

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**BRIDGE REPLACEMENT AND REHABILITATION PROGRAM**  
**GRADE CROSSING PROTECTION FUND**

|                          |                               |                     |                    |
|--------------------------|-------------------------------|---------------------|--------------------|
| ROUTE NO.<br>T.R.<br>553 | SECTION<br>03-10117<br>-00-BR | COUNTY<br>JEFFERSON | TOTAL SHEETS<br>19 |
| FED. ROAD DIST. NO.      |                               | ILLINOIS            | FED. AID PROJECT-  |

CONTRACT NO. 95423

- INDEX OF SHEETS**
1. COVER SHEET
  2. SUMMARY OF QUANTITIES AND TYPICAL CROSS SECTIONS
  3. EROSION CONTROL PLAN
  4. PLAN AND PROFILE
  - 5.-12. STATION CROSS SECTIONS
  - 13.-18. BRIDGE PLANS
  19. BORINGS

**HIGHWAY STANDARDS:**

- 280001-02 TEMPORARY EROSION CONTROL
- 515001-02 NAME PLATE FOR BRIDGES
- 630001-06 STEEL PLATE BEAM GUARDRAIL
- 630301-03 SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
- 631026-02 TRAFFIC BARRIER TERMINAL, TYPE 5 AND 5A
- 635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 702001-06 TRAFFIC CONTROL DEVICES
- BLR 21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

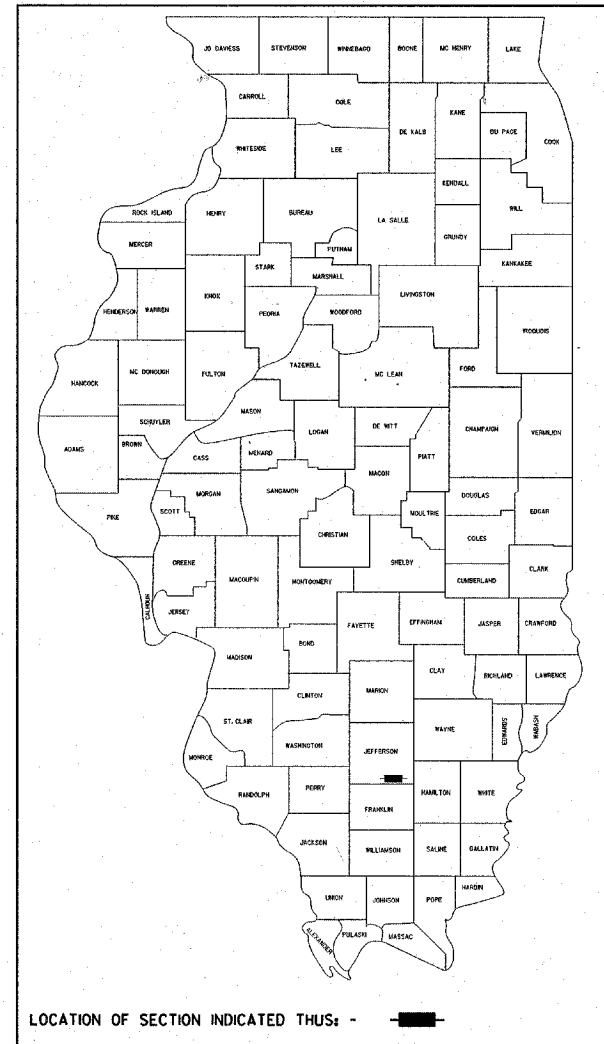
**UTILITIES**

TRI-COUNTY ELECTRIC COOPERATIVE, INC.  
P.O. BOX 309  
3906 BROADWAY STREET  
MOUNT VERNON, IL 62864  
ATTN: SUE ECHOLS  
618-244-5151

DESIGN FUNCTIONAL CLASSIFICATION:  
LOCAL ROAD 0-250 ADT  
DESIGN TRAFFIC: 175 ADT  
DESIGN SPEED: 30 M.P.H.

SCALES { PLAN 0' = 50'  
PROFILE HORIZ. 0' = 50'  
PROFILE VERT. 0' = 5'  
CROSS SECTIONS 0' = 5'

**PROJECT BROS-081(44)**  
**SECTION 03-10117-00-BR**  
**MOORES PRAIRIE ROAD DISTRICT**  
**JEFFERSON COUNTY**  
**T.R. 553 OVER C.N.I.C. R.R.**  
**C-97-027-05**



THE ACCEPTANCE OF THIS PROJECT IS BASED ON THE MINIMUM DESIGN CRITERIA FOR A FEDERAL AID BRRP TYPE IMPROVEMENT.

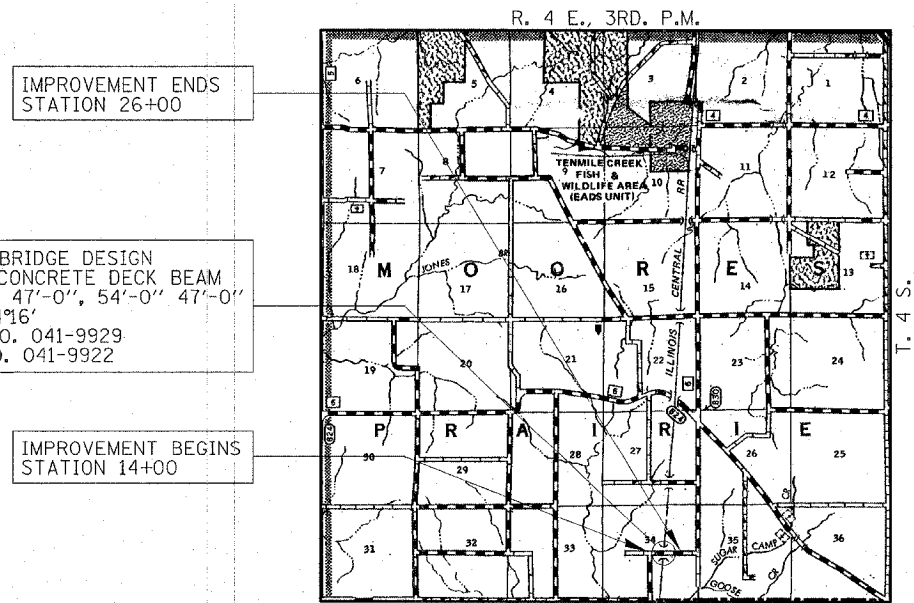
*Maureen E. Kead*  
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

APPROVED *1-11 2006*  
*Duane E. Smke*  
ROAD DISTRICT COMMISSIONER

APPROVED *1-11 2006*  
*Steve Schlaube*  
COUNTY ENGINEER

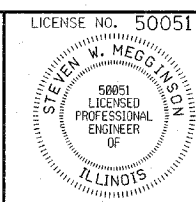
PASSED *2/27/2006*  
*Maureen E. Kead*  
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

APPROVED *2/24/2006*  
*Chris M. Reed*  
REGIONAL ENGINEER  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**LAYOUT**  
APPROXIMATE SCALE: 0 1 MILE  
NET LENGTH OF SECTION = 1,200 FEET = 0.23 MILES

DATE: *January 4 2006*  
BY: *Steven W. Megginson*  
LICENSE EXPIRES: NOVEMBER 30, 2007



**HLR**  
Rice, Berry and Associates  
A Division of Hampton, Lenzini and Renwick, Inc.  
Civil & Structural Engineers  
3085 Stevenson Drive  
Suite 201  
Springfield, Illinois 62703  
217-546-3400  
P.O. Box 1036  
DuQuoin, Illinois 62832  
618-790-4637

CONTRACT NO. 95423

| SUMMARY OF QUANTITIES |   |                        |          |
|-----------------------|---|------------------------|----------|
| CODE NO               | ITEM  | CONSTRUCTION CODE X181 |          |
|                       |   | UNIT                   | QUANTITY |
| 20100500              | TREE REMOVAL, ACRES                                 | ACRE                   | 0.4      |
| 20200100              | EARTH EXCAVATION                                    | CU YD                  | 280      |
| 20200200              | ROCK EXCAVATION                                     | CU YD                  | 8.6      |
| 20400800              | FURNISHED EXCAVATION                                | CU YD                  | 21,540   |
| 25001000              | SEEDING, CLASS 2 (SPECIAL)                          | ACRE                   | 2.5      |
| 28000300              | TEMPORARY DITCH CHECKS                              | EACH                   | 8        |
| 28000400              | PERIMETER EROSION BARRIER                           | FOOT                   | 1,500    |
| 28100807              | STONE DUMPED RIPRAP, CLASS A4                       | TON                    | 500      |
| 40200800              | AGGREGATE SURFACE COURSE, TYPE B                    | TON                    | 1,070    |
| 50100100              | REMOVAL OF EXISTING STRUCTURES                      | EACH                   | 1        |
| 50200100              | STRUCTURE EXCAVATION                                | CU YD                  | 200      |
| 50300225              | CONCRETE STRUCTURES                                 | CU YD                  | 144.8    |
| 50400405              | PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH) | SQ FT                  | 3,996    |
| 50500505              | STUD SHEAR CONNECTORS                               | EACH                   | 16       |
| 50800105              | REINFORCEMENT BARS                                  | POUND                  | 31,810   |
| 50900205              | STEEL RAILING, TYPE S1                              | FOOT                   | 306      |
| 51201400              | FURNISHING STEEL PILES HP10X42                      | FOOT                   | 210      |
| 51202700              | DRIVING STEEL PILES                                 | FOOT                   | 210      |
| 51203400              | TEST PILE STEEL HP10X42                             | EACH                   | 1        |
| 51204315              | CONCRETE ENCASEMENT                                 | CU YD                  | 2.0      |
| 51500100              | NAME PLATES   | EACH                   | 1        |
| 54200220              | PIPE CULVERTS, CLASS D, TYPE 1 15"                  | FOOT                   | 142      |
| 54201921              | PIPE CULVERTS, CLASS D, TYPE 3 36"                  | FOOT                   | 64       |
| 54390230              | INSERTION CULVERT LINER, 36"                        | FOOT                   | 140      |
| 63100075              | TRAFFIC BARRIER TERMINAL, TYPE 5A                   | EACH                   | 4        |
| 63100167              | TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) | EACH                   | 4        |
| 67100100              | MOBILIZATION  | L. SUM                 | 1        |
| 78201000              | TERMINAL MARKER - DIRECT APPLIED                    | EACH                   | 4        |
| Z0013825              | CONTROLLED LOW STRENGTH MATERIAL                    | CU YD                  | 35       |
| Z0048665              | RAILROAD PROTECTIVE LIABILITY INSURANCE             | L. SUM                 | 1        |

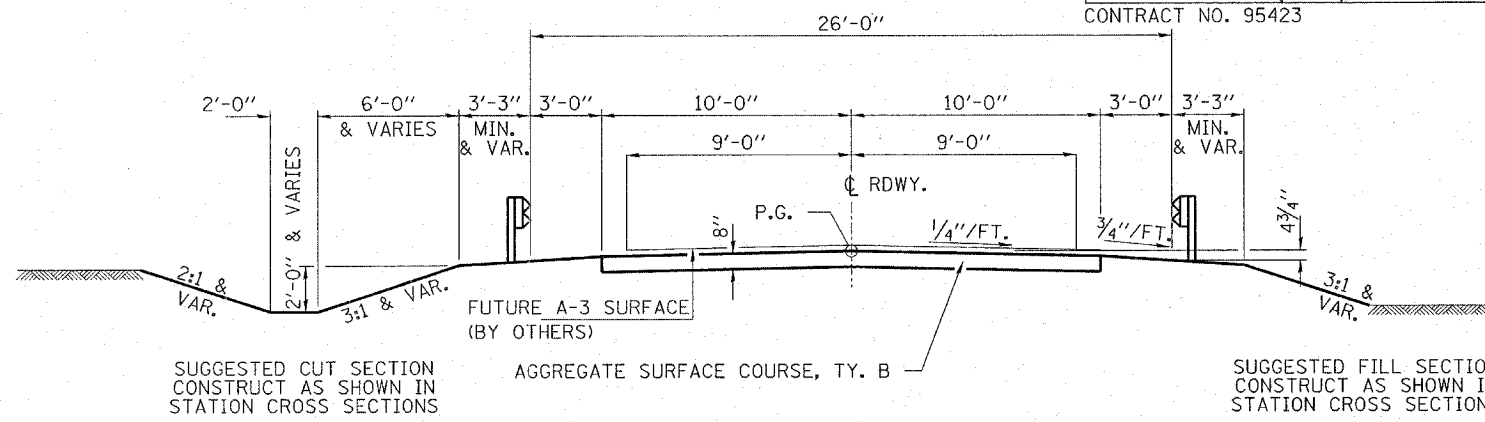
> SEE SPECIAL PROVISIONS

**GENERAL NOTES:**

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2002," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- ALL CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE REMOVAL OF THE EXISTING AGGREGATE BASE COURSE AND A-2 SURFACE WILL BE PAID FOR AS EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF AS APPROVED BY THE ENGINEER
- THE LOCATIONS OF EXISTING ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS UNTIL THE OWNER, HIS AGENT, PROFESSIONAL LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE REVISION NUMBER INDICATED FOR THE STANDARDS LISTED IN THE INDEX OF SHEETS SHALL BE USED IN THE CONSTRUCTION OF THIS SECTION.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES  
 AGGREGATE BASE CSE. 2.05 TON/CU YD  
 RIPRAP SPECIAL 1.75 TON/CU YD
- THE AREA TO BE SEEDED SHALL CONSIST OF ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. **ESTIMATED QUANTITY: SEEDING, CLASS 2 (SPECIAL) = 1.1 ACRES**
- TREES WITHIN THE RIGHT-OF-WAY WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER. **ESTIMATED QUANTITY: TREE REMOVAL, ACRES = 0.4 ACRES**
- THE CONTRACTOR SHALL CONSULT THE ENGINEER IN REGARD TO THE EXACT LENGTH OF PIPE CULVERTS AND CULVERT INSERTION LINER BEFORE ORDERING THESE ITEMS.

| EARTHWORK SCHEDULE             |                          |                  |              |                              |                             |                           |
|--------------------------------|--------------------------|------------------|--------------|------------------------------|-----------------------------|---------------------------|
| LOCATION                       | EARTH EXCAVATION (CU YD) | SHRINKAGE FACTOR | PERCENT USED | AVAILABLE EXCAVATION (CU YD) | EMBANKMENT REQUIRED (CU YD) | EARTHWORK BALANCE (CU YD) |
| STA. 14+00 TO STA. 19+25.25    | 17                       | 25%              | 100%         | 151                          | 9,375                       | -9,224                    |
| STA. 20+08 TO STA. 26+00       | 76                       | 25%              | 100%         | -                            | 12,306                      | -12,249                   |
| STRUCTURE EXCAVATION ENTRANCES | 200                      |                  |              | 106                          | 165                         | -165                      |
| TOTAL USE:                     | 33                       |                  |              | 78                           | 20,022                      | -21,532                   |
|                                | 35                       |                  |              |                              |                             | -21,540                   |

\* AVAILABLE EXCAVATION = EXC. x (1-SHRINKAGE FACTOR) x % USED (FURN. EXC.)

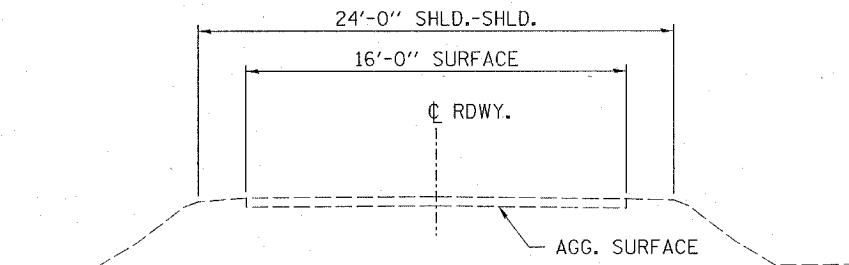


ROAD CLASSIFICATION - LOCAL ROAD 0-250 ADT  
 CURRENT ADT 125  
 DESIGN SPEED: 30 M.P.H.

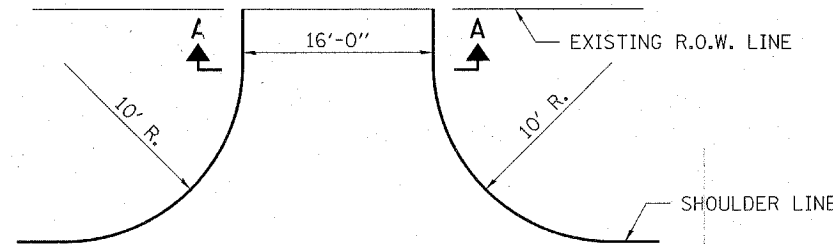
**TYPICAL CROSS SECTION**

STA. 14+50 TO STA. 19+25.25  
 STA. 20+74.75 TO STA. 25+50

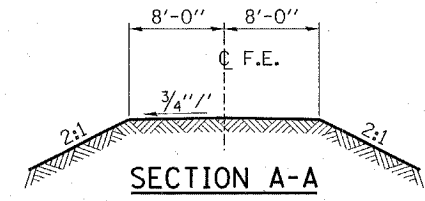
TRANSITION FROM THE PROPOSED ROADWAY TO THE EXISTING ROADWAY IS TO BE CONSTRUCTED FROM STA. 14+00 TO 14+50 AND STA. 25+50 TO 26+00. SEE SHEET 10 FOR TRANSITION AT BRIDGE.



