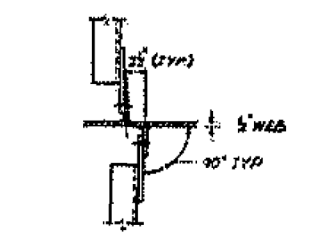
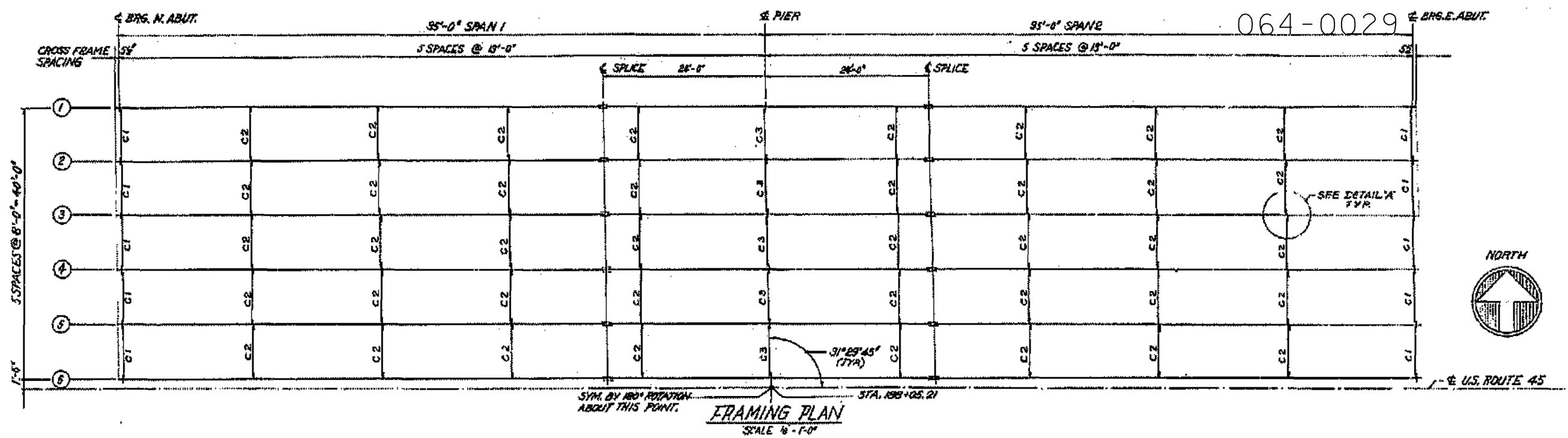
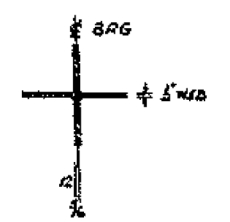


064-0029

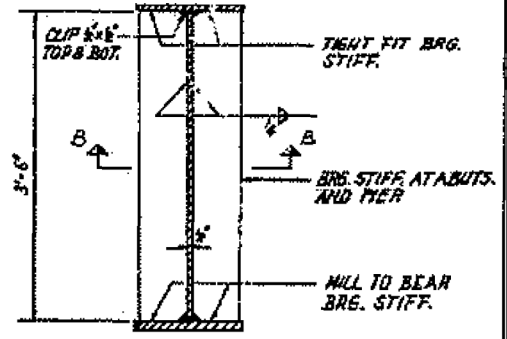
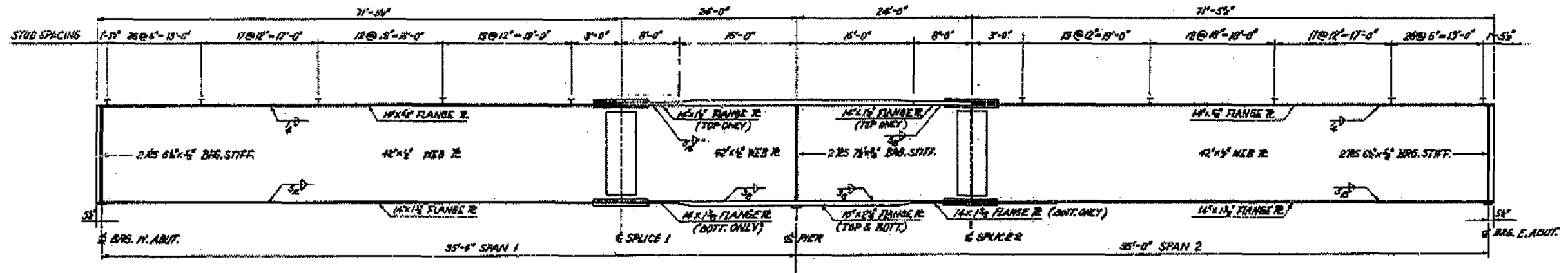
SHEET 9 OF 15



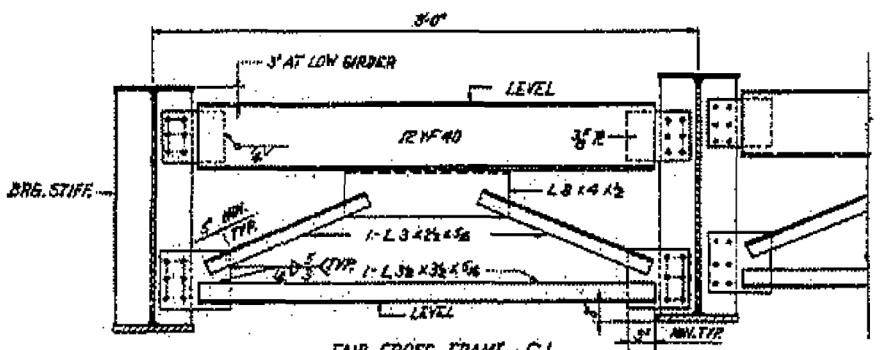
DETAIL "A"



SECTION B-B



BRG. STIFF.

