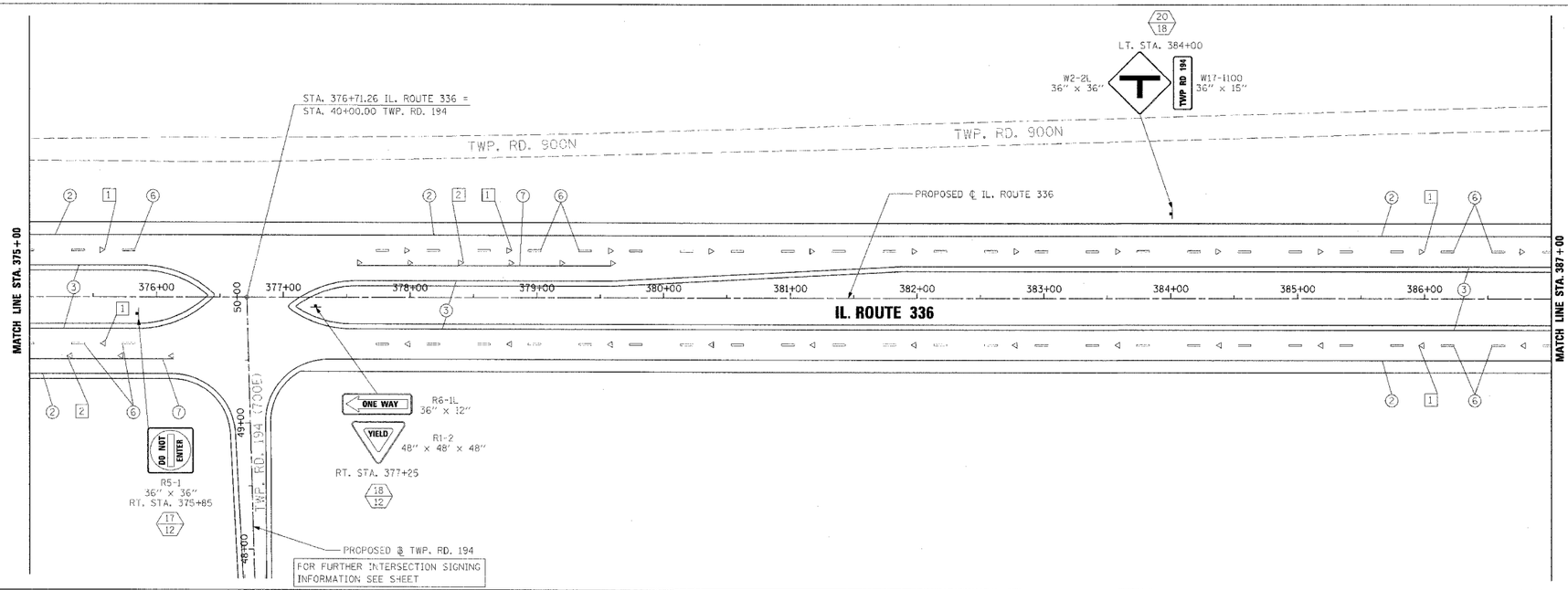
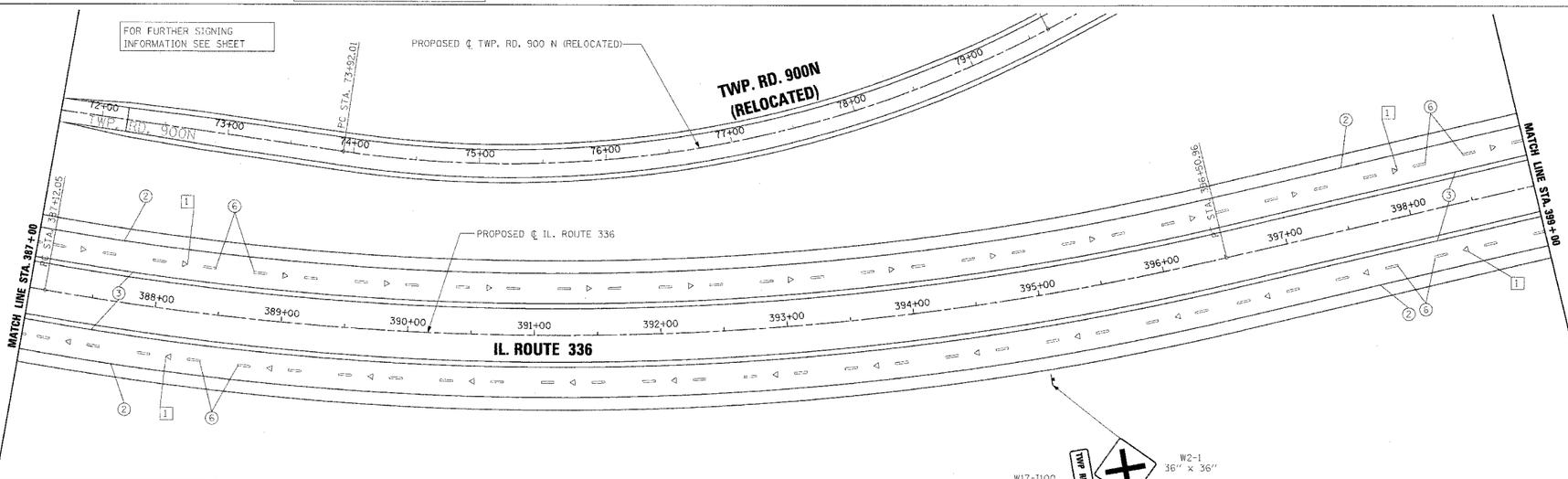
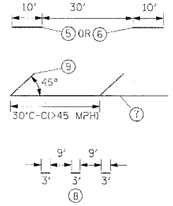
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	401
STA. 375+00		TO STA. 399+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		





PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1	△	ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2	△	ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3	△	ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4	▲	ONE-WAY AMBER MARKER AT 40' CENTERS
5	▲	ONE-WAY AMBER MARKER AT 20' CENTERS
6	◆	TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
IL. ROUTE 336
STA. 375+00 TO STA. 399+00

DATE 3/30/06

DRAWN BY

CHECKED BY

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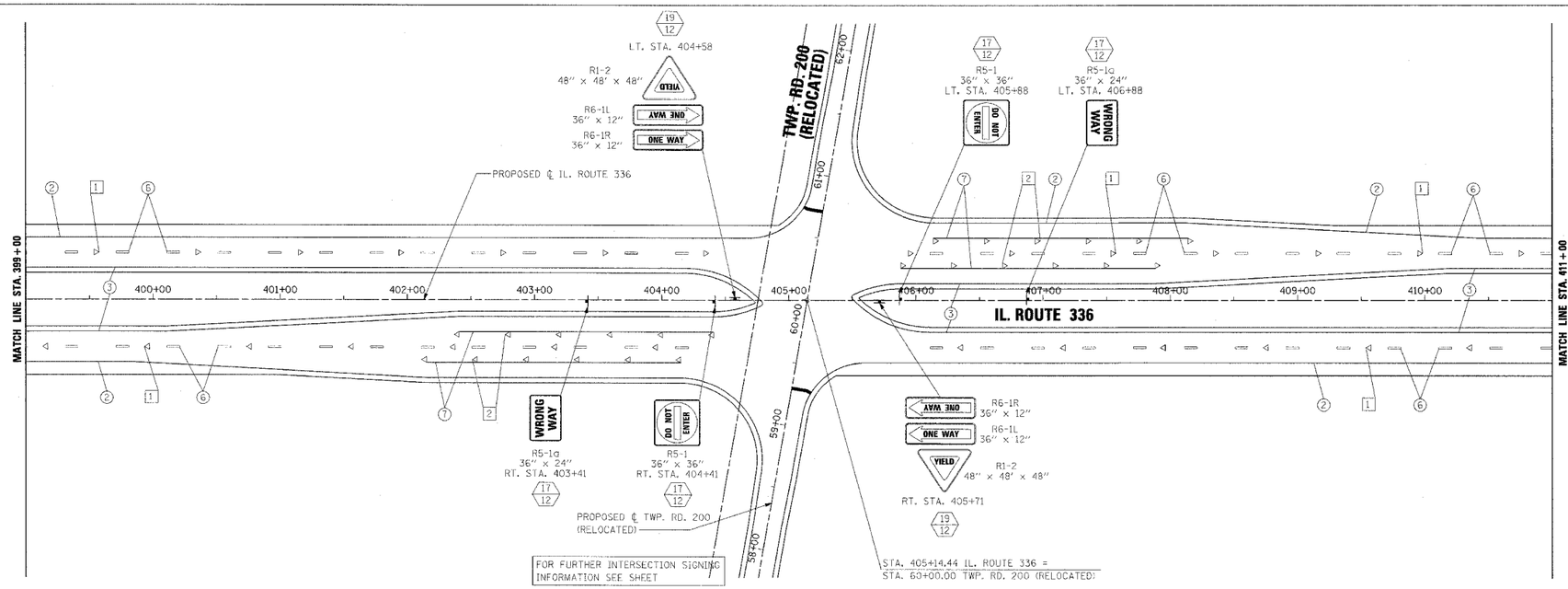
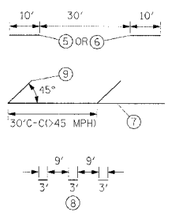
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	402
STA. 399+00		TO STA. 423+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

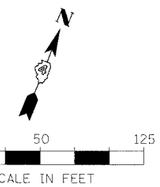


1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ♦ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
IL. ROUTE 336
STA. 399+00 TO STA. 423+00

DRAWN BY
DATE 3/30/06 CHECKED BY

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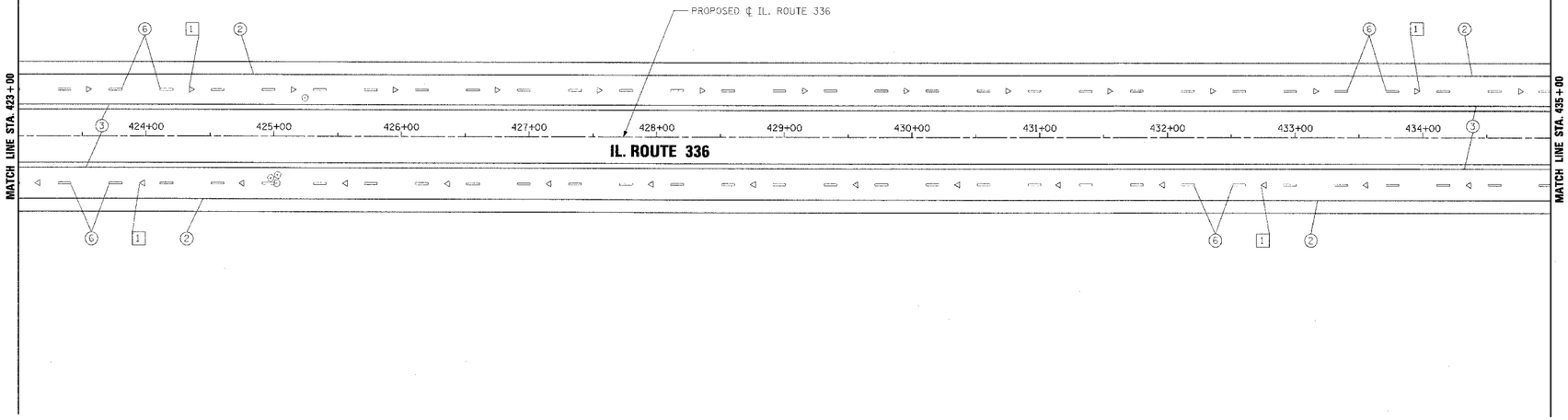
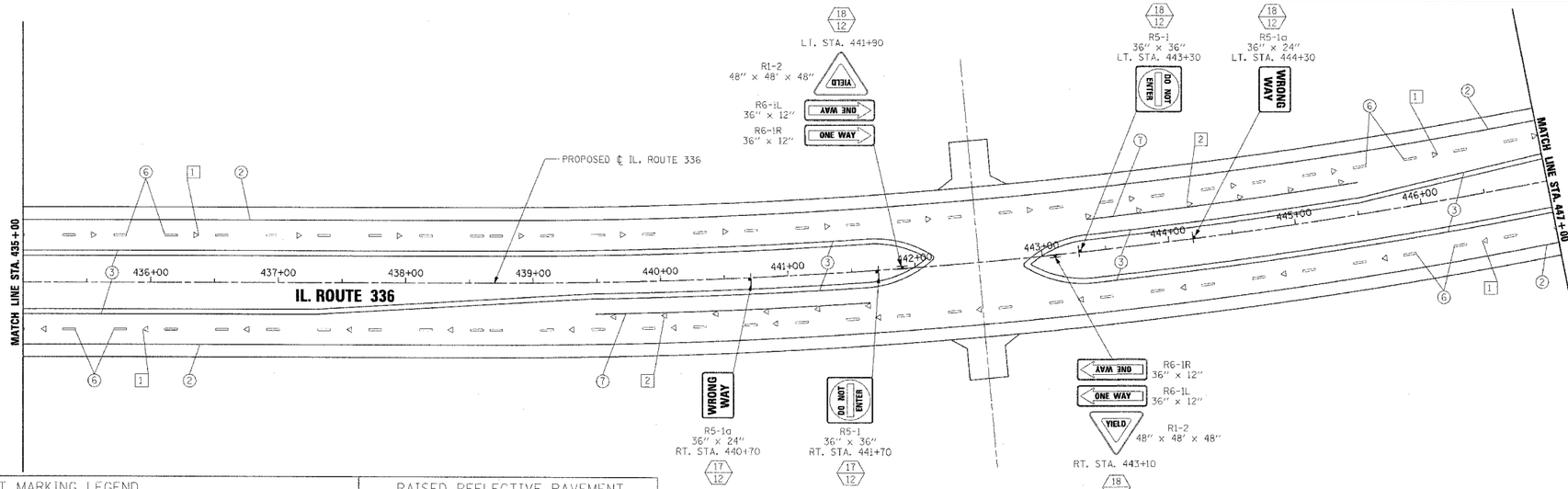
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	403
STA. 423+00		TO STA. 447+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		





PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

10' 30' 10' — ⑤ OR ⑥

⑨ 45° 30'C-C(>45 MPH) ⑦

9' 9' 3' 3' 3' ⑧

1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ◆ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

12 WOOD POST LENGTH
12 OFFSET FROM EDGE OF PAVEMENT

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
IL. ROUTE 336
STA. 399+00 TO STA. 423+00

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DATE 3/30/06

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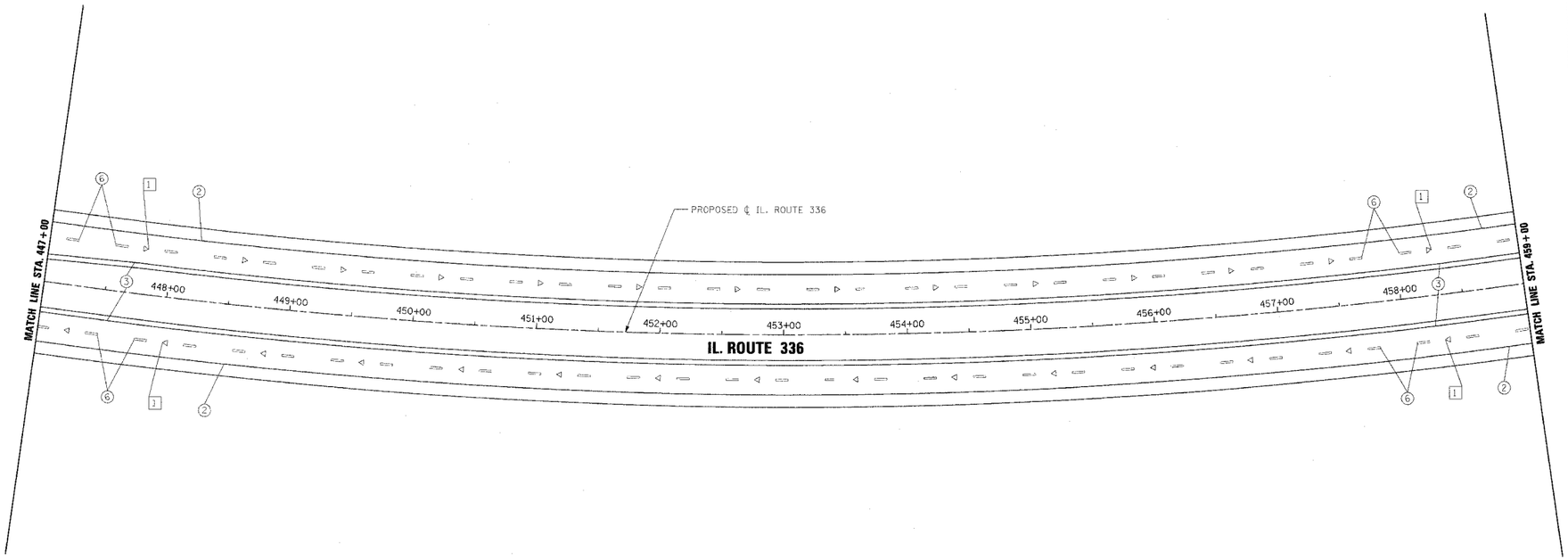
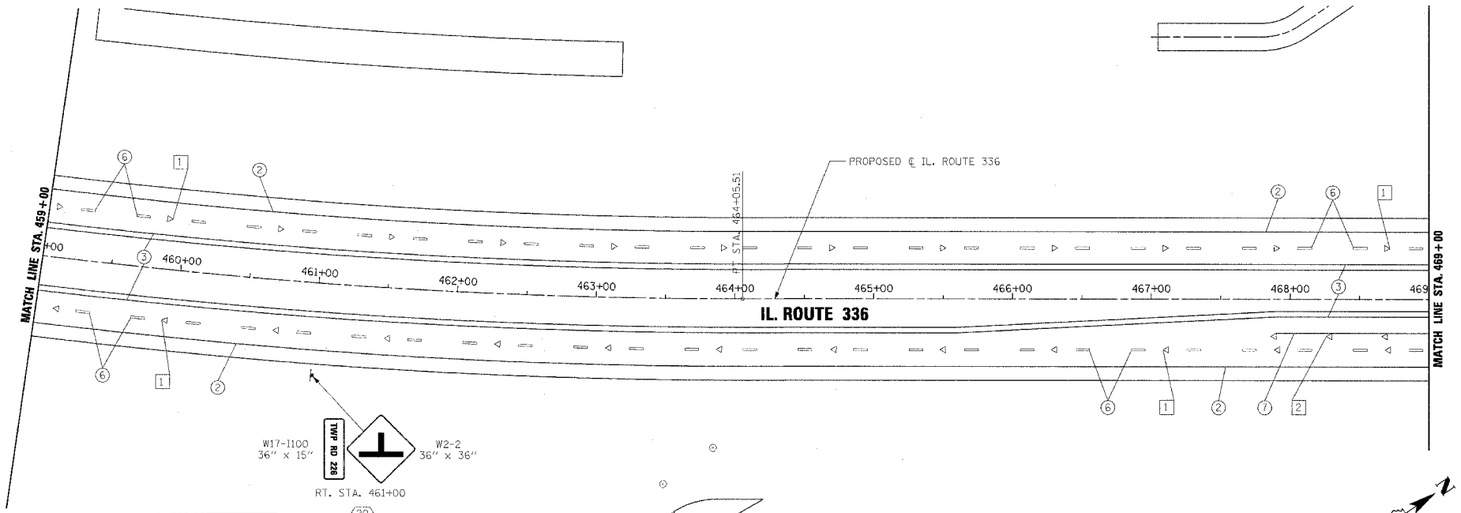
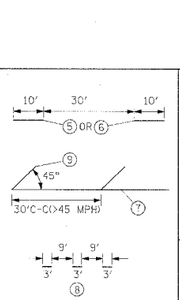
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	404
STA. 447+00		TO STA. 469+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		





PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

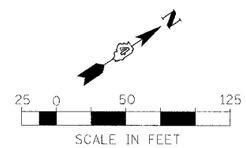


1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1	△	ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2	△	ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3	△	ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4	▲	ONE-WAY AMBER MARKER AT 40' CENTERS
5	▲	ONE-WAY AMBER MARKER AT 20' CENTERS
6	◆	TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
IL. ROUTE 336
STA. 447+00 TO STA. 469+00

DRAWN BY

DATE 3/30/06

CHECKED BY

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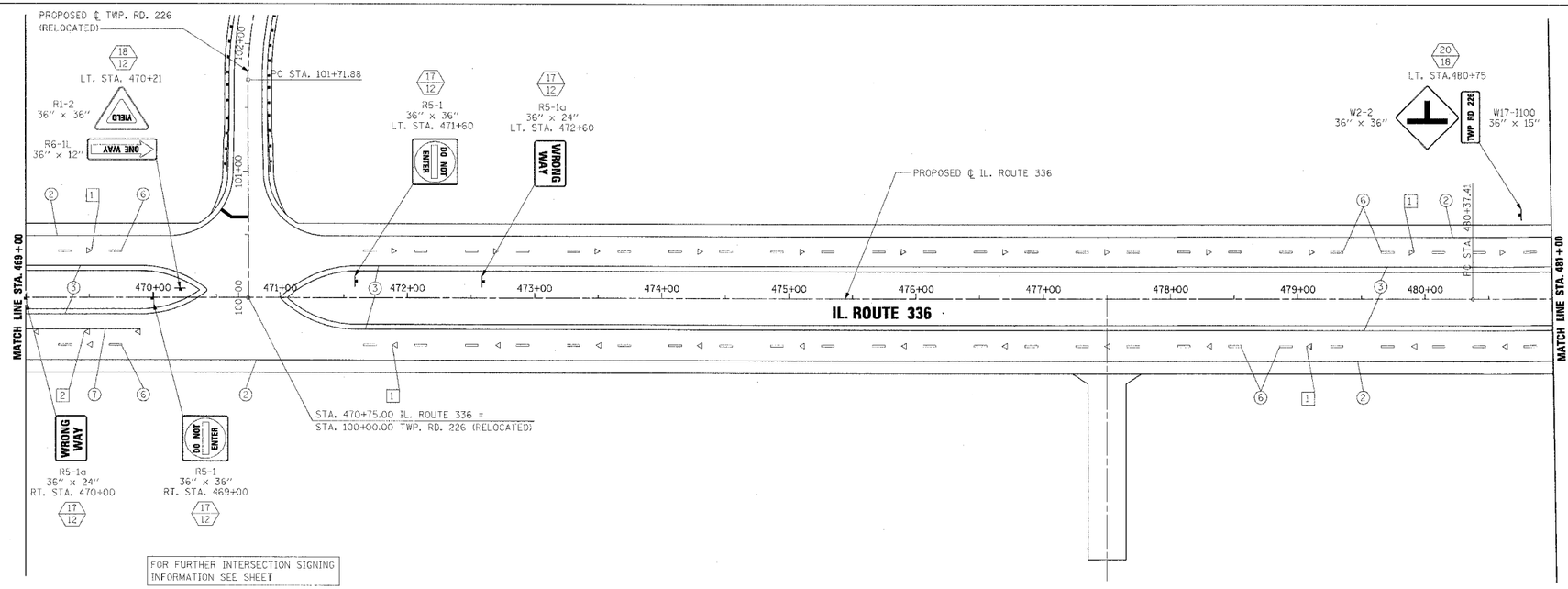
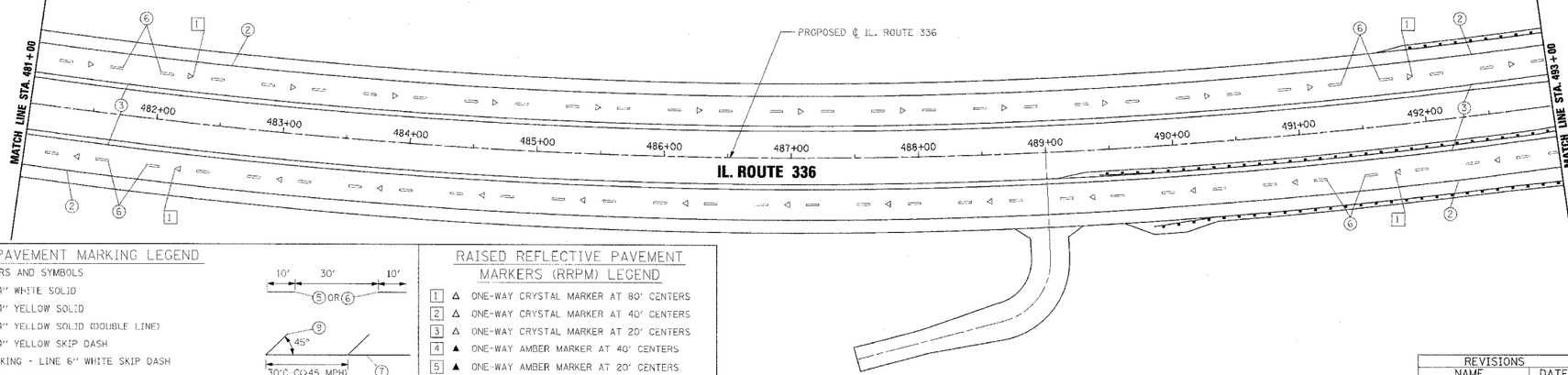
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	405
STA. 469+00	TO STA. 493+00			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		





PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
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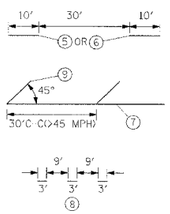
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

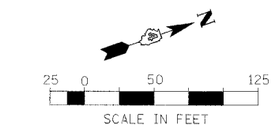


1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ◆ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
IL. ROUTE 336
STA. 469+00 TO STA. 493+00

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DATE 3/30/06 CHECKED BY

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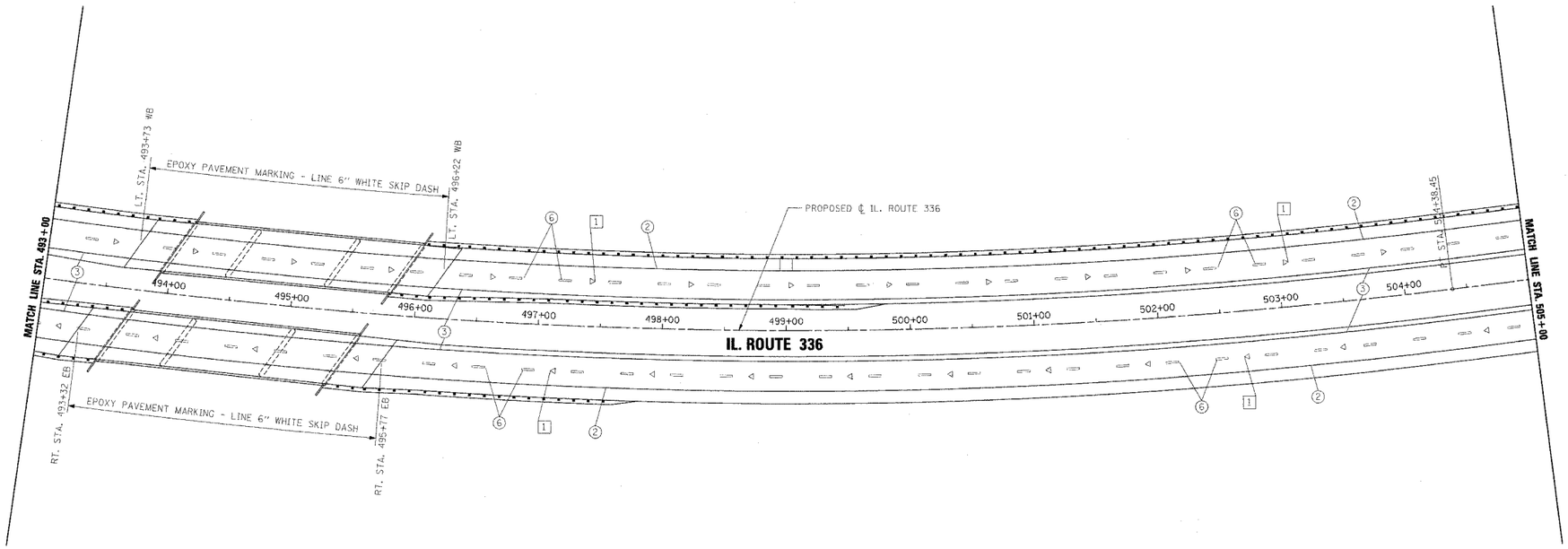
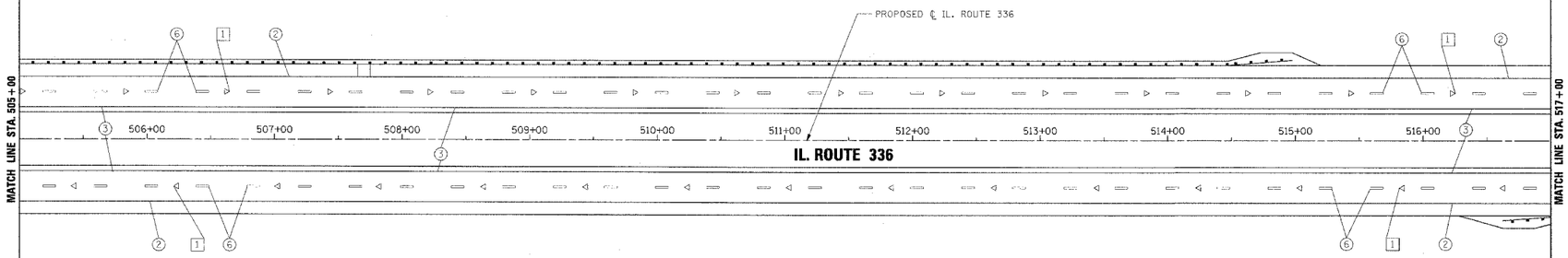
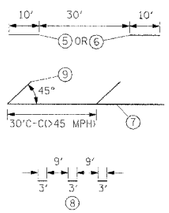
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	406
STA. 493+00		TO STA. 517+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		





PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

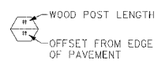


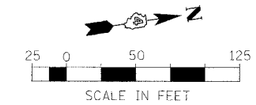
1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ♦ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND





REVISIONS NAME	DATE

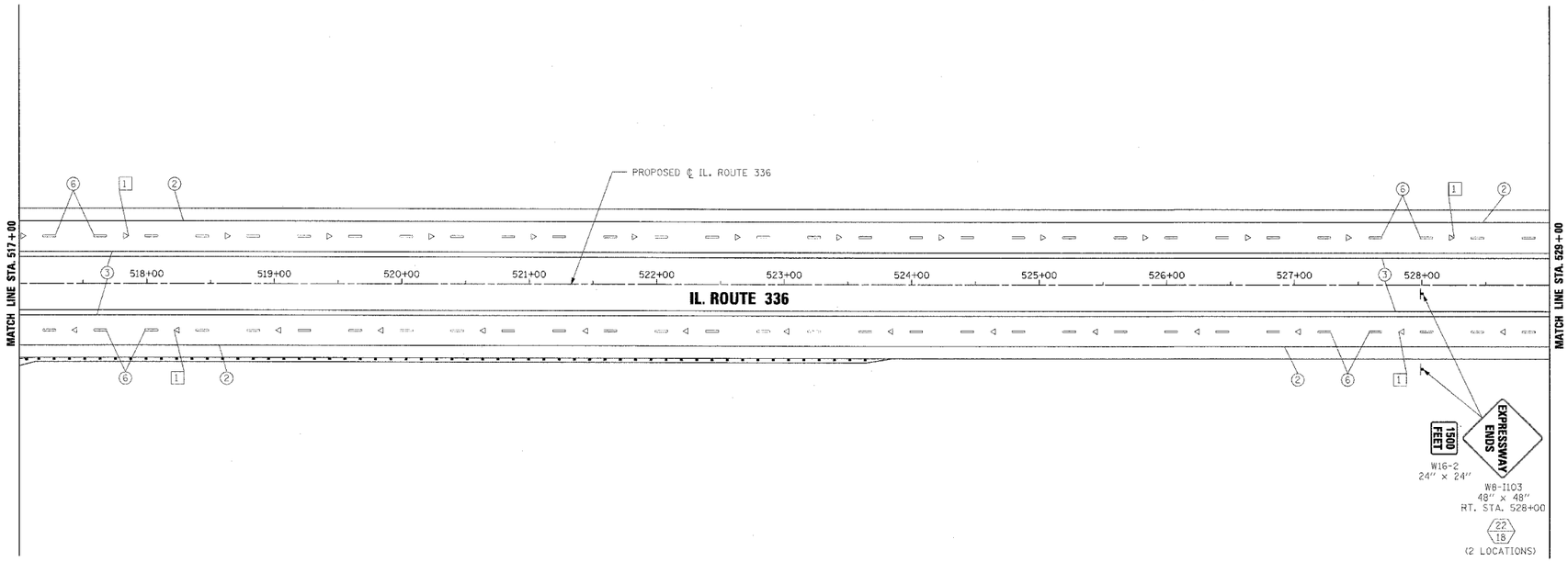
ILLINOIS DEPARTMENT OF TRANSPORTATION

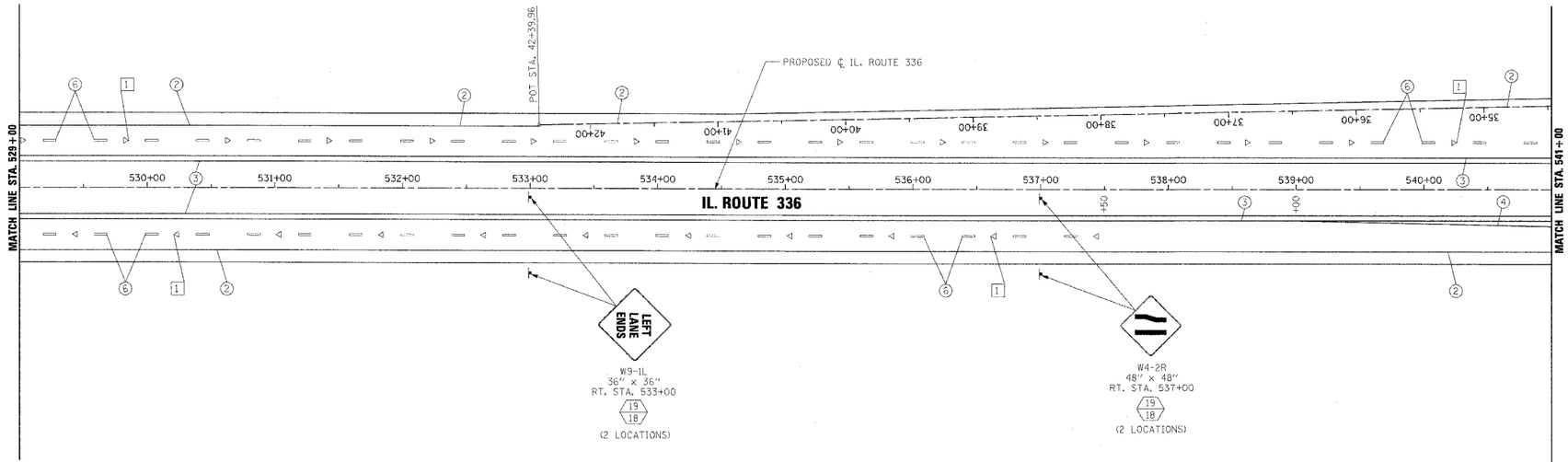
PAVEMENT MARKING AND SIGNING
IL. ROUTE 336
STA. 493+00 TO STA. 517+00

DRAWN BY

DATE 3/30/06 CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	407
STA. 517+00		TO STA. 541+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		





PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
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6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
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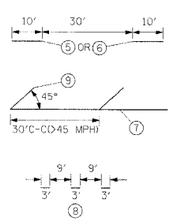
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ◆ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

- WOOD POST LENGTH
- OFFSET FROM EDGE OF PAVEMENT

25 0 50 125

SCALE IN FEET

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING

IL. ROUTE 336
STA. 517+00 TO STA. 541+00
RAMP I
STA. 34+50 TO STA. 42+40

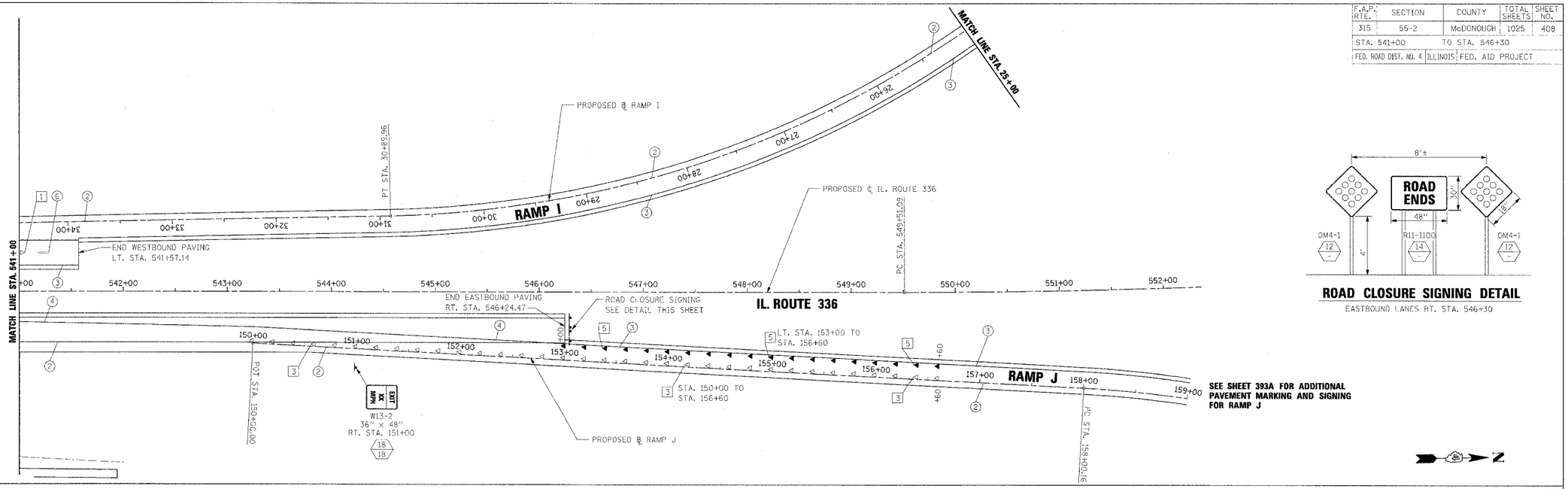
DRAWN BY

DATE 3/30/06

CHECKED BY

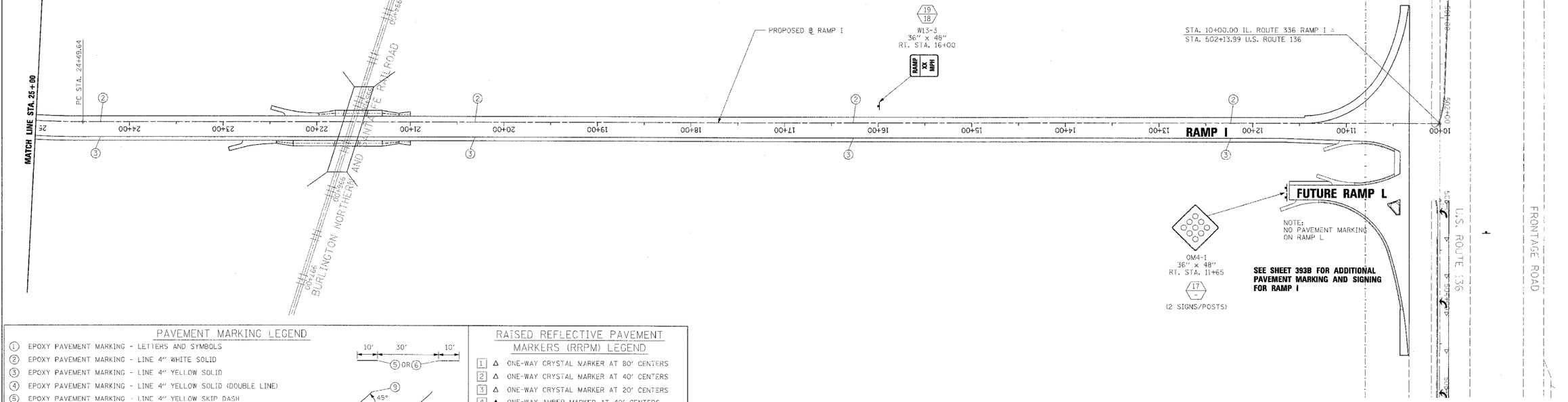
338pm19.dgn 3/30/2006 8:11:53 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	408
STA. 541+00		TO STA. 546+30		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



ROAD CLOSURE SIGNING DETAIL

EASTBOUND LANES RT. STA. 546+30



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
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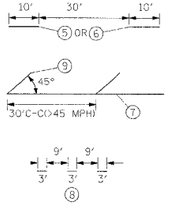
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ♦ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT

25 0 50 125

SCALE IN FEET

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING

IL. ROUTE 336 – STA. 541+00 TO STA. 546+30

RAMP I – STA. 10+00 TO STA. 34+50

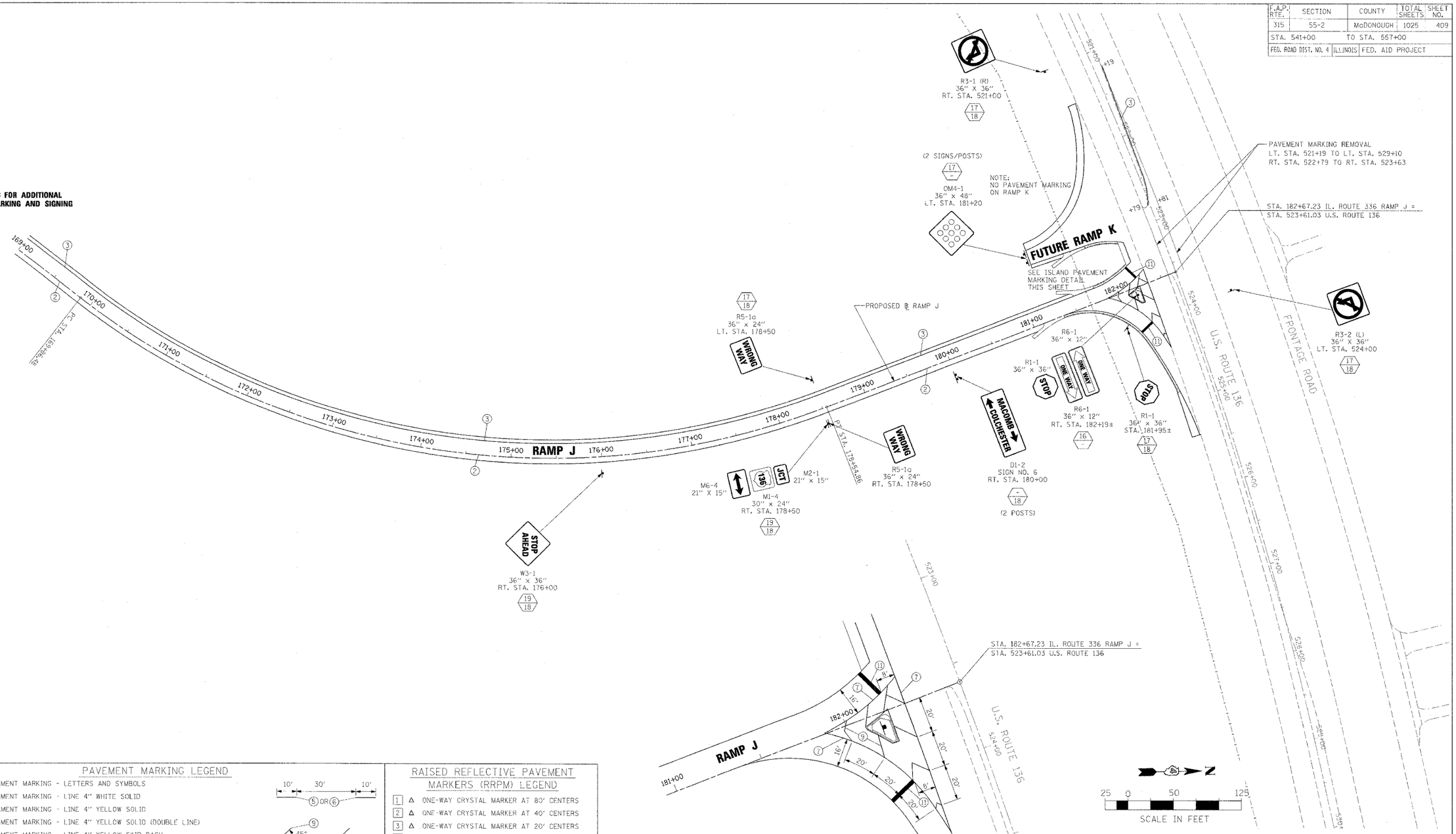
RAMP J – STA. 150+00 TO 159+00

DRAWN BY

DATE 3/30/06 CHECKED BY

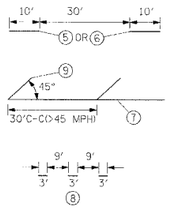
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	409
STA. 541+00	TO STA. 557+00			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SEE SHEET 393 FOR ADDITIONAL PAVEMENT MARKING AND SIGNING FOR RAMP J



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

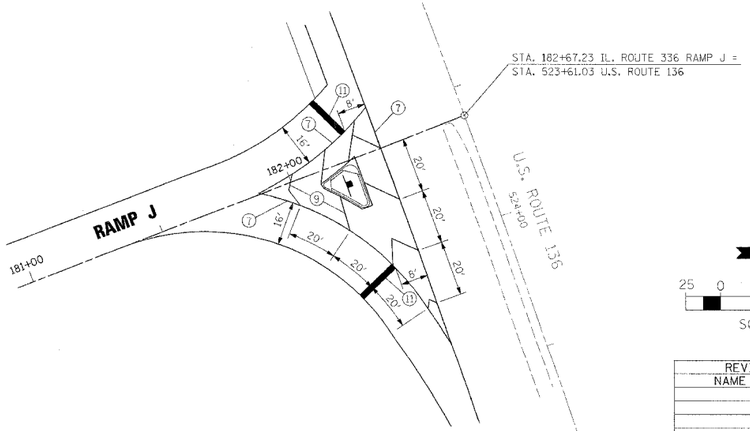
RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1	△	ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2	△	ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3	△	ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4	▲	ONE WAY AMBER MARKER AT 40' CENTERS
5	▲	ONE-WAY AMBER MARKER AT 20' CENTERS
6	◆	TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT



ISLAND PAVEMENT MARKING DETAIL

NOT TO SCALE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING

IL. ROUTE 336 – STA. 541+00 TO STA. 546+30
RAMP I – STA. 10+00 TO STA. 34+50
RAMP J – STA. 150+00 TO STA. 159+00

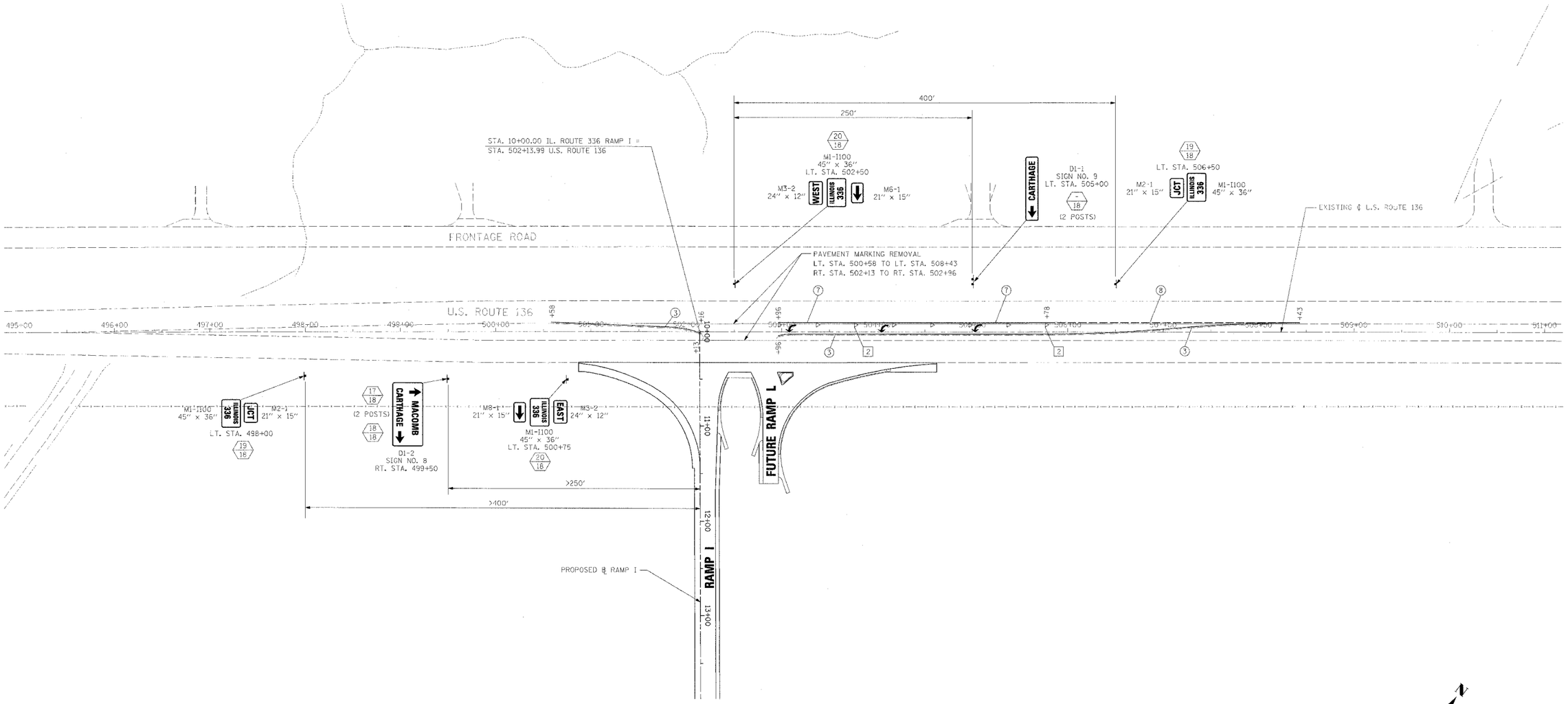
DRAWN BY

DATE 3/30/06

CHECKED BY

RAMPJ-PM01.dgn 3/30/2006 6:12:01 AM

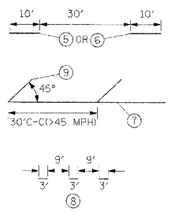
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	410
STA. 541+00		TO STA. 557+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



SEE SHEET 393B FOR ADDITIONAL PAVEMENT MARKING AND SIGNING FOR RAMP I

PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

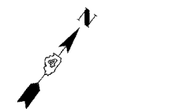


1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ♦ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING INTERSECTION RAMP I AND U.S. ROUTE 136

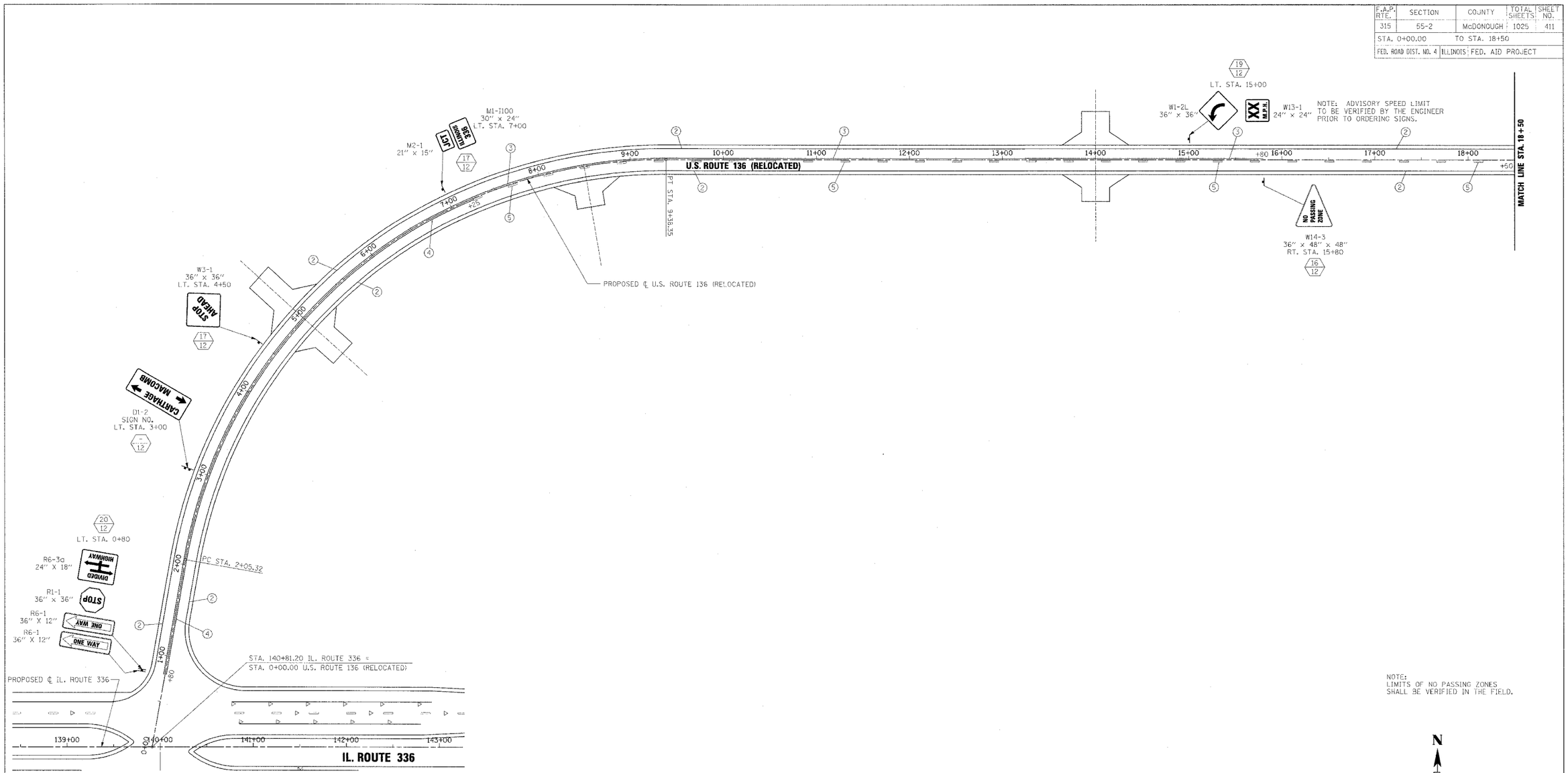
DATE 3/30/06

DRAWN BY

CHECKED BY

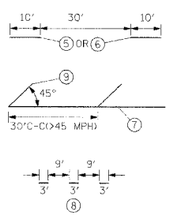
RAMPI-PM01.dgn 3/30/2006 8:12:05 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	411
STA. 0+00.00	TO STA. 18+50			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1	△	ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2	△	ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3	△	ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4	▲	ONE-WAY AMBER MARKER AT 40' CENTERS
5	▲	ONE-WAY AMBER MARKER AT 20' CENTERS
6	♦	TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT

NOTE:
LIMITS OF NO PASSING ZONES SHALL BE VERIFIED IN THE FIELD.

N

25 0 50 125

SCALE IN FEET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

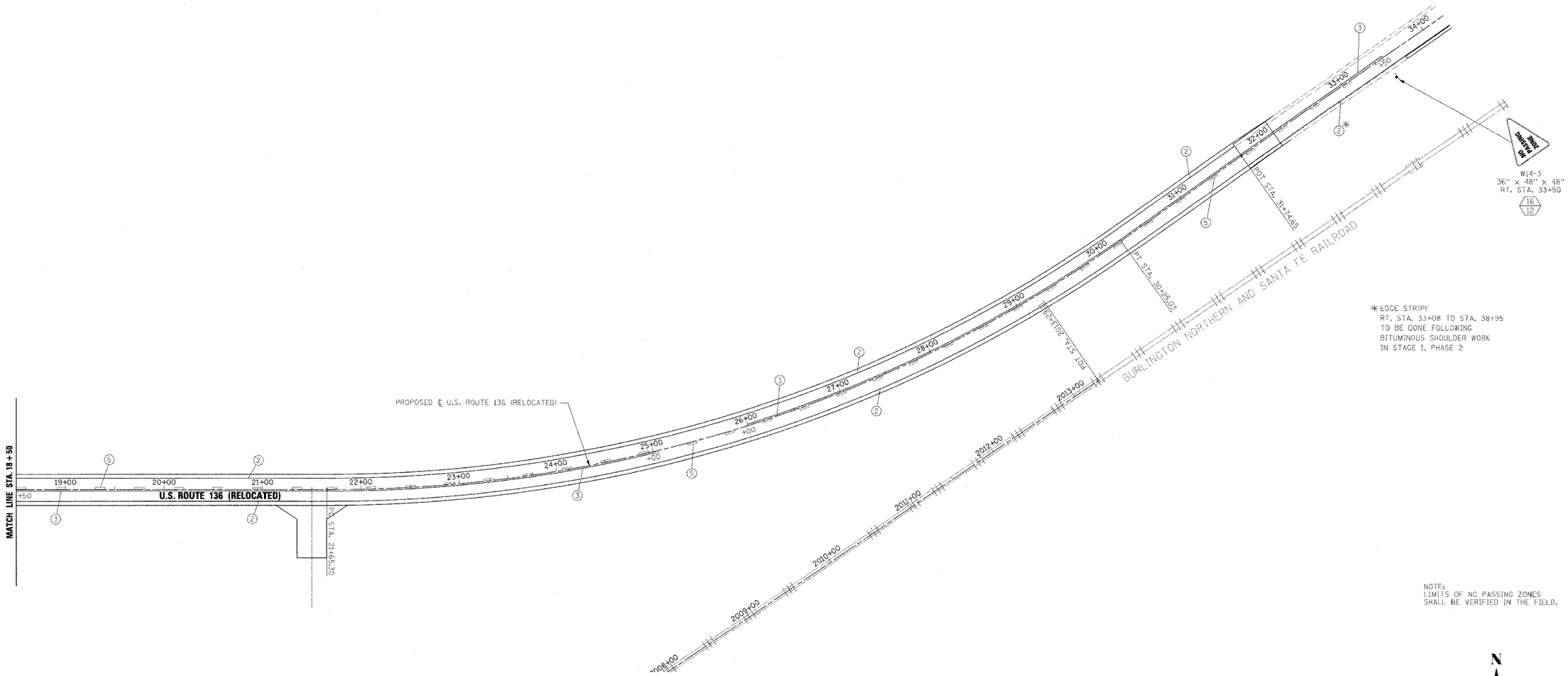
PAVEMENT MARKING AND SIGNING U.S. ROUTE 136 (RELOCATED) STA. 0+00.00 TO STA. 18+50

DRAWN BY

DATE 3/30/06 CHECKED BY

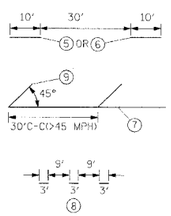
136pm01.dgn 3/30/2006 6:14:01 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	412
STA. 18+50.00	TO STA. 33+50.00			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ♦ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

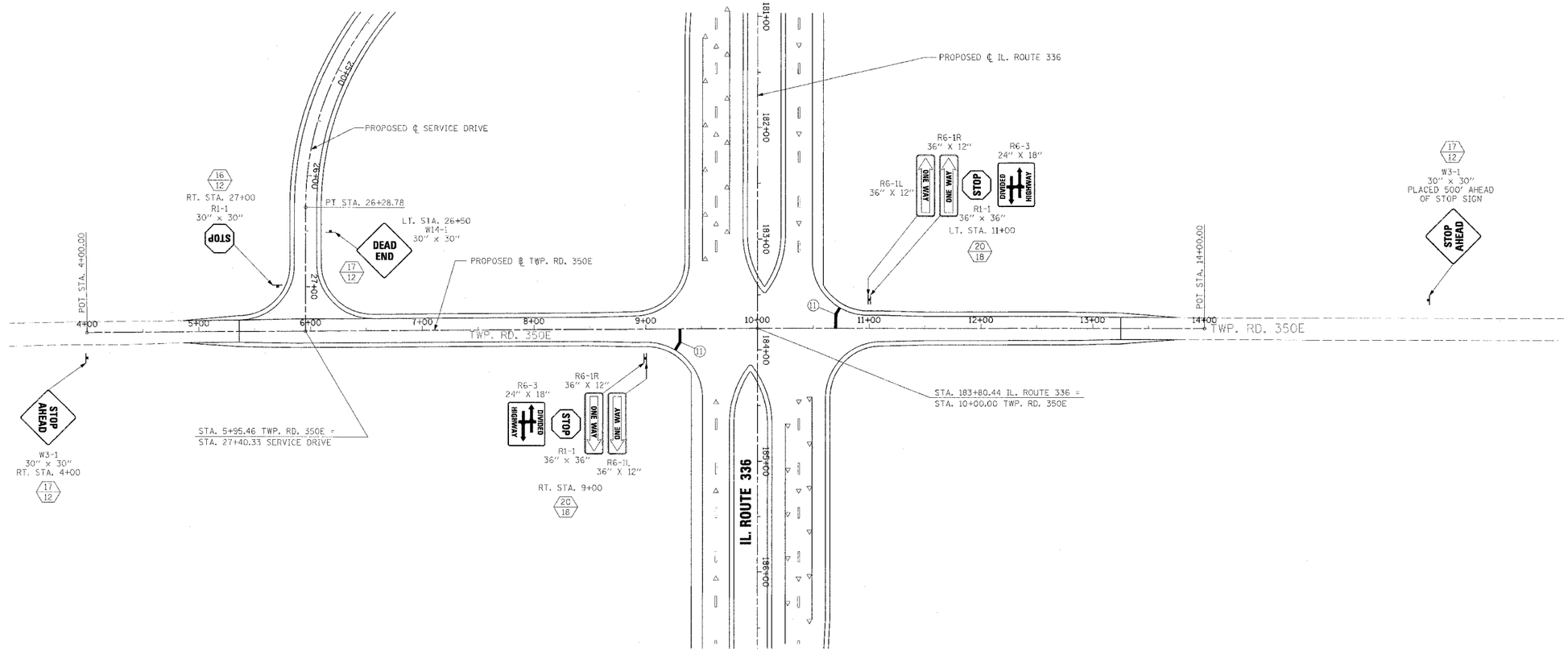
PAVEMENT MARKING AND SIGNING
U.S. ROUTE 136 (RELOCATED)
STA. 18+50.00 TO STA. 33+50.00

DRAWN BY

DATE 3/30/06 CHECKED BY

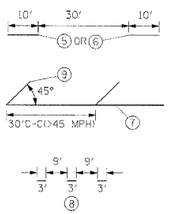
198PM02.dgn 3/30/2006 8:14:15 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	413
STA. 4+00		TO STA. 14+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ♦ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

a — WOOD POST LENGTH

b — OFFSET FROM EDGE OF PAVEMENT

25 0 50 125

SCALE IN FEET

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

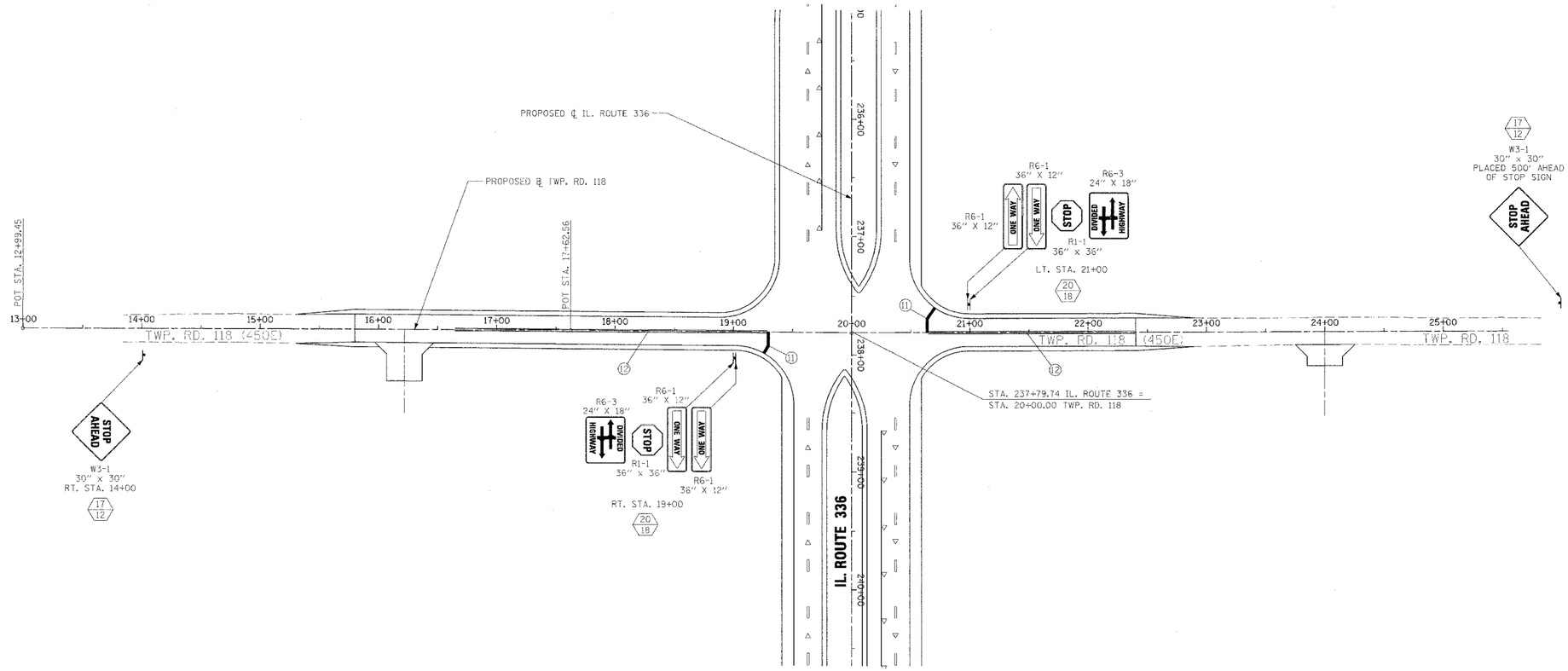
PAVEMENT MARKING AND SIGNING
TWP. RD. 350E
STA. 4+00 TO STA. 14+00

DRAWN BY

DATE 3/30/06

CHECKED BY

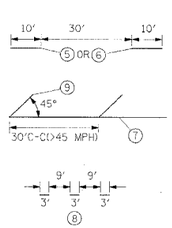
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	414
STA. 16+00	TO STA. 24+00			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

(11) EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

(12) PAINT PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1	△	ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2	△	ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3	△	ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4	▲	ONE-WAY AMBER MARKER AT 40' CENTERS
5	▲	ONE-WAY AMBER MARKER AT 20' CENTERS
6	♦	TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT

25 0 50 125

SCALE IN FEET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

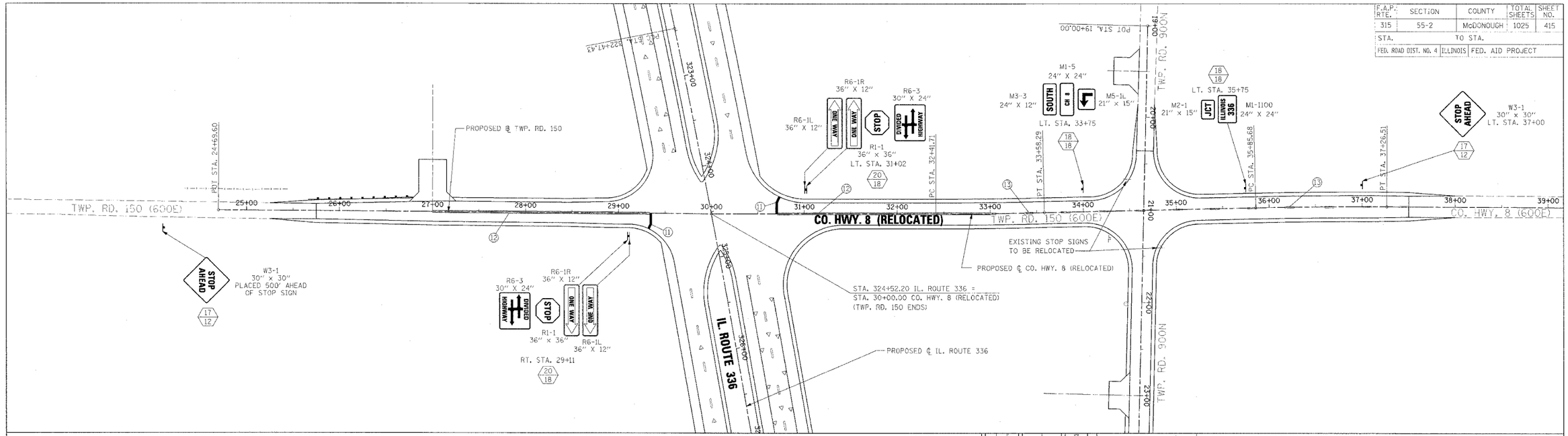
PAVEMENT MARKING AND SIGNING
TWP. RD 118
STA. 16+00 TO STA. 24+00

DRAWN BY

DATE 3/30/06 CHECKED BY

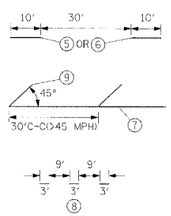
118pm01.dgn 3/30/2006 8:15:42 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	415
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

(11) EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)
(12) PAINT PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
(13) PAINT PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1	△	ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2	△	ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3	△	ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4	▲	ONE-WAY AMBER MARKER AT 40' CENTERS
5	▲	ONE-WAY AMBER MARKER AT 20' CENTERS
6	◆	TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH
OFFSET FROM EDGE OF PAVEMENT

25 0 50 125
SCALE IN FEET

REVISIONS NAME	DATE

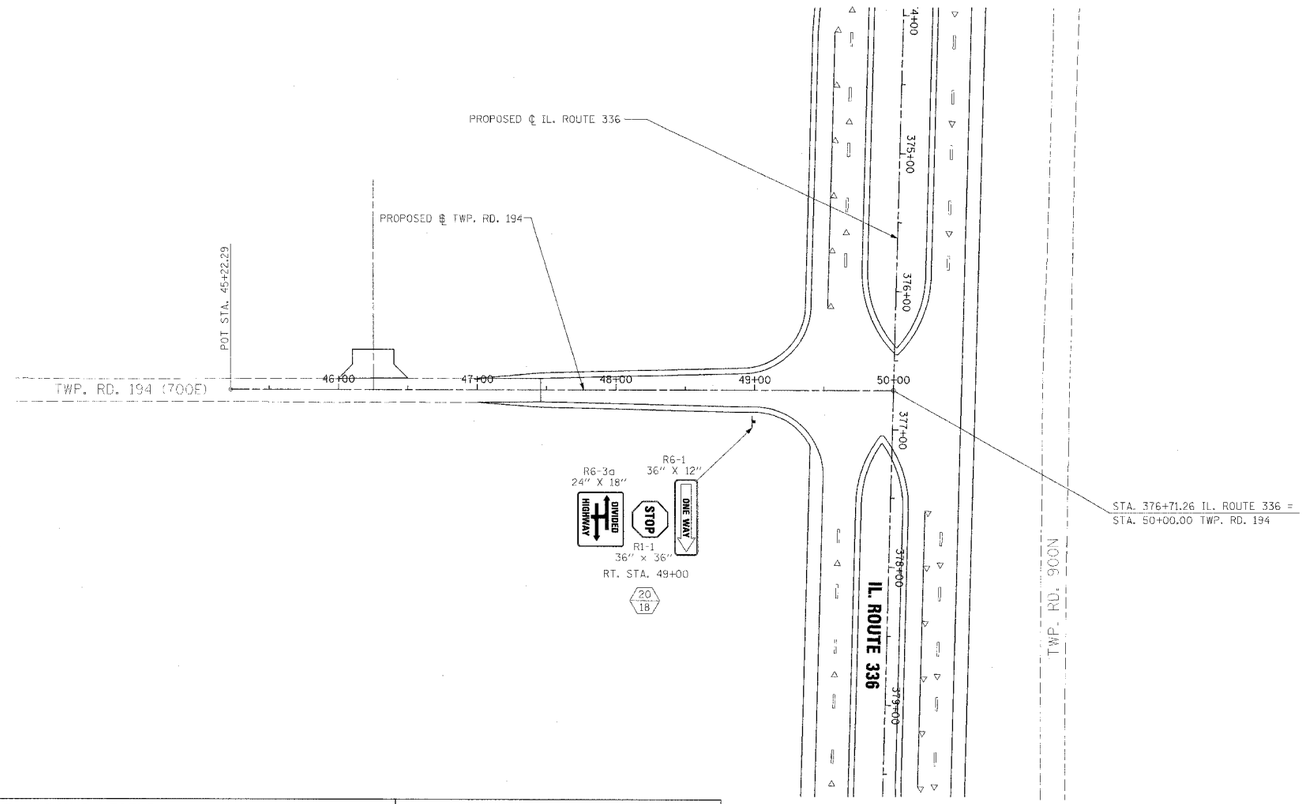
ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING TWP. RD. 150 /CO. HWY. 8 (RELOCATED) AND CO. HWY. 8 (EAST)

DRAWN BY
DATE 3/30/06 CHECKED BY

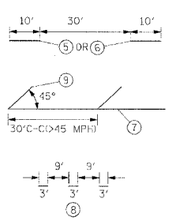
8-150pm01.dgn 3/30/2006 6:13:37 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	416
STA. 47+00		TO STA. 50+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ◆ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT

25 0 50 125

SCALE IN FEET

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
TWP. RD.194
STA. 47+00 TO STA. 50+00

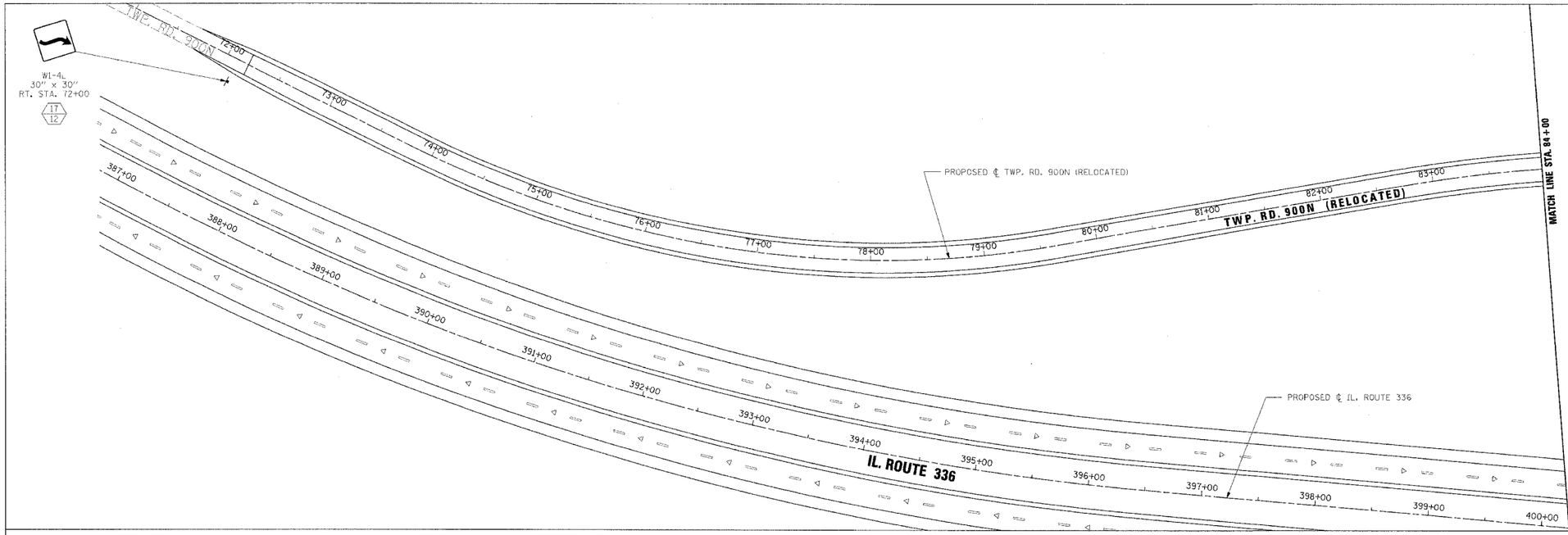
DRAWN BY

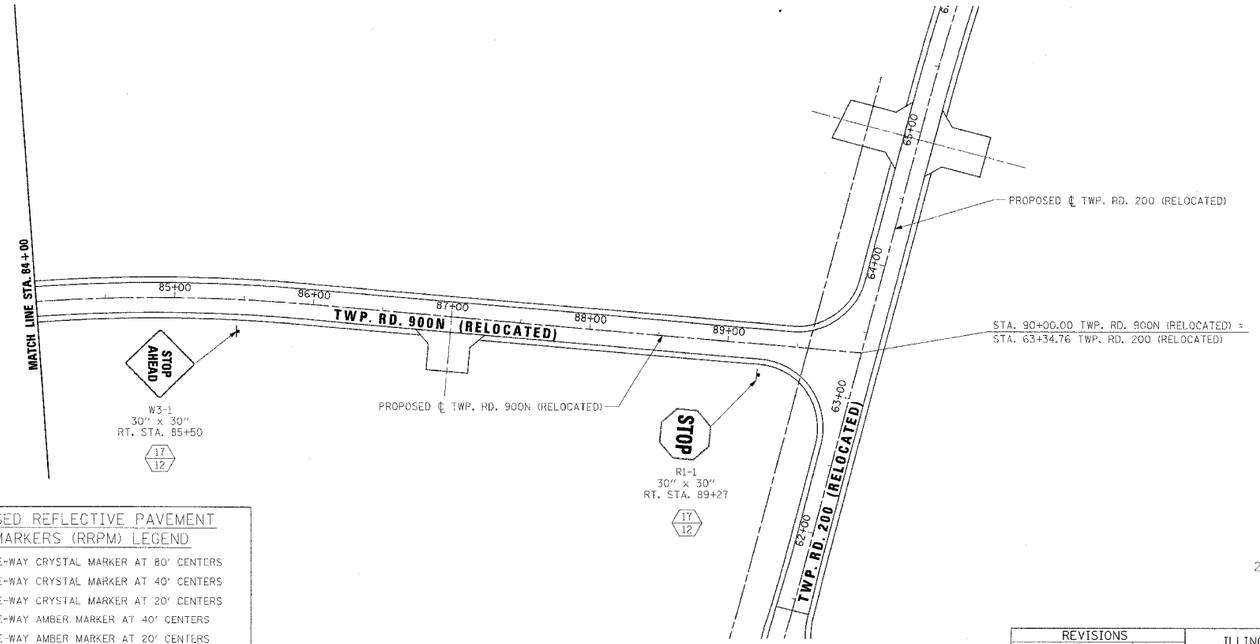
DATE 3/30/06

CHECKED BY

194pm01.dgn 3/30/2006 8:13:47 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	417
STA. 73+14.08		TO STA. 90+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		





PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

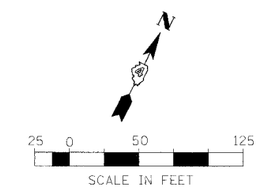
RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ♦ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
TWP. RD. 900N (RELOCATED)
STA. 73+14.08 TO STA. 90+00

DRAWN BY

DATE 3/30/06

CHECKED BY

900n-pm01.dgn 3/30/2006 8:14:10 AM

PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ◆ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

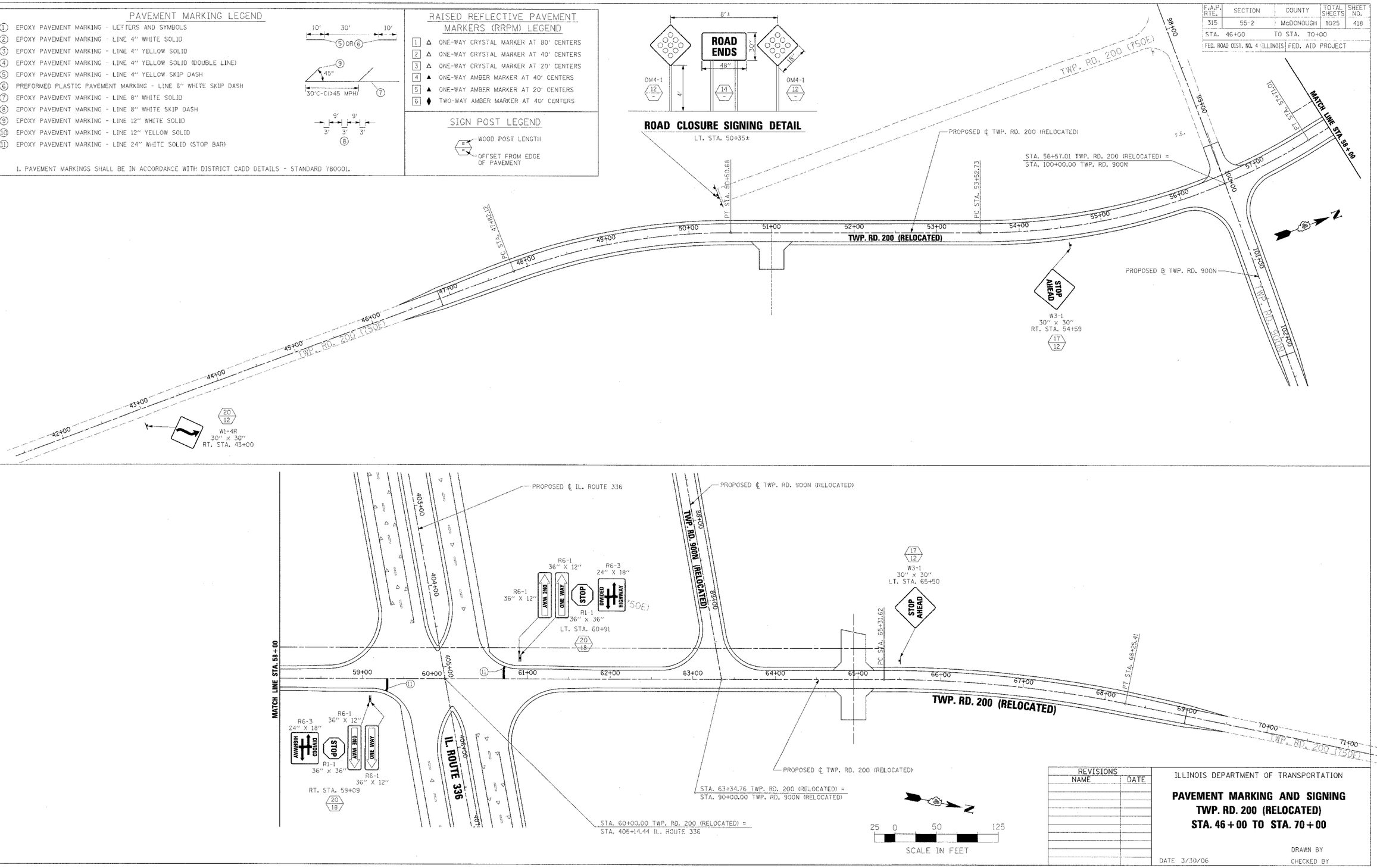
WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT

ROAD CLOSURE SIGNING DETAIL

LT. STA. 50+35±

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	418
STA. 46+00		TO STA. 70+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING TWP. RD. (RELOCATED) STA. 46+00 TO STA. 70+00

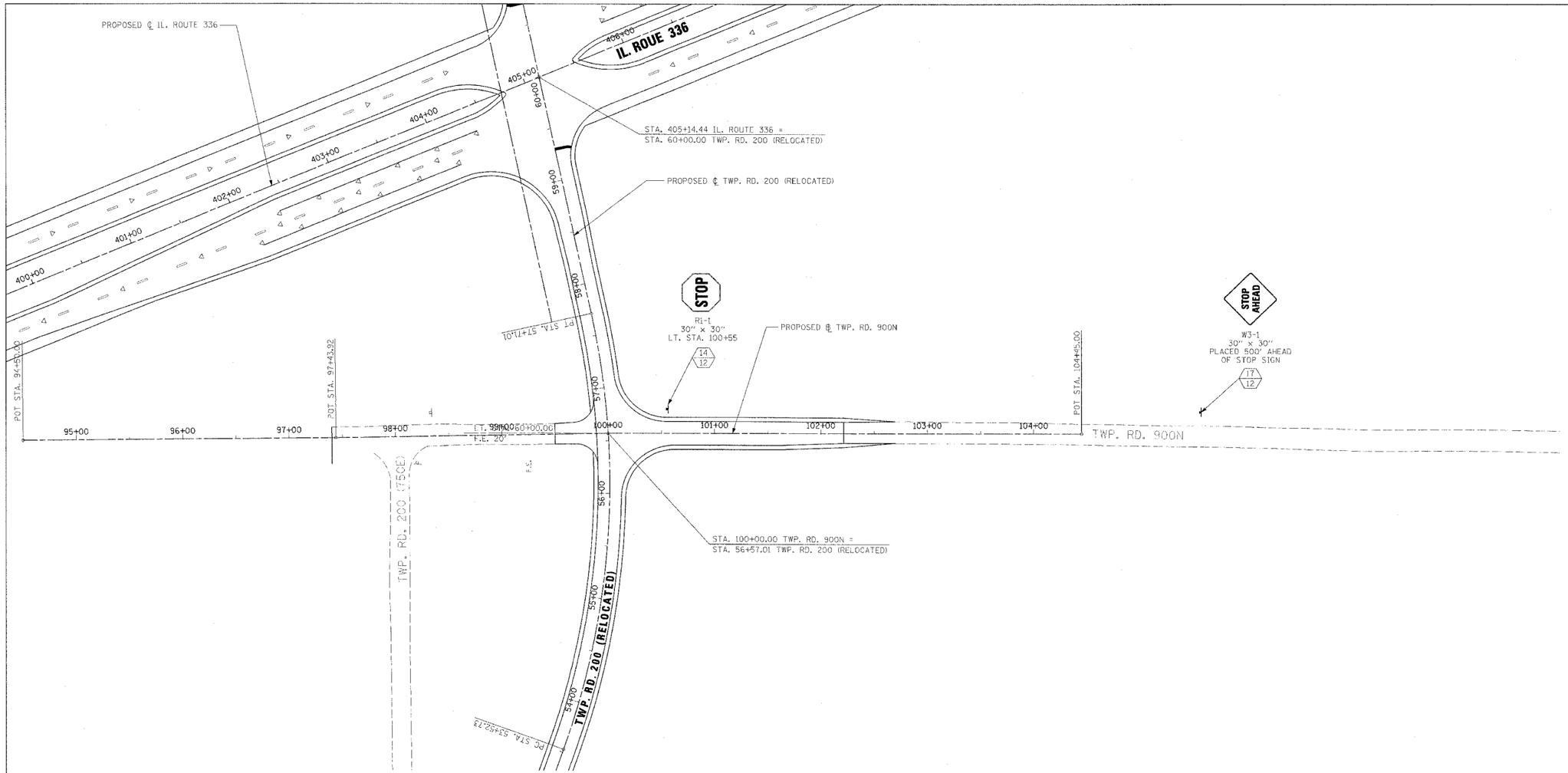
DATE 3/30/06

DRAWN BY

CHECKED BY

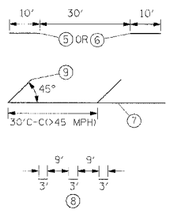
200pm01.dgn 3/30/2006 6:13:51 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	419
STA. 100+00	TO STA. 104+45			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)



1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ♦ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT

N

25 0 50 125

SCALE IN FEET

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
TWP. RD. 900N (EAST)
STA. 100+00 TO STA. 104+00

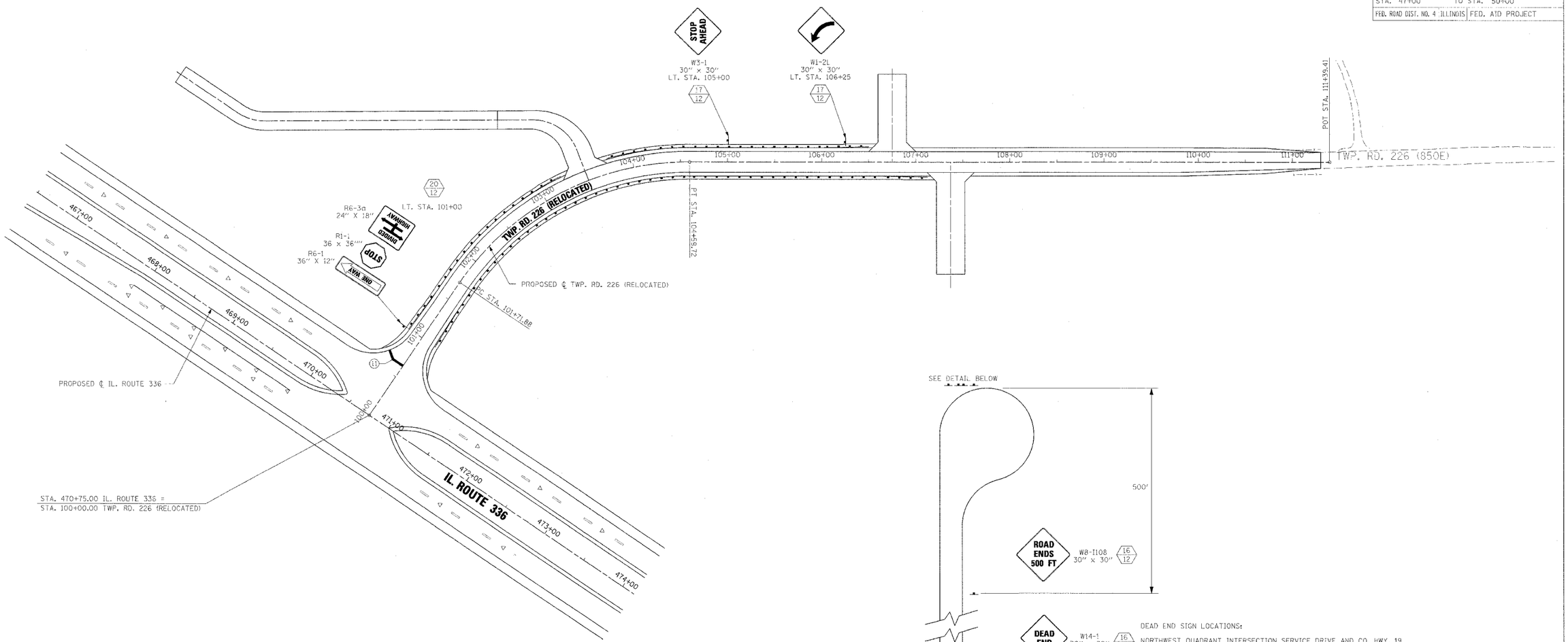
DRAWN BY

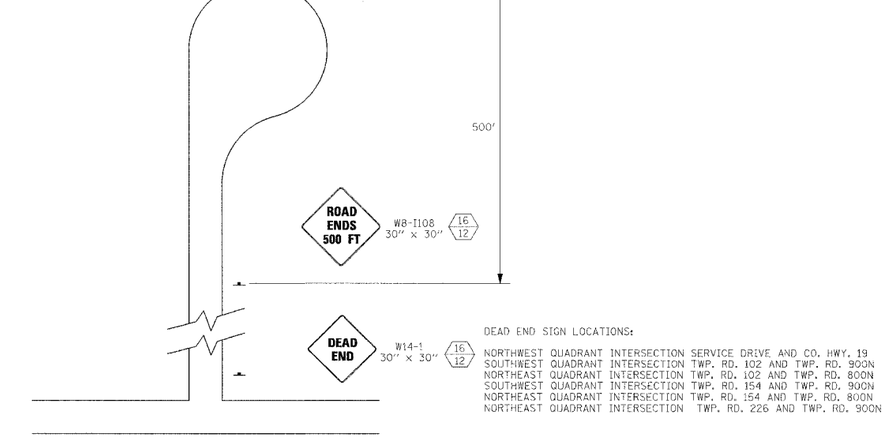
DATE 3/30/06

CHECKED BY

900e-pm01.dgn 3/30/2006 8:14:08 AM

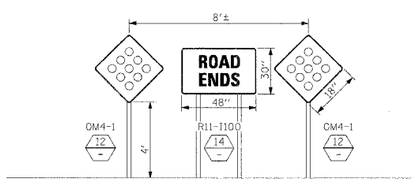
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	420
STA. 47+00		TO STA. 50+00		
FED. ROAD DIST. NO. 4 ILLINOIS		FED. AID PROJECT		





DEAD END SIGN LOCATIONS:

NORTHWEST QUADRANT INTERSECTION SERVICE DRIVE AND CO. HWY. 19
SOUTHWEST QUADRANT INTERSECTION TWP. RD. 102 AND TWP. RD. 900N
NORTHEAST QUADRANT INTERSECTION TWP. RD. 102 AND TWP. RD. 800N
SOUTHWEST QUADRANT INTERSECTION TWP. RD. 154 AND TWP. RD. 900N
NORTHEAST QUADRANT INTERSECTION TWP. RD. 154 AND TWP. RD. 800N
NORTHEAST QUADRANT INTERSECTION TWP. RD. 226 AND TWP. RD. 900N



SIGNING FOR CUL-DE-SAC ROAD CLOSURES DETAIL

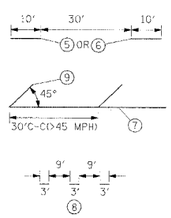
LOCATIONS:

SERVICE DRIVE
TWP. RD. 102 (2 CUL-DE-SACS)
TWP. RD. 154 (2 CUL-DE-SACS)
TWP. RD. 226

PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS
2. EPOXY PAVEMENT MARKING - LINE 4" WHITE SOLID
3. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID
4. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SOLID (DOUBLE LINE)
5. EPOXY PAVEMENT MARKING - LINE 4" YELLOW SKIP DASH
6. PREFORMED PLASTIC PAVEMENT MARKING - LINE 6" WHITE SKIP DASH
7. EPOXY PAVEMENT MARKING - LINE 8" WHITE SOLID
8. EPOXY PAVEMENT MARKING - LINE 8" WHITE SKIP DASH
9. EPOXY PAVEMENT MARKING - LINE 12" WHITE SOLID
10. EPOXY PAVEMENT MARKING - LINE 12" YELLOW SOLID
11. EPOXY PAVEMENT MARKING - LINE 24" WHITE SOLID (STOP BAR)

1. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DISTRICT CADD DETAILS - STANDARD 780001.



RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) LEGEND

1. △ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
2. △ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
3. △ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
4. ▲ ONE-WAY AMBER MARKER AT 40' CENTERS
5. ▲ ONE-WAY AMBER MARKER AT 20' CENTERS
6. ◆ TWO-WAY AMBER MARKER AT 40' CENTERS

SIGN POST LEGEND

WOOD POST LENGTH

OFFSET FROM EDGE OF PAVEMENT

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING
TWP. RD. 226 (RELOCATED)
STA. 100+00 TO STA.111+00

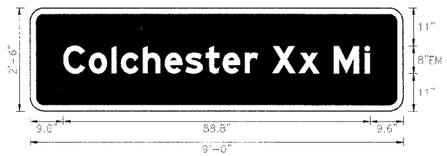
DRAWN BY

DATE 3/30/06

CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	421
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:20



SIGN NUMBER	1
WIDTH x HGHT.	9'-0" x 2'-6"
BORDER WIDTH	1.75"
CORNER RADIUS	4"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT

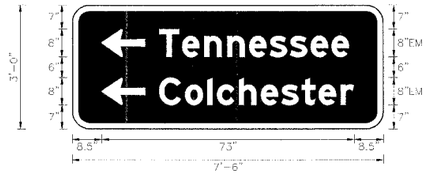
Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

C	o	l	c	h	e	s	t	e	r		X	x		M	i					LENGTH	SERIES/SIZE
9.6	7.4	6.5	2.7	6.3	6.3	6	5.9	4.9	6.4	3.9	4	7.5	6.2	4	8.9	5.6	9.6			88.8	EM8/6

SIGN DETAIL
1:20



SIGN NUMBER	2
WIDTH x HGHT.	7'-6" x 3'-0"
BORDER WIDTH	1.75"
CORNER RADIUS	5"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT
ARMED	18.5	21	8	12.6
ARMED	18.5	7	8	12.6

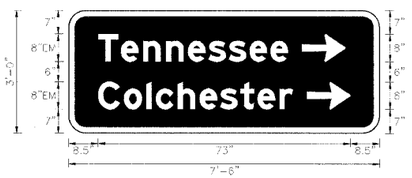
Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

T	e	n	n	e	s	s	e	e														LENGTH	SERIES/SIZE
28.1	6.6	6.4	6.7	6.3	6	5.9	6	6.1	5.1	18.9												55	EM8/6
C	o	l	c	h	e	s	t	e	r														
28.1	7.4	6.5	2.7	6.3	6.3	6	5.9	4.9	6.4	3.9	18.5											56.4	EM8/6

SIGN DETAIL
1:20



SIGN NUMBER	3
WIDTH x HGHT.	7'-6" x 3'-0"
BORDER WIDTH	1.75"
CORNER RADIUS	5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT
ARMED	60.5	21	12.6	8
ARMED	60.9	7	12.6	8

Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

T	e	n	n	e	s	s	e	e														LENGTH	SERIES/SIZE
18.5	6.6	6.4	6.7	6.3	6	5.9	6	6.1	5.1	28.5												55	EM8/6
C	o	l	c	h	e	s	t	e	r														
18.5	7.4	6.5	2.7	6.3	6.3	6	5.9	4.9	6.4	3.9	28.1											56.4	EM8/6

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGN DETAILS
IL. ROUTE 336
SIGNS 1 THRU 3

DRAWN BY

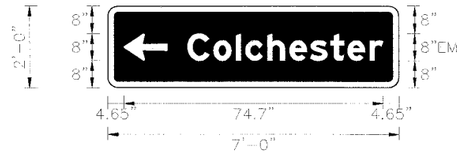
DATE 3/30/06

CHECKED BY

SIGNS 01-03.dgn 3/30/2006 6:14:41 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	422
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:20



SIGN NUMBER	4
WIDTH x HGHT.	7'-0" x 2'-0"
BORDER WIDTH	1.75"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBO:	X	Y	WID	HT
ARMED	65.9	8	12.6	8

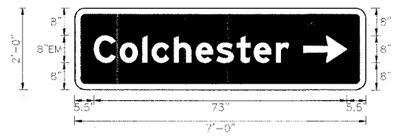
Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

C	o	l	c	h	e	s	t	e	r		LENGTH	SERIES/SIZE
5.5	7.4	6.5	2.7	6.3	6.3	6	5.9	4.9	6.4	3.9	22.1	EM8/6

SIGN DETAIL
1:20



SIGN NUMBER	5
WIDTH x HGHT.	7'-0" x 2'-0"
BORDER WIDTH	1.75"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT
ARMED	68.9	8	12.6	8

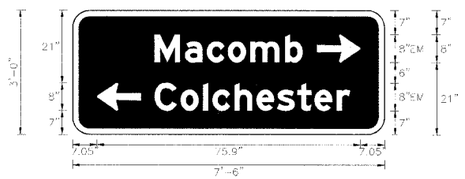
Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

C	o	l	c	h	e	s	t	e	r		LENGTH	SERIES/SIZE
5.5	7.4	6.5	2.7	6.3	6.3	6	5.9	4.9	6.4	3.9	28.1	EM8/6

SIGN DETAIL
1:20



SIGN NUMBER	6
WIDTH x HGHT.	7'-6" x 3'-0"
BORDER WIDTH	1.75"
CORNER RADIUS	5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT
ARMED	70.3	21	12.6	8
ARMED	7	7	8	12.6

Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

M	c	c	o	n	b												LENGTH	SERIES/SIZE
23.6	8.7	8.3	6	8.5	10	5.1	23.7										42.7	EM8/6
C	o	l	c	h	e	s	t	e	r									
23.7	7.4	6.5	2.7	6.3	6.3	6	5.9	4.9	6.4	3.9	10						56.4	EM8/6

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGN DETAILS
IL. ROUTE 336
SIGNS 4 THRU 6

DRAWN BY

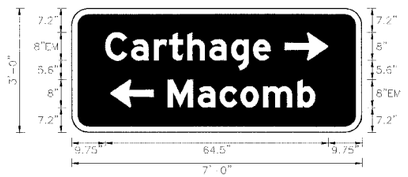
DATE 3/30/06

CHECKED BY

SIGNS 04-06.dgn 3/30/2006 6:14:43 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	423
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:20



SIGN NUMBER	7		
WIDTH x HGHT.	7'-0" x 3'-0"		
BORDER WIDTH	1.75"		
CORNER RADIUS	5"		
MOUNTING	Ground		
BACKGROUND	TYPE: Reflective		
	COLOR: Green		
LEGEND/BORDER	TYPE: Reflective		
	COLOR: White/White		

SYMBOL	X	Y	WID	HT
ARMED	61.6	20.8	12.6	8
ARMED	11.2	7.2	8	12.6

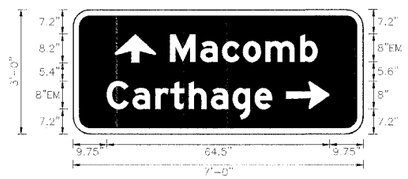
Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

C	a	r	r	i	a	g	e											LENGTH	SERIES/SIZE
9.8	7.4	6.6	4.4	5.3	6.3	6.3	6.3	5.1	26.4									47.9	EM8/6
M	a	c	o	m	b														
27.8	8.7	6.3	6	6.5	10	5.1	13.5											42.7	EM8/6

SIGN DETAIL
1:20



SIGN NUMBER	8		
WIDTH x HGHT.	7'-0" x 3'-0"		
BORDER WIDTH	1.75"		
CORNER RADIUS	5"		
MOUNTING	Ground		
BACKGROUND	TYPE: Reflective		
	COLOR: Green		
LEGEND/BORDER	TYPE: Reflective		
	COLOR: White/White		

SYMBOL	X	Y	WID	HT
ARDOWN	12.1	20.6	12	8.2
ARMED	61.6	7.2	12.6	8

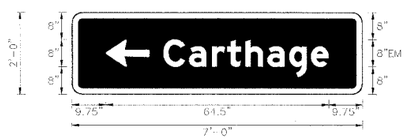
Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

M	a	c	o	m	b													LENGTH	SERIES/SIZE
28.1	8.7	6.3	6	6.5	10	5.1	13.2											42.7	EM8/6
C	a	r	t	h	a	g	e												
9.8	7.4	6.6	4.4	5.3	6.3	6.3	6.3	5.1	26.4									47.9	EM8/6

SIGN DETAIL
1:20



SIGN NUMBER	9		
WIDTH x HGHT.	7'-0" x 2'-0"		
BORDER WIDTH	1.75"		
CORNER RADIUS	3"		
MOUNTING	Ground		
BACKGROUND	TYPE: Reflective		
	COLOR: Green		
LEGEND/BORDER	TYPE: Reflective		
	COLOR: White/White		

SYMBOL	X	Y	WID	HT
ARMED	9.8	8	8	12.6

Panel Style: rew.ssi
Dimensions are in inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)

C	a	r	t	h	a	g	e											LENGTH	SERIES/SIZE
26.4	7.4	6.6	4.4	5.3	6.3	6.3	6.3	5.1	9.8									47.9	EM8/6

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

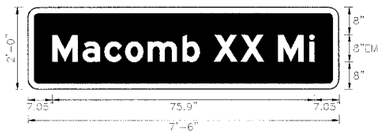
SIGN DETAILS
IL. ROUTE 336
SIGNS 7 THRU 9

DRAWN BY
CHECKED BY
DATE 3/30/06

SIGNS 07-09.dgn 3/30/2006 8:14:46 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	424
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:20



SIGN NUMBER	10
WIDTH x HGHT.	7'-6" x 2'-0"
BORDER WIDTH	1.73"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT

Panel Style: rew.ssi
Dimensions are in inches:centns

Letter spacings are to start of next letter

LETTER POSITIONS (X)

M	a	c	o	m	b		X	X		M										LENGTH	SERIES/SIZE
7.7	8.7	6.3	6	6.5	10	5.1	4	7.7	6.9	4	8.9	1.6	7.1							75.9	EM8/6

REVISIONS NAME	DATE

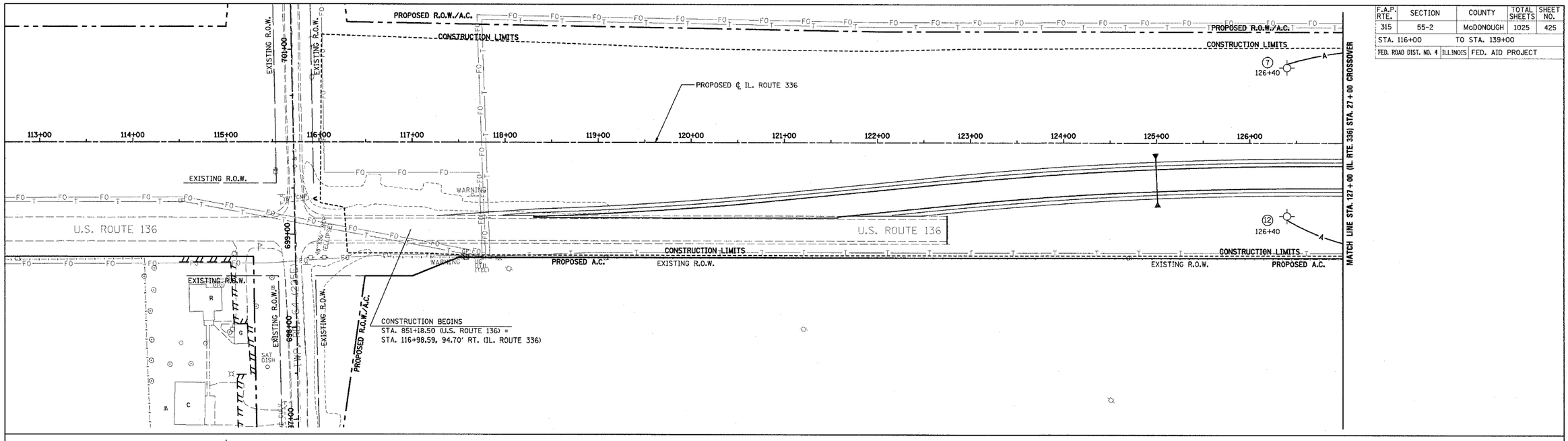
ILLINOIS DEPARTMENT OF TRANSPORTATION

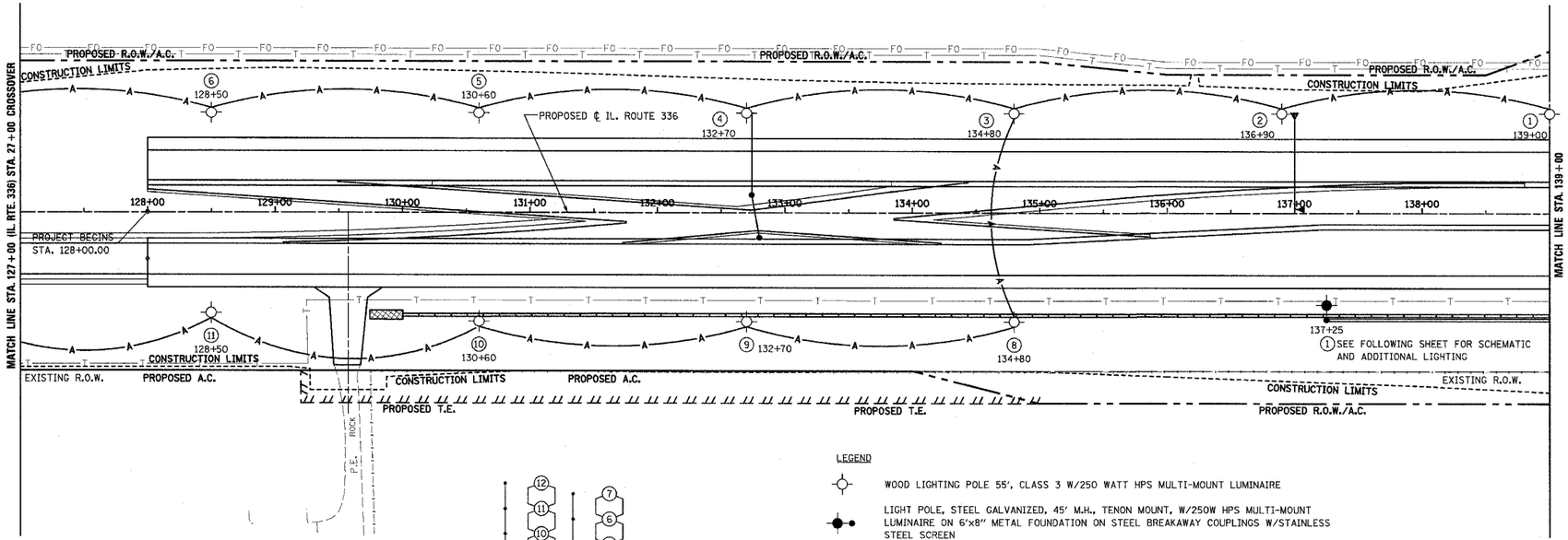
SIGN DETAILS
IL. ROUTE 336
SIGN 10

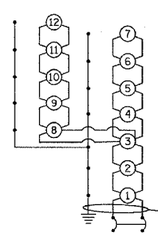
DRAWN BY
DATE 3/30/06 CHECKED BY

SIGNS 10.dgn 3/30/2006 8:14:47 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	425
STA. 116+00	TO STA. 139+00			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		







ALL CONDUCTORS FROM CONTROLLER TO POLE 1 IS UNIT DUCT 2-1/C*6 XLP, 1-1/C*6 XLPG.

240 VOLT
30A 2-POLE BREAKER

LEGEND

- WOOD LIGHTING POLE 55', CLASS 3 W/250 WATT HPS MULTI-MOUNT LUMINAIRE
- LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT, W/250W HPS MULTI-MOUNT LUMINAIRE ON 6'x8" METAL FOUNDATION ON STEEL BREAKAWAY COUPLINGS W/STAINLESS STEEL SCREEN
- AERIAL CABLE 2-1/C, ALUMINUM WITH MESSENGER WIRE
- UNIT DUCT 2 1/C XLP, 1 1/C XLPG (SIZED AS NOTED)
- LIGHTING CONTROLLER PHOTOCELL RELAY

N

25 0 50 125

SCALE IN FEET

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

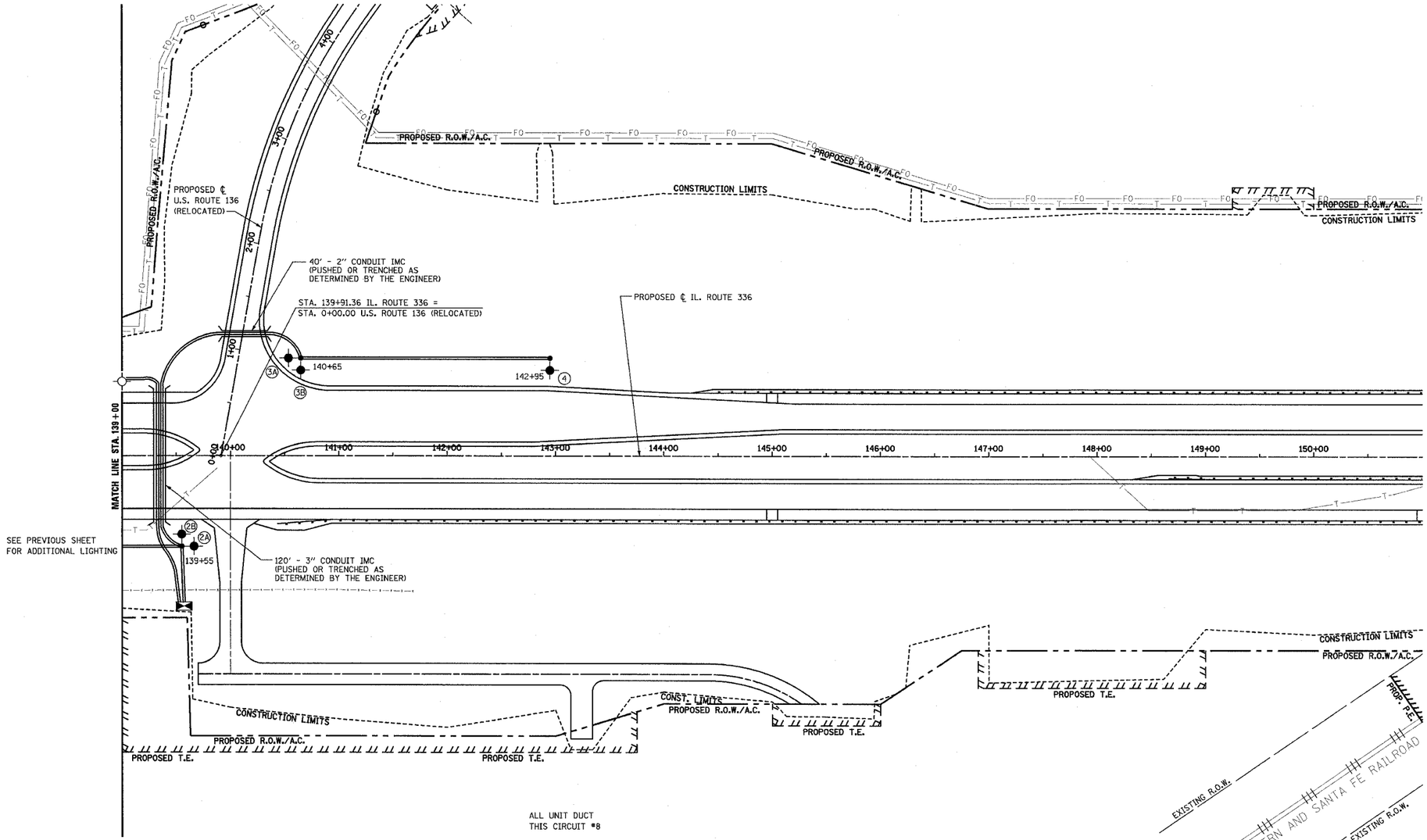
LIGHTING PLAN
IL. ROUTE 336
STA. 116+00 TO STA. 139+00

DRAWN BY

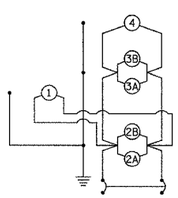
DATE 3/30/06 CHECKED BY

336L151.sgn 4/17/2006 7:45:15 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	426
STA. 139+00		TO STA. 151+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



ALL UNIT DUCT
THIS CIRCUIT #8



240 VOLT
20A 2-POLE BREAKER

LEGEND

- WOOD LIGHTING POLE 55', CLASS 3 W/250 WATT HPS MULTI-MOUNT LUMINAIRE
- LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT, W/250W HPS MULTI-MOUNT LUMINAIRE ON 6'x8" METAL FOUNDATION ON STEEL BREAKAWAY COUPLINGS W/STAINLESS STEEL SCREEN
- LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT TWIN, W/250W HPS MULTI-MOUNT LUMINAIRE ON 8'x8" METAL FOUNDATION ON STEEL BREAKAWAY COUPLINGS W/STAINLESS STEEL SCREEN
- LIGHTING CONTROLLER PHOTOCELL RELAY
- UNIT DUCT 2 1/C XLP, 1 1/C XLPG (SIZED AS NOTED)
- CONDUIT (PUSHED OR TRENCHED, SIZED AS NOTED)

N

25 0 50 125

SCALE IN FEET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN
IL. ROUTE 336
STA. 139+00 TO STA. 150+00

DRAWN BY

DATE 3/30/06

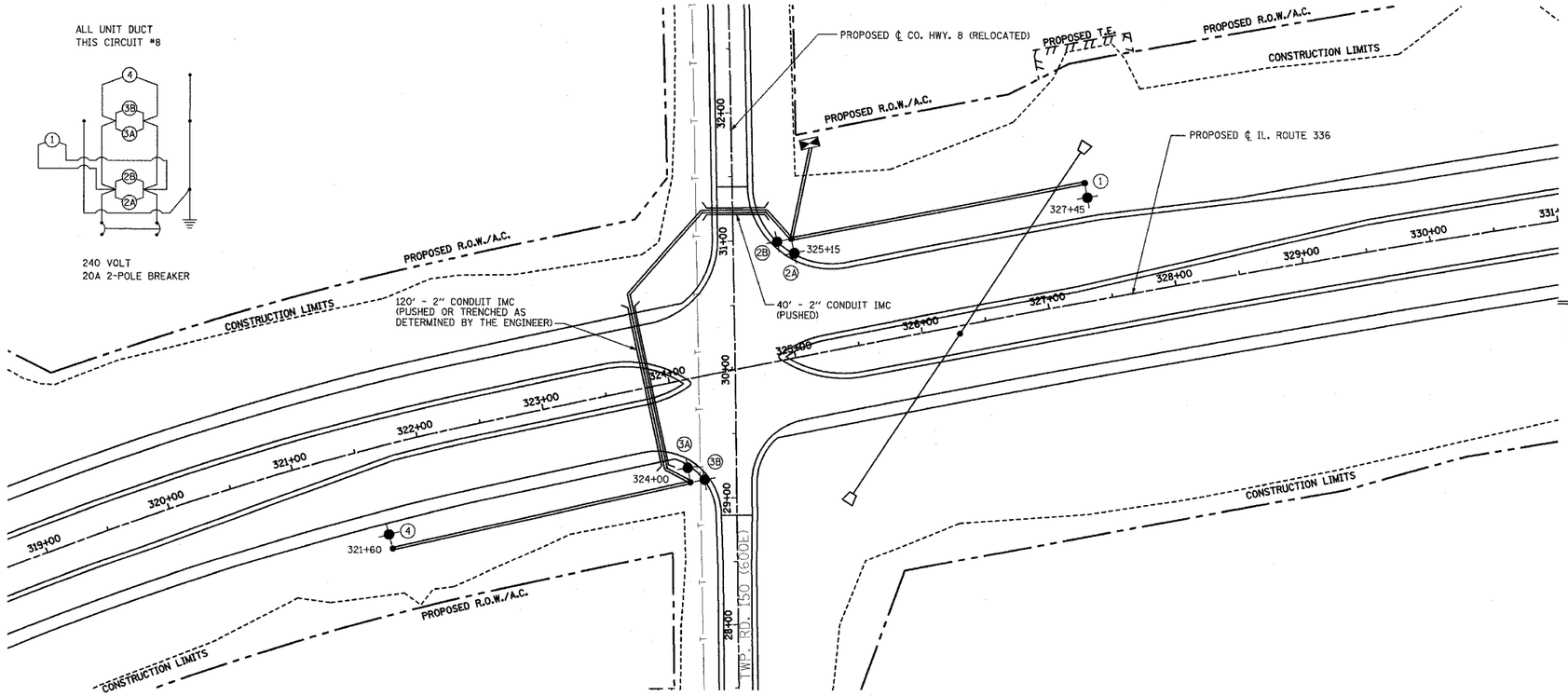
CHECKED BY

3361102.dgn 4/17/2006 7:45:48 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	427
STA. 163+00		TO STA. 187+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

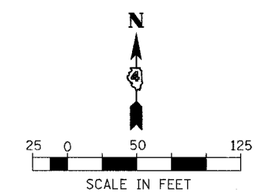
ALL UNIT DUCT
THIS CIRCUIT #8

240 VOLT
20A 2-POLE BREAKER



LEGEND

- WOOD LIGHTING POLE 55', CLASS 3 W/250 WATT HPS MULTI-MOUNT LUMINAIRE
- LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT, W/250W HPS MULTI-MOUNT LUMINAIRE ON 6'x8" METAL FOUNDATION ON STEEL BREAKAWAY COUPLINGS W/STAINLESS STEEL SCREEN
- LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT TWIN, W/250W HPS MULTI-MOUNT LUMINAIRE ON 8'x8" METAL FOUNDATION ON STEEL BREAKAWAY COUPLINGS W/STAINLESS STEEL SCREEN
- LIGHTING CONTROLLER PHOTOCELL RELAY
- UNIT DUCT 2 1/C XLP, 1 1/C XLPG (SIZED AS NOTED)
- CONDUIT (PUSHED OR TRENCHED, SIZED AS NOTED)



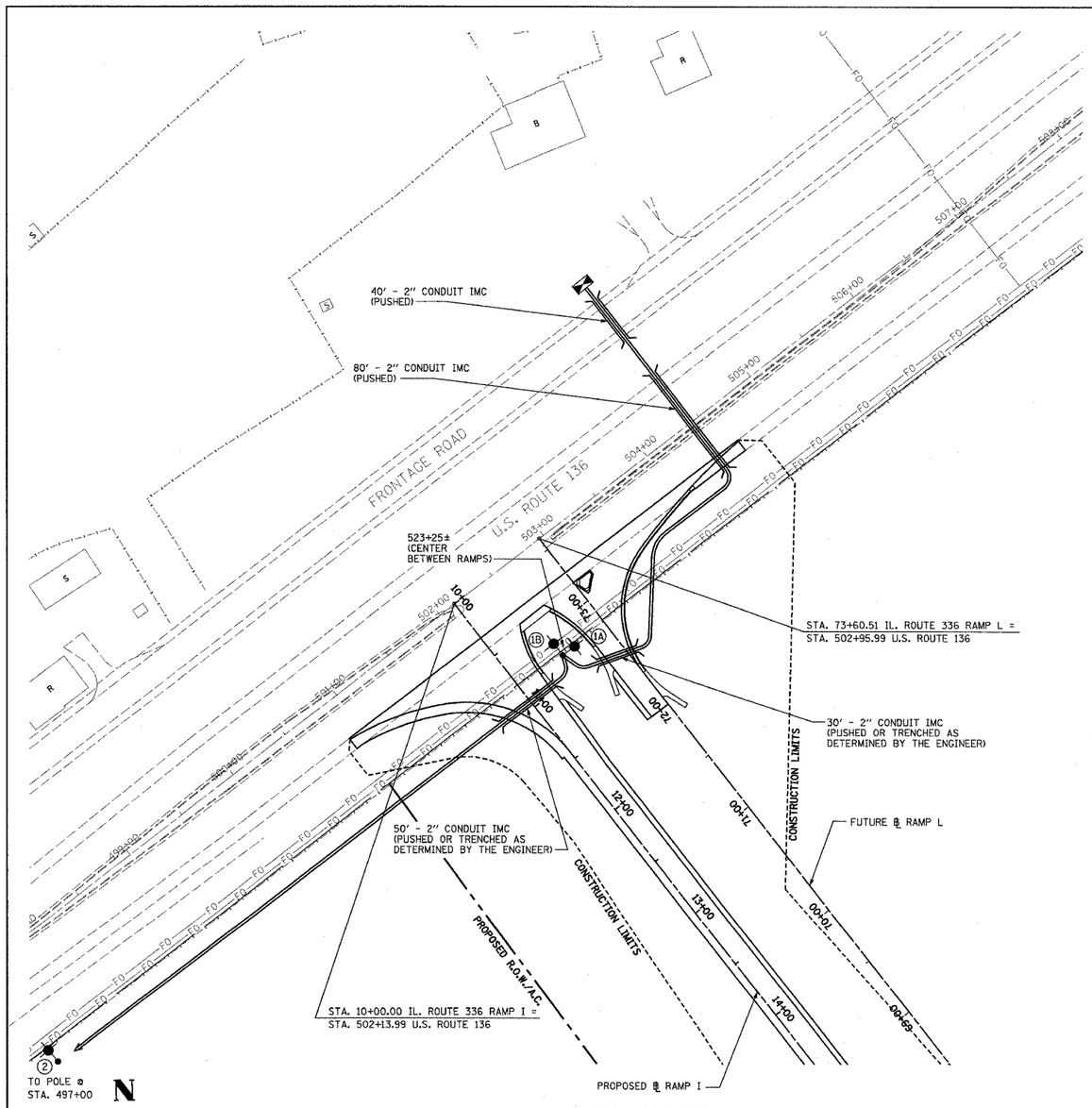
REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

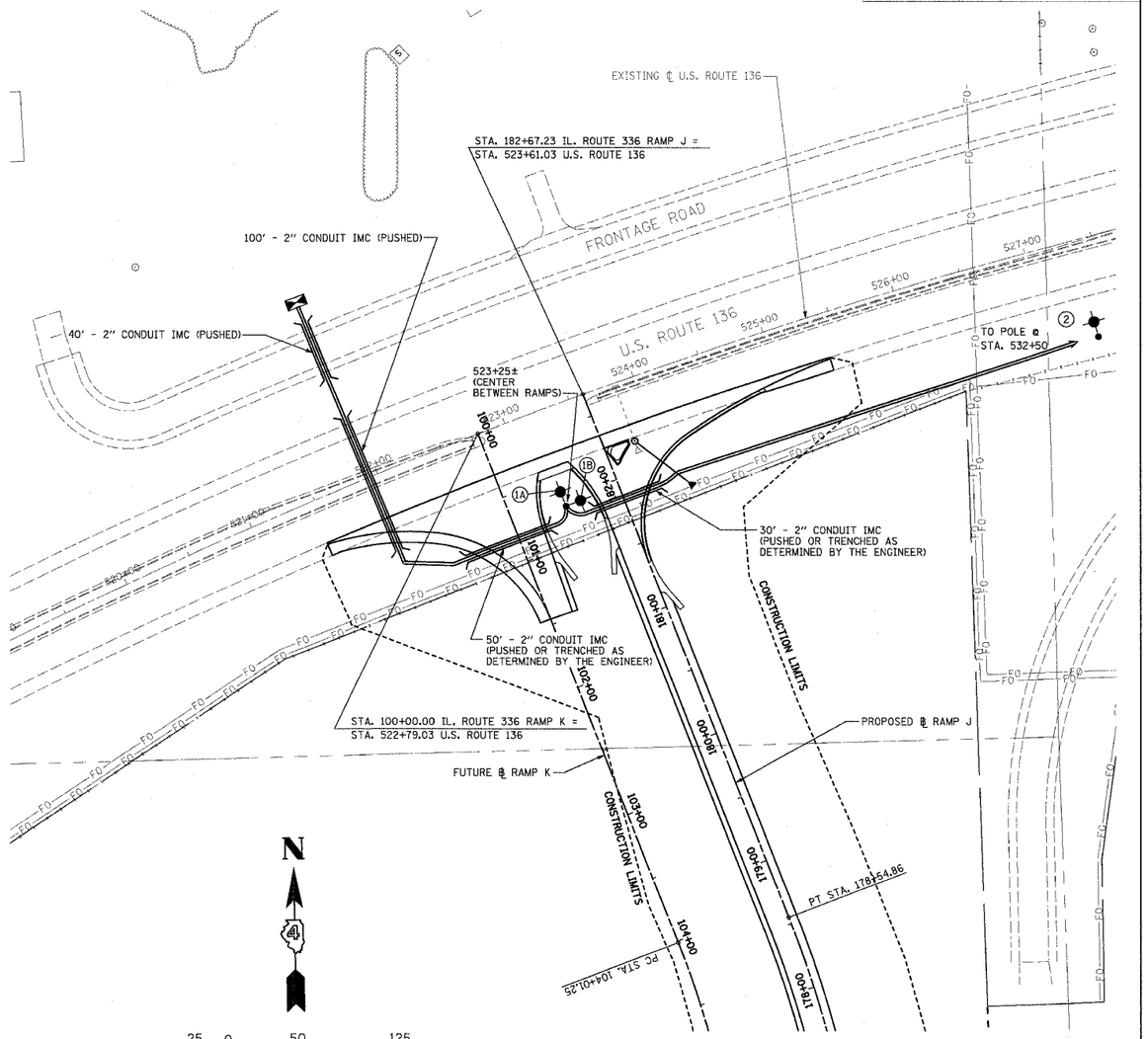
LIGHTING PLAN
IL. ROUTE 336
STA. 319+00 TO STA. 330+00

DRAWN BY
DATE 3/30/06 CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	428
STA. 172+00		TO STA. 182+66.95		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

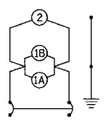


LIGHTING PLAN
RAMP I



LIGHTING PLAN
RAMP J

ALL UNIT DUCT
THIS CIRCUIT #8

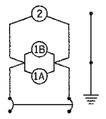


240 VOLT
20A 2-POLE BREAKER

LEGEND

- LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT, W/250W HPS MULTI-MOUNT LUMINAIRE ON 6'x8" METAL FOUNDATION ON STEEL BREAKAWAY COUPLINGS W/STAINLESS STEEL SCREEN
- LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT TWIN, W/250W HPS MULTI-MOUNT LUMINAIRE ON 8'x8" METAL FOUNDATION ON STEEL BREAKAWAY COUPLINGS W/STAINLESS STEEL SCREEN
- LIGHTING CONTROLLER PHOTOCELL RELAY
- CONDUIT (PUSHED OR TRENCHED, SIZED AS NOTED)
- UNIT DUCT 2 1/C XLP, 1 1/C XLPG (SIZED AS NOTED)

ALL UNIT DUCT
THIS CIRCUIT #8



240 VOLT
20A 2-POLE BREAKER

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN
RAMP I AND RAMP J

DATE 3/30/06

DRAWN BY

CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	429
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

BILL OF MATERIALS

PAY ITEM	ENGLISH DESCRIPTION	UNIT	QUANTITY TOTALS
	IL 336 / US 136		
81600215	UD 2# 8 XLP, 1# 8 XLPG 3/4" P	FOOT	935
83054100	LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT	EACH	2
X8305410	LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT, TWIN	EACH	2
83800650	BREAKAWAY DEVICE, COUPLING, SS SCREEN	EACH	16
81500200	TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	735
81020500	CONDUIT PUSHED, 2" DIA INTERMEDIATE METAL	FOOT	40
81020700	CONDUIT PUSHED, 3" DIA INTERMEDIATE METAL	FOOT	120
82103900	LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	6
83600355	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8" X 6'	EACH	2
83600357	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8" X 8'	EACH	2
82500605	LIGHTING CONTROLLER PHOTOCELL RELAY	EACH	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
	IL 336 / US 136 TEMPORARY LIGHTING		
81800600	AERIAL CABLE, 2-1/C#2, ALUMINUM, W/MESSENGER WIRE	FOOT	2,350
81600315	UD 2# 6 XLP, 1# 6 XLPG 1" P	FOOT	305
80803150	WOOD LIGHTING POLE, 55ft, CLASS 3	EACH	12
82103900	LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	12
84100110	REMOVAL OF TEMPORARY LIGHTING UNITS	EACH	12
	IL 336 / CH 8		
81600315	UD 2# 6 XLP, 1# 6 XLPG 1" P	FOOT	985
83054100	LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT	EACH	2
X8305410	LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT, TWIN	EACH	2
83800650	BREAKAWAY DEVICE, COUPLING, SS SCREEN	EACH	16
81500200	TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	645
81020500	CONDUIT PUSHED, 2" DIA INTERMEDIATE METAL	FOOT	160
82103900	LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	6
83600355	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8" X 6'	EACH	2
83600357	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8" X 8'	EACH	2
82500605	LIGHTING CONTROLLER PHOTOCELL RELAY	EACH	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
	US 136 / RAMP I		
81600315	UD 2# 6 XLP, 1# 6 XLPG 1" P	FOOT	985
83054100	LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT	EACH	1
X8305410	LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT, TWIN	EACH	1
83800650	BREAKAWAY DEVICE, COUPLING, SS SCREEN	EACH	8
81500200	TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	765
81020500	CONDUIT PUSHED, 2" DIA INTERMEDIATE METAL	FOOT	200
82103900	LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	3
83600355	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8" X 6'	EACH	1
83600357	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8" X 8'	EACH	1
82500605	LIGHTING CONTROLLER PHOTOCELL RELAY	EACH	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
	US 136 / RAMP J		
81600315	UD 2# 6 XLP, 1# 6 XLPG 1" P	FOOT	1,295
83054100	LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT	EACH	1
X8305410	LIGHT POLE, STEEL GALVANIZED, 45' M.H., TENON MOUNT, TWIN	EACH	1
83800650	BREAKAWAY DEVICE, COUPLING, SS SCREEN	EACH	8
81500200	TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	1,055
81020500	CONDUIT PUSHED, 2" DIA INTERMEDIATE METAL	FOOT	220
82103900	LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	3
83600355	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8" X 6'	EACH	1
83600357	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8" X 8'	EACH	1
82500605	LIGHTING CONTROLLER PHOTOCELL RELAY	EACH	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING
BILL OF MATERIALS
IL. ROUTE 336

DRAWN BY
DATE 3/30/06 CHECKED BY

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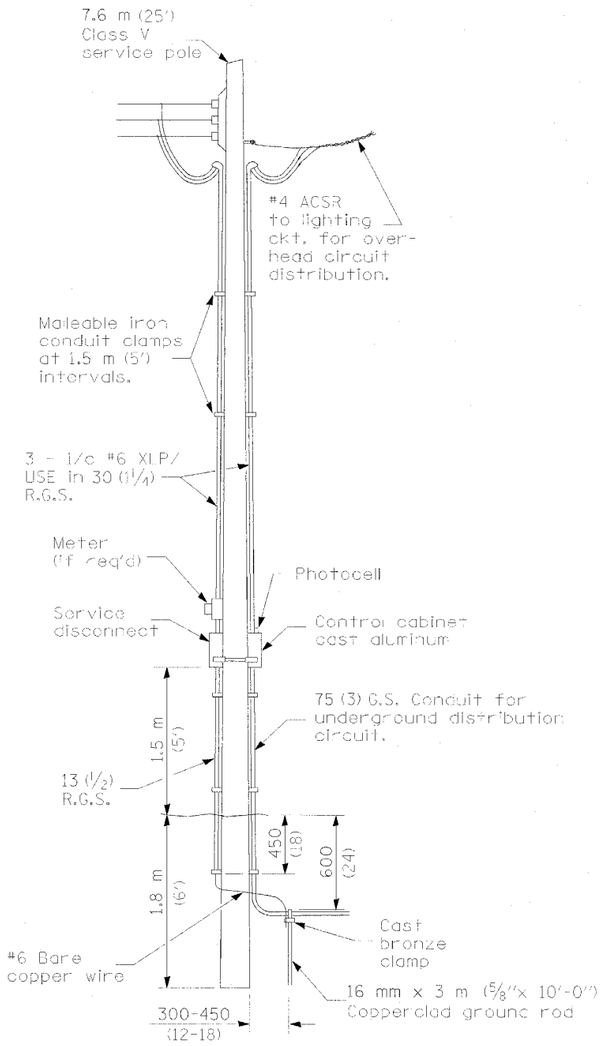
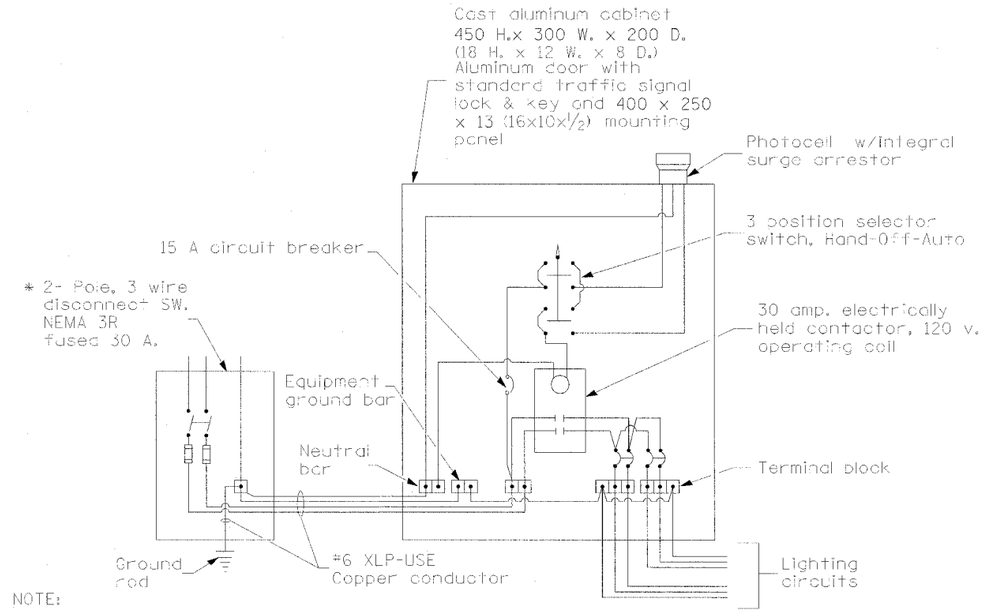
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	430
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



POLE MOUNTED CABINET



NOTE:

* The electrical control panel shall comply with UL 508.

30 A. or 60 A., dependent upon utility co. rules.

DISCONNECT SWITCH

WIRING DIAGRAM

GENERAL NOTES

The electrical control panel shall comply with UL 508.

All dimensions are in millimeters unless otherwise shown.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

LIGHTING CONTROLLER, PHOTO CELL RELAY, SERVICE POLE MOUNTED, CAST CABINET

IL. ROUTE 336

DRAWN BY

DATE 3/30/06

CHECKED BY

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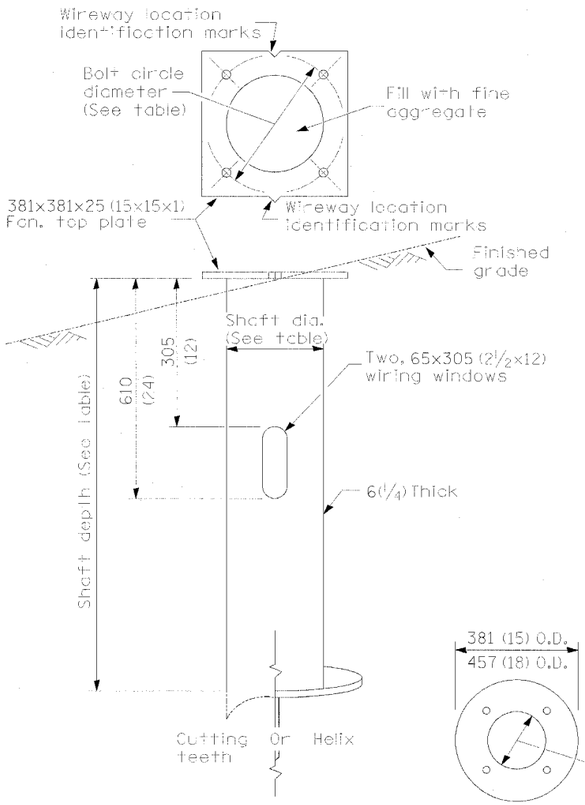
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	431
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

LIGHT POLE MOUNTING HEIGHT	BOLT CIRCLE DIAMETER	STEEL FOUNDATION SHAFT DIAMETER	STEEL FOUNDATION SHAFT DEPTH	CONCRETE FOUNDATION SHAFT DIAMETER	CONCRETE FOUNDATION SHAFT DEPTH	CONCRETE FOUNDATION ANCHOR ROD LENGTH *
≤9.1 m (30')	292 mm (11½")	220 mm (8⅝")	1.83 m (6'-0")	610mm (24")	1.52 m (5'-0")	1.45 m (4'-9")
9.4 m - 10.7 m (31'-35')	292 mm (11½")	220 mm (8⅝")	1.83 m (6'-0")	610mm (24")	1.67 m (5'-6")	1.60 m (5'-3")
10.9 m - 12.2 m (36'-40')	381 mm (15")	220 mm (8⅝")	1.83 m ** (6'-0")	610mm (24")	1.83 m (6'-0")	1.75 m (5'-9")
12.5 m - 13.7 m (41'-45')	381 mm (15")	220 mm (8⅝")	1.83 m ** (6'-0")	610mm (24")	1.98 m (6'-6")	1.90 m (6'-3")
14.0 m - 15.2 m (46'-50')	381 mm (15")	220 mm (8⅝")	2.44 m (8'-0")	610mm (24")	2.13m (7'-0")	2.00 m (6'-9")

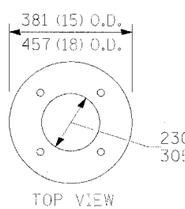
* Length does not include 100 (4) hook
** 220 mm x 2.44 m (8⅝" x 8'-0") for Twin luminaires

Notes:

All foundations are designed to be located on slopes not exceeding 2:1 where soils have an unconfined compressive strength of at least 1.0 TSF. The contractor shall verify the soil strength during drilling for concrete foundations or by monitoring installation resistance on steel foundations and notify the engineer if other conditions are encountered.



STEEL FOUNDATION



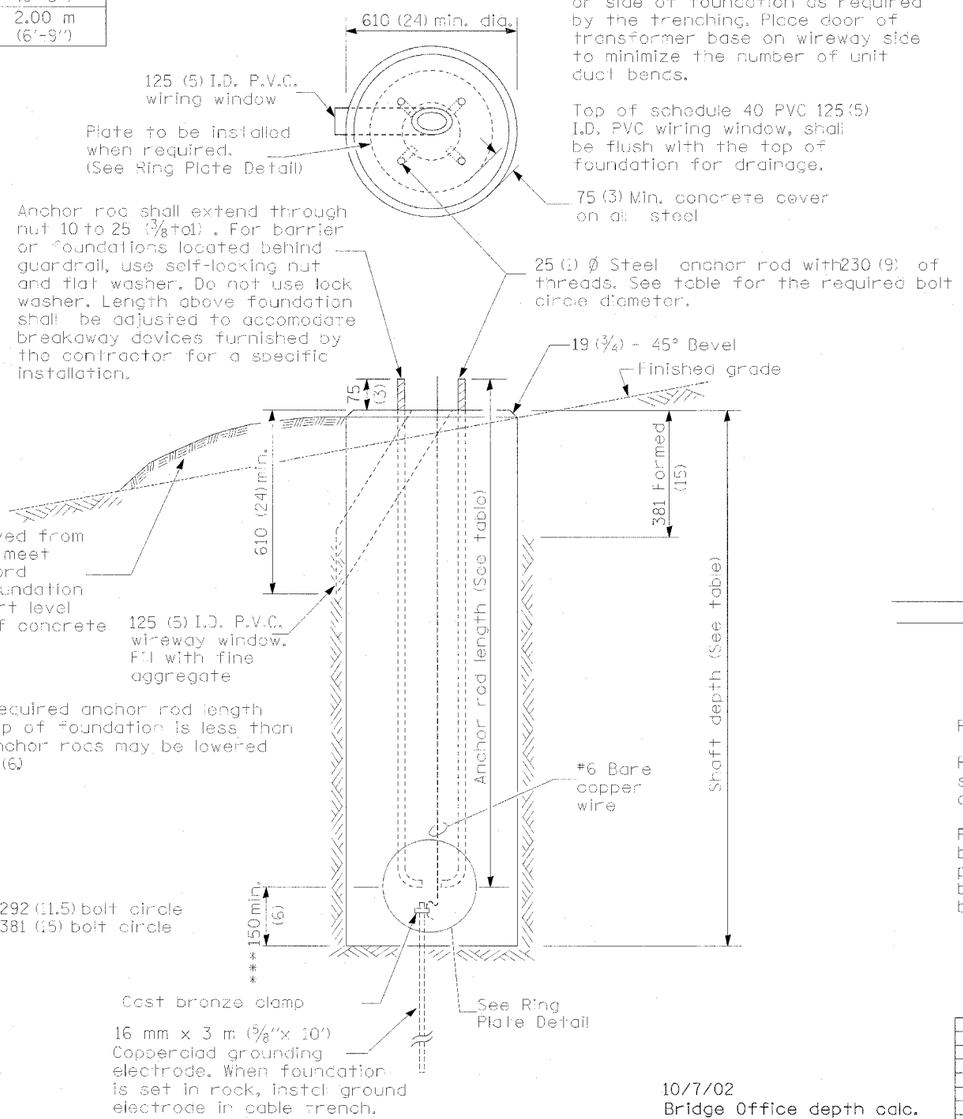
RING PLATE DETAIL

(When rock is encountered and foundation is shallower)

Notes:

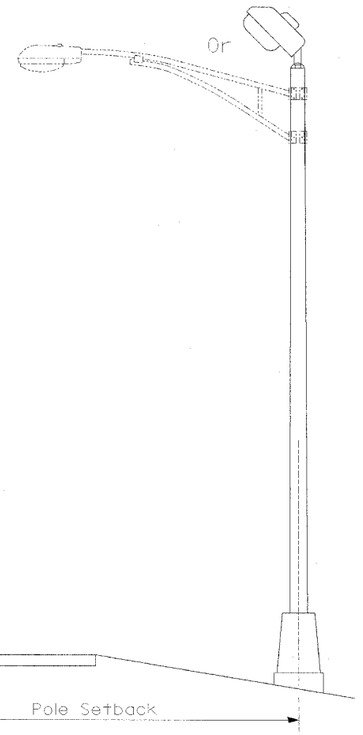
Wireway may be on front, back, or side of foundation as required by the trenching. Place door of transformer base on wireway side to minimize the number of unit duct bends.

Top of schedule 40 PVC 125 (5) I.D. PVC wiring window, shall be flush with the top of foundation for drainage.



*** If the required anchor rod length above top of foundation is less than 75 (3), anchor rods may be lowered below 150 (6).

CONCRETE FOUNDATION



Pole Foundation Setback:

For horizontal mounted luminaires, setback shall be a minimum of 6.1 m (20') from edge of pavement.

For vertical mount luminaires, setback shall be a minimum of 9 m (30') from edge of pavement. Poles shall be located 1.5 m (5') behind guardrail or other protective barriers, or as directed by the Engineer.

All dimensions are in millimeters (inches) unless otherwise shown.

10/7/02
Bridge Office depth calc.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
LIGHT POLE FOUNDATION
IL. ROUTE 336

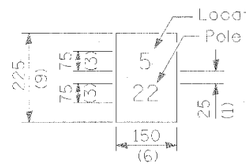
DRAWN BY
DATE 3/30/06 CHECKED BY

jgt007-636.dgn 3/30/2006 3:21:39 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	432
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

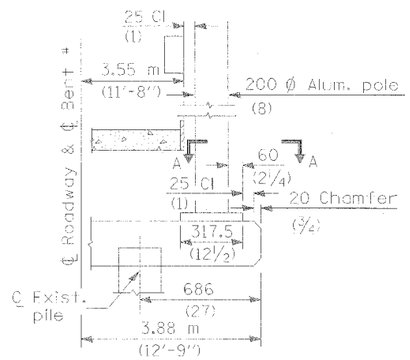
"Install and orient arm bracket over pole tenon and firmly hand tighten the two set screws. Use third hole in arm bracket as a guide to drill a 8.3 (5/16) diameter hole through tenon. Install and tighten self-tapping screw. Tighten set screws an additional (1/4 to 3/8) turn with hex key (not provided). Install locknuts on set screws if threaded projection allows."

Pole shall meet AASHTO Standard Specifications for 128.72 km (80 mph) wind loading and 40.82 kg (90 lb.), .37 m² (4.0 sq. ft.) E.P.A. luminaire.

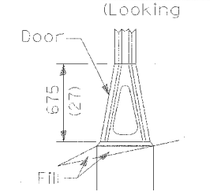


The contractor shall furnish and install a light pole identification of each new light pole, as shown above, incidental to the respective light pole bay item. The numerals shall be 75 (3) series "D", black, screened on silver-white type B pressure sensitive reflective sheeting conforming to the requirements of section 1602.01 of the Standard Specifications for Traffic Control Items. The numerals shall conform to the FHWA "Standard Alphabets for Highway Signs".

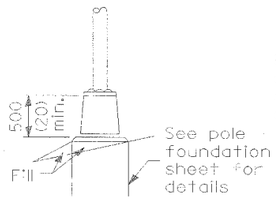
The light pole identification shall be applied to sign base material as specified in section 1085.05 of the Standard Specifications, approximatey 180 (7) above the adjacent pavement grade visible to approaching traffic in accordance with Highway Standard 2319.



BENT # (Looking)

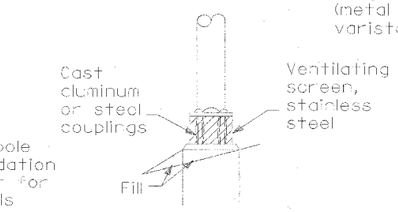


☐ STAINLESS STEEL FLAIR BASE



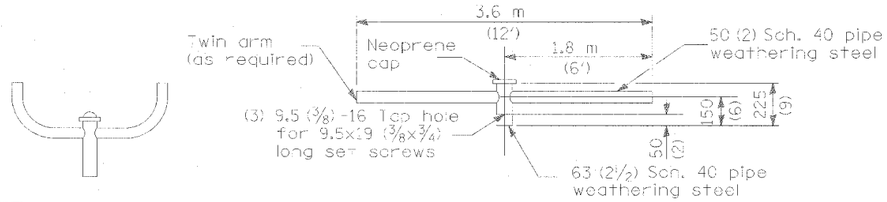
☐ TRANSFORMER BASE

☐ BRIDGE PIER MOUNT



☒ BREAKAWAY COUPLING

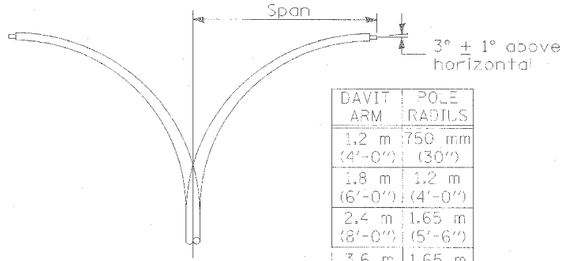
☐ FRANGIBLE



☒ TWIN TENON

☐ TENON MOUNT BRACKET ARM

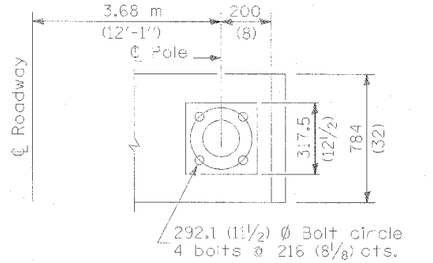
NOTE: Single or twin arm assembly shall be tilted 3° above horizontal.



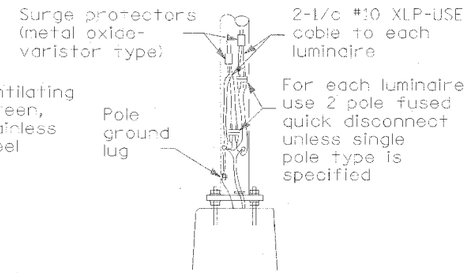
DAVIT ARM	POLE RADIUS
1.2 m (4'-0")	750 mm (30")
1.8 m (6'-0")	1.2 m (4'-0")
2.4 m (8'-0")	1.65 m (5'-6")
3.6 m (12'-0")	1.65 m (5'-6")

☐ DAVIT ARM

☐ DAVIT ARM-TWIN



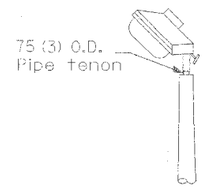
SECTION A-A



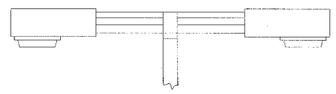
☐ ANCHOR

☒ METAL OR ☐ CONCRETE

Details for underground distribution if required

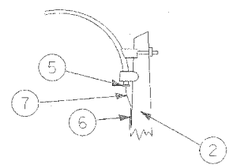


☒ TENON

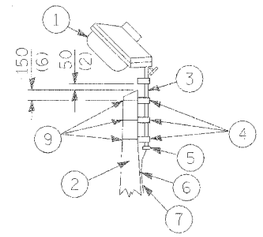


☐ SHORT BRACKET

☐ SHORT BRACKET - TWIN

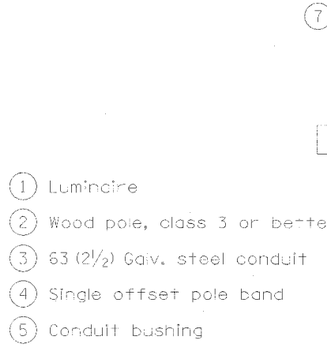


☐ MAST ARM

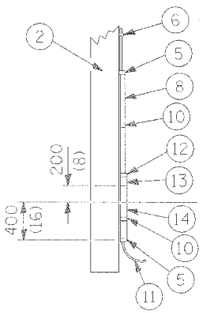


☐ TENON

1. Luminaire
2. Wood pole, class 3 or better
3. 63 (2½) Galv. steel conduit
4. Single offset pole band
5. Conduit bushing
6. Cable clamps on 600 (24) centers
7. 2/c #12 Type use cable
8. 25 (1) Galv. steel conduit 3.0 m (10') in length
9. 16 (⅝) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
10. Conduit clamps on 900 (36) centers
11. Unit duct
12. Threaded reducer
13. "C" Condulet, threaded
14. 40 (1½) Galv. steel conduit for 1 unit duct or 75 (3) galv. steel conduit for 2 or 3 unit ducts.



☐ BUTT BASE



☐ POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
19.8 m (65')	3.6 m (12')
18.0 m (60')	3.0 m (10')
16.8 m (55')	2.7 m (9')
16.0 m (50')	2.4 m (8')
13.7 m (45')	2.1 m (7')
12.0 m (40')	2.0 m (6.5')
10.7 m (35')	1.8 m (6')
9.0 m (30')	1.7 m (5.5')

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
POLE STANDARDS
IL. ROUTE 336

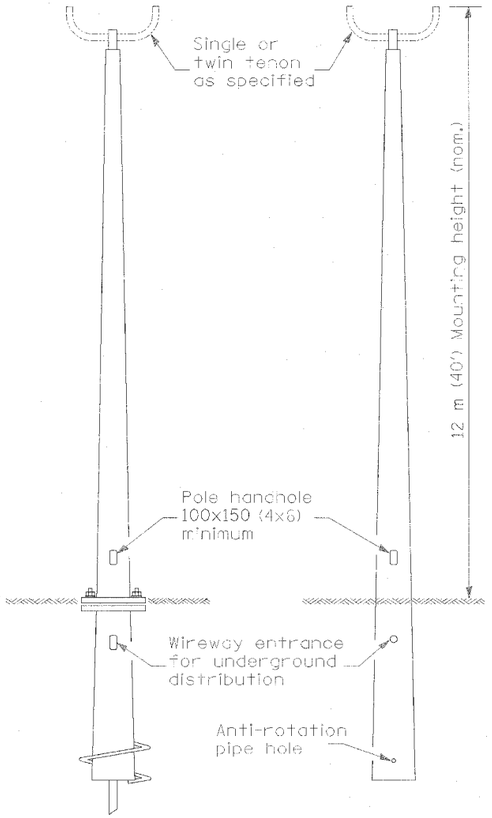
DATE 3/30/06

DRAWN BY

CHECKED BY

lgt606.dgn 3/30/2006 6:16:04 AM

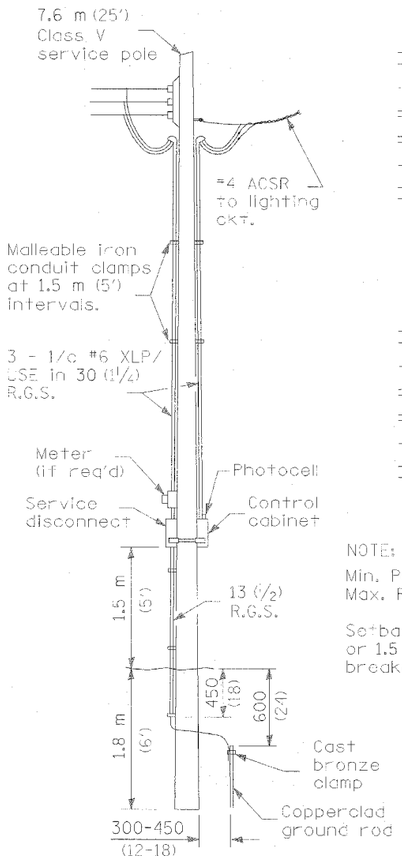
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	433
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



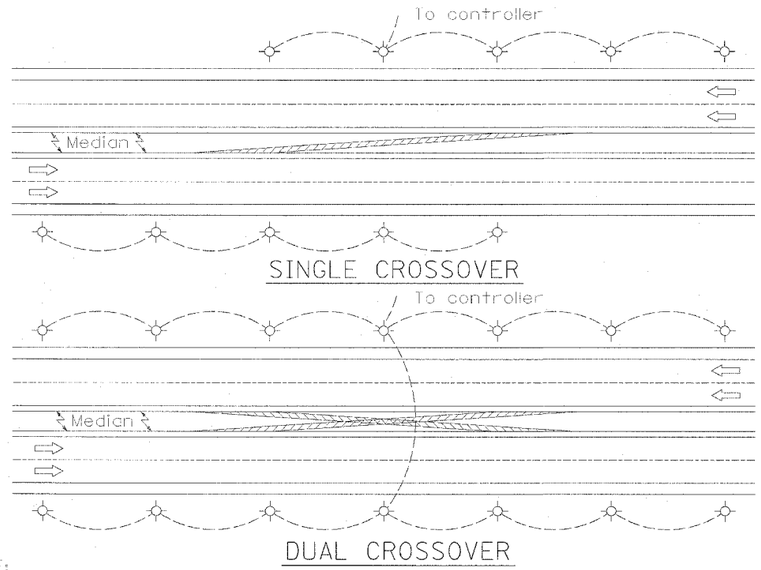
ANCHOR BASE W/ METAL FOUNDATION

BUTT BASE

POLE, FIBERGLASS BREAKAWAY TYPE



SERVICE INSTALLATION

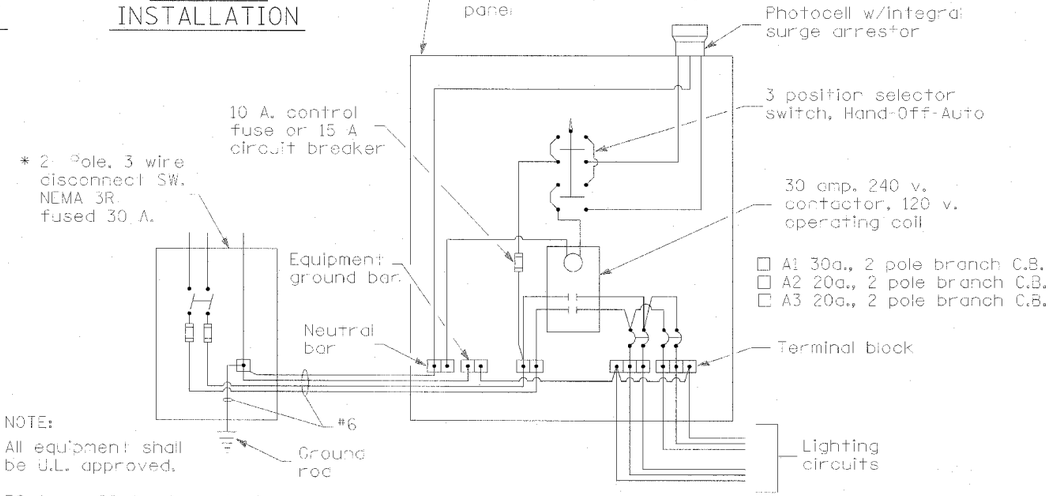


NOTE:

Min. Pole spacing 60 m (200')
Max. Pole spacing 75 m (250')

Setback shall be min. 9 m (30') or 1.5 m (5') back of ditch, unless breakaway type pole is used.

1. Luminaire 250w HPS
2. Wood pole, class 3 or better
3. 63 (2½) Galv. steel conduit
4. Single offset pole band
5. Conduit bushing
6. Cable clamps on 600 (24) centers
7. 2/c #12 Type USE cable
8. 25 (1) Galv. steel conduit 3.0 m (10') in length
9. 16 (⅝) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
10. Conduit clamps on 900 (36) centers
11. Unit duct
12. Threaded reducer
13. "C" Conduiet, threaded
14. 40 (1½) Galv. steel conduit for 1 unit duct or 75 (3) galv. steel conduit for 2 or 3 unit ducts.



NOTE:

All equipment shall be U.L. approved.

* 30 A. or 60 A., dependent upon utility co. rules.

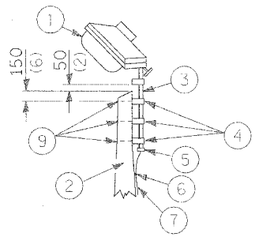
WIRING DIAGRAM

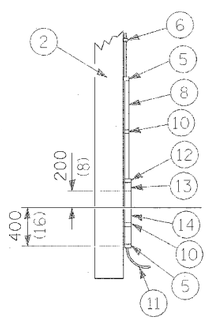
NOTE:

Luminaire(s) shall have a 2-pole inline weatherproof quick disconnect fuse holder.

Luminaire(s) shall be oriented and the mounting angle adjusted as recommended by the Engineer.

Connect luminaire equipment ground to ACSR messenger.





POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
19.8 m (65')	3.6 m (12')
18.0 m (60')	3.0 m (10')
16.8 m (55')	2.7 m (9')
16.0 m (50')	2.4 m (8')
13.7 m (45')	2.1 m (7')
12.0 m (40')	2.0 m (6.5')
10.7 m (35')	1.8 m (6')
9.0 m (30')	1.7 m (5.5')

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

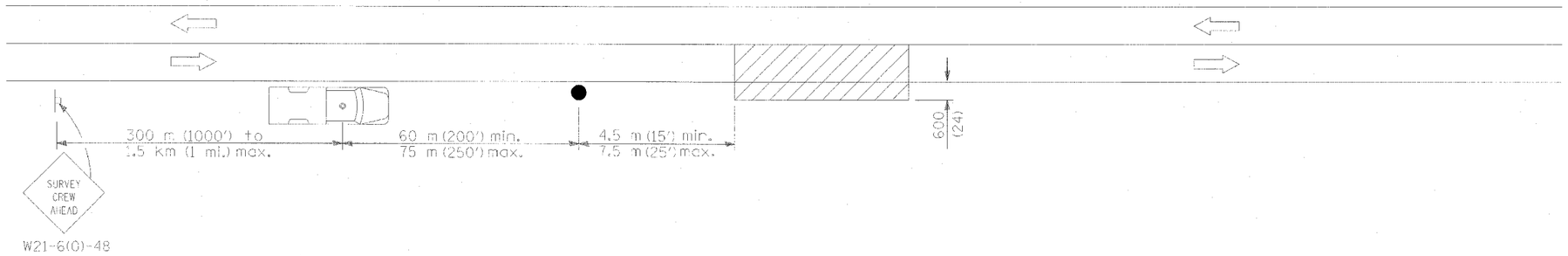
LIGHTING DETAILS
TEMPORARY ROADWAY LIGHTING
IL. ROUTE 336

DATE 3/30/06

DRAWN BY

CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	434
STA.		TO STA.		
STATE HIGHWAY DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



TYPICAL APPLICATIONS

Utility operations

SYMBOLS

Work area

Sign on portable or permanent support

Truck with flashing amber light and dual emergency flashers

Flagger with traffic control sign

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
NIGHTTIME LIGHTING INSPECTION
IL. ROUTE 336

DRAWN BY

DATE 3/30/06

CHECKED BY

lgt017.dgn 3/30/2006 6:16:06 AM

Benchmark: Chiseled "□" on W. Headwall of Box Culvert (N. End) 1.2 miles S. of Rte. 136 on 850 E
Elevation = 610.51

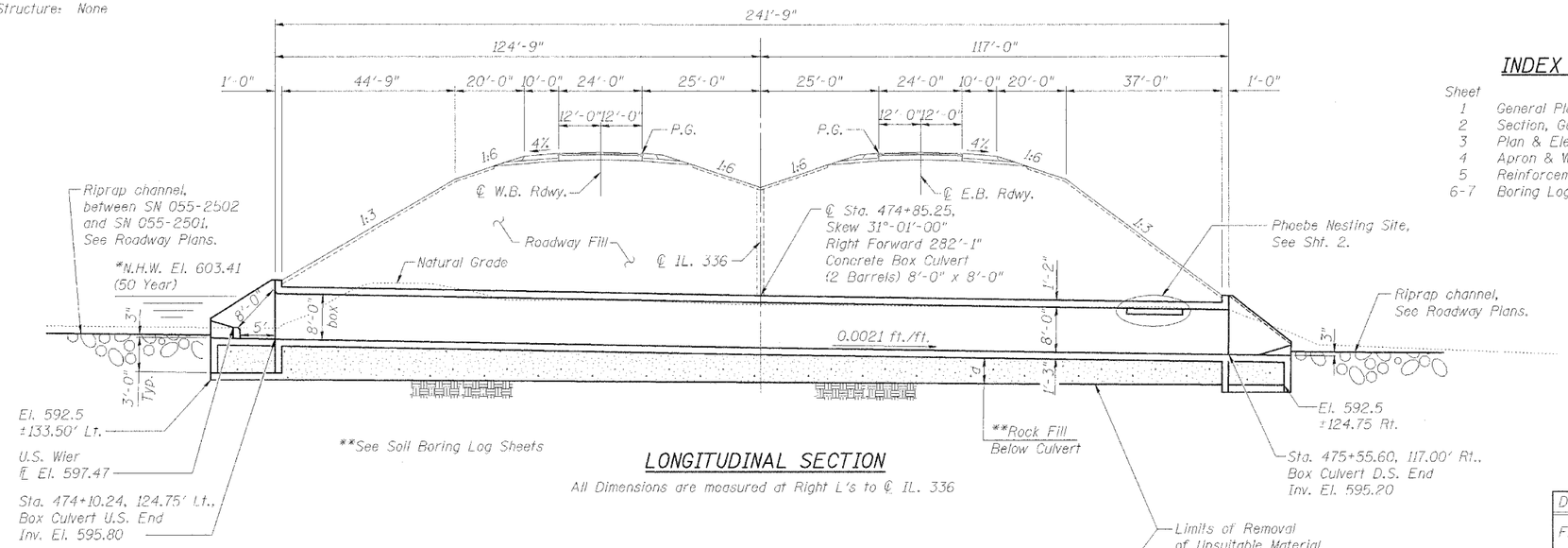
Existing Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	435
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

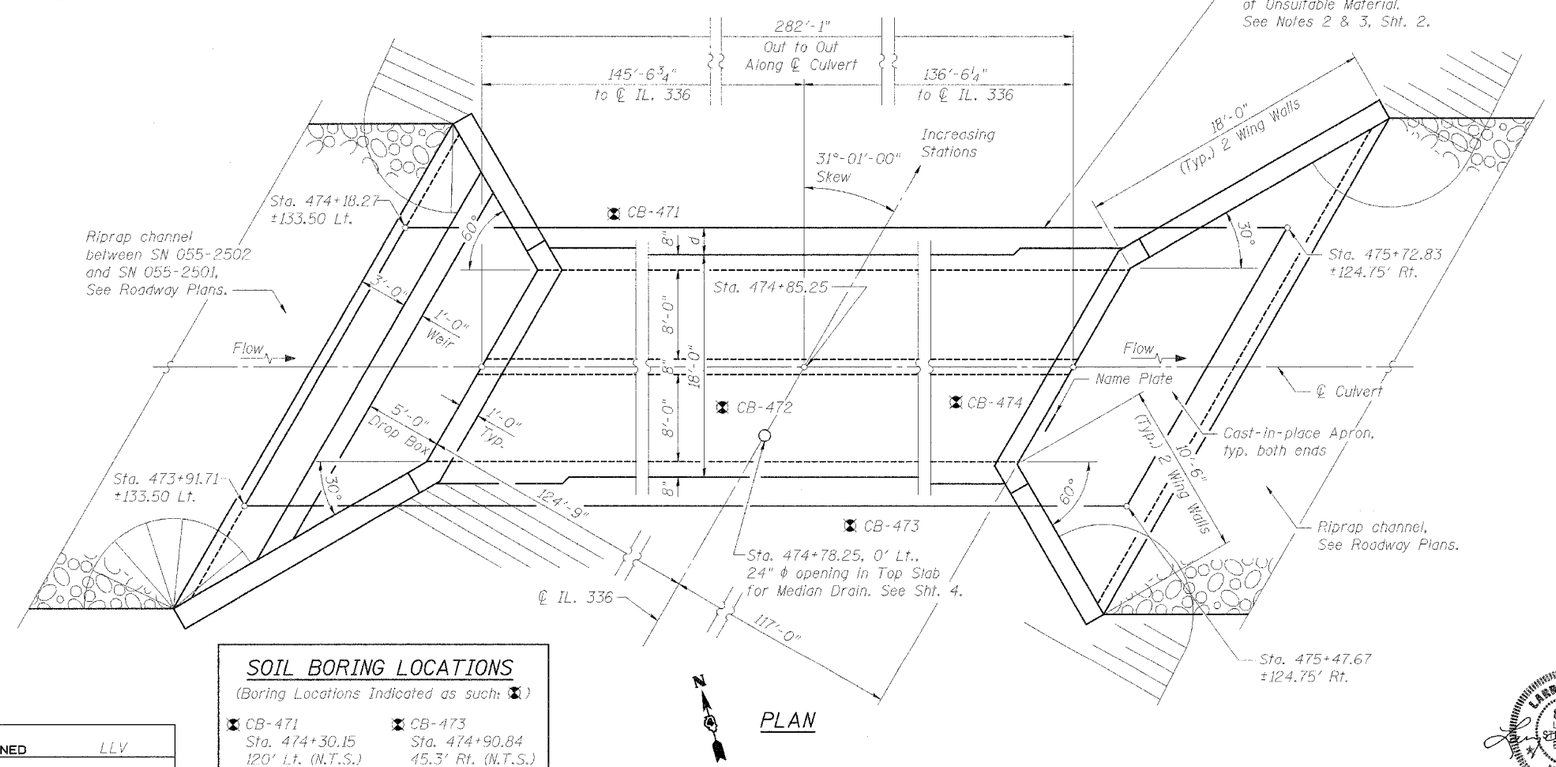
SHEET NO. 1
7 SHEETS

Contract No. 68205



LONGITUDINAL SECTION

All Dimensions are measured at Right L's to ℄ IL. 336



PLAN

INDEX OF SHEETS

SIESMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.0% g
Site Coefficient (S) = 1.0

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

WATERWAY INFORMATION

Drainage Area = 1.33 sq. mi. Low Grade Elev. 616.98 @ Sta. 479+53.10

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	*Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	857	-	128	603.41	-	0.28	-	603.69
Base	100	1007	-	128	603.60	-	0.85	-	604.45
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1218	-	128	603.86	-	1.69	-	605.55

* upstream face of culvert

SOIL BORING LOCATIONS

(Boring Locations Indicated as such: ⧓)

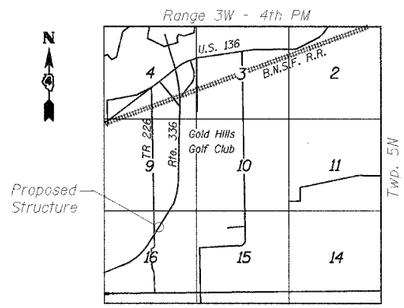
⧓ CB-471 Sta. 474+30.15 120' Lt. (N.T.S.)
⧓ CB-473 Sta. 474+90.84 45.3' Rt. (N.T.S.)
⧓ CB-472 Sta. 474+54.10 38.4' Lt. (N.T.S.)
⧓ CB-474 Sta. 475+47.27 109.3' Rt. (N.T.S.)

