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DISTRICT ONE – PLAN PREPARATION ENGINEER: KEN ENG/ R. BORO (847) 705-4178 ROUTE SECTION COUNTY SHEETS NUMBER
FAI 290 2424.2B-BR-1 COOK 12 1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT ONE

PROPOSED HIGHWAY PLANS

ROUTE FAI 290:I-290
(EISENHOWER EXPY/ CONGRESS PKWY)
OVER SOUTH BRANCH CHICAGO RIVER
SECTION 2424.2B-BR-1
SN'S 016-0460 AND 016-2445
STRUCTURAL STEEL REPAIR
COOK COUNTY
C-91-308-06

LOCATION OF IMPROVEMENT INDICATED THUS:

CONTRACT NO.: 60B20

D-91-308-06

R 14E

IMPROVEMENT LOCATION: SN 016-2445

W Trager St W Van Buren St W Van Bur

1

IMPROVEMENT LOCATION: SN 016-0460 STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED:

May 31 20 0 6

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Mike tine 10.

ENGINEER OF DESIGN AND ENVIRONMEN

Micton R. Sees, P.E.

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

C.U.A.N.: CHICAGO UTILITY ALERT NETWORK (312) 744-7000

TRAFFIC DATA (I-290) 2004 ADT = 139000 POSTED SPEED = 35 M.P.H.

FOR INDEX OF SHEETS SEE SHEET 2

IMPROVEMENT IS LOCATED

IN THE CITY OF CHICAGO

CONTRACT NO. 60B20

| | | | TOTAL | SHEET |
|---------|--------------|--------|--------|--------|
| ROUTE | SECTION | COUNTY | SHEETS | NUMBER |
| FAI 290 | 2424.2B-BR-1 | COOK | 12 | 2 |

INDEX OF SHEETS

| 1 | TITLE SHEET |
|------|-----------------------------------|
| 2 | INDEX OF SHEETS AND GENERAL NOTES |
| 3 | SUMMARY OF QUANTITIES |
| 4 | SN 016-0460 BRIDGE PLAN VIEW |
| 5-7 | BRIDGE REPAIRS SN 016-0460 |
| 8-12 | BRIDGE REPAIRS SN 016-2445 |

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

CONTRACT NO. 60B20

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM BRIDGE INSPECTORS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

THE CONTRACTOR SHALL OBTAIN COAST GUARD APPROVAL TO OCCUPY NAVIGABLE WATERS, IF REQUIRED, FOR THE PROPOSED WORK. A WORK PLAN SHALL BE PREPARED BY THE CONTRACTOR, REVIEWED AND APPROVED BY THE ENGINEER AND BE SUBMITTED BY THE ENGINEER TO THE COAST GUARD AT THE ADDRESS LISTED BELOW FOR APPROVAL:

BRIDGE ADMINSTRATOR US COAST GUARD NINTH COAST GUARD DISTRICT 1240 E. NINTH ST. CLEVELAND, OH 44199-2060

FOR ACCESS TO THE INTERIOR OF THE BRIDGE AND TIME - TABLES FOR THE RAISING AND LOWERING OF THE MOVABLE SPAN, CONTACT THE CITY OF CHICAGO – HEAD OF OPERATIONS FOR BRIDGE TENDERS, DARREL ROUSE, AT (312) 745-3113

NO LANE CLOSURES SHALL BE ALLOWED ON I-290 (CONGRESS PKWY). ALL WORK SHALL BE DONE FROM UNDER THE BRIDGE. ACCESS CAN BE OBTAINED THROUGH THE POST OFFICE VIA POLK ST. AND VIA THE VAN BUREN ST. RAMP.

THE CONTRACTOR SHALL CONTACT MR. WLLIAM COOBER - POST OFFICE MANAGER OF FIELD MAINTENANCE- AT (312) 983-7728 TO GAIN ACCESS TO THE PARKING AREA BETWEEN THE POST OFFICE AND THE CHICAGO RIVER DRIVE.