**EXISTING CROSS SECTION**



**FIELD ENTRANCE DETAIL**



**SECTION A-A**

| TRAFFIC BARRIER TERMINAL, TYPE 5A |      |
|-----------------------------------|------|
| LOCATION                          | EACH |
| RT. STA. 19+09.4 TO STA. 19+22.7  | 1    |
| LT. STA. 19+11.4 TO STA. 19+24.7  | 1    |
| RT. STA. 20+75.3 TO STA. 20+88.6  | 1    |
| LT. STA. 20+77.3 TO STA. 20+90.6  | 1    |
| TOTAL                             | 4    |

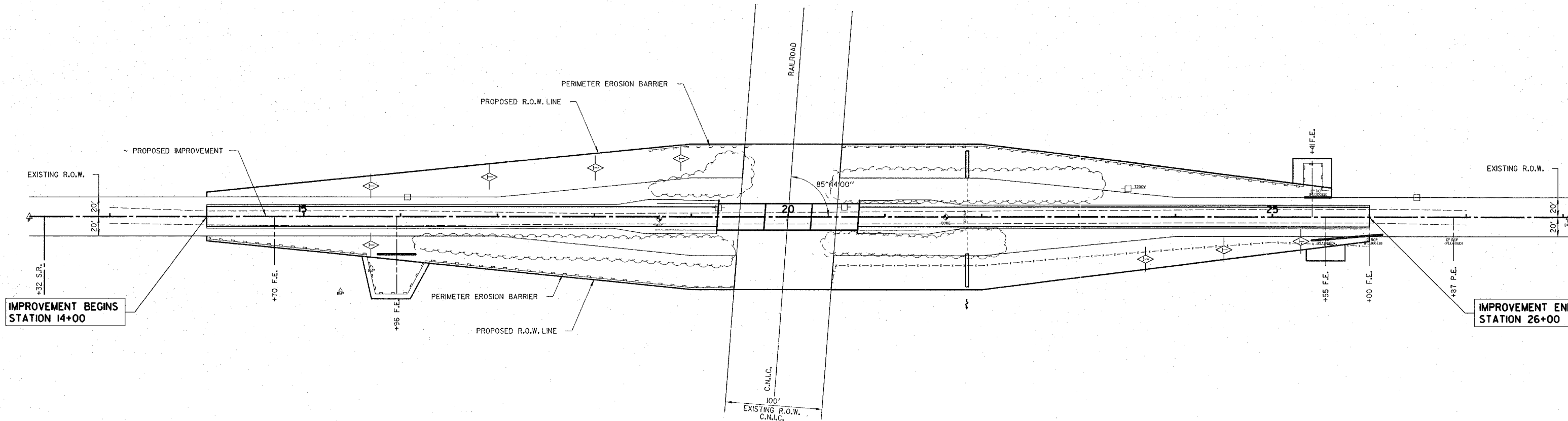
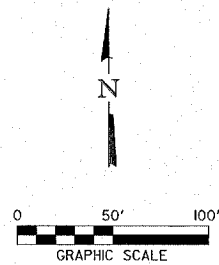
| TRAFFIC BARRIER TERMINAL, TY 1, SPL (TANG) |      |
|--|------|
| LOCATION                                   | EACH |
| RT. STA. 18+59.4 TO STA. 19+09.4           | 1    |
| LT. STA. 18+61.4 TO STA. 19+11.4           | 1    |
| RT. STA. 20+88.6 TO STA. 21+38.6           | 1    |
| LT. STA. 20+90.6 TO STA. 21+40.6           | 1    |
| TOTAL                                      | 4    |

**HLR**  
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 217-546-3400  
 P.O. Box 1036  
 DuQuoin, Illinois 62832  
 618-790-4637  
 Account Number 12-49-0002-1  
 Date: 01/04/06  
 DESIGNED: S.W.S. CHECKED: S.W.M. DRAWN: D.T.M.

**SUMMARY OF QUANTITIES AND TYPICAL SECTIONS**  
 SECTION 03-10117-00-BR  
 MOORES PRAIRIE ROAD DISTRICT  
 JEFFERSON COUNTY

# EROSION CONTROL PLAN & STORMWATER POLLUTION PREVENTION PLAN

THIS PROJECT DISTURBS 3.1 ACRES OF TOTAL LAND AREA. COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT IS ONLY NECESSARY IF A PROJECT DISTURBS 100 OR MORE ACRES OF TOTAL LAND AREA; AN NPDES STORMWATER PERMIT WILL BE REQUIRED FOR THIS PROJECT.



### GENERAL NOTES FOR SOIL EROSION CONTROL

1. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL ALSO TAKE SPECIAL NOTE TO THE CONTRACT SPECIAL PROVISION "EROSION CONTROL PLAN". ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER. ALL MEASURES SHALL BE IN PLACE WITHIN 4 DAYS OF DISTURBANCE.
3. ALL TEMPORARY EROSION CONTROL MEASURES MUST BE MAINTAINED AND IMMEDIATELY REPLACED AS NEEDED AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSPECTION AND REPAIR. THE CONTRACTOR SHALL INSPECT AND COMPLETE MAINTENANCE OF ALL ITEMS A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF A ONE-HALF INCH RAINFALL. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SEEDING IS ACHIEVED.
4. PERIMETER EROSION BARRIER SHALL BE INSTALLED AT LOCATIONS SPECIFIED IN THE PLANS AT 5 FEET OUTSIDE THE TOE OF SLOPE OR INSIDE THE RIGHT-OF-WAY WHICHEVER IS CLOSER TO THE CENTERLINE, OR AS DIRECTED BY THE ENGINEER PRIOR TO THE START OF ANY EARTHWORK, CULVERT, OR STORM SEWER CONSTRUCTION. STAKES SHALL BE PLACED AT A MINIMUM OF 5 FOOT INTERVALS. SEE CODE 920 OF THE ILLINOIS URBAN MANUAL AND CONTRACT SPECIAL PROVISIONS.
5. THE PERIMETER EROSION BARRIER SHALL BE REMOVED WITHIN 30 DAYS AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED WITH VEGETATION. AFTER THE PERIMETER EROSION BARRIER IS REMOVED, ALL AREAS DAMAGED BY THE FENCE INSTALLATION SHALL BE RESTORED BY THE CONTRACTOR.
6. THE FENCE INSTALLATION, MAINTENANCE, REMOVAL AND THE RESTORATION OF THE AREA DISTURBED BY THE FENCE INSTALLATION IS INCLUDED IN COST OF THE PAY ITEM PERIMETER EROSION BARRIER.
7. TEMPORARY DITCH CHECKS SHALL BE CONSTRUCTED AS PER CONTRACT SPECIAL PROVISIONS ON 100 FEET CENTERS AS SHOWN HEREON OR AS DIRECTED BY THE ENGINEER. THE DITCH CHECKS SHALL BE INSTALLED IMMEDIATELY AS GRADING PROGRESSES THROUGH THE PROJECT. THE PAY ITEM FOR TEMPORARY DITCH CHECK SHALL INCLUDE THE COST OF INSTALLATION, MAINTENANCE AND REMOVAL. ONLY AGGREGATE DITCH CHECKS SHALL BE USED. SEE CONTRACT SPECIAL PROVISIONS FOR "ROCK CHECK DAM" CODE 905 ILLINOIS URBAN MANUAL. (NOT APPLICABLE TO THIS PROJECT)
8. REMOVAL OF TRAPPED SEDIMENT SHALL BE PAID FOR AS EARTH EXCAVATION. SEDIMENT SHALL BE REMOVED WHEN SILTATION REACHES 50% CAPACITY OF STRUCTURE. SEE APPLICABLE STANDARDS, SPECIFICATIONS, AND CONTRACT SPECIAL PROVISIONS FOR: EROSION AND SEDIMENT CONTROL, ILLINOIS URBAN MANUAL.
9. THE CONTRACTOR SHALL CLEAN UP AND GRADE THE WORK AREA AS THE PROJECT PROGRESSES TO ELIMINATE THE CONCENTRATION OF RUNOFF. THE PAVEMENT SHALL BE CLEANED DAILY TO REMOVE EARTH MATERIAL TO THE SATISFACTION OF THE ENGINEER.
10. THE CONTRACTOR SHALL CONTACT THE WILL-SOUTH COOK SOIL & WATER CONSERVATION DISTRICT (815 462 3106) AS SOON AS INITIAL EROSION CONTROL PRACTICES ARE INSTALLED.
11. TEMPORARY SEEDING SHALL BE COMPLETED ACCORDING TO CODE 905 OF ILLINOIS URBAN MANUAL ON ALL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH CONSTRUCTION WILL BE STOPPED FOR A PERIOD OF MORE THAN 15 WORKING DAYS.
12. THE COST OF ALL REQUIRED TEMPORARY SEEDING SHALL BE INCLUDED IN THE UNIT COST BID FOR SEEDING CLASS 2-SPL. AND WILL NOT BE PAID FOR SEPARATELY.
13. ALL DISTURBED AREAS SHALL BE SEEDDED AS DIRECTED BY THE ENGINEER. FINAL SEEDING SHALL CONFORM TO SEEDING CLASS 2 (SPECIAL) AS PER IDOT STANDARD SPECIFICATIONS AND CONTRACT SPECIAL PROVISIONS.
14. THE CONTRACTOR SHALL MAINTAIN AND PRESERVE ANY EXISTING SUB SURFACE DRAINAGE SYSTEMS (I.e. FIELD TILES) ACCORDING TO SECTION 611 OF THE IDOT STANDARD SPECIFICATIONS.

### TEMPORARY DITCH CHECKS

TOTAL = 8 EACH  
LOCATION AS APPROVED BY ENGINEER.

### PERIMETER EROSION BARRIER

| LOCATION                     | FOOT         |
|------------------------------|--------------|
| LT. STA. 18+50 TO STA. 19+50 | 100          |
| RT. STA. 14+00 TO STA. 19+50 | 500          |
| LT. STA. 20+50 TO STA. 26+00 | 600          |
| RT. STA. 20+50 TO STA. 23+50 | 300          |
| <b>TOTAL</b>                 | <b>1,500</b> |

### LEGEND

- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECKS

Rice, Berry and Associates  
 A Division of Hampton,  
 Lenzi and Renwick, Inc.  
 Civil & Structural Engineers  
 3085 Stevenson Drive  
 Suite 201  
 Springfield, Illinois 62703  
 217-546-3400  
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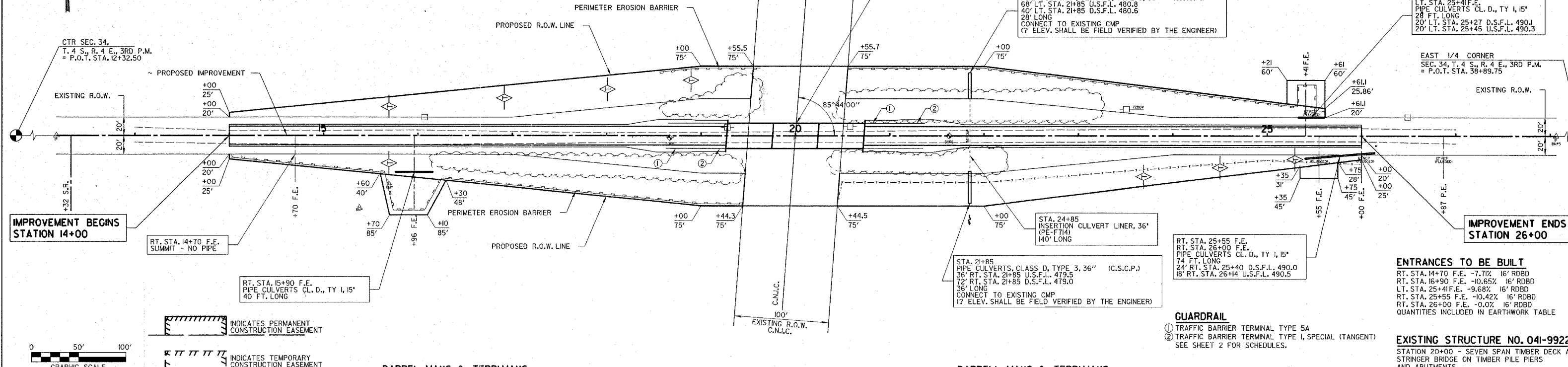
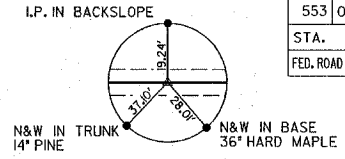
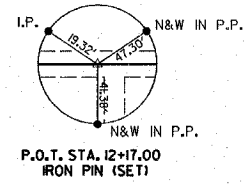
### EROSION CONTROL PLAN

**SECTION 03-10117-00-BR**  
**MOORES PRAIRIE ROAD DISTRICT**  
**JEFFERSON COUNTY**

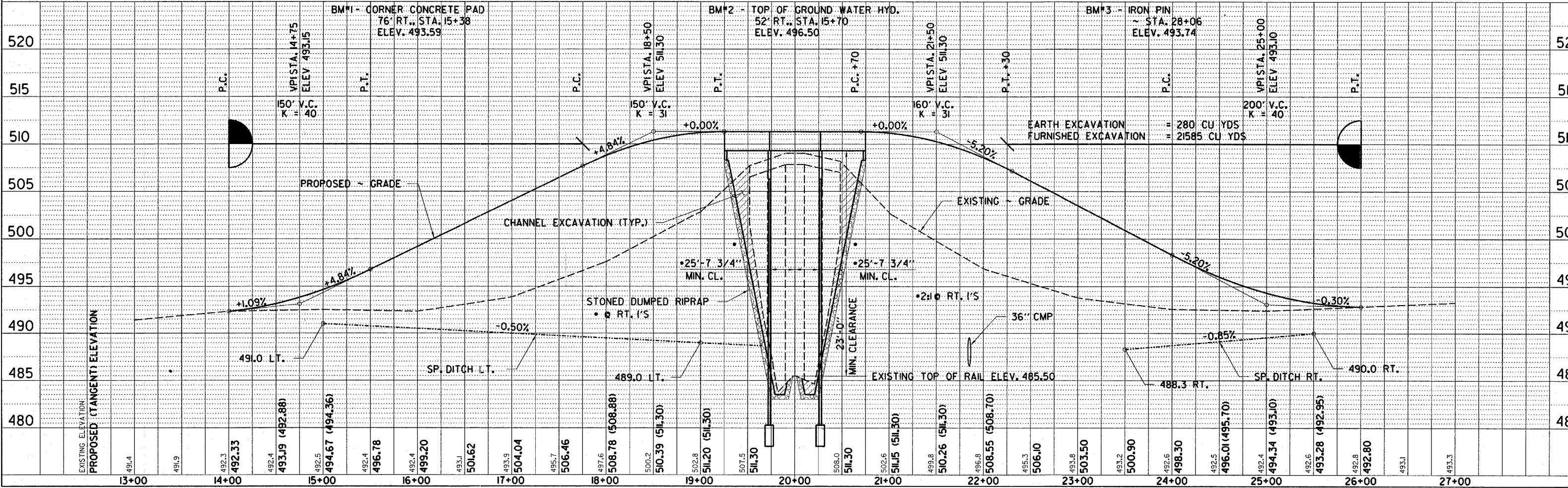
**SAM HALLIGAN & LINDA HALLIGAN**  
 SW 1/4, NE 1/4, SEC 34, T. 4 S., R. 4 E., 3RD P.M.

**MARK A. WHITE & THERESA WHITE**  
 SW 1/4, NE 1/4, SEC 34, T. 4 S., R. 4 E., 3RD P.M.

|                              |                |                    |              |
|------------------------------|----------------|--------------------|--------------|
| T.R.                         | SECTION        | COUNTY             | TOTAL SHEETS |
| 553                          | 03-10117-00-BR | JEFFERSON          | 19           |
| STA.                         | TO STA.        |                    |              |
| FED. ROAD DIST. NO.          | ILLINOIS       | CONTRACT NO. 95423 |              |
| MOORES PRAIRIE ROAD DISTRICT |                |                    |              |



**DARREL MAYS & TERRIMAYS**  
 NW 1/4, SE 1/4, SEC 34, T. 4 S., R. 4 E., 3RD P.M.



**ENTRANCES TO BE BUILT**  
 RT. STA. 14+70 F.E. -7.71% 16' RDBD  
 RT. STA. 16+90 F.E. -10.65% 16' RDBD  
 LT. STA. 25+41 F.E. -9.68% 16' RDBD  
 RT. STA. 25+55 F.E. -10.42% 16' RDBD  
 RT. STA. 26+00 F.E. -0.00% 16' RDBD  
 QUANTITIES INCLUDED IN EARTHWORK TABLE

**EXISTING STRUCTURE NO. 041-9922**  
 STATION 20+00 - SEVEN SPAN TIMBER DECK AND STRINGER BRIDGE ON TIMBER PILE PIERS AND ABUTMENTS.  
 37'-0" BK.-BK. ABUTS; 18'-0" o.-o. DECK  
 REMOVAL OF EXISTING STRUCTURES - EACH

- GUARDRAIL**
- ① TRAFFIC BARRIER TERMINAL TYPE 5A
  - ② TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)
- SEE SHEET 2 FOR SCHEDULES.

