

| FAS RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------|----------------|--------|--------------|-----------|
| 653 | 04-00256-00-BR | SHELBY | 40 | 1 |

CONTRACT NO. 95555

INDEX OF SHEETS

See Page 2 of 40 Pages

HIGHWAY STANDARDS

See Page 2 of 40 Pages

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
**PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
MAJOR BRIDGE PROGRAM**

SHELBY COUNTY HIGHWAY DEPARTMENT
SECTION 04-00256-00-BR
PROJECT BRS - 653 (112)
SHELBY COUNTY
F.A.S. ROUTE 653 (CH-6)
JOB NO. C - 97 - 071 - 08
PROPOSED STRUCTURE NO. 087- 3563
EXISTING STRUCTURE NO. 087-3012

EXISTING STRUCTURE NO. 087-3012

3 SPAN-CAST IN PLACE DECK ON REINFORCED
CONCRETE GIRDERS ON CLOSED CONCRETE ABUTMENTS
AND SOLID CONCRETE PIERS

PROPOSED STRUCTURE NO. 087-3563

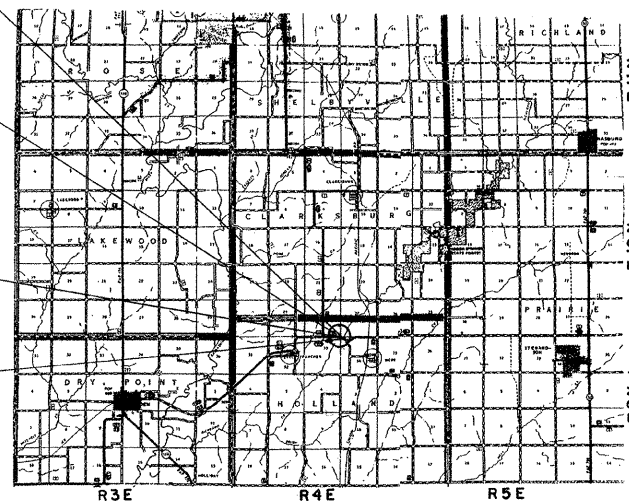
3 SPAN-27" PPC DECK BEAMS ON PILE
BENT PIERS AND ABUTMENTS

DESIGN INFORMATION

DESIGN CLASSIFICATION: COLLECTOR (MAJOR)
CURRENT ADT: 750
DESIGN ADT: 900
DESIGN YEAR: 2028
DESIGN SPEED 50 M.P.H.

PROJECT BEGINS
STA. 14+50

PROJECT ENDS
STA. 27+00



LOCATION MAP
NET LENGTH OF SECTION = 1,250 FEET = 0.237 MILES



LOCATION OF SECTION INDICATED THUS: -



PLANS PREPARED BY:

S. Alan Spesard 10-24-08
S. ALAN SPESARD, COUNTY ENGINEER, PE DATE
ILLINOIS PROFESSIONAL ENGINEER 062-052965
EXPIRES 11-30-09

| | | |
|---|---|--|
| APPROVED | 10-24 20 08 <i>S. Alan Spesard</i> | |
| COUNTY ENGINEER, SHELBY COUNTY | | |
| PASSED | 10-31 20 08 <i>Maureen El Castel</i> | |
| District Seven Engineer of Local Roads and Streets | | |
| RELEASING FOR BID BASED ON LIMITED REVIEW | 10-31 20 08 <i>Roger J. Drishell</i> | |
| DEPUTY DIRECTOR OF HIGHWAYS REGION FOUR ENGINEER | | |
| STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | | |

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123 (TOLL FREE)

PLANS PREPARED BY:
SHELBY CO HWY DEPT
R. R. 3 BOX 38A
SHELBYVILLE IL 62565
217-774-2721

CONTRACT NO. 95555

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------|---------|--------|--------------|-----------|
| 653 | * | SHELBY | 40 | 2 |

GENERAL NOTES

WHEREVER IN THE PLANS OR SPECIFICATIONS THE TERM STANDARD SPECIFICATIONS IS USED, IT SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED JANUARY 1, 2007.

ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE U.S.G.S. DATUM.

WHERE SECTION, SUB-SECTION MARKERS, OR U.S. ARMY CORPS OF ENGINEER MARKERS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE DEPARTMENT AND AUTHORIZED AGENT OR LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT AS SHOWN ON THE SCHEDULE OF THE STANDARD DRAWINGS ON THE COVER SHEET.

FOR THE SUGGESTED SEQUENCE OF OPERATIONS SEE THE CONTRACT SPECIAL PROVISIONS.

EXISTING ROAD SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER, THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT PAY ITEMS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED THE CONTRACTOR.

EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS & MUST BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E., PHONE 800-892-0123, AND ALL UTILITY COMPANIES PRIOR TO DIGGING.

THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION OPERATIONS.

UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES AT THE TIME OF CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THEY PERFORM THEIR WORK.

GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES, OR OTHER NATURAL OR MANMADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THESE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH TO PRESERVE IN THE ORIGINAL STATE AS MUCH AREA OF TEMPORARY EASEMENT AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

EARTH STOCK PILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN 14 DAYS.

TEMPORARY EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS SHOWN IN THE EROSION CONTROL PLAN AND AS DIRECTED BY THE ENGINEER.

SEEDING SHALL BE DONE ON ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS AS DIRECTED BY THE ENGINEER. SEEDING SHALL BE PAID FOR ONLY WITHIN THE PROPOSED RIGHT-OF-WAY OR EASEMENT LIMITS. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMIT SHALL BE SEEDED AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESS TO THE BITUMINOUS PLANT QUALITY CONTROL LAB SO THAT BITUMINOUS CONCRETE PLANT REPORTS CAN BE E-MAILED TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL BITUMINOUS ITEMS.

THE RESIDENT ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.

THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN REGARD TO THE EXACT LENGTHS OF PIPE CULVERTS PRIOR TO ORDERING THESE ITEMS.

THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN REGARD TO THE EXACT LENGTHS OF PIPE CULVERTS PRIOR TO ORDER

THE CONTRACTOR SHALL NOTIFY THE SHELBY COUNTY HIGHWAY DEPARTMENT RESIDENT ENGINEER AND THE COUNTY ENGINEER 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.

INDEX OF SHEETS

- 1) COVER SHEET
- 2) INDEX OF SHEETS & GENERAL NOTES
- 3) SUMMARY OF QUANTITIES
- 4) TIE POINTS & ALIGNMENT
- 5) TYPICAL SECTIONS
- 6) ROADWAY SCHEDULES
- 7) ENTRANCES
- 8-9) VARIOUS SCHEDULES
- 10) BARRIER DETAIL & REMOVAL SCHEDULES
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- 13-18) CROSS SECTION SHEETS
- 19) EROSION CONTROL PLAN
- 20-26) EXISTING STRUCTURE PLANS
- 27-40) PROPOSED STRUCTURE PLANS

| HIGHWAY STANDARDS | |
|-------------------|---|
| STANDARD NUMBER | STANDARD NAME |
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 280001-04 | TEMPORARY EROSION CONTROL SYSTEMS |
| 515001-03 | NAME PLATE FOR BRIDGE |
| 542401-01 | METAL END SECTION FOR PIPE CULVERT |
| 601101-01 | CONCRETE HEADWALL FOR PIPE DRAIN |
| 630001-08 | STEEL PLATE BEAM GUARDRAIL |
| 630301-05 | SHOULDER WIDENING FOR TYPE 1 SPECIAL GUARDRAIL TERMINALS |
| 631032-04 | TRAFFIC BARRIER TERMINAL TYPE 6A |
| 635008-03 | REFLECTOR AND TERMINAL MARKER PLACEMENT |
| 635011-02 | REFLECTOR MARKER AND MOUNTING DETAILS |
| 701001-02 | OFF ROAD OPERATIONS 2L, 2W MORE THAN 15 FT AWAY |
| 701006-03 | OFF ROAD OPERATIONS 2L, 2W 15 FOOT TO 24 INCHES FROM PAVEMENT EDGE |
| 701201-03 | LANE CLOSURE 2L, 2W, DAY ONLY FOR SPEED >= 45 M.P.H. |
| 701311-03 | LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| 704001-05 | TEMPORARY CONCRETE BARRIER |
| 780001-02 | TYPICAL PAVEMENT MARKINGS |
| 781001-03 | TYPICAL APPLICATIONS RAISED PAVEMENT MARKERS |
| BLR 21-8 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS |
| BLR 24-2 | MAIL BOX TURNOUTS |

| |
|----------------------------------|
| SHELBY COUNTY HIGHWAY DEPARTMENT |
| INDEX, STANDARDS, GENERAL NOTES |
| SECTION 04-00256-00-BR |

| | | | |
|--------------------|---------|--------|--------------|
| CONTRACT NO. 95555 | | | |
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS |
| 653 | * | SHELBY | 40 |
| | | | SHEET NO. 3 |

* 04-00256-00-BR

SUMMARY OF QUANTITIES

X081-2A

| CODE NO. | ITEM | UNIT | QUANTITY |
|------------|---|--------|----------|
| 20100500 | TREE REMOVAL, ACRES | ACRE | 3.7 |
| 20200100 | EARTH EXCAVATION | CU YD | 488 |
| 20200500 | EARTH EXCAVATION (WIDENING) | CU YD | 11 |
| 20300100 | CHANNEL EXCAVATION | CU YD | 2375 |
| 20400800 | FURNISHED EXCAVATION | CU YD | 4863 |
| 20700400 | POROUS GRANULAR EMBANKMENT, SPECIAL | CU YD | 100 |
| 25000200 | SEEDING, CLASS 2 | ACRE | 2.8 |
| 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 252 |
| 25000500 | PHOSPHORUS FERTILIZER NUTRIENT | POUND | 252 |
| 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 252 |
| 25100115 | MULCH, METHOD 2 | ACRE | 2.8 |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 1600 |
| 28000300 | TEMPORARY DITCH CHECKS | EACH | 6 |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 550 |
| 28000500 | INLET AND PIPE PROTECTION | EACH | 2 |
| 28100207 | STONE RIPRAP, CLASS A4 | TON | 947 |
| 28200200 | FILTER FABRIC | SQ YD | 584 |
| 30200650 | PROCESSING MODIFIED SOIL 12" | SQ YD | 3051 |
| 30201500 | LIME | TON | 79 |
| 35100100 | AGGREGATE BASE COURSE, TYPE A | TON | 1503 |
| 35400300 | PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8" | SQ YD | 49 |
| 40200800 | AGGREGATE SURFACE COURSE, TYPE B | TON | 164 |
| 40600100 | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 1339 |
| 40600300 | AGGREGATE (PRIME COAT) | TON | 7 |
| 40600635 | LEVELING BINDER (MACHINE METHOD), N70 | TON | 272 |
| 40603085 | HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 | TON | 347 |
| 40603315 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70 | TON | 321 |
| 40800010 | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 8 |
| 40800030 | AGGREGATE (PRIME COAT) | TON | 2 |
| 40800050 | INCIDENTAL HOT-MIX ASPHALT SURFACING | TON | 4 |
| 44000100 | PAVEMENT REMOVAL | SQ YD | 49 |
| 44004000 | PAVED DITCH REMOVAL | FOOT | 874 |
| 48100100 | AGGREGATE SHOULDERS, TYPE A | TON | 359 |
| 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 140 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 148.8 |
| 50300280 | CONCRETE ENCASEMENT | CU YD | 8.4 |
| 50400505 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH) | SQ FT | 5391 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 12800 |
| * 50901050 | STEEL RAILING, TYPE SM | FOOT | 360 |
| 51201400 | FURNISHING STEEL PILES HP10X42 | FOOT | 290 |
| 51201700 | FURNISHING STEEL PILES HP12X74 | FOOT | 438 |
| 51202305 | DRIVING PILES | FOOT | 290 |
| 51203400 | TEST PILE STEEL HP10X42 | EACH | 2 |
| 51500100 | NAME PLATES | EACH | 1 |
| 542D0229 | PIPE CULVERTS, CLASS D, TYPE 1 24" | FOOT | 62 |
| 54215559 | METAL END SECTIONS 24" | EACH | 2 |
| 58100200 | WATERPROOFING MEMBRANE SYSTEM | SQ YD | 616 |
| 58300100 | PORTLAND CEMENT MORTAR FAIRING COURSE | FOOT | 1797 |
| 58100100 | GEOCOMPOSITE WALL DRAIN | SQ YD | 60 |
| 60109580 | PIPE UNDERDRAINS FOR STRUCTURES 4" | FOOT | 125 |
| * 63000000 | STEEL PLATE BEAM GUARD RAIL, TYPE A | FOOT | 50 |
| * 63100087 | TRAFFIC BARRIER TERMINAL, TYPE 6A | EACH | 4 |
| * 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 3 |
| 63200305 | STEEL PLATE BEAM GUARD RAIL REMOVAL | FOOT | 1298 |
| * 63300725 | STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) | FOOT | 25 |
| 67000500 | ENGINEER'S FIELD OFFICE, TYPE B | CAL MO | 8 |
| 67100100 | MOBILIZATION | L SUM | 1 |
| 70100450 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 | L SUM | 1 |
| 70300100 | SHORT-TERM PAVEMENT MARKING | FOOT | 132 |
| 70300625 | TEMPORARY PAINT PAVEMENT MARKING LINE 4" | FOOT | 700 |
| 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 44 |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 50 |
| * 78001110 | PAINT PAVEMENT MARKING - LINE 4" | FOOT | 5000 |
| * 78100100 | RAISED REFLECTIVE PAVEMENT MARKER | EACH | 28 |
| * 78100105 | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) | EACH | 4 |
| * 78200400 | GUARDRAIL REFLECTORS | EACH | 26 |
| * 78201000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 4 |
| X0323988 | TEMPORARY SOIL RETENTION SYSTEM | SQ FT | 825 |
| X5020501 | UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1 | EACH | 1 |
| X5020502 | UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2 | EACH | 1 |
| Z0062000 | SAW CUTTING | FOOT | 40 |
| Z0065000 | SETTING PILES IN ROCK | EACH | 12 |
| Z0030260 | IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3 | EACH | 1 |

* SPECIALTY ITEMS

UTILITIES

TELEPHONE: CONSOLIDATED COMMUNICATION
121 SOUTH 17TH STREET
MATTOON, ILLINOIS 61938
217-234-9979

POWER: SHELBY ELECTRIC CO-OP
NORTH RT. 128
SHELBYVILLE, ILLINOIS 62565
217-774-3986

RATES OF APPLICATION

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES.

BITUMINOUS MATERIALS (PRIME COAT) = 0.30 GAL/SQ.YD. Aggregate

BITUMINOUS MATERIALS (PRIME COAT) = 0.10 GAL/SQ.YD Bituminous

AGGREGATE (PRIME COAT) = 6.0 LBS/SQ.YD.

HOT MIX ASPHALT = 112 LBS/SQ.YD.

AGGREGATE SHOULDERS = 2.10 TONS/CU.YD.

AGGREGATE SURFACE COURSE = 2.05 TONS/CU.YD.

AGGREGATE BASE COURSE TYPE A = 2.10 TONS/CU.YD.

FERTILIZER NUTRIENT = 90.0 POUNDS OF NUTRIENT / ACRE

MULCH, METHOD 2 = 2.0 TON / ACRE

PERMANENT SEEDING CLASS 2 MIX = 200 POUND / ACRE

TEMPORARY EROSION SEEDING = 200.0 POUND / ACRE

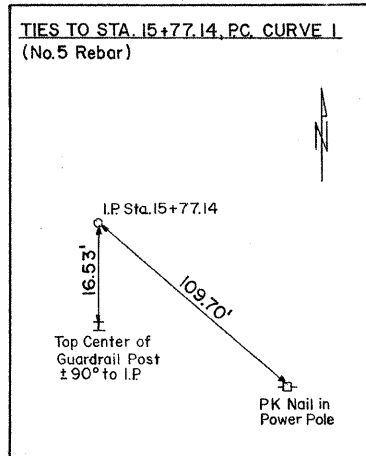
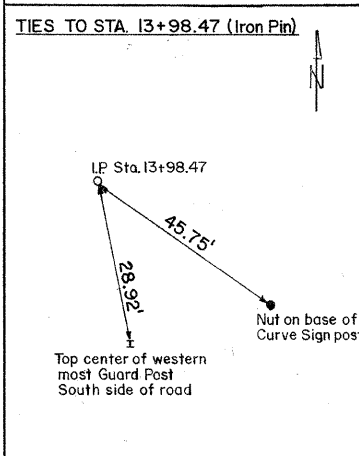
STONE RIP-RAP CLASS A-4 = 0.67 TON/SQ.YD.

SHELBY COUNTY HIGHWAY DEPARTMENT

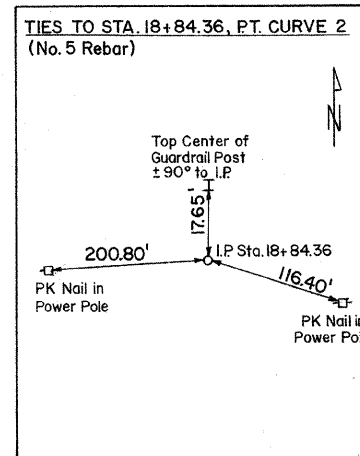
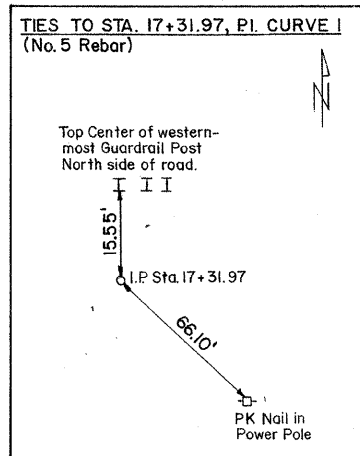
SUMMARY OF QUANTITIES

SECTION 04-00256-00-BR

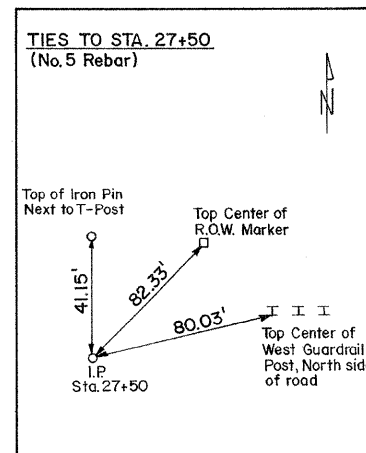
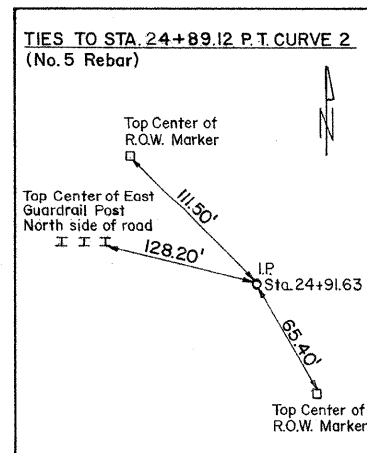
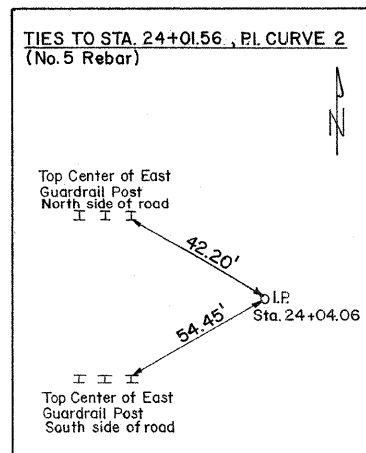
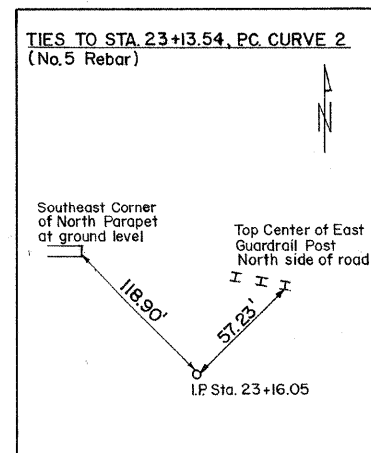
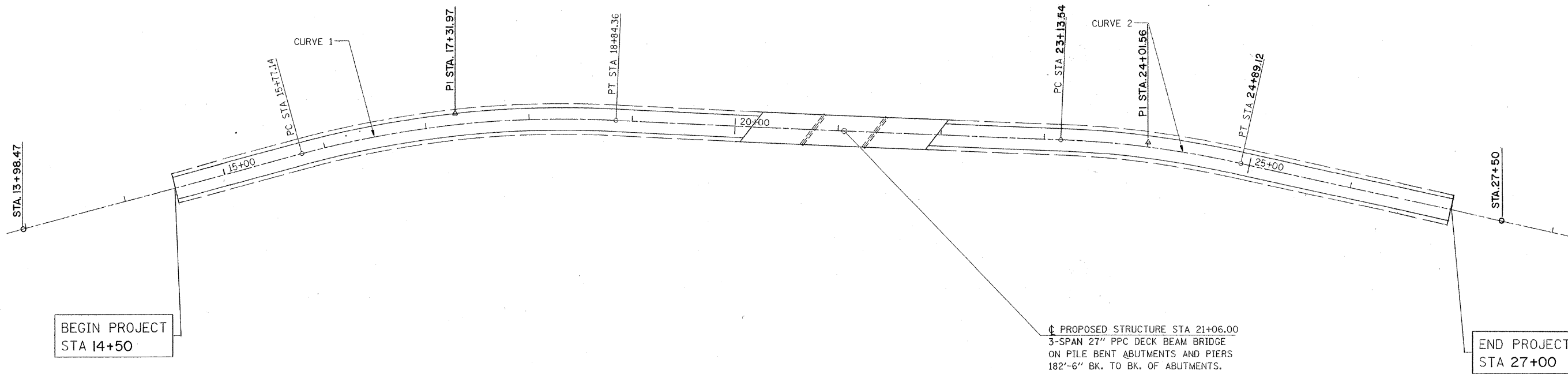
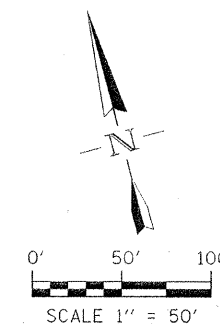
| F.A. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|---------------|------------------|-----------|
| 653 | 04-00256-00-BR | SHELBY | 40 | 4 |
| STA. 15+00 | | TO STA. 26+50 | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |
| Contract No. 95555 | | | | |



CURVE 1 DATA
 P.I. STA. 17+31.97
 $\Delta = 17^\circ 36' 07''$ (RT)
 $D = 5^\circ 43' 46''$
 $R = 1,000.00'$
 $T = 154.83'$
 $L = 307.21'$
 $E = 11.91'$
 $e = 0.055''$
 $T.R. = 41'$
 $S.E. RUN = 112'$
 P.C. STA. 15+77.14
 P.T. STA. 18+84.36
 S.E. ATTAINED FROM STA. 14+61.47 TO STA. 16+14.47
 S.E. REMOVED FROM STA. 18+47.03 TO STA. 20+00.03



CURVE 2 DATA
 P.I. STA. 24+01.56
 $\Delta = 10^\circ 03' 37''$ (RT)
 $D = 5^\circ 43' 46''$
 $R = 1,000.00'$
 $T = 88.02'$
 $L = 175.58'$
 $E = 3.87'$
 $e = 0.055''$
 $T.R. = 41'$
 $S.E. RUN = 112'$
 P.C. STA. 23+13.54
 P.T. STA. 24+89.12
 S.E. ATTAINED FROM STA. 21+97.87 TO STA. 23+50.87
 S.E. REMOVED FROM STA. 24+51.79 TO STA. 26+04.79

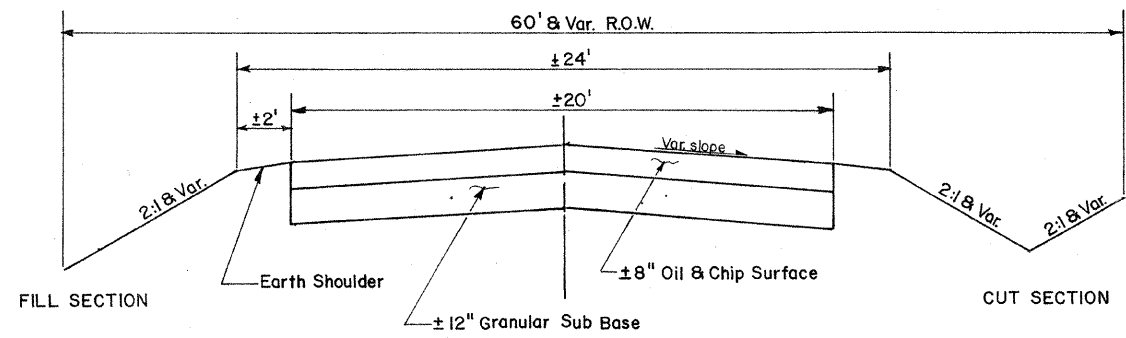


NOTE: ALL TIE POINT MEASUREMENTS ARE SLOPE CHAINED DISTANCES

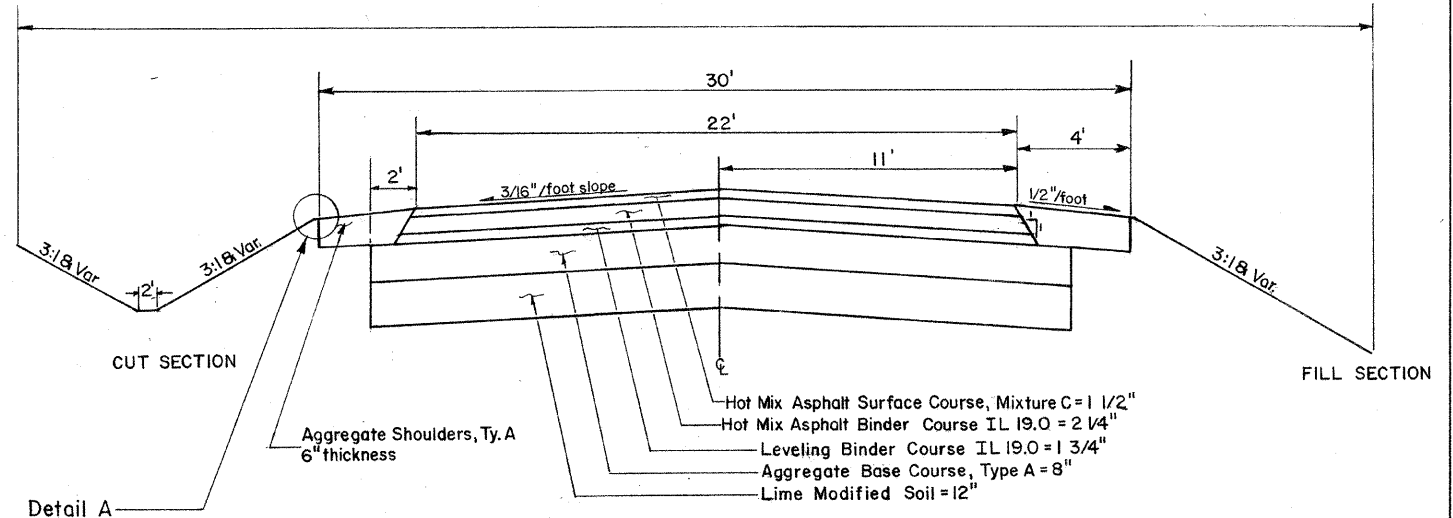
TIE POINTS and ALIGNMENT

Section 04-00256-00-BR

| | | | | |
|--------------------|---------|--------|--------------|-----------|
| CONTRACT NO. 95555 | | | | |
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 653 | * | SHELBY | 40 | 5 |
| * 04-00256-00-BR | | | | |