THE KEY TO THE VAN BUREN ST. GATE CAN BE OBTAINED BY CONTACTING SARAH WILSON @ (847) 705-4180

THERE IS A COM ED TRANSFORMER LOCATED UNDER SN 016-0460. THE CONTRACTOR SHALL TAKE APPROPIATE PRECAUTIONS WHEN WORKING IN THE AREA.

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS GENERAL NOTES

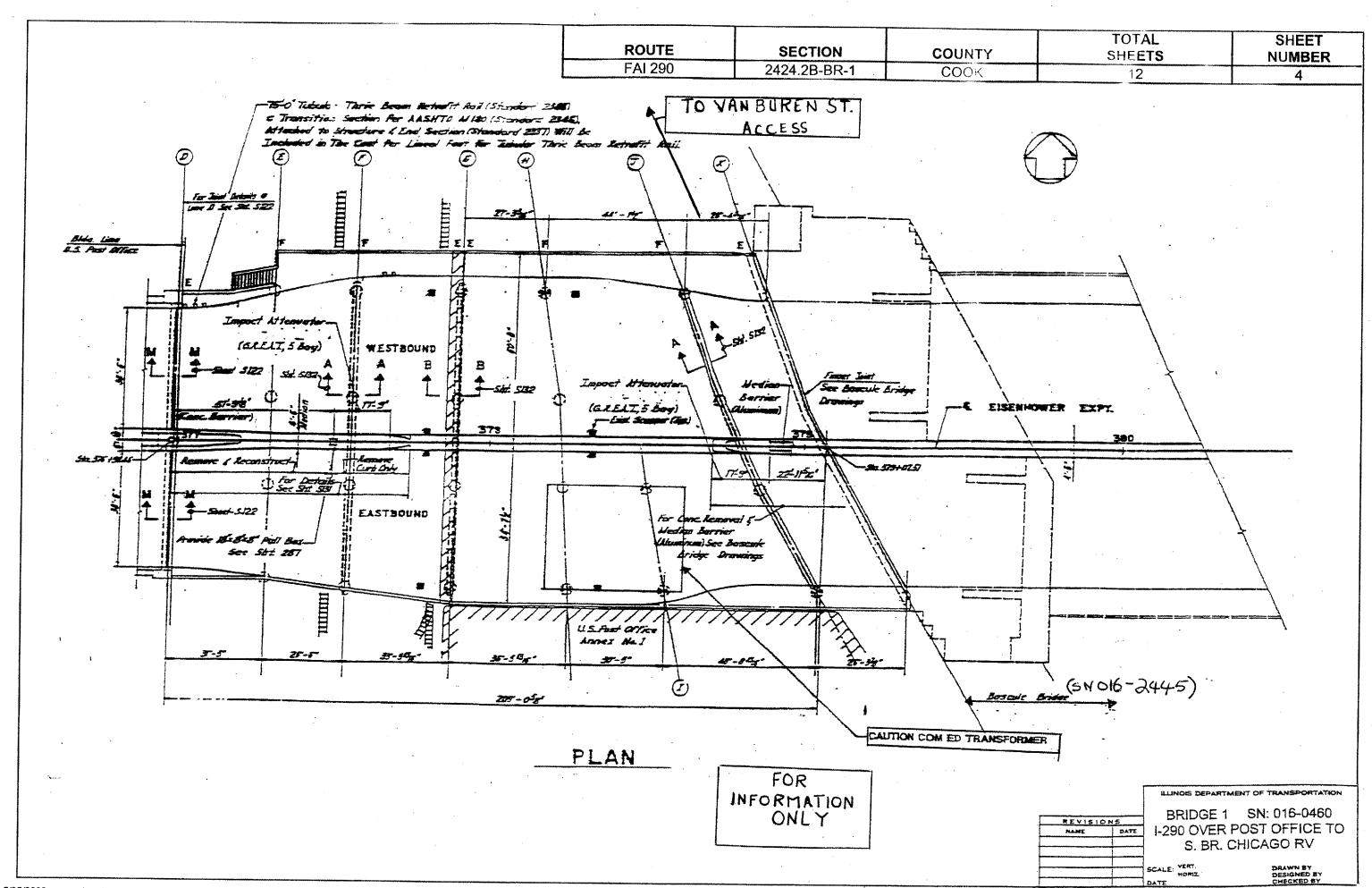
form date: 5/05/2003 s:\contracts-maintenance\wp\11x17plans\60b20 ja\index notes 11x17.doc