|      |    |      |    |
|------|----|------|----|
| DATE | BY | DATE | BY |
|      |    |      |    |
|      |    |      |    |
|      |    |      |    |

|      |    |      |    |
|------|----|------|----|
| DATE | BY | DATE | BY |
|      |    |      |    |
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|      |    |      |    |
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| DATE | BY | DATE | BY |
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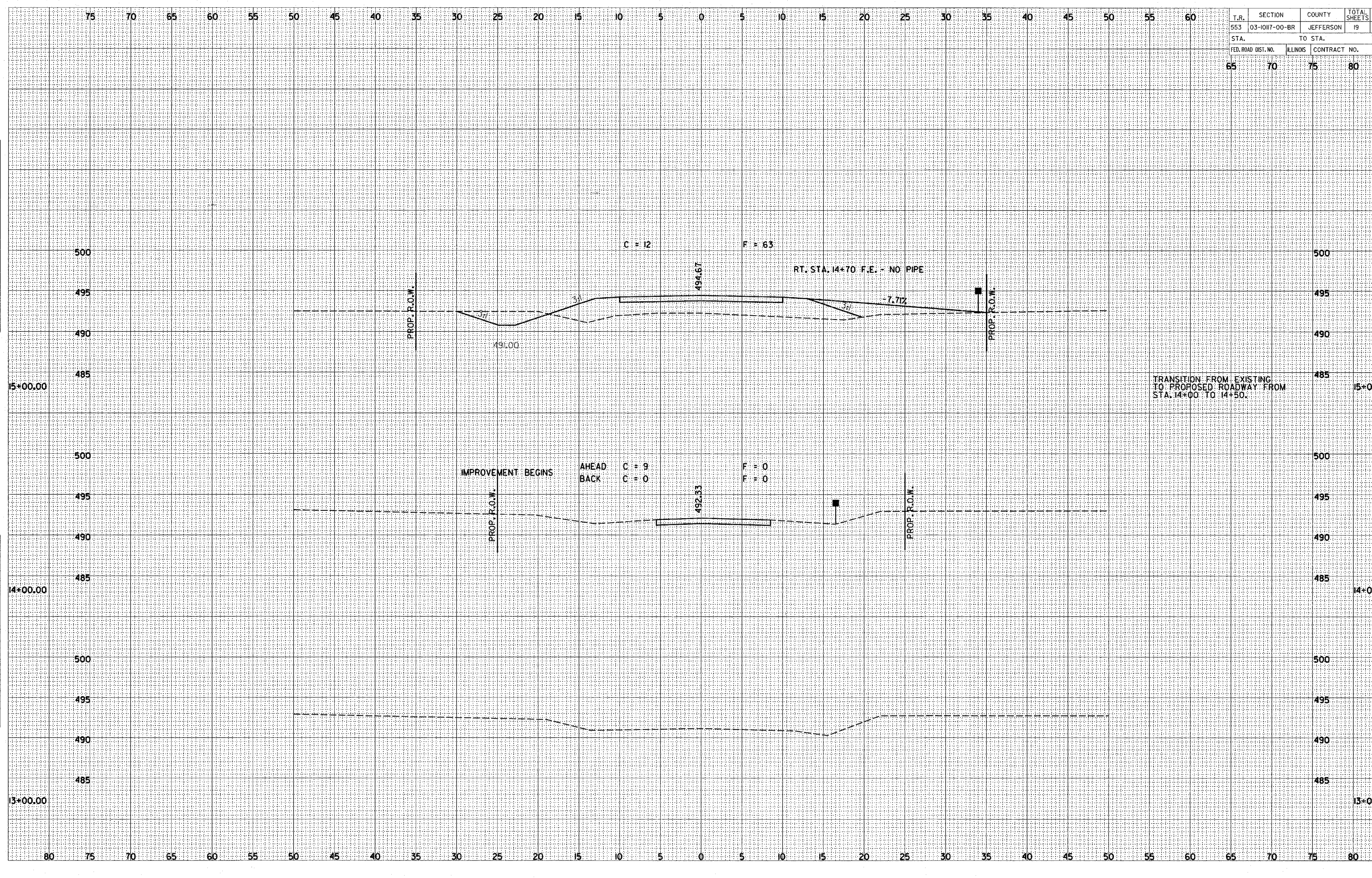
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|                     |               |              |              |        |
|---------------------|---------------|--------------|--------------|--------|
| T.R.                | SECTION       | COUNTY       | TOTAL SHEETS | SH. N. |
| 553                 | 03-1017-00-BR | JEFFERSON    | 19           |        |
| STA.                |               | TO STA.      |              |        |
| FED. ROAD DIST. NO. | ILLINOIS      | CONTRACT NO. |              |        |
| 65                  | 70            | 75           | 80           |        |

NOTE BOOK  
TEMPLATE  
AREAS CHECKED

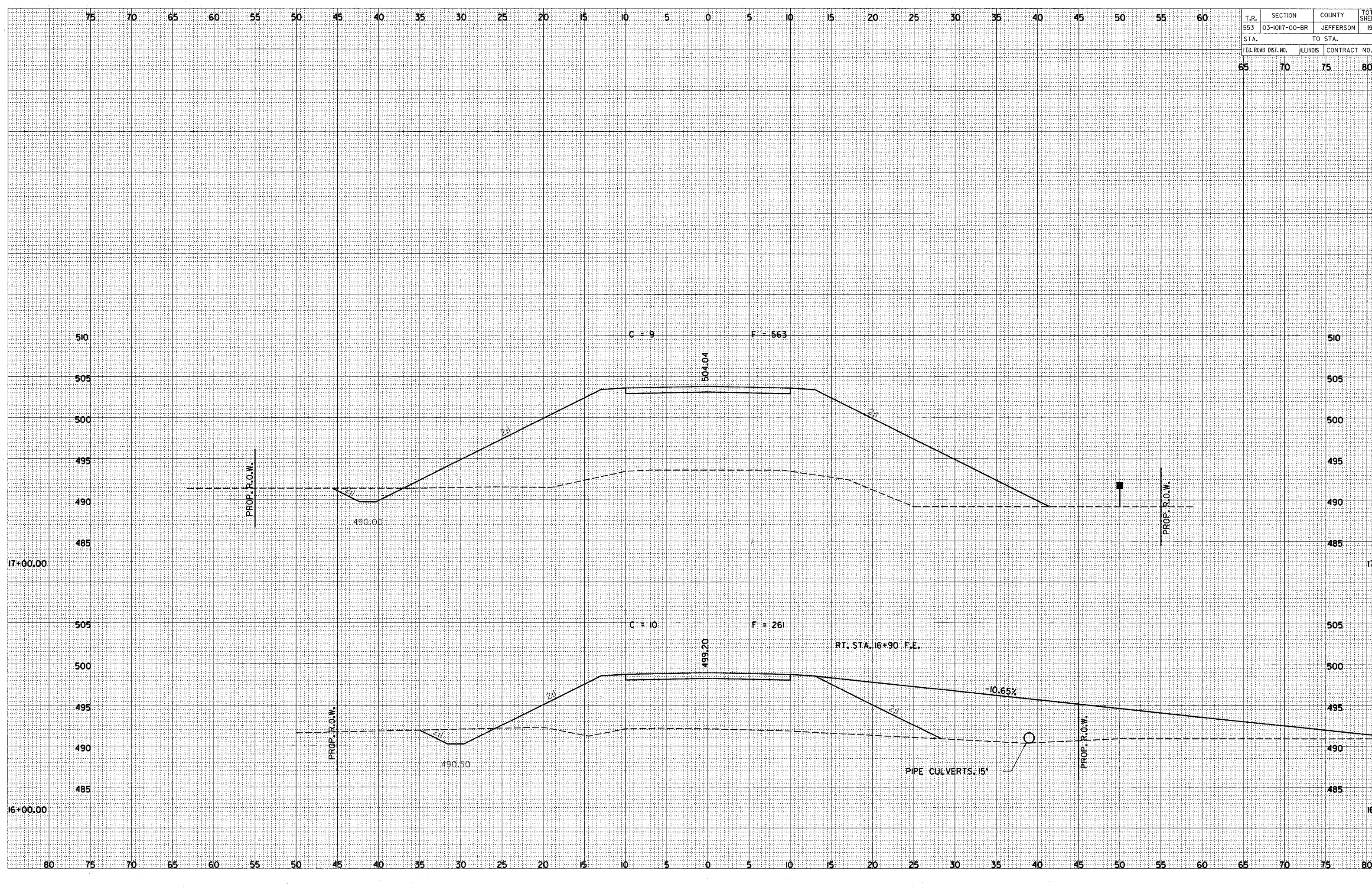
NOTE BOOK  
TEMPLATE  
AREAS CHECKED

NOTE BOOK  
TEMPLATE  
AREAS CHECKED





| T.R.                | SECTION        | COUNTY     | TOTAL SHEETS | SH. NO. |
|---------------------|----------------|------------|--------------|---------|
| 553                 | 03-10117-00-BR | JEFFERSON  | 19           |         |
| STA. 65             |                | TO STA. 70 |              |         |
| FED. ROAD DIST. NO. |                | ILLINOIS   | CONTRACT NO. |         |
|                     |                |            | 75           | 80      |

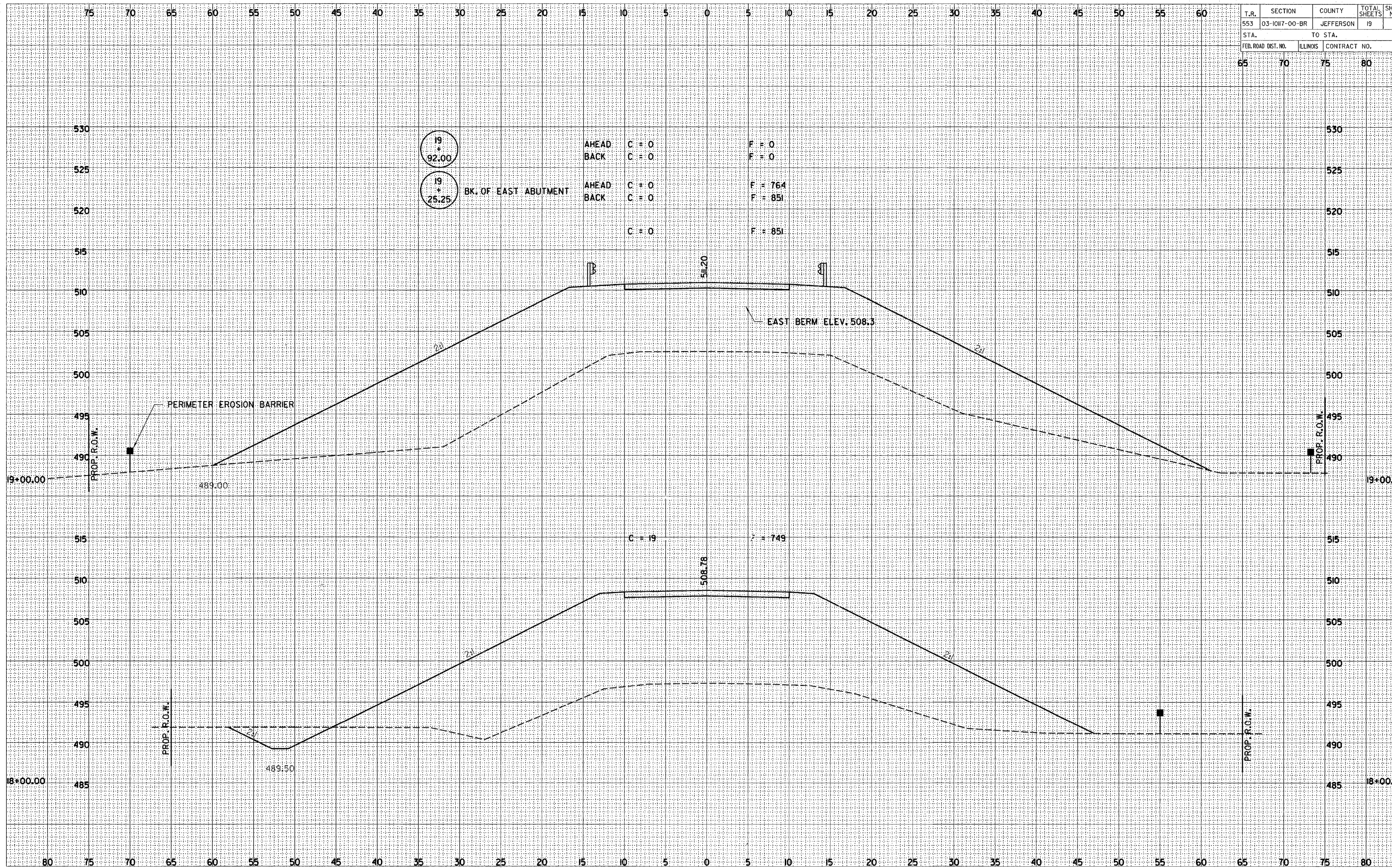


NOTE BOOK  
 TEMPLATE  
 AREAS CHECKED

NOTE BOOK  
 TEMPLATE  
 AREAS CHECKED



|                     |                |           |              |           |
|---------------------|----------------|-----------|--------------|-----------|
| T.R.                | SECTION        | COUNTY    | TOTAL SHEETS | SHEET NO. |
| 553                 | 03-10117-00-BR | JEFFERSON | 19           |           |
| STA.                |                | TO STA.   |              |           |
| FED. ROAD DIST. NO. |                | ILLINOIS  | CONTRACT NO. |           |
| 65                  |                | 70        | 75           | 80        |

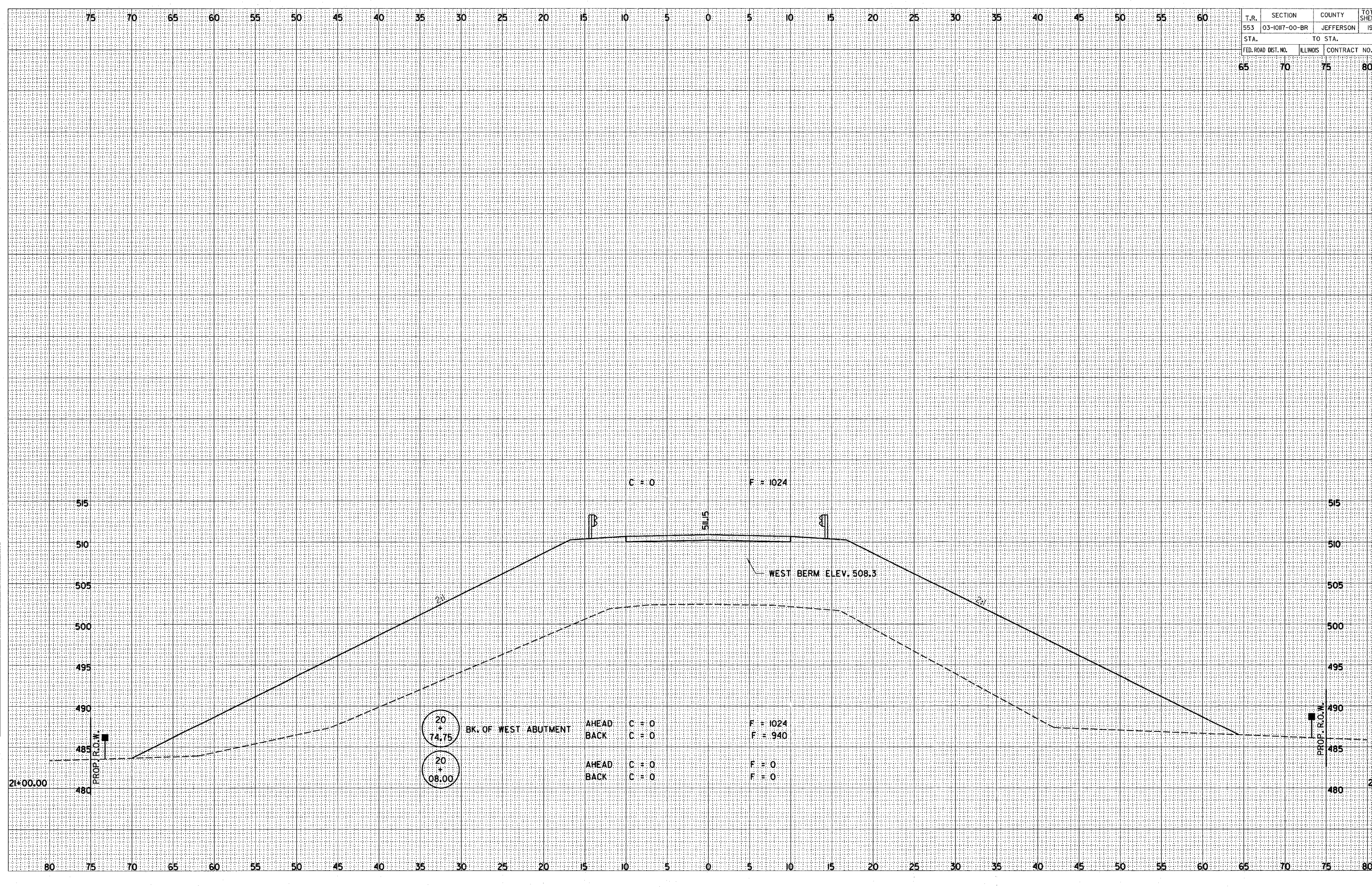


JOINTLY PLOTTED  
 NOTE BOOK TEMPLATE AREAS CHECKED  
 NO.

JOINTLY PLOTTED  
 NOTE BOOK TEMPLATE AREAS CHECKED  
 NO.



|                     |               |           |              |         |
|---------------------|---------------|-----------|--------------|---------|
| T.R.                | SECTION       | COUNTY    | TOTAL SHEETS | SH. NO. |
| 553                 | 03-1017-00-BR | JEFFERSON | 19           |         |
| STA.                |               | TO STA.   |              |         |
| FED. ROAD DIST. NO. |               | ILLINOIS  | CONTRACT NO. |         |
| 65                  |               | 70        | 75           | 80      |



NOTE BOOK TEMPLATE AREAS CHECKED

NOTE BOOK TEMPLATE AREAS CHECKED

20 + 74.75  
20 + 08.00

BK. OF WEST ABUTMENT

|       |       |          |
|-------|-------|----------|
| AHEAD | C = 0 | F = 1024 |
| BACK  | C = 0 | F = 940  |
| AHEAD | C = 0 | F = 0    |
| BACK  | C = 0 | F = 0    |

F = 1024

C = 0

WEST BERM ELEV. 508.3

511.15

21

21

21+00.00

21+00

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

515

515

510

510

505

505

500

500

495

495

490

490

485

485

480

480

PROP. R.O.W.

PROP. R.O.W.