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

STATION 474+85.25
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 315 SEC. 55-2
LOADING HS20
STR. NO. 055-2501

NAME PLATES

(See Std. 515001)



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

LARRY L. VIELEY 81-4056 LICENSED STRUCTURAL ENGINEER OF ILLINOIS EXP. 11/06

Date: 3/30/2006

Larry L. Vieley
Illinois Licensed Structural Engineer
NO. 081-004056
License Expires: November 30, 2006

GENERAL PLAN & ELEVATION
IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 474+85.25
STRUCTURE NO. 055-2501

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	436
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	

SHEET NO. 2
7 SHEETS

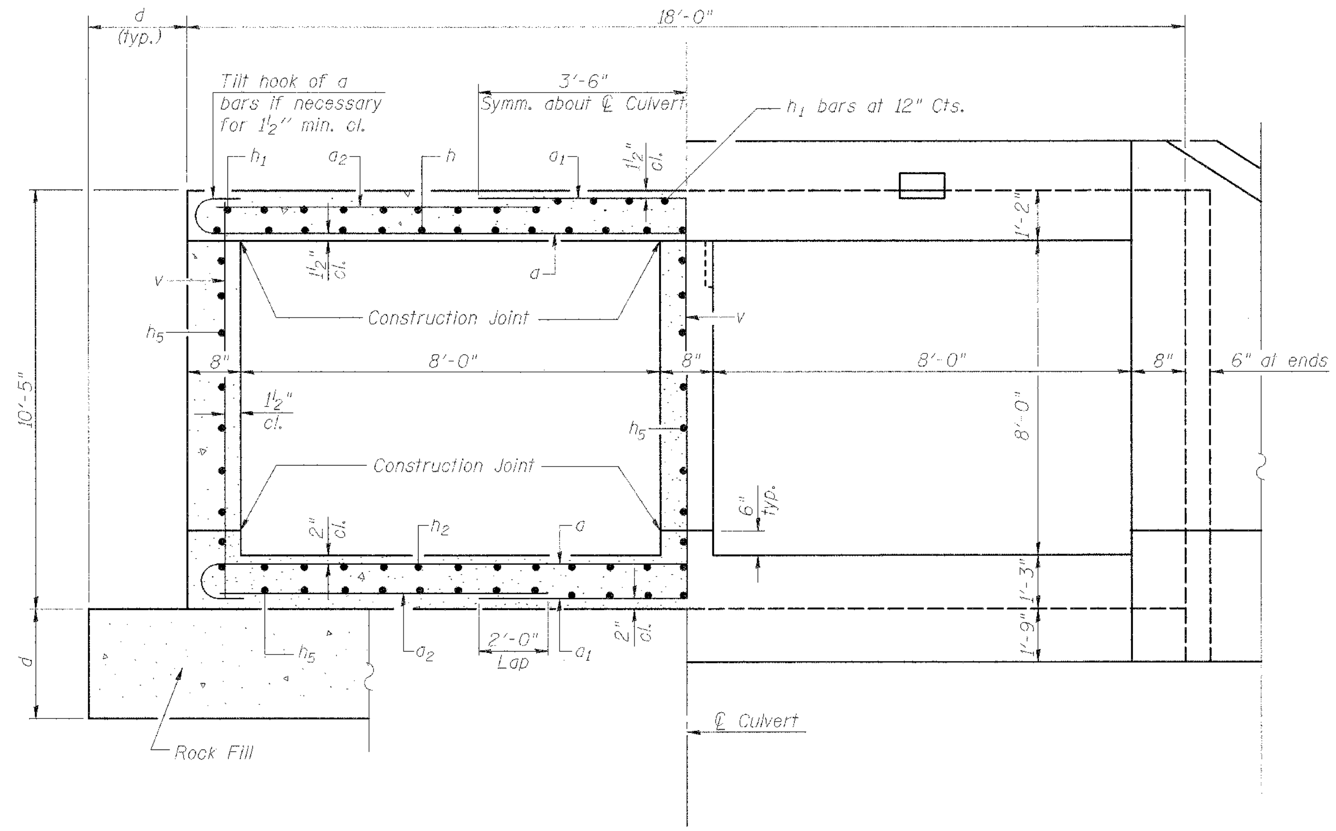
Contract No. 68205

GENERAL NOTES

1. Pre-cast alternate not allowed.
2. The limits and quantities of removal shown are based on the boring data and may be modified by the District Geotechnical Engineer and field engineers for variable subsurface conditions encountered in the field.
3. Contact District Geotechnical Engineer so a dynamic cone penetration test can be performed to determine actual limits of excavation of unsuitable material in the field.
4. All construction joints shall be bonded.
5. Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
6. For backfilling and embankment, see Standard Specifications.
7. Exposed edges shall be beveled ¾" unless otherwise noted.

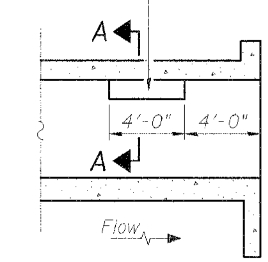
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	690.5
Reinforcement Bars	Pound	122,940
Rock Fill Foundation	Cu. Yd.	415
Removal & Disposal of Unsuitable Material	Cu. Yd.	421

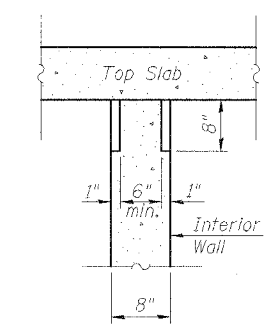


HALF SECTION THRU BARREL

HALF END ELEVATION

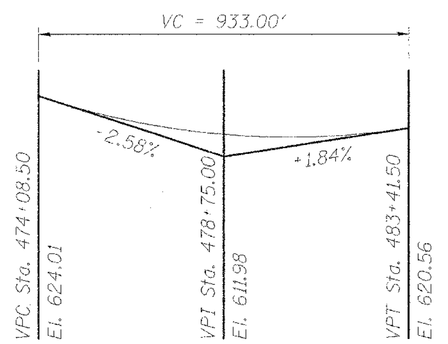


LONGITUDINAL SECTION



SECTION A-A

PHOEBE NESTING SITE DETAILS
(Downstream End Only)



PROFILE GRADE

Notes:

1. A distance of half the length of the wingwall but not less than seven feet of the barrel shall be poured monolithically with the wingwalls.
2. Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of #5 bars with 4 lengths per line.

BOX CULVERT DESIGN CRITERIA

f Min. / f Max. (Feet)	Design Fill Height (F) (Feet)	AASHTO Designation
f Min. ≥ 4'	18'	M259I

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

SECTION, GENERAL NOTES &
TOTAL BILL OF MATERIAL
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 474+85.25
STRUCTURE NO. 055-2501

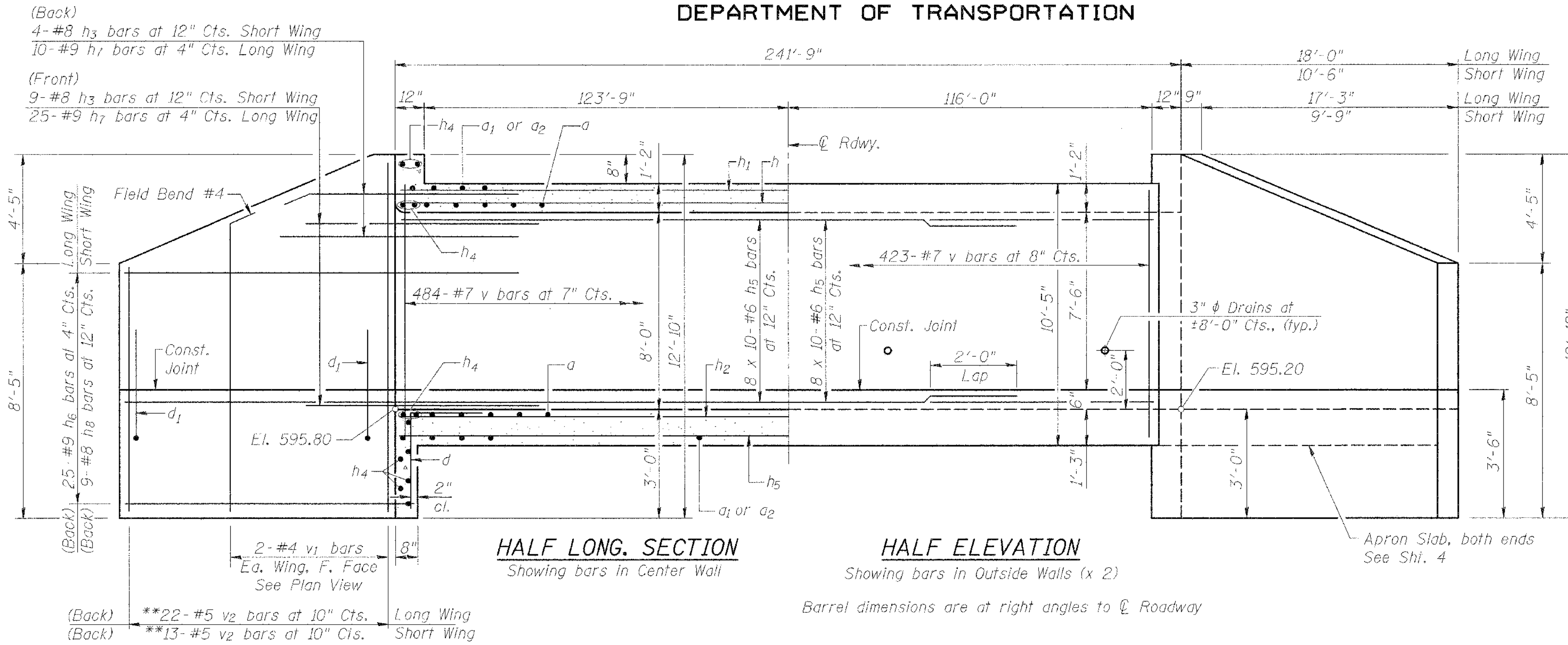
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

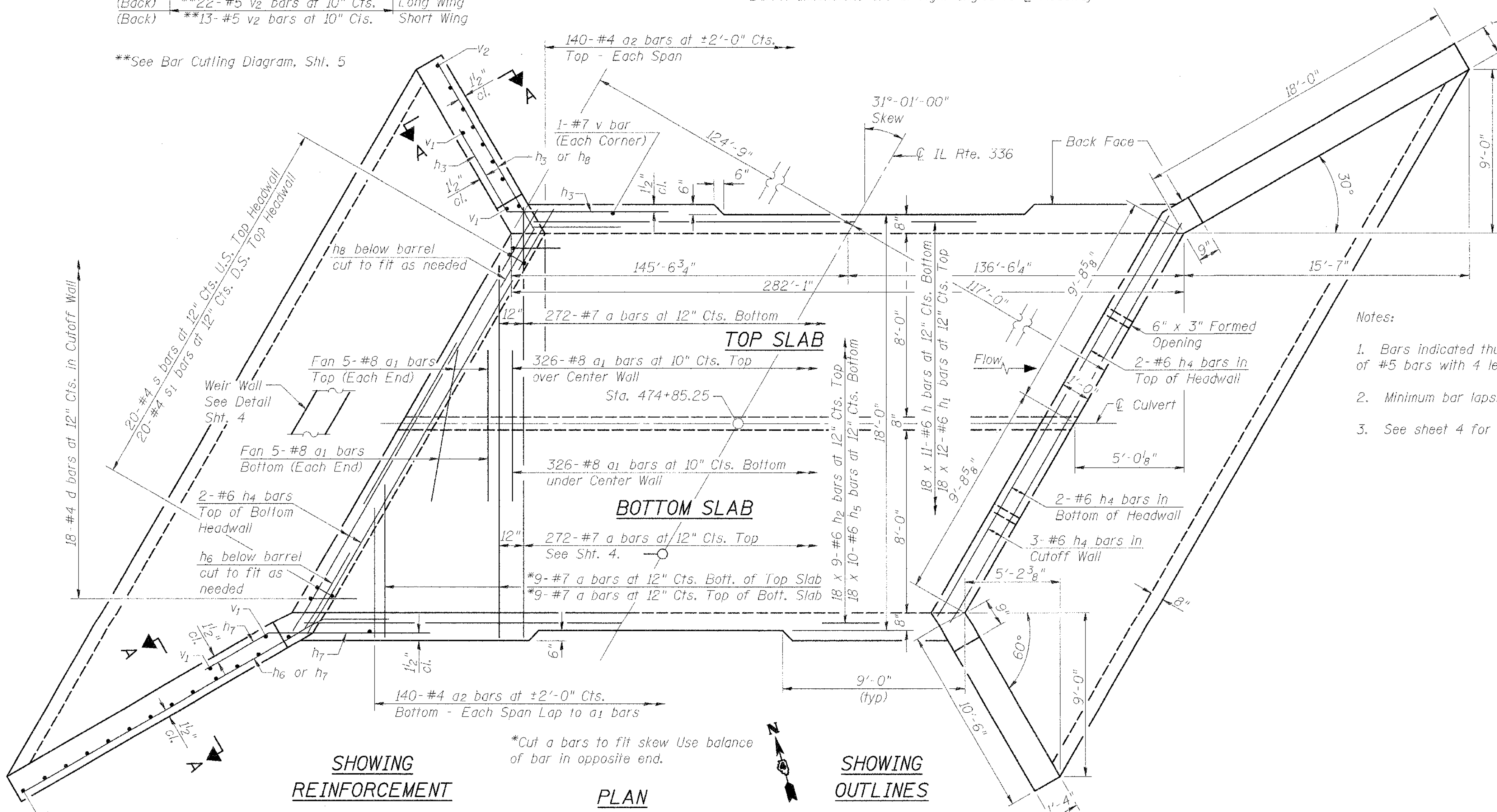
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	437
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

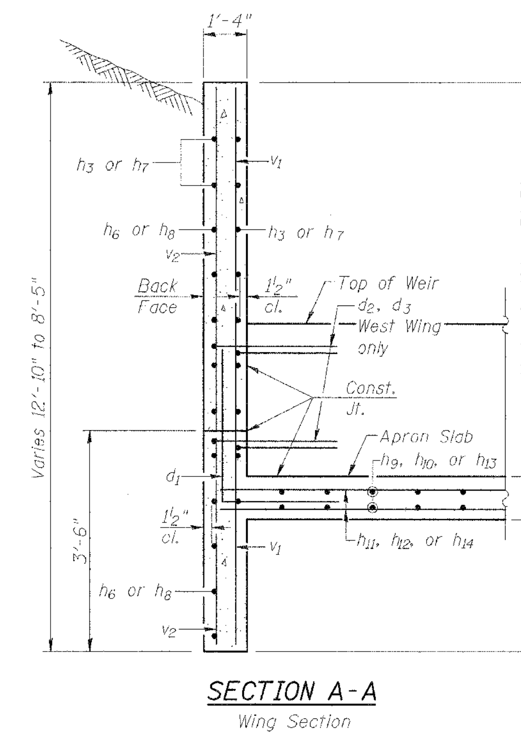
SHEET NO. 3
7 SHEETS

Contract No. 68205

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION







Notes:

1. Bars indicated thus: 12 x 4 - #5 etc. indicates 12 lines of #5 bars with 4 lengths per line.
2. Minimum bar laps: #6 bars = 2'-0"
3. See sheet 4 for extra reinforcement at 24"ϕ opening.

PLAN & ELEVATION
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 474+85.25
STRUCTURE NO. 055-2501

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

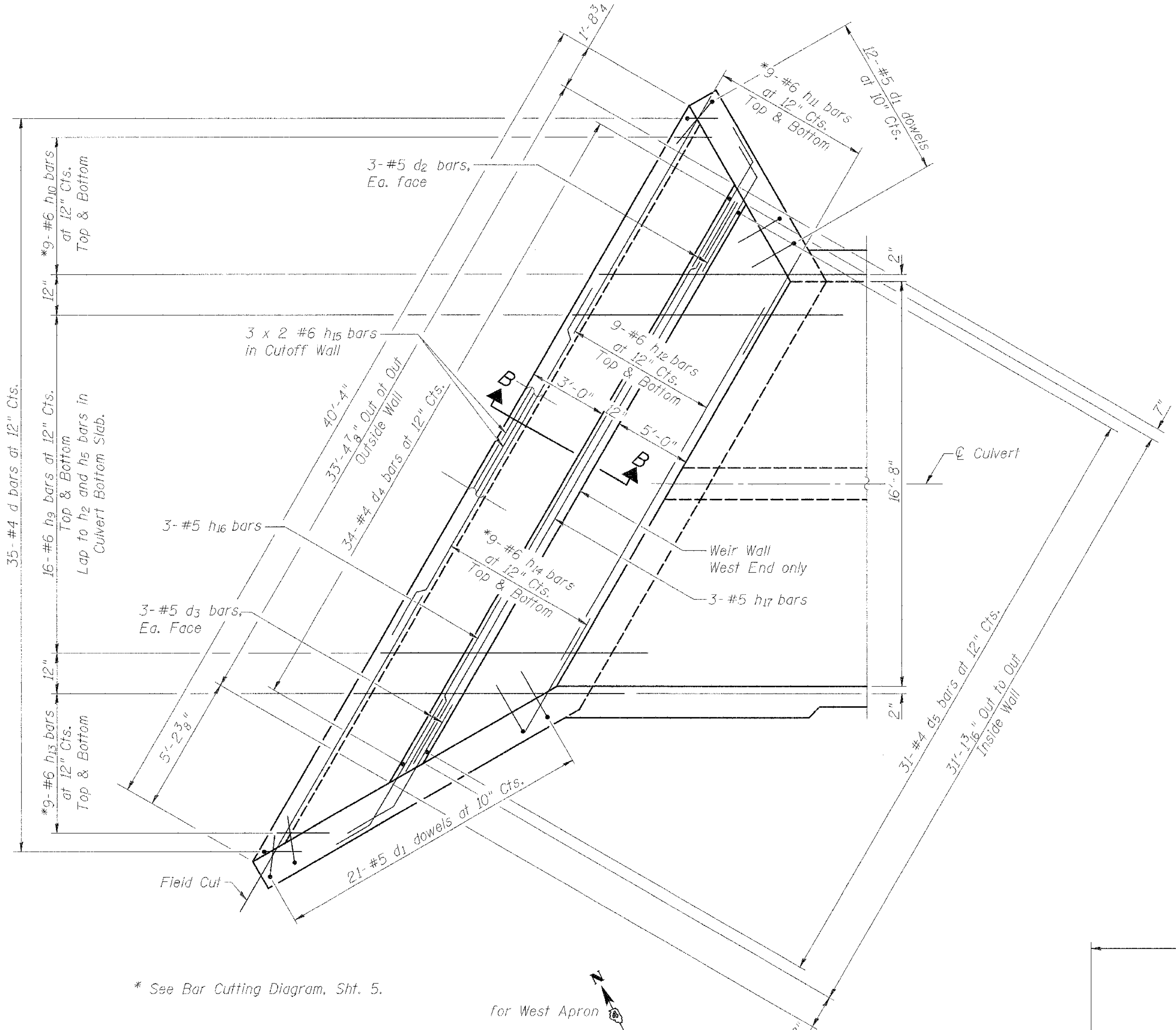
DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	438
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT-		

SHEET NO. 4
7 SHEETS

Contract No. 68205

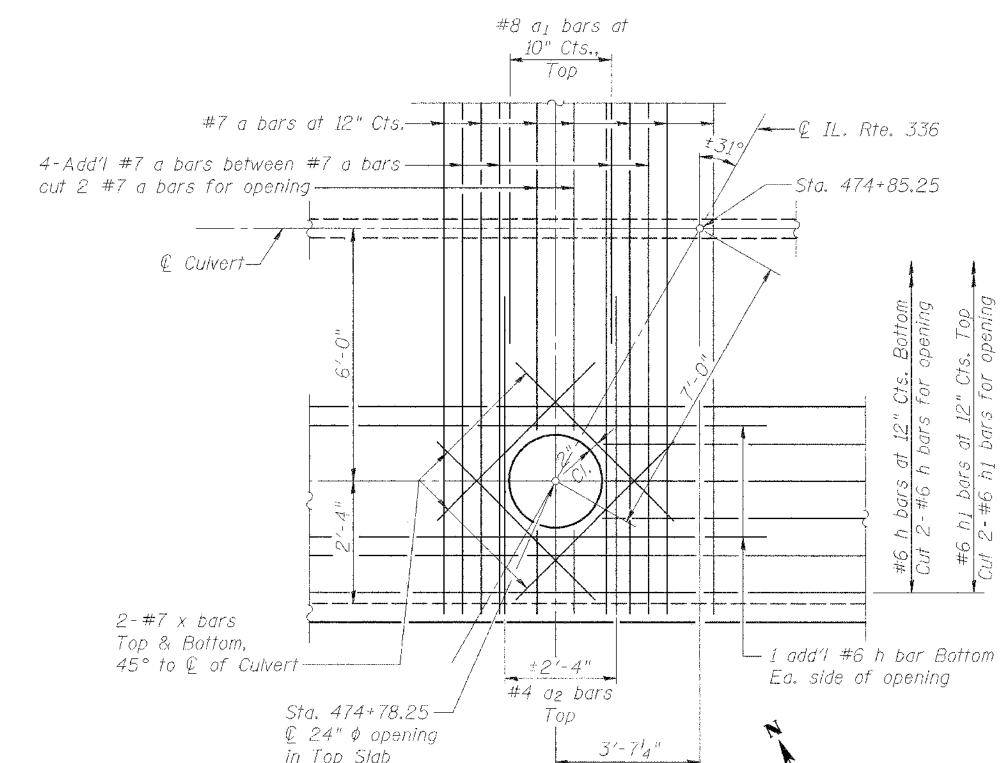


* See Bar Cutting Diagram, Sht. 5.

for West Apron

for East Apron

APRON SLAB AND WEIR WALL DETAIL
West Apron Shown

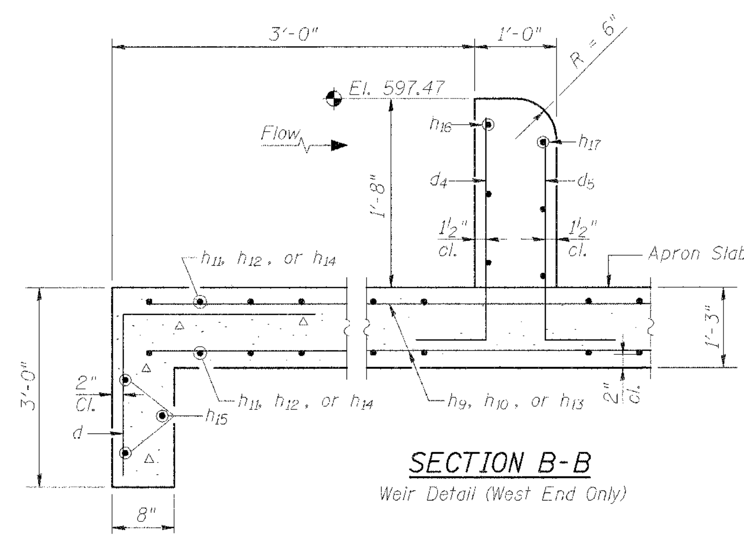


PARTIAL PLAN TOP SLAB
At 24" ϕ Opening

Notes:

1. Bars indicated thus: 12 x 4 -#5 etc. indicates 12 lines of #5 bars with 4 lengths per line.

2. Minimum Bar Laps: #6 bars = 2'-0"



SECTION B-B
Weir Detail (West End Only)

APRON & WEIR WALL DETAILS
IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 474+85.25
STRUCTURE NO. 055-2501

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

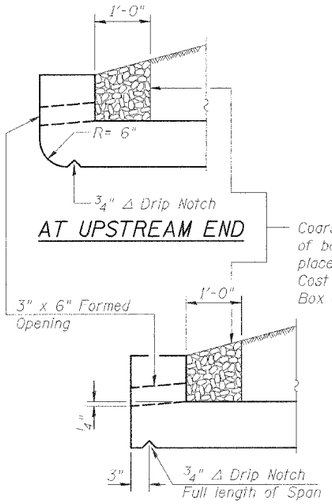
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	439
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5
7 SHEETS

Contract No. 68205



AT UPSTREAM END

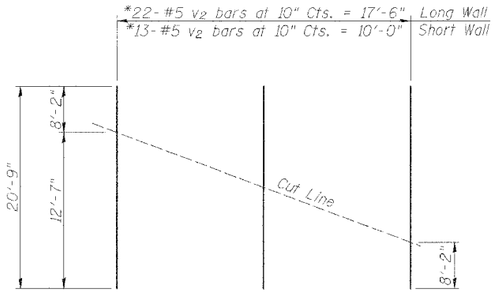
Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.

AT DOWNSTREAM END

DRAIN DETAIL

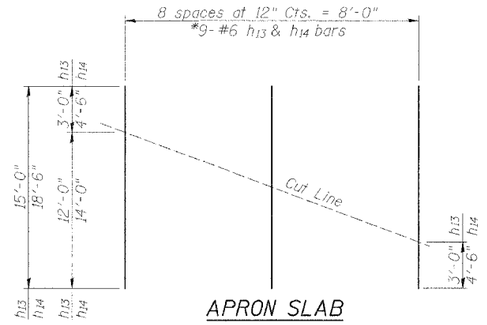
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	566	#7	19'-4"	
a_1	672	#8	7'-0"	
a_2	560	#4	7'-4"	
d	106	#4	4'-6"	
d_1	70	#5	6'-0"	
d_2	6	#5	5'-5"	
d_3	6	#5	6'-5"	
d_4	34	#4	4'-6"	
d_5	31	#4	4'-2"	
h	200	#6	27'-5"	
h_1	216	#6	25'-4"	
h_2	162	#6	33'-1"	
h_3	26	#8	8'-0"	
h_4	18	#6	20'-8"	
h_5	420	#6	30'-0"	
h_6	50	#9	22'-6"	
h_7	70	#9	8'-0"	
h_8	18	#8	13'-10"	
h_9	64	#6	12'-3"	
h_{10}	18	#6	13'-2"	
h_{11}	18	#6	16'-9"	
h_{12}	36	#6	19'-6"	
h_{13}	18	#6	15'-0"	
h_{14}	18	#6	18'-6"	
h_{15}	12	#6	21'-3"	
h_{16}	3	#5	32'-8"	
h_{17}	3	#5	31'-2"	
v	1,334	#7	10'-2"	
v_1	8	#4	12'-6"	
v_2	35	#5	20'-9"	
s	20	#4	4'-11"	
s_1	20	#4	5'-5"	
x	8	#7	6'-0"	
Concrete Box Culverts			Cu. Yd.	690.5
Rock Fill Foundation			Cu. Yd.	415
Reinforcement Bars			Pound	122,940



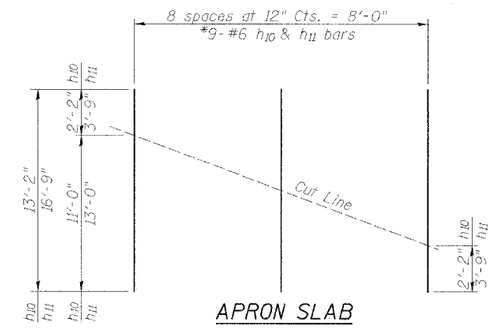
VERTICAL WING WALL REINFORCEMENT

*Order v_2 bars full length. Cut as shown. Use remainder of bars in similar wing.



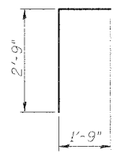
APRON SLAB REINFORCEMENT
Two thus at Long Wing

*Order h_{13} and h_{14} bars full length. Cut as shown. Use remainder of bars in opposite face of slab.

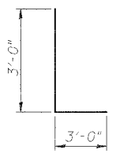


APRON SLAB REINFORCEMENT
Two thus at Short Wing

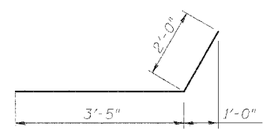
*Order h_{10} and h_{11} bars full length. Cut as shown. Use remainder of bars in opposite face of slab.



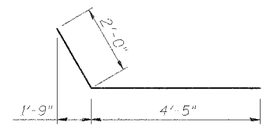
BAR d



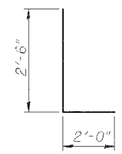
BAR d_1



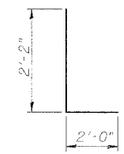
BAR d_2



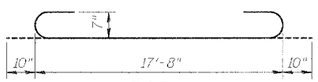
BAR d_3



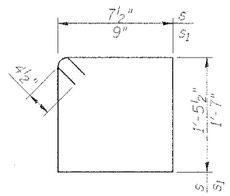
BAR d_4



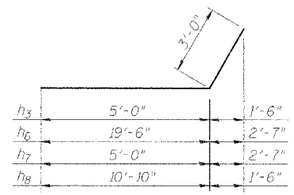
BAR d_5



BAR a



BARS s & s_1



BARS h_3, h_6, h_7, & h_8

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

REINFORCEMENT BARS
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 474+85.25
STRUCTURE NO. 055-2501

STS CONSULTANTS
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IL Design Firm Reg. No. 184-001518

** *Special soil treatment involves controlled settlement and consolidation beneath culvert to achieve soil bearing capacity as roadway embankment is placed. See Claude H. Hurley soils report dated December 31, 2001; revised November 25, 2003 for details. Plan as shown incorporates BBS recommendations for soil removal and replacement.*

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	440
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 6
7 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D
BORING NO. CB-471
PROJECT: FAP 315 (IL 336) SECTION 24, 31, 32 — IDOT JOB NO. P-94-011-98
LOCATION: CULVERT (STRUCTURE) 14+467.5 (STATION) 36.3mL (OFFSET) — MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR: WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-28-00 COMPLETED 3-28-00 SURFACE ELEVATION 183.69
DRILLED BY: R. HOWARD
LOGGED BY: D. ANDERSON

Elev	Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	DK BR SILTY CLAY LOAM, A-6 W/ FIBERS	AU	-	23	-
183.39	DK BR & RD BR TO BLK & RD BR SILTY LOAM, A-4	2 2 4	135	22	-
		1 1 1	65	29	-
182.32	RD BR & GR SILTY CLAY LOAM, A-6		-	21	-
182.01	BR SANDY LOAM, A-2-4	2 2	-	17	-
181.56	BR & GR SILTY LOAM, A-4	1	-	22	-
181.25	BR & GR SILTY CLAY LOAM, A-6	4 5 7	115	26	-
180.49	RD BR & GR CLAY, A-6	2 3 5	170	22	-
		4 4 8	305	20	-
178.97	BL GR SILTY CLAY, A-7-6	2 5 8	515	22	-
178.20	GR SILTSTONE	12 50 96	-	11	-
			-	9	-
177.44	GR SANDY SHALE	16 32 48	-	10	-
176.68					
	DK GR & RD BR CLAY SHALE	22 48 60	-	11	-
			-	22	-
176.19	BLK COAL				
175.92	BLK COAL SHALE	100/0.08m	-	17	-
175.46	GR CLAY SHALE	NX	REC RQD	= =	100% 100%
		NX	REC RQD	= =	100% 100%
173.17	END OF BORING				

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-28	1.7	-
AAR	3-28	1.6	0h
	3-31	1.5	3d

DRILLING METHOD

RIG TYPE: CME-850
AUGER TYPE-DEPTH: 0.18m HSA-8.7m NX-8.7-10.5m
CASING TYPE-DEPTH: -
SAMPLER TYPE: AU-SS-NX

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D
BORING NO. CB-472
PROJECT: FAP 315 (IL 336) SECTION 24, 31, 32 — IDOT JOB NO. P-94-011-98
LOCATION: CULVERT (STRUCTURE) 14+474.8 (STATION) 11.7mL (OFFSET) — MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR: WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-24-00 COMPLETED 3-24-00 SURFACE ELEVATION 183.62
DRILLED BY: R. HOWARD
LOGGED BY: D. ANDERSON

Elev	Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	DK BR SILTY CLAY LOAM, A-6 W/ FIBERS	AU	-	28	-
183.32	DK BR & RD BR TO BLK & RD BR SILTY LOAM, A-4	2 2 4	170	25	-
		1 3	65	29	-
182.40	BR & GR SAND, A-2-4	1 1	-	23	-
		1 1 1	-	20	-
		4 3 5	-	19	-
180.42	BR, RD BR & GR SILTY CLAY LOAM, A-6	2 5 6	260	19	-
		7 10 7	315	19	-
		8	270	19	-
178.56	DK GR CLAY SHALE	11 24	450	12	-
		8 22 35	400	9	-
177.37	GR SANDY SHALE	22 58 120	-	9	-
176.61					
	DK GR & RD BR CLAY SHALE	8 30 46	-	20	-
			-	19	-
176.15	BLK COAL	100/0.11m	-	15	-
175.24	GR SANDSTONE	100/0.02m	-	14	-
		100/0.02m	-	12	-
173.68	END OF BORING				

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-24	4.0	-
AAR	3-24	2.3	0h
	3-27	1.5	3d

DRILLING METHOD

RIG TYPE: CME-850
AUGER TYPE-DEPTH: 0.18m HSA-9.9m
CASING TYPE-DEPTH: -
SAMPLER TYPE: AU-SS

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

BORING LOGS
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 474+85.25
STRUCTURE NO. 055-2501

STS CONSULTANTS
111 NE Jefferson Ave.
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** Special soil treatment involves controlled settlement and consolidation beneath culvert to achieve soil bearing capacity as roadway embankment is placed. See Claude H. Hurley soils report dated December 31, 2001; revised November 25, 2003 for details. Plan as shown incorporates BBS recommendations for soil removal and replacement.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	441
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 7
7 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D BORING NO. CB-473
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 14+486.0 (STATION) 13.8mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-24-00 COMPLETED 3-24-00 SURFACE ELEVATION 183.58
DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-24	1.4	-
AAR	3-24	1.8	0h
	3-27	1.8	3d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-8.8-10.6m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev / CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
DK BR TO DK GR SILTY LOAM, A-6 W/ FIBERS	AU	-	28	-
183.28 DK BR & RD BR TO BLK & RD BR SILTY LOAM, A-4	2 2 4	135	25	-
	1 1 1	55	31	-
182.21 BR & GR SAND, A-2-4		-	27	-
181.90 GR & RD BR SILTY LOAM, A-4	0 1 2	-	24	-
181.45 RD BR & GR SAND, A-2-4		-	23	-
	0 1 3	-	20	-
180.84 RD BR & GR SILTY CLAY LOAM, A-6		120	26	-
	2 2 3	180	23	-
	2 5 8	135	23	-
179.16 BR SAND, A-1-b		-	20	-
178.86 DK GR TO GRN GR SILTY CLAY LOAM, A-6	2 2 3	115	30	-
	2 2 4	115	31	-
	2 3 5	.85	28	-
176.87 BR, RD BR & GR SILTY CLAY, A-7-6		165	27	-
176.57				
DK BR & DK GR SILTY CLAY, A-7-6	3 8	155	22	-
176.11 GR CLAY SHALE	12	-	6	-
175.81 DK GR CLAY SHALE	34 48 100/0.08m	-	12	-
175.56 BLK COAL		-	18	-
175.06 DK GR CLAY SHALE	100/0.13m	-	14	-
174.34 GR SANDSTONE	100/0.02m	-	14	-
173.61 DK GR & BR CLAY SHALE	108 100/0.04m	-	10	-
173.00 END OF BORING				

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D BORING NO. CB-474
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 14+503.2 (STATION) 33.3mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-28-00 COMPLETED 3-28-00 SURFACE ELEVATION 183.18
DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-28	2.0	-
AAR	3-28	2.0	0h
	3-30	1.8	2d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18 HSA-10.1m NX-10.1-11.9m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS-NX

Elev / CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
DK BR SILTY CLAY LOAM, A-6 W/ FIBERS	AU	-	23	-
182.88 DK BR & RD BR TO BLK & RD BR SILTY LOAM, A-4	4 3 5	165	23	-
	2 1 3	65	31	-
	2 1 1	50	23	-
181.14 BR & GR SAND, A-2-4		-	25	-
180.74 RD BR & GR SANDY LOAM, A-2-4	2 2 2	-	17	-
180.22 RD BR & GR SILTY CLAY LOAM, A-6		125	31	-
	1 2 4	65	27	-
	1 2 4	105	27	-
	1 2 3	55	28	-
177.69 DK GR TO GRN GR SILTY CLAY LOAM, A-6	1 2 3	75	29	-
	0 1 1	40	26	-
176.17				
GR SAND, A-2-4	0 2 2	-	27	-
	1 3 4	-	19	-
175.10 GR SILTY CLAY, A-7-6		55	35	-
174.65 DK GR CLAY SHALE	11 7 21	-	15	-
173.88 BLK COAL	100/0.11m	-	17	-
	NX	REC RQD	= =	100% 0%
173.00 DK GR COAL SHALE	NX	REC RQD	= =	100% 100%
172.57 DK GR & BR CLAY SHALE	NX	REC RQD	= =	100% 100%
171.29 END OF BORING				

BORING LOGS
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 474+85.25
STRUCTURE NO. 055-2501

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

STS CONSULTANTS
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Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	442
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

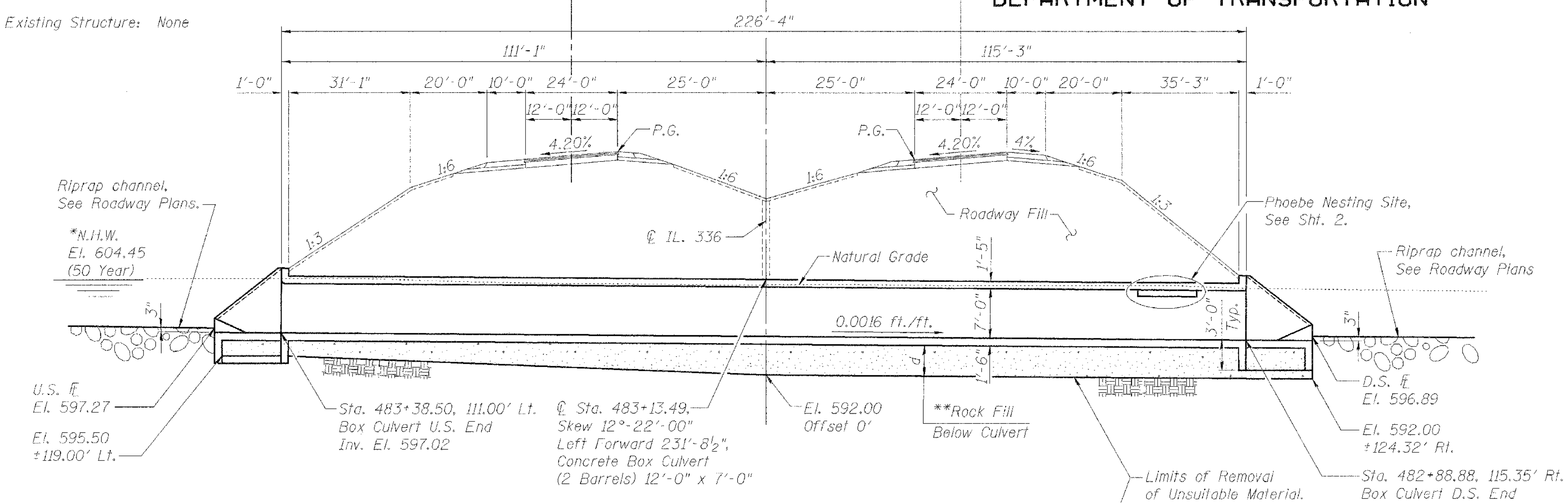
SHEET NO. 1
7 SHEETS

Contract No. 68205

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Benchmark: Chiseled "□" on W. Headwall of Box Culvert (N. End) 1.2 miles S. of Rte. 136 on 850 E
Elevation = 610.51

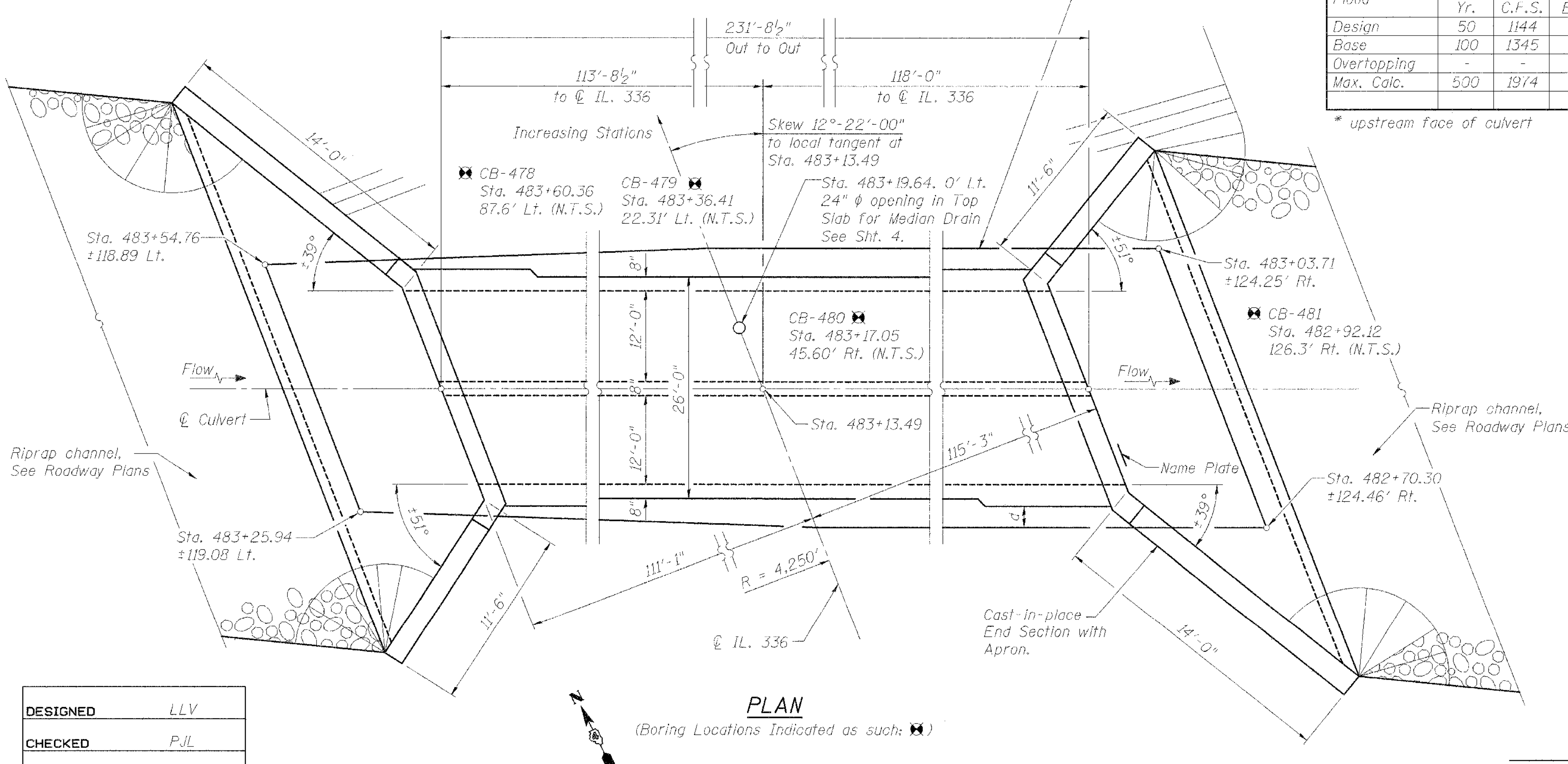
Existing Structure: None



**See Soil Boring Log Sheets

LONGITUDINAL SECTION

(Looking North)
Roadway and Fill Dimensions are at Right ∟'s to Roadway



PLAN

(Boring Locations Indicated as such: ⧓)

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

INDEX OF SHEETS

WATERWAY INFORMATION

Drainage Area = 1.90 sq. mi. Low Grade Elev. 616.98 @ Sta. 479+53.10									
Flood	Freq.	Q	Opening Sq. Ft.		*Nat.	Head - Ft.		Headwater El.	
	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	50	1144	-	168	604.45	-	-0.24	-	604.21
Base	100	1345	-	168	604.16	-	0.98	-	605.14
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1974	-	168	604.50	-	3.07	-	607.57

* upstream face of culvert

STATION 483+13.49
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 315 SEC. 55-2
LOADING HS20
STR. NO. 055 2503

NAME PLATES

(See Std. 515001)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.0% g
Site Coefficient (S) = 1.0

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

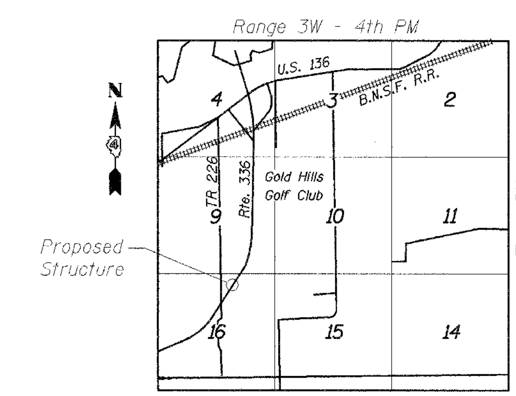
2002 AASHTO

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

Δ = 32°-22'-09.34" (LT)
R = 4,250'
D = 1°-20'-53.29"
T = 1,233.50'
L = 2,401.04'
E = 175.38'
Trans. In = Sta. 477+55.00 to Sta. 481+80.00
Trans. Out = Sta. 502+95.00 to Sta. 507+20.00
S.E. = 4.20%
P.C. Sta. = 480+37.41
P.T. Sta. = 504+38.45
P.I. Sta. = 492+70.91

IL 336 PROPOSED CURVE DATA



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

LARRY L. VIELEY 81-4056 LICENSED STRUCTURAL ENGINEER OF ILLINOIS
Exp. 11/06

Date: 3/30/2006

Larry L. Vieley
Illinois Licensed Structural Engineer
NO. 081-004056
License Expires: November 30, 2006

GENERAL PLAN & ELEVATION
IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 483+13.49
STRUCTURE NO. 055-2503

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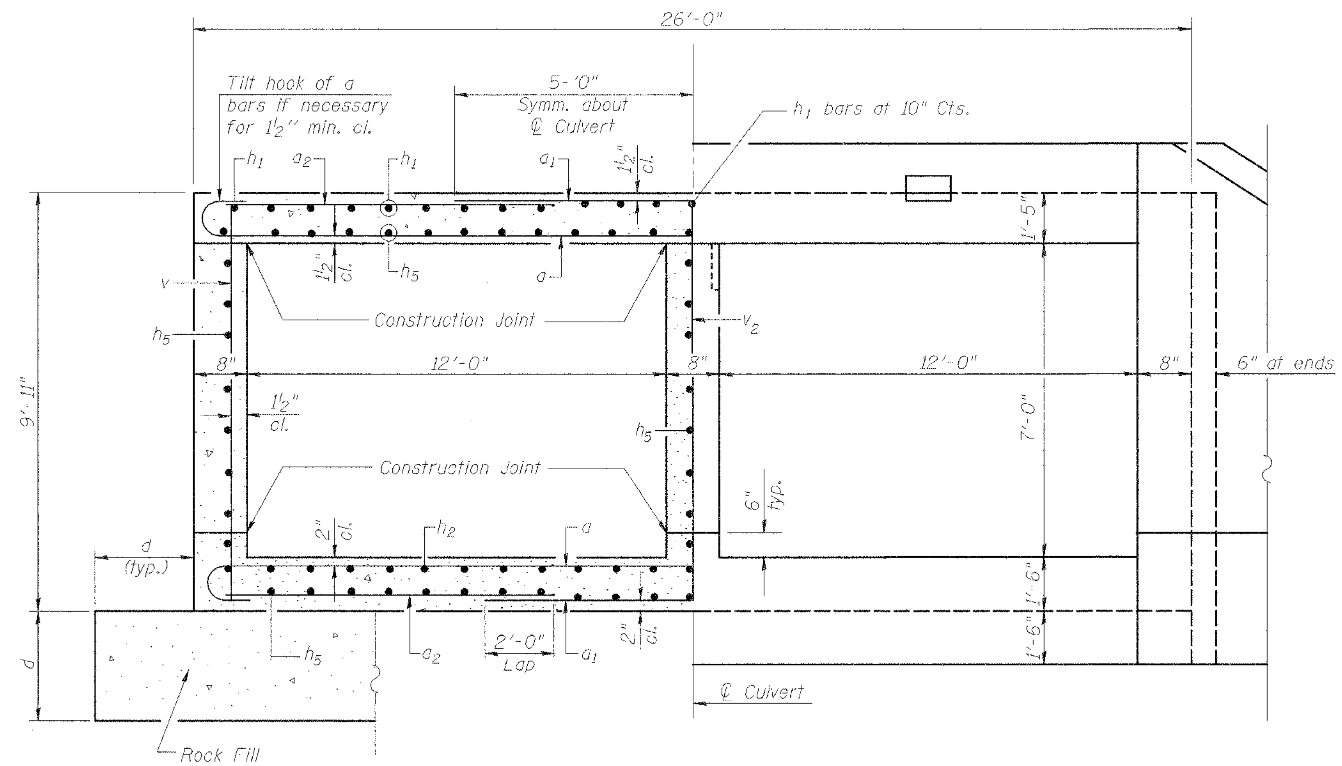
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

1. Pre-cast alternate not allowed.
2. The limits and quantities of removal shown are based on the boring data and may be modified by the District Geotechnical Engineer and field engineers for variable subsurface conditions encountered in the field.
3. Contact District Geotechnical Engineer so a dynamic cone penetration test can be performed to determine actual limits of excavation of unsuitable material in the field.
4. All construction joints shall be bonded.
5. Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
6. For backfilling and embankment, see Standard Specifications.
7. Exposed edges shall be beveled ¾" unless otherwise noted.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	840.7
Reinforcement Bars	Pound	150,740
Rock Fill Foundation	Cu. Yd.	753
Removal & Disposal of Unsuitable Material	Cu. Yd.	760

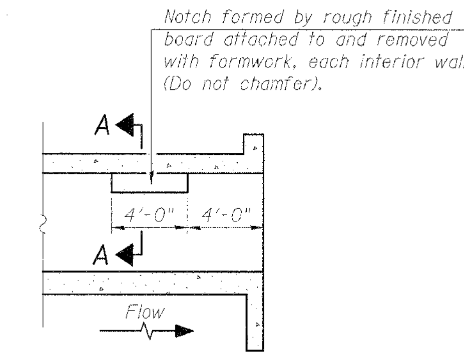


HALF SECTION THRU BARREL

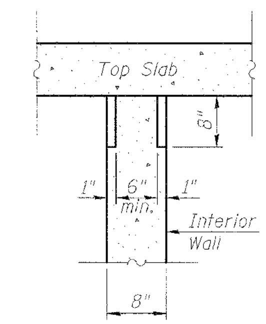
HALF END ELEVATION

Notes:

1. A distance of half the length of the wingwall but not less than seven feet of the barrel shall be poured monolithically with the wingwalls.
2. Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of #5 bars with 4 lengths per line.

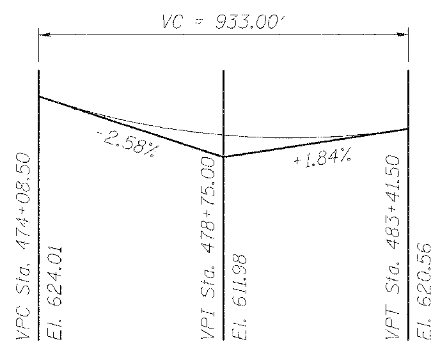


LONGITUDINAL SECTION



SECTION A-A

PHOEBE NESTING SITE DETAILS
(Downstream End Only)



PROFILE GRADE

BOX CULVERT DESIGN CRITERIA

f Min. / f Max. (Feet)	Design Fill Height (F) (Feet)	AASHTO Designation
f Min. ≥ 4'	15'	M259I

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

GENERAL NOTES &
TOTAL BILL OF MATERIAL
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 483+13.49
STRUCTURE NO. 055-2503

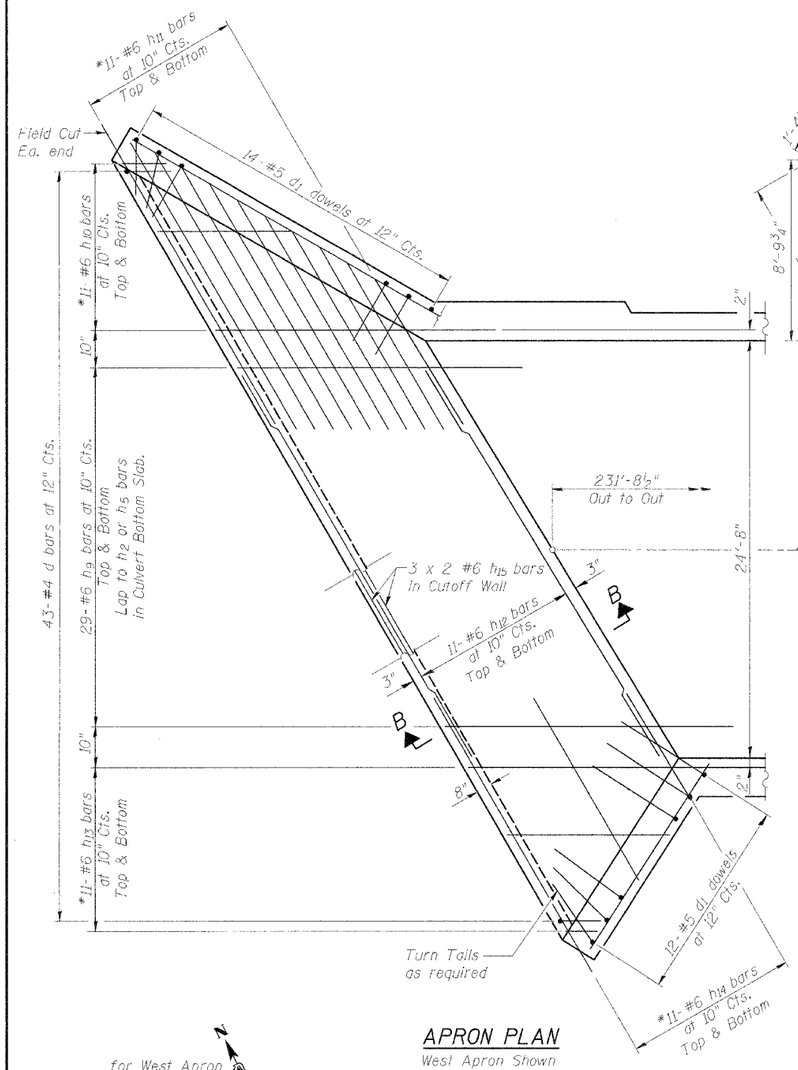
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	444
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

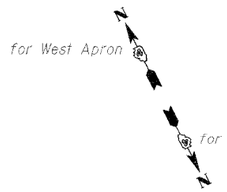
SHEET NO. 3
7 SHEETS

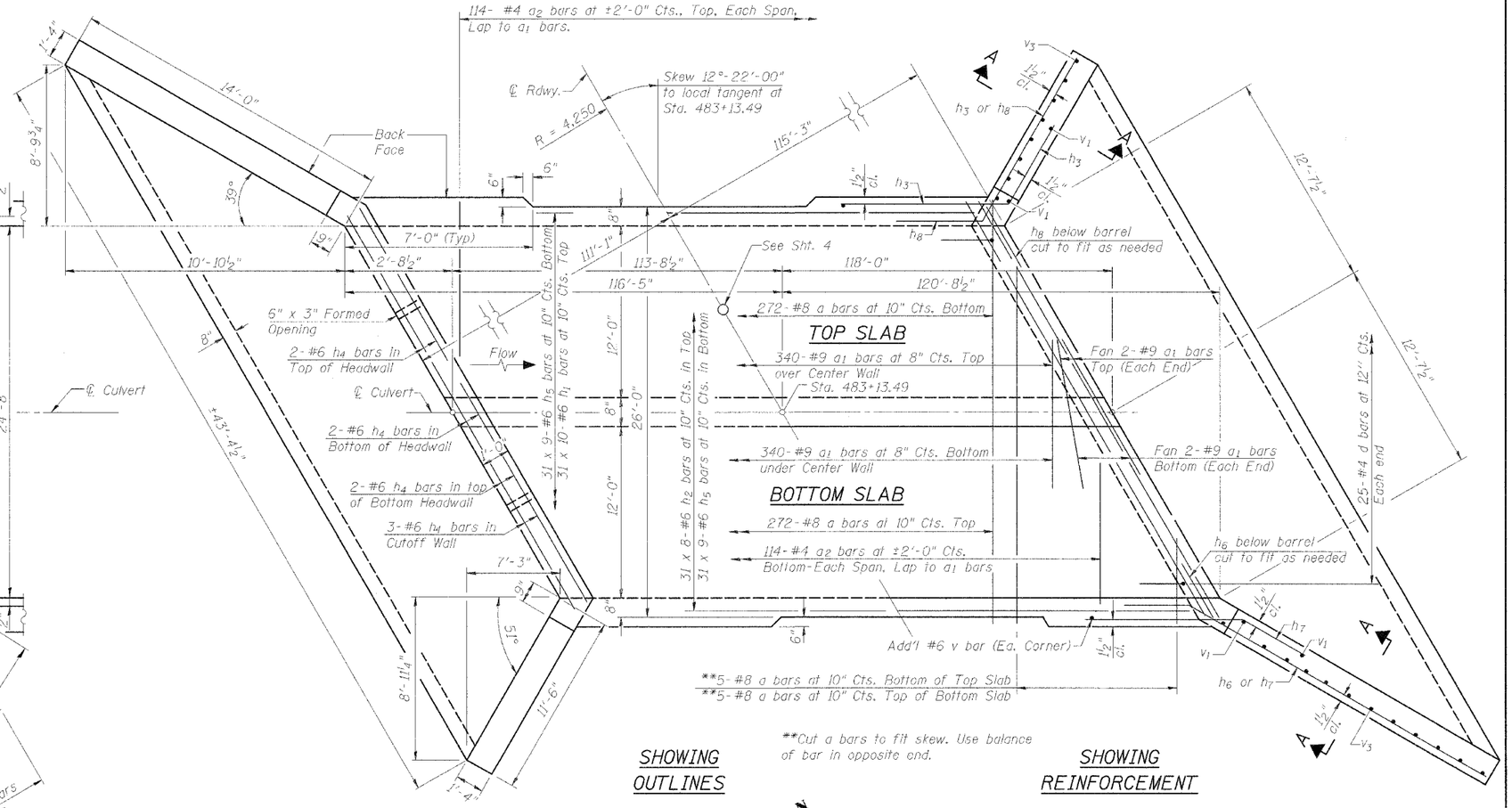
Contract No. 68205



APRON PLAN
West Apron Shown

* See Bar Cutting Diagram, Sht. 5





**Cut a bars to fit skew. Use balance of bar in opposite end.

SHOWING OUTLINES

SHOWING REINFORCEMENT

PLAN

Notes:

1. Bars indicated thus: 12 x 4 -#5 etc. indicates 12 lines of #5 bars with 4 lengths per line.
2. For Section A-A, See Sht. 4
3. For Section B-B, See Sht. 5
4. Minimum bar laps: #6 bars = 2'-0"
5. See Sht. 4 for extra reinforcement at 24" ϕ opening.

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

PLAN WITH APRON DETAIL
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 483+13.49
STRUCTURE NO. 055-2503

STS CONSULTANTS
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Peoria, Illinois 61602
PH(309)676-8484
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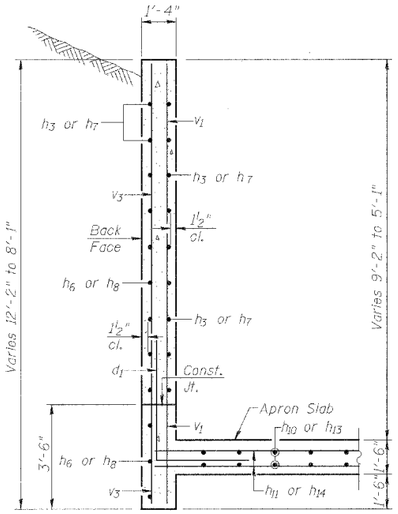
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	445
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
7 SHEETS

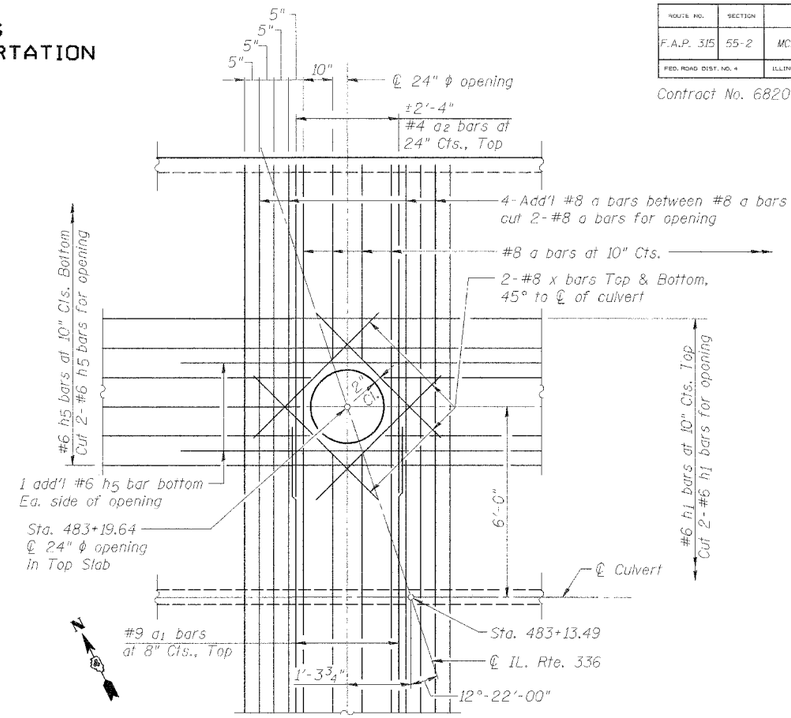
Contract No. 68205



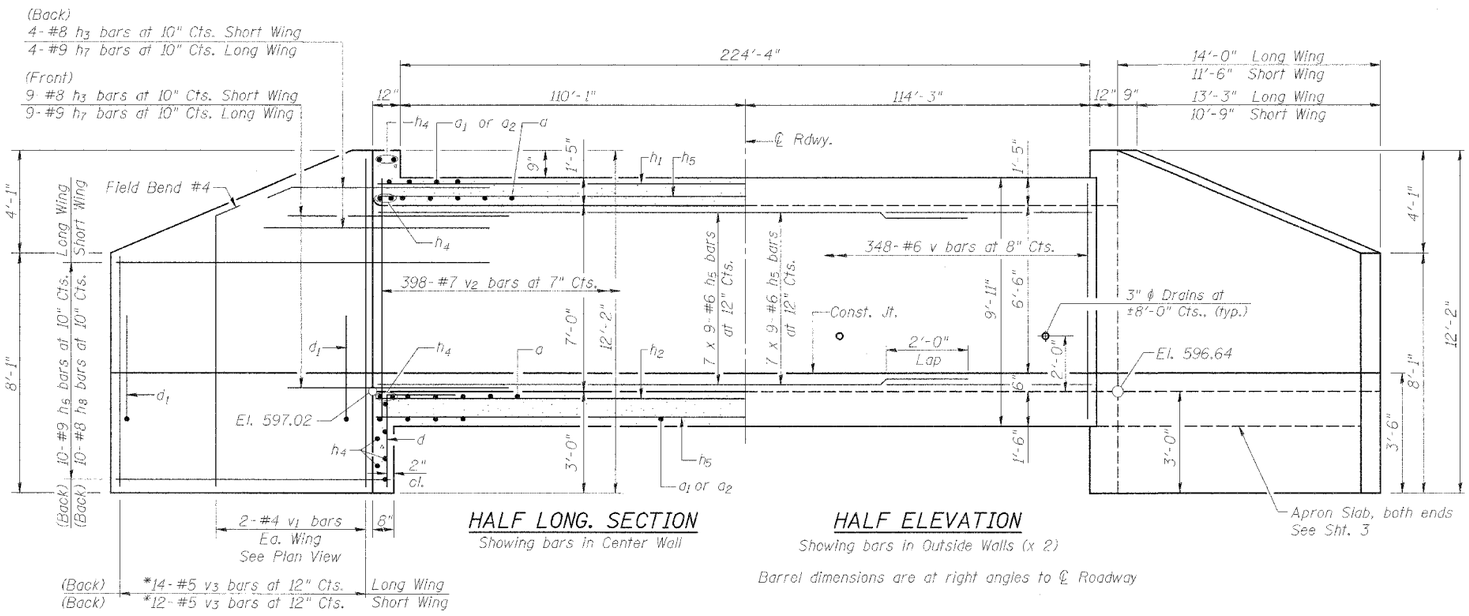
SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	558	#8	27'-6"	
a_1	688	#9	10'-0"	
a_2	456	#4	9'-10"	
d	136	#4	4'-6"	
d_1	52	#5	6'-0"	
h_1	310	#6	25'-0"	
h_2	248	#6	30'-9"	
h_3	26	#8	8'-0"	
h_4	18	#6	26'-4"	
h_5	749	#6	27'-6"	
h_6	20	#9	18'-0"	
h_7	26	#9	8'-0"	
h_8	20	#8	15'-1"	
h_9	116	#6	11'-0"	
h_{10}	22	#6	12'-0"	
h_{11}	22	#6	16'-3"	
h_{12}	44	#6	25'-3"	
h_{13}	22	#6	11'-6"	
h_{14}	22	#6	15'-7"	
h_{15}	12	#6	22'-10"	
v	700	#6	9'-8"	
v_1	8	#4	11'-11"	
v_2	398	#7	9'-8"	
v_3	26	#5	19'-11"	
x	8	#8	7'-0"	
Concrete Box Culverts			Cu. Yd.	840.7
Rock Fill Foundation			Cu. Yd.	753
Reinforcement Bars			Pound	150,740



PARTIAL PLAN TOP SLAB
At 24" ϕ Opening



HALF LONG. SECTION
Showing bars in Center Wall

HALF ELEVATION
Showing bars in Outside Walls (x 2)

Barrel dimensions are at right angles to ℄ Roadway

*See Bar Cutting Diagram, Sht. 5

Notes:

1. Bars indicated thus: 12 x 4 - #5 etc. indicates 12 lines of #5 bars with 4 lengths per line.

2. Minimum Bar Laps: #6 bars = 2'-0"

SECTIONS & REINFORCEMENT,
BILL OF MATERIAL
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 483+13.49
STRUCTURE NO. 055-2503

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

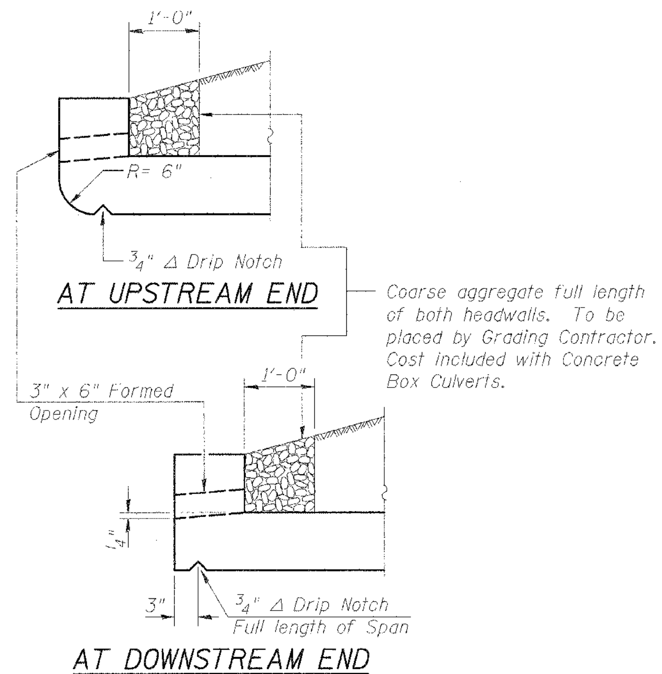
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	446

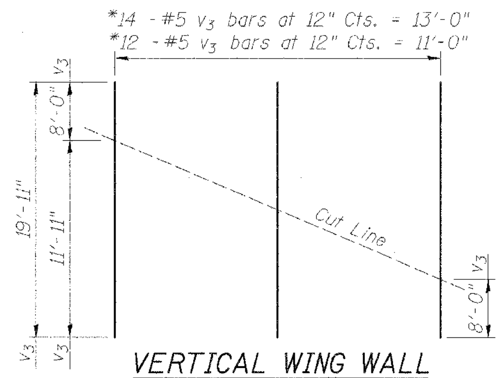
FED. ROAD DIST. NO. 4 | ILLINOIS | FED. AID PROJECT-

SHEET NO. 5
7 SHEETS

Contract No. 68205

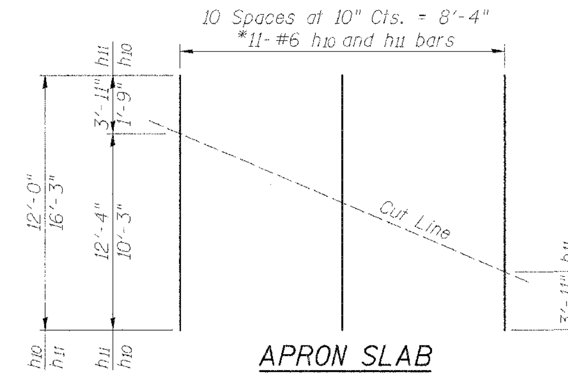


DRAIN DETAIL



VERTICAL WING WALL REINFORCEMENT

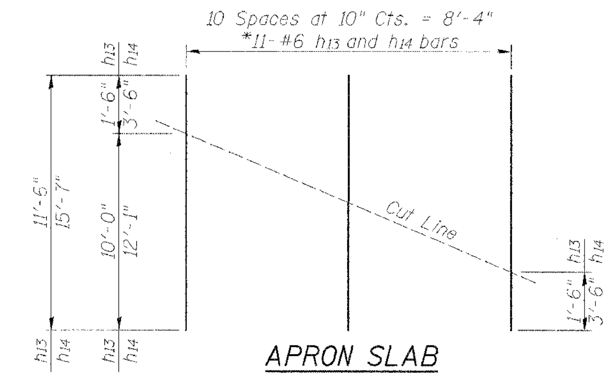
*Order v_3 bars full length. Cut as shown. Use remainder of bars in similar wing.



APRON SLAB REINFORCEMENT

Two thus at Long Wing

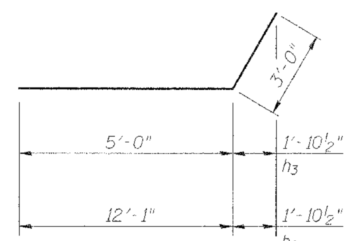
*Order h_{10} and h_{11} bars full length. Cut as shown. Use remainder of bars in opposite face of slab.



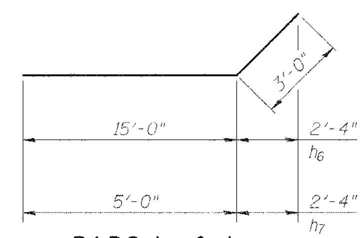
APRON SLAB REINFORCEMENT

Two thus at Short Wing

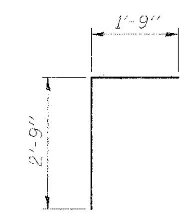
*Order h_{13} and h_{14} bars full length. Cut as shown. Use remainder of bars in opposite face of slab.



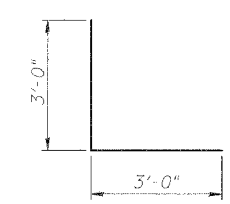
BARS h_3 & h_8



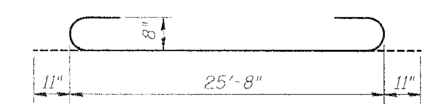
BARS h_6 & h_7



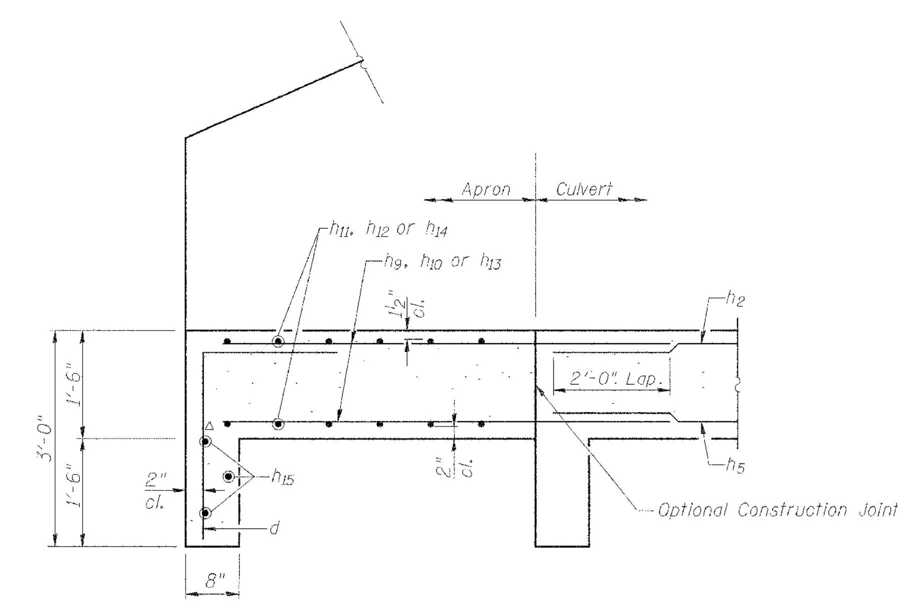
BAR d



BAR d_1



BAR a



SECTION B-B

DESIGNED	LLV
CHECKED	PJL
DRAWN	MSM
CHECKED	LLV

REINFORCEMENT BARS
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 483+13.49
STRUCTURE NO. 055-2503

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

** Special soil treatment involves controlled settlement and consolidation beneath culvert to achieve soil bearing capacity as roadway embankment is placed. See Claude H. Hurley soils report dated December 31, 2001; revised November 25, 2003 for details. Plan as shown incorporates BBS recommendations for soil removal and replacement.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	447
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
7 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D
BORING NO. CB-478
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32
IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 14+751.3 (STATION) 26.7mL (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-29-00 COMPLETED 3-29-00 SURFACE ELEVATION 183.94
DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	3-29	1.4	-
AAR	3-29	2.0	0h
	3-31	1.8	2d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-8.8m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev	Depth	CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
		DK BR SILTY CLAY LOAM, A-6 W/ ROOTS & FIBERS	AU	-	82	-
183.64	1	DK BR, RD BR & GR SILTY CLAY, A-7-6 W/ OCC FIBERS	2 2 3	65	29	-
182.57	2	BR & GR SILTY LOAM, A-6	1 1 1	95	23	-
182.26		BR & GR SANDY LOAM, A-2-4	1 2 3	-	20	-
181.50	3	RD BR & GR SANDY LOAM, A-2-4	2 3 4	-	17	-
180.74	4	RD BR, BR & GR CLAY LOAM, A-6	2 5 6	315	27	-
179.98		RD BR & DK GR SILTY CLAY LOAM, A-6	6 18 25	345 585	23 8	- -
179.67		GR CLAY SHALE				
179.22	5	RD BR & GR CLAY SHALE	5 10 19	- -	16 11	- -
178.91		BR, RD BR & GR CLAY SHALE				
178.45	6	BR, RD BR & GR SILTSTONE	29 50 51	-	7	-
177.69	7	GR CLAY SHALE	24 74 100/0.05m	-	9	-
	8	GR CLAY SHALE	34 62 100/0.02m	-	8	-
175.59		DK GR CLAY SHALE	100/0.06m	-	6	-
175.10	9	END OF BORING	100/0.13m	-	7	-
	10					
	11					
	12					
	13					

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D
BORING NO. CB-479
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32
IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 14+744.0 (STATION) 6.8mL (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-29-00 COMPLETED 3-29-00 SURFACE ELEVATION 183.93
DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	3-29	1.4	-
AAR	3-29	1.8	0h
	3-31	1.8	2d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-8.9m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev	Depth	CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
		DK BR SILTY CLAY LOAM, A-6 W/ ROOTS & FIBERS	AU	-	22	-
183.63	1	DK BR, RD BR & GR SILTY CLAY, A-7-6 W/ OCC FIBERS	2 2 3	155	27	-
182.56	2	BR & GR SILTY LOAM, A-6	0 1 2	65 -	28 23	- -
182.25		BR & GR SANDY LOAM, A-2-4	1 2 3	-	16	-
181.49	3	RD BR & GR SANDY LOAM, A-2-4	2 2 3	-	16	-
180.73	4	BL GR SILTY CLAY LOAM, A-6	0 2 3	155	25	-
			0 2 3	85	25	-
179.21	5	BR & GR GRAVELLY SAND, A-1-a	10 18 29	-	14	-
178.44	6	GR CLAY SHALE	4 7 17	355 -	17 11	- -
177.96		BLK COAL				
177.68	7	GR CLAY SHALE	10 17 32	-	10	-
	8	GR CLAY SHALE	42 100/0.06m	-	13	-
175.52		DK GR CLAY SHALE	62 100/0.04m	-	13	-
175.03	9	END OF BORING	60 100/0.04m	-	10	-
	10					
	11					
	12					
	13					

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

BORING LOGS
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 483+13.49
STRUCTURE NO. 055-2503

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

** Special soil treatment involves controlled settlement and consolidation beneath culvert to achieve soil bearing capacity as roadway embankment is placed. See Claude H. Hurley soils report dated December 31, 2001; revised November 25, 2003 for details. Plan as shown incorporates BBS recommendations for soil removal and replacement.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	448
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
7 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D
BORING NO. CB-480
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32
IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 14+738.1 (STATION) 13.9mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-29-00 COMPLETED 3-29-00 SURFACE ELEVATION 183.75
DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-29	1.1	-
AAR	3-29	2.0	0h
	3-31	1.8	2d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-8.1m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev / Depth	CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	DK BR SILTY CLAY LOAM, A-6 W/ ROOTS & FIBERS	AU	-	22	-
183.45 / 1	DK BR, RD BR & GR SILTY CLAY, A-7-6 W/ OCC FIBERS	2 2 3	85	27	-
		1 2 2	65	27	-
182.07 / 2	RD BR & GR SANDY LOAM, A-2-4	0 1 3	-	17	-
181.31	GR SAND A-1-b	0 0 1	-	21	-
180.76 / 3	RD BR, BR & GR SILTY CLAY LOAM, A-6		-	33	-
180.55	RD BR, BR & GR SILTY CLAY, A-7-6	2 6 10	595	18	-
179.79 / 4		6 7 12	595	12	-
5	GR, RD BR & BR CLAY SHALE	6 8 16	420	13	-
		10 14 29		12	-
177.50 / 6	DK GRAY COAL SHALE	43 100/0.11m	-	8	-
177.20	GR CLAY SHALE		-	7	-
7					
	GR CLAY SHALE	62 100/0.06m	-	7	-
175.67 / 8	END OF BORING	100/0.13m	-	6	-
9					
10					
11					
12					
13					

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D
BORING NO. CB-481
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32
IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 14+730.5 (STATION) 38.5mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-29-00 COMPLETED 3-29-00 SURFACE ELEVATION 183.69
DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-29	1.8	-
AAR	3-29	2.3	0h
	3-31	1.8	2d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-9.7m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev / Depth	CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	DK BR SILTY CLAY LOAM, A-6 W/ ROOTS & FIBERS	AU	-	25	-
183.38 / 1	DK BR, RD BR & GR SILTY CLAY, A-7-6 W/ OCC FIBERS	1 2 2	85	28	-
		2 1 1	50	30	-
182.01 / 2	DK GR SANDY CLAY LOAM, A-2-4	0 1	30	27	-
181.53	RD BR & GR SANDY LOAM, A-2-4	1	-	15	-
181.25 / 3	GR SAND, A-1-b	1 2 2	-	18	-
180.49	RD BR, BR & GR SILTY CLAY LOAM, A-6	2 1 3	105	30	-
179.73 / 4	GR SILTY CLAY, A-6 W/ FIBERS	0 2 2	50	31	-
178.97 / 5	GR, RD BR & BR WEATHERED SHALE	4 5 12	250	20	-
178.20 / 6	GR, RD BR & BR CLAY SHALE	19 23 24	395	10	-
177.44	DK GR COAL SHALE	13 36 100/0.11m	295	16	-
177.14 / 7	BLK COAL		-	12	-
176.68					
	GR CLAY SHALE	42 100/0.11m	-	9	-
175.25 / 8	DK GR CLAY SHALE	40 100/0.11m	-	9	-
9		42 100/0.11m	-	8	-
		60 100/0.09m	-	8	-
174.00	END OF BORING				
10					
11					
12					
13					

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

BORING LOGS
IL. ROUTE 336 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 483+13.49
STRUCTURE NO. 055-2503

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

Benchmark: Chiseled "□" on W. Headwall of Box Culvert (N. End) 1.2 miles S. of Rte. 136 on 850 E
Elevation = 610.51

Existing Structure: SN 055-5111 built in 1993 as a 17" Deep simple span PPC Deck beam bridge, 24'± out to out, 42'± back to back of abutments with type S-1 Steel guard railing. Road will be closed to traffic during construction.