CONTRACT NO 60B20

| | | | TOTAL | SHEET |
|-----------------------|--------------|--------|--------|--------|
| ROUTE | SECTION | COUNTY | SHEETS | NUMBER |
| FAI 290/I -290 | 2424.2B-BR-1 | COOK | 12 | 3 |

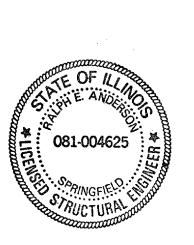
| SUMMA | RY OF QUANTITIES | | URBAN 100% STATE TOTAL | CONSTRUCTION TYPE CODE SFTY 2A | | |
|----------|---------------------------------|--------|------------------------------|--------------------------------|-------------|--|
| CODE NO. | D. ITEMS UNITS | | QUANTITIES | SN 016-0460 | SN 016-2445 | |
| 67100100 | MOBILIZATION | L SUM | 1 | 0.5 | 0.5 | |
| 50501130 | STRUCTURAL STEEL REPAIR | POUND | 4200 | 600 | 3600 | |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 2 | 1 | 1 | |
| Z0073400 | TEMPORARY SUPPORT SYSTEM | EACH | 4 | 4 | | |
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ILLINOIS DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION Girder No .-Locations of beam damage -€ FAI 290 ├--Pier J

FRAMING PLAN



EXPIRES 11-30-2006

| ROUTE NO. | 52C710H | cox | INTY | YOTAL 8-4EETB | SHICET NO. | SH | EET NO. | 1 |
|----------------|---------|---------------------------|------|------------------|---------------|----|---------|---|
| FAI 290 | соок | | | 12 | 5 | 3 | SHEETS | |
| FED. ROAD DIST | . NO. 7 | TLUMOIS FEG. AID PROJECT- | | | | | | |

Contract No. 60B20 GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Gray, Munsell No. 5B 7/1. See Special Provision "Cleaning and Painting New Metal Structures".

The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project. Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surfaces of Existing Steel Structures".

The Contractor shall provide support and/or shoring systems at the beam ends being repaired. See Special Provision "Temporary Support System."

TOTAL BILL OF MATERIAL

| LIMITY | 7 |
|--------|--------------|
| UNII | QUANTITY |
| Pound | 600 |
| Each | 4 |
| | |
| | |
| | |
| | |
| | |

BRIDGE REPAIRS

FAI-290

CONGRESS STREET FROM OLD POST OFFICE

TO THE SOUTH BRANCH OF THE CHICAGO RIVER

COOK COUNTY

STRUCTURE NO. 016-0460

| | ROLLYE NO. | SECTION | CDA | BLTY. | • | TOTAL HEETS | SHEEY NO. | SH | EET NO. | 2 |
|-----|-----------------|---------|----------|--------------|-------|----------------|--------------|----|---------|---|
| | FAI 290 | соок | | | | 12 | 6 | 3 | SHEETS | i |
| - [| FED. ADAD DISY. | NO. 7 | ILLINOIS | FEO. MID PRO | DJEGT | - | | | | |