EXISTING TYPICAL SECTION

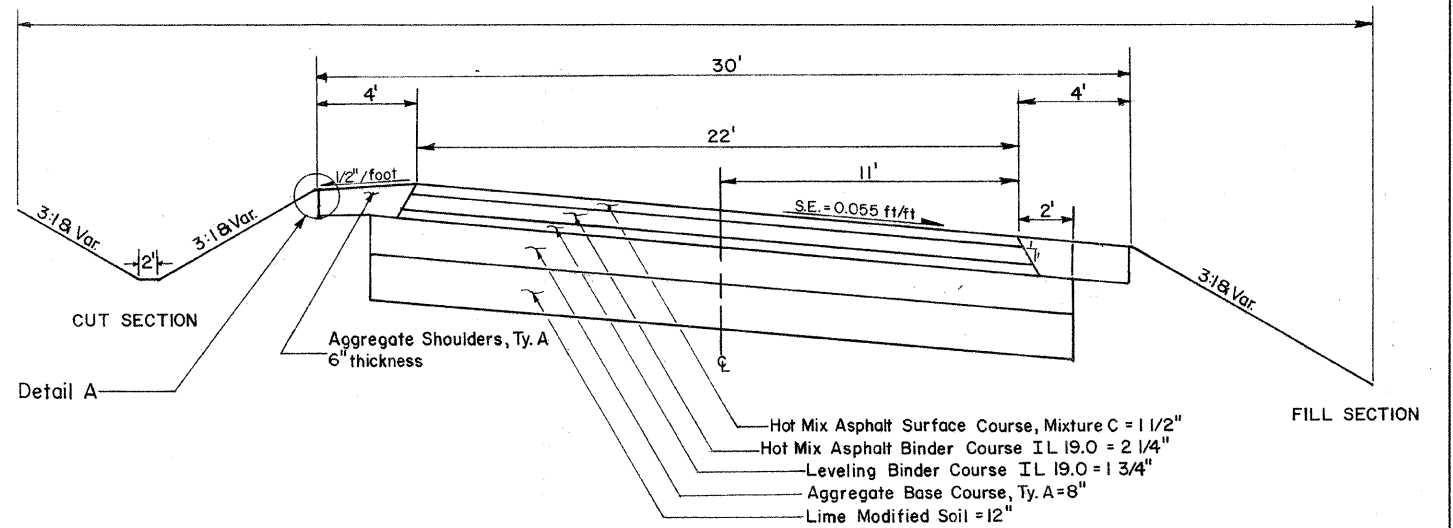


PROPOSED TYPICAL SECTION

Sta. 14+50 to Sta. 14+61.47
 Sta. 20+00.03 to Sta. 20+14.83
 Sta. 26+04.79 to Sta. 27+00

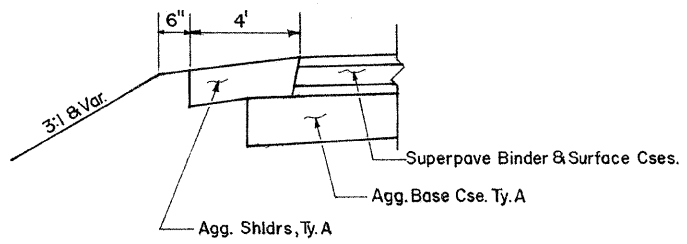
PROPOSED CURVE TRANSITIONS

Curve 1 Sta. 14+61.47 to Sta. 16+14.47
 Curve 1 Sta. 18+47.03 to Sta. 20+00.03
 Curve 2 Sta. 21+97.17 to Sta. 23+50.87
 Curve 2 Sta. 24+51.79 to Sta. 26+04.79



PROPOSED TYPICAL SECTION

Sta. 16+14.47 to Sta. 18+47.03
 Sta. 23+50.87 to Sta. 24+51.79



DETAIL A

| |
|----------------------------------|
| SHELBY COUNTY HIGHWAY DEPARTMENT |
| TYPICAL SECTIONS |
| SECTION NO. 04-00256-00-BR |

| BITUMINOUS MATERIALS (PRIME COAT) | | | | |
|---------------------------------------|-------------------|--------------------------------------|--------------|------------------|
| LOCATION | MATERIAL TO PRIME | GRADE OIL | PASS | QUANTITY |
| STA 14+50 TO STA 27+00 OMIT BRIDGE | AGGREGATE | MC-30 | LEVEL BINDER | 809 |
| STA 14+50 TO STA 27+00 OMIT BRIDGE | BITUMINOUS | RC-70 HFE-60 HFE-90 HFE-150 | BINDER | 267 |
| STA 14+50 TO STA 27+00 | BITUMINOUS | RC-70 HFE-60 HFE-90 HFE-150 | SURFACE | 263 |
| TOTAL | | | | 1339 GALS |

| LEVEL BINDER (MACHINE METHOD) IL - 19.0 N = 70 | | | |
|--|----------------------|---------|-----------------|
| STA TO STA | LOCATION | O/S | QUANTITY |
| STA 14+50.00 TO STA 20+14.83 | MAINLINE (WEST SIDE) | LT & RT | 144 |
| STA 20+14.83 TO STA 21+97.17 | BRIDGE | LT & RT | 0 |
| STA 21+97.17 TO STA 27+00.00 | MAINLINE (EAST SIDE) | LT & RT | 128 |
| TOTAL | | | 272 TONS |

| AGGREGATE BASE COURSE TYPE A | | | |
|------------------------------|----------------------|--------------|-----------------|
| STA TO STA | LOCATION | O/S | QUANTITY |
| STA 14+50.00 TO STA 20+14.83 | MAINLINE (WEST SIDE) | LEFT & RIGHT | 795 TON |
| STA 21+97.17 TO STA 27+00.00 | MAINLINE (EAST SIDE) | LEFT & RIGHT | 708 TON |
| TOTAL | | | 1503 TON |

| HOT MIX ASPHALT - BINDER COURSE - IL - 19.0 N = 70 | | | |
|--|----------------------|---------|-----------------|
| STA TO STA | LOCATION | O/S | QUANTITY |
| STA 14+50.00 TO STA 20+14.83 | MAINLINE (WEST SIDE) | LT & RT | 184 |
| STA 20+14.83 TO STA 21+97.17 | BRIDGE | LT & RT | 0 |
| STA 21+97.17 TO STA 27+00.00 | MAINLINE (EAST SIDE) | LT & RT | 163 |
| TOTAL | | | 347 TONS |

| AGGREGATE SHOULDERS TYPE A | | | |
|------------------------------|----------------------|---------|-----------------|
| STA TO STA | LOCATION | O/S | QUANTITY |
| STA 14+50.00 TO STA 20+14.83 | MAINLINE (WEST SIDE) | LT & RT | 189 |
| STA 21+97.17 TO STA 27+00.00 | MAINLINE (EAST SIDE) | LT & RT | 170 |
| TOTAL | | | 359 TONS |

| HOT MIX ASPHALT - SURFACE COURSE - MIX C N = 70 | | | |
|---|----------------------|---------|-----------------|
| STA TO STA | LOCATION | O/S | QUANTITY |
| STA 14+50.00 TO STA 20+14.83 | MAINLINE (WEST SIDE) | LT & RT | 117 |
| STA 20+14.83 TO STA 21+97.17 | BRIDGE | LT & RT | 100 |
| STA 21+97.17 TO STA 27+00.00 | MAINLINE (EAST SIDE) | LT & RT | 104 |
| TOTAL | | | 321 TONS |

MIXTURE REQUIREMENTS

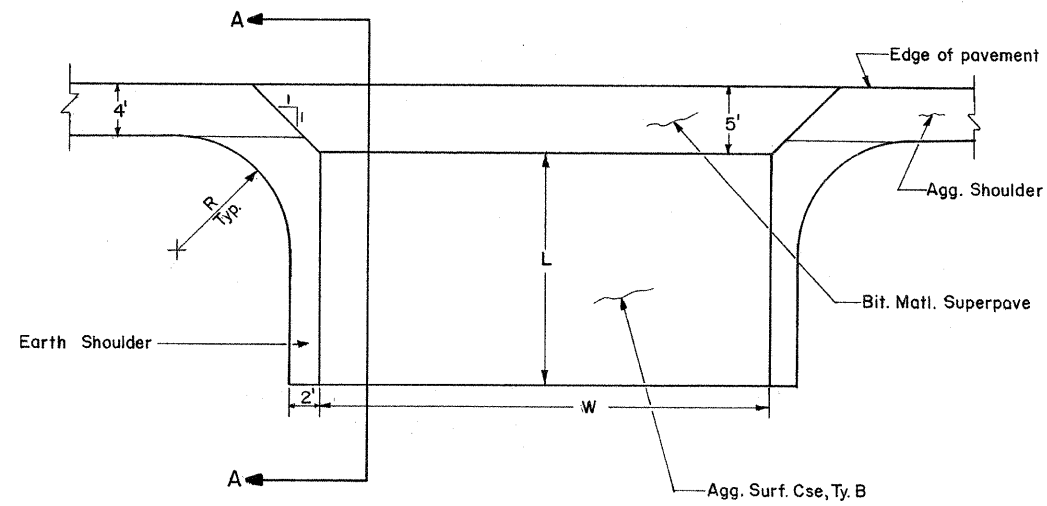
| LOCATION | FAS 653 | FAS 653 | FAS 653 |
|-----------------------|----------------------|-------------------|-------------------|
| Mixture Use | Surface & Incidental | Binder | Level Binder |
| AC/PG | PG 64-22 | PG 64-22 | PG 64-22 |
| RAP % (Max.) | 15% (Max.) | 15% (Max.) | 15% (Max.) |
| Design Air Voids | 4.0% at Ndes = 70 | 4.0% at Ndes = 70 | 4.0% at Ndes = 70 |
| Mix Comp. (Gradation) | IL - 9.5 | IL - 19.0 | IL - 19.0 |
| Friction Aggregate | Mix C | N/A | N/A |

| (**) PROCESSING MODIFIED SOIL 12" | | | |
|-----------------------------------|----------------------|---------|----------------------------|
| STA TO STA | LOCATION | O/S | QUANTITY |
| STA 14+50.00 TO STA 20+14.83 | MAINLINE (WEST SIDE) | LT & RT | 1615 |
| STA 21+97.17 TO STA 27+00.00 | MAINLINE (EAST SIDE) | LT & RT | 1436 |
| TOTAL | | | 3051 YD³ |

(**) NOTE: LIME SHALL BE ADDED TO THE SOIL AT A RATE OF 5.75 LBS/CUBIC FOOT.

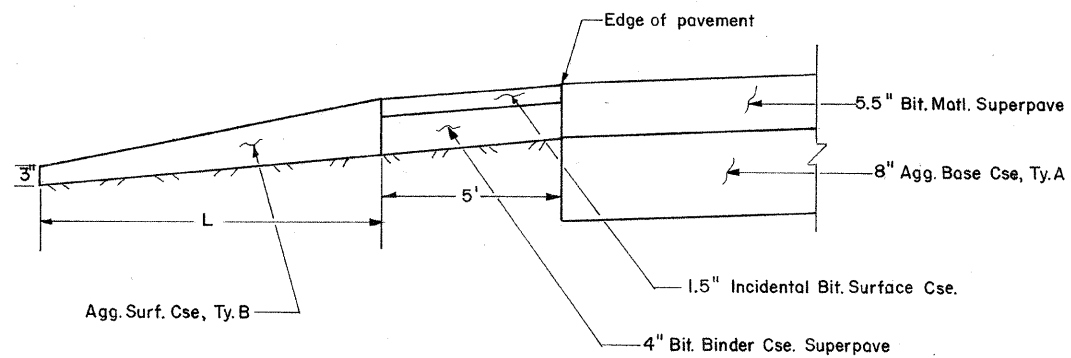
| LIME | | | |
|------------------------------|----------------------|---------|----------------|
| STA TO STA | LOCATION | O/S | QUANTITY |
| STA 14+50.00 TO STA 20+14.83 | MAINLINE (WEST SIDE) | LT & RT | 42 |
| STA 21+97.17 TO STA 27+00.00 | MAINLINE (EAST SIDE) | LT & RT | 37 |
| TOTAL | | | 79 TONS |

| |
|----------------------------------|
| SHELBY COUNTY HIGHWAY DEPARTMENT |
| ROADWAY SCHEDULES |
| SECTION 04-00256-00-BR |



PROPOSED TYPICAL ENTRANCE

| FIELD ENTRANCES | | | |
|-----------------|-----------|------------|------------|
| LOCATION | WIDTH "W" | LENGTH "L" | RADIUS "R" |
| STA 19+10 LT | 20 | 142 | 10 |
| STA 22+50 RT | 16 | 45 | 15 |



SECTION A-A

| ENTRANCE QUANTITIES | | | | | |
|---------------------|-------------------------------|--------------|--------------|-------------------|---------------------------|
| LOCATION | INCIDENTAL BITUMINOUS SURFACE | PRIME | AGG PRIME | BITUMINOUS BINDER | AGG SURFACE COURSE TYPE B |
| Sta. 19+10, LT | 2 TON | 4 GAL | 1 TON | 2 TON | 118 TON |
| Sta. 22+50, RT | 2 TON | 4 GAL | 1 TON | 2 TON | 46 TON |
| TOTAL | 4 TON | 8 GAL | 2 TON | 4 TON | 164 TON |

| |
|----------------------------------|
| SHELBY COUNTY HIGHWAY DEPARTMENT |
| ENTRANCES |
| SECTION 04-00256-00-BR |

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------|---------|--------|--------------|-----------|
| 653 | * | SHELBY | 40 | 8 |

EARTH WORK SUMMARY

EARTH EXCAVATION = 488 CU YD
 MAINLINE EMBANKMENT = 4972 CU YD
 FE STA 19+10 EMBANKMENT = 69 CU TD
 FE STA 22+54 EMBANKMENT = 188 CUYD
 FURINISHED EXCAVATION FROM EARTH EXCAVATION = 366 CU YD
 FURINISHED EXCAVATION = 4863 CU YD
 * CHANNEL EXCAVATION = 2375 CU YD

* NO SUITABLE MATERIALS SHOULD COME FROM THE CHANNEL EXCAVATION

**SEEDING QUANTITIES
STA 14+50 TO STA 27+00**

| ITEM | RATE OF APPLICATION | QUANTITIES |
|---------------------------------|---------------------|------------|
| SEEDING CLASS 2 | ART 250.07 | 2.8 ACRES |
| NITROGEN FERTILIZER NUTRIENTS | 90 LBS./ACRE | 252 POUND |
| PHOSPHORUS FERTILIZER NUTRIENTS | 90 LBS./ACRE | 252 POUND |
| POTASSIUM FERTILIZER NUTRIENTS | 90 LBS./ACRE | 252 POUND |
| MULCH METHOD 2 | 2 TONS / ACRE | 2.8 ACRES |

THE SEEDING MIXTURE SHALL CONFORM TO ROADSIDE MIXTURE TYPE 2, DURING THE PERIOD BETWEEN OCTOBER 1ST AND NOVEMBER 1ST THE CONTRACTOR SHALL ADD 48 POUNDS OF OATS, SPRING TO THE MIXTURE.

| |
|----------------------------------|
| SHELBY COUNTY HIGHWAY DEPARTMENT |
| VARIOUS SCHEDULES |
| SECTION 04-00256-00-BR |
| |

| TEMPORARY PAINT PAVEMENT MARKING | | | | |
|----------------------------------|------------|--------------------|--------------|-----------------|
| STA TO STA | O/S | LOCATION | COLOR | QUANTITY |
| 300+50 TO 302+25 | LT | NORTH EDGE LINE | WHITE | 175 FOOT |
| 300+50 TO 302+25 | CENTERLINE | DOUBLE, CENTERLINE | YELLOW | 350 FOOT |
| 300+50 TO 302+25 | RT | SOUTH EDGE LINE | WHITE | 175 FOOT |
| | | | TOTAL | 700 FOOT |

| PROPOSED GUARDRAIL INSTALLATION | | | | | |
|---------------------------------|----------------------|--|---|----------------------|--|
| O/S | STA TO STA | (EACH) TRAFFIC BARRIER TERMINAL TY 1 SPECIAL (TANG) | (EACH) TRAFFIC BARRIER TERMINAL TY 6A | (FOOT) SPBGR TY A | (FOOT) SPBGR TY A (SHORT RADIUS) |
| LT | 19+71.83 TO 20+15.83 | | 1 | | |
| LT | 19+21.83 TO 19+71.83 | 1 | | | |
| RT | 19+69.83 TO 20+13.83 | | 1 | | |
| RT | 19+44.83 TO 19+69.83 | | | 25 | |
| RT | 18+94.83 TO 19+44.83 | 1 | | | |
| LT | 21+98.17 TO 22+42.17 | | 1 | | |
| LT | 22+42.17 TO 22+67.17 | | | 25 | |
| LT | 22+67.17 TO 23+17.17 | 1 | | | |
| RT | 21+96.17 TO 22+40.17 | | 1 | | |
| RT | 22+40.17 TO 22+55.17 | | | | 25 |
| | TOTAL | 3 EACH | 4 EACH | 50 FOOT | 25 FOOT |

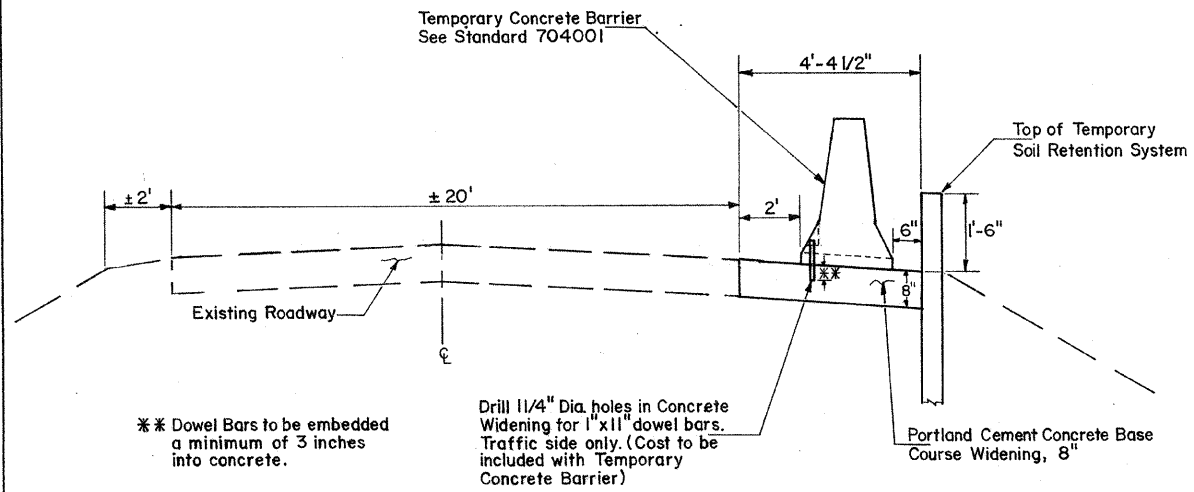
| TERMINAL MARKER - DIRECT APPLIED | | |
|----------------------------------|--------------|-----------------|
| STA | O/S | QUANTITY |
| 19+21.83 | 15 LT | 1.0 EACH |
| 18+94.83 | 15 RT | 1.0 EACH |
| 23+17.17 | 15 LT | 1.0 EACH |
| 22+55.17 | 30 RT | 1.0 EACH |
| | TOTAL | 4.0 EACH |

| RAISED PAVEMENT MARKERS | | |
|-------------------------|-------------------------|--------------------------------|
| STA TO STA | RAISED PAVEMENT MARKERS | RAISED PAVEMENT MARKERS BRIDGE |
| 14+50.00 TO 20+14.83 | 15 | - |
| 20+14.83 TO 21+97.17 | - | 4 |
| 21+97.17 TO 27+50.00 | 13 | - |
| TOTALS | 28 | 4 EACH |

| TEMPORARY MARKINGS & REMOVAL | | | |
|------------------------------|------------------------|-----------------------------|------------------------------------|
| STA TO STA | O/S | SHORT TERM PAVEMENT MARKING | WORK ZONE PAVEMENT MARKING REMOVAL |
| 14+50 TO 27+00 | CENTERLINE SURFACE MAT | 132 FOOT | - |
| 14+50 TO 27+00 | CENTERLINE SURFACE MAT | - | 44 SQ. FT. |
| | TOTAL | 132 FOOT | 44 SQ. FT. |

| PAINT 4" LINE | | | | |
|----------------|--------------|------------------------------|--------|------------------|
| STA TO STA | O/S | LOCATION | COLOR | QUANTITY |
| 14+50 TO 27+00 | LT | NORTH EDGE LINE | WHITE | 1250 FOOT |
| 14+50 TO 27+00 | CENTERLINE | DOUBLE NO PASSING CENTERLINE | YELLOW | 2500 FOOT |
| 14+50 TO 27+00 | RT | SOUTH EDGE LINE | WHITE | 1250 FOOT |
| | TOTAL | | | 5000 FOOT |

| |
|----------------------------------|
| SHELBY COUNTY HIGHWAY DEPARTMENT |
| SAFETY SCHEDULES |
| SECTION 04-00256-00-BR |



WIDENING AND BARRIER DETAIL

| TEMPORARY CONCRETE BARRIER | |
|----------------------------|---------|
| STA TO STA | LENGTH |
| 300+50 TO 301+00 | 50 FEET |

| TEMPORARY SOIL RETENTION SYSTEM | | | |
|---------------------------------|-------|--------------|--------------------|
| STA TO STA | O/S | LENGTH | QUANTITY |
| 300+50 TO 301+00 | RIGHT | 50 | 825 SQ. FT. |
| | | TOTAL | 825 SQ. FT. |

| PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8" | | | | EARTH EXCAVATION WIDENING | |
|--|--------|-------|---------|---------------------------|------|
| STA TO STA | LENGTH | O/S | SQ. YD. | | C.Y. |
| 300+50 TO 301+50 | 100 | RIGHT | 49 | | 11 |

| GUARDRAIL REMOVAL | | |
|-------------------|--------------|------------------|
| STA TO STA | O/S | QUANTITY |
| 299+10 TO 299+50 | LEFT | 40 FOOT |
| 295+71 TO 298+62 | LEFT | 291 FOOT |
| 292+97 TO 299+50 | RIGHT | 653 FOOT |
| 300+50 TO 302+22 | LEFT | 172 FOOT |
| 300+50 TO 300+90 | RIGHT | 40 FOOT |
| 301+29 TO 302+31 | RIGHT | 102 FOOT |
| | TOTAL | 1298 FOOT |

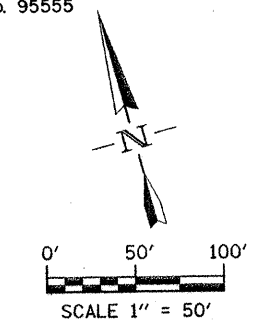
| PAVED DITCH REMOVAL | | |
|---------------------|--------------|-----------------|
| STA TO STA | O/S | QUANTITY |
| 22+58 TO 27+00 | LEFT | 432 FOOT |
| 22+58 TO 27+00 | RIGHT | 442 FOOT |
| | TOTAL | 874 FOOT |

| PAVEMENT REMOVAL | | | |
|------------------|--------|-------|---------|
| STA TO STA | LENGTH | O/S | SQ. YD. |
| 300+50 TO 301+50 | 100 | RIGHT | 49 |

SHELBY COUNTY HIGHWAY DEPARTMENT
 STAGE I CONSTRUCTION DETAILS
 SECTION 04-00256-00-BR

| F.A.S. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|---------------|--------------|------------------|
| 653 | 04-00256-00-BR | SHELBY | 40 | 11 |
| STA. 14+50 | | TO STA. 27+00 | | |
| FED. ROAD DIST. NO. | | ILLINOIS | | FED. AID PROJECT |

Contract No. 95555



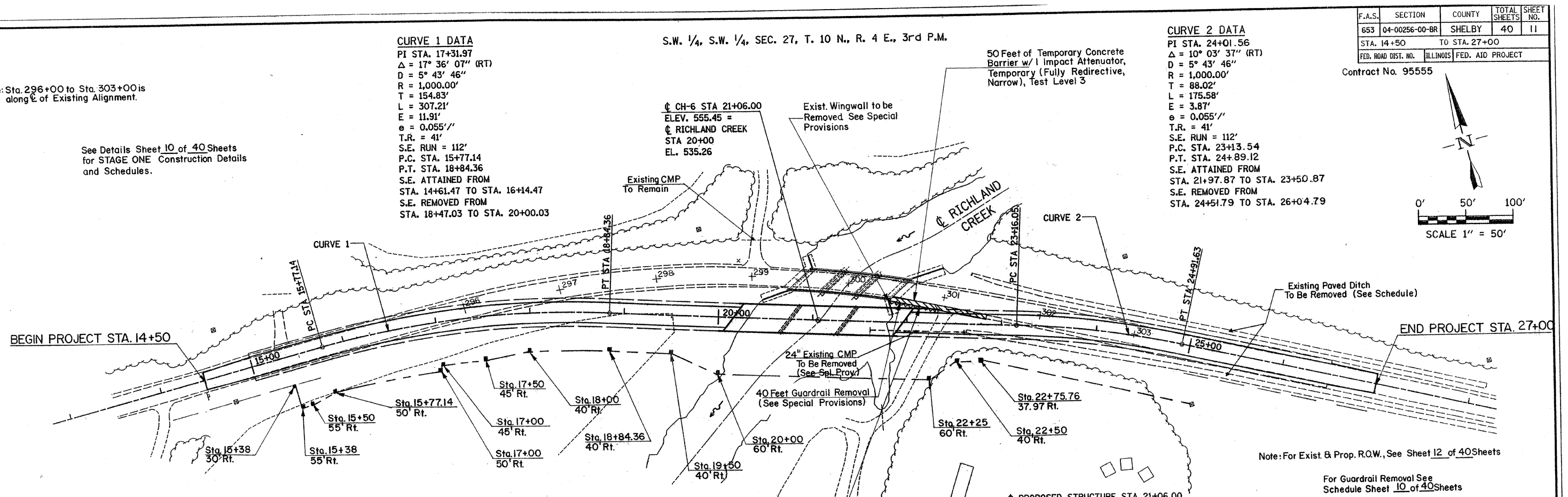
S.W. 1/4, S.W. 1/4, SEC. 27, T. 10 N., R. 4 E., 3rd P.M.

CURVE 1 DATA
 PI STA. 17+31.97
 $\Delta = 17^\circ 36' 07''$ (RT)
 $D = 5^\circ 43' 46''$
 $R = 1,000.00'$
 $T = 154.83'$
 $L = 307.21'$
 $E = 11.91'$
 $e = 0.055''$
 $T.R. = 41'$
 $S.E. RUN = 112'$
 $P.C. STA. 15+77.14$
 $P.T. STA. 18+84.36$
 $S.E. ATTAINED FROM STA. 14+61.47$ TO STA. 16+14.47
 $S.E. REMOVED FROM STA. 18+47.03$ TO STA. 20+00.03

CURVE 2 DATA
 PI STA. 24+01.56
 $\Delta = 10^\circ 03' 37''$ (RT)
 $D = 5^\circ 43' 46''$
 $R = 1,000.00'$
 $T = 88.02'$
 $L = 175.58'$
 $E = 3.87'$
 $e = 0.055''$
 $T.R. = 41'$
 $S.E. RUN = 112'$
 $P.C. STA. 23+13.54$
 $P.T. STA. 24+89.12$
 $S.E. ATTAINED FROM STA. 21+97.87$ TO STA. 23+50.87
 $S.E. REMOVED FROM STA. 24+51.79$ TO STA. 26+04.79

Note: Sta. 296+00 to Sta. 303+00 is along \bar{C} of Existing Alignment.

See Details Sheet 10 of 40 Sheets for STAGE ONE Construction Details and Schedules.