No salvage

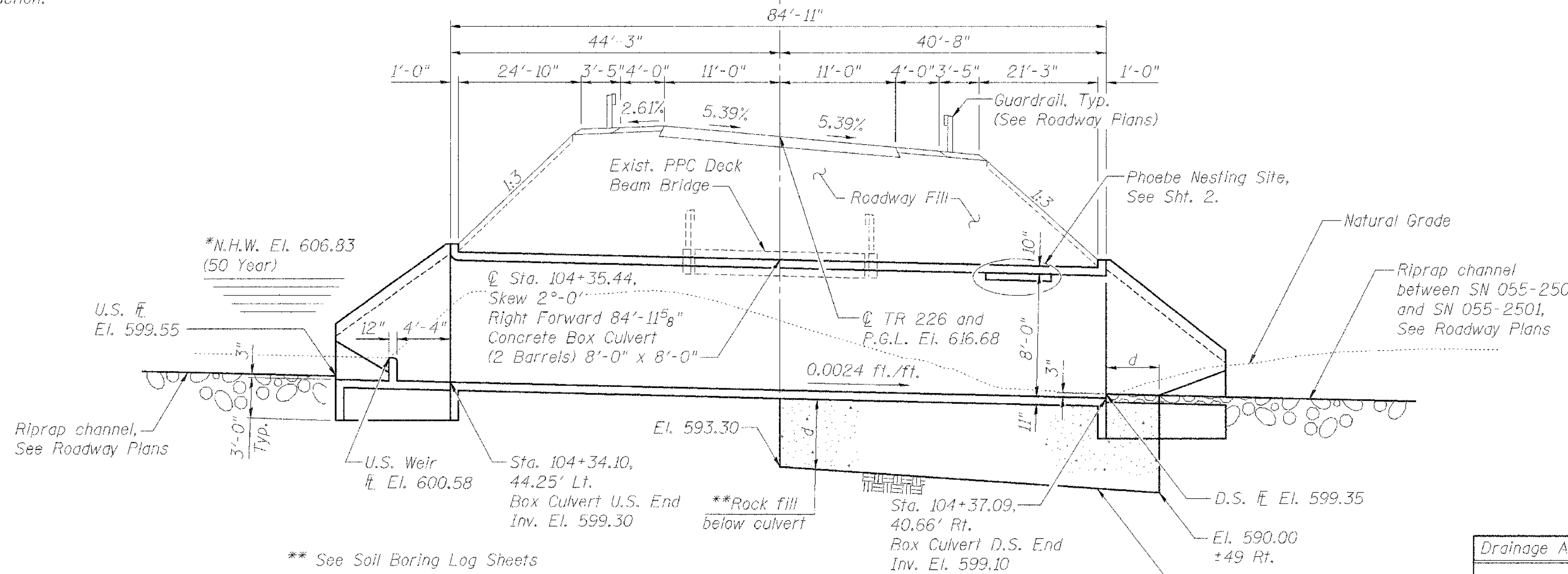
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	449

FED. ROAD DIST. NO. 4 | ILLINOIS | FED. AID PROJECT-

SHEET NO. 1
8 SHEETS

Contract No. 68205



LONGITUDINAL SECTION

Roadway and Fill Dimensions are at Rt. ∠'s to Roadway
Culvert Dimensions are measured along skew.

INDEX OF SHEETS

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.0% g
Site Coefficient (S) = 1.0

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

WATERWAY INFORMATION

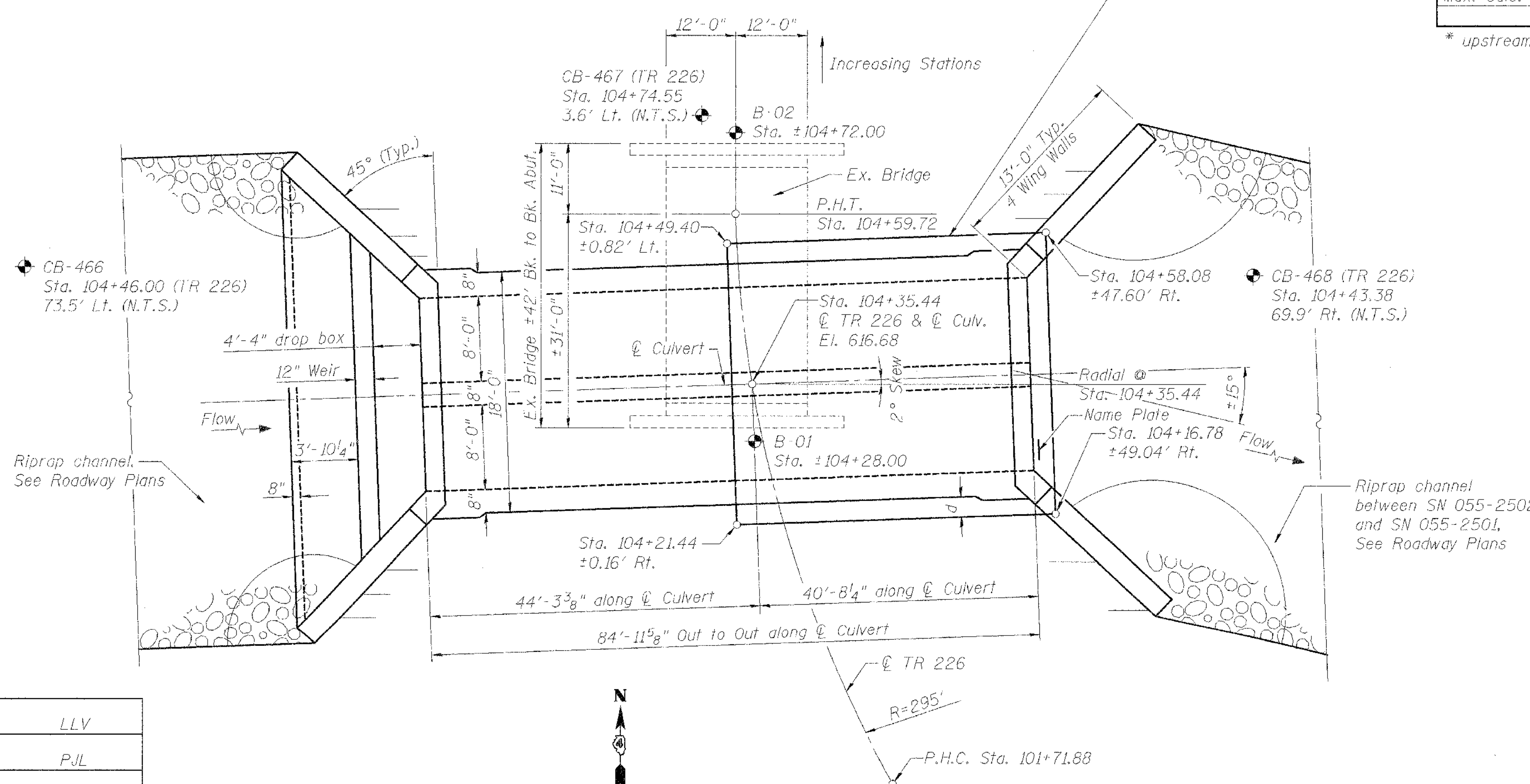
Drainage Area = 1.33 sq. mi. Low Grade Elev. 616.34 @ Sta. 104+90.40

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	*Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	857	135.43	128	606.83	0.82	-0.13	607.65	606.70
Base	100	1007	135.43	128	606.64	1.50	0.97	608.14	607.61
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1218	135.43	128	607.09	1.69	1.77	608.78	608.86

* upstream face of culvert

P.I. Sta. = 103+28.42
Δ = 55°-54'-18.49" (Rt)
R = 295'
T = 156.54'
L = 287.84'
E = 38.96'
P.C. Sta. = 101+71.88
P.T. Sta. = 104+59.72
S.E. = 5.39%

TR 226 PROPOSED CURVE DATA



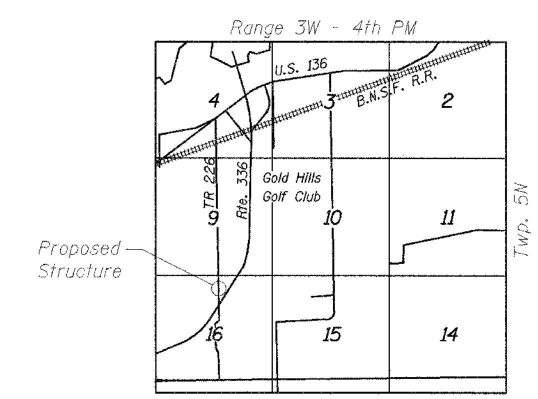
PLAN

(Boring Locations Indicated as such: ◆)

STATION 104+35.44
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 315 SEC. 55-2
LOADING HS20
STR. NO. 055-2502

NAME PLATES

(See Std. 515001)



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES

LARRY L. VIELEY
81-4056
LICENSED STRUCTURAL ENGINEER
OF
ILLINOIS

EXP. 11/06

Date: 3/30/2006

Larry L. Vieley
Illinois Licensed Structural Engineer
NO. 081-004056
License Expires: November 30, 2006

GENERAL PLAN & ELEVATION
TWP. ROAD 226 OVER TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 104+35.44
STRUCTURE NO. 055-2502

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	450
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
8 SHEETS

Contract No. 68205

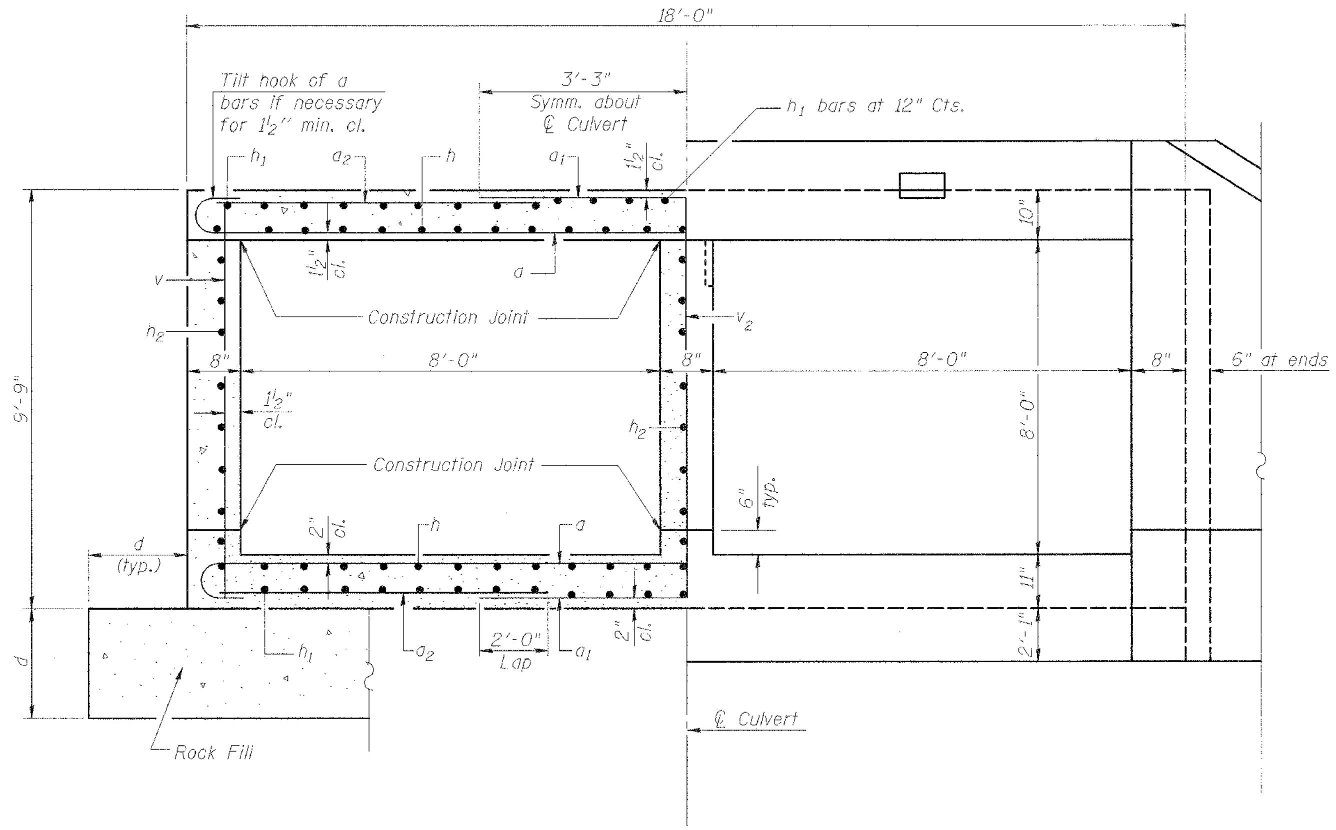
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

1. Pre-cast alternate not allowed.
2. The limits and quantities of removal shown are based on the boring data and may be modified by the District Geotechnical Engineer and field engineers for variable subsurface conditions encountered in the field.
3. Contact District Geotechnical Engineer so a dynamic cone penetration test can be performed to determine actual limits of excavation of unsuitable material in the field.
4. All construction joints shall be bonded.
5. Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
6. For backfilling and embankment, see Standard Specifications.
7. Exposed edges shall be beveled $\frac{3}{4}$" unless otherwise noted.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	193.7
Reinforcement Bars	Pound	30,470
Rock Fill Foundation	Cu. Yd.	377
Removal & Disposal of Unsuitable Material	Cu. Yd.	379
Removal of Existing Structures	Each	1

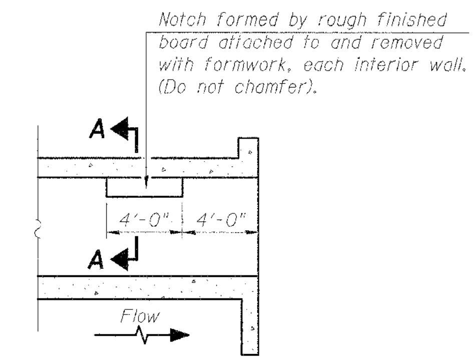


HALF SECTION THRU BARREL

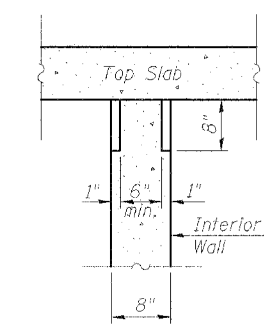
HALF END ELEVATION

Notes:

1. A distance of half the length of the wingwall but not less than seven feet of the barrel shall be poured monolithically with the wingwalls.
2. Bars indicated thus: 12 x 4-#5 etc. indicates 12 lines of #5 bars with 4 lengths per line.

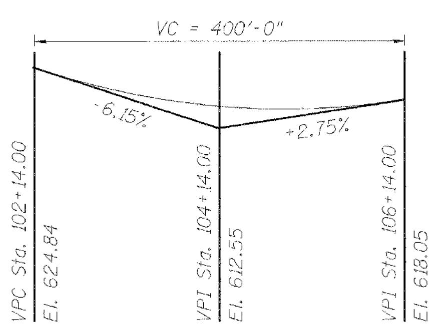


LONGITUDINAL SECTION



SECTION A-A

PHOEBE NESTING SITE DETAILS
(Downstream End Only)



PROFILE GRADE

BOX CULVERT DESIGN CRITERIA

f Min. / f Max. (Feet)	Design Fill Height (F) (Feet)	AASHTO Designation
f Min. ≥ 4'	9'	M259

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

GENERAL NOTES &
TOTAL BILL OF MATERIAL
TWP. ROAD 226 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 104+35.44
STRUCTURE NO. 055-2502

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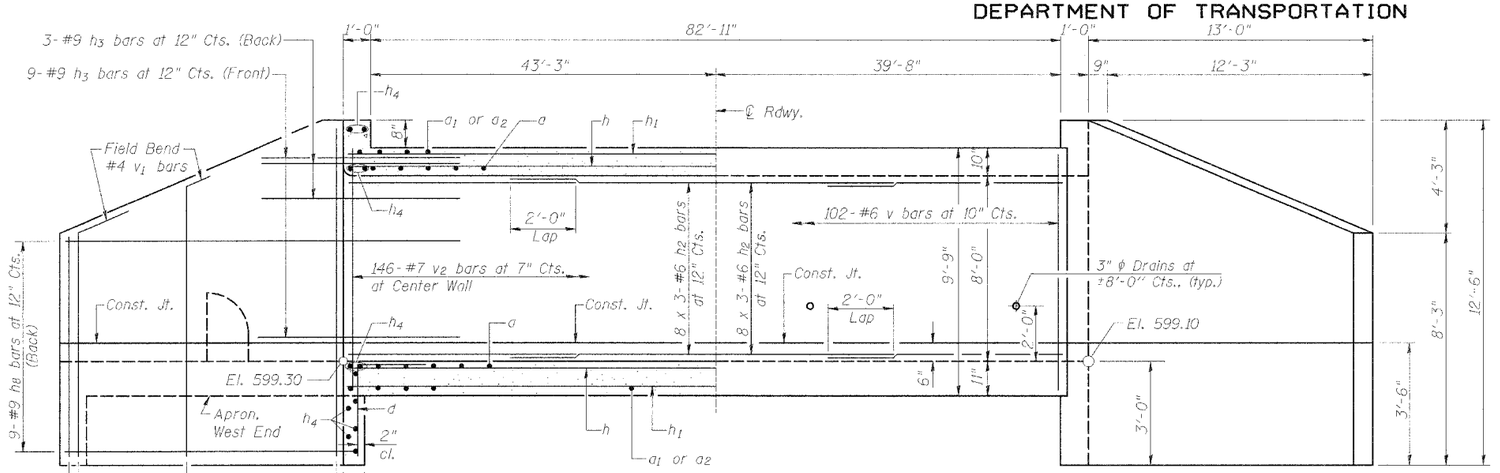
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	451
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
8 SHEETS

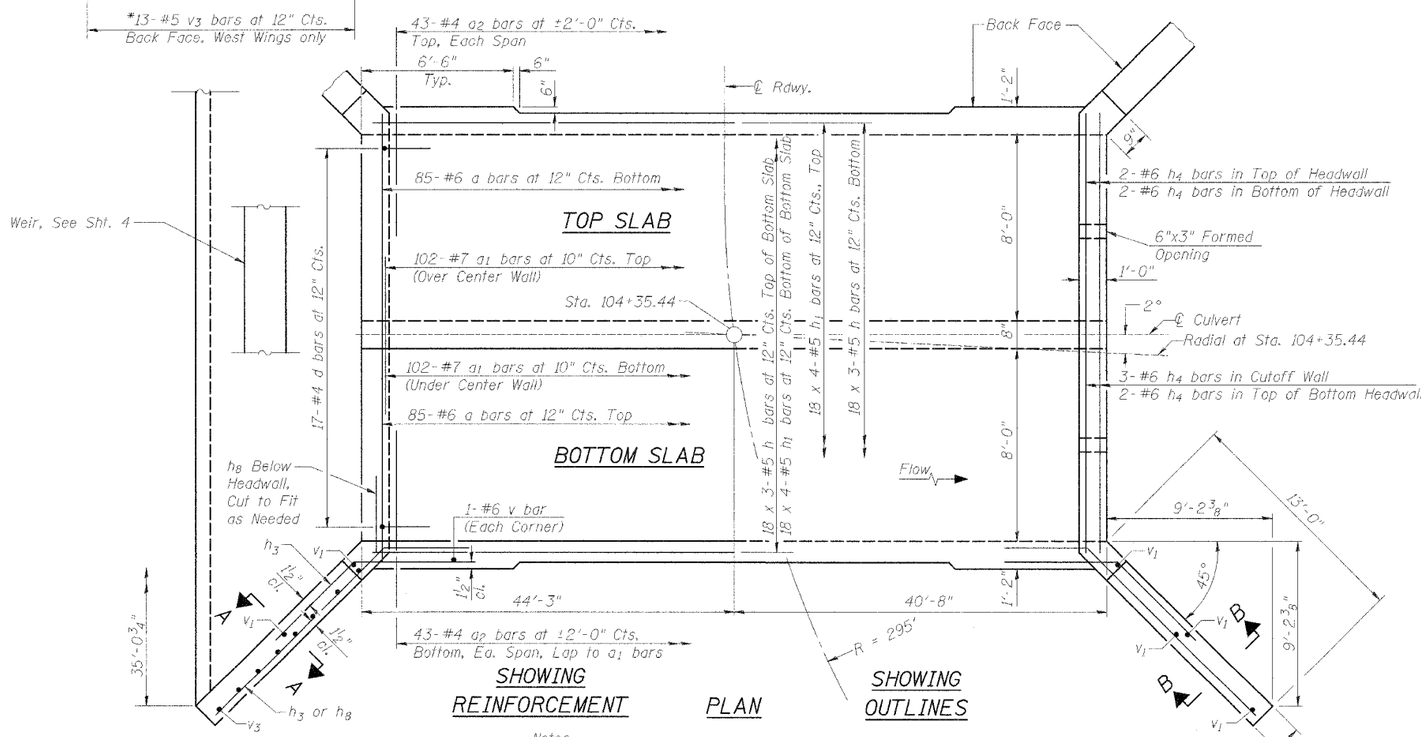
Contract No. 68205



HALF LONG. SECTION
Showing bars in Center Wall

HALF ELEVATION
Showing bars in Outside Wall (x 2)

Barrel Dimensions are at Rt. L's to Roadway



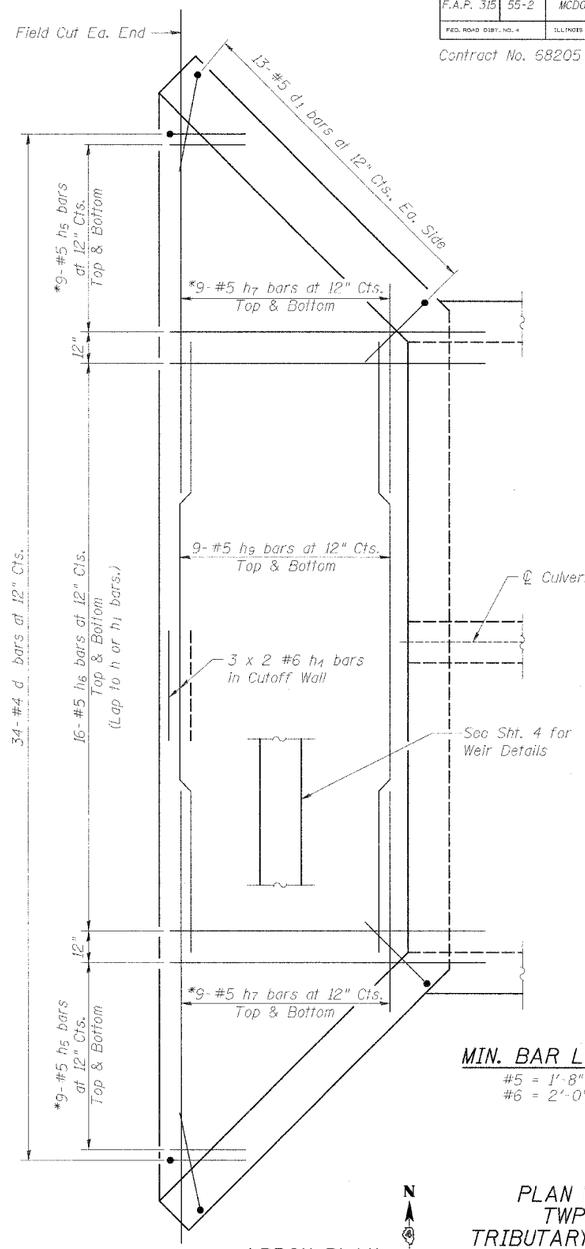
SHOWING REINFORCEMENT PLAN SHOWING OUTLINES

Notes:

1. A distance of half the length of the wingwall but not less than seven feet of the barrel shall be poured monolithically with the wingwalls.
2. Bars indicated thus: 12 x 4-#5 etc. indicates 12 lines of #5 bars with 4 lengths per line.
3. See Sht. 4 for Section A-A and Section B-B.

N

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV



APRON PLAN
West End Only

N

* See Bar Cutting Diagram Sht. 4

MIN. BAR LAPS
#5 = 1'-8"
#6 = 2'-0"

PLAN WITH APRON DETAIL
TWP. ROAD 226 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 104+35.44
STRUCTURE NO. 055-2502

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

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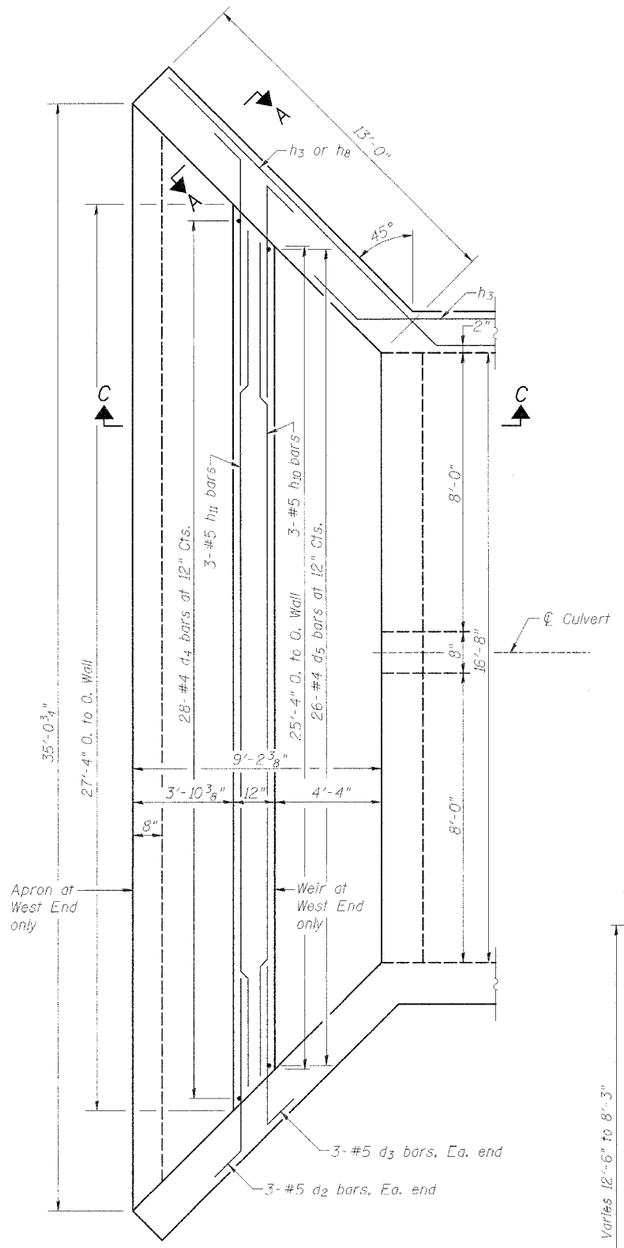
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	452
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
8 SHEETS

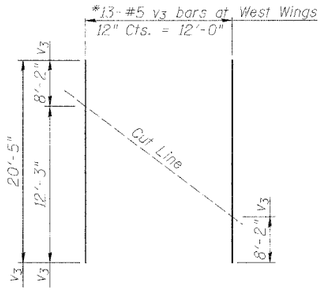
Contract No. 68205



WEIR WALL DETAIL
West Apron Only

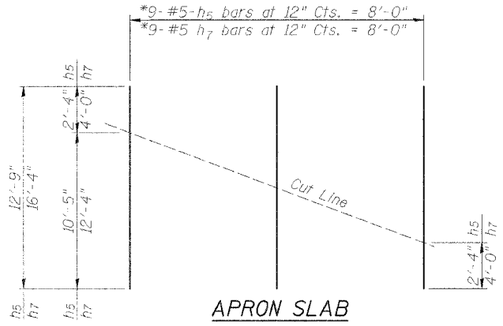
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	170	#6	19'-0"	
a_1	204	#7	6'-6"	
a_2	172	#4	7'-7"	
d	68	#4	4'-6"	
d_1	26	#5	6'-0"	
d_2	6	#5	5'-8"	
d_3	6	#5	5'-8"	
d_4	28	#4	3'-10"	
d_5	26	#4	3'-6"	
h	108	#5	29'-4"	
h_1	144	#5	22'-5"	
h_2	72	#6	29'-7"	
h_3	48	#9	8'-0"	
h_4	24	#6	18'-8"	
h_5	18	#5	12'-9"	
h_6	32	#5	11'-0"	
h_7	18	#5	16'-4"	
h_8	36	#9	16'-9"	
h_9	18	#5	16'-8"	
h_{10}	3	#5	25'-4"	
h_{11}	3	#5	26'-8"	
v	208	#6	9'-6"	
v_1	12	#4	12'-3"	
v_2	146	#7	9'-6"	
v_3	13	#5	20'-5"	
Concrete Box Culverts			Cu. Yd.	193.7
Rock Fill Foundation			Cu. Yd.	377
Reinforcement Bars			Pound	30,470



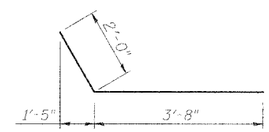
VERTICAL WING WALL REINFORCEMENT

*Order v_3 bars full length. Cut as shown.
Use remainder of bars in opposite wing, west side.

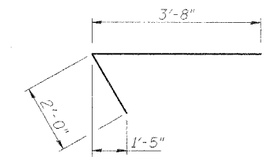


APRON SLAB REINFORCEMENT
Two thus

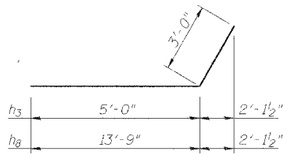
*Order h_5 and h_7 bars full length. Cut as shown.
Use remainder of bars in opposite face of slab.



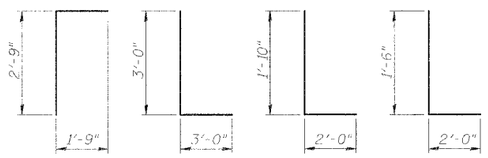
BAR d2



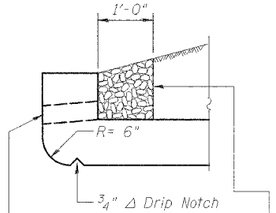
BAR d3



BARS h3 & h8

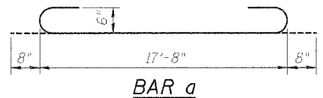


BAR d — BAR d1 — BAR d4 — BAR d5

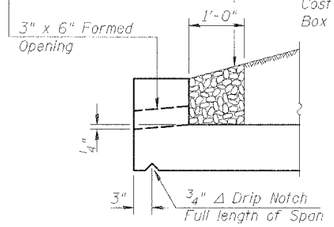


AT UPSTREAM END

Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.



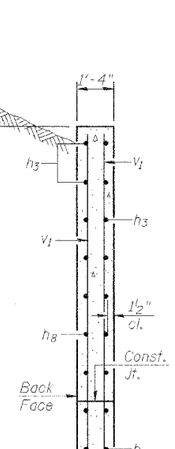
BAR a



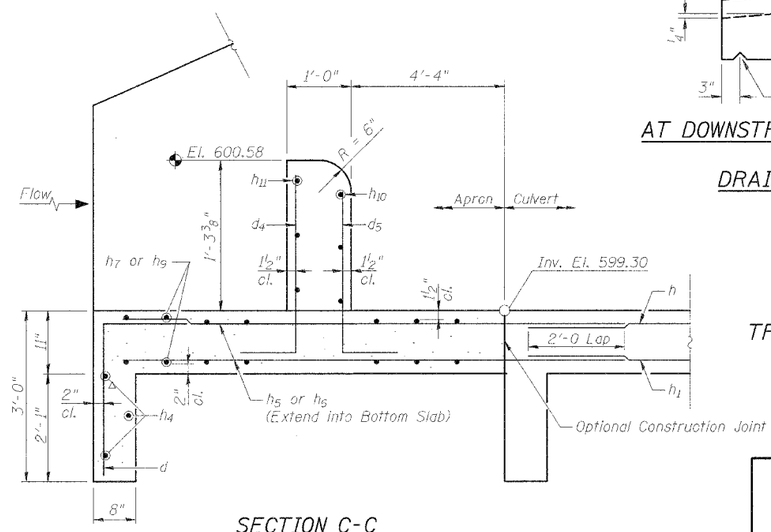
AT DOWNSTREAM END

DRAIN DETAIL

SECTION A-A
(West Wings Only)



SECTION B-B
(East Wings Only)



SECTION C-C

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

REINFORCEMENT BARS AND SECTION DETAILS
TWP. ROAD 226 OVER TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 104+35.44
STRUCTURE NO. 055-2502

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

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** Special soil treatment involves controlled settlement and consolidation beneath culvert to achieve soil bearing capacity as roadway embankment is placed. See Claude H. Hurley soils report dated December 31, 2001; revised November 25, 2003 for details. Plan as shown incorporates BBS recommendations for soil removal and replacement.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	453
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
8 SHEETS

Contract No. 68205

WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-01
DATE 12-02-92
W. & A. FILE NO. 5583
SHEET 1 OF 4
PROJECT CHALMERS TOWNSHIP BRIDGE; #92-04112-00-BR
LOCATION McDonough County, IL
BORING LOCATION Station 9+75; 4'Right of Centerline
DRILLED BY Fehl
BORING TYPE Hollow-Stem Auger
WEATHER CONDITIONS Partly Cloudy & Cool
SOIL CLASSIFICATION SYSTEM U.S.B.S.C.
SEEPAGE WATER ENCOUNTERED AT ELEVATION 600.5
GROUND SURFACE ELEVATION 610.3
GROUND WATER ELEVATION AT 3 HRS. 603.1
BORING DISCONTINUED AT ELEVATION 563.8
GROUND WATER ELEVATION AT COMPLETION 600.1

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
CRUSHED LIMESTONE	6"						
Medium, Brown SILTY CLAY With A Trace of Fine-Grained Gravel		SS	2 2 3(5)	0.5	0.5	-	26
	04						
Stiff, Dark Brown SILTY CLAY		SS	4 5 7(12)	1.8	1.5	-	23
Very Soft, Dark Brown SANDY CLAY LOAM	08	SS	1 2 1(3)	0.3	0.1	-	21
		SS	1 1 1(2)	0.2	0.1	-	20
	12						
Medium, Dark Brown SANDY CLAY LOAM		SS	6 7 8(15)	0.7	0.6	-	22
Soft, Dark Brown SANDY CLAY LOAM	16	SS	7 8 5(13)	0.5	0.4	-	26
Medium-Density, Dark Brown And Brown SANDY CLAY LOAM With Some Medium-Grained Gravel		SS	6 8 9(17)	0.7	0.5	-	18
Stiff, Dark Brown And Gray SILTY CLAY	20	SS	8 9 11(20)	1.4	1.1	-	31
		SS	7 9 11(20)	1.9	1.8	-	20
	24						
Very Stiff To Hard, Gray, Unweathered GLACIAL SILTY CLAY TILL		SS	8 11 12(23)	3.7	3.6	-	19

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

BORING LOG
(CONTINUATION)

BORING NO. B-01
DATE 12-02-92
PROJECT Chalmers Township Bridge; #92-04112-00-BR
SHEET 2 OF 4
LOCATION McDonough County, Illinois
W. & A. FILE NO. 5585

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
See Sheet 1 Of 4		SS	7 10 12(22)	4.5+	4.6	-	18
	30	SS	8 12 16(28)	5.5	5.4	-	18
		SS	9 9 11(20)	3.8	3.4	-	15
	34						
Hard, Dark Brown Near CLAY SHALE		SS	40 70	4.5+	6.3	-	11
Hard, Dark Brown CLAY SHALE	38	SS	97/5"	4.5+	-	-	9
		SS	103/5"	-	-	-	7
	42	SS	98/4"	-	-	-	17
	46	SS	113/6"	-	-	-	11
EXPLORATORY BORING DISCONTINUED	50						
	54						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

BORING LOGS
TWP. ROAD 226 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 104+35.44
STRUCTURE NO. 055-2502

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111 NE Jefferson Ave.
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FAX(309)676-5445
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	454
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
8 SHEETS

Contract No. 68205

WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-02
DATE 12-02-92
W. & A. FILE NO. 5583
SHEET 3 OF 4
PROJECT CHALMERS TOWNSHIP BRIDGE; #92-04112-00-BR
LOCATION McDonough County, IL
BORING LOCATION Station 10+16; 5'Left of Centerline
DRILLED BY Fehl
BORING TYPE Hollow-Stem Auger
WEATHER CONDITIONS Partly Cloudy & Cool
SOIL CLASSIFICATION SYSTEM U.S.B.S.C.
SEEPAGE WATER ENCOUNTERED AT ELEVATION 600.7
GROUND SURFACE ELEVATION 609.8
GROUND WATER ELEVATION AT — HRS. —
BORING DISCONTINUED AT ELEVATION 563.3
GROUND WATER ELEVATION AT COMPLETION 600.3

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
Soft, Dark Brown SILTY CLAY LOAM With Some Fine- To Medium-Grained SAND And Trace of Organic Matter		SS	2 2 3(5)	0.5	0.4	-	19
	04	SS	3 3 4(7)	0.5	0.3	-	27
Soft, Brown SILTY CLAY With Some Fine- To Medium-Grained Sand	08	SS	1 2 3(5)	0.3	0.3	-	24
Soft To Very Soft, Brown SILTY CLAY With Considerable Fine- To Medium-Grained Sand		SS	2 3 3(6)	0.5	0.4	-	18
	12	SS	1 2 2(4)	0.2	0.1	-	26
Loose, Gray, Fine-Grained SAND		SS	1 2 4(6)	-	-	-	-
	16	SS	2 2 3(5)	-	-	-	-
Medium-Density, Brown, Medium- To Coarse-Grained GRAVEL	20	SS	4 8 9(17)	-	-	-	-
Medium-Density, Gray-Brown, Fine-Grained SAND		SS	3 7 10(17)	-	-	-	-
	24	SS	4 8 16(24)	3.5	3.0	-	20
Very Stiff, Gray SILTY CLAY LOAM							

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE
Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

BORING LOG
(CONTINUATION)

BORING NO. B-02
DATE 12-02-92
PROJECT Chalmers Township Bridge;#92-04112-00-BR
SHEET 4 OF 4
LOCATION McDonough County, Illinois
W. & A. FILE NO. 5585

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
See Sheet 3 of 4		SS	8 12 17(29)	4.1	3.7	-	19
Very Stiff, Gray And Orange-Brown SILTY CLAY TILL	30	SS	11 22 23(45)	3.8	3.6	-	23
Hard, Dark Gray SHALE	34	SS	42 72	4.5+	-	-	10
		SS	102/5"	4.5+	-	-	9
	38	SS	92/4"	4.5+	-	-	7
		SS	57/3"	4.5+	-	-	8
	42	SS	65/3"	4.5+	-	-	8
	46	SS	61/3"	4.5+	-	-	9
EXPLORATORY BORING DISCONTINUED	50						
	54						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE
Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

BORING LOGS
TWP. ROAD 226 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 104+35.44
STRUCTURE NO. 055-2502

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

** Special soil treatment involves controlled settlement and consolidation beneath culvert to achieve soil bearing capacity as roadway embankment is placed. See Claude H. Hurley soils report dated December 31, 2001; revised November 25, 2003 for details. Plan as shown incorporates BBS recommendations for soil removal and replacement.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	455
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7
8 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D   BORING NO. CB-466
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32   IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 22+136.0 (STATION) 22.4mL (OFFSET)   MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-23-00 COMPLETED 3-23-00   SURFACE ELEVATION 184.42
DRILLED BY R. HOWARD   LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-23	0.9	-
AAR	3-23	1.5	0h
	3-24	1.4	1d

DRILLING METHOD

RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-10.7m NX-10.7-13.7m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS-NX

Elev	Classification	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	DK BR SILTY CLAY LOAM, A-6 W/ ROOTS & FIBERS		AU	-	22	-
			0 1 1	65	26	-
				-	14	-
183.75	BR SAND, A-1-b					
183.51	GR SAND, A-1-b	1				
	WOOD FIBERS		1 1 1	-	20	-
182.74	BR & GR SANDY LOAM, A-2-4	2	0 3 1	-	23	-
				-	24	-
182.19	GR SANDY LOAM, A-2-4		0 0 1	-	21	-
		3				
181.22	GR SAND, A-1-b		0 0 1	-	16	-
180.76				-	19	-
	GR SANDY LOAM, A-2-4	4	1 2 2	-	18	-
179.70	LT GR SILT, A-4	5	6 8 3	-	19	-
178.93	DK BR SILT TO SILTY LOAM, A-4	6	5 7 10	200	39	-
			3 4 4	230	39	-
177.71				325	21	-
		7				
	BL GR TO BL GR & RD BR SILTY CLAY LOAM, A-6		4 7 10	385	22	-
		8	5 8 11	395	20	-
			7	500	23	-
175.58	GRN BR, RD & BR SANDY LOAM, A-2-4	9	13 18	-	23	-
			14	-	19	-
174.82	BLK COAL		72	-	81	-
174.67	BLK COAL SHALE		100/0.06m	-	17	-
174.36	GR SILTSTONE	10	100/0.08m	-	10	-
		11	NX	REC RQD	= =	100% 100%
173.14	LIMESTONE SEAM					
173.11	LT GR CLAY SHALE	12	NX	REC RQD	= =	100% 100%
171.83	DK GR TO BLK CLAY SHALE	13				

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D   BORING NO. CB-466 (CONT)
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32   IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 22+136.0 (STATION) 22.4mL (OFFSET)   MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-23-00 COMPLETED 3-23-00   SURFACE ELEVATION 184.42
DRILLED BY R. HOWARD   LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-23	0.9	-
AAR	3-23	1.5	0h
	3-24	1.4	1d

DRILLING METHOD

RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-10.7m NX-10.7-13.7m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS-NX

Elev	Classification	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	DK GR TO BLK CLAY SHALE		NX	REC RQD	= =	100% 100%
170.70	END OF BORING	14				
		15				
		16				
		17				
		18				
		19				
		20				

Elev	Classification	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
		21				
		22				
		23				
		24				
		25				
		26				

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

BORING LOGS
TWP. ROAD 226 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 104+35.44
STRUCTURE NO. 055-2502

STS CONSULTANTS
111 NE Jefferson Ave.
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** Special soil treatment involves controlled settlement and consolidation beneath culvert to achieve soil bearing capacity as roadway embankment is placed. See Claude H. Hurley soils report dated December 31, 2001; revised November 25, 2003 for details. Plan as shown incorporates BBS recommendations for soil removal and replacement.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	456
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
8 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D — BORING NO. CB-467
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 — IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 22+144.7 (STATION) 1.1mL (OFFSET) — MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-23-00 COMPLETED 3-23-00 SURFACE ELEVATION 185.32
DRILLED BY R. HOWARD — LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-23	3.2	-
AAR	3-23	2.4	0h
	3-24	1.8	1d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-11.9m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev / Depth	CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	PAVEMENT MATERIALS	AU	-	5	-
184.98 / 0	RD BR & GR SILTY CLAY LOAM, A-6	2 3 5	155	17	-
184.41 / 1	GR SILTY LOAM, A-6 W/ OCC FIBERS	1 2 4	105	22	-
		0 0 1	30	25	-
182.42 / 3	RD BR & GR SILTY CLAY LOAM, A-6	1 4 5	65	23	-
181.91 / 4	RD BR & GR SAND, A-2-4	2 0 0	190	22	-
			-	20	-
181.36 / 4	GR SAND, A-1-b	0 0 4	-	17	-
180.60 / 5	DK GR SAND, A-1-b W/ WOOD FRAGMENTS	2 3 2	-	200	-
			-	450	-
179.83 / 6	GR SAND, A-1-b	0 1 6	-	11	-
179.07 / 6	DK BR SILT TO SILTY LOAM, A-4	2 1 5	165	32	-
178.31 / 7					

Elev / Depth	CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	BL GR TO BL GR & RD BR SILTY CLAY LOAM, A-6	4 7 13	420	21	-
8		6 8 14	430	21	-
9		6 11 13	565	23	-
		7 8 12	450	23	-
175.26 / 10	BLK COAL	14	-	91	-
175.08 / 10	BLK COAL SHALE	58	-	14	-
174.74		82	-	11	-
11	DK GR & BR TO GR CLAY SHALE	80 81 28	-	11	-
		25 100/0.02m	-	11	-
173.55 / 12	END OF BORING				

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D — BORING NO. CB-468
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 — IDOT JOB NO. P-94-011-98
LOCATION CULVERT (STRUCTURE) 22+135.2 (STATION) 21.3mR (OFFSET) — MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 3-27-00 COMPLETED 3-27-00 SURFACE ELEVATION 184.22
DRILLED BY R. HOWARD — LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	3-27	1.4	-
AAR	3-27	2.1	0h
	3-28	1.5	1d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 0.18m HSA-9.1m / RD-9.1-11.1m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev / Depth	CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	DK GR & BR LOAM, A-6 W/ ROOTS & FIBERS	AU	-	21	-
		1 2 4	65	25	-
183.31 / 1	GR & RD BR SILTY CLAY, A-7-6	1 2	55	29	-
			-	19	-
182.85 / 2	RD BR, BR & GR SAND, A-1-b	0 1 1	-	21	-
			75	23	-
182.09 / 3	DK GR SILTY CLAY, A-7-6	0 0 1	30	43	-
180.71 / 4	GR SAND, A-1-b	4 6 1	30	46	-
			-	17	-
180.56 / 4	BR & GR SILTY CLAY, A-7-6		40	35	-
180.26 / 4	DK GR & DK BR SILTY CLAY, A-7-6	1 2 4	95	37	-
179.50 / 5	DK GR SILTY CLAY LOAM, A-6	4 5 7	250	24	-
		4 5 6	260	23	-
6		2 6 10	305	22	-
177.21 / 7					

Elev / Depth	CLASSIFICATION	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	GR SANDSTONE BOULDER	14 12	-	5	-
176.75 / 8	GRN GR & BR SILTY CLAY, A-7-6 W/ ROCK FRAGMENTS	11	-	16	-
176.45 / 8	RD BR, GRN GR & BR CLAY LOAM, A-6	6 10 14	400	16	-
175.69 / 9	GRN GR, BR & BLK WEATHERED CLAY SHALE	8	-	31	-
175.41 / 9	BLK COAL	77 100/0.04m	-	49	-
174.92	BLK COAL SHALE	72 100/0.11m	-	10	-
174.62 / 10	DK GR & BR TO GR CLAY SHALE	100/0.04m	-	9	-
		100/0.04m	-	10	-
173.16 / 11	END OF BORING	100/0.04m	-	12	-

DESIGNED	LLV
CHECKED	PJL
DRAWN	MGM
CHECKED	LLV

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

BORING LOGS
TWP. ROAD 226 OVER
TRIBUTARY TO KILLJORDAN CREEK
IL. ROUTE 336
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 104+35.44
STRUCTURE NO. 055-2502

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
PH(309)676-8464
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IL Design Firm Reg. No. 184-001518

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Benchmark: Chiseled "□" on top of E. End of South Headwall of Box Culvert 60'± W. of Intersection of TR 850 N. and TR 350 E. El. = 670.33

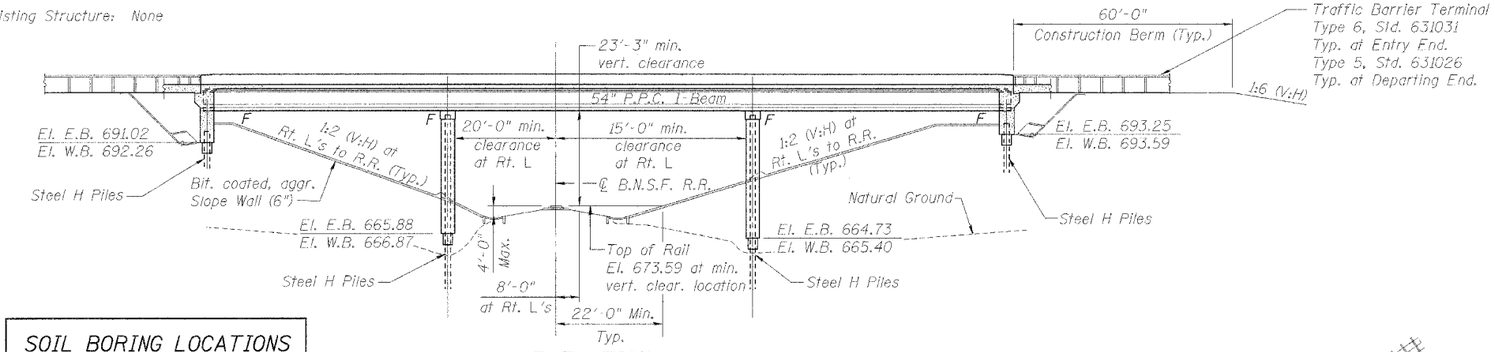
Existing Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	457
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
22 SHEETS

Contract No. 68205

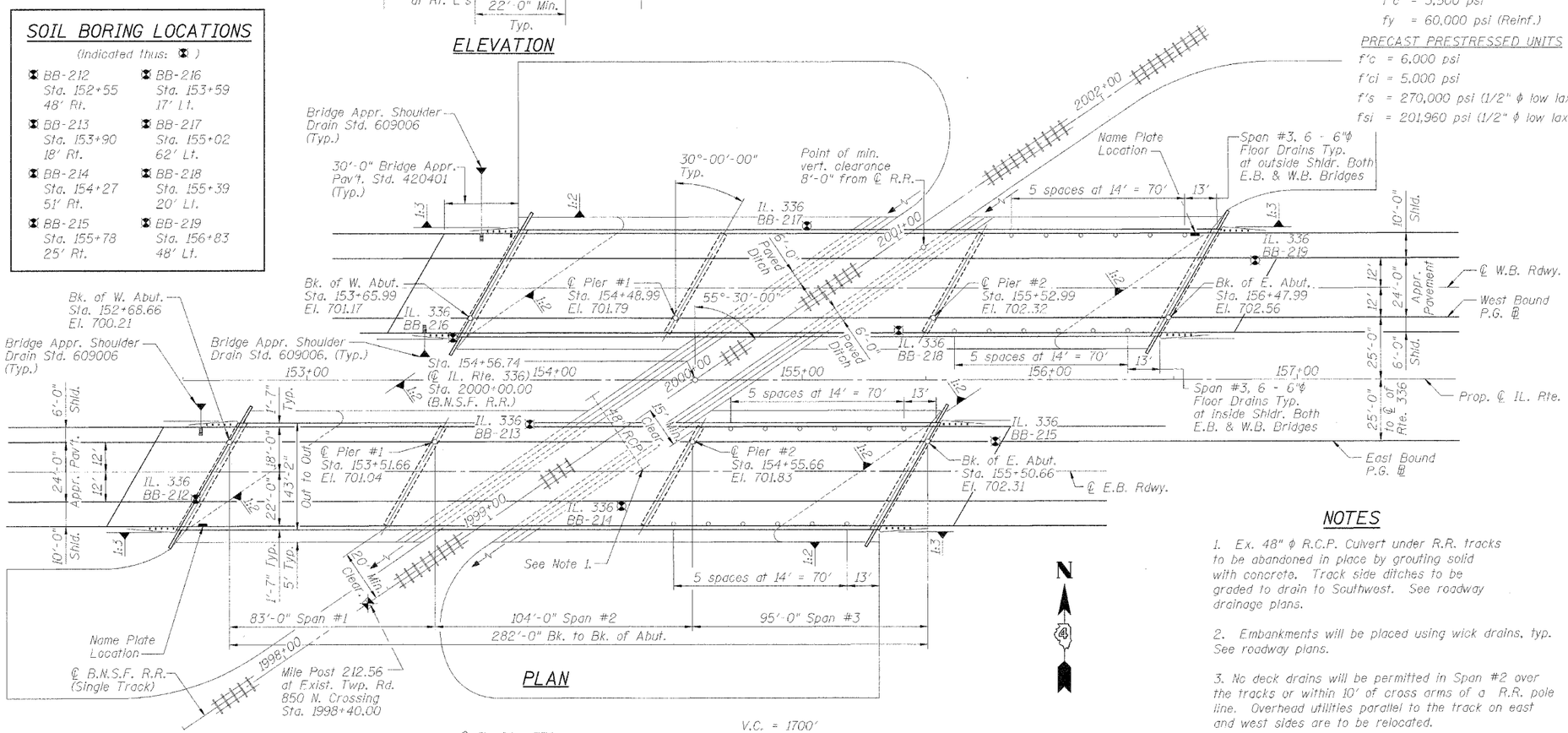


ELEVATION

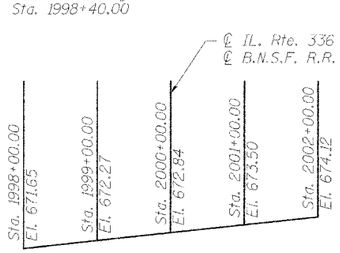
SOIL BORING LOCATIONS

(indicated thus: ⧓)

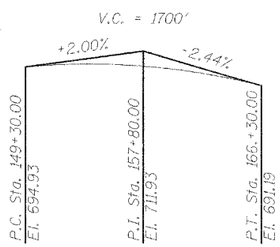
- ⧓ BB-212 Sta. 152+55 48' Rt.
- ⧓ BB-213 Sta. 153+90 18' Rt.
- ⧓ BB-214 Sta. 154+27 51' Rt.
- ⧓ BB-215 Sta. 155+78 25' Rt.
- ⧓ BB-216 Sta. 153+59 17' Lt.
- ⧓ BB-217 Sta. 155+02 62' Lt.
- ⧓ BB-218 Sta. 155+39 20' Lt.
- ⧓ BB-219 Sta. 156+83 48' Lt.



PLAN



TOP OF RAIL ELEVATIONS B.N.S.F. R.R.



PROFILE GRADE

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

DESIGN SPECIFICATIONS

2002 AASHTO

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.07% g
Site Coefficient (S) = 1.0

LOADING HS20-44

Allow 50#/sq.ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (1/2" ϕ low lax strands)
fsi = 201,960 psi (1/2" ϕ low lax. strands)

INDEX OF SHEETS

STATION 154+56.74
BUILT 20-- BY
STATE OF ILLINOIS
F.A.P. RTE. 315 SEC. 55-2
LOADING HS20
STR. NO. 055-XXXX

NAME PLATE

See Std. 515001

XXXX = 0052 (EB)
XXXX = 0053 (WB)

NOTES

1. Ex. 48" ϕ R.C.P. Culvert under R.R. tracks to be abandoned in place by grouting solid with concrete. Track side ditches to be graded to drain to Southwest. See roadway drainage plans.

2. Embankments will be placed using wick drains, typ. See roadway plans.

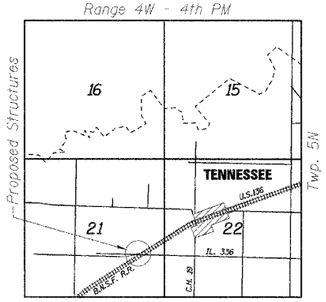
3. No deck drains will be permitted in Span #2 over the tracks or within 10' of cross arms of a R.R. pole line. Overhead utilities parallel to the track on east and west sides are to be relocated.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS · PHILIP J. LANE · 4084 · PEORIA, IL · LICENSED STRUCTURAL ENGINEER

Philip J. Lane — 3/30/06
Illinois Licensed Structural Engineer No. 4084 — Date
Lic. Expires: 11/30/06

Range 4W - 4th PM



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph:(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

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GENERAL NOTES

1.) Reinforcement bars shall conform to the requirements of AASHTO M31 or M32.2 Grade 60.

2.) The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

3.) Piles at abutments shall be driven through 18" ϕ holes precored through the embankment according to Article 512.10(c) of the Standard Specifications. Precored holes shall extend to elevations, thus:

	E.B.	W.B.
W. Abut.	El. 672.40	El. 669.30
E. Abut.	El. 673.30	El. 669.30

4.) The contractor shall drive four steel H-pile test piles in permanent locations as directed by the Engineer before ordering the remainder of piles, thus:

Number	Steel H-pile test pile, typ.	Location
1	HP 10 x 57	W.B., W. Abut.
1	HP 12 x 63	E.B., Pier #1
1	HP 12 x 63	W.B., Pier #2
1	HP 10 x 57	E.B., E. Abut.

5.) When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the deck Pouring Sequence as shown on the deck plan Sht. 7 of 22, the next pour shall not be made until both of the following requirements are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.

2. The concrete strength shall have attained a mimimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

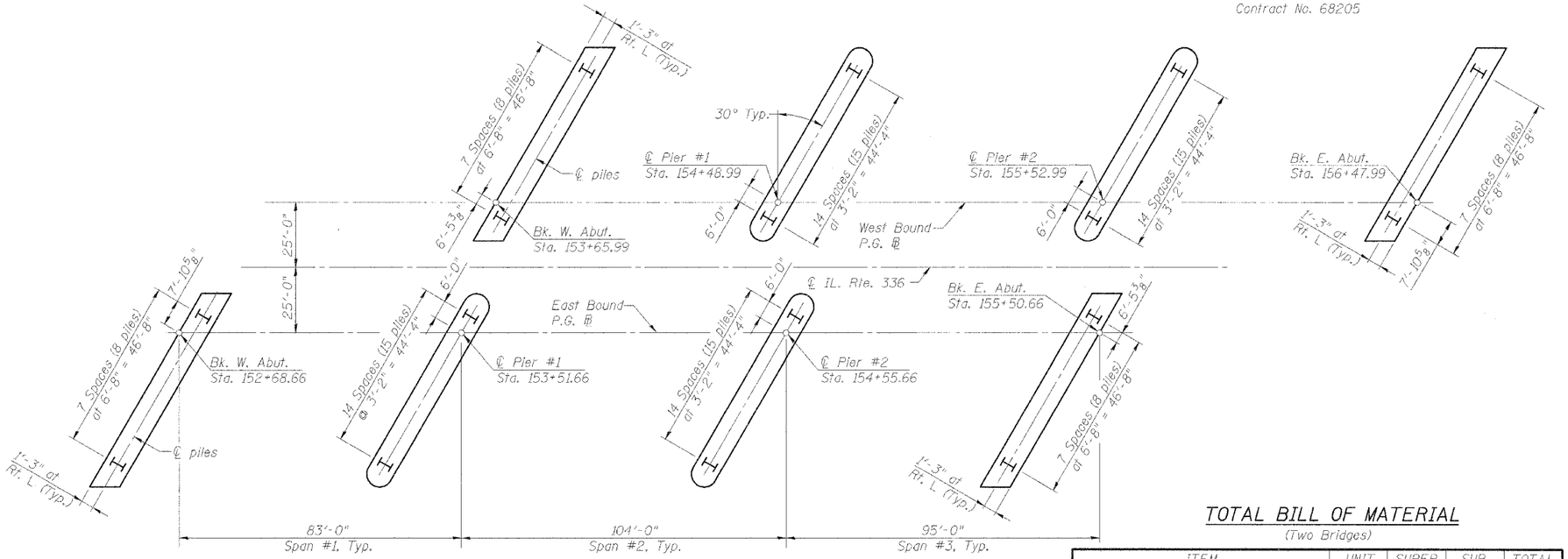
6.) All construction joints shall be bonded.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	458
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
22 SHEETS

Contract No. 68205

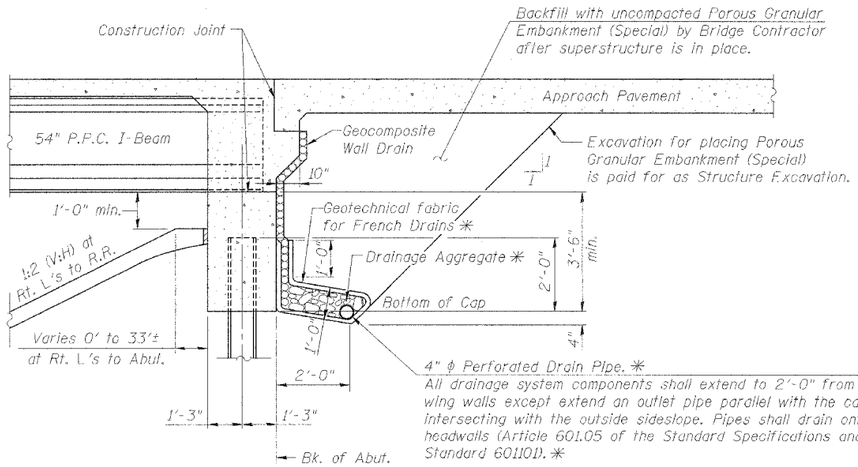


SUBSTRUCTURE LAYOUT

TOTAL BILL OF MATERIAL

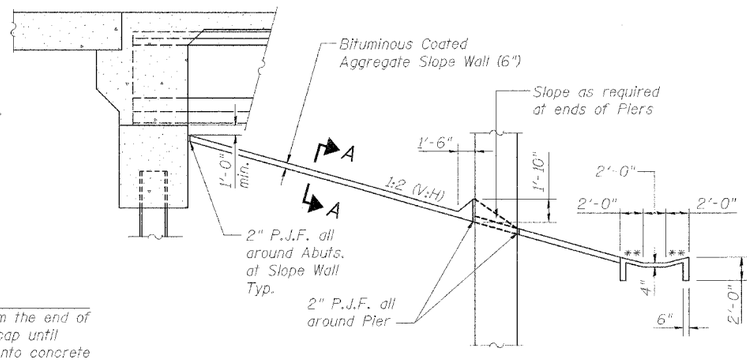
(Two Bridges)

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.		1,087	1,087
Floor Drains	Each	24		24
Concrete Structures	Cu. Yd.		650.5	650.5
Concrete Superstructure	Cu. Yd.	854.6		854.6
Protective Coat	Sq. Yd.	3,060		3,060
Furnishing and Erecting Precast Prestressed Concrete I-beams, 54"	Foot	4,466		4,466
Reinforcement Bars, Epoxy Coated	Pound	172,660	66,860	239,520
Test Pile Steel HP 10 x 57	Each		2	2
Test Pile Steel HP 12 x 63	Each		2	2
Furnishing Steel Piles HP 10 x 57	Foot		2,455	2,455
Furnishing Steel Piles HP 12 x 63	Foot		5,225	5,225
Driving Steel Piles	Foot		7,680	7,680
Name Plates	Each	2		2
Bridge Deck Grooving	Sq. Yd.	2,382		2,382
Bituminous Coated Aggregate Slope Wall, 6"	Sq. Yd.		2,935	2,935
Porous Granular Embankment (Special)	Cu. Yd.		440	440
Bar Splicers	Each	160		160
Pipe Underdrains for Structures, 4"	Foot		312	312
Geocomposite Wall Drain	Sq. Yd.		230	230



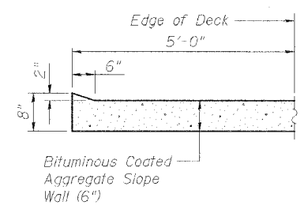
SECTION THRU INTEGRAL ABUTMENT

All horizontal dimensions at Rt. L's to abutment unless otherwise noted.



SECTION THRU SLOPE WALL

(Horizontal dimensons @ Rt. L's to R.R.)
** = 1:4 (V:H)



SECTION A-A

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

✳ Included in the cost of Pipe Underdrains for Structures.

TOTAL BILL OF MATERIAL,
SLOPE PROTECTION DETAILS, &
SUBSTRUCTURE LAYOUT
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

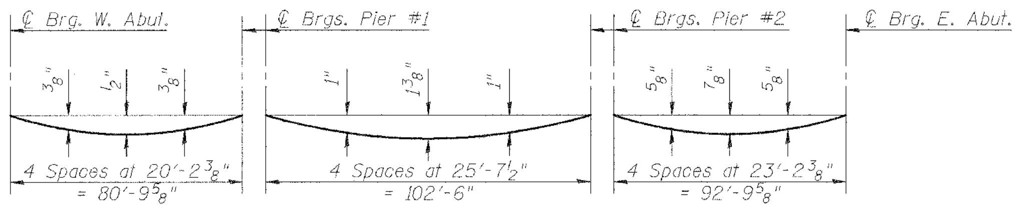
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	459

SHEET NO. 3
22 SHEETS

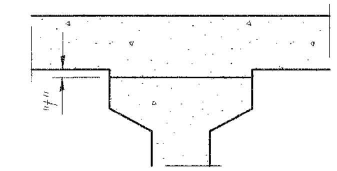
Contract No. 68205



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below and on sht. 4 of 22, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

BEAM #1

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+71.186	4.375	700.142	700.142
℄ W. Abut.	152+72.629	4.375	700.158	700.158
A	152+82.629	4.375	700.268	700.285
B	152+92.629	4.375	700.374	700.406
C	153+02.629	4.375	700.478	700.520
D	153+12.629	4.375	700.580	700.625
E	153+22.629	4.375	700.678	700.720
F	153+32.629	4.375	700.774	700.807
G	153+42.629	4.375	700.868	700.887
℄ Pier #1	153+54.186	4.375	700.973	700.973
H	153+64.186	4.375	701.061	701.096
I	153+74.186	4.375	701.146	701.213
J	153+84.186	4.375	701.229	701.321
K	153+94.186	4.375	701.309	701.418
L	154+04.186	4.375	701.386	701.502
M	154+14.186	4.375	701.461	701.574
N	154+24.186	4.375	701.533	701.633
O	154+34.186	4.375	701.603	701.680
P	154+44.186	4.375	701.670	701.718
℄ Pier #2	154+58.186	4.375	701.759	701.759
Q	154+68.186	4.375	701.820	701.846
R	154+78.186	4.375	701.878	701.927
S	154+88.186	4.375	701.934	702.000
T	154+98.186	4.375	701.987	702.063
U	155+08.186	4.375	702.037	702.115
V	155+18.186	4.375	702.085	702.156
W	155+28.186	4.375	702.130	702.186
X	155+38.186	4.375	702.172	702.207
℄ E. Abut.	155+51.743	4.375	702.226	702.226
Bk. E. Abut.	155+53.186	4.375	702.231	702.231

P.G.

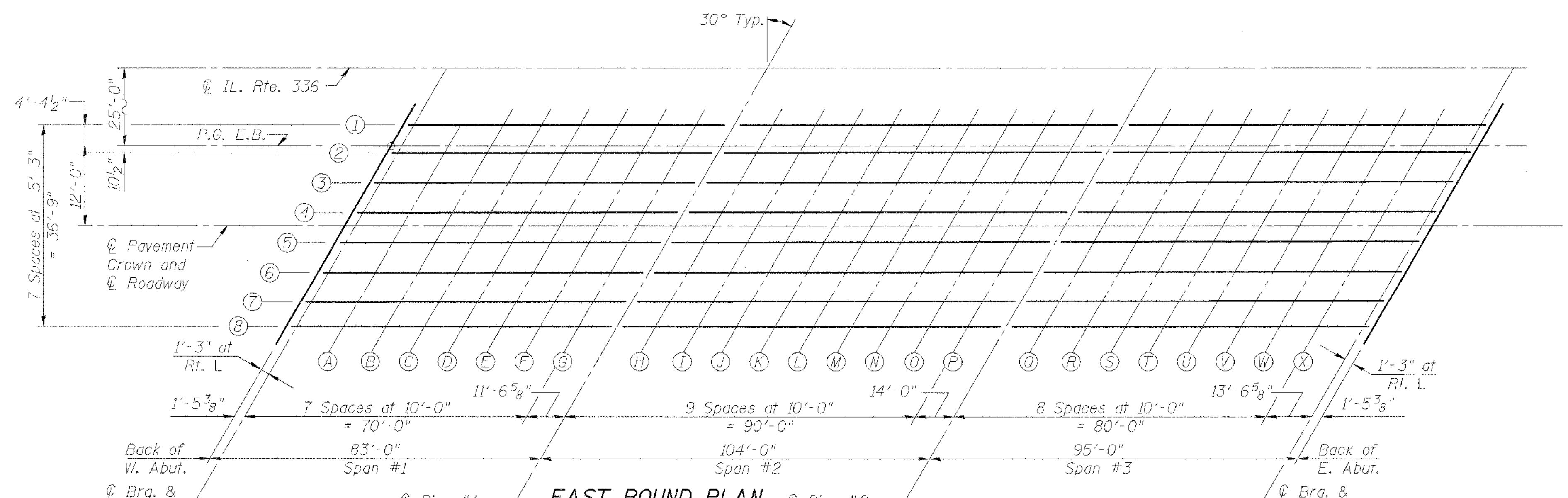
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+68.660	0	700.205	700.205
℄ W. Abut.	152+70.103	0	700.222	700.222
A	152+80.103	0	700.331	700.349
B	152+90.103	0	700.439	700.470
C	153+00.103	0	700.543	700.585
D	153+10.103	0	700.645	700.690
E	153+20.103	0	700.745	700.787
F	153+30.103	0	700.842	700.875
G	153+40.103	0	700.936	700.955
℄ Pier #1	153+51.660	0	701.041	701.041
H	153+61.660	0	701.130	701.165
I	153+71.660	0	701.216	701.282
J	153+81.660	0	701.299	701.391
K	153+91.660	0	701.380	701.489
L	154+01.660	0	701.458	701.574
M	154+11.660	0	701.534	701.647
N	154+21.660	0	701.606	701.706
O	154+31.660	0	701.677	701.754
P	154+41.660	0	701.744	701.792
℄ Pier #2	154+55.660	0	701.835	701.835
Q	154+65.660	0	701.896	701.922
R	154+75.660	0	701.955	702.003
S	154+85.660	0	702.011	702.077
T	154+95.660	0	702.065	702.141
U	155+05.660	0	702.116	702.194
V	155+15.660	0	702.164	702.235
W	155+25.660	0	702.210	702.266
X	155+35.660	0	702.253	702.288
℄ E. Abut.	155+49.210	0	702.307	702.307
Bk. E. Abut.	155+50.660	0	702.313	702.313

BEAM #2

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+68.155	0.875	700.214	700.214
℄ W. Abut.	152+69.598	0.875	700.230	700.230
A	152+79.598	0.875	700.340	700.357
B	152+89.598	0.875	700.447	700.479
C	152+99.598	0.875	700.552	700.593
D	153+09.598	0.875	700.654	700.699
E	153+19.598	0.875	700.753	700.796
F	153+29.598	0.875	700.850	700.883
G	153+39.598	0.875	700.945	700.964
℄ Pier #1	153+51.155	0.875	701.051	701.051
H	153+61.155	0.875	701.139	701.174
I	153+71.155	0.875	701.225	701.292
J	153+81.155	0.875	701.309	701.401
K	153+91.155	0.875	701.390	701.499
L	154+01.155	0.875	701.468	701.584
M	154+11.155	0.875	701.544	701.657
N	154+21.155	0.875	701.617	701.716
O	154+31.155	0.875	701.687	701.764
P	154+41.155	0.875	701.755	701.803
℄ Pier #2	154+55.155	0.875	701.845	701.845
Q	154+65.155	0.875	701.907	701.932
R	154+75.155	0.875	701.966	702.014
S	154+85.155	0.875	702.022	702.088
T	154+95.155	0.875	702.076	702.152
U	155+05.155	0.875	702.127	702.205
V	155+15.155	0.875	702.175	702.247
W	155+25.155	0.875	702.221	702.278
X	155+35.155	0.875	702.264	702.300
℄ E. Abut.	155+48.711	0.875	702.319	702.319
Bk. E. Abut.	155+50.155	0.875	702.324	702.324

BEAM #3

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+65.124	6.125	700.262	700.262
℄ W. Abut.	152+66.567	6.125	700.278	700.278
A	152+76.567	6.125	700.389	700.406
B	152+86.567	6.125	700.497	700.529
C	152+96.567	6.125	700.602	700.644
D	153+06.567	6.125	700.705	700.750
E	153+16.567	6.125	700.806	700.848
F	153+26.567	6.125	700.903	700.936
G	153+36.567	6.125	700.998	701.018
℄ Pier #1	153+48.124	6.125	701.105	701.105
H	153+58.124	6.125	701.195	701.229
I	153+68.124	6.125	701.282	701.348
J	153+78.124	6.125	701.366	701.458
K	153+88.124	6.125	701.447	701.556
L	153+98.124	6.125	701.526	701.643
M	154+08.124	6.125	701.603	701.716
N	154+18.124	6.125	701.677	701.776
O	154+28.124	6.125	701.748	701.825
P	154+38.124	6.125	701.817	701.864
℄ Pier #2	154+52.124	6.125	701.908	701.908
Q	154+62.124	6.125	701.970	701.996
R	154+72.124	6.125	702.030	702.079
S	154+82.124	6.125	702.087	702.153
T	154+92.124	6.125	702.142	702.218
U	155+02.124	6.125	702.194	702.272
V	155+12.124	6.125	702.243	702.314
W	155+22.124	6.125	702.290	702.346
X	155+32.124	6.125	702.334	702.369
℄ E. Abut.	155+45.680	6.125	702.389	702.389
Bk. E. Abut.	155+47.124	6.125	702.395	702.395



EAST BOUND PLAN
SN 055-0052

N

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

EAST BOUND DECK ELEVATIONS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	460
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
22 SHEETS

Contract No. 68205

BEAM #4

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+62.093	11.375	700.309	700.309
℄ W. Abut.	152+63.536	11.375	700.326	700.326
A	152+73.536	11.375	700.437	700.455
B	152+83.536	11.375	700.546	700.578
C	152+93.536	11.375	700.653	700.694
D	153+03.536	11.375	700.756	700.801
E	153+13.536	11.375	700.858	700.900
F	153+23.536	11.375	700.956	700.989
G	153+33.536	11.375	701.052	701.071
℄ Pier #1	153+45.093	11.375	701.160	701.160
H	153+55.093	11.375	701.250	701.285
I	153+65.093	11.375	701.337	701.404
J	153+75.093	11.375	701.423	701.515
K	153+85.093	11.375	701.505	701.614
L	153+95.093	11.375	701.585	701.701
M	154+05.093	11.375	701.662	701.775
N	154+15.093	11.375	701.737	701.836
O	154+25.093	11.375	701.809	701.886
P	154+35.093	11.375	701.878	701.926
℄ Pier #2	154+49.093	11.375	701.971	701.971
Q	154+59.093	11.375	702.034	702.059
R	154+69.093	11.375	702.094	702.143
S	154+79.093	11.375	702.152	702.218
T	154+89.093	11.375	702.208	702.284
U	154+99.093	11.375	702.260	702.338
V	155+09.093	11.375	702.310	702.381
W	155+19.093	11.375	702.358	702.414
X	155+29.093	11.375	702.403	702.438
℄ E. Abut.	155+42.649	11.375	702.459	702.459
Bk. E. Abut.	155+44.093	11.375	702.465	702.465

CENTERLINE CROWN

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+61.732	12.000	700.315	700.315
℄ W. Abut.	152+63.175	12.000	700.331	700.331
A	152+73.175	12.000	700.443	700.460
B	152+83.175	12.000	700.552	700.584
C	152+93.175	12.000	700.659	700.700
D	153+03.175	12.000	700.762	700.807
E	153+13.175	12.000	700.864	700.906
F	153+23.175	12.000	700.962	700.995
G	153+33.175	12.000	701.058	701.077
℄ Pier #1	153+44.732	12.000	701.166	701.166
H	153+54.732	12.000	701.256	701.291
I	153+64.732	12.000	701.344	701.411
J	153+74.732	12.000	701.429	701.521
K	153+84.732	12.000	701.512	701.621
L	153+94.732	12.000	701.592	701.708
M	154+04.732	12.000	701.669	701.782
N	154+14.732	12.000	701.744	701.843
O	154+24.732	12.000	701.816	701.893
P	154+34.732	12.000	701.885	701.933
℄ Pier #2	154+48.732	12.000	701.978	701.978
Q	154+58.732	12.000	702.041	702.067
R	154+68.732	12.000	702.102	702.150
S	154+78.732	12.000	702.160	702.226
T	154+88.732	12.000	702.215	702.292
U	154+98.732	12.000	702.268	702.346
V	155+08.732	12.000	702.318	702.389
W	155+18.732	12.000	702.366	702.422
X	155+28.732	12.000	702.411	702.446
℄ E. Abut.	155+42.288	12.000	702.468	702.468
Bk. E. Abut.	155+43.732	12.000	702.473	702.473

BEAM #5

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+59.062	16.625	700.212	700.212
℄ W. Abut.	152+60.505	16.625	700.229	700.229
A	152+70.505	16.625	700.341	700.359
B	152+80.505	16.625	700.451	700.483
C	152+90.505	16.625	700.558	700.600
D	153+00.505	16.625	700.663	700.708
E	153+10.505	16.625	700.765	700.807
F	153+20.505	16.625	700.864	700.897
G	153+30.505	16.625	700.961	700.980
℄ Pier #1	153+42.062	16.625	701.069	701.069
H	153+52.062	16.625	701.160	701.195
I	153+62.062	16.625	701.249	701.315
J	153+72.062	16.625	701.335	701.426
K	153+82.062	16.625	701.418	701.527
L	153+92.062	16.625	701.498	701.615
M	154+02.062	16.625	701.576	701.689
N	154+12.062	16.625	701.652	701.752
O	154+22.062	16.625	701.725	701.802
P	154+32.062	16.625	701.795	701.843
℄ Pier #2	154+46.062	16.625	701.889	701.889
Q	154+56.062	16.625	701.953	701.978
R	154+66.062	16.625	702.014	702.062
S	154+76.062	16.625	702.073	702.138
T	154+86.062	16.625	702.129	702.205
U	154+96.062	16.625	702.182	702.260
V	155+06.062	16.625	702.233	702.304
W	155+16.062	16.625	702.281	702.338
X	155+26.062	16.625	702.327	702.362
℄ E. Abut.	155+39.618	16.625	702.384	702.384
Bk. E. Abut.	155+41.062	16.625	702.390	702.390

BEAM #6

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+56.030	21.875	700.096	700.096
℄ W. Abut.	152+57.474	21.875	700.112	700.112
A	152+67.474	21.875	700.225	700.243
B	152+77.474	21.875	700.336	700.368
C	152+87.474	21.875	700.444	700.485
D	152+97.474	21.875	700.549	700.594
E	153+07.474	21.875	700.652	700.694
F	153+17.474	21.875	700.752	700.785
G	153+27.474	21.875	700.850	700.869
℄ Pier #1	153+39.030	21.875	700.959	700.959
H	153+49.030	21.875	701.051	701.086
I	153+59.030	21.875	701.140	701.207
J	153+69.030	21.875	701.227	701.319
K	153+79.030	21.875	701.311	701.420
L	153+89.030	21.875	701.392	701.508
M	153+99.030	21.875	701.471	701.584
N	154+09.030	21.875	701.547	701.647
O	154+19.030	21.875	701.621	701.698
P	154+29.030	21.875	701.692	701.740
℄ Pier #2	154+43.030	21.875	701.787	701.787
Q	154+53.030	21.875	701.851	701.877
R	154+63.030	21.875	701.914	701.962
S	154+73.030	21.875	701.973	702.039
T	154+83.030	21.875	702.030	702.106
U	154+93.030	21.875	702.084	702.162
V	155+03.030	21.875	702.136	702.207
W	155+13.030	21.875	702.185	702.241
X	155+23.030	21.875	702.231	702.266
℄ E. Abut.	155+36.587	21.875	702.290	702.290
Bk. E. Abut.	155+38.030	21.875	702.296	702.296

BEAM #7

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+52.999	27.125	699.962	699.962
℄ W. Abut.	152+54.443	27.125	699.979	699.979
A	152+64.443	27.125	700.093	700.110
B	152+74.443	27.125	700.204	700.236
C	152+84.443	27.125	700.313	700.355
D	152+94.443	27.125	700.419	700.464
E	153+04.443	27.125	700.523	700.565
F	153+14.443	27.125	700.624	700.657
G	153+24.443	27.125	700.722	700.741
℄ Pier #1	153+35.999	27.125	700.832	700.832
H	153+45.999	27.125	700.925	700.960
I	153+55.999	27.125	701.015	701.082
J	153+65.999	27.125	701.102	701.194
K	153+75.999	27.125	701.187	701.296
L	153+85.999	27.125	701.269	701.386
M	153+95.999	27.125	701.349	701.462
N	154+05.999	27.125	701.426	701.526
O	154+15.999	27.125	701.500	701.578
P	154+25.999	27.125	701.572	701.620
℄ Pier #2	154+39.999	27.125	701.668	701.668
Q	154+49.999	27.125	701.734	701.759
R	154+59.999	27.125	701.797	701.845
S	154+69.999	27.125	701.857	701.923
T	154+79.999	27.125	701.915	701.991
U	154+89.999	27.125	701.970	702.048
V	154+99.999	27.125	702.022	702.093
W	155+09.999	27.125	702.072	702.128
X	155+19.999	27.125	702.119	702.154
℄ E. Abut.	155+33.556	27.125	702.179	702.179
Bk. E. Abut.	155+34.999	27.125	702.185	702.185

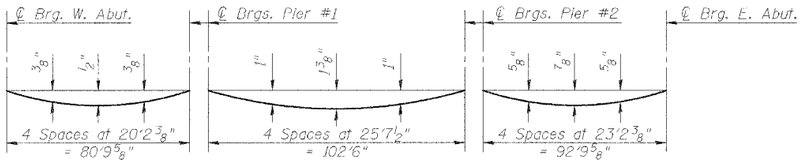
BEAM #8

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	152+49.968	32.375	699.818	699.818
℄ W. Abut.	152+51.412	32.375	699.835	699.835
A	152+61.412	32.375	699.949	699.967
B	152+71.412	32.375	700.062	700.093
C	152+81.412	32.375	700.171	700.213
D	152+91.412	32.375	700.278	700.323
E	153+01.412	32.375	700.382	700.424
F	153+11.412	32.375	700.484	700.517
G	153+21.412	32.375	700.583	700.602
℄ Pier #1	153+32.968	32.375	700.694	700.694
H	153+42.968	32.375	700.788	700.823
I	153+52.968	32.375	700.879	700.945
J	153+62.968	32.375	700.967	701.059
K	153+72.968	32.375	701.052	701.161
L	153+82.968	32.375	701.135	701.252
M	153+92.968	32.375	701.216	701.329
N	154+02.968	32.375	701.294	701.393
O	154+12.968	32.375	701.369	701.446
P	154+22.968	32.375	701.441	701.489
℄ Pier #2	154+36.968	32.375	701.539	701.539
Q	154+46.968	32.375	701.605	701.630
R	154+56.968	32.375	701.669	701.717
S	154+66.968	32.375	701.730	701.795
T	154+76.968	32.375	701.788	701.864
U	154+86.968	32.375	701.844	701.922
V	154+96.968	32.375	701.897	701.968
W	155+06.968	32.375	701.948	702.004
X	155+16.968	32.375	701.996	702.031
℄ E. Abut.	155+30.525	32.375	702.057	702.057
Bk. E. Abut.	155+31.968	32.375	702.063	702.063

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

EAST BOUND DECK ELEVATIONS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

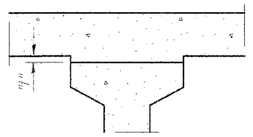


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, and on sht. 6 of 22, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	461
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
22 SHEETS

Contract No. 68205

BEAM #1

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+63.464	4.375	701.054	701.054
℄ W. Abut.	153+64.907	4.375	701.067	701.067
A	153+74.907	4.375	701.152	701.169
B	153+84.907	4.375	701.235	701.266
C	153+94.907	4.375	701.314	701.356
D	154+04.907	4.375	701.392	701.437
E	154+14.907	4.375	701.466	701.508
F	154+24.907	4.375	701.538	701.571
G	154+34.907	4.375	701.608	701.627
℄ Pier #1	154+46.464	4.375	701.685	701.685
H	154+56.464	4.375	701.749	701.784
I	154+66.464	4.375	701.810	701.876
J	154+76.464	4.375	701.868	701.960
K	154+86.464	4.375	701.924	702.033
L	154+96.464	4.375	701.978	702.094
M	155+06.464	4.375	702.029	702.142
N	155+16.464	4.375	702.077	702.176
O	155+26.464	4.375	702.122	702.200
P	155+36.464	4.375	702.165	702.213
℄ Pier #2	155+50.464	4.375	702.221	702.221
Q	155+60.464	4.375	702.257	702.283
R	155+70.464	4.375	702.291	702.340
S	155+80.464	4.375	702.323	702.389
T	155+90.464	4.375	702.352	702.428
U	156+00.464	4.375	702.378	702.456
V	156+10.464	4.375	702.401	702.473
W	156+20.464	4.375	702.422	702.479
X	156+30.464	4.375	702.441	702.476
℄ E. Abut.	156+44.021	4.375	702.462	702.462
Bk. E. Abut.	156+45.464	4.375	702.463	702.463

P.G.