75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60

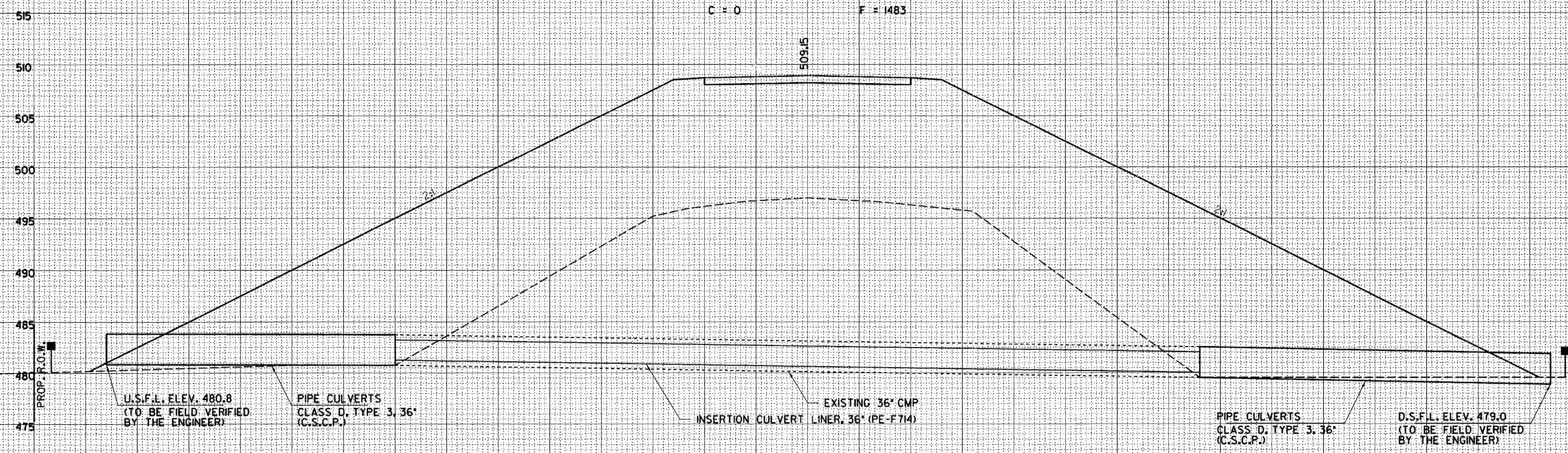
|                     |                |              |              |        |
|---------------------|----------------|--------------|--------------|--------|
| T.R.                | SECTION        | COUNTY       | TOTAL SHEETS | SH. N. |
| 553                 | 03-10117-00-BR | JEFFERSON    | 19           |        |
| STA.                |                | TO STA.      |              |        |
| FED. ROAD DIST. NO. | ILLINOIS       | CONTRACT NO. |              |        |
| 65                  | 70             | 75           | 80           |        |

NOTE BOOK  
NO. \_\_\_\_\_

TEMPLATE  
AREAS CHECKED \_\_\_\_\_

NOTE BOOK  
NO. \_\_\_\_\_

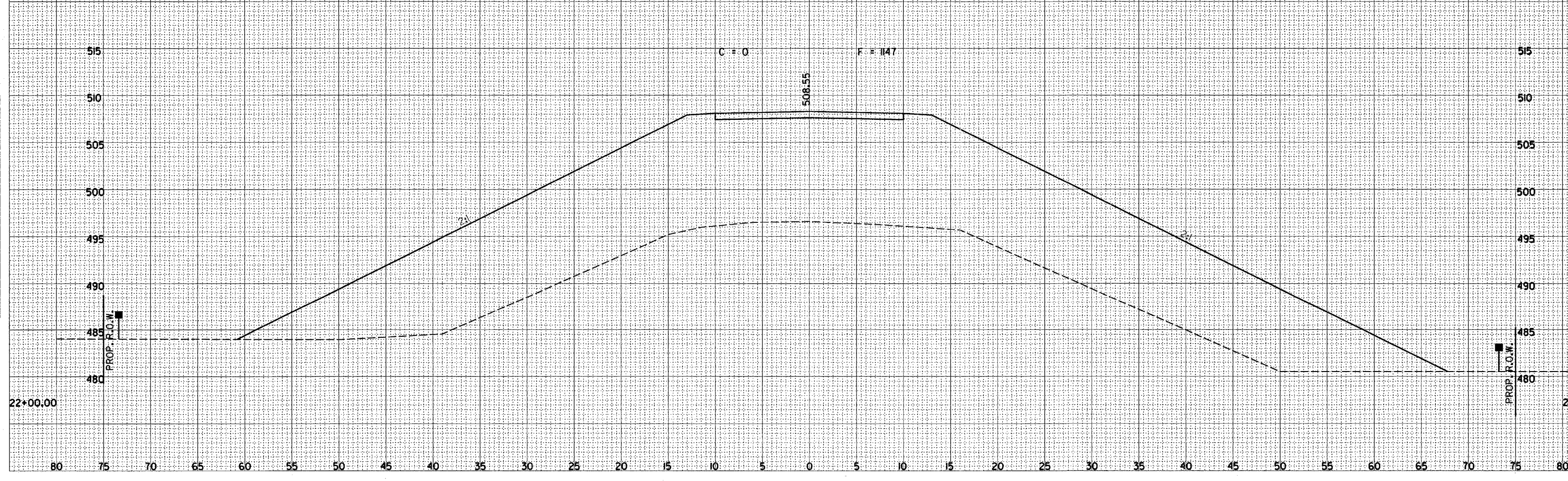
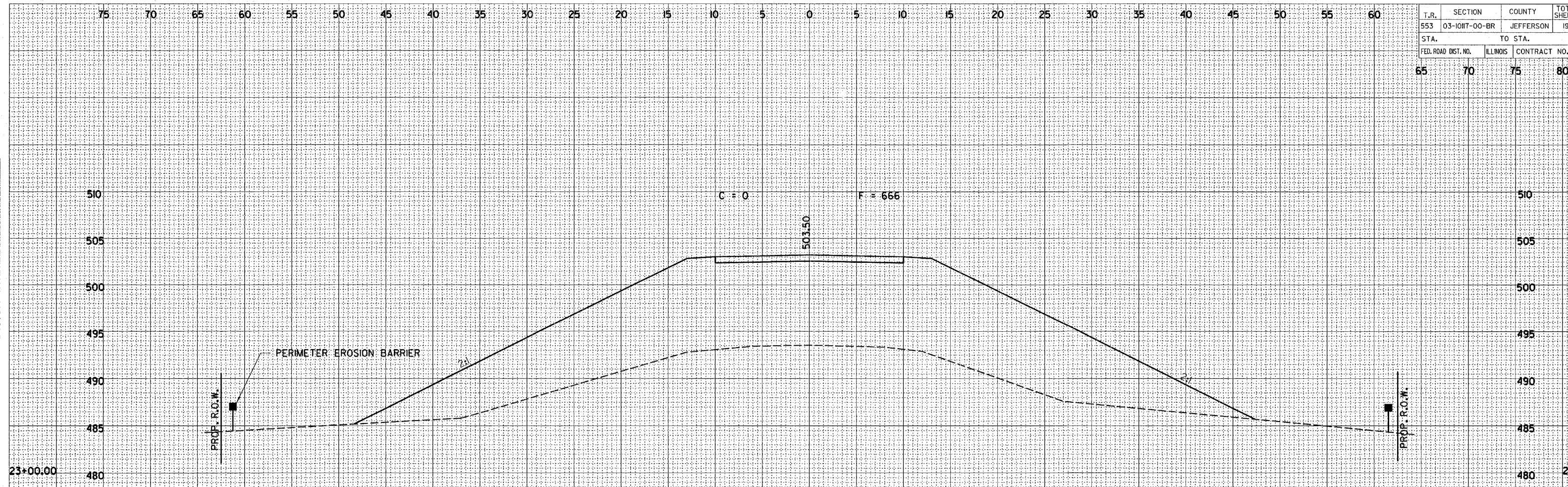
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AREAS CHECKED \_\_\_\_\_



80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80



|                     |               |              |              |         |
|---------------------|---------------|--------------|--------------|---------|
| T.R.                | SECTION       | COUNTY       | TOTAL SHEETS | SH. NO. |
| 553                 | 03-10H7-00-BR | JEFFERSON    | 19           |         |
| STA.                |               | TO STA.      |              |         |
| FED. ROAD DIST. NO. | ILLINOIS      | CONTRACT NO. |              |         |
| 65                  | 70            | 75           | 80           |         |

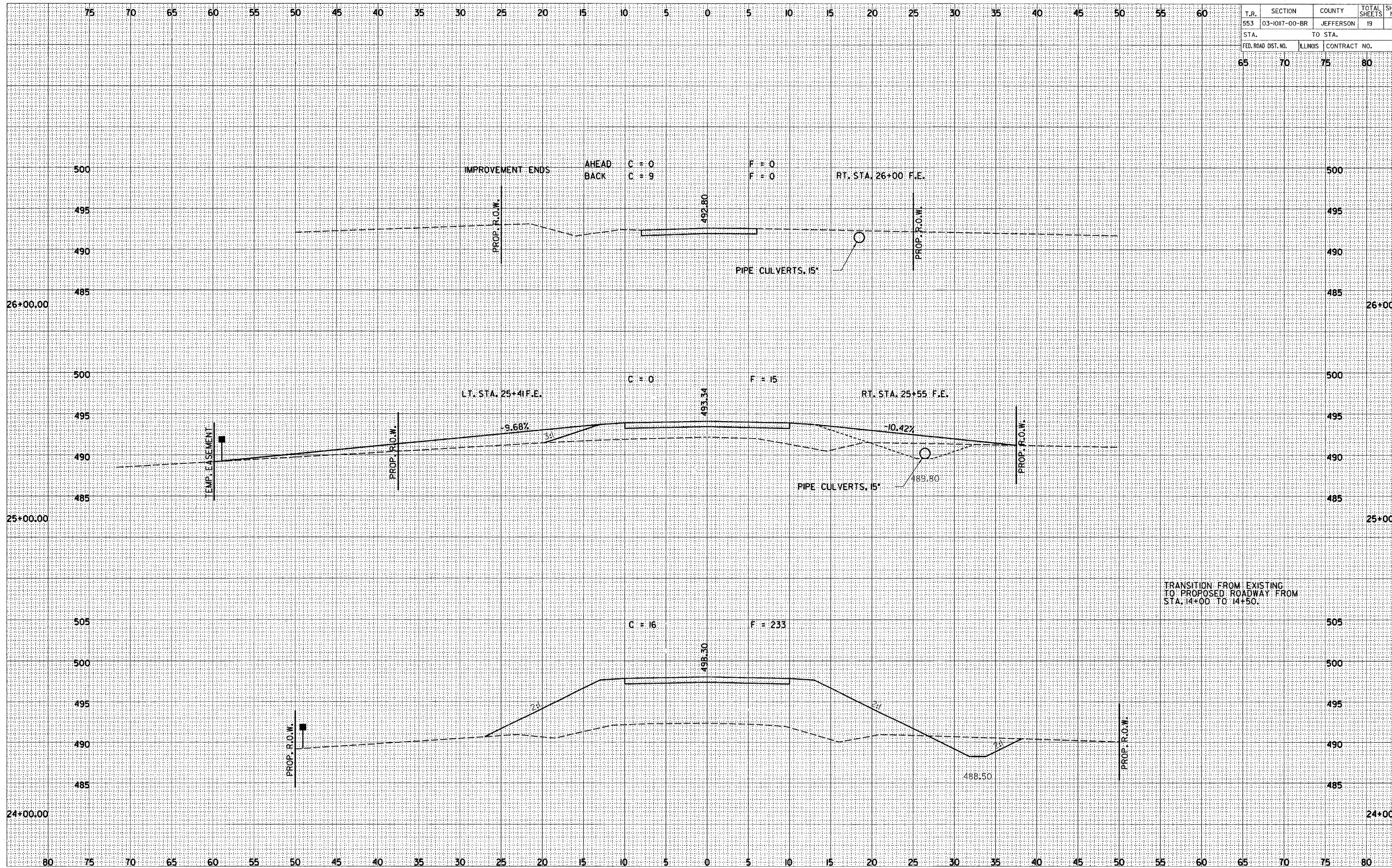


NOTE BOOK  
 TEMPLATE  
 AREAS CHECKED  
 NO.

NOTE BOOK  
 TEMPLATE  
 AREAS CHECKED  
 NO.



|                     |                |           |              |           |
|---------------------|----------------|-----------|--------------|-----------|
| T.R.                | SECTION        | COUNTY    | TOTAL SHEETS | SHEET NO. |
| 553                 | 03-10117-00-BR | JEFFERSON | 19           | 11        |
| STA.                |                | TO STA.   |              |           |
| FED. ROAD DIST. NO. |                | ILLINOIS  | CONTRACT NO. |           |
| 65                  |                | 70        | 75           | 80        |



DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 NO. \_\_\_\_\_

DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 NO. \_\_\_\_\_



75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60

|                     |               |              |              |        |
|---------------------|---------------|--------------|--------------|--------|
| T.R.                | SECTION       | COUNTY       | TOTAL SHEETS | SH. N. |
| 553                 | 03-1017-00-BR | JEFFERSON    | 19           |        |
| STA.                |               | TO STA.      |              |        |
| FED. ROAD DIST. NO. | ILLINOIS      | CONTRACT NO. |              |        |
| 65                  | 70            | 75           | 80           |        |

NOTE BOOK TEMPLATE AREAS CHECKED  
NO.

NOTE BOOK TEMPLATE AREAS CHECKED  
NO.



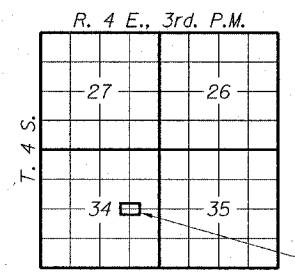


CONTRACT NO. 95423

**GENERAL NOTES**

Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
 Excavation required to construct the Abutments shall be considered incidental to Concrete Structures. No additional compensation will be allowed for Structure Excavation.  
 The Contractor shall drive one steel test pile in a permanent location at the West Abutment, as directed by the Engineer before ordering the remainder of the piles.  
 Non-prestressing steel shall conform to the requirements of AASHTO M-31 or M-322 Grade 60.  
 See sheet 19 for Borings.

C.N.I.C. RAILROAD  
 BUILT 200 BY  
 JEFFERSON COUNTY  
 SEC. 03-10117-00-BR  
 F.A. PROJ. BROS-081(44)  
 STR. NO. 041-9929  
 LOADING HS 20



**NAME PLATE**  
 See Std. 515001

**DESIGN STRESSES**

$f'_c = 5,000$  psi (Prestressed Beams)  
 $f'_{ci} = 4,000$  psi (Prestressed Beams)  
 $f'_s = 270,000$  psi (Prestressed Strands)  
 $f_{si} = 189,000$  psi (Prestressed Strands)  
 $f_y = 60,000$  psi (Reinf. Bars)  
 $f'_c = 3,500$  psi (Class S1 Concrete) — LF DESIGN  
 Loading HS 20-44  
 Design Specifications: 2002 AASHTO & all applicable interims.  
 25#/Sq. Ft. included in dead load for future wearing surface.