Cantract No. 60B20

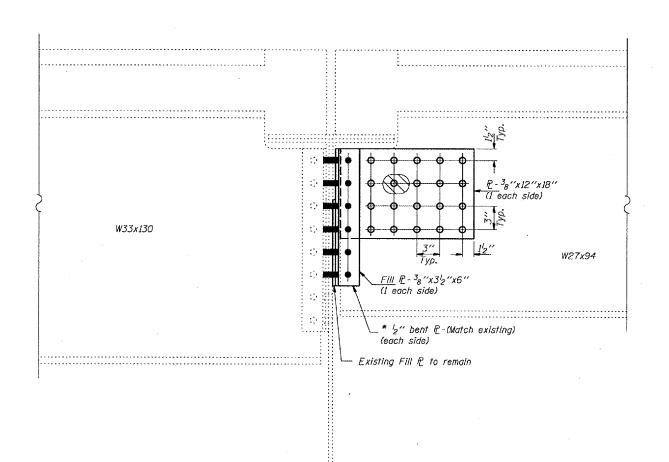
Fill ft ³8''x 3¹2''x 11¹2'' (1 each side)

尼 - ³8''x9''x18''

' '2" Bent R -(Match existing)

(each side)

Existing Fill P2 to remain



See NOTE A

W33x130

O - See NOTE B

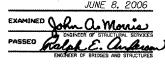
All sections are looking North. Hatched areas indicate beam damage.

* Temporary support system will be required when removing and replacing bent P (Typ.)

SECTION AT PIER J

Beam Line 7

| DESIGNED | DAB |
|----------|---------|
| CHECKED | VHV |
| DRAWN | baliva |
| CHECKED | DAB VHV |



NOTE A:

Remove existing rivets. Field drill ¹⁵₁₆ ''\(\text{\$\phi}\) holes in new angles using holes in existing beams as template. Existing rivets are to be replaced with ⁷₈ '\(\text{\$\phi}\) H.S. bolts. Cost of rivet replacement and field drilling is included with Structural Steel Repair.

NOTE B:

Drill $^{6}_{6}$ ' 6 holes in plates. Field drill $^{15}_{16}$ ' 6 holes in web using holes in plates as template. Use $^{7}_{8}$ ' 6 H.S. bolts. Cost is included with Structural Steel Repair.

SECTION AT PIER J

| 7/ | <u>EACTION</u> | TABL | |
|----|----------------|------|--|
| ĺ | BEAM LINE | R₽ | |
| | 7 | 14k | |
| | 11 | 14k | |

W27x94

BRIDGE REPAIRS

FAI-290

CONGRESS STREET FROM OLD PO

CONGRESS STREET FROM OLD POST OFFICE

TO THE SOUTH BRANCH OF THE CHICAGO RIVER

COOK COUNTY

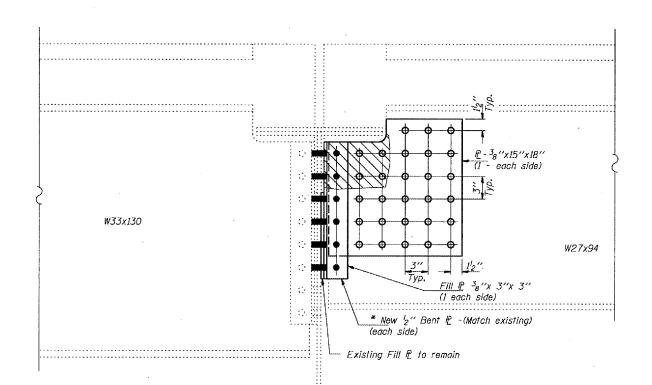
STRUCTURE NO. 016-0460

| ROUTE NO. | BECTION | cor | NTY | TOTAL SHEETS | SHEET NO. | SH | EET NO. | 3 |
|-----------------|---------|-----------|------------|-----------------|--------------|----|---------|---|
| FAI 290 | COOK | | | 12 | ¥ | 3 | SHEETS | |
| PCD. 80+0 015Y. | NO. > | 14, INDIS | 750-A10 PA | JE07- | | | | |

P-38"x21"x18"

W27x94

Contract No. 60B20



● - See NOTE A

W33x130

O - See NOTE B

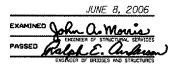
All sections are looking North. Hatched areas indicate beam damage.