STAGE ONE CONSTRUCTION

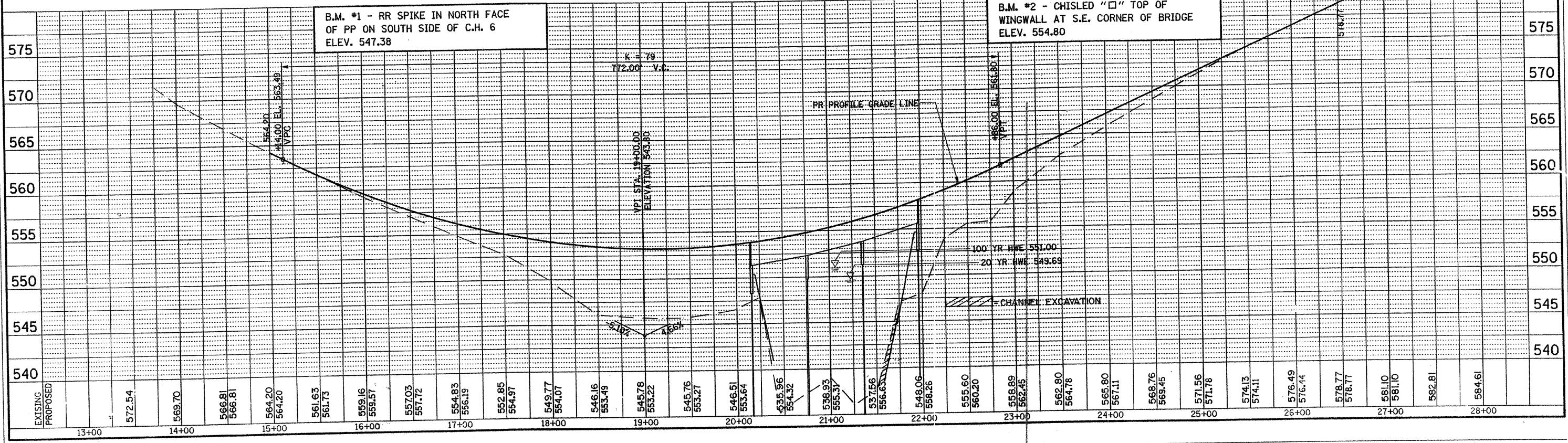
ROADWAY WIDTH TRANSITIONS

STA. 14+50 to STA. 15+00
 STA. 26+50 to STA. 27+00

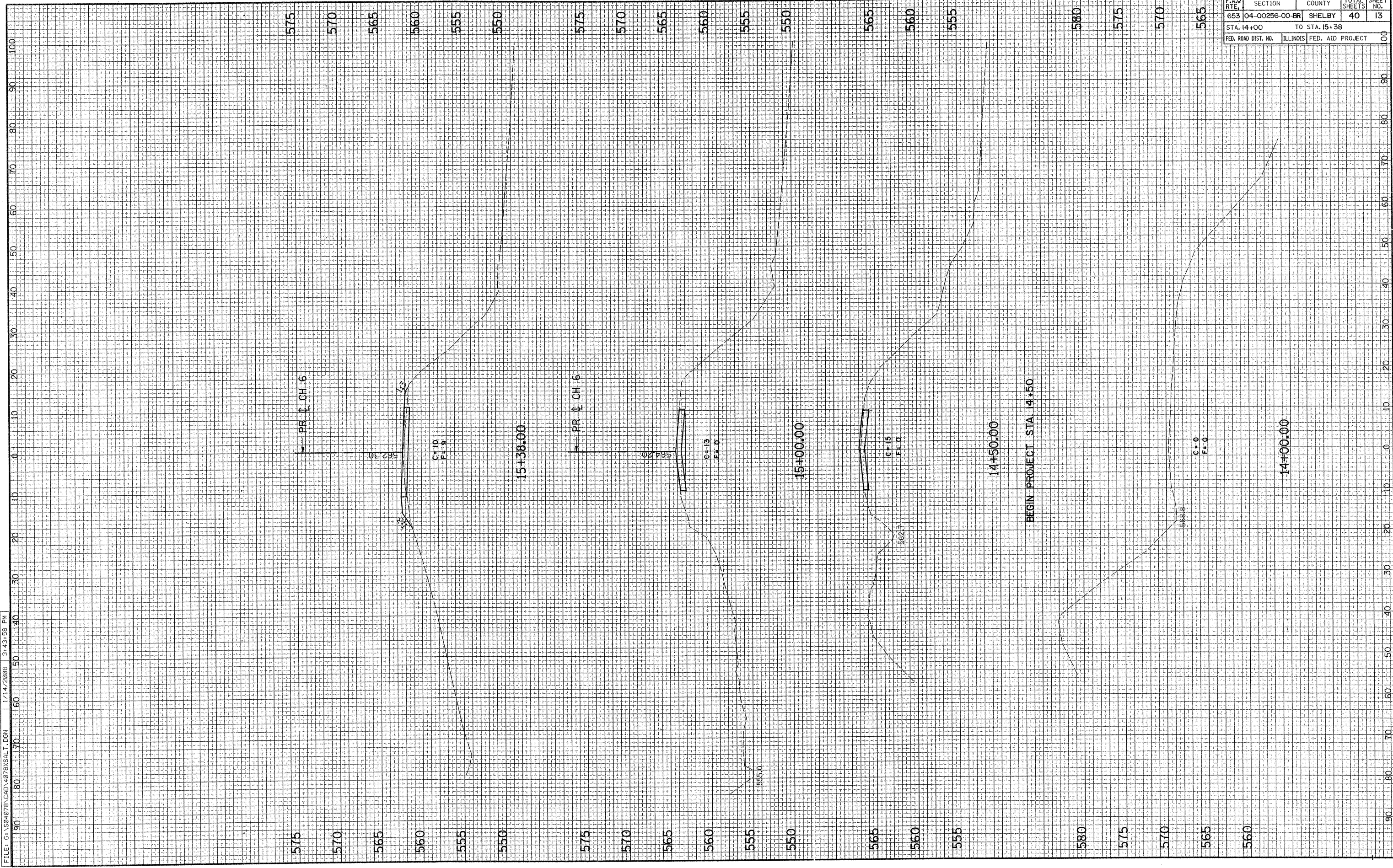
For proposed \bar{C} location, see Layout Page Sheet 4 of 40 Sheets

N.W. 1/4, N.W. 1/4, SEC. 34, T. 9 N., R. 4 E., 3rd P.M.

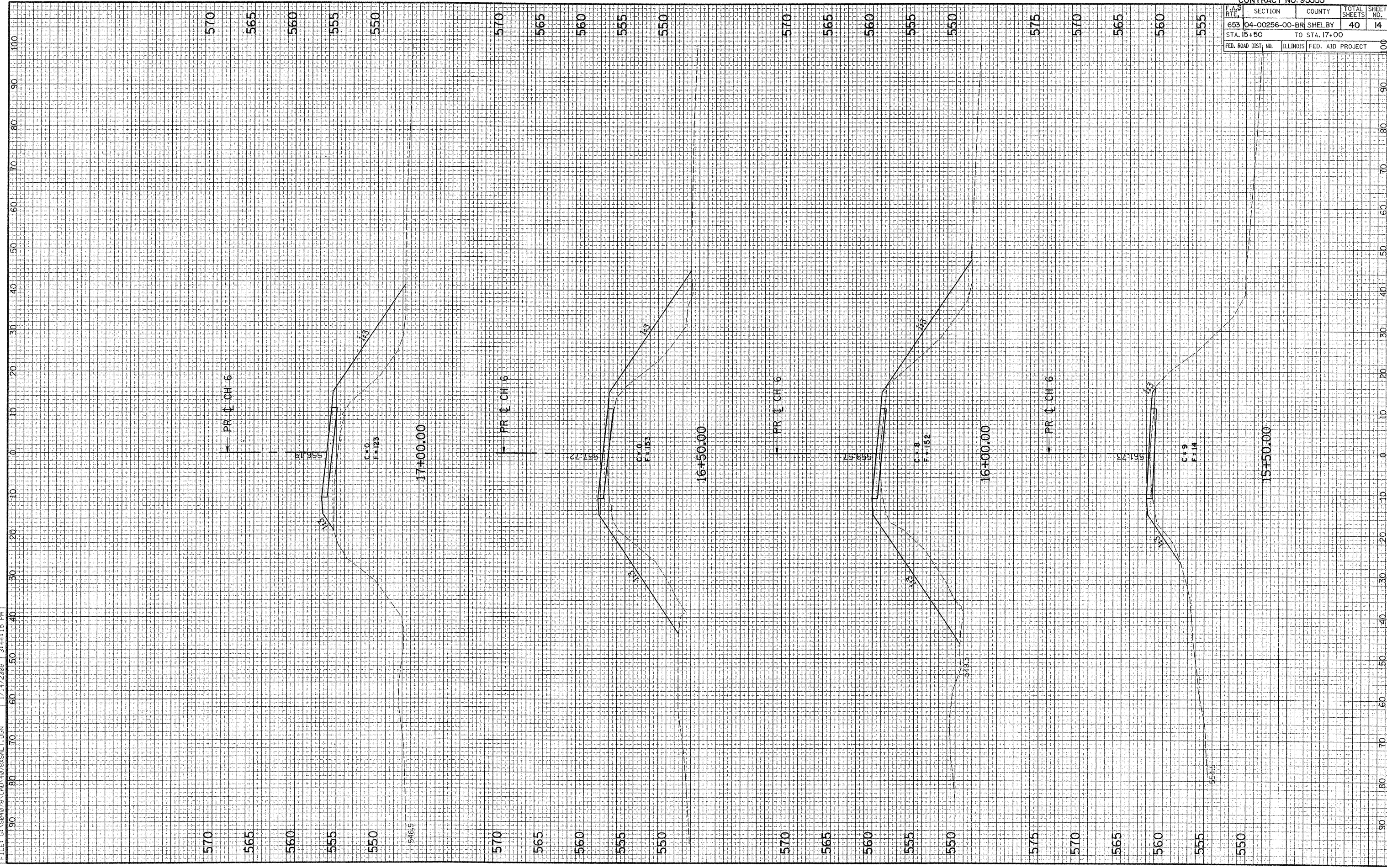
PPC. BASE CSE. WIDENING 8" Rt. Sta. 300+50 To Sta. 301+50



| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 653 | 04-00256-00-BR | SHELBY | 40 | 13 |
| STA. 14+00 | | TO STA. 15+38 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | 100 |

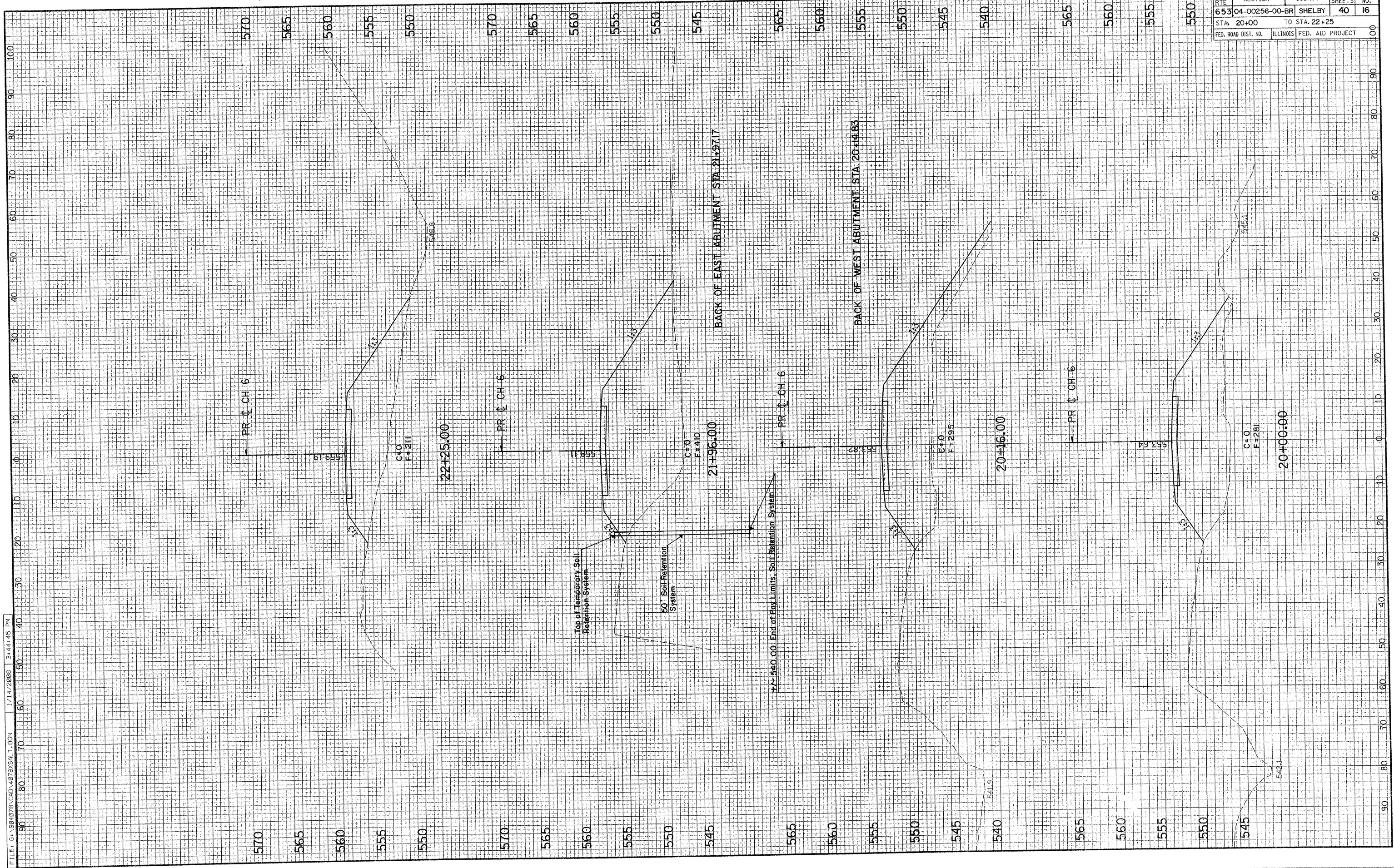


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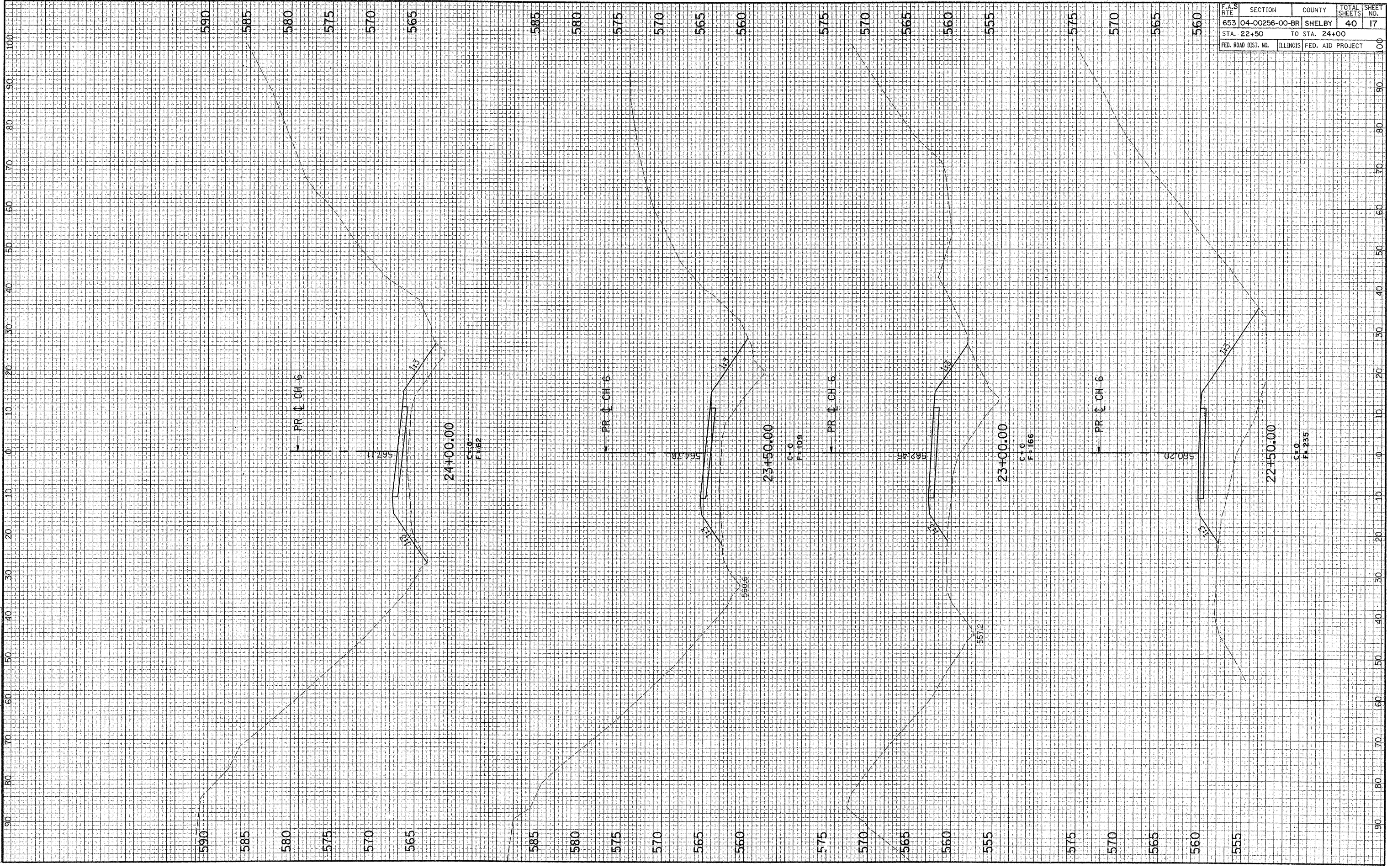
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| CONTRACT NO. 95555 | | | | |
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 653 | 04-00256-00-BR | SHELBY | 40 | 14 |
| STA. 15+50 | | TO STA. 17+00 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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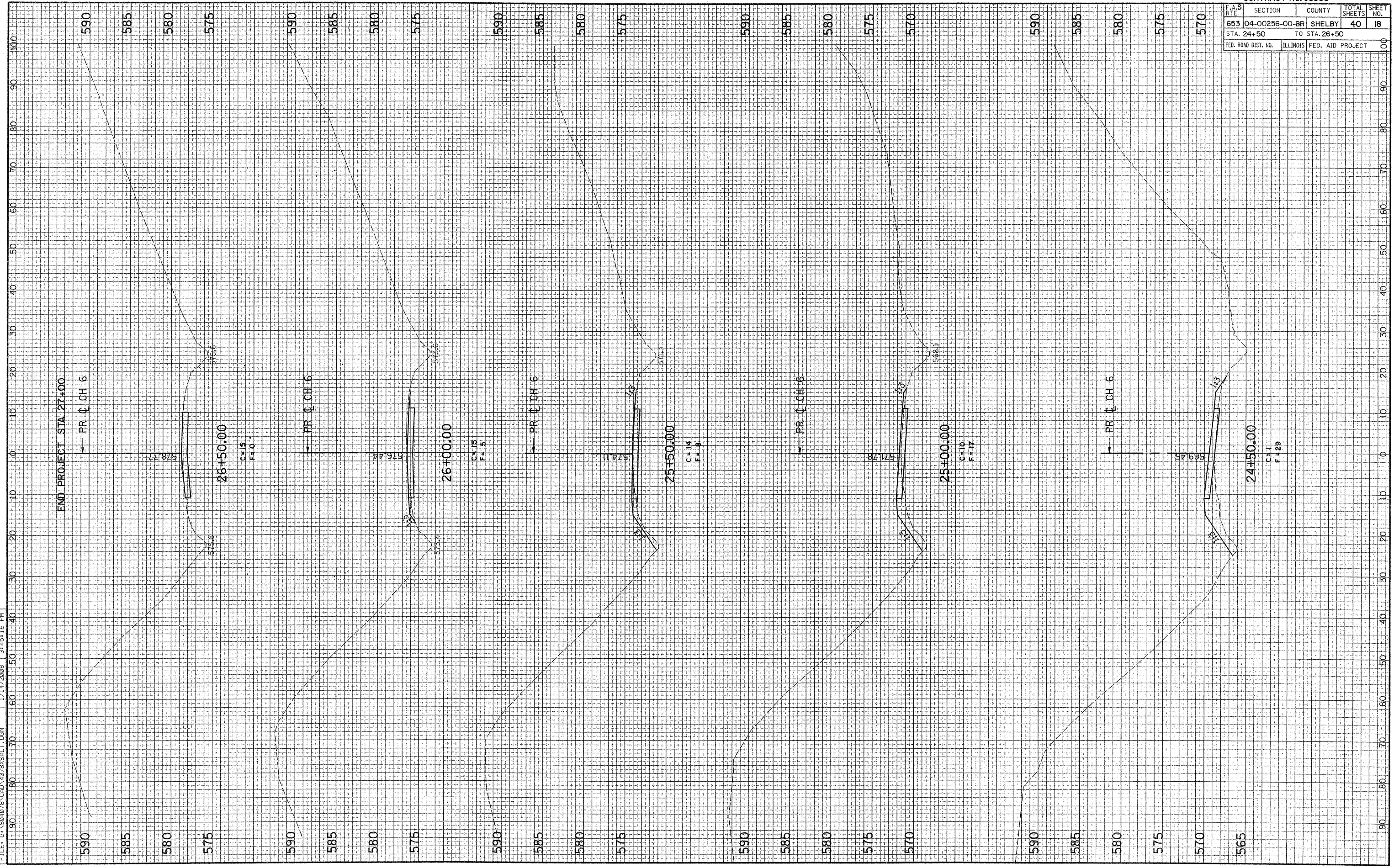


| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| CONTRACT NO. 95555 | | | | |
| P.A.S. SITE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 653 | 04-00256-00-BR | SHELBY | 40 | 16 |
| STA: 20+00 | | TO STA. 22+25 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

| F.A.S. RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|---------------------------|---------------|--------------|-----------|
| 653 | 04-00256-00-BR | SHELBY | 40 | 17 |
| STA. 22+50 | | TO STA. 24+00 | | |
| FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |



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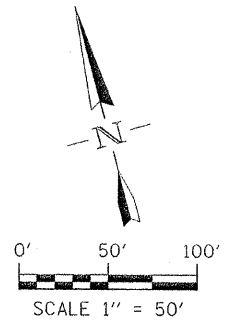


CONTRACT NO. 95555

| F.A.S. RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 653 | 04-00256-00-BR | SHELBY | 40 | 18 |
| STA. 24+50 | | TO STA. 26+50 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| F.A.S. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 653 | 04-00256-00-BR | SHELBY | 40 | 19 |
| STA. 14+50 | | TO STA. 27+00 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

Contract No. 95555

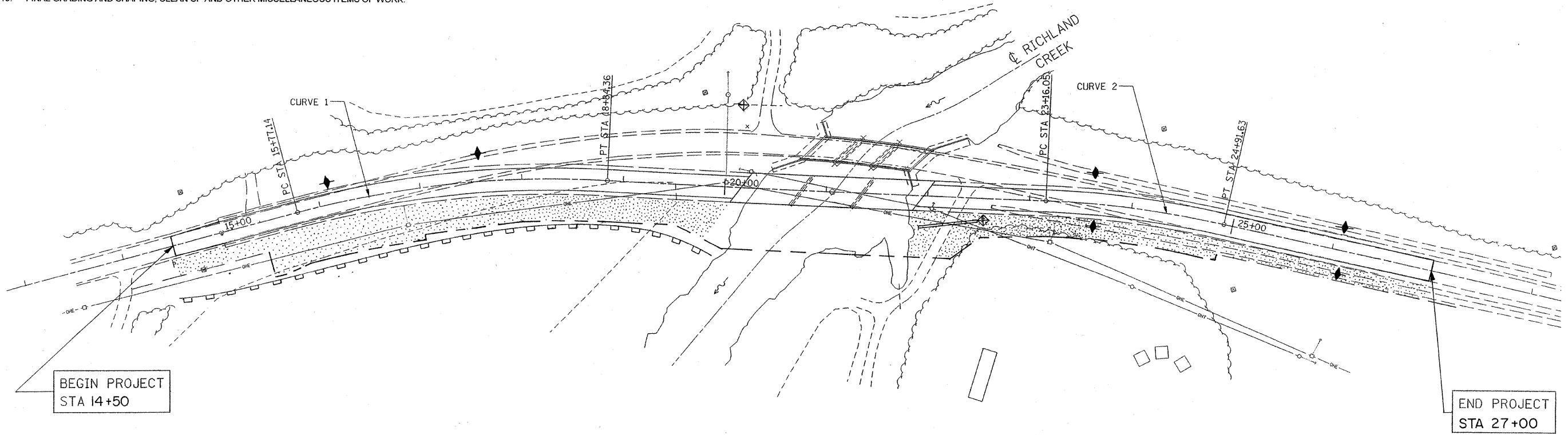


DESCRIPTION OF INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB EARTH AND LEAD TO POSSIBLE EROSION FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE.

1. PLACEMENT OF PERIMETER EROSION CONTROL FENCE PRIOR TO THE COMMENCEMENT OF ANY ROAD OR BRIDGE WORK. SEE STD. 280001.
2. CONSTRUCTION OF THE REPLACEMENT STRUCTURE.
3. PLACEMENT OF ROADWAY EMBANKMENT TO RAISE THE ROADWAY TO THE PROPOSED GRADE.
4. DRAINAGE STRUCTURES, INCLUDING DITCHES, WILL BE INSTALLED BEFORE AND/OR DURING THE COMPLETION OF THE EMBANKMENT.
5. PLACEMENT AND MAINTENANCE OF TEMPORARY EROSION CONTROL.
6. TIE PROPOSED ROADWAY TO EXISTING ROADWAY AND CONSTRUCT SURFACE.
7. REMOVE EXISTING STRUCTURE.
8. PLACEMENT OF PERMANENT EROSION CONTROL.
9. REMOVAL AND PROPER CLEAN UP OF TEMPORARY EROSION CONTROL.
10. FINAL GRADING AND SHAPING, CLEAN UP AND OTHER MISCELLANEOUS ITEMS OF WORK.

Note: THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL MUD, DIRT AND DEBRIS DEPOSITED ON THE ROADWAY FROM VEHICLES EXITING OR ENTERING THE SITE.

EARTH STOCK PILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN 14 DAYS.