**SEISMIC DATA**

Seismic Performance Category (SPC) = B  
 Bedrock Acceleration Coefficient (A) = 0.10g  
 Site Coefficient (S) = 1.0

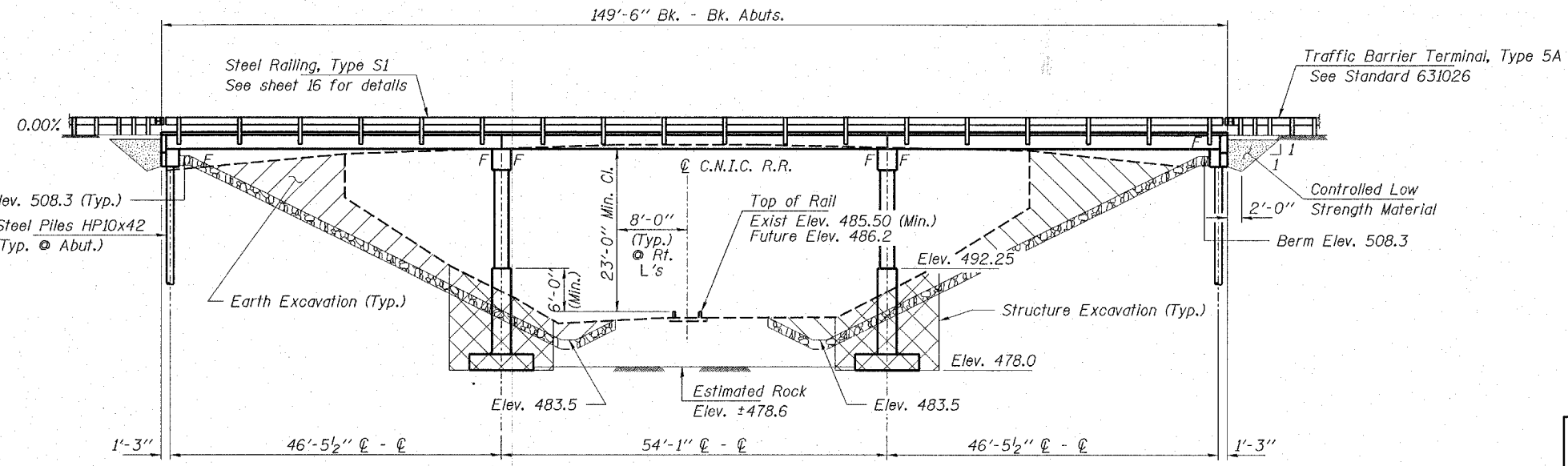
**TOTAL BILL OF MATERIAL**

| ITEM  | UNIT    | SUPER | SUB    | TOTAL  |
|---|---------|-------|--------|--------|
| Precast Prestressed Concrete Deck Beams (21" Depth) | Sq. Ft. | 3,996 |        | 3,996  |
| Concrete Structures                                 | Cu. Yd. |       | 144.8  | 144.8  |
| Reinforcement Bars                                  | Pound   |       | 31,810 | 31,810 |
| Steel Railing, Type S1                              | Foot    | 306   |        | 306    |
| Name Plates   | Each    |       | 1      | 1      |
| Steel Piles HP10x42                                 | Foot    |       | 210    | 210    |
| Test Pile Steel HP10x42                             | Each    |       | 1      | 1      |
| Stud Shear Connectors                               | Each    |       | 16     | 16     |
| Concrete Encasement                                 | Cu. Yd. |       | 2.0    | 2.0    |
| Controlled Low Strength Material                    | Cu. Yd. |       | 35     | 35     |
| Structure Excavation                                | Cu. Yd. |       | 200    | 200    |
| Rock Excavation                                     | Cu. Yd. |       | 8.6    | 8.6    |
| Stone Dumped Riprap, Class A4                       | Ton     |       |        | 500    |

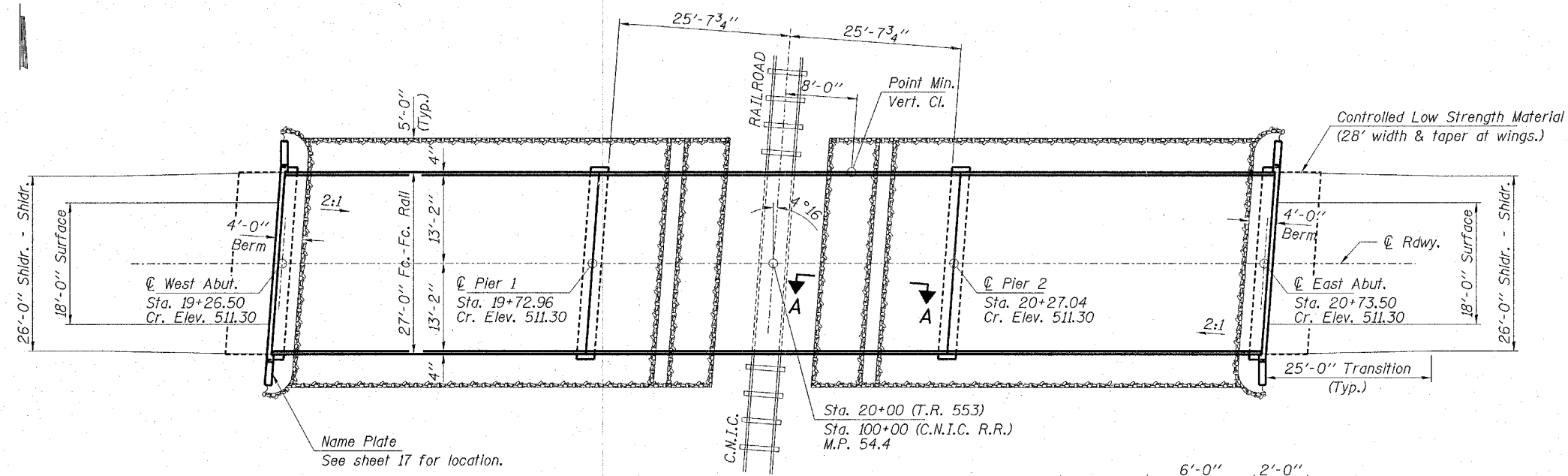
**HLR**  
 Rice, Berry and Associates  
 A Division of Hampton, Lenzini and Renwick, Inc.  
 Civil & Structural Engineers  
 3085 Stevenson Drive  
 Suite 201  
 Springfield, Illinois 62703  
 217-546-3400  
 P.O. Box 1036  
 DuQuoin, Illinois 62832  
 618-790-4637  
 Account Number 12-49-0002-1  
 Date: 01/04/06  
 DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

**GENERAL PLAN AND ELEVATION**  
 SECTION 03-10117-00-BR  
 MOORES PRAIRIE ROAD DISTRICT  
 JEFFERSON COUNTY  
 STR. NO. 041-9929 STATION 20+00

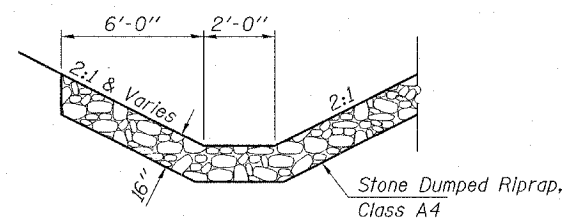
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".  
 Steven W. Megginson 1-4-06  
 ILLINOIS STRUCTURAL NO. 6064  
 Expires 11-30-06



**ELEVATION**



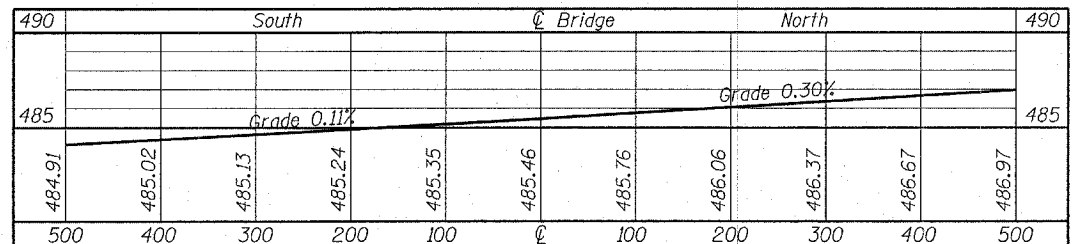
**PLAN**



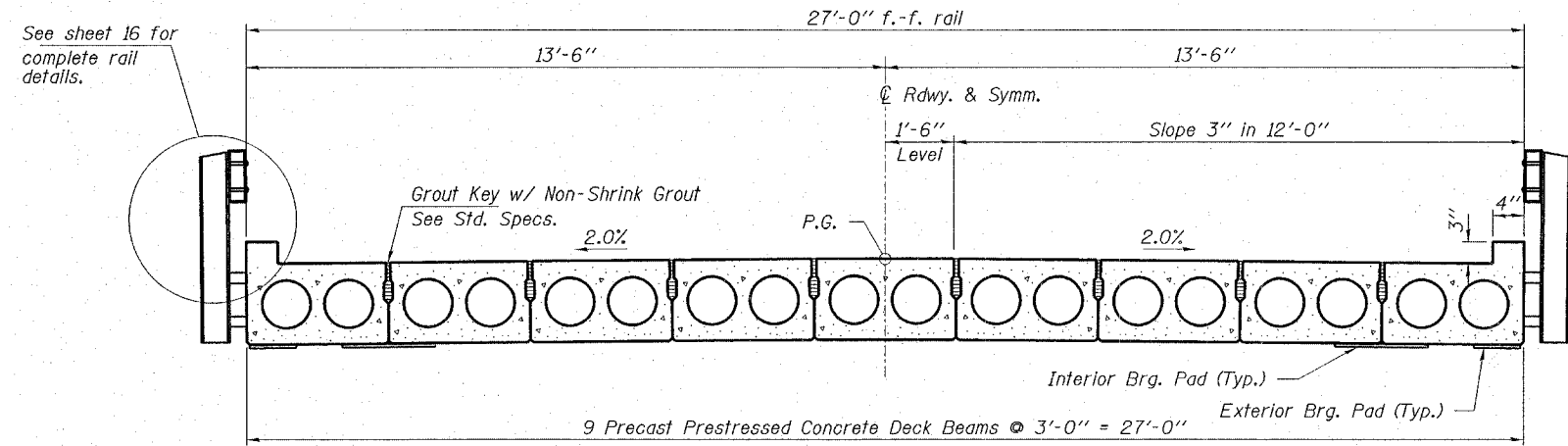
**SECTION A-A**

**Boring Locations**

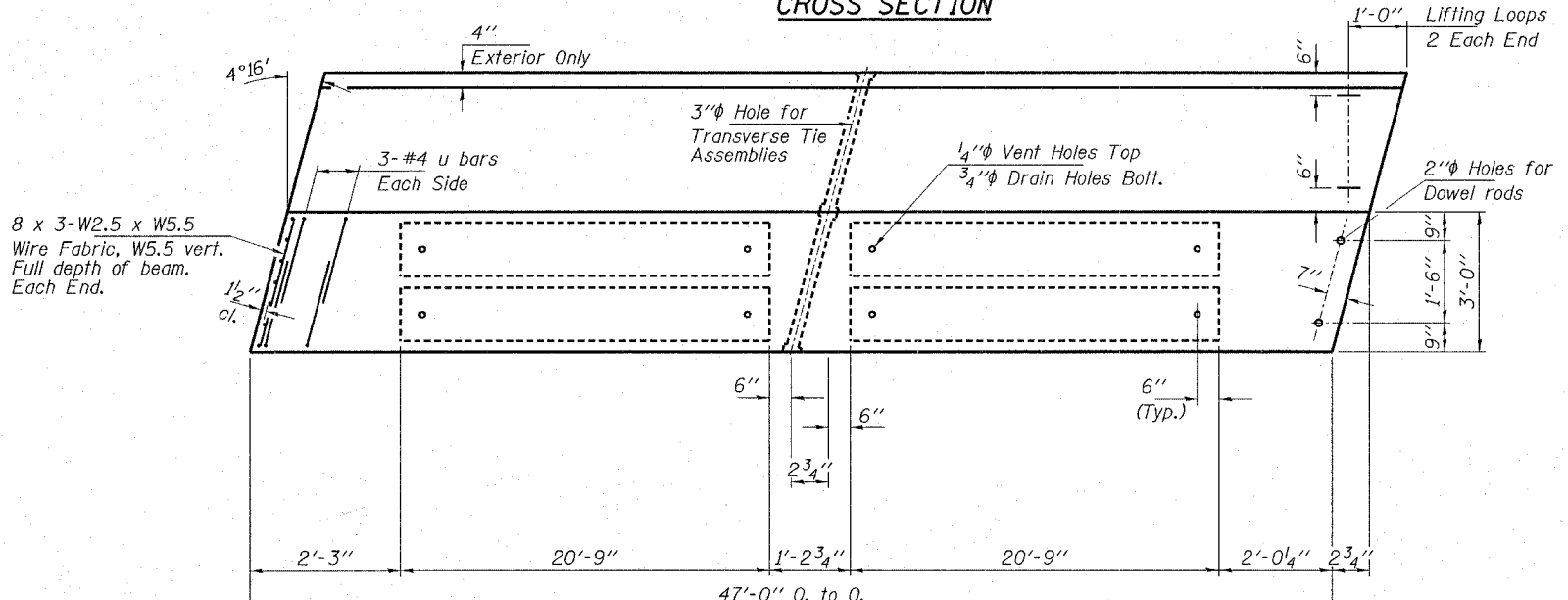
|     |            |
|-----|------------|
| B-1 | Sta. 18+57 |
| B-2 | Sta. 21+63 |



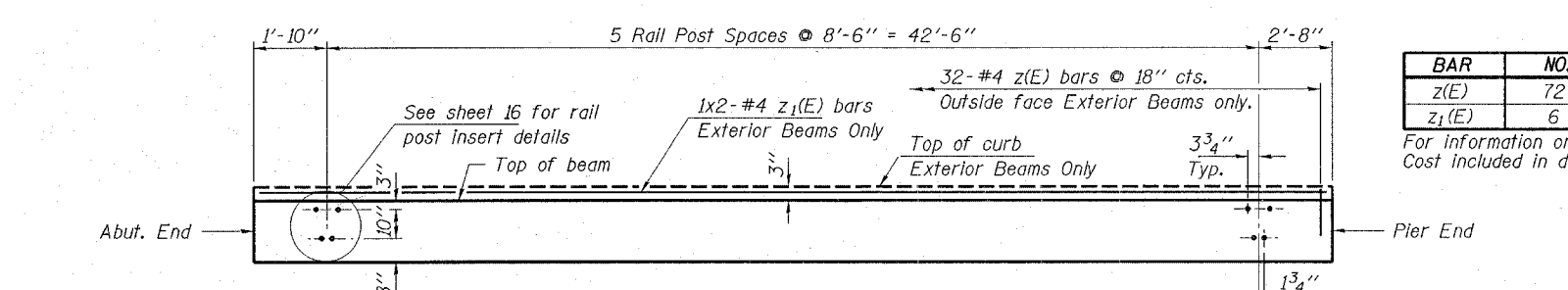
**C.N.I.C. RAIL PROFILE**



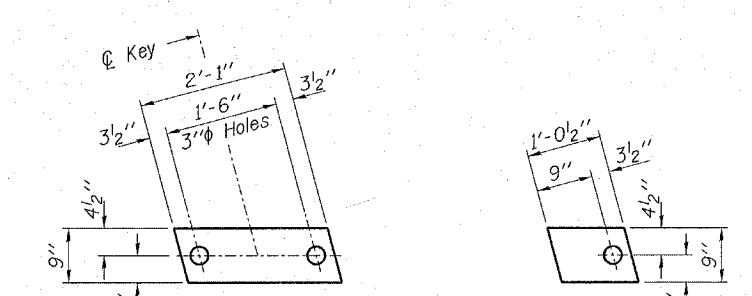
**CROSS SECTION**



**PLAN**

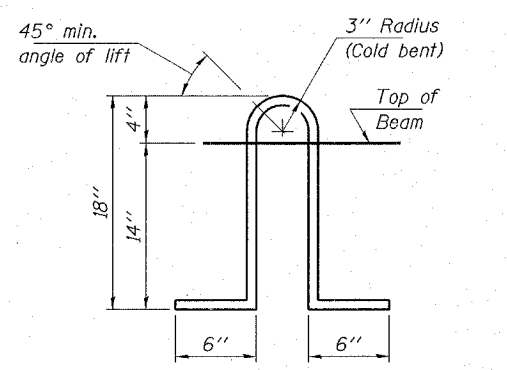


**ELEVATION OF OUTSIDE BEAMS**



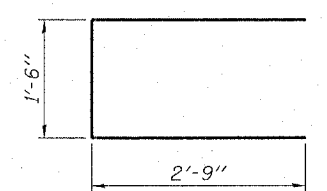
**FABRIC BEARING PAD**  
(Interior - 32 Req'd)

**FABRIC BEARING PAD**  
(Exterior - 8 Req'd)

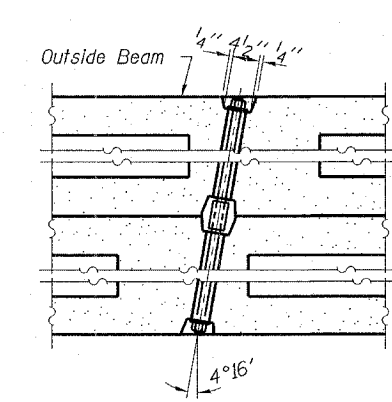


**LIFTING LOOP DETAIL**

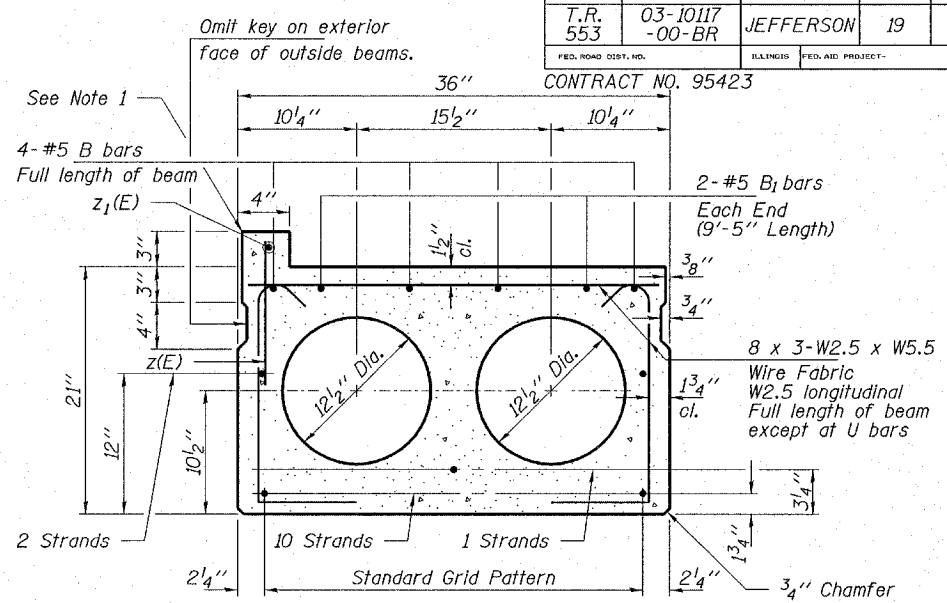
Approved alternate may be substituted for the above.  
Approx. Weight of 1 Beam = 26,000 lbs.



**BAR U**



**TYPICAL TRANSVERSE TIE ASSEMBLY**



**TYPICAL SECTION**

13-1/2" Strands, Each Strand Stressed to 30,900 Lbs.  
10-Strands 1 3/4" up, 1-Strands 3/4" up, 2-Strands 12" up  
Note: Place strands symmetrically about C of beam.

| BAR   | NO. | SIZE | LENGTH | SHAPE |
|-------|-----|------|--------|-------|
| z(E)  | 72  | #4   | 1'-4"  | —     |
| z1(E) | 6   | #4   | 24'-0" | —     |

For information only.  
Cost included in deck beams.