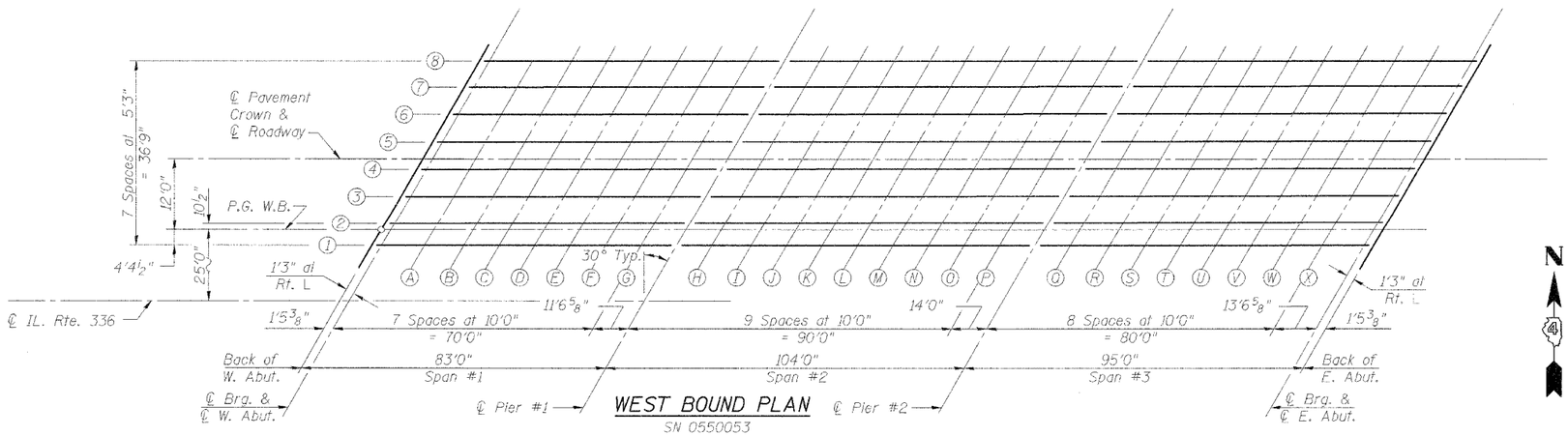
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+65.990	0	701.167	701.167
℄ W. Abut.	153+67.433	0	701.180	701.180
A	153+77.433	0	701.264	701.282
B	153+87.433	0	701.346	701.378
C	153+97.433	0	701.425	701.467
D	154+07.433	0	701.502	701.547
E	154+17.433	0	701.576	701.618
F	154+27.433	0	701.647	701.680
G	154+37.433	0	701.716	701.735
℄ Pier #1	154+48.990	0	701.792	701.792
H	154+58.990	0	701.856	701.890
I	154+68.990	0	701.916	701.983
J	154+78.990	0	701.974	702.066
K	154+88.990	0	702.029	702.138
L	154+98.990	0	702.082	702.198
M	155+08.990	0	702.132	702.245
N	155+18.990	0	702.180	702.279
O	155+28.990	0	702.224	702.302
P	155+38.990	0	702.267	702.315
℄ Pier #2	155+52.990	0	702.321	702.321
Q	155+62.990	0	702.357	702.383
R	155+72.990	0	702.391	702.439
S	155+82.990	0	702.422	702.487
T	155+92.990	0	702.450	702.526
U	156+02.990	0	702.475	702.553
V	156+12.990	0	702.498	702.569
W	156+22.990	0	702.518	702.575
X	156+32.990	0	702.536	702.571
℄ E. Abut.	156+46.547	0	702.556	702.556
Bk. E. Abut.	156+47.990	0	702.558	702.558

BEAM #2

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+66.495	0.875	701.186	701.186
℄ W. Abut.	153+67.939	0.875	701.198	701.198
A	153+77.939	0.875	701.282	701.300
B	153+87.939	0.875	701.364	701.396
C	153+97.939	0.875	701.443	701.484
D	154+07.939	0.875	701.519	701.564
E	154+17.939	0.875	701.593	701.635
F	154+27.939	0.875	701.665	701.698
G	154+37.939	0.875	701.733	701.752
℄ Pier #1	154+49.495	0.875	701.809	701.809
H	154+59.495	0.875	701.872	701.907
I	154+69.495	0.875	701.933	701.999
J	154+79.495	0.875	701.991	702.082
K	154+89.495	0.875	702.046	702.155
L	154+99.495	0.875	702.098	702.214
M	155+09.495	0.875	702.148	702.261
N	155+19.495	0.875	702.196	702.295
O	155+29.495	0.875	702.240	702.318
P	155+39.495	0.875	702.282	702.330
℄ Pier #2	155+53.495	0.875	702.337	702.337
Q	155+63.495	0.875	702.373	702.398
R	155+73.495	0.875	702.406	702.455
S	155+83.495	0.875	702.437	702.503
T	155+93.495	0.875	702.465	702.541
U	156+03.495	0.875	702.490	702.568
V	156+13.495	0.875	702.513	702.584
W	156+23.495	0.875	702.533	702.590
X	156+33.495	0.875	702.551	702.586
℄ E. Abut.	156+47.052	0.875	702.570	702.570
Bk. E. Abut.	156+48.495	0.875	702.572	702.572

BEAM #3

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+69.526	6.125	701.293	701.293
℄ W. Abut.	153+70.970	6.125	701.306	701.306
A	153+80.970	6.125	701.389	701.407
B	153+90.970	6.125	701.470	701.502
C	154+00.970	6.125	701.548	701.590
D	154+10.970	6.125	701.624	701.669
E	154+20.970	6.125	701.697	701.739
F	154+30.970	6.125	701.768	701.801
G	154+40.970	6.125	701.836	701.855
℄ Pier #1	154+52.526	6.125	701.911	701.911
H	154+62.526	6.125	701.973	702.008
I	154+72.526	6.125	702.033	702.099
J	154+82.526	6.125	702.090	702.182
K	154+92.526	6.125	702.144	702.253
L	155+02.526	6.125	702.196	702.312
M	155+12.526	6.125	702.245	702.358
N	155+22.526	6.125	702.291	702.391
O	155+32.526	6.125	702.335	702.413
P	155+42.526	6.125	702.377	702.425
℄ Pier #2	155+56.526	6.125	702.430	702.430
Q	155+66.526	6.125	702.465	702.491
R	155+76.526	6.125	702.498	702.546
S	155+86.526	6.125	702.528	702.593
T	155+96.526	6.125	702.555	702.631
U	156+06.526	6.125	702.579	702.657
V	156+16.526	6.125	702.601	702.673
W	156+26.526	6.125	702.621	702.677
X	156+36.526	6.125	702.638	702.673
℄ E. Abut.	156+50.083	6.125	702.656	702.656
Bk. E. Abut.	156+51.526	6.125	702.658	702.658



WEST BOUND PLAN

SN 0550053

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

WEST BOUND DECK ELEVATIONS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	462
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
22 SHEETS

Contract No. 68205

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM #4

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+72.557	11.375	701.401	701.401
℄ W. Abut.	153+74.001	11.375	701.413	701.413
A	153+84.001	11.375	701.496	701.513
B	153+94.001	11.375	701.576	701.608
C	154+04.001	11.375	701.654	701.695
D	154+14.001	11.375	701.729	701.774
E	154+24.001	11.375	701.801	701.843
F	154+34.001	11.375	701.871	701.904
G	154+44.001	11.375	701.938	701.957
℄ Pier #1	154+55.557	11.375	702.012	702.012
H	154+65.557	11.375	702.073	702.108
I	154+75.557	11.375	702.132	702.199
J	154+85.557	11.375	702.188	702.280
K	154+95.557	11.375	702.242	702.351
L	155+05.557	11.375	702.293	702.409
M	155+15.557	11.375	702.341	702.454
N	155+25.557	11.375	702.387	702.487
O	155+35.557	11.375	702.430	702.508
P	155+45.557	11.375	702.471	702.519
℄ Pier #2	155+59.557	11.375	702.523	702.523
Q	155+69.557	11.375	702.557	702.583
R	155+79.557	11.375	702.589	702.637
S	155+89.557	11.375	702.618	702.684
T	155+99.557	11.375	702.645	702.721
U	156+09.557	11.375	702.668	702.746
V	156+19.557	11.375	702.690	702.761
W	156+29.557	11.375	702.708	702.765
X	156+39.557	11.375	702.724	702.759
℄ E. Abut.	156+53.114	11.375	702.742	702.742
Bk. E. Abut.	156+54.557	11.375	702.743	702.743

CENTERLINE CROWN

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+72.918	12.000	701.414	701.414
℄ W. Abut.	153+74.362	12.000	701.426	701.426
A	153+84.362	12.000	701.509	701.526
B	153+94.362	12.000	701.589	701.621
C	154+04.362	12.000	701.666	701.708
D	154+14.362	12.000	701.741	701.786
E	154+24.362	12.000	701.813	701.855
F	154+34.362	12.000	701.883	701.916
G	154+44.362	12.000	701.950	701.969
℄ Pier #1	154+55.918	12.000	702.024	702.024
H	154+65.918	12.000	702.085	702.120
I	154+75.918	12.000	702.144	702.210
J	154+85.918	12.000	702.200	702.292
K	154+95.918	12.000	702.254	702.363
L	155+05.918	12.000	702.304	702.421
M	155+15.918	12.000	702.353	702.466
N	155+25.918	12.000	702.398	702.498
O	155+35.918	12.000	702.441	702.519
P	155+45.918	12.000	702.482	702.530
℄ Pier #2	155+59.918	12.000	702.534	702.534
Q	155+69.918	12.000	702.568	702.594
R	155+79.918	12.000	702.600	702.648
S	155+89.918	12.000	702.629	702.695
T	155+99.918	12.000	702.655	702.731
U	156+09.918	12.000	702.679	702.757
V	156+19.918	12.000	702.700	702.771
W	156+29.918	12.000	702.719	702.775
X	156+39.918	12.000	702.734	702.770
℄ E. Abut.	156+53.475	12.000	702.752	702.752
Bk. E. Abut.	156+54.918	12.000	702.753	702.753

BEAM #5

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+75.588	16.625	701.364	701.364
℄ W. Abut.	153+77.032	16.625	701.376	701.376
A	153+87.032	16.625	701.458	701.475
B	153+97.032	16.625	701.537	701.569
C	154+07.032	16.625	701.614	701.656
D	154+17.032	16.625	701.688	701.733
E	154+27.032	16.625	701.760	701.802
F	154+37.032	16.625	701.829	701.862
G	154+47.032	16.625	701.895	701.914
℄ Pier #1	154+58.588	16.625	701.968	701.968
H	154+68.588	16.625	702.029	702.064
I	154+78.588	16.625	702.087	702.153
J	154+88.588	16.625	702.142	702.234
K	154+98.588	16.625	702.195	702.304
L	155+08.588	16.625	702.245	702.362
M	155+18.588	16.625	702.293	702.406
N	155+28.588	16.625	702.338	702.438
O	155+38.588	16.625	702.380	702.458
P	155+48.588	16.625	702.420	702.468
℄ Pier #2	155+62.588	16.625	702.471	702.471
Q	155+72.588	16.625	702.505	702.530
R	155+82.588	16.625	702.536	702.584
S	155+92.588	16.625	702.564	702.630
T	156+02.588	16.625	702.590	702.666
U	156+12.588	16.625	702.613	702.690
V	156+22.588	16.625	702.633	702.704
W	156+32.588	16.625	702.651	702.707
X	156+42.588	16.625	702.666	702.701
℄ E. Abut.	156+56.145	16.625	702.682	702.682
Bk. E. Abut.	156+57.588	16.625	702.684	702.684

BEAM #6

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+78.620	21.875	701.307	701.307
℄ W. Abut.	153+80.063	21.875	701.319	701.319
A	153+90.063	21.875	701.400	701.418
B	154+00.063	21.875	701.479	701.511
C	154+10.063	21.875	701.555	701.596
D	154+20.063	21.875	701.628	701.673
E	154+30.063	21.875	701.699	701.741
F	154+40.063	21.875	701.767	701.800
G	154+50.063	21.875	701.833	701.852
℄ Pier #1	154+61.620	21.875	701.905	701.905
H	154+71.620	21.875	701.965	702.000
I	154+81.620	21.875	702.022	702.088
J	154+91.620	21.875	702.077	702.169
K	155+01.620	21.875	702.129	702.238
L	155+11.620	21.875	702.178	702.294
M	155+21.620	21.875	702.225	702.338
N	155+31.620	21.875	702.269	702.369
O	155+41.620	21.875	702.311	702.388
P	155+51.620	21.875	702.350	702.397
℄ Pier #2	155+65.620	21.875	702.400	702.400
Q	155+75.620	21.875	702.432	702.458
R	155+85.620	21.875	702.462	702.511
S	155+95.620	21.875	702.490	702.556
T	156+05.620	21.875	702.515	702.591
U	156+15.620	21.875	702.537	702.615
V	156+25.620	21.875	702.557	702.628
W	156+35.620	21.875	702.574	702.630
X	156+45.620	21.875	702.588	702.623
℄ E. Abut.	156+59.176	21.875	702.603	702.603
Bk. E. Abut.	156+60.620	21.875	702.605	702.605

BEAM #7

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+81.651	27.125	701.234	701.234
℄ W. Abut.	153+83.094	27.125	701.246	701.246
A	153+93.094	27.125	701.326	701.344
B	154+03.094	27.125	701.404	701.436
C	154+13.094	27.125	701.479	701.521
D	154+23.094	27.125	701.552	701.597
E	154+33.094	27.125	701.622	701.664
F	154+43.094	27.125	701.689	701.722
G	154+53.094	27.125	701.754	701.773
℄ Pier #1	154+64.651	27.125	701.825	701.825
H	154+74.651	27.125	701.884	701.919
I	154+84.651	27.125	701.941	702.007
J	154+94.651	27.125	701.994	702.086
K	155+04.651	27.125	702.046	702.155
L	155+14.651	27.125	702.094	702.210
M	155+24.651	27.125	702.140	702.253
N	155+34.651	27.125	702.184	702.283
O	155+44.651	27.125	702.224	702.302
P	155+54.651	27.125	702.263	702.310
℄ Pier #2	155+68.651	27.125	702.312	702.312
Q	155+78.651	27.125	702.343	702.369
R	155+88.651	27.125	702.373	702.421
S	155+98.651	27.125	702.399	702.465
T	156+08.651	27.125	702.423	702.500
U	156+18.651	27.125	702.445	702.523
V	156+28.651	27.125	702.464	702.535
W	156+38.651	27.125	702.480	702.536
X	156+48.651	27.125	702.494	702.529
℄ E. Abut.	156+62.207	27.125	702.508	702.508
Bk. E. Abut.	156+63.651	27.125	702.509	702.509

BEAM #8

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	153+84.682	32.375	701.149	701.149
℄ W. Abut.	153+86.125	32.375	701.161	701.161
A	153+96.125	32.375	701.241	701.258
B	154+06.125	32.375	701.318	701.349
C	154+16.125	32.375	701.392	701.433
D	154+26.125	32.375	701.464	701.509
E	154+36.125	32.375	701.533	701.575
F	154+46.125	32.375	701.599	701.632
G	154+56.125	32.375	701.663	701.682
℄ Pier #1	154+67.682	32.375	701.734	701.734
H	154+77.682	32.375	701.792	701.827
I	154+87.682	32.375	701.848	701.914
J	154+97.682	32.375	701.901	701.993
K	155+07.682	32.375	701.951	702.060
L	155+17.682	32.375	701.999	702.115
M	155+27.682	32.375	702.044	702.157
N	155+37.682	32.375	702.087	702.187
O	155+47.682	32.375	702.127	702.204
P	155+57.682	32.375	702.164	702.212
℄ Pier #2	155+71.682	32.375	702.212	702.212
Q	155+81.682	32.375	702.243	702.269
R	155+91.682	32.375	702.272	702.320
S	156+01.682	32.375	702.298	702.363
T	156+11.682	32.375	702.321	702.397
U	156+21.682	32.375	702.342	702.419
V	156+31.682	32.375	702.360	702.431
W	156+41.682	32.375	702.375	702.431
X	156+51.682	32.375	702.388	702.423
℄ E. Abut.	156+65.238	32.375	702.401	702.401
Bk. E. Abut.	156+66.682	32.375	702.402	702.402

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

WEST BOUND DECK ELEVATIONS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0053 (WB)

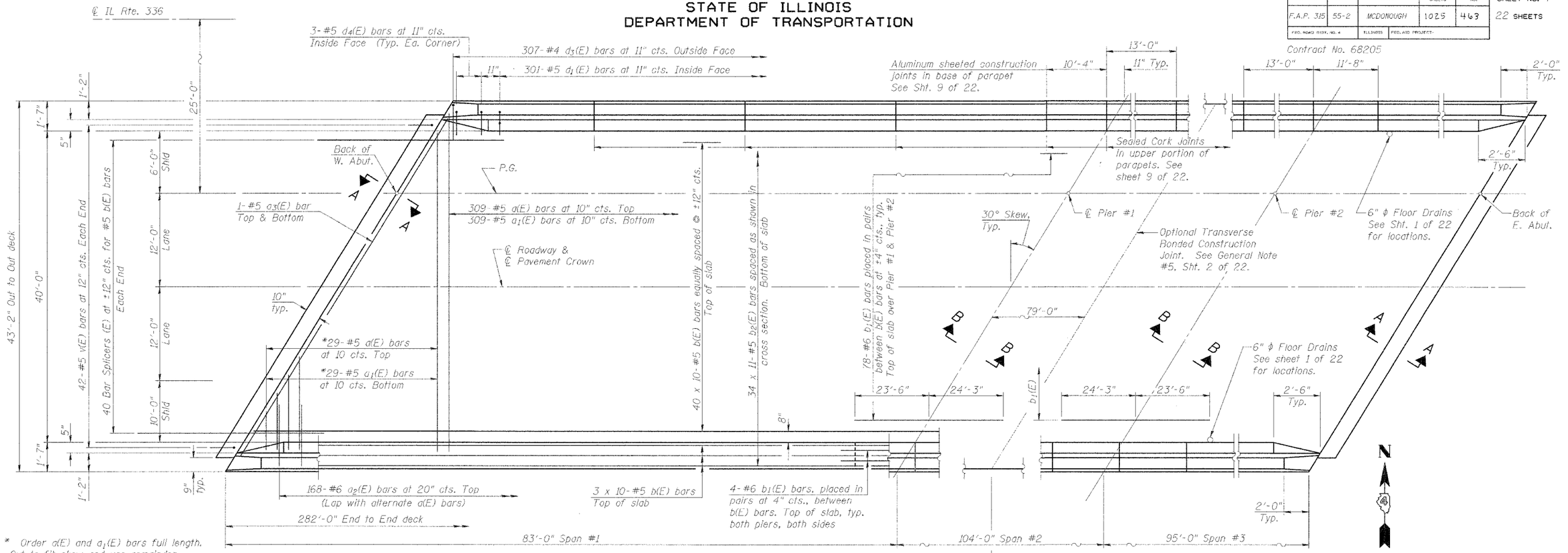
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	463
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
22 SHEETS

Contract No. 68205

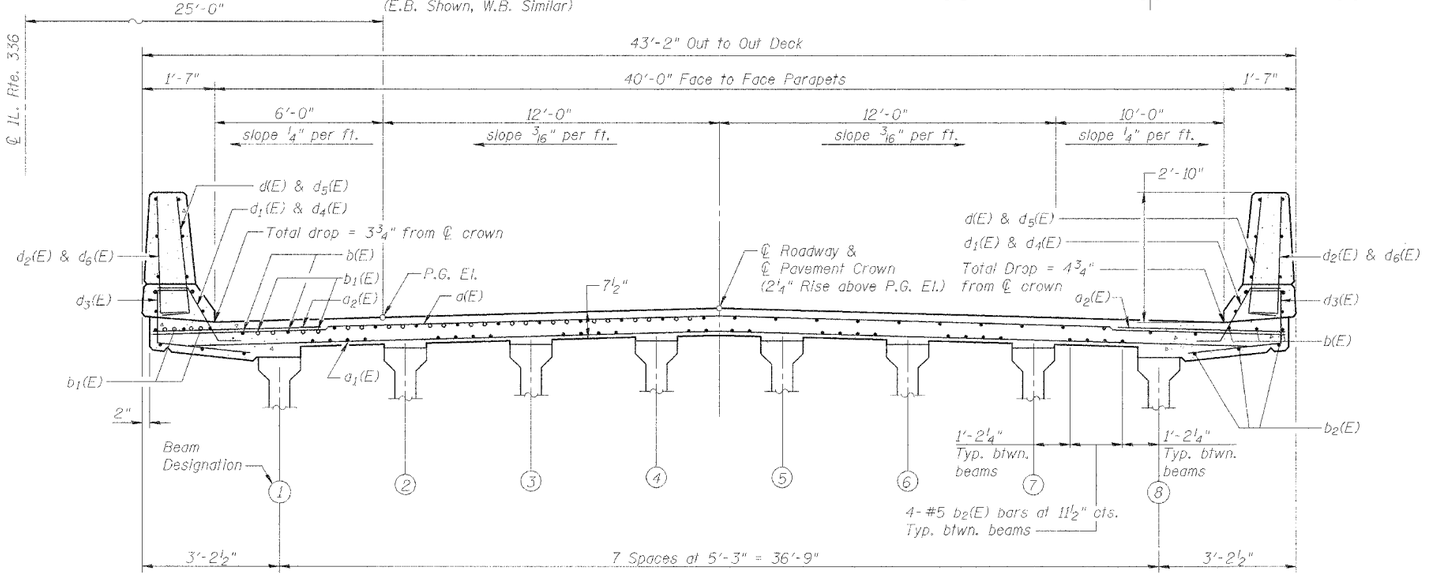


* Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

PLAN

Optional Deck Pour #1 | Optional Deck Pour #2

(E.B. Shown, W.B. Similar)



NEAR PIER | CROSS SECTION | NEAR MIDSPAN

(Looking in direction of travel: E. for E.B. & W. for W.B.)

NOTES

1.) See Sht. 9 of 22 for superstructure details and Bill of Material.
2.) See sht. 8 of 22 for Sections A-A & B-B.
3.) Reinforcement bars designated (E) shall be epoxy coated.
4.) Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5.) Minimum lap for #5 bars = 2'-2".
6.) See Sht. 9 of 22 for parapet reinforcement and joint locations.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

DECK DETAILS
IL. ROUTE 336 OVER BURLINGTON NORTHERN SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2 McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
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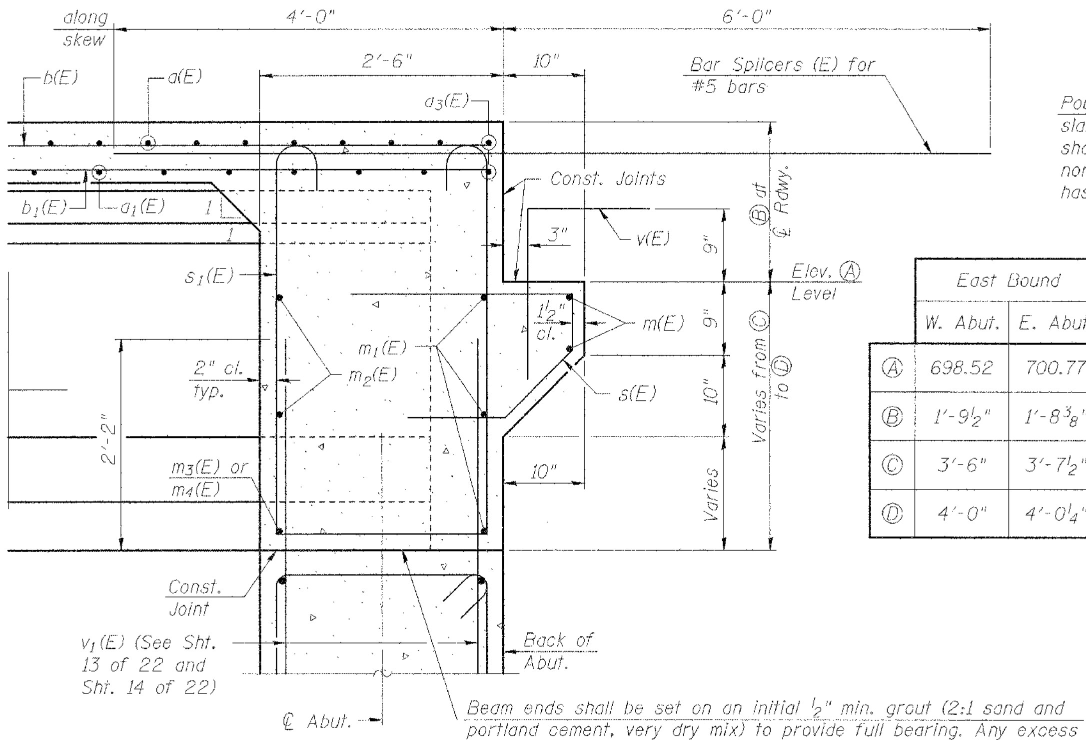
IL Design Firm Reg. No. 184-001518

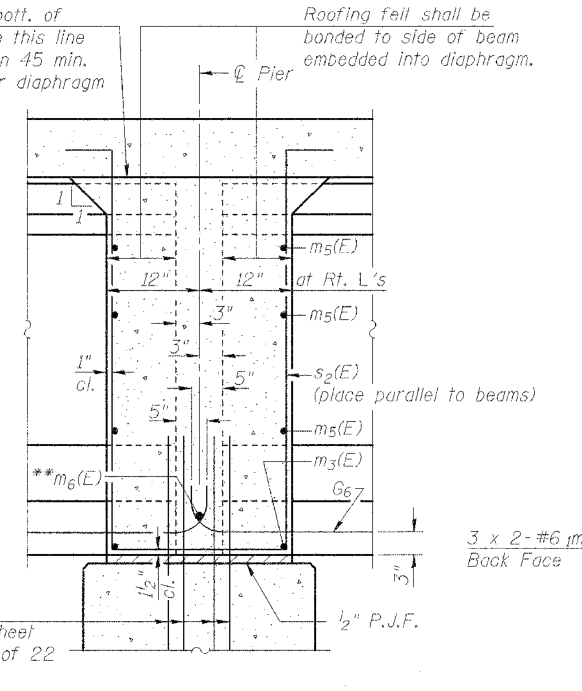
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A-A

Dimensions at right angles to abutment, except as shown.
See "Section Thru Integral Abutment", Sht. 2 of 22.

	East Bound		West Bound	
	W. Abut.	E. Abut.	W. Abut.	E. Abut.
Ⓐ	698.52	700.77	699.76	701.12
Ⓑ	1'-9½"	1'-8⅝"	1'-7¾"	1'-7½"
Ⓒ	3'-6"	3'-7½"	3'-8"	3'-8¼"
Ⓓ	4'-0"	4'-0¼"	4'-0"	4'-0⅜"

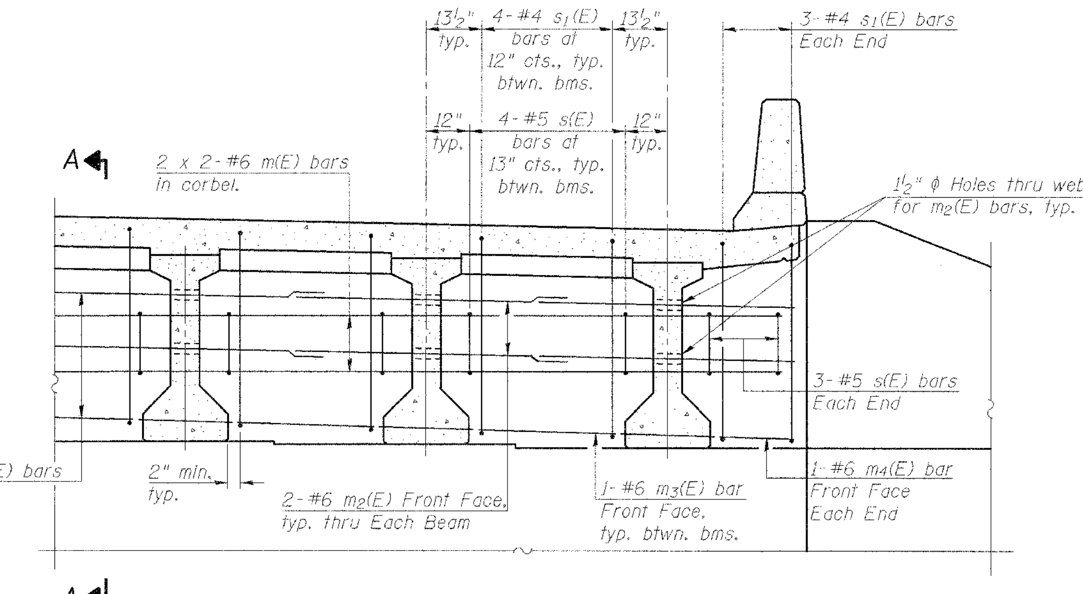


SECTION B-B

Dimensions along ℄ of beam, except as shown.

**Tightly fasten the #8 bars together with No. 9 wire ties.

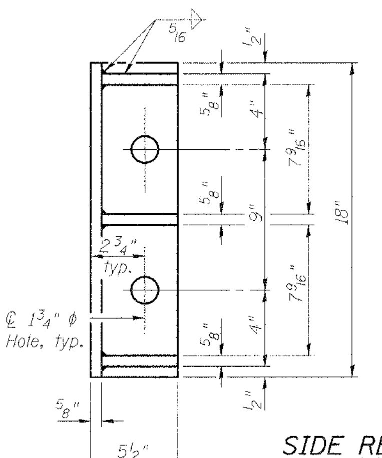
Note: See Sht. 7 of 22 for location of Sections A-A and B-B.



DIAPHRAGM ELEVATION AT ABUTMENT

MIN. BAR LAP

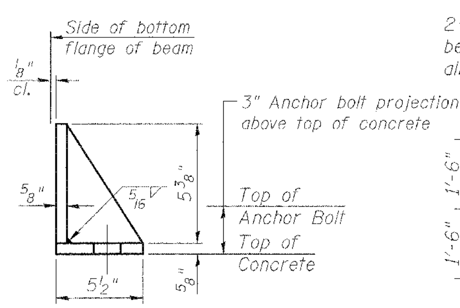
#6 bar = 2'-9"



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:
The side retainer shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Cost of side retainer and anchor bolts shall be included with Concrete Structures.



ANCHOR BOLT NOTES

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

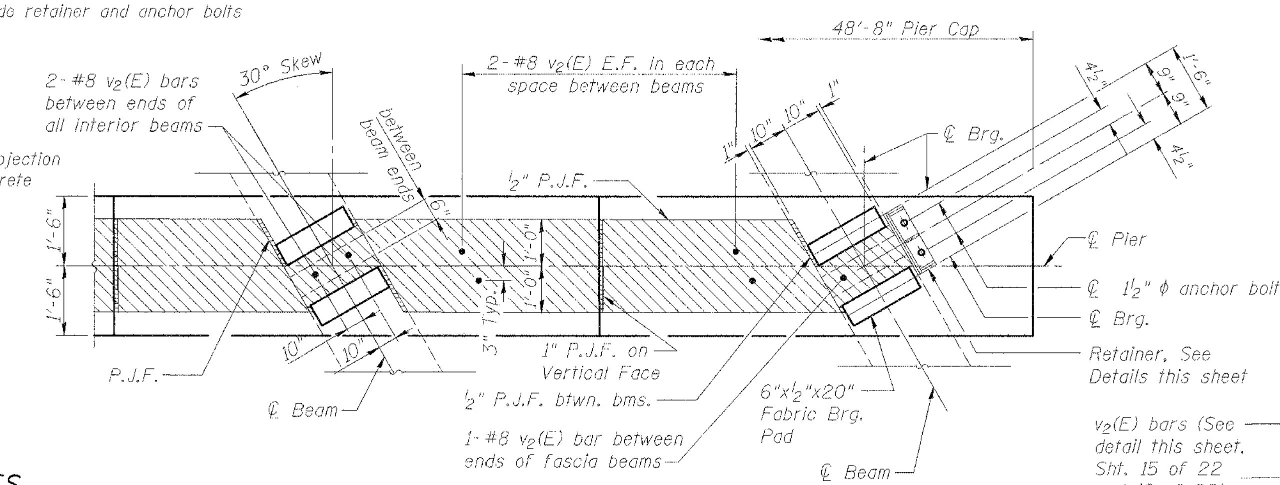
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be used for the anchor bolts.

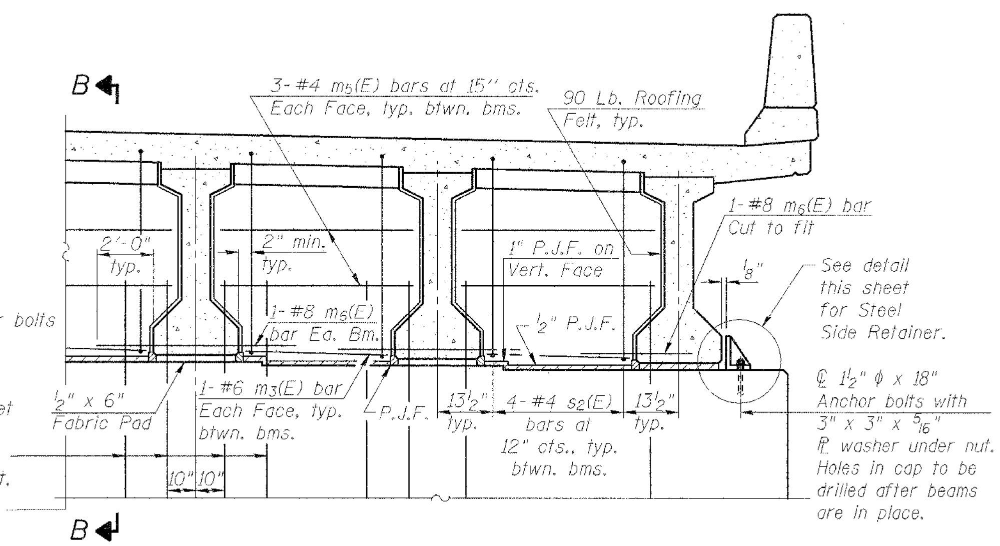
Holes in the masonry for anchor bolts shall be drilled through the retainer plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

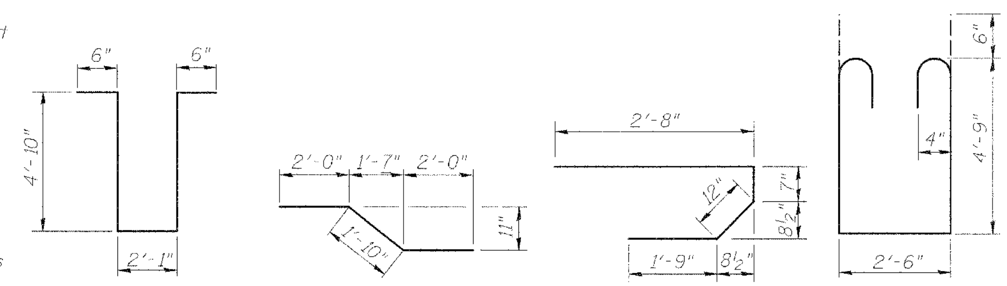


PLAN AT PIERS

(Showing bearing pad and PJF details and side retainer)



DIAPHRAGM AT PIER



BAR $s_2(E)$ BAR $m_6(E)$ BAR $s(E)$ BAR $s_1(E)$

NOTES

1.) Reinforcement bars in diaphragms are billed with superstructure on Sht. 9 of 22.

2.) Concrete in diaphragms is included with Concrete Superstructure on Sht. 9 of 22.

3.) The s(E), $s_1(E)$ and $s_2(E)$ bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

4.) Cost of 90 Lb. roofing felt is included with Concrete Superstructure.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

DECK DETAILS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
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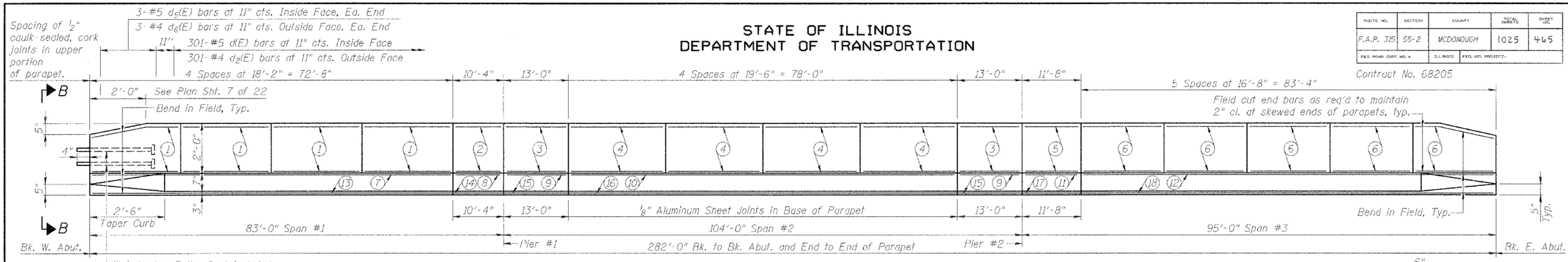
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

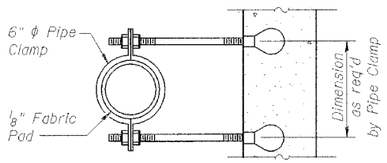
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	465
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
22 SHEETS

Contract No. 68205



1" ϕ Anchor Bolts. Cost included with Concrete Superstructure At exit end only. N & S Parapets (E. End EB, W. End WB)



SECTION A-A

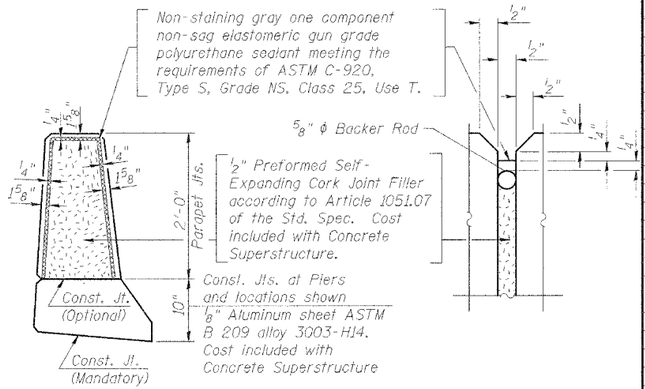
PARAPET HORIZONTAL REINFORCEMENT CALLOUTS

Reinforcement shall not pass thru joints.

Top of Parapet 3-#4 bars each face	(1) 3-#4 e (E) Bars Each Face, Typ. 4 Panels (2) 3-#4 e_1(E) Bars Each Face (3) 3-#4 e_2(E) Bars Each Face (4) 3-#4 e_3(E) Bars Each Face, Typ. 4 Panels (5) 3-#4 e_4(E) Bars Each Face (6) 3-#4 e_5(E) Bars Each Face, Typ. 5 Panels
Top of Curb 2-#8 bars lap 4'-6"	(7) 1 x 2-#8 e_6(E) Bars Each Face (8) 1-#8 e_7(E) Bar Each Face (9) 1-#8 e_8(E) Bar Each Face (10) 1 x 3-#8 e_9(E) Bars Each Face (11) 1-#8 e_{10}(E) Bar Each Face (12) 1 x 3-#8 e_{11}(E) Bars Each Face
Bottom of Curb 2-#5 bars lap 2'-2"	(13) 1 x 2-#5 e_{12}(E) Bars Each Face (14) 1-#5 e_{13}(E) Bar Each Face (15) 1-#5 e_{14}(E) Bar Each Face (16) 1 x 2-#5 e_{15}(E) Bars Each Face (17) 1-#5 e_{16}(E) Bar Each Face (18) 1 x 3-#5 e_{17}(E) Bars Each Face

INSIDE ELEVATION OF PARAPET

Dimensions given along curb line at base of parapet
North parapet shown, South similar



PARAPET JOINT DETAILS

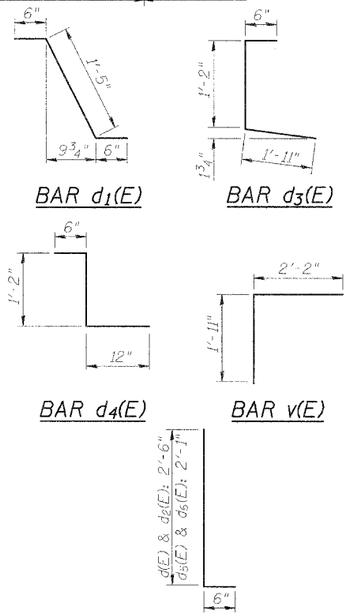
SUPERSTRUCTURE BILL OF MATERIAL

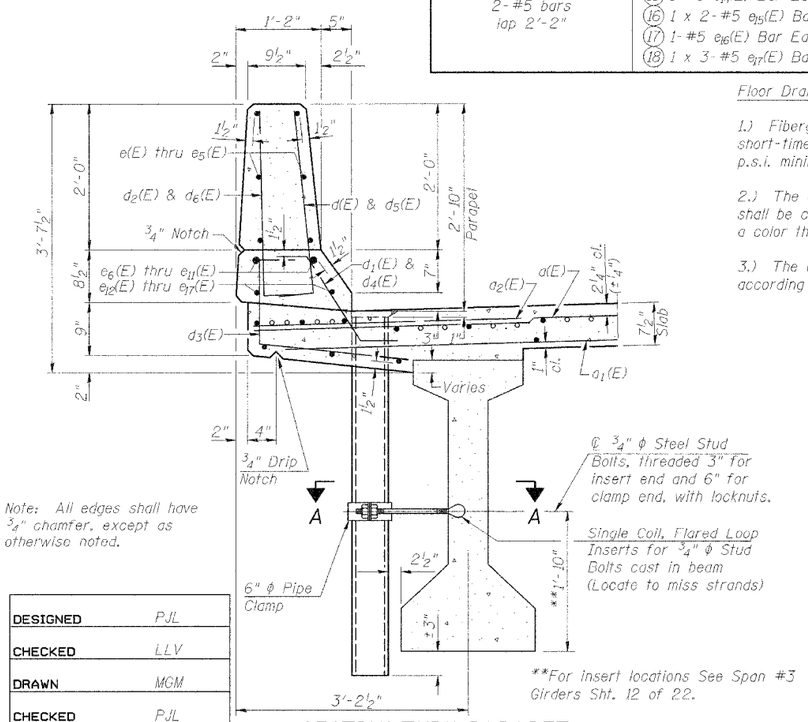
Two Bridges

Bar	No.	Size	Length	Shape
d(E)	676	#5	42'-6"	
d_1(E)	676	#5	41'-8"	
d_2(E)	672	#6	4'-6"	
d_3(E)	8	#5	48'-0"	
b(E)	920	#5	30'-2"	
b_2(E)	344	#6	47'-9"	
b_2(E)	748	#5	27'-7"	
d(E)	1,204	#5	3'-0"	
d_1(E)	1,204	#5	2'-5"	
d_2(E)	1,204	#4	3'-0"	
d_3(E)	1,228	#4	3'-7"	
d_4(E)	24	#5	2'-8"	
d_5(E)	24	#5	2'-7"	
d_6(E)	24	#4	2'-7"	
e (E)	96	#4	17'-10"	
e_1 (E)	24	#4	10'-0"	
e_2 (E)	48	#4	12'-8"	
e_3 (E)	96	#4	19'-2"	
e_4 (E)	24	#4	11'-4"	
e_5 (E)	120	#4	16'-4"	
e_6 (E)	16	#8	38'-5"	
e_7 (E)	8	#8	10'-0"	
e_8 (E)	16	#8	12'-8"	
e_9 (E)	24	#8	28'-11"	
e_{10} (E)	8	#8	11'-4"	
e_{11} (E)	24	#8	30'-8"	
e_{12} (E)	16	#5	37'-3"	
e_{13} (E)	8	#5	10'-0"	
e_{14} (E)	16	#5	12'-8"	
e_{15} (E)	16	#5	39'-11"	
e_{16} (E)	8	#5	11'-4"	
e_{17} (E)	24	#5	29'-2"	
m (E)	16	#6	25'-3"	
m_1 (E)	24	#6	26'-2"	
m_2 (E)	64	#6	8'-7"	
m_3 (E)	84	#6	3'-6"	
m_4 (E)	8	#6	2'-5"	
m_5 (E)	168	#4	5'-1"	
m_6 (E)	32	#8	5'-10"	
s (E)	136	#5	6'-0"	
s_1 (E)	136	#4	13'-0"	
s_2(E)	112	#4	12'-9"	
v (E)	168	#5	4'-1"	

Reinforcement Bars, Epoxy Coated	Pound	172,660
Concrete Superstructure	Cu. Yds.	854.6
Bridge Deck Grooving	Sq. Yds.	2,382
Floor Drains	Each	24
Protective Coat	Sq. Yd.	3,060
Name Plates	Each	2

Reinforcement bars designated (E) shall be epoxy coated.





SECTION THRU PARAPET

Note: All edges shall have 3/4" chamfer, except as otherwise noted.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

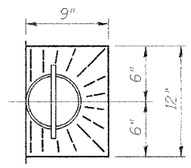
**For insert locations See Span #3 Girders Sht. 12 of 22.

Floor Drain Notes:

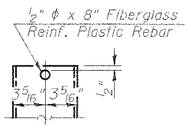
1.) Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

2.) The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.

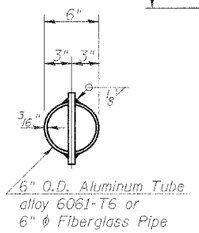
3.) The clamping device and inserts shall be galvanized according to AASHTO M 232.



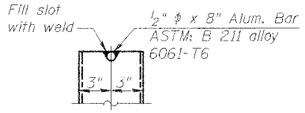
TOP PLAN



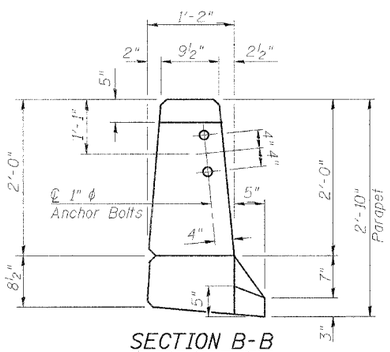
FIBERGLASS PIPE



TOP PLAN
(Showing Aluminum Tube)



ALUMINUM TUBE



SECTION B-B
End of Parapet

BRIDGE PARAPET DETAILS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

* 3 Spaces at 3" = 9"

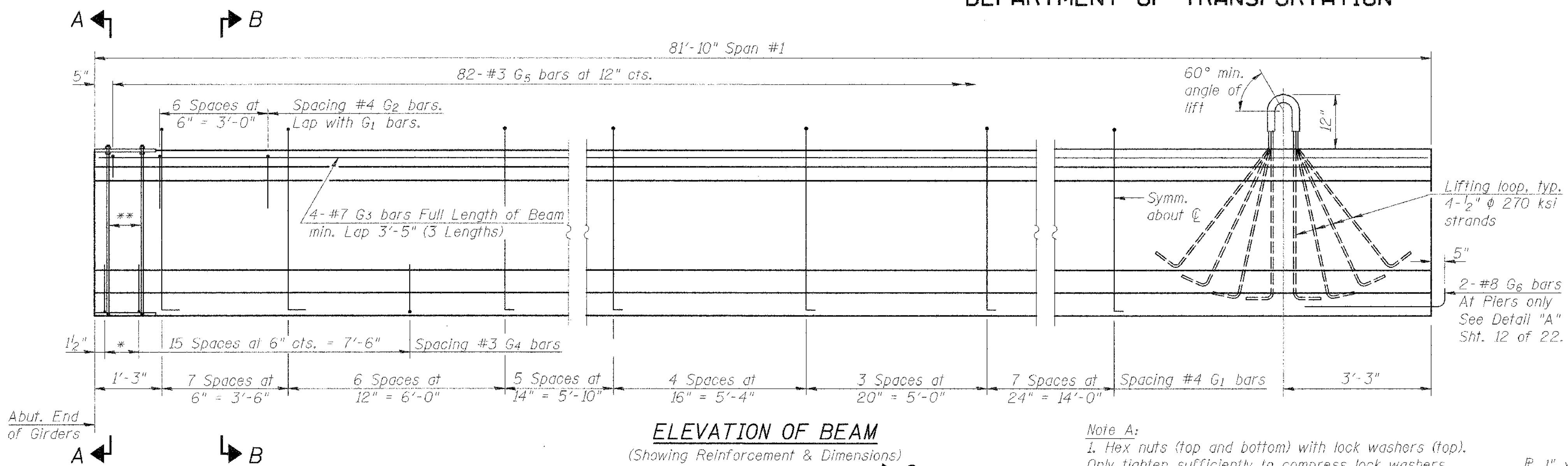
** 4-3/4" ϕ threaded dowel rods at 3" cts., ea. face.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	466
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

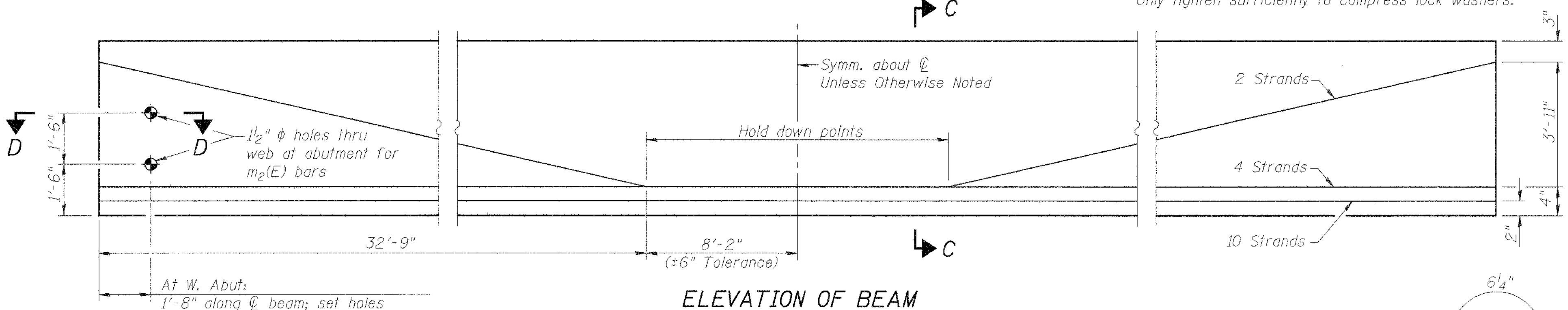
SHEET NO. 10
22 SHEETS

Contract No. 68205

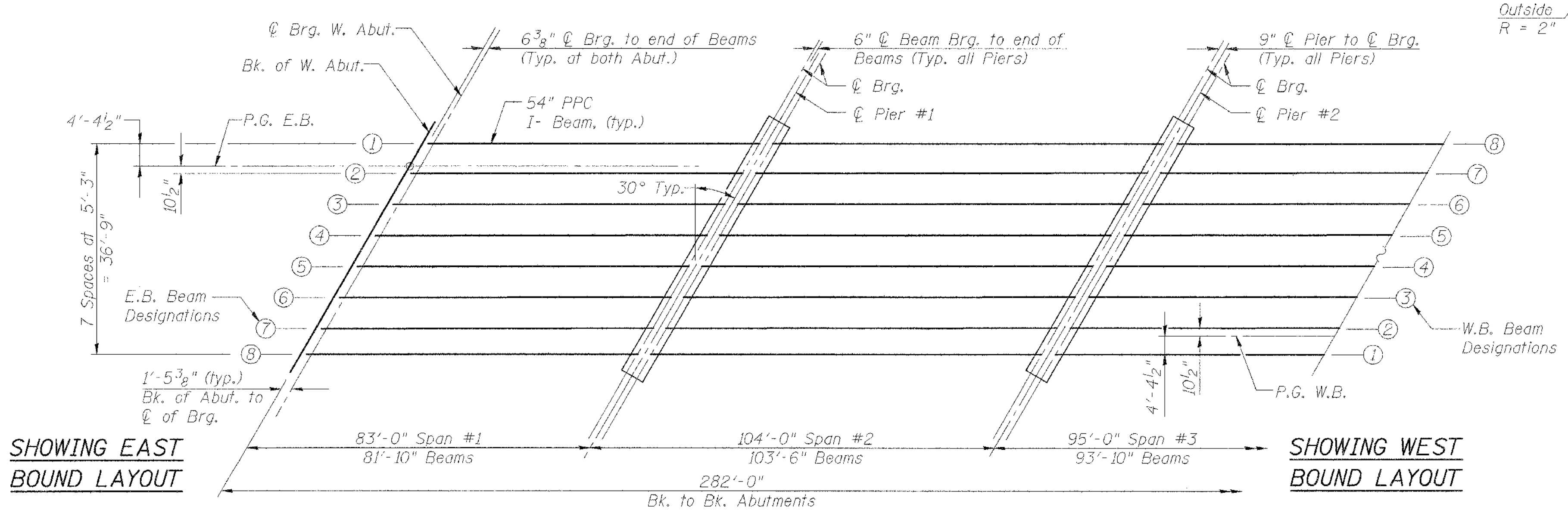


ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

Note A:
1. Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



ELEVATION OF BEAM
(Showing Prestressing Steel)

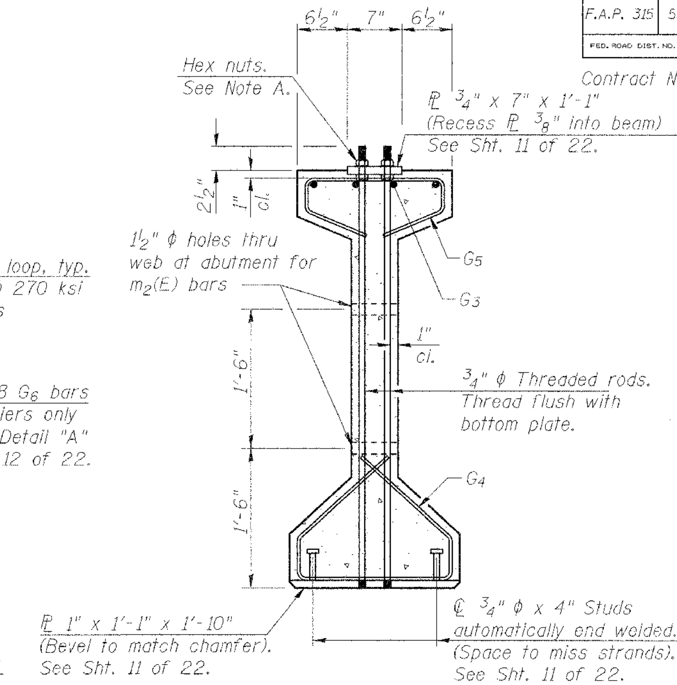


SHOWING EAST BOUND LAYOUT

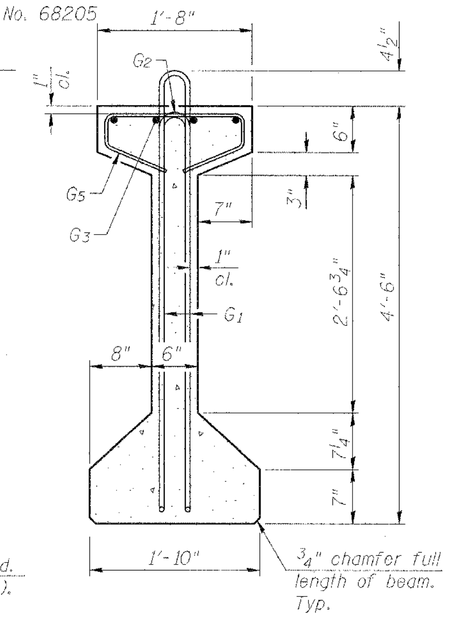
PARTIAL FRAMING PLAN

SHOWING WEST BOUND LAYOUT

N



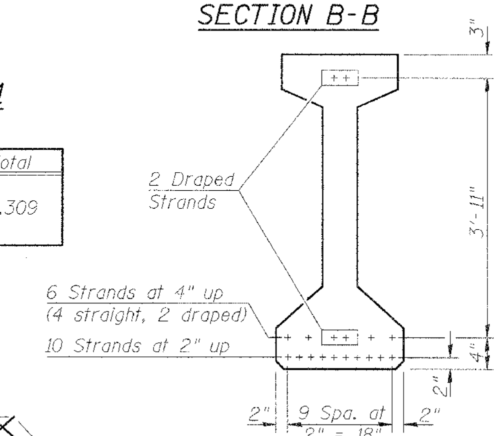
SECTION A-A



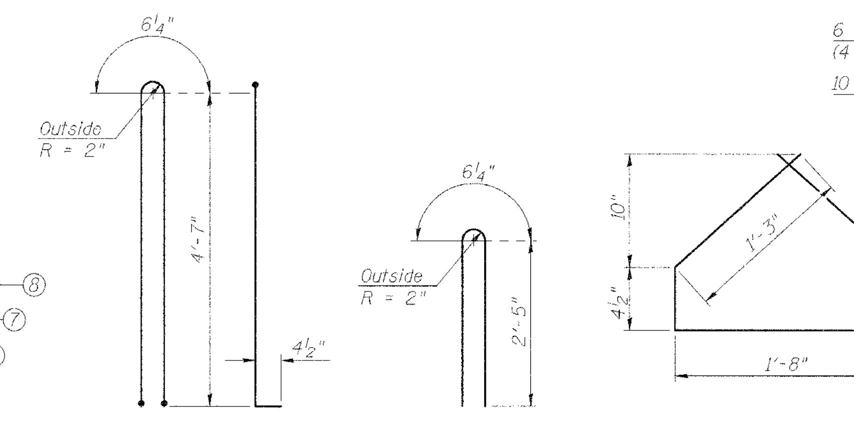
SECTION B-B

BILL OF MATERIAL - SPAN #1
Two Bridges

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	1,309



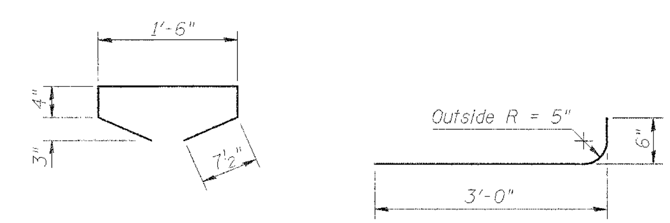
SECTION C-C
Space 16 Strands Symm. about ℄



BAR G_1 BAR G_2 BAR G_4

BAR LIST, ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	65	#4	10'-5"	∩L
G_2	14	#4	5'-4"	∩
G_3	12	#7	29'-6"	—
G_4	38	#3	4'-11"	
G_5	82	#3	3'-5"	
G_6	2	#8	3'-9"	



BAR G_5 BAR G_6

FRAMING PLAN AND SPAN #1 GIRDER DETAILS
IL. ROUTE 336 OVER BURLINGTON NORTHERN SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

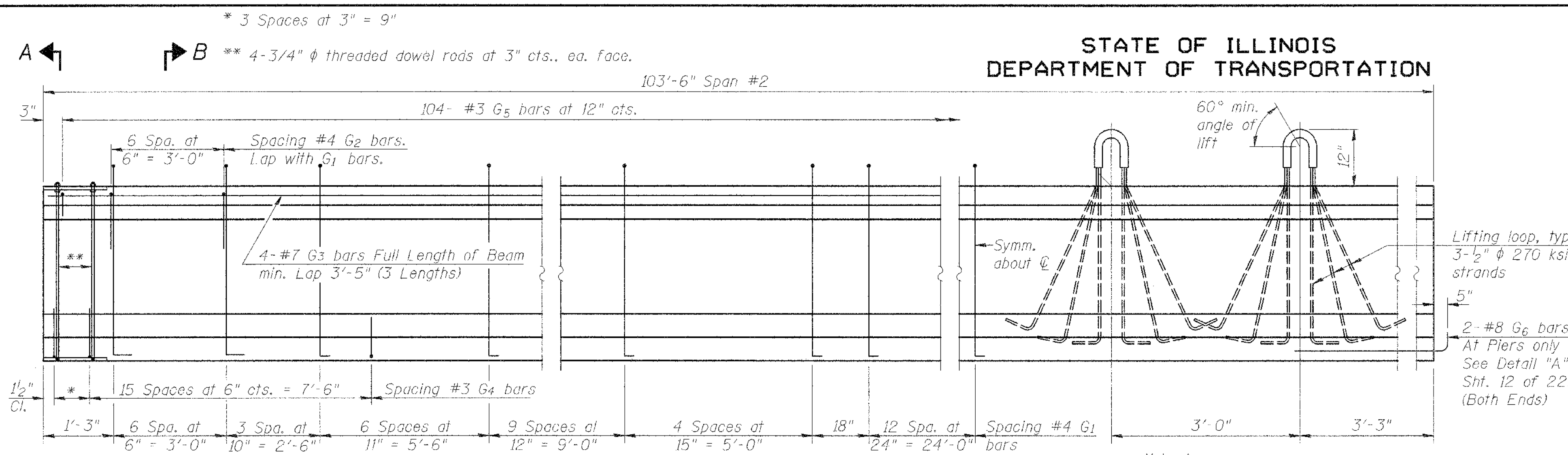
CROSS REFERENCE NOTES

1.) See Sht. 11 of 22 for Moment and Reaction Tables.
2.) See Sht. 12 of 22 for Detail "A" at Pier and Section D-D at Abut.
3.) See Sht. 12 of 22 for Typical Lifting Loop Detail.
4.) See Sht. 11 of 22 for Top & Bottom End Plate Details
5.) See Sht. 12 of 22 for P.P.C. I-Beam Notes.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

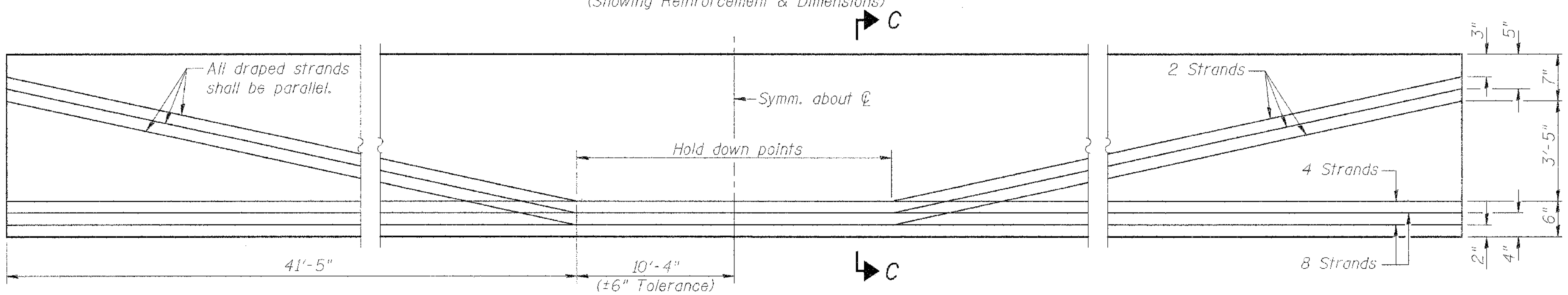
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Pn(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

Note A:
1. Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



ELEVATION OF BEAM
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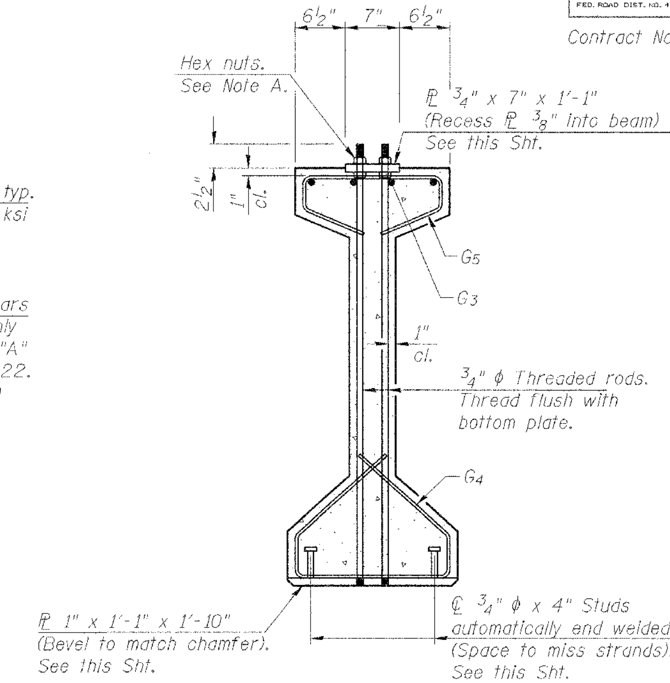
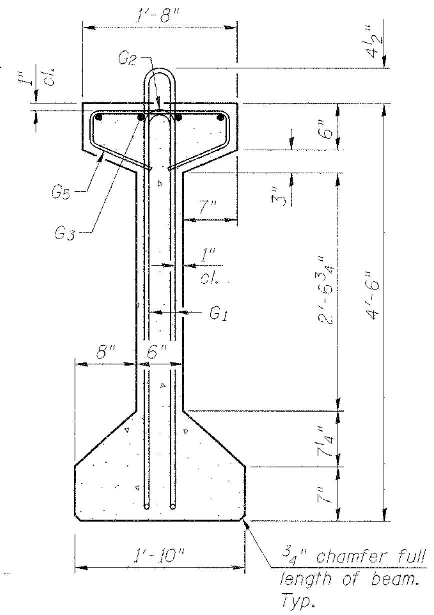
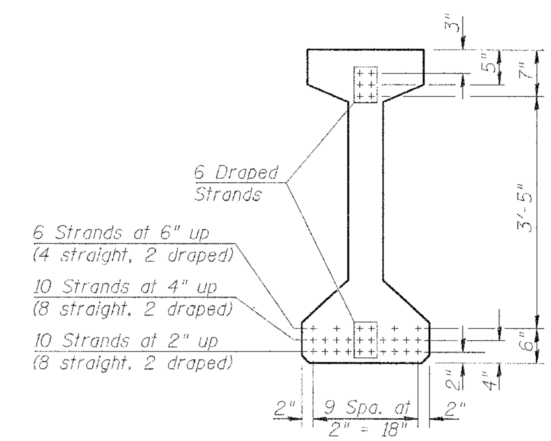


SECTION A-A



SECTION B-B



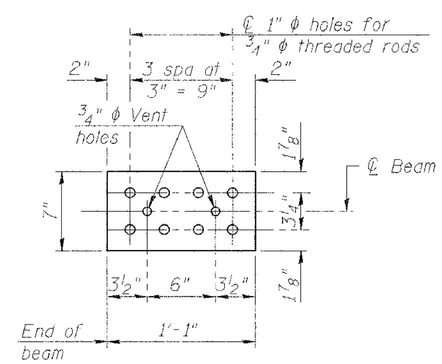
SECTION C-C
Space 26 Strands Symm. about ℄

INTERIOR BEAM REACTION TABLE

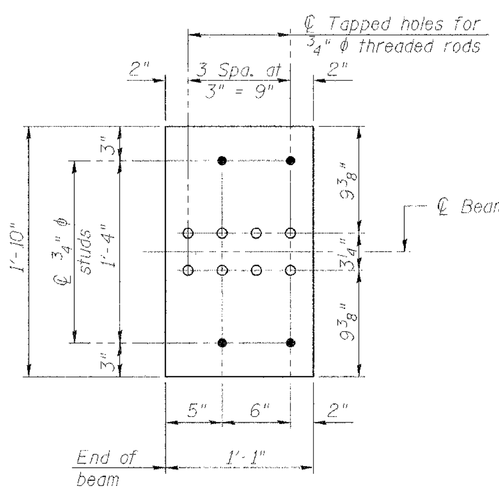
		Span #1		Span #2		Span #3	
		W. Abut.	Pier #1	Pier #1	Pier #2	Pier #2	E. Abut.
R ℘	(k)	46.8	46.8	59.6	59.6	53.7	53.7
Rs ℘	(k)	11.1	18.4	18.4	20.2	20.2	13.1
R ℄	(k)	29.6	26.0	26.0	24.1	24.1	30.1
Imp.	(k)	7.2	6.0	6.0	5.4	5.4	6.9
R (Total)	(k)	94.7	97.2	110.0	109.3	103.4	103.8

INTERIOR BEAM MOMENT TABLE

		0.4 Sp. #1	Pier #1	0.5 Sp. #2	Pier #2	0.6 Sp. #3
I	(in^4)	213,715		213,715		213,715
I'	(in^4)	457,392		457,392		457,392
S_b	(in^3)	8,559		8,559		8,559
S_b'	(in^3)	12,264		12,264		12,264
S_t	(in^3)	7,362		7,362		7,362
S_t'	(in^3)	27,379		27,379		27,379
℘	(k/')	1.147		1.147		1.147
M ℘	('k)	954		1,551		1,255
s ℘	(k/')	0.362	0.362	0.362	0.362	0.362
Ms ℘	('k)	169	305	156	366	235
M ℄	('k)	463	447	485	491	541
M (IMP)	('k)	112	103	106	110	124



TOP PLATE



BOTTOM PLATE

BILL OF MATERIAL - SPAN #2
Two Bridges

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	1,656

BAR LIST, ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	83	#4	10'-5"	∩L
G_2	14	#4	5'-4"	∩
G_3	12	#7	36'-8"	——
G_4	38	#3	4'-11"	
G_5	104	#3	3'-5"	
G_6	4	#8	3'-9"	

CROSS REFERENCE NOTES
1.) See Sht. 10 of 22 for Framing Plan.
2.) See Sht. 12 of 22 for Detail "A" at Pier.
3.) See Sht. 12 of 22 for Typical Lifting Loop Detail.
4.) See Sht. 10 of 22 for Bar Bends.
5.) See Sht. 12 of 22 for P.P.C. I-Beam Notes.

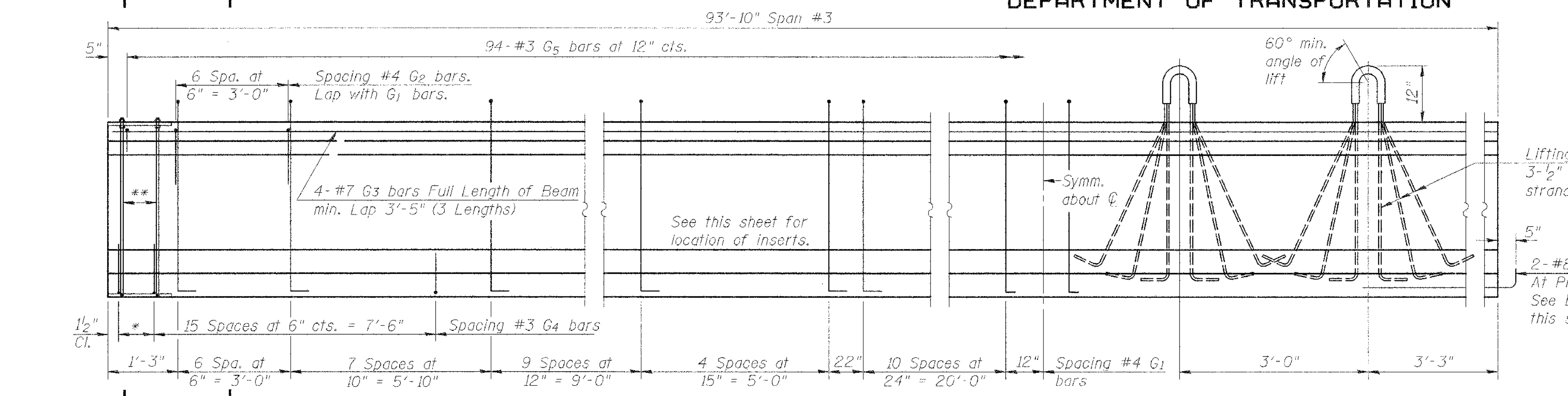
SPAN #2 GIRDER DETAILS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

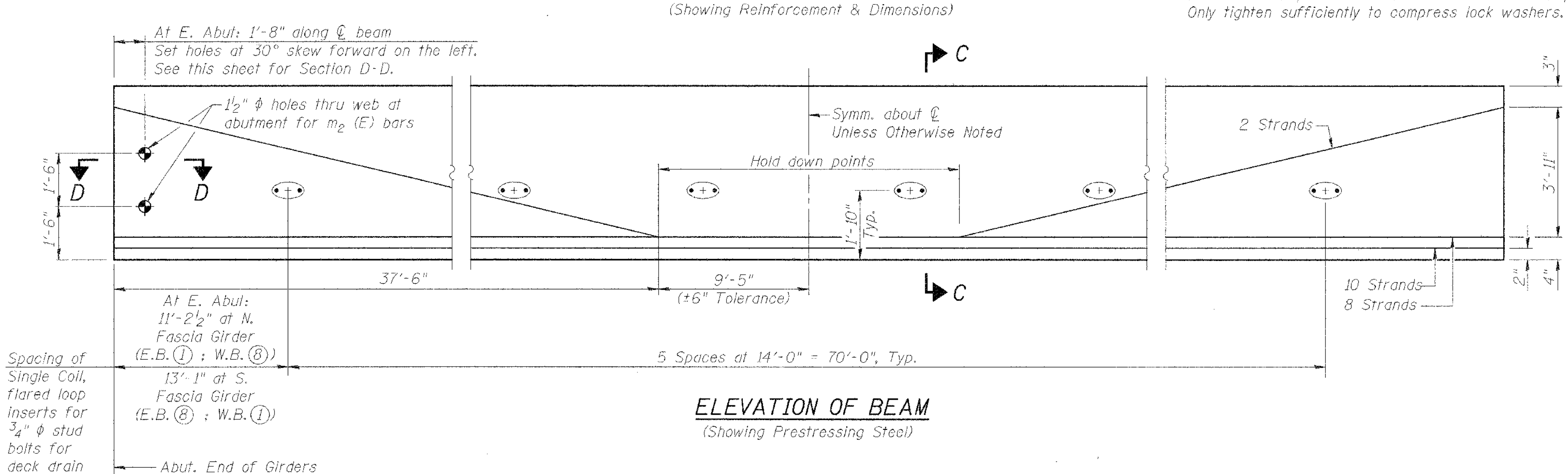
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	468
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

Contract No. 68205

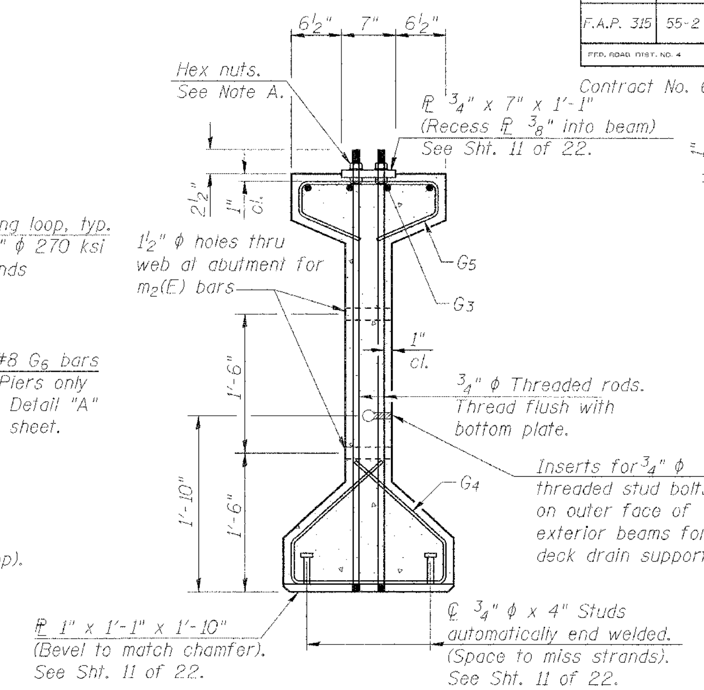


ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

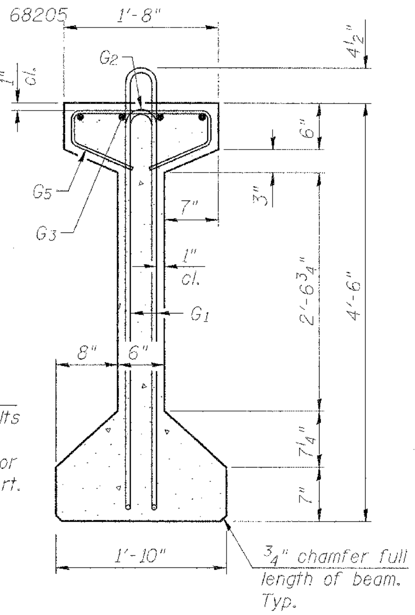
Note A:
1. Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



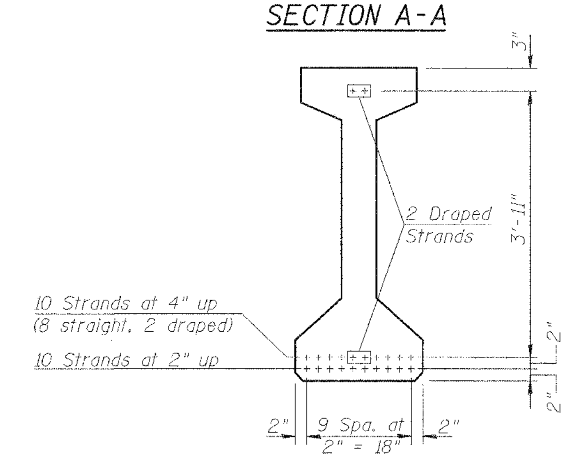
ELEVATION OF BEAM
(Showing Prestressing Steel)



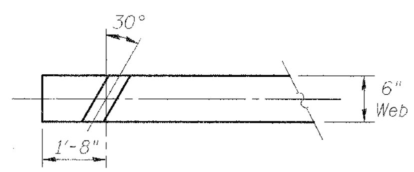
SECTION A-A



SECTION B-B



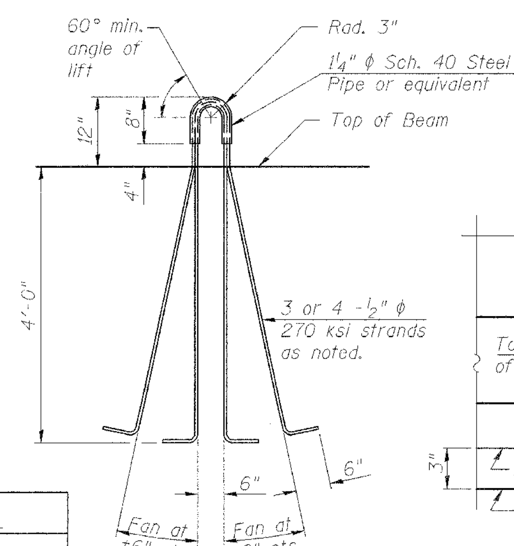
SECTION C-C
Space 20 Strands Symm. about ℄



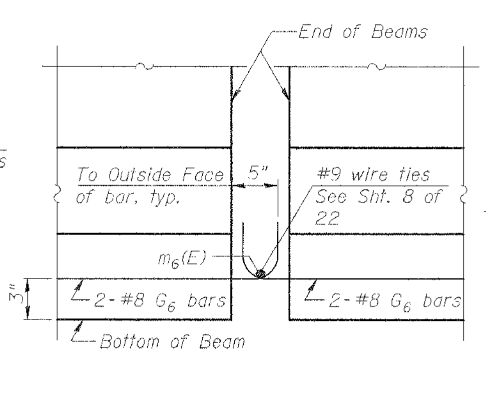
SECTION D-D

BILL OF MATERIAL - SPAN #3
Two Bridges

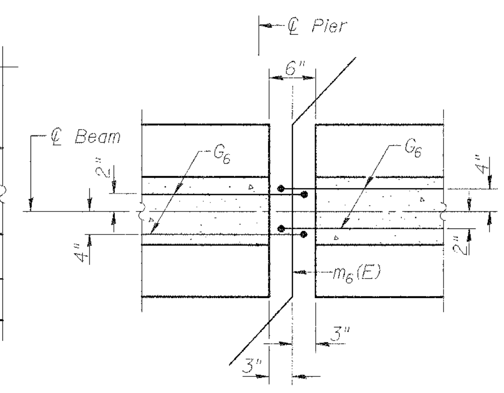
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	1,501



LIFTING LOOP DETAIL



ELEVATION



PLAN

DETAIL "A"
At Piers

P.P.C. I-BEAM NOTES (ALL SPANS)

1.) Inserts for ¾" ϕ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.
2.) Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
3.) The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.
4.) Non-prestressing steel shall conform to AASHTO designation M-31 or M-322, Grade 60.
5.) A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.
7.) Cut G_6 bars when necessary to maintain 1½" clearance.
8.) The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.
9.) Threaded rods shall be ASTM F 1554 Grade 55.
10.) The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 54 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
11.) Reinforcement bars designated (E) shall be epoxy coated.

CROSS REFERENCE NOTES

1.) See Sht. 10 of 22 for Framing Plan.
2.) See Sht. 11 of 22 for Moment and Reaction Tables.
2.) See Sht. 10 of 22 for Bar Bends
5.) See Sht. 11 of 22 for Top & Bottom End Plate Details.