* Temporary support system will be required when removing and replacing bent 12 (Typ.)

SECTION AT PIER J

Beam Line 12

| DESIGNED | DAB |
|----------|---------|
| CHECKED | VHV |
| DRAWN | baliva |
| CHECKED | DAB VHV |



NOTE A:

Remove existing rivets. Field drill ¹⁵₁₆ '\(^0\) holes in new angles using holes in existing beams as template. Existing rivets are to be replaced with '\(^8\)'\(^0\) H.S. bolts. Cost of rivet replacement and field drilling is included with Structural Steel Repair.

NOTE B:

Drill ¹⁵₁₆ "\$ holes in plates. Field drill ¹⁵16" \$ holes in web using holes in plates as template. Use ⁷8" \$ H.S. bolts.

Cost is included with Structural Steel Repair.

| | <u>REACTION TABLE</u> |
|--|-----------------------|
| ************************************** | BEAM LINE RO |

* New 12" Bent Pc-(Match existing)

Existing Fill & to remain

SECTION AT PIER J Beam Line 14

BEAM LINE RQ 14k 14 14k

BRIDGE REPAIRS FAI-290 CONGRESS STREET FROM OLD POST OFFICE TO THE SOUTH BRANCH OF THE CHICAGO RIVER COOK COUNTY STRUCTURE NO. 016-0460

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION --28°-44'-50'' PLAN 081-004625 EXPIRES 11-30-2006 '222'-8³8" € - € River Piers ELEVATION

MOUTE MG. SECTION COUNTY TOTAL SHEET NO. 2

COOK 12 8 5 SHEETS

PEG. AGOD GIRT. MG. 7 ILLINGIS FEG. AID PAGJECT-

Contract No. 60B20

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $^{7}8$ " 6 , open holes $^{15}6$ " 6 , unless otherwise noted.

Cost of removal and/or re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included in the cost of Structural Steel Repair.

The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Gray. Munsell No. 58 7/1. See Special Provision "Cleaning and Painting New Metal Structures".

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scape of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

TOTAL BILL OF MATERIAL

| V-1 N-1 1 | | 1 |
|-------------------------|-------|----------|
| ITEM | UNIT | QUANTITY |
| Structural Steel Repair | Pound | 3600 |
| | | |
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PLAN AND ELEVATION
CONGRESS PARKWAY
OVER THE CHICAGO RIVER
COOK COUNTY
SN 016-2445