BEGIN PROJECT
STA 14+50

END PROJECT
STA 27+00

| TEMPORARY EROSION CONTROL | |
|---------------------------|--|
| | PERIMETER EROSION BARRIER |
| | TEMPORARY DITCH CHECK |
| | INLET AND PIPE PROTECTION |
| PERMANENT EROSION CONTROL | |
| | SEEDING CLASS 2, FERTILIZERS, MULCH METHOD 2 |

| TEMPORARY EROSION CONTROL SCHEDULE | | | | |
|------------------------------------|-------|---------------|-------------------------|--------------------------------|
| STA. | LT/RT | OFFSET (FOOT) | TEMP DITCH CHECK (EACH) | INLET & PIPE PROTECTION (EACH) |
| 16+10 | LT | 20.00 | 1 | |
| 17+16 | LT | 27.00 | 1 | |
| 23+60 | LT | 30.00 | 1 | |
| 23+62 | RT | 23.00 | 1 | |
| 26+10 | LT | 21.00 | 1 | |
| 26+10 | RT | 23.00 | 1 | |
| 20+15 | LT | 80.00 | | 1 |
| 22+50 | RT | 21.00 | | 1 |
| TOTAL | | | 6 | 2 |

| BILL OF MATERIAL | | |
|-----------------------------------|-------|------|
| ITEM | UNIT | QTY. |
| TEMPORARY EROSION CONTROL SEEDING | POUND | 1600 |
| TEMPORARY DITCH CHECKS | EACH | 6 |
| PERIMETER EROSION BARRIER | FOOT | 550 |
| INLET AND PIPE PROTECTION | EACH | 2 |
| | | |
| | | |

THE ABOVE QUANTITIES ARE ESTIMATES ONLY. ACTUAL QUANTITIES FOR EROSION CONTROL WILL BE DETERMINED BY THE ENGINEER IN THE FIELD AND THERE WILL BE NO ADJUSTMENT IN ANY PRICE DUE TO A CHANGE IN PLAN QUANTITY.

| |
|-----------------------------|
| EROSION CONTROL PLAN |
| SECTION 04-00256-00-BR |
| |
| |

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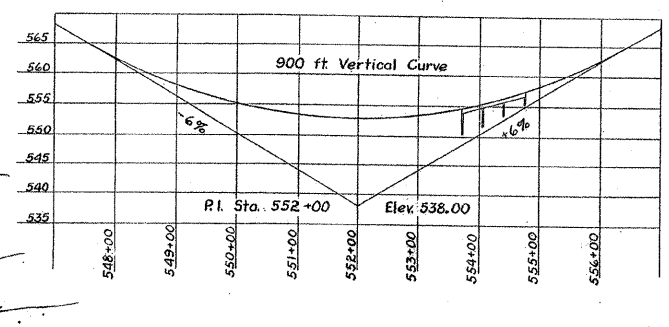
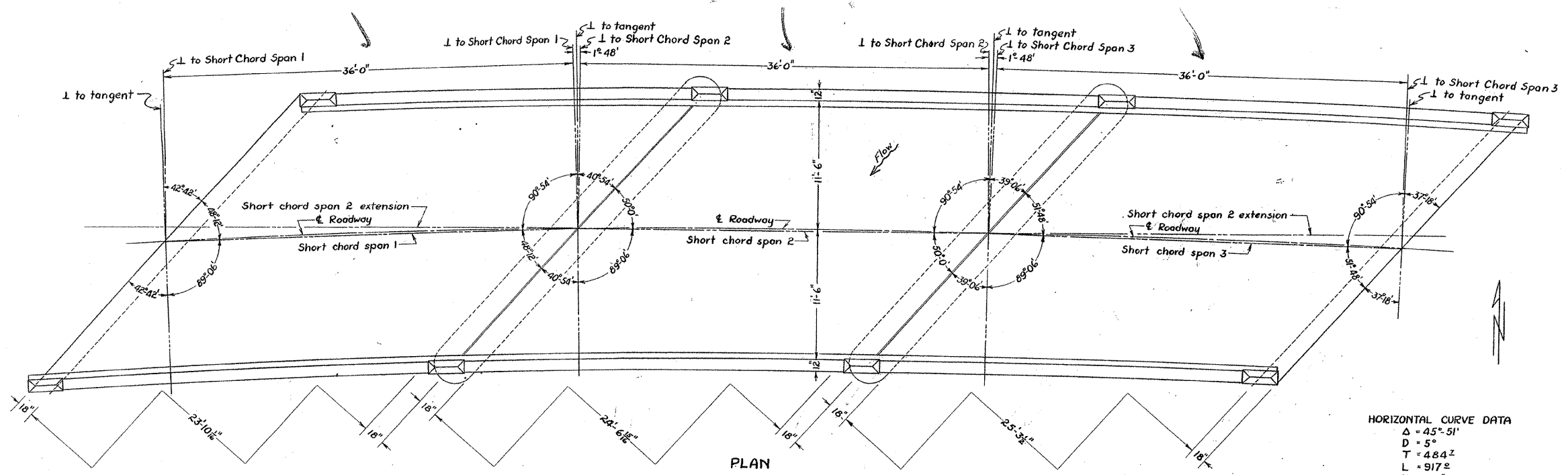
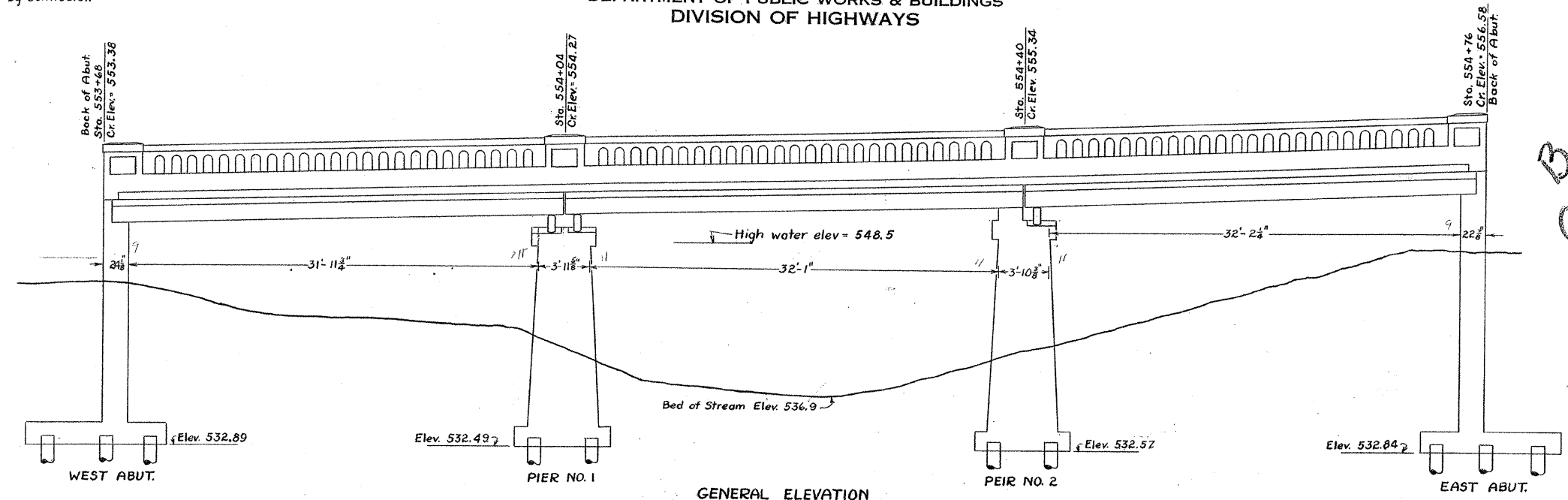
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|-----------------------|---------|--------|--------------|-----------|
| RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAS 653 | * | SHELBY | 40 | 20 |
| PROJECT BRS-0653(112) | | | | |
| *04-00256-00-BR | | | | |

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 1
7 SHEETS

*Built 1934
Cons. Road*

B.M. #44 - Spike in Burr Oak - 60 ft left of Sta. 553+75 - Elev. 548.52
Existing 60' steel Pony Truss, 14 ft roadway, steel legs, to be removed by Contractor.



BILL OF MATERIAL - THREE SPANS

| | SUPER | ABUTS | PIERS | TOTAL |
|---------------------------------------|--------|--------|-------|--------|
| Handrail Concrete ~ Cu. Yds. | 12.7 | ~ | ~ | 12.7 |
| Class X Concrete ~ Cu. Yds. | 1293 | 311.4 | ~ | 440.7 |
| Class A Concrete ~ Cu. Yds. | ~ | ~ | 184.2 | 184.2 |
| Reinforcing Steel ~ Lbs. | 46,230 | 29,800 | 50 | 76,080 |
| Expansion Guards ~ Lbs. | 2,140 | ~ | ~ | 2,140 |
| Untreated Piling (up to 20') Lin. Ft. | ~ | 2760 | 880 | 3640 |
| Test Piles ~ Each | ~ | ~ | ~ | 4 |
| W.I. Floor Drains (Galv.) ~ Each | 12 | ~ | ~ | 12 |
| Rockers & Plates ~ Lbs. | 3,120 | ~ | ~ | 3,120 |
| Name Plate ~ Each | One | ~ | ~ | One |
| Existing Bridge Removal ~ Each | ~ | ~ | ~ | One |
| 4" P.C.C. Wearing Surf. ~ Sq. Yds. | 260 | ~ | ~ | 260 |

RICHLAND CREEK BRIDGE
S.A. RTE. 6 ~ SEC. 5-1-B-MET.
SHELBY COUNTY
STA. 554+22

| | | | | |
|----------|-----------|-------------------|----------|-------------|
| STANDARD | COMPUTED | - M. Humphrey Jr. | EXAMINED | 8-11-1934 |
| | CHECKED | - J.C. Anderson | | |
| | DRAWN | - M.H. | | |
| | CHECKED | - J.C.A. | | |
| SPECIAL | ASSEMBLED | - [Signature] | APPROVED | [Signature] |
| | CHECKED | - [Signature] | | |

THIS SHEET
FOR INFORMATION ONLY

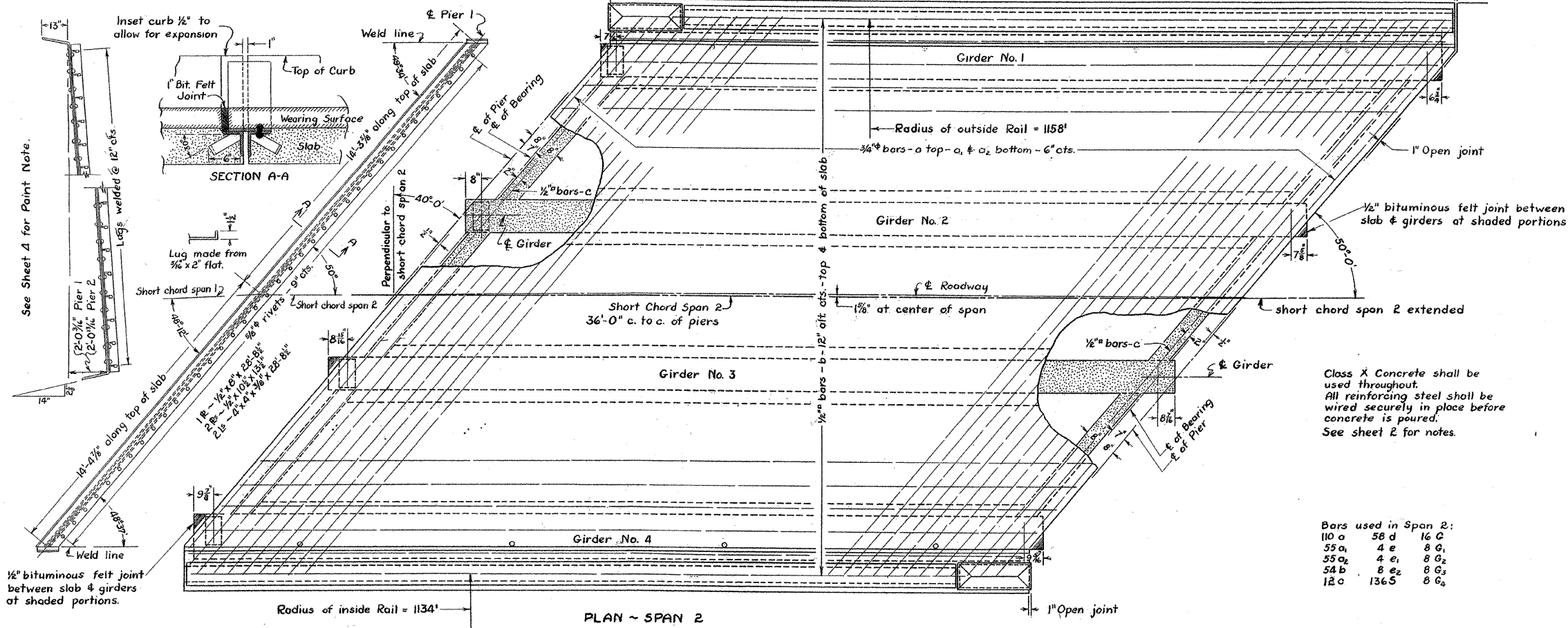
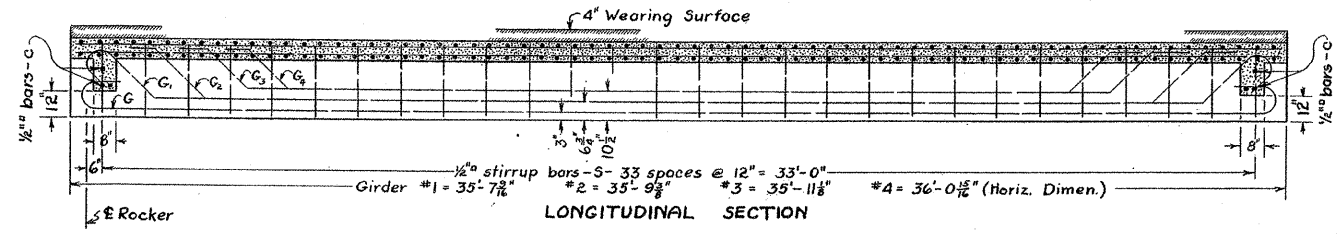
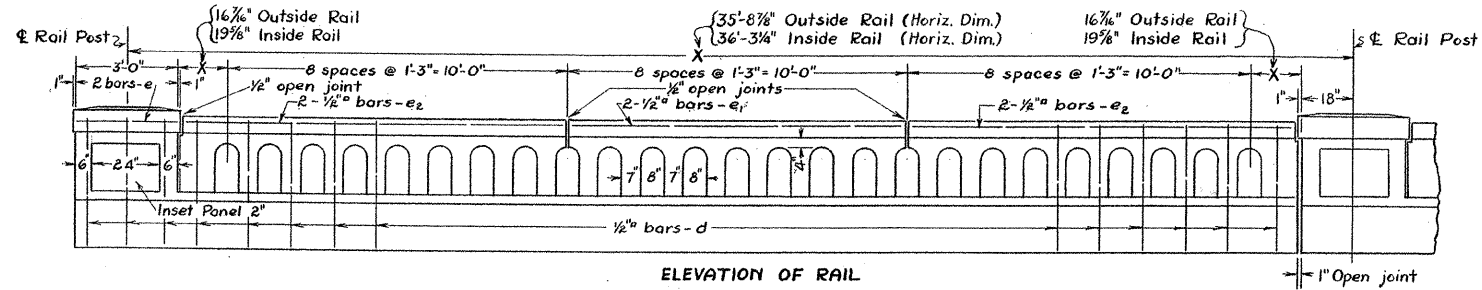
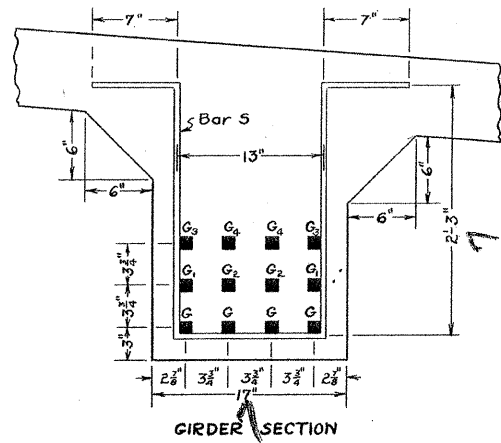
| RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|------------------------|---------|--------|--------------|-----------|
| FAS 653 | * | SHELBY | 40 | 22 |
| PROJECT BRS-0653 (112) | | | | |

* 04-00256-00-BR

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 3

7 SHEETS



**THIS SHEET
FOR INFORMATION ONLY**

Class X Concrete shall be used throughout. All reinforcing steel shall be wired securely in place before concrete is poured. See sheet 2 for notes.

Bars used in Span 2:

| | | |
|-------|------|------|
| 110 a | 58 d | 16 c |
| 55 a1 | 4 e | 8 G1 |
| 55 a2 | 4 e1 | 8 G2 |
| 54 b | 8 e2 | 8 G3 |
| 12 c | 1365 | 8 G4 |

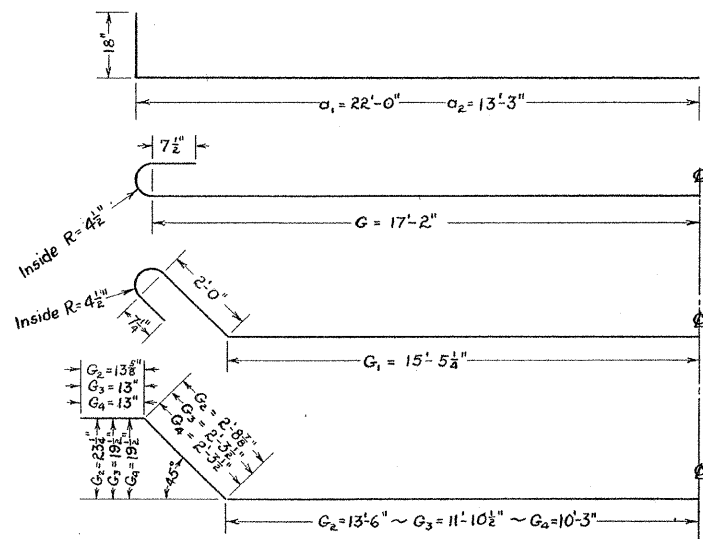
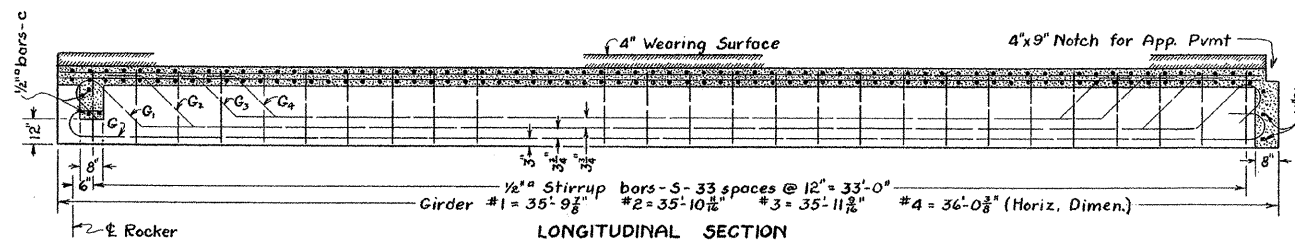
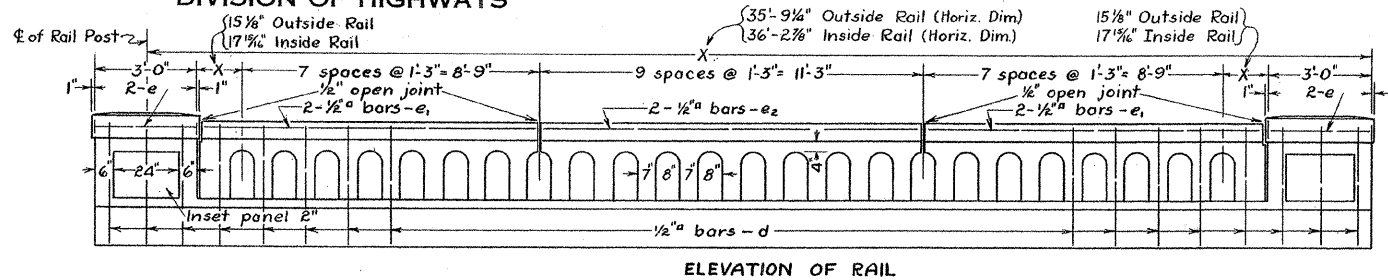
| | | | | |
|----------|-----------|---------------|------------|--------------------|
| STANDARD | COMPUTED | M.H. | EXAMINED | 8-11-1934 |
| | CHECKED | J.C. Anderson | J.F. Smith | BRIDGE ENGINEER |
| | DRAWN | M.H. | PASSED | A.E. Johnson |
| | CHECKED | J.C.A. | APPROVED | ENGINEER OF DESIGN |
| SPECIAL | ASSEMBLED | | | |
| | CHECKED | | | |

RICHLAND CREEK BRIDGE
S.A. RTE. 6 - SEC. 3-1-B-1-M.F.T.
SHELBY COUNTY
STA. 554 + 22

| RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|---------|--------|--------------|-----------|
| FAS 653 | * | SHELBY | 40 | 23 |
| PROJECT BRS-0653(112) | | | | |

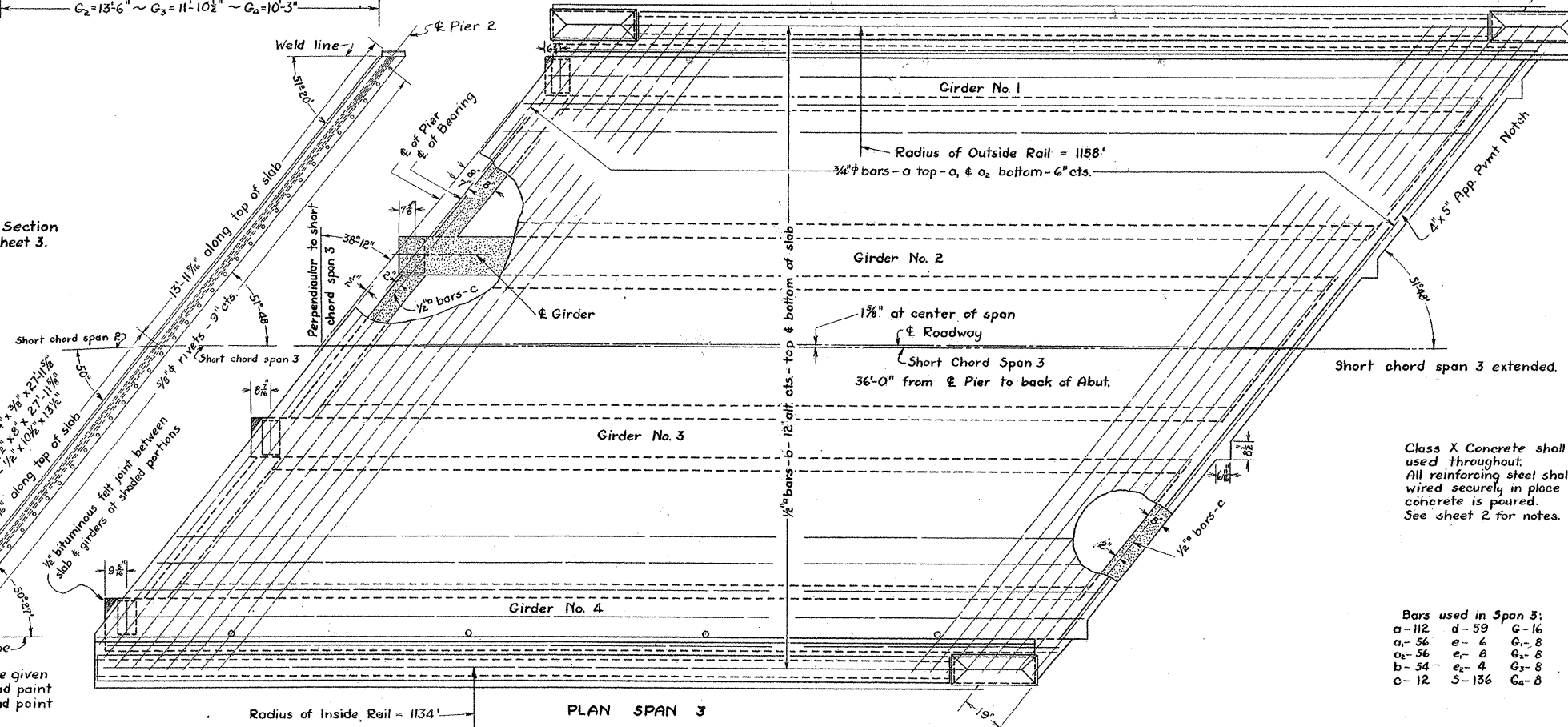
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 4
7 SHEETS



Elevation & Section
same as on sheet 3.

Weight of Two
Exp. Guards.
= 2140^{lb}



Class X Concrete shall be used throughout.
All reinforcing steel shall be wired securely in place before concrete is poured.
See sheet 2 for notes.

- Bars used in Span 3:
- a-112 d-59 G-16
 - a₁-56 e-6 G₁-8
 - a₂-56 e₁-8 G₂-8
 - b-54 e₂-4 G₃-8
 - c-12 S-136 G₄-8

Expansion guards shall be given one shop coat of blue lead paint & 2 field coats of white lead paint

| | | |
|----------|-----------|----------------------|
| STANDARD | COMPUTED | <i>M.H.</i> |
| | CHECKED | <i>J.C. Anderson</i> |
| | DRAWN | <i>M.H.</i> |
| | CHECKED | <i>J.C.A.</i> |
| SPECIAL | ASSEMBLED | |
| | CHECKED | |

| | |
|----------|-------------------------------|
| EXAMINED | <i>8-11-34</i> |
| | <i>A.F. Burch</i> |
| PASSED | <i>H.E. Surman</i> |
| APPROVED | <i>Chief Highway Engineer</i> |

