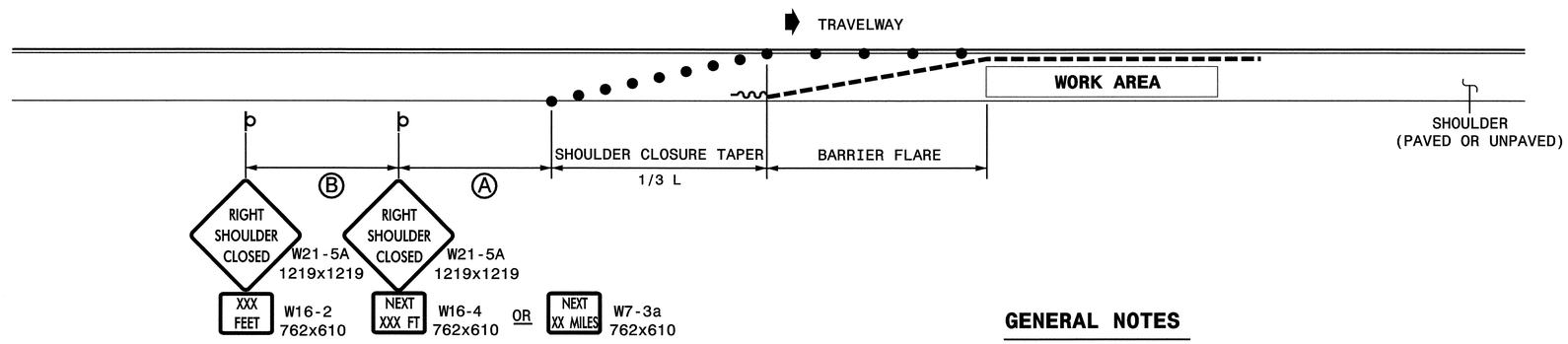
METRIC STANDARD DRAWING FOR

# TEMPORARY SHOULDER CLOSURES

## SHOULDER CLOSURES UTILIZING DRUMS




## SHOULDER CLOSURES UTILIZING TEMPORARY BARRIER




## LEGEND

- TEMPORARY CRASH CUSHION
- PORTABLE CONCRETE BARRIER
- DRUM
- STATIONARY OR PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW

## GENERAL NOTES

-PLACE SHOULDER CLOSURE SIGNS ON THE SAME SIDE AS THE SHOULDER THAT IS CLOSED.

-PLACE DRUMS IN THE SHOULDER TAPER AT THE MAXIMUM SPACING EQUAL IN METERS TO 1/3rd THE POSTED SPEED LIMIT (mph). THE MAXIMUM SPACING OF DRUMS ALONG THE WORK AREA AND BARRIER FLARE IS EQUAL IN METERS TO 2/3rds THE POSTED SPEED LIMIT (mph).

-FLARE THE APPROACH END OF PORTABLE CONCRETE BARRIER BEYOND THE SHOULDER AND USE A CRASH CUSHION FOR PROTECTION IF THE EXPOSED END OF THE BARRIER IS WITHIN THE "CLEAR ZONE".

-USE STATIONARY SIGNS FOR LONG TERM OPERATIONS (LONGER THAN 3 DAYS).

-REFER TO STD. 1101.11 SHEETS 1, 3, & 4, FOR "L" DISTANCE, BARRIER FLARE RATES, AND SIGN SPACING.

SHEET 1 OF 1

1101D04

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

1-05

METRIC STANDARD DRAWING FOR

TEMPORARY SHOULDER CLOSURES

SHEET 1 OF 1

1101D04

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

REPLACEMENT DETAIL FOR
RSD 1101.04

| | |
|---|---|
| SCALE: | NONE |
| DATE: | |
| DWG. BY: | |
| DESIGN BY: | |
| REVIEWED BY: | |

DIVISION OF HIGHWAYS ENGINEERING STANDARDS & INSPECTION UNIT
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.
STATISTICAL CONTROL