**NOTES**

The exterior beams shall be cast with a 4" wide x 3" high concrete curb with reinforcement cast integrally with the beam. The z(E) and z1(E) bars shall be included in the unit cost for deck beams. 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. Lifting loops shall be 2-1/2" #270 ksi strands, as shown. Loops shall be burned off after all beams have been erected.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Non-prestressing steel shall conform to the requirements of AASHTO M-31 or M-322 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

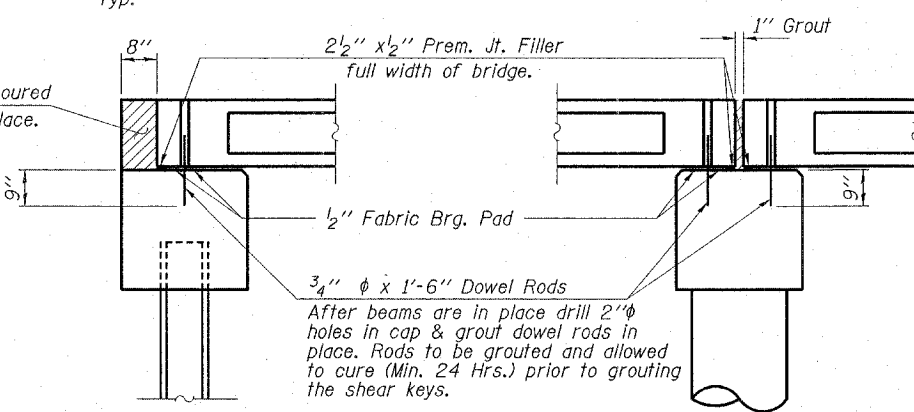
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Required Release Strength, f'ci, shall be 4,000 p.s.i.

A Calcium Nitrate Corrosion inhibitor shall be used in the concrete for precast prestressed concrete deck beams.

**BILL OF MATERIAL**

| ITEM  | UNIT    | QUANTITY |
|---|---------|----------|
| Precast Prestressed Concrete Deck Beams (21" Depth) | Sq. Ft. | 2,538    |



**SECTION AT ABUTMENTS**

**SECTION AT PIERS**

**HLR**

Rice, Berry and Associates  
A Division of Hampton, Lenzini and Renwick, Inc.  
Civil & Structural Engineers  
3085 Stevenson Drive  
Suite 201  
Springfield, Illinois 62703  
217-546-3400

Account Number  
12-49-0002-1  
Date: 01/04/06

P.O. Box 1036  
DuQuoin, Illinois 62832  
618-790-4637

DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

**SUPERSTRUCTURE - SPANS 1 & 3**

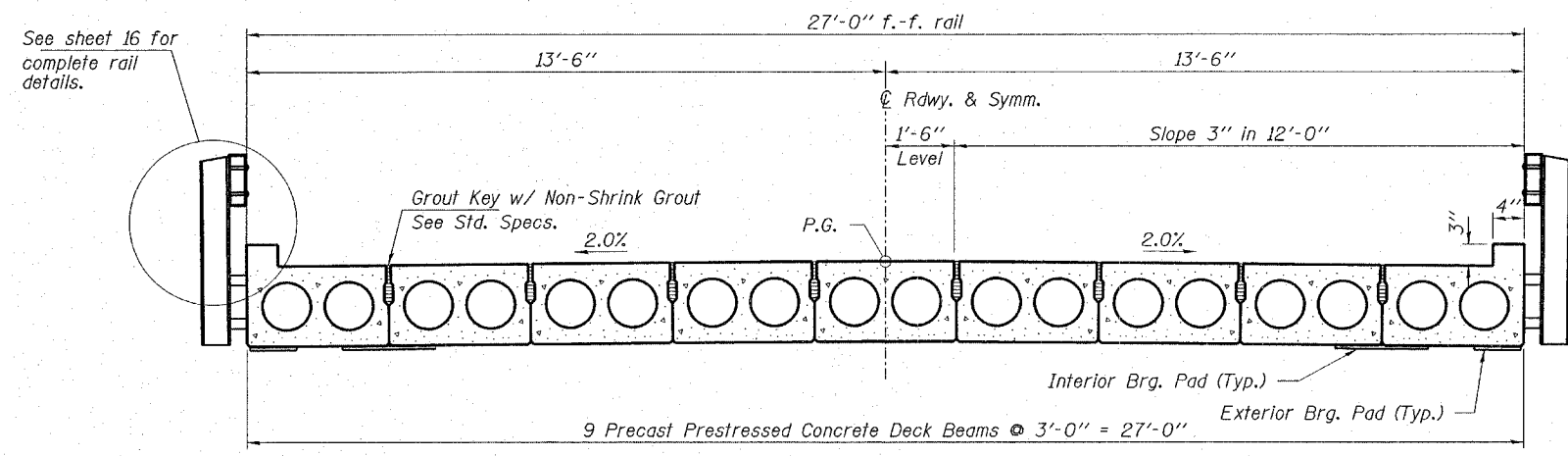
**SECTION 03-10117-00-BR**

**MOORES PRAIRIE ROAD DISTRICT**

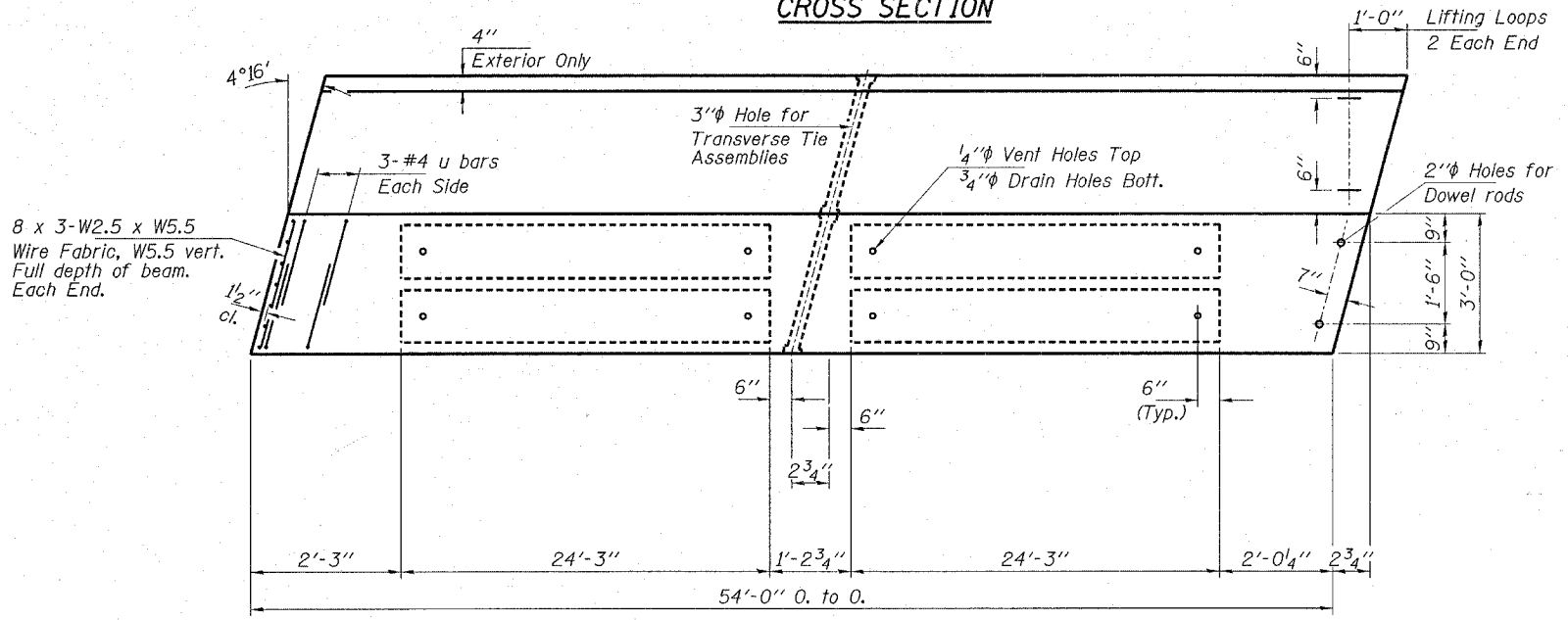
**JEFFERSON COUNTY**

**STR. NO. 041-9929 STATION 20+00**

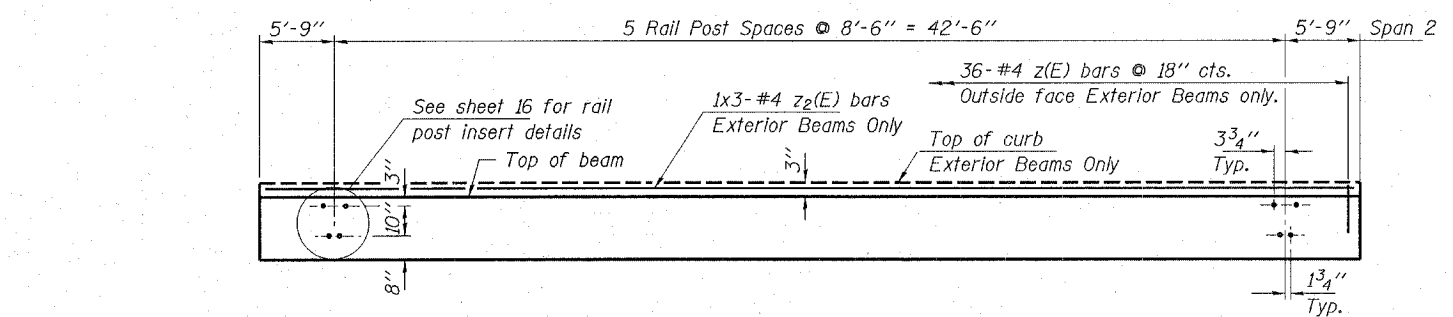




**CROSS SECTION**

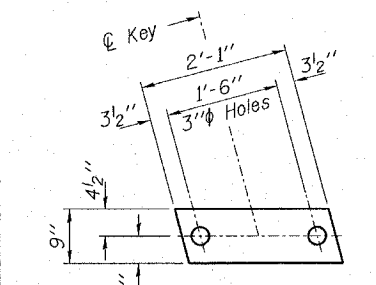


**PLAN**

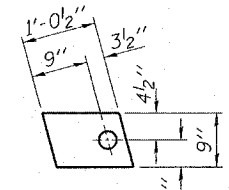


**ELEVATION OF OUTSIDE BEAMS**

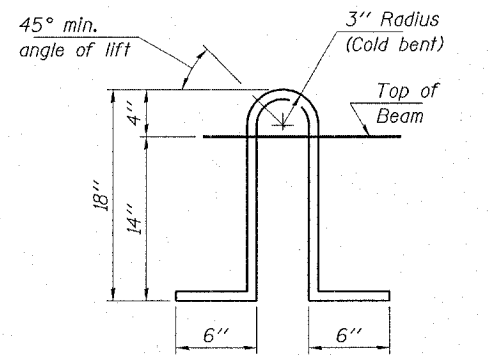
Showing Rail Post Spacing



**FABRIC BEARING PAD**  
(Interior - 16 Req'd)

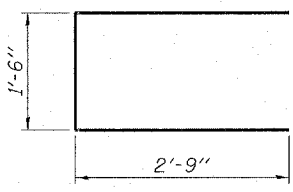


**FABRIC BEARING PAD**  
(Exterior - 4 Req'd)

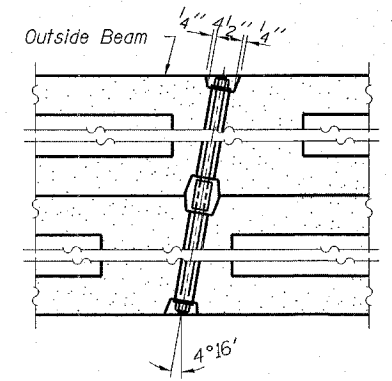


**LIFTING LOOP DETAIL**

Approved alternate may be substituted for the above.  
Approx. Weight of 1 Beam = 30,000 lbs.



**BAR U**



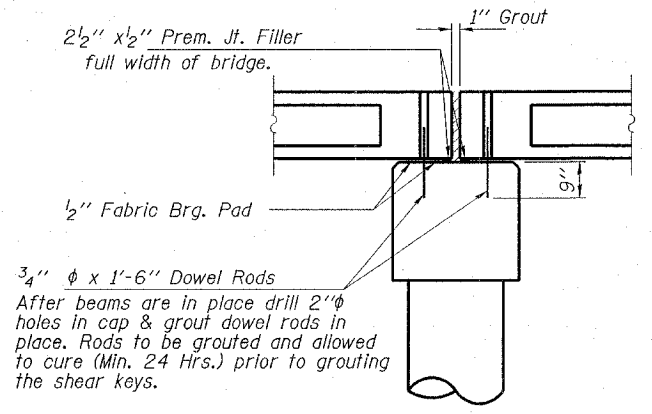
**TYPICAL TRANSVERSE TIE ASSEMBLY**

**NOTES**

The exterior beams shall be cast with a 4" wide x 3" high concrete curb with reinforcement cast integrally with the beam. The z(E) and z(E) bars shall be included in the unit cost for deck beams. 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. Lifting loops shall be 2-1/2" φ-270 ksi strands, as shown. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel bars shall conform to the requirements of AASHTO M-31 or M-322 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength, f'cl, shall be 4,000 p.s.i. A Calcium Nitrate Corrosion Inhibitor shall be used in the concrete for precast prestressed concrete deck beams.

**BILL OF MATERIAL**

| ITEM  | UNIT    | QUANTITY |
|---|---------|----------|
| Precast Prestressed Concrete Deck Beams (21" Depth) | Sq. Ft. | 1,458    |