MJTVH

ПОЛІТЕ МО. ОБЕСТВОК СОЛИТУ ТОТИ ВМЕЕТ ПО. 2

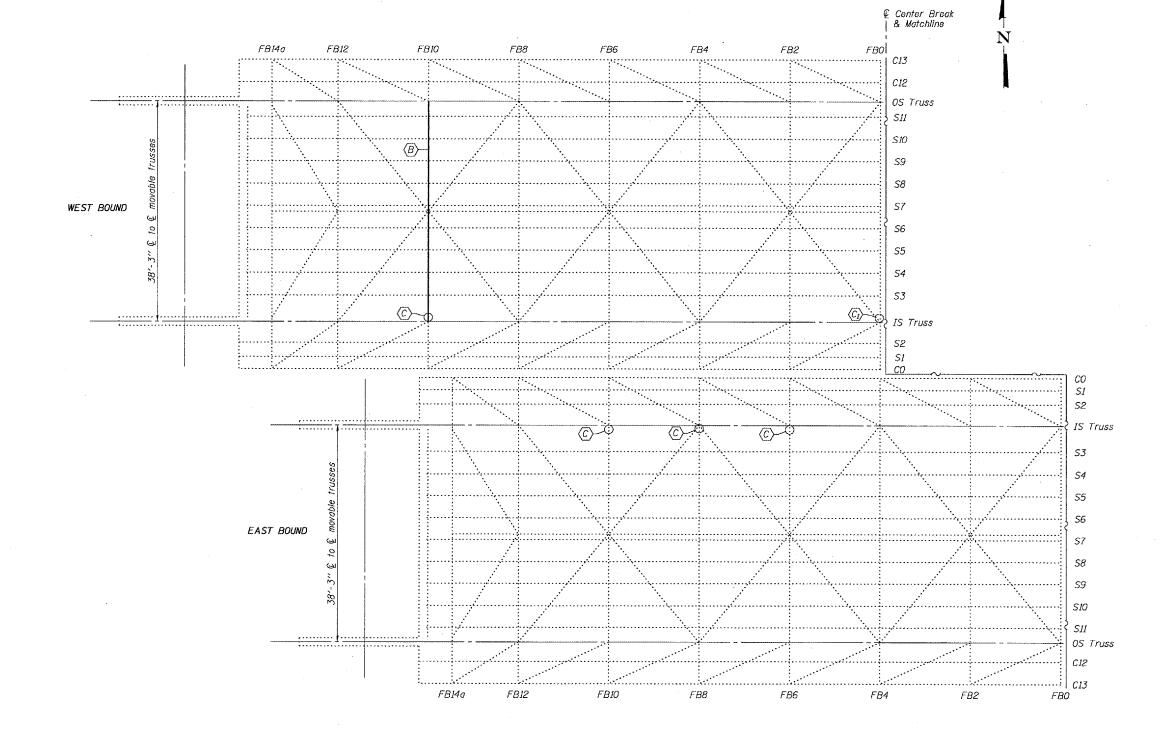
СООК 12 9

FED. NOAD CHEY, NO. 7

Т. L. MONE PED. NO. PROJECT-

Contract No. 60B20

- (B) Remove and replace floor beam lower flange angles
- (C) Remove and replace 38" plate
- $\langle C_I \rangle$ Remove and replace \Box 15 x 33.9