REVISIONS

CADD FILE

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$$$USERNAME$$$

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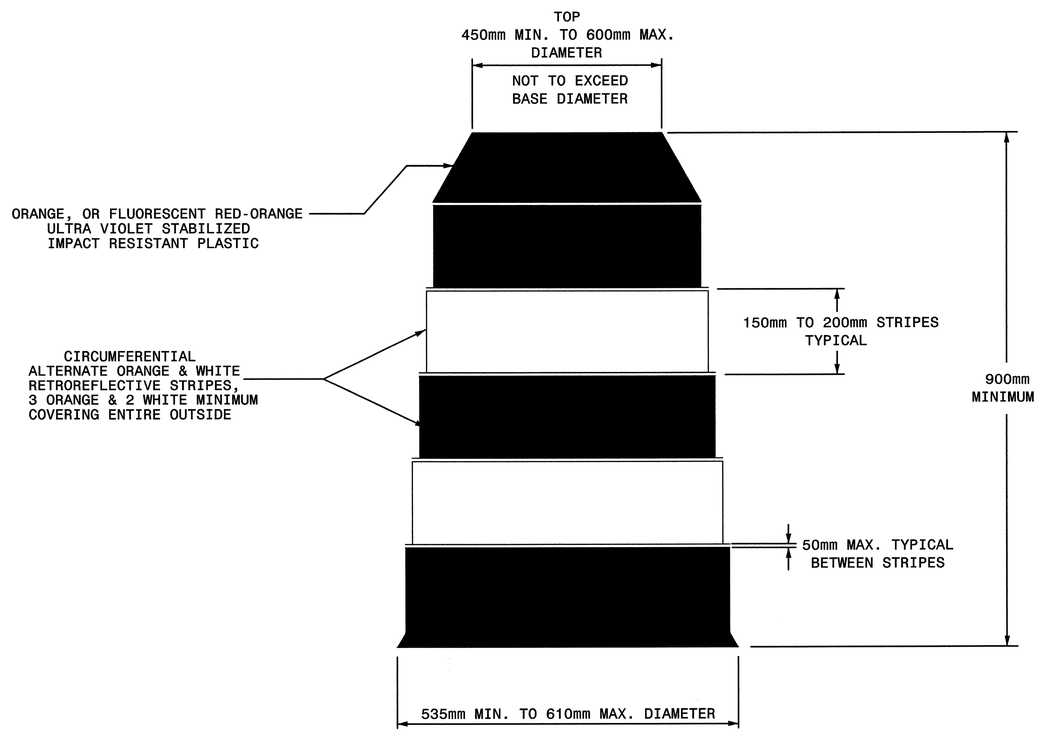
| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-50 |

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

1-02

METRIC STANDARD DRAWING FOR
**DRUMS**




## GENERAL NOTES

-BALLASTING SHALL BE ACHIEVED BY THE SAND BAG, TIRE-SIDEWALL BALLAST, OR PREFORMED WEIGHTED BASE BALLASTING METHODS. DO NOT PLACE BALLAST ON TOP OF THE DRUM, NOR AS TO PRESENT A HAZARD WHEN STRUCK.

-IF NECESSARY PLACE THE NAME OF THE AGENCY, CONTRACTOR, OR SUPPLIER ON NON-RETROREFLECTIVE DRUM SURFACES. SHOW THE LETTERS AND NUMBERS USING A NON-RETROREFLECTIVE COLOR AND NOT OVER 50mm IN HEIGHT.

**Note:**
**This drawing is dimensioned in millimeters unless otherwise depicted within the drawing.**

SHEET 1 OF 1
**1130D01**


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

1-02

METRIC STANDARD DRAWING FOR
**DRUMS**

SHEET 1 OF 1
**1130D01**


APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEPIDEH S. ASEFNIA

8/23/05

# REPLACEMENT DETAIL FOR RSD 1130.01

| | |
|---|---|
| SCALE: | NONE |
| DATE: | 7-04 |
| DWG. BY: | |
| DESIGN BY: | |
| REVIEWED BY: | |

DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
CONCEPT

REVISIONS

CADD FILE

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$$$$USERNAME$$$$

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| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| U-2408 | TCP-51 |