RICHLAND CREEK BRIDGE
S.A. RTE. 6 ~ SEC. 5-1-B-1-M.F.T.
SHELBY COUNTY
STA. 554+22

THIS SHEET
FOR INFORMATION ONLY

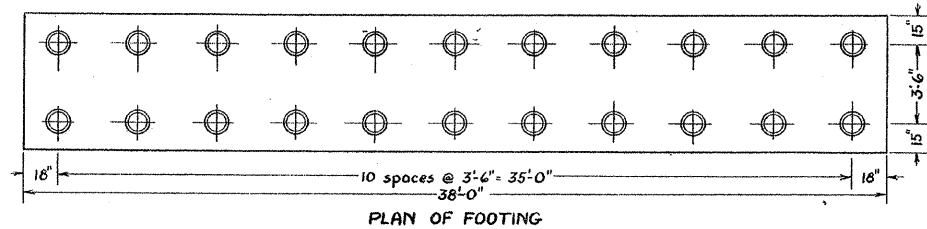
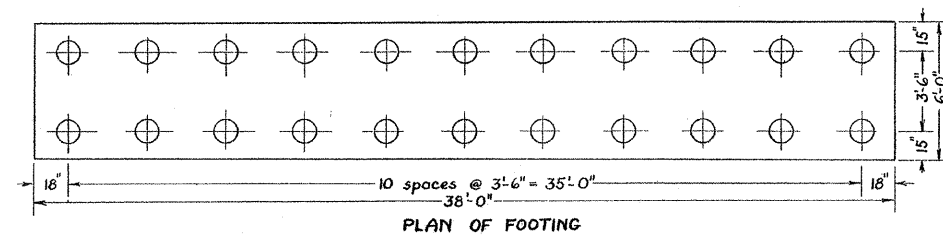
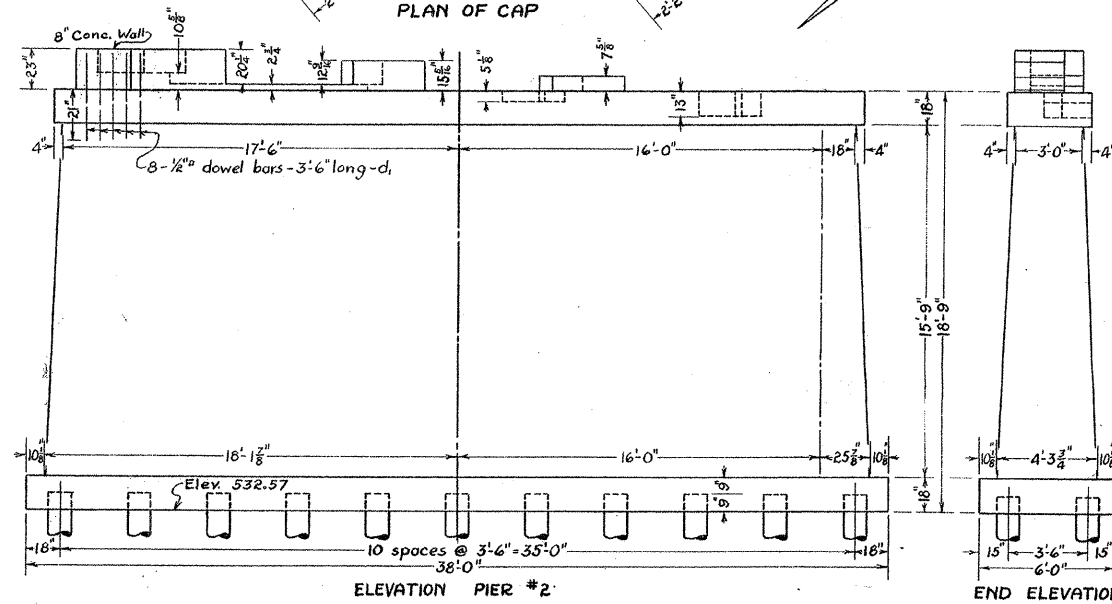
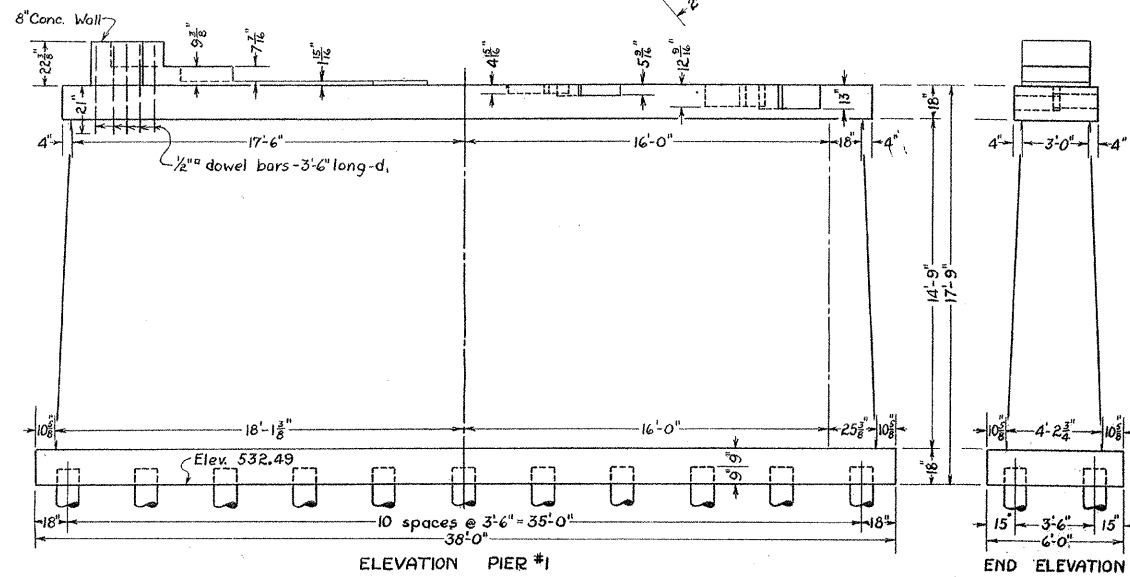
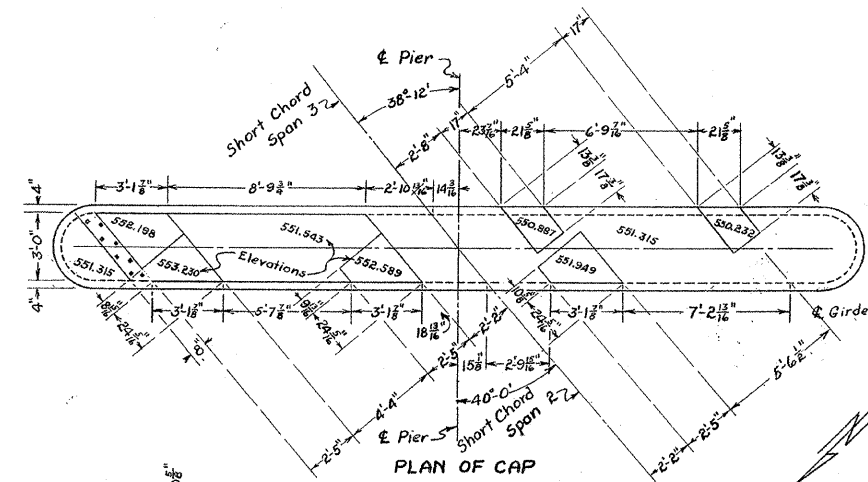
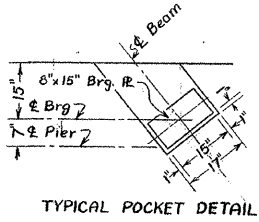
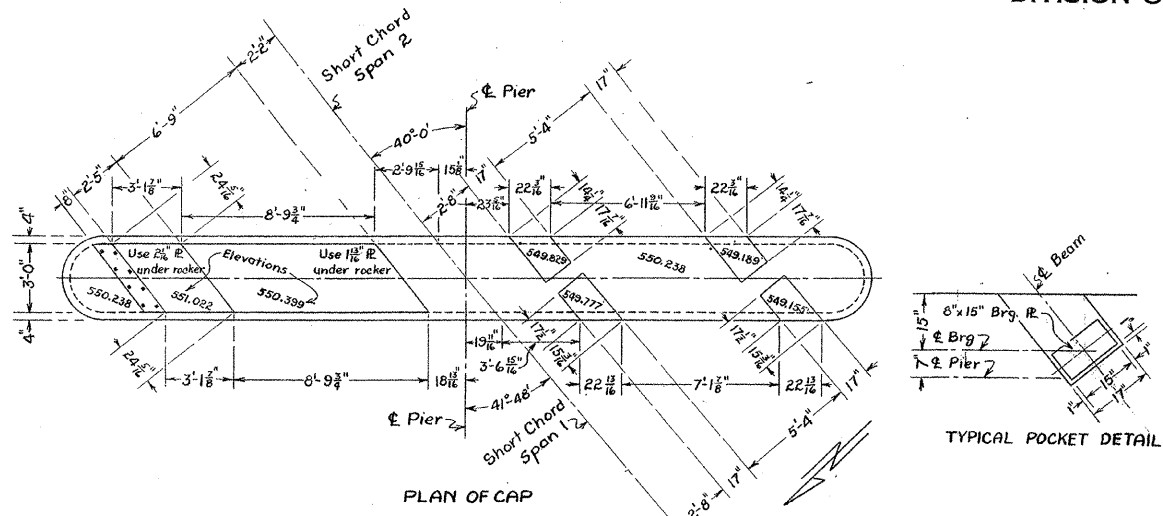
B.M.#44 ~ Spike in Burr Oak 60 ft. Lt. of Sta. 553+75. Elev. 548.52

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 5
7 SHEETS

CONTRACT NO. 95555

| RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------------|---------|--------|--------------|-----------|
| FAS 653 | * | SHELBY | 40 | 24 |
| PROJECT BRS - 0653 (112) | | | | |
| * 04-00256-00-BR | | | | |



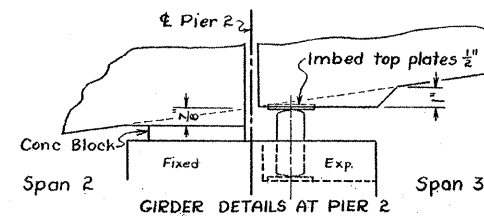
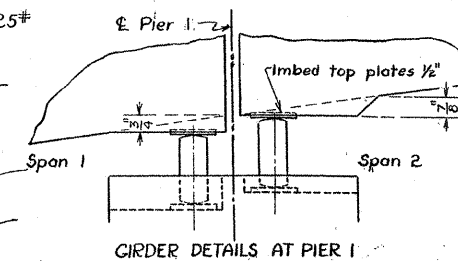
○ 15 Ton Untreated Piles. (up to 20') 22 Reqd.
88.9 Cu. Yds. Class A Concrete
Reinf. Steel - 8-1/2" bars-3'-6" long - 25#

Class A Concrete to be used throughout.

○ 17 Ton Untreated Piles. (up to 20') 22 Reqd.
95.3 Cu. Yds. Class A Concrete
Reinf. Steel - 8-1/2" bars-3'-6" long - 25#

| | | |
|----------|-----------|---------------|
| STANDARD | COMPUTED | M.H. |
| | CHECKED | J.C. Anderson |
| | DRAWN | M.H. |
| SPECIAL | CHECKED | J.C.A. |
| | ASSEMBLED | |
| | CHECKED | |

EXAMINED 8-11-1939
PASSED H.E. Johnson
APPROVED [Signature]
BRIDGE ENGINEER
ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER



RICHLAND CREEK BRIDGE
S.A. RTE. 6 ~ SEC. S-1-B-1-M.F.T.
SHELBY COUNTY
STA. 554+22

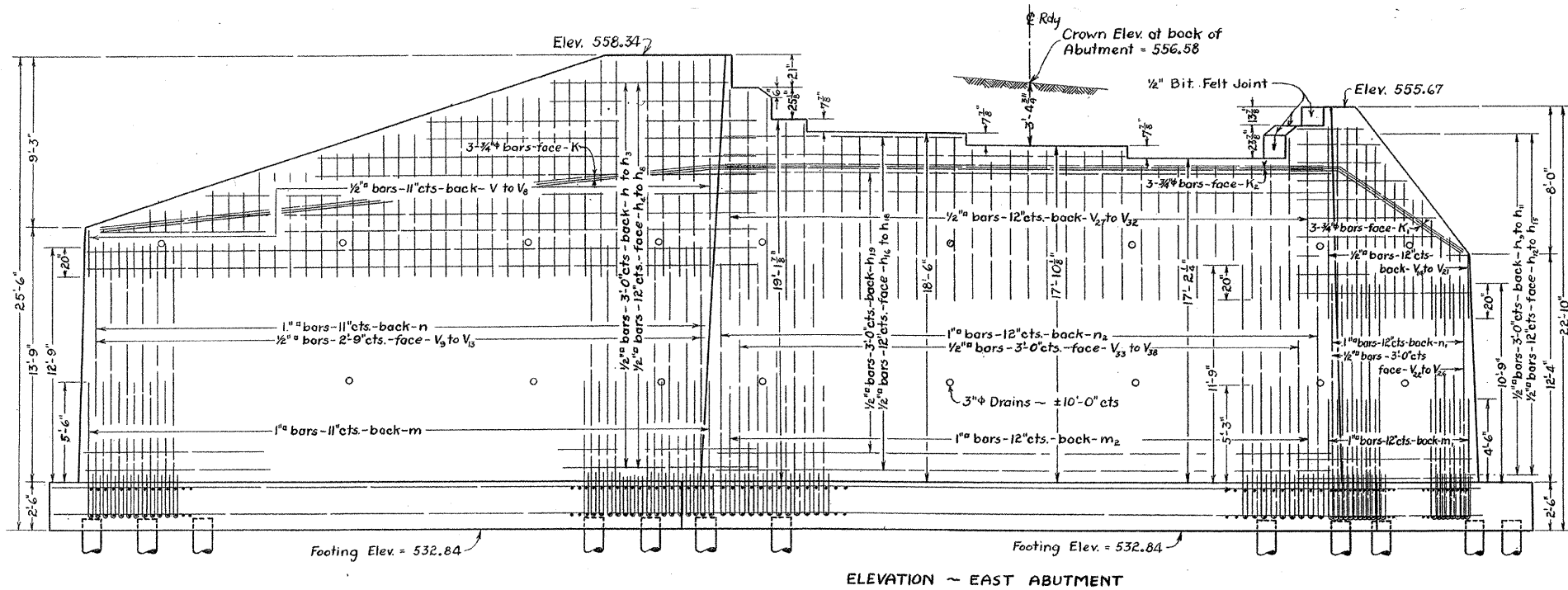
THIS SHEET
FOR INFORMATION ONLY

B.M. #44 - Spike in Burr Oak 60' Left of Sta. 553+75 -- Elev. 548.52

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 6
7 SHEETS

| | | | | |
|-----------------------|---------|--------|--------------|-----------|
| CONTRACT NO. 95555 | | | | |
| RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAS 653 | * | SHELBY | 40 | 25 |
| PROJECT BRS-0653(112) | | | | |
| * 04-00256-00-BR | | | | |

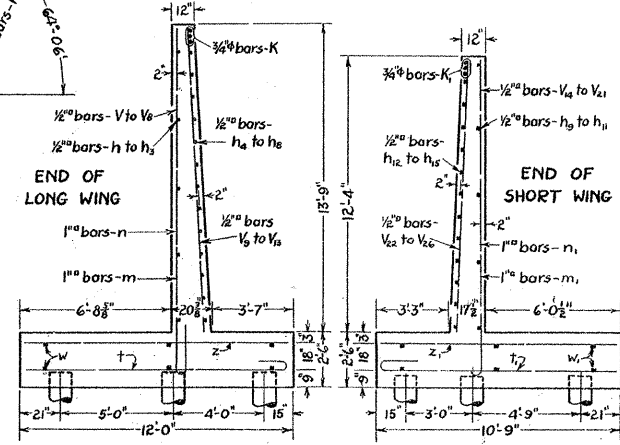
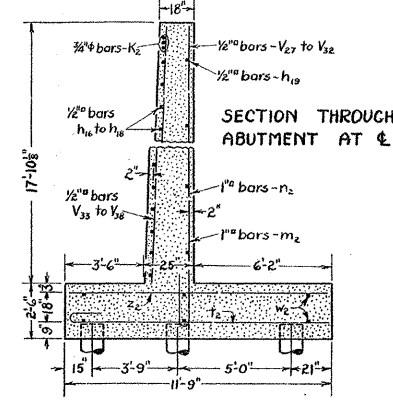
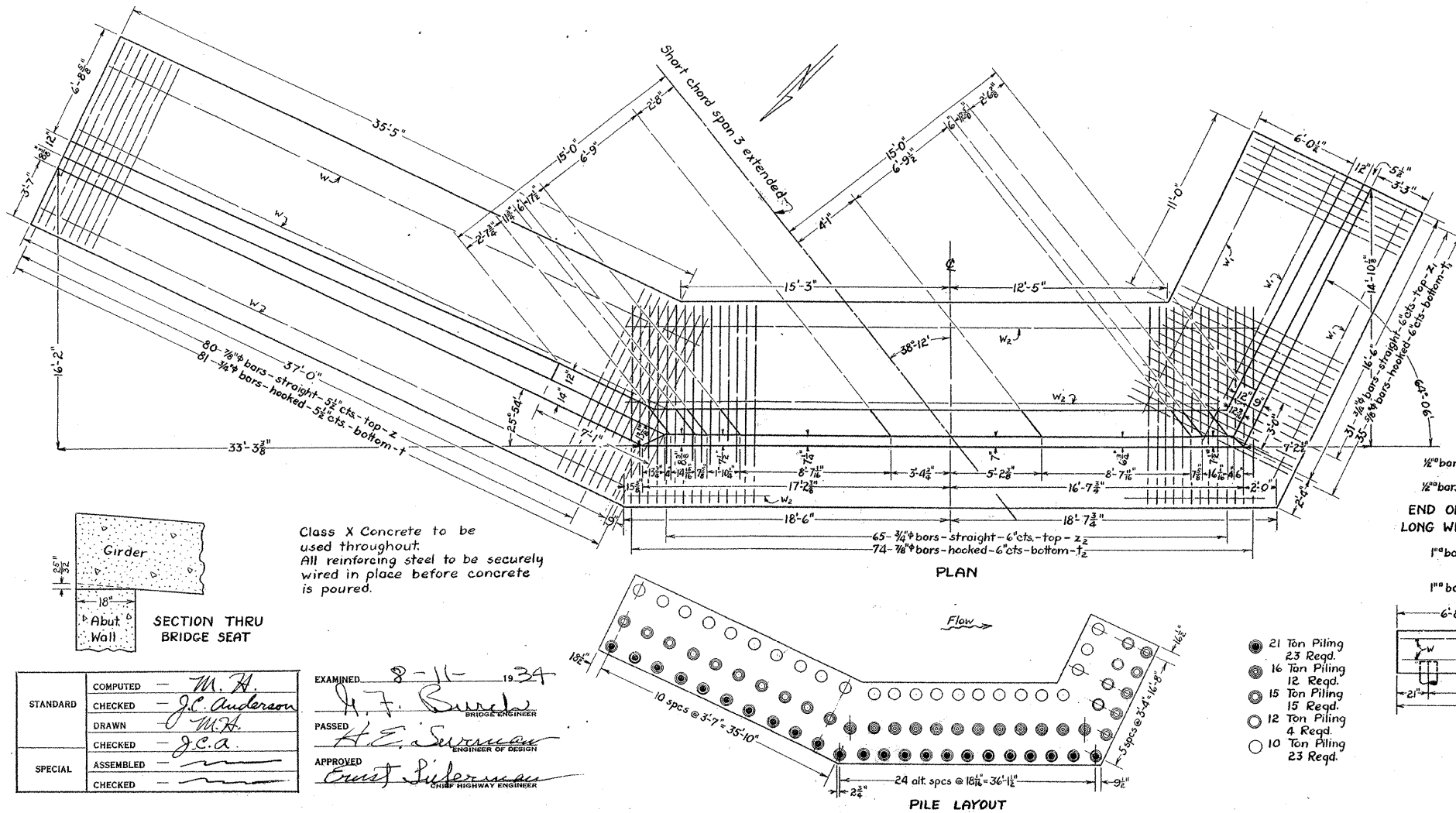


BILL OF MATERIAL - EAST ABUTMENT

| Bar | No. | Size | Length | Bar | No. | Size | Length |
|-----------------|-----|------|--------|-----------------|-----|------|--------|
| V ₁ | 4 | 1/2" | 2'-9" | h ₁ | 10 | 1/2" | 20'-0" |
| V ₂ | 4 | 1/2" | 3'-9" | h ₂ | 1 | 1/2" | 31'-6" |
| V ₃ | 3 | 1/2" | 4'-9" | h ₃ | 1 | 1/2" | 21'-6" |
| V ₄ | 4 | 1/2" | 5'-9" | h ₄ | 1 | 1/2" | 11'-6" |
| V ₅ | 4 | 1/2" | 6'-9" | h ₅ | 28 | 1/2" | 20'-6" |
| V ₆ | 3 | 1/2" | 7'-9" | h ₆ | 2 | 1/2" | 32'-6" |
| V ₇ | 4 | 1/2" | 8'-9" | h ₇ | 2 | 1/2" | 26'-0" |
| V ₈ | 4 | 1/2" | 9'-9" | h ₈ | 2 | 1/2" | 19'-6" |
| V ₉ | 11 | 1/2" | 10'-9" | h ₉ | 2 | 1/2" | 12'-6" |
| V ₁₀ | 2 | 1/2" | 14'-0" | h ₁₀ | 5 | 1/2" | 16'-6" |
| V ₁₁ | 3 | 1/2" | 16'-0" | h ₁₁ | 7 | 1/2" | 11'-9" |
| V ₁₂ | 2 | 1/2" | 18'-0" | h ₁₂ | 1 | 1/2" | 6'-9" |
| V ₁₃ | 3 | 1/2" | 20'-0" | h ₁₃ | 13 | 1/2" | 17'-6" |
| V ₁₄ | 3 | 1/2" | 22'-0" | h ₁₄ | 2 | 1/2" | 14'-0" |
| V ₁₅ | 2 | 1/2" | 3'-3" | h ₁₅ | 2 | 1/2" | 11'-0" |
| V ₁₆ | 2 | 1/2" | 4'-3" | h ₁₆ | 3 | 1/2" | 8'-0" |
| V ₁₇ | 1 | 1/2" | 5'-3" | h ₁₇ | 34 | 1/2" | 17'-6" |
| V ₁₈ | 2 | 1/2" | 6'-3" | h ₁₈ | 1 | 1/2" | 21'-6" |
| V ₁₉ | 2 | 1/2" | 7'-3" | h ₁₉ | 1 | 1/2" | 12'-0" |
| V ₂₀ | 1 | 1/2" | 8'-3" | h ₂₀ | 12 | 1/2" | 17'-0" |
| V ₂₁ | 4 | 1/2" | 9'-3" | m | 41 | 1" | 8'-9" |
| V ₂₂ | 2 | 1/2" | 10'-3" | m ₁ | 14 | 1" | 7'-9" |
| V ₂₃ | 1 | 1/2" | 12'-3" | m ₂ | 32 | 1" | 8'-6" |
| V ₂₄ | 1 | 1/2" | 14'-3" | n | 40 | 1" | 16'-0" |
| V ₂₅ | 1 | 1/2" | 16'-3" | n ₁ | 15 | 1" | 14'-0" |
| V ₂₆ | 1 | 1/2" | 18'-3" | n ₂ | 33 | 1" | 15'-0" |
| V ₂₇ | 1 | 1/2" | 19'-3" | t | 81 | 3/4" | 12'-9" |
| V ₂₈ | 2 | 1/2" | 11'-0" | t ₁ | 35 | 3/8" | 11'-3" |
| V ₂₉ | 2 | 1/2" | 9'-0" | t ₂ | 74 | 3/8" | 12'-9" |
| V ₃₀ | 8 | 1/2" | 8'-3" | z | 80 | 7/8" | 11'-9" |
| V ₃₁ | 9 | 1/2" | 7'-6" | z ₁ | 31 | 3/4" | 10'-6" |
| V ₃₂ | 9 | 1/2" | 7'-0" | z ₂ | 65 | 3/4" | 11'-6" |
| V ₃₃ | 2 | 1/2" | 9'-0" | w | 12 | 1/2" | 19'-6" |
| V ₃₄ | 1 | 1/2" | 20'-9" | w ₁ | 6 | 1/2" | 17'-6" |
| V ₃₅ | 1 | 1/2" | 19'-0" | w ₂ | 12 | 1/2" | 19'-3" |
| V ₃₆ | 2 | 1/2" | 18'-3" | k | 4 | 3/4" | 21'-6" |
| V ₃₇ | 3 | 1/2" | 17'-9" | k ₁ | 3 | 3/4" | 16'-6" |
| V ₃₈ | 3 | 1/2" | 17'-0" | k ₂ | 6 | 3/4" | 17'-6" |
| V ₃₉ | 1 | 1/2" | 19'-0" | | | | |

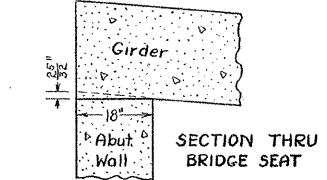
Reinforcing Steel Lbs. 16,410
Class X Concrete Cu. Yds. 183.7
Untreated Piling (Up to 20') Lin. Ft. 1,540

ELEVATION ~ EAST ABUTMENT



RICHLAND CREEK BRIDGE
S.A. RTE. 6 - SEC. 5-1-B-1-M.F.T.
SHELBY COUNTY
STA. 554+22

THIS SHEET
FOR INFORMATION ONLY



Class X Concrete to be used throughout. All reinforcing steel to be securely wired in place before concrete is poured.

| | | |
|----------|-----------|-----------------|
| STANDARD | COMPUTED | - M.H. |
| | CHECKED | - J.C. Anderson |
| | DRAWN | - M.H. |
| | CHECKED | - J.C.A. |
| SPECIAL | ASSEMBLED | - |
| | CHECKED | - |

EXAMINED 8-11-1934
A.F. Burch BRIDGE ENGINEER
PASSED H.E. Swanson ENGINEER OF DESIGN
APPROVED Ernest Silberman CHIEF HIGHWAY ENGINEER

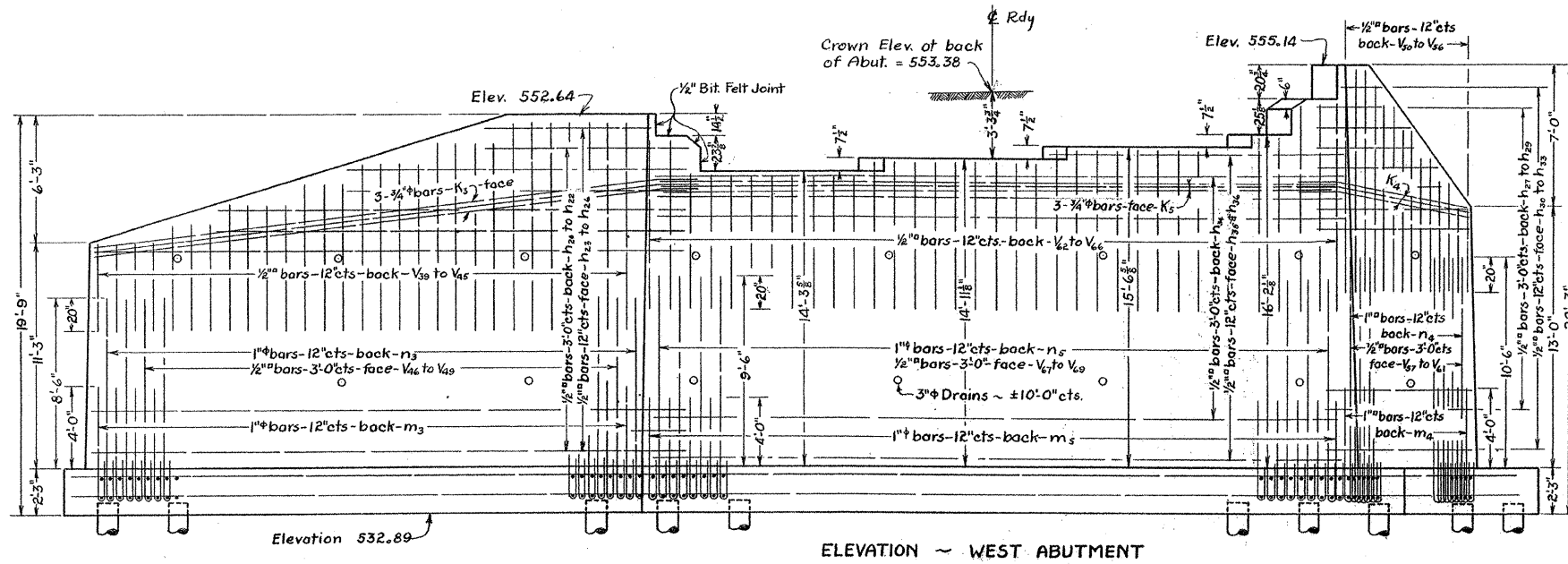
- 21 Ton Piling 23 Reqd.
- 16 Ton Piling 12 Reqd.
- 15 Ton Piling 15 Reqd.
- 12 Ton Piling 4 Reqd.
- 10 Ton Piling 23 Reqd.