BAR LIST, ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	76	#4	10'-5"	∩L
G_2	14	#4	5'-4"	∩
G_3	12	#7	33'-6"	—
G_4	38	#3	4'-11"	
G_5	94	#3	3'-5"	
G_6	2	#8	3'-9"	

SPAN #3 GIRDER DETAILS
IL. ROUTE 336 OVER BURLINGTON NORTHERN SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

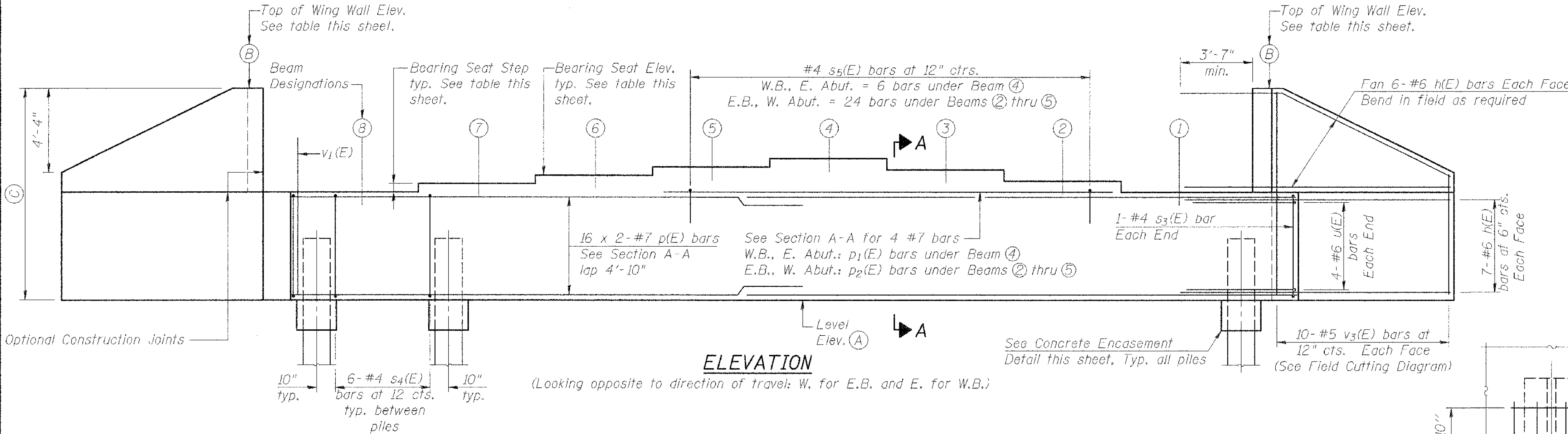
Notes:
1.) Pour steps monolithically with cap.
2.) Reinforcement bars designated (E) shall be epoxy coated.
3.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	469

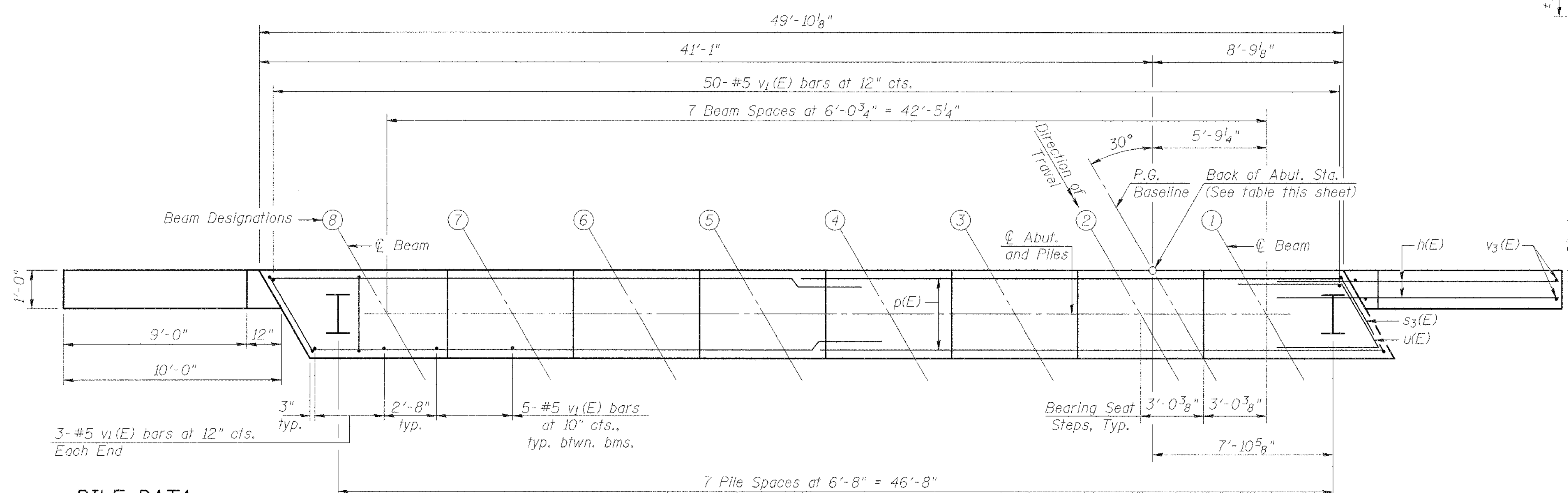
SHEET NO. 13 — 22 SHEETS

Contract No. 68205



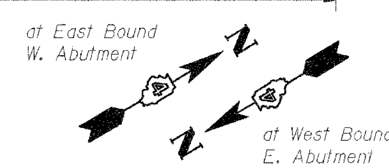
ELEVATION

(Looking opposite to direction of travel: W. for E.B. and E. for W.B.)



PLAN

East Bound, West Abutment & West Bound, East Abutment



PILE DATA

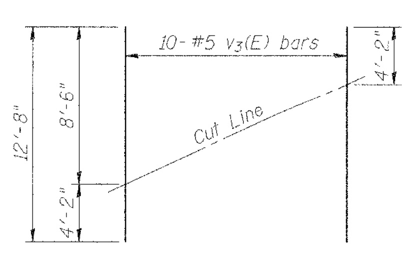
See this sheet for Pile Encasement Detail.

Type: HP 10x57	
Capacity: Driven to Refusal	
Number Required: 8	
Estimated Length:	
E.B., W. Abut.	70'
W.B., E. Abut.	89'

BEARING SEATS

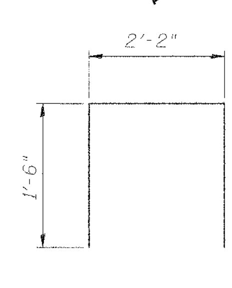
	E.B., W. Abutment		W.B., E. Abutment	
Beam	Elevation	Step Ht.	Elevation	Step Ht.
①	694.85	7/8"	697.15	1 3/8"
②	694.92	0"	697.26	1 1/8"
③	694.92	1 1/4"	697.35	1"
④	695.02	1 1/4"	697.43	3/4"
⑤	694.92	1 1/2"	697.37	1"
⑥	694.80	1 5/8"	697.29	1 1/8"
⑦	694.67	1 3/4"	697.20	1 3/8"
⑧	694.52		697.09	

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

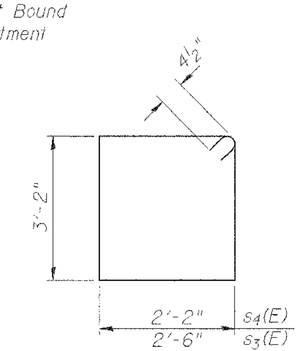


FIELD CUTTING DIAGRAM

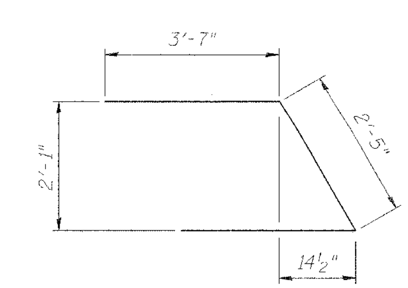
Order v_3(E) full length. Cut as shown and use remainder of bars in opposite face.



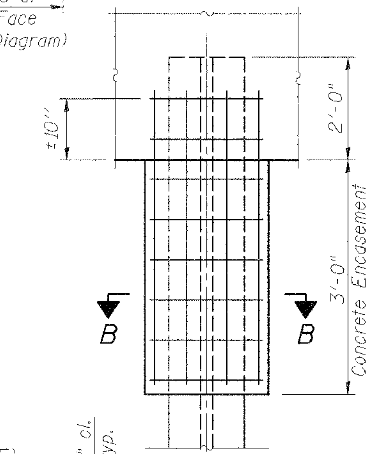
BARS s_5(E)



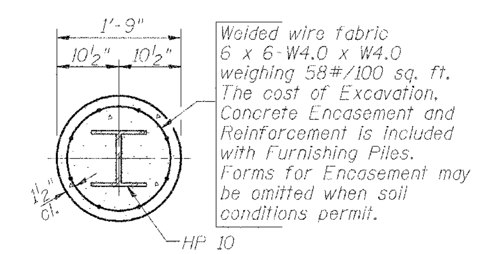
BARS s_4(E) & s_3(E)



BAR u(E)

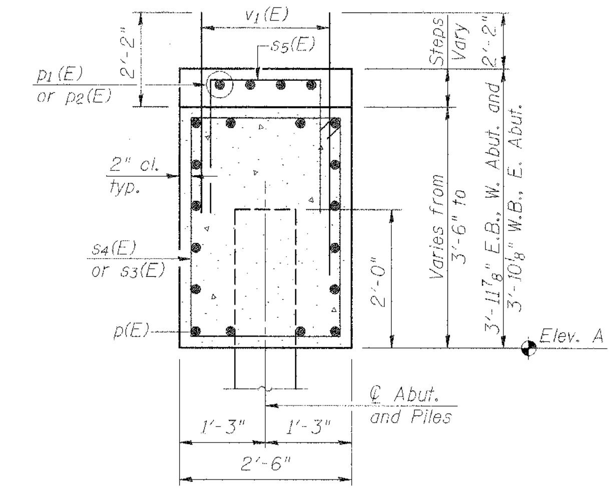


CONCRETE ENCASEMENT DETAIL



Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.

SECTION B-B



SECTION A-A

ABUTMENT ELEVATIONS & DIMENSIONS

	Location	E.B., W. Abut.		W.B., E. Abut.	
		N. Wing	S. Wing	N. Wing	S. Wing
	Bk. of Abut. Sta. on P.G. ℄	152+68.66		156+47.99	
Ⓐ	Bottom of Abut. Elev., Level	691.02		693.59	
Ⓑ	Top of Wing Wall Elev.	700.24	699.90	702.49	702.55
Ⓒ	Wing Wall Height	9'-2 5/8"	8'-10 1/2"	8'-10 3/4"	8'-11 1/2"

BILL OF MATERIAL

(Two Abutments)

Bar	No.	Size	Length	Shape
h(E)	104	#6	13'-5"	straight
p(E)	64	#7	27'-2"	straight
p_1(E)	4	#7	5'-8"	straight
p_2(E)	4	#7	23'-10"	straight
s_3(E)	4	#4	12'-1"	stirrup
s_4(E)	84	#4	11'-5"	stirrup
s_5(E)	30	#4	5'-2"	stirrup
u(E)	16	#6	9'-7"	bent
v_1(E)	182	#5	4'-4"	straight
v_3(E)	40	#5	12'-8"	straight
Concrete Structures			Cu. Yd.	47.1
Reinforcement Bars, Epoxy Coated			Pound	8,250
* Structure Excavation			Cu. Yd.	283
Furnishing Steel Piles HP 10 x 57			Foot	1,272
Driving Steel Piles			Foot	1,272

* Estimated Structure Excavation quantity is identical for all abutments.

ABUTMENT DETAILS
IL. ROUTE 336 OVER BURLINGTON NORTHERN SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
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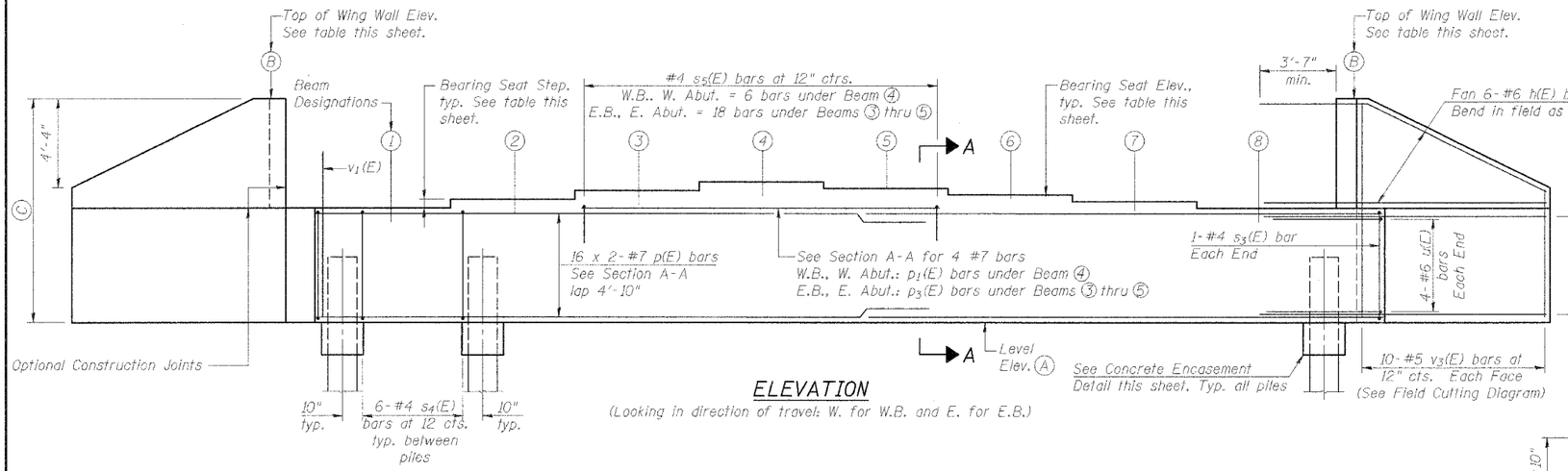
Notes:
1.) Pour steps monolithically with cap.
2.) Reinforcement bars designated (E) shall be epoxy coated.
3.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	470
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

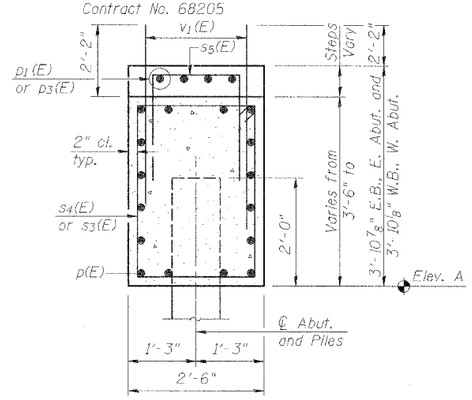
SHEET NO. 14
22 SHEETS

Contract No. 68205



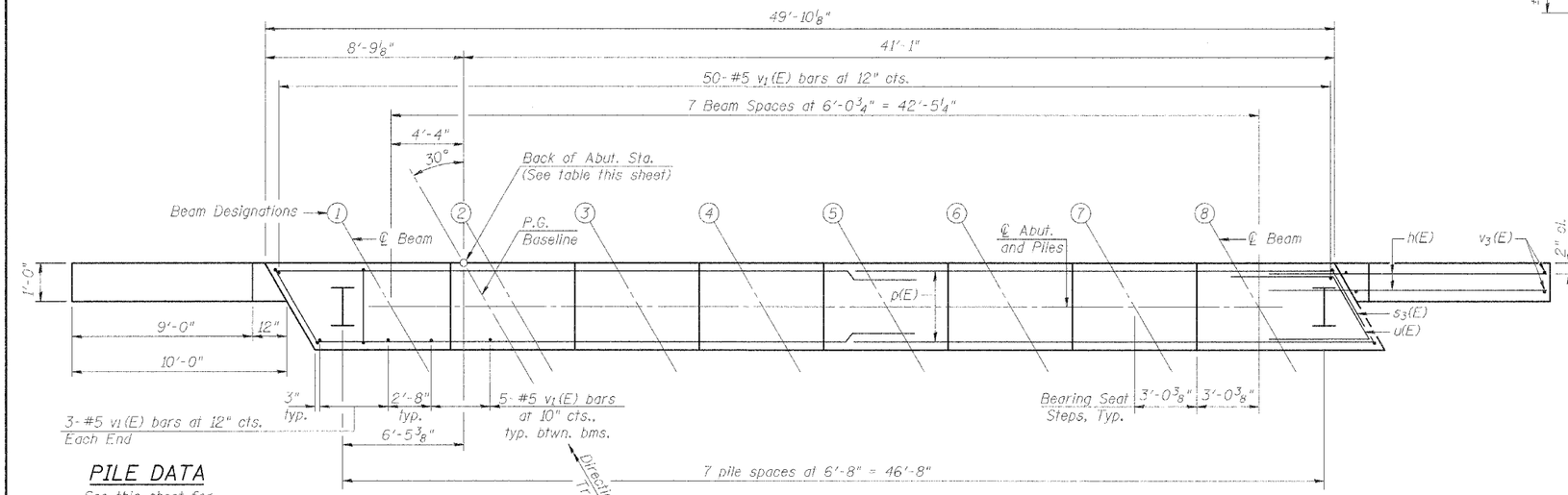
ELEVATION

(Looking in direction of travel: W. for W.B. and E. for E.B.)



SECTION A-A
ABUTMENT ELEVATIONS & DIMENSIONS

	Location	W.B., W. Abut.		E.B., E. Abut.	
		N. Wing	S. Wing	N. Wing	S. Wing
	Bk. of Abut. Sta. on P.G. ℄	153+65.99		155+50.66	
(A)	Bottom of Abut. Elev., Level	692.26		693.25	
(B)	Top of Wing Wall Elev.	701.25	701.14	702.33	702.15
(C)	Wing Wall Height	8'-11⅞"	8'-10½"	9'-1"	8'-10¾"



PLAN

East Bound, East Abutment & West Bound, West Abutment

PILE DATA

See this sheet for Pile Encasement Detail.

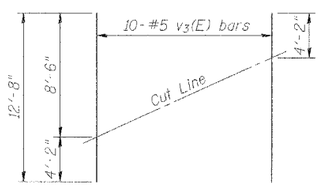
Type: HP 10x57
Capacity: Driven to Refusal
Number Required: 7 (+ 1 test pile)

Estimated Length:	
E.B., E. Abut.	93'
W.B., W. Abut.	76'

BEARING SEATS

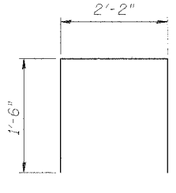
	W.B., W. Abutment		E.B., E. Abutment	
Beam	Elevation	Step Ht.	Elevation	Step Ht.
(1)	695.76	1⅝"	696.92	1⅛"
(2)	695.89	1⅜"	697.01	⅞"
(3)	696.00	1¼"	697.08	⅞"
(4)	696.10	1⅛"	697.15	1"
(5)	696.01	0"	697.07	1⅛"
(6)	696.01	⅞"	696.98	1⅜"
(7)	695.94	1⅛"	696.87	1½"
(8)	695.85		696.75	

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

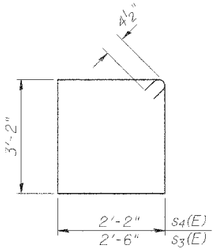


FIELD CUTTING DIAGRAM

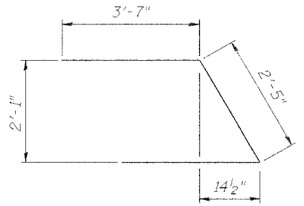
Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.



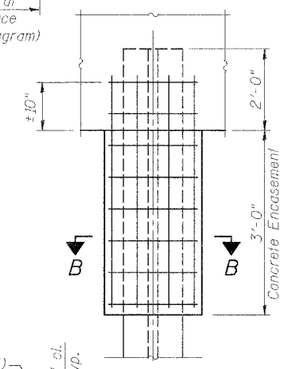
BARS s5(E)



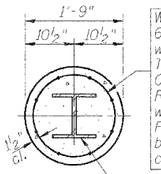
BARS s4(E) & s3(E)



BAR u(E)



CONCRETE ENCASEMENT DETAIL



SECTION B-B

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.

BILL OF MATERIAL

(Two Abutments)

Bar	No.	Size	Length	Shape
h(E)	104	#6	13'-5"	
p(E)	64	#7	27'-2"	
p1(E)	4	#7	5'-8"	
p3(E)	4	#7	17'-10"	
s3(E)	4	#4	12'-1"	
s4(E)	84	#4	11'-5"	
s5(E)	24	#4	5'-2"	
u(E)	16	#6	9'-7"	
v1(E)	182	#5	4'-4"	
v3(E)	40	#5	12'-8"	
Concrete Structures		Cu. Yd.	46.8	
Reinforcement Bars, Epoxy Coated		Pound	8,180	
* Structure Excavation		Cu. Yd.	283	
Furnishing Steel Piles HP 10 x 57		Foot	1,183	
Driving Steel Piles		Foot	1,183	
Test Piles, HP 10 x 57		Each	2	

* Estimated Structure Excavation quantity is identical for all abutments.

ABUTMENT DETAILS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55 2	MCDONOUGH	1025	471
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 15
22 SHEETS

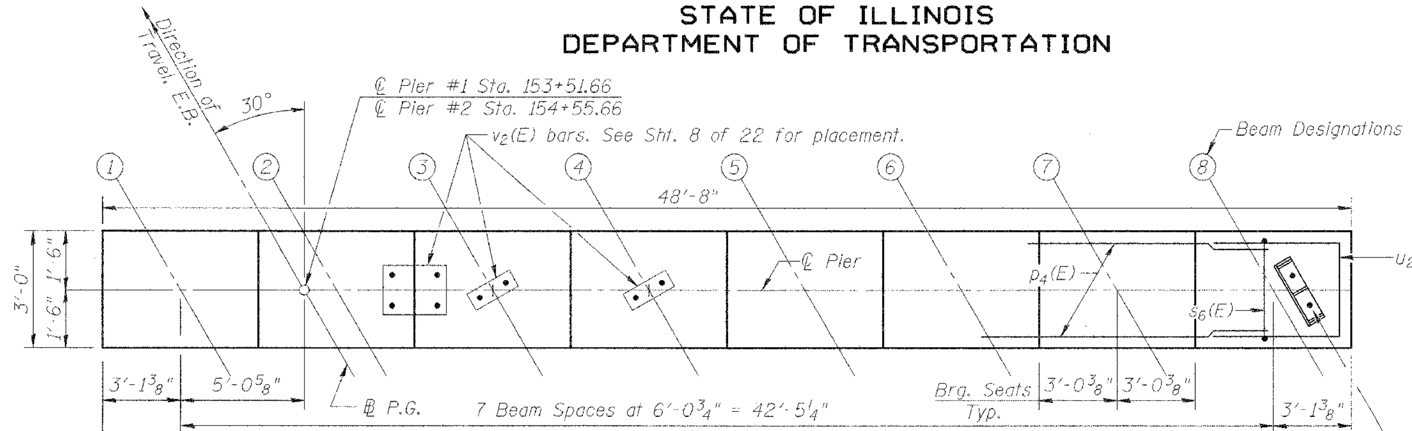
Contract No. 68205

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

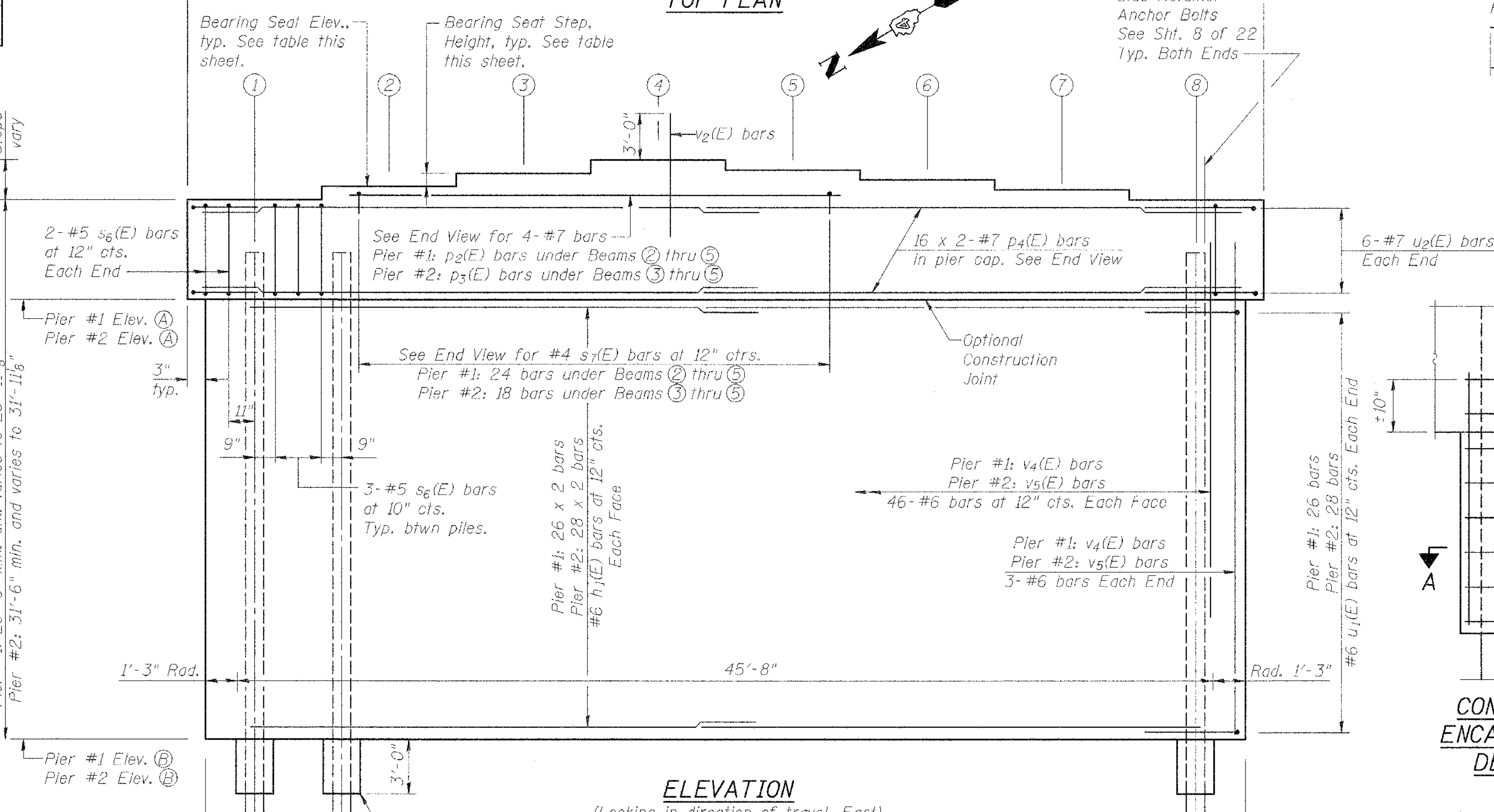
Notes:
1.) Space Reinforcement in cap to miss piles and anchor bolts.
2.) Pour steps monolithically with cap.
3.) Min. laps: #6 bar 3'-7", #7 bar 4'-10"
4.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.

BEARING SEATS

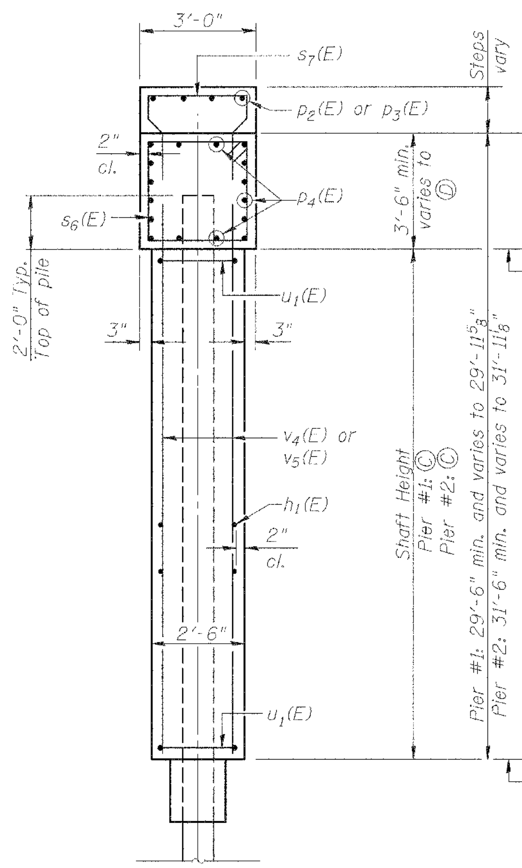
	Pier #1		Pier #2	
Beam	Elevation	Step Ht.	Elevation	Step Ht.
①	695.66	1"	696.45	1 1/8"
②	695.74	0"	696.54	3/4"
③	695.74	1 3/8"	696.60	3/4"
④	695.85	1 1/8"	696.66	1"
⑤	695.76	1 3/8"	696.58	1 1/4"
⑥	695.65	1 5/8"	696.48	1 1/2"
⑦	695.52	1 3/4"	696.36	1 5/8"
⑧	695.38		696.23	



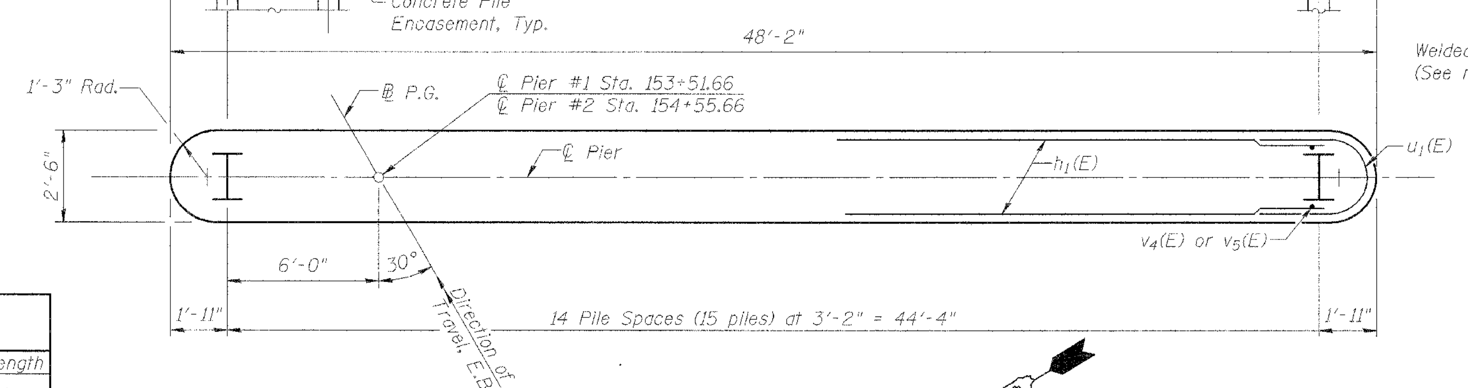
TOP PLAN



ELEVATION
(Looking in direction of travel, East)



END VIEW

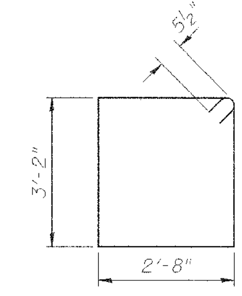


FOOTING PLAN

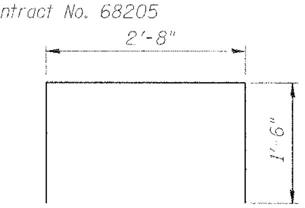
PILE DATA
See this sheet for Pile Encasement Detail.

Type: HP 12 x 63
Capacity: Driven to Refusal

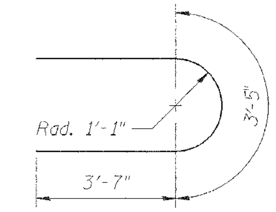
Location	No. of Piles	Est. Length
Pier #1	14 (+1 test pile)	80'
Pier #2	15	95'



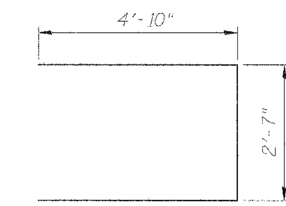
BAR s6(E)



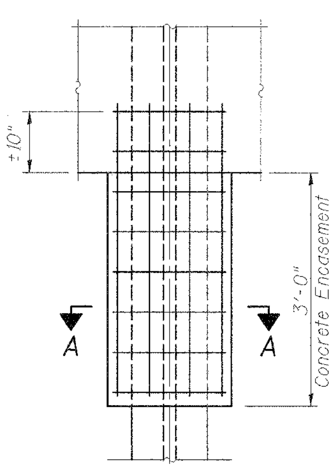
BAR s7(E)



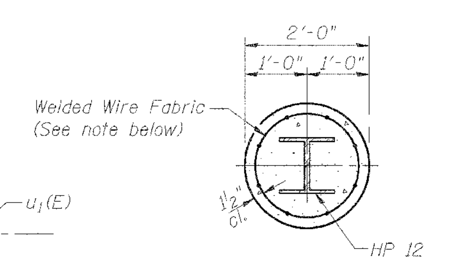
BAR u1(E)



BAR u2(E)



CONCRETE ENCASEMENT DETAIL



SECTION A-A

Note:
Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.

PIER ELEVATIONS & DIMENSIONS

	Location	Pier #1	Pier #2
Ⓐ	Bottom of Cap Elev.	691.88	692.73
Ⓑ	Bottom of Pier Shaft Elev.	665.88	664.73
Ⓒ	Pier Shaft Height	26'-0"	28'-0"
Ⓓ	Pier Cap Max Height	3'-11 5/8"	3'-11 1/8"
**	Structure Excavation	136 cu. yd.	125 cu. yd.

BILL OF MATERIAL
(Two Piers)

Bar	No.	Size	Length	Shape
h_1(E)	216	#6	24'-8"	——
p_2(E)	4	#7	23'-10"	——
p_3(E)	4	#7	17'-10"	——
p_4(E)	64	#7	26'-7"	——
s_6(E)	92	#5	12'-8"	□
s_7(E)	42	#4	5'-8"	⊓
u_1(E)	108	#6	10'-7"	⊃
u_2(E)	24	#7	12'-3"	⊐
v_2(E)	84	#8	6'-0"	——
v_4(E)	98	#6	28'-0"	——
v_5(E)	98	#6	30'-0"	——
Concrete Structures			Cu. Yd.	278.9
Reinforcement Bars, Epoxy Coated			Pound	25,400
** Structure Excavation			Cu. Yd.	261
Furnishing Steel Piles HP 12 x 63			Foot	2,545
Driving Steel Piles			Foot	2,545
Test Piles, HP 12 x 63			Each	1

PIER DETAILS (EB)
IL. ROUTE 336 OVER BURLINGTON NORTHERN SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

Notes:
1.) Space Reinforcement in cap to miss piles and anchor bolts.
2.) Pour steps monolithically with cap.
3.) Min. laps: #6 bar 3'-7", #7 bar 4'-10"
4.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

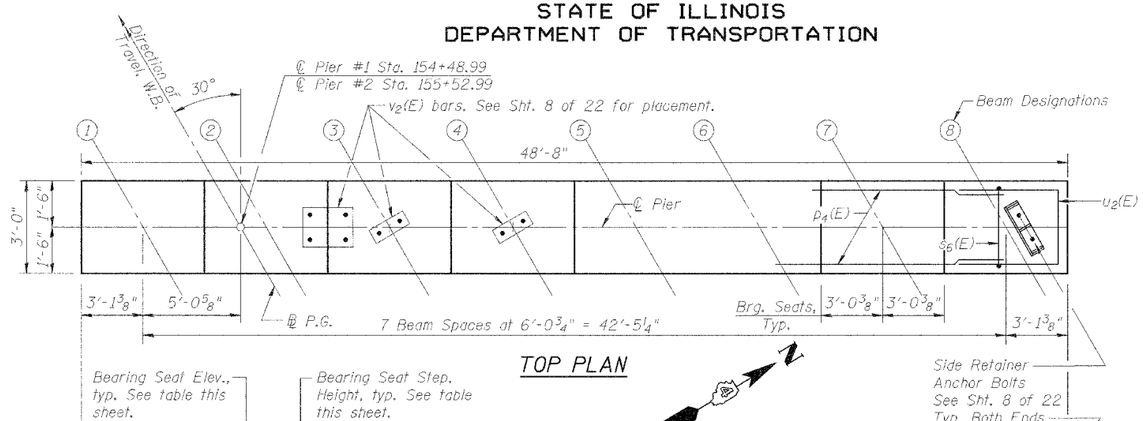
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	472
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 16
22 SHEETS

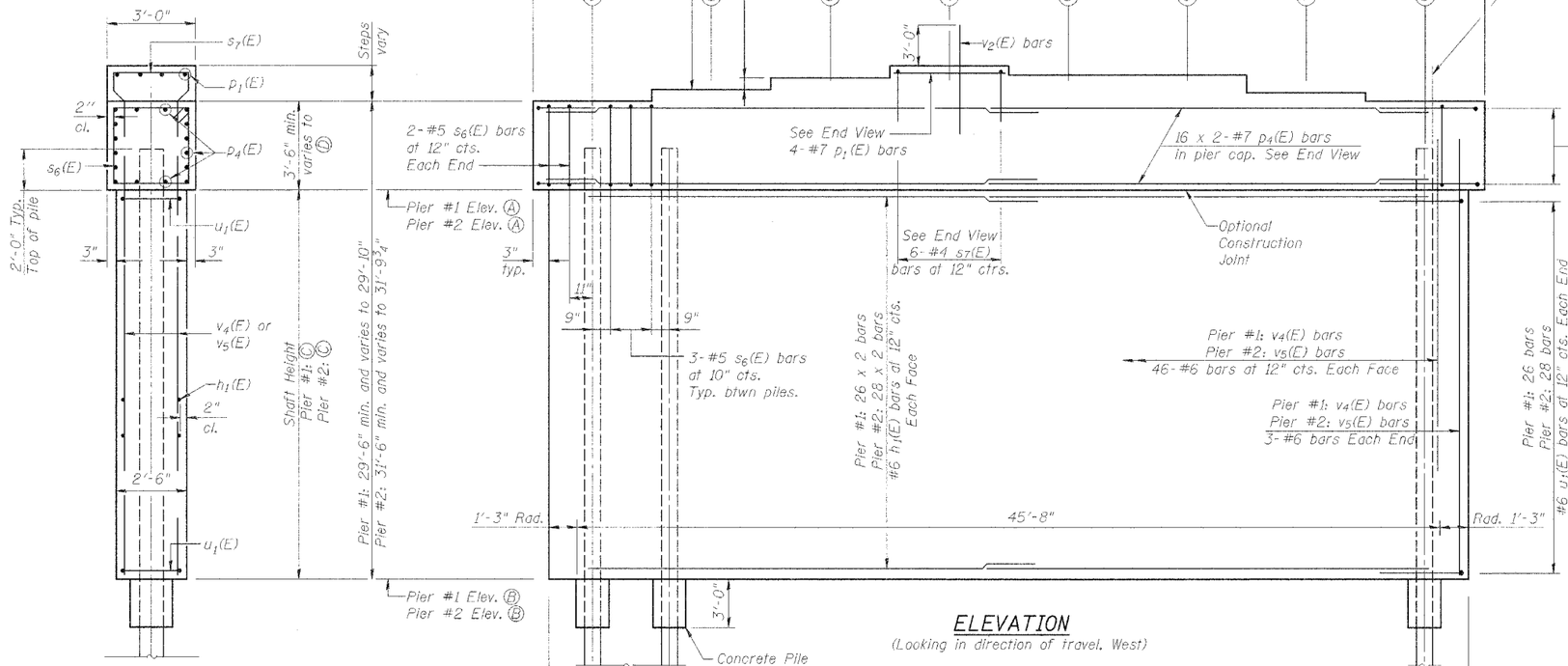
Contract No. 68205

BEARING SEATS

	Pier #1		Pier #2	
Beam	Elevation	Step Ht.	Elevation	Step Ht.
①	696.37	1 1/2"	696.91	1 1/2"
②	696.50	1 1/4"	697.03	1 1/8"
③	696.60	1 1/4"	697.12	1 1/8"
④	696.70	1 3/8"	697.21	1 1/2"
⑤	696.59	0"	697.09	0"
⑥	696.59	7/8"	697.09	1 1/8"
⑦	696.52	1 1/4"	697.00	1 1/4"
⑧	696.42		696.90	

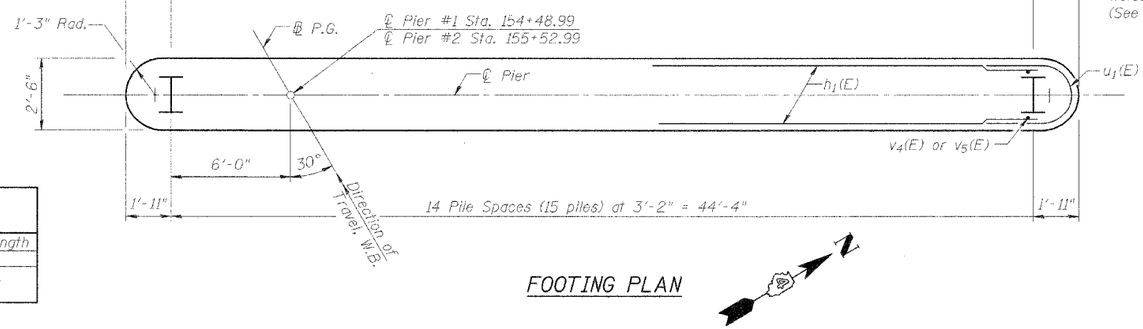


TOP PLAN



ELEVATION
(Looking in direction of travel, West)

END VIEW



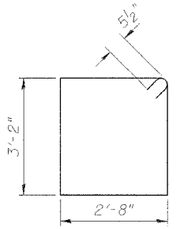
FOOTING PLAN

PILE DATA
See this sheet for Pile Encasement Detail.

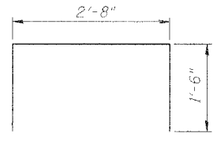
Type: HP 12x63
Capacity: Driven to Refusal

Location	No. of Piles	Est. Length
Pier #1	15	90'
Pier #2	14 (+1 test pile)	95'

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL



BAR s6(E)



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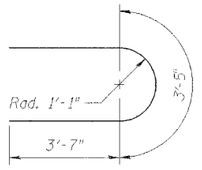
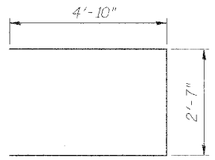


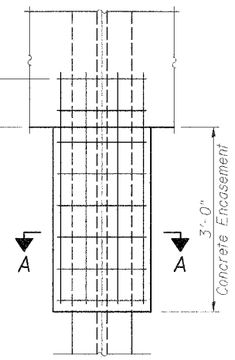
BAR u1(E)



BAR u2(E)

PIER ELEVATIONS & DIMENSIONS

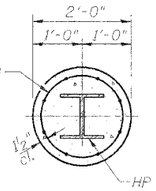
	Location	Pier #1	Pier #2
Ⓐ	Bottom of Cap Elev.	692.87	693.40
Ⓑ	Bottom of Pier Shaft Elev.	666.87	665.40
Ⓒ	Pier Shaft Height	26'-0"	28'-0"
Ⓓ	Pier Cap Max Height	3'-10"	3'-9 3/4"
**	Structure Excavation	133 cu. yd.	127 cu. yd.



CONCRETE ENCASEMENT DETAIL

BILL OF MATERIAL
(Two Piers)

Bar	No.	Size	Length	Shape
h1(E)	216	#6	24'-8"	
p1(E)	8	#7	5'-8"	
p4(E)	64	#7	26'-7"	
s6(E)	92	#5	12'-8"	
s7(E)	12	#4	5'-8"	
u1(E)	108	#6	10'-7"	
u2(E)	24	#7	12'-3"	
v2(E)	84	#8	6'-0"	
v4(E)	98	#6	28'-0"	
v5(E)	98	#6	30'-0"	
Concrete Structures			Cu. Yd.	277.7
Reinforcement Bars, Epoxy Coated			Pound	25,030
** Structure Excavation			Cu. Yd.	260
Furnishing Steel Piles HP 12 x 63			Foot	2,680
Driving Steel Piles			Foot	2,680
Test Piles, HP 12 x 63			Each	1



SECTION A-A

Note:
Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.

PIER DETAILS (WB)
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0053 (WB)

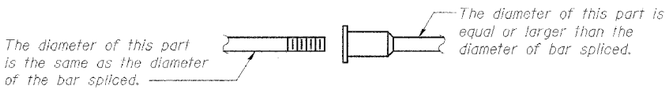
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	473
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

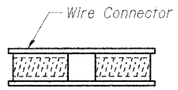
SHEET NO. 17
22 SHEETS

Contract No. 68205



ROLLED THREAD DOWEL BAR

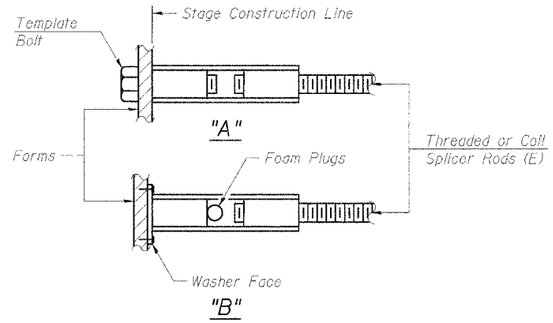
** ONE PIECE



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

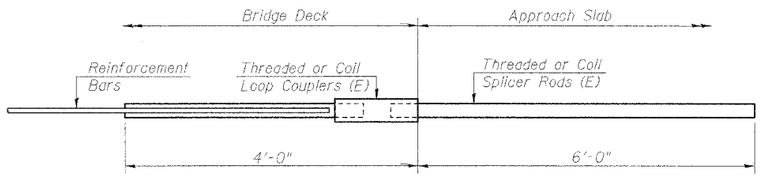
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted.



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 160

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BAR SPLICER ASSEMBLY DETAILS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
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IL Design Firm Reg. No. 184-001518

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	474
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 18
22 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D BORING NO. BB-212
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION Bridge (STRUCTURE) 4+649.9 (STATION) 14.7mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR D & G DRILLING, INC.
DATE OF DRILLING: STARTED 2-24-00 COMPLETED 2-24-00 SURFACE ELEVATION 204.89
DRILLED BY B. THOMASSON LOGGED BY C. WHITEMAN

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	2-24	13.0	-
AAR	2-24	3.0	0h
	2-25	3.7	1d

DRILLING METHOD
RIG TYPE MOBILE B-57
AUGER TYPE-DEPTH 0.10m FA-3.0m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev	CLASSIFICATION	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	TOPSOIL FILL: DK BR, GR & LT RD BR SILTY CLAY, A-7-6 W/ FIBERS		AU	-	27	-
			6 10 7	240	27	-
203.98	BR, RD BR & GR SILTY CLAY, A-7-6	1	4 6 8	285	27	-
203.21	GR & RD BR SILTY CLAY LOAM, A-6	2	4 7 10	345	20	-
202.45	RD BR & GR CLAY, A-6		4 7 11	295	22	-
201.69	RD BR & GR CLAY LOAM, A-6	3	2 4 6	240	17	-
200.93	GR BR & RD BR CLAY LOAM, A-6	4	1 2 6	145	18	-
		5	4 8 10	170	16	-
199.40	BR GR & RD BR CLAY LOAM, A-6	6	4 7 11	285	16	-
		7	2 7 9	295	17	-
	BR GR & RD BR CLAY LOAM, A-6		4 11 12	230	15	-
197.12	BR GR CLAY LOAM, A-6	8	4 5 9	305	15	-
		9	2 7 10	335	15	-
			2 6 7	250	15	-
		10	10 8 11	295	15	-
		11	2 7 11	285	15	-
193.16	GR SILTY CLAY LOAM, A-6	12	4 6 10	315	17	-
		13	2 5 8	240	17	-

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D BORING NO. BB-212 (CONT)
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION BRIDGE (STRUCTURE) 4+649.9 (STATION) 14.7mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR D & G DRILLING, INC.
DATE OF DRILLING: STARTED 2-24-00 COMPLETED 2-24-00 SURFACE ELEVATION 204.89
DRILLED BY B. THOMASSON LOGGED BY C. WHITEMAN

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	2-24	13.0	-
AAR	2-24	3.0	0h
	2-25	3.7	1d

DRILLING METHOD
RIG TYPE MOBILE B-57
AUGER TYPE-DEPTH 0.10m FA-3.0m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev	CLASSIFICATION	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	GR SILTY CLAY LOAM, A-6					
191.63	RD BR SILTY CLAY LOAM, A-6		2 6 11	355	17	-
				200	16	-
191.33	BL GR SILTY CLAY LOAM, A-6					
190.87	BL GR SANDY LOAM, A-2-4 WEALKY CEMENTED SANDSTONE	14	14 19 35	-	19	-
			100/0.13m	-	18	-
		15	100/0.13m	-	18	-
		16	100/0.08m	-	18	-
		17	100/0.08m	-	20	-
			100/0.08m	-	20	-
186.97	END OF BORING	18, 19, 20				

Elev	CLASSIFICATION	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
		21, 22, 23, 24, 25, 26				

CLAUDE H. HURLEY COMPANY
BORING LOG

PROJECT NO. 3-869-D BORING NO. BB-213
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION BRIDGE (STRUCTURE) 4+690.9 (STATION) 5.4mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 6-15-00 COMPLETED 6-15-00 SURFACE ELEVATION 202.70
DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	6-15	5.5	-
AAR	6-15	2.1	0h
	6-16	1.2	1d

DRILLING METHOD
RIG TYPE CME 850
AUGER TYPE-DEPTH 0.13m HSA-16.9
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev	CLASSIFICATION	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	FILL: DK BR, BR & GR SILTY CLAY, A-6 W/ BRICK FRAGMENTS		AU	-	27	-
202.30	GR & RD BR SILTY CLAY, A-7-6		2	-	20	-
			2 5	165	29	-
201.79	RD BR & GR CLAY LOAM, A-6	1	2 5 7	285	18	-
		2	4 5 6	200	17	-
		3	2 3 5	165	18	-
199.50	BR GR & RD BR CLAY LOAM, A-6		4 7 11	280	16	-
		4	4 7 10	325	16	-
		5	5 9 19	285	16	-
197.21	RD BR SAND, A-3	6	8 20 24	-	17	-
196.45	BR GR CLAY LOAM, A-6	7	5 6 10	240	15	-
	BR GR CLAY LOAM, A-6		5 6 10	285	14	-
		8	5 7 11	270	15	-
			6 13 30	295	15	-
193.71	GR LOAM, A-4	9		-	13	-
193.40	BR GR SILTY CLAY LOAM, A-6	10	4 8 12	410	15	-
			4 18 29	365	15	-
192.18	GR LOAM, A-4			-	10	-
191.88	BR GR SILTY CLAY LOAM, A-6	11	5 7 12	325	16	-
		12	4 6 11	270	16	-
190.36	GR SILTY CLAY LOAM, A-6		7 12 16	385	16	-
189.59	BL GR SILTY CLAY LOAM, A-6	13				

METRIC TO ENGLISH STATION EQUIVALENTS

Boring	Metric Station	Metric Offset	English Station	English Offset
BB-212	Sta. 4+649.9	14.7 m Rt.	Sta. 152+55	48' Rt.
BB-213	Sta. 4+690.9	5.4 m Rt.	Sta. 153+90	18' Rt.

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BORING LOGS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	475
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 19
22 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY

BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-213 (CONT)
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION BRIDGE (STRUCTURE) 4+690.9 (STATION) 5.4mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 6-15-00 COMPLETED 6-16-00 SURFACE ELEVATION 202.70
DRILLED BY R. HOWARD — LOGGED BY D. ANDERSON

CLASSIFICATION	Elev	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
EL GR SILTY CLAY LOAM, A-6			7 9 13	335	21	-
		14	5	335	20	-
	188.37		100/0.23m	-	18	-
EL GR SANDY LOAM, A-2-4 WEAKLY CEMENTED SANDSTONE		15	100/0.03m	-	21	-
		16	100/0.11m	-	19	-
			100/0.09m	-	19	-
	183.84 END OF BORING	17	100/0.03m	-	18	-

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	6-15	5.5	-
AAR	6-15	2.1	0h
	6-16	1.2	1d

DRILLING METHOD
RIG TYPE CME 850
AUGER TYPE-DEPTH 0.13m HSA-16.9m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

CLASSIFICATION	Elev	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
		20				
		21				
		22				
		23				
		24				
		25				
		26				

CLAUDE H. HURLEY COMPANY

BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-214
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION BRIDGE (STRUCTURE) 4+702.3 (STATION) 15.6mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 6-13-00 COMPLETED 6-13-00 SURFACE ELEVATION 202.26
DRILLED BY R. HOWARD — LOGGED BY D. ANDERSON

CLASSIFICATION	Elev	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
TOPSOIL FILL: BLK SILTY CLAY LOAM, A-6 W/ ROOTS, FIBERS & BRICK FRAGMENTS	201.96		AU	240	23	-
BR GR SILTY CLAY LOAM, A-6 W/ BRICK FRAGMENTS			4 3 4	95	22	-
GR & RD BR SILTY CLAY, A-7-6	201.35	1	1 2 4	165	27	-
RD BR & GR CLAY LOAM, A-6	200.58	2	1 2 5	170	19	-
GR BR & RD BR CLAY LOAM, A-6	199.82	3	2 4 7	345	15	-
BR GR & RD BR CLAY LOAM, A-6	199.06	4	4 10 13	375	14	-
			6 9 13	420	15	-
BR GR CLAY LOAM, A-6	197.54	5	4 7 12	325	14	-
		6	4 7 10	305	15	-
		7	5 7 11	270	16	-

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	6-13	19.2	-
AAR	6-13	2.4	0h
	6-15	0.6	2d

DRILLING METHOD
RIG TYPE CME 850
AUGER TYPE-DEPTH 0.18m HSA-20.7m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

CLASSIFICATION	Elev	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
BR GR CLAY LOAM, A-6		8	4 6 11	270	15	-
BF GR SILTY CLAY LOAM, A-6	193.73	9	4 7 11	270	15	-
			4 6 10	260	15	-
			6 9 16	365	16	-
BR GR & BR SANDY CLAY LOAM, A-2-4	191.90	10	7 18 24	295	15	-
BR GR & GR CLAY LOAM, A-6	191.44	11	8 13 17	-	7	-
GR SILTY CLAY LOAM, A-6	190.68	12	4 6 10	605	11	-
			4 6 10	230	15	-
BR GR SILTY CLAY LOAM, A-6	189.15	13	4 6 10	240	15	-

CLAUDE H. HURLEY COMPANY

BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-214 (CONT)
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION BRIDGE (STRUCTURE) 4+702.3 (STATION) 15.6mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 6-13-00 COMPLETED 6-13-00 SURFACE ELEVATION 202.26
DRILLED BY R. HOWARD — LOGGED BY D. ANDERSON

CLASSIFICATION	Elev	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
BR GR SILTY CLAY LOAM, A-6			6 12 16	380	15	-
		14	6 8 11	270 / 320	17 18	- -
GRY GR SILTY CLAY, A-7-6	187.84					
BL GR SILTY CLAY LOAM, A-6	187.63	15	4 6 11	250	21	-
		16	4 6 8	170	22	-
	186.11		4 5 7	210	23	-
GR CLAY, A-7-6 W/ ROOTS & FIBERS		17	1 3 5	170	23	-
		18	1 6 7	170	20	-
	183.82		6 18 26	-	19	-
BL GR SANDY LOAM, A-2-4 WEAKLY CEMENTED SANDSTONE		19	14 20 35	-	18	-
	182.30	20	100/0.11m	-	15	-

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	6-13	19.2	-
AAR	6-13	2.4	0h
	6-15	0.6	2d

DRILLING METHOD
RIG TYPE CME 850
AUGER TYPE-DEPTH 0.18m HSA-20.7m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

CLASSIFICATION	Elev	Depth	N Bp0.15m	Qu KPa	W %	γd Kgpm³
GR & DK GR HARD LIMESTONE			100/0.08m	-	13	-
	181.59 END OF BORING					
		21				
		22				
		23				
		24				
		25				
		26				

METRIC TO ENGLISH STATION EQUIVALENTS

Boring	Metric Station	Metric Offset	English Station	English Offset
BB-213	Sta. 4+690.9	5.4 m Rt.	Sta. 153+90	18' Rt.
BB-214	Sta. 4+702.3	15.6 m Rt.	Sta. 154+27	51' Rt.

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BORING LOGS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	476
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 20
22 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-215

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98

LOCATION BRIDGE (STRUCTURE) 4+748.2 (STATION) 7.5mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR D & G DRILLING, INC.

DATE OF DRILLING: STARTED 2-23-00 COMPLETED 2-23-00 SURFACE ELEVATION 204.93

DRILLED BY B. THOMASSON — LOGGED BY C. WHITEMAN

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	2-23	1.2	-
AAR	2-23	1.2	0h
	2-24	0.2	1d

DRILLING METHOD

RIG TYPE MOBILE B-57
AUGER TYPE-DEPTH 0.10m FA-3.0m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev	Depth	CLASSIFICATION	N Bp0.15m	Q_u KPa	W %	γ_d Kgpm³
		RD BR & GR SILTY CLAY LOAM, A-6 W/ FIBERS	AU	-	32	-
206.63		RR, RD BR & GR SILTY CLAY, A-7-6	2 5 7	180	27	-
204.02	1	GR & RD BR SILTY CLAY LOAM, A-6	4 4 6	220	21	-
203.25		GR & RD BR SILTY CLAY, A-7-6	2 2 5	170	25	-
202.49		GR, DK GR & RD BR SILTY CLAY, A-7-6	2 4 7	200	24	-
201.73	3	RD BR & GR CLAY LOAM, A-6	2 3 5	115	19	-
	4		1 4 7	230	18	-
200.21	5	GR BR & RD BR CLAY LOAM, A-6	5 7 11	295	16	-
	6		5 7 11	295	16	-
198.68		BR GR & RD BR CLAY LOAM, A-6	6 10 14	335	17	-
197.92	7					
	8	BR GR CLAY LOAM, A-6	4 7 11	315	15	-
			4 6 10	335	15	-
	9		6 8 10	315	15	-
	10		5 7 10	335	16	-
			6 8 16	365	15	-
194.11	11	BR GR SILTY CLAY LOAM, A-6	6 8 12	270	14	-
			5 7 9	295	15	-
	12		5 9 13	335	15	-
	13					

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-215 (CONT)

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98

LOCATION BRIDGE (STRUCTURE) 4+748.2 (STATION) 7.5mR (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR D & G DRILLING, INC.

DATE OF DRILLING: STARTED 2-23-00 COMPLETED 2-23-00 SURFACE ELEVATION 204.93

DRILLED BY B. THOMASSON — LOGGED BY C. WHITEMAN

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	2-23	1.2	-
AAR	2-23	1.2	0h
	2-24	0.2	1d

DRILLING METHOD

RIG TYPE MOBILE B-57
AUGER TYPE-DEPTH 0.10m FA-3.0m
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev	Depth	CLASSIFICATION	N Bp0.15m	Q_u KPa	W %	γ_d Kgpm³
	14	BR GR SILTY CLAY LOAM, A-6	5 7 12	285	15	-
			5 8 13	365	14	-
	15		6 10 3	240	16	-
	16		7 14 19	480	15	-
			5 12 16	305	17	-
	17		11 13 18	250	16	-
187.25	18	BR GR SILTY CLAY LOAM, A-6	5 7 18	250	17	-
			5 10 12	285	17	-
185.73	19	BL GR SILTY CLAY LOAM, A-6	5 8 11	295	21	-
185.12	20					
	21	DK GR CLAY, A-7-6 W/ FIBERS	6 10 13	420	23	-
184.05		GR CLAY, A-7-6 W/ ROOTS & FIBERS	4 4 10	200	21	-
183.59	22	END OF BORING				
	23					
	24					
	25					
	26					

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-216

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98

LOCATION BRIDGE (STRUCTURE) 4+681.5 (STATION) 5.1mL (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR D & G DRILLING, INC.

DATE OF DRILLING: STARTED 2-25-00 COMPLETED 2-25-00 SURFACE ELEVATION 205.24

DRILLED BY B. THOMASSON — LOGGED BY C. WHITEMAN

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	2-25	15.5	-
AAR	2-25	2.5	0h
	2-28	2.3	3d

DRILLING METHOD

RIG TYPE MOBILE B-57
AUGER TYPE-DEPTH 0.10m FA
CASING TYPE-DEPTH -
SAMPLER TYPE AU-SS

Elev	Depth	CLASSIFICATION	N Bp0.15m	Q_u KPa	W %	γ_d Kgpm³
		FILL: GR SILTY CLAY LOAM, A-6 MIXED W/ BR & GR GRAVEL, A-1-b	AU	-	21	-
204.94		FILL: BR & GR SILTY CLAY LOAM, A-6 TO A-7-6	1 3 5	170	28	-
	1		5 7 9	180	28	-
203.56	2	FILL: BR & GR SILTY CLAY, A-6	5 6 11	260	22	-
202.80		DK GR & BR SILT, A-4	1 1 3	-	31	-
202.04	3	GR & RD BR SILTY CLAY, A-7-6	2 2 5	210	23	-
201.28	4	RD BR & GR CLAY LOAM, A-6	2 3 5	115	20	-
200.52	5	BR & RD BR CLAY LOAM, A-6	2 6 10	305	15	-
	6		4 11 12	270	17	-
198.99	7	BR GR & RD BR CLAY LOAM, A-6	4 6 12	345	15	-
197.92		RD BR SAND, A-3	8 13 30	420	15	-
	8			-	19	-
197.47		BR GR CLAY LOAM, A-6	4 7 12	270	14	-
	9		4 8 11	345	15	-
	10		5 9 13	365	15	-
			5 9 13	355	15	-
194.42	11	BR GR SILTY CLAY LOAM, A-6	4 7 12	345	15	-
			5 9 16	395	14	-
	12		6 13 19	470	14	-
	13					

METRIC TO ENGLISH STATION EQUIVALENTS

Boring	Metric Station	Metric Offset	English Station	English Offset
BB-215	Sta. 4+748.2	7.5 m Rt.	Sta. 155+78	25' Rt.
BB-216	Sta. 4+681.5	5.1 m Lt.	Sta. 153+59	17' Lt.

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.

Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BORING LOGS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
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STS CONSULTANTS
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IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	477
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SHEET NO. 21
22 SHEETS

Contract No. 68205

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-216 (CONT)
PROJECT: FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION: BRIDGE (STRUCTURE) 4+681.5 (STATION) 5.1mL (OFFSET) — MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR: D & G DRILLING, INC.
DATE OF DRILLING: STARTED 2-25-00 COMPLETED 2-25-00 SURFACE ELEVATION 205.24
DRILLED BY: B. THOMASSON LOGGED BY: C. WHITEMAN

Elev / Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
BR GR SILTY CLAY LOAM, A-6	7 9 13	315	16	-
191.37 BL GR SILTY CLAY LOAM, A-6	5 8 12	240	19	-
190.61 BL GR SANDY LOAM, A-2-4 WEAKLY CEMENTED SANDSTONE	2 22 42	-	17	-
	37 38 54	-	17	-
	32 76 102	-	18	-
	100/0.08m	-	16	-
	100/0.08m	-	17	-
	100/0.08m	-	19	-
186.56 END OF BORING				

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	2-25	15.5	-
AAR	2-25	2.5	0h
	2-28	2.3	3d

DRILLING METHOD: RIG TYPE MOBILE B-57; AUGER TYPE-DEPTH 0.10m FA; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-217
PROJECT: FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION: BRIDGE (STRUCTURE) 4+725.0 (STATION) 18.8mL (OFFSET) — MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR: WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 6-15-00 COMPLETED 6-15-00 SURFACE ELEVATION 204.33
DRILLED BY: R. HOWARD LOGGED BY: D. ANDERSON

Elev / Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
FILL: BLK SILTY CLAY, A-7-6 MIXED W/ CRUSHED STONE, A-1-a	AU	-	25	-
	2	125	20	-
203.78 GR & RD BR SILTY CLAY, A-7-6	2 3	125	24	-
203.42 GR & RD BR SILTY CLAY, A-7-6	1 2 5	210	24	-
202.65 RD BR & GR CLAY LOAM, A-6	2 5 6	210	22	-
	4 5 6	250	19	-
	4 6 6	250	19	-
200.37 BR & RD BR CLAY LOAM, A-6	4 8	565	15	-
199.91 BR GR & RD BR CLAY LOAM, A-6	11	285	15	-
199.61 BR GR CLAY LOAM, A-6	5 7 12	365	14	-
	4 6 8	315	14	-
	4 7 10	335	15	-
BR GR CLAY LOAM, A-6	5 7 12	440	14	-
196.56 GR SILTY CLAY, A-6 W/ SAND, A-3 SEAMS	5 6 8	295	17	-
195.80 BR GR SILTY CLAY LOAM, A-6	4 9 13	450	14	-
	4 6 11	315	15	-
	6 9 13	365	14	-
193.51 BL GR CLAY, A-7-6	5 8 11	365	25	-
192.75 BR GR SILTY CLAY LOAM, A-6	6 12 16	575	14	-
	5 11 14	450	14	-

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	6-15	6.2	-
AAR	6-15	2.1	0h
	6-16	1.2	1d

DRILLING METHOD: RIG TYPE CME 850; AUGER TYPE-DEPTH 0.13m HSA-22.4; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D — BORING NO. BB-217 (CONT)
PROJECT: FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98
LOCATION: BRIDGE (STRUCTURE) 4+725.0 (STATION) 18.8mL (OFFSET) — MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR: WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 6-15-00 COMPLETED 6-15-00 SURFACE ELEVATION 204.33
DRILLED BY: R. HOWARD LOGGED BY: D. ANDERSON

Elev / Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
BR GR SILTY CLAY LOAM, A-6	4 7 9	230	15	-
	4 5 8	200	15	-
	5 7 12	395	16	-
	5 8 11	450	14	-
188.18 GR SILTY CLAY LOAM, A-6	4 6 10	285	15	-
187.41 GR SILTY CLAY, A-6 W/ SILT, A-4 SEAMS	4 6	280	16	-
186.96 DK GR & GR SILTY LOAM, A-4	7	-	15	-
186.65 BL GR SILTY CLAY LOAM, A-6	4 5 8	250	22	-
185.89 GR CLAY, A-7-6 W/ ROOTS & FIBERS	4 6 7	155	21	-
	5 6 8	180	20	-
GR CLAY, A-7-6 W/ ROOTS & FIBERS	2 5 7	155	24	-
	2 5 7	155	21	-
182.84 DK GR CLAY, A-7-6 W/ FIBERS	5	115	30	-
182.54 BL GR SANDY LOAM, A-2-4 WEAKLY CEMENTED SANDSTONE	10 12	575	21	-
182.08 GR BR FRACTURED LIMESTONE	100/0.02m	-	14	-
181.90 END OF BORING				

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	6-15	6.2	-
AAR	6-15	2.1	0h
	6-16	1.2	1d

DRILLING METHOD: RIG TYPE CME 850; AUGER TYPE-DEPTH 0.13m HSA-22.4; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

METRIC TO ENGLISH STATION EQUIVALENTS

Boring	Metric Station	Metric Offset	English Station	English Offset
BB-216	Sta. 4+681.5	5.1 m Lt.	Sta. 153+59	17' Lt.
BB-217	Sta. 4+725.0	18.8 m Lt.	Sta. 155+02	62' Lt.

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BORING LOGS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	478
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 22

22 SHEETS

Contract No. 68205

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D BORING NO. BB-218

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98

LOCATION BRIDGE (STRUCTURE) 4+736.4 (STATION) 6.0mL (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES

DATE OF DRILLING: STARTED 6-15-00 COMPLETED 6-15-00 SURFACE ELEVATION 204.73

DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	6-15	17.7	-
AAR	6-15	12.2	0h
FILLED SAME DAY			

DRILLING METHOD: RIG TYPE CME 850; AUGER TYPE-DEPTH 0.18m HSA-22.9m; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

Elev	Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	BLK TO DK BR SILTY CLAY LOAM, A-6 W/ FIBERS	AU	75	29	-
204.55	DK BR, BR & GR TO DK GR GR SILTY CLAY, A-7-6 W/ FIBERS	AU	115	30	-
204.43	RD BR SILTY CLAY, A-7-6	1 3	85	24	-
		6	335	22	-
204.18	GR & RD BR SILTY CLAY, A-7-6				
203.82	GR & RD BR SILTY CLAY, A-7-6	2 4 6	200	22	-
203.05	RD BR, GR & DK GR CLAY LOAM, A-6	2 4 6	220	26	-
202.29	RD BR & GR CLAY LOAM, A-6	4 5 6	250	19	-
201.53	BR & RD BR CLAY LOAM, A-6	2 8 5	165	19	-
		2 4	105	19	-
200.37	RD BR SILTY CLAY LOAM, A-6	8	295	15	-
200.01	BR GR & RD BR CLAY LOAM, A-6	4 6 11	280	14	-
199.24	BR GR CLAY LOAM, A-6	4 7 12	365	14	-
		4 7 13	365	14	-
	BR GR CLAY LOAM, A-6	5 10 13	375	14	-
		5 10 14	410	12	-
		5 8 11	270	14	-
		4 7 12	325	15	-
194.67	BR GR SILTY CLAY LOAM, A-6	6 10 13	365	14	-
		7 10 12	395	14	-
	COBBLE	6 11 17	335	14	-
		5 8 11	420	15	-

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D BORING NO. BB-218 (CONT)

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98

LOCATION BRIDGE (STRUCTURE) 4+736.4 (STATION) 6.0mL (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES

DATE OF DRILLING: STARTED 6-15-00 COMPLETED 6-15-00 SURFACE ELEVATION 204.73

DRILLED BY R. HOWARD LOGGED BY D. ANDERSON

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	6-15	17.7	-
AAR	6-15	12.2	0h
FILLED SAME DAY			

DRILLING METHOD: RIG TYPE CME 850; AUGER TYPE-DEPTH 0.18m HSA-22.9m; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

Elev	Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	BR GR SILTY CLAY LOAM, A-6	6 10 12	385	15	-
190.86	GR SILTY CLAY LOAM, A-6	5 7 13	385	17	-
190.10	BL GR SILTY CLAY LOAM, A-6	5 8 11	335	18	-
189.34	BR GR SILTY CLAY LOAM, A-6	5 7 10	285	14	-
		6 10 13	325	15	-
187.81	GR SILTY CLAY LOAM, A-6	4 8 11	285	15	-
187.05	GR SILTY CLAY LOAM, A-6	5 9 13	200	19	-
186.29	BL GR SILTY CLAY LOAM, A-6	2 6 8	220	21	-
		5 7 10	305	23	-
184.77	GR CLAY, A-7-6 W/ ROOTS & FIBERS	2 5 6	170	24	-
		4 6 6	135	21	-
		1 5	135	22	-
182.78	DK GR CLAY, A-7-6 W/ FIBERS	6	270	26	-
		5 6 7	305	23	-
181.87	END OF BORING				

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D BORING NO. BB-219

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98

LOCATION BRIDGE (STRUCTURE) 4+780.1 (STATION) 14.7mL (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR D & G DRILLING, INC.

DATE OF DRILLING: STARTED 2-24-00 COMPLETED 2-24-00 SURFACE ELEVATION 206.12

DRILLED BY B. THOMASSON LOGGED BY C. WHITEMAN

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	2-24	20.6	-
AAR	2-24	2.9	0h
	2-25	4.3	1d

DRILLING METHOD: RIG TYPE MOBILE B-57; AUGER TYPE-DEPTH 0.10m FA-3.0m; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

Elev	Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	BLK TO DK BR SILTY CLAY LOAM, A-6 W/ FIBERS	AU	-	27	-
205.82	DK BR, BR & GR TO DK BR GR SILTY CLAY A-7-6 W/ FIBERS	1 2 5	155	30	-
205.21	BR, RD BR & GR SILTY CLAY, A-7-6	1 6 7	200	27	-
204.44	GR TO RD BR SILTY CLAY LOAM, A-6	4 4 6	170	21	-
203.68	GR & RD BR SILTY CLAY, A-7-6	2 2 5	170	25	-
202.92	RD BR, GR & DK GR CLAY LOAM, A-7-6	2 5 6	180	25	-
202.16	RD BR & GR CLAY LOAM, A-6 W/ SAND, A-2-4 SEAMS	1 1 3	115	19	-
		1 2 5	135	19	-
200.63	RD BR SILTY CLAY LOAM, A-6	4 7 12	400	15	-
		4 6 11	315	15	-
199.11	BR GR & RD BR CLAY LOAM, A-6	4 7 11	325	14	-
198.35	BR GR CLAY LOAM, A-6	4 8 11	335	14	-
		4 6 11	305	16	-
196.82	GR SILTY CLAY, A-6	4 9 11	285	16	-
		4 7 11	270	16	-
195.30	BR GR CLAY LOAM, A-6	4 7 9	295	15	-
194.54	BR GR SILTY CLAY LOAM, A-6	5 10 14	365	14	-
		7 9 14	295	15	-

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D BORING NO. BB-219 (CONT)

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 - IDOT JOB NO. P-94-011-98

LOCATION BRIDGE (STRUCTURE) 4+780.1 (STATION) 14.7mL (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR D & G DRILLING, INC.

DATE OF DRILLING: STARTED 2-24-00 COMPLETED 2-24-00 SURFACE ELEVATION 206.12

DRILLED BY B. THOMASSON LOGGED BY C. WHITEMAN

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	2-24	20.6	-
AAR	2-24	2.9	0h
	2-25	4.3	1d

DRILLING METHOD: RIG TYPE MOBILE B-57; AUGER TYPE-DEPTH 0.10m FA-3.0m; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

Elev	Classification	N Bp0.15m	Qu KPa	W %	γd Kgpm³
	BR GR SILTY CLAY LOAM, A-6	5 11 13	385	15	-
192.25	BR GR CLAY LOAM, A-6	4 6 13	230	17	-
191.49	GR BR & GR CLAY LOAM, A-6	11 18 23	555	15	0
190.73	GR SILTY CLAY LOAM, A-6	7 11 13	375	17	-
189.97	BL GR SILTY CLAY LOAM, A-6	4 7 10	325	21	-
189.20	BR GR SILTY CLAY LOAM, A-6	4 8 11	325	14	-
188.44	BL GR SILTY CLAY LOAM, A-6	2 3 5	190	22	-
		5 9	230	18	-
187.22	BL GR SANDY LOAM, A-2-4 WEAKLY CEMENTED SANDSTONE	22	-	19	-
		7 16 24	-	16	-
	BL GR SANDY LOAM, A-2-4 WEAKLY CEMENTED SANDSTONE	30 34 38	-	18	-
		100/0.08m	-	21	-
185.15	END OF BORING				

METRIC TO ENGLISH STATION EQUIVALENTS

Boring	Metric Station	Metric Offset	English Station	English Offset
BB-218	Sta. 4+736.4	6.0 m Lt.	Sta. 155+39	20' Rt.
BB-219	Sta. 4+780.1	14.7 m Lt.	Sta. 156+83	48' Lt.

METRIC TO ENGLISH CONVERSIONS

Depth: 1 meter = 3.281 ft.
Unconfined compressive strength, Qu: 100 KPa = 1.04 tons/sq. ft.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BORING LOGS
IL. ROUTE 336 OVER
BURLINGTON NORTHERN
SANTA FE RAILROAD
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 154+56.74
STRUCTURE NO. 055-0052 (EB)
STRUCTURE NO. 055-0053 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

Benchmark: #508 Chiseled "□" on W. Headwall of Box Culvert (N. End) 1.2 miles S. of Rte. 136 on TR850 E
Elevation = 610.51

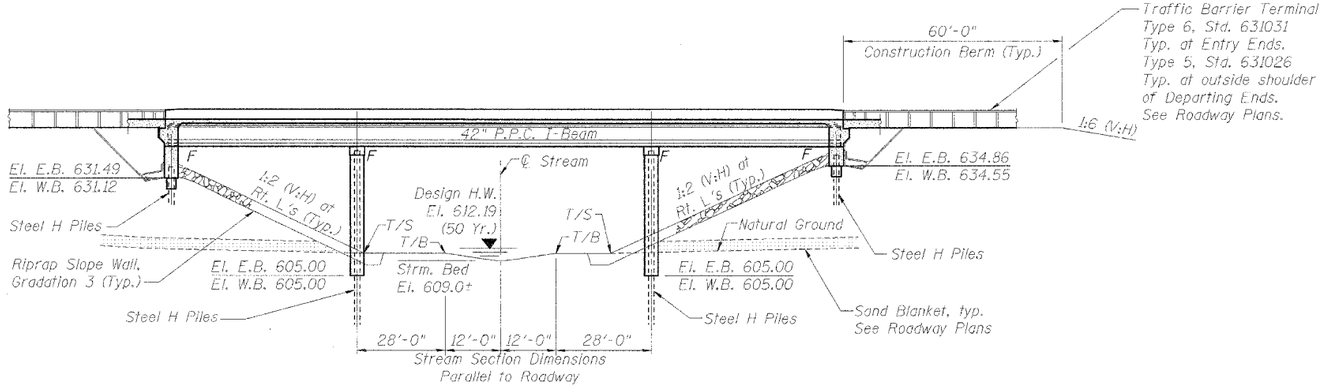
Existing Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	479
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

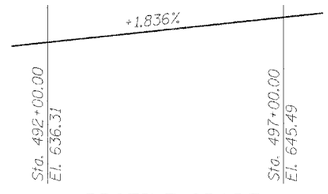
SHEET NO. 1
22 SHEETS

Contract No. 68205



ELEVATION

T/S = Toe of Slope El. 612.5
T/B = Top of Stream Bank El. 612.0



PROFILE GRADE

INDEX OF SHEETS

Δ = 32° 22' 09.34" (LT)
D = 1° 20' 53.29"
R = 4,250'
T = 1,233.50'
L = 2,401.04'
E = 175.38
Trans. In = Sta. 477+55.00 to Sta. 481+80.00
Trans Out = Sta. 502+95.00 to Sta. 507+20.00
S.E. = 4.20%
P.C. Sta. = 480+37.41
P.T. Sta. = 504+38.45
P.I. Sta. = 492+70.91

IL 336 PROPOSED CURVE DATA

SOIL BORING LOCATIONS

(indicated thus: ⊠)

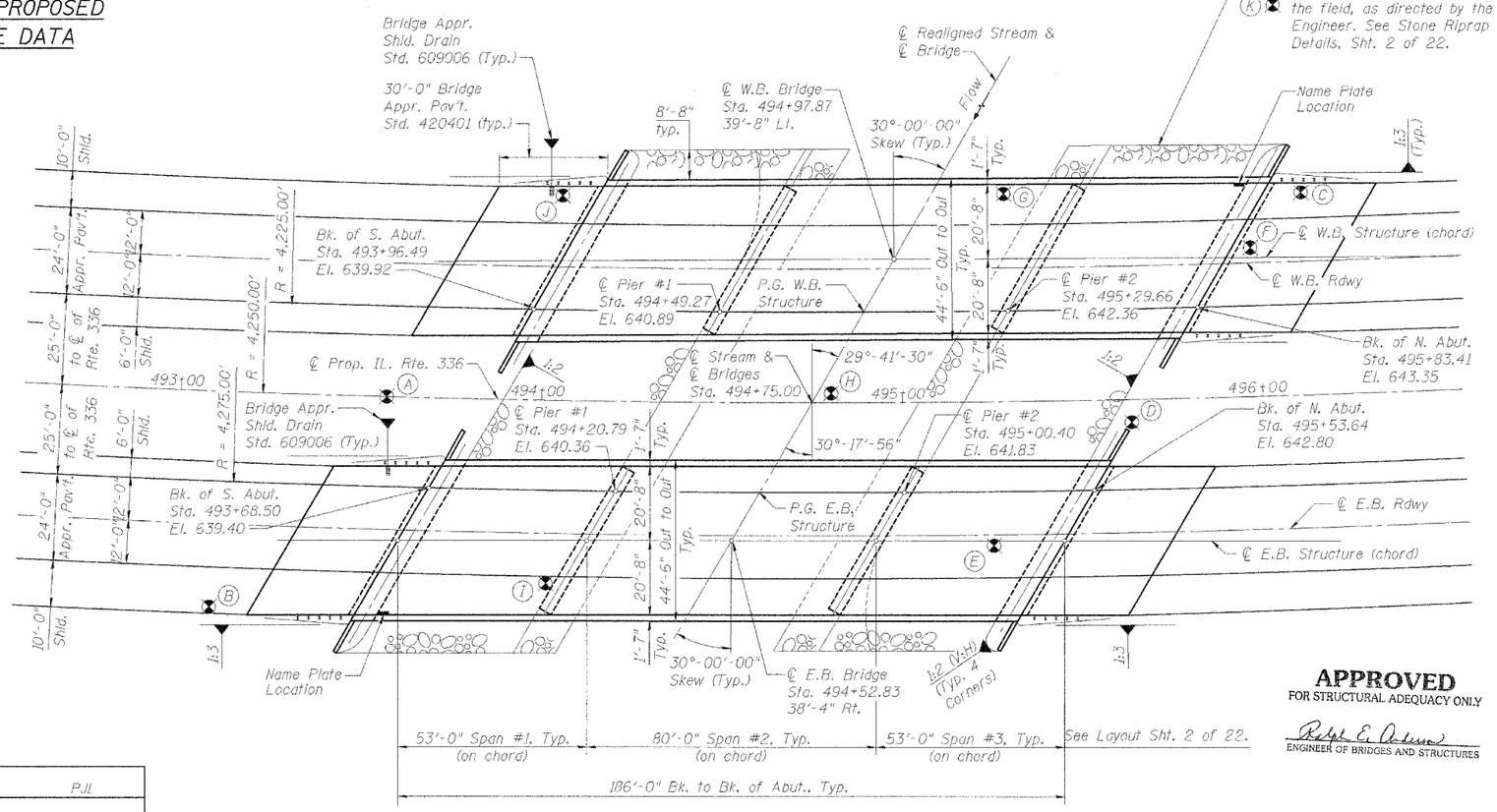
- (A) B-112 Sta. 493+57 on ℄
- (B) B-113 Sta. 493+10 60' Rt.
- (C) B-114 Sta. 496+13 55' Lt.
- (D) B-115 Sta. 495+63 7' Rt.
- (E) B-116 Sta. 495+25 40' Rt.
- (F) CB-493 Sta. 495+96 45' Lt.
- (G) CB-494 Sta. 495+27 49' Lt.
- (H) CB-495 Sta. 494+61 2' Lt.
- (I) CB-496 Sta. 494+06 58' Rt.
- (J) TB-491 Sta. 494+00 56' Lt.
- (K) TWTB-493 Sta. 495+96 97' Lt.

STATION 494+75.00
BUILT 20-- BY
STATE OF ILLINOIS
F.A.P. RTE. 315 SEC. 55-2
LOADING HS20
STR. NO. 055-XXXX

NAME PLATE

See Std. 515001

XXXX = 0060 (EB)
XXXX = 0061 (WB)



PLAN

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.0% g
Site Coefficient (S) = 1.0

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 50#/sq.ft. for future wearing surface.