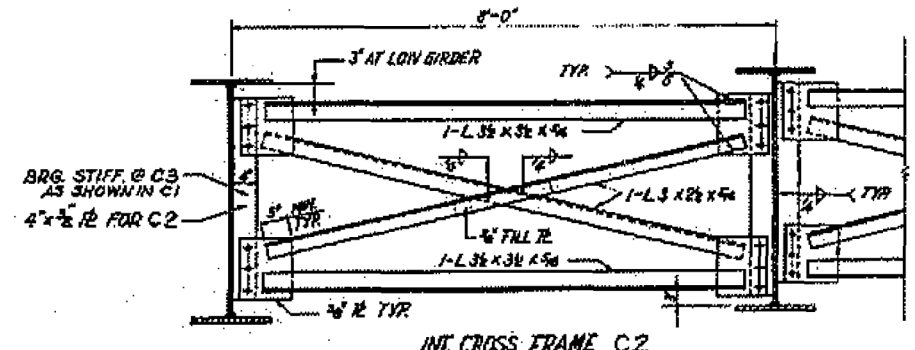


END CROSS FRAME C1
SCALE 3/4\"/>

GIRDER ELEVATION

GIRDER PROPERTIES

| STEEL SECTION | |
|-------------------|---------------|
| I_x | 36,214 IN^4 |
| S_{rx} | 1,566 IN^3 |
| S_{bx} | 1,566 IN^3 |
| COMPOSITE SECTION | |
| I_c | 43,842 IN^4 |
| S_{rc} | 5,562 IN^3 |
| S_{bc} | 1,213 IN^3 |



INT. CROSS FRAME C2
(C3 SIMILAR)
SCALE 3/4\"/>

TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY)

| LOCATION | GIR. 1 | GIR. 2 | GIR. 3 | GIR. 4 | GIR. 5 | GIR. 6 | GIR. 7 | GIR. 8 | GIR. 9 | GIR. 10 | GIR. 11 | GIR. 12 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| BRG. N. ABUT. | 374.960 | 375.088 | 375.215 | 375.343 | 375.471 | 375.598 | 375.599 | 375.477 | 375.355 | 375.232 | 375.110 | 374.988 |
| SPLICE 1 | 375.834 | 375.962 | 376.089 | 376.217 | 376.344 | 376.472 | 376.473 | 376.350 | 376.228 | 376.105 | 375.982 | 375.860 |
| BRG. PIER | 376.109 | 376.237 | 376.364 | 376.491 | 376.619 | 376.746 | 376.747 | 376.624 | 376.502 | 376.379 | 376.256 | 376.134 |
| SPLICE 2 | 376.383 | 376.511 | 376.638 | 376.765 | 376.893 | 377.020 | 377.021 | 376.898 | 376.776 | 376.653 | 376.530 | 376.407 |
| BRG. E. ABUT. | 377.133 | 377.260 | 377.388 | 376.513 | 376.642 | 376.769 | 377.170 | 377.697 | 377.524 | 377.401 | 377.278 | 377.155 |

NOTE: TOP OF WEB ELEVATIONS ARE BASED ON A DIMENSION OF 10\"/>

TABLE OF MOMENTS, REACTIONS & SHEAR (INTERIOR GIRDER)

| | MOMENT (FT. KIP) | | REACTION (KIP) | | SHEAR (KIP) | | | | |
|--------|------------------|------|----------------|------|-------------|--------------|--------------|--------------|------|
| | 1/4 PT. SPAN | PIER | ABUT. | PIER | ABUT. | 1/4 PT. SPAN | 1/2 PT. SPAN | 3/4 PT. SPAN | PIER |
| X.L. | 346 | 1493 | 35 | 132 | | | | | |
| S.D.L. | 140 | 226 | 8 | 25 | 8 | 3 | 2 | 7 | 12 |
| L.L. | 313 | 733 | 52 | 75 | 52 | 31 | 25 | 39 | 50 |
| IMP. | 71 | 167 | 12 | 17 | 12 | 7 | 6 | 9 | 11 |
| TOTAL | 1072 | 2619 | 107 | 249 | 72 | 41 | 33 | 55 | 73 |

FRAMING PLAN
GRADE SEPARATION
U.S. ROUTE 45
OVER F.A.I. ROUTE 24
F.A. PROJECT
F.A.I. ROUTE 24 SECTION 64-3HB-1
MASSAC COUNTY
STATION 350+00.00

ALFRED BENECH & COMPANY CONSULTING ENGINEERS
12 NORTH WASHINGTON AVENUE
CHICAGO, ILLINOIS 60602

| | | | |
|---|----------------------------|-----------|----------|
| FILE NAME: | USER NAME: Dahmer,ja | DESIGNED: | REVISED: |
| ca:\pwwork\pwwork\dahmer,ja\0384974\7899-sht-plen.dgn | 9-sht-plen.dgn | DRAWN: | REVISED: |
| Default | PLOT SCALE: 2.7387 1/1 in. | CHECKED: | REVISED: |
| | PLOT DATE: 3/20/2014 | DATE: | REVISED: |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY

| | | | |
|----------|-------|-----------------|--------------|
| 064-0029 | | US 45 OVER I-24 | |
| SCALE: | SHEET | OF SHEETS | STA. TO STA. |

| | | | | |
|-----------------------------|---------|--------|--------------|---------------------------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| VAR. D9 BRIDGE PAINT 2014-2 | | * | 22 | 19 |
| CONTRACT NO. 78419 | | | | ILLINOIS FED. AID PROJECT |