B.M. #44 - Spike in Burr Oak 60 ft. Lt. of Sta. 553+75.
Elevation 548.52

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 7
7 SHEETS

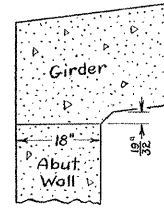
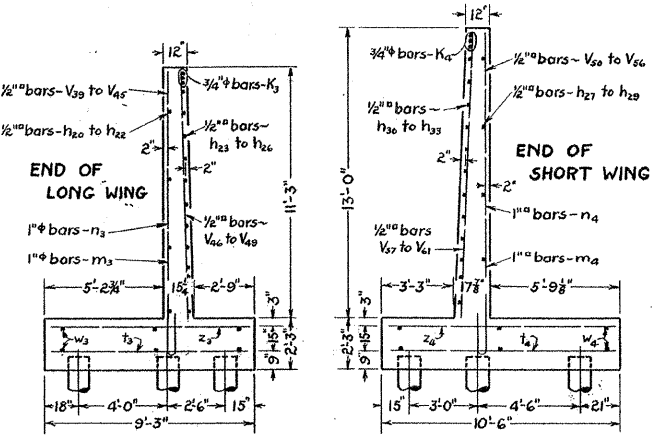
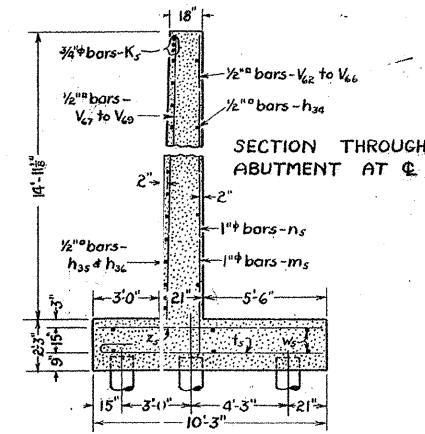
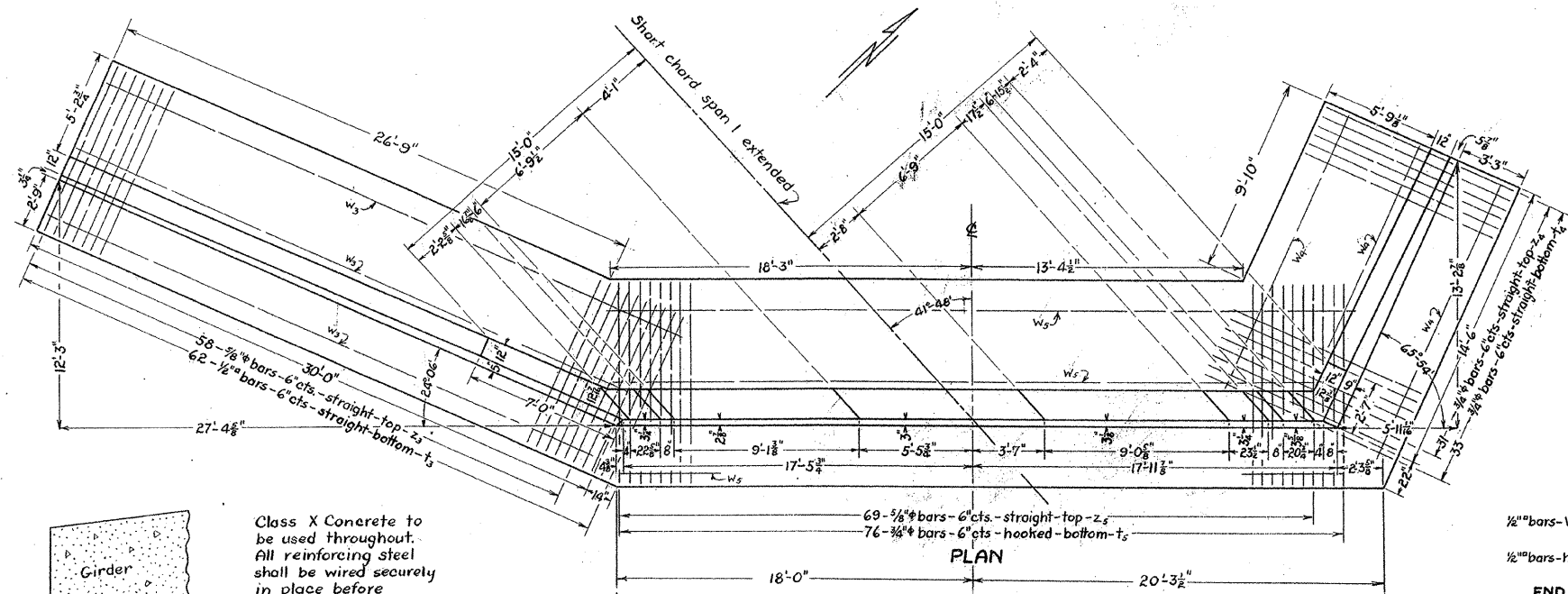
| | | | | |
|-----------------------|---------|--------|--------------|-----------|
| CONTRACT NO. 95555 | | | | |
| RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAS 653 | * | SHELBY | 40 | 26 |
| PROJECT BRS-0653(112) | | | | |
| *04-00256-00-BR | | | | |



BILL OF MATERIAL ~ WEST ABUTMENT

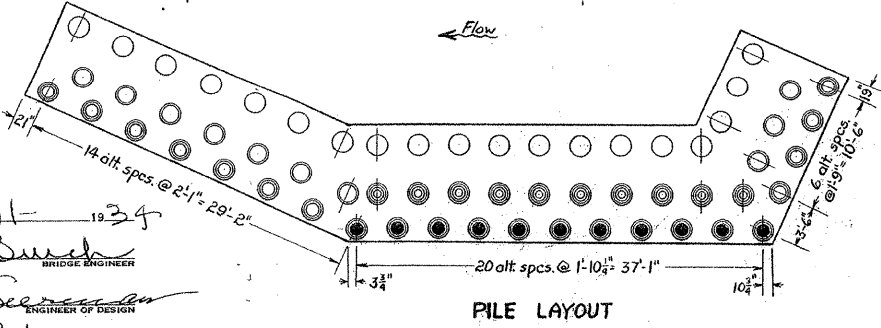
| Bar | No | Size | Length | Bar | No | Size | Length |
|-----------------|----|------|--------|-----------------|----|------|--------|
| V ₃₉ | 4 | 1/2" | 4'-6" | h ₂₂ | 1 | 1/2" | 12'-6" |
| V ₄₀ | 3 | 1/2" | 5'-6" | h ₂₃ | 11 | 1/2" | 31'-6" |
| V ₄₁ | 4 | 1/2" | 6'-6" | h ₂₄ | 2 | 1/2" | 26'-0" |
| V ₄₂ | 3 | 1/2" | 7'-6" | h ₂₅ | 2 | 1/2" | 19'-0" |
| V ₄₃ | 4 | 1/2" | 8'-6" | h ₂₆ | 2 | 1/2" | 11'-6" |
| V ₄₄ | 4 | 1/2" | 9'-6" | h ₂₇ | 4 | 1/2" | 15'-0" |
| V ₄₅ | 7 | 1/2" | 10'-6" | h ₂₈ | 1 | 1/2" | 11'-0" |
| V ₄₆ | 2 | 1/2" | 11'-0" | h ₂₉ | 1 | 1/2" | 7'-0" |
| V ₄₇ | 2 | 1/2" | 13'-0" | h ₃₀ | 13 | 1/2" | 16'-0" |
| V ₄₈ | 2 | 1/2" | 15'-0" | h ₃₁ | 2 | 1/2" | 13'-0" |
| V ₄₉ | 3 | 1/2" | 17'-0" | h ₃₂ | 2 | 1/2" | 9'-6" |
| V ₅₀ | 3 | 1/2" | 10'-6" | h ₃₃ | 2 | 1/2" | 6'-0" |
| V ₅₁ | 1 | 1/2" | 9'-9" | h ₃₄ | 10 | 1/2" | 18'-6" |
| V ₅₂ | 2 | 1/2" | 8'-9" | h ₃₅ | 30 | 1/2" | 18'-6" |
| V ₅₃ | 2 | 1/2" | 7'-6" | h ₃₆ | 1 | 1/2" | 13'-6" |
| V ₅₄ | 2 | 1/2" | 6'-3" | m ₃ | 29 | 1" | 7'-3" |
| V ₅₅ | 2 | 1/2" | 5'-0" | m ₄ | 14 | 1" | 7'-3" |
| V ₅₆ | 2 | 1/2" | 4'-0" | m ₅ | 35 | 1" | 7'-3" |
| V ₅₇ | 1 | 1/2" | 9'-0" | n ₃ | 29 | 1" | 11'-9" |
| V ₅₈ | 1 | 1/2" | 8'-0" | n ₄ | 13 | 1" | 13'-9" |
| V ₅₉ | 1 | 1/2" | 6'-6" | n ₅ | 35 | 1" | 12'-9" |
| V ₆₀ | 1 | 1/2" | 5'-0" | K ₃ | 3 | 3/4" | 32'-0" |
| V ₆₁ | 1 | 1/2" | 3'-0" | K ₄ | 3 | 3/4" | 16'-0" |
| V ₆₂ | 2 | 1/2" | 8'-3" | K ₅ | 6 | 3/4" | 18'-3" |
| V ₆₃ | 9 | 1/2" | 6'-3" | t ₂ | 62 | 1/2" | 9'-0" |
| V ₆₄ | 9 | 1/2" | 7'-0" | t ₃ | 33 | 3/4" | 10'-3" |
| V ₆₅ | 12 | 1/2" | 7'-6" | t ₄ | 76 | 3/4" | 11'-0" |
| V ₆₆ | 3 | 1/2" | 10'-3" | Z ₃ | 58 | 5/8" | 9'-0" |
| V ₆₇ | 4 | 1/2" | 4'-0" | Z ₄ | 31 | 3/8" | 10'-3" |
| V ₆₈ | 3 | 1/2" | 4'-9" | Z ₅ | 69 | 5/8" | 10'-0" |
| V ₆₉ | 5 | 1/2" | 5'-3" | W ₃ | 12 | 1/2" | 16'-6" |
| h ₂₀ | 4 | 1/2" | 10'-0" | W ₄ | 6 | 1/2" | 16'-3" |
| h ₂₁ | 1 | 1/2" | 13'-6" | W ₅ | 12 | 1/2" | 20'-0" |

Reinforcing Steel Lbs. 11,390
Class X Concrete Cu.Yds. 127.7
Untreated Piling (u > 20) Lin. Ft. 1,220



| | | |
|----------|-----------|-----------------|
| STANDARD | COMPUTED | - M.H. |
| | CHECKED | - J.C. Anderson |
| | DRAWN | - M.H. |
| | CHECKED | - J.C.A. |
| SPECIAL | ASSEMBLED | |
| | CHECKED | |

EXAMINED 8-11-1934
J.F. Burch
PASSED
A.E. Seaman
APPROVED
Ernst Selverman



RICHLAND CREEK BRIDGE
S.A. RTE. 6 ~ SEC. S-1-B-1-M.F.T.
SHELBY COUNTY
STA. 554+22

THIS SHEET FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------------|----------|------------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 2 14 SHEETS |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 28 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | | |

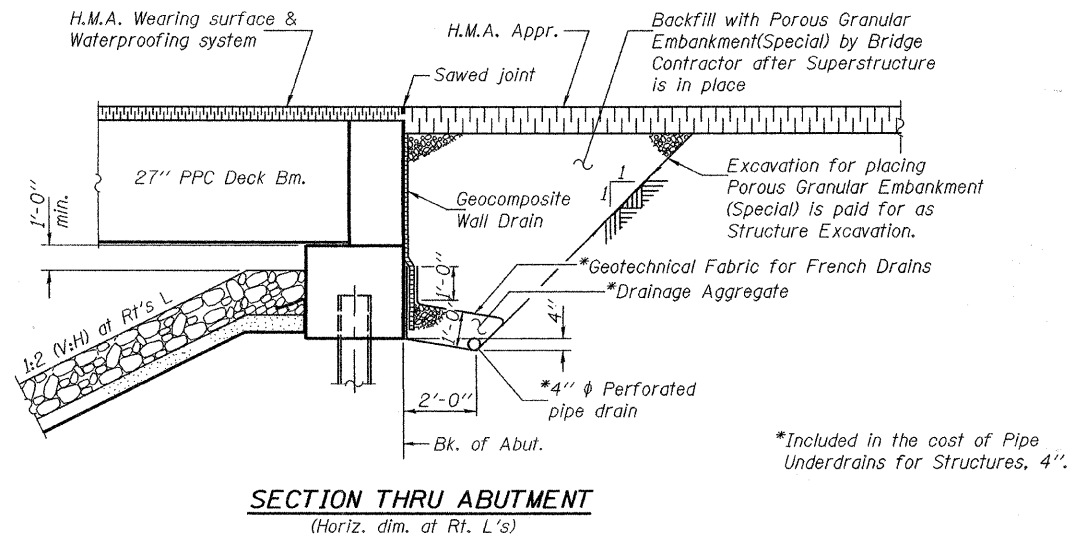
Contract No. 95555

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|-------|-------|
| Porous Granular Embankment (Special) | Cu. Yd. | | 100 | 100 |
| Removal of Existing Structures | Each | | | 1 |
| Structure Excavation | Cu. Yd. | | 140 | 140 |
| Concrete Structures | Cu. Yd. | | 148.8 | 148.8 |
| Hot Mix Asphalt Surface Course, Mix "C", N 70 | Ton | 100 | | 100 |
| Precast Prestressed Concrete Deck Beams (27" Depth) | Sq. Ft. | 5391 | | 5391 |
| Reinforcement Bars, Epoxy Coated | Pound | | 12800 | 12800 |
| Steel Railing, Type SM | Foot | 360 | | 360 |
| Furnishing Steel Piles HP10x42 | Foot | | 290 | 290 |
| Furnishing Steel Piles HP12x74 | Foot | | 438 | 438 |
| Driving Piles | Foot | | 290 | 290 |
| Test Pile Steel HP10x42 | Each | | 2 | 2 |
| Name Plates | Each | 1 | | 1 |
| Waterproofing Membrane System | Sq. Yd. | 616 | | 616 |
| Geocomposite Wall Drain | Sq. Yd. | | 60 | 60 |
| Pipe Underdrains for Structures, 4" | Foot | | 125 | 125 |
| P.C. Mortar Fairing Course | Foot | 1797 | | 1797 |
| Settling Piles in Rock | Each | | 12 | 12 |
| Concrete Encasement | Cu. Yd. | | 8.4 | 8.4 |
| Underwater Structure Excavation Protection, Location 1 | Each | | 1 | 1 |
| Underwater Structure Excavation Protection, Location 2 | Each | | 1 | 1 |



SECTION THRU ABUTMENT
(Horiz. dim. at Rt. L's)

Note: All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

| | |
|----------|-----------------|
| DESIGNED | Jay D. Edwards |
| CHECKED | Nick R. Barnett |
| DRAWN | h.f. duong |
| CHECKED | JDE/NRB/GRA |

| | |
|----------|---|
| EXAMINED | Thomas J. Damagala ENGINEER OF BRIDGE DESIGN |
| PASSED | Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES |

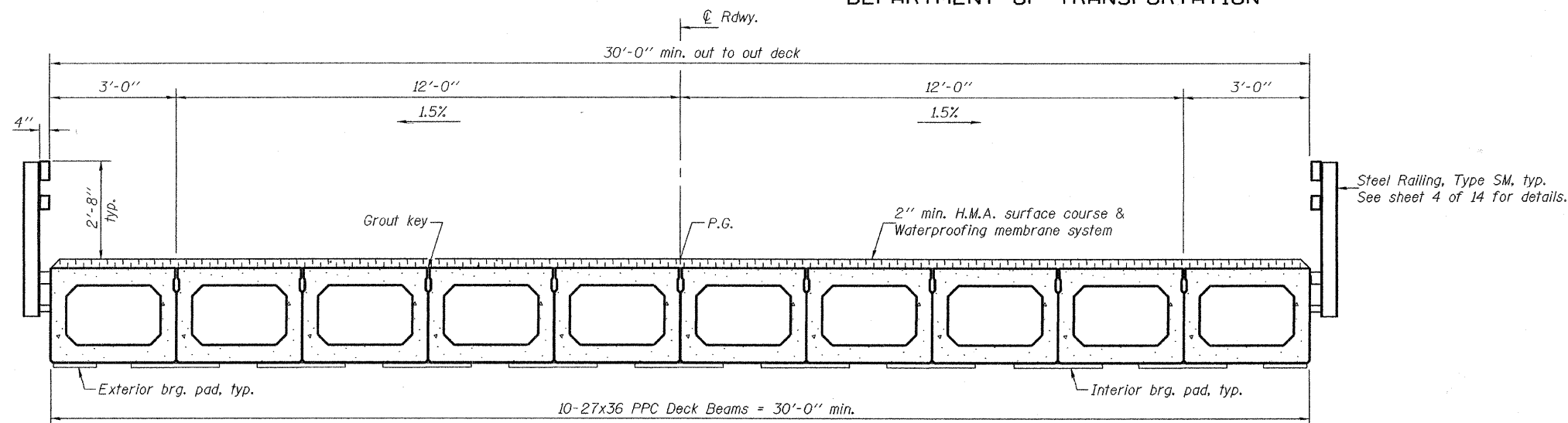
GENERAL DATA
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 29 |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | |

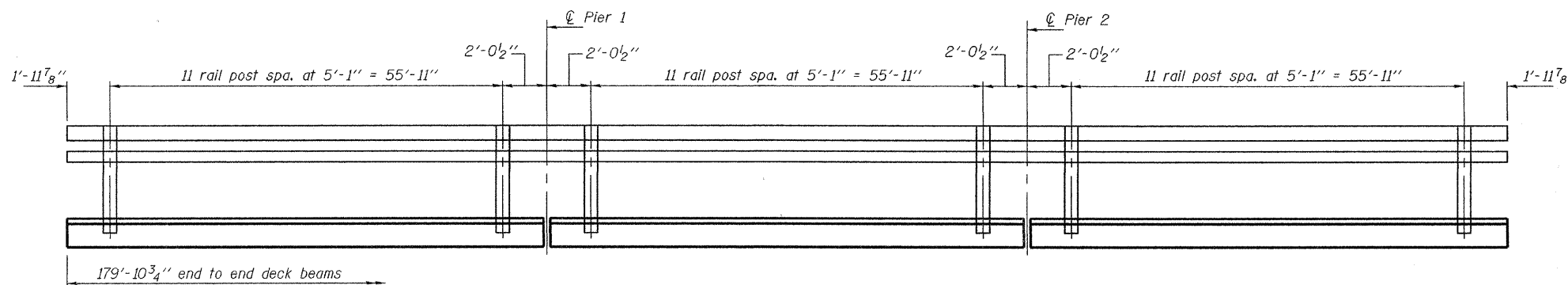
SHEET NO. 3
14 SHEETS

Contract No. 95555

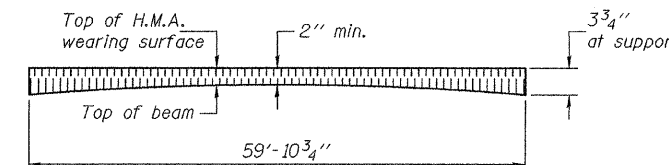


CROSS SECTION
(Looking east)

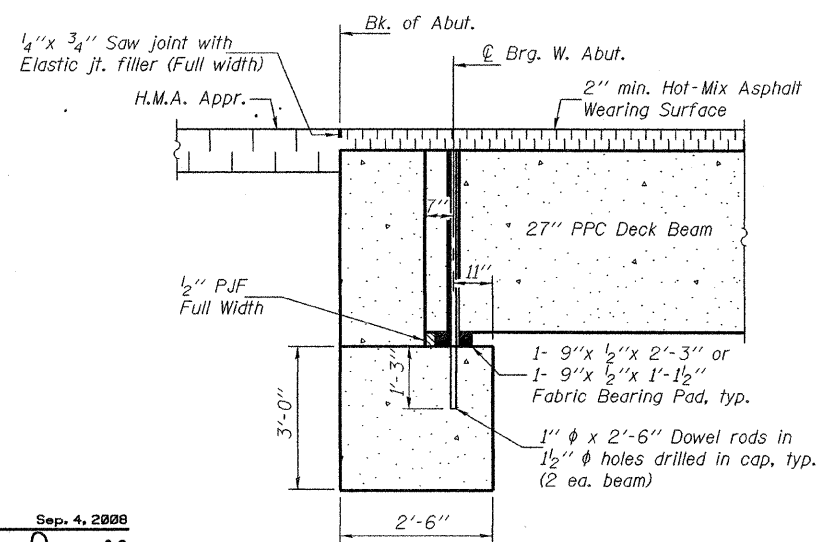
Notes: After beams have been erected, holes shall be drilled into substructure and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hours prior to grouting the shear keys.
See sheet 6 of 14 for fabric bearing pad details.
Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (27" Depth).



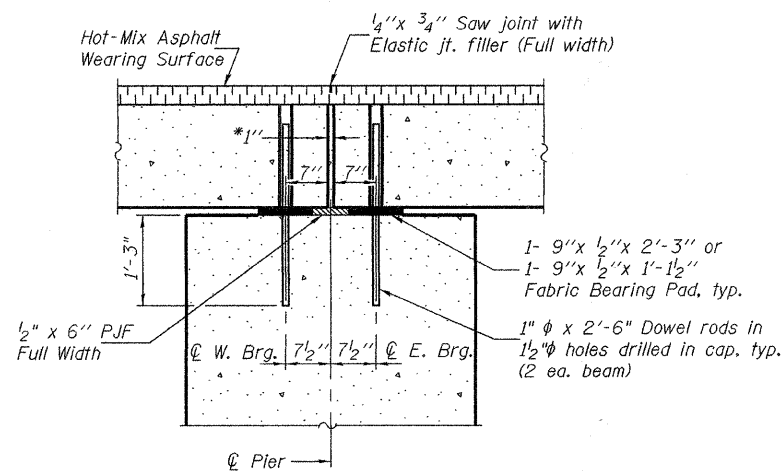
RAIL POST SPACING



HOT-MIX ASPHALT WEARING SURFACE PROFILE



SECTION THRU WEST ABUT.
(Dimensions measured at Rt. L's)
(East Abut. similar by rotation)



TYPICAL PIER SECTION
(Looking North)
(Dimensions measured at Rt. L's)

*1" joint shall be filled with non-shrink grout.
1" dimension may vary to accommodate tolerance in beam lengths.

BILL OF MATERIAL

| Item | Unit | Quantity |
|---|------|----------|
| Hot-Mix Asphalt Surface Course, Mix "C", N 70 | Ton | 100 |

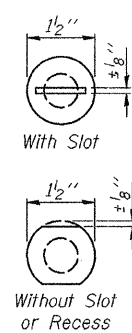
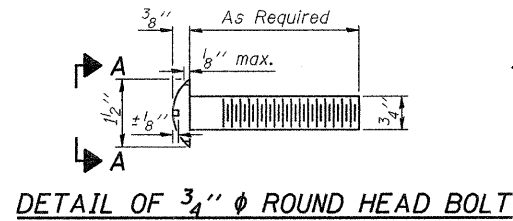
SUPERSTRUCTURE
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563

| | |
|----------|-----------------|
| DESIGNED | Jay D. Edwards |
| CHECKED | Nick R. Barnett |
| DRAWN | h.t. duong |
| CHECKED | JDE/NRB/GRA |

Sep. 4, 2008
EXAMINED *Thomas J. Damgalak*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

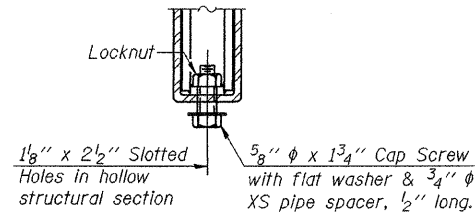
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------------|----------|------------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 4 14 SHEETS |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 30 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | | Contract No. 95555 |

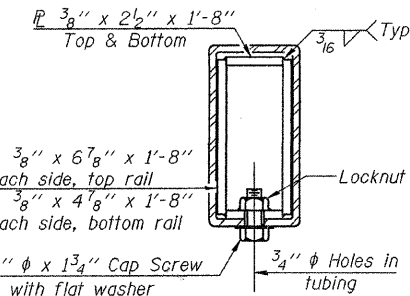


VIEW A-A

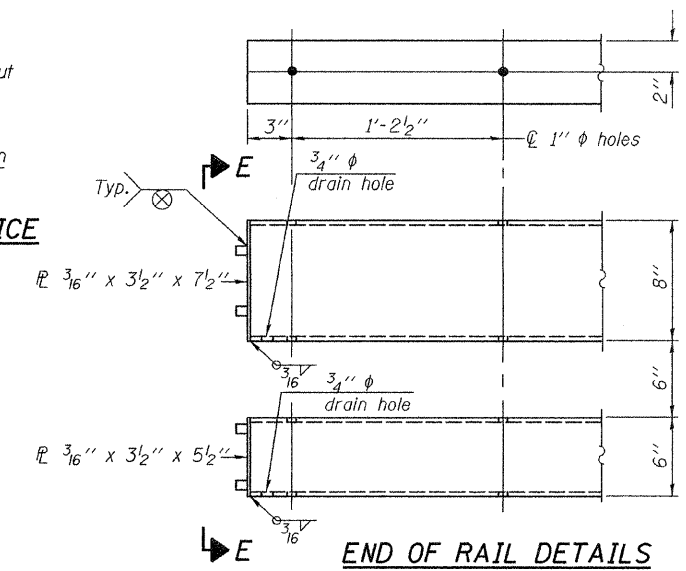
4-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.



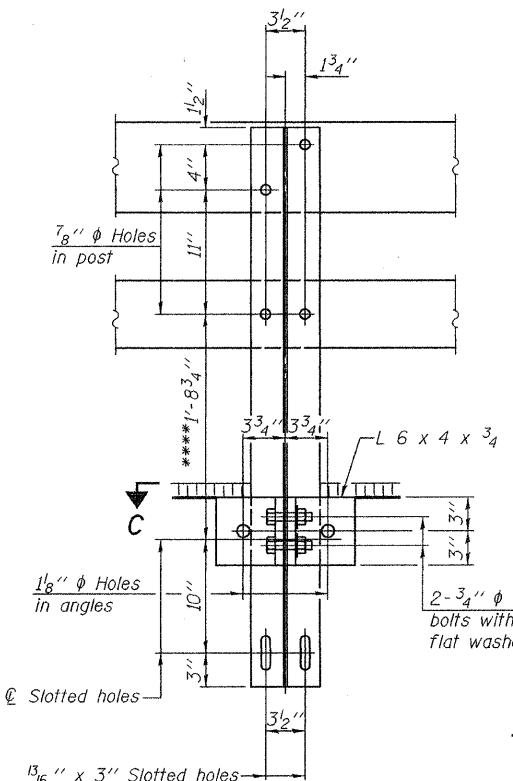
RAIL SPLICE CONNECTION AT EXPANSION JT.