**SECTION AT PIERS**

© Rf. L's

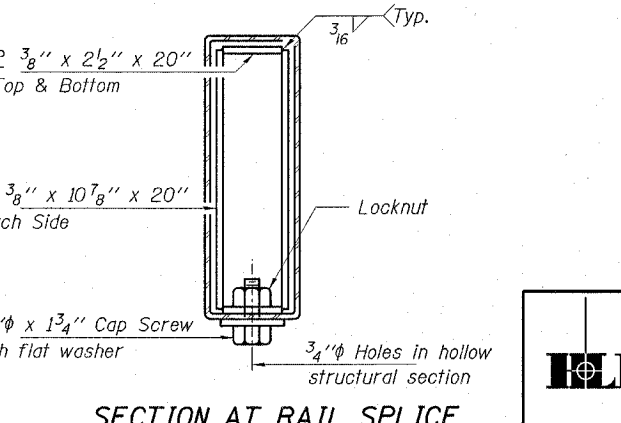
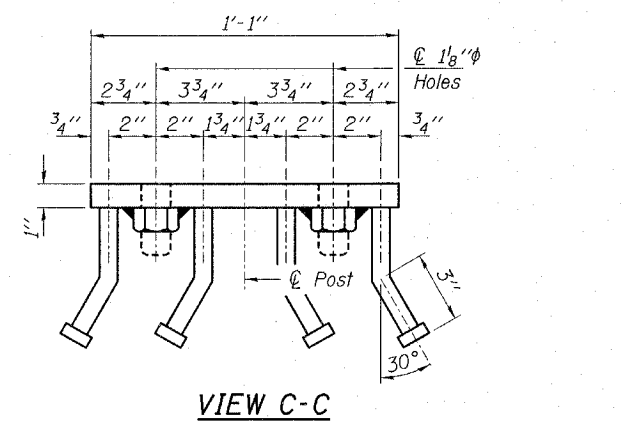
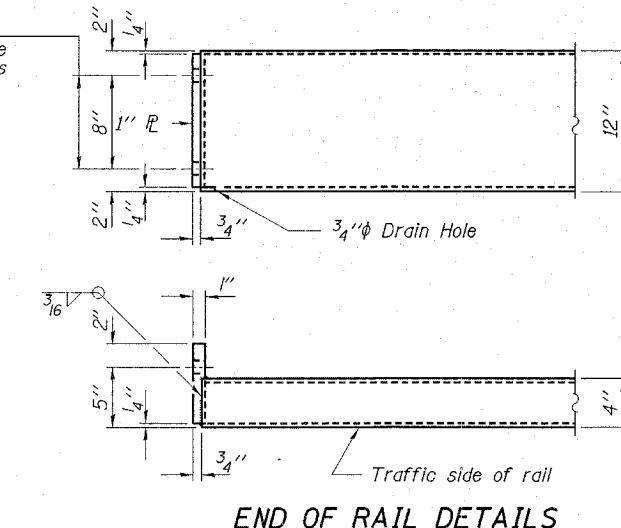
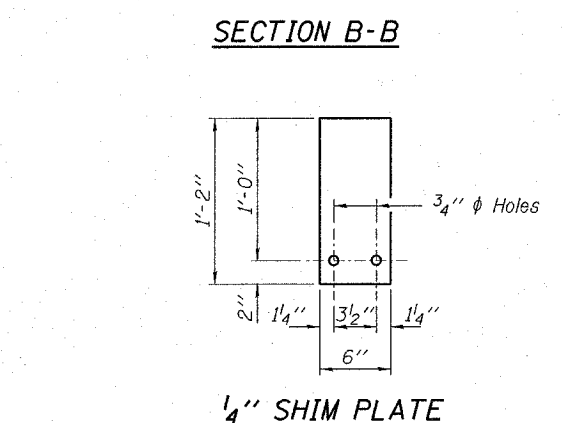
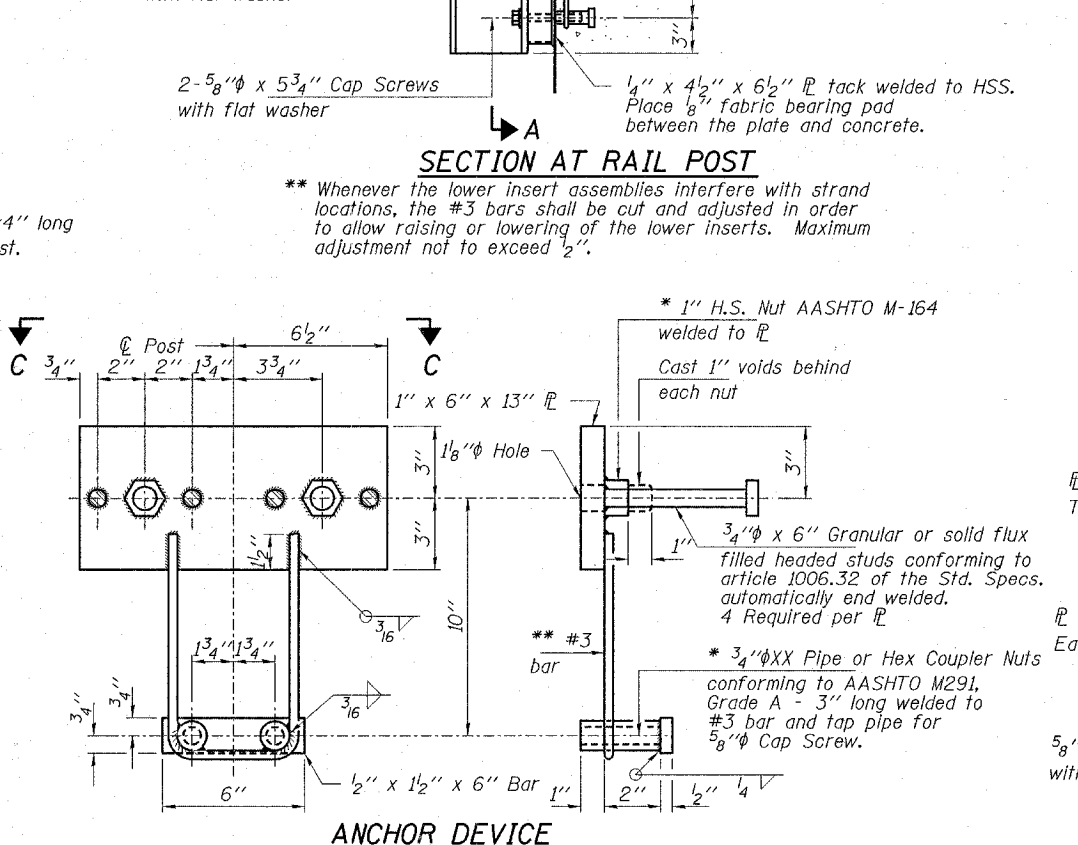
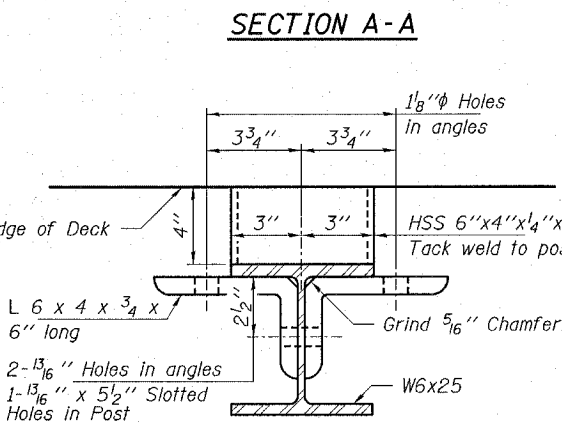
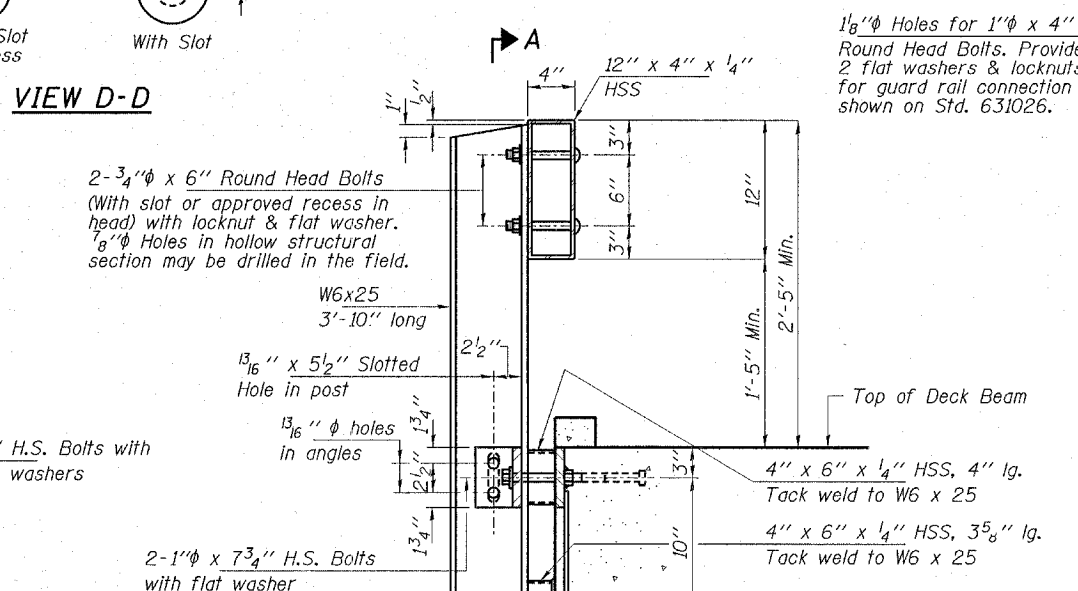
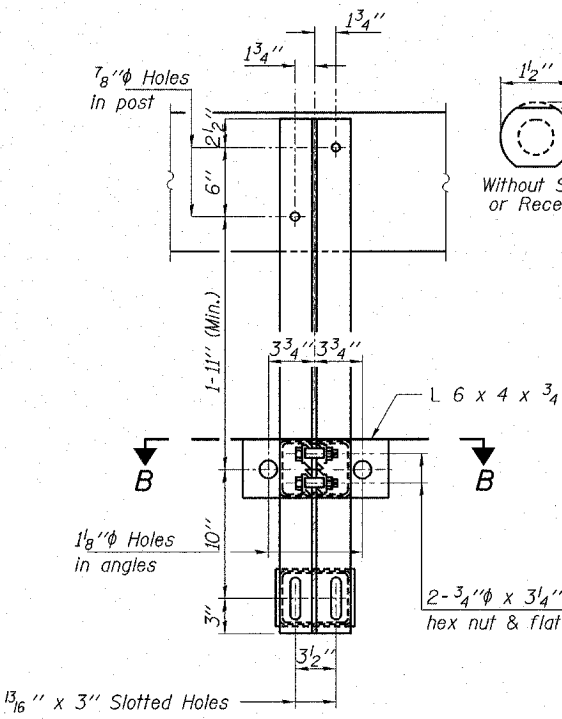
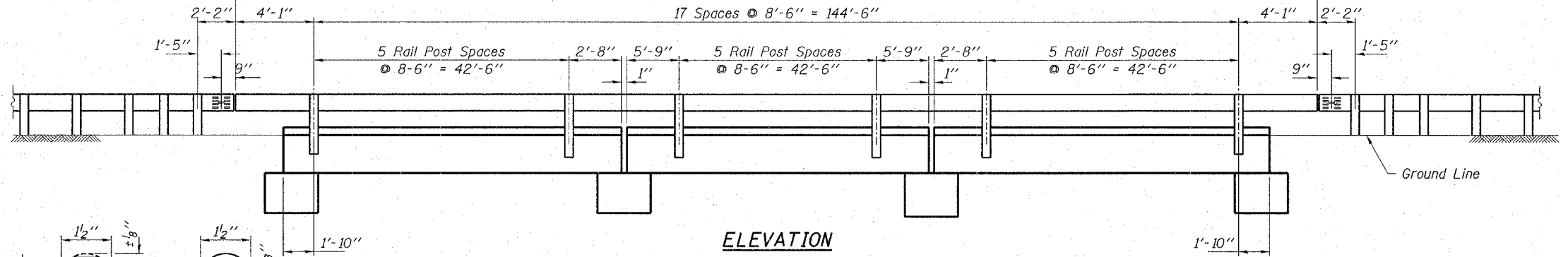
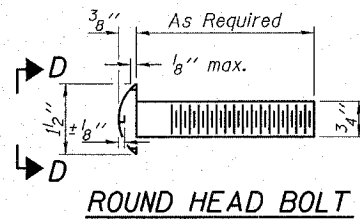
**HLR**

Rice, Berry and Associates  
A Division of Hampton, Lenzini and Renwick, Inc.  
Civil & Structural Engineers  
3085 Stevenson Drive  
Suite 201  
Springfield, Illinois 62703  
217-546-3400

P.O. Box 1036  
DuQuoin, Illinois 62832  
618-790-4637

Account Number 12-49-0002-1  
Date: 01/04/06  
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

**SUPERSTRUCTURE - SPAN 2**  
**SECTION 03-10117-00-BR**  
**MOORES PRAIRIE ROAD DISTRICT**  
**JEFFERSON COUNTY**  
**STR. NO. 041-9929 STATION 20+00**



**NOTES**

Hollow structural sections shall conform to the requirements of A.S.T.M. designation A-500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.

All other steel shapes and plates shall conform to the requirements of A.A.S.H.T.O. designation M-270 Grade 36 except posts and angles shall conform to A.A.S.H.T.O. M-270 Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to A.A.S.H.T.O. designation M-164.

All bolts, nuts, cap screws, washers and lockwashers shall be galvanized in accordance with A.A.S.H.T.O. designation M-232.

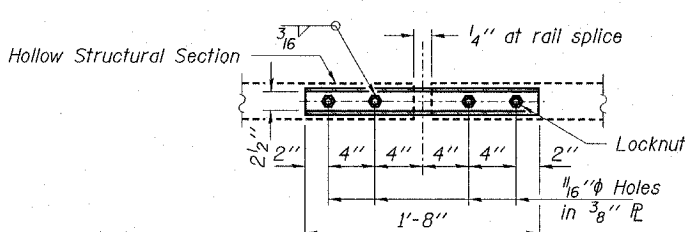
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with A.S.T.M. A-385 and A.A.S.H.T.O. M-111. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 509 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per foot for STEEL RAILING, TYPE S1.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The 3/4 inch high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Art. 505.04(f)(2) of the Standard Specifications. The 1 inch high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8 inch cap screws in bottom of posts shall be tightened to a snug fit only.

For multi-span bridges, sufficient 1/4 inch x 6 inch x 1'-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with STEEL RAILING, TYPE S1.



**BILL OF MATERIAL**

| Item                   | Unit | Quantity |
|------------------------|------|----------|
| Steel Railing, Type S1 | Foot | 306      |

**ILR**

Rice, Berry and Associates  
A Division of Hampton,  
Lenzini and Renwick, Inc.  
Civil & Structural Engineers  
3085 Stevenson Drive  
Suite 201  
Springfield, Illinois 62703  
217-546-3400

Account Number  
12-49-0002-1  
Date: 01/04/06  
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

**RAILING DETAILS**

SECTION 03-10117-00-BR

MOORES PRAIRIE ROAD DISTRICT

JEFFERSON COUNTY

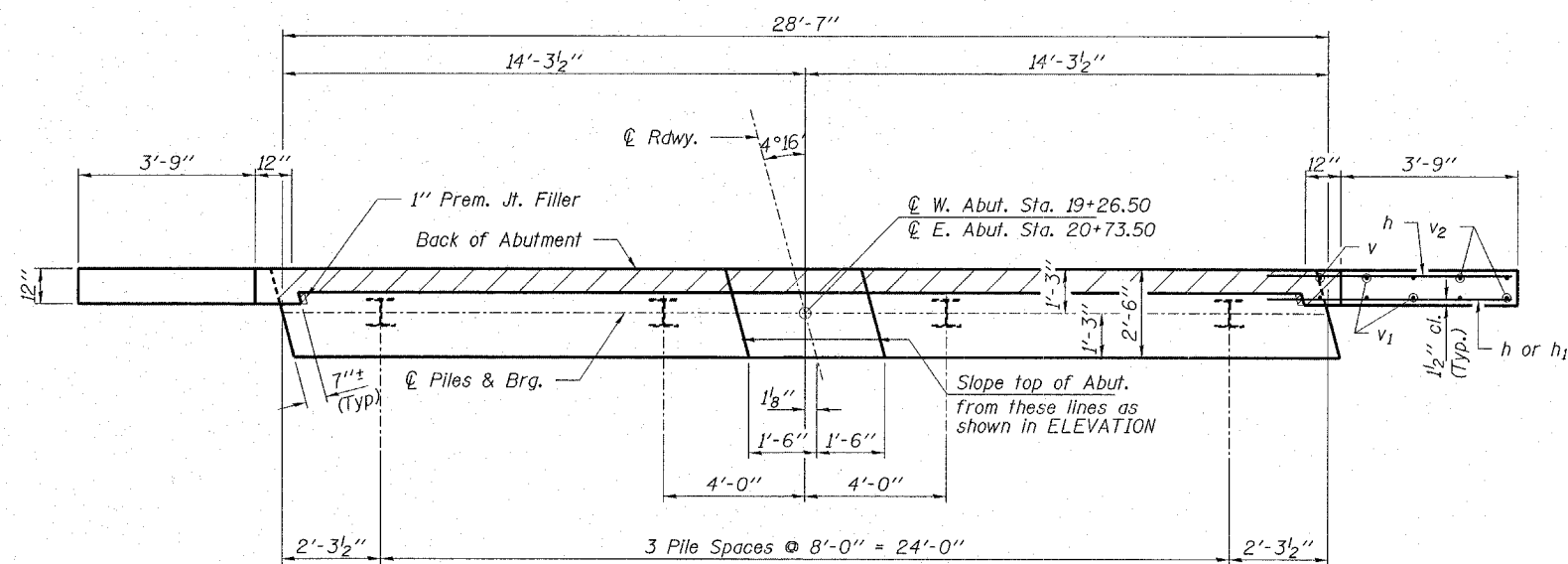
STR. NO. 041-9929 STATION 20+00

\* Threaded areas shall be plugged or blocked off during casting of beam.

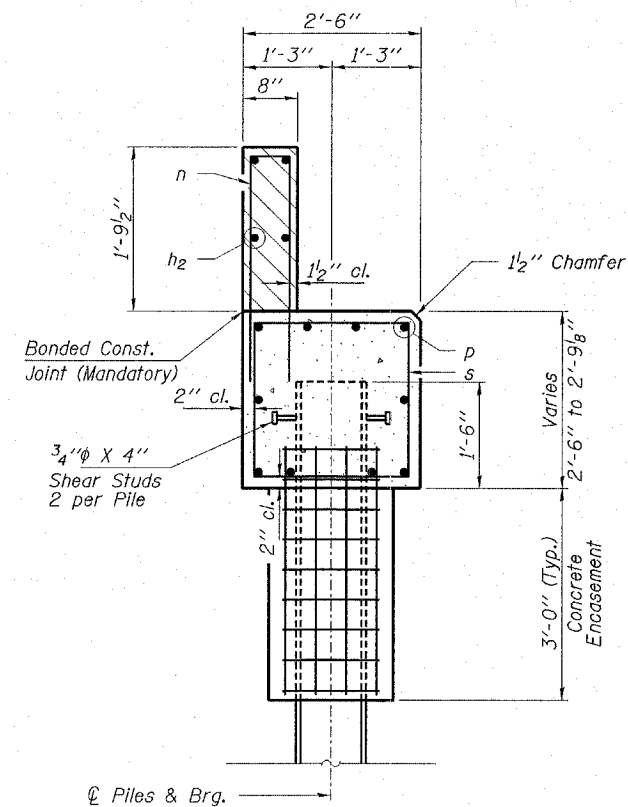
\*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 2".

1/8" diameter Holes for 1" diameter x 4" Round Head Bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Std. 631026.



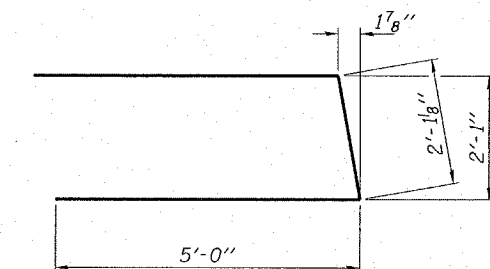


**PLAN**

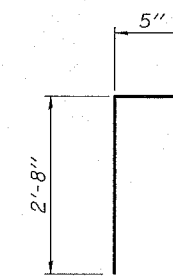


**SECTION A-A**

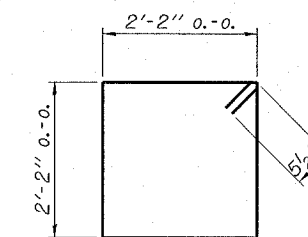
Hatched area to be poured after deck beams are in place.