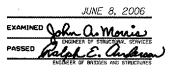
WEST LIFT SPANS

 DESIGNED
 DAB

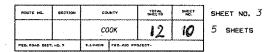
 CHECKED
 MJT

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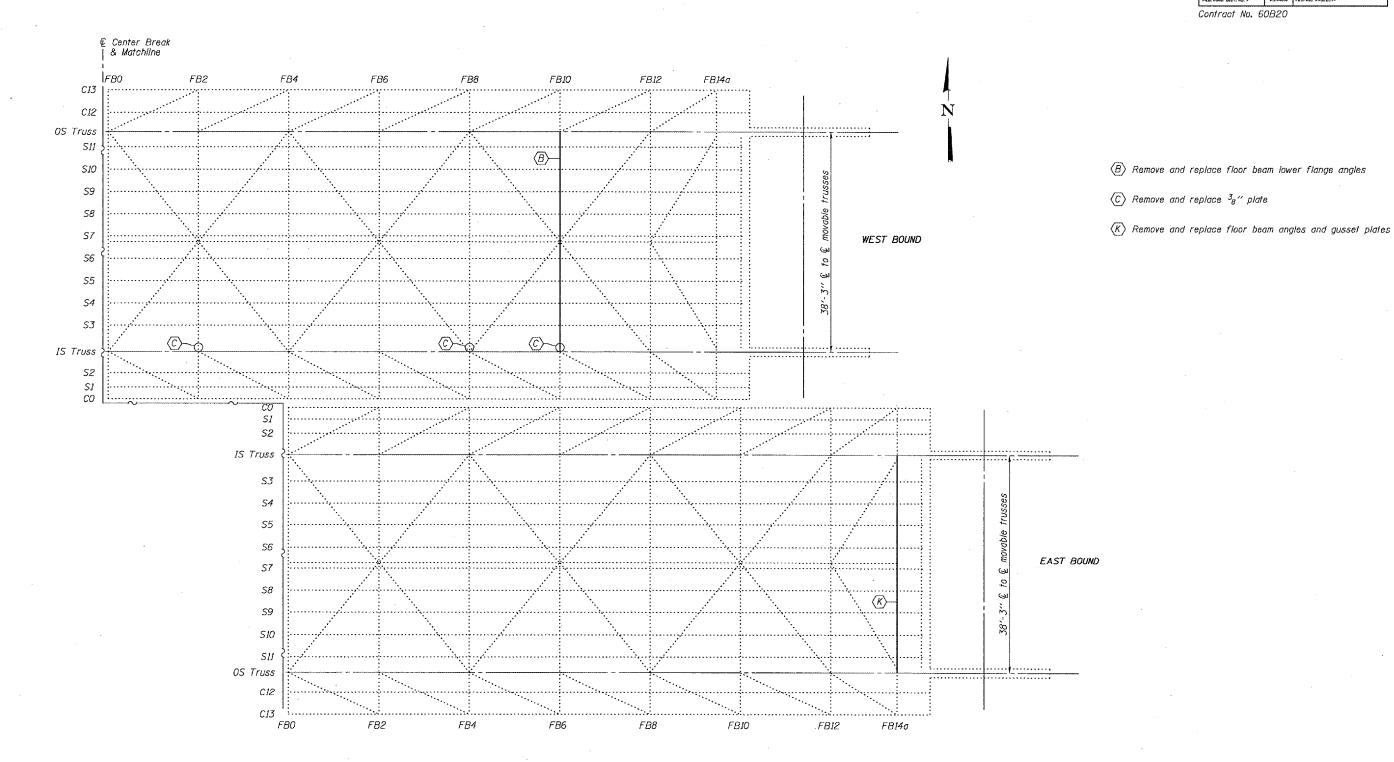
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REPAIR PLAN
WEST LIFT SPANS
CONGRESS PARKWAY
OVER THE CHICAGO RIVER
COOK COUNTY
SN 016-2445

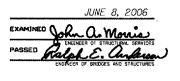


Contract No. 60B20



EAST LIFT SPANS

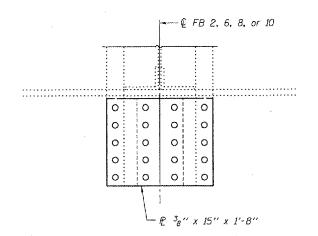
DABDESIGNED MJT baliva DAB MJT



REPAIR PLAN EAST LIFT SPANS CONGRESS PARKWAY OVER THE CHICAGO RIVER COOK COUNTY SN 016-2445

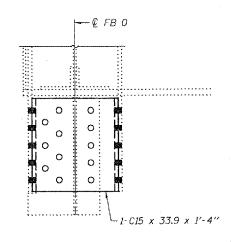
| ROUTE NO. | #66.440w | COUNTY | | TOTAL SHEEYS | SHEET NO. | SHI | EET NO. 4 |
|-----------------------|----------|-----------|-------------|-----------------|--------------|-----|-----------|
| | | соок | | 12 | I İ | 5 | SHEETS |
| FEO. ROAD DISY. NO. 7 | | IL4.3MOUS | FED. ALD PA | SJECT- | | | |

Contract No. 60B20



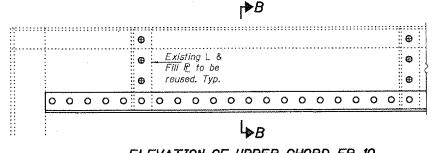
<u>PLAN</u> (7 Req'd)

REPAIR DETAIL C



PLAN
(1 Req'd)

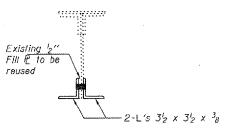
REPAIR DETAIL C1



ELEVATION OF UPPER CHORD FB 10

(Looking East) **REPAIR DETAIL B**

(2 Req'd)



SECTION B-B

<u>LEGEND</u>

- ⊕ Existing rivet to be removed and replaced w/ HS bolt.
- Use existing holes as template
 O to fleld drill holes in repair plate,
 angle or beam.
- ¹⁵₁₆ ''Φ holes shop drilled. **9** Use holes as template to field drill holes in existing beam.