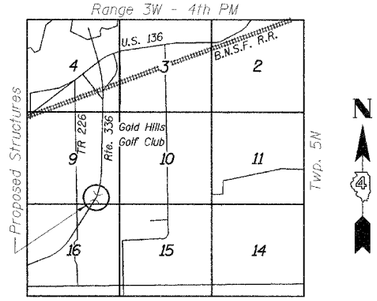
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (1/2" ϕ low lax. strands)
fsi = 201,960 psi (1/2" ϕ low lax. strands)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS PHILIP J. LANE 4084 PEORIA, IL LICENSED STRUCTURAL ENGINEER

Philip J. Lane
Illinois Licensed Structural Engineer No. 4084
Lic. Expires: 11/30/06

3/30/06
Date

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

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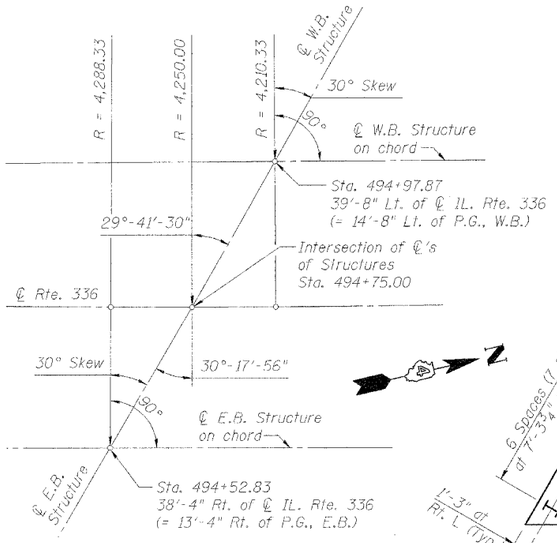
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	480
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

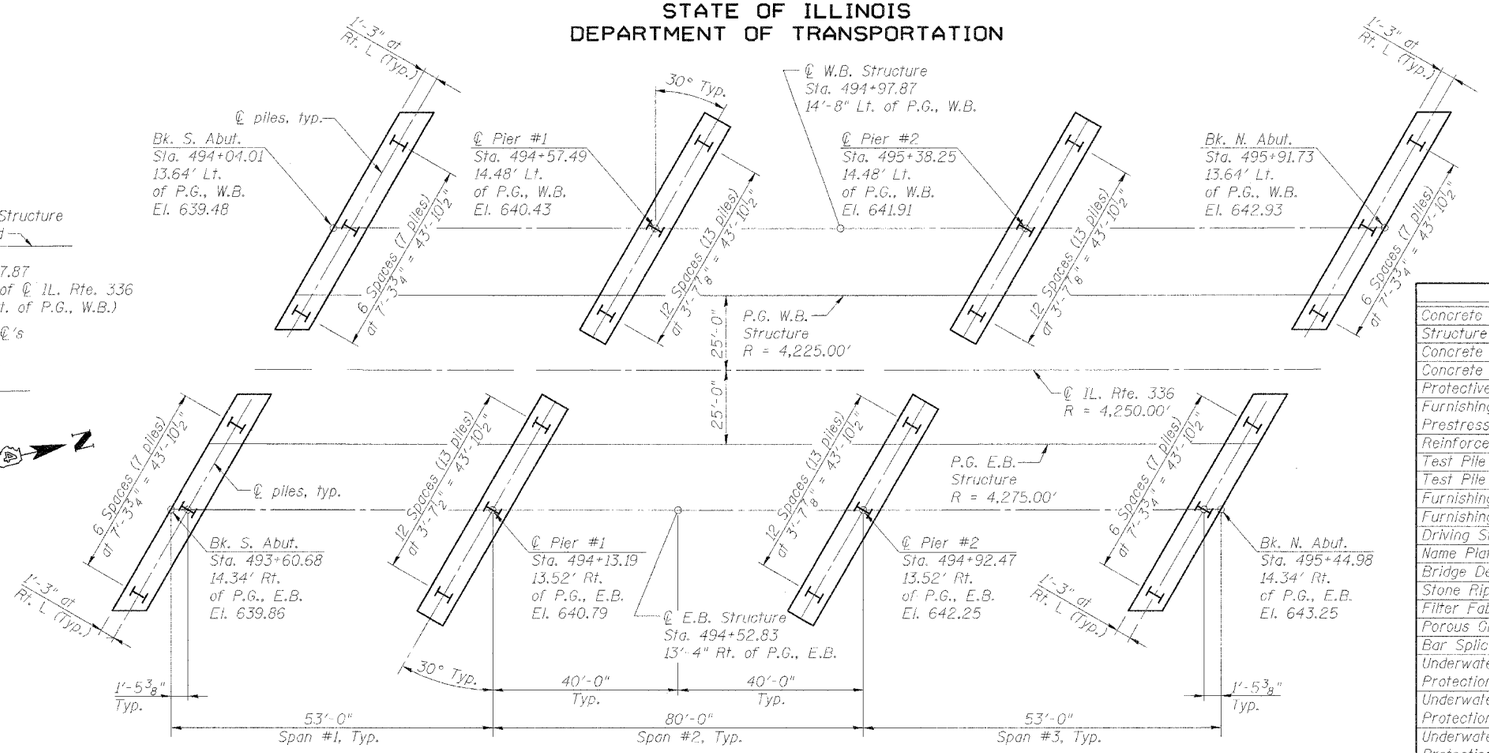
SHEET NO. 2
22 SHEETS

Contract No. 68205



LAYOUT SKETCH

(All beams and parapets are parallel to ℄ of structure. All substructures are parallel to ℄ of respective structures at 30°-00'-00" skew.)



SUBSTRUCTURE LAYOUT

Piles centered on ℄ Structure, Typ.

TOTAL BILL OF MATERIAL

(Two Bridges)

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Encasement	Cu. Yd.	-	223.9	223.9
Structure Excavation	Cu. Yd.	-	552	552
Concrete Structures	Cu. Yd.	-	187.7	187.7
Concrete Superstructure	Cu. Yd.	592.7	-	592.7
Protective Coat	Sq. Yd.	2,023	-	2,023
Furnishing and Erecting Precast Prestressed Concrete I-beams, 42"	Foot	2,564	-	2,564
Reinforcement Bars, Epoxy Coated	Pound	116,770	31,060	147,830
Test Pile Steel HP 12 x 53	Each	-	4	4
Test Pile Steel HP 14 x 73	Each	-	4	4
Furnishing Steel Piles HP 12 x 53	Foot	-	1,176	1,176
Furnishing Steel Piles HP 14 x 73	Foot	-	2,388	2,388
Driving Steel Piles	Foot	-	3,564	3,564
Name Plates	Each	2	-	2
Bridge Deck Grooving	Sq. Yd.	1,626	-	1,626
Stone Riprap, Class B3	Sq. Yd.	-	2,225	2,225
Filter Fabric	Sq. Yd.	-	2,225	2,225
Porous Granular Embankment (Special)	Cu. Yd.	-	520	520
Bar Splicers	Each	164	-	164
Underwater Structure Excavation Protection, Location 1	Each	-	1	1
Underwater Structure Excavation Protection, Location 2	Each	-	1	1
Underwater Structure Excavation Protection, Location 3	Each	-	1	1
Underwater Structure Excavation Protection, Location 4	Each	-	1	1
Pipe Underdrain for Structures, 4"	Foot	-	242	242
Geocomposite Wall Drain	Sq. Yd.	-	205	205

GENERAL NOTES

1.) Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.

2.) The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments. Embankments will be placed atop a sand drainage blanket to expedite consolidation. A four month waiting period will be required between the placement of approach embankments and the installation of abutment piling.

3.) Piles at abutments shall be driven through 18" ϕ holes precored through the embankment according to Article 512.10(c) of the Standard Specifications. Precored holes shall extend to elevations, thus:

	F.B.	W.B.
N. Abut.	El. 611.0	El. 612.0
S. Abut.	El. 610.0	El. 610.0

4.) The contractor shall drive eight steel H-pile test piles in permanent locations one (1) at each abutment and pier, as directed by the Engineer before ordering the remainder of piles, thus: HP 12 X 53 at abutments and HP 14 x 73 at piers.

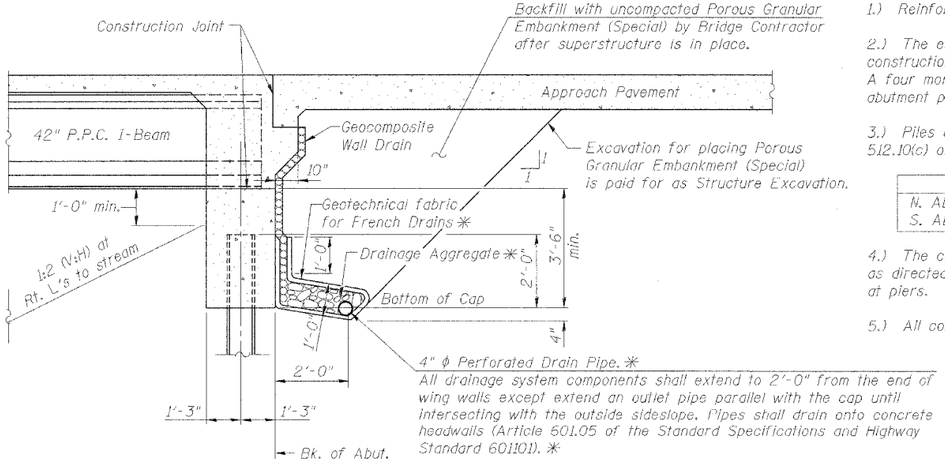
5.) All construction joints shall be bonded.

WATERWAY INFORMATION

Drainage Area = 144 Acs.** Low Grade Elev. 616.98 @ Sta. 479+50.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	146	41	39	612.19	-	1.44	-	613.63
Base	100	169	48	47	612.33	-	1.51	-	613.84
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	-	-	-	-	-	-	-	-

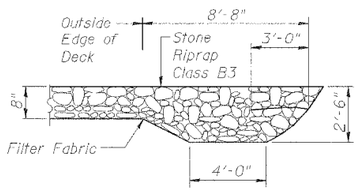
** 144 Acs. drain through bridge opening. An additional 180 acs. currently drain to reservoir retained by golf course dam. Waterway analysis was performed with dam in place. Dam overflow diverts water to another watershed area. Controlling waterway restriction is at upstream face of westbound structure.



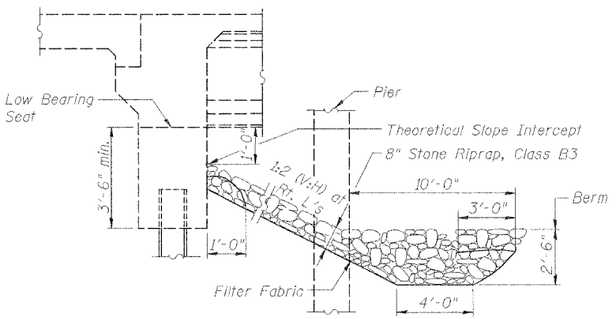
SECTION THRU INTEGRAL ABUTMENT

All horizontal dimensons at Rt. L's to abutment unless otherwise noted.

✳ Included in the cost of Pipe Underdrains for Structures.



STONE RIPRAP FLANK DETAIL

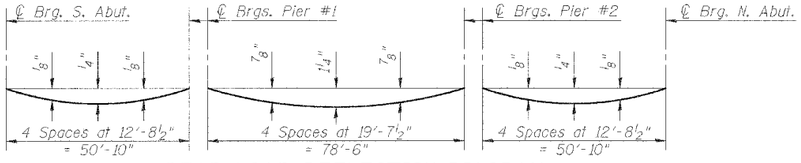


STONE RIPRAP TOE DETAIL

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

TOTAL BILL OF MATERIAL, SLOPE PROTECTION DETAILS, & SUBSTRUCTURE LAYOUT IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK F.A.P. ROUTE 315 SECT. 55-2 McDONOUGH COUNTY STATION 494+75.00 STRUCTURE NO. 055-0060 (EB) STRUCTURE NO. 055-0061 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
PH(309)676-8484
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

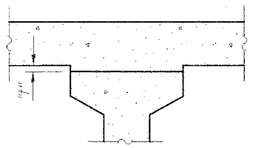


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on Sht. 4 of 22.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below and on Sht. 4 of 22, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	481
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
22 SHEETS

Contract No. 68205

FILLET HEIGHTS

BEAM #1
19 Ft. Left of Centerline of Structure

Location	Station	Offset from P.G. E.B. (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+71.181	4.879	639.248	639.248
℄ Brg. S. Abut.	493+72.617	4.906	639.273	639.273
A	493+82.569	5.083	639.448	639.459
B	493+92.521	5.237	639.625	639.642
C	494+02.474	5.367	639.802	639.819
D	494+12.428	5.474	639.980	639.991
℄ Pier #1	494+23.932	5.568	640.188	640.188
E	494+33.886	5.624	640.368	640.405
F	494+43.841	5.657	640.549	640.621
G	494+53.795	5.667	640.732	640.828
H	494+63.750	5.653	640.915	641.019
I	494+73.705	5.615	641.099	641.195
J	494+83.659	5.554	641.285	641.357
K	494+93.613	5.470	641.471	641.508
℄ Pier #2	495+03.566	5.362	641.658	641.658
L	495+13.519	5.231	641.846	641.856
M	495+23.472	5.077	642.036	642.053
N	495+33.423	4.899	642.226	642.243
O	495+43.374	4.698	642.417	642.429
℄ Brg. N. Abut.	495+54.872	4.436	642.639	642.639
Bk. N. Abut.	495+56.308	4.401	642.667	642.667

EAST BOUND P.G.
Varies to Left of Centerline of Structure

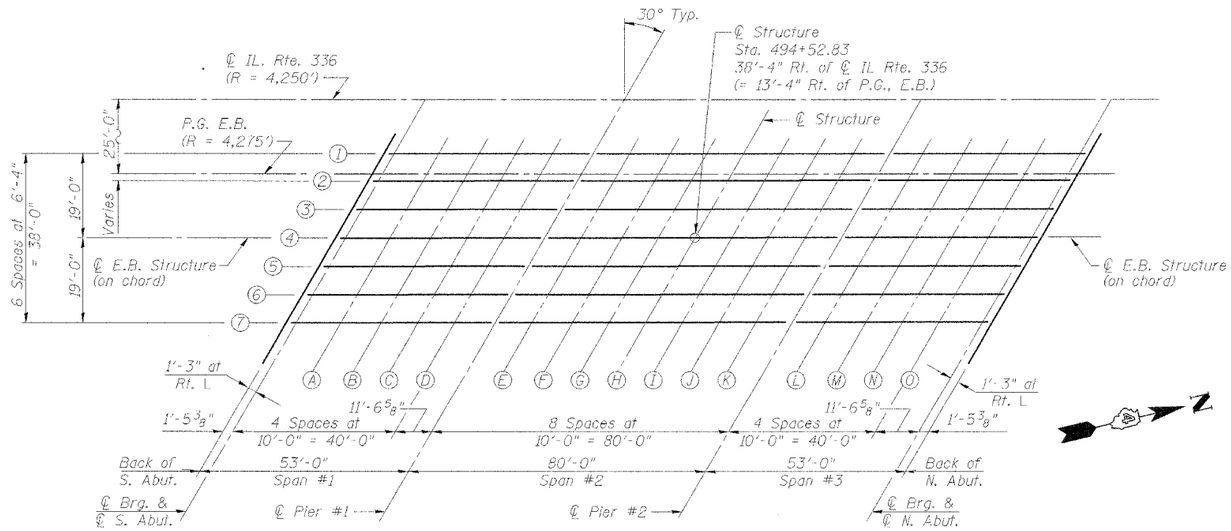
Location	Station	Offset from P.G. E.B.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+68.504	0.000	639.404	639.404
℄ Brg. S. Abut.	493+69.923	0.000	639.430	639.430
A	493+79.762	0.000	639.610	639.621
B	493+89.614	0.000	639.791	639.808
C	493+99.478	0.000	639.972	639.989
D	494+09.355	0.000	640.154	640.165
℄ Pier #1	494+20.786	0.000	640.364	640.364
E	494+30.692	0.000	640.545	640.582
F	494+40.610	0.000	640.728	640.800
G	494+50.542	0.000	640.910	641.006
H	494+60.487	0.000	641.093	641.197
I	494+70.446	0.000	641.275	641.371
J	494+80.418	0.000	641.458	641.530
K	494+90.404	0.000	641.642	641.679
℄ Pier #2	495+00.404	0.000	641.825	641.825
L	495+10.418	0.000	642.009	642.019
M	495+20.445	0.000	642.193	642.210
N	495+30.488	0.000	642.378	642.395
O	495+40.544	0.000	642.562	642.574
℄ Brg. N. Abut.	495+52.184	0.000	642.776	642.776
Bk. N. Abut.	495+53.639	0.000	642.803	642.803

BEAM #2
12.667 Ft. Left of Centerline of Structure

Location	Station	Offset from P.G. E.B. (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+67.669	1.525	639.452	639.452
℄ Brg. S. Abut.	493+69.103	1.496	639.478	639.478
A	493+79.040	1.311	639.652	639.663
B	493+88.977	1.149	639.828	639.845
C	493+98.915	1.010	640.005	640.022
D	494+08.854	0.895	640.182	640.193
℄ Pier #1	494+20.340	0.791	640.389	640.389
E	494+30.280	0.726	640.568	640.605
F	494+40.219	0.685	640.749	640.821
G	494+50.159	0.667	640.931	641.027
H	494+60.099	0.673	641.114	641.218
I	494+70.039	0.701	641.297	641.393
J	494+79.979	0.754	641.482	641.554
K	494+89.918	0.829	641.668	641.705
℄ Pier #2	494+99.857	0.928	641.854	641.854
L	495+09.796	1.050	642.042	642.052
M	495+19.734	1.196	642.231	642.248
N	495+29.671	1.365	642.420	642.437
O	495+39.607	1.558	642.611	642.623
℄ Brg. N. Abut.	495+51.089	1.809	642.832	642.832
Bk. N. Abut.	495+52.523	1.843	642.860	642.860

BEAM #3
6.333 Ft. Left of Centerline of Structure

Location	Station	Offset from P.G. E.B. (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+64.167	7.932	639.657	639.657
℄ Brg. S. Abut.	493+65.599	7.902	639.682	639.682
A	493+75.521	7.709	639.856	639.867
B	493+85.443	7.538	640.031	640.048
C	493+95.366	7.391	640.207	640.224
D	494+05.290	7.268	640.384	640.395
℄ Pier #1	494+16.759	7.154	640.590	640.590
E	494+26.684	7.081	640.769	640.806
F	494+36.609	7.031	640.949	641.021
G	494+46.534	7.005	641.131	641.227
H	494+56.459	7.002	641.313	641.417
I	494+66.384	7.022	641.496	641.592
J	494+76.310	7.065	641.680	641.752
K	494+86.234	7.132	641.865	641.902
℄ Pier #2	494+96.159	7.223	642.051	642.051
L	495+06.083	7.336	642.238	642.248
M	495+16.006	7.473	642.426	642.443
N	495+25.929	7.633	642.615	642.632
O	495+35.851	7.817	642.805	642.817
℄ Brg. N. Abut.	495+47.316	8.058	643.025	643.025
Bk. N. Abut.	495+48.748	8.091	643.053	643.053



EAST BOUND PLAN
SN 055-0060

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

EAST BOUND DECK ELEVATIONS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	482
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 4
22 SHEETS

Contract No. 68205

BEAM #4

On Centerline of Structure

Location	Station	Offset from P.G. E.B. (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+60.676	14.342	639.862	639.862
℄ Brg. S. Abut.	493+62.106	14.311	639.887	639.887
A	493+72.012	14.109	640.061	640.072
B	493+81.920	13.930	640.235	640.252
C	493+91.828	13.775	640.411	640.428
D	494+01.737	13.643	640.587	640.598
℄ Pier #1	494+13.189	13.520	640.792	640.792
E	494+23.099	13.438	640.970	641.007
F	494+33.009	13.380	641.150	641.222
G	494+42.919	13.345	641.330	641.426
H	494+52.830	13.333	641.512	641.616
I	494+62.741	13.345	641.694	641.790
J	494+72.651	13.380	641.878	641.950
K	494+82.561	13.438	642.062	642.099
℄ Pier #2	494+92.471	13.520	642.248	642.248
L	495+02.381	13.625	642.434	642.444
M	495+12.290	13.753	642.621	642.638
N	495+22.198	13.905	642.810	642.827
O	495+32.106	14.079	642.999	643.011
℄ Brg. N. Abut.	495+43.554	14.311	643.219	643.219
Bk. N. Abut.	495+44.984	14.342	643.246	643.246

BEAM #5

6.333 Ft. Right of Centerline of Structure

Location	Station	Offset from P.G. E.B. (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+57.195	20.754	640.068	640.068
℄ Brg. S. Abut.	493+58.623	20.722	640.093	640.093
A	493+68.514	20.512	640.265	640.276
B	493+78.407	20.325	640.439	640.456
C	493+88.300	20.162	640.614	640.631
D	493+98.194	20.022	640.790	640.801
℄ Pier #1	494+09.629	19.888	640.994	640.994
E	494+19.524	19.798	641.172	641.209
F	494+29.420	19.732	641.351	641.423
G	494+39.316	19.688	641.531	641.627
H	494+49.211	19.668	641.712	641.816
I	494+59.107	19.671	641.893	641.989
J	494+69.003	19.698	642.076	642.148
K	494+78.899	19.747	642.260	642.297
℄ Pier #2	494+88.795	19.820	642.445	642.445
L	494+98.690	19.917	642.630	642.640
M	495+08.584	20.036	642.817	642.834
N	495+18.478	20.179	643.005	643.022
O	495+28.372	20.345	643.193	643.205
℄ Brg. N. Abut.	495+39.804	20.566	643.413	643.413
Bk. N. Abut.	495+41.232	20.596	643.440	643.440

BEAM #6

12.667 Ft. Right of Centerline of Structure

Location	Station	Offset from P.G. E.B. (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abul.	493+53.724	27.170	640.274	640.274
℄ Brg. S. Abut.	493+55.150	27.136	640.298	640.298
A	493+65.027	26.918	640.470	640.481
B	493+74.904	26.723	640.644	640.661
C	493+84.783	26.551	640.818	640.835
D	493+94.662	26.403	640.993	641.004
℄ Pier #1	494+06.080	26.260	641.197	641.197
E	494+15.960	26.162	641.374	641.411
F	494+25.841	26.087	641.552	641.624
G	494+35.722	26.035	641.731	641.827
H	494+45.604	26.006	641.912	642.016
I	494+55.485	26.001	642.093	642.189
J	494+65.366	26.019	642.275	642.347
K	494+75.248	26.060	642.458	642.495
℄ Pier #2	494+85.129	26.124	642.642	642.642
L	494+95.009	26.212	642.827	642.837
M	495+04.890	26.323	643.013	643.030
N	495+14.769	26.457	643.200	643.217
O	495+24.648	26.614	643.388	643.400
℄ Brg. N. Abut.	495+36.064	26.825	643.607	643.607
Bk. N. Abut.	495+37.490	26.853	643.634	643.634

BEAM #7

19 Ft. Right of Centerline of Structure

Location	Station	Offset from P.G. E.B. (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+50.264	33.588	640.480	640.480
℄ Brg. S. Abut.	493+51.688	33.553	640.504	640.504
A	493+61.549	33.327	640.676	640.687
B	493+71.412	33.124	640.848	640.865
C	493+81.276	32.944	641.022	641.039
D	493+91.140	32.787	641.196	641.207
℄ Pier #1	494+02.541	32.635	641.399	641.399
E	494+12.407	32.528	641.576	641.613
F	494+22.273	32.445	641.754	641.826
G	494+32.140	32.384	641.932	642.028
H	494+42.006	32.347	642.112	642.216
I	494+51.873	32.333	642.292	642.388
J	494+61.740	32.343	642.474	642.546
K	494+71.607	32.375	642.656	642.693
℄ Pier #2	494+81.473	32.431	642.840	642.840
L	494+91.340	32.510	643.024	643.034
M	495+01.206	32.612	643.210	643.227
N	495+11.071	32.738	643.396	643.413
O	495+20.936	32.886	643.584	643.596
℄ Brg. N. Abut.	495+32.335	33.087	643.801	643.801
Bk. N. Abut.	495+33.759	33.114	643.829	643.829

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

EAST BOUND DECK ELEVATIONS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)

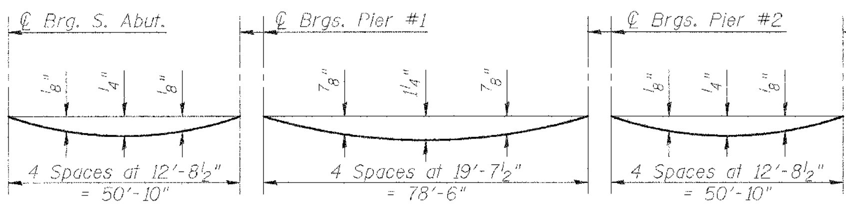
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	483

SHEET NO. 5 22 SHEETS

Contract No. 68205

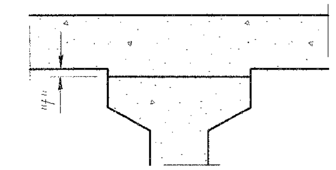
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on Sht. 6 of 22.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, and on Sht. 6 of 22, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

BEAM #1

19 Ft. Left of Centerline of Structure

Location	Station	Offset from P.G. W.B. (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	494+14.702	32.864	638.872	638.872
℄ Brg. S. Abut.	494+16.165	32.892	638.897	638.897
A	494+26.302	33.072	639.076	639.087
B	494+36.439	33.229	639.255	639.272
C	494+46.577	33.361	639.436	639.453
D	494+56.716	33.470	639.618	639.629
℄ Pier #1	494+68.434	33.566	639.829	639.829
E	494+78.573	33.623	640.012	640.049
F	494+88.713	33.657	640.197	640.269
G	494+98.853	33.667	640.383	640.479
H	495+08.993	33.652	640.570	640.674
I	495+19.133	33.614	640.757	640.853
J	495+29.273	33.552	640.946	641.018
K	495+39.412	33.466	641.136	641.173
℄ Pier #2	495+49.551	33.357	641.327	641.327
L	495+59.689	33.223	641.519	641.529
M	495+69.826	33.066	641.711	641.728
N	495+79.963	32.885	641.905	641.922
O	495+90.098	32.680	642.100	642.112
℄ Brg. N. Abut.	496+01.811	32.413	642.326	642.326
Bk. N. Abut.	496+03.273	32.377	642.354	642.354

BEAM #2

12.667 Ft. Left of Centerline of Structure

Location	Station	Offset from P.G. W.B. (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	494+11.127	26.459	639.075	639.075
℄ Brg. S. Abut.	494+12.588	26.488	639.101	639.101
A	494+22.709	26.677	639.278	639.289
B	494+32.831	26.842	639.457	639.474
C	494+42.953	26.983	639.637	639.654
D	494+53.077	27.101	639.818	639.829
℄ Pier #1	494+64.776	27.206	640.029	640.029
E	494+74.901	27.272	640.212	640.249
F	494+85.025	27.315	640.396	640.468
G	494+95.150	27.333	640.581	640.677
H	495+05.274	27.327	640.767	640.871
I	495+15.399	27.298	640.954	641.050
J	495+25.523	27.245	641.142	641.214
K	495+35.647	27.168	641.331	641.368
℄ Pier #2	495+45.771	27.067	641.522	641.522
L	495+55.894	26.942	641.713	641.723
M	495+66.017	26.794	641.905	641.922
N	495+76.138	26.622	642.098	642.115
O	495+86.259	26.426	642.292	642.304
℄ Brg. N. Abut.	495+97.954	26.169	642.517	642.517
Bk. N. Abut.	495+99.415	26.135	642.546	642.546

BEAM #3

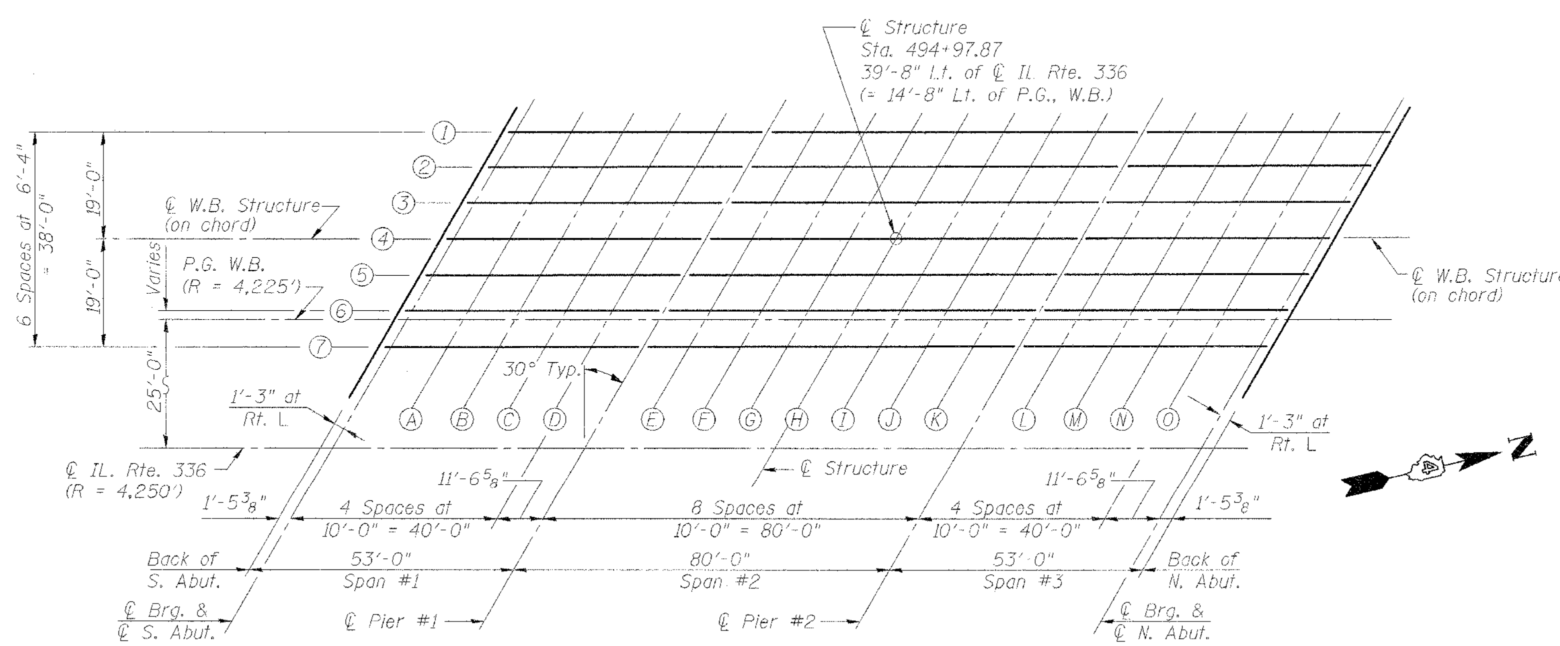
6.333 Ft. Left of Centerline of Structure

Location	Station	Offset from P.G. W.B. (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	494+07.563	20.051	639.279	639.279
℄ Brg. S. Abut.	494+09.021	20.081	639.304	639.304
A	494+19.127	20.278	639.481	639.492
B	494+29.233	20.452	639.660	639.677
C	494+39.340	20.601	639.839	639.856
D	494+49.448	20.727	640.019	640.030
℄ Pier #1	494+61.130	20.843	640.229	640.229
E	494+71.239	20.917	640.411	640.448
F	494+81.348	20.968	640.595	640.667
G	494+91.457	20.995	640.779	640.875
H	495+01.567	20.998	640.965	641.069
I	495+11.676	20.978	641.151	641.247
J	495+21.785	20.933	641.339	641.411
K	495+31.894	20.865	641.527	641.564
℄ Pier #2	495+42.003	20.773	641.717	641.717
L	495+52.111	20.658	641.907	641.917
M	495+62.218	20.518	642.099	642.116
N	495+72.325	20.355	642.291	642.308
O	495+82.431	20.168	642.484	642.496
℄ Brg. N. Abut.	495+94.109	19.922	642.709	642.709
Bk. N. Abut.	495+95.567	19.889	642.737	642.737

BEAM #4

On Centerline of Structure

Location	Station	Offset from P.G. W.B. (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	494+04.009	13.640	639.483	639.483
℄ Brg. S. Abut.	494+05.465	13.671	639.508	639.508
A	494+15.555	13.877	639.685	639.696
B	494+25.646	14.059	639.862	639.879
C	494+35.738	14.217	640.041	640.058
D	494+45.830	14.351	640.221	640.232
℄ Pier #1	494+57.494	14.477	640.430	640.430
E	494+67.588	14.560	640.611	640.648
F	494+77.682	14.619	640.794	640.866
G	494+87.776	14.655	640.978	641.074
H	494+97.870	14.667	641.163	641.267
I	495+07.964	14.655	641.349	641.445
J	495+18.058	14.619	641.536	641.608
K	495+28.152	14.560	641.723	641.760
℄ Pier #2	495+38.246	14.477	641.912	641.912
L	495+48.339	14.370	642.102	642.112
M	495+58.431	14.239	642.293	642.310
N	495+68.523	14.085	642.485	642.502
O	495+78.614	13.907	642.677	642.689
℄ Brg. N. Abut.	495+90.275	13.671	642.901	642.901
Bk. N. Abut.	495+91.731	13.640	642.929	642.929



WEST BOUND PLAN

SN 055-0061

WEST BOUND DECK ELEVATIONS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0061 (WB)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	484
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 6
22 SHEETS

Contract No. 68205

BEAM #5

6.333 Ft. Right of Centerline of Structure

Location	Station	Offset from P.G. W.B. (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	494+00.466	7.226	639.687	639.687
℄ Brg. S. Abut.	494+01.920	7.259	639.712	639.712
A	494+11.995	7.472	639.888	639.899
B	494+22.070	7.563	640.065	640.082
C	494+32.147	7.829	640.243	640.260
D	494+42.224	7.972	640.422	640.433
℄ Pier #1	494+53.870	8.107	640.631	640.631
E	494+63.948	8.199	640.812	640.849
F	494+74.027	8.267	640.994	641.066
G	494+84.106	8.311	641.177	641.273
H	494+94.185	8.332	641.361	641.465
I	495+04.264	8.329	641.546	641.642
J	495+14.343	8.302	641.733	641.805
K	495+24.421	8.251	641.920	641.957
℄ Pier #2	495+34.500	8.177	642.108	642.108
L	495+44.578	8.079	642.297	642.307
M	495+54.655	7.957	642.487	642.504
N	495+64.732	7.812	642.678	642.695
O	495+74.809	7.642	642.871	642.883
℄ Brg. N. Abut.	495+86.452	7.417	643.094	643.094
Bk. N. Abut.	495+87.906	7.387	643.122	643.122

BEAM #6

12.667 Ft. Right of Centerline of Structure

Location	Station	Offset from P.G. W.B. (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+96.935	0.809	639.892	639.892
℄ Brg. S. Abut.	493+98.386	0.843	639.917	639.917
A	494+08.445	1.065	640.092	640.103
B	494+18.505	1.264	640.269	640.286
C	494+28.566	1.438	640.446	640.463
D	494+38.628	1.590	640.624	640.635
℄ Pier #1	494+50.256	1.735	640.832	640.832
E	494+60.319	1.835	641.012	641.049
F	494+70.383	1.912	641.194	641.266
G	494+80.446	1.965	641.376	641.472
H	494+90.510	1.994	641.560	641.664
I	495+00.574	1.999	641.745	641.841
J	495+10.638	1.981	641.930	642.002
K	495+20.702	1.939	642.117	642.154
℄ Pier #2	495+30.765	1.874	642.304	642.304
L	495+40.828	1.784	642.493	642.503
M	495+50.891	1.671	642.682	642.699
N	495+60.953	1.535	642.873	642.890
O	495+71.014	1.374	643.064	643.076
℄ Brg. N. Abut.	495+82.641	1.160	643.287	643.287
Bk. N. Abut.	495+84.093	1.131	643.314	643.314

WEST BOUND P.G.

Varies to Right of Centerline of Structure

Location	Station	Offset from P.G. W.B.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+96.490	0.000	639.918	639.918
℄ Brg. S. Abut.	493+97.923	0.000	639.944	639.944
A	494+07.856	0.000	640.126	640.137
B	494+17.803	0.000	640.309	640.326
C	494+27.762	0.000	640.492	640.509
D	494+37.734	0.000	640.675	640.686
℄ Pier #1	494+49.275	0.000	640.887	640.887
E	494+59.275	0.000	641.070	641.107
F	494+69.289	0.000	641.254	641.326
G	494+79.316	0.000	641.438	641.534
H	494+89.357	0.000	641.623	641.727
I	494+99.411	0.000	641.807	641.903
J	495+09.480	0.000	641.992	642.064
K	495+19.562	0.000	642.177	642.214
℄ Pier #2	495+29.658	0.000	642.363	642.363
L	495+39.768	0.000	642.548	642.558
M	495+49.892	0.000	642.734	642.751
N	495+60.031	0.000	642.920	642.937
O	495+70.184	0.000	643.107	643.119
℄ Brg. N. Abut.	495+81.936	0.000	643.322	643.322
Bk. N. Abut.	495+83.405	0.000	643.349	643.349

BEAM #7

19 Ft. Right of Centerline of Structure

Location	Station	Offset from P.G. W.B. (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	493+93.413	5.611	640.097	640.097
℄ Brg. S. Abut.	493+94.863	5.576	640.122	640.122
A	494+04.906	5.345	640.297	640.308
B	494+14.951	5.138	640.472	640.489
C	494+24.996	4.955	640.649	640.666
D	494+35.043	4.795	640.827	640.838
℄ Pier #1	494+46.654	4.640	641.033	641.033
E	494+56.701	4.532	641.213	641.250
F	494+66.750	4.447	641.394	641.466
G	494+76.798	4.385	641.576	641.672
H	494+86.847	4.348	641.759	641.863
I	494+96.896	4.333	641.943	642.039
J	495+06.944	4.343	642.128	642.200
K	495+16.993	4.376	642.314	642.351
℄ Pier #2	495+27.042	4.433	642.501	642.501
L	495+37.090	4.513	642.689	642.699
M	495+47.138	4.617	642.877	642.894
N	495+57.185	4.745	643.067	643.084
O	495+67.232	4.897	643.258	643.270
℄ Brg. N. Abut.	495+78.841	5.101	643.480	643.480
Bk. N. Abut.	495+80.291	5.129	643.508	643.508

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

WEST BOUND DECK ELEVATIONS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0061 (WB)

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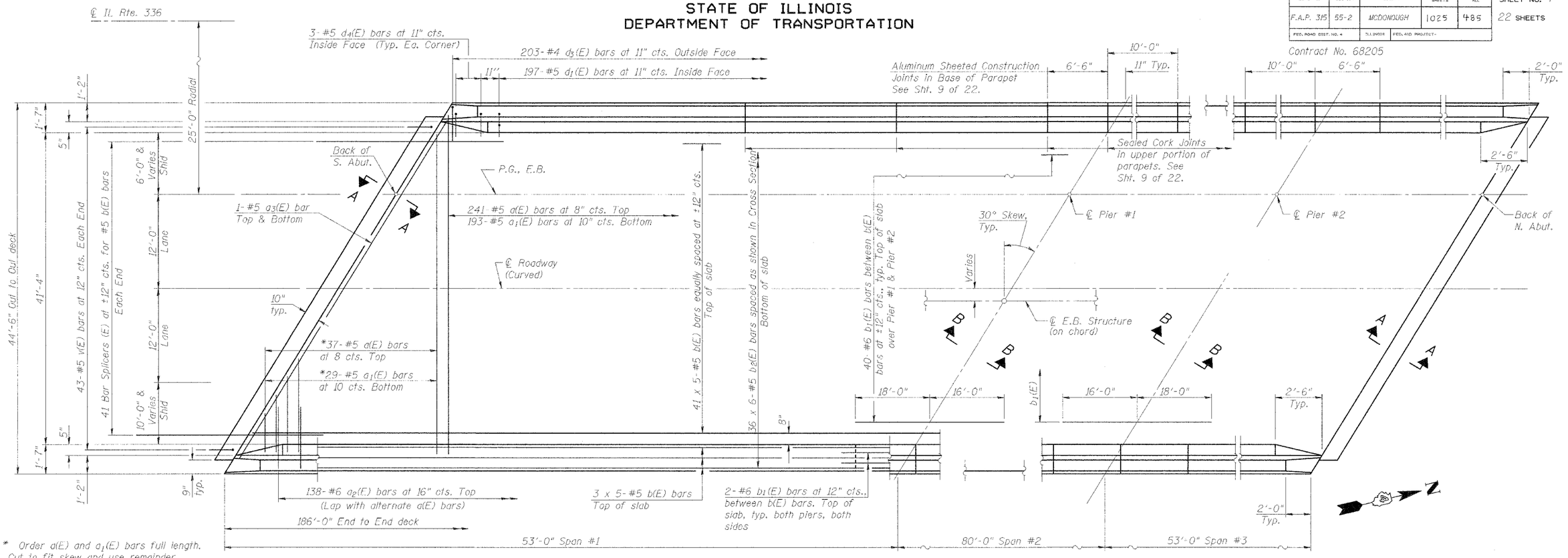
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	485
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
22 SHEETS

Contract No. 68205

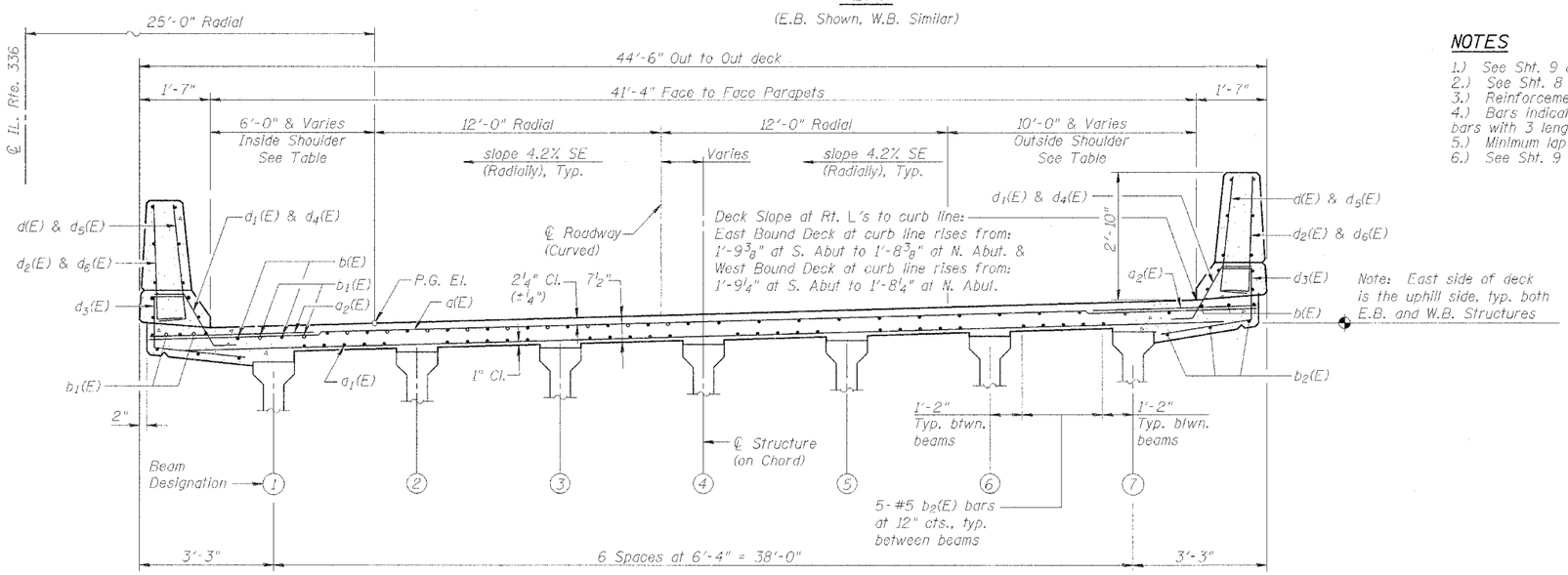


* Order d(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

PLAN

(E.B. Shown, W.B. Similar)

Shoulder Widths			
SN055-0060 (E.B.)		SN055-0061 (W.B.)	
Inside		Inside	
Max.	Min.	Max.	Min.
7'-4"	6'-0½"	7'-3⅝"	6'-0"
Outside		Outside	
Max.	Min.	Max.	Min.
11'-3⅜"	10'-0"	11'-4"	10'-0¼"



NEAR PIER — CROSS SECTION — NEAR MIDSPAN

(Looking North for E.B. Structure, W.B. Similar)

NOTES

1.) See Sht. 9 of 22 for superstructure details and Bill of Material.
2.) See Sht. 8 of 22 for Sections A-A & B-B.
3.) Reinforcement bars designated (E) shall be epoxy coated.
4.) Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5.) Minimum lap for #5 bars = 2'-2".
6.) See Sht. 9 of 22 for parapet reinforcement and joint locations.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

DECK DETAILS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

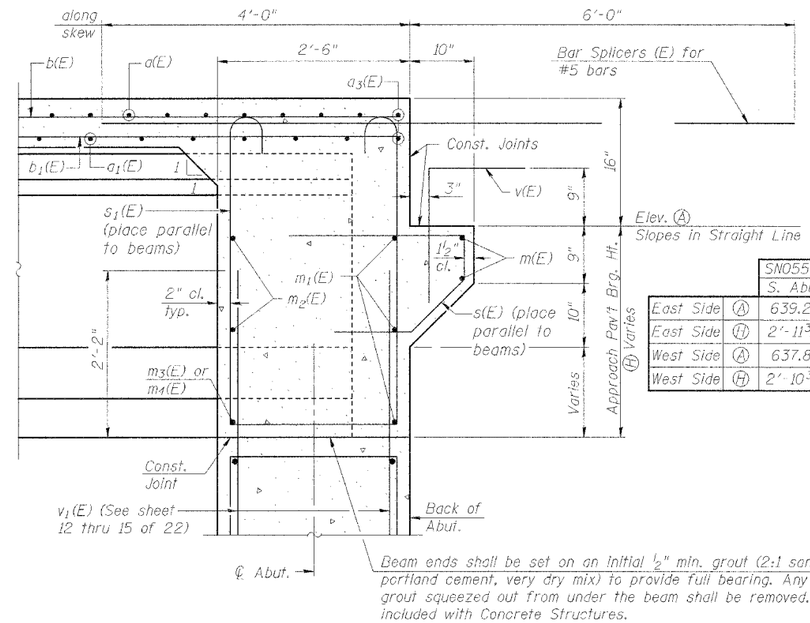
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm: Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	486
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
22 SHEETS

Contract No. 68205



Beam ends shall be set on an initial ½" min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

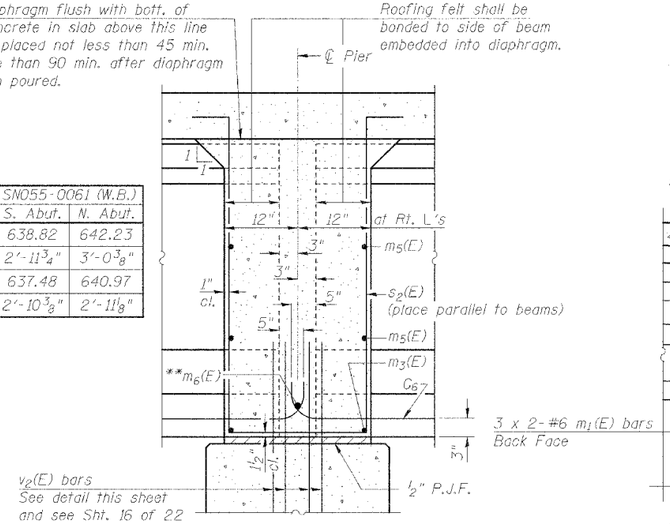
		SN055-0060 (E.B.)		SN055-0061 (W.B.)	
		S. Abut.	N. Abut.	S. Abut.	N. Abut.
East Side	Ⓐ	639.20	642.55	638.82	642.23
East Side	Ⓗ	2'-11¾"	3'-0⅜"	2'-11¾"	3'-0⅜"
West Side	Ⓐ	637.86	641.28	637.48	640.97
West Side	Ⓗ	2'-10⅜"	2'-11"	2'-10⅜"	2'-11⅛"

SECTION A-A

Dimensions at right angles to abutment, except as shown.
See "Section Thru Integral Abutment" Sht. 2 of 22.

Pour diaphragm flush with bott. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.

Roofing felt shall be bonded to side of beam embedded into diaphragm.

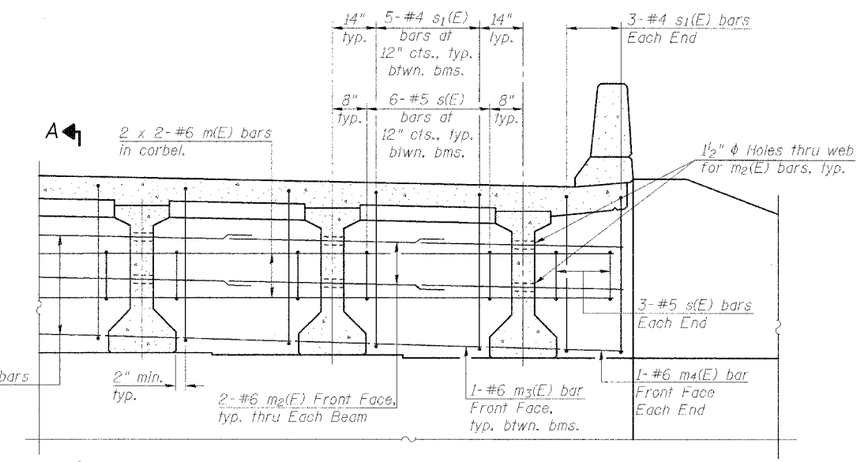


SECTION B-B

Dimensions along ℄ of beam, except as shown.

**Tightly fasten the #8 bars together with No. 9 wire ties.

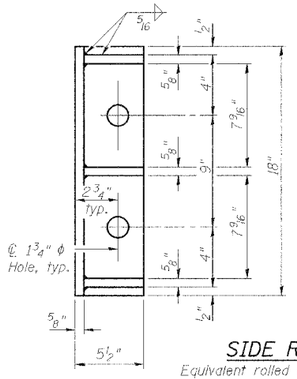
Note: See Sht. 7 of 22 for location of Sections A-A and B-B.



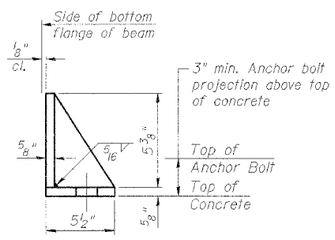
DIAPHRAGM ELEVATION AT ABUTMENT

MIN. BAR LAP

#6 bar = 2'-9"

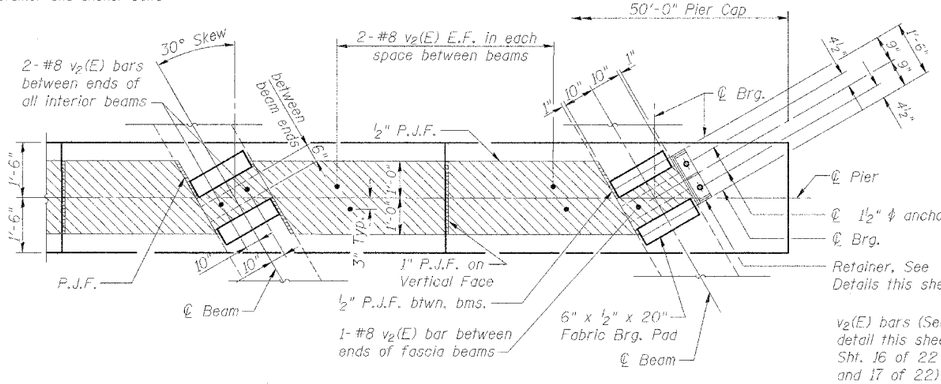


Notes:
The side retainer shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Cost of side retainer and anchor bolts shall be included with Concrete Structures.



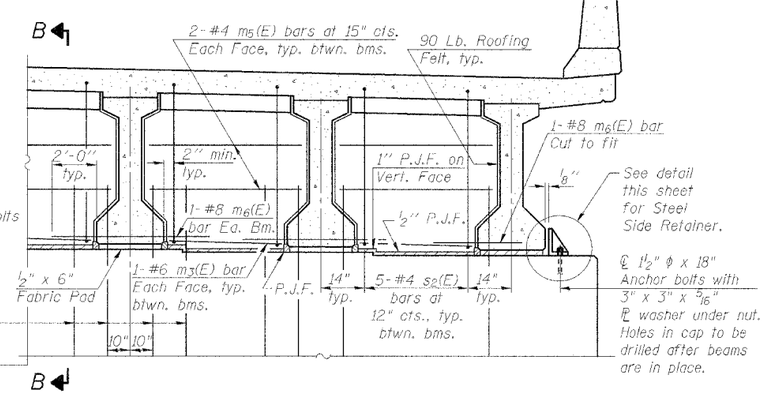
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



PLAN AT PIERS

(Showing bearing pad and PJF details and side retainer)



DIAPHRAGM AT PIER

ANCHOR BOLT NOTES

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

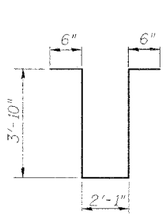
1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be used for the anchor bolts.

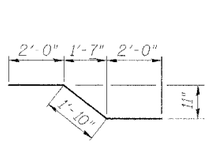
Holes in the masonry for anchor bolts shall be drilled through the retainer plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

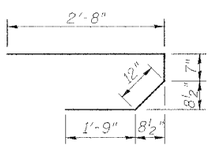
DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL



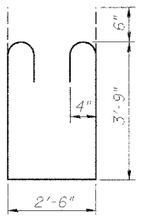
BAR s_2(E)



BAR m_6(E)



BAR s(E)



BAR s_1(E)

NOTES

1.) Reinforcement bars in diaphragms are billed with superstructure on Sht. 9 of 22.

2.) Concrete in diaphragms is included with Concrete Superstructure on Sht. 9 of 22.

3.) The s(E), s_1(E) and s_2(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

4.) Cost of 90 Lb. roofing felt is included with Concrete Superstructure.

DECK DETAILS
IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

STS CONSULTANTS
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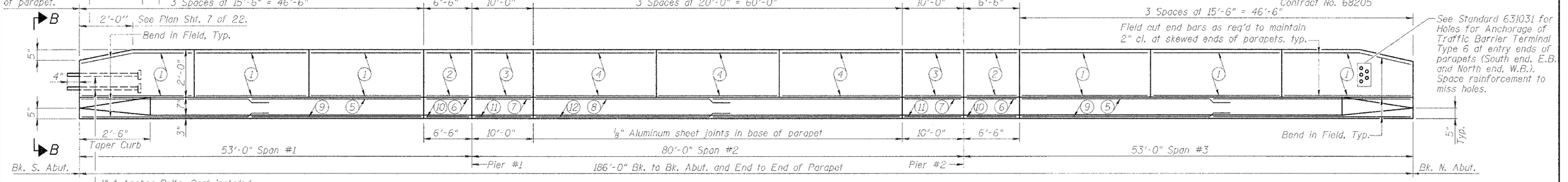
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	487
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

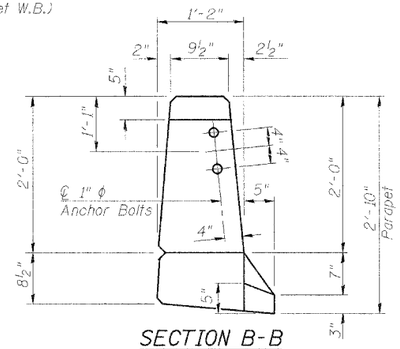
SHEET NO. 9
22 SHEETS

Contract No. 68205



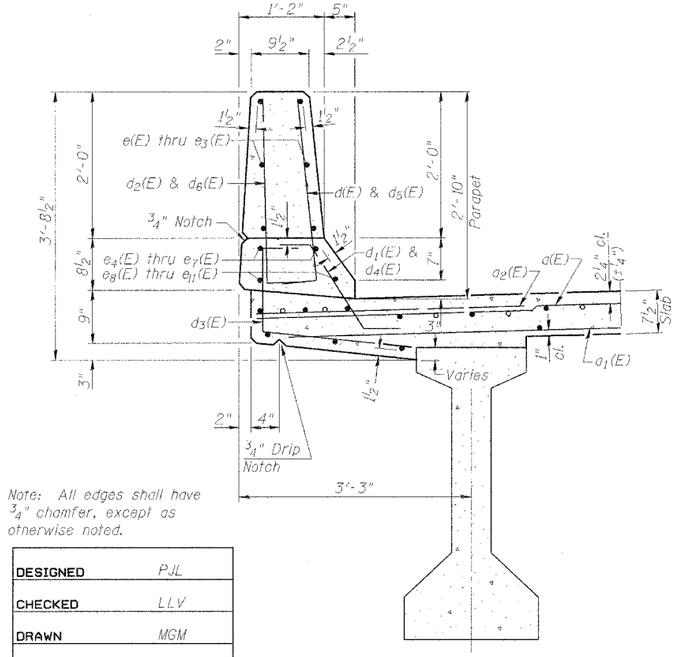
INSIDE ELEVATION OF PARAPET

Dimensions given along curb line at base of parapet W.B., West Parapet shown, others similar



SECTION B-B

End of Parapet



Note: All edges shall have 3/4" chamfer, except as otherwise noted.

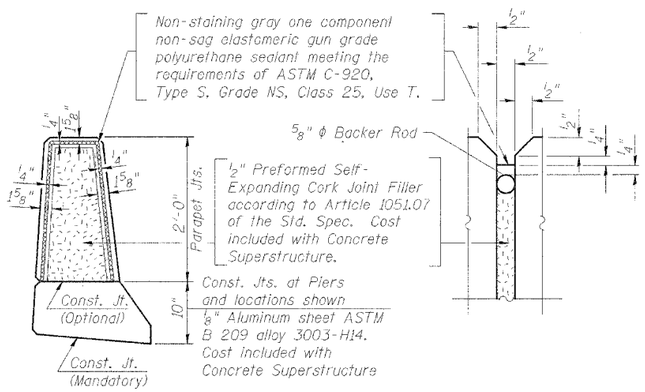
DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

SECTION THRU PARAPET

PARAPET HORIZONTAL REINFORCEMENT CALLOUTS

Reinforcement shall not pass thru joints.

Top of Parapet 3-#4 bars each face	(1) 3-#4 e (E) Bars Ea. Face, Typ. 6 Panels (2) 3-#4 e_1(E) Bars Ea. Face, Typ. 2 Panels (3) 3-#4 e_2(E) Bars Ea. Face, Typ. 2 Panels (4) 3-#4 e_3(E) Bars Ea. Face, Typ. 3 Panels
Top of Curb 2-#8 bars lap 4'-6"	(5) 1 x 2-#8 e_4(E) Bars Ea. Face, Typ. 2 Panels (6) 1-#8 e_5(E) Bar Ea. Face, Typ. 2 Panels (7) 1-#8 e_6(E) Bar Ea. Face, Typ. 2 Panels (8) 1 x 2-#8 e_7(E) Bars Ea. Face
Bottom of Curb 2-#5 bars lap 2'-2"	(9) 1 x 2-#5 e_8(E) Bars Ea. Face, Typ. 2 Panels (10) 1-#5 e_9(E) Bar Ea. Face, Typ. 2 Panels (11) 1-#5 e_{10}(E) Bar Ea. Face, Typ. 2 Panels (12) 1 x 2-#5 e_{11}(E) Bars Ea. Face



PARAPET JOINT DETAILS

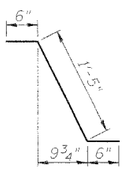
SUPERSTRUCTURE BILL OF MATERIAL

Two Bridges

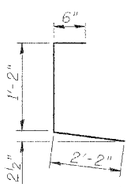
Bar	No.	Size	Length	Shape
d(E)	556	#5	43'-10"	
d_1(E)	444	#5	43'-0"	
d_2(E)	552	#6	4'-6"	
d_3(E)	8	#5	49'-8"	
b(E)	470	#5	38'-10"	
b_1(E)	176	#6	34'-0"	
b_2(E)	432	#5	32'-9"	
d(E)	788	#5	3'-0"	
d_1(E)	788	#5	2'-5"	
d_2(E)	788	#4	3'-0"	
d_3(E)	812	#4	3'-10"	
d_4(E)	24	#5	2'-8"	
d_5(E)	24	#5	2'-7"	
d_6(E)	24	#4	2'-7"	
e (E)	144	#4	15'-1"	
e_1 (E)	48	#4	6'-1"	
e_2 (E)	48	#4	9'-7"	
e_3 (E)	72	#4	19'-7"	
e_4 (E)	32	#8	25'-4"	
e_5 (E)	16	#8	6'-1"	
e_6 (E)	16	#8	9'-7"	
e_7 (E)	16	#8	32'-1"	
e_8 (E)	32	#5	24'-2"	
e_9 (E)	16	#5	6'-1"	
e_{10} (E)	16	#5	9'-7"	
e_{11} (E)	16	#5	30'-11"	
m (E)	16	#6	26'-0"	
m_1 (E)	24	#6	26'-11"	
m_2 (E)	56	#6	10'-1"	
m_3 (E)	72	#6	4'-10"	
m_4 (E)	8	#6	2'-4"	
m_5 (E)	96	#4	6'-4"	
m_6 (E)	28	#8	5'-10"	
s (E)	168	#5	6'-0"	
s_1(E)	144	#4	11'-0"	
s_2(E)	120	#4	10'-9"	
v (E)	172	#5	4'-1"	
Reinforcement Bars, Epoxy Coated		Pound	116,770	
Concrete Superstructure		Cu. Yds.	592.7	
Bridge Deck Grooving		Sq. Yds.	1,626	
Protective Coat		Sq. Yd.	2,023	
Name Plates		Each	2	

Reinforcement bars designated (E) shall be epoxy coated.

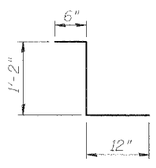
Bars indicated thus: 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



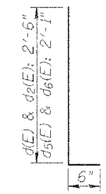
BAR d_1(E)



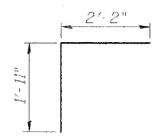
BAR d_3(E)



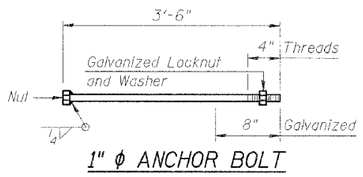
BAR d_4(E)



BARS d(E) d_2(E) d_5(E) & d_6(E)



BAR v(E)



1" ϕ ANCHOR BOLT

BRIDGE PARAPET DETAILS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	488
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

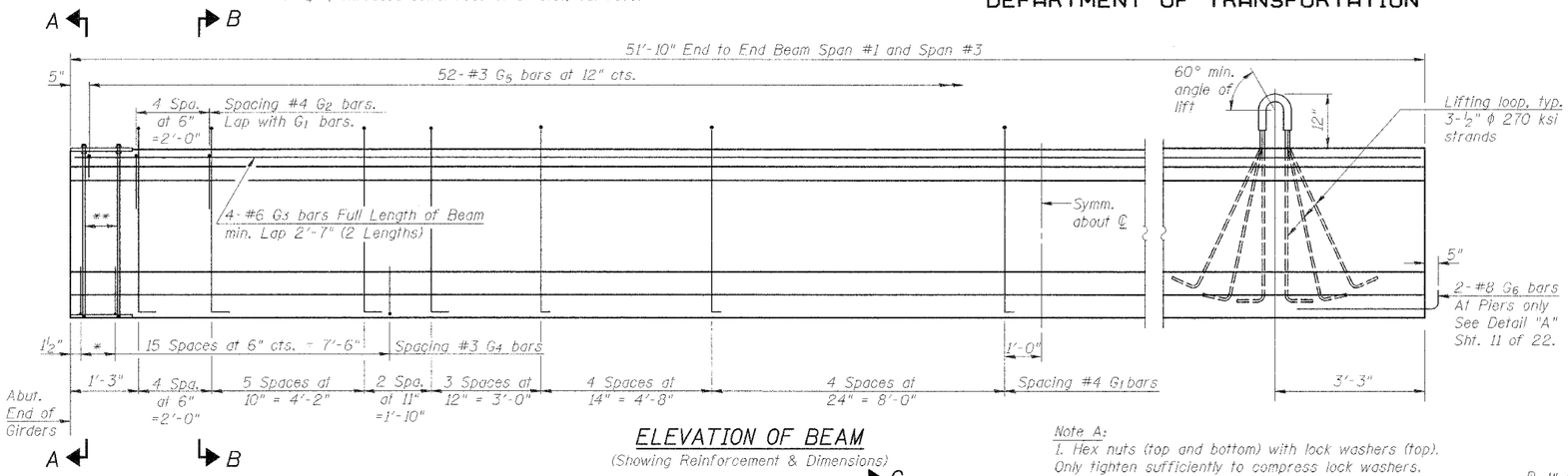
SHEET NO. 10
22 SHEETS

Contract No. 68205

* 3 Spaces at 3" = 9"

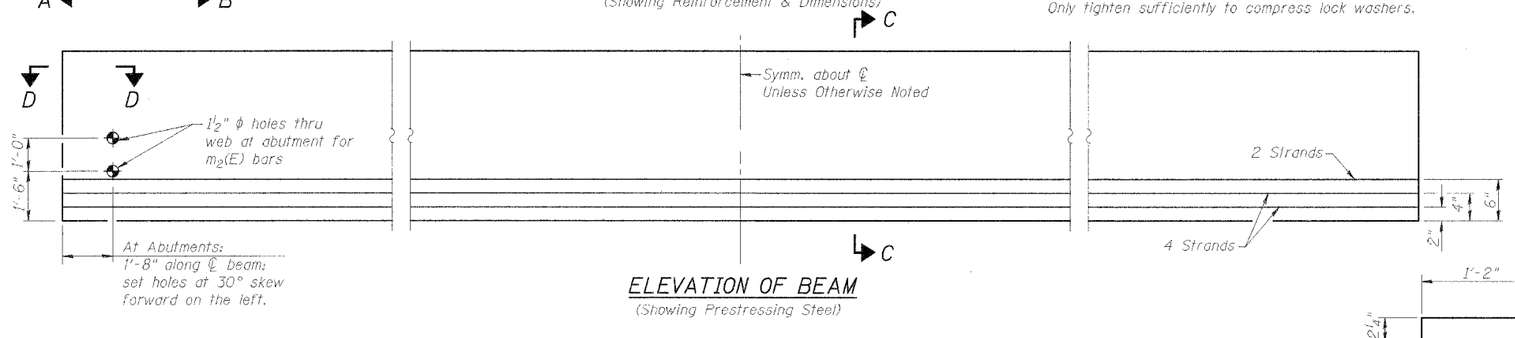
** 4-$\frac{3}{4}$" ϕ threaded dowel rods at 3" cts., ea. face.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

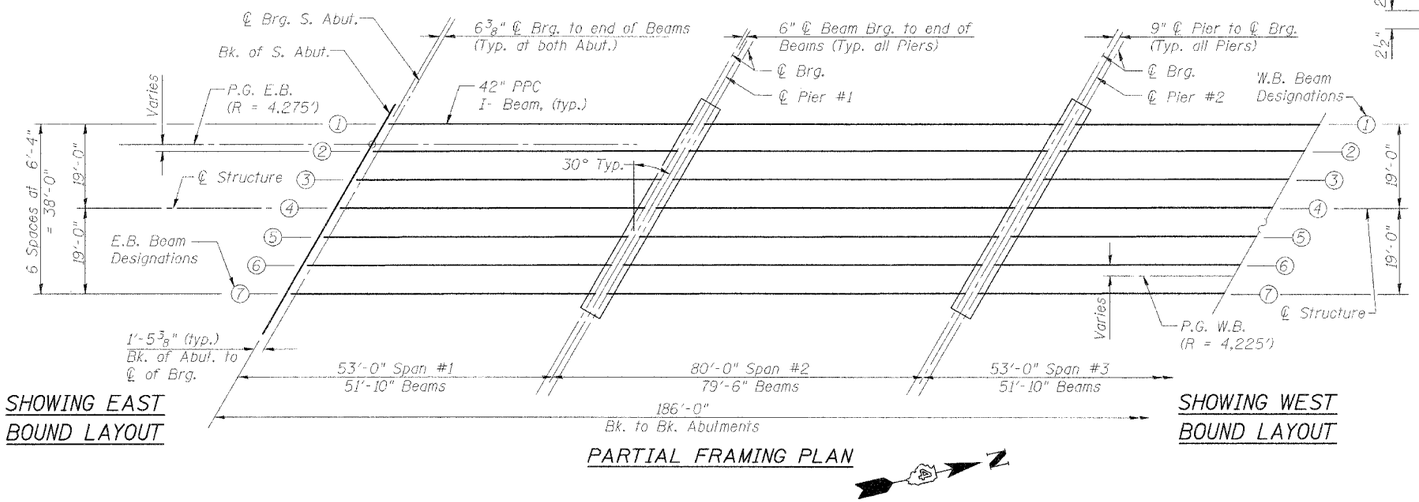


ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

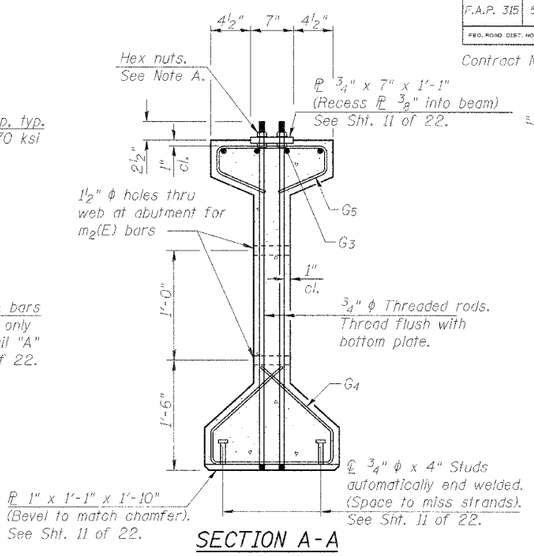
Note A:
1. Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



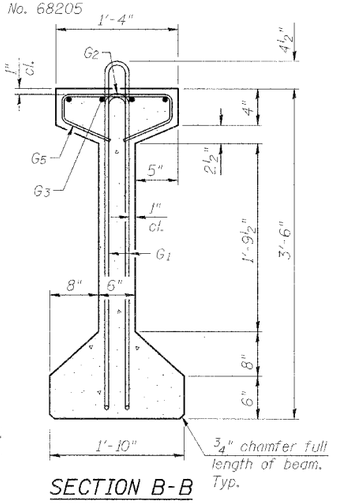
ELEVATION OF BEAM
(Showing Prestressing Steel)



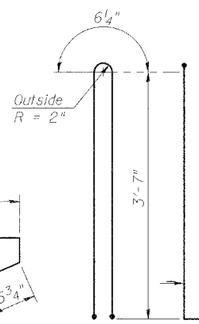
PARTIAL FRAMING PLAN



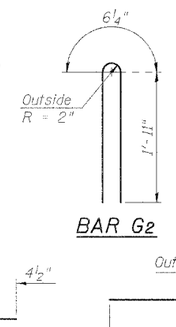
SECTION A-A



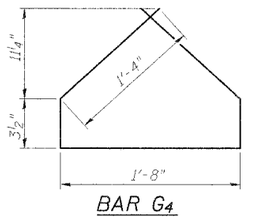
SECTION B-B



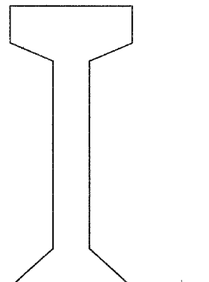
BAR G2



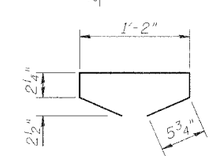
BAR G1



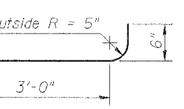
BAR G4



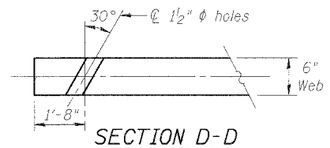
SECTION C-C
Space 10 Strands Symm. about ℄



BAR G5



BAR G6



SECTION D-D
At Abutments, Span #1 and Span #3

BAR LIST, ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G1	46	#4	8'-5"	
G2	10	#4	4'-4"	
G3	8	#6	27'-1"	
G4	38	#3	4'-11"	
G5	52	#3	2'-6"	
G6	2	#8	3'-9"	

BILL OF MATERIAL
SPAN #1 AND SPAN #3
Two Bridges

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	1,451

CROSS REFERENCE NOTES

1.) See Sht. 11 of 22 for: Moment and Reaction Tables, Detail "A" at Pier, & Typical Lifting Loop Detail, P.P.C. I-Beam Notes and Top & Bottom End Plate Details.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi

FRAMING PLAN AND SPAN #1 AND SPAN #3 GIRDER DETAILS
IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

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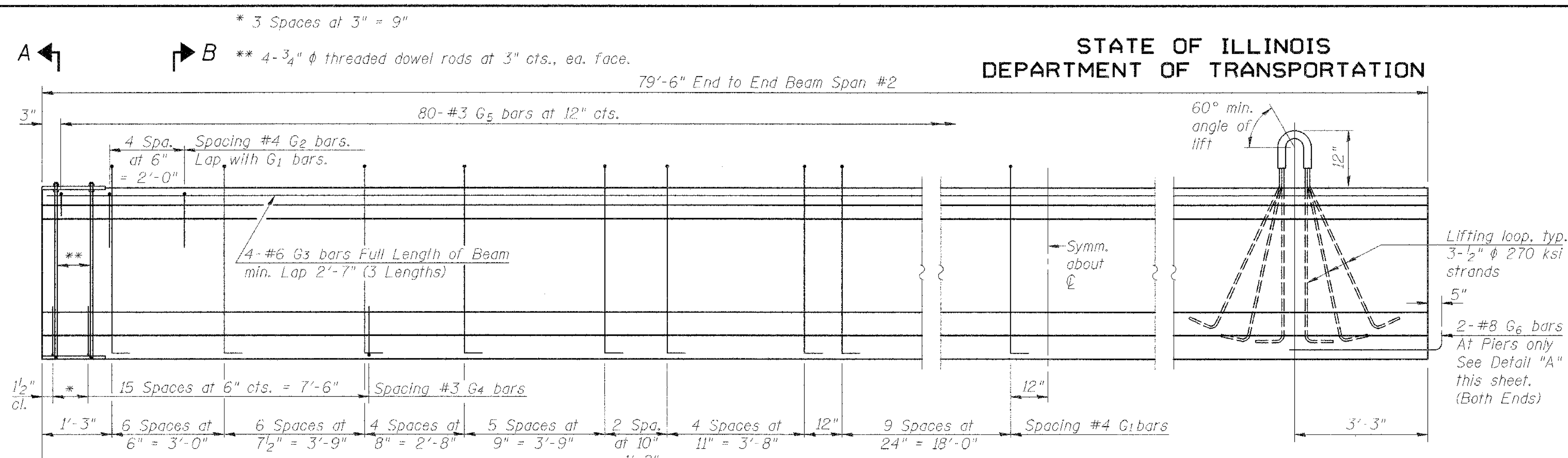
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	489

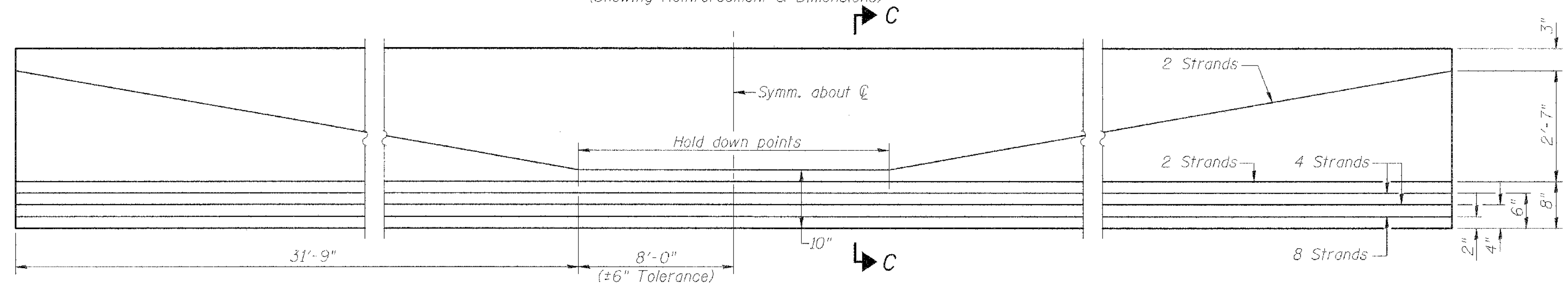
SHEET NO. 11
22 SHEETS

FED. ROAD DIST. NO. 4 — ILLINOIS — FED. AID PROJECT-

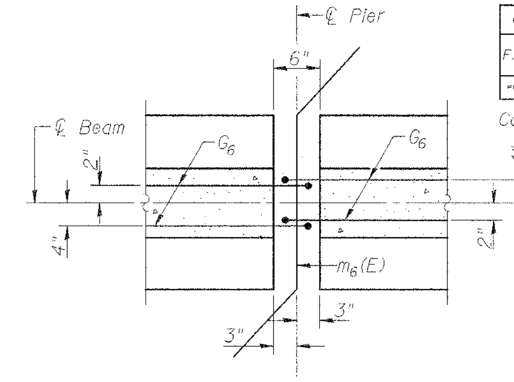
Contract No. 68205



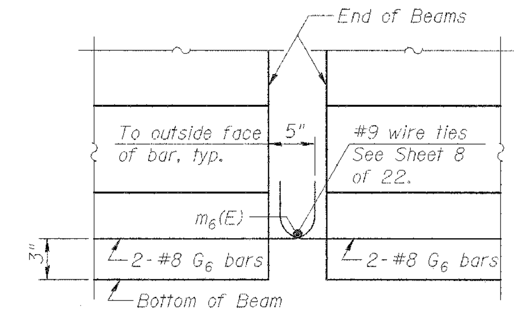
ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)



ELEVATION OF BEAM
(Showing Prestressing Steel)

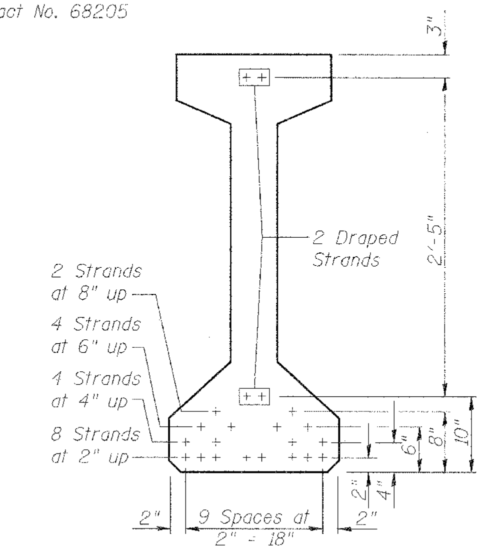


PLAN



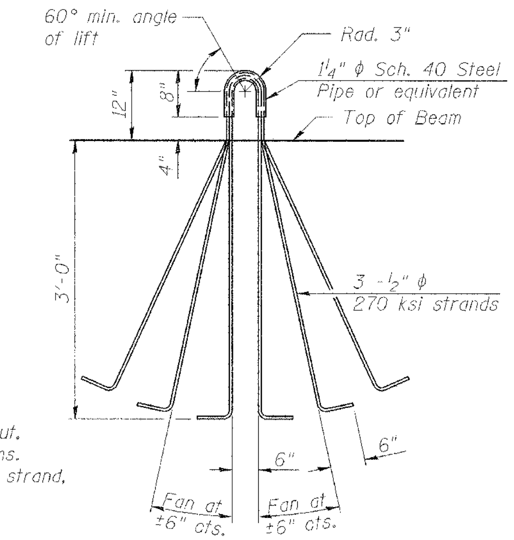
ELEVATION

DETAIL "A"
At Pier



SECTION C-C
Space 20 Strands Symm. about ℄

PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi



LIFTING LOOP DETAIL

BAR LIST, ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	76	#4	8'-5"	
G_2	10	#4	4'-4"	
G_3	12	#6	28'-2"	
G_4	38	#3	4'-11"	
G_5	80	#3	2'-6"	
G_6	4	#8	3'-9"	

INTERIOR BEAM MOMENT TABLE

	0.4 Sp. #1 0.6 Sp. #3	Pier #1 Pier #2	0.5 Sp. #2
I (in⁴)	90,956		90,956
I' (in⁴)	270,416		270,416
S_b (in³)	5,153		5,153
S_b' (in³)	8,654		8,654
S_t (in³)	3,736		3,736
S_t' (in³)	25,145		25,145
DL (k/')	1.096		1.096
M DL ('k)	354		844
s DL (k/')	0.424	0.424	0.424
Ms DL ('k)	59	200	139
M LL ('k)	309	312	398
M (IMP) ('k)	87	82	97

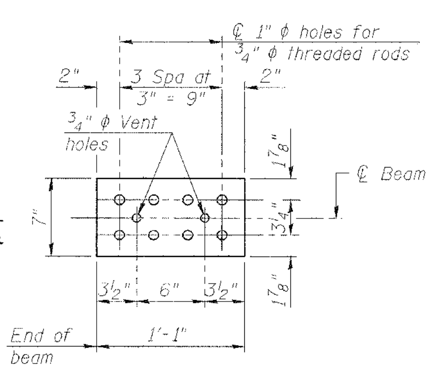
BILL OF MATERIAL - SPAN #2
Two Bridges

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	1,113

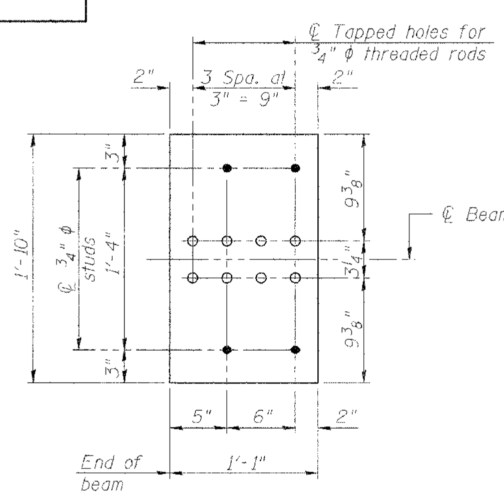
INTERIOR BEAM REACTION TABLE

	Spans #1 and #3		Span #2
	Abut.	Pier	Pier
R DL (k)	27.8	27.8	43.0
Rs DL (k)	7.1	15.9	15.9
R LL (k)	32.6	22.0	22.0
Imp. (k)	9.2	5.8	5.8
R (Total) (k)	76.7	71.5	86.7

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL



TOP PLATE



BOTTOM PLATE

P.P.C. I-BEAM NOTES (ALL SPANS)

1.) Inserts for ¾" ϕ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.
2.) Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
3.) The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.
4.) Non-prestressing steel shall conform to AASHTO designation M-31 or M-322, Grade 60.
5.) A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.
7.) Cut G_6 bars when necessary to maintain 1½" clearance.
8.) The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.
9.) Threaded rods shall be ASTM F 1554 Grade 55.
10.) The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 42 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
11.) Reinforcement bars designated (E) shall be epoxy coated.

CROSS REFERENCE NOTES

1.) See Sht. 10 of 22 for: Framing Plan, Bar Bends, Section A-A, and Section B-B.