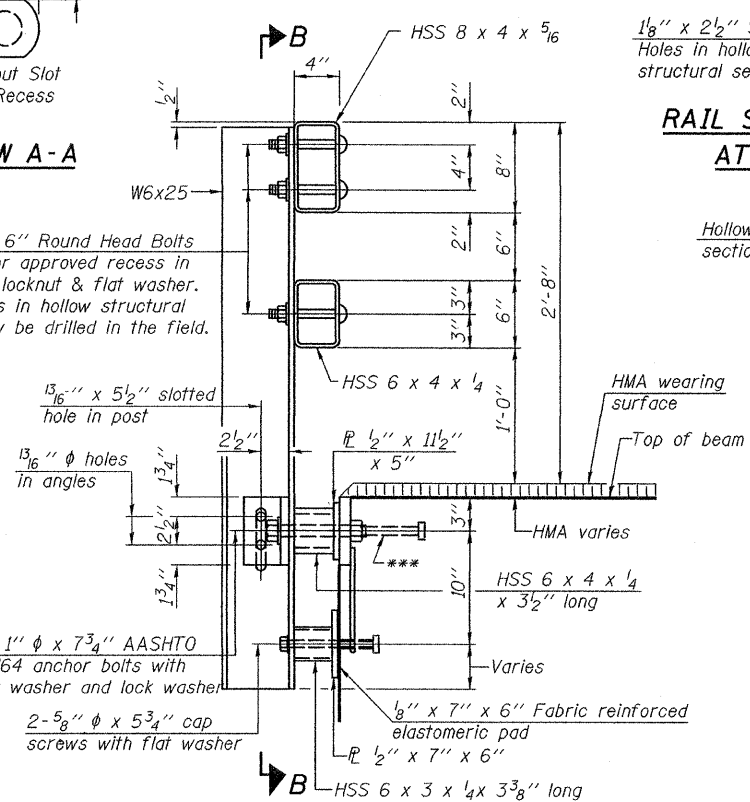
SECTION AT RAIL SPLICE



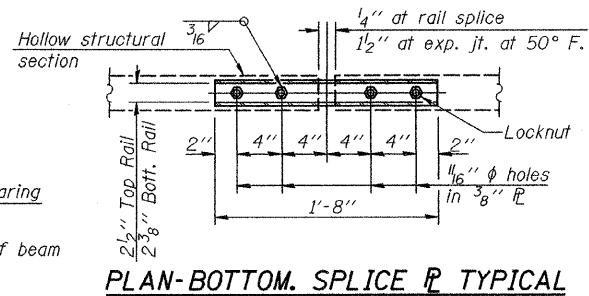
END OF RAIL DETAILS



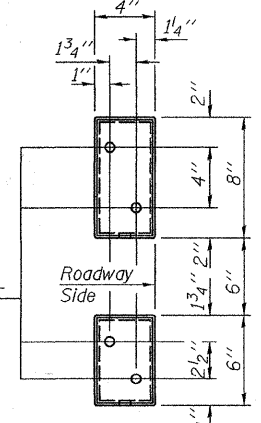
SECTION B-B



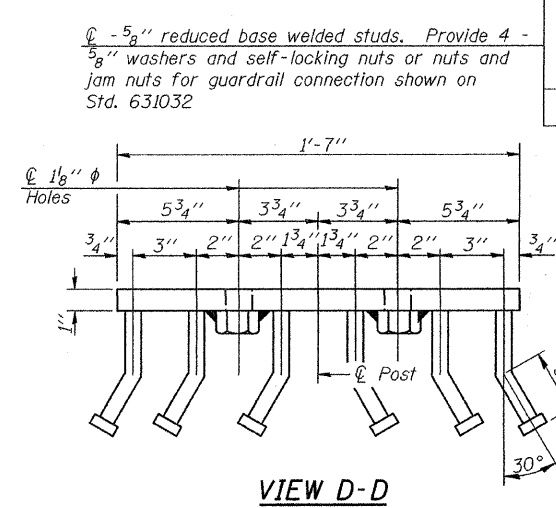
SECTION AT RAIL POST



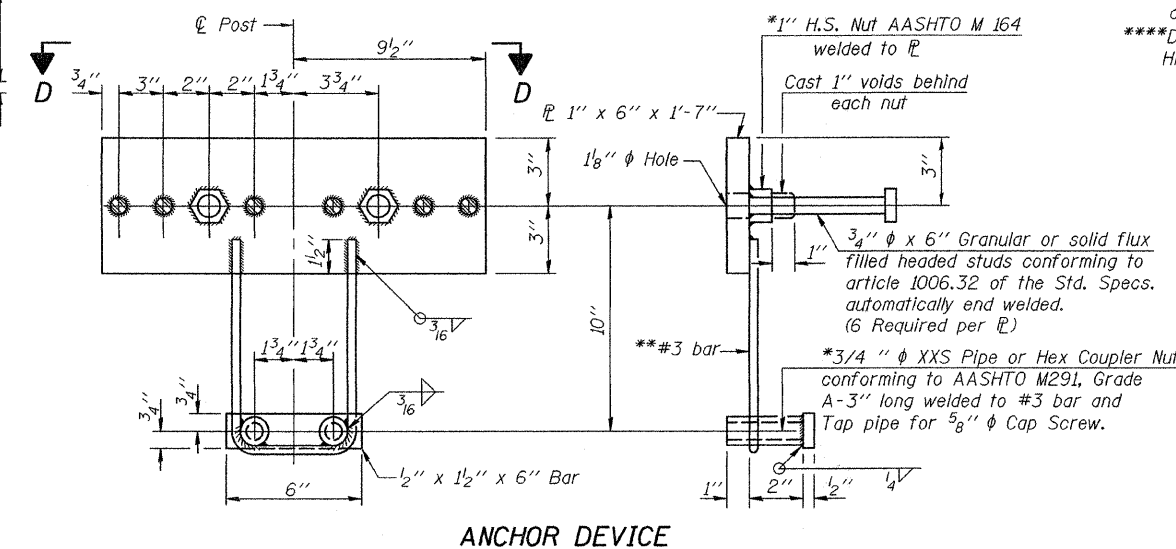
PLAN-BOTTOM. SPLICE R TYPICAL



VIEW E-E



VIEW D-D



ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

- Notes:
- All field drilled holes shall be coated with an approved zinc rich paint before erection.
 - For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
 - All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
 - **Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".
 - ***The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.
 - ****Dimension has been revised to accommodate 3 3/4" maximum HMA thickness.

BILL OF MATERIAL

| Item | Unit | Quantity |
|------------------------|------|----------|
| Steel Railing, Type SM | Foot | 360 |

STEEL RAILING, TYPE SM WITH
HOT MIX ASPHALT WEARING SURFACE
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563

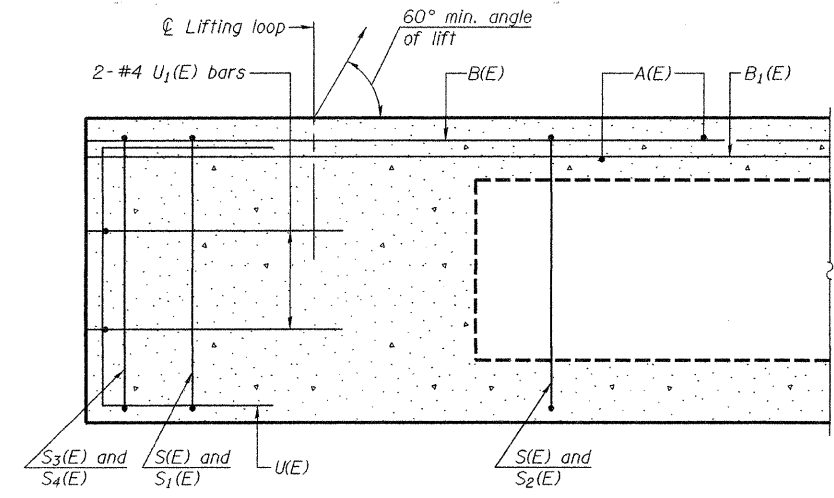
| | | | |
|----------|-----------------|----------|--------------------|
| DESIGNED | Jay D. Edwards | EXAMINED | Thomas J. Damagala |
| CHECKED | Nick R. Barnett | PASSED | Ralph E. Anderson |
| DRAWN | h.t. duong | | |
| CHECKED | JDE/NRB/GRA | | |

Sep. 4, 2008

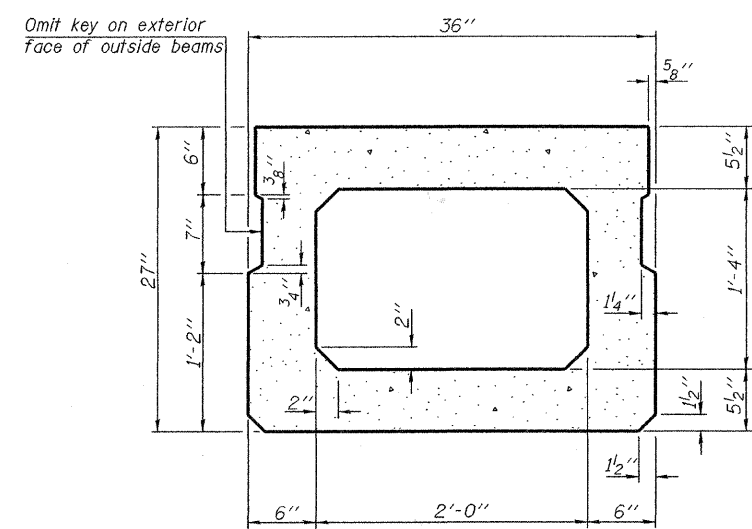
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------------|----------|-------------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 5 14 SHEETS |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 31 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT- | | |

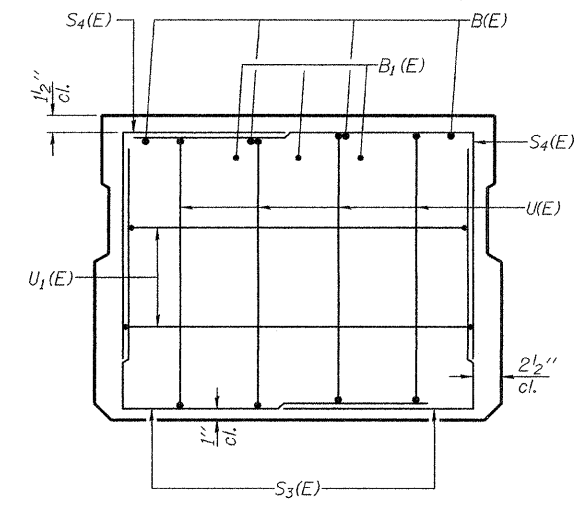
Contract No. 95555



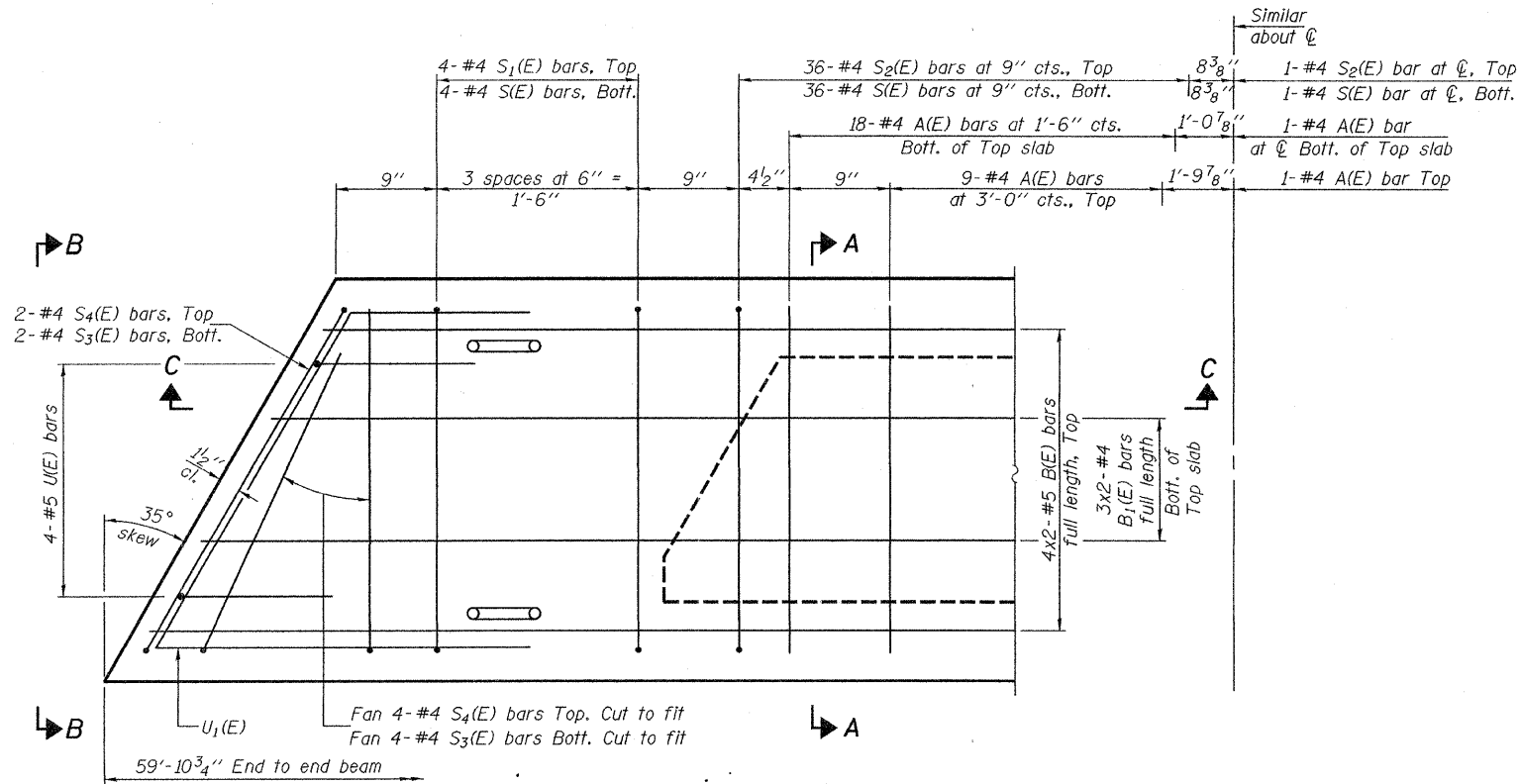
SECTION C-C



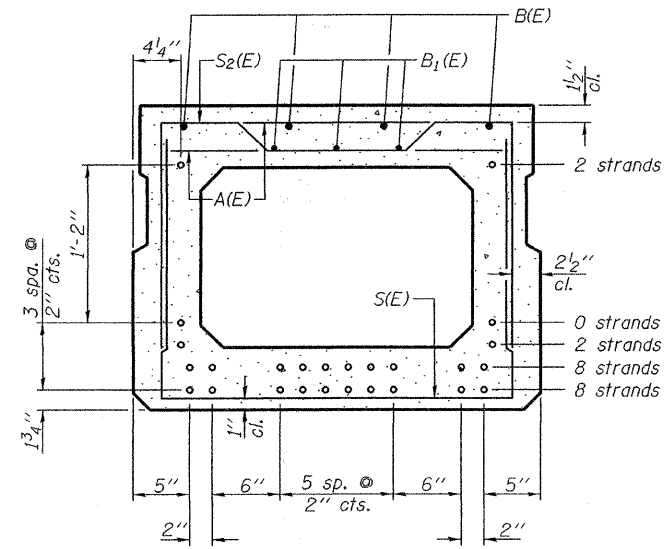
SECTION A-A
(Showing dimensions)



VIEW B-B



PLAN VIEW



SECTION A-A

(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MIN. BAR LAPS
#4 bar = 1'-8"
#5 bar = 2'-2"

BAR LIST
ONE BEAM ONLY
(For information only)

| Bar | No. | Size | Length | Shape |
|-------|-----|------|---------|-------|
| A(E) | 56 | #4 | 2'-7" | — |
| B(E) | 8 | #5 | 30'-11" | — |
| B1(E) | 6 | #4 | 30'-11" | — |
| S(E) | 81 | #4 | 6'-5" | ⌊ |
| S1(E) | 8 | #4 | 5'-11" | ⌊ |
| S2(E) | 73 | #4 | 6'-2" | ⌊ |
| S3(E) | 12 | #4 | 4'-6" | ⌊ |
| S4(E) | 12 | #4 | 4'-3" | ⌊ |
| U(E) | 8 | #5 | 4'-6" | ⌊ |
| U1(E) | 4 | #4 | 7'-4" | ⌊ |

Note: See sheet 6 of 14 for additional details and Bill of Material.

Notes: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

| | |
|----------|-----------------|
| DESIGNED | Jay D. Edwards |
| CHECKED | Nick R. Barnett |
| DRAWN | h.t. duong |
| CHECKED | JDE/NRB/GRA |

EXAMINED *Thomas J. Domagalak*
ENGINEER OF BRIDGE DESIGN
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

Sep. 4, 2008

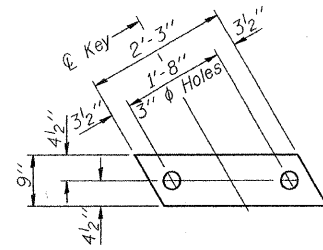
PD-2736-L 5-16-08

27" x 36" PPC DECK BEAM DETAILS
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563

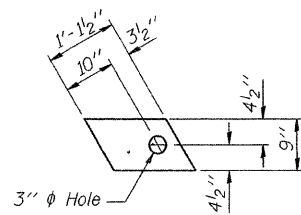
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------|----------------|-------------------|--------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 6 14 SHEETS |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 32 | |
| ILLINOIS | | FED. AID PROJECT- | | | |

Contract No. 95555



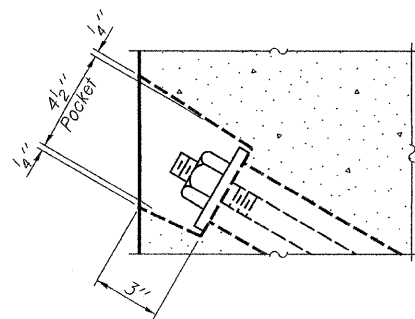
FABRIC BEARING PAD
(Interior)



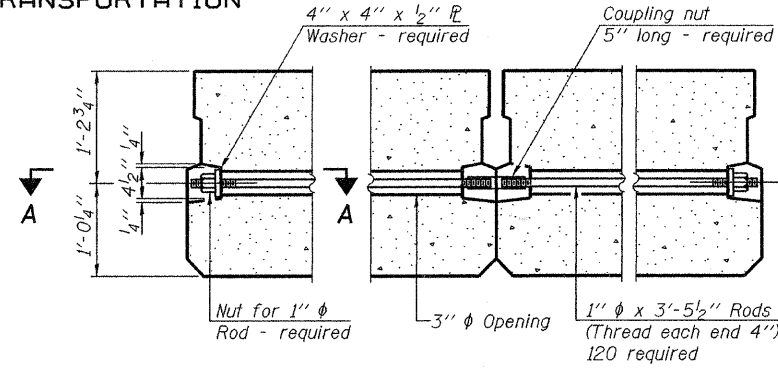
FABRIC BEARING PAD
(Exterior)

FIXED

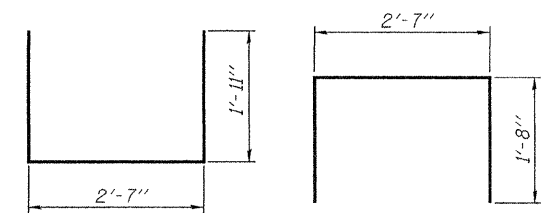
Note: Omit holes when using expansion bearings.



SECTION A-A

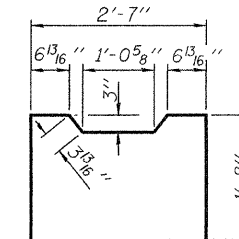


TYPICAL TRANSVERSE TIE ASSEMBLY

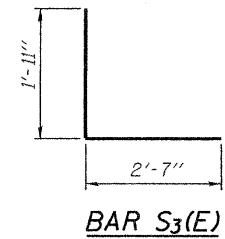


BAR S(E)

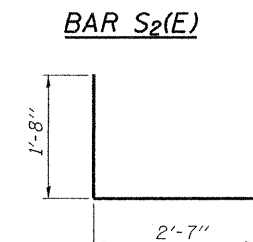
BAR S1(E)



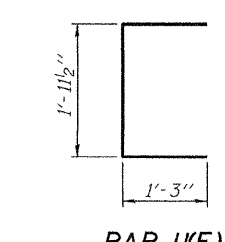
BAR S2(E)



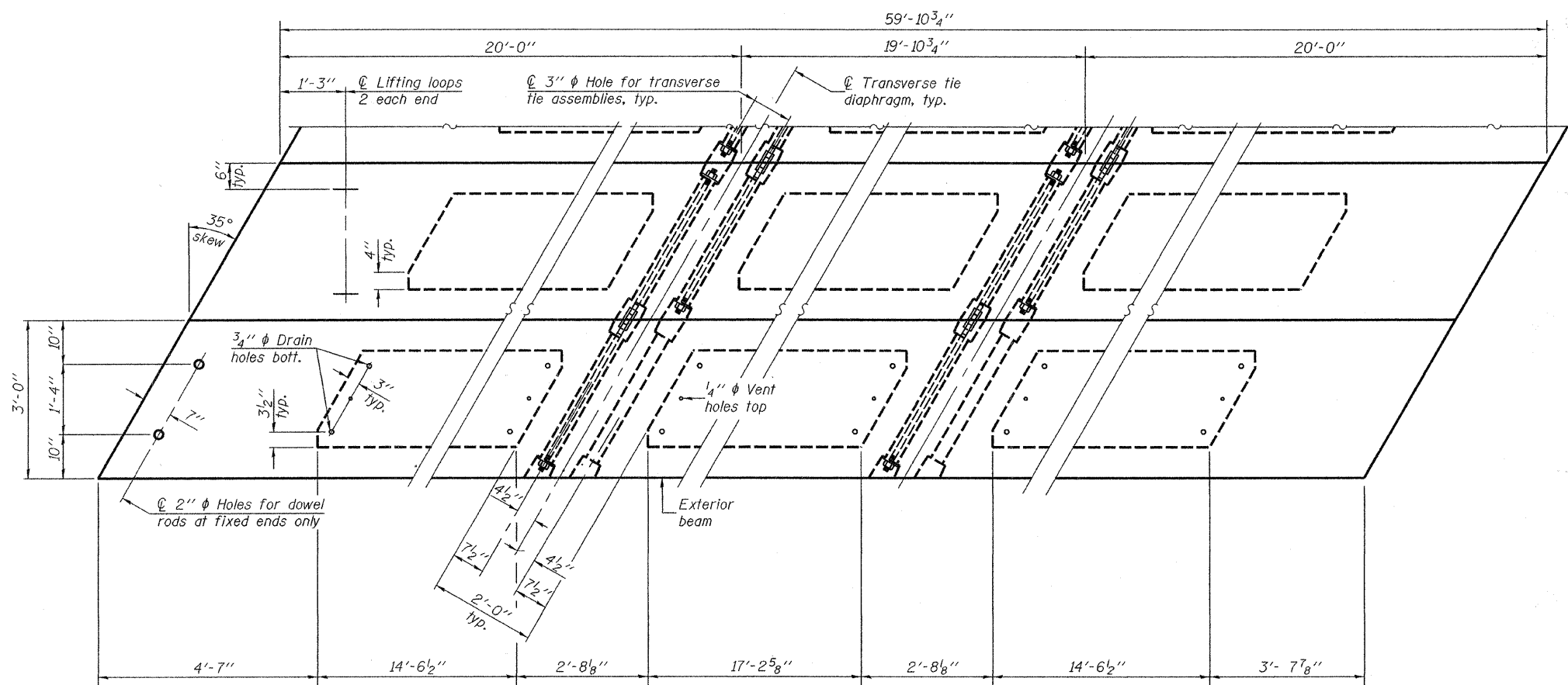
BAR S3(E)



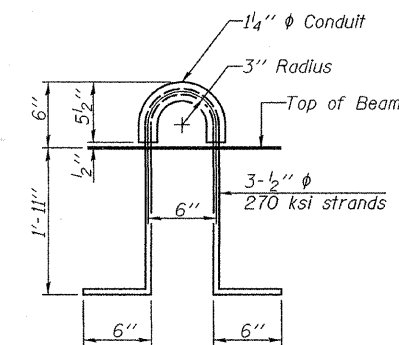
BAR S4(E)



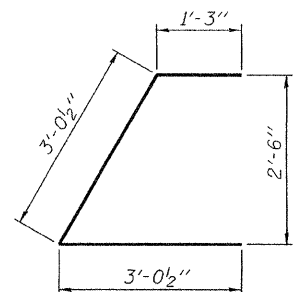
BAR U(E)



PLAN VIEW



LIFTING LOOP DETAIL



BAR U1(E)

BILL OF MATERIAL

| | | |
|---|---------|------|
| Precast Prestressed Concrete Deck Beams (27" depth) | Sq. Ft. | 5391 |
|---|---------|------|

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
- The top surface of the beams shall be finished according to the IDOT Manual for fabrication of precast prestressed concrete products.

| | |
|----------|-----------------|
| DESIGNED | Jay D. Edwards |
| CHECKED | Nick R. Barnett |
| DRAWN | h.t. duong |
| CHECKED | JDE/NRB/GRA |

| | | |
|----------|--------------------|--------------|
| EXAMINED | Thomas J. Damagala | Sep. 4, 2008 |
| PASSED | Ralph E. Anderson | |

27" x 36" PPC DECK BEAM DETAILS
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563

Notes: Space reinforcement in cap to miss dowel rods.
For details of piles, see sheet 11 of 14.

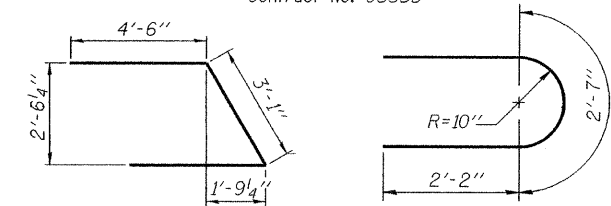
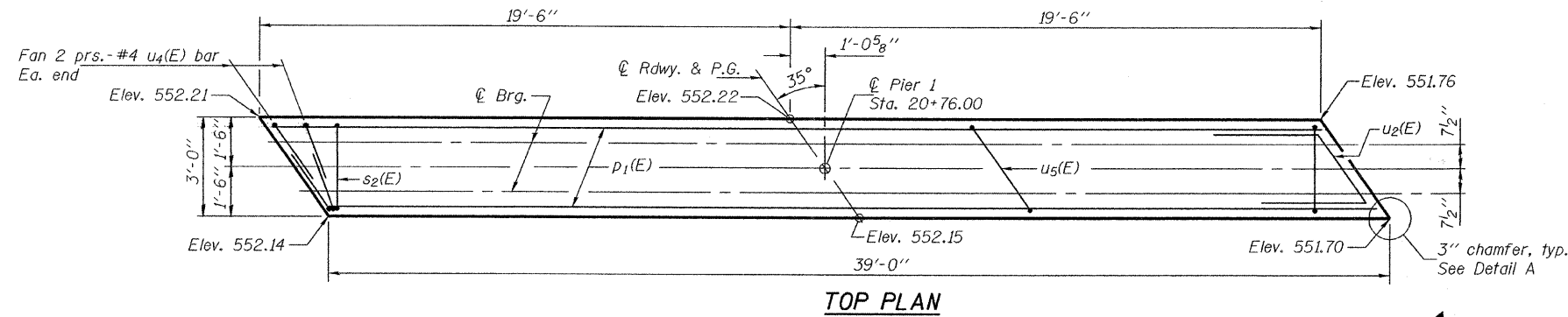
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------------|------------------|--------------|-----------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 9 |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 35 | 14 SHEETS |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | | |

Contract No. 95555

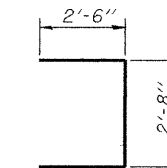
PILE DATA

Type: Steel HP12x74
Nominal Required Bearing: Set in rock
Factored Resistance Available: 275 Kips
Est. Length: 37'
No. Production Piles: 6
No. Test Piles: 0
Est. Top of Rock Elevation: 527.42
Rock Socket Depth: 14'
Rock Socket Diameter: 2'

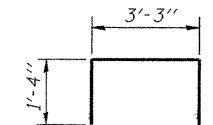


BAR u2(E)

BAR u3(E)



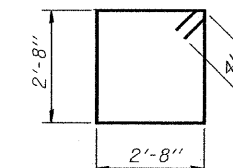
BAR u4(E)



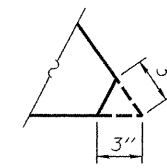
BAR u5(E)

BILL OF MATERIAL

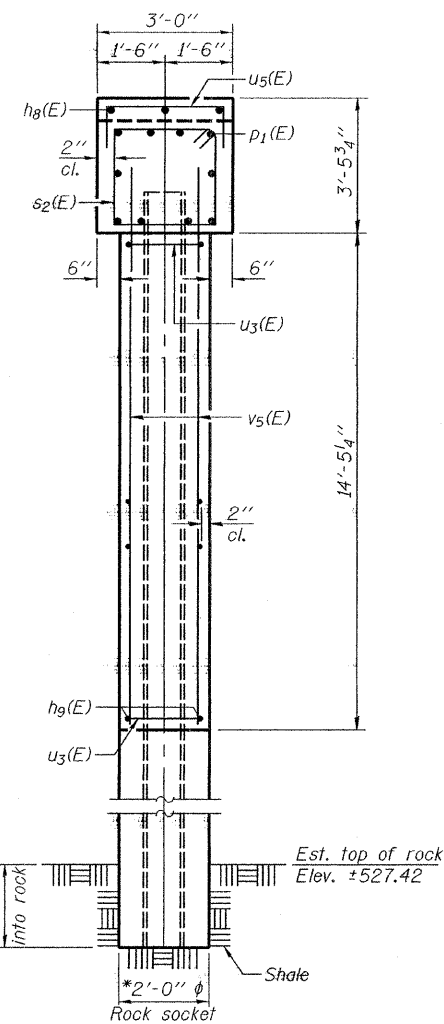
| Bar | No. | Size | Length | Shape |
|--|-----|---------|---------|-------|
| hg(E) | 3 | #5 | 26'-4" | — |
| hg(E) | 30 | #5 | 35'-10" | — |
| p1(E) | 10 | #7 | 38'-7" | — |
| s2(E) | 32 | #4 | 11'-5" | □ |
| u2(E) | 8 | #6 | 12'-1" | ∩ |
| u3(E) | 30 | #5 | 6'-11" | ∩ |
| u4(E) | 8 | #4 | 7'-8" | ∩ |
| u5(E) | 28 | #4 | 5'-11" | ∩ |
| v5(E) | 76 | #5 | 15'-7" | — |
| Structure Excavation | | Cu. Yd. | 9 | |
| Concrete Structures | | Cu. Yd. | 54.6 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 3980 | |
| Furnishing Steel Piles, HP12x74 | | Foot | 222 | |
| Concrete Encasement | | Cu. Yd. | 2.1 | |
| Setting Piles in Rock | | Each | 6 | |
| Underwater Structure Excavation Protection, Location 1 | | Each | 1 | |