METRIC

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

1-05

METRIC STANDARD DRAWING FOR

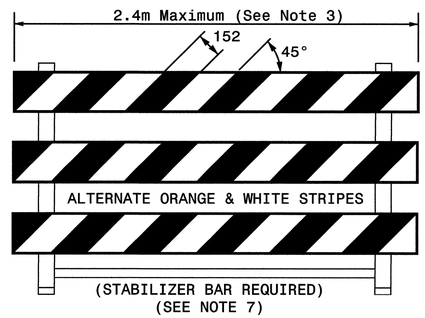
**BARRICADES**

TYPE-III

SHEET 1 OF 1

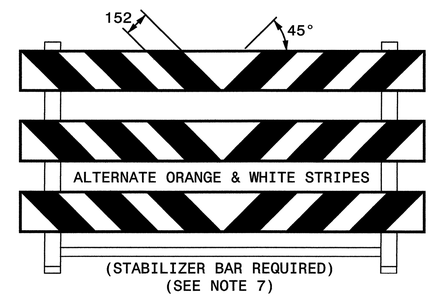
**1145D01**

## TYPE III BARRICADE




## TYPE III BARRICADE

END-OF-ROADWAY APPLICATIONS




## GENERAL NOTES

1) HORIZONTAL RAILS FOR TYPE-III BARRICADES MAY BE HOLLOW/CORRUGATED EXTRUDED RIGID POLYOLEFIN, HIGH DENSITY POLYETHYLENE, OR OTHER NCDOT APPROVED RAILS. BARRICADE RAILS OF FRANGIBLE PLASTICS SUCH AS PVC MAY NOT BE USED. IF APPROVED PLASTIC TYPE RAILS ARE USED, THEY MUST BE FLAME TREATED BY THE MANUFACTURER SO THAT REFLECTIVE SHEETING MAY ADHERE PROPERLY.

2) BARRICADES AND BARRICADE RAILS ARE APPROVED AS A SINGLE UNIT.

3) BARRICADE SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2.4m UNLESS NCHRP 350 CRASH TESTED AND NCDOT APPROVED.

4) ONLY NCDOT APPROVED COMPOSITE AND ROLL-UP SIGNS MAY BE MOUNTED ON THE BARRICADE.

5) SIGNS MOUNTED ON BARRICADES SHOULD NOT COVER MORE THAN 50 PERCENT OF THE TOP TWO RAILS OR 33 PERCENT OF THE TOTAL AREA OF THE THREE RAILS.

6) USE TYPE VII, VIII OR IX SHEETING ON BOTH SIDES OF THE RAILS.

7) BARRICADE MUST BE NCHRP 350 AND NCDOT APPROVED WITH STABILIZER BAR OR ADEQUATE LATERAL BRACING.

8) ASSEMBLY OF THE GENERIC BARRICADES MUST BE SELF CERTIFIED BY THE ASSEMBLER.

9) BARRICADES USED TO CLOSE A ROADWAY SHALL EXTEND ACROSS THE ENTIRE ROADWAY. WHERE LOCAL TRAFFIC MUST BE MAINTAINED, THEY MAY BE PLACED IN A STAGGERED PATTERN.

10) STRIPES ON WORK ZONE BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE RETROREFLECTIVE STRIPES, SLOPED DOWNWARD TOWARDS THE SIDE WHICH TRAFFIC IS TO PASS OR TURN IN DETOURING. WHERE NO TURNS ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES. USE RED AND WHITE STRIPES FOR PERMANENT BARRICADES.

11) SEE APPROVED PRODUCTS LIST FOR MANUFACTURERS OF APPROVED BARRICADES.

12) PLACE MANUFACTURER'S NAME AND FEDERAL HIGHWAY ADMINISTRATION'S NCHRP 350 APPROVAL LETTER NUMBER ON BARRICADE.

13) USE SANDBAGS PLACED ON THE LOWER PART OF THE FRAME FOR BALLASTING. DO NOT PLACE SANDBAGS ON TOP OF A STRIPED RAIL. DO NOT BALLAST BARRICADES BY HEAVY OBJECTS SUCH AS ROCKS, CHUNKS OF CONCRETE OR OTHER ITEMS THAT WOULD CAUSE DAMAGE IF THE BARRICADE IS STRUCK BY A VEHICLE.

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

1-05

METRIC STANDARD DRAWING FOR

**BARRICADES**

TYPE-III

SHEET 1 OF 1

**1145D01**

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER SEYDEN S. ASEFNIA

8/23/05

REPLACEMENT DETAIL FOR
RSD 1145.01

| | |
|---|---|
| SCALE: | NONE |
| DATE: | |
| DWG. BY: | |
| DESIGN BY: | |
| REVIEWED BY: | |

REVISIONS

CADD FILE

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