SPAN #2 GIRDER DETAILS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

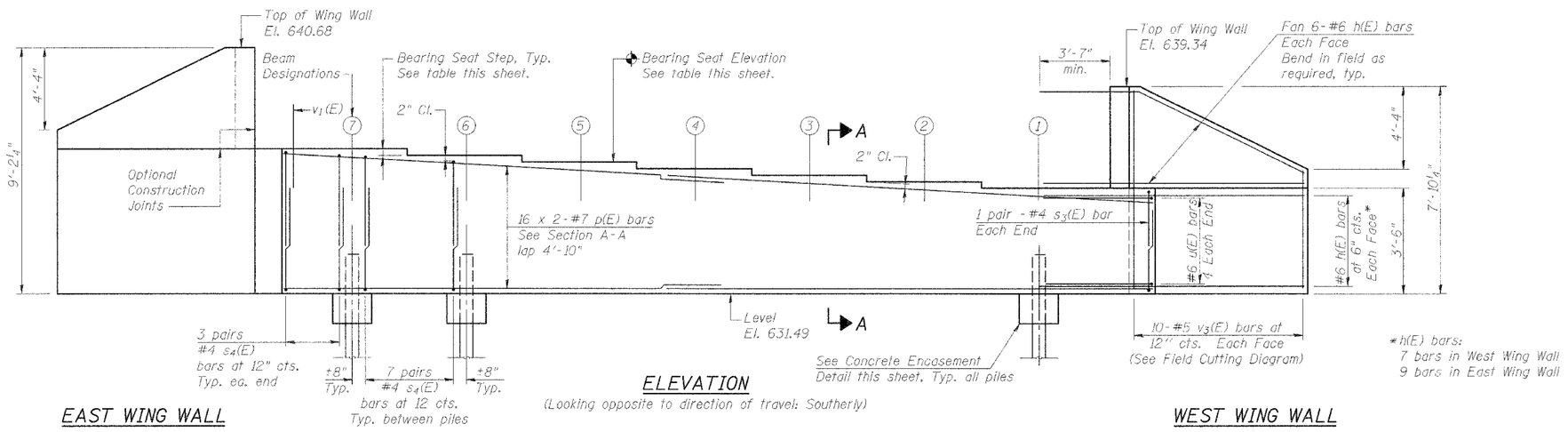
Notes:
1.) Pour steps monolithically with cap.
2.) Reinforcement bars designated (E) shall be epoxy coated.
3.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.
4.) Chamfer exposed edges $\frac{3}{4}$"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	490
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT: -		

SHEET NO. 12
22 SHEETS

Contract No. 68205

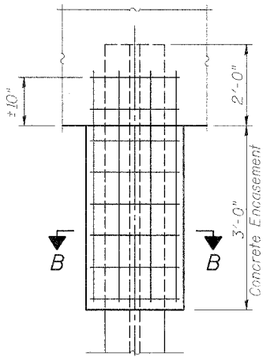


EAST WING WALL

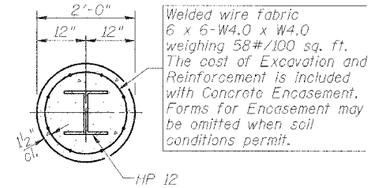
ELEVATION
(Looking opposite to direction of travel: Southerly)

WEST WING WALL

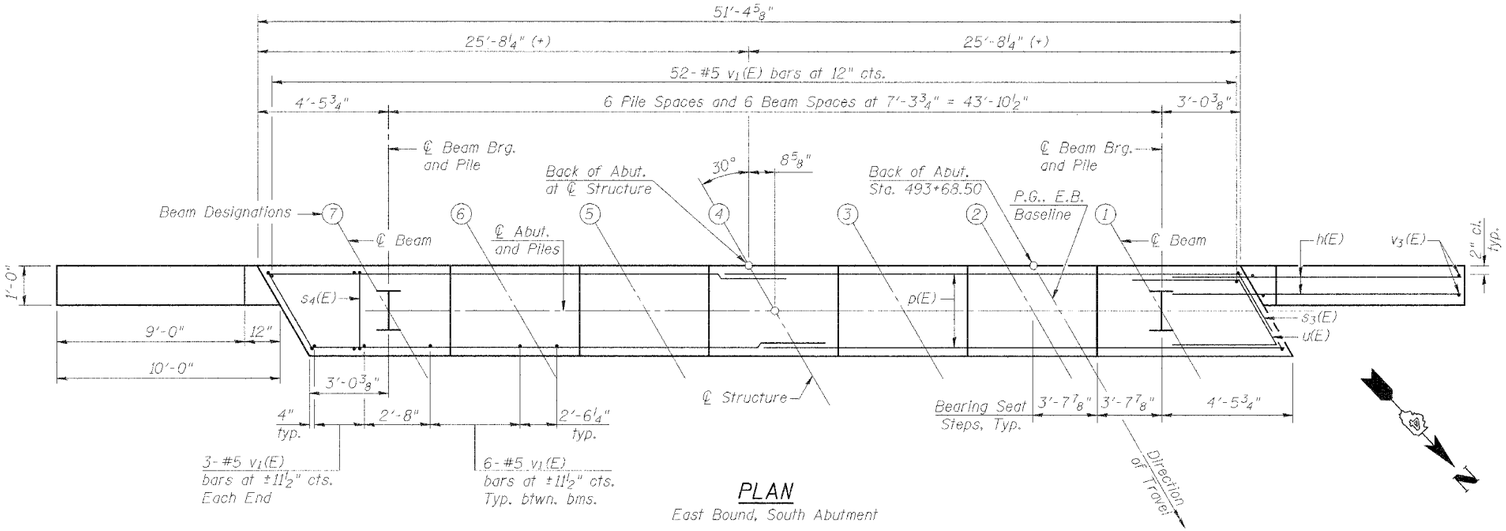
*h(E) bars:
7 bars in West Wing Wall
9 bars in East Wing Wall



CONCRETE ENCASEMENT DETAIL

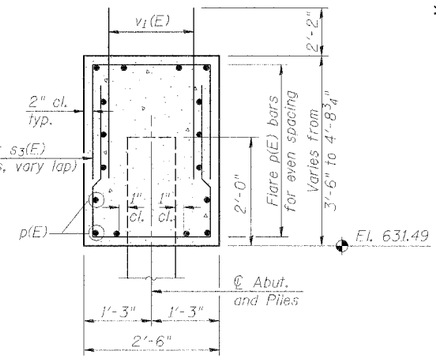


SECTION B-B



PLAN
East Bound, South Abutment

Note:
Set v1(E) bars to clear beams



SECTION A-A
Note: #4 bar min. lap = 1'-8"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#6	13'-5"	
p(E)	32	#7	28'-0"	
s3(E)	4	#4	8'-10"	
s4(E)	96	#4	8'-6"	
u(E)	8	#6	9'-7"	
v1(E)	94	#5	4'-4"	
v3(E)	20	#5	11'-11"	
Concrete Structures			Cu. Yd.	24.3
Reinforcement Bars, Epoxy Coated			Pound	4,320
Structure Excavation			Cu. Yd.	138
Furnishing Steel Piles HP 12 x 53			Foot	300
Driving Steel Piles			Foot	300
Test Piles, HP 12 x 53			Each	1
Concrete Encasement			Cu. Yd.	2.4

SOUTH ABUTMENT DETAILS (EB)
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)

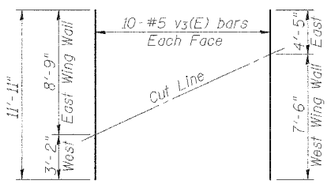
DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

PILE DATA
See this sheet for Pile Encasement Detail.

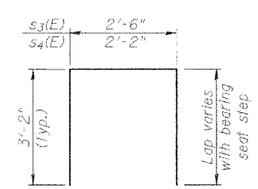
Type: HP 12 x 53
Capacity: Driven to Refusal
Number Required: 6 (+1 test pile)
Estimated Length: 50'

BEARING SEATS

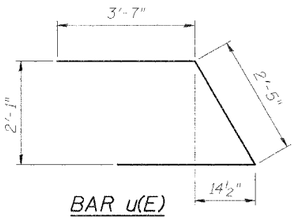
Beam	Elevation	Step Ht.
1	634.99	2½"
2	635.20	2⅜"
3	635.40	2½"
4	635.61	2⅜"
5	635.81	2½"
6	636.02	2½"
7	636.22	



FIELD CUTTING DIAGRAM
Order v3(E) full length. Cut as shown and use remainder of bars in opposite wing wall.



BARS s3(E) & s4(E)
(Used in pairs with variable lap)



BAR u(E)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

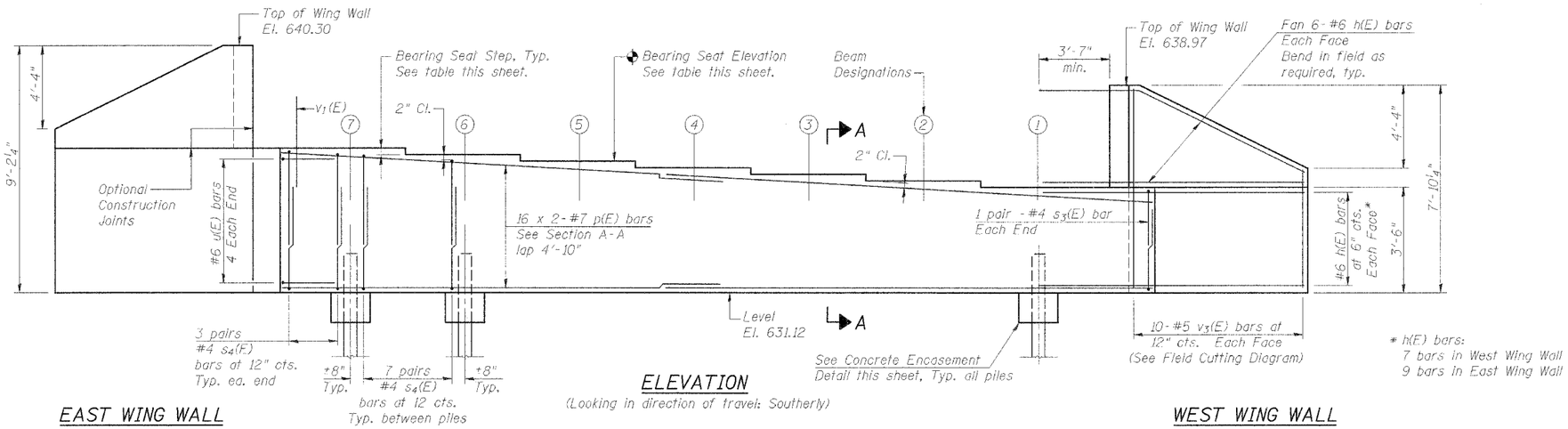
Notes:
1.) Pour steps monolithically with cap.
2.) Reinforcement bars designated (E) shall be epoxy coated.
3.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.
4.) Chamfer exposed edges $\frac{3}{4}$"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	491
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13
22 SHEETS

Contract No. 68205

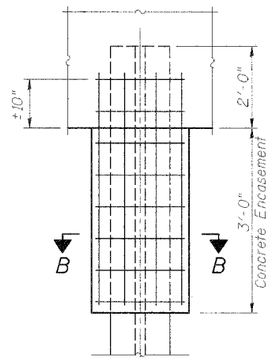


EAST WING LAND

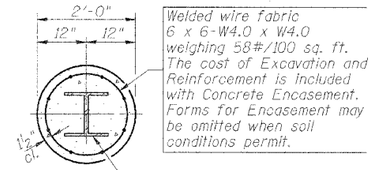
ELEVATION
(Looking in direction of travel: Southerly)

WEST WING LAND

* h(E) bars:
7 bars in West Wing Wall
9 bars in East Wing Wall

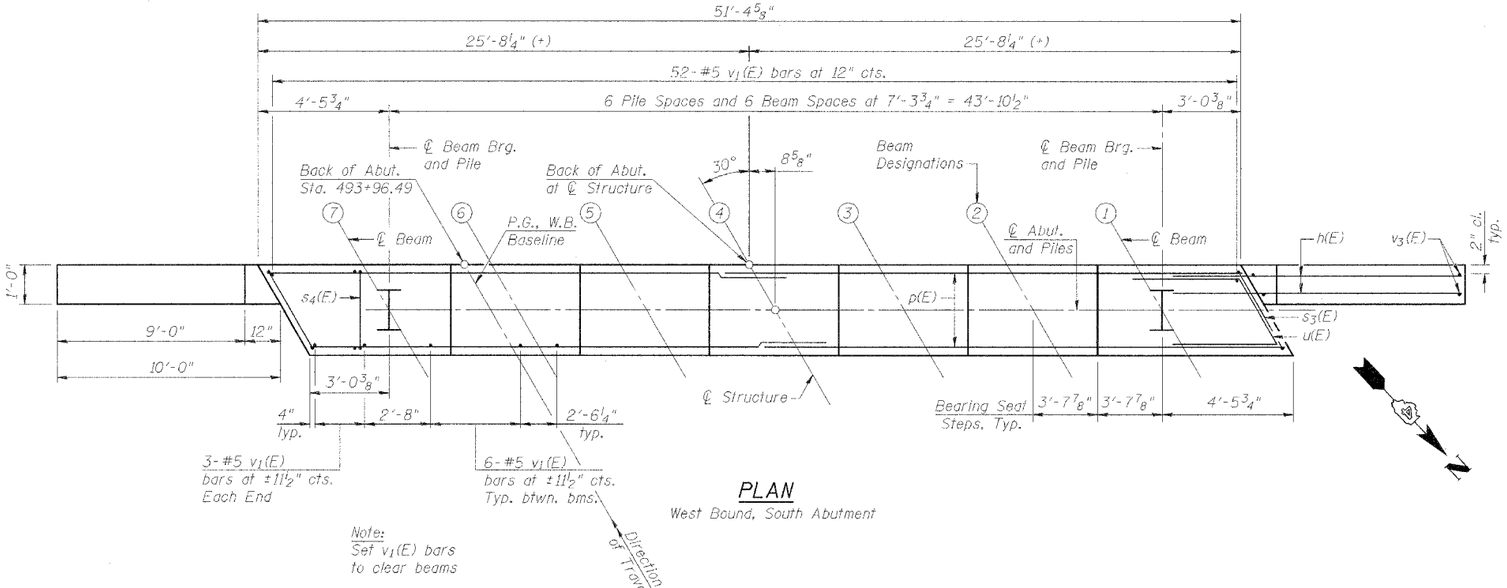


CONCRETE ENCASEMENT DETAIL

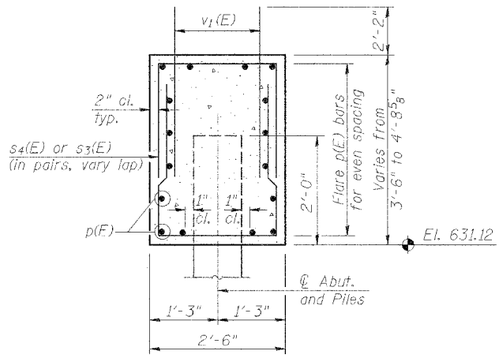


Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with Concrete Encasement. Forms for Encasement may be omitted when soil conditions permit.

SECTION B-B



PLAN
West Bound, South Abutment



SECTION A-A
Note: #4 bar min. lap = 1'-8"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#6	13'-5"	
p(E)	32	#7	28'-0"	
s3(E)	4	#4	8'-10"	
s4(E)	96	#4	8'-6"	
u(E)	8	#6	9'-7"	
v1(E)	94	#5	4'-4"	
v3(E)	20	#5	11'-11"	
Concrete Structures		Cu. Yd.	24.3	
Reinforcement Bars, Epoxy Coated		Pound	4,320	
Structure Excavation		Cu. Yd.	138	
Furnishing Steel Piles HP 12 x 53		Foot	294	
Driving Steel Piles		Foot	294	
Test Piles, HP 12 x 53		Each	1	
Concrete Encasement		Cu. Yd.	2.4	

SOUTH ABUTMENT DETAILS (WB)
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0061 (WB)

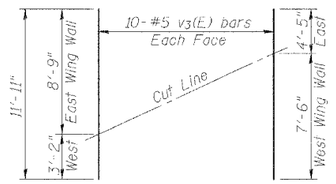
DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

PILE DATA
See this sheet for Pile Encasement Detail.

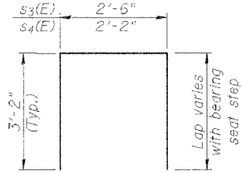
Type: HP 12 x 53
Capacity: Driven to Refusal
Number Required: 6 (+1 test pile)
Estimated Length: 49'

BEARING SEATS

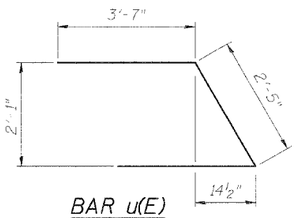
Beam	Elevation	Step Ht.
①	634.62	2½"
②	634.82	2⅜"
③	635.02	2½"
④	635.23	2⅜"
⑤	635.43	2½"
⑥	635.64	2⅜"
⑦	635.84	



FIELD CUTTING DIAGRAM
Order v3(E) full length. Cut as shown and use remainder of bars in opposite wing wall.



BARS s3(E) & s4(E)
(Used in pairs with variable lap)



BAR u(E)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

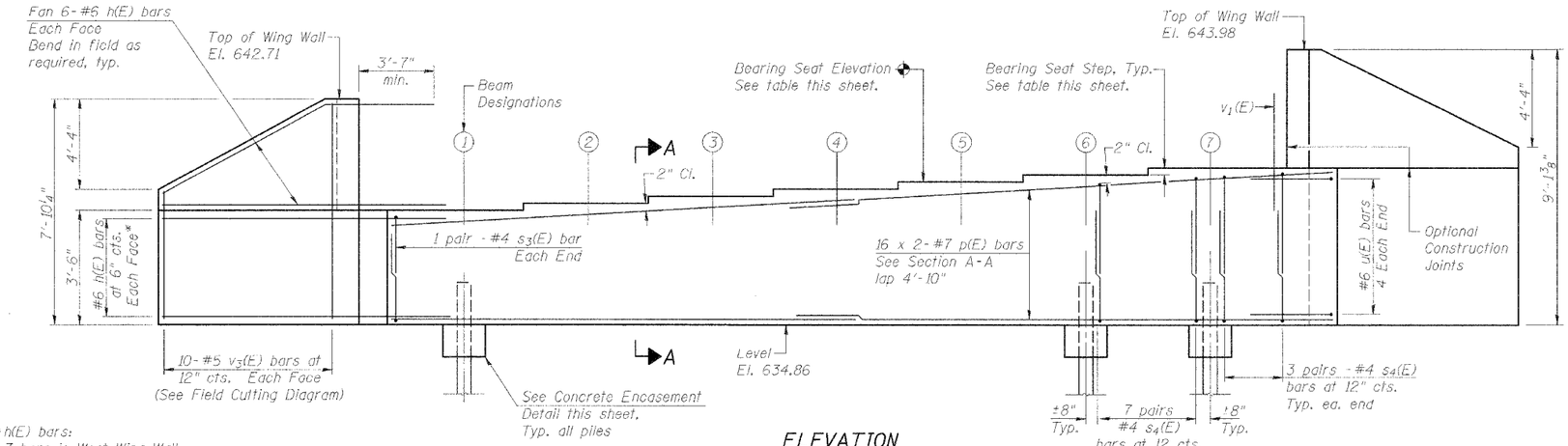
Notes:
1.) Pour steps monolithically with cap.
2.) Reinforcement bars designated (E) shall be epoxy coated.
3.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.
4.) Chamfer exposed edges $\frac{3}{4}$".

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	492
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 14
22 SHEETS

Contract No. 68205

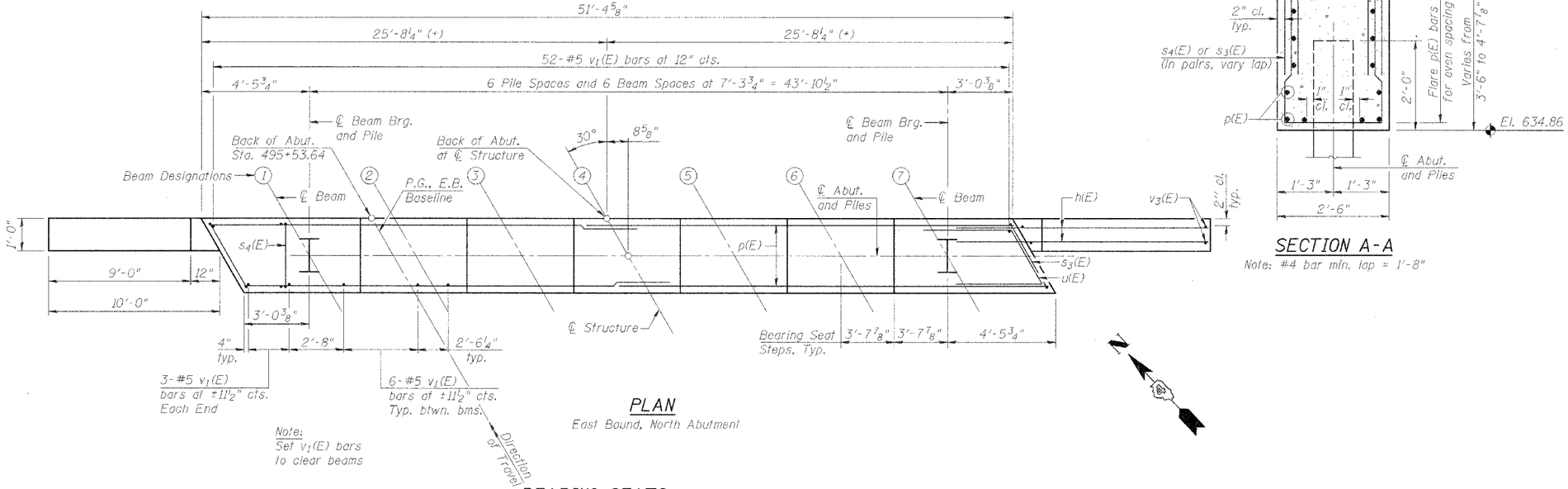


*h(E) bars:
7 bars in West Wing Wall
9 bars in East Wing Wall

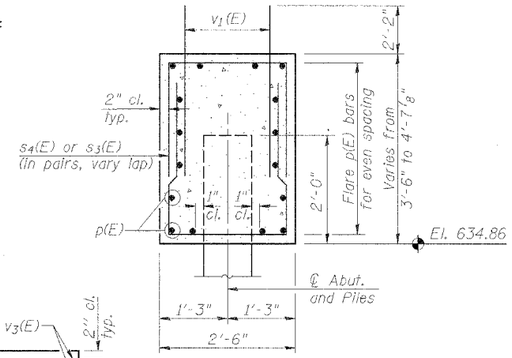
WEST WING WALL

ELEVATION
(Looking in direction of travel: Northerly)

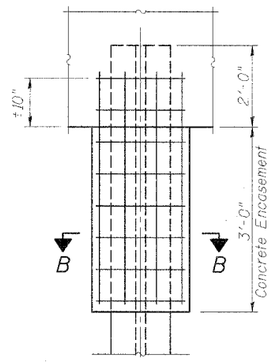
EAST WING WALL



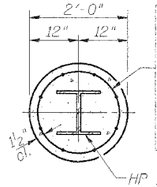
PLAN
East Bound, North Abutment



SECTION A-A
Note: #4 bar min. lap = 1'-8"



CONCRETE ENCASEMENT DETAIL



Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with Concrete Encasement. Forms for Encasement may be omitted when soil conditions permit.

SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#6	13'-5"	straight
p(E)	32	#7	28'-0"	straight
s3(E)	4	#4	8'-10"	U
s4(E)	96	#4	8'-6"	U
u(E)	8	#6	9'-7"	
v1(E)	94	#5	4'-4"	straight
v3(E)	20	#5	11'-11"	straight
Concrete Structures			Cu. Yd.	24.1
Reinforcement Bars, Epoxy Coated			Pound	4,320
Structure Excavation			Cu. Yd.	138
Furnishing Steel Piles HP 12 x 53			Foot	270
Driving Steel Piles			Foot	270
Test Piles, HP 12 x 53			Each	1
Concrete Encasement			Cu. Yd.	2.4

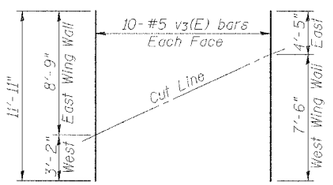
DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

PILE DATA
See this sheet for Pile Encasement Detail.

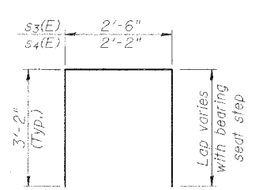
Type: HP 12 x 53
Capacity: Driven to Refusal
Number Required: 6 (+1 test pile)
Estimated Length: 45'

BEARING SEATS

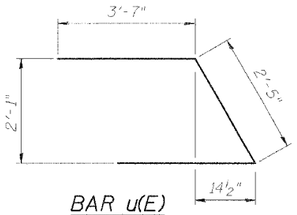
Beam	Elevation	Step Ht.
1	638.36	2¼"
2	638.55	2⅜"
3	638.75	2¼"
4	638.94	2⅜"
5	639.13	2⅜"
6	639.33	2¼"
7	639.52	



FIELD CUTTING DIAGRAM
Order v3(E) full length. Cut as shown and use remainder of bars in opposite wing wall.



BARS s3(E) & s4(E)
(Used in pairs with variable lap)



BAR u(E)

NORTH ABUTMENT DETAILS (EB)
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

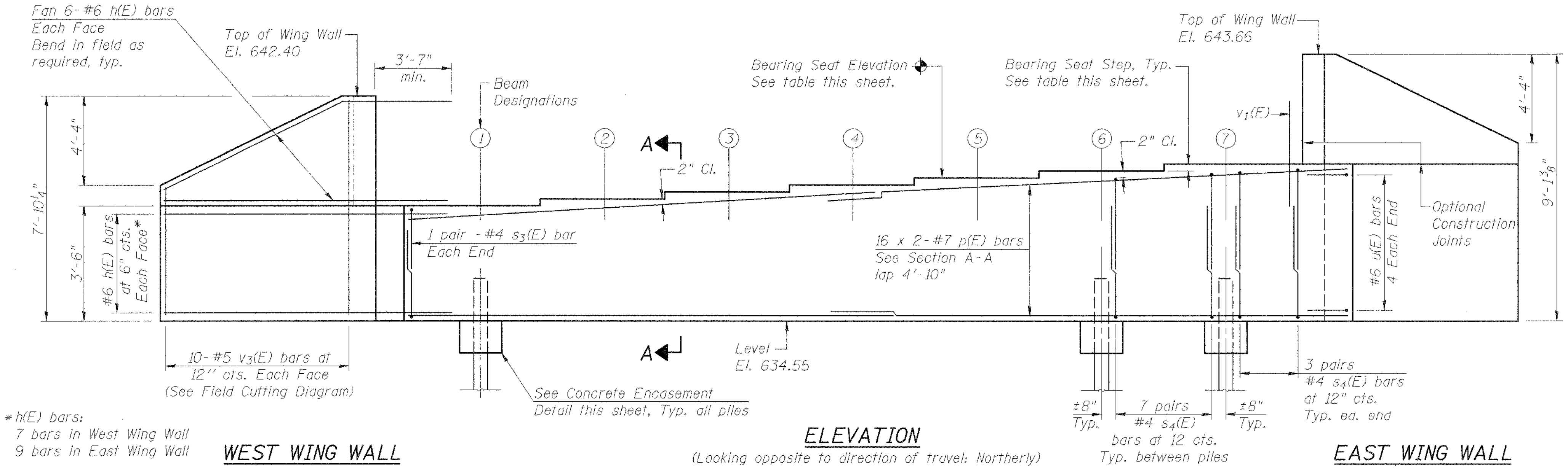
Notes:
1.) Pour steps monolithically with cap.
2.) Reinforcement bars designated (E) shall be epoxy coated.
3.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.
4.) Chamfer exposed edges 3/4".

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

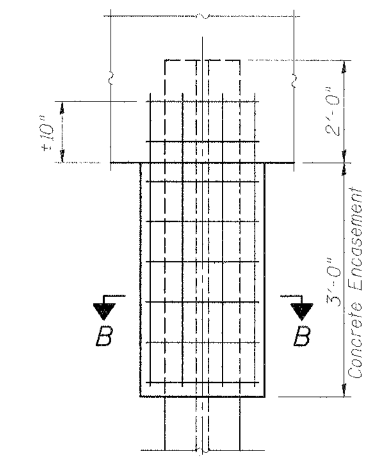
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	McDONOUGH	1025	493

SHEET NO. 15 — 22 SHEETS

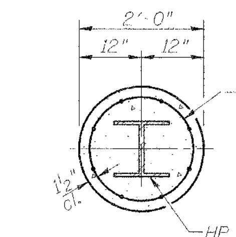
Contract No. 68205



ELEVATION
(Looking opposite to direction of travel: Northerly)

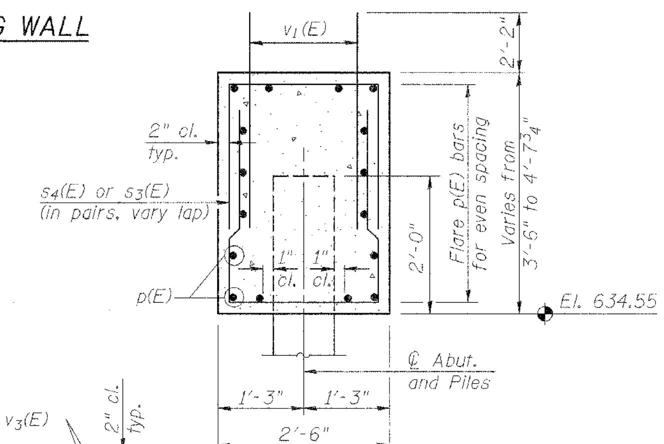


CONCRETE ENCASEMENT DETAIL

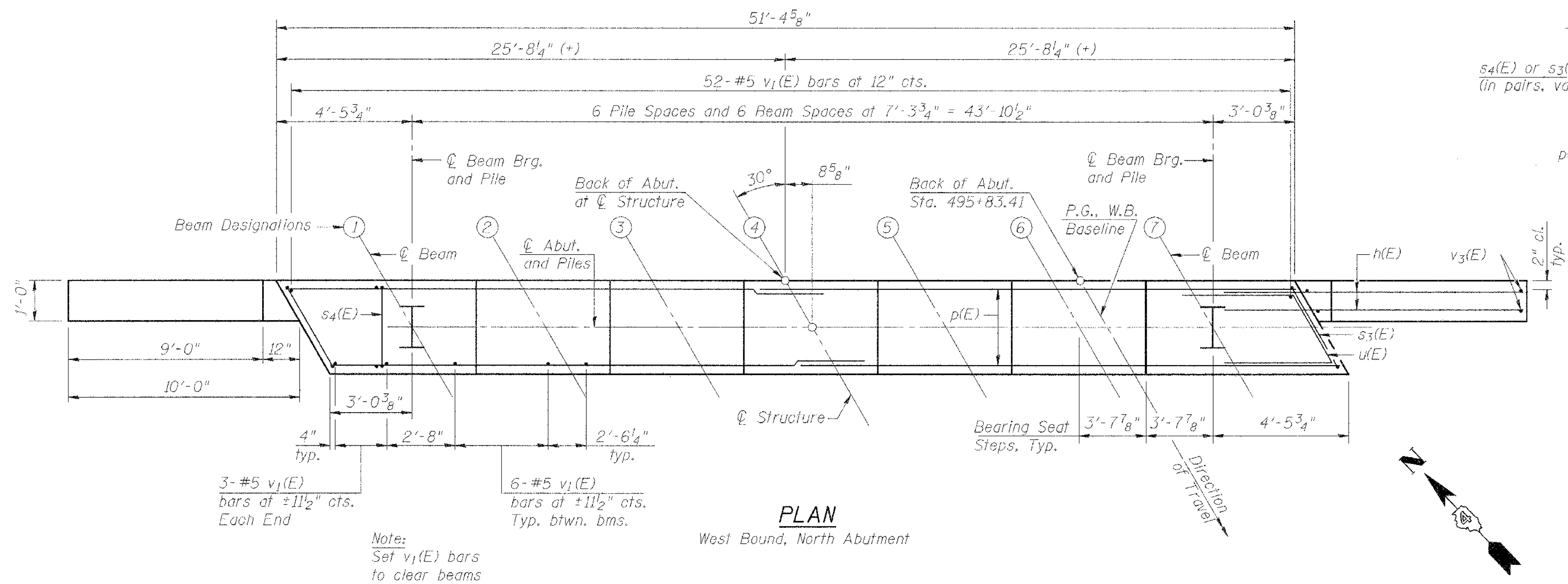


Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with Concrete Encasement. Forms for Encasement may be omitted when soil conditions permit.

SECTION B-B



SECTION A-A
Note: #4 bar min. lap = 1'-8"



PLAN
West Bound, North Abutment

BILL OF MATERIAL

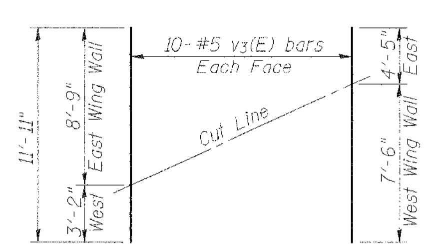
Bar	No.	Size	Length	Shape
h(E)	56	#6	13'-5"	—
p(E)	32	#7	28'-0"	—
s3(E)	4	#4	8'-10"	⊔
s4(E)	96	#4	8'-6"	⊔
u(E)	8	#6	9'-7"	⌐
v1(E)	94	#5	4'-4"	—
v3(E)	20	#5	11'-11"	—
Concrete Structures			Cu. Yd.	24.0
Reinforcement Bars, Epoxy Coated			Pound	4,320
Structure Excavation			Cu. Yd.	138
Furnishing Steel Piles HP 12 x 53			Foot	312
Driving Steel Piles			Foot	312
Test Piles, HP 12 x 53			Each	1
Concrete Encasement			Cu. Yd.	2.4

BEARING SEATS

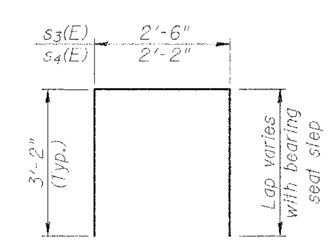
Beam	Elevation	Step Ht.
1	638.05	2 1/4"
2	638.24	2 1/4"
3	638.43	2 1/4"
4	638.62	2 1/4"
5	638.81	2 3/8"
6	639.01	2 3/8"
7	639.20	

PILE DATA
See this sheet for Pile Encasement Detail.

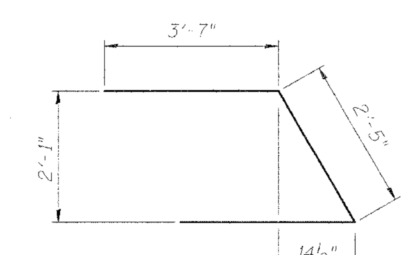
Type: HP 12 x 53
Capacity: Driven to Refusal
Number Required: 6 (+1 test pile)
Estimated Length: 52'



FIELD CUTTING DIAGRAM
Order v3(E) full length. Cut as shown and use remainder of bars in opposite wing wall.



BARS s3(E) & s4(E)
(Used in pairs with variable lap)



BAR u(E)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

NORTH ABUTMENT DETAILS (WB)
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0061 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	494

SHEET NO. 16
22 SHEETS

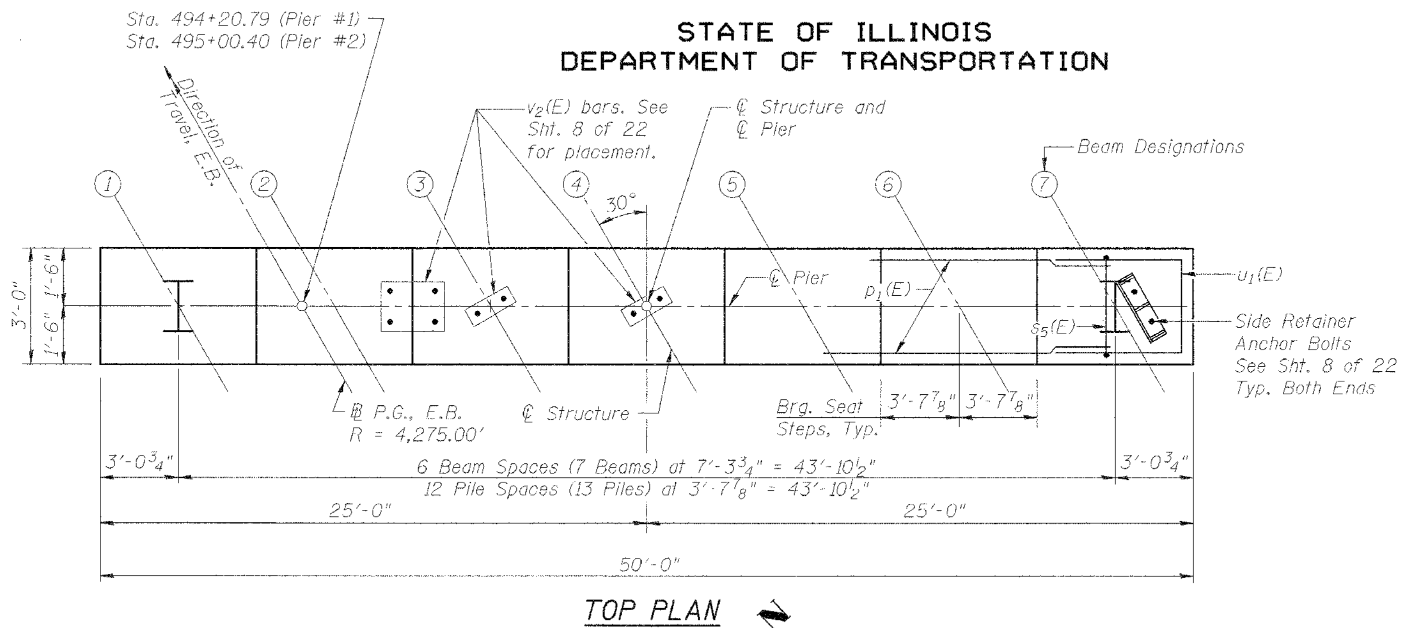
Contract No. 68205

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

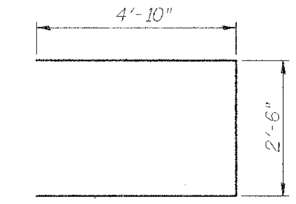
Notes:
1.) Space Reinforcement in cap to miss piles and anchor bolts.
2.) Pour steps monolithically with cap.
3.) Min. laps: #6 bar 3'-7", #7 bar 4'-10", #5 bar 2'-2"
4.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.
5.) Chamfer exposed edges $^3/_4$".

BEARING SEATS

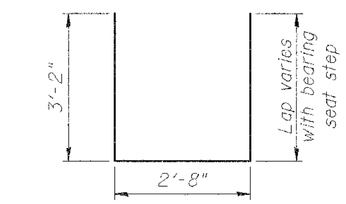
	Pier #1		Pier #2	
Beam	Elevation	Step Ht.	Elevation	Step Ht.
1	635.91	2 3/8"	637.38	2 3/8"
2	636.11	2 3/8"	637.57	2 3/8"
3	636.31	2 1/2"	637.77	2 3/8"
4	636.51	2 3/8"	637.97	2 1/4"
5	636.71	2 1/2"	638.16	2 3/8"
6	636.92	2 3/8"	638.36	2 3/8"
7	637.12		638.56	



TOP PLAN



BAR $u_1(E)$

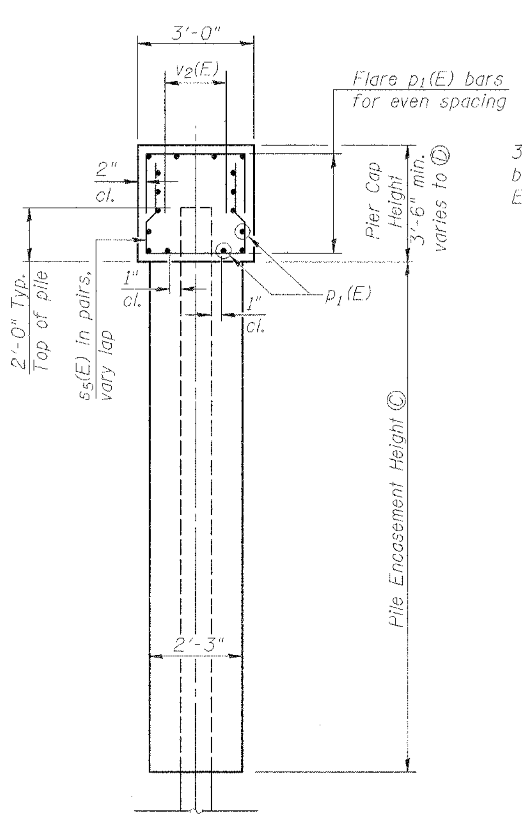


BAR $s_5(E)$

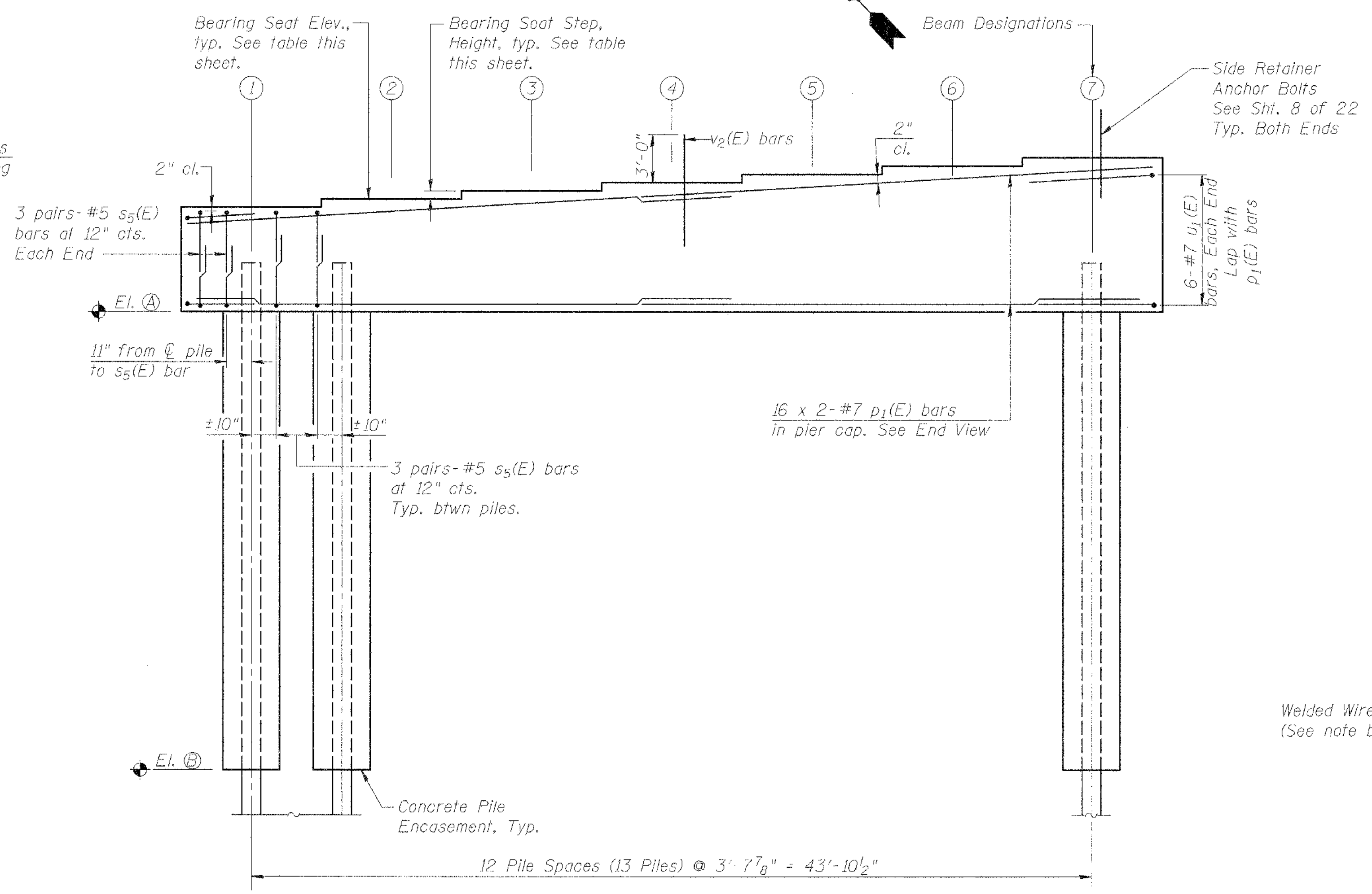
Used in pairs with variable lap

PIER ELEVATIONS & DIMENSIONS

	Location	Pier #1	Pier #2
A	Bottom of Cap El.	632.41	633.88
B	Bottom of Pile Encasement El.	605.00	605.00
C	Pile Encasement Height	27'-5"	28'-10 5/8"
D	Pier Cap Max Height	4'-8 1/2"	4'-8 1/8"

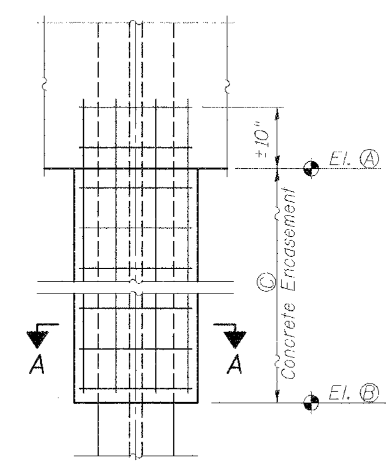


END VIEW

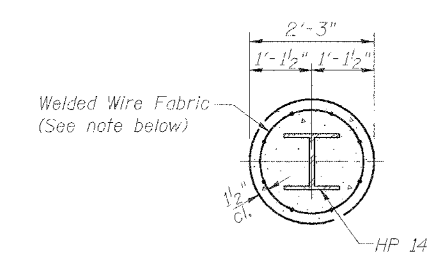


ELEVATION

(Looking in direction of travel, Northerly)



CONCRETE ENCASEMENT DETAIL



SECTION A-A

Note:
Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with Concrete Encasement. Forms for Encasement are required full height.

BILL OF MATERIAL

(Two Piers)

Bar	No.	Size	Length	Shape
$p_1(E)$	64	#7	27'-3"	———
$s_5(E)$	168	#5	9'-0"	⊔
$u_1(E)$	24	#7	12'-2"	⊐
$v_2(E)$	72	#8	6'-0"	———
Concrete Structures			Cu. Yd.	44.5
Reinforcement Bars, Epoxy Coated			Pound	6,890
Concrete Encasement			Cu. Yd.	107.8
Furnishing Steel Piles HP 14 x 73			Foot	1,140
Driving Steel Piles			Foot	1,140
Test Piles, HP 14 x 73			Each	2
Pier 1: Underwater Structure Excavation Protection, Location 1			Each	1
Pier 2: Underwater Structure Excavation Protection, Location 2			Each	1

PILE DATA

Type: HP 14 x 73, AASHTO M270, Grade 50 Steel
Capacity: Driven to Refusal

Location	No. of Piles	Est. Length
Pier #1	12 (+1 test pile)	51'
Pier #2	12 (+1 test pile)	44'

Note: Steel type required for Pier Piles.

PIER DETAILS (EB)
IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

Notes:
1.) Space Reinforcement in cap to miss piles and anchor bolts.
2.) Pour steps monolithically with cap.
3.) Min. laps: #6 bar 3'-7", #7 bar 4'-10", #5 bar 2'-2".
4.) Bars indicated thus: 16 x 2-#7 etc. indicates 16 lines of bars with 2 lengths per line.
5.) Chamfer exposed edges $\frac{3}{4}$".

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

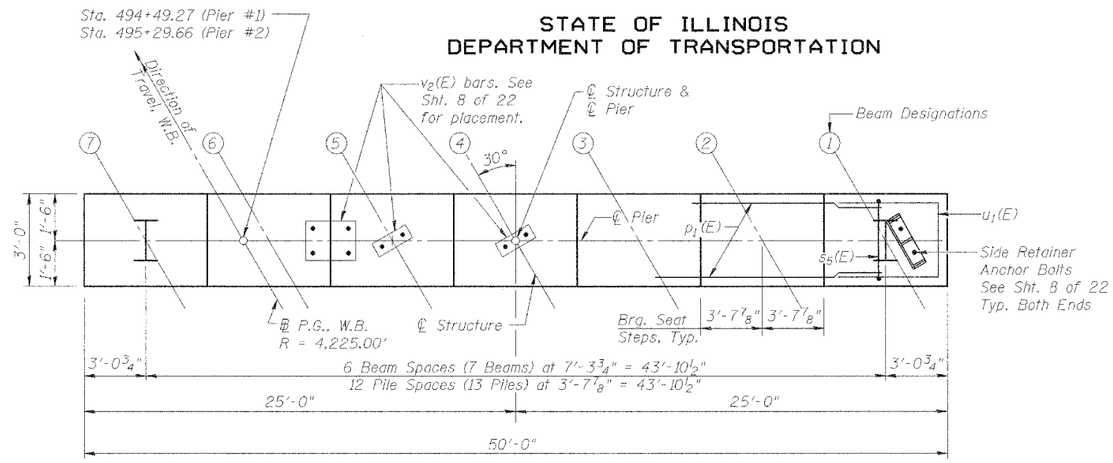
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	495
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 17
22 SHEETS

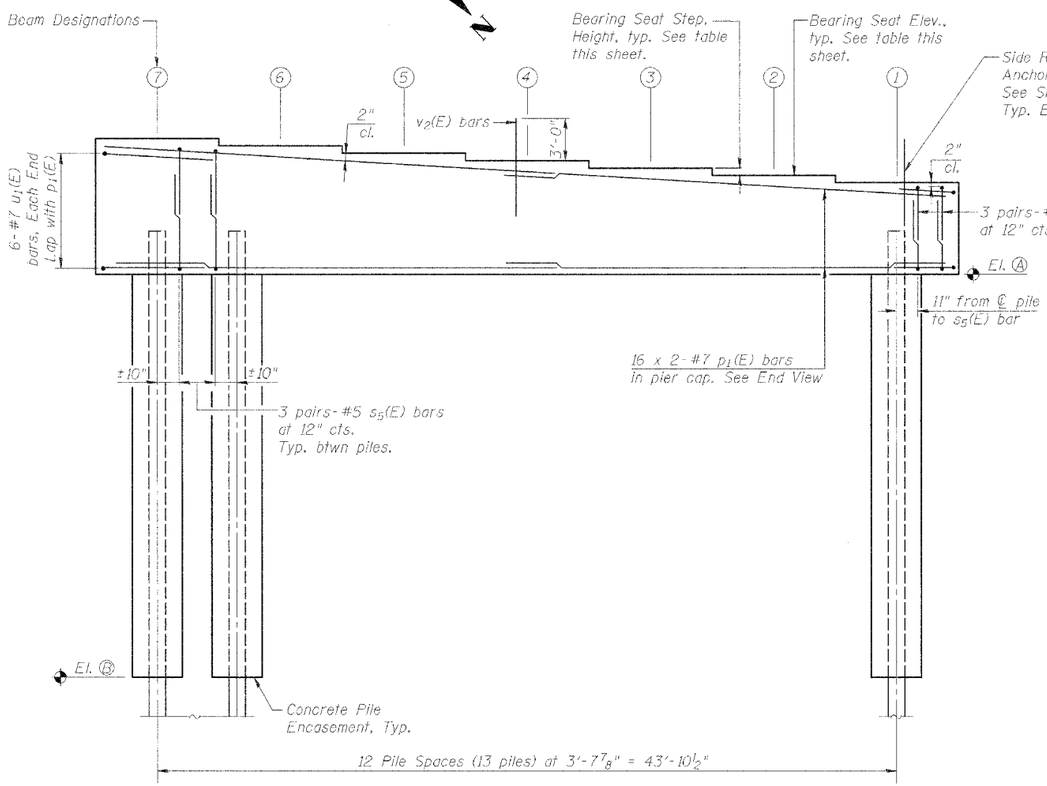
Contract No. 68205

BEARING SEATS

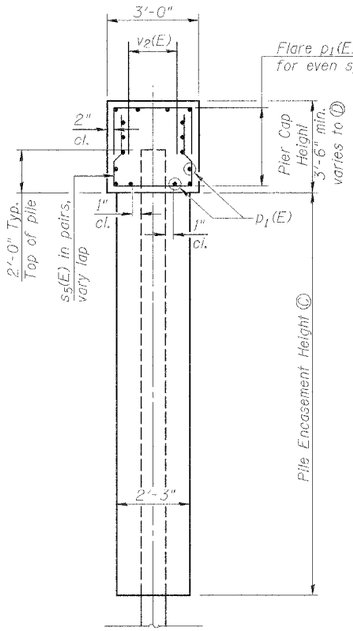
	Pier #1		Pier #2	
Beam	Elevation	Step Ht.	Elevation	Step Ht.
①	635.55	$2\frac{3}{8}$"	637.05	$2\frac{1}{4}$"
②	635.75	$2\frac{3}{8}$"	637.24	$2\frac{3}{8}$"
③	635.95	$2\frac{3}{8}$"	637.44	$2\frac{3}{8}$"
④	636.15	$2\frac{3}{8}$"	637.63	$2\frac{3}{8}$"
⑤	636.35	$2\frac{3}{8}$"	637.83	$2\frac{1}{4}$"
⑥	636.55	$2\frac{1}{2}$"	638.02	$2\frac{3}{8}$"
⑦	636.75		638.22	



TOP PLAN

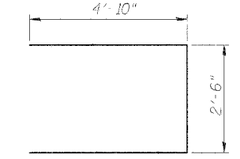


ELEVATION
(Looking in direction of travel, Southerly)

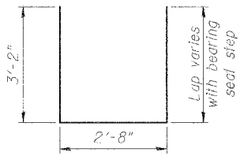


END VIEW

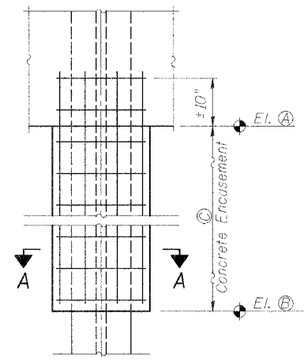
DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL



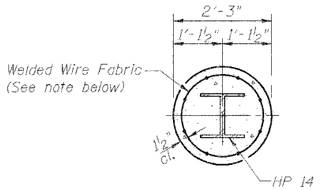
BAR u_1(E)



BAR s_5(E)
Used in pairs with variable lap



CONCRETE ENCASEMENT DETAIL



SECTION A-A

Note:
Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with Concrete Encasement. Forms for Encasement are required full height.

PIER ELEVATIONS & DIMENSIONS

	Location	Pier #1	Pier #2
Ⓐ	Bottom of Cap Elev.	632.05	633.55
Ⓑ	Bottom of Pile Encasement El.	605.00	605.00
Ⓒ	Pile Encasement Height	27'-0⅝"	28'-6⅝"
Ⓓ	Pier Cap Max Height	4'-8⅜"	4'-8"

BILL OF MATERIAL
(Two Piers)

Bar	No.	Size	Length	Shape
p_1(E)	64	#7	27'-3"	
s_5(E)	168	#5	9'-0"	
u_1(E)	24	#7	12'-2"	
v_2(E)	72	#8	6'-0"	
Concrete Structures		Cu. Yd.	45.5	
Reinforcement Bars, Epoxy Coated		Pound	6,890	
Concrete Encasement		Cu. Yd.	106.5	
Furnishing Steel Piles HP 14 x 73		Foot	1,248	
Driving Steel Piles		Foot	1,248	
Test Piles, HP 14 x 73		Each	2	
Pier 1 Underwater Structure Excavation Protection, Location 3		Each	1	
Pier 2 Underwater Structure Excavation Protection, Location 4		Each	1	

PILE DATA

Type: HP 14 x 73, AASHTO M270, Grade 50 Steel
Capacity: Driven to Refusal

Location	No. of Piles	Est. Length
Pier #1	12 (+1 test pile)	50'
Pier #2	12 (+1 test pile)	54'

Note: Steel type required for Pier Piles.

PIER DETAILS (WB)
IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0061 (WB)

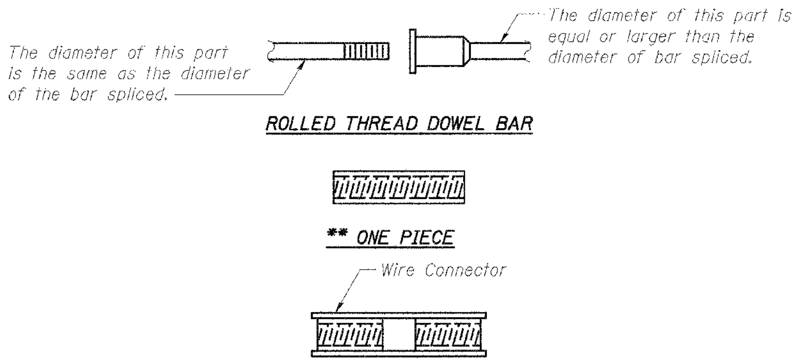
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	496
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

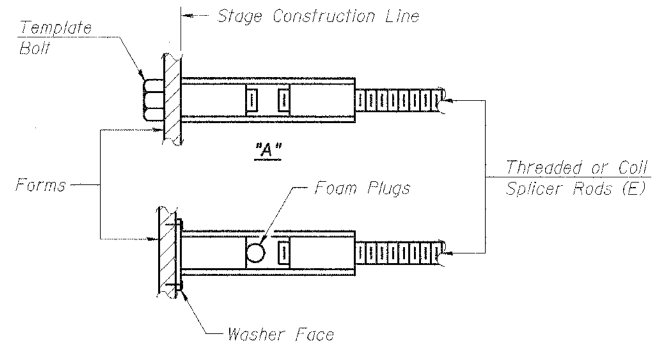
SHEET NO. 18
22 SHEETS

Contract No. 68205



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

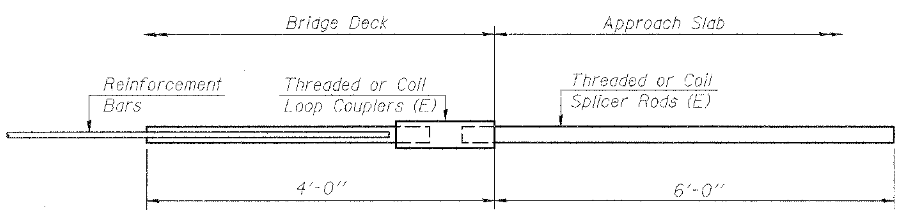
① Minimum Capacity (Tension in kips) $= 1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) $= 1.25 \times fs_{allow} \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

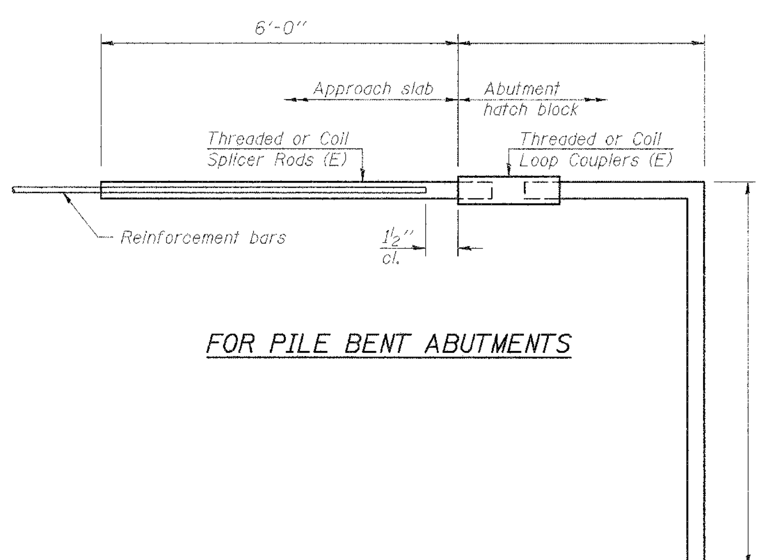
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



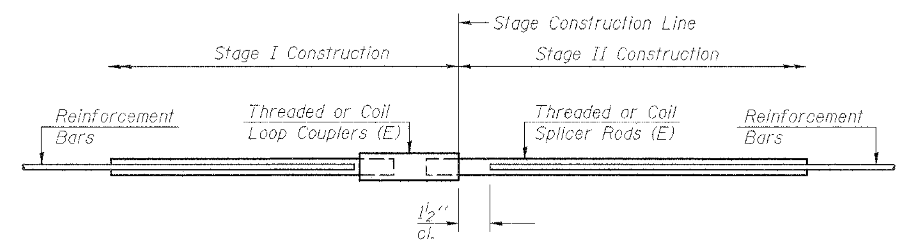
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 164



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BAR SPLICER ASSEMBLY DETAILS
IL. ROUTE 336 OVER TRIBUTARY TO KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	497
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 19
22 SHEETS

Contract No. 68205

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways IDOT

Page 1 of 1 Date 4/2/04

ROUTE FAP 315 (IL 336) DESCRIPTION IL 336 Macomb to Carthage LOGGED BY KJT

SECTION 24,31,32 LOCATION , SEC. , TWP. , RNG.

COUNTY McDonough DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTO

STRUCT. NO. ____ Station (S. ABUT)

BORING NO. 49357 (B 112) Station 493+57 Offset 0.00ft (on CL) Ground Surface Elev. 609.90 ft

Surface Water Elev. ____ ft Stream Bed Elev. ____ ft

Groundwater Elev.: First Encounter 588.9 ft ▼ Upon Completion 603.2 ft ▽ After 24 Hrs. not taken ft

Elev. (ft)	Description	Blows (/6")	UCS Qu (tsf)	Moist (%)
606.90	Dk. Br & Dk. Gray SILTY LOAM	1, 1, 1	0.6 B	32.6
606.40	Dk. Gray & Red-Brown SILTY CLAY LOAM	2, 4, 4	1.1 S	23.5
603.90	Dk. Gray & Brown SANDY CLAY LOAM ▽	1, 3, 3	0.9 S	22.5
601.40	Gray & Brown SILTY LOAM	1, 1, 3	0.7 B	25.7
598.90	Gray & Brown SILTY CLAY LOAM	1, 2, 2	1.4 B	20.7
596.40	Brown & Gray Mottled SANDY CLAY LOAM	1, 2, 3	1.7 B	21.7
593.90	Brown & Gray SHALEY CLAY	2, 2, 4	1.0 S	17.1
		4, 12, 25	2.8 S	18.2
	Brown & Gray SHALEY CLAY (continued) ▼	9, 12, 16	2.6 S	20.6
		4, 22, 100@5"	2.6 S	29.4 / 11.4
583.90	Gray & Brown SANDSTONE/SANDY SHALE	12, 46, 54@4"		9.3
		59, 80, 20@1"		9.5
580.32	End of Boring			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways IDOT

Page 1 of 1 Date 4/2/04

ROUTE FAP 315 (IL 336) DESCRIPTION IL 336 Macomb to Carthage LOGGED BY KJT

SECTION 24,31,32 LOCATION , SEC. , TWP. , RNG.

COUNTY McDonough DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTO

STRUCT. NO. ____ Station (S. ABUT)

BORING NO. 49310 (B 113) Station 493+10 Offset 60.00ft Rt. Ground Surface Elev. 609.90 ft

Surface Water Elev. ____ ft Stream Bed Elev. ____ ft

Groundwater Elev.: First Encounter 596.4 ft ▼ Upon Completion 606.3 ft ▽ After 24 Hrs. 607.1 ft

Elev. (ft)	Description	Blows (/6")	UCS Qu (tsf)	Moist (%)
608.90	Dk. Brown SILTY LOAM	1, 2, 2	0.4 B	25.7
		1, 1, 2	0.5 B	26.9
603.90	Dk. Gr & Dk. Br SANDY CLAY LOAM	1, 1, 2	0.3 B	18.8
		1, 3, 3	1.0 B	19.9
598.90	Brown & Gray CLAY LOAM	2, 3, 5	2.1 B	21.0
	reddish-brown ▼	1, 3, 4	1.8 S	17.2
593.90	Dk. Gray CLAY	2, 3, 4	1.7 S	21.1
		2, 3, 2	0.8 B	20.5 / 20.3
590.65	Brown Coarse SAND			
	Brown Coarse SAND (continued)	H, 1, 4		23.2
		1, 2, 3		19.5
583.90	Gray & Dk. Gray CLAY	5, 9, 26	2.8 S	25.2
	thin coal shale seam			41.9
581.40	Gray SHALEY CLAY	21, 15, 30	4.7 S	10.0
		47, 75, 25@3"		9.8
		100@5"		13.6
573.90	Gray SANDSTONE/SANDY SHALE	100@3"		7.4
573.65	End of Boring			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways IDOT

Page 1 of 1 Date 4/5/04

ROUTE FAP 315 (IL 336) DESCRIPTION IL 336 Macomb to Carthage LOGGED BY KJT

SECTION 24,31,32 LOCATION , SEC. , TWP. , RNG.

COUNTY McDonough DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTO

STRUCT. NO. ____ Station (N. ABUT)

BORING NO. 49613 (B 114) Station 496+13 Offset 55.00ft Lt Ground Surface Elev. 612.50 ft

Surface Water Elev. ____ ft Stream Bed Elev. ____ ft

Groundwater Elev.: First Encounter 598.5 ft ▼ Upon Completion 606.5 ft ▽ After 24 Hrs. 608.7 ft

Elev. (ft)	Description	Blows (/6")	UCS Qu (tsf)	Moist (%)
611.00	Dk. Br & Brown SILTY LOAM	1, 1, 1	0.6 B	25.6
		H, 1, 2	0.5 B	29.3
606.00	Dk. Gr & Brown SANDY CLAY LOAM	H, 2, 2	0.8 B	21.5
		1, 2, 2	0.4 B	22.9
		H, 1, 2	0.3 B	24.2 / 20.6
599.75	Brown & Gray Coarse SAND ▼	1, 1, 1		20.1
		2, 2, 2		20.3
593.50	Dk. Br & Dk. Gray SILTY LOAM w/trace organics	1, 2	1.2 B	42.0
592.50	Gray Fine SAND	3		20.0
591.00	Blue-Gray CLAY LOAM	1, 6, 10	1.8 S	20.3
588.50	Blue-Gray CLAY/SHALEY CLAY	14, 22, 34	5.5 S	18.2
586.00	Gray to Dk. Gray SHALE	19, 67, 83@2"		20.4
		32, 35, 46	4.5 P	13.1
		11, 100@4"		19.0
	sandstone/sandy shale			12.3
		15, 45, 55@2"		13.3
	coalshale @ 37.5'	19, 100@6"		11.7
575.00	End of Boring			

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

BBS, from 137 (Rev. 8-99)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BORING LOGS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	498
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 20
22 SHEETS

Contract No. 68205

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 4/5/04

ROUTE FAP 315 (IL 336) DESCRIPTION IL 336 Macomb to Carthage LOGGED BY KJT

SECTION 24,31,32 LOCATION SEC., TWP., RNG.

COUNTY McDonough DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTO

STRUCT. NO.
Station (N. ABUT)

BORING NO. 49563 (B-116)
Station 495+63
Offset 7.00ft Rt
Ground Surface Elev. 611.10 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 600.1 ft
Upon Completion 606.3 ft
After 24 Hrs. 607.8 ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
610.10				
	2			Dk. Br & Gray SANDY CLAY LOAM
	2	0.8	23.0	
	3	S		
607.60				
	H			Gray & Brown SILTY CLAY LOAM
	1	0.1	29.3	
	1	B		
604.10				
	1			Dk. Gr & Br Mottled SANDY CLAY LOAM
	1	0.4	28.2	
	2	S		
	1			
	1	0.9	23.4	
	2	B		
600.10				
	1			Gray & Brown Cse SAND
	1		21.9	
	1			
	2			
	2		23.2	
	12			
596.10				
	15			Lt. Gray SHALEY CLAY
	20	4.5	9.5	
	46	P		
592.60				
	20			Lt. Gray SHALE
	50/0.1'		12.4	
	50/0.1'			

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
				Lt. Gray SHALE (continued)
	12			
	22	5.9	15.7	
	48	S		
587.60				
	18			Gray & Red-Brown Shale
	38	4.4	16.9	
582.5	62@5.5	S		
	13			
	30	4.5	16.4	
	66	P		
582.60				
	12			Gray & Dk. Gray SHALE
	21	6.8	27.7	
	45	S		
580.10				
	40			Lt. Gray SHALE
	100/6"		6.0	
577.60				
	50			Black COAL SHALE
576.60	100/6"		31.7	
			9.8	End of Boring

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 4/5/04

ROUTE FAP 315 (IL 336) DESCRIPTION IL 336 Macomb to Carthage LOGGED BY KJT

SECTION 24,31,32 LOCATION SEC., TWP., RNG.

COUNTY McDonough DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTO

STRUCT. NO.
Station (N. ABUT)

BORING NO. 49525 (B-116)
Station 495+25
Offset 40.00ft Rt
Ground Surface Elev. 611.60 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 602.6 ft
Upon Completion 606.0 ft
After 24 Hrs. 608.3 ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
610.60				
	2			Gray & Brown Mottled SILTY LOAM
	2	1.0	23.4	
	2	B		
608.10				
	2			Dk. Gray & Brown SILTY CLAY LOAM
	3	2.5	23.6	
	5	B		
	2			
	3	1.0	19.3	
	4	B		
603.10				
	2			Brown Coarse SAND
	4		17.8	
	4			
600.60				
	11			Lt. Gray & Brown SANDSTONE/SANDY SHALE
	23		6.9	
	51			
598.10				
	30			Lt. Gray & Brown SANDSTONE (weakly cemented)
	83		12.8	
17@.1'				
595.60				
	12			Lt Gr & Br to Blue-Gray SHALE
	42		12.0	
58@.10'				
	33			
592.35	100/3"		13.5	
				End of Boring

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

BBS, from 137 (Rev. 8-99)

CLAUDE H. HURLEY COMPANY

BORING LOG

PROJECT NO. 3-869-D — BORING NO. CR-493

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 — IDOT JOB NO. P-94-011-98

LOCATION CULVERT (STRUCTURE) 495+96 (STATION) 45' (OFFSET) — MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES

DATE OF DRILLING: STARTED 5-18-00 COMPLETED 5-18-00 SURFACE ELEVATION 612.2

DRILLED BY S. HOWARD — LOGGED BY D. ANDERSON

GROUNDWATER DATA

DATE	DEPTH	HOUR
DD	5-18	13.1 -
AAR	5-18	5.9 Ob
	5-19	4.9 1d

DRILLING METHOD
RIG TYPE CME-850
AUGER TYPE-DEPTH 7" HSA-32.5'
CASING TYPE-DEPTH -
SAMPLER TYPE MC-50

Elev	Depth	CLASSIFICATION	N Bpf/in.	Qu tsf	W %	Yd pcf
612.1		DK BR SILTY CLAY LOAM, A-6 W/ FIBERS	AU	-	28	-
			AU	-	21	-
		BR & GR SILTY LOAM, A-6	2			
			1	0.7	18	-
			3			
609.2		DK GR & BR SILTY CLAY LOAM, A-6	1			
			2	1.1	17	-
	5		4			
606.7		GR & BR CLAY LOAM, A-6	2			
			4	1.2	21	-
605.2		RD BR, BR & GR SANDY CLOAM, A-6	4	-	20	-
			1	-	23	-
603.2		RD BR & GR CLAY LOAM, A-6	1			
			1	0.3	22	-
	10		1			
			1			
			1	0.5	25	-
			1			
599.2		BR GR SANDY LOAM, A-2-4	1	-	16	-
			1			
597.7		GR LOAM, A-4	1	1.0	14	-
	15					
596.7		GR SILTY CLAY, A-6	2			
			5	1.0	33	-
			5			
594.2		GR SILTY LOAM, A-6 W/ GRAVELLY SAND, A-1-b SEAMS	2			
			5	-	22	-
	20		11			
591.7		GR SAND, A-1-a	5			
			5	-	16	-
590.2		GR & RD SR SHALE	8	3.7	15	-
589.2						

Elev	Depth	CLASSIFICATION	N Bpf/in.	Qu tsf	W %	Yd pcf
			18			
		GRN GR SANDY CLAY SHALE	36	-	21	-
	25		78			
586.7		GR, BR & RD BR CLAY SHALE	37			
			49	-	17	-
			75			
584.2		GR CLAY SHALE	18			
			32	-	19	-
	30		44			
			64			
			60	-	7	-
			90			
579.7		END OF BORING	32.5			
	35					

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

BORING LOGS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
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Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	499
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 21
22 SHEETS

Contract No. 68205

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CLAUDE H. HURLEY COMPANY

BORING LOG

PROJECT NO. 3-869-D | BORING NO. CB-494
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 | IDOT JOB NO. P-94-011-98
LOCATION WILDLIFE BRIDGE (STRUCTURE) 493+27 (STATION) 49'L (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 5-18-00 COMPLETED 5-18-00 SURFACE ELEVATION 611.7
DRILLED BY R. HOWARD | LOGGED BY D. ANDERSON

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	5-18	13.1	-
AAR	5-18	5.9	0h
	5-19	5.9	1d

DRILLING METHOD: RIG TYPE CME-850; AUGER TYPE-DEPTH 7" HSA-32.3'; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

Elev	CLASSIFICATION	Depth	N Bp6in.	Qu tsf	W %	γd pcf
	DK BR SILTY CLAY LOAM, A-6 W/ FIBERS		AU	-	23	-
			AU	0.8	21	-
611.5	BR TO BR GR SILTY LOAM, A-6		2 1 3	0.7	25	-
610.7	DK GR & BR SILTY CLAY LOAM, A-6					
608.7	DK GR & BR SILTY CLAY LOAM, A-4 W/ THIN SAND, A-3 SEAMS		1 2 3	0.9	25	-
		5	2 2 4	1.1	23	-
603.7	RD BR, BR & GR SANDY CLAY LOAM, A-6		2 1 3	-	25	-
		10				
601.2	RD BR & GR CLAY LOAM, A-6		1 0 1	0.6	24	-
598.7	BR TO BR GR SANDY LOAM, A-2-4		1 2 2	-	19	-
		15				
596.2	GR GRAVELLY SAND, A-1-a		1 4 7	-	17	-
593.7	GRN GR SANDY CLAY SHALE		34 100/3"	-	16	-
591.7	GR, BR & RD BR CLAY SHALE	20	30 49 72	-	14	-
586.7	GR CLAY SHALE		29 77 100/3"	-	15	-
		25	17 34 43	-	18	-
583.7	BLK SANDY COAL SHALE		32 100/2"	-	11	-
581.7	GR CLAY SHALE	30	38 77	-	7	-
			100/3"	-	10	-
579.4	END OF BORING	32.3				

CLAUDE H. HURLEY COMPANY

BORING LOG

PROJECT NO. 3-869-D | BORING NO. CB-495
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 | IDOT JOB NO. P-94-011-98
LOCATION WILDLIFE BRIDGE (STRUCTURE) 494+61 (STATION) 2'L (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 5-18-00 COMPLETED 5-18-00 SURFACE ELEVATION 611.5
DRILLED BY R. HOWARD | LOGGED BY D. ANDERSON

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	5-18	7.9	-
AAR	5-18	5.9	0h
	5-19	5.6	1d

DRILLING METHOD: RIG TYPE CME-850; AUGER TYPE-DEPTH 7" HSA-32.2'; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

Elev	CLASSIFICATION	Depth	N Bp6in.	Qu tsf	W %	γd pcf
	DK BR SILTY CLAY LOAM, A-6 W/ FIBERS		AU	-	25	-
			AU	0.8	24	-
611.3	DK GR & BR SILTY CLAY LOAM, A-6		1 2 2	0.6	29	-
608.5	DK GR & BR SILTY CLAY LOAM, A-4 W/ THIN SAND, A-3 SEAMS		0 1 1	0.8	23	-
		5	2 2 2	0.7	19	-
			0 0 1	0.4	26	-
		10				
601.0	RD BR & GR CLAY LOAM, A-6		0 0 0	0.6	25	-
598.5	GR SILTY CLAY LOAM, A-6		0 1	0.3	29	-
			4	-	21	-
596.8	BR GR SAND, A-1-b	15	2	-	17	-
595.0	GR SILTY CLAY LOAM, A-6		2 6	1.4	20	-
593.5	GR, BR & RD BR CLAY SHALE		10 14 18	-	17	-
		20	28 60 90	-	19	-
	GR, BR & RD BR CLAY SHALE		24 33 65	-	18	-
		25				
586.3	GR CLAY SHALE		17	-	20	-
585.0	BLK SANDY COAL SHALE		40 120/4"	-	15	-
583.6	GR CLAY SHALE		100/5"	-	8	-
		30				
580.5	BLK COAL		28	-	19	-
580.0	DK GR CLAY SHALE		76 120/2"	-	12	-
579.3	END OF BORING	32.2				

CLAUDE H. HURLEY COMPANY

BORING LOG

PROJECT NO. 3-869-D | BORING NO. CB-496
PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 | IDOT JOB NO. P-94-011-98
LOCATION WILDLIFE BRIDGE (STRUCTURE) 494+06 (STATION) 58'R (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)
DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES
DATE OF DRILLING: STARTED 5-16-00 COMPLETED 5-16-00 SURFACE ELEVATION 610.0
DRILLED BY R. HOWARD | LOGGED BY D. ANDERSON

GROUNDWATER DATA	DATE	DEPTH	HOUR
DD	5-16	11.2	-
AAR	5-16	5.6	0h
	5-18	4.6	2d

DRILLING METHOD: RIG TYPE CME-850; AUGER TYPE-DEPTH 5" HSA-38.1'; CASING TYPE-DEPTH -; SAMPLER TYPE AU-SS

Elev	CLASSIFICATION	Depth	N Bp6in.	Qu tsf	W %	γd pcf
	DK BR SILTY CLAY LOAM, A-6 W/ ROOTS & FIBERS		AU	-	27	-
609.0	BR & GR BR SILTY LOAM, A-6		2 1 3	0.7	22	-
607.0	DK GR & BR SILTY CLAY LOAM, A-6		0 0 0	0.5	34	-
		5				
604.5	DK GR & BR SILTY CLAY LOAM, A-4 W/ THIN SAND, A-3 SEAMS		0 0 1	1.0	23	-
602.0	RD BR & GR SILTY CLAY LOAM, A-6		1 1 1	0.6	21	-
		10				
599.5	BR GR SAND, A-2-4		0 1	-	27	-
			4	-	34	-
597.7	GR SAND, A-2-4					
597.0	BR GR SAND, A-1-b		0 0 1	-	23	-
		15				
594.5	GR GRAVELLY SAND, A-1-a		5 6 7	-	13	-
592.0	GR, BR & RD BR CLAY SHALE		6 12 17	-	23	-
		20	6 21 23	-	19	-
587.0	GR CLAY SHALE		10 14 14	-	22	-
		25				
584.5	BLK SANDY COAL SHALE		100/1"	-	21	-
583.0	BLK COAL		52 67	-	17	-
			100/3"	-	11	-
580.5	DK GR CLAY SHALE	30				
579.5	GR CLAY SHALE		100/3"	-	5	-
			100/4"	-	10	-
		35				
574.5	BLK COAL		100/1.5"	-	18	-
572.9	GR SANDSTONE		100/1"	-	-	-
571.9	END OF BORING	38.1				
		40				

BORING LOGS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	55-2	MCDONOUGH	1025	500
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 22
22 SHEETS

Contract No. 68205

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways
IDOT

Page 1 of 1
Date 4/2/04

ROUTE FAP 315 (IL 336) DESCRIPTION IL 336 Macomb to Carthage LOGGED BY KJT

SECTION 24,31,32 LOCATION , SEC. , TWP. , RNG.

COUNTY McDonough DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTO

STRUCT. NO. ______
Station (S. ABUT)

BORING NO. 49400 (TB 491)
Station 494+00
Offset 56.00ft Lt
Ground Surface Elev. 610.50 ft

Surface Water Elev. ______ ft
Stream Bed Elev. ______ ft

Groundwater Elev.:
First Encounter 597.0 ft
Upon Completion 593.5 ft
After 24 Hrs. 608.5 ft

Description	Elev. (ft)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown & Dk. Gray SILTY LOAM			H		
			2	0.6	25.8
			3	B	
Brown & Dk. Gray SILTY CLAY LOAM	607.00		2		
			3	2.3	20.5
		-5	4	S	
Brown & Gray Mottled SANDY CLAY LOAM	604.50		2		
			2	1.2	20.2
			4	S	
Brown & Gray SANDY LOAM	602.00		1	0.5	17.9
			2	B	
Brown & Gray Cse SAND	601.00	-10	5		13.6
Brown & Gray Mottled SANDY CLAY LOAM	599.50		2		
			3	1.7	22.2
			4	B	
Brown & Gray CLAY LOAM	597.00		4		
			6	2.6	20.0
		-15	10	S	
Br, Gray & Red-Brown SHALEY CLAY	594.50		9		
			26	3.3	18.4
			35	S	
			4		
			24	2.4	20.5
		-20	20	S	
Br, Gray & Red-Brown SHALEY CLAY *(continued)*			9		
			16	3.0	20.5
			22	S	
			21		
			32	3.1	11.2
		-25	44	S	
Gray SANDSTONE/SANDY SHALE	584.50		38		
			100@5"		9.5
			74		
		-30	100@5"		5.7
Br, Gray & Red-Brown SHALEY CLAY	579.50		13		
			26	6.1	16.0
			35	S	
			10		
			28	4.1	15.1
		-35	67	S	
Gray SANDSTONE/SANDY SHALE	574.50		44		
	573.67		100@4"		14.8
End of Boring		-40			

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

BBS, from 137 (Rev. 8-99)

CLAUDE H. HURLEY COMPANY — BORING LOG

PROJECT NO. 3-869-D BORING NO. TWTB-493

PROJECT FAP 315 (IL 336) SECTION 24, 31, 32 IDOT JOB NO. P-94-011-98

LOCATION EMBANKMENT (STRUCTURE) 495+96 (STATION) 97L (OFFSET) MCDONOUGH COUNTY, ILLINOIS (STATE)

DRILLING CONTRACTOR WESTERN ENVIRONMENTAL SERVICES

DATE OF DRILLING: STARTED 5-24-00 COMPLETED 5-24-00 SURFACE ELEVATION 612.2

DRILLED BY R. HOWARD LOGGED BY R. ANDERSON

GROUNDWATER DATA

	DATE	DEPTH	HOUR
DD	5-24	11.2	-
AAR	5-24	5.9	0h
	5-25	4.9	1d

DRILLING METHOD

RIG TYPE CME-850
AUGER TYPE-DEPTH 0.6' HSA-25.5'
CASING TYPE-DEPTH -
SAMPLER TYPE ST-SS

Elev	Classification	Depth	N bp6in.	Qu tsf	W %	γd pcf
	DK BR SILTY CLAY LOAM, A-6 W/ FIBERS		2, 2, 3	-	28	-
612.0	BR & GR SILTY LOAM, A-6			1.4	23	-
			1, 2, 3	0.9	18	-
			ST	0.6	28	96
608.2	DK GR & BR SILTY CLAY LOAM, A-6	5	ST	1.2	28	93
606.7	GR & BR SILTY CLAY LOAM, A-6		ST	0.9	23	105
			ST	0.6	22	103
603.2	RD BR, BR & GR SANDY CLAY LOAM, A-6		ST	-	21	104
602.2	RD BR & GR CLAY LOAM, A-6	10	ST	0.3	25	98
			ST	0.6	24	104
599.7	BR GR SANDY LOAM, A-2-4		1, 1	-	16	-
		15	2, 3	-	14	-
596.7	GR SILTY CLAY, A-6					
594.7	GR, BR & RD BR SILTY CLAY, A-6		ST	0.9	23	103
593.7	GR SILTY LOAM, A-6 W/ GRAVELLY SAND, A-1-b SEAMS		ST	1.6	24	96
		20	ST	-	18	111
591.7	GR SAND, A-1-a		4, 7, 12	-	19	-
590.2	GR & RD BR SHALE		2	2.0	15	-
589.2	GRN GR SANDY CLAY SHALE		4			
			11	4.5	22	-
	GRN GR SANDY CLAY SHALE	25	6, 11, 17	4.9	21	-
586.7	END OF BORING	30				

BORING LOGS
IL. ROUTE 336 OVER
TRIBUTARY TO
KILLJORDAN CREEK
F.A.P. ROUTE 315 SECT. 55-2
McDONOUGH COUNTY
STATION 494+75.00
STRUCTURE NO. 055-0060 (EB)
STRUCTURE NO. 055-0061 (WB)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

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