 DESIGNED
 DAB

 CHECKED
 MJT

 DRAWN
 baliva

 CHECKED
 DAB
 MJT

TUNE 8, 2006

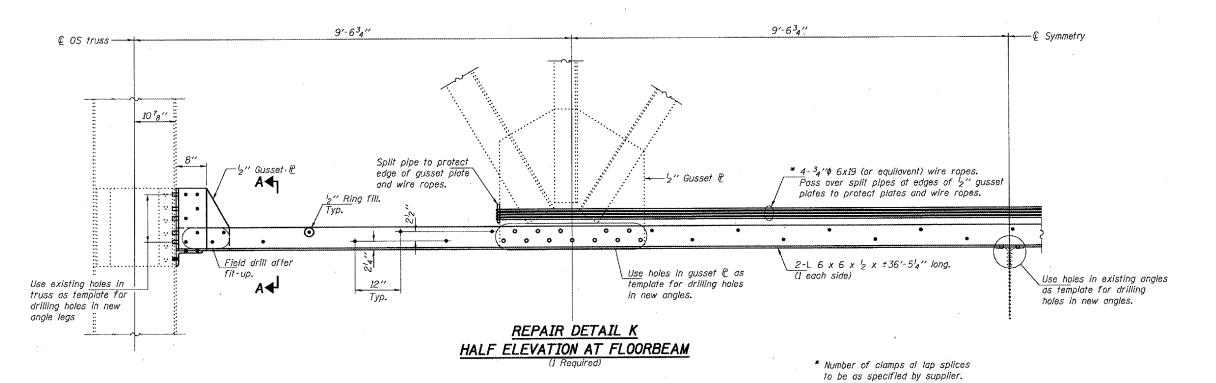
EXAMINED ON MOULE
PASSED SENDED OF STRUCTURES

ENGINEER OF BRIDGES AND STRUCTURES

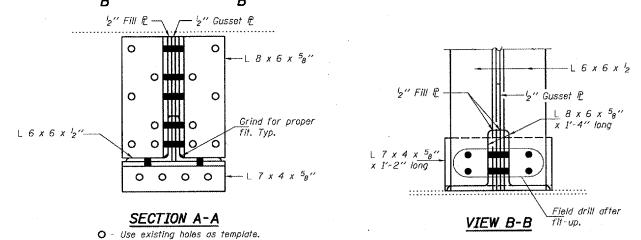
REPAIR DETAILS
CONGRESS PARKWAY
OVER THE CHICAGO RIVER
COOK COUNTY
SN 016-2445

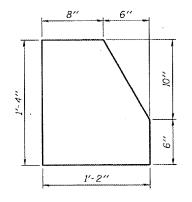
| Γ | ROUTE HO. | SECTION | COUNTY | | TOYAL SHEET SHEETS NO. | | SH | SHEET NO. 5 | |
|---|-----------------------|---------|----------|-------------------|---------------------------|----|----|-------------|--|
| ľ | | | соок | | 12 | 12 | 5 | SHEETS | |
| ľ | FED. ROAD GIST, NO. 7 | | ILLINGIS | FEG. AID PROJECY- | | | 1 | | |

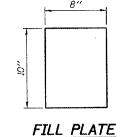
Contract No. 60820



Split pipes & wire ropes to be in place prior to starting Repair K. Assembly to be removed after Repair K has been completed. Cost included with "Structural Steel Repair".

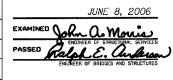






GUSSET PLATE

| | DAB |
|-----|--------|
| | мЈТ |
| | baliva |
| DAB | MJT |
| | DAB |



REPAIR DETAILS CONGRESS PARKWAY OVER THE CHICAGO RIVER COOK COUNTY SN 016-2445