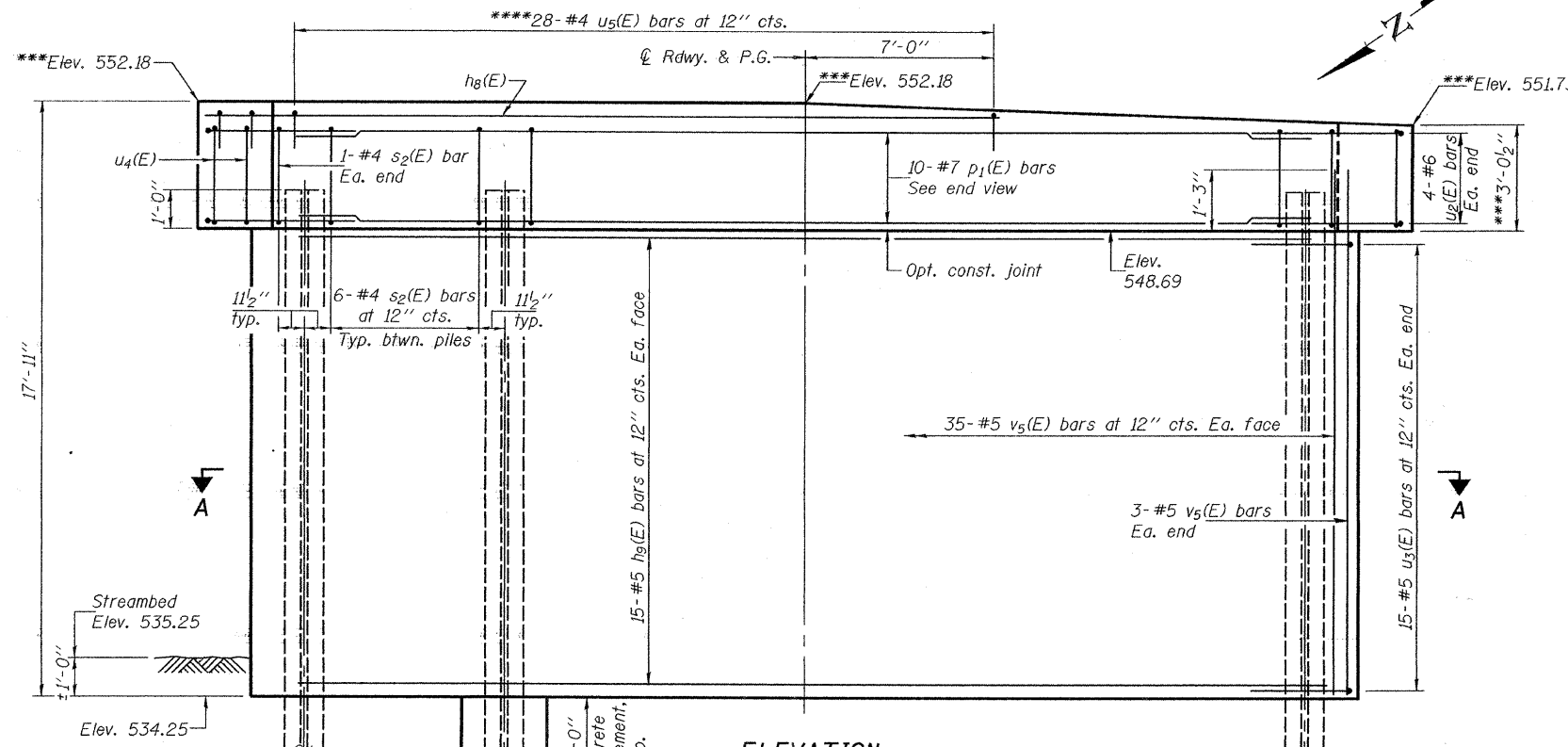
BAR s2(E)



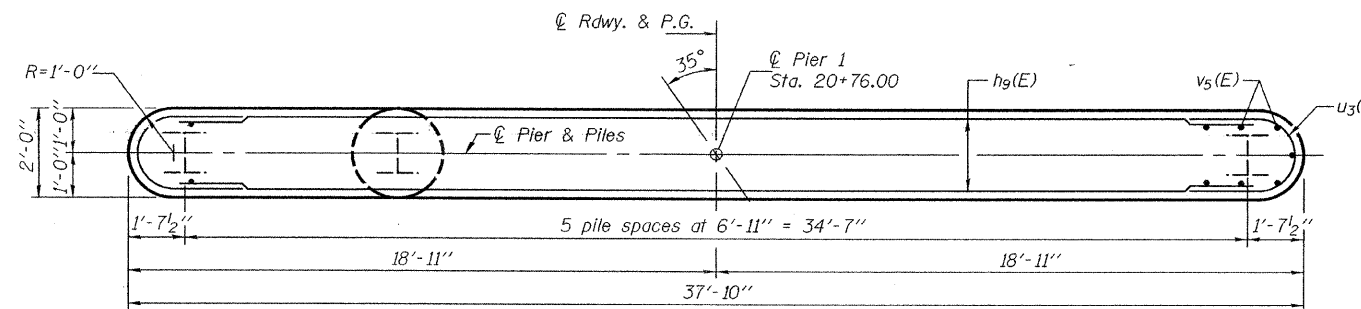
DETAIL A



END VIEW



ELEVATION
(Looking East)



SECTION A-A

*Pile shall be completely encased in concrete from the bottom of the wall to the bottom of the rock socket. The top 3'-0" of concrete encasement shall be paid for as Concrete Encasement. The remaining encasement shall be included with Setting Piles in Rock. Concrete shall be placed the same day as the rock socket excavation in order to minimize deterioration of the shale.

**Forms shall be placed below Elev. 534.25 after excavation for pier walls. Reinforcement and concrete encasement may be placed underwater into forms. The cost of concrete encasement, reinforcement, form excavation and furnishing and placing forms is included with Concrete Encasement. If a portion of the pier wall is under water, concrete shall be trimmed under water into forms according to Article 503.08 of the Std. Spec's. Concrete shall be trimmed to an Elev. 1'-0" above water level at the time of construction.

***Elevations or dimensions at centerline of pier.

****u5(E) bars shall be placed along the skew.

| | |
|----------|-----------------|
| DESIGNED | Jay D. Edwards |
| CHECKED | Nick R. Barnett |
| DRAWN | h.t. duong |
| CHECKED | JDE/NRB/GRA |

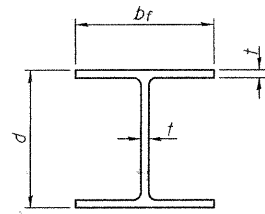
Sep. 4, 2008
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Carlson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

PIER 1
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

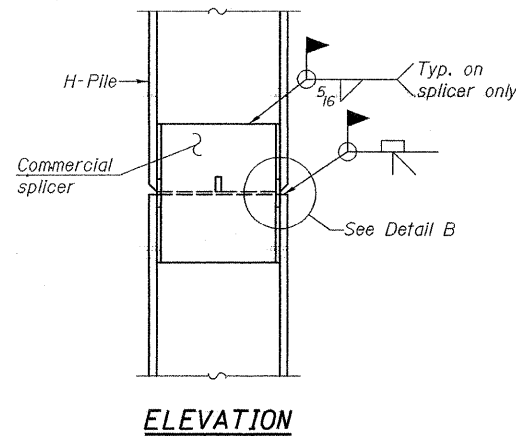
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|-----------------------|----------------|------------------|--------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 11 14 SHEETS |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 37 | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | | |

Contract No. 95555

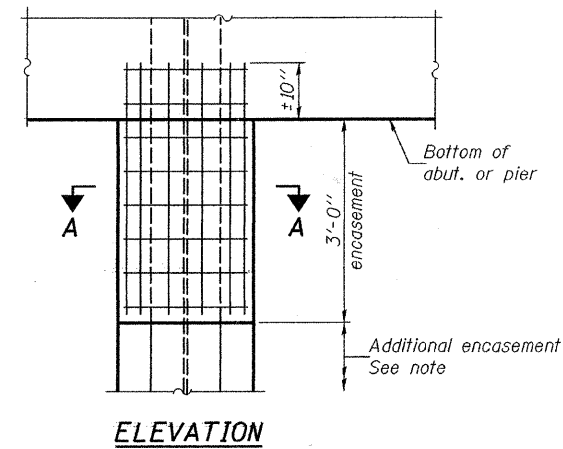


STEEL PILE TABLE

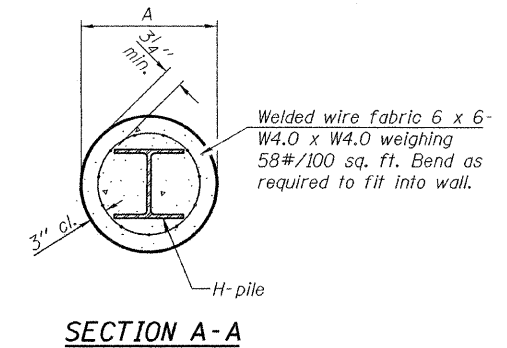
| Designation | Depth d | Flange width bf | Web and Flange thickness t | Encasement diameter A |
|-------------|---------|-----------------|----------------------------|-----------------------|
| HP 14x117 | 14 1/4" | 14 7/8" | 13/16" | 30" |
| x102 | 14" | 14 3/4" | 1/16" | 30" |
| x89 | 13 7/8" | 14 3/4" | 5/8" | 30" |
| x73 | 13 5/8" | 14 5/8" | 1/2" | 30" |
| HP 12x84 | 12 1/4" | 12 1/4" | 1/16" | 24" |
| x74 | 12 1/8" | 12 1/4" | 5/8" | 24" |
| x63 | 12" | 12 1/8" | 1/2" | 24" |
| x53 | 11 3/4" | 12" | 7/16" | 24" |
| HP 10x57 | 10" | 10 1/4" | 9/16" | 24" |
| x42 | 9 3/4" | 10 1/8" | 7/16" | 24" |
| HP 8x36 | 8" | 8 1/8" | 7/16" | 18" |



ELEVATION



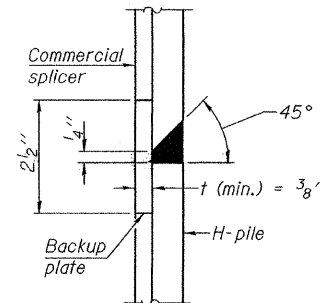
ELEVATION



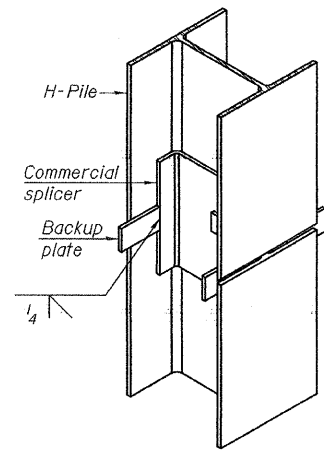
SECTION A-A

Notes: Forms for encasement may be omitted when soil conditions permit.
Cost of additional encasement included with Setting Piles in Rock. See sheets 9 & 10 of 14 for additional information.

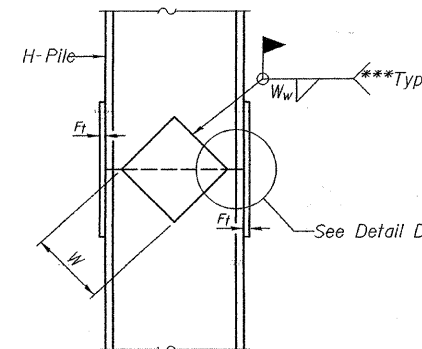
PILE ENCASEMENT



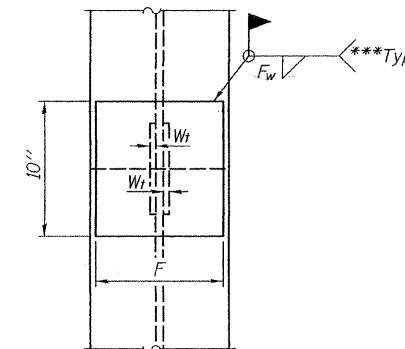
DETAIL "B"



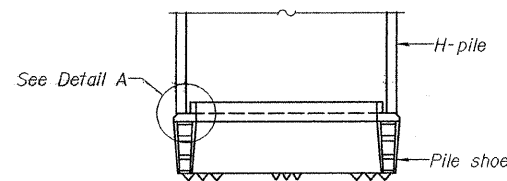
ISOMETRIC VIEW



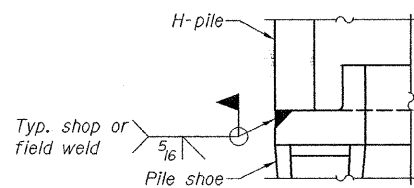
ELEVATION



END VIEW

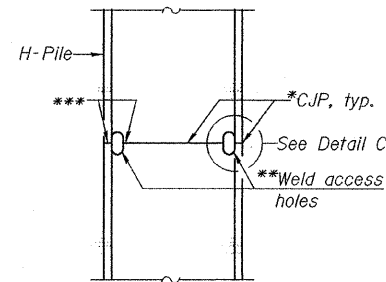


ELEVATION

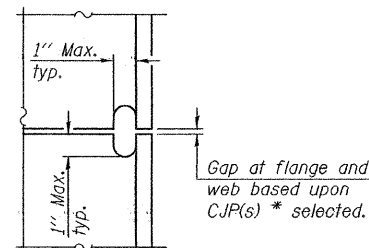


DETAIL A

H-PILE SHOE ATTACHMENT

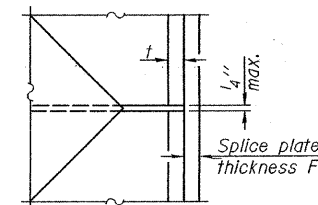


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

| Designation | F | Ft | Fw | W | Wt | Ww |
|-------------|---------|------|-------|--------|--------|------|
| HP 14x117 | 12 1/2" | 1" | 7/8" | 7 3/4" | 5 8/8" | 1/2" |
| x102 | 12 1/2" | 7/8" | 3/4" | 7 3/4" | 5 8/8" | 1/2" |
| x89 | 12 1/2" | 3/4" | 1/16" | 7 3/4" | 5 8/8" | 1/2" |
| x73 | 12 1/2" | 5/8" | 9/16" | 7 3/4" | 5 8/8" | 1/2" |
| HP 12x84 | 10" | 7/8" | 1/16" | 6 1/2" | 5 8/8" | 1/2" |
| x74 | 10" | 7/8" | 1/16" | 6 1/2" | 5 8/8" | 1/2" |
| x63 | 10" | 5/8" | 1/2" | 6 1/2" | 1/2" | 3/8" |
| x53 | 10" | 5/8" | 1/2" | 6 1/2" | 1/2" | 3/8" |
| HP 10x57 | 8" | 3/4" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| x42 | 8" | 5/8" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| HP 8x36 | 7" | 5/8" | 7/16" | 4 1/4" | 1/2" | 3/8" |

Note: The steel H-piles shall be according to AASHTO M270 Grade 50.

| | |
|----------|-----------------|
| DESIGNED | Jay D. Edwards |
| CHECKED | Nick R. Barnett |
| DRAWN | h.t. duong |
| CHECKED | JDE/NRB/GRA |

| | |
|----------|--|
| EXAMINED | Thomas J. Demagala ENGINEER OF BRIDGE DESIGN |
| PASSED | Ralph T. Carlson ENGINEER OF BRIDGES AND STRUCTURES |

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
***Interrupt welds 1/4" from end of each pile.

STEEL H PILE DETAILS
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------------|------------------|--------|-----------|
| ROUTE NO. | SECTION | COUNTY | SHEETS | SHEET NO. |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 39 |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | |

Contract No. 95555

SHEET NO. 13

14 SHEETS

Illinois Department of Transportation
Division of Highways
District 7 - Maternia

SOIL BORING LOG

Page 1 of 2
Date 9/21/05

ROUTE FAS 653 (CH 6) DESCRIPTION Richland Creek LOGGED BY E. Sandtschfer

SECTION 04-00256-00-BR LOCATION NW 1/4, SEC. 34, TWP. 9 N, RNG. 4 E, 3 PM

COUNTY Shelby DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 087-3012 SURFACE WATER Elev. Dry ft D B U M
Station 22+31 P O S T E L C O I
BORING NO. 4 H 5 O U T
Station 7,000 LL Groundwater Elev. 537.7 ft H S O U T
Offset 7,000 LL First Encounter Washed ft
Ground Surface Elev. 557.20 ft After 24 Hrs. 541.2 ft (ft) (ft) (ft) (ft) (ft) (ft)

| DEPTH (ft) | SOIL DESCRIPTION | TESTS | REMARKS |
|------------|---|-------|---------|
| 0.0 | Top of oil & chip roadway surface. | | |
| 0.0 | Soil cement base. | | |
| 0.0 | Very stiff to medium, damp, red mottled gray, CLAY. | | |
| 3.0 | | | |
| 5.0 | | | |
| 7.0 | | | |
| 3.0 | | | |
| 4.0 | Low recovery, Sandstone fragment in shoe. | | |
| 4.0 | | | |
| 2.0 | | | |
| 3.0 | | | |
| 3.0 | | | |
| 541.70 | Medium to stiff, damp, gray, SANDY CLAY w/ trace fine gravel. | | |
| 3.0 | | | |
| 4.0 | | | |
| 545.20 | Medium, damp, dark gray, SILTY CLAY. | | |
| 2.0 | | | |
| 2.0 | | | |
| 0.0 | | | |
| 1.0 | | | |
| 2.0 | | | |
| 540.20 | Soft, very damp, dark gray, LOAM. | | |
| 1.0 | | | |
| 2.0 | | | |
| 537.70 | | | |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (ft value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 7 - Maternia

ROCK BORING LOG

Page 2 of 2
Date 9/21/05

ROUTE FAS 653 (CH 6) DESCRIPTION Richland Creek LOGGED BY E. Sandtschfer

SECTION 04-00256-00-BR LOCATION NW 1/4, SEC. 34, TWP. 9 N, RNG. 4 E, 3 PM

COUNTY Shelby CORING METHOD Rotary, surf. set diamond bit

STRUCT. NO. 087-3012 CORING BARREL TYPE & SIZE NW, core bit bit, split barrel

BORING NO. 4 Core Diameter 2.06 in
Station 22+31 Top of Rock Elev. 533.90 ft
Offset 7,000 LL Begin Core Elev. 531.70 ft
Ground Surface Elev. 557.20 ft (ft) (#) (ft) (ft) (ft) (ft)

| DEPTH (ft) | ROCK DESCRIPTION | TESTS | REMARKS |
|------------|---|-------|---------|
| 531.70 | Gray, slightly weathered, CLAY SHALE w/ trace Sand. | | |
| 526.70 | Hard, gray, SANDSTONE. Not easily scratched. | | |
| 524.70 | Soft, gray, CLAY SHALE. | | |
| 523.90 | Soft, gray, SANDSTONE. Scratches easily. | | |
| 522.00 | Gray, SANDY CLAY SHALE. | | |
| 518.70 | Extent of exploration. | | |

Color pictures of the cores _____
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 7 - Maternia

SOIL BORING LOG

Page 1 of 2
Date 11/20/07

ROUTE FAS 653 (CH 6) DESCRIPTION Richland Creek LOGGED BY E. Sandtschfer

SECTION 04-00256-00-BR LOCATION NW 1/4, SEC. 34, TWP. 9 N, RNG. 4 E, 3 PM

COUNTY Shelby DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 087-3012 SURFACE WATER Elev. Dry ft D B U M
Station 22+31 P O S T E L C O I
BORING NO. 5, New E. Abut H 5 O U T
Station 40,000 RL Groundwater Elev. 536.2 ft H S O U T
Offset 40,000 RL First Encounter Washed ft
Ground Surface Elev. 549.6 ft After 24 Hrs. 541.2 ft (ft) (ft) (ft) (ft) (ft) (ft)

| DEPTH (ft) | SOIL DESCRIPTION | TESTS | REMARKS |
|------------|--|-------|--------------------------------------|
| 549.6 | STiff, damp, brown, SANDY LOAM. | | Borehole continued with rock coring. |
| 544.66 | Medium, damp, brown, SANDY LOAM. | | |
| 539.66 | Soft, damp, dark brown, SANDY LOAM. | | |
| 537.86 | Very soft, wet, brown, SILTY LOAM. | | |
| 536.86 | Very loose, wet, fine grained, SAND. | | |
| 532.86 | Very dense, moist, gray, SILTY CLAY SHALE. | | |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (ft value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 9-99)

Note: Stations and offsets of soil borings are based on the existing alignment.

BORING LOGS
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------------|----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAS 653 | 04-00256-00-BR | SHELBY | 40 | 40 |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | |

Contract No. 95555

Illinois Department of Transportation
Division of Highways
District 7 - Materials

ROCK BORING LOG

Page 2 of 2
Date 11/20/07

ROUTE FAS 653 (CH 6) DESCRIPTION Richland Creek LOGGED BY E. Sandbacher

SECTION 04-00256-00-BR LOCATION NW 1/4, SEC. 34, TWP. 9 N. R. 10 E. 3 PM

COUNTY Shelby CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 087-3012 CORING BARREL TYPE & SIZE NW, corr dbt 60L split liner

Station 20+06.00 Core Diameter 2.06 in
Top of Rock Elev. 532.85 ft
Bottom Core Elev. 528.86 ft

BORING NO. 5 New W Abut Station 22+00.00*
Offset 40.0001 ft
Ground Surface Elev. 549.85 ft

| DEPTH (ft) | REMARKS | RO | RC | CR | CS | CT | CU | CV | CT | CR | CS | CT | CU | CV | CT | CU | CV | CT | CU | CV | |
|------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| 0 | Soft, gray, SANDY CLAY SHALE. | | | | | | | | | | | | | | | | | | | | |
| 528.86 | | | | | | | | | | | | | | | | | | | | | |
| 525.66 | Gray, Estimated LIMESTONE. Rock Core Sample B5C1 at 23.1' to 23.5' depth = 194.5 lb Qu. | | | | | | | | | | | | | | | | | | | | |
| 525.66 | Soft, gray, SANDY CLAY SHALE. | | | | | | | | | | | | | | | | | | | | |
| 549.85 | | | | | | | | | | | | | | | | | | | | | |
| 549.85 | Rock Core Sample B5C2 of 25.5' to 25.9' depth = 18.8 lb Qu. | | | | | | | | | | | | | | | | | | | | |
| 520.26 | | | | | | | | | | | | | | | | | | | | | |
| 520.26 | Gray, Estimated LIMESTONE. | | | | | | | | | | | | | | | | | | | | |
| 520.26 | Soft, gray, SANDY CLAY SHALE. | | | | | | | | | | | | | | | | | | | | |
| 528.86 | Extent of exploration. | | | | | | | | | | | | | | | | | | | | |

Remarks: Chiseled square on SE wingwall of existing structure = 554.80' elevation. Provided by Shelby County Engineer.

* Station and offset based on new alignment.

Color pictures of the cores Available on request
Cores will be stored for examination until 11/20/08
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, Form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 7 - Materials

SOIL BORING LOG

Page 1 of 2
Date 11/20/07

ROUTE FAS 653 (CH 6) DESCRIPTION Richland Creek LOGGED BY E. Sandbacher

SECTION 04-00256-00-BR LOCATION NW 1/4, SEC. 34, TWP. 9 N. R. 10 E. 3 PM

COUNTY Shelby DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 087-3012

Station 20+06.00

BORING NO. 6 New W Abut Station 22+00.00*
Offset 22.5001 ft
Ground Surface Elev. 547.32 ft

| DEPTH (ft) | REMARKS | RO | RC | CR | CS | CT | CU | CV | CT | CR | CS | CT | CU | CV | CT | CU | CV | CT | CU | CV | |
|------------|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| 0 | Very soft, damp, brown, SANDY CLAY. | | | | | | | | | | | | | | | | | | | | |
| 547.32 | | | | | | | | | | | | | | | | | | | | | |
| 547.32 | Very loose, wet, gray, fine grained, SAND. 5% passing #200 sieve. (continued) | | | | | | | | | | | | | | | | | | | | |
| 524.82 | | | | | | | | | | | | | | | | | | | | | |
| 524.82 | Very dense, moist, gray, SANDY CLAY SHALE. | | | | | | | | | | | | | | | | | | | | |
| 549.82 | | | | | | | | | | | | | | | | | | | | | |
| 549.82 | Stiff, damp, brown, mix of SANDY CLAY and SANDY LOAM. Tuffed Sandy Clay pieces w/ PP, unable to test Sandy Loam. | | | | | | | | | | | | | | | | | | | | |
| 524.82 | | | | | | | | | | | | | | | | | | | | | |
| 524.82 | Borehole clogged with rock coring. | | | | | | | | | | | | | | | | | | | | |
| 537.82 | | | | | | | | | | | | | | | | | | | | | |
| 537.82 | Soft, wet, brown, SANDY LOAM w/ some fine gravel. | | | | | | | | | | | | | | | | | | | | |
| 527.82 | | | | | | | | | | | | | | | | | | | | | |
| 527.82 | | | | | | | | | | | | | | | | | | | | | |

Remarks: Chiseled square on SE wingwall of existing structure = 554.80' elevation. Provided by Shelby County Engineer.

* Station and offset based on new alignment.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bridge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM 1208) BBS, Form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 7 - Materials

ROCK BORING LOG

Page 2 of 2
Date 11/20/07

ROUTE FAS 653 (CH 6) DESCRIPTION Richland Creek LOGGED BY E. Sandbacher

SECTION 04-00256-00-BR LOCATION NW 1/4, SEC. 34, TWP. 9 N. R. 10 E. 3 PM

COUNTY Shelby CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 087-3012 CORING BARREL TYPE & SIZE NW, corr dbt 60L split liner

Station 20+06.00 Core Diameter 2.06 in
Top of Rock Elev. 524.82 ft
Bottom Core Elev. 521.82 ft

BORING NO. 6 New W Abut Station 22+00.00*
Offset 22.5001 ft
Ground Surface Elev. 547.32 ft

| DEPTH (ft) | REMARKS | RO | RC | CR | CS | CT | CU | CV | CT | CR | CS | CT | CU | CV | CT | CU | CV | CT | CU | CV | |
|------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| 0 | Gray, SANDY CLAY SHALE. | | | | | | | | | | | | | | | | | | | | |
| 521.82 | | | | | | | | | | | | | | | | | | | | | |
| 521.82 | Rock core sample B6C1 from 26.0' to 26.5' depth = 24.7 lb Qu. | | | | | | | | | | | | | | | | | | | | |
| 547.32 | | | | | | | | | | | | | | | | | | | | | |
| 547.32 | Rock core sample B6C2 from 32.0' to 32.5' depth = 12.3 lb Qu. | | | | | | | | | | | | | | | | | | | | |
| 547.32 | Extent of exploration. | | | | | | | | | | | | | | | | | | | | |

Remarks: Chiseled square on SE wingwall of existing structure = 554.80' elevation. Provided by Shelby County Engineer.

* Station and offset based on new alignment.

Color pictures of the cores Available on request
Cores will be stored for examination until 11/20/08
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, Form 138 (Rev. 8-99)

Note: Stations and offsets of soil borings are based on the existing alignment.

BORING LOGS
F.A.S. RTE. 653 - SEC. 04-00256-00-BR
SHELBY COUNTY
STATION 21+06.00
STRUCTURE NO. 087-3563