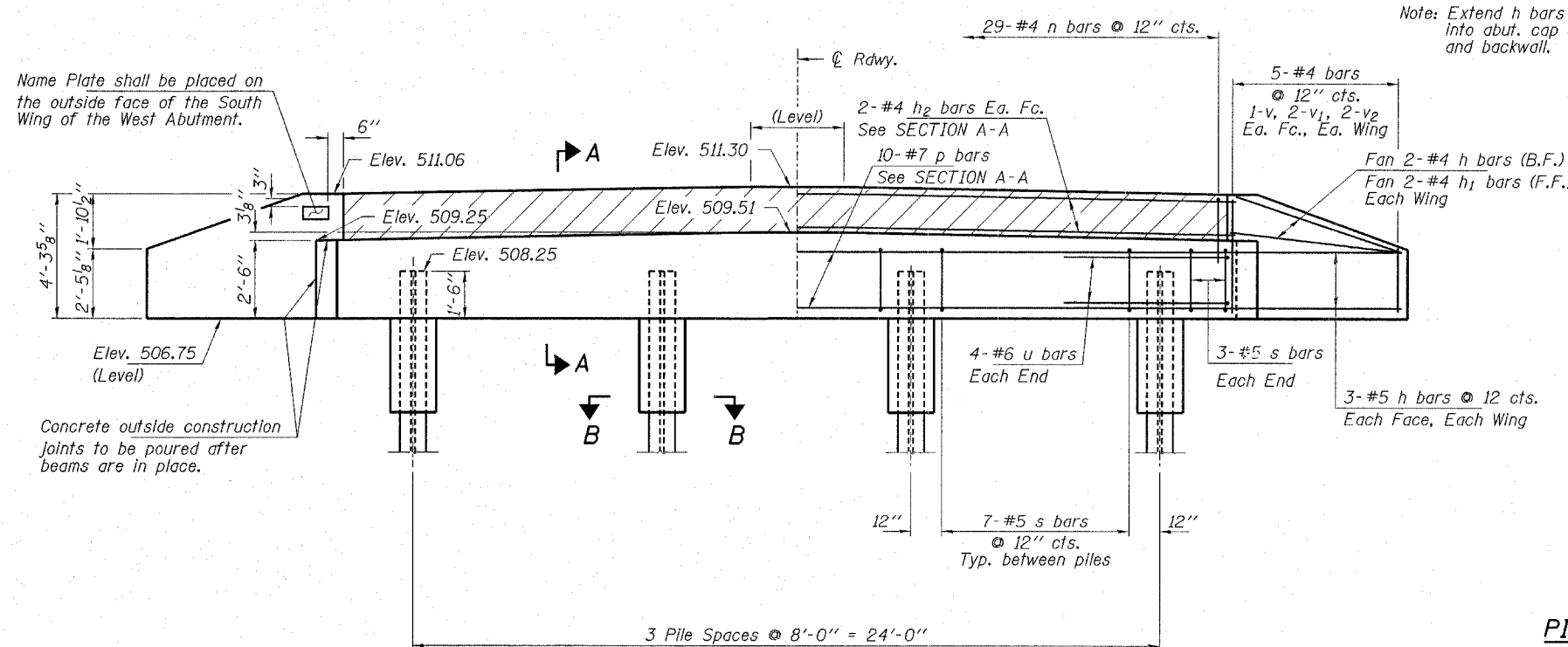
**BAR u**



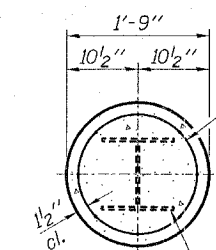
**BAR n**



**BAR s**



**ELEVATION**



**SECTION B-B**

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is incidental to the cost of Concrete Encasement.

Steel Pile HP10x42

**BILL OF MATERIAL - 2 ABUTS.**

| BAR                     | NO. | SIZE | LENGTH  | SHAPE |
|-------------------------|-----|------|---------|-------|
| h                       | 32  | #5   | 5'-6"   | —     |
| h <sub>1</sub>          | 8   | #4   | 4'-6"   | —     |
| h <sub>2</sub>          | 8   | #4   | 28'-3"  | —     |
| n                       | 58  | #4   | 5'-9"   | ⊥     |
| p                       | 20  | #7   | 28'-3"  | —     |
| s                       | 54  | #5   | 9'-7"   | □     |
| u                       | 16  | #6   | 12'-2"  | ▤     |
| v                       | 8   | #4   | 4'-1"   | —     |
| v <sub>1</sub>          | 16  | #4   | 3'-1"   | —     |
| v <sub>2</sub>          | 16  | #4   | 2'-2"   | —     |
| Concrete Structures     |     |      | Cu. Yd. | 18.6  |
| Reinforcement Bars      |     |      | Pound   | 2,620 |
| Steel Piles HP10x42     |     |      | Foot    | 210   |
| Test Pile Steel HP10x42 |     |      | Foot    | 1     |
| Name Plates             |     |      | Each    | 1     |
| Stud Shear Connectors   |     |      | Each    | 16    |
| Concrete Encasement     |     |      | Cu. Yd. | 2.0   |

**PILE DATA**

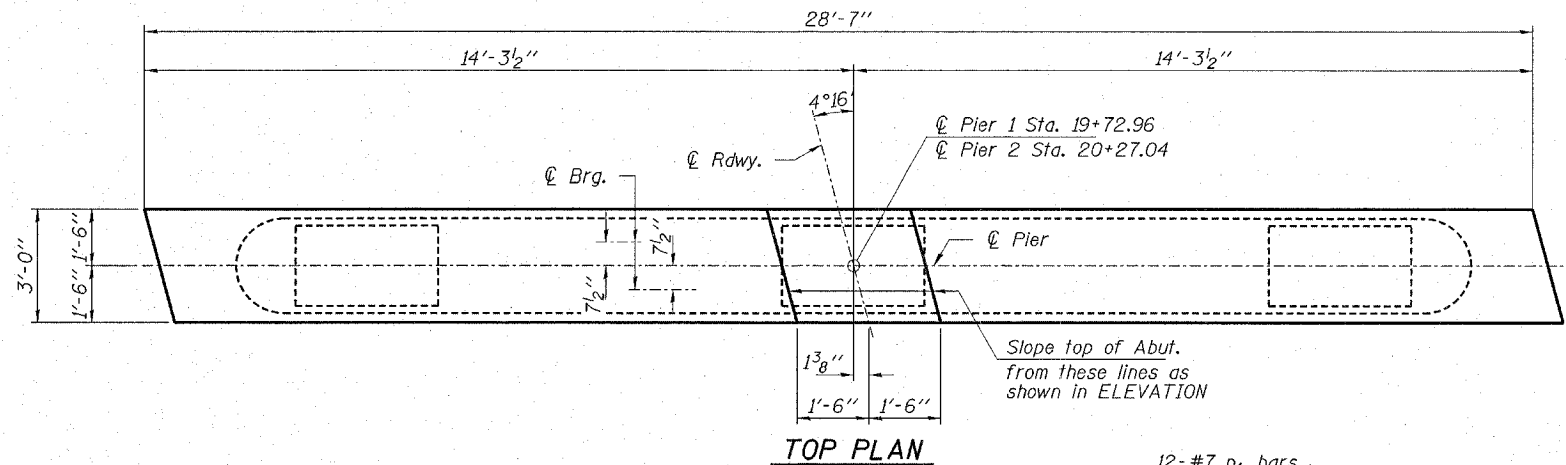
Type.....Steel Piles HP10x42  
 No. Req'd. (2 Abuts.).....\*8  
 Capacity.....Drive to Refusal  
 Est. Length.....30 Feet/Pile

\*Includes one steel test pile to be driven in a permanent location at the West Abutment.

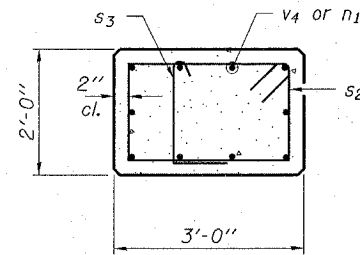
**HLR**  
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 618-790-4637  
 Date: 01/04/06  
 Account Number 12-49-0002-1  
 DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

**ABUTMENTS**  
 SECTION 03-10117-00-BR  
 MOORES PRAIRIE ROAD DISTRICT  
 JEFFERSON COUNTY  
 STRUCTURE NO. 041-9929 STATION 20+00

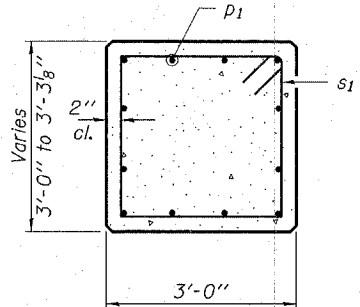
CONTRACT NO. 95423



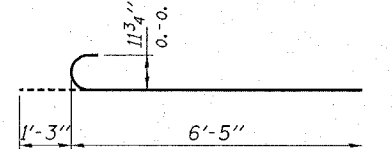
TOP PLAN



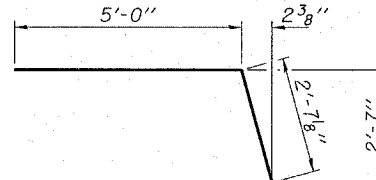
SECTION B-B



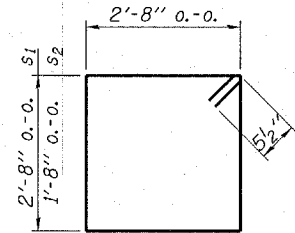
SECTION A-A



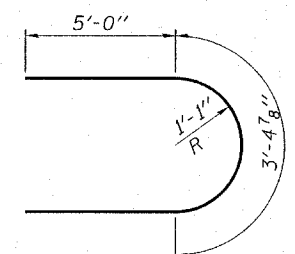
BAR n3



BAR u1



BAR s1 & s2

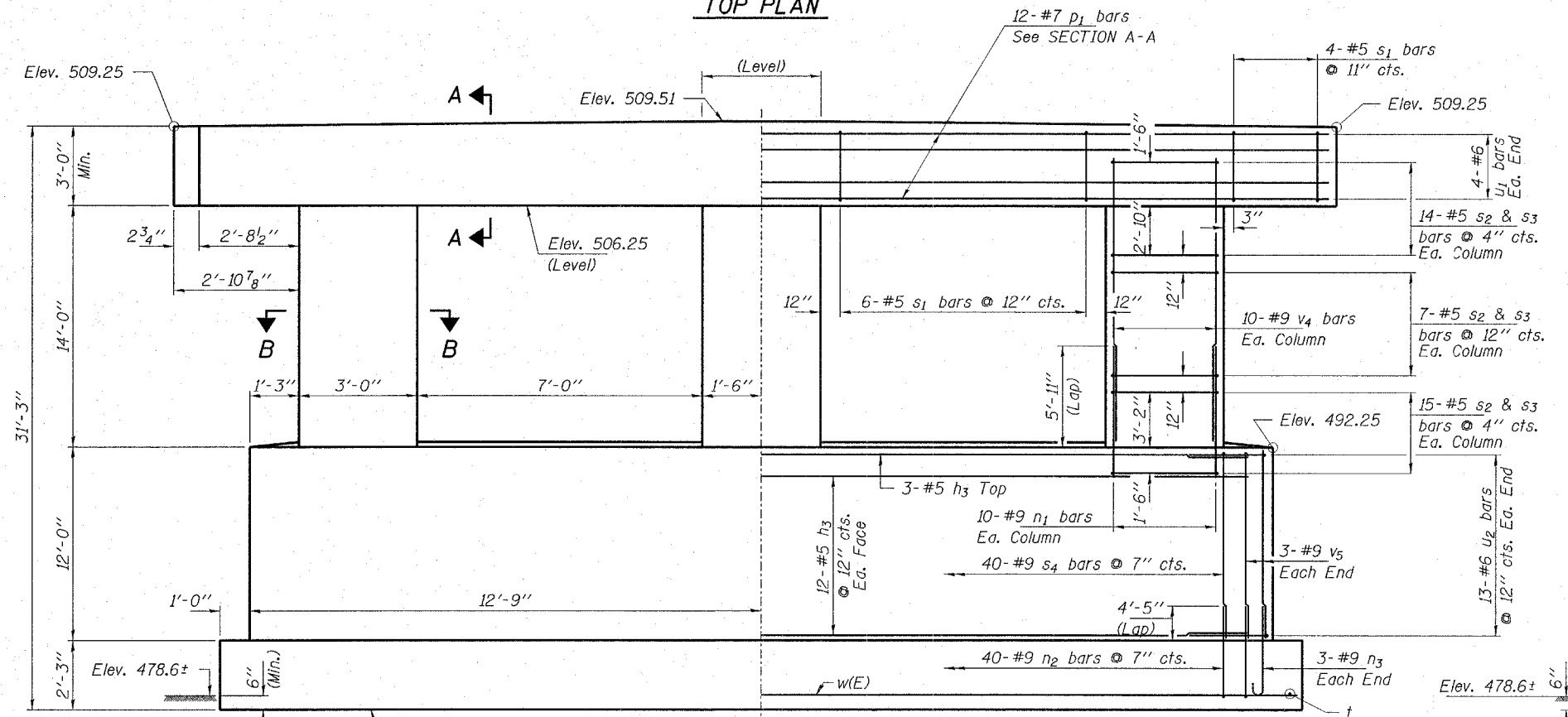


BAR u2

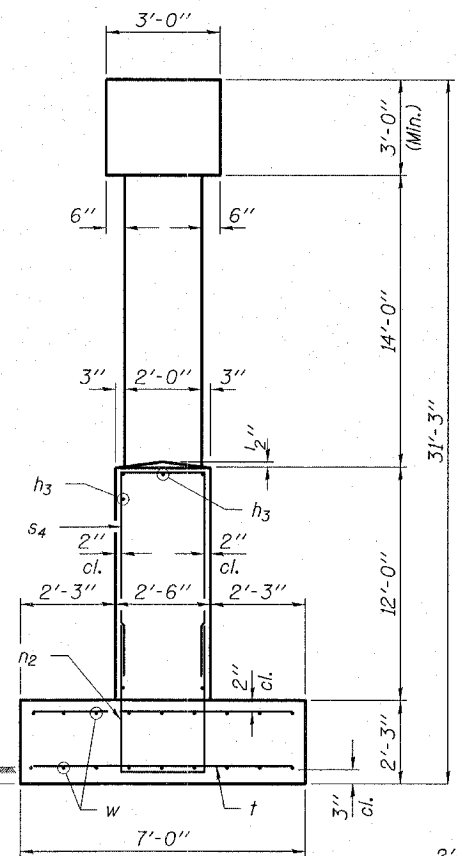
Notes:  
Space reinforcement in cap to miss dowel rods.  
All edges shall have standard 3/4" chamfer except as noted.

BILL OF MATERIAL - 2 PIERS

| BAR                  | NO. | SIZE    | LENGTH  | SHAPE |
|----------------------|-----|---------|---------|-------|
| h3                   | 54  | #5      | 23'-0"  | —     |
| n1                   | 60  | #9      | 10'-5"  | —     |
| n2                   | 80  | #9      | 15'-0"  | ⊥     |
| n3                   | 12  | #9      | 7'-8"   | ⊥     |
| p1                   | 24  | #7      | 28'-3"  | —     |
| s1                   | 40  | #5      | 11'-7"  | □     |
| s2                   | 216 | #5      | 9'-7"   | □     |
| s3                   | 216 | #5      | 3'-0"   | ⊥     |
| s4                   | 80  | #9      | 25'-10" | ⊥     |
| t                    | 192 | #9      | 6'-8"   | —     |
| u1                   | 16  | #6      | 12'-7"  | ⊥     |
| u2                   | 52  | #6      | 13'-5"  | ⊥     |
| v4                   | 60  | #9      | 12'-6"  | —     |
| v5                   | 12  | #9      | 11'-10" | —     |
| w                    | 32  | #5      | 27'-2"  | —     |
| Concrete Structures  |     | Cu. Yd. | 126.2   |       |
| Reinforcement Bars   |     | Pound   | 29,190  |       |
| Rock Excavation      |     | Cu. Yd. | 8.6     |       |
| Structure Excavation |     | Cu. Yd. | 200     |       |



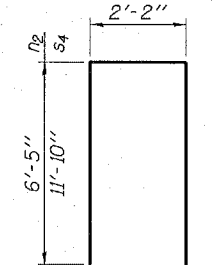
ELEVATION (Looking West)



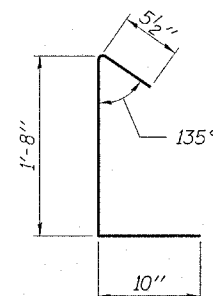
END VIEW

MIN. BAR LAP  
#9 = 4'-5"

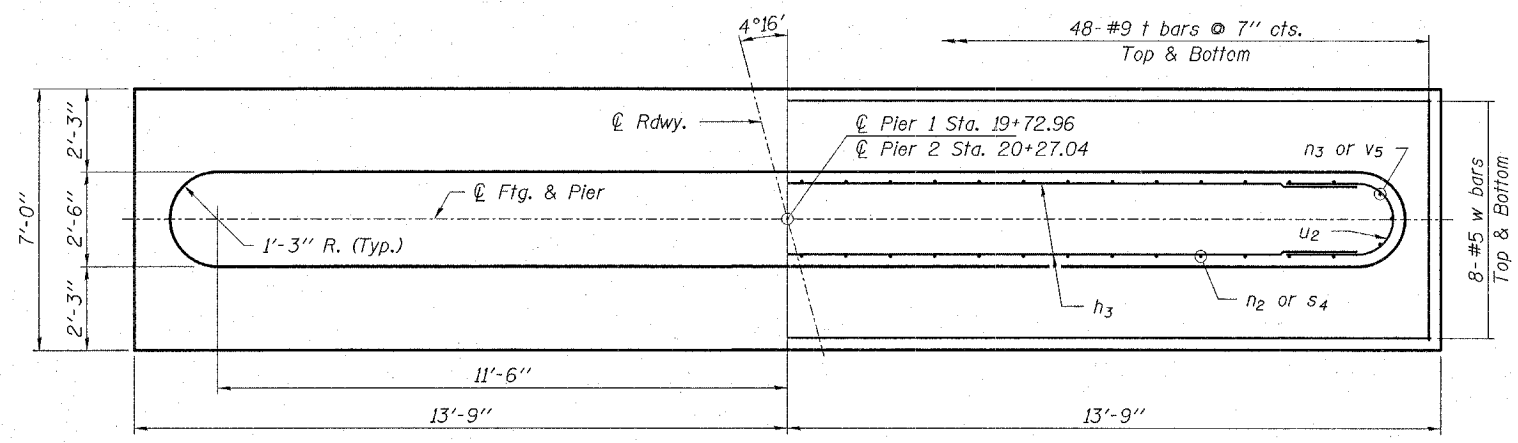
q<sub>max</sub> = 10.0 k.s.f.



BAR n2 & s4



BAR s3



FOOTING PLAN

**HLR**  
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PIERS  
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